

September 13, 2023

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

Re: **Notice of Exempt Modification – Facility Modification
8 Ferris Road, Newtown, Connecticut**

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains a wireless telecommunications facility at the above-referenced address (the “Property”). Cellco’s facility consists of antennas and remote radio heads attached to a tower. Equipment associated with the facility is located on the ground adjacent to the tower. The tower was approved by the Town of Newtown (“Town”) in November of 1998. Cellco’s shared use of the tower was approved by the Siting Council (“Council”) in January of 2002 (TS-VER-097-020102). A copy of the Town’s tower approval and Cellco’s tower share approval are included in Attachment 1.

Cellco’s proposed modification involves the installation of six (6) interference mitigation filters (“Filters”) on its existing antenna platform and mounting assembly. The Filter specification sheet is included in Attachment 2.

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

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

1. The proposed modification will not result in an increase in the height of the existing tower. The Filters will be installed on Cellco’s existing antenna platform and mounting assembly.

Melanie A. Bachman, Esq.
September 13, 2023
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2. The proposed modifications will not involve any change to ground-mounted equipment and therefore, will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The installation of Cellco's new Filters will not result in a change to radio frequency (RF) emissions from the facility. Therefore, no new RF emissions information is included in this filing.

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

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

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

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

Sincerely,



Kenneth C. Baldwin

Enclosures

Copy to:

Daniel Rosenthal, First Selectman
Rob Sibley, Director of Land Use
Erich and Patricia Gersch, Property Owners
Alex Tyurin, Verizon Wireless

ATTACHMENT 1



TOWN OF NEWTOWN
ZONING BOARD OF APPEALS

DOCKET DECISION 98-24

Application of Nextel Communications of the Mid-Atlantic Inc. for a Special Permit under Section 4.18.511 to construct a tower over 30 feet in height and a variance of Section 4.05.100 of the Zoning Regulations. The property is located at 8 Ferris Road in the Town of Newtown in a R-1 Zone.

Having considered the documentation and testimony presented at a public hearing held on October 7, 1998, the Board voted to APPROVE the application as presented with the following stipulations:

1. A 12' chain-link fence be erected around the area of the installation.
2. A landscape plan must be submitted to the Board for approval before installation.
3. If the current use is changed or abandoned, the complete installation must be either removed within 60 days or have reapplied to the Board within 60 days.

The Board therefore APPROVES the application as presented with the above-stated stipulations.

The Board orders further that the effective date of this decision shall be November 13, 1998, and that a certified copy hereof shall be filed in the office of the Town Clerk of the Town of Newtown and that public notice of such filing shall be published in the November 13, 1998 issue of the Newtown Bee.

ZONING BOARD OF APPEALS OF THE TOWN OF NEWTOWN


Charles E. Annett, III, Chairman

I hereby certify that the adoption of the foregoing decision is recorded in the minutes of the Zoning Board of Appeals of the Town of Newtown in the form of a resolution, the vote of which was as follows:

Charles E. Annett....."Yes"
Alan Clavette....."Yes"
Timothy J. Cronin....."Yes"

Sally J. O'Neil....."Yes"
Michael Daubert....."Yes"


Sally J. O'Neil, Secretary Pro-tem

November 12, 1998

Newtown, Ct.



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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

E-Mail: siting.council@po.state.ct.us

Web Site: www.state.ct.us/csc/index.htm

January 18, 2002

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

RE: TS-VER-097-020102 - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 8 Ferris Road, Newtown, Connecticut.

Dear Attorney Baldwin:

At a public meeting held January 17, 2002, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility may require an explicit request to this agency pursuant to General Statutes § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated December 31, 2001.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston
Chairman

MAG/laf

c: Honorable Herbert C. Rosenthal, First Selectman, Town of Newtown
Gary Frenette, Zoning Enforcement Officer, Town of Newtown
Ronald C. Clark, Nextel Communications
Julie M. Donaldson, Esq., Hurwitz & Sagarin LLC

ATTACHMENT 2

BSF0020F3V1-1

TWIN BANDSTOP 900MHz INTERFERENCE MITIGATION FILTER

The BSF0020 is ideal for co-located 700, 850 and 900 networks. Utilising a 2.6MHz guardband the BSF0020 provides rejection of the 900 UL band while passing 700/850 UL and DL bands. Capable of being used in an outdoor environment the BSF0020 contains two identical bandstop filters, suitable for 2x2 MIMO configuration, offering excellent insertion loss, group delay and rejection.

FEATURES

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



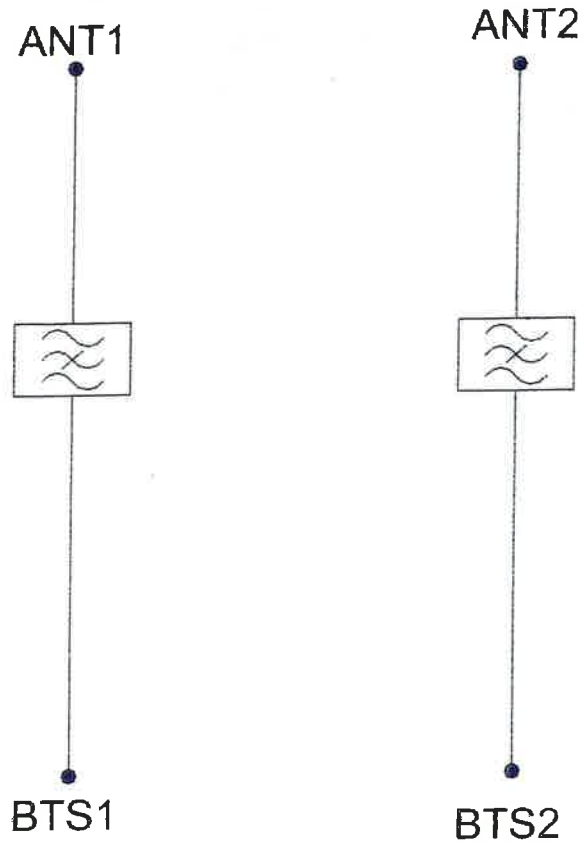
TECHNICAL SPECIFICATIONS

PARAMETER	700/850MHz UL/DL (3GPP)	900MHz UL/DL PATH
Passband	698 - 849MHz	869 - 891.5MHz
Insertion loss	0.1dB typical / 0.3dB maximum	0.5dB typical, 1.45dB maximum
Return loss	24dB typical, 18dB minimum	
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz
Rejection	53dB minimum @ 894.1 - 896.5MHz	
ELECTRICAL		
Impedance	50Ohms	
Intermodulation products	-160dBc maximum in UL Band (assuming 20MHz Signal), with 2 x 43dBm carriers -153dBc maximum with 2 x 43dBm	
DC / AISG		
Passband	0 - 13MHz	
Insertion loss	0.3dB maximum	
Return loss	15dB minimum	
Input voltage range	± 33V	
DC current rating	2A continuous, 4A peak*	
Compliance	3GPP TS 25.461	
ENVIRONMENTAL		
For further details of environmental compliance, please contact Kaelus.		
Temperature range	-20°C to +60°C -4°F to +140°F	
Ingress protection	IP67	
Altitude	2600m 8530ft	
Lightning protection	RF port: ±5kA maximum (8/20us), IEC 61000-4-5 – Unit must be terminated with some lightning protection circuits.	
MTBF	>1,000,000 hours	
Compliance	ETSI EN 300 019 class 4.1H, RoHS, NEBS GR-487-CORE	
MECHANICAL		
Dimensions H x D x W	269 x 277 x 80mm 10.60 x 10.90 x 3.15in (Excluding brackets and connectors)	
Weight	8.0 kg 17.6 lbs (no bracket)	
Finish	Powder coated, light grey (RAL7035)	
Connectors	RF: 4.3-10 (F) x 4	
Mounting	Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter poles or custom bracket. See ordering information.	

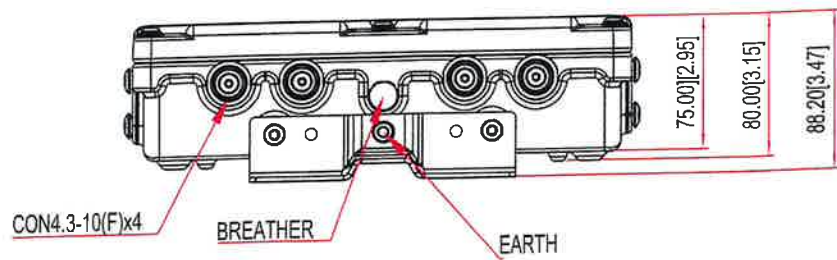
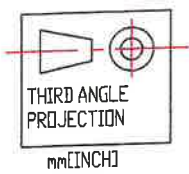
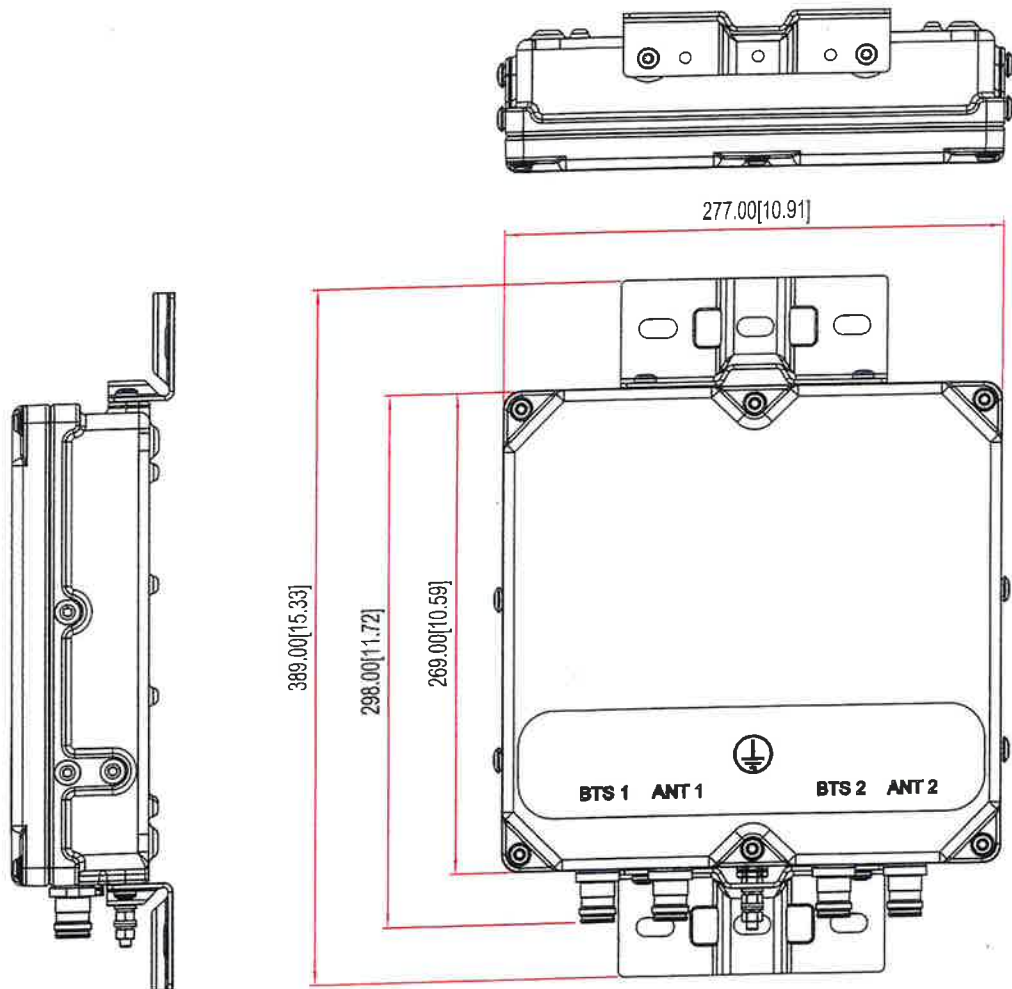
ORDERING INFORMATION

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

ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM



ATTACHMENT 3

SBA Communications Corporation
8051 Congress Avenue
Boca Raton, FL 33487-1307

T + 561 995 7670
F + 561 995 7626

sbasite.com



Structural Analysis Report

Client: Verizon

Client Site ID / Name: 5000386309 / Newtown West_CT
Application #: 235203, v1

SBA Site ID / Name: CT46132-A / Newtown-ferris Rd

119 ft Modified Monopole

8 Ferris Road
Newtown, Connecticut 06470
Lat: 41.389747, Long: -73.338444

Project number: CT46132-VZW-083023

Analysis Results

Tower	76.4%	Pass
Foundation	90.0%	Pass

Change in tower stress due to mount modification / replacement	N/A
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Prepared by:

Jaffar Alqazzaz

August 30, 2023



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 Tower Geometry

 Coax Layout

 TESPole Report

 Foundation Analysis Report



Introduction

The purpose of this report is to summarize the analysis results on the 119 ft Monopole to support the proposed antennas and transmissions lines in addition to those currently installed.

Table 1 List of Documents Used

Item	Document
Tower design/drawings	EEL, Job No. 5189, dated 06/30/1999.
Foundation drawings	EEL, Job No. 5189, dated 06/30/1999.
Geotechnical report	New England Boring Contractors & Applied Earth Technologies Inc.; Job No. 4677, dated 06/14/1999.
Modification drawings	Vertical Solutions, Project No. 100188.08, dated 5/7/2010.
Mount Analysis	Colliers Engineering & Design, Project No. 23777250, dated 8/21/2023
Latest SA	TES, Project No. 138477R2, dated 2/15/2023

Analysis Criteria

Table 2 Code Related Data

Jurisdiction (State/County/City)	Connecticut/Fairfield/Newtown
Governing Codes	ANSI/TIA/EIA 222-H, 2021 IBC, 2022 Connecticut Building Code
Ultimate Wind Speed (3-Sec gust)	116.0 mph
Wind Speed with Ice (3-Sec gust)	50 mph
Service Wind Speed (3-Sec gust)	60 mph
Ice Thickness	1.00"
Risk Category	II
Exposure Category	C
Topographic Category	1
Crest Height	0 ft
Ground Elevation	781.31 ft.
Seismic Parameter S_s	0.214
Seismic Parameter S_1	0.055

This structural analysis is based upon the tower being classified as a risk category II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Appurtenance Loading

Existing Loading:

Table 3 Existing Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	118.0	1	DS1F03F36D-N - Whip	Low Profile Platform	(2) 7/8"	Town of Newtown
2	108.0	3	APXVSPP18-C-A20 - Panel	Low Profile Platform	(3) 1-1/4"	T-Mobile Sprint
3		3	APXV9TM14-ALU-120 - Panel			
4		3	1900 MHz 4X45 RRH			
5		3	800 MHz RRU Filter			
6		3	TD-RRH8x20-25			
7		4	ACU-A20-N			
-		98.0	2			
-	4		Andrew DB846H80E-SX - Panel			
-	6		Andrew SBNHH-1D85C - Panel			
-	3		Alcatel Lucent RRH2x60-700			
-	3		Alcatel Lucent RRH4X45-AWS			
-	3		Alcatel-Lucent RRH2X60-1900A-4R			
-	2		Rfs Celwave DB-T1-6Z-8AB-0Z			
15	91.0	3	7770.00 - Panel	Low Profile Platform	(2) 3/8" Fiber (4) 5/8" DC (12) 7/8"	AT&T
16		3	P65-16-XLH-RR - Panel			
17		6	LGP21401			
18		3	RRUS-11			
19		2	DC6-48-60-18-8F - TMA/TTA			
20		3	QS66512-2 - Panel			
21		3	RRUS 32 B2			
22		3	RRUS 32 B30			
23	83.0	1	Andrew VHLP3-11W - Dish	Modified Low Profile Platform w/ Handrail Kit	(8) 1 1/4" (3) 1.9" Fiber (1) 1/2"	T-Mobile
24		1	Ceragon IP20C-11-40X-ACM			
25		3	TBD S20057A1			
26		3	RFS ATMAA1412D-1A20			
27		3	Kathrein 782 11054			
28		3	Commscope VV-65A-R1 - Panel			
29		3	RFS APXVAALL24_43-U-NA20 - Panel			
30		3	Ericsson AIR6419 B41 - Panel			
31		3	Ericsson 4460 B25 + B66			
32		3	Ericsson 4480 B71 + B85			
33	75.0	1	GPS	Direct Mount	(1) 1/2"	T-Mobile Sprint
34	69.0	3	Commscope FFV-65B-R2 - Panel	Low Profile Platform w/ Handrails [Commscope MC-PK8-DSH]	(1) 1.75" Hybrid	Dish Wireless
35		3	TA08025-B604			
36		3	TA08025-B605			
37		1	RDIDC-9181-OF-48			

Note: AT&T loading includes FirstNET equipment



Proposed Loading:

Information pertaining to proposed antennas and transmission lines were based upon the Application #: 235203, v1 from Verizon and is listed in Table 4.

Table 4 Proposed Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
8	98.0	6	JMA MX06FRO660-03 - Panel	Low Profile Platform w/ Handrails + Kickers	(1) 1 5/8" Hybrid 12 x 24 (12) 1-5/8"	Verizon
9		3	Samsung MT6407-77A - Panel			
10		3	Amphenol BXA-70063-6CF - Panel			
11		3	Samsung RF4439d-25A			
12		3	Samsung RF4440d-13A			
13		1	Commscope FE-16148-OVP-B12			
14		6	Kaelus KA-6030 - Filter			



Analysis Results

Tower

The results of the structural analysis are shown below in table 5. Additional information for the tower analysis is provided within the Appendix.

Table 5 Tower Analysis Summary

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	76.4%	74.4%	62.0%
Pass/Fail	Pass	Pass	Pass

Foundation

The results of the foundation analysis are shown below in table 6. Additional information for the foundation analysis is provided within the Appendix.

Table 6 Foundation Analysis Summary

Structural Component	Max Usage (%)	Analysis Result
Foundation	90.0%	Pass

Conclusions

Based on the analysis results, the existing tower and foundation were found to be **sufficient** to safely support the equipment listed in this analysis. No modification to the tower and foundation is needed at this time.

Installation Requirements

This analysis was performed under the assumption that the carrier will place the proposed equipment and feed lines at the installation height listed in Table 4 and in accordance with the coax layout shown. TMAs and RRUs are to be installed on existing mounts behind tenant's antennas unless otherwise noted. No equipment is to be installed directly in the climbing path. All equipment is to be installed per mount manufacturer specifications. In case site conditions do not allow for the required installation parameters to be met the carrier must notify SBA Communications Corporation engineers for approval of an alternative placement.

Assumptions and Limitations

Assumptions

This analysis was completed based on the following assumptions:

- Tower and foundation were built in accordance to manufacturer specifications.
- Tower and foundation has been properly maintained in accordance with the manufacturer's specifications
- All existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion
- Welds and bolts are assumed able to carry their intended original design loads.
- The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Table 3 and 4.
- This analysis may be affected if any assumptions are not valid or have been made in error. SBA should be notified to determine the effect on the structural integrity of the tower.

Limitations

The computer generated analysis performed by the tower software is limited to theoretical capacities of the towers structural members and does not account for any missing or damaged members or connections. The tower and foundation are assumed to have been properly designed, fabricated, installed and maintained, barring any conflicting findings from the most recent inspection.

SBA Communications Corporation has used its due diligence to verify the information provided to perform this analysis. It is unreasonable to perform a more detailed inspection of a tower and its components. This report is not a condition assessment of the tower or foundation.

Appendix

Usage Diagram - Max Ratio 76.41% at 0.0ft

Structure: CT46132-A
Site Name: Newtown-ferris Rd
Height: 118.00 (ft)
Base Elev: 1.000 (ft)

Code: EIA/TIA-222-H
Exposure: C
Gh: 1.1

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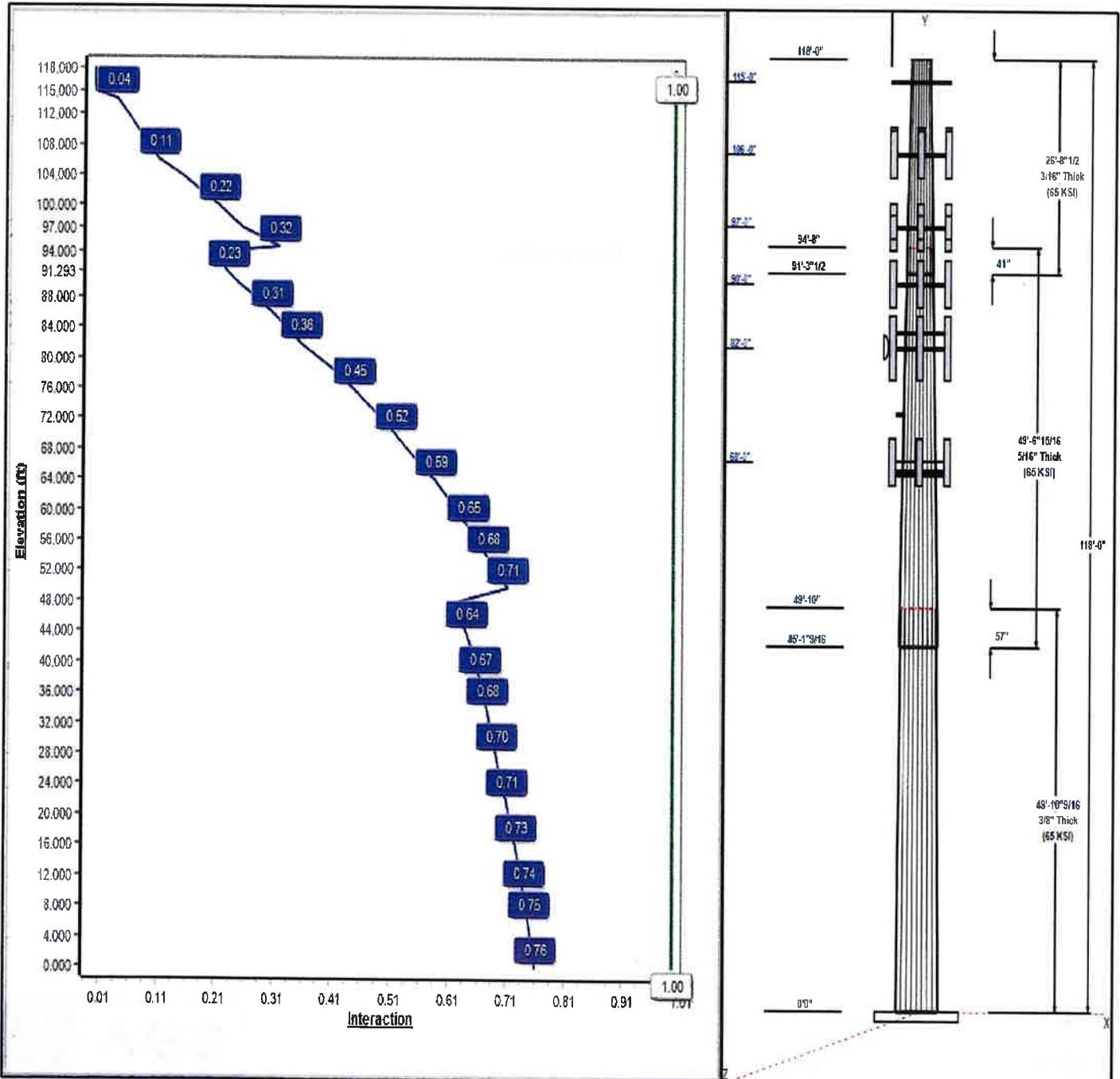
Dead Load Factor: 1.20
Wind Load Factor: 1.00

Iterations: 26

Load Case : 1.2D + 1.0W 116 mph Wind



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Structure: CT46132-A

Type: Tapered
Site Name: Newtown-ferris Rd
Height: 118.00 (ft)
Base Elev: 1.00 (ft)

Base Shape: 18 Sided
Taper: 0.23093

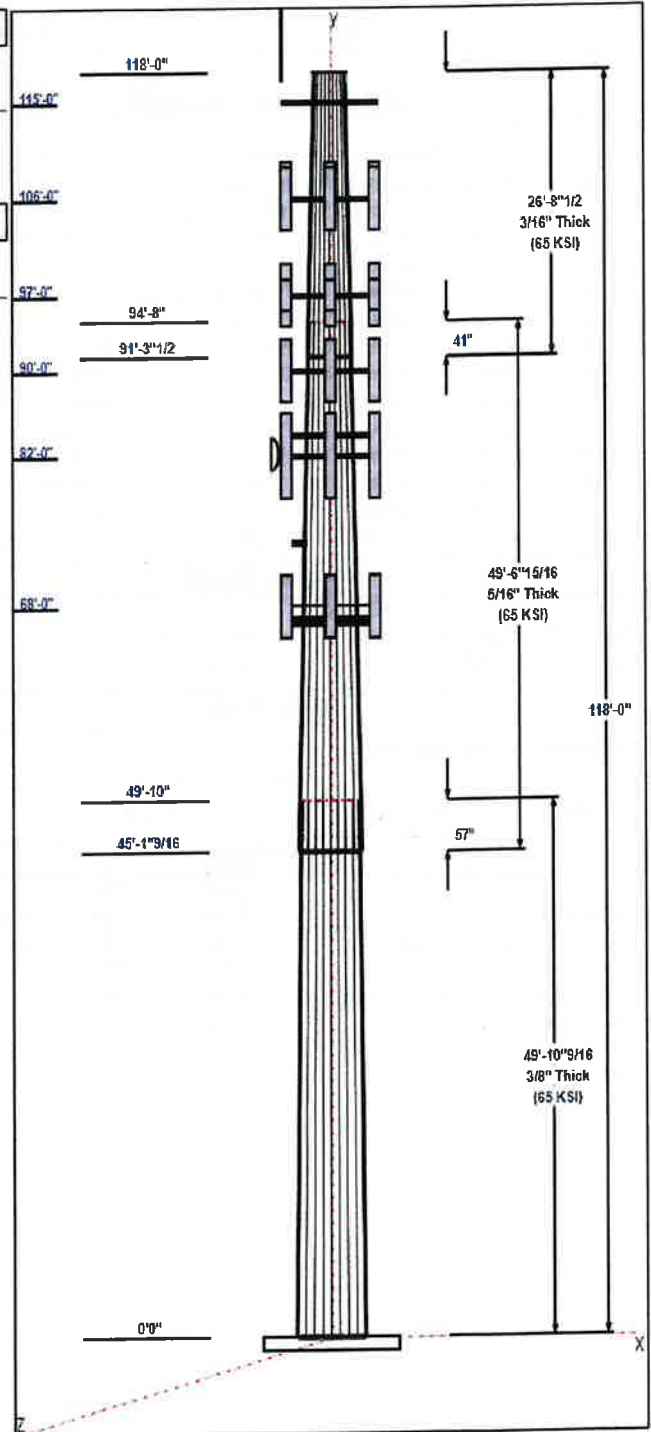
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Shaft Properties							
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	49.88	31.73	43.25	0.375		0.23093	65
2	49.58	22.00	33.45	0.313	Slip	0.23093	65
3	26.71	17.00	23.17	0.188	Slip	0.23093	65

Discrete Appurtenances					
Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier	
115.00	117.00	12	Mount Pipes	Town of Newton	
115.00	115.00	1	Low Profile Platform	Town of Newtown	
115.00	128.25	1	DS1F03F36D-N	Town of Newtown	
106.00	106.00	1	Universal Ring Mount	Sprint	
106.00	106.00	1	Low Profile Platform	Sprint	
106.00	106.00	3	APXVSPP18-C-A20	Sprint	
106.00	107.00	3	APXV9TM14-ALU-120	Sprint	
106.00	106.00	3	1900 MHz 4X45 RRH	Sprint	
106.00	106.00	3	800 MHz RRU Filter	Sprint	
106.00	106.00	3	TD-RRH8x20-25	Sprint	
106.00	106.00	4	ACU-A20-N	Sprint	
97.00	97.00	6	JMA MX06FRO660-03	Verizon	
97.00	97.00	3	Samsung MT6407-77A	Verizon	
97.00	97.00	3	Amphenol BXA-70063-6CF	Verizon	
97.00	97.00	3	Samsung RF4439d-25A	Verizon	
97.00	97.00	3	Samsung RF4440d-13A	Verizon	
97.00	97.00	1	Commscope	Verizon	
97.00	97.00	1	Low Profile Platform w/	Verizon	
97.00	97.00	6	Kaelus KA-6030	Verizon	
90.00	90.00	1	Low Profile Platform	AT&T	
90.00	90.00	3	7770.00	AT&T	
90.00	90.00	3	P65-16-XLH-RR	AT&T	
90.00	90.00	6	LGP21401	AT&T	
90.00	90.00	3	RRUS-11	AT&T	
90.00	90.00	2	DC6-48-60-18-8F	AT&T	
90.00	90.00	3	QS66512-2	AT&T	
90.00	90.00	3	RRUS 32 B2	AT&T	
90.00	90.00	3	RRUS 32 B30	AT&T	
84.00	84.00	1	12.5' - 2" Horizontal Pipe	T-Mobile	
82.00	82.00	1	Platform w/ Handrail	T-Mobile	
82.00	82.00	1	Andrew VHLP3-11W	T-Mobile	
82.00	82.00	1	Ceragon	T-Mobile	
82.00	82.00	3	TBD S20057A1	T-Mobile	
82.00	82.00	1	MS-KI22-5 (Kickers w/o	T-Mobile	
82.00	82.00	3	RFS ATMAA1412D-1A20	T-Mobile	
82.00	82.00	3	Kathrein 782 11054	T-Mobile	
82.00	82.00	3	Commscope VV-65A-R1	T-Mobile	
82.00	82.00	3	RFS	T-Mobile	
82.00	82.00	3	Ericsson AIR6419 B41	T-Mobile	
82.00	82.00	3	Ericsson 4460 B25 + B66	T-Mobile	
82.00	82.00	3	Ericsson 4480 B71 + B85	T-Mobile	
74.00	74.00	1	Standoff Mount	Sprint	
74.00	74.00	1	GPS	Sprint	
68.00	68.00	3	Commscope	Dish Wireless	
68.00	68.00	3	TA08025-B604	Dish Wireless	
68.00	68.00	3	TA08025-B605	Dish Wireless	



Structure: CT46132-A

Type: Tapered **Base Shape:** 18 Sided 8/30/2023
Site Name: Newtown-ferris Rd **Taper:** 0.23093
Height: 118.00 (ft)
Base Elev: 1.00 (ft) Page: 3



68.00	68.00	1	RDIDC-9181-OF-48	Dish Wireless
68.00	68.00	1	MC-PK8-DSH	Dish Wireless

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	118.00	Outside	Safety Cable	
0.00	118.00	Outside	Step bolts (ladder)	
0.00	117.00	Inside	7/8" Coax	Town of Newtown
0.00	106.00	Inside	1-1/4"	Sprint
0.00	97.00	Inside	1 5/8" Hybrid 12 x 24	Verizon
0.00	97.00	Inside	1-5/8" Coax	Verizon
0.00	90.00	Inside	3/8" Fiber	AT&T
0.00	90.00	Inside	5/8" DC	AT&T
0.00	90.00	Inside	7/8"	AT&T
0.00	82.00	Inside	1 1/4" Coax	T-Mobile
0.00	82.00	Inside	1.9" Fiber	T-Mobile
0.00	82.00	Inside	1/2" Coax	T-Mobile
0.00	74.00	Outside	1/2"	Sprint
0.00	68.00	Outside	1.75" Hybrid	Dish Wireless

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
12	2.25" 18J	75.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
1.7500	58.0	60.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 116 mph Wind	2408.5	27.7	41.4
0.9D + 1.0W 116 mph Wind	2372.8	27.7	31.0
1.2D + 1.0Di + 1.0Wi 50 mph Wind	650.8	7.4	60.6
1.2D + 1.0Ev + 1.0Eh	57.8	0.6	43.0
0.9D + 1.0Ev + 1.0Eh	56.8	0.6	32.6
1.0D + 1.0W 60 mph Wind	571.6	6.6	34.5

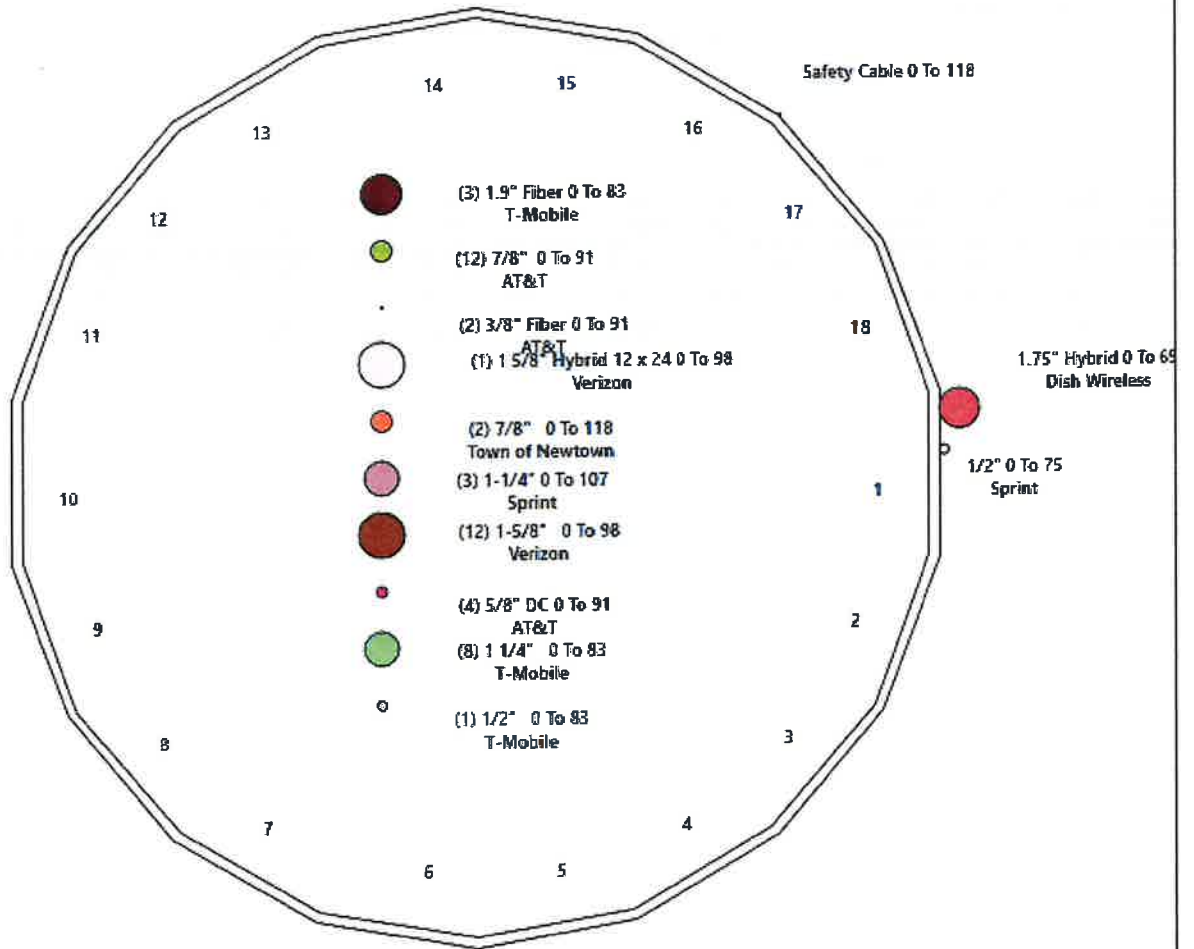
Structure: CT46132-A - Coax Line Placement

