Robinson+Cole

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Also admitted in Massachusetts
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July 25, 2022

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

Re: **EM-VER-155-211105 – Cellco Partnership d/b/a Verizon Wireless**
Telecommunications Facility, 14-20 Isham Road, West Hartford, Connecticut

Completion of Construction

Dear Ms. Bachman:

The purpose of this letter is to notify the Siting Council that construction activity associated with the above-referenced Cellco Partnership d/b/a Verizon Wireless facility modification has been completed.

Please note that during construction of the approved facility modifications, it was determined that Cellco would need to replace the existing antenna mounts altogether, rather than perform the mount modifications that were described in the September 28, 2021 Mounts Analysis ("MA") Report by Maser Consulting ("Maser"). To address this change, Cellco asked Maser to perform a new Mounts Analysis, and Dewberry Engineers, Inc. ("Dewberry") perform a new Structural Analysis ("MA") noting this change. Attached are copies of the March 16, 2022 modified MA and the April 27, 2022 modified SA for Council records.

As required by the Council's approval, also attached is a letter from Dewberry Engineers Inc. dated July 22, 2022, verifying that Cellco's facility modifications were completed in accordance with an (updated) March 16, 2022 MA by Maser Consulting, and the April 27, 2022 SA by Dewberry.

If you have any questions or need any additional information regarding this facility, please do not hesitate to contact me.

Sincerely,

Kenneth C. Baldwin

KCB/kmd
Attachments

Maser Consulting Connecticut
1055 Washington Boulevard
Stamford, CT 06901
203.324.0800
peter.albano@colliersengineering.com

New/Replacement Antenna Mount Analysis Report and PMI Requirements

Mount Analysis-R

SMART Tool Project #: 10135430
Maser Consulting Connecticut Project #: 21777247A

March 16, 2022

Site Information	*Site ID:*	*535840-VZW/WEST HARTFORD CENTER CT*
	Site Name:	*WEST HARTFORD CENTER CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*14-20 Isham Road* *West Hartford, Connecticut 06107* *Hartford County*
	Latitude:	*41.761556°*
	Longitude:	*-72.740375°*
Structure Information	*Tower Type:*	*125-Ft Guyed*
	Mount Type:	*13.00-Ft Sector Frame*

FUZE ID # 16273383

Analysis Results

Sector Frame: **42.0% Pass w/ Mount Replacement***
((3) Site Pro 1 P/N: VFA12-HD)

***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: Abigail Enriquez

Executive Summary:

The objective of this report is to determine the capacity of the proposed antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. The proposed mount was assumed to be installed properly to the existing tower per the manufacturer's instructions. Maser Consulting Connecticut cannot verify that the proposed mount will fit properly and is not liable for any fit-up issues during installation.

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: 325091, dated February 14, 2022*
Direction Email	*Verizon Wireless, dated March 10, 2022*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	117 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.50 in
	Risk Category:	II
	Exposure Category:	B
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.996
Seismic Parameters:	S_S:	0.19 g
	S_1:	0.06 g
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
102.00	105.5	3	Samsung	MT6407-77A	Added
	104.00	6	Andrew	SBNHH-1D65B	Retained
		1	Antel	BXA-80063/4	
		2	Swedcom	SLCP 2x6014	
		3	Samsung	B5/B13 RRH-BR04C*	
		3	Samsung	B2/B66A RRH-BR049	
		1	Raycap	RVZDC-6627-PF-48*	Added
	102.00	3	Samsung	XXDWMM-12.5-65-8T-CBRS	

* Equipment is to be flush mounted directly to the Guyed tower. They are not mounted on sector mounts and are not included in this mount analysis.

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

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

Standard Conditions:

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

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

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. Maser Consulting Connecticut is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
Tieback	*6.6%*	*Pass*
Standoff Vertical	*10.1%*	*Pass*
Antenna Pipe	*42.0%*	*Pass*
Standoff Diagonal	*7.3%*	*Pass*
Standoff Plate	*37.7%*	*Pass*
Standoff Horizontal	*23.1%*	*Pass*
Horizontal mount pipe	*37.8%*	*Pass*
Connection Check	*10.4%*	*Pass*

Structure Rating – *(Controlling Utilization of all Components)*	**42.0%**

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	10.6	4.9	17.5	11.7
0.5	16.7	9.0	26.4	18.7
1	22.3	12.6	34.9	25.2

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 proposed antenna mounts are **SUFFICIENT** for the final loading configuration (attachment 2) upon completion of the mount replacement (attachment 3) and requirements below.

Contractor shall remove existing mount and associated hardware. Contractor shall wire brush clean all damaged tower members and protect with two (2) coats of cold galvanization (Zinga or Zinc Kote).

Contractor shall install new mount such that mount centerline is 2'-0" below 104'-0" desired antenna centerline.

Mount centerline shall be considered as the midpoint between the face horizontals for sector frames.

Contractor shall install the proposed mount such that mount azimuth matches the desired equipment azimuths listed in the referenced RFDS.

Contractor shall install new (4)96" long P2 STD mount pipes for each sector. Mount pipes shall be equally spaced at 4'-0" on center while maintaining 3" edge distance from the ends of the face horizontals. The top of pipes shall extend 43" above the top face horizontal. Attach using provided kit crossover plates.

Contractor shall attach tieback to the top/bottom face horizontal member, at 39" from the left/right end (as seen from behind the mount). Connect the other end to the adjacent tower leg. Proposed tieback shall extend no more than 12" beyond the tower leg. Contractor shall trim as required and protect cut end with two (2) coats of cold galvanization (Zinga or Zinc Kote).

Contractor shall inspect climbing facilities and safety climb 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.

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

Attachments:

1. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Manufacturer Drawings
4. Existing Mount Photos
5. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – New Mount Passing MA

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

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PSLC #: 535840 SMART Project #: 10135430 Fuze Project ID: 16273383

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 of mounts. 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.
    - Photos of each installed mount; pictures shall also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
    - Photos showing the installed mount elevation.

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 remove existing mount and associated hardware. Contractor shall wire brush clean all damaged tower members and protect with two (2) coats of cold galvanization (Zinga or Zinc Kote).

Contractor shall install new mount such that mount centerline is 2'-0" below 104'-0" desired antenna centerline.

Mount centerline shall be considered as the midpoint between the face horizontals for sector frames.

Contractor shall install the proposed mount such that mount azimuth matches the desired equipment azimuths listed in the referenced RFDS.

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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.

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

Comments:

New Mount Certification:

☐ The contractor certifies that the New Mount installed is as specified in the Passing Mount Analysis.

☐ The contractor notes that the New Mount installed is not as specified and engineering approval was received for the New Mount installed.

Certifying Individual:

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

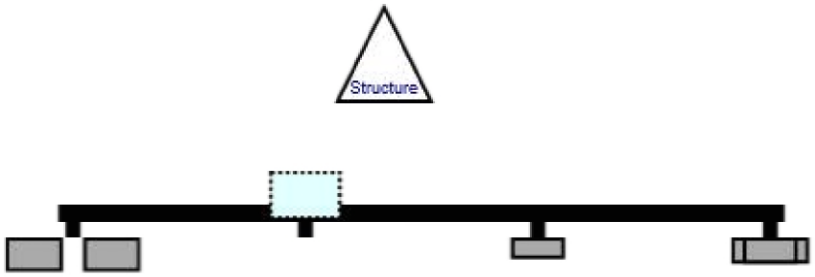
Structure: 535840-VZW - WEST HARTFORD CENTER CT

Sector: **A**
Structure Type: Guyed
Mount Elev: 102.00

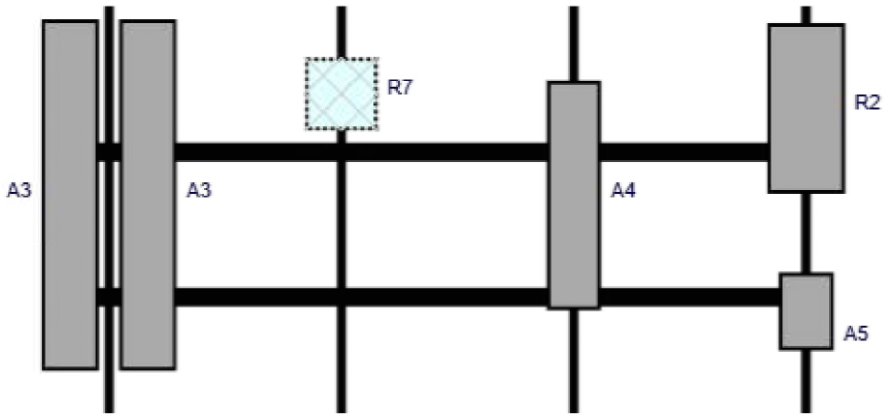
10135430

3/14/2022
Page: 1

Plan View

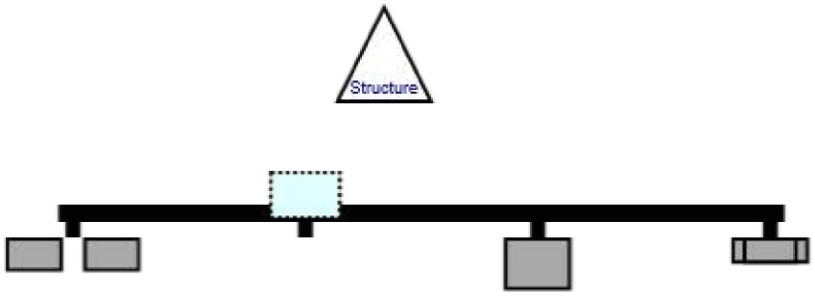


Front View - Looking at Structure



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
A5	XXDWMM-12.5-65-8T-CBRS	16.2	11.4	147	1	a	Front	63	0	Added	
R2	MT6407-77A	35.1	16.1	147	1	a	Front	21	0	Added	
A4	BXA-80063/4	47.4	11.2	99	2	a	Front	39	0	Retained	
R7	B2/B66A RRH-BR049	15	15	51	3	b	Behind	18	0	Retained	04/05/2021
A3	SBNHH-1D65B	72.6	11.9	3	4	a	Front	39	8	Retained	04/05/2021
A3	SBNHH-1D65B	72.6	11.9	3	4	b	Front	39	-8	Retained	04/05/2021

Plan View



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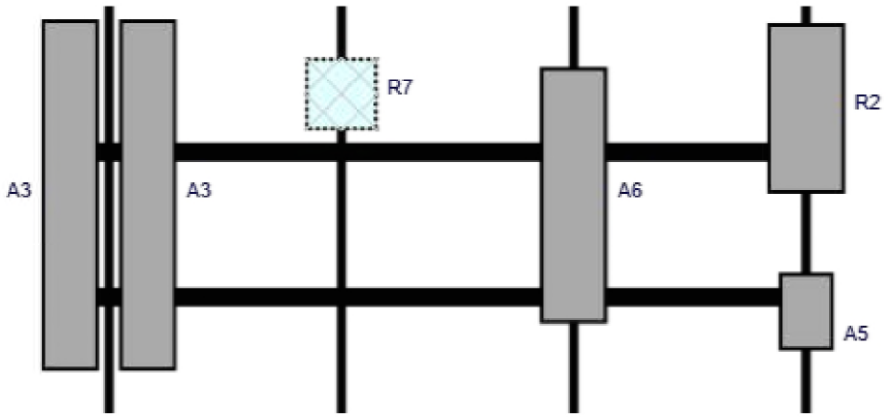

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A6	SLCP 2x6014	53	14	99	2	a	Front	39	0	Retained	
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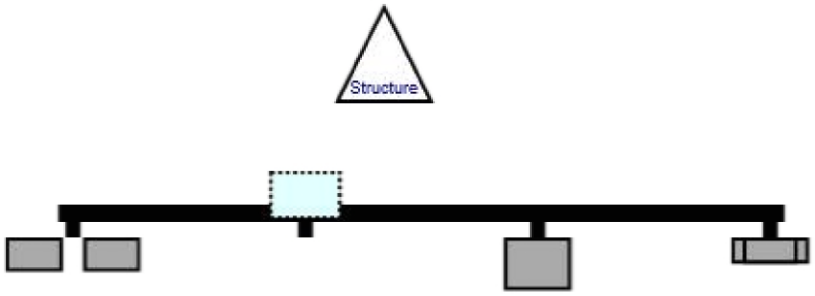
Plan View



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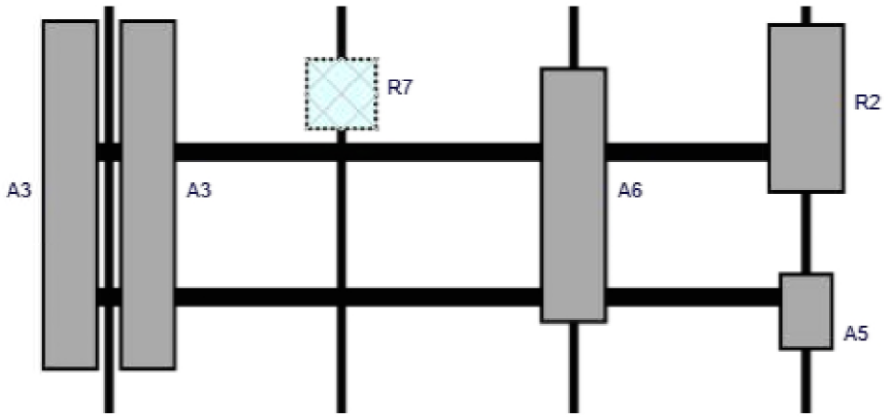

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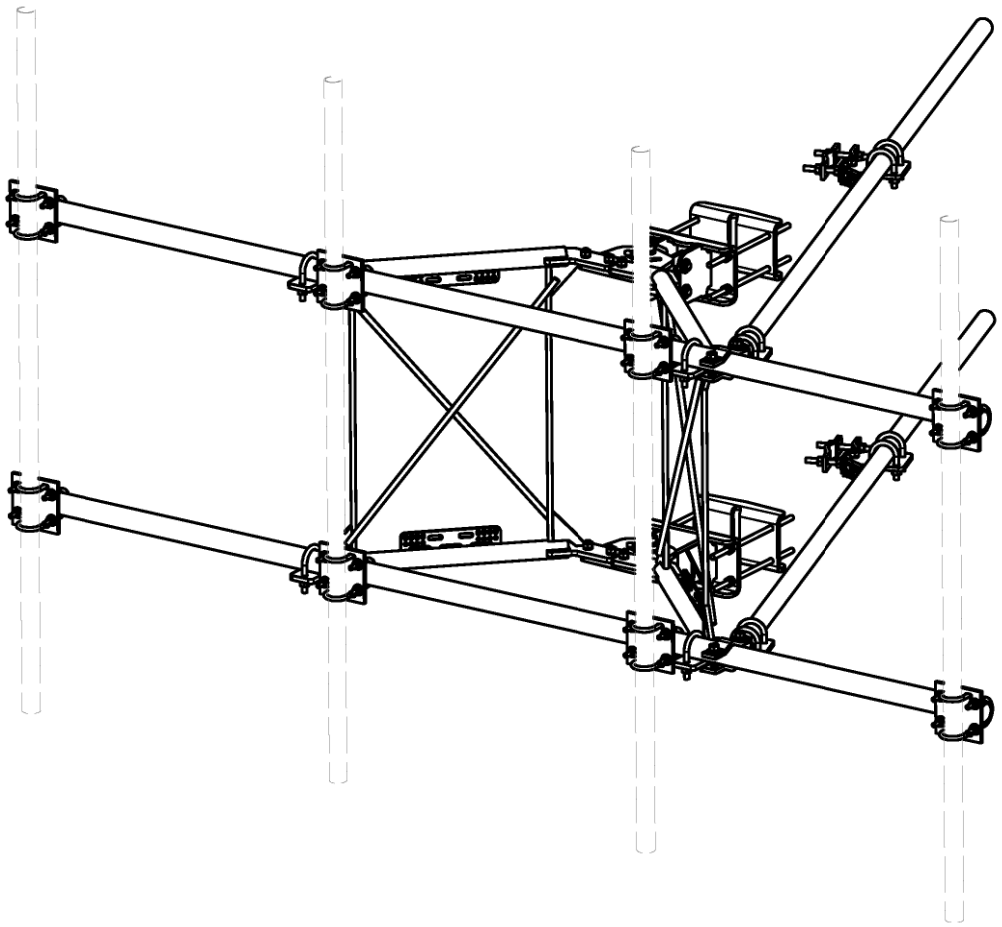


PARTS LIST

ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	2	X-VFAW	SUPPORT ARM		71.41	142.81
2	1	X-HDCAMTBW	CLAMP WELDMENT FOR BCAM-HD		33.86	33.86
3	1	X-MHTPHD	MULTI-HOLE TAPER PLATE WELDMENT		36.24	36.24
4	2	X-VFAPL4	VFA-HD PIVOT PLATE	12 in	15.88	31.77
5	2	X-LCBP4	BENT BACKING PLATE	13 in	19.00	38.01
6	1	X-HDCAMSS	ANGLE ADJUSTMENT WELDMENT FOR BCAM-HD		16.39	16.39
7	4	X-SPTB	SLIDING PIPE TIE BACK PLATE	5 1/2 in	5.87	23.49
8	1	X-HDCAMSP	POSITIONING PLATE WELDMENT FOR BCAM-HD		2.58	2.58
9	4	X-TBCA	TIE BACK CLIP ANGLE		2.01	8.02
10	8	SCX2	CROSSOVER PLATE	7 in	4.80	38.37
11	4	MCP	CLAMP HALF 1/2" THICK, 11-5/8" LONG	12 1/16 in	3.59	14.37
12	8	DCP	1/2" THICK, 5-3/4" CNTER TO CENTER CLAMP HALF	8 1/8 in	2.36	18.90
13	2	P2126	2-3/8" X 126" (2" SCH. 40) GALVANIZED PIPE	126 in	40.75	81.50
14	2	P30150	2-7/8" X 150" (2-1/2" SCH. 40) GALVANIZED PIPE	150 in	76.94	153.87
15	4	A34212	3/4" x 2-1/2" UNC HEX BOLT (A325)	2 1/2 in	0.48	1.92
16	4	G34FW	3/4" HDG USS FLATWASHER		0.06	0.24
17	4	G34LW	3/4" HDG LOCKWASHER		0.04	0.17
18	4	G34NUT	3/4" HDG HEAVY 2H HEX NUT		0.21	0.85
19	8	G58R-18	5/8" x 18" THREADED ROD (HDG.)	18 in	0.40	3.19
20	4	G58R-12	5/8" x 12" THREADED ROD (HDG.)		1.05	4.18
21	4	G58R-8	5/8" x 8" THREADED ROD (HDG.)		0.70	2.79
22	4	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	4.60
23	8	X-UB5258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	8.00
24	2	G5807	5/8" x 7" HDG HEX BOLT GR5 FULL THREAD	7 in	0.70	1.41
25	1	G5806	5/8" x 6" HDG HEX BOLT GR5 FULL THREAD	6 in	0.62	0.62
26	8	G5804	5/8" x 4" HDG HEX BOLT GR5		0.44	3.55
27	4	G5802	5/8" x 2" HDG HEX BOLT GR5		0.27	1.08
28	8	A582114	5/8" x 2-1/4" HDG A325 HEX BOLT	2 1/4 in	0.31	2.50
29	25	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	1.76
30	66	G58LW	5/8" HDG LOCKWASHER		0.03	1.72
31	71	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	9.22
32	32	X-UB1300	1/2" X 3" X 5" X 2" GALV U-BOLT		0.74	23.64
33	16	X-UB1212	1/2" X 2" X 3" X 1-1/4" U-BOLT (HDG.)		0.60	9.56
34	64	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	2.18
35	64	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.89
36	64	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	4.58
					TOTAL WT. #	738.06

REVISION HISTORY

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
D	UPDATED BCAM VERSION 1 TO BCAM VERSION 2		CEK	6/29/2018
C	UPDATED PIN LEG CONNECTION TO B-CAM CONNECTION		CEK	12/7/2017
B	CHANGED TIE-BACK BACK CONNECTION		CEK	7/31/2017
A	CHANGED TIE-BACK FRONT CONNECTION		CEK	2/2/2017

TOLERANCE NOTES

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

DESCRIPTION
12' 6" HEAVY DUTY
V-FRAME ASSEMBLY
WITH TWO STIFF ARMS

SITE PRO 1
A valmont COMPANY

Engineering Support Team:
1-888-753-7446

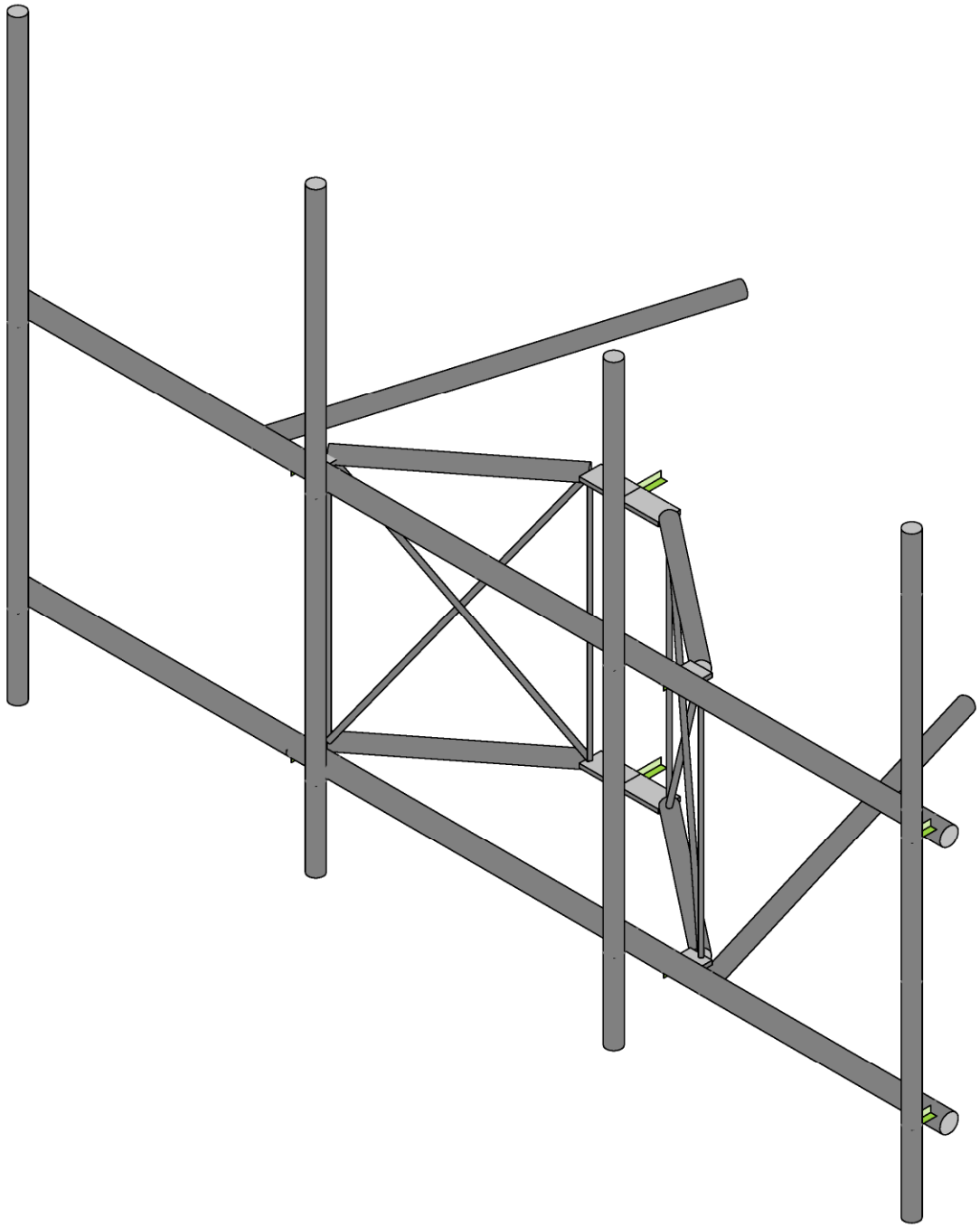
Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
	CEK 1/25/2017		VFA12-HD

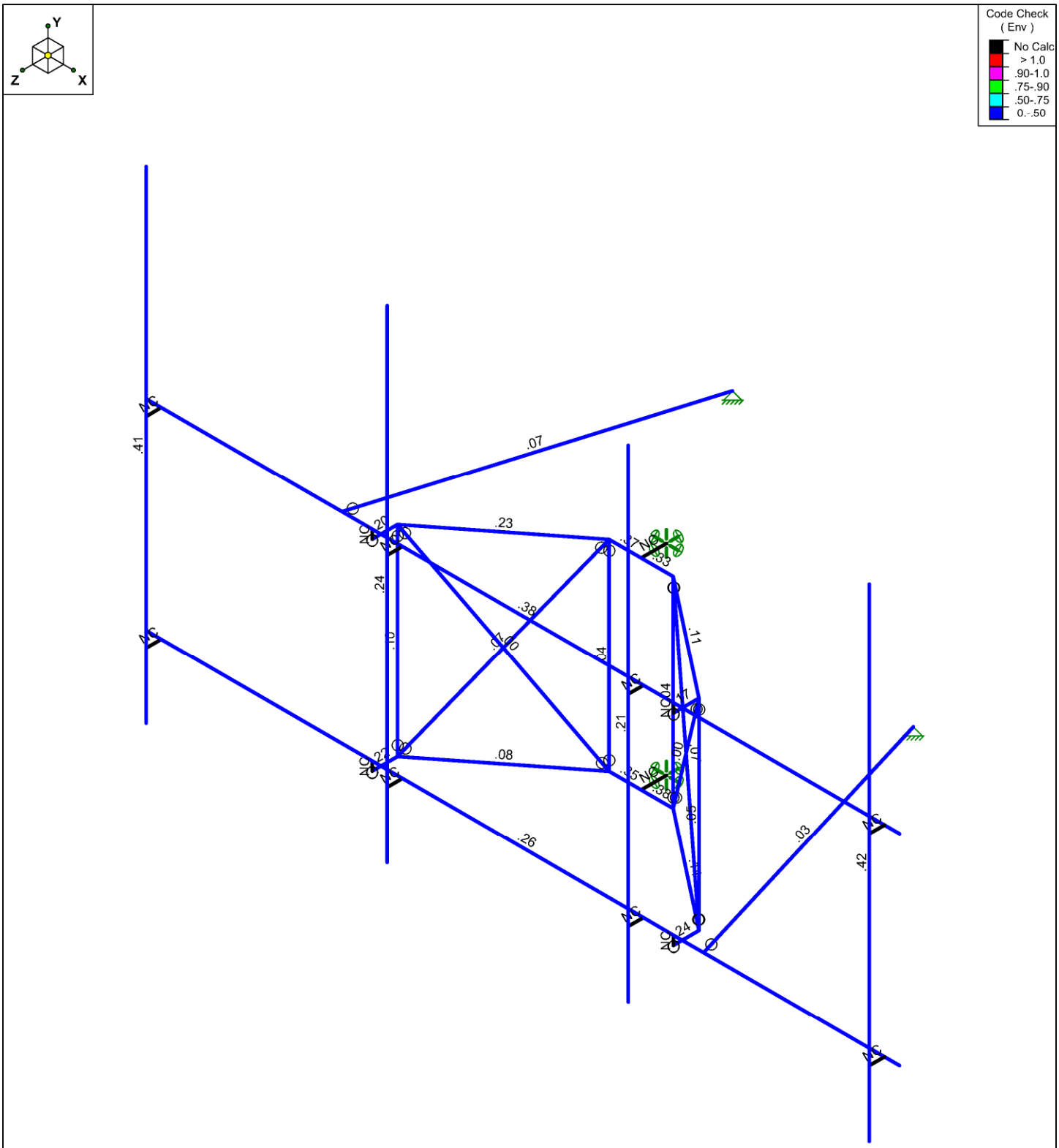
CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	02	CUSTOMER	BMC 12/13/2017	VFA12-HD


04/03/2021 08:33:43
WEST HARTFORD CENTER CT


04/03/2021 08:57:52
-72.74057, 41.761825
WEST HARTFORD CENTER CT

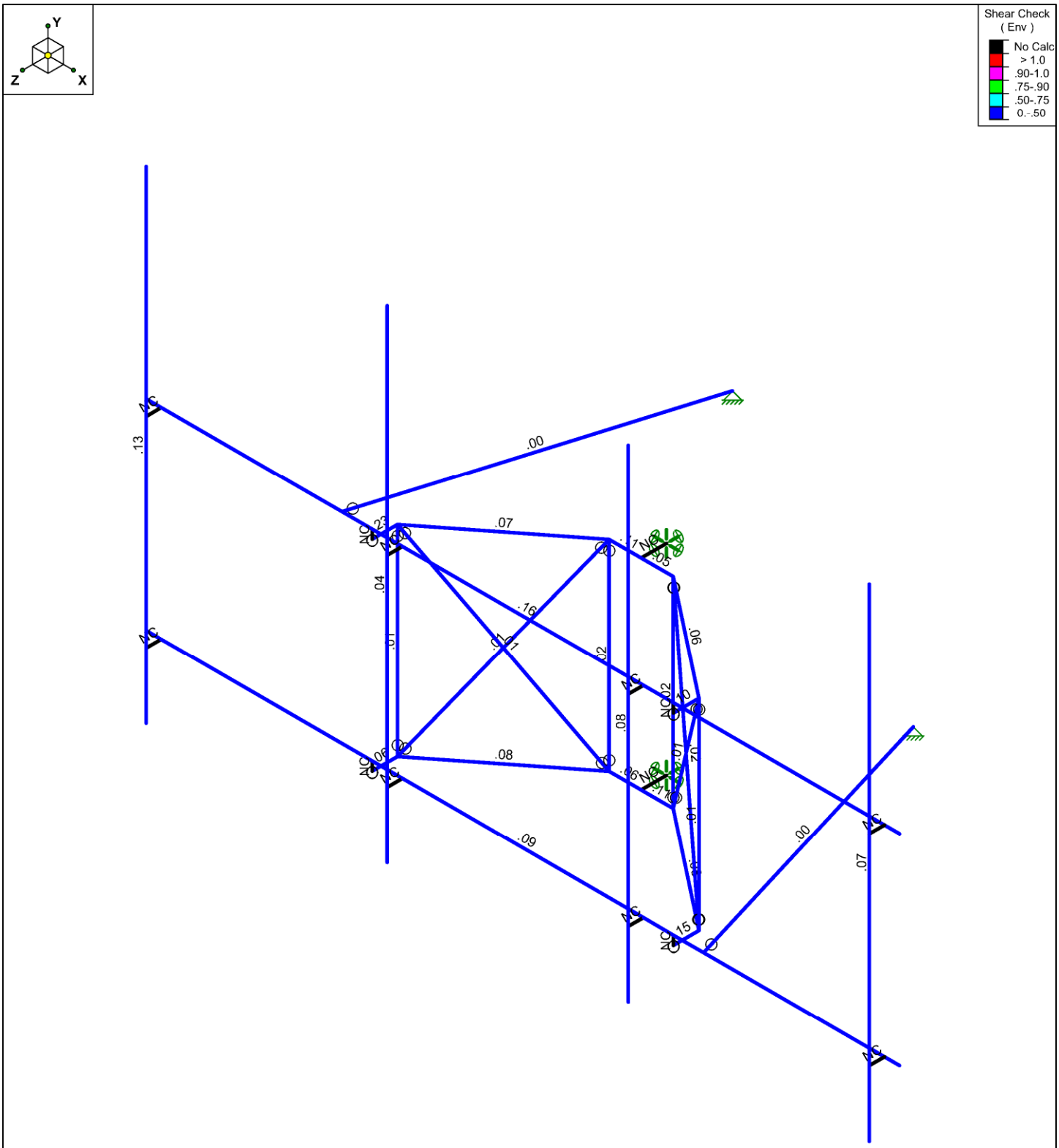


		SK - 4
		Mar 15, 2022 at 5:00 AM
		535840-VZW_MT_LOT_A_H.r3d



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

		SK - 5
		Mar 15, 2022 at 5:00 AM
		535840-VZW_MT_LOT_A_H.r3d



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

		SK - 6
		Mar 15, 2022 at 5:00 AM
		535840-VZW_MT_LOT_A_H.r3d

Basic Load Cases

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

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
57	Structure Wi (120 De...	None						56		
58	Structure Wi (150 De...	None						56		
59	Structure Wi (180 De...	None						56		
60	Structure Wi (210 De...	None						56		
61	Structure Wi (240 De...	None						56		
62	Structure Wi (270 De...	None						56		
63	Structure Wi (300 De...	None						56		
64	Structure Wi (330 De...	None						56		
65	Structure Wm (0 Deg)	None						56		
66	Structure Wm (30 De...	None						56		
67	Structure Wm (60 De...	None						56		
68	Structure Wm (90 De...	None						56		
69	Structure Wm (120 D...	None						56		
70	Structure Wm (150 D...	None						56		
71	Structure Wm (180 D...	None						56		
72	Structure Wm (210 D...	None						56		
73	Structure Wm (240 D...	None						56		
74	Structure Wm (270 D...	None						56		
75	Structure Wm (300 D...	None						56		
76	Structure Wm (330 D...	None						56		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					30			
82	Antenna Eh (0 Deg)	None					20			
83	Antenna Eh (90 Deg)	None					20			
84	Structure Ev	ELY		-.04						
85	Structure Eh (0 Deg)	ELZ			-.1					
86	Structure Eh (90 Deg)	ELX	.1							

Load Combinations

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

Load Combinations (Continued)

	Description	Solve	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
23	1.2D + 1.0Di + 1.0Wi (300 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + 1.0Wi (330 D...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 + 1.0Wm (0 ...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										
26	1.2D + 1.5Lm1 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5Lm1 + 1.0Wm (60...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1.0Wm (90...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + 1.0Wm (12...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1.0Wm (15...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1.0Wm (18...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1.0Wm (21...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1.0Wm (24...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1.0Wm (27...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1.0Wm (33...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1.0Wm (0 ...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1.0Wm (60...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1.0Wm (90...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1.0Wm (12...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1.0Wm (15...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1.0Wm (18...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1.0Wm (21...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1.0Wm (24...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1.0Wm (27...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1.0Wm (30...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1.0Wm (33...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Yes	Y		1	1.4	39	1.4																
52	1.2D + 1.0Ev + 1.0Eh (0 Deg)	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	1	83		E...	1	E...					
53	1.2D + 1.0Ev + 1.0Eh (30 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.866	83	.5	E...	.866	E...	.5				
54	1.2D + 1.0Ev + 1.0Eh (60 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.5	83	.866	E...	.5	E...	.866				
55	1.2D + 1.0Ev + 1.0Eh (90 D...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82		83	1	E...		E...	1				
56	1.2D + 1.0Ev + 1.0Eh (120 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.5	83	.866	E...	-.5	E...	.866				
57	1.2D + 1.0Ev + 1.0Eh (150 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.8...	83	.5	E...	-.8...	E...	.5				
58	1.2D + 1.0Ev + 1.0Eh (180 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-1	83		E...	-1	E...					
59	1.2D + 1.0Ev + 1.0Eh (210 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.8...	83	-.5	E...	-.8...	E...	-.5				
60	1.2D + 1.0Ev + 1.0Eh (240 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	-.5	83	-.8...	E...	-.5	E...	-.8...				
61	1.2D + 1.0Ev + 1.0Eh (270 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82		83	-1	E...		E...	-1				
62	1.2D + 1.0Ev + 1.0Eh (300 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.5	83	-.8...	E...	.5	E...	-.8...				
63	1.2D + 1.0Ev + 1.0Eh (330 ...	Yes	Y		1	1.2	39	1.2	81	1	E...	1	82	.866	83	-.5	E...	.866	E...	-.5				
64	0.9D - 1.0Ev + 1.0Eh (0 Deg)	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	1	83		E...	1	E...					
65	0.9D - 1.0Ev + 1.0Eh (30 De...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	.5	E...	.866	E...	.5				
66	0.9D - 1.0Ev + 1.0Eh (60 De...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.5	83	.866	E...	.5	E...	.866				
67	0.9D - 1.0Ev + 1.0Eh (90 De...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82		83	1	E...		E...	1				
68	0.9D - 1.0Ev + 1.0Eh (120 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.5	83	.866	E...	-.5	E...	.866				
69	0.9D - 1.0Ev + 1.0Eh (150 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.8...	83	.5	E...	-.8...	E...	.5				
70	0.9D - 1.0Ev + 1.0Eh (180 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-1	83		E...	-1	E...					
71	0.9D - 1.0Ev + 1.0Eh (210 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.8...	83	-.5	E...	-.8...	E...	-.5				
72	0.9D - 1.0Ev + 1.0Eh (240 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	-.5	83	-.8...	E...	-.5	E...	-.8...				
73	0.9D - 1.0Ev + 1.0Eh (270 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82		83	-1	E...		E...	-1				
74	0.9D - 1.0Ev + 1.0Eh (300 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.5	83	-.8...	E...	.5	E...	-.8...				
75	0.9D - 1.0Ev + 1.0Eh (330 D...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	-.5	E...	.866	E...	-.5				

