



July 2, 2024

Melanie A. Bachman  
Members of the Siting Council  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, CT 06051

**RE: Notice of Exempt Modification // Site: BRANFORD WEST CT (ATC: 283419)  
123 Pine Orchard Road, Branford, CT 06405  
N 41.274861 // W 72.793078**

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless currently maintains 6 antennas at the 102 -foot mount on the existing 126-foot monopole tower, located at 123 Pine Orchard Road, Branford, CT. The tower is owned by American Tower. The property is owned by Malavasi Investments, LLC. Verizon Wireless facility was approved for colocation by the Council in 2012. Verizon Wireless now intends remove 6 of its existing antennas to replace with 9 new ones and install them for the LTE (3700 MHz) replacements for its 5G upgrade. Additionally, Verizon Wireless will remove 3 existing Antenna mounts and replace them with 3 side by side mounts, replace all remote radio head units (RRUs) with a total of 6 new RRUs, and remove 12 spare 1-5/8" Cox cables and install 3 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 James Cosgrove, First Selectmen for the Town of Branford, its Town Planner, Harry Smith, American Tower, the tower owner, and to the ground owner, Malavasi Investments, LLC.

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 May 29, 2024 by American Tower Engineering Services, Inc., a structural analysis dated May 9, 2024 by A.T. Engineering Service, LLC, and a structural mount analysis by Colliers Engineering & Design, Architecture, Landscape Architecture, Surveying, CT dated January 11, 2024, 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 analyses by A.T. Engineering Service, PLLC, dated May 9, 2024 and structural mount analyses by Colliers Engineering & Design, Architecture, Landscape Architecture, Surveying, CT dated January 11, 2024 pursuant to certain conditions defined therein. Design and engineering is fully illustrated within final mount modification and construction drawings dated signed and stamped May 29, 2024.

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,

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Cassandra Darmody  
Agent for American Tower  
c/o Pyramid Network Services, LLC  
6615 Towpath Road  
East Syracuse, NY 13057  
Cell (315) 569-9241  
Fax (315) 445-0653

Attachments

Cc: James Cosgrove, First Selectman for Town of Branford CT  
Town Hall  
1019 Main Street  
Branford, CT 06405

Harry Smith as Town Planner  
Town Hall  
1019 Main St.  
Branford, CT 06405

American Tower – as the tower owner  
10 Presidential Way  
Woburn, MA 01801

Malavasi Investments, LLC - as property owner  
35 Stony Creek Road  
Branford, CT 06405

**DOCKET NO. 386** – T-Mobile Northeast LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and management of a telecommunications facility located at 123 Pine Orchard Road, Branford, Connecticut.

Connecticut

Siting

Council

February 25, 2010

### **Decision and Order**

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, maintenance, and management of a telecommunications facility, including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to T-Mobile Northeast LLC, hereinafter referred to as the Certificate Holder, for a telecommunications facility at 123 Pine Orchard Road, Branford, Connecticut.

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

1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of T-Mobile Northeast LLC and New Cingular Wireless PCS LLC and other entities, both public and private, but such tower shall not exceed a height of 125 feet above ground level. Panel antennas shall be installed in a flush-mount configuration or utilizing t-arm mounts and such panel antennas shall not exceed a height of 125 feet above ground level.
2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Branford for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
  - a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line, and landscaping; and
  - b) construction plans for site clearing, grading, landscaping, water drainage, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.
  - c) correspondence indicating results of discussions with the property owner at 119 Pine Orchard Road regarding continued use of the existing driveway entrance. If an agreement cannot be reached and the driveway is expanded as proposed, a 12-foot spruce tree shall be planted in the front yard of 121 Pine Orchard Road.



3. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.
4. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
6. The Certificate Holder shall provide reasonable space on the tower for no compensation for any Town of Branford public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.
7. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.
8. At least one wireless telecommunications carrier shall install their equipment and shall become operational not later than 120 days after the tower is erected. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The Certificate Holder shall provide written notice to the Executive Director of any schedule changes as soon as is practicable.
9. Any request for extension of the time period referred to in Condition 7 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Branford. Any proposed modifications to this Decision and Order shall likewise be so served.
10. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
11. The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.

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

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the New Haven Register.

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

The parties and intervenors to this proceeding are:

**Applicant**

T-Mobile Northeast LLC

**Its Representative**

Julie D. Kohler, Esq.  
Monte E. Frank, Esq.  
Jesse A. Langer, Esq.  
Cohen and Wolf, P.C.  
1115 Broad Street  
Bridgeport, CT 06604

**Intervenor**

New Cingular Wireless PCS, LLC

**Its Representative**

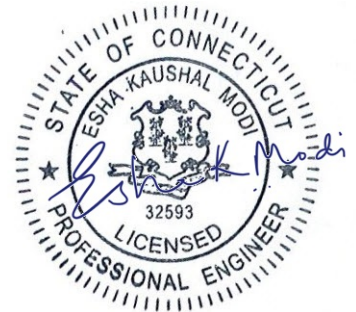
Christopher B. Fisher, Esq.  
Daniel M. Laub, Esq.  
Cuddy & Feder LLP  
445 Hamilton Avenue, 14<sup>th</sup> Floor  
White Plains, NY 10601



**AMERICAN TOWER®**  
CORPORATION

## Structural Analysis Report

**Structure** : 123 ft Monopole  
**ATC Asset Name** : PINE ORCHARD BRANFORD CT  
**ATC Asset Number** : 283419  
**Engineering Number** : 14860626\_C3\_01  
**Proposed Carrier** : VERIZON WIRELESS  
**Carrier Site Name** : BRANFORD WEST CT  
**Carrier Site Number** : 5000383581  
**Site Location** : 123 Pine Orchard Road  
Branford, CT 06405-3939  
41.2748° N, 72.7932° W  
**County** : New Haven  
**Date** : May 9, 2024  
**Max Usage** : 58%  
**Analysis Result** : Pass



**COA: PEC.0001553**



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## Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 123 ft Monopole tower to reflect the change in loading by VERIZON WIRELESS.

## Supporting Documents

<b>Tower:</b>	Sabre Job #11-05276, dated June 2, 2010
<b>Foundation:</b>	Sabre Job #11-05276, dated June 2, 2010
<b>Geotechnical:</b>	Terracon Project #J2105131, dated April 2, 2010

## 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.

<b>Basic Wind Speed:</b>	122 mph (3-second gust)
<b>Basic Wind Speed w/ Ice:</b>	50 mph (3-second gust) w/ 1.00" radial ice concurrent
<b>Code(s):</b>	ANSI/TIA-222-H / 2021 IBC / 2022 Connecticut State Building Code
<b>Exposure Category:</b>	C
<b>Risk Category:</b>	II
<b>Topographic Factor Procedure:</b>	Method 1
<b>Topographic Category:</b>	1
<b>Spectral Response:</b>	$S_s = 0.20$ , $S_i = 0.05$
<b>Site Class:</b>	D - Stiff Soil - Default

## 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 reach out to your American Tower contact. If you do not have an American Tower contact and have an Engineering question, please contact [Engineering@americantower.com](mailto:Engineering@americantower.com). Please include the American Tower asset name, asset number, and engineering number in the subject line for any questions.

### Structure Usages

Structural Component	Usage	Control	Result
Pole Shaft	58.1%	1.2D + 1.0W	Pass
Serviceability Usage	27.4%	1.0D + 1.0W	Pass
Base Plate @ 0.0 ft	48.4%	Rods	Pass
Mat & Pier	50.7%	Flexure [Steel (Pier)]	Pass

### Maximum Reactions

Foundation	Moment (k-ft)	Axial (k)	Shear (k)
Monopole Base	2,294.0	36.4	25.9

*\*Reactions shown reflect the results from the Load Case with maximum Moment*

Structure base reactions were analyzed using available geotechnical and foundation information.

**VERIZON WIRELESS Final Loading**

Elev (ft)	Qty	Equipment	Lines
105.0	3	T-Arm	-
102.0	1	Raycap RCMD-6627-PF-48	(2) 1 5/8" (1.63"-41.3mm) Fiber (6) 1 5/8" Coax
	2	Swedcom SC-E 6016 REV2	
	3	Commscope CBC78T-DS-43-2X	
	3	Samsung B2/B66A RRH ORAN (RF 4439d-25A)	
	3	Samsung MT6413-77A	
	3	Samsung RF4461d-13A	
	4	Antel LPA-80063/6CF	
	6	Commscope JAHH-65B-R3B	

**Other Existing/Reserved Loading**

Elev (ft)	Qty	Equipment	Lines	Carrier
122.0	3	Commscope VV-65A-R1B	(3) 1 5/8" (1.63"-41.3mm) Fiber (3) 1.99" (50.7mm) Hybrid	T-MOBILE
	3	Ericsson AIR 6419 B41		
	3	Ericsson Radio 4449 B12,B71		
	3	Ericsson Radio 4460 B25+B66		
	3	RFS APXVAARR24_43-U-NA20		
120.1	3	Ericsson RRUS 4478 B14	-	AT&T MOBILITY
120.0	3	Mount Reinforcement	-	T-MOBILE
	3	T-Arm	-	T-MOBILE
119.1	1	Raycap DC6-48-60-18-8C	-	AT&T MOBILITY
116.4	3	Ericsson RRUS 4449 B5, B12	-	AT&T MOBILITY
112.0	1	Raycap DC6-48-60-18-8F	(1) 0.39" (10mm) Fiber Trunk (3) 0.41" (10.3mm) Fiber (2) 0.92" (23.4mm) Cable (6) 1 5/8" Coax (2) 2" conduit	AT&T MOBILITY
	3	CCI DMP65R-BU6DA		
	3	CCI TPA-65R-BU6DA-K		
	3	Ericsson AIR 6419 B77G		
	3	Ericsson Air 6449 B77D		
	3	Ericsson RRUS 8843 B2, B66A		
	3	T-Arm		
80.0	1	Commscope RDIDC-9181-PF-48	(1) 1.60" (40.6mm) Hybrid	DISH WIRELESS L.L.C.
	3	Fujitsu TA08025-B604		
	3	Fujitsu TA08025-B605		
	3	T-Arm		
	3	JMA Wireless MX08FRO665-21		

*(If table breaks across pages, please see previous page for data in merged cells)*



## **Standard Conditions**

All engineering services performed by A.T. Engineering Services LLC 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 Services LLC

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Services LLC 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 Services LLC, 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 Services LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.



**ANALYSIS PARAMETERS**

Nominal Wind: 122 mph	Ice Wind: 50 mph w/ 1" ice	Service Wind: 60 mph
Risk Category: II	Exposure: C	S <sub>s</sub> : 0.201 S <sub>i</sub> : 0.053
Topo Category: 1	Topo Factor: Method 1	Topo Feature:
Structure Height: 123 ft	Base Elevation: 0.00 ft	Structure Type: Taper
Base Diameter: 50.75 in	Base Rotation: 0°	Taper: 0.2500 (in/ft)

**POLE SECTION PROPERTIES**

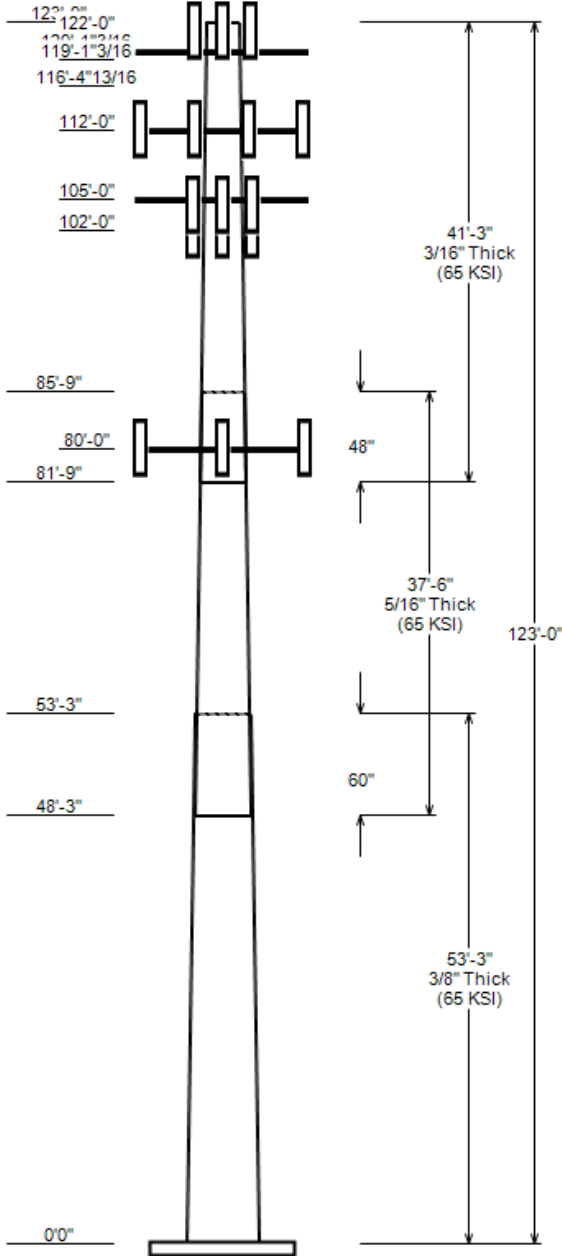
Section	Length (ft)	Flat Diameter (in)		Thick (in)	Joint Type	Joint Length (in)	Pole Shape	Yield Strength (ksi)
		Top	Bottom					
1	53.250	37.44	50.75	0.375		0.000	18 Sides	65
2	37.500	29.94	39.31	0.312	Slip Joint	60.000	18 Sides	65
3	41.250	21.00	31.31	0.188	Slip Joint	48.000	18 Sides	65

**DISCRETE APPURTENANCE**

Elev (ft)	Description
122.0	(3) Ericsson Radio 4449 B12.B71
122.0	(3) Ericsson Radio 4460 B25+B66
122.0	(3) Ericsson AIR 6419 B41
122.0	(3) Commscope VV-65A-R1B
122.0	(3) RFS APXVAARR24_43-U-NA20
120.1	(3) Ericsson RRUS 4478 B14
120.0	(3) Generic Mount Reinforcement
120.0	(3) Generic Round T-Arm
119.1	(1) Raycap DC6-48-60-18-8C
116.4	(3) Ericsson RRUS 4449 B5, B12
112.0	(1) Raycap DC6-48-60-18-8F
112.0	(3) Ericsson RRUS 8843 B2, B66A
112.0	(3) Ericsson AIR 6419 B77G
112.0	(3) Ericsson Air 6449 B77D
112.0	(3) Generic Round T-Arm
112.0	(3) CCI TPA-65R-BU6DA-K
112.0	(3) CCI DMP65R-BU6DA
105.0	(3) Generic Round T-Arm
102.0	(3) Commscope CBC78T-DS-43-2X
102.0	(3) Samsung B2/B66A RRH ORAN (RF 4
102.0	(3) Samsung RF4461d-13A
102.0	(3) Samsung MT6413-77A
102.0	(1) Raycap RCMDC-6627-PF-48
102.0	(2) Swedcom SC-E 6016 REV2
102.0	(6) Commscope JAHH-65B-R3B
102.0	(4) Antel LPA-80063/6CF
80.0	(1) Commscope RDIDC-9181-PF-48
80.0	(3) Fujitsu TA08025-B605
80.0	(3) Fujitsu TA08025-B604
80.0	(3) Generic Round T-Arm
80.0	(3) JMA Wireless MX08FRO665-21

**LINEAR APPURTENANCE**

Elev To (ft)	Description
122.0	(3) 1.99" (50.7mm) Hybrid
122.0	(3) 1 5/8" (1.63"-41.3mm) Fiber
119.0	(4) 0.78" (19.7mm) 8 AWG 6
112.0	(2) 2" conduit
112.0	(6) 1 5/8" Coax
112.0	(2) 0.92" (23.4mm) Cable
112.0	(3) 0.41" (10.3mm) Fiber
112.0	(1) 0.39" (10mm) Fiber Trunk
102.0	(6) 1 5/8" Coax
102.0	(2) 1 5/8" (1.63"-41.3mm) Fiber
80.0	(1) 1.60" (40.6mm) Hybrid



**GLOBAL BASE REACTIONS**

Load Case	Moment (kip-ft)	Axial (kip)	Shear (kip)
1.2D + 1.0W	2293.99	36.37	25.85
0.9D + 1.0W	2275.84	27.27	25.84
1.2D + 1.0Di + 1.0Wi	554.60	50.76	6.41
1.2D + 1.0Ev + 1.0Eh	94.53	36.22	0.96
0.9D - 1.0Ev + 1.0Eh	93.59	24.98	0.96
1.0D + 1.0W	494.01	30.34	5.59

ANALYSIS PARAMETERS

<b>Location:</b>	New Haven County,CT	<b>Height:</b>	123 ft
<b>Type and Shape:</b>	Taper, 18 Sides	<b>Base Diameter:</b>	50.75 in
<b>Manufacturer:</b>	Sabre	<b>Top Diameter:</b>	21.00 in
<b>K<sub>d</sub> (non-service):</b>	0.95	<b>Taper:</b>	0.2500 in/ft
<b>K<sub>e</sub>:</b>	1.00	<b>Rotation:</b>	0.000°

ICE & WIND PARAMETERS

<b>Risk Category:</b>	II	<b>Design Wind Speed:</b>	122 mph
<b>Exposure Category:</b>	C	<b>Design Wind Speed w/ Ice:</b>	50 mph
<b>Topo Factor Procedure:</b>	Method 1	<b>Design Ice Thickness:</b>	1.00 in
<b>Topographic Category:</b>	1	<b>Service Wind Speed:</b>	60 mph
<b>Crest Height:</b>	0 ft	<b>HMSL:</b>	30.00 ft

SEISMIC PARAMETERS

<b>Analysis Method:</b>	Equivalent Lateral Force Method		
<b>Site Class:</b>	D - Stiff Soil	<b>Period Based on Rayleigh Method (sec):</b>	1.80
<b>T<sub>L</sub> (sec):</b>	6	<b>P:</b>	1
<b>S<sub>s</sub>:</b>	0.201	<b>S<sub>1</sub>:</b>	0.053
<b>F<sub>a</sub>:</b>	1.600	<b>F<sub>v</sub>:</b>	2.400
<b>S<sub>ds</sub>:</b>	0.214	<b>S<sub>d1</sub>:</b>	0.085
		<b>C<sub>s</sub>:</b>	0.031
		<b>C<sub>s</sub> Max:</b>	0.031
		<b>C<sub>s</sub> Min:</b>	0.030

LOAD CASES

1.2D + 1.0W	122 mph Wind with No Ice
0.9D + 1.0W	122 mph Wind with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph Wind with 1" Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	60 mph Wind with No Ice

SHAFT SECTION PROPERTIES

Section	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Joint Len (in)	Weight (lb)	Bottom						Top						
							Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Taper (in/ft)
1-18	53.25	0.3750	65		0.00	9,429	50.75	0.000	59.96	19,223.0	22.10	135.33	37.44	53.25	44.11	7,655.6	15.84	99.83	0.2500
2-18	37.50	0.3125	65	Slip	60.00	4,343	39.31	48.250	38.68	7,433.4	20.42	125.80	29.94	85.75	29.38	3,258.1	15.13	95.80	0.2500
3-18	41.25	0.1875	65	Slip	48.00	2,169	31.31	81.750	18.52	2,267.1	27.68	167.00	21.00	123.00	12.39	677.8	17.99	112.00	0.2500
<b>Total Shaft Weight</b>						<b>15,941</b>													

DISCRETE APPURTENANCE PROPERTIES

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice			Ice		
					Weight (lb)	EPAA (sf)	Orientation Factor	Weight (lb)	EPAA (sf)	Orientation Factor
122.00	Commscope VV-65A-R1B	3	0.80	0.000	24.70	5.887	0.63	101.13	7.271	0.63
122.00	Ericsson AIR 6419 B41	3	0.80	0.000	68.50	5.600	0.60	147.51	6.636	0.60
122.00	Ericsson Radio 4460 B25+B66	3	0.80	0.000	109.00	2.564	0.67	166.79	3.253	0.67
122.00	Ericsson Radio 4449 B12,B71	3	0.80	0.000	74.00	1.639	0.50	110.61	2.191	0.50
122.00	RFS APXVAARR24_43-U-NA20	3	0.80	0.000	127.90	20.243	0.63	384.60	22.668	0.63
120.10	Ericsson RRUS 4478 B14	3	0.80	0.000	59.40	2.021	0.67	99.49	2.637	0.67
120.00	Generic Mount Reinforcement	3	0.75	0.000	200.00	4.980	0.67	326.39	8.227	0.67
120.00	Generic Round T-Arm	3	0.75	0.000	312.50	9.700	0.67	483.11	15.084	0.67
119.10	Raycap DC6-48-60-18-8C	1	0.80	0.000	16.00	2.030	1.00	53.96	2.525	1.00
116.40	Ericsson RRUS 4449 B5, B12	3	0.80	0.000	71.00	1.969	0.50	112.95	2.576	0.50
112.00	Ericsson RRUS 8843 B2, B66A	3	0.80	0.000	72.00	1.639	0.50	111.73	2.187	0.50
112.00	Ericsson AIR 6419 B77G	3	0.80	0.000	66.10	3.797	0.65	128.99	4.651	0.65
112.00	Ericsson Air 6449 B77D	3	0.80	0.000	81.60	4.028	0.65	148.26	4.919	0.65
112.00	Generic Round T-Arm	3	0.75	0.000	450.00	9.700	0.67	856.43	15.044	0.67
112.00	CCI TPA-65R-BU6DA-K	3	0.80	0.000	69.00	12.709	0.60	235.98	14.517	0.60
112.00	CCI DMP65R-BU6DA	3	0.80	0.000	79.40	12.709	0.63	246.38	14.517	0.63
112.00	Raycap DC6-48-60-18-8F	1	0.80	2.000	20.00	1.260	1.00	54.13	1.687	1.00
105.00	Generic Round T-Arm	3	0.75	0.000	450.00	9.700	0.67	853.59	15.007	0.67
102.00	Antel LPA-80063/6CF	4	0.80	1.000	27.00	9.593	0.76	202.07	10.446	0.76
102.00	Commscope JAHH-65B-R3B	6	0.80	0.000	60.60	9.113	0.69	190.51	10.894	0.69
102.00	Swedcom SC-E 6016 REV2	2	0.80	1.000	25.00	7.630	0.83	149.77	8.556	0.83
102.00	Raycap RCMDC-6627-PF-48	1	0.80	0.000	32.00	4.056	1.00	113.61	4.932	1.00
102.00	Samsung MT6413-77A	3	0.80	0.000	57.30	3.805	0.61	111.82	4.658	0.61
102.00	Samsung RF4461d-13A	3	0.80	0.000	79.10	1.875	0.50	120.50	2.455	0.50
102.00	Commscope CBC78T-DS-43-2X	3	0.80	0.000	20.70	0.552	0.50	34.89	0.878	0.50
102.00	Samsung B2/B66A RRH ORAN (RF 4	3	0.80	0.000	74.70	1.875	0.50	115.74	2.453	0.50
80.00	Commscope RDIDC-9181-PF-48	1	0.80	0.000	21.90	1.867	1.00	57.49	2.430	1.00
80.00	Fujitsu TA08025-B605	3	0.80	0.000	75.00	1.962	0.50	114.18	2.537	0.50
80.00	Fujitsu TA08025-B604	3	0.80	0.000	63.90	1.962	0.50	100.37	2.537	0.50
80.00	Generic Round T-Arm	3	0.75	0.000	450.00	9.700	0.67	842.09	14.855	0.67
80.00	JMA Wireless MX08FRO665-21	3	0.80	0.000	64.50	12.489	0.64	225.23	14.246	0.64
<b>Totals</b>		<b>Row Count: 31</b>	<b>88</b>		<b>10,212.40</b>			<b>21,066.35</b>		

LINEAR APPURTENANCE PROPERTIES

Load Case Azimuth (deg): 0.00

Elev From (ft)	Elev To (ft)	Qty	Description	Diameter (in)	Weight (lb/ft)	Flat	Max/Row	Distance Between Rows (in)	Distance Between Cols (in)	Azimuth (deg)	Distance From Face (in)	Exposed To Wind	Carrier
0.00	122.00	3	1.99" (50.7mm) Hybrid	1.99	1.9	N	0	0	0	0	0	N	T-MOBILE
0.00	122.00	3	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0	0	0	0	0	N	T-MOBILE
0.00	119.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	112.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	112.00	3	0.41" (10.3mm) Fiber	0.41	0.09	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	112.00	2	0.92" (23.4mm) Cable	0.92	0.89	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	112.00	2	2" conduit	2.38	3.65	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	112.00	1	0.39" (10mm) Fiber Tr	0.39	0.06	N	0	0	0	0	0	N	AT&T MOBILITY
0.00	102.00	6	1 5/8" Coax	1.98	0.82	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	102.00	2	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0	0	0	0	0	N	VERIZON WIRELESS
0.00	80.00	1	1.60" (40.6mm) Hybrid	1.6	2.34	N	0	0	0	0	0	N	DISH WIRELESS L.L.C.

SEGMENT PROPERTIES												
Seg Top Elev (ft)	Description	(Max Length: 5 ft)	Thick (in)	Flat Dia (in)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	F'y (ksi)	S (in <sup>3</sup> )	Z (in <sup>3</sup> )	Weight (lb)
0.00			0.3750	50.750	59.957	19,223.00	22.10	135.33	75.4	746.0	0.0	0.0
5.00			0.3750	49.500	58.469	17,827.20	21.51	132.00	76.1	709.3	0.0	1,007.4
10.00			0.3750	48.250	56.981	16,500.70	20.92	128.67	76.8	673.6	0.0	982.1
15.00			0.3750	47.000	55.493	15,241.70	20.34	125.33	77.5	638.7	0.0	956.8
20.00			0.3750	45.750	54.006	14,048.40	19.75	122.00	78.2	604.8	0.0	931.5
25.00			0.3750	44.500	52.518	12,919.00	19.16	118.67	78.9	571.8	0.0	906.2
30.00			0.3750	43.250	51.030	11,851.90	18.57	115.33	79.6	539.7	0.0	880.9
35.00			0.3750	42.000	49.542	10,845.20	17.99	112.00	80.2	508.6	0.0	855.6
40.00			0.3750	40.750	48.055	9,897.20	17.40	108.67	80.9	478.4	0.0	830.3
45.00			0.3750	39.500	46.567	9,006.10	16.81	105.33	81.6	449.1	0.0	804.9
48.25	Bot - Section 2		0.3750	38.688	45.600	8,456.60	16.43	103.17	82.1	430.5	0.0	509.6
50.00			0.3750	38.250	45.079	8,170.20	16.22	102.00	82.3	420.7	0.0	499.0
53.25	Top - Section 1		0.3125	38.063	37.442	6,741.30	19.71	121.80	78.2	348.8	0.0	911.7
55.00			0.3125	37.625	37.008	6,509.60	19.47	120.40	78.5	340.8	0.0	221.7
60.00			0.3125	36.375	35.768	5,877.10	18.76	116.40	79.3	318.2	0.0	619.1
65.00			0.3125	35.125	34.528	5,286.90	18.06	112.40	80.2	296.5	0.0	598.0
70.00			0.3125	33.875	33.289	4,737.60	17.35	108.40	81	275.5	0.0	576.9
75.00			0.3125	32.625	32.049	4,227.70	16.65	104.40	81.8	255.2	0.0	555.8
80.00			0.3125	31.375	30.809	3,755.80	15.94	100.40	82.6	235.8	0.0	534.7
81.75	Bot - Section 3		0.3125	30.938	30.375	3,599.30	15.69	99.00	82.6	229.1	0.0	182.2
85.00			0.3125	30.125	29.569	3,320.40	15.23	96.40	82.6	217.1	0.0	533.6
85.75	Top - Section 2		0.1875	30.313	17.927	2,055.50	26.74	161.67	69.9	133.6	0.0	121.1
90.00			0.1875	29.250	17.295	1,845.60	25.74	156.00	71.1	124.3	0.0	254.7
95.00			0.1875	28.000	16.551	1,617.60	24.57	149.33	72.5	113.8	0.0	287.9
100.00			0.1875	26.750	15.807	1,409.10	23.39	142.67	73.9	103.8	0.0	275.3
102.00			0.1875	26.250	15.510	1,331.00	22.92	140.00	74.4	99.9	0.0	106.6
105.00			0.1875	25.500	15.064	1,219.40	22.22	136.00	75.3	94.2	0.0	156.1
110.00			0.1875	24.250	14.320	1,047.50	21.04	129.33	76.7	85.1	0.0	250.0
112.00			0.1875	23.750	14.022	983.60	20.57	126.67	77.2	81.6	0.0	96.4
115.00			0.1875	23.000	13.576	892.60	19.87	122.67	78	76.4	0.0	140.9
116.40			0.1875	22.650	13.368	852.20	19.54	120.80	78.4	74.1	0.0	64.2
119.10			0.1875	21.975	12.966	777.60	18.90	117.20	79.2	69.7	0.0	121.0
120.00			0.1875	21.750	12.832	753.80	18.69	116.00	79.4	68.3	0.0	39.5
120.10			0.1875	21.725	12.817	751.20	18.67	115.87	79.4	68.1	0.0	4.4
122.00			0.1875	21.250	12.534	702.50	18.22	113.33	80	65.1	0.0	82.0
123.00			0.1875	21.000	12.386	677.80	17.99	112.00	80.2	63.6	0.0	42.4
<b>Total:</b>											<b>15,940.5</b>	

CALCULATED FORCES													
Load Case: 1.2D + 1.0W			122 mph Wind with No Ice									23 Iterations	
Gust Response Factor:		1.10											
Dead load Factor:		1.20											
Wind Load Factor:		1.00											
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-36.37	-25.85	0.00	-2,294.0	0.00	2,293.99	4,069.07	1,052.24	4,787.63	4,219.32	0	0	0.553
5.00	-34.86	-25.43	0.00	-2,164.7	0.00	2,164.74	4,004.48	1,026.13	4,553.01	4,048.54	0.09	-0.16	0.544
10.00	-33.39	-25.02	0.00	-2,037.6	0.00	2,037.57	3,938.03	1,000.02	4,324.28	3,879.30	0.35	-0.33	0.534
15.00	-31.94	-24.61	0.00	-1,912.5	0.00	1,912.46	3,869.74	973.91	4,101.44	3,711.72	0.79	-0.5	0.524
20.00	-30.53	-24.18	0.00	-1,789.4	0.00	1,789.41	3,799.59	947.80	3,884.50	3,545.95	1.41	-0.68	0.513
25.00	-29.15	-23.74	0.00	-1,668.5	0.00	1,668.50	3,727.59	921.69	3,673.45	3,382.14	2.21	-0.85	0.502
30.00	-27.80	-23.28	0.00	-1,549.8	0.00	1,549.81	3,653.75	895.58	3,468.30	3,220.43	3.2	-1.03	0.490
35.00	-26.49	-22.82	0.00	-1,433.4	0.00	1,433.40	3,578.05	869.47	3,269.04	3,060.96	4.37	-1.21	0.476
40.00	-25.21	-22.35	0.00	-1,319.3	0.00	1,319.31	3,500.49	843.36	3,075.67	2,903.89	5.74	-1.39	0.462
45.00	-23.97	-21.95	0.00	-1,207.6	0.00	1,207.57	3,421.09	817.25	2,888.20	2,749.35	7.29	-1.57	0.447
48.25	-23.18	-21.71	0.00	-1,136.2	0.00	1,136.22	3,368.49	800.28	2,769.51	2,650.32	8.4	-1.69	0.436
50.00	-22.48	-21.46	0.00	-1,098.2	0.00	1,098.23	3,339.84	791.14	2,706.63	2,597.48	9.03	-1.76	0.430
53.25	-21.21	-21.20	0.00	-1,028.5	0.00	1,028.47	2,635.64	657.11	2,240.55	2,046.33	10.27	-1.88	0.512
55.00	-20.83	-20.89	0.00	-991.4	0.00	991.38	2,614.77	649.49	2,188.92	2,006.40	10.97	-1.94	0.503

CALCULATED FORCES

60.00	-19.81	-20.42	0.00	-886.9	0.00	886.92	2,553.87	627.73	2,044.74	1,893.48	13.11	-2.15	0.477
65.00	-18.81	-19.95	0.00	-784.8	0.00	784.82	2,491.13	605.97	1,905.46	1,782.39	15.47	-2.35	0.449
70.00	-17.85	-19.48	0.00	-685.1	0.00	685.06	2,426.53	584.22	1,771.10	1,673.28	18.04	-2.55	0.418
75.00	-16.92	-19.02	0.00	-587.6	0.00	587.64	2,360.09	562.46	1,641.65	1,566.29	20.81	-2.74	0.383
80.00	-13.75	-16.65	0.00	-492.5	0.00	492.54	2,288.96	540.70	1,517.11	1,459.75	23.77	-2.92	0.344
81.75	-13.45	-16.43	0.00	-463.4	0.00	463.39	2,256.72	533.08	1,474.68	1,418.72	24.85	-2.98	0.334
85.00	-12.66	-16.22	0.00	-410.0	0.00	410.00	2,196.84	518.94	1,397.48	1,344.07	26.92	-3.09	0.312
85.75	-12.47	-16.00	0.00	-397.8	0.00	397.83	1,128.57	314.63	856.05	700.67	27.41	-3.12	0.581
90.00	-11.96	-15.60	0.00	-329.8	0.00	329.83	1,107.06	303.53	796.73	662.92	30.25	-3.26	0.511
95.00	-11.37	-15.18	0.00	-251.8	0.00	251.82	1,080.04	290.48	729.68	618.75	33.79	-3.48	0.420
100.00	-10.82	-14.88	0.00	-175.9	0.00	175.91	1,051.16	277.42	665.57	574.96	37.54	-3.67	0.319
102.00	-9.36	-10.66	0.00	-144.5	0.00	144.46	1,039.10	272.20	640.75	557.59	39.09	-3.73	0.270
105.00	-7.52	-9.48	0.00	-112.5	0.00	112.50	1,020.44	264.37	604.41	531.71	41.46	-3.82	0.220
110.00	-7.06	-9.19	0.00	-65.1	0.00	65.08	987.87	251.31	546.19	489.13	45.51	-3.92	0.142
112.00	-4.17	-5.32	0.00	-46.6	0.00	46.60	974.32	246.09	523.73	472.32	47.16	-3.95	0.103
115.00	-3.96	-5.15	0.00	-30.6	0.00	30.63	953.44	238.26	490.93	447.37	49.65	-3.98	0.073
116.40	-3.63	-4.85	0.00	-23.4	0.00	23.42	943.47	234.60	475.98	435.84	50.82	-3.99	0.058
119.10	-3.44	-4.63	0.00	-10.3	0.00	10.32	923.83	227.55	447.81	413.84	53.08	-4.01	0.029
120.00	-1.62	-3.30	0.00	-6.2	0.00	6.16	917.17	225.20	438.61	406.57	53.84	-4.01	0.017
120.10	-1.42	-3.05	0.00	-5.8	0.00	5.83	916.42	224.94	437.59	405.77	53.92	-4.01	0.016
122.00	-0.05	-0.03	0.00	-0.0	0.00	0.03	902.14	219.98	418.50	390.56	55.52	-4.02	0.000
123.00	0.00	-0.03	0.00	0.0	0.00	0.00	894.51	217.37	408.63	382.62	56.36	-4.02	0.000

CALCULATED FORCES

Load Case: 0.9D + 1.0W

122 mph Wind with No Ice (Reduced DL)

23 Iterations

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

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-27.27	-25.84	0.00	-2,275.8	0.00	2,275.84	4,069.07	1,052.24	4,787.63	4,219.32	0	0	0.547
5.00	-26.12	-25.39	0.00	-2,146.6	0.00	2,146.65	4,004.48	1,026.13	4,553.01	4,048.54	0.09	-0.16	0.537
10.00	-25.00	-24.96	0.00	-2,019.7	0.00	2,019.68	3,938.03	1,000.02	4,324.28	3,879.30	0.35	-0.33	0.528
15.00	-23.90	-24.52	0.00	-1,894.9	0.00	1,894.88	3,869.74	973.91	4,101.44	3,711.72	0.79	-0.5	0.517
20.00	-22.82	-24.08	0.00	-1,772.3	0.00	1,772.26	3,799.59	947.80	3,884.50	3,545.95	1.4	-0.67	0.506
25.00	-21.77	-23.61	0.00	-1,651.9	0.00	1,651.88	3,727.59	921.69	3,673.45	3,382.14	2.2	-0.84	0.495
30.00	-20.75	-23.14	0.00	-1,533.8	0.00	1,533.81	3,653.75	895.58	3,468.30	3,220.43	3.17	-1.02	0.483
35.00	-19.75	-22.66	0.00	-1,418.1	0.00	1,418.10	3,578.05	869.47	3,269.04	3,060.96	4.34	-1.2	0.469
40.00	-18.77	-22.18	0.00	-1,304.8	0.00	1,304.80	3,500.49	843.36	3,075.67	2,903.89	5.68	-1.37	0.455
45.00	-17.83	-21.77	0.00	-1,193.9	0.00	1,193.91	3,421.09	817.25	2,888.20	2,749.35	7.22	-1.55	0.440
48.25	-17.24	-21.52	0.00	-1,123.2	0.00	1,123.15	3,368.49	800.28	2,769.51	2,650.32	8.32	-1.67	0.430
50.00	-16.70	-21.28	0.00	-1,085.5	0.00	1,085.49	3,339.84	791.14	2,706.63	2,597.48	8.95	-1.74	0.424
53.25	-15.75	-21.01	0.00	-1,016.3	0.00	1,016.34	2,635.64	657.11	2,240.55	2,046.33	10.17	-1.86	0.504
55.00	-15.45	-20.69	0.00	-979.6	0.00	979.57	2,614.77	649.49	2,188.92	2,006.40	10.86	-1.92	0.495
60.00	-14.67	-20.21	0.00	-876.1	0.00	876.11	2,553.87	627.73	2,044.74	1,893.48	12.99	-2.12	0.469
65.00	-13.91	-19.73	0.00	-775.0	0.00	775.05	2,491.13	605.97	1,905.46	1,782.39	15.32	-2.32	0.441
70.00	-13.18	-19.26	0.00	-676.4	0.00	676.37	2,426.53	584.22	1,771.10	1,673.28	17.86	-2.52	0.411
75.00	-12.48	-18.79	0.00	-580.1	0.00	580.07	2,360.09	562.46	1,641.65	1,566.29	20.6	-2.71	0.377
80.00	-10.12	-16.46	0.00	-486.1	0.00	486.09	2,288.96	540.70	1,517.11	1,459.75	23.53	-2.89	0.338
81.75	-9.89	-16.23	0.00	-457.3	0.00	457.29	2,256.72	533.08	1,474.68	1,418.72	24.6	-2.95	0.328
85.00	-9.29	-16.03	0.00	-404.5	0.00	404.53	2,196.84	518.94	1,397.48	1,344.07	26.65	-3.06	0.306
85.75	-9.15	-15.81	0.00	-392.5	0.00	392.51	1,128.57	314.63	856.05	700.67	27.13	-3.09	0.571
90.00	-8.76	-15.41	0.00	-325.3	0.00	325.32	1,107.06	303.53	796.73	662.92	29.94	-3.22	0.501
95.00	-8.32	-14.98	0.00	-248.3	0.00	248.28	1,080.04	290.48	729.68	618.75	33.44	-3.44	0.412
100.00	-7.90	-14.68	0.00	-173.4	0.00	173.36	1,051.16	277.42	665.57	574.96	37.14	-3.63	0.312
102.00	-6.87	-10.48	0.00	-142.3	0.00	142.30	1,039.10	272.20	640.75	557.59	38.68	-3.69	0.263
105.00	-5.49	-9.34	0.00	-110.8	0.00	110.85	1,020.44	264.37	604.41	531.71	41.02	-3.77	0.215
110.00	-5.16	-9.05	0.00	-64.1	0.00	64.14	987.87	251.31	546.19	489.13	45.03	-3.87	0.138
112.00	-3.04	-5.24	0.00	-45.9	0.00	45.93	974.32	246.09	523.73	472.32	46.66	-3.9	0.101
115.00	-2.89	-5.07	0.00	-30.2	0.00	30.21	953.44	238.26	490.93	447.37	49.12	-3.94	0.071
116.40	-2.64	-4.78	0.00	-23.1	0.00	23.11	943.47	234.60	475.98	435.84	50.27	-3.95	0.056
119.10	-2.50	-4.56	0.00	-10.2	0.00	10.20	923.83	227.55	447.81	413.84	52.51	-3.96	0.028
120.00	-1.16	-3.27	0.00	-6.1	0.00	6.10	917.17	225.20	438.61	406.57	53.26	-3.97	0.016
120.10	-1.01	-3.02	0.00	-5.8	0.00	5.77	916.42	224.94	437.59	405.77	53.34	-3.97	0.016
122.00	-0.04	-0.03	0.00	-0.0	0.00	0.03	902.14	219.98	418.50	390.56	54.92	-3.97	0.000
123.00	0.00	-0.03	0.00	0.0	0.00	0.00	894.51	217.37	408.63	382.62	55.75	-3.97	0.000

CALCULATED FORCES

Load Case: 1.2D + 1.0Di + 1.0Wi      50 mph Wind with 1" 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

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	-50.76	-6.41	0.00	-554.6	0.00	554.60	4,069.07	1,052.24	4,787.63	4,219.32	0	0	0.144
5.00	-49.08	-6.30	0.00	-522.6	0.00	522.55	4,004.48	1,026.13	4,553.01	4,048.54	0.02	-0.04	0.141
10.00	-47.41	-6.18	0.00	-491.1	0.00	491.07	3,938.03	1,000.02	4,324.28	3,879.30	0.09	-0.08	0.139
15.00	-45.76	-6.07	0.00	-460.2	0.00	460.15	3,869.74	973.91	4,101.44	3,711.72	0.19	-0.12	0.136
20.00	-44.13	-5.95	0.00	-429.8	0.00	429.79	3,799.59	947.80	3,884.50	3,545.95	0.34	-0.16	0.133
25.00	-42.54	-5.83	0.00	-400.0	0.00	400.02	3,727.59	921.69	3,673.45	3,382.14	0.53	-0.2	0.130
30.00	-40.98	-5.71	0.00	-370.9	0.00	370.86	3,653.75	895.58	3,468.30	3,220.43	0.77	-0.25	0.126
35.00	-39.46	-5.58	0.00	-342.3	0.00	342.33	3,578.05	869.47	3,269.04	3,060.96	1.05	-0.29	0.123
40.00	-37.97	-5.45	0.00	-314.4	0.00	314.45	3,500.49	843.36	3,075.67	2,903.89	1.38	-0.33	0.119
45.00	-36.51	-5.34	0.00	-287.2	0.00	287.22	3,421.09	817.25	2,888.20	2,749.35	1.75	-0.38	0.115
48.25	-35.58	-5.27	0.00	-269.9	0.00	269.88	3,368.49	800.28	2,769.51	2,650.32	2.02	-0.4	0.112
50.00	-34.81	-5.20	0.00	-260.7	0.00	260.66	3,339.84	791.14	2,706.63	2,597.48	2.17	-0.42	0.111
53.25	-33.40	-5.13	0.00	-243.8	0.00	243.77	2,635.64	657.11	2,240.55	2,046.33	2.47	-0.45	0.132
55.00	-32.97	-5.04	0.00	-234.8	0.00	234.80	2,614.77	649.49	2,188.92	2,006.40	2.63	-0.46	0.130
60.00	-31.75	-4.91	0.00	-209.6	0.00	209.59	2,553.87	627.73	2,044.74	1,893.48	3.15	-0.51	0.123
65.00	-30.56	-4.78	0.00	-185.0	0.00	185.05	2,491.13	605.97	1,905.46	1,782.39	3.71	-0.56	0.116
70.00	-29.40	-4.64	0.00	-161.2	0.00	161.17	2,426.53	584.22	1,771.10	1,673.28	4.32	-0.61	0.109
75.00	-28.28	-4.51	0.00	-138.0	0.00	137.95	2,360.09	562.46	1,641.65	1,566.29	4.99	-0.65	0.100
80.00	-23.34	-3.95	0.00	-115.4	0.00	115.38	2,288.96	540.70	1,517.11	1,459.75	5.69	-0.7	0.089
81.75	-22.97	-3.89	0.00	-108.5	0.00	108.47	2,256.72	533.08	1,474.68	1,418.72	5.95	-0.71	0.087
85.00	-22.05	-3.83	0.00	-95.8	0.00	95.83	2,196.84	518.94	1,397.48	1,344.07	6.44	-0.74	0.081
85.75	-21.84	-3.76	0.00	-93.0	0.00	92.96	1,128.57	314.63	856.05	700.67	6.56	-0.74	0.152
90.00	-21.17	-3.65	0.00	-77.0	0.00	76.96	1,107.06	303.53	796.73	662.92	7.23	-0.77	0.135
95.00	-20.41	-3.53	0.00	-58.7	0.00	58.71	1,080.04	290.48	729.68	618.75	8.07	-0.83	0.114
100.00	-19.67	-3.44	0.00	-41.1	0.00	41.07	1,051.16	277.42	665.57	574.96	8.96	-0.87	0.090
102.00	-15.93	-2.56	0.00	-33.9	0.00	33.88	1,039.10	272.20	640.75	557.59	9.33	-0.89	0.076
105.00	-12.97	-2.23	0.00	-26.2	0.00	26.21	1,020.44	264.37	604.41	531.71	9.9	-0.9	0.062
110.00	-12.33	-2.14	0.00	-15.1	0.00	15.08	987.87	251.31	546.19	489.13	10.86	-0.93	0.043
112.00	-6.97	-1.26	0.00	-10.8	0.00	10.78	974.32	246.09	523.73	472.32	11.25	-0.94	0.030
115.00	-6.66	-1.21	0.00	-7.0	0.00	7.00	953.44	238.26	490.93	447.37	11.84	-0.94	0.023
116.40	-6.16	-1.13	0.00	-5.3	0.00	5.31	943.47	234.60	475.98	435.84	12.12	-0.95	0.019
119.10	-5.84	-1.07	0.00	-2.3	0.00	2.26	923.83	227.55	447.81	413.84	12.65	-0.95	0.012
120.00	-3.21	-0.70	0.00	-1.3	0.00	1.30	917.17	225.20	438.61	406.57	12.83	-0.95	0.007
120.10	-2.90	-0.64	0.00	-1.2	0.00	1.23	916.42	224.94	437.59	405.77	12.85	-0.95	0.006
122.00	-0.08	-0.01	0.00	-0.0	0.00	0.01	902.14	219.98	418.50	390.56	13.23	-0.95	0.000
123.00	0.00	-0.01	0.00	0.0	0.00	0.00	894.51	217.37	408.63	382.62	13.43	-0.95	0.000

CALCULATED FORCES

Load Case: 1.0D + 1.0W

60 mph Wind with No Ice

21 Iterations

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

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (ft-kips)	Phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-30.34	-5.59	0.00	-494.0	0.00	494.01	4,069.07	1,052.24	4,787.63	4,219.32	0	0	0.125
5.00	-29.14	-5.50	0.00	-466.0	0.00	466.05	4,004.48	1,026.13	4,553.01	4,048.54	0.02	-0.04	0.122
10.00	-27.97	-5.40	0.00	-438.6	0.00	438.57	3,938.03	1,000.02	4,324.28	3,879.30	0.08	-0.07	0.120
15.00	-26.82	-5.31	0.00	-411.5	0.00	411.54	3,869.74	973.91	4,101.44	3,711.72	0.17	-0.11	0.118
20.00	-25.69	-5.22	0.00	-385.0	0.00	384.98	3,799.59	947.80	3,884.50	3,545.95	0.3	-0.15	0.115
25.00	-24.60	-5.12	0.00	-358.9	0.00	358.90	3,727.59	921.69	3,673.45	3,382.14	0.48	-0.18	0.113
30.00	-23.52	-5.02	0.00	-333.3	0.00	333.30	3,653.75	895.58	3,468.30	3,220.43	0.69	-0.22	0.110
35.00	-22.48	-4.92	0.00	-308.2	0.00	308.21	3,578.05	869.47	3,269.04	3,060.96	0.94	-0.26	0.107
40.00	-21.46	-4.81	0.00	-283.6	0.00	283.64	3,500.49	843.36	3,075.67	2,903.89	1.23	-0.3	0.104
45.00	-20.46	-4.73	0.00	-259.6	0.00	259.58	3,421.09	817.25	2,888.20	2,749.35	1.57	-0.34	0.100
48.25	-19.83	-4.67	0.00	-244.2	0.00	244.22	3,368.49	800.28	2,769.51	2,650.32	1.81	-0.36	0.098
50.00	-19.26	-4.62	0.00	-236.0	0.00	236.05	3,339.84	791.14	2,706.63	2,597.48	1.94	-0.38	0.097
53.25	-18.22	-4.56	0.00	-221.0	0.00	221.03	2,635.64	657.11	2,240.55	2,046.33	2.21	-0.4	0.115
55.00	-17.94	-4.49	0.00	-213.0	0.00	213.05	2,614.77	649.49	2,188.92	2,006.40	2.36	-0.42	0.113
60.00	-17.13	-4.39	0.00	-190.6	0.00	190.58	2,553.87	627.73	2,044.74	1,893.48	2.82	-0.46	0.107
65.00	-16.34	-4.29	0.00	-168.6	0.00	168.63	2,491.13	605.97	1,905.46	1,782.39	3.33	-0.51	0.101
70.00	-15.57	-4.19	0.00	-147.2	0.00	147.18	2,426.53	584.22	1,771.10	1,673.28	3.88	-0.55	0.094
75.00	-14.82	-4.09	0.00	-126.2	0.00	126.25	2,360.09	562.46	1,641.65	1,566.29	4.48	-0.59	0.087
80.00	-12.12	-3.58	0.00	-105.8	0.00	105.81	2,288.96	540.70	1,517.11	1,459.75	5.11	-0.63	0.078
81.75	-11.88	-3.53	0.00	-99.6	0.00	99.55	2,256.72	533.08	1,474.68	1,418.72	5.35	-0.64	0.075
85.00	-11.23	-3.49	0.00	-88.1	0.00	88.07	2,196.84	518.94	1,397.48	1,344.07	5.79	-0.67	0.071
85.75	-11.08	-3.44	0.00	-85.5	0.00	85.46	1,128.57	314.63	856.05	700.67	5.9	-0.67	0.132
90.00	-10.67	-3.35	0.00	-70.8	0.00	70.84	1,107.06	303.53	796.73	662.92	6.51	-0.7	0.117
95.00	-10.21	-3.26	0.00	-54.1	0.00	54.08	1,080.04	290.48	729.68	618.75	7.27	-0.75	0.097
100.00	-9.75	-3.20	0.00	-37.8	0.00	37.77	1,051.16	277.42	665.57	574.96	8.07	-0.79	0.075
102.00	-8.34	-2.29	0.00	-31.0	0.00	31.01	1,039.10	272.20	640.75	557.59	8.41	-0.8	0.064
105.00	-6.76	-2.04	0.00	-24.2	0.00	24.15	1,020.44	264.37	604.41	531.71	8.92	-0.82	0.052
110.00	-6.37	-1.97	0.00	-14.0	0.00	13.97	987.87	251.31	546.19	489.13	9.79	-0.84	0.035
112.00	-3.76	-1.14	0.00	-10.0	0.00	10.01	974.32	246.09	523.73	472.32	10.15	-0.85	0.025
115.00	-3.58	-1.10	0.00	-6.6	0.00	6.58	953.44	238.26	490.93	447.37	10.68	-0.86	0.018
116.40	-3.28	-1.04	0.00	-5.0	0.00	5.03	943.47	234.60	475.98	435.84	10.93	-0.86	0.015
119.10	-3.11	-0.99	0.00	-2.2	0.00	2.22	923.83	227.55	447.81	413.84	11.42	-0.86	0.009
120.00	-1.53	-0.71	0.00	-1.3	0.00	1.33	917.17	225.20	438.61	406.57	11.58	-0.86	0.005
120.10	-1.35	-0.66	0.00	-1.2	0.00	1.25	916.42	224.94	437.59	405.77	11.6	-0.86	0.005
122.00	-0.04	-0.01	0.00	-0.0	0.00	0.01	902.14	219.98	418.50	390.56	11.94	-0.86	0.000
123.00	0.00	-0.01	0.00	0.0	0.00	0.00	894.51	217.37	408.63	382.62	12.12	-0.86	0.000



EQUIVALENT LATERAL FORCES METHOD ANALYSIS

(Based on ASCE7-16 Chapters 11, 12 and 15)

Spectral Response Acceleration for Short Period ( $S_S$ ):	0.201
Spectral Response Acceleration at 1.0 Second Period ( $S_1$ ):	0.053
Long-Period Transition Period ( $T_L$ – Seconds):	6
Importance Factor ( $I_e$ ):	1.000
Site Coefficient $F_a$ :	1.600
Site Coefficient $F_v$ :	2.400
Response Modification Coefficient (R):	1.500
Design Spectral Response Acceleration at Short Period ( $S_{ds}$ ):	0.214
Design Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	0.085
Seismic Response Coefficient ( $C_s$ ):	0.031
Upper Limit $C_s$ :	0.031
Lower Limit $C_s$ :	0.030
Period based on Rayleigh Method (sec):	1.800
Redundancy Factor (p):	1.000
Seismic Force Distribution Exponent (k):	1.650
Total Unfactored Dead Load:	30.340 k
Seismic Base Shear (E):	0.960 k

SEISMIC FORCES

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)
35	122.5	42	117	0.003	3	53
34	121.05	102	276	0.007	7	127
33	120.05	5	14	0.000	0	7
32	119.55	49	130	0.004	3	61
31	117.75	156	402	0.011	10	193
30	115.7	82	206	0.006	5	102
29	113.5	180	437	0.012	11	223
28	111	151	354	0.010	9	188
27	107.5	386	858	0.023	22	480
26	103.5	238	497	0.013	13	295
25	101	177	356	0.010	9	220
24	97.5	452	856	0.023	22	562
23	92.5	465	807	0.022	21	578
22	87.875	405	646	0.017	17	503
21	85.375	148	225	0.006	6	183
20	83.375	649	949	0.025	24	806
19	80.875	244	340	0.009	9	303
18	77.5	723	938	0.025	24	899
17	72.5	744	865	0.023	22	925
16	67.5	765	791	0.021	20	951
15	62.5	787	716	0.019	18	978
14	57.5	808	640	0.017	16	1,004
13	54.125	288	206	0.006	5	358
12	51.625	1,034	687	0.018	18	1,285
11	49.125	565	346	0.009	9	702
10	46.625	632	355	0.010	9	786
9	42.5	993	479	0.013	12	1,235
8	37.5	1,019	399	0.011	10	1,266
7	32.5	1,044	323	0.009	8	1,298
6	27.5	1,069	252	0.007	6	1,329
5	22.5	1,095	185	0.005	5	1,361
4	17.5	1,120	125	0.003	3	1,392
3	12.5	1,145	73	0.002	2	1,423
2	7.5	1,171	32	0.001	1	1,455
1	2.5	1,196	5	0.000	0	1,486
Ericsson Radio 4449 B12,B71	122	222	608	0.016	16	276
Ericsson Radio 4460 B25+B66	122	327	896	0.024	23	406
Ericsson AIR 6419 B41	122	206	563	0.015	14	255

SEISMIC FORCES

1.2D + 1.0Ev + 1.0Eh

Seismic

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
Commscope VV-65A-R1B	122	74	203	0.005	5	92
RFS APXVAARR24_43-U-NA20	122	384	1,051	0.028	27	477
Ericsson RRUS 4478 B14	120.1	178	476	0.013	12	221
Generic Mount Reinforcement	120	600	1,599	0.043	41	746
Generic Round T-Arm	120	938	2,499	0.067	64	1,165
Generic Round T-Arm	112	1,350	3,212	0.086	82	1,678
Generic Round T-Arm	105	1,350	2,888	0.077	74	1,678
Generic Round T-Arm	80	1,350	1,845	0.049	47	1,678
Raycap DC6-48-60-18-8C	119.1	16	42	0.001	1	20
Ericsson RRUS 4449 B5, B12	116.4	213	540	0.014	14	265
Raycap DC6-48-60-18-8F	112	20	48	0.001	1	25
Ericsson RRUS 8843 B2, B66A	112	216	514	0.014	13	268
Ericsson AIR 6419 B77G	112	198	472	0.013	12	246
Ericsson Air 6449 B77D	112	245	582	0.016	15	304
CCI TPA-65R-BU6DA-K	112	207	492	0.013	13	257
CCI DMP65R-BU6DA	112	238	567	0.015	14	296
Commscope CBC78T-DS-43-2X	102	62	127	0.003	3	77
Samsung B2/B66A RRH ORAN (RF 4439d-25A)	102	224	457	0.012	12	279
Samsung RF4461d-13A	102	237	484	0.013	12	295
Samsung MT6413-77A	102	172	351	0.009	9	214
Raycap RCMDC-6627-PF-48	102	32	65	0.002	2	40
Swedcom SC-E 6016 REV2	102	50	102	0.003	3	62
Commscope JAHH-65B-R3B	102	364	741	0.020	19	452
Antel LPA-80063/6CF	102	108	220	0.006	6	134
Commscope RDIDC-9181-PF-48	80	22	30	0.001	1	27
Fujitsu TA08025-B605	80	225	307	0.008	8	280
Fujitsu TA08025-B604	80	192	262	0.007	7	238
JMA Wireless MX08FRO665-21	80	194	264	0.007	7	240
<b>Totals:</b>		<b>30,341</b>	<b>37,390</b>	<b>1.000</b>	<b>955</b>	<b>37,710</b>

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
35	122.5	42	117	0.003	3	36
34	121.05	102	276	0.007	7	87
33	120.05	5	14	0.000	0	5
32	119.55	49	130	0.004	3	42
31	117.75	156	402	0.011	10	133
30	115.7	82	206	0.006	5	70
29	113.5	180	437	0.012	11	154
28	111	151	354	0.010	9	129
27	107.5	386	858	0.023	22	331
26	103.5	238	497	0.013	13	204
25	101	177	356	0.010	9	152
24	97.5	452	856	0.023	22	387
23	92.5	465	807	0.022	21	398
22	87.875	405	646	0.017	17	347
21	85.375	148	225	0.006	6	127
20	83.375	649	949	0.025	24	556
19	80.875	244	340	0.009	9	209
18	77.5	723	938	0.025	24	620
17	72.5	744	865	0.023	22	638
16	67.5	765	791	0.021	20	656
15	62.5	787	716	0.019	18	674
14	57.5	808	640	0.017	16	692
13	54.125	288	206	0.006	5	247
12	51.625	1,034	687	0.018	18	886
11	49.125	565	346	0.009	9	484
10	46.625	632	355	0.010	9	542
9	42.5	993	479	0.013	12	851

SEISMIC FORCES

0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
8	37.5	1,019	399	0.011	10	873
7	32.5	1,044	323	0.009	8	895
6	27.5	1,069	252	0.007	6	917
5	22.5	1,095	185	0.005	5	938
4	17.5	1,120	125	0.003	3	960
3	12.5	1,145	73	0.002	2	982
2	7.5	1,171	32	0.001	1	1,003
1	2.5	1,196	5	0.000	0	1,025
Ericsson Radio 4449 B12,B71	122	222	608	0.016	16	190
Ericsson Radio 4460 B25+B66	122	327	896	0.024	23	280
Ericsson AIR 6419 B41	122	206	563	0.015	14	176
Commscope VV-65A-R1B	122	74	203	0.005	5	64
RFS APXVAARR24_43-U-NA20	122	384	1,051	0.028	27	329
Ericsson RRUS 4478 B14	120.1	178	476	0.013	12	153
Generic Mount Reinforcement	120	600	1,599	0.043	41	514
Generic Round T-Arm	120	938	2,499	0.067	64	804
Generic Round T-Arm	112	1,350	3,212	0.086	82	1,157
Generic Round T-Arm	105	1,350	2,888	0.077	74	1,157
Generic Round T-Arm	80	1,350	1,845	0.049	47	1,157
Raycap DC6-48-60-18-8C	119.1	16	42	0.001	1	14
Ericsson RRUS 4449 B5, B12	116.4	213	540	0.014	14	183
Raycap DC6-48-60-18-8F	112	20	48	0.001	1	17
Ericsson RRUS 8843 B2, B66A	112	216	514	0.014	13	185
Ericsson AIR 6419 B77G	112	198	472	0.013	12	170
Ericsson Air 6449 B77D	112	245	582	0.016	15	210
CCI TPA-65R-BU6DA-K	112	207	492	0.013	13	177
CCI DMP65R-BU6DA	112	238	567	0.015	14	204
Commscope CBC78T-DS-43-2X	102	62	127	0.003	3	53
Samsung B2/B66A RRH ORAN (RF 4439d-25A)	102	224	457	0.012	12	192
Samsung RF4461d-13A	102	237	484	0.013	12	203
Samsung MT6413-77A	102	172	351	0.009	9	147
Raycap RCMDC-6627-PF-48	102	32	65	0.002	2	27
Swedcom SC-E 6016 REV2	102	50	102	0.003	3	43
Commscope JAHH-65B-R3B	102	364	741	0.020	19	312
Antel LPA-80063/6CF	102	108	220	0.006	6	93
Commscope RDIDC-9181-PF-48	80	22	30	0.001	1	19
Fujitsu TA08025-B605	80	225	307	0.008	8	193
Fujitsu TA08025-B604	80	192	262	0.007	7	164
JMA Wireless MX08FRO665-21	80	194	264	0.007	7	166
<b>Totals:</b>		<b>30,341</b>	<b>37,390</b>	<b>1.000</b>	<b>955</b>	<b>26,006</b>

