Robinson+Cole

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts
and New York

January 5, 2024

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**
366 Old Long Ridge Road, Stamford, 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 City of Stamford ("City") in November of 1988. Cellco's shared use of the tower was approved by the Siting Council ("Council") in February of 2015 (TS-VER-135-150112). A copy of the City's tower approval and Council's TS-VER-135-150112 are included in Attachment 1.

Cellco's proposed modification involves the installation of four (4) interference mitigation filters ("Filters") on its existing antenna mounting assembly. The specification sheet for the new Filters 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 Stamford's Chief Elected Official and Land Use Officer.

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 existing tower. The Filters will be installed on Cellco's existing 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 Cellco's new 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 and antenna 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:
Caroline Simmons, Mayor
Ralph Blessing, Land Use Bureau Chief
Long Ridge Fire Company Inc., Property Owner
Aleksey Tyurin, Verizon Wireless

ATTACHMENT 1

Original Zoning Approval 1988

400

ZONING APPEALS BOARD CERTIFICATE VOL 3356 PAGE 1

20110

I, LEONARD DIFRETA, zoning enforcement officer for the City of Stamford, in compliance with Special Act No. 379 of the 1951 General Assembly, hereby certify that on November 9, 1988 a hearing was held by the Zoning Appeals Board on the application of:

LONG RIDGE FIRE CO., INC. Appl. #119-88

for a Special Exception as authorized by Section 19-3.2.a. for a replacement radio antenna tower, 150 feet in height, to be constructed on the Long Ridge Fire Company property located on the west side of Old Long Ridge Road, in an RA-2 zone, and is known as 366 Old Long Ridge Road.

and that the land affected is owned by and located on the following streets:

NAME	LOCATION
Long Ridge Fire Co., Inc.	366 Old Long Ridge Road

and that the following is a statement of its findings and approval or rejection.

November 16, 1988

The Board approves this Special Exception as authorized by Section 19-3.2.a. for a replacement radio antenna tower, 150 feet in height, to be constructed on the Long Ridge Fire Company property, subject to the following restriction:

The applicant must adhere to the approved plan which has been signed by Raymond D. Sanborne, Chairman of the Zoning Board of Appeals, and Michael D. Macri, Deputy Zoning Enforcement Officer. Said plan is on file in the office of the Zoning Board of Appeals and is referred to as Proposed Replacement of Radio Antenna Tower, dated 9/12/88.

In rendering the above decision, the Board finds that the proposed use or structure or the proposed extension or alteration of an existing use or structure is in accord with the public convenience and welfare after taking into account, where appropriate:

(1) the location and nature of the proposed site including its size and configuration, the proposed size, scale and arrangement of structures, drives and parking areas and the proximity of existing dwellings and other structures.
(2) the nature and intensity of the proposed use in relation to its site and the surrounding area. Operations in connection with special exception uses shall not be injurious to the neighborhood, shall be in harmony with the general purpose and intent of the Zoning Regulations, and shall not be more objectionable to nearby properties by reason of noise, fumes, vibration, artificial lighting or other potential disturbances to the health, safety or peaceful enjoyment of property than the public necessity demands.
(3) the resulting traffic patterns, the adequacy of existing streets to accommodate the traffic associated with the proposed use, the adequacy of proposed off-street parking and loading, and the extent to which proposed driveways may cause a safety hazard or traffic nuisance.
(4) the nature of the surrounding area and the extent to which the proposed use or feature might impair its present and future development.
(5) the Master Plan of the City of Stamford and all statements of the purpose and intent of these regulations.

The applicant(s) is/are allowed one year from the effective date of this decision in which to obtain a building permit.

Dated at Stamford, Connecticut, this 1st day of December, 1988.

Raymond D. Sanborne
Chairman, Zoning Board of Appeals

Leonard DiPreta
Zoning Enforcing Officer of the City of Stamford

The land hereby affected lies in block 400

THE LAND AFFECTED HEREBY LIES IN BLOCK 400
OF THE STAMFORD BLOCK MAP. RECEIVED FOR RECORD
AT STAMFORD CT. 12-1-88 AT 9:53 A.M.
ATTEST: LOIS POTTERIANO, TOWN AND CITY CLERK

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
www.ct.gov/csc

February 20, 2015

Kenneth C. Baldwin, Esq.
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **TS-VER-135-150112** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 366 Old Long Ridge Road, Stamford, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on February 19, 2015, 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:

- The tower shall be reinforced per the URS Corporation report dated June 13, 2013, and Nextel's equipment at 118-foot level of the tower shall be removed as referenced in the structural analysis report prepared by URS Corporation dated October 31, 2014 and stamped by Richard Sambor, prior to the installation of Cellco's equipment;
- Within 45 days following completion of the equipment installation, Cellco shall provide documentation certified by a professional engineer that its installation complied with the recommendations included in the Structural Analysis Report prepared by URS Corp. dated October 31, 2014 and stamped by Richard Sambor;
- 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;
- Any nonfunctioning antenna and associated antenna mounting equipment on this facility owned and operated by Cellco shall be removed within 60 days of the date the antenna ceased to function;
- 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 and applies only to this request for tower sharing dated January 12, 2015. 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 the approved tower sharing request is enforceable under the provisions of Connecticut General Statutes § 16-50u.

The proposed shared use is to be implemented as specified in your letter dated January 12, 2015, including the placement of all necessary equipment and shelters within the tower compound.

Please be advised that the validity of this action shall expire one year from the date of this letter.

Thank you for your attention and cooperation.

Very truly yours,

Robert Stein

Robert Stein
Chairman

RS/MP/lm

c: The Honorable David Martin, Mayor, City of Stamford
Norman Cole, AICP, Land Use Bureau Chief, City of Stamford
Stuart Teitelbaum, Chief, Long Ridge Fire Company

ATTACHMENT 2

KA-6030

TWIN BANDSTOP 900MHZ INTERFERENCE MITIGATION FILTER

The KA-6030 is ideal for co-located 700, 850 and 900 networks. Utilising a 2.6MHz guardband the KA-6030 provides rejection of the 900 UL band while passing 700/850 UL and DL bands. Capable of being used in an outdoor environment the KA-6030 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	700 PATH / 850 UPLINK PATH	850 DOWNLINK PATH
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	

ELECTRICAL	
Impedance	50Ohms
Intermodulation products	-160dBc maximum in UL Band (assuming 20MHz Signal), with 2 x 43dBm carriers -153dBc maximum with 2 x 43dBm

DC / AISG	
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

ENVIRONMENTAL	
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

© Kaelus 2023. All rights reserved

Contact Us: +1 303 768 8080 | +61 (0) 7 3907 1200 | www.kaelus.com

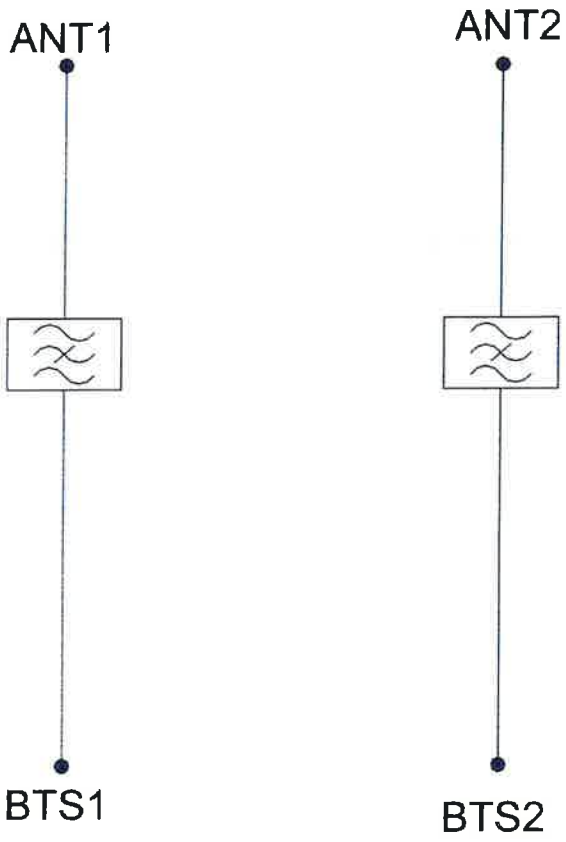
MECHANICAL	
Dimensions H x D x W	269 x 277 x 80mm | 10.60 x 10.90 x 3.15in (Excluding brackets and connectors)
Weight	8.0 kg | 17.8 lbs (no bracket)
Finish	Powder coated, light grey (RAL7035)
Connectors	RF: 4.3-10 (F) x 4
Mounting	Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter poles or custom bracket. See ordering information.

ORDERING INFORMATION

PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS
KA-6030-2032	TWIN, 2 in / 2 out	DC/AISG PASS	4.3-10 (F)

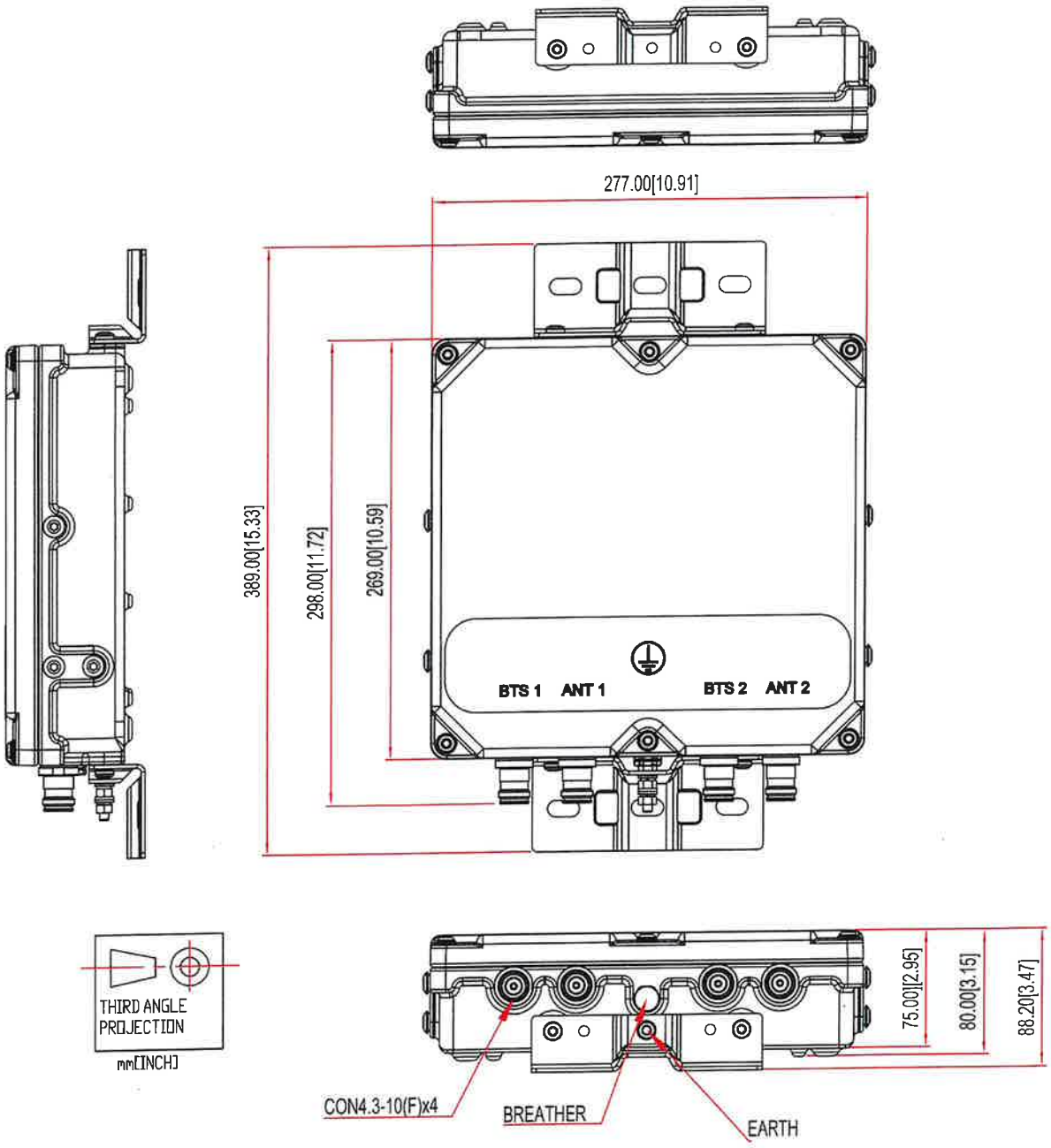
© Kaelus 2023. All rights reserved

ELECTRICAL BLOCK DIAGRAM



© Kaelus 2023. All rights reserved

MECHANICAL BLOCK DIAGRAM



© Kaelus 2023. All rights reserved

ATTACHMENT 3

CENTERLINE

Structural Analysis Report

Location Code: 468119
Site Name: Stamford NW CT
FUZE Project ID: 17123711
Project Name: RF Filter Add
Address: 366 Old Long Ridge Road
Stamford, CT 06903

Client:

verizon

20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

Date: 09/21/2023

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

CENTERLINE

Scope of Work:

Centerline Communications was authorized by Verizon Wireless to perform an analysis of the existing 152 ft. self support tower 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)
-	152.0	162.0	1	Antennae	20' 4-Bay Dipole	(1) 7/8 (1) EW180
		152.0	1	-	TMA	
		152.0	1	-	6'x4'' Sch 40 Pipe Mount	
		152.0	1	-	4' HP MW	
		152.0	1	-	4' x 4.5" Pipe Mount	
	150.0	156.7	1	Decibel	DB563K	(1) 1/2
		150.0	1	-	2' x 3' Side Arm	
-	145.0	145.0	3	Quintel	QS66512-2	(12) 1-5/8
		145.0	6	Kaelus	TMA2117F00V1-1	
		145.0	3	-	Side Arm Mount	
-	140.0	140.0	1	-	4' HP MW	(1) EW180
		140.0	1	-	4' x 4.5" Pipe Mount	
-	135.0	138.0	1	-	6' x 3'' Omni	(2) 1-5/8
		135.0	1	Decibel	DB254	
		135.0	2	-	2' x 3' Side Arm	
-	131.0	131.0	3	RFS Celwave	APXVSPP18-C-A20	(3) 1-1/4 (1) 7/8
		131.0	3	Alcatel Lucent	RRH2x50	
		131.0	3	Alcatel Lucent	RRH4X45	
		131.0	3	RFS Celwave	APXVTM14-ALU-I20	
		131.0	3	Alcatel Lucent	TD-RRH8x20	
		131.0	3	-	Sector Mount	

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

-	115.0	118.0	3	Ericsson	AIR32 KRD901146-1_B66_B2A	(4) 6x12 Hybrid
		118.0	3	Ericsson	AIR6449 B41	
		118.0	3	Ericsson	RADIO 4415 B25	
		118.0	3	Ericsson	RRUS 11 B4	
		118.0	3	Ericsson	RADIO 4449 B71+B85	
		118.0	3	RFS Celwave	APXVAALL24_43-UNA20	
		115.0	3	-	Sector Frames	
		115.0	3	Site Pro 1	SFR-K Kit	
		115.0	3	-	Horizontal 10.5'x2.5' std	
Verizon Wireless	96.75	98.0	3	Samsung	MT6407-77A	(3) 1-5/8 Hybrid
		98.0	6	Commscope	JAHH-65B-R3B	
		98.0	3	Samsung	XXDWMM-12.5-65-8T-CBRS	
		98.0	3	Samsung	B2/B66A RRH-BR049 (RFV01UD1A)	
		98.0	3	Samsung	B5/B13 RRH-BR04C (RFV01UD2A)	
		98.0	3	Commscope	CBC78T-DS-43-2X	
		98.0	3	RFS Celwave	DB-T1-6Z-8AB-0Z	
		98.0	**4**	**Kaelus**	**KA-6030**	
		98.0	**2**	**Site Pro 1**	**RRUDSM**	
		98.0	3	Site Pro 1	VFA12-HD	
-	74.0	78.0	1	Antennae	8' 4-Bay Dipole	(1) 7/8
		74.0	1	-	2' x 3' sidearm	
-	58.0	58.0	1	-	GPS	(1) 1/2
			1	-	2' x 3' sidearm	

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

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

CENTERLINE

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)	116 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 – Stiff Soil
Seismic Design Category	B
Spectral Response Acceleration Parameter at a Short Periods, S_S	0.267 g
Spectral Response Acceleration Parameter at a Period of 1 Second, S_1	0.059 g
Short Period Site Coefficient, F_a	1.586
Long Period Site Coefficient, F_v	2.40

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

Conclusion:

Tower Section Capacity (Summary)

Section No.	*Elevation ft*	*Component Type*	*Size*	*Critical Element*	*P lb*	*ϕP_{allow} lb*	*% Capacity*	*Pass Fail*
T1	152 - 140	Leg	P2.375X0.154 (2" STD)	3	-4.58	36.84	12.4	Pass
T2	140 - 135	Leg	P2.875"x0.203" (2.5 STD)	27	-6.87	57.13	12.0	Pass
T3	135 - 130	Leg	P2.875"x0.203" (2.5 STD)	39	-10.73	57.13	18.8	Pass
T4	130 - 125	Leg	P2.875"x0.203" (2.5 STD)	48	-14.44	57.13	25.3	Pass
T5	125 - 120	Leg	P2.875"x0.203" (2.5 STD)	57	-19.29	57.14	33.8	Pass
T6	120 - 100	Leg	Pipe 2.5 XStr (2.875"ODx0.276")	64	-42.69	58.51	73.0	Pass
T7	100 - 80	Leg	2.875"x0.276" w/ 3.5"x.3" Sleeve (STAMFORD NW CT)	85	-70.80	126.18	56.1	Pass
T8	80 - 73.3333	Leg	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	115	-80.30	162.69	49.4	Pass

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

CENTERLINE

T9	73.3333 - 66.6667	Leg	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	127	-88.95	162.72	54.7	Pass
T10	66.6667 - 60	Leg	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	139	-97.87	162.76	60.1	Pass
T11	60 - 50	Leg	Pipe 4 XStr (4.5"ODx0.337")	151	-108.55	174.28	62.3	Pass
T12	50 - 40	Leg	Pipe 4 XStr (4.5"ODx0.337")	163	-121.11	174.35	69.5	Pass
T13	40 - 30	Leg	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 30'-40')	175	-133.70	216.57	61.7	Pass
T14	30 - 20	Leg	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 20'-30')	187	-145.45	245.84	59.2	Pass
T15	20 - 15	Leg	5.5"x0.259" w/ 6"x.25" Sleeve (STAMFORD NW CT 15'-20')	229	-157.37	186.20	84.5	Pass
T16	15 - 9.99999	Leg	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')	253	-158.54	232.29	68.3	Pass
T17	9.99999 - 0	Leg	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')	262	-170.03	232.30	73.2	Pass
T1	152 - 140	Diagonal	L1 1/2x1 1/2x1/8	11	-1.15	4.77	24.1 36.2 (b)	Pass
T2	140 - 135	Diagonal	L1 1/2x1 1/2x3/16	31	-1.11	5.28	21.0 22.8 (b)	Pass
T3	135 - 130	Diagonal	L1 1/2x1 1/2x3/16	40	-1.56	4.79	32.6	Pass
T4	130 - 125	Diagonal	L1 1/2x1 1/2x1/4	49	-2.45	5.62	43.6	Pass
T5	125 - 120	Diagonal	L1 1/2x1 1/2x1/4	59	-2.20	5.13	42.8	Pass
T6	120 - 100	Diagonal	L2x2x1/4	68	-3.90	7.69	50.7	Pass
T7	100 - 80	Diagonal	L2 1/2x2 1/2x1/4	88	-5.07	11.46	44.3 58.4 (b)	Pass
T8	80 - 73.3333	Diagonal	L2 1/2x2 1/2x1/4	119	-5.09	10.61	48.0 60.0 (b)	Pass
T9	73.3333 - 66.6667	Diagonal	L2 1/2x2 1/2x5/16	130	-5.41	11.91	45.5 60.7 (b)	Pass
T10	66.6667 - 60	Diagonal	L2 1/2x2 1/2x5/16	142	-5.33	11.01	48.4 62.6 (b)	Pass
T11	60 - 50	Diagonal	L3x3x1/4	154	-6.21	11.92	52.1 55.5 (b)	Pass
T12	50 - 40	Diagonal	L3x3x5/16	166	-6.42	13.31	48.3 55.9 (b)	Pass
T13	40 - 30	Diagonal	L3x3x3/8	178	-6.49	14.34	45.2 57.9 (b)	Pass
T14	30 - 20	Diagonal	L3x3x5/16	191	-7.51	27.69	27.1 63.6 (b)	Pass
T15	20 - 15	Diagonal	L3 1/2x3 1/2x1/4	236	-6.15	35.18	17.5 58.6 (b)	Pass
T16	15 - 9.99999	Diagonal	L3 1/2x3 1/2x1/4	256	-6.34	14.46	43.9 57.1 (b)	Pass
T17	9.99999 - 0	Diagonal	L3 1/2x3 1/2x5/16	265	-7.23	15.74	45.9	Pass

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

CENTERLINE

							63.7 (b)	
T14	30 - 20	Horizontal	L3x3x1/4	204	-2.52	12.55	20.1	Pass
T16	15 - 9.99999	Horizontal	L3x3x1/4	246	-2.75	7.19	38.2	Pass
T7	100 - 80	Secondary Horizontal	L2 1/2x2 1/2x1/4	96	-1.23	15.68	7.8	Pass
T8	80 - 73.3333	Secondary Horizontal	L2 1/2x2 1/2x1/4	126	-1.39	14.15	9.8	Pass
T9	73.3333 - 66.6667	Secondary Horizontal	L2 1/2x2 1/2x1/4	138	-1.54	12.75	12.1	Pass
T10	66.6667 - 60	Secondary Horizontal	L2 1/2x2 1/2x1/4	150	-1.70	11.55	14.7	Pass
T11	60 - 50	Secondary Horizontal	L2 1/2x2 1/2x1/4	162	-1.88	10.41	18.1	Pass
T12	50 - 40	Secondary Horizontal	L3x3x1/4	174	-2.10	16.03	13.1	Pass
T13	40 - 30	Secondary Horizontal	L3x3x1/4	186	-2.32	14.14	16.4	Pass
T1	152 - 140	Top Girt	L2x2x1/8	5	-0.10	4.07	2.5	Pass
T2	140 - 135	Top Girt	L2x2x1/8	29	-0.12	4.07	2.9	Pass
T14	30 - 20	Redund Horz 1 Bracing	L2x2x1/4	209	-2.52	14.85	17.0	Pass
T15	20 - 15	Redund Horz 1 Bracing	L2x2x1/4	251	-2.95	13.48	21.9	Pass
T14	30 - 20	Redund Diag 1 Bracing	L2x2x1/4	228	-1.47	10.93	13.4	Pass
T15	20 - 15	Redund Diag 1 Bracing	L2x2x1/4	235	-1.58	10.16	15.6	Pass
							Summary	
						Leg (T15)	84.5	Pass
						Diagonal (T17)	63.7	Pass
						Horizontal (T16)	38.2	Pass
						Secondary Horizontal (T11)	18.1	Pass
						Top Girt (T2)	2.9	Pass
						Redund Horz 1 Bracing (T15)	21.9	Pass
						Redund Diag 1 Bracing (T15)	15.6	Pass
						Bolt Checks	63.7	Pass
						RATING =	**84.5**	**Pass**

Structure Rating (Max From All Components) =	**84.5%**

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

CENTERLINE

Foundation Capacity (Summary)

Component	% Capacity	Pass Fail
Anchor Rods	76.7	Pass
Foundation – Soil Rating	81.8	Pass
Foundation – Structural Rating	62.2	Pass

Foundation Rating (Max From All Components) =	**81.8%**

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 Paul J. Ford & Company, dated June 8, 2021
- Lease Exhibit by Centerline Engineering Services, PA, dated August 18, 2023
- Mount Analysis Report by Colliers Engineering and Design, dated 8/1/2023

Assumptions and Limitations:

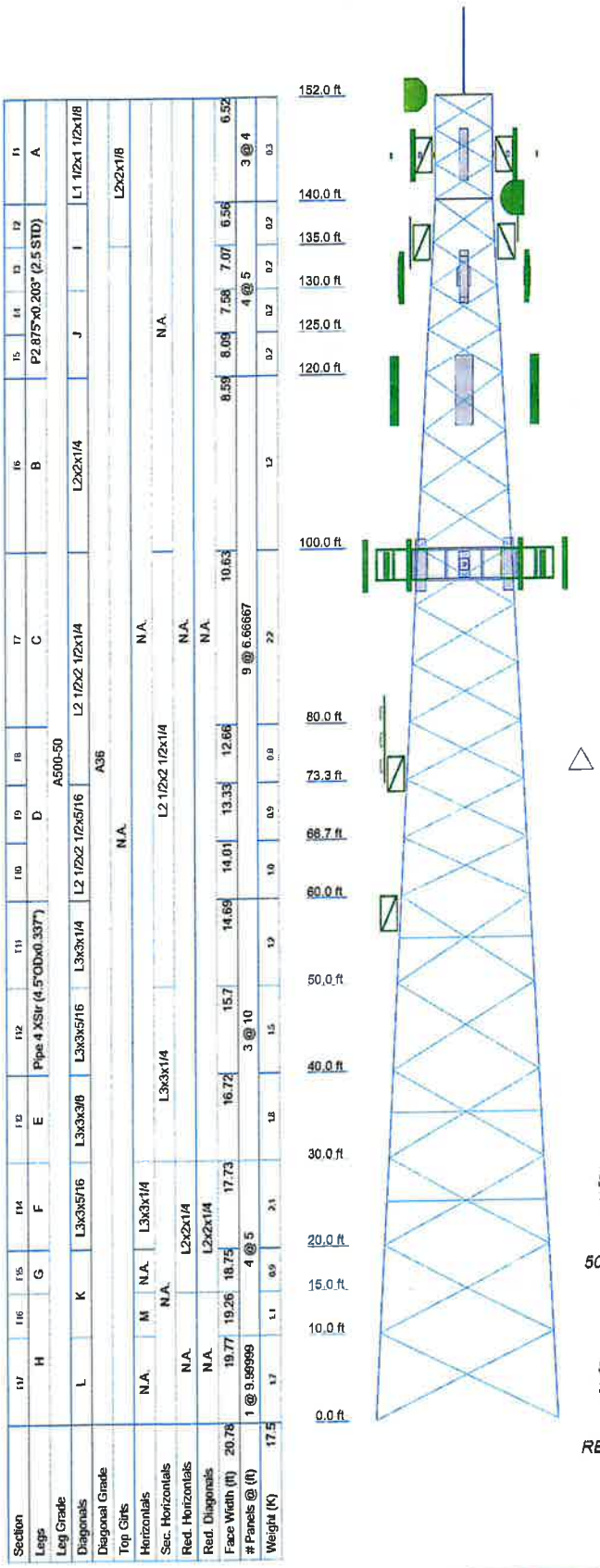
- The tower and structures were built and maintained with the manufacturer's specifications.
- The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in this report and the referenced drawings.
- Existing appurtenance information obtained from the Structural Analysis Report by Paul J. Ford & Company, dated June 8, 2021 and the Lease Exhibit by Centerline Engineering Services, PA, dated August 18, 2023.

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

CENTERLINE

Design Calculations

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



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
20' 4-Bay Dipole	152	RRUS 4415 B25	115
TMA	152	RRUS 4415 B25	115
6'x4" Sch 40 Pipe	152	Sector Frame Mount	115
4' x 4.5" Pipe Mount	152	Sector Frame Mount	115
4' HP MW	152	Sector Frame Mount	115
DB583K-TT w/Mount Pipe	150	(3) Site Pro 1 SFR-K	115
2' x 3' sidearm	150	10' x 2-1/4" Pipe Mount	115
QS66512-2 w/ Mount Pipe	145	10' x 2-1/4" Pipe Mount	115
QS66512-2 w/ Mount Pipe	145	10' x 2-1/4" Pipe Mount	115
(2) TMA2117F00V1-1	145	RADIO 4449 B71+B85	115
(2) TMA2117F00V1-1	145	RADIO 4449 B71+B85	115
(2) TMA2117F00V1-1	145	RADIO 4449 B71+B85	115
2' x 3' Side Arm Mount	145	AIR32 KRD901146- 1_B66_B2A w/ Mount Pipe	115
2' x 3' Side Arm Mount	145	AIR32 KRD901146- 1_B66_B2A w/ Mount Pipe	115
2' x 3' Side Arm Mount	145		
QS66512-2 w/ Mount Pipe	145	DB-T1-6Z-8AB-0Z (OVP)	98
4' x 4.5" Pipe Mount	140	DB-T1-6Z-8AB-0Z (OVP)	98
4' HP MW	140	DB-T1-6Z-8AB-0Z (OVP)	98
DB254-A	135	B2/B66A RRH-BR049 (RFV01U-D1A)	98
2' x 3' Side Arm Mount	135	B2/B66A RRH-BR049 (RFV01U-D1A)	98
6' x 3" Omni	135	B2/B66A RRH-BR049 (RFV01U-D1A)	98
2' x 3' Side Arm Mount	135	B5/B13 RRH-BR04C (RFV01U-D2A)	98
APXVSPP18-C-A20 w/ Mount Pipe	131	B5/B13 RRH-BR04C (RFV01U-D2A)	98
RRH2x50-WCS	131	B5/B13 RRH-BR04C (RFV01U-D2A)	98
RRH2x50-WCS	131	CBC78T-DS-43-2X	98
RRH2x50-WCS	131	CBC78T-DS-43-2X	98
RRH4X45-19	131	CBC78T-DS-43-2X	98
RRH4X45-19	131	Site Pro 1 VFA12-HD	98
RRH4X45-19	131	Site Pro 1 VFA12-HD	98
APXVTM14-ALU-I20 w/ Mount Pipe	131	Site Pro 1 VFA12-HD	98
APXVTM14-ALU-I20 w/ Mount Pipe	131	MT6407-77A w/ Pipe Mount	98
APXVTM14-ALU-I20 w/ Mount Pipe	131	MT6407-77A w/ Pipe Mount	98
TD-RRH8x20	131	MT6407-77A w/ Pipe Mount	98
TD-RRH8x20	131	(2) KA-6030	98
TD-RRH8x20	131	(2) KA-6030	98
Sector Frame Mount	131	Site Pro 1 RRUDSM	98
Sector Frame Mount	131	Site Pro 1 RRUDSM	98
Sector Frame Mount	131	XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	98
APXVSPP18-C-A20 w/ Mount Pipe	131	XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	98
APXVSPP18-C-A20 w/ Mount Pipe	131	XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	98
AIR32 KRD901146- 1_B66_B2A w/ Mount Pipe	115	(2) JAHH-65B-R3B w/ Mount Pipe	98
AIR6449 B41 w/ Mount Pipe	115	(2) JAHH-65B-R3B w/ Mount Pipe	98
AIR6449 B41 w/ Mount Pipe	115	(2) JAHH-65B-R3B w/ Mount Pipe	98
APXVAARR24_43-U-NA20 w/ Mount Pipe	115	BSAMNT-SBS-2-2	98
APXVAARR24_43-U-NA20 w/ Mount Pipe	115	BSAMNT-SBS-2-2	98
APXVAARR24_43-U-NA20 w/ Mount Pipe	115	BSAMNT-SBS-2-2	98
RRUS 11 B4	115	2' x 3' sidearm	74
RRUS 11 B4	115	6' 4-Bay Dipole	74
RRUS 11 B4	115	2' x 3' sidearm	58
RRUS 4415 B25	115	GPS	56

ALL R
ARE F
MAX.
DO
SHE
UPL
SHE

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	P2.375X0.154 (2" STD)	H	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')
B	Pipe 2.5 XStr (2.875"ODx0.276")	I	L1 1/2x1 1/2x3/16
C	2.875"x0.276" w/ 3.5"x.3" Sleeve (STAMFORD NW CT)	J	L1 1/2x1 1/2x1/4
D	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	K	L3 1/2x3 1/2x1/4
E	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 30'-40')	L	L3 1/2x3 1/2x5/16
F	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 20'-30')	M	L3x3x1/4
G			

SHEAR 10 K
TORQ
50 mph WIN
AXIAL

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A500-50	50 ksi	62 ksi	A36	36 ksi	58 ksi

SHEAR 34 K

TORQUE 18 kip-ft
REACTIONS

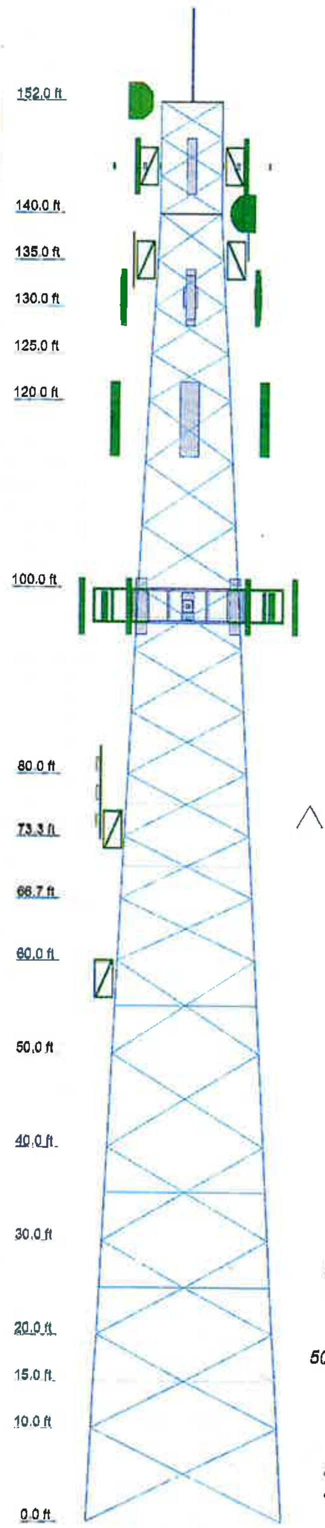
TOWER DESIGN NOTES

1. Tower designed for Exposure B to the TIA-222-H Standard.
2. Tower designed for a 116 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.00 ft

Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
Phone: (781) 713-4725
FAX:

Job: Stamford NW CT			
Project: 23CLVZ-0009			
Client: Verizon Wireless	Drawn by: jboegel		App'd:
Code: TIA-222-H	Date: 09/21/23		Scale: NTS
Path:			Dwg No. E-1

Section	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	T11	T12	T13	T14	T15	T16	T17	
Legs	A	P2.875"x0.203" (2.5 STD)				B	C	D			Pipe 4 XStr (4.5"ODx0.337")		E	F	G	H		
Leg Grade	A500-50																	
Diagonals	L1 1/2x1 1/2x1/8	I		J		L2x2x1/4	L2 1/2x2 1/2x1/4		L2 1/2x2 1/2x5/16		L3x3x1/4	L3x3x5/16	L3x3x3/8	L3x3x5/16	K		L	
Diagonal Grade	A36																	
Top Girts	L2x2x1/8	N.A.																
Horizontals	N.A.													L3x3x1/4	N.A.	M	N.A.	
Sec. Horizontals	N.A.						L2 1/2x2 1/2x1/4					L3x3x1/4			N.A.			
Red. Horizontals							N.A.							L2x2x1/4			N.A.	
Red. Diagonals							N.A.							L2x2x1/4			N.A.	
Face Width (ft)	6.52	6.56	7.07	7.58	8.09	8.59	10.63	12.66	13.33	14.01	14.69	15.7	16.72	17.73	18.75	19.26	19.77	20.78
# Panels @ (ft)	3 @ 4	4 @ 5				9 @ 6.66667					3 @ 10			4 @ 5			1 @ 9.99999	
Weight (K)	0.3	0.2	0.2	0.2	0.2	1.2	2.2	0.8	0.9	1.0	1.2	1.5	1.8	2.1	0.9	1.1	1.7	17.5



SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	P2.375X0.154 (2" STD)	H	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')
B	Pipe 2.5 XStr (2.875"ODx0.276")	I	L1 1/2x1 1/2x3/16
C	2.875"x0.276" w/ 3.5"x.3" Sleeve (STAMFORD NW CT)	J	L1 1/2x1 1/2x1/4
D	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	K	L3 1/2x3 1/2x1/4
E	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 30'-40')	L	L3 1/2x3 1/2x5/16
F	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 20'-30')	M	L3x3x1/4

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A500-50	50 ksi	62 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower designed for Exposure B to the TIA-222-H Standard.
2. Tower designed for a 116 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. Seismic loads were calculated per TIA-222-H.
8. Seismic loads do not control this analysis.
9. TOWER RATING: 84.5%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 176 K
SHEAR: 21 K

UPLIFT: -145 K
SHEAR: 18 K

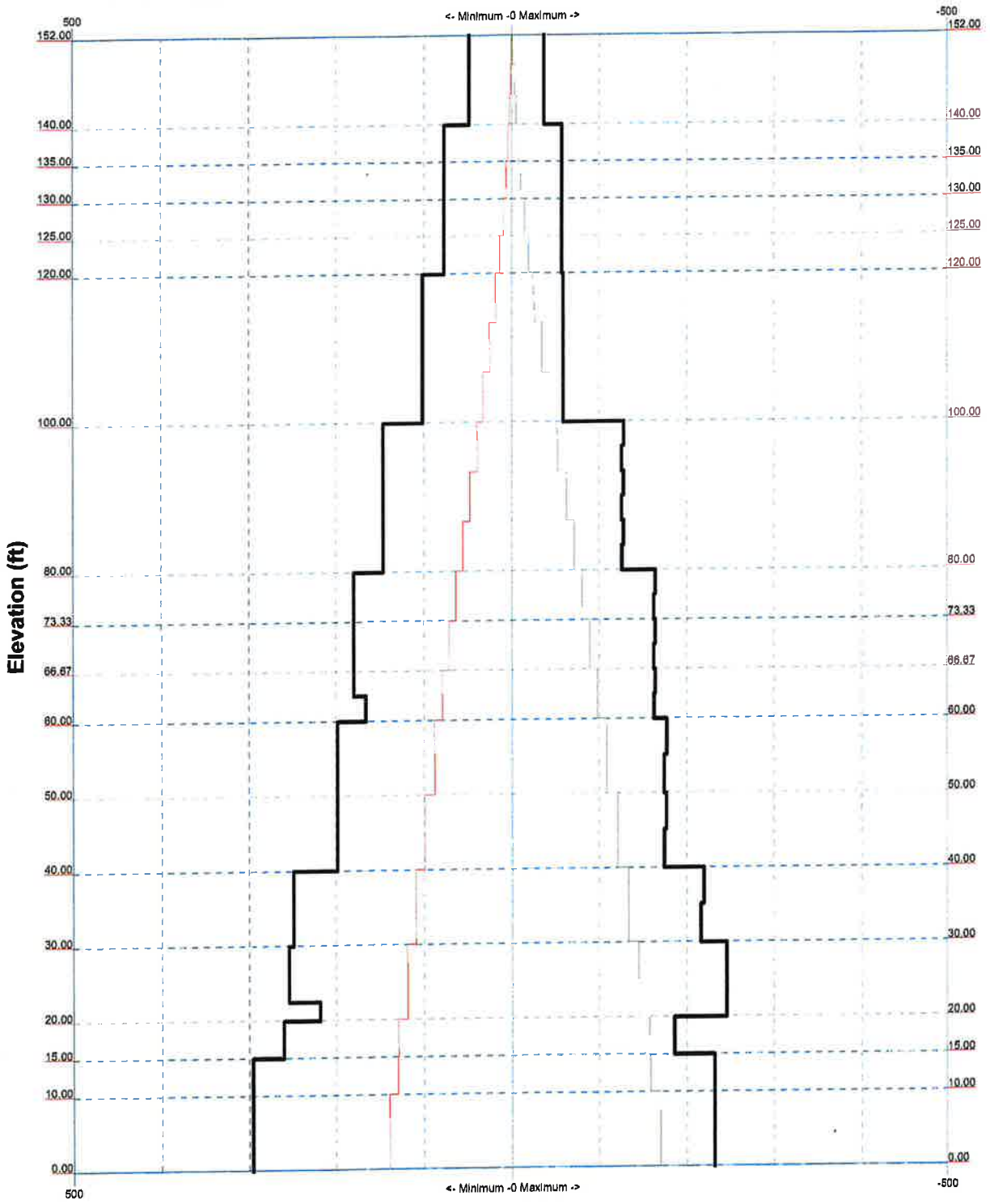
AXIAL 80 K
SHEAR 10 K
MOMENT 815 kip-ft
TORQUE 4 kip-ft
50 mph WIND - 1.0000 in ICE

AXIAL 42 K
SHEAR 34 K
MOMENT 2913 kip-ft
TORQUE 18 kip-ft
REACTIONS - 116 mph WIND

Centerline Engineering Services, PA 750 W Center St, Suite 301 West Bridgewater, MA 02379 Phone: (781) 713-4725 FAX:	Job: Stamford NW CT		
	Project: 23CLVZ-0009		
	Client: Verizon Wireless	Drawn by: jboegel	App'd:
	Code: TIA-222-H	Date: 09/21/23	Scale: NTS
	Path:		Dwg No. E-1

TIA-222-H - 116 mph/50 mph 1.0000 in Ice Exposure B

Leg Capacity ——— **Leg Compression (K)**



Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
Phone: (781) 713-4725
FAX:

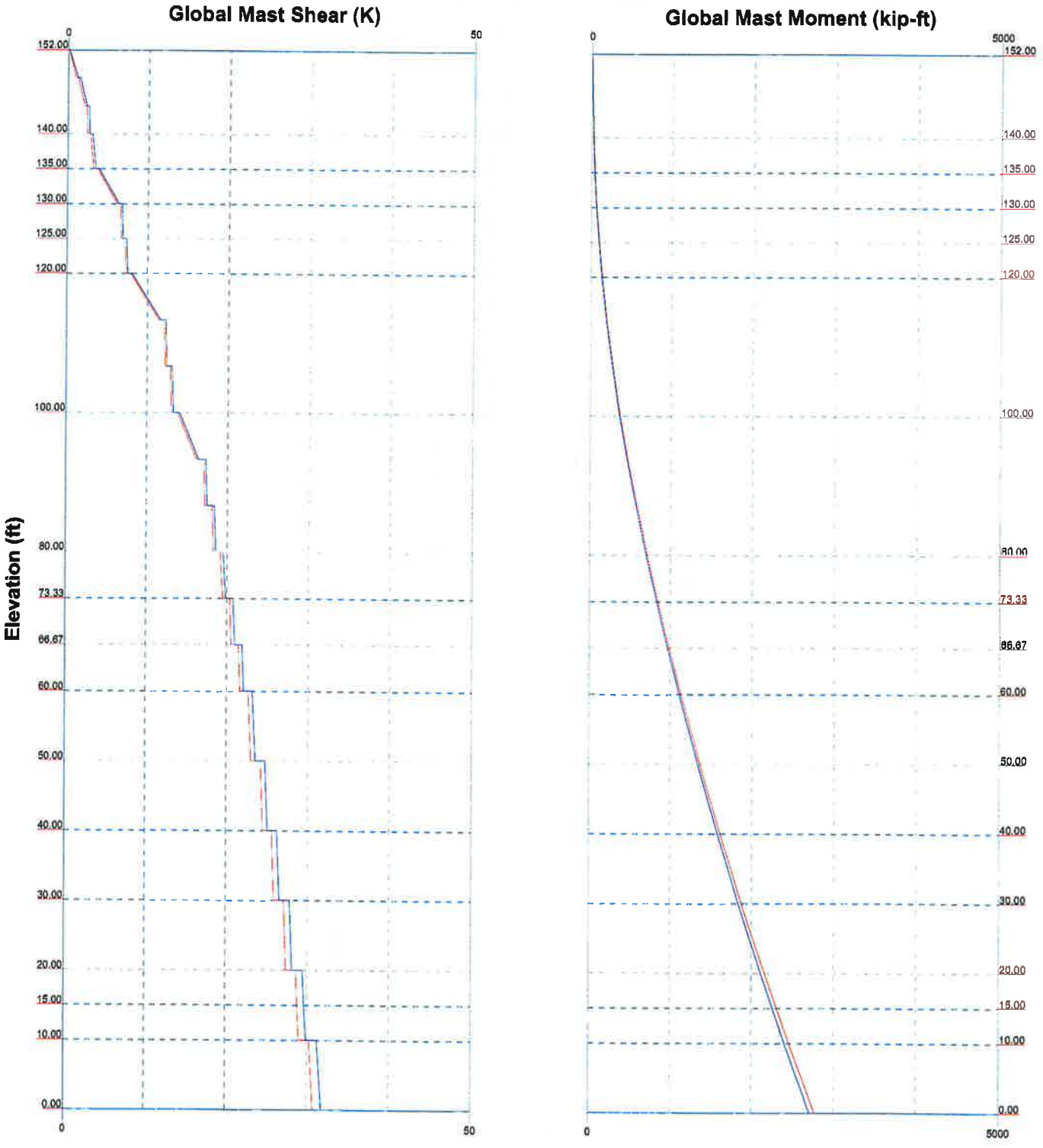
Job: *Stamford NW CT*			
Project: *23CLVZ-0009*			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/21/23	Scale: NTS	
Path:		Dwg No. E-3	

TIA-222-H - 116 mph/50 mph 1.0000 in Ice Exposure B

Vx Vz

Maximum Values

Mx Mz

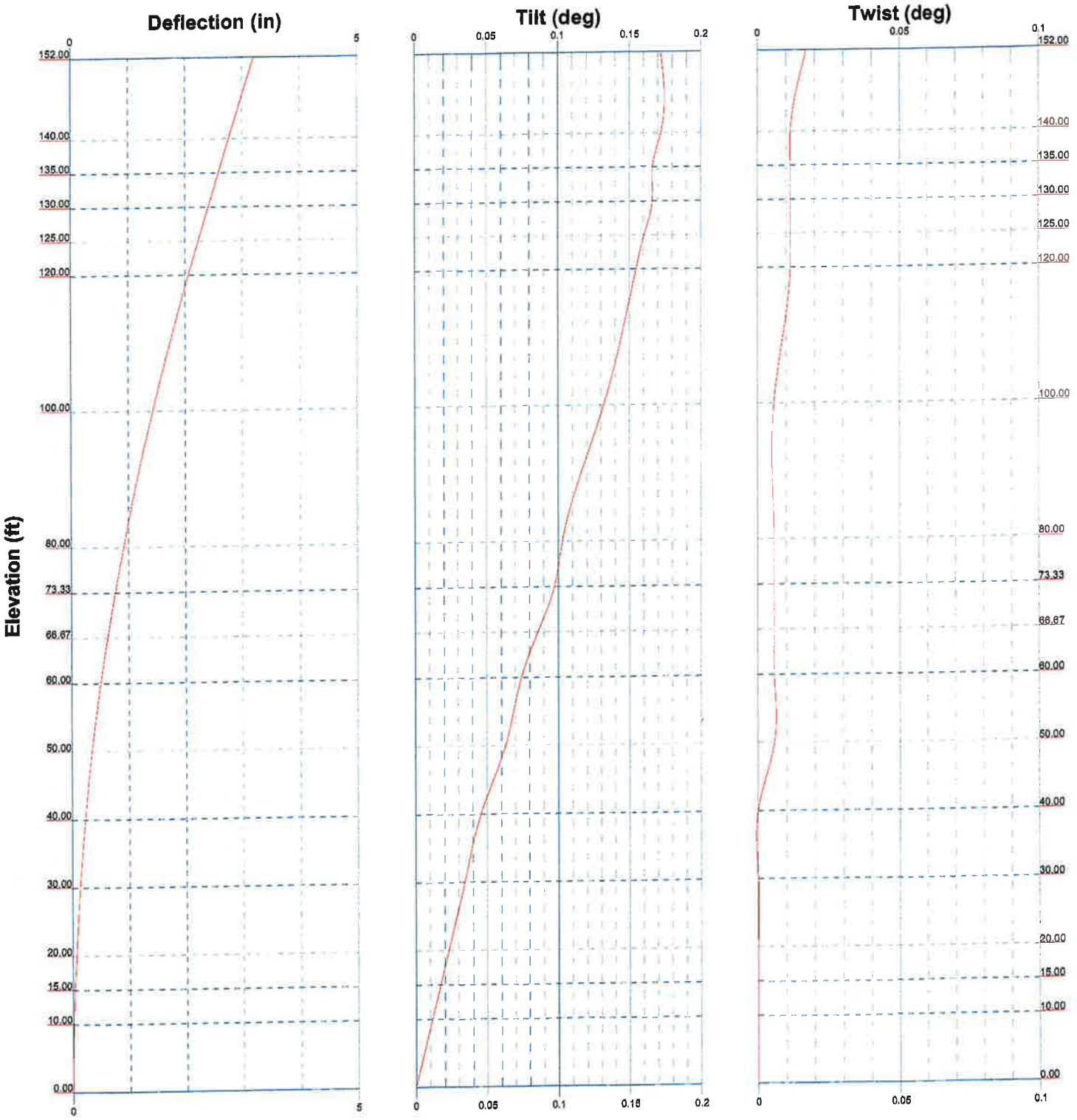


Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
Phone: (781) 713-4725
FAX:

Job: Stamford NW CT			
Project: 23CLVZ-0009			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/21/23	Scale: NTS	
Path:		Dwg No. E-4	