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	3.416667	0.145833	8.083333	0	
2	N2	-9.083333	0.145833	8.083333	0	
3	N3	3.416667	3.479167	8.083333	0	
4	N4	-9.083333	3.479167	8.083333	0	
5	N5	-8.833333	0.145833	8.083333	0	
6	N6	-8.833333	3.479167	8.083333	0	
7	N7	-4.833333	0.145833	8.083333	0	
8	N8	-4.833333	3.479167	8.083333	0	
9	N9	-0.833333	0.145833	8.083333	0	
10	N10	-0.833333	3.479167	8.083333	0	
11	N11	3.166667	0.145833	8.083333	0	
12	N12	3.166667	3.479167	8.083333	0	
13	N13	-8.833333	0.145833	8.333333	0	
14	N14	-8.833333	3.479167	8.333333	0	
15	N15	-4.833333	0.145833	8.333333	0	
16	N16	-4.833333	3.479167	8.333333	0	
17	N17	-0.833333	0.145833	8.333333	0	
18	N18	-0.833333	3.479167	8.333333	0	
19	N19	3.166667	0.145833	8.333333	0	
20	N20	3.166667	3.479167	8.333333	0	
21	N21	-5.333333	0	8.083333	0	
22	N22	-5.333333	3.333333	8.083333	0	
23	N23	-0.333333	0	8.083333	0	
24	N24	-0.333333	3.333333	8.083333	0	
25	N25	-5.333333	0	7.661458	0	
26	N26	-5.333333	3.333333	7.661458	0	
27	N27	-0.333333	0	7.661458	0	
28	N28	-0.333333	3.333333	7.661458	0	
29	N29	-2.833333	0	6.119792	0	
30	N30	-2.833333	3.333333	6.119792	0	
31	N31	-3.364583	0	6.119792	0	
32	N32	-3.364583	3.333333	6.119792	0	
33	N33	-2.302083	0	6.119792	0	
34	N34	-2.302083	3.333333	6.119792	0	
35	N35	-2.833333	0	5.703125	0	
36	N36	-2.833333	3.333333	5.703125	0	
37	N39	-8.833333	7.0625	8.333333	0	
38	N40	-4.833333	7.0625	8.333333	0	
39	N41	-0.833333	7.0625	8.333333	0	
40	N42	3.166667	7.0625	8.333333	0	
41	N43	-8.833333	-0.9375	8.333333	0	
42	N44	-4.833333	-0.9375	8.333333	0	
43	N45	-0.833333	-0.9375	8.333333	0	
44	N46	3.166667	-0.9375	8.333333	0	
45	N58	-5.333333	3.333333	7.708333	0	
46	N76	-2.927083	0	6.119792	0	
47	N77	-3.229167	0	6.119792	0	
48	N78	-2.739583	0	6.119792	0	
49	N79	-2.4375	0	6.119792	0	
50	N80	-2.927083	3.333333	6.119792	0	
51	N81	-3.229167	3.333333	6.119792	0	
52	N82	-2.739583	3.333333	6.119792	0	
53	N83	-2.4375	3.333333	6.119792	0	
54	N58A	-2.833333	3.479167	8.083333	0	
55	N59	-5.333333	0.145833	8.083333	0	
56	N60	-5.333333	3.479167	8.083333	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
57	N61	-0.333333	0.145833	8.083333	0	
58	N62	-0.333333	3.479167	8.083333	0	
59	N59A	-5.833333	3.479167	8.083333	0	
60	N60A	0.166667	0.145833	8.083333	0	
61	N63	-4.333333	3.479167	3.105049	0	
62	N64	-1.333333	0.145833	3.105049	0	
63	MCL	3.166667	1.8125	8.333333	0	
64	ACL	3.166667	3.8125	8.333333	0	
65	N65	3.166667	6.3125	8.333333	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Horizontal mount pipe	PIPE_2.5	Beam	Pipe	Q235	Typical	1.61	1.45	1.45	2.89
3	Standoff Horizontal	PIPE_2.0	Beam	Pipe	Q235	Typical	1.02	.627	.627	1.25
4	Standoff Diagonal	SR_0.75	Beam	BAR	Q235	Typical	.442	.016	.016	.031
5	Tieback	PIPE_2.0	Beam	Pipe	Q235	Typical	1.02	.627	.627	1.25
6	Standoff Vertical	SR_0.625	Beam	BAR	Q235	Typical	.307	.007	.007	.015
7	Standoff Plate	PL5/8X3.5	Beam	BAR	Q235	Typical	2.188	.071	2.233	.253
8	tower pipe	PIPE_3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	.3	.65	.49	42	1.4	58	1.3
6	A500 Gr. B 46	29000	11154	.3	.65	.49	46	1.4	58	1.3
7	Q235	29000	11154	.3	.65	.49	35	1.5	58	1.2

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N1			Horizontal mou...	Beam	Pipe	Q235	Typical
2	M2	N4	N3			Horizontal mou...	Beam	Pipe	Q235	Typical
3	M3	N5	N13			RIGID	None	None	RIGID	Typical
4	M4	N6	N14			RIGID	None	None	RIGID	Typical
5	M5	N8	N16			RIGID	None	None	RIGID	Typical
6	M6	N7	N15			RIGID	None	None	RIGID	Typical
7	M9	N10	N18			RIGID	None	None	RIGID	Typical
8	M10	N9	N17			RIGID	None	None	RIGID	Typical
9	M11	N12	N20			RIGID	None	None	RIGID	Typical
10	M12	N11	N19			RIGID	None	None	RIGID	Typical
11	M13	N22	N26		90	Standoff Plate	Beam	BAR	Q235	Typical
12	M14	N21	N25		90	Standoff Plate	Beam	BAR	Q235	Typical
13	M15	N23	N27		90	Standoff Plate	Beam	BAR	Q235	Typical
14	M16	N24	N28		90	Standoff Plate	Beam	BAR	Q235	Typical
15	M17	N26	N32			Standoff Horiz...	Beam	Pipe	Q235	Typical
16	M18	N25	N31			Standoff Horiz...	Beam	Pipe	Q235	Typical
17	M19	N27	N33			Standoff Horiz...	Beam	Pipe	Q235	Typical
18	M20	N28	N34			Standoff Horiz...	Beam	Pipe	Q235	Typical
19	M21	N32	N30		90	Standoff Plate	Beam	BAR	Q235	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
20	M22	N34	N30		90	Standoff Plate	Beam	BAR	Q235	Typical
21	M23	N31	N29		90	Standoff Plate	Beam	BAR	Q235	Typical
22	M24	N33	N29		90	Standoff Plate	Beam	BAR	Q235	Typical
23	M25	N31	N26			Standoff Diago...	Beam	BAR	Q235	Typical
24	M26	N32	N25			Standoff Diago...	Beam	BAR	Q235	Typical
25	M27	N33	N28			Standoff Diago...	Beam	BAR	Q235	Typical
26	M28	N27	N34			Standoff Diago...	Beam	BAR	Q235	Typical
27	M29	N29	N35			RIGID	None	None	RIGID	Typical
28	M30	N30	N36			RIGID	None	None	RIGID	Typical
29	MP4A	N39	N43			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
30	MP3A	N40	N44			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
31	MP2A	N41	N45			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
32	MP1A	N42	N46			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
33	M44	N25	N26			Standoff Vertical	Beam	BAR	Q235	Typical
34	M45	N31	N32			Standoff Vertical	Beam	BAR	Q235	Typical
35	M46	N33	N34			Standoff Vertical	Beam	BAR	Q235	Typical
36	M47	N27	N28			Standoff Vertical	Beam	BAR	Q235	Typical
37	M47B	N22	N60			RIGID	None	None	RIGID	Typical
38	M48A	N21	N59			RIGID	None	None	RIGID	Typical
39	M49A	N24	N62			RIGID	None	None	RIGID	Typical
40	M50A	N23	N61			RIGID	None	None	RIGID	Typical
41	M51A	N30	N36			RIGID	None	None	RIGID	Typical
42	M52A	N29	N35			RIGID	None	None	RIGID	Typical
43	M43	N59A	N63			Tieback	Beam	Pipe	Q235	Typical
44	M44A	N60A	N64			Tieback	Beam	Pipe	Q235	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
1	M1	Horizontal ...	12.5			Lbyy						Lateral
2	M2	Horizontal ...	12.5			Lbyy						Lateral
3	M13	Standoff Pla...	.422									Lateral
4	M14	Standoff Pla...	.422									Lateral
5	M15	Standoff Pla...	.422									Lateral
6	M16	Standoff Pla...	.422									Lateral
7	M17	Standoff Ho...	2.501			Lbyy			.65	.65		Lateral
8	M18	Standoff Ho...	2.501			Lbyy			.65	.65		Lateral
9	M19	Standoff Ho...	2.501			Lbyy			.65	.65		Lateral
10	M20	Standoff Ho...	2.501			Lbyy			.65	.65		Lateral
11	M21	Standoff Pla...	.531	.292								Lateral
12	M22	Standoff Pla...	.531	.292								Lateral
13	M23	Standoff Pla...	.531	.292								Lateral
14	M24	Standoff Pla...	.531	.292								Lateral
15	M25	Standoff Di...	4.167			Lbyy			.7	.7		Lateral
16	M26	Standoff Di...	4.167			Lbyy			.7	.7		Lateral
17	M27	Standoff Di...	4.167			Lbyy			.7	.7		Lateral
18	M28	Standoff Di...	4.167			Lbyy			.7	.7		Lateral
19	MP4A	Antenna Pipe	8			Lbyy						Lateral
20	MP3A	Antenna Pipe	8			Lbyy						Lateral
21	MP2A	Antenna Pipe	8			Lbyy						Lateral
22	MP1A	Antenna Pipe	8			Lbyy						Lateral
23	M44	Standoff Ve...	3.333			Lbyy			.7	.7		Lateral
24	M45	Standoff Ve...	3.333			Lbyy			.7	.7		Lateral
25	M46	Standoff Ve...	3.333			Lbyy			.7	.7		Lateral
26	M47	Standoff Ve...	3.333			Lbyy			.7	.7		Lateral
27	M43	Tieback	5.199			Lbyy						Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
28	M44A	Tieback	5.199			Lbyy						Lateral

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-43.55	.75
2	MP1A	My	-.022	.75
3	MP1A	Mz	0	.75
4	MP1A	Y	-43.55	2.75
5	MP1A	My	-.022	2.75
6	MP1A	Mz	0	2.75
7	MP4A	Y	-20	.75
8	MP4A	My	-.013	.75
9	MP4A	Mz	.013	.75
10	MP4A	Y	-20	5.75
11	MP4A	My	-.013	5.75
12	MP4A	Mz	.013	5.75
13	MP4A	Y	-20	.75
14	MP4A	My	-.013	.75
15	MP4A	Mz	-.013	.75
16	MP4A	Y	-20	5.75
17	MP4A	My	-.013	5.75
18	MP4A	Mz	-.013	5.75
19	MP2A	Y	-4.95	1
20	MP2A	My	-.002	1
21	MP2A	Mz	0	1
22	MP2A	Y	-4.95	5.5
23	MP2A	My	-.002	5.5
24	MP2A	Mz	0	5.5
25	MP1A	Y	-23.2	5.25
26	MP1A	My	-.012	5.25
27	MP1A	Mz	0	5.25
28	MP3A	Y	-84.4	1.5
29	MP3A	My	.042	1.5
30	MP3A	Mz	0	1.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-54.536	.75
2	MP1A	My	-.027	.75
3	MP1A	Mz	0	.75
4	MP1A	Y	-54.536	2.75
5	MP1A	My	-.027	2.75
6	MP1A	Mz	0	2.75
7	MP4A	Y	-93.132	.75
8	MP4A	My	-.062	.75
9	MP4A	Mz	.062	.75
10	MP4A	Y	-93.132	5.75
11	MP4A	My	-.062	5.75
12	MP4A	Mz	.062	5.75
13	MP4A	Y	-93.132	.75
14	MP4A	My	-.062	.75
15	MP4A	Mz	-.062	.75
16	MP4A	Y	-93.132	5.75
17	MP4A	My	-.062	5.75
18	MP4A	Mz	-.062	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	MP2A	Y	-52.618	1
20	MP2A	My	-.026	1
21	MP2A	Mz	0	1
22	MP2A	Y	-52.618	5.5
23	MP2A	My	-.026	5.5
24	MP2A	Mz	0	5.5
25	MP1A	Y	-46.766	5.25
26	MP1A	My	-.023	5.25
27	MP1A	Mz	0	5.25
28	MP3A	Y	-69.265	1.5
29	MP3A	My	.035	1.5
30	MP3A	Mz	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75
2	MP1A	Z	-58.141	.75
3	MP1A	Mx	0	.75
4	MP1A	X	0	2.75
5	MP1A	Z	-58.141	2.75
6	MP1A	Mx	0	2.75
7	MP4A	X	0	.75
8	MP4A	Z	-121.028	.75
9	MP4A	Mx	-.081	.75
10	MP4A	X	0	5.75
11	MP4A	Z	-121.028	5.75
12	MP4A	Mx	-.081	5.75
13	MP4A	X	0	.75
14	MP4A	Z	-121.028	.75
15	MP4A	Mx	.081	.75
16	MP4A	X	0	5.75
17	MP4A	Z	-121.028	5.75
18	MP4A	Mx	.081	5.75
19	MP2A	X	0	1
20	MP2A	Z	-70.006	1
21	MP2A	Mx	0	1
22	MP2A	X	0	5.5
23	MP2A	Z	-70.006	5.5
24	MP2A	Mx	0	5.5
25	MP1A	X	0	5.25
26	MP1A	Z	-45.385	5.25
27	MP1A	Mx	0	5.25
28	MP3A	X	0	1.5
29	MP3A	Z	-45.979	1.5
30	MP3A	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	24.306	.75
2	MP1A	Z	-42.099	.75
3	MP1A	Mx	-.012	.75
4	MP1A	X	24.306	2.75
5	MP1A	Z	-42.099	2.75
6	MP1A	Mx	-.012	2.75
7	MP4A	X	55.39	.75
8	MP4A	Z	-95.938	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP4A	Mx	-.101	.75
10	MP4A	X	55.39	5.75
11	MP4A	Z	-95.938	5.75
12	MP4A	Mx	-.101	5.75
13	MP4A	X	55.39	.75
14	MP4A	Z	-95.938	.75
15	MP4A	Mx	.027	.75
16	MP4A	X	55.39	5.75
17	MP4A	Z	-95.938	5.75
18	MP4A	Mx	.027	5.75
19	MP2A	X	30.42	1
20	MP2A	Z	-52.69	1
21	MP2A	Mx	-.015	1
22	MP2A	X	30.42	5.5
23	MP2A	Z	-52.69	5.5
24	MP2A	Mx	-.015	5.5
25	MP1A	X	19.818	5.25
26	MP1A	Z	-34.326	5.25
27	MP1A	Mx	-.01	5.25
28	MP3A	X	21.098	1.5
29	MP3A	Z	-36.543	1.5
30	MP3A	Mx	.011	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	25.593	.75
2	MP1A	Z	-14.776	.75
3	MP1A	Mx	-.013	.75
4	MP1A	X	25.593	2.75
5	MP1A	Z	-14.776	2.75
6	MP1A	Mx	-.013	2.75
7	MP4A	X	78.188	.75
8	MP4A	Z	-45.142	.75
9	MP4A	Mx	-.082	.75
10	MP4A	X	78.188	5.75
11	MP4A	Z	-45.142	5.75
12	MP4A	Mx	-.082	5.75
13	MP4A	X	78.188	.75
14	MP4A	Z	-45.142	.75
15	MP4A	Mx	-.022	.75
16	MP4A	X	78.188	5.75
17	MP4A	Z	-45.142	5.75
18	MP4A	Mx	-.022	5.75
19	MP2A	X	36.815	1
20	MP2A	Z	-21.255	1
21	MP2A	Mx	-.018	1
22	MP2A	X	36.815	5.5
23	MP2A	Z	-21.255	5.5
24	MP2A	Mx	-.018	5.5
25	MP1A	X	24.368	5.25
26	MP1A	Z	-14.069	5.25
27	MP1A	Mx	-.012	5.25
28	MP3A	X	29.992	1.5
29	MP3A	Z	-17.316	1.5
30	MP3A	Mx	.015	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	20.023	.75
2	MP1A	Z	0	.75
3	MP1A	Mx	-.01	.75
4	MP1A	X	20.023	2.75
5	MP1A	Z	0	2.75
6	MP1A	Mx	-.01	2.75
7	MP4A	X	80.036	.75
8	MP4A	Z	0	.75
9	MP4A	Mx	-.053	.75
10	MP4A	X	80.036	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	-.053	5.75
13	MP4A	X	80.036	.75
14	MP4A	Z	0	.75
15	MP4A	Mx	-.053	.75
16	MP4A	X	80.036	5.75
17	MP4A	Z	0	5.75
18	MP4A	Mx	-.053	5.75
19	MP2A	X	33.345	1
20	MP2A	Z	0	1
21	MP2A	Mx	-.017	1
22	MP2A	X	33.345	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.017	5.5
25	MP1A	X	22.389	5.25
26	MP1A	Z	0	5.25
27	MP1A	Mx	-.011	5.25
28	MP3A	X	30.85	1.5
29	MP3A	Z	0	1.5
30	MP3A	Mx	.015	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	25.593	.75
2	MP1A	Z	14.776	.75
3	MP1A	Mx	-.013	.75
4	MP1A	X	25.593	2.75
5	MP1A	Z	14.776	2.75
6	MP1A	Mx	-.013	2.75
7	MP4A	X	78.188	.75
8	MP4A	Z	45.142	.75
9	MP4A	Mx	-.022	.75
10	MP4A	X	78.188	5.75
11	MP4A	Z	45.142	5.75
12	MP4A	Mx	-.022	5.75
13	MP4A	X	78.188	.75
14	MP4A	Z	45.142	.75
15	MP4A	Mx	-.082	.75
16	MP4A	X	78.188	5.75
17	MP4A	Z	45.142	5.75
18	MP4A	Mx	-.082	5.75
19	MP2A	X	36.815	1
20	MP2A	Z	21.255	1
21	MP2A	Mx	-.018	1
22	MP2A	X	36.815	5.5
23	MP2A	Z	21.255	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP2A	Mx	-.018	5.5
25	MP1A	X	24.368	5.25
26	MP1A	Z	14.069	5.25
27	MP1A	Mx	-.012	5.25
28	MP3A	X	29.992	1.5
29	MP3A	Z	17.316	1.5
30	MP3A	Mx	.015	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	24.306	.75
2	MP1A	Z	42.099	.75
3	MP1A	Mx	-.012	.75
4	MP1A	X	24.306	2.75
5	MP1A	Z	42.099	2.75
6	MP1A	Mx	-.012	2.75
7	MP4A	X	55.39	.75
8	MP4A	Z	95.938	.75
9	MP4A	Mx	.027	.75
10	MP4A	X	55.39	5.75
11	MP4A	Z	95.938	5.75
12	MP4A	Mx	.027	5.75
13	MP4A	X	55.39	.75
14	MP4A	Z	95.938	.75
15	MP4A	Mx	-.101	.75
16	MP4A	X	55.39	5.75
17	MP4A	Z	95.938	5.75
18	MP4A	Mx	-.101	5.75
19	MP2A	X	30.42	1
20	MP2A	Z	52.69	1
21	MP2A	Mx	-.015	1
22	MP2A	X	30.42	5.5
23	MP2A	Z	52.69	5.5
24	MP2A	Mx	-.015	5.5
25	MP1A	X	19.818	5.25
26	MP1A	Z	34.326	5.25
27	MP1A	Mx	-.01	5.25
28	MP3A	X	21.098	1.5
29	MP3A	Z	36.543	1.5
30	MP3A	Mx	.011	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75
2	MP1A	Z	58.141	.75
3	MP1A	Mx	0	.75
4	MP1A	X	0	2.75
5	MP1A	Z	58.141	2.75
6	MP1A	Mx	0	2.75
7	MP4A	X	0	.75
8	MP4A	Z	121.028	.75
9	MP4A	Mx	.081	.75
10	MP4A	X	0	5.75
11	MP4A	Z	121.028	5.75
12	MP4A	Mx	.081	5.75
13	MP4A	X	0	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP4A	Z	121.028	.75
15	MP4A	Mx	-.081	.75
16	MP4A	X	0	5.75
17	MP4A	Z	121.028	5.75
18	MP4A	Mx	-.081	5.75
19	MP2A	X	0	1
20	MP2A	Z	70.006	1
21	MP2A	Mx	0	1
22	MP2A	X	0	5.5
23	MP2A	Z	70.006	5.5
24	MP2A	Mx	0	5.5
25	MP1A	X	0	5.25
26	MP1A	Z	45.385	5.25
27	MP1A	Mx	0	5.25
28	MP3A	X	0	1.5
29	MP3A	Z	45.979	1.5
30	MP3A	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-24.306	.75
2	MP1A	Z	42.099	.75
3	MP1A	Mx	.012	.75
4	MP1A	X	-24.306	2.75
5	MP1A	Z	42.099	2.75
6	MP1A	Mx	.012	2.75
7	MP4A	X	-55.39	.75
8	MP4A	Z	95.938	.75
9	MP4A	Mx	.101	.75
10	MP4A	X	-55.39	5.75
11	MP4A	Z	95.938	5.75
12	MP4A	Mx	.101	5.75
13	MP4A	X	-55.39	.75
14	MP4A	Z	95.938	.75
15	MP4A	Mx	-.027	.75
16	MP4A	X	-55.39	5.75
17	MP4A	Z	95.938	5.75
18	MP4A	Mx	-.027	5.75
19	MP2A	X	-30.42	1
20	MP2A	Z	52.69	1
21	MP2A	Mx	.015	1
22	MP2A	X	-30.42	5.5
23	MP2A	Z	52.69	5.5
24	MP2A	Mx	.015	5.5
25	MP1A	X	-19.818	5.25
26	MP1A	Z	34.326	5.25
27	MP1A	Mx	.01	5.25
28	MP3A	X	-21.098	1.5
29	MP3A	Z	36.543	1.5
30	MP3A	Mx	-.011	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-25.593	.75
2	MP1A	Z	14.776	.75
3	MP1A	Mx	.013	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP1A	X	-25.593	2.75
5	MP1A	Z	14.776	2.75
6	MP1A	Mx	.013	2.75
7	MP4A	X	-78.188	.75
8	MP4A	Z	45.142	.75
9	MP4A	Mx	.082	.75
10	MP4A	X	-78.188	5.75
11	MP4A	Z	45.142	5.75
12	MP4A	Mx	.082	5.75
13	MP4A	X	-78.188	.75
14	MP4A	Z	45.142	.75
15	MP4A	Mx	.022	.75
16	MP4A	X	-78.188	5.75
17	MP4A	Z	45.142	5.75
18	MP4A	Mx	.022	5.75
19	MP2A	X	-36.815	1
20	MP2A	Z	21.255	1
21	MP2A	Mx	.018	1
22	MP2A	X	-36.815	5.5
23	MP2A	Z	21.255	5.5
24	MP2A	Mx	.018	5.5
25	MP1A	X	-24.368	5.25
26	MP1A	Z	14.069	5.25
27	MP1A	Mx	.012	5.25
28	MP3A	X	-29.992	1.5
29	MP3A	Z	17.316	1.5
30	MP3A	Mx	-.015	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-20.023	.75
2	MP1A	Z	0	.75
3	MP1A	Mx	.01	.75
4	MP1A	X	-20.023	2.75
5	MP1A	Z	0	2.75
6	MP1A	Mx	.01	2.75
7	MP4A	X	-80.036	.75
8	MP4A	Z	0	.75
9	MP4A	Mx	.053	.75
10	MP4A	X	-80.036	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	.053	5.75
13	MP4A	X	-80.036	.75
14	MP4A	Z	0	.75
15	MP4A	Mx	.053	.75
16	MP4A	X	-80.036	5.75
17	MP4A	Z	0	5.75
18	MP4A	Mx	.053	5.75
19	MP2A	X	-33.345	1
20	MP2A	Z	0	1
21	MP2A	Mx	.017	1
22	MP2A	X	-33.345	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	.017	5.5
25	MP1A	X	-22.389	5.25
26	MP1A	Z	0	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP1A	Mx	.011	5.25
28	MP3A	X	-30.85	1.5
29	MP3A	Z	0	1.5
30	MP3A	Mx	-.015	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-25.593	.75
2	MP1A	Z	-14.776	.75
3	MP1A	Mx	.013	.75
4	MP1A	X	-25.593	2.75
5	MP1A	Z	-14.776	2.75
6	MP1A	Mx	.013	2.75
7	MP4A	X	-78.188	.75
8	MP4A	Z	-45.142	.75
9	MP4A	Mx	.022	.75
10	MP4A	X	-78.188	5.75
11	MP4A	Z	-45.142	5.75
12	MP4A	Mx	.022	5.75
13	MP4A	X	-78.188	.75
14	MP4A	Z	-45.142	.75
15	MP4A	Mx	.082	.75
16	MP4A	X	-78.188	5.75
17	MP4A	Z	-45.142	5.75
18	MP4A	Mx	.082	5.75
19	MP2A	X	-36.815	1
20	MP2A	Z	-21.255	1
21	MP2A	Mx	.018	1
22	MP2A	X	-36.815	5.5
23	MP2A	Z	-21.255	5.5
24	MP2A	Mx	.018	5.5
25	MP1A	X	-24.368	5.25
26	MP1A	Z	-14.069	5.25
27	MP1A	Mx	.012	5.25
28	MP3A	X	-29.992	1.5
29	MP3A	Z	-17.316	1.5
30	MP3A	Mx	-.015	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-24.306	.75
2	MP1A	Z	-42.099	.75
3	MP1A	Mx	.012	.75
4	MP1A	X	-24.306	2.75
5	MP1A	Z	-42.099	2.75
6	MP1A	Mx	.012	2.75
7	MP4A	X	-55.39	.75
8	MP4A	Z	-95.938	.75
9	MP4A	Mx	-.027	.75
10	MP4A	X	-55.39	5.75
11	MP4A	Z	-95.938	5.75
12	MP4A	Mx	-.027	5.75
13	MP4A	X	-55.39	.75
14	MP4A	Z	-95.938	.75
15	MP4A	Mx	.101	.75
16	MP4A	X	-55.39	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP4A	Z	-95.938	5.75
18	MP4A	Mx	.101	5.75
19	MP2A	X	-30.42	1
20	MP2A	Z	-52.69	1
21	MP2A	Mx	.015	1
22	MP2A	X	-30.42	5.5
23	MP2A	Z	-52.69	5.5
24	MP2A	Mx	.015	5.5
25	MP1A	X	-19.818	5.25
26	MP1A	Z	-34.326	5.25
27	MP1A	Mx	.01	5.25
28	MP3A	X	-21.098	1.5
29	MP3A	Z	-36.543	1.5
30	MP3A	Mx	-.011	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75
2	MP1A	Z	-15.169	.75
3	MP1A	Mx	0	.75
4	MP1A	X	0	2.75
5	MP1A	Z	-15.169	2.75
6	MP1A	Mx	0	2.75
7	MP4A	X	0	.75
8	MP4A	Z	-25.482	.75
9	MP4A	Mx	-.017	.75
10	MP4A	X	0	5.75
11	MP4A	Z	-25.482	5.75
12	MP4A	Mx	-.017	5.75
13	MP4A	X	0	.75
14	MP4A	Z	-25.482	.75
15	MP4A	Mx	.017	.75
16	MP4A	X	0	5.75
17	MP4A	Z	-25.482	5.75
18	MP4A	Mx	.017	5.75
19	MP2A	X	0	1
20	MP2A	Z	-15.247	1
21	MP2A	Mx	0	1
22	MP2A	X	0	5.5
23	MP2A	Z	-15.247	5.5
24	MP2A	Mx	0	5.5
25	MP1A	X	0	5.25
26	MP1A	Z	-11.075	5.25
27	MP1A	Mx	0	5.25
28	MP3A	X	0	1.5
29	MP3A	Z	-13.108	1.5
30	MP3A	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	6.527	.75
2	MP1A	Z	-11.306	.75
3	MP1A	Mx	-.003	.75
4	MP1A	X	6.527	2.75
5	MP1A	Z	-11.306	2.75
6	MP1A	Mx	-.003	2.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	11.792	.75
8	MP4A	Z	-20.424	.75
9	MP4A	Mx	-.021	.75
10	MP4A	X	11.792	5.75
11	MP4A	Z	-20.424	5.75
12	MP4A	Mx	-.021	5.75
13	MP4A	X	11.792	.75
14	MP4A	Z	-20.424	.75
15	MP4A	Mx	.006	.75
16	MP4A	X	11.792	5.75
17	MP4A	Z	-20.424	5.75
18	MP4A	Mx	.006	5.75
19	MP2A	X	6.752	1
20	MP2A	Z	-11.694	1
21	MP2A	Mx	-.003	1
22	MP2A	X	6.752	5.5
23	MP2A	Z	-11.694	5.5
24	MP2A	Mx	-.003	5.5
25	MP1A	X	4.933	5.25
26	MP1A	Z	-8.544	5.25
27	MP1A	Mx	-.002	5.25
28	MP3A	X	6.075	1.5
29	MP3A	Z	-10.523	1.5
30	MP3A	Mx	.003	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	7.644	.75
2	MP1A	Z	-4.413	.75
3	MP1A	Mx	-.004	.75
4	MP1A	X	7.644	2.75
5	MP1A	Z	-4.413	2.75
6	MP1A	Mx	-.004	2.75
7	MP4A	X	17.135	.75
8	MP4A	Z	-9.893	.75
9	MP4A	Mx	-.018	.75
10	MP4A	X	17.135	5.75
11	MP4A	Z	-9.893	5.75
12	MP4A	Mx	-.018	5.75
13	MP4A	X	17.135	.75
14	MP4A	Z	-9.893	.75
15	MP4A	Mx	-.005	.75
16	MP4A	X	17.135	5.75
17	MP4A	Z	-9.893	5.75
18	MP4A	Mx	-.005	5.75
19	MP2A	X	8.674	1
20	MP2A	Z	-5.008	1
21	MP2A	Mx	-.004	1
22	MP2A	X	8.674	5.5
23	MP2A	Z	-5.008	5.5
24	MP2A	Mx	-.004	5.5
25	MP1A	X	6.45	5.25
26	MP1A	Z	-3.724	5.25
27	MP1A	Mx	-.003	5.25
28	MP3A	X	8.865	1.5
29	MP3A	Z	-5.118	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP3A	Mx	.004	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	6.712	.75
2	MP1A	Z	0	.75
3	MP1A	Mx	-.003	.75
4	MP1A	X	6.712	2.75
5	MP1A	Z	0	2.75
6	MP1A	Mx	-.003	2.75
7	MP4A	X	17.888	.75
8	MP4A	Z	0	.75
9	MP4A	Mx	-.012	.75
10	MP4A	X	17.888	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	-.012	5.75
13	MP4A	X	17.888	.75
14	MP4A	Z	0	.75
15	MP4A	Mx	-.012	.75
16	MP4A	X	17.888	5.75
17	MP4A	Z	0	5.75
18	MP4A	Mx	-.012	5.75
19	MP2A	X	8.271	1
20	MP2A	Z	0	1
21	MP2A	Mx	-.004	1
22	MP2A	X	8.271	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.004	5.5
25	MP1A	X	6.239	5.25
26	MP1A	Z	0	5.25
27	MP1A	Mx	-.003	5.25
28	MP3A	X	9.28	1.5
29	MP3A	Z	0	1.5
30	MP3A	Mx	.005	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	7.644	.75
2	MP1A	Z	4.413	.75
3	MP1A	Mx	-.004	.75
4	MP1A	X	7.644	2.75
5	MP1A	Z	4.413	2.75
6	MP1A	Mx	-.004	2.75
7	MP4A	X	17.135	.75
8	MP4A	Z	9.893	.75
9	MP4A	Mx	-.005	.75
10	MP4A	X	17.135	5.75
11	MP4A	Z	9.893	5.75
12	MP4A	Mx	-.005	5.75
13	MP4A	X	17.135	.75
14	MP4A	Z	9.893	.75
15	MP4A	Mx	-.018	.75
16	MP4A	X	17.135	5.75
17	MP4A	Z	9.893	5.75
18	MP4A	Mx	-.018	5.75
19	MP2A	X	8.674	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP2A	Z	5.008	1
21	MP2A	Mx	-.004	1
22	MP2A	X	8.674	5.5
23	MP2A	Z	5.008	5.5
24	MP2A	Mx	-.004	5.5
25	MP1A	X	6.45	5.25
26	MP1A	Z	3.724	5.25
27	MP1A	Mx	-.003	5.25
28	MP3A	X	8.865	1.5
29	MP3A	Z	5.118	1.5
30	MP3A	Mx	.004	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	6.527	.75
2	MP1A	Z	11.306	.75
3	MP1A	Mx	-.003	.75
4	MP1A	X	6.527	2.75
5	MP1A	Z	11.306	2.75
6	MP1A	Mx	-.003	2.75
7	MP4A	X	11.792	.75
8	MP4A	Z	20.424	.75
9	MP4A	Mx	.006	.75
10	MP4A	X	11.792	5.75
11	MP4A	Z	20.424	5.75
12	MP4A	Mx	.006	5.75
13	MP4A	X	11.792	.75
14	MP4A	Z	20.424	.75
15	MP4A	Mx	-.021	.75
16	MP4A	X	11.792	5.75
17	MP4A	Z	20.424	5.75
18	MP4A	Mx	-.021	5.75
19	MP2A	X	6.752	1
20	MP2A	Z	11.694	1
21	MP2A	Mx	-.003	1
22	MP2A	X	6.752	5.5
23	MP2A	Z	11.694	5.5
24	MP2A	Mx	-.003	5.5
25	MP1A	X	4.933	5.25
26	MP1A	Z	8.544	5.25
27	MP1A	Mx	-.002	5.25
28	MP3A	X	6.075	1.5
29	MP3A	Z	10.523	1.5
30	MP3A	Mx	.003	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75
2	MP1A	Z	15.169	.75
3	MP1A	Mx	0	.75
4	MP1A	X	0	2.75
5	MP1A	Z	15.169	2.75
6	MP1A	Mx	0	2.75
7	MP4A	X	0	.75
8	MP4A	Z	25.482	.75
9	MP4A	Mx	.017	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP4A	X	0	5.75
11	MP4A	Z	25.482	5.75
12	MP4A	Mx	.017	5.75
13	MP4A	X	0	.75
14	MP4A	Z	25.482	.75
15	MP4A	Mx	-.017	.75
16	MP4A	X	0	5.75
17	MP4A	Z	25.482	5.75
18	MP4A	Mx	-.017	5.75
19	MP2A	X	0	1
20	MP2A	Z	15.247	1
21	MP2A	Mx	0	1
22	MP2A	X	0	5.5
23	MP2A	Z	15.247	5.5
24	MP2A	Mx	0	5.5
25	MP1A	X	0	5.25
26	MP1A	Z	11.075	5.25
27	MP1A	Mx	0	5.25
28	MP3A	X	0	1.5
29	MP3A	Z	13.108	1.5
30	MP3A	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-6.527	.75
2	MP1A	Z	11.306	.75
3	MP1A	Mx	.003	.75
4	MP1A	X	-6.527	2.75
5	MP1A	Z	11.306	2.75
6	MP1A	Mx	.003	2.75
7	MP4A	X	-11.792	.75
8	MP4A	Z	20.424	.75
9	MP4A	Mx	.021	.75
10	MP4A	X	-11.792	5.75
11	MP4A	Z	20.424	5.75
12	MP4A	Mx	.021	5.75
13	MP4A	X	-11.792	.75
14	MP4A	Z	20.424	.75
15	MP4A	Mx	-.006	.75
16	MP4A	X	-11.792	5.75
17	MP4A	Z	20.424	5.75
18	MP4A	Mx	-.006	5.75
19	MP2A	X	-6.752	1
20	MP2A	Z	11.694	1
21	MP2A	Mx	.003	1
22	MP2A	X	-6.752	5.5
23	MP2A	Z	11.694	5.5
24	MP2A	Mx	.003	5.5
25	MP1A	X	-4.933	5.25
26	MP1A	Z	8.544	5.25
27	MP1A	Mx	.002	5.25
28	MP3A	X	-6.075	1.5
29	MP3A	Z	10.523	1.5
30	MP3A	Mx	-.003	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-7.644	.75
2	MP1A	Z	4.413	.75
3	MP1A	Mx	.004	.75
4	MP1A	X	-7.644	2.75
5	MP1A	Z	4.413	2.75
6	MP1A	Mx	.004	2.75
7	MP4A	X	-17.135	.75
8	MP4A	Z	9.893	.75
9	MP4A	Mx	.018	.75
10	MP4A	X	-17.135	5.75
11	MP4A	Z	9.893	5.75
12	MP4A	Mx	.018	5.75
13	MP4A	X	-17.135	.75
14	MP4A	Z	9.893	.75
15	MP4A	Mx	.005	.75
16	MP4A	X	-17.135	5.75
17	MP4A	Z	9.893	5.75
18	MP4A	Mx	.005	5.75
19	MP2A	X	-8.674	1
20	MP2A	Z	5.008	1
21	MP2A	Mx	.004	1
22	MP2A	X	-8.674	5.5
23	MP2A	Z	5.008	5.5
24	MP2A	Mx	.004	5.5
25	MP1A	X	-6.45	5.25
26	MP1A	Z	3.724	5.25
27	MP1A	Mx	.003	5.25
28	MP3A	X	-8.865	1.5
29	MP3A	Z	5.118	1.5
30	MP3A	Mx	-.004	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-6.712	.75
2	MP1A	Z	0	.75
3	MP1A	Mx	.003	.75
4	MP1A	X	-6.712	2.75
5	MP1A	Z	0	2.75
6	MP1A	Mx	.003	2.75
7	MP4A	X	-17.888	.75
8	MP4A	Z	0	.75
9	MP4A	Mx	.012	.75
10	MP4A	X	-17.888	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	.012	5.75
13	MP4A	X	-17.888	.75
14	MP4A	Z	0	.75
15	MP4A	Mx	.012	.75
16	MP4A	X	-17.888	5.75
17	MP4A	Z	0	5.75
18	MP4A	Mx	.012	5.75
19	MP2A	X	-8.271	1
20	MP2A	Z	0	1
21	MP2A	Mx	.004	1
22	MP2A	X	-8.271	5.5
23	MP2A	Z	0	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP2A	Mx	.004	5.5
25	MP1A	X	-6.239	5.25
26	MP1A	Z	0	5.25
27	MP1A	Mx	.003	5.25
28	MP3A	X	-9.28	1.5
29	MP3A	Z	0	1.5
30	MP3A	Mx	-.005	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-7.644	.75
2	MP1A	Z	-4.413	.75
3	MP1A	Mx	.004	.75
4	MP1A	X	-7.644	2.75
5	MP1A	Z	-4.413	2.75
6	MP1A	Mx	.004	2.75
7	MP4A	X	-17.135	.75
8	MP4A	Z	-9.893	.75
9	MP4A	Mx	.005	.75
10	MP4A	X	-17.135	5.75
11	MP4A	Z	-9.893	5.75
12	MP4A	Mx	.005	5.75
13	MP4A	X	-17.135	.75
14	MP4A	Z	-9.893	.75
15	MP4A	Mx	.018	.75
16	MP4A	X	-17.135	5.75
17	MP4A	Z	-9.893	5.75
18	MP4A	Mx	.018	5.75
19	MP2A	X	-8.674	1
20	MP2A	Z	-5.008	1
21	MP2A	Mx	.004	1
22	MP2A	X	-8.674	5.5
23	MP2A	Z	-5.008	5.5
24	MP2A	Mx	.004	5.5
25	MP1A	X	-6.45	5.25
26	MP1A	Z	-3.724	5.25
27	MP1A	Mx	.003	5.25
28	MP3A	X	-8.865	1.5
29	MP3A	Z	-5.118	1.5
30	MP3A	Mx	-.004	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-6.527	.75
2	MP1A	Z	-11.306	.75
3	MP1A	Mx	.003	.75
4	MP1A	X	-6.527	2.75
5	MP1A	Z	-11.306	2.75
6	MP1A	Mx	.003	2.75
7	MP4A	X	-11.792	.75
8	MP4A	Z	-20.424	.75
9	MP4A	Mx	-.006	.75
10	MP4A	X	-11.792	5.75
11	MP4A	Z	-20.424	5.75
12	MP4A	Mx	-.006	5.75
13	MP4A	X	-11.792	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP4A	Z	-20.424	.75
15	MP4A	Mx	.021	.75
16	MP4A	X	-11.792	5.75
17	MP4A	Z	-20.424	5.75
18	MP4A	Mx	.021	5.75
19	MP2A	X	-6.752	1
20	MP2A	Z	-11.694	1
21	MP2A	Mx	.003	1
22	MP2A	X	-6.752	5.5
23	MP2A	Z	-11.694	5.5
24	MP2A	Mx	.003	5.5
25	MP1A	X	-4.933	5.25
26	MP1A	Z	-8.544	5.25
27	MP1A	Mx	.002	5.25
28	MP3A	X	-6.075	1.5
29	MP3A	Z	-10.523	1.5
30	MP3A	Mx	-.003	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75
2	MP1A	Z	-3.823	.75
3	MP1A	Mx	0	.75
4	MP1A	X	0	2.75
5	MP1A	Z	-3.823	2.75
6	MP1A	Mx	0	2.75
7	MP4A	X	0	.75
8	MP4A	Z	-7.957	.75
9	MP4A	Mx	-.005	.75
10	MP4A	X	0	5.75
11	MP4A	Z	-7.957	5.75
12	MP4A	Mx	-.005	5.75
13	MP4A	X	0	.75
14	MP4A	Z	-7.957	.75
15	MP4A	Mx	.005	.75
16	MP4A	X	0	5.75
17	MP4A	Z	-7.957	5.75
18	MP4A	Mx	.005	5.75
19	MP2A	X	0	1
20	MP2A	Z	-4.603	1
21	MP2A	Mx	0	1
22	MP2A	X	0	5.5
23	MP2A	Z	-4.603	5.5
24	MP2A	Mx	0	5.5
25	MP1A	X	0	5.25
26	MP1A	Z	-2.984	5.25
27	MP1A	Mx	0	5.25
28	MP3A	X	0	1.5
29	MP3A	Z	-3.023	1.5
30	MP3A	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	1.598	.75
2	MP1A	Z	-2.768	.75
3	MP1A	Mx	-.000799	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP1A	X	1.598	2.75
5	MP1A	Z	-2.768	2.75
6	MP1A	Mx	-.000799	2.75
7	MP4A	X	3.642	.75
8	MP4A	Z	-6.308	.75
9	MP4A	Mx	-.007	.75
10	MP4A	X	3.642	5.75
11	MP4A	Z	-6.308	5.75
12	MP4A	Mx	-.007	5.75
13	MP4A	X	3.642	.75
14	MP4A	Z	-6.308	.75
15	MP4A	Mx	.002	.75
16	MP4A	X	3.642	5.75
17	MP4A	Z	-6.308	5.75
18	MP4A	Mx	.002	5.75
19	MP2A	X	2	1
20	MP2A	Z	-3.464	1
21	MP2A	Mx	-.001	1
22	MP2A	X	2	5.5
23	MP2A	Z	-3.464	5.5
24	MP2A	Mx	-.001	5.5
25	MP1A	X	1.303	5.25
26	MP1A	Z	-2.257	5.25
27	MP1A	Mx	-.000652	5.25
28	MP3A	X	1.387	1.5
29	MP3A	Z	-2.403	1.5
30	MP3A	Mx	.000693	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	1.683	.75
2	MP1A	Z	-.971	.75
3	MP1A	Mx	-.000842	.75
4	MP1A	X	1.683	2.75
5	MP1A	Z	-.971	2.75
6	MP1A	Mx	-.000842	2.75
7	MP4A	X	5.141	.75
8	MP4A	Z	-2.968	.75
9	MP4A	Mx	-.005	.75
10	MP4A	X	5.141	5.75
11	MP4A	Z	-2.968	5.75
12	MP4A	Mx	-.005	5.75
13	MP4A	X	5.141	.75
14	MP4A	Z	-2.968	.75
15	MP4A	Mx	-.001	.75
16	MP4A	X	5.141	5.75
17	MP4A	Z	-2.968	5.75
18	MP4A	Mx	-.001	5.75
19	MP2A	X	2.42	1
20	MP2A	Z	-1.397	1
21	MP2A	Mx	-.001	1
22	MP2A	X	2.42	5.5
23	MP2A	Z	-1.397	5.5
24	MP2A	Mx	-.001	5.5
25	MP1A	X	1.602	5.25
26	MP1A	Z	-.925	5.25

