

October 18, 2023

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

Re: **Notice of Exempt Modification – Facility Modification  
812 Providence Pike, Danielson (Killingly), Connecticut**

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains a wireless telecommunications facility at the above-referenced address (the “Property”). Cellco’s facility consists of antennas and remote radio heads attached to a tower. Equipment associated with the facility is located on the ground adjacent to the tower. The tower was approved by the Town of Killingly. Cellco’s site acquisition consultant did reach out to the Town Officials in advance of this filing in an effort to obtain a copy of the Town’s original approval but was told that no copy of the Town’s approval could be located. Cellco’s shared use of the tower was approved by the Siting Council (“Council”) in February of 2014 (TS-VER-069-140117). A copy of the Cellco’s tower share approval is included in Attachment 1.

Cellco’s proposed modification involves the installation of two (2) interference mitigation filters (“Filters”) on its existing antenna platform and antenna mounting assembly. The Filter specification sheet is included in Attachment 2.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Killingly’s Town Manger and Land Use Officer. A copy of this letter is being sent to the owner of the Property.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

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

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# Robinson+Cole

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existing tower. The Filters will be installed on Cellco's existing antenna platform and antenna mounting assembly.

2. The proposed modifications will not involve any change to ground-mounted equipment and, therefore, 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 installation of the Filters will not result in a change to radio frequency (RF) emissions from the facility. Therefore, no new RF emissions information is included in this filing.

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

6. According to the attached Structural Analysis Report ("SA") and Antenna Mount Analysis Report ("MA"), the existing tower, foundation, antenna platform and mounting assembly can support Cellco's proposed modifications. A copy of the SA and MA are included in Attachment 3.

A copy of the parcel map and Property owner information is included in Attachment 4. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in Attachment 5.

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

Sincerely,



Kenneth C. Baldwin

Enclosures

Copy to:

Mary Calorio, Town Manger  
Ann-Marie Aubrey, Director of Planning and Development  
Quinebaug Valley Emergency Communications Inc., Property Owner  
Alex Tyurin, Verizon Wireless

# **ATTACHMENT 1**



STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

February 11, 2014

Kenneth C. Baldwin, Esq.  
Robinson & Cole LLP  
280 Trumbull Street  
Hartford, CT 06103

RE: **TS-VER-069-140117** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 812 Providence Pike, Killingly, Connecticut.

Dear Attorney Baldwin:

At a public meeting held February 6, 2014, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures with the following conditions:

- Prior to antenna installation, the tower reinforcements outlined in Section 5 of the report prepared by Centek Engineering dated December 6, 2013, and stamped by Carlo Centore, shall be implemented;
- Within 45 days following completion of the antenna installation, Cellco shall provide documentation certified by a professional engineer that its installation complied with the requirements of the structural analysis;
- Any deviation from the proposed installation as specified in the original tower share request and supporting materials with the Council shall render this decision invalid;
- Any material changes to the proposed installation as specified in the original tower share request and supporting materials filed with the Council shall require an explicit request for modification to the Council pursuant to Connecticut General Statutes § 16-50aa, including all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65;
- Not less than 45 days after completion of the proposed installation, the Council shall be notified in writing that the installation has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.





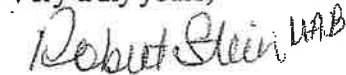
This decision is under the exclusive jurisdiction of the Council. This facility has been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction. Please be advised that the validity of this action shall expire one year from the date of this letter.

The proposed shared use is to be implemented as specified in your letter dated January 17, 2014, including the placement of all necessary equipment and shelters within the tower compound.

Thank you for your attention and cooperation.

Very truly yours,

Handwritten signature of Robert Stein in black ink, with the initials "UAB" written to the right of the signature.

Robert Stein  
Chairman

RS/MP/jb

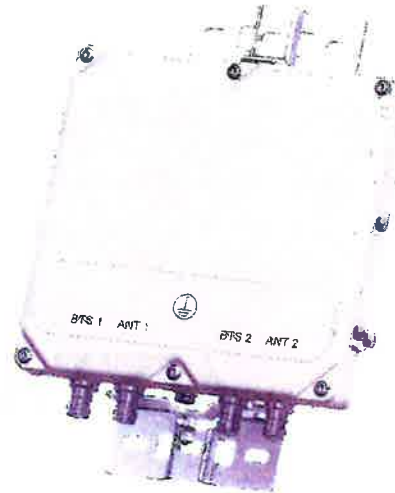
- c: The Honorable John Hallbergh, Chairman, Town of Killingly  
Bruce E. Benway, Town Manager, Town of Killingly  
Linda E. Walden, Director of Planning and Development, Town of Killingly  
Quinebaug Valley Emergency Communications, Inc.

# **ATTACHMENT 2**

# BSF0020F3V1-1

## TWIN BANDSTOP 900MHZ INTERFERENCE MITIGATION FILTER

The BSF0020 is ideal for co-located 700, 850 and 900 networks. Utilising a 2,6MHz guardband the BSF0020 provides rejection of the 900 UL band while passing 700/850 UL and DL bands. Capable of being used in an outdoor environment the BSF0020 contains two identical bandstop filters, suitable for 2x2 MIMO configuration, offering excellent insertion loss, group delay and rejection.



### FEATURES

- Passes full 700 and 850 bands
- Low insertion loss
- Rejection of 900MHz uplink
- DC/AISG pass
- Twin unit
- Dual twin mounting available

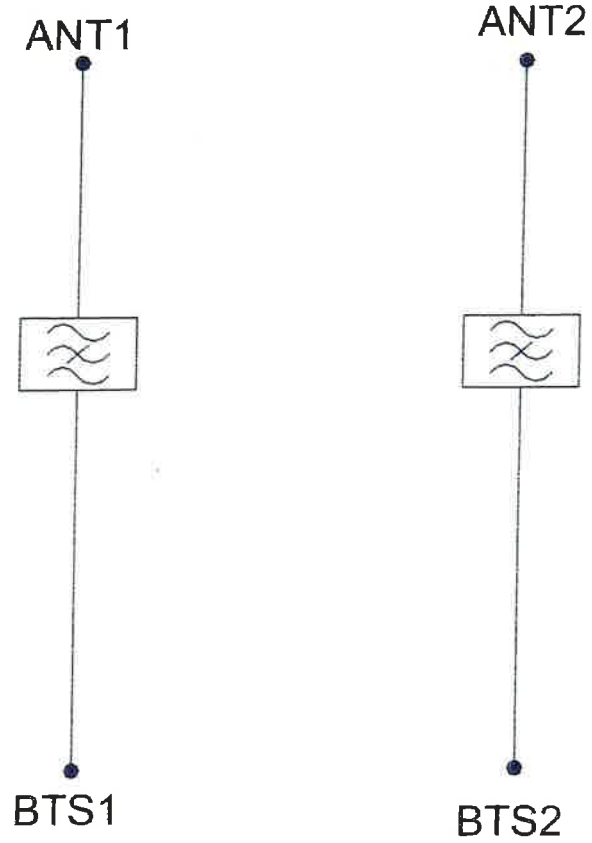
### TECHNICAL SPECIFICATIONS

Band Name	700MHz (UL & DL) BAND	850MHz (UL & DL) BAND
Passband	698 - 849MHz	869 - 891.5MHz
Insertion loss	0.1dB typical / 0.3dB maximum	0.5dB typical, 1.45dB maximum
Return loss	24dB typical, 18dB minimum	
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz
Rejection	53dB minimum @ 894, 1 - 896.5MHz	
<b>ELECTRICAL</b>		
Impedance	50Ohms	
Intermodulation products	-160dBc maximum in UL Band (assuming 20MHz Signal), with 2 x 43dBm carriers -153dBc maximum with 2 x 43dBm	
<b>DC / AISG</b>		
Passband	0 - 13MHz	
Insertion loss	0.3dB maximum	
Return loss	15dB minimum	
Input voltage range	± 33V	
DC current rating	2A continuous, 4A peak*	
Compliance	3GPP TS 25.461	
<b>ENVIRONMENTAL</b>		
For further details of environmental compliance, please contact Kaelus.		
Temperature range	-20°C to +60°C ; -4°F to +140°F	
Ingress protection	IP67	
Altitude	2600m   8530ft	
Lightning protection	RF port: ±5kA maximum (8/20us), IEC 61000-4-5 – Unit must be terminated with some lightning protection circuits.	
MTBF	>1,000,000 hours	
Compliance	ETSI EN 300 019 class 4.1H, RoHS, NEBS GR-487-CORE	
<b>MECHANICAL</b>		
Dimensions H x D x W	269 x 277 x 80mm   10.60 x 10.90 x 3.15in (Excluding brackets and connectors)	
Weight	8.0 kg   17.6 lbs (no bracket)	
Finish	Powder coated, light grey (RAL7035)	
Connectors	RF: 4.3-10 (F) x 4	
Mounting	Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter poles or custom bracket. See ordering information.	

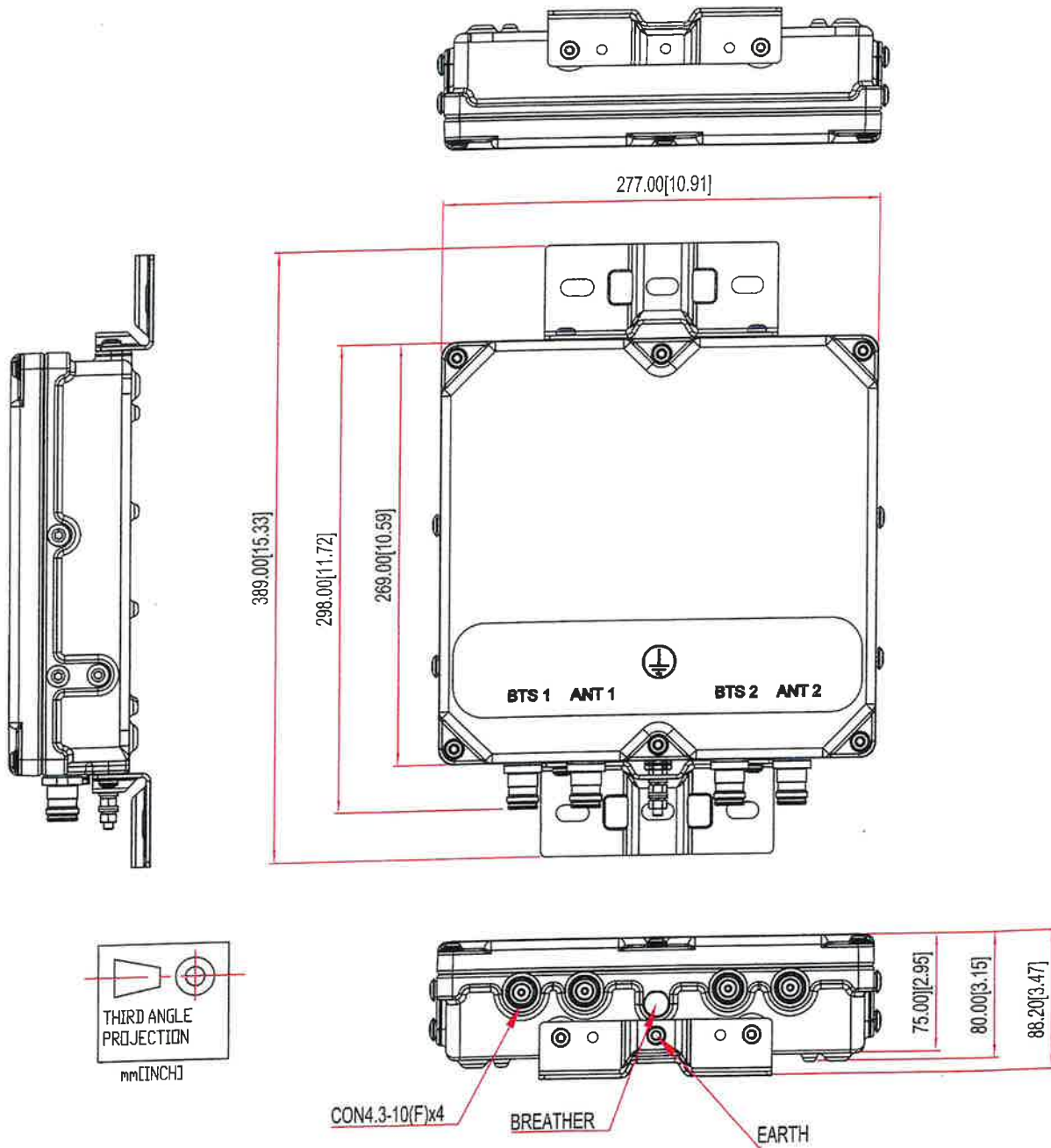
### ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS
BSF0020F3V1	TWIN, 2 in / 2 out	DC/AISG PASS NO BRACKET	4.3-10 (F)
BSF0020F3V1-1	TWIN, 2 in / 2 out	DC/AISG PASS	4.3-10 (F)
BSF0020F3V1-2	QUAD, 4 in / 4 out	DC/AISG PASS	4.3-10 (F)

ELECTRICAL BLOCK DIAGRAM



**MECHANICAL BLOCK DIAGRAM**



# **ATTACHMENT 3**





## Structural Analysis Report

**Location Code:** 468921  
**Site Name:** DANIELSON 2 CT  
**FUZE Project ID:** 17123687  
**Project Name:** RF Filter Add  
**Address:** 812 Providence Pike  
Danielson, CT 06239

**Client:**

**verizon**<sup>v</sup>

**20 ALEXANDER DRIVE  
WALLINGFORD, CT 06492**

**Date:** 10/13/2023



Centerline Engineering Services, PA  
750 W Center St, Suite 301  
West Bridgewater, MA 02379  
781-713-4725



**Scope of Work:**

Centerline Communications was authorized by Verizon Wireless to perform an analysis of the existing 190 ft. guyed to determine its capacity to support the existing and proposed equipment listed in this report.

**Existing & Proposed Equipment:**

Carrier	Mounting Level (ft)	Center Line Elevation (ft)	Number of Appurtenances	Antenna Manufacturer	Appurtenance Model	Feed Lines (in)
Verizon Wireless	188.5	189.0	6	CommScope	JAHH-65B-R3B	12x24 LI Hybrid Cables
		189.0	3	Samsung	MT6407-77A	
		189.0	1	CommScope	CBC78T-DS-43	
		189.0	3	Samsung	RF4439d-25A	
		189.0	3	Samsung	RF4440d-13A	
		189.0	1	Raycap	RVZDC-6627-PF-48	
		189.0	2	<b>Kaelus</b>	<b>KA-6030</b>	
		189.0	1	<b>Site Pro 1</b>	<b>RRUDSM</b>	
		189.0	3	Site Pro 1	VFA12-HD	
T-Mobile	140.0	140.0	3	RFS	APX16DMV-16DWVS-E-A20	(4) 6x12 Hybrid Cables
		140.0	3	RFS	APXVAARR24-43	
		140.0	3	Ericsson	AIR6449	
		140.0	3	Ericsson	4449 RRHs	
		140.0	3	Ericsson	4415 RRHs	
		140.0	3	Ericsson	4424 RRHs	
		140.0	3	-	V-Frame Sector Mount	

Note: Proposed equipment shown in **bold**.



**Design Criteria:**

**Design Codes:**

2022 Connecticut State Building Code

2021 International Building Code

ASCE 7-16

TIA-222-H Standards

Basic Design Wind Speed (V)	125 mph
Wind Speed with Ice	50 mph
Ice Thickness	1.00 in.
Exposure Category	B
Topographic Category	1
Risk Category	II
Site Soil Class (Assumed)	D – Default
Seismic Design Category	B
Spectral Response Acceleration Parameter at a Short Periods, $S_s$	0.186 g
Spectral Response Acceleration Parameter at a Period of 1 Second, $S_1$	0.054 g
Short Period Site Coefficient, $F_a$	1.6
Long Period Site Coefficient, $F_v$	2.4

**\*Refer to calculations for additional design criteria.**

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750 W Center St, Suite 301  
West Bridgewater, MA 02379  
781-713-4725



**Conclusion:**

**Tower Section Capacity (Summary)**

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	#P <sub>allow</sub> lb	% Capacity	Pass Fail
T1	190 - 175	Leg	ROHN 2.5 EH	1	-13579.10	94576.40	14.4	Pass
T2	175 - 160	Leg	ROHN 2.5 EH	46	-13016.30	94576.40	13.8	Pass
T3	160 - 140	Leg	ROHN 2 STD	93	-18697.80	43813.40	42.7	Pass
T4	140 - 120	Leg	ROHN 2 STD	149	-27070.60	43813.40	61.8	Pass
T5	120 - 100	Leg	ROHN 2 STD	206	-22259.70	43813.40	50.8	Pass
T6	100 - 80	Leg	ROHN 2 STD	263	-28128.40	43813.40	64.2	Pass
T7	80 - 60	Leg	ROHN 2 X-STR (2.375"ODx0.218")	320	-26004.80	59911.20	43.4	Pass
T8	60 - 40	Leg	ROHN 2.5 STD	377	-30225.40	58405.60	51.8	Pass
T9	40 - 20	Leg	ROHN 2.5 STD	410	-28206.40	58405.60	48.3	Pass
T10	20 - 4.81771	Leg	ROHN 2.5 STD	443	-25994.60	58405.60	44.5	Pass
T11	4.81771 - 0	Leg	ROHN 2 X-STR (2.375"ODx0.218")	469	-27937.10	58875.80	47.5	Pass
T1	190 - 175	Diagonal	ROHN TS1.5x16 ga	43	-572.91	5969.66	9.6	Pass
T2	175 - 160	Diagonal	ROHN TS1.5x16 ga	58	-742.33	5969.66	12.4	Pass
T3	160 - 140	Diagonal	ROHN TS1.5x16 ga	103	-1562.54	5864.19	26.6	Pass
T4	140 - 120	Diagonal	ROHN TS1.5x16 ga	201	-3277.73	5864.19	55.9	Pass
T5	120 - 100	Diagonal	ROHN TS1.5x16 ga	218	-727.33	5864.19	12.4	Pass
T6	100 - 80	Diagonal	ROHN TS1.5x16 ga	284	-1004.78	5864.19	17.1	Pass
T7	80 - 60	Diagonal	ROHN TS1.5x16 ga	370	-600.89	5864.19	10.2	Pass
T8	60 - 40	Diagonal	ROHN TS1.5x16 ga	387	-1305.39	5944.21	22.0	Pass
T9	40 - 20	Diagonal	ROHN TS1.5x16 ga	441	-1127.37	5944.21	19.0	Pass
T10	20 - 4.81771	Diagonal	ROHN TS1.5x16 ga	451	-616.25	5944.21	10.4	Pass
T1	190 - 175	Top Girt	ROHN TS1.5x11 ga	6	727.03	19665.40	3.7	Pass
T2	175 - 160	Top Girt	ROHN TS1.5x11 ga	51	-229.89	13553.90	6.6 (b)	Pass
T3	160 - 140	Top Girt	ROHN TS1.5x16 ga	95	-352.85	6985.33	1.7	Pass
T4	140 - 120	Top Girt	ROHN TS1.5x16 ga	151	-1599.05	6985.33	2.1 (b)	Pass
T5	120 - 100	Top Girt	ROHN TS1.5x16 ga	208	-397.97	6985.33	5.1	Pass
T6	100 - 80	Top Girt	ROHN TS1.5x16 ga	265	-487.20	6985.33	6.5 (b)	Pass
T7	80 - 60	Top Girt	ROHN TS1.5x16 ga	322	-459.91	6985.33	22.9	Pass
T8	60 - 40	Top Girt	ROHN TS1.5x16 ga	379	-523.52	7048.85	31.0 (b)	Pass
T9	40 - 20	Top Girt	ROHN TS1.5x16 ga	412	-497.41	7048.85	5.7	Pass
T10	20 - 4.81771	Top Girt	ROHN TS1.5x16 ga	445	-450.24	7048.85	7.3 (b)	Pass
T11	4.81771 - 0	Top Girt	14x3/16	474	-512.25	1164.59	7.0	Pass
T1	190 - 175	Bottom Girt	ROHN TS1.5x11 ga	9	-235.20	13553.90	8.9 (b)	Pass
T2	175 - 160	Bottom Girt	ROHN TS1.5x11 ga	54	-229.89	13553.90	6.6	Pass
T3	160 - 140	Bottom Girt	ROHN TS1.5x16 ga	98	-352.85	6985.33	8.3 (b)	Pass
							44.0	Pass
							51.1 (b)	Pass
							1.7	Pass
							2.1 (b)	Pass
							1.7	Pass
							2.1 (b)	Pass
							5.1	Pass
							6.0 (b)	Pass

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T4	140 - 120	Bottom Girt	ROHN TS1.5x16 ga	154	-468.88	6985.33	6.7 7.9 (b)	Pass	
T5	120 - 100	Bottom Girt	ROHN TS1.5x16 ga	211	-397.97	6985.33	5.7 6.7 (b)	Pass	
T6	100 - 80	Bottom Girt	ROHN TS1.5x16 ga	268	-487.20	6985.33	7.0 8.2 (b)	Pass	
T7	80 - 60	Bottom Girt	ROHN TS1.5x16 ga	325	-459.91	6985.33	6.6 7.8 (b)	Pass	
T8	60 - 40	Bottom Girt	ROHN TS1.5x16 ga	382	-523.52	7048.85	7.4 9.1 (b)	Pass	
T9	40 - 20	Bottom Girt	ROHN TS1.5x16 ga	415	-497.41	7048.85	7.1 8.4 (b)	Pass	
T10	20 - 4.81771	Bottom Girt	ROHN TS1.5x16 ga	448	-450.24	7048.85	6.4 10.0 (b)	Pass	
T11	4.81771 - 0	Mid Girt	14x3/16	475	24.84	85050.00	0.0	Pass	
T1	190 - 175	Guy A@189.385	9/16 (23000)	483	11813.60	21000.00	56.3	Pass	
T4	140 - 120	Guy A@136.977	1/2 (23000)	492	8743.67	16140.00	54.2	Pass	
T6	100 - 80	Guy A@87.3411	7/16 (23000)	501	5936.44	12480.00	47.6	Pass	
T8	60 - 40	Guy A@44.9323	3/8 (23000)	507	3804.46	9240.00	41.2	Pass	
T1	190 - 175	Guy B@189.385	9/16 (23000)	482	11792.50	21000.00	56.2	Pass	
T4	140 - 120	Guy B@136.977	1/2 (23000)	488	8564.43	16140.00	53.1	Pass	
T6	100 - 80	Guy B@87.3411	7/16 (23000)	500	5938.96	12480.00	47.6	Pass	
T8	60 - 40	Guy B@44.9323	3/8 (23000)	506	3810.20	9240.00	41.2	Pass	
T1	190 - 175	Guy C@189.385	9/16 (23000)	478	11814.20	21000.00	56.3	Pass	
T4	140 - 120	Guy C@136.977	1/2 (23000)	485	8738.17	16140.00	54.1	Pass	
T6	100 - 80	Guy C@87.3411	7/16 (23000)	496	5935.83	12480.00	47.6	Pass	
T8	60 - 40	Guy C@44.9323	3/8 (23000)	502	3804.57	9240.00	41.2	Pass	
T1	190 - 175	Top Guy Pull- Off@189.385	4 1/2 x 3/8	481	2358.23	54675.00	4.3	Pass	
T6	100 - 80	Top Guy Pull- Off@87.3411	C4x5.4	498	2317.82	51516.00	4.5	Pass	
T8	60 - 40	Top Guy Pull- Off@44.9323	C4x5.4	503	1936.77	51516.00	3.8	Pass	
T4	140 - 120	Torque Arm Top@136.977	C10x15.3	491	-2452.48	123475.00	59.0	Pass	
							Summary		
							Leg (T6)	64.2	Pass
							Diagonal (T4)	55.9	Pass
							Top Girt (T11)	51.1	Pass
							Bottom Girt (T10)	10.0	Pass
							Mid Girt (T11)	0.0	Pass

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						Guy A (T1)	56.3	Pass
						Guy B (T1)	56.2	Pass
						Guy C (T1)	56.3	Pass
						Top Guy Pull-Off (T6)	4.5	Pass
						Torque Arm Top (T4)	59.0	Pass
						Bolt Checks	54.9	Pass
						<b>RATING =</b>	<b>64.2</b>	<b>Pass</b>

<b>Structure Rating (Max From All Components) =</b>	<b>64.2%</b>
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**Foundation Capacity (Summary)**

Component	% Capacity	Pass Fail
Anchor Rods	52.9	Pass
Foundation Soil Rating	35.0	Pass

<b>Foundation Rating (Max From All Components) =</b>	<b>52.9%</b>
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**Recommendations:**

The existing tower and its foundation have sufficient capacity to support the existing and proposed loading for the final loading configuration.

**Reference Documents:**

- Structural Analysis Report by All-Points Technology Corporation, dated December 1, 2021
- Antenna Mount Analysis Report by Colliers Engineering & Design Ct. P.C., dated July 18, 2023
- Lease Exhibit by Centerline, dated October 4, 2023

**Assumptions and Limitations:**

- The tower and structures were built and maintained with the manufacturer's specifications.
- The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in this report and the referenced drawings.
- Existing appurtenance information obtained from the Structural Analysis Report by All-Points Technology Corporation, dated December 1, 2021 and the Antenna Mount Analysis Report by Colliers Engineering & Design Ct. P.C., dated July 18, 2023

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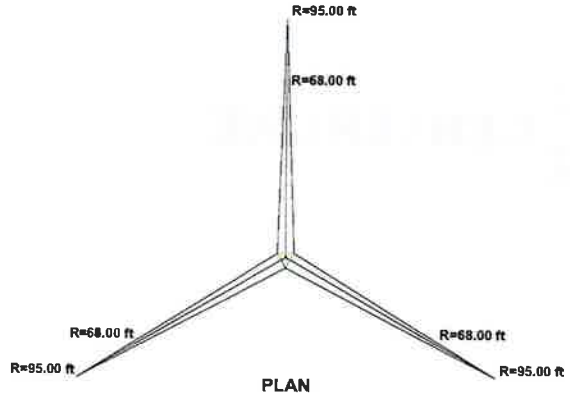
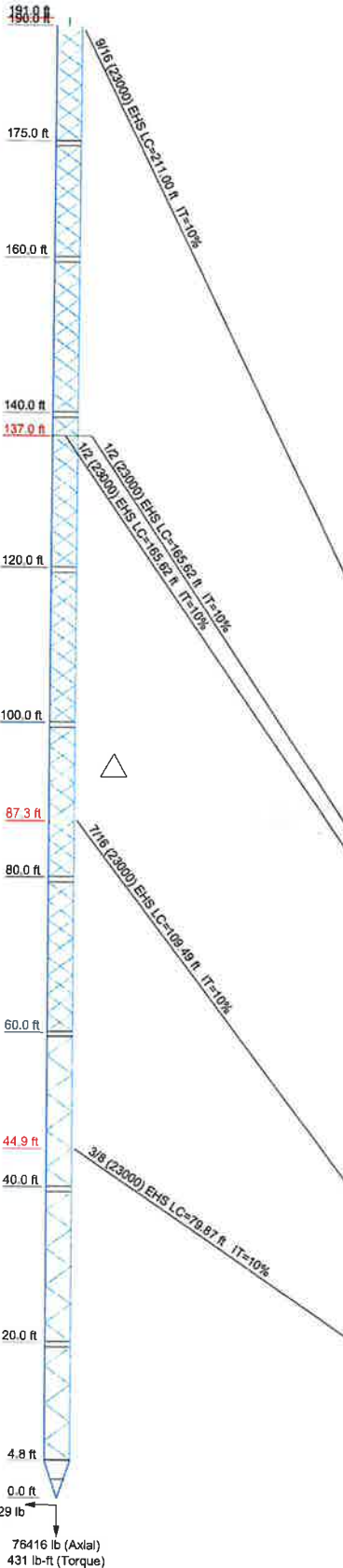


## Design Calculations

Centerline Engineering Services, PA  
750 W Center St, Suite 301  
West Bridgewater, MA 02379  
781-713-4725



Section	111	110	19	10	17	16	15	14	13	12	11
Legs	A	ROHN 2.5 STD	A	ROHN 2.5 STD	A572-50	ROHN TS1.5x16 gb	ROHN TS1.5x16 gb	ROHN 2 STD	ROHN 2.5 EH	ROHN TS1.5x11 gb	ROHN TS1.5x11 gb
Leg Grade	N.A.										
Diagonals	N.A.										
Diagonal Grade	B										
Top Girts	B										
Mid Girts	N.A.										
Bottom Girts	N.A.										
Top Guy Pull-Offs	C										
Face Width (ft)	51.98										
# Panels @ (ft)	216.8										
Weight (lb)	5198										



**DESIGNED APPURTENANCE LOADING**

TYPE	ELEVATION	TYPE	ELEVATION
(2) JAHH-65B-R3B (Verizon)	189	Kaelus KA-6030	189
(2) JAHH-65B-R3B (Verizon)	189	Site Pro 1 RRUDSM	189
(2) JAHH-65B-R3B (Verizon)	189	SitePro VFA12-HD (Verizon)	188.5
MT6407-77A (Verizon)	189	SitePro VFA12-HD (Verizon)	188.5
MT6407-77A (Verizon)	189	SitePro VFA12-HD (Verizon)	188.5
MT6407-77A (Verizon)	189	APXVAARR24_43-U-NA20 (T-Mobile)	140
Samsung RF4439d-25A RRHs (Verizon)	189	APXVAARR24_43-U-NA20 (T-Mobile)	140
Samsung RF4439d-25A RRHs (Verizon)	189	APXVAARR24_43-U-NA20 (T-Mobile)	140
Samsung RF4439d-25A RRHs (Verizon)	189	AIR 6449 B41 (T-Mobile)	140
Samsung RF4439d-25A RRHs (Verizon)	189	AIR 6449 B41 (T-Mobile)	140
Samsung RF4439d-25A RRHs (Verizon)	189	AIR 6449 B41 (T-Mobile)	140
Samsung RF4439d-25A RRHs (Verizon)	189	Ericsson Radio 4449 (T-Mobile)	140
Samsung RF4440d-13A RRHs (Verizon)	189	Ericsson Radio 4449 (T-Mobile)	140
Samsung RF4440d-13A RRHs (Verizon)	189	Ericsson Radio 4449 (T-Mobile)	140
Samsung RF4440d-13A RRHs (Verizon)	189	Ericsson Radio 4415 (T-Mobile)	140
Samsung RF4440d-13A RRHs (Verizon)	189	Ericsson Radio 4415 (T-Mobile)	140
Samsung RF4440d-13A RRHs (Verizon)	189	Ericsson Radio 4415 (T-Mobile)	140
CBC78T-DS-43 Twin Diplexer (Verizon)	189	Ericsson Radio 4424 B25 (T-Mobile)	140
CBC78T-DS-43 Twin Diplexer (Verizon)	189	Ericsson Radio 4424 B25 (T-Mobile)	140
CBC78T-DS-43 Twin Diplexer (Verizon)	189	Ericsson Radio 4424 B25 (T-Mobile)	140
RVZDC-6627-PF-48 (12 OVP) (Verizon)	189	12' V-Frame sector mount	140
Kaelus KA-6030	189	12' V-Frame sector mount	140
		APX16DWV-16DWV (T-Mobile)	140
		APX16DWV-16DWV (T-Mobile)	140
		APX16DWV-16DWV (T-Mobile)	140

**SYMBOL LIST**

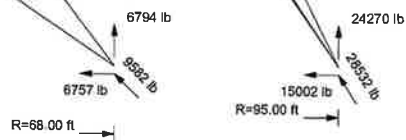
MARK	SIZE	MARK	SIZE
A	ROHN 2 X-STR (2.375"ODx0.218")	C	4 @ 1.20443
B	14x3/16		

**MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A53-B-42	42 ksi	63 ksi

**TOWER DESIGN NOTES**

1. Tower is located in Windham County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 125 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft



ALL REACTIONS ARE FACTORED

**Centerline Engineering Services, PA**

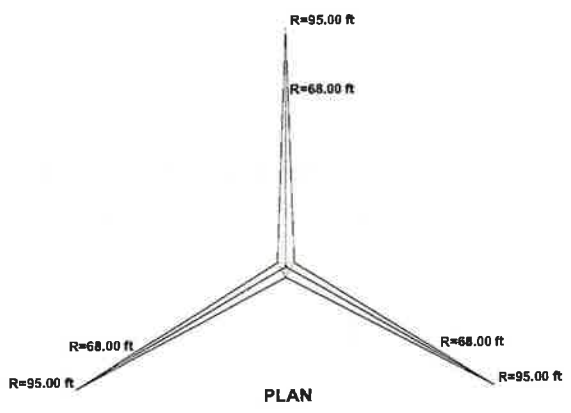
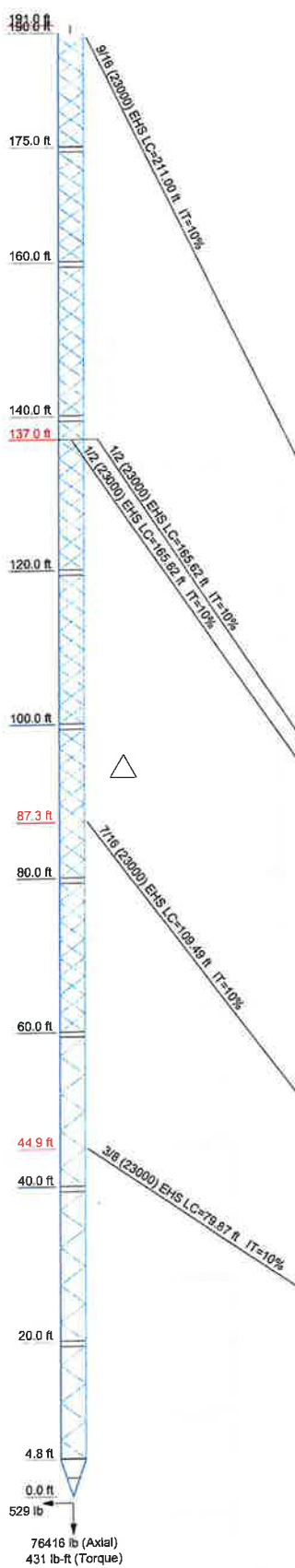
750 W Center St. Suite 301  
West Bridgewater, MA 02379  
Phone: 781-713-4725  
FAX: 781-713-4725

Job: **Danielson 2 CT**

Project: **17123687**

Client: Verizon	Drawn by: edagtekin	App'd:
Code: TIA-222-H	Date: 10/13/23	Scale: NTS
Path:		Dwg No. E-1

Section	111	119	118	117	116	115	114	113	112	111
Legs	A	ROHN 2.5 STD	A	ROHN 2 STD	A572-50	ROHN TSI.5x16 gb	ROHN TSI.5x16 gb	ROHN 2.5 EH	ROHN TSI.5x11 gb	ROHN TSI.5x11 gb
Leg Grade	N.A.	N.A.	N.A.	A53-B-42	N.A.	N.A.	N.A.	4 1/2 x 3/8	4 1/2 x 3/8	3.4166
Diagonals	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Diagonal Grade	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Top Girts	B	ROHN TSI.5x16 gb	B	ROHN TSI.5x16 gb	62 @ 2.40885	62 @ 2.40885	12 @ 2.37847	12 @ 2.37847	12 @ 2.37847	574.2
Mid Girts	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Bottom Girts	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Top Guy Pull-Offs	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Face Width (ft)	C	5158 @ 215	465.9	499.3	497.8	497.1	487.1	471.1	457.4	574.2
# Panels @ (ft)										
Weight (lb)										



**SYMBOL LIST**

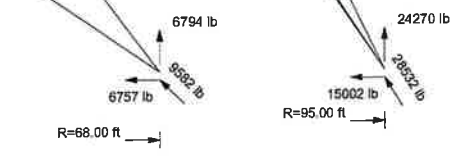
MARK	SIZE	MARK	SIZE
A	ROHN 2 X-STR (2.375"ODx0.218")	C	4 @ 1.20443
B	14x3/16		

**MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A53-B-42	42 ksi	63 ksi

- TOWER DESIGN NOTES**
1. Tower is located in Windham County, Connecticut.
  2. Tower designed for Exposure B to the TIA-222-H Standard.
  3. Tower designed for a 125 mph basic wind in accordance with the TIA-222-H Standard.
  4. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
  5. Deflections are based upon a 60 mph wind.
  6. Tower Risk Category II.
  7. Topographic Category 1 with Crest Height of 0.00 ft
  8. Seismic calculations are in accordance with TIA-222-H.
  9. Seismic loads do not control this analysis.

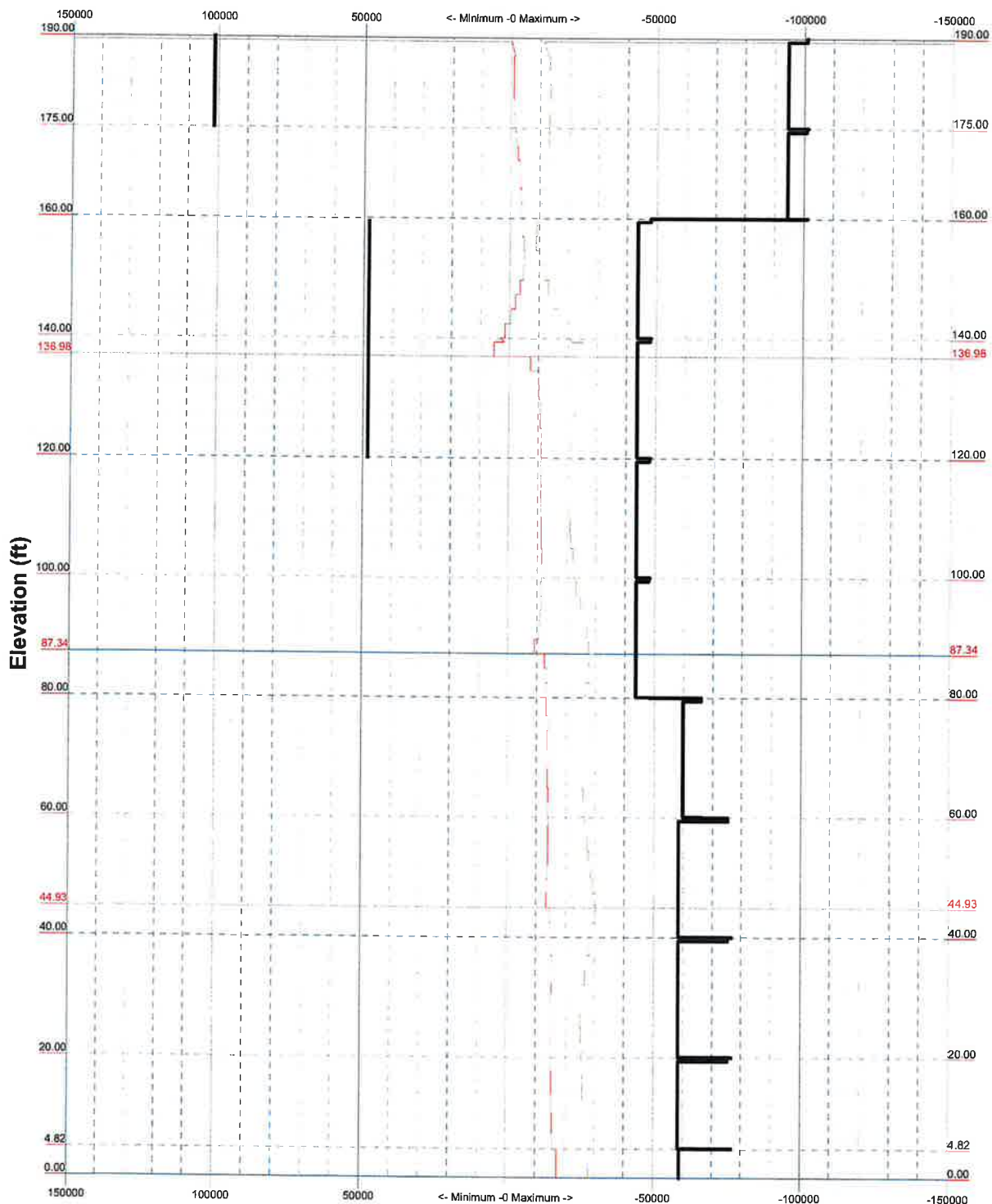


ALL REACTIONS ARE FACTORED

	<b>Centerline Engineering Services, PA</b>			Job: <b>Danielson 2 CT</b>		
	750 W Center St. Suite 301			Project: <b>17123687</b>		
	West Bridgewater, MA 02379			Client: <b>Verizon</b>		Drawn by: <b>edagtekin</b>
	Phone: 781-713-4725			Code: <b>TIA-222-H</b>		Date: <b>10/13/23</b>
	FAX: 781-713-4725			Path:		App'd: Scale: <b>NTS</b> Dwg No. <b>E-1</b>

TIA-222-H - 125 mph/50 mph 1.0000 in Ice Exposure B

Leg Capacity ——— Leg Compression (lb)



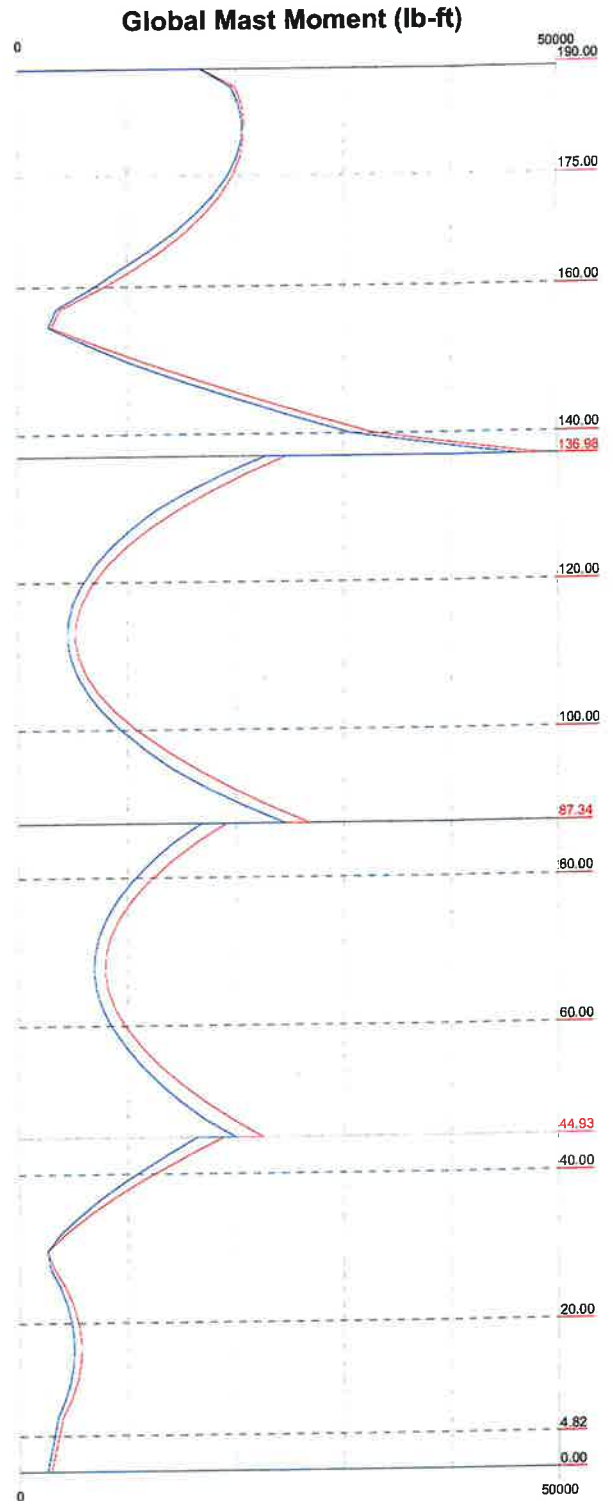
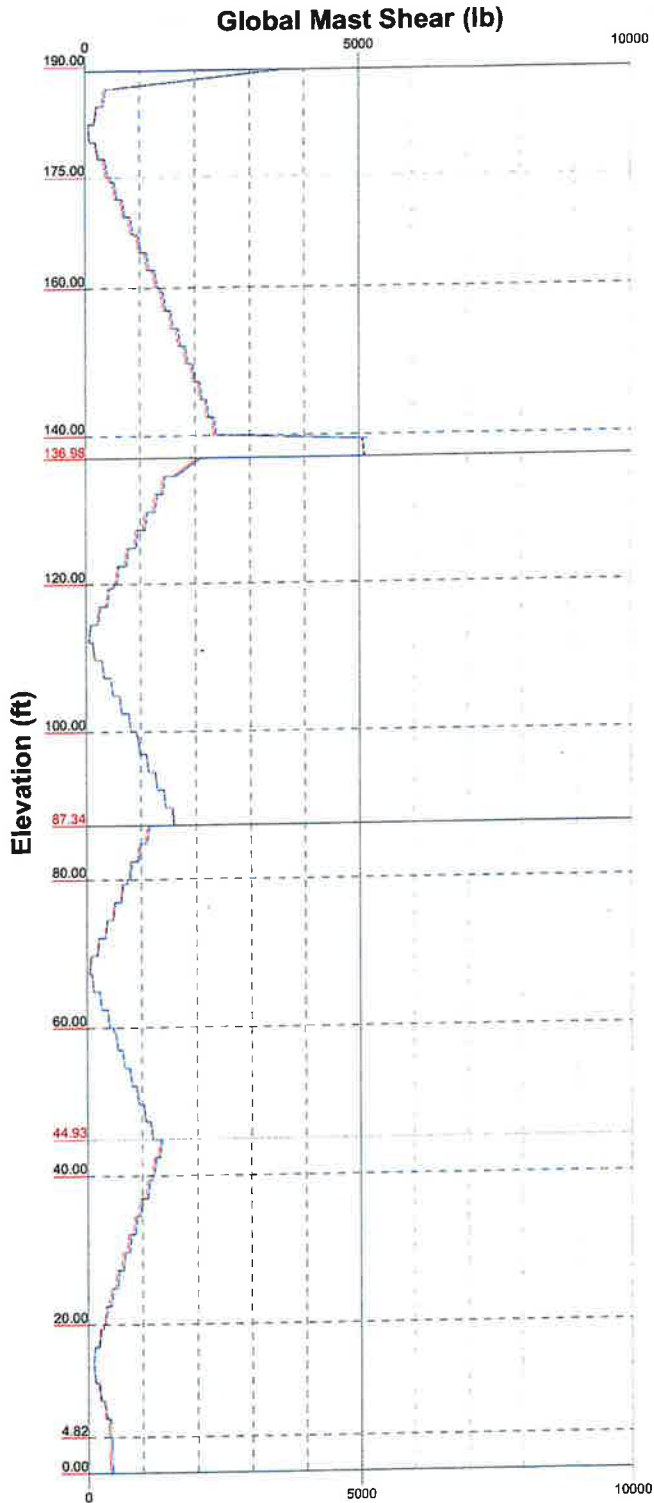
	<b>Centerline Engineering Services, PA</b>		
	750 W Center St. Suite 301 West Bridgewater, MA 02379		
	Phone: 781-713-4725 FAX: 781-713-4725		
	<b>Job: Danielson 2 CT</b>		
	Project: <b>17123687</b>		
Client: Verizon	Drawn by: edagtekin	App'd:	
Code: TIA-222-H	Date: 10/13/23	Scale: NTS	
Path:		Dwg No. E-3	

Vx

Vz

Mx

Mz

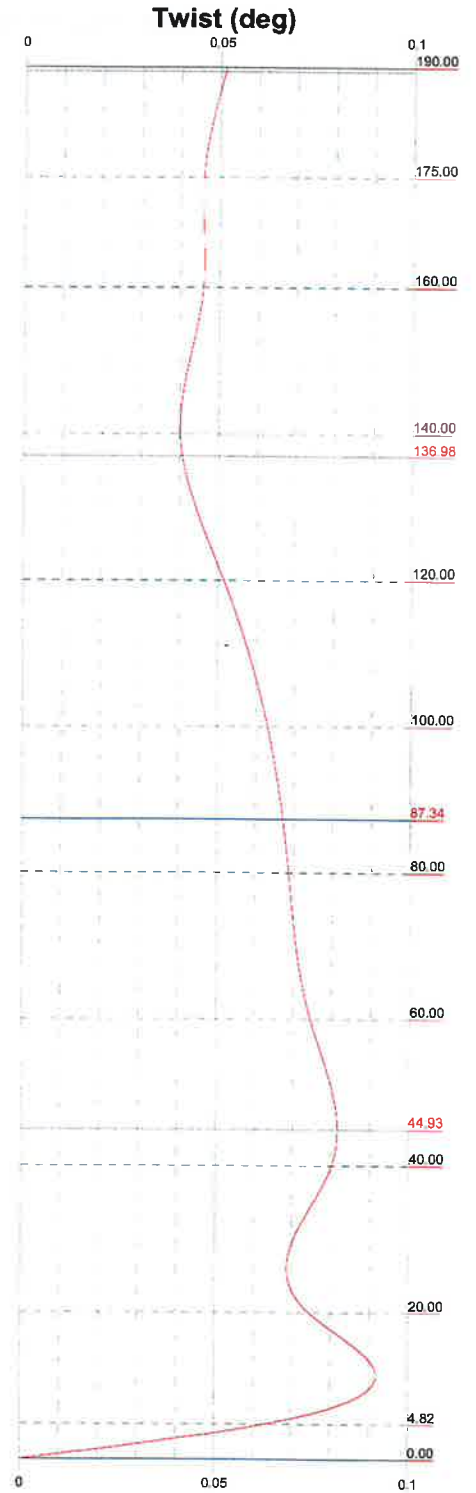
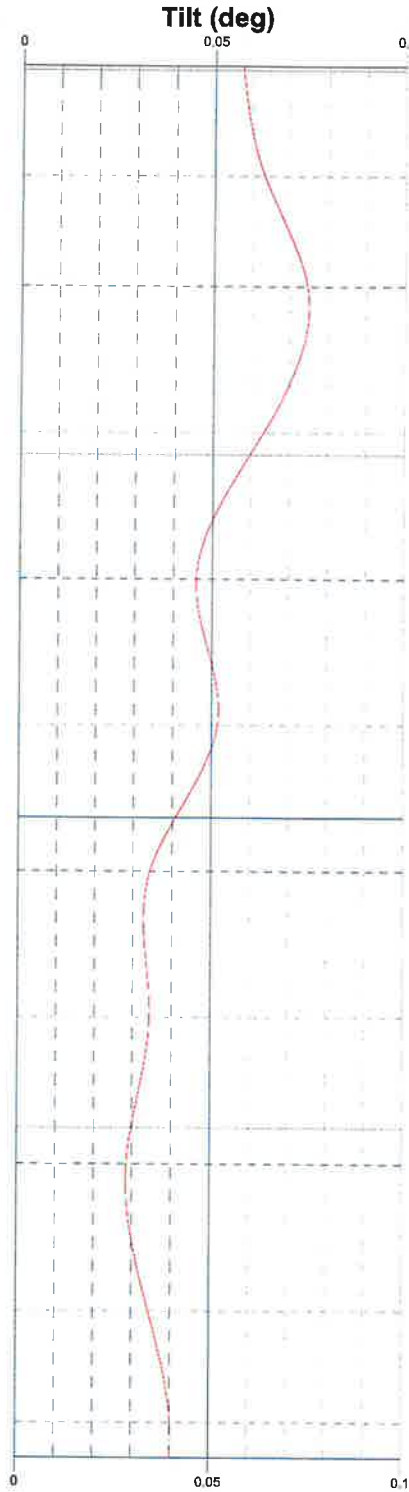
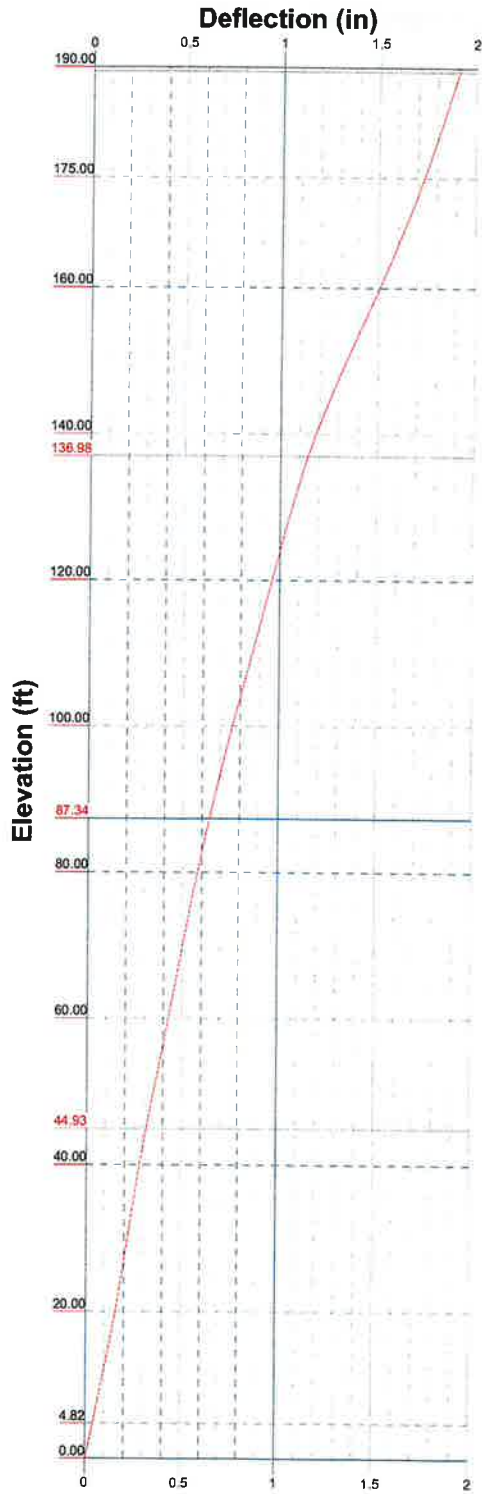


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	West Bridgewater, MA 02379		
	Phone: 781-713-4725		
	FAX: 781-713-4725		
Job: <b>Danielson 2 CT</b>		Project: <b>17123687</b>	
Client: Verizon	Drawn by: edagtekin	App'd:	
Code: TIA-222-H	Date: 10/13/23	Scale: NTS	
Path:		Dwg No. E-4	