1.2D + 1.0Ev + 1.0Eh

Seismic

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-36.22	-0.96	0.00	-94.53	0.00	94.53	4,069.07	1,052.24	4,788	4,219.32	0.00	0.00	0.03
5.00	-34.77	-0.96	0.00	-89.75	0.00	89.75	4,004.48	1,026.13	4,553	4,048.54	0.00	-0.01	0.03
10.00	-33.34	-0.96	0.00	-84.95	0.00	84.95	3,938.03	1,000.02	4,324	3,879.30	0.01	-0.01	0.03
15.00	-31.95	-0.96	0.00	-80.14	0.00	80.14	3,869.74	973.91	4,101	3,711.72	0.03	-0.02	0.03
20.00	-30.59	-0.96	0.00	-75.33	0.00	75.33	3,799.59	947.80	3,884	3,545.95	0.06	-0.03	0.03
25.00	-29.26	-0.96	0.00	-70.53	0.00	70.53	3,727.59	921.69	3,673	3,382.14	0.09	-0.04	0.03
30.00	-27.96	-0.95	0.00	-65.74	0.00	65.74	3,653.75	895.58	3,468	3,220.43	0.13	-0.04	0.03
35.00	-26.70	-0.94	0.00	-60.98	0.00	60.98	3,578.05	869.47	3,269	3,060.96	0.18	-0.05	0.03
40.00	-25.46	-0.93	0.00	-56.26	0.00	56.26	3,500.49	843.36	3,076	2,903.89	0.24	-0.06	0.03
45.00	-24.68	-0.93	0.00	-51.59	0.00	51.59	3,421.09	817.25	2,888	2,749.35	0.31	-0.07	0.03
48.25	-23.98	-0.92	0.00	-48.57	0.00	48.57	3,368.49	800.28	2,770	2,650.32	0.35	-0.07	0.03
50.00	-22.69	-0.90	0.00	-46.97	0.00	46.97	3,339.84	791.14	2,707	2,597.48	0.38	-0.07	0.03
53.25	-22.33	-0.90	0.00	-44.04	0.00	44.04	2,635.64	657.11	2,241	2,046.33	0.43	-0.08	0.03
55.00	-21.33	-0.88	0.00	-42.47	0.00	42.47	2,614.77	649.49	2,189	2,006.40	0.46	-0.08	0.03

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
60.00	-20.35	-0.87	0.00	-38.06	0.00	38.06	2,553.87	627.73	2,045	1,893.48	0.55	-0.09	0.03
65.00	-19.40	-0.85	0.00	-33.73	0.00	33.73	2,491.13	605.97	1,905	1,782.39	0.65	-0.10	0.03
70.00	-18.47	-0.83	0.00	-29.50	0.00	29.50	2,426.53	584.22	1,771	1,673.28	0.76	-0.11	0.03
75.00	-17.58	-0.80	0.00	-25.37	0.00	25.37	2,360.09	562.46	1,642	1,566.29	0.88	-0.12	0.02
80.00	-14.81	-0.72	0.00	-21.36	0.00	21.36	2,288.96	540.70	1,517	1,459.75	1.00	-0.12	0.02
81.75	-14.00	-0.69	0.00	-20.10	0.00	20.10	2,256.72	533.08	1,475	1,418.72	1.05	-0.13	0.02
85.00	-13.82	-0.69	0.00	-17.85	0.00	17.85	2,196.84	518.94	1,397	1,344.07	1.14	-0.13	0.02
85.75	-13.32	-0.67	0.00	-17.33	0.00	17.33	1,128.57	314.63	856	700.67	1.16	-0.13	0.04
90.00	-12.74	-0.65	0.00	-14.47	0.00	14.47	1,107.06	303.53	797	662.92	1.28	-0.14	0.03
95.00	-12.18	-0.63	0.00	-11.21	0.00	11.21	1,080.04	290.48	730	618.75	1.43	-0.15	0.03
100.00	-11.96	-0.62	0.00	-8.06	0.00	8.06	1,051.16	277.42	666	574.96	1.59	-0.16	0.03
102.00	-10.11	-0.54	0.00	-6.81	0.00	6.81	1,039.10	272.20	641	557.59	1.66	-0.16	0.02
105.00	-7.95	-0.44	0.00	-5.19	0.00	5.19	1,020.44	264.37	604	531.71	1.76	-0.16	0.02
110.00	-7.76	-0.43	0.00	-2.99	0.00	2.99	987.87	251.31	546	489.13	1.93	-0.17	0.01
112.00	-4.47	-0.26	0.00	-2.13	0.00	2.13	974.32	246.09	524	472.32	2.00	-0.17	0.01
115.00	-4.36	-0.25	0.00	-1.36	0.00	1.36	953.44	238.26	491	447.37	2.11	-0.17	0.01
116.40	-3.91	-0.23	0.00	-1.00	0.00	1.00	943.47	234.60	476	435.84	2.16	-0.17	0.01
119.10	-3.82	-0.22	0.00	-0.39	0.00	0.39	923.83	227.55	448	413.84	2.26	-0.17	0.01
120.00	-1.91	-0.11	0.00	-0.19	0.00	0.19	917.17	225.20	439	406.57	2.29	-0.17	0.00
120.10	-1.56	-0.09	0.00	-0.18	0.00	0.18	916.42	224.94	438	405.77	2.30	-0.17	0.00
122.00	0.00	0.00	0.00	0.00	0.00	0.00	902.14	219.98	418	390.56	2.37	-0.17	0.00
123.00	0.00	0.00	0.00	0.00	0.00	0.00	894.51	217.37	409	382.62	2.40	-0.17	0.00

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 (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-24.98	-0.96	0.00	-93.59	0.00	93.59	4,069.07	1,052.24	4,788	4,219.32	0.00	0.00	0.03
5.00	-23.98	-0.96	0.00	-88.81	0.00	88.81	4,004.48	1,026.13	4,553	4,048.54	0.00	-0.01	0.03
10.00	-23.00	-0.96	0.00	-84.02	0.00	84.02	3,938.03	1,000.02	4,324	3,879.30	0.01	-0.01	0.03
15.00	-22.04	-0.96	0.00	-79.23	0.00	79.23	3,869.74	973.91	4,101	3,711.72	0.03	-0.02	0.03
20.00	-21.10	-0.96	0.00	-74.44	0.00	74.44	3,799.59	947.80	3,884	3,545.95	0.06	-0.03	0.03
25.00	-20.18	-0.95	0.00	-69.66	0.00	69.66	3,727.59	921.69	3,673	3,382.14	0.09	-0.04	0.03
30.00	-19.29	-0.94	0.00	-64.91	0.00	64.91	3,653.75	895.58	3,468	3,220.43	0.13	-0.04	0.03
35.00	-18.41	-0.94	0.00	-60.18	0.00	60.18	3,578.05	869.47	3,269	3,060.96	0.18	-0.05	0.03
40.00	-17.56	-0.93	0.00	-55.50	0.00	55.50	3,500.49	843.36	3,076	2,903.89	0.24	-0.06	0.02
45.00	-17.02	-0.92	0.00	-50.88	0.00	50.88	3,421.09	817.25	2,888	2,749.35	0.30	-0.07	0.02
48.25	-16.53	-0.91	0.00	-47.89	0.00	47.89	3,368.49	800.28	2,770	2,650.32	0.35	-0.07	0.02
50.00	-15.65	-0.89	0.00	-46.30	0.00	46.30	3,339.84	791.14	2,707	2,597.48	0.37	-0.07	0.02
53.25	-15.40	-0.89	0.00	-43.40	0.00	43.40	2,635.64	657.11	2,241	2,046.33	0.43	-0.08	0.03
55.00	-14.71	-0.87	0.00	-41.85	0.00	41.85	2,614.77	649.49	2,189	2,006.40	0.45	-0.08	0.03
60.00	-14.03	-0.85	0.00	-37.49	0.00	37.49	2,553.87	627.73	2,045	1,893.48	0.54	-0.09	0.03
65.00	-13.38	-0.84	0.00	-33.22	0.00	33.22	2,491.13	605.97	1,905	1,782.39	0.64	-0.10	0.02
70.00	-12.74	-0.81	0.00	-29.04	0.00	29.04	2,426.53	584.22	1,771	1,673.28	0.75	-0.11	0.02
75.00	-12.12	-0.79	0.00	-24.97	0.00	24.97	2,360.09	562.46	1,642	1,566.29	0.87	-0.11	0.02
80.00	-10.21	-0.71	0.00	-21.02	0.00	21.02	2,288.96	540.70	1,517	1,459.75	0.99	-0.12	0.02
81.75	-9.66	-0.68	0.00	-19.78	0.00	19.78	2,256.72	533.08	1,475	1,418.72	1.04	-0.13	0.02
85.00	-9.53	-0.68	0.00	-17.56	0.00	17.56	2,196.84	518.94	1,397	1,344.07	1.12	-0.13	0.02
85.75	-9.18	-0.66	0.00	-17.05	0.00	17.05	1,128.57	314.63	856	700.67	1.14	-0.13	0.03
90.00	-8.78	-0.64	0.00	-14.23	0.00	14.23	1,107.06	303.53	797	662.92	1.26	-0.14	0.03
95.00	-8.40	-0.62	0.00	-11.02	0.00	11.02	1,080.04	290.48	730	618.75	1.41	-0.15	0.03
100.00	-8.24	-0.61	0.00	-7.92	0.00	7.92	1,051.16	277.42	666	574.96	1.57	-0.15	0.02
102.00	-6.97	-0.53	0.00	-6.70	0.00	6.70	1,039.10	272.20	641	557.59	1.64	-0.16	0.02
105.00	-5.48	-0.43	0.00	-5.10	0.00	5.10	1,020.44	264.37	604	531.71	1.74	-0.16	0.02
110.00	-5.35	-0.42	0.00	-2.94	0.00	2.94	987.87	251.31	546	489.13	1.91	-0.17	0.01
112.00	-3.08	-0.25	0.00	-2.10	0.00	2.10	974.32	246.09	524	472.32	1.98	-0.17	0.01
115.00	-3.01	-0.25	0.00	-1.34	0.00	1.34	953.44	238.26	491	447.37	2.08	-0.17	0.01
116.40	-2.69	-0.22	0.00	-0.99	0.00	0.99	943.47	234.60	476	435.84	2.13	-0.17	0.01
119.10	-2.64	-0.22	0.00	-0.38	0.00	0.38	923.83	227.55	448	413.84	2.23	-0.17	0.00

CALCULATED FORCES

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (fr-kips)	Mu Mx (ft-kips)	Resultant Moment (ft-kips)	Phi Pn (kips)	Phi Vn (kips)	Phi Tn (kips)	Phi Mn (kips)	Total Deflect (in)	Rotation (deg)	Ratio
120.00	-1.32	-0.11	0.00	-0.18	0.00	0.18	917.17	225.20	439	406.57	2.26	-0.17	0.00
120.10	-1.08	-0.09	0.00	-0.17	0.00	0.17	916.42	224.94	438	405.77	2.27	-0.17	0.00
122.00	0.00	0.00	0.00	0.00	0.00	0.00	902.14	219.98	418	390.56	2.33	-0.17	0.00
123.00	0.00	0.00	0.00	0.00	0.00	0.00	894.51	217.37	409	382.62	2.37	-0.17	0.00

ANALYSIS SUMMARY

Load Case	Base 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	25.85	0.00	36.37	0.00	0.00	2293.99	85.75	0.58
0.9D + 1.0W	25.84	0.00	27.27	0.00	0.00	2275.84	85.75	0.57
1.2D + 1.0Di + 1.0Wi	6.41	0.00	50.76	0.00	0.00	554.60	85.75	0.15
1.2D + 1.0Ev + 1.0Eh	0.96	0.00	36.22	0.00	0.00	94.53	85.75	0.04
0.9D - 1.0Ev + 1.0Eh	0.96	0.00	24.98	0.00	0.00	93.59	85.75	0.03
1.0D + 1.0W	5.59	0.00	30.34	0.00	0.00	494.01	85.75	0.13

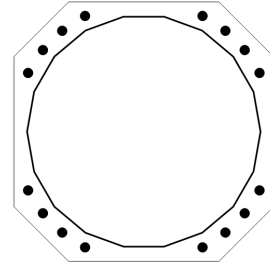
**BASE PLATE ANALYSIS @ 0 FT**

**APPLIED REACTIONS**

Moment (k-ft)	Axial (k)	Shear (k)
2293.99	36.37	25.85

**PLATE PARAMETERS (ID# 26628)**

Width:	57	in
Shape:	Square	
Thickness:	2.75	in
Grade:	A572-50	
Yield Strength:	50	ksi
Tensile Strength:	65	ksi
Clip Length:	12	in
Rod Detail Type:	d	
Clear Distance:	3.75	in
Base Weld Size:	0.125	in
Orientation Offset:	-	°
Analysis Type:	Plastic	
Neutral Axis:	51	°



**ANCHOR ROD PARAMETERS**

Class	Arrangement	Quantity	Diameter (in)	Circle (in)	Grade	F <sub>y</sub> (ksi)	F <sub>u</sub> (ksi)	Spacing (in)	Offset (°)
Original [ID#27326]	Cluster	16	2.25	57	A615-75	75	100	6	-

**COMPONENT PROPERTIES**

Component	ID	Gross Area (in <sup>2</sup> )	Net Area (in <sup>2</sup> )	Individual Inertia (in <sup>4</sup> )	Moment of Inertia (in <sup>4</sup> )	Threads/in
Pole	50.75"ø x 0.375" (18 Sides)	59.0458	-	-	18732.41	-
Bolt Group	Original (16) 2.25"ø	3.9761	3.2477	0.8393	19217.93	4.5

**REACTION DISTRIBUTION**

Component	ID	Moment M <sub>u</sub> (k-ft)	Axial Load P <sub>u</sub> (k)	Shear V <sub>u</sub> (k)	Moment Factor
Pole	50.75"ø x 0.375" (18 Sides)	2294.0	36.37	25.85	1.000
Bolt Group	Original (16) 2.25"ø	2294.0	-	25.85	1.000

**BASE PLATE BEND LINE ANALYSIS @ 0 FT**

**POLE PROPERTIES**

Flat-to-Flat Diameter:	50.88	in	Flat Width:	8.971	in
Point-to-Point Diameter:	51.66	in	Flat Radians:	0.349	rad
Orientation Offset:	-	°			

**PLATE PROPERTIES**

Neutral Axis: 51 °

Bend Line	Chord Length (in)	Additional Length (in)	Section Modulus (in <sup>3</sup> )	Applied Moment M <sub>u</sub> (k-in)	Moment Capacity ΦM <sub>n</sub> (k-in)	Flexure Result M <sub>u</sub> /ΦM <sub>n</sub>
Flats	29.735	0.00	56.218	514.9	2529.8	20.4%
Corners	28.950	0.00	54.734	365.6	2463.0	14.8%

**PLASTIC ANCHOR ROD ANALYSIS**

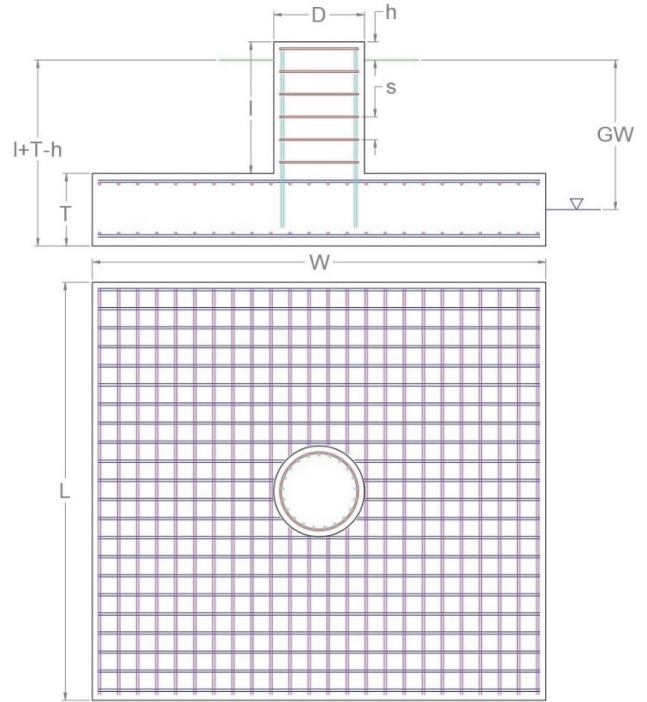
Class	Group Quantity	Rod Diameter (in)	Applied Axial Load P <sub>u</sub> (k)	Applied Shear Load V <sub>u</sub> (k)	Compressive Capacity ΦP <sub>n</sub> (k)	Interaction Result
Original	16	2.25	112.3	2.8	243.6	48.4%

**APPLIED GLOBAL REACTIONS**

Moment (k-ft)	Axial (k)	Shear (k)
2,293.99	36.37	25.85

**FOUNDATION PARAMETERS**

Mat Length:	L	24.5	ft
Mat Width:	W	24.5	ft
Mat Thickness:	T	2	ft
Base Depth:	L+T-h	5.5	ft
Pier Shape:		Round	
Pier Diameter:	D	7	ft
Pier Height above Grade:	h	1	ft
Concrete Compressive Strength:		4,000	psi
Mat Top Rebar:		(35) #8 bars [60 ksi]	
Mat Bottom Rebar:		(35) #8 bars [60 ksi]	
Pier Vertical Rebar:		(36) #8 bars [60 ksi]	
Pier Rebar Ties:	s	#4 bars @ 12.0" c/c [60 ksi]	
Rebar Clear Cover:		3.0	in
Tower Eccentricity:	ecc	0	ft
Tower Leg Count		1	



**SOIL PARAMETERS**

Water Table Depth [BGL]:	GW	6	ft
Soil Unit Weight:		125	pcf
Ultimate Skin Friction:		0	psf
Ultimate Bearing Pressure:		10,000	psf
Bearing Pressure Type:		Net	
Coefficient of Shear Friction:		0.5	

**SOIL STRENGTH ANALYSIS**

Soil Strength Reduction Factor, $\Phi_s$	Uplift Strength Reduction Factor, $\Phi_s$	Asset Dead Load Factor	Dead Load Factor
0.75	0.75	0.9	1.2

**SOIL OVERTURNING ANALYSIS**

Design Moment, $M_{u,Design}$ (k-ft)	Nominal Overturning Capacity, $\Phi_m M_n$ (k-ft)	Soil Overturning Usage, $M_{u,Design} / \Phi_m M_n$
2,462.02	5,568.82	44.2% <span style="float: right;">✔</span>

**SOIL BEARING ANALYSIS**

Net Bearing Pressure, $P_{u,Net}$ (psf)	Nominal Bearing Capacity, $\Phi_b P_n$ (k-ft)	Bearing Pressure Controlling Load Direction	Soil Bearing Usage, $P_{u,net} / \Phi_b P_n$
1,356.00	8,016.00	Diagonal to Pad Edge	16.9% <span style="float: right;">✔</span>

**SOIL SLIDING SHEAR ANALYSIS**

Applied Shear Force, $V_u$ (k)	Friction Resistance (k)	Passive Pressure (psf)	Passive Pressure Resistance (k)	Nominal Shear Capacity, $\Phi_s V_n$ (k)	Soil Sliding Shear Usage, $V_u / \Phi_s V_n$
25.85	0.00	562.5	27.56	201.47	13.0% <span style="float: right;">✔</span>



**MAT REINFORCING STEEL STRENGTH ANALYSIS**

Steel Elastic Modulus, E (ksi)	Strength Bending/Tension Reduction Factor, $\Phi_b$	Strength Shear Reduction Factor, $\Phi_v$	Strength Compression Reduction Factor, $\Phi_c$
29,000	0.9	0.75	0.65

**MAT REINFORCING ONE WAY SHEAR ANALYSIS**

One Way Design Shear, $V_u$ (k)	Nominal One Way Shear Capacity, $\Phi_c V_n$ (k)	One Way Shear Controlling Load Direction	Mat One Way Shear Usage, $V_u / \Phi_c V_n$
98.81	553.61	Diagonal to Pad Edge	17.8%

**MAT REINFORCING PUNCHING SHEAR ANALYSIS**

Punching Shear Design Stress, $v_u$ (psi)	Nominal Punching Shear Capacity, $\Phi_c v_n$ (psi)	Mat Punching Shear Usage, $v_u / \Phi_c v_n$
57.5	189.7	30.3%

**MAT REINFORCING MOMENT TRANSFER ANALYSIS**

Moment Transfer Effective Flexural Width, $w_f$ (in)	Neutral Axis Depth (in)	Pier Moment at Joint, $M_{ut}$ (k-in)	Nominal Moment Transfer Capacity, $\Phi M_{sc,f}$ (k-in)	Mat Moment Transfer Usage, $0.6 M_{ut} / \Phi M_{sc,f}$
13.00	1.74	0.00	15,980.8	0.0%

**MAT REINFORCING FLEXURE ANALYSIS – UPPER STEEL**

Factored Moment, $M_u$ (k-ft)	Nominal Flexural Capacity, $\Phi M_n$ (k-ft)	Flexural Steel Controlling Load Direction	Mat Upper Rebar Flexure Usage, $M_u / \Phi M_n$
691.69	2,400.74	Parallel to Pad Edge	28.8%

**MAT REINFORCING FLEXURE ANALYSIS – LOWER STEEL**

Factored Moment, $M_u$ (k-ft)	Nominal Flexural Capacity, $\Phi M_n$ (k-ft)	Flexural Steel Controlling Load Direction	Mat Lower Rebar Flexure Usage, $M_u / \Phi M_n$
946.50	2,400.74	Parallel to Pad Edge	39.4%

**PIER REINFORCING STEEL STRENGTH ANALYSIS**

Rebar Cage Diameter (in)	Steel Elastic Modulus, E (ksi)	Strength Bending/Tension Reduction Factor, $\Phi_b$	Strength Shear Reduction Factor, $\Phi_v$	Strength Compression Reduction Factor, $\Phi_c$
76.00	29,000	0.9	0.75	0.65

**PIER REINFORCING MOMENT ANALYSIS**

Design Moment, $M_u$ (k-ft)	Nominal Moment Capacity, $\Phi_u M_n$ (k-ft)	Bending Reinforcement Ratio	Pier Rebar Flexure Usage, $M_u / \Phi_u M_n$
2,410.32	4,756.50	0.005	50.7%

**PIER REINFORCING COMPRESSION ANALYSIS**

Design Compression, $P_u$ (k)	Nominal Compressive Capacity, $\Phi_p P_n$ (k)	Pier Rebar Compressive Usage, $P_u / \Phi_p P_n$
36.37	9,772.21	0.4%

**PIER REINFORCING SHEAR ANALYSIS**

Design Shear, $V_u$ (k)	Nominal Shear Capacity, $\Phi_v V_n$ (k)	Pier Rebar Shear Usage, $V_u / \Phi_v V_n$
25.85	628.26	4.1%

Colliers Engineering & Design, Architecture,  
Landscape Architecture, Surveying, CT  
P.C.1055 Washington Boulevard  
Stamford, CT 06901  
203.324.0800  
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## Antenna Mount Analysis Report and PMI Requirements

Mount ReAnalysis-VZW

SMART Tool Project #: 10218126  
Colliers Engineering & Design Project #: 21777426 (Rev 1)

January 11, 2024

### Site Information

Site ID: 5000383581-VZW / BRANFORD WEST CT  
Site Name: BRANFORD WEST CT  
Carrier Name: Verizon Wireless  
Address: 123 Pine Orchard Rd.  
Branford, Connecticut 06405  
New Haven County  
Latitude: 41.274861°  
Longitude: -72.793078°

### Structure Information

Tower Type: 124-Ft Monopole  
Mount Type: 12.00-Ft T-Arm

FUZE ID # 16244631

### Analysis Results

T-Arm: 68.4% Pass\*

**\*Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.**

### \*\*\*Contractor PMI Requirements:

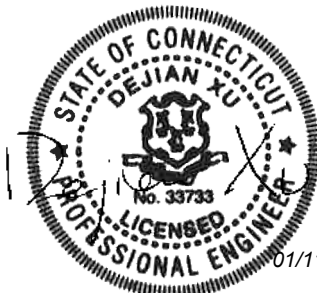
Included at the end of this MA report

Available & Submitted via portal at <https://pmi.vzwsmart.com>

For additional questions and support, please reach out to:

[pmisupport@colliersengineering.com](mailto:pmisupport@colliersengineering.com)

Report Prepared By: Carol Luengas



01/11/2024

**Executive Summary:**

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

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

**Sources of Information:**

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon RFDS Site ID: 812313, dated August 10, 2023
Mount Mapping Report	RKS Design & Engineering LLC., Site ID: ATC: 283419, dated March 31, 2021

**Analysis Criteria:**

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), $V_{ULT}$ : 125 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: B Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, $K_e$ : 0.999
Seismic Parameters:	$S_s$ : 0.201 g $S_1$ : 0.053 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Load, $L_v$ : 250 lbs. Maintenance 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
101.50	102.00	6	Commscope	JAHH-65B-R3B	Added
		3	Samsung	MT6413-77A	
		3	Commscope	CBC78T-DS-43-2X	
		3	Samsung	RF4461d-13A	
		3	Samsung	RF4439d-25A	
		4	Amphenol Antel	LPA-80063-6CF-EDIN-2	Retained
		1	Raycap	RCMDC-6627-PF-48*	
		2	Swedcom	SCE6016REV2	

\* Equipment is flush mounted directly to the Self Support. They are not mounted on the T-Arm mounts and are not included in this mount analysis.

The recent mount mapping 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 Colliers Engineering & Design 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 Colliers Engineering & Design 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 in accordance with the NSTD-446 Standard, 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. Colliers Engineering & Design is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
  - o Channel, Solid Round, Angle, Plate      ASTM A36 (Gr. 36)
  - o HSS (Rectangular)                              ASTM 500 (Gr. B-46)
  - o Pipe    ASTM A53 (Gr. B-35)
  - o Threaded Rod                                      F1554 (Gr. 36)
  - o Bolts     ASTM A325

**Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Colliers Engineering & Design.**

**Analysis Results:**

Component	Utilization %	Pass/Fail
Standoff Arm	68.4 %	Pass
Horizontal	68.2 %	Pass
Antenna Pipe	48.8 %	Pass
Tieback	6.7 %	Pass
Mount Connection	61.8 %	Pass

<b>Structure Rating – (Controlling Utilization of all Components)</b>	<b>68.4%</b>
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The mount has been found structurally adequate for all steel and external connection capacities. Serviceability in accordance with TIA-222-H Section 4.9.11.3 has not been considered.

**Mount Connection Envelope Reactions:**

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector A Standoff	101.5	N1	818	1971	4.481	7.341	1900	408	9.001	1.505
Sector C Standoff	101.5	N29	814	1828	4.327	6.867	1794	386	7.999	1.456
Sector B Standoff	101.5	N55A	817	1955	4.316	7.398	1898	405	8.135	1.515

Notes:

- Axial loads act along the axis of the tower
- Lateral reactions act perpendicular to the tower
- Moment loads introduce bending moment to the tower
- Torsion loads introduce twisting moment to the tower
- Batch solutions by individual load cases are included at the end of this document

**Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:**

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	13.5	9.9	32.1	28.5
0.5	17.9	13.3	44.3	39.7
1	16.3	22.1	56.3	50.5

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 3 sector(s).
- Ka factors included in (EPA)a calculations

**Requirements:**

The existing mounts are **SUFFICIENT** for the final loading configuration shown in attachment 2 and do not require modifications. Additional requirements are noted below.

N/A
-----

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

**Attachments:**

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

# Mount Desktop – Post Modification Inspection (PMI) Report Requirements

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

Passing Mount Analysis requires a PMI due to a modification in loading.

Electronic pdf version of this can be downloaded at <https://pmi.vzwsmart.com>.

For additional questions and support, please reach out to [pmisupport@colliersengineering.com](mailto:pmisupport@colliersengineering.com)

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MDG #: 5000383581

SMART Project #: 10218126

Fuze Project ID: 16244631

**Purpose** – to provide SMART Tool structural vendor the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

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

### **Base Requirements:**

- If installation will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide “as built mount drawings” showing contractor’s name, contact information, preparer’s signature, and date. Any deviations from the drawings (Proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped
- Photos should be high resolution.
- 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. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: <https://pmi.vzwsmart.com>

### **Photo Requirements:**

- Photos taken at ground level
  - Photo of Gate Signs showing the tower owner, site name, and number.
  - Overall tower structure after installation.
  - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- Photos taken at Mount Elevation
  - Photos showing the safety climb wire rope above and below the mount prior to installation.
  - Photos showing the climbing facility and safety climb if present.
  - Photos showing each individual sector after installation. Each entire sector shall be in one photo to show the interconnection of members.

- These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.

**Antenna & equipment placement and Geometry Confirmation:**

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.
  - The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

- The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

**Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:**

**Issue:**

N/A

**Response:**

**Special Instruction Confirmation:**

- The contractor has read and acknowledges the above special instructions.
- All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.
- The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) and included in the material certification folder is a packing list or invoice for these materials.

OR

- The material utilized was approved by a SMART Tool engineering vendor as an “equivalent” and this approval is included as part of the contractor submission.



**Comments:**

--

**Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:**

Yes       No

**Contractor certifies no new damage created during the current installation:**

Yes       No

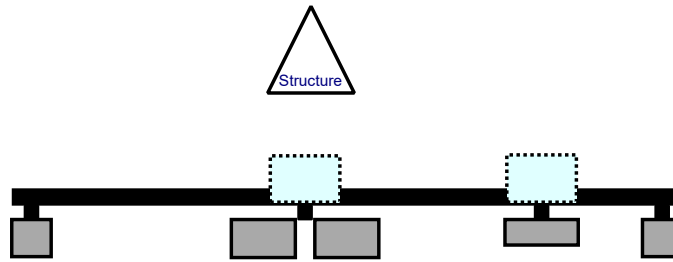
**Contractor to certify the condition of the safety climb and verify no damage when leaving the site:**

Safety Climb in Good Condition                       Safety Climb Damaged

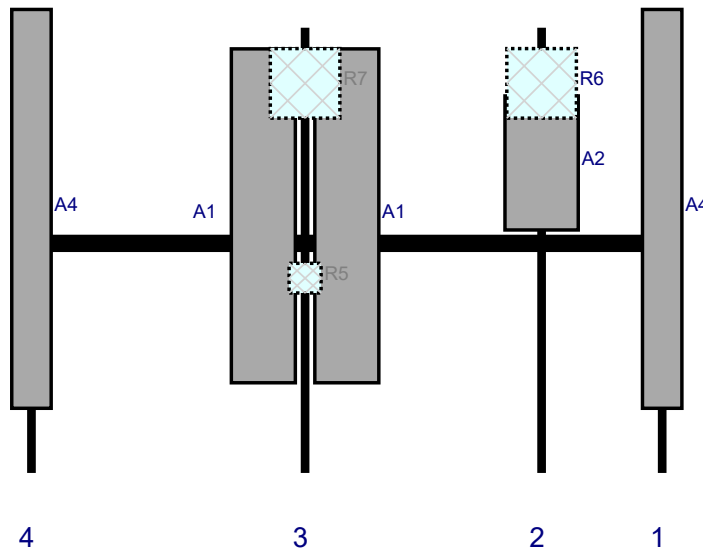
**Certifying Individual:**

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

Plan View



Front View - Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A4	SCE6016REV2	86	8.5	140.25	1	a	Front	39.06	0	Retained	03/31/2021
A2	MT6413-77A	28.9	15.8	114.25	2	a	Front	29.16	0	Added	
R6	RF4461d-13A	15	15	114.25	2	a	Behind	12	0	Added	
A1	JAHH-65B-R3B	72	13.8	63.25	3	a	Front	40.56	9	Added	
A1	JAHH-65B-R3B	72	13.8	63.25	3	b	Front	40.56	-9	Added	
R5	CBC78T-DS-43-2X	6.4	6.9	63.25	3	a	Behind	54	0	Added	
R7	RF4439d-25A	15	15	63.25	3	a	Behind	12	0	Added	
A4	SCE6016REV2	86	8.5	4.25	4	a	Front	39.06	0	Retained	03/31/2021

Sector: **B**  
 Structure Type: Monopole  
 Mount Elev: 101.50

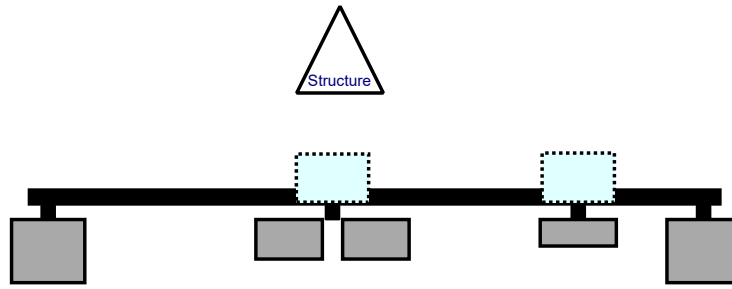
1/9/2024

10218126

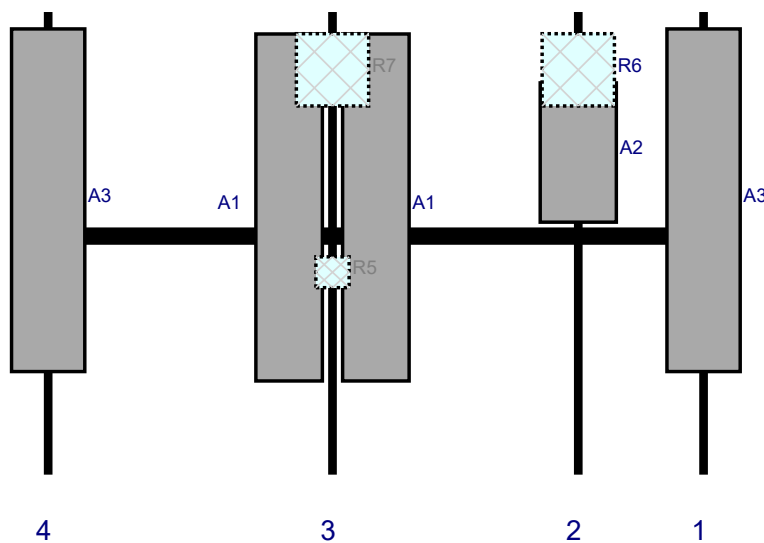


Page: 2

Plan View

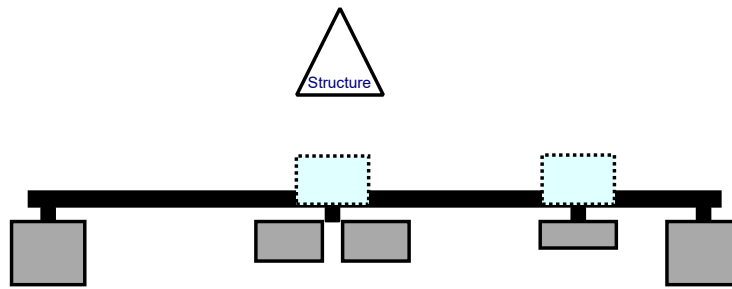


Front View - Looking at Structure

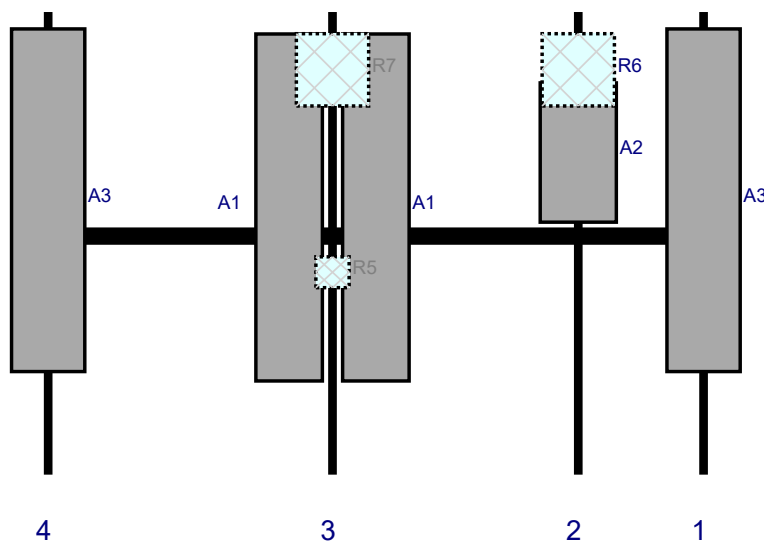


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A3	LPA-80063-6CF-EDIN-2	71.1	15.2	140.25	1	a	Front	39.06	0	Retained	03/31/2021
A2	MT6413-77A	28.9	15.8	114.25	2	a	Front	29.16	0	Added	
R6	RF4461d-13A	15	15	114.25	2	a	Behind	12	0	Added	
A1	JAHH-65B-R3B	72	13.8	63.25	3	a	Front	40.56	9	Added	
A1	JAHH-65B-R3B	72	13.8	63.25	3	b	Front	40.56	-9	Added	
R5	CBC78T-DS-43-2X	6.4	6.9	63.25	3	a	Behind	54	0	Added	
R7	RF4439d-25A	15	15	63.25	3	a	Behind	12	0	Added	
A3	LPA-80063-6CF-EDIN-2	71.1	15.2	4.25	4	a	Front	39.06	0	Retained	03/31/2021

Plan View




Front View - Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A3	LPA-80063-6CF-EDIN-2	71.1	15.2	140.25	1	a	Front	39.06	0	Retained	03/31/2021
A2	MT6413-77A	28.9	15.8	114.25	2	a	Front	29.16	0	Added	
R6	RF4461d-13A	15	15	114.25	2	a	Behind	12	0	Added	
A1	JAHH-65B-R3B	72	13.8	63.25	3	a	Front	40.56	9	Added	
A1	JAHH-65B-R3B	72	13.8	63.25	3	b	Front	40.56	-9	Added	
R5	CBC78T-DS-43-2X	6.4	6.9	63.25	3	a	Behind	54	0	Added	
R7	RF4439d-25A	15	15	63.25	3	a	Behind	12	0	Added	
A3	LPA-80063-6CF-EDIN-2	71.1	15.2	4.25	4	a	Front	39.06	0	Retained	03/31/2021



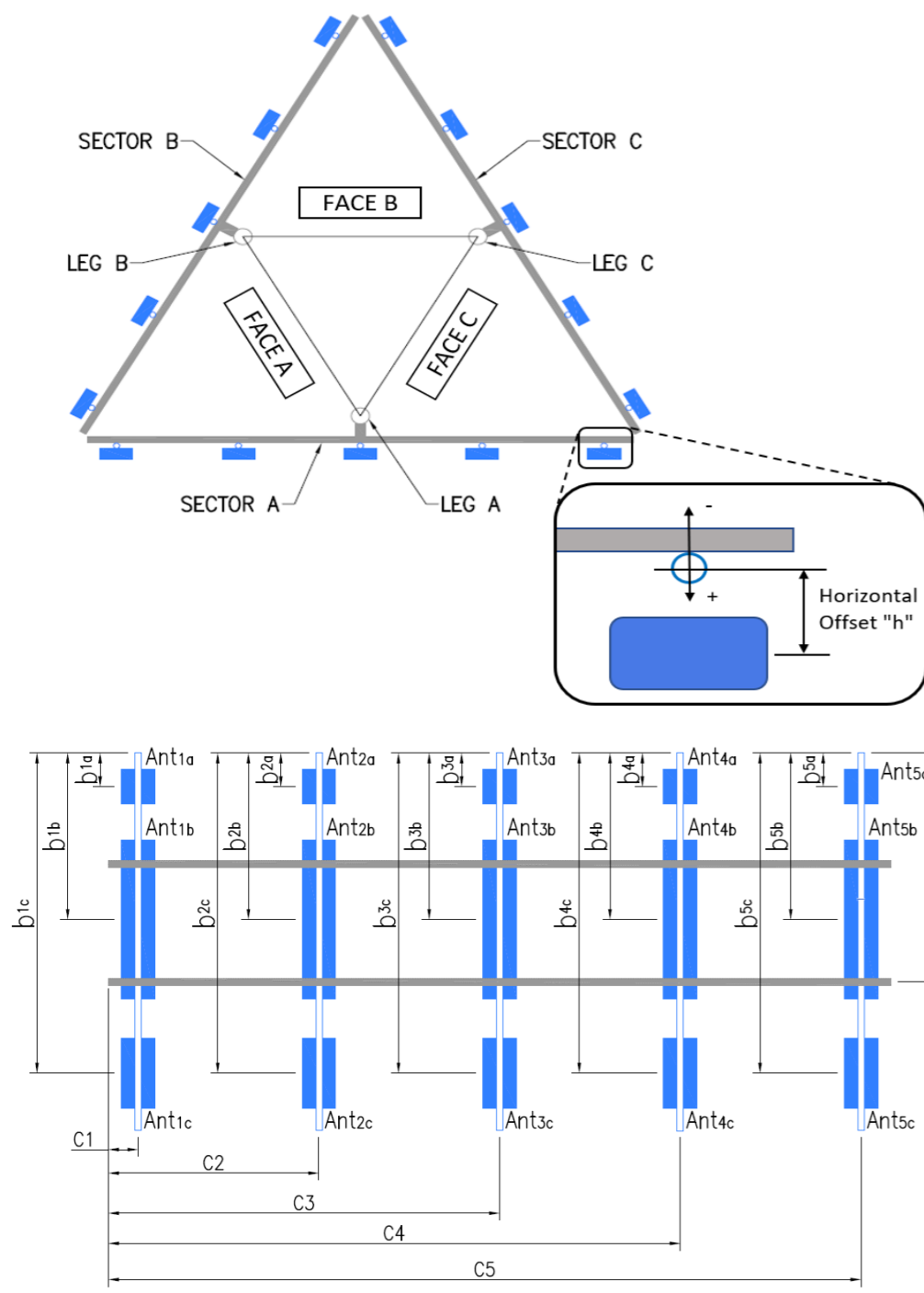
	<b>Antenna Mount Mapping Form (PATENT PENDING)</b>		<b>FCC #</b>
			1278566
<b>Tower Owner:</b>	AMERICAN TOWER CORPORATION	<b>Mapping Date:</b>	3/31/2021
<b>Site Name:</b>	ATC: PINE ORCHARD BRANFORD; VZW: BRANFORD WEST CT	<b>Tower Type:</b>	Monopole
<b>Site Number or ID:</b>	ATC: 283419	<b>Tower Height (Ft.):</b>	124
<b>Mapping Contractor:</b>	RKS Design & Engineering LLC	<b>Mount Elevation (Ft.):</b>	102

This antenna mapping form is the property of TES and under **PATENT PENDING**. The formation 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 TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warranting the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.

Please insert the sketches of the antenna mount from the "Sketches" tab with dimensions and members here.

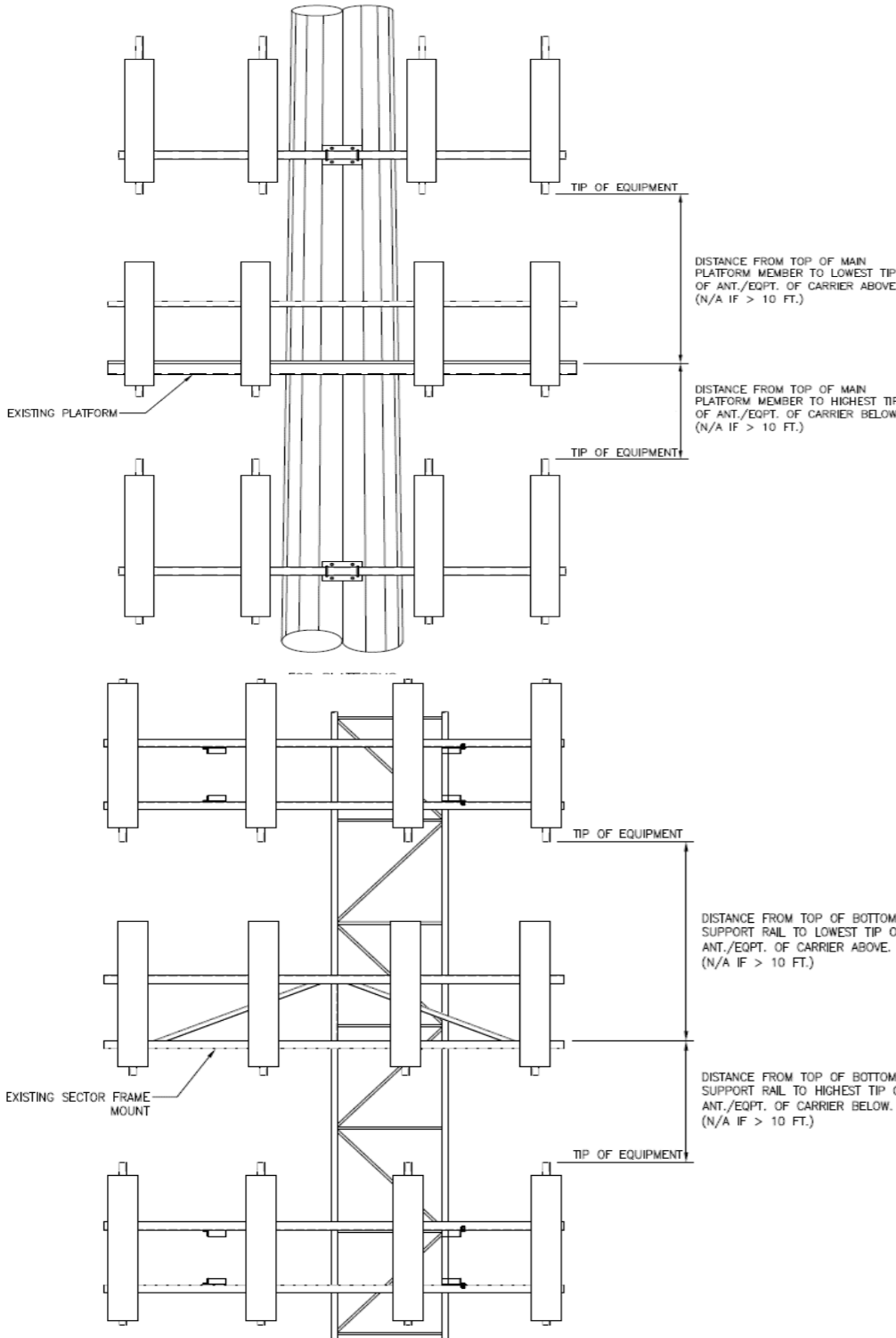
Mount Pipe Configuration and Geometries [Unit = Inches]							
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	PIPE 2.375"Ø X 0.16" X 96" LONG	48.25	3.75	C1	PIPE 2.375"Ø X 0.16" X 96" LONG	48.25	3.75
A2	PIPE 2.375"Ø X 0.16" X 96" LONG	48.25	29.75	C2	PIPE 2.375"Ø X 0.16" X 96" LONG	48.25	29.75
A3	PIPE 2.375"Ø X 0.16" X 103" LONG	37.00	80.75	C3	PIPE 2.375"Ø X 0.16" X 103" LONG	37.00	80.75
A4	PIPE 2.375"Ø X 0.16" X 96" LONG	48.25	139.25	C4	PIPE 2.375"Ø X 0.16" X 96" LONG	48.25	139.25
A5				C5			
A6				C6			
B1	PIPE 2.375"Ø X 0.16" X 96" LONG	48.25	3.75	D1			
B2	PIPE 2.375"Ø X 0.16" X 96" LONG	48.25	29.75	D2			
B3	PIPE 2.375"Ø X 0.16" X 103" LONG	37.00	80.75	D3			
B4	PIPE 2.375"Ø X 0.16" X 96" LONG	48.25	139.25	D4			
B5				D5			
B6				D6			
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :							
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :							
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) : 6.5							
Please enter additional information or comments below.							
Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):		25.75			

Ants. Items	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances "b <sub>1a</sub> , b <sub>2a</sub> , b <sub>3a</sub> , b <sub>1b</sub> ..." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
<b>Sector A</b>										
Ant <sub>1a</sub>										
Ant <sub>1b</sub>	SC-E 6016 REV2	8.50	8.00	86.00		102.104	47.00	14.50	50.00	15, 202
Ant <sub>1c</sub>										
Ant <sub>2a</sub>										
Ant <sub>2b</sub>										
Ant <sub>2c</sub>										
Ant <sub>3a</sub>	B13 RRH4X30	11.80	7.50	20.90		104.125	11.50	-7.50		15, 203
Ant <sub>3b</sub>	(2)SBNHH-1D65B	11.90	7.10	72.00		102.083	36.00	9.00	50.00	15, 203
Ant <sub>3c</sub>	B66A RRH4X45 (UHIE)	11.80	7.20	25.80		100.083	60.00	-7.50		15, 203
Ant <sub>4a</sub>										
Ant <sub>4b</sub>	SC-E 6016 REV2	8.50	8.00	86.00		102.354	44.00	14.50	50.00	15, 204
Ant <sub>4c</sub>										
Ant <sub>5a</sub>										
Ant <sub>5b</sub>										
Ant <sub>5c</sub>										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										



**Antenna Layout (Looking Out From Tower)**

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector				Sector B												
Sector A:	40.00	Deg	Leg A:		Deg	Ant <sub>1a</sub>														
Sector B:	130.00	Deg	Leg B:		Deg	Ant <sub>1b</sub>	LPA-80063-6CF-EDIN-	15.20	13.10	71.10		102.396	43.50	15.00	140.00	22, 205				
Sector C:	210.00	Deg	Leg C:		Deg	Ant <sub>1c</sub>														
Sector D:		Deg	Leg D:		Deg	Ant <sub>2a</sub>														
<b>Climbing Facility Information</b>						Ant <sub>2b</sub>														
Location:		Deg	N/A			Ant <sub>2c</sub>														
Climbing Facility	Corrosion Type:	N/A				Ant <sub>3a</sub>	B13 RRH4X30	11.80	7.50	20.90		104.125	11.50	-7.50		22, 206				
	Access:	Climbing path was unobstructed.				Ant <sub>3b</sub>	(2)SBNHH-1D65B	11.90	7.10	72.00		102.083	36.00	9.00	140.00	22, 206				
	Condition:	Good condition.				Ant <sub>3c</sub>	B66A RRH4X45 (UHIE)	11.80	7.20	25.80		100.083	60.00	-7.50		22, 206				
						Ant <sub>4a</sub>														
						Ant <sub>4b</sub>	LPA-80063-6CF-EDIN-	15.20	13.10	71.10		102.396	43.50	15.00	140.00	22, 207				
						Ant <sub>4c</sub>														
						Ant <sub>5a</sub>														
						Ant <sub>5b</sub>														
						Ant <sub>5c</sub>														
						Ant on Standoff														
						Ant on Standoff														
						Ant on Tower														
						Ant on Tower														
						<b>Sector C</b>														
						Ant <sub>1a</sub>														
						Ant <sub>1b</sub>	LPA-80063-6CF-EDIN-	15.20	13.10	71.10		102.396	43.50	15.00	220.00	29, 208				
						Ant <sub>1c</sub>														
						Ant <sub>2a</sub>														
						Ant <sub>2b</sub>														
						Ant <sub>2c</sub>														
						Ant <sub>3a</sub>	B13 RRH4X30	11.80	7.50	20.90		104.125	11.50	-7.50		29, 209				
						Ant <sub>3b</sub>	(2)SBNHH-1D65B	11.90	7.10	72.00		102.083	36.00	9.00	220.00	29, 209				
						Ant <sub>3c</sub>	B66A RRH4X45 (UHIE)	11.80	7.20	25.80		100.083	60.00	-7.50		29, 209				
						Ant <sub>4a</sub>														
						Ant <sub>4b</sub>	LPA-80063-6CF-EDIN-	15.20	13.10	71.10		102.396	43.50	15.00	220.00	29, 210				
						Ant <sub>4c</sub>														
						Ant <sub>5a</sub>														
						Ant <sub>5b</sub>														
						Ant <sub>5c</sub>														
						Ant on Standoff														
						Ant on Standoff														
						Ant on Tower	RCMDC-6627-PF-48	16.50	12.60	29.50			20.00	8.00		29, 394				
						Ant on Tower														
						<b>Sector D</b>														
						Ant <sub>1a</sub>														
						Ant <sub>1b</sub>														
						Ant <sub>1c</sub>														
						Ant <sub>2a</sub>														
						Ant <sub>2b</sub>														
						Ant <sub>2c</sub>														
						Ant <sub>3a</sub>														
						Ant <sub>3b</sub>														
						Ant <sub>3c</sub>														
						Ant <sub>4a</sub>														
						Ant <sub>4b</sub>														
						Ant <sub>4c</sub>														
						Ant <sub>5a</sub>														
						Ant <sub>5b</sub>														
						Ant <sub>5c</sub>														
						Ant on Standoff														
						Ant on Standoff														
						Ant on Tower														
						Ant on Tower														



Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #

1	COAX TOTAL (14): (12) FH 1-5/8, (2) 1.50"Ø	
2		
3		
4		
5		
6		
7		
8		

**Mapping Notes**

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

**Standard Conditions**

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





**Antenna Mount Mapping Form (PATENT PENDING)**

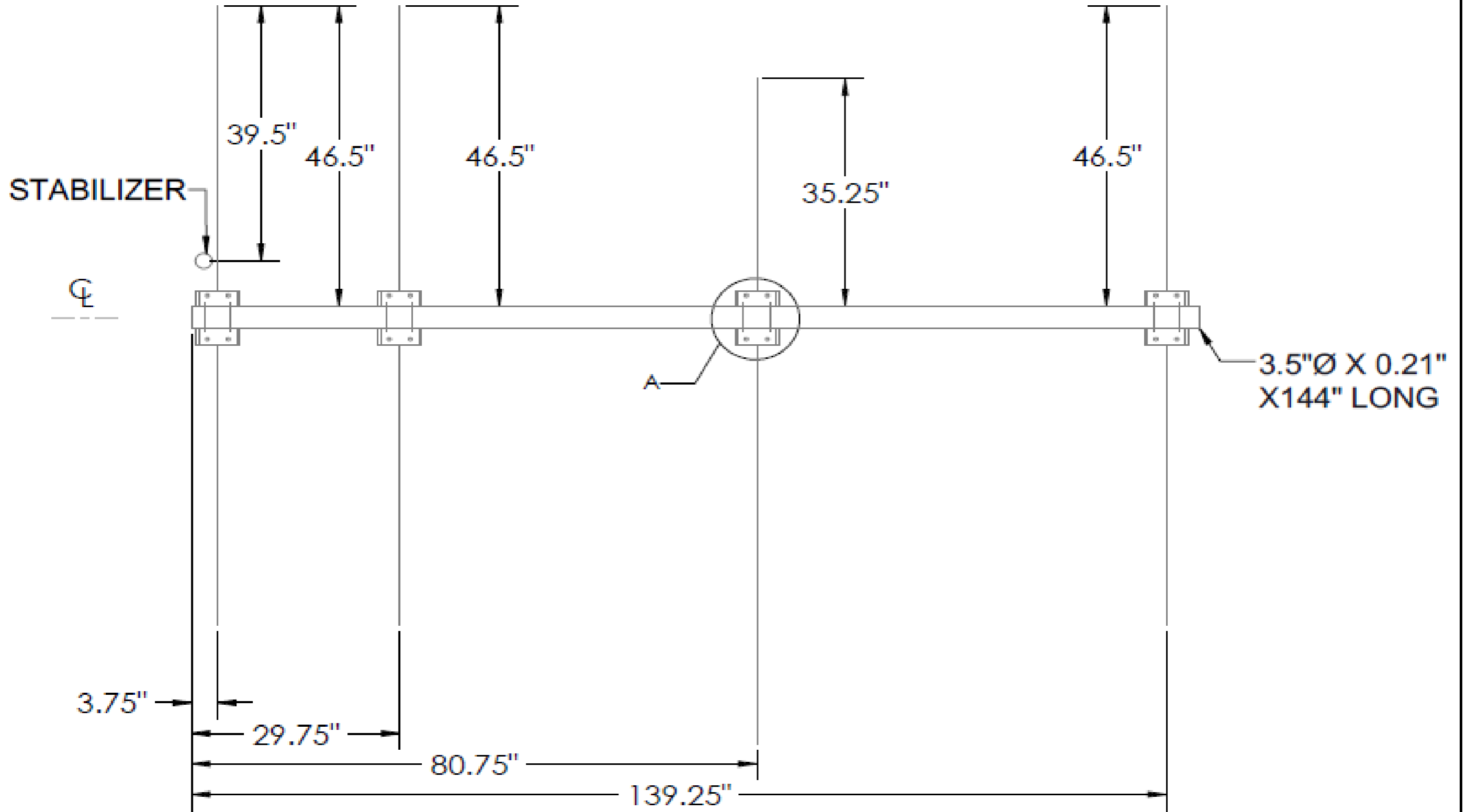
FCC #

1278566

Tower Owner:	AMERICAN TOWER CORPORATION	Mapping Date:	3/31/2021
Site Name:	ATC: PINE ORCHARD BRANFORD; VZW: BRANFORD WEST CT	Tower Type:	Monopole
Site Number or ID:	ATC: 283419	Tower Height (Ft.):	124
Mapping Contractor:	RKS Design & Engineering LLC	Mount Elevation (Ft.):	102

This antenna mapping form is the property of TES and under **PATENT PENDING**. The formation 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 TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warranting the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.