TIA-222-H - Service - 60 mph

Maximum Values

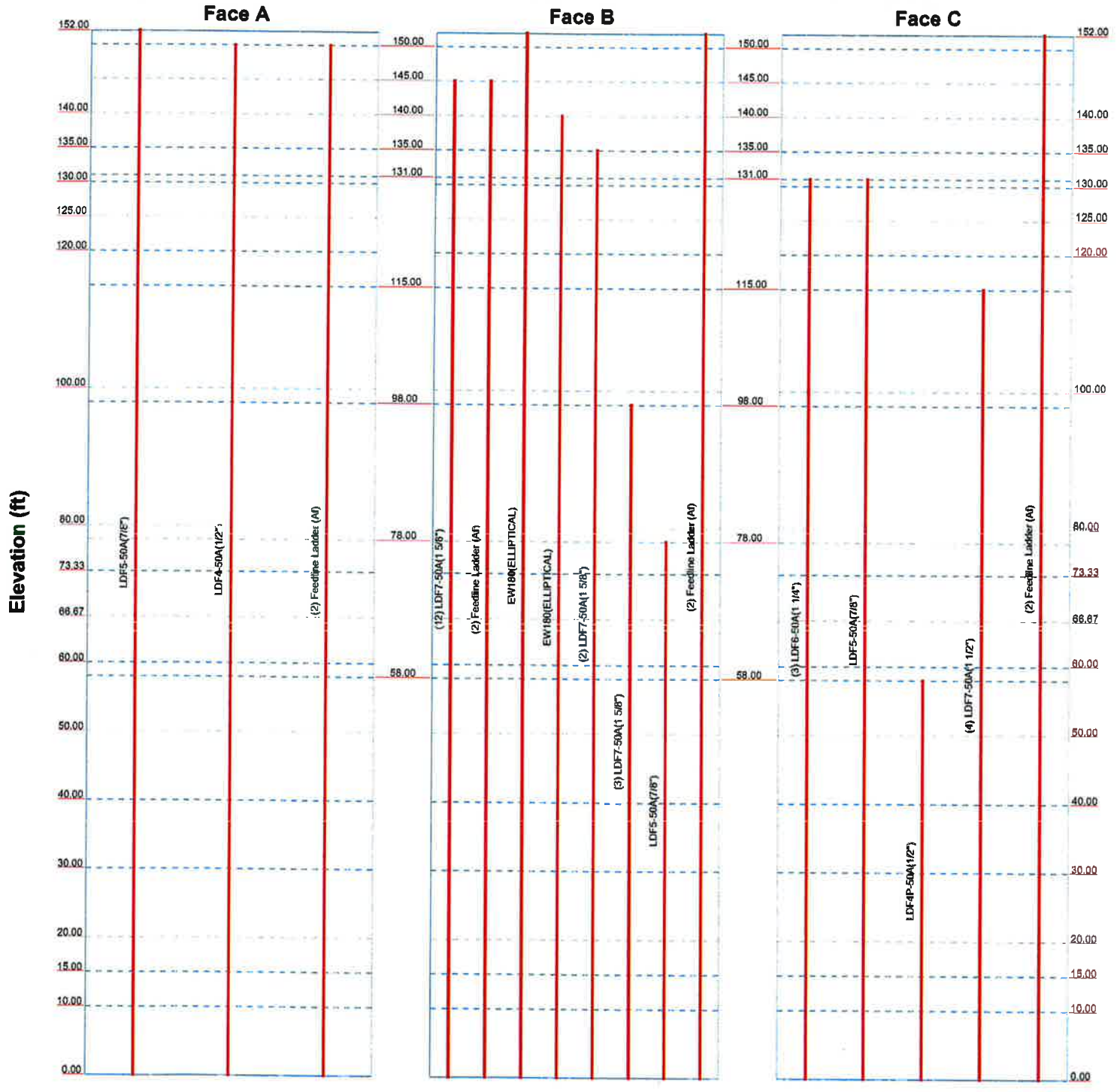


Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
Phone: (781) 713-4725
FAX:

Job: *Stamford NW CT*			
Project: *23CLVZ-0009*			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/21/23	Scale: NTS	
Path:		Dwg No. E-5	

Feed Line Distribution Chart
0' - 152'

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

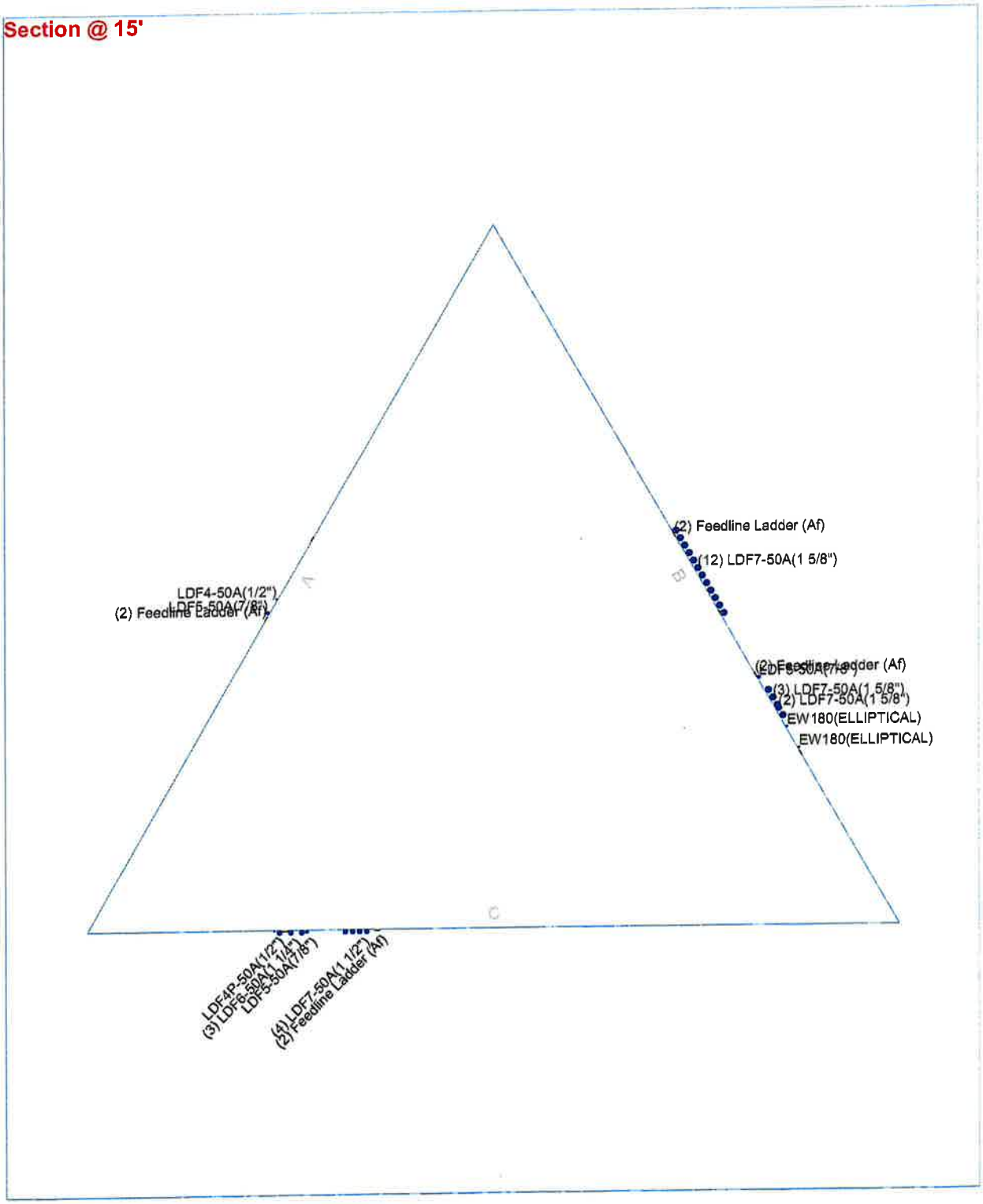


Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
Phone: (781) 713-4725
FAX:

Job: **Stamford NW CT**			
Project: **23CLVZ-0009**			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/21/23	Scale: NTS	
Path:		Dwg No. E-7	

Feed Line Plan
15'

Round Flat App In Face App Out Face

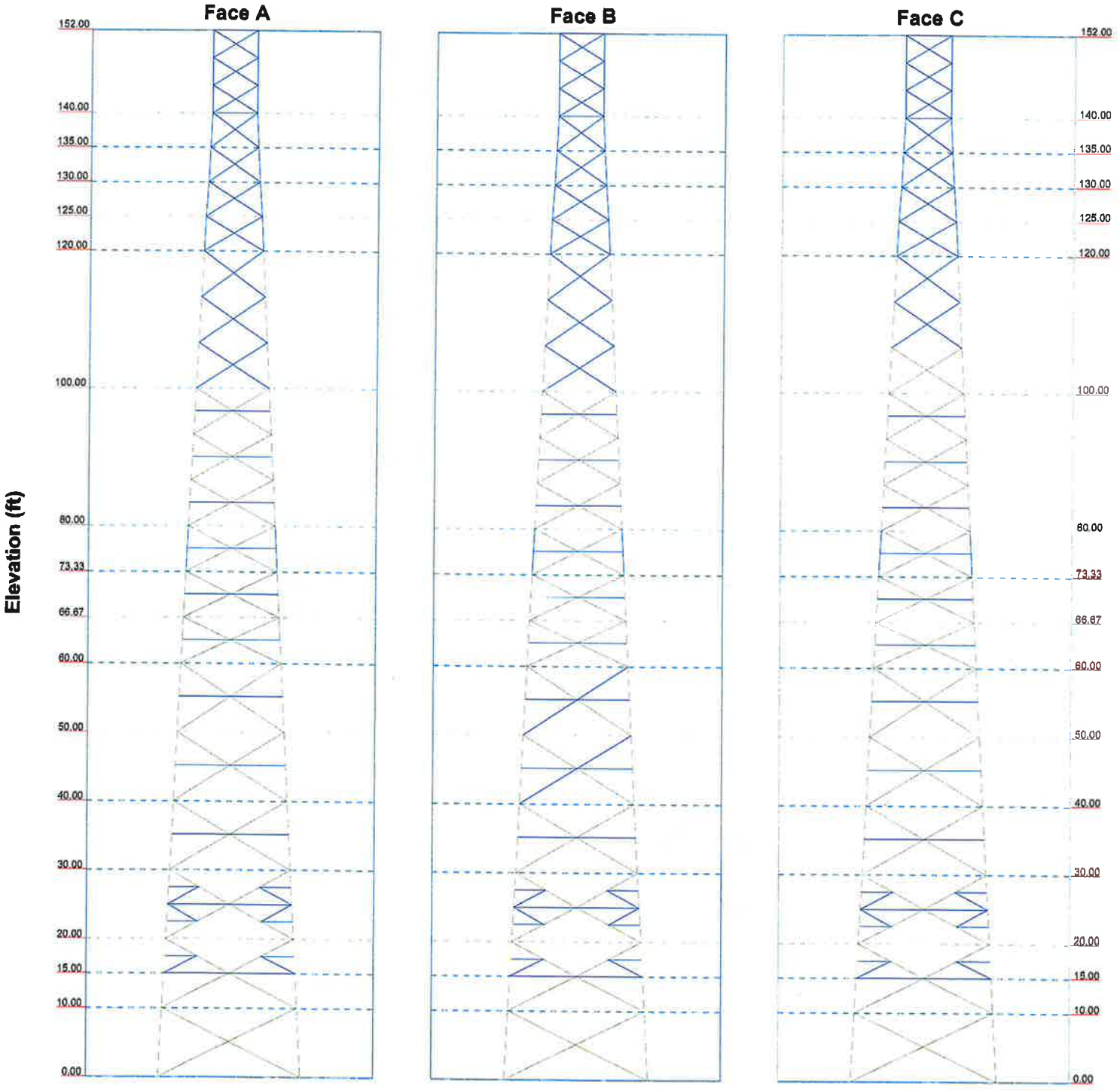


Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
Phone: (781) 713-4725
FAX:

Job: Stamford NW CT			
Project: 23CLVZ-0009			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/21/23	Scale: NTS	
Path:		Dwg No. E-7	

Stress Distribution Chart
0' - 152'

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

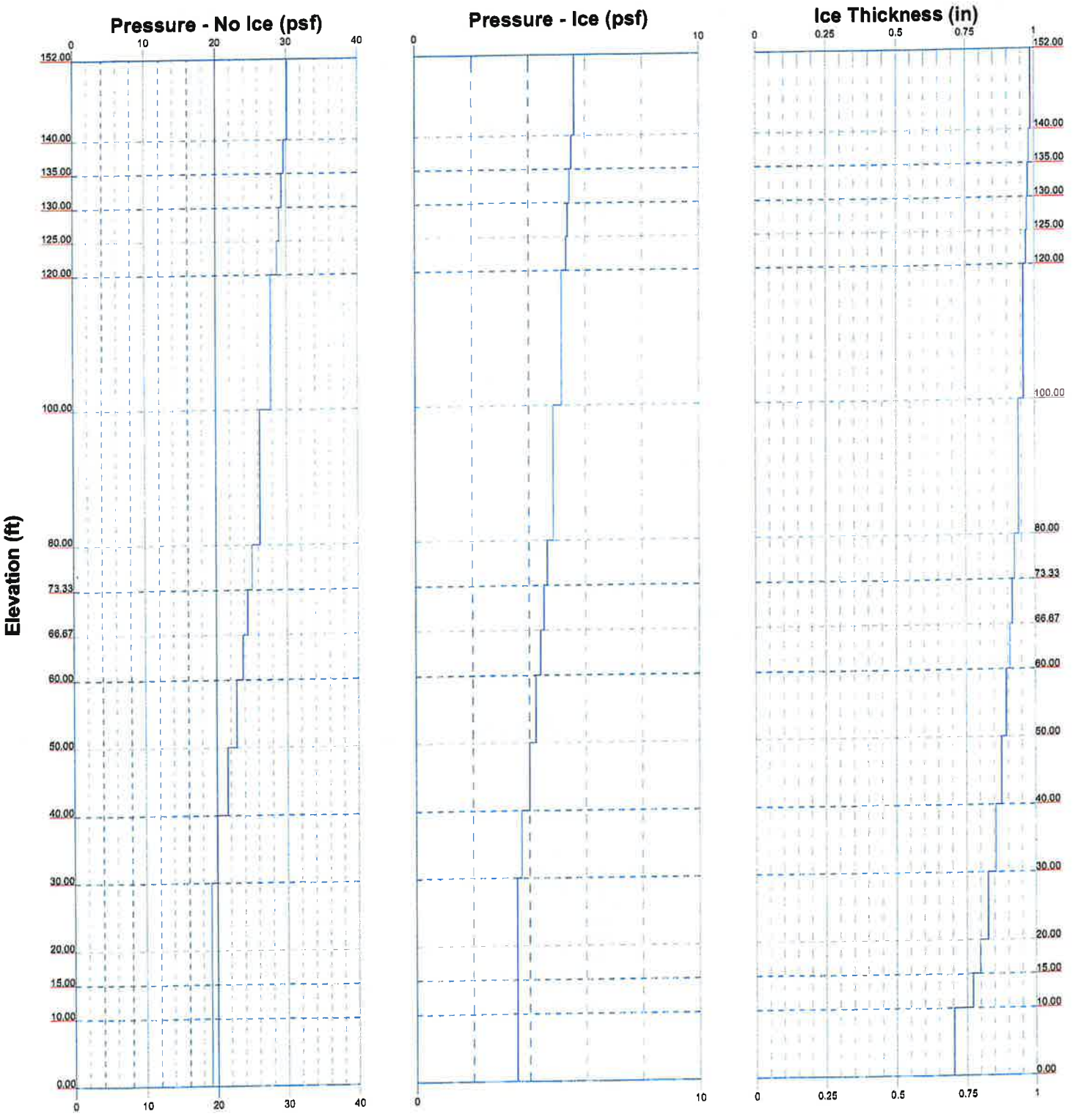


Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
Phone: (781) 713-4725
FAX:

Job: Stamford NW CT			
Project: 23CLVZ-0009			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/21/23	Scale: NTS	
Path:		Dwg No. E-8	

Wind Pressures and Ice Thickness

TIA-222-H - 116 mph/50 mph 1.0000 in Ice Exposure B



Centerline Engineering Services, PA
750 W Center St, Suite 301
West Bridgewater, MA 02379
Phone: (781) 713-4725
FAX:

Job: *Stamford NW CT*			
Project: *23CLVZ-0009*			
Client: Verizon Wireless	Drawn by: jboegel	App'd:	
Code: TIA-222-H	Date: 09/21/23	Scale: NTS	
Path:		Dwg No. E-9	

tnxTower	Job	Page
Centerline Engineering Services, PA 750 W Center St, Suite 301 West Bridgewater, MA 02379 Phone: (781) 713-4725 FAX:	Stamford NW CT	1 of 52
	Project 23CLVZ-0009	Date 15:14:50 09/21/23
	Client Verizon Wireless	Designed by jboegel

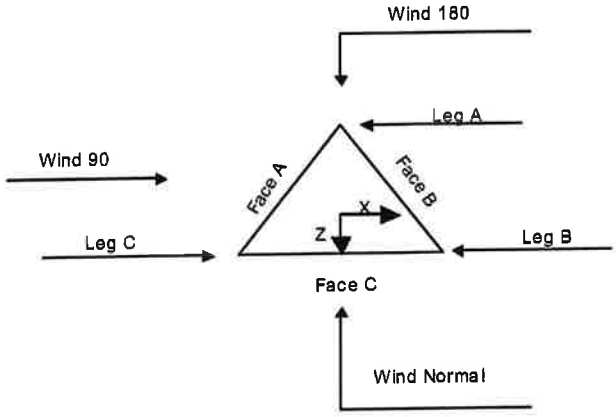
Tower Input Data

The main tower is a 3x free standing tower with an overall height of 152.00 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 6.52 ft at the top and 20.78 ft at the base.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower base elevation above sea level: 438.20 ft.
Basic wind speed of 116 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.
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

	Consider Moments - Legs		Distribute Leg Loads As Uniform		Use ASCE 10 X-Brace Ly Rules
	Consider Moments - Horizontals		Assume Legs Pinned	√	Calculate Redundant Bracing Forces
	Consider Moments - Diagonals	√	Assume Rigid Index Plate		Ignore Redundant Members in FEA
	Use Moment Magnification	√	Use Clear Spans For Wind Area	√	SR Leg Bolts Resist Compression
√	Use Code Stress Ratios	√	Use Clear Spans For KL/r		All Leg Panels Have Same Allowable
√	Use Code Safety Factors - Guys		Retension Guys To Initial Tension		Offset Girt At Foundation
	Escalate Ice	√	Bypass Mast Stability Checks	√	Consider Feed Line Torque
	Always Use Max Kz	√	Use Azimuth Dish Coefficients	√	Include Angle Block Shear Check
	Use Special Wind Profile	√	Project Wind Area of Appurt.		Use TIA-222-H Bracing Resist. Exemption
√	Include Bolts In Member Capacity		Autocalc Torque Arm Areas		Use TIA-222-H Tension Splice Exemption
	Leg Bolts Are At Top Of Section		Add IBC .6D+W Combination		**Poles**
√	Secondary Horizontal Braces Leg	√	Sort Capacity Reports By Component		Include Shear-Torsion Interaction
	Use Diamond Inner Bracing (4 Sided)		Triangulate Diamond Inner Bracing		Always Use Sub-Critical Flow
√	SR Members Have Cut Ends		Treat Feed Line Bundles As Cylinder		Use Top Mounted Sockets
	SR Members Are Concentric		Ignore KL/ry For 60 Deg. Angle Legs		Pole Without Linear Attachments
					Pole With Shroud Or No Appurtenances
					Outside and Inside Corner Radii Are Known



Triangular Tower

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	152.00-140.00			6.52	1	12.00
T2	140.00-135.00			6.56	1	5.00
T3	135.00-130.00			7.07	1	5.00
T4	130.00-125.00			7.58	1	5.00
T5	125.00-120.00			8.09	1	5.00
T6	120.00-100.00			8.59	1	20.00
T7	100.00-80.00			10.63	1	20.00
T8	80.00-73.33			12.66	1	6.67
T9	73.33-66.67			13.33	1	6.67
T10	66.67-60.00			14.01	1	6.67
T11	60.00-50.00			14.69	1	10.00
T12	50.00-40.00			15.70	1	10.00
T13	40.00-30.00			16.72	1	10.00
T14	30.00-20.00			17.73	1	10.00
T15	20.00-15.00			18.75	1	5.00
T16	15.00-10.00			19.26	1	5.00
T17	10.00-0.00			19.77	1	10.00

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	152.00-140.00	4.00	X Brace	No	No	0.0000	0.0000
T2	140.00-135.00	5.00	X Brace	No	No	0.0000	0.0000
T3	135.00-130.00	5.00	X Brace	No	No	0.0000	0.0000
T4	130.00-125.00	5.00	X Brace	No	No	0.0000	0.0000
T5	125.00-120.00	5.00	X Brace	No	No	0.0000	0.0000
T6	120.00-100.00	6.67	X Brace	No	No	0.0000	0.0000
T7	100.00-80.00	6.67	X Brace	No	Yes	0.0000	0.0000
T8	80.00-73.33	6.67	X Brace	No	Yes	0.0000	0.0000
T9	73.33-66.67	6.67	X Brace	No	Yes	0.0000	0.0000
T10	66.67-60.00	6.67	X Brace	No	Yes	0.0000	0.0000
T11	60.00-50.00	10.00	X Brace	No	Yes	0.0000	0.0000
T12	50.00-40.00	10.00	X Brace	No	Yes	0.0000	0.0000
T13	40.00-30.00	10.00	X Brace	No	Yes	0.0000	0.0000
T14	30.00-20.00	5.00	Double K1	No	Yes	0.0000	0.0000
T15	20.00-15.00	5.00	K1 Up	No	Yes	0.0000	0.0000
T16	15.00-10.00	5.00	K Brace Down	No	Yes	0.0000	0.0000
T17	10.00-0.00	10.00	X Brace	No	No	0.0000	0.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 152.00-140.00	Pipe	P2.375X0.154 (2" STD)	A500-50 (50 ksi)	Equal Angle	L1 1/2x1 1/2x1/8	A36 (36 ksi)
T2 140.00-135.00	Pipe	P2.875"x0.203" (2.5 STD)	A500-50 (50 ksi)	Equal Angle	L1 1/2x1 1/2x3/16	A36 (36 ksi)
T3 135.00-130.00	Pipe	P2.875"x0.203" (2.5 STD)	A500-50 (50 ksi)	Equal Angle	L1 1/2x1 1/2x3/16	A36 (36 ksi)
T4 130.00-125.00	Pipe	P2.875"x0.203" (2.5 STD)	A500-50 (50 ksi)	Equal Angle	L1 1/2x1 1/2x1/4	A36 (36 ksi)
T5 125.00-120.00	Pipe	P2.875"x0.203" (2.5 STD)	A500-50 (50 ksi)	Equal Angle	L1 1/2x1 1/2x1/4	A36 (36 ksi)
T6 120.00-100.00	Pipe	Pipe 2.5 XStr (2.875"ODx0.276")	A500-50 (50 ksi)	Equal Angle	L2x2x1/4	A36 (36 ksi)
T7 100.00-80.00	Arbitrary Shape	2.875"x0.276" w/ 3.5"x.3" Sleeve (STAMFORD NW CT)	A500-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T8 80.00-73.33	Arbitrary Shape	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	A500-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T9 73.33-66.67	Arbitrary Shape	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	A500-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x5/16	A36 (36 ksi)
T10 66.67-60.00	Arbitrary Shape	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	A500-50 (50 ksi)	Equal Angle	L2 1/2x2 1/2x5/16	A36 (36 ksi)
T11 60.00-50.00	Pipe	Pipe 4 XStr (4.5"ODx0.337")	A500-50 (50 ksi)	Equal Angle	L3x3x1/4	A36 (36 ksi)
T12 50.00-40.00	Pipe	Pipe 4 XStr (4.5"ODx0.337")	A500-50 (50 ksi)	Equal Angle	L3x3x5/16	A36 (36 ksi)
T13 40.00-30.00	Arbitrary Shape	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 30'-40')	A500-50 (50 ksi)	Equal Angle	L3x3x3/8	A36 (36 ksi)
T14 30.00-20.00	Arbitrary Shape	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 20'-30')	A500-50 (50 ksi)	Equal Angle	L3x3x5/16	A36 (36 ksi)
T15 20.00-15.00	Arbitrary Shape	5.5"x0.259" w/ 6"x.25" Sleeve (STAMFORD NW CT 15'-20')	A500-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)
T16 15.00-10.00	Arbitrary Shape	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')	A500-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T17 10.00-0.00	Arbitrary Shape	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')	A500-50 (50 ksi)	Equal Angle	L3 1/2x3 1/2x5/16	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 152.00-140.00	Equal Angle	L2x2x1/8	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T2 140.00-135.00	Equal Angle	L2x2x1/8	A36 (36 ksi)	Solid Round		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
T14 30.00-20.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L3x3x1/4	A36 (36 ksi)
T15 20.00-15.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L3x3x1/4	A36 (36 ksi)
T16 15.00-10.00	None	Flat Bar		A36 (36 ksi)	Equal Angle	L3x3x1/4	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T7 100.00-80.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T8 80.00-73.33	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T9 73.33-66.67	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T10 66.67-60.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T11 60.00-50.00	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T12 50.00-40.00	Equal Angle	L3x3x1/4	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)
T13 40.00-30.00	Equal Angle	L3x3x1/4	A36 (36 ksi)	Solid Round		A572-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Redundant Bracing Grade		Redundant Type	Redundant Size	K Factor
T14	A36	Horizontal (1)	Equal Angle	L2x2x1/4	1
30.00-20.00	(36 ksi)	Diagonal (1)	Equal Angle	L2x2x1/4	1
T15	A36	Horizontal (1)	Equal Angle	L2x2x1/4	1
20.00-15.00	(36 ksi)	Diagonal (1)	Equal Angle	L2x2x1/4	1

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
T1	0.00	0.1875	A36	1	1	1.05	36.0000	36.0000	36.0000
152.00-140.00			(36 ksi)						
T2	0.00	0.1875	A36	1	1	1.05	36.0000	36.0000	36.0000
140.00-135.00			(36 ksi)						
T3	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
135.00-130.00			(36 ksi)						
T4	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
130.00-125.00			(36 ksi)						
T5	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
125.00-120.00			(36 ksi)						
T6	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
120.00-100.00			(36 ksi)						
T7	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
100.00-80.00			(36 ksi)						
T8 80.00-73.33	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
			(36 ksi)						
T9 73.33-66.67	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
			(36 ksi)						
T10	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
66.67-60.00			(36 ksi)						
T11	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
60.00-50.00			(36 ksi)						
T12	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
50.00-40.00			(36 ksi)						
T13	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
40.00-30.00			(36 ksi)						
T14	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
30.00-20.00			(36 ksi)						
T15	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
20.00-15.00			(36 ksi)						
T16	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
15.00-10.00			(36 ksi)						
T17 10.00-0.00	0.00	0.2500	A36	1	1	1.05	36.0000	36.0000	36.0000
			(36 ksi)						

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X	X Brace Diags Y	K Factors[1] Single Diags X	Single Diags Y	Girts X	Girts Y	Horiz. X	Horiz. Y	Sec. Horiz. X	Sec. Horiz. Y	Inner Brace X	Inner Brace Y
T1	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
152.00-140.00				1	1	1	1	1	1	1	1	1	1	1	1
T2	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
140.00-135.00				1	1	1	1	1	1	1	1	1	1	1	1
T3	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
135.00-130.00				1	1	1	1	1	1	1	1	1	1	1	1
T4	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
130.00-125.00				1	1	1	1	1	1	1	1	1	1	1	1
T5	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
125.00-120.00				1	1	1	1	1	1	1	1	1	1	1	1
T6	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
120.00-100.00				1	1	1	1	1	1	1	1	1	1	1	1
T7	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
100.00-80.00				1	1	1	1	1	1	1	1	1	0.5	1	1
T8	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
80.00-73.33				1	1	1	1	1	1	1	1	1	0.5	1	1
T9	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
73.33-66.67				1	1	1	1	1	1	1	1	1	0.5	1	1
T10	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
66.67-60.00				1	1	1	1	1	1	1	1	1	0.5	1	1
T11	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
60.00-50.00				1	1	1	1	1	1	1	1	1	0.5	1	1
T12	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
50.00-40.00				1	1	1	1	1	1	1	1	1	0.5	1	1
T13	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
40.00-30.00				1	1	1	1	1	1	1	1	1	0.5	1	1
T14	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
30.00-20.00				1	1	1	1	1	1	1	0.5	1	1	1	1
T15	Yes	No	4	1	1	1	1	1	1	1	1	1	1	1	1
20.00-15.00				1	1	1	1	1	1	1	1	1	1	1	1
T16	Yes	No	2	1	1	1	1	1	1	1	1	1	1	1	1
15.00-10.00				1	1	1	1	1	1	1	1	1	1	1	1
T17	Yes	No	1	1	1	1	1	1	1	1	1	1	1	1	1
10.00-0.00				1	1	1	1	1	1	1	1	1	1	1	1

[1]*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 Net Width Deduct in	Leg U	Diagonal Net Width Deduct in	Diagonal U	Top Girt Net Width Deduct in	Top Girt U	Bottom Girt Net Width Deduct in	Bottom Girt U	Mid Girt Net Width Deduct in	Mid Girt U	Long Horizontal Net Width Deduct in	Long Horizontal U	Short Horizontal Net Width Deduct in	Short Horizontal U
T1	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
152.00-140.00														
T2	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
140.00-135.00														

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
T3 135.00-130.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T4 130.00-125.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T5 125.00-120.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T6 120.00-100.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T7 100.00-80.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T8 80.00-73.33	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T9 73.33-66.67	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 66.67-60.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T11 60.00-50.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T12 50.00-40.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T13 40.00-30.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T14 30.00-20.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T15 20.00-15.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T16 15.00-10.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T17 10.00-0.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

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 152.00-140.00	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
T2 140.00-135.00	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
T3 135.00-130.00	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
T4 130.00-125.00	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
T5 125.00-120.00	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
T6 120.00-100.00	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
T7 100.00-80.00	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
T8 80.00-73.33	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
T9 73.33-66.67	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
T10 66.67-60.00	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
T11 60.00-50.00	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

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
T12 50.00-40.00	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
T13 40.00-30.00	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
T14 30.00-20.00	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
T15 20.00-15.00	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
T16 15.00-10.00	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
T17 10.00-0.00														

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 152.00-140.00	Flange	0.6250 A325N	4	0.5000 A325N	1	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T2 140.00-135.00	Flange	0.7500 A325N	0	0.5000 A325N	1	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T3 135.00-130.00	Flange	0.7500 A325N	0	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T4 130.00-125.00	Flange	0.7500 A325N	0	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T5 125.00-120.00	Flange	0.6250 A325N	4	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T6 120.00-100.00	Flange	0.7500 A325N	4	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0
T7 100.00-80.00	Flange	0.8750 A325N	4	0.5000 A325X	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.5000 A325N	0	0.5000 A325N	2
T8 80.00-73.33	Flange	0.7500 A325N	0	0.5000 A325X	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.5000 A325N	0	0.5000 A325N	2
T9 73.33-66.67	Flange	0.7500 A325N	0	0.5000 A325X	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.5000 A325N	0	0.5000 A325N	2
T10 66.67-60.00	Flange	0.8750 A325N	4	0.5000 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.5000 A325N	0	0.5000 A325N	2
T11 60.00-50.00	Flange	0.7500 A325N	0	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.5000 A325N	0	0.5000 A325N	2
T12 50.00-40.00	Flange	1.0000 A325N	4	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.5000 A325N	0	0.5000 A325N	2
T13 40.00-30.00	Flange	0.7500 A325N	0	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.5000 A325N	0	0.5000 A325N	2
T14 30.00-20.00	Flange	1.0000 A325N	4	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.5000 A325N	2	0.6250 A325N	0
T15 20.00-15.00	Flange	0.7500 A325N	0	0.6250 A325X	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T16 15.00-10.00	Flange	0.7500 A325N	0	0.6250 A325X	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0

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.
T17 10.00-0.00	Flange	0.7500 A325N	0	0.6250 A325X	1	0.6250 A325N	0	0.6250 A325N	0	0.6250 A325N	0	0.5000 A325N	0	0.6250 A325N	0

Feed Line/Linear Appurtenances - Entered As Round Or Flat

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
LDF5-50A(7/8")	A	No	No	Ar (CaAa)	152.00 - 0.00	0.0000	-0.05	1	1	1.0900	1.0900		0.33
LDF4-50A(1/2")	A	No	No	Ar (CaAa)	150.00 - 0.00	0.0000	-0.03	1	1	0.6300	0.6300		0.15
Feedline Ladder (Af) ***	A	No	No	Af (CaAa)	150.00 - 0.00	0.0000	0	2	2	24.5000 0.5000	1.5000		1.80
LDF7-50A(1 5/8")	B	No	No	Ar (CaAa)	145.00 - 0.00	0.0000	0	12	12	0.5000	1.9800		0.82
Feedline Ladder (Af) ***	B	No	No	Af (CaAa)	145.00 - 0.00	0.0000	0	2	2	24.5000 0.5000	1.5000		1.80
EW180(ELLIPTICAL)	B	No	No	Ar (CaAa)	152.00 - 0.00	0.0000	0.25	1	1	0.7800	0.7800		0.15
EW180(ELLIPTICAL)	B	No	No	Ar (CaAa)	140.00 - 0.00	0.0000	0.22	1	1	0.7800	0.7800		0.15
LDF7-50A(1 5/8")	B	No	No	Ar (CaAa)	135.00 - 0.00	0.0000	0.2	2	2	0.5000	1.9800		0.82
LDF7-50A(1 5/8")	B	No	No	Ar (CaAa)	98.00 - 0.00	0.0000	0.18	3	3	0.5000	1.9800		0.82
LDF5-50A(7/8")	B	No	No	Ar (CaAa)	78.00 - 0.00	0.0000	0.15	1	1	0.5000	1.0900		0.33
Feedline Ladder (Af) ***	B	No	No	Af (CaAa)	152.00 - 0.00	0.0000	0.2	2	2	24.5000 0.5000	1.5000		1.80
LDF6-50A(1 1/4")	C	No	No	Ar (CaAa)	131.00 - 0.00	0.0000	0.25	3	3	1.5500	1.5500		0.66
LDF5-50A(7/8")	C	No	No	Ar (CaAa)	131.00 - 0.00	0.0000	0.23	1	1	1.0900	1.0900		0.33
LDF4P-50A(1/2")	C	No	No	Ar (CaAa)	58.00 - 0.00	0.0000	0.27	1	1	0.6300	0.6300		0.15
LDF7-50A(1 1/2")	C	No	No	Ar (CaAa)	115.00 - 0.00	0.0000	0.17	4	4	0.5000	1.5000		0.82
Feedline Ladder (Af) ***	C	No	No	Af (CaAa)	152.00 - 0.00	0.0000	0.2	2	2	24.5000 0.5000	1.5000		1.80

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C_AA_A ft^2/ft	Weight plf
***								

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	152.00-140.00	A	0.000	0.000	6.938	0.000	0.04
		B	0.000	0.000	21.316	0.000	0.11
		C	0.000	0.000	6.000	0.000	0.04
T2	140.00-135.00	A	0.000	0.000	3.360	0.000	0.02
		B	0.000	0.000	17.660	0.000	0.09
		C	0.000	0.000	2.500	0.000	0.02
T3	135.00-130.00	A	0.000	0.000	3.360	0.000	0.02
		B	0.000	0.000	19.640	0.000	0.09
		C	0.000	0.000	3.074	0.000	0.02
T4	130.00-125.00	A	0.000	0.000	3.360	0.000	0.02
		B	0.000	0.000	19.640	0.000	0.09
		C	0.000	0.000	5.370	0.000	0.03
T5	125.00-120.00	A	0.000	0.000	3.360	0.000	0.02
		B	0.000	0.000	19.640	0.000	0.09
		C	0.000	0.000	5.370	0.000	0.03
T6	120.00-100.00	A	0.000	0.000	13.440	0.000	0.08
		B	0.000	0.000	78.560	0.000	0.38
		C	0.000	0.000	30.480	0.000	0.17
T7	100.00-80.00	A	0.000	0.000	13.440	0.000	0.08
		B	0.000	0.000	89.252	0.000	0.42
		C	0.000	0.000	33.480	0.000	0.18
T8	80.00-73.33	A	0.000	0.000	4.480	0.000	0.03
		B	0.000	0.000	30.655	0.000	0.14
		C	0.000	0.000	11.160	0.000	0.06
T9	73.33-66.67	A	0.000	0.000	4.480	0.000	0.03
		B	0.000	0.000	30.873	0.000	0.15
		C	0.000	0.000	11.160	0.000	0.06
T10	66.67-60.00	A	0.000	0.000	4.480	0.000	0.03
		B	0.000	0.000	30.873	0.000	0.15
		C	0.000	0.000	11.160	0.000	0.06
T11	60.00-50.00	A	0.000	0.000	6.720	0.000	0.04
		B	0.000	0.000	46.310	0.000	0.22
		C	0.000	0.000	17.244	0.000	0.09
T12	50.00-40.00	A	0.000	0.000	6.720	0.000	0.04
		B	0.000	0.000	46.310	0.000	0.22
		C	0.000	0.000	17.370	0.000	0.09
T13	40.00-30.00	A	0.000	0.000	6.720	0.000	0.04
		B	0.000	0.000	46.310	0.000	0.22
		C	0.000	0.000	17.370	0.000	0.09
T14	30.00-20.00	A	0.000	0.000	6.720	0.000	0.04
		B	0.000	0.000	46.310	0.000	0.22
		C	0.000	0.000	17.370	0.000	0.09
T15	20.00-15.00	A	0.000	0.000	3.360	0.000	0.02
		B	0.000	0.000	23.155	0.000	0.11
		C	0.000	0.000	8.685	0.000	0.05
T16	15.00-10.00	A	0.000	0.000	3.360	0.000	0.02
		B	0.000	0.000	23.155	0.000	0.11

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		C	0.000	0.000	8.685	0.000	0.05
T17	10.00-0.00	A	0.000	0.000	6.720	0.000	0.04
		B	0.000	0.000	46.310	0.000	0.22
		C	0.000	0.000	17.370	0.000	0.09

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	152.00-140.00	A	0.986	0.000	0.000	15.223	0.000	0.15
		B		0.000	0.000	38.186	0.000	0.39
		C		0.000	0.000	10.734	0.000	0.11
T2	140.00-135.00	A	0.980	0.000	0.000	7.282	0.000	0.07
		B		0.000	0.000	31.330	0.000	0.32
		C		0.000	0.000	4.461	0.000	0.05
T3	135.00-130.00	A	0.977	0.000	0.000	7.267	0.000	0.07
		B		0.000	0.000	36.006	0.000	0.36
		C		0.000	0.000	6.047	0.000	0.06
T4	130.00-125.00	A	0.973	0.000	0.000	7.252	0.000	0.07
		B		0.000	0.000	35.971	0.000	0.36
		C		0.000	0.000	12.406	0.000	0.12
T5	125.00-120.00	A	0.969	0.000	0.000	7.237	0.000	0.07
		B		0.000	0.000	35.936	0.000	0.36
		C		0.000	0.000	12.388	0.000	0.12
T6	120.00-100.00	A	0.959	0.000	0.000	28.780	0.000	0.27
		B		0.000	0.000	143.366	0.000	1.43
		C		0.000	0.000	68.146	0.000	0.65
T7	100.00-80.00	A	0.940	0.000	0.000	28.475	0.000	0.27
		B		0.000	0.000	164.332	0.000	1.60
		C		0.000	0.000	73.935	0.000	0.70
T8	80.00-73.33	A	0.925	0.000	0.000	9.412	0.000	0.09
		B		0.000	0.000	56.737	0.000	0.55
		C		0.000	0.000	24.522	0.000	0.23
T9	73.33-66.67	A	0.916	0.000	0.000	9.367	0.000	0.09
		B		0.000	0.000	57.194	0.000	0.55
		C		0.000	0.000	24.452	0.000	0.23
T10	66.67-60.00	A	0.907	0.000	0.000	9.319	0.000	0.09
		B		0.000	0.000	57.051	0.000	0.54
		C		0.000	0.000	24.377	0.000	0.23
T11	60.00-50.00	A	0.895	0.000	0.000	13.876	0.000	0.13
		B		0.000	0.000	85.277	0.000	0.81
		C		0.000	0.000	38.344	0.000	0.35
T12	50.00-40.00	A	0.877	0.000	0.000	13.734	0.000	0.12
		B		0.000	0.000	84.860	0.000	0.80
		C		0.000	0.000	38.572	0.000	0.35
T13	40.00-30.00	A	0.855	0.000	0.000	13.560	0.000	0.12
		B		0.000	0.000	84.348	0.000	0.78
		C		0.000	0.000	38.259	0.000	0.34
T14	30.00-20.00	A	0.827	0.000	0.000	13.334	0.000	0.12
		B		0.000	0.000	83.684	0.000	0.76
		C		0.000	0.000	37.853	0.000	0.33
T15	20.00-15.00	A	0.798	0.000	0.000	6.551	0.000	0.06
		B		0.000	0.000	41.502	0.000	0.37
		C		0.000	0.000	18.719	0.000	0.16
T16	15.00-10.00	A	0.771	0.000	0.000	6.445	0.000	0.06
		B		0.000	0.000	41.192	0.000	0.36
		C		0.000	0.000	17.048	0.000	0.15

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T17	10.00-0.00	A	0.704	0.000	0.000	12.351	0.000	0.10
		B		0.000	0.000	80.801	0.000	0.69
		C		0.000	0.000	32.936	0.000	0.28

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	152.00-140.00	1.6869	-3.1968	1.2010	-2.3809
T2	140.00-135.00	4.0561	-5.0691	3.6574	-4.1573
T3	135.00-130.00	5.5855	-5.2251	4.8515	-3.9890
T4	130.00-125.00	4.1661	-4.5075	2.5474	-2.8061
T5	125.00-120.00	4.3545	-4.7247	2.6631	-2.9443
T6	120.00-100.00	3.4413	-4.5091	1.5783	-2.4507
T7	100.00-80.00	4.2111	-3.8694	2.6345	-2.0910
T8	80.00-73.33	4.8289	-4.0356	3.4439	-2.2328
T9	73.33-66.67	5.0746	-4.1490	3.7534	-2.3168
T10	66.67-60.00	5.2014	-4.2625	3.8501	-2.4000
T11	60.00-50.00	5.4990	-4.4093	3.6944	-2.0863
T12	50.00-40.00	5.5417	-4.4513	3.6592	-2.0544
T13	40.00-30.00	5.6964	-4.5853	3.7662	-2.1799
T14	30.00-20.00	5.0251	-4.1237	3.3825	-2.0530
T15	20.00-15.00	5.4110	-4.4111	3.5948	-2.2621
T16	15.00-10.00	4.4284	-3.7550	3.6748	-2.1154
T17	10.00-0.00	5.4789	-4.5889	4.4414	-2.7233