TIA-222-H - Service - 60 mph

Maximum Values

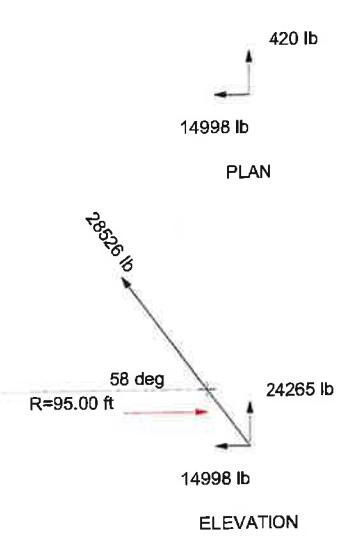
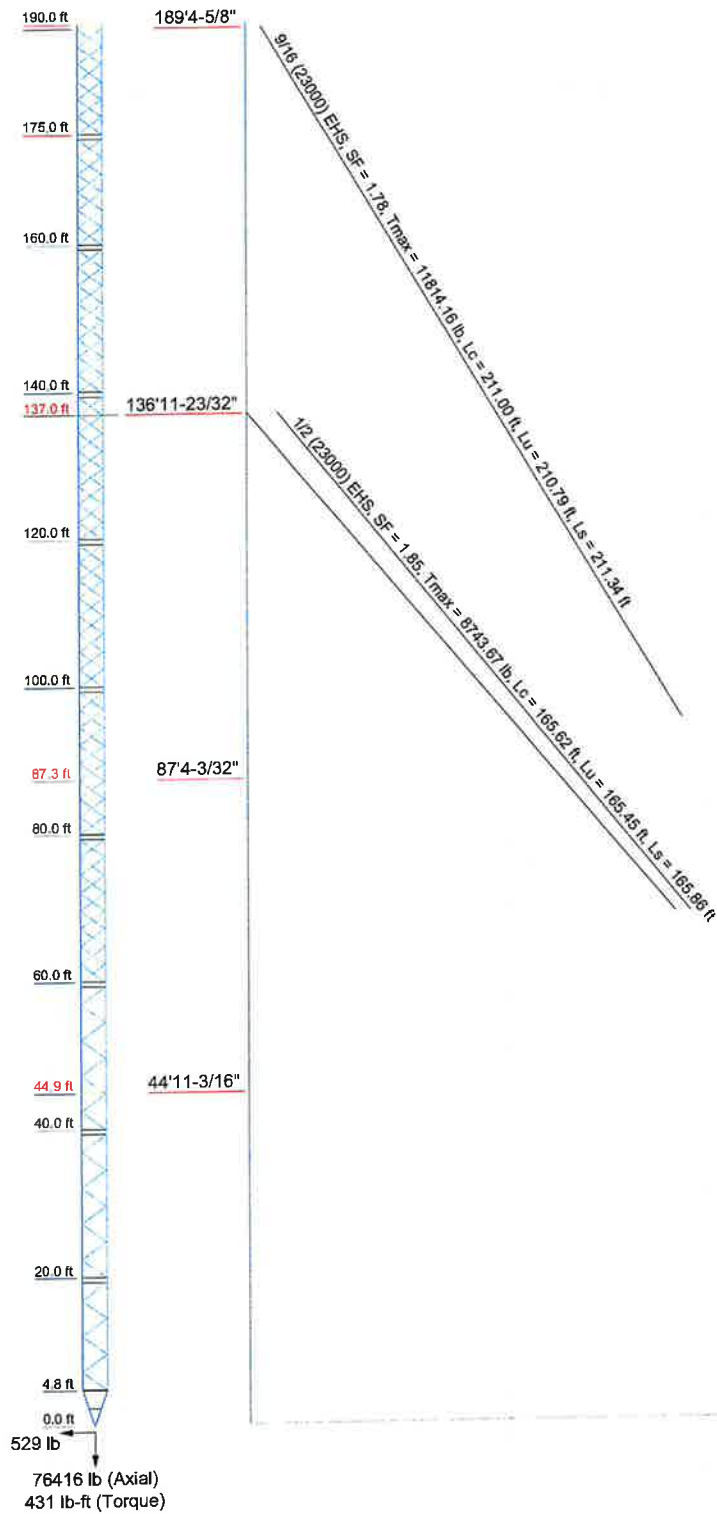


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	Phone: 781-713-4725 FAX: 781-713-4725		
	<b>Job: Danielson 2 CT</b>		
	Project: 17123687		
Client: Verizon	Drawn by: edagtekin	App'd:	
Code: TIA-222-H	Date: 10/13/23	Scale: NTS	
Path:		Dwg No. E-5	

# Guy Tensions and Tower Reactions

TIA-222-H - 125 mph/50 mph 1.0000 in Ice Exposure B

**Maximum Values**  
**Anchor 'C'@95 ft Azimuth 240 deg Elev 0 ft**  
**Plane through centroid of tower**

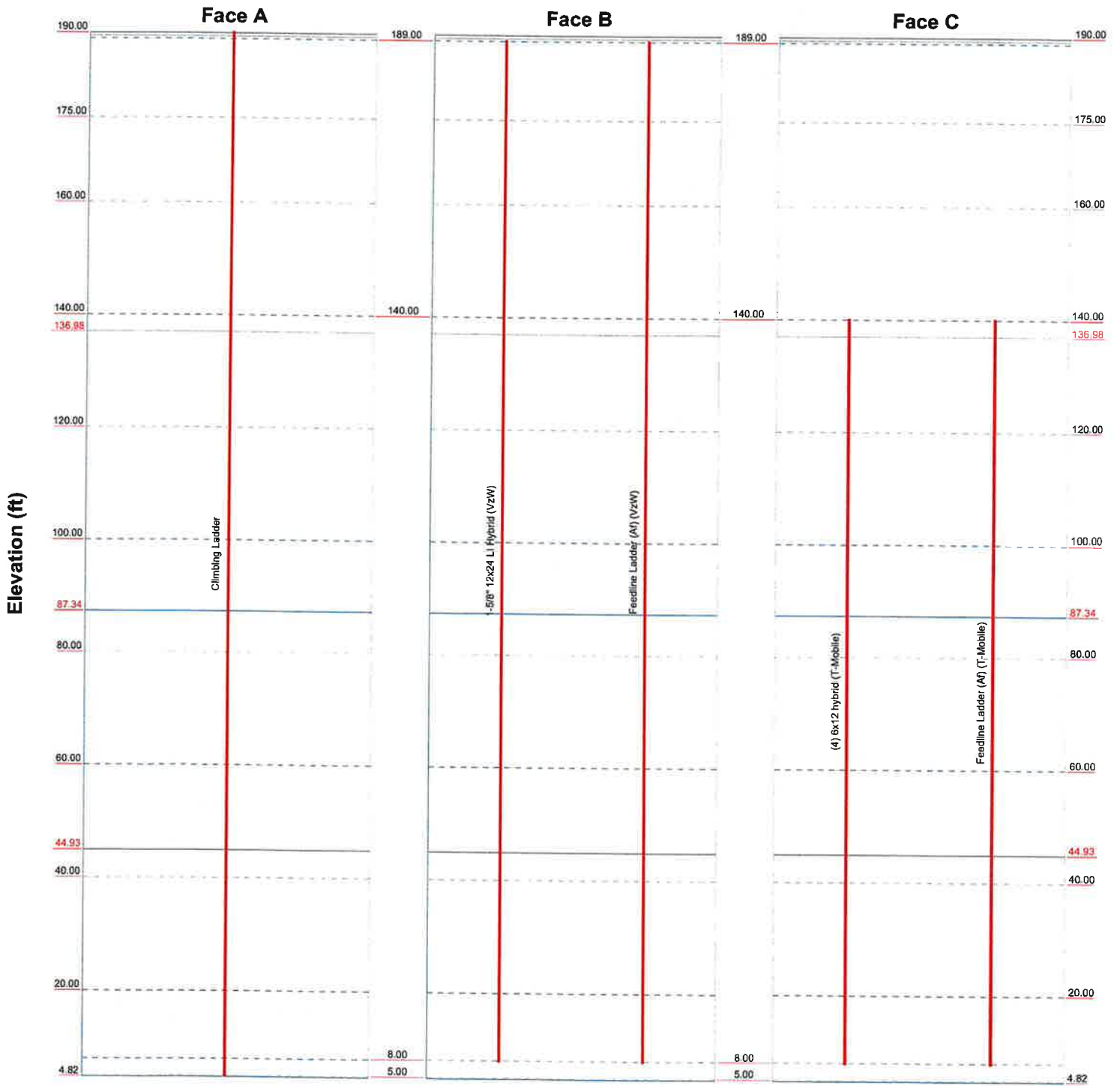


	<b>Centerline Engineering Services, PA</b>		<b>Job: Danielson 2 CT</b>		
	750 W Center St. Suite 301		Project: 17123687		
	West Bridgewater, MA 02379		Client: Verizon		
	Phone: 781-713-4725		Drawn by: edagtekin		
	FAX: 781-713-4725		Date: 10/13/23		
		Code: TIA-222-H		App'd:	
		Path:		Scale: NTS	
				Dwg No. E-6	

# Feed Line Distribution Chart

## 4'9-27/32" - 190'

— Round   
 — Flat   
 — App In Face   
 — App Out Face   
 — Truss Leg

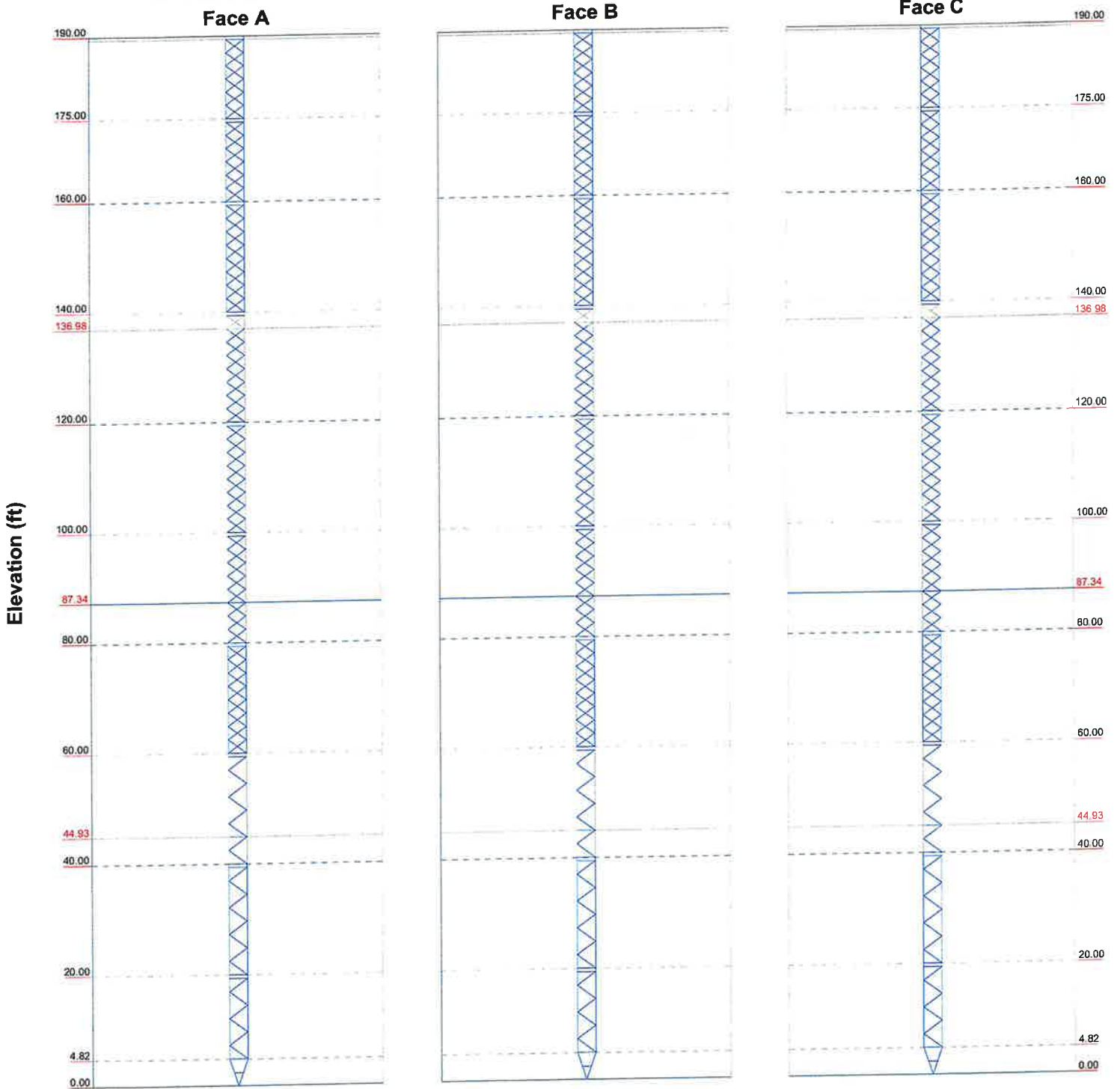


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	Phone: 781-713-4725 FAX: 781-713-4725		
	Job: <b>Danielson 2 CT</b> Project: <b>17123687</b>		
	Client: Verizon	Drawn by: edagtekin	App'd:
Code: TIA-222-H	Date: 10/13/23	Scale: NTS	
Path:		Dwg No: E-7	



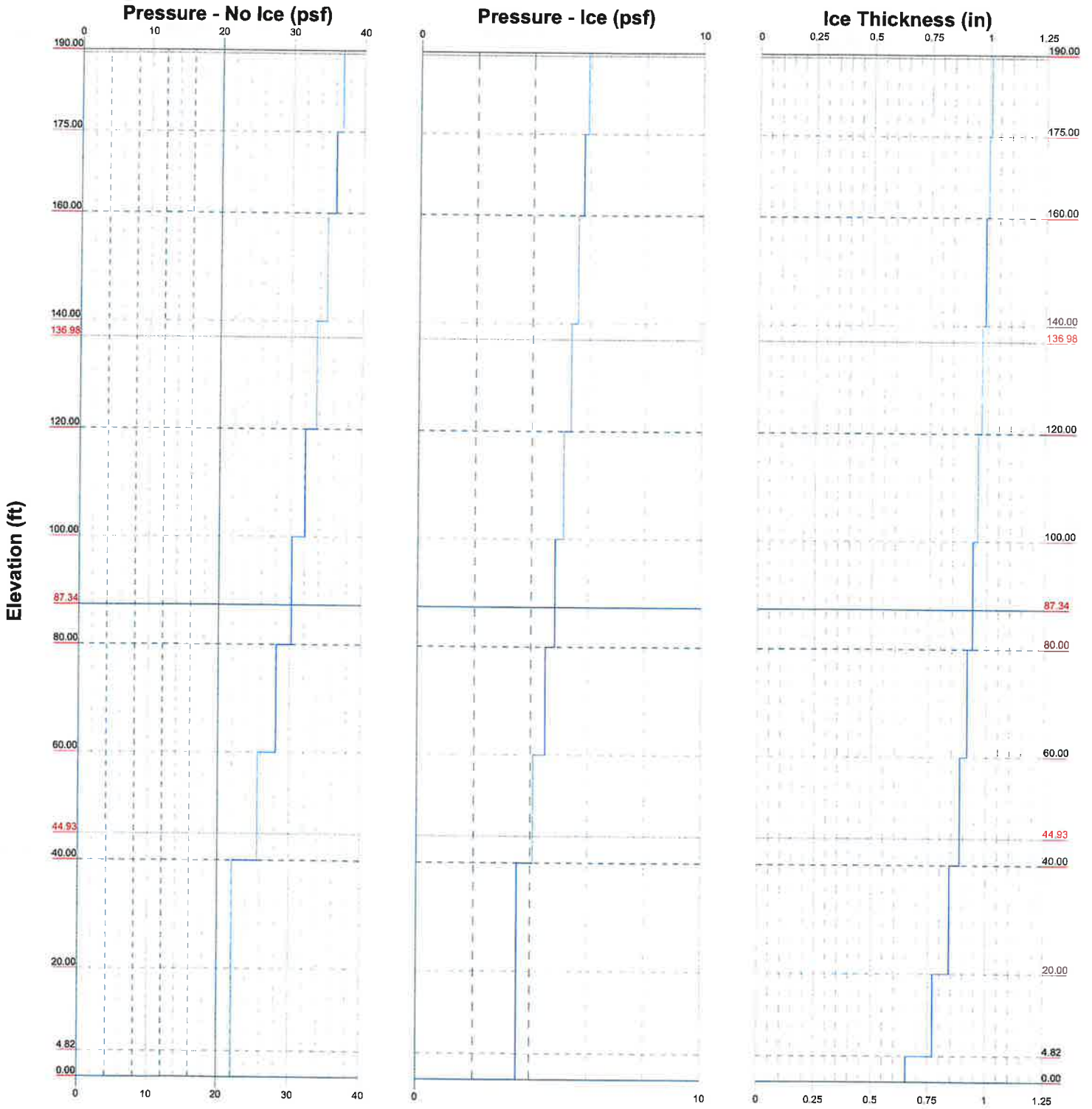
## Stress Distribution Chart 0' - 190'

■ > 100%  
 ■ 90%-100%  
 ■ 75%-90%  
 ■ 50%-75%  
 ■ < 50% Overstress



	<b>Centerline Engineering Services, PA</b>		<b>Job: Danielson 2 CT</b>		
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	West Bridgewater, MA 02379		Client: Verizon	Drawn by: edagtekin	App'd:
	Phone: 781-713-4725		Code: TIA-222-H	Date: 10/13/23	Scale: NTS
	FAX: 781-713-4725		Path:		Dwg No. E-8

**Wind Pressures and Ice Thickness**  
**TIA-222-H - 125 mph/50 mph 1.0000 in Ice Exposure B**



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	FAX: 781-713-4725		
<b>Job: Danielson 2 CT</b>			
Project: <b>17123687</b>			
Client: Verizon	Drawn by: edagtekin	App'd:	
Code: TIA-222-H	Date: 10/13/23	Scale: NTS	
Path:		Dwg No. E-9	

<b>tnxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	<b>Job</b>	Danielson 2 CT	<b>Page</b>	1 of 50
	<b>Project</b>	17123687	<b>Date</b>	18:14:41 10/13/23
	<b>Client</b>	Verizon	<b>Designed by</b>	edagtekin

## Tower Input Data

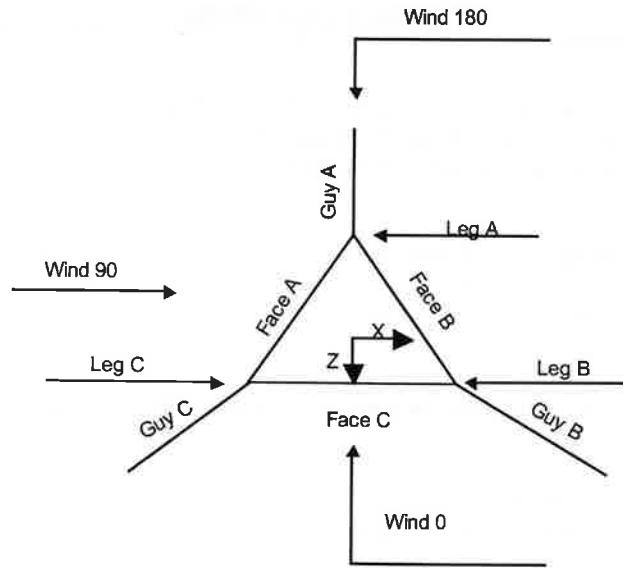
The main tower is a 3x guyed tower with an overall height of 190.00 ft above the ground line.  
The base of the tower is set at an elevation of 0.00 ft above the ground line.  
The face width of the tower is 3.42 ft at the top and tapered at the base.  
This tower is designed using the TIA-222-H standard.  
The following design criteria apply:

- Tower is located in Windham County, Connecticut.
- Tower base elevation above sea level: 657.54 ft.
- Basic wind speed of 125 mph.
- Risk Category II.
- Exposure Category B.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.00 ft.
- Nominal ice thickness of 1.0000 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- Pressures are calculated at each section.
- Stress ratio used in tower member design is 1.
- Safety factor used in guy design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used:  $K_{es}(F_w) = 0.95$ ,  $K_{es}(t_i) = 0.85$ .
- Maximum demand-capacity ratio is: 1.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

## Options

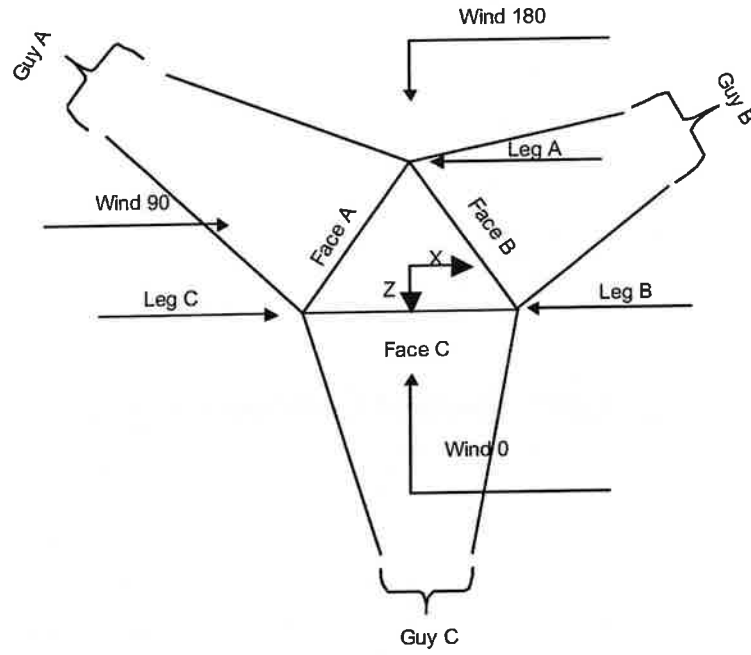
- |  |   |   |
|--|---|---|
| <ul style="list-style-type: none"> <li>Consider Moments - Legs</li> <li>Consider Moments - Horizontals</li> <li>Consider Moments - Diagonals</li> <li>Use Moment Magnification</li> <li>√ Use Code Stress Ratios</li> <li>√ Use Code Safety Factors - Guys</li> <li>Escalate Ice</li> <li>Always Use Max Kz</li> <li>Use Special Wind Profile</li> <li>√ Include Bolts In Member Capacity</li> <li>Leg Bolts Are At Top Of Section</li> <li>√ Secondary Horizontal Braces Leg</li> <li>Use Diamond Inner Bracing (4 Sided)</li> <li>√ SR Members Have Cut Ends</li> <li>SR Members Are Concentric</li> </ul> | <ul style="list-style-type: none"> <li>Distribute Leg Loads As Uniform</li> <li>Assume Legs Pinned</li> <li>√ Assume Rigid Index Plate</li> <li>√ Use Clear Spans For Wind Area</li> <li>√ Use Clear Spans For KL/r</li> <li>√ Retension Guys To Initial Tension</li> <li>√ Bypass Mast Stability Checks</li> <li>√ Use Azimuth Dish Coefficients</li> <li>√ Project Wind Area of Appurt.</li> <li>√ Autocalc Torque Arm Areas</li> <li>Add IBC .6D+W Combination</li> <li>√ Sort Capacity Reports By Component</li> <li>Triangulate Diamond Inner Bracing</li> <li>Treat Feed Line Bundles As Cylinder</li> <li>Ignore KL/ry For 60 Deg. Angle Legs</li> </ul> | <ul style="list-style-type: none"> <li>Use ASCE 10 X-Brace Ly Rules</li> <li>√ Calculate Redundant Bracing Forces</li> <li>Ignore Redundant Members in FEA</li> <li>√ SR Leg Bolts Resist Compression</li> <li>All Leg Panels Have Same Allowable</li> <li>Offset Girt At Foundation</li> <li>√ Consider Feed Line Torque</li> <li>√ Include Angle Block Shear Check</li> <li>Use TIA-222-H Bracing Resist. Exemption</li> <li>Use TIA-222-H Tension Splice Exemption</li> <li style="text-align: center;">Poles</li> <li>Include Shear-Torsion Interaction</li> <li>Always Use Sub-Critical Flow</li> <li>Use Top Mounted Sockets</li> <li>Pole Without Linear Attachments</li> <li>Pole With Shroud Or No Appurtenances</li> <li>Outside and Inside Corner Radii Are Known</li> </ul> |
|--|---|---|

<b>tnxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	<b>Job</b> Danielson 2 CT	<b>Page</b> 2 of 50
	<b>Project</b> 17123687	<b>Date</b> 18:14:41 10/13/23
	<b>Client</b> Verizon	<b>Designed by</b> edagtekin



**Corner & Starmount Guyed Tower**

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	<b>Project</b> 17123687	<b>Date</b> 18:14:41 10/13/23
	<b>Client</b> Verizon	<b>Designed by</b> edagtekin



**Face Guyed**

**Tower Section Geometry**

<i>Tower Section</i>	<i>Tower Elevation</i>	<i>Assembly Database</i>	<i>Description</i>	<i>Section Width</i>	<i>Number of Sections</i>	<i>Section Length</i>
	<i>ft</i>			<i>ft</i>		<i>ft</i>
T1	190.00-175.00			3.42	1	15.00
T2	175.00-160.00			3.42	1	15.00
T3	160.00-140.00			3.42	1	20.00
T4	140.00-120.00			3.42	1	20.00
T5	120.00-100.00			3.42	1	20.00
T6	100.00-80.00			3.42	1	20.00
T7	80.00-60.00			3.42	1	20.00
T8	60.00-40.00			3.42	1	20.00
T9	40.00-20.00			3.42	1	20.00
T10	20.00-4.82			3.42	1	15.18
T11	4.82-0.00			3.42	1	4.82

<b>tnxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	<b>Job</b>	Danielson 2 CT	<b>Page</b>	4 of 50
	<b>Project</b>	17123687	<b>Date</b>	18:14:41 10/13/23
	<b>Client</b>	Verizon	<b>Designed by</b>	edagtekin

### Tower Section Geometry (cont'd)

Tower Section	Tower Elevation <i>ft</i>	Diagonal Spacing <i>ft</i>	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset <i>in</i>	Bottom Girt Offset <i>in</i>
T1	190.00-175.00	2.38	CX Brace	No	No	7.3750	1.3750
T2	175.00-160.00	2.38	CX Brace	No	No	7.3750	1.3750
T3	160.00-140.00	2.41	CX Brace	No	No	7.3750	1.3750
T4	140.00-120.00	2.41	CX Brace	No	No	7.3750	1.3750
T5	120.00-100.00	2.41	CX Brace	No	No	7.3750	1.3750
T6	100.00-80.00	2.41	CX Brace	No	No	7.3750	1.3750
T7	80.00-60.00	2.41	CX Brace	No	No	7.3750	1.3750
T8	60.00-40.00	2.41	K Brace Right	No	No	7.3750	1.3750
T9	40.00-20.00	2.41	K Brace Right	No	No	7.3750	1.3750
T10	20.00-4.82	2.41	K Brace Right	No	No	7.3750	1.3750
T11	4.82-0.00	1.20	X Brace	No	Yes	0.0000	0.0000

### Tower Section Geometry (cont'd)

Tower Elevation <i>ft</i>	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 190.00-175.00	Pipe	ROHN 2.5 EH	A572-50 (50 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T2 175.00-160.00	Pipe	ROHN 2.5 EH	A572-50 (50 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T3 160.00-140.00	Pipe	ROHN 2 STD	A572-50 (50 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T4 140.00-120.00	Pipe	ROHN 2 STD	A572-50 (50 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T5 120.00-100.00	Pipe	ROHN 2 STD	A572-50 (50 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T6 100.00-80.00	Pipe	ROHN 2 STD	A572-50 (50 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T7 80.00-60.00	Pipe	ROHN 2 X-STR (2.375"ODx0.218")	A572-50 (50 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T8 60.00-40.00	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T9 40.00-20.00	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T10 20.00-4.82	Pipe	ROHN 2.5 STD	A572-50 (50 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T11 4.82-0.00	Pipe	ROHN 2 X-STR (2.375"ODx0.218")	A572-50 (50 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)

### Tower Section Geometry (cont'd)

Tower Elevation <i>ft</i>	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 190.00-175.00	Pipe	ROHN TS1.5x11 ga	A500-42 (42 ksi)	Pipe	ROHN TS1.5x11 ga	A500-42 (42 ksi)
T2 175.00-160.00	Pipe	ROHN TS1.5x11 ga	A500-42 (42 ksi)	Pipe	ROHN TS1.5x11 ga	A500-42 (42 ksi)



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	<b>Project</b> 17123687	<b>Date</b> 18:14:41 10/13/23
	<b>Client</b> Verizon	<b>Designed by</b> edagtekin

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T3 160.00-140.00	Pipe	ROHN TS1.5x16 ga	A500-42 (42 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T4 140.00-120.00	Pipe	ROHN TS1.5x16 ga	A500-42 (42 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T5 120.00-100.00	Pipe	ROHN TS1.5x16 ga	A500-42 (42 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T6 100.00-80.00	Pipe	ROHN TS1.5x16 ga	A500-42 (42 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T7 80.00-60.00	Pipe	ROHN TS1.5x16 ga	A500-42 (42 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T8 60.00-40.00	Pipe	ROHN TS1.5x16 ga	A500-42 (42 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T9 40.00-20.00	Pipe	ROHN TS1.5x16 ga	A500-42 (42 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T10 20.00-4.82	Pipe	ROHN TS1.5x16 ga	A500-42 (42 ksi)	Pipe	ROHN TS1.5x16 ga	A53-B-42 (42 ksi)
T11 4.82-0.00	Flat Bar	14x3/16	A36 (36 ksi)	Flat Bar	14x3/16	A36 (36 ksi)

### Tower Section Geometry (cont'd)

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T11 4.82-0.00	1	Flat Bar	14x3/16	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)

### Tower Section Geometry (cont'd)

Tower Elevation ft	Gusset Area (per face) ft <sup>2</sup>	Gusset Thickness in	Gusset Grade	Adjust. Factor A <sub>f</sub>	Adjust. Factor A <sub>r</sub>	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
T1 190.00-175.00	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T2 175.00-160.00	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T3 160.00-140.00	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T4 140.00-120.00	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T5 120.00-100.00	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T6 100.00-80.00	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T7 80.00-60.00	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T8 60.00-40.00	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000



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Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor $A_f$	Adjust. Factor $A_r$	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft <sup>2</sup>	in					in	in	in
T9 40.00-20.00	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T10 20.00-4.82	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000
T11 4.82-0.00	0.00	0.3750	A36 (36 ksi)	1	1	1	36.0000	36.0000	36.0000

### Tower Section Geometry (cont'd)

Tower Elevation	Calc K Single Angles	Calc K Solid Rounds	Legs	K Factors <sup>1</sup>							
				X Brace Diags	K Brace Diags	Single Diags	Girts	Horiz.	Sec. Horiz.	Inner Brace	
ft				X Y	X Y	X Y	X Y	X Y	X Y	X Y	
T1 190.00-175.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T2 175.00-160.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T3 160.00-140.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T4 140.00-120.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T5 120.00-100.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T6 100.00-80.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T7 80.00-60.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T8 60.00-40.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T9 40.00-20.00	Yes	Yes	1	1	1	1	1	1	1	1	1
T10 20.00-4.82	Yes	Yes	1	1	1	1	1	1	1	1	1
T11 4.82-0.00	Yes	Yes	1	1	1	1	1	1	1	1	1

<sup>1</sup>Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.

### Tower Section Geometry (cont'd)

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 190.00-175.00	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75

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Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T2	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75
175.00-160.00														
T3	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75
160.00-140.00														
T4	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75
140.00-120.00														
T5	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75
120.00-100.00														
T6	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75
100.00-80.00														
T7	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75
80.00-60.00														
T8	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75
60.00-40.00														
T9	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75
40.00-20.00														
T10	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75
20.00-4.82														
T11	0.0000	1	0.0000	1	0.0000	1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75
4.82-0.00														

Tower Elevation ft	Redundant Horizontal		Redundant Diagonal		Redundant Sub-Diagonal		Redundant Sub-Horizontal		Redundant Vertical		Redundant Hip		Redundant Hip Diagonal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
190.00-175.00														
T2	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
175.00-160.00														
T3	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
160.00-140.00														
T4	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
140.00-120.00														
T5	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
120.00-100.00														
T6	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
100.00-80.00														
T7	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
80.00-60.00														
T8	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
60.00-40.00														
T9	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
40.00-20.00														
T10	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
20.00-4.82														
T11	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
4.82-0.00														

### Tower Section Geometry (cont'd)

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1	Flange	0.7500	4	0.5000	1	0.5000	1	0.5000	1	0.0000	0	0.6250	0	0.6250	0
190.00-175.00		A325X		A325X		A325X		A325X		A325X		A325N		A325N	

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Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T2 175.00-160.00	Flange	0.7500 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325X	0	0.6250 A325N	0	0.6250 A325N	0
T3 160.00-140.00	Flange	0.7500 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325X	0	0.6250 A325N	0	0.6250 A325N	0
T4 140.00-120.00	Flange	0.7500 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325X	0	0.6250 A325N	0	0.6250 A325N	0
T5 120.00-100.00	Flange	0.7500 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325X	0	0.6250 A325N	0	0.6250 A325N	0
T6 100.00-80.00	Flange	0.7500 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325X	0	0.6250 A325N	0	0.6250 A325N	0
T7 80.00-60.00	Flange	0.7500 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325X	0	0.6250 A325N	0	0.6250 A325N	0
T8 60.00-40.00	Flange	0.7500 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325X	0	0.6250 A325N	0	0.6250 A325N	0
T9 40.00-20.00	Flange	0.7500 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325X	0	0.6250 A325N	0	0.6250 A325N	0
T10 20.00-4.82	Flange	0.7500 A325X	4	0.5000 A325X	1	0.5000 A325X	1	0.5000 A325X	1	0.0000 A325X	0	0.6250 A325N	0	0.6250 A325N	0
T11 4.82-0.00	Flange	0.7500 A325X	4	0.5000 A325X	0	0.5000 A325X	0	0.5000 A325X	0	0.0000 A325X	0	0.6250 A325N	0	0.6250 A325N	0

### Guy Data

Guy Elevation ft	Guy Grade	Guy Size	Initial Tension lb	%	Guy Modulus ksi	Guy Weight plf	L <sub>w</sub> ft	Anchor Radius ft	Anchor Azimuth Adj. °	Anchor Elevation ft	End Fitting Efficiency %
189.385	EHS	A 9/16 (23000)	3500.00	10%	23000	0.671	210.83	95.00	0.0000	0.00	100%
		B 9/16 (23000)	3500.00	10%	23000	0.671	210.83	95.00	0.0000	0.00	100%
		C 9/16 (23000)	3500.00	10%	23000	0.671	210.83	95.00	0.0000	0.00	100%
136.977	EHS	A 1/2 (23000)	2690.00	10%	23000	0.517	165.49	95.00	0.0000	0.00	100%
		B 1/2 (23000)	2690.00	10%	23000	0.517	165.49	95.00	0.0000	0.00	100%
		C 1/2 (23000)	2690.00	10%	23000	0.517	165.49	95.00	0.0000	0.00	100%
87.3411	EHS	A 7/16 (23000)	2080.00	10%	23000	0.399	109.40	68.00	0.0000	0.00	100%
		B 7/16 (23000)	2080.00	10%	23000	0.399	109.40	68.00	0.0000	0.00	100%
		C 7/16 (23000)	2080.00	10%	23000	0.399	109.40	68.00	0.0000	0.00	100%
44.9323	EHS	A 3/8 (23000)	1540.00	10%	23000	0.273	79.80	68.00	0.0000	0.00	100%
		B 3/8 (23000)	1540.00	10%	23000	0.273	79.80	68.00	0.0000	0.00	100%
		C 3/8 (23000)	1540.00	10%	23000	0.273	79.80	68.00	0.0000	0.00	100%

### Guy Data(cont'd)

Guy Elevation ft	Mount Type	Torque-Arm Spread ft	Torque-Arm Leg Angle °	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
189.385	Corner						
136.977	Torque Arm	6.83	0.0000	Channel	A36 (36 ksi)	Channel	C10x15.3
87.3411	Corner						

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Guy Elevation ft	Mount Type	Torque-Arm Spread ft	Torque-Arm Leg Angle	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
44.9323	Corner						

### Guy Data (cont'd)

Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
189.39	A572-50 (50 ksi)	Solid Round			Yes	A36 (36 ksi)	Flat Bar	4 1/2 x 3/8
136.98	A572-50 (50 ksi)	Solid Round				A36 (36 ksi)	Channel	
87.34	A572-50 (50 ksi)	Solid Round			Yes	A36 (36 ksi)	Channel	C4x5.4
44.93	A572-50 (50 ksi)	Solid Round			Yes	A36 (36 ksi)	Channel	C4x5.4

### Guy Data (cont'd)

Guy Elevation ft	Cable Weight A lb	Cable Weight B lb	Cable Weight C lb	Cable Weight D lb	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
189.385	141.47	141.47	141.47		4.19	4.19	4.19	
					3.5 sec/pulse	3.5 sec/pulse	3.5 sec/pulse	
136.977	85.56	85.56	85.56		2.60	2.60	2.60	
					2.8 sec/pulse	2.8 sec/pulse	2.8 sec/pulse	
87.3411	43.65	43.65	43.65		1.14	1.14	1.14	
					1.8 sec/pulse	1.8 sec/pulse	1.8 sec/pulse	
44.9323	21.78	21.78	21.78		0.56	0.56	0.56	
					1.3 sec/pulse	1.3 sec/pulse	1.3 sec/pulse	

### Guy Data (cont'd)

Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm		Pull Off		Diagonal	
			K <sub>x</sub>	K <sub>y</sub>	K <sub>x</sub>	K <sub>y</sub>	K <sub>x</sub>	K <sub>y</sub>
189.385	No	No			1	1	1	1
136.977	Yes	Yes	1	1	1	1	1	1
87.3411	No	No			1	1	1	1
44.9323	No	No			1	1	1	1

### Guy Data (cont'd)

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Guy Elevation ft	Torque-Arm				Pull Off				Diagonal			
	Bolt Size in	Number	Net Width Deduct in	U	Bolt Size in	Number	Net Width Deduct in	U	Bolt Size in	Number	Net Width Deduct in	U
189.385	0.6250 A325N	0	0.0000	0.75	0.0000 A325N	0	0.0000	1	0.0000 A325N	0	0.0000	0.75
136.977	0.0000 A325N	0	0.0000	1	0.0000 A325N	0	0.0000	1	0.0000 A325N	0	0.0000	0.75
87.3411	0.6250 A325N	0	0.0000	0.75	0.0000 A325N	0	0.0000	1	0.0000 A325N	0	0.0000	0.75
44.9323	0.6250 A325N	0	0.0000	0.75	0.0000 A325N	0	0.0000	1	0.0000 A325N	0	0.0000	0.75

### Guy Pressures

Guy Elevation ft	Guy Location	z ft	q <sub>s</sub> psf	q <sub>s</sub> Ice psf	Ice Thickness in
189.385	A	94.69	31	5	0.9445
	B	94.69	31	5	0.9445
	C	94.69	31	5	0.9445
136.977	A	68.49	28	4	0.9144
	B	68.49	28	4	0.9144
	C	68.49	28	4	0.9144
87.3411	A	43.67	25	4	0.8742
	B	43.67	25	4	0.8742
	C	43.67	25	4	0.8742
44.9323	A	22.47	22	4	0.8179
	B	22.47	22	4	0.8179
	C	22.47	22	4	0.8179

### Guy-Tensioning Information

		Temperature At Time Of Tensioning															
Guy Elevation ft	H ft	V ft	0 F		20 F		40 F		60 F		80 F		100 F		120 F		
			Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	Initial Tension lb	Intercept ft	
189.385	A	93.03	189.39	3830	3.83	3720	3.94	3610	4.06	3500	4.19	3391	4.32	3282	4.46	3173	4.61
	B	93.03	189.39	3830	3.83	3720	3.94	3610	4.06	3500	4.19	3391	4.32	3282	4.46	3173	4.61
	C	93.03	189.39	3830	3.83	3720	3.94	3610	4.06	3500	4.19	3391	4.32	3282	4.46	3173	4.61
136.977	A	93.09	136.98	3104	2.26	2965	2.36	2827	2.47	2690	2.60	2553	2.74	2418	2.89	2283	3.06
	B	93.09	136.98	3104	2.26	2965	2.36	2827	2.47	2690	2.60	2553	2.74	2418	2.89	2283	3.06
	C	93.09	136.98	3104	2.26	2965	2.36	2827	2.47	2690	2.60	2553	2.74	2418	2.89	2283	3.06
87.3411	A	66.03	87.34	2453	0.97	2328	1.02	2204	1.08	2080	1.14	1956	1.21	1833	1.29	1711	1.38
	B	66.03	87.34	2453	0.97	2328	1.02	2204	1.08	2080	1.14	1956	1.21	1833	1.29	1711	1.38
	C	66.03	87.34	2453	0.97	2328	1.02	2204	1.08	2080	1.14	1956	1.21	1833	1.29	1711	1.38
44.9323	A	66.03	44.93	2022	0.43	1861	0.47	1700	0.51	1540	0.56	1381	0.63	1222	0.71	1065	0.81
	B	66.03	44.93	2022	0.43	1861	0.47	1700	0.51	1540	0.56	1381	0.63	1222	0.71	1065	0.81
	C	66.03	44.93	2022	0.43	1861	0.47	1700	0.51	1540	0.56	1381	0.63	1222	0.71	1065	0.81

### Feed Line/Linear Appurtenances - Entered As Round Or Flat



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Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
Climbing Ladder	A	No	No	Ar (CaAa)	190.00 - 5.00	-2.0000	0	1	1	3.0000	3.0000		7.90
1-5/8" 12x24 LI Hybrid (VzW)	B	No	No	Ar (CaAa)	189.00 - 8.00	0.0000	0	1	1	0.5000	1.9800		3.20
Feedline Ladder (Af) (VzW)	B	No	No	Af (CaAa)	189.00 - 8.00	0.0000	0	1	1	3.0000	3.0000		8.40
6x12 hybrid (T-Mobile) Feedline Ladder (Af) (T-Mobile)	C	No	No	Ar (CaAa)	140.00 - 8.00	0.0000	0	4	4	0.5000	1.5500		1.88
	C	No	No	Af (CaAa)	140.00 - 8.00	0.0000	0	1	1	3.0000	3.0000		8.40

### Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> In Face ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub> Out Face ft <sup>2</sup>	Weight lb
T1	190.00-175.00	A	0.000	0.000	4.500	0.000	118.50
		B	0.000	0.000	9.772	0.000	162.40
		C	0.000	0.000	0.000	0.000	0.00
T2	175.00-160.00	A	0.000	0.000	4.500	0.000	118.50
		B	0.000	0.000	10.470	0.000	174.00
		C	0.000	0.000	0.000	0.000	0.00
T3	160.00-140.00	A	0.000	0.000	6.000	0.000	158.00
		B	0.000	0.000	13.960	0.000	232.00
		C	0.000	0.000	0.000	0.000	0.00
T4	140.00-120.00	A	0.000	0.000	6.000	0.000	158.00
		B	0.000	0.000	13.960	0.000	232.00
		C	0.000	0.000	22.400	0.000	318.40
T5	120.00-100.00	A	0.000	0.000	6.000	0.000	158.00
		B	0.000	0.000	13.960	0.000	232.00
		C	0.000	0.000	22.400	0.000	318.40
T6	100.00-80.00	A	0.000	0.000	6.000	0.000	158.00
		B	0.000	0.000	13.960	0.000	232.00
		C	0.000	0.000	22.400	0.000	318.40
T7	80.00-60.00	A	0.000	0.000	6.000	0.000	158.00
		B	0.000	0.000	13.960	0.000	232.00
		C	0.000	0.000	22.400	0.000	318.40
T8	60.00-40.00	A	0.000	0.000	6.000	0.000	158.00
		B	0.000	0.000	13.960	0.000	232.00
		C	0.000	0.000	22.400	0.000	318.40
T9	40.00-20.00	A	0.000	0.000	6.000	0.000	158.00
		B	0.000	0.000	13.960	0.000	232.00
		C	0.000	0.000	22.400	0.000	318.40
T10	20.00-4.82	A	0.000	0.000	4.500	0.000	118.50
		B	0.000	0.000	8.376	0.000	139.20
		C	0.000	0.000	13.440	0.000	191.04
T11	4.82-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00



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### Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	$A_R$ ft <sup>2</sup>	$A_F$ ft <sup>2</sup>	$C_{AA}$ In Face ft <sup>2</sup>	$C_{AA}$ Out Face ft <sup>2</sup>	Weight lb
T1	190.00-175.00	A	1.009	0.000	0.000	7.526	0.000	192.59
		B		0.000	0.000	15.420	0.000	270.61
		C		0.000	0.000	0.000	0.000	0.00
T2	175.00-160.00	A	1.000	0.000	0.000	7.500	0.000	191.80
		B		0.000	0.000	16.470	0.000	288.60
		C		0.000	0.000	0.000	0.000	0.00
T3	160.00-140.00	A	0.989	0.000	0.000	9.956	0.000	254.39
		B		0.000	0.000	21.872	0.000	382.54
		C		0.000	0.000	0.000	0.000	0.00
T4	140.00-120.00	A	0.975	0.000	0.000	9.900	0.000	252.69
		B		0.000	0.000	21.759	0.000	379.66
		C		0.000	0.000	39.562	0.000	579.20
T5	120.00-100.00	A	0.959	0.000	0.000	9.835	0.000	250.74
		B		0.000	0.000	21.630	0.000	376.38
		C		0.000	0.000	39.394	0.000	574.54
T6	100.00-80.00	A	0.940	0.000	0.000	9.759	0.000	248.46
		B		0.000	0.000	21.478	0.000	372.55
		C		0.000	0.000	39.196	0.000	569.08
T7	80.00-60.00	A	0.916	0.000	0.000	9.666	0.000	245.69
		B		0.000	0.000	21.291	0.000	367.91
		C		0.000	0.000	38.953	0.000	562.46
T8	60.00-40.00	A	0.886	0.000	0.000	9.544	0.000	242.14
		B		0.000	0.000	21.049	0.000	361.96
		C		0.000	0.000	38.639	0.000	553.93
T9	40.00-20.00	A	0.842	0.000	0.000	9.368	0.000	237.04
		B		0.000	0.000	20.695	0.000	353.49
		C		0.000	0.000	38.181	0.000	541.70
T10	20.00-4.82	A	0.771	0.000	0.000	6.812	0.000	171.76
		B		0.000	0.000	12.076	0.000	204.16
		C		0.000	0.000	22.467	0.000	313.45
T11	4.82-0.00	A	0.654	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00

### Feed Line Center of Pressure

Section	Elevation ft	$CP_x$ in	$CP_z$ in	$CP_x$ Ice in	$CP_z$ Ice in
T1	190.00-175.00	1.3839	-1.5535	1.0622	-1.2295
T2	175.00-160.00	1.6391	-1.7327	1.2991	-1.4217
T3	160.00-140.00	1.7349	-1.8339	1.3970	-1.5284
T4	140.00-120.00	1.2638	2.0095	1.0425	2.0554
T5	120.00-100.00	1.2638	2.0095	1.0473	2.0701
T6	100.00-80.00	1.2070	1.9339	0.9984	1.9869
T7	80.00-60.00	1.2638	2.0095	1.0596	2.1089
T8	60.00-40.00	1.2711	2.0381	1.1797	2.3701
T9	40.00-20.00	1.3368	2.1256	1.2197	2.4583
T10	20.00-4.82	1.0443	1.7831	0.9462	2.1035
T11	4.82-0.00	0.0000	0.0000	0.0000	0.0000

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**Shielding Factor Ka**

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
T1	1	Climbing Ladder	175.00 - 190.00	0.6000	0.4869
T1	2	1-5/8" 12x24 LI Hybrid (VzW)	175.00 - 189.00	0.6000	0.4869
T1	3	Feedline Ladder (Af) (VzW)	175.00 - 189.00	0.6000	0.4869
T2	1	Climbing Ladder	160.00 - 175.00	0.6000	0.5189
T2	2	1-5/8" 12x24 LI Hybrid (VzW)	160.00 - 175.00	0.6000	0.5189
T2	3	Feedline Ladder (Af) (VzW)	160.00 - 175.00	0.6000	0.5189
T3	1	Climbing Ladder	140.00 - 160.00	0.6000	0.5417
T3	2	1-5/8" 12x24 LI Hybrid (VzW)	140.00 - 160.00	0.6000	0.5417
T3	3	Feedline Ladder (Af) (VzW)	140.00 - 160.00	0.6000	0.5417
T4	1	Climbing Ladder	120.00 - 140.00	0.6000	0.5449
T4	2	1-5/8" 12x24 LI Hybrid (VzW)	120.00 - 140.00	0.6000	0.5449
T4	3	Feedline Ladder (Af) (VzW)	120.00 - 140.00	0.6000	0.5449
T4	4	6x12 hybrid (T-Mobile)	120.00 - 140.00	0.6000	0.5449
T4	5	Feedline Ladder (Af) (T-Mobile)	120.00 - 140.00	0.6000	0.5449
T5	1	Climbing Ladder	100.00 - 120.00	0.6000	0.5484
T5	2	1-5/8" 12x24 LI Hybrid (VzW)	100.00 - 120.00	0.6000	0.5484
T5	3	Feedline Ladder (Af) (VzW)	100.00 - 120.00	0.6000	0.5484
T5	4	6x12 hybrid (T-Mobile)	100.00 - 120.00	0.6000	0.5484
T5	5	Feedline Ladder (Af) (T-Mobile)	100.00 - 120.00	0.6000	0.5484
T6	1	Climbing Ladder	80.00 - 100.00	0.6000	0.5318
T6	2	1-5/8" 12x24 LI Hybrid (VzW)	80.00 - 100.00	0.6000	0.5318
T6	3	Feedline Ladder (Af) (VzW)	80.00 - 100.00	0.6000	0.5318
T6	4	6x12 hybrid (T-Mobile)	80.00 - 100.00	0.6000	0.5318
T6	5	Feedline Ladder (Af) (T-Mobile)	80.00 - 100.00	0.6000	0.5318
T7	1	Climbing Ladder	60.00 - 80.00	0.6000	0.5578
T7	2	1-5/8" 12x24 LI Hybrid (VzW)	60.00 - 80.00	0.6000	0.5578
T7	3	Feedline Ladder (Af) (VzW)	60.00 - 80.00	0.6000	0.5578
T7	4	6x12 hybrid (T-Mobile)	60.00 - 80.00	0.6000	0.5578
T7	5	Feedline Ladder (Af) (T-Mobile)	60.00 - 80.00	0.6000	0.5578
T8	1	Climbing Ladder	40.00 - 60.00	0.6000	0.6000
T8	2	1-5/8" 12x24 LI Hybrid (VzW)	40.00 - 60.00	0.6000	0.6000
T8	3	Feedline Ladder (Af) (VzW)	40.00 - 60.00	0.6000	0.6000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
T8	4	6x12 hybrid (T-Mobile)	40.00 - 60.00	0.6000	0.6000
T8	5	Feedline Ladder (Af) (T-Mobile)	40.00 - 60.00	0.6000	0.6000
T9	1	Climbing Ladder	20.00 - 40.00	0.6000	0.6000
T9	2	1-5/8" 12x24 LI Hybrid (VzW)	20.00 - 40.00	0.6000	0.6000
T9	3	Feedline Ladder (Af) (VzW)	20.00 - 40.00	0.6000	0.6000
T9	4	6x12 hybrid (T-Mobile)	20.00 - 40.00	0.6000	0.6000
T9	5	Feedline Ladder (Af) (T-Mobile)	20.00 - 40.00	0.6000	0.6000
T10	1	Climbing Ladder	5.00 - 20.00	0.6000	0.6000
T10	2	1-5/8" 12x24 LI Hybrid (VzW)	8.00 - 20.00	0.6000	0.6000
T10	3	Feedline Ladder (Af) (VzW)	8.00 - 20.00	0.6000	0.6000
T10	4	6x12 hybrid (T-Mobile)	8.00 - 20.00	0.6000	0.6000
T10	5	Feedline Ladder (Af) (T-Mobile)	8.00 - 20.00	0.6000	0.6000

### Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	$C_A A_A$ Front	$C_A A_A$ Side	Weight	
			Horz Lateral	Vert						
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	lb	
(2) JAHH-65B-R3B (Verizon)	A	From Face	4.00	0.00	0.0000	189.00	No Ice	9.11	5.98	65.00
			0.00	0.00			1/2" Ice	9.58	6.44	123.08
			0.00	0.00			1" Ice	10.05	6.91	187.45
(2) JAHH-65B-R3B (Verizon)	B	From Face	4.00	0.00	0.0000	189.00	No Ice	9.11	5.98	65.00
			0.00	0.00			1/2" Ice	9.58	6.44	123.08
			0.00	0.00			1" Ice	10.05	6.91	187.45
(2) JAHH-65B-R3B (Verizon)	C	From Face	4.00	0.00	0.0000	189.00	No Ice	9.11	5.98	65.00
			0.00	0.00			1/2" Ice	9.58	6.44	123.08
			0.00	0.00			1" Ice	10.05	6.91	187.45
MT6407-77A (Verizon)	A	From Face	4.00	0.00	0.0000	189.00	No Ice	4.69	1.84	90.00
			0.00	0.00			1/2" Ice	4.98	2.06	119.24
			0.00	0.00			1" Ice	5.28	2.29	152.35
MT6407-77A (Verizon)	B	From Face	4.00	0.00	0.0000	189.00	No Ice	4.69	1.84	90.00
			0.00	0.00			1/2" Ice	4.98	2.06	119.24
			0.00	0.00			1" Ice	5.28	2.29	152.35
MT6407-77A (Verizon)	C	From Face	4.00	0.00	0.0000	189.00	No Ice	4.69	1.84	90.00
			0.00	0.00			1/2" Ice	4.98	2.06	119.24
			0.00	0.00			1" Ice	5.28	2.29	152.35
Samsung RF4439d-25A RRHs (Verizon)	A	From Face	3.50	0.00	0.0000	189.00	No Ice	1.87	1.25	100.00
			0.00	0.00			1/2" Ice	2.03	1.39	118.32
			0.00	0.00			1" Ice	2.21	1.54	139.42
Samsung RF4439d-25A RRHs (Verizon)	B	From Face	3.50	0.00	0.0000	189.00	No Ice	1.87	1.25	100.00
			0.00	0.00			1/2" Ice	2.03	1.39	118.32
			0.00	0.00			1" Ice	2.21	1.54	139.42
Samsung RF4439d-25A RRHs (Verizon)	C	From Face	3.50	0.00	0.0000	189.00	No Ice	1.87	1.25	100.00
			0.00	0.00			1/2" Ice	2.03	1.39	118.32
			0.00	0.00			1" Ice	2.21	1.54	139.42
Samsung RF4440d-13A	A	From Face	3.50	0.00	0.0000	189.00	No Ice	1.87	1.13	85.00