Type: Monopole
 Site Name: Newtown-ferris Rd
 Height: 118.00 (ft)

8/30/2023



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Shaft Properties

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	49.880	0.3750	65		0.00	7,498
2	18	49.580	0.3125	65	Slip	57.00	4,588
3	18	26.707	0.1875	65	Slip	41.00	1,076
Total Shaft Weight:							13,161

Bottom

Top

Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper
1	43.25	0.00	51.03	11851.90	18.93	115.33	31.73	49.88	37.32	4635.98	13.51	84.62	0.230932
2	33.45	45.13	32.87	4561.13	17.47	107.05	22.00	94.71	21.51	1278.87	11.00	70.41	0.230932
3	23.17	91.29	13.68	912.41	20.38	123.56	17.00	118.00	10.01	357.31	14.58	90.67	0.230932

Load Summary

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	115.00	Mount Pipes	12	60.00	1.90	1.00	108.99	2.977	1.00	0.00	2.00
2	115.00	Low Profile Platform	1	1800.00	28.50	1.00	3075.70	32.978	1.00	0.00	0.00
3	115.00	DS1F03F36D-N	1	71.00	6.75	1.00	181.01	11.927	1.00	0.00	13.25
4	106.00	Universal Ring Mount	1	350.00	5.00	1.00	538.97	7.250	1.00	0.00	0.00
5	106.00	Low Profile Platform	1	2000.00	28.00	1.00	3406.04	32.364	1.00	0.00	0.00
6	106.00	APXVSP18-C-A20	3	57.00	8.02	0.83	168.41	9.821	0.85	0.00	0.00
7	106.00	APXV9TM14-ALU-120	3	56.00	6.34	0.79	152.07	7.041	0.81	0.00	1.00
8	106.00	1900 MHz 4X45 RRH	3	60.00	2.71	0.50	112.05	3.525	0.69	0.00	0.00
9	106.00	800 MHz RRU Filter	3	64.00	2.40	0.50	113.76	3.121	0.69	0.00	0.00
10	106.00	TD-RRH8x20-25	3	70.00	4.05	0.50	136.03	4.559	0.69	0.00	0.00
11	106.00	ACU-A20-N	4	1.00	0.14	0.50	3.77	0.331	0.69	0.00	0.00
12	97.00	JMA MX06FRO660-03	6	87.10	9.87	0.87	249.55	10.732	0.87	0.00	0.00
13	97.00	Samsung MT6407-77A	3	79.40	4.69	0.70	150.09	5.288	0.70	0.00	0.00
14	97.00	Amphenol BXA-70063-6CF	3	17.00	7.57	0.73	119.80	8.352	0.73	0.00	0.00
15	97.00	Samsung RF4439d-25A	3	74.70	1.86	0.50	108.12	2.220	0.84	0.00	0.00
16	97.00	Samsung RF4440d-13A	3	70.33	1.86	0.67	102.83	2.220	0.83	0.00	0.00
17	97.00	Commscope FE-16148-OVP-B12	1	15.21	1.87	1.00	47.53	2.232	1.00	0.00	0.00
18	97.00	Low Profile Platform w/ Handrails +	1	2100.00	35.03	1.00	3563.43	40.442	1.00	0.00	0.00
19	97.00	Kaelus KA-6030	6	17.60	0.96	0.65	32.46	1.214	0.68	0.00	0.00
20	90.00	Low Profile Platform	1	1349.00	25.00	1.00	2095.51	37.728	1.00	0.00	0.00
21	90.00	7770.00	3	35.00	5.50	0.73	113.70	6.160	0.75	0.00	0.00
22	90.00	P65-16-XLH-RR	3	53.00	8.16	0.75	157.67	9.937	0.75	0.00	0.00
23	90.00	LGP21401	6	14.10	1.29	0.50	29.95	1.820	0.69	0.00	0.00
24	90.00	RRUS-11	3	55.00	4.42	0.50	112.05	5.371	0.69	0.00	0.00
25	90.00	DC6-48-60-18-8F	2	31.80	0.92	1.00	71.01	1.198	1.00	0.00	0.00
26	90.00	QS66512-2	3	77.00	8.13	0.90	208.33	8.934	0.90	0.00	0.00
27	90.00	RRUS 32 B2	3	53.00	2.74	0.50	104.05	3.189	0.81	0.00	0.00
28	90.00	RRUS 32 B30	3	60.00	2.74	0.50	111.05	3.189	0.81	0.00	0.00
29	84.00	12.5' - 2" Horizontal Pipe	1	45.75	2.97	1.00	73.91	5.319	1.00	0.00	0.00
30	82.00	Platform w/ Handrail	1	1868.20	23.81	1.00	2892.55	35.821	1.00	0.00	0.00
31	82.00	Andrew VHLP3-11W	1	53.00	10.68	1.00	189.68	11.884	1.00	0.00	0.00
32	82.00	Ceragon IP20C-11-40X-ACM	1	11.50	1.05	0.50	27.78	1.519	0.67	0.00	0.00
33	82.00	TBD S20057A1	3	11.00	0.01	0.50	11.00	0.010	0.67	0.00	0.00
34	82.00	MS-KI22-5 (Kickers w/o Collar)	1	146.00	6.33	1.00	274.09	10.495	1.00	0.00	0.00
35	82.00	RFS ATMAA1412D-1A20	3	13.00	1.17	0.50	29.70	1.662	0.67	0.00	0.00
36	82.00	Kathrein 782 11054	3	1.80	0.15	0.50	6.02	0.321	0.67	0.00	0.00
37	82.00	Commscope VV-65A-R1	3	29.50	7.90	0.74	130.26	8.684	0.75	0.00	0.00
38	82.00	RFS APXVAALL24_43-U-NA20	3	122.80	20.24	0.72	379.19	21.418	0.73	0.00	0.00
39	82.00	Ericsson AIR6419 B41	3	66.10	3.80	0.76	126.55	4.300	0.77	0.00	0.00
40	82.00	Ericsson 4460 B25 + B66	3	109.00	2.85	0.50	154.18	3.274	0.50	0.00	0.00
41	82.00	Ericsson 4480 B71 + B85	3	93.00	2.85	0.50	138.20	3.274	0.50	0.00	0.00
42	74.00	Standoff Mount	1	40.00	2.63	1.00	89.94	6.343	1.00	0.00	0.00
43	74.00	GPS	1	10.00	1.00	1.00	28.24	1.443	1.00	0.00	0.00
44	68.00	Commscope FFVV-65B-R2	3	70.80	11.84	0.74	471.59	13.568	0.74	0.00	0.00
45	68.00	TA08025-B604	3	63.90	1.96	0.50	95.13	2.306	0.67	0.00	0.00
46	68.00	TA08025-B605	3	75.00	1.96	0.50	107.26	2.306	0.67	0.00	0.00
47	68.00	RDIDC-9181-OF-48	1	21.90	2.01	1.00	54.75	2.361	1.00	0.00	0.00
48	68.00	MC-PK8-DSH	1	1727.00	34.24	1.00	2768.15	60.780	1.00	0.00	0.00
Totals:			130	17,720.95			33,501.18				

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	118.00	(1) Safety Cable	0.38	Outside
0.00	118.00	(1) Step bolts (ladder)	0.63	Outside
0.00	117.00	(2) 7/8" Coax	0.00	Inside
0.00	106.00	(3) 1-1/4"	0.00	Inside
0.00	97.00	(1) 1 5/8" Hybrid 12 x 24	0.00	Inside
0.00	97.00	(12) 1-5/8" Coax	0.00	Inside
0.00	90.00	(2) 3/8" Fiber	0.00	Inside
0.00	90.00	(4) 5/8" DC	0.00	Inside
0.00	90.00	(12) 7/8"	0.00	Inside
0.00	82.00	(8) 1 1/4" Coax	0.00	Inside
0.00	82.00	(3) 1.9" Fiber	0.00	Inside
0.00	82.00	(1) 1/2" Coax	0.00	Inside
0.00	74.00	(1) 1/2"	0.00	Outside
0.00	68.00	(1) 1.75" Hybrid	1.75	Outside

Shaft Section Properties

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.3750	43.250	51.030	11851.9	18.93	115.33	79.1	539.7	0.0
2.00		0.3750	42.788	50.480	11473.0	18.71	114.10	79.4	528.1	345.4
4.00		0.3750	42.326	49.931	11102.3	18.49	112.87	79.7	516.6	341.7
6.00		0.3750	41.864	49.381	10739.6	18.27	111.64	79.9	505.3	337.9
8.00		0.3750	41.403	48.831	10384.9	18.06	110.41	80.2	494.0	334.2
10.00		0.3750	40.941	48.282	10038.1	17.84	109.18	80.4	482.9	330.5
12.00		0.3750	40.479	47.732	9699.1	17.62	107.94	80.7	471.9	326.7
14.00		0.3750	40.017	47.182	9367.9	17.41	106.71	80.9	461.1	323.0
16.00		0.3750	39.555	46.632	9044.2	17.19	105.48	81.2	450.4	319.2
18.00		0.3750	39.093	46.083	8728.1	16.97	104.25	81.4	439.7	315.5
20.00		0.3750	38.631	45.533	8419.5	16.75	103.02	81.7	429.3	311.7
22.00		0.3750	38.169	44.983	8118.2	16.54	101.79	82.0	418.9	308.0
24.00		0.3750	37.708	44.434	7824.2	16.32	100.55	82.2	408.7	304.3
26.00		0.3750	37.246	43.884	7537.4	16.10	99.32	82.5	398.6	300.5
28.00		0.3750	36.784	43.334	7257.7	15.89	98.09	82.5	388.6	296.8
30.00		0.3750	36.322	42.784	6985.0	15.67	96.86	82.5	378.8	293.0
32.00		0.3750	35.860	42.235	6719.2	15.45	95.63	82.5	369.1	289.3
34.00		0.3750	35.398	41.685	6460.2	15.23	94.40	82.5	359.5	285.6
36.00		0.3750	34.936	41.135	6208.0	15.02	93.16	82.5	350.0	281.8
38.00		0.3750	34.475	40.586	5962.4	14.80	91.93	82.5	340.6	278.1
40.00		0.3750	34.013	40.036	5723.4	14.58	90.70	82.5	331.4	274.3
42.00		0.3750	33.551	39.486	5490.9	14.37	89.47	82.5	322.3	270.6
44.00		0.3750	33.089	38.936	5264.7	14.15	88.24	82.5	313.4	266.9
45.13	Bot - Section 2	0.3750	32.828	38.626	5139.7	14.03	87.54	82.5	308.4	149.1
46.00		0.3750	32.627	38.387	5044.9	13.93	87.01	82.5	304.5	211.0
48.00		0.3750	32.165	37.837	4831.2	13.71	85.77	82.5	295.8	480.2
49.88	Top - Section 1	0.3125	32.356	31.782	4123.0	16.85	103.54	0.0	0.0	445.1
50.00		0.3125	32.328	31.755	4112.4	16.83	103.45	81.6	250.5	13.0
52.00		0.3125	31.867	31.297	3936.9	16.57	101.97	81.9	243.3	214.5
54.00		0.3125	31.405	30.838	3766.6	16.31	100.49	82.2	236.2	211.4
56.00		0.3125	30.943	30.380	3601.2	16.05	99.02	82.5	229.2	208.3
58.00		0.3125	30.481	29.922	3440.7	15.79	97.54	82.5	222.3	205.2
60.00		0.3125	30.019	29.464	3285.1	15.53	96.06	82.5	215.5	202.1
62.00		0.3125	29.557	29.006	3134.3	15.27	94.58	82.5	208.9	199.0
64.00		0.3125	29.095	28.548	2988.1	15.01	93.11	82.5	202.3	195.8
66.00		0.3125	28.633	28.090	2846.6	14.75	91.63	82.5	195.8	192.7
68.00		0.3125	28.172	27.632	2709.5	14.49	90.15	82.5	189.4	189.6
70.00		0.3125	27.710	27.174	2577.0	14.22	88.67	82.5	183.2	186.5
72.00		0.3125	27.248	26.716	2448.9	13.96	87.19	82.5	177.0	183.4
74.00		0.3125	26.786	26.257	2325.0	13.70	85.72	82.5	171.0	180.3
76.00		0.3125	26.324	25.799	2205.5	13.44	84.24	82.5	165.0	177.1
78.00		0.3125	25.862	25.341	2090.0	13.18	82.76	82.5	159.2	174.0
80.00		0.3125	25.400	24.883	1978.7	12.92	81.28	82.5	153.4	170.9
82.00		0.3125	24.939	24.425	1871.5	12.66	79.80	82.5	147.8	167.8
84.00		0.3125	24.477	23.967	1768.1	12.40	78.33	82.5	142.3	164.7
86.00		0.3125	24.015	23.509	1668.7	12.14	76.85	82.5	136.9	161.5
88.00		0.3125	23.553	23.051	1573.0	11.88	75.37	82.5	131.5	158.4
90.00		0.3125	23.091	22.593	1481.1	11.62	73.89	82.5	126.3	155.3
91.29	Bot - Section 3	0.3125	22.792	22.296	1423.6	11.45	72.94	82.5	123.0	98.8
92.00		0.3125	22.629	22.135	1392.8	11.36	72.41	82.5	121.2	86.2

Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in ³)	Weight (lb)
94.00		0.3125	22.167	21.677	1308.1	11.10	70.94	82.5	116.2	240.6
94.71	Top - Section 2	0.1875	22.378	13.206	821.6	19.63	119.35	0.0	0.0	84.2
96.00		0.1875	22.081	13.029	789.0	19.35	117.76	78.6	70.4	57.6
97.00		0.1875	21.850	12.891	764.3	19.14	116.53	78.9	68.9	44.1
98.00		0.1875	21.619	12.754	740.1	18.92	115.30	79.1	67.4	43.6
100.00		0.1875	21.157	12.479	693.3	18.49	112.84	79.7	64.5	85.9
102.00		0.1875	20.695	12.204	648.5	18.05	110.37	80.2	61.7	84.0
104.00		0.1875	20.233	11.929	605.6	17.62	107.91	80.7	59.0	82.1
106.00		0.1875	19.771	11.654	564.7	17.18	105.45	81.2	56.3	80.2
108.00		0.1875	19.309	11.379	525.7	16.75	102.98	81.7	53.6	78.4
110.00		0.1875	18.847	11.105	488.5	16.31	100.52	82.2	51.1	76.5
112.00		0.1875	18.386	10.830	453.1	15.88	98.06	82.5	48.5	74.6
114.00		0.1875	17.924	10.555	419.5	15.45	95.59	82.5	46.1	72.8
115.00		0.1875	17.693	10.417	403.3	15.23	94.36	82.5	44.9	35.7
116.00		0.1875	17.462	10.280	387.6	15.01	93.13	82.5	43.7	35.2
118.00		0.1875	17.000	10.005	357.3	14.58	90.67	82.5	41.4	69.0
										13161.4

Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0W 116 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	27.041	29.74	385.91	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	27.041	29.74	381.79	0.730	0.000	2.00	7.280	5.31	158.1	0.0	414.5
4.00		1.00	0.85	27.041	29.74	377.66	0.730	0.000	2.00	7.202	5.26	156.4	0.0	410.0
6.00		1.00	0.85	27.041	29.74	373.54	0.730	0.000	2.00	7.124	5.20	154.7	0.0	405.5
8.00		1.00	0.85	27.041	29.74	369.42	0.730	0.000	2.00	7.046	5.14	153.0	0.0	401.0
10.00		1.00	0.85	27.041	29.74	365.30	0.730	0.000	2.00	6.968	5.09	151.3	0.0	396.5
12.00		1.00	0.85	27.041	29.74	361.18	0.730	0.000	2.00	6.890	5.03	149.6	0.0	392.1
14.00		1.00	0.85	27.041	29.74	357.06	0.730	0.000	2.00	6.811	4.97	147.9	0.0	387.6
16.00		1.00	0.87	27.726	30.50	357.38	0.730	0.000	2.00	6.733	4.92	149.9	0.0	383.1
18.00		1.00	0.89	28.383	31.22	357.37	0.730	0.000	2.00	6.655	4.86	151.7	0.0	378.6
20.00		1.00	0.91	28.988	31.89	356.89	0.730	0.000	2.00	6.577	4.80	153.1	0.0	374.1
22.00		1.00	0.93	29.548	32.50	356.01	0.730	0.000	2.00	6.499	4.74	154.2	0.0	369.6
24.00		1.00	0.95	30.072	33.08	354.81	0.730	0.000	2.00	6.421	4.69	155.0	0.0	365.1
26.00		1.00	0.96	30.563	33.62	353.31	0.730	0.000	2.00	6.342	4.63	155.7	0.0	360.6
28.00		1.00	0.98	31.026	34.13	351.57	0.730	0.000	2.00	6.264	4.57	156.1	0.0	356.1
30.00		1.00	0.99	31.465	34.61	349.60	0.730	0.000	2.00	6.186	4.52	156.3	0.0	351.7
32.00		1.00	1.00	31.882	35.07	347.43	0.730	0.000	2.00	6.108	4.46	156.4	0.0	347.2
34.00		1.00	1.01	32.279	35.51	345.09	0.730	0.000	2.00	6.030	4.40	156.3	0.0	342.7
36.00		1.00	1.03	32.659	35.92	342.58	0.730	0.000	2.00	5.952	4.34	156.1	0.0	338.2
38.00		1.00	1.04	33.023	36.33	339.93	0.730	0.000	2.00	5.873	4.29	155.7	0.0	333.7
40.00		1.00	1.05	33.372	36.71	337.15	0.730	0.000	2.00	5.795	4.23	155.3	0.0	329.2
42.00		1.00	1.06	33.709	37.08	334.24	0.730	0.000	2.00	5.717	4.17	154.8	0.0	324.7
44.00		1.00	1.07	34.033	37.44	331.22	0.730	0.000	2.00	5.639	4.12	154.1	0.0	320.2
45.13 Bot - Section 2		1.00	1.08	34.211	37.63	329.47	0.730	0.000	1.13	3.151	2.30	86.6	0.0	178.9
46.00		1.00	1.08	34.346	37.78	328.10	0.730	0.000	0.87	2.455	1.79	67.7	0.0	253.2
48.00		1.00	1.09	34.648	38.11	324.87	0.730	0.000	2.00	5.588	4.08	155.5	0.0	576.2
49.88 Top - Section 1		1.00	1.10	34.924	38.42	321.76	0.730	0.000	1.88	5.182	3.78	145.3	0.0	534.1
50.00		1.00	1.10	34.941	38.44	327.90	0.730	0.000	0.12	0.328	0.24	9.2	0.0	15.6
52.00		1.00	1.11	35.226	38.75	324.53	0.730	0.000	2.00	5.432	3.97	153.7	0.0	257.5
54.00		1.00	1.12	35.501	39.05	321.07	0.730	0.000	2.00	5.354	3.91	152.6	0.0	253.7
56.00		1.00	1.12	35.769	39.35	317.54	0.730	0.000	2.00	5.276	3.85	151.5	0.0	250.0
58.00		1.00	1.13	36.030	39.63	313.94	0.730	0.000	2.00	5.198	3.79	150.4	0.0	246.2
60.00		1.00	1.14	36.284	39.91	310.27	0.730	0.000	2.00	5.119	3.74	149.2	0.0	242.5
62.00		1.00	1.15	36.531	40.18	306.53	0.730	0.000	2.00	5.041	3.68	147.9	0.0	238.8
64.00		1.00	1.16	36.772	40.45	302.74	0.730	0.000	2.00	4.963	3.62	146.6	0.0	235.0
66.00		1.00	1.16	37.007	40.71	298.89	0.730	0.000	2.00	4.885	3.57	145.2	0.0	231.3
68.00 Appurtenance(s)		1.00	1.17	37.237	40.96	294.98	0.730	0.000	2.00	4.807	3.51	143.7	0.0	227.5
70.00		1.00	1.18	37.462	41.21	291.01	0.730	0.000	2.00	4.729	3.45	142.2	0.0	223.8
72.00		1.00	1.18	37.682	41.45	287.00	0.730	0.000	2.00	4.650	3.39	140.7	0.0	220.0
74.00 Appurtenance(s)		1.00	1.19	37.897	41.69	282.94	0.730	0.000	2.00	4.572	3.34	139.1	0.0	216.3
76.00		1.00	1.20	38.107	41.92	278.83	0.730	0.000	2.00	4.494	3.28	137.5	0.0	212.6
78.00		1.00	1.20	38.314	42.14	274.68	0.730	0.000	2.00	4.416	3.22	135.9	0.0	208.8
80.00		1.00	1.21	38.516	42.37	270.49	0.730	0.000	2.00	4.338	3.17	134.2	0.0	205.1
82.00 Appurtenance(s)		1.00	1.22	38.714	42.59	266.25	0.730	0.000	2.00	4.260	3.11	132.4	0.0	201.3
84.00 Appurtenance(s)		1.00	1.22	38.909	42.80	261.98	0.730	0.000	2.00	4.181	3.05	130.6	0.0	197.6
86.00		1.00	1.23	39.100	43.01	257.66	0.730	0.000	2.00	4.103	3.00	128.8	0.0	193.9
88.00		1.00	1.23	39.287	43.22	253.31	0.730	0.000	2.00	4.025	2.94	127.0	0.0	190.1

Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 11
	Struct Class: II	



90.00 Appurtenance(s)	1.00	1.24	39.471	43.42	248.93	0.730	0.000	2.00	3.947	2.88	125.1	0.0	186.4			
91.29 Bot - Section 3	1.00	1.24	39.589	43.55	246.07	0.730	0.000	1.29	2.511	1.83	79.8	0.0	118.5			
92.00	1.00	1.25	39.652	43.62	244.51	0.730	0.000	0.71	1.380	1.01	44.0	0.0	103.4			
94.00	1.00	1.25	39.830	43.81	240.05	0.730	0.000	2.00	3.854	2.81	123.3	0.0	288.7			
94.71 Top - Section 2	1.00	1.25	39.893	43.88	238.46	0.730	0.000	0.71	1.349	0.99	43.2	0.0	101.0			
96.00	1.00	1.26	40.006	44.01	239.64	0.730	0.000	1.29	2.427	1.77	78.0	0.0	69.1			
97.00 Appurtenance(s)	1.00	1.26	40.092	44.10	237.39	0.730	0.000	1.00	1.859	1.36	59.8	0.0	52.9			
98.00	1.00	1.26	40.178	44.20	235.13	0.730	0.000	1.00	1.839	1.34	59.3	0.0	52.4			
100.00	1.00	1.27	40.347	44.38	230.59	0.730	0.000	2.00	3.620	2.64	117.3	0.0	103.0			
102.00	1.00	1.27	40.514	44.57	226.02	0.730	0.000	2.00	3.541	2.59	115.2	0.0	100.8			
104.00	1.00	1.28	40.679	44.75	221.43	0.730	0.000	2.00	3.463	2.53	113.1	0.0	98.5			
106.00 Appurtenance(s)	1.00	1.28	40.841	44.92	216.80	0.730	0.000	2.00	3.385	2.47	111.0	0.0	96.3			
108.00	1.00	1.29	41.000	45.10	212.15	0.730	0.000	2.00	3.307	2.41	108.9	0.0	94.1			
110.00	1.00	1.29	41.157	45.27	207.47	0.730	0.000	2.00	3.229	2.36	106.7	0.0	91.8			
112.00	1.00	1.30	41.312	45.44	202.77	0.730	0.000	2.00	3.151	2.30	104.5	0.0	89.6			
114.00	1.00	1.30	41.465	45.61	198.04	0.730	0.000	2.00	3.072	2.24	102.3	0.0	87.3			
115.00 Appurtenance(s)	1.00	1.31	41.541	45.69	195.67	0.730	0.000	1.00	1.507	1.10	50.3	0.0	42.8			
116.00	1.00	1.31	41.616	45.78	193.29	0.730	0.000	1.00	1.487	1.09	49.7	0.0	42.3			
118.00	1.00	1.31	41.765	45.94	188.51	0.730	0.000	2.00	2.916	2.13	97.8	0.0	82.8			
Totals:								118.00				8,234.4				15,793.7

Discrete Appurtanance Forces

Structure: CT46132-A
Site Name: Newtown-ferris Rd
Height: 118.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

8/30/2023



Page: 12

Load Case: 1.2D + 1.0W 116 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	115.00	Low Profile Platform	1	41.541	45.695	1.00	1.00	28.50	2160.00	0.000	0.000	1302.31	0.00	0.00
2	115.00	Mount Pipes	12	41.691	45.860	0.90	0.90	20.52	864.00	0.000	2.000	941.04	0.00	1882.08
3	115.00	DS1F03F36D-N	1	42.498	46.747	1.00	1.00	6.75	85.20	0.000	13.250	315.54	0.00	4180.97
4	106.00	APXV9TM14-ALU-120	3	40.921	45.013	0.63	0.80	12.02	201.60	0.000	1.000	541.08	0.00	541.08
5	106.00	Universal Ring Mount	1	40.841	44.925	1.00	1.00	5.00	420.00	0.000	0.000	224.62	0.00	0.00
6	106.00	Low Profile Platform	1	40.841	44.925	0.75	0.75	21.00	2400.00	0.000	0.000	943.42	0.00	0.00
7	106.00	APXVSP18-C-A20	3	40.841	44.925	0.66	0.80	15.98	205.20	0.000	0.000	717.71	0.00	0.00
8	106.00	800 MHz RRU Filter	3	40.841	44.925	0.40	0.80	2.88	230.40	0.000	0.000	129.38	0.00	0.00
9	106.00	1900 MHz 4X45 RRH	3	40.841	44.925	0.40	0.80	3.25	216.00	0.000	0.000	146.09	0.00	0.00
10	106.00	TD-RRH8x20-25	3	40.841	44.925	0.40	0.80	4.86	252.00	0.000	0.000	218.33	0.00	0.00
11	106.00	ACU-A20-N	4	40.841	44.925	0.40	0.80	0.22	4.80	0.000	0.000	10.06	0.00	0.00
12	97.00	Amphenol	3	40.092	44.101	0.55	0.75	12.43	61.20	0.000	0.000	548.34	0.00	0.00
13	97.00	Samsung MT6407-77A	3	40.092	44.101	0.52	0.75	7.39	285.84	0.000	0.000	325.76	0.00	0.00
14	97.00	Samsung RF4439d-25A	3	40.092	44.101	0.38	0.75	2.09	268.92	0.000	0.000	92.28	0.00	0.00
15	97.00	JMA MX06FRO660-03	6	40.092	44.101	0.65	0.75	38.64	627.12	0.000	0.000	1704.12	0.00	0.00
16	97.00	Kaelus KA-6030	6	40.092	44.101	0.49	0.75	2.81	126.72	0.000	0.000	123.84	0.00	0.00
17	97.00	Samsung RF4440d-13A	3	40.092	44.101	0.50	0.75	2.80	253.19	0.000	0.000	123.66	0.00	0.00
18	97.00	Commscope	1	40.092	44.101	0.75	0.75	1.40	18.25	0.000	0.000	61.85	0.00	0.00
19	97.00	Low Profile Platform w/	1	40.092	44.101	0.75	0.75	26.27	2520.00	0.000	0.000	1158.65	0.00	0.00
20	90.00	RRUS 32 B30	3	39.471	43.419	0.40	0.80	3.29	216.00	0.000	0.000	142.76	0.00	0.00
21	90.00	RRUS 32 B2	3	39.471	43.419	0.40	0.80	3.29	190.80	0.000	0.000	142.76	0.00	0.00
22	90.00	QS66512-2	3	39.471	43.419	0.72	0.80	17.56	277.20	0.000	0.000	762.46	0.00	0.00
23	90.00	DC6-48-60-18-8F	2	39.471	43.419	1.00	1.00	1.84	76.32	0.000	0.000	79.89	0.00	0.00
24	90.00	RRUS-11	3	39.471	43.419	0.40	0.80	5.30	198.00	0.000	0.000	230.29	0.00	0.00
25	90.00	LGP21401	6	39.471	43.419	0.40	0.80	3.10	101.52	0.000	0.000	134.42	0.00	0.00
26	90.00	7770.00	3	39.471	43.419	0.58	0.80	9.64	126.00	0.000	0.000	418.38	0.00	0.00
27	90.00	Low Profile Platform	1	39.471	43.419	0.75	0.75	18.75	1618.80	0.000	0.000	814.10	0.00	0.00
28	90.00	P65-16-XLH-RR	3	39.471	43.419	0.60	0.80	14.69	190.80	0.000	0.000	637.73	0.00	0.00
29	84.00	12.5' - 2" Horizontal Pipe	1	38.909	42.800	1.00	1.00	2.97	54.90	0.000	0.000	127.06	0.00	0.00
30	82.00	RFS ATMAA1412D-1A20	3	38.714	42.586	0.38	0.75	1.32	46.80	0.000	0.000	56.05	0.00	0.00
31	82.00	Platform w/ Handrail	1	38.714	42.586	0.75	0.75	17.86	2241.84	0.000	0.000	760.47	0.00	0.00
32	82.00	Andrew VHLP3-11W	1	38.714	42.586	1.00	1.00	10.68	63.60	0.000	0.000	454.81	0.00	0.00
33	82.00	Ceragon	1	38.714	42.586	0.38	0.75	0.39	13.80	0.000	0.000	16.77	0.00	0.00
34	82.00	TBD S20057A1	3	38.714	42.586	0.38	0.75	0.01	39.60	0.000	0.000	0.48	0.00	0.00
35	82.00	MS-KI22-5 (Kickers w/o	1	38.714	42.586	1.00	1.00	6.33	175.20	0.000	0.000	269.57	0.00	0.00
36	82.00	Commscope VV-65A-R1	3	38.714	42.586	0.55	0.75	13.15	106.20	0.000	0.000	560.15	0.00	0.00
37	82.00	RFS	3	38.714	42.586	0.54	0.75	32.79	442.08	0.000	0.000	1396.33	0.00	0.00
38	82.00	Ericsson AIR6419 B41	3	38.714	42.586	0.57	0.75	6.50	237.96	0.000	0.000	276.72	0.00	0.00
39	82.00	Ericsson 4460 B25 + B66	3	38.714	42.586	0.38	0.75	3.21	392.40	0.000	0.000	136.54	0.00	0.00
40	82.00	Ericsson 4480 B71 + B85	3	38.714	42.586	0.38	0.75	3.21	334.80	0.000	0.000	136.54	0.00	0.00
41	82.00	Kathrein 782 11054	3	38.714	42.586	0.38	0.75	0.17	6.48	0.000	0.000	7.19	0.00	0.00
42	74.00	Standoff Mount	1	37.897	41.686	1.00	1.00	2.63	48.00	0.000	0.000	109.64	0.00	0.00
43	74.00	GPS	1	37.897	41.686	1.00	1.00	1.00	12.00	0.000	0.000	41.69	0.00	0.00
44	68.00	MC-PK8-DSH	1	37.237	40.961	0.75	0.75	25.68	2072.40	0.000	0.000	1051.88	0.00	0.00
45	68.00	RDIDC-9181-OF-48	1	37.237	40.961	1.00	1.00	2.01	26.28	0.000	0.000	82.33	0.00	0.00
46	68.00	TA08025-B605	3	37.237	40.961	0.38	0.75	2.21	270.00	0.000	0.000	90.32	0.00	0.00
47	68.00	TA08025-B604	3	37.237	40.961	0.38	0.75	2.21	230.04	0.000	0.000	90.32	0.00	0.00

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Struct Class: II	Page: 13



48	68.00	Commscope	3	37.237	40.961	0.55	0.75	19.71	254.88	0.000	0.000	807.49	0.00	0.00
Totals:												21,265.14	19,463.23	

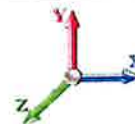
Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 14
	Struct Class: II	