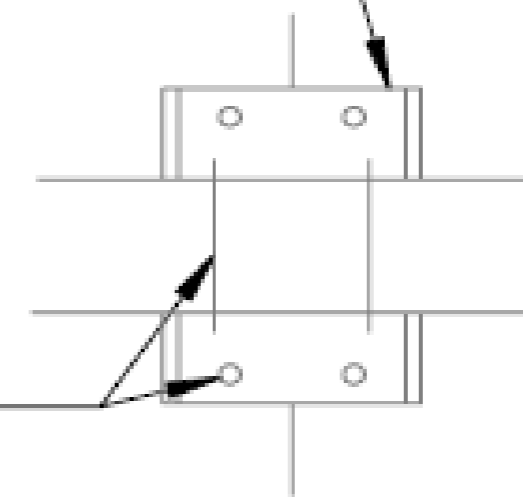
Please Insert Sketches of the Antenna Mount



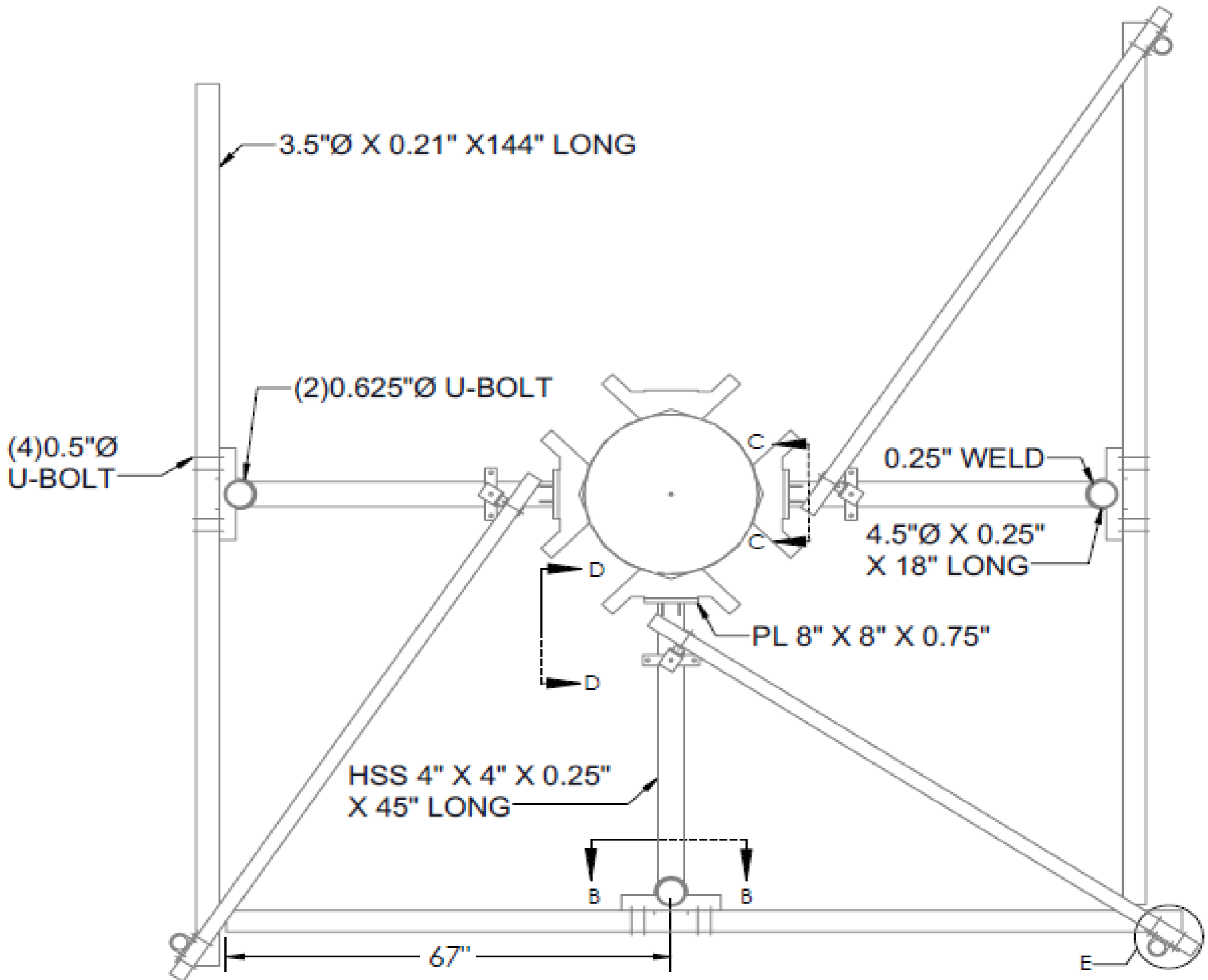
**SECTOR A, B & C**

**C 2.75" X 6" X 0.375"  
X 8.25" LONG**

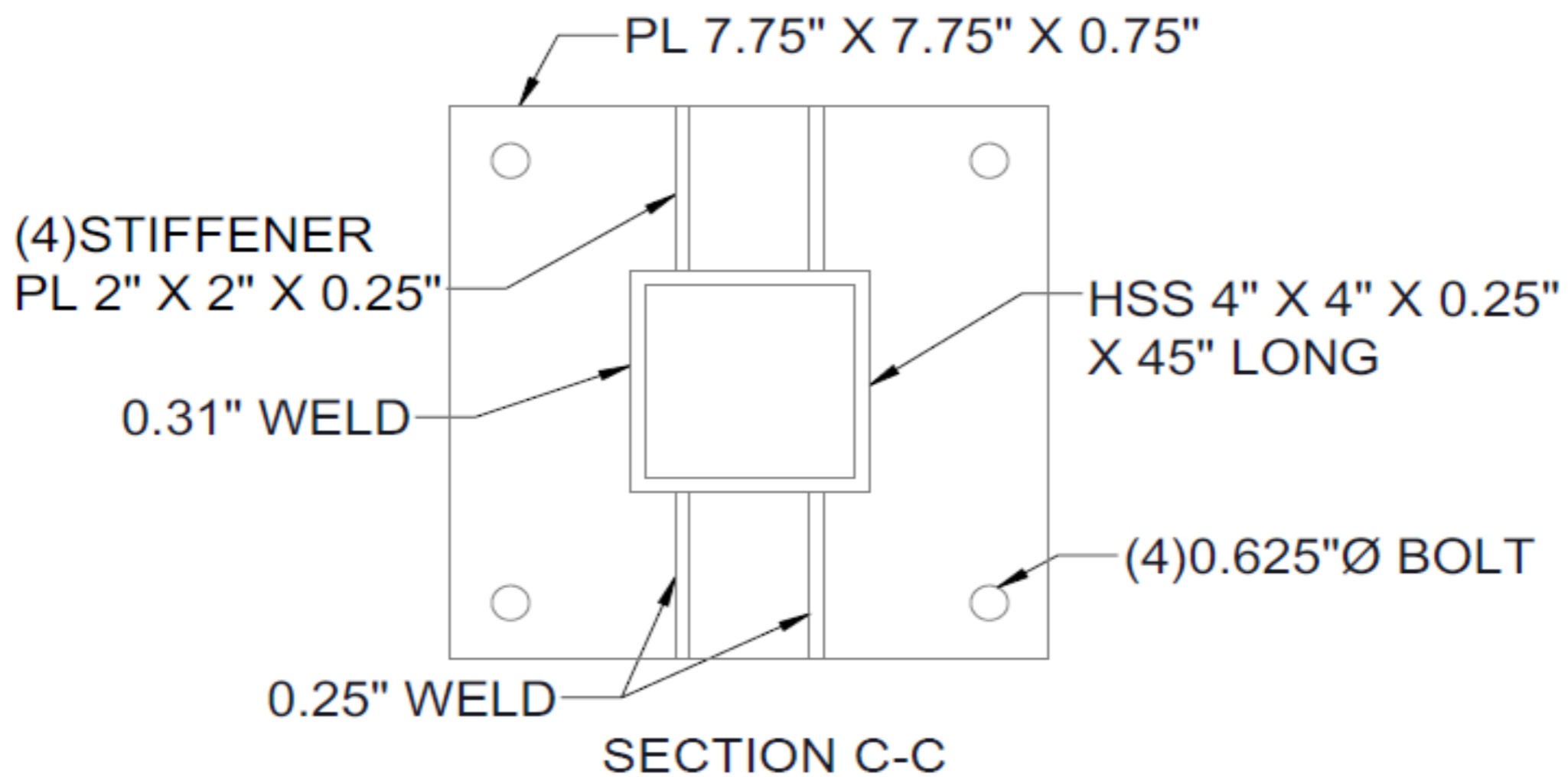
**0.5"Ø  
U-BOLT**

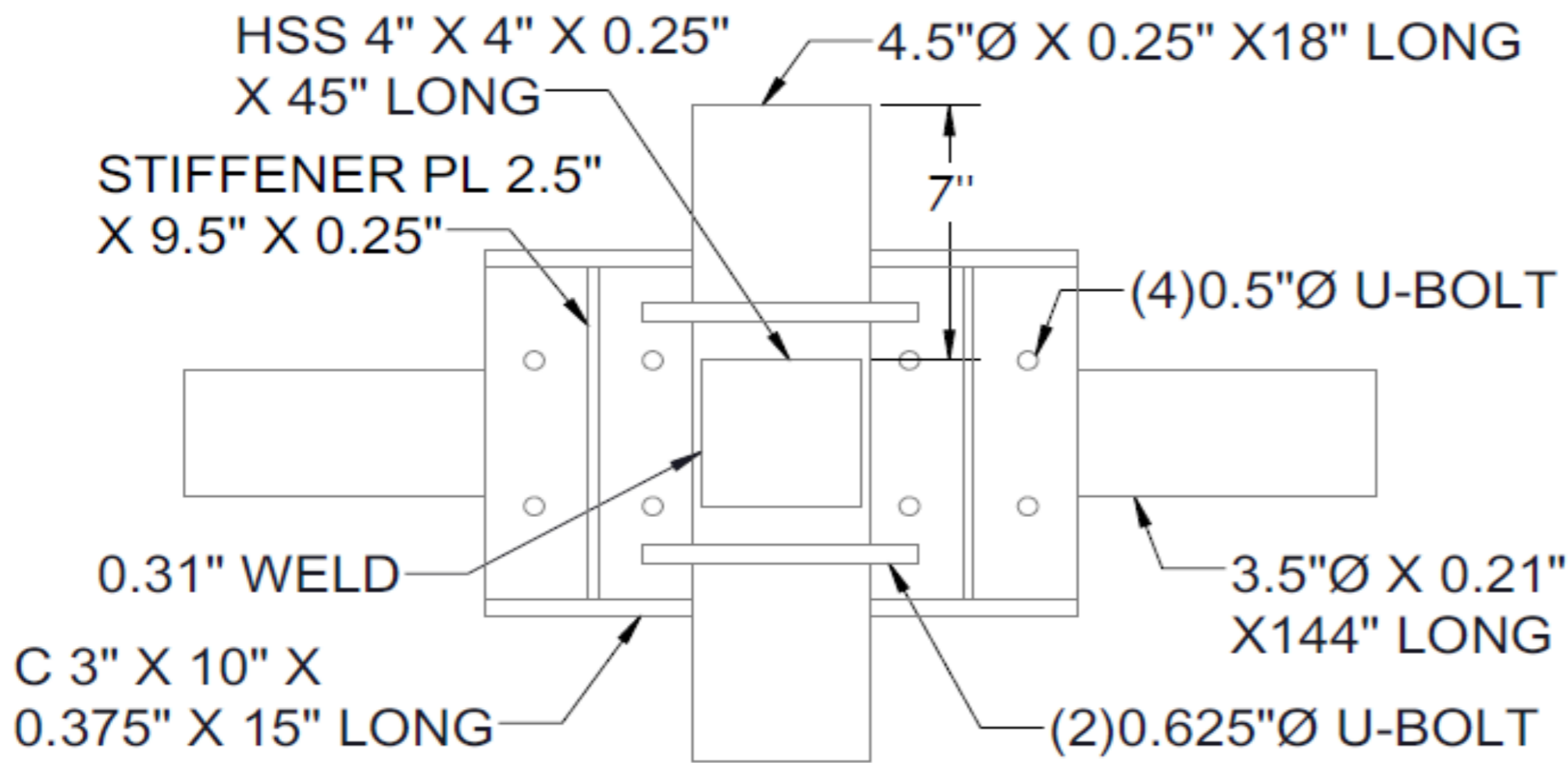


**DETAIL A**

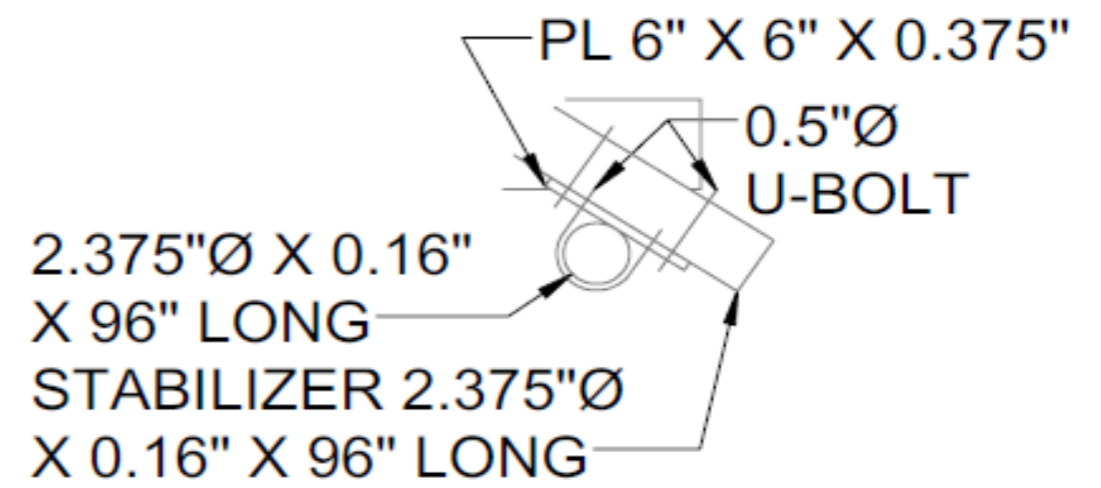


MOUNT PLAN VIEW



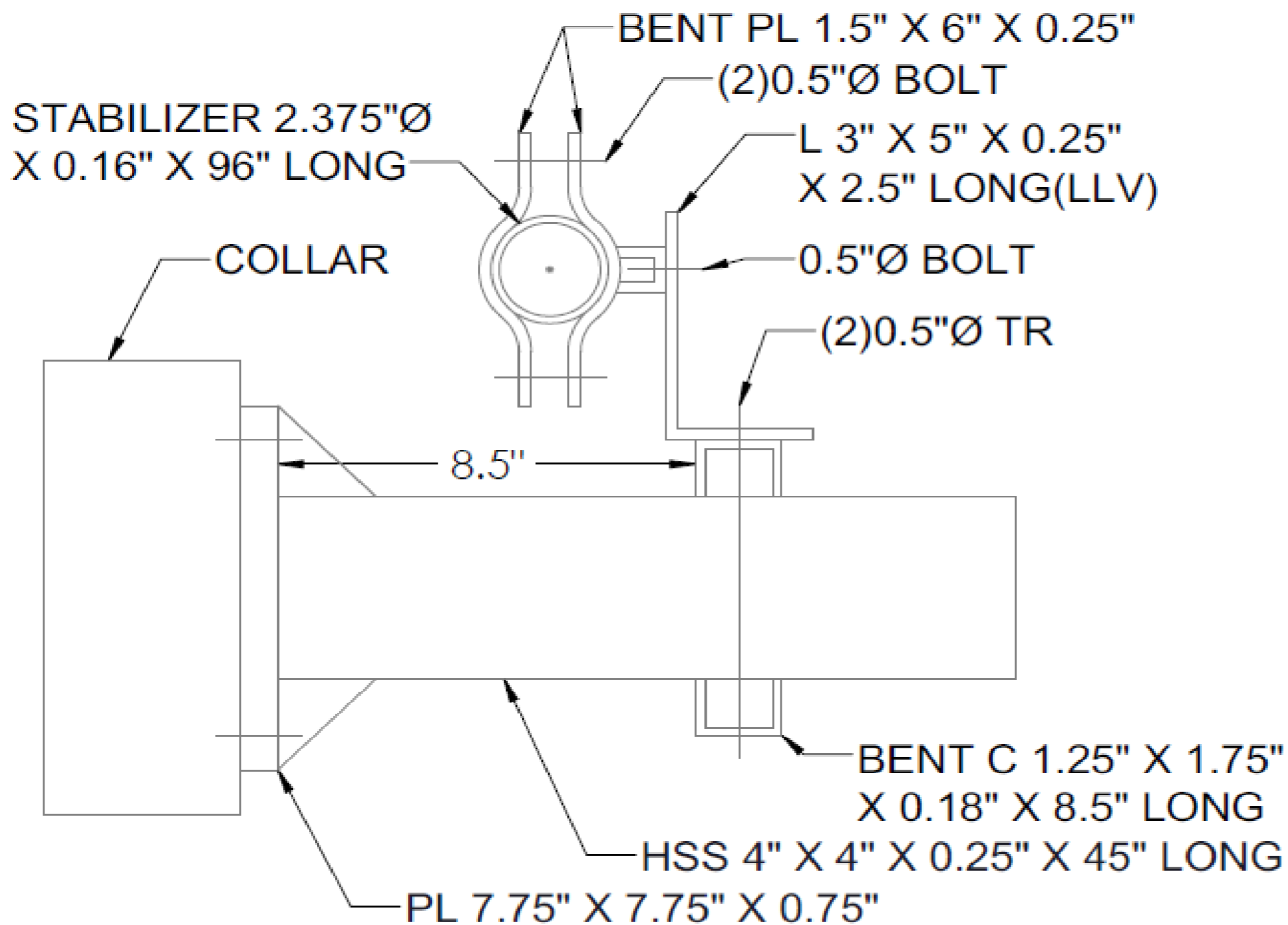


SECTION B-B

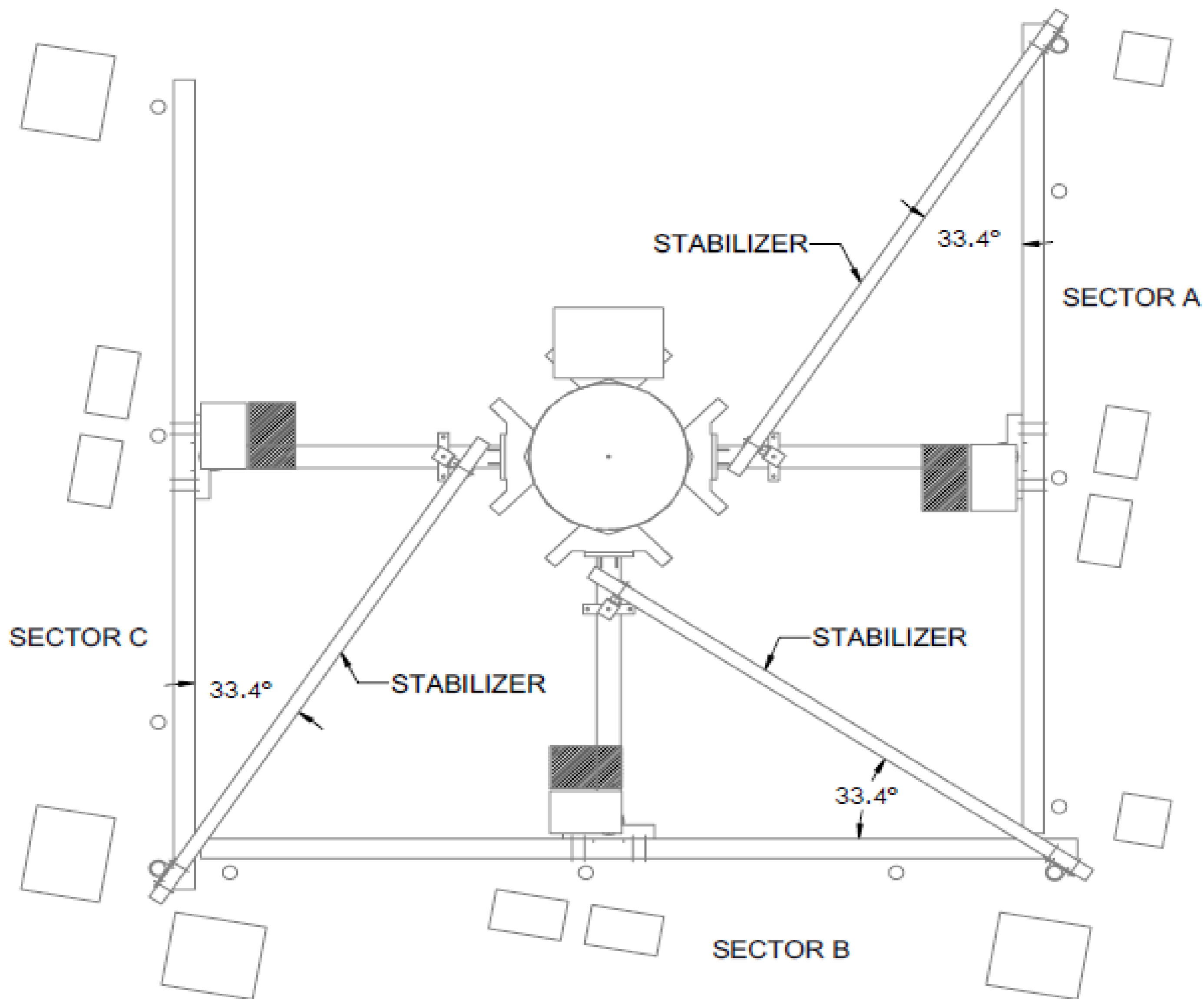


DETAIL E

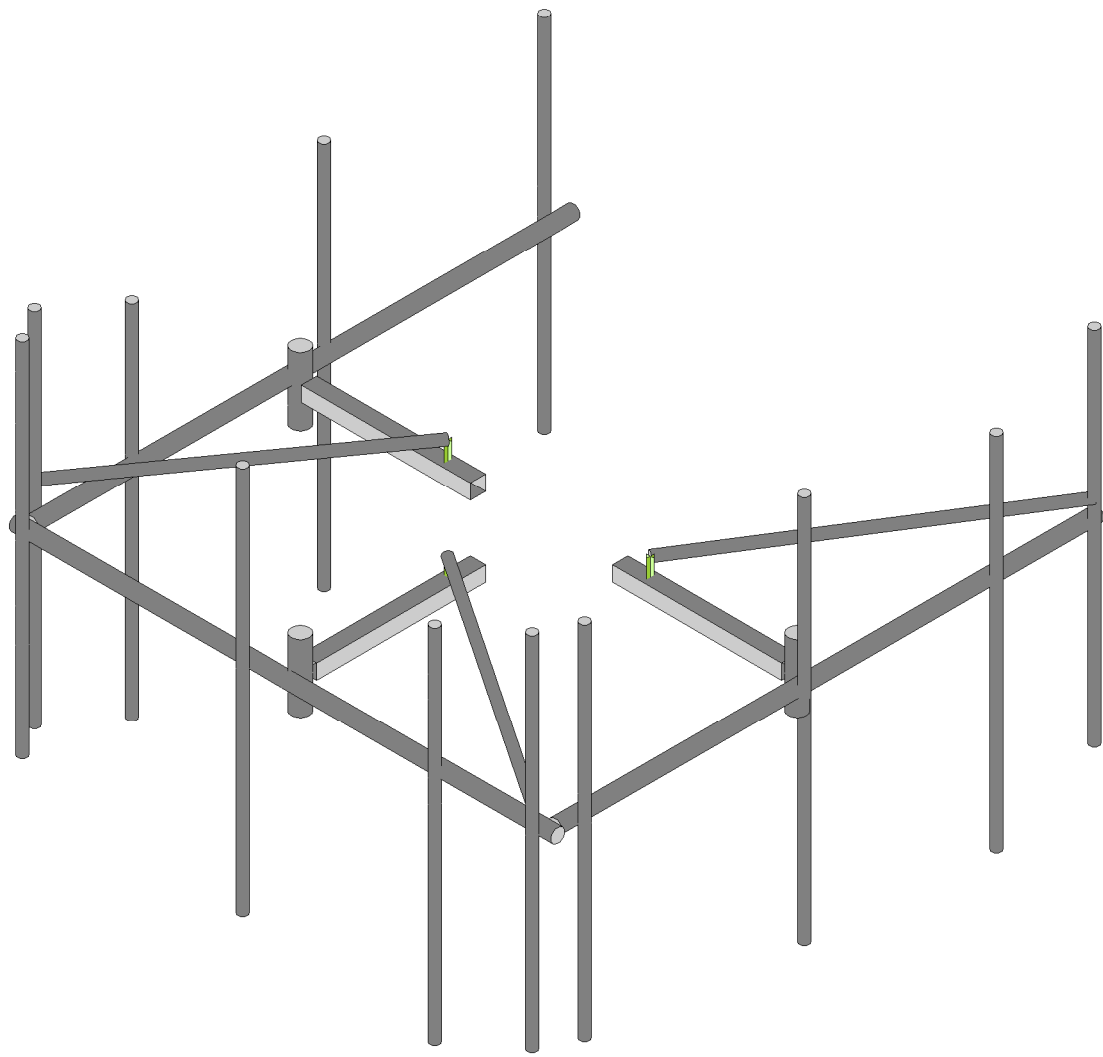
STABILIZER CONNECTION ON  
MOUNT PIPE



SECTION D-D



ANTENNA PLAN VIEW



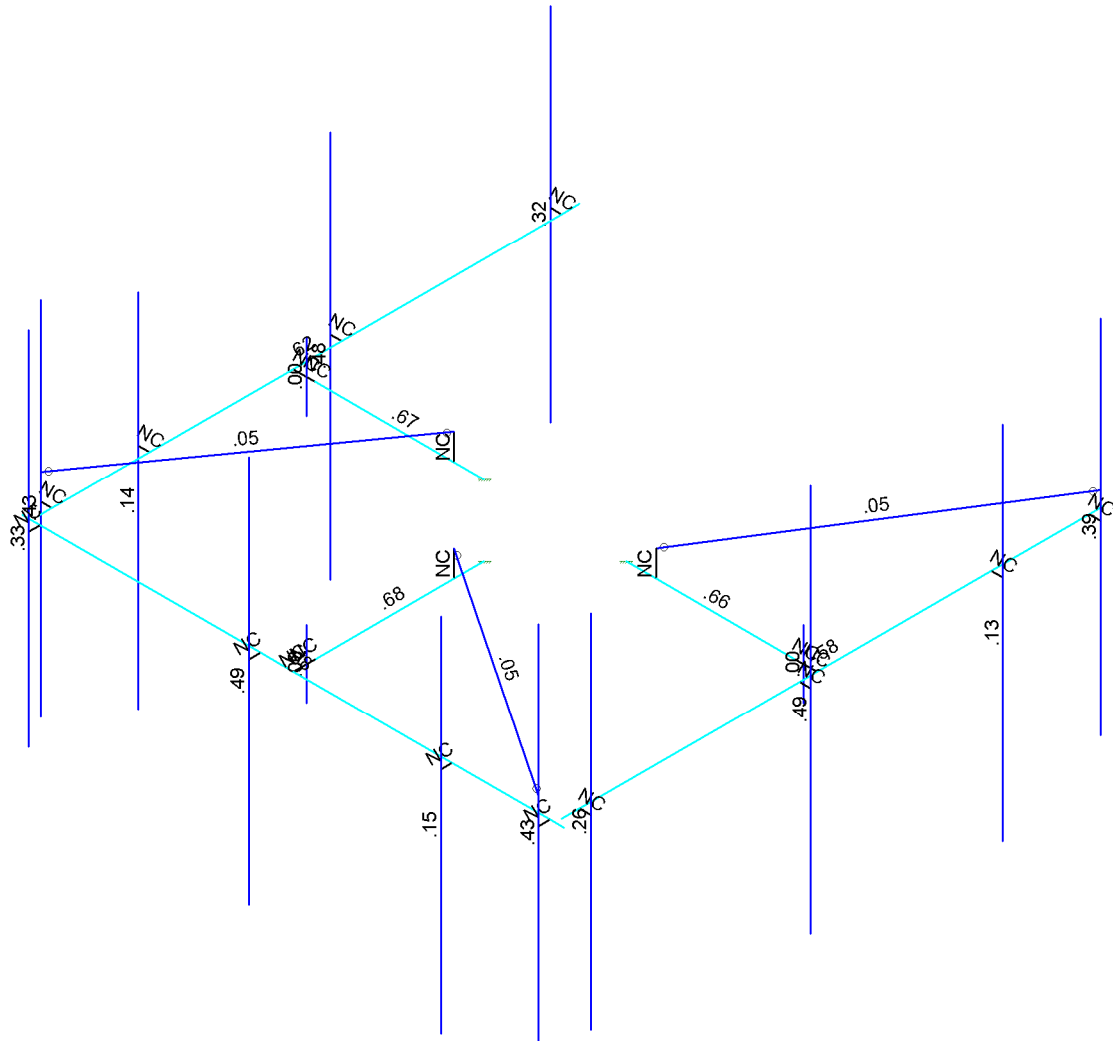
Envelope Only Solution



SK - 1
Jan 9, 2024 at 4:51 PM
5000383581-VZW_MT_LO_H.r3d

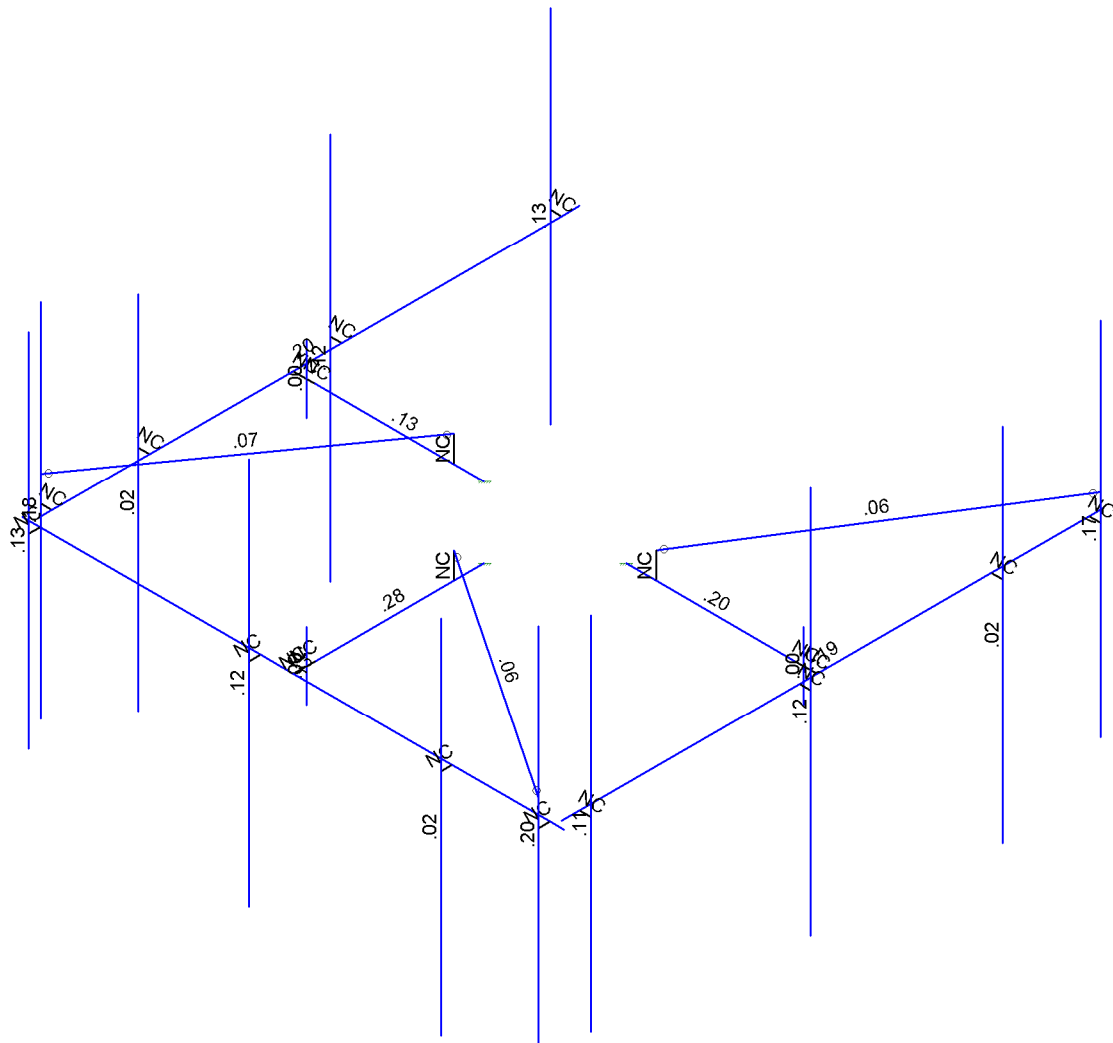


Code Check  
(ENR)  
No Calc  
> 1.0  
50-1.0  
75-90  
50-75  
0-.50



Member Code Checks Displayed (Enveloped)  
Envelope Only Solution

		SK - 2
		Jan 9, 2024 at 4:51 PM
		5000383581-VZW_MT_LO_H.r3d



Member Shear Checks Displayed (Enveloped)  
Envelope Only Solution

		SK - 3
		Jan 9, 2024 at 4:51 PM
		5000383581-VZW_MT_LO_H.r3d



Company :  
 Designer :  
 Job Number :  
 Model Name :

Jan 9, 2024  
 4:52 PM  
 Checked By: \_\_\_\_\_

**Basic Load Cases**

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me... Surface(...	
1	Antenna D	None					117		
2	Antenna Di	None					117		
3	Antenna Wo (0 Deg)	None					117		
4	Antenna Wo (30 Deg)	None					117		
5	Antenna Wo (60 Deg)	None					117		
6	Antenna Wo (90 Deg)	None					117		
7	Antenna Wo (120 Deg)	None					117		
8	Antenna Wo (150 Deg)	None					117		
9	Antenna Wo (180 Deg)	None					117		
10	Antenna Wo (210 Deg)	None					117		
11	Antenna Wo (240 Deg)	None					117		
12	Antenna Wo (270 Deg)	None					117		
13	Antenna Wo (300 Deg)	None					117		
14	Antenna Wo (330 Deg)	None					117		
15	Antenna Wi (0 Deg)	None					117		
16	Antenna Wi (30 Deg)	None					117		
17	Antenna Wi (60 Deg)	None					117		
18	Antenna Wi (90 Deg)	None					117		
19	Antenna Wi (120 Deg)	None					117		
20	Antenna Wi (150 Deg)	None					117		
21	Antenna Wi (180 Deg)	None					117		
22	Antenna Wi (210 Deg)	None					117		
23	Antenna Wi (240 Deg)	None					117		
24	Antenna Wi (270 Deg)	None					117		
25	Antenna Wi (300 Deg)	None					117		
26	Antenna Wi (330 Deg)	None					117		
27	Antenna Wm (0 Deg)	None					117		
28	Antenna Wm (30 Deg)	None					117		
29	Antenna Wm (60 Deg)	None					117		
30	Antenna Wm (90 Deg)	None					117		
31	Antenna Wm (120 Deg)	None					117		
32	Antenna Wm (150 Deg)	None					117		
33	Antenna Wm (180 Deg)	None					117		
34	Antenna Wm (210 Deg)	None					117		
35	Antenna Wm (240 Deg)	None					117		
36	Antenna Wm (270 Deg)	None					117		
37	Antenna Wm (300 Deg)	None					117		
38	Antenna Wm (330 Deg)	None					117		
39	Structure D	None		-1					
40	Structure Di	None						24	
41	Structure Wo (0 Deg)	None						48	
42	Structure Wo (30 Deg)	None						48	
43	Structure Wo (60 Deg)	None						48	
44	Structure Wo (90 Deg)	None						48	
45	Structure Wo (120 Deg)	None						48	
46	Structure Wo (150 Deg)	None						48	
47	Structure Wo (180 Deg)	None						48	
48	Structure Wo (210 Deg)	None						48	
49	Structure Wo (240 Deg)	None						48	
50	Structure Wo (270 Deg)	None						48	
51	Structure Wo (300 Deg)	None						48	
52	Structure Wo (330 Deg)	None						48	
53	Structure Wi (0 Deg)	None						48	





Company :  
 Designer :  
 Job Number :  
 Model Name :

Jan 9, 2024  
 4:52 PM  
 Checked By: \_\_\_\_\_

**Basic Load Cases (Continued)**

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me... Surface(...
54 Structure Wi (30 Deg)	None						48
55 Structure Wi (60 Deg)	None						48
56 Structure Wi (90 Deg)	None						48
57 Structure Wi (120 Deg)	None						48
58 Structure Wi (150 Deg)	None						48
59 Structure Wi (180 Deg)	None						48
60 Structure Wi (210 Deg)	None						48
61 Structure Wi (240 Deg)	None						48
62 Structure Wi (270 Deg)	None						48
63 Structure Wi (300 Deg)	None						48
64 Structure Wi (330 Deg)	None						48
65 Structure Wm (0 Deg)	None						48
66 Structure Wm (30 Deg)	None						48
67 Structure Wm (60 Deg)	None						48
68 Structure Wm (90 Deg)	None						48
69 Structure Wm (120 Deg)	None						48
70 Structure Wm (150 Deg)	None						48
71 Structure Wm (180 Deg)	None						48
72 Structure Wm (210 Deg)	None						48
73 Structure Wm (240 Deg)	None						48
74 Structure Wm (270 Deg)	None						48
75 Structure Wm (300 Deg)	None						48
76 Structure Wm (330 Deg)	None						48
77 Lm1	None					1	
78 Lm2	None					1	
79 Lv1	None					1	
80 Lv2	None					1	
81 Antenna Ev	None					117	
82 Antenna Eh (0 Deg)	None					78	
83 Antenna Eh (90 Deg)	None					78	
84 Structure Ev	ELY		-0.043				
85 Structure Eh (0 Deg)	ELZ			-0.107			
86 Structure Eh (90 Deg)	ELX	0.107					

**Load Combinations**

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



Company :  
 Designer :  
 Job Number :  
 Model Name :

Jan 9, 2024  
 4:52 PM  
 Checked By: \_\_\_\_\_

**Load Combinations (Continued)**

	Description	S...	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
20	1.2D + 1.0Di + 1.0Wi (2...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1						
21	1.2D + 1.0Di + 1.0Wi (2...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1						
22	1.2D + 1.0Di + 1.0Wi (2...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1						
23	1.2D + 1.0Di + 1.0Wi (3...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1						
24	1.2D + 1.0Di + 1.0Wi (3...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1						
25	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1								
26	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1								
27	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1								
28	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1								
29	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1								
30	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1								
31	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1								
32	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1								
33	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1								
34	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1								
35	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1								
36	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1								
37	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1								
38	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1								
39	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1								
40	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1								
41	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1								
42	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1								
43	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1								
44	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1								
45	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1								
46	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1								
47	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1								
48	1.2D + 1.5Lm2 + 1.0W...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1								
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5												
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5												
51	1.4D	Yes	Y		1	1.4	39	1.4														
52	1.2D + 1.0Ev + 1.0Eh (0...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	1	83		ELZ	1	E...			
53	1.2D + 1.0Ev + 1.0Eh (3...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.866	83	.5	ELZ	.866	E...	.5		
54	1.2D + 1.0Ev + 1.0Eh (6...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.5	83	.866	ELZ	.5	E...	.866		
55	1.2D + 1.0Ev + 1.0Eh (9...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82		83	1	ELZ		E...	1		
56	1.2D + 1.0Ev + 1.0Eh (1...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.5	83	.866	ELZ	-.5	E...	.866		
57	1.2D + 1.0Ev + 1.0Eh (1...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.866	83	.5	ELZ	-.866	E...	.5		
58	1.2D + 1.0Ev + 1.0Eh (1...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-1	83		ELZ	-1	E...			
59	1.2D + 1.0Ev + 1.0Eh (2...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.866	83	-.5	ELZ	-.866	E...	-.5		
60	1.2D + 1.0Ev + 1.0Eh (2...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.5	83	-.866	ELZ	-.5	E...	-.866		
61	1.2D + 1.0Ev + 1.0Eh (2...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82		83	-1	ELZ		E...	-1		
62	1.2D + 1.0Ev + 1.0Eh (3...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.5	83	-.866	ELZ	.5	E...	-.866		
63	1.2D + 1.0Ev + 1.0Eh (3...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.866	83	-.5	ELZ	.866	E...	-.5		
64	0.9D - 1.0Ev + 1.0Eh (0...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	1	83		ELZ	1	E...			
65	0.9D - 1.0Ev + 1.0Eh (3...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	.5	ELZ	.866	E...	.5		
66	0.9D - 1.0Ev + 1.0Eh (6...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.5	83	.866	ELZ	.5	E...	.866		
67	0.9D - 1.0Ev + 1.0Eh (9...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82		83	1	ELZ		E...	1		
68	0.9D - 1.0Ev + 1.0Eh (1...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.5	83	.866	ELZ	-.5	E...	.866		
69	0.9D - 1.0Ev + 1.0Eh (1...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.866	83	.5	ELZ	-.866	E...	.5		
70	0.9D - 1.0Ev + 1.0Eh (1...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-1	83		ELZ	-1	E...			
71	0.9D - 1.0Ev + 1.0Eh (2...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.866	83	-.5	ELZ	-.866	E...	-.5		
72	0.9D - 1.0Ev + 1.0Eh (2...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.5	83	-.866	ELZ	-.5	E...	-.866		
73	0.9D - 1.0Ev + 1.0Eh (2...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82		83	-1	ELZ		E...	-1		
74	0.9D - 1.0Ev + 1.0Eh (3...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.5	83	-.866	ELZ	.5	E...	-.866		
75	0.9D - 1.0Ev + 1.0Eh (3...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	-.5	ELZ	.866	E...	-.5		

### Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Dual Mount Pipe	PIPE 2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
3	Tieback	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
4	Standoff Arm	HSS4X4X4	Beam	Tube	A500 Gr.46	Typical	3.37	7.8	7.8	12.8
5	Standoff Pipe	PIPE 4.0	Column	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
6	Horizontal	PIPE 3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69

### Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	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
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	N20			Standoff Arm	Beam	Tube	A500 Gr.46	Typical
2	M2	N4	N3			Standoff Pipe	Column	Pipe	A53 Gr. B	Typical
3	M4	N7	N6			Horizontal	Column	Pipe	A53 Gr. B	Typical
4	MP1B	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	M11	N2	N20			RIGID	None	None	RIGID	Typical
8	MP2B	N18	N19			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
9	M9	N16	N17			RIGID	None	None	RIGID	Typical
10	MP3B	N22A	N23			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
11	M11A	N20A	N21B			RIGID	None	None	RIGID	Typical
12	MP4B	N26	N27			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
13	M13	N24	N25			RIGID	None	None	RIGID	Typical
14	M14	N29	N41			Standoff Arm	Beam	Tube	A500 Gr.46	Typical
15	M15	N32	N31		270	Standoff Pipe	Column	Pipe	A53 Gr. B	Typical
16	M16	N35	N34			Horizontal	Column	Pipe	A53 Gr. B	Typical
17	MP1A	N38	N39		270	Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
18	M18	N36	N37			RIGID	None	None	RIGID	Typical
19	M19	N30	N33			RIGID	None	None	RIGID	Typical
20	M20	N30	N41			RIGID	None	None	RIGID	Typical
21	MP2A	N45	N46		270	Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
22	M22	N43	N44			RIGID	None	None	RIGID	Typical
23	MP3A	N49	N50		270	Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
24	M24	N47	N48			RIGID	None	None	RIGID	Typical
25	MP4A	N53	N54		270	Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
26	M26	N51	N52			RIGID	None	None	RIGID	Typical
27	M27	N55A	N67			Standoff Arm	Beam	Tube	A500 Gr.46	Typical
28	M28	N58	N57		90	Standoff Pipe	Column	Pipe	A53 Gr. B	Typical
29	M29	N61	N60			Horizontal	Column	Pipe	A53 Gr. B	Typical
30	MP1C	N64	N65		90	Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
31	M31	N62	N63			RIGID	None	None	RIGID	Typical
32	M32	N56	N59			RIGID	None	None	RIGID	Typical
33	M33	N56	N67			RIGID	None	None	RIGID	Typical
34	MP2C	N71	N72		90	Antenna Pipe	Column	Pipe	A53 Gr. B	Typical

**Member Primary Data (Continued)**

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
35	M35	N69	N70			RIGID	None	None	RIGID	Typical
36	MP3C	N75	N76		90	Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
37	M37	N73	N74			RIGID	None	None	RIGID	Typical
38	MP4C	N79	N80		90	Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
39	M39	N77	N78			RIGID	None	None	RIGID	Typical
40	M40	N81A	N84			RIGID	None	None	RIGID	Typical
41	M41	N82	N85			RIGID	None	None	RIGID	Typical
42	M42	N83	N86			RIGID	None	None	RIGID	Typical
43	M43	N88	N86			Tieback	Column	Pipe	A53 Gr. B	Typical
44	M44	N87	N84			Tieback	Column	Pipe	A53 Gr. B	Typical
45	M45	N89	N85			Tieback	Column	Pipe	A53 Gr. B	Typical

**Member Advanced Data**

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes	Default			None
2	M2						Yes	** NA **			None
3	M4						Yes	** NA **			None
4	MP1B						Yes	** NA **			None
5	M8						Yes	** NA **			None
6	M10A						Yes	** NA **			None
7	M11						Yes	** NA **			None
8	MP2B						Yes	** NA **			None
9	M9						Yes	** NA **			None
10	MP3B						Yes	** NA **			None
11	M11A						Yes	** NA **			None
12	MP4B						Yes	** NA **			None
13	M13						Yes	** NA **			None
14	M14						Yes	Default			None
15	M15						Yes	** NA **			None
16	M16						Yes	** NA **			None
17	MP1A						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M19						Yes	** NA **			None
20	M20						Yes	** NA **			None
21	MP2A						Yes	** NA **			None
22	M22						Yes	** NA **			None
23	MP3A						Yes	** NA **			None
24	M24						Yes	** NA **			None
25	MP4A						Yes	** NA **			None
26	M26						Yes	** NA **			None
27	M27						Yes	Default			None
28	M28						Yes	** NA **			None
29	M29						Yes	** NA **			None
30	MP1C						Yes	** NA **			None
31	M31						Yes	** NA **			None
32	M32						Yes	** NA **			None
33	M33						Yes	** NA **			None
34	MP2C						Yes	** NA **			None
35	M35						Yes	** NA **			None
36	MP3C						Yes	** NA **			None
37	M37						Yes	** NA **			None
38	MP4C						Yes	** NA **			None
39	M39						Yes	** NA **			None
40	M40						Yes	** NA **			None
41	M41						Yes	** NA **			None



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**Member Advanced Data (Continued)**

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
42	M42						Yes	** NA **			None
43	M43	BenPIN	BenPIN				Yes	** NA **			None
44	M44	BenPIN	BenPIN				Yes	** NA **			None
45	M45	BenPIN	BenPIN				Yes	** NA **			None

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	Y	-31.65	1.63
2	MP3A	My	.024	1.63
3	MP3A	Mz	.024	1.63
4	MP3A	Y	-31.65	5.13
5	MP3A	My	.024	5.13
6	MP3A	Mz	.024	5.13
7	MP3B	Y	-31.65	1.63
8	MP3B	My	-.024	1.63
9	MP3B	Mz	.024	1.63
10	MP3B	Y	-31.65	5.13
11	MP3B	My	-.024	5.13
12	MP3B	Mz	.024	5.13
13	MP3C	Y	-31.65	1.63
14	MP3C	My	-.019	1.63
15	MP3C	Mz	-.027	1.63
16	MP3C	Y	-31.65	5.13
17	MP3C	My	-.019	5.13
18	MP3C	Mz	-.027	5.13
19	MP3A	Y	-31.65	1.63
20	MP3A	My	-.024	1.63
21	MP3A	Mz	.024	1.63
22	MP3A	Y	-31.65	5.13
23	MP3A	My	-.024	5.13
24	MP3A	Mz	.024	5.13
25	MP3B	Y	-31.65	1.63
26	MP3B	My	-.024	1.63
27	MP3B	Mz	-.024	1.63
28	MP3B	Y	-31.65	5.13
29	MP3B	My	-.024	5.13
30	MP3B	Mz	-.024	5.13
31	MP3C	Y	-31.65	1.63
32	MP3C	My	.027	1.63
33	MP3C	Mz	-.019	1.63
34	MP3C	Y	-31.65	5.13
35	MP3C	My	.027	5.13
36	MP3C	Mz	-.019	5.13
37	MP2A	Y	-28.65	1.43
38	MP2A	My	0	1.43
39	MP2A	Mz	.014	1.43
40	MP2A	Y	-28.65	3.43
41	MP2A	My	0	3.43
42	MP2A	Mz	.014	3.43
43	MP2B	Y	-28.65	1.43
44	MP2B	My	-.014	1.43
45	MP2B	Mz	0	1.43
46	MP2B	Y	-28.65	3.43
47	MP2B	My	-.014	3.43
48	MP2B	Mz	0	3.43

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
49	MP2C	Y	-28.65	1.43
50	MP2C	My	.002	1.43
51	MP2C	Mz	-.014	1.43
52	MP2C	Y	-28.65	3.43
53	MP2C	My	.002	3.43
54	MP2C	Mz	-.014	3.43
55	MP1B	Y	-13.5	.63
56	MP1B	My	-.017	.63
57	MP1B	Mz	0	.63
58	MP1B	Y	-13.5	5.88
59	MP1B	My	-.017	5.88
60	MP1B	Mz	0	5.88
61	MP1C	Y	-13.5	.63
62	MP1C	My	.003	.63
63	MP1C	Mz	-.017	.63
64	MP1C	Y	-13.5	5.88
65	MP1C	My	.003	5.88
66	MP1C	Mz	-.017	5.88
67	MP4B	Y	-13.5	.63
68	MP4B	My	-.017	.63
69	MP4B	Mz	0	.63
70	MP4B	Y	-13.5	5.88
71	MP4B	My	-.017	5.88
72	MP4B	Mz	0	5.88
73	MP4C	Y	-13.5	.63
74	MP4C	My	.003	.63
75	MP4C	Mz	-.017	.63
76	MP4C	Y	-13.5	5.88
77	MP4C	My	.003	5.88
78	MP4C	Mz	-.017	5.88
79	MP1A	Y	-12.5	.63
80	MP1A	My	0	.63
81	MP1A	Mz	.015	.63
82	MP1A	Y	-12.5	5.88
83	MP1A	My	0	5.88
84	MP1A	Mz	.015	5.88
85	MP4A	Y	-12.5	.63
86	MP4A	My	0	.63
87	MP4A	Mz	.015	.63
88	MP4A	Y	-12.5	5.88
89	MP4A	My	0	5.88
90	MP4A	Mz	.015	5.88
91	MP3A	Y	-10.4	4.5
92	MP3A	My	0	4.5
93	MP3A	Mz	-.004	4.5
94	MP3B	Y	-10.4	4.5
95	MP3B	My	.004	4.5
96	MP3B	Mz	0	4.5
97	MP3C	Y	-10.4	4.5
98	MP3C	My	-.000752	4.5
99	MP3C	Mz	.004	4.5
100	MP2A	Y	-79.1	1
101	MP2A	My	0	1
102	MP2A	Mz	-.049	1
103	MP2B	Y	-79.1	1
104	MP2B	My	.049	1
105	MP2B	Mz	0	1





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
106	MP2C	Y	-79.1	1
107	MP2C	My	-.009	1
108	MP2C	Mz	.049	1
109	MP3A	Y	-74.7	1
110	MP3A	My	0	1
111	MP3A	Mz	-.047	1
112	MP3B	Y	-74.7	1
113	MP3B	My	.047	1
114	MP3B	Mz	0	1
115	MP3C	Y	-74.7	1
116	MP3C	My	-.008	1
117	MP3C	Mz	.046	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	Y	-67.627	1.63
2	MP3A	My	.051	1.63
3	MP3A	Mz	.051	1.63
4	MP3A	Y	-67.627	5.13
5	MP3A	My	.051	5.13
6	MP3A	Mz	.051	5.13
7	MP3B	Y	-67.627	1.63
8	MP3B	My	-.051	1.63
9	MP3B	Mz	.051	1.63
10	MP3B	Y	-67.627	5.13
11	MP3B	My	-.051	5.13
12	MP3B	Mz	.051	5.13
13	MP3C	Y	-67.627	1.63
14	MP3C	My	-.041	1.63
15	MP3C	Mz	-.059	1.63
16	MP3C	Y	-67.627	5.13
17	MP3C	My	-.041	5.13
18	MP3C	Mz	-.059	5.13
19	MP3A	Y	-67.627	1.63
20	MP3A	My	-.051	1.63
21	MP3A	Mz	.051	1.63
22	MP3A	Y	-67.627	5.13
23	MP3A	My	-.051	5.13
24	MP3A	Mz	.051	5.13
25	MP3B	Y	-67.627	1.63
26	MP3B	My	-.051	1.63
27	MP3B	Mz	-.051	1.63
28	MP3B	Y	-67.627	5.13
29	MP3B	My	-.051	5.13
30	MP3B	Mz	-.051	5.13
31	MP3C	Y	-67.627	1.63
32	MP3C	My	.059	1.63
33	MP3C	Mz	-.041	1.63
34	MP3C	Y	-67.627	5.13
35	MP3C	My	.059	5.13
36	MP3C	Mz	-.041	5.13
37	MP2A	Y	-28.767	1.43
38	MP2A	My	0	1.43
39	MP2A	Mz	.014	1.43
40	MP2A	Y	-28.767	3.43
41	MP2A	My	0	3.43

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
42	MP2A	Mz	.014	3.43
43	MP2B	Y	-28.767	1.43
44	MP2B	My	-.014	1.43
45	MP2B	Mz	0	1.43
46	MP2B	Y	-28.767	3.43
47	MP2B	My	-.014	3.43
48	MP2B	Mz	0	3.43
49	MP2C	Y	-28.767	1.43
50	MP2C	My	.002	1.43
51	MP2C	Mz	-.014	1.43
52	MP2C	Y	-28.767	3.43
53	MP2C	My	.002	3.43
54	MP2C	Mz	-.014	3.43
55	MP1B	Y	-86.612	.63
56	MP1B	My	-.108	.63
57	MP1B	Mz	0	.63
58	MP1B	Y	-86.612	5.88
59	MP1B	My	-.108	5.88
60	MP1B	Mz	0	5.88
61	MP1C	Y	-86.612	.63
62	MP1C	My	.019	.63
63	MP1C	Mz	-.107	.63
64	MP1C	Y	-86.612	5.88
65	MP1C	My	.019	5.88
66	MP1C	Mz	-.107	5.88
67	MP4B	Y	-86.612	.63
68	MP4B	My	-.108	.63
69	MP4B	Mz	0	.63
70	MP4B	Y	-86.612	5.88
71	MP4B	My	-.108	5.88
72	MP4B	Mz	0	5.88
73	MP4C	Y	-86.612	.63
74	MP4C	My	.019	.63
75	MP4C	Mz	-.107	.63
76	MP4C	Y	-86.612	5.88
77	MP4C	My	.019	5.88
78	MP4C	Mz	-.107	5.88
79	MP1A	Y	-60.548	.63
80	MP1A	My	0	.63
81	MP1A	Mz	.073	.63
82	MP1A	Y	-60.548	5.88
83	MP1A	My	0	5.88
84	MP1A	Mz	.073	5.88
85	MP4A	Y	-60.548	.63
86	MP4A	My	0	.63
87	MP4A	Mz	.073	.63
88	MP4A	Y	-60.548	5.88
89	MP4A	My	0	5.88
90	MP4A	Mz	.073	5.88
91	MP3A	Y	-10.33	4.5
92	MP3A	My	0	4.5
93	MP3A	Mz	-.004	4.5
94	MP3B	Y	-10.33	4.5
95	MP3B	My	.004	4.5
96	MP3B	Mz	0	4.5
97	MP3C	Y	-10.33	4.5
98	MP3C	My	-.000747	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
99	MP3C	Mz	.004	4.5
100	MP2A	Y	-43.823	1
101	MP2A	My	0	1
102	MP2A	Mz	-.027	1
103	MP2B	Y	-43.823	1
104	MP2B	My	.027	1
105	MP2B	Mz	0	1
106	MP2C	Y	-43.823	1
107	MP2C	My	-.005	1
108	MP2C	Mz	.027	1
109	MP3A	Y	-43.363	1
110	MP3A	My	0	1
111	MP3A	Mz	-.027	1
112	MP3B	Y	-43.363	1
113	MP3B	My	.027	1
114	MP3B	Mz	0	1
115	MP3C	Y	-43.363	1
116	MP3C	My	-.005	1
117	MP3C	Mz	.027	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1.63
2	MP3A	Z	-101.413	1.63
3	MP3A	Mx	-.076	1.63
4	MP3A	X	0	5.13
5	MP3A	Z	-101.413	5.13
6	MP3A	Mx	-.076	5.13
7	MP3B	X	0	1.63
8	MP3B	Z	-154.407	1.63
9	MP3B	Mx	-.116	1.63
10	MP3B	X	0	5.13
11	MP3B	Z	-154.407	5.13
12	MP3B	Mx	-.116	5.13
13	MP3C	X	0	1.63
14	MP3C	Z	-103.011	1.63
15	MP3C	Mx	.089	1.63
16	MP3C	X	0	5.13
17	MP3C	Z	-103.011	5.13
18	MP3C	Mx	.089	5.13
19	MP3A	X	0	1.63
20	MP3A	Z	-101.413	1.63
21	MP3A	Mx	-.076	1.63
22	MP3A	X	0	5.13
23	MP3A	Z	-101.413	5.13
24	MP3A	Mx	-.076	5.13
25	MP3B	X	0	1.63
26	MP3B	Z	-154.407	1.63
27	MP3B	Mx	.116	1.63
28	MP3B	X	0	5.13
29	MP3B	Z	-154.407	5.13
30	MP3B	Mx	.116	5.13
31	MP3C	X	0	1.63
32	MP3C	Z	-103.011	1.63
33	MP3C	Mx	.063	1.63
34	MP3C	X	0	5.13

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
35	MP3C	Z	-103.011	5.13
36	MP3C	Mx	.063	5.13
37	MP2A	X	0	1.43
38	MP2A	Z	-18.814	1.43
39	MP2A	Mx	-.009	1.43
40	MP2A	X	0	3.43
41	MP2A	Z	-18.814	3.43
42	MP2A	Mx	-.009	3.43
43	MP2B	X	0	1.43
44	MP2B	Z	-53.559	1.43
45	MP2B	Mx	0	1.43
46	MP2B	X	0	3.43
47	MP2B	Z	-53.559	3.43
48	MP2B	Mx	0	3.43
49	MP2C	X	0	1.43
50	MP2C	Z	-19.861	1.43
51	MP2C	Mx	.01	1.43
52	MP2C	X	0	3.43
53	MP2C	Z	-19.861	3.43
54	MP2C	Mx	.01	3.43
55	MP1B	X	0	.63
56	MP1B	Z	-165.424	.63
57	MP1B	Mx	0	.63
58	MP1B	X	0	5.88
59	MP1B	Z	-165.424	5.88
60	MP1B	Mx	0	5.88
61	MP1C	X	0	.63
62	MP1C	Z	-146.41	.63
63	MP1C	Mx	.18	.63
64	MP1C	X	0	5.88
65	MP1C	Z	-146.41	5.88
66	MP1C	Mx	.18	5.88
67	MP4B	X	0	.63
68	MP4B	Z	-165.424	.63
69	MP4B	Mx	0	.63
70	MP4B	X	0	5.88
71	MP4B	Z	-165.424	5.88
72	MP4B	Mx	0	5.88
73	MP4C	X	0	.63
74	MP4C	Z	-146.41	.63
75	MP4C	Mx	.18	.63
76	MP4C	X	0	5.88
77	MP4C	Z	-146.41	5.88
78	MP4C	Mx	.18	5.88
79	MP1A	X	0	.63
80	MP1A	Z	-123.494	.63
81	MP1A	Mx	-.149	.63
82	MP1A	X	0	5.88
83	MP1A	Z	-123.494	5.88
84	MP1A	Mx	-.149	5.88
85	MP4A	X	0	.63
86	MP4A	Z	-123.494	.63
87	MP4A	Mx	-.149	.63
88	MP4A	X	0	5.88
89	MP4A	Z	-123.494	5.88
90	MP4A	Mx	-.149	5.88
91	MP3A	X	0	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
92	MP3A	Z	-8.678	4.5
93	MP3A	Mx	.004	4.5
94	MP3B	X	0	4.5
95	MP3B	Z	-12.542	4.5
96	MP3B	Mx	0	4.5
97	MP3C	X	0	4.5
98	MP3C	Z	-8.795	4.5
99	MP3C	Mx	-.004	4.5
100	MP2A	X	0	1
101	MP2A	Z	-43.22	1
102	MP2A	Mx	.027	1
103	MP2B	X	0	1
104	MP2B	Z	-63.39	1
105	MP2B	Mx	0	1
106	MP2C	X	0	1
107	MP2C	Z	-43.829	1
108	MP2C	Mx	-.027	1
109	MP3A	X	0	1
110	MP3A	Z	-35.254	1
111	MP3A	Mx	.022	1
112	MP3B	X	0	1
113	MP3B	Z	-52.542	1
114	MP3B	Mx	0	1
115	MP3C	X	0	1
116	MP3C	Z	-35.776	1
117	MP3C	Mx	-.022	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	57.331	1.63
2	MP3A	Z	-99.3	1.63
3	MP3A	Mx	-.031	1.63
4	MP3A	X	57.331	5.13
5	MP3A	Z	-99.3	5.13
6	MP3A	Mx	-.031	5.13
7	MP3B	X	70.579	1.63
8	MP3B	Z	-122.247	1.63
9	MP3B	Mx	-.145	1.63
10	MP3B	X	70.579	5.13
11	MP3B	Z	-122.247	5.13
12	MP3B	Mx	-.145	5.13
13	MP3C	X	53.806	1.63
14	MP3C	Z	-93.195	1.63
15	MP3C	Mx	.048	1.63
16	MP3C	X	53.806	5.13
17	MP3C	Z	-93.195	5.13
18	MP3C	Mx	.048	5.13
19	MP3A	X	57.331	1.63
20	MP3A	Z	-99.3	1.63
21	MP3A	Mx	-.117	1.63
22	MP3A	X	57.331	5.13
23	MP3A	Z	-99.3	5.13
24	MP3A	Mx	-.117	5.13
25	MP3B	X	70.579	1.63
26	MP3B	Z	-122.247	1.63
27	MP3B	Mx	.039	1.63



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
28	MP3B	X	70.579	5.13
29	MP3B	Z	-122.247	5.13
30	MP3B	Mx	.039	5.13
31	MP3C	X	53.806	1.63
32	MP3C	Z	-93.195	1.63
33	MP3C	Mx	.103	1.63
34	MP3C	X	53.806	5.13
35	MP3C	Z	-93.195	5.13
36	MP3C	Mx	.103	5.13
37	MP2A	X	13.75	1.43
38	MP2A	Z	-23.816	1.43
39	MP2A	Mx	-.012	1.43
40	MP2A	X	13.75	3.43
41	MP2A	Z	-23.816	3.43
42	MP2A	Mx	-.012	3.43
43	MP2B	X	22.436	1.43
44	MP2B	Z	-38.861	1.43
45	MP2B	Mx	-.011	1.43
46	MP2B	X	22.436	3.43
47	MP2B	Z	-38.861	3.43
48	MP2B	Mx	-.011	3.43
49	MP2C	X	11.439	1.43
50	MP2C	Z	-19.813	1.43
51	MP2C	Mx	.011	1.43
52	MP2C	X	11.439	3.43
53	MP2C	Z	-19.813	3.43
54	MP2C	Mx	.011	3.43
55	MP1B	X	80.261	.63
56	MP1B	Z	-139.017	.63
57	MP1B	Mx	-.1	.63
58	MP1B	X	80.261	5.88
59	MP1B	Z	-139.017	5.88
60	MP1B	Mx	-.1	5.88
61	MP1C	X	74.056	.63
62	MP1C	Z	-128.269	.63
63	MP1C	Mx	.174	.63
64	MP1C	X	74.056	5.88
65	MP1C	Z	-128.269	5.88
66	MP1C	Mx	.174	5.88
67	MP4B	X	80.261	.63
68	MP4B	Z	-139.017	.63
69	MP4B	Mx	-.1	.63
70	MP4B	X	80.261	5.88
71	MP4B	Z	-139.017	5.88
72	MP4B	Mx	-.1	5.88
73	MP4C	X	74.056	.63
74	MP4C	Z	-128.269	.63
75	MP4C	Mx	.174	.63
76	MP4C	X	74.056	5.88
77	MP4C	Z	-128.269	5.88
78	MP4C	Mx	.174	5.88
79	MP1A	X	62.433	.63
80	MP1A	Z	-108.137	.63
81	MP1A	Mx	-.131	.63
82	MP1A	X	62.433	5.88
83	MP1A	Z	-108.137	5.88
84	MP1A	Mx	-.131	5.88