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A <sub>A</sub> Front	C <sub>A</sub> A <sub>A</sub> Side	Weight
			Horz	Vert					
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	lb
RRHs (Verizon)			0.00			1/2" Ice	2.03	1.27	102.32
			0.00			1" Ice	2.21	1.41	122.37
Samsung RF4440d-13A RRHs (Verizon)	B	From Face	3.50		0.0000	No Ice	1.87	1.13	85.00
			0.00			1/2" Ice	2.03	1.27	102.32
			0.00			1" Ice	2.21	1.41	122.37
Samsung RF4440d-13A RRHs (Verizon)	C	From Face	3.50		0.0000	No Ice	1.87	1.13	85.00
			0.00			1/2" Ice	2.03	1.27	102.32
			0.00			1" Ice	2.21	1.41	122.37
CBC78T-DS-43 Twin Diplexer (Verizon)	A	From Face	3.50		0.0000	No Ice	0.37	0.25	15.00
			0.00			1/2" Ice	0.45	0.32	19.10
			0.00			1" Ice	0.53	0.39	24.57
CBC78T-DS-43 Twin Diplexer (Verizon)	B	From Face	3.50		0.0000	No Ice	0.37	0.25	15.00
			0.00			1/2" Ice	0.45	0.32	19.10
			0.00			1" Ice	0.53	0.39	24.57
CBC78T-DS-43 Twin Diplexer (Verizon)	C	From Face	3.50		0.0000	No Ice	0.37	0.25	15.00
			0.00			1/2" Ice	0.45	0.32	19.10
			0.00			1" Ice	0.53	0.39	24.57
RVZDC-6627-PF-48 (12 OVP) (Verizon)	C	None			0.0000	No Ice	6.13	5.25	50.00
						1/2" Ice	6.44	5.55	108.92
						1" Ice	6.76	5.85	172.82
SitePro VFA12-HD (Verizon)	A	None			0.0000	No Ice	13.20	9.20	658.00
						1/2" Ice	19.50	14.60	804.00
						1" Ice	25.80	19.50	1015.00
SitePro VFA12-HD (Verizon)	B	None			0.0000	No Ice	13.20	9.20	658.00
						1/2" Ice	19.50	14.60	804.00
						1" Ice	25.80	19.50	1015.00
SitePro VFA12-HD (Verizon)	C	None			0.0000	No Ice	13.20	9.20	658.00
						1/2" Ice	19.50	14.60	804.00
						1" Ice	25.80	19.50	1015.00
APX16DWV-16DWVS (T-Mobile)	A	From Face	4.00		0.0000	No Ice	6.08	2.00	25.00
			0.00			1/2" Ice	6.44	2.33	56.34
			0.00			1" Ice	6.80	2.66	92.36
APX16DWV-16DWVS (T-Mobile)	B	From Face	4.00		0.0000	No Ice	6.08	2.00	25.00
			0.00			1/2" Ice	6.44	2.33	56.34
			0.00			1" Ice	6.80	2.66	92.36
APX16DWV-16DWVS (T-Mobile)	C	From Face	4.00		0.0000	No Ice	6.08	2.00	25.00
			0.00			1/2" Ice	6.44	2.33	56.34
			0.00			1" Ice	6.80	2.66	92.36
APXVAARR24_43-U-NA20 (T-Mobile)	A	From Face	4.00		0.0000	No Ice	20.24	8.89	155.00
			0.00			1/2" Ice	20.89	9.49	267.59
			0.00			1" Ice	21.54	10.09	388.72
APXVAARR24_43-U-NA20 (T-Mobile)	B	From Face	4.00		0.0000	No Ice	20.24	8.89	155.00
			0.00			1/2" Ice	20.89	9.49	267.59
			0.00			1" Ice	21.54	10.09	388.72
APXVAARR24_43-U-NA20 (T-Mobile)	C	From Face	4.00		0.0000	No Ice	20.24	8.89	155.00
			0.00			1/2" Ice	20.89	9.49	267.59
			0.00			1" Ice	21.54	10.09	388.72
AIR 6449 B41 (T-Mobile)	A	From Face	4.00		0.0000	No Ice	5.68	2.49	128.00
			0.00			1/2" Ice	5.98	2.72	167.12
			0.00			1" Ice	6.29	2.95	210.46
AIR 6449 B41 (T-Mobile)	B	From Face	4.00		0.0000	No Ice	5.68	2.49	128.00
			0.00			1/2" Ice	5.98	2.72	167.12
			0.00			1" Ice	6.29	2.95	210.46
AIR 6449 B41 (T-Mobile)	C	From Face	4.00		0.0000	No Ice	5.68	2.49	128.00
			0.00			1/2" Ice	5.98	2.72	167.12
			0.00			1" Ice	6.29	2.95	210.46
Ericsson Radio 4449	A	From Face	3.00		0.0000	No Ice	1.65	1.16	80.00

<b>tnxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	<b>Job</b>	Danielson 2 CT	<b>Page</b>	16 of 50
	<b>Project</b>	17123687	<b>Date</b>	18:14:41 10/13/23
	<b>Client</b>	Verizon	<b>Designed by</b>	edagtekin

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A <sub>Front</sub>	C <sub>A</sub> A <sub>Side</sub>	Weight
			Horz	Lateral					
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	lb
(T-Mobile)			0.00			1/2" Ice	1.81	1.30	96.16
Ericsson Radio 4449 (T-Mobile)	B	From Face	0.00		0.0000	1" Ice	1.98	1.45	114.95
			3.00			No Ice	1.65	1.16	80.00
			0.00			1/2" Ice	1.81	1.30	96.16
			0.00			1" Ice	1.98	1.45	114.95
Ericsson Radio 4449 (T-Mobile)	C	From Face	3.00		0.0000	No Ice	1.65	1.16	80.00
			0.00			1/2" Ice	1.81	1.30	96.16
			0.00			1" Ice	1.98	1.45	114.95
Ericsson Radio 4415 (T-Mobile)	A	From Face	3.00		0.0000	No Ice	1.64	0.68	50.00
			0.00			1/2" Ice	1.80	0.79	62.41
			0.00			1" Ice	1.97	0.91	77.18
Ericsson Radio 4415 (T-Mobile)	B	From Face	3.00		0.0000	No Ice	1.64	0.68	50.00
			0.00			1/2" Ice	1.80	0.79	62.41
			0.00			1" Ice	1.97	0.91	77.18
Ericsson Radio 4415 (T-Mobile)	C	From Face	3.00		0.0000	No Ice	1.64	0.68	50.00
			0.00			1/2" Ice	1.80	0.79	62.41
			0.00			1" Ice	1.97	0.91	77.18
Ericsson Radio 4424 B25 (T-Mobile)	A	From Face	3.00		0.0000	No Ice	1.86	1.32	90.00
			0.00			1/2" Ice	2.03	1.47	107.87
			0.00			1" Ice	2.20	1.62	128.50
Ericsson Radio 4424 B25 (T-Mobile)	B	From Face	3.00		0.0000	No Ice	1.86	1.32	90.00
			0.00			1/2" Ice	2.03	1.47	107.87
			0.00			1" Ice	2.20	1.62	128.50
Ericsson Radio 4424 B25 (T-Mobile)	C	From Face	3.00		0.0000	No Ice	1.86	1.32	90.00
			0.00			1/2" Ice	2.03	1.47	107.87
			0.00			1" Ice	2.20	1.62	128.50
12' V-Frame sector mount	A	None			0.0000	No Ice	10.20	5.10	465.00
						1/2" Ice	13.80	6.90	600.00
						1" Ice	17.40	8.70	735.00
12' V-Frame sector mount	B	None			0.0000	No Ice	10.20	5.10	465.00
						1/2" Ice	13.80	6.90	600.00
						1" Ice	17.40	8.70	735.00
12' V-Frame sector mount	C	None			0.0000	No Ice	10.20	5.10	465.00
						1/2" Ice	13.80	6.90	600.00
						1" Ice	17.40	8.70	735.00
Kaelus KA-6030	C	From Face	4.00		0.0000	No Ice	1.13	1.13	40.00
			0.00			1/2" Ice	1.69	1.69	85.00
			0.00			1" Ice	2.25	2.25	130.00
Kaelus KA-6030	C	From Face	4.00		0.0000	No Ice	1.13	1.13	40.00
			0.00			1/2" Ice	1.69	1.69	85.00
			0.00			1" Ice	2.25	2.25	130.00
Site Pro 1 RRUDSM	C	From Face	0.00		0.0000	No Ice	1.13	1.13	40.00
			0.00			1/2" Ice	1.69	1.69	85.00
			0.00			1" Ice	2.25	2.25	130.00

### Tower Pressures - No Ice

$G_H = 0.850$



<b>tnxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	<b>Job</b> Danielson 2 CT	<b>Page</b> 17 of 50
	<b>Project</b> 17123687	<b>Date</b> 18:14:41 10/13/23
	<b>Client</b> Verizon	<b>Designed by</b> edagtekin

Section Elevation	z	K <sub>Z</sub>	q <sub>z</sub>	A <sub>G</sub>	F a c e	A <sub>F</sub>	A <sub>R</sub>	A <sub>leg</sub>	Leg %	C <sub>A</sub> A <sub>A</sub> In Face	C <sub>A</sub> A <sub>A</sub> Out Face
ft	ft		psf	ft <sup>2</sup>	e	ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>
T1 190.00-175.00	182.50	1.174	37	54.843	A	1.191	13.788	7.188	47.98	4.500	0.000
					B	1.191	13.788		47.98	9.772	0.000
					C	1.191	13.788		47.98	0.000	0.000
T2 175.00-160.00	167.50	1.145	36	54.843	A	0.000	13.788	7.188	52.13	4.500	0.000
					B	0.000	13.788		52.13	10.470	0.000
					C	0.000	13.788		52.13	0.000	0.000
T3 160.00-140.00	150.00	1.11	35	72.290	A	0.000	16.598	7.917	47.70	6.000	0.000
					B	0.000	16.598		47.70	13.960	0.000
					C	0.000	16.598		47.70	0.000	0.000
T4 140.00-120.00	130.00	1.065	34	72.290	A	0.000	16.598	7.917	47.70	6.000	0.000
					B	0.000	16.598		47.70	13.960	0.000
					C	0.000	16.598		47.70	22.400	0.000
T5 120.00-100.00	110.00	1.016	32	72.290	A	0.000	16.598	7.917	47.70	6.000	0.000
					B	0.000	16.598		47.70	13.960	0.000
					C	0.000	16.598		47.70	22.400	0.000
T6 100.00-80.00	90.00	0.959	30	72.290	A	1.073	16.598	7.917	44.80	6.000	0.000
					B	1.073	16.598		44.80	13.960	0.000
					C	1.073	16.598		44.80	22.400	0.000
T7 80.00-60.00	70.00	0.892	28	72.290	A	0.000	16.598	7.917	47.70	6.000	0.000
					B	0.000	16.598		47.70	13.960	0.000
					C	0.000	16.598		47.70	22.400	0.000
T8 60.00-40.00	50.00	0.811	26	73.124	A	1.059	14.265	9.583	62.54	6.000	0.000
					B	1.059	14.265		62.54	13.960	0.000
					C	1.059	14.265		62.54	22.400	0.000
T9 40.00-20.00	30.00	0.701	22	73.124	A	0.000	14.265	9.583	67.18	6.000	0.000
					B	0.000	14.265		67.18	13.960	0.000
					C	0.000	14.265		67.18	22.400	0.000
T10 20.00-4.82	12.41	0.7	22	55.509	A	0.000	10.985	7.275	66.23	4.500	0.000
					B	0.000	10.985		66.23	8.376	0.000
					C	0.000	10.985		66.23	13.440	0.000
T11 4.82-0.00	2.41	0.7	22	9.242	A	5.517	2.061	2.061	27.19	0.000	0.000
					B	5.517	2.061		27.19	0.000	0.000
					C	5.517	2.061		27.19	0.000	0.000

### Tower Pressure - With Ice

$G_H = 0.850$

Section Elevation	z	K <sub>Z</sub>	q <sub>z</sub>	t <sub>z</sub>	A <sub>G</sub>	F a c e	A <sub>F</sub>	A <sub>R</sub>	A <sub>leg</sub>	Leg %	C <sub>A</sub> A <sub>A</sub> In Face	C <sub>A</sub> A <sub>A</sub> Out Face
ft	ft		psf	in	ft <sup>2</sup>	e	ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>
T1 190.00-175.00	182.50	1.174	6	1.0085	57.364	A	1.191	28.241	12.230	41.55	7.526	0.000
						B	1.191	28.241		41.55	15.420	0.000
						C	1.191	28.241		41.55	0.000	0.000
T2 175.00-160.00	167.50	1.145	6	0.9999	57.343	A	0.000	27.588	12.187	44.17	7.500	0.000
						B	0.000	27.588		44.17	16.470	0.000
						C	0.000	27.588		44.17	0.000	0.000
T3 160.00-140.00	150.00	1.11	6	0.9890	75.587	A	0.000	34.638	14.510	41.89	9.956	0.000
						B	0.000	34.638		41.89	21.872	0.000
						C	0.000	34.638		41.89	0.000	0.000
T4 140.00-120.00	130.00	1.065	5	0.9749	75.540	A	0.000	34.382	14.416	41.93	9.900	0.000
						B	0.000	34.382		41.93	21.759	0.000
						C	0.000	34.382		41.93	39.562	0.000
T5 120.00-100.00	110.00	1.016	5	0.9588	75.486	A	0.000	34.087	14.308	41.98	9.835	0.000
						B	0.000	34.087		41.98	21.630	0.000



<b>inxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	Job	Danielson 2 CT	Page	18 of 50
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	Client	Verizon	Designed by	edagtekin

Section Elevation	z	K <sub>Z</sub>	q <sub>z</sub>	t <sub>z</sub>	A <sub>G</sub>	F a c e	A <sub>F</sub>	A <sub>R</sub>	A <sub>leg</sub>	Leg %	C <sub>A A A</sub> In Face	C <sub>A A A</sub> Out Face
ft	ft		psf	in	ft <sup>2</sup>	e	ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>
T6 100.00-80.00	90.00	0.959	5	0.9397	75.423	C	0.000	34.087	14.181	41.98	39.394	0.000
						A	1.073	34.244		40.16	9.759	0.000
						B	1.073	34.244		40.16	21.478	0.000
						C	1.073	34.244		40.16	39.196	0.000
T7 80.00-60.00	70.00	0.892	5	0.9164	75.345	A	0.000	33.314	14.026	42.10	9.666	0.000
						B	0.000	33.314		42.10	21.291	0.000
						C	0.000	33.314		42.10	38.953	0.000
T8 60.00-40.00	50.00	0.811	4	0.8861	76.077	A	1.059	26.172	15.490	56.89	9.544	0.000
						B	1.059	26.172		56.89	21.049	0.000
						C	1.059	26.172		56.89	38.639	0.000
T9 40.00-20.00	30.00	0.701	4	0.8419	75.930	A	0.000	25.133	15.196	60.46	9.368	0.000
						B	0.000	25.133		60.46	20.695	0.000
						C	0.000	25.133		60.46	38.181	0.000
T10 20.00-4.82	12.41	0.7	4	0.7708	57.460	A	0.000	18.698	11.176	59.77	6.812	0.000
						B	0.000	18.698		59.77	12.076	0.000
						C	0.000	18.698		59.77	22.467	0.000
T11 4.82-0.00	2.41	0.7	4	0.6543	9.799	A	5.517	3.712	3.196	34.63	0.000	0.000
						B	5.517	3.712		34.63	0.000	0.000
						C	5.517	3.712		34.63	0.000	0.000

### Tower Pressure - Service

$G_H = 0.850$

Section Elevation	z	K <sub>Z</sub>	q <sub>z</sub>	A <sub>G</sub>	F a c e	A <sub>F</sub>	A <sub>R</sub>	A <sub>leg</sub>	Leg %	C <sub>A A A</sub> In Face	C <sub>A A A</sub> Out Face
ft	ft		psf	ft <sup>2</sup>	e	ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>
T1 190.00-175.00	182.50	1.174	9	54.843	A	1.191	13.788	7.188	47.98	4.500	0.000
					B	1.191	13.788		47.98	9.772	0.000
					C	1.191	13.788		47.98	0.000	0.000
T2 175.00-160.00	167.50	1.145	9	54.843	A	0.000	13.788	7.188	52.13	4.500	0.000
					B	0.000	13.788		52.13	10.470	0.000
					C	0.000	13.788		52.13	0.000	0.000
T3 160.00-140.00	150.00	1.11	8	72.290	A	0.000	16.598	7.917	47.70	6.000	0.000
					B	0.000	16.598		47.70	13.960	0.000
					C	0.000	16.598		47.70	0.000	0.000
T4 140.00-120.00	130.00	1.065	8	72.290	A	0.000	16.598	7.917	47.70	6.000	0.000
					B	0.000	16.598		47.70	13.960	0.000
					C	0.000	16.598		47.70	22.400	0.000
T5 120.00-100.00	110.00	1.016	8	72.290	A	0.000	16.598	7.917	47.70	6.000	0.000
					B	0.000	16.598		47.70	13.960	0.000
					C	0.000	16.598		47.70	22.400	0.000
T6 100.00-80.00	90.00	0.959	7	72.290	A	1.073	16.598	7.917	44.80	6.000	0.000
					B	1.073	16.598		44.80	13.960	0.000
					C	1.073	16.598		44.80	22.400	0.000
T7 80.00-60.00	70.00	0.892	7	72.290	A	0.000	16.598	7.917	47.70	6.000	0.000
					B	0.000	16.598		47.70	13.960	0.000
					C	0.000	16.598		47.70	22.400	0.000
T8 60.00-40.00	50.00	0.811	6	73.124	A	1.059	14.265	9.583	62.54	6.000	0.000
					B	1.059	14.265		62.54	13.960	0.000
					C	1.059	14.265		62.54	22.400	0.000
T9 40.00-20.00	30.00	0.701	5	73.124	A	0.000	14.265	9.583	67.18	6.000	0.000
					B	0.000	14.265		67.18	13.960	0.000
					C	0.000	14.265		67.18	22.400	0.000

<b>tnxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	<b>Job</b>	Danielson 2 CT	<b>Page</b>	19 of 50
	<b>Project</b>	17123687	<b>Date</b>	18:14:41 10/13/23
	<b>Client</b>	Verizon	<b>Designed by</b>	edagtekin

Section Elevation	z	K <sub>Z</sub>	q <sub>z</sub>	A <sub>G</sub>	F <sub>a c e</sub>	A <sub>F</sub>	A <sub>R</sub>	A <sub>leg</sub>	Leg %	C <sub>A A</sub> <sub>In Face</sub>	C <sub>A A</sub> <sub>Out Face</sub>
ft	ft		psf	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>	ft <sup>2</sup>		ft <sup>2</sup>	ft <sup>2</sup>
T10 20.00-4.82	12.41	0.7	5	55.509	A	0.000	10.985	7.275	66.23	4.500	0.000
					B	0.000	10.985		66.23	8.376	0.000
					C	0.000	10.985		66.23	13.440	0.000
T11 4.82-0.00	2.41	0.7	5	9.242	A	5.517	2.061	2.061	27.19	0.000	0.000
					B	5.517	2.061		27.19	0.000	0.000
					C	5.517	2.061		27.19	0.000	0.000

### Tower Forces - No Ice - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F <sub>a c e</sub>	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	plf	
T1 190.00-175.00	280.90	574.21	A	0.273	2.37	37	1	1	9.341	965.88	64.39	C
			B	0.273	2.37		1	1	9.341			
			C	0.273	2.37		1	1	9.341			
T2 175.00-160.00	292.50	515.36	A	0.251	2.433	36	1	1	8.071	878.67	58.58	C
			B	0.251	2.433		1	1	8.071			
			C	0.251	2.433		1	1	8.071			
T3 160.00-140.00	390.00	417.12	A	0.23	2.5	35	1	1	9.631	1072.58	53.63	C
			B	0.23	2.5		1	1	9.631			
			C	0.23	2.5		1	1	9.631			
T4 140.00-120.00	708.40	417.12	A	0.23	2.5	34	1	1	9.631	1413.41	70.67	C
		TA 313.06	B	0.23	2.5		1	1	9.631			
			C	0.23	2.5		1	1	9.631			
T5 120.00-100.00	708.40	417.12	A	0.23	2.5	32	1	1	9.631	1347.53	67.38	C
			B	0.23	2.5		1	1	9.631			
			C	0.23	2.5		1	1	9.631			
T6 100.00-80.00	708.40	472.57	A	0.244	2.454	30	1	1	10.760	1332.32	66.62	C
			B	0.244	2.454		1	1	10.760			
			C	0.244	2.454		1	1	10.760			
T7 80.00-60.00	708.40	499.34	A	0.23	2.5	28	1	1	9.631	1184.28	59.21	C
			B	0.23	2.5		1	1	9.631			
			C	0.23	2.5		1	1	9.631			
T8 60.00-40.00	708.40	511.40	A	0.21	2.564	26	1	1	9.279	1069.52	53.48	C
			B	0.21	2.564		1	1	9.279			
			C	0.21	2.564		1	1	9.279			
T9 40.00-20.00	708.40	455.94	A	0.195	2.613	22	1	1	8.183	878.89	43.94	C
			B	0.195	2.613		1	1	8.183			
			C	0.195	2.613		1	1	8.183			
T10 20.00-4.82	448.74	349.71	A	0.198	2.603	22	1	1	6.306	604.38	39.81	C
			B	0.198	2.603		1	1	6.306			
			C	0.198	2.603		1	1	6.306			
T11 4.82-0.00	0.00	215.84	A	0.82	1.832	22	1	1	7.374	253.54	52.63	C
			B	0.82	1.832		1	1	7.374			
			C	0.82	1.832		1	1	7.374			
Sum Weight:	5662.54	5158.79								11001.00		

### Tower Forces - No Ice - Wind 60 To Face

<b>inxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	<b>Job</b> Danielson 2 CT	<b>Page</b> 20 of 50
	<b>Project</b> 17123687	<b>Date</b> 18:14:41 10/13/23
	<b>Client</b> Verizon	<b>Designed by</b> edagtekin

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	plf	
T1 190.00-175.00	280.90	574.21	A	0.273	2.37	37	0.8	1	9.102	948.12	63.21	C
			B	0.273	2.37		0.8	1	9.102			
			C	0.273	2.37		0.8	1	9.102			
T2 175.00-160.00	292.50	515.36	A	0.251	2.433	36	0.8	1	8.071	878.67	58.58	C
			B	0.251	2.433		0.8	1	8.071			
			C	0.251	2.433		0.8	1	8.071			
T3 160.00-140.00	390.00	417.12	A	0.23	2.5	35	0.8	1	9.631	1072.58	53.63	C
			B	0.23	2.5		0.8	1	9.631			
			C	0.23	2.5		0.8	1	9.631			
T4 140.00-120.00	708.40	417.12	A	0.23	2.5	34	0.8	1	9.631	1413.41	70.67	C
		TA 313.06	B	0.23	2.5		0.8	1	9.631			
			C	0.23	2.5		0.8	1	9.631			
T5 120.00-100.00	708.40	417.12	A	0.23	2.5	32	0.8	1	9.631	1347.53	67.38	C
			B	0.23	2.5		0.8	1	9.631			
			C	0.23	2.5		0.8	1	9.631			
T6 100.00-80.00	708.40	472.57	A	0.244	2.454	30	0.8	1	10.546	1318.78	65.94	C
			B	0.244	2.454		0.8	1	10.546			
			C	0.244	2.454		0.8	1	10.546			
T7 80.00-60.00	708.40	499.34	A	0.23	2.5	28	0.8	1	9.631	1184.28	59.21	C
			B	0.23	2.5		0.8	1	9.631			
			C	0.23	2.5		0.8	1	9.631			
T8 60.00-40.00	708.40	511.40	A	0.21	2.564	26	0.8	1	9.067	1057.71	52.89	C
			B	0.21	2.564		0.8	1	9.067			
			C	0.21	2.564		0.8	1	9.067			
T9 40.00-20.00	708.40	455.94	A	0.195	2.613	22	0.8	1	8.183	878.89	43.94	C
			B	0.195	2.613		0.8	1	8.183			
			C	0.195	2.613		0.8	1	8.183			
T10 20.00-4.82	448.74	349.71	A	0.198	2.603	22	0.8	1	6.306	604.38	39.81	C
			B	0.198	2.603		0.8	1	6.306			
			C	0.198	2.603		0.8	1	6.306			
T11 4.82-0.00	0.00	215.84	A	0.82	1.832	22	0.8	1	6.271	215.60	44.75	C
			B	0.82	1.832		0.8	1	6.271			
			C	0.82	1.832		0.8	1	6.271			
<b>Sum Weight:</b>	<b>5662.54</b>	<b>5158.79</b>								<b>10919.96</b>		

### Tower Forces - No Ice - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	plf	
T1 190.00-175.00	280.90	574.21	A	0.273	2.37	37	0.85	1	9.162	952.56	63.50	C
			B	0.273	2.37		0.85	1	9.162			
			C	0.273	2.37		0.85	1	9.162			
T2 175.00-160.00	292.50	515.36	A	0.251	2.433	36	0.85	1	8.071	878.67	58.58	C
			B	0.251	2.433		0.85	1	8.071			
			C	0.251	2.433		0.85	1	8.071			
T3 160.00-140.00	390.00	417.12	A	0.23	2.5	35	0.85	1	9.631	1072.58	53.63	C
			B	0.23	2.5		0.85	1	9.631			
			C	0.23	2.5		0.85	1	9.631			
T4 140.00-120.00	708.40	417.12	A	0.23	2.5	34	0.85	1	9.631	1413.41	70.67	C
		TA 313.06	B	0.23	2.5		0.85	1	9.631			
			C	0.23	2.5		0.85	1	9.631			
T5 120.00-100.00	708.40	417.12	A	0.23	2.5	32	0.85	1	9.631	1347.53	67.38	C

<b>tnxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	<b>Job</b> Danielson 2 CT	<b>Page</b> 21 of 50
	<b>Project</b> 17123687	<b>Date</b> 18:14:41 10/13/23
	<b>Client</b> Verizon	<b>Designed by</b> edagtekin

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb	e			psf			ft <sup>2</sup>	lb	plf	
120.00-100.00			B	0.23	2.5		0.85	1	9.631			
			C	0.23	2.5		0.85	1	9.631			
T6	708.40	472.57	A	0.244	2.454	30	0.85	1	10.599	1322.16	66.11	C
100.00-80.00			B	0.244	2.454		0.85	1	10.599			
			C	0.244	2.454		0.85	1	10.599			
T7	708.40	499.34	A	0.23	2.5	28	0.85	1	9.631	1184.28	59.21	C
80.00-60.00			B	0.23	2.5		0.85	1	9.631			
			C	0.23	2.5		0.85	1	9.631			
T8	708.40	511.40	A	0.21	2.564	26	0.85	1	9.120	1060.66	53.03	C
60.00-40.00			B	0.21	2.564		0.85	1	9.120			
			C	0.21	2.564		0.85	1	9.120			
T9	708.40	455.94	A	0.195	2.613	22	0.85	1	8.183	878.89	43.94	C
40.00-20.00			B	0.195	2.613		0.85	1	8.183			
			C	0.195	2.613		0.85	1	8.183			
T10	448.74	349.71	A	0.198	2.603	22	0.85	1	6.306	604.38	39.81	C
20.00-4.82			B	0.198	2.603		0.85	1	6.306			
			C	0.198	2.603		0.85	1	6.306			
T11	4.82-0.00	0.00	A	0.82	1.832	22	0.85	1	6.547	225.09	46.72	C
			B	0.82	1.832		0.85	1	6.547			
			C	0.82	1.832		0.85	1	6.547			
Sum Weight:	5662.54	5158.79								10940.22		

### Tower Forces - With Ice - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb	e			psf			ft <sup>2</sup>	lb	plf	
T1	463.20	1385.91	A	0.513	1.884	6	1	1	20.739	252.88	16.86	C
190.00-175.00			B	0.513	1.884		1	1	20.739			
			C	0.513	1.884		1	1	20.739			
T2	480.40	1248.68	A	0.481	1.926	6	1	1	18.622	237.25	15.82	C
175.00-160.00			B	0.481	1.926		1	1	18.622			
			C	0.481	1.926		1	1	18.622			
T3	636.93	1326.07	A	0.458	1.96	6	1	1	22.977	296.44	14.82	C
160.00-140.00			B	0.458	1.96		1	1	22.977			
			C	0.458	1.96		1	1	22.977			
T4	1211.54	1308.45	A	0.455	1.965	5	1	1	22.754	381.60	19.08	C
140.00-120.00		TA 589.01	B	0.455	1.965		1	1	22.754			
			C	0.455	1.965		1	1	22.754			
T5	1201.66	1288.36	A	0.452	1.971	5	1	1	22.499	362.44	18.12	C
120.00-100.00			B	0.452	1.971		1	1	22.499			
			C	0.452	1.971		1	1	22.499			
T6	1190.09	1382.04	A	0.468	1.945	5	1	1	23.960	345.71	17.29	C
100.00-80.00			B	0.468	1.945		1	1	23.960			
			C	0.468	1.945		1	1	23.960			
T7	1176.06	1318.74	A	0.442	1.987	5	1	1	21.837	315.37	15.77	C
80.00-60.00			B	0.442	1.987		1	1	21.837			
			C	0.442	1.987		1	1	21.837			
T8	1158.03	1125.35	A	0.358	2.153	4	1	1	17.261	273.70	13.68	C
60.00-40.00			B	0.358	2.153		1	1	17.261			
			C	0.358	2.153		1	1	17.261			
T9	1132.23	976.42	A	0.331	2.217	4	1	1	15.311	225.05	11.25	C
40.00-20.00			B	0.331	2.217		1	1	15.311			

<b>inxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	Job	Danielson 2 CT	Page	22 of 50
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	Client	Verizon	Designed by	edagtekin

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	plf	
T10 20.00-4.82	689.38	710.83	C	0.331	2.217		1	1	15.311			
			A	0.325	2.231	4	1	1	11.354	150.55	9.92	C
			B	0.325	2.231		1	1	11.354			
			C	0.325	2.231		1	1	11.354			
T11 4.82-0.00	0.00	433.76	A	0.942	1.989	4	1	1	9.229	55.13	11.44	C
			B	0.942	1.989		1	1	9.229			
			C	0.942	1.989		1	1	9.229			
Sum Weight:	9339.51	13093.62								2896.12		

**Tower Forces - With Ice - Wind 60 To Face**

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	plf	
T1 190.00-175.00	463.20	1385.91	A	0.513	1.884	6	0.8	1	20.500	250.62	16.71	C
			B	0.513	1.884		0.8	1	20.500			
			C	0.513	1.884		0.8	1	20.500			
T2 175.00-160.00	480.40	1248.68	A	0.481	1.926	6	0.8	1	18.622	237.25	15.82	C
			B	0.481	1.926		0.8	1	18.622			
			C	0.481	1.926		0.8	1	18.622			
T3 160.00-140.00	636.93	1326.07	A	0.458	1.96	6	0.8	1	22.977	296.44	14.82	C
			B	0.458	1.96		0.8	1	22.977			
			C	0.458	1.96		0.8	1	22.977			
T4 140.00-120.00	1211.54	1308.45 TA 589.01	A	0.455	1.965	5	0.8	1	22.754	381.60	19.08	C
			B	0.455	1.965		0.8	1	22.754			
			C	0.455	1.965		0.8	1	22.754			
T5 120.00-100.00	1201.66	1288.36	A	0.452	1.971	5	0.8	1	22.499	362.44	18.12	C
			B	0.452	1.971		0.8	1	22.499			
			C	0.452	1.971		0.8	1	22.499			
T6 100.00-80.00	1190.09	1382.04	A	0.468	1.945	5	0.8	1	23.746	344.00	17.20	C
			B	0.468	1.945		0.8	1	23.746			
			C	0.468	1.945		0.8	1	23.746			
T7 80.00-60.00	1176.06	1318.74	A	0.442	1.987	5	0.8	1	21.837	315.37	15.77	C
			B	0.442	1.987		0.8	1	21.837			
			C	0.442	1.987		0.8	1	21.837			
T8 60.00-40.00	1158.03	1125.35	A	0.358	2.153	4	0.8	1	17.049	272.11	13.61	C
			B	0.358	2.153		0.8	1	17.049			
			C	0.358	2.153		0.8	1	17.049			
T9 40.00-20.00	1132.23	976.42	A	0.331	2.217	4	0.8	1	15.311	225.05	11.25	C
			B	0.331	2.217		0.8	1	15.311			
			C	0.331	2.217		0.8	1	15.311			
T10 20.00-4.82	689.38	710.83	A	0.325	2.231	4	0.8	1	11.354	150.55	9.92	C
			B	0.325	2.231		0.8	1	11.354			
			C	0.325	2.231		0.8	1	11.354			
T11 4.82-0.00	0.00	433.76	A	0.942	1.989	4	0.8	1	8.125	48.53	10.07	C
			B	0.942	1.989		0.8	1	8.125			
			C	0.942	1.989		0.8	1	8.125			
Sum Weight:	9339.51	13093.62								2883.97		



<b>tnxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	<b>Job</b> Danielson 2 CT	<b>Page</b> 23 of 50
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	<b>Client</b> Verizon	<b>Designed by</b> edagtekin

**Tower Forces - With Ice - Wind 90 To Face**

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	plf	
190.00-175.00	463.20	1385.91	A	0.513	1.884	6	0.85	1	20.560	251.19	16.75	C
			B	0.513	1.884		0.85		20.560			
			C	0.513	1.884		0.85		20.560			
175.00-160.00	480.40	1248.68	A	0.481	1.926	6	0.85	1	18.622	237.25	15.82	C
			B	0.481	1.926		0.85		18.622			
			C	0.481	1.926		0.85		18.622			
160.00-140.00	636.93	1326.07	A	0.458	1.96	6	0.85	1	22.977	296.44	14.82	C
			B	0.458	1.96		0.85		22.977			
			C	0.458	1.96		0.85		22.977			
140.00-120.00	1211.54	1308.45	A	0.455	1.965	5	0.85	1	22.754	381.60	19.08	C
		TA 589.01	B	0.455	1.965		0.85		22.754			
		C	0.455	1.965	0.85		22.754					
120.00-100.00	1201.66	1288.36	A	0.452	1.971	5	0.85	1	22.499	362.44	18.12	C
			B	0.452	1.971		0.85		22.499			
			C	0.452	1.971		0.85		22.499			
100.00-80.00	1190.09	1382.04	A	0.468	1.945	5	0.85	1	23.799	344.43	17.22	C
			B	0.468	1.945		0.85		23.799			
			C	0.468	1.945		0.85		23.799			
80.00-60.00	1176.06	1318.74	A	0.442	1.987	5	0.85	1	21.837	315.37	15.77	C
			B	0.442	1.987		0.85		21.837			
			C	0.442	1.987		0.85		21.837			
60.00-40.00	1158.03	1125.35	A	0.358	2.153	4	0.85	1	17.102	272.51	13.63	C
			B	0.358	2.153		0.85		17.102			
			C	0.358	2.153		0.85		17.102			
40.00-20.00	1132.23	976.42	A	0.331	2.217	4	0.85	1	15.311	225.05	11.25	C
			B	0.331	2.217		0.85		15.311			
			C	0.331	2.217		0.85		15.311			
20.00-4.82	689.38	710.83	A	0.325	2.231	4	0.85	1	11.354	150.55	9.92	C
			B	0.325	2.231		0.85		11.354			
			C	0.325	2.231		0.85		11.354			
T11 4.82-0.00	0.00	433.76	A	0.942	1.989	4	0.85	1	8.401	50.18	10.42	C
			B	0.942	1.989		0.85		8.401			
			C	0.942	1.989		0.85		8.401			
Sum Weight:	9339.51	13093.62								2887.00		

**Tower Forces - Service - Wind Normal To Face**

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	plf	
190.00-175.00	280.90	574.21	A	0.273	2.37	9	1	1	9.341	234.25	15.62	C
			B	0.273	2.37		1		9.341			
			C	0.273	2.37		1		9.341			
175.00-160.00	292.50	515.36	A	0.251	2.433	9	1	1	8.071	213.10	14.21	C
			B	0.251	2.433		1		8.071			
			C	0.251	2.433		1		8.071			
160.00-140.00	390.00	417.12	A	0.23	2.5	8	1	1	9.631	260.13	13.01	C
			B	0.23	2.5		1		9.631			
			C	0.23	2.5		1		9.631			
T4	708.40	417.12	A	0.23	2.5	8	1	1	9.631	342.79	17.14	C



<b>tnxTower</b>  <b>Centerline Engineering Services, PA</b> 750 W Center St. Suite 301 West Bridgewater, MA 02379 Phone: 781-713-4725 FAX: 781-713-4725	<b>Job</b> Danielson 2 CT	<b>Page</b> 24 of 50
	<b>Project</b> 17123687	<b>Date</b> 18:14:41 10/13/23
	<b>Client</b> Verizon	<b>Designed by</b> edagtekin

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	plf	
140.00-120.00		TA 313.06	B	0.23	2.5		1	1	9.631			
			C	0.23	2.5		1	1	9.631			
T5	708.40	417.12	A	0.23	2.5	8	1	1	9.631	326.81	16.34	C
120.00-100.00			B	0.23	2.5		1	1	9.631			
			C	0.23	2.5		1	1	9.631			
T6	708.40	472.57	A	0.244	2.454	7	1	1	10.760	323.12	16.16	C
100.00-80.00			B	0.244	2.454		1	1	10.760			
			C	0.244	2.454		1	1	10.760			
T7	708.40	499.34	A	0.23	2.5	7	1	1	9.631	287.22	14.36	C
80.00-60.00			B	0.23	2.5		1	1	9.631			
			C	0.23	2.5		1	1	9.631			
T8	708.40	511.40	A	0.21	2.564	6	1	1	9.279	259.39	12.97	C
60.00-40.00			B	0.21	2.564		1	1	9.279			
			C	0.21	2.564		1	1	9.279			
T9	708.40	455.94	A	0.195	2.613	5	1	1	8.183	213.16	10.66	C
40.00-20.00			B	0.195	2.613		1	1	8.183			
			C	0.195	2.613		1	1	8.183			
T10	448.74	349.71	A	0.198	2.603	5	1	1	6.306	146.58	9.65	C
20.00-4.82			B	0.198	2.603		1	1	6.306			
			C	0.198	2.603		1	1	6.306			
T11 4.82-0.00	0.00	215.84	A	0.82	1.832	5	1	1	7.374	61.49	12.76	C
			B	0.82	1.832		1	1	7.374			
			C	0.82	1.832		1	1	7.374			
Sum Weight:	5662.54	5158.79								2668.03		

### Tower Forces - Service - Wind 60 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	plf	
T1	280.90	574.21	A	0.273	2.37	9	0.8	1	9.102	229.94	15.33	C
190.00-175.00			B	0.273	2.37		0.8	1	9.102			
			C	0.273	2.37		0.8	1	9.102			
T2	292.50	515.36	A	0.251	2.433	9	0.8	1	8.071	213.10	14.21	C
175.00-160.00			B	0.251	2.433		0.8	1	8.071			
			C	0.251	2.433		0.8	1	8.071			
T3	390.00	417.12	A	0.23	2.5	8	0.8	1	9.631	260.13	13.01	C
160.00-140.00			B	0.23	2.5		0.8	1	9.631			
			C	0.23	2.5		0.8	1	9.631			
T4	708.40	417.12	A	0.23	2.5	8	0.8	1	9.631	342.79	17.14	C
140.00-120.00		TA 313.06	B	0.23	2.5		0.8	1	9.631			
			C	0.23	2.5		0.8	1	9.631			
T5	708.40	417.12	A	0.23	2.5	8	0.8	1	9.631	326.81	16.34	C
120.00-100.00			B	0.23	2.5		0.8	1	9.631			
			C	0.23	2.5		0.8	1	9.631			
T6	708.40	472.57	A	0.244	2.454	7	0.8	1	10.546	319.84	15.99	C
100.00-80.00			B	0.244	2.454		0.8	1	10.546			
			C	0.244	2.454		0.8	1	10.546			
T7	708.40	499.34	A	0.23	2.5	7	0.8	1	9.631	287.22	14.36	C
80.00-60.00			B	0.23	2.5		0.8	1	9.631			
			C	0.23	2.5		0.8	1	9.631			
T8	708.40	511.40	A	0.21	2.564	6	0.8	1	9.067	256.52	12.83	C
60.00-40.00			B	0.21	2.564		0.8	1	9.067			

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Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	pif	
T9 40.00-20.00	708.40	455.94	C	0.21	2.564	5	0.8	1	9.067	213.16	10.66	C
			A	0.195	2.613		0.8	1	8.183			
			B	0.195	2.613		0.8	1	8.183			
T10 20.00-4.82	448.74	349.71	C	0.195	2.613	5	0.8	1	6.306	146.58	9.65	C
			A	0.198	2.603		0.8	1	6.306			
			B	0.198	2.603		0.8	1	6.306			
T11 4.82-0.00	0.00	215.84	C	0.198	2.603	5	0.8	1	6.306	52.29	10.85	C
			A	0.82	1.832		0.8	1	6.271			
			B	0.82	1.832		0.8	1	6.271			
Sum Weight:	5662.54	5158.79								2648.38		

### Tower Forces - Service - Wind 90 To Face

Section Elevation	Add Weight	Self Weight	F a c e	e	C <sub>F</sub>	q <sub>z</sub>	D <sub>F</sub>	D <sub>R</sub>	A <sub>E</sub>	F	w	Ctrl. Face
ft	lb	lb				psf			ft <sup>2</sup>	lb	pif	
T1 190.00-175.00	280.90	574.21	A	0.273	2.37	9	0.85	1	9.162	231.02	15.40	C
			B	0.273	2.37		0.85	1	9.162			
			C	0.273	2.37		0.85	1	9.162			
T2 175.00-160.00	292.50	515.36	A	0.251	2.433	9	0.85	1	8.071	213.10	14.21	C
			B	0.251	2.433		0.85	1	8.071			
			C	0.251	2.433		0.85	1	8.071			
T3 160.00-140.00	390.00	417.12	A	0.23	2.5	8	0.85	1	9.631	260.13	13.01	C
			B	0.23	2.5		0.85	1	9.631			
			C	0.23	2.5		0.85	1	9.631			
T4 140.00-120.00	708.40	417.12	A	0.23	2.5	8	0.85	1	9.631	342.79	17.14	C
			B	0.23	2.5		0.85	1	9.631			
			C	0.23	2.5		0.85	1	9.631			
T5 120.00-100.00	708.40	417.12	A	0.23	2.5	8	0.85	1	9.631	326.81	16.34	C
			B	0.23	2.5		0.85	1	9.631			
			C	0.23	2.5		0.85	1	9.631			
T6 100.00-80.00	708.40	472.57	A	0.244	2.454	7	0.85	1	10.599	320.66	16.03	C
			B	0.244	2.454		0.85	1	10.599			
			C	0.244	2.454		0.85	1	10.599			
T7 80.00-60.00	708.40	499.34	A	0.23	2.5	7	0.85	1	9.631	287.22	14.36	C
			B	0.23	2.5		0.85	1	9.631			
			C	0.23	2.5		0.85	1	9.631			
T8 60.00-40.00	708.40	511.40	A	0.21	2.564	6	0.85	1	9.120	257.24	12.86	C
			B	0.21	2.564		0.85	1	9.120			
			C	0.21	2.564		0.85	1	9.120			
T9 40.00-20.00	708.40	455.94	A	0.195	2.613	5	0.85	1	8.183	213.16	10.66	C
			B	0.195	2.613		0.85	1	8.183			
			C	0.195	2.613		0.85	1	8.183			
T10 20.00-4.82	448.74	349.71	A	0.198	2.603	5	0.85	1	6.306	146.58	9.65	C
			B	0.198	2.603		0.85	1	6.306			
			C	0.198	2.603		0.85	1	6.306			
T11 4.82-0.00	0.00	215.84	A	0.82	1.832	5	0.85	1	6.547	54.59	11.33	C
			B	0.82	1.832		0.85	1	6.547			
			C	0.82	1.832		0.85	1	6.547			
Sum Weight:	5662.54	5158.79								2653.29		

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**Force Totals (Does not include forces on guys)**

Load Case	Vertical Forces lb	Sum of Forces X lb	Sum of Forces Z lb	Sum of Torques lb-ft
Leg Weight	2907.73			
Bracing Weight	2251.06			
Total Member Self-Weight	5158.79			
Guy Weight	1134.06			
Total Weight	18338.40			
Wind 0 deg - No Ice		0.00	-17039.56	1199.77
Wind 30 deg - No Ice		8489.38	-14704.05	1655.38
Wind 60 deg - No Ice		14686.50	-8479.25	1667.44
Wind 90 deg - No Ice		16978.77	0.00	1232.70
Wind 120 deg - No Ice		14756.69	8519.78	467.67
Wind 150 deg - No Ice		8489.38	14704.05	-422.68
Wind 180 deg - No Ice		0.00	16958.51	-1199.77
Wind 210 deg - No Ice		-8489.38	14704.05	-1655.38
Wind 240 deg - No Ice		-14756.69	8519.78	-1667.44
Wind 270 deg - No Ice		-16978.77	0.00	-1232.70
Wind 300 deg - No Ice		-14686.50	-8479.25	-467.67
Wind 330 deg - No Ice		-8489.38	-14704.05	422.68
Member Ice	7934.83			
Guy Ice	3413.91			
Total Weight Ice	38256.15			
Wind 0 deg - Ice		0.00	-4189.14	265.63
Wind 30 deg - Ice		2090.02	-3620.01	423.36
Wind 60 deg - Ice		3617.38	-2088.50	467.65
Wind 90 deg - Ice		4180.03	0.00	386.64
Wind 120 deg - Ice		3627.91	2094.57	202.03
Wind 150 deg - Ice		2090.02	3620.01	-36.72
Wind 180 deg - Ice		0.00	4176.99	-265.63
Wind 210 deg - Ice		-2090.02	3620.01	-423.36
Wind 240 deg - Ice		-3627.91	2094.57	-467.65
Wind 270 deg - Ice		-4180.03	0.00	-386.64
Wind 300 deg - Ice		-3617.38	-2088.50	-202.03
Wind 330 deg - Ice		-2090.02	-3620.01	36.72
Total Weight	18338.40			
Wind 0 deg - Service		0.00	-4132.54	290.98
Wind 30 deg - Service		2058.90	-3566.12	401.47
Wind 60 deg - Service		3561.86	-2056.44	404.40
Wind 90 deg - Service		4117.80	0.00	298.96
Wind 120 deg - Service		3578.89	2066.27	113.42
Wind 150 deg - Service		2058.90	3566.12	-102.51
Wind 180 deg - Service		0.00	4112.88	-290.98
Wind 210 deg - Service		-2058.90	3566.12	-401.47
Wind 240 deg - Service		-3578.89	2066.27	-404.40
Wind 270 deg - Service		-4117.80	0.00	-298.96
Wind 300 deg - Service		-3561.86	-2056.44	-113.42
Wind 330 deg - Service		-2058.90	-3566.12	102.51

**Load Combinations**

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Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice+1.0 Guy
3	1.2 Dead+1.0 Wind 30 deg - No Ice+1.0 Guy
4	1.2 Dead+1.0 Wind 60 deg - No Ice+1.0 Guy
5	1.2 Dead+1.0 Wind 90 deg - No Ice+1.0 Guy
6	1.2 Dead+1.0 Wind 120 deg - No Ice+1.0 Guy
7	1.2 Dead+1.0 Wind 150 deg - No Ice+1.0 Guy
8	1.2 Dead+1.0 Wind 180 deg - No Ice+1.0 Guy
9	1.2 Dead+1.0 Wind 210 deg - No Ice+1.0 Guy
10	1.2 Dead+1.0 Wind 240 deg - No Ice+1.0 Guy
11	1.2 Dead+1.0 Wind 270 deg - No Ice+1.0 Guy
12	1.2 Dead+1.0 Wind 300 deg - No Ice+1.0 Guy
13	1.2 Dead+1.0 Wind 330 deg - No Ice+1.0 Guy
14	1.2 Dead+1.0 Ice+1.0 Temp+Guy
15	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy
16	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy
17	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy
18	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy
19	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy
20	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy
21	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy
22	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy
23	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy
24	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy
25	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy
26	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy
27	Dead+Wind 0 deg - Service+Guy
28	Dead+Wind 30 deg - Service+Guy
29	Dead+Wind 60 deg - Service+Guy
30	Dead+Wind 90 deg - Service+Guy
31	Dead+Wind 120 deg - Service+Guy
32	Dead+Wind 150 deg - Service+Guy
33	Dead+Wind 180 deg - Service+Guy
34	Dead+Wind 210 deg - Service+Guy
35	Dead+Wind 240 deg - Service+Guy
36	Dead+Wind 270 deg - Service+Guy
37	Dead+Wind 300 deg - Service+Guy
38	Dead+Wind 330 deg - Service+Guy

### Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T1	190 - 175	Leg	Max Tension	14	0.00	-0.00	0.00
			Max. Compression	4	-13579.13	-26.42	12.88
			Max. Mx	5	-1862.31	335.37	-16.99
			Max. My	8	-3124.00	-15.33	336.45
			Max. Vy	5	-804.21	-1.25	-0.23
			Max. Vx	2	789.71	-0.12	1.61
		Diagonal	Max Tension	12	535.65	0.00	0.00
			Max. Compression	7	-572.91	0.00	0.00
			Max. Mx	21	-35.16	7.41	0.00
			Max. My	10	-58.22	0.00	0.01
			Max. Vy	21	-7.12	0.00	0.00
			Max. Vx	10	0.01	0.00	0.00
		Top Girt	Max Tension	6	727.03	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	14	239.85	7.61	0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. My	9	381.34	0.00	-0.00
			Max. Vy	14	-8.91	0.00	0.00
			Max. Vx	9	0.00	0.00	0.00
		Bottom Girt	Max Tension	3	80.23	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	14	63.51	7.61	0.00
			Max. My	9	80.07	0.00	-0.00
			Max. Vy	14	-8.91	0.00	0.00
			Max. Vx	9	0.00	0.00	0.00
		Guy A	Bottom Tension	7	11688.38		
			Top Tension	7	11813.61		
			Top Cable Vert	7	10645.33		
			Top Cable Norm	7	5122.29		
			Top Cable Tan	7	23.49		
			Bot Cable Vert	7	-10405.93		
			Bot Cable Norm	7	5321.72		
			Bot Cable Tan	7	119.43		
		Guy B	Bottom Tension	13	11667.26		
			Top Tension	13	11792.49		
			Top Cable Vert	13	10626.46		
			Top Cable Norm	13	5112.79		
			Top Cable Tan	13	23.74		
			Bot Cable Vert	13	-10387.06		
			Bot Cable Norm	13	5312.22		
			Bot Cable Tan	13	119.18		
		Guy C	Bottom Tension	3	11688.92		
			Top Tension	3	11814.16		
			Top Cable Vert	3	10645.82		
			Top Cable Norm	3	5122.52		
			Top Cable Tan	3	24.37		
			Bot Cable Vert	3	-10406.43		
			Bot Cable Norm	3	5321.95		
			Bot Cable Tan	3	118.55		
		Top Guy Pull-Off	Max Tension	6	2358.23	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	14	777.98	19.99	0.00
			Max. My	9	1236.95	0.00	-0.00
			Max. Vy	14	-23.40	0.00	0.00
			Max. Vx	9	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	4	-13272.48	-6.19	-9.19
			Max. Mx	11	-10163.53	-269.44	-47.66
			Max. My	8	-9779.98	13.97	281.36
			Max. Vy	11	-501.84	-165.02	21.86
			Max. Vx	2	-564.45	-11.84	-182.29
		Diagonal	Max Tension	13	591.91	0.00	0.00
			Max. Compression	13	-742.33	0.00	0.00
			Max. Mx	21	78.90	7.34	0.00
			Max. My	10	-35.53	0.00	0.01
			Max. Vy	21	-7.06	0.00	0.00
			Max. Vx	10	-0.01	0.00	0.00
		Top Girt	Max Tension	2	183.87	0.00	0.00
			Max. Compression	12	-32.70	0.00	0.00
			Max. Mx	14	65.24	7.56	0.00
			Max. My	9	68.70	0.00	-0.00
			Max. Vy	14	-8.85	0.00	0.00
			Max. Vx	9	0.00	0.00	0.00
		Bottom Girt	Max Tension	12	205.65	0.00	0.00
			Max. Compression	10	-81.68	0.00	0.00
			Max. Mx	14	69.11	7.56	0.00
			Max. My	9	84.87	0.00	-0.00