Load Case: 1.2D + 1.0W 116 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		158.09	509.15	0.00	0.00
4.00		156.39	504.66	0.00	0.00
6.00		154.69	500.17	0.00	0.00
8.00		152.99	495.68	0.00	0.00
10.00		151.30	491.19	0.00	0.00
12.00		149.60	486.70	0.00	0.00
14.00		147.90	482.21	0.00	0.00
16.00		149.91	477.72	0.00	0.00
18.00		151.68	473.24	0.00	0.00
20.00		153.09	468.75	0.00	0.00
22.00		154.20	464.26	0.00	0.00
24.00		155.04	459.77	0.00	0.00
26.00		155.66	455.28	0.00	0.00
28.00		156.07	450.79	0.00	0.00
30.00		156.30	446.30	0.00	0.00
32.00		156.37	441.81	0.00	0.00
34.00		156.29	437.32	0.00	0.00
36.00		156.08	432.83	0.00	0.00
38.00		155.75	428.34	0.00	0.00
40.00		155.30	423.85	0.00	0.00
42.00		154.75	419.36	0.00	0.00
44.00		154.10	414.87	0.00	0.00
45.13		86.58	232.42	0.00	0.00
46.00		67.72	294.38	0.00	0.00
48.00		155.49	670.84	0.00	0.00
49.88		145.32	623.08	0.00	0.00
50.00		9.21	21.25	0.00	0.00
52.00		153.65	352.11	0.00	0.00
54.00		152.63	348.37	0.00	0.00
56.00		151.53	344.63	0.00	0.00
58.00		150.38	340.88	0.00	0.00
60.00		149.16	337.14	0.00	0.00
62.00		147.88	333.40	0.00	0.00
64.00		146.55	329.66	0.00	0.00
66.00		145.17	325.92	0.00	0.00
68.00	(11) attachments	2266.07	3175.78	0.00	0.00
70.00		142.25	313.66	0.00	0.00
72.00		140.72	309.92	0.00	0.00
74.00	(2) attachments	290.46	366.18	0.00	0.00
76.00		137.52	302.05	0.00	0.00
78.00		135.86	298.31	0.00	0.00
80.00		134.16	294.57	0.00	0.00
82.00	(28) attachments	4204.03	4391.59	0.00	0.00
84.00	(1) attachments	257.71	314.60	0.00	0.00
86.00		128.83	255.96	0.00	0.00
88.00		126.98	252.21	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Struct Class: II	Page: 15



		Topography: 1			
90.00	(27) attachments	3487.90	3243.91	0.00	0.00
91.29		79.82	146.33	0.00	0.00
92.00		43.96	118.62	0.00	0.00
94.00		123.27	331.65	0.00	0.00
94.71		43.23	116.30	0.00	0.00
96.00		77.95	96.82	0.00	0.00
97.00	(26) attachments	4198.34	4235.66	0.00	0.00
98.00		59.34	57.56	0.00	0.00
100.00		117.27	113.43	0.00	0.00
102.00		115.21	111.19	0.00	0.00
104.00		113.13	108.94	0.00	0.00
106.00	(21) attachments	3041.72	4036.70	0.00	541.08
108.00		108.87	99.70	0.00	0.00
110.00		106.71	97.46	0.00	0.00
112.00		104.52	95.21	0.00	0.00
114.00		102.30	92.97	0.00	0.00
115.00	(14) attachments	2609.16	3154.84	0.00	6063.05
116.00		49.70	45.08	0.00	0.00
118.00		97.80	87.23	0.00	0.00
	Totals:	27,697.62	41,382.77	0.00	6,604.13

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0W 116 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.063	0.000	27.041	0.00	0.66
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.063	0.000	27.041	0.00	2.50
2.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.063	0.000	27.041	0.00	0.38
2.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.063	0.000	27.041	0.00	4.78
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.064	0.000	27.041	0.00	0.66
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.064	0.000	27.041	0.00	2.50
4.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	27.041	0.00	0.38
4.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.064	0.000	27.041	0.00	4.78
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	27.041	0.00	0.66
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	27.041	0.00	2.50
6.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.041	0.00	0.38
6.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	27.041	0.00	4.78
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	27.041	0.00	0.66
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	27.041	0.00	2.50
8.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.041	0.00	0.38
8.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	27.041	0.00	4.78
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.066	0.000	27.041	0.00	0.66
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.066	0.000	27.041	0.00	2.50
10.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	27.041	0.00	0.38
10.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.066	0.000	27.041	0.00	4.78
10.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.066	0.000	27.041	0.00	4.78
12.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.067	0.000	27.041	0.00	0.66
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.067	0.000	27.041	0.00	2.50
12.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.041	0.00	0.38
12.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.067	0.000	27.041	0.00	4.78
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	27.041	0.00	0.66
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	27.041	0.00	2.50
14.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.041	0.00	0.38
14.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	27.041	0.00	4.78
14.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	27.041	0.00	4.78
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	27.726	0.00	0.66
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	27.726	0.00	2.50
16.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.726	0.00	0.38
16.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	27.726	0.00	4.78
16.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	27.726	0.00	4.78
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.069	0.000	28.383	0.00	0.66
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.069	0.000	28.383	0.00	2.50
18.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	28.383	0.00	0.38
18.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.069	0.000	28.383	0.00	4.78
18.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.069	0.000	28.383	0.00	4.78
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.070	0.000	28.988	0.00	0.66
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.070	0.000	28.988	0.00	2.50
20.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	28.988	0.00	0.38
20.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.070	0.000	28.988	0.00	4.78
20.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.070	0.000	28.988	0.00	4.78
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.071	0.000	29.548	0.00	0.66
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.071	0.000	29.548	0.00	2.50
22.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	29.548	0.00	0.38
22.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.071	0.000	29.548	0.00	4.78
22.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.071	0.000	29.548	0.00	4.78
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.072	0.000	30.072	0.00	0.66
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.072	0.000	30.072	0.00	2.50
24.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	30.072	0.00	0.38

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A

Code: TIA-222-H

8/30/2023

Site Name: Newtown-ferris Rd

Exposure: C

Height: 118.00 (ft)

Crest Height: 0.00

Base Elev: 1.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 17



Load Case: 1.2D + 1.0W 116 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations

26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
24.00	1.75" Hybrid	Yes	2.00	1.75	0.29	0.00	0.072	0.000	30.072	0.00	4.78
26.00	Safety Cable	Yes	2.00	0.38	0.06	0.00	0.073	0.000	30.563	0.00	0.66
26.00	Step bolts (ladder)	Yes	2.00	0.63	0.10	0.00	0.073	0.000	30.563	0.00	2.50
26.00	1/2"	Yes	2.00	0.00	0.00	0.00	0.073	0.000	30.563	0.00	0.38
26.00	1.75" Hybrid	Yes	2.00	1.75	0.29	0.00	0.073	0.000	30.563	0.00	4.78
28.00	Safety Cable	Yes	2.00	0.38	0.06	0.00	0.073	0.000	31.026	0.00	0.66
28.00	Step bolts (ladder)	Yes	2.00	0.63	0.10	0.00	0.073	0.000	31.026	0.00	2.50
28.00	1/2"	Yes	2.00	0.00	0.00	0.00	0.073	0.000	31.026	0.00	0.38
28.00	1.75" Hybrid	Yes	2.00	1.75	0.29	0.00	0.073	0.000	31.026	0.00	4.78
30.00	Safety Cable	Yes	2.00	0.38	0.06	0.00	0.074	0.000	31.465	0.00	0.66
30.00	Step bolts (ladder)	Yes	2.00	0.63	0.10	0.00	0.074	0.000	31.465	0.00	2.50
30.00	1/2"	Yes	2.00	0.00	0.00	0.00	0.074	0.000	31.465	0.00	0.38
30.00	1.75" Hybrid	Yes	2.00	1.75	0.29	0.00	0.074	0.000	31.465	0.00	4.78
32.00	Safety Cable	Yes	2.00	0.38	0.06	0.00	0.075	0.000	31.882	0.00	0.66
32.00	Step bolts (ladder)	Yes	2.00	0.63	0.10	0.00	0.075	0.000	31.882	0.00	2.50
32.00	1/2"	Yes	2.00	0.00	0.00	0.00	0.075	0.000	31.882	0.00	0.38
32.00	1.75" Hybrid	Yes	2.00	1.75	0.29	0.00	0.075	0.000	31.882	0.00	4.78
34.00	Safety Cable	Yes	2.00	0.38	0.06	0.00	0.076	0.000	32.279	0.00	0.66
34.00	Step bolts (ladder)	Yes	2.00	0.63	0.10	0.00	0.076	0.000	32.279	0.00	2.50
34.00	1/2"	Yes	2.00	0.00	0.00	0.00	0.076	0.000	32.279	0.00	0.38
34.00	1.75" Hybrid	Yes	2.00	1.75	0.29	0.00	0.076	0.000	32.279	0.00	4.78
36.00	Safety Cable	Yes	2.00	0.38	0.06	0.00	0.077	0.000	32.659	0.00	0.66
36.00	Step bolts (ladder)	Yes	2.00	0.63	0.10	0.00	0.077	0.000	32.659	0.00	2.50
36.00	1/2"	Yes	2.00	0.00	0.00	0.00	0.077	0.000	32.659	0.00	0.38
36.00	1.75" Hybrid	Yes	2.00	1.75	0.29	0.00	0.077	0.000	32.659	0.00	4.78
38.00	Safety Cable	Yes	2.00	0.38	0.06	0.00	0.078	0.000	33.023	0.00	0.66
38.00	Step bolts (ladder)	Yes	2.00	0.63	0.10	0.00	0.078	0.000	33.023	0.00	2.50
38.00	1/2"	Yes	2.00	0.00	0.00	0.00	0.078	0.000	33.023	0.00	0.38
38.00	1.75" Hybrid	Yes	2.00	1.75	0.29	0.00	0.078	0.000	33.023	0.00	4.78
40.00	Safety Cable	Yes	2.00	0.38	0.06	0.00	0.079	0.000	33.372	0.00	0.66
40.00	Step bolts (ladder)	Yes	2.00	0.63	0.10	0.00	0.079	0.000	33.372	0.00	2.50
40.00	1/2"	Yes	2.00	0.00	0.00	0.00	0.079	0.000	33.372	0.00	0.38
40.00	1.75" Hybrid	Yes	2.00	1.75	0.29	0.00	0.079	0.000	33.372	0.00	4.78
42.00	Safety Cable	Yes	2.00	0.38	0.06	0.00	0.080	0.000	33.709	0.00	0.66
42.00	Step bolts (ladder)	Yes	2.00	0.63	0.10	0.00	0.080	0.000	33.709	0.00	2.50
42.00	1/2"	Yes	2.00	0.00	0.00	0.00	0.080	0.000	33.709	0.00	0.38
42.00	1.75" Hybrid	Yes	2.00	1.75	0.29	0.00	0.080	0.000	33.709	0.00	4.78
44.00	Safety Cable	Yes	2.00	0.38	0.06	0.00	0.082	0.000	34.033	0.00	0.66
44.00	Step bolts (ladder)	Yes	2.00	0.63	0.10	0.00	0.082	0.000	34.033	0.00	2.50
44.00	1/2"	Yes	2.00	0.00	0.00	0.00	0.082	0.000	34.033	0.00	0.38
44.00	1.75" Hybrid	Yes	2.00	1.75	0.29	0.00	0.082	0.000	34.033	0.00	4.78
45.13	Safety Cable	Yes	1.13	0.38	0.04	0.00	0.082	0.000	34.211	0.00	0.37
45.13	Step bolts (ladder)	Yes	1.13	0.63	0.06	0.00	0.082	0.000	34.211	0.00	1.41
45.13	1/2"	Yes	1.13	0.00	0.00	0.00	0.082	0.000	34.211	0.00	0.22
45.13	1.75" Hybrid	Yes	1.13	1.75	0.16	0.00	0.082	0.000	34.211	0.00	2.70
46.00	Safety Cable	Yes	0.87	0.38	0.03	0.00	0.083	0.000	34.346	0.00	0.29
46.00	Step bolts (ladder)	Yes	0.87	0.63	0.05	0.00	0.083	0.000	34.346	0.00	1.09

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 1.20
Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	1/2"	Yes	0.87	0.000	0.00	0.00	0.00	0.083	0.000	34.346	0.00	0.17
46.00	1.75" Hybrid	Yes	0.87	0.000	1.75	0.13	0.00	0.083	0.000	34.346	0.00	2.08
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.084	0.000	34.648	0.00	0.66
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.084	0.000	34.648	0.00	2.50
48.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	34.648	0.00	0.38
48.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.084	0.000	34.648	0.00	4.78
49.88	Safety Cable	Yes	1.88	0.000	0.38	0.06	0.00	0.085	0.000	34.924	0.00	0.62
49.88	Step bolts (ladder)	Yes	1.88	0.000	0.63	0.10	0.00	0.085	0.000	34.924	0.00	2.35
49.88	1/2"	Yes	1.88	0.000	0.00	0.00	0.00	0.085	0.000	34.924	0.00	0.36
49.88	1.75" Hybrid	Yes	1.88	0.000	1.75	0.27	0.00	0.085	0.000	34.924	0.00	4.49
50.00	Safety Cable	Yes	0.12	0.000	0.38	0.00	0.00	0.084	0.000	34.941	0.00	0.04
50.00	Step bolts (ladder)	Yes	0.12	0.000	0.63	0.01	0.00	0.084	0.000	34.941	0.00	0.15
50.00	1/2"	Yes	0.12	0.000	0.00	0.00	0.00	0.084	0.000	34.941	0.00	0.02
50.00	1.75" Hybrid	Yes	0.12	0.000	1.75	0.02	0.00	0.084	0.000	34.941	0.00	0.29
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.085	0.000	35.226	0.00	0.66
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.085	0.000	35.226	0.00	2.50
52.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	35.226	0.00	0.38
52.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.085	0.000	35.226	0.00	4.78
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.086	0.000	35.501	0.00	0.66
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.086	0.000	35.501	0.00	2.50
54.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	35.501	0.00	0.38
54.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.086	0.000	35.501	0.00	4.78
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.087	0.000	35.769	0.00	0.66
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.087	0.000	35.769	0.00	2.50
56.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.087	0.000	35.769	0.00	0.38
56.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.087	0.000	35.769	0.00	4.78
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.089	0.000	36.030	0.00	0.66
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.089	0.000	36.030	0.00	2.50
58.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	36.030	0.00	0.38
58.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.089	0.000	36.030	0.00	4.78
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.090	0.000	36.284	0.00	0.66
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.090	0.000	36.284	0.00	2.50
60.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	36.284	0.00	0.38
60.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.090	0.000	36.284	0.00	4.78
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.091	0.000	36.531	0.00	0.66
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.091	0.000	36.531	0.00	2.50
62.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	36.531	0.00	0.38
62.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.091	0.000	36.531	0.00	4.78
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.093	0.000	36.772	0.00	0.66
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.093	0.000	36.772	0.00	2.50
64.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.093	0.000	36.772	0.00	0.38
64.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.093	0.000	36.772	0.00	4.78
66.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.094	0.000	37.007	0.00	0.66
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.094	0.000	37.007	0.00	2.50
66.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	37.007	0.00	0.38
66.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.094	0.000	37.007	0.00	4.78
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.096	0.000	37.237	0.00	0.66

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 116 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.096	0.000	37.237	0.00	2.50
68.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.096	0.000	37.237	0.00	0.38
68.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.096	0.000	37.237	0.00	4.78
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	37.462	0.00	0.66
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	37.462	0.00	2.50
70.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	37.462	0.00	0.38
72.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	37.682	0.00	0.66
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	37.682	0.00	2.50
72.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	37.682	0.00	0.38
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	37.897	0.00	0.66
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	37.897	0.00	2.50
74.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.037	0.000	37.897	0.00	0.38
76.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	38.107	0.00	0.66
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	38.107	0.00	2.50
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	38.314	0.00	0.66
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	38.314	0.00	2.50
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	38.516	0.00	0.66
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	38.516	0.00	2.50
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	38.714	0.00	0.66
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	38.714	0.00	2.50
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	38.909	0.00	0.66
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	38.909	0.00	2.50
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	39.100	0.00	0.66
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	39.100	0.00	2.50
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.042	0.000	39.287	0.00	0.66
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.042	0.000	39.287	0.00	2.50
90.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.043	0.000	39.471	0.00	0.66
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.043	0.000	39.471	0.00	2.50
91.29	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.043	0.000	39.589	0.00	0.42
91.29	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.043	0.000	39.589	0.00	1.61
92.00	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.044	0.000	39.652	0.00	0.23
92.00	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.044	0.000	39.652	0.00	0.88
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.044	0.000	39.830	0.00	0.66
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.044	0.000	39.830	0.00	2.50
94.71	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.045	0.000	39.893	0.00	0.23
94.71	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.045	0.000	39.893	0.00	0.89
96.00	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.045	0.000	40.006	0.00	0.42
96.00	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.045	0.000	40.006	0.00	1.61
97.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.045	0.000	40.092	0.00	0.33
97.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.045	0.000	40.092	0.00	1.25
98.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.046	0.000	40.178	0.00	0.33
98.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.046	0.000	40.178	0.00	1.25
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	40.347	0.00	0.66
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	40.347	0.00	2.50
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	40.514	0.00	0.66
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	40.514	0.00	2.50
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	40.679	0.00	0.66

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 116 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	40.679	0.00	2.50
106.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	40.841	0.00	0.66
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	40.841	0.00	2.50
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	41.000	0.00	0.66
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	41.000	0.00	2.50
110.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	41.157	0.00	0.66
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	41.157	0.00	2.50
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	41.312	0.00	0.66
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	41.312	0.00	2.50
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.055	0.000	41.465	0.00	0.66
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.055	0.000	41.465	0.00	2.50
115.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.056	0.000	41.541	0.00	0.33
115.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.056	0.000	41.541	0.00	1.25
116.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.057	0.000	41.616	0.00	0.33
116.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.057	0.000	41.616	0.00	1.25
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.058	0.000	41.765	0.00	0.66
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.058	0.000	41.765	0.00	2.50
Totals:											0.0	362.6

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 21



Load Case: 1.2D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 1.20
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-41.35	-27.74	0.00	-2408.4	0.00	2408.47	3634.70	895.58	3185.83	3203.64	0.00	0.000	0.000	0.764
2.00	-40.79	-27.66	0.00	-2352.9	0.00	2352.99	3607.15	885.93	3117.56	3144.81	0.02	-0.114	0.000	0.760
4.00	-40.23	-27.59	0.00	-2297.6	0.00	2297.67	3579.34	876.28	3050.03	3086.29	0.10	-0.230	0.000	0.757
6.00	-39.67	-27.51	0.00	-2242.5	0.00	2242.50	3551.29	866.64	2983.24	3028.09	0.22	-0.346	0.000	0.753
8.00	-39.12	-27.43	0.00	-2187.4	0.00	2187.49	3522.98	856.99	2917.19	2970.21	0.39	-0.463	0.000	0.749
10.00	-38.58	-27.36	0.00	-2132.6	0.00	2132.62	3494.42	847.34	2851.88	2912.67	0.61	-0.582	0.000	0.744
12.00	-38.03	-27.28	0.00	-2077.9	0.00	2077.91	3465.61	837.69	2787.31	2855.46	0.88	-0.701	0.000	0.740
14.00	-37.50	-27.21	0.00	-2023.3	0.00	2023.34	3436.54	828.05	2723.48	2798.60	1.20	-0.821	0.000	0.735
16.00	-36.96	-27.13	0.00	-1968.9	0.00	1968.93	3407.22	818.40	2660.39	2742.09	1.57	-0.943	0.000	0.730
18.00	-36.44	-27.05	0.00	-1914.6	0.00	1914.68	3377.65	808.75	2598.04	2685.95	1.99	-1.065	0.000	0.725
20.00	-35.91	-26.96	0.00	-1860.5	0.00	1860.59	3347.83	799.10	2536.42	2630.17	2.46	-1.188	0.000	0.719
22.00	-35.39	-26.87	0.00	-1806.6	0.00	1806.66	3317.75	789.46	2475.55	2574.76	2.99	-1.312	0.000	0.714
24.00	-34.88	-26.78	0.00	-1752.9	0.00	1752.92	3287.42	779.81	2415.41	2519.74	3.57	-1.436	0.000	0.707
26.00	-34.37	-26.69	0.00	-1699.3	0.00	1699.35	3256.84	770.16	2356.02	2465.11	4.19	-1.562	0.000	0.701
28.00	-33.86	-26.60	0.00	-1645.9	0.00	1645.97	3219.51	760.51	2297.36	2406.03	4.88	-1.688	0.000	0.696
30.00	-33.36	-26.50	0.00	-1592.7	0.00	1592.77	3178.67	750.87	2239.44	2345.06	5.61	-1.815	0.000	0.691
32.00	-32.87	-26.41	0.00	-1539.7	0.00	1539.77	3137.83	741.22	2182.27	2284.88	6.40	-1.943	0.000	0.686
34.00	-32.38	-26.31	0.00	-1486.9	0.00	1486.96	3096.99	731.57	2125.83	2225.48	7.24	-2.071	0.000	0.680
36.00	-31.89	-26.21	0.00	-1434.3	0.00	1434.35	3056.15	721.92	2070.13	2166.87	8.14	-2.200	0.000	0.674
38.00	-31.41	-26.10	0.00	-1381.9	0.00	1381.93	3015.30	712.28	2015.17	2109.03	9.09	-2.329	0.000	0.667
40.00	-30.94	-26.00	0.00	-1329.7	0.00	1329.73	2974.46	702.63	1960.95	2051.98	10.09	-2.458	0.000	0.660
42.00	-30.47	-25.90	0.00	-1277.7	0.00	1277.72	2933.62	692.98	1907.47	1995.71	11.15	-2.588	0.000	0.652
44.00	-30.01	-25.78	0.00	-1225.9	0.00	1225.93	2892.78	683.33	1854.73	1940.23	12.26	-2.717	0.000	0.644
45.13	-29.76	-25.71	0.00	-1196.8	0.00	1196.80	2869.71	677.88	1825.26	1909.22	12.91	-2.791	0.000	0.639
46.00	-29.42	-25.68	0.00	-1174.4	0.00	1174.43	2851.94	673.69	1802.73	1885.52	13.42	-2.848	0.000	0.635
48.00	-28.71	-25.55	0.00	-1123.0	0.00	1123.07	2811.10	664.04	1751.47	1831.60	14.65	-2.978	0.000	0.625
49.88	-28.06	-25.41	0.00	-1075.0	0.00	1075.03	2333.69	557.78	1482.91	1535.76	15.84	-3.100	0.000	0.714
50.00	-28.01	-25.43	0.00	-1071.9	0.00	1071.98	2332.20	557.29	1480.35	1533.44	15.92	-3.108	0.000	0.713
52.00	-27.60	-25.33	0.00	-1021.1	0.00	1021.11	2307.18	549.25	1437.95	1494.89	17.25	-3.252	0.000	0.697
54.00	-27.20	-25.23	0.00	-970.45	0.00	970.45	2281.92	541.21	1396.16	1456.67	18.65	-3.396	0.000	0.680
56.00	-26.80	-25.12	0.00	-920.00	0.00	920.00	2256.40	533.17	1354.99	1418.77	20.10	-3.539	0.000	0.663
58.00	-26.41	-25.02	0.00	-869.76	0.00	869.76	2223.07	525.14	1314.43	1376.53	21.61	-3.681	0.000	0.646
60.00	-26.02	-24.91	0.00	-819.73	0.00	819.73	2189.04	517.10	1274.49	1334.49	23.18	-3.820	0.000	0.628
62.00	-25.64	-24.80	0.00	-769.92	0.00	769.92	2155.00	509.06	1235.17	1293.10	24.81	-3.958	0.000	0.610
64.00	-25.26	-24.69	0.00	-720.32	0.00	720.32	2120.97	501.02	1196.47	1252.37	26.50	-4.093	0.000	0.590
66.00	-24.89	-24.58	0.00	-670.95	0.00	670.95	2086.94	492.98	1158.38	1212.28	28.24	-4.226	0.000	0.568
68.00	-21.85	-22.13	0.00	-621.80	0.00	621.80	2052.90	484.94	1120.90	1172.85	30.04	-4.355	0.000	0.543
70.00	-21.50	-22.01	0.00	-577.54	0.00	577.54	2018.87	476.90	1084.04	1134.08	31.89	-4.481	0.000	0.522
72.00	-21.15	-21.89	0.00	-533.53	0.00	533.53	1984.83	468.86	1047.80	1095.95	33.79	-4.603	0.000	0.500
74.00	-20.77	-21.61	0.00	-489.75	0.00	489.75	1950.80	460.82	1012.18	1058.48	35.75	-4.722	0.000	0.476
76.00	-20.44	-21.49	0.00	-446.53	0.00	446.53	1916.76	452.78	977.17	1021.65	37.75	-4.837	0.000	0.450
78.00	-20.11	-21.37	0.00	-403.56	0.00	403.56	1882.73	444.74	942.77	985.48	39.80	-4.947	0.000	0.422
80.00	-19.79	-21.24	0.00	-360.83	0.00	360.83	1848.70	436.70	909.00	949.96	41.89	-5.051	0.000	0.393
82.00	-15.77	-16.69	0.00	-318.34	0.00	318.34	1814.66	428.66	875.84	915.10	44.02	-5.148	0.000	0.358
84.00	-15.45	-16.43	0.00	-284.97	0.00	284.97	1780.63	420.62	843.29	880.88	46.20	-5.240	0.000	0.334
86.00	-15.18	-16.30	0.00	-252.11	0.00	252.11	1746.59	412.58	811.36	847.32	48.41	-5.326	0.000	0.308
88.00	-14.92	-16.17	0.00	-219.51	0.00	219.51	1712.56	404.54	780.05	814.41	50.65	-5.407	0.000	0.280
90.00	-12.01	-12.40	0.00	-187.18	0.00	187.18	1678.53	396.50	749.35	782.15	52.93	-5.480	0.000	0.247

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 22



91.29	-11.87	-12.31	0.00	-171.14	0.00	171.14	1656.52	391.30	729.83	761.64	54.42	-5.525	0.000	0.233
92.00	-11.74	-12.27	0.00	-162.44	0.00	162.44	1644.49	388.46	719.27	750.54	55.24	-5.548	0.000	0.225
94.00	-11.42	-12.12	0.00	-137.90	0.00	137.90	1610.46	380.42	689.81	719.59	57.57	-5.610	0.000	0.200
94.71	-11.30	-12.07	0.00	-129.30	0.00	129.30	930.70	231.76	426.71	424.70	58.41	-5.630	0.000	0.319
96.00	-11.20	-11.99	0.00	-113.72	0.00	113.72	922.07	228.65	415.33	415.07	59.93	-5.665	0.000	0.289
97.00	-7.40	-7.40	0.00	-101.73	0.00	101.73	915.31	226.24	406.62	407.64	61.12	-5.704	0.000	0.259
98.00	-7.34	-7.34	0.00	-94.33	0.00	94.33	908.49	223.83	397.99	400.25	62.32	-5.741	0.000	0.245
100.00	-7.23	-7.22	0.00	-79.65	0.00	79.65	894.64	219.00	381.02	385.59	64.74	-5.807	0.000	0.216
102.00	-7.13	-7.10	0.00	-65.20	0.00	65.20	880.55	214.18	364.42	371.08	67.18	-5.867	0.000	0.185
104.00	-7.02	-6.98	0.00	-51.00	0.00	51.00	866.20	209.36	348.19	356.74	69.64	-5.918	0.000	0.152
106.00	-3.32	-3.54	0.00	-36.49	0.00	36.49	851.60	204.53	332.33	342.57	72.13	-5.959	0.000	0.111
108.00	-3.23	-3.43	0.00	-29.40	0.00	29.40	836.75	199.71	316.84	328.58	74.63	-5.992	0.000	0.094
110.00	-3.14	-3.31	0.00	-22.55	0.00	22.55	821.65	194.89	301.72	314.78	77.14	-6.021	0.000	0.076
112.00	-3.06	-3.20	0.00	-15.92	0.00	15.92	804.60	190.06	286.97	300.54	79.66	-6.043	0.000	0.057
114.00	-2.98	-3.09	0.00	-9.52	0.00	9.52	784.18	185.24	272.59	285.40	82.19	-6.059	0.000	0.037
115.00	-0.12	-0.16	0.00	-0.37	0.00	0.37	773.97	182.83	265.54	277.98	83.46	-6.064	0.000	0.001
116.00	-0.08	-0.11	0.00	-0.21	0.00	0.21	763.76	180.41	258.58	270.66	84.73	-6.065	0.000	0.001
118.00	0.00	-0.10	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	87.26	-6.065	0.000	0.000

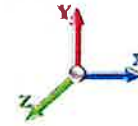
Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0W 116 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 26

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	27.041	29.74	385.91	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	27.041	29.74	381.79	0.730	0.000	2.00	7.280	5.31	158.1	0.0	310.9
4.00		1.00	0.85	27.041	29.74	377.66	0.730	0.000	2.00	7.202	5.26	156.4	0.0	307.5
6.00		1.00	0.85	27.041	29.74	373.54	0.730	0.000	2.00	7.124	5.20	154.7	0.0	304.1
8.00		1.00	0.85	27.041	29.74	369.42	0.730	0.000	2.00	7.046	5.14	153.0	0.0	300.8
10.00		1.00	0.85	27.041	29.74	365.30	0.730	0.000	2.00	6.968	5.09	151.3	0.0	297.4
12.00		1.00	0.85	27.041	29.74	361.18	0.730	0.000	2.00	6.890	5.03	149.6	0.0	294.0
14.00		1.00	0.85	27.041	29.74	357.06	0.730	0.000	2.00	6.811	4.97	147.9	0.0	290.7
16.00		1.00	0.87	27.726	30.50	357.38	0.730	0.000	2.00	6.733	4.92	149.9	0.0	287.3
18.00		1.00	0.89	28.383	31.22	357.37	0.730	0.000	2.00	6.655	4.86	151.7	0.0	283.9
20.00		1.00	0.91	28.988	31.89	356.89	0.730	0.000	2.00	6.577	4.80	153.1	0.0	280.6
22.00		1.00	0.93	29.548	32.50	356.01	0.730	0.000	2.00	6.499	4.74	154.2	0.0	277.2
24.00		1.00	0.95	30.072	33.08	354.81	0.730	0.000	2.00	6.421	4.69	155.0	0.0	273.8
26.00		1.00	0.96	30.563	33.62	353.31	0.730	0.000	2.00	6.342	4.63	155.7	0.0	270.5
28.00		1.00	0.98	31.026	34.13	351.57	0.730	0.000	2.00	6.264	4.57	156.1	0.0	267.1
30.00		1.00	0.99	31.465	34.61	349.60	0.730	0.000	2.00	6.186	4.52	156.3	0.0	263.7
32.00		1.00	1.00	31.882	35.07	347.43	0.730	0.000	2.00	6.108	4.46	156.4	0.0	260.4
34.00		1.00	1.01	32.279	35.51	345.09	0.730	0.000	2.00	6.030	4.40	156.3	0.0	257.0
36.00		1.00	1.03	32.659	35.92	342.58	0.730	0.000	2.00	5.952	4.34	156.1	0.0	253.6
38.00		1.00	1.04	33.023	36.33	339.93	0.730	0.000	2.00	5.873	4.29	155.7	0.0	250.3
40.00		1.00	1.05	33.372	36.71	337.15	0.730	0.000	2.00	5.795	4.23	155.3	0.0	246.9
42.00		1.00	1.06	33.709	37.08	334.24	0.730	0.000	2.00	5.717	4.17	154.8	0.0	243.5
44.00		1.00	1.07	34.033	37.44	331.22	0.730	0.000	2.00	5.639	4.12	154.1	0.0	240.2
45.13 Bot - Section 2		1.00	1.08	34.211	37.63	329.47	0.730	0.000	1.13	3.151	2.30	86.6	0.0	134.2
46.00		1.00	1.08	34.346	37.78	328.10	0.730	0.000	0.87	2.455	1.79	67.7	0.0	189.9
48.00		1.00	1.09	34.648	38.11	324.87	0.730	0.000	2.00	5.588	4.08	155.5	0.0	432.1
49.88 Top - Section 1		1.00	1.10	34.924	38.42	321.76	0.730	0.000	1.88	5.182	3.78	145.3	0.0	400.6
50.00		1.00	1.10	34.941	38.44	327.90	0.730	0.000	0.12	0.328	0.24	9.2	0.0	11.7
52.00		1.00	1.11	35.226	38.75	324.53	0.730	0.000	2.00	5.432	3.97	153.7	0.0	193.1
54.00		1.00	1.12	35.501	39.05	321.07	0.730	0.000	2.00	5.354	3.91	152.6	0.0	190.3
56.00		1.00	1.12	35.769	39.35	317.54	0.730	0.000	2.00	5.276	3.85	151.5	0.0	187.5
58.00		1.00	1.13	36.030	39.63	313.94	0.730	0.000	2.00	5.198	3.79	150.4	0.0	184.7
60.00		1.00	1.14	36.284	39.91	310.27	0.730	0.000	2.00	5.119	3.74	149.2	0.0	181.9
62.00		1.00	1.15	36.531	40.18	306.53	0.730	0.000	2.00	5.041	3.68	147.9	0.0	179.1
64.00		1.00	1.16	36.772	40.45	302.74	0.730	0.000	2.00	4.963	3.62	146.6	0.0	176.3
66.00		1.00	1.16	37.007	40.71	298.89	0.730	0.000	2.00	4.885	3.57	145.2	0.0	173.5
68.00 Appurtenance(s)		1.00	1.17	37.237	40.96	294.98	0.730	0.000	2.00	4.807	3.51	143.7	0.0	170.6
70.00		1.00	1.18	37.462	41.21	291.01	0.730	0.000	2.00	4.729	3.45	142.2	0.0	167.8
72.00		1.00	1.18	37.682	41.45	287.00	0.730	0.000	2.00	4.650	3.39	140.7	0.0	165.0
74.00 Appurtenance(s)		1.00	1.19	37.897	41.69	282.94	0.730	0.000	2.00	4.572	3.34	139.1	0.0	162.2
76.00		1.00	1.20	38.107	41.92	278.83	0.730	0.000	2.00	4.494	3.28	137.5	0.0	159.4
78.00		1.00	1.20	38.314	42.14	274.68	0.730	0.000	2.00	4.416	3.22	135.9	0.0	156.6
80.00		1.00	1.21	38.516	42.37	270.49	0.730	0.000	2.00	4.338	3.17	134.2	0.0	153.8
82.00 Appurtenance(s)		1.00	1.22	38.714	42.59	266.25	0.730	0.000	2.00	4.260	3.11	132.4	0.0	151.0
84.00 Appurtenance(s)		1.00	1.22	38.909	42.80	261.98	0.730	0.000	2.00	4.181	3.05	130.6	0.0	148.2
86.00		1.00	1.23	39.100	43.01	257.66	0.730	0.000	2.00	4.103	3.00	128.8	0.0	145.4
88.00		1.00	1.23	39.287	43.22	253.31	0.730	0.000	2.00	4.025	2.94	127.0	0.0	142.6

Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00 Appurtenance(s)	1.00	1.24	39.471	43.42	248.93	0.730	0.000	2.00	3.947	2.88	125.1	0.0	139.8	
91.29 Bot - Section 3	1.00	1.24	39.589	43.55	246.07	0.730	0.000	1.29	2.511	1.83	79.8	0.0	88.9	
92.00	1.00	1.25	39.652	43.62	244.51	0.730	0.000	0.71	1.380	1.01	44.0	0.0	77.6	
94.00	1.00	1.25	39.830	43.81	240.05	0.730	0.000	2.00	3.854	2.81	123.3	0.0	216.5	
94.71 Top - Section 2	1.00	1.25	39.893	43.88	238.46	0.730	0.000	0.71	1.349	0.99	43.2	0.0	75.8	
96.00	1.00	1.26	40.006	44.01	239.64	0.730	0.000	1.29	2.427	1.77	78.0	0.0	51.8	
97.00 Appurtenance(s)	1.00	1.26	40.092	44.10	237.39	0.730	0.000	1.00	1.859	1.36	59.8	0.0	39.7	
98.00	1.00	1.26	40.178	44.20	235.13	0.730	0.000	1.00	1.839	1.34	59.3	0.0	39.3	
100.00	1.00	1.27	40.347	44.38	230.59	0.730	0.000	2.00	3.620	2.64	117.3	0.0	77.3	
102.00	1.00	1.27	40.514	44.57	226.02	0.730	0.000	2.00	3.541	2.59	115.2	0.0	75.6	
104.00	1.00	1.28	40.679	44.75	221.43	0.730	0.000	2.00	3.463	2.53	113.1	0.0	73.9	
106.00 Appurtenance(s)	1.00	1.28	40.841	44.92	216.80	0.730	0.000	2.00	3.385	2.47	111.0	0.0	72.2	
108.00	1.00	1.29	41.000	45.10	212.15	0.730	0.000	2.00	3.307	2.41	108.9	0.0	70.5	
110.00	1.00	1.29	41.157	45.27	207.47	0.730	0.000	2.00	3.229	2.36	106.7	0.0	68.9	
112.00	1.00	1.30	41.312	45.44	202.77	0.730	0.000	2.00	3.151	2.30	104.5	0.0	67.2	
114.00	1.00	1.30	41.465	45.61	198.04	0.730	0.000	2.00	3.072	2.24	102.3	0.0	65.5	
115.00 Appurtenance(s)	1.00	1.31	41.541	45.69	195.67	0.730	0.000	1.00	1.507	1.10	50.3	0.0	32.1	
116.00	1.00	1.31	41.616	45.78	193.29	0.730	0.000	1.00	1.487	1.09	49.7	0.0	31.7	
118.00	1.00	1.31	41.765	45.94	188.51	0.730	0.000	2.00	2.916	2.13	97.8	0.0	62.1	
Totals:								118.00			8,234.4			11,845.3

Discrete Appurtenance Forces

Structure: CT46132-A

Code: TIA-222-H

8/30/2023

Site Name: Newtown-ferris Rd

Exposure: C

Height: 118.00 (ft)

Crest Height: 0.00

Base Elev: 1.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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Load Case: 0.9D + 1.0W 116 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations

26

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	115.00	Low Profile Platform	1	41.541	45.695	1.00	1.00	28.50	1620.00	0.000	0.000	1302.31	0.00	0.00
2	115.00	Mount Pipes	12	41.691	45.860	0.90	0.90	20.52	648.00	0.000	2.000	941.04	0.00	1882.08
3	115.00	DS1F03F36D-N	1	42.498	46.747	1.00	1.00	6.75	63.90	0.000	13.250	315.54	0.00	4180.97
4	106.00	APXV9TM14-ALU-120	3	40.921	45.013	0.63	0.80	12.02	151.20	0.000	1.000	541.08	0.00	541.08
5	106.00	Universal Ring Mount	1	40.841	44.925	1.00	1.00	5.00	315.00	0.000	0.000	224.62	0.00	0.00
6	106.00	Low Profile Platform	1	40.841	44.925	0.75	0.75	21.00	1800.00	0.000	0.000	943.42	0.00	0.00
7	106.00	APXVSP18-C-A20	3	40.841	44.925	0.66	0.80	15.98	153.90	0.000	0.000	717.71	0.00	0.00
8	106.00	800 MHz RRU Filter	3	40.841	44.925	0.40	0.80	2.88	172.80	0.000	0.000	129.38	0.00	0.00
9	106.00	1900 MHz 4X45 RRH	3	40.841	44.925	0.40	0.80	3.25	162.00	0.000	0.000	146.09	0.00	0.00
10	106.00	TD-RRH8x20-25	3	40.841	44.925	0.40	0.80	4.86	189.00	0.000	0.000	218.33	0.00	0.00
11	106.00	ACU-A20-N	4	40.841	44.925	0.40	0.80	0.22	3.60	0.000	0.000	10.06	0.00	0.00
12	97.00	Amphenol	3	40.092	44.101	0.55	0.75	12.43	45.90	0.000	0.000	548.34	0.00	0.00
13	97.00	Samsung MT6407-77A	3	40.092	44.101	0.52	0.75	7.39	214.38	0.000	0.000	325.76	0.00	0.00
14	97.00	Samsung RF4439d-25A	3	40.092	44.101	0.38	0.75	2.09	201.69	0.000	0.000	92.28	0.00	0.00
15	97.00	JMA MX06FRO660-03	6	40.092	44.101	0.65	0.75	38.64	470.34	0.000	0.000	1704.12	0.00	0.00
16	97.00	Kaelus KA-6030	6	40.092	44.101	0.49	0.75	2.81	95.04	0.000	0.000	123.84	0.00	0.00
17	97.00	Samsung RF4440d-13A	3	40.092	44.101	0.50	0.75	2.80	189.89	0.000	0.000	123.66	0.00	0.00
18	97.00	Commscope	1	40.092	44.101	0.75	0.75	1.40	13.69	0.000	0.000	61.85	0.00	0.00
19	97.00	Low Profile Platform w/	1	40.092	44.101	0.75	0.75	26.27	1890.00	0.000	0.000	1158.65	0.00	0.00
20	90.00	RRUS 32 B30	3	39.471	43.419	0.40	0.80	3.29	162.00	0.000	0.000	142.76	0.00	0.00
21	90.00	RRUS 32 B2	3	39.471	43.419	0.40	0.80	3.29	143.10	0.000	0.000	142.76	0.00	0.00
22	90.00	QS66512-2	3	39.471	43.419	0.72	0.80	17.56	207.90	0.000	0.000	762.46	0.00	0.00
23	90.00	DC6-48-60-18-8F	2	39.471	43.419	1.00	1.00	1.84	57.24	0.000	0.000	79.89	0.00	0.00
24	90.00	RRUS-11	3	39.471	43.419	0.40	0.80	5.30	148.50	0.000	0.000	230.29	0.00	0.00
25	90.00	LGP21401	6	39.471	43.419	0.40	0.80	3.10	76.14	0.000	0.000	134.42	0.00	0.00
26	90.00	7770.00	3	39.471	43.419	0.58	0.80	9.64	94.50	0.000	0.000	418.38	0.00	0.00
27	90.00	Low Profile Platform	1	39.471	43.419	0.75	0.75	18.75	1214.10	0.000	0.000	814.10	0.00	0.00
28	90.00	P65-16-XLH-RR	3	39.471	43.419	0.60	0.80	14.69	143.10	0.000	0.000	637.73	0.00	0.00
29	84.00	12.5' - 2" Horizontal Pipe	1	38.909	42.800	1.00	1.00	2.97	41.18	0.000	0.000	127.06	0.00	0.00
30	82.00	RFS ATMAA1412D-1A20	3	38.714	42.586	0.38	0.75	1.32	35.10	0.000	0.000	56.05	0.00	0.00
31	82.00	Platform w/ Handrail	1	38.714	42.586	0.75	0.75	17.86	1681.38	0.000	0.000	760.47	0.00	0.00
32	82.00	Andrew VHLP3-11W	1	38.714	42.586	1.00	1.00	10.68	47.70	0.000	0.000	454.81	0.00	0.00
33	82.00	Ceragon	1	38.714	42.586	0.38	0.75	0.39	10.35	0.000	0.000	16.77	0.00	0.00
34	82.00	TBD S20057A1	3	38.714	42.586	0.38	0.75	0.01	29.70	0.000	0.000	0.48	0.00	0.00
35	82.00	MS-KI22-5 (Kickers w/o	1	38.714	42.586	1.00	1.00	6.33	131.40	0.000	0.000	269.57	0.00	0.00
36	82.00	Commscope VV-65A-R1	3	38.714	42.586	0.55	0.75	13.15	79.65	0.000	0.000	560.15	0.00	0.00
37	82.00	RFS	3	38.714	42.586	0.54	0.75	32.79	331.56	0.000	0.000	1396.33	0.00	0.00
38	82.00	Ericsson AIR6419 B41	3	38.714	42.586	0.57	0.75	6.50	178.47	0.000	0.000	276.72	0.00	0.00
39	82.00	Ericsson 4460 B25 + B66	3	38.714	42.586	0.38	0.75	3.21	294.30	0.000	0.000	136.54	0.00	0.00
40	82.00	Ericsson 4480 B71 + B85	3	38.714	42.586	0.38	0.75	3.21	251.10	0.000	0.000	136.54	0.00	0.00
41	82.00	Kathrein 782 11054	3	38.714	42.586	0.38	0.75	0.17	4.86	0.000	0.000	7.19	0.00	0.00
42	74.00	Standoff Mount	1	37.897	41.686	1.00	1.00	2.63	36.00	0.000	0.000	109.64	0.00	0.00
43	74.00	GPS	1	37.897	41.686	1.00	1.00	1.00	9.00	0.000	0.000	41.69	0.00	0.00
44	68.00	MC-PK8-DSH	1	37.237	40.961	0.75	0.75	25.68	1554.30	0.000	0.000	1051.88	0.00	0.00
45	68.00	RDIDC-9181-OF-48	1	37.237	40.961	1.00	1.00	2.01	19.71	0.000	0.000	82.33	0.00	0.00
46	68.00	TA08025-B605	3	37.237	40.961	0.38	0.75	2.21	202.50	0.000	0.000	90.32	0.00	0.00
47	68.00	TA08025-B604	3	37.237	40.961	0.38	0.75	2.21	172.53	0.000	0.000	90.32	0.00	0.00

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 26
Struct Class: II		



48	68.00 Commscope	3	37.237	40.961	0.55	0.75	19.71	191.16	0.000	0.000	807.49	0.00	0.00
Totals:											15,948.85	19,463.23	

Total Applied Force Summary

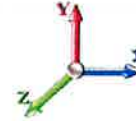
Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 27

Load Case: 0.9D + 1.0W 116 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 26

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		158.09	381.86	0.00	0.00
4.00		156.39	378.50	0.00	0.00
6.00		154.69	375.13	0.00	0.00
8.00		152.99	371.76	0.00	0.00
10.00		151.30	368.39	0.00	0.00
12.00		149.60	365.03	0.00	0.00
14.00		147.90	361.66	0.00	0.00
16.00		149.91	358.29	0.00	0.00
18.00		151.68	354.93	0.00	0.00
20.00		153.09	351.56	0.00	0.00
22.00		154.20	348.19	0.00	0.00
24.00		155.04	344.83	0.00	0.00
26.00		155.66	341.46	0.00	0.00
28.00		156.07	338.09	0.00	0.00
30.00		156.30	334.72	0.00	0.00
32.00		156.37	331.36	0.00	0.00
34.00		156.29	327.99	0.00	0.00
36.00		156.08	324.62	0.00	0.00
38.00		155.75	321.26	0.00	0.00
40.00		155.30	317.89	0.00	0.00
42.00		154.75	314.52	0.00	0.00
44.00		154.10	311.16	0.00	0.00
45.13		86.58	174.31	0.00	0.00
46.00		67.72	220.79	0.00	0.00
48.00		155.49	503.13	0.00	0.00
49.88		145.32	467.31	0.00	0.00
50.00		9.21	15.93	0.00	0.00
52.00		153.65	264.08	0.00	0.00
54.00		152.63	261.27	0.00	0.00
56.00		151.53	258.47	0.00	0.00
58.00		150.38	255.66	0.00	0.00
60.00		149.16	252.86	0.00	0.00
62.00		147.88	250.05	0.00	0.00
64.00		146.55	247.25	0.00	0.00
66.00		145.17	244.44	0.00	0.00
68.00	(11) attachments	2266.07	2381.83	0.00	0.00
70.00		142.25	235.24	0.00	0.00
72.00		140.72	232.44	0.00	0.00
74.00	(2) attachments	290.46	274.63	0.00	0.00
76.00		137.52	226.54	0.00	0.00
78.00		135.86	223.73	0.00	0.00
80.00		134.16	220.93	0.00	0.00
82.00	(28) attachments	4204.03	3293.69	0.00	0.00
84.00	(1) attachments	257.71	235.95	0.00	0.00
86.00		128.83	191.97	0.00	0.00
88.00		126.98	189.16	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 28
Struct Class: II		



90.00	(27) attachments	3487.90	2432.93	0.00	0.00
91.29		79.82	109.75	0.00	0.00
92.00		43.96	88.96	0.00	0.00
94.00		123.27	248.74	0.00	0.00
94.71		43.23	87.22	0.00	0.00
96.00		77.95	72.62	0.00	0.00
97.00	(26) attachments	4198.34	3176.74	0.00	0.00
98.00		59.34	43.17	0.00	0.00
100.00		117.27	85.07	0.00	0.00
102.00		115.21	83.39	0.00	0.00
104.00		113.13	81.71	0.00	0.00
106.00	(21) attachments	3041.72	3027.52	0.00	541.08
108.00		108.87	74.78	0.00	0.00
110.00		106.71	73.09	0.00	0.00
112.00		104.52	71.41	0.00	0.00
114.00		102.30	69.73	0.00	0.00
115.00	(14) attachments	2609.16	2366.13	0.00	6063.05
116.00		49.70	33.81	0.00	0.00
118.00		97.80	65.42	0.00	0.00
Totals:		27,697.62	31,037.08	0.00	6,604.13

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0W 116 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Exposed Ca	Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.063	0.000	27.041	0.00	0.49
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.063	0.000	27.041	0.00	1.87
2.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.063	0.000	27.041	0.00	0.29
2.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.063	0.000	27.041	0.00	3.58
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.064	0.000	27.041	0.00	0.49
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.064	0.000	27.041	0.00	1.87
4.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	27.041	0.00	0.29
4.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.064	0.000	27.041	0.00	3.58
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	27.041	0.00	0.49
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	27.041	0.00	1.87
6.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.041	0.00	0.29
6.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	27.041	0.00	3.58
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	27.041	0.00	0.49
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	27.041	0.00	1.87
8.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.041	0.00	0.29
8.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	27.041	0.00	3.58
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.066	0.000	27.041	0.00	0.49
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.066	0.000	27.041	0.00	1.87
10.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	27.041	0.00	0.29
10.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.066	0.000	27.041	0.00	3.58
12.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.067	0.000	27.041	0.00	0.49
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.067	0.000	27.041	0.00	1.87
12.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.041	0.00	0.29
12.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.067	0.000	27.041	0.00	3.58
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	27.041	0.00	0.49
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	27.041	0.00	1.87
14.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.041	0.00	0.29
14.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	27.041	0.00	3.58
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	27.726	0.00	0.49
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	27.726	0.00	1.87
16.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.726	0.00	0.29
16.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	27.726	0.00	3.58
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.069	0.000	28.383	0.00	0.49
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.069	0.000	28.383	0.00	1.87
18.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	28.383	0.00	0.29
18.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.069	0.000	28.383	0.00	3.58
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.070	0.000	28.988	0.00	0.49
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.070	0.000	28.988	0.00	1.87
20.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	28.988	0.00	0.29
20.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.070	0.000	28.988	0.00	3.58
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.071	0.000	29.548	0.00	0.49
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.071	0.000	29.548	0.00	1.87
22.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	29.548	0.00	0.29
22.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.071	0.000	29.548	0.00	3.58
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.072	0.000	30.072	0.00	0.49
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.072	0.000	30.072	0.00	1.87
24.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	30.072	0.00	0.29

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 0.90
Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
24.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.072	0.000	30.072	0.00	3.58
26.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.073	0.000	30.563	0.00	0.49
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.073	0.000	30.563	0.00	1.87
26.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	30.563	0.00	0.29
26.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.073	0.000	30.563	0.00	3.58
28.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.073	0.000	31.026	0.00	0.49
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.073	0.000	31.026	0.00	1.87
28.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	31.026	0.00	0.29
28.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.073	0.000	31.026	0.00	3.58
30.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.074	0.000	31.465	0.00	0.49
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.074	0.000	31.465	0.00	1.87
30.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	31.465	0.00	0.29
30.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.074	0.000	31.465	0.00	3.58
32.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.075	0.000	31.882	0.00	0.49
32.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.075	0.000	31.882	0.00	1.87
32.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	31.882	0.00	0.29
32.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.075	0.000	31.882	0.00	3.58
34.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.076	0.000	32.279	0.00	0.49
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.076	0.000	32.279	0.00	1.87
34.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	32.279	0.00	0.29
34.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.076	0.000	32.279	0.00	3.58
36.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.077	0.000	32.659	0.00	0.49
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.077	0.000	32.659	0.00	1.87
36.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	32.659	0.00	0.29
36.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.077	0.000	32.659	0.00	3.58
38.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.078	0.000	33.023	0.00	0.49
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.078	0.000	33.023	0.00	1.87
38.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	33.023	0.00	0.29
38.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.078	0.000	33.023	0.00	3.58
40.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.079	0.000	33.372	0.00	0.49
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.079	0.000	33.372	0.00	1.87
40.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	33.372	0.00	0.29
40.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.079	0.000	33.372	0.00	3.58
42.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.080	0.000	33.709	0.00	0.49
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.080	0.000	33.709	0.00	1.87
42.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	33.709	0.00	0.29
42.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.080	0.000	33.709	0.00	3.58
44.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.082	0.000	34.033	0.00	0.49
44.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.082	0.000	34.033	0.00	1.87
44.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	34.033	0.00	0.29
44.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.082	0.000	34.033	0.00	3.58
45.13	Safety Cable	Yes	1.13	0.000	0.38	0.04	0.00	0.082	0.000	34.211	0.00	0.28
45.13	Step bolts (ladder)	Yes	1.13	0.000	0.63	0.06	0.00	0.082	0.000	34.211	0.00	1.06
45.13	1/2"	Yes	1.13	0.000	0.00	0.00	0.00	0.082	0.000	34.211	0.00	0.16
45.13	1.75" Hybrid	Yes	1.13	0.000	1.75	0.16	0.00	0.082	0.000	34.211	0.00	2.02
46.00	Safety Cable	Yes	0.87	0.000	0.38	0.03	0.00	0.083	0.000	34.346	0.00	0.21
46.00	Step bolts (ladder)	Yes	0.87	0.000	0.63	0.05	0.00	0.083	0.000	34.346	0.00	0.81

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0W 116 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	1/2"	Yes	0.87	0.000	0.00	0.00	0.00	0.083	0.000	34.346	0.00	0.13
46.00	1.75" Hybrid	Yes	0.87	0.000	1.75	0.13	0.00	0.083	0.000	34.346	0.00	1.56
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.084	0.000	34.648	0.00	0.49
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.084	0.000	34.648	0.00	1.87
48.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	34.648	0.00	0.29
48.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.084	0.000	34.648	0.00	3.58
49.88	Safety Cable	Yes	1.88	0.000	0.38	0.06	0.00	0.085	0.000	34.924	0.00	0.46
49.88	Step bolts (ladder)	Yes	1.88	0.000	0.63	0.10	0.00	0.085	0.000	34.924	0.00	1.76
49.88	1/2"	Yes	1.88	0.000	0.00	0.00	0.00	0.085	0.000	34.924	0.00	0.27
49.88	1.75" Hybrid	Yes	1.88	0.000	1.75	0.27	0.00	0.085	0.000	34.924	0.00	3.37
50.00	Safety Cable	Yes	0.12	0.000	0.38	0.00	0.00	0.084	0.000	34.941	0.00	0.03
50.00	Step bolts (ladder)	Yes	0.12	0.000	0.63	0.01	0.00	0.084	0.000	34.941	0.00	0.11
50.00	1/2"	Yes	0.12	0.000	0.00	0.00	0.00	0.084	0.000	34.941	0.00	0.02
50.00	1.75" Hybrid	Yes	0.12	0.000	1.75	0.02	0.00	0.084	0.000	34.941	0.00	0.22
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.085	0.000	35.226	0.00	0.49
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.085	0.000	35.226	0.00	1.87
52.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	35.226	0.00	0.29
52.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.085	0.000	35.226	0.00	3.58
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.086	0.000	35.501	0.00	0.49
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.086	0.000	35.501	0.00	1.87
54.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	35.501	0.00	0.29
54.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.086	0.000	35.501	0.00	3.58
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.087	0.000	35.769	0.00	0.49
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.087	0.000	35.769	0.00	1.87
56.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.087	0.000	35.769	0.00	0.29
56.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.087	0.000	35.769	0.00	3.58
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.089	0.000	36.030	0.00	0.49
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.089	0.000	36.030	0.00	1.87
58.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	36.030	0.00	0.29
58.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.089	0.000	36.030	0.00	3.58
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.090	0.000	36.284	0.00	0.49
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.090	0.000	36.284	0.00	1.87
60.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	36.284	0.00	0.29
60.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.090	0.000	36.284	0.00	3.58
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.091	0.000	36.531	0.00	0.49
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.091	0.000	36.531	0.00	1.87
62.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	36.531	0.00	0.29
62.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.091	0.000	36.531	0.00	3.58
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.093	0.000	36.772	0.00	0.49
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.093	0.000	36.772	0.00	1.87
64.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.093	0.000	36.772	0.00	0.29
64.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.093	0.000	36.772	0.00	3.58
66.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.094	0.000	37.007	0.00	0.49
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.094	0.000	37.007	0.00	1.87
66.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	37.007	0.00	0.29
66.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.094	0.000	37.007	0.00	3.58
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.096	0.000	37.237	0.00	0.49

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0W 116 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.096	0.000	37.237	0.00	1.87
68.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.096	0.000	37.237	0.00	0.29
68.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.096	0.000	37.237	0.00	3.58
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	37.462	0.00	0.49
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	37.462	0.00	1.87
70.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	37.462	0.00	0.29
72.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	37.682	0.00	0.49
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	37.682	0.00	1.87
72.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	37.682	0.00	0.29
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	37.897	0.00	0.49
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	37.897	0.00	1.87
74.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.037	0.000	37.897	0.00	0.29
76.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	38.107	0.00	0.49
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	38.107	0.00	1.87
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	38.314	0.00	0.49
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	38.314	0.00	1.87
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	38.516	0.00	0.49
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	38.516	0.00	1.87
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	38.714	0.00	0.49
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	38.714	0.00	1.87
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	38.909	0.00	0.49
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	38.909	0.00	1.87
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	39.100	0.00	0.49
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	39.100	0.00	1.87
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.042	0.000	39.287	0.00	0.49
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.042	0.000	39.287	0.00	1.87
90.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.043	0.000	39.471	0.00	0.49
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.043	0.000	39.471	0.00	1.87
91.29	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.043	0.000	39.589	0.00	0.32
91.29	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.043	0.000	39.589	0.00	1.21
92.00	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.044	0.000	39.652	0.00	0.17
92.00	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.044	0.000	39.652	0.00	0.66
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.044	0.000	39.830	0.00	0.49
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.044	0.000	39.830	0.00	1.87
94.71	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.045	0.000	39.893	0.00	0.17
94.71	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.045	0.000	39.893	0.00	0.66
96.00	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.045	0.000	40.006	0.00	0.32
96.00	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.045	0.000	40.006	0.00	1.21
97.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.045	0.000	40.092	0.00	0.25
97.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.045	0.000	40.092	0.00	0.94
98.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.046	0.000	40.178	0.00	0.25
98.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.046	0.000	40.178	0.00	0.94
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	40.347	0.00	0.49
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	40.347	0.00	1.87
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	40.514	0.00	0.49
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	40.514	0.00	1.87
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	40.679	0.00	0.49

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 33
	Struct Class: II	



Load Case: 0.9D + 1.0W 116 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	40.679	0.00	1.87
106.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	40.841	0.00	0.49
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	40.841	0.00	1.87
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	41.000	0.00	0.49
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	41.000	0.00	1.87
110.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	41.157	0.00	0.49
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	41.157	0.00	1.87
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	41.312	0.00	0.49
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	41.312	0.00	1.87
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.055	0.000	41.465	0.00	0.49
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.055	0.000	41.465	0.00	1.87
115.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.056	0.000	41.541	0.00	0.25
115.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.056	0.000	41.541	0.00	0.94
116.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.057	0.000	41.616	0.00	0.25
116.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.057	0.000	41.616	0.00	0.94
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.058	0.000	41.765	0.00	0.49
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.058	0.000	41.765	0.00	1.87
Totals:											0.0	271.9

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 116 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 26

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (+) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-31.01	-27.73	0.00	-2372.8	0.00	2372.81	3634.70	895.58	3185.83	3203.64	0.00	0.000	0.000	0.750
2.00	-30.57	-27.63	0.00	-2317.3	0.00	2317.35	3607.15	885.93	3117.56	3144.81	0.02	-0.113	0.000	0.746
4.00	-30.14	-27.53	0.00	-2262.1	0.00	2262.10	3579.34	876.28	3050.03	3086.29	0.10	-0.226	0.000	0.742
6.00	-29.71	-27.44	0.00	-2207.0	0.00	2207.03	3551.29	866.64	2983.24	3028.09	0.22	-0.341	0.000	0.738
8.00	-29.28	-27.34	0.00	-2152.1	0.00	2152.16	3522.98	856.99	2917.19	2970.21	0.38	-0.456	0.000	0.734
10.00	-28.86	-27.24	0.00	-2097.4	0.00	2097.49	3494.42	847.34	2851.88	2912.67	0.60	-0.573	0.000	0.729
12.00	-28.44	-27.15	0.00	-2043.0	0.00	2043.00	3465.61	837.69	2787.31	2855.46	0.87	-0.690	0.000	0.725
14.00	-28.03	-27.05	0.00	-1988.7	0.00	1988.70	3436.54	828.05	2723.48	2798.60	1.18	-0.808	0.000	0.720
16.00	-27.61	-26.96	0.00	-1934.6	0.00	1934.60	3407.22	818.40	2660.39	2742.09	1.55	-0.927	0.000	0.715
18.00	-27.21	-26.86	0.00	-1880.6	0.00	1880.69	3377.65	808.75	2598.04	2685.95	1.96	-1.047	0.000	0.709
20.00	-26.80	-26.75	0.00	-1826.9	0.00	1826.97	3347.83	799.10	2536.42	2630.17	2.43	-1.168	0.000	0.704
22.00	-26.40	-26.65	0.00	-1773.4	0.00	1773.47	3317.75	789.46	2475.55	2574.76	2.94	-1.290	0.000	0.698
24.00	-26.00	-26.54	0.00	-1720.1	0.00	1720.18	3287.42	779.81	2415.41	2519.74	3.51	-1.412	0.000	0.692
26.00	-25.61	-26.43	0.00	-1667.1	0.00	1667.10	3256.84	770.16	2356.02	2465.11	4.13	-1.535	0.000	0.685
28.00	-25.22	-26.32	0.00	-1614.2	0.00	1614.24	3219.51	760.51	2297.36	2406.03	4.80	-1.659	0.000	0.680
30.00	-24.83	-26.21	0.00	-1561.6	0.00	1561.60	3178.67	750.87	2239.44	2345.06	5.52	-1.784	0.000	0.675
32.00	-24.45	-26.09	0.00	-1509.1	0.00	1509.18	3137.83	741.22	2182.27	2284.88	6.29	-1.909	0.000	0.670
34.00	-24.07	-25.98	0.00	-1456.9	0.00	1456.99	3096.99	731.57	2125.83	2225.48	7.12	-2.034	0.000	0.664
36.00	-23.69	-25.86	0.00	-1405.0	0.00	1405.04	3056.15	721.92	2070.13	2166.87	8.00	-2.161	0.000	0.657
38.00	-23.32	-25.75	0.00	-1353.3	0.00	1353.31	3015.30	712.28	2015.17	2109.03	8.93	-2.287	0.000	0.651
40.00	-22.95	-25.63	0.00	-1301.8	0.00	1301.81	2974.46	702.63	1960.95	2051.98	9.92	-2.414	0.000	0.643
42.00	-22.59	-25.51	0.00	-1250.5	0.00	1250.55	2933.62	692.98	1907.47	1995.71	10.96	-2.541	0.000	0.636
44.00	-22.24	-25.38	0.00	-1199.5	0.00	1199.53	2892.78	683.33	1854.73	1940.23	12.05	-2.667	0.000	0.627
45.13	-22.04	-25.31	0.00	-1170.8	0.00	1170.85	2869.71	677.88	1825.26	1909.22	12.69	-2.740	0.000	0.622
46.00	-21.78	-25.27	0.00	-1148.8	0.00	1148.83	2851.94	673.69	1802.73	1885.52	13.19	-2.796	0.000	0.618
48.00	-21.24	-25.13	0.00	-1098.2	0.00	1098.29	2811.10	664.04	1751.47	1831.60	14.39	-2.922	0.000	0.609
49.88	-20.75	-24.99	0.00	-1051.0	0.00	1051.03	2333.69	557.78	1482.91	1535.76	15.57	-3.041	0.000	0.695
50.00	-20.70	-25.01	0.00	-1048.0	0.00	1048.04	2332.20	557.29	1480.35	1533.44	15.64	-3.049	0.000	0.694
52.00	-20.38	-24.89	0.00	-998.03	0.00	998.03	2307.18	549.25	1437.95	1494.89	16.95	-3.191	0.000	0.679
54.00	-20.07	-24.77	0.00	-948.25	0.00	948.25	2281.92	541.21	1396.16	1456.67	18.32	-3.331	0.000	0.662
56.00	-19.76	-24.65	0.00	-898.71	0.00	898.71	2256.40	533.17	1354.99	1418.77	19.74	-3.471	0.000	0.644
58.00	-19.46	-24.53	0.00	-849.41	0.00	849.41	2223.07	525.14	1314.43	1376.53	21.23	-3.609	0.000	0.628
60.00	-19.16	-24.41	0.00	-800.35	0.00	800.35	2189.04	517.10	1274.49	1334.49	22.77	-3.745	0.000	0.611
62.00	-18.86	-24.29	0.00	-751.53	0.00	751.53	2155.00	509.06	1235.17	1293.10	24.36	-3.880	0.000	0.592
64.00	-18.57	-24.17	0.00	-702.94	0.00	702.94	2120.97	501.02	1196.47	1252.37	26.02	-4.012	0.000	0.572
66.00	-18.28	-24.05	0.00	-654.60	0.00	654.60	2086.94	492.98	1158.38	1212.28	27.72	-4.141	0.000	0.551
68.00	-16.03	-21.65	0.00	-606.50	0.00	606.50	2052.90	484.94	1120.90	1172.85	29.49	-4.267	0.000	0.527
70.00	-15.76	-21.52	0.00	-563.20	0.00	563.20	2018.87	476.90	1084.04	1134.08	31.30	-4.390	0.000	0.506
72.00	-15.49	-21.40	0.00	-520.16	0.00	520.16	1984.83	468.86	1047.80	1095.95	33.16	-4.509	0.000	0.485
74.00	-15.20	-21.12	0.00	-477.36	0.00	477.36	1950.80	460.82	1012.18	1058.48	35.07	-4.625	0.000	0.461
76.00	-14.95	-20.99	0.00	-435.13	0.00	435.13	1916.76	452.78	977.17	1021.65	37.04	-4.737	0.000	0.436
78.00	-14.70	-20.86	0.00	-393.15	0.00	393.15	1882.73	444.74	942.77	985.48	39.04	-4.844	0.000	0.409
80.00	-14.45	-20.73	0.00	-351.43	0.00	351.43	1848.70	436.70	909.00	949.96	41.09	-4.945	0.000	0.380
82.00	-11.51	-16.28	0.00	-309.96	0.00	309.96	1814.66	428.66	875.84	915.10	43.18	-5.040	0.000	0.347
84.00	-11.27	-16.02	0.00	-277.41	0.00	277.41	1780.63	420.62	843.29	880.88	45.31	-5.130	0.000	0.323
86.00	-11.07	-15.89	0.00	-245.37	0.00	245.37	1746.59	412.58	811.36	847.32	47.47	-5.214	0.000	0.297
88.00	-10.88	-15.76	0.00	-213.60	0.00	213.60	1712.56	404.54	780.05	814.41	49.67	-5.292	0.000	0.270
90.00	-8.76	-12.07	0.00	-182.08	0.00	182.08	1678.53	396.50	749.35	782.15	51.90	-5.364	0.000	0.239