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
85	MP4A	X	62.433	.63
86	MP4A	Z	-108.137	.63
87	MP4A	Mx	-.131	.63
88	MP4A	X	62.433	5.88
89	MP4A	Z	-108.137	5.88
90	MP4A	Mx	-.131	5.88
91	MP3A	X	4.822	4.5
92	MP3A	Z	-8.352	4.5
93	MP3A	Mx	.003	4.5
94	MP3B	X	5.788	4.5
95	MP3B	Z	-10.025	4.5
96	MP3B	Mx	.002	4.5
97	MP3C	X	4.565	4.5
98	MP3C	Z	-7.907	4.5
99	MP3C	Mx	-.004	4.5
100	MP2A	X	24.131	1
101	MP2A	Z	-41.797	1
102	MP2A	Mx	.026	1
103	MP2B	X	29.174	1
104	MP2B	Z	-50.53	1
105	MP2B	Mx	.018	1
106	MP2C	X	22.79	1
107	MP2C	Z	-39.473	1
108	MP2C	Mx	-.027	1
109	MP3A	X	19.788	1
110	MP3A	Z	-34.274	1
111	MP3A	Mx	.021	1
112	MP3B	X	24.11	1
113	MP3B	Z	-41.76	1
114	MP3B	Mx	.015	1
115	MP3C	X	18.638	1
116	MP3C	Z	-32.283	1
117	MP3C	Mx	-.022	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	122.247	1.63
2	MP3A	Z	-70.579	1.63
3	MP3A	Mx	.039	1.63
4	MP3A	X	122.247	5.13
5	MP3A	Z	-70.579	5.13
6	MP3A	Mx	.039	5.13
7	MP3B	X	99.3	1.63
8	MP3B	Z	-57.331	1.63
9	MP3B	Mx	-.117	1.63
10	MP3B	X	99.3	5.13
11	MP3B	Z	-57.331	5.13
12	MP3B	Mx	-.117	5.13
13	MP3C	X	114.758	1.63
14	MP3C	Z	-66.256	1.63
15	MP3C	Mx	-.012	1.63
16	MP3C	X	114.758	5.13
17	MP3C	Z	-66.256	5.13
18	MP3C	Mx	-.012	5.13
19	MP3A	X	122.247	1.63
20	MP3A	Z	-70.579	1.63



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
21	MP3A	Mx	-.145	1.63
22	MP3A	X	122.247	5.13
23	MP3A	Z	-70.579	5.13
24	MP3A	Mx	-.145	5.13
25	MP3B	X	99.3	1.63
26	MP3B	Z	-57.331	1.63
27	MP3B	Mx	-.031	1.63
28	MP3B	X	99.3	5.13
29	MP3B	Z	-57.331	5.13
30	MP3B	Mx	-.031	5.13
31	MP3C	X	114.758	1.63
32	MP3C	Z	-66.256	1.63
33	MP3C	Mx	.14	1.63
34	MP3C	X	114.758	5.13
35	MP3C	Z	-66.256	5.13
36	MP3C	Mx	.14	5.13
37	MP2A	X	38.861	1.43
38	MP2A	Z	-22.436	1.43
39	MP2A	Mx	-.011	1.43
40	MP2A	X	38.861	3.43
41	MP2A	Z	-22.436	3.43
42	MP2A	Mx	-.011	3.43
43	MP2B	X	23.816	1.43
44	MP2B	Z	-13.75	1.43
45	MP2B	Mx	-.012	1.43
46	MP2B	X	23.816	3.43
47	MP2B	Z	-13.75	3.43
48	MP2B	Mx	-.012	3.43
49	MP2C	X	33.951	1.43
50	MP2C	Z	-19.602	1.43
51	MP2C	Mx	.013	1.43
52	MP2C	X	33.951	3.43
53	MP2C	Z	-19.602	3.43
54	MP2C	Mx	.013	3.43
55	MP1B	X	130.528	.63
56	MP1B	Z	-75.36	.63
57	MP1B	Mx	-.163	.63
58	MP1B	X	130.528	5.88
59	MP1B	Z	-75.36	5.88
60	MP1B	Mx	-.163	5.88
61	MP1C	X	136.246	.63
62	MP1C	Z	-78.662	.63
63	MP1C	Mx	.126	.63
64	MP1C	X	136.246	5.88
65	MP1C	Z	-78.662	5.88
66	MP1C	Mx	.126	5.88
67	MP4B	X	130.528	.63
68	MP4B	Z	-75.36	.63
69	MP4B	Mx	-.163	.63
70	MP4B	X	130.528	5.88
71	MP4B	Z	-75.36	5.88
72	MP4B	Mx	-.163	5.88
73	MP4C	X	136.246	.63
74	MP4C	Z	-78.662	.63
75	MP4C	Mx	.126	.63
76	MP4C	X	136.246	5.88
77	MP4C	Z	-78.662	5.88



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
78	MP4C	Mx	.126	5.88
79	MP1A	X	110.514	.63
80	MP1A	Z	-63.805	.63
81	MP1A	Mx	-.077	.63
82	MP1A	X	110.514	5.88
83	MP1A	Z	-63.805	5.88
84	MP1A	Mx	-.077	5.88
85	MP4A	X	110.514	.63
86	MP4A	Z	-63.805	.63
87	MP4A	Mx	-.077	.63
88	MP4A	X	110.514	5.88
89	MP4A	Z	-63.805	5.88
90	MP4A	Mx	-.077	5.88
91	MP3A	X	10.025	4.5
92	MP3A	Z	-5.788	4.5
93	MP3A	Mx	.002	4.5
94	MP3B	X	8.352	4.5
95	MP3B	Z	-4.822	4.5
96	MP3B	Mx	.003	4.5
97	MP3C	X	9.479	4.5
98	MP3C	Z	-5.473	4.5
99	MP3C	Mx	-.003	4.5
100	MP2A	X	50.53	1
101	MP2A	Z	-29.174	1
102	MP2A	Mx	.018	1
103	MP2B	X	41.797	1
104	MP2B	Z	-24.131	1
105	MP2B	Mx	.026	1
106	MP2C	X	47.68	1
107	MP2C	Z	-27.528	1
108	MP2C	Mx	-.022	1
109	MP3A	X	41.76	1
110	MP3A	Z	-24.11	1
111	MP3A	Mx	.015	1
112	MP3B	X	34.274	1
113	MP3B	Z	-19.788	1
114	MP3B	Mx	.021	1
115	MP3C	X	39.317	1
116	MP3C	Z	-22.7	1
117	MP3C	Mx	-.018	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	154.407	1.63
2	MP3A	Z	0	1.63
3	MP3A	Mx	.116	1.63
4	MP3A	X	154.407	5.13
5	MP3A	Z	0	5.13
6	MP3A	Mx	.116	5.13
7	MP3B	X	101.413	1.63
8	MP3B	Z	0	1.63
9	MP3B	Mx	-.076	1.63
10	MP3B	X	101.413	5.13
11	MP3B	Z	0	5.13
12	MP3B	Mx	-.076	5.13
13	MP3C	X	152.809	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
14	MP3C	Z	0	1.63
15	MP3C	Mx	-.093	1.63
16	MP3C	X	152.809	5.13
17	MP3C	Z	0	5.13
18	MP3C	Mx	-.093	5.13
19	MP3A	X	154.407	1.63
20	MP3A	Z	0	1.63
21	MP3A	Mx	-.116	1.63
22	MP3A	X	154.407	5.13
23	MP3A	Z	0	5.13
24	MP3A	Mx	-.116	5.13
25	MP3B	X	101.413	1.63
26	MP3B	Z	0	1.63
27	MP3B	Mx	-.076	1.63
28	MP3B	X	101.413	5.13
29	MP3B	Z	0	5.13
30	MP3B	Mx	-.076	5.13
31	MP3C	X	152.809	1.63
32	MP3C	Z	0	1.63
33	MP3C	Mx	.133	1.63
34	MP3C	X	152.809	5.13
35	MP3C	Z	0	5.13
36	MP3C	Mx	.133	5.13
37	MP2A	X	53.559	1.43
38	MP2A	Z	0	1.43
39	MP2A	Mx	0	1.43
40	MP2A	X	53.559	3.43
41	MP2A	Z	0	3.43
42	MP2A	Mx	0	3.43
43	MP2B	X	18.814	1.43
44	MP2B	Z	0	1.43
45	MP2B	Mx	-.009	1.43
46	MP2B	X	18.814	3.43
47	MP2B	Z	0	3.43
48	MP2B	Mx	-.009	3.43
49	MP2C	X	52.512	1.43
50	MP2C	Z	0	1.43
51	MP2C	Mx	.005	1.43
52	MP2C	X	52.512	3.43
53	MP2C	Z	0	3.43
54	MP2C	Mx	.005	3.43
55	MP1B	X	145.819	.63
56	MP1B	Z	0	.63
57	MP1B	Mx	-.182	.63
58	MP1B	X	145.819	5.88
59	MP1B	Z	0	5.88
60	MP1B	Mx	-.182	5.88
61	MP1C	X	164.833	.63
62	MP1C	Z	0	.63
63	MP1C	Mx	.036	.63
64	MP1C	X	164.833	5.88
65	MP1C	Z	0	5.88
66	MP1C	Mx	.036	5.88
67	MP4B	X	145.819	.63
68	MP4B	Z	0	.63
69	MP4B	Mx	-.182	.63
70	MP4B	X	145.819	5.88





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
71	MP4B	Z	0	5.88
72	MP4B	Mx	- .182	5.88
73	MP4C	X	164.833	.63
74	MP4C	Z	0	.63
75	MP4C	Mx	.036	.63
76	MP4C	X	164.833	5.88
77	MP4C	Z	0	5.88
78	MP4C	Mx	.036	5.88
79	MP1A	X	128.983	.63
80	MP1A	Z	0	.63
81	MP1A	Mx	0	.63
82	MP1A	X	128.983	5.88
83	MP1A	Z	0	5.88
84	MP1A	Mx	0	5.88
85	MP4A	X	128.983	.63
86	MP4A	Z	0	.63
87	MP4A	Mx	0	.63
88	MP4A	X	128.983	5.88
89	MP4A	Z	0	5.88
90	MP4A	Mx	0	5.88
91	MP3A	X	12.542	4.5
92	MP3A	Z	0	4.5
93	MP3A	Mx	0	4.5
94	MP3B	X	8.678	4.5
95	MP3B	Z	0	4.5
96	MP3B	Mx	.004	4.5
97	MP3C	X	12.426	4.5
98	MP3C	Z	0	4.5
99	MP3C	Mx	-.000899	4.5
100	MP2A	X	63.39	1
101	MP2A	Z	0	1
102	MP2A	Mx	0	1
103	MP2B	X	43.22	1
104	MP2B	Z	0	1
105	MP2B	Mx	.027	1
106	MP2C	X	62.782	1
107	MP2C	Z	0	1
108	MP2C	Mx	-.007	1
109	MP3A	X	52.542	1
110	MP3A	Z	0	1
111	MP3A	Mx	0	1
112	MP3B	X	35.254	1
113	MP3B	Z	0	1
114	MP3B	Mx	.022	1
115	MP3C	X	52.021	1
116	MP3C	Z	0	1
117	MP3C	Mx	-.006	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	122.247	1.63
2	MP3A	Z	70.579	1.63
3	MP3A	Mx	.145	1.63
4	MP3A	X	122.247	5.13
5	MP3A	Z	70.579	5.13
6	MP3A	Mx	.145	5.13



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
7	MP3B	X	99.3	1.63
8	MP3B	Z	57.331	1.63
9	MP3B	Mx	-.031	1.63
10	MP3B	X	99.3	5.13
11	MP3B	Z	57.331	5.13
12	MP3B	Mx	-.031	5.13
13	MP3C	X	128.352	1.63
14	MP3C	Z	74.104	1.63
15	MP3C	Mx	-.142	1.63
16	MP3C	X	128.352	5.13
17	MP3C	Z	74.104	5.13
18	MP3C	Mx	-.142	5.13
19	MP3A	X	122.247	1.63
20	MP3A	Z	70.579	1.63
21	MP3A	Mx	-.039	1.63
22	MP3A	X	122.247	5.13
23	MP3A	Z	70.579	5.13
24	MP3A	Mx	-.039	5.13
25	MP3B	X	99.3	1.63
26	MP3B	Z	57.331	1.63
27	MP3B	Mx	-.117	1.63
28	MP3B	X	99.3	5.13
29	MP3B	Z	57.331	5.13
30	MP3B	Mx	-.117	5.13
31	MP3C	X	128.352	1.63
32	MP3C	Z	74.104	1.63
33	MP3C	Mx	.066	1.63
34	MP3C	X	128.352	5.13
35	MP3C	Z	74.104	5.13
36	MP3C	Mx	.066	5.13
37	MP2A	X	38.861	1.43
38	MP2A	Z	22.436	1.43
39	MP2A	Mx	.011	1.43
40	MP2A	X	38.861	3.43
41	MP2A	Z	22.436	3.43
42	MP2A	Mx	.011	3.43
43	MP2B	X	23.816	1.43
44	MP2B	Z	13.75	1.43
45	MP2B	Mx	-.012	1.43
46	MP2B	X	23.816	3.43
47	MP2B	Z	13.75	3.43
48	MP2B	Mx	-.012	3.43
49	MP2C	X	42.864	1.43
50	MP2C	Z	24.747	1.43
51	MP2C	Mx	-.008	1.43
52	MP2C	X	42.864	3.43
53	MP2C	Z	24.747	3.43
54	MP2C	Mx	-.008	3.43
55	MP1B	X	130.528	.63
56	MP1B	Z	75.36	.63
57	MP1B	Mx	-.163	.63
58	MP1B	X	130.528	5.88
59	MP1B	Z	75.36	5.88
60	MP1B	Mx	-.163	5.88
61	MP1C	X	141.275	.63
62	MP1C	Z	81.565	.63
63	MP1C	Mx	-.07	.63



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
64	MP1C	X	141.275	5.88
65	MP1C	Z	81.565	5.88
66	MP1C	Mx	-.07	5.88
67	MP4B	X	130.528	.63
68	MP4B	Z	75.36	.63
69	MP4B	Mx	-.163	.63
70	MP4B	X	130.528	5.88
71	MP4B	Z	75.36	5.88
72	MP4B	Mx	-.163	5.88
73	MP4C	X	141.275	.63
74	MP4C	Z	81.565	.63
75	MP4C	Mx	-.07	.63
76	MP4C	X	141.275	5.88
77	MP4C	Z	81.565	5.88
78	MP4C	Mx	-.07	5.88
79	MP1A	X	110.514	.63
80	MP1A	Z	63.805	.63
81	MP1A	Mx	.077	.63
82	MP1A	X	110.514	5.88
83	MP1A	Z	63.805	5.88
84	MP1A	Mx	.077	5.88
85	MP4A	X	110.514	.63
86	MP4A	Z	63.805	.63
87	MP4A	Mx	.077	.63
88	MP4A	X	110.514	5.88
89	MP4A	Z	63.805	5.88
90	MP4A	Mx	.077	5.88
91	MP3A	X	10.025	4.5
92	MP3A	Z	5.788	4.5
93	MP3A	Mx	-.002	4.5
94	MP3B	X	8.352	4.5
95	MP3B	Z	4.822	4.5
96	MP3B	Mx	.003	4.5
97	MP3C	X	10.471	4.5
98	MP3C	Z	6.045	4.5
99	MP3C	Mx	.002	4.5
100	MP2A	X	50.53	1
101	MP2A	Z	29.174	1
102	MP2A	Mx	-.018	1
103	MP2B	X	41.797	1
104	MP2B	Z	24.131	1
105	MP2B	Mx	.026	1
106	MP2C	X	52.854	1
107	MP2C	Z	30.515	1
108	MP2C	Mx	.013	1
109	MP3A	X	41.76	1
110	MP3A	Z	24.11	1
111	MP3A	Mx	-.015	1
112	MP3B	X	34.274	1
113	MP3B	Z	19.788	1
114	MP3B	Mx	.021	1
115	MP3C	X	43.752	1
116	MP3C	Z	25.26	1
117	MP3C	Mx	.011	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
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**Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	57.331	1.63
2	MP3A	Z	99.3	1.63
3	MP3A	Mx	.117	1.63
4	MP3A	X	57.331	5.13
5	MP3A	Z	99.3	5.13
6	MP3A	Mx	.117	5.13
7	MP3B	X	70.579	1.63
8	MP3B	Z	122.247	1.63
9	MP3B	Mx	.039	1.63
10	MP3B	X	70.579	5.13
11	MP3B	Z	122.247	5.13
12	MP3B	Mx	.039	5.13
13	MP3C	X	61.654	1.63
14	MP3C	Z	106.788	1.63
15	MP3C	Mx	-.13	1.63
16	MP3C	X	61.654	5.13
17	MP3C	Z	106.788	5.13
18	MP3C	Mx	-.13	5.13
19	MP3A	X	57.331	1.63
20	MP3A	Z	99.3	1.63
21	MP3A	Mx	.031	1.63
22	MP3A	X	57.331	5.13
23	MP3A	Z	99.3	5.13
24	MP3A	Mx	.031	5.13
25	MP3B	X	70.579	1.63
26	MP3B	Z	122.247	1.63
27	MP3B	Mx	-.145	1.63
28	MP3B	X	70.579	5.13
29	MP3B	Z	122.247	5.13
30	MP3B	Mx	-.145	5.13
31	MP3C	X	61.654	1.63
32	MP3C	Z	106.788	1.63
33	MP3C	Mx	-.011	1.63
34	MP3C	X	61.654	5.13
35	MP3C	Z	106.788	5.13
36	MP3C	Mx	-.011	5.13
37	MP2A	X	13.75	1.43
38	MP2A	Z	23.816	1.43
39	MP2A	Mx	.012	1.43
40	MP2A	X	13.75	3.43
41	MP2A	Z	23.816	3.43
42	MP2A	Mx	.012	3.43
43	MP2B	X	22.436	1.43
44	MP2B	Z	38.861	1.43
45	MP2B	Mx	-.011	1.43
46	MP2B	X	22.436	3.43
47	MP2B	Z	38.861	3.43
48	MP2B	Mx	-.011	3.43
49	MP2C	X	16.585	1.43
50	MP2C	Z	28.726	1.43
51	MP2C	Mx	-.013	1.43
52	MP2C	X	16.585	3.43
53	MP2C	Z	28.726	3.43
54	MP2C	Mx	-.013	3.43
55	MP1B	X	80.261	.63
56	MP1B	Z	139.017	.63
57	MP1B	Mx	-.1	.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP1B	X	80.261	5.88
59	MP1B	Z	139.017	5.88
60	MP1B	Mx	-.1	5.88
61	MP1C	X	76.96	.63
62	MP1C	Z	133.298	.63
63	MP1C	Mx	-.147	.63
64	MP1C	X	76.96	5.88
65	MP1C	Z	133.298	5.88
66	MP1C	Mx	-.147	5.88
67	MP4B	X	80.261	.63
68	MP4B	Z	139.017	.63
69	MP4B	Mx	-.1	.63
70	MP4B	X	80.261	5.88
71	MP4B	Z	139.017	5.88
72	MP4B	Mx	-.1	5.88
73	MP4C	X	76.96	.63
74	MP4C	Z	133.298	.63
75	MP4C	Mx	-.147	.63
76	MP4C	X	76.96	5.88
77	MP4C	Z	133.298	5.88
78	MP4C	Mx	-.147	5.88
79	MP1A	X	62.433	.63
80	MP1A	Z	108.137	.63
81	MP1A	Mx	.131	.63
82	MP1A	X	62.433	5.88
83	MP1A	Z	108.137	5.88
84	MP1A	Mx	.131	5.88
85	MP4A	X	62.433	.63
86	MP4A	Z	108.137	.63
87	MP4A	Mx	.131	.63
88	MP4A	X	62.433	5.88
89	MP4A	Z	108.137	5.88
90	MP4A	Mx	.131	5.88
91	MP3A	X	4.822	4.5
92	MP3A	Z	8.352	4.5
93	MP3A	Mx	-.003	4.5
94	MP3B	X	5.788	4.5
95	MP3B	Z	10.025	4.5
96	MP3B	Mx	.002	4.5
97	MP3C	X	5.137	4.5
98	MP3C	Z	8.898	4.5
99	MP3C	Mx	.003	4.5
100	MP2A	X	24.131	1
101	MP2A	Z	41.797	1
102	MP2A	Mx	-.026	1
103	MP2B	X	29.174	1
104	MP2B	Z	50.53	1
105	MP2B	Mx	.018	1
106	MP2C	X	25.777	1
107	MP2C	Z	44.647	1
108	MP2C	Mx	.025	1
109	MP3A	X	19.788	1
110	MP3A	Z	34.274	1
111	MP3A	Mx	-.021	1
112	MP3B	X	24.11	1
113	MP3B	Z	41.76	1
114	MP3B	Mx	.015	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
115	MP3C	X	21.199	1
116	MP3C	Z	36.717	1
117	MP3C	Mx	.02	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	0	1.63
2	MP3A	Z	101.413	1.63
3	MP3A	Mx	.076	1.63
4	MP3A	X	0	5.13
5	MP3A	Z	101.413	5.13
6	MP3A	Mx	.076	5.13
7	MP3B	X	0	1.63
8	MP3B	Z	154.407	1.63
9	MP3B	Mx	.116	1.63
10	MP3B	X	0	5.13
11	MP3B	Z	154.407	5.13
12	MP3B	Mx	.116	5.13
13	MP3C	X	0	1.63
14	MP3C	Z	103.011	1.63
15	MP3C	Mx	-.089	1.63
16	MP3C	X	0	5.13
17	MP3C	Z	103.011	5.13
18	MP3C	Mx	-.089	5.13
19	MP3A	X	0	1.63
20	MP3A	Z	101.413	1.63
21	MP3A	Mx	.076	1.63
22	MP3A	X	0	5.13
23	MP3A	Z	101.413	5.13
24	MP3A	Mx	.076	5.13
25	MP3B	X	0	1.63
26	MP3B	Z	154.407	1.63
27	MP3B	Mx	-.116	1.63
28	MP3B	X	0	5.13
29	MP3B	Z	154.407	5.13
30	MP3B	Mx	-.116	5.13
31	MP3C	X	0	1.63
32	MP3C	Z	103.011	1.63
33	MP3C	Mx	-.063	1.63
34	MP3C	X	0	5.13
35	MP3C	Z	103.011	5.13
36	MP3C	Mx	-.063	5.13
37	MP2A	X	0	1.43
38	MP2A	Z	18.814	1.43
39	MP2A	Mx	.009	1.43
40	MP2A	X	0	3.43
41	MP2A	Z	18.814	3.43
42	MP2A	Mx	.009	3.43
43	MP2B	X	0	1.43
44	MP2B	Z	53.559	1.43
45	MP2B	Mx	0	1.43
46	MP2B	X	0	3.43
47	MP2B	Z	53.559	3.43
48	MP2B	Mx	0	3.43
49	MP2C	X	0	1.43
50	MP2C	Z	19.861	1.43

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
51	MP2C	Mx	-.01	1.43
52	MP2C	X	0	3.43
53	MP2C	Z	19.861	3.43
54	MP2C	Mx	-.01	3.43
55	MP1B	X	0	.63
56	MP1B	Z	165.424	.63
57	MP1B	Mx	0	.63
58	MP1B	X	0	5.88
59	MP1B	Z	165.424	5.88
60	MP1B	Mx	0	5.88
61	MP1C	X	0	.63
62	MP1C	Z	146.41	.63
63	MP1C	Mx	-.18	.63
64	MP1C	X	0	5.88
65	MP1C	Z	146.41	5.88
66	MP1C	Mx	-.18	5.88
67	MP4B	X	0	.63
68	MP4B	Z	165.424	.63
69	MP4B	Mx	0	.63
70	MP4B	X	0	5.88
71	MP4B	Z	165.424	5.88
72	MP4B	Mx	0	5.88
73	MP4C	X	0	.63
74	MP4C	Z	146.41	.63
75	MP4C	Mx	-.18	.63
76	MP4C	X	0	5.88
77	MP4C	Z	146.41	5.88
78	MP4C	Mx	-.18	5.88
79	MP1A	X	0	.63
80	MP1A	Z	123.494	.63
81	MP1A	Mx	.149	.63
82	MP1A	X	0	5.88
83	MP1A	Z	123.494	5.88
84	MP1A	Mx	.149	5.88
85	MP4A	X	0	.63
86	MP4A	Z	123.494	.63
87	MP4A	Mx	.149	.63
88	MP4A	X	0	5.88
89	MP4A	Z	123.494	5.88
90	MP4A	Mx	.149	5.88
91	MP3A	X	0	4.5
92	MP3A	Z	8.678	4.5
93	MP3A	Mx	-.004	4.5
94	MP3B	X	0	4.5
95	MP3B	Z	12.542	4.5
96	MP3B	Mx	0	4.5
97	MP3C	X	0	4.5
98	MP3C	Z	8.795	4.5
99	MP3C	Mx	.004	4.5
100	MP2A	X	0	1
101	MP2A	Z	43.22	1
102	MP2A	Mx	-.027	1
103	MP2B	X	0	1
104	MP2B	Z	63.39	1
105	MP2B	Mx	0	1
106	MP2C	X	0	1
107	MP2C	Z	43.829	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
108	MP2C	Mx	.027	1
109	MP3A	X	0	1
110	MP3A	Z	35.254	1
111	MP3A	Mx	-.022	1
112	MP3B	X	0	1
113	MP3B	Z	52.542	1
114	MP3B	Mx	0	1
115	MP3C	X	0	1
116	MP3C	Z	35.776	1
117	MP3C	Mx	.022	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-57.331	1.63
2	MP3A	Z	99.3	1.63
3	MP3A	Mx	.031	1.63
4	MP3A	X	-57.331	5.13
5	MP3A	Z	99.3	5.13
6	MP3A	Mx	.031	5.13
7	MP3B	X	-70.579	1.63
8	MP3B	Z	122.247	1.63
9	MP3B	Mx	.145	1.63
10	MP3B	X	-70.579	5.13
11	MP3B	Z	122.247	5.13
12	MP3B	Mx	.145	5.13
13	MP3C	X	-53.806	1.63
14	MP3C	Z	93.195	1.63
15	MP3C	Mx	-.048	1.63
16	MP3C	X	-53.806	5.13
17	MP3C	Z	93.195	5.13
18	MP3C	Mx	-.048	5.13
19	MP3A	X	-57.331	1.63
20	MP3A	Z	99.3	1.63
21	MP3A	Mx	.117	1.63
22	MP3A	X	-57.331	5.13
23	MP3A	Z	99.3	5.13
24	MP3A	Mx	.117	5.13
25	MP3B	X	-70.579	1.63
26	MP3B	Z	122.247	1.63
27	MP3B	Mx	-.039	1.63
28	MP3B	X	-70.579	5.13
29	MP3B	Z	122.247	5.13
30	MP3B	Mx	-.039	5.13
31	MP3C	X	-53.806	1.63
32	MP3C	Z	93.195	1.63
33	MP3C	Mx	-.103	1.63
34	MP3C	X	-53.806	5.13
35	MP3C	Z	93.195	5.13
36	MP3C	Mx	-.103	5.13
37	MP2A	X	-13.75	1.43
38	MP2A	Z	23.816	1.43
39	MP2A	Mx	.012	1.43
40	MP2A	X	-13.75	3.43
41	MP2A	Z	23.816	3.43
42	MP2A	Mx	.012	3.43
43	MP2B	X	-22.436	1.43





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
44	MP2B	Z	38.861	1.43
45	MP2B	Mx	.011	1.43
46	MP2B	X	-22.436	3.43
47	MP2B	Z	38.861	3.43
48	MP2B	Mx	.011	3.43
49	MP2C	X	-11.439	1.43
50	MP2C	Z	19.813	1.43
51	MP2C	Mx	-.011	1.43
52	MP2C	X	-11.439	3.43
53	MP2C	Z	19.813	3.43
54	MP2C	Mx	-.011	3.43
55	MP1B	X	-80.261	.63
56	MP1B	Z	139.017	.63
57	MP1B	Mx	.1	.63
58	MP1B	X	-80.261	5.88
59	MP1B	Z	139.017	5.88
60	MP1B	Mx	.1	5.88
61	MP1C	X	-74.056	.63
62	MP1C	Z	128.269	.63
63	MP1C	Mx	-.174	.63
64	MP1C	X	-74.056	5.88
65	MP1C	Z	128.269	5.88
66	MP1C	Mx	-.174	5.88
67	MP4B	X	-80.261	.63
68	MP4B	Z	139.017	.63
69	MP4B	Mx	.1	.63
70	MP4B	X	-80.261	5.88
71	MP4B	Z	139.017	5.88
72	MP4B	Mx	.1	5.88
73	MP4C	X	-74.056	.63
74	MP4C	Z	128.269	.63
75	MP4C	Mx	-.174	.63
76	MP4C	X	-74.056	5.88
77	MP4C	Z	128.269	5.88
78	MP4C	Mx	-.174	5.88
79	MP1A	X	-62.433	.63
80	MP1A	Z	108.137	.63
81	MP1A	Mx	.131	.63
82	MP1A	X	-62.433	5.88
83	MP1A	Z	108.137	5.88
84	MP1A	Mx	.131	5.88
85	MP4A	X	-62.433	.63
86	MP4A	Z	108.137	.63
87	MP4A	Mx	.131	.63
88	MP4A	X	-62.433	5.88
89	MP4A	Z	108.137	5.88
90	MP4A	Mx	.131	5.88
91	MP3A	X	-4.822	4.5
92	MP3A	Z	8.352	4.5
93	MP3A	Mx	-.003	4.5
94	MP3B	X	-5.788	4.5
95	MP3B	Z	10.025	4.5
96	MP3B	Mx	-.002	4.5
97	MP3C	X	-4.565	4.5
98	MP3C	Z	7.907	4.5
99	MP3C	Mx	.004	4.5
100	MP2A	X	-24.131	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
101	MP2A	Z	41.797	1
102	MP2A	Mx	-.026	1
103	MP2B	X	-29.174	1
104	MP2B	Z	50.53	1
105	MP2B	Mx	-.018	1
106	MP2C	X	-22.79	1
107	MP2C	Z	39.473	1
108	MP2C	Mx	.027	1
109	MP3A	X	-19.788	1
110	MP3A	Z	34.274	1
111	MP3A	Mx	-.021	1
112	MP3B	X	-24.11	1
113	MP3B	Z	41.76	1
114	MP3B	Mx	-.015	1
115	MP3C	X	-18.638	1
116	MP3C	Z	32.283	1
117	MP3C	Mx	.022	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-122.247	1.63
2	MP3A	Z	70.579	1.63
3	MP3A	Mx	-.039	1.63
4	MP3A	X	-122.247	5.13
5	MP3A	Z	70.579	5.13
6	MP3A	Mx	-.039	5.13
7	MP3B	X	-99.3	1.63
8	MP3B	Z	57.331	1.63
9	MP3B	Mx	.117	1.63
10	MP3B	X	-99.3	5.13
11	MP3B	Z	57.331	5.13
12	MP3B	Mx	.117	5.13
13	MP3C	X	-114.758	1.63
14	MP3C	Z	66.256	1.63
15	MP3C	Mx	.012	1.63
16	MP3C	X	-114.758	5.13
17	MP3C	Z	66.256	5.13
18	MP3C	Mx	.012	5.13
19	MP3A	X	-122.247	1.63
20	MP3A	Z	70.579	1.63
21	MP3A	Mx	.145	1.63
22	MP3A	X	-122.247	5.13
23	MP3A	Z	70.579	5.13
24	MP3A	Mx	.145	5.13
25	MP3B	X	-99.3	1.63
26	MP3B	Z	57.331	1.63
27	MP3B	Mx	.031	1.63
28	MP3B	X	-99.3	5.13
29	MP3B	Z	57.331	5.13
30	MP3B	Mx	.031	5.13
31	MP3C	X	-114.758	1.63
32	MP3C	Z	66.256	1.63
33	MP3C	Mx	-.14	1.63
34	MP3C	X	-114.758	5.13
35	MP3C	Z	66.256	5.13
36	MP3C	Mx	-.14	5.13

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
37	MP2A	X	-38.861	1.43
38	MP2A	Z	22.436	1.43
39	MP2A	Mx	.011	1.43
40	MP2A	X	-38.861	3.43
41	MP2A	Z	22.436	3.43
42	MP2A	Mx	.011	3.43
43	MP2B	X	-23.816	1.43
44	MP2B	Z	13.75	1.43
45	MP2B	Mx	.012	1.43
46	MP2B	X	-23.816	3.43
47	MP2B	Z	13.75	3.43
48	MP2B	Mx	.012	3.43
49	MP2C	X	-33.951	1.43
50	MP2C	Z	19.602	1.43
51	MP2C	Mx	-.013	1.43
52	MP2C	X	-33.951	3.43
53	MP2C	Z	19.602	3.43
54	MP2C	Mx	-.013	3.43
55	MP1B	X	-130.528	.63
56	MP1B	Z	75.36	.63
57	MP1B	Mx	.163	.63
58	MP1B	X	-130.528	5.88
59	MP1B	Z	75.36	5.88
60	MP1B	Mx	.163	5.88
61	MP1C	X	-136.246	.63
62	MP1C	Z	78.662	.63
63	MP1C	Mx	-.126	.63
64	MP1C	X	-136.246	5.88
65	MP1C	Z	78.662	5.88
66	MP1C	Mx	-.126	5.88
67	MP4B	X	-130.528	.63
68	MP4B	Z	75.36	.63
69	MP4B	Mx	.163	.63
70	MP4B	X	-130.528	5.88
71	MP4B	Z	75.36	5.88
72	MP4B	Mx	.163	5.88
73	MP4C	X	-136.246	.63
74	MP4C	Z	78.662	.63
75	MP4C	Mx	-.126	.63
76	MP4C	X	-136.246	5.88
77	MP4C	Z	78.662	5.88
78	MP4C	Mx	-.126	5.88
79	MP1A	X	-110.514	.63
80	MP1A	Z	63.805	.63
81	MP1A	Mx	.077	.63
82	MP1A	X	-110.514	5.88
83	MP1A	Z	63.805	5.88
84	MP1A	Mx	.077	5.88
85	MP4A	X	-110.514	.63
86	MP4A	Z	63.805	.63
87	MP4A	Mx	.077	.63
88	MP4A	X	-110.514	5.88
89	MP4A	Z	63.805	5.88
90	MP4A	Mx	.077	5.88
91	MP3A	X	-10.025	4.5
92	MP3A	Z	5.788	4.5
93	MP3A	Mx	-.002	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
94	MP3B	X	-8.352	4.5
95	MP3B	Z	4.822	4.5
96	MP3B	Mx	-.003	4.5
97	MP3C	X	-9.479	4.5
98	MP3C	Z	5.473	4.5
99	MP3C	Mx	.003	4.5
100	MP2A	X	-50.53	1
101	MP2A	Z	29.174	1
102	MP2A	Mx	-.018	1
103	MP2B	X	-41.797	1
104	MP2B	Z	24.131	1
105	MP2B	Mx	-.026	1
106	MP2C	X	-47.68	1
107	MP2C	Z	27.528	1
108	MP2C	Mx	.022	1
109	MP3A	X	-41.76	1
110	MP3A	Z	24.11	1
111	MP3A	Mx	-.015	1
112	MP3B	X	-34.274	1
113	MP3B	Z	19.788	1
114	MP3B	Mx	-.021	1
115	MP3C	X	-39.317	1
116	MP3C	Z	22.7	1
117	MP3C	Mx	.018	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-154.407	1.63
2	MP3A	Z	0	1.63
3	MP3A	Mx	-.116	1.63
4	MP3A	X	-154.407	5.13
5	MP3A	Z	0	5.13
6	MP3A	Mx	-.116	5.13
7	MP3B	X	-101.413	1.63
8	MP3B	Z	0	1.63
9	MP3B	Mx	.076	1.63
10	MP3B	X	-101.413	5.13
11	MP3B	Z	0	5.13
12	MP3B	Mx	.076	5.13
13	MP3C	X	-152.809	1.63
14	MP3C	Z	0	1.63
15	MP3C	Mx	.093	1.63
16	MP3C	X	-152.809	5.13
17	MP3C	Z	0	5.13
18	MP3C	Mx	.093	5.13
19	MP3A	X	-154.407	1.63
20	MP3A	Z	0	1.63
21	MP3A	Mx	.116	1.63
22	MP3A	X	-154.407	5.13
23	MP3A	Z	0	5.13
24	MP3A	Mx	.116	5.13
25	MP3B	X	-101.413	1.63
26	MP3B	Z	0	1.63
27	MP3B	Mx	.076	1.63
28	MP3B	X	-101.413	5.13
29	MP3B	Z	0	5.13

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
30	MP3B	Mx	.076	5.13
31	MP3C	X	-152.809	1.63
32	MP3C	Z	0	1.63
33	MP3C	Mx	-.133	1.63
34	MP3C	X	-152.809	5.13
35	MP3C	Z	0	5.13
36	MP3C	Mx	-.133	5.13
37	MP2A	X	-53.559	1.43
38	MP2A	Z	0	1.43
39	MP2A	Mx	0	1.43
40	MP2A	X	-53.559	3.43
41	MP2A	Z	0	3.43
42	MP2A	Mx	0	3.43
43	MP2B	X	-18.814	1.43
44	MP2B	Z	0	1.43
45	MP2B	Mx	.009	1.43
46	MP2B	X	-18.814	3.43
47	MP2B	Z	0	3.43
48	MP2B	Mx	.009	3.43
49	MP2C	X	-52.512	1.43
50	MP2C	Z	0	1.43
51	MP2C	Mx	-.005	1.43
52	MP2C	X	-52.512	3.43
53	MP2C	Z	0	3.43
54	MP2C	Mx	-.005	3.43
55	MP1B	X	-145.819	.63
56	MP1B	Z	0	.63
57	MP1B	Mx	.182	.63
58	MP1B	X	-145.819	5.88
59	MP1B	Z	0	5.88
60	MP1B	Mx	.182	5.88
61	MP1C	X	-164.833	.63
62	MP1C	Z	0	.63
63	MP1C	Mx	-.036	.63
64	MP1C	X	-164.833	5.88
65	MP1C	Z	0	5.88
66	MP1C	Mx	-.036	5.88
67	MP4B	X	-145.819	.63
68	MP4B	Z	0	.63
69	MP4B	Mx	.182	.63
70	MP4B	X	-145.819	5.88
71	MP4B	Z	0	5.88
72	MP4B	Mx	.182	5.88
73	MP4C	X	-164.833	.63
74	MP4C	Z	0	.63
75	MP4C	Mx	-.036	.63
76	MP4C	X	-164.833	5.88
77	MP4C	Z	0	5.88
78	MP4C	Mx	-.036	5.88
79	MP1A	X	-128.983	.63
80	MP1A	Z	0	.63
81	MP1A	Mx	0	.63
82	MP1A	X	-128.983	5.88
83	MP1A	Z	0	5.88
84	MP1A	Mx	0	5.88
85	MP4A	X	-128.983	.63
86	MP4A	Z	0	.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
87	MP4A	Mx	0	.63
88	MP4A	X	-128.983	5.88
89	MP4A	Z	0	5.88
90	MP4A	Mx	0	5.88
91	MP3A	X	-12.542	4.5
92	MP3A	Z	0	4.5
93	MP3A	Mx	0	4.5
94	MP3B	X	-8.678	4.5
95	MP3B	Z	0	4.5
96	MP3B	Mx	-.004	4.5
97	MP3C	X	-12.426	4.5
98	MP3C	Z	0	4.5
99	MP3C	Mx	.000899	4.5
100	MP2A	X	-63.39	1
101	MP2A	Z	0	1
102	MP2A	Mx	0	1
103	MP2B	X	-43.22	1
104	MP2B	Z	0	1
105	MP2B	Mx	-.027	1
106	MP2C	X	-62.782	1
107	MP2C	Z	0	1
108	MP2C	Mx	.007	1
109	MP3A	X	-52.542	1
110	MP3A	Z	0	1
111	MP3A	Mx	0	1
112	MP3B	X	-35.254	1
113	MP3B	Z	0	1
114	MP3B	Mx	-.022	1
115	MP3C	X	-52.021	1
116	MP3C	Z	0	1
117	MP3C	Mx	.006	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-122.247	1.63
2	MP3A	Z	-70.579	1.63
3	MP3A	Mx	-.145	1.63
4	MP3A	X	-122.247	5.13
5	MP3A	Z	-70.579	5.13
6	MP3A	Mx	-.145	5.13
7	MP3B	X	-99.3	1.63
8	MP3B	Z	-57.331	1.63
9	MP3B	Mx	.031	1.63
10	MP3B	X	-99.3	5.13
11	MP3B	Z	-57.331	5.13
12	MP3B	Mx	.031	5.13
13	MP3C	X	-128.352	1.63
14	MP3C	Z	-74.104	1.63
15	MP3C	Mx	.142	1.63
16	MP3C	X	-128.352	5.13
17	MP3C	Z	-74.104	5.13
18	MP3C	Mx	.142	5.13
19	MP3A	X	-122.247	1.63
20	MP3A	Z	-70.579	1.63
21	MP3A	Mx	.039	1.63
22	MP3A	X	-122.247	5.13



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
23	MP3A	Z	-70.579	5.13
24	MP3A	Mx	.039	5.13
25	MP3B	X	-99.3	1.63
26	MP3B	Z	-57.331	1.63
27	MP3B	Mx	.117	1.63
28	MP3B	X	-99.3	5.13
29	MP3B	Z	-57.331	5.13
30	MP3B	Mx	.117	5.13
31	MP3C	X	-128.352	1.63
32	MP3C	Z	-74.104	1.63
33	MP3C	Mx	-.066	1.63
34	MP3C	X	-128.352	5.13
35	MP3C	Z	-74.104	5.13
36	MP3C	Mx	-.066	5.13
37	MP2A	X	-38.861	1.43
38	MP2A	Z	-22.436	1.43
39	MP2A	Mx	-.011	1.43
40	MP2A	X	-38.861	3.43
41	MP2A	Z	-22.436	3.43
42	MP2A	Mx	-.011	3.43
43	MP2B	X	-23.816	1.43
44	MP2B	Z	-13.75	1.43
45	MP2B	Mx	.012	1.43
46	MP2B	X	-23.816	3.43
47	MP2B	Z	-13.75	3.43
48	MP2B	Mx	.012	3.43
49	MP2C	X	-42.864	1.43
50	MP2C	Z	-24.747	1.43
51	MP2C	Mx	.008	1.43
52	MP2C	X	-42.864	3.43
53	MP2C	Z	-24.747	3.43
54	MP2C	Mx	.008	3.43
55	MP1B	X	-130.528	.63
56	MP1B	Z	-75.36	.63
57	MP1B	Mx	.163	.63
58	MP1B	X	-130.528	5.88
59	MP1B	Z	-75.36	5.88
60	MP1B	Mx	.163	5.88
61	MP1C	X	-141.275	.63
62	MP1C	Z	-81.565	.63
63	MP1C	Mx	.07	.63
64	MP1C	X	-141.275	5.88
65	MP1C	Z	-81.565	5.88
66	MP1C	Mx	.07	5.88
67	MP4B	X	-130.528	.63
68	MP4B	Z	-75.36	.63
69	MP4B	Mx	.163	.63
70	MP4B	X	-130.528	5.88
71	MP4B	Z	-75.36	5.88
72	MP4B	Mx	.163	5.88
73	MP4C	X	-141.275	.63
74	MP4C	Z	-81.565	.63
75	MP4C	Mx	.07	.63
76	MP4C	X	-141.275	5.88
77	MP4C	Z	-81.565	5.88
78	MP4C	Mx	.07	5.88
79	MP1A	X	-110.514	.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
80	MP1A	Z	-63.805	.63
81	MP1A	Mx	-.077	.63
82	MP1A	X	-110.514	5.88
83	MP1A	Z	-63.805	5.88
84	MP1A	Mx	-.077	5.88
85	MP4A	X	-110.514	.63
86	MP4A	Z	-63.805	.63
87	MP4A	Mx	-.077	.63
88	MP4A	X	-110.514	5.88
89	MP4A	Z	-63.805	5.88
90	MP4A	Mx	-.077	5.88
91	MP3A	X	-10.025	4.5
92	MP3A	Z	-5.788	4.5
93	MP3A	Mx	.002	4.5
94	MP3B	X	-8.352	4.5
95	MP3B	Z	-4.822	4.5
96	MP3B	Mx	-.003	4.5
97	MP3C	X	-10.471	4.5
98	MP3C	Z	-6.045	4.5
99	MP3C	Mx	-.002	4.5
100	MP2A	X	-50.53	1
101	MP2A	Z	-29.174	1
102	MP2A	Mx	.018	1
103	MP2B	X	-41.797	1
104	MP2B	Z	-24.131	1
105	MP2B	Mx	-.026	1
106	MP2C	X	-52.854	1
107	MP2C	Z	-30.515	1
108	MP2C	Mx	-.013	1
109	MP3A	X	-41.76	1
110	MP3A	Z	-24.11	1
111	MP3A	Mx	.015	1
112	MP3B	X	-34.274	1
113	MP3B	Z	-19.788	1
114	MP3B	Mx	-.021	1
115	MP3C	X	-43.752	1
116	MP3C	Z	-25.26	1
117	MP3C	Mx	-.011	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-57.331	1.63
2	MP3A	Z	-99.3	1.63
3	MP3A	Mx	-.117	1.63
4	MP3A	X	-57.331	5.13
5	MP3A	Z	-99.3	5.13
6	MP3A	Mx	-.117	5.13
7	MP3B	X	-70.579	1.63
8	MP3B	Z	-122.247	1.63
9	MP3B	Mx	-.039	1.63
10	MP3B	X	-70.579	5.13
11	MP3B	Z	-122.247	5.13
12	MP3B	Mx	-.039	5.13
13	MP3C	X	-61.654	1.63
14	MP3C	Z	-106.788	1.63
15	MP3C	Mx	.13	1.63





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
16	MP3C	X	-61.654	5.13
17	MP3C	Z	-106.788	5.13
18	MP3C	Mx	.13	5.13
19	MP3A	X	-57.331	1.63
20	MP3A	Z	-99.3	1.63
21	MP3A	Mx	-.031	1.63
22	MP3A	X	-57.331	5.13
23	MP3A	Z	-99.3	5.13
24	MP3A	Mx	-.031	5.13
25	MP3B	X	-70.579	1.63
26	MP3B	Z	-122.247	1.63
27	MP3B	Mx	.145	1.63
28	MP3B	X	-70.579	5.13
29	MP3B	Z	-122.247	5.13
30	MP3B	Mx	.145	5.13
31	MP3C	X	-61.654	1.63
32	MP3C	Z	-106.788	1.63
33	MP3C	Mx	.011	1.63
34	MP3C	X	-61.654	5.13
35	MP3C	Z	-106.788	5.13
36	MP3C	Mx	.011	5.13
37	MP2A	X	-13.75	1.43
38	MP2A	Z	-23.816	1.43
39	MP2A	Mx	-.012	1.43
40	MP2A	X	-13.75	3.43
41	MP2A	Z	-23.816	3.43
42	MP2A	Mx	-.012	3.43
43	MP2B	X	-22.436	1.43
44	MP2B	Z	-38.861	1.43
45	MP2B	Mx	.011	1.43
46	MP2B	X	-22.436	3.43
47	MP2B	Z	-38.861	3.43
48	MP2B	Mx	.011	3.43
49	MP2C	X	-16.585	1.43
50	MP2C	Z	-28.726	1.43
51	MP2C	Mx	.013	1.43
52	MP2C	X	-16.585	3.43
53	MP2C	Z	-28.726	3.43
54	MP2C	Mx	.013	3.43
55	MP1B	X	-80.261	.63
56	MP1B	Z	-139.017	.63
57	MP1B	Mx	.1	.63
58	MP1B	X	-80.261	5.88
59	MP1B	Z	-139.017	5.88
60	MP1B	Mx	.1	5.88
61	MP1C	X	-76.96	.63
62	MP1C	Z	-133.298	.63
63	MP1C	Mx	.147	.63
64	MP1C	X	-76.96	5.88
65	MP1C	Z	-133.298	5.88
66	MP1C	Mx	.147	5.88
67	MP4B	X	-80.261	.63
68	MP4B	Z	-139.017	.63
69	MP4B	Mx	.1	.63
70	MP4B	X	-80.261	5.88
71	MP4B	Z	-139.017	5.88
72	MP4B	Mx	.1	5.88



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
73	MP4C	X	-76.96	.63
74	MP4C	Z	-133.298	.63
75	MP4C	Mx	.147	.63
76	MP4C	X	-76.96	5.88
77	MP4C	Z	-133.298	5.88
78	MP4C	Mx	.147	5.88
79	MP1A	X	-62.433	.63
80	MP1A	Z	-108.137	.63
81	MP1A	Mx	-.131	.63
82	MP1A	X	-62.433	5.88
83	MP1A	Z	-108.137	5.88
84	MP1A	Mx	-.131	5.88
85	MP4A	X	-62.433	.63
86	MP4A	Z	-108.137	.63
87	MP4A	Mx	-.131	.63
88	MP4A	X	-62.433	5.88
89	MP4A	Z	-108.137	5.88
90	MP4A	Mx	-.131	5.88
91	MP3A	X	-4.822	4.5
92	MP3A	Z	-8.352	4.5
93	MP3A	Mx	.003	4.5
94	MP3B	X	-5.788	4.5
95	MP3B	Z	-10.025	4.5
96	MP3B	Mx	-.002	4.5
97	MP3C	X	-5.137	4.5
98	MP3C	Z	-8.898	4.5
99	MP3C	Mx	-.003	4.5
100	MP2A	X	-24.131	1
101	MP2A	Z	-41.797	1
102	MP2A	Mx	.026	1
103	MP2B	X	-29.174	1
104	MP2B	Z	-50.53	1
105	MP2B	Mx	-.018	1
106	MP2C	X	-25.777	1
107	MP2C	Z	-44.647	1
108	MP2C	Mx	-.025	1
109	MP3A	X	-19.788	1
110	MP3A	Z	-34.274	1
111	MP3A	Mx	.021	1
112	MP3B	X	-24.11	1
113	MP3B	Z	-41.76	1
114	MP3B	Mx	-.015	1
115	MP3C	X	-21.199	1
116	MP3C	Z	-36.717	1
117	MP3C	Mx	-.02	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	0	1.63
2	MP3A	Z	-18.396	1.63
3	MP3A	Mx	-.014	1.63
4	MP3A	X	0	5.13
5	MP3A	Z	-18.396	5.13
6	MP3A	Mx	-.014	5.13
7	MP3B	X	0	1.63
8	MP3B	Z	-26.997	1.63



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
9	MP3B	Mx	-.02	1.63
10	MP3B	X	0	5.13
11	MP3B	Z	-26.997	5.13
12	MP3B	Mx	-.02	5.13
13	MP3C	X	0	1.63
14	MP3C	Z	-18.655	1.63
15	MP3C	Mx	.016	1.63
16	MP3C	X	0	5.13
17	MP3C	Z	-18.655	5.13
18	MP3C	Mx	.016	5.13
19	MP3A	X	0	1.63
20	MP3A	Z	-18.396	1.63
21	MP3A	Mx	-.014	1.63
22	MP3A	X	0	5.13
23	MP3A	Z	-18.396	5.13
24	MP3A	Mx	-.014	5.13
25	MP3B	X	0	1.63
26	MP3B	Z	-26.997	1.63
27	MP3B	Mx	.02	1.63
28	MP3B	X	0	5.13
29	MP3B	Z	-26.997	5.13
30	MP3B	Mx	.02	5.13
31	MP3C	X	0	1.63
32	MP3C	Z	-18.655	1.63
33	MP3C	Mx	.011	1.63
34	MP3C	X	0	5.13
35	MP3C	Z	-18.655	5.13
36	MP3C	Mx	.011	5.13
37	MP2A	X	0	1.43
38	MP2A	Z	-4.928	1.43
39	MP2A	Mx	-.002	1.43
40	MP2A	X	0	3.43
41	MP2A	Z	-4.928	3.43
42	MP2A	Mx	-.002	3.43
43	MP2B	X	0	1.43
44	MP2B	Z	-11.704	1.43
45	MP2B	Mx	0	1.43
46	MP2B	X	0	3.43
47	MP2B	Z	-11.704	3.43
48	MP2B	Mx	0	3.43
49	MP2C	X	0	1.43
50	MP2C	Z	-5.132	1.43
51	MP2C	Mx	.003	1.43
52	MP2C	X	0	3.43
53	MP2C	Z	-5.132	3.43
54	MP2C	Mx	.003	3.43
55	MP1B	X	0	.63
56	MP1B	Z	-28.719	.63
57	MP1B	Mx	0	.63
58	MP1B	X	0	5.88
59	MP1B	Z	-28.719	5.88
60	MP1B	Mx	0	5.88
61	MP1C	X	0	.63
62	MP1C	Z	-25.657	.63
63	MP1C	Mx	.032	.63
64	MP1C	X	0	5.88
65	MP1C	Z	-25.657	5.88

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
66	MP1C	Mx	.032	5.88
67	MP4B	X	0	.63
68	MP4B	Z	-28.719	.63
69	MP4B	Mx	0	.63
70	MP4B	X	0	5.88
71	MP4B	Z	-28.719	5.88
72	MP4B	Mx	0	5.88
73	MP4C	X	0	.63
74	MP4C	Z	-25.657	.63
75	MP4C	Mx	.032	.63
76	MP4C	X	0	5.88
77	MP4C	Z	-25.657	5.88
78	MP4C	Mx	.032	5.88
79	MP1A	X	0	.63
80	MP1A	Z	-22.229	.63
81	MP1A	Mx	-.027	.63
82	MP1A	X	0	5.88
83	MP1A	Z	-22.229	5.88
84	MP1A	Mx	-.027	5.88
85	MP4A	X	0	.63
86	MP4A	Z	-22.229	.63
87	MP4A	Mx	-.027	.63
88	MP4A	X	0	5.88
89	MP4A	Z	-22.229	5.88
90	MP4A	Mx	-.027	5.88
91	MP3A	X	0	4.5
92	MP3A	Z	-2.181	4.5
93	MP3A	Mx	.000909	4.5
94	MP3B	X	0	4.5
95	MP3B	Z	-2.913	4.5
96	MP3B	Mx	0	4.5
97	MP3C	X	0	4.5
98	MP3C	Z	-2.203	4.5
99	MP3C	Mx	-.000904	4.5
100	MP2A	X	0	1
101	MP2A	Z	-8.534	1
102	MP2A	Mx	.005	1
103	MP2B	X	0	1
104	MP2B	Z	-12.072	1
105	MP2B	Mx	0	1
106	MP2C	X	0	1
107	MP2C	Z	-8.641	1
108	MP2C	Mx	-.005	1
109	MP3A	X	0	1
110	MP3A	Z	-8.387	1
111	MP3A	Mx	.005	1
112	MP3B	X	0	1
113	MP3B	Z	-12.072	1
114	MP3B	Mx	0	1
115	MP3C	X	0	1
116	MP3C	Z	-8.498	1
117	MP3C	Mx	-.005	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	10.273	1.63



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
2	MP3A	Z	-17.794	1.63
3	MP3A	Mx	-.006	1.63
4	MP3A	X	10.273	5.13
5	MP3A	Z	-17.794	5.13
6	MP3A	Mx	-.006	5.13
7	MP3B	X	12.424	1.63
8	MP3B	Z	-21.518	1.63
9	MP3B	Mx	-.025	1.63
10	MP3B	X	12.424	5.13
11	MP3B	Z	-21.518	5.13
12	MP3B	Mx	-.025	5.13
13	MP3C	X	9.701	1.63
14	MP3C	Z	-16.803	1.63
15	MP3C	Mx	.009	1.63
16	MP3C	X	9.701	5.13
17	MP3C	Z	-16.803	5.13
18	MP3C	Mx	.009	5.13
19	MP3A	X	10.273	1.63
20	MP3A	Z	-17.794	1.63
21	MP3A	Mx	-.021	1.63
22	MP3A	X	10.273	5.13
23	MP3A	Z	-17.794	5.13
24	MP3A	Mx	-.021	5.13
25	MP3B	X	12.424	1.63
26	MP3B	Z	-21.518	1.63
27	MP3B	Mx	.007	1.63
28	MP3B	X	12.424	5.13
29	MP3B	Z	-21.518	5.13
30	MP3B	Mx	.007	5.13
31	MP3C	X	9.701	1.63
32	MP3C	Z	-16.803	1.63
33	MP3C	Mx	.019	1.63
34	MP3C	X	9.701	5.13
35	MP3C	Z	-16.803	5.13
36	MP3C	Mx	.019	5.13
37	MP2A	X	3.311	1.43
38	MP2A	Z	-5.735	1.43
39	MP2A	Mx	-.003	1.43
40	MP2A	X	3.311	3.43
41	MP2A	Z	-5.735	3.43
42	MP2A	Mx	-.003	3.43
43	MP2B	X	5.005	1.43
44	MP2B	Z	-8.669	1.43
45	MP2B	Mx	-.003	1.43
46	MP2B	X	5.005	3.43
47	MP2B	Z	-8.669	3.43
48	MP2B	Mx	-.003	3.43
49	MP2C	X	2.86	1.43
50	MP2C	Z	-4.954	1.43
51	MP2C	Mx	.003	1.43
52	MP2C	X	2.86	3.43
53	MP2C	Z	-4.954	3.43
54	MP2C	Mx	.003	3.43
55	MP1B	X	13.965	.63
56	MP1B	Z	-24.188	.63
57	MP1B	Mx	-.017	.63
58	MP1B	X	13.965	5.88



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
59	MP1B	Z	-24.188	5.88
60	MP1B	Mx	-.017	5.88
61	MP1C	X	12.966	.63
62	MP1C	Z	-22.457	.63
63	MP1C	Mx	.03	.63
64	MP1C	X	12.966	5.88
65	MP1C	Z	-22.457	5.88
66	MP1C	Mx	.03	5.88
67	MP4B	X	13.965	.63
68	MP4B	Z	-24.188	.63
69	MP4B	Mx	-.017	.63
70	MP4B	X	13.965	5.88
71	MP4B	Z	-24.188	5.88
72	MP4B	Mx	-.017	5.88
73	MP4C	X	12.966	.63
74	MP4C	Z	-22.457	.63
75	MP4C	Mx	.03	.63
76	MP4C	X	12.966	5.88
77	MP4C	Z	-22.457	5.88
78	MP4C	Mx	.03	5.88
79	MP1A	X	11.236	.63
80	MP1A	Z	-19.462	.63
81	MP1A	Mx	-.024	.63
82	MP1A	X	11.236	5.88
83	MP1A	Z	-19.462	5.88
84	MP1A	Mx	-.024	5.88
85	MP4A	X	11.236	.63
86	MP4A	Z	-19.462	.63
87	MP4A	Mx	-.024	.63
88	MP4A	X	11.236	5.88
89	MP4A	Z	-19.462	5.88
90	MP4A	Mx	-.024	5.88
91	MP3A	X	1.182	4.5
92	MP3A	Z	-2.047	4.5
93	MP3A	Mx	.000853	4.5
94	MP3B	X	1.365	4.5
95	MP3B	Z	-2.364	4.5
96	MP3B	Mx	.000569	4.5
97	MP3C	X	1.133	4.5
98	MP3C	Z	-1.963	4.5
99	MP3C	Mx	-.000887	4.5
100	MP2A	X	4.709	1
101	MP2A	Z	-8.157	1
102	MP2A	Mx	.005	1
103	MP2B	X	5.594	1
104	MP2B	Z	-9.688	1
105	MP2B	Mx	.003	1
106	MP2C	X	4.474	1
107	MP2C	Z	-7.749	1
108	MP2C	Mx	-.005	1
109	MP3A	X	4.654	1
110	MP3A	Z	-8.061	1
111	MP3A	Mx	.005	1
112	MP3B	X	5.575	1
113	MP3B	Z	-9.657	1
114	MP3B	Mx	.003	1
115	MP3C	X	4.409	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
116	MP3C	Z	-7.636	1
117	MP3C	Mx	-.005	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	21.518	1.63
2	MP3A	Z	-12.424	1.63
3	MP3A	Mx	.007	1.63
4	MP3A	X	21.518	5.13
5	MP3A	Z	-12.424	5.13
6	MP3A	Mx	.007	5.13
7	MP3B	X	17.794	1.63
8	MP3B	Z	-10.273	1.63
9	MP3B	Mx	-.021	1.63
10	MP3B	X	17.794	5.13
11	MP3B	Z	-10.273	5.13
12	MP3B	Mx	-.021	5.13
13	MP3C	X	20.303	1.63
14	MP3C	Z	-11.722	1.63
15	MP3C	Mx	-.002	1.63
16	MP3C	X	20.303	5.13
17	MP3C	Z	-11.722	5.13
18	MP3C	Mx	-.002	5.13
19	MP3A	X	21.518	1.63
20	MP3A	Z	-12.424	1.63
21	MP3A	Mx	-.025	1.63
22	MP3A	X	21.518	5.13
23	MP3A	Z	-12.424	5.13
24	MP3A	Mx	-.025	5.13
25	MP3B	X	17.794	1.63
26	MP3B	Z	-10.273	1.63
27	MP3B	Mx	-.006	1.63
28	MP3B	X	17.794	5.13
29	MP3B	Z	-10.273	5.13
30	MP3B	Mx	-.006	5.13
31	MP3C	X	20.303	1.63
32	MP3C	Z	-11.722	1.63
33	MP3C	Mx	.025	1.63
34	MP3C	X	20.303	5.13
35	MP3C	Z	-11.722	5.13
36	MP3C	Mx	.025	5.13
37	MP2A	X	8.669	1.43
38	MP2A	Z	-5.005	1.43
39	MP2A	Mx	-.003	1.43
40	MP2A	X	8.669	3.43
41	MP2A	Z	-5.005	3.43
42	MP2A	Mx	-.003	3.43
43	MP2B	X	5.735	1.43
44	MP2B	Z	-3.311	1.43
45	MP2B	Mx	-.003	1.43
46	MP2B	X	5.735	3.43
47	MP2B	Z	-3.311	3.43
48	MP2B	Mx	-.003	3.43
49	MP2C	X	7.711	1.43
50	MP2C	Z	-4.452	1.43
51	MP2C	Mx	.003	1.43