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft	
T3	160 - 140	Leg	Max. Vy	14	-8.85	0.00	0.00	
			Max. Vx	9	0.00	0.00	0.00	
			Max Tension	4	2902.73	679.22	-385.95	
			Max. Compression	2	-20371.55	-15.56	-557.68	
			Max. Mx	11	-169.08	-726.54	-120.70	
			Max. My	8	1470.20	20.64	781.66	
			Max. Vy	10	-1457.92	-484.91	275.97	
			Max. Vx	2	-1675.44	-15.56	-557.68	
			Diagonal	Max Tension	13	1353.94	0.00	0.00
				Max. Compression	13	-1562.54	0.00	0.00
				Max. Mx	21	207.69	7.29	0.00
				Max. My	10	-69.44	0.00	0.01
		Max. Vy		21	-6.98	0.00	0.00	
		Max. Vx		10	-0.01	0.00	0.00	
		Top Girt	Max Tension	2	272.02	0.00	0.00	
			Max. Compression	12	-89.72	0.00	0.00	
			Max. Mx	14	86.05	5.95	0.00	
			Max. My	9	90.50	0.00	-0.00	
			Max. Vy	14	-6.97	0.00	0.00	
			Max. Vx	9	0.00	0.00	0.00	
		Bottom Girt	Max Tension	6	214.66	0.00	0.00	
			Max. Compression	8	-83.52	0.00	0.00	
			Max. Mx	14	88.48	5.95	0.00	
			Max. My	9	130.99	0.00	-0.00	
Max. Vy	14		-6.97	0.00	0.00			
Max. Vx	9		0.00	0.00	0.00			
T4	140 - 120	Leg	Max Tension	4	5313.83	-778.69	443.83	
			Max. Compression	6	-27070.65	-211.37	-123.91	
			Max. Mx	10	-25041.76	877.88	-501.35	
			Max. My	2	-21549.41	22.05	1011.03	
			Max. Vy	10	-2219.22	877.87	-501.36	
			Max. Vx	2	-2554.21	22.05	1011.03	
		Diagonal	Max Tension	9	3251.55	0.00	0.00	
			Max. Compression	9	-3277.73	0.00	0.00	
			Max. Mx	17	-377.84	7.18	0.00	
			Max. My	10	-2429.28	0.00	0.01	
			Max. Vy	17	-6.87	0.00	0.00	
			Max. Vx	10	-0.01	0.00	0.00	
		Top Girt	Max Tension	10	1687.14	0.00	0.00	
			Max. Compression	8	-1599.05	0.00	0.00	
			Max. Mx	14	75.29	5.87	0.00	
			Max. My	10	-779.60	0.00	0.00	
			Max. Vy	14	-6.87	0.00	0.00	
			Max. Vx	10	0.00	0.00	0.00	
		Bottom Girt	Max Tension	6	268.27	0.00	0.00	
			Max. Compression	1	0.00	0.00	0.00	
			Max. Mx	14	199.55	5.87	0.00	
			Max. My	10	201.09	0.00	0.00	
			Max. Vy	14	-6.87	0.00	0.00	
			Max. Vx	10	0.00	0.00	0.00	
		Guy A	Bottom Tension	9	8673.66			
			Top Tension	9	8743.67			
			Top Cable Vert	9	7265.82			
			Top Cable Norm	9	4864.07			
			Top Cable Tan	9	19.65			
			Bot Cable Vert	9	-7112.17			
			Bot Cable Norm	9	4964.30			
			Bot Cable Tan	9	72.28			
			Guy B	Bottom Tension	13	8494.41		
				Top Tension	13	8564.43		
				Top Cable Vert	13	7118.22		



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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft		
T5	120 - 100	Guy C	Top Cable Norm	13	4762.35				
			Top Cable Tan	13	19.81				
			Bot Cable Vert	13	-6964.57				
			Bot Cable Norm	13	4862.58				
			Bot Cable Tan	13	72.12				
			Bottom Tension	3	8668.16				
			Top Tension	3	8738.17				
			Top Cable Vert	3	7261.30				
			Top Cable Norm	3	4860.94				
			Top Cable Tan	3	19.69				
			Bot Cable Vert	3	-7107.64				
			Bot Cable Norm	3	4961.17				
			Bot Cable Tan	3	72.23				
			Max Tension	5	5220.98	0.00	0.00		
			Max. Compression	5	-2452.71	0.00	0.00		
		Max. Mx	5	113.09	-24521.49	-0.00			
		Max. My	10	-1999.92	-20483.24	-0.00			
		Max. Vy	5	7211.83	-24521.49	-0.00			
		Max. Vx	10	-0.00	-20483.24	-0.00			
		Torque Arm Top	Leg	Max Tension	1	0.00	0.00	0.00	
				Max. Compression	6	-22976.64	1.12	14.11	
				Max. Mx	11	-15935.03	-162.47	-74.17	
				Max. My	8	-13730.58	-14.17	181.53	
				Max. Vy	11	-321.22	-78.99	63.46	
				Max. Vx	8	363.09	-9.84	139.96	
				Diagonal	Max Tension	3	477.22	0.00	0.00
					Max. Compression	3	-727.33	0.00	0.00
					Max. Mx	21	184.87	7.06	0.00
					Max. My	10	62.68	0.00	0.01
					Max. Vy	21	-6.76	0.00	0.00
					Max. Vx	10	-0.01	0.00	0.00
				Top Girt	Max Tension	9	270.43	0.00	0.00
					Max. Compression	1	0.00	0.00	0.00
Max. Mx	14				199.63	5.77	0.00		
Max. My	10				256.65	0.00	-0.00		
Max. Vy	14				-6.75	0.00	0.00		
Max. Vx	10				0.00	0.00	0.00		
Bottom Girt	Max Tension	11	340.91	0.00	0.00				
	Max. Compression	1	0.00	0.00	0.00				
	Max. Mx	14	217.54	5.77	0.00				
	Max. My	10	314.60	0.00	-0.00				
	Max. Vy	14	-6.75	0.00	0.00				
	Max. Vx	10	0.00	0.00	0.00				
T6	100 - 80	Leg	Max Tension	1	0.00	0.00	0.00		
			Max. Compression	6	-28128.42	34.57	17.90		
			Max. Mx	6	-22981.49	-168.11	-116.18		
			Max. My	2	-22947.57	-11.69	206.09		
			Max. Vy	5	-342.36	-68.62	-18.55		
			Max. Vx	8	369.07	13.53	-85.92		
		Diagonal	Max Tension	5	883.65	0.00	0.00		
			Max. Compression	10	-1004.78	0.00	0.00		
			Max. Mx	21	305.27	6.92	0.00		
			Max. My	10	-362.31	0.00	0.01		
			Max. Vy	21	-6.62	0.00	0.00		
			Max. Vx	10	-0.01	0.00	0.00		
		Top Girt	Max Tension	2	345.30	0.00	0.00		
			Max. Compression	1	0.00	0.00	0.00		
			Max. Mx	14	231.94	5.65	0.00		
Max. My	10		205.03	0.00	0.00				
Max. Vy	14		-6.62	0.00	0.00				
Max. Vx	10		0.00	0.00	0.00				

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft	
T7	80 - 60	Bottom Girt	Max Tension	6	423.57	0.00	0.00	
			Max. Compression	1	0.00	0.00	0.00	
			Max. Mx	14	340.50	5.65	0.00	
			Max. My	10	347.33	0.00	-0.00	
			Max. Vy	14	-6.62	0.00	0.00	
			Max. Vx	10	0.00	0.00	0.00	
		Guy A	Bottom Tension	7	5901.90			
			Top Tension	7	5936.44			
			Top Cable Vert	7	4753.52			
			Top Cable Norm	7	3556.01			
			Top Cable Tan	7	8.28			
			Bot Cable Vert	7	-4674.33			
			Bot Cable Norm	7	3603.03			
			Bot Cable Tan	7	34.39			
		Guy B	Bottom Tension	11	5904.42			
			Top Tension	11	5938.96			
			Top Cable Vert	11	4755.53			
			Top Cable Norm	11	3557.54			
			Top Cable Tan	11	7.91			
			Bot Cable Vert	11	-4676.33			
		Guy C	Bottom Tension	11	3604.56			
			Bot Cable Norm	11	34.76			
			Bot Cable Tan	11	34.76			
			Bottom Tension	5	5901.30			
			Top Tension	5	5935.83			
			Top Cable Vert	5	4753.04			
		Top Guy Pull-Off	Top Cable Norm	5	3555.64			
			Top Cable Tan	5	7.94			
			Bot Cable Vert	5	-4673.85			
			Bot Cable Norm	5	3602.67			
			Bot Cable Tan	5	34.73			
			Max Tension	10	2317.82	0.00	0.00	
			Max. Compression	1	0.00	0.00	0.00	
			Max. Mx	14	1495.03	18.25	0.00	
			Max. My	10	1688.92	0.00	0.00	
			Max. Vy	14	-21.37	0.00	0.00	
		Leg	Max. Vx	10	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	6	-26552.91	23.57	0.66	
			Max. Mx	5	-18598.64	178.89	-40.45	
			Max. My	8	-16254.93	7.62	184.46	
			Max. Vy	5	-340.63	-29.43	-22.06	
			Max. Vx	8	-350.27	-4.59	-29.94	
			Diagonal	Max Tension	5	361.55	0.00	0.00
				Max. Compression	5	-600.89	0.00	0.00
Max. Mx	20			169.33	6.75	0.00		
Max. My	10			-262.36	0.00	0.01		
Max. Vy	20			-6.46	0.00	0.00		
Top Girt	Max. Vx		10	-0.01	0.00	0.00		
	Max Tension		9	335.65	0.00	0.00		
	Max. Compression		1	0.00	0.00	0.00		
	Max. Mx	14	233.81	5.51	0.00			
	Max. My	10	312.31	0.00	-0.00			
Bottom Girt	Max. Vy	14	-6.45	0.00	0.00			
	Max. Vx	10	0.00	0.00	0.00			
	Max Tension	10	291.83	0.00	0.00			
	Max. Compression	1	0.00	0.00	0.00			
	Max. Mx	14	203.49	5.51	0.00			
Leg	Max. My	10	221.42	0.00	-0.00			
	Max. Vy	14	-6.45	0.00	0.00			
	Max. Vx	10	0.00	0.00	0.00			
	Max Tension	1	0.00	0.00	0.00			
	Max. Vy	14	-6.45	0.00	0.00			

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Compression	6	-30225.44	-158.59	-265.87
			Max. Mx	10	-30123.77	309.08	4.20
			Max. My	2	-29087.30	-46.74	328.49
			Max. Vy	5	-538.40	-271.32	-152.19
			Max. Vx	2	557.93	-46.72	328.49
		Diagonal	Max Tension	9	1023.57	0.00	0.00
			Max. Compression	3	-1305.39	0.00	0.00
			Max. Mx	22	200.89	6.53	0.00
			Max. My	10	-13.83	0.00	0.01
			Max. Vy	22	-6.25	0.00	0.00
			Max. Vx	10	-0.01	0.00	0.00
		Top Girt	Max Tension	4	214.21	0.00	0.00
			Max. Compression	10	-117.65	0.00	0.00
			Max. Mx	19	77.23	5.33	0.00
			Max. My	10	-117.65	0.00	-0.00
			Max. Vy	19	6.25	0.00	0.00
			Max. Vx	10	0.00	0.00	0.00
		Bottom Girt	Max Tension	3	536.29	0.00	0.00
			Max. Compression	9	-271.51	0.00	0.00
			Max. Mx	19	160.04	5.33	0.00
			Max. My	10	-259.12	0.00	-0.00
			Max. Vy	19	6.25	0.00	0.00
			Max. Vx	10	0.00	0.00	0.00
		Guy A	Bottom Tension	9	3792.27		
			Top Tension	9	3804.46		
			Top Cable Vert	9	2152.50		
			Top Cable Norm	9	3136.98		
			Top Cable Tan	9	5.53		
			Bot Cable Vert	9	-2114.93		
			Bot Cable Norm	9	3147.72		
			Bot Cable Tan	9	14.07		
		Guy B	Bottom Tension	11	3798.01		
			Top Tension	11	3810.20		
			Top Cable Vert	11	2155.72		
			Top Cable Norm	11	3141.73		
			Top Cable Tan	11	4.56		
			Bot Cable Vert	11	-2118.15		
			Bot Cable Norm	11	3152.47		
			Bot Cable Tan	11	15.04		
		Guy C	Bottom Tension	5	3792.38		
			Top Tension	5	3804.57		
			Top Cable Vert	5	2152.56		
			Top Cable Norm	5	3137.07		
			Top Cable Tan	5	4.62		
			Bot Cable Vert	5	-2114.99		
			Bot Cable Norm	5	3147.82		
			Bot Cable Tan	5	14.98		
		Top Guy Pull-Off	Max Tension	3	1936.77	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	14	1179.96	17.67	0.00
			Max. My	10	1596.89	0.00	-0.00
			Max. Vy	14	-20.69	0.00	0.00
			Max. Vx	10	0.00	0.00	0.00
			Max. Tension	1	0.00	0.00	0.00
			Max. Compression	6	-28718.23	120.99	-40.53
			Max. Mx	10	-28682.01	253.76	-92.95
			Max. My	2	-28653.62	-53.84	264.59
			Max. Vy	5	-541.34	-209.68	-139.98
			Max. Vx	2	563.18	-53.84	264.59
		Diagonal	Max Tension	3	952.38	0.00	0.00
			Max. Compression	9	-1127.37	0.00	0.00
T9	40 - 20	Leg					

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
T10	20 - 4.81771	Top Girt	Max. Mx	24	-84.50	6.22	0.00
			Max. My	10	59.96	0.00	0.01
			Max. Vy	24	5.95	0.00	0.00
			Max. Vx	10	-0.01	0.00	0.00
			Max Tension	10	412.64	0.00	0.00
			Max. Compression	3	-308.63	0.00	0.00
			Max. Mx	19	24.42	5.08	0.00
			Max. My	10	412.62	0.00	-0.00
			Max. Vy	19	-5.95	0.00	0.00
			Max. Vx	10	0.00	0.00	0.00
			Max Tension	3	178.99	0.00	0.00
			Max. Compression	10	-85.31	0.00	0.00
		Bottom Girt	Max. Mx	25	51.01	5.08	0.00
			Max. My	10	-85.31	0.00	-0.00
			Max. Vy	25	-5.95	0.00	0.00
			Max. Vx	10	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	10	-25994.62	-59.66	80.17
			Max. Mx	4	-20063.92	-176.11	102.69
			Max. My	4	-20291.77	-38.07	-202.30
			Max. Vy	10	-1140.58	71.00	135.78
			Max. Vx	9	1196.70	90.82	-123.88
			Max Tension	11	439.22	0.00	0.00
			Max. Compression	4	-616.25	0.00	0.00
		Diagonal	Max. Mx	24	121.68	5.74	0.00
			Max. My	10	135.11	0.00	0.01
			Max. Vy	24	-5.49	0.00	0.00
			Max. Vx	10	-0.01	0.00	0.00
			Max Tension	10	194.53	0.00	0.00
			Max. Compression	3	-31.29	0.00	0.00
Max. Mx	25		76.39	4.69	0.00		
Max. My	10		194.51	0.00	-0.00		
Max. Vy	25		-5.49	0.00	0.00		
Max. Vx	10		0.00	0.00	0.00		
Max Tension	2		592.20	0.00	0.00		
Max. Compression	1		0.00	0.00	0.00		
Top Girt	Max. Mx	19	554.84	4.69	0.00		
	Max. My	10	530.63	0.00	-0.00		
	Max. Vy	19	-5.49	0.00	0.00		
	Max. Vx	10	0.00	0.00	0.00		
	Max Tension	1	0.00	0.00	0.00		
	Max. Compression	10	-27937.13	-49.00	68.96		
	Max. Mx	10	-27872.18	79.14	123.98		
	Max. My	10	-26667.64	-46.14	-217.78		
	Max. Vy	9	40.08	76.60	132.89		
	Max. Vx	10	93.51	77.38	144.47		
	Max Tension	2	5646.22	-40.96	-0.71		
	Max. Compression	1	0.00	0.00	0.00		
Bottom Girt	Max. Mx	3	5174.46	-92.16	1.70		
	Max. My	10	5468.16	-16.74	-8.52		
	Max. Vy	23	62.50	-54.56	-7.03		
	Max. Vx	23	9.28	-54.56	-7.03		
	Max Tension	23	25.05	0.00	0.00		
	Max. Compression	1	0.00	0.00	0.00		
	Max. Mx	23	25.05	8.02	0.00		
	Max. My	23	24.31	0.00	1.64		
	Max. Vy	23	18.77	0.00	0.00		
	Max. Vx	23	3.84	0.00	0.00		

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### Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb	
Mast	Max. Vert	6	76415.94	-222.26	-123.52	
	Max. H <sub>x</sub>	12	62651.67	455.99	267.96	
	Max. H <sub>z</sub>	2	76361.36	3.65	271.86	
	Max. M <sub>x</sub>	1	0.00	4.14	6.55	
	Max. M <sub>z</sub>	1	0.00	4.14	6.55	
	Max. Torsion	10	381.17	231.49	-125.84	
	Min. Vert	1	48511.12	4.14	6.55	
	Min. H <sub>x</sub>	4	62672.65	-446.60	266.61	
	Min. H <sub>z</sub>	8	62674.24	2.88	-512.47	
	Min. M <sub>x</sub>	1	0.00	4.14	6.55	
	Min. M <sub>z</sub>	1	0.00	4.14	6.55	
	Min. Torsion	4	-431.10	-446.60	266.61	
	Guy C @ 95 ft Elev 0 ft Azimuth 240 deg	Max. Vert	10	-1236.81	-439.30	253.83
		Max. H <sub>x</sub>	10	-1236.81	-439.30	253.83
Max. H <sub>z</sub>		3	-24254.74	-12860.41	7707.43	
Min. Vert		5	-24264.51	-13116.85	7277.22	
Min. H <sub>x</sub>		5	-24264.51	-13116.85	7277.22	
Min. H <sub>z</sub>		10	-1236.81	-439.30	253.83	
Guy B @ 95 ft Elev 0 ft Azimuth 120 deg	Max. Vert	6	-1235.22	438.61	253.28	
	Max. H <sub>x</sub>	11	-24234.09	13101.94	7268.92	
	Max. H <sub>z</sub>	13	-24232.71	12846.16	7709.09	
	Min. Vert	11	-24234.09	13101.94	7268.92	
	Min. H <sub>x</sub>	6	-1235.22	438.61	253.28	
	Min. H <sub>z</sub>	6	-1235.22	438.61	253.28	
Guy A @ 95 ft Elev 0 ft Azimuth 0 deg	Max. Vert	2	-1237.04	0.13	-507.52	
	Max. H <sub>x</sub>	11	-13008.68	417.72	-7900.50	
	Max. H <sub>z</sub>	2	-1237.04	0.13	-507.52	
	Min. Vert	7	-24269.58	-253.62	-15001.54	
	Min. H <sub>x</sub>	5	-13022.37	-417.95	-7908.24	
	Min. H <sub>z</sub>	7	-24269.58	-253.62	-15001.54	
Guy C @ 68 ft Elev 0 ft Azimuth 240 deg	Max. Vert	10	-139.41	-71.17	41.11	
	Max. H <sub>x</sub>	10	-139.41	-71.17	41.11	
	Max. H <sub>z</sub>	3	-6777.70	-5814.47	3412.20	
	Min. Vert	5	-6788.84	-5870.94	3332.19	
	Min. H <sub>x</sub>	5	-6788.84	-5870.94	3332.19	
	Min. H <sub>z</sub>	10	-139.41	-71.17	41.11	
Guy B @ 68 ft Elev 0 ft Azimuth 120 deg	Max. Vert	6	-139.46	71.21	41.12	
	Max. H <sub>x</sub>	11	-6794.48	5876.66	3335.40	
	Max. H <sub>z</sub>	13	-6788.88	5822.60	3418.26	
	Min. Vert	11	-6794.48	5876.66	3335.40	
	Min. H <sub>x</sub>	6	-139.46	71.21	41.12	
	Min. H <sub>z</sub>	6	-139.46	71.21	41.12	
Guy A @ 68 ft Elev 0 ft Azimuth 0 deg	Max. Vert	2	-139.55	0.01	-82.30	
	Max. H <sub>x</sub>	11	-3556.52	91.35	-3534.34	

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Location	Condition	Gov. Load Comb.	Vertical lb	Horizontal, X lb	Horizontal, Z lb
	Max. H <sub>z</sub>	2	-139.55	0.01	-82.30
	Min. Vert	7	-6789.14	-49.04	-6750.58
	Min. H <sub>x</sub>	5	-3554.13	-91.35	-3532.02
	Min. H <sub>z</sub>	7	-6789.14	-49.04	-6750.58

### Tower Mast Reaction Summary

Load Combination	Vertical lb	Shear <sub>x</sub> lb	Shear <sub>z</sub> lb	Overturning Moment, M <sub>x</sub> lb-ft	Overturning Moment, M <sub>z</sub> lb-ft	Torque lb-ft
Dead Only	48511.12	-4.14	-6.55	0.00	0.00	3.51
1.2 Dead+1.0 Wind 0 deg - No Ice+1.0 Guy	76361.36	-3.65	-271.86	0.00	0.00	239.01
1.2 Dead+1.0 Wind 30 deg - No Ice+1.0 Guy	71366.04	282.45	-256.27	0.00	0.00	375.71
1.2 Dead+1.0 Wind 60 deg - No Ice+1.0 Guy	62672.65	446.60	-266.61	0.00	0.00	431.10
1.2 Dead+1.0 Wind 90 deg - No Ice+1.0 Guy	71415.64	351.41	-130.54	0.00	0.00	315.99
1.2 Dead+1.0 Wind 120 deg - No Ice+1.0 Guy	76415.94	222.26	123.52	0.00	0.00	159.04
1.2 Dead+1.0 Wind 150 deg - No Ice+1.0 Guy	71415.55	66.98	362.39	0.00	0.00	-36.26
1.2 Dead+1.0 Wind 180 deg - No Ice+1.0 Guy	62674.24	-2.88	512.47	0.00	0.00	-258.32
1.2 Dead+1.0 Wind 210 deg - No Ice+1.0 Guy	71383.49	-75.22	365.26	0.00	0.00	-365.45
1.2 Dead+1.0 Wind 240 deg - No Ice+1.0 Guy	76380.37	-231.49	125.84	0.00	0.00	-381.17
1.2 Dead+1.0 Wind 270 deg - No Ice+1.0 Guy	71381.71	-361.70	-129.69	0.00	0.00	-306.04
1.2 Dead+1.0 Wind 300 deg - No Ice+1.0 Guy	62651.67	-455.99	-267.96	0.00	0.00	-159.28
1.2 Dead+1.0 Wind 330 deg - No Ice+1.0 Guy	71364.25	-290.24	-256.55	0.00	0.00	47.44
1.2 Dead+1.0 Ice+1.0 Temp+Guy	74759.54	-7.16	-13.15	0.00	0.00	6.02
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp+1.0 Guy	75470.95	-7.24	-167.52	0.00	0.00	57.93
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp+1.0 Guy	75716.12	53.47	-138.54	0.00	0.00	111.96
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp+1.0 Guy	75942.24	102.41	-76.32	0.00	0.00	113.08
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp+1.0 Guy	75709.94	131.73	-2.95	0.00	0.00	84.58
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp+1.0 Guy	75461.17	126.43	63.94	0.00	0.00	59.94
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp+1.0 Guy	75712.37	71.14	102.01	0.00	0.00	21.31
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp+1.0 Guy	75944.65	-7.02	113.39	0.00	0.00	-46.54
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp+1.0 Guy	75716.13	-85.28	102.06	0.00	0.00	-99.75
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp+1.0 Guy	75466.47	-140.75	64.08	0.00	0.00	-99.69
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp+1.0 Guy	75709.78	-146.06	-2.81	0.00	0.00	-72.34



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Load Combination	Vertical	Shear <sub>x</sub>	Shear <sub>z</sub>	Overturning Moment, M <sub>x</sub>	Overturning Moment, M <sub>z</sub>	Torque
	lb	lb	lb	lb-ft	lb-ft	lb-ft
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp+1.0 Guy	75938.33	-116.76	-76.27	0.00	0.00	-48.32
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp+1.0 Guy	75712.23	-67.89	-138.56	0.00	0.00	-9.36
Dead+Wind 0 deg - Service+Guy	48648.22	-4.23	-170.31	0.00	0.00	56.36
Dead+Wind 30 deg - Service+Guy	48696.06	72.58	-141.99	0.00	0.00	89.43
Dead+Wind 60 deg - Service+Guy	48742.45	127.57	-82.67	0.00	0.00	93.19
Dead+Wind 90 deg - Service+Guy	48695.40	151.54	-5.42	0.00	0.00	72.68
Dead+Wind 120 deg - Service+Guy	48647.49	137.71	75.27	0.00	0.00	40.17
Dead+Wind 150 deg - Service+Guy	48695.34	74.80	127.64	0.00	0.00	-2.12
Dead+Wind 180 deg - Service+Guy	48742.28	-4.06	145.59	0.00	0.00	-49.41
Dead+Wind 210 deg - Service+Guy	48695.86	-82.95	127.70	0.00	0.00	-82.29
Dead+Wind 240 deg - Service+Guy	48648.03	-145.93	75.38	0.00	0.00	-85.82
Dead+Wind 270 deg - Service+Guy	48695.29	-159.83	-5.28	0.00	0.00	-65.54
Dead+Wind 300 deg - Service+Guy	48741.79	-135.93	-82.56	0.00	0.00	-33.09
Dead+Wind 330 deg - Service+Guy	48695.42	-81.01	-141.94	0.00	0.00	9.26

## Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	
1	0.00	-18338.13	-0.00	0.08	18337.18	0.05	0.005%
2	-0.00	-21829.21	-19074.24	-0.00	21829.09	19071.80	0.008%
3	9506.37	-21778.99	-16465.52	-9506.41	21778.92	16463.87	0.006%
4	16448.59	-21728.78	-9496.60	-16446.44	21728.70	9495.82	0.008%
5	19012.74	-21778.99	0.00	-19011.32	21778.92	0.86	0.006%
6	16518.78	-21829.21	9537.12	-16516.65	21829.09	-9535.89	0.008%
7	9506.37	-21778.99	16465.52	-9504.92	21778.92	-16464.72	0.006%
8	0.00	-21728.78	18993.19	0.32	21728.70	-18990.94	0.008%
9	-9506.37	-21778.99	16465.52	9504.92	21778.92	-16464.72	0.006%
10	-16518.78	-21829.21	9537.12	16516.66	21829.09	-9535.90	0.008%
11	-19012.74	-21778.99	0.00	19011.33	21778.92	0.86	0.006%
12	-16448.59	-21728.78	-9496.60	16446.60	21728.70	9495.56	0.008%
13	-9506.37	-21778.99	-16465.52	9506.40	21778.92	16463.87	0.006%
14	0.00	-41695.98	0.00	0.73	41695.78	1.14	0.003%
15	-0.00	-41734.38	-5690.04	0.03	41734.38	5688.65	0.003%
16	2840.17	-41695.98	-4919.32	-2837.05	41695.96	4917.17	0.009%
17	4917.20	-41657.59	-2838.94	-4915.46	41657.57	2838.00	0.005%
18	5680.34	-41695.98	0.00	-5679.07	41695.97	-0.57	0.003%
19	4927.72	-41734.38	2845.02	-4926.49	41734.38	-2844.29	0.003%
20	2840.17	-41695.98	4919.32	-2840.04	41695.97	-4917.92	0.003%
21	0.00	-41657.59	5677.89	0.03	41657.57	-5675.91	0.005%
22	-2840.17	-41695.98	4919.32	2840.08	41695.97	-4917.91	0.003%
23	-4927.72	-41734.38	2845.02	4926.53	41734.38	-2844.27	0.003%
24	-5680.34	-41695.98	-0.00	5679.08	41695.97	-0.58	0.003%

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Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX lb	PY lb	PZ lb	PX lb	PY lb	PZ lb	
25	-4917.20	-41657.59	-2838.94	4915.49	41657.57	2837.98	0.005%
26	-2840.17	-41695.98	-4919.32	2837.11	41695.96	4917.15	0.009%
27	-0.00	-18350.31	-4626.01	-0.01	18350.31	4622.84	0.017%
28	2305.55	-18338.13	-3993.32	-2304.38	18338.13	3991.79	0.010%
29	3989.22	-18325.95	-2303.17	-3986.99	18325.94	2301.90	0.014%
30	4611.09	-18338.13	0.00	-4609.18	18338.13	-0.24	0.010%
31	4006.24	-18350.31	2313.00	-4003.48	18350.31	-2311.41	0.017%
32	2305.55	-18338.13	3993.32	-2304.79	18338.13	-3991.54	0.010%
33	0.00	-18325.95	4606.35	0.00	18325.94	-4603.78	0.014%
34	-2305.55	-18338.13	3993.32	2304.79	18338.13	-3991.54	0.010%
35	-4006.24	-18350.31	2313.00	4003.48	18350.31	-2311.41	0.017%
36	-4611.09	-18338.13	-0.00	4609.18	18338.13	-0.24	0.010%
37	-3989.22	-18325.95	-2303.17	3987.00	18325.94	2301.90	0.014%
38	-2305.55	-18338.13	-3993.32	2304.38	18338.13	3991.80	0.010%

### Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	8	0.00000001	0.00009501
2	Yes	20	0.00012334	0.00011504
3	Yes	20	0.00009739	0.00008119
4	Yes	13	0.00012763	0.00013388
5	Yes	20	0.00009747	0.00008257
6	Yes	20	0.00012360	0.00011508
7	Yes	20	0.00009752	0.00008095
8	Yes	13	0.00012317	0.00012863
9	Yes	20	0.00009745	0.00008101
10	Yes	20	0.00012338	0.00011575
11	Yes	20	0.00009723	0.00008184
12	Yes	13	0.00000001	0.00012246
13	Yes	20	0.00009720	0.00008065
14	Yes	6	0.00000001	0.00006449
15	Yes	11	0.00000001	0.00004287
16	Yes	11	0.00015000	0.00013206
17	Yes	12	0.00000001	0.00008096
18	Yes	12	0.00000001	0.00005477
19	Yes	11	0.00000001	0.00004222
20	Yes	12	0.00000001	0.00005567
21	Yes	12	0.00000001	0.00008124
22	Yes	12	0.00000001	0.00005638
23	Yes	11	0.00000001	0.00004274
24	Yes	12	0.00000001	0.00005388
25	Yes	12	0.00000001	0.00007950
26	Yes	11	0.00015000	0.00012823
27	Yes	8	0.00000001	0.00012760
28	Yes	9	0.00000001	0.00010447
29	Yes	9	0.00000001	0.00013922
30	Yes	9	0.00000001	0.00010501
31	Yes	8	0.00000001	0.00012913
32	Yes	9	0.00000001	0.00010466
33	Yes	9	0.00000001	0.00013874
34	Yes	9	0.00000001	0.00010406
35	Yes	8	0.00000001	0.00012710
36	Yes	9	0.00000001	0.00010351
37	Yes	9	0.00000001	0.00013774

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38      Yes      9      0.00000001      0.00010357

### Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	190 - 175	1.918	29	0.0557	0.0502
T2	175 - 160	1.732	29	0.0659	0.0480
T3	160 - 140	1.505	29	0.0748	0.0450
T4	140 - 120	1.182	33	0.0650	0.0402
T5	120 - 100	0.963	33	0.0466	0.0506
T6	100 - 80	0.761	33	0.0489	0.0623
T7	80 - 60	0.578	33	0.0364	0.0702
T8	60 - 40	0.428	37	0.0368	0.0753
T9	40 - 20	0.279	37	0.0312	0.0793
T10	20 - 4.81771	0.156	27	0.0337	0.0736
T11	4.81771 - 0	0.039	27	0.0380	0.0655

### Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
189.39	Guy	29	1.910	0.0561	0.0501	152200
189.00	(2) JAHH-65B-R3B (Verizon)	29	1.906	0.0564	0.0500	152200
188.50	SitePro VFA12-HD (Verizon)	29	1.900	0.0567	0.0500	152200
140.00	APX16DWV-16DWVS (T-Mobile)	33	1.182	0.0650	0.0402	29669
136.98	Guy	33	1.142	0.0617	0.0408	32202
87.34	Guy	33	0.641	0.0410	0.0678	120033
44.93	Guy	37	0.314	0.0325	0.0813	116361

### Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	190 - 175	17.629	6	0.6240	0.2634
T2	175 - 160	15.613	6	0.6659	0.2533
T3	160 - 140	13.447	6	0.6948	0.2440
T4	140 - 120	10.550	6	0.6178	0.2359
T5	120 - 100	8.255	6	0.5006	0.2837
T6	100 - 80	6.237	10	0.4587	0.3306
T7	80 - 60	4.523	10	0.3514	0.3584
T8	60 - 40	3.152	10	0.3094	0.3687
T9	40 - 20	1.957	10	0.2491	0.3527
T10	20 - 4.81771	1.013	10	0.2354	0.3155
T11	4.81771 - 0	0.250	10	0.2450	0.2638

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### Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
189.39	Guy	6	17.547	0.6257	0.2630	39242
189.00	(2) JAHH-65B-R3B (Verizon)	6	17.496	0.6267	0.2627	39242
188.50	SitePro VFA12-HD (Verizon)	6	17.430	0.6281	0.2624	39242
140.00	APX16DWV-16DWVS (T-Mobile)	6	10.550	0.6178	0.2359	5670
136.98	Guy	6	10.164	0.5981	0.2399	6014
87.34	Guy	10	5.108	0.3906	0.3508	12429
44.93	Guy	10	2.227	0.2707	0.3674	14625

### Bolt Design Data

Section No.	Elevation	Component Type	Bolt Grade	Bolt Size	Number Of Bolts	Maximum Load per Bolt	Allowable Load per Bolt	Ratio Allowable	Allowable Ratio	Criteria	
	ft			in		lb	lb				
T1	190	Leg	A325X	0.7500	4	1105.76	30101.40	0.037	✓	1	Bolt Tension
		Diagonal	A325X	0.5000	1	535.65	5919.48	0.090	✓	1	Member Bearing
		Top Girt	A325X	0.5000	1	727.03	11044.70	0.066	✓	1	Bolt Shear
		Bottom Girt	A325X	0.5000	1	235.20	11044.70	0.021	✓	1	Bolt Shear
T2	175	Leg	A325X	0.7500	4	816.25	30101.40	0.027	✓	1	Bolt Tension
		Diagonal	A325X	0.5000	1	742.33	7015.68	0.106	✓	1	Member Bearing
		Top Girt	A325X	0.5000	1	229.89	11044.70	0.021	✓	1	Bolt Shear
		Bottom Girt	A325X	0.5000	1	229.89	11044.70	0.021	✓	1	Bolt Shear
T3	160	Leg	A325X	0.7500	4	1697.63	30101.40	0.056	✓	1	Bolt Tension
		Diagonal	A325X	0.5000	1	1353.94	5919.48	0.229	✓	1	Member Bearing
		Top Girt	A325X	0.5000	1	352.85	5449.68	0.065	✓	1	Member Bearing
		Bottom Girt	A325X	0.5000	1	352.85	5919.48	0.060	✓	1	Member Bearing
T4	140	Leg	A325X	0.7500	4	1753.65	30101.40	0.058	✓	1	Bolt Tension
		Diagonal	A325X	0.5000	1	3251.55	5919.48	0.549	✓	1	Member Bearing
		Top Girt	A325X	0.5000	1	1687.14	5449.68	0.310	✓	1	Member Bearing
		Bottom Girt	A325X	0.5000	1	468.88	5919.48	0.079	✓	1	Member Bearing
T5	120	Leg	A325X	0.7500	4	1914.72	30101.40	0.064	✓	1	Bolt Tension
		Diagonal	A325X	0.5000	1	727.33	7015.68	0.104	✓	1	Member Bearing
		Top Girt	A325X	0.5000	1	397.97	5449.68	0.073	✓	1	Member Bearing
		Bottom Girt	A325X	0.5000	1	397.97	5919.48	0.067	✓	1	Member Bearing
T6	100	Leg	A325X	0.7500	4	2212.26	30101.40	0.073	✓	1	Bolt Tension
		Diagonal	A325X	0.5000	1	883.65	5919.48	0.149	✓	1	Member Bearing
		Top Girt	A325X	0.5000	1	487.20	5449.68	0.089	✓	1	Member Bearing
		Bottom Girt	A325X	0.5000	1	487.20	5919.48	0.082	✓	1	Member Bearing
T7	80	Leg	A325X	0.7500	4	2188.01	30101.40	0.073	✓	1	Bolt Tension
		Diagonal	A325X	0.5000	1	600.89	7015.68	0.086	✓	1	Member Bearing

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Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt lb	Allowable Load per Bolt lb	Ratio Load Allowable	Allowable Ratio	Criteria
T8	60	Top Girt	A325X	0.5000	1	459.91	5449.68	0.084 ✓	1	Member Bearing
		Bottom Girt	A325X	0.5000	1	459.91	5919.48	0.078 ✓	1	Member Bearing
		Leg	A325X	0.7500	4	2392.66	30101.40	0.079 ✓	1	Bolt Tension
		Diagonal	A325X	0.5000	1	1305.39	7015.68	0.186 ✓	1	Member Bearing
T9	40	Top Girt	A325X	0.5000	1	523.52	5449.68	0.096 ✓	1	Member Bearing
		Bottom Girt	A325X	0.5000	1	536.29	5919.48	0.091 ✓	1	Member Bearing
		Leg	A325X	0.7500	4	2125.27	30101.40	0.071 ✓	1	Bolt Tension
		Diagonal	A325X	0.5000	1	952.38	5919.48	0.161 ✓	1	Member Bearing
T10	20	Top Girt	A325X	0.5000	1	497.41	5449.68	0.091 ✓	1	Member Bearing
		Bottom Girt	A325X	0.5000	1	497.41	5919.48	0.084 ✓	1	Member Bearing
		Leg	A325X	0.7500	4	2148.36	30101.40	0.071 ✓	1	Bolt Tension
		Diagonal	A325X	0.5000	1	616.25	7015.68	0.088 ✓	1	Member Bearing
T11	4.81771	Top Girt	A325X	0.5000	1	450.24	5449.68	0.083 ✓	1	Member Bearing
		Bottom Girt	A325X	0.5000	1	592.20	5919.48	0.100 ✓	1	Member Bearing
		Leg	A325X	0.7500	4	2328.09	30101.40	0.077 ✓	1	Bolt Tension
		Top Girt	A325X	0.5000	1	5646.22	11044.70	0.511 ✓	1	Bolt Shear

### Guy Design Data

Section No.	Elevation ft	Size	Initial Tension lb	Breaking Load lb	Actual $T_u$ lb	Allowable $\phi T_n$ lb	Required S.F.	Actual S.F.
T1	189.39 (A) (483)	9/16 (23000) EHS	3500.00	35000.04	11813.60	21000.00	1.000	1.778 ✓
	189.39 (B) (482)	9/16 (23000) EHS	3500.00	35000.04	11792.50	21000.00	1.000	1.781 ✓
	189.39 (C) (478)	9/16 (23000) EHS	3500.00	35000.04	11814.20	21000.00	1.000	1.778 ✓
T4	136.98 (A) (492)	1/2 (23000) EHS	2690.00	26900.04	8743.67	16140.00	1.000	1.846 ✓
	136.98 (A) (493)	1/2 (23000) EHS	2690.00	26900.04	8575.53	16140.00	1.000	1.882 ✓
	136.98 (B) (488)	1/2 (23000) EHS	2690.00	26900.04	8564.43	16140.00	1.000	1.885 ✓
	136.98 (B) (489)	1/2 (23000) EHS	2690.00	26900.04	8512.52	16140.00	1.000	1.896 ✓
	136.98 (C) (484)	1/2 (23000) EHS	2690.00	26900.04	8520.35	16140.00	1.000	1.894 ✓
	136.98 (C) (485)	1/2 (23000) EHS	2690.00	26900.04	8738.17	16140.00	1.000	1.847 ✓
	87.34 (A) (501)	7/16 (23000) EHS	2080.00	20800.02	5936.44	12480.00	1.000	2.102 ✓
T6	87.34 (B) (500)	7/16 (23000) EHS	2080.00	20800.02	5938.96	12480.00	1.000	2.101 ✓
	87.34 (C) (496)	7/16 (23000) EHS	2080.00	20800.02	5935.83	12480.00	1.000	2.102 ✓



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Section No.	Elevation ft	Size	Initial Tension lb	Breaking Load lb	Actual $T_u$ lb	Allowable $\phi T_n$ lb	Required S.F.	Actual S.F.
T8	44.93 (A)	3/8 (23000) EHS	1540.00	15399.96	3804.46	9240.00	1.000	2.429 ✓
	44.93 (B) (506)	3/8 (23000) EHS	1540.00	15399.96	3810.20	9240.00	1.000	2.425 ✓
	44.93 (C) (502)	3/8 (23000) EHS	1540.00	15399.96	3804.57	9240.00	1.000	2.429 ✓

### Compression Checks

### Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	$L_u$ ft	$Kl/r$	A in <sup>2</sup>	$P_u$ lb	$\phi P_n$ lb	Ratio $P_u / \phi P_n$
T1	190 - 175	ROHN 2.5 EH	15.00	2.38	30.9 K=1.00	2.2535	-13579.10	94576.40	0.144 <sup>1</sup> ✓
T2	175 - 160	ROHN 2.5 EH	15.00	2.38	30.9 K=1.00	2.2535	-13016.30	94576.40	0.138 <sup>1</sup> ✓
T3	160 - 140	ROHN 2 STD	20.00	2.41	36.7 K=1.00	1.0745	-18697.80	43813.40	0.427 <sup>1</sup> ✓
T4	140 - 120	ROHN 2 STD	20.00	2.41	36.7 K=1.00	1.0745	-27070.60	43813.40	0.618 <sup>1</sup> ✓
T5	120 - 100	ROHN 2 STD	20.00	2.41	36.7 K=1.00	1.0745	-22259.70	43813.40	0.508 <sup>1</sup> ✓
T6	100 - 80	ROHN 2 STD	20.00	2.41	36.7 K=1.00	1.0745	-28128.40	43813.40	0.642 <sup>1</sup> ✓
T7	80 - 60	ROHN 2 X-STR (2.375"ODx0.218")	20.00	2.41	37.7 K=1.00	1.4773	-26004.80	59911.20	0.434 <sup>1</sup> ✓
T8	60 - 40	ROHN 2.5 STD	20.00	2.41	61.0 K=2.00	1.7040	-30225.40	58405.60	0.518 <sup>1</sup> ✓
T9	40 - 20	ROHN 2.5 STD	20.00	2.41	61.0 K=2.00	1.7040	-28206.40	58405.60	0.483 <sup>1</sup> ✓
T10	20 - 4.81771	ROHN 2.5 STD	15.18	2.41	61.0 K=2.00	1.7040	-25994.60	58405.60	0.445 <sup>1</sup> ✓
T11	4.81771 - 0	ROHN 2 X-STR (2.375"ODx0.218")	5.21	2.60	40.8 K=1.00	1.4773	-27937.10	58875.80	0.475 <sup>1</sup> ✓

<sup>1</sup>  $P_u / \phi P_n$  controls

### Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	$L_u$ ft	$Kl/r$	A in <sup>2</sup>	$P_u$ lb	$\phi P_n$ lb	Ratio $P_u / \phi P_n$
T1	190 - 175	ROHN TS1.5x16 ga	4.16	3.87	91.0	0.2627	-572.91	5969.66	0.096 <sup>1</sup>



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Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio P <sub>u</sub> / φP <sub>n</sub>
T2	175 - 160	ROHN TS1.5x16 ga	4.16	3.87	K=1.00 91.0	0.2627	-742.33	5969.66	0.124 <sup>1</sup>
T3	160 - 140	ROHN TS1.5x16 ga	4.18	3.94	K=1.00 92.6	0.2627	-1562.54	5864.19	0.266 <sup>1</sup>
T4	140 - 120	ROHN TS1.5x16 ga	4.18	3.94	K=1.00 92.6	0.2627	-3277.73	5864.19	0.559 <sup>1</sup>
T5	120 - 100	ROHN TS1.5x16 ga	4.18	3.94	K=1.00 92.6	0.2627	-727.33	5864.19	0.124 <sup>1</sup>
T6	100 - 80	ROHN TS1.5x16 ga	4.18	3.94	K=1.00 92.6	0.2627	-1004.78	5864.19	0.171 <sup>1</sup>
T7	80 - 60	ROHN TS1.5x16 ga	4.18	3.94	K=1.00 92.6	0.2627	-600.89	5864.19	0.102 <sup>1</sup>
T8	60 - 40	ROHN TS1.5x16 ga	4.18	3.89	K=1.00 91.4	0.2627	-1305.39	5944.21	0.220 <sup>1</sup>
T9	40 - 20	ROHN TS1.5x16 ga	4.18	3.89	K=1.00 91.4	0.2627	-1127.37	5944.21	0.190 <sup>1</sup>
T10	20 - 4.81771	ROHN TS1.5x16 ga	4.18	3.89	K=1.00 91.4	0.2627	-616.25	5944.21	0.104 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio P <sub>u</sub> / φP <sub>n</sub>
T2	175 - 160	ROHN TS1.5x11 ga	3.42	3.18	77.8	0.5202	-229.89	13553.90	0.017 <sup>1</sup>
T3	160 - 140	ROHN TS1.5x16 ga	3.42	3.22	K=1.00 75.7	0.2627	-352.85	6985.33	0.051 <sup>1</sup>
T4	140 - 120	ROHN TS1.5x16 ga	3.42	3.22	K=1.00 75.7	0.2627	-1599.05	6985.33	0.229 <sup>1</sup>
T5	120 - 100	ROHN TS1.5x16 ga	3.42	3.22	K=1.00 75.7	0.2627	-397.97	6985.33	0.057 <sup>1</sup>
T6	100 - 80	ROHN TS1.5x16 ga	3.42	3.22	K=1.00 75.7	0.2627	-487.20	6985.33	0.070 <sup>1</sup>
T7	80 - 60	ROHN TS1.5x16 ga	3.42	3.22	K=1.00 75.7	0.2627	-459.91	6985.33	0.066 <sup>1</sup>
T8	60 - 40	ROHN TS1.5x16 ga	3.42	3.18	K=1.00 74.7	0.2627	-523.52	7048.85	0.074 <sup>1</sup>
T9	40 - 20	ROHN TS1.5x16 ga	3.42	3.18	K=1.00 74.7	0.2627	-497.41	7048.85	0.071 <sup>1</sup>
T10	20 - 4.81771	ROHN TS1.5x16 ga	3.42	3.18	K=1.00 74.7	0.2627	-450.24	7048.85	0.064 <sup>1</sup>
T11	4.81771 - 0	14x3/16	3.42	3.22	K=1.00 713.6	2.6250	-512.25	1164.59	0.440 <sup>1</sup>

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<sup>1</sup>  $P_u / \phi P_n$  controls

### Bottom Girt Design Data (Compression)

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L<sub>u</sub></i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in<sup>2</sup></i>	<i>P<sub>u</sub></i> <i>lb</i>	$\phi P_n$ <i>lb</i>	Ratio
									$\frac{P_u}{\phi P_n}$
T1	190 - 175	ROHN TS1.5x11 ga	3.42	3.18	77.8 K=1.00	0.5202	-235.20	13553.90	0.017 <sup>1</sup> ✓
T2	175 - 160	ROHN TS1.5x11 ga	3.42	3.18	77.8 K=1.00	0.5202	-229.89	13553.90	0.017 <sup>1</sup> ✓
T3	160 - 140	ROHN TS1.5x16 ga	3.42	3.22	75.7 K=1.00	0.2627	-352.85	6985.33	0.051 <sup>1</sup> ✓
T4	140 - 120	ROHN TS1.5x16 ga	3.42	3.22	75.7 K=1.00	0.2627	-468.88	6985.33	0.067 <sup>1</sup> ✓
T5	120 - 100	ROHN TS1.5x16 ga	3.42	3.22	75.7 K=1.00	0.2627	-397.97	6985.33	0.057 <sup>1</sup> ✓
T6	100 - 80	ROHN TS1.5x16 ga	3.42	3.22	75.7 K=1.00	0.2627	-487.20	6985.33	0.070 <sup>1</sup> ✓
T7	80 - 60	ROHN TS1.5x16 ga	3.42	3.22	75.7 K=1.00	0.2627	-459.91	6985.33	0.066 <sup>1</sup> ✓
T8	60 - 40	ROHN TS1.5x16 ga	3.42	3.18	74.7 K=1.00	0.2627	-523.52	7048.85	0.074 <sup>1</sup> ✓
T9	40 - 20	ROHN TS1.5x16 ga	3.42	3.18	74.7 K=1.00	0.2627	-497.41	7048.85	0.071 <sup>1</sup> ✓
T10	20 - 4.81771	ROHN TS1.5x16 ga	3.42	3.18	74.7 K=1.00	0.2627	-450.24	7048.85	0.064 <sup>1</sup> ✓

<sup>1</sup>  $P_u / \phi P_n$  controls

### Torque-Arm Top Design Data

Section No.	Elevation <i>ft</i>	Size	<i>L</i> <i>ft</i>	<i>L<sub>u</sub></i> <i>ft</i>	<i>Kl/r</i>	<i>A</i> <i>in<sup>2</sup></i>	<i>P<sub>u</sub></i> <i>lb</i>	$\phi P_n$ <i>lb</i>	Ratio
									$\frac{P_u}{\phi P_n}$
T4	140 - 120 (486)	C10x15.3	3.41	3.32	55.8 K=1.00	4.4900	-2340.87	123475.00	0.019
T4	140 - 120 (487)	C10x15.3	3.41	3.32	55.8 K=1.00	4.4900	-2342.83	123475.00	0.019
T4	140 - 120 (490)	C10x15.3	3.41	3.32	55.8 K=1.00	4.4900	-2451.29	123475.00	0.020
T4	140 - 120 (491)	C10x15.3	3.41	3.32	55.8 K=1.00	4.4900	-2452.48	123475.00	0.020
T4	140 - 120 (494)	C10x15.3	3.41	3.32	55.8 K=1.00	4.4900	-2423.80	123475.00	0.020
T4	140 - 120 (495)	C10x15.3	3.41	3.32	55.8 K=1.00	4.4900	-2427.98	123475.00	0.020

### Torque-Arm Top Bending Design Data

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Section No.	Elevation ft	Size	$M_{ux}$ lb-ft	$\phi M_{ux}$ lb-ft	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	$M_{uy}$ lb-ft	$\phi M_{uy}$ lb-ft	Ratio $\frac{M_{uy}}{\phi M_{uy}}$
T4	140 - 120 (486)	C10x15.3	-23741.67	41935.00	0.566	0.00	4698.00	0.000
T4	140 - 120 (487)	C10x15.3	-23752.67	41935.00	0.566	-0.00	4698.00	0.000
T4	140 - 120 (490)	C10x15.3	-24303.17	41935.00	0.580	-0.00	4698.00	0.000
T4	140 - 120 (491)	C10x15.3	-24319.83	41935.00	0.580	0.00	4698.00	0.000
T4	140 - 120 (494)	C10x15.3	-24161.75	41935.00	0.576	-0.00	4698.00	0.000
T4	140 - 120 (495)	C10x15.3	-24194.33	41935.00	0.577	0.00	4698.00	0.000

### Torque-Arm Top Interaction Design Data

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	Ratio $\frac{M_{uy}}{\phi M_{uy}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T4	140 - 120 (486)	C10x15.3	0.019	0.566	0.000	0.576	1.000	4.8.1 ✓
T4	140 - 120 (487)	C10x15.3	0.019	0.566	0.000	0.576	1.000	4.8.1 ✓
T4	140 - 120 (490)	C10x15.3	0.020	0.580	0.000	0.589	1.000	4.8.1 ✓
T4	140 - 120 (491)	C10x15.3	0.020	0.580	0.000	0.590	1.000	4.8.1 ✓
T4	140 - 120 (494)	C10x15.3	0.020	0.576	0.000	0.586	1.000	4.8.1 ✓
T4	140 - 120 (495)	C10x15.3	0.020	0.577	0.000	0.587	1.000	4.8.1 ✓

### Tension Checks

### Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	$L_u$ ft	$Kl/r$	A in <sup>2</sup>	$P_u$ lb	$\phi P_n$ lb	Ratio $\frac{P_u}{\phi P_n}$
T1	190 - 175	ROHN 2.5 EH	15.00	0.61	8.0	2.2535	0.00	101409.00	0.000 <sup>1</sup>
T3	160 - 140	ROHN 2 STD	20.00	0.11	1.7	1.0745	2902.73	48353.90	0.060 <sup>1</sup>
T4	140 - 120	ROHN 2 STD	20.00	2.41	36.7	1.0745	5313.83	48353.90	0.110 <sup>1</sup>

\* DL controls  
<sup>1</sup>  $P_u / \phi P_n$  controls

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### Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T1	190 - 175	ROHN TS1.5x16 ga	4.16	3.87	91.0	0.2627	535.65	9931.96	0.054 <sup>1</sup>
T2	175 - 160	ROHN TS1.5x16 ga	4.16	3.87	91.0	0.2627	591.91	9931.96	0.060 <sup>1</sup>
T3	160 - 140	ROHN TS1.5x16 ga	4.18	3.94	92.6	0.2627	1353.94	9931.96	0.136 <sup>1</sup>
T4	140 - 120	ROHN TS1.5x16 ga	4.18	3.94	92.6	0.2627	3251.55	9931.96	0.327 <sup>1</sup>
T5	120 - 100	ROHN TS1.5x16 ga	4.18	3.94	92.6	0.2627	477.22	9931.96	0.048 <sup>1</sup>
T6	100 - 80	ROHN TS1.5x16 ga	4.18	3.94	92.6	0.2627	883.65	9931.96	0.089 <sup>1</sup>
T7	80 - 60	ROHN TS1.5x16 ga	4.18	3.94	92.6	0.2627	361.55	9931.96	0.036 <sup>1</sup>
T8	60 - 40	ROHN TS1.5x16 ga	4.18	3.89	91.4	0.2627	1023.57	9931.96	0.103 <sup>1</sup>
T9	40 - 20	ROHN TS1.5x16 ga	4.18	3.89	91.4	0.2627	952.38	9931.96	0.096 <sup>1</sup>
T10	20 - 4.81771	ROHN TS1.5x16 ga	4.18	3.89	91.4	0.2627	439.22	9931.96	0.044 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T1	190 - 175	ROHN TS1.5x11 ga	3.42	3.18	77.8	0.5202	727.03	19665.40	0.037 <sup>1</sup>
T2	175 - 160	ROHN TS1.5x11 ga	3.42	3.18	77.8	0.5202	229.89	19665.40	0.012 <sup>1</sup>
T3	160 - 140	ROHN TS1.5x16 ga	3.42	3.22	75.7	0.2627	352.85	9931.96	0.036 <sup>1</sup>
T4	140 - 120	ROHN TS1.5x16 ga	3.42	3.22	75.7	0.2627	1687.14	9931.96	0.170 <sup>1</sup>
T5	120 - 100	ROHN TS1.5x16 ga	3.42	3.22	75.7	0.2627	397.97	9931.96	0.040 <sup>1</sup>
T6	100 - 80	ROHN TS1.5x16 ga	3.42	3.22	75.7	0.2627	487.20	9931.96	0.049 <sup>1</sup>
T7	80 - 60	ROHN TS1.5x16 ga	3.42	3.22	75.7	0.2627	459.91	9931.96	0.046 <sup>1</sup>
T8	60 - 40	ROHN TS1.5x16 ga	3.42	3.18	74.7	0.2627	523.52	9931.96	0.053 <sup>1</sup>
T9	40 - 20	ROHN TS1.5x16 ga	3.42	3.18	74.7	0.2627	497.41	9931.96	0.050 <sup>1</sup>
T10	20 - 4.81771	ROHN TS1.5x16 ga	3.42	3.18	74.7	0.2627	450.24	9931.96	0.045 <sup>1</sup>