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 35
	Struct Class: II	



91.29	-8.66	-11.98	0.00	-166.48	0.00	166.48	1656.52	391.30	729.83	761.64	53.36	-5.407	0.000	0.225
92.00	-8.56	-11.94	0.00	-158.01	0.00	158.01	1644.49	388.46	719.27	750.54	54.16	-5.430	0.000	0.217
94.00	-8.32	-11.80	0.00	-134.14	0.00	134.14	1610.46	380.42	689.81	719.59	56.45	-5.489	0.000	0.193
94.71	-8.23	-11.75	0.00	-125.76	0.00	125.76	930.70	231.76	426.71	424.70	57.26	-5.510	0.000	0.308
96.00	-8.16	-11.67	0.00	-110.60	0.00	110.60	922.07	228.65	415.33	415.07	58.75	-5.543	0.000	0.278
97.00	-5.40	-7.19	0.00	-98.93	0.00	98.93	915.31	226.24	406.62	407.64	59.92	-5.581	0.000	0.250
98.00	-5.36	-7.13	0.00	-91.75	0.00	91.75	908.49	223.83	397.99	400.25	61.09	-5.617	0.000	0.236
100.00	-5.28	-7.01	0.00	-77.49	0.00	77.49	894.64	219.00	381.02	385.59	63.45	-5.682	0.000	0.208
102.00	-5.20	-6.89	0.00	-63.48	0.00	63.48	880.55	214.18	364.42	371.08	65.84	-5.740	0.000	0.178
104.00	-5.12	-6.77	0.00	-49.70	0.00	49.70	866.20	209.36	348.19	356.74	68.25	-5.789	0.000	0.146
106.00	-2.42	-3.44	0.00	-35.61	0.00	35.61	851.60	204.53	332.33	342.57	70.69	-5.830	0.000	0.107
108.00	-2.35	-3.33	0.00	-28.72	0.00	28.72	836.75	199.71	316.84	328.58	73.13	-5.862	0.000	0.090
110.00	-2.29	-3.22	0.00	-22.07	0.00	22.07	821.65	194.89	301.72	314.78	75.59	-5.889	0.000	0.073
112.00	-2.23	-3.10	0.00	-15.63	0.00	15.63	804.60	190.06	286.97	300.54	78.06	-5.911	0.000	0.055
114.00	-2.17	-3.00	0.00	-9.42	0.00	9.42	784.18	185.24	272.59	285.40	80.53	-5.927	0.000	0.036
115.00	-0.08	-0.16	0.00	-0.36	0.00	0.36	773.97	182.83	265.54	277.98	81.77	-5.933	0.000	0.001
116.00	-0.05	-0.10	0.00	-0.21	0.00	0.21	763.76	180.41	258.58	270.66	83.01	-5.933	0.000	0.001
118.00	0.00	-0.10	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	85.49	-5.933	0.000	0.000

Wind Loading - Shaft

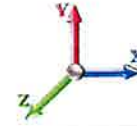
Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Iterations 26

Dead Load Factor 1.20
Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.024	5.53	0.00	1.200	0.705	0.00	0.000	0.00	0.0	0.0	500.4
2.00		1.00	0.85	5.024	5.53	0.00	1.200	0.787	2.00	7.543	9.05	50.0	85.9	499.6
4.00		1.00	0.85	5.024	5.53	0.00	1.200	0.828	2.00	7.478	8.97	49.6	89.5	497.2
6.00		1.00	0.85	5.024	5.53	0.00	1.200	0.856	2.00	7.410	8.89	49.1	91.7	494.1
8.00		1.00	0.85	5.024	5.53	0.00	1.200	0.878	2.00	7.339	8.81	48.7	93.0	490.5
10.00		1.00	0.85	5.024	5.53	0.00	1.200	0.896	2.00	7.266	8.72	48.2	93.9	486.5
12.00		1.00	0.85	5.024	5.53	0.00	1.200	0.911	2.00	7.193	8.63	47.7	94.5	482.4
14.00		1.00	0.85	5.024	5.53	0.00	1.200	0.924	2.00	7.120	8.54	47.2	94.8	478.0
16.00		1.00	0.87	5.151	5.67	0.00	1.200	0.936	2.00	7.045	8.45	47.9	94.9	473.5
18.00		1.00	0.89	5.273	5.80	0.00	1.200	0.946	2.00	6.971	8.36	48.5	94.9	468.9
20.00		1.00	0.91	5.386	5.92	0.00	1.200	0.956	2.00	6.896	8.27	49.0	94.8	464.2
22.00		1.00	0.93	5.490	6.04	0.00	1.200	0.965	2.00	6.820	8.18	49.4	94.6	459.4
24.00		1.00	0.95	5.587	6.15	0.00	1.200	0.973	2.00	6.745	8.09	49.7	94.3	454.5
26.00		1.00	0.96	5.678	6.25	0.00	1.200	0.980	2.00	6.669	8.00	50.0	93.9	449.6
28.00		1.00	0.98	5.764	6.34	0.00	1.200	0.987	2.00	6.593	7.91	50.2	93.4	444.6
30.00		1.00	0.99	5.846	6.43	0.00	1.200	0.994	2.00	6.517	7.82	50.3	92.9	439.5
32.00		1.00	1.00	5.923	6.52	0.00	1.200	1.000	2.00	6.441	7.73	50.4	92.4	434.4
34.00		1.00	1.01	5.997	6.60	0.00	1.200	1.006	2.00	6.365	7.64	50.4	91.8	429.3
36.00		1.00	1.03	6.068	6.67	0.00	1.200	1.012	2.00	6.289	7.55	50.4	91.1	424.1
38.00		1.00	1.04	6.135	6.75	0.00	1.200	1.017	2.00	6.212	7.45	50.3	90.4	418.9
40.00		1.00	1.05	6.200	6.82	0.00	1.200	1.022	2.00	6.136	7.36	50.2	89.7	413.7
42.00		1.00	1.06	6.263	6.89	0.00	1.200	1.027	2.00	6.059	7.27	50.1	89.0	408.4
44.00		1.00	1.07	6.323	6.96	0.00	1.200	1.032	2.00	5.983	7.18	49.9	88.2	403.2
45.13 Bot - Section 2		1.00	1.08	6.356	6.99	0.00	1.200	1.034	1.13	3.346	4.02	28.1	49.6	398.0
46.00		1.00	1.08	6.381	7.02	0.00	1.200	1.036	0.87	2.606	3.13	21.9	38.7	393.1
48.00		1.00	1.09	6.437	7.08	0.00	1.200	1.040	2.00	5.935	7.12	50.4	88.2	388.2
49.88 Top - Section 1		1.00	1.10	6.489	7.14	0.00	1.200	1.044	1.88	5.509	6.61	47.2	82.1	383.3
50.00		1.00	1.10	6.492	7.14	0.00	1.200	1.044	0.12	0.349	0.42	3.0	5.2	378.4
52.00		1.00	1.11	6.545	7.20	0.00	1.200	1.049	2.00	5.782	6.94	49.9	86.5	373.5
54.00		1.00	1.12	6.596	7.26	0.00	1.200	1.052	2.00	5.705	6.85	49.7	85.6	368.6
56.00		1.00	1.12	6.646	7.31	0.00	1.200	1.056	2.00	5.628	6.75	49.4	84.7	363.7
58.00		1.00	1.13	6.694	7.36	0.00	1.200	1.060	2.00	5.551	6.66	49.0	83.7	358.8
60.00		1.00	1.14	6.741	7.42	0.00	1.200	1.063	2.00	5.474	6.57	48.7	82.8	353.9
62.00		1.00	1.15	6.787	7.47	0.00	1.200	1.067	2.00	5.397	6.48	48.4	81.8	349.0
64.00		1.00	1.16	6.832	7.52	0.00	1.200	1.070	2.00	5.320	6.38	48.0	80.9	344.1
66.00		1.00	1.16	6.876	7.56	0.00	1.200	1.073	2.00	5.243	6.29	47.6	79.9	339.2
68.00 Appurtenance(s)		1.00	1.17	6.918	7.61	0.00	1.200	1.077	2.00	5.166	6.20	47.2	78.9	334.3
70.00		1.00	1.18	6.960	7.66	0.00	1.200	1.080	2.00	5.088	6.11	46.7	77.9	329.4
72.00		1.00	1.18	7.001	7.70	0.00	1.200	1.083	2.00	5.011	6.01	46.3	76.8	324.5
74.00 Appurtenance(s)		1.00	1.19	7.041	7.74	0.00	1.200	1.086	2.00	4.934	5.92	45.9	75.8	319.6
76.00		1.00	1.20	7.080	7.79	0.00	1.200	1.088	2.00	4.857	5.83	45.4	74.7	314.7
78.00		1.00	1.20	7.118	7.83	0.00	1.200	1.091	2.00	4.780	5.74	44.9	73.7	309.8
80.00		1.00	1.21	7.156	7.87	0.00	1.200	1.094	2.00	4.702	5.64	44.4	72.6	304.9
82.00 Appurtenance(s)		1.00	1.22	7.193	7.91	0.00	1.200	1.097	2.00	4.625	5.55	43.9	71.5	300.0
84.00 Appurtenance(s)		1.00	1.22	7.229	7.95	0.00	1.200	1.099	2.00	4.548	5.46	43.4	70.4	295.1
86.00		1.00	1.23	7.264	7.99	0.00	1.200	1.102	2.00	4.471	5.36	42.9	69.3	290.2
88.00		1.00	1.23	7.299	8.03	0.00	1.200	1.104	2.00	4.393	5.27	42.3	68.2	285.3

Wind Loading - Shaft

Structure: CT46132-A
Site Name: Newtown-ferris Rd
Height: 118.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Code: TIA-222-H
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

8/30/2023



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90.00 Appurtenance(s)	1.00	1.24	7.333	8.07	0.00	1.200	1.107	2.00	4.316	5.18	41.8	67.1	253.5
91.29 Bot - Section 3	1.00	1.24	7.355	8.09	0.00	1.200	1.108	1.29	2.750	3.30	26.7	42.9	161.4
92.00	1.00	1.25	7.367	8.10	0.00	1.200	1.109	0.71	1.511	1.81	14.7	23.7	127.1
94.00	1.00	1.25	7.400	8.14	0.00	1.200	1.112	2.00	4.225	5.07	41.3	65.9	354.5
94.71 Top - Section 2	1.00	1.25	7.412	8.15	0.00	1.200	1.112	0.71	1.481	1.78	14.5	23.2	124.3
96.00	1.00	1.26	7.433	8.18	0.00	1.200	1.114	1.29	2.666	3.20	26.2	41.7	110.8
97.00 Appurtenance(s)	1.00	1.26	7.449	8.19	0.00	1.200	1.115	1.00	2.044	2.45	20.1	32.1	85.0
98.00	1.00	1.26	7.465	8.21	0.00	1.200	1.116	1.00	2.025	2.43	20.0	31.8	84.1
100.00	1.00	1.27	7.496	8.25	0.00	1.200	1.118	2.00	3.992	4.79	39.5	62.4	165.4
102.00	1.00	1.27	7.527	8.28	0.00	1.200	1.121	2.00	3.915	4.70	38.9	61.2	162.0
104.00	1.00	1.28	7.558	8.31	0.00	1.200	1.123	2.00	3.838	4.61	38.3	60.1	158.6
106.00 Appurtenance(s)	1.00	1.28	7.588	8.35	0.00	1.200	1.125	2.00	3.760	4.51	37.7	58.9	155.2
108.00	1.00	1.29	7.617	8.38	0.00	1.200	1.127	2.00	3.683	4.42	37.0	57.7	151.7
110.00	1.00	1.29	7.647	8.41	0.00	1.200	1.129	2.00	3.605	4.33	36.4	56.5	148.3
112.00	1.00	1.30	7.675	8.44	0.00	1.200	1.131	2.00	3.528	4.23	35.7	55.3	144.8
114.00	1.00	1.30	7.704	8.47	0.00	1.200	1.133	2.00	3.450	4.14	35.1	54.1	141.4
115.00 Appurtenance(s)	1.00	1.31	7.718	8.49	0.00	1.200	1.134	1.00	1.696	2.04	17.3	26.7	69.6
116.00	1.00	1.31	7.732	8.51	0.00	1.200	1.135	1.00	1.677	2.01	17.1	26.4	68.7
118.00	1.00	1.31	7.760	8.54	0.00	1.200	1.137	2.00	3.295	3.95	33.7	51.6	134.5
Totals:								118.00			2,693.7	20,462.2	

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 38
	Struct Class: II	



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

Iterations 26

Dead Load Factor 1.20
Wind Load Factor 1.00



No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	115.00	Low Profile Platform	1	7.718	8.490	1.00	1.00	32.98	3135.70	0.000	0.000	279.97	0.00	0.00
2	115.00	Mount Pipes	12	7.746	8.520	0.90	0.90	32.15	2171.84	0.000	2.000	273.96	0.00	547.93
3	115.00	DS1F03F36D-N	1	7.896	8.685	1.00	1.00	11.93	146.71	0.000	13.250	103.59	0.00	1372.58
4	106.00	APXV9TM14-ALU-120	3	7.603	8.363	0.65	0.80	13.69	489.80	0.000	1.000	114.47	0.00	114.47
5	106.00	Universal Ring Mount	1	7.588	8.347	1.00	1.00	7.25	508.97	0.000	0.000	60.51	0.00	0.00
6	106.00	Low Profile Platform	1	7.588	8.347	0.75	0.75	24.27	3706.04	0.000	0.000	202.59	0.00	0.00
7	106.00	APXVSP18-C-A20	3	7.588	8.347	0.68	0.80	20.03	390.92	0.000	0.000	167.22	0.00	0.00
8	106.00	800 MHz RRU Filter	3	7.588	8.347	0.55	0.80	5.17	313.38	0.000	0.000	43.14	0.00	0.00
9	106.00	1900 MHz 4X45 RRH	3	7.588	8.347	0.55	0.80	5.84	302.84	0.000	0.000	48.72	0.00	0.00
10	106.00	TD-RRHx20-25	3	7.588	8.347	0.55	0.80	7.55	450.08	0.000	0.000	63.01	0.00	0.00
11	106.00	ACU-A20-N	4	7.588	8.347	0.55	0.80	0.73	10.68	0.000	0.000	6.10	0.00	0.00
12	97.00	Amphenol	3	7.449	8.194	0.55	0.75	13.72	369.61	0.000	0.000	112.41	0.00	0.00
13	97.00	Samsung MT6407-77A	3	7.449	8.194	0.52	0.75	8.33	497.90	0.000	0.000	68.25	0.00	0.00
14	97.00	Samsung RF4439d-25A	3	7.449	8.194	0.63	0.75	4.18	302.27	0.000	0.000	34.22	0.00	0.00
15	97.00	JMA MX06FRO660-03	6	7.449	8.194	0.65	0.75	42.01	1601.82	0.000	0.000	344.25	0.00	0.00
16	97.00	Kaelus KA-6030	6	7.449	8.194	0.51	0.75	3.71	135.96	0.000	0.000	30.44	0.00	0.00
17	97.00	Samsung RF4440d-13A	3	7.449	8.194	0.62	0.75	4.13	270.67	0.000	0.000	33.85	0.00	0.00
18	97.00	Commscope	1	7.449	8.194	0.75	0.75	1.67	34.79	0.000	0.000	13.72	0.00	0.00
19	97.00	Low Profile Platform w/	1	7.449	8.194	0.75	0.75	30.33	3983.43	0.000	0.000	248.52	0.00	0.00
20	90.00	RRUS 32 B30	3	7.333	8.067	0.65	0.80	6.20	369.14	0.000	0.000	50.01	0.00	0.00
21	90.00	RRUS 32 B2	3	7.333	8.067	0.65	0.80	6.20	343.94	0.000	0.000	50.01	0.00	0.00
22	90.00	QS66512-2	3	7.333	8.067	0.72	0.80	19.30	671.18	0.000	0.000	155.66	0.00	0.00
23	90.00	DC6-48-60-18-8F	2	7.333	8.067	1.00	1.00	2.40	119.33	0.000	0.000	19.32	0.00	0.00
24	90.00	RRUS-11	3	7.333	8.067	0.55	0.80	8.89	292.05	0.000	0.000	71.75	0.00	0.00
25	90.00	LGP21401	6	7.333	8.067	0.55	0.80	6.03	154.05	0.000	0.000	48.62	0.00	0.00
26	90.00	7770.00	3	7.333	8.067	0.60	0.80	11.09	362.09	0.000	0.000	89.44	0.00	0.00
27	90.00	Low Profile Platform	1	7.333	8.067	0.75	0.75	28.30	1914.31	0.000	0.000	228.26	0.00	0.00
28	90.00	P65-16-XLH-RR	3	7.333	8.067	0.60	0.80	17.89	363.21	0.000	0.000	144.29	0.00	0.00
29	84.00	12.5' - 2" Horizontal Pipe	1	7.229	7.952	1.00	1.00	5.32	68.81	0.000	0.000	42.29	0.00	0.00
30	82.00	RFS ATMAA1412D-1A20	3	7.193	7.912	0.50	0.75	2.50	74.11	0.000	0.000	19.82	0.00	0.00
31	82.00	Platform w/ Handrail	1	7.193	7.912	0.75	0.75	26.87	3334.39	0.000	0.000	212.56	0.00	0.00
32	82.00	Andrew VHLP3-11W	1	7.193	7.912	1.00	1.00	11.88	137.98	0.000	0.000	94.03	0.00	0.00
33	82.00	Ceragon	1	7.193	7.912	0.50	0.75	0.76	22.68	0.000	0.000	6.04	0.00	0.00
34	82.00	TBD S20057A1	3	7.193	7.912	0.50	0.75	0.02	72.61	0.000	0.000	0.12	0.00	0.00
35	82.00	MS-KI22-5 (Kickers w/o	1	7.193	7.912	1.00	1.00	10.49	239.29	0.000	0.000	83.04	0.00	0.00
36	82.00	Commscope VV-65A-R1	3	7.193	7.912	0.56	0.75	14.65	408.47	0.000	0.000	115.95	0.00	0.00
37	82.00	RFS	3	7.193	7.912	0.55	0.75	35.18	1211.24	0.000	0.000	278.33	0.00	0.00
38	82.00	Ericsson AIR6419 B41	3	7.193	7.912	0.58	0.75	7.45	351.22	0.000	0.000	58.94	0.00	0.00
39	82.00	Ericsson 4460 B25 + B66	3	7.193	7.912	0.38	0.75	3.68	476.95	0.000	0.000	29.14	0.00	0.00
40	82.00	Ericsson 4480 B71 + B85	3	7.193	7.912	0.38	0.75	3.68	419.40	0.000	0.000	29.14	0.00	0.00
41	82.00	Kathrein 782 11054	3	7.193	7.912	0.50	0.75	0.48	14.33	0.000	0.000	3.83	0.00	0.00
42	74.00	Standoff Mount	1	7.041	7.745	1.00	1.00	6.34	74.94	0.000	0.000	49.12	0.00	0.00
43	74.00	GPS	1	7.041	7.745	1.00	1.00	1.44	22.24	0.000	0.000	11.18	0.00	0.00
44	68.00	MC-PK8-DSH	1	6.918	7.610	0.75	0.75	45.58	2740.55	0.000	0.000	346.91	0.00	0.00
45	68.00	RDIDC-9181-OF-48	1	6.918	7.610	1.00	1.00	2.36	46.43	0.000	0.000	17.96	0.00	0.00
46	68.00	TA08025-B605	3	6.918	7.610	0.50	0.75	3.48	328.99	0.000	0.000	26.46	0.00	0.00
47	68.00	TA08025-B604	3	6.918	7.610	0.50	0.75	3.48	287.43	0.000	0.000	26.46	0.00	0.00

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Struct Class: II	Page: 39



48	68.00 Commscope	3	6.918	7.610	0.55	0.75	22.59	1364.86	0.000	0.000	171.92	0.00	0.00	
Totals:								35,109.60						4,729.54

Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 40
	Struct Class: II	



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

Iterations 26

Dead Load Factor 1.20
Wind Load Factor 1.00



Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		50.02	605.95	0.00	0.00
4.00		49.59	605.96	0.00	0.00
6.00		49.14	604.22	0.00	0.00
8.00		48.67	601.58	0.00	0.00
10.00		48.19	598.38	0.00	0.00
12.00		47.70	594.80	0.00	0.00
14.00		47.21	590.93	0.00	0.00
16.00		47.91	586.85	0.00	0.00
18.00		48.52	582.60	0.00	0.00
20.00		49.02	578.21	0.00	0.00
22.00		49.42	573.70	0.00	0.00
24.00		49.74	569.10	0.00	0.00
26.00		49.99	564.40	0.00	0.00
28.00		50.17	559.63	0.00	0.00
30.00		50.29	554.80	0.00	0.00
32.00		50.36	549.90	0.00	0.00
34.00		50.39	544.95	0.00	0.00
36.00		50.37	539.96	0.00	0.00
38.00		50.31	534.92	0.00	0.00
40.00		50.22	529.84	0.00	0.00
42.00		50.09	524.73	0.00	0.00
44.00		49.93	519.58	0.00	0.00
45.13		28.07	291.36	0.00	0.00
46.00		21.95	340.34	0.00	0.00
48.00		50.43	775.77	0.00	0.00
49.88		47.18	721.07	0.00	0.00
50.00		2.99	27.50	0.00	0.00
52.00		49.95	455.54	0.00	0.00
54.00		49.67	451.01	0.00	0.00
56.00		49.37	446.46	0.00	0.00
58.00		49.05	441.89	0.00	0.00
60.00		48.71	437.30	0.00	0.00
62.00		48.35	432.69	0.00	0.00
64.00		47.97	428.06	0.00	0.00
66.00		47.58	423.41	0.00	0.00
68.00	(11) attachments	636.88	5187.02	0.00	0.00
70.00		46.75	403.00	0.00	0.00
72.00		46.31	398.29	0.00	0.00
74.00	(2) attachments	106.16	490.73	0.00	0.00
76.00		45.39	384.37	0.00	0.00
78.00		44.91	379.60	0.00	0.00
80.00		44.42	374.81	0.00	0.00
82.00	(28) attachments	974.85	7132.69	0.00	0.00
84.00	(1) attachments	85.69	406.64	0.00	0.00
86.00		42.87	333.01	0.00	0.00
88.00		42.33	328.19	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 41
	Struct Class: II	



90.00	(27) attachments	899.16	4912.66	0.00	0.00
91.29		26.70	194.30	0.00	0.00
92.00		14.69	145.05	0.00	0.00
94.00		41.27	405.37	0.00	0.00
94.71		14.49	142.33	0.00	0.00
96.00		26.16	143.65	0.00	0.00
97.00	(26) attachments	905.74	7306.86	0.00	0.00
98.00		19.95	93.29	0.00	0.00
100.00		39.50	183.77	0.00	0.00
102.00		38.90	180.38	0.00	0.00
104.00		38.28	176.99	0.00	0.00
106.00	(21) attachments	743.43	6346.30	0.00	114.47
108.00		37.03	165.43	0.00	0.00
110.00		36.39	162.01	0.00	0.00
112.00		35.74	158.59	0.00	0.00
114.00		35.08	155.16	0.00	0.00
115.00	(14) attachments	674.80	5530.69	0.00	1920.51
116.00		17.11	75.58	0.00	0.00
118.00		33.75	147.04	0.00	0.00
Totals:		7,423.27	60,631.15	0.00	2,034.98

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Iterations 26

Dead Load Factor 1.20
Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.33	0.00	0.063	0.000	5.024	0.00	2.65
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.37	0.00	0.063	0.000	5.024	0.00	4.84
2.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.063	0.000	5.024	0.00	2.76
2.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.55	0.00	0.063	0.000	5.024	0.00	8.94
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.34	0.00	0.064	0.000	5.024	0.00	2.84
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.38	0.00	0.064	0.000	5.024	0.00	5.04
4.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	5.024	0.00	2.97
4.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.57	0.00	0.064	0.000	5.024	0.00	9.22
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.35	0.00	0.065	0.000	5.024	0.00	2.97
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.39	0.00	0.065	0.000	5.024	0.00	5.19
6.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	5.024	0.00	3.11
6.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.58	0.00	0.065	0.000	5.024	0.00	9.41
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.36	0.00	0.065	0.000	5.024	0.00	3.08
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.40	0.00	0.065	0.000	5.024	0.00	5.30
8.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	5.024	0.00	3.23
8.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.58	0.00	0.065	0.000	5.024	0.00	9.56
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.36	0.00	0.066	0.000	5.024	0.00	3.16
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.40	0.00	0.066	0.000	5.024	0.00	5.39
10.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	5.024	0.00	3.32
10.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.59	0.00	0.066	0.000	5.024	0.00	9.69
12.00	Safety Cable	Yes	2.00	0.000	0.38	0.37	0.00	0.067	0.000	5.024	0.00	3.24
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.41	0.00	0.067	0.000	5.024	0.00	5.48
12.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	5.024	0.00	3.40
12.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.60	0.00	0.067	0.000	5.024	0.00	9.80
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.37	0.00	0.068	0.000	5.024	0.00	3.30
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.41	0.00	0.068	0.000	5.024	0.00	5.55
14.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	5.024	0.00	3.48
14.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.60	0.00	0.068	0.000	5.024	0.00	9.89
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.38	0.00	0.068	0.000	5.151	0.00	3.36
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.42	0.00	0.068	0.000	5.151	0.00	5.61
16.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	5.151	0.00	3.54
16.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.60	0.00	0.068	0.000	5.151	0.00	9.98
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.38	0.00	0.069	0.000	5.273	0.00	3.42
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.42	0.00	0.069	0.000	5.273	0.00	5.67
18.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	5.273	0.00	3.60
18.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.61	0.00	0.069	0.000	5.273	0.00	10.05
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.38	0.00	0.070	0.000	5.386	0.00	3.47
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.42	0.00	0.070	0.000	5.386	0.00	5.72
20.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	5.386	0.00	3.65
20.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.61	0.00	0.070	0.000	5.386	0.00	10.12
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.38	0.00	0.071	0.000	5.490	0.00	3.51
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.43	0.00	0.071	0.000	5.490	0.00	5.77
22.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	5.490	0.00	3.70
22.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.61	0.00	0.071	0.000	5.490	0.00	10.19
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.39	0.00	0.072	0.000	5.587	0.00	3.56
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.43	0.00	0.072	0.000	5.587	0.00	5.82
24.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	5.587	0.00	3.75

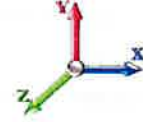
Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 43



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
24.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.62	0.00	0.072	0.000	5.587	0.00	10.25
26.00	Safety Cable	Yes	2.00	0.000	0.38	0.39	0.00	0.073	0.000	5.678	0.00	3.60
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.43	0.00	0.073	0.000	5.678	0.00	5.86
26.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	5.678	0.00	3.79
26.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.62	0.00	0.073	0.000	5.678	0.00	10.31
28.00	Safety Cable	Yes	2.00	0.000	0.38	0.39	0.00	0.073	0.000	5.764	0.00	3.64
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.43	0.00	0.073	0.000	5.764	0.00	5.90
28.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	5.764	0.00	3.83
28.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.62	0.00	0.073	0.000	5.764	0.00	10.36
30.00	Safety Cable	Yes	2.00	0.000	0.38	0.39	0.00	0.074	0.000	5.846	0.00	3.67
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.44	0.00	0.074	0.000	5.846	0.00	5.94
30.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	5.846	0.00	3.87
30.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.62	0.00	0.074	0.000	5.846	0.00	10.41
32.00	Safety Cable	Yes	2.00	0.000	0.38	0.40	0.00	0.075	0.000	5.923	0.00	3.71
32.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.44	0.00	0.075	0.000	5.923	0.00	5.98
32.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	5.923	0.00	3.91
32.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.075	0.000	5.923	0.00	10.46
34.00	Safety Cable	Yes	2.00	0.000	0.38	0.40	0.00	0.076	0.000	5.997	0.00	3.74
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.44	0.00	0.076	0.000	5.997	0.00	6.01
34.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	5.997	0.00	3.94
34.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.076	0.000	5.997	0.00	10.50
36.00	Safety Cable	Yes	2.00	0.000	0.38	0.40	0.00	0.077	0.000	6.068	0.00	3.77
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.44	0.00	0.077	0.000	6.068	0.00	6.04
36.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	6.068	0.00	3.98
36.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.077	0.000	6.068	0.00	10.54
38.00	Safety Cable	Yes	2.00	0.000	0.38	0.40	0.00	0.078	0.000	6.135	0.00	3.80
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.44	0.00	0.078	0.000	6.135	0.00	6.08
38.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	6.135	0.00	4.01
38.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.078	0.000	6.135	0.00	10.58
40.00	Safety Cable	Yes	2.00	0.000	0.38	0.40	0.00	0.079	0.000	6.200	0.00	3.83
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.45	0.00	0.079	0.000	6.200	0.00	6.11
40.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	6.200	0.00	4.04
40.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.079	0.000	6.200	0.00	10.62
42.00	Safety Cable	Yes	2.00	0.000	0.38	0.41	0.00	0.080	0.000	6.263	0.00	3.85
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.45	0.00	0.080	0.000	6.263	0.00	6.14
42.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	6.263	0.00	4.07
42.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.080	0.000	6.263	0.00	10.66
44.00	Safety Cable	Yes	2.00	0.000	0.38	0.41	0.00	0.082	0.000	6.323	0.00	3.88
44.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.45	0.00	0.082	0.000	6.323	0.00	6.16
44.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	6.323	0.00	4.10
44.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.082	0.000	6.323	0.00	10.70
45.13	Safety Cable	Yes	1.13	0.000	0.38	0.23	0.00	0.082	0.000	6.356	0.00	2.20
45.13	Step bolts (ladder)	Yes	1.13	0.000	0.63	0.25	0.00	0.082	0.000	6.356	0.00	3.49
45.13	1/2"	Yes	1.13	0.000	0.00	0.00	0.00	0.082	0.000	6.356	0.00	2.32
45.13	1.75" Hybrid	Yes	1.13	0.000	1.75	0.36	0.00	0.082	0.000	6.356	0.00	6.06
46.00	Safety Cable	Yes	0.87	0.000	0.38	0.18	0.00	0.083	0.000	6.381	0.00	1.70
46.00	Step bolts (ladder)	Yes	0.87	0.000	0.63	0.20	0.00	0.083	0.000	6.381	0.00	2.69

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 44



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

Iterations 26

Dead Load Factor 1.20
Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	1/2"	Yes	0.87	0.000	0.00	0.00	0.00	0.083	0.000	6.381	0.00	1.79
46.00	1.75" Hybrid	Yes	0.87	0.000	1.75	0.28	0.00	0.083	0.000	6.381	0.00	4.67
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.41	0.00	0.084	0.000	6.437	0.00	3.93
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.45	0.00	0.084	0.000	6.437	0.00	6.22
48.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	6.437	0.00	4.15
48.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.084	0.000	6.437	0.00	10.77
49.88	Safety Cable	Yes	1.88	0.000	0.38	0.39	0.00	0.085	0.000	6.489	0.00	3.72
49.88	Step bolts (ladder)	Yes	1.88	0.000	0.63	0.43	0.00	0.085	0.000	6.489	0.00	5.87
49.88	1/2"	Yes	1.88	0.000	0.00	0.00	0.00	0.085	0.000	6.489	0.00	3.92
49.88	1.75" Hybrid	Yes	1.88	0.000	1.75	0.60	0.00	0.085	0.000	6.489	0.00	10.15
50.00	Safety Cable	Yes	0.12	0.000	0.38	0.02	0.00	0.084	0.000	6.492	0.00	0.24
50.00	Step bolts (ladder)	Yes	0.12	0.000	0.63	0.03	0.00	0.084	0.000	6.492	0.00	0.37
50.00	1/2"	Yes	0.12	0.000	0.00	0.00	0.00	0.084	0.000	6.492	0.00	0.25
50.00	1.75" Hybrid	Yes	0.12	0.000	1.75	0.04	0.00	0.084	0.000	6.492	0.00	0.65
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.41	0.00	0.085	0.000	6.545	0.00	3.98
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.45	0.00	0.085	0.000	6.545	0.00	6.27
52.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	6.545	0.00	4.20
52.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.085	0.000	6.545	0.00	10.83
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.41	0.00	0.086	0.000	6.596	0.00	4.00
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.086	0.000	6.596	0.00	6.29
54.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	6.596	0.00	4.22
54.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.086	0.000	6.596	0.00	10.86
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.087	0.000	6.646	0.00	4.02
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.087	0.000	6.646	0.00	6.31
56.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.087	0.000	6.646	0.00	4.25
56.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.087	0.000	6.646	0.00	10.89
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.089	0.000	6.694	0.00	4.04
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.089	0.000	6.694	0.00	6.34
58.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	6.694	0.00	4.27
58.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.089	0.000	6.694	0.00	10.92
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.090	0.000	6.741	0.00	4.06
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.090	0.000	6.741	0.00	6.36
60.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	6.741	0.00	4.29
60.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.65	0.00	0.090	0.000	6.741	0.00	10.95
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.091	0.000	6.787	0.00	4.08
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.091	0.000	6.787	0.00	6.38
62.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	6.787	0.00	4.31
62.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.65	0.00	0.091	0.000	6.787	0.00	10.97
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.093	0.000	6.832	0.00	4.10
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.093	0.000	6.832	0.00	6.40
64.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.093	0.000	6.832	0.00	4.33
64.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.65	0.00	0.093	0.000	6.832	0.00	11.00
66.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.094	0.000	6.876	0.00	4.12
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.094	0.000	6.876	0.00	6.42
66.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	6.876	0.00	4.36
66.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.65	0.00	0.094	0.000	6.876	0.00	11.03
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.096	0.000	6.918	0.00	4.14