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
52	MP2C	X	7.711	3.43
53	MP2C	Z	-4.452	3.43
54	MP2C	Mx	.003	3.43
55	MP1B	X	22.821	.63
56	MP1B	Z	-13.176	.63
57	MP1B	Mx	-.029	.63
58	MP1B	X	22.821	5.88
59	MP1B	Z	-13.176	5.88
60	MP1B	Mx	-.029	5.88
61	MP1C	X	23.742	.63
62	MP1C	Z	-13.707	.63
63	MP1C	Mx	.022	.63
64	MP1C	X	23.742	5.88
65	MP1C	Z	-13.707	5.88
66	MP1C	Mx	.022	5.88
67	MP4B	X	22.821	.63
68	MP4B	Z	-13.176	.63
69	MP4B	Mx	-.029	.63
70	MP4B	X	22.821	5.88
71	MP4B	Z	-13.176	5.88
72	MP4B	Mx	-.029	5.88
73	MP4C	X	23.742	.63
74	MP4C	Z	-13.707	.63
75	MP4C	Mx	.022	.63
76	MP4C	X	23.742	5.88
77	MP4C	Z	-13.707	5.88
78	MP4C	Mx	.022	5.88
79	MP1A	X	19.884	.63
80	MP1A	Z	-11.48	.63
81	MP1A	Mx	-.014	.63
82	MP1A	X	19.884	5.88
83	MP1A	Z	-11.48	5.88
84	MP1A	Mx	-.014	5.88
85	MP4A	X	19.884	.63
86	MP4A	Z	-11.48	.63
87	MP4A	Mx	-.014	.63
88	MP4A	X	19.884	5.88
89	MP4A	Z	-11.48	5.88
90	MP4A	Mx	-.014	5.88
91	MP3A	X	2.364	4.5
92	MP3A	Z	-1.365	4.5
93	MP3A	Mx	.000569	4.5
94	MP3B	X	2.047	4.5
95	MP3B	Z	-1.182	4.5
96	MP3B	Mx	.000853	4.5
97	MP3C	X	2.261	4.5
98	MP3C	Z	-1.305	4.5
99	MP3C	Mx	-.000699	4.5
100	MP2A	X	9.688	1
101	MP2A	Z	-5.594	1
102	MP2A	Mx	.003	1
103	MP2B	X	8.157	1
104	MP2B	Z	-4.709	1
105	MP2B	Mx	.005	1
106	MP2C	X	9.189	1
107	MP2C	Z	-5.305	1
108	MP2C	Mx	-.004	1





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
109	MP3A	X	9.657	1
110	MP3A	Z	-5.575	1
111	MP3A	Mx	.003	1
112	MP3B	X	8.061	1
113	MP3B	Z	-4.654	1
114	MP3B	Mx	.005	1
115	MP3C	X	9.136	1
116	MP3C	Z	-5.275	1
117	MP3C	Mx	-.004	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	26.997	1.63
2	MP3A	Z	0	1.63
3	MP3A	Mx	.02	1.63
4	MP3A	X	26.997	5.13
5	MP3A	Z	0	5.13
6	MP3A	Mx	.02	5.13
7	MP3B	X	18.396	1.63
8	MP3B	Z	0	1.63
9	MP3B	Mx	-.014	1.63
10	MP3B	X	18.396	5.13
11	MP3B	Z	0	5.13
12	MP3B	Mx	-.014	5.13
13	MP3C	X	26.738	1.63
14	MP3C	Z	0	1.63
15	MP3C	Mx	-.016	1.63
16	MP3C	X	26.738	5.13
17	MP3C	Z	0	5.13
18	MP3C	Mx	-.016	5.13
19	MP3A	X	26.997	1.63
20	MP3A	Z	0	1.63
21	MP3A	Mx	-.02	1.63
22	MP3A	X	26.997	5.13
23	MP3A	Z	0	5.13
24	MP3A	Mx	-.02	5.13
25	MP3B	X	18.396	1.63
26	MP3B	Z	0	1.63
27	MP3B	Mx	-.014	1.63
28	MP3B	X	18.396	5.13
29	MP3B	Z	0	5.13
30	MP3B	Mx	-.014	5.13
31	MP3C	X	26.738	1.63
32	MP3C	Z	0	1.63
33	MP3C	Mx	.023	1.63
34	MP3C	X	26.738	5.13
35	MP3C	Z	0	5.13
36	MP3C	Mx	.023	5.13
37	MP2A	X	11.704	1.43
38	MP2A	Z	0	1.43
39	MP2A	Mx	0	1.43
40	MP2A	X	11.704	3.43
41	MP2A	Z	0	3.43
42	MP2A	Mx	0	3.43
43	MP2B	X	4.928	1.43
44	MP2B	Z	0	1.43



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
45	MP2B	Mx	-.002	1.43
46	MP2B	X	4.928	3.43
47	MP2B	Z	0	3.43
48	MP2B	Mx	-.002	3.43
49	MP2C	X	11.499	1.43
50	MP2C	Z	0	1.43
51	MP2C	Mx	.000998	1.43
52	MP2C	X	11.499	3.43
53	MP2C	Z	0	3.43
54	MP2C	Mx	.000998	3.43
55	MP1B	X	25.562	.63
56	MP1B	Z	0	.63
57	MP1B	Mx	-.032	.63
58	MP1B	X	25.562	5.88
59	MP1B	Z	0	5.88
60	MP1B	Mx	-.032	5.88
61	MP1C	X	28.624	.63
62	MP1C	Z	0	.63
63	MP1C	Mx	.006	.63
64	MP1C	X	28.624	5.88
65	MP1C	Z	0	5.88
66	MP1C	Mx	.006	5.88
67	MP4B	X	25.562	.63
68	MP4B	Z	0	.63
69	MP4B	Mx	-.032	.63
70	MP4B	X	25.562	5.88
71	MP4B	Z	0	5.88
72	MP4B	Mx	-.032	5.88
73	MP4C	X	28.624	.63
74	MP4C	Z	0	.63
75	MP4C	Mx	.006	.63
76	MP4C	X	28.624	5.88
77	MP4C	Z	0	5.88
78	MP4C	Mx	.006	5.88
79	MP1A	X	23.204	.63
80	MP1A	Z	0	.63
81	MP1A	Mx	0	.63
82	MP1A	X	23.204	5.88
83	MP1A	Z	0	5.88
84	MP1A	Mx	0	5.88
85	MP4A	X	23.204	.63
86	MP4A	Z	0	.63
87	MP4A	Mx	0	.63
88	MP4A	X	23.204	5.88
89	MP4A	Z	0	5.88
90	MP4A	Mx	0	5.88
91	MP3A	X	2.913	4.5
92	MP3A	Z	0	4.5
93	MP3A	Mx	0	4.5
94	MP3B	X	2.181	4.5
95	MP3B	Z	0	4.5
96	MP3B	Mx	.000909	4.5
97	MP3C	X	2.891	4.5
98	MP3C	Z	0	4.5
99	MP3C	Mx	-.000209	4.5
100	MP2A	X	12.072	1
101	MP2A	Z	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
102	MP2A	Mx	0	1
103	MP2B	X	8.534	1
104	MP2B	Z	0	1
105	MP2B	Mx	.005	1
106	MP2C	X	11.965	1
107	MP2C	Z	0	1
108	MP2C	Mx	-.001	1
109	MP3A	X	12.072	1
110	MP3A	Z	0	1
111	MP3A	Mx	0	1
112	MP3B	X	8.387	1
113	MP3B	Z	0	1
114	MP3B	Mx	.005	1
115	MP3C	X	11.96	1
116	MP3C	Z	0	1
117	MP3C	Mx	-.001	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	21.518	1.63
2	MP3A	Z	12.424	1.63
3	MP3A	Mx	.025	1.63
4	MP3A	X	21.518	5.13
5	MP3A	Z	12.424	5.13
6	MP3A	Mx	.025	5.13
7	MP3B	X	17.794	1.63
8	MP3B	Z	10.273	1.63
9	MP3B	Mx	-.006	1.63
10	MP3B	X	17.794	5.13
11	MP3B	Z	10.273	5.13
12	MP3B	Mx	-.006	5.13
13	MP3C	X	22.509	1.63
14	MP3C	Z	12.996	1.63
15	MP3C	Mx	-.025	1.63
16	MP3C	X	22.509	5.13
17	MP3C	Z	12.996	5.13
18	MP3C	Mx	-.025	5.13
19	MP3A	X	21.518	1.63
20	MP3A	Z	12.424	1.63
21	MP3A	Mx	-.007	1.63
22	MP3A	X	21.518	5.13
23	MP3A	Z	12.424	5.13
24	MP3A	Mx	-.007	5.13
25	MP3B	X	17.794	1.63
26	MP3B	Z	10.273	1.63
27	MP3B	Mx	-.021	1.63
28	MP3B	X	17.794	5.13
29	MP3B	Z	10.273	5.13
30	MP3B	Mx	-.021	5.13
31	MP3C	X	22.509	1.63
32	MP3C	Z	12.996	1.63
33	MP3C	Mx	.012	1.63
34	MP3C	X	22.509	5.13
35	MP3C	Z	12.996	5.13
36	MP3C	Mx	.012	5.13
37	MP2A	X	8.669	1.43

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
38	MP2A	Z	5.005	1.43
39	MP2A	Mx	.003	1.43
40	MP2A	X	8.669	3.43
41	MP2A	Z	5.005	3.43
42	MP2A	Mx	.003	3.43
43	MP2B	X	5.735	1.43
44	MP2B	Z	3.311	1.43
45	MP2B	Mx	-.003	1.43
46	MP2B	X	5.735	3.43
47	MP2B	Z	3.311	3.43
48	MP2B	Mx	-.003	3.43
49	MP2C	X	9.449	1.43
50	MP2C	Z	5.456	1.43
51	MP2C	Mx	-.002	1.43
52	MP2C	X	9.449	3.43
53	MP2C	Z	5.456	3.43
54	MP2C	Mx	-.002	3.43
55	MP1B	X	22.821	.63
56	MP1B	Z	13.176	.63
57	MP1B	Mx	-.029	.63
58	MP1B	X	22.821	5.88
59	MP1B	Z	13.176	5.88
60	MP1B	Mx	-.029	5.88
61	MP1C	X	24.552	.63
62	MP1C	Z	14.175	.63
63	MP1C	Mx	-.012	.63
64	MP1C	X	24.552	5.88
65	MP1C	Z	14.175	5.88
66	MP1C	Mx	-.012	5.88
67	MP4B	X	22.821	.63
68	MP4B	Z	13.176	.63
69	MP4B	Mx	-.029	.63
70	MP4B	X	22.821	5.88
71	MP4B	Z	13.176	5.88
72	MP4B	Mx	-.029	5.88
73	MP4C	X	24.552	.63
74	MP4C	Z	14.175	.63
75	MP4C	Mx	-.012	.63
76	MP4C	X	24.552	5.88
77	MP4C	Z	14.175	5.88
78	MP4C	Mx	-.012	5.88
79	MP1A	X	19.884	.63
80	MP1A	Z	11.48	.63
81	MP1A	Mx	.014	.63
82	MP1A	X	19.884	5.88
83	MP1A	Z	11.48	5.88
84	MP1A	Mx	.014	5.88
85	MP4A	X	19.884	.63
86	MP4A	Z	11.48	.63
87	MP4A	Mx	.014	.63
88	MP4A	X	19.884	5.88
89	MP4A	Z	11.48	5.88
90	MP4A	Mx	.014	5.88
91	MP3A	X	2.364	4.5
92	MP3A	Z	1.365	4.5
93	MP3A	Mx	-.000569	4.5
94	MP3B	X	2.047	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
95	MP3B	Z	1.182	4.5
96	MP3B	Mx	.000853	4.5
97	MP3C	X	2.448	4.5
98	MP3C	Z	1.414	4.5
99	MP3C	Mx	.000403	4.5
100	MP2A	X	9.688	1
101	MP2A	Z	5.594	1
102	MP2A	Mx	-.003	1
103	MP2B	X	8.157	1
104	MP2B	Z	4.709	1
105	MP2B	Mx	.005	1
106	MP2C	X	10.096	1
107	MP2C	Z	5.829	1
108	MP2C	Mx	.002	1
109	MP3A	X	9.657	1
110	MP3A	Z	5.575	1
111	MP3A	Mx	-.003	1
112	MP3B	X	8.061	1
113	MP3B	Z	4.654	1
114	MP3B	Mx	.005	1
115	MP3C	X	10.081	1
116	MP3C	Z	5.82	1
117	MP3C	Mx	.002	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	10.273	1.63
2	MP3A	Z	17.794	1.63
3	MP3A	Mx	.021	1.63
4	MP3A	X	10.273	5.13
5	MP3A	Z	17.794	5.13
6	MP3A	Mx	.021	5.13
7	MP3B	X	12.424	1.63
8	MP3B	Z	21.518	1.63
9	MP3B	Mx	.007	1.63
10	MP3B	X	12.424	5.13
11	MP3B	Z	21.518	5.13
12	MP3B	Mx	.007	5.13
13	MP3C	X	10.975	1.63
14	MP3C	Z	19.009	1.63
15	MP3C	Mx	-.023	1.63
16	MP3C	X	10.975	5.13
17	MP3C	Z	19.009	5.13
18	MP3C	Mx	-.023	5.13
19	MP3A	X	10.273	1.63
20	MP3A	Z	17.794	1.63
21	MP3A	Mx	.006	1.63
22	MP3A	X	10.273	5.13
23	MP3A	Z	17.794	5.13
24	MP3A	Mx	.006	5.13
25	MP3B	X	12.424	1.63
26	MP3B	Z	21.518	1.63
27	MP3B	Mx	-.025	1.63
28	MP3B	X	12.424	5.13
29	MP3B	Z	21.518	5.13
30	MP3B	Mx	-.025	5.13

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
31	MP3C	X	10.975	1.63
32	MP3C	Z	19.009	1.63
33	MP3C	Mx	-.002	1.63
34	MP3C	X	10.975	5.13
35	MP3C	Z	19.009	5.13
36	MP3C	Mx	-.002	5.13
37	MP2A	X	3.311	1.43
38	MP2A	Z	5.735	1.43
39	MP2A	Mx	.003	1.43
40	MP2A	X	3.311	3.43
41	MP2A	Z	5.735	3.43
42	MP2A	Mx	.003	3.43
43	MP2B	X	5.005	1.43
44	MP2B	Z	8.669	1.43
45	MP2B	Mx	-.003	1.43
46	MP2B	X	5.005	3.43
47	MP2B	Z	8.669	3.43
48	MP2B	Mx	-.003	3.43
49	MP2C	X	3.864	1.43
50	MP2C	Z	6.692	1.43
51	MP2C	Mx	-.003	1.43
52	MP2C	X	3.864	3.43
53	MP2C	Z	6.692	3.43
54	MP2C	Mx	-.003	3.43
55	MP1B	X	13.965	.63
56	MP1B	Z	24.188	.63
57	MP1B	Mx	-.017	.63
58	MP1B	X	13.965	5.88
59	MP1B	Z	24.188	5.88
60	MP1B	Mx	-.017	5.88
61	MP1C	X	13.433	.63
62	MP1C	Z	23.267	.63
63	MP1C	Mx	-.026	.63
64	MP1C	X	13.433	5.88
65	MP1C	Z	23.267	5.88
66	MP1C	Mx	-.026	5.88
67	MP4B	X	13.965	.63
68	MP4B	Z	24.188	.63
69	MP4B	Mx	-.017	.63
70	MP4B	X	13.965	5.88
71	MP4B	Z	24.188	5.88
72	MP4B	Mx	-.017	5.88
73	MP4C	X	13.433	.63
74	MP4C	Z	23.267	.63
75	MP4C	Mx	-.026	.63
76	MP4C	X	13.433	5.88
77	MP4C	Z	23.267	5.88
78	MP4C	Mx	-.026	5.88
79	MP1A	X	11.236	.63
80	MP1A	Z	19.462	.63
81	MP1A	Mx	.024	.63
82	MP1A	X	11.236	5.88
83	MP1A	Z	19.462	5.88
84	MP1A	Mx	.024	5.88
85	MP4A	X	11.236	.63
86	MP4A	Z	19.462	.63
87	MP4A	Mx	.024	.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
88	MP4A	X	11.236	5.88
89	MP4A	Z	19.462	5.88
90	MP4A	Mx	.024	5.88
91	MP3A	X	1.182	4.5
92	MP3A	Z	2.047	4.5
93	MP3A	Mx	-.000853	4.5
94	MP3B	X	1.365	4.5
95	MP3B	Z	2.364	4.5
96	MP3B	Mx	.000569	4.5
97	MP3C	X	1.242	4.5
98	MP3C	Z	2.151	4.5
99	MP3C	Mx	.000793	4.5
100	MP2A	X	4.709	1
101	MP2A	Z	8.157	1
102	MP2A	Mx	-.005	1
103	MP2B	X	5.594	1
104	MP2B	Z	9.688	1
105	MP2B	Mx	.003	1
106	MP2C	X	4.998	1
107	MP2C	Z	8.657	1
108	MP2C	Mx	.005	1
109	MP3A	X	4.654	1
110	MP3A	Z	8.061	1
111	MP3A	Mx	-.005	1
112	MP3B	X	5.575	1
113	MP3B	Z	9.657	1
114	MP3B	Mx	.003	1
115	MP3C	X	4.955	1
116	MP3C	Z	8.582	1
117	MP3C	Mx	.005	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	0	1.63
2	MP3A	Z	18.396	1.63
3	MP3A	Mx	.014	1.63
4	MP3A	X	0	5.13
5	MP3A	Z	18.396	5.13
6	MP3A	Mx	.014	5.13
7	MP3B	X	0	1.63
8	MP3B	Z	26.997	1.63
9	MP3B	Mx	.02	1.63
10	MP3B	X	0	5.13
11	MP3B	Z	26.997	5.13
12	MP3B	Mx	.02	5.13
13	MP3C	X	0	1.63
14	MP3C	Z	18.655	1.63
15	MP3C	Mx	-.016	1.63
16	MP3C	X	0	5.13
17	MP3C	Z	18.655	5.13
18	MP3C	Mx	-.016	5.13
19	MP3A	X	0	1.63
20	MP3A	Z	18.396	1.63
21	MP3A	Mx	.014	1.63
22	MP3A	X	0	5.13
23	MP3A	Z	18.396	5.13

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
24	MP3A	Mx	.014	5.13
25	MP3B	X	0	1.63
26	MP3B	Z	26.997	1.63
27	MP3B	Mx	-.02	1.63
28	MP3B	X	0	5.13
29	MP3B	Z	26.997	5.13
30	MP3B	Mx	-.02	5.13
31	MP3C	X	0	1.63
32	MP3C	Z	18.655	1.63
33	MP3C	Mx	-.011	1.63
34	MP3C	X	0	5.13
35	MP3C	Z	18.655	5.13
36	MP3C	Mx	-.011	5.13
37	MP2A	X	0	1.43
38	MP2A	Z	4.928	1.43
39	MP2A	Mx	.002	1.43
40	MP2A	X	0	3.43
41	MP2A	Z	4.928	3.43
42	MP2A	Mx	.002	3.43
43	MP2B	X	0	1.43
44	MP2B	Z	11.704	1.43
45	MP2B	Mx	0	1.43
46	MP2B	X	0	3.43
47	MP2B	Z	11.704	3.43
48	MP2B	Mx	0	3.43
49	MP2C	X	0	1.43
50	MP2C	Z	5.132	1.43
51	MP2C	Mx	-.003	1.43
52	MP2C	X	0	3.43
53	MP2C	Z	5.132	3.43
54	MP2C	Mx	-.003	3.43
55	MP1B	X	0	.63
56	MP1B	Z	28.719	.63
57	MP1B	Mx	0	.63
58	MP1B	X	0	5.88
59	MP1B	Z	28.719	5.88
60	MP1B	Mx	0	5.88
61	MP1C	X	0	.63
62	MP1C	Z	25.657	.63
63	MP1C	Mx	-.032	.63
64	MP1C	X	0	5.88
65	MP1C	Z	25.657	5.88
66	MP1C	Mx	-.032	5.88
67	MP4B	X	0	.63
68	MP4B	Z	28.719	.63
69	MP4B	Mx	0	.63
70	MP4B	X	0	5.88
71	MP4B	Z	28.719	5.88
72	MP4B	Mx	0	5.88
73	MP4C	X	0	.63
74	MP4C	Z	25.657	.63
75	MP4C	Mx	-.032	.63
76	MP4C	X	0	5.88
77	MP4C	Z	25.657	5.88
78	MP4C	Mx	-.032	5.88
79	MP1A	X	0	.63
80	MP1A	Z	22.229	.63





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
81	MP1A	Mx	.027	.63
82	MP1A	X	0	5.88
83	MP1A	Z	22.229	5.88
84	MP1A	Mx	.027	5.88
85	MP4A	X	0	.63
86	MP4A	Z	22.229	.63
87	MP4A	Mx	.027	.63
88	MP4A	X	0	5.88
89	MP4A	Z	22.229	5.88
90	MP4A	Mx	.027	5.88
91	MP3A	X	0	4.5
92	MP3A	Z	2.181	4.5
93	MP3A	Mx	-.000909	4.5
94	MP3B	X	0	4.5
95	MP3B	Z	2.913	4.5
96	MP3B	Mx	0	4.5
97	MP3C	X	0	4.5
98	MP3C	Z	2.203	4.5
99	MP3C	Mx	.000904	4.5
100	MP2A	X	0	1
101	MP2A	Z	8.534	1
102	MP2A	Mx	-.005	1
103	MP2B	X	0	1
104	MP2B	Z	12.072	1
105	MP2B	Mx	0	1
106	MP2C	X	0	1
107	MP2C	Z	8.641	1
108	MP2C	Mx	.005	1
109	MP3A	X	0	1
110	MP3A	Z	8.387	1
111	MP3A	Mx	-.005	1
112	MP3B	X	0	1
113	MP3B	Z	12.072	1
114	MP3B	Mx	0	1
115	MP3C	X	0	1
116	MP3C	Z	8.498	1
117	MP3C	Mx	.005	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-10.273	1.63
2	MP3A	Z	17.794	1.63
3	MP3A	Mx	.006	1.63
4	MP3A	X	-10.273	5.13
5	MP3A	Z	17.794	5.13
6	MP3A	Mx	.006	5.13
7	MP3B	X	-12.424	1.63
8	MP3B	Z	21.518	1.63
9	MP3B	Mx	.025	1.63
10	MP3B	X	-12.424	5.13
11	MP3B	Z	21.518	5.13
12	MP3B	Mx	.025	5.13
13	MP3C	X	-9.701	1.63
14	MP3C	Z	16.803	1.63
15	MP3C	Mx	-.009	1.63
16	MP3C	X	-9.701	5.13



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
17	MP3C	Z	16.803	5.13
18	MP3C	Mx	-.009	5.13
19	MP3A	X	-10.273	1.63
20	MP3A	Z	17.794	1.63
21	MP3A	Mx	.021	1.63
22	MP3A	X	-10.273	5.13
23	MP3A	Z	17.794	5.13
24	MP3A	Mx	.021	5.13
25	MP3B	X	-12.424	1.63
26	MP3B	Z	21.518	1.63
27	MP3B	Mx	-.007	1.63
28	MP3B	X	-12.424	5.13
29	MP3B	Z	21.518	5.13
30	MP3B	Mx	-.007	5.13
31	MP3C	X	-9.701	1.63
32	MP3C	Z	16.803	1.63
33	MP3C	Mx	-.019	1.63
34	MP3C	X	-9.701	5.13
35	MP3C	Z	16.803	5.13
36	MP3C	Mx	-.019	5.13
37	MP2A	X	-3.311	1.43
38	MP2A	Z	5.735	1.43
39	MP2A	Mx	.003	1.43
40	MP2A	X	-3.311	3.43
41	MP2A	Z	5.735	3.43
42	MP2A	Mx	.003	3.43
43	MP2B	X	-5.005	1.43
44	MP2B	Z	8.669	1.43
45	MP2B	Mx	.003	1.43
46	MP2B	X	-5.005	3.43
47	MP2B	Z	8.669	3.43
48	MP2B	Mx	.003	3.43
49	MP2C	X	-2.86	1.43
50	MP2C	Z	4.954	1.43
51	MP2C	Mx	-.003	1.43
52	MP2C	X	-2.86	3.43
53	MP2C	Z	4.954	3.43
54	MP2C	Mx	-.003	3.43
55	MP1B	X	-13.965	.63
56	MP1B	Z	24.188	.63
57	MP1B	Mx	.017	.63
58	MP1B	X	-13.965	5.88
59	MP1B	Z	24.188	5.88
60	MP1B	Mx	.017	5.88
61	MP1C	X	-12.966	.63
62	MP1C	Z	22.457	.63
63	MP1C	Mx	-.03	.63
64	MP1C	X	-12.966	5.88
65	MP1C	Z	22.457	5.88
66	MP1C	Mx	-.03	5.88
67	MP4B	X	-13.965	.63
68	MP4B	Z	24.188	.63
69	MP4B	Mx	.017	.63
70	MP4B	X	-13.965	5.88
71	MP4B	Z	24.188	5.88
72	MP4B	Mx	.017	5.88
73	MP4C	X	-12.966	.63



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
74	MP4C	Z	22.457	.63
75	MP4C	Mx	-.03	.63
76	MP4C	X	-12.966	5.88
77	MP4C	Z	22.457	5.88
78	MP4C	Mx	-.03	5.88
79	MP1A	X	-11.236	.63
80	MP1A	Z	19.462	.63
81	MP1A	Mx	.024	.63
82	MP1A	X	-11.236	5.88
83	MP1A	Z	19.462	5.88
84	MP1A	Mx	.024	5.88
85	MP4A	X	-11.236	.63
86	MP4A	Z	19.462	.63
87	MP4A	Mx	.024	.63
88	MP4A	X	-11.236	5.88
89	MP4A	Z	19.462	5.88
90	MP4A	Mx	.024	5.88
91	MP3A	X	-1.182	4.5
92	MP3A	Z	2.047	4.5
93	MP3A	Mx	-.000853	4.5
94	MP3B	X	-1.365	4.5
95	MP3B	Z	2.364	4.5
96	MP3B	Mx	-.000569	4.5
97	MP3C	X	-1.133	4.5
98	MP3C	Z	1.963	4.5
99	MP3C	Mx	.000887	4.5
100	MP2A	X	-4.709	1
101	MP2A	Z	8.157	1
102	MP2A	Mx	-.005	1
103	MP2B	X	-5.594	1
104	MP2B	Z	9.688	1
105	MP2B	Mx	-.003	1
106	MP2C	X	-4.474	1
107	MP2C	Z	7.749	1
108	MP2C	Mx	.005	1
109	MP3A	X	-4.654	1
110	MP3A	Z	8.061	1
111	MP3A	Mx	-.005	1
112	MP3B	X	-5.575	1
113	MP3B	Z	9.657	1
114	MP3B	Mx	-.003	1
115	MP3C	X	-4.409	1
116	MP3C	Z	7.636	1
117	MP3C	Mx	.005	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-21.518	1.63
2	MP3A	Z	12.424	1.63
3	MP3A	Mx	-.007	1.63
4	MP3A	X	-21.518	5.13
5	MP3A	Z	12.424	5.13
6	MP3A	Mx	-.007	5.13
7	MP3B	X	-17.794	1.63
8	MP3B	Z	10.273	1.63
9	MP3B	Mx	.021	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
10	MP3B	X	-17.794	5.13
11	MP3B	Z	10.273	5.13
12	MP3B	Mx	.021	5.13
13	MP3C	X	-20.303	1.63
14	MP3C	Z	11.722	1.63
15	MP3C	Mx	.002	1.63
16	MP3C	X	-20.303	5.13
17	MP3C	Z	11.722	5.13
18	MP3C	Mx	.002	5.13
19	MP3A	X	-21.518	1.63
20	MP3A	Z	12.424	1.63
21	MP3A	Mx	.025	1.63
22	MP3A	X	-21.518	5.13
23	MP3A	Z	12.424	5.13
24	MP3A	Mx	.025	5.13
25	MP3B	X	-17.794	1.63
26	MP3B	Z	10.273	1.63
27	MP3B	Mx	.006	1.63
28	MP3B	X	-17.794	5.13
29	MP3B	Z	10.273	5.13
30	MP3B	Mx	.006	5.13
31	MP3C	X	-20.303	1.63
32	MP3C	Z	11.722	1.63
33	MP3C	Mx	-.025	1.63
34	MP3C	X	-20.303	5.13
35	MP3C	Z	11.722	5.13
36	MP3C	Mx	-.025	5.13
37	MP2A	X	-8.669	1.43
38	MP2A	Z	5.005	1.43
39	MP2A	Mx	.003	1.43
40	MP2A	X	-8.669	3.43
41	MP2A	Z	5.005	3.43
42	MP2A	Mx	.003	3.43
43	MP2B	X	-5.735	1.43
44	MP2B	Z	3.311	1.43
45	MP2B	Mx	.003	1.43
46	MP2B	X	-5.735	3.43
47	MP2B	Z	3.311	3.43
48	MP2B	Mx	.003	3.43
49	MP2C	X	-7.711	1.43
50	MP2C	Z	4.452	1.43
51	MP2C	Mx	-.003	1.43
52	MP2C	X	-7.711	3.43
53	MP2C	Z	4.452	3.43
54	MP2C	Mx	-.003	3.43
55	MP1B	X	-22.821	.63
56	MP1B	Z	13.176	.63
57	MP1B	Mx	.029	.63
58	MP1B	X	-22.821	5.88
59	MP1B	Z	13.176	5.88
60	MP1B	Mx	.029	5.88
61	MP1C	X	-23.742	.63
62	MP1C	Z	13.707	.63
63	MP1C	Mx	-.022	.63
64	MP1C	X	-23.742	5.88
65	MP1C	Z	13.707	5.88
66	MP1C	Mx	-.022	5.88



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
67	MP4B	X	-22.821	.63
68	MP4B	Z	13.176	.63
69	MP4B	Mx	.029	.63
70	MP4B	X	-22.821	5.88
71	MP4B	Z	13.176	5.88
72	MP4B	Mx	.029	5.88
73	MP4C	X	-23.742	.63
74	MP4C	Z	13.707	.63
75	MP4C	Mx	-.022	.63
76	MP4C	X	-23.742	5.88
77	MP4C	Z	13.707	5.88
78	MP4C	Mx	-.022	5.88
79	MP1A	X	-19.884	.63
80	MP1A	Z	11.48	.63
81	MP1A	Mx	.014	.63
82	MP1A	X	-19.884	5.88
83	MP1A	Z	11.48	5.88
84	MP1A	Mx	.014	5.88
85	MP4A	X	-19.884	.63
86	MP4A	Z	11.48	.63
87	MP4A	Mx	.014	.63
88	MP4A	X	-19.884	5.88
89	MP4A	Z	11.48	5.88
90	MP4A	Mx	.014	5.88
91	MP3A	X	-2.364	4.5
92	MP3A	Z	1.365	4.5
93	MP3A	Mx	-.000569	4.5
94	MP3B	X	-2.047	4.5
95	MP3B	Z	1.182	4.5
96	MP3B	Mx	-.000853	4.5
97	MP3C	X	-2.261	4.5
98	MP3C	Z	1.305	4.5
99	MP3C	Mx	.000699	4.5
100	MP2A	X	-9.688	1
101	MP2A	Z	5.594	1
102	MP2A	Mx	-.003	1
103	MP2B	X	-8.157	1
104	MP2B	Z	4.709	1
105	MP2B	Mx	-.005	1
106	MP2C	X	-9.189	1
107	MP2C	Z	5.305	1
108	MP2C	Mx	.004	1
109	MP3A	X	-9.657	1
110	MP3A	Z	5.575	1
111	MP3A	Mx	-.003	1
112	MP3B	X	-8.061	1
113	MP3B	Z	4.654	1
114	MP3B	Mx	-.005	1
115	MP3C	X	-9.136	1
116	MP3C	Z	5.275	1
117	MP3C	Mx	.004	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-26.997	1.63
2	MP3A	Z	0	1.63



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
3	MP3A	Mx	-.02	1.63
4	MP3A	X	-26.997	5.13
5	MP3A	Z	0	5.13
6	MP3A	Mx	-.02	5.13
7	MP3B	X	-18.396	1.63
8	MP3B	Z	0	1.63
9	MP3B	Mx	.014	1.63
10	MP3B	X	-18.396	5.13
11	MP3B	Z	0	5.13
12	MP3B	Mx	.014	5.13
13	MP3C	X	-26.738	1.63
14	MP3C	Z	0	1.63
15	MP3C	Mx	.016	1.63
16	MP3C	X	-26.738	5.13
17	MP3C	Z	0	5.13
18	MP3C	Mx	.016	5.13
19	MP3A	X	-26.997	1.63
20	MP3A	Z	0	1.63
21	MP3A	Mx	.02	1.63
22	MP3A	X	-26.997	5.13
23	MP3A	Z	0	5.13
24	MP3A	Mx	.02	5.13
25	MP3B	X	-18.396	1.63
26	MP3B	Z	0	1.63
27	MP3B	Mx	.014	1.63
28	MP3B	X	-18.396	5.13
29	MP3B	Z	0	5.13
30	MP3B	Mx	.014	5.13
31	MP3C	X	-26.738	1.63
32	MP3C	Z	0	1.63
33	MP3C	Mx	-.023	1.63
34	MP3C	X	-26.738	5.13
35	MP3C	Z	0	5.13
36	MP3C	Mx	-.023	5.13
37	MP2A	X	-11.704	1.43
38	MP2A	Z	0	1.43
39	MP2A	Mx	0	1.43
40	MP2A	X	-11.704	3.43
41	MP2A	Z	0	3.43
42	MP2A	Mx	0	3.43
43	MP2B	X	-4.928	1.43
44	MP2B	Z	0	1.43
45	MP2B	Mx	.002	1.43
46	MP2B	X	-4.928	3.43
47	MP2B	Z	0	3.43
48	MP2B	Mx	.002	3.43
49	MP2C	X	-11.499	1.43
50	MP2C	Z	0	1.43
51	MP2C	Mx	-.000998	1.43
52	MP2C	X	-11.499	3.43
53	MP2C	Z	0	3.43
54	MP2C	Mx	-.000998	3.43
55	MP1B	X	-25.562	.63
56	MP1B	Z	0	.63
57	MP1B	Mx	.032	.63
58	MP1B	X	-25.562	5.88
59	MP1B	Z	0	5.88

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
60	MP1B	Mx	.032	5.88
61	MP1C	X	-28.624	.63
62	MP1C	Z	0	.63
63	MP1C	Mx	-.006	.63
64	MP1C	X	-28.624	5.88
65	MP1C	Z	0	5.88
66	MP1C	Mx	-.006	5.88
67	MP4B	X	-25.562	.63
68	MP4B	Z	0	.63
69	MP4B	Mx	.032	.63
70	MP4B	X	-25.562	5.88
71	MP4B	Z	0	5.88
72	MP4B	Mx	.032	5.88
73	MP4C	X	-28.624	.63
74	MP4C	Z	0	.63
75	MP4C	Mx	-.006	.63
76	MP4C	X	-28.624	5.88
77	MP4C	Z	0	5.88
78	MP4C	Mx	-.006	5.88
79	MP1A	X	-23.204	.63
80	MP1A	Z	0	.63
81	MP1A	Mx	0	.63
82	MP1A	X	-23.204	5.88
83	MP1A	Z	0	5.88
84	MP1A	Mx	0	5.88
85	MP4A	X	-23.204	.63
86	MP4A	Z	0	.63
87	MP4A	Mx	0	.63
88	MP4A	X	-23.204	5.88
89	MP4A	Z	0	5.88
90	MP4A	Mx	0	5.88
91	MP3A	X	-2.913	4.5
92	MP3A	Z	0	4.5
93	MP3A	Mx	0	4.5
94	MP3B	X	-2.181	4.5
95	MP3B	Z	0	4.5
96	MP3B	Mx	-.000909	4.5
97	MP3C	X	-2.891	4.5
98	MP3C	Z	0	4.5
99	MP3C	Mx	.000209	4.5
100	MP2A	X	-12.072	1
101	MP2A	Z	0	1
102	MP2A	Mx	0	1
103	MP2B	X	-8.534	1
104	MP2B	Z	0	1
105	MP2B	Mx	-.005	1
106	MP2C	X	-11.965	1
107	MP2C	Z	0	1
108	MP2C	Mx	.001	1
109	MP3A	X	-12.072	1
110	MP3A	Z	0	1
111	MP3A	Mx	0	1
112	MP3B	X	-8.387	1
113	MP3B	Z	0	1
114	MP3B	Mx	-.005	1
115	MP3C	X	-11.96	1
116	MP3C	Z	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
117	MP3C	Mx	.001	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-21.518	1.63
2	MP3A	Z	-12.424	1.63
3	MP3A	Mx	-.025	1.63
4	MP3A	X	-21.518	5.13
5	MP3A	Z	-12.424	5.13
6	MP3A	Mx	-.025	5.13
7	MP3B	X	-17.794	1.63
8	MP3B	Z	-10.273	1.63
9	MP3B	Mx	.006	1.63
10	MP3B	X	-17.794	5.13
11	MP3B	Z	-10.273	5.13
12	MP3B	Mx	.006	5.13
13	MP3C	X	-22.509	1.63
14	MP3C	Z	-12.996	1.63
15	MP3C	Mx	.025	1.63
16	MP3C	X	-22.509	5.13
17	MP3C	Z	-12.996	5.13
18	MP3C	Mx	.025	5.13
19	MP3A	X	-21.518	1.63
20	MP3A	Z	-12.424	1.63
21	MP3A	Mx	.007	1.63
22	MP3A	X	-21.518	5.13
23	MP3A	Z	-12.424	5.13
24	MP3A	Mx	.007	5.13
25	MP3B	X	-17.794	1.63
26	MP3B	Z	-10.273	1.63
27	MP3B	Mx	.021	1.63
28	MP3B	X	-17.794	5.13
29	MP3B	Z	-10.273	5.13
30	MP3B	Mx	.021	5.13
31	MP3C	X	-22.509	1.63
32	MP3C	Z	-12.996	1.63
33	MP3C	Mx	-.012	1.63
34	MP3C	X	-22.509	5.13
35	MP3C	Z	-12.996	5.13
36	MP3C	Mx	-.012	5.13
37	MP2A	X	-8.669	1.43
38	MP2A	Z	-5.005	1.43
39	MP2A	Mx	-.003	1.43
40	MP2A	X	-8.669	3.43
41	MP2A	Z	-5.005	3.43
42	MP2A	Mx	-.003	3.43
43	MP2B	X	-5.735	1.43
44	MP2B	Z	-3.311	1.43
45	MP2B	Mx	.003	1.43
46	MP2B	X	-5.735	3.43
47	MP2B	Z	-3.311	3.43
48	MP2B	Mx	.003	3.43
49	MP2C	X	-9.449	1.43
50	MP2C	Z	-5.456	1.43
51	MP2C	Mx	.002	1.43
52	MP2C	X	-9.449	3.43



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
53	MP2C	Z	-5.456	3.43
54	MP2C	Mx	.002	3.43
55	MP1B	X	-22.821	.63
56	MP1B	Z	-13.176	.63
57	MP1B	Mx	.029	.63
58	MP1B	X	-22.821	5.88
59	MP1B	Z	-13.176	5.88
60	MP1B	Mx	.029	5.88
61	MP1C	X	-24.552	.63
62	MP1C	Z	-14.175	.63
63	MP1C	Mx	.012	.63
64	MP1C	X	-24.552	5.88
65	MP1C	Z	-14.175	5.88
66	MP1C	Mx	.012	5.88
67	MP4B	X	-22.821	.63
68	MP4B	Z	-13.176	.63
69	MP4B	Mx	.029	.63
70	MP4B	X	-22.821	5.88
71	MP4B	Z	-13.176	5.88
72	MP4B	Mx	.029	5.88
73	MP4C	X	-24.552	.63
74	MP4C	Z	-14.175	.63
75	MP4C	Mx	.012	.63
76	MP4C	X	-24.552	5.88
77	MP4C	Z	-14.175	5.88
78	MP4C	Mx	.012	5.88
79	MP1A	X	-19.884	.63
80	MP1A	Z	-11.48	.63
81	MP1A	Mx	-.014	.63
82	MP1A	X	-19.884	5.88
83	MP1A	Z	-11.48	5.88
84	MP1A	Mx	-.014	5.88
85	MP4A	X	-19.884	.63
86	MP4A	Z	-11.48	.63
87	MP4A	Mx	-.014	.63
88	MP4A	X	-19.884	5.88
89	MP4A	Z	-11.48	5.88
90	MP4A	Mx	-.014	5.88
91	MP3A	X	-2.364	4.5
92	MP3A	Z	-1.365	4.5
93	MP3A	Mx	.000569	4.5
94	MP3B	X	-2.047	4.5
95	MP3B	Z	-1.182	4.5
96	MP3B	Mx	-.000853	4.5
97	MP3C	X	-2.448	4.5
98	MP3C	Z	-1.414	4.5
99	MP3C	Mx	-.000403	4.5
100	MP2A	X	-9.688	1
101	MP2A	Z	-5.594	1
102	MP2A	Mx	.003	1
103	MP2B	X	-8.157	1
104	MP2B	Z	-4.709	1
105	MP2B	Mx	-.005	1
106	MP2C	X	-10.096	1
107	MP2C	Z	-5.829	1
108	MP2C	Mx	-.002	1
109	MP3A	X	-9.657	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
110	MP3A	Z	-5.575	1
111	MP3A	Mx	.003	1
112	MP3B	X	-8.061	1
113	MP3B	Z	-4.654	1
114	MP3B	Mx	-.005	1
115	MP3C	X	-10.081	1
116	MP3C	Z	-5.82	1
117	MP3C	Mx	-.002	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-10.273	1.63
2	MP3A	Z	-17.794	1.63
3	MP3A	Mx	-.021	1.63
4	MP3A	X	-10.273	5.13
5	MP3A	Z	-17.794	5.13
6	MP3A	Mx	-.021	5.13
7	MP3B	X	-12.424	1.63
8	MP3B	Z	-21.518	1.63
9	MP3B	Mx	-.007	1.63
10	MP3B	X	-12.424	5.13
11	MP3B	Z	-21.518	5.13
12	MP3B	Mx	-.007	5.13
13	MP3C	X	-10.975	1.63
14	MP3C	Z	-19.009	1.63
15	MP3C	Mx	.023	1.63
16	MP3C	X	-10.975	5.13
17	MP3C	Z	-19.009	5.13
18	MP3C	Mx	.023	5.13
19	MP3A	X	-10.273	1.63
20	MP3A	Z	-17.794	1.63
21	MP3A	Mx	-.006	1.63
22	MP3A	X	-10.273	5.13
23	MP3A	Z	-17.794	5.13
24	MP3A	Mx	-.006	5.13
25	MP3B	X	-12.424	1.63
26	MP3B	Z	-21.518	1.63
27	MP3B	Mx	.025	1.63
28	MP3B	X	-12.424	5.13
29	MP3B	Z	-21.518	5.13
30	MP3B	Mx	.025	5.13
31	MP3C	X	-10.975	1.63
32	MP3C	Z	-19.009	1.63
33	MP3C	Mx	.002	1.63
34	MP3C	X	-10.975	5.13
35	MP3C	Z	-19.009	5.13
36	MP3C	Mx	.002	5.13
37	MP2A	X	-3.311	1.43
38	MP2A	Z	-5.735	1.43
39	MP2A	Mx	-.003	1.43
40	MP2A	X	-3.311	3.43
41	MP2A	Z	-5.735	3.43
42	MP2A	Mx	-.003	3.43
43	MP2B	X	-5.005	1.43
44	MP2B	Z	-8.669	1.43
45	MP2B	Mx	.003	1.43

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
46	MP2B	X	-5.005	3.43
47	MP2B	Z	-8.669	3.43
48	MP2B	Mx	.003	3.43
49	MP2C	X	-3.864	1.43
50	MP2C	Z	-6.692	1.43
51	MP2C	Mx	.003	1.43
52	MP2C	X	-3.864	3.43
53	MP2C	Z	-6.692	3.43
54	MP2C	Mx	.003	3.43
55	MP1B	X	-13.965	.63
56	MP1B	Z	-24.188	.63
57	MP1B	Mx	.017	.63
58	MP1B	X	-13.965	5.88
59	MP1B	Z	-24.188	5.88
60	MP1B	Mx	.017	5.88
61	MP1C	X	-13.433	.63
62	MP1C	Z	-23.267	.63
63	MP1C	Mx	.026	.63
64	MP1C	X	-13.433	5.88
65	MP1C	Z	-23.267	5.88
66	MP1C	Mx	.026	5.88
67	MP4B	X	-13.965	.63
68	MP4B	Z	-24.188	.63
69	MP4B	Mx	.017	.63
70	MP4B	X	-13.965	5.88
71	MP4B	Z	-24.188	5.88
72	MP4B	Mx	.017	5.88
73	MP4C	X	-13.433	.63
74	MP4C	Z	-23.267	.63
75	MP4C	Mx	.026	.63
76	MP4C	X	-13.433	5.88
77	MP4C	Z	-23.267	5.88
78	MP4C	Mx	.026	5.88
79	MP1A	X	-11.236	.63
80	MP1A	Z	-19.462	.63
81	MP1A	Mx	-.024	.63
82	MP1A	X	-11.236	5.88
83	MP1A	Z	-19.462	5.88
84	MP1A	Mx	-.024	5.88
85	MP4A	X	-11.236	.63
86	MP4A	Z	-19.462	.63
87	MP4A	Mx	-.024	.63
88	MP4A	X	-11.236	5.88
89	MP4A	Z	-19.462	5.88
90	MP4A	Mx	-.024	5.88
91	MP3A	X	-1.182	4.5
92	MP3A	Z	-2.047	4.5
93	MP3A	Mx	.000853	4.5
94	MP3B	X	-1.365	4.5
95	MP3B	Z	-2.364	4.5
96	MP3B	Mx	-.000569	4.5
97	MP3C	X	-1.242	4.5
98	MP3C	Z	-2.151	4.5
99	MP3C	Mx	-.000793	4.5
100	MP2A	X	-4.709	1
101	MP2A	Z	-8.157	1
102	MP2A	Mx	.005	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
103	MP2B	X	-5.594	1
104	MP2B	Z	-9.688	1
105	MP2B	Mx	-.003	1
106	MP2C	X	-4.998	1
107	MP2C	Z	-8.657	1
108	MP2C	Mx	-.005	1
109	MP3A	X	-4.654	1
110	MP3A	Z	-8.061	1
111	MP3A	Mx	.005	1
112	MP3B	X	-5.575	1
113	MP3B	Z	-9.657	1
114	MP3B	Mx	-.003	1
115	MP3C	X	-4.955	1
116	MP3C	Z	-8.582	1
117	MP3C	Mx	-.005	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	0	1.63
2	MP3A	Z	-5.841	1.63
3	MP3A	Mx	-.004	1.63
4	MP3A	X	0	5.13
5	MP3A	Z	-5.841	5.13
6	MP3A	Mx	-.004	5.13
7	MP3B	X	0	1.63
8	MP3B	Z	-8.894	1.63
9	MP3B	Mx	-.007	1.63
10	MP3B	X	0	5.13
11	MP3B	Z	-8.894	5.13
12	MP3B	Mx	-.007	5.13
13	MP3C	X	0	1.63
14	MP3C	Z	-5.933	1.63
15	MP3C	Mx	.005	1.63
16	MP3C	X	0	5.13
17	MP3C	Z	-5.933	5.13
18	MP3C	Mx	.005	5.13
19	MP3A	X	0	1.63
20	MP3A	Z	-5.841	1.63
21	MP3A	Mx	-.004	1.63
22	MP3A	X	0	5.13
23	MP3A	Z	-5.841	5.13
24	MP3A	Mx	-.004	5.13
25	MP3B	X	0	1.63
26	MP3B	Z	-8.894	1.63
27	MP3B	Mx	.007	1.63
28	MP3B	X	0	5.13
29	MP3B	Z	-8.894	5.13
30	MP3B	Mx	.007	5.13
31	MP3C	X	0	1.63
32	MP3C	Z	-5.933	1.63
33	MP3C	Mx	.004	1.63
34	MP3C	X	0	5.13
35	MP3C	Z	-5.933	5.13
36	MP3C	Mx	.004	5.13
37	MP2A	X	0	1.43
38	MP2A	Z	-1.084	1.43

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
39	MP2A	Mx	-.000542	1.43
40	MP2A	X	0	3.43
41	MP2A	Z	-1.084	3.43
42	MP2A	Mx	-.000542	3.43
43	MP2B	X	0	1.43
44	MP2B	Z	-3.085	1.43
45	MP2B	Mx	0	1.43
46	MP2B	X	0	3.43
47	MP2B	Z	-3.085	3.43
48	MP2B	Mx	0	3.43
49	MP2C	X	0	1.43
50	MP2C	Z	-1.144	1.43
51	MP2C	Mx	.000563	1.43
52	MP2C	X	0	3.43
53	MP2C	Z	-1.144	3.43
54	MP2C	Mx	.000563	3.43
55	MP1B	X	0	.63
56	MP1B	Z	-9.528	.63
57	MP1B	Mx	0	.63
58	MP1B	X	0	5.88
59	MP1B	Z	-9.528	5.88
60	MP1B	Mx	0	5.88
61	MP1C	X	0	.63
62	MP1C	Z	-8.433	.63
63	MP1C	Mx	.01	.63
64	MP1C	X	0	5.88
65	MP1C	Z	-8.433	5.88
66	MP1C	Mx	.01	5.88
67	MP4B	X	0	.63
68	MP4B	Z	-9.528	.63
69	MP4B	Mx	0	.63
70	MP4B	X	0	5.88
71	MP4B	Z	-9.528	5.88
72	MP4B	Mx	0	5.88
73	MP4C	X	0	.63
74	MP4C	Z	-8.433	.63
75	MP4C	Mx	.01	.63
76	MP4C	X	0	5.88
77	MP4C	Z	-8.433	5.88
78	MP4C	Mx	.01	5.88
79	MP1A	X	0	.63
80	MP1A	Z	-7.113	.63
81	MP1A	Mx	-.009	.63
82	MP1A	X	0	5.88
83	MP1A	Z	-7.113	5.88
84	MP1A	Mx	-.009	5.88
85	MP4A	X	0	.63
86	MP4A	Z	-7.113	.63
87	MP4A	Mx	-.009	.63
88	MP4A	X	0	5.88
89	MP4A	Z	-7.113	5.88
90	MP4A	Mx	-.009	5.88
91	MP3A	X	0	4.5
92	MP3A	Z	-.5	4.5
93	MP3A	Mx	.000208	4.5
94	MP3B	X	0	4.5
95	MP3B	Z	-.722	4.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
96	MP3B	Mx	0	4.5
97	MP3C	X	0	4.5
98	MP3C	Z	-.507	4.5
99	MP3C	Mx	-.000208	4.5
100	MP2A	X	0	1
101	MP2A	Z	-2.489	1
102	MP2A	Mx	.002	1
103	MP2B	X	0	1
104	MP2B	Z	-3.651	1
105	MP2B	Mx	0	1
106	MP2C	X	0	1
107	MP2C	Z	-2.525	1
108	MP2C	Mx	-.002	1
109	MP3A	X	0	1
110	MP3A	Z	-2.031	1
111	MP3A	Mx	.001	1
112	MP3B	X	0	1
113	MP3B	Z	-3.026	1
114	MP3B	Mx	0	1
115	MP3C	X	0	1
116	MP3C	Z	-2.061	1
117	MP3C	Mx	-.001	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	3.302	1.63
2	MP3A	Z	-5.72	1.63
3	MP3A	Mx	-.002	1.63
4	MP3A	X	3.302	5.13
5	MP3A	Z	-5.72	5.13
6	MP3A	Mx	-.002	5.13
7	MP3B	X	4.065	1.63
8	MP3B	Z	-7.041	1.63
9	MP3B	Mx	-.008	1.63
10	MP3B	X	4.065	5.13
11	MP3B	Z	-7.041	5.13
12	MP3B	Mx	-.008	5.13
13	MP3C	X	3.099	1.63
14	MP3C	Z	-5.368	1.63
15	MP3C	Mx	.003	1.63
16	MP3C	X	3.099	5.13
17	MP3C	Z	-5.368	5.13
18	MP3C	Mx	.003	5.13
19	MP3A	X	3.302	1.63
20	MP3A	Z	-5.72	1.63
21	MP3A	Mx	-.007	1.63
22	MP3A	X	3.302	5.13
23	MP3A	Z	-5.72	5.13
24	MP3A	Mx	-.007	5.13
25	MP3B	X	4.065	1.63
26	MP3B	Z	-7.041	1.63
27	MP3B	Mx	.002	1.63
28	MP3B	X	4.065	5.13
29	MP3B	Z	-7.041	5.13
30	MP3B	Mx	.002	5.13
31	MP3C	X	3.099	1.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
32	MP3C	Z	-5.368	1.63
33	MP3C	Mx	.006	1.63
34	MP3C	X	3.099	5.13
35	MP3C	Z	-5.368	5.13
36	MP3C	Mx	.006	5.13
37	MP2A	X	.792	1.43
38	MP2A	Z	-1.372	1.43
39	MP2A	Mx	-.000686	1.43
40	MP2A	X	.792	3.43
41	MP2A	Z	-1.372	3.43
42	MP2A	Mx	-.000686	3.43
43	MP2B	X	1.292	1.43
44	MP2B	Z	-2.238	1.43
45	MP2B	Mx	-.000646	1.43
46	MP2B	X	1.292	3.43
47	MP2B	Z	-2.238	3.43
48	MP2B	Mx	-.000646	3.43
49	MP2C	X	.659	1.43
50	MP2C	Z	-1.141	1.43
51	MP2C	Mx	.000619	1.43
52	MP2C	X	.659	3.43
53	MP2C	Z	-1.141	3.43
54	MP2C	Mx	.000619	3.43
55	MP1B	X	4.623	.63
56	MP1B	Z	-8.007	.63
57	MP1B	Mx	-.006	.63
58	MP1B	X	4.623	5.88
59	MP1B	Z	-8.007	5.88
60	MP1B	Mx	-.006	5.88
61	MP1C	X	4.266	.63
62	MP1C	Z	-7.388	.63
63	MP1C	Mx	.01	.63
64	MP1C	X	4.266	5.88
65	MP1C	Z	-7.388	5.88
66	MP1C	Mx	.01	5.88
67	MP4B	X	4.623	.63
68	MP4B	Z	-8.007	.63
69	MP4B	Mx	-.006	.63
70	MP4B	X	4.623	5.88
71	MP4B	Z	-8.007	5.88
72	MP4B	Mx	-.006	5.88
73	MP4C	X	4.266	.63
74	MP4C	Z	-7.388	.63
75	MP4C	Mx	.01	.63
76	MP4C	X	4.266	5.88
77	MP4C	Z	-7.388	5.88
78	MP4C	Mx	.01	5.88
79	MP1A	X	3.596	.63
80	MP1A	Z	-6.229	.63
81	MP1A	Mx	-.008	.63
82	MP1A	X	3.596	5.88
83	MP1A	Z	-6.229	5.88
84	MP1A	Mx	-.008	5.88
85	MP4A	X	3.596	.63
86	MP4A	Z	-6.229	.63
87	MP4A	Mx	-.008	.63
88	MP4A	X	3.596	5.88

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
89	MP4A	Z	-6.229	5.88
90	MP4A	Mx	-.008	5.88
91	MP3A	X	.278	4.5
92	MP3A	Z	-.481	4.5
93	MP3A	Mx	.0002	4.5
94	MP3B	X	.333	4.5
95	MP3B	Z	-.577	4.5
96	MP3B	Mx	.000139	4.5
97	MP3C	X	.263	4.5
98	MP3C	Z	-.455	4.5
99	MP3C	Mx	-.000206	4.5
100	MP2A	X	1.39	1
101	MP2A	Z	-2.407	1
102	MP2A	Mx	.002	1
103	MP2B	X	1.68	1
104	MP2B	Z	-2.911	1
105	MP2B	Mx	.001	1
106	MP2C	X	1.313	1
107	MP2C	Z	-2.274	1
108	MP2C	Mx	-.002	1
109	MP3A	X	1.14	1
110	MP3A	Z	-1.974	1
111	MP3A	Mx	.001	1
112	MP3B	X	1.389	1
113	MP3B	Z	-2.405	1
114	MP3B	Mx	.000868	1
115	MP3C	X	1.074	1
116	MP3C	Z	-1.859	1
117	MP3C	Mx	-.001	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	7.041	1.63
2	MP3A	Z	-4.065	1.63
3	MP3A	Mx	.002	1.63
4	MP3A	X	7.041	5.13
5	MP3A	Z	-4.065	5.13
6	MP3A	Mx	.002	5.13
7	MP3B	X	5.72	1.63
8	MP3B	Z	-3.302	1.63
9	MP3B	Mx	-.007	1.63
10	MP3B	X	5.72	5.13
11	MP3B	Z	-3.302	5.13
12	MP3B	Mx	-.007	5.13
13	MP3C	X	6.61	1.63
14	MP3C	Z	-3.816	1.63
15	MP3C	Mx	-.000706	1.63
16	MP3C	X	6.61	5.13
17	MP3C	Z	-3.816	5.13
18	MP3C	Mx	-.000706	5.13
19	MP3A	X	7.041	1.63
20	MP3A	Z	-4.065	1.63
21	MP3A	Mx	-.008	1.63
22	MP3A	X	7.041	5.13
23	MP3A	Z	-4.065	5.13
24	MP3A	Mx	-.008	5.13



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
25	MP3B	X	5.72	1.63
26	MP3B	Z	-3.302	1.63
27	MP3B	Mx	-.002	1.63
28	MP3B	X	5.72	5.13
29	MP3B	Z	-3.302	5.13
30	MP3B	Mx	-.002	5.13
31	MP3C	X	6.61	1.63
32	MP3C	Z	-3.816	1.63
33	MP3C	Mx	.008	1.63
34	MP3C	X	6.61	5.13
35	MP3C	Z	-3.816	5.13
36	MP3C	Mx	.008	5.13
37	MP2A	X	2.238	1.43
38	MP2A	Z	-1.292	1.43
39	MP2A	Mx	-.000646	1.43
40	MP2A	X	2.238	3.43
41	MP2A	Z	-1.292	3.43
42	MP2A	Mx	-.000646	3.43
43	MP2B	X	1.372	1.43
44	MP2B	Z	-.792	1.43
45	MP2B	Mx	-.000686	1.43
46	MP2B	X	1.372	3.43
47	MP2B	Z	-.792	3.43
48	MP2B	Mx	-.000686	3.43
49	MP2C	X	1.956	1.43
50	MP2C	Z	-1.129	1.43
51	MP2C	Mx	.000726	1.43
52	MP2C	X	1.956	3.43
53	MP2C	Z	-1.129	3.43
54	MP2C	Mx	.000726	3.43
55	MP1B	X	7.518	.63
56	MP1B	Z	-4.341	.63
57	MP1B	Mx	-.009	.63
58	MP1B	X	7.518	5.88
59	MP1B	Z	-4.341	5.88
60	MP1B	Mx	-.009	5.88
61	MP1C	X	7.848	.63
62	MP1C	Z	-4.531	.63
63	MP1C	Mx	.007	.63
64	MP1C	X	7.848	5.88
65	MP1C	Z	-4.531	5.88
66	MP1C	Mx	.007	5.88
67	MP4B	X	7.518	.63
68	MP4B	Z	-4.341	.63
69	MP4B	Mx	-.009	.63
70	MP4B	X	7.518	5.88
71	MP4B	Z	-4.341	5.88
72	MP4B	Mx	-.009	5.88
73	MP4C	X	7.848	.63
74	MP4C	Z	-4.531	.63
75	MP4C	Mx	.007	.63
76	MP4C	X	7.848	5.88
77	MP4C	Z	-4.531	5.88
78	MP4C	Mx	.007	5.88
79	MP1A	X	6.366	.63
80	MP1A	Z	-3.675	.63
81	MP1A	Mx	-.004	.63