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Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	KI/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T11	4.81771 - 0	14x3/16	3.42	3.22	713.6	2.6250	5646.22	85050.00	0.066 <sup>1</sup>
L/R > 500 (T) - 472									

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

**Bottom Girt Design Data (Tension)**

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	KI/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T1	190 - 175	ROHN TS1.5x11 ga	3.42	3.18	77.8	0.5202	235.20	19665.40	0.012 <sup>1</sup>
T2	175 - 160	ROHN TS1.5x11 ga	3.42	3.18	77.8	0.5202	229.89	19665.40	0.012 <sup>1</sup>
T3	160 - 140	ROHN TS1.5x16 ga	3.42	3.22	75.7	0.2627	352.85	9931.96	0.036 <sup>1</sup>
T4	140 - 120	ROHN TS1.5x16 ga	3.42	3.22	75.7	0.2627	468.88	9931.96	0.047 <sup>1</sup>
T5	120 - 100	ROHN TS1.5x16 ga	3.42	3.22	75.7	0.2627	397.97	9931.96	0.040 <sup>1</sup>
T6	100 - 80	ROHN TS1.5x16 ga	3.42	3.22	75.7	0.2627	487.20	9931.96	0.049 <sup>1</sup>
T7	80 - 60	ROHN TS1.5x16 ga	3.42	3.22	75.7	0.2627	459.91	9931.96	0.046 <sup>1</sup>
T8	60 - 40	ROHN TS1.5x16 ga	3.42	3.18	74.7	0.2627	536.29	9931.96	0.054 <sup>1</sup>
T9	40 - 20	ROHN TS1.5x16 ga	3.42	3.18	74.7	0.2627	497.41	9931.96	0.050 <sup>1</sup>
T10	20 - 4.81771	ROHN TS1.5x16 ga	3.42	3.18	74.7	0.2627	592.20	9931.96	0.060 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

**Mid Girt Design Data (Tension)**

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	KI/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio $\frac{P_u}{\phi P_n}$
T11	4.81771 - 0	14x3/16	1.71	1.51	334.9	2.6250	25.05	85050.00	0.000 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

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### Top Guy Pull-Off Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio P <sub>u</sub> / φP <sub>n</sub>
T1	190 - 175	4 1/2 x 3/8	3.42	3.18	352.2	1.6875	2358.23	54675.00	0.043 <sup>1</sup>
T6	100 - 80	C4x5.4	3.42	3.22	86.0	1.5900	2317.82	51516.00	0.045 <sup>1</sup>
T8	60 - 40	C4x5.4	3.42	3.18	84.9	1.5900	1936.77	51516.00	0.038 <sup>1</sup>

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Top Guy Pull-Off Bending Design Data

Section No.	Elevation ft	Size	M <sub>ux</sub> lb-ft	φM <sub>ux</sub> lb-ft	Ratio M <sub>ux</sub> / φM <sub>ux</sub>	M <sub>uy</sub> lb-ft	φM <sub>uy</sub> lb-ft	Ratio M <sub>uy</sub> / φM <sub>uy</sub>
T1	190 - 175	4 1/2 x 3/8	0.00	5125.78	0.000	0.00	427.15	0.000
T6	100 - 80	C4x5.4	0.00	5750.24	0.000	0.00	1146.15	0.000
T8	60 - 40	C4x5.4	0.00	5761.12	0.000	0.00	1146.15	0.000

### Top Guy Pull-Off Interaction Design Data

Section No.	Elevation ft	Size	Ratio P <sub>u</sub> / φP <sub>n</sub>	Ratio M <sub>ux</sub> / φM <sub>ux</sub>	Ratio M <sub>uy</sub> / φM <sub>uy</sub>	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T1	190 - 175	4 1/2 x 3/8	0.043	0.000	0.000	0.043 <sup>1</sup>	1.000	4.8.1 ✓
T6	100 - 80	C4x5.4	0.045	0.000	0.000	0.045 <sup>1</sup>	1.000	4.8.1 ✓
T8	60 - 40	C4x5.4	0.038	0.000	0.000	0.038 <sup>1</sup>	1.000	4.8.1 ✓

<sup>1</sup> P<sub>u</sub> / φP<sub>n</sub> controls

### Torque-Arm Top Design Data

Section No.	Elevation ft	Size	L ft	L <sub>u</sub> ft	Kl/r	A in <sup>2</sup>	P <sub>u</sub> lb	φP <sub>n</sub> lb	Ratio P <sub>u</sub> / φP <sub>n</sub>
T4	140 - 120 (486)	C10x15.3	3.41	3.32	55.8	4.4900	113.19	145476.00	0.001
T4	140 - 120 (487)	C10x15.3	3.41	3.32	55.8	4.4900	55.21	145476.00	0.000
T4	140 - 120 (490)	C10x15.3	3.41	3.32	55.8	4.4900	55.06	145476.00	0.000
T4	140 - 120 (491)	C10x15.3	3.41	3.32	55.8	4.4900	2042.31	145476.00	0.014
T4	140 - 120 (494)	C10x15.3	3.41	3.32	55.8	4.4900	114.09	145476.00	0.001
T4	140 - 120 (495)	C10x15.3	3.41	3.32	55.8	4.4900	2009.06	145476.00	0.014



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### Torque-Arm Top Bending Design Data

Section No.	Elevation ft	Size	$M_{ux}$	$\phi M_{ux}$	Ratio	$M_{uy}$	$\phi M_{uy}$	Ratio
			lb-ft	lb-ft	$\frac{M_{ux}}{\phi M_{ux}}$	lb-ft	lb-ft	$\frac{M_{uy}}{\phi M_{uy}}$
T4	140 - 120 (486)	C10x15.3	-24521.50	41935.00	0.585	-0.00	4698.00	0.000
T4	140 - 120 (487)	C10x15.3	-24408.58	41935.00	0.582	0.00	4698.00	0.000
T4	140 - 120 (490)	C10x15.3	-24376.67	41935.00	0.581	-0.00	4698.00	0.000
T4	140 - 120 (491)	C10x15.3	-20935.42	41935.00	0.499	-0.00	4698.00	0.000
T4	140 - 120 (494)	C10x15.3	-24503.00	41935.00	0.584	0.00	4698.00	0.000
T4	140 - 120 (495)	C10x15.3	-20872.33	41935.00	0.498	0.00	4698.00	0.000

### Torque-Arm Top Interaction Design Data

Section No.	Elevation ft	Size	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
			$P_v$	$M_{ux}$	$M_{uy}$			
T4	140 - 120 (486)	C10x15.3	$\phi P_n$ 0.001	$\phi M_{ux}$ 0.585	$\phi M_{uy}$ 0.000	0.585	1.000	4.8.1 ✓
T4	140 - 120 (487)	C10x15.3	0.000	0.582	0.000	0.582	1.000	4.8.1 ✓
T4	140 - 120 (490)	C10x15.3	0.000	0.581	0.000	0.581	1.000	4.8.1 ✓
T4	140 - 120 (491)	C10x15.3	0.014	0.499	0.000	0.506	1.000	4.8.1 ✓
T4	140 - 120 (494)	C10x15.3	0.001	0.584	0.000	0.585	1.000	4.8.1 ✓
T4	140 - 120 (495)	C10x15.3	0.014	0.498	0.000	0.505	1.000	4.8.1 ✓

### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$\phi P_{allow}$ lb	% Capacity	Pass Fail
T1	190 - 175	Leg	ROHN 2.5 EH	1	-13579.10	94576.40	14.4	Pass
T2	175 - 160	Leg	ROHN 2.5 EH	46	-13016.30	94576.40	13.8	Pass
T3	160 - 140	Leg	ROHN 2 STD	93	-18697.80	43813.40	42.7	Pass
T4	140 - 120	Leg	ROHN 2 STD	149	-27070.60	43813.40	61.8	Pass
T5	120 - 100	Leg	ROHN 2 STD	206	-22259.70	43813.40	50.8	Pass
T6	100 - 80	Leg	ROHN 2 STD	263	-28128.40	43813.40	64.2	Pass
T7	80 - 60	Leg	ROHN 2 X-STR (2.375"ODx0.218")	320	-26004.80	59911.20	43.4	Pass
T8	60 - 40	Leg	ROHN 2.5 STD	377	-30225.40	58405.60	51.8	Pass
T9	40 - 20	Leg	ROHN 2.5 STD	410	-28206.40	58405.60	48.3	Pass
T10	20 - 4.81771	Leg	ROHN 2.5 STD	443	-25994.60	58405.60	44.5	Pass
T11	4.81771 - 0	Leg	ROHN 2 X-STR (2.375"ODx0.218")	469	-27937.10	58875.80	47.5	Pass
T1	190 - 175	Diagonal	ROHN TS1.5x16 ga	43	-572.91	5969.66	9.6	Pass
T2	175 - 160	Diagonal	ROHN TS1.5x16 ga	58	-742.33	5969.66	12.4	Pass
T3	160 - 140	Diagonal	ROHN TS1.5x16 ga	103	-1562.54	5864.19	26.6	Pass

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Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$\phi P_{allow}$ lb	% Capacity	Pass Fail
T4	140 - 120	Diagonal	ROHN TS1.5x16 ga	201	-3277.73	5864.19	55.9	Pass
T5	120 - 100	Diagonal	ROHN TS1.5x16 ga	218	-727.33	5864.19	12.4	Pass
T6	100 - 80	Diagonal	ROHN TS1.5x16 ga	284	-1004.78	5864.19	17.1	Pass
T7	80 - 60	Diagonal	ROHN TS1.5x16 ga	370	-600.89	5864.19	10.2	Pass
T8	60 - 40	Diagonal	ROHN TS1.5x16 ga	387	-1305.39	5944.21	22.0	Pass
T9	40 - 20	Diagonal	ROHN TS1.5x16 ga	441	-1127.37	5944.21	19.0	Pass
T10	20 - 4.81771	Diagonal	ROHN TS1.5x16 ga	451	-616.25	5944.21	10.4	Pass
T1	190 - 175	Top Girt	ROHN TS1.5x11 ga	6	727.03	19665.40	3.7	Pass
T2	175 - 160	Top Girt	ROHN TS1.5x11 ga	51	-229.89	13553.90	6.6 (b)	Pass
T3	160 - 140	Top Girt	ROHN TS1.5x16 ga	95	-352.85	6985.33	1.7	Pass
T4	140 - 120	Top Girt	ROHN TS1.5x16 ga	151	-1599.05	6985.33	2.1 (b)	Pass
T5	120 - 100	Top Girt	ROHN TS1.5x16 ga	208	-397.97	6985.33	5.1	Pass
T6	100 - 80	Top Girt	ROHN TS1.5x16 ga	265	-487.20	6985.33	6.5 (b)	Pass
T7	80 - 60	Top Girt	ROHN TS1.5x16 ga	322	-459.91	6985.33	22.9	Pass
T8	60 - 40	Top Girt	ROHN TS1.5x16 ga	379	-523.52	7048.85	31.0 (b)	Pass
T9	40 - 20	Top Girt	ROHN TS1.5x16 ga	412	-497.41	7048.85	5.7	Pass
T10	20 - 4.81771	Top Girt	ROHN TS1.5x16 ga	445	-450.24	7048.85	7.3 (b)	Pass
T11	4.81771 - 0	Top Girt	14x3/16	474	-512.25	1164.59	7.0	Pass
T1	190 - 175	Bottom Girt	ROHN TS1.5x11 ga	9	-235.20	13553.90	8.9 (b)	Pass
T2	175 - 160	Bottom Girt	ROHN TS1.5x11 ga	54	-229.89	13553.90	6.6	Pass
T3	160 - 140	Bottom Girt	ROHN TS1.5x16 ga	98	-352.85	6985.33	8.4 (b)	Pass
T4	140 - 120	Bottom Girt	ROHN TS1.5x16 ga	154	-468.88	6985.33	7.4	Pass
T5	120 - 100	Bottom Girt	ROHN TS1.5x16 ga	211	-397.97	6985.33	9.6 (b)	Pass
T6	100 - 80	Bottom Girt	ROHN TS1.5x16 ga	268	-487.20	6985.33	7.1	Pass
T7	80 - 60	Bottom Girt	ROHN TS1.5x16 ga	325	-459.91	6985.33	9.1 (b)	Pass
T8	60 - 40	Bottom Girt	ROHN TS1.5x16 ga	382	-523.52	7048.85	6.4	Pass
T9	40 - 20	Bottom Girt	ROHN TS1.5x16 ga	415	-497.41	7048.85	8.3 (b)	Pass
T10	20 - 4.81771	Bottom Girt	ROHN TS1.5x16 ga	448	-450.24	7048.85	44.0	Pass
T11	4.81771 - 0	Mid Girt	14x3/16	475	24.84	85050.00	51.1 (b)	Pass
T1	190 - 175	Guy A@189.385	9/16 (23000)	483	11813.60	21000.00	1.7	Pass
T4	140 - 120	Guy A@136.977	1/2 (23000)	492	8743.67	16140.00	2.1 (b)	Pass
T6	100 - 80	Guy A@87.3411	7/16 (23000)	501	5936.44	12480.00	5.1	Pass
T8	60 - 40	Guy A@44.9323	3/8 (23000)	507	3804.46	9240.00	6.0 (b)	Pass
T1	190 - 175	Guy B@189.385	9/16 (23000)	482	11792.50	21000.00	6.7	Pass
T4	140 - 120	Guy B@136.977	1/2 (23000)	488	8564.43	16140.00	7.9 (b)	Pass
T6	100 - 80	Guy B@87.3411	7/16 (23000)	500	5938.96	12480.00	5.7	Pass
T8	60 - 40	Guy B@44.9323	3/8 (23000)	506	3810.20	9240.00	6.7 (b)	Pass
T1	190 - 175	Guy C@189.385	9/16 (23000)	478	11814.20	21000.00	7.0	Pass
T4	140 - 120	Guy C@136.977	1/2 (23000)	485	8738.17	16140.00	8.2 (b)	Pass
T6	100 - 80	Guy C@87.3411	7/16 (23000)	496	5935.83	12480.00	6.6	Pass

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Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$\phi P_{allow}$ lb	% Capacity	Pass Fail	
T8	60 - 40	Guy C@44.9323	3/8 (23000)	502	3804.57	9240.00	41.2	Pass	
T1	190 - 175	Top Guy	4 1/2 x 3/8	481	2358.23	54675.00	4.3	Pass	
T6	100 - 80	Pull-Off@189.385							
		Top Guy	C4x5.4	498	2317.82	51516.00	4.5	Pass	
T8	60 - 40	Pull-Off@87.3411							
		Top Guy	C4x5.4	503	1936.77	51516.00	3.8	Pass	
T4	140 - 120	Pull-Off@44.9323							
		Torque Arm	C10x15.3	491	-2452.48	123475.00	59.0	Pass	
		Top@136.977							
							<b>Summary</b>		
							Leg (T6)	64.2	Pass
							Diagonal (T4)	55.9	Pass
							Top Girt (T11)	51.1	Pass
							Bottom Girt (T10)	10.0	Pass
							Mid Girt (T11)	0.0	Pass
							Guy A (T1)	56.3	Pass
							Guy B (T1)	56.2	Pass
							Guy C (T1)	56.3	Pass
							Top Guy Pull-Off (T6)	4.5	Pass
							Torque Arm Top (T4)	59.0	Pass
							Bolt Checks	54.9	Pass
							<b>RATING =</b>	<b>64.2</b>	<b>Pass</b>



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**Guyed Pier and Pad Analysis Summary (TIA-H)**

**Analysis Reactions and Tower Information**

Compression, $P_{comp}$ :	76.4	kips
Shear, $V_{comp}$ :	0.5	kips
Moment, M:	0.0	ft-kips
Uplift, $P_{uplift}$ :	-	kips
Shear, $V_{uplift}$ :	-	kips
Tower Height:	190	ft
BP Dist. Above Fdn, $bp_{dist}$ :	12.00	in

**Pad Properties**

Depth, D:	4.0	ft
Pad Width, $W_1$ :	4.0	ft
Pad Width, $W_2$ :	4.0	ft
Pad Thickness, T:	5.3	ft
Pad Rebar Size, $R_{spad}$ :	0	
Pad Rebar Quantity, $R_{qpad}$ :	0	
Pad Clear Cover, $cc_{pad}$ :	0.0	in

**Material Properties**

Rebar Strength, $F_y$ :	60	ksi
Concrete Strength, $f_c$ :	3	ksi
Dry Concrete Density, $\delta_c$ :	150	pcf

**Soil Properties**

Total Soil Unit Weight, $\gamma$ :	100	pcf
Ultimate Gross Bearing, Qult:	40.0	ksf
Cohesion, $C_u$ :	0.00	ksf
Friction Angle, $\phi$ :	0	degrees
SPT Blow Count, $N_{blows}$ :	0	
Base Friction, $\mu$ :	0.0	
Neglected Depth, N:	2.00	ft
Foundation Bearing on Rock?:	No	
Groundwater Depth, $D_{gw}$ :	N/A	ft

**Pier Properties**

Pier Shape:	-
Pier Diameter, $d_{pier}$ :	-
Ext. Above Grade, E:	-
Pier Rebar Size, $R_{spier}$ :	-
Pier Rebar Quantity, $R_{qpier}$ :	-
Pier Tie Size, $T_{spier}$ :	-
Pier Tie Quantity, $T_{qpier}$ :	-
Pier Clear Cover, $cc_{pier}$ :	-

**Foundation Analysis Results**

**Soil Capacity Results**

	Capacity	Demand	Rating
Uplift (kips):	-	-	-
Lateral (Sliding) (kips):	1.44	0.53	35.0%
Bearing Pressure (ksf):	24.00	6.04	24.0%
Overturning (kip*ft):	113.77	3.31	2.9%

35.0%  
Good



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**Guy B @ 68 ft (Elev 0 ft) Guy Anchor Block Analysis Summary (TIA-H)**

**Analysis Reactions and Tower Information**

Shear, S:	6.76	kips
Uplift, U:	6.79	kips
Resultant Force, R <sub>r</sub> :	9.58	kips
Tower Height:	190.0	ft
Guy Anchor Radius, R:	68.0	ft
Resultant Angle to Horiz., R <sub>a</sub> :	45.2	deg

**Anchor Rod Properties**

Anchor Shaft Diameter, D <sub>s</sub> :	-	in
Anchor Shaft Quantity, S <sub>qt</sub> :	-	
Anchor Shaft Area, A <sub>s</sub> :	-	in <sup>2</sup>
Shear Lag Factor, u:	-	
Anchor Shaft Grade, F <sub>y</sub> :	-	ksi
Anchor Shaft Ultimate Str., F <sub>u</sub> :	-	ksi
Frost Depth, F <sub>d</sub> :	2.0	ft
Groundwater Level, gw:	18.0	ft

**Guy Anchor Properties**

Depth to Bottom, D <sub>a</sub> :	6.0	ft
Anchor Width, W <sub>a</sub> :	4.0	ft
Anchor Thickness, T <sub>a</sub> :	2.0	ft
Anchor Length, L <sub>a</sub> :	7.0	ft
Anchor Volume, V <sub>a</sub> :	2.07	ft <sup>3</sup>
Toe Width, W <sub>t</sub> :	0.0	ft
Clear Cover, cc:	-	in
Anchor Top Rebar Size, R <sub>t</sub> :	-	
Anchor Top Rebar Qty, R <sub>qt</sub> :	-	
Anchor Front Rebar Size, R <sub>f</sub> :	-	
Anchor Front Rebar Qty, R <sub>qf</sub> :	-	
Stirrup Size:	-	

**Material Properties**

Rebar Grade, F <sub>y</sub> :	-	ksi
Concrete Strength, F' <sub>c</sub> :	-	ksi
Dry Concrete Density, δ <sub>c</sub> :	0.150	kcf

**Soil Properties**

Layer	Friction Angle (deg)	Cohesion (ksf)	Soil Unit Weight (pcf)	Depth (ft)	Ult. Skin Friction (ksf)	N (blows/ft)
1	0	0.000	100	2.0	0.000	0
2	30	0.000	100	6.0	0.000	0

**Foundation Analysis Results**

Lateral Capacity (kips):  
 Uplift Capacity (kips):  
 Lateral Flexural Capacity (ft\*kips):  
 Uplift Flexural Capacity (ft\*kips):  
 Anchor Shaft (kips):

Capacity	Demand	Rating	
15.75	6.76	42.9%	Soil
24.42	6.79	27.8%	
-	-	-	Structural
-	-	-	
-	-	-	Good





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**Guy A @ 95 ft (Elev 0 ft) Guy Anchor Block Analysis Summary (TIA-H)**

**Analysis Reactions and Tower Information**

Shear, S:	15.00	kips
Uplift, U:	24.27	kips
Resultant Force, R <sub>r</sub> :	28.53	kips
Tower Height:	190.0	ft
Guy Anchor Radius, R:	95.0	ft
Resultant Angle to Horiz., R <sub>a</sub> :	58.3	deg

**Anchor Rod Properties**

Anchor Shaft Diameter, D <sub>s</sub> :	-	in
Anchor Shaft Quantity, S <sub>qt</sub> :	-	
Anchor Shaft Area, A <sub>s</sub> :	-	in <sup>2</sup>
Shear Lag Factor, u:	-	
Anchor Shaft Grade, F <sub>y</sub> :	-	ksi
Anchor Shaft Ultimate Str., F <sub>u</sub> :	-	ksi
Frost Depth, F <sub>d</sub> :	2.0	ft
Groundwater Level, gw:	18.0	ft

**Guy Anchor Properties**

Depth to Bottom, D <sub>a</sub> :	10.0	ft
Anchor Width, W <sub>a</sub> :	4.0	ft
Anchor Thickness, T <sub>a</sub> :	2.0	ft
Anchor Length, L <sub>a</sub> :	7.0	ft
Anchor Volume, V <sub>a</sub> :	2.07	ft <sup>3</sup>
Toe Width, W <sub>t</sub> :	0.0	ft
Clear Cover, cc:	-	in
Anchor Top Rebar Size, R <sub>t</sub> :	-	
Anchor Top Rebar Qty, R <sub>qt</sub> :	-	
Anchor Front Rebar Size, R <sub>f</sub> :	-	
Anchor Front Rebar Qty, R <sub>qf</sub> :	-	
Stirrup Size:	-	

**Material Properties**

Rebar Grade, F <sub>y</sub> :	-	ksi
Concrete Strength, F' <sub>c</sub> :	-	ksi
Dry Concrete Density, δ <sub>c</sub> :	0.150	kcf

**Soil Properties**

Layer	Friction Angle (deg)	Cohesion (ksf)	Soil Unit Weight (pcf)	Depth (ft)	Ult. Skin Friction (ksf)	N (blows/ft)
1	0	0.000	100	2.0	0.000	0
2	30	0.000	100	10.0	0.000	0

**Foundation Analysis Results**

	Capacity	Demand	Rating	
Lateral Capacity (kips):	28.35	15.00	52.9%	Soil
Uplift Capacity (kips):	70.70	24.27	34.3%	
Lateral Flexural Capacity (ft*kips):	-	-	-	Structural
Uplift Flexural Capacity (ft*kips):	-	-	-	
Anchor Shaft (kips):	-	-	-	Good







Colliers Engineering & Design CT, PC  
 1055 Washington Boulevard  
 Stamford, CT 06901  
 203.324.0800  
 peter.albano@collierseng.com

## Antenna Mount Analysis Report and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10207121  
 Colliers Engineering & Design CT, PC Project #: 23777141

July 18, 2023

### Site Information

Site ID: 5000243657-VZW / DANIELSON 2 CT  
 Site Name: DANIELSON 2 CT  
 Carrier Name: Verizon Wireless  
 Address: 812 Providence Pike  
 Danielson, Connecticut 06239  
 Windham County  
 Latitude: 41.791389°  
 Longitude: -71.822333°

### Structure Information

Tower Type: Guyed  
 Mount Type: 12.50-Ft Sector Frame

FUZE ID # 17123687

### Analysis Results

Sector Frame: 99.9% 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: Vincent DiGirolamo



**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: 1893268 Dated October 4, 2021
Previous Mount Analysis Report	Maser Consulting Connecticut Project #: 21777314 Dated October 25, 2021
Post Modification Inspections	Colliers Engineering & Design CT, PC Project #: 21777314 Dated June 22, 2023
Mount Mapping Report	Roaming Networks Inc. Site ID: PSLC468921 Dated March 25, 2021
Filter Add Scope	Provided by Verizon Wireless

**Analysis Criteria:**

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (DSBC), 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, $K_e$ : 0.976
Seismic Parameters:	$S_s$ : 0.186 g $S_1$ : 0.055 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
188.50	189.00	6	Commscope	JAHH-65B-R3B	Retained
		3	Samsung	MT6407-77A	
		1	Commscope	CBC78T-DS-43	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4440d-13A	
		1	Raycap	RVZDC-6627-PF-48	
		2	KAelus	KA-6030	Added

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 CT, PC 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 CT, PC 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 CT, PC 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 CT, PC.

**Analysis Results:**

Component	Utilization %	Pass/Fail
Mount Pipe	46.9	Pass
Face Horizontal	99.9	Pass
Standoff Horizontal	57.8	Pass
Standoff Diagonal	8.2	Pass
Tieback	15.4	Pass
Standoff Vertical	9.0	Pass
Standoff Plate	59.7	Pass
Mount Connection	17.2	Pass

<b>Structure Rating – (Controlling Utilization of all Components)</b>	<b>99.9%</b>
---	--------------

**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	14.9	4.9	24.0	14.0
0.5	23.4	9.7	36.3	22.6
1	31.2	13.9	48.0	30.7

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 1 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.

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)

---

MDG #: 5000243657

SMART Project #: 10207121

Fuze Project ID: 17123687

**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:**

**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:	

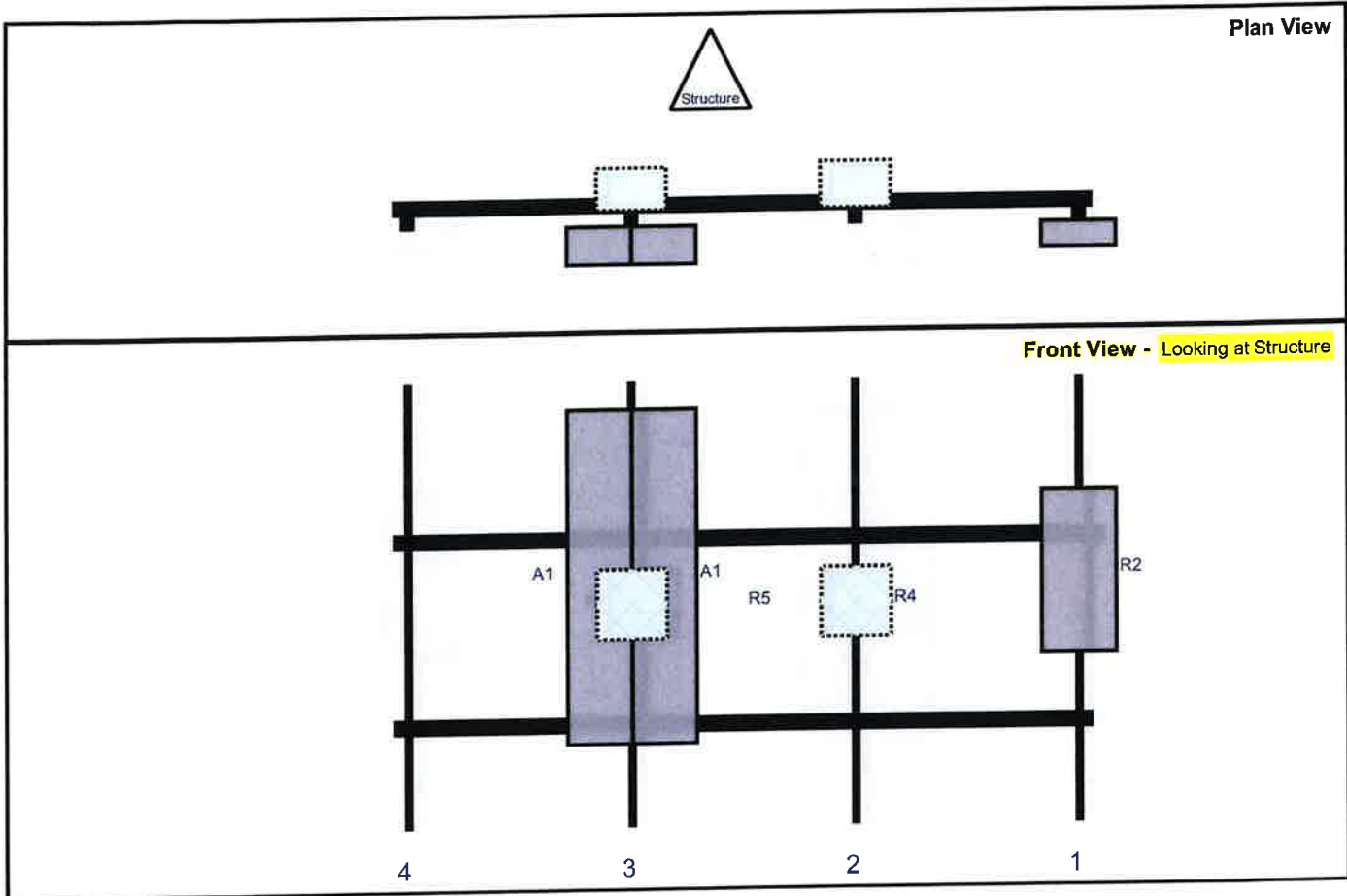
Sector: **A**

Structure Type: Guyed

10207121

Page: 1

Mount Elev: 188.50



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
R2	MT6407-77A	35.1	16.1	147	1	a	Front	42	0	Retained	10/27/2022
R4	RF4439d-25A	15	15	99	2	a	Behind	48	0	Retained	10/27/2022
A1	JAHH-65B-R3B	72	13.8	51	3	a	Front	42	7	Retained	10/27/2022
A1	JAHH-65B-R3B	72	13.8	51	3	b	Front	42	-7	Retained	10/27/2022
R5	RF4440d-13A	15	15	51	3	a	Behind	48	0	Retained	10/27/2022
M1	CBC78T-DS-43	6.4	6.9		Member					Retained	10/27/2022

Structure: 5000243657-VZW - DANIELSON 2 CT

Sector: B

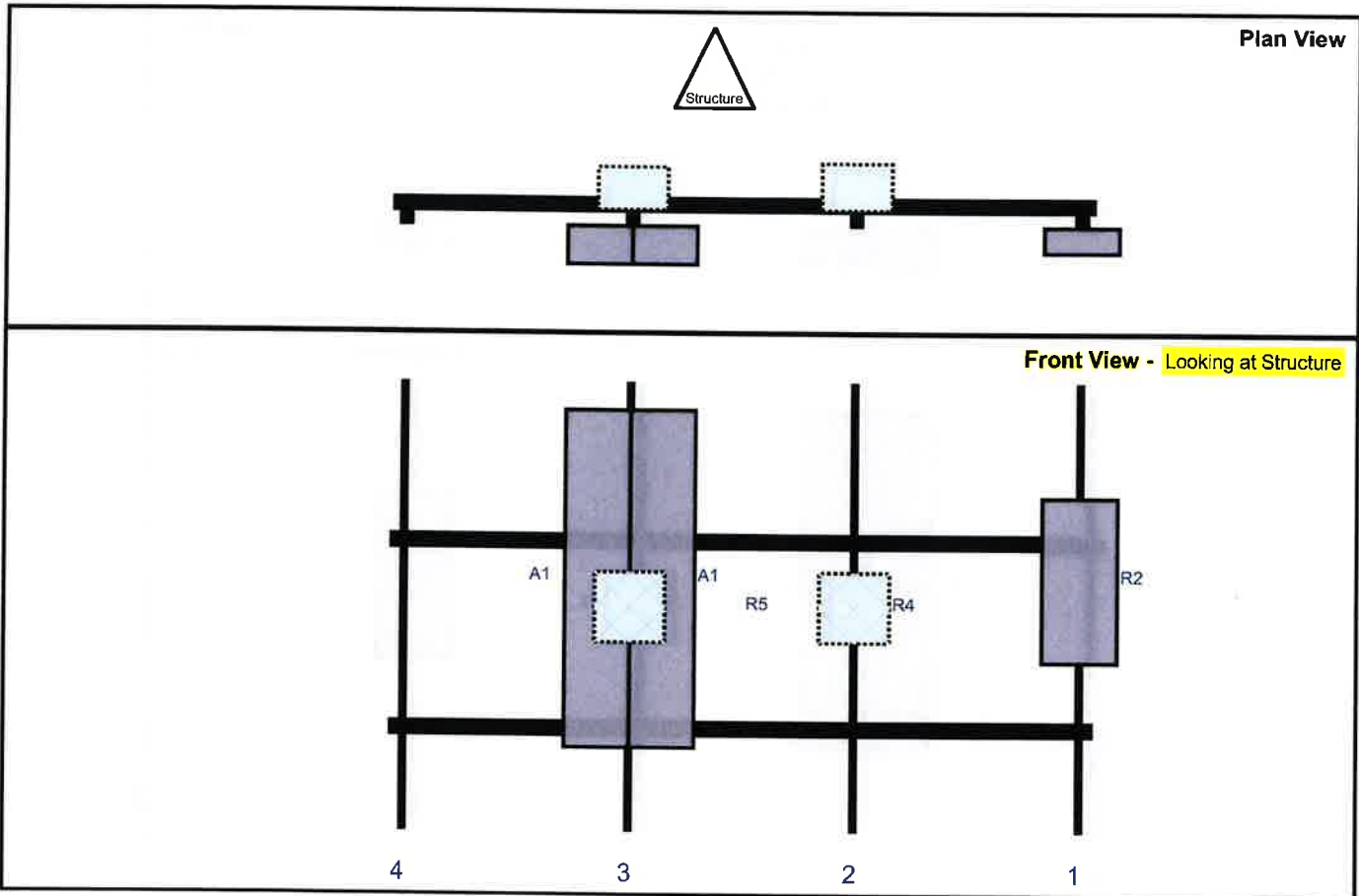
7/17/2023

Structure Type: Guyed

10207121

Mount Elev: 188.50

Page: 2



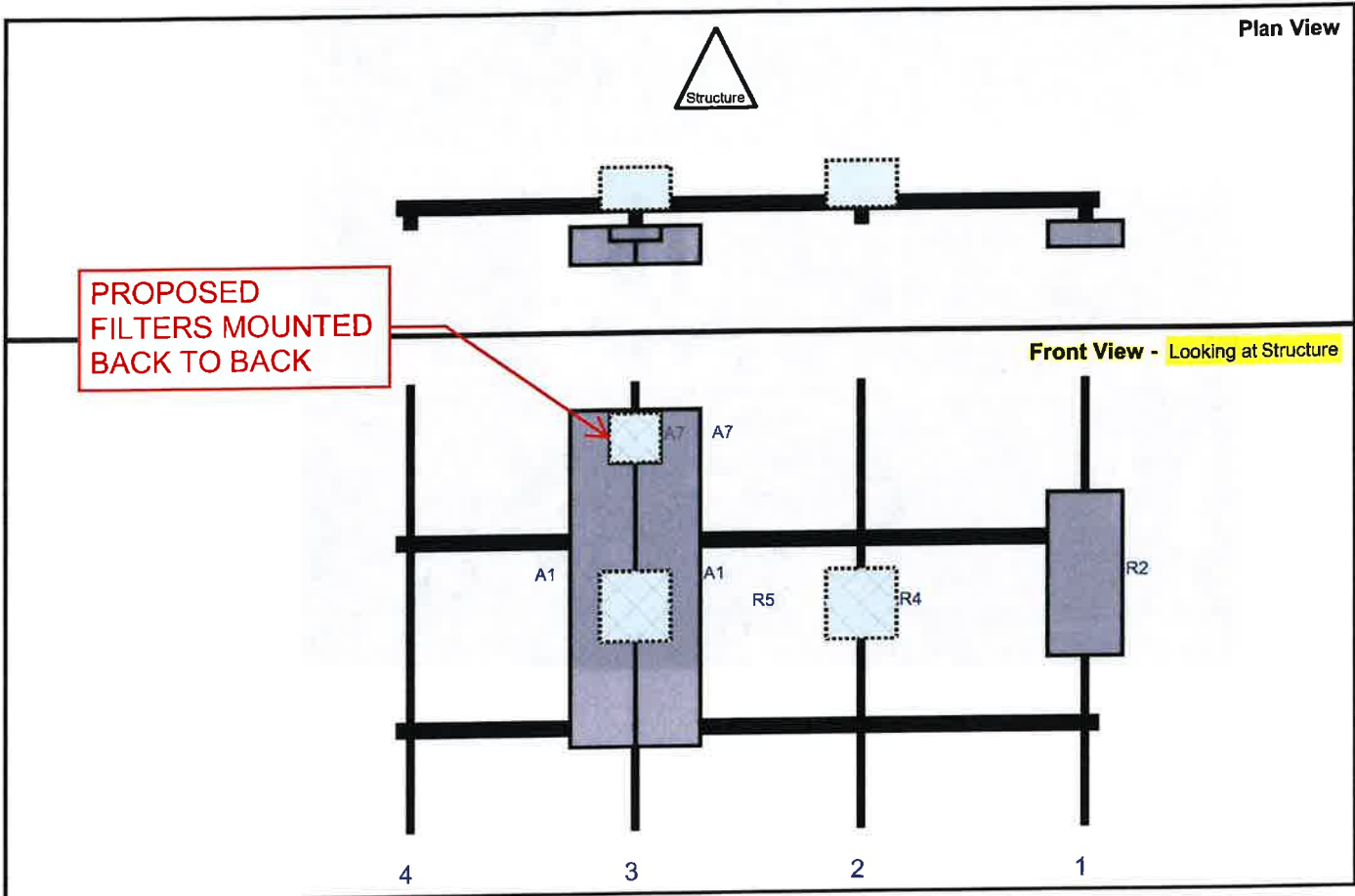
Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R2	MT6407-77A	35.1	16.1	147	1	a	Front	42	0	Retained	10/27/2022
R4	RF4439d-25A	15	15	99	2	a	Behind	48	0	Retained	10/27/2022
A1	JAHH-65B-R3B	72	13.8	51	3	a	Front	42	7	Retained	10/27/2022
A1	JAHH-65B-R3B	72	13.8	51	3	b	Front	42	-7	Retained	10/27/2022
R5	RF4440d-13A	15	15	51	3	a	Behind	48	0	Retained	10/27/2022

Sector: C  
 Structure Type: Guyed  
 Mount Elev: 188.50

10207121

7/17/2023

Page: 3



Reff#	Model	Height (in)	Width (in)	H Dist Fm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Fm T.	Ant H Off	Status	Validation
R2	MT6407-77A	35.1	16.1	147	1	a	Front	42	0	Retained	10/27/2022
R4	RF4439d-25A	15	15	99	2	a	Behind	48	0	Retained	10/27/2022
A1	JAHH-65B-R3B	72	13.8	51	3	a	Front	42	7	Retained	10/27/2022
A1	JAHH-65B-R3B	72	13.8	51	3	b	Front	42	-7	Retained	10/27/2022
R5	RF4440d-13A	15	15	51	3	a	Behind	48	0	Retained	10/27/2022
A7	KA-6030	10.6	10.9	51	3	a	Front	12	0	Added	
A7	KA-6030	10.6	10.9	51	3	b	Behind	12	0	Added	



oct. 27, 2022, 2:45:38 p.m.









1		
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.



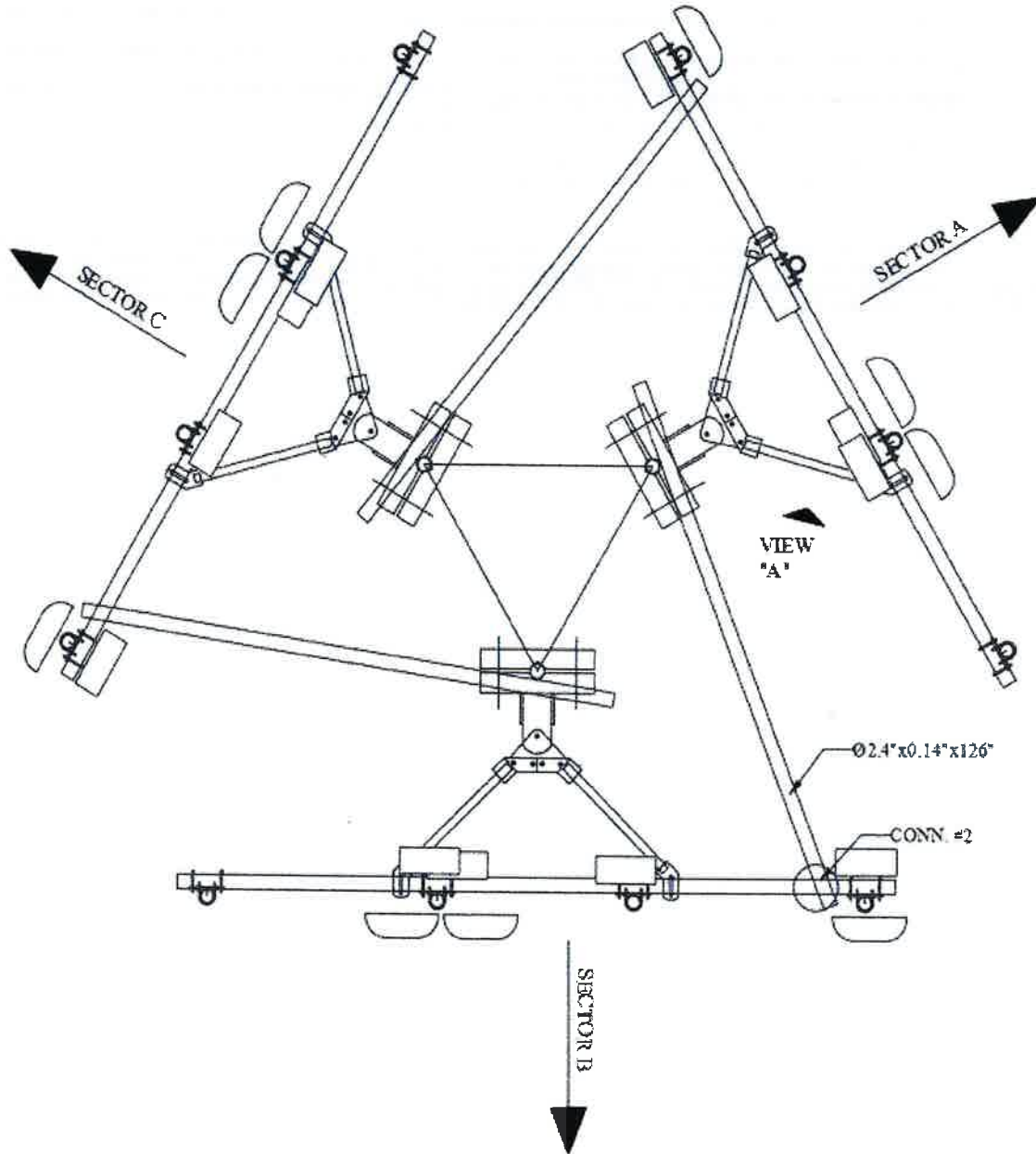
### Antenna Mount Mapping Form (PATENT PENDING)

FCC #  
N/A

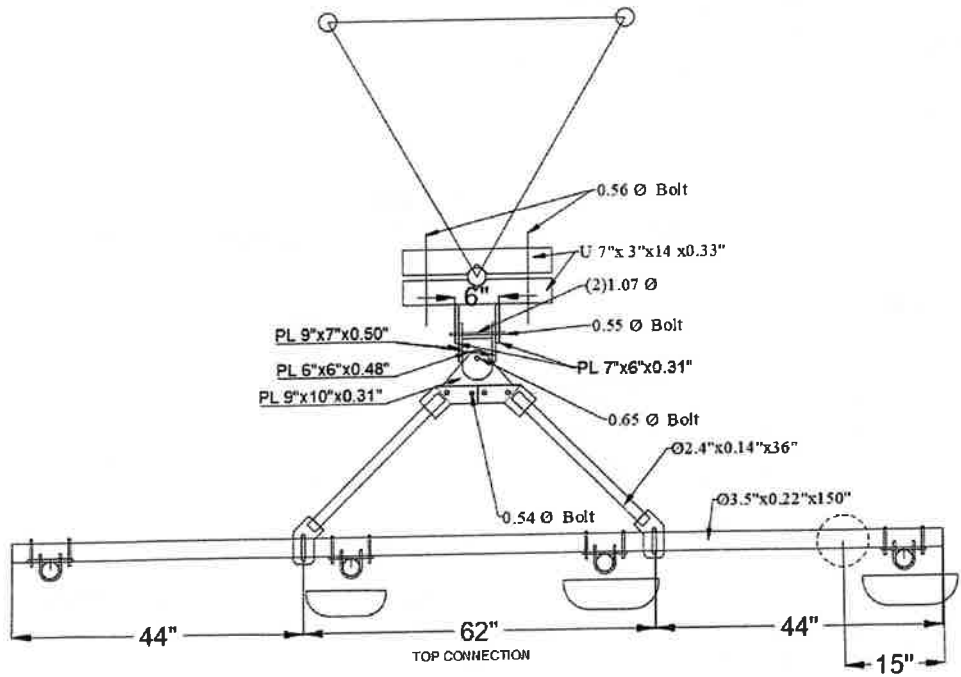
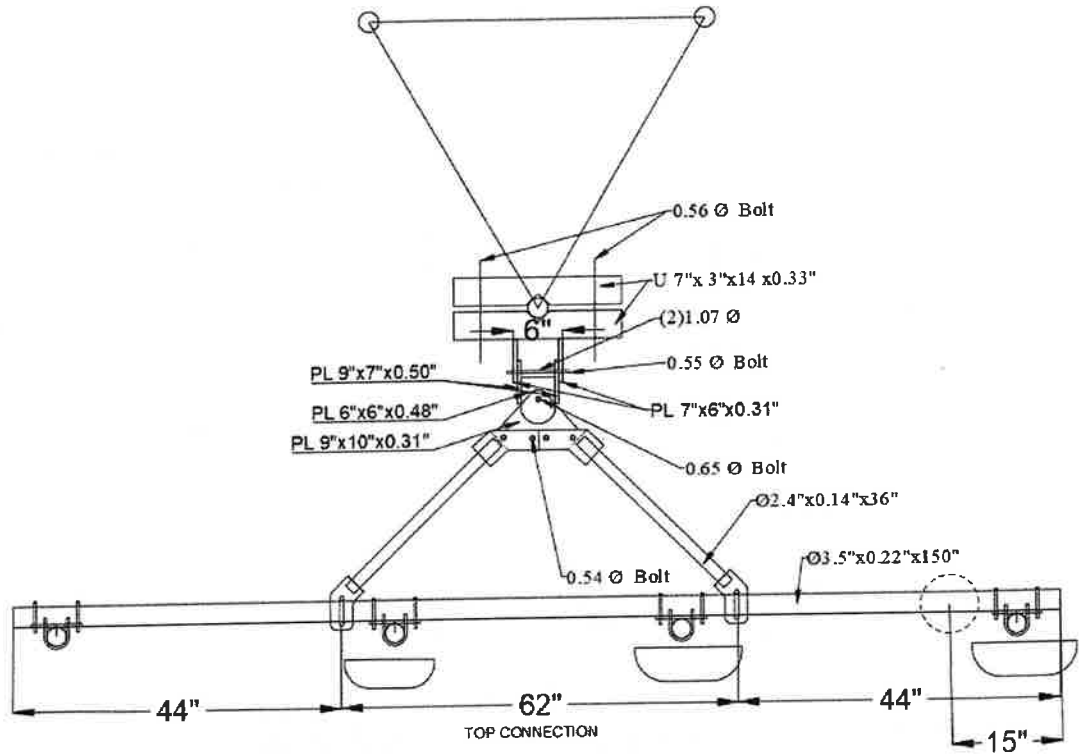
Tower Owner:	OTHER	Mapping Date:	3/25/2021
Site Name:	DANIELSON 2 CT	Tower Type:	Self Support
Site Number or ID:	PSLC468921	Tower Height (FT.):	N/A
Mapping Contractor:	Roaming Networks Inc.	Mount Elevation (FT.):	188.3

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

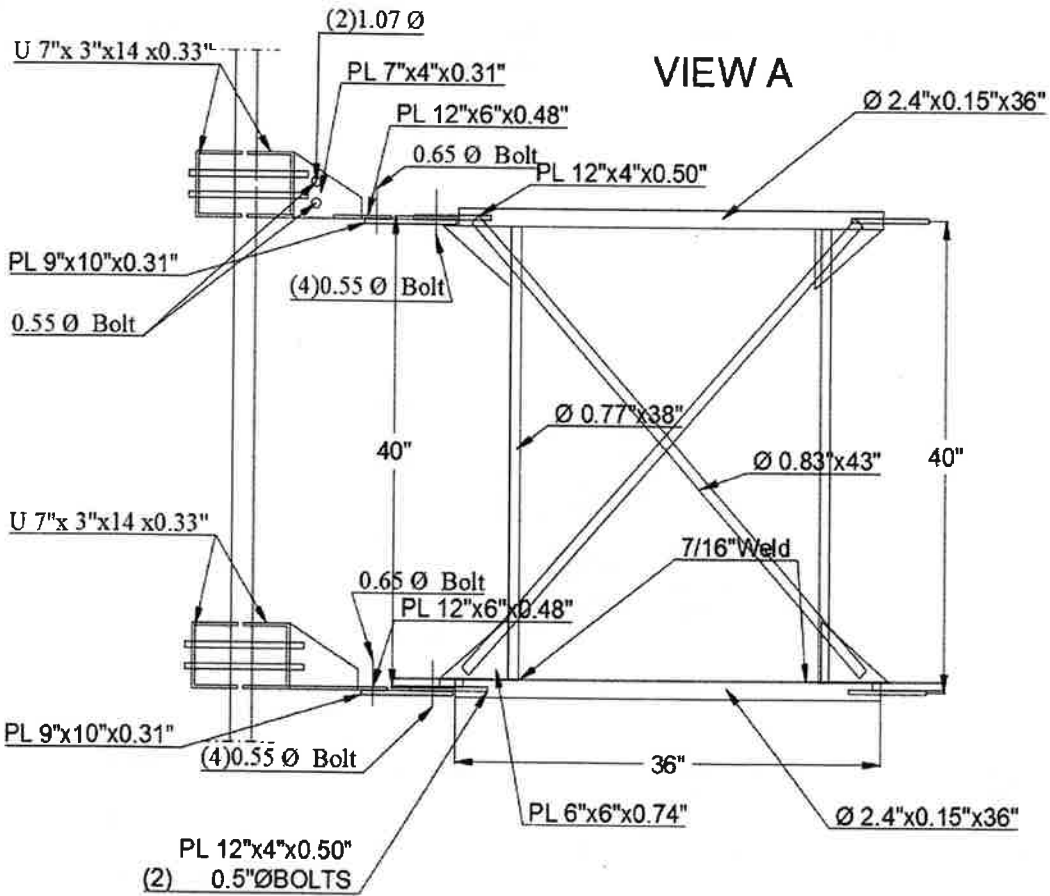
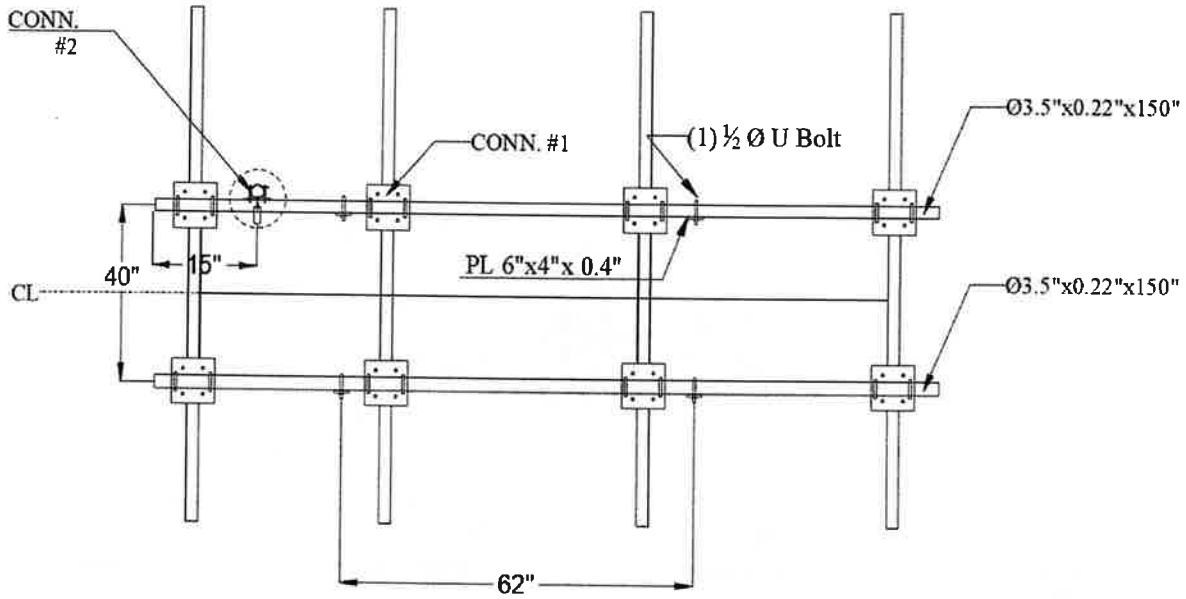


Please Insert Sketches of the Antenna Mount, cont'd

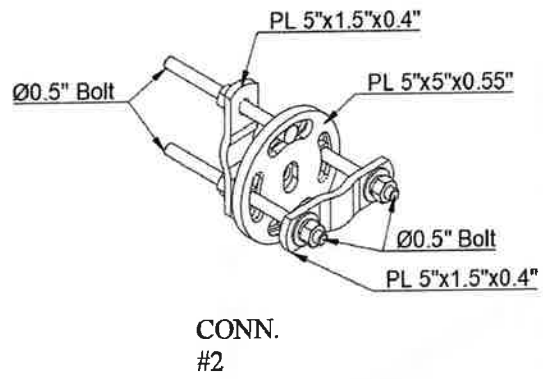
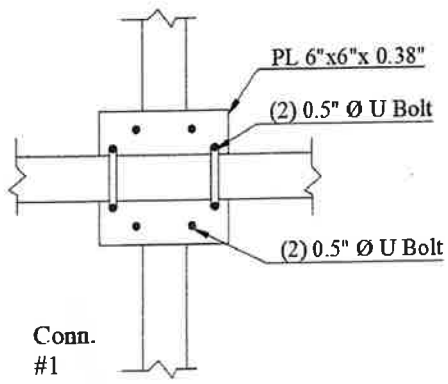