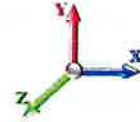
Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.096	0.000	6.918	0.00	6.44
68.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.096	0.000	6.918	0.00	4.37
68.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.65	0.00	0.096	0.000	6.918	0.00	11.05
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.036	0.000	6.960	0.00	4.16
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.036	0.000	6.960	0.00	6.46
70.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	6.960	0.00	4.39
72.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.036	0.000	7.001	0.00	4.17
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.036	0.000	7.001	0.00	6.48
72.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	7.001	0.00	4.41
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.037	0.000	7.041	0.00	4.19
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.037	0.000	7.041	0.00	6.50
74.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.037	0.000	7.041	0.00	4.43
76.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.037	0.000	7.080	0.00	4.21
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.037	0.000	7.080	0.00	6.51
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.038	0.000	7.118	0.00	4.22
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.038	0.000	7.118	0.00	6.53
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.039	0.000	7.156	0.00	4.24
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.039	0.000	7.156	0.00	6.55
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.040	0.000	7.193	0.00	4.26
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.040	0.000	7.193	0.00	6.57
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.040	0.000	7.229	0.00	4.27
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.040	0.000	7.229	0.00	6.58
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.041	0.000	7.264	0.00	4.29
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.041	0.000	7.264	0.00	6.60
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.042	0.000	7.299	0.00	4.30
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.042	0.000	7.299	0.00	6.61
90.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.043	0.000	7.333	0.00	4.32
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.043	0.000	7.333	0.00	6.63
91.29	Safety Cable	Yes	1.29	0.000	0.38	0.28	0.00	0.043	0.000	7.355	0.00	2.80
91.29	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.31	0.00	0.043	0.000	7.355	0.00	4.29
92.00	Safety Cable	Yes	0.71	0.000	0.38	0.15	0.00	0.044	0.000	7.367	0.00	1.53
92.00	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.17	0.00	0.044	0.000	7.367	0.00	2.35
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.044	0.000	7.400	0.00	4.35
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.044	0.000	7.400	0.00	6.66
94.71	Safety Cable	Yes	0.71	0.000	0.38	0.15	0.00	0.045	0.000	7.412	0.00	1.54
94.71	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.17	0.00	0.045	0.000	7.412	0.00	2.37
96.00	Safety Cable	Yes	1.29	0.000	0.38	0.28	0.00	0.045	0.000	7.433	0.00	2.81
96.00	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.31	0.00	0.045	0.000	7.433	0.00	4.31
97.00	Safety Cable	Yes	1.00	0.000	0.38	0.22	0.00	0.045	0.000	7.449	0.00	2.18
97.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.24	0.00	0.045	0.000	7.449	0.00	3.34
98.00	Safety Cable	Yes	1.00	0.000	0.38	0.22	0.00	0.046	0.000	7.465	0.00	2.19
98.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.24	0.00	0.046	0.000	7.465	0.00	3.35
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.047	0.000	7.496	0.00	4.39
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.047	0.000	7.496	0.00	6.70
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.048	0.000	7.527	0.00	4.40
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.048	0.000	7.527	0.00	6.72
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.049	0.000	7.558	0.00	4.41

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 46



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.049	0.000	7.558	0.00	6.73
106.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.050	0.000	7.588	0.00	4.43
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.050	0.000	7.588	0.00	6.75
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.051	0.000	7.617	0.00	4.44
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.051	0.000	7.617	0.00	6.76
110.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.052	0.000	7.647	0.00	4.45
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.052	0.000	7.647	0.00	6.77
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.053	0.000	7.675	0.00	4.46
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.053	0.000	7.675	0.00	6.79
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.055	0.000	7.704	0.00	4.48
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.055	0.000	7.704	0.00	6.80
115.00	Safety Cable	Yes	1.00	0.000	0.38	0.22	0.00	0.056	0.000	7.718	0.00	2.24
115.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.24	0.00	0.056	0.000	7.718	0.00	3.40
116.00	Safety Cable	Yes	1.00	0.000	0.38	0.22	0.00	0.057	0.000	7.732	0.00	2.24
116.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.24	0.00	0.057	0.000	7.732	0.00	3.41
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.058	0.000	7.760	0.00	4.50
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.058	0.000	7.760	0.00	6.82
Totals:											0.0	1,098.0

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-60.63	-7.44	0.00	-650.75	0.00	650.75	3634.70	895.58	3185.83	3203.64	0.00	0.000	0.000	0.220
2.00	-60.02	-7.42	0.00	-635.87	0.00	635.87	3607.15	885.93	3117.56	3144.81	0.01	-0.031	0.000	0.219
4.00	-59.41	-7.40	0.00	-621.03	0.00	621.03	3579.34	876.28	3050.03	3086.29	0.03	-0.062	0.000	0.218
6.00	-58.80	-7.39	0.00	-606.22	0.00	606.22	3551.29	866.64	2983.24	3028.09	0.06	-0.094	0.000	0.217
8.00	-58.20	-7.37	0.00	-591.45	0.00	591.45	3522.98	856.99	2917.19	2970.21	0.11	-0.125	0.000	0.216
10.00	-57.59	-7.35	0.00	-576.71	0.00	576.71	3494.42	847.34	2851.88	2912.67	0.16	-0.157	0.000	0.215
12.00	-56.99	-7.33	0.00	-562.01	0.00	562.01	3465.61	837.69	2787.31	2855.46	0.24	-0.190	0.000	0.213
14.00	-56.40	-7.32	0.00	-547.34	0.00	547.34	3436.54	828.05	2723.48	2798.60	0.32	-0.222	0.000	0.212
16.00	-55.81	-7.30	0.00	-532.70	0.00	532.70	3407.22	818.40	2660.39	2742.09	0.42	-0.255	0.000	0.211
18.00	-55.22	-7.28	0.00	-518.10	0.00	518.10	3377.65	808.75	2598.04	2685.95	0.54	-0.288	0.000	0.209
20.00	-54.64	-7.26	0.00	-503.55	0.00	503.55	3347.83	799.10	2536.42	2630.17	0.67	-0.321	0.000	0.208
22.00	-54.06	-7.24	0.00	-489.03	0.00	489.03	3317.75	789.46	2475.55	2574.76	0.81	-0.355	0.000	0.206
24.00	-53.49	-7.22	0.00	-474.55	0.00	474.55	3287.42	779.81	2415.41	2519.74	0.96	-0.389	0.000	0.205
26.00	-52.92	-7.19	0.00	-460.12	0.00	460.12	3256.84	770.16	2356.02	2465.11	1.13	-0.422	0.000	0.203
28.00	-52.36	-7.17	0.00	-445.73	0.00	445.73	3219.51	760.51	2297.36	2406.03	1.32	-0.457	0.000	0.202
30.00	-51.80	-7.15	0.00	-431.39	0.00	431.39	3178.67	750.87	2239.44	2345.06	1.52	-0.491	0.000	0.200
32.00	-51.24	-7.12	0.00	-417.09	0.00	417.09	3137.83	741.22	2182.27	2284.88	1.73	-0.526	0.000	0.199
34.00	-50.70	-7.10	0.00	-402.84	0.00	402.84	3096.99	731.57	2125.83	2225.48	1.96	-0.560	0.000	0.197
36.00	-50.15	-7.07	0.00	-388.65	0.00	388.65	3056.15	721.92	2070.13	2166.87	2.20	-0.595	0.000	0.196
38.00	-49.61	-7.05	0.00	-374.50	0.00	374.50	3015.30	712.28	2015.17	2109.03	2.46	-0.630	0.000	0.194
40.00	-49.08	-7.02	0.00	-360.41	0.00	360.41	2974.46	702.63	1960.95	2051.98	2.73	-0.665	0.000	0.192
42.00	-48.55	-7.00	0.00	-346.37	0.00	346.37	2933.62	692.98	1907.47	1995.71	3.02	-0.700	0.000	0.190
44.00	-48.03	-6.96	0.00	-332.38	0.00	332.38	2892.78	683.33	1854.73	1940.23	3.32	-0.736	0.000	0.188
45.13	-47.74	-6.94	0.00	-324.51	0.00	324.51	2869.71	677.88	1825.26	1909.22	3.49	-0.756	0.000	0.187
46.00	-47.39	-6.94	0.00	-318.47	0.00	318.47	2851.94	673.69	1802.73	1885.52	3.63	-0.771	0.000	0.186
48.00	-46.61	-6.91	0.00	-304.59	0.00	304.59	2811.10	664.04	1751.47	1831.60	3.96	-0.806	0.000	0.183
49.88	-45.89	-6.86	0.00	-291.61	0.00	291.61	2333.69	557.78	1482.91	1535.76	4.29	-0.839	0.000	0.210
50.00	-45.86	-6.88	0.00	-290.78	0.00	290.78	2332.20	557.29	1480.35	1533.44	4.31	-0.841	0.000	0.209
52.00	-45.40	-6.85	0.00	-277.03	0.00	277.03	2307.18	549.25	1437.95	1494.89	4.67	-0.881	0.000	0.205
54.00	-44.95	-6.82	0.00	-263.34	0.00	263.34	2281.92	541.21	1396.16	1456.67	5.05	-0.920	0.000	0.201
56.00	-44.50	-6.80	0.00	-249.69	0.00	249.69	2256.40	533.17	1354.99	1418.77	5.44	-0.958	0.000	0.196
58.00	-44.05	-6.77	0.00	-236.10	0.00	236.10	2223.07	525.14	1314.43	1376.53	5.85	-0.997	0.000	0.191
60.00	-43.61	-6.74	0.00	-222.56	0.00	222.56	2189.04	517.10	1274.49	1334.49	6.28	-1.035	0.000	0.187
62.00	-43.18	-6.71	0.00	-209.07	0.00	209.07	2155.00	509.06	1235.17	1293.10	6.72	-1.072	0.000	0.182
64.00	-42.74	-6.68	0.00	-195.65	0.00	195.65	2120.97	501.02	1196.47	1252.37	7.18	-1.109	0.000	0.177
66.00	-42.32	-6.65	0.00	-182.28	0.00	182.28	2086.94	492.98	1158.38	1212.28	7.65	-1.145	0.000	0.171
68.00	-37.14	-5.94	0.00	-168.97	0.00	168.97	2052.90	484.94	1120.90	1172.85	8.14	-1.180	0.000	0.162
70.00	-36.74	-5.90	0.00	-157.10	0.00	157.10	2018.87	476.90	1084.04	1134.08	8.64	-1.214	0.000	0.157
72.00	-36.33	-5.87	0.00	-145.30	0.00	145.30	1984.83	468.86	1047.80	1095.95	9.15	-1.248	0.000	0.151
74.00	-35.84	-5.77	0.00	-133.56	0.00	133.56	1950.80	460.82	1012.18	1058.48	9.68	-1.280	0.000	0.145
76.00	-35.46	-5.74	0.00	-122.02	0.00	122.02	1916.76	452.78	977.17	1021.65	10.23	-1.311	0.000	0.138
78.00	-35.08	-5.70	0.00	-110.55	0.00	110.55	1882.73	444.74	942.77	985.48	10.78	-1.341	0.000	0.131
80.00	-34.70	-5.66	0.00	-99.15	0.00	99.15	1848.70	436.70	909.00	949.96	11.35	-1.370	0.000	0.123
82.00	-27.59	-4.53	0.00	-87.82	0.00	87.82	1814.66	428.66	875.84	915.10	11.93	-1.397	0.000	0.111
84.00	-27.18	-4.45	0.00	-78.77	0.00	78.77	1780.63	420.62	843.29	880.88	12.52	-1.422	0.000	0.105
86.00	-26.85	-4.40	0.00	-69.88	0.00	69.88	1746.59	412.58	811.36	847.32	13.12	-1.446	0.000	0.098
88.00	-26.52	-4.36	0.00	-61.07	0.00	61.07	1712.56	404.54	780.05	814.41	13.73	-1.468	0.000	0.091
90.00	-21.63	-3.34	0.00	-52.34	0.00	52.34	1678.53	396.50	749.35	782.15	14.35	-1.489	0.000	0.080

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 48



91.29	-21.44	-3.32	0.00	-48.02	0.00	48.02	1656.52	391.30	729.83	761.64	14.76	-1.501	0.000	0.076
92.00	-21.29	-3.30	0.00	-45.67	0.00	45.67	1644.49	388.46	719.27	750.54	14.98	-1.508	0.000	0.074
94.00	-20.89	-3.25	0.00	-39.07	0.00	39.07	1610.46	380.42	689.81	719.59	15.62	-1.525	0.000	0.067
94.71	-20.75	-3.24	0.00	-36.76	0.00	36.76	930.70	231.76	426.71	424.70	15.84	-1.531	0.000	0.109
96.00	-20.60	-3.21	0.00	-32.58	0.00	32.58	922.07	228.65	415.33	415.07	16.26	-1.541	0.000	0.101
97.00	-13.32	-2.11	0.00	-29.37	0.00	29.37	915.31	226.24	406.62	407.64	16.58	-1.552	0.000	0.087
98.00	-13.23	-2.09	0.00	-27.25	0.00	27.25	908.49	223.83	397.99	400.25	16.91	-1.563	0.000	0.083
100.00	-13.05	-2.05	0.00	-23.07	0.00	23.07	894.64	219.00	381.02	385.59	17.57	-1.582	0.000	0.074
102.00	-12.87	-2.01	0.00	-18.96	0.00	18.96	880.55	214.18	364.42	371.08	18.23	-1.599	0.000	0.066
104.00	-12.69	-1.97	0.00	-14.93	0.00	14.93	866.20	209.36	348.19	356.74	18.91	-1.614	0.000	0.057
106.00	-6.37	-1.05	0.00	-10.87	0.00	10.87	851.60	204.53	332.33	342.57	19.59	-1.626	0.000	0.039
108.00	-6.20	-1.01	0.00	-8.77	0.00	8.77	836.75	199.71	316.84	328.58	20.27	-1.636	0.000	0.034
110.00	-6.04	-0.97	0.00	-6.75	0.00	6.75	821.65	194.89	301.72	314.78	20.96	-1.645	0.000	0.029
112.00	-5.88	-0.93	0.00	-4.81	0.00	4.81	804.60	190.06	286.97	300.54	21.65	-1.651	0.000	0.023
114.00	-5.73	-0.89	0.00	-2.95	0.00	2.95	784.18	185.24	272.59	285.40	22.34	-1.656	0.000	0.018
115.00	-0.22	-0.06	0.00	-0.13	0.00	0.13	773.97	182.83	265.54	277.98	22.69	-1.658	0.000	0.001
116.00	-0.15	-0.04	0.00	-0.08	0.00	0.08	763.76	180.41	258.58	270.66	23.03	-1.658	0.000	0.000
118.00	0.00	-0.03	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	23.73	-1.658	0.000	0.000

Seismic Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 49
	Struct Class: II	



Load Case: 1.2D + 1.0Ev + 1.0Eh					Iterations 23
Gust Response Factor	1.10			Sds 0.23	Ss 0.21
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1 0.09	S1 0.06
Wind Load Factor	0.00	Structure Frequency (f1)	0.31	SA 0.03	Seismic Importance Factor 1.00

Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
2.00		440.07	1.00	20.09	0.00	
4.00		436.33	3.00	19.92	0.00	
6.00		432.58	5.00	19.75	0.01	
8.00		428.84	7.00	19.58	0.01	
10.00		425.10	9.00	19.41	0.02	
12.00		421.36	11.00	19.24	0.02	
14.00		417.62	13.00	19.07	0.03	
16.00		413.88	15.00	18.89	0.04	
18.00		410.14	17.00	18.72	0.05	
20.00		406.40	19.00	18.55	0.06	
22.00		402.66	21.00	18.38	0.08	
24.00		398.91	23.00	18.21	0.09	
26.00		395.17	25.00	18.04	0.11	
28.00		391.43	27.00	17.87	0.12	
30.00		387.69	29.00	17.70	0.14	
32.00		383.95	31.00	17.53	0.15	
34.00		380.21	33.00	17.36	0.17	
36.00		376.47	35.00	17.19	0.19	
38.00		372.73	37.00	17.02	0.20	
40.00		368.99	39.00	16.85	0.22	
42.00		365.24	41.00	16.67	0.24	
44.00		361.50	43.00	16.50	0.26	
45.13	Bot - Section 2	202.60	44.56	9.25	0.09	
46.00		252.18	45.56	11.51	0.14	
48.00		574.81	47.00	26.24	0.79	
49.88	Top - Section 1	534.06	48.94	24.38	0.74	
50.00		18.65	49.94	0.85	0.00	
52.00		309.20	51.00	14.12	0.27	
54.00		306.08	53.00	13.97	0.28	
56.00		302.96	55.00	13.83	0.30	
58.00		299.85	57.00	13.69	0.31	
60.00		296.73	59.00	13.55	0.33	
62.00		293.61	61.00	13.40	0.35	
64.00		290.49	63.00	13.26	0.36	
66.00		287.37	65.00	13.12	0.38	
68.00	Appurtenance(s)	2662.2	67.00	121.54	34.28	
70.00		276.36	69.00	12.62	0.39	
72.00		273.24	71.00	12.47	0.41	
74.00	Appurtenance(s)	320.13	73.00	14.61	0.59	
76.00		266.62	75.00	12.17	0.43	
78.00		263.51	77.00	12.03	0.44	
80.00		260.39	79.00	11.89	0.46	
82.00	Appurtenance(s)	3674.5	81.00	167.76	95.46	
84.00	Appurtenance(s)	272.51	83.00	12.44	0.55	
86.00		223.65	85.00	10.21	0.39	

Seismic Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Struct Class: II	Page: 50



88.00		220.53	87.00	10.07	0.40	
90.00	Appurtenance(s)	2713.6	89.00	123.89	62.85	
91.29	Bot - Section 3	126.58	90.65	5.78	0.14	
92.00		101.38	91.65	4.63	0.09	
94.00		283.54	93.00	12.94	0.75	
94.71	Top - Section 2	99.46	94.35	4.54	0.09	
96.00		85.31	95.35	3.89	0.07	
97.00	Appurtenance(s)	3533.3	96.50	161.31	125.27	
98.00		48.83	97.50	2.23	0.02	
100.00		96.26	99.00	4.39	0.10	
102.00		94.39	101.00	4.31	0.10	
104.00		92.52	103.00	4.22	0.10	
106.00	Appurtenance(s)	3365.6	105.00	153.65	134.57	
108.00		84.03	107.00	3.84	0.09	
110.00		82.16	109.00	3.75	0.09	
112.00		80.28	111.00	3.67	0.09	
114.00		78.41	113.00	3.58	0.08	
115.00	Appurtenance(s)	2629.5	114.50	120.05	97.67	
116.00		38.04	115.50	1.74	0.02	
118.00		73.43	117.00	3.35	0.08	
	Totals:	35,206.3	1,607.3	562.6		Total Wind: 27,697.6

Calculated Forces

Structure: CT46132-A

Code: TIA-222-H

8/30/2023

Site Name: Newtown-ferris Rd

Exposure: C

Height: 118.00 (ft)

Crest Height: 0.00

Base Elev: 1.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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Load Case: 1.2D + 1.0Ev + 1.0Eh							Iterations	23
Gust Response Factor	1.10			Sds	0.23		Ss	0.21
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1	0.09		S1	0.06
Wind Load Factor	0.00	Structure Frequency (f1)	0.31	SA	0.03	Seismic Importance Factor	1.00	

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-42.99	-0.56	0.00	-57.81	0.00	57.81	3634.70	895.58	3185.83	3203.64	0.00	0.00	0.00	0.030
2.00	-42.46	-0.56	0.00	-56.69	0.00	56.69	3607.15	885.93	3117.56	3144.81	0.00	0.00	0.00	0.030
4.00	-41.94	-0.57	0.00	-55.56	0.00	55.56	3579.34	876.28	3050.03	3086.29	0.00	-0.01	0.00	0.030
6.00	-41.42	-0.57	0.00	-54.42	0.00	54.42	3551.29	866.64	2983.24	3028.09	0.01	-0.01	0.00	0.030
8.00	-40.90	-0.57	0.00	-53.29	0.00	53.29	3522.98	856.99	2917.19	2970.21	0.01	-0.01	0.00	0.030
10.00	-40.39	-0.57	0.00	-52.14	0.00	52.14	3494.42	847.34	2851.88	2912.67	0.01	-0.01	0.00	0.029
12.00	-39.88	-0.57	0.00	-51.00	0.00	51.00	3465.61	837.69	2787.31	2855.46	0.02	-0.02	0.00	0.029
14.00	-39.38	-0.58	0.00	-49.85	0.00	49.85	3436.54	828.05	2723.48	2798.60	0.03	-0.02	0.00	0.029
16.00	-38.89	-0.58	0.00	-48.70	0.00	48.70	3407.22	818.40	2660.39	2742.09	0.04	-0.02	0.00	0.029
18.00	-38.39	-0.58	0.00	-47.54	0.00	47.54	3377.65	808.75	2598.04	2685.95	0.05	-0.03	0.00	0.029
20.00	-37.91	-0.58	0.00	-46.38	0.00	46.38	3347.83	799.10	2536.42	2630.17	0.06	-0.03	0.00	0.029
22.00	-37.42	-0.58	0.00	-45.22	0.00	45.22	3317.75	789.46	2475.55	2574.76	0.07	-0.03	0.00	0.029
24.00	-36.95	-0.59	0.00	-44.05	0.00	44.05	3287.42	779.81	2415.41	2519.74	0.09	-0.04	0.00	0.029
26.00	-36.47	-0.59	0.00	-42.88	0.00	42.88	3256.84	770.16	2356.02	2465.11	0.10	-0.04	0.00	0.029
28.00	-36.00	-0.59	0.00	-41.71	0.00	41.71	3219.51	760.51	2297.36	2406.03	0.12	-0.04	0.00	0.029
30.00	-35.54	-0.59	0.00	-40.53	0.00	40.53	3178.67	750.87	2239.44	2345.06	0.14	-0.04	0.00	0.028
32.00	-35.08	-0.59	0.00	-39.35	0.00	39.35	3137.83	741.22	2182.27	2284.88	0.16	-0.05	0.00	0.028
34.00	-34.63	-0.59	0.00	-38.17	0.00	38.17	3096.99	731.57	2125.83	2225.48	0.18	-0.05	0.00	0.028
36.00	-34.18	-0.59	0.00	-36.99	0.00	36.99	3056.15	721.92	2070.13	2166.87	0.20	-0.05	0.00	0.028
38.00	-33.73	-0.60	0.00	-35.80	0.00	35.80	3015.30	712.28	2015.17	2109.03	0.22	-0.06	0.00	0.028
40.00	-33.29	-0.60	0.00	-34.61	0.00	34.61	2974.46	702.63	1960.95	2051.98	0.25	-0.06	0.00	0.028
42.00	-32.85	-0.60	0.00	-33.41	0.00	33.41	2933.62	692.98	1907.47	1995.71	0.27	-0.06	0.00	0.028
44.00	-32.42	-0.60	0.00	-32.22	0.00	32.22	2892.78	683.33	1854.73	1940.23	0.30	-0.07	0.00	0.028
45.13	-32.18	-0.60	0.00	-31.54	0.00	31.54	2869.71	677.88	1825.26	1909.22	0.32	-0.07	0.00	0.028
46.00	-31.87	-0.60	0.00	-31.02	0.00	31.02	2851.94	673.69	1802.73	1885.52	0.33	-0.07	0.00	0.028
48.00	-31.18	-0.60	0.00	-29.82	0.00	29.82	2811.10	664.04	1751.47	1831.60	0.36	-0.08	0.00	0.027
49.88	-30.53	-0.60	0.00	-28.69	0.00	28.69	2333.69	557.78	1482.91	1535.76	0.39	-0.08	0.00	0.032
50.00	-30.51	-0.60	0.00	-28.62	0.00	28.62	2332.20	557.29	1480.35	1533.44	0.40	-0.08	0.00	0.032
52.00	-30.14	-0.60	0.00	-27.42	0.00	27.42	2307.18	549.25	1437.95	1494.89	0.43	-0.08	0.00	0.031
54.00	-29.78	-0.60	0.00	-26.22	0.00	26.22	2281.92	541.21	1396.16	1456.67	0.46	-0.09	0.00	0.031
56.00	-29.42	-0.60	0.00	-25.01	0.00	25.01	2256.40	533.17	1354.99	1418.77	0.50	-0.09	0.00	0.031
58.00	-29.07	-0.61	0.00	-23.80	0.00	23.80	2223.07	525.14	1314.43	1376.53	0.54	-0.09	0.00	0.030
60.00	-28.72	-0.61	0.00	-22.59	0.00	22.59	2189.04	517.10	1274.49	1334.49	0.58	-0.10	0.00	0.030
62.00	-28.37	-0.61	0.00	-21.38	0.00	21.38	2155.00	509.06	1235.17	1293.10	0.62	-0.10	0.00	0.030
64.00	-28.03	-0.61	0.00	-20.16	0.00	20.16	2120.97	501.02	1196.47	1252.37	0.67	-0.11	0.00	0.029
66.00	-27.69	-0.61	0.00	-18.95	0.00	18.95	2086.94	492.98	1158.38	1212.28	0.71	-0.11	0.00	0.029
68.00	-24.39	-0.57	0.00	-17.73	0.00	17.73	2052.90	484.94	1120.90	1172.85	0.76	-0.11	0.00	0.027
70.00	-24.06	-0.57	0.00	-16.59	0.00	16.59	2018.87	476.90	1084.04	1134.08	0.80	-0.12	0.00	0.027
72.00	-23.74	-0.57	0.00	-15.45	0.00	15.45	1984.83	468.86	1047.80	1095.95	0.85	-0.12	0.00	0.026
74.00	-23.36	-0.57	0.00	-14.31	0.00	14.31	1950.80	460.82	1012.18	1058.48	0.91	-0.12	0.00	0.025
76.00	-23.05	-0.57	0.00	-13.17	0.00	13.17	1916.76	452.78	977.17	1021.65	0.96	-0.13	0.00	0.025
78.00	-22.74	-0.57	0.00	-12.03	0.00	12.03	1882.73	444.74	942.77	985.48	1.01	-0.13	0.00	0.024
80.00	-22.43	-0.57	0.00	-10.88	0.00	10.88	1848.70	436.70	909.00	949.96	1.07	-0.13	0.00	0.024
82.00	-17.87	-0.47	0.00	-9.74	0.00	9.74	1814.66	428.66	875.84	915.10	1.12	-0.14	0.00	0.020
84.00	-17.54	-0.47	0.00	-8.81	0.00	8.81	1780.63	420.62	843.29	880.88	1.18	-0.14	0.00	0.020
86.00	-17.28	-0.47	0.00	-7.88	0.00	7.88	1746.59	412.58	811.36	847.32	1.24	-0.14	0.00	0.019
88.00	-17.01	-0.46	0.00	-6.95	0.00	6.95	1712.56	404.54	780.05	814.41	1.30	-0.14	0.00	0.018

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 52
	Struct Class: II	



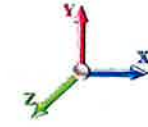
90.00	-13.65	-0.39	0.00	-6.02	0.00	6.02	1678.53	396.50	749.35	782.15	1.36	-0.15	0.016
91.29	-13.49	-0.39	0.00	-5.51	0.00	5.51	1656.52	391.30	729.83	761.64	1.40	-0.15	0.015
92.00	-13.37	-0.39	0.00	-5.23	0.00	5.23	1644.49	388.46	719.27	750.54	1.42	-0.15	0.015
94.00	-13.03	-0.39	0.00	-4.45	0.00	4.45	1610.46	380.42	689.81	719.59	1.48	-0.15	0.014
94.71	-12.91	-0.39	0.00	-4.17	0.00	4.17	930.70	231.76	426.71	424.70	1.51	-0.15	0.024
96.00	-12.81	-0.39	0.00	-3.66	0.00	3.66	922.07	228.65	415.33	415.07	1.55	-0.15	0.023
97.00	-8.41	-0.26	0.00	-3.27	0.00	3.27	915.31	226.24	406.62	407.64	1.58	-0.15	0.017
98.00	-8.35	-0.26	0.00	-3.01	0.00	3.01	908.49	223.83	397.99	400.25	1.61	-0.15	0.017
100.00	-8.23	-0.26	0.00	-2.50	0.00	2.50	894.64	219.00	381.02	385.59	1.68	-0.16	0.016
102.00	-8.12	-0.26	0.00	-1.99	0.00	1.99	880.55	214.18	364.42	371.08	1.74	-0.16	0.015
104.00	-8.00	-0.25	0.00	-1.48	0.00	1.48	866.20	209.36	348.19	356.74	1.81	-0.16	0.013
106.00	-3.81	-0.11	0.00	-0.97	0.00	0.97	851.60	204.53	332.33	342.57	1.88	-0.16	0.007
108.00	-3.71	-0.11	0.00	-0.76	0.00	0.76	836.75	199.71	316.84	328.58	1.95	-0.16	0.007
110.00	-3.61	-0.11	0.00	-0.54	0.00	0.54	821.65	194.89	301.72	314.78	2.01	-0.16	0.006
112.00	-3.51	-0.11	0.00	-0.32	0.00	0.32	804.60	190.06	286.97	300.54	2.08	-0.16	0.005
114.00	-3.41	-0.11	0.00	-0.11	0.00	0.11	784.18	185.24	272.59	285.40	2.15	-0.16	0.005
115.00	-0.14	0.00	0.00	0.00	0.00	0.00	773.97	182.83	265.54	277.98	2.19	-0.16	0.000
116.00	-0.09	0.00	0.00	0.00	0.00	0.00	763.76	180.41	258.58	270.66	2.22	-0.16	0.000
118.00	0.00	0.00	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	2.29	-0.16	0.000

Seismic Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0Ev + 1.0Eh					Iterations 22
Gust Response Factor	1.10	Sds	0.23	Ss	0.21
Dead Load Factor	0.90	Seismic Load Factor	1.00	Sd1	0.09
Wind Load Factor	0.00	Structure Frequency (f1)	0.31	SA	0.03
				Seismic Importance Factor	1.00

Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
2.00		416.40	1.00	19.01	0.00	
4.00		412.66	3.00	18.84	0.00	
6.00		408.92	5.00	18.67	0.00	
8.00		405.18	7.00	18.50	0.01	
10.00		401.44	9.00	18.33	0.01	
12.00		397.70	11.00	18.16	0.02	
14.00		393.96	13.00	17.99	0.03	
16.00		390.22	15.00	17.81	0.04	
18.00		386.48	17.00	17.64	0.05	
20.00		382.73	19.00	17.47	0.06	
22.00		378.99	21.00	17.30	0.07	
24.00		375.25	23.00	17.13	0.08	
26.00		371.51	25.00	16.96	0.09	
28.00		367.77	27.00	16.79	0.11	
30.00		364.03	29.00	16.62	0.12	
32.00		360.29	31.00	16.45	0.14	
34.00		356.55	33.00	16.28	0.15	
36.00		352.81	35.00	16.11	0.17	
38.00		349.06	37.00	15.94	0.18	
40.00		345.32	39.00	15.77	0.20	
42.00		341.58	41.00	15.59	0.21	
44.00		337.84	43.00	15.42	0.23	
45.13	Bot - Section 2	189.23	44.56	8.64	0.08	
46.00		241.89	45.56	11.04	0.13	
48.00		551.14	47.00	25.16	0.73	
49.88	Top - Section 1	511.82	48.94	23.37	0.68	
50.00		17.23	49.94	0.79	0.00	
52.00		285.54	51.00	13.04	0.23	
54.00		282.42	53.00	12.89	0.24	
56.00		279.30	55.00	12.75	0.26	
58.00		276.18	57.00	12.61	0.27	
60.00		273.07	59.00	12.47	0.28	
62.00		269.95	61.00	12.32	0.29	
64.00		266.83	63.00	12.18	0.31	
66.00		263.71	65.00	12.04	0.32	
68.00	Appurtenance(s)	2638.5	67.00	120.46	33.96	
70.00		253.89	69.00	11.59	0.33	
72.00		250.78	71.00	11.45	0.34	
74.00	Appurtenance(s)	297.66	73.00	13.59	0.51	
76.00		244.25	75.00	11.15	0.36	
78.00		241.14	77.00	11.01	0.37	
80.00		238.02	79.00	10.87	0.38	
82.00	Appurtenance(s)	3652.2	81.00	166.74	95.08	
84.00	Appurtenance(s)	256.99	83.00	11.73	0.49	
86.00		208.12	85.00	9.50	0.34	

Seismic Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 54
	Struct Class: II	



		205.00	87.00	9.36	0.35	
88.00						
90.00	Appurtenance(s)	2698.0	89.00	123.18	62.65	
91.29	Bot - Section 3	119.63	90.65	5.46	0.13	
92.00		97.58	91.65	4.45	0.09	
94.00		272.80	93.00	12.45	0.70	
94.71	Top - Section 2	95.64	94.35	4.37	0.09	
96.00		78.38	95.35	3.58	0.06	
97.00	Appurtenance(s)	3527.9	96.50	161.06	125.93	
98.00		47.53	97.50	2.17	0.02	
100.00		93.66	99.00	4.28	0.09	
102.00		91.79	101.00	4.19	0.09	
104.00		89.92	103.00	4.11	0.09	
106.00	Appurtenance(s)	3363.0	105.00	153.53	135.48	
108.00		82.61	107.00	3.77	0.08	
110.00		80.74	109.00	3.69	0.08	
112.00		78.87	111.00	3.60	0.08	
114.00		77.00	113.00	3.52	0.08	
115.00	Appurtenance(s)	2628.8	114.50	120.01	98.43	
116.00		37.33	115.50	1.70	0.02	
118.00		72.33	117.00	3.30	0.08	
	Totals:	34,125.3		1,557.9	562.6	Total Wind: 27,697.6