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	1	LDF5-50A(7/8")	140.00 - 152.00	0.6000	0.6000
T1	2	LDF4-50A(1/2")	140.00 - 150.00	0.6000	0.6000
T1	3	Feedline Ladder (Af)	140.00 - 150.00	0.6000	0.6000
T1	5	LDF7-50A(1 5/8")	140.00 - 145.00	0.6000	0.6000
T1	6	Feedline Ladder (Af)	140.00 - 145.00	0.6000	0.6000
T1	8	EW180(ELLIPTICAL)	140.00 - 152.00	0.6000	0.6000
T1	13	Feedline Ladder (Af)	140.00 - 152.00	0.6000	0.6000
T1	19	Feedline Ladder (Af)	140.00 - 152.00	0.6000	0.6000
T2	1	LDF5-50A(7/8")	135.00 - 140.00	0.6000	0.6000
T2	2	LDF4-50A(1/2")	135.00 - 140.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T2	3	Feedline Ladder (Af)	135.00 - 140.00	0.6000	0.6000
T2	5	LDF7-50A(1 5/8")	135.00 - 140.00	0.6000	0.6000
T2	6	Feedline Ladder (Af)	135.00 - 140.00	0.6000	0.6000
T2	8	EW180(ELLIPTICAL)	135.00 - 140.00	0.6000	0.6000
T2	9	EW180(ELLIPTICAL)	135.00 - 140.00	0.6000	0.6000
T2	13	Feedline Ladder (Af)	135.00 - 140.00	0.6000	0.6000
T2	19	Feedline Ladder (Af)	135.00 - 140.00	0.6000	0.6000
T3	1	LDF5-50A(7/8")	130.00 - 135.00	0.6000	0.6000
T3	2	LDF4-50A(1/2")	130.00 - 135.00	0.6000	0.6000
T3	3	Feedline Ladder (Af)	130.00 - 135.00	0.6000	0.6000
T3	5	LDF7-50A(1 5/8")	130.00 - 135.00	0.6000	0.6000
T3	6	Feedline Ladder (Af)	130.00 - 135.00	0.6000	0.6000
T3	8	EW180(ELLIPTICAL)	130.00 - 135.00	0.6000	0.6000
T3	9	EW180(ELLIPTICAL)	130.00 - 135.00	0.6000	0.6000
T3	10	LDF7-50A(1 5/8")	130.00 - 135.00	0.6000	0.6000
T3	13	Feedline Ladder (Af)	130.00 - 135.00	0.6000	0.6000
T3	15	LDF6-50A(1 1/4")	130.00 - 131.00	0.6000	0.6000
T3	16	LDF5-50A(7/8")	130.00 - 131.00	0.6000	0.6000
T3	19	Feedline Ladder (Af)	130.00 - 135.00	0.6000	0.6000
T4	1	LDF5-50A(7/8")	125.00 - 130.00	0.6000	0.6000
T4	2	LDF4-50A(1/2")	125.00 - 130.00	0.6000	0.6000
T4	3	Feedline Ladder (Af)	125.00 - 130.00	0.6000	0.6000
T4	5	LDF7-50A(1 5/8")	125.00 - 130.00	0.6000	0.6000
T4	6	Feedline Ladder (Af)	125.00 - 130.00	0.6000	0.6000
T4	8	EW180(ELLIPTICAL)	125.00 - 130.00	0.6000	0.6000
T4	9	EW180(ELLIPTICAL)	125.00 - 130.00	0.6000	0.6000
T4	10	LDF7-50A(1 5/8")	125.00 - 130.00	0.6000	0.6000
T4	13	Feedline Ladder (Af)	125.00 - 130.00	0.6000	0.6000
T4	15	LDF6-50A(1 1/4")	125.00 - 130.00	0.6000	0.6000
T4	16	LDF5-50A(7/8")	125.00 - 130.00	0.6000	0.6000
T4	19	Feedline Ladder (Af)	125.00 - 130.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T5	1	LDF5-50A(7/8")	120.00 - 125.00	0.6000	0.6000
T5	2	LDF4-50A(1/2")	120.00 - 125.00	0.6000	0.6000
T5	3	Feedline Ladder (Af)	120.00 - 125.00	0.6000	0.6000
T5	5	LDF7-50A(1 5/8")	120.00 - 125.00	0.6000	0.6000
T5	6	Feedline Ladder (Af)	120.00 - 125.00	0.6000	0.6000
T5	8	EW180(ELLIPTICAL)	120.00 - 125.00	0.6000	0.6000
T5	9	EW180(ELLIPTICAL)	120.00 - 125.00	0.6000	0.6000
T5	10	LDF7-50A(1 5/8")	120.00 - 125.00	0.6000	0.6000
T5	13	Feedline Ladder (Af)	120.00 - 125.00	0.6000	0.6000
T5	15	LDF6-50A(1 1/4")	120.00 - 125.00	0.6000	0.6000
T5	16	LDF5-50A(7/8")	120.00 - 125.00	0.6000	0.6000
T5	19	Feedline Ladder (Af)	120.00 - 125.00	0.6000	0.6000
T6	1	LDF5-50A(7/8")	100.00 - 120.00	0.6000	0.6000
T6	2	LDF4-50A(1/2")	100.00 - 120.00	0.6000	0.6000
T6	3	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	5	LDF7-50A(1 5/8")	100.00 - 120.00	0.6000	0.6000
T6	6	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	8	EW180(ELLIPTICAL)	100.00 - 120.00	0.6000	0.6000
T6	9	EW180(ELLIPTICAL)	100.00 - 120.00	0.6000	0.6000
T6	10	LDF7-50A(1 5/8")	100.00 - 120.00	0.6000	0.6000
T6	13	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T6	15	LDF6-50A(1 1/4")	100.00 - 120.00	0.6000	0.6000
T6	16	LDF5-50A(7/8")	100.00 - 120.00	0.6000	0.6000
T6	18	LDF7-50A(1 1/2")	100.00 - 115.00	0.6000	0.6000
T6	19	Feedline Ladder (Af)	100.00 - 120.00	0.6000	0.6000
T7	1	LDF5-50A(7/8")	80.00 - 100.00	0.6000	0.6000
T7	2	LDF4-50A(1/2")	80.00 - 100.00	0.6000	0.6000
T7	3	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	5	LDF7-50A(1 5/8")	80.00 - 100.00	0.6000	0.6000
T7	6	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	8	EW180(ELLIPTICAL)	80.00 - 100.00	0.6000	0.6000
T7	9	EW180(ELLIPTICAL)	80.00 - 100.00	0.6000	0.6000
T7	10	LDF7-50A(1 5/8")	80.00 - 100.00	0.6000	0.6000
T7	11	LDF7-50A(1 5/8")	80.00 - 98.00	0.6000	0.6000
T7	13	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T7	15	LDF6-50A(1 1/4")	80.00 - 100.00	0.6000	0.6000
T7	16	LDF5-50A(7/8")	80.00 - 100.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T7	18	LDF7-50A(1 1/2")	80.00 - 100.00	0.6000	0.6000
T7	19	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T8	1	LDF5-50A(7/8")	73.33 - 80.00	0.6000	0.6000
T8	2	LDF4-50A(1/2")	73.33 - 80.00	0.6000	0.6000
T8	3	Feedline Ladder (Af)	73.33 - 80.00	0.6000	0.6000
T8	5	LDF7-50A(1 5/8")	73.33 - 80.00	0.6000	0.6000
T8	6	Feedline Ladder (Af)	73.33 - 80.00	0.6000	0.6000
T8	8	EW180(ELLIPTICAL)	73.33 - 80.00	0.6000	0.6000
T8	9	EW180(ELLIPTICAL)	73.33 - 80.00	0.6000	0.6000
T8	10	LDF7-50A(1 5/8")	73.33 - 80.00	0.6000	0.6000
T8	11	LDF7-50A(1 5/8")	73.33 - 80.00	0.6000	0.6000
T8	12	LDF5-50A(7/8")	73.33 - 78.00	0.6000	0.6000
T8	13	Feedline Ladder (Af)	73.33 - 80.00	0.6000	0.6000
T8	15	LDF6-50A(1 1/4")	73.33 - 80.00	0.6000	0.6000
T8	16	LDF5-50A(7/8")	73.33 - 80.00	0.6000	0.6000
T8	18	LDF7-50A(1 1/2")	73.33 - 80.00	0.6000	0.6000
T8	19	Feedline Ladder (Af)	73.33 - 80.00	0.6000	0.6000
T9	1	LDF5-50A(7/8")	66.67 - 73.33	0.6000	0.6000
T9	2	LDF4-50A(1/2")	66.67 - 73.33	0.6000	0.6000
T9	3	Feedline Ladder (Af)	66.67 - 73.33	0.6000	0.6000
T9	5	LDF7-50A(1 5/8")	66.67 - 73.33	0.6000	0.6000
T9	6	Feedline Ladder (Af)	66.67 - 73.33	0.6000	0.6000
T9	8	EW180(ELLIPTICAL)	66.67 - 73.33	0.6000	0.6000
T9	9	EW180(ELLIPTICAL)	66.67 - 73.33	0.6000	0.6000
T9	10	LDF7-50A(1 5/8")	66.67 - 73.33	0.6000	0.6000
T9	11	LDF7-50A(1 5/8")	66.67 - 73.33	0.6000	0.6000
T9	12	LDF5-50A(7/8")	66.67 - 73.33	0.6000	0.6000
T9	13	Feedline Ladder (Af)	66.67 - 73.33	0.6000	0.6000
T9	15	LDF6-50A(1 1/4")	66.67 - 73.33	0.6000	0.6000
T9	16	LDF5-50A(7/8")	66.67 - 73.33	0.6000	0.6000
T9	18	LDF7-50A(1 1/2")	66.67 - 73.33	0.6000	0.6000
T9	19	Feedline Ladder (Af)	66.67 - 73.33	0.6000	0.6000
T10	1	LDF5-50A(7/8")	60.00 - 66.67	0.6000	0.6000
T10	2	LDF4-50A(1/2")	60.00 - 66.67	0.6000	0.6000
T10	3	Feedline Ladder (Af)	60.00 - 66.67	0.6000	0.6000
T10	5	LDF7-50A(1 5/8")	60.00 - 66.67	0.6000	0.6000
T10	6	Feedline Ladder (Af)	60.00 - 66.67	0.6000	0.6000
T10	8	EW180(ELLIPTICAL)	60.00 - 66.67	0.6000	0.6000
T10	9	EW180(ELLIPTICAL)	60.00 - 66.67	0.6000	0.6000
T10	10	LDF7-50A(1 5/8")	60.00 - 66.67	0.6000	0.6000
T10	11	LDF7-50A(1 5/8")	60.00 - 66.67	0.6000	0.6000
T10	12	LDF5-50A(7/8")	60.00 - 66.67	0.6000	0.6000
T10	13	Feedline Ladder (Af)	60.00 - 66.67	0.6000	0.6000
T10	15	LDF6-50A(1 1/4")	60.00 - 66.67	0.6000	0.6000
T10	16	LDF5-50A(7/8")	60.00 - 66.67	0.6000	0.6000
T10	18	LDF7-50A(1 1/2")	60.00 - 66.67	0.6000	0.6000
T10	19	Feedline Ladder (Af)	60.00 - 66.67	0.6000	0.6000
T11	1	LDF5-50A(7/8")	50.00 - 60.00	0.6000	0.6000
T11	2	LDF4-50A(1/2")	50.00 - 60.00	0.6000	0.6000
T11	3	Feedline Ladder (Af)	50.00 - 60.00	0.6000	0.6000
T11	5	LDF7-50A(1 5/8")	50.00 - 60.00	0.6000	0.6000
T11	6	Feedline Ladder (Af)	50.00 - 60.00	0.6000	0.6000
T11	8	EW180(ELLIPTICAL)	50.00 - 60.00	0.6000	0.6000
T11	9	EW180(ELLIPTICAL)	50.00 - 60.00	0.6000	0.6000
T11	10	LDF7-50A(1 5/8")	50.00 - 60.00	0.6000	0.6000
T11	11	LDF7-50A(1 5/8")	50.00 - 60.00	0.6000	0.6000
T11	12	LDF5-50A(7/8")	50.00 - 60.00	0.6000	0.6000
T11	13	Feedline Ladder (Af)	50.00 - 60.00	0.6000	0.6000
T11	15	LDF6-50A(1 1/4")	50.00 - 60.00	0.6000	0.6000
T11	16	LDF5-50A(7/8")	50.00 - 60.00	0.6000	0.6000
T11	17	LDF4P-50A(1/2")	50.00 - 58.00	0.6000	0.6000
T11	18	LDF7-50A(1 1/2")	50.00 - 60.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T11	19	Feedline Ladder (Af)	50.00 - 60.00	0.6000	0.6000
T12	1	LDF5-50A(7/8")	40.00 - 50.00	0.6000	0.6000
T12	2	LDF4-50A(1/2")	40.00 - 50.00	0.6000	0.6000
T12	3	Feedline Ladder (Af)	40.00 - 50.00	0.6000	0.6000
T12	5	LDF7-50A(1 5/8")	40.00 - 50.00	0.6000	0.6000
T12	6	Feedline Ladder (Af)	40.00 - 50.00	0.6000	0.6000
T12	8	EW180(ELLIPTICAL)	40.00 - 50.00	0.6000	0.6000
T12	9	EW180(ELLIPTICAL)	40.00 - 50.00	0.6000	0.6000
T12	10	LDF7-50A(1 5/8")	40.00 - 50.00	0.6000	0.6000
T12	11	LDF7-50A(1 5/8")	40.00 - 50.00	0.6000	0.6000
T12	12	LDF5-50A(7/8")	40.00 - 50.00	0.6000	0.6000
T12	13	Feedline Ladder (Af)	40.00 - 50.00	0.6000	0.6000
T12	15	LDF6-50A(1 1/4")	40.00 - 50.00	0.6000	0.6000
T12	16	LDF5-50A(7/8")	40.00 - 50.00	0.6000	0.6000
T12	17	LDF4P-50A(1/2")	40.00 - 50.00	0.6000	0.6000
T12	18	LDF7-50A(1 1/2")	40.00 - 50.00	0.6000	0.6000
T12	19	Feedline Ladder (Af)	40.00 - 50.00	0.6000	0.6000
T13	1	LDF5-50A(7/8")	30.00 - 40.00	0.6000	0.6000
T13	2	LDF4-50A(1/2")	30.00 - 40.00	0.6000	0.6000
T13	3	Feedline Ladder (Af)	30.00 - 40.00	0.6000	0.6000
T13	5	LDF7-50A(1 5/8")	30.00 - 40.00	0.6000	0.6000
T13	6	Feedline Ladder (Af)	30.00 - 40.00	0.6000	0.6000
T13	8	EW180(ELLIPTICAL)	30.00 - 40.00	0.6000	0.6000
T13	9	EW180(ELLIPTICAL)	30.00 - 40.00	0.6000	0.6000
T13	10	LDF7-50A(1 5/8")	30.00 - 40.00	0.6000	0.6000
T13	11	LDF7-50A(1 5/8")	30.00 - 40.00	0.6000	0.6000
T13	12	LDF5-50A(7/8")	30.00 - 40.00	0.6000	0.6000
T13	13	Feedline Ladder (Af)	30.00 - 40.00	0.6000	0.6000
T13	15	LDF6-50A(1 1/4")	30.00 - 40.00	0.6000	0.6000
T13	16	LDF5-50A(7/8")	30.00 - 40.00	0.6000	0.6000
T13	17	LDF4P-50A(1/2")	30.00 - 40.00	0.6000	0.6000
T13	18	LDF7-50A(1 1/2")	30.00 - 40.00	0.6000	0.6000
T13	19	Feedline Ladder (Af)	30.00 - 40.00	0.6000	0.6000
T14	1	LDF5-50A(7/8")	20.00 - 30.00	0.6000	0.6000
T14	2	LDF4-50A(1/2")	20.00 - 30.00	0.6000	0.6000
T14	3	Feedline Ladder (Af)	20.00 - 30.00	0.6000	0.6000
T14	5	LDF7-50A(1 5/8")	20.00 - 30.00	0.6000	0.6000
T14	6	Feedline Ladder (Af)	20.00 - 30.00	0.6000	0.6000
T14	8	EW180(ELLIPTICAL)	20.00 - 30.00	0.6000	0.6000
T14	9	EW180(ELLIPTICAL)	20.00 - 30.00	0.6000	0.6000
T14	10	LDF7-50A(1 5/8")	20.00 - 30.00	0.6000	0.6000
T14	11	LDF7-50A(1 5/8")	20.00 - 30.00	0.6000	0.6000
T14	12	LDF5-50A(7/8")	20.00 - 30.00	0.6000	0.6000
T14	13	Feedline Ladder (Af)	20.00 - 30.00	0.6000	0.6000
T14	15	LDF6-50A(1 1/4")	20.00 - 30.00	0.6000	0.6000
T14	16	LDF5-50A(7/8")	20.00 - 30.00	0.6000	0.6000
T14	17	LDF4P-50A(1/2")	20.00 - 30.00	0.6000	0.6000
T14	18	LDF7-50A(1 1/2")	20.00 - 30.00	0.6000	0.6000
T14	19	Feedline Ladder (Af)	20.00 - 30.00	0.6000	0.6000
T15	1	LDF5-50A(7/8")	15.00 - 20.00	0.6000	0.6000
T15	2	LDF4-50A(1/2")	15.00 - 20.00	0.6000	0.6000
T15	3	Feedline Ladder (Af)	15.00 - 20.00	0.6000	0.6000
T15	5	LDF7-50A(1 5/8")	15.00 - 20.00	0.6000	0.6000
T15	6	Feedline Ladder (Af)	15.00 - 20.00	0.6000	0.6000
T15	8	EW180(ELLIPTICAL)	15.00 - 20.00	0.6000	0.6000
T15	9	EW180(ELLIPTICAL)	15.00 - 20.00	0.6000	0.6000
T15	10	LDF7-50A(1 5/8")	15.00 - 20.00	0.6000	0.6000
T15	11	LDF7-50A(1 5/8")	15.00 - 20.00	0.6000	0.6000
T15	12	LDF5-50A(7/8")	15.00 - 20.00	0.6000	0.6000
T15	13	Feedline Ladder (Af)	15.00 - 20.00	0.6000	0.6000
T15	15	LDF6-50A(1 1/4")	15.00 - 20.00	0.6000	0.6000
T15	16	LDF5-50A(7/8")	15.00 - 20.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T15	17	LDF4P-50A(1/2")	15.00 - 20.00	0.6000	0.6000
T15	18	LDF7-50A(1 1/2")	15.00 - 20.00	0.6000	0.6000
T15	19	Feedline Ladder (Af)	15.00 - 20.00	0.6000	0.6000
T16	1	LDF5-50A(7/8")	10.00 - 15.00	0.6000	0.6000
T16	2	LDF4-50A(1/2")	10.00 - 15.00	0.6000	0.6000
T16	3	Feedline Ladder (Af)	10.00 - 15.00	0.6000	0.6000
T16	5	LDF7-50A(1 5/8")	10.00 - 15.00	0.6000	0.6000
T16	6	Feedline Ladder (Af)	10.00 - 15.00	0.6000	0.6000
T16	8	EW180(ELLIPTICAL)	10.00 - 15.00	0.6000	0.6000
T16	9	EW180(ELLIPTICAL)	10.00 - 15.00	0.6000	0.6000
T16	10	LDF7-50A(1 5/8")	10.00 - 15.00	0.6000	0.6000
T16	11	LDF7-50A(1 5/8")	10.00 - 15.00	0.6000	0.6000
T16	12	LDF5-50A(7/8")	10.00 - 15.00	0.6000	0.6000
T16	13	Feedline Ladder (Af)	10.00 - 15.00	0.6000	0.6000
T16	15	LDF6-50A(1 1/4")	10.00 - 15.00	0.6000	0.6000
T16	16	LDF5-50A(7/8")	10.00 - 15.00	0.6000	0.6000
T16	17	LDF4P-50A(1/2")	10.00 - 15.00	0.6000	0.6000
T16	18	LDF7-50A(1 1/2")	10.00 - 15.00	0.6000	0.6000
T16	19	Feedline Ladder (Af)	10.00 - 15.00	0.6000	0.6000
T17	1	LDF5-50A(7/8")	0.00 - 10.00	0.6000	0.6000
T17	2	LDF4-50A(1/2")	0.00 - 10.00	0.6000	0.6000
T17	3	Feedline Ladder (Af)	0.00 - 10.00	0.6000	0.6000
T17	5	LDF7-50A(1 5/8")	0.00 - 10.00	0.6000	0.6000
T17	6	Feedline Ladder (Af)	0.00 - 10.00	0.6000	0.6000
T17	8	EW180(ELLIPTICAL)	0.00 - 10.00	0.6000	0.6000
T17	9	EW180(ELLIPTICAL)	0.00 - 10.00	0.6000	0.6000
T17	10	LDF7-50A(1 5/8")	0.00 - 10.00	0.6000	0.6000
T17	11	LDF7-50A(1 5/8")	0.00 - 10.00	0.6000	0.6000
T17	12	LDF5-50A(7/8")	0.00 - 10.00	0.6000	0.6000
T17	13	Feedline Ladder (Af)	0.00 - 10.00	0.6000	0.6000
T17	15	LDF6-50A(1 1/4")	0.00 - 10.00	0.6000	0.6000
T17	16	LDF5-50A(7/8")	0.00 - 10.00	0.6000	0.6000
T17	17	LDF4P-50A(1/2")	0.00 - 10.00	0.6000	0.6000
T17	18	LDF7-50A(1 1/2")	0.00 - 10.00	0.6000	0.6000
T17	19	Feedline Ladder (Af)	0.00 - 10.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
20' 4-Bay Dipole	C	From Face	1.00 0.00 10.00	0.0000	152.00	No Ice 1/2" Ice 1" Ice	4.00 6.00 8.00	4.00 6.00 8.00	0.06 0.10 0.14
TMA	C	From Leg	0.50 0.00 0.00	0.0000	152.00	No Ice 1/2" Ice 1" Ice	1.50 2.00 3.00	1.50 2.00 3.00	0.05 0.07 0.07
6'x4" Sch 40 Pipe	C	From Leg	0.50 0.00 0.00	0.0000	152.00	No Ice 1/2" Ice 1" Ice	1.96 2.62 3.00	1.96 2.62 3.00	0.06 0.08 0.10

***

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
DB563K-TT w/Mount Pipe	A	From Leg	3.00 0.00 7.00	0.0000	150.00	No Ice 1/2" Ice 1" Ice	19.19 20.22 21.27	4.03 6.95 9.91	0.13 0.23 0.35
2' x 3' sidearm	A	From Leg	1.50 0.00 0.00	0.0000	150.00	No Ice 1/2" Ice 1" Ice	1.50 2.50 3.50	3.00 4.00 5.00	0.19 0.28 0.36
***									
4' x 4.5" Pipe Mount	C	From Leg	0.50 0.00 0.00	0.0000	152.00	No Ice 1/2" Ice 1" Ice	1.19 1.58 1.84	1.19 1.58 1.84	0.04 0.06 0.07
***									
QS66512-2 w/ Mount Pipe	A	From Leg	3.00 0.00 0.00	0.0000	145.00	No Ice 1/2" Ice 1" Ice	8.37 8.93 9.46	8.46 9.66 10.55	0.14 0.21 0.30
QS66512-2 w/ Mount Pipe	B	From Leg	3.00 0.00 0.00	0.0000	145.00	No Ice 1/2" Ice 1" Ice	8.37 8.93 9.46	8.46 9.66 10.55	0.14 0.21 0.30
QS66512-2 w/ Mount Pipe	C	From Leg	3.00 0.00 0.00	0.0000	145.00	No Ice 1/2" Ice 1" Ice	8.37 8.93 9.46	8.46 9.66 10.55	0.14 0.21 0.30
(2) TMA2117F00V1-1	A	From Leg	3.00 0.00 0.00	0.0000	145.00	No Ice 1/2" Ice 1" Ice	0.30 0.37 0.45	0.83 0.95 1.07	0.02 0.02 0.03
(2) TMA2117F00V1-1	B	From Leg	3.00 0.00 0.00	0.0000	145.00	No Ice 1/2" Ice 1" Ice	0.30 0.37 0.45	0.83 0.95 1.07	0.02 0.02 0.03
(2) TMA2117F00V1-1	C	From Leg	3.00 0.00 0.00	0.0000	145.00	No Ice 1/2" Ice 1" Ice	0.30 0.37 0.45	0.83 0.95 1.07	0.02 0.02 0.03
2' x 3' Side Arm Mount	A	From Leg	1.50 0.00 0.00	0.0000	145.00	No Ice 1/2" Ice 1" Ice	1.78 2.24 2.75	2.97 3.57 4.19	0.11 0.13 0.16
2' x 3' Side Arm Mount	B	From Leg	1.50 0.00 0.00	0.0000	145.00	No Ice 1/2" Ice 1" Ice	1.78 2.24 2.75	2.97 3.57 4.19	0.11 0.13 0.16
2' x 3' Side Arm Mount	C	From Leg	1.50 0.00 0.00	0.0000	145.00	No Ice 1/2" Ice 1" Ice	1.78 2.24 2.75	2.97 3.57 4.19	0.11 0.13 0.16
***									
4' x 4.5" Pipe Mount	B	From Leg	0.50 0.00 0.00	0.0000	140.00	No Ice 1/2" Ice 1" Ice	1.19 1.58 1.84	1.19 1.58 1.84	0.04 0.06 0.07
***									
6' x 3" Omni	B	From Leg	3.00 0.00 3.00	0.0000	135.00	No Ice 1/2" Ice 1" Ice	1.77 2.13 2.49	1.77 2.13 2.49	0.02 0.04 0.05
2' x 3' Side Arm Mount	B	From Leg	1.50 0.00 0.00	0.0000	135.00	No Ice 1/2" Ice 1" Ice	1.50 2.50 3.50	3.00 4.00 5.00	0.19 0.28 0.36
***									
DB254-A	C	From Leg	3.00 0.00 0.00	0.0000	135.00	No Ice 1/2" Ice 1" Ice	1.10 1.98 2.86	1.10 1.98 2.86	0.01 0.01 0.02
2' x 3' Side Arm Mount	C	From Leg	1.50 0.00 0.00	0.0000	135.00	No Ice 1/2" Ice 1" Ice	1.50 2.50 3.50	3.00 4.00 5.00	0.19 0.28 0.36
***									

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
APXVSPP18-C-A20 w/ Mount Pipe	A	From Leg	4.00	0.00	0.0000	131.00	No Ice	8.26	6.95	0.08
			0.00				1/2" Ice	8.82	8.13	0.15
			0.00				1" Ice	9.35	9.02	0.23
APXVSPP18-C-A20 w/ Mount Pipe	B	From Leg	4.00	0.00	0.0000	131.00	No Ice	8.26	6.95	0.08
			0.00				1/2" Ice	8.82	8.13	0.15
			0.00				1" Ice	9.35	9.02	0.23
APXVSPP18-C-A20 w/ Mount Pipe	C	From Leg	4.00	0.00	0.0000	131.00	No Ice	8.26	6.95	0.08
			0.00				1/2" Ice	8.82	8.13	0.15
			0.00				1" Ice	9.35	9.02	0.23
RRH2x50-WCS	A	From Leg	4.00	0.00	0.0000	131.00	No Ice	4.91	2.70	0.08
			0.00				1/2" Ice	5.23	3.00	0.11
			0.00				1" Ice	5.55	3.30	0.14
RRH2x50-WCS	B	From Leg	4.00	0.00	0.0000	131.00	No Ice	4.91	2.70	0.08
			0.00				1/2" Ice	5.23	3.00	0.11
			0.00				1" Ice	5.55	3.30	0.14
RRH2x50-WCS	C	From Leg	4.00	0.00	0.0000	131.00	No Ice	4.91	2.70	0.08
			0.00				1/2" Ice	5.23	3.00	0.11
			0.00				1" Ice	5.55	3.30	0.14
RRH4X45-19	A	From Leg	4.00	0.00	0.0000	131.00	No Ice	2.31	2.38	0.06
			0.00				1/2" Ice	2.52	2.58	0.08
			0.00				1" Ice	2.73	2.79	0.11
RRH4X45-19	B	From Leg	4.00	0.00	0.0000	131.00	No Ice	2.31	2.38	0.06
			0.00				1/2" Ice	2.52	2.58	0.08
			0.00				1" Ice	2.73	2.79	0.11
RRH4X45-19	C	From Leg	4.00	0.00	0.0000	131.00	No Ice	2.31	2.38	0.06
			0.00				1/2" Ice	2.52	2.58	0.08
			0.00				1" Ice	2.73	2.79	0.11
APXVTM14-ALU-I20 w/ Mount Pipe	A	From Leg	4.00	0.00	0.0000	131.00	No Ice	6.58	4.96	0.08
			0.00				1/2" Ice	7.03	5.75	0.13
			0.00				1" Ice	7.47	6.47	0.19
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Leg	4.00	0.00	0.0000	131.00	No Ice	6.58	4.96	0.08
			0.00				1/2" Ice	7.03	5.75	0.13
			0.00				1" Ice	7.47	6.47	0.19
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Leg	4.00	0.00	0.0000	131.00	No Ice	6.58	4.96	0.08
			0.00				1/2" Ice	7.03	5.75	0.13
			0.00				1" Ice	7.47	6.47	0.19
TD-RRH8x20	A	From Leg	4.00	0.00	0.0000	131.00	No Ice	3.70	1.29	0.07
			0.00				1/2" Ice	3.95	1.46	0.09
			0.00				1" Ice	4.20	1.64	0.12
TD-RRH8x20	B	From Leg	4.00	0.00	0.0000	131.00	No Ice	3.70	1.29	0.07
			0.00				1/2" Ice	3.95	1.46	0.09
			0.00				1" Ice	4.20	1.64	0.12
TD-RRH8x20	C	From Leg	4.00	0.00	0.0000	131.00	No Ice	3.70	1.29	0.07
			0.00				1/2" Ice	3.95	1.46	0.09
			0.00				1" Ice	4.20	1.64	0.12
Sector Frame Mount	A	From Leg	2.00	0.00	0.0000	131.00	No Ice	15.35	14.00	0.56
			0.00				1/2" Ice	21.29	20.81	0.74
			0.00				1" Ice	27.23	27.62	0.92
Sector Frame Mount	B	From Leg	2.00	0.00	0.0000	131.00	No Ice	15.35	14.00	0.56
			0.00				1/2" Ice	21.29	20.81	0.74
			0.00				1" Ice	27.23	27.62	0.92
Sector Frame Mount	C	From Leg	2.00	0.00	0.0000	131.00	No Ice	15.35	14.00	0.56
			0.00				1/2" Ice	21.29	20.81	0.74
			0.00				1" Ice	27.23	27.62	0.92
***										
AIR32 KRD901146-1_B66_B2A w/ Mount Pipe	A	From Leg	4.00	0.00	0.0000	115.00	No Ice	11.39	5.90	0.11
			0.00				1/2" Ice	11.88	6.56	0.19

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Vert ft	ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			3.00					1" Ice	12.33	7.24	0.28
AIR32 KRD901146-1_B66_B2A w/ Mount Pipe	B	From Leg	4.00			0.0000	115.00	No Ice	11.39	5.90	0.11
			0.00					1/2" Ice	11.88	6.56	0.19
			3.00					1" Ice	12.33	7.24	0.28
AIR32 KRD901146-1_B66_B2A w/ Mount Pipe	C	From Leg	4.00			0.0000	115.00	No Ice	11.39	5.90	0.11
			0.00					1/2" Ice	11.88	6.56	0.19
			3.00					1" Ice	12.33	7.24	0.28
AIR6449 B41 w/ Mount Pipe	A	From Leg	4.00			0.0000	115.00	No Ice	6.93	4.39	0.13
			0.00					1/2" Ice	7.77	5.45	0.19
			3.00					1" Ice	8.52	6.35	0.26
AIR6449 B41 w/ Mount Pipe	B	From Leg	4.00			0.0000	115.00	No Ice	6.93	4.39	0.13
			0.00					1/2" Ice	7.77	5.45	0.19
			3.00					1" Ice	8.52	6.35	0.26
AIR6449 B41 w/ Mount Pipe	C	From Leg	4.00			0.0000	115.00	No Ice	6.93	4.39	0.13
			0.00					1/2" Ice	7.77	5.45	0.19
			3.00					1" Ice	8.52	6.35	0.26
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.00			0.0000	115.00	No Ice	20.24	10.79	0.16
			0.00					1/2" Ice	20.89	12.21	0.29
			3.00					1" Ice	21.55	13.49	0.44
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.00			0.0000	115.00	No Ice	20.24	10.79	0.16
			0.00					1/2" Ice	20.89	12.21	0.29
			3.00					1" Ice	21.55	13.49	0.44
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.00			0.0000	115.00	No Ice	20.24	10.79	0.16
			0.00					1/2" Ice	20.89	12.21	0.29
			3.00					1" Ice	21.55	13.49	0.44
RRUS 11 B4	A	From Leg	4.00			0.0000	115.00	No Ice	2.83	1.18	0.05
			0.00					1/2" Ice	3.04	1.33	0.07
			3.00					1" Ice	3.26	1.48	0.10
RRUS 11 B4	B	From Leg	4.00			0.0000	115.00	No Ice	2.83	1.18	0.05
			0.00					1/2" Ice	3.04	1.33	0.07
			3.00					1" Ice	3.26	1.48	0.10
RRUS 11 B4	C	From Leg	4.00			0.0000	115.00	No Ice	2.83	1.18	0.05
			0.00					1/2" Ice	3.04	1.33	0.07
			3.00					1" Ice	3.26	1.48	0.10
RRUS 4415 B25	A	From Leg	4.00			0.0000	115.00	No Ice	1.64	0.68	0.04
			0.00					1/2" Ice	1.80	0.79	0.06
			3.00					1" Ice	1.97	0.91	0.07
RRUS 4415 B25	B	From Leg	4.00			0.0000	115.00	No Ice	1.64	0.68	0.04
			0.00					1/2" Ice	1.80	0.79	0.06
			3.00					1" Ice	1.97	0.91	0.07
RRUS 4415 B25	C	From Leg	4.00			0.0000	115.00	No Ice	1.64	0.68	0.04
			0.00					1/2" Ice	1.80	0.79	0.06
			3.00					1" Ice	1.97	0.91	0.07
Sector Frame Mount	A	From Leg	2.00			0.0000	115.00	No Ice	15.35	14.00	0.56
			0.00					1/2" Ice	21.29	20.81	0.74
			0.00					1" Ice	27.23	27.62	0.92
Sector Frame Mount	B	From Leg	2.00			0.0000	115.00	No Ice	15.35	14.00	0.56
			0.00					1/2" Ice	21.29	20.81	0.74
			0.00					1" Ice	27.23	27.62	0.92
Sector Frame Mount	C	From Leg	2.00			0.0000	115.00	No Ice	15.35	14.00	0.56
			0.00					1/2" Ice	21.29	20.81	0.74
			0.00					1" Ice	27.23	27.62	0.92
***											
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	A	From Leg	4.00			0.0000	98.00	No Ice	3.12	2.65	0.05
			0.00					1/2" Ice	3.96	3.60	0.08
			0.00					1" Ice	4.69	4.40	0.12
XXDWMM-12.5-65-8T-CBR	B	From Leg	4.00			0.0000	98.00	No Ice	3.12	2.65	0.05

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
S w/ Mount Pipe			0.00				1/2" Ice	3.96	3.60	0.08
			0.00				1" Ice	4.69	4.40	0.12
XXDWMM-12.5-65-8T-CBR	C	From Leg	4.00		0.0000	98.00	No Ice	3.12	2.65	0.05
S w/ Mount Pipe			0.00				1/2" Ice	3.96	3.60	0.08
			0.00				1" Ice	4.69	4.40	0.12
(2) JAHH-65B-R3B w/ Mount Pipe	A	From Leg	4.00		0.0000	98.00	No Ice	9.35	7.65	0.09
			0.00				1/2" Ice	9.92	8.83	0.16
			0.00				1" Ice	10.46	9.73	0.25
(2) JAHH-65B-R3B w/ Mount Pipe	B	From Leg	4.00		0.0000	98.00	No Ice	9.35	7.65	0.09
			0.00				1/2" Ice	9.92	8.83	0.16
			0.00				1" Ice	10.46	9.73	0.25
(2) JAHH-65B-R3B w/ Mount Pipe	C	From Leg	4.00		0.0000	98.00	No Ice	9.35	7.65	0.09
			0.00				1/2" Ice	9.92	8.83	0.16
			0.00				1" Ice	10.46	9.73	0.25
BSAMNT-SBS-2-2	A	From Leg	4.00		0.0000	98.00	No Ice	0.11	0.34	0.07
			0.00				1/2" Ice	0.16	0.42	0.07
			0.00				1" Ice	0.21	0.50	0.08
BSAMNT-SBS-2-2	B	From Leg	4.00		0.0000	98.00	No Ice	0.11	0.34	0.07
			0.00				1/2" Ice	0.16	0.42	0.07
			0.00				1" Ice	0.21	0.50	0.08
BSAMNT-SBS-2-2	C	From Leg	4.00		0.0000	98.00	No Ice	0.11	0.34	0.07
			0.00				1/2" Ice	0.16	0.42	0.07
			0.00				1" Ice	0.21	0.50	0.08
DB-T1-6Z-8AB-0Z (OVP)	A	From Leg	4.00		0.0000	98.00	No Ice	0.34	0.27	0.01
			0.00				1/2" Ice	0.42	0.34	0.01
			0.00				1" Ice	0.50	0.41	0.01
DB-T1-6Z-8AB-0Z (OVP)	B	From Leg	4.00		0.0000	98.00	No Ice	0.34	0.27	0.01
			0.00				1/2" Ice	0.42	0.34	0.01
			0.00				1" Ice	0.50	0.41	0.01
DB-T1-6Z-8AB-0Z (OVP)	C	From Leg	4.00		0.0000	98.00	No Ice	0.34	0.27	0.01
			0.00				1/2" Ice	0.42	0.34	0.01
			0.00				1" Ice	0.50	0.41	0.01
B2/B66A RRH-BR049 (RFV01U-D1A)	A	From Leg	4.00		0.0000	98.00	No Ice	1.88	1.25	0.08
			0.00				1/2" Ice	2.05	1.39	0.10
			0.00				1" Ice	2.22	1.54	0.12
B2/B66A RRH-BR049 (RFV01U-D1A)	B	From Leg	4.00		0.0000	98.00	No Ice	1.88	1.25	0.08
			0.00				1/2" Ice	2.05	1.39	0.10
			0.00				1" Ice	2.22	1.54	0.12
B2/B66A RRH-BR049 (RFV01U-D1A)	C	From Leg	4.00		0.0000	98.00	No Ice	1.88	1.25	0.08
			0.00				1/2" Ice	2.05	1.39	0.10
			0.00				1" Ice	2.22	1.54	0.12
B5/B13 RRH-BR04C (RFV01U-D2A)	A	From Leg	4.00		0.0000	98.00	No Ice	1.88	1.01	0.07
			0.00				1/2" Ice	2.05	1.14	0.09
			0.00				1" Ice	2.22	1.28	0.11
B5/B13 RRH-BR04C (RFV01U-D2A)	B	From Leg	4.00		0.0000	98.00	No Ice	1.88	1.01	0.07
			0.00				1/2" Ice	2.05	1.14	0.09
			0.00				1" Ice	2.22	1.28	0.11
B5/B13 RRH-BR04C (RFV01U-D2A)	C	From Leg	4.00		0.0000	98.00	No Ice	1.88	1.01	0.07
			0.00				1/2" Ice	2.05	1.14	0.09
			0.00				1" Ice	2.22	1.28	0.11
CBC78T-DS-43-2X	A	From Leg	4.00		0.0000	98.00	No Ice	0.37	0.51	0.02
			0.00				1/2" Ice	0.45	0.60	0.03
			0.00				1" Ice	0.53	0.70	0.04
CBC78T-DS-43-2X	B	From Leg	4.00		0.0000	98.00	No Ice	0.37	0.51	0.02
			0.00				1/2" Ice	0.45	0.60	0.03
			0.00				1" Ice	0.53	0.70	0.04
CBC78T-DS-43-2X	C	From Leg	4.00		0.0000	98.00	No Ice	0.37	0.51	0.02

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Vert ft	ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00					1/2" Ice	0.45	0.60	0.03
			0.00					1" Ice	0.53	0.70	0.04
Site Pro 1 VFA12-HD	A	From Leg	2.00			0.0000	98.00	No Ice	13.20	9.20	0.66
			0.00					1/2" Ice	19.50	14.60	0.80
			0.00					1" Ice	25.80	20.00	1.01
Site Pro 1 VFA12-HD	B	From Leg	2.00			0.0000	98.00	No Ice	13.20	9.20	0.66
			0.00					1/2" Ice	19.50	14.60	0.80
			0.00					1" Ice	25.80	20.00	1.01
Site Pro 1 VFA12-HD	C	From Leg	2.00			0.0000	98.00	No Ice	13.20	9.20	0.66
			0.00					1/2" Ice	19.50	14.60	0.80
			0.00					1" Ice	25.80	20.00	1.01
MT6407-77A w/ Pipe Mount	A	From Leg	4.00			0.0000	98.00	No Ice	4.71	2.43	0.10
			0.00					1/2" Ice	5.01	2.84	0.14
			0.00					1" Ice	5.31	3.26	0.18
MT6407-77A w/ Pipe Mount	B	From Leg	4.00			0.0000	98.00	No Ice	4.71	2.43	0.10
			0.00					1/2" Ice	5.01	2.84	0.14
			0.00					1" Ice	5.31	3.26	0.18
MT6407-77A w/ Pipe Mount	C	From Leg	4.00			0.0000	98.00	No Ice	4.71	2.43	0.10
			0.00					1/2" Ice	5.01	2.84	0.14
			0.00					1" Ice	5.31	3.26	0.18
(2) KA-6030	B	From Leg	2.00			0.0000	98.00	No Ice	0.77	0.28	0.03
			0.00					1/2" Ice	0.88	0.35	0.03
			0.00					1" Ice	1.00	0.43	0.04
(2) KA-6030	C	From Leg	2.00			0.0000	98.00	No Ice	0.77	0.28	0.03
			0.00					1/2" Ice	0.88	0.35	0.03
			0.00					1" Ice	1.00	0.43	0.04
Site Pro 1 RRUDSM	B	From Leg	1.00			0.0000	98.00	No Ice	1.13	1.13	0.04
			0.00					1/2" Ice	1.69	1.69	0.09
			0.00					1" Ice	2.25	2.25	0.13
Site Pro 1 RRUDSM	C	From Leg	1.00			0.0000	98.00	No Ice	1.13	1.13	0.04
			0.00					1/2" Ice	1.69	1.69	0.09
			0.00					1" Ice	2.25	2.25	0.13
***											
8' 4-Bay Dipole	C	From Leg	3.00			0.0000	74.00	No Ice	4.00	4.00	0.06
			0.00					1/2" Ice	6.00	6.00	0.10
			4.00					1" Ice	8.00	8.00	0.14
2' x 3' sidearm	C	From Leg	1.50			0.0000	74.00	No Ice	1.50	3.00	0.19
			0.00					1/2" Ice	2.50	4.00	0.28
			0.00					1" Ice	3.50	5.00	0.36
***											
GPS	C	From Leg	3.00			0.0000	58.00	No Ice	0.15	0.15	0.01
			0.00					1/2" Ice	0.24	0.24	0.02
			0.00					1" Ice	0.31	0.31	0.02
2' x 3' sidearm	C	From Leg	1.50			0.0000	58.00	No Ice	1.50	3.00	0.19
			0.00					1/2" Ice	2.50	4.00	0.28
			0.00					1" Ice	3.50	5.00	0.36
***											
(3) Site Pro 1 SFR-K	C	None				0.0000	115.00	No Ice	6.83	3.11	0.07
								1/2" Ice	8.01	3.65	0.11
								1" Ice	9.19	4.19	0.16
10' x 2-1/4" Pipe Mount	C	From Leg	4.00			0.0000	115.00	No Ice	2.25	2.25	0.08
			0.00					1/2" Ice	3.28	3.28	0.10
			0.00					1" Ice	4.32	4.32	0.12
10' x 2-1/4" Pipe Mount	C	From Leg	4.00			0.0000	115.00	No Ice	2.25	2.25	0.08
			0.00					1/2" Ice	3.28	3.28	0.10
			0.00					1" Ice	4.32	4.32	0.12
10' x 2-1/4" Pipe Mount	C	From Leg	4.00			0.0000	115.00	No Ice	2.25	2.25	0.08

tnxTower	Job	Page
	Stamford NW CT	23 of 52
Centerline Engineering Services, PA 750 W Center St, Suite 301 West Bridgewater, MA 02379 Phone: (781) 713-4725 FAX:	**Project** 23CLVZ-0009	**Date** 15:14:50 09/21/23
	Client Verizon Wireless	**Designed by** jboegel

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00			1/2" Ice	3.28	3.28	0.10
			0.00			1" Ice	4.32	4.32	0.12
RADIO 4449 B71+B85	A	From Leg	4.00	0.0000	115.00	No Ice	1.64	1.31	0.07
			0.00			1/2" Ice	1.80	1.46	0.09
			3.00			1" Ice	1.97	1.61	0.11
RADIO 4449 B71+B85	B	From Leg	4.00	0.0000	115.00	No Ice	1.64	1.31	0.07
			0.00			1/2" Ice	1.80	1.46	0.09
			3.00			1" Ice	1.97	1.61	0.11
RADIO 4449 B71+B85	C	From Leg	4.00	0.0000	115.00	No Ice	1.64	1.31	0.07
			0.00			1/2" Ice	1.80	1.46	0.09
			3.00			1" Ice	1.97	1.61	0.11
***									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
4' HP MW	C	Paraboloid w/Shroud (HP)	From Leg	1.00	0.0000		152.00	4.00	No Ice	12.57	0.12
				0.00					1/2" Ice	13.10	0.19
				0.00					1" Ice	13.63	0.26
***											
4' HP MW	B	Paraboloid w/Shroud (HP)	From Leg	1.00	0.0000		140.00	4.00	No Ice	12.57	0.12
				0.00					1/2" Ice	13.10	0.19
				0.00					1" Ice	13.63	0.26

Discrete Appurtenance Pressures - No Ice $G_H = 0.850$

Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2
20' 4-Bay Dipole	180.0000	0.06	0.00	2.88	162.00	1.134	31	4.00	4.00
TMA	240.0000	0.05	-3.69	2.13	152.00	1.114	30	1.50	1.50
6'x4" Sch 40 Pipe	240.0000	0.06	-3.69	2.13	152.00	1.114	30	1.96	1.96
DB563K-TT w/Mount Pipe	0.0000	0.13	0.00	-6.77	157.00	1.124	31	19.19	4.03
2' x 3' sidearm	0.0000	0.19	0.00	-5.27	150.00	1.110	30	1.50	3.00
4' x 4.5" Pipe Mount	240.0000	0.04	-3.69	2.13	152.00	1.114	30	1.19	1.19
QS66512-2 w/ Mount Pipe	0.0000	0.14	0.00	-6.78	145.00	1.099	30	8.37	8.46
QS66512-2 w/ Mount Pipe	120.0000	0.14	5.87	3.39	145.00	1.099	30	8.37	8.46
QS66512-2 w/ Mount Pipe	240.0000	0.14	-5.87	3.39	145.00	1.099	30	8.37	8.46
TMA2117F00V1-1	0.0000	0.04	0.00	-6.78	145.00	1.099	30	0.59	1.67
TMA2117F00V1-1	120.0000	0.04	5.87	3.39	145.00	1.099	30	0.59	1.67

tnxTower	Job: Stamford NW CT	Page: 24 of 52
Centerline Engineering Services, PA 750 W Center St, Suite 301 West Bridgewater, MA 02379 Phone: (781) 713-4725 FAX:	Project: 23CLVZ-0009	Date: 15:14:50 09/21/23
	Client: Verizon Wireless	Designed by: jboegel

Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2
TMA2117F00V1-1	240.0000	0.04	-5.87	3.39	145.00	1.099	30	0.59	1.67
2' x 3' Side Arm Mount	0.0000	0.11	0.00	-5.28	145.00	1.099	30	1.78	2.97
2' x 3' Side Arm Mount	120.0000	0.11	4.57	2.64	145.00	1.099	30	1.78	2.97
2' x 3' Side Arm Mount	240.0000	0.11	-4.57	2.64	145.00	1.099	30	1.78	2.97
4' x 4.5" Pipe Mount	120.0000	0.04	3.71	2.14	140.00	1.088	30	1.19	1.19
6' x 3" Omni	120.0000	0.02	6.13	3.54	138.00	1.083	30	1.77	1.77
2' x 3' Side Arm Mount	120.0000	0.19	4.83	2.79	135.00	1.077	29	1.50	3.00
DB254-A	240.0000	0.01	-6.13	3.54	135.00	1.077	29	1.10	1.10
2' x 3' Side Arm Mount	240.0000	0.19	-4.83	2.79	135.00	1.077	29	1.50	3.00
APXVSPP18-C-A20 w/ Mount Pipe	0.0000	0.08	0.00	-8.32	131.00	1.067	29	8.26	6.95
APXVSPP18-C-A20 w/ Mount Pipe	120.0000	0.08	7.20	4.16	131.00	1.067	29	8.26	6.95
APXVSPP18-C-A20 w/ Mount Pipe	240.0000	0.08	-7.20	4.16	131.00	1.067	29	8.26	6.95
RRH2x50-WCS	0.0000	0.08	0.00	-8.32	131.00	1.067	29	4.91	2.70
RRH2x50-WCS	120.0000	0.08	7.20	4.16	131.00	1.067	29	4.91	2.70
RRH2x50-WCS	240.0000	0.08	-7.20	4.16	131.00	1.067	29	4.91	2.70
RRH4X45-19	0.0000	0.06	0.00	-8.32	131.00	1.067	29	2.31	2.38
RRH4X45-19	120.0000	0.06	7.20	4.16	131.00	1.067	29	2.31	2.38
RRH4X45-19	240.0000	0.06	-7.20	4.16	131.00	1.067	29	2.31	2.38
APXVTM14-ALU-I20 w/ Mount Pipe	0.0000	0.08	0.00	-8.32	131.00	1.067	29	6.58	4.96
APXVTM14-ALU-I20 w/ Mount Pipe	120.0000	0.08	7.20	4.16	131.00	1.067	29	6.58	4.96
APXVTM14-ALU-I20 w/ Mount Pipe	240.0000	0.08	-7.20	4.16	131.00	1.067	29	6.58	4.96
TD-RRH8x20	0.0000	0.07	0.00	-8.32	131.00	1.067	29	3.70	1.29
TD-RRH8x20	120.0000	0.07	7.20	4.16	131.00	1.067	29	3.70	1.29
TD-RRH8x20	240.0000	0.07	-7.20	4.16	131.00	1.067	29	3.70	1.29
Sector Frame Mount	0.0000	0.56	0.00	-6.32	131.00	1.067	29	15.35	14.00
Sector Frame Mount	120.0000	0.56	5.47	3.16	131.00	1.067	29	15.35	14.00
Sector Frame Mount	240.0000	0.56	-5.47	3.16	131.00	1.067	29	15.35	14.00
AIR32 KRD901146-1_B66_B2A w/ Mount Pipe	0.0000	0.11	0.00	-9.25	118.00	1.036	28	11.39	5.90
AIR32 KRD901146-1_B66_B2A w/ Mount Pipe	120.0000	0.11	8.01	4.63	118.00	1.036	28	11.39	5.90
AIR32 KRD901146-1_B66_B2A w/ Mount Pipe	240.0000	0.11	-8.01	4.63	118.00	1.036	28	11.39	5.90
AIR6449 B41 w/ Mount Pipe	0.0000	0.13	0.00	-9.25	118.00	1.036	28	6.93	4.39
AIR6449 B41 w/ Mount Pipe	120.0000	0.13	8.01	4.63	118.00	1.036	28	6.93	4.39
AIR6449 B41 w/ Mount Pipe	240.0000	0.13	-8.01	4.63	118.00	1.036	28	6.93	4.39
APXVAARR24_43-U-NA20 w/ Mount Pipe	0.0000	0.16	0.00	-9.25	118.00	1.036	28	20.24	10.79
APXVAARR24_43-U-NA20 w/ Mount Pipe	120.0000	0.16	8.01	4.63	118.00	1.036	28	20.24	10.79
APXVAARR24_43-U-NA20 w/ Mount Pipe	240.0000	0.16	-8.01	4.63	118.00	1.036	28	20.24	10.79
RRUS 11 B4	0.0000	0.05	0.00	-9.25	118.00	1.036	28	2.83	1.18
RRUS 11 B4	120.0000	0.05	8.01	4.63	118.00	1.036	28	2.83	1.18
RRUS 11 B4	240.0000	0.05	-8.01	4.63	118.00	1.036	28	2.83	1.18
RRUS 4415 B25	0.0000	0.04	0.00	-9.25	118.00	1.036	28	1.64	0.68
RRUS 4415 B25	120.0000	0.04	8.01	4.63	118.00	1.036	28	1.64	0.68
RRUS 4415 B25	240.0000	0.04	-8.01	4.63	118.00	1.036	28	1.64	0.68
Sector Frame Mount	0.0000	0.56	0.00	-7.25	115.00	1.028	28	15.35	14.00

Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2
Sector Frame Mount	120.0000	0.56	6.28	3.63	115.00	1.028	28	15.35	14.00
Sector Frame Mount	240.0000	0.56	-6.28	3.63	115.00	1.028	28	15.35	14.00
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	0.0000	0.05	0.00	-10.25	98.00	0.983	27	3.12	2.65
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	120.0000	0.05	8.88	5.13	98.00	0.983	27	3.12	2.65
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	240.0000	0.05	-8.88	5.13	98.00	0.983	27	3.12	2.65
JAHH-65B-R3B w/ Mount Pipe	0.0000	0.18	0.00	-10.25	98.00	0.983	27	18.70	15.29
JAHH-65B-R3B w/ Mount Pipe	120.0000	0.18	8.88	5.13	98.00	0.983	27	18.70	15.29
JAHH-65B-R3B w/ Mount Pipe	240.0000	0.18	-8.88	5.13	98.00	0.983	27	18.70	15.29
BSAMNT-SBS-2-2	0.0000	0.07	0.00	-10.25	98.00	0.983	27	0.11	0.34
BSAMNT-SBS-2-2	120.0000	0.07	8.88	5.13	98.00	0.983	27	0.11	0.34
BSAMNT-SBS-2-2	240.0000	0.07	-8.88	5.13	98.00	0.983	27	0.11	0.34
DB-T1-6Z-8AB-0Z (OVP)	0.0000	0.01	0.00	-10.25	98.00	0.983	27	0.34	0.27
DB-T1-6Z-8AB-0Z (OVP)	120.0000	0.01	8.88	5.13	98.00	0.983	27	0.34	0.27
DB-T1-6Z-8AB-0Z (OVP)	240.0000	0.01	-8.88	5.13	98.00	0.983	27	0.34	0.27
B2/B66A RRH-BR049 (RFV01U-D1A)	0.0000	0.08	0.00	-10.25	98.00	0.983	27	1.88	1.25
B2/B66A RRH-BR049 (RFV01U-D1A)	120.0000	0.08	8.88	5.13	98.00	0.983	27	1.88	1.25
B2/B66A RRH-BR049 (RFV01U-D1A)	240.0000	0.08	-8.88	5.13	98.00	0.983	27	1.88	1.25
B5/B13 RRH-BR04C (RFV01U-D2A)	0.0000	0.07	0.00	-10.25	98.00	0.983	27	1.88	1.01
B5/B13 RRH-BR04C (RFV01U-D2A)	120.0000	0.07	8.88	5.13	98.00	0.983	27	1.88	1.01
B5/B13 RRH-BR04C (RFV01U-D2A)	240.0000	0.07	-8.88	5.13	98.00	0.983	27	1.88	1.01
CBC78T-DS-43-2X	0.0000	0.02	0.00	-10.25	98.00	0.983	27	0.37	0.51
CBC78T-DS-43-2X	120.0000	0.02	8.88	5.13	98.00	0.983	27	0.37	0.51
CBC78T-DS-43-2X	240.0000	0.02	-8.88	5.13	98.00	0.983	27	0.37	0.51
Site Pro 1 VFA12-HD	0.0000	0.66	0.00	-8.25	98.00	0.983	27	13.20	9.20
Site Pro 1 VFA12-HD	120.0000	0.66	7.15	4.13	98.00	0.983	27	13.20	9.20
Site Pro 1 VFA12-HD	240.0000	0.66	-7.15	4.13	98.00	0.983	27	13.20	9.20
MT6407-77A w/ Pipe Mount	0.0000	0.10	0.00	-10.25	98.00	0.983	27	4.71	2.43
MT6407-77A w/ Pipe Mount	120.0000	0.10	8.88	5.13	98.00	0.983	27	4.71	2.43
MT6407-77A w/ Pipe Mount	240.0000	0.10	-8.88	5.13	98.00	0.983	27	4.71	2.43
KA-6030	120.0000	0.06	7.15	4.13	98.00	0.983	27	1.54	0.56
KA-6030	240.0000	0.06	-7.15	4.13	98.00	0.983	27	1.54	0.56
Site Pro 1 RRUDSM	120.0000	0.04	6.28	3.63	98.00	0.983	27	1.13	1.13
Site Pro 1 RRUDSM	240.0000	0.04	-6.28	3.63	98.00	0.983	27	1.13	1.13
8' 4-Bay Dipole	240.0000	0.06	-9.23	5.33	78.00	0.921	25	4.00	4.00
2' x 3' sidearm	240.0000	0.19	-7.93	4.58	74.00	0.907	25	1.50	3.00
GPS	240.0000	0.01	-10.04	5.80	58.00	0.846	23	0.15	0.15
2' x 3' sidearm	240.0000	0.19	-8.75	5.05	58.00	0.846	23	1.50	3.00
Site Pro 1 SFR-K	0.0000	0.20	0.00	0.00	115.00	1.028	28	20.49	9.33
10' x 2-1/4" Pipe Mount	240.0000	0.08	-8.01	4.63	115.00	1.028	28	2.25	2.25
10' x 2-1/4" Pipe Mount	240.0000	0.08	-8.01	4.63	115.00	1.028	28	2.25	2.25
10' x 2-1/4" Pipe Mount	240.0000	0.08	-8.01	4.63	115.00	1.028	28	2.25	2.25
RADIO 4449 B71+B85	0.0000	0.07	0.00	-9.25	118.00	1.036	28	1.64	1.31
RADIO 4449 B71+B85	120.0000	0.07	8.01	4.63	118.00	1.036	28	1.64	1.31

Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2
RADIO 4449 B71+B85	240.0000	0.07	-8.01	4.63	118.00	1.036	28	1.64	1.31
	Sum Weight:	12.77							

Discrete Appurtenance Pressures - With Ice $G_H = 0.850$

Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2	t_z in
20' 4-Bay Dipole	180.0000	0.14	0.00	2.88	162.00	1.134	6	7.99	7.99	0.9966
TMA	240.0000	0.07	-3.69	2.13	152.00	1.114	6	2.98	2.98	0.9903
6'x4" Sch 40 Pipe	240.0000	0.10	-3.69	2.13	152.00	1.114	6	2.99	2.99	0.9903
DB563K-TT w/Mount Pipe	0.0000	0.35	0.00	-6.77	157.00	1.124	6	21.26	9.87	0.9935
2' x 3' sidearm	0.0000	0.36	0.00	-5.27	150.00	1.110	6	3.48	4.98	0.9890
4' x 4.5" Pipe Mount	240.0000	0.07	-3.69	2.13	152.00	1.114	6	1.83	1.83	0.9903
QS66512-2 w/ Mount Pipe	0.0000	0.29	0.00	-6.78	145.00	1.099	6	9.44	10.52	0.9856
QS66512-2 w/ Mount Pipe	120.0000	0.29	5.87	3.39	145.00	1.099	6	9.44	10.52	0.9856
QS66512-2 w/ Mount Pipe	240.0000	0.29	-5.87	3.39	145.00	1.099	6	9.44	10.52	0.9856
TMA2117F00V1-1	0.0000	0.07	0.00	-6.78	145.00	1.099	6	0.90	2.14	0.9856
TMA2117F00V1-1	120.0000	0.07	5.87	3.39	145.00	1.099	6	0.90	2.14	0.9856
TMA2117F00V1-1	240.0000	0.07	-5.87	3.39	145.00	1.099	6	0.90	2.14	0.9856
2' x 3' Side Arm Mount	0.0000	0.16	0.00	-5.28	145.00	1.099	6	2.74	4.17	0.9856
2' x 3' Side Arm Mount	120.0000	0.16	4.57	2.64	145.00	1.099	6	2.74	4.17	0.9856
2' x 3' Side Arm Mount	240.0000	0.16	-4.57	2.64	145.00	1.099	6	2.74	4.17	0.9856
4' x 4.5" Pipe Mount	120.0000	0.07	3.71	2.14	140.00	1.088	6	1.83	1.83	0.9822
6' x 3" Omni	120.0000	0.05	6.13	3.54	138.00	1.083	6	2.48	2.48	0.9807
2' x 3' Side Arm Mount	120.0000	0.36	4.83	2.79	135.00	1.077	5	3.46	4.96	0.9786
DB254-A	240.0000	0.02	-6.13	3.54	135.00	1.077	5	2.82	2.82	0.9786
2' x 3' Side Arm Mount	240.0000	0.36	-4.83	2.79	135.00	1.077	5	3.46	4.96	0.9786
APXVSPP18-C-A20 w/ Mount Pipe	0.0000	0.22	0.00	-8.32	131.00	1.067	5	9.32	8.98	0.9757
APXVSPP18-C-A20 w/ Mount Pipe	120.0000	0.22	7.20	4.16	131.00	1.067	5	9.32	8.98	0.9757
APXVSPP18-C-A20 w/ Mount Pipe	240.0000	0.22	-7.20	4.16	131.00	1.067	5	9.32	8.98	0.9757
RRH2x50-WCS	0.0000	0.14	0.00	-8.32	131.00	1.067	5	5.54	3.29	0.9757
RRH2x50-WCS	120.0000	0.14	7.20	4.16	131.00	1.067	5	5.54	3.29	0.9757
RRH2x50-WCS	240.0000	0.14	-7.20	4.16	131.00	1.067	5	5.54	3.29	0.9757
RRH4X45-19	0.0000	0.11	0.00	-8.32	131.00	1.067	5	2.72	2.78	0.9757
RRH4X45-19	120.0000	0.11	7.20	4.16	131.00	1.067	5	2.72	2.78	0.9757
RRH4X45-19	240.0000	0.11	-7.20	4.16	131.00	1.067	5	2.72	2.78	0.9757
APXVTM14-ALU-I20 w/ Mount Pipe	0.0000	0.19	0.00	-8.32	131.00	1.067	5	7.45	6.44	0.9757
APXVTM14-ALU-I20 w/ Mount Pipe	120.0000	0.19	7.20	4.16	131.00	1.067	5	7.45	6.44	0.9757
APXVTM14-ALU-I20 w/ Mount Pipe	240.0000	0.19	-7.20	4.16	131.00	1.067	5	7.45	6.44	0.9757
TD-RRH8x20	0.0000	0.12	0.00	-8.32	131.00	1.067	5	4.18	1.63	0.9757
TD-RRH8x20	120.0000	0.12	7.20	4.16	131.00	1.067	5	4.18	1.63	0.9757
TD-RRH8x20	240.0000	0.12	-7.20	4.16	131.00	1.067	5	4.18	1.63	0.9757
Sector Frame Mount	0.0000	0.92	0.00	-6.32	131.00	1.067	5	26.94	27.29	0.9757
Sector Frame Mount	120.0000	0.92	5.47	3.16	131.00	1.067	5	26.94	27.29	0.9757
Sector Frame Mount	240.0000	0.92	-5.47	3.16	131.00	1.067	5	26.94	27.29	0.9757
AIR32 KRD901146-	0.0000	0.28	0.00	-9.25	118.00	1.036	5	12.30	7.19	0.9655

Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2	t_z in
1_B66_B2A w/ Mount Pipe										
AIR32 KRD901146-1_B66_B2A w/ Mount Pipe	120.0000	0.28	8.01	4.63	118.00	1.036	5	12.30	7.19	0.9655
AIR32 KRD901146-1_B66_B2A w/ Mount Pipe	240.0000	0.28	-8.01	4.63	118.00	1.036	5	12.30	7.19	0.9655
AIR6449 B41 w/ Mount Pipe	0.0000	0.26	0.00	-9.25	118.00	1.036	5	8.47	6.29	0.9655
AIR6449 B41 w/ Mount Pipe	120.0000	0.26	8.01	4.63	118.00	1.036	5	8.47	6.29	0.9655
AIR6449 B41 w/ Mount Pipe	240.0000	0.26	-8.01	4.63	118.00	1.036	5	8.47	6.29	0.9655
APXVAARR24_43-U-NA20 w/ Mount Pipe	0.0000	0.43	0.00	-9.25	118.00	1.036	5	21.50	13.41	0.9655
APXVAARR24_43-U-NA20 w/ Mount Pipe	120.0000	0.43	8.01	4.63	118.00	1.036	5	21.50	13.41	0.9655
APXVAARR24_43-U-NA20 w/ Mount Pipe	240.0000	0.43	-8.01	4.63	118.00	1.036	5	21.50	13.41	0.9655
RRUS 11 B4	0.0000	0.09	0.00	-9.25	118.00	1.036	5	3.24	1.47	0.9655
RRUS 11 B4	120.0000	0.09	8.01	4.63	118.00	1.036	5	3.24	1.47	0.9655
RRUS 11 B4	240.0000	0.09	-8.01	4.63	118.00	1.036	5	3.24	1.47	0.9655
RRUS 4415 B25	0.0000	0.07	0.00	-9.25	118.00	1.036	5	1.96	0.90	0.9655
RRUS 4415 B25	120.0000	0.07	8.01	4.63	118.00	1.036	5	1.96	0.90	0.9655
RRUS 4415 B25	240.0000	0.07	-8.01	4.63	118.00	1.036	5	1.96	0.90	0.9655
Sector Frame Mount	0.0000	0.91	0.00	-7.25	115.00	1.028	5	26.79	27.12	0.9630
Sector Frame Mount	120.0000	0.91	6.28	3.63	115.00	1.028	5	26.79	27.12	0.9630
Sector Frame Mount	240.0000	0.91	-6.28	3.63	115.00	1.028	5	26.79	27.12	0.9630
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	0.0000	0.12	0.00	-10.25	98.00	0.983	5	4.61	4.32	0.9477
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	120.0000	0.12	8.88	5.13	98.00	0.983	5	4.61	4.32	0.9477
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	240.0000	0.12	-8.88	5.13	98.00	0.983	5	4.61	4.32	0.9477
JAHH-65B-R3B w/ Mount Pipe	0.0000	0.48	0.00	-10.25	98.00	0.983	5	20.80	19.28	0.9477
JAHH-65B-R3B w/ Mount Pipe	120.0000	0.48	8.88	5.13	98.00	0.983	5	20.80	19.28	0.9477
JAHH-65B-R3B w/ Mount Pipe	240.0000	0.48	-8.88	5.13	98.00	0.983	5	20.80	19.28	0.9477
BSAMNT-SBS-2-2	0.0000	0.07	0.00	-10.25	98.00	0.983	5	0.21	0.49	0.9477
BSAMNT-SBS-2-2	120.0000	0.07	8.88	5.13	98.00	0.983	5	0.21	0.49	0.9477
BSAMNT-SBS-2-2	240.0000	0.07	-8.88	5.13	98.00	0.983	5	0.21	0.49	0.9477
DB-T1-6Z-8AB-0Z (OVP)	0.0000	0.01	0.00	-10.25	98.00	0.983	5	0.49	0.40	0.9477
DB-T1-6Z-8AB-0Z (OVP)	120.0000	0.01	8.88	5.13	98.00	0.983	5	0.49	0.40	0.9477
DB-T1-6Z-8AB-0Z (OVP)	240.0000	0.01	-8.88	5.13	98.00	0.983	5	0.49	0.40	0.9477
B2/B66A RRH-BR049 (RFV01U-D1A)	0.0000	0.12	0.00	-10.25	98.00	0.983	5	2.20	1.53	0.9477
B2/B66A RRH-BR049 (RFV01U-D1A)	120.0000	0.12	8.88	5.13	98.00	0.983	5	2.20	1.53	0.9477
B2/B66A RRH-BR049 (RFV01U-D1A)	240.0000	0.12	-8.88	5.13	98.00	0.983	5	2.20	1.53	0.9477
B5/B13 RRH-BR04C (RFV01U-D2A)	0.0000	0.10	0.00	-10.25	98.00	0.983	5	2.20	1.27	0.9477
B5/B13 RRH-BR04C (RFV01U-D2A)	120.0000	0.10	8.88	5.13	98.00	0.983	5	2.20	1.27	0.9477
B5/B13 RRH-BR04C	240.0000	0.10	-8.88	5.13	98.00	0.983	5	2.20	1.27	0.9477

Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2	t_z in
(RFV01U-D2A)										
CBC78T-DS-43-2X	0.0000	0.03	0.00	-10.25	98.00	0.983	5	0.52	0.69	0.9477
CBC78T-DS-43-2X	120.0000	0.03	8.88	5.13	98.00	0.983	5	0.52	0.69	0.9477
CBC78T-DS-43-2X	240.0000	0.03	-8.88	5.13	98.00	0.983	5	0.52	0.69	0.9477
Site Pro 1 VFA12-HD	0.0000	0.99	0.00	-8.25	98.00	0.983	5	25.14	19.44	0.9477
Site Pro 1 VFA12-HD	120.0000	0.99	7.15	4.13	98.00	0.983	5	25.14	19.44	0.9477
Site Pro 1 VFA12-HD	240.0000	0.99	-7.15	4.13	98.00	0.983	5	25.14	19.44	0.9477
MT6407-77A w/ Pipe Mount	0.0000	0.17	0.00	-10.25	98.00	0.983	5	5.28	3.22	0.9477
MT6407-77A w/ Pipe Mount	120.0000	0.17	8.88	5.13	98.00	0.983	5	5.28	3.22	0.9477
MT6407-77A w/ Pipe Mount	240.0000	0.17	-8.88	5.13	98.00	0.983	5	5.28	3.22	0.9477
KA-6030	120.0000	0.08	7.15	4.13	98.00	0.983	5	1.98	0.84	0.9477
KA-6030	240.0000	0.08	-7.15	4.13	98.00	0.983	5	1.98	0.84	0.9477
Site Pro 1 RRUDSM	120.0000	0.13	6.28	3.63	98.00	0.983	5	2.19	2.19	0.9477
Site Pro 1 RRUDSM	240.0000	0.13	-6.28	3.63	98.00	0.983	5	2.19	2.19	0.9477
8' 4-Bay Dipole	240.0000	0.14	-9.23	5.33	78.00	0.921	5	7.71	7.71	0.9264
2' x 3' sidearm	240.0000	0.35	-7.93	4.58	74.00	0.907	5	3.34	4.84	0.9215
GPS	240.0000	0.02	-10.04	5.80	58.00	0.846	4	0.30	0.30	0.8993
2' x 3' sidearm	240.0000	0.34	-8.75	5.05	58.00	0.846	4	3.30	4.80	0.8993
Site Pro 1 SFR-K	0.0000	0.47	0.00	0.00	115.00	1.028	5	27.31	12.45	0.9630
10' x 2-1/4" Pipe Mount	240.0000	0.12	-8.01	4.63	115.00	1.028	5	4.24	4.24	0.9630
10' x 2-1/4" Pipe Mount	240.0000	0.12	-8.01	4.63	115.00	1.028	5	4.24	4.24	0.9630
10' x 2-1/4" Pipe Mount	240.0000	0.12	-8.01	4.63	115.00	1.028	5	4.24	4.24	0.9630
RADIO 4449 B71+B85	0.0000	0.11	0.00	-9.25	118.00	1.036	5	1.96	1.60	0.9655
RADIO 4449 B71+B85	120.0000	0.11	8.01	4.63	118.00	1.036	5	1.96	1.60	0.9655
RADIO 4449 B71+B85	240.0000	0.11	-8.01	4.63	118.00	1.036	5	1.96	1.60	0.9655
	Sum Weight:	23.45								

Discrete Appurtenance Pressures - Service $G_H = 0.850$

Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2
20' 4-Bay Dipole	180.0000	0.06	0.00	2.88	162.00	1.134	9	4.00	4.00
TMA	240.0000	0.05	-3.69	2.13	152.00	1.114	9	1.50	1.50
6'x4" Sch 40 Pipe	240.0000	0.06	-3.69	2.13	152.00	1.114	9	1.96	1.96
DB563K-TT w/Mount Pipe	0.0000	0.13	0.00	-6.77	157.00	1.124	9	19.19	4.03
2' x 3' sidearm	0.0000	0.19	0.00	-5.27	150.00	1.110	9	1.50	3.00
4' x 4.5" Pipe Mount	240.0000	0.04	-3.69	2.13	152.00	1.114	9	1.19	1.19
QS66512-2 w/ Mount Pipe	0.0000	0.14	0.00	-6.78	145.00	1.099	8	8.37	8.46
QS66512-2 w/ Mount Pipe	120.0000	0.14	5.87	3.39	145.00	1.099	8	8.37	8.46
QS66512-2 w/ Mount Pipe	240.0000	0.14	-5.87	3.39	145.00	1.099	8	8.37	8.46
TMA2117F00V1-1	0.0000	0.04	0.00	-6.78	145.00	1.099	8	0.59	1.67
TMA2117F00V1-1	120.0000	0.04	5.87	3.39	145.00	1.099	8	0.59	1.67
TMA2117F00V1-1	240.0000	0.04	-5.87	3.39	145.00	1.099	8	0.59	1.67
2' x 3' Side Arm Mount	0.0000	0.11	0.00	-5.28	145.00	1.099	8	1.78	2.97
2' x 3' Side Arm Mount	120.0000	0.11	4.57	2.64	145.00	1.099	8	1.78	2.97
2' x 3' Side Arm Mount	240.0000	0.11	-4.57	2.64	145.00	1.099	8	1.78	2.97
4' x 4.5" Pipe Mount	120.0000	0.04	3.71	2.14	140.00	1.088	8	1.19	1.19
6' x 3" Omni	120.0000	0.02	6.13	3.54	138.00	1.083	8	1.77	1.77
2' x 3' Side Arm Mount	120.0000	0.19	4.83	2.79	135.00	1.077	8	1.50	3.00

Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2
DB254-A	240.0000	0.01	-6.13	3.54	135.00	1.077	8	1.10	1.10
2' x 3' Side Arm Mount	240.0000	0.19	-4.83	2.79	135.00	1.077	8	1.50	3.00
APXVSPP18-C-A20 w/ Mount Pipe	0.0000	0.08	0.00	-8.32	131.00	1.067	8	8.26	6.95
APXVSPP18-C-A20 w/ Mount Pipe	120.0000	0.08	7.20	4.16	131.00	1.067	8	8.26	6.95
APXVSPP18-C-A20 w/ Mount Pipe	240.0000	0.08	-7.20	4.16	131.00	1.067	8	8.26	6.95
RRH2x50-WCS	0.0000	0.08	0.00	-8.32	131.00	1.067	8	4.91	2.70
RRH2x50-WCS	120.0000	0.08	7.20	4.16	131.00	1.067	8	4.91	2.70
RRH2x50-WCS	240.0000	0.08	-7.20	4.16	131.00	1.067	8	4.91	2.70
RRH4X45-19	0.0000	0.06	0.00	-8.32	131.00	1.067	8	2.31	2.38
RRH4X45-19	120.0000	0.06	7.20	4.16	131.00	1.067	8	2.31	2.38
RRH4X45-19	240.0000	0.06	-7.20	4.16	131.00	1.067	8	2.31	2.38
APXVTM14-ALU-I20 w/ Mount Pipe	0.0000	0.08	0.00	-8.32	131.00	1.067	8	6.58	4.96
APXVTM14-ALU-I20 w/ Mount Pipe	120.0000	0.08	7.20	4.16	131.00	1.067	8	6.58	4.96
APXVTM14-ALU-I20 w/ Mount Pipe	240.0000	0.08	-7.20	4.16	131.00	1.067	8	6.58	4.96
TD-RRH8x20	0.0000	0.07	0.00	-8.32	131.00	1.067	8	3.70	1.29
TD-RRH8x20	120.0000	0.07	7.20	4.16	131.00	1.067	8	3.70	1.29
TD-RRH8x20	240.0000	0.07	-7.20	4.16	131.00	1.067	8	3.70	1.29
Sector Frame Mount	0.0000	0.56	0.00	-6.32	131.00	1.067	8	15.35	14.00
Sector Frame Mount	120.0000	0.56	5.47	3.16	131.00	1.067	8	15.35	14.00
Sector Frame Mount	240.0000	0.56	-5.47	3.16	131.00	1.067	8	15.35	14.00
AIR32 KRD901146-1_B66_B2A w/ Mount Pipe	0.0000	0.11	0.00	-9.25	118.00	1.036	8	11.39	5.90
AIR32 KRD901146-1_B66_B2A w/ Mount Pipe	120.0000	0.11	8.01	4.63	118.00	1.036	8	11.39	5.90
AIR32 KRD901146-1_B66_B2A w/ Mount Pipe	240.0000	0.11	-8.01	4.63	118.00	1.036	8	11.39	5.90
AIR6449 B41 w/ Mount Pipe	0.0000	0.13	0.00	-9.25	118.00	1.036	8	6.93	4.39
AIR6449 B41 w/ Mount Pipe	120.0000	0.13	8.01	4.63	118.00	1.036	8	6.93	4.39
AIR6449 B41 w/ Mount Pipe	240.0000	0.13	-8.01	4.63	118.00	1.036	8	6.93	4.39
APXVAARR24_43-U-NA20 w/ Mount Pipe	0.0000	0.16	0.00	-9.25	118.00	1.036	8	20.24	10.79
APXVAARR24_43-U-NA20 w/ Mount Pipe	120.0000	0.16	8.01	4.63	118.00	1.036	8	20.24	10.79
APXVAARR24_43-U-NA20 w/ Mount Pipe	240.0000	0.16	-8.01	4.63	118.00	1.036	8	20.24	10.79
RRUS 11 B4	0.0000	0.05	0.00	-9.25	118.00	1.036	8	2.83	1.18
RRUS 11 B4	120.0000	0.05	8.01	4.63	118.00	1.036	8	2.83	1.18
RRUS 11 B4	240.0000	0.05	-8.01	4.63	118.00	1.036	8	2.83	1.18
RRUS 4415 B25	0.0000	0.04	0.00	-9.25	118.00	1.036	8	1.64	0.68
RRUS 4415 B25	120.0000	0.04	8.01	4.63	118.00	1.036	8	1.64	0.68
RRUS 4415 B25	240.0000	0.04	-8.01	4.63	118.00	1.036	8	1.64	0.68
Sector Frame Mount	0.0000	0.56	0.00	-7.25	115.00	1.028	8	15.35	14.00
Sector Frame Mount	120.0000	0.56	6.28	3.63	115.00	1.028	8	15.35	14.00
Sector Frame Mount	240.0000	0.56	-6.28	3.63	115.00	1.028	8	15.35	14.00
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	0.0000	0.05	0.00	-10.25	98.00	0.983	8	3.12	2.65
XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	120.0000	0.05	8.88	5.13	98.00	0.983	8	3.12	2.65
XXDWMM-12.5-65-8T-	240.0000	0.05	-8.88	5.13	98.00	0.983	8	3.12	2.65

tnxTower	Job: Stamford NW CT	Page: 30 of 52
Centerline Engineering Services, PA 750 W Center St, Suite 301 West Bridgewater, MA 02379 Phone: (781) 713-4725 FAX:	Project: 23CLVZ-0009	Date: 15:14:50 09/21/23
	Client: Verizon Wireless	Designed by: jboegel

Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2
CBRS w/ Mount Pipe	0.0000	0.18	0.00	-10.25	98.00	0.983	8	18.70	15.29
JAHH-65B-R3B w/ Mount Pipe	120.0000	0.18	8.88	5.13	98.00	0.983	8	18.70	15.29
JAHH-65B-R3B w/ Mount Pipe	240.0000	0.18	-8.88	5.13	98.00	0.983	8	18.70	15.29
BSAMNT-SBS-2-2	0.0000	0.07	0.00	-10.25	98.00	0.983	8	0.11	0.34
BSAMNT-SBS-2-2	120.0000	0.07	8.88	5.13	98.00	0.983	8	0.11	0.34
BSAMNT-SBS-2-2	240.0000	0.07	-8.88	5.13	98.00	0.983	8	0.11	0.34
DB-T1-6Z-8AB-0Z (OVP)	0.0000	0.01	0.00	-10.25	98.00	0.983	8	0.34	0.27
DB-T1-6Z-8AB-0Z (OVP)	120.0000	0.01	8.88	5.13	98.00	0.983	8	0.34	0.27
DB-T1-6Z-8AB-0Z (OVP)	240.0000	0.01	-8.88	5.13	98.00	0.983	8	0.34	0.27
B2/B66A RRH-BR049 (RFV01U-D1A)	0.0000	0.08	0.00	-10.25	98.00	0.983	8	1.88	1.25
B2/B66A RRH-BR049 (RFV01U-D1A)	120.0000	0.08	8.88	5.13	98.00	0.983	8	1.88	1.25
B2/B66A RRH-BR049 (RFV01U-D1A)	240.0000	0.08	-8.88	5.13	98.00	0.983	8	1.88	1.25
B5/B13 RRH-BR04C (RFV01U-D2A)	0.0000	0.07	0.00	-10.25	98.00	0.983	8	1.88	1.01
B5/B13 RRH-BR04C (RFV01U-D2A)	120.0000	0.07	8.88	5.13	98.00	0.983	8	1.88	1.01
B5/B13 RRH-BR04C (RFV01U-D2A)	240.0000	0.07	-8.88	5.13	98.00	0.983	8	1.88	1.01
CBC78T-DS-43-2X	0.0000	0.02	0.00	-10.25	98.00	0.983	8	0.37	0.51
CBC78T-DS-43-2X	120.0000	0.02	8.88	5.13	98.00	0.983	8	0.37	0.51
CBC78T-DS-43-2X	240.0000	0.02	-8.88	5.13	98.00	0.983	8	0.37	0.51
Site Pro 1 VFA12-HD	0.0000	0.66	0.00	-8.25	98.00	0.983	8	13.20	9.20
Site Pro 1 VFA12-HD	120.0000	0.66	7.15	4.13	98.00	0.983	8	13.20	9.20
Site Pro 1 VFA12-HD	240.0000	0.66	-7.15	4.13	98.00	0.983	8	13.20	9.20
MT6407-77A w/ Pipe Mount	0.0000	0.10	0.00	-10.25	98.00	0.983	8	4.71	2.43
MT6407-77A w/ Pipe Mount	120.0000	0.10	8.88	5.13	98.00	0.983	8	4.71	2.43
MT6407-77A w/ Pipe Mount	240.0000	0.10	-8.88	5.13	98.00	0.983	8	4.71	2.43
KA-6030	120.0000	0.06	7.15	4.13	98.00	0.983	8	1.54	0.56
KA-6030	240.0000	0.06	-7.15	4.13	98.00	0.983	8	1.54	0.56
Site Pro 1 RRUDSM	120.0000	0.04	6.28	3.63	98.00	0.983	8	1.13	1.13
Site Pro 1 RRUDSM	240.0000	0.04	-6.28	3.63	98.00	0.983	8	1.13	1.13
8' 4-Bay Dipole	240.0000	0.06	-9.23	5.33	78.00	0.921	7	4.00	4.00
2' x 3' sidearm	240.0000	0.19	-7.93	4.58	74.00	0.907	7	1.50	3.00
GPS	240.0000	0.01	-10.04	5.80	58.00	0.846	7	0.15	0.15
2' x 3' sidearm	240.0000	0.19	-8.75	5.05	58.00	0.846	7	1.50	3.00
Site Pro 1 SFR-K	0.0000	0.20	0.00	0.00	115.00	1.028	8	20.49	9.33
10' x 2-1/4" Pipe Mount	240.0000	0.08	-8.01	4.63	115.00	1.028	8	2.25	2.25
10' x 2-1/4" Pipe Mount	240.0000	0.08	-8.01	4.63	115.00	1.028	8	2.25	2.25
10' x 2-1/4" Pipe Mount	240.0000	0.08	-8.01	4.63	115.00	1.028	8	2.25	2.25
RADIO 4449 B71+B85	0.0000	0.07	0.00	-9.25	118.00	1.036	8	1.64	1.31
RADIO 4449 B71+B85	120.0000	0.07	8.01	4.63	118.00	1.036	8	1.64	1.31
RADIO 4449 B71+B85	240.0000	0.07	-8.01	4.63	118.00	1.036	8	1.64	1.31
	Sum Weight:	12.77							

Dish Pressures - No Ice

Elevation ft	Dish Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	K_z	A_A ft^2	q_z psf
152.00	4' HP MW	240.0000	0.12	-4.13	2.38	1.114	12.57	30
140.00	4' HP MW	120.0000	0.12	4.15	2.39	1.088	12.57	30
		Sum Weight:	0.24					

Dish Pressures - With Ice

Elevation ft	Dish Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	K_z	A_A ft^2	q_z psf	t_z in
152.00	4' HP MW	240.0000	0.26	-4.13	2.38	1.114	13.62	6	0.9903
140.00	4' HP MW	120.0000	0.26	4.15	2.39	1.088	13.61	6	0.9822
		Sum Weight:	0.52						

Dish Pressures - Service

Elevation ft	Dish Description	Aiming Azimuth °	Weight K	$Offset_x$ ft	$Offset_z$ ft	K_z	A_A ft^2	q_z psf
152.00	4' HP MW	240.0000	0.12	-4.13	2.38	1.114	12.57	9
140.00	4' HP MW	120.0000	0.12	4.15	2.39	1.088	12.57	8
		Sum Weight:	0.24					

Force Totals

Load Case	Vertical Forces K	Sum of Forces X K	Sum of Forces Z K	Sum of Overturning Moments, M_x kip-ft	Sum of Overturning Moments, M_z kip-ft	Sum of Torques kip-ft
Leg Weight	6.06					
Bracing Weight	11.44					
Total Member Self-Weight	17.50			4.93	-0.35	
Total Weight	35.38			4.93	-0.35	
Wind 0 deg - No Ice		-0.02	-32.33	-2769.46	-1.75	5.48
Wind 30 deg - No Ice		16.22	-28.14	-2424.58	-1399.75	17.54
Wind 60 deg - No Ice		27.93	-16.17	-1399.79	-2417.00	8.68
Wind 90 deg - No Ice		31.28	-0.00	1.29	-2704.86	-4.91
Wind 120 deg - No Ice		27.46	15.83	1357.58	-2350.83	0.88
Wind 150 deg - No Ice		13.48	23.54	2077.89	-1177.81	12.38
Wind 180 deg - No Ice		0.02	30.23	2648.70	-0.13	-5.48
Wind 210 deg - No Ice		-16.09	28.11	2430.52	1381.18	-17.48
Wind 240 deg - No Ice		-29.70	17.10	1458.29	2521.77	-8.43
Wind 270 deg - No Ice		-31.28	-0.05	1.40	2702.93	4.91
Wind 300 deg - No Ice		-25.68	-14.90	-1299.36	2242.78	-1.13
Wind 330 deg - No Ice		-13.60	-23.56	-2070.53	1194.99	-12.43
Member Ice	14.24					
Total Weight Ice	73.12			10.22	-13.27	

Load Case	Vertical Forces K	Sum of Forces X K	Sum of Forces Z K	Sum of Overturning Moments, M_x kip-ft	Sum of Overturning Moments, M_z kip-ft	Sum of Torques kip-ft
Wind 0 deg - Ice		-0.00	-8.85	-758.41	-13.58	0.54
Wind 30 deg - Ice		4.48	-7.75	-665.15	-404.50	4.46
Wind 60 deg - Ice		7.97	-4.60	-390.94	-708.14	2.76
Wind 90 deg - Ice		8.62	-0.00	9.46	-768.81	-0.46
Wind 120 deg - Ice		7.39	4.25	379.90	-658.49	0.82
Wind 150 deg - Ice		3.85	6.69	603.40	-353.78	3.50
Wind 180 deg - Ice		0.00	8.50	757.20	-13.20	-0.54
Wind 210 deg - Ice		-4.46	7.75	684.81	374.36	-4.44
Wind 240 deg - Ice		-8.27	4.75	418.86	698.81	-2.71
Wind 270 deg - Ice		-8.62	-0.01	9.54	742.01	0.46
Wind 300 deg - Ice		-7.09	-4.09	-352.03	614.36	-0.87
Wind 330 deg - Ice		-3.88	-6.70	-583.46	330.83	-3.51
Total Weight	35.38			4.93	-0.35	
Wind 0 deg - Service		-0.01	-9.11	-776.83	5.65	1.54
Wind 30 deg - Service		4.57	-7.93	-679.70	-388.08	4.94
Wind 60 deg - Service		7.87	-4.55	-391.08	-674.57	2.44
Wind 90 deg - Service		8.81	-0.00	3.51	-755.64	-1.38
Wind 120 deg - Service		7.73	4.46	385.49	-655.93	0.25
Wind 150 deg - Service		3.80	6.63	588.35	-325.57	3.49
Wind 180 deg - Service		0.01	8.52	749.11	6.10	-1.54
Wind 210 deg - Service		-4.53	7.92	687.66	395.13	-4.92
Wind 240 deg - Service		-8.37	4.82	413.85	716.35	-2.37
Wind 270 deg - Service		-8.81	-0.01	3.54	767.38	1.38
Wind 300 deg - Service		-7.23	-4.20	-362.80	637.79	-0.32
Wind 330 deg - Service		-3.83	-6.64	-579.99	342.69	-3.50

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp

Comb. No.	Description
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	152 - 140	Leg	Max Tension	15	2.72	-0.07	0.00
			Max. Compression	2	-4.58	-0.00	0.00
			Max. Mx	14	0.51	0.13	0.00
			Max. My	24	0.67	-0.08	0.13
			Max. Vy	6	-0.25	0.00	0.00
			Max. Vx	12	-0.34	0.00	0.00
		Diagonal	Max Tension	5	1.13	0.00	0.00
			Max. Compression	4	-1.15	0.00	0.00
			Max. Mx	27	0.23	0.01	-0.00
			Max. My	12	0.13	0.00	-0.00
			Max. Vy	27	-0.01	0.01	-0.00
			Max. Vx	12	0.00	0.00	0.00
		Top Girt	Max Tension	18	0.09	0.00	0.00
			Max. Compression	7	-0.10	0.00	0.00
			Max. Mx	26	0.00	-0.04	0.00
			Max. My	26	0.00	0.00	0.00
			Max. Vy	26	-0.02	0.00	0.00
			Max. Vx	26	-0.00	0.00	0.00
T2	140 - 135	Leg	Max Tension	15	4.74	0.02	-0.00
			Max. Compression	2	-6.87	0.12	-0.01
			Max. Mx	22	3.88	-0.14	-0.01
			Max. My	4	-0.65	-0.01	-0.17
			Max. Vy	22	-0.14	0.02	-0.00
			Max. Vx	16	0.18	0.01	-0.02
		Diagonal	Max Tension	21	1.07	0.00	0.00
			Max. Compression	20	-1.11	0.00	0.00
			Max. Mx	28	0.15	0.01	0.00
			Max. My	29	-0.29	0.01	0.00
			Max. Vy	28	0.01	0.01	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	29	-0.00	0.00	0.00
		Top Girt	Max Tension	14	0.03	0.00	0.00
			Max. Compression	3	-0.04	0.00	0.00
			Max. Mx	26	-0.02	-0.04	0.00
			Max. My	26	-0.01	0.00	0.00
			Max. Vy	26	0.02	0.00	0.00
			Max. Vx	26	0.00	0.00	0.00
T3	135 - 130	Leg	Max Tension	15	7.10	-0.14	0.01
			Max. Compression	2	-10.73	0.28	-0.01
			Max. Mx	22	4.79	0.35	-0.00
			Max. My	20	-2.15	-0.02	0.34
			Max. Vy	22	0.68	-0.32	-0.00
			Max. Vx	16	-0.63	-0.02	0.28
		Diagonal	Max Tension	6	1.52	0.00	0.00
			Max. Compression	18	-1.56	0.00	0.00
			Max. Mx	28	0.34	0.01	-0.00
			Max. My	38	0.34	0.01	0.00
			Max. Vy	28	0.01	0.01	-0.00
			Max. Vx	38	-0.00	0.00	0.00
T4	130 - 125	Leg	Max Tension	15	9.78	-0.31	0.01
			Max. Compression	2	-14.44	-0.10	-0.01
			Max. Mx	14	9.18	-0.32	0.01
			Max. My	16	-2.87	-0.02	0.28
			Max. Vy	22	-0.11	-0.32	-0.00
			Max. Vx	16	0.11	-0.02	0.28
		Diagonal	Max Tension	7	2.34	0.00	0.00
			Max. Compression	18	-2.45	0.00	0.00
			Max. Mx	29	0.58	0.02	0.00
			Max. My	27	-0.65	0.01	-0.00
			Max. Vy	29	0.02	0.02	0.00
			Max. Vx	27	0.00	0.00	0.00
T5	125 - 120	Leg	Max Tension	7	14.05	0.13	-0.00
			Max. Compression	2	-19.29	0.35	0.01
			Max. Mx	6	13.36	-0.40	-0.01
			Max. My	12	-3.40	-0.03	-0.46
			Max. Vy	6	0.13	-0.40	-0.01
			Max. Vx	16	-0.14	-0.03	0.44
		Diagonal	Max Tension	18	2.32	0.00	0.00
			Max. Compression	7	-2.20	0.00	0.00
			Max. Mx	27	0.64	0.02	-0.00
			Max. My	34	-0.41	0.02	0.00
			Max. Vy	29	0.02	0.02	-0.00
			Max. Vx	34	-0.00	0.00	0.00
T6	120 - 100	Leg	Max Tension	7	33.13	0.13	-0.01
			Max. Compression	18	-42.69	0.17	0.01
			Max. Mx	6	16.75	0.93	-0.01
			Max. My	12	-5.32	-0.05	0.99
			Max. Vy	6	0.97	-0.67	-0.01
			Max. Vx	24	-0.97	-0.05	0.61
		Diagonal	Max Tension	8	4.11	0.00	0.00
			Max. Compression	8	-4.10	0.00	0.00
			Max. Mx	35	1.11	0.04	-0.01
			Max. My	20	-4.07	0.00	0.01
			Max. Vy	34	0.03	0.03	0.01
			Max. Vx	32	0.00	0.00	0.00
T7	100 - 80	Leg	Max Tension	7	56.11	0.12	-0.00
			Max. Compression	18	-70.80	-0.27	0.00
			Max. Mx	18	-52.24	0.37	0.00
			Max. My	16	-5.63	-0.02	-0.42
			Max. Vy	6	0.56	-0.35	-0.00
			Max. Vx	16	-0.46	0.01	0.13

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Diagonal	Max Tension	8	4.83	0.00	0.00
			Max. Compression	18	-5.07	0.00	0.00
			Max. Mx	35	1.17	0.07	-0.01
			Max. My	18	-4.93	0.00	0.01
			Max. Vy	29	0.04	0.07	-0.01
			Max. Vx	35	0.00	0.00	0.00
		Secondary Horizontal	Max Tension	7	0.59	0.00	0.00
			Max. Compression	18	-0.63	0.02	0.01
			Max. Mx	33	-0.00	0.06	0.01
			Max. My	29	-0.00	0.06	0.01
			Max. Vy	33	-0.04	0.06	0.01
			Max. Vx	29	0.00	0.00	0.00
T8	80 - 73.3333	Leg	Max Tension	7	64.21	0.17	-0.00
			Max. Compression	18	-80.30	-0.26	0.01
			Max. Mx	18	-79.89	0.48	0.00
			Max. My	4	-7.95	-0.05	-0.25
			Max. Vy	18	-0.25	0.48	0.00
			Max. Vx	25	-0.20	-0.04	0.23
		Diagonal	Max Tension	21	4.96	0.04	-0.00
			Max. Compression	8	-5.09	0.00	0.00
			Max. Mx	35	1.59	0.06	-0.01
			Max. My	34	1.60	0.06	0.01
			Max. Vy	29	0.04	0.06	-0.01
			Max. Vx	34	-0.00	0.00	0.00
		Secondary Horizontal	Max Tension	4	0.33	0.00	0.00
			Max. Compression	5	-0.26	0.00	0.00
			Max. Mx	35	0.10	0.05	0.01
			Max. My	29	0.02	0.04	0.01
			Max. Vy	35	-0.04	0.05	0.01
			Max. Vx	29	0.00	0.00	0.00
T9	73.3333 - 66.6667	Leg	Max Tension	7	71.71	0.16	-0.00
			Max. Compression	18	-88.95	-0.37	0.00
			Max. Mx	18	-88.90	0.51	0.00
			Max. My	16	-9.17	-0.07	0.31
			Max. Vy	18	0.27	0.51	0.00
			Max. Vx	16	-0.14	-0.07	0.31
		Diagonal	Max Tension	8	5.02	0.00	0.00
			Max. Compression	18	-5.41	0.00	0.00
			Max. Mx	35	1.12	0.09	-0.01
			Max. My	35	-2.00	0.08	0.01
			Max. Vy	33	0.05	0.09	-0.01
			Max. Vx	35	0.00	0.00	0.00
		Secondary Horizontal	Max Tension	16	0.36	0.03	0.00
			Max. Compression	5	-0.29	0.00	0.00
			Max. Mx	33	-0.01	0.07	0.01
			Max. My	34	-0.03	0.07	0.01
			Max. Vy	33	-0.04	0.07	0.01
			Max. Vx	34	-0.00	0.00	0.00
T10	66.6667 - 60	Leg	Max Tension	7	79.41	0.24	-0.00
			Max. Compression	18	-97.87	-0.44	0.01
			Max. Mx	18	-97.83	0.58	-0.00
			Max. My	5	-6.67	-0.06	-0.33
			Max. Vy	18	0.31	0.58	-0.00
			Max. Vx	5	0.15	-0.06	-0.33
		Diagonal	Max Tension	8	5.17	0.00	0.00
			Max. Compression	18	-5.33	0.00	0.00
			Max. Mx	35	1.83	0.07	-0.01

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	32	-0.66	0.06	-0.01
			Max. Vy	29	0.05	0.07	-0.01
			Max. Vx	32	-0.00	0.00	0.00
		Secondary Horizontal	Max Tension	16	0.43	0.03	0.00
			Max. Compression	5	-0.35	0.00	0.00
			Max. Mx	35	0.11	0.05	0.01
			Max. My	29	0.02	0.05	0.01
			Max. Vy	35	-0.04	0.05	0.01
			Max. Vx	29	0.00	0.00	0.00
T11	60 - 50	Leg	Max Tension	7	88.55	0.29	-0.01
			Max. Compression	18	-108.55	-0.77	0.01
			Max. Mx	18	-108.47	1.02	0.00
			Max. My	16	-10.36	-0.16	0.86
			Max. Vy	18	0.37	1.02	0.00
			Max. Vx	16	-0.25	-0.16	0.86
		Diagonal	Max Tension	9	5.80	0.07	-0.00
			Max. Compression	18	-6.21	0.00	0.00
			Max. Mx	35	1.03	0.13	0.01
			Max. My	18	-6.18	0.01	0.02
			Max. Vy	29	0.06	0.13	-0.01
			Max. Vx	35	0.00	0.00	0.00
		Secondary Horizontal	Max Tension	4	0.49	0.00	0.00
			Max. Compression	17	-0.41	0.03	0.01
			Max. Mx	34	-0.04	0.08	0.01
			Max. My	29	-0.02	0.08	0.01
			Max. Vy	34	-0.05	0.08	0.01
			Max. Vx	29	0.00	0.00	0.00
T12	50 - 40	Leg	Max Tension	7	99.31	0.49	-0.01
			Max. Compression	18	-121.11	-0.63	0.01
			Max. Mx	18	-121.03	1.11	0.00
			Max. My	16	-10.82	-0.16	0.86
			Max. Vy	18	-0.41	1.11	0.00
			Max. Vx	16	0.26	-0.16	0.86
		Diagonal	Max Tension	9	5.83	0.10	0.01
			Max. Compression	18	-6.42	0.00	0.00
			Max. Mx	18	5.48	0.14	-0.02
			Max. My	18	5.03	0.14	0.02
			Max. Vy	29	0.07	0.12	0.01
			Max. Vx	35	-0.00	0.00	0.00
		Secondary Horizontal	Max Tension	16	0.55	0.06	0.00
			Max. Compression	5	-0.46	0.00	0.00
			Max. Mx	34	0.20	0.08	0.02
			Max. My	6	-0.34	0.05	0.02
			Max. Vy	34	-0.06	0.08	0.02
			Max. Vx	29	0.00	0.00	0.00
T13	40 - 30	Leg	Max Tension	7	109.92	0.46	-0.01
			Max. Compression	18	-133.70	-1.62	-0.01
			Max. Mx	18	-133.70	-1.62	-0.01
			Max. My	16	-12.03	-0.23	0.73
			Max. Vy	18	0.59	1.29	0.00
			Max. Vx	16	-0.22	-0.23	0.73
		Diagonal	Max Tension	9	6.04	0.11	0.00
			Max. Compression	18	-6.49	0.00	0.00
			Max. Mx	29	0.82	0.20	-0.02
			Max. My	35	-2.57	0.17	0.02
			Max. Vy	29	0.08	0.20	-0.02
			Max. Vx	35	0.00	0.00	0.00
		Secondary	Max Tension	16	0.65	0.05	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Horizontal					
			Max. Compression	5	-0.55	0.00	0.00
			Max. Mx	34	-0.11	0.13	0.02
			Max. My	29	-0.09	0.13	0.02
			Max. Vy	34	-0.06	0.13	0.02
			Max. Vx	29	0.00	0.00	0.00
T14	30 - 20	Leg	Max Tension	7	119.66	1.19	0.01
			Max. Compression	18	-145.45	1.35	-0.02
			Max. Mx	35	-60.88	-2.45	0.00
			Max. My	16	-12.48	-0.23	0.73
			Max. Vy	18	-1.46	2.01	0.02
			Max. Vx	4	0.26	-0.19	-0.32
		Diagonal	Max Tension	7	6.64	0.05	0.00
			Max. Compression	18	-7.51	0.00	0.00
			Max. Mx	18	5.73	0.12	-0.00
			Max. My	35	0.68	0.04	-0.01
			Max. Vy	35	0.04	0.08	-0.01
			Max. Vx	29	-0.00	0.00	0.00
		Horizontal	Max Tension	16	0.43	0.07	0.03
			Max. Compression	5	-0.38	0.00	0.00
			Max. Mx	29	0.24	0.09	0.06
			Max. My	29	0.25	0.09	0.06
			Max. Vy	29	-0.06	0.09	0.06
			Max. Vx	29	-0.01	0.00	0.00
		Redund Horz 1 Bracing	Max Tension	18	1.46	0.00	0.00
			Max. Compression	7	-1.19	0.00	0.00
			Max. Mx	26	0.04	-0.02	0.00
			Max. My	26	0.70	0.00	0.00
			Max. Vy	26	0.02	0.00	0.00
			Max. Vx	26	-0.00	0.00	0.00
		Redund Diag 1 Bracing	Max Tension	7	0.68	0.00	0.00
			Max. Compression	18	-0.97	0.00	0.00
			Max. Mx	26	-0.14	-0.02	0.00
			Max. My	26	-0.15	0.00	0.00
			Max. Vy	26	0.02	0.00	0.00
			Max. Vx	26	-0.00	0.00	0.00
T15	20 - 15	Leg	Max Tension	7	129.58	1.81	-0.01
			Max. Compression	18	-157.37	2.72	0.03
			Max. Mx	18	-157.37	2.72	0.03
			Max. My	5	-9.50	0.05	0.47
			Max. Vy	18	-1.99	2.72	0.03
			Max. Vx	4	-0.38	0.17	-0.42
		Diagonal	Max Tension	18	6.11	0.15	-0.00
			Max. Compression	19	-6.15	0.00	0.00
			Max. Mx	18	6.11	0.15	-0.00
			Max. My	35	-0.81	0.03	-0.01
			Max. Vy	18	0.05	0.15	-0.00
			Max. Vx	35	0.00	0.00	0.00
		Redund Horz 1 Bracing	Max Tension	18	1.77	0.00	0.00
			Max. Compression	7	-1.51	0.00	0.00
			Max. Mx	26	0.69	-0.02	0.00
			Max. My	26	0.69	0.00	0.00
			Max. Vy	26	0.02	0.00	0.00
			Max. Vx	26	0.00	0.00	0.00
		Redund Diag 1 Bracing	Max Tension	7	0.87	0.00	0.00
			Max. Compression	18	-1.16	0.00	0.00
			Max. Mx	26	-0.52	-0.03	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T16	15 - 9.99999	Leg	Max. My	26	-0.52	0.00	-0.00
			Max. Vy	26	0.02	0.00	0.00
			Max. Vx	26	0.00	0.00	0.00
			Max Tension	7	130.11	-0.11	0.02
			Max. Compression	18	-158.54	0.13	0.02
			Max. Mx	35	-64.72	0.95	0.00
			Max. My	5	-9.77	-0.08	-1.21
			Max. Vy	33	-0.25	-0.35	-0.00
			Max. Vx	5	0.39	-0.08	-1.21
		Diagonal	Max Tension	19	5.96	0.00	0.00
			Max. Compression	18	-6.34	0.00	0.00
			Max. Mx	26	-1.26	-0.17	0.00
			Max. My	26	-1.27	0.00	-0.01
			Max. Vy	26	-0.06	0.00	0.00
			Max. Vx	26	0.00	0.00	0.00
		Horizontal	Max Tension	6	0.61	0.06	0.03
			Max. Compression	19	-0.44	0.00	0.00
			Max. Mx	35	-0.00	0.16	0.06
			Max. My	38	0.05	0.16	0.06
			Max. Vy	35	0.07	0.16	0.06
			Max. Vx	35	-0.01	0.00	0.00
T17	9.99999 - 0	Leg	Max Tension	7	139.68	-0.28	-0.02
			Max. Compression	18	-170.03	0.00	0.00
			Max. Mx	35	-70.82	0.95	0.00
			Max. My	5	-10.13	-0.08	-1.21
			Max. Vy	22	-0.11	-0.30	-0.01
			Max. Vx	5	-0.22	-0.08	-1.21
		Diagonal	Max Tension	20	6.65	0.00	0.00
			Max. Compression	18	-7.23	0.00	0.00
			Max. Mx	18	5.87	0.19	0.03
			Max. My	34	3.16	0.14	0.03
			Max. Vy	34	0.08	0.14	0.03
			Max. Vx	34	-0.00	0.00	0.00