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP1A	Mx	-.000801	5.25
28	MP3A	X	1.972	1.5
29	MP3A	Z	-1.138	1.5
30	MP3A	Mx	.000986	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	1.316	.75
2	MP1A	Z	0	.75
3	MP1A	Mx	-.000658	.75
4	MP1A	X	1.316	2.75
5	MP1A	Z	0	2.75
6	MP1A	Mx	-.000658	2.75
7	MP4A	X	5.262	.75
8	MP4A	Z	0	.75
9	MP4A	Mx	-.004	.75
10	MP4A	X	5.262	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	-.004	5.75
13	MP4A	X	5.262	.75
14	MP4A	Z	0	.75
15	MP4A	Mx	-.004	.75
16	MP4A	X	5.262	5.75
17	MP4A	Z	0	5.75
18	MP4A	Mx	-.004	5.75
19	MP2A	X	2.192	1
20	MP2A	Z	0	1
21	MP2A	Mx	-.001	1
22	MP2A	X	2.192	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	-.001	5.5
25	MP1A	X	1.472	5.25
26	MP1A	Z	0	5.25
27	MP1A	Mx	-.000736	5.25
28	MP3A	X	2.028	1.5
29	MP3A	Z	0	1.5
30	MP3A	Mx	.001	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	1.683	.75
2	MP1A	Z	.971	.75
3	MP1A	Mx	-.000842	.75
4	MP1A	X	1.683	2.75
5	MP1A	Z	.971	2.75
6	MP1A	Mx	-.000842	2.75
7	MP4A	X	5.141	.75
8	MP4A	Z	2.968	.75
9	MP4A	Mx	-.001	.75
10	MP4A	X	5.141	5.75
11	MP4A	Z	2.968	5.75
12	MP4A	Mx	-.001	5.75
13	MP4A	X	5.141	.75
14	MP4A	Z	2.968	.75
15	MP4A	Mx	-.005	.75
16	MP4A	X	5.141	5.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP4A	Z	2.968	5.75
18	MP4A	Mx	-.005	5.75
19	MP2A	X	2.42	1
20	MP2A	Z	1.397	1
21	MP2A	Mx	-.001	1
22	MP2A	X	2.42	5.5
23	MP2A	Z	1.397	5.5
24	MP2A	Mx	-.001	5.5
25	MP1A	X	1.602	5.25
26	MP1A	Z	.925	5.25
27	MP1A	Mx	-.000801	5.25
28	MP3A	X	1.972	1.5
29	MP3A	Z	1.138	1.5
30	MP3A	Mx	.000986	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	1.598	.75
2	MP1A	Z	2.768	.75
3	MP1A	Mx	-.000799	.75
4	MP1A	X	1.598	2.75
5	MP1A	Z	2.768	2.75
6	MP1A	Mx	-.000799	2.75
7	MP4A	X	3.642	.75
8	MP4A	Z	6.308	.75
9	MP4A	Mx	.002	.75
10	MP4A	X	3.642	5.75
11	MP4A	Z	6.308	5.75
12	MP4A	Mx	.002	5.75
13	MP4A	X	3.642	.75
14	MP4A	Z	6.308	.75
15	MP4A	Mx	-.007	.75
16	MP4A	X	3.642	5.75
17	MP4A	Z	6.308	5.75
18	MP4A	Mx	-.007	5.75
19	MP2A	X	2	1
20	MP2A	Z	3.464	1
21	MP2A	Mx	-.001	1
22	MP2A	X	2	5.5
23	MP2A	Z	3.464	5.5
24	MP2A	Mx	-.001	5.5
25	MP1A	X	1.303	5.25
26	MP1A	Z	2.257	5.25
27	MP1A	Mx	-.000652	5.25
28	MP3A	X	1.387	1.5
29	MP3A	Z	2.403	1.5
30	MP3A	Mx	.000693	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.75
2	MP1A	Z	3.823	.75
3	MP1A	Mx	0	.75
4	MP1A	X	0	2.75
5	MP1A	Z	3.823	2.75
6	MP1A	Mx	0	2.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	0	.75
8	MP4A	Z	7.957	.75
9	MP4A	Mx	.005	.75
10	MP4A	X	0	5.75
11	MP4A	Z	7.957	5.75
12	MP4A	Mx	.005	5.75
13	MP4A	X	0	.75
14	MP4A	Z	7.957	.75
15	MP4A	Mx	-.005	.75
16	MP4A	X	0	5.75
17	MP4A	Z	7.957	5.75
18	MP4A	Mx	-.005	5.75
19	MP2A	X	0	1
20	MP2A	Z	4.603	1
21	MP2A	Mx	0	1
22	MP2A	X	0	5.5
23	MP2A	Z	4.603	5.5
24	MP2A	Mx	0	5.5
25	MP1A	X	0	5.25
26	MP1A	Z	2.984	5.25
27	MP1A	Mx	0	5.25
28	MP3A	X	0	1.5
29	MP3A	Z	3.023	1.5
30	MP3A	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-1.598	.75
2	MP1A	Z	2.768	.75
3	MP1A	Mx	.000799	.75
4	MP1A	X	-1.598	2.75
5	MP1A	Z	2.768	2.75
6	MP1A	Mx	.000799	2.75
7	MP4A	X	-3.642	.75
8	MP4A	Z	6.308	.75
9	MP4A	Mx	.007	.75
10	MP4A	X	-3.642	5.75
11	MP4A	Z	6.308	5.75
12	MP4A	Mx	.007	5.75
13	MP4A	X	-3.642	.75
14	MP4A	Z	6.308	.75
15	MP4A	Mx	-.002	.75
16	MP4A	X	-3.642	5.75
17	MP4A	Z	6.308	5.75
18	MP4A	Mx	-.002	5.75
19	MP2A	X	-2	1
20	MP2A	Z	3.464	1
21	MP2A	Mx	.001	1
22	MP2A	X	-2	5.5
23	MP2A	Z	3.464	5.5
24	MP2A	Mx	.001	5.5
25	MP1A	X	-1.303	5.25
26	MP1A	Z	2.257	5.25
27	MP1A	Mx	.000652	5.25
28	MP3A	X	-1.387	1.5
29	MP3A	Z	2.403	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP3A	Mx	-.000693	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-1.683	.75
2	MP1A	Z	.971	.75
3	MP1A	Mx	.000842	.75
4	MP1A	X	-1.683	2.75
5	MP1A	Z	.971	2.75
6	MP1A	Mx	.000842	2.75
7	MP4A	X	-5.141	.75
8	MP4A	Z	2.968	.75
9	MP4A	Mx	.005	.75
10	MP4A	X	-5.141	5.75
11	MP4A	Z	2.968	5.75
12	MP4A	Mx	.005	5.75
13	MP4A	X	-5.141	.75
14	MP4A	Z	2.968	.75
15	MP4A	Mx	.001	.75
16	MP4A	X	-5.141	5.75
17	MP4A	Z	2.968	5.75
18	MP4A	Mx	.001	5.75
19	MP2A	X	-2.42	1
20	MP2A	Z	1.397	1
21	MP2A	Mx	.001	1
22	MP2A	X	-2.42	5.5
23	MP2A	Z	1.397	5.5
24	MP2A	Mx	.001	5.5
25	MP1A	X	-1.602	5.25
26	MP1A	Z	.925	5.25
27	MP1A	Mx	.000801	5.25
28	MP3A	X	-1.972	1.5
29	MP3A	Z	1.138	1.5
30	MP3A	Mx	-.000986	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-1.316	.75
2	MP1A	Z	0	.75
3	MP1A	Mx	.000658	.75
4	MP1A	X	-1.316	2.75
5	MP1A	Z	0	2.75
6	MP1A	Mx	.000658	2.75
7	MP4A	X	-5.262	.75
8	MP4A	Z	0	.75
9	MP4A	Mx	.004	.75
10	MP4A	X	-5.262	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	.004	5.75
13	MP4A	X	-5.262	.75
14	MP4A	Z	0	.75
15	MP4A	Mx	.004	.75
16	MP4A	X	-5.262	5.75
17	MP4A	Z	0	5.75
18	MP4A	Mx	.004	5.75
19	MP2A	X	-2.192	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP2A	Z	0	1
21	MP2A	Mx	.001	1
22	MP2A	X	-2.192	5.5
23	MP2A	Z	0	5.5
24	MP2A	Mx	.001	5.5
25	MP1A	X	-1.472	5.25
26	MP1A	Z	0	5.25
27	MP1A	Mx	.000736	5.25
28	MP3A	X	-2.028	1.5
29	MP3A	Z	0	1.5
30	MP3A	Mx	-.001	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-1.683	.75
2	MP1A	Z	-.971	.75
3	MP1A	Mx	.000842	.75
4	MP1A	X	-1.683	2.75
5	MP1A	Z	-.971	2.75
6	MP1A	Mx	.000842	2.75
7	MP4A	X	-5.141	.75
8	MP4A	Z	-2.968	.75
9	MP4A	Mx	.001	.75
10	MP4A	X	-5.141	5.75
11	MP4A	Z	-2.968	5.75
12	MP4A	Mx	.001	5.75
13	MP4A	X	-5.141	.75
14	MP4A	Z	-2.968	.75
15	MP4A	Mx	.005	.75
16	MP4A	X	-5.141	5.75
17	MP4A	Z	-2.968	5.75
18	MP4A	Mx	.005	5.75
19	MP2A	X	-2.42	1
20	MP2A	Z	-1.397	1
21	MP2A	Mx	.001	1
22	MP2A	X	-2.42	5.5
23	MP2A	Z	-1.397	5.5
24	MP2A	Mx	.001	5.5
25	MP1A	X	-1.602	5.25
26	MP1A	Z	-.925	5.25
27	MP1A	Mx	.000801	5.25
28	MP3A	X	-1.972	1.5
29	MP3A	Z	-1.138	1.5
30	MP3A	Mx	-.000986	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-1.598	.75
2	MP1A	Z	-2.768	.75
3	MP1A	Mx	.000799	.75
4	MP1A	X	-1.598	2.75
5	MP1A	Z	-2.768	2.75
6	MP1A	Mx	.000799	2.75
7	MP4A	X	-3.642	.75
8	MP4A	Z	-6.308	.75
9	MP4A	Mx	-.002	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP4A	X	-3.642	5.75
11	MP4A	Z	-6.308	5.75
12	MP4A	Mx	-.002	5.75
13	MP4A	X	-3.642	.75
14	MP4A	Z	-6.308	.75
15	MP4A	Mx	.007	.75
16	MP4A	X	-3.642	5.75
17	MP4A	Z	-6.308	5.75
18	MP4A	Mx	.007	5.75
19	MP2A	X	-2	1
20	MP2A	Z	-3.464	1
21	MP2A	Mx	.001	1
22	MP2A	X	-2	5.5
23	MP2A	Z	-3.464	5.5
24	MP2A	Mx	.001	5.5
25	MP1A	X	-1.303	5.25
26	MP1A	Z	-2.257	5.25
27	MP1A	Mx	.000652	5.25
28	MP3A	X	-1.387	1.5
29	MP3A	Z	-2.403	1.5
30	MP3A	Mx	-.000693	1.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%3

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-500	%98

Member Point Loads (BLC 79 : Lv1)

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

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-250	%100

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-1.737	.75
2	MP1A	My	-.000869	.75
3	MP1A	Mz	0	.75
4	MP1A	Y	-1.737	2.75
5	MP1A	My	-.000869	2.75
6	MP1A	Mz	0	2.75
7	MP4A	Y	-.798	.75
8	MP4A	My	-.000532	.75
9	MP4A	Mz	.000532	.75
10	MP4A	Y	-.798	5.75
11	MP4A	My	-.000532	5.75
12	MP4A	Mz	.000532	5.75
13	MP4A	Y	-.798	.75
14	MP4A	My	-.000532	.75

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
15	MP4A	Mz	-.000532	.75
16	MP4A	Y	-.798	5.75
17	MP4A	My	-.000532	5.75
18	MP4A	Mz	-.000532	5.75
19	MP2A	Y	-.197	1
20	MP2A	My	-9.9e-5	1
21	MP2A	Mz	0	1
22	MP2A	Y	-.197	5.5
23	MP2A	My	-9.9e-5	5.5
24	MP2A	Mz	0	5.5
25	MP1A	Y	-.926	5.25
26	MP1A	My	-.000463	5.25
27	MP1A	Mz	0	5.25
28	MP3A	Y	-3.367	1.5
29	MP3A	My	.002	1.5
30	MP3A	Mz	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Z	-4.343	.75
2	MP1A	Mx	0	.75
3	MP1A	Z	-4.343	2.75
4	MP1A	Mx	0	2.75
5	MP4A	Z	-1.995	.75
6	MP4A	Mx	-.001	.75
7	MP4A	Z	-1.995	5.75
8	MP4A	Mx	-.001	5.75
9	MP4A	Z	-1.995	.75
10	MP4A	Mx	.001	.75
11	MP4A	Z	-1.995	5.75
12	MP4A	Mx	.001	5.75
13	MP2A	Z	-.494	1
14	MP2A	Mx	0	1
15	MP2A	Z	-.494	5.5
16	MP2A	Mx	0	5.5
17	MP1A	Z	-2.314	5.25
18	MP1A	Mx	0	5.25
19	MP3A	Z	-8.417	1.5
20	MP3A	Mx	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	4.343	.75
2	MP1A	Mx	-.002	.75
3	MP1A	X	4.343	2.75
4	MP1A	Mx	-.002	2.75
5	MP4A	X	1.995	.75
6	MP4A	Mx	-.001	.75
7	MP4A	X	1.995	5.75
8	MP4A	Mx	-.001	5.75
9	MP4A	X	1.995	.75
10	MP4A	Mx	-.001	.75
11	MP4A	X	1.995	5.75
12	MP4A	Mx	-.001	5.75
13	MP2A	X	.494	1
14	MP2A	Mx	-.000247	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
15	MP2A	X	.494	5.5
16	MP2A	Mx	-.000247	5.5
17	MP1A	X	2.314	5.25
18	MP1A	Mx	-.001	5.25
19	MP3A	X	8.417	1.5
20	MP3A	Mx	.004	1.5