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0Ev + 1.0Eh							Iterations 22
Gust Response Factor	1.10	Sds	0.23	Ss	0.21		
Dead Load Factor	0.90	Seismic Load Factor	1.00	Sd1	0.09	S1	0.06
Wind Load Factor	0.00	Structure Frequency (f1)	0.31	SA	0.03	Seismic Importance Factor	1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-32.59	-0.56	0.00	-56.85	0.00	56.85	3634.70	895.58	3185.83	3203.64		0.00	0.00	0.027
2.00	-32.19	-0.56	0.00	-55.72	0.00	55.72	3607.15	885.93	3117.56	3144.81		0.00	0.00	0.027
4.00	-31.80	-0.56	0.00	-54.60	0.00	54.60	3579.34	876.28	3050.03	3086.29		0.00	-0.01	0.027
6.00	-31.40	-0.57	0.00	-53.47	0.00	53.47	3551.29	866.64	2983.24	3028.09		0.01	-0.01	0.027
8.00	-31.01	-0.57	0.00	-52.34	0.00	52.34	3522.98	856.99	2917.19	2970.21		0.01	-0.01	0.026
10.00	-30.63	-0.57	0.00	-51.21	0.00	51.21	3494.42	847.34	2851.88	2912.67		0.01	-0.01	0.026
12.00	-30.24	-0.57	0.00	-50.07	0.00	50.07	3465.61	837.69	2787.31	2855.46		0.02	-0.02	0.026
14.00	-29.86	-0.57	0.00	-48.93	0.00	48.93	3436.54	828.05	2723.48	2798.60		0.03	-0.02	0.026
16.00	-29.49	-0.57	0.00	-47.79	0.00	47.79	3407.22	818.40	2660.39	2742.09		0.04	-0.02	0.026
18.00	-29.11	-0.57	0.00	-46.64	0.00	46.64	3377.65	808.75	2598.04	2685.95		0.05	-0.03	0.026
20.00	-28.75	-0.58	0.00	-45.49	0.00	45.49	3347.83	799.10	2536.42	2630.17		0.06	-0.03	0.026
22.00	-28.38	-0.58	0.00	-44.34	0.00	44.34	3317.75	789.46	2475.55	2574.76		0.07	-0.03	0.026
24.00	-28.02	-0.58	0.00	-43.19	0.00	43.19	3287.42	779.81	2415.41	2519.74		0.09	-0.03	0.026
26.00	-27.66	-0.58	0.00	-42.04	0.00	42.04	3256.84	770.16	2356.02	2465.11		0.10	-0.04	0.026
28.00	-27.30	-0.58	0.00	-40.88	0.00	40.88	3219.51	760.51	2297.36	2406.03		0.12	-0.04	0.025
30.00	-26.95	-0.58	0.00	-39.72	0.00	39.72	3178.67	750.87	2239.44	2345.06		0.13	-0.04	0.025
32.00	-26.61	-0.58	0.00	-38.56	0.00	38.56	3137.83	741.22	2182.27	2284.88		0.15	-0.05	0.025
34.00	-26.26	-0.58	0.00	-37.39	0.00	37.39	3096.99	731.57	2125.83	2225.48		0.17	-0.05	0.025
36.00	-25.92	-0.58	0.00	-36.23	0.00	36.23	3056.15	721.92	2070.13	2166.87		0.20	-0.05	0.025
38.00	-25.58	-0.59	0.00	-35.06	0.00	35.06	3015.30	712.28	2015.17	2109.03		0.22	-0.06	0.025
40.00	-25.25	-0.59	0.00	-33.89	0.00	33.89	2974.46	702.63	1960.95	2051.98		0.24	-0.06	0.025
42.00	-24.92	-0.59	0.00	-32.72	0.00	32.72	2933.62	692.98	1907.47	1995.71		0.27	-0.06	0.025
44.00	-24.59	-0.59	0.00	-31.54	0.00	31.54	2892.78	683.33	1854.73	1940.23		0.30	-0.07	0.025
45.13	-24.41	-0.59	0.00	-30.88	0.00	30.88	2869.71	677.88	1825.26	1909.22		0.31	-0.07	0.025
46.00	-24.18	-0.59	0.00	-30.37	0.00	30.37	2851.94	673.69	1802.73	1885.52		0.33	-0.07	0.025
48.00	-23.65	-0.59	0.00	-29.19	0.00	29.19	2811.10	664.04	1751.47	1831.60		0.36	-0.07	0.024
49.88	-23.16	-0.59	0.00	-28.08	0.00	28.08	2333.69	557.78	1482.91	1535.76		0.39	-0.08	0.028
50.00	-23.14	-0.59	0.00	-28.01	0.00	28.01	2332.20	557.29	1480.35	1533.44		0.39	-0.08	0.028
52.00	-22.86	-0.59	0.00	-26.83	0.00	26.83	2307.18	549.25	1437.95	1494.89		0.42	-0.08	0.028
54.00	-22.59	-0.59	0.00	-25.66	0.00	25.66	2281.92	541.21	1396.16	1456.67		0.46	-0.08	0.028
56.00	-22.32	-0.59	0.00	-24.47	0.00	24.47	2256.40	533.17	1354.99	1418.77		0.49	-0.09	0.027
58.00	-22.05	-0.59	0.00	-23.29	0.00	23.29	2223.07	525.14	1314.43	1376.53		0.53	-0.09	0.027
60.00	-21.79	-0.59	0.00	-22.11	0.00	22.11	2189.04	517.10	1274.49	1334.49		0.57	-0.10	0.027
62.00	-21.52	-0.59	0.00	-20.92	0.00	20.92	2155.00	509.06	1235.17	1293.10		0.61	-0.10	0.026
64.00	-21.26	-0.59	0.00	-19.74	0.00	19.74	2120.97	501.02	1196.47	1252.37		0.65	-0.10	0.026
66.00	-21.01	-0.59	0.00	-18.55	0.00	18.55	2086.94	492.98	1158.38	1212.28		0.70	-0.11	0.025
68.00	-18.50	-0.56	0.00	-17.36	0.00	17.36	2052.90	484.94	1120.90	1172.85		0.74	-0.11	0.024
70.00	-18.26	-0.56	0.00	-16.24	0.00	16.24	2018.87	476.90	1084.04	1134.08		0.79	-0.11	0.023
72.00	-18.01	-0.56	0.00	-15.13	0.00	15.13	1984.83	468.86	1047.80	1095.95		0.84	-0.12	0.023
74.00	-17.73	-0.56	0.00	-14.01	0.00	14.01	1950.80	460.82	1012.18	1058.48		0.89	-0.12	0.022
76.00	-17.49	-0.56	0.00	-12.90	0.00	12.90	1916.76	452.78	977.17	1021.65		0.94	-0.12	0.022
78.00	-17.25	-0.56	0.00	-11.78	0.00	11.78	1882.73	444.74	942.77	985.48		0.99	-0.13	0.021
80.00	-17.02	-0.56	0.00	-10.67	0.00	10.67	1848.70	436.70	909.00	949.96		1.05	-0.13	0.020
82.00	-13.56	-0.46	0.00	-9.55	0.00	9.55	1814.66	428.66	875.84	915.10		1.10	-0.13	0.018
84.00	-13.31	-0.46	0.00	-8.64	0.00	8.64	1780.63	420.62	843.29	880.88		1.16	-0.14	0.017
86.00	-13.11	-0.46	0.00	-7.73	0.00	7.73	1746.59	412.58	811.36	847.32		1.22	-0.14	0.017
88.00	-12.91	-0.45	0.00	-6.82	0.00	6.82	1712.56	404.54	780.05	814.41		1.27	-0.14	0.016

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00	-10.36	-0.39	0.00	-5.91	0.00	5.91	1678.53	396.50	749.35	782.15	1.33	-0.14	0.014
91.29	-10.24	-0.39	0.00	-5.41	0.00	5.41	1656.52	391.30	729.83	761.64	1.37	-0.14	0.013
92.00	-10.15	-0.39	0.00	-5.13	0.00	5.13	1644.49	388.46	719.27	750.54	1.39	-0.15	0.013
94.00	-9.89	-0.39	0.00	-4.36	0.00	4.36	1610.46	380.42	689.81	719.59	1.46	-0.15	0.012
94.71	-9.80	-0.38	0.00	-4.09	0.00	4.09	930.70	231.76	426.71	424.70	1.48	-0.15	0.020
96.00	-9.72	-0.38	0.00	-3.59	0.00	3.59	922.07	228.65	415.33	415.07	1.52	-0.15	0.019
97.00	-6.38	-0.25	0.00	-3.21	0.00	3.21	915.31	226.24	406.62	407.64	1.55	-0.15	0.015
98.00	-6.34	-0.25	0.00	-2.96	0.00	2.96	908.49	223.83	397.99	400.25	1.58	-0.15	0.014
100.00	-6.25	-0.25	0.00	-2.46	0.00	2.46	894.64	219.00	381.02	385.59	1.65	-0.15	0.013
102.00	-6.16	-0.25	0.00	-1.96	0.00	1.96	880.55	214.18	364.42	371.08	1.71	-0.16	0.012
104.00	-6.07	-0.25	0.00	-1.45	0.00	1.45	866.20	209.36	348.19	356.74	1.78	-0.16	0.011
106.00	-2.89	-0.11	0.00	-0.95	0.00	0.95	851.60	204.53	332.33	342.57	1.84	-0.16	0.006
108.00	-2.82	-0.11	0.00	-0.74	0.00	0.74	836.75	199.71	316.84	328.58	1.91	-0.16	0.006
110.00	-2.74	-0.11	0.00	-0.53	0.00	0.53	821.65	194.89	301.72	314.78	1.98	-0.16	0.005
112.00	-2.66	-0.11	0.00	-0.32	0.00	0.32	804.60	190.06	286.97	300.54	2.04	-0.16	0.004
114.00	-2.59	-0.11	0.00	-0.11	0.00	0.11	784.18	185.24	272.59	285.40	2.11	-0.16	0.004
115.00	-0.10	0.00	0.00	0.00	0.00	0.00	773.97	182.83	265.54	277.98	2.14	-0.16	0.000
116.00	-0.07	0.00	0.00	0.00	0.00	0.00	763.76	180.41	258.58	270.66	2.18	-0.16	0.000
118.00	0.00	0.00	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	2.24	-0.16	0.000

Wind Loading - Shaft

Structure: CT46132-A

Code: TIA-222-H

8/30/2023

Site Name: Newtown-ferris Rd

Exposure: C

Height: 118.00 (ft)

Crest Height: 0.00

Base Elev: 1.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	6.473	7.12	199.61	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	6.473	7.12	197.48	0.730	0.000	2.00	7.280	5.31	37.8	0.0	345.4
4.00		1.00	0.85	6.473	7.12	195.34	0.730	0.000	2.00	7.202	5.26	37.4	0.0	341.7
6.00		1.00	0.85	6.473	7.12	193.21	0.730	0.000	2.00	7.124	5.20	37.0	0.0	337.9
8.00		1.00	0.85	6.473	7.12	191.08	0.730	0.000	2.00	7.046	5.14	36.6	0.0	334.2
10.00		1.00	0.85	6.473	7.12	188.95	0.730	0.000	2.00	6.968	5.09	36.2	0.0	330.5
12.00		1.00	0.85	6.473	7.12	186.82	0.730	0.000	2.00	6.890	5.03	35.8	0.0	326.7
14.00		1.00	0.85	6.473	7.12	184.69	0.730	0.000	2.00	6.811	4.97	35.4	0.0	323.0
16.00		1.00	0.87	6.637	7.30	184.85	0.730	0.000	2.00	6.733	4.92	35.9	0.0	319.2
18.00		1.00	0.89	6.794	7.47	184.85	0.730	0.000	2.00	6.655	4.86	36.3	0.0	315.5
20.00		1.00	0.91	6.939	7.63	184.60	0.730	0.000	2.00	6.577	4.80	36.6	0.0	311.7
22.00		1.00	0.93	7.073	7.78	184.15	0.730	0.000	2.00	6.499	4.74	36.9	0.0	308.0
24.00		1.00	0.95	7.198	7.92	183.52	0.730	0.000	2.00	6.421	4.69	37.1	0.0	304.3
26.00		1.00	0.96	7.316	8.05	182.75	0.730	0.000	2.00	6.342	4.63	37.3	0.0	300.5
28.00		1.00	0.98	7.427	8.17	181.84	0.730	0.000	2.00	6.264	4.57	37.4	0.0	296.8
30.00		1.00	0.99	7.532	8.29	180.83	0.730	0.000	2.00	6.186	4.52	37.4	0.0	293.0
32.00		1.00	1.00	7.632	8.39	179.71	0.730	0.000	2.00	6.108	4.46	37.4	0.0	289.3
34.00		1.00	1.01	7.727	8.50	178.49	0.730	0.000	2.00	6.030	4.40	37.4	0.0	285.6
36.00		1.00	1.03	7.818	8.60	177.20	0.730	0.000	2.00	5.952	4.34	37.4	0.0	281.8
38.00		1.00	1.04	7.905	8.70	175.83	0.730	0.000	2.00	5.873	4.29	37.3	0.0	278.1
40.00		1.00	1.05	7.989	8.79	174.39	0.730	0.000	2.00	5.795	4.23	37.2	0.0	274.3
42.00		1.00	1.06	8.069	8.88	172.88	0.730	0.000	2.00	5.717	4.17	37.0	0.0	270.6
44.00		1.00	1.07	8.147	8.96	171.32	0.730	0.000	2.00	5.639	4.12	36.9	0.0	266.9
45.13 Bot - Section 2		1.00	1.08	8.189	9.01	170.41	0.730	0.000	1.13	3.151	2.30	20.7	0.0	149.1
46.00		1.00	1.08	8.222	9.04	169.70	0.730	0.000	0.87	2.455	1.79	16.2	0.0	211.0
48.00		1.00	1.09	8.294	9.12	168.04	0.730	0.000	2.00	5.588	4.08	37.2	0.0	480.2
49.88 Top - Section 1		1.00	1.10	8.360	9.20	166.43	0.730	0.000	1.88	5.182	3.78	34.8	0.0	445.1
50.00		1.00	1.10	8.364	9.20	169.60	0.730	0.000	0.12	0.328	0.24	2.2	0.0	13.0
52.00		1.00	1.11	8.432	9.28	167.86	0.730	0.000	2.00	5.432	3.97	36.8	0.0	214.5
54.00		1.00	1.12	8.498	9.35	166.07	0.730	0.000	2.00	5.354	3.91	36.5	0.0	211.4
56.00		1.00	1.12	8.562	9.42	164.25	0.730	0.000	2.00	5.276	3.85	36.3	0.0	208.3
58.00		1.00	1.13	8.625	9.49	162.38	0.730	0.000	2.00	5.198	3.79	36.0	0.0	205.2
60.00		1.00	1.14	8.685	9.55	160.48	0.730	0.000	2.00	5.119	3.74	35.7	0.0	202.1
62.00		1.00	1.15	8.745	9.62	158.55	0.730	0.000	2.00	5.041	3.68	35.4	0.0	199.0
64.00		1.00	1.16	8.802	9.68	156.59	0.730	0.000	2.00	4.963	3.62	35.1	0.0	195.8
66.00		1.00	1.16	8.859	9.74	154.60	0.730	0.000	2.00	4.885	3.57	34.7	0.0	192.7
68.00 Appurtenance(s)		1.00	1.17	8.914	9.81	152.57	0.730	0.000	2.00	4.807	3.51	34.4	0.0	189.6
70.00		1.00	1.18	8.968	9.86	150.52	0.730	0.000	2.00	4.729	3.45	34.1	0.0	186.5
72.00		1.00	1.18	9.020	9.92	148.45	0.730	0.000	2.00	4.650	3.39	33.7	0.0	183.4
74.00 Appurtenance(s)		1.00	1.19	9.072	9.98	146.35	0.730	0.000	2.00	4.572	3.34	33.3	0.0	180.3
76.00		1.00	1.20	9.122	10.03	144.22	0.730	0.000	2.00	4.494	3.28	32.9	0.0	177.1
78.00		1.00	1.20	9.171	10.09	142.08	0.730	0.000	2.00	4.416	3.22	32.5	0.0	174.0
80.00		1.00	1.21	9.220	10.14	139.91	0.730	0.000	2.00	4.338	3.17	32.1	0.0	170.9
82.00 Appurtenance(s)		1.00	1.22	9.267	10.19	137.72	0.730	0.000	2.00	4.260	3.11	31.7	0.0	167.8
84.00 Appurtenance(s)		1.00	1.22	9.314	10.25	135.50	0.730	0.000	2.00	4.181	3.05	31.3	0.0	164.7
86.00		1.00	1.23	9.360	10.30	133.27	0.730	0.000	2.00	4.103	3.00	30.8	0.0	161.5
88.00		1.00	1.23	9.404	10.34	131.02	0.730	0.000	2.00	4.025	2.94	30.4	0.0	158.4

Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
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90.00 Appurtenance(s)	1.00	1.24	9.449	10.39	128.76	0.730	0.000	2.00	3.947	2.88	29.9	0.0	155.3	
91.29 Bot - Section 3	1.00	1.24	9.477	10.42	127.28	0.730	0.000	1.29	2.511	1.83	19.1	0.0	98.8	
92.00	1.00	1.25	9.492	10.44	126.47	0.730	0.000	0.71	1.380	1.01	10.5	0.0	86.2	
94.00	1.00	1.25	9.534	10.49	124.17	0.730	0.000	2.00	3.854	2.81	29.5	0.0	240.6	
94.71 Top - Section 2	1.00	1.25	9.549	10.50	123.34	0.730	0.000	0.71	1.349	0.99	10.3	0.0	84.2	
96.00	1.00	1.26	9.576	10.53	123.95	0.730	0.000	1.29	2.427	1.77	18.7	0.0	57.6	
97.00 Appurtenance(s)	1.00	1.26	9.597	10.56	122.79	0.730	0.000	1.00	1.859	1.36	14.3	0.0	44.1	
98.00	1.00	1.26	9.618	10.58	121.62	0.730	0.000	1.00	1.839	1.34	14.2	0.0	43.6	
100.00	1.00	1.27	9.658	10.62	119.27	0.730	0.000	2.00	3.620	2.64	28.1	0.0	85.9	
102.00	1.00	1.27	9.698	10.67	116.91	0.730	0.000	2.00	3.541	2.59	27.6	0.0	84.0	
104.00	1.00	1.28	9.738	10.71	114.53	0.730	0.000	2.00	3.463	2.53	27.1	0.0	82.1	
106.00 Appurtenance(s)	1.00	1.28	9.776	10.75	112.14	0.730	0.000	2.00	3.385	2.47	26.6	0.0	80.2	
108.00	1.00	1.29	9.814	10.80	109.73	0.730	0.000	2.00	3.307	2.41	26.1	0.0	78.4	
110.00	1.00	1.29	9.852	10.84	107.31	0.730	0.000	2.00	3.229	2.36	25.5	0.0	76.5	
112.00	1.00	1.30	9.889	10.88	104.88	0.730	0.000	2.00	3.151	2.30	25.0	0.0	74.6	
114.00	1.00	1.30	9.926	10.92	102.44	0.730	0.000	2.00	3.072	2.24	24.5	0.0	72.8	
115.00 Appurtenance(s)	1.00	1.31	9.944	10.94	101.21	0.730	0.000	1.00	1.507	1.10	12.0	0.0	35.7	
116.00	1.00	1.31	9.962	10.96	99.98	0.730	0.000	1.00	1.487	1.09	11.9	0.0	35.2	
118.00	1.00	1.31	9.998	11.00	97.51	0.730	0.000	2.00	2.916	2.13	23.4	0.0	69.0	
Totals:								118.00				1,971.1	13,161.4	

Discrete Appurtenance Forces

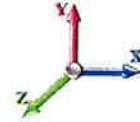
Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	115.00	Low Profile Platform	1	9.944	10.938	1.00	1.00	28.50	1800.00	0.000	0.000	311.74	0.00	0.00
2	115.00	Mount Pipes	12	9.980	10.978	0.90	0.90	20.52	720.00	0.000	2.000	225.26	0.00	450.53
3	115.00	DS1F03F36D-N	1	10.173	11.190	1.00	1.00	6.75	71.00	0.000	13.250	75.53	0.00	1000.83
4	106.00	APXV9TM14-ALU-120	3	9.795	10.775	0.63	0.80	12.02	168.00	0.000	1.000	129.52	0.00	129.52
5	106.00	Universal Ring Mount	1	9.776	10.754	1.00	1.00	5.00	350.00	0.000	0.000	53.77	0.00	0.00
6	106.00	Low Profile Platform	1	9.776	10.754	0.75	0.75	21.00	2000.00	0.000	0.000	225.83	0.00	0.00
7	106.00	APXVSP18-C-A20	3	9.776	10.754	0.66	0.80	15.98	171.00	0.000	0.000	171.80	0.00	0.00
8	106.00	800 MHz RRU Filter	3	9.776	10.754	0.40	0.80	2.88	192.00	0.000	0.000	30.97	0.00	0.00
9	106.00	1900 MHz 4X45 RRH	3	9.776	10.754	0.40	0.80	3.25	180.00	0.000	0.000	34.97	0.00	0.00
10	106.00	TD-RRH8x20-25	3	9.776	10.754	0.40	0.80	4.86	210.00	0.000	0.000	52.26	0.00	0.00
11	106.00	ACU-A20-N	4	9.776	10.754	0.40	0.80	0.22	4.00	0.000	0.000	2.41	0.00	0.00
12	97.00	Amphenol	3	9.597	10.557	0.55	0.75	12.43	51.00	0.000	0.000	131.26	0.00	0.00
13	97.00	Samsung MT6407-77A	3	9.597	10.557	0.52	0.75	7.39	238.20	0.000	0.000	77.98	0.00	0.00
14	97.00	Samsung RF4439d-25A	3	9.597	10.557	0.38	0.75	2.09	224.10	0.000	0.000	22.09	0.00	0.00
15	97.00	JMA MX06FRO660-03	6	9.597	10.557	0.65	0.75	38.64	522.60	0.000	0.000	407.93	0.00	0.00
16	97.00	Kaelus KA-6030	6	9.597	10.557	0.49	0.75	2.81	105.60	0.000	0.000	29.64	0.00	0.00
17	97.00	Samsung RF4440d-13A	3	9.597	10.557	0.50	0.75	2.80	210.99	0.000	0.000	29.60	0.00	0.00
18	97.00	Commscope	1	9.597	10.557	0.75	0.75	1.40	15.21	0.000	0.000	14.81	0.00	0.00
19	97.00	Low Profile Platform w/	1	9.597	10.557	0.75	0.75	26.27	2100.00	0.000	0.000	277.35	0.00	0.00
20	90.00	RRUS 32 B30	3	9.449	10.393	0.40	0.80	3.29	180.00	0.000	0.000	34.17	0.00	0.00
21	90.00	RRUS 32 B2	3	9.449	10.393	0.40	0.80	3.29	159.00	0.000	0.000	34.17	0.00	0.00
22	90.00	QS66512-2	3	9.449	10.393	0.72	0.80	17.56	231.00	0.000	0.000	182.52	0.00	0.00
23	90.00	DC6-48-60-18-8F	2	9.449	10.393	1.00	1.00	1.84	63.60	0.000	0.000	19.12	0.00	0.00
24	90.00	RRUS-11	3	9.449	10.393	0.40	0.80	5.30	165.00	0.000	0.000	55.13	0.00	0.00
25	90.00	LGP21401	6	9.449	10.393	0.40	0.80	3.10	84.60	0.000	0.000	32.18	0.00	0.00
26	90.00	7770.00	3	9.449	10.393	0.58	0.80	9.64	105.00	0.000	0.000	100.15	0.00	0.00
27	90.00	Low Profile Platform	1	9.449	10.393	0.75	0.75	18.75	1349.00	0.000	0.000	194.88	0.00	0.00
28	90.00	P65-16-XLH-RR	3	9.449	10.393	0.60	0.80	14.69	159.00	0.000	0.000	152.66	0.00	0.00
29	84.00	12.5' - 2" Horizontal Pipe	1	9.314	10.245	1.00	1.00	2.97	45.75	0.000	0.000	30.42	0.00	0.00
30	82.00	RFS ATMAA1412D-1A20	3	9.267	10.194	0.38	0.75	1.32	39.00	0.000	0.000	13.42	0.00	0.00
31	82.00	Platform w/ Handrail	1	9.267	10.194	0.75	0.75	17.86	1868.20	0.000	0.000	182.04	0.00	0.00
32	82.00	Andrew VHLP3-11W	1	9.267	10.194	1.00	1.00	10.68	53.00	0.000	0.000	108.87	0.00	0.00
33	82.00	Ceragon	1	9.267	10.194	0.38	0.75	0.39	11.50	0.000	0.000	4.01	0.00	0.00
34	82.00	TBD S20057A1	3	9.267	10.194	0.38	0.75	0.01	33.00	0.000	0.000	0.11	0.00	0.00
35	82.00	MS-KI22-5 (Kickers w/o	1	9.267	10.194	1.00	1.00	6.33	146.00	0.000	0.000	64.53	0.00	0.00
36	82.00	Commscope VV-65A-R1	3	9.267	10.194	0.55	0.75	13.15	88.50	0.000	0.000	134.09	0.00	0.00
37	82.00	RFS	3	9.267	10.194	0.54	0.75	32.79	368.40	0.000	0.000	334.25	0.00	0.00
38	82.00	Ericsson AIR6419 B41	3	9.267	10.194	0.57	0.75	6.50	198.30	0.000	0.000	66.24	0.00	0.00
39	82.00	Ericsson 4460 B25 + B66	3	9.267	10.194	0.38	0.75	3.21	327.00	0.000	0.000	32.68	0.00	0.00
40	82.00	Ericsson 4480 B71 + B85	3	9.267	10.194	0.38	0.75	3.21	279.00	0.000	0.000	32.68	0.00	0.00
41	82.00	Kathrein 782 11054	3	9.267	10.194	0.38	0.75	0.17	5.40	0.000	0.000	1.72	0.00	0.00
42	74.00	Standoff Mount	1	9.072	9.979	1.00	1.00	2.63	40.00	0.000	0.000	26.24	0.00	0.00
43	74.00	GPS	1	9.072	9.979	1.00	1.00	1.00	10.00	0.000	0.000	9.98	0.00	0.00
44	68.00	MC-PK8-DSH	1	8.914	9.805	0.75	0.75	25.68	1727.00	0.000	0.000	251.80	0.00	0.00
45	68.00	RDIDC-9181-OF-48	1	8.914	9.805	1.00	1.00	2.01	21.90	0.000	0.000	19.71	0.00	0.00
46	68.00	TA08025-B605	3	8.914	9.805	0.38	0.75	2.21	225.00	0.000	0.000	21.62	0.00	0.00
47	68.00	TA08025-B604	3	8.914	9.805	0.38	0.75	2.21	191.70	0.000	0.000	21.62	0.00	0.00

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Struct Class: II	Page: 60
Topography: 1		



48	68.00 Commscope	3	8.914	9.805	0.55	0.75	19.71	212.40	0.000	0.000	193.29	0.00	0.00
Totals:											17,720.95	4,659.04	

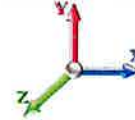
Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 61



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		37.84	424.29	0.00	0.00
4.00		37.44	420.55	0.00	0.00
6.00		37.03	416.81	0.00	0.00
8.00		36.62	413.07	0.00	0.00
10.00		36.22	409.33	0.00	0.00
12.00		35.81	405.59	0.00	0.00
14.00		35.40	401.85	0.00	0.00
16.00		35.89	398.10	0.00	0.00
18.00		36.31	394.36	0.00	0.00
20.00		36.65	390.62	0.00	0.00
22.00		36.91	386.88	0.00	0.00
24.00		37.11	383.14	0.00	0.00
26.00		37.26	379.40	0.00	0.00
28.00		37.36	375.66	0.00	0.00
30.00		37.41	371.92	0.00	0.00
32.00		37.43	368.18	0.00	0.00
34.00		37.41	364.43	0.00	0.00
36.00		37.36	360.69	0.00	0.00
38.00		37.28	356.95	0.00	0.00
40.00		37.18	353.21	0.00	0.00
42.00		37.04	349.47	0.00	0.00
44.00		36.89	345.73	0.00	0.00
45.13		20.72	193.68	0.00	0.00
46.00		16.21	245.32	0.00	0.00
48.00		37.22	559.03	0.00	0.00
49.88		34.79	519.23	0.00	0.00
50.00		2.21	17.70	0.00	0.00
52.00		36.78	293.42	0.00	0.00
54.00		36.54	290.31	0.00	0.00
56.00		36.27	287.19	0.00	0.00
58.00		36.00	284.07	0.00	0.00
60.00		35.71	280.95	0.00	0.00
62.00		35.40	277.84	0.00	0.00
64.00		35.08	274.72	0.00	0.00
66.00		34.75	271.60	0.00	0.00
68.00	(11) attachments	542.44	2646.48	0.00	0.00
70.00		34.05	261.38	0.00	0.00
72.00		33.68	258.27	0.00	0.00
74.00	(2) attachments	69.53	305.15	0.00	0.00
76.00		32.92	251.71	0.00	0.00
78.00		32.52	248.59	0.00	0.00
80.00		32.11	245.47	0.00	0.00
82.00	(28) attachments	1006.35	3659.66	0.00	0.00
84.00	(1) attachments	61.69	262.16	0.00	0.00
86.00		30.84	213.30	0.00	0.00
88.00		30.40	210.18	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 62
Struct Class: II		



90.00	(27) attachments	834.92	2703.26	0.00	0.00
91.29		19.11	121.94	0.00	0.00
92.00		10.52	98.85	0.00	0.00
94.00		29.51	276.38	0.00	0.00
94.71		10.35	96.91	0.00	0.00
96.00		18.66	80.69	0.00	0.00
97.00	(26) attachments	1004.98	3529.71	0.00	0.00
98.00		14.20	47.96	0.00	0.00
100.00		28.07	94.53	0.00	0.00
102.00		27.58	92.66	0.00	0.00
104.00		27.08	90.79	0.00	0.00
106.00	(21) attachments	728.12	3363.92	0.00	129.52
108.00		26.06	83.08	0.00	0.00
110.00		25.54	81.21	0.00	0.00
112.00		25.02	79.34	0.00	0.00
114.00		24.49	77.47	0.00	0.00
115.00	(14) attachments	624.57	2629.04	0.00	1451.35
116.00		11.90	37.57	0.00	0.00
118.00		23.41	72.69	0.00	0.00
Totals:		6,630.16	34,485.64	0.00	1,580.87

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.063	0.000	6.473	0.00	0.55
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.063	0.000	6.473	0.00	2.08
2.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.063	0.000	6.473	0.00	0.32
2.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.063	0.000	6.473	0.00	3.98
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.064	0.000	6.473	0.00	0.55
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.064	0.000	6.473	0.00	2.08
4.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	6.473	0.00	0.32
4.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.064	0.000	6.473	0.00	3.98
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	6.473	0.00	0.55
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	6.473	0.00	2.08
6.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	6.473	0.00	0.32
6.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	6.473	0.00	3.98
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	6.473	0.00	0.55
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	6.473	0.00	2.08
8.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	6.473	0.00	0.32
8.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	6.473	0.00	3.98
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.066	0.000	6.473	0.00	0.55
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.066	0.000	6.473	0.00	2.08
10.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	6.473	0.00	0.32
10.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.066	0.000	6.473	0.00	3.98
12.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.067	0.000	6.473	0.00	0.55
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.067	0.000	6.473	0.00	2.08
12.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	6.473	0.00	0.32
12.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.067	0.000	6.473	0.00	3.98
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	6.473	0.00	0.55
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	6.473	0.00	2.08
14.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	6.473	0.00	0.32
14.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	6.473	0.00	3.98
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	6.637	0.00	0.55
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	6.637	0.00	2.08
16.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	6.637	0.00	0.32
16.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	6.637	0.00	3.98
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.069	0.000	6.794	0.00	0.55
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.069	0.000	6.794	0.00	2.08
18.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	6.794	0.00	0.32
18.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.069	0.000	6.794	0.00	3.98
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.070	0.000	6.939	0.00	0.55
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.070	0.000	6.939	0.00	2.08
20.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	6.939	0.00	0.32
20.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.070	0.000	6.939	0.00	3.98
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.071	0.000	7.073	0.00	0.55
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.071	0.000	7.073	0.00	2.08
22.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	7.073	0.00	0.32
22.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.071	0.000	7.073	0.00	3.98
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.072	0.000	7.198	0.00	0.55
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.072	0.000	7.198	0.00	2.08
24.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	7.198	0.00	0.32

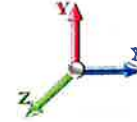
Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
24.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.072	0.000	7.198	0.00	3.98
26.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.073	0.000	7.316	0.00	0.55
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.073	0.000	7.316	0.00	2.08
26.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	7.316	0.00	0.32
26.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.073	0.000	7.316	0.00	3.98
28.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.073	0.000	7.427	0.00	0.55
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.073	0.000	7.427	0.00	2.08
28.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	7.427	0.00	0.32
28.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.073	0.000	7.427	0.00	3.98
30.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.074	0.000	7.532	0.00	0.55
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.074	0.000	7.532	0.00	2.08
30.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	7.532	0.00	0.32
30.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.074	0.000	7.532	0.00	3.98
32.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.075	0.000	7.632	0.00	0.55
32.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.075	0.000	7.632	0.00	2.08
32.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	7.632	0.00	0.32
32.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.075	0.000	7.632	0.00	3.98
34.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.076	0.000	7.727	0.00	0.55
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.076	0.000	7.727	0.00	2.08
34.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	7.727	0.00	0.32
34.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.076	0.000	7.727	0.00	3.98
36.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.077	0.000	7.818	0.00	0.55
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.077	0.000	7.818	0.00	2.08
36.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	7.818	0.00	0.32
36.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.077	0.000	7.818	0.00	3.98
38.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.078	0.000	7.905	0.00	0.55
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.078	0.000	7.905	0.00	2.08
38.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	7.905	0.00	0.32
38.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.078	0.000	7.905	0.00	3.98
40.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.079	0.000	7.989	0.00	0.55
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.079	0.000	7.989	0.00	2.08
40.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	7.989	0.00	0.32
40.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.079	0.000	7.989	0.00	3.98
42.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.080	0.000	8.069	0.00	0.55
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.080	0.000	8.069	0.00	2.08
42.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	8.069	0.00	0.32
42.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.080	0.000	8.069	0.00	3.98
44.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.082	0.000	8.147	0.00	0.55
44.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.082	0.000	8.147	0.00	2.08
44.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	8.147	0.00	0.32
44.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.082	0.000	8.147	0.00	3.98
45.13	Safety Cable	Yes	1.13	0.000	0.38	0.04	0.00	0.082	0.000	8.189	0.00	0.31
45.13	Step bolts (ladder)	Yes	1.13	0.000	0.63	0.06	0.00	0.082	0.000	8.189	0.00	1.18
45.13	1/2"	Yes	1.13	0.000	0.00	0.00	0.00	0.082	0.000	8.189	0.00	0.18
45.13	1.75" Hybrid	Yes	1.13	0.000	1.75	0.16	0.00	0.082	0.000	8.189	0.00	2.25
46.00	Safety Cable	Yes	0.87	0.000	0.38	0.03	0.00	0.083	0.000	8.222	0.00	0.24
46.00	Step bolts (ladder)	Yes	0.87	0.000	0.63	0.05	0.00	0.083	0.000	8.222	0.00	0.90