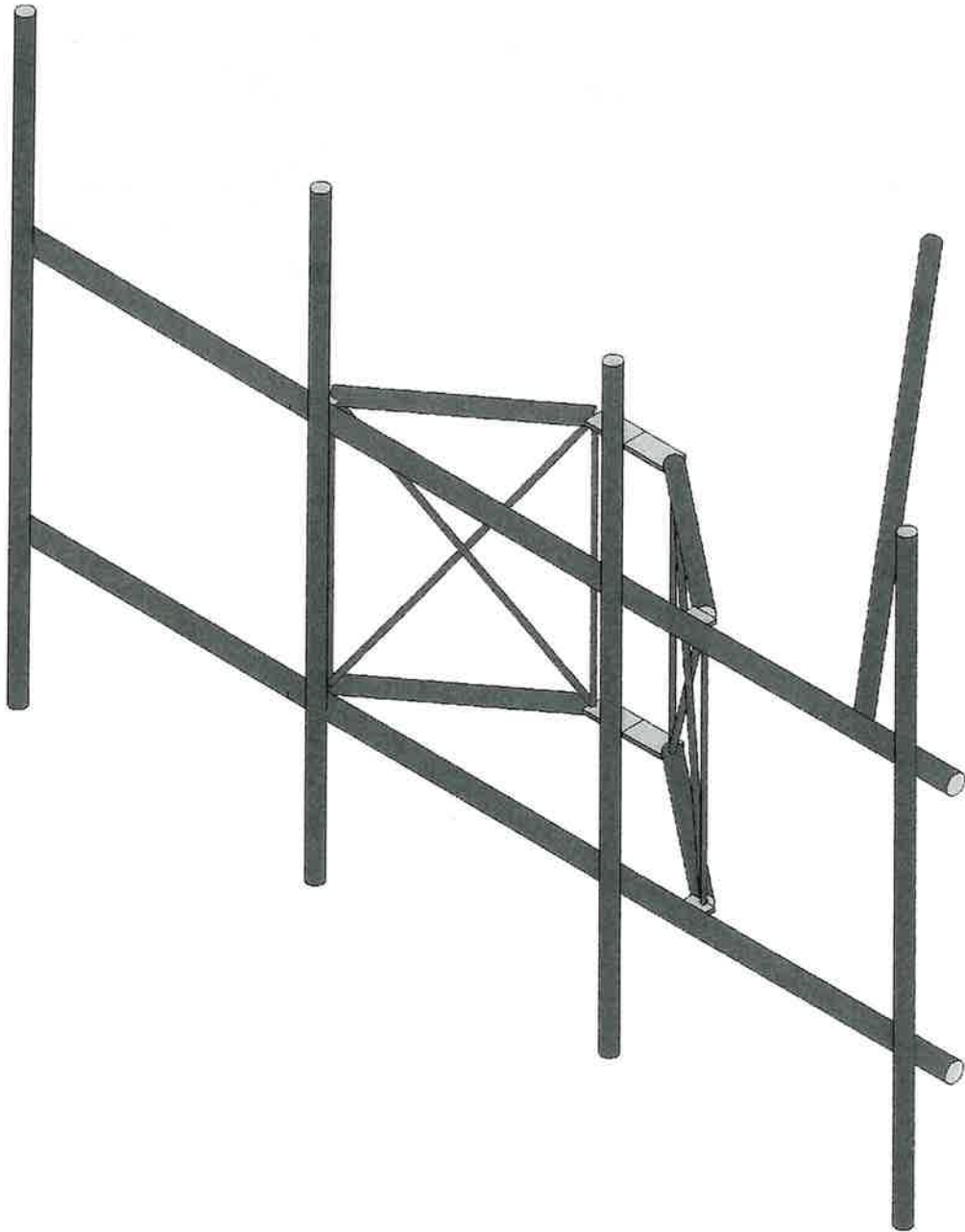


Please Insert Sketches of the Antenna Mount, cont'd



Please Insert Sketches of the Antenna Mount, cont'd





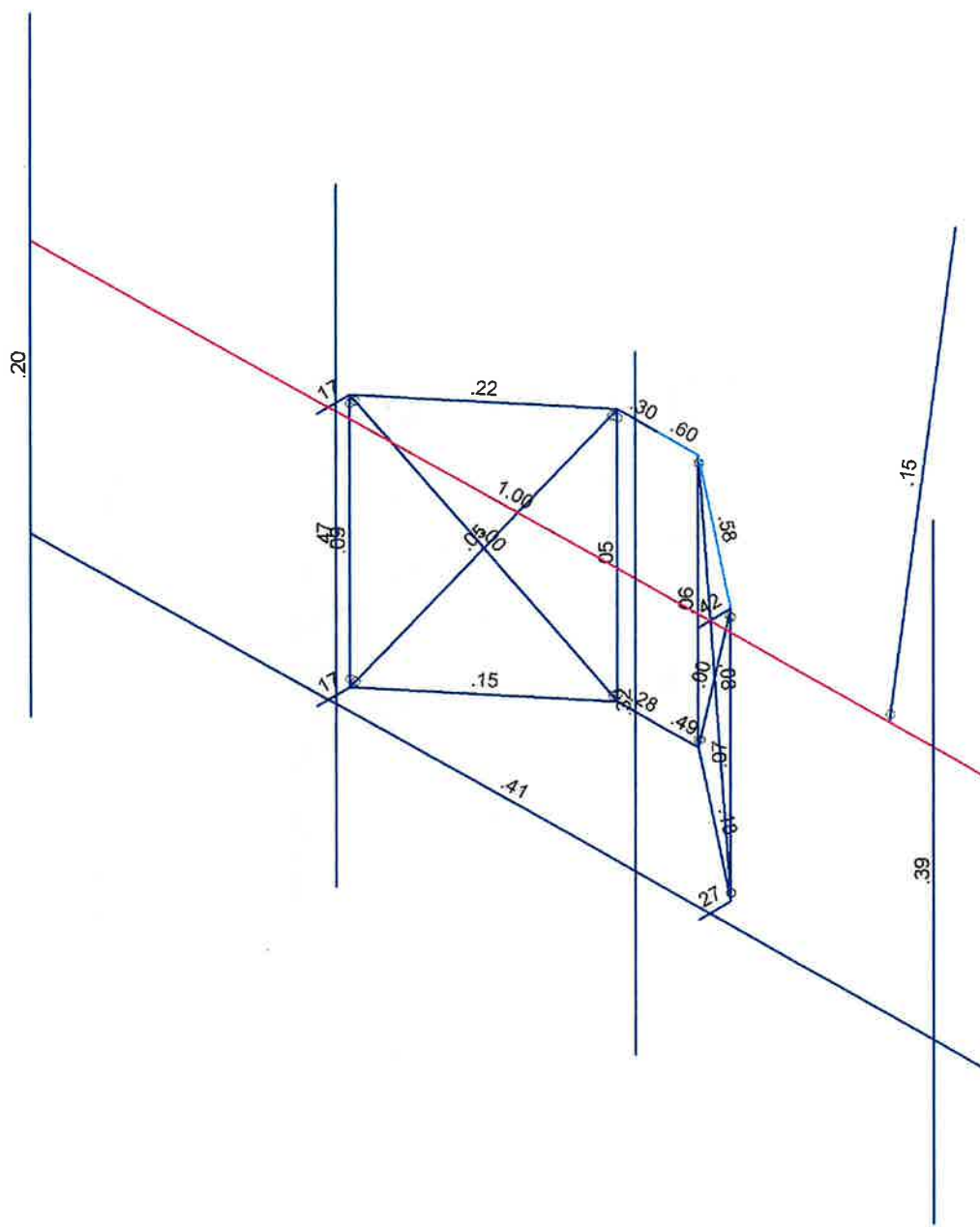
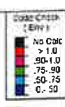
Envelope Only Solution


Rendered Model

SK - 1

July 17, 2023 at 10:00 AM

5000243657-VZW\_MT\_LOT\_C\_H.r3d



Member Code Checks Displayed (Enveloped)  
Envelope Only Solution


Bending Check

SK - 2
July 17, 2023 at 10:00 AM
5000243657-VZW_MT_LOT_C_H.r3d







Company :  
 Designer :  
 Job Number :  
 Model Name :

July 17, 2023  
 10:01 AM  
 Checked By: \_\_\_\_\_

**Basic Load Cases**

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





Company :  
 Designer :  
 Job Number :  
 Model Name :

July 17, 2023  
 10:01 AM  
 Checked By: \_\_\_\_\_

**Basic Load Cases (Continued)**

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
54	Structure Wi (30 Deg)	None						54	
55	Structure Wi (60 Deg)	None						54	
56	Structure Wi (90 Deg)	None						54	
57	Structure Wi (120 De..	None						54	
58	Structure Wi (150 De..	None						54	
59	Structure Wi (180 De..	None						54	
60	Structure Wi (210 De..	None						54	
61	Structure Wi (240 De..	None						54	
62	Structure Wi (270 De..	None						54	
63	Structure Wi (300 De..	None						54	
64	Structure Wi (330 De..	None						54	
65	Structure Wm (0 Deg)	None						54	
66	Structure Wm (30 De..	None						54	
67	Structure Wm (60 De..	None						54	
68	Structure Wm (90 De..	None						54	
69	Structure Wm (120 D...	None						54	
70	Structure Wm (150 D...	None						54	
71	Structure Wm (180 D...	None						54	
72	Structure Wm (210 D...	None						54	
73	Structure Wm (240 D...	None						54	
74	Structure Wm (270 D...	None						54	
75	Structure Wm (300 D...	None						54	
76	Structure Wm (330 D...	None						54	
77	Lm1	None					1		
78	Lm2	None					1		
79	Lv1	None					1		
80	Lv2	None					1		
81	Antenna Ev	None					33		
82	Antenna Eh (0 Deg)	None					22		
83	Antenna Eh (90 Deg)	None					22		
84	Structure Ev	ELY		-041					
85	Structure Eh (0 Deg)	ELZ			-.101				
86	Structure Eh (90 Deg)	ELX	.101						

**Load Combinations**

	Description	S...	P...	S...B...	Fa...B...	Fa...B...	Fa...B...	Fa...B...	Fa...B...	Fa...B...	Fa...B...	Fa...B...	Fa...B...	Fa...B...	Fa...B...
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 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	15	1	53	1
14	1.2D + 1.0Di + 1.0Wi (30 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	16	1	54	1
15	1.2D + 1.0Di + 1.0Wi (60 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	17	1	55	1
16	1.2D + 1.0Di + 1.0Wi (90 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	18	1	56	1
17	1.2D + 1.0Di + 1.0Wi (120 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	19	1	57	1
18	1.2D + 1.0Di + 1.0Wi (150 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	20	1	58	1
19	1.2D + 1.0Di + 1.0Wi (180 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	21	1	59	1





Company :  
 Designer :  
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 Model Name :

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 Checked By: \_\_\_\_\_

**Load Combinations (Continued)**

	Description	S	P	S	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	Fa	B	
20	1.2D + 1.0Di + 1.0Wi (210 Deg)	Yes	Y			1	1.2	39	1.2	2	1	40	1	22	1	60	1													
21	1.2D + 1.0Di + 1.0Wi (240 Deg)	Yes	Y			1	1.2	39	1.2	2	1	40	1	23	1	61	1													
22	1.2D + 1.0Di + 1.0Wi (270 Deg)	Yes	Y			1	1.2	39	1.2	2	1	40	1	24	1	62	1													
23	1.2D + 1.0Di + 1.0Wi (300 Deg)	Yes	Y			1	1.2	39	1.2	2	1	40	1	25	1	63	1													
24	1.2D + 1.0Di + 1.0Wi (330 Deg)	Yes	Y			1	1.2	39	1.2	2	1	40	1	26	1	64	1													
25	1.2D + 1.5Lm1 + 1.0Wm (0 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	27	1	65	1															
26	1.2D + 1.5Lm1 + 1.0Wm (30 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	28	1	66	1															
27	1.2D + 1.5Lm1 + 1.0Wm (60 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	29	1	67	1															
28	1.2D + 1.5Lm1 + 1.0Wm (90 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	30	1	68	1															
29	1.2D + 1.5Lm1 + 1.0Wm (120 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	31	1	69	1															
30	1.2D + 1.5Lm1 + 1.0Wm (150 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	32	1	70	1															
31	1.2D + 1.5Lm1 + 1.0Wm (180 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	33	1	71	1															
32	1.2D + 1.5Lm1 + 1.0Wm (210 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	34	1	72	1															
33	1.2D + 1.5Lm1 + 1.0Wm (240 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	35	1	73	1															
34	1.2D + 1.5Lm1 + 1.0Wm (270 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	36	1	74	1															
35	1.2D + 1.5Lm1 + 1.0Wm (300 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	37	1	75	1															
36	1.2D + 1.5Lm1 + 1.0Wm (330 Deg)	Yes	Y			1	1.2	39	1.2	77	1.5	38	1	76	1															
37	1.2D + 1.5Lm2 + 1.0Wm (0 Deg)	Yes	Y			1	1.2	39	1.2	78	1.5	27	1	65	1															
38	1.2D + 1.5Lm2 + 1.0Wm (30 Deg)	Yes	Y			1	1.2	39	1.2	78	1.5	28	1	66	1															
39	1.2D + 1.5Lm2 + 1.0Wm (60 Deg)	Yes	Y			1	1.2	39	1.2	78	1.5	29	1	67	1															
40	1.2D + 1.5Lm2 + 1.0Wm (90 Deg)	Yes	Y			1	1.2	39	1.2	78	1.5	30	1	68	1															
41	1.2D + 1.5Lm2 + 1.0Wm (120 Deg)	Yes	Y			1	1.2	39	1.2	78	1.5	31	1	69	1															
42	1.2D + 1.5Lm2 + 1.0Wm (150 Deg)	Yes	Y			1	1.2	39	1.2	78	1.5	32	1	70	1															
43	1.2D + 1.5Lm2 + 1.0Wm (180 Deg)	Yes	Y			1	1.2	39	1.2	78	1.5	33	1	71	1															
44	1.2D + 1.5Lm2 + 1.0Wm (210 Deg)	Yes	Y			1	1.2	39	1.2	78	1.5	34	1	72	1															
45	1.2D + 1.5Lm2 + 1.0Wm (240 Deg)	Yes	Y			1	1.2	39	1.2	78	1.5	35	1	73	1															
46	1.2D + 1.5Lm2 + 1.0Wm (270 Deg)	Yes	Y			1	1.2	39	1.2	78	1.5	36	1	74	1															
47	1.2D + 1.5Lm2 + 1.0Wm (300 Deg)	Yes	Y			1	1.2	39	1.2	78	1.5	37	1	75	1															
48	1.2D + 1.5Lm2 + 1.0Wm (330 Deg)	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 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82	1	83	E...	1	E...											
53	1.2D + 1.0Ev + 1.0Eh (30 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82	.866	83	.5	E...	.866	E...	.5									
54	1.2D + 1.0Ev + 1.0Eh (60 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82	.5	83	.866	E...	.5	E...	.866									
55	1.2D + 1.0Ev + 1.0Eh (90 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82		83	1	E...												
56	1.2D + 1.0Ev + 1.0Eh (120 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82	-.5	83	.866	E...	-.5	E...	.866									
57	1.2D + 1.0Ev + 1.0Eh (150 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82	-.8	83	.5	E...	-.8	E...	.5									
58	1.2D + 1.0Ev + 1.0Eh (180 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82	-1	83		E...	-1	E...										
59	1.2D + 1.0Ev + 1.0Eh (210 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82	-.8	83	-.5	E...	-.8	E...	-.5									
60	1.2D + 1.0Ev + 1.0Eh (240 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82	-.5	83	-.8	E...	-.5	E...	-.8									
61	1.2D + 1.0Ev + 1.0Eh (270 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82		83	-1	E...		E...	-1									
62	1.2D + 1.0Ev + 1.0Eh (300 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82	.5	83	-.8	E...	.5	E...	-.8									
63	1.2D + 1.0Ev + 1.0Eh (330 Deg)	Yes	Y			1	1.2	39	1.2	81	1	E...	1	82	.866	83	-.5	E...	.866	E...	-.5									
64	0.9D - 1.0Ev + 1.0Eh (0 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82	1	83		E...	1	E...										
65	0.9D - 1.0Ev + 1.0Eh (30 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82	.866	83	.5	E...	.866	E...	.5									
66	0.9D - 1.0Ev + 1.0Eh (60 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82	.5	83	.866	E...	.5	E...	.866									
67	0.9D - 1.0Ev + 1.0Eh (90 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82		83	1	E...		E...	1									
68	0.9D - 1.0Ev + 1.0Eh (120 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82	-.5	83	.866	E...	-.5	E...	.866									
69	0.9D - 1.0Ev + 1.0Eh (150 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82	-.8	83	.5	E...	-.8	E...	.5									
70	0.9D - 1.0Ev + 1.0Eh (180 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82	-1	83		E...	-1	E...										
71	0.9D - 1.0Ev + 1.0Eh (210 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82	-.8	83	-.5	E...	-.8	E...	-.5									
72	0.9D - 1.0Ev + 1.0Eh (240 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82	-.5	83	-.8	E...	-.5	E...	-.8									
73	0.9D - 1.0Ev + 1.0Eh (270 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82		83	-1	E...		E...	-1									
74	0.9D - 1.0Ev + 1.0Eh (300 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82	.5	83	-.8	E...	.5	E...	-.8									
75	0.9D - 1.0Ev + 1.0Eh (330 Deg)	Yes	Y			1	.9	39	.9	81	-1	E...	-1	82	.866	83	-.5	E...	.866	E...	-.5									



### Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	3.416667	0.145833	8.083333	0	
2	N2	-9.083333	0.145833	8.083333	0	
3	N3	3.416667	3.479167	8.083333	0	
4	N4	-9.083333	3.479167	8.083333	0	
5	N5	-8.833333	0.145833	8.083333	0	
6	N6	-8.833333	3.479167	8.083333	0	
7	N7	-4.833333	0.145833	8.083333	0	
8	N8	-4.833333	3.479167	8.083333	0	
9	N9	-0.916667	0.145833	8.083333	0	
10	N10	-0.916667	3.479167	8.083333	0	
11	N11	3	0.145833	8.083333	0	
12	N12	3	3.479167	8.083333	0	
13	N13	-8.833333	0.145833	8.333333	0	
14	N14	-8.833333	3.479167	8.333333	0	
15	N15	-4.833333	0.145833	8.333333	0	
16	N16	-4.833333	3.479167	8.333333	0	
17	N17	-0.916667	0.145833	8.333333	0	
18	N18	-0.916667	3.479167	8.333333	0	
19	N19	3	0.145833	8.333333	0	
20	N20	3	3.479167	8.333333	0	
21	N21	-5.333333	0	8.083333	0	
22	N22	-5.333333	3.333333	8.083333	0	
23	N23	-0.333333	0	8.083333	0	
24	N24	-0.333333	3.333333	8.083333	0	
25	N25	-5.333333	0	7.661458	0	
26	N26	-5.333333	3.333333	7.661458	0	
27	N27	-0.333333	0	7.661458	0	
28	N28	-0.333333	3.333333	7.661458	0	
29	N29	-2.833333	0	6.119792	0	
30	N30	-2.833333	3.333333	6.119792	0	
31	N31	-3.364583	0	6.119792	0	
32	N32	-3.364583	3.333333	6.119792	0	
33	N33	-2.302083	0	6.119792	0	
34	N34	-2.302083	3.333333	6.119792	0	
35	N35	-2.833333	0	5.119792	0	
36	N36	-2.833333	3.333333	5.119792	0	
37	N39	-8.833333	6.3125	8.333333	0	
38	N40	-4.833333	6.3125	8.333333	0	
39	N41	-0.916667	6.3125	8.333333	0	
40	N42	3	6.3125	8.333333	0	
41	N43	-8.833333	-1.6875	8.333333	0	
42	N44	-4.833333	-1.6875	8.333333	0	
43	N45	-0.916667	-1.6875	8.333333	0	
44	N46	3	-1.6875	8.333333	0	
45	N58	-5.333333	3.333333	7.708333	0	
46	N76	-2.927083	0	6.119792	0	
47	N77	-3.229167	0	6.119792	0	
48	N78	-2.739583	0	6.119792	0	
49	N79	-2.4375	0	6.119792	0	
50	N80	-2.927083	3.333333	6.119792	0	
51	N81	-3.229167	3.333333	6.119792	0	
52	N82	-2.739583	3.333333	6.119792	0	
53	N83	-2.4375	3.333333	6.119792	0	
54	N58A	-2.833333	3.479167	8.083333	0	
55	N59	-5.333333	0.145833	8.083333	0	
56	N60	-5.333333	3.479167	8.083333	0	





Company :  
 Designer :  
 Job Number :  
 Model Name :

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**Joint Coordinates and Temperatures (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
57	N61	-0.333333	0.145833	8.083333	0	
58	N62	-0.333333	3.479167	8.083333	0	
59	N60A	0.166667	3.479167	8.083333	0	
60	N63	2.166667	3.479167	8.083333	0	
61	N63A	-2.833333	3.666667	2.203125	0	

**Hot Rolled Steel Section Sets**

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Horizontal mount pipe	PIPE 2.5	Beam	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
3	Standoff Horizontal	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
4	Standoff Diagonal	SR 0.75	Beam	BAR	A36 Gr.36	Typical	.442	.016	.016	.031
5	Tieback	PIPE 2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
6	Standoff Vertical	SR 0.625	Column	BAR	A36 Gr.36	Typical	.307	.007	.007	.015
7	Standoff Plate	PL5/8X3.5	Beam	BAR	A36 Gr.36	Typical	2.188	.071	2.233	.253
8	tower pipe	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 (/1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	.3	.65	.49	42	1.4	58	1.3
6	A500 Gr. B 46	29000	11154	.3	.65	.49	46	1.4	58	1.3
7	Q235	29000	11154	.3	.65	.49	35	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	N2	N1			Horizontal mou...	Beam	Pipe	A53 Gr. B	Typical
2	M2	N4	N3			Horizontal mou...	Beam	Pipe	A53 Gr. B	Typical
3	M3	N5	N13			RIGID	None	None	RIGID	Typical
4	M4	N6	N14			RIGID	None	None	RIGID	Typical
5	M5	N8	N16			RIGID	None	None	RIGID	Typical
6	M6	N7	N15			RIGID	None	None	RIGID	Typical
7	M9	N10	N18			RIGID	None	None	RIGID	Typical
8	M10	N9	N17			RIGID	None	None	RIGID	Typical
9	M11	N12	N20			RIGID	None	None	RIGID	Typical
10	M12	N11	N19			RIGID	None	None	RIGID	Typical
11	M13	N22	N26		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
12	M14	N21	N25		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
13	M15	N23	N27		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
14	M16	N24	N28		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
15	M17	N26	N32			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
16	M18	N25	N31			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
17	M19	N27	N33			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
18	M20	N28	N34			Standoff Horiz...	Beam	Pipe	A53 Gr. B	Typical
19	M21	N32	N30		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
20	M22	N34	N30		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
21	M23	N31	N29		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
22	M24	N33	N29		90	Standoff Plate	Beam	BAR	A36 Gr.36	Typical
23	M25	N31	N26			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical



**Member Primary Data (Continued)**

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
24	M26	N32	N25			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
25	M27	N33	N28			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
26	M28	N27	N34			Standoff Diago...	Beam	BAR	A36 Gr.36	Typical
27	M29	N29	N35			RIGID	None	None	RIGID	Typical
28	M30	N30	N36			RIGID	None	None	RIGID	Typical
29	MP4A	N39	N43			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
30	MP3A	N40	N44			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
31	MP2A	N41	N45			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
32	MP1A	N42	N46			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
33	M44	N25	N26			Standoff Vertical	Column	BAR	A36 Gr.36	Typical
34	M45	N31	N32			Standoff Vertical	Column	BAR	A36 Gr.36	Typical
35	M46	N33	N34			Standoff Vertical	Column	BAR	A36 Gr.36	Typical
36	M47	N27	N28			Standoff Vertical	Column	BAR	A36 Gr.36	Typical
37	M47B	N22	N60			RIGID	None	None	RIGID	Typical
38	M48A	N21	N59			RIGID	None	None	RIGID	Typical
39	M49A	N24	N62			RIGID	None	None	RIGID	Typical
40	M50A	N23	N61			RIGID	None	None	RIGID	Typical
41	M51A	N30	N36			RIGID	None	None	RIGID	Typical
42	M52A	N29	N35			RIGID	None	None	RIGID	Typical
43	M44A	N63	N63A			Tieback	Beam	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				None
2	M2						Yes				None
3	M3						Yes	** NA **			None
4	M4						Yes	** NA **			None
5	M5						Yes	** NA **			None
6	M6						Yes	** NA **			None
7	M9						Yes	** NA **			None
8	M10						Yes	** NA **			None
9	M11						Yes	** NA **			None
10	M12						Yes	** NA **			None
11	M13						Yes	Default			None
12	M14						Yes	Default			None
13	M15						Yes				None
14	M16						Yes				None
15	M17						Yes	Default			None
16	M18						Yes				None
17	M19						Yes				None
18	M20						Yes	Default			None
19	M21						Yes	Default			None
20	M22						Yes				None
21	M23						Yes				None
22	M24						Yes				None
23	M25	BenPIN	BenPIN				Euler Buc...	Yes	Default		None
24	M26	BenPIN	BenPIN				Euler Buc...	Yes	Default		None
25	M27	BenPIN	BenPIN				Euler Buc...	Yes			None
26	M28	BenPIN	BenPIN				Euler Buc...	Yes			None
27	M29						Yes	** NA **		Inactive	None
28	M30						Yes	** NA **		Inactive	None
29	MP4A						Yes	** NA **			None
30	MP3A						Yes	** NA **			None
31	MP2A						Yes	** NA **			None
32	MP1A						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...
33	M44	BenPIN	BenPIN				Yes	** NA **			None
34	M45	BenPIN	BenPIN				Yes	** NA **			None
35	M46	BenPIN	BenPIN				Yes	** NA **			None
36	M47	BenPIN	BenPIN				Yes	** NA **			None
37	M47B		OOOXOO				Yes	** NA **			None
38	M48A		OOOXOO				Yes	** NA **			None
39	M49A		OOOXOO				Yes	** NA **			None
40	M50A		OOOXOO				Yes	** NA **			None
41	M51A						Yes	** NA **			None
42	M52A						Yes	** NA **			None
43	M44A	BenPIN					Yes	Default			None

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	Y	-31.65	1
2	MP3A	My	.021	1
3	MP3A	Mz	.012	1
4	MP3A	Y	-31.65	6
5	MP3A	My	.021	6
6	MP3A	Mz	.012	6
7	MP3A	Y	-31.65	1
8	MP3A	My	-.015	1
9	MP3A	Mz	.019	1
10	MP3A	Y	-31.65	6
11	MP3A	My	-.015	6
12	MP3A	Mz	.019	6
13	MP1A	Y	-43.55	2.5
14	MP1A	My	.004	2.5
15	MP1A	Mz	.021	2.5
16	MP1A	Y	-43.55	4.5
17	MP1A	My	.004	4.5
18	MP1A	Mz	.021	4.5
19	M1	Y	-10.4	7
20	M1	My	0	7
21	M1	Mz	0	7
22	MP2A	Y	-74.7	4
23	MP2A	My	-.006	4
24	MP2A	Mz	-.037	4
25	MP3A	Y	-70.3	4
26	MP3A	My	-.006	4
27	MP3A	Mz	-.035	4
28	MP3A	Y	-17.6	1
29	MP3A	My	.000764	1
30	MP3A	Mz	.004	1
31	MP3A	Y	-17.6	1
32	MP3A	My	-.002	1
33	MP3A	Mz	-.009	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	Y	-72.361	1
2	MP3A	My	.048	1
3	MP3A	Mz	.028	1
4	MP3A	Y	-72.361	6
5	MP3A	My	.048	6





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
6	MP3A	Mz	.028	6
7	MP3A	Y	-72.361	1
8	MP3A	My	-.035	1
9	MP3A	Mz	.043	1
10	MP3A	Y	-72.361	6
11	MP3A	Mv	-.035	6
12	MP3A	Mz	.043	6
13	MP1A	Y	-36.865	2.5
14	MP1A	My	.003	2.5
15	MP1A	Mz	.018	2.5
16	MP1A	Y	-36.865	4.5
17	MP1A	My	.003	4.5
18	MP1A	Mz	.018	4.5
19	M1	Y	-11.172	7
20	M1	My	0	7
21	M1	Mz	0	7
22	MP2A	Y	-46.502	4
23	MP2A	Mv	-.004	4
24	MP2A	Mz	-.023	4
25	MP3A	Y	-44.289	4
26	MP3A	My	-.004	4
27	MP3A	Mz	-.022	4
28	MP3A	Y	-18.014	1
29	MP3A	Mv	.000782	1
30	MP3A	Mz	.004	1
31	MP3A	Y	-18.014	1
32	MP3A	My	-.002	1
33	MP3A	Mz	-.009	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1
2	MP3A	Z	-120.184	1
3	MP3A	Mx	-.047	1
4	MP3A	X	0	6
5	MP3A	Z	-120.184	6
6	MP3A	Mx	-.047	6
7	MP3A	X	0	1
8	MP3A	Z	-120.184	1
9	MP3A	Mx	-.071	1
10	MP3A	X	0	6
11	MP3A	Z	-120.184	6
12	MP3A	Mx	-.071	6
13	MP1A	X	0	2.5
14	MP1A	Z	-28.228	2.5
15	MP1A	Mx	-.014	2.5
16	MP1A	X	0	4.5
17	MP1A	Z	-28.228	4.5
18	MP1A	Mx	-.014	4.5
19	M1	X	0	7
20	M1	Z	-11.252	7
21	M1	Mx	0	7
22	MP2A	X	0	4
23	MP2A	Z	-41.74	4
24	MP2A	Mx	.021	4
25	MP3A	X	0	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
26	MP3A	Z	-37.904	4
27	MP3A	Mx	.019	4
28	MP3A	X	0	1
29	MP3A	Z	-12.313	1
30	MP3A	Mx	-.003	1
31	MP3A	X	0	1
32	MP3A	Z	-12.313	1
33	MP3A	Mx	.006	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	71.933	1
2	MP3A	Z	-124.591	1
3	MP3A	Mx	-.001	1
4	MP3A	X	71.933	6
5	MP3A	Z	-124.591	6
6	MP3A	Mx	-.001	6
7	MP3A	X	71.933	1
8	MP3A	Z	-124.591	1
9	MP3A	Mx	-.109	1
10	MP3A	X	71.933	6
11	MP3A	Z	-124.591	6
12	MP3A	Mx	-.109	6
13	MP1A	X	23.847	2.5
14	MP1A	Z	-41.304	2.5
15	MP1A	Mx	-.018	2.5
16	MP1A	X	23.847	4.5
17	MP1A	Z	-41.304	4.5
18	MP1A	Mx	-.018	4.5
19	M1	X	5.062	7
20	M1	Z	-8.768	7
21	M1	Mx	0	7
22	MP2A	X	24.733	4
23	MP2A	Z	-42.838	4
24	MP2A	Mx	.019	4
25	MP3A	X	23.572	4
26	MP3A	Z	-40.828	4
27	MP3A	Mx	.018	4
28	MP3A	X	11.223	1
29	MP3A	Z	-19.438	1
30	MP3A	Mx	-.004	1
31	MP3A	X	11.223	1
32	MP3A	Z	-19.438	1
33	MP3A	Mx	.009	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	149.75	1
2	MP3A	Z	-86.458	1
3	MP3A	Mx	.065	1
4	MP3A	X	149.75	6
5	MP3A	Z	-86.458	6
6	MP3A	Mx	.065	6
7	MP3A	X	149.75	1
8	MP3A	Z	-86.458	1
9	MP3A	Mx	-.124	1





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
10	MP3A	X	149.75	6
11	MP3A	Z	-86.458	6
12	MP3A	Mx	-.124	6
13	MP1A	X	61.983	2.5
14	MP1A	Z	-35.786	2.5
15	MP1A	Mx	-.012	2.5
16	MP1A	X	61.983	4.5
17	MP1A	Z	-35.786	4.5
18	MP1A	Mx	-.012	4.5
19	M1	X	9.744	7
20	M1	Z	-5.626	7
21	M1	Mx	0	7
22	MP2A	X	51.046	4
23	MP2A	Z	-29.471	4
24	MP2A	Mx	.01	4
25	MP3A	X	50.645	4
26	MP3A	Z	-29.24	4
27	MP3A	Mx	.01	4
28	MP3A	X	30.201	1
29	MP3A	Z	-17.437	1
30	MP3A	Mx	-.003	1
31	MP3A	X	30.201	1
32	MP3A	Z	-17.437	1
33	MP3A	Mx	.006	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	178.284	1
2	MP3A	Z	0	1
3	MP3A	Mx	.118	1
4	MP3A	X	178.284	6
5	MP3A	Z	0	6
6	MP3A	Mx	.118	6
7	MP3A	X	178.284	1
8	MP3A	Z	0	1
9	MP3A	Mx	-.087	1
10	MP3A	X	178.284	6
11	MP3A	Z	0	6
12	MP3A	Mx	-.087	6
13	MP1A	X	75.985	2.5
14	MP1A	Z	0	2.5
15	MP1A	Mx	.007	2.5
16	MP1A	X	75.985	4.5
17	MP1A	Z	0	4.5
18	MP1A	Mx	.007	4.5
19	M1	X	13.506	7
20	M1	Z	0	7
21	M1	Mx	0	7
22	MP2A	X	60.694	4
23	MP2A	Z	0	4
24	MP2A	Mx	-.005	4
25	MP3A	X	60.574	4
26	MP3A	Z	0	4
27	MP3A	Mx	-.005	4
28	MP3A	X	37.17	1
29	MP3A	Z	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
30	MP3A	Mx	.002	1
31	MP3A	X	37.17	1
32	MP3A	Z	0	1
33	MP3A	Mx	-.003	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	133.889	1
2	MP3A	Z	77.301	1
3	MP3A	Mx	.119	1
4	MP3A	X	133.889	6
5	MP3A	Z	77.301	6
6	MP3A	Mx	.119	6
7	MP3A	X	133.889	1
8	MP3A	Z	77.301	1
9	MP3A	Mx	-.019	1
10	MP3A	X	133.889	6
11	MP3A	Z	77.301	6
12	MP3A	Mx	-.019	6
13	MP1A	X	48.947	2.5
14	MP1A	Z	28.26	2.5
15	MP1A	Mx	.018	2.5
16	MP1A	X	48.947	4.5
17	MP1A	Z	28.26	4.5
18	MP1A	Mx	.018	4.5
19	M1	X	12.673	7
20	M1	Z	7.317	7
21	M1	Mx	0	7
22	MP2A	X	45.872	4
23	MP2A	Z	26.484	4
24	MP2A	Mx	-.017	4
25	MP3A	X	44.456	4
26	MP3A	Z	25.667	4
27	MP3A	Mx	-.016	4
28	MP3A	X	23.416	1
29	MP3A	Z	13.519	1
30	MP3A	Mx	.004	1
31	MP3A	X	23.416	1
32	MP3A	Z	13.519	1
33	MP3A	Mx	-.009	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	62.776	1
2	MP3A	Z	108.731	1
3	MP3A	Mx	.084	1
4	MP3A	X	62.776	6
5	MP3A	Z	108.731	6
6	MP3A	Mx	.084	6
7	MP3A	X	62.776	1
8	MP3A	Z	108.731	1
9	MP3A	Mx	.034	1
10	MP3A	X	62.776	6
11	MP3A	Z	108.731	6
12	MP3A	Mx	.034	6
13	MP1A	X	16.32	2.5





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
14	MP1A	Z	28.268	2.5
15	MP1A	Mx	.015	2.5
16	MP1A	X	16.32	4.5
17	MP1A	Z	28.268	4.5
18	MP1A	Mx	.015	4.5
19	M1	X	6.753	7
20	M1	Z	11.697	7
21	M1	Mx	0	7
22	MP2A	X	21.746	4
23	MP2A	Z	37.664	4
24	MP2A	Mx	-.02	4
25	MP3A	X	19.999	4
26	MP3A	Z	34.64	4
27	MP3A	Mx	-.019	4
28	MP3A	X	7.305	1
29	MP3A	Z	12.653	1
30	MP3A	Mx	.003	1
31	MP3A	X	7.305	1
32	MP3A	Z	12.653	1
33	MP3A	Mx	-.007	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	0	1
2	MP3A	Z	120.184	1
3	MP3A	Mx	.047	1
4	MP3A	X	0	6
5	MP3A	Z	120.184	6
6	MP3A	Mx	.047	6
7	MP3A	X	0	1
8	MP3A	Z	120.184	1
9	MP3A	Mx	.071	1
10	MP3A	X	0	6
11	MP3A	Z	120.184	6
12	MP3A	Mx	.071	6
13	MP1A	X	0	2.5
14	MP1A	Z	28.228	2.5
15	MP1A	Mx	.014	2.5
16	MP1A	X	0	4.5
17	MP1A	Z	28.228	4.5
18	MP1A	Mx	.014	4.5
19	M1	X	0	7
20	M1	Z	11.252	7
21	M1	Mx	0	7
22	MP2A	X	0	4
23	MP2A	Z	41.74	4
24	MP2A	Mx	-.021	4
25	MP3A	X	0	4
26	MP3A	Z	37.904	4
27	MP3A	Mx	-.019	4
28	MP3A	X	0	1
29	MP3A	Z	12.313	1
30	MP3A	Mx	.003	1
31	MP3A	X	0	1
32	MP3A	Z	12.313	1
33	MP3A	Mx	-.006	1





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-71.933	1
2	MP3A	Z	124.591	1
3	MP3A	Mx	.001	1
4	MP3A	X	-71.933	6
5	MP3A	Z	124.591	6
6	MP3A	Mx	.001	6
7	MP3A	X	-71.933	1
8	MP3A	Z	124.591	1
9	MP3A	Mx	.109	1
10	MP3A	X	-71.933	6
11	MP3A	Z	124.591	6
12	MP3A	Mx	.109	6
13	MP1A	X	-23.847	2.5
14	MP1A	Z	41.304	2.5
15	MP1A	Mx	.018	2.5
16	MP1A	X	-23.847	4.5
17	MP1A	Z	41.304	4.5
18	MP1A	Mx	.018	4.5
19	M1	X	-5.062	7
20	M1	Z	8.768	7
21	M1	Mx	0	7
22	MP2A	X	-24.733	4
23	MP2A	Z	42.838	4
24	MP2A	Mx	-.019	4
25	MP3A	X	-23.572	4
26	MP3A	Z	40.828	4
27	MP3A	Mx	-.018	4
28	MP3A	X	-11.223	1
29	MP3A	Z	19.438	1
30	MP3A	Mx	.004	1
31	MP3A	X	-11.223	1
32	MP3A	Z	19.438	1
33	MP3A	Mx	-.009	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-149.75	1
2	MP3A	Z	86.458	1
3	MP3A	Mx	-.065	1
4	MP3A	X	-149.75	6
5	MP3A	Z	86.458	6
6	MP3A	Mx	-.065	6
7	MP3A	X	-149.75	1
8	MP3A	Z	86.458	1
9	MP3A	Mx	.124	1
10	MP3A	X	-149.75	6
11	MP3A	Z	86.458	6
12	MP3A	Mx	.124	6
13	MP1A	X	-61.983	2.5
14	MP1A	Z	35.786	2.5
15	MP1A	Mx	.012	2.5
16	MP1A	X	-61.983	4.5
17	MP1A	Z	35.786	4.5
18	MP1A	Mx	.012	4.5
19	M1	X	-9.744	7
20	M1	Z	5.626	7



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
21	M1	Mx	0	7
22	MP2A	X	-51.046	4
23	MP2A	Z	29.471	4
24	MP2A	Mx	-.01	4
25	MP3A	X	-50.645	4
26	MP3A	Z	29.24	4
27	MP3A	Mx	-.01	4
28	MP3A	X	-30.201	1
29	MP3A	Z	17.437	1
30	MP3A	Mx	.003	1
31	MP3A	X	-30.201	1
32	MP3A	Z	17.437	1
33	MP3A	Mx	-.006	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-178.284	1
2	MP3A	Z	0	1
3	MP3A	Mx	-.118	1
4	MP3A	X	-178.284	6
5	MP3A	Z	0	6
6	MP3A	Mx	-.118	6
7	MP3A	X	-178.284	1
8	MP3A	Z	0	1
9	MP3A	Mx	.087	1
10	MP3A	X	-178.284	6
11	MP3A	Z	0	6
12	MP3A	Mx	.087	6
13	MP1A	X	-75.985	2.5
14	MP1A	Z	0	2.5
15	MP1A	Mx	-.007	2.5
16	MP1A	X	-75.985	4.5
17	MP1A	Z	0	4.5
18	MP1A	Mx	-.007	4.5
19	M1	X	-13.506	7
20	M1	Z	0	7
21	M1	Mx	0	7
22	MP2A	X	-60.694	4
23	MP2A	Z	0	4
24	MP2A	Mx	.005	4
25	MP3A	X	-60.574	4
26	MP3A	Z	0	4
27	MP3A	Mx	.005	4
28	MP3A	X	-37.17	1
29	MP3A	Z	0	1
30	MP3A	Mx	-.002	1
31	MP3A	X	-37.17	1
32	MP3A	Z	0	1
33	MP3A	Mx	.003	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-133.889	1
2	MP3A	Z	-77.301	1
3	MP3A	Mx	-.119	1
4	MP3A	X	-133.889	6





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
5	MP3A	Z	-77.301	6
6	MP3A	Mx	-.119	6
7	MP3A	X	-133.889	1
8	MP3A	Z	-77.301	1
9	MP3A	Mx	.019	1
10	MP3A	X	-133.889	6
11	MP3A	Z	-77.301	6
12	MP3A	Mx	.019	6
13	MP1A	X	-48.947	2.5
14	MP1A	Z	-28.26	2.5
15	MP1A	Mx	-.018	2.5
16	MP1A	X	-48.947	4.5
17	MP1A	Z	-28.26	4.5
18	MP1A	Mx	-.018	4.5
19	M1	X	-12.673	7
20	M1	Z	-7.317	7
21	M1	Mx	0	7
22	MP2A	X	-45.872	4
23	MP2A	Z	-26.484	4
24	MP2A	Mx	.017	4
25	MP3A	X	-44.456	4
26	MP3A	Z	-25.667	4
27	MP3A	Mx	.016	4
28	MP3A	X	-23.416	1
29	MP3A	Z	-13.519	1
30	MP3A	Mx	-.004	1
31	MP3A	X	-23.416	1
32	MP3A	Z	-13.519	1
33	MP3A	Mx	.009	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-62.776	1
2	MP3A	Z	-108.731	1
3	MP3A	Mx	-.084	1
4	MP3A	X	-62.776	6
5	MP3A	Z	-108.731	6
6	MP3A	Mx	-.084	6
7	MP3A	X	-62.776	1
8	MP3A	Z	-108.731	1
9	MP3A	Mx	-.034	1
10	MP3A	X	-62.776	6
11	MP3A	Z	-108.731	6
12	MP3A	Mx	-.034	6
13	MP1A	X	-16.32	2.5
14	MP1A	Z	-28.268	2.5
15	MP1A	Mx	-.015	2.5
16	MP1A	X	-16.32	4.5
17	MP1A	Z	-28.268	4.5
18	MP1A	Mx	-.015	4.5
19	M1	X	-6.753	7
20	M1	Z	-11.697	7
21	M1	Mx	0	7
22	MP2A	X	-21.746	4
23	MP2A	Z	-37.664	4
24	MP2A	Mx	.02	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
25	MP3A	X	-19.999	4
26	MP3A	Z	-34.64	4
27	MP3A	Mx	.019	4
28	MP3A	X	-7.305	1
29	MP3A	Z	-12.653	1
30	MP3A	Mx	-.003	1
31	MP3A	X	-7.305	1
32	MP3A	Z	-12.653	1
33	MP3A	Mx	.007	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	0	1
2	MP3A	Z	-21.935	1
3	MP3A	Mx	-.009	1
4	MP3A	X	0	6
5	MP3A	Z	-21.935	6
6	MP3A	Mx	-.009	6
7	MP3A	X	0	1
8	MP3A	Z	-21.935	1
9	MP3A	Mx	-.013	1
10	MP3A	X	0	6
11	MP3A	Z	-21.935	6
12	MP3A	Mx	-.013	6
13	MP1A	X	0	2.5
14	MP1A	Z	-7.493	2.5
15	MP1A	Mx	-.004	2.5
16	MP1A	X	0	4.5
17	MP1A	Z	-7.493	4.5
18	MP1A	Mx	-.004	4.5
19	M1	X	0	7
20	M1	Z	-2.83	7
21	M1	Mx	0	7
22	MP2A	X	0	4
23	MP2A	Z	-10.045	4
24	MP2A	Mx	.005	4
25	MP3A	X	0	4
26	MP3A	Z	-9.291	4
27	MP3A	Mx	.005	4
28	MP3A	X	0	1
29	MP3A	Z	-3.12	1
30	MP3A	Mx	-.000768	1
31	MP3A	X	0	1
32	MP3A	Z	-3.12	1
33	MP3A	Mx	.002	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	12.891	1
2	MP3A	Z	-22.328	1
3	MP3A	Mx	-.000208	1
4	MP3A	X	12.891	6
5	MP3A	Z	-22.328	6
6	MP3A	Mx	-.000208	6
7	MP3A	X	12.891	1
8	MP3A	Z	-22.328	1





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
9	MP3A	Mx	-.02	1
10	MP3A	X	12.891	6
11	MP3A	Z	-22.328	6
12	MP3A	Mx	-.02	6
13	MP1A	X	5.597	2.5
14	MP1A	Z	-9.693	2.5
15	MP1A	Mx	-.004	2.5
16	MP1A	X	5.597	4.5
17	MP1A	Z	-9.693	4.5
18	MP1A	Mx	-.004	4.5
19	M1	X	1.307	7
20	M1	Z	-2.264	7
21	M1	Mx	0	7
22	MP2A	X	5.85	4
23	MP2A	Z	-10.133	4
24	MP2A	Mx	.004	4
25	MP3A	X	5.622	4
26	MP3A	Z	-9.738	4
27	MP3A	Mx	.004	4
28	MP3A	X	2.492	1
29	MP3A	Z	-4.317	1
30	MP3A	Mx	-.000955	1
31	MP3A	X	2.492	1
32	MP3A	Z	-4.317	1
33	MP3A	Mx	.002	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	26.415	1
2	MP3A	Z	-15.251	1
3	MP3A	Mx	.012	1
4	MP3A	X	26.415	6
5	MP3A	Z	-15.251	6
6	MP3A	Mx	.012	6
7	MP3A	X	26.415	1
8	MP3A	Z	-15.251	1
9	MP3A	Mx	-.022	1
10	MP3A	X	26.415	6
11	MP3A	Z	-15.251	6
12	MP3A	Mx	-.022	6
13	MP1A	X	13.624	2.5
14	MP1A	Z	-7.866	2.5
15	MP1A	Mx	-.003	2.5
16	MP1A	X	13.624	4.5
17	MP1A	Z	-7.866	4.5
18	MP1A	Mx	-.003	4.5
19	M1	X	2.451	7
20	M1	Z	-1.415	7
21	M1	Mx	0	7
22	MP2A	X	11.891	4
23	MP2A	Z	-6.865	4
24	MP2A	Mx	.002	4
25	MP3A	X	11.812	4
26	MP3A	Z	-6.82	4
27	MP3A	Mx	.002	4
28	MP3A	X	6.298	1





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
29	MP3A	Z	-3.636	1
30	MP3A	Mx	-0.00622	1
31	MP3A	X	6.298	1
32	MP3A	Z	-3.636	1
33	MP3A	Mx	.001	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	31.373	1
2	MP3A	Z	0	1
3	MP3A	Mx	.021	1
4	MP3A	X	31.373	6
5	MP3A	Z	0	6
6	MP3A	Mx	.021	6
7	MP3A	X	31.373	1
8	MP3A	Z	0	1
9	MP3A	Mx	-.015	1
10	MP3A	X	31.373	6
11	MP3A	Z	0	6
12	MP3A	Mx	-.015	6
13	MP1A	X	16.57	2.5
14	MP1A	Z	0	2.5
15	MP1A	Mx	.001	2.5
16	MP1A	X	16.57	4.5
17	MP1A	Z	0	4.5
18	MP1A	Mx	.001	4.5
19	M1	X	3.261	7
20	M1	Z	0	7
21	M1	Mx	0	7
22	MP2A	X	14.106	4
23	MP2A	Z	0	4
24	MP2A	Mx	-.001	4
25	MP3A	X	14.082	4
26	MP3A	Z	0	4
27	MP3A	Mx	-.001	4
28	MP3A	X	7.695	1
29	MP3A	Z	0	1
30	MP3A	Mx	.000334	1
31	MP3A	X	7.695	1
32	MP3A	Z	0	1
33	MP3A	Mx	-0.00668	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	23.838	1
2	MP3A	Z	13.763	1
3	MP3A	Mx	.021	1
4	MP3A	X	23.838	6
5	MP3A	Z	13.763	6
6	MP3A	Mx	.021	6
7	MP3A	X	23.838	1
8	MP3A	Z	13.763	1
9	MP3A	Mx	-.003	1
10	MP3A	X	23.838	6
11	MP3A	Z	13.763	6
12	MP3A	Mx	-.003	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
13	MP1A	X	11.146	2.5
14	MP1A	Z	6.435	2.5
15	MP1A	Mx	.004	2.5
16	MP1A	X	11.146	4.5
17	MP1A	Z	6.435	4.5
18	MP1A	Mx	.004	4.5
19	M1	X	3.011	7
20	M1	Z	1.738	7
21	M1	Mx	0	7
22	MP2A	X	10.783	4
23	MP2A	Z	6.225	4
24	MP2A	Mx	-.004	4
25	MP3A	X	10.504	4
26	MP3A	Z	6.065	4
27	MP3A	Mx	-.004	4
28	MP3A	X	5.049	1
29	MP3A	Z	2.915	1
30	MP3A	Mx	.000937	1
31	MP3A	X	5.049	1
32	MP3A	Z	2.915	1
33	MP3A	Mx	-.002	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	11.404	1
2	MP3A	Z	19.752	1
3	MP3A	Mx	.015	1
4	MP3A	X	11.404	6
5	MP3A	Z	19.752	6
6	MP3A	Mx	.015	6
7	MP3A	X	11.404	1
8	MP3A	Z	19.752	1
9	MP3A	Mx	.006	1
10	MP3A	X	11.404	6
11	MP3A	Z	19.752	6
12	MP3A	Mx	.006	6
13	MP1A	X	4.166	2.5
14	MP1A	Z	7.216	2.5
15	MP1A	Mx	.004	2.5
16	MP1A	X	4.166	4.5
17	MP1A	Z	7.216	4.5
18	MP1A	Mx	.004	4.5
19	M1	X	1.631	7
20	M1	Z	2.824	7
21	M1	Mx	0	7
22	MP2A	X	5.21	4
23	MP2A	Z	9.024	4
24	MP2A	Mx	-.005	4
25	MP3A	X	4.867	4
26	MP3A	Z	8.43	4
27	MP3A	Mx	-.005	4
28	MP3A	X	1.772	1
29	MP3A	Z	3.068	1
30	MP3A	Mx	.000832	1
31	MP3A	X	1.772	1
32	MP3A	Z	3.068	1