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	18	176.03	18.35	-10.31
	Max. H_x	18	176.03	18.35	-10.31
	Max. H_z	7	-144.59	-15.68	8.78
	Min. Vert	7	-144.59	-15.68	8.78
	Min. H_x	7	-144.59	-15.68	8.78
	Min. H_z	18	176.03	18.35	-10.31
Leg B	Max. Vert	10	165.01	-16.97	-9.76
	Max. H_x	23	-133.42	14.29	8.22
	Max. H_z	23	-133.42	14.29	8.22
	Min. Vert	23	-133.42	14.29	8.22
	Min. H_x	10	165.01	-16.97	-9.76
	Min. H_z	10	165.01	-16.97	-9.76
Leg A	Max. Vert	2	167.97	0.16	19.94
	Max. H_x	20	14.02	2.76	1.14
	Max. H_z	2	167.97	0.16	19.94
	Min. Vert	15	-136.53	-0.16	-16.81
	Min. H_x	9	10.57	-2.76	0.84
	Min. H_z	15	-136.53	-0.16	-16.81

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	35.38	0.00	0.00	4.93	-0.35	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	42.46	-0.02	-32.33	-2768.16	-1.82	5.48
0.9 Dead+1.0 Wind 0 deg - No Ice	31.84	-0.02	-32.33	-2769.64	-1.71	5.48
1.2 Dead+1.0 Wind 30 deg - No Ice	42.46	16.22	-28.14	-2423.39	-1399.70	17.54
0.9 Dead+1.0 Wind 30 deg - No Ice	31.84	16.22	-28.14	-2424.87	-1399.60	17.54
1.2 Dead+1.0 Wind 60 deg - No Ice	42.46	27.93	-16.17	-1398.70	-2416.88	8.68
0.9 Dead+1.0 Wind 60 deg - No Ice	31.84	27.93	-16.17	-1400.18	-2416.78	8.68
1.2 Dead+1.0 Wind 90 deg - No Ice	42.46	31.28	-0.00	2.28	-2704.69	-4.91
0.9 Dead+1.0 Wind 90 deg - No Ice	31.84	31.28	-0.00	0.80	-2704.59	-4.91
1.2 Dead+1.0 Wind 120 deg - No Ice	42.46	27.46	15.83	1358.41	-2350.62	0.88
0.9 Dead+1.0 Wind 120 deg - No Ice	31.84	27.46	15.83	1356.93	-2350.52	0.88
1.2 Dead+1.0 Wind 150 deg - No Ice	42.46	13.48	23.54	2078.66	-1177.76	12.38
0.9 Dead+1.0 Wind 150 deg - No Ice	31.84	13.48	23.54	2077.19	-1177.66	12.38
1.2 Dead+1.0 Wind 180 deg - No Ice	42.46	0.02	30.23	2649.47	-0.20	-5.48
0.9 Dead+1.0 Wind 180 deg - No Ice	31.84	0.02	30.23	2647.99	-0.10	-5.48
1.2 Dead+1.0 Wind 210 deg - No Ice	42.46	-16.09	28.11	2431.30	1380.99	-17.48
0.9 Dead+1.0 Wind 210 deg - No Ice	31.84	-16.09	28.11	2429.82	1381.09	-17.48
1.2 Dead+1.0 Wind 240 deg - No Ice	42.46	-29.70	17.10	1459.12	2521.42	-8.43
0.9 Dead+1.0 Wind 240 deg - No Ice	31.84	-29.70	17.10	1457.64	2521.53	-8.43
1.2 Dead+1.0 Wind 270 deg - No Ice	42.46	-31.28	-0.05	2.39	2702.62	4.91
0.9 Dead+1.0 Wind 270 deg - No Ice	31.84	-31.28	-0.05	0.91	2702.72	4.91
1.2 Dead+1.0 Wind 300 deg - No Ice	42.46	-25.68	-14.90	-1298.26	2242.52	-1.13
0.9 Dead+1.0 Wind 300 deg - No Ice	31.84	-25.68	-14.90	-1299.74	2242.63	-1.13
1.2 Dead+1.0 Wind 330 deg - No Ice	42.46	-13.60	-23.56	-2069.33	1194.80	-12.43
0.9 Dead+1.0 Wind 330 deg - No Ice	31.84	-13.60	-23.56	-2070.81	1194.90	-12.43
1.2 Dead+1.0 Ice+1.0 Temp	80.19	0.00	0.00	11.21	-13.34	0.00
1.2 Dead+1.0 Wind 0 deg+1.0	80.19	-0.00	-8.85	-757.37	-13.66	0.54

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Ice+1.0 Temp 1.2 Dead+1.0 Wind 30 deg+1.0	80.19	4.48	-7.75	-664.13	-404.55	4.46
Ice+1.0 Temp 1.2 Dead+1.0 Wind 60 deg+1.0	80.19	7.97	-4.60	-389.93	-708.18	2.76
Ice+1.0 Temp 1.2 Dead+1.0 Wind 90 deg+1.0	80.19	8.62	-0.00	10.45	-768.83	-0.46
Ice+1.0 Temp 1.2 Dead+1.0 Wind 120 deg+1.0	80.19	7.39	4.25	380.85	-658.52	0.82
Ice+1.0 Temp 1.2 Dead+1.0 Wind 150 deg+1.0	80.19	3.85	6.69	604.35	-353.83	3.50
Ice+1.0 Temp 1.2 Dead+1.0 Wind 180 deg+1.0	80.19	0.00	8.50	758.15	-13.27	-0.54
Ice+1.0 Temp 1.2 Dead+1.0 Wind 210 deg+1.0	80.19	-4.46	7.75	685.75	374.27	-4.44
Ice+1.0 Temp 1.2 Dead+1.0 Wind 240 deg+1.0	80.19	-8.27	4.75	419.81	698.68	-2.71
Ice+1.0 Temp 1.2 Dead+1.0 Wind 270 deg+1.0	80.19	-8.62	-0.01	10.53	741.90	0.46
Ice+1.0 Temp 1.2 Dead+1.0 Wind 300 deg+1.0	80.19	-7.09	-4.09	-351.03	614.25	-0.87
Ice+1.0 Temp 1.2 Dead+1.0 Wind 330 deg+1.0	80.19	-3.88	-6.70	-582.44	330.74	-3.51
Dead+Wind 0 deg - Service	35.38	-0.01	-9.11	-776.35	-0.74	1.54
Dead+Wind 30 deg - Service	35.38	4.57	-7.93	-679.25	-394.44	4.94
Dead+Wind 60 deg - Service	35.38	7.87	-4.55	-390.66	-680.91	2.44
Dead+Wind 90 deg - Service	35.38	8.81	-0.00	3.91	-761.97	-1.38
Dead+Wind 120 deg - Service	35.38	7.73	4.46	385.84	-662.25	0.25
Dead+Wind 150 deg - Service	35.38	3.80	6.63	588.69	-331.93	3.49
Dead+Wind 180 deg - Service	35.38	0.01	8.52	749.45	-0.29	-1.54
Dead+Wind 210 deg - Service	35.38	-4.53	7.92	688.00	388.70	-4.92
Dead+Wind 240 deg - Service	35.38	-8.37	4.82	414.20	709.89	-2.37
Dead+Wind 270 deg - Service	35.38	-8.81	-0.01	3.94	760.92	1.38
Dead+Wind 300 deg - Service	35.38	-7.23	-4.20	-362.37	631.35	-0.32
Dead+Wind 330 deg - Service	35.38	-3.83	-6.64	-579.54	336.27	-3.50

Solution Summary

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
1	0.00	-35.38	0.00	0.00	35.38	0.00	0.000%
2	-0.02	-42.46	-32.33	0.02	42.46	32.33	0.000%
3	-0.02	-31.84	-32.33	0.02	31.84	32.33	0.000%
4	16.22	-42.46	-28.14	-16.22	42.46	28.14	0.000%
5	16.22	-31.84	-28.14	-16.22	31.84	28.14	0.000%
6	27.93	-42.46	-16.17	-27.93	42.46	16.17	0.000%
7	27.93	-31.84	-16.17	-27.93	31.84	16.17	0.000%
8	31.28	-42.46	-0.00	-31.28	42.46	0.00	0.000%
9	31.28	-31.84	-0.00	-31.28	31.84	0.00	0.000%
10	27.46	-42.46	15.83	-27.46	42.46	-15.83	0.000%
11	27.46	-31.84	15.83	-27.46	31.84	-15.83	0.000%
12	13.48	-42.46	23.54	-13.48	42.46	-23.54	0.000%
13	13.48	-31.84	23.54	-13.48	31.84	-23.54	0.000%
14	0.02	-42.46	30.23	-0.02	42.46	-30.23	0.000%
15	0.02	-31.84	30.23	-0.02	31.84	-30.23	0.000%
16	-16.09	-42.46	28.11	16.09	42.46	-28.11	0.000%
17	-16.09	-31.84	28.11	16.09	31.84	-28.11	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
18	-29.70	-42.46	17.10	29.70	42.46	-17.10	0.000%
19	-29.70	-31.84	17.10	29.70	31.84	-17.10	0.000%
20	-31.28	-42.46	-0.05	31.28	42.46	0.05	0.000%
21	-31.28	-31.84	-0.05	31.28	31.84	0.05	0.000%
22	-25.68	-42.46	-14.90	25.68	42.46	14.90	0.000%
23	-25.68	-31.84	-14.90	25.68	31.84	14.90	0.000%
24	-13.60	-42.46	-23.56	13.60	42.46	23.56	0.000%
25	-13.60	-31.84	-23.56	13.60	31.84	23.56	0.000%
26	0.00	-80.19	0.00	0.00	80.19	0.00	0.000%
27	-0.00	-80.19	-8.85	0.00	80.19	8.85	0.000%
28	4.48	-80.19	-7.75	-4.48	80.19	7.75	0.000%
29	7.97	-80.19	-4.60	-7.97	80.19	4.60	0.000%
30	8.62	-80.19	-0.00	-8.62	80.19	0.00	0.000%
31	7.39	-80.19	4.25	-7.39	80.19	-4.25	0.000%
32	3.85	-80.19	6.69	-3.85	80.19	-6.69	0.000%
33	0.00	-80.19	8.50	-0.00	80.19	-8.50	0.000%
34	-4.46	-80.19	7.75	4.46	80.19	-7.75	0.000%
35	-8.27	-80.19	4.75	8.27	80.19	-4.75	0.000%
36	-8.62	-80.19	-0.01	8.62	80.19	0.01	0.000%
37	-7.09	-80.19	-4.09	7.09	80.19	4.09	0.000%
38	-3.88	-80.19	-6.70	3.88	80.19	6.70	0.000%
39	-0.01	-35.38	-9.11	0.01	35.38	9.11	0.000%
40	4.57	-35.38	-7.93	-4.57	35.38	7.93	0.000%
41	7.87	-35.38	-4.55	-7.87	35.38	4.55	0.000%
42	8.81	-35.38	-0.00	-8.81	35.38	0.00	0.000%
43	7.73	-35.38	4.46	-7.73	35.38	-4.46	0.000%
44	3.80	-35.38	6.63	-3.80	35.38	-6.63	0.000%
45	0.01	-35.38	8.52	-0.01	35.38	-8.52	0.000%
46	-4.53	-35.38	7.92	4.53	35.38	-7.92	0.000%
47	-8.37	-35.38	4.82	8.37	35.38	-4.82	0.000%
48	-8.81	-35.38	-0.01	8.81	35.38	0.01	0.000%
49	-7.23	-35.38	-4.20	7.23	35.38	4.20	0.000%
50	-3.83	-35.38	-6.64	3.83	35.38	6.64	0.000%

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	152 - 140	3.205	47	0.1737	0.0144
T2	140 - 135	2.765	47	0.1704	0.0121
T3	135 - 130	2.585	47	0.1685	0.0117
T4	130 - 125	2.407	47	0.1657	0.0109
T5	125 - 120	2.230	47	0.1617	0.0103
T6	120 - 100	2.059	47	0.1564	0.0096
T7	100 - 80	1.433	47	0.1310	0.0076
T8	80 - 73.3333	0.914	47	0.1040	0.0058
T9	73.3333 - 66.6667	0.767	47	0.0953	0.0051
T10	66.6667 - 60	0.633	47	0.0860	0.0046
T11	60 - 50	0.512	47	0.0762	0.0040
T12	50 - 40	0.354	47	0.0621	0.0032
T13	40 - 30	0.232	47	0.0473	0.0026
T14	30 - 20	0.136	47	0.0350	0.0020
T15	20 - 15	0.068	47	0.0227	0.0013
T16	15 - 9.99999	0.039	47	0.0166	0.0010
T17	9.99999 - 0	0.018	47	0.0111	0.0006

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
152.00	4' HP MW	47	3.205	0.1737	0.0144	263327
150.00	DB563K-TT w/Mount Pipe	47	3.131	0.1732	0.0138	263327
145.00	QS66512-2 w/ Mount Pipe	47	2.948	0.1720	0.0123	188091
140.00	4' HP MW	47	2.765	0.1704	0.0121	112655
135.00	6' x 3" Omni	47	2.585	0.1685	0.0117	109736
131.00	APXVSPP18-C-A20 w/ Mount Pipe	47	2.442	0.1663	0.0111	177651
115.00	AIR32 KRD901146- 1_B66_B2A w/ Mount Pipe	47	1.893	0.1505	0.0090	51164
98.00	XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	47	1.376	0.1283	0.0075	43282
74.00	8' 4-Bay Dipole	47	0.781	0.0962	0.0052	42177
58.00	GPS	47	0.478	0.0734	0.0038	44487

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	152 - 140	11.313	18	0.6115	0.0513
T2	140 - 135	9.765	18	0.6010	0.0431
T3	135 - 130	9.128	18	0.5940	0.0416
T4	130 - 125	8.500	18	0.5841	0.0388
T5	125 - 120	7.878	18	0.5701	0.0365
T6	120 - 100	7.273	18	0.5512	0.0340
T7	100 - 80	5.064	18	0.4622	0.0272
T8	80 - 73.3333	3.234	18	0.3671	0.0206
T9	73.3333 - 66.6667	2.714	18	0.3366	0.0182
T10	66.6667 - 60	2.239	18	0.3037	0.0163
T11	60 - 50	1.812	18	0.2692	0.0142
T12	50 - 40	1.253	18	0.2194	0.0114
T13	40 - 30	0.824	18	0.1674	0.0091
T14	30 - 20	0.483	18	0.1238	0.0071
T15	20 - 15	0.240	18	0.0805	0.0047
T16	15 - 9.99999	0.139	18	0.0587	0.0035
T17	9.99999 - 0	0.065	18	0.0392	0.0022

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
152.00	4' HP MW	18	11.313	0.6115	0.0513	85581
150.00	DB563K-TT w/Mount Pipe	18	11.054	0.6101	0.0490	85581

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
145.00	QS66512-2 w/ Mount Pipe	18	10.408	0.6061	0.0438	61130
140.00	4' HP MW	18	9.765	0.6010	0.0431	35596
135.00	6' x 3" Omni	18	9.128	0.5940	0.0416	31664
131.00	APXVSPP18-C-A20 w/ Mount Pipe	18	8.625	0.5864	0.0394	52152
115.00	AIR32 KRD901146- 1_B66_B2A w/ Mount Pipe	18	6.689	0.5304	0.0318	14630
98.00	XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe	18	4.863	0.4527	0.0266	12337
74.00	8' 4-Bay Dipole	18	2.764	0.3397	0.0184	11908
58.00	GPS	18	1.692	0.2592	0.0136	12581

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	152	Leg	A325N	0.6250	4	0.68	20.34	0.033 ✔	1	Bolt Tension
		Diagonal	A325N	0.5000	1	1.13	3.13	0.362 ✔	1	Member Block Shear
		Top Girt	A325N	0.5000	1	0.09	4.13	0.023 ✔	1	Member Bearing
T2	140	Diagonal	A325N	0.5000	1	1.07	4.69	0.228 ✔	1	Member Block Shear
		Top Girt	A325N	0.5000	1	0.12	4.13	0.029 ✔	1	Member Bearing
T3	135	Diagonal	A325N	0.5000	1	1.52	4.69	0.325 ✔	1	Member Block Shear
T4	130	Diagonal	A325N	0.5000	1	2.34	6.25	0.374 ✔	1	Member Block Shear
T5	125	Leg	A325N	0.6250	4	3.51	20.34	0.173 ✔	1	Bolt Tension
		Diagonal	A325N	0.5000	1	2.32	6.25	0.371 ✔	1	Member Block Shear
T6	120	Leg	A325N	0.7500	4	8.28	30.10	0.275 ✔	1	Bolt Tension
		Diagonal	A325N	0.5000	1	4.11	8.27	0.497 ✔	1	Gusset Bearing
T7	100	Leg	A325N	0.8750	4	14.01	41.56	0.337 ✔	1	Bolt Tension
		Diagonal	A325X	0.5000	1	4.83	8.27	0.584 ✔	1	Member Bearing
		Secondary Horizontal	A325N	0.5000	2	0.61	8.70	0.071 ✔	1	Member Block Shear
T8	80	Diagonal	A325X	0.5000	1	4.96	8.27	0.600 ✔	1	Member Bearing
		Secondary Horizontal	A325N	0.5000	2	0.70	8.70	0.080 ✔	1	Member Block Shear
T9	73.3333	Diagonal	A325X	0.5000	1	5.02	8.27	0.607 ✔	1	Gusset Bearing
		Secondary Horizontal	A325N	0.5000	2	0.77	8.70	0.089 ✔	1	Member Block Shear
T10	66.6667	Leg	A325N	0.8750	4	19.83	41.56	0.477 ✔	1	Bolt Tension
		Diagonal	A325N	0.5000	1	5.17	8.27	0.626 ✔	1	Gusset Bearing
		Secondary Horizontal	A325N	0.5000	2	0.85	8.70	0.098 ✔	1	Member Block Shear
T11	60	Diagonal	A325N	0.6250	1	5.80	10.44	0.555 ✔	1	Gusset Bearing
		Secondary Horizontal	A325N	0.5000	2	0.94	8.70	0.108 ✔	1	Member Block Shear

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load / Allowable	Allowable Ratio	Criteria
T12	50	Leg	A325N	1.0000	4	24.80	54.52	0.455 ✓	1	Bolt Tension
		Diagonal	A325N	0.6250	1	5.83	10.44	0.559 ✓	1	Gusset Bearing
		Secondary Horizontal	A325N	0.5000	2	1.05	8.84	0.119 ✓	1	Bolt Shear
T13	40	Diagonal	A325N	0.6250	1	6.04	10.44	0.579 ✓	1	Gusset Bearing
		Secondary Horizontal	A325N	0.5000	2	1.16	8.84	0.131 ✓	1	Bolt Shear
T14	30	Leg	A325N	1.0000	4	29.83	54.52	0.547 ✓	1	Bolt Tension
		Diagonal	A325N	0.6250	1	6.64	10.44	0.636 ✓	1	Gusset Bearing
		Horizontal	A325N	0.5000	2	1.26	8.84	0.143 ✓	1	Bolt Shear
T15	20	Diagonal	A325X	0.6250	1	6.11	10.44	0.586 ✓	1	Member Bearing
T16	15	Diagonal	A325X	0.6250	1	5.96	10.44	0.571 ✓	1	Gusset Bearing
		Horizontal	A325N	0.6250	1	2.75	10.44	0.263 ✓	1	Member Bearing
T17	9.99999	Diagonal	A325X	0.6250	1	6.65	10.44	0.637 ✓	1	Gusset Bearing

Compression Checks

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	152 - 140	P2.375X0.154 (2" STD)	12.00	4.00	61.0 K=1.00	1.0745	-4.58	36.84	0.124 [1] ✓
T2	140 - 135	P2.875"x0.203" (2.5 STD)	5.01	5.01	63.4 K=1.00	1.7040	-6.87	57.13	0.120 [1] ✓
T3	135 - 130	P2.875"x0.203" (2.5 STD)	5.01	5.01	63.4 K=1.00	1.7040	-10.73	57.13	0.188 [1] ✓
T4	130 - 125	P2.875"x0.203" (2.5 STD)	5.01	5.01	63.4 K=1.00	1.7040	-14.44	57.13	0.253 [1] ✓
T5	125 - 120	P2.875"x0.203" (2.5 STD)	5.01	5.01	63.4 K=1.00	1.7040	-19.29	57.14	0.338 [1] ✓
T6	120 - 100	Pipe 2.5 XStr (2.875"ODx0.276")	20.03	6.68	86.7 K=1.00	2.2535	-42.69	58.51	0.730 [1] ✓
T7	100 - 80	2.875"x0.276" w/ 3.5"x.3" Sleeve (STAMFORD NW CT)	20.03	3.43	45.3 K=1.00	3.2590	-70.80	126.18	0.561 [1] ✓
T8	80 - 73.3333	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	6.68	3.43	37.1 K=1.00	3.9980	-80.30	162.69	0.494 [1] ✓
T9	73.3333 - 66.6667	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	6.68	3.42	37.1 K=1.00	3.9980	-88.95	162.72	0.547 [1] ✓
T10	66.6667 - 60	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	6.68	3.42	37.0 K=1.00	3.9980	-97.87	162.76	0.601 [1] ✓
T11	60 - 50	Pipe 4 XStr	10.02	5.17	42.1	4.4074	-108.55	174.28	0.623 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
		(4.5"ODx0.337")			K=1.00				✓
T12	50 - 40	Pipe 4 XStr (4.5"ODx0.337")	10.02	5.17	42.0 K=1.00	4.4074	-121.11	174.35	0.695 [1] ✓
T13	40 - 30	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 30'-40')	10.02	5.16	43.5 K=1.00	5.5270	-133.70	216.57	0.617 [1] ✓
T14	30 - 20	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 20'-30')	10.02	2.50	20.9 K=1.00	5.6410	-145.45	245.84	0.592 [1] ✓
T15	20 - 15	5.5"x0.259" w/ 6"x.25" Sleeve (STAMFORD NW CT 15'-20')	5.01	2.50	67.4 K=4.00	5.7700	-157.37	186.20	0.845 [1] ✓
T16	15 - 9.99999	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')	5.01	5.01	57.3 K=2.00	6.5614	-158.54	232.29	0.683 [1] ✓
T17	9.99999 - 0	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')	10.02	10.02	57.3 K=1.00	6.5614	-170.03	232.30	0.732 [1] ✓

[1] P_u / ϕP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	152 - 140	L1 1/2x1 1/2x1/8	7.68	3.62	146.8 K=1.00	0.3594	-1.15	4.77	0.241 [1] ✓
T2	140 - 135	L1 1/2x1 1/2x3/16	8.45	4.13	169.0 K=1.00	0.5273	-1.11	5.28	0.210 [1] ✓
T3	135 - 130	L1 1/2x1 1/2x3/16	8.87	4.34	177.5 K=1.00	0.5273	-1.56	4.79	0.326 [1] ✓
T4	130 - 125	L1 1/2x1 1/2x1/4	9.30	4.55	187.1 K=1.00	0.6875	-2.45	5.62	0.436 [1] ✓
T5	125 - 120	L1 1/2x1 1/2x1/4	9.73	4.76	195.8 K=1.00	0.6875	-2.20	5.13	0.428 [1] ✓
T6	120 - 100	L2x2x1/4	12.26	6.09	186.8 K=1.00	0.9380	-3.90	7.69	0.507 [1] ✓
T7	100 - 80	L2 1/2x2 1/2x1/4	14.01	7.05	172.4 K=1.00	1.1900	-5.07	11.46	0.443 [1] ✓
T8	80 - 73.3333	L2 1/2x2 1/2x1/4	14.61	7.33	179.1 K=1.00	1.1900	-5.09	10.61	0.480 [1] ✓
T9	73.3333 - 66.6667	L2 1/2x2 1/2x5/16	15.21	7.63	187.3 K=1.00	1.4600	-5.41	11.91	0.455 [1] ✓
T10	66.6667 - 60	L2 1/2x2 1/2x5/16	15.82	7.94	194.9 K=1.00	1.4600	-5.33	11.01	0.484 [1] ✓
T11	60 - 50	L3x3x1/4	18.19	9.17	186.0 K=1.00	1.4400	-6.21	11.92	0.521 [1] ✓
T12	50 - 40	L3x3x5/16	19.05	9.60	195.7 K=1.00	1.7800	-6.42	13.31	0.483 [1] ✓
T13	40 - 30	L3x3x3/8	19.92	10.04	205.2 K=1.00	2.1100	-6.49	14.34	0.452 [1] ✓

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T14	30 - 20	KL/R > 200 (C) - 178 L3x3x5/16	10.63	10.42	135.7 K=1.00	1.7800	-7.51	27.69	0.271 [1]
T15	20 - 15	L3 1/2x3 1/2x1/4	10.63	10.14	115.8 K=1.04	1.6900	-6.15	35.18	0.175 [1]
T16	15 - 9.99999	L3 1/2x3 1/2x1/4	11.08	10.58	182.9 K=1.00	1.6900	-6.34	14.46	0.439 [1]
T17	9.99999 - 0	L3 1/2x3 1/2x5/16	22.61	11.21	194.9 K=1.00	2.0900	-7.23	15.74	0.459 [1]

[1] P_u / ϕP_n controls

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T14	30 - 20	L3x3x1/4	18.24	13.41	181.2 K=0.50	1.4400	-2.52	12.55	0.201 [1]
T16	15 - 9.99999	L3x3x1/4	19.26	9.28	239.4 K=1.00	1.4400	-2.75	7.19	0.382 [1]
		KL/R > 200 (C) - 246							

[1] P_u / ϕP_n controls

Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T7	100 - 80	L2 1/2x2 1/2x1/4	12.31	6.03	147.4 K=1.00	1.1900	-1.23	15.68	0.078 [1]
T8	80 - 73.3333	L2 1/2x2 1/2x1/4	12.99	6.35	155.2 K=1.00	1.1900	-1.39	14.15	0.098 [1]
T9	73.3333 - 66.6667	L2 1/2x2 1/2x1/4	13.66	6.69	163.4 K=1.00	1.1900	-1.54	12.75	0.121 [1]
T10	66.6667 - 60	L2 1/2x2 1/2x1/4	14.34	7.03	171.7 K=1.00	1.1900	-1.70	11.55	0.147 [1]
T11	60 - 50	L2 1/2x2 1/2x1/4	15.18	7.40	180.9 K=1.00	1.1900	-1.88	10.41	0.181 [1]
T12	50 - 40	L3x3x1/4	16.19	7.91	160.3 K=1.00	1.4400	-2.10	16.03	0.131 [1]
T13	40 - 30	L3x3x1/4	17.21	8.42	170.7 K=1.00	1.4400	-2.32	14.14	0.164 [1]

[1] P_u / ϕP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	152 - 140	L2x2x1/8	6.52	6.11	184.5 K=1.00	0.4844	-0.10	4.07	0.025 [1] ✓
T2	140 - 135	L2x2x1/8	6.56	6.11	184.5 K=1.00	0.4844	-0.12	4.07	0.029 [1] ✓

[1] P_u / ϕP_n controls

Redundant Horizontal (1) Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T14	30 - 20	L2x2x1/4	4.56	4.38	134.4 K=1.00	0.9380	-2.52	14.85	0.170 [1] ✓
T15	20 - 15	L2x2x1/4	4.81	4.60	141.1 K=1.00	0.9380	-2.95	13.48	0.219 [1] ✓

[1] P_u / ϕP_n controls

Redundant Diagonal (1) Design Data (Compression)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T14	30 - 20	L2x2x1/4	5.31	5.11	156.7 K=1.00	0.9380	-1.47	10.93	0.134 [1] ✓
T15	20 - 15	L2x2x1/4	5.54	5.30	162.6 K=1.00	0.9380	-1.58	10.16	0.156 [1] ✓

[1] P_u / ϕP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	152 - 140	P2.375X0.154 (2" STD)	12.00	4.00	61.0	1.0745	2.72	48.35	0.056 [1] ✔
T2	140 - 135	P2.875"x0.203" (2.5 STD)	5.01	5.01	63.4	1.7040	4.74	76.68	0.062 [1] ✔
T3	135 - 130	P2.875"x0.203" (2.5 STD)	5.01	5.01	63.4	1.7040	7.10	76.68	0.093 [1] ✔
T4	130 - 125	P2.875"x0.203" (2.5 STD)	5.01	5.01	63.4	1.7040	9.78	76.68	0.128 [1] ✔
T5	125 - 120	P2.875"x0.203" (2.5 STD)	5.01	5.01	63.4	1.7040	14.05	76.68	0.183 [1] ✔
T6	120 - 100	Pipe 2.5 XStr (2.875"ODx0.276")	20.03	6.68	86.7	2.2535	33.13	101.41	0.327 [1] ✔
T7	100 - 80	2.875"x0.276" w/ 3.5"x.3" Sleeve (STAMFORD NW CT)	20.03	3.25	42.9	3.2590	56.11	146.66	0.383 [1] ✔
T8	80 - 73.3333	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	6.68	3.25	35.2	3.9980	64.21	179.91	0.357 [1] ✔
T9	73.3333 - 66.6667	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	6.68	3.26	35.3	3.9980	71.71	179.91	0.399 [1] ✔
T10	66.6667 - 60	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	6.68	3.26	35.3	3.9980	79.41	179.91	0.441 [1] ✔
T11	60 - 50	Pipe 4 XStr (4.5"ODx0.337")	10.02	4.84	39.3	4.4074	88.55	198.34	0.446 [1] ✔
T12	50 - 40	Pipe 4 XStr (4.5"ODx0.337")	10.02	4.85	39.4	4.4074	99.31	198.34	0.501 [1] ✔
T13	40 - 30	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 30'-40')	10.02	4.86	41.0	5.5270	109.92	248.72	0.442 [1] ✔
T14	30 - 20	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 20'-30')	10.02	2.50	20.9	5.6410	119.66	253.85	0.471 [1] ✔
T15	20 - 15	5.5"x0.259" w/ 6"x.25" Sleeve (STAMFORD NW CT 15'-20')	5.01	2.50	16.9	5.7700	129.58	259.65	0.499 [1] ✔
T16	15 - 9.99999	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')	5.01	5.01	28.6	6.5614	130.11	295.26	0.441 [1] ✔
T17	9.99999 - 0	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')	10.02	10.02	57.3	6.5614	139.68	295.26	0.473 [1] ✔

[1] $P_u / \phi P_n$ controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	152 - 140	L1 1/2x1 1/2x1/8	7.68	3.62	96.1	0.2109	1.13	9.18	0.123 [1] ✔
T2	140 - 135	L1 1/2x1 1/2x3/16	8.45	4.13	111.3	0.3076	1.07	13.38	0.080 [1] ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T3	135 - 130	L1 1/2x1 1/2x3/16	8.87	4.34	116.8	0.3076	1.52	13.38	0.114 [1]
T4	130 - 125	L1 1/2x1 1/2x1/4	9.30	4.55	124.5	0.3984	2.34	17.33	0.135 [1]
T5	125 - 120	L1 1/2x1 1/2x1/4	9.73	4.76	130.2	0.3984	2.32	17.33	0.134 [1]
T6	120 - 100	L2x2x1/4	11.70	5.81	116.5	0.5863	4.11	25.50	0.161 [1]
T7	100 - 80	L2 1/2x2 1/2x1/4	13.42	6.76	105.5	0.7753	4.83	33.73	0.143 [1]
T8	80 - 73.3333	L2 1/2x2 1/2x1/4	14.61	7.33	114.4	0.7753	4.96	33.73	0.147 [1]
T9	73.3333 - 66.6667	L2 1/2x2 1/2x5/16	15.21	7.63	120.4	0.9485	5.02	41.26	0.122 [1]
T10	66.6667 - 60	L2 1/2x2 1/2x5/16	15.82	7.94	125.2	0.9485	5.17	41.26	0.125 [1]
T11	60 - 50	L3x3x1/4	18.19	9.17	118.4	0.9394	5.80	40.86	0.142 [1]
T12	50 - 40	L3x3x5/16	19.05	9.60	125.0	1.1592	5.83	50.43	0.116 [1]
T13	40 - 30	L3x3x3/8	19.92	10.04	132.0	1.3716	6.04	59.66	0.101 [1]
T14	30 - 20	L3x3x5/16	10.63	10.42	135.7	1.1592	6.64	50.43	0.132 [1]
T15	20 - 15	L3 1/2x3 1/2x1/4	10.63	10.14	114.3	1.1269	6.11	49.02	0.125 [1]
T16	15 - 9.99999	L3 1/2x3 1/2x1/4	11.08	10.58	119.1	1.1269	5.96	49.02	0.122 [1]
T17	9.99999 - 0	L3 1/2x3 1/2x5/16	22.61	11.21	125.9	1.3917	6.65	60.54	0.110 [1]

[1] P_u / ϕP_n controls

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T14	30 - 20	L3x3x1/4	18.24	13.41	173.0	0.9628	2.52	41.88	0.060 [1]
T16	15 - 9.99999	L3x3x1/4	19.26	9.28	181.9	0.9394	2.75	40.86	0.067 [1]

[1] P_u / ϕP_n controls

Secondary Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T7	100 - 80	L2 1/2x2 1/2x1/4	11.64	5.69	177.6	0.7753	1.23	33.73	0.036 [1] ✔
T8	80 - 73.3333	L2 1/2x2 1/2x1/4	12.99	6.35	198.1	0.7753	1.39	33.73	0.041 [1] ✔
T9	73.3333 - 66.6667	L2 1/2x2 1/2x1/4	13.66	6.69	208.7	0.7753	1.54	33.73	0.046 [1] ✔
T10	66.6667 - 60	L2 1/2x2 1/2x1/4	14.34	7.03	219.3	0.7753	1.70	33.73	0.050 [1] ✔
T11	60 - 50	L2 1/2x2 1/2x1/4	15.18	7.40	231.0	0.7753	1.88	33.73	0.056 [1] ✔
T12	50 - 40	L3x3x1/4	16.19	7.91	204.1	0.9628	2.10	41.88	0.050 [1] ✔
T13	40 - 30	L3x3x1/4	17.21	8.42	217.3	0.9628	2.32	41.88	0.055 [1] ✔

[1] P_u / ϕP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	152 - 140	L2x2x1/8	6.52	6.11	121.1	0.3047	0.09	13.25	0.007 [1] ✔
T2	140 - 135	L2x2x1/8	6.56	6.11	121.1	0.3047	0.12	13.25	0.009 [1] ✔

[1] P_u / ϕP_n controls

Redundant Horizontal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T14	30 - 20	L2x2x1/4	4.56	4.38	86.3	0.9380	2.52	30.39	0.083 [1] ✔
T15	20 - 15	L2x2x1/4	4.81	4.60	90.6	0.9380	2.95	30.39	0.097 [1] ✔

[1] P_u / ϕP_n controls

Redundant Diagonal (1) Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T14	30 - 20	L2x2x1/4	5.31	5.11	100.6	0.9380	1.47	30.39	0.048 [1] ✔
T15	20 - 15	L2x2x1/4	5.54	5.30	104.4	0.9380	1.58	30.39	0.052 [1] ✔

[1] P_u / ϕP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T1	152 - 140	Leg	P2.375X0.154 (2" STD)	3	-4.58	36.84	12.4	Pass
T2	140 - 135	Leg	P2.875"x0.203" (2.5 STD)	27	-6.87	57.13	12.0	Pass
T3	135 - 130	Leg	P2.875"x0.203" (2.5 STD)	39	-10.73	57.13	18.8	Pass
T4	130 - 125	Leg	P2.875"x0.203" (2.5 STD)	48	-14.44	57.13	25.3	Pass
T5	125 - 120	Leg	P2.875"x0.203" (2.5 STD)	57	-19.29	57.14	33.8	Pass
T6	120 - 100	Leg	Pipe 2.5 XStr (2.875"ODx0.276")	64	-42.69	58.51	73.0	Pass
T7	100 - 80	Leg	2.875"x0.276" w/ 3.5"x.3" Sleeve (STAMFORD NW CT)	85	-70.80	126.18	56.1	Pass
T8	80 - 73.3333	Leg	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	115	-80.30	162.69	49.4	Pass
T9	73.3333 - 66.6667	Leg	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	127	-88.95	162.72	54.7	Pass
T10	66.6667 - 60	Leg	3.5"x0.3" w/ 4"x.25" Sleeve (STAMFORD NW CT)	139	-97.87	162.76	60.1	Pass
T11	60 - 50	Leg	Pipe 4 XStr (4.5"ODx0.337")	151	-108.55	174.28	62.3	Pass
T12	50 - 40	Leg	Pipe 4 XStr (4.5"ODx0.337")	163	-121.11	174.35	69.5	Pass
T13	40 - 30	Leg	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 30'-40')	175	-133.70	216.57	61.7	Pass
T14	30 - 20	Leg	4.5"x0.337" w/ 5"x.25" Sleeve (STAMFORD NW CT 20'-30')	187	-145.45	245.84	59.2	Pass
T15	20 - 15	Leg	5.5"x0.259" w/ 6"x.25" Sleeve (STAMFORD NW CT 15'-20')	229	-157.37	186.20	84.5	Pass
T16	15 - 9.99999	Leg	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')	253	-158.54	232.29	68.3	Pass
T17	9.99999 - 0	Leg	5.5"x0.259" w/ (3) 1.5"x.5" Bars (STAMFORD NW CT 0'-15')	262	-170.03	232.30	73.2	Pass
T1	152 - 140	Diagonal	L1 1/2x1 1/2x1/8	11	-1.15	4.77	24.1	Pass
T2	140 - 135	Diagonal	L1 1/2x1 1/2x3/16	31	-1.11	5.28	36.2 (b) 21.0	Pass
T3	135 - 130	Diagonal	L1 1/2x1 1/2x3/16	40	-1.56	4.79	22.8 (b) 32.6	Pass
T4	130 - 125	Diagonal	L1 1/2x1 1/2x1/4	49	-2.45	5.62	43.6	Pass
T5	125 - 120	Diagonal	L1 1/2x1 1/2x1/4	59	-2.20	5.13	42.8	Pass
T6	120 - 100	Diagonal	L2x2x1/4	68	-3.90	7.69	50.7	Pass
T7	100 - 80	Diagonal	L2 1/2x2 1/2x1/4	88	-5.07	11.46	44.3	Pass
T8	80 - 73.3333	Diagonal	L2 1/2x2 1/2x1/4	119	-5.09	10.61	58.4 (b) 48.0	Pass
T9	73.3333 - 66.6667	Diagonal	L2 1/2x2 1/2x5/16	130	-5.41	11.91	60.0 (b) 45.5	Pass
T10	66.6667 - 60	Diagonal	L2 1/2x2 1/2x5/16	142	-5.33	11.01	60.7 (b) 48.4	Pass
T11	60 - 50	Diagonal	L3x3x1/4	154	-6.21	11.92	62.6 (b) 52.1	Pass

tnxTower	Job: Stamford NW CT	Page: 52 of 52
Centerline Engineering Services, PA 750 W Center St, Suite 301 West Bridgewater, MA 02379 Phone: (781) 713-4725 FAX:	Project: 23CLVZ-0009	Date: 15:14:50 09/21/23
	Client: Verizon Wireless	Designed by: jboegel

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
							55.5 (b)	
T12	50 - 40	Diagonal	L3x3x5/16	166	-6.42	13.31	48.3	Pass
							55.9 (b)	
T13	40 - 30	Diagonal	L3x3x3/8	178	-6.49	14.34	45.2	Pass
							57.9 (b)	
T14	30 - 20	Diagonal	L3x3x5/16	191	-7.51	27.69	27.1	Pass
							63.6 (b)	
T15	20 - 15	Diagonal	L3 1/2x3 1/2x1/4	236	-6.15	35.18	17.5	Pass
							58.6 (b)	
T16	15 - 9.99999	Diagonal	L3 1/2x3 1/2x1/4	256	-6.34	14.46	43.9	Pass
							57.1 (b)	
T17	9.99999 - 0	Diagonal	L3 1/2x3 1/2x5/16	265	-7.23	15.74	45.9	Pass
							63.7 (b)	
T14	30 - 20	Horizontal	L3x3x1/4	204	-2.52	12.55	20.1	Pass
T16	15 - 9.99999	Horizontal	L3x3x1/4	246	-2.75	7.19	38.2	Pass
T7	100 - 80	Secondary Horizontal	L2 1/2x2 1/2x1/4	96	-1.23	15.68	7.8	Pass
T8	80 - 73.3333	Secondary Horizontal	L2 1/2x2 1/2x1/4	126	-1.39	14.15	9.8	Pass
T9	73.3333 - 66.6667	Secondary Horizontal	L2 1/2x2 1/2x1/4	138	-1.54	12.75	12.1	Pass
T10	66.6667 - 60	Secondary Horizontal	L2 1/2x2 1/2x1/4	150	-1.70	11.55	14.7	Pass
T11	60 - 50	Secondary Horizontal	L2 1/2x2 1/2x1/4	162	-1.88	10.41	18.1	Pass
T12	50 - 40	Secondary Horizontal	L3x3x1/4	174	-2.10	16.03	13.1	Pass
T13	40 - 30	Secondary Horizontal	L3x3x1/4	186	-2.32	14.14	16.4	Pass
T1	152 - 140	Top Girt	L2x2x1/8	5	-0.10	4.07	2.5	Pass
T2	140 - 135	Top Girt	L2x2x1/8	29	-0.12	4.07	2.9	Pass
T14	30 - 20	Redund Horz 1 Bracing	L2x2x1/4	209	-2.52	14.85	17.0	Pass
T15	20 - 15	Redund Horz 1 Bracing	L2x2x1/4	251	-2.95	13.48	21.9	Pass
T14	30 - 20	Redund Diag 1 Bracing	L2x2x1/4	228	-1.47	10.93	13.4	Pass
T15	20 - 15	Redund Diag 1 Bracing	L2x2x1/4	235	-1.58	10.16	15.6	Pass

	Summary	
Leg (T15)	84.5	Pass
Diagonal (T17)	63.7	Pass
Horizontal (T16)	38.2	Pass
Secondary Horizontal (T11)	18.1	Pass
Top Girt (T2)	2.9	Pass
Redund Horz 1 Bracing (T15)	21.9	Pass
Redund Diag 1 Bracing (T15)	15.6	Pass
Bolt Checks	63.7	Pass
RATING =	**84.5**	**Pass**

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

Job:	Stamford NW CT	Engineer:	JB
Project:	23CLVZ-0009	Date:	9/21/2023
Client:	Verizon Wireless	Sheet:	1 of 1

SST Anchor Rod Check (TIA-H)

Anchor Rod Information

Grout Considered?:	No	
Clear Distance, l_{ar}:	1	*in*
Quanity Per Leg:	4	
Diameter:	1	*in*
Rod Material:	F1554 Gr. 105	
Strength (Fu):	125	*ksi*
Yield (Fy):	105	*ksi*

Reactions

Compression, P_{uc}:	176.0	*kips*
Comp Shear, V_{uc}:	21.0	*kips*
Tension, P_{ut}:	145.0	*kips*
Tension Shear, V_{ut}:	18.0	*kips*

Capacity Results

Anchor Rod Results

Interaction Equations for lar ≤ 1(d)	(Puc/ϕcRnc) + [Vu/ϕcRnvc]^2 ≤ 1.0

$R_{nt} = FuA_n$=	75.75	*kips*	Rnvc = $0.6F_yA_n/2$	19.09	*kips*	ϕ_t=	0.75
$R_{nc} = F_yA_n$=	63.63	*kips*	$R_{nb} = F_{cr}A_n$=	63.34	*kips*	ϕ_v=	0.75
$R_{nv} = 0.5F_uA_g$=	49.09	*kips*	$M_n = F_yZ$=	11.86	*ksi*	ϕ_c=	1.0
						ϕ_f=	0.9

P_{uc}=	44.00	*kips*	V_{uc}=	5.25	*kips*	M_{uc}=	3.41	*ksi*
P_{ut}=	36.25	*kips*	V_{ut}=	4.50	*kips*	M_{ut}=	2.93	*ksi*

Anchor Rod Stress Ratio= 76.7% Good

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

Job:	Stamford NW CT	Engineer:	JB
Project:	23CLVZ-0009	Date:	9/21/2023
Client:	Verizon Wireless	Sheet:	1 of 1

Self Support Drilled Pier Analysis Summary (TIA-H)

Analysis Reactions

	Comp.	Uplift.	
Moment, M:	1.0	1.0	*kip-ft*
Axial, P:	176.0	145.0	*kips*
Shear, V:	21.0	18.0	*kips*

Material Properties

Rebar Strength, F'y:	60	*ksi*
Concrete Strength, f'c:	4.0	*ksi*
Dry Concrete Density, δ_c:	150	*pcf*

Pier Properties

Depth, D:	21.0	*ft*
Ext. Above Grade, E:	0.5	*ft*
Diameter, d:	4.5	*ft*
Rebar Quantity, R_q:	15	
Rebar Size, R_s:	8	
Clear Cover, cc:	3.00	*in*
Tie Size, T_s:	4	
Groundwater Depth, D_{gw}:	8.0	*ft*
Ultimate Gross End Bearing	10.0	*ksf*

Soil Properties

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	Soil Unit Weight (pcf)	Cohesion (ksf)	Friction Angle (deg)	Ult. Skin Friction - Comp (ksf)	Ult. Skin Friction - Uplift (ksf)	SPT Blow Count (N)
1	0.0	5.0	5.0	120	0.00	0	0.000	0.000	0
2	5.0	8.0	3.0	120	0.00	30	0.820	0.820	0
3	8.0	13.5	5.5	120	0.00	30	0.820	0.820	0
4	13.5	21.0	7.5	130	0.00	36	0.820	0.820	0

Foundation Analysis Results

Soil Lateral Capacity

	Comp.	Uplift
Dv=0 *(ft)*:	11.71	11.7
Soil Safety Factor:	3.11	3.1
Max Moment *(kip-ft)*:	708.42	708.4
Rating:	40.7%	40.7%

Soil Vertical Capacity

	Comp.	Uplift.
Skin Friction *(kips)*:	139.1	139.1
End Bearing *(kips)*:	119.3	-
Wt. of Conc. *(kips)*:	46.1	34.5
Total Cap. *(kips)*:	258.4	173.7
Axial *(kips)*:	222.1	145.0
Rating:	81.8%	79.5%

Reinforced Concrete Flexure Capacity

	Comp.	Uplift
Critical Depth *(ft)*:	11.96	11.2
Critical Mom. *(k-ft)*:	707.85	706.2
Critical Mom. Cap.:	1431.09	1,080.5
Rating:	47.1%	62.2%

Reinforced Concrete Shear Capacity

	Comp.	Uplift
Critical Depth *(ft)*:	17.55	17.6
Critical Shear:	41.16	35.3
Critical Shear Cap.:	272.57	246.6
Rating:	14.4%	13.6%

Soil Rating:	81.8%	GOOD
Structural Rating:	62.2%	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 #: 10208065
Colliers Engineering & Design CT, PC Project #: 23777220

August 1, 2023

Site Information	*Site ID:*	*5000386730-VZW / STAMFORD NW CT*
	Site Name:	*STAMFORD NW CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*366 Old Long Ridge Rd* *Stamford, Connecticut 06903* *Fairfield County*
	Latitude:	*41.153111°*
	Longitude:	*-73.592703°*
Structure Information	*Tower Type:*	*152-Ft Self Support*
	Mount Type:	*12.50-Ft Sector Frame*

FUZE ID # 17123711

Analysis Results

Sector Frame: **42.7% 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

Report Prepared By: Lauren Luzier

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: 1477020, dated March 16, 2021*
Construction Drawings	*On Air Engineering LLC, Site ID: STAMFORD NW CT, dated February 17, 2020*
Previous Antenna Mount Analysis	*Maser Consulting Connecticut Project #: 21777625A, dated May 11, 2021*
Post Modification Inspection Report	*Colliers Engineering & Design Project #: 21777625, dated July 7, 2023*
Filter Add Scope	*Provided by Verizon Wireless*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC),	 Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}: Ice Wind Speed (3-sec. Gust): Design Ice Thickness: Risk Category: Exposure Category: Topographic Category: Topographic Feature Considered: Topographic Method: Ground Elevation Factor, K_e:	120 mph 50 mph 1.00 in II B 1 N/A N/A 0.984
Seismic Parameters:	S_S: S_1:	0.261 g 0.058 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): Maintenance Live Load, Lv: Maintenance Live Load, Lm:	30 mph 250 lbs. 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
96.75	98.00	4	KAelus	KA-6030	Added
		3	Samsung	MT6407-77A	Retained
		6	Commscope	JAHH-65B-R3B	
		3	Samsung	XXDWMM-12.5-65-8T-CBRS	
		3	Samsung	B5/B13 RRH-BR04C	
		3	Samsung	B2/B66A RRH-BR049	
		3	Commscope	CBC78T-DS-43-2X	
		3	RFS Celwave	DB-T1-6Z-8AB-0Z *	

* Equipment to be flush mounted directly to the Self Support. They are not mounted on mounts and are not included in this mount analysis.