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-9.343	-9.343	0	%100
2	M2	Y	-9.343	-9.343	0	%100
3	M13	Y	-10.739	-10.739	0	%100
4	M14	Y	-10.739	-10.739	0	%100
5	M15	Y	-10.739	-10.739	0	%100
6	M16	Y	-10.739	-10.739	0	%100
7	M17	Y	-8.317	-8.317	0	%100
8	M18	Y	-8.317	-8.317	0	%100
9	M19	Y	-8.317	-8.317	0	%100
10	M20	Y	-8.317	-8.317	0	%100
11	M21	Y	-10.739	-10.739	0	%100
12	M22	Y	-10.739	-10.739	0	%100
13	M23	Y	-10.739	-10.739	0	%100
14	M24	Y	-10.739	-10.739	0	%100
15	M25	Y	-4.984	-4.984	0	%100
16	M26	Y	-4.984	-4.984	0	%100
17	M27	Y	-4.984	-4.984	0	%100
18	M28	Y	-4.984	-4.984	0	%100
19	MP4A	Y	-8.317	-8.317	0	%100
20	MP3A	Y	-8.317	-8.317	0	%100
21	MP2A	Y	-8.317	-8.317	0	%100
22	MP1A	Y	-8.317	-8.317	0	%100
23	M44	Y	-4.727	-4.727	0	%100
24	M45	Y	-4.727	-4.727	0	%100
25	M46	Y	-4.727	-4.727	0	%100
26	M47	Y	-4.727	-4.727	0	%100
27	M43	Y	-8.317	-8.317	0	%100
28	M44A	Y	-8.317	-8.317	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-8.528	-8.528	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-8.528	-8.528	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-3.367	-3.367	0	%100
15	M18	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
16	M18	Z	-3.367	-3.367	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-3.367	-3.367	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-3.367	-3.367	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-1.854	-1.854	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-1.854	-1.854	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-1.854	-1.854	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-1.854	-1.854	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-1.92	-1.92	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-1.92	-1.92	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-1.92	-1.92	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-1.92	-1.92	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	-7.045	-7.045	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	-7.045	-7.045	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	-7.045	-7.045	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	-7.045	-7.045	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	-1.854	-1.854	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	-1.854	-1.854	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	-1.854	-1.854	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	-1.854	-1.854	0	%100
53	M43	X	0	0	0	%100
54	M43	Z	-.586	-.586	0	%100
55	M44A	X	0	0	0	%100
56	M44A	Z	-.586	-.586	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.198	3.198	0	%100
2	M1	Z	-5.539	-5.539	0	%100
3	M2	X	3.198	3.198	0	%100
4	M2	Z	-5.539	-5.539	0	%100
5	M13	X	.232	.232	0	%100
6	M13	Z	-.401	-.401	0	%100
7	M14	X	.232	.232	0	%100
8	M14	Z	-.401	-.401	0	%100
9	M15	X	.232	.232	0	%100
10	M15	Z	-.401	-.401	0	%100
11	M16	X	.232	.232	0	%100
12	M16	Z	-.401	-.401	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
13	M17	X	.379	.379	0	%100
14	M17	Z	-.657	-.657	0	%100
15	M18	X	.379	.379	0	%100
16	M18	Z	-.657	-.657	0	%100
17	M19	X	2.662	2.662	0	%100
18	M19	Z	-4.612	-4.612	0	%100
19	M20	X	2.662	2.662	0	%100
20	M20	Z	-4.612	-4.612	0	%100
21	M21	X	.695	.695	0	%100
22	M21	Z	-1.204	-1.204	0	%100
23	M22	X	.695	.695	0	%100
24	M22	Z	-1.204	-1.204	0	%100
25	M23	X	.695	.695	0	%100
26	M23	Z	-1.204	-1.204	0	%100
27	M24	X	.695	.695	0	%100
28	M24	Z	-1.204	-1.204	0	%100
29	M25	X	.768	.768	0	%100
30	M25	Z	-1.33	-1.33	0	%100
31	M26	X	.768	.768	0	%100
32	M26	Z	-1.33	-1.33	0	%100
33	M27	X	1.105	1.105	0	%100
34	M27	Z	-1.913	-1.913	0	%100
35	M28	X	1.105	1.105	0	%100
36	M28	Z	-1.913	-1.913	0	%100
37	MP4A	X	3.523	3.523	0	%100
38	MP4A	Z	-6.101	-6.101	0	%100
39	MP3A	X	3.523	3.523	0	%100
40	MP3A	Z	-6.101	-6.101	0	%100
41	MP2A	X	3.523	3.523	0	%100
42	MP2A	Z	-6.101	-6.101	0	%100
43	MP1A	X	3.523	3.523	0	%100
44	MP1A	Z	-6.101	-6.101	0	%100
45	M44	X	.927	.927	0	%100
46	M44	Z	-1.606	-1.606	0	%100
47	M45	X	.927	.927	0	%100
48	M45	Z	-1.606	-1.606	0	%100
49	M46	X	.927	.927	0	%100
50	M46	Z	-1.606	-1.606	0	%100
51	M47	X	.927	.927	0	%100
52	M47	Z	-1.606	-1.606	0	%100
53	M43	X	.185	.185	0	%100
54	M43	Z	-.32	-.32	0	%100
55	M44A	X	1.87	1.87	0	%100
56	M44A	Z	-3.239	-3.239	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.846	1.846	0	%100
2	M1	Z	-1.066	-1.066	0	%100
3	M2	X	1.846	1.846	0	%100
4	M2	Z	-1.066	-1.066	0	%100
5	M13	X	1.204	1.204	0	%100
6	M13	Z	-.695	-.695	0	%100
7	M14	X	1.204	1.204	0	%100
8	M14	Z	-.695	-.695	0	%100
9	M15	X	1.204	1.204	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
10	M15	Z	-.695	-.695	0	%100
11	M16	X	1.204	1.204	0	%100
12	M16	Z	-.695	-.695	0	%100
13	M17	X	.093	.093	0	%100
14	M17	Z	-.053	-.053	0	%100
15	M18	X	.093	.093	0	%100
16	M18	Z	-.053	-.053	0	%100
17	M19	X	4.048	4.048	0	%100
18	M19	Z	-2.337	-2.337	0	%100
19	M20	X	4.048	4.048	0	%100
20	M20	Z	-2.337	-2.337	0	%100
21	M21	X	.401	.401	0	%100
22	M21	Z	-.232	-.232	0	%100
23	M22	X	.401	.401	0	%100
24	M22	Z	-.232	-.232	0	%100
25	M23	X	.401	.401	0	%100
26	M23	Z	-.232	-.232	0	%100
27	M24	X	.401	.401	0	%100
28	M24	Z	-.232	-.232	0	%100
29	M25	X	1.247	1.247	0	%100
30	M25	Z	-.72	-.72	0	%100
31	M26	X	1.247	1.247	0	%100
32	M26	Z	-.72	-.72	0	%100
33	M27	X	1.83	1.83	0	%100
34	M27	Z	-1.056	-1.056	0	%100
35	M28	X	1.83	1.83	0	%100
36	M28	Z	-1.056	-1.056	0	%100
37	MP4A	X	6.101	6.101	0	%100
38	MP4A	Z	-3.523	-3.523	0	%100
39	MP3A	X	6.101	6.101	0	%100
40	MP3A	Z	-3.523	-3.523	0	%100
41	MP2A	X	6.101	6.101	0	%100
42	MP2A	Z	-3.523	-3.523	0	%100
43	MP1A	X	6.101	6.101	0	%100
44	MP1A	Z	-3.523	-3.523	0	%100
45	M44	X	1.606	1.606	0	%100
46	M44	Z	-.927	-.927	0	%100
47	M45	X	1.606	1.606	0	%100
48	M45	Z	-.927	-.927	0	%100
49	M46	X	1.606	1.606	0	%100
50	M46	Z	-.927	-.927	0	%100
51	M47	X	1.606	1.606	0	%100
52	M47	Z	-.927	-.927	0	%100
53	M43	X	2.862	2.862	0	%100
54	M43	Z	-1.653	-1.653	0	%100
55	M44A	X	5.782	5.782	0	%100
56	M44A	Z	-3.338	-3.338	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	1.854	1.854	0	%100
6	M13	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
7	M14	X	1.854	1.854	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	1.854	1.854	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	1.854	1.854	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	2.065	2.065	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	2.065	2.065	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	2.065	2.065	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	2.065	2.065	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	1.728	1.728	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	1.728	1.728	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	1.728	1.728	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	1.728	1.728	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	7.045	7.045	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	7.045	7.045	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	7.045	7.045	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	7.045	7.045	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	1.854	1.854	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	1.854	1.854	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	1.854	1.854	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	1.854	1.854	0	%100
52	M47	Z	0	0	0	%100
53	M43	X	6.459	6.459	0	%100
54	M43	Z	0	0	0	%100
55	M44A	X	6.459	6.459	0	%100
56	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.846	1.846	0	%100
2	M1	Z	1.066	1.066	0	%100
3	M2	X	1.846	1.846	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
4	M2	Z	1.066	1.066	0	%100
5	M13	X	1.204	1.204	0	%100
6	M13	Z	.695	.695	0	%100
7	M14	X	1.204	1.204	0	%100
8	M14	Z	.695	.695	0	%100
9	M15	X	1.204	1.204	0	%100
10	M15	Z	.695	.695	0	%100
11	M16	X	1.204	1.204	0	%100
12	M16	Z	.695	.695	0	%100
13	M17	X	4.048	4.048	0	%100
14	M17	Z	2.337	2.337	0	%100
15	M18	X	4.048	4.048	0	%100
16	M18	Z	2.337	2.337	0	%100
17	M19	X	.093	.093	0	%100
18	M19	Z	.053	.053	0	%100
19	M20	X	.093	.093	0	%100
20	M20	Z	.053	.053	0	%100
21	M21	X	.401	.401	0	%100
22	M21	Z	.232	.232	0	%100
23	M22	X	.401	.401	0	%100
24	M22	Z	.232	.232	0	%100
25	M23	X	.401	.401	0	%100
26	M23	Z	.232	.232	0	%100
27	M24	X	.401	.401	0	%100
28	M24	Z	.232	.232	0	%100
29	M25	X	1.83	1.83	0	%100
30	M25	Z	1.056	1.056	0	%100
31	M26	X	1.83	1.83	0	%100
32	M26	Z	1.056	1.056	0	%100
33	M27	X	1.247	1.247	0	%100
34	M27	Z	.72	.72	0	%100
35	M28	X	1.247	1.247	0	%100
36	M28	Z	.72	.72	0	%100
37	MP4A	X	6.101	6.101	0	%100
38	MP4A	Z	3.523	3.523	0	%100
39	MP3A	X	6.101	6.101	0	%100
40	MP3A	Z	3.523	3.523	0	%100
41	MP2A	X	6.101	6.101	0	%100
42	MP2A	Z	3.523	3.523	0	%100
43	MP1A	X	6.101	6.101	0	%100
44	MP1A	Z	3.523	3.523	0	%100
45	M44	X	1.606	1.606	0	%100
46	M44	Z	.927	.927	0	%100
47	M45	X	1.606	1.606	0	%100
48	M45	Z	.927	.927	0	%100
49	M46	X	1.606	1.606	0	%100
50	M46	Z	.927	.927	0	%100
51	M47	X	1.606	1.606	0	%100
52	M47	Z	.927	.927	0	%100
53	M43	X	5.782	5.782	0	%100
54	M43	Z	3.338	3.338	0	%100
55	M44A	X	2.862	2.862	0	%100
56	M44A	Z	1.653	1.653	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	3.198	3.198	0	%100
2	M1	Z	5.539	5.539	0	%100
3	M2	X	3.198	3.198	0	%100
4	M2	Z	5.539	5.539	0	%100
5	M13	X	.232	.232	0	%100
6	M13	Z	.401	.401	0	%100
7	M14	X	.232	.232	0	%100
8	M14	Z	.401	.401	0	%100
9	M15	X	.232	.232	0	%100
10	M15	Z	.401	.401	0	%100
11	M16	X	.232	.232	0	%100
12	M16	Z	.401	.401	0	%100
13	M17	X	2.662	2.662	0	%100
14	M17	Z	4.612	4.612	0	%100
15	M18	X	2.662	2.662	0	%100
16	M18	Z	4.612	4.612	0	%100
17	M19	X	.379	.379	0	%100
18	M19	Z	.657	.657	0	%100
19	M20	X	.379	.379	0	%100
20	M20	Z	.657	.657	0	%100
21	M21	X	.695	.695	0	%100
22	M21	Z	1.204	1.204	0	%100
23	M22	X	.695	.695	0	%100
24	M22	Z	1.204	1.204	0	%100
25	M23	X	.695	.695	0	%100
26	M23	Z	1.204	1.204	0	%100
27	M24	X	.695	.695	0	%100
28	M24	Z	1.204	1.204	0	%100
29	M25	X	1.105	1.105	0	%100
30	M25	Z	1.913	1.913	0	%100
31	M26	X	1.105	1.105	0	%100
32	M26	Z	1.913	1.913	0	%100
33	M27	X	.768	.768	0	%100
34	M27	Z	1.33	1.33	0	%100
35	M28	X	.768	.768	0	%100
36	M28	Z	1.33	1.33	0	%100
37	MP4A	X	3.523	3.523	0	%100
38	MP4A	Z	6.101	6.101	0	%100
39	MP3A	X	3.523	3.523	0	%100
40	MP3A	Z	6.101	6.101	0	%100
41	MP2A	X	3.523	3.523	0	%100
42	MP2A	Z	6.101	6.101	0	%100
43	MP1A	X	3.523	3.523	0	%100
44	MP1A	Z	6.101	6.101	0	%100
45	M44	X	.927	.927	0	%100
46	M44	Z	1.606	1.606	0	%100
47	M45	X	.927	.927	0	%100
48	M45	Z	1.606	1.606	0	%100
49	M46	X	.927	.927	0	%100
50	M46	Z	1.606	1.606	0	%100
51	M47	X	.927	.927	0	%100
52	M47	Z	1.606	1.606	0	%100
53	M43	X	1.87	1.87	0	%100
54	M43	Z	3.239	3.239	0	%100
55	M44A	X	.185	.185	0	%100
56	M44A	Z	.32	.32	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	8.528	8.528	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	8.528	8.528	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	3.367	3.367	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	3.367	3.367	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	3.367	3.367	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	3.367	3.367	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	1.854	1.854	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	1.854	1.854	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	1.854	1.854	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	1.854	1.854	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	1.92	1.92	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	1.92	1.92	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	1.92	1.92	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	1.92	1.92	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	7.045	7.045	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	7.045	7.045	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	7.045	7.045	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	7.045	7.045	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	1.854	1.854	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	1.854	1.854	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	1.854	1.854	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	1.854	1.854	0	%100
53	M43	X	0	0	0	%100
54	M43	Z	.586	.586	0	%100
55	M44A	X	0	0	0	%100
56	M44A	Z	.586	.586	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.198	-3.198	0	%100
2	M1	Z	5.539	5.539	0	%100
3	M2	X	-3.198	-3.198	0	%100
4	M2	Z	5.539	5.539	0	%100
5	M13	X	-.232	-.232	0	%100
6	M13	Z	.401	.401	0	%100
7	M14	X	-.232	-.232	0	%100
8	M14	Z	.401	.401	0	%100
9	M15	X	-.232	-.232	0	%100
10	M15	Z	.401	.401	0	%100
11	M16	X	-.232	-.232	0	%100
12	M16	Z	.401	.401	0	%100
13	M17	X	-.379	-.379	0	%100
14	M17	Z	.657	.657	0	%100
15	M18	X	-.379	-.379	0	%100
16	M18	Z	.657	.657	0	%100
17	M19	X	-2.662	-2.662	0	%100
18	M19	Z	4.612	4.612	0	%100
19	M20	X	-2.662	-2.662	0	%100
20	M20	Z	4.612	4.612	0	%100
21	M21	X	-.695	-.695	0	%100
22	M21	Z	1.204	1.204	0	%100
23	M22	X	-.695	-.695	0	%100
24	M22	Z	1.204	1.204	0	%100
25	M23	X	-.695	-.695	0	%100
26	M23	Z	1.204	1.204	0	%100
27	M24	X	-.695	-.695	0	%100
28	M24	Z	1.204	1.204	0	%100
29	M25	X	-.768	-.768	0	%100
30	M25	Z	1.33	1.33	0	%100
31	M26	X	-.768	-.768	0	%100
32	M26	Z	1.33	1.33	0	%100
33	M27	X	-1.105	-1.105	0	%100
34	M27	Z	1.913	1.913	0	%100
35	M28	X	-1.105	-1.105	0	%100
36	M28	Z	1.913	1.913	0	%100
37	MP4A	X	-3.523	-3.523	0	%100
38	MP4A	Z	6.101	6.101	0	%100
39	MP3A	X	-3.523	-3.523	0	%100
40	MP3A	Z	6.101	6.101	0	%100
41	MP2A	X	-3.523	-3.523	0	%100
42	MP2A	Z	6.101	6.101	0	%100
43	MP1A	X	-3.523	-3.523	0	%100
44	MP1A	Z	6.101	6.101	0	%100
45	M44	X	-.927	-.927	0	%100
46	M44	Z	1.606	1.606	0	%100
47	M45	X	-.927	-.927	0	%100
48	M45	Z	1.606	1.606	0	%100
49	M46	X	-.927	-.927	0	%100
50	M46	Z	1.606	1.606	0	%100
51	M47	X	-.927	-.927	0	%100
52	M47	Z	1.606	1.606	0	%100
53	M43	X	-.185	-.185	0	%100
54	M43	Z	.32	.32	0	%100
55	M44A	X	-1.87	-1.87	0	%100
56	M44A	Z	3.239	3.239	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.846	-1.846	0	%100
2	M1	Z	1.066	1.066	0	%100
3	M2	X	-1.846	-1.846	0	%100
4	M2	Z	1.066	1.066	0	%100
5	M13	X	-1.204	-1.204	0	%100
6	M13	Z	.695	.695	0	%100
7	M14	X	-1.204	-1.204	0	%100
8	M14	Z	.695	.695	0	%100
9	M15	X	-1.204	-1.204	0	%100
10	M15	Z	.695	.695	0	%100
11	M16	X	-1.204	-1.204	0	%100
12	M16	Z	.695	.695	0	%100
13	M17	X	-.093	-.093	0	%100
14	M17	Z	.053	.053	0	%100
15	M18	X	-.093	-.093	0	%100
16	M18	Z	.053	.053	0	%100
17	M19	X	-4.048	-4.048	0	%100
18	M19	Z	2.337	2.337	0	%100
19	M20	X	-4.048	-4.048	0	%100
20	M20	Z	2.337	2.337	0	%100
21	M21	X	-.401	-.401	0	%100
22	M21	Z	.232	.232	0	%100
23	M22	X	-.401	-.401	0	%100
24	M22	Z	.232	.232	0	%100
25	M23	X	-.401	-.401	0	%100
26	M23	Z	.232	.232	0	%100
27	M24	X	-.401	-.401	0	%100
28	M24	Z	.232	.232	0	%100
29	M25	X	-1.247	-1.247	0	%100
30	M25	Z	.72	.72	0	%100
31	M26	X	-1.247	-1.247	0	%100
32	M26	Z	.72	.72	0	%100
33	M27	X	-1.83	-1.83	0	%100
34	M27	Z	1.056	1.056	0	%100
35	M28	X	-1.83	-1.83	0	%100
36	M28	Z	1.056	1.056	0	%100
37	MP4A	X	-6.101	-6.101	0	%100
38	MP4A	Z	3.523	3.523	0	%100
39	MP3A	X	-6.101	-6.101	0	%100
40	MP3A	Z	3.523	3.523	0	%100
41	MP2A	X	-6.101	-6.101	0	%100
42	MP2A	Z	3.523	3.523	0	%100
43	MP1A	X	-6.101	-6.101	0	%100
44	MP1A	Z	3.523	3.523	0	%100
45	M44	X	-1.606	-1.606	0	%100
46	M44	Z	.927	.927	0	%100
47	M45	X	-1.606	-1.606	0	%100
48	M45	Z	.927	.927	0	%100
49	M46	X	-1.606	-1.606	0	%100
50	M46	Z	.927	.927	0	%100
51	M47	X	-1.606	-1.606	0	%100
52	M47	Z	.927	.927	0	%100
53	M43	X	-2.862	-2.862	0	%100
54	M43	Z	1.653	1.653	0	%100
55	M44A	X	-5.782	-5.782	0	%100
56	M44A	Z	3.338	3.338	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-1.854	-1.854	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-1.854	-1.854	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-1.854	-1.854	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-1.854	-1.854	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-2.065	-2.065	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-2.065	-2.065	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-2.065	-2.065	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-2.065	-2.065	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-1.728	-1.728	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-1.728	-1.728	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	-1.728	-1.728	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-1.728	-1.728	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	-7.045	-7.045	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	-7.045	-7.045	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	-7.045	-7.045	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	-7.045	-7.045	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	-1.854	-1.854	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-1.854	-1.854	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	-1.854	-1.854	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	-1.854	-1.854	0	%100
52	M47	Z	0	0	0	%100
53	M43	X	-6.459	-6.459	0	%100
54	M43	Z	0	0	0	%100
55	M44A	X	-6.459	-6.459	0	%100
56	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.846	-1.846	0	%100
2	M1	Z	-1.066	-1.066	0	%100
3	M2	X	-1.846	-1.846	0	%100
4	M2	Z	-1.066	-1.066	0	%100
5	M13	X	-1.204	-1.204	0	%100
6	M13	Z	-.695	-.695	0	%100
7	M14	X	-1.204	-1.204	0	%100
8	M14	Z	-.695	-.695	0	%100
9	M15	X	-1.204	-1.204	0	%100
10	M15	Z	-.695	-.695	0	%100
11	M16	X	-1.204	-1.204	0	%100
12	M16	Z	-.695	-.695	0	%100
13	M17	X	-4.048	-4.048	0	%100
14	M17	Z	-2.337	-2.337	0	%100
15	M18	X	-4.048	-4.048	0	%100
16	M18	Z	-2.337	-2.337	0	%100
17	M19	X	-.093	-.093	0	%100
18	M19	Z	-.053	-.053	0	%100
19	M20	X	-.093	-.093	0	%100
20	M20	Z	-.053	-.053	0	%100
21	M21	X	-.401	-.401	0	%100
22	M21	Z	-.232	-.232	0	%100
23	M22	X	-.401	-.401	0	%100
24	M22	Z	-.232	-.232	0	%100
25	M23	X	-.401	-.401	0	%100
26	M23	Z	-.232	-.232	0	%100
27	M24	X	-.401	-.401	0	%100
28	M24	Z	-.232	-.232	0	%100
29	M25	X	-1.83	-1.83	0	%100
30	M25	Z	-1.056	-1.056	0	%100
31	M26	X	-1.83	-1.83	0	%100
32	M26	Z	-1.056	-1.056	0	%100
33	M27	X	-1.247	-1.247	0	%100
34	M27	Z	-.72	-.72	0	%100
35	M28	X	-1.247	-1.247	0	%100
36	M28	Z	-.72	-.72	0	%100
37	MP4A	X	-6.101	-6.101	0	%100
38	MP4A	Z	-3.523	-3.523	0	%100
39	MP3A	X	-6.101	-6.101	0	%100
40	MP3A	Z	-3.523	-3.523	0	%100
41	MP2A	X	-6.101	-6.101	0	%100
42	MP2A	Z	-3.523	-3.523	0	%100
43	MP1A	X	-6.101	-6.101	0	%100
44	MP1A	Z	-3.523	-3.523	0	%100
45	M44	X	-1.606	-1.606	0	%100
46	M44	Z	-.927	-.927	0	%100
47	M45	X	-1.606	-1.606	0	%100
48	M45	Z	-.927	-.927	0	%100
49	M46	X	-1.606	-1.606	0	%100
50	M46	Z	-.927	-.927	0	%100
51	M47	X	-1.606	-1.606	0	%100
52	M47	Z	-.927	-.927	0	%100
53	M43	X	-5.782	-5.782	0	%100
54	M43	Z	-3.338	-3.338	0	%100
55	M44A	X	-2.862	-2.862	0	%100
56	M44A	Z	-1.653	-1.653	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-3.198	-3.198	0	%100
2	M1	Z	-5.539	-5.539	0	%100
3	M2	X	-3.198	-3.198	0	%100
4	M2	Z	-5.539	-5.539	0	%100
5	M13	X	-.232	-.232	0	%100
6	M13	Z	-.401	-.401	0	%100
7	M14	X	-.232	-.232	0	%100
8	M14	Z	-.401	-.401	0	%100
9	M15	X	-.232	-.232	0	%100
10	M15	Z	-.401	-.401	0	%100
11	M16	X	-.232	-.232	0	%100
12	M16	Z	-.401	-.401	0	%100
13	M17	X	-2.662	-2.662	0	%100
14	M17	Z	-4.612	-4.612	0	%100
15	M18	X	-2.662	-2.662	0	%100
16	M18	Z	-4.612	-4.612	0	%100
17	M19	X	-.379	-.379	0	%100
18	M19	Z	-.657	-.657	0	%100
19	M20	X	-.379	-.379	0	%100
20	M20	Z	-.657	-.657	0	%100
21	M21	X	-.695	-.695	0	%100
22	M21	Z	-1.204	-1.204	0	%100
23	M22	X	-.695	-.695	0	%100
24	M22	Z	-1.204	-1.204	0	%100
25	M23	X	-.695	-.695	0	%100
26	M23	Z	-1.204	-1.204	0	%100
27	M24	X	-.695	-.695	0	%100
28	M24	Z	-1.204	-1.204	0	%100
29	M25	X	-1.105	-1.105	0	%100
30	M25	Z	-1.913	-1.913	0	%100
31	M26	X	-1.105	-1.105	0	%100
32	M26	Z	-1.913	-1.913	0	%100
33	M27	X	-.768	-.768	0	%100
34	M27	Z	-1.33	-1.33	0	%100
35	M28	X	-.768	-.768	0	%100
36	M28	Z	-1.33	-1.33	0	%100
37	MP4A	X	-3.523	-3.523	0	%100
38	MP4A	Z	-6.101	-6.101	0	%100
39	MP3A	X	-3.523	-3.523	0	%100
40	MP3A	Z	-6.101	-6.101	0	%100
41	MP2A	X	-3.523	-3.523	0	%100
42	MP2A	Z	-6.101	-6.101	0	%100
43	MP1A	X	-3.523	-3.523	0	%100
44	MP1A	Z	-6.101	-6.101	0	%100
45	M44	X	-.927	-.927	0	%100
46	M44	Z	-1.606	-1.606	0	%100
47	M45	X	-.927	-.927	0	%100
48	M45	Z	-1.606	-1.606	0	%100
49	M46	X	-.927	-.927	0	%100
50	M46	Z	-1.606	-1.606	0	%100
51	M47	X	-.927	-.927	0	%100
52	M47	Z	-1.606	-1.606	0	%100
53	M43	X	-1.87	-1.87	0	%100
54	M43	Z	-3.239	-3.239	0	%100
55	M44A	X	-.185	-.185	0	%100
56	M44A	Z	-.32	-.32	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-3.377	-3.377	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-3.377	-3.377	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-1.407	-1.407	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-1.407	-1.407	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-1.407	-1.407	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-1.407	-1.407	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-1.4	-1.4	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-1.4	-1.4	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-1.4	-1.4	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-1.4	-1.4	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-1.627	-1.627	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-1.627	-1.627	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-1.627	-1.627	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-1.627	-1.627	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	-3.106	-3.106	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	-3.106	-3.106	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	-3.106	-3.106	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	-3.106	-3.106	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	-1.717	-1.717	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	-1.717	-1.717	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	-1.717	-1.717	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	-1.717	-1.717	0	%100
53	M43	X	0	0	0	%100
54	M43	Z	-.241	-.241	0	%100
55	M44A	X	0	0	0	%100
56	M44A	Z	-.241	-.241	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.266	1.266	0	%100
2	M1	Z	-2.193	-2.193	0	%100
3	M2	X	1.266	1.266	0	%100
4	M2	Z	-2.193	-2.193	0	%100
5	M13	X	.175	.175	0	%100
6	M13	Z	-.303	-.303	0	%100
7	M14	X	.175	.175	0	%100
8	M14	Z	-.303	-.303	0	%100
9	M15	X	.175	.175	0	%100
10	M15	Z	-.303	-.303	0	%100
11	M16	X	.175	.175	0	%100
12	M16	Z	-.303	-.303	0	%100
13	M17	X	.158	.158	0	%100
14	M17	Z	-.274	-.274	0	%100
15	M18	X	.158	.158	0	%100
16	M18	Z	-.274	-.274	0	%100
17	M19	X	1.113	1.113	0	%100
18	M19	Z	-1.927	-1.927	0	%100
19	M20	X	1.113	1.113	0	%100
20	M20	Z	-1.927	-1.927	0	%100
21	M21	X	.525	.525	0	%100
22	M21	Z	-.909	-.909	0	%100
23	M22	X	.525	.525	0	%100
24	M22	Z	-.909	-.909	0	%100
25	M23	X	.525	.525	0	%100
26	M23	Z	-.909	-.909	0	%100
27	M24	X	.525	.525	0	%100
28	M24	Z	-.909	-.909	0	%100
29	M25	X	.65	.65	0	%100
30	M25	Z	-1.127	-1.127	0	%100
31	M26	X	.65	.65	0	%100
32	M26	Z	-1.127	-1.127	0	%100
33	M27	X	.936	.936	0	%100
34	M27	Z	-1.621	-1.621	0	%100
35	M28	X	.936	.936	0	%100
36	M28	Z	-1.621	-1.621	0	%100
37	MP4A	X	1.553	1.553	0	%100
38	MP4A	Z	-2.69	-2.69	0	%100
39	MP3A	X	1.553	1.553	0	%100
40	MP3A	Z	-2.69	-2.69	0	%100
41	MP2A	X	1.553	1.553	0	%100
42	MP2A	Z	-2.69	-2.69	0	%100
43	MP1A	X	1.553	1.553	0	%100
44	MP1A	Z	-2.69	-2.69	0	%100
45	M44	X	.858	.858	0	%100
46	M44	Z	-1.487	-1.487	0	%100
47	M45	X	.858	.858	0	%100
48	M45	Z	-1.487	-1.487	0	%100
49	M46	X	.858	.858	0	%100
50	M46	Z	-1.487	-1.487	0	%100
51	M47	X	.858	.858	0	%100
52	M47	Z	-1.487	-1.487	0	%100
53	M43	X	.076	.076	0	%100
54	M43	Z	-.131	-.131	0	%100
55	M44A	X	.767	.767	0	%100
56	M44A	Z	-1.328	-1.328	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.731	.731	0	%100
2	M1	Z	-.422	-.422	0	%100
3	M2	X	.731	.731	0	%100
4	M2	Z	-.422	-.422	0	%100
5	M13	X	.909	.909	0	%100
6	M13	Z	-.525	-.525	0	%100
7	M14	X	.909	.909	0	%100
8	M14	Z	-.525	-.525	0	%100
9	M15	X	.909	.909	0	%100
10	M15	Z	-.525	-.525	0	%100
11	M16	X	.909	.909	0	%100
12	M16	Z	-.525	-.525	0	%100
13	M17	X	.039	.039	0	%100
14	M17	Z	-.022	-.022	0	%100
15	M18	X	.039	.039	0	%100
16	M18	Z	-.022	-.022	0	%100
17	M19	X	1.692	1.692	0	%100
18	M19	Z	-.977	-.977	0	%100
19	M20	X	1.692	1.692	0	%100
20	M20	Z	-.977	-.977	0	%100
21	M21	X	.303	.303	0	%100
22	M21	Z	-.175	-.175	0	%100
23	M22	X	.303	.303	0	%100
24	M22	Z	-.175	-.175	0	%100
25	M23	X	.303	.303	0	%100
26	M23	Z	-.175	-.175	0	%100
27	M24	X	.303	.303	0	%100
28	M24	Z	-.175	-.175	0	%100
29	M25	X	1.056	1.056	0	%100
30	M25	Z	-.61	-.61	0	%100
31	M26	X	1.056	1.056	0	%100
32	M26	Z	-.61	-.61	0	%100
33	M27	X	1.55	1.55	0	%100
34	M27	Z	-.895	-.895	0	%100
35	M28	X	1.55	1.55	0	%100
36	M28	Z	-.895	-.895	0	%100
37	MP4A	X	2.69	2.69	0	%100
38	MP4A	Z	-1.553	-1.553	0	%100
39	MP3A	X	2.69	2.69	0	%100
40	MP3A	Z	-1.553	-1.553	0	%100
41	MP2A	X	2.69	2.69	0	%100
42	MP2A	Z	-1.553	-1.553	0	%100
43	MP1A	X	2.69	2.69	0	%100
44	MP1A	Z	-1.553	-1.553	0	%100
45	M44	X	1.487	1.487	0	%100
46	M44	Z	-.858	-.858	0	%100
47	M45	X	1.487	1.487	0	%100
48	M45	Z	-.858	-.858	0	%100
49	M46	X	1.487	1.487	0	%100
50	M46	Z	-.858	-.858	0	%100
51	M47	X	1.487	1.487	0	%100
52	M47	Z	-.858	-.858	0	%100
53	M43	X	1.174	1.174	0	%100
54	M43	Z	-.678	-.678	0	%100
55	M44A	X	2.371	2.371	0	%100
56	M44A	Z	-1.369	-1.369	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	1.4	1.4	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	1.4	1.4	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	1.4	1.4	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	1.4	1.4	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	.863	.863	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	.863	.863	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	.863	.863	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	.863	.863	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	1.464	1.464	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	1.464	1.464	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	1.464	1.464	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	1.464	1.464	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	3.106	3.106	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	3.106	3.106	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	3.106	3.106	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	3.106	3.106	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	1.717	1.717	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	1.717	1.717	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	1.717	1.717	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	1.717	1.717	0	%100
52	M47	Z	0	0	0	%100
53	M43	X	2.649	2.649	0	%100
54	M43	Z	0	0	0	%100
55	M44A	X	2.649	2.649	0	%100
56	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.731	.731	0	%100
2	M1	Z	.422	.422	0	%100
3	M2	X	.731	.731	0	%100
4	M2	Z	.422	.422	0	%100
5	M13	X	.909	.909	0	%100
6	M13	Z	.525	.525	0	%100
7	M14	X	.909	.909	0	%100
8	M14	Z	.525	.525	0	%100
9	M15	X	.909	.909	0	%100
10	M15	Z	.525	.525	0	%100
11	M16	X	.909	.909	0	%100
12	M16	Z	.525	.525	0	%100
13	M17	X	1.692	1.692	0	%100
14	M17	Z	.977	.977	0	%100
15	M18	X	1.692	1.692	0	%100
16	M18	Z	.977	.977	0	%100
17	M19	X	.039	.039	0	%100
18	M19	Z	.022	.022	0	%100
19	M20	X	.039	.039	0	%100
20	M20	Z	.022	.022	0	%100
21	M21	X	.303	.303	0	%100
22	M21	Z	.175	.175	0	%100
23	M22	X	.303	.303	0	%100
24	M22	Z	.175	.175	0	%100
25	M23	X	.303	.303	0	%100
26	M23	Z	.175	.175	0	%100
27	M24	X	.303	.303	0	%100
28	M24	Z	.175	.175	0	%100
29	M25	X	1.55	1.55	0	%100
30	M25	Z	.895	.895	0	%100
31	M26	X	1.55	1.55	0	%100
32	M26	Z	.895	.895	0	%100
33	M27	X	1.056	1.056	0	%100
34	M27	Z	.61	.61	0	%100
35	M28	X	1.056	1.056	0	%100
36	M28	Z	.61	.61	0	%100
37	MP4A	X	2.69	2.69	0	%100
38	MP4A	Z	1.553	1.553	0	%100
39	MP3A	X	2.69	2.69	0	%100
40	MP3A	Z	1.553	1.553	0	%100
41	MP2A	X	2.69	2.69	0	%100
42	MP2A	Z	1.553	1.553	0	%100
43	MP1A	X	2.69	2.69	0	%100
44	MP1A	Z	1.553	1.553	0	%100
45	M44	X	1.487	1.487	0	%100
46	M44	Z	.858	.858	0	%100
47	M45	X	1.487	1.487	0	%100
48	M45	Z	.858	.858	0	%100
49	M46	X	1.487	1.487	0	%100
50	M46	Z	.858	.858	0	%100
51	M47	X	1.487	1.487	0	%100
52	M47	Z	.858	.858	0	%100
53	M43	X	2.371	2.371	0	%100
54	M43	Z	1.369	1.369	0	%100
55	M44A	X	1.174	1.174	0	%100
56	M44A	Z	.678	.678	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.266	1.266	0	%100
2	M1	Z	2.193	2.193	0	%100
3	M2	X	1.266	1.266	0	%100
4	M2	Z	2.193	2.193	0	%100
5	M13	X	.175	.175	0	%100
6	M13	Z	.303	.303	0	%100
7	M14	X	.175	.175	0	%100
8	M14	Z	.303	.303	0	%100
9	M15	X	.175	.175	0	%100
10	M15	Z	.303	.303	0	%100
11	M16	X	.175	.175	0	%100
12	M16	Z	.303	.303	0	%100
13	M17	X	1.113	1.113	0	%100
14	M17	Z	1.927	1.927	0	%100
15	M18	X	1.113	1.113	0	%100
16	M18	Z	1.927	1.927	0	%100
17	M19	X	.158	.158	0	%100
18	M19	Z	.274	.274	0	%100
19	M20	X	.158	.158	0	%100
20	M20	Z	.274	.274	0	%100
21	M21	X	.525	.525	0	%100
22	M21	Z	.909	.909	0	%100
23	M22	X	.525	.525	0	%100
24	M22	Z	.909	.909	0	%100
25	M23	X	.525	.525	0	%100
26	M23	Z	.909	.909	0	%100
27	M24	X	.525	.525	0	%100
28	M24	Z	.909	.909	0	%100
29	M25	X	.936	.936	0	%100
30	M25	Z	1.621	1.621	0	%100
31	M26	X	.936	.936	0	%100
32	M26	Z	1.621	1.621	0	%100
33	M27	X	.65	.65	0	%100
34	M27	Z	1.127	1.127	0	%100
35	M28	X	.65	.65	0	%100
36	M28	Z	1.127	1.127	0	%100
37	MP4A	X	1.553	1.553	0	%100
38	MP4A	Z	2.69	2.69	0	%100
39	MP3A	X	1.553	1.553	0	%100
40	MP3A	Z	2.69	2.69	0	%100
41	MP2A	X	1.553	1.553	0	%100
42	MP2A	Z	2.69	2.69	0	%100
43	MP1A	X	1.553	1.553	0	%100
44	MP1A	Z	2.69	2.69	0	%100
45	M44	X	.858	.858	0	%100
46	M44	Z	1.487	1.487	0	%100
47	M45	X	.858	.858	0	%100
48	M45	Z	1.487	1.487	0	%100
49	M46	X	.858	.858	0	%100
50	M46	Z	1.487	1.487	0	%100
51	M47	X	.858	.858	0	%100
52	M47	Z	1.487	1.487	0	%100
53	M43	X	.767	.767	0	%100
54	M43	Z	1.328	1.328	0	%100
55	M44A	X	.076	.076	0	%100
56	M44A	Z	.131	.131	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	3.377	3.377	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	3.377	3.377	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	1.407	1.407	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	1.407	1.407	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	1.407	1.407	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	1.407	1.407	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	1.4	1.4	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	1.4	1.4	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	1.4	1.4	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	1.4	1.4	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	1.627	1.627	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	1.627	1.627	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	1.627	1.627	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	1.627	1.627	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	3.106	3.106	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	3.106	3.106	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	3.106	3.106	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	3.106	3.106	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	1.717	1.717	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	1.717	1.717	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	1.717	1.717	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	1.717	1.717	0	%100
53	M43	X	0	0	0	%100
54	M43	Z	.241	.241	0	%100
55	M44A	X	0	0	0	%100
56	M44A	Z	.241	.241	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.266	-1.266	0	%100
2	M1	Z	2.193	2.193	0	%100
3	M2	X	-1.266	-1.266	0	%100
4	M2	Z	2.193	2.193	0	%100
5	M13	X	-.175	-.175	0	%100
6	M13	Z	.303	.303	0	%100
7	M14	X	-.175	-.175	0	%100
8	M14	Z	.303	.303	0	%100
9	M15	X	-.175	-.175	0	%100
10	M15	Z	.303	.303	0	%100
11	M16	X	-.175	-.175	0	%100
12	M16	Z	.303	.303	0	%100
13	M17	X	-.158	-.158	0	%100
14	M17	Z	.274	.274	0	%100
15	M18	X	-.158	-.158	0	%100
16	M18	Z	.274	.274	0	%100
17	M19	X	-1.113	-1.113	0	%100
18	M19	Z	1.927	1.927	0	%100
19	M20	X	-1.113	-1.113	0	%100
20	M20	Z	1.927	1.927	0	%100
21	M21	X	-.525	-.525	0	%100
22	M21	Z	.909	.909	0	%100
23	M22	X	-.525	-.525	0	%100
24	M22	Z	.909	.909	0	%100
25	M23	X	-.525	-.525	0	%100
26	M23	Z	.909	.909	0	%100
27	M24	X	-.525	-.525	0	%100
28	M24	Z	.909	.909	0	%100
29	M25	X	-.65	-.65	0	%100
30	M25	Z	1.127	1.127	0	%100
31	M26	X	-.65	-.65	0	%100
32	M26	Z	1.127	1.127	0	%100
33	M27	X	-.936	-.936	0	%100
34	M27	Z	1.621	1.621	0	%100
35	M28	X	-.936	-.936	0	%100
36	M28	Z	1.621	1.621	0	%100
37	MP4A	X	-1.553	-1.553	0	%100
38	MP4A	Z	2.69	2.69	0	%100
39	MP3A	X	-1.553	-1.553	0	%100
40	MP3A	Z	2.69	2.69	0	%100
41	MP2A	X	-1.553	-1.553	0	%100
42	MP2A	Z	2.69	2.69	0	%100
43	MP1A	X	-1.553	-1.553	0	%100
44	MP1A	Z	2.69	2.69	0	%100
45	M44	X	-.858	-.858	0	%100
46	M44	Z	1.487	1.487	0	%100
47	M45	X	-.858	-.858	0	%100
48	M45	Z	1.487	1.487	0	%100
49	M46	X	-.858	-.858	0	%100
50	M46	Z	1.487	1.487	0	%100
51	M47	X	-.858	-.858	0	%100
52	M47	Z	1.487	1.487	0	%100
53	M43	X	-.076	-.076	0	%100
54	M43	Z	.131	.131	0	%100
55	M44A	X	-.767	-.767	0	%100
56	M44A	Z	1.328	1.328	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.731	-.731	0	%100
2	M1	Z	.422	.422	0	%100
3	M2	X	-.731	-.731	0	%100
4	M2	Z	.422	.422	0	%100
5	M13	X	-.909	-.909	0	%100
6	M13	Z	.525	.525	0	%100
7	M14	X	-.909	-.909	0	%100
8	M14	Z	.525	.525	0	%100
9	M15	X	-.909	-.909	0	%100
10	M15	Z	.525	.525	0	%100
11	M16	X	-.909	-.909	0	%100
12	M16	Z	.525	.525	0	%100
13	M17	X	-.039	-.039	0	%100
14	M17	Z	.022	.022	0	%100
15	M18	X	-.039	-.039	0	%100
16	M18	Z	.022	.022	0	%100
17	M19	X	-1.692	-1.692	0	%100
18	M19	Z	.977	.977	0	%100
19	M20	X	-1.692	-1.692	0	%100
20	M20	Z	.977	.977	0	%100
21	M21	X	-.303	-.303	0	%100
22	M21	Z	.175	.175	0	%100
23	M22	X	-.303	-.303	0	%100
24	M22	Z	.175	.175	0	%100
25	M23	X	-.303	-.303	0	%100
26	M23	Z	.175	.175	0	%100
27	M24	X	-.303	-.303	0	%100
28	M24	Z	.175	.175	0	%100
29	M25	X	-1.056	-1.056	0	%100
30	M25	Z	.61	.61	0	%100
31	M26	X	-1.056	-1.056	0	%100
32	M26	Z	.61	.61	0	%100
33	M27	X	-1.55	-1.55	0	%100
34	M27	Z	.895	.895	0	%100
35	M28	X	-1.55	-1.55	0	%100
36	M28	Z	.895	.895	0	%100
37	MP4A	X	-2.69	-2.69	0	%100
38	MP4A	Z	1.553	1.553	0	%100
39	MP3A	X	-2.69	-2.69	0	%100
40	MP3A	Z	1.553	1.553	0	%100
41	MP2A	X	-2.69	-2.69	0	%100
42	MP2A	Z	1.553	1.553	0	%100
43	MP1A	X	-2.69	-2.69	0	%100
44	MP1A	Z	1.553	1.553	0	%100
45	M44	X	-1.487	-1.487	0	%100
46	M44	Z	.858	.858	0	%100
47	M45	X	-1.487	-1.487	0	%100
48	M45	Z	.858	.858	0	%100
49	M46	X	-1.487	-1.487	0	%100
50	M46	Z	.858	.858	0	%100
51	M47	X	-1.487	-1.487	0	%100
52	M47	Z	.858	.858	0	%100
53	M43	X	-1.174	-1.174	0	%100
54	M43	Z	.678	.678	0	%100
55	M44A	X	-2.371	-2.371	0	%100
56	M44A	Z	1.369	1.369	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-1.4	-1.4	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-1.4	-1.4	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-1.4	-1.4	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-1.4	-1.4	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-.863	-.863	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-.863	-.863	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-.863	-.863	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-.863	-.863	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-1.464	-1.464	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-1.464	-1.464	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	-1.464	-1.464	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-1.464	-1.464	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	-3.106	-3.106	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	-3.106	-3.106	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	-3.106	-3.106	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	-3.106	-3.106	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	-1.717	-1.717	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-1.717	-1.717	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	-1.717	-1.717	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	-1.717	-1.717	0	%100
52	M47	Z	0	0	0	%100
53	M43	X	-2.649	-2.649	0	%100
54	M43	Z	0	0	0	%100
55	M44A	X	-2.649	-2.649	0	%100
56	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.731	-.731	0	%100
2	M1	Z	-.422	-.422	0	%100
3	M2	X	-.731	-.731	0	%100
4	M2	Z	-.422	-.422	0	%100
5	M13	X	-.909	-.909	0	%100
6	M13	Z	-.525	-.525	0	%100
7	M14	X	-.909	-.909	0	%100
8	M14	Z	-.525	-.525	0	%100
9	M15	X	-.909	-.909	0	%100
10	M15	Z	-.525	-.525	0	%100
11	M16	X	-.909	-.909	0	%100
12	M16	Z	-.525	-.525	0	%100
13	M17	X	-1.692	-1.692	0	%100
14	M17	Z	-.977	-.977	0	%100
15	M18	X	-1.692	-1.692	0	%100
16	M18	Z	-.977	-.977	0	%100
17	M19	X	-.039	-.039	0	%100
18	M19	Z	-.022	-.022	0	%100
19	M20	X	-.039	-.039	0	%100
20	M20	Z	-.022	-.022	0	%100
21	M21	X	-.303	-.303	0	%100
22	M21	Z	-.175	-.175	0	%100
23	M22	X	-.303	-.303	0	%100
24	M22	Z	-.175	-.175	0	%100
25	M23	X	-.303	-.303	0	%100
26	M23	Z	-.175	-.175	0	%100
27	M24	X	-.303	-.303	0	%100
28	M24	Z	-.175	-.175	0	%100
29	M25	X	-1.55	-1.55	0	%100
30	M25	Z	-.895	-.895	0	%100
31	M26	X	-1.55	-1.55	0	%100
32	M26	Z	-.895	-.895	0	%100
33	M27	X	-1.056	-1.056	0	%100
34	M27	Z	-.61	-.61	0	%100
35	M28	X	-1.056	-1.056	0	%100
36	M28	Z	-.61	-.61	0	%100
37	MP4A	X	-2.69	-2.69	0	%100
38	MP4A	Z	-1.553	-1.553	0	%100
39	MP3A	X	-2.69	-2.69	0	%100
40	MP3A	Z	-1.553	-1.553	0	%100
41	MP2A	X	-2.69	-2.69	0	%100
42	MP2A	Z	-1.553	-1.553	0	%100
43	MP1A	X	-2.69	-2.69	0	%100
44	MP1A	Z	-1.553	-1.553	0	%100
45	M44	X	-1.487	-1.487	0	%100
46	M44	Z	-.858	-.858	0	%100
47	M45	X	-1.487	-1.487	0	%100
48	M45	Z	-.858	-.858	0	%100
49	M46	X	-1.487	-1.487	0	%100
50	M46	Z	-.858	-.858	0	%100
51	M47	X	-1.487	-1.487	0	%100
52	M47	Z	-.858	-.858	0	%100
53	M43	X	-2.371	-2.371	0	%100
54	M43	Z	-1.369	-1.369	0	%100
55	M44A	X	-1.174	-1.174	0	%100
56	M44A	Z	-.678	-.678	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.266	-1.266	0	%100
2	M1	Z	-2.193	-2.193	0	%100
3	M2	X	-1.266	-1.266	0	%100
4	M2	Z	-2.193	-2.193	0	%100
5	M13	X	-.175	-.175	0	%100
6	M13	Z	-.303	-.303	0	%100
7	M14	X	-.175	-.175	0	%100
8	M14	Z	-.303	-.303	0	%100
9	M15	X	-.175	-.175	0	%100
10	M15	Z	-.303	-.303	0	%100
11	M16	X	-.175	-.175	0	%100
12	M16	Z	-.303	-.303	0	%100
13	M17	X	-1.113	-1.113	0	%100
14	M17	Z	-1.927	-1.927	0	%100
15	M18	X	-1.113	-1.113	0	%100
16	M18	Z	-1.927	-1.927	0	%100
17	M19	X	-.158	-.158	0	%100
18	M19	Z	-.274	-.274	0	%100
19	M20	X	-.158	-.158	0	%100
20	M20	Z	-.274	-.274	0	%100
21	M21	X	-.525	-.525	0	%100
22	M21	Z	-.909	-.909	0	%100
23	M22	X	-.525	-.525	0	%100
24	M22	Z	-.909	-.909	0	%100
25	M23	X	-.525	-.525	0	%100
26	M23	Z	-.909	-.909	0	%100
27	M24	X	-.525	-.525	0	%100
28	M24	Z	-.909	-.909	0	%100
29	M25	X	-.936	-.936	0	%100
30	M25	Z	-1.621	-1.621	0	%100
31	M26	X	-.936	-.936	0	%100
32	M26	Z	-1.621	-1.621	0	%100
33	M27	X	-.65	-.65	0	%100
34	M27	Z	-1.127	-1.127	0	%100
35	M28	X	-.65	-.65	0	%100
36	M28	Z	-1.127	-1.127	0	%100
37	MP4A	X	-1.553	-1.553	0	%100
38	MP4A	Z	-2.69	-2.69	0	%100
39	MP3A	X	-1.553	-1.553	0	%100
40	MP3A	Z	-2.69	-2.69	0	%100
41	MP2A	X	-1.553	-1.553	0	%100
42	MP2A	Z	-2.69	-2.69	0	%100
43	MP1A	X	-1.553	-1.553	0	%100
44	MP1A	Z	-2.69	-2.69	0	%100
45	M44	X	-.858	-.858	0	%100
46	M44	Z	-1.487	-1.487	0	%100
47	M45	X	-.858	-.858	0	%100
48	M45	Z	-1.487	-1.487	0	%100
49	M46	X	-.858	-.858	0	%100
50	M46	Z	-1.487	-1.487	0	%100
51	M47	X	-.858	-.858	0	%100
52	M47	Z	-1.487	-1.487	0	%100
53	M43	X	-.767	-.767	0	%100
54	M43	Z	-1.328	-1.328	0	%100
55	M44A	X	-.076	-.076	0	%100
56	M44A	Z	-.131	-.131	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	-.561	-.561	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-.561	-.561	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-.221	-.221	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-.221	-.221	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-.221	-.221	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-.221	-.221	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-.122	-.122	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-.122	-.122	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-.122	-.122	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-.122	-.122	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-.126	-.126	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-.126	-.126	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-.126	-.126	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-.126	-.126	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	-.463	-.463	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	-.463	-.463	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	-.463	-.463	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	-.463	-.463	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	-.122	-.122	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	-.122	-.122	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	-.122	-.122	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	-.122	-.122	0	%100
53	M43	X	0	0	0	%100
54	M43	Z	-.039	-.039	0	%100
55	M44A	X	0	0	0	%100
56	M44A	Z	-.039	-.039	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.21	.21	0	%100
2	M1	Z	-.364	-.364	0	%100
3	M2	X	.21	.21	0	%100
4	M2	Z	-.364	-.364	0	%100
5	M13	X	.015	.015	0	%100
6	M13	Z	-.026	-.026	0	%100
7	M14	X	.015	.015	0	%100
8	M14	Z	-.026	-.026	0	%100
9	M15	X	.015	.015	0	%100
10	M15	Z	-.026	-.026	0	%100
11	M16	X	.015	.015	0	%100
12	M16	Z	-.026	-.026	0	%100
13	M17	X	.025	.025	0	%100
14	M17	Z	-.043	-.043	0	%100
15	M18	X	.025	.025	0	%100
16	M18	Z	-.043	-.043	0	%100
17	M19	X	.175	.175	0	%100
18	M19	Z	-.303	-.303	0	%100
19	M20	X	.175	.175	0	%100
20	M20	Z	-.303	-.303	0	%100
21	M21	X	.046	.046	0	%100
22	M21	Z	-.079	-.079	0	%100
23	M22	X	.046	.046	0	%100
24	M22	Z	-.079	-.079	0	%100
25	M23	X	.046	.046	0	%100
26	M23	Z	-.079	-.079	0	%100
27	M24	X	.046	.046	0	%100
28	M24	Z	-.079	-.079	0	%100
29	M25	X	.05	.05	0	%100
30	M25	Z	-.087	-.087	0	%100
31	M26	X	.05	.05	0	%100
32	M26	Z	-.087	-.087	0	%100
33	M27	X	.073	.073	0	%100
34	M27	Z	-.126	-.126	0	%100
35	M28	X	.073	.073	0	%100
36	M28	Z	-.126	-.126	0	%100
37	MP4A	X	.232	.232	0	%100
38	MP4A	Z	-.401	-.401	0	%100
39	MP3A	X	.232	.232	0	%100
40	MP3A	Z	-.401	-.401	0	%100
41	MP2A	X	.232	.232	0	%100
42	MP2A	Z	-.401	-.401	0	%100
43	MP1A	X	.232	.232	0	%100
44	MP1A	Z	-.401	-.401	0	%100
45	M44	X	.061	.061	0	%100
46	M44	Z	-.106	-.106	0	%100
47	M45	X	.061	.061	0	%100
48	M45	Z	-.106	-.106	0	%100
49	M46	X	.061	.061	0	%100
50	M46	Z	-.106	-.106	0	%100
51	M47	X	.061	.061	0	%100
52	M47	Z	-.106	-.106	0	%100
53	M43	X	.012	.012	0	%100
54	M43	Z	-.021	-.021	0	%100
55	M44A	X	.123	.123	0	%100
56	M44A	Z	-.213	-.213	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.121	.121	0	%100
2	M1	Z	-.07	-.07	0	%100
3	M2	X	.121	.121	0	%100
4	M2	Z	-.07	-.07	0	%100
5	M13	X	.079	.079	0	%100
6	M13	Z	-.046	-.046	0	%100
7	M14	X	.079	.079	0	%100
8	M14	Z	-.046	-.046	0	%100
9	M15	X	.079	.079	0	%100
10	M15	Z	-.046	-.046	0	%100
11	M16	X	.079	.079	0	%100
12	M16	Z	-.046	-.046	0	%100
13	M17	X	.006	.006	0	%100
14	M17	Z	-.004	-.004	0	%100
15	M18	X	.006	.006	0	%100
16	M18	Z	-.004	-.004	0	%100
17	M19	X	.266	.266	0	%100
18	M19	Z	-.154	-.154	0	%100
19	M20	X	.266	.266	0	%100
20	M20	Z	-.154	-.154	0	%100
21	M21	X	.026	.026	0	%100
22	M21	Z	-.015	-.015	0	%100
23	M22	X	.026	.026	0	%100
24	M22	Z	-.015	-.015	0	%100
25	M23	X	.026	.026	0	%100
26	M23	Z	-.015	-.015	0	%100
27	M24	X	.026	.026	0	%100
28	M24	Z	-.015	-.015	0	%100
29	M25	X	.082	.082	0	%100
30	M25	Z	-.047	-.047	0	%100
31	M26	X	.082	.082	0	%100
32	M26	Z	-.047	-.047	0	%100
33	M27	X	.12	.12	0	%100
34	M27	Z	-.069	-.069	0	%100
35	M28	X	.12	.12	0	%100
36	M28	Z	-.069	-.069	0	%100
37	MP4A	X	.401	.401	0	%100
38	MP4A	Z	-.232	-.232	0	%100
39	MP3A	X	.401	.401	0	%100
40	MP3A	Z	-.232	-.232	0	%100
41	MP2A	X	.401	.401	0	%100
42	MP2A	Z	-.232	-.232	0	%100
43	MP1A	X	.401	.401	0	%100
44	MP1A	Z	-.232	-.232	0	%100
45	M44	X	.106	.106	0	%100
46	M44	Z	-.061	-.061	0	%100
47	M45	X	.106	.106	0	%100
48	M45	Z	-.061	-.061	0	%100
49	M46	X	.106	.106	0	%100
50	M46	Z	-.061	-.061	0	%100
51	M47	X	.106	.106	0	%100
52	M47	Z	-.061	-.061	0	%100
53	M43	X	.188	.188	0	%100
54	M43	Z	-.109	-.109	0	%100
55	M44A	X	.38	.38	0	%100
56	M44A	Z	-.219	-.219	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	.122	.122	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	.122	.122	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	.122	.122	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	.122	.122	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	.136	.136	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	.136	.136	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	.136	.136	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	.136	.136	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	.114	.114	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	.114	.114	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	.114	.114	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	.114	.114	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	.463	.463	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	.463	.463	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	.463	.463	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	.463	.463	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	.122	.122	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	.122	.122	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	.122	.122	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	.122	.122	0	%100
52	M47	Z	0	0	0	%100
53	M43	X	.425	.425	0	%100
54	M43	Z	0	0	0	%100
55	M44A	X	.425	.425	0	%100
56	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.121	.121	0	%100
2	M1	Z	.07	.07	0	%100
3	M2	X	.121	.121	0	%100
4	M2	Z	.07	.07	0	%100
5	M13	X	.079	.079	0	%100
6	M13	Z	.046	.046	0	%100
7	M14	X	.079	.079	0	%100
8	M14	Z	.046	.046	0	%100
9	M15	X	.079	.079	0	%100
10	M15	Z	.046	.046	0	%100
11	M16	X	.079	.079	0	%100
12	M16	Z	.046	.046	0	%100
13	M17	X	.266	.266	0	%100
14	M17	Z	.154	.154	0	%100
15	M18	X	.266	.266	0	%100
16	M18	Z	.154	.154	0	%100
17	M19	X	.006	.006	0	%100
18	M19	Z	.004	.004	0	%100
19	M20	X	.006	.006	0	%100
20	M20	Z	.004	.004	0	%100
21	M21	X	.026	.026	0	%100
22	M21	Z	.015	.015	0	%100
23	M22	X	.026	.026	0	%100
24	M22	Z	.015	.015	0	%100
25	M23	X	.026	.026	0	%100
26	M23	Z	.015	.015	0	%100
27	M24	X	.026	.026	0	%100
28	M24	Z	.015	.015	0	%100
29	M25	X	.12	.12	0	%100
30	M25	Z	.069	.069	0	%100
31	M26	X	.12	.12	0	%100
32	M26	Z	.069	.069	0	%100
33	M27	X	.082	.082	0	%100
34	M27	Z	.047	.047	0	%100
35	M28	X	.082	.082	0	%100
36	M28	Z	.047	.047	0	%100
37	MP4A	X	.401	.401	0	%100
38	MP4A	Z	.232	.232	0	%100
39	MP3A	X	.401	.401	0	%100
40	MP3A	Z	.232	.232	0	%100
41	MP2A	X	.401	.401	0	%100
42	MP2A	Z	.232	.232	0	%100
43	MP1A	X	.401	.401	0	%100
44	MP1A	Z	.232	.232	0	%100
45	M44	X	.106	.106	0	%100
46	M44	Z	.061	.061	0	%100
47	M45	X	.106	.106	0	%100
48	M45	Z	.061	.061	0	%100
49	M46	X	.106	.106	0	%100
50	M46	Z	.061	.061	0	%100
51	M47	X	.106	.106	0	%100
52	M47	Z	.061	.061	0	%100
53	M43	X	.38	.38	0	%100
54	M43	Z	.219	.219	0	%100
55	M44A	X	.188	.188	0	%100
56	M44A	Z	.109	.109	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.21	.21	0	%100
2	M1	Z	.364	.364	0	%100
3	M2	X	.21	.21	0	%100
4	M2	Z	.364	.364	0	%100
5	M13	X	.015	.015	0	%100
6	M13	Z	.026	.026	0	%100
7	M14	X	.015	.015	0	%100
8	M14	Z	.026	.026	0	%100
9	M15	X	.015	.015	0	%100
10	M15	Z	.026	.026	0	%100
11	M16	X	.015	.015	0	%100
12	M16	Z	.026	.026	0	%100
13	M17	X	.175	.175	0	%100
14	M17	Z	.303	.303	0	%100
15	M18	X	.175	.175	0	%100
16	M18	Z	.303	.303	0	%100
17	M19	X	.025	.025	0	%100
18	M19	Z	.043	.043	0	%100
19	M20	X	.025	.025	0	%100
20	M20	Z	.043	.043	0	%100
21	M21	X	.046	.046	0	%100
22	M21	Z	.079	.079	0	%100
23	M22	X	.046	.046	0	%100
24	M22	Z	.079	.079	0	%100
25	M23	X	.046	.046	0	%100
26	M23	Z	.079	.079	0	%100
27	M24	X	.046	.046	0	%100
28	M24	Z	.079	.079	0	%100
29	M25	X	.073	.073	0	%100
30	M25	Z	.126	.126	0	%100
31	M26	X	.073	.073	0	%100
32	M26	Z	.126	.126	0	%100
33	M27	X	.05	.05	0	%100
34	M27	Z	.087	.087	0	%100
35	M28	X	.05	.05	0	%100
36	M28	Z	.087	.087	0	%100
37	MP4A	X	.232	.232	0	%100
38	MP4A	Z	.401	.401	0	%100
39	MP3A	X	.232	.232	0	%100
40	MP3A	Z	.401	.401	0	%100
41	MP2A	X	.232	.232	0	%100
42	MP2A	Z	.401	.401	0	%100
43	MP1A	X	.232	.232	0	%100
44	MP1A	Z	.401	.401	0	%100
45	M44	X	.061	.061	0	%100
46	M44	Z	.106	.106	0	%100
47	M45	X	.061	.061	0	%100
48	M45	Z	.106	.106	0	%100
49	M46	X	.061	.061	0	%100
50	M46	Z	.106	.106	0	%100
51	M47	X	.061	.061	0	%100
52	M47	Z	.106	.106	0	%100
53	M43	X	.123	.123	0	%100
54	M43	Z	.213	.213	0	%100
55	M44A	X	.012	.012	0	%100
56	M44A	Z	.021	.021	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	.561	.561	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.561	.561	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	.221	.221	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	.221	.221	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	.221	.221	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	.221	.221	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	.122	.122	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	.122	.122	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	.122	.122	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	.122	.122	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	.126	.126	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	.126	.126	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	.126	.126	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	.126	.126	0	%100
37	MP4A	X	0	0	0	%100
38	MP4A	Z	.463	.463	0	%100
39	MP3A	X	0	0	0	%100
40	MP3A	Z	.463	.463	0	%100
41	MP2A	X	0	0	0	%100
42	MP2A	Z	.463	.463	0	%100
43	MP1A	X	0	0	0	%100
44	MP1A	Z	.463	.463	0	%100
45	M44	X	0	0	0	%100
46	M44	Z	.122	.122	0	%100
47	M45	X	0	0	0	%100
48	M45	Z	.122	.122	0	%100
49	M46	X	0	0	0	%100
50	M46	Z	.122	.122	0	%100
51	M47	X	0	0	0	%100
52	M47	Z	.122	.122	0	%100
53	M43	X	0	0	0	%100
54	M43	Z	.039	.039	0	%100
55	M44A	X	0	0	0	%100
56	M44A	Z	.039	.039	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.21	-.21	0	%100
2	M1	Z	.364	.364	0	%100
3	M2	X	-.21	-.21	0	%100
4	M2	Z	.364	.364	0	%100
5	M13	X	-.015	-.015	0	%100
6	M13	Z	.026	.026	0	%100
7	M14	X	-.015	-.015	0	%100
8	M14	Z	.026	.026	0	%100
9	M15	X	-.015	-.015	0	%100
10	M15	Z	.026	.026	0	%100
11	M16	X	-.015	-.015	0	%100
12	M16	Z	.026	.026	0	%100
13	M17	X	-.025	-.025	0	%100
14	M17	Z	.043	.043	0	%100
15	M18	X	-.025	-.025	0	%100
16	M18	Z	.043	.043	0	%100
17	M19	X	-.175	-.175	0	%100
18	M19	Z	.303	.303	0	%100
19	M20	X	-.175	-.175	0	%100
20	M20	Z	.303	.303	0	%100
21	M21	X	-.046	-.046	0	%100
22	M21	Z	.079	.079	0	%100
23	M22	X	-.046	-.046	0	%100
24	M22	Z	.079	.079	0	%100
25	M23	X	-.046	-.046	0	%100
26	M23	Z	.079	.079	0	%100
27	M24	X	-.046	-.046	0	%100
28	M24	Z	.079	.079	0	%100
29	M25	X	-.05	-.05	0	%100
30	M25	Z	.087	.087	0	%100
31	M26	X	-.05	-.05	0	%100
32	M26	Z	.087	.087	0	%100
33	M27	X	-.073	-.073	0	%100
34	M27	Z	.126	.126	0	%100
35	M28	X	-.073	-.073	0	%100
36	M28	Z	.126	.126	0	%100
37	MP4A	X	-.232	-.232	0	%100
38	MP4A	Z	.401	.401	0	%100
39	MP3A	X	-.232	-.232	0	%100
40	MP3A	Z	.401	.401	0	%100
41	MP2A	X	-.232	-.232	0	%100
42	MP2A	Z	.401	.401	0	%100
43	MP1A	X	-.232	-.232	0	%100
44	MP1A	Z	.401	.401	0	%100
45	M44	X	-.061	-.061	0	%100
46	M44	Z	.106	.106	0	%100
47	M45	X	-.061	-.061	0	%100
48	M45	Z	.106	.106	0	%100
49	M46	X	-.061	-.061	0	%100
50	M46	Z	.106	.106	0	%100
51	M47	X	-.061	-.061	0	%100
52	M47	Z	.106	.106	0	%100
53	M43	X	-.012	-.012	0	%100
54	M43	Z	.021	.021	0	%100
55	M44A	X	-.123	-.123	0	%100
56	M44A	Z	.213	.213	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.121	-.121	0	%100
2	M1	Z	.07	.07	0	%100
3	M2	X	-.121	-.121	0	%100
4	M2	Z	.07	.07	0	%100
5	M13	X	-.079	-.079	0	%100
6	M13	Z	.046	.046	0	%100
7	M14	X	-.079	-.079	0	%100
8	M14	Z	.046	.046	0	%100
9	M15	X	-.079	-.079	0	%100
10	M15	Z	.046	.046	0	%100
11	M16	X	-.079	-.079	0	%100
12	M16	Z	.046	.046	0	%100
13	M17	X	-.006	-.006	0	%100
14	M17	Z	.004	.004	0	%100
15	M18	X	-.006	-.006	0	%100
16	M18	Z	.004	.004	0	%100
17	M19	X	-.266	-.266	0	%100
18	M19	Z	.154	.154	0	%100
19	M20	X	-.266	-.266	0	%100
20	M20	Z	.154	.154	0	%100
21	M21	X	-.026	-.026	0	%100
22	M21	Z	.015	.015	0	%100
23	M22	X	-.026	-.026	0	%100
24	M22	Z	.015	.015	0	%100
25	M23	X	-.026	-.026	0	%100
26	M23	Z	.015	.015	0	%100
27	M24	X	-.026	-.026	0	%100
28	M24	Z	.015	.015	0	%100
29	M25	X	-.082	-.082	0	%100
30	M25	Z	.047	.047	0	%100
31	M26	X	-.082	-.082	0	%100
32	M26	Z	.047	.047	0	%100
33	M27	X	-.12	-.12	0	%100
34	M27	Z	.069	.069	0	%100
35	M28	X	-.12	-.12	0	%100
36	M28	Z	.069	.069	0	%100
37	MP4A	X	-.401	-.401	0	%100
38	MP4A	Z	.232	.232	0	%100
39	MP3A	X	-.401	-.401	0	%100
40	MP3A	Z	.232	.232	0	%100
41	MP2A	X	-.401	-.401	0	%100
42	MP2A	Z	.232	.232	0	%100
43	MP1A	X	-.401	-.401	0	%100
44	MP1A	Z	.232	.232	0	%100
45	M44	X	-.106	-.106	0	%100
46	M44	Z	.061	.061	0	%100
47	M45	X	-.106	-.106	0	%100
48	M45	Z	.061	.061	0	%100
49	M46	X	-.106	-.106	0	%100
50	M46	Z	.061	.061	0	%100
51	M47	X	-.106	-.106	0	%100
52	M47	Z	.061	.061	0	%100
53	M43	X	-.188	-.188	0	%100
54	M43	Z	.109	.109	0	%100
55	M44A	X	-.38	-.38	0	%100
56	M44A	Z	.219	.219	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-.122	-.122	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-.122	-.122	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-.122	-.122	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-.122	-.122	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-.136	-.136	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-.136	-.136	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-.136	-.136	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-.136	-.136	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-.114	-.114	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-.114	-.114	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	-.114	-.114	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-.114	-.114	0	%100
36	M28	Z	0	0	0	%100
37	MP4A	X	-.463	-.463	0	%100
38	MP4A	Z	0	0	0	%100
39	MP3A	X	-.463	-.463	0	%100
40	MP3A	Z	0	0	0	%100
41	MP2A	X	-.463	-.463	0	%100
42	MP2A	Z	0	0	0	%100
43	MP1A	X	-.463	-.463	0	%100
44	MP1A	Z	0	0	0	%100
45	M44	X	-.122	-.122	0	%100
46	M44	Z	0	0	0	%100
47	M45	X	-.122	-.122	0	%100
48	M45	Z	0	0	0	%100
49	M46	X	-.122	-.122	0	%100
50	M46	Z	0	0	0	%100
51	M47	X	-.122	-.122	0	%100
52	M47	Z	0	0	0	%100
53	M43	X	-.425	-.425	0	%100
54	M43	Z	0	0	0	%100
55	M44A	X	-.425	-.425	0	%100
56	M44A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.121	-.121	0	%100
2	M1	Z	-.07	-.07	0	%100
3	M2	X	-.121	-.121	0	%100
4	M2	Z	-.07	-.07	0	%100
5	M13	X	-.079	-.079	0	%100
6	M13	Z	-.046	-.046	0	%100
7	M14	X	-.079	-.079	0	%100
8	M14	Z	-.046	-.046	0	%100
9	M15	X	-.079	-.079	0	%100
10	M15	Z	-.046	-.046	0	%100
11	M16	X	-.079	-.079	0	%100
12	M16	Z	-.046	-.046	0	%100
13	M17	X	-.266	-.266	0	%100
14	M17	Z	-.154	-.154	0	%100
15	M18	X	-.266	-.266	0	%100
16	M18	Z	-.154	-.154	0	%100
17	M19	X	-.006	-.006	0	%100
18	M19	Z	-.004	-.004	0	%100
19	M20	X	-.006	-.006	0	%100
20	M20	Z	-.004	-.004	0	%100
21	M21	X	-.026	-.026	0	%100
22	M21	Z	-.015	-.015	0	%100
23	M22	X	-.026	-.026	0	%100
24	M22	Z	-.015	-.015	0	%100
25	M23	X	-.026	-.026	0	%100
26	M23	Z	-.015	-.015	0	%100
27	M24	X	-.026	-.026	0	%100
28	M24	Z	-.015	-.015	0	%100
29	M25	X	-.12	-.12	0	%100
30	M25	Z	-.069	-.069	0	%100
31	M26	X	-.12	-.12	0	%100
32	M26	Z	-.069	-.069	0	%100
33	M27	X	-.082	-.082	0	%100
34	M27	Z	-.047	-.047	0	%100
35	M28	X	-.082	-.082	0	%100
36	M28	Z	-.047	-.047	0	%100
37	MP4A	X	-.401	-.401	0	%100
38	MP4A	Z	-.232	-.232	0	%100
39	MP3A	X	-.401	-.401	0	%100
40	MP3A	Z	-.232	-.232	0	%100
41	MP2A	X	-.401	-.401	0	%100
42	MP2A	Z	-.232	-.232	0	%100
43	MP1A	X	-.401	-.401	0	%100
44	MP1A	Z	-.232	-.232	0	%100
45	M44	X	-.106	-.106	0	%100
46	M44	Z	-.061	-.061	0	%100
47	M45	X	-.106	-.106	0	%100
48	M45	Z	-.061	-.061	0	%100
49	M46	X	-.106	-.106	0	%100
50	M46	Z	-.061	-.061	0	%100
51	M47	X	-.106	-.106	0	%100
52	M47	Z	-.061	-.061	0	%100
53	M43	X	-.38	-.38	0	%100
54	M43	Z	-.219	-.219	0	%100
55	M44A	X	-.188	-.188	0	%100
56	M44A	Z	-.109	-.109	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.21	-.21	0	%100
2	M1	Z	-.364	-.364	0	%100
3	M2	X	-.21	-.21	0	%100
4	M2	Z	-.364	-.364	0	%100
5	M13	X	-.015	-.015	0	%100
6	M13	Z	-.026	-.026	0	%100
7	M14	X	-.015	-.015	0	%100
8	M14	Z	-.026	-.026	0	%100
9	M15	X	-.015	-.015	0	%100
10	M15	Z	-.026	-.026	0	%100
11	M16	X	-.015	-.015	0	%100
12	M16	Z	-.026	-.026	0	%100
13	M17	X	-.175	-.175	0	%100
14	M17	Z	-.303	-.303	0	%100
15	M18	X	-.175	-.175	0	%100
16	M18	Z	-.303	-.303	0	%100
17	M19	X	-.025	-.025	0	%100
18	M19	Z	-.043	-.043	0	%100
19	M20	X	-.025	-.025	0	%100
20	M20	Z	-.043	-.043	0	%100
21	M21	X	-.046	-.046	0	%100
22	M21	Z	-.079	-.079	0	%100
23	M22	X	-.046	-.046	0	%100
24	M22	Z	-.079	-.079	0	%100
25	M23	X	-.046	-.046	0	%100
26	M23	Z	-.079	-.079	0	%100
27	M24	X	-.046	-.046	0	%100
28	M24	Z	-.079	-.079	0	%100
29	M25	X	-.073	-.073	0	%100
30	M25	Z	-.126	-.126	0	%100
31	M26	X	-.073	-.073	0	%100
32	M26	Z	-.126	-.126	0	%100
33	M27	X	-.05	-.05	0	%100
34	M27	Z	-.087	-.087	0	%100
35	M28	X	-.05	-.05	0	%100
36	M28	Z	-.087	-.087	0	%100
37	MP4A	X	-.232	-.232	0	%100
38	MP4A	Z	-.401	-.401	0	%100
39	MP3A	X	-.232	-.232	0	%100
40	MP3A	Z	-.401	-.401	0	%100
41	MP2A	X	-.232	-.232	0	%100
42	MP2A	Z	-.401	-.401	0	%100
43	MP1A	X	-.232	-.232	0	%100
44	MP1A	Z	-.401	-.401	0	%100
45	M44	X	-.061	-.061	0	%100
46	M44	Z	-.106	-.106	0	%100
47	M45	X	-.061	-.061	0	%100
48	M45	Z	-.106	-.106	0	%100
49	M46	X	-.061	-.061	0	%100
50	M46	Z	-.106	-.106	0	%100
51	M47	X	-.061	-.061	0	%100
52	M47	Z	-.106	-.106	0	%100
53	M43	X	-.123	-.123	0	%100
54	M43	Z	-.213	-.213	0	%100
55	M44A	X	-.012	-.012	0	%100
56	M44A	Z	-.021	-.021	0	%100