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
33	MP3A	Mx	-.002	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1
2	MP3A	Z	21.935	1
3	MP3A	Mx	.009	1
4	MP3A	X	0	6
5	MP3A	Z	21.935	6
6	MP3A	Mx	.009	6
7	MP3A	X	0	1
8	MP3A	Z	21.935	1
9	MP3A	Mx	.013	1
10	MP3A	X	0	6
11	MP3A	Z	21.935	6
12	MP3A	Mx	.013	6
13	MP1A	X	0	2.5
14	MP1A	Z	7.493	2.5
15	MP1A	Mx	.004	2.5
16	MP1A	X	0	4.5
17	MP1A	Z	7.493	4.5
18	MP1A	Mx	.004	4.5
19	M1	X	0	7
20	M1	Z	2.83	7
21	M1	Mx	0	7
22	MP2A	X	0	4
23	MP2A	Z	10.045	4
24	MP2A	Mx	-.005	4
25	MP3A	X	0	4
26	MP3A	Z	9.291	4
27	MP3A	Mx	-.005	4
28	MP3A	X	0	1
29	MP3A	Z	3.12	1
30	MP3A	Mx	.000768	1
31	MP3A	X	0	1
32	MP3A	Z	3.12	1
33	MP3A	Mx	-.002	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-12.891	1
2	MP3A	Z	22.328	1
3	MP3A	Mx	.000208	1
4	MP3A	X	-12.891	6
5	MP3A	Z	22.328	6
6	MP3A	Mx	.000208	6
7	MP3A	X	-12.891	1
8	MP3A	Z	22.328	1
9	MP3A	Mx	.02	1
10	MP3A	X	-12.891	6
11	MP3A	Z	22.328	6
12	MP3A	Mx	.02	6
13	MP1A	X	-5.597	2.5
14	MP1A	Z	9.693	2.5
15	MP1A	Mx	.004	2.5
16	MP1A	X	-5.597	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
17	MP1A	Z	9.693	4.5
18	MP1A	Mx	.004	4.5
19	M1	X	-1.307	7
20	M1	Z	2.264	7
21	M1	Mx	0	7
22	MP2A	X	-5.85	4
23	MP2A	Z	10.133	4
24	MP2A	Mx	-.004	4
25	MP3A	X	-5.622	4
26	MP3A	Z	9.738	4
27	MP3A	Mx	-.004	4
28	MP3A	X	-2.492	1
29	MP3A	Z	4.317	1
30	MP3A	Mx	.000955	1
31	MP3A	X	-2.492	1
32	MP3A	Z	4.317	1
33	MP3A	Mx	-.002	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-26.415	1
2	MP3A	Z	15.251	1
3	MP3A	Mx	-.012	1
4	MP3A	X	-26.415	6
5	MP3A	Z	15.251	6
6	MP3A	Mx	-.012	6
7	MP3A	X	-26.415	1
8	MP3A	Z	15.251	1
9	MP3A	Mx	.022	1
10	MP3A	X	-26.415	6
11	MP3A	Z	15.251	6
12	MP3A	Mx	.022	6
13	MP1A	X	-13.624	2.5
14	MP1A	Z	7.866	2.5
15	MP1A	Mx	.003	2.5
16	MP1A	X	-13.624	4.5
17	MP1A	Z	7.866	4.5
18	MP1A	Mx	.003	4.5
19	M1	X	-2.451	7
20	M1	Z	1.415	7
21	M1	Mx	0	7
22	MP2A	X	-11.891	4
23	MP2A	Z	6.865	4
24	MP2A	Mx	-.002	4
25	MP3A	X	-11.812	4
26	MP3A	Z	6.82	4
27	MP3A	Mx	-.002	4
28	MP3A	X	-6.298	1
29	MP3A	Z	3.636	1
30	MP3A	Mx	.000622	1
31	MP3A	X	-6.298	1
32	MP3A	Z	3.636	1
33	MP3A	Mx	-.001	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
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**Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-31.373	1
2	MP3A	Z	0	1
3	MP3A	Mx	-.021	1
4	MP3A	X	-31.373	6
5	MP3A	Z	0	6
6	MP3A	Mx	-.021	6
7	MP3A	X	-31.373	1
8	MP3A	Z	0	1
9	MP3A	Mx	.015	1
10	MP3A	X	-31.373	6
11	MP3A	Z	0	6
12	MP3A	Mx	.015	6
13	MP1A	X	-16.57	2.5
14	MP1A	Z	0	2.5
15	MP1A	Mx	-.001	2.5
16	MP1A	X	-16.57	4.5
17	MP1A	Z	0	4.5
18	MP1A	Mx	-.001	4.5
19	M1	X	-3.261	7
20	M1	Z	0	7
21	M1	Mx	0	7
22	MP2A	X	-14.106	4
23	MP2A	Z	0	4
24	MP2A	Mx	.001	4
25	MP3A	X	-14.082	4
26	MP3A	Z	0	4
27	MP3A	Mx	.001	4
28	MP3A	X	-7.695	1
29	MP3A	Z	0	1
30	MP3A	Mx	-.000334	1
31	MP3A	X	-7.695	1
32	MP3A	Z	0	1
33	MP3A	Mx	.000668	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-23.838	1
2	MP3A	Z	-13.763	1
3	MP3A	Mx	-.021	1
4	MP3A	X	-23.838	6
5	MP3A	Z	-13.763	6
6	MP3A	Mx	-.021	6
7	MP3A	X	-23.838	1
8	MP3A	Z	-13.763	1
9	MP3A	Mx	.003	1
10	MP3A	X	-23.838	6
11	MP3A	Z	-13.763	6
12	MP3A	Mx	.003	6
13	MP1A	X	-11.146	2.5
14	MP1A	Z	-6.435	2.5
15	MP1A	Mx	-.004	2.5
16	MP1A	X	-11.146	4.5
17	MP1A	Z	-6.435	4.5
18	MP1A	Mx	-.004	4.5
19	M1	X	-3.011	7
20	M1	Z	-1.738	7



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
21	M1	Mx	0	7
22	MP2A	X	-10.783	4
23	MP2A	Z	-6.225	4
24	MP2A	Mx	.004	4
25	MP3A	X	-10.504	4
26	MP3A	Z	-6.065	4
27	MP3A	Mx	.004	4
28	MP3A	X	-5.049	1
29	MP3A	Z	-2.915	1
30	MP3A	Mx	-0.00937	1
31	MP3A	X	-5.049	1
32	MP3A	Z	-2.915	1
33	MP3A	Mx	.002	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-11.404	1
2	MP3A	Z	-19.752	1
3	MP3A	Mx	-.015	1
4	MP3A	X	-11.404	6
5	MP3A	Z	-19.752	6
6	MP3A	Mx	-.015	6
7	MP3A	X	-11.404	1
8	MP3A	Z	-19.752	1
9	MP3A	Mx	-.006	1
10	MP3A	X	-11.404	6
11	MP3A	Z	-19.752	6
12	MP3A	Mx	-.006	6
13	MP1A	X	-4.166	2.5
14	MP1A	Z	-7.216	2.5
15	MP1A	Mx	-.004	2.5
16	MP1A	X	-4.166	4.5
17	MP1A	Z	-7.216	4.5
18	MP1A	Mx	-.004	4.5
19	M1	X	-1.631	7
20	M1	Z	-2.824	7
21	M1	Mx	0	7
22	MP2A	X	-5.21	4
23	MP2A	Z	-9.024	4
24	MP2A	Mx	.005	4
25	MP3A	X	-4.867	4
26	MP3A	Z	-8.43	4
27	MP3A	Mx	.005	4
28	MP3A	X	-1.772	1
29	MP3A	Z	-3.068	1
30	MP3A	Mx	-0.00832	1
31	MP3A	X	-1.772	1
32	MP3A	Z	-3.068	1
33	MP3A	Mx	.002	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1
2	MP3A	Z	-6.923	1
3	MP3A	Mx	-.003	1
4	MP3A	X	0	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
5	MP3A	Z	-6.923	6
6	MP3A	Mx	-.003	6
7	MP3A	X	0	1
8	MP3A	Z	-6.923	1
9	MP3A	Mx	-.004	1
10	MP3A	X	0	6
11	MP3A	Z	-6.923	6
12	MP3A	Mx	-.004	6
13	MP1A	X	0	2.5
14	MP1A	Z	-1.626	2.5
15	MP1A	Mx	-.000801	2.5
16	MP1A	X	0	4.5
17	MP1A	Z	-1.626	4.5
18	MP1A	Mx	-.000801	4.5
19	M1	X	0	7
20	M1	Z	-.648	7
21	M1	Mx	0	7
22	MP2A	X	0	4
23	MP2A	Z	-2.404	4
24	MP2A	Mx	.001	4
25	MP3A	X	0	4
26	MP3A	Z	-2.183	4
27	MP3A	Mx	.001	4
28	MP3A	X	0	1
29	MP3A	Z	-.709	1
30	MP3A	Mx	-.000175	1
31	MP3A	X	0	1
32	MP3A	Z	-.709	1
33	MP3A	Mx	.000349	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	4.143	1
2	MP3A	Z	-7.176	1
3	MP3A	Mx	-6.7e-5	1
4	MP3A	X	4.143	6
5	MP3A	Z	-7.176	6
6	MP3A	Mx	-6.7e-5	6
7	MP3A	X	4.143	1
8	MP3A	Z	-7.176	1
9	MP3A	Mx	-.006	1
10	MP3A	X	4.143	6
11	MP3A	Z	-7.176	6
12	MP3A	Mx	-.006	6
13	MP1A	X	1.374	2.5
14	MP1A	Z	-2.379	2.5
15	MP1A	Mx	-.001	2.5
16	MP1A	X	1.374	4.5
17	MP1A	Z	-2.379	4.5
18	MP1A	Mx	-.001	4.5
19	M1	X	.292	7
20	M1	Z	-.505	7
21	M1	Mx	0	7
22	MP2A	X	1.425	4
23	MP2A	Z	-2.467	4
24	MP2A	Mx	.001	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
25	MP3A	X	1.358	4
26	MP3A	Z	-2.352	4
27	MP3A	Mx	.001	4
28	MP3A	X	.646	1
29	MP3A	Z	-1.12	1
30	MP3A	Mx	-.000248	1
31	MP3A	X	.646	1
32	MP3A	Z	-1.12	1
33	MP3A	Mx	.000495	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	8.626	1
2	MP3A	Z	-4.98	1
3	MP3A	Mx	.004	1
4	MP3A	X	8.626	6
5	MP3A	Z	-4.98	6
6	MP3A	Mx	.004	6
7	MP3A	X	8.626	1
8	MP3A	Z	-4.98	1
9	MP3A	Mx	-.007	1
10	MP3A	X	8.626	6
11	MP3A	Z	-4.98	6
12	MP3A	Mx	-.007	6
13	MP1A	X	3.57	2.5
14	MP1A	Z	-2.061	2.5
15	MP1A	Mx	-.000705	2.5
16	MP1A	X	3.57	4.5
17	MP1A	Z	-2.061	4.5
18	MP1A	Mx	-.000705	4.5
19	M1	X	.561	7
20	M1	Z	-.324	7
21	M1	Mx	0	7
22	MP2A	X	2.94	4
23	MP2A	Z	-1.698	4
24	MP2A	Mx	.000581	4
25	MP3A	X	2.917	4
26	MP3A	Z	-1.684	4
27	MP3A	Mx	.000576	4
28	MP3A	X	1.74	1
29	MP3A	Z	-1.004	1
30	MP3A	Mx	-.000172	1
31	MP3A	X	1.74	1
32	MP3A	Z	-1.004	1
33	MP3A	Mx	.000343	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	10.269	1
2	MP3A	Z	0	1
3	MP3A	Mx	.007	1
4	MP3A	X	10.269	6
5	MP3A	Z	0	6
6	MP3A	Mx	.007	6
7	MP3A	X	10.269	1
8	MP3A	Z	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
9	MP3A	Mx	-0.005	1
10	MP3A	X	10.269	6
11	MP3A	Z	0	6
12	MP3A	Mx	-0.005	6
13	MP1A	X	4.377	2.5
14	MP1A	Z	0	2.5
15	MP1A	Mx	.00038	2.5
16	MP1A	X	4.377	4.5
17	MP1A	Z	0	4.5
18	MP1A	Mx	.00038	4.5
19	M1	X	.778	7
20	M1	Z	0	7
21	M1	Mx	0	7
22	MP2A	X	3.496	4
23	MP2A	Z	0	4
24	MP2A	Mx	-0.000304	4
25	MP3A	X	3.489	4
26	MP3A	Z	0	4
27	MP3A	Mx	-0.000303	4
28	MP3A	X	2.141	1
29	MP3A	Z	0	1
30	MP3A	Mx	9.3e-5	1
31	MP3A	X	2.141	1
32	MP3A	Z	0	1
33	MP3A	Mx	-0.00186	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	7.712	1
2	MP3A	Z	4.453	1
3	MP3A	Mx	.007	1
4	MP3A	X	7.712	6
5	MP3A	Z	4.453	6
6	MP3A	Mx	.007	6
7	MP3A	X	7.712	1
8	MP3A	Z	4.453	1
9	MP3A	Mx	-0.001	1
10	MP3A	X	7.712	6
11	MP3A	Z	4.453	6
12	MP3A	Mx	-0.001	6
13	MP1A	X	2.819	2.5
14	MP1A	Z	1.628	2.5
15	MP1A	Mx	.001	2.5
16	MP1A	X	2.819	4.5
17	MP1A	Z	1.628	4.5
18	MP1A	Mx	.001	4.5
19	M1	X	.73	7
20	M1	Z	.421	7
21	M1	Mx	0	7
22	MP2A	X	2.642	4
23	MP2A	Z	1.525	4
24	MP2A	Mx	-0.00098	4
25	MP3A	X	2.561	4
26	MP3A	Z	1.478	4
27	MP3A	Mx	-0.00095	4
28	MP3A	X	1.349	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
29	MP3A	Z	.779	1
30	MP3A	Mx	.00025	1
31	MP3A	X	1.349	1
32	MP3A	Z	.779	1
33	MP3A	Mx	-.000501	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	3.616	1
2	MP3A	Z	6.263	1
3	MP3A	Mx	.005	1
4	MP3A	X	3.616	6
5	MP3A	Z	6.263	6
6	MP3A	Mx	.005	6
7	MP3A	X	3.616	1
8	MP3A	Z	6.263	1
9	MP3A	Mx	.002	1
10	MP3A	X	3.616	6
11	MP3A	Z	6.263	6
12	MP3A	Mx	.002	6
13	MP1A	X	.94	2.5
14	MP1A	Z	1.628	2.5
15	MP1A	Mx	.000883	2.5
16	MP1A	X	.94	4.5
17	MP1A	Z	1.628	4.5
18	MP1A	Mx	.000883	4.5
19	M1	X	.389	7
20	M1	Z	.674	7
21	M1	Mx	0	7
22	MP2A	X	1.253	4
23	MP2A	Z	2.169	4
24	MP2A	Mx	-.001	4
25	MP3A	X	1.152	4
26	MP3A	Z	1.995	4
27	MP3A	Mx	-.001	4
28	MP3A	X	.421	1
29	MP3A	Z	.729	1
30	MP3A	Mx	.000198	1
31	MP3A	X	.421	1
32	MP3A	Z	.729	1
33	MP3A	Mx	-.000396	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	1
2	MP3A	Z	6.923	1
3	MP3A	Mx	.003	1
4	MP3A	X	0	6
5	MP3A	Z	6.923	6
6	MP3A	Mx	.003	6
7	MP3A	X	0	1
8	MP3A	Z	6.923	1
9	MP3A	Mx	.004	1
10	MP3A	X	0	6
11	MP3A	Z	6.923	6
12	MP3A	Mx	.004	6



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
13	MP1A	X	0	2.5
14	MP1A	Z	1.626	2.5
15	MP1A	Mx	.000801	2.5
16	MP1A	X	0	4.5
17	MP1A	Z	1.626	4.5
18	MP1A	Mx	.000801	4.5
19	M1	X	0	7
20	M1	Z	.648	7
21	M1	Mx	0	7
22	MP2A	X	0	4
23	MP2A	Z	2.404	4
24	MP2A	Mx	-.001	4
25	MP3A	X	0	4
26	MP3A	Z	2.183	4
27	MP3A	Mx	-.001	4
28	MP3A	X	0	1
29	MP3A	Z	.709	1
30	MP3A	Mx	.000175	1
31	MP3A	X	0	1
32	MP3A	Z	.709	1
33	MP3A	Mx	-.000349	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-4.143	1
2	MP3A	Z	7.176	1
3	MP3A	Mx	6.7e-5	1
4	MP3A	X	-4.143	6
5	MP3A	Z	7.176	6
6	MP3A	Mx	6.7e-5	6
7	MP3A	X	-4.143	1
8	MP3A	Z	7.176	1
9	MP3A	Mx	.006	1
10	MP3A	X	-4.143	6
11	MP3A	Z	7.176	6
12	MP3A	Mx	.006	6
13	MP1A	X	-1.374	2.5
14	MP1A	Z	2.379	2.5
15	MP1A	Mx	.001	2.5
16	MP1A	X	-1.374	4.5
17	MP1A	Z	2.379	4.5
18	MP1A	Mx	.001	4.5
19	M1	X	-.292	7
20	M1	Z	.505	7
21	M1	Mx	0	7
22	MP2A	X	-1.425	4
23	MP2A	Z	2.467	4
24	MP2A	Mx	-.001	4
25	MP3A	X	-1.358	4
26	MP3A	Z	2.352	4
27	MP3A	Mx	-.001	4
28	MP3A	X	-.646	1
29	MP3A	Z	1.12	1
30	MP3A	Mx	.000248	1
31	MP3A	X	-.646	1
32	MP3A	Z	1.12	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
33	MP3A	Mx	-0.00495	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-8.626	1
2	MP3A	Z	4.98	1
3	MP3A	Mx	-.004	1
4	MP3A	X	-8.626	6
5	MP3A	Z	4.98	6
6	MP3A	Mx	-.004	6
7	MP3A	X	-8.626	1
8	MP3A	Z	4.98	1
9	MP3A	Mx	.007	1
10	MP3A	X	-8.626	6
11	MP3A	Z	4.98	6
12	MP3A	Mx	.007	6
13	MP1A	X	-3.57	2.5
14	MP1A	Z	2.061	2.5
15	MP1A	Mx	.000705	2.5
16	MP1A	X	-3.57	4.5
17	MP1A	Z	2.061	4.5
18	MP1A	Mx	.000705	4.5
19	M1	X	-.561	7
20	M1	Z	.324	7
21	M1	Mx	0	7
22	MP2A	X	-2.94	4
23	MP2A	Z	1.698	4
24	MP2A	Mx	-.000581	4
25	MP3A	X	-2.917	4
26	MP3A	Z	1.684	4
27	MP3A	Mx	-.000576	4
28	MP3A	X	-1.74	1
29	MP3A	Z	1.004	1
30	MP3A	Mx	.000172	1
31	MP3A	X	-1.74	1
32	MP3A	Z	1.004	1
33	MP3A	Mx	-.000343	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-10.269	1
2	MP3A	Z	0	1
3	MP3A	Mx	-.007	1
4	MP3A	X	-10.269	6
5	MP3A	Z	0	6
6	MP3A	Mx	-.007	6
7	MP3A	X	-10.269	1
8	MP3A	Z	0	1
9	MP3A	Mx	.005	1
10	MP3A	X	-10.269	6
11	MP3A	Z	0	6
12	MP3A	Mx	.005	6
13	MP1A	X	-4.377	2.5
14	MP1A	Z	0	2.5
15	MP1A	Mx	-.00038	2.5
16	MP1A	X	-4.377	4.5





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
17	MP1A	Z	0	4.5
18	MP1A	Mx	-0.00038	4.5
19	M1	X	-0.778	7
20	M1	Z	0	7
21	M1	Mx	0	7
22	MP2A	X	-3.496	4
23	MP2A	Z	0	4
24	MP2A	Mx	.000304	4
25	MP3A	X	-3.489	4
26	MP3A	Z	0	4
27	MP3A	Mx	.000303	4
28	MP3A	X	-2.141	1
29	MP3A	Z	0	1
30	MP3A	Mx	-9.3e-5	1
31	MP3A	X	-2.141	1
32	MP3A	Z	0	1
33	MP3A	Mx	.000186	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-7.712	1
2	MP3A	Z	-4.453	1
3	MP3A	Mx	-0.007	1
4	MP3A	X	-7.712	6
5	MP3A	Z	-4.453	6
6	MP3A	Mx	-0.007	6
7	MP3A	X	-7.712	1
8	MP3A	Z	-4.453	1
9	MP3A	Mx	.001	1
10	MP3A	X	-7.712	6
11	MP3A	Z	-4.453	6
12	MP3A	Mx	.001	6
13	MP1A	X	-2.819	2.5
14	MP1A	Z	-1.628	2.5
15	MP1A	Mx	-0.001	2.5
16	MP1A	X	-2.819	4.5
17	MP1A	Z	-1.628	4.5
18	MP1A	Mx	-0.001	4.5
19	M1	X	-0.73	7
20	M1	Z	-0.421	7
21	M1	Mx	0	7
22	MP2A	X	-2.642	4
23	MP2A	Z	-1.525	4
24	MP2A	Mx	.00098	4
25	MP3A	X	-2.561	4
26	MP3A	Z	-1.478	4
27	MP3A	Mx	.00095	4
28	MP3A	X	-1.349	1
29	MP3A	Z	-0.779	1
30	MP3A	Mx	-0.00025	1
31	MP3A	X	-1.349	1
32	MP3A	Z	-0.779	1
33	MP3A	Mx	.000501	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
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**Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-3.616	1
2	MP3A	Z	-6.263	1
3	MP3A	Mx	-.005	1
4	MP3A	X	-3.616	6
5	MP3A	Z	-6.263	6
6	MP3A	Mx	-.005	6
7	MP3A	X	-3.616	1
8	MP3A	Z	-6.263	1
9	MP3A	Mx	-.002	1
10	MP3A	X	-3.616	6
11	MP3A	Z	-6.263	6
12	MP3A	Mx	-.002	6
13	MP1A	X	-.94	2.5
14	MP1A	Z	-1.628	2.5
15	MP1A	Mx	-.000883	2.5
16	MP1A	X	-.94	4.5
17	MP1A	Z	-1.628	4.5
18	MP1A	Mx	-.000883	4.5
19	M1	X	-.389	7
20	M1	Z	-.674	7
21	M1	Mx	0	7
22	MP2A	X	-1.253	4
23	MP2A	Z	-2.169	4
24	MP2A	Mx	.001	4
25	MP3A	X	-1.152	4
26	MP3A	Z	-1.995	4
27	MP3A	Mx	.001	4
28	MP3A	X	-.421	1
29	MP3A	Z	-.729	1
30	MP3A	Mx	-.000198	1
31	MP3A	X	-.421	1
32	MP3A	Z	-.729	1
33	MP3A	Mx	.000396	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M1	Y	-500	%34

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M1	Y	-500	%97

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M1	Y	-250	0

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M1	Y	-250	%50

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	Y	-1.283	1
2	MP3A	My	.000848	1





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
3	MP3A	Mz	.000502	1
4	MP3A	Y	-1.283	6
5	MP3A	My	.000848	6
6	MP3A	Mz	.000502	6
7	MP3A	Y	-1.283	1
8	MP3A	My	-.000626	1
9	MP3A	Mz	.000762	1
10	MP3A	Y	-1.283	6
11	MP3A	My	-.000626	6
12	MP3A	Mz	.000762	6
13	MP1A	Y	-1.765	2.5
14	MP1A	My	.000153	2.5
15	MP1A	Mz	.000869	2.5
16	MP1A	Y	-1.765	4.5
17	MP1A	My	.000153	4.5
18	MP1A	Mz	.000869	4.5
19	M1	Y	-.422	7
20	M1	My	0	7
21	M1	Mz	0	7
22	MP2A	Y	-3.028	4
23	MP2A	My	-.000263	4
24	MP2A	Mz	-.001	4
25	MP3A	Y	-2.849	4
26	MP3A	My	-.000247	4
27	MP3A	Mz	-.001	4
28	MP3A	Y	-.713	1
29	MP3A	My	3.1e-5	1
30	MP3A	Mz	.000176	1
31	MP3A	Y	-.713	1
32	MP3A	My	-6.2e-5	1
33	MP3A	Mz	-.000351	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	Z	-3.207	1
2	MP3A	Mx	-.001	1
3	MP3A	Z	-3.207	6
4	MP3A	Mx	-.001	6
5	MP3A	Z	-3.207	1
6	MP3A	Mx	-.002	1
7	MP3A	Z	-3.207	6
8	MP3A	Mx	-.002	6
9	MP1A	Z	-4.413	2.5
10	MP1A	Mx	-.002	2.5
11	MP1A	Z	-4.413	4.5
12	MP1A	Mx	-.002	4.5
13	M1	Z	-1.054	7
14	M1	Mx	0	7
15	MP2A	Z	-7.57	4
16	MP2A	Mx	.004	4
17	MP3A	Z	-7.124	4
18	MP3A	Mx	.004	4
19	MP3A	Z	-1.783	1
20	MP3A	Mx	-.000439	1
21	MP3A	Z	-1.783	1
22	MP3A	Mx	.000878	1





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	3.207	1
2	MP3A	Mx	.002	1
3	MP3A	X	3.207	6
4	MP3A	Mx	.002	6
5	MP3A	X	3.207	1
6	MP3A	Mx	-.002	1
7	MP3A	X	3.207	6
8	MP3A	Mx	-.002	6
9	MP1A	X	4.413	2.5
10	MP1A	Mx	.000383	2.5
11	MP1A	X	4.413	4.5
12	MP1A	Mx	.000383	4.5
13	M1	X	1.054	7
14	M1	Mx	0	7
15	MP2A	X	7.57	4
16	MP2A	Mx	-.000657	4
17	MP3A	X	7.124	4
18	MP3A	Mx	-.000619	4
19	MP3A	X	1.783	1
20	MP3A	Mx	7.7e-5	1
21	MP3A	X	1.783	1
22	MP3A	Mx	-.000155	1

**Joint Loads and Enforced Displacements**

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

**Member Distributed Loads (BLC 40 : Structure Di)**

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[ft.]	End Location[ft.]
1	M1	Y	-5.912	-5.912	0	%100
2	M2	Y	-5.912	-5.912	0	%100
3	M13	Y	-6.901	-6.901	0	%100
4	M14	Y	-6.901	-6.901	0	%100
5	M15	Y	-6.901	-6.901	0	%100
6	M16	Y	-6.901	-6.901	0	%100
7	M17	Y	-5.185	-5.185	0	%100
8	M18	Y	-5.185	-5.185	0	%100
9	M19	Y	-5.185	-5.185	0	%100
10	M20	Y	-5.185	-5.185	0	%100
11	M21	Y	-6.901	-6.901	0	%100
12	M22	Y	-6.901	-6.901	0	%100
13	M23	Y	-6.901	-6.901	0	%100
14	M24	Y	-6.901	-6.901	0	%100
15	M25	Y	-2.822	-2.822	0	%100
16	M26	Y	-2.822	-2.822	0	%100
17	M27	Y	-2.822	-2.822	0	%100
18	M28	Y	-2.822	-2.822	0	%100
19	MP4A	Y	-5.185	-5.185	0	%100
20	MP3A	Y	-5.185	-5.185	0	%100
21	MP2A	Y	-5.185	-5.185	0	%100
22	MP1A	Y	-5.185	-5.185	0	%100
23	M44	Y	-2.64	-2.64	0	%100
24	M45	Y	-2.64	-2.64	0	%100
25	M46	Y	-2.64	-2.64	0	%100