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

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

Standard Conditions:

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

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

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

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

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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

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

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

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
Face Horizontal	27.0 %	Pass
Standoff Horizontal	13.1 %	Pass
Standoff Diagonal	8.7 %	Pass
Standoff Vertical	11.3 %	Pass
Standoff Plate	42.7 %	Pass
Tieback	17.4 %	Pass
Antenna Pipe	41.5 %	Pass
Mount Connection	13.9 %	Pass

Structure Rating – ***(Controlling Utilization of all Components)***	**42.7%**

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	14.2	10.7	23.3	19.8
0.5	22.3	17.9	35.3	30.9
1	29.8	24.6	46.6	41.4

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.

Contractor shall install the proposed filter units on new Site Pro 1 Dual Swivel Mount Kit (Part #: RRUDSM or EOR approved equivalent) in the location shown in the placement diagrams.

Contractor shall record all dimensions and member sizes requested in the Mount Geometry Verification Requirements section of the Mount Analysis report. Contractor shall provide the requested information to Colliers Engineering & Design for structural verification while on site. Contact EOR if these documents are not available to the general contractor.

Contractor shall inspect climbing facilities and safety climb, if present, and ensure they are in good condition. Contractor shall install safety climb wire rope guides in locations where wire rope is rubbing against the mount or mount-to-tower connection steel. Wire brush clean any observed corrosion and protect with two (2) coats of cold galvanization (Zinga or Zinc Kote). Contractor shall provide photos of wire rope guide installation as part of PMI documents. Contact EOR if additional guidance is required.

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. 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

---

MDG #: 5000386730 SMART Project #: 10208065 Fuze Project ID: 17123711

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:

Contractor shall record all dimensions and member sizes requested in the Mount Geometry Verification Requirements section of the Mount Analysis report. Contractor shall provide the requested information to Colliers Engineering & Design for structural verification while on site. Contact EOR if these documents are not available to the general contractor.

Contractor shall inspect climbing facilities and safety climb, if present, and ensure they are in good condition. Contractor shall install safety climb wire rope guides in locations where wire rope is rubbing against the mount or mount-to-tower connection steel. Wire brush clean any observed corrosion and protect with two (2) coats of cold galvanization (Zinga or Zinc Kote). Contractor shall provide photos of wire rope guide installation as part of PMI documents. Contact EOR if additional guidance is required.

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

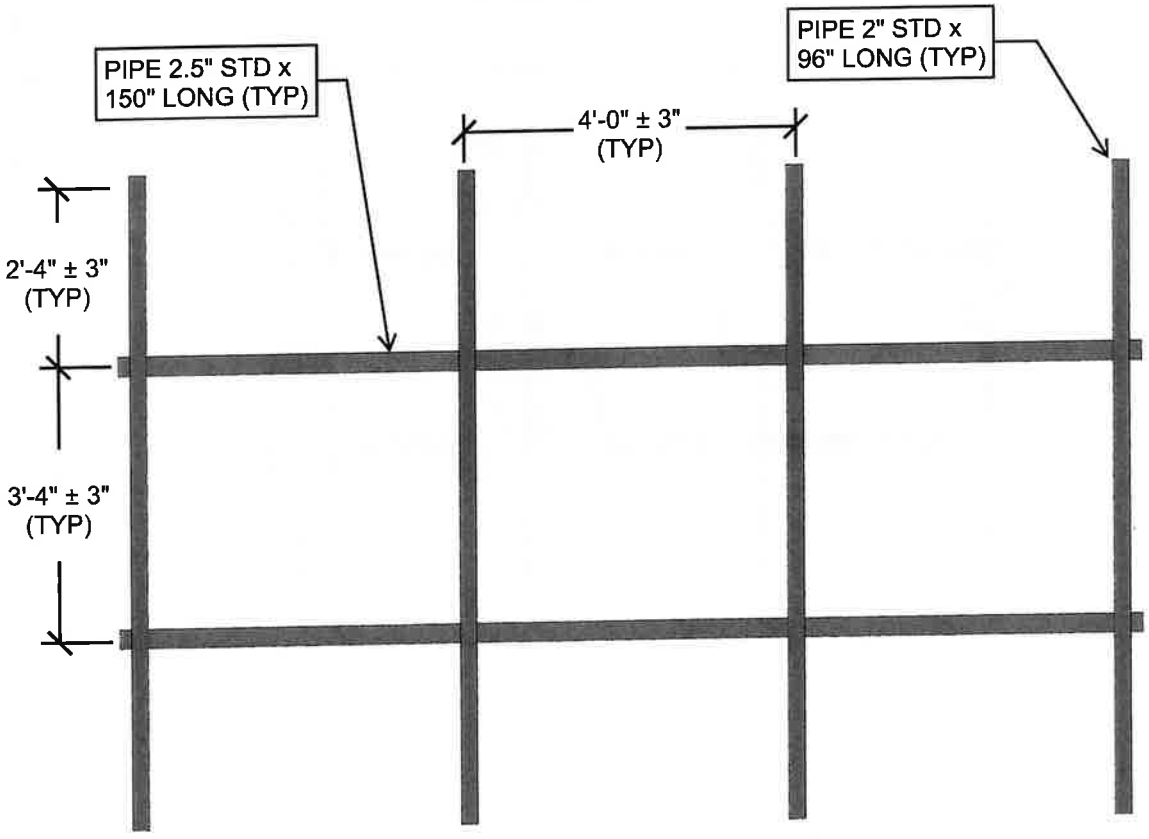
Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Certifying Individual:

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

MOUNT FRONT VIEW



MOUNT GEOMETRY VERIFICATION

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

Structure: 5000386730-VZW - STAMFORD NW CT

Sector: **A**

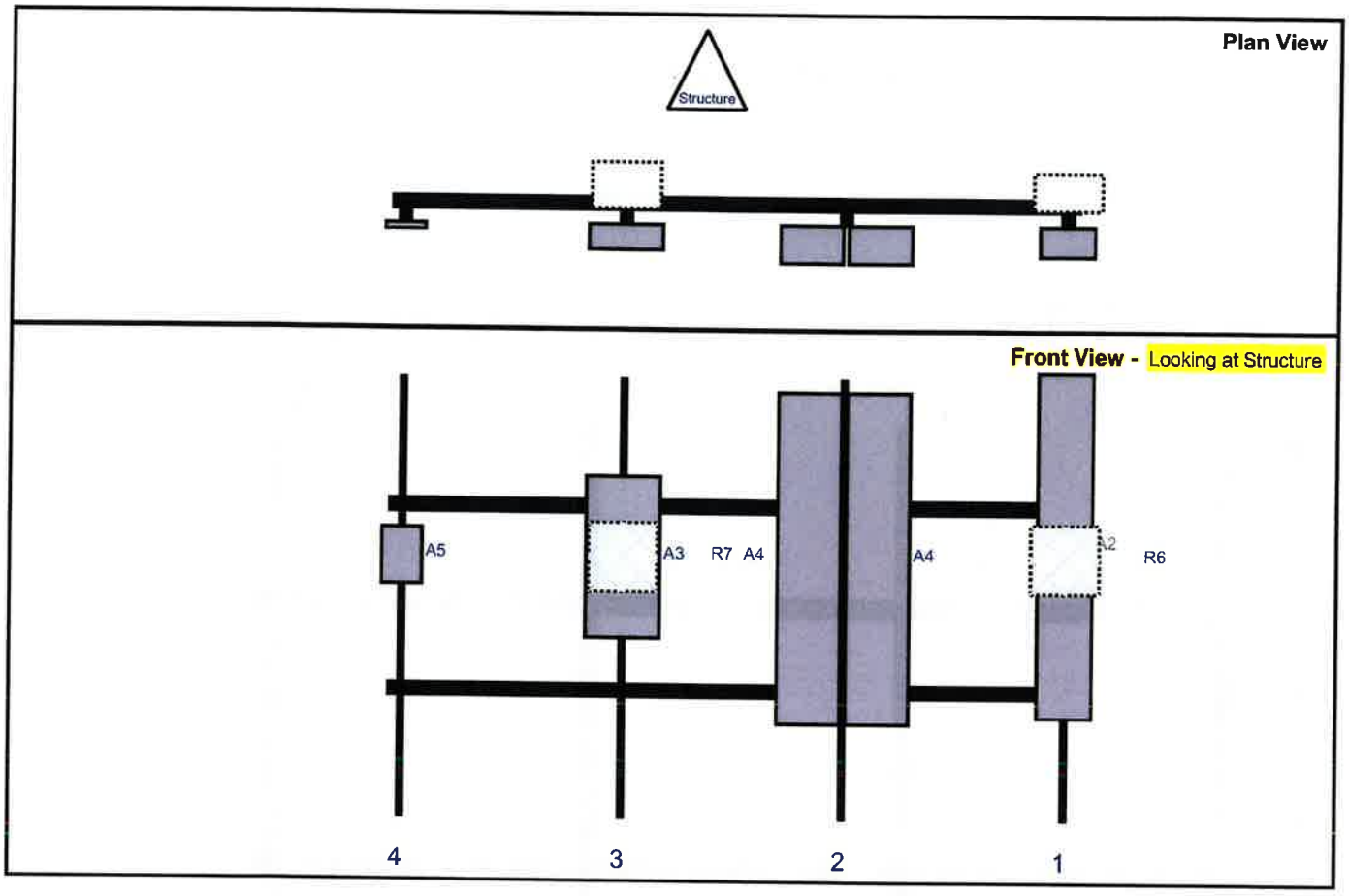
Structure Type: Self Support

Mount Elev: 96.75

10208065

8/1/2023

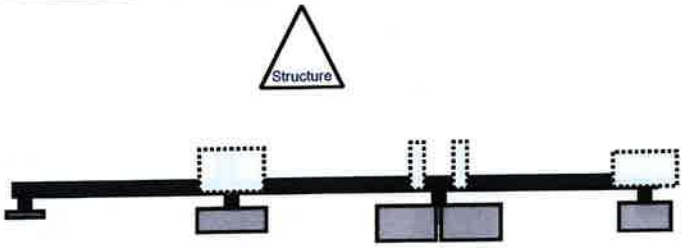
Colliers Engineering & Design



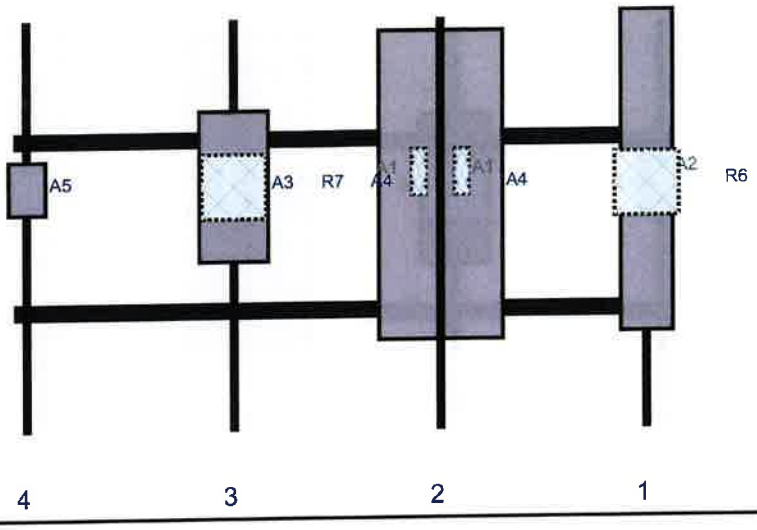
Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	HBXX-6517DS-A2M	74.9	12	147	1	a	Front	36	0	Retained	12/16/2021
R6	B5/B13 RRH-BR04C	15	15	147	1	a	Behind	39	0	Retained	12/16/2021
A4	JAHH-65B-R3B	72	13.8	99	2	a	Front	39	7.5	Retained	12/16/2021
A4	JAHH-65B-R3B	72	13.8	99	2	b	Front	39	-7.5	Retained	12/16/2021
A3	MT6407-77A	35.1	16.1	51	3	a	Front	39	0	Retained	12/16/2021
R7	B2/B66A RRH-BR049	15	15	51	3	a	Behind	39	0	Retained	12/16/2021
A5	XXDWMM-12.5-65	12.3	8.7	3	4	a	Front	39	0	Retained	12/16/2021
M1	CBC78T-DS-43-2X	6.4	6.9		Member					Retained	12/16/2021

Copyright 2019 by Tower Engineering Solutions, LLC. All Rights Reserved

Plan View



Front View - Looking at Structure

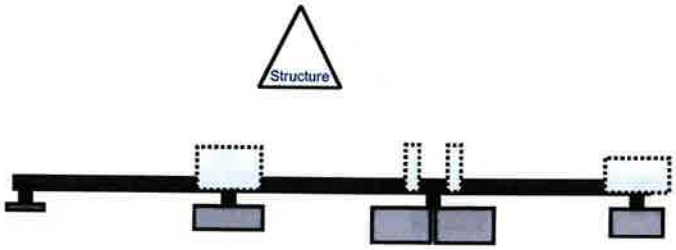


Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	HBXX-6517DS-A2M	74.9	12	147	1	a	Front	36	0	Retained	12/16/2021
R6	B5/B13 RRH-BR04C	15	15	147	1	a	Behind	39	0	Retained	12/16/2021
A4	JAHH-65B-R3B	72	13.8	99	2	a	Front	39	7.5	Retained	12/16/2021
A4	JAHH-65B-R3B	72	13.8	99	2	b	Front	39	-7.5	Retained	12/16/2021
A1	KA-6030	10.6	3.2	99	2	a	Behind	36	5	Added	
A1	KA-6030	10.6	3.2	99	2	b	Behind	36	-5	Added	
A3	MT6407-77A	35.1	16.1	51	3	a	Front	39	0	Retained	12/16/2021
R7	B2/B66A RRH-BR049	15	15	51	3	a	Behind	39	0	Retained	12/16/2021
A5	XXDWMM-12.5-65	12.3	8.7	3	4	a	Front	39	0	Retained	12/16/2021

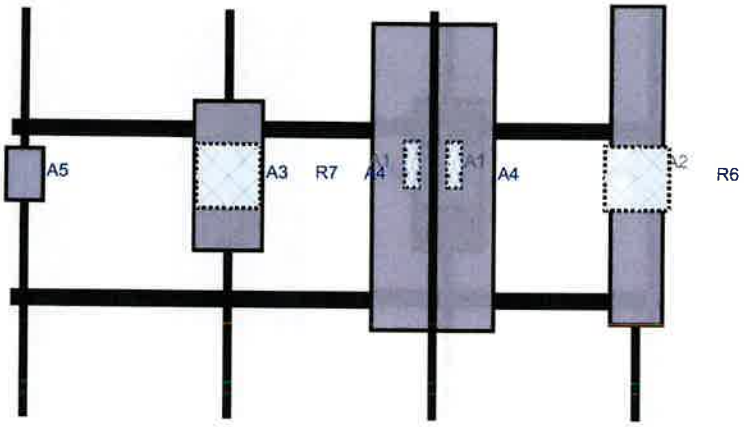
Copyright 2019 by Tower Engineering Solutions, LLC. All Rights Reserved

Colliers Engineering & Design

Plan View

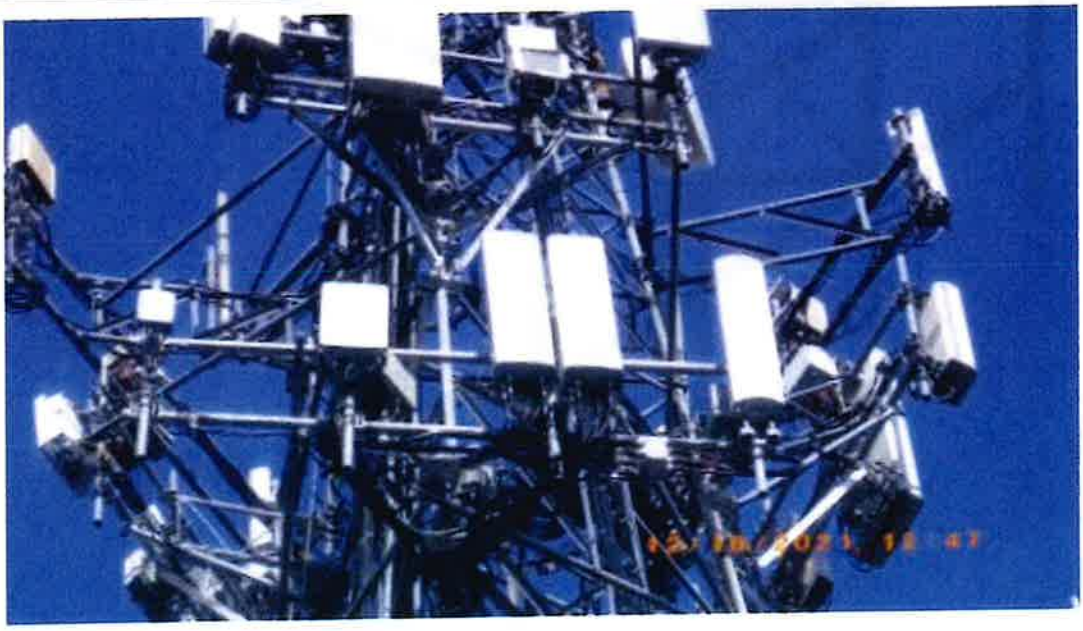


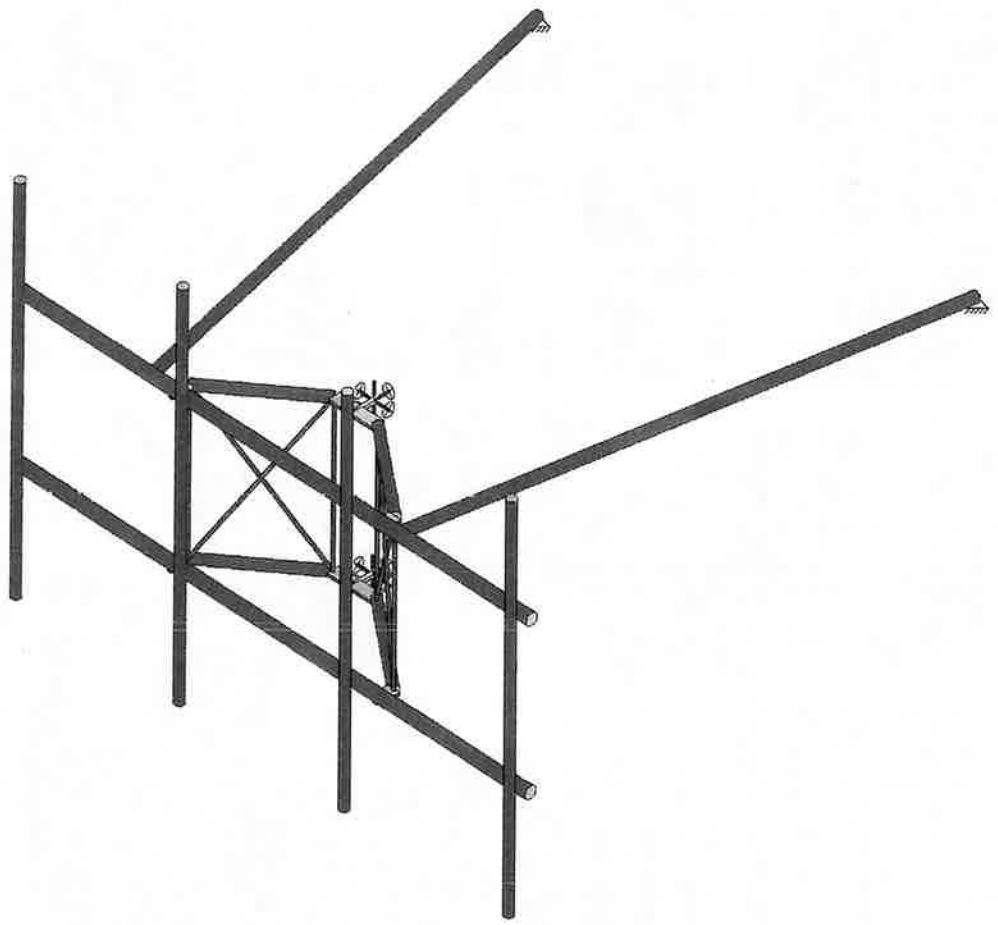
Front View - Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	HBXX-6517DS-A2M	74.9	12	147	1	a	Front	36	0	Retained	12/16/2021
R6	B5/B13 RRH-BR04C	15	15	147	1	a	Behind	39	0	Retained	12/16/2021
A4	JAHH-65B-R3B	72	13.8	99	2	a	Front	39	7.5	Retained	12/16/2021
A4	JAHH-65B-R3B	72	13.8	99	2	b	Front	39	-7.5	Retained	12/16/2021
A1	KA-6030	10.6	3.2	99	2	b	Behind	36	5	Added	
A1	KA-6030	10.6	3.2	99	2	c	Behind	36	-5	Added	
A3	MT6407-77A	35.1	16.1	51	3	a	Front	39	0	Retained	12/16/2021
R7	B2/B66A RRH-BR049	15	15	51	3	a	Behind	39	0	Retained	12/16/2021
A5	XXDWMM-12.5-65	12.3	8.7	3	4	a	Front	39	0	Retained	12/16/2021

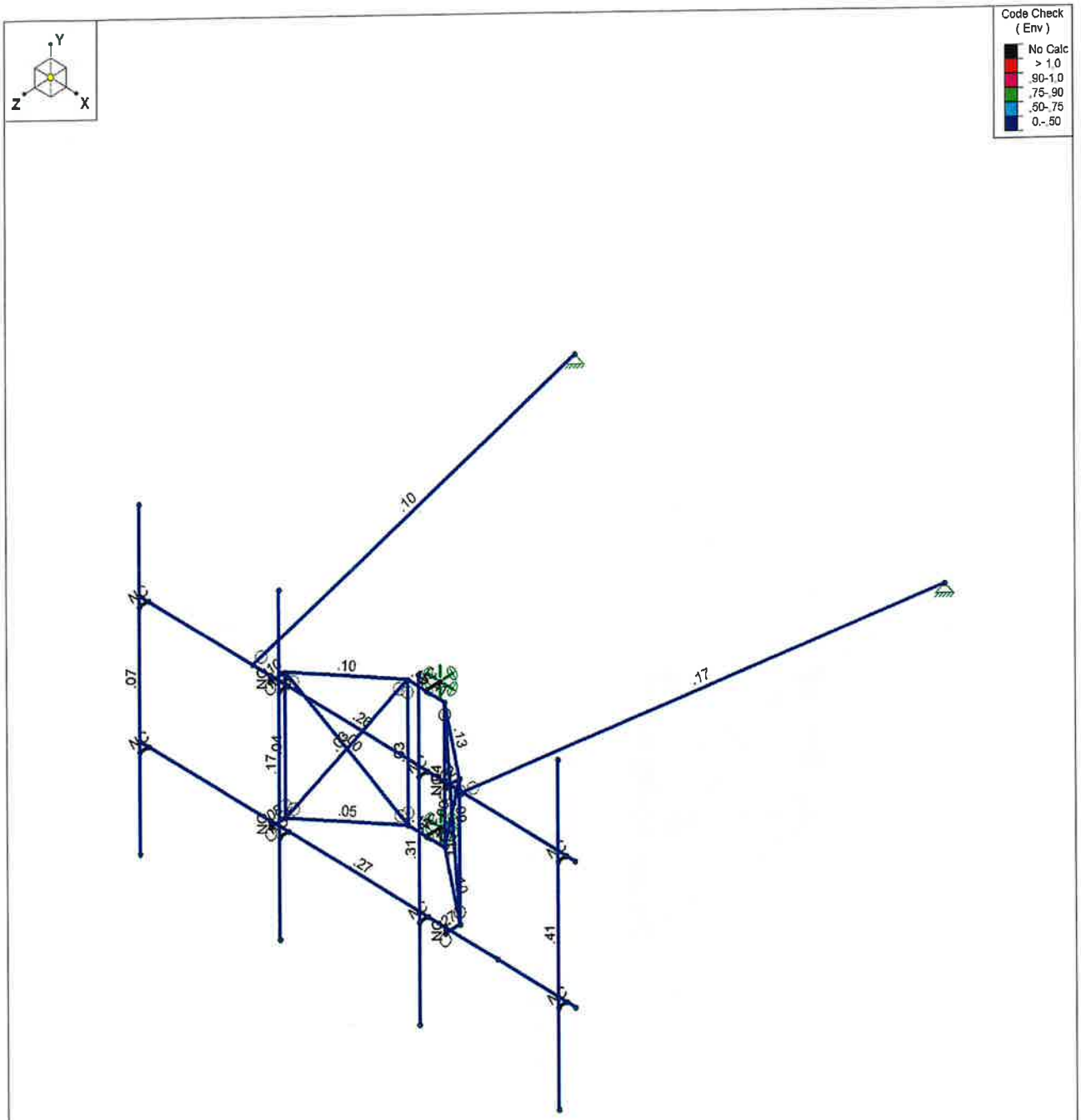
Copyright 2019 by Tower Engineering Solutions, LLC. All Rights Reserved





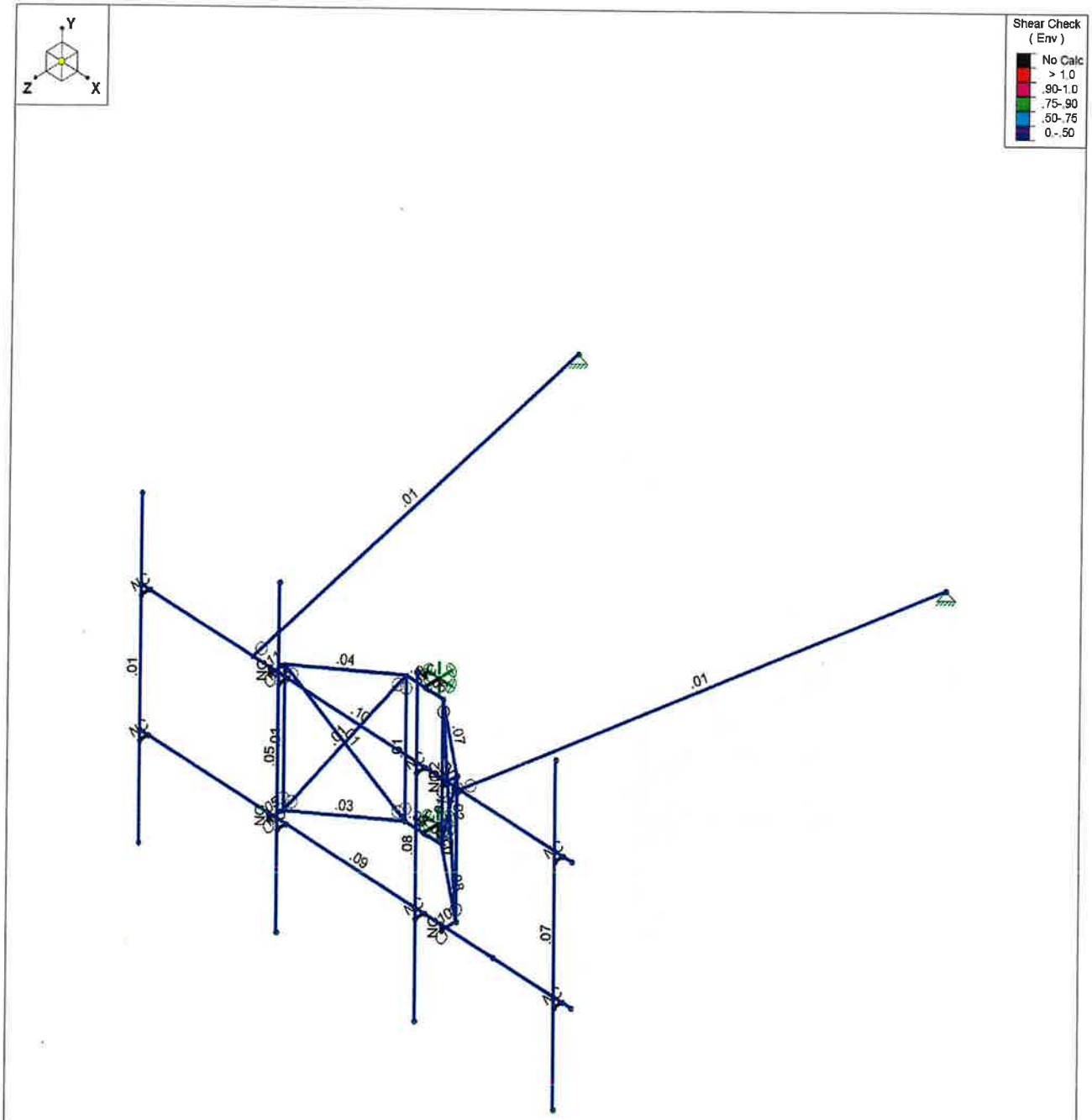
Envelope Only Solution

		SK - 1
		July 28, 2023 at 1:36 PM
		5000386730-VZW_MT_LOT_B_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

		SK - 2
		July 28, 2023 at 1:37 PM
		5000386730-VZW_MT_LOT_B_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

		SK - 3
		July 28, 2023 at 1:37 PM
		5000386730-VZW_MT_LOT_B_H.r3d

Basic Load Cases

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

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
61	Structure Wi (240 Deg)	None						56		
62	Structure Wi (270 Deg)	None						56		
63	Structure Wi (300 Deg)	None						56		
64	Structure Wi (330 Deg)	None						56		
65	Structure Wm (0 Deg)	None						56		
66	Structure Wm (30 Deg)	None						56		
67	Structure Wm (60 Deg)	None						56		
68	Structure Wm (90 Deg)	None						56		
69	Structure Wm (120 Deg)	None						56		
70	Structure Wm (150 Deg)	None						56		
71	Structure Wm (180 Deg)	None						56		
72	Structure Wm (210 Deg)	None						56		
73	Structure Wm (240 Deg)	None						56		
74	Structure Wm (270 Deg)	None						56		
75	Structure Wm (300 Deg)	None						56		
76	Structure Wm (330 Deg)	None						56		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					42			
82	Antenna Eh (0 Deg)	None					28			
83	Antenna Eh (90 Deg)	None					28			
84	Structure Ev	ELY								
85	Structure Eh (0 Deg)	ELZ			-.03					
86	Structure Eh (90 Deg)	ELX	.03							

Load Combinations

	Description	S...	PDelta	S...	B...	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.0Wo (0 D...	Y...	Y		1	1.2	39	1.2	3	1	41	1												
2	1.2D+1.0Wo (30 ...	Y...	Y		1	1.2	39	1.2	4	1	42	1												
3	1.2D+1.0Wo (60 ...	Y...	Y		1	1.2	39	1.2	5	1	43	1												
4	1.2D+1.0Wo (90 ...	Y...	Y		1	1.2	39	1.2	6	1	44	1												
5	1.2D+1.0Wo (120...	Y...	Y		1	1.2	39	1.2	7	1	45	1												
6	1.2D+1.0Wo (150...	Y...	Y		1	1.2	39	1.2	8	1	46	1												
7	1.2D+1.0Wo (180...	Y...	Y		1	1.2	39	1.2	9	1	47	1												
8	1.2D+1.0Wo (210...	Y...	Y		1	1.2	39	1.2	10	1	48	1												
9	1.2D+1.0Wo (240...	Y...	Y		1	1.2	39	1.2	11	1	49	1												
10	1.2D+1.0Wo (270...	Y...	Y		1	1.2	39	1.2	12	1	50	1												
11	1.2D+1.0Wo (300...	Y...	Y		1	1.2	39	1.2	13	1	51	1												
12	1.2D+1.0Wo (330...	Y...	Y		1	1.2	39	1.2	14	1	52	1												
13	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								
20	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								
22	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + 1.0...	Y...	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										

Load Combinations (Continued)

	Description	S...	PDelta	S...	B...	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	BLC	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
33	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + ...	Y...	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + ...	Y...	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5Lv1	Y...	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5Lv2	Y...	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Y...	Y		1	1.4	39	1.4																
52	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83		E...	1	E...					
53	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	E...	.866	E...	.5				
54	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	E...	.5	E...	.866				
55	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1	E...		E...	1				
56	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	E...	-.5	E...	.866				
57	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.8...	83	.5	E...	-.8...	E...	.5				
58	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83		E...	-1	E...					
59	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.8...	83	-.5	E...	-.8...	E...	-.5				
60	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.8...	E...	-.5	E...	-.8...				
61	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1	E...		E...	-1				
62	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.8...	E...	.5	E...	-.8...				
63	1.2D + 1.0Ev + 1....	Y...	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	E...	.866	E...	-.5				
64	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83		E...	1	E...					
65	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	E...	.866	E...	.5				
66	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	E...	.5	E...	.866				
67	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1	E...		E...	1				
68	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	E...	-.5	E...	.866				
69	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.8...	83	.5	E...	-.8...	E...	.5				
70	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83		E...	-1	E...					
71	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.8...	83	-.5	E...	-.8...	E...	-.5				
72	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.8...	E...	-.5	E...	-.8...				
73	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1	E...		E...	-1				
74	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.8...	E...	.5	E...	-.8...				
75	0.9D - 1.0Ev + 1.0...	Y...	Y		1	.9	39	.9	81	-1	ELY	-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	0	0	0	0	
2	N2	0	3.333333	0	0	
3	N3	6.25	0.145833	2.380208	0	
4	N4	-6.25	0.145833	2.380208	0	
5	N5	6.25	3.479167	2.380208	0	
6	N6	-6.25	3.479167	2.380208	0	
7	N7	-6	0.145833	2.380208	0	
8	N8	-6	3.479167	2.380208	0	
9	N9	-2	0.145833	2.380208	0	
10	N10	-2	3.479167	2.380208	0	
11	N11	2	0.145833	2.380208	0	
12	N12	2	3.479167	2.380208	0	
13	N13	6	0.145833	2.380208	0	
14	N14	6	3.479167	2.380208	0	
15	N15	-6	0.145833	2.630208	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
16	N16	-6	3.479167	2.630208	0	
17	N17	-2	0.145833	2.630208	0	
18	N18	-2	3.479167	2.630208	0	
19	N19	2	0.145833	2.630208	0	
20	N20	2	3.479167	2.630208	0	
21	N21	6	0.145833	2.630208	0	
22	N22	6	3.479167	2.630208	0	
23	N23	-2.5	0	2.380208	0	
24	N24	-2.5	3.333333	2.380208	0	
25	N25	2.5	0	2.380208	0	
26	N26	2.5	3.333333	2.380208	0	
27	N27	-2.5	0	1.958333	0	
28	N28	-2.5	3.333333	1.958333	0	
29	N29	2.5	0	1.958333	0	
30	N30	2.5	3.333333	1.958333	0	
31	N31	0	0	0.416667	0	
32	N32	0	3.333333	0.416667	0	
33	N33	-0.53125	0	0.416667	0	
34	N34	-0.53125	3.333333	0.416667	0	
35	N35	0.53125	0	0.416667	0	
36	N36	0.53125	3.333333	0.416667	0	
37	N37	-6	5.8125	2.630208	0	
38	N38	-2	5.8125	2.630208	0	
39	N39	2	5.8125	2.630208	0	
40	N40	6	5.8125	2.630208	0	
41	N41	-6	-2.1875	2.630208	0	
42	N42	-2	-2.1875	2.630208	0	
43	N43	2	-2.1875	2.630208	0	
44	N44	6	-2.1875	2.630208	0	
45	N45	-2.5	3.333333	2.005208	0	
46	N46	-2.5	0.145833	2.380208	0	
47	N47	-2.5	3.479167	2.380208	0	
48	N48	2.5	0.145833	2.380208	0	
49	N49	2.5	3.479167	2.380208	0	
50	N50	-3	3.479167	2.380208	0	
51	N51	3	3.479167	2.380208	0	
52	N54	4	0.145833	2.380208	0	
53	N56	-5.333333	3.479167	-9.237604	0	
54	N57	5.333333	3.479167	-9.237604	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Face Horizontal	PIPE_2.5	None	None	Q235	Typical	1.61	1.45	1.45	2.89
2	Standoff Horizontal	PIPE_2.0	None	None	Q235	Typical	1.02	.627	.627	1.25
3	Standoff Diagonal	SR_0.75	None	None	Q235	Typical	.442	.016	.016	.031
4	Standoff Vertical	SR_0.625	None	None	Q235	Typical	.307	.007	.007	.015
5	Standoff Plate	PL5/8X3.5	None	None	Q235	Typical	2.188	.071	2.233	.253
6	Tieback	PIPE_2.0	None	None	Q235	Typical	1.02	.627	.627	1.25
7	Antenna Pipe	PIPE_2.0	None	None	Q235	Typical	1.02	.627	.627	1.25

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(de...	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N4	N3			Face Horizont...	None	None	Q235	Typical
2	M2	N6	N5			Face Horizont...	None	None	Q235	Typical
3	M3	N28	N34			Standoff Hori...	None	None	Q235	Typical
4	M4	N27	N33			Standoff Hori...	None	None	Q235	Typical
5	M5	N29	N35			Standoff Hori...	None	None	Q235	Typical
6	M6	N30	N36			Standoff Hori...	None	None	Q235	Typical
7	M7	N33	N28			Standoff Diag...	None	None	Q235	Typical
8	M8	N34	N27			Standoff Diag...	None	None	Q235	Typical
9	M9	N35	N30			Standoff Diag...	None	None	Q235	Typical
10	M10	N29	N36			Standoff Diag...	None	None	Q235	Typical
11	M11	N27	N28			Standoff Verti...	None	None	Q235	Typical
12	M12	N33	N34			Standoff Verti...	None	None	Q235	Typical
13	M13	N35	N36			Standoff Verti...	None	None	Q235	Typical
14	M14	N29	N30			Standoff Verti...	None	None	Q235	Typical
15	M15	N24	N28		90	Standoff Plate	None	None	Q235	Typical
16	M16	N23	N27		90	Standoff Plate	None	None	Q235	Typical
17	M17	N25	N29		90	Standoff Plate	None	None	Q235	Typical
18	M18	N26	N30		90	Standoff Plate	None	None	Q235	Typical
19	M19	N34	N32		90	Standoff Plate	None	None	Q235	Typical
20	M20	N36	N32		90	Standoff Plate	None	None	Q235	Typical
21	M21	N33	N31		90	Standoff Plate	None	None	Q235	Typical
22	M22	N35	N31		90	Standoff Plate	None	None	Q235	Typical
23	M23	N50	N56			Tieback	None	None	Q235	Typical
24	M24	N51	N57			Tieback	None	None	Q235	Typical
25	MP1A	N40	N44			Antenna Pipe	None	None	Q235	Typical
26	MP2A	N39	N43			Antenna Pipe	None	None	Q235	Typical
27	MP3A	N38	N42			Antenna Pipe	None	None	Q235	Typical
28	MP4A	N37	N41			Antenna Pipe	None	None	Q235	Typical
29	M29	N7	N15			RIGID	None	None	RIGID	Typical
30	M30	N8	N16			RIGID	None	None	RIGID	Typical
31	M31	N10	N18			RIGID	None	None	RIGID	Typical
32	M32	N9	N17			RIGID	None	None	RIGID	Typical
33	M33	N12	N20			RIGID	None	None	RIGID	Typical
34	M34	N11	N19			RIGID	None	None	RIGID	Typical
35	M35	N14	N22			RIGID	None	None	RIGID	Typical
36	M36	N13	N21			RIGID	None	None	RIGID	Typical
37	M37	N31	N1			RIGID	None	None	RIGID	Typical
38	M38	N32	N2			RIGID	None	None	RIGID	Typical
39	M39	N24	N47			RIGID	None	None	RIGID	Typical
40	M40	N23	N46			RIGID	None	None	RIGID	Typical
41	M41	N26	N49			RIGID	None	None	RIGID	Typical
42	M42	N25	N48			RIGID	None	None	RIGID	Typical
43	M43	N32	N2			RIGID	None	None	RIGID	Typical
44	M44	N31	N1			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Options	Analysis ...	Inactive	Seismi...
1	M1						Yes	** NA **			None
2	M2						Yes	** NA **			None
3	M3						Yes	** NA **			None
4	M4						Yes	** NA **			None
5	M5						Yes	** NA **			None
6	M6						Yes	** NA **			None
7	M7	BenPIN	BenPIN			Euler Bu...	Yes	** NA **			None
8	M8	BenPIN	BenPIN			Euler Bu...	Yes	** NA **			None
9	M9	BenPIN	BenPIN			Euler Bu...	Yes	** NA **			None
10	M10	BenPIN	BenPIN			Euler Bu...	Yes	** NA **			None
11	M11	BenPIN	BenPIN				Yes	** NA **			None
12	M12	BenPIN	BenPIN				Yes	** NA **			None
13	M13	BenPIN	BenPIN				Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Ratio Options	Analysis ...	Inactive	Seismi...
14	M14	BenPIN	BenPIN				Yes	** NA **			None
15	M15						Yes	** NA **			None
16	M16						Yes	** NA **			None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M19						Yes	** NA **			None
20	M20						Yes	** NA **			None
21	M21						Yes	** NA **			None
22	M22						Yes	** NA **			None
23	M23	BenPIN					Yes	** NA **			None
24	M24	BenPIN					Yes	** NA **			None
25	MP1A						Yes	** NA **			None
26	MP2A						Yes	** NA **			None
27	MP3A						Yes	** NA **			None
28	MP4A						Yes	** NA **			None
29	M29						Yes	** NA **			None
30	M30						Yes	** NA **			None
31	M31						Yes	** NA **			None
32	M32						Yes	** NA **			None
33	M33						Yes	** NA **			None
34	M34						Yes	** NA **			None
35	M35						Yes	** NA **			None
36	M36						Yes	** NA **			None
37	M37						Yes	** NA **		Inactive	None
38	M38						Yes	** NA **		Inactive	None
39	M39		OOOXOO				Yes	** NA **			None
40	M40		OOOXOO				Yes	** NA **			None
41	M41		OOOXOO				Yes	** NA **			None
42	M42		OOOXOO				Yes	** NA **			None
43	M43						Yes	** NA **			None
44	M44						Yes	** NA **			None