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
82	MP1A	X	6.366	5.88
83	MP1A	Z	-3.675	5.88
84	MP1A	Mx	-.004	5.88
85	MP4A	X	6.366	.63
86	MP4A	Z	-3.675	.63
87	MP4A	Mx	-.004	.63
88	MP4A	X	6.366	5.88
89	MP4A	Z	-3.675	5.88
90	MP4A	Mx	-.004	5.88
91	MP3A	X	.577	4.5
92	MP3A	Z	-.333	4.5
93	MP3A	Mx	.000139	4.5
94	MP3B	X	.481	4.5
95	MP3B	Z	-.278	4.5
96	MP3B	Mx	.0002	4.5
97	MP3C	X	.546	4.5
98	MP3C	Z	-.315	4.5
99	MP3C	Mx	-.000169	4.5
100	MP2A	X	2.911	1
101	MP2A	Z	-1.68	1
102	MP2A	Mx	.001	1
103	MP2B	X	2.407	1
104	MP2B	Z	-1.39	1
105	MP2B	Mx	.002	1
106	MP2C	X	2.746	1
107	MP2C	Z	-1.586	1
108	MP2C	Mx	-.001	1
109	MP3A	X	2.405	1
110	MP3A	Z	-1.389	1
111	MP3A	Mx	.000868	1
112	MP3B	X	1.974	1
113	MP3B	Z	-1.14	1
114	MP3B	Mx	.001	1
115	MP3C	X	2.265	1
116	MP3C	Z	-1.308	1
117	MP3C	Mx	-.001	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	8.894	1.63
2	MP3A	Z	0	1.63
3	MP3A	Mx	.007	1.63
4	MP3A	X	8.894	5.13
5	MP3A	Z	0	5.13
6	MP3A	Mx	.007	5.13
7	MP3B	X	5.841	1.63
8	MP3B	Z	0	1.63
9	MP3B	Mx	-.004	1.63
10	MP3B	X	5.841	5.13
11	MP3B	Z	0	5.13
12	MP3B	Mx	-.004	5.13
13	MP3C	X	8.802	1.63
14	MP3C	Z	0	1.63
15	MP3C	Mx	-.005	1.63
16	MP3C	X	8.802	5.13
17	MP3C	Z	0	5.13

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
18	MP3C	Mx	-.005	5.13
19	MP3A	X	8.894	1.63
20	MP3A	Z	0	1.63
21	MP3A	Mx	-.007	1.63
22	MP3A	X	8.894	5.13
23	MP3A	Z	0	5.13
24	MP3A	Mx	-.007	5.13
25	MP3B	X	5.841	1.63
26	MP3B	Z	0	1.63
27	MP3B	Mx	-.004	1.63
28	MP3B	X	5.841	5.13
29	MP3B	Z	0	5.13
30	MP3B	Mx	-.004	5.13
31	MP3C	X	8.802	1.63
32	MP3C	Z	0	1.63
33	MP3C	Mx	.008	1.63
34	MP3C	X	8.802	5.13
35	MP3C	Z	0	5.13
36	MP3C	Mx	.008	5.13
37	MP2A	X	3.085	1.43
38	MP2A	Z	0	1.43
39	MP2A	Mx	0	1.43
40	MP2A	X	3.085	3.43
41	MP2A	Z	0	3.43
42	MP2A	Mx	0	3.43
43	MP2B	X	1.084	1.43
44	MP2B	Z	0	1.43
45	MP2B	Mx	-.000542	1.43
46	MP2B	X	1.084	3.43
47	MP2B	Z	0	3.43
48	MP2B	Mx	-.000542	3.43
49	MP2C	X	3.025	1.43
50	MP2C	Z	0	1.43
51	MP2C	Mx	.000263	1.43
52	MP2C	X	3.025	3.43
53	MP2C	Z	0	3.43
54	MP2C	Mx	.000263	3.43
55	MP1B	X	8.399	.63
56	MP1B	Z	0	.63
57	MP1B	Mx	-.01	.63
58	MP1B	X	8.399	5.88
59	MP1B	Z	0	5.88
60	MP1B	Mx	-.01	5.88
61	MP1C	X	9.494	.63
62	MP1C	Z	0	.63
63	MP1C	Mx	.002	.63
64	MP1C	X	9.494	5.88
65	MP1C	Z	0	5.88
66	MP1C	Mx	.002	5.88
67	MP4B	X	8.399	.63
68	MP4B	Z	0	.63
69	MP4B	Mx	-.01	.63
70	MP4B	X	8.399	5.88
71	MP4B	Z	0	5.88
72	MP4B	Mx	-.01	5.88
73	MP4C	X	9.494	.63
74	MP4C	Z	0	.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
75	MP4C	Mx	.002	.63
76	MP4C	X	9.494	5.88
77	MP4C	Z	0	5.88
78	MP4C	Mx	.002	5.88
79	MP1A	X	7.429	.63
80	MP1A	Z	0	.63
81	MP1A	Mx	0	.63
82	MP1A	X	7.429	5.88
83	MP1A	Z	0	5.88
84	MP1A	Mx	0	5.88
85	MP4A	X	7.429	.63
86	MP4A	Z	0	.63
87	MP4A	Mx	0	.63
88	MP4A	X	7.429	5.88
89	MP4A	Z	0	5.88
90	MP4A	Mx	0	5.88
91	MP3A	X	.722	4.5
92	MP3A	Z	0	4.5
93	MP3A	Mx	0	4.5
94	MP3B	X	.5	4.5
95	MP3B	Z	0	4.5
96	MP3B	Mx	.000208	4.5
97	MP3C	X	.716	4.5
98	MP3C	Z	0	4.5
99	MP3C	Mx	-5.2e-5	4.5
100	MP2A	X	3.651	1
101	MP2A	Z	0	1
102	MP2A	Mx	0	1
103	MP2B	X	2.489	1
104	MP2B	Z	0	1
105	MP2B	Mx	.002	1
106	MP2C	X	3.616	1
107	MP2C	Z	0	1
108	MP2C	Mx	-.000392	1
109	MP3A	X	3.026	1
110	MP3A	Z	0	1
111	MP3A	Mx	0	1
112	MP3B	X	2.031	1
113	MP3B	Z	0	1
114	MP3B	Mx	.001	1
115	MP3C	X	2.996	1
116	MP3C	Z	0	1
117	MP3C	Mx	-.000325	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	7.041	1.63
2	MP3A	Z	4.065	1.63
3	MP3A	Mx	.008	1.63
4	MP3A	X	7.041	5.13
5	MP3A	Z	4.065	5.13
6	MP3A	Mx	.008	5.13
7	MP3B	X	5.72	1.63
8	MP3B	Z	3.302	1.63
9	MP3B	Mx	-.002	1.63
10	MP3B	X	5.72	5.13

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
11	MP3B	Z	3.302	5.13
12	MP3B	Mx	-.002	5.13
13	MP3C	X	7.393	1.63
14	MP3C	Z	4.268	1.63
15	MP3C	Mx	-.008	1.63
16	MP3C	X	7.393	5.13
17	MP3C	Z	4.268	5.13
18	MP3C	Mx	-.008	5.13
19	MP3A	X	7.041	1.63
20	MP3A	Z	4.065	1.63
21	MP3A	Mx	-.002	1.63
22	MP3A	X	7.041	5.13
23	MP3A	Z	4.065	5.13
24	MP3A	Mx	-.002	5.13
25	MP3B	X	5.72	1.63
26	MP3B	Z	3.302	1.63
27	MP3B	Mx	-.007	1.63
28	MP3B	X	5.72	5.13
29	MP3B	Z	3.302	5.13
30	MP3B	Mx	-.007	5.13
31	MP3C	X	7.393	1.63
32	MP3C	Z	4.268	1.63
33	MP3C	Mx	.004	1.63
34	MP3C	X	7.393	5.13
35	MP3C	Z	4.268	5.13
36	MP3C	Mx	.004	5.13
37	MP2A	X	2.238	1.43
38	MP2A	Z	1.292	1.43
39	MP2A	Mx	.000646	1.43
40	MP2A	X	2.238	3.43
41	MP2A	Z	1.292	3.43
42	MP2A	Mx	.000646	3.43
43	MP2B	X	1.372	1.43
44	MP2B	Z	.792	1.43
45	MP2B	Mx	-.000686	1.43
46	MP2B	X	1.372	3.43
47	MP2B	Z	.792	3.43
48	MP2B	Mx	-.000686	3.43
49	MP2C	X	2.469	1.43
50	MP2C	Z	1.425	1.43
51	MP2C	Mx	-.000487	1.43
52	MP2C	X	2.469	3.43
53	MP2C	Z	1.425	3.43
54	MP2C	Mx	-.000487	3.43
55	MP1B	X	7.518	.63
56	MP1B	Z	4.341	.63
57	MP1B	Mx	-.009	.63
58	MP1B	X	7.518	5.88
59	MP1B	Z	4.341	5.88
60	MP1B	Mx	-.009	5.88
61	MP1C	X	8.137	.63
62	MP1C	Z	4.698	.63
63	MP1C	Mx	-.004	.63
64	MP1C	X	8.137	5.88
65	MP1C	Z	4.698	5.88
66	MP1C	Mx	-.004	5.88
67	MP4B	X	7.518	.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
68	MP4B	Z	4.341	.63
69	MP4B	Mx	-.009	.63
70	MP4B	X	7.518	5.88
71	MP4B	Z	4.341	5.88
72	MP4B	Mx	-.009	5.88
73	MP4C	X	8.137	.63
74	MP4C	Z	4.698	.63
75	MP4C	Mx	-.004	.63
76	MP4C	X	8.137	5.88
77	MP4C	Z	4.698	5.88
78	MP4C	Mx	-.004	5.88
79	MP1A	X	6.366	.63
80	MP1A	Z	3.675	.63
81	MP1A	Mx	.004	.63
82	MP1A	X	6.366	5.88
83	MP1A	Z	3.675	5.88
84	MP1A	Mx	.004	5.88
85	MP4A	X	6.366	.63
86	MP4A	Z	3.675	.63
87	MP4A	Mx	.004	.63
88	MP4A	X	6.366	5.88
89	MP4A	Z	3.675	5.88
90	MP4A	Mx	.004	5.88
91	MP3A	X	.577	4.5
92	MP3A	Z	.333	4.5
93	MP3A	Mx	-.000139	4.5
94	MP3B	X	.481	4.5
95	MP3B	Z	.278	4.5
96	MP3B	Mx	.0002	4.5
97	MP3C	X	.603	4.5
98	MP3C	Z	.348	4.5
99	MP3C	Mx	9.9e-5	4.5
100	MP2A	X	2.911	1
101	MP2A	Z	1.68	1
102	MP2A	Mx	-.001	1
103	MP2B	X	2.407	1
104	MP2B	Z	1.39	1
105	MP2B	Mx	.002	1
106	MP2C	X	3.044	1
107	MP2C	Z	1.758	1
108	MP2C	Mx	.000752	1
109	MP3A	X	2.405	1
110	MP3A	Z	1.389	1
111	MP3A	Mx	-.000868	1
112	MP3B	X	1.974	1
113	MP3B	Z	1.14	1
114	MP3B	Mx	.001	1
115	MP3C	X	2.52	1
116	MP3C	Z	1.455	1
117	MP3C	Mx	.000622	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	3.302	1.63
2	MP3A	Z	5.72	1.63
3	MP3A	Mx	.007	1.63



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
4	MP3A	X	3.302	5.13
5	MP3A	Z	5.72	5.13
6	MP3A	Mx	.007	5.13
7	MP3B	X	4.065	1.63
8	MP3B	Z	7.041	1.63
9	MP3B	Mx	.002	1.63
10	MP3B	X	4.065	5.13
11	MP3B	Z	7.041	5.13
12	MP3B	Mx	.002	5.13
13	MP3C	X	3.551	1.63
14	MP3C	Z	6.151	1.63
15	MP3C	Mx	-.008	1.63
16	MP3C	X	3.551	5.13
17	MP3C	Z	6.151	5.13
18	MP3C	Mx	-.008	5.13
19	MP3A	X	3.302	1.63
20	MP3A	Z	5.72	1.63
21	MP3A	Mx	.002	1.63
22	MP3A	X	3.302	5.13
23	MP3A	Z	5.72	5.13
24	MP3A	Mx	.002	5.13
25	MP3B	X	4.065	1.63
26	MP3B	Z	7.041	1.63
27	MP3B	Mx	-.008	1.63
28	MP3B	X	4.065	5.13
29	MP3B	Z	7.041	5.13
30	MP3B	Mx	-.008	5.13
31	MP3C	X	3.551	1.63
32	MP3C	Z	6.151	1.63
33	MP3C	Mx	-.000657	1.63
34	MP3C	X	3.551	5.13
35	MP3C	Z	6.151	5.13
36	MP3C	Mx	-.000657	5.13
37	MP2A	X	.792	1.43
38	MP2A	Z	1.372	1.43
39	MP2A	Mx	.000686	1.43
40	MP2A	X	.792	3.43
41	MP2A	Z	1.372	3.43
42	MP2A	Mx	.000686	3.43
43	MP2B	X	1.292	1.43
44	MP2B	Z	2.238	1.43
45	MP2B	Mx	-.000646	1.43
46	MP2B	X	1.292	3.43
47	MP2B	Z	2.238	3.43
48	MP2B	Mx	-.000646	3.43
49	MP2C	X	.955	1.43
50	MP2C	Z	1.655	1.43
51	MP2C	Mx	-.000732	1.43
52	MP2C	X	.955	3.43
53	MP2C	Z	1.655	3.43
54	MP2C	Mx	-.000732	3.43
55	MP1B	X	4.623	.63
56	MP1B	Z	8.007	.63
57	MP1B	Mx	-.006	.63
58	MP1B	X	4.623	5.88
59	MP1B	Z	8.007	5.88
60	MP1B	Mx	-.006	5.88

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
61	MP1C	X	4.433	.63
62	MP1C	Z	7.678	.63
63	MP1C	Mx	-.008	.63
64	MP1C	X	4.433	5.88
65	MP1C	Z	7.678	5.88
66	MP1C	Mx	-.008	5.88
67	MP4B	X	4.623	.63
68	MP4B	Z	8.007	.63
69	MP4B	Mx	-.006	.63
70	MP4B	X	4.623	5.88
71	MP4B	Z	8.007	5.88
72	MP4B	Mx	-.006	5.88
73	MP4C	X	4.433	.63
74	MP4C	Z	7.678	.63
75	MP4C	Mx	-.008	.63
76	MP4C	X	4.433	5.88
77	MP4C	Z	7.678	5.88
78	MP4C	Mx	-.008	5.88
79	MP1A	X	3.596	.63
80	MP1A	Z	6.229	.63
81	MP1A	Mx	.008	.63
82	MP1A	X	3.596	5.88
83	MP1A	Z	6.229	5.88
84	MP1A	Mx	.008	5.88
85	MP4A	X	3.596	.63
86	MP4A	Z	6.229	.63
87	MP4A	Mx	.008	.63
88	MP4A	X	3.596	5.88
89	MP4A	Z	6.229	5.88
90	MP4A	Mx	.008	5.88
91	MP3A	X	.278	4.5
92	MP3A	Z	.481	4.5
93	MP3A	Mx	-.0002	4.5
94	MP3B	X	.333	4.5
95	MP3B	Z	.577	4.5
96	MP3B	Mx	.000139	4.5
97	MP3C	X	.296	4.5
98	MP3C	Z	.513	4.5
99	MP3C	Mx	.000189	4.5
100	MP2A	X	1.39	1
101	MP2A	Z	2.407	1
102	MP2A	Mx	-.002	1
103	MP2B	X	1.68	1
104	MP2B	Z	2.911	1
105	MP2B	Mx	.001	1
106	MP2C	X	1.485	1
107	MP2C	Z	2.572	1
108	MP2C	Mx	.001	1
109	MP3A	X	1.14	1
110	MP3A	Z	1.974	1
111	MP3A	Mx	-.001	1
112	MP3B	X	1.389	1
113	MP3B	Z	2.405	1
114	MP3B	Mx	.000868	1
115	MP3C	X	1.221	1
116	MP3C	Z	2.115	1
117	MP3C	Mx	.001	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1.63
2	MP3A	Z	5.841	1.63
3	MP3A	Mx	.004	1.63
4	MP3A	X	0	5.13
5	MP3A	Z	5.841	5.13
6	MP3A	Mx	.004	5.13
7	MP3B	X	0	1.63
8	MP3B	Z	8.894	1.63
9	MP3B	Mx	.007	1.63
10	MP3B	X	0	5.13
11	MP3B	Z	8.894	5.13
12	MP3B	Mx	.007	5.13
13	MP3C	X	0	1.63
14	MP3C	Z	5.933	1.63
15	MP3C	Mx	-.005	1.63
16	MP3C	X	0	5.13
17	MP3C	Z	5.933	5.13
18	MP3C	Mx	-.005	5.13
19	MP3A	X	0	1.63
20	MP3A	Z	5.841	1.63
21	MP3A	Mx	.004	1.63
22	MP3A	X	0	5.13
23	MP3A	Z	5.841	5.13
24	MP3A	Mx	.004	5.13
25	MP3B	X	0	1.63
26	MP3B	Z	8.894	1.63
27	MP3B	Mx	-.007	1.63
28	MP3B	X	0	5.13
29	MP3B	Z	8.894	5.13
30	MP3B	Mx	-.007	5.13
31	MP3C	X	0	1.63
32	MP3C	Z	5.933	1.63
33	MP3C	Mx	-.004	1.63
34	MP3C	X	0	5.13
35	MP3C	Z	5.933	5.13
36	MP3C	Mx	-.004	5.13
37	MP2A	X	0	1.43
38	MP2A	Z	1.084	1.43
39	MP2A	Mx	.000542	1.43
40	MP2A	X	0	3.43
41	MP2A	Z	1.084	3.43
42	MP2A	Mx	.000542	3.43
43	MP2B	X	0	1.43
44	MP2B	Z	3.085	1.43
45	MP2B	Mx	0	1.43
46	MP2B	X	0	3.43
47	MP2B	Z	3.085	3.43
48	MP2B	Mx	0	3.43
49	MP2C	X	0	1.43
50	MP2C	Z	1.144	1.43
51	MP2C	Mx	-.000563	1.43
52	MP2C	X	0	3.43
53	MP2C	Z	1.144	3.43
54	MP2C	Mx	-.000563	3.43
55	MP1B	X	0	.63
56	MP1B	Z	9.528	.63
57	MP1B	Mx	0	.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP1B	X	0	5.88
59	MP1B	Z	9.528	5.88
60	MP1B	Mx	0	5.88
61	MP1C	X	0	.63
62	MP1C	Z	8.433	.63
63	MP1C	Mx	-.01	.63
64	MP1C	X	0	5.88
65	MP1C	Z	8.433	5.88
66	MP1C	Mx	-.01	5.88
67	MP4B	X	0	.63
68	MP4B	Z	9.528	.63
69	MP4B	Mx	0	.63
70	MP4B	X	0	5.88
71	MP4B	Z	9.528	5.88
72	MP4B	Mx	0	5.88
73	MP4C	X	0	.63
74	MP4C	Z	8.433	.63
75	MP4C	Mx	-.01	.63
76	MP4C	X	0	5.88
77	MP4C	Z	8.433	5.88
78	MP4C	Mx	-.01	5.88
79	MP1A	X	0	.63
80	MP1A	Z	7.113	.63
81	MP1A	Mx	.009	.63
82	MP1A	X	0	5.88
83	MP1A	Z	7.113	5.88
84	MP1A	Mx	.009	5.88
85	MP4A	X	0	.63
86	MP4A	Z	7.113	.63
87	MP4A	Mx	.009	.63
88	MP4A	X	0	5.88
89	MP4A	Z	7.113	5.88
90	MP4A	Mx	.009	5.88
91	MP3A	X	0	4.5
92	MP3A	Z	.5	4.5
93	MP3A	Mx	-.000208	4.5
94	MP3B	X	0	4.5
95	MP3B	Z	.722	4.5
96	MP3B	Mx	0	4.5
97	MP3C	X	0	4.5
98	MP3C	Z	.507	4.5
99	MP3C	Mx	.000208	4.5
100	MP2A	X	0	1
101	MP2A	Z	2.489	1
102	MP2A	Mx	-.002	1
103	MP2B	X	0	1
104	MP2B	Z	3.651	1
105	MP2B	Mx	0	1
106	MP2C	X	0	1
107	MP2C	Z	2.525	1
108	MP2C	Mx	.002	1
109	MP3A	X	0	1
110	MP3A	Z	2.031	1
111	MP3A	Mx	-.001	1
112	MP3B	X	0	1
113	MP3B	Z	3.026	1
114	MP3B	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
115	MP3C	X	0	1
116	MP3C	Z	2.061	1
117	MP3C	Mx	.001	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-3.302	1.63
2	MP3A	Z	5.72	1.63
3	MP3A	Mx	.002	1.63
4	MP3A	X	-3.302	5.13
5	MP3A	Z	5.72	5.13
6	MP3A	Mx	.002	5.13
7	MP3B	X	-4.065	1.63
8	MP3B	Z	7.041	1.63
9	MP3B	Mx	.008	1.63
10	MP3B	X	-4.065	5.13
11	MP3B	Z	7.041	5.13
12	MP3B	Mx	.008	5.13
13	MP3C	X	-3.099	1.63
14	MP3C	Z	5.368	1.63
15	MP3C	Mx	-.003	1.63
16	MP3C	X	-3.099	5.13
17	MP3C	Z	5.368	5.13
18	MP3C	Mx	-.003	5.13
19	MP3A	X	-3.302	1.63
20	MP3A	Z	5.72	1.63
21	MP3A	Mx	.007	1.63
22	MP3A	X	-3.302	5.13
23	MP3A	Z	5.72	5.13
24	MP3A	Mx	.007	5.13
25	MP3B	X	-4.065	1.63
26	MP3B	Z	7.041	1.63
27	MP3B	Mx	-.002	1.63
28	MP3B	X	-4.065	5.13
29	MP3B	Z	7.041	5.13
30	MP3B	Mx	-.002	5.13
31	MP3C	X	-3.099	1.63
32	MP3C	Z	5.368	1.63
33	MP3C	Mx	-.006	1.63
34	MP3C	X	-3.099	5.13
35	MP3C	Z	5.368	5.13
36	MP3C	Mx	-.006	5.13
37	MP2A	X	-.792	1.43
38	MP2A	Z	1.372	1.43
39	MP2A	Mx	.000686	1.43
40	MP2A	X	-.792	3.43
41	MP2A	Z	1.372	3.43
42	MP2A	Mx	.000686	3.43
43	MP2B	X	-1.292	1.43
44	MP2B	Z	2.238	1.43
45	MP2B	Mx	.000646	1.43
46	MP2B	X	-1.292	3.43
47	MP2B	Z	2.238	3.43
48	MP2B	Mx	.000646	3.43
49	MP2C	X	-.659	1.43
50	MP2C	Z	1.141	1.43

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
51	MP2C	Mx	-0.00619	1.43
52	MP2C	X	-0.659	3.43
53	MP2C	Z	1.141	3.43
54	MP2C	Mx	-0.00619	3.43
55	MP1B	X	-4.623	.63
56	MP1B	Z	8.007	.63
57	MP1B	Mx	.006	.63
58	MP1B	X	-4.623	5.88
59	MP1B	Z	8.007	5.88
60	MP1B	Mx	.006	5.88
61	MP1C	X	-4.266	.63
62	MP1C	Z	7.388	.63
63	MP1C	Mx	-.01	.63
64	MP1C	X	-4.266	5.88
65	MP1C	Z	7.388	5.88
66	MP1C	Mx	-.01	5.88
67	MP4B	X	-4.623	.63
68	MP4B	Z	8.007	.63
69	MP4B	Mx	.006	.63
70	MP4B	X	-4.623	5.88
71	MP4B	Z	8.007	5.88
72	MP4B	Mx	.006	5.88
73	MP4C	X	-4.266	.63
74	MP4C	Z	7.388	.63
75	MP4C	Mx	-.01	.63
76	MP4C	X	-4.266	5.88
77	MP4C	Z	7.388	5.88
78	MP4C	Mx	-.01	5.88
79	MP1A	X	-3.596	.63
80	MP1A	Z	6.229	.63
81	MP1A	Mx	.008	.63
82	MP1A	X	-3.596	5.88
83	MP1A	Z	6.229	5.88
84	MP1A	Mx	.008	5.88
85	MP4A	X	-3.596	.63
86	MP4A	Z	6.229	.63
87	MP4A	Mx	.008	.63
88	MP4A	X	-3.596	5.88
89	MP4A	Z	6.229	5.88
90	MP4A	Mx	.008	5.88
91	MP3A	X	-.278	4.5
92	MP3A	Z	.481	4.5
93	MP3A	Mx	-.0002	4.5
94	MP3B	X	-.333	4.5
95	MP3B	Z	.577	4.5
96	MP3B	Mx	-.000139	4.5
97	MP3C	X	-.263	4.5
98	MP3C	Z	.455	4.5
99	MP3C	Mx	.000206	4.5
100	MP2A	X	-1.39	1
101	MP2A	Z	2.407	1
102	MP2A	Mx	-.002	1
103	MP2B	X	-1.68	1
104	MP2B	Z	2.911	1
105	MP2B	Mx	-.001	1
106	MP2C	X	-1.313	1
107	MP2C	Z	2.274	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
108	MP2C	Mx	.002	1
109	MP3A	X	-1.14	1
110	MP3A	Z	1.974	1
111	MP3A	Mx	-.001	1
112	MP3B	X	-1.389	1
113	MP3B	Z	2.405	1
114	MP3B	Mx	-.000868	1
115	MP3C	X	-1.074	1
116	MP3C	Z	1.859	1
117	MP3C	Mx	.001	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-7.041	1.63
2	MP3A	Z	4.065	1.63
3	MP3A	Mx	-.002	1.63
4	MP3A	X	-7.041	5.13
5	MP3A	Z	4.065	5.13
6	MP3A	Mx	-.002	5.13
7	MP3B	X	-5.72	1.63
8	MP3B	Z	3.302	1.63
9	MP3B	Mx	.007	1.63
10	MP3B	X	-5.72	5.13
11	MP3B	Z	3.302	5.13
12	MP3B	Mx	.007	5.13
13	MP3C	X	-6.61	1.63
14	MP3C	Z	3.816	1.63
15	MP3C	Mx	.000706	1.63
16	MP3C	X	-6.61	5.13
17	MP3C	Z	3.816	5.13
18	MP3C	Mx	.000706	5.13
19	MP3A	X	-7.041	1.63
20	MP3A	Z	4.065	1.63
21	MP3A	Mx	.008	1.63
22	MP3A	X	-7.041	5.13
23	MP3A	Z	4.065	5.13
24	MP3A	Mx	.008	5.13
25	MP3B	X	-5.72	1.63
26	MP3B	Z	3.302	1.63
27	MP3B	Mx	.002	1.63
28	MP3B	X	-5.72	5.13
29	MP3B	Z	3.302	5.13
30	MP3B	Mx	.002	5.13
31	MP3C	X	-6.61	1.63
32	MP3C	Z	3.816	1.63
33	MP3C	Mx	-.008	1.63
34	MP3C	X	-6.61	5.13
35	MP3C	Z	3.816	5.13
36	MP3C	Mx	-.008	5.13
37	MP2A	X	-2.238	1.43
38	MP2A	Z	1.292	1.43
39	MP2A	Mx	.000646	1.43
40	MP2A	X	-2.238	3.43
41	MP2A	Z	1.292	3.43
42	MP2A	Mx	.000646	3.43
43	MP2B	X	-1.372	1.43

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
44	MP2B	Z	.792	1.43
45	MP2B	Mx	.000686	1.43
46	MP2B	X	-1.372	3.43
47	MP2B	Z	.792	3.43
48	MP2B	Mx	.000686	3.43
49	MP2C	X	-1.956	1.43
50	MP2C	Z	1.129	1.43
51	MP2C	Mx	-.000726	1.43
52	MP2C	X	-1.956	3.43
53	MP2C	Z	1.129	3.43
54	MP2C	Mx	-.000726	3.43
55	MP1B	X	-7.518	.63
56	MP1B	Z	4.341	.63
57	MP1B	Mx	.009	.63
58	MP1B	X	-7.518	5.88
59	MP1B	Z	4.341	5.88
60	MP1B	Mx	.009	5.88
61	MP1C	X	-7.848	.63
62	MP1C	Z	4.531	.63
63	MP1C	Mx	-.007	.63
64	MP1C	X	-7.848	5.88
65	MP1C	Z	4.531	5.88
66	MP1C	Mx	-.007	5.88
67	MP4B	X	-7.518	.63
68	MP4B	Z	4.341	.63
69	MP4B	Mx	.009	.63
70	MP4B	X	-7.518	5.88
71	MP4B	Z	4.341	5.88
72	MP4B	Mx	.009	5.88
73	MP4C	X	-7.848	.63
74	MP4C	Z	4.531	.63
75	MP4C	Mx	-.007	.63
76	MP4C	X	-7.848	5.88
77	MP4C	Z	4.531	5.88
78	MP4C	Mx	-.007	5.88
79	MP1A	X	-6.366	.63
80	MP1A	Z	3.675	.63
81	MP1A	Mx	.004	.63
82	MP1A	X	-6.366	5.88
83	MP1A	Z	3.675	5.88
84	MP1A	Mx	.004	5.88
85	MP4A	X	-6.366	.63
86	MP4A	Z	3.675	.63
87	MP4A	Mx	.004	.63
88	MP4A	X	-6.366	5.88
89	MP4A	Z	3.675	5.88
90	MP4A	Mx	.004	5.88
91	MP3A	X	-.577	4.5
92	MP3A	Z	.333	4.5
93	MP3A	Mx	-.000139	4.5
94	MP3B	X	-.481	4.5
95	MP3B	Z	.278	4.5
96	MP3B	Mx	-.0002	4.5
97	MP3C	X	-.546	4.5
98	MP3C	Z	.315	4.5
99	MP3C	Mx	.000169	4.5
100	MP2A	X	-2.911	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
101	MP2A	Z	1.68	1
102	MP2A	Mx	-.001	1
103	MP2B	X	-2.407	1
104	MP2B	Z	1.39	1
105	MP2B	Mx	-.002	1
106	MP2C	X	-2.746	1
107	MP2C	Z	1.586	1
108	MP2C	Mx	.001	1
109	MP3A	X	-2.405	1
110	MP3A	Z	1.389	1
111	MP3A	Mx	-.000868	1
112	MP3B	X	-1.974	1
113	MP3B	Z	1.14	1
114	MP3B	Mx	-.001	1
115	MP3C	X	-2.265	1
116	MP3C	Z	1.308	1
117	MP3C	Mx	.001	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-8.894	1.63
2	MP3A	Z	0	1.63
3	MP3A	Mx	-.007	1.63
4	MP3A	X	-8.894	5.13
5	MP3A	Z	0	5.13
6	MP3A	Mx	-.007	5.13
7	MP3B	X	-5.841	1.63
8	MP3B	Z	0	1.63
9	MP3B	Mx	.004	1.63
10	MP3B	X	-5.841	5.13
11	MP3B	Z	0	5.13
12	MP3B	Mx	.004	5.13
13	MP3C	X	-8.802	1.63
14	MP3C	Z	0	1.63
15	MP3C	Mx	.005	1.63
16	MP3C	X	-8.802	5.13
17	MP3C	Z	0	5.13
18	MP3C	Mx	.005	5.13
19	MP3A	X	-8.894	1.63
20	MP3A	Z	0	1.63
21	MP3A	Mx	.007	1.63
22	MP3A	X	-8.894	5.13
23	MP3A	Z	0	5.13
24	MP3A	Mx	.007	5.13
25	MP3B	X	-5.841	1.63
26	MP3B	Z	0	1.63
27	MP3B	Mx	.004	1.63
28	MP3B	X	-5.841	5.13
29	MP3B	Z	0	5.13
30	MP3B	Mx	.004	5.13
31	MP3C	X	-8.802	1.63
32	MP3C	Z	0	1.63
33	MP3C	Mx	-.008	1.63
34	MP3C	X	-8.802	5.13
35	MP3C	Z	0	5.13
36	MP3C	Mx	-.008	5.13



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
37	MP2A	X	-3.085	1.43
38	MP2A	Z	0	1.43
39	MP2A	Mx	0	1.43
40	MP2A	X	-3.085	3.43
41	MP2A	Z	0	3.43
42	MP2A	Mx	0	3.43
43	MP2B	X	-1.084	1.43
44	MP2B	Z	0	1.43
45	MP2B	Mx	.000542	1.43
46	MP2B	X	-1.084	3.43
47	MP2B	Z	0	3.43
48	MP2B	Mx	.000542	3.43
49	MP2C	X	-3.025	1.43
50	MP2C	Z	0	1.43
51	MP2C	Mx	-.000263	1.43
52	MP2C	X	-3.025	3.43
53	MP2C	Z	0	3.43
54	MP2C	Mx	-.000263	3.43
55	MP1B	X	-8.399	.63
56	MP1B	Z	0	.63
57	MP1B	Mx	.01	.63
58	MP1B	X	-8.399	5.88
59	MP1B	Z	0	5.88
60	MP1B	Mx	.01	5.88
61	MP1C	X	-9.494	.63
62	MP1C	Z	0	.63
63	MP1C	Mx	-.002	.63
64	MP1C	X	-9.494	5.88
65	MP1C	Z	0	5.88
66	MP1C	Mx	-.002	5.88
67	MP4B	X	-8.399	.63
68	MP4B	Z	0	.63
69	MP4B	Mx	.01	.63
70	MP4B	X	-8.399	5.88
71	MP4B	Z	0	5.88
72	MP4B	Mx	.01	5.88
73	MP4C	X	-9.494	.63
74	MP4C	Z	0	.63
75	MP4C	Mx	-.002	.63
76	MP4C	X	-9.494	5.88
77	MP4C	Z	0	5.88
78	MP4C	Mx	-.002	5.88
79	MP1A	X	-7.429	.63
80	MP1A	Z	0	.63
81	MP1A	Mx	0	.63
82	MP1A	X	-7.429	5.88
83	MP1A	Z	0	5.88
84	MP1A	Mx	0	5.88
85	MP4A	X	-7.429	.63
86	MP4A	Z	0	.63
87	MP4A	Mx	0	.63
88	MP4A	X	-7.429	5.88
89	MP4A	Z	0	5.88
90	MP4A	Mx	0	5.88
91	MP3A	X	-.722	4.5
92	MP3A	Z	0	4.5
93	MP3A	Mx	0	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
94	MP3B	X	-5	4.5
95	MP3B	Z	0	4.5
96	MP3B	Mx	-.000208	4.5
97	MP3C	X	-.716	4.5
98	MP3C	Z	0	4.5
99	MP3C	Mx	5.2e-5	4.5
100	MP2A	X	-3.651	1
101	MP2A	Z	0	1
102	MP2A	Mx	0	1
103	MP2B	X	-2.489	1
104	MP2B	Z	0	1
105	MP2B	Mx	-.002	1
106	MP2C	X	-3.616	1
107	MP2C	Z	0	1
108	MP2C	Mx	.000392	1
109	MP3A	X	-3.026	1
110	MP3A	Z	0	1
111	MP3A	Mx	0	1
112	MP3B	X	-2.031	1
113	MP3B	Z	0	1
114	MP3B	Mx	-.001	1
115	MP3C	X	-2.996	1
116	MP3C	Z	0	1
117	MP3C	Mx	.000325	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-7.041	1.63
2	MP3A	Z	-4.065	1.63
3	MP3A	Mx	-.008	1.63
4	MP3A	X	-7.041	5.13
5	MP3A	Z	-4.065	5.13
6	MP3A	Mx	-.008	5.13
7	MP3B	X	-5.72	1.63
8	MP3B	Z	-3.302	1.63
9	MP3B	Mx	.002	1.63
10	MP3B	X	-5.72	5.13
11	MP3B	Z	-3.302	5.13
12	MP3B	Mx	.002	5.13
13	MP3C	X	-7.393	1.63
14	MP3C	Z	-4.268	1.63
15	MP3C	Mx	.008	1.63
16	MP3C	X	-7.393	5.13
17	MP3C	Z	-4.268	5.13
18	MP3C	Mx	.008	5.13
19	MP3A	X	-7.041	1.63
20	MP3A	Z	-4.065	1.63
21	MP3A	Mx	.002	1.63
22	MP3A	X	-7.041	5.13
23	MP3A	Z	-4.065	5.13
24	MP3A	Mx	.002	5.13
25	MP3B	X	-5.72	1.63
26	MP3B	Z	-3.302	1.63
27	MP3B	Mx	.007	1.63
28	MP3B	X	-5.72	5.13
29	MP3B	Z	-3.302	5.13



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
30	MP3B	Mx	.007	5.13
31	MP3C	X	-7.393	1.63
32	MP3C	Z	-4.268	1.63
33	MP3C	Mx	-.004	1.63
34	MP3C	X	-7.393	5.13
35	MP3C	Z	-4.268	5.13
36	MP3C	Mx	-.004	5.13
37	MP2A	X	-2.238	1.43
38	MP2A	Z	-1.292	1.43
39	MP2A	Mx	-.000646	1.43
40	MP2A	X	-2.238	3.43
41	MP2A	Z	-1.292	3.43
42	MP2A	Mx	-.000646	3.43
43	MP2B	X	-1.372	1.43
44	MP2B	Z	-.792	1.43
45	MP2B	Mx	.000686	1.43
46	MP2B	X	-1.372	3.43
47	MP2B	Z	-.792	3.43
48	MP2B	Mx	.000686	3.43
49	MP2C	X	-2.469	1.43
50	MP2C	Z	-1.425	1.43
51	MP2C	Mx	.000487	1.43
52	MP2C	X	-2.469	3.43
53	MP2C	Z	-1.425	3.43
54	MP2C	Mx	.000487	3.43
55	MP1B	X	-7.518	.63
56	MP1B	Z	-4.341	.63
57	MP1B	Mx	.009	.63
58	MP1B	X	-7.518	5.88
59	MP1B	Z	-4.341	5.88
60	MP1B	Mx	.009	5.88
61	MP1C	X	-8.137	.63
62	MP1C	Z	-4.698	.63
63	MP1C	Mx	.004	.63
64	MP1C	X	-8.137	5.88
65	MP1C	Z	-4.698	5.88
66	MP1C	Mx	.004	5.88
67	MP4B	X	-7.518	.63
68	MP4B	Z	-4.341	.63
69	MP4B	Mx	.009	.63
70	MP4B	X	-7.518	5.88
71	MP4B	Z	-4.341	5.88
72	MP4B	Mx	.009	5.88
73	MP4C	X	-8.137	.63
74	MP4C	Z	-4.698	.63
75	MP4C	Mx	.004	.63
76	MP4C	X	-8.137	5.88
77	MP4C	Z	-4.698	5.88
78	MP4C	Mx	.004	5.88
79	MP1A	X	-6.366	.63
80	MP1A	Z	-3.675	.63
81	MP1A	Mx	-.004	.63
82	MP1A	X	-6.366	5.88
83	MP1A	Z	-3.675	5.88
84	MP1A	Mx	-.004	5.88
85	MP4A	X	-6.366	.63
86	MP4A	Z	-3.675	.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
87	MP4A	Mx	-.004	.63
88	MP4A	X	-6.366	5.88
89	MP4A	Z	-3.675	5.88
90	MP4A	Mx	-.004	5.88
91	MP3A	X	-.577	4.5
92	MP3A	Z	-.333	4.5
93	MP3A	Mx	.000139	4.5
94	MP3B	X	-.481	4.5
95	MP3B	Z	-.278	4.5
96	MP3B	Mx	-.0002	4.5
97	MP3C	X	-.603	4.5
98	MP3C	Z	-.348	4.5
99	MP3C	Mx	-9.9e-5	4.5
100	MP2A	X	-2.911	1
101	MP2A	Z	-1.68	1
102	MP2A	Mx	.001	1
103	MP2B	X	-2.407	1
104	MP2B	Z	-1.39	1
105	MP2B	Mx	-.002	1
106	MP2C	X	-3.044	1
107	MP2C	Z	-1.758	1
108	MP2C	Mx	-.000752	1
109	MP3A	X	-2.405	1
110	MP3A	Z	-1.389	1
111	MP3A	Mx	.000868	1
112	MP3B	X	-1.974	1
113	MP3B	Z	-1.14	1
114	MP3B	Mx	-.001	1
115	MP3C	X	-2.52	1
116	MP3C	Z	-1.455	1
117	MP3C	Mx	-.000622	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-3.302	1.63
2	MP3A	Z	-5.72	1.63
3	MP3A	Mx	-.007	1.63
4	MP3A	X	-3.302	5.13
5	MP3A	Z	-5.72	5.13
6	MP3A	Mx	-.007	5.13
7	MP3B	X	-4.065	1.63
8	MP3B	Z	-7.041	1.63
9	MP3B	Mx	-.002	1.63
10	MP3B	X	-4.065	5.13
11	MP3B	Z	-7.041	5.13
12	MP3B	Mx	-.002	5.13
13	MP3C	X	-3.551	1.63
14	MP3C	Z	-6.151	1.63
15	MP3C	Mx	.008	1.63
16	MP3C	X	-3.551	5.13
17	MP3C	Z	-6.151	5.13
18	MP3C	Mx	.008	5.13
19	MP3A	X	-3.302	1.63
20	MP3A	Z	-5.72	1.63
21	MP3A	Mx	-.002	1.63
22	MP3A	X	-3.302	5.13



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
23	MP3A	Z	-5.72	5.13
24	MP3A	Mx	-.002	5.13
25	MP3B	X	-4.065	1.63
26	MP3B	Z	-7.041	1.63
27	MP3B	Mx	.008	1.63
28	MP3B	X	-4.065	5.13
29	MP3B	Z	-7.041	5.13
30	MP3B	Mx	.008	5.13
31	MP3C	X	-3.551	1.63
32	MP3C	Z	-6.151	1.63
33	MP3C	Mx	.000657	1.63
34	MP3C	X	-3.551	5.13
35	MP3C	Z	-6.151	5.13
36	MP3C	Mx	.000657	5.13
37	MP2A	X	-.792	1.43
38	MP2A	Z	-1.372	1.43
39	MP2A	Mx	-.000686	1.43
40	MP2A	X	-.792	3.43
41	MP2A	Z	-1.372	3.43
42	MP2A	Mx	-.000686	3.43
43	MP2B	X	-1.292	1.43
44	MP2B	Z	-2.238	1.43
45	MP2B	Mx	.000646	1.43
46	MP2B	X	-1.292	3.43
47	MP2B	Z	-2.238	3.43
48	MP2B	Mx	.000646	3.43
49	MP2C	X	-.955	1.43
50	MP2C	Z	-1.655	1.43
51	MP2C	Mx	.000732	1.43
52	MP2C	X	-.955	3.43
53	MP2C	Z	-1.655	3.43
54	MP2C	Mx	.000732	3.43
55	MP1B	X	-4.623	.63
56	MP1B	Z	-8.007	.63
57	MP1B	Mx	.006	.63
58	MP1B	X	-4.623	5.88
59	MP1B	Z	-8.007	5.88
60	MP1B	Mx	.006	5.88
61	MP1C	X	-4.433	.63
62	MP1C	Z	-7.678	.63
63	MP1C	Mx	.008	.63
64	MP1C	X	-4.433	5.88
65	MP1C	Z	-7.678	5.88
66	MP1C	Mx	.008	5.88
67	MP4B	X	-4.623	.63
68	MP4B	Z	-8.007	.63
69	MP4B	Mx	.006	.63
70	MP4B	X	-4.623	5.88
71	MP4B	Z	-8.007	5.88
72	MP4B	Mx	.006	5.88
73	MP4C	X	-4.433	.63
74	MP4C	Z	-7.678	.63
75	MP4C	Mx	.008	.63
76	MP4C	X	-4.433	5.88
77	MP4C	Z	-7.678	5.88
78	MP4C	Mx	.008	5.88
79	MP1A	X	-3.596	.63

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
80	MP1A	Z	-6.229	.63
81	MP1A	Mx	-.008	.63
82	MP1A	X	-3.596	5.88
83	MP1A	Z	-6.229	5.88
84	MP1A	Mx	-.008	5.88
85	MP4A	X	-3.596	.63
86	MP4A	Z	-6.229	.63
87	MP4A	Mx	-.008	.63
88	MP4A	X	-3.596	5.88
89	MP4A	Z	-6.229	5.88
90	MP4A	Mx	-.008	5.88
91	MP3A	X	-.278	4.5
92	MP3A	Z	-.481	4.5
93	MP3A	Mx	.0002	4.5
94	MP3B	X	-.333	4.5
95	MP3B	Z	-.577	4.5
96	MP3B	Mx	-.000139	4.5
97	MP3C	X	-.296	4.5
98	MP3C	Z	-.513	4.5
99	MP3C	Mx	-.000189	4.5
100	MP2A	X	-1.39	1
101	MP2A	Z	-2.407	1
102	MP2A	Mx	.002	1
103	MP2B	X	-1.68	1
104	MP2B	Z	-2.911	1
105	MP2B	Mx	-.001	1
106	MP2C	X	-1.485	1
107	MP2C	Z	-2.572	1
108	MP2C	Mx	-.001	1
109	MP3A	X	-1.14	1
110	MP3A	Z	-1.974	1
111	MP3A	Mx	.001	1
112	MP3B	X	-1.389	1
113	MP3B	Z	-2.405	1
114	MP3B	Mx	-.000868	1
115	MP3C	X	-1.221	1
116	MP3C	Z	-2.115	1
117	MP3C	Mx	-.001	1

**Member Point Loads (BLC 77 : Lm1)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M9	Y	-500	0

**Member Point Loads (BLC 78 : Lm2)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M11A	Y	-500	0

**Member Point Loads (BLC 79 : Lv1)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M4	Y	-250	%50

**Member Point Loads (BLC 80 : Lv2)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M4	Y	-250	0

**Member Point Loads (BLC 81 : Antenna Ev)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	Y	-1.357	1.63
2	MP3A	My	.001	1.63
3	MP3A	Mz	.001	1.63
4	MP3A	Y	-1.357	5.13
5	MP3A	My	.001	5.13
6	MP3A	Mz	.001	5.13
7	MP3B	Y	-1.357	1.63
8	MP3B	My	-.001	1.63
9	MP3B	Mz	.001	1.63
10	MP3B	Y	-1.357	5.13
11	MP3B	My	-.001	5.13
12	MP3B	Mz	.001	5.13
13	MP3C	Y	-1.357	1.63
14	MP3C	My	-.000826	1.63
15	MP3C	Mz	-.001	1.63
16	MP3C	Y	-1.357	5.13
17	MP3C	My	-.000826	5.13
18	MP3C	Mz	-.001	5.13
19	MP3A	Y	-1.357	1.63
20	MP3A	My	-.001	1.63
21	MP3A	Mz	.001	1.63
22	MP3A	Y	-1.357	5.13
23	MP3A	My	-.001	5.13
24	MP3A	Mz	.001	5.13
25	MP3B	Y	-1.357	1.63
26	MP3B	My	-.001	1.63
27	MP3B	Mz	-.001	1.63
28	MP3B	Y	-1.357	5.13
29	MP3B	My	-.001	5.13
30	MP3B	Mz	-.001	5.13
31	MP3C	Y	-1.357	1.63
32	MP3C	My	.001	1.63
33	MP3C	Mz	-.000826	1.63
34	MP3C	Y	-1.357	5.13
35	MP3C	My	.001	5.13
36	MP3C	Mz	-.000826	5.13
37	MP2A	Y	-1.229	1.43
38	MP2A	My	0	1.43
39	MP2A	Mz	.000614	1.43
40	MP2A	Y	-1.229	3.43
41	MP2A	My	0	3.43
42	MP2A	Mz	.000614	3.43
43	MP2B	Y	-1.229	1.43
44	MP2B	My	-.000614	1.43
45	MP2B	Mz	0	1.43
46	MP2B	Y	-1.229	3.43
47	MP2B	My	-.000614	3.43
48	MP2B	Mz	0	3.43
49	MP2C	Y	-1.229	1.43
50	MP2C	My	.000107	1.43
51	MP2C	Mz	-.000605	1.43
52	MP2C	Y	-1.229	3.43
53	MP2C	My	.000107	3.43
54	MP2C	Mz	-.000605	3.43
55	MP1B	Y	-.579	.63
56	MP1B	My	-.000724	.63
57	MP1B	Mz	0	.63



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**Member Point Loads (BLC 81 : Antenna Ev) (Continued)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP1B	Y	-.579	5.88
59	MP1B	My	-.000724	5.88
60	MP1B	Mz	0	5.88
61	MP1C	Y	-.579	.63
62	MP1C	My	.000126	.63
63	MP1C	Mz	-.000713	.63
64	MP1C	Y	-.579	5.88
65	MP1C	My	.000126	5.88
66	MP1C	Mz	-.000713	5.88
67	MP4B	Y	-.579	.63
68	MP4B	My	-.000724	.63
69	MP4B	Mz	0	.63
70	MP4B	Y	-.579	5.88
71	MP4B	My	-.000724	5.88
72	MP4B	Mz	0	5.88
73	MP4C	Y	-.579	.63
74	MP4C	My	.000126	.63
75	MP4C	Mz	-.000713	.63
76	MP4C	Y	-.579	5.88
77	MP4C	My	.000126	5.88
78	MP4C	Mz	-.000713	5.88
79	MP1A	Y	-.536	.63
80	MP1A	My	0	.63
81	MP1A	Mz	.000648	.63
82	MP1A	Y	-.536	5.88
83	MP1A	My	0	5.88
84	MP1A	Mz	.000648	5.88
85	MP4A	Y	-.536	.63
86	MP4A	My	0	.63
87	MP4A	Mz	.000648	.63
88	MP4A	Y	-.536	5.88
89	MP4A	My	0	5.88
90	MP4A	Mz	.000648	5.88
91	MP3A	Y	-.446	4.5
92	MP3A	My	0	4.5
93	MP3A	Mz	-.000186	4.5
94	MP3B	Y	-.446	4.5
95	MP3B	My	.000186	4.5
96	MP3B	Mz	0	4.5
97	MP3C	Y	-.446	4.5
98	MP3C	My	-3.2e-5	4.5
99	MP3C	Mz	.000183	4.5
100	MP2A	Y	-3.392	1
101	MP2A	My	0	1
102	MP2A	Mz	-.002	1
103	MP2B	Y	-3.392	1
104	MP2B	My	.002	1
105	MP2B	Mz	0	1
106	MP2C	Y	-3.392	1
107	MP2C	My	-.000368	1
108	MP2C	Mz	.002	1
109	MP3A	Y	-3.203	1
110	MP3A	My	0	1
111	MP3A	Mz	-.002	1
112	MP3B	Y	-3.203	1
113	MP3B	My	.002	1
114	MP3B	Mz	0	1



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**Member Point Loads (BLC 81 : Antenna Ev) (Continued)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
115	MP3C	Y	-3.203	1
116	MP3C	My	-.000348	1
117	MP3C	Mz	.002	1

**Member Point Loads (BLC 82 : Antenna Eh (0 Deg))**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	Z	-3.393	1.63
2	MP3A	Mx	-.003	1.63
3	MP3A	Z	-3.393	5.13
4	MP3A	Mx	-.003	5.13
5	MP3B	Z	-3.393	1.63
6	MP3B	Mx	-.003	1.63
7	MP3B	Z	-3.393	5.13
8	MP3B	Mx	-.003	5.13
9	MP3C	Z	-3.393	1.63
10	MP3C	Mx	.003	1.63
11	MP3C	Z	-3.393	5.13
12	MP3C	Mx	.003	5.13
13	MP3A	Z	-3.393	1.63
14	MP3A	Mx	-.003	1.63
15	MP3A	Z	-3.393	5.13
16	MP3A	Mx	-.003	5.13
17	MP3B	Z	-3.393	1.63
18	MP3B	Mx	.003	1.63
19	MP3B	Z	-3.393	5.13
20	MP3B	Mx	.003	5.13
21	MP3C	Z	-3.393	1.63
22	MP3C	Mx	.002	1.63
23	MP3C	Z	-3.393	5.13
24	MP3C	Mx	.002	5.13
25	MP2A	Z	-3.071	1.43
26	MP2A	Mx	-.002	1.43
27	MP2A	Z	-3.071	3.43
28	MP2A	Mx	-.002	3.43
29	MP2B	Z	-3.071	1.43
30	MP2B	Mx	0	1.43
31	MP2B	Z	-3.071	3.43
32	MP2B	Mx	0	3.43
33	MP2C	Z	-3.071	1.43
34	MP2C	Mx	.002	1.43
35	MP2C	Z	-3.071	3.43
36	MP2C	Mx	.002	3.43
37	MP1B	Z	-1.447	.63
38	MP1B	Mx	0	.63
39	MP1B	Z	-1.447	5.88
40	MP1B	Mx	0	5.88
41	MP1C	Z	-1.447	.63
42	MP1C	Mx	.002	.63
43	MP1C	Z	-1.447	5.88
44	MP1C	Mx	.002	5.88
45	MP4B	Z	-1.447	.63
46	MP4B	Mx	0	.63
47	MP4B	Z	-1.447	5.88
48	MP4B	Mx	0	5.88
49	MP4C	Z	-1.447	.63
50	MP4C	Mx	.002	.63



**Member Point Loads (BLC 82 : Antenna Eh (0 Deg)) (Continued)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
51	MP4C	Z	-1.447	5.88
52	MP4C	Mx	.002	5.88
53	MP1A	Z	-1.34	.63
54	MP1A	Mx	-.002	.63
55	MP1A	Z	-1.34	5.88
56	MP1A	Mx	-.002	5.88
57	MP4A	Z	-1.34	.63
58	MP4A	Mx	-.002	.63
59	MP4A	Z	-1.34	5.88
60	MP4A	Mx	-.002	5.88
61	MP3A	Z	-1.115	4.5
62	MP3A	Mx	.000465	4.5
63	MP3B	Z	-1.115	4.5
64	MP3B	Mx	0	4.5
65	MP3C	Z	-1.115	4.5
66	MP3C	Mx	-.000457	4.5
67	MP2A	Z	-8.48	1
68	MP2A	Mx	.005	1
69	MP2B	Z	-8.48	1
70	MP2B	Mx	0	1
71	MP2C	Z	-8.48	1
72	MP2C	Mx	-.005	1
73	MP3A	Z	-8.008	1
74	MP3A	Mx	.005	1
75	MP3B	Z	-8.008	1
76	MP3B	Mx	0	1
77	MP3C	Z	-8.008	1
78	MP3C	Mx	-.005	1

**Member Point Loads (BLC 83 : Antenna Eh (90 Deg))**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	3.393	1.63
2	MP3A	Mx	.003	1.63
3	MP3A	X	3.393	5.13
4	MP3A	Mx	.003	5.13
5	MP3B	X	3.393	1.63
6	MP3B	Mx	-.003	1.63
7	MP3B	X	3.393	5.13
8	MP3B	Mx	-.003	5.13
9	MP3C	X	3.393	1.63
10	MP3C	Mx	-.002	1.63
11	MP3C	X	3.393	5.13
12	MP3C	Mx	-.002	5.13
13	MP3A	X	3.393	1.63
14	MP3A	Mx	-.003	1.63
15	MP3A	X	3.393	5.13
16	MP3A	Mx	-.003	5.13
17	MP3B	X	3.393	1.63
18	MP3B	Mx	-.003	1.63
19	MP3B	X	3.393	5.13
20	MP3B	Mx	-.003	5.13
21	MP3C	X	3.393	1.63
22	MP3C	Mx	.003	1.63
23	MP3C	X	3.393	5.13
24	MP3C	Mx	.003	5.13
25	MP2A	X	3.071	1.43

**Member Point Loads (BLC 83 : Antenna Eh (90 Deg)) (Continued)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
26	MP2A	Mx	0	1.43
27	MP2A	X	3.071	3.43
28	MP2A	Mx	0	3.43
29	MP2B	X	3.071	1.43
30	MP2B	Mx	-.002	1.43
31	MP2B	X	3.071	3.43
32	MP2B	Mx	-.002	3.43
33	MP2C	X	3.071	1.43
34	MP2C	Mx	.000267	1.43
35	MP2C	X	3.071	3.43
36	MP2C	Mx	.000267	3.43
37	MP1B	X	1.447	.63
38	MP1B	Mx	-.002	.63
39	MP1B	X	1.447	5.88
40	MP1B	Mx	-.002	5.88
41	MP1C	X	1.447	.63
42	MP1C	Mx	.000314	.63
43	MP1C	X	1.447	5.88
44	MP1C	Mx	.000314	5.88
45	MP4B	X	1.447	.63
46	MP4B	Mx	-.002	.63
47	MP4B	X	1.447	5.88
48	MP4B	Mx	-.002	5.88
49	MP4C	X	1.447	.63
50	MP4C	Mx	.000314	.63
51	MP4C	X	1.447	5.88
52	MP4C	Mx	.000314	5.88
53	MP1A	X	1.34	.63
54	MP1A	Mx	0	.63
55	MP1A	X	1.34	5.88
56	MP1A	Mx	0	5.88
57	MP4A	X	1.34	.63
58	MP4A	Mx	0	.63
59	MP4A	X	1.34	5.88
60	MP4A	Mx	0	5.88
61	MP3A	X	1.115	4.5
62	MP3A	Mx	0	4.5
63	MP3B	X	1.115	4.5
64	MP3B	Mx	.000465	4.5
65	MP3C	X	1.115	4.5
66	MP3C	Mx	-8.1e-5	4.5
67	MP2A	X	8.48	1
68	MP2A	Mx	0	1
69	MP2B	X	8.48	1
70	MP2B	Mx	.005	1
71	MP2C	X	8.48	1
72	MP2C	Mx	-.00092	1
73	MP3A	X	8.008	1
74	MP3A	Mx	0	1
75	MP3B	X	8.008	1
76	MP3B	Mx	.005	1
77	MP3C	X	8.008	1
78	MP3C	Mx	-.000869	1

### Joint Loads and Enforced Displacements

Joint Label	L,D,M	Direction	Magnitude[(lb.k-ft), (in.rad), (lb*s^2/...
No Data to Print ...			