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**Member Distributed Loads (BLC 40 : Structure Di) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[ft.]	End Location[ft.]
26	M47	Y	-2.64	-2.64	0	%100
27	M44A	Y	-5.185	-5.185	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[ft.]	End Location[ft.]
1	M1	X	0	0	0	%100
2	M1	Z	-11.371	-11.371	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-11.371	-11.371	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-4.489	-4.489	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-4.489	-4.489	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-4.489	-4.489	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-4.489	-4.489	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-2.472	-2.472	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-2.472	-2.472	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-2.472	-2.472	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-2.472	-2.472	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-2.56	-2.56	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-2.56	-2.56	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-2.56	-2.56	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-2.56	-2.56	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	-9.393	-9.393	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	-9.393	-9.393	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	-9.393	-9.393	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	-9.393	-9.393	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	-2.472	-2.472	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	-2.472	-2.472	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	-2.472	-2.472	0	%100
51	M47	X	0	0	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
52	M47	Z	-2.472	-2.472	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	-3.945	-3.945	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
1	M1	X	4.264	4.264	0	%100
2	M1	Z	-7.385	-7.385	0	%100
3	M2	X	4.264	4.264	0	%100
4	M2	Z	-7.385	-7.385	0	%100
5	M13	X	.309	.309	0	%100
6	M13	Z	-.535	-.535	0	%100
7	M14	X	.309	.309	0	%100
8	M14	Z	-.535	-.535	0	%100
9	M15	X	.309	.309	0	%100
10	M15	Z	-.535	-.535	0	%100
11	M16	X	.309	.309	0	%100
12	M16	Z	-.535	-.535	0	%100
13	M17	X	.505	.505	0	%100
14	M17	Z	-.875	-.875	0	%100
15	M18	X	.505	.505	0	%100
16	M18	Z	-.875	-.875	0	%100
17	M19	X	3.55	3.55	0	%100
18	M19	Z	-6.148	-6.148	0	%100
19	M20	X	3.55	3.55	0	%100
20	M20	Z	-6.148	-6.148	0	%100
21	M21	X	.927	.927	0	%100
22	M21	Z	-1.606	-1.606	0	%100
23	M22	X	.927	.927	0	%100
24	M22	Z	-1.606	-1.606	0	%100
25	M23	X	.927	.927	0	%100
26	M23	Z	-1.606	-1.606	0	%100
27	M24	X	.927	.927	0	%100
28	M24	Z	-1.606	-1.606	0	%100
29	M25	X	1.024	1.024	0	%100
30	M25	Z	-1.773	-1.773	0	%100
31	M26	X	1.024	1.024	0	%100
32	M26	Z	-1.773	-1.773	0	%100
33	M27	X	1.473	1.473	0	%100
34	M27	Z	-2.551	-2.551	0	%100
35	M28	X	1.473	1.473	0	%100
36	M28	Z	-2.551	-2.551	0	%100
37	MP4A	X	4.697	4.697	0	%100
38	MP4A	Z	-8.135	-8.135	0	%100
39	MP3A	X	4.697	4.697	0	%100
40	MP3A	Z	-8.135	-8.135	0	%100
41	MP2A	X	4.697	4.697	0	%100
42	MP2A	Z	-8.135	-8.135	0	%100
43	MP1A	X	4.697	4.697	0	%100
44	MP1A	Z	-8.135	-8.135	0	%100
45	M44	X	1.236	1.236	0	%100
46	M44	Z	-2.141	-2.141	0	%100
47	M45	X	1.236	1.236	0	%100
48	M45	Z	-2.141	-2.141	0	%100
49	M46	X	1.236	1.236	0	%100
50	M46	Z	-2.141	-2.141	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
51	M47	X	1.236	1.236	0	%100
52	M47	Z	-2.141	-2.141	0	%100
53	M44A	X	4.167	4.167	0	%100
54	M44A	Z	-7.218	-7.218	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
1	M1	X	2.462	2.462	0	%100
2	M1	Z	-1.421	-1.421	0	%100
3	M2	X	2.462	2.462	0	%100
4	M2	Z	-1.421	-1.421	0	%100
5	M13	X	1.606	1.606	0	%100
6	M13	Z	-.927	-.927	0	%100
7	M14	X	1.606	1.606	0	%100
8	M14	Z	-.927	-.927	0	%100
9	M15	X	1.606	1.606	0	%100
10	M15	Z	-.927	-.927	0	%100
11	M16	X	1.606	1.606	0	%100
12	M16	Z	-.927	-.927	0	%100
13	M17	X	.123	.123	0	%100
14	M17	Z	-.071	-.071	0	%100
15	M18	X	.123	.123	0	%100
16	M18	Z	-.071	-.071	0	%100
17	M19	X	5.397	5.397	0	%100
18	M19	Z	-3.116	-3.116	0	%100
19	M20	X	5.397	5.397	0	%100
20	M20	Z	-3.116	-3.116	0	%100
21	M21	X	.535	.535	0	%100
22	M21	Z	-.309	-.309	0	%100
23	M22	X	.535	.535	0	%100
24	M22	Z	-.309	-.309	0	%100
25	M23	X	.535	.535	0	%100
26	M23	Z	-.309	-.309	0	%100
27	M24	X	.535	.535	0	%100
28	M24	Z	-.309	-.309	0	%100
29	M25	X	1.662	1.662	0	%100
30	M25	Z	-.96	-.96	0	%100
31	M26	X	1.662	1.662	0	%100
32	M26	Z	-.96	-.96	0	%100
33	M27	X	2.44	2.44	0	%100
34	M27	Z	-1.409	-1.409	0	%100
35	M28	X	2.44	2.44	0	%100
36	M28	Z	-1.409	-1.409	0	%100
37	MP4A	X	8.135	8.135	0	%100
38	MP4A	Z	-4.697	-4.697	0	%100
39	MP3A	X	8.135	8.135	0	%100
40	MP3A	Z	-4.697	-4.697	0	%100
41	MP2A	X	8.135	8.135	0	%100
42	MP2A	Z	-4.697	-4.697	0	%100
43	MP1A	X	8.135	8.135	0	%100
44	MP1A	Z	-4.697	-4.697	0	%100
45	M44	X	2.141	2.141	0	%100
46	M44	Z	-1.236	-1.236	0	%100
47	M45	X	2.141	2.141	0	%100
48	M45	Z	-1.236	-1.236	0	%100
49	M46	X	2.141	2.141	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft]	End Location[ft]
50	M46	Z	-1.236	-1.236	0	%100
51	M47	X	2.141	2.141	0	%100
52	M47	Z	-1.236	-1.236	0	%100
53	M44A	X	7.871	7.871	0	%100
54	M44A	Z	-4.544	-4.544	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft]	End Location[ft]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	2.472	2.472	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	2.472	2.472	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	2.472	2.472	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	2.472	2.472	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	2.753	2.753	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	2.753	2.753	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	2.753	2.753	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	2.753	2.753	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	2.304	2.304	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	2.304	2.304	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	2.304	2.304	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	2.304	2.304	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	9.393	9.393	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	9.393	9.393	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	9.393	9.393	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	9.393	9.393	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	2.472	2.472	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	2.472	2.472	0	%100
48	M45	Z	0	0	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
49	M46	X	2.472	2.472	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	2.472	2.472	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	5.454	5.454	0	%100
54	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
1	M1	X	2.462	2.462	0	%100
2	M1	Z	1.421	1.421	0	%100
3	M2	X	2.462	2.462	0	%100
4	M2	Z	1.421	1.421	0	%100
5	M13	X	1.606	1.606	0	%100
6	M13	Z	.927	.927	0	%100
7	M14	X	1.606	1.606	0	%100
8	M14	Z	.927	.927	0	%100
9	M15	X	1.606	1.606	0	%100
10	M15	Z	.927	.927	0	%100
11	M16	X	1.606	1.606	0	%100
12	M16	Z	.927	.927	0	%100
13	M17	X	5.397	5.397	0	%100
14	M17	Z	3.116	3.116	0	%100
15	M18	X	5.397	5.397	0	%100
16	M18	Z	3.116	3.116	0	%100
17	M19	X	.123	.123	0	%100
18	M19	Z	.071	.071	0	%100
19	M20	X	.123	.123	0	%100
20	M20	Z	.071	.071	0	%100
21	M21	X	.535	.535	0	%100
22	M21	Z	.309	.309	0	%100
23	M22	X	.535	.535	0	%100
24	M22	Z	.309	.309	0	%100
25	M23	X	.535	.535	0	%100
26	M23	Z	.309	.309	0	%100
27	M24	X	.535	.535	0	%100
28	M24	Z	.309	.309	0	%100
29	M25	X	2.44	2.44	0	%100
30	M25	Z	1.409	1.409	0	%100
31	M26	X	2.44	2.44	0	%100
32	M26	Z	1.409	1.409	0	%100
33	M27	X	1.662	1.662	0	%100
34	M27	Z	.96	.96	0	%100
35	M28	X	1.662	1.662	0	%100
36	M28	Z	.96	.96	0	%100
37	MP4A	X	8.135	8.135	0	%100
38	MP4A	Z	4.697	4.697	0	%100
39	MP3A	X	8.135	8.135	0	%100
40	MP3A	Z	4.697	4.697	0	%100
41	MP2A	X	8.135	8.135	0	%100
42	MP2A	Z	4.697	4.697	0	%100
43	MP1A	X	8.135	8.135	0	%100
44	MP1A	Z	4.697	4.697	0	%100
45	M44	X	2.141	2.141	0	%100
46	M44	Z	1.236	1.236	0	%100
47	M45	X	2.141	2.141	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
48	M45	Z	1.236	1.236	0	%100
49	M46	X	2.141	2.141	0	%100
50	M46	Z	1.236	1.236	0	%100
51	M47	X	2.141	2.141	0	%100
52	M47	Z	1.236	1.236	0	%100
53	M44A	X	.922	.922	0	%100
54	M44A	Z	.532	.532	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
1	M1	X	4.264	4.264	0	%100
2	M1	Z	7.385	7.385	0	%100
3	M2	X	4.264	4.264	0	%100
4	M2	Z	7.385	7.385	0	%100
5	M13	X	.309	.309	0	%100
6	M13	Z	.535	.535	0	%100
7	M14	X	.309	.309	0	%100
8	M14	Z	.535	.535	0	%100
9	M15	X	.309	.309	0	%100
10	M15	Z	.535	.535	0	%100
11	M16	X	.309	.309	0	%100
12	M16	Z	.535	.535	0	%100
13	M17	X	3.55	3.55	0	%100
14	M17	Z	6.148	6.148	0	%100
15	M18	X	3.55	3.55	0	%100
16	M18	Z	6.148	6.148	0	%100
17	M19	X	.505	.505	0	%100
18	M19	Z	.875	.875	0	%100
19	M20	X	.505	.505	0	%100
20	M20	Z	.875	.875	0	%100
21	M21	X	.927	.927	0	%100
22	M21	Z	1.606	1.606	0	%100
23	M22	X	.927	.927	0	%100
24	M22	Z	1.606	1.606	0	%100
25	M23	X	.927	.927	0	%100
26	M23	Z	1.606	1.606	0	%100
27	M24	X	.927	.927	0	%100
28	M24	Z	1.606	1.606	0	%100
29	M25	X	1.473	1.473	0	%100
30	M25	Z	2.551	2.551	0	%100
31	M26	X	1.473	1.473	0	%100
32	M26	Z	2.551	2.551	0	%100
33	M27	X	1.024	1.024	0	%100
34	M27	Z	1.773	1.773	0	%100
35	M28	X	1.024	1.024	0	%100
36	M28	Z	1.773	1.773	0	%100
37	MP4A	X	4.697	4.697	0	%100
38	MP4A	Z	8.135	8.135	0	%100
39	MP3A	X	4.697	4.697	0	%100
40	MP3A	Z	8.135	8.135	0	%100
41	MP2A	X	4.697	4.697	0	%100
42	MP2A	Z	8.135	8.135	0	%100
43	MP1A	X	4.697	4.697	0	%100
44	MP1A	Z	8.135	8.135	0	%100
45	M44	X	1.236	1.236	0	%100
46	M44	Z	2.141	2.141	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
47	M45	X	1.236	1.236	0	%100
48	M45	Z	2.141	2.141	0	%100
49	M46	X	1.236	1.236	0	%100
50	M46	Z	2.141	2.141	0	%100
51	M47	X	1.236	1.236	0	%100
52	M47	Z	2.141	2.141	0	%100
53	M44A	X	.155	.155	0	%100
54	M44A	Z	.268	.268	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
1	M1	X	0	0	0	%100
2	M1	Z	11.371	11.371	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	11.371	11.371	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	4.489	4.489	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	4.489	4.489	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	4.489	4.489	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	4.489	4.489	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	2.472	2.472	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	2.472	2.472	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	2.472	2.472	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	2.472	2.472	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	2.56	2.56	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	2.56	2.56	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	2.56	2.56	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	2.56	2.56	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	9.393	9.393	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	9.393	9.393	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	9.393	9.393	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	9.393	9.393	0	%100
45	M44	X	0	0	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft.]	End Location[ft.]
46	M44	Z	2.472	2.472	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	2.472	2.472	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	2.472	2.472	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	2.472	2.472	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	3.945	3.945	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft.]	End Location[ft.]
1	M1	X	-4.264	-4.264	0	%100
2	M1	Z	7.385	7.385	0	%100
3	M2	X	-4.264	-4.264	0	%100
4	M2	Z	7.385	7.385	0	%100
5	M13	X	-.309	-.309	0	%100
6	M13	Z	.535	.535	0	%100
7	M14	X	-.309	-.309	0	%100
8	M14	Z	.535	.535	0	%100
9	M15	X	-.309	-.309	0	%100
10	M15	Z	.535	.535	0	%100
11	M16	X	-.309	-.309	0	%100
12	M16	Z	.535	.535	0	%100
13	M17	X	-.505	-.505	0	%100
14	M17	Z	.875	.875	0	%100
15	M18	X	-.505	-.505	0	%100
16	M18	Z	.875	.875	0	%100
17	M19	X	-3.55	-3.55	0	%100
18	M19	Z	6.148	6.148	0	%100
19	M20	X	-3.55	-3.55	0	%100
20	M20	Z	6.148	6.148	0	%100
21	M21	X	-.927	-.927	0	%100
22	M21	Z	1.606	1.606	0	%100
23	M22	X	-.927	-.927	0	%100
24	M22	Z	1.606	1.606	0	%100
25	M23	X	-.927	-.927	0	%100
26	M23	Z	1.606	1.606	0	%100
27	M24	X	-.927	-.927	0	%100
28	M24	Z	1.606	1.606	0	%100
29	M25	X	-1.024	-1.024	0	%100
30	M25	Z	1.773	1.773	0	%100
31	M26	X	-1.024	-1.024	0	%100
32	M26	Z	1.773	1.773	0	%100
33	M27	X	-1.473	-1.473	0	%100
34	M27	Z	2.551	2.551	0	%100
35	M28	X	-1.473	-1.473	0	%100
36	M28	Z	2.551	2.551	0	%100
37	MP4A	X	-4.697	-4.697	0	%100
38	MP4A	Z	8.135	8.135	0	%100
39	MP3A	X	-4.697	-4.697	0	%100
40	MP3A	Z	8.135	8.135	0	%100
41	MP2A	X	-4.697	-4.697	0	%100
42	MP2A	Z	8.135	8.135	0	%100
43	MP1A	X	-4.697	-4.697	0	%100
44	MP1A	Z	8.135	8.135	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[ft.]	End Location[ft.]
45	M44	X	-1.236	-1.236	0	%100
46	M44	Z	2.141	2.141	0	%100
47	M45	X	-1.236	-1.236	0	%100
48	M45	Z	2.141	2.141	0	%100
49	M46	X	-1.236	-1.236	0	%100
50	M46	Z	2.141	2.141	0	%100
51	M47	X	-1.236	-1.236	0	%100
52	M47	Z	2.141	2.141	0	%100
53	M44A	X	-4.167	-4.167	0	%100
54	M44A	Z	7.218	7.218	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[ft.]	End Location[ft.]
1	M1	X	-2.462	-2.462	0	%100
2	M1	Z	1.421	1.421	0	%100
3	M2	X	-2.462	-2.462	0	%100
4	M2	Z	1.421	1.421	0	%100
5	M13	X	-1.606	-1.606	0	%100
6	M13	Z	.927	.927	0	%100
7	M14	X	-1.606	-1.606	0	%100
8	M14	Z	.927	.927	0	%100
9	M15	X	-1.606	-1.606	0	%100
10	M15	Z	.927	.927	0	%100
11	M16	X	-1.606	-1.606	0	%100
12	M16	Z	.927	.927	0	%100
13	M17	X	-.123	-.123	0	%100
14	M17	Z	.071	.071	0	%100
15	M18	X	-.123	-.123	0	%100
16	M18	Z	.071	.071	0	%100
17	M19	X	-5.397	-5.397	0	%100
18	M19	Z	3.116	3.116	0	%100
19	M20	X	-5.397	-5.397	0	%100
20	M20	Z	3.116	3.116	0	%100
21	M21	X	-.535	-.535	0	%100
22	M21	Z	.309	.309	0	%100
23	M22	X	-.535	-.535	0	%100
24	M22	Z	.309	.309	0	%100
25	M23	X	-.535	-.535	0	%100
26	M23	Z	.309	.309	0	%100
27	M24	X	-.535	-.535	0	%100
28	M24	Z	.309	.309	0	%100
29	M25	X	-1.662	-1.662	0	%100
30	M25	Z	.96	.96	0	%100
31	M26	X	-1.662	-1.662	0	%100
32	M26	Z	.96	.96	0	%100
33	M27	X	-2.44	-2.44	0	%100
34	M27	Z	1.409	1.409	0	%100
35	M28	X	-2.44	-2.44	0	%100
36	M28	Z	1.409	1.409	0	%100
37	MP4A	X	-8.135	-8.135	0	%100
38	MP4A	Z	4.697	4.697	0	%100
39	MP3A	X	-8.135	-8.135	0	%100
40	MP3A	Z	4.697	4.697	0	%100
41	MP2A	X	-8.135	-8.135	0	%100
42	MP2A	Z	4.697	4.697	0	%100
43	MP1A	X	-8.135	-8.135	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Locationff..	End Locationff..
44	MP1A	Z	4.697	4.697	0	%100
45	M44	X	-2.141	-2.141	0	%100
46	M44	Z	1.236	1.236	0	%100
47	M45	X	-2.141	-2.141	0	%100
48	M45	Z	1.236	1.236	0	%100
49	M46	X	-2.141	-2.141	0	%100
50	M46	Z	1.236	1.236	0	%100
51	M47	X	-2.141	-2.141	0	%100
52	M47	Z	1.236	1.236	0	%100
53	M44A	X	-7.871	-7.871	0	%100
54	M44A	Z	4.544	4.544	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Locationff..	End Locationff..
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-2.472	-2.472	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-2.472	-2.472	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-2.472	-2.472	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-2.472	-2.472	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-2.753	-2.753	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-2.753	-2.753	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-2.753	-2.753	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-2.753	-2.753	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-2.304	-2.304	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-2.304	-2.304	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	-2.304	-2.304	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-2.304	-2.304	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	-9.393	-9.393	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	-9.393	-9.393	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	-9.393	-9.393	0	%100
42	MP2A	Z	0	0	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft.]	End Location[ft.]
43	MP1A	X	-9.393	-9.393	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	-2.472	-2.472	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-2.472	-2.472	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	-2.472	-2.472	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	-2.472	-2.472	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	-5.454	-5.454	0	%100
54	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft.]	End Location[ft.]
1	M1	X	-2.462	-2.462	0	%100
2	M1	Z	-1.421	-1.421	0	%100
3	M2	X	-2.462	-2.462	0	%100
4	M2	Z	-1.421	-1.421	0	%100
5	M13	X	-1.606	-1.606	0	%100
6	M13	Z	-.927	-.927	0	%100
7	M14	X	-1.606	-1.606	0	%100
8	M14	Z	-.927	-.927	0	%100
9	M15	X	-1.606	-1.606	0	%100
10	M15	Z	-.927	-.927	0	%100
11	M16	X	-1.606	-1.606	0	%100
12	M16	Z	-.927	-.927	0	%100
13	M17	X	-5.397	-5.397	0	%100
14	M17	Z	-3.116	-3.116	0	%100
15	M18	X	-5.397	-5.397	0	%100
16	M18	Z	-3.116	-3.116	0	%100
17	M19	X	-.123	-.123	0	%100
18	M19	Z	-.071	-.071	0	%100
19	M20	X	-.123	-.123	0	%100
20	M20	Z	-.071	-.071	0	%100
21	M21	X	-.535	-.535	0	%100
22	M21	Z	-.309	-.309	0	%100
23	M22	X	-.535	-.535	0	%100
24	M22	Z	-.309	-.309	0	%100
25	M23	X	-.535	-.535	0	%100
26	M23	Z	-.309	-.309	0	%100
27	M24	X	-.535	-.535	0	%100
28	M24	Z	-.309	-.309	0	%100
29	M25	X	-2.44	-2.44	0	%100
30	M25	Z	-1.409	-1.409	0	%100
31	M26	X	-2.44	-2.44	0	%100
32	M26	Z	-1.409	-1.409	0	%100
33	M27	X	-1.662	-1.662	0	%100
34	M27	Z	-.96	-.96	0	%100
35	M28	X	-1.662	-1.662	0	%100
36	M28	Z	-.96	-.96	0	%100
37	MP4A	X	-8.135	-8.135	0	%100
38	MP4A	Z	-4.697	-4.697	0	%100
39	MP3A	X	-8.135	-8.135	0	%100
40	MP3A	Z	-4.697	-4.697	0	%100
41	MP2A	X	-8.135	-8.135	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[f..	End Location[ft..
42	MP2A	Z	-4.697	-4.697	0	%100
43	MP1A	X	-8.135	-8.135	0	%100
44	MP1A	Z	-4.697	-4.697	0	%100
45	M44	X	-2.141	-2.141	0	%100
46	M44	Z	-1.236	-1.236	0	%100
47	M45	X	-2.141	-2.141	0	%100
48	M45	Z	-1.236	-1.236	0	%100
49	M46	X	-2.141	-2.141	0	%100
50	M46	Z	-1.236	-1.236	0	%100
51	M47	X	-2.141	-2.141	0	%100
52	M47	Z	-1.236	-1.236	0	%100
53	M44A	X	-922	-922	0	%100
54	M44A	Z	-532	-532	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[f..	End Location[ft..
1	M1	X	-4.264	-4.264	0	%100
2	M1	Z	-7.385	-7.385	0	%100
3	M2	X	-4.264	-4.264	0	%100
4	M2	Z	-7.385	-7.385	0	%100
5	M13	X	-309	-309	0	%100
6	M13	Z	-535	-535	0	%100
7	M14	X	-309	-309	0	%100
8	M14	Z	-535	-535	0	%100
9	M15	X	-309	-309	0	%100
10	M15	Z	-535	-535	0	%100
11	M16	X	-309	-309	0	%100
12	M16	Z	-535	-535	0	%100
13	M17	X	-3.55	-3.55	0	%100
14	M17	Z	-6.148	-6.148	0	%100
15	M18	X	-3.55	-3.55	0	%100
16	M18	Z	-6.148	-6.148	0	%100
17	M19	X	-505	-505	0	%100
18	M19	Z	-875	-875	0	%100
19	M20	X	-505	-505	0	%100
20	M20	Z	-875	-875	0	%100
21	M21	X	-927	-927	0	%100
22	M21	Z	-1.606	-1.606	0	%100
23	M22	X	-927	-927	0	%100
24	M22	Z	-1.606	-1.606	0	%100
25	M23	X	-927	-927	0	%100
26	M23	Z	-1.606	-1.606	0	%100
27	M24	X	-927	-927	0	%100
28	M24	Z	-1.606	-1.606	0	%100
29	M25	X	-1.473	-1.473	0	%100
30	M25	Z	-2.551	-2.551	0	%100
31	M26	X	-1.473	-1.473	0	%100
32	M26	Z	-2.551	-2.551	0	%100
33	M27	X	-1.024	-1.024	0	%100
34	M27	Z	-1.773	-1.773	0	%100
35	M28	X	-1.024	-1.024	0	%100
36	M28	Z	-1.773	-1.773	0	%100
37	MP4A	X	-4.697	-4.697	0	%100
38	MP4A	Z	-8.135	-8.135	0	%100
39	MP3A	X	-4.697	-4.697	0	%100
40	MP3A	Z	-8.135	-8.135	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
41	MP2A	X	-4.697	-4.697	0	%100
42	MP2A	Z	-8.135	-8.135	0	%100
43	MP1A	X	-4.697	-4.697	0	%100
44	MP1A	Z	-8.135	-8.135	0	%100
45	M44	X	-1.236	-1.236	0	%100
46	M44	Z	-2.141	-2.141	0	%100
47	M45	X	-1.236	-1.236	0	%100
48	M45	Z	-2.141	-2.141	0	%100
49	M46	X	-1.236	-1.236	0	%100
50	M46	Z	-2.141	-2.141	0	%100
51	M47	X	-1.236	-1.236	0	%100
52	M47	Z	-2.141	-2.141	0	%100
53	M44A	X	-.155	-.155	0	%100
54	M44A	Z	-.268	-.268	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
1	M1	X	0	0	0	%100
2	M1	Z	-3.326	-3.326	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-3.326	-3.326	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-1.438	-1.438	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-1.438	-1.438	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-1.438	-1.438	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-1.438	-1.438	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-1.279	-1.279	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-1.279	-1.279	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-1.279	-1.279	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-1.279	-1.279	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-1.614	-1.614	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-1.614	-1.614	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-1.614	-1.614	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-1.614	-1.614	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	-3.009	-3.009	0	%100
39	MP3A	X	0	0	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[f.	End Location[ft.
40	MP3A	Z	-3.009	-3.009	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	-3.009	-3.009	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	-3.009	-3.009	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	-1.673	-1.673	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	-1.673	-1.673	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	-1.673	-1.673	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	-1.673	-1.673	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	-1.264	-1.264	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[f.	End Location[ft.
1	M1	X	1.247	1.247	0	%100
2	M1	Z	-2.16	-2.16	0	%100
3	M2	X	1.247	1.247	0	%100
4	M2	Z	-2.16	-2.16	0	%100
5	M13	X	.159	.159	0	%100
6	M13	Z	-.276	-.276	0	%100
7	M14	X	.159	.159	0	%100
8	M14	Z	-.276	-.276	0	%100
9	M15	X	.159	.159	0	%100
10	M15	Z	-.276	-.276	0	%100
11	M16	X	.159	.159	0	%100
12	M16	Z	-.276	-.276	0	%100
13	M17	X	.162	.162	0	%100
14	M17	Z	-.28	-.28	0	%100
15	M18	X	.162	.162	0	%100
16	M18	Z	-.28	-.28	0	%100
17	M19	X	1.137	1.137	0	%100
18	M19	Z	-1.969	-1.969	0	%100
19	M20	X	1.137	1.137	0	%100
20	M20	Z	-1.969	-1.969	0	%100
21	M21	X	.48	.48	0	%100
22	M21	Z	-.831	-.831	0	%100
23	M22	X	.48	.48	0	%100
24	M22	Z	-.831	-.831	0	%100
25	M23	X	.48	.48	0	%100
26	M23	Z	-.831	-.831	0	%100
27	M24	X	.48	.48	0	%100
28	M24	Z	-.831	-.831	0	%100
29	M25	X	.645	.645	0	%100
30	M25	Z	-1.117	-1.117	0	%100
31	M26	X	.645	.645	0	%100
32	M26	Z	-1.117	-1.117	0	%100
33	M27	X	.928	.928	0	%100
34	M27	Z	-1.608	-1.608	0	%100
35	M28	X	.928	.928	0	%100
36	M28	Z	-1.608	-1.608	0	%100
37	MP4A	X	1.505	1.505	0	%100
38	MP4A	Z	-2.606	-2.606	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[ft.	End Location[ft...
39	MP3A	X	1.505	1.505	0	%100
40	MP3A	Z	-2.606	-2.606	0	%100
41	MP2A	X	1.505	1.505	0	%100
42	MP2A	Z	-2.606	-2.606	0	%100
43	MP1A	X	1.505	1.505	0	%100
44	MP1A	Z	-2.606	-2.606	0	%100
45	M44	X	.837	.837	0	%100
46	M44	Z	-1.449	-1.449	0	%100
47	M45	X	.837	.837	0	%100
48	M45	Z	-1.449	-1.449	0	%100
49	M46	X	.837	.837	0	%100
50	M46	Z	-1.449	-1.449	0	%100
51	M47	X	.837	.837	0	%100
52	M47	Z	-1.449	-1.449	0	%100
53	M44A	X	1.335	1.335	0	%100
54	M44A	Z	-2.312	-2.312	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[ft.	End Location[ft...
1	M1	X	.72	.72	0	%100
2	M1	Z	-.416	-.416	0	%100
3	M2	X	.72	.72	0	%100
4	M2	Z	-.416	-.416	0	%100
5	M13	X	.828	.828	0	%100
6	M13	Z	-.478	-.478	0	%100
7	M14	X	.828	.828	0	%100
8	M14	Z	-.478	-.478	0	%100
9	M15	X	.828	.828	0	%100
10	M15	Z	-.478	-.478	0	%100
11	M16	X	.828	.828	0	%100
12	M16	Z	-.478	-.478	0	%100
13	M17	X	.04	.04	0	%100
14	M17	Z	-.023	-.023	0	%100
15	M18	X	.04	.04	0	%100
16	M18	Z	-.023	-.023	0	%100
17	M19	X	1.728	1.728	0	%100
18	M19	Z	-.998	-.998	0	%100
19	M20	X	1.728	1.728	0	%100
20	M20	Z	-.998	-.998	0	%100
21	M21	X	.277	.277	0	%100
22	M21	Z	-.16	-.16	0	%100
23	M22	X	.277	.277	0	%100
24	M22	Z	-.16	-.16	0	%100
25	M23	X	.277	.277	0	%100
26	M23	Z	-.16	-.16	0	%100
27	M24	X	.277	.277	0	%100
28	M24	Z	-.16	-.16	0	%100
29	M25	X	1.048	1.048	0	%100
30	M25	Z	-.605	-.605	0	%100
31	M26	X	1.048	1.048	0	%100
32	M26	Z	-.605	-.605	0	%100
33	M27	X	1.538	1.538	0	%100
34	M27	Z	-.888	-.888	0	%100
35	M28	X	1.538	1.538	0	%100
36	M28	Z	-.888	-.888	0	%100
37	MP4A	X	2.606	2.606	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Locationft..	End Locationft..
38	MP4A	Z	-1.505	-1.505	0	%100
39	MP3A	X	2.606	2.606	0	%100
40	MP3A	Z	-1.505	-1.505	0	%100
41	MP2A	X	2.606	2.606	0	%100
42	MP2A	Z	-1.505	-1.505	0	%100
43	MP1A	X	2.606	2.606	0	%100
44	MP1A	Z	-1.505	-1.505	0	%100
45	M44	X	1.449	1.449	0	%100
46	M44	Z	-.837	-.837	0	%100
47	M45	X	1.449	1.449	0	%100
48	M45	Z	-.837	-.837	0	%100
49	M46	X	1.449	1.449	0	%100
50	M46	Z	-.837	-.837	0	%100
51	M47	X	1.449	1.449	0	%100
52	M47	Z	-.837	-.837	0	%100
53	M44A	X	2.522	2.522	0	%100
54	M44A	Z	-1.456	-1.456	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Locationft..	End Locationft..
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	1.274	1.274	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	1.274	1.274	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	1.274	1.274	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	1.274	1.274	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	.882	.882	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	.882	.882	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	.882	.882	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	.882	.882	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	1.452	1.452	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	1.452	1.452	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	1.452	1.452	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	1.452	1.452	0	%100
36	M28	Z	0	0	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
37	MP4A	X	3.009	3.009	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	3.009	3.009	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	3.009	3.009	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	3.009	3.009	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	1.673	1.673	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	1.673	1.673	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	1.673	1.673	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	1.673	1.673	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	1.747	1.747	0	%100
54	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
1	M1	X	.72	.72	0	%100
2	M1	Z	.416	.416	0	%100
3	M2	X	.72	.72	0	%100
4	M2	Z	.416	.416	0	%100
5	M13	X	.828	.828	0	%100
6	M13	Z	.478	.478	0	%100
7	M14	X	.828	.828	0	%100
8	M14	Z	.478	.478	0	%100
9	M15	X	.828	.828	0	%100
10	M15	Z	.478	.478	0	%100
11	M16	X	.828	.828	0	%100
12	M16	Z	.478	.478	0	%100
13	M17	X	1.728	1.728	0	%100
14	M17	Z	.998	.998	0	%100
15	M18	X	1.728	1.728	0	%100
16	M18	Z	.998	.998	0	%100
17	M19	X	.04	.04	0	%100
18	M19	Z	.023	.023	0	%100
19	M20	X	.04	.04	0	%100
20	M20	Z	.023	.023	0	%100
21	M21	X	.277	.277	0	%100
22	M21	Z	.16	.16	0	%100
23	M22	X	.277	.277	0	%100
24	M22	Z	.16	.16	0	%100
25	M23	X	.277	.277	0	%100
26	M23	Z	.16	.16	0	%100
27	M24	X	.277	.277	0	%100
28	M24	Z	.16	.16	0	%100
29	M25	X	1.538	1.538	0	%100
30	M25	Z	.888	.888	0	%100
31	M26	X	1.538	1.538	0	%100
32	M26	Z	.888	.888	0	%100
33	M27	X	1.048	1.048	0	%100
34	M27	Z	.605	.605	0	%100
35	M28	X	1.048	1.048	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksfl	End Magnitude[lb/ft.F.ksfl	Start Location[f..	End Location[ft..
36	M28	Z	.605	.605	0	%100
37	MP4A	X	2.606	2.606	0	%100
38	MP4A	Z	1.505	1.505	0	%100
39	MP3A	X	2.606	2.606	0	%100
40	MP3A	Z	1.505	1.505	0	%100
41	MP2A	X	2.606	2.606	0	%100
42	MP2A	Z	1.505	1.505	0	%100
43	MP1A	X	2.606	2.606	0	%100
44	MP1A	Z	1.505	1.505	0	%100
45	M44	X	1.449	1.449	0	%100
46	M44	Z	.837	.837	0	%100
47	M45	X	1.449	1.449	0	%100
48	M45	Z	.837	.837	0	%100
49	M46	X	1.449	1.449	0	%100
50	M46	Z	.837	.837	0	%100
51	M47	X	1.449	1.449	0	%100
52	M47	Z	.837	.837	0	%100
53	M44A	X	.295	.295	0	%100
54	M44A	Z	.171	.171	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksfl	End Magnitude[lb/ft.F.ksfl	Start Location[f..	End Location[ft..
1	M1	X	1.247	1.247	0	%100
2	M1	Z	2.16	2.16	0	%100
3	M2	X	1.247	1.247	0	%100
4	M2	Z	2.16	2.16	0	%100
5	M13	X	.159	.159	0	%100
6	M13	Z	.276	.276	0	%100
7	M14	X	.159	.159	0	%100
8	M14	Z	.276	.276	0	%100
9	M15	X	.159	.159	0	%100
10	M15	Z	.276	.276	0	%100
11	M16	X	.159	.159	0	%100
12	M16	Z	.276	.276	0	%100
13	M17	X	1.137	1.137	0	%100
14	M17	Z	1.969	1.969	0	%100
15	M18	X	1.137	1.137	0	%100
16	M18	Z	1.969	1.969	0	%100
17	M19	X	.162	.162	0	%100
18	M19	Z	.28	.28	0	%100
19	M20	X	.162	.162	0	%100
20	M20	Z	.28	.28	0	%100
21	M21	X	.48	.48	0	%100
22	M21	Z	.831	.831	0	%100
23	M22	X	.48	.48	0	%100
24	M22	Z	.831	.831	0	%100
25	M23	X	.48	.48	0	%100
26	M23	Z	.831	.831	0	%100
27	M24	X	.48	.48	0	%100
28	M24	Z	.831	.831	0	%100
29	M25	X	.928	.928	0	%100
30	M25	Z	1.608	1.608	0	%100
31	M26	X	.928	.928	0	%100
32	M26	Z	1.608	1.608	0	%100
33	M27	X	.645	.645	0	%100
34	M27	Z	1.117	1.117	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
35	M28	X	.645	.645	0	%100
36	M28	Z	1.117	1.117	0	%100
37	MP4A	X	1.505	1.505	0	%100
38	MP4A	Z	2.606	2.606	0	%100
39	MP3A	X	1.505	1.505	0	%100
40	MP3A	Z	2.606	2.606	0	%100
41	MP2A	X	1.505	1.505	0	%100
42	MP2A	Z	2.606	2.606	0	%100
43	MP1A	X	1.505	1.505	0	%100
44	MP1A	Z	2.606	2.606	0	%100
45	M44	X	.837	.837	0	%100
46	M44	Z	1.449	1.449	0	%100
47	M45	X	.837	.837	0	%100
48	M45	Z	1.449	1.449	0	%100
49	M46	X	.837	.837	0	%100
50	M46	Z	1.449	1.449	0	%100
51	M47	X	.837	.837	0	%100
52	M47	Z	1.449	1.449	0	%100
53	M44A	X	.05	.05	0	%100
54	M44A	Z	.086	.086	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
1	M1	X	0	0	0	%100
2	M1	Z	3.326	3.326	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	3.326	3.326	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	1.438	1.438	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	1.438	1.438	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	1.438	1.438	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	1.438	1.438	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	1.279	1.279	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	1.279	1.279	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	1.279	1.279	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	1.279	1.279	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	1.614	1.614	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	1.614	1.614	0	%100
33	M27	X	0	0	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
34	M27	Z	1.614	1.614	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	1.614	1.614	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	3.009	3.009	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	3.009	3.009	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	3.009	3.009	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	3.009	3.009	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	1.673	1.673	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	1.673	1.673	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	1.673	1.673	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	1.673	1.673	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	1.264	1.264	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
1	M1	X	-1.247	-1.247	0	%100
2	M1	Z	2.16	2.16	0	%100
3	M2	X	-1.247	-1.247	0	%100
4	M2	Z	2.16	2.16	0	%100
5	M13	X	-.159	-.159	0	%100
6	M13	Z	.276	.276	0	%100
7	M14	X	-.159	-.159	0	%100
8	M14	Z	.276	.276	0	%100
9	M15	X	-.159	-.159	0	%100
10	M15	Z	.276	.276	0	%100
11	M16	X	-.159	-.159	0	%100
12	M16	Z	.276	.276	0	%100
13	M17	X	-.162	-.162	0	%100
14	M17	Z	.28	.28	0	%100
15	M18	X	-.162	-.162	0	%100
16	M18	Z	.28	.28	0	%100
17	M19	X	-1.137	-1.137	0	%100
18	M19	Z	1.969	1.969	0	%100
19	M20	X	-1.137	-1.137	0	%100
20	M20	Z	1.969	1.969	0	%100
21	M21	X	-.48	-.48	0	%100
22	M21	Z	.831	.831	0	%100
23	M22	X	-.48	-.48	0	%100
24	M22	Z	.831	.831	0	%100
25	M23	X	-.48	-.48	0	%100
26	M23	Z	.831	.831	0	%100
27	M24	X	-.48	-.48	0	%100
28	M24	Z	.831	.831	0	%100
29	M25	X	-.645	-.645	0	%100
30	M25	Z	1.117	1.117	0	%100
31	M26	X	-.645	-.645	0	%100
32	M26	Z	1.117	1.117	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[f..	End Location[ft..
33	M27	X	-.928	-.928	0	%100
34	M27	Z	1.608	1.608	0	%100
35	M28	X	-.928	-.928	0	%100
36	M28	Z	1.608	1.608	0	%100
37	MP4A	X	-1.505	-1.505	0	%100
38	MP4A	Z	2.606	2.606	0	%100
39	MP3A	X	-1.505	-1.505	0	%100
40	MP3A	Z	2.606	2.606	0	%100
41	MP2A	X	-1.505	-1.505	0	%100
42	MP2A	Z	2.606	2.606	0	%100
43	MP1A	X	-1.505	-1.505	0	%100
44	MP1A	Z	2.606	2.606	0	%100
45	M44	X	-.837	-.837	0	%100
46	M44	Z	1.449	1.449	0	%100
47	M45	X	-.837	-.837	0	%100
48	M45	Z	1.449	1.449	0	%100
49	M46	X	-.837	-.837	0	%100
50	M46	Z	1.449	1.449	0	%100
51	M47	X	-.837	-.837	0	%100
52	M47	Z	1.449	1.449	0	%100
53	M44A	X	-1.335	-1.335	0	%100
54	M44A	Z	2.312	2.312	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[f..	End Location[ft..
1	M1	X	-.72	-.72	0	%100
2	M1	Z	.416	.416	0	%100
3	M2	X	-.72	-.72	0	%100
4	M2	Z	.416	.416	0	%100
5	M13	X	-.828	-.828	0	%100
6	M13	Z	.478	.478	0	%100
7	M14	X	-.828	-.828	0	%100
8	M14	Z	.478	.478	0	%100
9	M15	X	-.828	-.828	0	%100
10	M15	Z	.478	.478	0	%100
11	M16	X	-.828	-.828	0	%100
12	M16	Z	.478	.478	0	%100
13	M17	X	-.04	-.04	0	%100
14	M17	Z	.023	.023	0	%100
15	M18	X	-.04	-.04	0	%100
16	M18	Z	.023	.023	0	%100
17	M19	X	-1.728	-1.728	0	%100
18	M19	Z	.998	.998	0	%100
19	M20	X	-1.728	-1.728	0	%100
20	M20	Z	.998	.998	0	%100
21	M21	X	-.277	-.277	0	%100
22	M21	Z	.16	.16	0	%100
23	M22	X	-.277	-.277	0	%100
24	M22	Z	.16	.16	0	%100
25	M23	X	-.277	-.277	0	%100
26	M23	Z	.16	.16	0	%100
27	M24	X	-.277	-.277	0	%100
28	M24	Z	.16	.16	0	%100
29	M25	X	-1.048	-1.048	0	%100
30	M25	Z	.605	.605	0	%100
31	M26	X	-1.048	-1.048	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
32	M26	Z	.605	.605	0	%100
33	M27	X	-1.538	-1.538	0	%100
34	M27	Z	.888	.888	0	%100
35	M28	X	-1.538	-1.538	0	%100
36	M28	Z	.888	.888	0	%100
37	MP4A	X	-2.606	-2.606	0	%100
38	MP4A	Z	1.505	1.505	0	%100
39	MP3A	X	-2.606	-2.606	0	%100
40	MP3A	Z	1.505	1.505	0	%100
41	MP2A	X	-2.606	-2.606	0	%100
42	MP2A	Z	1.505	1.505	0	%100
43	MP1A	X	-2.606	-2.606	0	%100
44	MP1A	Z	1.505	1.505	0	%100
45	M44	X	-1.449	-1.449	0	%100
46	M44	Z	.837	.837	0	%100
47	M45	X	-1.449	-1.449	0	%100
48	M45	Z	.837	.837	0	%100
49	M46	X	-1.449	-1.449	0	%100
50	M46	Z	.837	.837	0	%100
51	M47	X	-1.449	-1.449	0	%100
52	M47	Z	.837	.837	0	%100
53	M44A	X	-2.522	-2.522	0	%100
54	M44A	Z	1.456	1.456	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-1.274	-1.274	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-1.274	-1.274	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-1.274	-1.274	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-1.274	-1.274	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-882	-882	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-882	-882	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-882	-882	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-882	-882	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-1.452	-1.452	0	%100
30	M25	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
31	M26	X	-1.452	-1.452	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	-1.452	-1.452	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-1.452	-1.452	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	-3.009	-3.009	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	-3.009	-3.009	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	-3.009	-3.009	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	-3.009	-3.009	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	-1.673	-1.673	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-1.673	-1.673	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	-1.673	-1.673	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	-1.673	-1.673	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	-1.747	-1.747	0	%100
54	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
1	M1	X	-.72	-.72	0	%100
2	M1	Z	-.416	-.416	0	%100
3	M2	X	-.72	-.72	0	%100
4	M2	Z	-.416	-.416	0	%100
5	M13	X	-.828	-.828	0	%100
6	M13	Z	-.478	-.478	0	%100
7	M14	X	-.828	-.828	0	%100
8	M14	Z	-.478	-.478	0	%100
9	M15	X	-.828	-.828	0	%100
10	M15	Z	-.478	-.478	0	%100
11	M16	X	-.828	-.828	0	%100
12	M16	Z	-.478	-.478	0	%100
13	M17	X	-1.728	-1.728	0	%100
14	M17	Z	-.998	-.998	0	%100
15	M18	X	-1.728	-1.728	0	%100
16	M18	Z	-.998	-.998	0	%100
17	M19	X	-.04	-.04	0	%100
18	M19	Z	-.023	-.023	0	%100
19	M20	X	-.04	-.04	0	%100
20	M20	Z	-.023	-.023	0	%100
21	M21	X	-.277	-.277	0	%100
22	M21	Z	-.16	-.16	0	%100
23	M22	X	-.277	-.277	0	%100
24	M22	Z	-.16	-.16	0	%100
25	M23	X	-.277	-.277	0	%100
26	M23	Z	-.16	-.16	0	%100
27	M24	X	-.277	-.277	0	%100
28	M24	Z	-.16	-.16	0	%100
29	M25	X	-1.538	-1.538	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Locationft.	End Locationft...
30	M25	Z	-888	-888	0	%100
31	M26	X	-1.538	-1.538	0	%100
32	M26	Z	-888	-888	0	%100
33	M27	X	-1.048	-1.048	0	%100
34	M27	Z	-605	-605	0	%100
35	M28	X	-1.048	-1.048	0	%100
36	M28	Z	-605	-605	0	%100
37	MP4A	X	-2.606	-2.606	0	%100
38	MP4A	Z	-1.505	-1.505	0	%100
39	MP3A	X	-2.606	-2.606	0	%100
40	MP3A	Z	-1.505	-1.505	0	%100
41	MP2A	X	-2.606	-2.606	0	%100
42	MP2A	Z	-1.505	-1.505	0	%100
43	MP1A	X	-2.606	-2.606	0	%100
44	MP1A	Z	-1.505	-1.505	0	%100
45	M44	X	-1.449	-1.449	0	%100
46	M44	Z	-837	-837	0	%100
47	M45	X	-1.449	-1.449	0	%100
48	M45	Z	-837	-837	0	%100
49	M46	X	-1.449	-1.449	0	%100
50	M46	Z	-837	-837	0	%100
51	M47	X	-1.449	-1.449	0	%100
52	M47	Z	-837	-837	0	%100
53	M44A	X	-.295	-.295	0	%100
54	M44A	Z	-.171	-.171	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Locationft.	End Locationft...
1	M1	X	-1.247	-1.247	0	%100
2	M1	Z	-2.16	-2.16	0	%100
3	M2	X	-1.247	-1.247	0	%100
4	M2	Z	-2.16	-2.16	0	%100
5	M13	X	-.159	-.159	0	%100
6	M13	Z	-.276	-.276	0	%100
7	M14	X	-.159	-.159	0	%100
8	M14	Z	-.276	-.276	0	%100
9	M15	X	-.159	-.159	0	%100
10	M15	Z	-.276	-.276	0	%100
11	M16	X	-.159	-.159	0	%100
12	M16	Z	-.276	-.276	0	%100
13	M17	X	-1.137	-1.137	0	%100
14	M17	Z	-1.969	-1.969	0	%100
15	M18	X	-1.137	-1.137	0	%100
16	M18	Z	-1.969	-1.969	0	%100
17	M19	X	-.162	-.162	0	%100
18	M19	Z	-.28	-.28	0	%100
19	M20	X	-.162	-.162	0	%100
20	M20	Z	-.28	-.28	0	%100
21	M21	X	-.48	-.48	0	%100
22	M21	Z	-.831	-.831	0	%100
23	M22	X	-.48	-.48	0	%100
24	M22	Z	-.831	-.831	0	%100
25	M23	X	-.48	-.48	0	%100
26	M23	Z	-.831	-.831	0	%100
27	M24	X	-.48	-.48	0	%100
28	M24	Z	-.831	-.831	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
29	M25	X	- .928	- .928	0	%100
30	M25	Z	-1.608	-1.608	0	%100
31	M26	X	- .928	- .928	0	%100
32	M26	Z	-1.608	-1.608	0	%100
33	M27	X	- .645	- .645	0	%100
34	M27	Z	-1.117	-1.117	0	%100
35	M28	X	- .645	- .645	0	%100
36	M28	Z	-1.117	-1.117	0	%100
37	MP4A	X	-1.505	-1.505	0	%100
38	MP4A	Z	-2.606	-2.606	0	%100
39	MP3A	X	-1.505	-1.505	0	%100
40	MP3A	Z	-2.606	-2.606	0	%100
41	MP2A	X	-1.505	-1.505	0	%100
42	MP2A	Z	-2.606	-2.606	0	%100
43	MP1A	X	-1.505	-1.505	0	%100
44	MP1A	Z	-2.606	-2.606	0	%100
45	M44	X	- .837	- .837	0	%100
46	M44	Z	-1.449	-1.449	0	%100
47	M45	X	- .837	- .837	0	%100
48	M45	Z	-1.449	-1.449	0	%100
49	M46	X	- .837	- .837	0	%100
50	M46	Z	-1.449	-1.449	0	%100
51	M47	X	- .837	- .837	0	%100
52	M47	Z	-1.449	-1.449	0	%100
53	M44A	X	- .05	- .05	0	%100
54	M44A	Z	- .086	- .086	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
1	M1	X	0	0	0	%100
2	M1	Z	- .655	- .655	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	- .655	- .655	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	- .259	- .259	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	- .259	- .259	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	- .259	- .259	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	- .259	- .259	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	- .142	- .142	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	- .142	- .142	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	- .142	- .142	0	%100
27	M24	X	0	0	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[f..	End Location[f...
28	M24	Z	-.142	-.142	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-.147	-.147	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-.147	-.147	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-.147	-.147	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-.147	-.147	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	-.541	-.541	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	-.541	-.541	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	-.541	-.541	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	-.541	-.541	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	-.142	-.142	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	-.142	-.142	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	-.142	-.142	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	-.142	-.142	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	-.227	-.227	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[f..	End Location[f...
1	M1	X	.246	.246	0	%100
2	M1	Z	-.425	-.425	0	%100
3	M2	X	.246	.246	0	%100
4	M2	Z	-.425	-.425	0	%100
5	M13	X	.018	.018	0	%100
6	M13	Z	-.031	-.031	0	%100
7	M14	X	.018	.018	0	%100
8	M14	Z	-.031	-.031	0	%100
9	M15	X	.018	.018	0	%100
10	M15	Z	-.031	-.031	0	%100
11	M16	X	.018	.018	0	%100
12	M16	Z	-.031	-.031	0	%100
13	M17	X	.029	.029	0	%100
14	M17	Z	-.05	-.05	0	%100
15	M18	X	.029	.029	0	%100
16	M18	Z	-.05	-.05	0	%100
17	M19	X	.204	.204	0	%100
18	M19	Z	-.354	-.354	0	%100
19	M20	X	.204	.204	0	%100
20	M20	Z	-.354	-.354	0	%100
21	M21	X	.053	.053	0	%100
22	M21	Z	-.092	-.092	0	%100
23	M22	X	.053	.053	0	%100
24	M22	Z	-.092	-.092	0	%100
25	M23	X	.053	.053	0	%100
26	M23	Z	-.092	-.092	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[ft..	End Location[ft..
27	M24	X	.053	.053	0	%100
28	M24	Z	-.092	-.092	0	%100
29	M25	X	.059	.059	0	%100
30	M25	Z	-.102	-.102	0	%100
31	M26	X	.059	.059	0	%100
32	M26	Z	-.102	-.102	0	%100
33	M27	X	.085	.085	0	%100
34	M27	Z	-.147	-.147	0	%100
35	M28	X	.085	.085	0	%100
36	M28	Z	-.147	-.147	0	%100
37	MP4A	X	.271	.271	0	%100
38	MP4A	Z	-.469	-.469	0	%100
39	MP3A	X	.271	.271	0	%100
40	MP3A	Z	-.469	-.469	0	%100
41	MP2A	X	.271	.271	0	%100
42	MP2A	Z	-.469	-.469	0	%100
43	MP1A	X	.271	.271	0	%100
44	MP1A	Z	-.469	-.469	0	%100
45	M44	X	.071	.071	0	%100
46	M44	Z	-.123	-.123	0	%100
47	M45	X	.071	.071	0	%100
48	M45	Z	-.123	-.123	0	%100
49	M46	X	.071	.071	0	%100
50	M46	Z	-.123	-.123	0	%100
51	M47	X	.071	.071	0	%100
52	M47	Z	-.123	-.123	0	%100
53	M44A	X	.24	.24	0	%100
54	M44A	Z	-.416	-.416	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Location[ft..	End Location[ft..
1	M1	X	.142	.142	0	%100
2	M1	Z	-.082	-.082	0	%100
3	M2	X	.142	.142	0	%100
4	M2	Z	-.082	-.082	0	%100
5	M13	X	.092	.092	0	%100
6	M13	Z	-.053	-.053	0	%100
7	M14	X	.092	.092	0	%100
8	M14	Z	-.053	-.053	0	%100
9	M15	X	.092	.092	0	%100
10	M15	Z	-.053	-.053	0	%100
11	M16	X	.092	.092	0	%100
12	M16	Z	-.053	-.053	0	%100
13	M17	X	.007	.007	0	%100
14	M17	Z	-.004	-.004	0	%100
15	M18	X	.007	.007	0	%100
16	M18	Z	-.004	-.004	0	%100
17	M19	X	.311	.311	0	%100
18	M19	Z	-.179	-.179	0	%100
19	M20	X	.311	.311	0	%100
20	M20	Z	-.179	-.179	0	%100
21	M21	X	.031	.031	0	%100
22	M21	Z	-.018	-.018	0	%100
23	M22	X	.031	.031	0	%100
24	M22	Z	-.018	-.018	0	%100
25	M23	X	.031	.031	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
26	M23	Z	-.018	-.018	0	%100
27	M24	X	.031	.031	0	%100
28	M24	Z	-.018	-.018	0	%100
29	M25	X	.096	.096	0	%100
30	M25	Z	-.055	-.055	0	%100
31	M26	X	.096	.096	0	%100
32	M26	Z	-.055	-.055	0	%100
33	M27	X	.141	.141	0	%100
34	M27	Z	-.081	-.081	0	%100
35	M28	X	.141	.141	0	%100
36	M28	Z	-.081	-.081	0	%100
37	MP4A	X	.469	.469	0	%100
38	MP4A	Z	-.271	-.271	0	%100
39	MP3A	X	.469	.469	0	%100
40	MP3A	Z	-.271	-.271	0	%100
41	MP2A	X	.469	.469	0	%100
42	MP2A	Z	-.271	-.271	0	%100
43	MP1A	X	.469	.469	0	%100
44	MP1A	Z	-.271	-.271	0	%100
45	M44	X	.123	.123	0	%100
46	M44	Z	-.071	-.071	0	%100
47	M45	X	.123	.123	0	%100
48	M45	Z	-.071	-.071	0	%100
49	M46	X	.123	.123	0	%100
50	M46	Z	-.071	-.071	0	%100
51	M47	X	.123	.123	0	%100
52	M47	Z	-.071	-.071	0	%100
53	M44A	X	.453	.453	0	%100
54	M44A	Z	-.262	-.262	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	.142	.142	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	.142	.142	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	.142	.142	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	.142	.142	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	.159	.159	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	.159	.159	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	.159	.159	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	.159	.159	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	.133	.133	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	.133	.133	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	.133	.133	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	.133	.133	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	.541	.541	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	.541	.541	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	.541	.541	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	.541	.541	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	.142	.142	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	.142	.142	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	.142	.142	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	.142	.142	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	.314	.314	0	%100
54	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
1	M1	X	.142	.142	0	%100
2	M1	Z	.082	.082	0	%100
3	M2	X	.142	.142	0	%100
4	M2	Z	.082	.082	0	%100
5	M13	X	.092	.092	0	%100
6	M13	Z	.053	.053	0	%100
7	M14	X	.092	.092	0	%100
8	M14	Z	.053	.053	0	%100
9	M15	X	.092	.092	0	%100
10	M15	Z	.053	.053	0	%100
11	M16	X	.092	.092	0	%100
12	M16	Z	.053	.053	0	%100
13	M17	X	.311	.311	0	%100
14	M17	Z	.179	.179	0	%100
15	M18	X	.311	.311	0	%100
16	M18	Z	.179	.179	0	%100
17	M19	X	.007	.007	0	%100
18	M19	Z	.004	.004	0	%100
19	M20	X	.007	.007	0	%100
20	M20	Z	.004	.004	0	%100
21	M21	X	.031	.031	0	%100
22	M21	Z	.018	.018	0	%100
23	M22	X	.031	.031	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Locationft.	End Locationft.
24	M22	Z	.018	.018	0	%100
25	M23	X	.031	.031	0	%100
26	M23	Z	.018	.018	0	%100
27	M24	X	.031	.031	0	%100
28	M24	Z	.018	.018	0	%100
29	M25	X	.141	.141	0	%100
30	M25	Z	.081	.081	0	%100
31	M26	X	.141	.141	0	%100
32	M26	Z	.081	.081	0	%100
33	M27	X	.096	.096	0	%100
34	M27	Z	.055	.055	0	%100
35	M28	X	.096	.096	0	%100
36	M28	Z	.055	.055	0	%100
37	MP4A	X	.469	.469	0	%100
38	MP4A	Z	.271	.271	0	%100
39	MP3A	X	.469	.469	0	%100
40	MP3A	Z	.271	.271	0	%100
41	MP2A	X	.469	.469	0	%100
42	MP2A	Z	.271	.271	0	%100
43	MP1A	X	.469	.469	0	%100
44	MP1A	Z	.271	.271	0	%100
45	M44	X	.123	.123	0	%100
46	M44	Z	.071	.071	0	%100
47	M45	X	.123	.123	0	%100
48	M45	Z	.071	.071	0	%100
49	M46	X	.123	.123	0	%100
50	M46	Z	.071	.071	0	%100
51	M47	X	.123	.123	0	%100
52	M47	Z	.071	.071	0	%100
53	M44A	X	.053	.053	0	%100
54	M44A	Z	.031	.031	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Locationft.	End Locationft.
1	M1	X	.246	.246	0	%100
2	M1	Z	.425	.425	0	%100
3	M2	X	.246	.246	0	%100
4	M2	Z	.425	.425	0	%100
5	M13	X	.018	.018	0	%100
6	M13	Z	.031	.031	0	%100
7	M14	X	.018	.018	0	%100
8	M14	Z	.031	.031	0	%100
9	M15	X	.018	.018	0	%100
10	M15	Z	.031	.031	0	%100
11	M16	X	.018	.018	0	%100
12	M16	Z	.031	.031	0	%100
13	M17	X	.204	.204	0	%100
14	M17	Z	.354	.354	0	%100
15	M18	X	.204	.204	0	%100
16	M18	Z	.354	.354	0	%100
17	M19	X	.029	.029	0	%100
18	M19	Z	.05	.05	0	%100
19	M20	X	.029	.029	0	%100
20	M20	Z	.05	.05	0	%100
21	M21	X	.053	.053	0	%100
22	M21	Z	.092	.092	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
23	M22	X	.053	.053	0	%100
24	M22	Z	.092	.092	0	%100
25	M23	X	.053	.053	0	%100
26	M23	Z	.092	.092	0	%100
27	M24	X	.053	.053	0	%100
28	M24	Z	.092	.092	0	%100
29	M25	X	.085	.085	0	%100
30	M25	Z	.147	.147	0	%100
31	M26	X	.085	.085	0	%100
32	M26	Z	.147	.147	0	%100
33	M27	X	.059	.059	0	%100
34	M27	Z	.102	.102	0	%100
35	M28	X	.059	.059	0	%100
36	M28	Z	.102	.102	0	%100
37	MP4A	X	.271	.271	0	%100
38	MP4A	Z	.469	.469	0	%100
39	MP3A	X	.271	.271	0	%100
40	MP3A	Z	.469	.469	0	%100
41	MP2A	X	.271	.271	0	%100
42	MP2A	Z	.469	.469	0	%100
43	MP1A	X	.271	.271	0	%100
44	MP1A	Z	.469	.469	0	%100
45	M44	X	.071	.071	0	%100
46	M44	Z	.123	.123	0	%100
47	M45	X	.071	.071	0	%100
48	M45	Z	.123	.123	0	%100
49	M46	X	.071	.071	0	%100
50	M46	Z	.123	.123	0	%100
51	M47	X	.071	.071	0	%100
52	M47	Z	.123	.123	0	%100
53	M44A	X	.009	.009	0	%100
54	M44A	Z	.015	.015	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
1	M1	X	0	0	0	%100
2	M1	Z	.655	.655	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.655	.655	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	.259	.259	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	.259	.259	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	.259	.259	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	.259	.259	0	%100
21	M21	X	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
22	M21	Z	.142	.142	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	.142	.142	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	.142	.142	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	.142	.142	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	.147	.147	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	.147	.147	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	.147	.147	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	.147	.147	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	.541	.541	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	.541	.541	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	.541	.541	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	.541	.541	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	.142	.142	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	.142	.142	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	.142	.142	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	.142	.142	0	%100
53	M44A	X	0	0	0	%100
54	M44A	Z	.227	.227	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[f..	End Location[ft..
1	M1	X	-.246	-.246	0	%100
2	M1	Z	.425	.425	0	%100
3	M2	X	-.246	-.246	0	%100
4	M2	Z	.425	.425	0	%100
5	M13	X	-.018	-.018	0	%100
6	M13	Z	.031	.031	0	%100
7	M14	X	-.018	-.018	0	%100
8	M14	Z	.031	.031	0	%100
9	M15	X	-.018	-.018	0	%100
10	M15	Z	.031	.031	0	%100
11	M16	X	-.018	-.018	0	%100
12	M16	Z	.031	.031	0	%100
13	M17	X	-.029	-.029	0	%100
14	M17	Z	.05	.05	0	%100
15	M18	X	-.029	-.029	0	%100
16	M18	Z	.05	.05	0	%100
17	M19	X	-.204	-.204	0	%100
18	M19	Z	.354	.354	0	%100
19	M20	X	-.204	-.204	0	%100
20	M20	Z	.354	.354	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
21	M21	X	-.053	-.053	0	%100
22	M21	Z	.092	.092	0	%100
23	M22	X	-.053	-.053	0	%100
24	M22	Z	.092	.092	0	%100
25	M23	X	-.053	-.053	0	%100
26	M23	Z	.092	.092	0	%100
27	M24	X	-.053	-.053	0	%100
28	M24	Z	.092	.092	0	%100
29	M25	X	-.059	-.059	0	%100
30	M25	Z	.102	.102	0	%100
31	M26	X	-.059	-.059	0	%100
32	M26	Z	.102	.102	0	%100
33	M27	X	-.085	-.085	0	%100
34	M27	Z	.147	.147	0	%100
35	M28	X	-.085	-.085	0	%100
36	M28	Z	.147	.147	0	%100
37	MP4A	X	-.271	-.271	0	%100
38	MP4A	Z	.469	.469	0	%100
39	MP3A	X	-.271	-.271	0	%100
40	MP3A	Z	.469	.469	0	%100
41	MP2A	X	-.271	-.271	0	%100
42	MP2A	Z	.469	.469	0	%100
43	MP1A	X	-.271	-.271	0	%100
44	MP1A	Z	.469	.469	0	%100
45	M44	X	-.071	-.071	0	%100
46	M44	Z	.123	.123	0	%100
47	M45	X	-.071	-.071	0	%100
48	M45	Z	.123	.123	0	%100
49	M46	X	-.071	-.071	0	%100
50	M46	Z	.123	.123	0	%100
51	M47	X	-.071	-.071	0	%100
52	M47	Z	.123	.123	0	%100
53	M44A	X	-.24	-.24	0	%100
54	M44A	Z	.416	.416	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
1	M1	X	-.142	-.142	0	%100
2	M1	Z	.082	.082	0	%100
3	M2	X	-.142	-.142	0	%100
4	M2	Z	.082	.082	0	%100
5	M13	X	-.092	-.092	0	%100
6	M13	Z	.053	.053	0	%100
7	M14	X	-.092	-.092	0	%100
8	M14	Z	.053	.053	0	%100
9	M15	X	-.092	-.092	0	%100
10	M15	Z	.053	.053	0	%100
11	M16	X	-.092	-.092	0	%100
12	M16	Z	.053	.053	0	%100
13	M17	X	-.007	-.007	0	%100
14	M17	Z	.004	.004	0	%100
15	M18	X	-.007	-.007	0	%100
16	M18	Z	.004	.004	0	%100
17	M19	X	-.311	-.311	0	%100
18	M19	Z	.179	.179	0	%100
19	M20	X	-.311	-.311	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Locationft..	End Locationft..
20	M20	Z	.179	.179	0	%100
21	M21	X	-.031	-.031	0	%100
22	M21	Z	.018	.018	0	%100
23	M22	X	-.031	-.031	0	%100
24	M22	Z	.018	.018	0	%100
25	M23	X	-.031	-.031	0	%100
26	M23	Z	.018	.018	0	%100
27	M24	X	-.031	-.031	0	%100
28	M24	Z	.018	.018	0	%100
29	M25	X	-.096	-.096	0	%100
30	M25	Z	.055	.055	0	%100
31	M26	X	-.096	-.096	0	%100
32	M26	Z	.055	.055	0	%100
33	M27	X	-.141	-.141	0	%100
34	M27	Z	.081	.081	0	%100
35	M28	X	-.141	-.141	0	%100
36	M28	Z	.081	.081	0	%100
37	MP4A	X	-.469	-.469	0	%100
38	MP4A	Z	.271	.271	0	%100
39	MP3A	X	-.469	-.469	0	%100
40	MP3A	Z	.271	.271	0	%100
41	MP2A	X	-.469	-.469	0	%100
42	MP2A	Z	.271	.271	0	%100
43	MP1A	X	-.469	-.469	0	%100
44	MP1A	Z	.271	.271	0	%100
45	M44	X	-.123	-.123	0	%100
46	M44	Z	.071	.071	0	%100
47	M45	X	-.123	-.123	0	%100
48	M45	Z	.071	.071	0	%100
49	M46	X	-.123	-.123	0	%100
50	M46	Z	.071	.071	0	%100
51	M47	X	-.123	-.123	0	%100
52	M47	Z	.071	.071	0	%100
53	M44A	X	-.453	-.453	0	%100
54	M44A	Z	.262	.262	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F.ksf]	End Magnitude[lb/ft.F.ksf]	Start Locationft..	End Locationft..
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-.142	-.142	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-.142	-.142	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-.142	-.142	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-.142	-.142	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-.159	-.159	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-.159	-.159	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-.159	-.159	0	%100
18	M19	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
19	M20	X	- .159	- .159	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	- .133	- .133	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	- .133	- .133	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	- .133	- .133	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	- .133	- .133	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	- .541	- .541	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	- .541	- .541	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	- .541	- .541	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	- .541	- .541	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	- .142	- .142	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	- .142	- .142	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	- .142	- .142	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	- .142	- .142	0	%100
52	M47	Z	0	0	0	%100
53	M44A	X	- .314	- .314	0	%100
54	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft..	End Location[ft..
1	M1	X	- .142	- .142	0	%100
2	M1	Z	- .082	- .082	0	%100
3	M2	X	- .142	- .142	0	%100
4	M2	Z	- .082	- .082	0	%100
5	M13	X	- .092	- .092	0	%100
6	M13	Z	- .053	- .053	0	%100
7	M14	X	- .092	- .092	0	%100
8	M14	Z	- .053	- .053	0	%100
9	M15	X	- .092	- .092	0	%100
10	M15	Z	- .053	- .053	0	%100
11	M16	X	- .092	- .092	0	%100
12	M16	Z	- .053	- .053	0	%100
13	M17	X	- .311	- .311	0	%100
14	M17	Z	- .179	- .179	0	%100
15	M18	X	- .311	- .311	0	%100
16	M18	Z	- .179	- .179	0	%100
17	M19	X	- .007	- .007	0	%100





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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft.]	End Location[ft.]
18	M19	Z	-0.04	-0.04	0	%100
19	M20	X	-0.07	-0.07	0	%100
20	M20	Z	-0.04	-0.04	0	%100
21	M21	X	-0.31	-0.31	0	%100
22	M21	Z	-0.18	-0.18	0	%100
23	M22	X	-0.31	-0.31	0	%100
24	M22	Z	-0.18	-0.18	0	%100
25	M23	X	-0.31	-0.31	0	%100
26	M23	Z	-0.18	-0.18	0	%100
27	M24	X	-0.31	-0.31	0	%100
28	M24	Z	-0.18	-0.18	0	%100
29	M25	X	-1.41	-1.41	0	%100
30	M25	Z	-0.81	-0.81	0	%100
31	M26	X	-1.41	-1.41	0	%100
32	M26	Z	-0.81	-0.81	0	%100
33	M27	X	-0.96	-0.96	0	%100
34	M27	Z	-0.55	-0.55	0	%100
35	M28	X	-0.96	-0.96	0	%100
36	M28	Z	-0.55	-0.55	0	%100
37	MP4A	X	-4.69	-4.69	0	%100
38	MP4A	Z	-2.71	-2.71	0	%100
39	MP3A	X	-4.69	-4.69	0	%100
40	MP3A	Z	-2.71	-2.71	0	%100
41	MP2A	X	-4.69	-4.69	0	%100
42	MP2A	Z	-2.71	-2.71	0	%100
43	MP1A	X	-4.69	-4.69	0	%100
44	MP1A	Z	-2.71	-2.71	0	%100
45	M44	X	-1.23	-1.23	0	%100
46	M44	Z	-0.71	-0.71	0	%100
47	M45	X	-1.23	-1.23	0	%100
48	M45	Z	-0.71	-0.71	0	%100
49	M46	X	-1.23	-1.23	0	%100
50	M46	Z	-0.71	-0.71	0	%100
51	M47	X	-1.23	-1.23	0	%100
52	M47	Z	-0.71	-0.71	0	%100
53	M44A	X	-0.53	-0.53	0	%100
54	M44A	Z	-0.31	-0.31	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft.F,ksf]	End Magnitude[lb/ft.F,ksf]	Start Location[ft.]	End Location[ft.]
1	M1	X	-2.46	-2.46	0	%100
2	M1	Z	-4.25	-4.25	0	%100
3	M2	X	-2.46	-2.46	0	%100
4	M2	Z	-4.25	-4.25	0	%100
5	M13	X	-0.18	-0.18	0	%100
6	M13	Z	-0.31	-0.31	0	%100
7	M14	X	-0.18	-0.18	0	%100
8	M14	Z	-0.31	-0.31	0	%100
9	M15	X	-0.18	-0.18	0	%100
10	M15	Z	-0.31	-0.31	0	%100
11	M16	X	-0.18	-0.18	0	%100
12	M16	Z	-0.31	-0.31	0	%100
13	M17	X	-2.04	-2.04	0	%100
14	M17	Z	-3.54	-3.54	0	%100
15	M18	X	-2.04	-2.04	0	%100
16	M18	Z	-3.54	-3.54	0	%100



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

	Member Label	Direction	Start Magnitude[lb./ft.F,ksf]	End Magnitude[lb./ft.F,ksf]	Start Location[ft.]	End Location[ft.]
17	M19	X	-0.29	-0.29	0	%100
18	M19	Z	-0.05	-0.05	0	%100
19	M20	X	-0.29	-0.29	0	%100
20	M20	Z	-0.05	-0.05	0	%100
21	M21	X	-0.053	-0.053	0	%100
22	M21	Z	-0.092	-0.092	0	%100
23	M22	X	-0.053	-0.053	0	%100
24	M22	Z	-0.092	-0.092	0	%100
25	M23	X	-0.053	-0.053	0	%100
26	M23	Z	-0.092	-0.092	0	%100
27	M24	X	-0.053	-0.053	0	%100
28	M24	Z	-0.092	-0.092	0	%100
29	M25	X	-0.085	-0.085	0	%100
30	M25	Z	-0.147	-0.147	0	%100
31	M26	X	-0.085	-0.085	0	%100
32	M26	Z	-0.147	-0.147	0	%100
33	M27	X	-0.059	-0.059	0	%100
34	M27	Z	-0.102	-0.102	0	%100
35	M28	X	-0.059	-0.059	0	%100
36	M28	Z	-0.102	-0.102	0	%100
37	MP4A	X	-0.271	-0.271	0	%100
38	MP4A	Z	-0.469	-0.469	0	%100
39	MP3A	X	-0.271	-0.271	0	%100
40	MP3A	Z	-0.469	-0.469	0	%100
41	MP2A	X	-0.271	-0.271	0	%100
42	MP2A	Z	-0.469	-0.469	0	%100
43	MP1A	X	-0.271	-0.271	0	%100
44	MP1A	Z	-0.469	-0.469	0	%100
45	M44	X	-0.071	-0.071	0	%100
46	M44	Z	-0.123	-0.123	0	%100
47	M45	X	-0.071	-0.071	0	%100
48	M45	Z	-0.123	-0.123	0	%100
49	M46	X	-0.071	-0.071	0	%100
50	M46	Z	-0.123	-0.123	0	%100
51	M47	X	-0.071	-0.071	0	%100
52	M47	Z	-0.123	-0.123	0	%100
53	M44A	X	-0.009	-0.009	0	%100
54	M44A	Z	-0.015	-0.015	0	%100

**Member Area Loads**

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

**Envelope Joint Reactions**

Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC		
1	N35	max	1244.54	47	994.432	17	1229.386	13	-0.314	11	0	75	32	40
2		min	-520.832	49	329.632	73	169.168	7	-1.016	16	0	1	-134	49
3	N36	max	2806.281	10	959.582	23	1747.965	11	-0.319	68	0	75	315	40
4		min	-3027.414	4	323.398	68	-2674.974	5	-0.969	23	0	1	-132	49
5	N63A	max	1573.203	4	75.71	10	1805.576	4	0	75	0	75	0	75
6		min	-1540.481	10	-45.239	4	-1909.096	10	0	1	0	1	0	1
7	Totals:	max	1520.01	10	1952.745	21	1393.698	1						
8		min	-1520.009	4	671.414	66	-1393.696	7						





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

Member	Shape	Code Check	L...	LC	Shear Check	Loc(ft)	Dir	C	phi*Pn...	phi*Pnt...	phi*Mn...	phi*Mn...	Cb	Eqn
1	M2	PIPE 2.5	.999	8...	10	.293	8.724	4	14558...	50715	3.596	3.596	2...	H3-6
2	M22	PL5/8X3.5	.597	....	4	.220	.443	y 4	69484...	70875	.923	5.168	1...	H1-1b
3	M20	PIPE 2.0	.578	0	4	.120	0		1031128...	32130	1.872	1.872	1...	H1-1b
4	M24	PL5/8X3.5	.491	....	39	.054	0	y	4069484...	70875	.923	5.168	1...	H1-1b
5	MP3A	PIPE 2.0	.469	2...	4	.106	6.167	3	14916...	32130	1.872	1.872	2...	H1-1b
6	M16	PL5/8X3.5	.421	....	4	.573	.422	y 4	67997...	70875	.923	5.168	1...	H1-1b
7	M1	PIPE 2.5	.414	8...	10	.197	8.724	4	14558...	50715	3.596	3.596	1...	H1-1b
8	MP1A	PIPE 2.0	.389	2...	46	.227	6.167	10	14916...	32130	1.872	1.872	1...	H1-1b
9	MP2A	PIPE 2.0	.324	2...	4	.125	2.833	10	14916...	32130	1.872	1.872	1...	H1-1b
10	M21	PL5/8X3.5	.297	....	9	.083	.531	y 9	69484...	70875	.923	5.168	1...	H1-1b
11	M23	PL5/8X3.5	.275	....	49	.055	0	y 5	69484...	70875	.923	5.168	1...	H1-1b
12	M15	PL5/8X3.5	.272	0	45	.081	.422	y 11	67997...	70875	.923	5.168	1...	H1-1b
13	M17	PIPE 2.0	.222	2...	3	.056	2.501	3	31128...	32130	1.872	1.872	1...	H1-1b
14	MP4A	PIPE 2.0	.205	6...	49	.027	2.833	49	14916...	32130	1.872	1.872	2...	H1-1b
15	M19	PIPE 2.0	.184	2...	48	.083	0	40	31128...	32130	1.872	1.872	2...	H1-1b
16	M14	PL5/8X3.5	.171	0	30	.080	.422	y 3	67997...	70875	.923	5.168	1...	H1-1b
17	M13	PL5/8X3.5	.169	0	1	.183	.422	y 9	67997...	70875	.923	5.168	1...	H1-1b
18	M44A	PIPE 2.0	.154	0	4	.004	7.721	9	15721...	32130	1.872	1.872	1...	H1-1b*
19	M18	PIPE 2.0	.149	2...	44	.060	0	29	31128...	32130	1.872	1.872	2...	H1-1b
20	M44	SR 0.625	.090	0	11	.004	0	5	2158.2...	9940.19	.104	.104	1...	H1-1b*
21	M28	SR 0.75	.082	4...	40	.020	0	40	2863.9...	14313...	.179	.179	1...	H1-1b*
22	M47	SR 0.625	.067	0	4	.011	0	4	2158.2...	9940.19	.104	.104	1...	H1-1b*
23	M46	SR 0.625	.060	1...	4	.027	0	40	2158.2...	9940.19	.104	.104	1...	H1-1b
24	M26	SR 0.75	.054	0	33	.011	4.167	39	2863.9...	14313...	.179	.179	1...	H1-1b*
25	M45	SR 0.625	.054	1...	8	.030	0	40	2158.2...	9940.19	.104	.104	1...	H1-1b
26	M25	SR 0.75	.001	4...	41	.010	0	44	2863.9...	14313...	.179	.179	1...	H1-1b*
27	M27	SR 0.75	.000	0	75	.016	0	44	2863.9...	14313...	.179	.179	1...	H1-1a



# **ATTACHMENT 4**

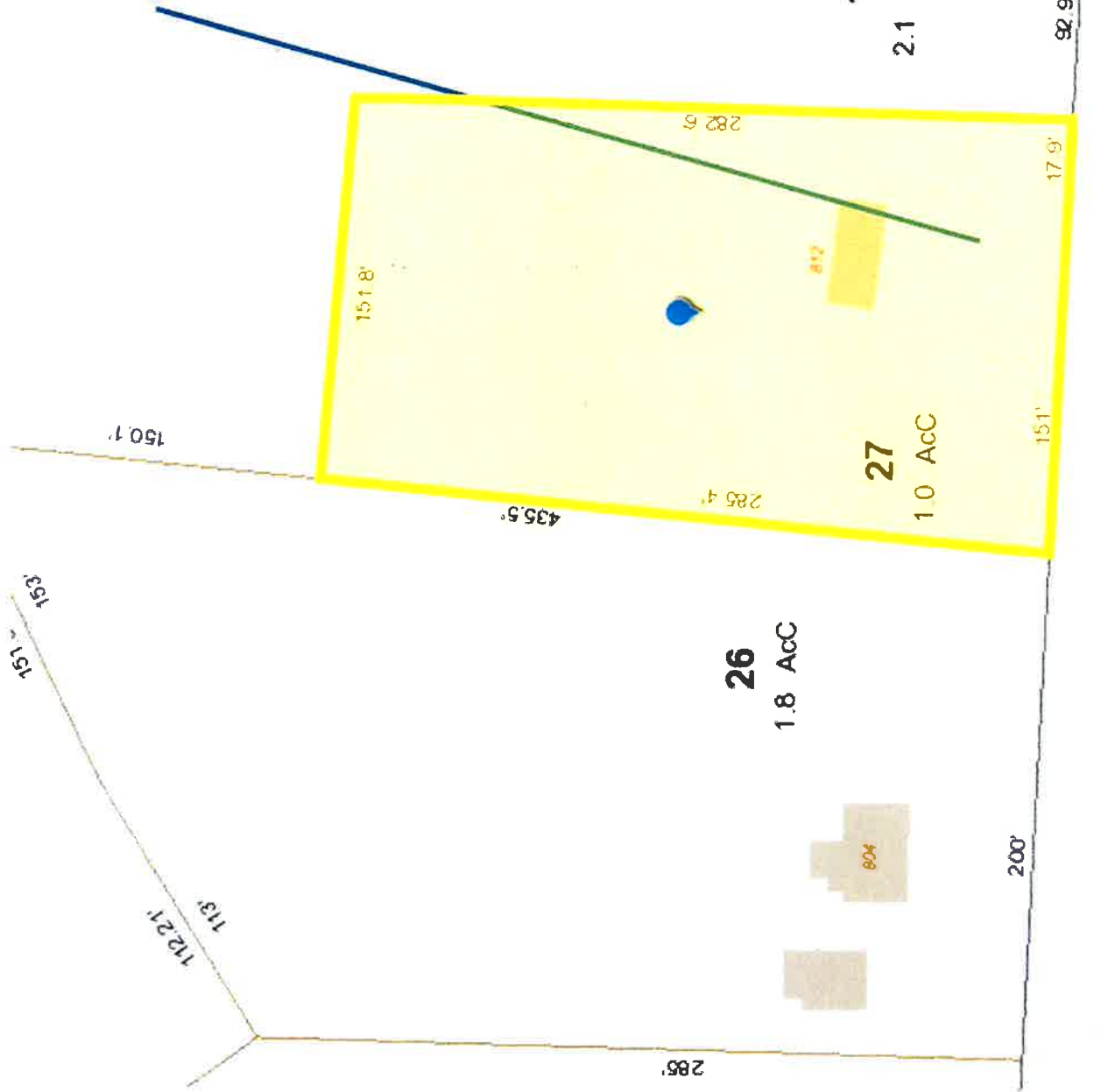


Parcel #: 212-027-000-000

812 PROVIDENCE PIKE

Documents & Links Assessment

Zoom to



The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2018.



Information on the Property Records for the Municipality of Killingly was last updated on 11/30/2021.

### Property Summary Information

Parcel Data And Values    Outbuildings    Sales    Permits

Location: 812 PROVIDENCE PIKE  
 Unique ID: 1389  
 490 Acres: 0.00  
 Developers Map / Lot:

### Parcel Information

Property Use: Cell Tower  
 Map Block Lot: 212-27  
 Zone: RD  
 Census: 9041-4007  
 Primary Use: Cell Tower  
 Acres: 1.00  
 Volume / Page: 0652/0315

### Value Information

	Appraised Value	Assessed Value
Land	16,200	11,340
Buildings	0	0
Detached Outbuildings	184,890	129,420
Total	201,090	140,760

### Owner's Information

**Owner's Data**  
 QUINEBAUG VALLEY EMERGENCY COMMUNICATIONS INC  
 1249 HARTFORD PIKE  
 KILLINGLY CT 06239

# **ATTACHMENT 5**



**Certificate of Mailing — Firm**



Name and Address of Sender

Kenneth C. Baldwin, Esq.  
 Robinson & Cole LLP  
 280 Trumbull Street  
 Hartford, CT 06103

TOTAL NO.  
of Pieces Listed by Sender

3

TOTAL NO.  
of Pieces Received at Post Office™

3

Postmaster, per (name of receiving employee)

*[Handwritten Signature]*

Affix Stamp Here  
 Postmark with Date of Receipt.



USPS® Tracking Number  
 Firm-specific Identifier

Address  
 (Name, Street, City, State, and ZIP Code™)

	Postage	Fee	Special Handling	Parcel Airlift
1.	Mary Calorio, Town Manger Town of Killingly 172 Main Street Killingly, CT 06239			
2.	Ann-Marie Aubrey, Director of Planning and Development Town of Killingly 172 Main Street Killingly, CT 06239			
3.	Quinebaug Valley Emergency Communications Inc., 1249 Hartford Turnpike Killingly, CT 06239			
4.				
5.				
6.				