Member Area Loads

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

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N35	max	1315.099	44	1191.671	20	1613.957	21	-.084	2	0	75	.218	38
2		min	-1252.782	26	281.665	65	-69.678	2	-.54	20	0	1	-.218	32
3	N36	max	1315.85	35	1144.762	14	256.032	5	-.112	72	0	75	.206	38
4		min	-1378.27	41	272.521	71	-1661.677	21	-.474	15	0	1	-.209	32
5	N63	max	443.982	6	32.796	18	1469.881	12	0	75	0	75	0	75
6		min	-435.632	12	7.753	74	-1498.03	6	0	1	0	1	0	1
7	N64	max	178.43	2	32.59	20	616.767	2	0	75	0	75	0	75
8		min	-184.865	8	7.755	66	-638.385	8	0	1	0	1	0	1
9	Totals:	max	850.028	10	2364.261	20	1370.884	1						
10		min	-850.029	4	576.953	65	-1370.884	7						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear C...	Lo...	Dir	LC	phi*Pn...	phi*...	phi*...	phi*...	...	Eqn
1	M1	PIPE_2.5	.263	8.724	38	.087	3....		7	14558....	50715	3.596	3.596	...	H1-...
2	M2	PIPE_2.5	.378	3.255	7	.157	3....		6	14558....	50715	3.596	3.596	...	H1-...
3	M13	PL5/8X3.5	.202	.422	23	.229	.422	y	11	66184....	6890..	.897	5.024	...	H1-...
4	M14	PL5/8X3.5	.219	0	31	.061	0	y	24	66184....	6890..	.897	5.024	...	H1-...
5	M15	PL5/8X3.5	.237	0	43	.150	.422	y	8	66184....	6890..	.897	5.024	...	H1-...
6	M16	PL5/8X3.5	.169	0	1	.100	0	y	7	66184....	6890..	.897	5.024	...	H1-...
7	M17	PIPE_2.0	.231	0	11	.066	0		18	31128....	32130	1.872	1.872	...	H1-...
8	M18	PIPE_2.0	.083	2.501	33	.078	0		20	31128....	32130	1.872	1.872	...	H1-...
9	M19	PIPE_2.0	.144	0	8	.083	0		44	31128....	32130	1.872	1.872	...	H1-...
10	M20	PIPE_2.0	.105	0	7	.061	0		37	31128....	32130	1.872	1.872	...	H1-...
11	M21	PL5/8X3.5	.374	.531	35	.106	.443	y	11	67591....	6890..	.897	5.024	...	H1-...
12	M22	PL5/8X3.5	.335	.531	38	.051	.443	y	39	67591....	6890..	.897	5.024	...	H1-...
13	M23	PL5/8X3.5	.352	.531	32	.058	0	y	20	67591....	6890..	.897	5.024	...	H1-...
14	M24	PL5/8X3.5	.377	.531	45	.109	0	y	8	67591....	6890..	.897	5.024	...	H1-...
15	M25	SR_0.75	.000	0	75	.010	0		8	2863.9...	1391..	.174	.174	...	H1-...
16	M26	SR_0.75	.073	0	32	.014	0		31	2863.9...	1391..	.174	.174	...	H1-...
17	M27	SR_0.75	.000	0	75	.014	0		2	2863.9...	1391..	.174	.174	...	H1-...
18	M28	SR_0.75	.070	4.167	38	.016	4....		47	2863.9...	1391..	.174	.174	...	H1-...
19	MP4A	PIPE_2.0	.414	3.583	7	.126	3....		7	14916....	32130	1.872	1.872	...	H1-...
20	MP3A	PIPE_2.0	.245	3.583	7	.040	3....		1	14916....	32130	1.872	1.872	...	H1-...
21	MP2A	PIPE_2.0	.208	3.583	7	.079	6....		8	14916....	32130	1.872	1.872	...	H1-...
22	MP1A	PIPE_2.0	.420	3.583	42	.071	3....		7	14916....	32130	1.872	1.872	...	H1-...
23	M44	SR_0.625	.101	0	1	.013	0		33	2158.31	9664..	.101	.101	1	H1-...
24	M45	SR_0.625	.041	1.667	8	.015	0		1	2158.31	9664..	.101	.101	...	H1-...
25	M46	SR_0.625	.036	1.667	6	.017	0		7	2158.31	9664..	.101	.101	...	H1-...
26	M47	SR_0.625	.050	1.667	1	.014	0		41	2158.31	9664..	.101	.101	1	H1-...
27	M43	PIPE_2.0	.066	5.199	12	.003	0		23	23235....	32130	1.872	1.872	...	H1-...
28	M44A	PIPE_2.0	.028	5.199	2	.003	5....		21	23235....	32130	1.872	1.872	...	H1-...

VzW SMART Tool© Vendor

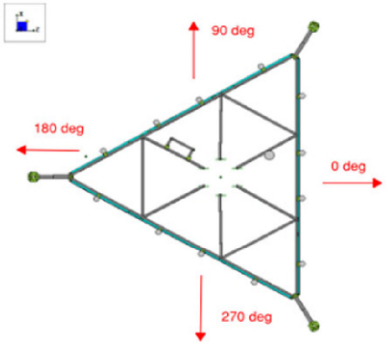
Client:	Verizon Wireless	Date:	3/14/2022
Site Name:	WEST HARTFORD CENTER CT		
PSLC #:	535840		
Fuze ID #:	10135430	Page:	1

Version 1.0

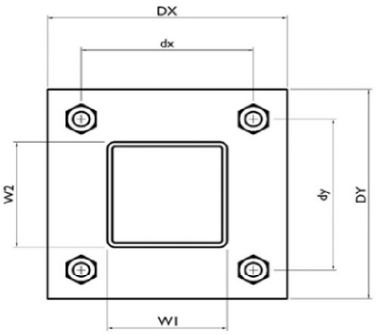
I. Mount-to-Tower Connection Check

Custom Orientation Required	Yes

Nodes (labeled per Risa)	Orientation (per graphic of typical platform)
n36	180
n35	180



Tower Connection Bolt Checks	Yes
Bolt Orientation	Parallel
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	9.5
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	3.5
Bolt Type:	J429 Gr.2
Bolt Diameter (in):	0.625
Required Tensile Strength / bolt (kips):	1.3
Required Shear Strength / bolt (kips):	0.3
Tensile Capacity / bolt (kips):	12.8
Shear Capacity / bolt (kips):	7.7
Bolt Overall Utilization:	**10.4%**



Tower Connection Baseplate Checks	No
Tower Connection Weld Checks	No

Structural Analysis Report For a 100-ft Guyed Tower

Site Name: West Hartford Center CT
Site No.: 535840
Fuze#: 16273383
Site Address: 14-20 Isham Road
West Hartford, CT 06107
Hartford County

Prepared for:
Verizon Wireless
900 Chelmsford Street
Tower 2 Floor 5
Lowell, MA 01851

April 27, 2022
(Rev. 3)

Prepared by:
Dewberry Engineers Inc.
99 Summer Street, Suite 700
Boston, MA 02110
Dewberry Project Number: 50121956

Tower Controlling Member	% Capacity	Result
Tower Components	83.8	Sufficient
Foundation	-	Sufficient

Tower/Foundation Previously Reinforced?	YES ☐ / NO ☒
Previous Reinforcement Verified?	YES ☐ / NO ☐ Date: **N/A**
Additional Reinforcement Required?	YES ☐ / NO ☒

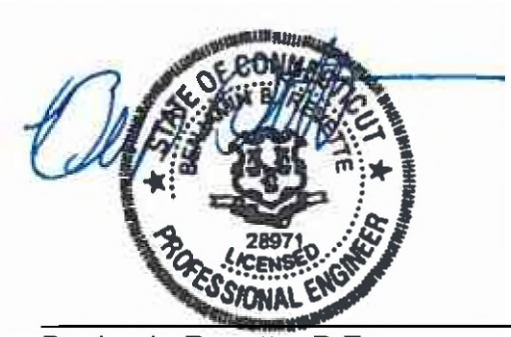
Prepared by:

Ashley Deuschle, E.I.T.
Staff Engineer

Reviewed by:

Brandon Kelsey
Structural Engineer

Approved by:



Benjamin Revette, P.E.
Associate Vice President

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1.0 INTRODUCTION AND PROJECT SUMMARY

The objective of this report is to assess the proposed installation of new antennas, sector frame mounts and support equipment on an existing 100-ft. steel guy tower located in Hartford, CT. This report is limited to the analysis of the tower only. The telecommunication upgrade is proposed by Verizon Wireless at a proposed mount centerline of 102 ft and the tower base elevation is set 25' above ground level.