### 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 [... LC			
1	N1	m...	1447.635	10	1900.267	15	1970.636	1	-2.487	64	7.325	10	3.242	28
2		m...	-1447.635	4	584.206	72	-1970.643	7	-8.957	19	-7.341	4	-1.683	50
3	N29	m...	1827.781	10	1793.739	18	1357.63	1	2.132	24	6.83	6	7.739	16
4		m...	-1827.807	4	581.62	64	-1357.631	7	.322	7	-6.867	12	2.395	73
5	N55A	m...	1955.437	10	1897.738	18	1460.473	1	.532	24	7.367	1	-2.394	67
6		m...	-1955.43	4	583.366	64	-1460.473	7	-8.85	6	-7.398	7	-8.124	22
7	Totals:	m...	5230.853	10	5591.744	17	4788.739	1						
8		m...	-5230.872	4	1749.192	64	-4788.747	7						

### Joint Reactions (By Combination)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
1	1	N1	0	817.911	1970.636	-2.649	-418	.58
2	1	N29	-.128	814.285	1357.63	1.513	-6.797	3.429
3	1	N55A	-.033	816.732	1460.473	.456	7.367	-3.42
4	1	Totals:	-.161	2448.928	4788.739			
5	1	COG (ft):	X: .224	Y: .663	Z: -1.882			
6	2	N1	-930.936	817.912	1612.437	-2.835	-5.088	1.014
7	2	N29	-726.487	814.286	1258.067	1.474	-5.981	3.729
8	2	N55A	-751.61	816.732	1301.768	.374	6.876	-3.087
9	2	Totals:	-2409.033	2448.93	4172.273			
10	2	COG (ft):	X: .224	Y: .663	Z: -1.882			
11	3	N1	-1386.022	817.912	800.125	-3.213	-7.16	1.208
12	3	N29	-1461.757	814.288	843.872	1.297	-3.46	4.054
13	3	N55A	-1516.113	816.733	875.315	.19	4.922	-2.73
14	3	Totals:	-4363.892	2448.933	2519.313			
15	3	COG (ft):	X: .224	Y: .663	Z: -1.882			
16	4	N1	-1447.635	817.912	-.154	-3.558	-7.341	1.22
17	4	N29	-1827.807	814.292	.002	.905	1.034	4.231
18	4	N55A	-1955.43	816.734	0	-.214	.488	-2.515
19	4	Totals:	-5230.872	2448.938	-.152			
20	4	COG (ft):	X: .224	Y: .663	Z: -1.882			
21	5	N1	-1347.779	817.911	-778.335	-3.89	-6.76	1.179
22	5	N29	-1500.532	814.296	-866.339	.504	5.145	4.088
23	5	N55A	-1656.466	816.736	-956.367	-.668	-4.475	-2.661
24	5	Totals:	-4504.777	2448.943	-2601.04			
25	5	COG (ft):	X: .224	Y: .663	Z: -1.882			
26	6	N1	-908.857	817.911	-1574.388	-4.251	-4.337	.984
27	6	N29	-748.742	814.297	-1296.984	.327	6.83	3.745
28	6	N55A	-832.599	816.736	-1442.161	-.885	-7.079	-3.055
29	6	Totals:	-2490.198	2448.944	-4313.533			
30	6	COG (ft):	X: .224	Y: .663	Z: -1.882			
31	7	N1	0	817.911	-1970.643	-4.447	.423	.55
32	7	N29	.1	814.296	-1357.631	.322	6.798	3.417



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**Joint Reactions (By Combination) (Continued)**

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
33	7	N55A	.041	816.736	-1460.473	-.868	-7.398	-3.426
34	7	Totals:	.141	2448.942	-4788.747			
35	7	COG (ft):	X: .224	Y: .663	Z: -1.882			
36	8	N1	930.936	817.91	-1612.445	-4.288	5.029	.109
37	8	N29	726.46	814.295	-1258.068	.367	6.018	3.104
38	8	N55A	751.618	816.735	-1301.768	-.788	-6.868	-3.744
39	8	Totals:	2409.015	2448.94	-4172.282			
40	8	COG (ft):	X: .224	Y: .663	Z: -1.882			
41	9	N1	1386.022	817.91	-800.135	-3.909	7.11	-.083
42	9	N29	1461.731	814.292	-843.873	.547	3.507	2.772
43	9	N55A	1516.121	816.734	-875.315	-.602	-4.871	-4.088
44	9	Totals:	4363.874	2448.937	-2519.324			
45	9	COG (ft):	X: .224	Y: .663	Z: -1.882			
46	10	N1	1447.635	817.91	.143	-3.548	7.325	-.087
47	10	N29	1827.781	814.288	-.002	.933	-1.048	2.612
48	10	N55A	1955.437	816.733	0	-.191	-.458	-4.312
49	10	Totals:	5230.853	2448.932	.14			
50	10	COG (ft):	X: .224	Y: .663	Z: -1.882			
51	11	N1	1347.779	817.91	778.324	-3.2	6.786	-.043
52	11	N29	1500.505	814.285	866.338	1.324	-5.206	2.777
53	11	N55A	1656.473	816.732	956.367	.267	4.433	-4.192
54	11	Totals:	4504.757	2448.927	2601.029			
55	11	COG (ft):	X: .224	Y: .663	Z: -1.882			
56	12	N1	908.857	817.911	1574.38	-2.828	4.391	.152
57	12	N29	748.714	814.284	1296.983	1.501	-6.867	3.116
58	12	N55A	832.607	816.732	1442.161	.479	7.022	-3.805
59	12	Totals:	2490.179	2448.926	4313.524			
60	12	COG (ft):	X: .224	Y: .663	Z: -1.882			
61	13	N1	0	1900.267	407.51	-8.675	-.131	.905
62	13	N29	-.056	1793.737	292.356	2.129	-1.423	7.613
63	13	N55A	0	1897.738	308.2	.524	1.513	-7.977
64	13	Totals:	-.055	5591.741	1008.066			
65	13	COG (ft):	X: .048	Y: .565	Z: -1.83			
66	14	N1	-194.483	1900.267	336.841	-8.703	-1.071	.979
67	14	N29	-154.494	1793.737	267.497	2.12	-1.227	7.659
68	14	N55A	-157.701	1897.738	273.144	.508	1.389	-7.926
69	14	Totals:	-506.678	5591.741	877.482			
70	14	COG (ft):	X: .048	Y: .565	Z: -1.83			
71	15	N1	-292.862	1900.267	169.056	-8.763	-1.485	1.008
72	15	N29	-308.257	1793.737	177.943	2.09	-.683	7.711
73	15	N55A	-314.843	1897.738	181.773	.478	.96	-7.869
74	15	Totals:	-915.962	5591.742	528.772			
75	15	COG (ft):	X: .048	Y: .565	Z: -1.83			
76	16	N1	-305.906	1900.267	-.039	-8.818	-1.505	1.005
77	16	N29	-386.409	1793.738	0	2.023	.263	7.739
78	16	N55A	-404.49	1897.738	0	.41	.048	-7.832
79	16	Totals:	-1096.806	5591.743	-.04			
80	16	COG (ft):	X: .048	Y: .565	Z: -1.83			
81	17	N1	-280.978	1900.267	-162.269	-8.869	-1.36	.996
82	17	N29	-320.322	1793.739	-184.926	1.956	1.118	7.714
83	17	N55A	-344.06	1897.738	-198.652	.332	-.947	-7.853
84	17	Totals:	-945.36	5591.744	-545.847			
85	17	COG (ft):	X: .048	Y: .565	Z: -1.83			
86	18	N1	-187.622	1900.267	-325.013	-8.926	-.847	.963
87	18	N29	-161.433	1793.739	-279.592	1.928	1.456	7.658
88	18	N55A	-174.563	1897.738	-302.374	.298	-1.46	-7.918
89	18	Totals:	-523.618	5591.744	-906.979			



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**Joint Reactions (By Combination) (Continued)**

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
90	18	COG (ft):	X: .048	Y: .565	Z: -1.83			
91	19	N1	0	1900.266	-407.53	-8.957	.13	.889
92	19	N29	-.009	1793.738	-292.358	1.931	1.425	7.608
93	19	N55A	.015	1897.738	-308.2	.306	-1.515	-7.979
94	19	Totals:	.006	5591.743	-1008.088			
95	19	COG (ft):	X: .048	Y: .565	Z: -1.83			
96	20	N1	194.483	1900.266	-336.861	-8.93	1.067	.815
97	20	N29	154.429	1793.738	-267.499	1.94	1.231	7.561
98	20	N55A	157.716	1897.738	-273.145	.321	-1.389	-8.03
99	20	Totals:	506.629	5591.743	-877.504			
100	20	COG (ft):	X: .048	Y: .565	Z: -1.83			
101	21	N1	292.863	1900.266	-169.076	-8.869	1.482	.785
102	21	N29	308.192	1793.738	-177.945	1.97	.686	7.51
103	21	N55A	314.858	1897.738	-181.774	.352	-.959	-8.086
104	21	Totals:	915.913	5591.742	-528.794			
105	21	COG (ft):	X: .048	Y: .565	Z: -1.83			
106	22	N1	305.907	1900.266	.02	-8.814	1.504	.789
107	22	N29	386.344	1793.737	-.002	2.037	-.262	7.483
108	22	N55A	404.505	1897.738	0	.42	-.047	-8.124
109	22	Totals:	1096.756	5591.741	.018			
110	22	COG (ft):	X: .048	Y: .565	Z: -1.83			
111	23	N1	280.978	1900.266	162.25	-8.762	1.361	.799
112	23	N29	320.257	1793.736	184.924	2.104	-1.119	7.508
113	23	N55A	344.075	1897.738	198.652	.498	.944	-8.104
114	23	Totals:	945.31	5591.74	545.826			
115	23	COG (ft):	X: .048	Y: .565	Z: -1.83			
116	24	N1	187.622	1900.267	324.993	-8.705	.848	.832
117	24	N29	161.368	1793.736	279.59	2.132	-1.456	7.563
118	24	N55A	174.578	1897.738	302.373	.532	1.458	-8.039
119	24	Totals:	523.568	5591.74	906.957			
120	24	COG (ft):	X: .048	Y: .565	Z: -1.83			
121	25	N1	0	1567.912	113.496	-6.651	-.023	3.207
122	25	N29	-.02	814.29	78.197	.956	-.391	3.419
123	25	N55A	.002	816.734	84.122	-.167	.425	-3.417
124	25	Totals:	-.018	3198.936	275.815			
125	25	COG (ft):	X: .997	Y: .507	Z: -.926			
126	26	N1	-53.619	1567.912	92.862	-6.661	-.29	3.232
127	26	N29	-41.857	814.29	72.466	.954	-.345	3.437
128	26	N55A	-43.291	816.734	74.979	-.172	.396	-3.399
129	26	Totals:	-138.767	3198.936	240.308			
130	26	COG (ft):	X: .997	Y: .507	Z: -.926			
131	27	N1	-79.834	1567.912	46.078	-6.681	-.41	3.242
132	27	N29	-84.209	814.29	48.603	.943	-.2	3.456
133	27	N55A	-87.326	816.734	50.417	-.183	.282	-3.378
134	27	Totals:	-251.369	3198.936	145.099			
135	27	COG (ft):	X: .997	Y: .507	Z: -.926			
136	28	N1	-83.382	1567.912	-.019	-6.7	-.421	3.242
137	28	N29	-105.292	814.29	0	.921	.06	3.465
138	28	N55A	-112.629	816.734	0	-.206	.027	-3.366
139	28	Totals:	-301.303	3198.936	-.019			
140	28	COG (ft):	X: .997	Y: .507	Z: -.926			
141	29	N1	-77.631	1567.912	-44.842	-6.717	-.389	3.24
142	29	N29	-86.442	814.29	-49.898	.898	.298	3.457
143	29	N55A	-95.406	816.734	-55.084	-.232	-.257	-3.374
144	29	Totals:	-259.479	3198.936	-149.825			
145	29	COG (ft):	X: .997	Y: .507	Z: -.926			
146	30	N1	-52.347	1567.912	-90.69	-6.737	-.25	3.229



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**Joint Reactions (By Combination) (Continued)**

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
147	30	N29	-43.139	814.29	-74.709	.888	.395	3.437
148	30	N55A	-47.953	816.734	-83.07	-.245	-.406	-3.396
149	30	Totals:	-143.439	3198.937	-248.47			
150	30	COG (ft):	X: .997	Y: .507	Z: -.926			
151	31	N1	0	1567.912	-113.517	-6.746	.026	3.204
152	31	N29	-.007	814.29	-78.198	.888	.392	3.418
153	31	N55A	.006	816.734	-84.122	-.244	-.425	-3.418
154	31	Totals:	0	3198.936	-275.837			
155	31	COG (ft):	X: .997	Y: .507	Z: -.926			
156	32	N1	53.619	1567.912	-92.882	-6.736	.292	3.18
157	32	N29	41.83	814.29	-72.467	.89	.346	3.401
158	32	N55A	43.298	816.734	-74.98	-.239	-.396	-3.436
159	32	Totals:	138.748	3198.936	-240.329			
160	32	COG (ft):	X: .997	Y: .507	Z: -.926			
161	33	N1	79.834	1567.912	-46.098	-6.716	.412	3.169
162	33	N29	84.182	814.29	-48.604	.9	.201	3.382
163	33	N55A	87.334	816.734	-50.418	-.228	-.282	-3.457
164	33	Totals:	251.35	3198.936	-145.12			
165	33	COG (ft):	X: .997	Y: .507	Z: -.926			
166	34	N1	83.382	1567.912	-.002	-6.697	.423	3.169
167	34	N29	105.265	814.29	0	.923	-.06	3.372
168	34	N55A	112.636	816.734	0	-.205	-.027	-3.469
169	34	Totals:	301.284	3198.936	-.002			
170	34	COG (ft):	X: .997	Y: .507	Z: -.926			
171	35	N1	77.631	1567.912	44.822	-6.68	.391	3.172
172	35	N29	86.415	814.29	49.897	.945	-.298	3.381
173	35	N55A	95.414	816.734	55.084	-.179	.256	-3.462
174	35	Totals:	259.461	3198.936	149.803			
175	35	COG (ft):	X: .997	Y: .507	Z: -.926			
176	36	N1	52.348	1567.912	90.67	-6.661	.252	3.183
177	36	N29	43.112	814.29	74.708	.956	-.394	3.401
178	36	N55A	47.961	816.734	83.07	-.166	.406	-3.439
179	36	Totals:	143.421	3198.936	248.448			
180	36	COG (ft):	X: .997	Y: .507	Z: -.926			
181	37	N1	0	1567.911	113.503	-6.671	-.024	.021
182	37	N29	-.02	814.29	78.197	.956	-.391	3.419
183	37	N55A	.002	816.734	84.122	-.167	.425	-3.417
184	37	Totals:	-.018	3198.934	275.822			
185	37	COG (ft):	X: 0	Y: .507	Z: -.926			
186	38	N1	-53.619	1567.911	92.868	-6.681	-.292	.046
187	38	N29	-41.857	814.29	72.466	.954	-.345	3.437
188	38	N55A	-43.291	816.734	74.979	-.172	.396	-3.399
189	38	Totals:	-138.767	3198.934	240.314			
190	38	COG (ft):	X: 0	Y: .507	Z: -.926			
191	39	N1	-79.834	1567.911	46.084	-6.702	-.411	.057
192	39	N29	-84.209	814.29	48.603	.943	-.2	3.456
193	39	N55A	-87.326	816.734	50.417	-.183	.282	-3.378
194	39	Totals:	-251.369	3198.934	145.105			
195	39	COG (ft):	X: 0	Y: .507	Z: -.926			
196	40	N1	-83.382	1567.911	-.013	-6.722	-.423	.057
197	40	N29	-105.292	814.29	0	.921	.06	3.465
198	40	N55A	-112.629	816.734	0	-.206	.027	-3.366
199	40	Totals:	-301.303	3198.935	-.013			
200	40	COG (ft):	X: 0	Y: .507	Z: -.926			
201	41	N1	-77.631	1567.911	-44.836	-6.741	-.39	.054
202	41	N29	-86.442	814.29	-49.898	.898	.298	3.457
203	41	N55A	-95.406	816.734	-55.084	-.232	-.257	-3.374



**Joint Reactions (By Combination) (Continued)**

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
204	41	Totals:	-259.479	3198.935	-149.818			
205	41	COG (ft):	X: 0	Y: .507	Z: -.926			
206	42	N1	-52.347	1567.911	-90.684	-6.761	-.252	.043
207	42	N29	-43.139	814.29	-74.709	.888	.395	3.437
208	42	N55A	-47.953	816.734	-83.07	-.245	-.406	-3.396
209	42	Totals:	-143.44	3198.935	-248.463			
210	42	COG (ft):	X: 0	Y: .507	Z: -.926			
211	43	N1	0	1567.911	-113.511	-6.772	.024	.018
212	43	N29	-.007	814.29	-78.198	.888	.392	3.418
213	43	N55A	.006	816.734	-84.122	-.244	-.425	-3.418
214	43	Totals:	0	3198.935	-275.831			
215	43	COG (ft):	X: 0	Y: .507	Z: -.926			
216	44	N1	53.619	1567.911	-92.876	-6.762	.291	-.008
217	44	N29	41.83	814.29	-72.467	.89	.346	3.401
218	44	N55A	43.298	816.734	-74.98	-.239	-.396	-3.436
219	44	Totals:	138.748	3198.935	-240.323			
220	44	COG (ft):	X: 0	Y: .507	Z: -.926			
221	45	N1	79.834	1567.911	-46.092	-6.741	.411	-.018
222	45	N29	84.182	814.29	-48.604	.9	.201	3.382
223	45	N55A	87.334	816.734	-50.418	-.228	-.282	-3.457
224	45	Totals:	251.35	3198.935	-145.114			
225	45	COG (ft):	X: 0	Y: .507	Z: -.926			
226	46	N1	83.382	1567.911	.005	-6.721	.422	-.019
227	46	N29	105.265	814.29	0	.923	-.06	3.372
228	46	N55A	112.636	816.734	0	-.205	-.027	-3.469
229	46	Totals:	301.284	3198.934	.004			
230	46	COG (ft):	X: 0	Y: .507	Z: -.926			
231	47	N1	77.631	1567.911	44.828	-6.702	.39	-.016
232	47	N29	86.415	814.29	49.897	.945	-.298	3.381
233	47	N55A	95.414	816.734	55.084	-.179	.256	-3.462
234	47	Totals:	259.461	3198.934	149.81			
235	47	COG (ft):	X: 0	Y: .507	Z: -.926			
236	48	N1	52.348	1567.911	90.676	-6.682	.251	-.004
237	48	N29	43.112	814.29	74.708	.956	-.394	3.401
238	48	N55A	47.961	816.734	83.07	-.166	.406	-3.439
239	48	Totals:	143.421	3198.934	248.455			
240	48	COG (ft):	X: 0	Y: .507	Z: -.926			
241	49	N1	0	1192.911	-.004	-5.134	0	.567
242	49	N29	-.013	814.29	0	.922	0	3.419
243	49	N55A	.004	816.734	0	-.206	0	-3.418
244	49	Totals:	-.009	2823.935	-.005			
245	49	COG (ft):	X: .195	Y: .575	Z: -1.341			
246	50	N1	0	1192.909	-.002	-5.137	0	-1.683
247	50	N29	-.013	814.29	0	.922	0	3.419
248	50	N55A	.004	816.734	0	-.206	0	-3.418
249	50	Totals:	-.009	2823.933	-.002			
250	50	COG (ft):	X: -.602	Y: .575	Z: -1.341			
251	51	N1	0	954.229	-.004	-4.139	0	.663
252	51	N29	-.016	950.005	0	1.075	0	3.988
253	51	N55A	.004	952.856	0	-.24	0	-3.987
254	51	Totals:	-.011	2857.091	-.005			
255	51	COG (ft):	X: .224	Y: .663	Z: -1.882			
256	52	N1	0	847.138	73.064	-3.627	-.051	.589
257	52	N29	-.018	843.387	72.744	1.002	-.314	3.541
258	52	N55A	.003	845.918	72.961	-.165	.316	-3.54
259	52	Totals:	-.016	2536.443	218.769			
260	52	COG (ft):	X: .224	Y: .663	Z: -1.882			

**Joint Reactions (By Combination) (Continued)**

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
261	53	N1	-36.533	847.138	63.271	-3.634	-.203	.613
262	53	N29	-36.39	843.387	62.996	.996	-.235	3.564
263	53	N55A	-36.478	845.918	63.185	-.171	.261	-3.516
264	53	Totals:	-109.401	2536.443	189.451			
265	53	COG (ft):	X: .224	Y: .663	Z: -1.882			
266	54	N1	-63.275	847.138	36.526	-3.651	-.3	.631
267	54	N29	-63.013	843.387	36.372	.978	-.093	3.581
268	54	N55A	-63.181	845.918	36.481	-.189	.135	-3.499
269	54	Totals:	-189.47	2536.443	109.378			
270	54	COG (ft):	X: .224	Y: .663	Z: -1.882			
271	55	N1	-73.066	847.138	-.009	-3.674	-.317	.637
272	55	N29	-72.758	843.387	0	.954	.074	3.587
273	55	N55A	-72.958	845.918	0	-.213	-.026	-3.493
274	55	Totals:	-218.782	2536.443	-.009			
275	55	COG (ft):	X: .224	Y: .663	Z: -1.882			
276	56	N1	-63.275	847.138	-36.542	-3.698	-.249	.63
277	56	N29	-63.008	843.388	-36.372	.93	.221	3.581
278	56	N55A	-63.18	845.918	-36.481	-.237	-.181	-3.499
279	56	Totals:	-189.464	2536.444	-109.395			
280	56	COG (ft):	X: .224	Y: .663	Z: -1.882			
281	57	N1	-36.533	847.138	-63.283	-3.715	-.114	.612
282	57	N29	-36.382	843.388	-62.997	.913	.309	3.564
283	57	N55A	-36.476	845.919	-63.185	-.255	-.287	-3.516
284	57	Totals:	-109.391	2536.444	-189.465			
285	57	COG (ft):	X: .224	Y: .663	Z: -1.882			
286	58	N1	0	847.138	-73.072	-3.721	.051	.588
287	58	N29	-.009	843.388	-72.745	.907	.315	3.541
288	58	N55A	.005	845.919	-72.961	-.261	-.316	-3.54
289	58	Totals:	-.004	2536.444	-218.778			
290	58	COG (ft):	X: .224	Y: .663	Z: -1.882			
291	59	N1	36.533	847.138	-63.278	-3.715	.202	.564
292	59	N29	36.363	843.388	-62.997	.914	.236	3.518
293	59	N55A	36.486	845.918	-63.185	-.254	-.261	-3.563
294	59	Totals:	109.382	2536.444	-189.46			
295	59	COG (ft):	X: .224	Y: .663	Z: -1.882			
296	60	N1	63.276	847.138	-36.533	-3.698	.3	.547
297	60	N29	62.985	843.388	-36.373	.931	.094	3.501
298	60	N55A	63.189	845.918	-36.481	-.237	-.135	-3.58
299	60	Totals:	189.45	2536.444	-109.387			
300	60	COG (ft):	X: .224	Y: .663	Z: -1.882			
301	61	N1	73.066	847.138	.001	-3.674	.317	.541
302	61	N29	72.731	843.387	0	.955	-.073	3.494
303	61	N55A	72.966	845.918	0	-.212	.026	-3.587
304	61	Totals:	218.763	2536.443	0			
305	61	COG (ft):	X: .224	Y: .663	Z: -1.882			
306	62	N1	63.276	847.138	36.535	-3.651	.249	.547
307	62	N29	62.981	843.387	36.371	.979	-.221	3.501
308	62	N55A	63.188	845.918	36.481	-.188	.181	-3.58
309	62	Totals:	189.444	2536.443	109.387			
310	62	COG (ft):	X: .224	Y: .663	Z: -1.882			
311	63	N1	36.533	847.138	63.276	-3.634	.114	.565
312	63	N29	36.354	843.387	62.996	.996	-.309	3.518
313	63	N55A	36.483	845.918	63.185	-.171	.287	-3.563
314	63	Totals:	109.371	2536.443	189.456			
315	63	COG (ft):	X: .224	Y: .663	Z: -1.882			
316	64	N1	0	584.207	73.065	-2.487	-.051	.407
317	64	N29	-.014	581.62	72.744	.707	-.314	2.442



**Joint Reactions (By Combination) (Continued)**

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
318	64	N55A	.001	583.366	72.961	-.099	.316	-2.441
319	64	Totals:	-.013	1749.192	218.771			
320	64	COG (ft):	X: .224	Y: .663	Z: -1.882			
321	65	N1	-36.533	584.207	63.272	-2.493	-.203	.431
322	65	N29	-36.386	581.62	62.996	.7	-.235	2.466
323	65	N55A	-36.479	583.366	63.185	-.105	.261	-2.417
324	65	Totals:	-109.398	1749.192	189.453			
325	65	COG (ft):	X: .224	Y: .663	Z: -1.882			
326	66	N1	-63.275	584.207	36.527	-2.51	-.3	.448
327	66	N29	-63.009	581.62	36.372	.682	-.093	2.483
328	66	N55A	-63.183	583.366	36.481	-.123	.135	-2.4
329	66	Totals:	-189.467	1749.192	109.38			
330	66	COG (ft):	X: .224	Y: .663	Z: -1.882			
331	67	N1	-73.066	584.207	-.008	-2.534	-.317	.454
332	67	N29	-72.754	581.62	0	.658	.074	2.489
333	67	N55A	-72.959	583.366	0	-.147	-.026	-2.394
334	67	Totals:	-218.779	1749.193	-.008			
335	67	COG (ft):	X: .224	Y: .663	Z: -1.882			
336	68	N1	-63.276	584.207	-36.541	-2.558	-.249	.448
337	68	N29	-63.004	581.62	-36.372	.634	.221	2.483
338	68	N55A	-63.181	583.366	-36.481	-.171	-.181	-2.4
339	68	Totals:	-189.461	1749.193	-109.394			
340	68	COG (ft):	X: .224	Y: .663	Z: -1.882			
341	69	N1	-36.533	584.207	-63.282	-2.575	-.114	.43
342	69	N29	-36.378	581.621	-62.997	.617	.309	2.466
343	69	N55A	-36.477	583.366	-63.185	-.189	-.287	-2.417
344	69	Totals:	-109.388	1749.193	-189.463			
345	69	COG (ft):	X: .224	Y: .663	Z: -1.882			
346	70	N1	0	584.206	-73.071	-2.581	.051	.406
347	70	N29	-.005	581.621	-72.744	.611	.315	2.442
348	70	N55A	.004	583.366	-72.961	-.195	-.316	-2.441
349	70	Totals:	0	1749.193	-218.777			
350	70	COG (ft):	X: .224	Y: .663	Z: -1.882			
351	71	N1	36.533	584.206	-63.277	-2.575	.202	.382
352	71	N29	36.367	581.621	-62.997	.617	.236	2.419
353	71	N55A	36.485	583.366	-63.185	-.189	-.261	-2.465
354	71	Totals:	109.385	1749.193	-189.458			
355	71	COG (ft):	X: .224	Y: .663	Z: -1.882			
356	72	N1	63.276	584.206	-36.532	-2.558	.3	.364
357	72	N29	62.99	581.62	-36.373	.635	.094	2.402
358	72	N55A	63.188	583.366	-36.481	-.171	-.135	-2.482
359	72	Totals:	189.453	1749.193	-109.385			
360	72	COG (ft):	X: .224	Y: .663	Z: -1.882			
361	73	N1	73.066	584.206	.003	-2.534	.317	.358
362	73	N29	72.735	581.62	0	.659	-.073	2.395
363	73	N55A	72.964	583.366	0	-.147	.026	-2.489
364	73	Totals:	218.766	1749.192	.002			
365	73	COG (ft):	X: .224	Y: .663	Z: -1.882			
366	74	N1	63.276	584.206	36.536	-2.51	.249	.365
367	74	N29	62.985	581.62	36.372	.683	-.221	2.402
368	74	N55A	63.187	583.366	36.481	-.123	.181	-2.482
369	74	Totals:	189.447	1749.192	109.388			
370	74	COG (ft):	X: .224	Y: .663	Z: -1.882			
371	75	N1	36.533	584.207	63.277	-2.493	.114	.382
372	75	N29	36.359	581.62	62.996	.7	-.309	2.419
373	75	N55A	36.482	583.366	63.185	-.105	.287	-2.465
374	75	Totals:	109.374	1749.192	189.458			



Company :  
 Designer :  
 Job Number :  
 Model Name :

Jan 9, 2024  
 4:52 PM  
 Checked By: \_\_\_\_\_

**Joint Reactions (By Combination) (Continued)**

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
375	75	COG (ft):	X: .224	Y: .663	Z: -1.882		

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

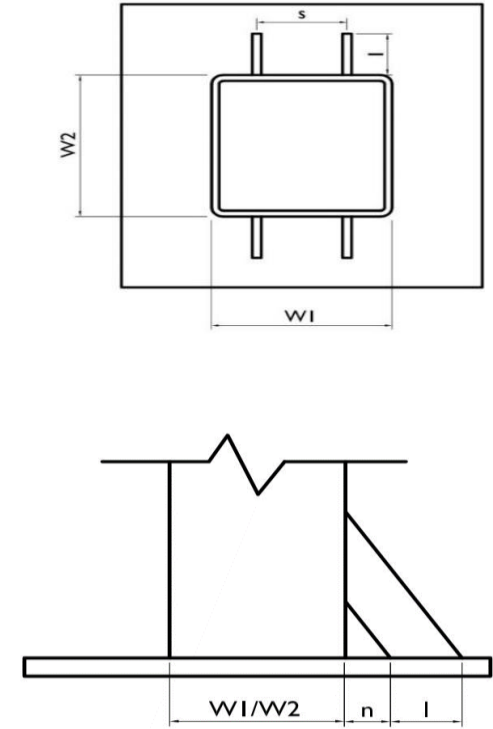
Member	Shape	Code Check	Loc[ft]	LC	Shear Check	L... Dir	LC	phi*Pn...	phi*P...	phi*Mn y...	phi*Mn .....	Eqn	
1	M1	HSS4...	.684	0	9	.278	0 y	28	13154...	139518	16.181	16.181	H1-...
2	M2	PIPE_...	.000	.75	6	.000	.75	6	92571...	93240	10.631	10.631	H1-...
3	M4	PIPE_...	.682	6	25	.222	6	7	30165...	65205	5.749	5.749	H1-...
4	MP1B	PIPE_...	.433	3.833	9	.195	3...	9	14916...	32130	1.872	1.872	H1-...
5	MP2B	PIPE_...	.153	2.917	1	.022	1...	4	14916...	32130	1.872	1.872	H1-...
6	MP3B	PIPE_...	.488	3.845	7	.117	4...	5	13282...	32130	1.872	1.872	H1-...
7	MP4B	PIPE_...	.327	3.833	7	.128	3...	10	14916...	32130	1.872	1.872	H1-...
8	M14	HSS4...	.656	0	6	.203	0 y	24	13154...	139518	16.181	16.181	H1-...
9	M15	PIPE_...	.000	.75	3	.000	.75	3	92571...	93240	10.631	10.631	H1-...
10	M16	PIPE_...	.578	5.75	22	.191	5...	4	30165...	65205	5.749	5.749	H1-...
11	MP1A	PIPE_...	.387	3.833	6	.170	3...	6	14916...	32130	1.872	1.872	H1-...
12	MP2A	PIPE_...	.133	2.917	4	.022	1...	1	14916...	32130	1.872	1.872	H1-...
13	MP3A	PIPE_...	.487	3.845	4	.117	4...	2	13282...	32130	1.872	1.872	H1-...
14	MP4A	PIPE_...	.257	3.833	3	.106	3...	1	14916...	32130	1.872	1.872	H1-...
15	M27	HSS4...	.672	0	12	.130	.... z	6	13154...	139518	16.181	16.181	H1-...
16	M28	PIPE_...	.000	.75	10	.000	.75	10	92571...	93240	10.631	10.631	1 H1-...
17	M29	PIPE_...	.616	6.25	4	.200	6...	10	30165...	65205	5.749	5.749	H1-...
18	MP1C	PIPE_...	.429	3.833	12	.180	3...	12	14916...	32130	1.872	1.872	H1-...
19	MP2C	PIPE_...	.136	2.917	10	.022	1...	8	14916...	32130	1.872	1.872	H1-...
20	MP3C	PIPE_...	.483	3.845	10	.117	4...	8	13282...	32130	1.872	1.872	H1-...
21	MP4C	PIPE_...	.317	3.833	4	.127	3...	1	14916...	32130	1.872	1.872	H1-...
22	M43	PIPE_...	.053	3.568	11	.060	7...	11	17450...	32130	1.872	1.872	H1-...
23	M44	PIPE_...	.051	3.424	2	.062	6...	8	18314...	32130	1.872	1.872	H1-...
24	M45	PIPE_...	.046	3.282	5	.067	0	11	19166...	32130	1.872	1.872	H1-...

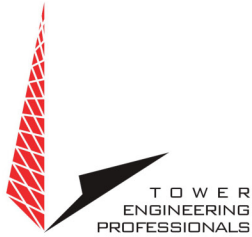


Tower Connection Weld Checks

Weld Shape:  
Weld Stiffener Configuration:  
Stiffener Notch Present?  
Stiffener Length, l (in):  
Stiffener Spacing/Width, s (in):  
Stiffener Notch Length, n (in):  
Weld Size (1/16 in):  
W1 (in):  
W2 (in):  
Weld Total Length (in):  
 $Z_x$  (in<sup>3</sup>/in):  
 $Z_y$  (in<sup>3</sup>/in):  
 $J_p$  (in<sup>4</sup>/in):  
 $c_x$  (in)  
 $c_y$  (in)  
Required combined strength (kip/in):  
Weld Capacity (kip/in):  
Weld Utilization:

Yes
Rectangle
(2) Stiffeners on top/bottom
Yes
1.375
1.75
0.25
5
4
4
27.00
57.45
26.15
203.64
3.625
3.625
2.77
6.96
<b>39.8%</b>





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## Non-Ionizing Electromagnetic Radiation (NIER) Study

*Site Number:*

283419

*Site Name:*

Pine Orchard Brandford CT

*Location:*

Branford, Connecticut

*Tenants:*

AT&T Mobility, T-Mobile, Dish Wireless, & Verizon Wireless

*Prepared For:*

American Tower, Inc.  
Woburn, Massachusetts

June 24<sup>th</sup>, 2024

92188 P-431546

Prepared By:

Adam Carlson MS, CBRE, CPI  
Program Manager RF Design & Service  
Tower Engineering Professionals

Approved By:



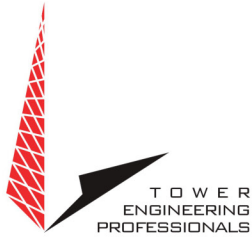
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## Disclaimer Notice

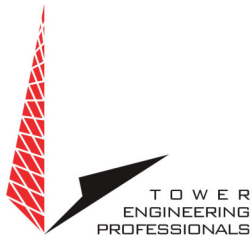
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TOWER ENGINEERING PROFESSIONALS

RALEIGH, NORTH CAROLINA



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## Non-Ionizing Electromagnetic Radiation (NIER) Study

283419 Pine Orchard Brandford CT  
Branford, Connecticut

### INTRODUCTION

Tower Engineering Professionals RF Design & Services Division (TEP-RF) of Raleigh, North Carolina, has been retained by American Tower, Inc. (ATC), of Woburn, Massachusetts to evaluate the RF emissions compared to the Maximum Permissible Exposure (MPE) limit for facilities at this location. This evaluation uses compliance standards as outlined in Federal Communications Commission (FCC) document OET-65.

### SITE AND FACILITY CONSIDERATIONS

Site 283419 Pine Orchard Brandford CT is located at 123 Pine Orchard Rd. in Branford, Connecticut at coordinates 41.274768, -72.793178. The support structure is a 124' monopole. An aerial view of the tower can be found in Appendix 1, Site Photos. The tenants are AT&T Mobility (AT&T), T-Mobile (TMO), Dish Wireless (Dish) & Verizon Wireless (VZW). A table listing all antennae and effective radiated power (ERP) levels that were used in this study may be found in Appendix 2, Antenna Inventory.

### POWER DENSITY CALCULATIONS

Power densities were calculated based on FCC MPE limits for both General Population/Uncontrolled and Occupational/Controlled environments.

For the purpose of this study, a radius of 100' from the base of the tower with a height of 6' above ground level was used, beyond 100' the MPE levels become *di minimus*. This study utilized FCC recognized and accepted software programs using the maximum ERP levels for the antenna models provided by ATC. Diagrams depicting the predicted spatial average power density level at any specific location may be found in Appendix 3, MPE Limit Study. A discussion regarding the FCC limits may be found in Appendix 4, Information Pertaining to MPE Studies. Study methodology describing Non-ionizing Radiation Prediction Models used in this study may be found in Appendix 5, MPE Standards Methodology.





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All data used in this study was collected from one or more of the following sources:

- ATC furnished data and does not include other unidentified communication facilities.
- Load List at 283419 PINE ORCHARD BRANFORD CT (version 1) 5/29/24.
- 283419\_14519507\_Application received 06/05/24.
- FCC databases.
- Carrier standard configurations.
- Empirical data collected by TEP.

### SITE MITIGATION & CONTROL

In order to comply with FCC, tenant, & ATC requirements, TEP recommends the placement of signage at the following points:

#### Site Entrance

1. Site ID Sign (tower owner defined)
2. RF Information Sign (green)

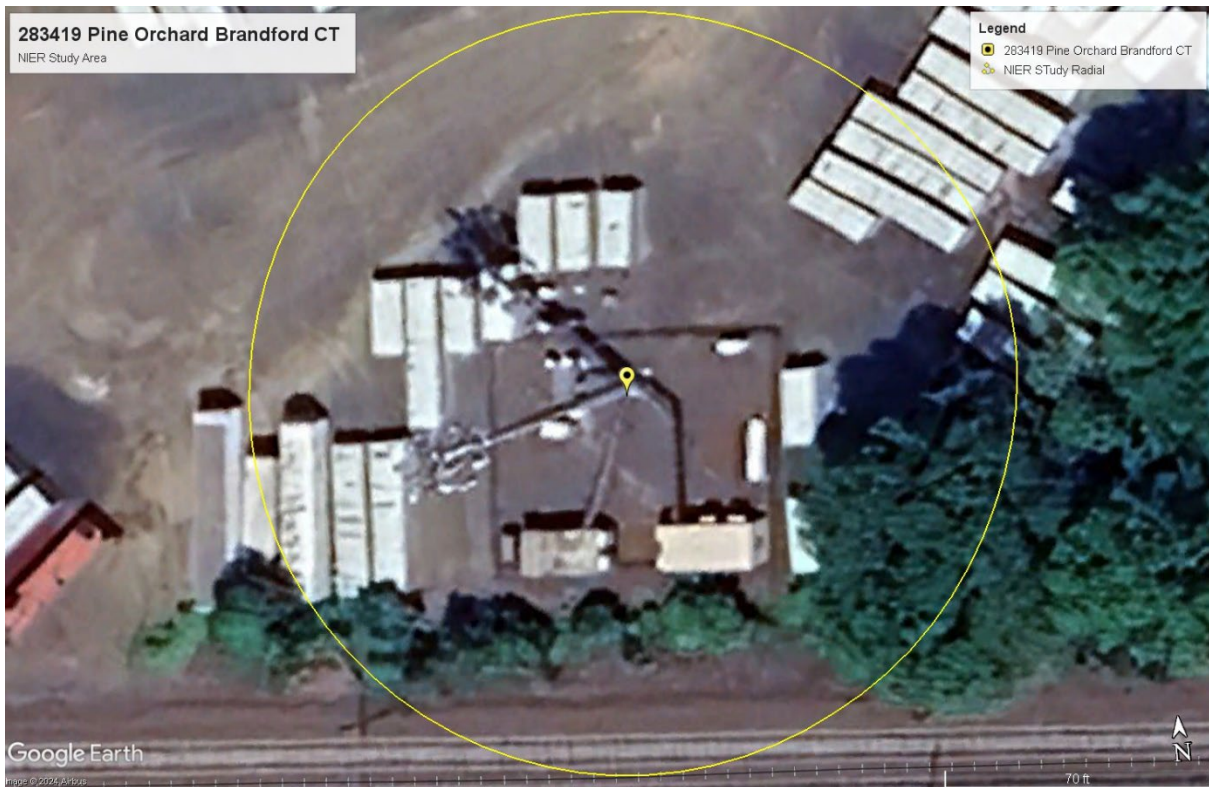
#### Tower Access Point

1. RF Exposure Sign (Red)

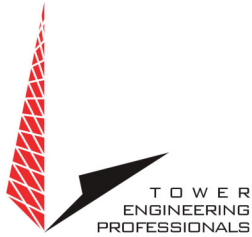
### COMPLIANCE DETERMINATION

This installation **WILL BE** in compliance with current FCC MPE limits as described in FCC OET-65.

## APPENDIX 1 Site Photos



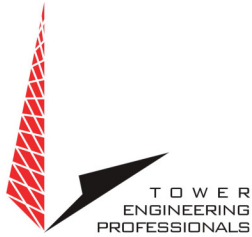
Aerial View of Site



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## Appendix 2.1 Antenna Inventory

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Antenna Inventory							
Antenna #	Carrier	Antenna Manufacturer	Antenna Model	Frequency Band (MHz)	Azimuth (°)	Effective Radiated Power (W)	Radiation Center (ft)
1	TMO	RFS	APXVAARR24	600/700	000	44801	122
2	TMO	RFS	APXVAARR24	600/700	120	44801	122
3	TMO	RFS	APXVAARR24	600/700	240	44801	122
4	TMO	Ericsson	Air 6419	2500/2600	000	61680	122
5	TMO	Ericsson	Air 6419	2500/2600	120	61680	122
6	TMO	Ericsson	Air 6419	2500/2600	240	61680	122
7	TMO	Commscope	VV-65A-R1B	1900/2100	000	11065	122
8	TMO	Commscope	VV-65A-R1B	1900/2100	120	11065	122
9	TMO	Commscope	VV-65A-R1B	1900/2100	240	11065	122
10	AT&T	Ericsson	Air 6419	3700-3900	100	71639	112
11	AT&T	Ericsson	Air 6419	3700-3900	230	71639	112
12	AT&T	Ericsson	Air 6419	3700-3900	350	71639	112
13	AT&T	Ericsson	Air 6449	3700-3900	100	72758	112
14	AT&T	Ericsson	Air 6449	3700-3900	230	72758	112
15	AT&T	Ericsson	Air 6449	3700-3900	350	72758	112
16	AT&T	CCI	DMP65R-BU6DA	700/800	100	49335	112
17	AT&T	CCI	DMP65R-BU6DA	700/800	230	49335	112
18	AT&T	CCI	DMP65R-BU6DA	700/800	350	49335	112
19	AT&T	CCI	TPA-65R-BU6DA-K	700/800	100	55354	112
20	AT&T	CCI	TPA-65R-BU6DA-K	700/800	230	55354	112
21	AT&T	CCI	TPA-65R-BU6DA-K	700/800	350	55354	112

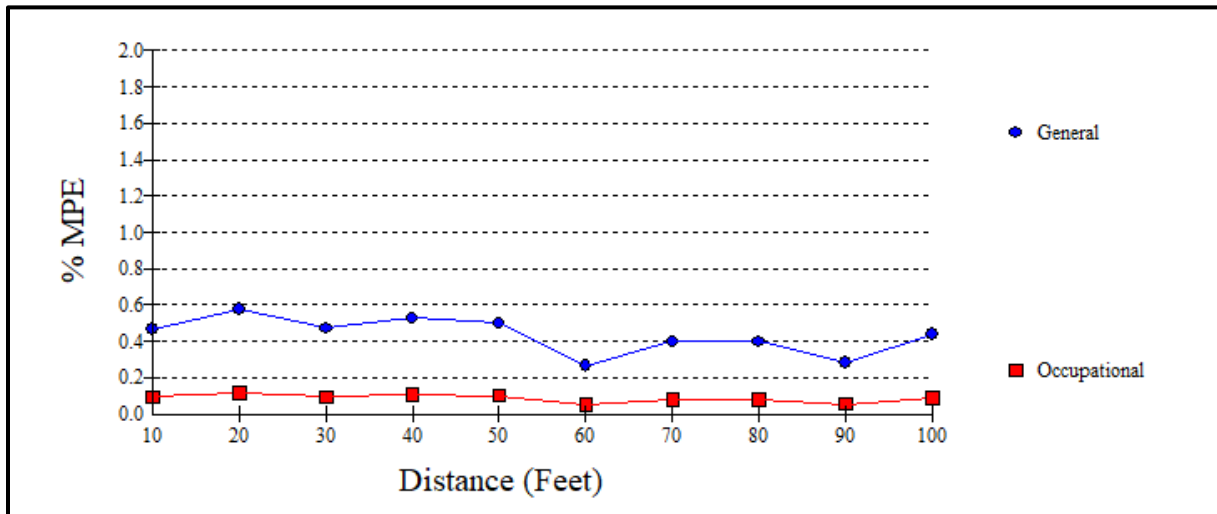


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## Appendix 2.2 Antenna Inventory

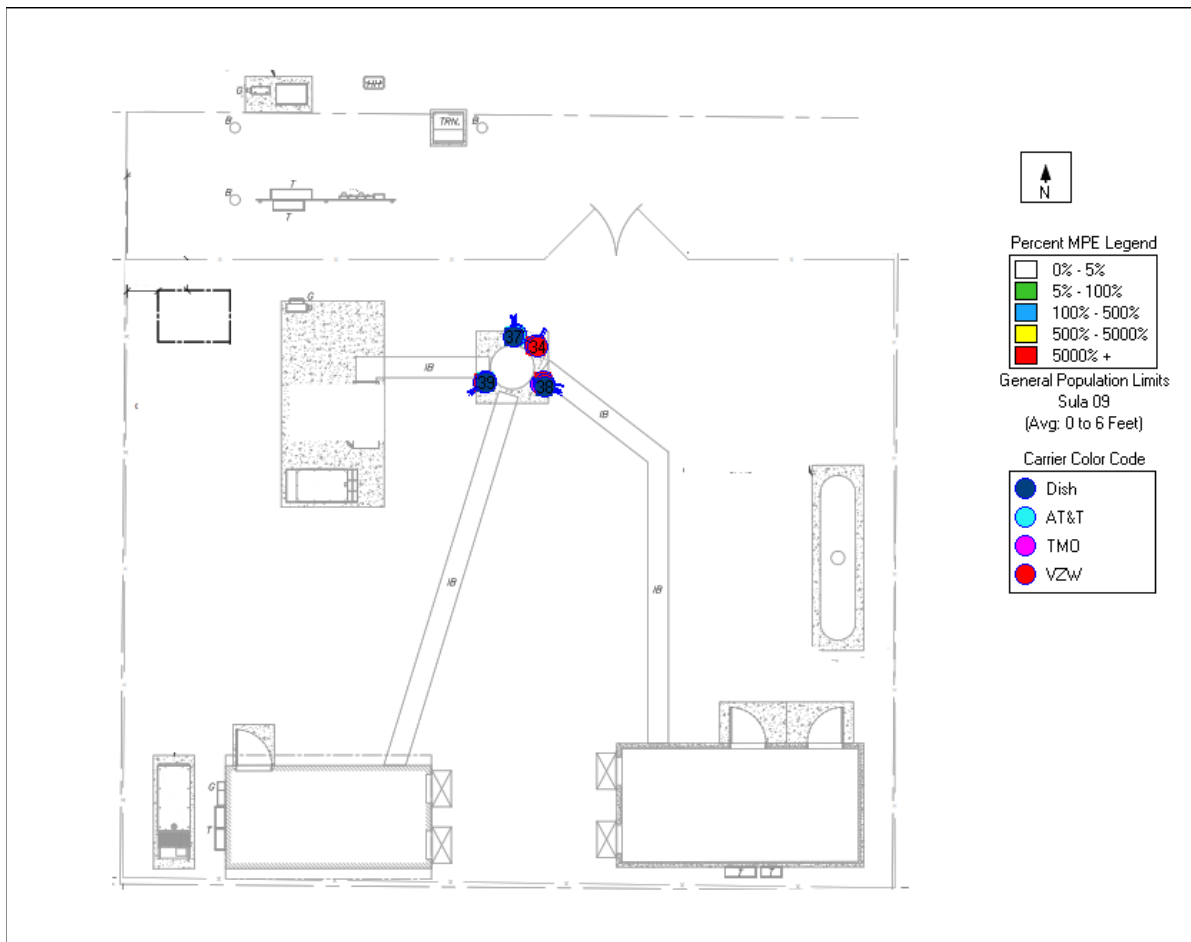
283419 Pine Orchard Brandford CT							
Antenna Inventory							
Antenna #	Carrier	Antenna Manufacturer	Antenna Model	Frequency Band (MHz)	Azimuth (°)	Effective Radiated Power (W)	Radiation Center (ft)
22	VZW	Antel	LPA-80063/6CF	700/800/1900	120	35720	102
23	VZW	Antel	LPA-80063/6CF	700/800/1900	220	35720	102
24	VZW	Antel	LPA-80063/6CF	700/800/1900	120	35720	102
25	VZW	Antel	LPA-80063/6CF	700/800/1900	220	35720	102
26	VZW	Sweedcom	SC-E 6016 REV2	700/800/1900	030	79621	102
27	VZW	Sweedcom	SC-E 6016 REV2	700/800/1900	030	79621	102
28	VZW	Commscope	JAHH-65B-R3B	700/800/1900/2100	030	24400	102
29	VZW	Commscope	JAHH-65B-R3B	700/800/1900/2100	120	24400	102
30	VZW	Commscope	JAHH-65B-R3B	700/800/1900/2100	220	24400	102
31	VZW	Commscope	JAHH-65B-R3B	700/800/1900/2100	030	24400	102
32	VZW	Commscope	JAHH-65B-R3B	700/800/1900/2100	120	24400	102
33	VZW	Commscope	JAHH-65B-R3B	700/800/1900/2100	220	24400	102
34	VZW	Samsung	MT6413	3700/3800/3900	030	91430	102
35	VZW	Samsung	MT6413	3700/3800/3900	120	91430	102
36	VZW	Samsung	MT6413	3700/3800/3900	220	91430	102
37	Dish	JMA	MX08FRO665-21	600/700/1900/2100/2300	000	40000	80
38	Dish	JMA	MX08FRO665-21	600/700/1900/2100/2300	120	40000	80
39	Dish	JMA	MX08FRO665-21	600/700/1900/2100/2300	240	40000	80

## Appendix 3.1 MPE Limit Study







Maximum Power Density (@20'):	0.0036 mW/cm <sup>2</sup>
General Population MPE (@20'):	0.5774%
Occupational MPE (@20'):	0.1794%

## Appendix 3.2 MPE Limit Study



## Appendix 4 RF Hazard Signs

RF Safety Exposure Categorization								
Exposure Conditions	Control Measures	Signage						
<ul style="list-style-type: none"> <li>Operational of the source(s) or locations where RF fields are too weak to cause exposures greater than General Public limit.</li> </ul> <table border="1"> <tr> <td>Cat.</td> <td>Occupational Worker</td> <td>General Public</td> </tr> <tr> <td>1</td> <td>&lt;20%</td> <td>&lt;100%</td> </tr> </table> <ul style="list-style-type: none"> <li>Green zone is where the time and spatial-average is below 20% of Occupational Worker limit or &lt;100% of General Public limit.</li> </ul>	Cat.	Occupational Worker	General Public	1	<20%	<100%	<ul style="list-style-type: none"> <li>RF Safety Guideline/NIER report must be submitted to RFSO for approval.</li> <li>No special EME safety practices required in these areas.</li> <li>No signage required except Information sign.</li> </ul>	 <p>*the antenna owner information and Antenna Structure Registration Number and must be displayed on the sign.</p> <p>INFORMATION sign for access to rooftop/access door.</p>
Cat.	Occupational Worker	General Public						
1	<20%	<100%						
<ul style="list-style-type: none"> <li>Operational of the source(s) or locations where RF exposure could cause exposure greater than General Public limit but not the Occupational Worker limit to be exceeded in accessible areas.</li> </ul> <table border="1"> <tr> <td>Cat.</td> <td>Occupational Worker</td> <td>General</td> </tr> <tr> <td>2</td> <td>≥20% but &lt;100%</td> <td>&gt;100%</td> </tr> </table> <ul style="list-style-type: none"> <li>Blue zone is where the spatial average is between 20%-100% of Occupational Worker limit. This limit MUST be less than the Occupational limit.</li> </ul>	Cat.	Occupational Worker	General	2	≥20% but <100%	>100%	<ul style="list-style-type: none"> <li>RF Safety Guideline/NIER report must be submitted to RFSO for approval.</li> <li>Recommended RF safety awareness training for all workers in this area.</li> <li>Controlled areas with barriers and/or signage required in these areas.</li> <li>Do not walk in front of the antenna face or no loitering in this controlled area.</li> <li>Individual MUST have full control over any area where the exposure levels exceed the limit.</li> </ul>	 <p>NOTICE signage shall be posted on the barriers/stanchion to prevent anyone from entering into the area (must be cordon off around the antennas - 4 posts /3 signs).</p> <p>Or must be posted in location that can be easily viewed by individuals that enter the areas of concerns.</p>
Cat.	Occupational Worker	General						
2	≥20% but <100%	>100%						
<ul style="list-style-type: none"> <li>Operational of the source(s) or locations where RF exposure exceeded the Occupational Worker limit in accessible areas.</li> </ul> <table border="1"> <tr> <td>Cat.</td> <td>Occupational Worker</td> <td>General Public</td> </tr> <tr> <td>3</td> <td>≥100%</td> <td>≥500%</td> </tr> </table> <ul style="list-style-type: none"> <li>Yellow zone is where the spatial average is above 100% of Occupational Worker limit.</li> </ul>	Cat.	Occupational Worker	General Public	3	≥100%	≥500%	<ul style="list-style-type: none"> <li>RF Safety Guideline/NIER report must be submitted to RFSO for approval.</li> <li>Individual <b>shall not</b> enter and work in these areas without RS approval</li> <li>Required RF safety training and access area is restricted only for authorized worker.</li> <li>Controlled areas with barriers and signage required in these areas.</li> <li>Do not walk in front of the antenna face.</li> <li>Require reduction of RF power and approval from Radiation Safety prior any work on the antennas.</li> </ul>	 <p>CAUTION signage shall be posted on the barriers/stanchion to prevent anyone from entering into the area (must be cordon off around the antennas - 4 posts /3 signs).</p>
Cat.	Occupational Worker	General Public						
3	≥100%	≥500%						
<ul style="list-style-type: none"> <li>Exposure will exceed exposure limit in accessible areas.</li> </ul> <table border="1"> <tr> <td>Cat.</td> <td>Occupational Worker</td> <td>General Public</td> </tr> <tr> <td>4</td> <td>&gt;500%</td> <td>&gt;1000%</td> </tr> </table> <ul style="list-style-type: none"> <li>Red zone is where the time and spatial-averaged levels fall above 500% of Occupational Worker limit or is not feasible to prevent exposures.</li> </ul>	Cat.	Occupational Worker	General Public	4	>500%	>1000%	<ul style="list-style-type: none"> <li>RF Safety Guideline/NIER report must be submitted to RFSO for approval.</li> <li>MUST re-engineer site to reduce the EME fields.</li> <li><b>No access allowed-Prohibited access!</b> There must be controls to detect any unauthorized enter and terminate the RF energy in the area.</li> <li>Lock out tag out of transmitters during the maintenance of the antenna system.</li> <li>PPE is not sufficient.</li> <li>Special RF training and PPE are required. (Applies only to individuals trained by RS).</li> </ul>	 <p>RF WARNING &amp; Pacemaker DANGER signage or appropriate DANGER sign shall be posted very near radiation RF sources or if appropriate DANGER sign.</p>
Cat.	Occupational Worker	General Public						
4	>500%	>1000%						





## Appendix 5 Information Pertaining to MPE Studies

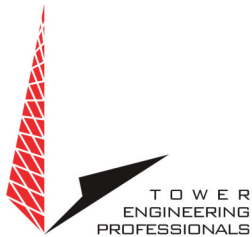
In 1985, the FCC first adopted guidelines to be used for evaluating human exposure to RF emissions. The FCC revised and updated these guidelines on August 1, 1996, as a result of a rule-making proceeding initiated in 1993. The new guidelines incorporate limits for Maximum Permissible Exposure (MPE) in terms of electric and magnetic field strength and power density for transmitters operating at frequencies between 300 kHz and 100 GHz.

The FCC's MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP), and, over a wide range of frequencies, the exposure limits were developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI) to replace the 1982 ANSI guidelines. Limits for localized absorption are based on recommendations of both ANSI/IEEE and NCRP.

The FCC's limits, and the NCRP and ANSI/IEEE limits on which they are based, are derived from exposure criteria quantified in terms of specific absorption rate (SAR). The basis for these limits is a whole-body averaged SAR threshold level of 4 watts per kilogram (4 W/kg), as averaged over the entire mass of the body, above which expert organizations have determined that potentially hazardous exposures may occur. The MPE limits are derived by incorporating safety factors that lead, in some cases, to limits that are more conservative than the limits originally adopted by the FCC in 1985. Where more conservative limits exist, they do not arise from a fundamental change in the RF safety criteria for whole-body averaged SAR, but from a precautionary desire to protect subgroups of the general population who, potentially, may be more at risk.

The FCC exposure limits are also based on data showing that the human body absorbs RF energy at some frequencies more efficiently than at others. The most restrictive limits occur in the frequency range of 30-300 MHz where whole-body absorption of RF energy by human beings is most efficient. At other frequencies, whole-body absorption is less efficient, and consequently, the MPE limits are less restrictive.





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MPE limits are defined in terms of power density (units of milliwatts per centimeter squared:  $\text{mW}/\text{cm}^2$ ), electric field strength (units of volts per meter:  $\text{V}/\text{m}$ ) and magnetic field strength (units of amperes per meter:  $\text{A}/\text{m}$ ). The far-field of a transmitting antenna is where the electric field vector (E), the magnetic field vector (H), and the direction of propagation can be considered to be all mutually orthogonal ("plane-wave" conditions).

**Occupational/controlled exposure** limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

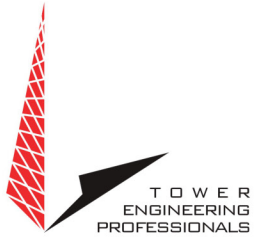
**General population/uncontrolled exposure** limits apply to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general public would always be considered under this category when exposure is not employment-related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area. Additional details can be found in FCC OET 65.



## Appendix 6 MPE Standards Methodology

This study predicts RF field strength and power density levels that emanate from communications system antennae. It considers all transmitter power levels (less filter and line losses) delivered to each active transmitting antenna at the communications site. Calculations are performed to determine power density and MPE levels for each antenna as well as composite levels from all antennas. The calculated levels are based on where a human (Observer) would be standing at various locations at the site. The point of interest where the MPE level is predicted is based on the height of the Observer.

Compliance with the FCC limits on RF emissions are determined by spatially averaging a person's exposure over the projected area of an adult human body, that is approximately six-feet or two-meters, as defined in the ANSI/IEEE C95.1 standard. The MPE limits are specified as time-averaged exposure limits. This means that exposure is averaged over an identifiable time interval. It is 30 minutes for the general population/uncontrolled RF environment and 6 minutes for the occupational/controlled RF environment. However, in the case of the general public, time averaging should not be applied because the general public is typically not aware of RF exposure, and they do not have control of their exposure time. Therefore, it should be assumed that any RF exposure to the general public will be continuous.



The FCC's limits for exposure at different frequencies are shown in the following Tables.

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

f = frequency

\* = Plane-wave equivalent power density



Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

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

f = frequency

\* = Plane-wave equivalent power density

General population/uncontrolled exposures apply in situations in which the general public may be exposed or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

It is important to understand that these limits apply cumulatively to all sources of RF emissions affecting a given area. For example, if several different communications system antennas occupy a shared facility such as a tower or rooftop, then the total exposure from all systems at the facility must be within compliance of the FCC guidelines.



The field strength emanating from an antenna can be estimated based on the characteristics of an antenna radiating in free space. There are basically two field areas associated with a radiating antenna. When close to the antenna, the region is known as the Near Field. Within this region, the characteristics of the RF fields are very complex, and the wave front is extremely curved. As you move further from the antenna, the wave front has less curvature and becomes planar. The wave front still has a curvature, but it appears to occupy a flat plane in space (plane-wave radiation). This region is known as the Far Field.

Two models are utilized to predict Near and Far field power densities. They are based on the formulae in FCC OET 65.

### **Cylindrical Model (Near Field Predictions)**

Spatially averaged plane-wave equivalent power densities parallel to the antenna may be estimated by dividing the antenna input power by the surface area of an imaginary cylinder surrounding the length of the radiating antenna. While the actual power density will vary along the height of the antenna, the average value along its length will closely follow the relation given by the following equation:

$$S = P \div 2\pi RL$$

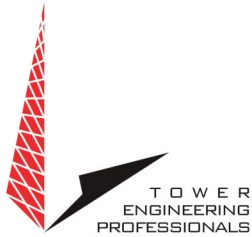
Where:

S = Power Density

P = Total Power into antenna

R = Distance from the antenna

L = Antenna aperture length



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For directional-type antennas, power densities can be estimated by dividing the input power by that portion of a cylindrical surface area corresponding to the angular beam width of the antenna. For example, for the case of a 120-degree azimuthal beam width, the surface area should correspond to 1/3 that of a full cylinder. This would increase the power density near the antenna by a factor of three over that for a purely omni-directional antenna. Mathematically, this can be represented by the following formula:

$$S = (180 / \theta_{BW}) P \div \pi RL$$

Where:

S = Power Density

$\theta_{BW}$  = Beam width of antenna in degrees (3 dB half-power point)

P = Total Power into antenna

R = Distance from the antenna

L = Antenna aperture length

If the antenna is a 360-degree omni-directional antenna, this formula would be equivalent to the previous formula.



### **Spherical Model (Far Field Predictions)**

Spatially averaged plane-wave power densities in the Far Field of an antenna may be estimated by considering the additional factors of antenna gain and reflective waves that would contribute to exposure.

The radiation pattern of an antenna has developed in the Far Field region and the power gain needs to be considered in exposure predictions. Also, if the vertical radiation pattern of the antenna is considered, the exposure predictions would most likely be reduced significantly at ground level, resulting in a more realistic estimate of the actual exposure levels.

Additionally, to model a truly "worst case" prediction of exposure levels at or near a surface, such as at ground-level or on a rooftop, reflection off the surface of antenna radiation power can be assumed, resulting in a potential four-fold increase in power density.