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-5.426	-5.426	0	%100
2	M2	Y	-5.426	-5.426	0	%100
3	M3	Y	-4.746	-4.746	0	%100
4	M4	Y	-4.746	-4.746	0	%100
5	M5	Y	-4.746	-4.746	0	%100
6	M6	Y	-4.746	-4.746	0	%100
7	M7	Y	-2.535	-2.535	0	%100
8	M8	Y	-2.535	-2.535	0	%100
9	M9	Y	-2.535	-2.535	0	%100
10	M10	Y	-2.535	-2.535	0	%100
11	M11	Y	-2.365	-2.365	0	%100
12	M12	Y	-2.365	-2.365	0	%100
13	M13	Y	-2.365	-2.365	0	%100
14	M14	Y	-2.365	-2.365	0	%100
15	M15	Y	-6.352	-6.352	0	%100
16	M16	Y	-6.352	-6.352	0	%100
17	M17	Y	-6.352	-6.352	0	%100
18	M18	Y	-6.352	-6.352	0	%100
19	M19	Y	-6.352	-6.352	0	%100
20	M20	Y	-6.352	-6.352	0	%100
21	M21	Y	-6.352	-6.352	0	%100
22	M22	Y	-6.352	-6.352	0	%100
23	M23	Y	-4.746	-4.746	0	%100
24	M24	Y	-4.746	-4.746	0	%100
25	MP1A	Y	-4.746	-4.746	0	%100
26	MP2A	Y	-4.746	-4.746	0	%100
27	MP3A	Y	-4.746	-4.746	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft...	Start Location[ft,%]	End Location[ft,%]
28	MP4A	Y	-4.746	-4.746	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-8.731	-8.731	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-8.731	-8.731	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-3.447	-3.447	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	-3.447	-3.447	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	-3.447	-3.447	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	-3.447	-3.447	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	-1.966	-1.966	0	%100
15	M8	X	0	0	0	%100
16	M8	Z	-1.966	-1.966	0	%100
17	M9	X	0	0	0	%100
18	M9	Z	-1.966	-1.966	0	%100
19	M10	X	0	0	0	%100
20	M10	Z	-1.966	-1.966	0	%100
21	M11	X	0	0	0	%100
22	M11	Z	-1.898	-1.898	0	%100
23	M12	X	0	0	0	%100
24	M12	Z	-1.898	-1.898	0	%100
25	M13	X	0	0	0	%100
26	M13	Z	-1.898	-1.898	0	%100
27	M14	X	0	0	0	%100
28	M14	Z	-1.898	-1.898	0	%100
29	M15	X	0	0	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	0	0	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	0	0	0	%100
34	M17	Z	0	0	0	%100
35	M18	X	0	0	0	%100
36	M18	Z	0	0	0	%100
37	M19	X	0	0	0	%100
38	M19	Z	-1.898	-1.898	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	-1.898	-1.898	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	-1.898	-1.898	0	%100
43	M22	X	0	0	0	%100
44	M22	Z	-1.898	-1.898	0	%100
45	M23	X	0	0	0	%100
46	M23	Z	-.28	-.28	0	%100
47	M24	X	0	0	0	%100
48	M24	Z	-.28	-.28	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	-7.213	-7.213	0	%100
51	MP2A	X	0	0	0	%100
52	MP2A	Z	-7.213	-7.213	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	-7.213	-7.213	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	-7.213	-7.213	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.274	3.274	0	%100
2	M1	Z	-5.671	-5.671	0	%100
3	M2	X	3.274	3.274	0	%100
4	M2	Z	-5.671	-5.671	0	%100
5	M3	X	.388	.388	0	%100
6	M3	Z	-.672	-.672	0	%100
7	M4	X	.388	.388	0	%100
8	M4	Z	-.672	-.672	0	%100
9	M5	X	2.726	2.726	0	%100
10	M5	Z	-4.721	-4.721	0	%100
11	M6	X	2.726	2.726	0	%100
12	M6	Z	-4.721	-4.721	0	%100
13	M7	X	.786	.786	0	%100
14	M7	Z	-1.361	-1.361	0	%100
15	M8	X	.786	.786	0	%100
16	M8	Z	-1.361	-1.361	0	%100
17	M9	X	1.131	1.131	0	%100
18	M9	Z	-1.959	-1.959	0	%100
19	M10	X	1.131	1.131	0	%100
20	M10	Z	-1.959	-1.959	0	%100
21	M11	X	.949	.949	0	%100
22	M11	Z	-1.644	-1.644	0	%100
23	M12	X	.949	.949	0	%100
24	M12	Z	-1.644	-1.644	0	%100
25	M13	X	.949	.949	0	%100
26	M13	Z	-1.644	-1.644	0	%100
27	M14	X	.949	.949	0	%100
28	M14	Z	-1.644	-1.644	0	%100
29	M15	X	.237	.237	0	%100
30	M15	Z	-.411	-.411	0	%100
31	M16	X	.237	.237	0	%100
32	M16	Z	-.411	-.411	0	%100
33	M17	X	.237	.237	0	%100
34	M17	Z	-.411	-.411	0	%100
35	M18	X	.237	.237	0	%100
36	M18	Z	-.411	-.411	0	%100
37	M19	X	.712	.712	0	%100
38	M19	Z	-1.233	-1.233	0	%100
39	M20	X	.712	.712	0	%100
40	M20	Z	-1.233	-1.233	0	%100
41	M21	X	.712	.712	0	%100
42	M21	Z	-1.233	-1.233	0	%100
43	M22	X	.712	.712	0	%100
44	M22	Z	-1.233	-1.233	0	%100
45	M23	X	1.574	1.574	0	%100
46	M23	Z	-2.727	-2.727	0	%100
47	M24	X	.369	.369	0	%100
48	M24	Z	-.638	-.638	0	%100
49	MP1A	X	3.606	3.606	0	%100
50	MP1A	Z	-6.247	-6.247	0	%100
51	MP2A	X	3.606	3.606	0	%100
52	MP2A	Z	-6.247	-6.247	0	%100
53	MP3A	X	3.606	3.606	0	%100
54	MP3A	Z	-6.247	-6.247	0	%100
55	MP4A	X	3.606	3.606	0	%100
56	MP4A	Z	-6.247	-6.247	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.89	1.89	0	%100
2	M1	Z	-1.091	-1.091	0	%100
3	M2	X	1.89	1.89	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
4	M2	Z	-1.091	-1.091	0	%100
5	M3	X	.095	.095	0	%100
6	M3	Z	-.055	-.055	0	%100
7	M4	X	.095	.095	0	%100
8	M4	Z	-.055	-.055	0	%100
9	M5	X	4.144	4.144	0	%100
10	M5	Z	-2.393	-2.393	0	%100
11	M6	X	4.144	4.144	0	%100
12	M6	Z	-2.393	-2.393	0	%100
13	M7	X	1.276	1.276	0	%100
14	M7	Z	-.737	-.737	0	%100
15	M8	X	1.276	1.276	0	%100
16	M8	Z	-.737	-.737	0	%100
17	M9	X	1.873	1.873	0	%100
18	M9	Z	-1.082	-1.082	0	%100
19	M10	X	1.873	1.873	0	%100
20	M10	Z	-1.082	-1.082	0	%100
21	M11	X	1.644	1.644	0	%100
22	M11	Z	-.949	-.949	0	%100
23	M12	X	1.644	1.644	0	%100
24	M12	Z	-.949	-.949	0	%100
25	M13	X	1.644	1.644	0	%100
26	M13	Z	-.949	-.949	0	%100
27	M14	X	1.644	1.644	0	%100
28	M14	Z	-.949	-.949	0	%100
29	M15	X	1.233	1.233	0	%100
30	M15	Z	-.712	-.712	0	%100
31	M16	X	1.233	1.233	0	%100
32	M16	Z	-.712	-.712	0	%100
33	M17	X	1.233	1.233	0	%100
34	M17	Z	-.712	-.712	0	%100
35	M18	X	1.233	1.233	0	%100
36	M18	Z	-.712	-.712	0	%100
37	M19	X	.411	.411	0	%100
38	M19	Z	-.237	-.237	0	%100
39	M20	X	.411	.411	0	%100
40	M20	Z	-.237	-.237	0	%100
41	M21	X	.411	.411	0	%100
42	M21	Z	-.237	-.237	0	%100
43	M22	X	.411	.411	0	%100
44	M22	Z	-.237	-.237	0	%100
45	M23	X	5.608	5.608	0	%100
46	M23	Z	-3.238	-3.238	0	%100
47	M24	X	3.519	3.519	0	%100
48	M24	Z	-2.032	-2.032	0	%100
49	MP1A	X	6.247	6.247	0	%100
50	MP1A	Z	-3.606	-3.606	0	%100
51	MP2A	X	6.247	6.247	0	%100
52	MP2A	Z	-3.606	-3.606	0	%100
53	MP3A	X	6.247	6.247	0	%100
54	MP3A	Z	-3.606	-3.606	0	%100
55	MP4A	X	6.247	6.247	0	%100
56	MP4A	Z	-3.606	-3.606	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	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	M3	X	2.114	2.114	0	%100
6	M3	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
7	M4	X	2.114	2.114	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	2.114	2.114	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	2.114	2.114	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	1.769	1.769	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	1.769	1.769	0	%100
16	M8	Z	0	0	0	%100
17	M9	X	1.769	1.769	0	%100
18	M9	Z	0	0	0	%100
19	M10	X	1.769	1.769	0	%100
20	M10	Z	0	0	0	%100
21	M11	X	1.898	1.898	0	%100
22	M11	Z	0	0	0	%100
23	M12	X	1.898	1.898	0	%100
24	M12	Z	0	0	0	%100
25	M13	X	1.898	1.898	0	%100
26	M13	Z	0	0	0	%100
27	M14	X	1.898	1.898	0	%100
28	M14	Z	0	0	0	%100
29	M15	X	1.898	1.898	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	1.898	1.898	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	1.898	1.898	0	%100
34	M17	Z	0	0	0	%100
35	M18	X	1.898	1.898	0	%100
36	M18	Z	0	0	0	%100
37	M19	X	0	0	0	%100
38	M19	Z	0	0	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	0	0	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	0	0	0	%100
43	M22	X	0	0	0	%100
44	M22	Z	0	0	0	%100
45	M23	X	6.933	6.933	0	%100
46	M23	Z	0	0	0	%100
47	M24	X	6.933	6.933	0	%100
48	M24	Z	0	0	0	%100
49	MP1A	X	7.213	7.213	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	7.213	7.213	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	7.213	7.213	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	7.213	7.213	0	%100
56	MP4A	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,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.89	1.89	0	%100
2	M1	Z	1.091	1.091	0	%100
3	M2	X	1.89	1.89	0	%100
4	M2	Z	1.091	1.091	0	%100
5	M3	X	4.144	4.144	0	%100
6	M3	Z	2.393	2.393	0	%100
7	M4	X	4.144	4.144	0	%100
8	M4	Z	2.393	2.393	0	%100
9	M5	X	.095	.095	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
10	M5	Z	.055	.055	0	%100
11	M6	X	.095	.095	0	%100
12	M6	Z	.055	.055	0	%100
13	M7	X	1.873	1.873	0	%100
14	M7	Z	1.082	1.082	0	%100
15	M8	X	1.873	1.873	0	%100
16	M8	Z	1.082	1.082	0	%100
17	M9	X	1.276	1.276	0	%100
18	M9	Z	.737	.737	0	%100
19	M10	X	1.276	1.276	0	%100
20	M10	Z	.737	.737	0	%100
21	M11	X	1.644	1.644	0	%100
22	M11	Z	.949	.949	0	%100
23	M12	X	1.644	1.644	0	%100
24	M12	Z	.949	.949	0	%100
25	M13	X	1.644	1.644	0	%100
26	M13	Z	.949	.949	0	%100
27	M14	X	1.644	1.644	0	%100
28	M14	Z	.949	.949	0	%100
29	M15	X	1.233	1.233	0	%100
30	M15	Z	.712	.712	0	%100
31	M16	X	1.233	1.233	0	%100
32	M16	Z	.712	.712	0	%100
33	M17	X	1.233	1.233	0	%100
34	M17	Z	.712	.712	0	%100
35	M18	X	1.233	1.233	0	%100
36	M18	Z	.712	.712	0	%100
37	M19	X	.411	.411	0	%100
38	M19	Z	.237	.237	0	%100
39	M20	X	.411	.411	0	%100
40	M20	Z	.237	.237	0	%100
41	M21	X	.411	.411	0	%100
42	M21	Z	.237	.237	0	%100
43	M22	X	.411	.411	0	%100
44	M22	Z	.237	.237	0	%100
45	M23	X	3.519	3.519	0	%100
46	M23	Z	2.032	2.032	0	%100
47	M24	X	5.608	5.608	0	%100
48	M24	Z	3.238	3.238	0	%100
49	MP1A	X	6.247	6.247	0	%100
50	MP1A	Z	3.606	3.606	0	%100
51	MP2A	X	6.247	6.247	0	%100
52	MP2A	Z	3.606	3.606	0	%100
53	MP3A	X	6.247	6.247	0	%100
54	MP3A	Z	3.606	3.606	0	%100
55	MP4A	X	6.247	6.247	0	%100
56	MP4A	Z	3.606	3.606	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.274	3.274	0	%100
2	M1	Z	5.671	5.671	0	%100
3	M2	X	3.274	3.274	0	%100
4	M2	Z	5.671	5.671	0	%100
5	M3	X	2.726	2.726	0	%100
6	M3	Z	4.721	4.721	0	%100
7	M4	X	2.726	2.726	0	%100
8	M4	Z	4.721	4.721	0	%100
9	M5	X	.388	.388	0	%100
10	M5	Z	.672	.672	0	%100
11	M6	X	.388	.388	0	%100
12	M6	Z	.672	.672	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
13	M7	X	1.131	1.131	0	%100
14	M7	Z	1.959	1.959	0	%100
15	M8	X	1.131	1.131	0	%100
16	M8	Z	1.959	1.959	0	%100
17	M9	X	.786	.786	0	%100
18	M9	Z	1.361	1.361	0	%100
19	M10	X	.786	.786	0	%100
20	M10	Z	1.361	1.361	0	%100
21	M11	X	.949	.949	0	%100
22	M11	Z	1.644	1.644	0	%100
23	M12	X	.949	.949	0	%100
24	M12	Z	1.644	1.644	0	%100
25	M13	X	.949	.949	0	%100
26	M13	Z	1.644	1.644	0	%100
27	M14	X	.949	.949	0	%100
28	M14	Z	1.644	1.644	0	%100
29	M15	X	.237	.237	0	%100
30	M15	Z	.411	.411	0	%100
31	M16	X	.237	.237	0	%100
32	M16	Z	.411	.411	0	%100
33	M17	X	.237	.237	0	%100
34	M17	Z	.411	.411	0	%100
35	M18	X	.237	.237	0	%100
36	M18	Z	.411	.411	0	%100
37	M19	X	.712	.712	0	%100
38	M19	Z	1.233	1.233	0	%100
39	M20	X	.712	.712	0	%100
40	M20	Z	1.233	1.233	0	%100
41	M21	X	.712	.712	0	%100
42	M21	Z	1.233	1.233	0	%100
43	M22	X	.712	.712	0	%100
44	M22	Z	1.233	1.233	0	%100
45	M23	X	.369	.369	0	%100
46	M23	Z	.638	.638	0	%100
47	M24	X	1.574	1.574	0	%100
48	M24	Z	2.727	2.727	0	%100
49	MP1A	X	3.606	3.606	0	%100
50	MP1A	Z	6.247	6.247	0	%100
51	MP2A	X	3.606	3.606	0	%100
52	MP2A	Z	6.247	6.247	0	%100
53	MP3A	X	3.606	3.606	0	%100
54	MP3A	Z	6.247	6.247	0	%100
55	MP4A	X	3.606	3.606	0	%100
56	MP4A	Z	6.247	6.247	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	8.731	8.731	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	8.731	8.731	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	3.447	3.447	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	3.447	3.447	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	3.447	3.447	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	3.447	3.447	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	1.966	1.966	0	%100
15	M8	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
16	M8	Z	1.966	1.966	0	%100
17	M9	X	0	0	0	%100
18	M9	Z	1.966	1.966	0	%100
19	M10	X	0	0	0	%100
20	M10	Z	1.966	1.966	0	%100
21	M11	X	0	0	0	%100
22	M11	Z	1.898	1.898	0	%100
23	M12	X	0	0	0	%100
24	M12	Z	1.898	1.898	0	%100
25	M13	X	0	0	0	%100
26	M13	Z	1.898	1.898	0	%100
27	M14	X	0	0	0	%100
28	M14	Z	1.898	1.898	0	%100
29	M15	X	0	0	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	0	0	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	0	0	0	%100
34	M17	Z	0	0	0	%100
35	M18	X	0	0	0	%100
36	M18	Z	0	0	0	%100
37	M19	X	0	0	0	%100
38	M19	Z	1.898	1.898	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	1.898	1.898	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	1.898	1.898	0	%100
43	M22	X	0	0	0	%100
44	M22	Z	1.898	1.898	0	%100
45	M23	X	0	0	0	%100
46	M23	Z	.28	.28	0	%100
47	M24	X	0	0	0	%100
48	M24	Z	.28	.28	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	7.213	7.213	0	%100
51	MP2A	X	0	0	0	%100
52	MP2A	Z	7.213	7.213	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	7.213	7.213	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	7.213	7.213	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.274	-3.274	0	%100
2	M1	Z	5.671	5.671	0	%100
3	M2	X	-3.274	-3.274	0	%100
4	M2	Z	5.671	5.671	0	%100
5	M3	X	-.388	-.388	0	%100
6	M3	Z	.672	.672	0	%100
7	M4	X	-.388	-.388	0	%100
8	M4	Z	.672	.672	0	%100
9	M5	X	-2.726	-2.726	0	%100
10	M5	Z	4.721	4.721	0	%100
11	M6	X	-2.726	-2.726	0	%100
12	M6	Z	4.721	4.721	0	%100
13	M7	X	-.786	-.786	0	%100
14	M7	Z	1.361	1.361	0	%100
15	M8	X	-.786	-.786	0	%100
16	M8	Z	1.361	1.361	0	%100
17	M9	X	-1.131	-1.131	0	%100
18	M9	Z	1.959	1.959	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
19	M10	X	-1.131	-1.131	0	%100
20	M10	Z	1.959	1.959	0	%100
21	M11	X	-.949	-.949	0	%100
22	M11	Z	1.644	1.644	0	%100
23	M12	X	-.949	-.949	0	%100
24	M12	Z	1.644	1.644	0	%100
25	M13	X	-.949	-.949	0	%100
26	M13	Z	1.644	1.644	0	%100
27	M14	X	-.949	-.949	0	%100
28	M14	Z	1.644	1.644	0	%100
29	M15	X	-.237	-.237	0	%100
30	M15	Z	.411	.411	0	%100
31	M16	X	-.237	-.237	0	%100
32	M16	Z	.411	.411	0	%100
33	M17	X	-.237	-.237	0	%100
34	M17	Z	.411	.411	0	%100
35	M18	X	-.237	-.237	0	%100
36	M18	Z	.411	.411	0	%100
37	M19	X	-.712	-.712	0	%100
38	M19	Z	1.233	1.233	0	%100
39	M20	X	-.712	-.712	0	%100
40	M20	Z	1.233	1.233	0	%100
41	M21	X	-.712	-.712	0	%100
42	M21	Z	1.233	1.233	0	%100
43	M22	X	-.712	-.712	0	%100
44	M22	Z	1.233	1.233	0	%100
45	M23	X	-1.574	-1.574	0	%100
46	M23	Z	2.727	2.727	0	%100
47	M24	X	-.369	-.369	0	%100
48	M24	Z	.638	.638	0	%100
49	MP1A	X	-3.606	-3.606	0	%100
50	MP1A	Z	6.247	6.247	0	%100
51	MP2A	X	-3.606	-3.606	0	%100
52	MP2A	Z	6.247	6.247	0	%100
53	MP3A	X	-3.606	-3.606	0	%100
54	MP3A	Z	6.247	6.247	0	%100
55	MP4A	X	-3.606	-3.606	0	%100
56	MP4A	Z	6.247	6.247	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.89	-1.89	0	%100
2	M1	Z	1.091	1.091	0	%100
3	M2	X	-1.89	-1.89	0	%100
4	M2	Z	1.091	1.091	0	%100
5	M3	X	-.095	-.095	0	%100
6	M3	Z	.055	.055	0	%100
7	M4	X	-.095	-.095	0	%100
8	M4	Z	.055	.055	0	%100
9	M5	X	-4.144	-4.144	0	%100
10	M5	Z	2.393	2.393	0	%100
11	M6	X	-4.144	-4.144	0	%100
12	M6	Z	2.393	2.393	0	%100
13	M7	X	-1.276	-1.276	0	%100
14	M7	Z	.737	.737	0	%100
15	M8	X	-1.276	-1.276	0	%100
16	M8	Z	.737	.737	0	%100
17	M9	X	-1.873	-1.873	0	%100
18	M9	Z	1.082	1.082	0	%100
19	M10	X	-1.873	-1.873	0	%100
20	M10	Z	1.082	1.082	0	%100
21	M11	X	-1.644	-1.644	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft...	Start Location[ft,%]	End Location[ft,%]
22	M11	Z	.949	.949	0	%100
23	M12	X	-1.644	-1.644	0	%100
24	M12	Z	.949	.949	0	%100
25	M13	X	-1.644	-1.644	0	%100
26	M13	Z	.949	.949	0	%100
27	M14	X	-1.644	-1.644	0	%100
28	M14	Z	.949	.949	0	%100
29	M15	X	-1.233	-1.233	0	%100
30	M15	Z	.712	.712	0	%100
31	M16	X	-1.233	-1.233	0	%100
32	M16	Z	.712	.712	0	%100
33	M17	X	-1.233	-1.233	0	%100
34	M17	Z	.712	.712	0	%100
35	M18	X	-1.233	-1.233	0	%100
36	M18	Z	.712	.712	0	%100
37	M19	X	-.411	-.411	0	%100
38	M19	Z	.237	.237	0	%100
39	M20	X	-.411	-.411	0	%100
40	M20	Z	.237	.237	0	%100
41	M21	X	-.411	-.411	0	%100
42	M21	Z	.237	.237	0	%100
43	M22	X	-.411	-.411	0	%100
44	M22	Z	.237	.237	0	%100
45	M23	X	-5.608	-5.608	0	%100
46	M23	Z	3.238	3.238	0	%100
47	M24	X	-3.519	-3.519	0	%100
48	M24	Z	2.032	2.032	0	%100
49	MP1A	X	-6.247	-6.247	0	%100
50	MP1A	Z	3.606	3.606	0	%100
51	MP2A	X	-6.247	-6.247	0	%100
52	MP2A	Z	3.606	3.606	0	%100
53	MP3A	X	-6.247	-6.247	0	%100
54	MP3A	Z	3.606	3.606	0	%100
55	MP4A	X	-6.247	-6.247	0	%100
56	MP4A	Z	3.606	3.606	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft...	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	M3	X	-2.114	-2.114	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	-2.114	-2.114	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	-2.114	-2.114	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	-2.114	-2.114	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	-1.769	-1.769	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	-1.769	-1.769	0	%100
16	M8	Z	0	0	0	%100
17	M9	X	-1.769	-1.769	0	%100
18	M9	Z	0	0	0	%100
19	M10	X	-1.769	-1.769	0	%100
20	M10	Z	0	0	0	%100
21	M11	X	-1.898	-1.898	0	%100
22	M11	Z	0	0	0	%100
23	M12	X	-1.898	-1.898	0	%100
24	M12	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
25	M13	X	-1.898	-1.898	0	%100
26	M13	Z	0	0	0	%100
27	M14	X	-1.898	-1.898	0	%100
28	M14	Z	0	0	0	%100
29	M15	X	-1.898	-1.898	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	-1.898	-1.898	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	-1.898	-1.898	0	%100
34	M17	Z	0	0	0	%100
35	M18	X	-1.898	-1.898	0	%100
36	M18	Z	0	0	0	%100
37	M19	X	0	0	0	%100
38	M19	Z	0	0	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	0	0	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	0	0	0	%100
43	M22	X	0	0	0	%100
44	M22	Z	0	0	0	%100
45	M23	X	-6.933	-6.933	0	%100
46	M23	Z	0	0	0	%100
47	M24	X	-6.933	-6.933	0	%100
48	M24	Z	0	0	0	%100
49	MP1A	X	-7.213	-7.213	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	-7.213	-7.213	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	-7.213	-7.213	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	-7.213	-7.213	0	%100
56	MP4A	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,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.89	-1.89	0	%100
2	M1	Z	-1.091	-1.091	0	%100
3	M2	X	-1.89	-1.89	0	%100
4	M2	Z	-1.091	-1.091	0	%100
5	M3	X	-4.144	-4.144	0	%100
6	M3	Z	-2.393	-2.393	0	%100
7	M4	X	-4.144	-4.144	0	%100
8	M4	Z	-2.393	-2.393	0	%100
9	M5	X	-.095	-.095	0	%100
10	M5	Z	-.055	-.055	0	%100
11	M6	X	-.095	-.095	0	%100
12	M6	Z	-.055	-.055	0	%100
13	M7	X	-1.873	-1.873	0	%100
14	M7	Z	-1.082	-1.082	0	%100
15	M8	X	-1.873	-1.873	0	%100
16	M8	Z	-1.082	-1.082	0	%100
17	M9	X	-1.276	-1.276	0	%100
18	M9	Z	-.737	-.737	0	%100
19	M10	X	-1.276	-1.276	0	%100
20	M10	Z	-.737	-.737	0	%100
21	M11	X	-1.644	-1.644	0	%100
22	M11	Z	-.949	-.949	0	%100
23	M12	X	-1.644	-1.644	0	%100
24	M12	Z	-.949	-.949	0	%100
25	M13	X	-1.644	-1.644	0	%100
26	M13	Z	-.949	-.949	0	%100
27	M14	X	-1.644	-1.644	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
28	M14	Z	-.949	-.949	0	%100
29	M15	X	-1.233	-1.233	0	%100
30	M15	Z	-.712	-.712	0	%100
31	M16	X	-1.233	-1.233	0	%100
32	M16	Z	-.712	-.712	0	%100
33	M17	X	-1.233	-1.233	0	%100
34	M17	Z	-.712	-.712	0	%100
35	M18	X	-1.233	-1.233	0	%100
36	M18	Z	-.712	-.712	0	%100
37	M19	X	-.411	-.411	0	%100
38	M19	Z	-.237	-.237	0	%100
39	M20	X	-.411	-.411	0	%100
40	M20	Z	-.237	-.237	0	%100
41	M21	X	-.411	-.411	0	%100
42	M21	Z	-.237	-.237	0	%100
43	M22	X	-.411	-.411	0	%100
44	M22	Z	-.237	-.237	0	%100
45	M23	X	-3.519	-3.519	0	%100
46	M23	Z	-2.032	-2.032	0	%100
47	M24	X	-5.608	-5.608	0	%100
48	M24	Z	-3.238	-3.238	0	%100
49	MP1A	X	-6.247	-6.247	0	%100
50	MP1A	Z	-3.606	-3.606	0	%100
51	MP2A	X	-6.247	-6.247	0	%100
52	MP2A	Z	-3.606	-3.606	0	%100
53	MP3A	X	-6.247	-6.247	0	%100
54	MP3A	Z	-3.606	-3.606	0	%100
55	MP4A	X	-6.247	-6.247	0	%100
56	MP4A	Z	-3.606	-3.606	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.274	-3.274	0	%100
2	M1	Z	-5.671	-5.671	0	%100
3	M2	X	-3.274	-3.274	0	%100
4	M2	Z	-5.671	-5.671	0	%100
5	M3	X	-2.726	-2.726	0	%100
6	M3	Z	-4.721	-4.721	0	%100
7	M4	X	-2.726	-2.726	0	%100
8	M4	Z	-4.721	-4.721	0	%100
9	M5	X	-.388	-.388	0	%100
10	M5	Z	-.672	-.672	0	%100
11	M6	X	-.388	-.388	0	%100
12	M6	Z	-.672	-.672	0	%100
13	M7	X	-1.131	-1.131	0	%100
14	M7	Z	-1.959	-1.959	0	%100
15	M8	X	-1.131	-1.131	0	%100
16	M8	Z	-1.959	-1.959	0	%100
17	M9	X	-.786	-.786	0	%100
18	M9	Z	-1.361	-1.361	0	%100
19	M10	X	-.786	-.786	0	%100
20	M10	Z	-1.361	-1.361	0	%100
21	M11	X	-.949	-.949	0	%100
22	M11	Z	-1.644	-1.644	0	%100
23	M12	X	-.949	-.949	0	%100
24	M12	Z	-1.644	-1.644	0	%100
25	M13	X	-.949	-.949	0	%100
26	M13	Z	-1.644	-1.644	0	%100
27	M14	X	-.949	-.949	0	%100
28	M14	Z	-1.644	-1.644	0	%100
29	M15	X	-.237	-.237	0	%100
30	M15	Z	-.411	-.411	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
31	M16	X	-.237	-.237	0	%100
32	M16	Z	-.411	-.411	0	%100
33	M17	X	-.237	-.237	0	%100
34	M17	Z	-.411	-.411	0	%100
35	M18	X	-.237	-.237	0	%100
36	M18	Z	-.411	-.411	0	%100
37	M19	X	-.712	-.712	0	%100
38	M19	Z	-1.233	-1.233	0	%100
39	M20	X	-.712	-.712	0	%100
40	M20	Z	-1.233	-1.233	0	%100
41	M21	X	-.712	-.712	0	%100
42	M21	Z	-1.233	-1.233	0	%100
43	M22	X	-.712	-.712	0	%100
44	M22	Z	-1.233	-1.233	0	%100
45	M23	X	-.369	-.369	0	%100
46	M23	Z	-.638	-.638	0	%100
47	M24	X	-1.574	-1.574	0	%100
48	M24	Z	-2.727	-2.727	0	%100
49	MP1A	X	-3.606	-3.606	0	%100
50	MP1A	Z	-6.247	-6.247	0	%100
51	MP2A	X	-3.606	-3.606	0	%100
52	MP2A	Z	-6.247	-6.247	0	%100
53	MP3A	X	-3.606	-3.606	0	%100
54	MP3A	Z	-6.247	-6.247	0	%100
55	MP4A	X	-3.606	-3.606	0	%100
56	MP4A	Z	-6.247	-6.247	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-2.69	-2.69	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-2.69	-2.69	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-1.171	-1.171	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	-1.171	-1.171	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	-1.171	-1.171	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	-1.171	-1.171	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	-1.307	-1.307	0	%100
15	M8	X	0	0	0	%100
16	M8	Z	-1.307	-1.307	0	%100
17	M9	X	0	0	0	%100
18	M9	Z	-1.307	-1.307	0	%100
19	M10	X	0	0	0	%100
20	M10	Z	-1.307	-1.307	0	%100
21	M11	X	0	0	0	%100
22	M11	Z	-1.351	-1.351	0	%100
23	M12	X	0	0	0	%100
24	M12	Z	-1.351	-1.351	0	%100
25	M13	X	0	0	0	%100
26	M13	Z	-1.351	-1.351	0	%100
27	M14	X	0	0	0	%100
28	M14	Z	-1.351	-1.351	0	%100
29	M15	X	0	0	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	0	0	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft...	Start Location[ft,%]	End Location[ft,%]
34	M17	Z	0	0	0	%100
35	M18	X	0	0	0	%100
36	M18	Z	0	0	0	%100
37	M19	X	0	0	0	%100
38	M19	Z	-1.022	-1.022	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	-1.022	-1.022	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	-1.022	-1.022	0	%100
43	M22	X	0	0	0	%100
44	M22	Z	-1.022	-1.022	0	%100
45	M23	X	0	0	0	%100
46	M23	Z	-.094	-.094	0	%100
47	M24	X	0	0	0	%100
48	M24	Z	-.094	-.094	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	-2.427	-2.427	0	%100
51	MP2A	X	0	0	0	%100
52	MP2A	Z	-2.427	-2.427	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	-2.427	-2.427	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	-2.427	-2.427	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.009	1.009	0	%100
2	M1	Z	-1.747	-1.747	0	%100
3	M2	X	1.009	1.009	0	%100
4	M2	Z	-1.747	-1.747	0	%100
5	M3	X	.132	.132	0	%100
6	M3	Z	-.228	-.228	0	%100
7	M4	X	.132	.132	0	%100
8	M4	Z	-.228	-.228	0	%100
9	M5	X	.926	.926	0	%100
10	M5	Z	-1.604	-1.604	0	%100
11	M6	X	.926	.926	0	%100
12	M6	Z	-1.604	-1.604	0	%100
13	M7	X	.523	.523	0	%100
14	M7	Z	-.905	-.905	0	%100
15	M8	X	.523	.523	0	%100
16	M8	Z	-.905	-.905	0	%100
17	M9	X	.752	.752	0	%100
18	M9	Z	-1.302	-1.302	0	%100
19	M10	X	.752	.752	0	%100
20	M10	Z	-1.302	-1.302	0	%100
21	M11	X	.675	.675	0	%100
22	M11	Z	-1.17	-1.17	0	%100
23	M12	X	.675	.675	0	%100
24	M12	Z	-1.17	-1.17	0	%100
25	M13	X	.675	.675	0	%100
26	M13	Z	-1.17	-1.17	0	%100
27	M14	X	.675	.675	0	%100
28	M14	Z	-1.17	-1.17	0	%100
29	M15	X	.127	.127	0	%100
30	M15	Z	-.22	-.22	0	%100
31	M16	X	.127	.127	0	%100
32	M16	Z	-.22	-.22	0	%100
33	M17	X	.127	.127	0	%100
34	M17	Z	-.22	-.22	0	%100
35	M18	X	.127	.127	0	%100
36	M18	Z	-.22	-.22	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...	Start Location[ft,%]	End Location[ft,%]
37	M19	X	.383	.383	0	%100
38	M19	Z	-.664	-.664	0	%100
39	M20	X	.383	.383	0	%100
40	M20	Z	-.664	-.664	0	%100
41	M21	X	.383	.383	0	%100
42	M21	Z	-.664	-.664	0	%100
43	M22	X	.383	.383	0	%100
44	M22	Z	-.664	-.664	0	%100
45	M23	X	.53	.53	0	%100
46	M23	Z	-.917	-.917	0	%100
47	M24	X	.124	.124	0	%100
48	M24	Z	-.215	-.215	0	%100
49	MP1A	X	1.213	1.213	0	%100
50	MP1A	Z	-2.101	-2.101	0	%100
51	MP2A	X	1.213	1.213	0	%100
52	MP2A	Z	-2.101	-2.101	0	%100
53	MP3A	X	1.213	1.213	0	%100
54	MP3A	Z	-2.101	-2.101	0	%100
55	MP4A	X	1.213	1.213	0	%100
56	MP4A	Z	-2.101	-2.101	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.582	.582	0	%100
2	M1	Z	-.336	-.336	0	%100
3	M2	X	.582	.582	0	%100
4	M2	Z	-.336	-.336	0	%100
5	M3	X	.032	.032	0	%100
6	M3	Z	-.019	-.019	0	%100
7	M4	X	.032	.032	0	%100
8	M4	Z	-.019	-.019	0	%100
9	M5	X	1.408	1.408	0	%100
10	M5	Z	-.813	-.813	0	%100
11	M6	X	1.408	1.408	0	%100
12	M6	Z	-.813	-.813	0	%100
13	M7	X	.848	.848	0	%100
14	M7	Z	-.49	-.49	0	%100
15	M8	X	.848	.848	0	%100
16	M8	Z	-.49	-.49	0	%100
17	M9	X	1.246	1.246	0	%100
18	M9	Z	-.719	-.719	0	%100
19	M10	X	1.246	1.246	0	%100
20	M10	Z	-.719	-.719	0	%100
21	M11	X	1.17	1.17	0	%100
22	M11	Z	-.675	-.675	0	%100
23	M12	X	1.17	1.17	0	%100
24	M12	Z	-.675	-.675	0	%100
25	M13	X	1.17	1.17	0	%100
26	M13	Z	-.675	-.675	0	%100
27	M14	X	1.17	1.17	0	%100
28	M14	Z	-.675	-.675	0	%100
29	M15	X	.659	.659	0	%100
30	M15	Z	-.38	-.38	0	%100
31	M16	X	.659	.659	0	%100
32	M16	Z	-.38	-.38	0	%100
33	M17	X	.659	.659	0	%100
34	M17	Z	-.38	-.38	0	%100
35	M18	X	.659	.659	0	%100
36	M18	Z	-.38	-.38	0	%100
37	M19	X	.221	.221	0	%100
38	M19	Z	-.128	-.128	0	%100
39	M20	X	.221	.221	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
40	M20	Z	-.128	-.128	0	%100
41	M21	X	.221	.221	0	%100
42	M21	Z	-.128	-.128	0	%100
43	M22	X	.221	.221	0	%100
44	M22	Z	-.128	-.128	0	%100
45	M23	X	1.887	1.887	0	%100
46	M23	Z	-1.089	-1.089	0	%100
47	M24	X	1.184	1.184	0	%100
48	M24	Z	-.684	-.684	0	%100
49	MP1A	X	2.101	2.101	0	%100
50	MP1A	Z	-1.213	-1.213	0	%100
51	MP2A	X	2.101	2.101	0	%100
52	MP2A	Z	-1.213	-1.213	0	%100
53	MP3A	X	2.101	2.101	0	%100
54	MP3A	Z	-1.213	-1.213	0	%100
55	MP4A	X	2.101	2.101	0	%100
56	MP4A	Z	-1.213	-1.213	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	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	M3	X	.718	.718	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	.718	.718	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	.718	.718	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	.718	.718	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	1.176	1.176	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	1.176	1.176	0	%100
16	M8	Z	0	0	0	%100
17	M9	X	1.176	1.176	0	%100
18	M9	Z	0	0	0	%100
19	M10	X	1.176	1.176	0	%100
20	M10	Z	0	0	0	%100
21	M11	X	1.351	1.351	0	%100
22	M11	Z	0	0	0	%100
23	M12	X	1.351	1.351	0	%100
24	M12	Z	0	0	0	%100
25	M13	X	1.351	1.351	0	%100
26	M13	Z	0	0	0	%100
27	M14	X	1.351	1.351	0	%100
28	M14	Z	0	0	0	%100
29	M15	X	1.015	1.015	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	1.015	1.015	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	1.015	1.015	0	%100
34	M17	Z	0	0	0	%100
35	M18	X	1.015	1.015	0	%100
36	M18	Z	0	0	0	%100
37	M19	X	0	0	0	%100
38	M19	Z	0	0	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	0	0	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
43	M22	X	0	0	0	%100
44	M22	Z	0	0	0	%100
45	M23	X	2.332	2.332	0	%100
46	M23	Z	0	0	0	%100
47	M24	X	2.332	2.332	0	%100
48	M24	Z	0	0	0	%100
49	MP1A	X	2.427	2.427	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	2.427	2.427	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	2.427	2.427	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	2.427	2.427	0	%100
56	MP4A	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,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.582	.582	0	%100
2	M1	Z	.336	.336	0	%100
3	M2	X	.582	.582	0	%100
4	M2	Z	.336	.336	0	%100
5	M3	X	1.408	1.408	0	%100
6	M3	Z	.813	.813	0	%100
7	M4	X	1.408	1.408	0	%100
8	M4	Z	.813	.813	0	%100
9	M5	X	.032	.032	0	%100
10	M5	Z	.019	.019	0	%100
11	M6	X	.032	.032	0	%100
12	M6	Z	.019	.019	0	%100
13	M7	X	1.246	1.246	0	%100
14	M7	Z	.719	.719	0	%100
15	M8	X	1.246	1.246	0	%100
16	M8	Z	.719	.719	0	%100
17	M9	X	.848	.848	0	%100
18	M9	Z	.49	.49	0	%100
19	M10	X	.848	.848	0	%100
20	M10	Z	.49	.49	0	%100
21	M11	X	1.17	1.17	0	%100
22	M11	Z	.675	.675	0	%100
23	M12	X	1.17	1.17	0	%100
24	M12	Z	.675	.675	0	%100
25	M13	X	1.17	1.17	0	%100
26	M13	Z	.675	.675	0	%100
27	M14	X	1.17	1.17	0	%100
28	M14	Z	.675	.675	0	%100
29	M15	X	.659	.659	0	%100
30	M15	Z	.38	.38	0	%100
31	M16	X	.659	.659	0	%100
32	M16	Z	.38	.38	0	%100
33	M17	X	.659	.659	0	%100
34	M17	Z	.38	.38	0	%100
35	M18	X	.659	.659	0	%100
36	M18	Z	.38	.38	0	%100
37	M19	X	.221	.221	0	%100
38	M19	Z	.128	.128	0	%100
39	M20	X	.221	.221	0	%100
40	M20	Z	.128	.128	0	%100
41	M21	X	.221	.221	0	%100
42	M21	Z	.128	.128	0	%100
43	M22	X	.221	.221	0	%100
44	M22	Z	.128	.128	0	%100
45	M23	X	1.184	1.184	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
46	M23	Z	.684	.684	0	%100
47	M24	X	1.887	1.887	0	%100
48	M24	Z	1.089	1.089	0	%100
49	MP1A	X	2.101	2.101	0	%100
50	MP1A	Z	1.213	1.213	0	%100
51	MP2A	X	2.101	2.101	0	%100
52	MP2A	Z	1.213	1.213	0	%100
53	MP3A	X	2.101	2.101	0	%100
54	MP3A	Z	1.213	1.213	0	%100
55	MP4A	X	2.101	2.101	0	%100
56	MP4A	Z	1.213	1.213	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.009	1.009	0	%100
2	M1	Z	1.747	1.747	0	%100
3	M2	X	1.009	1.009	0	%100
4	M2	Z	1.747	1.747	0	%100
5	M3	X	.926	.926	0	%100
6	M3	Z	1.604	1.604	0	%100
7	M4	X	.926	.926	0	%100
8	M4	Z	1.604	1.604	0	%100
9	M5	X	.132	.132	0	%100
10	M5	Z	.228	.228	0	%100
11	M6	X	.132	.132	0	%100
12	M6	Z	.228	.228	0	%100
13	M7	X	.752	.752	0	%100
14	M7	Z	1.302	1.302	0	%100
15	M8	X	.752	.752	0	%100
16	M8	Z	1.302	1.302	0	%100
17	M9	X	.523	.523	0	%100
18	M9	Z	.905	.905	0	%100
19	M10	X	.523	.523	0	%100
20	M10	Z	.905	.905	0	%100
21	M11	X	.675	.675	0	%100
22	M11	Z	1.17	1.17	0	%100
23	M12	X	.675	.675	0	%100
24	M12	Z	1.17	1.17	0	%100
25	M13	X	.675	.675	0	%100
26	M13	Z	1.17	1.17	0	%100
27	M14	X	.675	.675	0	%100
28	M14	Z	1.17	1.17	0	%100
29	M15	X	.127	.127	0	%100
30	M15	Z	.22	.22	0	%100
31	M16	X	.127	.127	0	%100
32	M16	Z	.22	.22	0	%100
33	M17	X	.127	.127	0	%100
34	M17	Z	.22	.22	0	%100
35	M18	X	.127	.127	0	%100
36	M18	Z	.22	.22	0	%100
37	M19	X	.383	.383	0	%100
38	M19	Z	.664	.664	0	%100
39	M20	X	.383	.383	0	%100
40	M20	Z	.664	.664	0	%100
41	M21	X	.383	.383	0	%100
42	M21	Z	.664	.664	0	%100
43	M22	X	.383	.383	0	%100
44	M22	Z	.664	.664	0	%100
45	M23	X	.124	.124	0	%100
46	M23	Z	.215	.215	0	%100
47	M24	X	.53	.53	0	%100
48	M24	Z	.917	.917	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,...	Start Location[ft,%]	End Location[ft,%]
49	MP1A	X	1.213	1.213	0	%100
50	MP1A	Z	2.101	2.101	0	%100
51	MP2A	X	1.213	1.213	0	%100
52	MP2A	Z	2.101	2.101	0	%100
53	MP3A	X	1.213	1.213	0	%100
54	MP3A	Z	2.101	2.101	0	%100
55	MP4A	X	1.213	1.213	0	%100
56	MP4A	Z	2.101	2.101	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	2.69	2.69	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	2.69	2.69	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	1.171	1.171	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	1.171	1.171	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	1.171	1.171	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	1.171	1.171	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	1.307	1.307	0	%100
15	M8	X	0	0	0	%100
16	M8	Z	1.307	1.307	0	%100
17	M9	X	0	0	0	%100
18	M9	Z	1.307	1.307	0	%100
19	M10	X	0	0	0	%100
20	M10	Z	1.307	1.307	0	%100
21	M11	X	0	0	0	%100
22	M11	Z	1.351	1.351	0	%100
23	M12	X	0	0	0	%100
24	M12	Z	1.351	1.351	0	%100
25	M13	X	0	0	0	%100
26	M13	Z	1.351	1.351	0	%100
27	M14	X	0	0	0	%100
28	M14	Z	1.351	1.351	0	%100
29	M15	X	0	0	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	0	0	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	0	0	0	%100
34	M17	Z	0	0	0	%100
35	M18	X	0	0	0	%100
36	M18	Z	0	0	0	%100
37	M19	X	0	0	0	%100
38	M19	Z	1.022	1.022	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	1.022	1.022	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	1.022	1.022	0	%100
43	M22	X	0	0	0	%100
44	M22	Z	1.022	1.022	0	%100
45	M23	X	0	0	0	%100
46	M23	Z	.094	.094	0	%100
47	M24	X	0	0	0	%100
48	M24	Z	.094	.094	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	2.427	2.427	0	%100
51	MP2A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
52	MP2A	Z	2.427	2.427	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	2.427	2.427	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	2.427	2.427	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.009	-1.009	0	%100
2	M1	Z	1.747	1.747	0	%100
3	M2	X	-1.009	-1.009	0	%100
4	M2	Z	1.747	1.747	0	%100
5	M3	X	-.132	-.132	0	%100
6	M3	Z	.228	.228	0	%100
7	M4	X	-.132	-.132	0	%100
8	M4	Z	.228	.228	0	%100
9	M5	X	-.926	-.926	0	%100
10	M5	Z	1.604	1.604	0	%100
11	M6	X	-.926	-.926	0	%100
12	M6	Z	1.604	1.604	0	%100
13	M7	X	-.523	-.523	0	%100
14	M7	Z	.905	.905	0	%100
15	M8	X	-.523	-.523	0	%100
16	M8	Z	.905	.905	0	%100
17	M9	X	-.752	-.752	0	%100
18	M9	Z	1.302	1.302	0	%100
19	M10	X	-.752	-.752	0	%100
20	M10	Z	1.302	1.302	0	%100
21	M11	X	-.675	-.675	0	%100
22	M11	Z	1.17	1.17	0	%100
23	M12	X	-.675	-.675	0	%100
24	M12	Z	1.17	1.17	0	%100
25	M13	X	-.675	-.675	0	%100
26	M13	Z	1.17	1.17	0	%100
27	M14	X	-.675	-.675	0	%100
28	M14	Z	1.17	1.17	0	%100
29	M15	X	-.127	-.127	0	%100
30	M15	Z	.22	.22	0	%100
31	M16	X	-.127	-.127	0	%100
32	M16	Z	.22	.22	0	%100
33	M17	X	-.127	-.127	0	%100
34	M17	Z	.22	.22	0	%100
35	M18	X	-.127	-.127	0	%100
36	M18	Z	.22	.22	0	%100
37	M19	X	-.383	-.383	0	%100
38	M19	Z	.664	.664	0	%100
39	M20	X	-.383	-.383	0	%100
40	M20	Z	.664	.664	0	%100
41	M21	X	-.383	-.383	0	%100
42	M21	Z	.664	.664	0	%100
43	M22	X	-.383	-.383	0	%100
44	M22	Z	.664	.664	0	%100
45	M23	X	-.53	-.53	0	%100
46	M23	Z	.917	.917	0	%100
47	M24	X	-.124	-.124	0	%100
48	M24	Z	.215	.215	0	%100
49	MP1A	X	-1.213	-1.213	0	%100
50	MP1A	Z	2.101	2.101	0	%100
51	MP2A	X	-1.213	-1.213	0	%100
52	MP2A	Z	2.101	2.101	0	%100
53	MP3A	X	-1.213	-1.213	0	%100
54	MP3A	Z	2.101	2.101	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
55	MP4A	X	-1.213	-1.213	0	%100
56	MP4A	Z	2.101	2.101	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.582	-.582	0	%100
2	M1	Z	.336	.336	0	%100
3	M2	X	-.582	-.582	0	%100
4	M2	Z	.336	.336	0	%100
5	M3	X	-.032	-.032	0	%100
6	M3	Z	.019	.019	0	%100
7	M4	X	-.032	-.032	0	%100
8	M4	Z	.019	.019	0	%100
9	M5	X	-1.408	-1.408	0	%100
10	M5	Z	.813	.813	0	%100
11	M6	X	-1.408	-1.408	0	%100
12	M6	Z	.813	.813	0	%100
13	M7	X	-.848	-.848	0	%100
14	M7	Z	.49	.49	0	%100
15	M8	X	-.848	-.848	0	%100
16	M8	Z	.49	.49	0	%100
17	M9	X	-1.246	-1.246	0	%100
18	M9	Z	.719	.719	0	%100
19	M10	X	-1.246	-1.246	0	%100
20	M10	Z	.719	.719	0	%100
21	M11	X	-1.17	-1.17	0	%100
22	M11	Z	.675	.675	0	%100
23	M12	X	-1.17	-1.17	0	%100
24	M12	Z	.675	.675	0	%100
25	M13	X	-1.17	-1.17	0	%100
26	M13	Z	.675	.675	0	%100
27	M14	X	-1.17	-1.17	0	%100
28	M14	Z	.675	.675	0	%100
29	M15	X	-.659	-.659	0	%100
30	M15	Z	.38	.38	0	%100
31	M16	X	-.659	-.659	0	%100
32	M16	Z	.38	.38	0	%100
33	M17	X	-.659	-.659	0	%100
34	M17	Z	.38	.38	0	%100
35	M18	X	-.659	-.659	0	%100
36	M18	Z	.38	.38	0	%100
37	M19	X	-.221	-.221	0	%100
38	M19	Z	.128	.128	0	%100
39	M20	X	-.221	-.221	0	%100
40	M20	Z	.128	.128	0	%100
41	M21	X	-.221	-.221	0	%100
42	M21	Z	.128	.128	0	%100
43	M22	X	-.221	-.221	0	%100
44	M22	Z	.128	.128	0	%100
45	M23	X	-1.887	-1.887	0	%100
46	M23	Z	1.089	1.089	0	%100
47	M24	X	-1.184	-1.184	0	%100
48	M24	Z	.684	.684	0	%100
49	MP1A	X	-2.101	-2.101	0	%100
50	MP1A	Z	1.213	1.213	0	%100
51	MP2A	X	-2.101	-2.101	0	%100
52	MP2A	Z	1.213	1.213	0	%100
53	MP3A	X	-2.101	-2.101	0	%100
54	MP3A	Z	1.213	1.213	0	%100
55	MP4A	X	-2.101	-2.101	0	%100
56	MP4A	Z	1.213	1.213	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	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	M3	X	-.718	-.718	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	-.718	-.718	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	-.718	-.718	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	-.718	-.718	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	-1.176	-1.176	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	-1.176	-1.176	0	%100
16	M8	Z	0	0	0	%100
17	M9	X	-1.176	-1.176	0	%100
18	M9	Z	0	0	0	%100
19	M10	X	-1.176	-1.176	0	%100
20	M10	Z	0	0	0	%100
21	M11	X	-1.351	-1.351	0	%100
22	M11	Z	0	0	0	%100
23	M12	X	-1.351	-1.351	0	%100
24	M12	Z	0	0	0	%100
25	M13	X	-1.351	-1.351	0	%100
26	M13	Z	0	0	0	%100
27	M14	X	-1.351	-1.351	0	%100
28	M14	Z	0	0	0	%100
29	M15	X	-1.015	-1.015	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	-1.015	-1.015	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	-1.015	-1.015	0	%100
34	M17	Z	0	0	0	%100
35	M18	X	-1.015	-1.015	0	%100
36	M18	Z	0	0	0	%100
37	M19	X	0	0	0	%100
38	M19	Z	0	0	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	0	0	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	0	0	0	%100
43	M22	X	0	0	0	%100
44	M22	Z	0	0	0	%100
45	M23	X	-2.332	-2.332	0	%100
46	M23	Z	0	0	0	%100
47	M24	X	-2.332	-2.332	0	%100
48	M24	Z	0	0	0	%100
49	MP1A	X	-2.427	-2.427	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	-2.427	-2.427	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	-2.427	-2.427	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	-2.427	-2.427	0	%100
56	MP4A	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,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.582	-.582	0	%100
2	M1	Z	-.336	-.336	0	%100
3	M2	X	-.582	-.582	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
4	M2	Z	-.336	-.336	0	%100
5	M3	X	-1.408	-1.408	0	%100
6	M3	Z	-.813	-.813	0	%100
7	M4	X	-1.408	-1.408	0	%100
8	M4	Z	-.813	-.813	0	%100
9	M5	X	-.032	-.032	0	%100
10	M5	Z	-.019	-.019	0	%100
11	M6	X	-.032	-.032	0	%100
12	M6	Z	-.019	-.019	0	%100
13	M7	X	-1.246	-1.246	0	%100
14	M7	Z	-.719	-.719	0	%100
15	M8	X	-1.246	-1.246	0	%100
16	M8	Z	-.719	-.719	0	%100
17	M9	X	-.848	-.848	0	%100
18	M9	Z	-.49	-.49	0	%100
19	M10	X	-.848	-.848	0	%100
20	M10	Z	-.49	-.49	0	%100
21	M11	X	-1.17	-1.17	0	%100
22	M11	Z	-.675	-.675	0	%100
23	M12	X	-1.17	-1.17	0	%100
24	M12	Z	-.675	-.675	0	%100
25	M13	X	-1.17	-1.17	0	%100
26	M13	Z	-.675	-.675	0	%100
27	M14	X	-1.17	-1.17	0	%100
28	M14	Z	-.675	-.675	0	%100
29	M15	X	-.659	-.659	0	%100
30	M15	Z	-.38	-.38	0	%100
31	M16	X	-.659	-.659	0	%100
32	M16	Z	-.38	-.38	0	%100
33	M17	X	-.659	-.659	0	%100
34	M17	Z	-.38	-.38	0	%100
35	M18	X	-.659	-.659	0	%100
36	M18	Z	-.38	-.38	0	%100
37	M19	X	-.221	-.221	0	%100
38	M19	Z	-.128	-.128	0	%100
39	M20	X	-.221	-.221	0	%100
40	M20	Z	-.128	-.128	0	%100
41	M21	X	-.221	-.221	0	%100
42	M21	Z	-.128	-.128	0	%100
43	M22	X	-.221	-.221	0	%100
44	M22	Z	-.128	-.128	0	%100
45	M23	X	-1.184	-1.184	0	%100
46	M23	Z	-.684	-.684	0	%100
47	M24	X	-1.887	-1.887	0	%100
48	M24	Z	-1.089	-1.089	0	%100
49	MP1A	X	-2.101	-2.101	0	%100
50	MP1A	Z	-1.213	-1.213	0	%100
51	MP2A	X	-2.101	-2.101	0	%100
52	MP2A	Z	-1.213	-1.213	0	%100
53	MP3A	X	-2.101	-2.101	0	%100
54	MP3A	Z	-1.213	-1.213	0	%100
55	MP4A	X	-2.101	-2.101	0	%100
56	MP4A	Z	-1.213	-1.213	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.009	-1.009	0	%100
2	M1	Z	-1.747	-1.747	0	%100
3	M2	X	-1.009	-1.009	0	%100
4	M2	Z	-1.747	-1.747	0	%100
5	M3	X	-.926	-.926	0	%100
6	M3	Z	-1.604	-1.604	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
7	M4	X	-.926	-.926	0	%100
8	M4	Z	-1.604	-1.604	0	%100
9	M5	X	-.132	-.132	0	%100
10	M5	Z	-.228	-.228	0	%100
11	M6	X	-.132	-.132	0	%100
12	M6	Z	-.228	-.228	0	%100
13	M7	X	-.752	-.752	0	%100
14	M7	Z	-1.302	-1.302	0	%100
15	M8	X	-.752	-.752	0	%100
16	M8	Z	-1.302	-1.302	0	%100
17	M9	X	-.523	-.523	0	%100
18	M9	Z	-.905	-.905	0	%100
19	M10	X	-.523	-.523	0	%100
20	M10	Z	-.905	-.905	0	%100
21	M11	X	-.675	-.675	0	%100
22	M11	Z	-1.17	-1.17	0	%100
23	M12	X	-.675	-.675	0	%100
24	M12	Z	-1.17	-1.17	0	%100
25	M13	X	-.675	-.675	0	%100
26	M13	Z	-1.17	-1.17	0	%100
27	M14	X	-.675	-.675	0	%100
28	M14	Z	-1.17	-1.17	0	%100
29	M15	X	-.127	-.127	0	%100
30	M15	Z	-.22	-.22	0	%100
31	M16	X	-.127	-.127	0	%100
32	M16	Z	-.22	-.22	0	%100
33	M17	X	-.127	-.127	0	%100
34	M17	Z	-.22	-.22	0	%100
35	M18	X	-.127	-.127	0	%100
36	M18	Z	-.22	-.22	0	%100
37	M19	X	-.383	-.383	0	%100
38	M19	Z	-.664	-.664	0	%100
39	M20	X	-.383	-.383	0	%100
40	M20	Z	-.664	-.664	0	%100
41	M21	X	-.383	-.383	0	%100
42	M21	Z	-.664	-.664	0	%100
43	M22	X	-.383	-.383	0	%100
44	M22	Z	-.664	-.664	0	%100
45	M23	X	-.124	-.124	0	%100
46	M23	Z	-.215	-.215	0	%100
47	M24	X	-.53	-.53	0	%100
48	M24	Z	-.917	-.917	0	%100
49	MP1A	X	-1.213	-1.213	0	%100
50	MP1A	Z	-2.101	-2.101	0	%100
51	MP2A	X	-1.213	-1.213	0	%100
52	MP2A	Z	-2.101	-2.101	0	%100
53	MP3A	X	-1.213	-1.213	0	%100
54	MP3A	Z	-2.101	-2.101	0	%100
55	MP4A	X	-1.213	-1.213	0	%100
56	MP4A	Z	-2.101	-2.101	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-.546	-.546	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-.546	-.546	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-.215	-.215	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	-.215	-.215	0	%100
9	M5	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
10	M5	Z	-.215	-.215	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	-.215	-.215	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	-.123	-.123	0	%100
15	M8	X	0	0	0	%100
16	M8	Z	-.123	-.123	0	%100
17	M9	X	0	0	0	%100
18	M9	Z	-.123	-.123	0	%100
19	M10	X	0	0	0	%100
20	M10	Z	-.123	-.123	0	%100
21	M11	X	0	0	0	%100
22	M11	Z	-.119	-.119	0	%100
23	M12	X	0	0	0	%100
24	M12	Z	-.119	-.119	0	%100
25	M13	X	0	0	0	%100
26	M13	Z	-.119	-.119	0	%100
27	M14	X	0	0	0	%100
28	M14	Z	-.119	-.119	0	%100
29	M15	X	0	0	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	0	0	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	0	0	0	%100
34	M17	Z	0	0	0	%100
35	M18	X	0	0	0	%100
36	M18	Z	0	0	0	%100
37	M19	X	0	0	0	%100
38	M19	Z	-.119	-.119	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	-.119	-.119	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	-.119	-.119	0	%100
43	M22	X	0	0	0	%100
44	M22	Z	-.119	-.119	0	%100
45	M23	X	0	0	0	%100
46	M23	Z	-.017	-.017	0	%100
47	M24	X	0	0	0	%100
48	M24	Z	-.017	-.017	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	-.451	-.451	0	%100
51	MP2A	X	0	0	0	%100
52	MP2A	Z	-.451	-.451	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	-.451	-.451	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	-.451	-.451	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.205	.205	0	%100
2	M1	Z	-.354	-.354	0	%100
3	M2	X	.205	.205	0	%100
4	M2	Z	-.354	-.354	0	%100
5	M3	X	.024	.024	0	%100
6	M3	Z	-.042	-.042	0	%100
7	M4	X	.024	.024	0	%100
8	M4	Z	-.042	-.042	0	%100
9	M5	X	.17	.17	0	%100
10	M5	Z	-.295	-.295	0	%100
11	M6	X	.17	.17	0	%100
12	M6	Z	-.295	-.295	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
13	M7	X	.049	.049	0	%100
14	M7	Z	-.085	-.085	0	%100
15	M8	X	.049	.049	0	%100
16	M8	Z	-.085	-.085	0	%100
17	M9	X	.071	.071	0	%100
18	M9	Z	-.122	-.122	0	%100
19	M10	X	.071	.071	0	%100
20	M10	Z	-.122	-.122	0	%100
21	M11	X	.059	.059	0	%100
22	M11	Z	-.103	-.103	0	%100
23	M12	X	.059	.059	0	%100
24	M12	Z	-.103	-.103	0	%100
25	M13	X	.059	.059	0	%100
26	M13	Z	-.103	-.103	0	%100
27	M14	X	.059	.059	0	%100
28	M14	Z	-.103	-.103	0	%100
29	M15	X	.015	.015	0	%100
30	M15	Z	-.026	-.026	0	%100
31	M16	X	.015	.015	0	%100
32	M16	Z	-.026	-.026	0	%100
33	M17	X	.015	.015	0	%100
34	M17	Z	-.026	-.026	0	%100
35	M18	X	.015	.015	0	%100
36	M18	Z	-.026	-.026	0	%100
37	M19	X	.044	.044	0	%100
38	M19	Z	-.077	-.077	0	%100
39	M20	X	.044	.044	0	%100
40	M20	Z	-.077	-.077	0	%100
41	M21	X	.044	.044	0	%100
42	M21	Z	-.077	-.077	0	%100
43	M22	X	.044	.044	0	%100
44	M22	Z	-.077	-.077	0	%100
45	M23	X	.098	.098	0	%100
46	M23	Z	-.17	-.17	0	%100
47	M24	X	.023	.023	0	%100
48	M24	Z	-.04	-.04	0	%100
49	MP1A	X	.225	.225	0	%100
50	MP1A	Z	-.39	-.39	0	%100
51	MP2A	X	.225	.225	0	%100
52	MP2A	Z	-.39	-.39	0	%100
53	MP3A	X	.225	.225	0	%100
54	MP3A	Z	-.39	-.39	0	%100
55	MP4A	X	.225	.225	0	%100
56	MP4A	Z	-.39	-.39	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.118	.118	0	%100
2	M1	Z	-.068	-.068	0	%100
3	M2	X	.118	.118	0	%100
4	M2	Z	-.068	-.068	0	%100
5	M3	X	.006	.006	0	%100
6	M3	Z	-.003	-.003	0	%100
7	M4	X	.006	.006	0	%100
8	M4	Z	-.003	-.003	0	%100
9	M5	X	.259	.259	0	%100
10	M5	Z	-.15	-.15	0	%100
11	M6	X	.259	.259	0	%100
12	M6	Z	-.15	-.15	0	%100
13	M7	X	.08	.08	0	%100
14	M7	Z	-.046	-.046	0	%100
15	M8	X	.08	.08	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
16	M8	Z	-.046	-.046	0	%100
17	M9	X	.117	.117	0	%100
18	M9	Z	-.068	-.068	0	%100
19	M10	X	.117	.117	0	%100
20	M10	Z	-.068	-.068	0	%100
21	M11	X	.103	.103	0	%100
22	M11	Z	-.059	-.059	0	%100
23	M12	X	.103	.103	0	%100
24	M12	Z	-.059	-.059	0	%100
25	M13	X	.103	.103	0	%100
26	M13	Z	-.059	-.059	0	%100
27	M14	X	.103	.103	0	%100
28	M14	Z	-.059	-.059	0	%100
29	M15	X	.077	.077	0	%100
30	M15	Z	-.044	-.044	0	%100
31	M16	X	.077	.077	0	%100
32	M16	Z	-.044	-.044	0	%100
33	M17	X	.077	.077	0	%100
34	M17	Z	-.044	-.044	0	%100
35	M18	X	.077	.077	0	%100
36	M18	Z	-.044	-.044	0	%100
37	M19	X	.026	.026	0	%100
38	M19	Z	-.015	-.015	0	%100
39	M20	X	.026	.026	0	%100
40	M20	Z	-.015	-.015	0	%100
41	M21	X	.026	.026	0	%100
42	M21	Z	-.015	-.015	0	%100
43	M22	X	.026	.026	0	%100
44	M22	Z	-.015	-.015	0	%100
45	M23	X	.351	.351	0	%100
46	M23	Z	-.202	-.202	0	%100
47	M24	X	.22	.22	0	%100
48	M24	Z	-.127	-.127	0	%100
49	MP1A	X	.39	.39	0	%100
50	MP1A	Z	-.225	-.225	0	%100
51	MP2A	X	.39	.39	0	%100
52	MP2A	Z	-.225	-.225	0	%100
53	MP3A	X	.39	.39	0	%100
54	MP3A	Z	-.225	-.225	0	%100
55	MP4A	X	.39	.39	0	%100
56	MP4A	Z	-.225	-.225	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	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	M3	X	.132	.132	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	.132	.132	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	.132	.132	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	.132	.132	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	.111	.111	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	.111	.111	0	%100
16	M8	Z	0	0	0	%100
17	M9	X	.111	.111	0	%100
18	M9	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,...	Start Location[ft,%]	End Location[ft,%]
19	M10	X	.111	.111	0	%100
20	M10	Z	0	0	0	%100
21	M11	X	.119	.119	0	%100
22	M11	Z	0	0	0	%100
23	M12	X	.119	.119	0	%100
24	M12	Z	0	0	0	%100
25	M13	X	.119	.119	0	%100
26	M13	Z	0	0	0	%100
27	M14	X	.119	.119	0	%100
28	M14	Z	0	0	0	%100
29	M15	X	.119	.119	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	.119	.119	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	.119	.119	0	%100
34	M17	Z	0	0	0	%100
35	M18	X	.119	.119	0	%100
36	M18	Z	0	0	0	%100
37	M19	X	0	0	0	%100
38	M19	Z	0	0	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	0	0	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	0	0	0	%100
43	M22	X	0	0	0	%100
44	M22	Z	0	0	0	%100
45	M23	X	.433	.433	0	%100
46	M23	Z	0	0	0	%100
47	M24	X	.433	.433	0	%100
48	M24	Z	0	0	0	%100
49	MP1A	X	.451	.451	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	.451	.451	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	.451	.451	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	.451	.451	0	%100
56	MP4A	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,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.118	.118	0	%100
2	M1	Z	.068	.068	0	%100
3	M2	X	.118	.118	0	%100
4	M2	Z	.068	.068	0	%100
5	M3	X	.259	.259	0	%100
6	M3	Z	.15	.15	0	%100
7	M4	X	.259	.259	0	%100
8	M4	Z	.15	.15	0	%100
9	M5	X	.006	.006	0	%100
10	M5	Z	.003	.003	0	%100
11	M6	X	.006	.006	0	%100
12	M6	Z	.003	.003	0	%100
13	M7	X	.117	.117	0	%100
14	M7	Z	.068	.068	0	%100
15	M8	X	.117	.117	0	%100
16	M8	Z	.068	.068	0	%100
17	M9	X	.08	.08	0	%100
18	M9	Z	.046	.046	0	%100
19	M10	X	.08	.08	0	%100
20	M10	Z	.046	.046	0	%100
21	M11	X	.103	.103	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
22	M11	Z	.059	.059	0	%100
23	M12	X	.103	.103	0	%100
24	M12	Z	.059	.059	0	%100
25	M13	X	.103	.103	0	%100
26	M13	Z	.059	.059	0	%100
27	M14	X	.103	.103	0	%100
28	M14	Z	.059	.059	0	%100
29	M15	X	.077	.077	0	%100
30	M15	Z	.044	.044	0	%100
31	M16	X	.077	.077	0	%100
32	M16	Z	.044	.044	0	%100
33	M17	X	.077	.077	0	%100
34	M17	Z	.044	.044	0	%100
35	M18	X	.077	.077	0	%100
36	M18	Z	.044	.044	0	%100
37	M19	X	.026	.026	0	%100
38	M19	Z	.015	.015	0	%100
39	M20	X	.026	.026	0	%100
40	M20	Z	.015	.015	0	%100
41	M21	X	.026	.026	0	%100
42	M21	Z	.015	.015	0	%100
43	M22	X	.026	.026	0	%100
44	M22	Z	.015	.015	0	%100
45	M23	X	.22	.22	0	%100
46	M23	Z	.127	.127	0	%100
47	M24	X	.351	.351	0	%100
48	M24	Z	.202	.202	0	%100
49	MP1A	X	.39	.39	0	%100
50	MP1A	Z	.225	.225	0	%100
51	MP2A	X	.39	.39	0	%100
52	MP2A	Z	.225	.225	0	%100
53	MP3A	X	.39	.39	0	%100
54	MP3A	Z	.225	.225	0	%100
55	MP4A	X	.39	.39	0	%100
56	MP4A	Z	.225	.225	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.205	.205	0	%100
2	M1	Z	.354	.354	0	%100
3	M2	X	.205	.205	0	%100
4	M2	Z	.354	.354	0	%100
5	M3	X	.17	.17	0	%100
6	M3	Z	.295	.295	0	%100
7	M4	X	.17	.17	0	%100
8	M4	Z	.295	.295	0	%100
9	M5	X	.024	.024	0	%100
10	M5	Z	.042	.042	0	%100
11	M6	X	.024	.024	0	%100
12	M6	Z	.042	.042	0	%100
13	M7	X	.071	.071	0	%100
14	M7	Z	.122	.122	0	%100
15	M8	X	.071	.071	0	%100
16	M8	Z	.122	.122	0	%100
17	M9	X	.049	.049	0	%100
18	M9	Z	.085	.085	0	%100
19	M10	X	.049	.049	0	%100
20	M10	Z	.085	.085	0	%100
21	M11	X	.059	.059	0	%100
22	M11	Z	.103	.103	0	%100
23	M12	X	.059	.059	0	%100
24	M12	Z	.103	.103	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
25	M13	X	.059	.059	0	%100
26	M13	Z	.103	.103	0	%100
27	M14	X	.059	.059	0	%100
28	M14	Z	.103	.103	0	%100
29	M15	X	.015	.015	0	%100
30	M15	Z	.026	.026	0	%100
31	M16	X	.015	.015	0	%100
32	M16	Z	.026	.026	0	%100
33	M17	X	.015	.015	0	%100
34	M17	Z	.026	.026	0	%100
35	M18	X	.015	.015	0	%100
36	M18	Z	.026	.026	0	%100
37	M19	X	.044	.044	0	%100
38	M19	Z	.077	.077	0	%100
39	M20	X	.044	.044	0	%100
40	M20	Z	.077	.077	0	%100
41	M21	X	.044	.044	0	%100
42	M21	Z	.077	.077	0	%100
43	M22	X	.044	.044	0	%100
44	M22	Z	.077	.077	0	%100
45	M23	X	.023	.023	0	%100
46	M23	Z	.04	.04	0	%100
47	M24	X	.098	.098	0	%100
48	M24	Z	.17	.17	0	%100
49	MP1A	X	.225	.225	0	%100
50	MP1A	Z	.39	.39	0	%100
51	MP2A	X	.225	.225	0	%100
52	MP2A	Z	.39	.39	0	%100
53	MP3A	X	.225	.225	0	%100
54	MP3A	Z	.39	.39	0	%100
55	MP4A	X	.225	.225	0	%100
56	MP4A	Z	.39	.39	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	.546	.546	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.546	.546	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	.215	.215	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	.215	.215	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	.215	.215	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	.215	.215	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	.123	.123	0	%100
15	M8	X	0	0	0	%100
16	M8	Z	.123	.123	0	%100
17	M9	X	0	0	0	%100
18	M9	Z	.123	.123	0	%100
19	M10	X	0	0	0	%100
20	M10	Z	.123	.123	0	%100
21	M11	X	0	0	0	%100
22	M11	Z	.119	.119	0	%100
23	M12	X	0	0	0	%100
24	M12	Z	.119	.119	0	%100
25	M13	X	0	0	0	%100
26	M13	Z	.119	.119	0	%100
27	M14	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,...	Start Location[ft,%]	End Location[ft,%]
28	M14	Z	.119	.119	0	%100
29	M15	X	0	0	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	0	0	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	0	0	0	%100
34	M17	Z	0	0	0	%100
35	M18	X	0	0	0	%100
36	M18	Z	0	0	0	%100
37	M19	X	0	0	0	%100
38	M19	Z	.119	.119	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	.119	.119	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	.119	.119	0	%100
43	M22	X	0	0	0	%100
44	M22	Z	.119	.119	0	%100
45	M23	X	0	0	0	%100
46	M23	Z	.017	.017	0	%100
47	M24	X	0	0	0	%100
48	M24	Z	.017	.017	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	.451	.451	0	%100
51	MP2A	X	0	0	0	%100
52	MP2A	Z	.451	.451	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	.451	.451	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	.451	.451	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.205	-.205	0	%100
2	M1	Z	.354	.354	0	%100
3	M2	X	-.205	-.205	0	%100
4	M2	Z	.354	.354	0	%100
5	M3	X	-.024	-.024	0	%100
6	M3	Z	.042	.042	0	%100
7	M4	X	-.024	-.024	0	%100
8	M4	Z	.042	.042	0	%100
9	M5	X	-.17	-.17	0	%100
10	M5	Z	.295	.295	0	%100
11	M6	X	-.17	-.17	0	%100
12	M6	Z	.295	.295	0	%100
13	M7	X	-.049	-.049	0	%100
14	M7	Z	.085	.085	0	%100
15	M8	X	-.049	-.049	0	%100
16	M8	Z	.085	.085	0	%100
17	M9	X	-.071	-.071	0	%100
18	M9	Z	.122	.122	0	%100
19	M10	X	-.071	-.071	0	%100
20	M10	Z	.122	.122	0	%100
21	M11	X	-.059	-.059	0	%100
22	M11	Z	.103	.103	0	%100
23	M12	X	-.059	-.059	0	%100
24	M12	Z	.103	.103	0	%100
25	M13	X	-.059	-.059	0	%100
26	M13	Z	.103	.103	0	%100
27	M14	X	-.059	-.059	0	%100
28	M14	Z	.103	.103	0	%100
29	M15	X	-.015	-.015	0	%100
30	M15	Z	.026	.026	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
31	M16	X	-.015	-.015	0	%100
32	M16	Z	.026	.026	0	%100
33	M17	X	-.015	-.015	0	%100
34	M17	Z	.026	.026	0	%100
35	M18	X	-.015	-.015	0	%100
36	M18	Z	.026	.026	0	%100
37	M19	X	-.044	-.044	0	%100
38	M19	Z	.077	.077	0	%100
39	M20	X	-.044	-.044	0	%100
40	M20	Z	.077	.077	0	%100
41	M21	X	-.044	-.044	0	%100
42	M21	Z	.077	.077	0	%100
43	M22	X	-.044	-.044	0	%100
44	M22	Z	.077	.077	0	%100
45	M23	X	-.098	-.098	0	%100
46	M23	Z	.17	.17	0	%100
47	M24	X	-.023	-.023	0	%100
48	M24	Z	.04	.04	0	%100
49	MP1A	X	-.225	-.225	0	%100
50	MP1A	Z	.39	.39	0	%100
51	MP2A	X	-.225	-.225	0	%100
52	MP2A	Z	.39	.39	0	%100
53	MP3A	X	-.225	-.225	0	%100
54	MP3A	Z	.39	.39	0	%100
55	MP4A	X	-.225	-.225	0	%100
56	MP4A	Z	.39	.39	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.118	-.118	0	%100
2	M1	Z	.068	.068	0	%100
3	M2	X	-.118	-.118	0	%100
4	M2	Z	.068	.068	0	%100
5	M3	X	-.006	-.006	0	%100
6	M3	Z	.003	.003	0	%100
7	M4	X	-.006	-.006	0	%100
8	M4	Z	.003	.003	0	%100
9	M5	X	-.259	-.259	0	%100
10	M5	Z	.15	.15	0	%100
11	M6	X	-.259	-.259	0	%100
12	M6	Z	.15	.15	0	%100
13	M7	X	-.08	-.08	0	%100
14	M7	Z	.046	.046	0	%100
15	M8	X	-.08	-.08	0	%100
16	M8	Z	.046	.046	0	%100
17	M9	X	-.117	-.117	0	%100
18	M9	Z	.068	.068	0	%100
19	M10	X	-.117	-.117	0	%100
20	M10	Z	.068	.068	0	%100
21	M11	X	-.103	-.103	0	%100
22	M11	Z	.059	.059	0	%100
23	M12	X	-.103	-.103	0	%100
24	M12	Z	.059	.059	0	%100
25	M13	X	-.103	-.103	0	%100
26	M13	Z	.059	.059	0	%100
27	M14	X	-.103	-.103	0	%100
28	M14	Z	.059	.059	0	%100
29	M15	X	-.077	-.077	0	%100
30	M15	Z	.044	.044	0	%100
31	M16	X	-.077	-.077	0	%100
32	M16	Z	.044	.044	0	%100
33	M17	X	-.077	-.077	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
34	M17	Z	.044	.044	0	%100
35	M18	X	-.077	-.077	0	%100
36	M18	Z	.044	.044	0	%100
37	M19	X	-.026	-.026	0	%100
38	M19	Z	.015	.015	0	%100
39	M20	X	-.026	-.026	0	%100
40	M20	Z	.015	.015	0	%100
41	M21	X	-.026	-.026	0	%100
42	M21	Z	.015	.015	0	%100
43	M22	X	-.026	-.026	0	%100
44	M22	Z	.015	.015	0	%100
45	M23	X	-.351	-.351	0	%100
46	M23	Z	.202	.202	0	%100
47	M24	X	-.22	-.22	0	%100
48	M24	Z	.127	.127	0	%100
49	MP1A	X	-.39	-.39	0	%100
50	MP1A	Z	.225	.225	0	%100
51	MP2A	X	-.39	-.39	0	%100
52	MP2A	Z	.225	.225	0	%100
53	MP3A	X	-.39	-.39	0	%100
54	MP3A	Z	.225	.225	0	%100
55	MP4A	X	-.39	-.39	0	%100
56	MP4A	Z	.225	.225	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	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	M3	X	-.132	-.132	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	-.132	-.132	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	-.132	-.132	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	-.132	-.132	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	-.111	-.111	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	-.111	-.111	0	%100
16	M8	Z	0	0	0	%100
17	M9	X	-.111	-.111	0	%100
18	M9	Z	0	0	0	%100
19	M10	X	-.111	-.111	0	%100
20	M10	Z	0	0	0	%100
21	M11	X	-.119	-.119	0	%100
22	M11	Z	0	0	0	%100
23	M12	X	-.119	-.119	0	%100
24	M12	Z	0	0	0	%100
25	M13	X	-.119	-.119	0	%100
26	M13	Z	0	0	0	%100
27	M14	X	-.119	-.119	0	%100
28	M14	Z	0	0	0	%100
29	M15	X	-.119	-.119	0	%100
30	M15	Z	0	0	0	%100
31	M16	X	-.119	-.119	0	%100
32	M16	Z	0	0	0	%100
33	M17	X	-.119	-.119	0	%100
34	M17	Z	0	0	0	%100
35	M18	X	-.119	-.119	0	%100
36	M18	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,...	Start Location[ft,%]	End Location[ft,%]
37	M19	X	0	0	0	%100
38	M19	Z	0	0	0	%100
39	M20	X	0	0	0	%100
40	M20	Z	0	0	0	%100
41	M21	X	0	0	0	%100
42	M21	Z	0	0	0	%100
43	M22	X	0	0	0	%100
44	M22	Z	0	0	0	%100
45	M23	X	-.433	-.433	0	%100
46	M23	Z	0	0	0	%100
47	M24	X	-.433	-.433	0	%100
48	M24	Z	0	0	0	%100
49	MP1A	X	-.451	-.451	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	-.451	-.451	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	-.451	-.451	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	-.451	-.451	0	%100
56	MP4A	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,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.118	-.118	0	%100
2	M1	Z	-.068	-.068	0	%100
3	M2	X	-.118	-.118	0	%100
4	M2	Z	-.068	-.068	0	%100
5	M3	X	-.259	-.259	0	%100
6	M3	Z	-.15	-.15	0	%100
7	M4	X	-.259	-.259	0	%100
8	M4	Z	-.15	-.15	0	%100
9	M5	X	-.006	-.006	0	%100
10	M5	Z	-.003	-.003	0	%100
11	M6	X	-.006	-.006	0	%100
12	M6	Z	-.003	-.003	0	%100
13	M7	X	-.117	-.117	0	%100
14	M7	Z	-.068	-.068	0	%100
15	M8	X	-.117	-.117	0	%100
16	M8	Z	-.068	-.068	0	%100
17	M9	X	-.08	-.08	0	%100
18	M9	Z	-.046	-.046	0	%100
19	M10	X	-.08	-.08	0	%100
20	M10	Z	-.046	-.046	0	%100
21	M11	X	-.103	-.103	0	%100
22	M11	Z	-.059	-.059	0	%100
23	M12	X	-.103	-.103	0	%100
24	M12	Z	-.059	-.059	0	%100
25	M13	X	-.103	-.103	0	%100
26	M13	Z	-.059	-.059	0	%100
27	M14	X	-.103	-.103	0	%100
28	M14	Z	-.059	-.059	0	%100
29	M15	X	-.077	-.077	0	%100
30	M15	Z	-.044	-.044	0	%100
31	M16	X	-.077	-.077	0	%100
32	M16	Z	-.044	-.044	0	%100
33	M17	X	-.077	-.077	0	%100
34	M17	Z	-.044	-.044	0	%100
35	M18	X	-.077	-.077	0	%100
36	M18	Z	-.044	-.044	0	%100
37	M19	X	-.026	-.026	0	%100
38	M19	Z	-.015	-.015	0	%100
39	M20	X	-.026	-.026	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
40	M20	Z	-.015	-.015	0	%100
41	M21	X	-.026	-.026	0	%100
42	M21	Z	-.015	-.015	0	%100
43	M22	X	-.026	-.026	0	%100
44	M22	Z	-.015	-.015	0	%100
45	M23	X	-.22	-.22	0	%100
46	M23	Z	-.127	-.127	0	%100
47	M24	X	-.351	-.351	0	%100
48	M24	Z	-.202	-.202	0	%100
49	MP1A	X	-.39	-.39	0	%100
50	MP1A	Z	-.225	-.225	0	%100
51	MP2A	X	-.39	-.39	0	%100
52	MP2A	Z	-.225	-.225	0	%100
53	MP3A	X	-.39	-.39	0	%100
54	MP3A	Z	-.225	-.225	0	%100
55	MP4A	X	-.39	-.39	0	%100
56	MP4A	Z	-.225	-.225	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[lb/ft,...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.205	-.205	0	%100
2	M1	Z	-.354	-.354	0	%100
3	M2	X	-.205	-.205	0	%100
4	M2	Z	-.354	-.354	0	%100
5	M3	X	-.17	-.17	0	%100
6	M3	Z	-.295	-.295	0	%100
7	M4	X	-.17	-.17	0	%100
8	M4	Z	-.295	-.295	0	%100
9	M5	X	-.024	-.024	0	%100
10	M5	Z	-.042	-.042	0	%100
11	M6	X	-.024	-.024	0	%100
12	M6	Z	-.042	-.042	0	%100
13	M7	X	-.071	-.071	0	%100
14	M7	Z	-.122	-.122	0	%100
15	M8	X	-.071	-.071	0	%100
16	M8	Z	-.122	-.122	0	%100
17	M9	X	-.049	-.049	0	%100
18	M9	Z	-.085	-.085	0	%100
19	M10	X	-.049	-.049	0	%100
20	M10	Z	-.085	-.085	0	%100
21	M11	X	-.059	-.059	0	%100
22	M11	Z	-.103	-.103	0	%100
23	M12	X	-.059	-.059	0	%100
24	M12	Z	-.103	-.103	0	%100
25	M13	X	-.059	-.059	0	%100
26	M13	Z	-.103	-.103	0	%100
27	M14	X	-.059	-.059	0	%100
28	M14	Z	-.103	-.103	0	%100
29	M15	X	-.015	-.015	0	%100
30	M15	Z	-.026	-.026	0	%100
31	M16	X	-.015	-.015	0	%100
32	M16	Z	-.026	-.026	0	%100
33	M17	X	-.015	-.015	0	%100
34	M17	Z	-.026	-.026	0	%100
35	M18	X	-.015	-.015	0	%100
36	M18	Z	-.026	-.026	0	%100
37	M19	X	-.044	-.044	0	%100
38	M19	Z	-.077	-.077	0	%100
39	M20	X	-.044	-.044	0	%100
40	M20	Z	-.077	-.077	0	%100
41	M21	X	-.044	-.044	0	%100
42	M21	Z	-.077	-.077	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,...	Start Location[ft,%]	End Location[ft,%]
43	M22	X	-.044	-.044	0	%100
44	M22	Z	-.077	-.077	0	%100
45	M23	X	-.023	-.023	0	%100
46	M23	Z	-.04	-.04	0	%100
47	M24	X	-.098	-.098	0	%100
48	M24	Z	-.17	-.17	0	%100
49	MP1A	X	-.225	-.225	0	%100
50	MP1A	Z	-.39	-.39	0	%100
51	MP2A	X	-.225	-.225	0	%100
52	MP2A	Z	-.39	-.39	0	%100
53	MP3A	X	-.225	-.225	0	%100
54	MP3A	Z	-.39	-.39	0	%100
55	MP4A	X	-.225	-.225	0	%100
56	MP4A	Z	-.39	-.39	0	%100