Please refer to the appendices for the structural analysis package regarding the structural analysis.

2.0 CODES, STANDARDS, AND REFERENCES

The structural analysis was completed according to the provisions of the following Codes and standards:

- *2018 Connecticut State Building Code – Amendments to IBC 2015*
- *International Building Code (IBC) 2015,* International Code Council
- ASCE 7-10 Minimum design Loads for Buildings and Other Structures, American Society of Civil Engineers
- *TIA-222-G-4, Structural Standard for Antenna Supporting Structures and Antennas*
- *Steel Construction Manual 14th Ed,* American Institute of Steel Construction
- *Site Visit by Dewberry Engineers Inc. on 02/24/2021*

The analysis was in compliance with the minimum requirements as specified by TIA-222-G for the County of Hartford, CT under the following load parameters:

Risk Category:	II	
Exposure Category:	C	IBC 2015
Design Ultimate Wind Speed	125 mph	2018 CT Bldg. Code
Design Basic Wind Speed	97 mph	Except. #5, Sect. 1609.3.1, Eqn. 16-33, IBC 15
Design Ice Wind Speed:	50 mph	ASCE 7-10 Hazard Tool
Design Ice Thickness:	1.00 in.	ASCE 7-10 Hazard Tool
Serviceability Wind Speed:	60 mph	Sect. 2.8.3, TIA Rev G

The tower geometry, member sizes, existing antenna loading, and foundation design loading were referenced from the following reports:

- Previous structural tower analysis by Dewberry Engineers dated October 20, 2021.
- New/Replacement Antenna Mount Analysis by Maser Consulting dated March 16, 2022.
- Radio Frequency Design Sheet (RFDS Name: West Hartford Center CT) by Verizon Wireless dated February 14, 2022.
- Latest Construction Drawings by Dewberry Engineers, Inc.

3.0 EXISTING AND PROPOSED TOWER LOADING

3.1 Existing (includes Reserved, if applicable) Antenna and Cable Information

Mounting Elevation (ft) AGL	Mounting Elevation (ft) ARL	Center Line Elevation (ft) ARL	Carrier	QTY.	APPURTENANCES DESCRIPTION	COAX
125	100	106	-	1	12' Omni	(1) 1/2" (2) 5/8" (1) 7/8"
		105		1	4 Bay Dipole	
				1	10' Omni	
		103		1	6' Omni	
122	97	98.8	Clearwire	3	LLPX310R-V1	(12) 1-1/4" (1) 2" Flex Conduit (3) 7/8"
		97		3	SP1-22132825WB RRH	
				1	2'x2'x1' Junction Box	
				1	VHLP1-23	
				3	13' Standoff Mount	
119	94	94		1	VHLP1-23	(2) 1/2"
118	93	93		1	VHLP1-23	
106**	81	86	VZW	2	6OVP Box*	(12) 1-5/8" (2) Hybrid*
		82		3	B2/B66A RRH	
				3	B5/B13 RRH	
				6	SBNHH-1D65B	
				1	BXA-171063-8BF*	
				2	SACP 2x5516*	
				1	BXA-80063/4CF	
				2	SLCP 2x6014	
		81		1	13' T-Frame*	
69	44	48	-	1	4' Yagi	(1) 1/2"
55	30	30		1	4' Yagi	(1) 1-5/8" (1) 1/2"
32	7	7		1	2'x2'x1' Junction Box	-

*Equipment to be removed
**Proposed mount centerline to be lowered to 102 ft.
AGL: At Grade Line
ARL: At Roof Line (Roofline being elevation 25' above ground)

3.2 Proposed Appurtenance Loading Configuration on Tower:

Mounting Elevation (ft) AGL	Mounting Elevation (ft) ARL	Center Line Elevation (ft) ARL	Carrier	QTY.	APPURTENANCES DESCRIPTION	COAX
102	77	80.5	VZW	3	MT6407-77A w/ Integrated RRH	(2) Hybrid
		79		1	RVZDC-6627-PF-48 OVP	
		77		3	CBRS RRH w/ Clip-on Antenna	
				3	Valmont 12' V-Frame Sector Mount (VFA12-HD)	

AGL: At Grade Line
ARL: At Roof Line (Roofline being elevation 25' above ground)
Contractor shall install existing equipment to remain at new centerline of 104'

3.3 Final Appurtenance Loading Configuration on Tower:

Mounting Elevation (ft) AGL	Mounting Elevation (ft) ARL	Center Line Elevation (ft) ARL	Carrier	QTY.	APPURTENANCES DESCRIPTION	COAX
102	77	80.5	VZW	3	MTC6407-77A w/ Integrated RRH	(12) 1-5/8" (2) Hybrid
		79		6	SBNHH-1D65B	
				1	BXA-80063/4CF	
				2	SLCP 2x6014	
				3	B2/B66A RRH	
				3	B5/B13 RRH	
				1	RVZDC-6627-PF-48	
		77		3	Sector Mount (VFA12-HD)	
				3	CBRS RRH w/ Clip-on Antenna	

AGL: At Grade Line
ARL: At Roof Line (Roofline being elevation 25' above ground)
Contractor shall install existing equipment to remain at new centerline of 104'

3.4 Method:

Bentley Open Tower, a commercially available engineering software program, was used to create a three-dimensional model of the tower members and calculate primary member stresses under various loading conditions. Selected output from the analysis is included in Appendix A.

4.0 TOWER ANALYSIS RESULTS SUMMARY

4.1 Tower Structure Results

		Summary	
	LEG(4)	47.66	Pass
	LEG ANCHOR ROD(6)	0.85	Pass
	TOPHORIZONTAL(6)	13.71	Pass
	BOTTOMHORIZONTAL(5)	22.62	Pass
	DIAGONAL(4)	[redacted]	
	Guy Cable (Panel 1)	45.64	Pass
	Rating	[redacted]	

Existing 5/8" diameter A36 steel solid rod is calculated separately from OpenTower & determined to have a capacity of **83.8%.**

Table above displays the summary of the ratio (as the percentage) of force in the member to their capacities. Values greater than 100% indicate the maximum force in the member exceeds its capacity.

4.2 Foundation results

Guy forces are transferred to the existing building structure via three (3) 7/8"ø and three (3) 3/4"ø galvanized steel guy wires with turnbuckles. All guy anchorage posts are positively attached to the existing building structure. Connections to the existing building were originally designed by Cianci & Cianci Structural Engineers job no: 97-113-01 dated October 22, 1997.

Review of the guy anchor and tower base connections consisted of a comparison of the proposed reactions and the design reactions obtained from the aforementioned design documents:

Calculated Proposed + Existing Equipment Loading Reactions Compared to Previous Reactions:

Condition	Calculated Foundation Reactions (Rev G) (kip)	Original Design Reactions (Rev F) (kip)	Original Design Reaction x 1.35 (Rev G) (kip)	% Original Reactions	Pass/Fail
Tower Base Vert.	54.276	106.0	143.10	37.9%	Pass
Tower Base Horiz.	0.729	1.6	2.16	33.8%	Pass
Guy Anchor A @ 45' Vert.	28.1064	45.1	60.89	46.2%	Pass
Guy Anchor A @ 45' Horiz.	18.7716	31.7	42.80	43.9%	Pass
Guy Anchor B @ 39' Vert.	31.3371	51.6	69.66	45.0%	Pass
Guy Anchor B @ 39' Horiz.	18.2417	32.0	43.20	42.2%	Pass
Guy Anchor C @ 37.5' Vert.	29.5994	47.8	64.53	45.9%	Pass
Guy Anchor C @ 37.5' Horiz.	18.3591	31.6	42.66	43.0%	Pass

5.0 CONCLUSIONS AND COMMENTARY

After analysis, it was determined that the existing tower structure and foundation **is adequate** to support the proposed forces as a result of the telecommunication upgrade.

This engineering analysis is based upon the theoretical capacity of the structure. It is not a condition assessment of the tower and its foundation. Dewberry Engineers Inc. reserves the right to add to or modify this report if more information becomes available. The conclusions reached by Dewberry Engineers Inc. in this report are only applicable to the previously mentioned existing structural elements supporting the proposed wireless telecommunications installation. The results of this report are based on the assumption that existing structural elements have been installed per the original design documents, have been well maintained and are uncompromised. This report does not imply that a thorough inspection of the existing structure has been performed. Any deviation of the support condition, loading, location, placement, equipment configuration, etc, will require Dewberry Engineers Inc. to generate an additional structural analysis.

6.0 ASSUMPTIONS

This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. Dewberry Engineers Inc. has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The tower member sizes and shapes are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The antenna configuration is as supplied and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
3. Some assumptions are made regarding antennas and mount sizes and their projected areas based on best interpretation of data supplied and of best knowledge of antenna type and industry practice.
4. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed. This analysis is limited to analyzing the tower only.
5. The soil parameters are as per data supplied or as assumed and stated in the calculations.
6. Foundations are properly designed and constructed to resist the original design loads indicated in the documents provided.
7. The tower and structures have been properly maintained in accordance with TIA Standards and/or with manufacturer's specifications.
8. All welds and connections are assumed to develop at least the member capacity unless determined otherwise and explicitly stated in this report.
9. All prior structural modifications are assumed to be as per data supplied/ available and to have been properly installed.
10. Loading interpreted from photos is accurate to ±5' AGL, antenna size accurate to ±3.3 sf, and coax equal to the number of existing antennas without reserves
11. All co-lo platforms have their elevation based on the attachment point from the main standoff members. Due to this and how Open tower considers the CL of a platform with a handrail kit to be 2' above the main standoff attachment point – co-lo platforms with handrail kits will be represented with a 2' higher elevation in Open Tower then what is shown above.
12. All sector frames have their elevation based on the vertical centerline of the platform – half the distance between the 2 connection points to the tower leg.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and Dewberry Engineering Inc. should be allowed to review any new information to determine its effect on the structural integrity of the tower.

7.0 DISCLAIMER OF WARRANTIES

If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by Dewberry Engineers Inc. in connection with this Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. All tower components have been assumed to only resist dead loads when no other loads are applied. No allowance was made for any damaged, bent, missing, loose or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

This analysis is limited to the designated maximum wind and seismic conditions per the governing tower standards and code. Wind forces resulting in tower vibrations near the structure's resonant frequencies were not considered in this analysis and are outside the scope of this analysis. Lateral loading from any dynamic response was not evaluated under a time-domain based fatigue analysis.

Dewberry Engineers Inc. does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. Dewberry Engineers Inc. provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to calculate the structural integrity for the existing tower under existing and proposed loadings.

It is the owner's responsibility to determine the amount of ice accumulation in excess of the code specified amount, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing condition, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from Dewberry Engineering Inc., but are beyond the scope of this report.

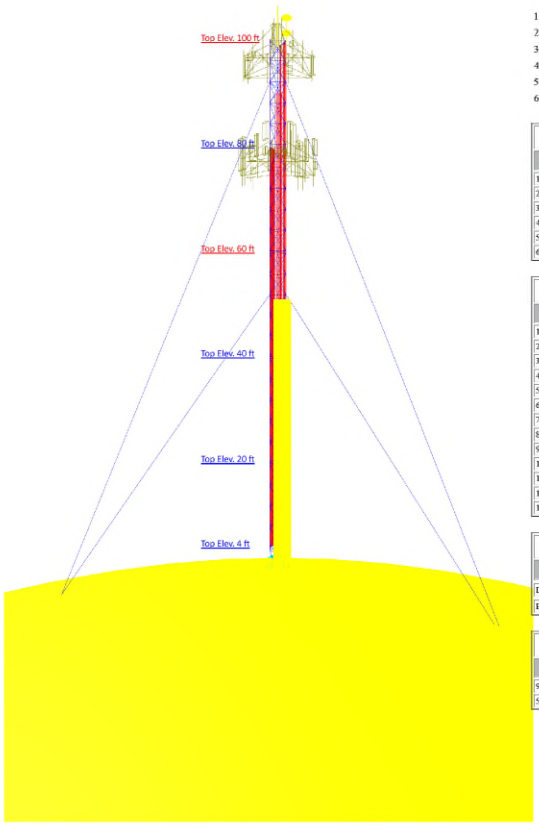
Miscellaneous items such as antenna mounts, etc., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

Towers are designed to carry gravity, wind, and ice loads. All members, legs, diagonals, struts, and redundant members provide structural stability to the tower with little redundancy. Absence or removal of a member can trigger catastrophic failure unless a substitute is provided before any removal. Legs carry axial loads and derive their strength from shorter unbraced lengths by the presence of redundant members and their connections to the diagonals with bolts or welds. If the bolts or welds are removed without providing any substitute to the frame, the leg is subjected to a higher unbraced length that immediately reduces its load carrying capacity. If a diagonal is also removed in addition to the connection, the unbraced length of the leg is greatly increased, jeopardizing its load carrying capacity. Failure of one leg can result in a tower collapse because there is no redundancy. Redundant members and diagonals are critical to the stability of the tower.

Dewberry Engineers Inc. makes no warranties, expresses and/or implied in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. Dewberry will not be responsible whatsoever for, or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of Dewberry pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

OPEN TOWER OUTPUT FOR PROPOSED LOADING



TOWER DESIGN NOTES

1. Tower is located in WEST HARTFORD, CT, HARTFORD
2. Tower is designed for exposure C, structure class II and topographic category 1 with crest height 0 ft.
3. Tower is designed for 125 mph basic wind in accordance with the TIA-222-G (ASCE 7-05 Wind Maps) Standard.
4. Tower is also designed for 50 mph basic wind with 1 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon 60 mph service wind speed.
6. Tower structural rating : ~~109.56%~~ See calcs on following pages

GEOMETRY DETAILS

Panel ID	Panel Details	Face Bracing	Plan Bracing	Hip Bracing
1	TW 3.04 TH 20 No. of Bays 5	X Brace, Leg 1, DIA 2, TH 3, BH 3		
2	TW 3.04 TH 20 No. of Bays 5	X Brace, Leg 1, DIA 2, TH 3, BH 3		
3	TW 3.04 TH 20 No. of Bays 5	X Brace, Leg 4, DIA 2, TH 3, BH 3		
4	TW 3.04 TH 20 No. of Bays 5	X Brace, Leg 1, DIA 13, TH 5, BH 5		
5	TW 3.04 TH 16 No. of Bays 4	X Brace, Leg 1, DIA 13, TH 5, BH 5		
6	TW 3.04 TH 4 No. of Bays 1	X Brace, Leg 1, TH 6, BH 7		

SECTION DETAILS

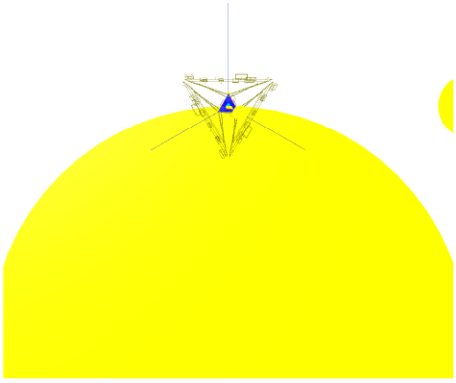
Index	Section	Material
1	RB2	A572 Gr.50
2	RB7/8	A36
3	L2X2X3/16	A36
4	RB2-1/4	A572 Gr.50
5	L2X2X1/8	A36
6	L 3x3x1/8	A36
7	FB 3/8x12	A36
8	FB 3x1/4	A36
9	UPT:3/4(0.75)	UPT:3/4(0.75)
10	UPT:7/8(0.875)	UPT:7/8(0.875)
11	7/8	7/8
12	3/4	3/4
13	RB5/8	A36

LEGENDS

Member Name	Short Name	Member Name	Short Name
DIAGONAL	DIA	TOPHORIZONTAL	TH
BOTTOMHORIZONTAL	BH		

GUY TOWER DETAILS

Attachment Elevation (ft)	Anchor Radius	Attachment Type	Guy Type	Guy Size	Initial Guy Tension
91.96	45,39,37.5	Pull-offs	EHS	3/4	10 %
51.96	45,39,37.5	Pull-offs	EHS	7/8	10 %



LOADING DETAILS

Mount Level(ft)	CL. Elevation(ft)	No. of Antennas	Antenna Manufacturer	Antenna Model	No. of FeedLines	FeedLine size(in)
100	106	1	TELEWAVE	ANT220F6		
100	104	1	TELEWAVE	ANT450F6		
100	103	1	TELEWAVE	ANT135F2		
100	102	1	TELEWAVE	ANT450D6-9		
100	100	3	-	-		
97	99.5	3	COMMSCOPE	VHLP1-23		
97	97	3	COMMSCOPE	LLPX310R-V1		
97	97	9	EMPTY	EMPTY_MOUNT		
97	97	3	SAMSUNG TELECOMMUNICATIONS	1.6GHZ RRH		
97	97	3	UPT:Valmont	UPT:13' Clearwire		
90	90	0			11	1-1/4
80	80	0			12	1-5/8
80	80	0			2	7/8
79	79	2	RAYCAP	DC06-48-60-0-1E		
79	79	3	SAMSUNG TELECOMMUNICATIONS	RFV01U-D2A		
79	79	3	-	-		
77	80.5	3	UPT:Samsung	UPT:MT6407-77A		
77	79	3	ANTEL	BXA-80063/4CF		
77	79	6	COMMSCOPE	SBNHH-1D65B		
77	79	3	SAMSUNG TELECOMMUNICATIONS	RFV01U-D1A		
77	77	3	EMPTY	EMPTY_MOUNT		
77	77	3	SAMSUNG TELECOMMUNICATIONS	CBRS		
77	77	3	UPT:Site Pro 1	UPT:VFA12-HD		
44	44	1	LCOM	HG2414SP-120		
44	44	1	-	-		
30	30	1	LCOM	HG2414SP-120		
30	30	1	-	-		
100	100	0			1	5/8
100	100	0			4	7/8
100	100	0			3	1/2
100	100	0			3	1-5/8
100	100	0			1	1-1/4
100	100	0			1	2
100	100	0			1	1/2

GUYTOWER ANCHOR REACTION

Anchor Group	Load Combination	Tension(klp)	Th(klp)	Tv(klp)	Incline Angle
Outer-A	LC -PDELTA 20 1.2D + 1.0Dg + 1.6Wo-210°	33.8	18.77	28.11	56.26
Outer-B	LC -PDELTA 22 1.2D + 1.0Dg + 1.6Wo-270°	36.26	18.24	31.34	59.8
Outer-C	LC -PDELTA 14 1.2D + 1.0Dg + 1.6Wo-30°	34.83	18.36	29.6	58.19

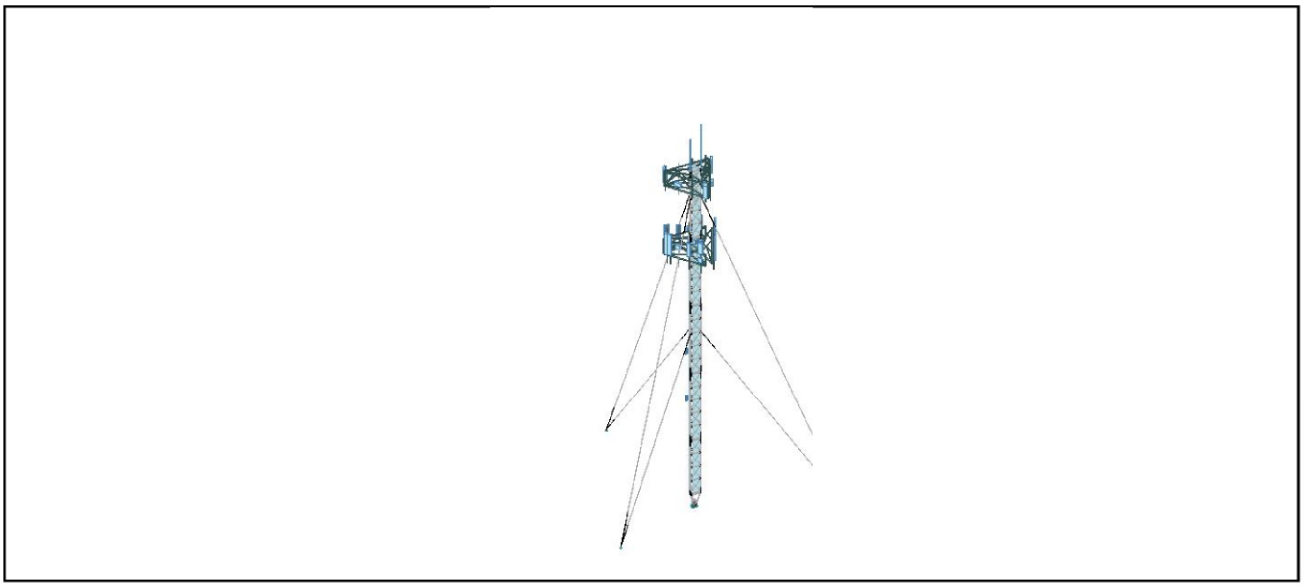
TOWER SUMMARY REACTION

Max Reaction	Load Combination	Moment(kip-ft)	Axial(kips)	Shear(kips)
Compression	LC -PDELTA 7 1.2D + 1.0Dg + 1.0Di + 1.0Ti + 1.0Wi-180°	0.008	32.15	10.514
Shear	LC -PDELTA 7 1.2D + 1.0Dg + 1.0Di + 1.0Ti + 1.0Wi-180°	0.008	32.15	10.514
Total Overturning Moment (1.2D)	LC -PDELTA 19 1.2D + 1.0Dg + 1.6Wo-180°	1.1247	54.276	0.729
Total Overturning Moment (1.0D)	LC -PDELTA 31 1.0D + 1.0Dg + 1.0Ws-180°	0.331	48.678	0.235
Total Compression	LC -PDELTA 1 1.2D + 1.0Dg + 1.0Di + 1.0Ti + 1.0Wi-0°	0.41	94.498	0.182
Total Shear	LC -PDELTA 19 1.2D + 1.0Dg + 1.6Wo-180°	1.1247	54.276	0.729

Bentley
DEWBERRY ENGINEERS, INC.
99 SUMMER STREET, SUITE 700,BOSTON,MA, 02110
Phone:

Job : 325091		
Project :		
Client:	Drawn By: AMD	App'd:
Code: TIA-222-G	Date: 4/27/2022 12:00:00 AM	Scale: NTS
Path:	Dwg No:	

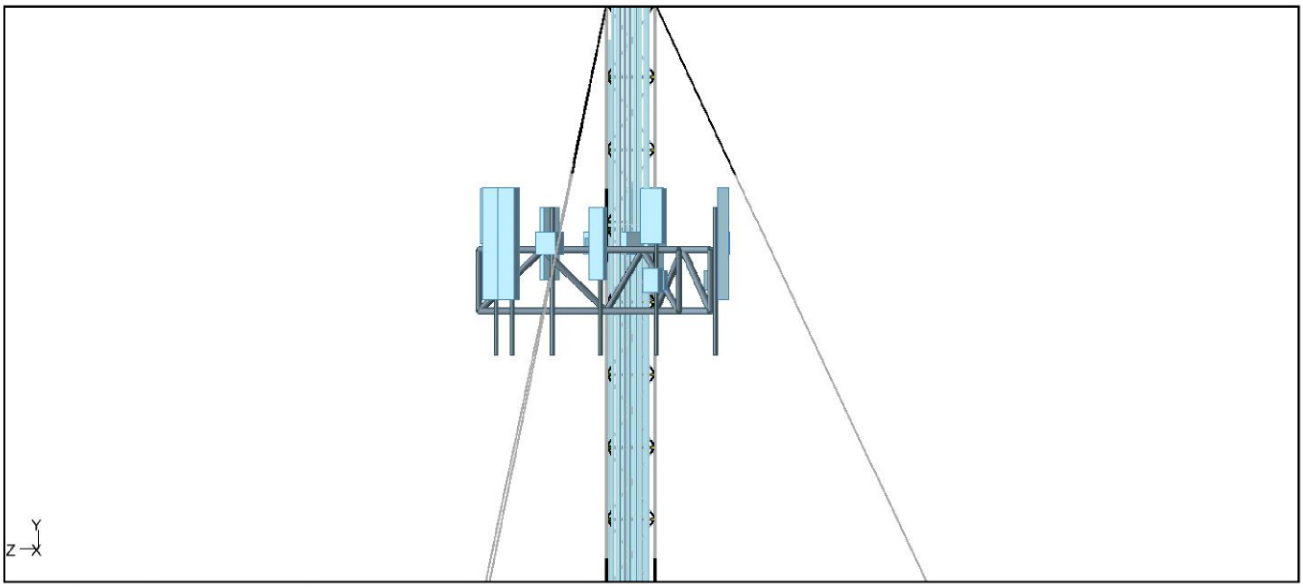
Tower Profile



Summary Tower Reaction

Maximum Reaction	*Load Combination*	*Moment (kip-ft)*	*Axial (kip)*	*Shear (kip)*
Compression	LC -PDELTA 7 1.2D + 1.0Dg + 1.0Di + 1.0Ti + 1.0Wi-180°	0.008	32.15	10.514
Shear	LC -PDELTA 7 1.2D + 1.0Dg + 1.0Di + 1.0Ti + 1.0Wi-180°	0.008	32.15	10.514
Total Overturning Moment (1.2D)	LC -PDELTA 19 1.2D + 1.0Dg + 1.6Wo-180°	1.1247	54.276	0.729
Total Overturning Moment (1.0D)	LC -PDELTA 31 1.0D + 1.0Dg + 1.0Ws-180°	0.331	48.678	0.235
Total Compression	LC -PDELTA 1 1.2D + 1.0Dg + 1.0Di + 1.0Ti + 1.0Wi-0°	0.41	94.498	0.182
Total Shear	LC -PDELTA 19 1.2D + 1.0Dg + 1.6Wo-180°	1.1247	54.276	0.729

Antenna Positions



GuyTower Anchor Reaction

Anchor Group	*Load Combination*	*Tension (kip)*	*Th (kip)*	*Tv (kip)*	*Incline Angle*
Outer-A	LC -PDELTA 20 1.2D + 1.0Dg + 1.6Wo-210°	33.7986	18.7716	28.1064	56.2620
Outer-B	LC -PDELTA 22 1.2D + 1.0Dg + 1.6Wo-270°	36.2598	18.2417	31.3371	59.7958
Outer-C	LC -PDELTA 14 1.2D + 1.0Dg + 1.6Wo-30°	34.8307	18.3591	29.5994	58.1907

Tower Summary

Tower Type	3-Leg Guyed
Tower Height (ft)	100
Base Elevation(ft)	25
Bearing Angle with respect to North	0 deg
State	Connecticut
County	Hartford
Latitude	41.761556
Longitude	-72.740375
Active Scenario	Scenario1

Wind Load Parameters

Design Standard	TIA-222-G (ASCE 7-05 Wind Maps)
Structure Class	II
Wind Speed (mph)	96.82
Service Wind Speed (mph)	60
Ice Wind Speed (mph)	50
Ice Thickness (in)	1

Analysis Parameters

Type of Analysis	Non-Linear

Site Parameters

Wind Direction From True North (deg)	Structure Class	Exposure Category	Topographic Category
All	II	C	1

Tower Geometry

Section ID	*Section Range (ft)*	*Section Length (ft)*	*Face Bracing*	*Diagonal Spacing (ft)*	*Top Width (ft)*	*Bottom Width (ft)*	*Top Girt Offset (in)*	*Bottom Girt Offset (in)*
1	100-80	20.0000	X	3.9167	3.0400	3.0400	2.5000	2.5000
2	80-60	20.0000	X	3.9167	3.0400	3.0400	2.5000	2.5000
3	60-40	20.0000	X	3.9167	3.0400	3.0400	2.5000	2.5000
4	40-20	20.0000	X	3.9167	3.0400	3.0400	2.5000	2.5000
5	20-4	16.0000	X	3.8958	3.0400	3.0400	2.5000	2.5000
6	4-0	4.0000	X	2.7884	3.0400	0.7600	2.5390	12.0000

Member Properties

Section ID	*Section Range (ft)*	*Member Class*	*Section Profile*	*Member Material*	*No Of Bolts*	*Bolt Size (in)*	*Bolt Material*
1	100-80	LEG	RB2	A572 Gr.50	3	0.75	A325 (1/2 to 1)_N
2	80-60	LEG	RB2	A572 Gr.50	3	0.75	A325 (1/2 to 1)_N
3	60-40	LEG	RB2-1/4	A572 Gr.50	3	0.75	A325 (1/2 to 1)_N
4	40-20	LEG	RB2	A572 Gr.50	3	0.75	A325 (1/2 to 1)_N
5	20-4	LEG	RB2	A572 Gr.50	3	0.75	A325 (1/2 to 1)_N
6	4-0	LEG	RB2	A572 Gr.50	4	0.75	A615J

Member Properties Cont...

Section ID	Section Range (ft)	Member Class	Section Profile	Member Material	No Of Bolts	Bolt Size (in)	Bolt Material
1	100-80	DIAGONAL	RB7/8	A36	0	0	-
2	80-60	DIAGONAL	RB7/8	A36	0	0	-
3	60-40	DIAGONAL	RB7/8	A36	0	0	-
4	40-20	DIAGONAL	RB5/8	A36	0	0	-
5	20-4	DIAGONAL	RB5/8	A36	0	0	-
1	100-80	TOPHORIZONTAL	L2X2X3/16	A36	0	0	-
1	100-80	BOTTOMHORIZONTAL	L2X2X3/16	A36	0	0	-
1	100-80	TORQUEARMBOTTOMSTRAP	FB 3x1/4	A36	0	0.625	A325 (1/2 to 1)_N
2	80-60	TOPHORIZONTAL	L2X2X3/16	A36	0	0	-
2	80-60	BOTTOMHORIZONTAL	L2X2X3/16	A36	0	0	-
3	60-40	TOPHORIZONTAL	L2X2X3/16	A36	0	0	-
3	60-40	BOTTOMHORIZONTAL	L2X2X3/16	A36	0	0	-
3	60-40	TORQUEARMBOTTOMSTRAP	FB 3x1/4	A36	0	0.625	A325 (1/2 to 1)_N
4	40-20	TOPHORIZONTAL	L2X2X1/8	A36	0	0	-
4	40-20	BOTTOMHORIZONTAL	L2X2X1/8	A36	0	0	-
5	20-4	TOPHORIZONTAL	L2X2X1/8	A36	0	0	-
5	20-4	BOTTOMHORIZONTAL	L2X2X1/8	A36	0	0	-
6	4-0	TOPHORIZONTAL	L 3x3x1/8	A36	0	0	-

Member Properties Cont...

Section ID	Section Range (ft)	Member Class	Section Profile	Member Material	No Of Bolts	Bolt Size (in)	Bolt Material
6	4-0	BOTTOMHORIZONTAL	FB 3/8x12	A36	0	0	-

Guy Attachment Details

GuyElev (ft)	AttachType	TaSpread (ft)	TopStrap	BottomStrap	Horizontal	TopDiagonal	BottomDiagonal
91.9583	Pull-offs	0	-	FB 3x1/4	-	-	-
91.9583	Pull-offs	0	-	FB 3x1/4	-	-	-
91.9583	Pull-offs	0	-	FB 3x1/4	-	-	-
51.9583	Pull-offs	0	-	FB 3x1/4	-	-	-
51.9583	Pull-offs	0	-	FB 3x1/4	-	-	-
51.9583	Pull-offs	0	-	FB 3x1/4	-	-	-

Guy Details

Guy Elev (ft)	Anchor Group	Anchor ID	Anchor Radius (ft)	Anchor Elev(ft)	Anchor Azimuth (deg)	Guy Size (in)	Guy Type	Initial Tension (%)	End Fitting Efficiency (%)
91.96	Outer	A	45	0	0	3/4	EHS	10	100
91.96	Outer	B	39	0	120	3/4	EHS	10	100
91.96	Outer	C	37.5	6.5	240	3/4	EHS	10	100
51.96	Outer	A	45	0	0	7/8	EHS	10	100
51.96	Outer	B	39	0	120	7/8	EHS	10	100
51.96	Outer	C	37.5	6.5	240	7/8	EHS	10	100

Discrete Appurtenances

Mt CL (ft)	Mount Type	Ant CL (ft)	Mfg	Model Number	Location	Horiz. Offset (ft)	Lat. Offset (ft)	Vert. Offset (ft)	Front Area (no ice) (ft2)	Side Area (no ice) (ft2)	Weight(no ice) (lbs)	Ka	Ks (fr)	Ks (Si)	Rel. Azi (deg)
100	-	104	TELEWAVE	ANT450F6	LegA	0	0	4	1.86	1.86	21	1	1	1	0
100	-	102	TELEWAVE	ANT450D6-9	LegB	0	0	2	1.4	1.4	18	1	1	1	0
100	-	106	TELEWAVE	ANT220F6	LegB	0	-0.25	6	3.919	3.919	17	1	1	1	0
100	-	103	TELEWAVE	ANT135F2	LegC	0	0	3	1.65	1.65	0	1	1	1	0
97	UPT:13' Clearwire	97	COMMSCOPE	LLPX310R-V1	LegA	0	-6	0	3.9	1.5	40.8	0.8	1	1	0
97	UPT:13' Clearwire	97	EMPTY	EMPTY_MOUNT	LegA	0	-2	0	0	0	0	0.8	1	1	0
97	UPT:13' Clearwire	97	EMPTY	EMPTY_MOUNT	LegA	0	2	0	0	0	0	0.8	1	1	0
97	UPT:13' Clearwire	97	EMPTY	EMPTY_MOUNT	LegA	0	6	0	0	0	0	0.8	1	1	0
97	UPT:13' Clearwire	97	SAMSUNG TELECOMMUNICATIONS	1.6GHZ RRH	LegA	0	2	0	2.124	0.895	59.5	0.8	1	1	0
97	UPT:13' Clearwire	99.5	COMMSCOPE	VHLP1-23	LegA	0	-6	2.5	1.277	1.277	14	1	1	1	0
97	UPT:13' Clearwire	97	COMMSCOPE	LLPX310R-V1	LegB	0	-6	0	3.9	1.5	40.8	0.8	1	1	0
97	UPT:13' Clearwire	97	EMPTY	EMPTY_MOUNT	LegB	0	-2	0	0	0	0	0.8	1	1	0
97	UPT:13' Clearwire	97	EMPTY	EMPTY_MOUNT	LegB	0	2	0	0	0	0	0.8	1	1	0
97	UPT:13' Clearwire	97	EMPTY	EMPTY_MOUNT	LegB	0	6	0	0	0	0	0.8	1	1	0
97	UPT:13' Clearwire	97	SAMSUNG TELECOMMUNICATIONS	1.6GHZ RRH	LegB	0	2	0	2.124	0.895	59.5	0.8	1	1	0
97	UPT:13' Clearwire	99.5	COMMSCOPE	VHLP1-23	LegB	0	-6	2.5	1.277	1.277	14	1	1	1	0
97	UPT:13' Clearwire	97	COMMSCOPE	LLPX310R-V1	LegC	0	-6	0	3.9	1.5	40.8	0.8	1	1	0
97	UPT:13' Clearwire	97	EMPTY	EMPTY_MOUNT	LegC	0	-2	0	0	0	0	0.8	1	1	0
97	UPT:13' Clearwire	97	EMPTY	EMPTY_MOUNT	LegC	0	2	0	0	0	0	0.8	1	1	0
97	UPT:13' Clearwire	97	EMPTY	EMPTY_MOUNT	LegC	0	6	0	0	0	0	0.8	1	1	0

Discrete Appurtenances Cont...