These additional factors are considered, and the Far Field prediction model is determined by the following equation:

$$S = EIRP \times Rc \div 4\pi R^2$$

Where:

S = Power Density

EIRP = Effective Radiated Power from antenna

Rc = Reflection Coefficient (2.56)

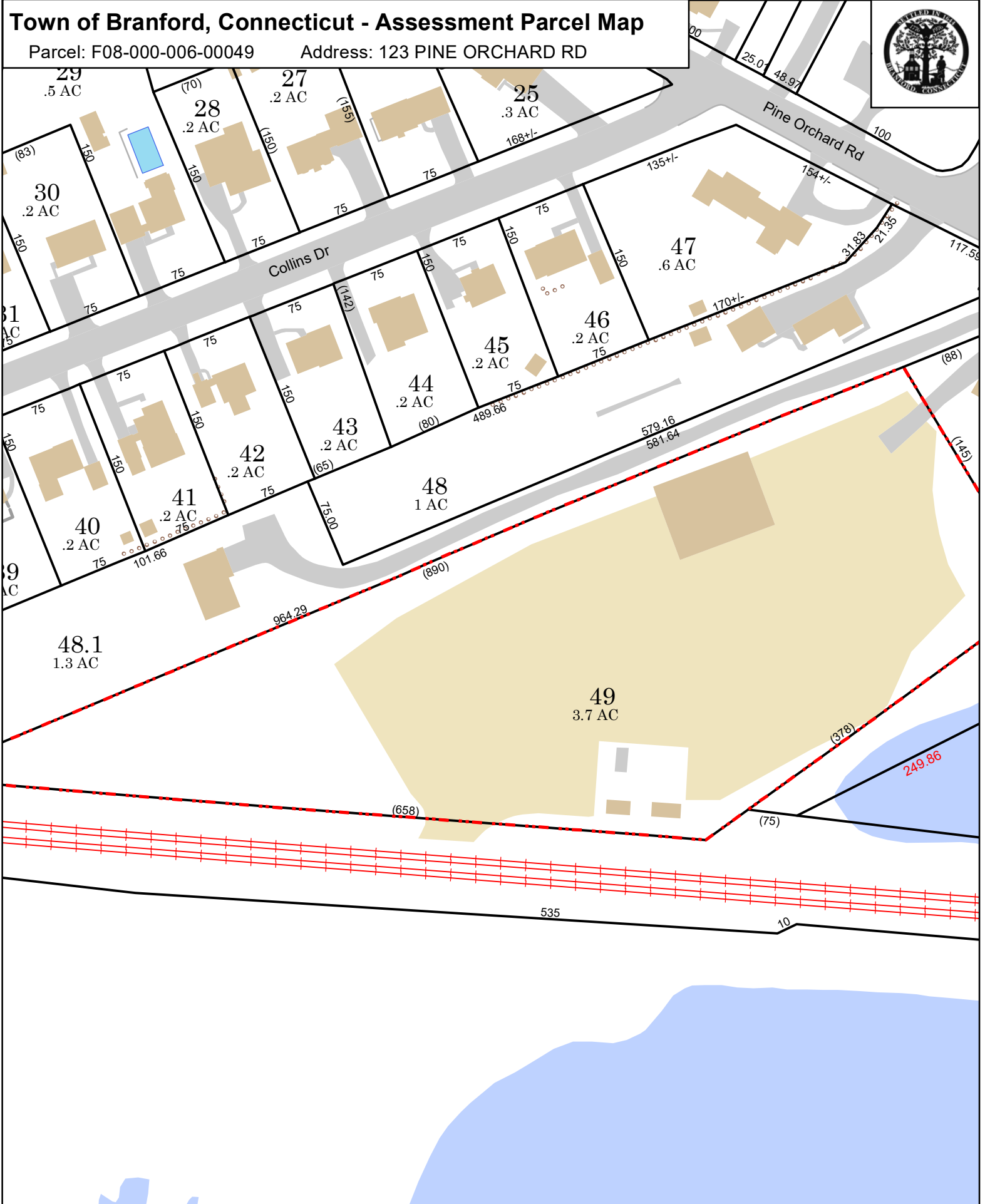
R = Distance from the antenna

The EIRP includes the antenna gain. If the antenna pattern is considered, the antenna gain is relative based on the horizontal and vertical pattern gain values at that particular location in space, on a rooftop or on the ground. However, it is recommended that the antenna radiation pattern characteristics not be considered to provide a conservative "worst case" prediction. This is the equation is utilized for the Far Field exposure predictions herein.

# Town of Branford, Connecticut - Assessment Parcel Map

Parcel: F08-000-006-00049

Address: 123 PINE ORCHARD RD



Approximate Scale: 1 inch : 100 feet

Grand List Date: December 2023

**Disclaimer:**

This map is for informational purposes only. All information is subject to verification by any user. The Town of Branford and its mapping contractors assume no legal responsibility for the information contained herein.





Property Information

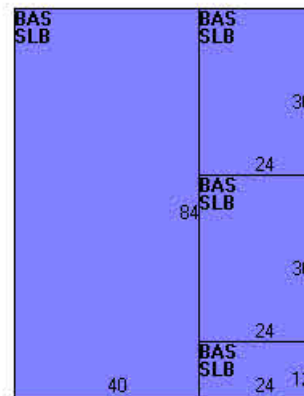
Property Location	123 PINE ORCHARD RD
Owner	MALAVASI INVESTMENTS LLC
Co-Owner	na
Mailing Address	35 STONY CREEK RD BRANFORD CT 06405
Land Use	3160 COMM WHS MDL96
Land Class	C
Zoning Code	R3
Census Tract	

Neighborhood	0070
Acreage	3.76
Utilities	Public Water,Public Sewer
Lot Setting/Desc	Suburban Level
Book / Page	0802/0624

Photo



Sketch



Primary Construction Details

Year Built	1941
Building Desc.	COMM WHS MDL96
Building Style	Service Shop
Building Grade	C
Stories	1
Occupancy	1.00
Exterior Walls	Concr/Cinder
Exterior Walls 2	NA
Roof Style	Flat
Roof Cover	T&G/Rubber
Interior Walls	Minim/Masonry
Interior Walls 2	NA
Interior Floors 1	Concr-Finished
Interior Floors 2	NA

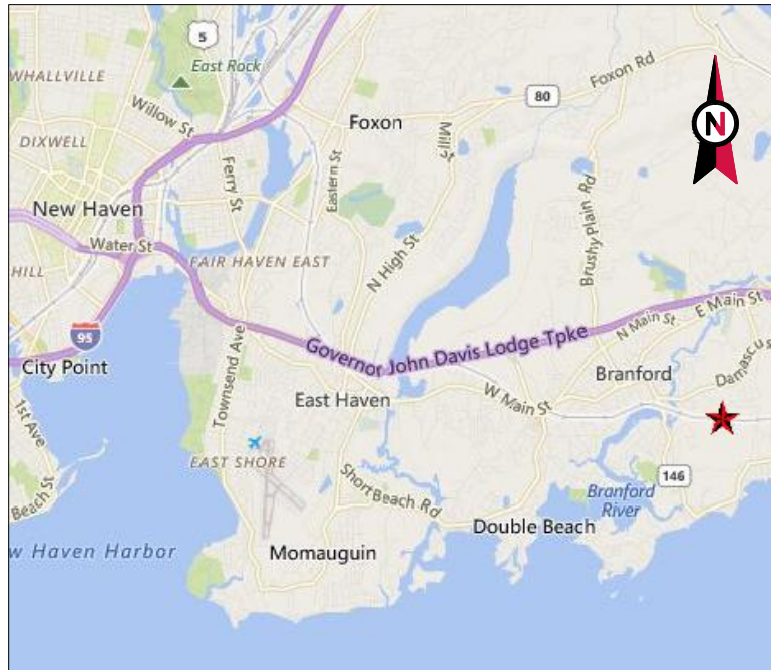
Heating Fuel	Oil
Heating Type	Hot Air-no Duc
AC Type	None
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	NA
Fin Bsmt Area	
Fin Bsmt Quality	
Bsmt Gar	
Fireplaces	

(\*Industrial / Commercial Details)

Building Use	Ind/Comm
Building Condition	G
Sprinkler %	NA
Heat / AC	NONE
Frame Type	MASONRY
Baths / Plumbing	AVERAGE
Ceiling / Wall	CEILING ONLY
Rooms / Prtns	AVERAGE
Wall Height	15.00
First Floor Use	NA
Foundation	NA







VICINITY MAP



**AMERICAN TOWER®**

ATC SITE NAME: PINE ORCHARD BRANFORD CT  
 ATC SITE NUMBER: 283419  
 VERIZON SITE NAME: BRANFORD WEST CT  
 VERIZON SITE NUMBER: 5000383581  
 VERIZON FUZE PID: 16244631  
 SITE ADDRESS: 123 PINE ORCHARD ROAD  
 BRANFORD, CT 06405



LOCATION MAP

**BIRD WATCH SITE:**  
 PLEASE CONTACT BIRD.WATCH@AMERICANTOWER.COM OR  
 AMERICAN TOWER NOC AT 877-518-6937 FOR ASSISTANCE

**VERIZON AMENDMENT DRAWINGS**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
<p>ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.</p> <p>1. 2020 NFPA 70, NATIONAL ELECTRIC CODE (NEC)            2. 2022 CONNECTICUT STATE BUILDING CODE            3. 2021 INTERNATIONAL BUILDING CODE (IBC)</p> <p>DESIGN CRITERIA FROM TOWER STRUCTURAL ANALYSIS:            BASIC WIND SPEED: 122 MPH (3-SECOND GUST)            BASIC WIND SPEED W/ ICE: 50 MPH (3-SECOND GUST) W/ 1.00" RADIAL ICE            CONCURRENT            CODE(S): ANSII/TIA-222-H / 2021 IBC / 2022 CONNECTICUT STATE BUILDING CODE            EXPOSURE CATEGORY: C            RISK CATEGORY: II            TOPO FACTOR PROCEDURE: METHOD 1            TOPOGRAPHIC CATEGORY: 1            SPECTRAL RESPONSE: S<sub>s</sub>=0.20, S<sub>z</sub>=0.05            SITE CLASS: D - STIFF SOIL - DEFAULT</p> <p>INFORMATION TAKEN FROM STRUCTURAL ANALYSIS COMPLETED BY A.T. ENGINEERING SERVICES, LLC, DATED 05/09/2024.</p>	<p><u>SITE ADDRESS:</u>            123 PINE ORCHARD ROAD            BRANFORD, CT 06405            COUNTY: NEW HAVEN</p> <p><u>REGISTERED COORDINATES:</u>            LATITUDE: 41.27486111            41° 16' 29.5" N            LONGITUDE: -72.79307777            72° 47' 35.08" W            GROUND ELEVATION: 30' AMSL</p>	<p>THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:</p> <p>REMOVE (3) SIDE-BY-SIDE MOUNT(s), (6) ANTENNA(s), (6) RRR(s), AND (12) 1-5/8" COAX CABLE(s)</p> <p>INSTALL (3) SIDE-BY-SIDE MOUNT(s), (9) ANTENNA(s), (6) RRR(s), AND (3) DIPLEXER(s)</p> <p>EXISTING (6) ANTENNA(s), (1) OVP(s), AND (6) 1-5/8" COAX / (2) 1-5/8" HYBRID CABLE(s) TO REMAIN</p>	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	<p><u>PROJECT TEAM</u></p> <p><u>TOWER OWNER:</u> AMERICAN TOWER            10 PRESIDENTIAL WAY            WOBURN, MA 01801</p> <p><u>APPLICANT:</u> VERIZON WIRELESS</p> <p><u>ENGINEER:</u>            A.T. ENGINEERING SERVICES LLC            1 FENTON MAIN, STE 300            CARY, NC 27511</p> <p><u>PROPERTY OWNER:</u>            MALAVASI INVESTMENTS LLC            123 PINE ORCHARD ROAD            BRANFORD, CT 06405-3939</p>	<p><b>PROJECT NOTES</b></p> <ol style="list-style-type: none"> <li>THE FACILITY IS UNMANNED.</li> <li>A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.</li> <li>THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.</li> <li>NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.</li> <li>HANDICAP ACCESS IS NOT REQUIRED.</li> <li>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).</li> </ol>	<p>G-001 TITLE SHEET</p> <p>G-002 GENERAL NOTES</p> <p>C-101 DETAILED SITE PLAN</p> <p>C-201 TOWER ELEVATION</p> <p>C-401 ANTENNA INFORMATION &amp; SCHEDULE</p> <p>C-501 CONSTRUCTION DETAILS</p> <p>E-501 GROUNDING DETAILS</p> <p>SUPPLEMENTAL SHEETS (1 PAGE)</p>	CONTRACTOR PMI REQUIREMENTS	<p>PMI ACCESSED AT: HTTPS://PMI.VZWSMART.COM</p> <p>SMART TOOL VENDOR PROJECT NUMBER: 10218126</p> <p>VZW LOCATION CODE (PSLC): 5000383581</p> <p>***PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT</p> <p>MOUNT MODIFICATION REQUIRED: NO</p> <p>VZW APPROVED SMART KIT VENDORS: REFER TO MOUNT MODIFICATION DRAWINGS PAGES FOR VZW SMART KIT APPROVED VENDORS</p>		
<p><b>UTILITY COMPANIES</b></p> <p>POWER COMPANY: UNKNOWN            PHONE: N/A</p> <p>TELEPHONE COMPANY: UNKNOWN            PHONE: N/A</p>	<p><b>PROJECT LOCATION DIRECTIONS</b></p> <p>FROM DOWNTOWN NEW HAVEN CT START OUT GOING NORTHEAST ON CHURCH ST TOWARD WALL ST. CHURCH ST BECOMES WHITNEY AVE TURN RIGHT ONTO TRUMBULL ST. TURN SLIGHT LEFT TO TAKE THE I-91 S/I-91 N RAMP. MERGE ONTO I-91 S TOWARD I-95/NEW LONDON/N.Y. CITY. MERGE ONTO I-95 N/GOVERNOR JOHN DAVIS LODGE TPKE N VIA THE EXIT ON THE LEFT TOWARD NEW LONDON. TAKE THE CEDAR ST EXIT, EXIT 54, TOWARD BRANFORD. TAKE THE CEDAR ST EXIT, EXIT 54, TOWARD BRANFORD. TURN LEFT ONTO MAIN ST/CT-146. TURN SLIGHT RIGHT ONTO S MAIN ST/CT-146. TURN RIGHT ONTO MONTOWESE ST/CT-146. TAKE THE 3RD LEFT ONTO PINE ORCHARD RD.</p> <p>TAKE THE 3RD RIGHT TO STAY ON PINE ORCHARD RD. SITE IS IN THE PROPERTY OF ACE TRANSPORTATION &amp; STORAGE</p>						



**AMERICAN TOWER®**  
**A.T. ENGINEERING SERVICES LLC**  
 1 FENTON MAIN  
 SUITE 300  
 CARY, NC 27511  
 PHONE: (919) 468-0112  
 PEC.0001553

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	EDNA	5/29/2024

ATC SITE NUMBER:  
 283419  
 ATC SITE NAME:  
 PINE ORCHARD BRANFORD CT  
 VERIZON SITE NAME:  
 BRANFORD WEST CT  
 SITE ADDRESS:  
 123 PINE ORCHARD ROAD  
 BRANFORD, CT 06405



**verizon**

ATC JOB NO: 14860626\_GO  
 CUSTOMER ID: BRANFORD WEST CT  
 CUSTOMER #: 5000383581

**TITLE SHEET**

SHEET NUMBER: **G-001**  
 REVISION: **0**

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**GENERAL CONSTRUCTION NOTES:**

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

22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY VERIZON REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. WHEN THE PROJECT SCOPE REQUIRES THE USE OF THE SAFETY CLIMB, THE GENERAL CONTRACTOR SHALL ENSURE THE SAFETY CLIMB IS FREE OF OBSTRUCTIONS, NOT RUBBING ON OR TRAPPED BY ANY INSTALLED CUSTOMER EQUIPMENT, IS VISUALLY TAUT, MEETS MANUFACTURER INSTALLATION SPECIFICATIONS, AND IS FIRMLY SECURED AT ALL CABLE GUIDE LOCATIONS UPON PROJECT COMPLETION.
29. COMPLETION OF PROJECT SHALL NOT OBSTRUCT, TRAP, LOOSEN, OR OTHERWISE CAUSE FAILURE TO MEET MANUFACTURER INSTALLATION REQUIREMENTS FOR THE SAFETY CLIMB.
30. 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.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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.

- B. ALL COAXIAL/HYBRID CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL/HYBRID CABLE (NOT WITHIN BENDS)

**SPECIAL CONSTRUCTION**

**ANTENNA INSTALLATION NOTES:**

1. WORK INCLUDED:
  - A. ANTENNA AND COAXIAL/HYBRID 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.
  - B. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND VERIZON SPECIFICATIONS.
  - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
  - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
  - E. INSTALL COAXIAL/HYBRID 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/HYBRID CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
2. ANTENNA AND COAXIAL/HYBRID CABLE GROUNDING:
  - A. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.

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



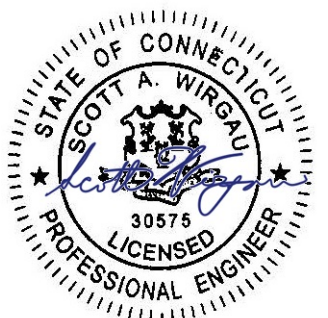
**AMERICAN TOWER®**  
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 1 FENTON MAIN  
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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	EDNA	5/29/2024

ATC SITE NUMBER:  
 283419  
 ATC SITE NAME:  
 PINE ORCHARD BRANFORD CT  
 VERIZON SITE NAME:  
 BRANFORD WEST CT  
 SITE ADDRESS:  
 123 PINE ORCHARD ROAD  
 BRANFORD, CT 06405

SEAL:



Digitally Signed: 2024-05-29



ATC JOB NO:	14860626_GO
CUSTOMER ID:	BRANFORD WEST CT
CUSTOMER #:	5000383581

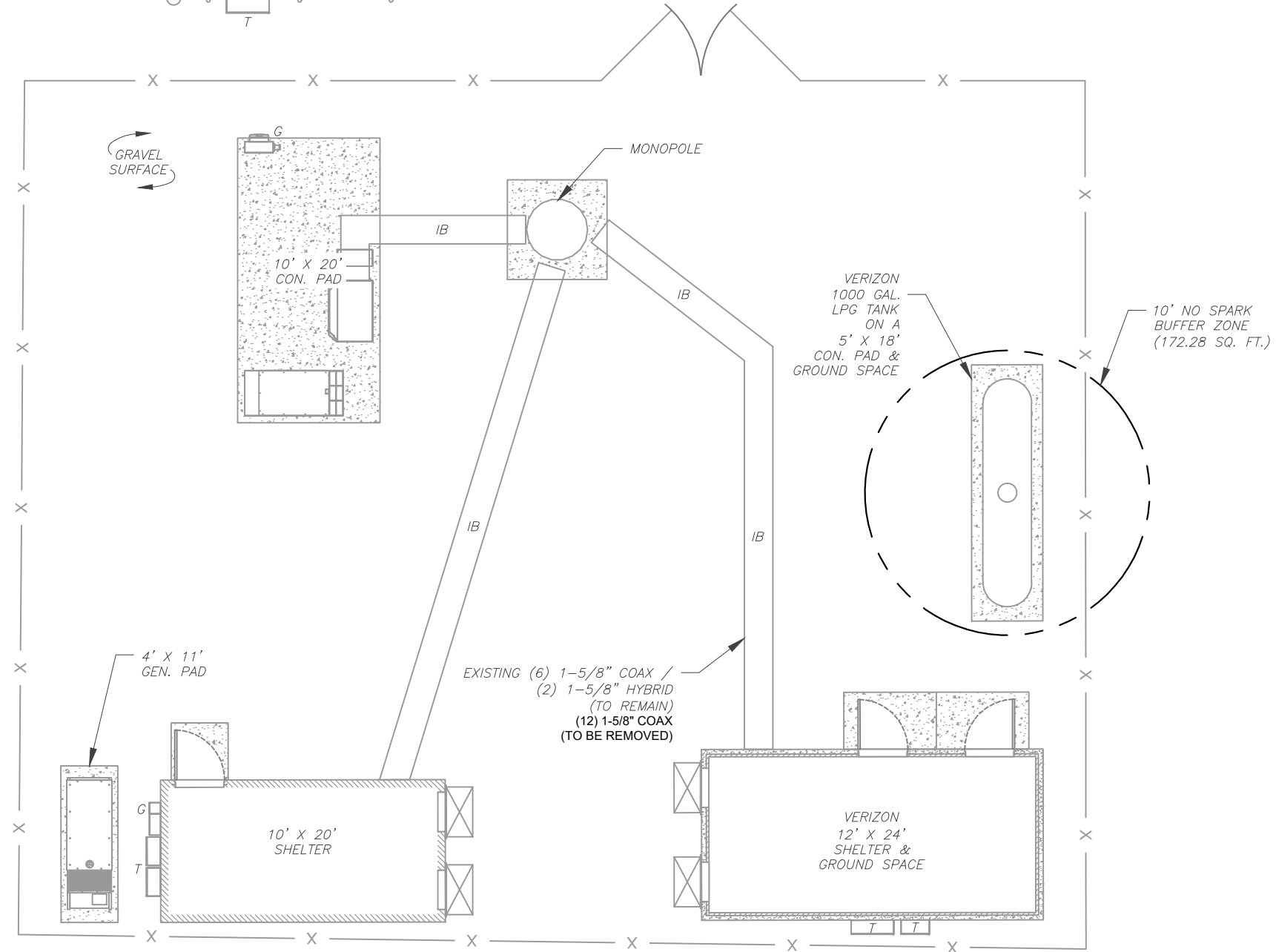
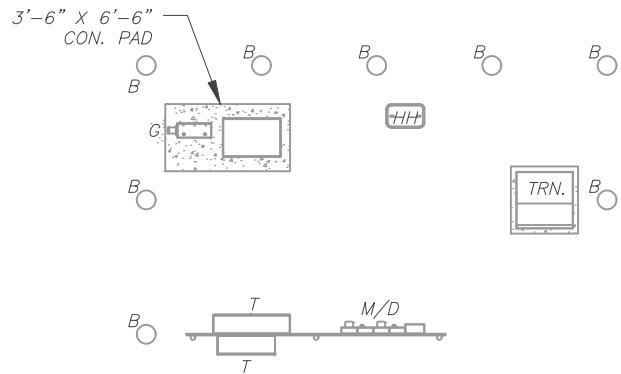
**GENERAL NOTES**

SHEET NUMBER: <b>G-002</b>	REVISION: <b>0</b>
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**SITE PLAN NOTES:**

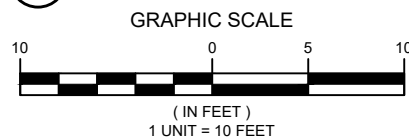
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE 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 RECEPTACLE
- 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
- CHAINLINK FENCE

**1 DETAILED SITE PLAN**



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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	EDNA	5/29/2024

ATC SITE NUMBER:  
283419  
ATC SITE NAME:  
**PINE ORCHARD BRANFORD CT**  
VERIZON SITE NAME:  
**BRANFORD WEST CT**  
SITE ADDRESS:  
123 PINE ORCHARD ROAD  
BRANFORD, CT 06405



Digitally Signed: 2024-05-29



ATC JOB NO:	14860626_GO
CUSTOMER ID:	BRANFORD WEST CT
CUSTOMER #:	5000383581

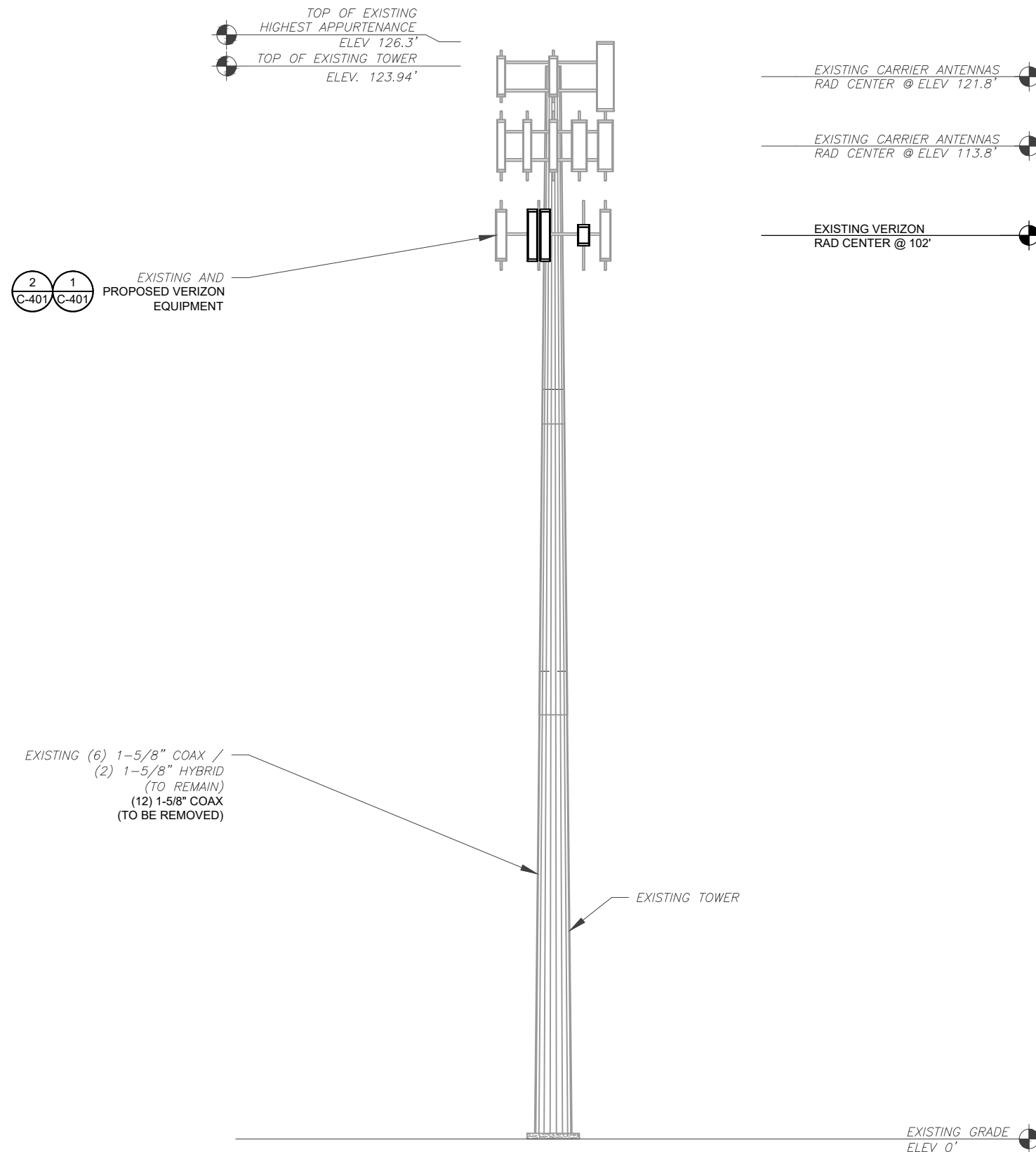
**DETAILED SITE PLAN**

SHEET NUMBER:	REVISION:
<b>C-101</b>	<b>0</b>

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FAA REGISTERED HEIGHT: 133' AGL

PER MOUNT ANALYSIS COMPLETED BY COLLIERS, DATED 01/11/2024, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



1 TOWER ELEVATION  
SCALE: N.T.S.

ALL ELEVATIONS REFLECT ABOVE GROUND LEVEL (A.G.L.)

**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 ELEVATION DEPICTION MAY NOT REFLECT ALL EQUIPMENT INCLUDED IN STRUCTURAL ANALYSIS. REFER TO STRUCTURAL ANALYSIS FOR FULL TOWER LOADING.

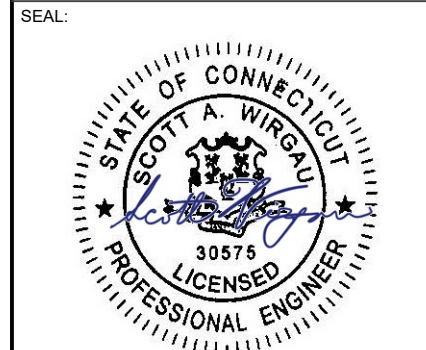


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**A.T. ENGINEERING SERVICES LLC**  
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 SUITE 300  
 CARY, NC 27511  
 PHONE: (919) 468-0112  
 PEC.0001553

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	EDNA	5/29/2024

ATC SITE NUMBER:  
 283419  
 ATC SITE NAME:  
 PINE ORCHARD BRANFORD CT  
 VERIZON SITE NAME:  
 BRANFORD WEST CT  
 SITE ADDRESS:  
 123 PINE ORCHARD ROAD  
 BRANFORD, CT 06405



Digitally Signed: 2024-05-29



ATC JOB NO: 14860626\_GO  
 CUSTOMER ID: BRANFORD WEST CT  
 CUSTOMER #: 5000383581

TOWER ELEVATION

SHEET NUMBER:  
**C-201**  
 REVISION:  
**0**

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	EDNA	5/29/2024

ATC SITE NUMBER:  
**283419**  
 ATC SITE NAME:  
**PINE ORCHARD BRANFORD CT**  
 VERIZON SITE NAME:  
**BRANFORD WEST CT**  
 SITE ADDRESS:  
 123 PINE ORCHARD ROAD  
 BRANFORD, CT 06405



Digitally Signed: 2024-05-29

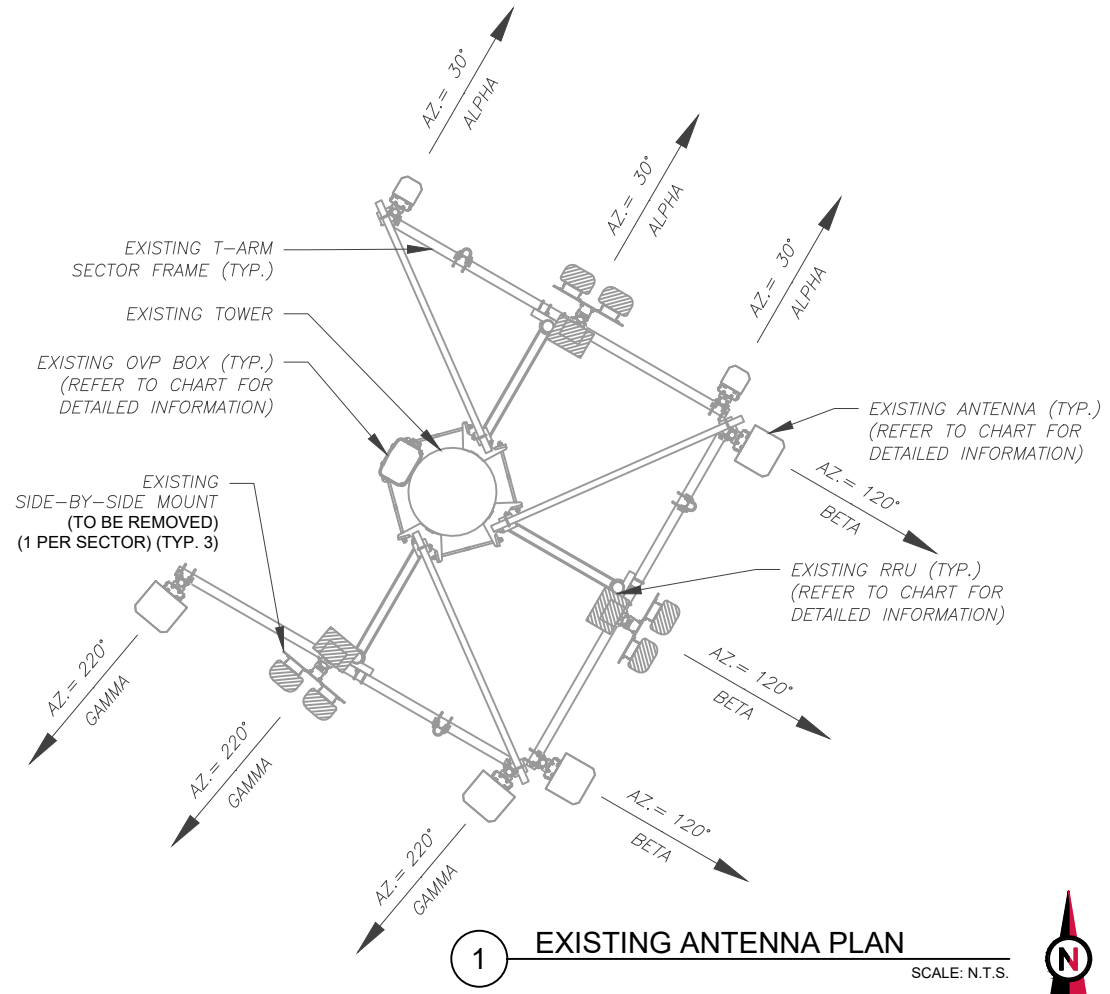


ATC JOB NO: 14860626\_GO  
 CUSTOMER ID: BRANFORD WEST CT  
 CUSTOMER #: 5000383581

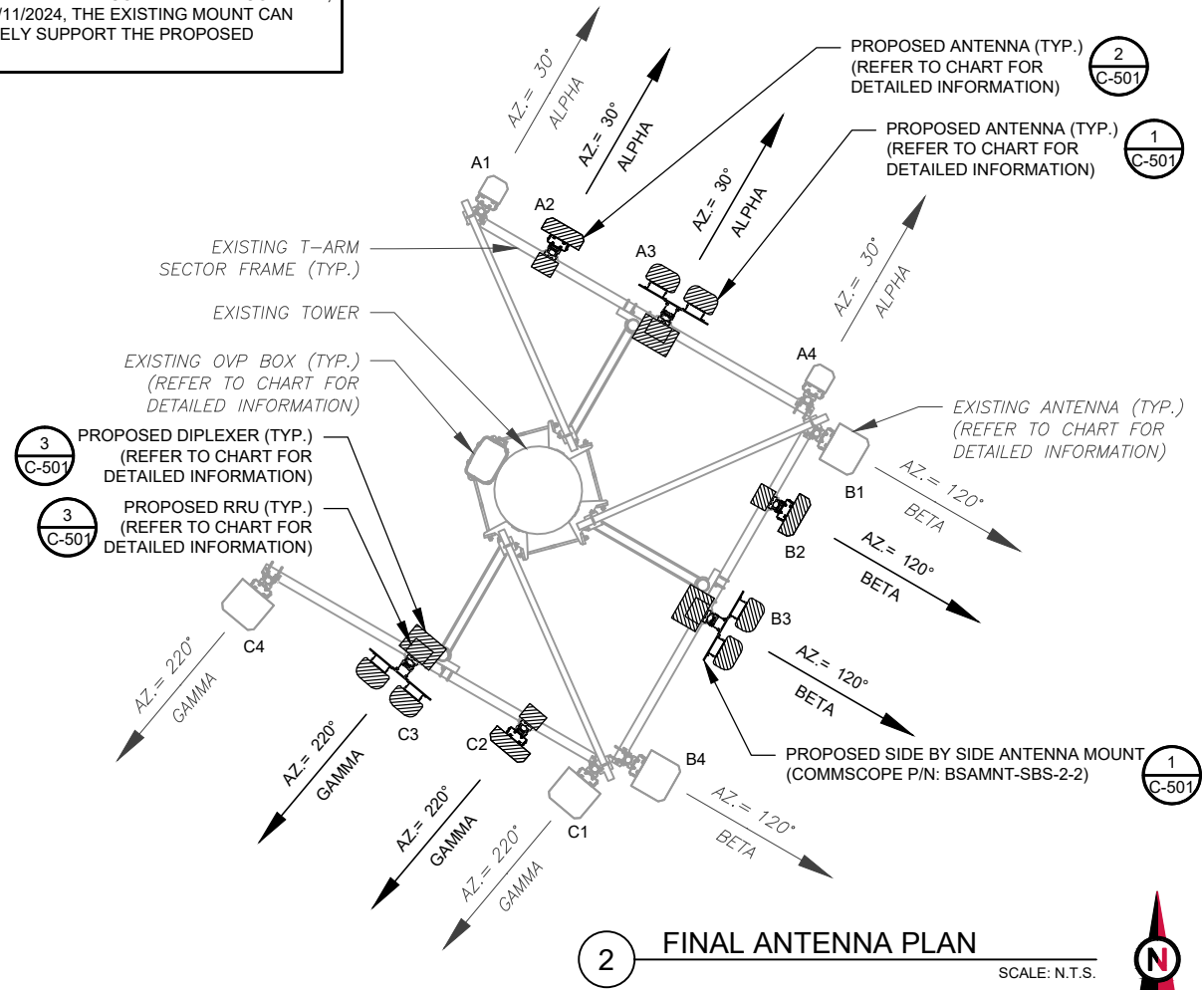
**ANTENNA INFORMATION & SCHEDULE**

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

PER MOUNT ANALYSIS COMPLETED BY COLLIERS, DATED 01/11/2024, THE EXISTING MOUNT CAN ADEQUATELY SUPPORT THE PROPOSED LOADING.



**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	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS		
ALPHA	102'	30°	A1	SC-E-6016 REV2	-	RMN	-	-		
			A2	-	-	-	-	-		
			A3	(2) SBNHH-1D65B	700 LTE/AWS LTE	RMV	B2/B66A RRH-BR049 B5/B13 RRH-BR04C	RMV	RMV	
			A4	SC-E-6016 REV2	-	RMN	-	-	-	
BETA	102'	120°	B1	LPA-80063/6CF	-	RMN	-	-		
			B2	-	-	-	-	-		
			B3	(2) SBNHH-1D65B	700 LTE/AWS LTE	RMV	B2/B66A RRH-BR049 B5/B13 RRH-BR04C	RMV	RMV	
			B4	LPA-80063/6CF	-	RMN	-	-	-	
GAMMA	102'	220°	C1	LPA-80063/6CF	-	RMN	-	-		
			C2	-	-	-	-	-		
			C3	(2) SBNHH-1D65B	700 LTE/AWS LTE	RMV	B2/B66A RRH-BR049 B5/B13 RRH-BR04C	RMV	RMV	
			C4	LPA-80063/6CF	-	RMN	-	-	-	

**NOTES**

- GC TO VERIFY THE FINAL RFDS MATCHES THE FINAL CONSTRUCTION DRAWINGS. GC TO NOTIFY ATC PM OF ANY DISCREPANCY PRIOR TO INSTALLING THE EQUIPMENT.
- GC TO CAP ALL UNUSED PORTS.
- GC TO 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	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS		
ALPHA	102'	30°	A1	SC-E-6016 REV2	-	RMN	-	-		
			A2	MT6413-77A	L-SUB6 5G	ADD	RF4461D-13A	ADD		
			A3	(2) JAHH-65B-R3B	700 LTE/850 5G LTE/1900 LTE/AWS LTE	ADD	RF4439D-25A CBC78T-DS-43-2X	ADD	ADD	
			A4	SC-E-6016 REV2	-	RMN	-	-	-	
BETA	102'	120°	B1	LPA-80063/6CF	-	RMN	-	-		
			B2	MT6413-77A	L-SUB6 5G	ADD	RF4461D-13A	ADD		
			B3	(2) JAHH-65B-R3B	700 LTE/850 5G LTE/1900 LTE/AWS LTE	ADD	RF4439D-25A CBC78T-DS-43-2X	ADD	ADD	
			B4	LPA-80063/6CF	-	RMN	-	-	-	
GAMMA	102'	220°	C1	LPA-80063/6CF	-	RMN	-	-		
			C2	MT6413-77A	L-SUB6 5G	ADD	RF4461D-13A	ADD		
			C3	(2) JAHH-65B-R3B	700 LTE/850 5G LTE/1900 LTE/AWS LTE	ADD	RF4439D-25A CBC78T-DS-43-2X	ADD	ADD	
			C4	LPA-80063/6CF	-	RMN	-	-	-	

EXISTING FIBER DISTRIBUTION / OVP BOX		EXISTING CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
(1) RCMD-6627-PF-48	RMN	(6) 1-5/8" COAX / (2) 1-5/8" HYBRID	RMN
-	-	(12) 1-5/8" COAX	RMV

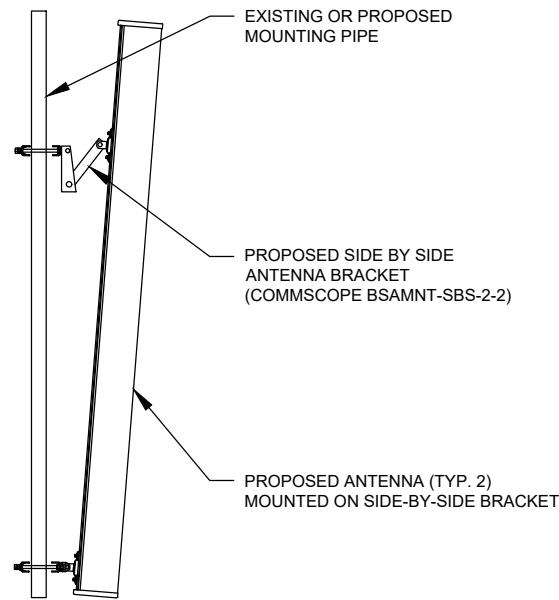
**3 EQUIPMENT SCHEDULES**

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY	
MODEL NUMBER	STATUS	CABLE QTY, SIZE, TYPE	STATUS
(1) RCMD-6627-PF-48	RMN	(6) 1-5/8" COAX / (2) 1-5/8" HYBRID	RMN

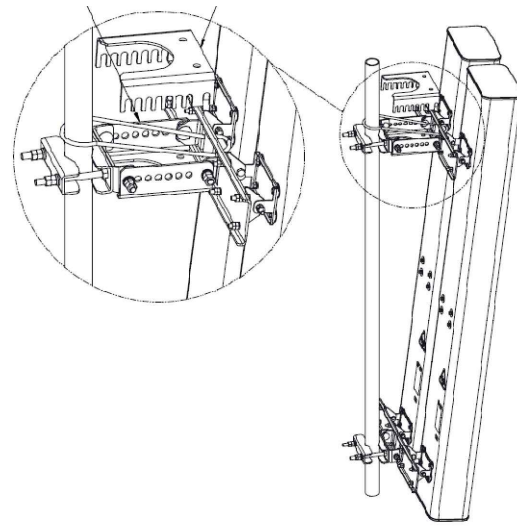
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EXISTING/PROPOSED MOUNTS AND/OR MOUNT MODIFICATIONS NOT SHOWN FOR CLARITY. REFER TO ANTENNA PLANS, MOUNT ANALYSES AND/OR MOUNT MODIFICATION DOCUMENTS FOR ADDITIONAL DETAIL.

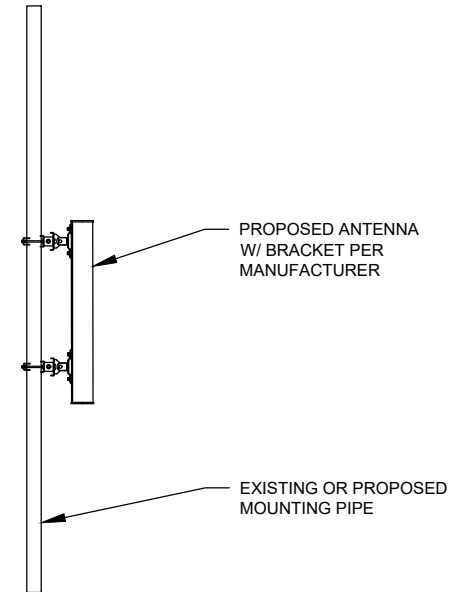


PROFILE VIEW

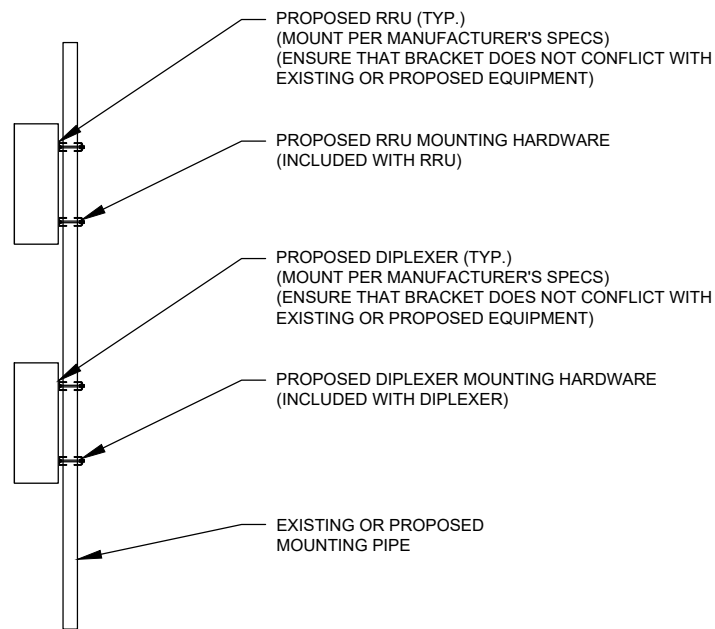


ISOMETRIC VIEW (BY MANUFACTURER)

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



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



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



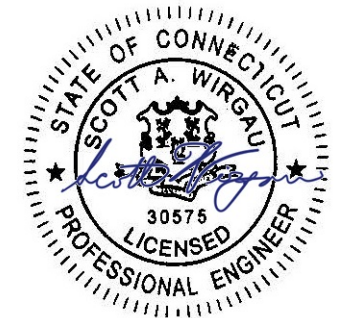
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0	FOR CONSTRUCTION	EDNA	5/29/2024

ATC SITE NUMBER:  
283419  
ATC SITE NAME:  
PINE ORCHARD BRANFORD CT  
VERIZON SITE NAME:  
BRANFORD WEST CT  
SITE ADDRESS:  
123 PINE ORCHARD ROAD  
BRANFORD, CT 06405

SEAL:



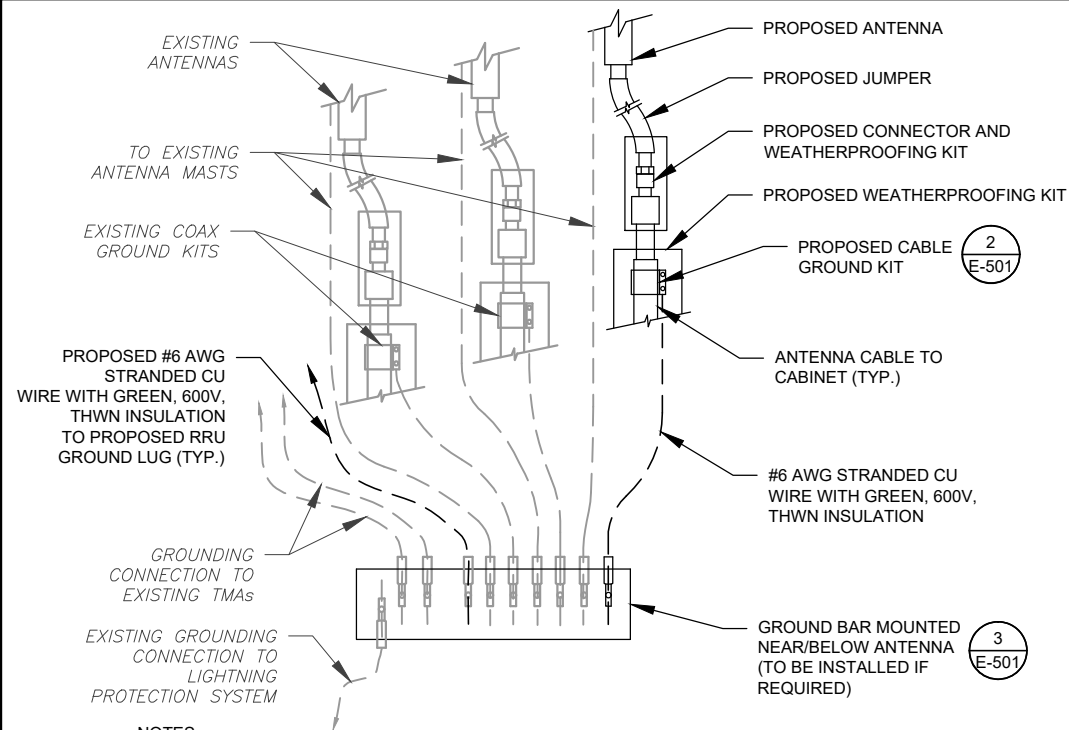
Digitally Signed: 2024-05-29



ATC JOB NO: 14860626\_G0  
CUSTOMER ID: BRANFORD WEST CT  
CUSTOMER #: 5000383581

CONSTRUCTION  
DETAILS

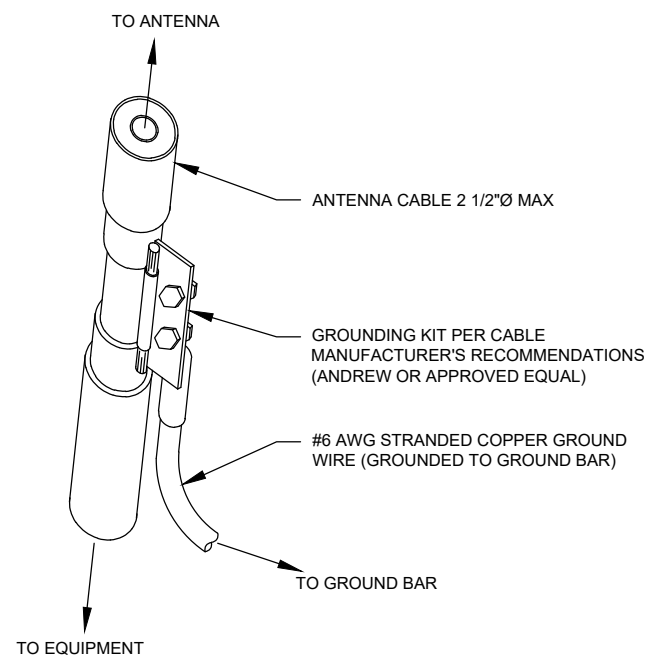
SHEET NUMBER: C-501  
REVISION: 0



**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.

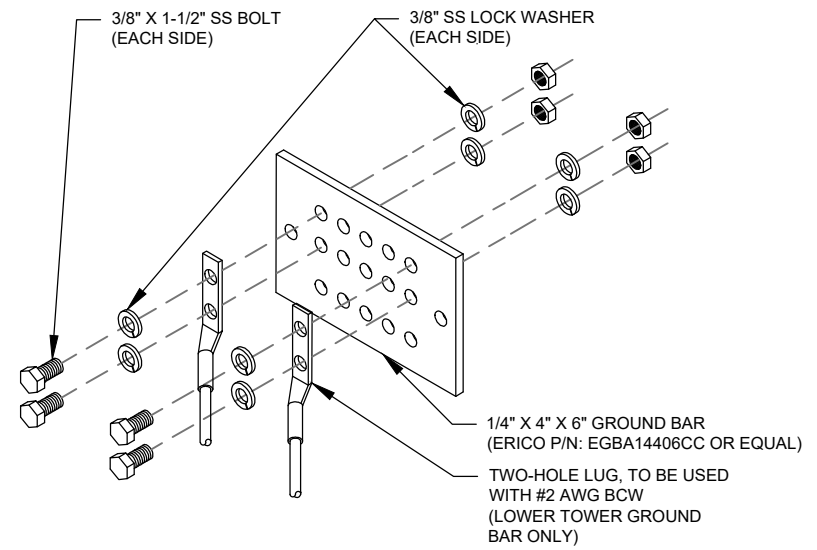
**1 TYPICAL ANTENNA GROUNDING DIAGRAM**  
SCALE: N.T.S.



**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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0	FOR CONSTRUCTION	EDNA	5/29/2024

ATC SITE NUMBER:  
**283419**

ATC SITE NAME:  
**PINE ORCHARD BRANFORD CT**

VERIZON SITE NAME:  
**BRANFORD WEST CT**

SITE ADDRESS:  
123 PINE ORCHARD ROAD  
BRANFORD, CT 06405

SEAL:

SCOTT A. WIRGAU  
30575  
LICENSED PROFESSIONAL ENGINEER

Digitally Signed: 2024-05-29

ATC JOB NO: 14860626\_GO  
CUSTOMER ID: BRANFORD WEST CT  
CUSTOMER #: 5000383581

**GROUNDING DETAILS**

SHEET NUMBER: <b>E-501</b>	REVISION: <b>0</b>
-------------------------------	-----------------------

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Colliers Engineering & Design, Architecture,  
Landscape Architecture, Surveying, CT  
P.C.1055 Washington Boulevard  
Stamford, CT 06901  
203.324.0800  
peter.albano@collierseng.com

Mount Structural Analysis Report  
(3) 12.00-Ft T-Arms

January 11, 2024  
Site ID: 5000383581-VZW / BRANFORD WEST CT  
Page | 5

**Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:**

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	13.5	9.9	32.1	28.5
0.5	17.9	13.3	44.3	39.7
1	16.3	22.1	56.3	50.5

**Notes:**

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 3 sector(s).
- Ka factors included in (EPA)a calculations

**Requirements:**

The existing mounts are **SUFFICIENT** for the final loading configuration shown in attachment 2 and do not require modifications. Additional requirements are noted below.

N/A

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

**Attachments:**

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

**Antenna Mount Analysis Report and PMI Requirements**

Mount ReAnalysis-VZW

SMART Tool Project #: 10218126  
Colliers Engineering & Design Project #: 21777426 (Rev 1)

January 11, 2024

**Site Information**

Site ID: 5000383581-VZW / BRANFORD WEST CT  
Site Name: BRANFORD WEST CT  
Carrier Name: Verizon Wireless  
Address: 123 Pine Orchard Rd.  
Branford, Connecticut 06405  
New Haven County  
Latitude: 41.274861°  
Longitude: -72.793078°

**Structure Information**

Tower Type: 124-Ft Monopole  
Mount Type: 12.00-Ft T-Arm

FUZE ID # 16244631

**Analysis Results**

T-Arm: 68.4% Pass\*

**\*Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.**

**\*\*\*Contractor PMI Requirements:**

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

For additional questions and support, please reach out to:  
[pmisupport@colliersengineering.com](mailto:pmisupport@colliersengineering.com)

Report Prepared By: Carol Luengas



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.

SUPPLEMENTAL

SHEET NUMBER: R-601  
REVISION: 0

ORIGIN ID: SYRA (315) 569-9241  
CASSANDRA DARMODY  
PYRAMID NETWORK SERVICES LLC  
6615 TOWNPATH RD

SHIP DATE: 02 JUL 24  
ACTWGT: 0.50 LB  
CAD: 114425996/NET4730

E SYRACUSE, NY 13057  
UNITED STATES US

BILL SENDER

TO **JAMES COSGROVE, 1ST SELECTMAN**

**TOWN OF BRANFORD CT**

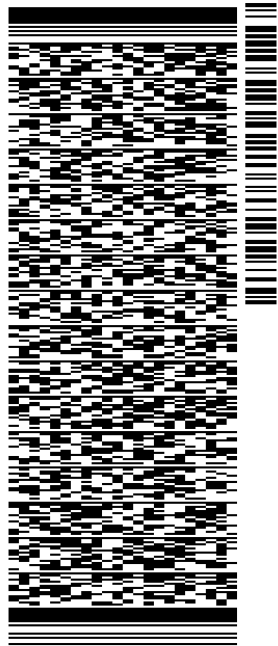
**TOWN HALL**

**1019 MAIN STREET**

**BRANFORD CT 06405**

(203) 315-0620 REF: ATONV2000 PINEORCHARD 14860626  
INV: ATONV2000 PINEORCHARD 1486062 DEPT:  
PO: ATONV2000 PINEORCHARD 1486062

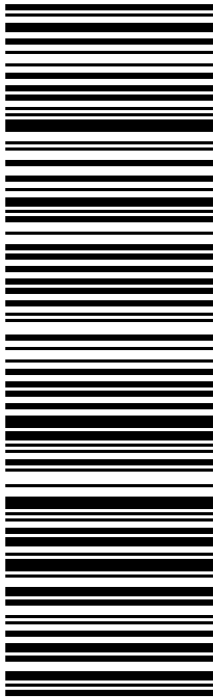
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MON - 08 JUL 5:00P  
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ORIGIN ID: SYRA (315) 569-9241  
CASSANDRA DARMODY  
PYRAMID NETWORK SERVICES LLC  
6615 TOWPATH RD

SHIP DATE: 02 JUL 24  
ACTWGT: 0.50 LB  
CAD: 114425996/NET4730

E SYRACUSE, NY 13057  
UNITED STATES US

BILL SENDER

TO HARRY SMITH, TOWN PLANNER

TOWN OF BRANFORD CT

TOWN HALL

1019 MAIN STREET

BRANFORD CT 06405

(203) 315-2188 REF: ATONV2000 PINEORCHARD 14860626  
INV: ATONV2000 PINEORCHARD 14860626  
PO: ATONV2000 PINEORCHARD 14860626 DEPT:

583J3/2614/9AE3

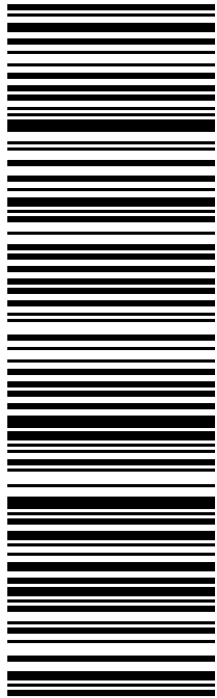


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MON - 08 JUL 5:00P  
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SP RSPA

06405  
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ORIGIN ID: SYRA (315) 569-9241  
CASSANDRA DARMODY  
PYRAMID NETWORK SERVICES LLC  
6615 TOWPATH RD  
E SYRACUSE, NY 13057  
UNITED STATES US

SHIP DATE: 02 JUL 24  
ACTWGT: 0.50 LB  
CAD: 114425996/NET4730

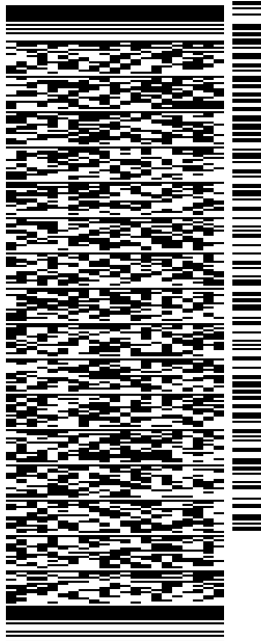
BILL SENDER

TO PROPERTY MANAGEMENT  
AMERICAN TOWER CORP  
10 PRESIDENTIAL WAY

WOBURN MA 01801

(781) 926-4560 REF: ATONV2000 PINEORCHARD 14860626  
INV: ATONV2000 PINEORCHARD 14860626 DEPT:  
PO: ATONV2000 PINEORCHARD 14860626

583J3/2614/9AE3

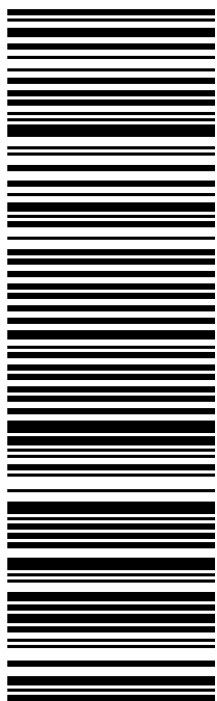


J242024032601uv

TRK# 7771 7930 9723  
0201

MON - 08 JUL 5:00P  
EXPRESS SAVER

SP BEDA  
01801  
MA-US BOS



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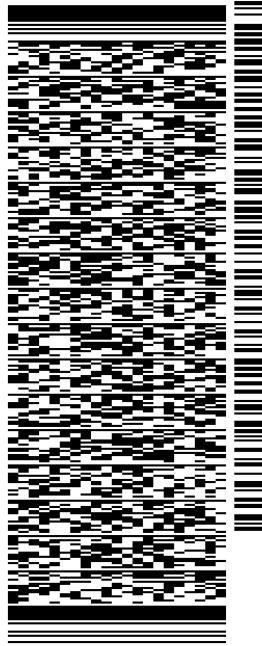
BILL SENDER

TO **PROPERTY OWNER**  
**MALAVASI INVESTMENTS, LLC**  
**35 STONY CREEK ROAD**

**BRANFORD CT 06405**

(203) 214-2895 REF: ATONV2000 PINEORCHARD 14860626  
INV: ATONV2000 PINEORCHARD 14860626  
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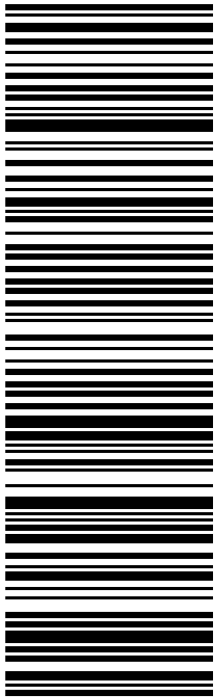
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TRK# 7771 7942 1966  
0201

MON - 08 JUL 5:00P  
EXPRESS SAVER

**SP RSPA**  
06405  
CT-US BDL



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