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	1456.788	33	1026.747	24	1224.065	13	-.159	69	0	75	.279	32
2		min	-76.304	3	380.919	69	-11.756	7	-.431	13	0	1	-.011	2
3	N2	max	439.401	10	1038.829	18	-73.844	7	-.161	75	0	1	-.012	2
4		min	-1479.688	28	383.641	75	-1049.424	13	-.436	18	0	75	0	75
5	N56	max	109.004	10	52.823	18	467.452	12	0	75	0	1	0	1
6		min	-121.532	4	18.509	74	-528.34	6	0	1	0	75	0	75
7	N57	max	254.642	8	52.902	20	1196.535	2	0	75	0	1	0	1
8		min	-241.665	2	18.509	65	-1260.51	8	0	1	0	75	0	75
9	Totals:	max	1219.733	9	2162.366	21	1624.737	1						
10		min	-1219.734	3	802.401	67	-1624.738	7						

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

	Member	Shape	Code Check	Lo...	LC	Shear Check	Lo...	...	...	phi*P...	phi*P...	phi*M...	phi*M...	...	Eqn
1	M1	PIPE_2.5	.270	8.7...	30	.088	8.7...		43	1455...	50715	3.596	3.596	...	H1-1b
2	M2	PIPE_2.5	.258	8.7...	33	.096	8.7...		2	1455...	50715	3.596	3.596	...	H1-1b
3	M3	PIPE_2.0	.099	0	5	.041	0		17	3112...	32130	1.872	1.872	...	H1-1b
4	M4	PIPE_2.0	.054	0	8	.035	0		13	3112...	32130	1.872	1.872	...	H1-1b
5	M5	PIPE_2.0	.099	2.5...	32	.085	0		33	3112...	32130	1.872	1.872	...	H1-1b
6	M6	PIPE_2.0	.131	0	3	.072	0		32	3112...	32130	1.872	1.872	...	H1-1b
7	M7	SR_0.75	.000	4.1...	32	.006	4.1...		32	2863...	1391...	.174	.174	...	H1-...
8	M8	SR_0.75	.031	0	14	.012	0		2	2863...	1391...	.174	.174	...	H1-...
9	M9	SR_0.75	.000	0	75	.014	0		31	2863...	1391...	.174	.174	...	H1-1a
10	M10	SR_0.75	.087	4.1...	31	.018	0		33	2863...	1391...	.174	.174	...	H1-...
11	M11	SR_0.625	.039	1.6...	11	.014	0		32	2158...	9664...	.101	.101	...	H1-1b
12	M12	SR_0.625	.030	1.6...	9	.014	0		8	2158...	9664...	.101	.101	...	H1-1b
13	M13	SR_0.625	.044	1.6...	7	.015	0		2	2158...	9664...	.101	.101	1	H1-1b
14	M14	SR_0.625	.113	0	2	.016	0		32	2158...	9664...	.101	.101	...	H1-...
15	M15	PL5/8X3.5	.102	0	3	.106	.422	y	5	6618...	6890...	.897	5.024	...	H1-1b
16	M16	PL5/8X3.5	.075	.422	20	.053	.422	y	8	6618...	6890...	.897	5.024	...	H1-1b
17	M17	PL5/8X3.5	.274	0	32	.100	0	y	1	6618...	6890...	.897	5.024	...	H1-1b
18	M18	PL5/8X3.5	.216	0	25	.121	.422	y	3	6618...	6890...	.897	5.024	...	H1-1b
19	M19	PL5/8X3.5	.152	.531	13	.040	0	y	6	6759...	6890...	.897	5.024	...	H1-1b
20	M20	PL5/8X3.5	.410	.531	27	.063	0	y	27	6759...	6890...	.897	5.024	...	H1-1b
21	M21	PL5/8X3.5	.167	.531	14	.021	.531	y	1	6759...	6890...	.897	5.024	...	H1-1b
22	M22	PL5/8X3.5	.427	.531	36	.046	.531	y	25	6759...	6890...	.897	5.024	...	H1-1b
23	M23	PIPE_2.0	.099	5.9...	10	.006	0		22	7005...	32130	1.872	1.872	...	H1-1b
24	M24	PIPE_2.0	.174	11...	2	.006	0		22	7005...	32130	1.872	1.872	...	H1-...
25	MP1A	PIPE_2.0	.415	2.3...	27	.068	5.6...		36	1491...	32130	1.872	1.872	...	H1-1b
26	MP2A	PIPE_2.0	.312	2.3...	2	.083	2.3...		8	1491...	32130	1.872	1.872	...	H1-1b
27	MP3A	PIPE_2.0	.167	2.3...	32	.048	4.0...		9	1491...	32130	1.872	1.872	...	H1-1b
28	MP4A	PIPE_2.0	.071	2.3...	21	.011	2.3...		33	1491...	32130	1.872	1.872	...	H1-1b

VzW SMART Tool© Vendor

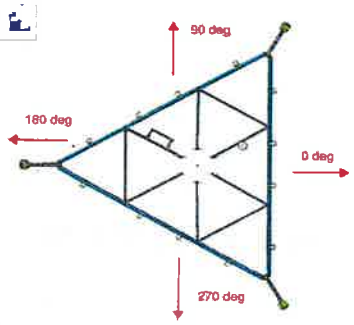
Client:	Verizon Wireless	Date:	8/1/2023
Site Name:	STAMFORD NW CT		
MDG #:	5000386730		
Fuze ID #:	17123711	Page:	1

Version 1.01

I. Mount-to-Tower Connection Check

Custom Orientation Required — Yes

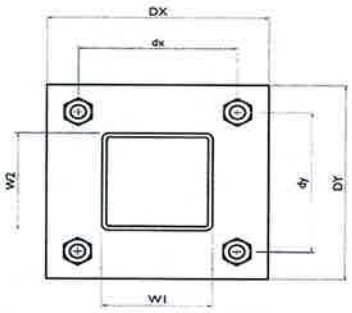
Nodes (labeled per Risa)	Orientation (per graphic of typical platform)
N1	0
N2	0



Tower Connection Bolt Checks — Yes

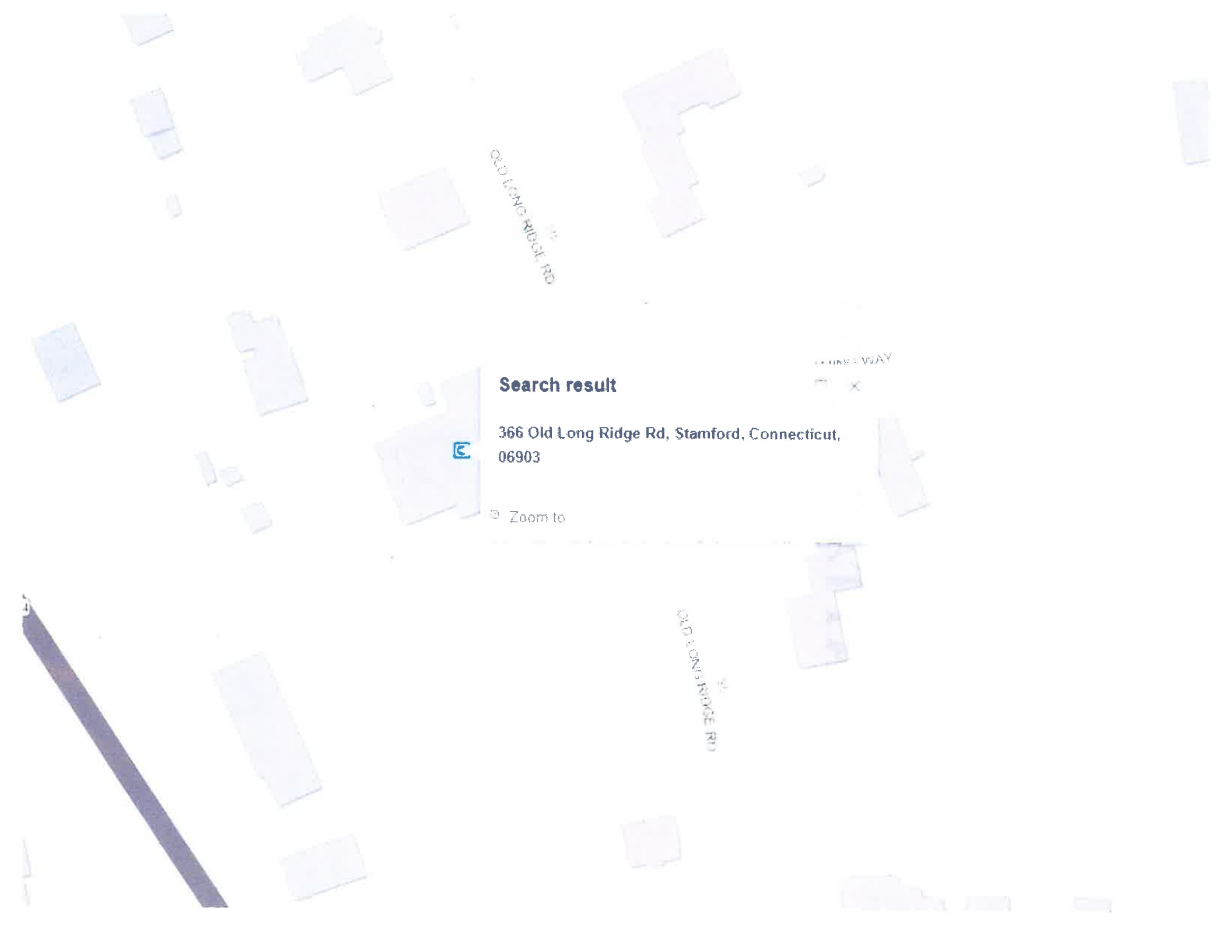
Bolt Orientation — Parallel

Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	12
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	5
Bolt Type:	A307
Bolt Diameter (in):	0.5
Required Tensile Strength / bolt (kips):	0.7
Required Shear Strength / bolt (kips):	0.6
Tensile Capacity / bolt (kips):	6.6
Shear Capacity / bolt (kips):	4.0
Bolt Overall Utilization:	13.9%



Tower Connection Baseplate Checks — No

ATTACHMENT 4


OLD LONG RIDGE RD
Search result
366 Old Long Ridge Rd, Stamford, Connecticut, 06903
Zoom to
OLD LONG RIDGE RD

Property Location 366 OLD LONG RIDGE ROAD | Map ID 002/ 6549/ / / | Bldg Name | State Use 902C
Vision ID 24275 | Account # 002-6549 | Bldg # 1 | Sec # 1 of 1 | Card # 1 of 1 | 5/11/2023 3:09:42 PM

CURRENT OWNER

LONG RIDGE FIRE CO INC

366 OLD LONG RIDGE RD

STAMFORD CT 06903-1133

TOPO	UTILITIES	STRT / ROAD	LOCATION
	6 Septic	3 Unpaved	
	5 Well	1 Paved	
	7		

SUPPLEMENTAL DATA

Alt Prcl ID	14 400 B	DSSD	
Survey1	11116	Agent Nam	
Survey2		Roll	2
Census Tr	203	Common	LONG RIDGE FIR
Census Bl	3005	Neighborh	N STAM:
Sewer Acct			
GIS ID	W 016 6320	Assoc Pid#	

CURRENT ASSESSMENT

Description	Code	Appraised	Assessed
EX COM LN	21	365,320	255,720
EX COM BL	22	1,534,420	1,074,100
EX CM OTB	25	734,040	513,840
	Total	2,633,780	1,843,660

6135

STAMFORD, CT

VISION

RECORD OF OWNERSHIP

RECORD OF OWNERSHIP	BK-VOL/PAGE		SALE DATE	Q/U	V/I	SALE PRICE	VC
LONG RIDGE FIRE CO INC	0686	0581	01-14-1953	U	I	0	25

PREVIOUS ASSESSMENTS (HISTORY)

Year	Code	Assessed	Year	Code	Assessed	Year	Code	Assessed
2022	21	255,720	2022	21	255,720	2022	21	255,720
	22	1,074,100		22	1,074,100		22	1,074,100
	25	513,840		25	513,840		25	513,840
	Total	1,843,660		Total	1,843,660		Total	1,843,660

EXEMPTIONS

Year	Code	Description	Amount
2012	CAAX	Volunteer Fire Company	1843660.00
		Total	1,843,660.00

OTHER ASSESSMENTS

Code	Description	Number	Amount	Comm Int

This signature acknowledges a visit by a Data Collector or Assessor

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	1,492,440
Appraised Xf (B) Value (Bldg)	41,980
Appraised Ob (B) Value (Bldg)	734,040
Appraised Land Value (Bldg)	365,320
Special Land Value	0
Total Appraised Parcel Value	2,633,780
Valuation Method	C
Total Appraised Parcel Value	2,633,780

ASSESSING NEIGHBORHOOD

Nbhd	Nbhd Name	B	Tracing	Batch
0100				

NOTES

1 STRY FIREHOUSE
LONG RIDGE FIRE CO
ATT
SPRINT
NEXTEL
2 FC1 OWNED BY CITY

BUILDING PERMIT RECORD

Permit Id	Issue Date	Type	Description	Amount	Insp Date	% Comp	Date Comp	Comments
B-21-1245	07-06-2021	NV	No Value	0		0		VERIZON WILL SWAP 3 ANT
B-21-442	03-04-2021	NV	No Value	0		100	04-19-2022	REPLACEMENT OF 6 CELLU
76376	01-26-1996	RE		0	10-01-1996			C/O 25198 10-6-97 INTER AL
73737	12-09-1993	AD		221,070	10-06-1994			C/O 22755 6-23-94. SECOND

VISIT / CHANGE HISTORY

Date	Id	Type	Is	Cd	Purpost/Result
08-15-2022	MVS			01	Measur+1Visit
10-15-2012	SM			80	Walk Around, No one hom
07-31-2012	SM			00	Measur+Listed

LAND LINE VALUATION SECTION

B	Use Code	Description	Zone	Distri	District Desc.	Land Units		Unit Price	I. Factor	Site Index	Cond.	Nbhd.	Nbhd Adj	Notes	Location Adjustment		Adj Unit Pric	Land Value
1	902C	Exmpt Comm M	RA2	3		0.490	AC	407,029.70	1.83169	C	1.00	0100	1.000			0	745,556.3	365,320
		Total Card Land Units				0.49	AC	Parcel Total Land Area:	0.49								Total Land Value	365,320

Property Location 366 OLD LONG RIDGE ROAD | Map ID 002/ 6549/ / / | Bldg Name | State Use 902C
Vision ID 24275 | Account # 002-6549 | Bldg # 1 | Sec # 1 of 1 | Card # 1 of 1 | 5/11/2023 3:09:43 PM

CONSTRUCTION DETAIL

Element	Cd	Description
Style:	89	Fire Station
Model	96	Ind/Comm
Grade	07	B
Stories:	1	
Occupancy	1.00	
Exterior Wall 1	23	Brick/Masonry
Exterior Wall 2		
Roof Structure	03	Gable/Hip
Roof Cover	03	Asph/F Gls/Cmp
Interior Wall 1	01	Minimum
Interior Wall 2	05	Drywall/Plaste
Interior Floor 1	03	Concrete Slab
Interior Floor 2	05	Vinyl/Asphalt
Heating Fuel	03	Oil
Heating Type	03	Forced Air-Duc
AC Type	07	Partial A/C
Bldg Use	902C	Exmpt Comm MDL-94
Total Rooms		
Total Bedrms	00	
Total Baths	0	
Heat/AC	01	Heat/AC Pkgs
Frame Type	06	FireProofSteel
Baths/Plumbing	02	Average
Ceiling/Wall	04	Ceil & Mn Wall
Rooms/Prtns	02	Average
Wall Height	11.00	
% Comn Wall		
1st Floor Use:	902C	

CONSTRUCTION DETAIL (CONTINUED)

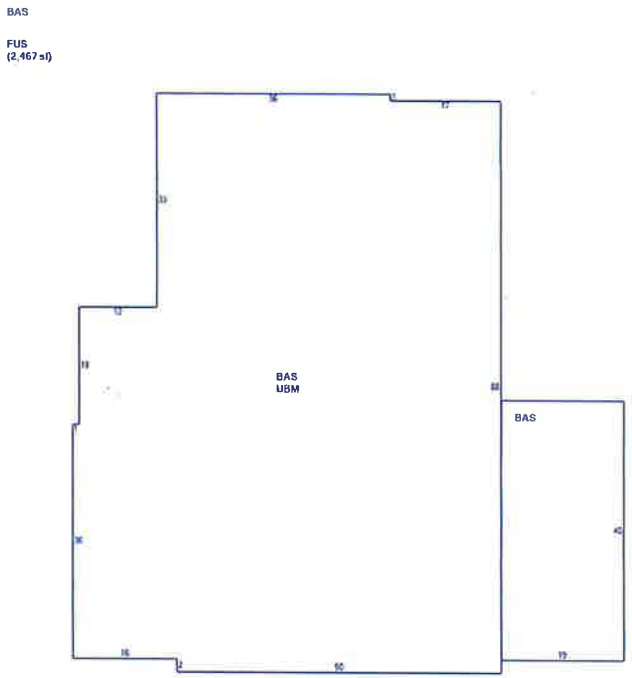
Element	Cd	Description

MIXED USE

Code	Description	Percentage
902C	Exmpt Comm MDL-94	100
		0
		0

COST / MARKET VALUATION

RCN	1,989,918
Year Built	1956
Effective Year Built	
Depreciation Code	A
Remodel Rating	
Year Remodeled	
Depreciation %	25
Functional Obsol	
External Obsol	
Trend Factor	1
Condition	
Condition %	
Percent Good	75
RCNLD	1,492,440
Dep % Ovr	
Dep Ovr Comment	
Misc Imp Ovr	
Misc Imp Ovr Comment	
Cost to Cure Ovr	
Cost to Cure Ovr Comment	



OB - OUTBUILDING & YARD ITEMS(L) / XF - BUILDING EXTRA FEATURES(B)

Code	Description	L/B	Units	Unit Price	Yr Blt	Cond. Cd	% Good	Grade	Grade Adj	Appr. Value
LP6	Patio Asphlt	L	480	4.00	2012	A	75	C	1.00	1,440
FC1	Shed Wood	L	108	17.00	2012	A	75	C	1.00	1,380
FC1	Shed Wood	L	560	17.00	2012	A	75	C	1.00	7,140
RG4	Gar 1.0 Det	L	1,008	62.00	2012	A	75	C	1.00	46,870
CEL1	Cell Tower	L	3	300000.0	2012	A	75		0.00	675,000
OH1	Door Overhd C	B	4	7500.00	1992		75	C	1.00	22,500
CSHD	Cell Equipment	L	56	35.00	2012	A	75	B	1.50	2,210
H04	Air Con/Sfla	B	9,620	2.70	1992		75		0.00	19,480

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Floor Area	Eff Area	Unit Cost	Undeprec Value
BAS	First Floor	6,102	6,102		200.72	1,224,781
FUS	Upper Story, Finished	2,467	2,467		200.72	495,171
UBM	Basement, Unfinished	0	5,378		50.20	269,966
	Ttl Gross Liv / Lease Area	8,569	13,947			1,989,918

ATTACHMENT 5

Verizon/Stamford NW

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here *Postmark with Date of Receipt.*
Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	3	3	neopost 01/05/2024 US POSTAGE $003.19 ZIP 06103 041L12203937 JAN - 5 '24
	Postmaster, per *(name of receiving employee)*		

USPS® Tracking Number / Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Caroline Simmons, Mayor City of Stamford - Stamford Government Center 888 Washington Boulevard Stamford, CT 06901				
2.	Ralph Blessing, Land Use Bureau Chief City of Stamford - Stamford Government Center 888 Washington Boulevard Stamford, CT 06901				
3.	Long Ridge Fire Company Inc. 366 Old Long Ridge Road Stamford, CT 06903				
4.					
5.					
6.					