Mt CL (ft)	Mount Type	Ant CL (ft)	Mfg	Model Number	Location	Horiz. Offset (ft)	Lat. Offset (ft)	Vert. Offset (ft)	Front Area (no ice) (ft2)	Side Area (no ice) (ft2)	Weight(no ice) (lbs)	Ka	Ks (fr)	Ks (Si)	Rel. Azi (deg)
97	UPT:13' Clearwire	97	SAMSUNG TELECOMMUNICATIONS	1.6GHZ RRH	LegC	0	2	0	2.124	0.895	59.5	0.8	1	1	0
97	UPT:13' Clearwire	99.5	COMMSCOPE	VHLP1-23	LegC	0	-6	2.5	1.277	1.277	14	1	1	1	0
79	-	79	SAMSUNG TELECOMMUNICATIONS	RFV01U-D2A	FaceCA	0	0	0	1.875	1.012	70.3	1	1	1	0
79	-	79	SAMSUNG TELECOMMUNICATIONS	RFV01U-D2A	FaceAB	0	0	0	1.875	1.012	70.3	1	1	1	0
79	-	79	SAMSUNG TELECOMMUNICATIONS	RFV01U-D2A	FaceBC	0	0	0	1.875	1.012	70.3	1	1	1	0
77	UPT:VFA12-HD	79	ANTEL	BXA-80063/4CF	LegA	0	-1.5	2	4.708	2.248	9.9	0.8	1	1	0
77	UPT:VFA12-HD	77	EMPTY	EMPTY_MOUNT	LegA	0	1.5	0	0	0	0	0.8	1	1	0
77	UPT:VFA12-HD	79	COMMSCOPE	SBNHH-1D65B	LegA	0	5	2	4.16	2.49	40.6	0.8	1	1	0
77	UPT:VFA12-HD	79	COMMSCOPE	SBNHH-1D65B	LegA	0	4	2	4.16	2.49	40.6	0.8	1	1	0
77	UPT:VFA12-HD	77	SAMSUNG TELECOMMUNICATIONS	CBRS	LegA	0.25	-5	0	1.534	0.747	23.14	0.8	1	1	0
77	UPT:VFA12-HD	79	SAMSUNG TELECOMMUNICATIONS	RFV01U-D1A	LegA	0	1.5	2	1.875	1.25	84.4	0.8	1	1	0
77	UPT:VFA12-HD	79	ANTEL	BXA-80063/4CF	LegB	0	-1.5	2	4.708	2.248	9.9	0.8	1	1	0
77	UPT:VFA12-HD	77	EMPTY	EMPTY_MOUNT	LegB	0	1.5	0	0	0	0	0.8	1	1	0
77	UPT:VFA12-HD	79	COMMSCOPE	SBNHH-1D65B	LegB	0	5	2	4.16	2.49	40.6	0.8	1	1	0
77	UPT:VFA12-HD	79	COMMSCOPE	SBNHH-1D65B	LegB	0	4	2	4.16	2.49	40.6	0.8	1	1	0
77	UPT:VFA12-HD	77	SAMSUNG TELECOMMUNICATIONS	CBRS	LegB	0.25	-5	0	1.534	0.747	23.14	0.8	1	1	0

Discrete Appurtenances Cont...

Mt CL (ft)	Mount Type	Ant CL (ft)	Mfg	Model Number	Location	Horiz. Offset (ft)	Lat. Offset (ft)	Vert. Offset (ft)	Front Area (no ice) (ft2)	Side Area (no ice) (ft2)	Weight(no ice) (lbs)	Ka	Ks (fr)	Ks (Si)	Rel. Azi (deg)
77	UPT:VFA12-HD	79	SAMSUNG TELECOMMUNICATIONS	RFV01U-D1A	LegB	0	1.5	2	1.875	1.25	84.4	0.8	1	1	0
77	UPT:VFA12-HD	79	ANTEL	BXA-80063/4CF	LegC	0	-1.5	2	4.708	2.248	9.9	0.8	1	1	0
77	UPT:VFA12-HD	77	EMPTY	EMPTY_MOUNT	LegC	0	1.5	0	0	0	0	0.8	1	1	0
77	UPT:VFA12-HD	79	COMMSCOPE	SBNHH-1D65B	LegC	0	5	2	4.16	2.49	40.6	0.8	1	1	0
77	UPT:VFA12-HD	79	COMMSCOPE	SBNHH-1D65B	LegC	0	4	2	4.16	2.49	40.6	0.8	1	1	0
77	UPT:VFA12-HD	77	SAMSUNG TELECOMMUNICATIONS	CBRS	LegC	0.25	-5	0	1.534	0.747	23.14	0.8	1	1	0
77	UPT:VFA12-HD	79	SAMSUNG TELECOMMUNICATIONS	RFV01U-D1A	LegC	0	1.5	2	1.875	1.25	84.4	0.8	1	1	0
44	-	44	LCOM	HG2414SP-120	LegA	2	0	0	1.182	0.653	4.4	1	1	1	0
30	-	30	LCOM	HG2414SP-120	LegA	2	0	0	1.182	0.653	4.4	1	1	1	0
79	-	79	RAYCAP	DC06-48-60-0-1E	FaceAB	0	-1	0	0.725	0.725	48	1	1	1	0
79	-	79	RAYCAP	DC06-48-60-0-1E	FaceBC	0	-1	0	0.725	0.725	48	1	1	1	0
77	UPT:VFA12-HD	80.5	UPT:Samsung	UPT:MT6407-77A	LegA	0	-5	3.5	4.897	1.929	87.1	0.8	1	1	0
77	UPT:VFA12-HD	80.5	UPT:Samsung	UPT:MT6407-77A	LegB	0	-5	3.5	4.897	1.929	87.1	0.8	1	1	0
77	UPT:VFA12-HD	80.5	UPT:Samsung	UPT:MT6407-77A	LegC	0	-5	3.5	4.897	1.929	87.1	0.8	1	1	0

Miscellaneous Appurtenances

There is no data of this type

Linear Attachments

Attachment ID	Attachment model	Bottom Elevation (ft)	Top Elevation (ft)	Location	lateral Offset(of face)	lateral Offset(leg) (in)	Area (no ice) (ft2/ft)	Weight (No) (lbs/ft)
1	None	0	100	Face A	0.0000	0.0000	0.0000	0.0000

Linear Attachments Cont...

Attachment ID	Attachment model	Bottom Elevation (ft)	Top Elevation (ft)	Location	lateral Offset(of face)	lateral Offset(leg) (in)	Area (no ice) (ft2/ft)	Weight (No) (lbs/ft)
2	None	0	100	Face B	0.0000	0.0000	0.0000	0.0000
3	None	0	100	Face C	0.0000	0.0000	0.0000	0.0000
4	None	0	100	Leg C	0.0000	0.0000	0.0000	0.0000

Linear Appurtenances

Attachment	Qty	Size (in)	Bottom Elv. (ft)	Top Elv. (ft)	Manufacturer	Model	Weight (No ice) (lbs/ft)
4	1	5/8	0	100	miscl	5/8 Safety Cable	0.4
2	4	7/8	4	100	ANDREW	LDF5-50A	0.33
2	3	1/2	4	100	ANDREW	LDF4-50A	0.15
2	3	1-5/8	4	100	ANDREW	LDF7-50A	0.82
2	1	1-1/4	4	100	ANDREW	LDF6-50A	0.6
2	1	2	4	100	ANDREW	WC166	2.8
2	1	1/2	4	100	ANDREW	LDF4P-50A	0.15
1	12	1-5/8	4	80	ANDREW	LDF7-50A	0.82
1	2	7/8	4	80	RFS/CELWAVE	HB078-05U6S12-20M-01	0.7
3	11	1-1/4	4	90	ANDREW	LDF6-50A	0.6

LEG SUMMARY

Section ID	Tower Elevation (ft)	Member Description	Pu (Comp) (kip)	ϕc Pn(kip)	Pu (Tens) (kip)	ϕt Pn(kip)	Capacity Ratio (%)
1	100-80	RB2	11.871	74.0936	2.9096	141.372	16.02
2	80-60	RB2	31.6561	74.0936	13.7168	141.372	42.72

LEG SUMMARY Cont...

Section ID	Tower Elevation (ft)	Member Description	Pu (Comp) (kip)	ϕc Pn(kip)	Pu (Tens) (kip)	ϕt Pn(kip)	Capacity Ratio (%)
3	60-40	RB2-1/4	49.6669	107.3925	24.5016	178.9245	46.25
4	40-20	RB2	35.3104	74.0936	0	0	47.66
5	20-4	RB2	30.1277	74.6032	0	0	40.38
6	4-0	RB2	33.7537	98.3439	0	0	34.32

LEG BOLT SUMMARY

Section ID	Tower Elevation (ft)	Member Description	Connection Type	Pu (Comp) (kip)	Pu (Tens) (kip)	Applied Force (kip)	Connection Capacity (kip)	Capacity Ratio (%)
1	100-80	RB2	Flange	13.5889	0	4.4843	90.18	4.97
2	80-60	RB2	Flange	36.8872	13.7168	13.7168	90.18	15.21
3	60-40	RB2-1/4	Flange	39.9782	0	13.1928	90.18	14.63
4	40-20	RB2	Flange	30.659	0	10.1175	90.18	11.22
5	20-4	RB2	Flange	31.9392	0	10.5399	90.18	11.69
6	4-0	RB2		0	0	0	0	0

LEG DETAILS

Section ID	Tower Elevation (ft)	Member Description	Gov. Axis	K	Lu (ft)	r (in)	KL/r	Area (in2)	Fy (ksi)	Fu (ksi)
1	100-80	RB2	y	1	3.9167	0.5	94.0001	3.1416	50	65
2	80-60	RB2	y	1	3.9167	0.5	94.0001	3.1416	50	65
3	60-40	RB2-1/4	y	1	3.9167	0.5625	83.5558	3.9761	50	65
4	40-20	RB2	y	1	3.9167	0.5	94.0001	3.1416	50	65
5	20-4	RB2	y	1	3.8958	0.5	93.5001	3.1416	50	65
6	4-0	RB2	y	1	2.9355	0.5	70.4528	3.1416	50	65

LEG DETAILS Cont...

Section ID	Tower Elevation (ft)	Member Description	Gov. Axis	K	Lu (ft)	r (in)	KL/r	Area (in2)	Fy (ksi)	Fu (ksi)

Anchor Rod Data (LegA)

Group ID	QTY	Diameter (in)	Material	Bolt Circle (in)	lar (in)	Eta Factor, h
BC1	4	1_F1554 Gr.55_N	F1554 Gr.55	18	0	0.5

Custom Anchor Rod Connection Data (LegA)

Bolt Group	Resist Axial	Resist Shear	Grout Considered	Leg Mod Eccentricity	Consider Anchor Rod Eccentricity	Anchor Rod N.A Shift (in)	Total Eccentricity (in)
1	Yes	Yes	False	0	Yes	0	0
2	Yes	Yes	False	0	Yes	0	0
3	Yes	Yes	False	0	Yes	0	0
4	Yes	Yes	False	0	Yes	0	0

Applied Loads (LegA)

Group ID	Axial Force(kip)	Shear Force(kip)
BC1	1.3385	0.0206

Anchor Rod Summary (LegA)

Anchor Rod Group ID	Critial Load ID	Pu (kip)	ϕPn (kip)	Vu (kip)	ϕVn (kip)	Mu (kip-ft)	ϕMn (kip-ft)	Capacity Ratio
1	57	-0.3346	38.8772	0.0051	17.4947	0	0	0.8198

Anchor Rod Data (LegB)

Group ID	QTY	Diameter (in)	Material	Bolt Circle (in)	lar (in)	Eta Factor, h
BC1	4	1_F1554 Gr.55_N	F1554 Gr.55	18	0	0.5

Custom Anchor Rod Connection Data (LegB)

Bolt Group	Resist Axial	Resist Shear	Grout Considered	Leg Mod Eccentricity	Consider Anchor Rod Eccentricity	Anchor Rod N.A Shift (in)	Total Eccentricity (in)
1	Yes	Yes	False	0	Yes	0	0
2	Yes	Yes	False	0	Yes	0	0
3	Yes	Yes	False	0	Yes	0	0
4	Yes	Yes	False	0	Yes	0	0

Applied Loads (LegB)

Group ID	Axial Force(kip)	Shear Force(kip)
BC1	1.3923	0.0123

Anchor Rod Summary (LegB)

Anchor Rod Group ID	Critial Load ID	Pu (kip)	ϕPn (kip)	Vu (kip)	ϕVn (kip)	Mu (kip-ft)	ϕMn (kip-ft)	Capacity Ratio
1	61	-0.3481	38.8772	0.0031	17.4947	0	0	0.8527

Anchor Rod Data (LegC)

Group ID	QTY	Diameter (in)	Material	Bolt Circle (in)	lar (in)	Eta Factor, h
BC1	4	1_F1554 Gr.55_N	F1554 Gr.55	18	0	0.5

Custom Anchor Rod Connection Data (LegC)

Bolt Group	Resist Axial	Resist Shear	Grout Considered	Leg Mod Eccentricity	Consider Anchor Rod Eccentricity	Anchor Rod N.A Shift (in)	Total Eccentricity (in)
1	Yes	Yes	False	0	Yes	0	0
2	Yes	Yes	False	0	Yes	0	0
3	Yes	Yes	False	0	Yes	0	0
4	Yes	Yes	False	0	Yes	0	0

Applied Loads (LegC)

Group ID	Axial Force(kip)	Shear Force(kip)
BC1	-0.667	0.0022

Anchor Rod Summary (LegC)

Anchor Rod Group ID	Critial Load ID	Pu (kip)	ϕPn (kip)	Vu (kip)	ϕVn (kip)	Mu (kip-ft)	ϕMn (kip-ft)	Capacity Ratio
1	60	0.1667	34.0875	0.0006	22.0893	0	0	0.0023

DIAGONAL SUMMARY

Section ID	Tower Elevation (ft)	Member Description	Pu (Comp) (kip)	ϕc Pn (kip)	Pu (Tens) (kip)	ϕt Pn (kip)	Capacity Ratio (%)
1	100-80	RB7/8	2.1132	10.85	2.1775	19.4821	19.48
2	80-60	RB7/8	4.4564	10.85	2.5895	19.4821	41.07
3	60-40	RB7/8	4.2806	10.85	2.8938	19.4821	39.45
4	40-20	RB5/8	2.895	2.6424	0.8838	9.9403	~~109.56~~
5	20-4	RB5/8	1.6564	2.66	0	0	62.27

DIAGONAL SEGMENT SUMMARY

Section ID	Segment ID	Segment Elevation (ft)	Member Description	Pu (Comp) (kip)	ϕc Pn (kip)	Pu (Tens) (kip)	ϕt Pn (kip)	Capacity Ratio (%)
1	1	100-95.88	RB7/8	0.6476	10.85	0.5786	19.4821	5.97
1	2	95.88-91.96	RB7/8	2.1132	10.85	2.1775	19.4821	19.48
1	3	91.96-88.04	RB7/8	1.3955	10.85	0.3178	19.4821	12.86
1	4	88.04-84.12	RB7/8	1.2876	10.85	0	0	11.87
1	5	84.12-80	RB7/8	1.3263	10.85	0	0	12.22
2	1	80-75.88	RB7/8	1.4714	10.85	0	0	13.56
2	2	75.88-71.96	RB7/8	3.437	10.85	1.7683	19.4821	31.68
2	3	71.96-68.04	RB7/8	3.5026	10.85	1.8052	19.4821	32.28
2	4	68.04-64.12	RB7/8	3.8085	10.85	2.0829	19.4821	35.1
2	5	64.12-60	RB7/8	4.4564	10.85	2.5895	19.4821	41.07
3	1	60-55.88	RB7/8	4.2806	10.85	2.5546	19.4821	39.45
3	2	55.88-51.96	RB7/8	4.1881	10.85	2.8938	19.4821	38.6
3	3	51.96-48.04	RB7/8	3.8995	10.85	1.4453	19.4821	35.94
3	4	48.04-44.12	RB7/8	3.5172	10.85	0.9185	19.4821	32.42
3	5	44.12-40	RB7/8	3.4334	10.85	0.6212	19.4821	31.64
4	1	40-35.87	RB5/8	2.895	2.6424	0.8838	9.9403	~~109.56~~
4	2	35.87-31.96	RB5/8	2.409	2.6424	0.562	9.9403	91.17
4	3	31.96-28.04	RB5/8	2.1025	2.6424	0.2867	9.9403	79.57
4	4	28.04-24.12	RB5/8	1.7522	2.6424	0	0	66.31
4	5	24.12-20	RB5/8	1.5378	2.6424	0	0	58.2
5	1	20-15.9	RB5/8	1.6564	2.66	0	0	62.27
5	2	15.9-12	RB5/8	1.3779	2.66	0	0	51.8
5	3	12-8.1	RB5/8	1.4464	2.66	0	0	54.37
5	4	8.1-4	RB5/8	1.4204	2.66	0	0	53.4

DIAGONAL DETAIL

Section ID	Tower Elevation (ft)	Member Description	Gov. Axis	K	Lu (ft)	r (in)	KL/r	Area (in2)	Fy (ksi)	Fu (ksi)
1	100-80	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
2	80-60	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
3	60-40	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
4	40-20	RB5/8	y	0.9	2.3431	0.1562	161.9558	0.3068	36	58
5	20-4	RB5/8	y	0.9	2.3353	0.1562	161.4187	0.3068	36	58

DIAGONAL DETAIL SEGMENT

Section ID	Segment ID	Segment Elevation (ft)	Member Description	Gov. Axis	K	Lu (ft)	r (in)	KL/r	Area (in2)	Fy (ksi)	Fu (ksi)
1	1	100-95.88	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
1	2	95.88-91.96	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
1	3	91.96-88.04	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
1	4	88.04-84.12	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
1	5	84.12-80	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
2	1	80-75.88	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
2	2	75.88-71.96	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
2	3	71.96-68.04	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
2	4	68.04-64.12	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
2	5	64.12-60	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
3	1	60-55.88	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
3	2	55.88-51.96	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
3	3	51.96-48.04	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
3	4	48.04-44.12	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
3	5	44.12-40	RB7/8	y	0.938	2.0496	0.2188	105.4445	0.6013	36	58
4	1	40-35.87	RB5/8	y	0.9	2.3431	0.1562	161.9558	0.3068	36	58
4	2	35.87-31.96	RB5/8	y	0.9	2.3431	0.1562	161.9558	0.3068	36	58
4	3	31.96-28.04	RB5/8	y	0.9	2.3431	0.1562	161.9558	0.3068	36	58
4	4	28.04-24.12	RB5/8	y	0.9	2.3431	0.1562	161.9558	0.3068	36	58
4	5	24.12-20	RB5/8	y	0.9	2.3431	0.1562	161.9558	0.3068	36	58
5	1	20-15.9	RB5/8	y	0.9	2.3353	0.1562	161.4187	0.3068	36	58
5	2	15.9-12	RB5/8	y	0.9	2.3353	0.1562	161.4187	0.3068	36	58
5	3	12-8.1	RB5/8	y	0.9	2.3353	0.1562	161.4187	0.3068	36	58
5	4	8.1-4	RB5/8	y	0.9	2.3353	0.1562	161.4187	0.3068	36	58

Each diagonal solid round should have the same effective length 2.0496 ft

TOPHORIZONTAL SUMMARY

Section ID	Tower Elevation (ft)	Member Description	Pu (Comp) (kip)	ϕc Pn (kip)	Pu (Tens) (kip)	ϕt Pn (kip)	Capacity Ratio (%)
1	100-80	L2X2X3/16	0.205	13.1438	1.6296	23.166	7.03
2	80-60	L2X2X3/16	0	0	1.6791	23.166	7.25
3	60-40	L2X2X3/16	0.7867	13.1893	2.974	23.166	12.84
4	40-20	L2X2X1/8	0.0698	8.9401	1.6453	15.6816	10.49
5	20-4	L2X2X1/8	0	0	1.7017	15.6816	10.85
6	4-0	L 3x3x1/8	0	0	3.2612	23.7946	13.71

TOPHORIZONTAL SEGMENT SUMMARY

Section ID	Segment ID	Segment Elevation (ft)	Member Description	Pu (Comp) (kip)	ϕc Pn (kip)	Pu (Tens) (kip)	ϕt Pn (kip)	Capacity Ratio (%)
1	1	100-95.88	L2X2X3/16	0.0782	13.1438	0.1075	23.166	0.6
1	2	95.88-91.96	L2X2X3/16	0.205	13.1438	0.2035	23.166	1.56
1	3	91.96-88.04	L2X2X3/16	0	0	1.6296	23.166	7.03
1	4	88.04-84.12	L2X2X3/16	0	0	1.1054	23.166	4.77
1	5	84.12-80	L2X2X3/16	0	0	1.2076	23.166	5.21
2	1	80-75.88	L2X2X3/16	0	0	0.6984	23.166	3.01
2	2	75.88-71.96	L2X2X3/16	0	0	1.6791	23.166	7.25
2	3	71.96-68.04	L2X2X3/16	0	0	1.3713	23.166	5.92
2	4	68.04-64.12	L2X2X3/16	0	0	1.4783	23.166	6.38
2	5	64.12-60	L2X2X3/16	0	0	1.6633	23.166	7.18
3	1	60-55.88	L2X2X3/16	0	0	0.7251	23.166	3.13
3	2	55.88-51.96	L2X2X3/16	0.7867	13.1893	2.1792	23.166	9.41
3	3	51.96-48.04	L2X2X3/16	0	0	2.974	23.166	12.84
3	4	48.04-44.12	L2X2X3/16	0	0	2.4139	23.166	10.42
3	5	44.12-40	L2X2X3/16	0	0	2.3009	23.166	9.93
4	1	40-35.87	L2X2X1/8	0.0698	8.9401	1.1487	15.6816	7.32
4	2	35.87-31.96	L2X2X1/8	0	0	1.5451	15.6816	9.85
4	3	31.96-28.04	L2X2X1/8	0	0	1.5168	15.6816	9.67
4	4	28.04-24.12	L2X2X1/8	0	0	1.5607	15.6816	9.95
4	5	24.12-20	L2X2X1/8	0	0	1.6453	15.6816	10.49
5	1	20-15.9	L2X2X1/8	0	0	0.8673	15.6816	5.53
5	2	15.9-12	L2X2X1/8	0	0	1.7017	15.6816	10.85
5	3	12-8.1	L2X2X1/8	0	0	1.6814	15.6816	10.72
5	4	8.1-4	L2X2X1/8	0	0	1.5926	15.6816	10.16
6	1	4-0	L 3x3x1/8	0	0	3.2612	23.7946	13.71

TOPHORIZONTAL DETAIL

Section ID	Tower Elevation (ft)	Member Description	Gov. Axis	K	Lu (ft)	r (in)	KL/r	Area (in2)	Fy (ksi)	Fu (ksi)
1	100-80	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
2	80-60	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
3	60-40	L2X2X3/16	z	1.191	2.8525	0.394	103.4391	0.715	36	58
4	40-20	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
5	20-4	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
6	4-0	L 3x3x1/8	z	1.594	2.7463	0.6009	87.4201	0.7344	36	58

TOPHORIZONTAL DETAIL SEGMENT

Section ID	Segment ID	Segment Elevation (ft)	Member Description	Gov. Axis	K	Lu (ft)	r (in)	KL/r	Area (in2)	Fy (ksi)	Fu (ksi)
1	1	100-95.88	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
1	2	95.88-91.96	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
1	3	91.96-88.04	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
1	4	88.04-84.12	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
1	5	84.12-80	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
2	1	80-75.88	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
2	2	75.88-71.96	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
2	3	71.96-68.04	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
2	4	68.04-64.12	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
2	5	64.12-60	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
3	1	60-55.88	L2X2X3/16	z	1.191	2.8525	0.394	103.4391	0.715	36	58
3	2	55.88-51.96	L2X2X3/16	z	1.191	2.8525	0.394	103.4391	0.715	36	58
3	3	51.96-48.04	L2X2X3/16	z	1.191	2.8525	0.394	103.4391	0.715	36	58
3	4	48.04-44.12	L2X2X3/16	z	1.191	2.8525	0.394	103.4391	0.715	36	58
3	5	44.12-40	L2X2X3/16	z	1.191	2.8525	0.394	103.4391	0.715	36	58
4	1	40-35.87	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
4	2	35.87-31.96	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
4	3	31.96-28.04	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
4	4	28.04-24.12	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
4	5	24.12-20	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
5	1	20-15.9	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
5	2	15.9-12	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
5	3	12-8.1	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
5	4	8.1-4	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
6	1	4-0	L 3x3x1/8	z	1.594	2.7463	0.6009	87.4201	0.7344	36	58

BOTTOMHORIZONTAL SUMMARY

Section ID	Tower Elevation (ft)	Member Description	Pu (Comp) (kip)	ϕc Pn (kip)	Pu (Tens) (kip)	ϕt Pn (kip)	Capacity Ratio (%)
1	100-80	L2X2X3/16	0	0	0.6412	23.166	2.77
2	80-60	L2X2X3/16	0.8401	13.1438	1.7366	23.166	7.5
3	60-40	L2X2X3/16	0	0	1.1198	23.166	4.83
4	40-20	L2X2X1/8	0	0	0.8688	15.6816	5.54
5	20-4	L2X2X1/8	0	0	3.547	15.6816	22.62
6	4-0	FB 3/8x12	0.0541	63.993	0	0	0.08

BOTTOMHORIZONTAL SEGMENT SUMMARY

Section ID	Segment ID	Segment Elevation (ft)	Member Description	Pu (Comp) (kip)	ϕc Pn (kip)	Pu (Tens) (kip)	ϕt Pn (kip)	Capacity Ratio (%)
1	5	84.12-80	L2X2X3/16	0	0	0.6412	23.166	2.77
2	5	64.12-60	L2X2X3/16	0.8401	13.1438	1.7366	23.166	7.5
3	5	44.12-40	L2X2X3/16	0	0	1.1198	23.166	4.83
4	5	24.12-20	L2X2X1/8	0	0	0.8688	15.6816	5.54
5	4	8.1-4	L2X2X1/8	0	0	3.547	15.6816	22.62
6	1	4-0	FB 3/8x12	0.0541	63.993	0	0	0.08

BOTTOMHORIZONTAL DETAIL

Section ID	Tower Elevation (ft)	Member Description	Gov. Axis	K	Lu (ft)	r (in)	KL/r	Area (in2)	Fy (ksi)	Fu (ksi)
1	100-80	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
2	80-60	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
3	60-40	L2X2X3/16	z	1.191	2.8525	0.394	103.4391	0.715	36	58
4	40-20	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
5	20-4	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
6	4-0	FB 3/8x12	y	0.975	1.1569	0.1083	125.0678	4.5	36	58

BOTTOMHORIZONTAL DETAIL SEGMENT

Section ID	Segment ID	Segment Elevation (ft)	Member Description	Gov. Axis	K	Lu (ft)	r (in)	KL/r	Area (in2)	Fy (ksi)	Fu (ksi)
1	5	84.12-80	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
2	5	64.12-60	L2X2X3/16	z	1.186	2.8733	0.394	103.7563	0.715	36	58
3	5	44.12-40	L2X2X3/16	z	1.191	2.8525	0.394	103.4391	0.715	36	58
4	5	24.12-20	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
5	4	8.1-4	L2X2X1/8	z	1.193	2.8733	0.398	103.3166	0.484	36	58
6	1	4-0	FB 3/8x12	y	0.975	1.1569	0.1083	125.0678	4.5	36	58

GUY CABLE SUMMARY

Guy Elevation (ft)	Size (in)	Initial Tension (%)	Initial Tension (K)	Breaking Strength (K)	Tu (Tens) (kips)	ϕTn (Tens) (kips)	Capacity Ratio (%)
91.96	3/4	10	5.83	58.3	15.966	34.98	45.64
51.96	7/8	10	7.97	79.7	20.7217	47.82	43.33

Tower Summary Information

Section ID	Tower Elevation (ft)	Member Type	Member Description	Controlling Component	Pu (kip)	ϕPn (kip)	Capacity Ratio (%)	Result
1	100-80	RB2	LEG	Compression	11.871	74.0936	16.02	Pass
2	80-60	RB2	LEG	Compression	31.6561	74.0936	42.72	Pass
3	60-40	RB2-1/4	LEG	Compression	49.6669	107.3925	46.25	Pass
4	40-20	RB2	LEG	Compression	35.3104	74.0936	47.66	Pass

Tower Summary Information Cont...

Section ID	Tower Elevation (ft)	Member Type	Member Description	Controlling Component	Pu (kip)	ϕPn (kip)	Capacity Ratio (%)	Result
5	20-4	RB2	LEG	Compression	30.1277	74.6032	40.38	Pass
6	4-0	RB2	LEG	Compression	33.7537	98.3439	34.32	Pass
6	4-0	1_F1554 Gr.55_N	LEG	ANCHOR ROD**	-0.3481	38.8772	0.85	Pass
1	100-80	RB7/8	DIAGONAL	Compression	2.1132	10.85	19.48	Pass
2	80-60	RB7/8	DIAGONAL	Compression	4.4564	10.85	41.07	Pass
3	60-40	RB7/8	DIAGONAL	Compression	4.2806	10.85	39.45	Pass
4	40-20	RB5/8	DIAGONAL	Compression	2.895	2.6424	109.56	~~Fail~~
5	20-4	RB5/8	DIAGONAL	Compression	1.6564	2.66	62.27	Pass
1	100-80	L2X2X3/16	TOPHORIZONTAL	Tension	1.6296	23.166	7.03	Pass
2	80-60	L2X2X3/16	TOPHORIZONTAL	Tension	1.6791	23.166	7.25	Pass
3	60-40	L2X2X3/16	TOPHORIZONTAL	Tension	2.974	23.166	12.84	Pass
4	40-20	L2X2X1/8	TOPHORIZONTAL	Tension	1.6453	15.6816	10.49	Pass
5	20-4	L2X2X1/8	TOPHORIZONTAL	Tension	1.7017	15.6816	10.85	Pass
6	4-0	L 3x3x1/8	TOPHORIZONTAL	Tension	3.2612	23.7946	13.71	Pass
1	100-80	L2X2X3/16	BOTTOMHORIZONTAL	Tension	0.6412	23.166	2.77	Pass
2	80-60	L2X2X3/16	BOTTOMHORIZONTAL	Tension	1.7366	23.166	7.5	Pass
3	60-40	L2X2X3/16	BOTTOMHORIZONTAL	Tension	1.1198	23.166	4.83	Pass
4	40-20	L2X2X1/8	BOTTOMHORIZONTAL	Tension	0.8688	15.6816	5.54	Pass
5	20-4	L2X2X1/8	BOTTOMHORIZONTAL	Tension	3.547	15.6816	22.62	Pass
6	4-0	FB 3/8x12	BOTTOMHORIZONTAL	Compression	0.0541	63.993	0.08	Pass
	91.96-91.96	3/4	Guy Cable	Tension	15.966	34.98	45.64	Pass
	51.96-51.96	7/8	Guy Cable	Tension	20.7217	47.82	43.33	Pass
							Summary	
						LEG(4)	47.66	Pass
						LEG ANCHOR ROD(6)	0.85	Pass
						TOPHORIZONTAL(6)	13.71	Pass
						BOTTOMHORIZONTAL(5)	22.62	Pass
						DIAGONAL(4)	~~109.56~~	~~Fail~~
						Guy Cable (Panel 1)	45.64	Pass
						Rating	~~109.56~~	~~Fail~~

OpenTower is not calculating the capacity of the correct effective length. Please see calcs on following pages.

Tower Summary Information Cont...

Section ID	Tower Elevation (ft)	Member Type	Member Description	Controlling Component	Pu (kip)	ϕPn (kip)	Capacity Ratio (%)	Result

** Anchor Rod controlling component -

Dewberry

Job Number	50121956
Made by:	AMD
Date:	04/26/22
Checked by:	BGK
Date:	04/27/22

(West Hartford Center CT) - 5/8 " Solid Rod Check

\\bos-fs\Boston\Projects\50121487\50121956 - West Hartford Center CT\Engineering\Structural\Rev.3\Report Docs\Site Name_Rec & Rod Mount Member Check XX-XX-XX (V1. V1.1

Design Method

**References can be found in the AISC Steel Design Manual 14th Ed.*

LRFD

Tensile Yield Φ : 0.9
Tensile Rupture Φ : 0.75
Compression Φ : 0.9
Flexure Φ : 0.9

Member Properties

F_y = 36.0 ksi
F_u = 58.0 ksi
D = 5/8
R = 0.31 in

$I = \frac{\pi r^4}{4}$ I = 0.0075 in⁴
$r = \sqrt{\frac{I}{A}}$ r = 0.16 in
$Z = \frac{D^3}{6}$ Z = 0.04 in³
$S = \frac{\pi R^3}{4}$ S = 0.02 in³

U = 1.00 *(Table D3.1)*
A_g = 0.307 in² *(Sec. B4.3a)*
A_n = 0.307 in² *(Sec. B4.3b)*
A_e = 0.307 in² *(D3-1)*

Unbraced Length
L= 2.05 ft = 24.6 in

Effective Length Factor (Table C-A-7.1, AISC)
K = 0.90

Check Tension

Tensile Yielding (D2-1) = F_yA_g = 11.045 k **Tensile Yield Controls**
Tensile Rupture (D2-2) = F_uA_e = 17.794 k

P_n = 11.045 k
Φ = 0.90

ΦPn = 9.940 k > 0.884 k OK

STAAD Output

Check Compression

$\frac{KL}{r}$ = 141.7

KL/r = 141.7 > 133.7 $= 4.71\sqrt{\frac{E}{F_y}}$ *Use (E3-3)*

$$F_{cr} = \begin{cases} \left[0.658^{\frac{F_y}{F_e}}\right] F_y & \text{(E3-2)} \\ 0.877\, F_e & \text{(E3-3)} \end{cases} = 12.507 \text{ ksi}$$

$F_e = \frac{\pi^2 E}{\left(\frac{KL}{r}\right)^2} =$ 14.261 ksi *(E4-4)*

P_n *(E3-1)* = $F_{cr}A_g$ = 3.837 k
Φ = 0.9

ΦPn = 3.453 k > 2.895 k OK

STAAD Output

Utilization

Max Utilization of Member **83.8%**

Existing 5/8" solid round is adequate

APPENDIX B

REFERENCE MATERIAL

SITE PRO 1
A valmont COMPANY

1545 Pidco Drive
Plymouth, IN 46563
Phone: 574.936.4221
Fax: 574.936.8925
Email: SP1Engineering@valmont.com
www.sitepro1.com

August 13, 2020

Site Pro 1 / Valmont Mounting System:

Part Number = VFA12-HD
Part Description = 12' Heavy Duty V-Frame

Mount EPA (no antenna pipes / tie-back full length @ 20 deg):

EPA_N = 13.2 Sq-Ft	$EPA_{N\ (0.5''\ Ice)}$ = 19.5 Sq-Ft	$EPA_{N\ (1''\ Ice)}$ = 25.8 Sq-Ft
EPA_T = 9.2 Sq-Ft	$EPA_{T\ (0.5''\ Ice)}$ = 14.6 Sq-Ft	$EPA_{T\ (1''\ Ice)}$ = 19.5 Sq-Ft
Weight = 658 lb	$Weight_{(0.5''\ Ice)}$ =804 lb	$Weight_{(1''\ Ice)}$ = 1015 lb

Classification Rating:

Heavy 10

Design Standards

ANSI/TIA-222-G-2012
ANSI/TIA-222-H-2018
AT&T Mount Classification
ASCE 7-16
International Building Code 2018
TIA-5053

Analysis and Modeling Technique

An elastic, three-dimensional, frame, truss model was developed to examine the structural behavior of the mount. All orientations in the engineering model correspond with the assembly drawing constraints. The mount was analyzed with four (4) mounting locations (antenna, radio etc. + pipe) evenly spaced across the face of the mount, with no (0) vertical eccentricity. Wind directions considered were perpendicular (normal) to the face of the frame and at 30 degree increments up to 90 degrees (tangential) to the face of the frame. Wind, dead weight and ice weight on the mount was also included in the model.

Modeling Software

Autodesk Inventor
RISA-3D
ANSYS Workbench

SITE PRO 1
A valmont COMPANY
1545 Pidco Drive
Plymouth, IN 46563
Phone: 574.936.4221
Fax: 574.936.8925
Email: SP1Engineering@valmont.com
www.sitepro1.com

Analysis Design Criteria

Maximum Mount Height	400'
Maximum Ultimate Wind Speed, no Ice	180 mph 3 sec gust
Maximum Design Wind Speed, no Ice	140 mph 3 sec gust
Maximum Design Wind Speed on Ice	60 mph 3 sec gust
Structure Class	I or II
Exposure Category	B or C
Topographic Category	I
Maximum Design Ice Thickness, t_i	1" (2.75" factored ice)
Wind Direction Probability Factor, K_d	0.95
Gust Effect Factor, G_h	1.0

Capacity Results

The following factored loads at each mounting location represent the capacity of the mount based on the criteria and modeling technique described above.

Normal Wind Load (no ice), F_{no}	.....1550 lb	[969 lb Non-Factored]
Tangential Wind Load (no ice), F_{to}	.....1550 lb	[969 lb Non-Factored]
Vertical (Dead) Load, F_{zo}	.....775 lb	[646 lb Non-Factored]
Normal Wind on Ice, F_{ni}	.....525 lb	
Tangential Wind on Ice, F_{ti}	.....525 lb	
Vertical (Dead + Ice) Load, F_{zi}	.....2100 lb	
Normal Maintenance Wind Load, F_{nm}	.....155 lb	
Tangential Maintenance Wind Load, F_{tm}	.....155 lb	
Vertical Dead Load, F_{zm}	.....775 lb	[646 lb Non-Factored]
Vertical Live Load, L_M*	.....750 lb	[500 lb Non-Factored]

* In addition to a nominal Live Load of two (2) 250 lb concentrated on either side of a mounting location to provide access for climbers.

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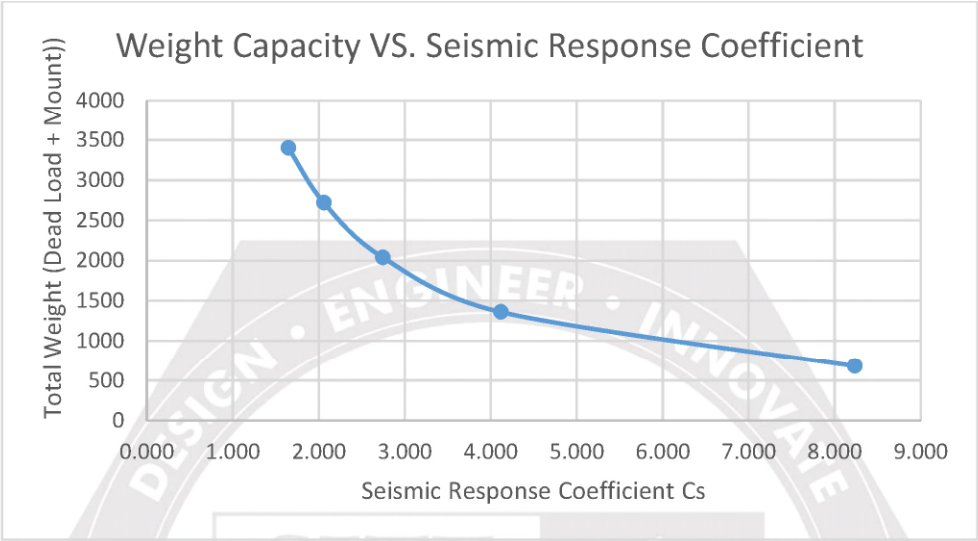
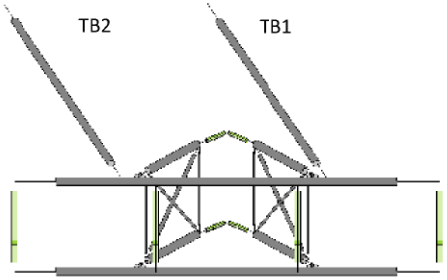
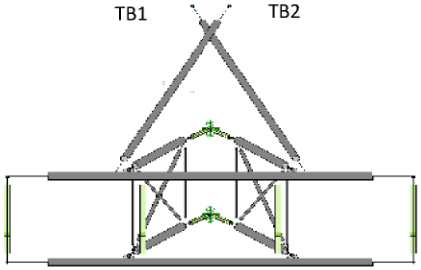
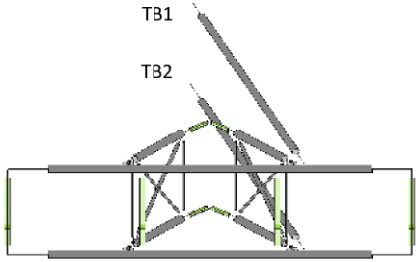
Seismic Results

The following Seismic Response Coefficient chart below represent the allowable weight capacity of the bracket based on the criteria and modeling technique described in TIA-222-H Section 2.7.7.1.1. Total allowable seismic shear must be less than or equal to the Capacity Results (F_{no}) stated above.



Frame P/N	Classification	Ice Condition	Mount Capacity	Tie-Back Position	Tie-Back Reaction (Max Axial Force)		Max Leg Reactions Total Frame Reaction (lbs)		
			Offset (Neg - Pos)		TB1 (Lbs)	TB2 (Lbs)	Vertical Load	Normal Load	Tangential Load
VFA12-HD	HEAVY-10	No Ice	87.0%	1	4941	5300	2175	6168	4436
	HEAVY-10	No Ice	87.0%	2	6283	6379	2178	6168	8195
	HEAVY-10	No Ice	103.0%	3	5517	5513	2195	8520	5394
	HEAVY-10	Ice	87.0%	1	4590	4510	3566	6168	4436
	HEAVY-10	Ice	87.0%	2	6283	6379	3566	6168	8195
	HEAVY-10	Ice	103.0%	3	5517	5513	3608	8520	5394
	Tie -Back Position 1			Tie-Back Position 2			Tie-Back Position 3		
	-20 deg + 20 deg Top Parallel			-20 deg - 20 deg Top Cross			-20 deg Same Side Stacked		
									

verizon fuze | RFDS

EAST > North East > New England > New England West > WEST HARTFORD CENTER CT

Brauer, Mark - mark.brauer2@verizonwireless.com - 2/14/2022 11:54:26

Project Details

FUZE Project ID:	16273383
Project Name:	5G L-Sub6 - Carrier Add
Project Alt Name:	WEST HARTFORD CENTER CT - MKT 68 - MODIFICATION
Project Type:	Modification
Modification Type:	RF
Designed Sector Carrier 4G:	18
Designed Sector Carrier 5G:	3
Additional Sector Carrier 4G:	N/A
Additional Sector Carrier 5G:	N/A
FP Solution Type & Tech Type:	MODIFICATION;5G_850,5G_L-Sub6-Prep,5G_Radio Swap
Carrier Aggregation:	false
MPT Id:	
eCIP-0:	false
Suffix:	

Location Information

Site ID:	325091
E-NodeB ID:	0689551,068960
PSLC:	535840
Switch Name:	Windsor 1
Tower Owner:	
Tower Type:	Building with tower
Site Type:	MACRO
Site Sub Type:	SPOKE
Street Address:	14-20 Isham Road
City:	West Hartford
State:	CT
Zip Code:	06107
County:	Hartford
Latitude:	41.761556 / 41° 45' 41.6016" N
Longitude:	-72.740375 / 72° 44' 25.35" W

RFDS Project Scope:

Sub 6 add
Sub 6 centerline over CBRS
Update 09/20/2021 - added "removed" antennas (1) BXA-171063-8BF and (2) SACP 2x5516
01/05/2022 - No change, refreshing RFDS so FUZE VCP far edge task shows correct information.
02/14/2022 - due to previous CBRS being lease only and never constructed, RFDS is being updated to include the previous work.

Antenna Summary

Added

700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
				LTE		SAMSUNG	XXDWMM-12.5-65-8T-CBRS Port1 3550 8DT	104	104.5	180(B) 290(C) 60(A)	false	true	PHYSICAL	3	
					5G	Samsung	MT6407-77A	107.5	109	180(B) 290(C) 60(A)	false	false	PHYSICAL	3	

Removed

700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
						Antel	BXA-171063-8BF	106	108	60(01)	false	false	PHYSICAL	1	
						Swedcom	SACP 2x5516	106	108.3	180(02) 290(03)	false	false	PHYSICAL	2	

Retained

700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Centerline	Tip Height	Azimuth	RET	4xRx	Inst. Type	Quantity	Item ID
	CDMA					AMPHENOL	BXA-80063/4	106	108	60(D1)	false	false	PHYSICAL	1	BXA-80063/4
LTE	LTE 5G	LTE	LTE			ANDREW	SBNHH-1D65B	106	109	180(B) 290(C) 60(A)	true	true	PHYSICAL	6	SBNHH-1D65B
	CDMA					SWEDCOM	SLCP 2X6014	106	108.2	180(D2) 290(D3)	false	false	PHYSICAL	2	

Added: 6 **Removed:** 3 **Retained:** 9

Equipment Summary

Added

Equipment Type	Location	700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
Hybrid Cable	Tower							CommScope	HFT1206-24SV2-140			PHYSICAL	2	HFT1206-24SV2-140
OVP Box	Tower							RayCap	RVZDC-6627-PF-48			PHYSICAL	1	RVZDC-6627-PF-48
RRU	Tower					LTE		Samsung	CBRS RRH - RT4401-48A			PHYSICAL	3	SLS-BR0542EAEX
RRU	Tower						5G	Samsung	MT6407-77A			PHYSICAL	3	
Other	Shelter							Quad	F1906-002RP48			PHYSICAL	1	F1906-002RP48
OVP Box	Shelter							RayCap	RVZDC-4520-RM-48			PHYSICAL	1	RVZDC-4520-RM-48

Removed

Equipment Type	Location	700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
OVP Box	Tower							N/A	6 OVP			PHYSICAL	2	
Hybrid Cable	Tower							N/A	6x12 Hybriflex			PHYSICAL	2	

Retained

Equipment Type	Location	700	850	1900	AWS	CBRS	L-Sub6	Make	Model	Cable Length	Cable Size	Install Type	Quantity	Item ID
Mount	Tower							COMMSCOPE	BSAMNT-SBS-1-2			PHYSICAL	3	
Coaxial Cables	Tower							N/A	1-5/8" Coax			PHYSICAL	6	
RRU	Tower			LTE	LTE			Samsung	B2/B66A RRH-BR049 (RFV01U-D1A)			PHYSICAL	3	
RRU	Tower	LTE	LTE 5G					Samsung	B5/B13 RRH-BR04C (RFV01U-D2A)			PHYSICAL	3	

Service Info

CBRS 3_5 GHz				0001		
Sector				**19**	**20**	**21**
Azimuth				60	180	290
Cell / ENode B ID				068960	068960	068960
Antenna Model				XXDWMM-12.5-65-8T-C BRS_Port1_3550_8DT	XXDWMM-12.5-65-8T-C BRS_Port1_3550_8DT	XXDWMM-12.5-65-8T-C BRS_Port1_3550_8DT
Antenna Make				SAMSUNG	SAMSUNG	SAMSUNG
Antenna Centerline(Ft)				104	104	104
Mechanical Down-Tilt(Deg.)				0	0	0
Electrical Down-Tilt				8	8	8
Tip Height				104.5	104.5	104.5
Regulatory Power				38.69	38.69	38.69
DLEARFCN				55990	55990	55990
Channel Bandwidth(MHz)				10	10	10
Total ERP (W)				53.06	53.06	53.06
TMA Make						
TMA Model						
RRU Make				Samsung	Samsung	Samsung
RRU Model				CBRS RRH - RT4401-48A	CBRS RRH - RT4401-48A	CBRS RRH - RT4401-48A
Number of Tx, Rx Lines				4,4	4,4	4,4
Position				4	4	4
Transmitter Id				9038549	9038550	9038552
Source				ATOLL_API	ATOLL_API	ATOLL_API

700 MHz LTE		0000			0001	
Sector	**01**	**02**	**03**	**01**	**02**	**03**
Azimuth	60	180	290	60	180	290
Cell / ENode B ID	068960	068960	068960	068960	068960	068960
Antenna Model	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B
Antenna Make	ANDREW	ANDREW	ANDREW	ANDREW	ANDREW	ANDREW
Antenna Centerline(Ft)	106	106	106	106	106	106
Mechanical Down-Tilt(Deg.)	0	0	0	0	0	0
Electrical Down-Tilt	3	5	5	3	5	5
Tip Height	109	109	109	109	109	109
Regulatory Power	76.99	77.44	77.44	77.46	77.46	77.46
DLEARFCN	5230	5230	5230	5230	5230	5230
Channel Bandwidth(MHz)	10	10	10	10	10	10
Total ERP (W)	692.95	696.95	696.95	697.11	697.11	697.11
TMA Make						
TMA Model						
RRU Make	Samsung	Samsung	Samsung	Samsung	Samsung	Samsung
RRU Model	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)
Number of Tx, Rx Lines	4,4	4,4	4,4	4,4	4,4	4,4
Position				2,3	2,3	2,3
Transmitter Id	6987778	6987782	6987786	9038525	9038541	9038545
Source	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API

850 MHz LTE		0000			0001	
Sector	**01**	**02**	**03**	**01**	**02**	**03**
Azimuth	60	180	290	60	180	290
Cell / ENode B ID	068960	068960	068960	068960	068960	068960
Antenna Model	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B
Antenna Make	ANDREW	ANDREW	ANDREW	ANDREW	ANDREW	ANDREW
Antenna Centerline(Ft)	106	106	106	106	106	106
Mechanical Down-Tilt(Deg.)	0	0	0	0	0	0
Electrical Down-Tilt	3	5	5	3	5	5
Tip Height	109	109	109	109	109	109
Regulatory Power	366.87	366.96	366.96	366.87	366.96	366.96
DLEARFCN	2450	2450	2450	2450	2450	2450
Channel Bandwidth(MHz)	10	10	10	10	10	10
Total ERP (W)	825.47	825.66	825.66	825.47	825.66	825.66
TMA Make						
TMA Model						
RRU Make	Samsung	Samsung	Samsung	Samsung	Samsung	Samsung
RRU Model	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)
Number of Tx, Rx Lines	4,4	4,4	4,4	4,4	4,4	4,4
Position				2,3	2,3	2,3
Transmitter Id	6987781	6987785	6987789	9038539	9038544	9038548
Source	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API

850 MHz CDMA		0000			0001	
Sector	**D1**	**D2**	**D3**	**D1**	**D2**	**D3**
Azimuth	60	180	290	60	180	290
Cell / ENode B ID						
Antenna Model	BXA-80063/4	SLCP 2X6014	SLCP 2X6014	BXA-80063/4	SLCP 2X6014	SLCP 2X6014
Antenna Make	AMPHENOL	SWEDCOM	SWEDCOM	AMPHENOL	SWEDCOM	SWEDCOM
Antenna Centerline(Ft)	106	106	106	106	106	106
Mechanical Down-Tilt(Deg.)	0	4	4	0	4	4
Electrical Down-Tilt	0	0	0	0	0	0
Tip Height	108	108.2	108.2	108	108.2	108.2
Regulatory Power	431.52	496.59	496.59	431.52	496.59	496.59
DLEARFCN	201, 242, 283	201, 242, 283	201, 242, 283	201, 242, 283	201, 242, 283	201, 242, 283
Channel Bandwidth(MHz)	3	3	3	3	3	3
Total ERP (W)						
TMA Make						
TMA Model						
RRU Make						
RRU Model						
Number of Tx, Rx Lines	2,2	2,2	2,2	2,2	2,2	2,2
Position						
Transmitter Id						
Source	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API

850 MHz 5GNR		0000			0001	
Sector	**0046**	**0047**	**0048**	**0046**	**0047**	**0048**
Azimuth	60	180	290	60	180	290
Cell / ENode B ID	0689551	0689551	0689551	0689551	0689551	0689551
Antenna Model	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B
Antenna Make	ANDREW	ANDREW	ANDREW	ANDREW	ANDREW	ANDREW
Antenna Centerline(Ft)	106	106	106	106	106	106
Mechanical Down-Tilt(Deg.)	0	0	0	0	0	0
Electrical Down-Tilt	3	5	5	3	5	5
Tip Height	109	109	109	109	109	109
Regulatory Power	366.87	366.96	366.96	366.87	366.96	366.96
DLEARFCN	2450	2450	2450	2450	2450	2450
Channel Bandwidth(MHz)	10	10	10	10	10	10
Total ERP (W)	825.47	825.66	825.66	825.47	825.66	825.66
TMA Make						
TMA Model						
RRU Make	Samsung	Samsung	Samsung	Samsung	Samsung	Samsung
RRU Model	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)	B5/B13 RRH-BR04C (RFV01U-D2A)
Number of Tx, Rx Lines	4,4	4,4	4,4	4,4	4,4	4,4
Position				2,3	2,3	2,3
Transmitter Id	6987781	6987785	6987789	9038539	9038544	9038548
Source	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API

1900 MHz LTE		0000			0001	
Sector	**01**	**02**	**03**	**01**	**02**	**03**
Azimuth	60	180	290	60	180	290
Cell / ENode B ID	068960	068960	068960	068960	068960	068960
Antenna Model	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B
Antenna Make	ANDREW	ANDREW	ANDREW	ANDREW	ANDREW	ANDREW
Antenna Centerline(Ft)	106	106	106	106	106	106
Mechanical Down-Tilt(Deg.)	0	0	0	0	0	0
Electrical Down-Tilt	3	5	5	1	3	3
Tip Height	109	109	109	109	109	109
Regulatory Power	289.24	283.76	283.76	290.31	290.31	290.31
DLEARFCN	1050	1050	1050	1050	1050	1050
Channel Bandwidth(MHz)	10	10	10	10	10	10
Total ERP (W)	1586.72	1556.68	1556.68	1592.58	1592.58	1592.58
TMA Make						
TMA Model						
RRU Make	Samsung	Samsung	Samsung	Samsung	Samsung	Samsung
RRU Model	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)
Number of Tx, Rx Lines	4,4	4,4	4,4	4,4	4,4	4,4
Position				3	3	3
Transmitter Id	6987779	6987783	6987787	9038532	9038542	9038546
Source	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API

2100 MHz LTE	0000			0001		
Sector	**01**	**02**	**03**	**01**	**02**	**03**
Azimuth	60	180	290	60	180	290
Cell / ENode B ID	068960	068960	068960	068960	068960	068960
Antenna Model	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B	SBNHH-1D65B
Antenna Make	ANDREW	ANDREW	ANDREW	ANDREW	ANDREW	ANDREW
Antenna Centerline(Ft)	106	106	106	106	106	106
Mechanical Down-Tilt(Deg.)	0	0	0	0	0	0
Electrical Down-Tilt	1	3	3	1	3	3
Tip Height	109	109	109	109	109	109
Regulatory Power	143.23	140.42	140.42	144.05	144.05	144.05
DLEARFCN	2050	2050	2050	2050	2050	2050
Channel Bandwidth(MHz)	20	20	20	20	20	20
Total ERP (W)	1571.45	1540.64	1540.64	1580.52	1580.52	1580.52
TMA Make						
TMA Model						
RRU Make	Samsung	Samsung	Samsung	Samsung	Samsung	Samsung
RRU Model	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)	B2/B66A RRH-BR049 (RFV01U-D1A)
Number of Tx, Rx Lines	4,4	4,4	4,4	4,4	4,4	4,4
Position				2	2	2
Transmitter Id	6987780	6987784	6987788	9038536	9038543	9038547
Source	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API	ATOLL_API

nL-Sub6				0001		
Sector				**0046**	**0047**	**0048**
Azimuth				60	180	290
Cell / ENode B ID				0689551	0689551	0689551
Antenna Model				MT6407-77A	MT6407-77A	MT6407-77A
Antenna Make				Samsung	Samsung	Samsung
Antenna Centerline(Ft)				107.5	107.5	107.5
Mechanical Down-Tilt(Deg.)				0	0	0
Electrical Down-Tilt				6	6	6
Tip Height				109	109	109
Regulatory Power				1314.12	1314.12	1314.12
DLEARFCN				648672	648672	648672
Channel Bandwidth(MHz)				60	60	60
Total ERP (W)				21627.19	21627.19	21627.19
TMA Make						
TMA Model						
RRU Make				Samsung	Samsung	Samsung
RRU Model				MT6407-77A	MT6407-77A	MT6407-77A
Number of Tx, Rx Lines				2,2	2,2	2,2
Position				4	4	4
Transmitter Id				9038566	9038567	9038568
Source				ATOLL_API	ATOLL_API	ATOLL_API

Service Comments

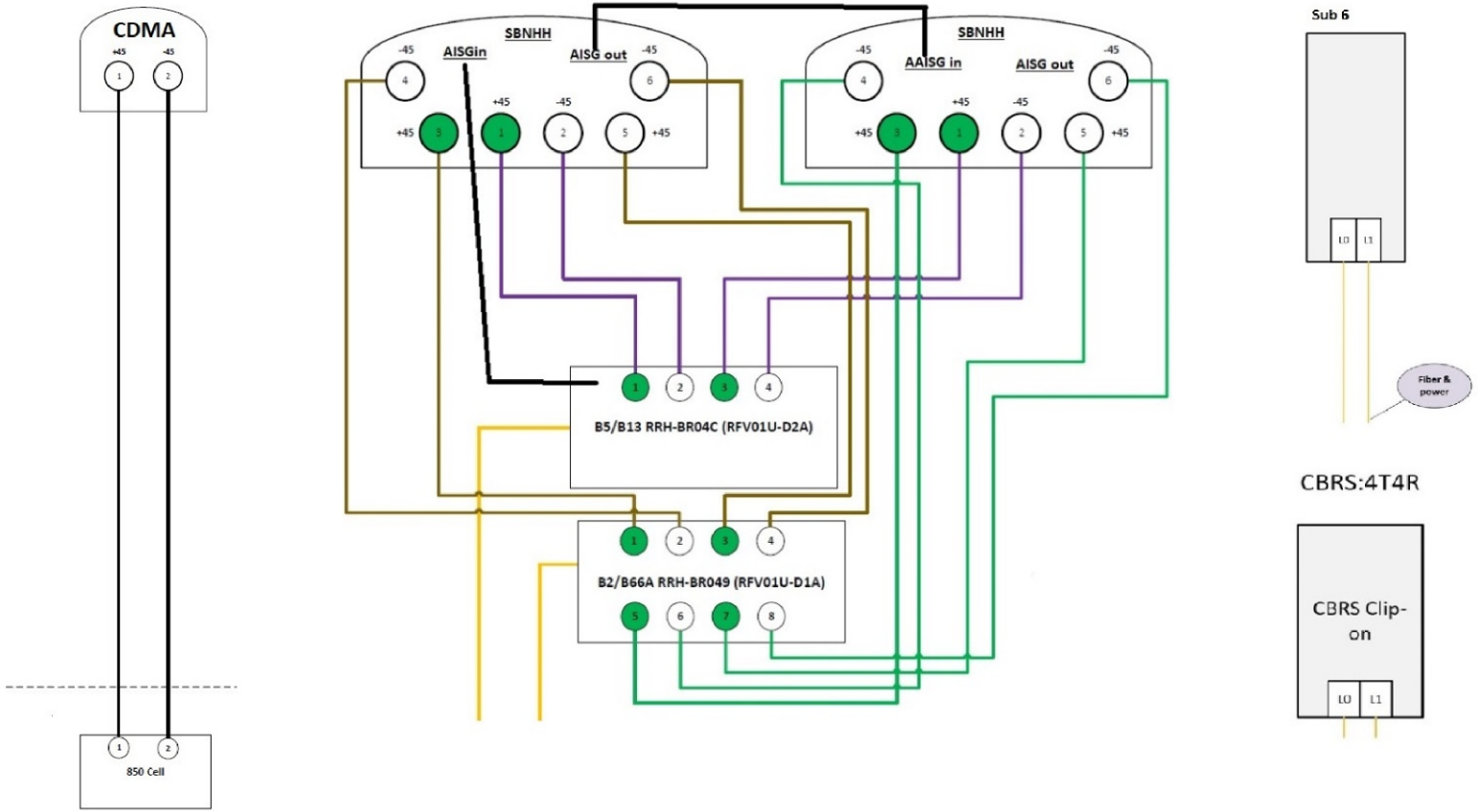
Callsigns Per Antenna

Sector	Antenna Make	Antenna Model	Ant CL Height AGL	Tip Height	Azimuth (TN)	Elec Tilt	Mech Tilt	Gain	Beam Width	Regulatory Power	Callsigns						
											700	850	1900	2100	28 GHz	31 GHz	39 GHz
No data available.																	

Callsigns

Callsign	Market	Radio Code	Market Number	Block	State	County	Licensee Name	Wholly Owned	Total MHZ	Freq Range 1	Freq Range 2	Freq Range 3	Freq Range 4	Regulatory Power	Threshold (W)	POPs /Sq Mi	Status	Action	Approved for Insvc
WQJQ689	Northeast	WU	REA001	C	CT	Hartford	Cellco Partnership	Yes	22.000	746.000-757.000	776.000-787.000	.000-.000	.000-.000	77.46	1000	1216.19	Active	added	Yes
KNKA404	Hartford-New Britain-Bristol, CT	CL	CMA032	A	CT	Hartford	Cellco Partnership	Yes	25.000	824.000-835.000	869.000-880.000	845.000-846.500	890.000-891.500	496.59	500	1216.19	Active	retained	Yes
WPOJ730	Hartford, CT	CW	BTA184	C	CT	Hartford	Cellco Partnership	Yes	15.000	1895.000-1902.500	1975.000-1982.500	.000-.000	.000-.000	290.31	1640	1216.19	Active	added	Yes
KNLH251	Hartford, CT	CW	BTA184	F	CT	Hartford	Cellco Partnership	Yes	10.000	1890.000-1895.000	1970.000-1975.000	.000-.000	.000-.000	290.31	1640	1216.19	Active	added	Yes
CBRS_CALI	UNLICENSED	3.5 GHz	UNLICEN	UNLICI	CT	Hartford	UNLICENSED	UNLICI	UNLICEN	UNLICENSED-UNLICENSED	UNLICENSED-UNLICENSED	UNLICENSED-UNLICENSED	UNLICENSED-UNLICENSED	38.69		1216.19	Active	added	No
WRLD513	D09003 - Hartford, CT	PL	D09003	0	CT	Hartford	Verizon Wireless Network Procurement LP	Yes	100.000	3550.000-3650.000	.000-.000	.000-.000	.000-.000	38.69	501	.00	Active	added	Yes
WRLD515	D09003 - Hartford, CT	PL	D09003	0	CT	Hartford	Verizon Wireless Network Procurement LP	Yes	100.000	3550.000-3650.000	.000-.000	.000-.000	.000-.000	38.69	501	.00	Active	added	Yes
WRLD514	D09003 - Hartford, CT	PL	D09003	0	CT	Hartford	Verizon Wireless Network Procurement LP	Yes	100.000	3550.000-3650.000	.000-.000	.000-.000	.000-.000	38.69	501	.00	Active	added	Yes
WQGB276	Hartford-New Britain-Bristol, CT	AW	CMA032	A	CT	Hartford	Cellco Partnership	Yes	20.000	1710.000-1720.000	2110.000-2120.000	.000-.000	.000-.000	144.05	1640	1216.19	Active	added	Yes
WRNE581	New York, NY	PM	PEA001	A1	CT	Hartford	Cellco Partnership	Yes	20.000	3700.000-3720.000	.000-.000	.000-.000	.000-.000	1314.12	1640	1216.19	Active	added	Yes
WRNE582	New York, NY	PM	PEA001	A2	CT	Hartford	Cellco Partnership	Yes	20.000	3720.000-3740.000	.000-.000	.000-.000	.000-.000	1314.12	1640	1216.19	Active	added	Yes
WRNE583	New York, NY	PM	PEA001	A3	CT	Hartford	Cellco Partnership	Yes	20.000	3740.000-3760.000	.000-.000	.000-.000	.000-.000	1314.12	1640	1216.19	Active	added	Yes
WQGA906	New York-No. New Jer.-Long Island, NY-NJ-CT-PA-MA-	AW	BEA010	B	CT	Hartford	Cellco Partnership	Yes	20.000	1720.000-1730.000	2120.000-2130.000	.000-.000	.000-.000	144.05	1640	1216.19	Active	added	Yes
WRBA708	Hartford, CT	UU	BTA184	L1	CT	Hartford	Cellco Partnership	Yes	325.000	27500.000-27600.000	27700.000-27925.000	.000-.000	.000-.000			1216.19	Active		Yes
WRBA709	Hartford, CT	UU	BTA184	L2	CT	Hartford	Cellco Partnership	Yes	325.000	27925.000-28050.000	28150.000-28350.000	.000-.000	.000-.000			1216.19	Active		Yes
WRHD609	New York, NY	UU	PEA001	M1	CT	Hartford	Straight Path Spectrum, LLC	Yes	100.000	37600.000-37700.000	.000-.000	.000-.000	.000-.000			1216.19	Active		Yes
WRHD610	New York, NY	UU	PEA001	M10	CT	Hartford	Straight Path Spectrum, LLC	Yes	100.000	38500.000-38600.000	.000-.000	.000-.000	.000-.000			1216.19	Active		Yes
WRHD611	New York, NY	UU	PEA001	M2	CT	Hartford	Straight Path Spectrum, LLC	Yes	100.000	37700.000-37800.000	.000-.000	.000-.000	.000-.000			1216.19	Active		Yes
WRHD612	New York, NY	UU	PEA001	M3	CT	Hartford	Straight Path Spectrum, LLC	Yes	100.000	37800.000-37900.000	.000-.000	.000-.000	.000-.000			1216.19	Active		Yes
WRHD613	New York, NY	UU	PEA001	M4	CT	Hartford	Straight Path Spectrum, LLC	Yes	100.000	37900.000-38000.000	.000-.000	.000-.000	.000-.000			1216.19	Active		Yes

WRHD614	New York, NY	UU	PEA001	M5	CT	Hartford	Straight Path Spectrum, LLC	Yes	100.000	38000.000-38100.000	.000-.000	.000-.000	.000-.000			1216.19	Active		Yes
WRHD615	New York, NY	UU	PEA001	M6	CT	Hartford	Straight Path Spectrum, LLC	Yes	100.000	38100.000-38200.000	.000-.000	.000-.000	.000-.000			1216.19	Active		Yes
WRHD616	New York, NY	UU	PEA001	M7	CT	Hartford	Straight Path Spectrum, LLC	Yes	100.000	38200.000-38300.000	.000-.000	.000-.000	.000-.000			1216.19	Active		Yes
WRHD617	New York, NY	UU	PEA001	M8	CT	Hartford	Straight Path Spectrum, LLC	Yes	100.000	38300.000-38400.000	.000-.000	.000-.000	.000-.000			1216.19	Active		Yes
WRHD618	New York, NY	UU	PEA001	M9	CT	Hartford	Straight Path Spectrum, LLC	Yes	100.000	38400.000-38500.000	.000-.000	.000-.000	.000-.000			1216.19	Active		Yes
WRHD619	New York, NY	UU	PEA001	N1	CT	Hartford	Straight Path Spectrum, LLC	Yes	100.000	38600.000-38700.000	.000-.000	.000-.000	.000-.000			1216.19	Active	N/A	No
PEND1050	Northeast	CC	REA001	A	CT	Hartford	Cellco Partnership	Yes	.000	.000-.000	.000-.000	.000-.000	.000-.000		1640	1216.19	Active		No
WRNE584	New York, NY	PM	PEA001	A4	CT	Hartford	Cellco Partnership	Yes	20.000	3760.000-3780.000	.000-.000	.000-.000	.000-.000		1640	1216.19	Active		No
WRNE585	New York, NY	PM	PEA001	A5	CT	Hartford	Cellco Partnership	Yes	20.000	3780.000-3800.000	.000-.000	.000-.000	.000-.000		1640	1216.19	Active		No
WRNE586	New York, NY	PM	PEA001	B1	CT	Hartford	Cellco Partnership	Yes	20.000	3800.000-3820.000	.000-.000	.000-.000	.000-.000		1640	1216.19	Active		No
WRNE587	New York, NY	PM	PEA001	B2	CT	Hartford	Cellco Partnership	Yes	20.000	3820.000-3840.000	.000-.000	.000-.000	.000-.000		1640	1216.19	Active		No
WRNE588	New York, NY	PM	PEA001	B3	CT	Hartford	Cellco Partnership	Yes	20.000	3840.000-3860.000	.000-.000	.000-.000	.000-.000		1640	1216.19	Active		No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+45
-45
1
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850 Cell
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B5/B13 RRH-BR04C (RFV01U-D2A)
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B2/B66A RRH-BR049 (RFV01U-D1A)
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Sub 6
L0
L1
Fiber & power
CBRS:4T4R
CBRS Clip-on
L0
L1

Dewberry

July 22, 2022

Mr. Alex Tyurin
Verizon Wireless
20 Alexander Drive
Wallingford, CT 06492

Verizon Site Name: **West Hartford Center CT**
Site No.: **535840**
Site Address: **14-20 Isham Road**
West Hartford, CT 06107

CSC Reference #: **EM-VER-155-211105**

To Whom It May Concern:

Dewberry Engineers Inc. (Dewberry) is providing a letter of compliance for the above referenced project. All inspections were limited to aspects of installation visual from ground level following construction activities & contractor provided photos. The following are the basis for substantiating compliance with the modification:

- September 28, 2021 – Previous Mount Analysis Report (By Maser Consulting)
- March 16, 2022 – Updated Mount Analysis Report (By Maser Consulting)
- April 27, 2022 - Structural Analysis Report (By Dewberry)
- May 03, 2022 –Rev-2 Construction Drawings (By Dewberry)
- June 21, 2022 - Mount Post-Modification Inspection Report (By Maser Consulting)
- June 28, 2022– Field Report #1 (By Dewberry)

The CSC decision EM-VER-155-211105 was based on a Mount Analysis by Maser Consulting dated September 28, 2021. The installation completed was based upon a newer Mount Analysis dated March 26, 2022. The change in final scope was to swap the existing mounts with new mounts, rather than modifying the existing mounts.

Based on visual observations, it appears that the project is constructed in general conformance with the applicable plans and specifications. If you have any questions, please do not hesitate to contact Dewberry Engineers Inc.

Sincerely,
Dewberry Engineers Inc.

Benjamin Revette, P.E
Associate Vice President