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A

Code: TIA-222-H

8/30/2023

Site Name: Newtown-ferris Rd

Exposure: C

Height: 118.00 (ft)

Crest Height: 0.00

Base Elev: 1.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	1/2"	Yes	0.87	0.000	0.00	0.00	0.00	0.083	0.000	8.222	0.00	0.14
46.00	1.75" Hybrid	Yes	0.87	0.000	1.75	0.13	0.00	0.083	0.000	8.222	0.00	1.73
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.084	0.000	8.294	0.00	0.55
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.084	0.000	8.294	0.00	2.08
48.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	8.294	0.00	0.32
48.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.084	0.000	8.294	0.00	3.98
49.88	Safety Cable	Yes	1.88	0.000	0.38	0.06	0.00	0.085	0.000	8.360	0.00	0.51
49.88	Step bolts (ladder)	Yes	1.88	0.000	0.63	0.10	0.00	0.085	0.000	8.360	0.00	1.96
49.88	1/2"	Yes	1.88	0.000	0.00	0.00	0.00	0.085	0.000	8.360	0.00	0.30
49.88	1.75" Hybrid	Yes	1.88	0.000	1.75	0.27	0.00	0.085	0.000	8.360	0.00	3.74
50.00	Safety Cable	Yes	0.12	0.000	0.38	0.00	0.00	0.084	0.000	8.364	0.00	0.03
50.00	Step bolts (ladder)	Yes	0.12	0.000	0.63	0.01	0.00	0.084	0.000	8.364	0.00	0.12
50.00	1/2"	Yes	0.12	0.000	0.00	0.00	0.00	0.084	0.000	8.364	0.00	0.02
50.00	1.75" Hybrid	Yes	0.12	0.000	1.75	0.02	0.00	0.084	0.000	8.364	0.00	0.24
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.085	0.000	8.432	0.00	0.55
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.085	0.000	8.432	0.00	2.08
52.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	8.432	0.00	0.32
52.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.085	0.000	8.432	0.00	3.98
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.086	0.000	8.498	0.00	0.55
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.086	0.000	8.498	0.00	2.08
54.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	8.498	0.00	0.32
54.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.086	0.000	8.498	0.00	3.98
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.087	0.000	8.562	0.00	0.55
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.087	0.000	8.562	0.00	2.08
56.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.087	0.000	8.562	0.00	0.32
56.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.087	0.000	8.562	0.00	3.98
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.089	0.000	8.625	0.00	0.55
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.089	0.000	8.625	0.00	2.08
58.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	8.625	0.00	0.32
58.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.089	0.000	8.625	0.00	3.98
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.090	0.000	8.685	0.00	0.55
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.090	0.000	8.685	0.00	2.08
60.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	8.685	0.00	0.32
60.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.090	0.000	8.685	0.00	3.98
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.091	0.000	8.745	0.00	0.55
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.091	0.000	8.745	0.00	2.08
62.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	8.745	0.00	0.32
62.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.091	0.000	8.745	0.00	3.98
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.093	0.000	8.802	0.00	0.55
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.093	0.000	8.802	0.00	2.08
64.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.093	0.000	8.802	0.00	0.32
64.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.093	0.000	8.802	0.00	3.98
66.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.094	0.000	8.859	0.00	0.55
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.094	0.000	8.859	0.00	2.08
66.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	8.859	0.00	0.32
66.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.094	0.000	8.859	0.00	3.98
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.096	0.000	8.914	0.00	0.55

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.096	0.000	8.914	0.00	2.08
68.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.096	0.000	8.914	0.00	0.32
68.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.096	0.000	8.914	0.00	3.98
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	8.968	0.00	0.55
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	8.968	0.00	2.08
70.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	8.968	0.00	0.32
72.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	9.020	0.00	0.55
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	9.020	0.00	2.08
72.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	9.020	0.00	0.32
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	9.072	0.00	0.55
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	9.072	0.00	2.08
74.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.037	0.000	9.072	0.00	0.32
76.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	9.122	0.00	0.55
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	9.122	0.00	2.08
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	9.171	0.00	0.55
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	9.171	0.00	2.08
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	9.220	0.00	0.55
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	9.220	0.00	2.08
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	9.267	0.00	0.55
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	9.267	0.00	2.08
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	9.314	0.00	0.55
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	9.314	0.00	2.08
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	9.360	0.00	0.55
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	9.360	0.00	2.08
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.042	0.000	9.404	0.00	0.55
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.042	0.000	9.404	0.00	2.08
90.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.043	0.000	9.449	0.00	0.55
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.043	0.000	9.449	0.00	2.08
91.29	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.043	0.000	9.477	0.00	0.35
91.29	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.043	0.000	9.477	0.00	1.35
92.00	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.044	0.000	9.492	0.00	0.19
92.00	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.044	0.000	9.492	0.00	0.73
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.044	0.000	9.534	0.00	0.55
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.044	0.000	9.534	0.00	2.08
94.71	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.045	0.000	9.549	0.00	0.19
94.71	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.045	0.000	9.549	0.00	0.74
96.00	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.045	0.000	9.576	0.00	0.35
96.00	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.045	0.000	9.576	0.00	1.34
97.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.045	0.000	9.597	0.00	0.27
97.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.045	0.000	9.597	0.00	1.04
98.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.046	0.000	9.618	0.00	0.27
98.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.046	0.000	9.618	0.00	1.04
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	9.658	0.00	0.55
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	9.658	0.00	2.08
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	9.698	0.00	0.55
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	9.698	0.00	2.08
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	9.738	0.00	0.55

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	9.738	0.00	2.08
	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	9.776	0.00	0.55
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	9.776	0.00	2.08
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	9.814	0.00	0.55
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	9.814	0.00	2.08
110.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	9.852	0.00	0.55
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	9.852	0.00	2.08
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	9.889	0.00	0.55
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	9.889	0.00	2.08
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.055	0.000	9.926	0.00	0.55
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.055	0.000	9.926	0.00	2.08
115.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.056	0.000	9.944	0.00	0.27
115.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.056	0.000	9.944	0.00	1.04
116.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.057	0.000	9.962	0.00	0.27
116.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.057	0.000	9.962	0.00	1.04
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.058	0.000	9.998	0.00	0.55
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.058	0.000	9.998	0.00	2.08
Totals:											0.0	302.2

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 25

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-34.48	-6.64	0.00	-571.65	0.00	571.65	3634.70	895.58	3185.83	3203.64	0.00	0.000	0.000	0.188
2.00	-34.06	-6.62	0.00	-558.37	0.00	558.37	3607.15	885.93	3117.56	3144.81	0.01	-0.027	0.000	0.187
4.00	-33.63	-6.59	0.00	-545.14	0.00	545.14	3579.34	876.28	3050.03	3086.29	0.02	-0.054	0.000	0.186
6.00	-33.21	-6.57	0.00	-531.95	0.00	531.95	3551.29	866.64	2983.24	3028.09	0.05	-0.082	0.000	0.185
8.00	-32.80	-6.55	0.00	-518.81	0.00	518.81	3522.98	856.99	2917.19	2970.21	0.09	-0.110	0.000	0.184
10.00	-32.38	-6.53	0.00	-505.71	0.00	505.71	3494.42	847.34	2851.88	2912.67	0.14	-0.138	0.000	0.183
12.00	-31.98	-6.51	0.00	-492.65	0.00	492.65	3465.61	837.69	2787.31	2855.46	0.21	-0.166	0.000	0.182
14.00	-31.57	-6.49	0.00	-479.63	0.00	479.63	3436.54	828.05	2723.48	2798.60	0.28	-0.195	0.000	0.181
16.00	-31.17	-6.47	0.00	-466.65	0.00	466.65	3407.22	818.40	2660.39	2742.09	0.37	-0.224	0.000	0.179
18.00	-30.77	-6.44	0.00	-453.72	0.00	453.72	3377.65	808.75	2598.04	2685.95	0.47	-0.253	0.000	0.178
20.00	-30.38	-6.42	0.00	-440.83	0.00	440.83	3347.83	799.10	2536.42	2630.17	0.58	-0.282	0.000	0.177
22.00	-29.99	-6.40	0.00	-427.99	0.00	427.99	3317.75	789.46	2475.55	2574.76	0.71	-0.311	0.000	0.175
24.00	-29.60	-6.37	0.00	-415.19	0.00	415.19	3287.42	779.81	2415.41	2519.74	0.85	-0.341	0.000	0.174
26.00	-29.22	-6.35	0.00	-402.44	0.00	402.44	3256.84	770.16	2356.02	2465.11	0.99	-0.370	0.000	0.172
28.00	-28.84	-6.32	0.00	-389.75	0.00	389.75	3219.51	760.51	2297.36	2406.03	1.16	-0.400	0.000	0.171
30.00	-28.47	-6.30	0.00	-377.10	0.00	377.10	3178.67	750.87	2239.44	2345.06	1.33	-0.430	0.000	0.170
32.00	-28.09	-6.27	0.00	-364.50	0.00	364.50	3137.83	741.22	2182.27	2284.88	1.52	-0.460	0.000	0.169
34.00	-27.73	-6.25	0.00	-351.95	0.00	351.95	3096.99	731.57	2125.83	2225.48	1.72	-0.491	0.000	0.167
36.00	-27.36	-6.22	0.00	-339.45	0.00	339.45	3056.15	721.92	2070.13	2166.87	1.93	-0.521	0.000	0.166
38.00	-27.00	-6.20	0.00	-327.01	0.00	327.01	3015.30	712.28	2015.17	2109.03	2.15	-0.552	0.000	0.164
40.00	-26.65	-6.17	0.00	-314.62	0.00	314.62	2974.46	702.63	1960.95	2051.98	2.39	-0.582	0.000	0.162
42.00	-26.30	-6.14	0.00	-302.28	0.00	302.28	2933.62	692.98	1907.47	1995.71	2.64	-0.613	0.000	0.161
44.00	-25.95	-6.11	0.00	-289.99	0.00	289.99	2892.78	683.33	1854.73	1940.23	2.91	-0.644	0.000	0.159
45.13	-25.75	-6.10	0.00	-283.08	0.00	283.08	2869.71	677.88	1825.26	1909.22	3.06	-0.661	0.000	0.157
46.00	-25.50	-6.09	0.00	-277.78	0.00	277.78	2851.94	673.69	1802.73	1885.52	3.18	-0.675	0.000	0.156
48.00	-24.94	-6.06	0.00	-265.60	0.00	265.60	2811.10	664.04	1751.47	1831.60	3.47	-0.705	0.000	0.154
49.88	-24.42	-6.02	0.00	-254.22	0.00	254.22	2770.26	654.39	1700.20	1780.47	3.76	-0.734	0.000	0.152
50.00	-24.40	-6.03	0.00	-253.49	0.00	253.49	2769.41	654.24	1700.05	1780.32	3.77	-0.736	0.000	0.152
52.00	-24.11	-6.00	0.00	-241.44	0.00	241.44	2707.18	644.59	1648.76	1728.73	4.09	-0.770	0.000	0.150
54.00	-23.81	-5.98	0.00	-229.44	0.00	229.44	2644.95	634.94	1597.17	1677.14	4.42	-0.804	0.000	0.148
56.00	-23.52	-5.95	0.00	-217.49	0.00	217.49	2582.72	625.29	1545.58	1625.55	4.76	-0.838	0.000	0.146
58.00	-23.24	-5.92	0.00	-205.59	0.00	205.59	2520.49	615.64	1494.01	1573.96	5.12	-0.872	0.000	0.144
60.00	-22.95	-5.89	0.00	-193.75	0.00	193.75	2458.26	605.99	1442.44	1522.37	5.50	-0.905	0.000	0.142
62.00	-22.67	-5.87	0.00	-181.96	0.00	181.96	2396.03	596.34	1390.87	1470.78	5.88	-0.937	0.000	0.140
64.00	-22.39	-5.84	0.00	-170.22	0.00	170.22	2333.80	586.69	1339.30	1419.19	6.28	-0.969	0.000	0.138
66.00	-22.12	-5.81	0.00	-158.54	0.00	158.54	2271.57	577.04	1287.73	1367.60	6.69	-1.000	0.000	0.136
68.00	-19.48	-5.23	0.00	-146.92	0.00	146.92	2209.34	567.39	1236.16	1316.01	7.12	-1.031	0.000	0.134
70.00	-19.22	-5.21	0.00	-136.45	0.00	136.45	2147.11	557.74	1184.59	1264.42	7.56	-1.061	0.000	0.132
72.00	-18.96	-5.18	0.00	-126.04	0.00	126.04	2084.88	548.09	1133.02	1212.83	8.01	-1.090	0.000	0.130
74.00	-18.65	-5.11	0.00	-115.69	0.00	115.69	2022.65	538.44	1081.45	1161.24	8.47	-1.118	0.000	0.128
76.00	-18.40	-5.08	0.00	-105.47	0.00	105.47	1960.42	528.79	1029.88	1109.65	8.95	-1.145	0.000	0.126
78.00	-18.15	-5.05	0.00	-95.31	0.00	95.31	1898.19	519.14	978.31	1058.06	9.43	-1.171	0.000	0.124
80.00	-17.90	-5.02	0.00	-85.21	0.00	85.21	1835.96	509.49	926.74	1006.47	9.93	-1.195	0.000	0.122
82.00	-14.26	-3.94	0.00	-75.16	0.00	75.16	1773.73	500.14	875.17	954.88	10.43	-1.218	0.000	0.120
84.00	-14.00	-3.88	0.00	-67.28	0.00	67.28	1711.50	490.79	823.60	903.29	10.95	-1.240	0.000	0.118
86.00	-13.79	-3.85	0.00	-59.52	0.00	59.52	1649.27	481.44	772.03	851.70	11.47	-1.260	0.000	0.116
88.00	-13.58	-3.82	0.00	-51.82	0.00	51.82	1586.84	472.09	720.46	800.11	12.00	-1.279	0.000	0.114
90.00	-10.89	-2.93	0.00	-44.18	0.00	44.18	1524.41	462.74	668.89	748.52	12.54	-1.297	0.000	0.112

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	8/30/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 69
	Struct Class: II	



91.29	-10.77	-2.91	0.00	-40.39	0.00	40.39	1656.52	391.30	729.83	761.64	12.90	-1.307	0.000	0.060
92.00	-10.67	-2.90	0.00	-38.34	0.00	38.34	1644.49	388.46	719.27	750.54	13.09	-1.313	0.000	0.058
94.00	-10.39	-2.86	0.00	-32.55	0.00	32.55	1610.46	380.42	689.81	719.59	13.64	-1.327	0.000	0.052
94.71	-10.30	-2.85	0.00	-30.51	0.00	30.51	930.70	231.76	426.71	424.70	13.84	-1.332	0.000	0.083
96.00	-10.22	-2.83	0.00	-26.84	0.00	26.84	922.07	228.65	415.33	415.07	14.20	-1.340	0.000	0.076
97.00	-6.71	-1.74	0.00	-24.01	0.00	24.01	915.31	226.24	406.62	407.64	14.48	-1.349	0.000	0.066
98.00	-6.66	-1.73	0.00	-22.26	0.00	22.26	908.49	223.83	397.99	400.25	14.77	-1.358	0.000	0.063
100.00	-6.57	-1.70	0.00	-18.80	0.00	18.80	894.64	219.00	381.02	385.59	15.34	-1.374	0.000	0.056
102.00	-6.48	-1.67	0.00	-15.40	0.00	15.40	880.55	214.18	364.42	371.08	15.92	-1.388	0.000	0.049
104.00	-6.39	-1.65	0.00	-12.05	0.00	12.05	866.20	209.36	348.19	356.74	16.50	-1.400	0.000	0.041
106.00	-3.04	-0.84	0.00	-8.63	0.00	8.63	851.60	204.53	332.33	342.57	17.09	-1.410	0.000	0.029
108.00	-2.96	-0.81	0.00	-6.96	0.00	6.96	836.75	199.71	316.84	328.58	17.68	-1.418	0.000	0.025
110.00	-2.88	-0.78	0.00	-5.34	0.00	5.34	821.65	194.89	301.72	314.78	18.28	-1.424	0.000	0.020
112.00	-2.80	-0.75	0.00	-3.78	0.00	3.78	804.60	190.06	286.97	300.54	18.88	-1.430	0.000	0.016
114.00	-2.72	-0.73	0.00	-2.27	0.00	2.27	784.18	185.24	272.59	285.40	19.48	-1.433	0.000	0.011
115.00	-0.11	-0.04	0.00	-0.09	0.00	0.09	773.97	182.83	265.54	277.98	19.78	-1.435	0.000	0.000
116.00	-0.07	-0.03	0.00	-0.05	0.00	0.05	763.76	180.41	258.58	270.66	20.08	-1.435	0.000	0.000
118.00	0.00	-0.02	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	20.68	-1.435	0.000	0.000

Final Analysis Summary

Structure: CT46132-A	Code: TIA-222-H	8/30/2023	
Site Name: Newtown-ferris Rd	Exposure: C		
Height: 118.00 (ft)	Crest Height: 0.00		
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil		
Gh: 1.1	Topography: 1	Struct Class: II	Page: 70




Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.0W 116 mph Wind	27.7	0.00	41.35	0.00	0.00	2408.47
0.9D + 1.0W 116 mph Wind	27.7	0.00	31.01	0.00	0.00	2372.81
1.2D + 1.0Di + 1.0Wi 50 mph Wind	7.4	0.00	60.63	0.00	0.00	650.75
1.2D + 1.0Ev + 1.0Eh	0.6	0.00	42.99	0.00	0.00	57.81
0.9D + 1.0Ev + 1.0Eh	0.6	0.00	32.59	0.00	0.00	56.85
1.0D + 1.0W 60 mph Wind	6.6	0.00	34.48	0.00	0.00	571.65

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.0W 116 mph Wind	-41.35	-27.74	0.00	-2408.4	0.00	-2408.4	3634.70	895.58	3185.83	3203.64	0.00	0.764
0.9D + 1.0W 116 mph Wind	-31.01	-27.73	0.00	-2372.8	0.00	-2372.8	3634.70	895.58	3185.83	3203.64	0.00	0.750
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-60.63	-7.44	0.00	-650.75	0.00	-650.75	3634.70	895.58	3185.83	3203.64	0.00	0.220
1.2D + 1.0Ev + 1.0Eh	-30.53	-0.60	0.00	-28.69	0.00	-28.69	2333.69	557.78	1482.91	1535.76	49.88	0.032
0.9D + 1.0Ev + 1.0Eh	-23.16	-0.59	0.00	-28.08	0.00	-28.08	2333.69	557.78	1482.91	1535.76	49.88	0.028
1.0D + 1.0W 60 mph Wind	-34.48	-6.64	0.00	-571.65	0.00	-571.65	3634.70	895.58	3185.83	3203.64	0.00	0.188

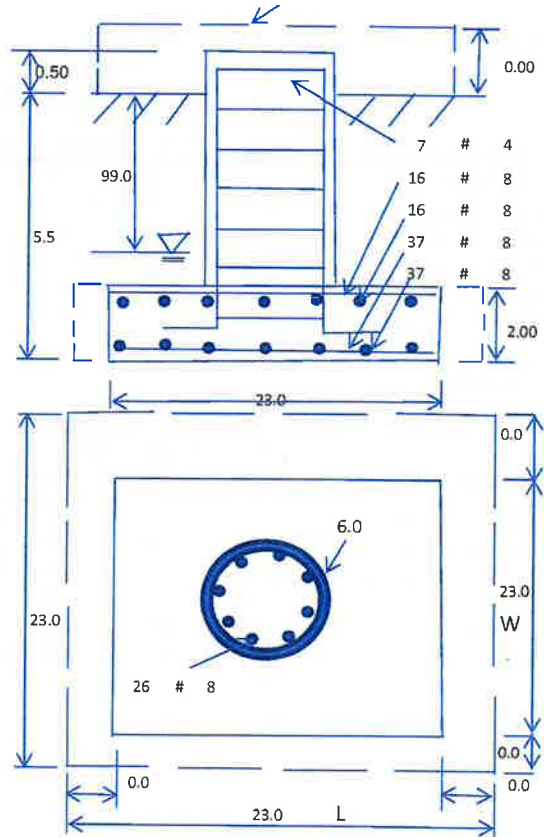
	Monopole Mat Foundation Design			Date
				8/29/2023
	Customer Name:	T-Mobile	TIA Standard:	TIA-222-H
	Site Name:		Structure Height (Ft.):	119
	Site Number:	CT46132-A	Engineer Name:	SBA Engineer
Engr. Number:		Engineer Login ID:		

Foundation Info Obtained from:

Structure Type:	Monopole	Drawings/Calculations	
Analysis or Design?	Analysis		
Base Reactions (Factored):			
Axial Load (Kips):	41.4	Shear Force (Kips):	27.7
Uplift Force (Kips):	0.0	Moment (Kips-ft):	2408.5
Foundation Geometries:			
		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	6.0	Depth of Base BG (ft.):	5.5
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	2.00
Length of Pad (ft.):	23	Width of Pad (ft.):	23
Final Length of pad (ft)	23.0	Final width of pad (ft):	23.0

Material Properties and Rebar Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	26	Tie Spacing (in):	11.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	4	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	37	Qty. of Rebar in Pad (W):	37	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	16	Qty. of Rebar in Pad (W):	16	



Soil Design Parameters:

Soil Unit Weight (pcf):	155.0	Soil Buoyant Weight:	92.6	Pcf	
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad: 30
Ultimate Bearing Pressure (psf):	40000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad: 25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad: 25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00		

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	1752.54	Total Dry Soil Weight (Kips):	271.64
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	271.64	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	1171.10	Total Dry Concrete Weight (Kips):	175.66
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	175.66	Total Vertical Load on Base (Kips):	488.71

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	2153	<	Allowable Factored Soil Bearing (psf):	30000	0.07	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	5105.7	>	Design Factored Momont (kips-ft):	2575	0.50	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.98					

Check the capacities of Reinforcing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75	
Strength reduction factor (Axial compression):	0.65	Wind Load Factor on Concrete Design:	1.00	

Load/
Capacity
Ratio**(1) Concrete Pier:**

Vertical Steel Rebar Area (sq. in./each):	0.79	Tie / Stirrup Area (sq. in./each):	0.20	
Calculated Moment Capacity (Mn,Kips-Ft):	2994.3	> Design Factored Moment (Mu, Kips-Ft)	2519.3	0.84 OK!
Calculated Shear Capacity (Kips):	511.9	> Design Factored Shear (Kips):	27.7	0.05 OK!
Calculated Tension Capacity (Tn, Kips):	1109.2	> Design Factored Tension (Tu Kips):	0.0	0.00 OK!
Calculated Compression Capacity (Pn, Kips):	7162.1	> Design Factored Axial Load (Pu Kips):	41.4	0.01 OK!
Moment & Axial Strength Combination:	0.84	OK! Check Tie Spacing (Design/Required):	0.9167	OK!
Pier Reinforcement Ratio:	0.005	Reinforcement Ratio is satisfied per ACI		

(2). Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	510.6	> One-Way Factored Shear (L-D, Kips):	178.9	0.35 OK!
One-Way Design Shear Capacity (W-Direction, Kips):	510.6	> One-Way Factored Shear (W-D., Kips):	178.9	0.35 OK!
One-Way Design Shear Capacity (Corner-Corner, Kips):	516.7	> One-Way Factored Shear (C-C, Kips):	177.5	0.34 OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0054	OK! Lower Steel Pad Reinf. Ratio (W-Direct)	0.0054	
Lower Steel Pad Moment Capacity (L-Direction, Kips-ft):	2442.0	> Moment at Bottom (L-Dir, K-Ft):	842.0	0.34 OK!
Lower Steel Pad Moment Capacity (W-Direction, Kips-ft):	2442.0	> Moment at Bottom (W-Dir, K-Ft):	842.0	0.34 OK!
Lower Steel Pad Moment Capacity (Corner-Corner, K-ft):	3414.2	> Moment at Bottom (C-C Dir, K-Ft):	1190.7	0.35 OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0023	OK! Upper Steel Reinf. Ratio (W-Dir.):	0.0023	
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	1086.2	> Moment at the top (L-Dir K-Ft):	423.6	0.39 OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	1086.2	> Moment at the top (W-Dir K-Ft):	423.6	0.39 OK!
Upper Steel Pad Moment Capacity (Corner-Corner, K-ft):	1528.7	> Moment at the top (C-C Dir, K-Ft):	396.5	0.26 OK!

(3). Check Punching Shear Capacity due to Moment in the Pier:

Moment transferred by punching shear:	963.4	k-ft.	Max. factored shear stress $v_{u,cd}$:	3.7	Psi
Max. factored shear stress $v_{u,AB}$:	15.8	Psi	Factored shear Strength ϕv_n :	189.7	Psi
Max. factored shear stress v_u :	15.8	Psi	Check Usage of Punching Shear Capacity:	0.08	OK!

(4). Check Bending Capacity of the Pad Within the Effective Slab Width:

Overturning moment to be transferred by flexure:	722.6	k-ft.	Effective Width for resisting OT moment:	12.0	ft.
Calculated number of Rebar in Effective width:	9		Actual number of Rebar in Effective width:	12	
Steel Pad Moment Capacity (L-Direc. Kips-ft):	807.1	k-ft.	Check Usage of the Flexure Capacity:	0.90	OK!



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

Antenna Mount Analysis Report and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10208816
Colliers Engineering & Design CT, PC Project #: 23777250

August 21, 2023

Site Information

Site ID: 5000386309-VZW / NEWTOWN WEST CT
Site Name: NEWTOWN WEST CT
Carrier Name: Verizon Wireless
Address: 8 Ferris Road
Newtown, Connecticut 06470
Fairfield County
Latitude: 41.389720°
Longitude: -73.338210°

Structure Information

Tower Type: 124-Ft Self Support
Mount Type: 14.00-Ft Platform

FUZE ID # 17136862

Analysis Results

Platform: 70.6% Pass*

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

***Contractor PMI Requirements:

Included at the end of this MA report
Available & Submitted via portal at <https://pmi.vzwsmart.com>
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: Gilberto Martinez



Executive Summary:

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

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

Sources of Information:

Document Type	Remarks
<i>Radio Frequency Data Sheet (RFDS)</i>	<i>Verizon RFDS, Site ID: 324507, dated October 22, 2021</i>
<i>Final Loading Configuration</i>	<i>Filter Add Scope Provided by Verizon Wireless</i>
<i>Mount Mapping Report</i>	<i>Structural Components, Site ID: 16092604, dated April 16, 2021</i>
<i>Previous Mount Analysis</i>	<i>Maser Consulting Connecticut, Project #: 21777788A dated October 8, 2021</i>
<i>Mount Modification Drawings</i>	<i>Maser Consulting Connecticut, Project #: 21777788A dated October 25, 2021</i>

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 120 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: B Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.972
Seismic Parameters:	S_s : 0.209 g S_1 : 0.055 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, L_v : 250 lbs. Maintenance Live Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V17)

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
97.00	98.00	6	KAelus	KA-6030	Added
		6	JMA Wireless	MX06FRO660-02	Retained
		3	Samsung	MT6407-77A	
		1	Raycap	RVZDC-6627-PF-48	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4440d-13A	
		3	Amphenol Antel	BXA-70063-6CF-EDIN-X	

The recent mount mapping did not report existing OVP units. However, 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 Colliers Engineering & Design and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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

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

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.
4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325
8. It is assumed that the mount modifications listed under Sources of Information will be installed per the design specifications.

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

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff_1	24.5 %	Pass
Standoff_2	12.2 %	Pass
Grating Angle	22.9 %	Pass
Cross Members	20.7 %	Pass
Face Horizontal	40.4 %	Pass
Mount Pipe	35.2 %	Pass
MOD Kicker	8.7 %	Pass
MOD Support Rail	8.5 %	Pass
MOD Corner Angle	27.1 %	Pass
Mount Connection	70.6 %	Pass
Structure Rating - (Controlling Utilization of all Components)		70.6%

BASELINE mount weight per SBA agreement: 3483.17 lbs

Increase in mount weight due to Verizon loading change per SBA agreement: No Change

The weights listed above include 3 sector(s).

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	38.6	38.6	52.3	52.3
0.5	48.6	48.5	68.0	67.9
1	58.0	58.0	83.2	83.2

Notes:

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

Requirements:

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

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

Contractor shall verify that the mount modifications proposed in the previous mount modification drawings Maser Consulting Connecticut Project #:21777788, dated October 25, 2021 have been installed.

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

Attachments:

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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

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

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

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

For additional questions and support, please reach out to pmisupport@colliersengineering.com

MDG #: 5000386309

SMART Project #: 10208816

Fuze Project ID: 17136862

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

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

Base Requirements:

- If installation will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide “as built mount drawings” showing contractor’s name, contact information, preparer’s signature, and date. Any deviations from the drawings (Proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: <https://pmi.vzwsmart.com>

Photo Requirements:

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

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

Antenna & equipment placement and Geometry Confirmation:

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

OR

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

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

Issue:

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

Contractor shall verify that the mount modifications proposed in the previous mount modification drawings Maser Consulting Connecticut Project #:21777788, dated October 25, 2021 have been installed.

Response:

Special Instruction Confirmation:

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

OR

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

Comments:

--

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

Yes No

Contractor certifies no new damage created during the current installation:

Yes No

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

Safety Climb in Good Condition Safety Climb Damaged

Certifying Individual:

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

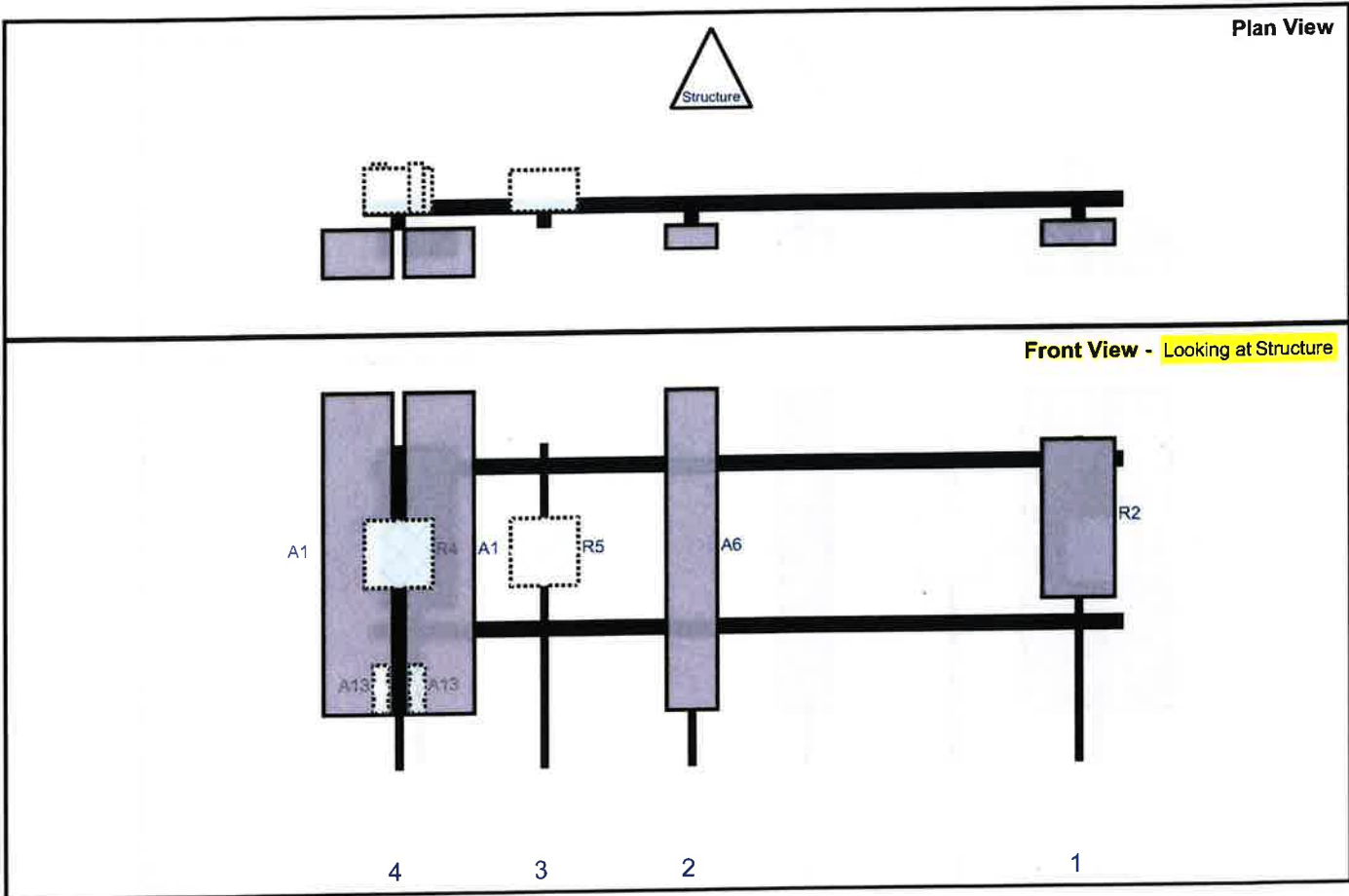
Sector: A
 Structure Type: Self Support
 Mount Elev: 97.00

10208816

8/18/2023



Page: 1



Ref#	Model	Height (in)	Width (in)	H Dist Fm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Fm T.	Ant H Off	Status	Validation
R2	MT6407-77A	35.1	16.1	158	1	a	Front	18	0	Added	
A6	BXA-70063-6CF-EDIN-X	71	11.2	72.5	2	a	Front	24	0	Retained	04/16/2021
R5	RF4440d-13A	15	15	40	3	a	Behind	24	0	Added	
A1	MX06FRO660-02	71.3	15.4	7.75	4	a	Front	24	9	Added	
A1	MX06FRO660-02	71.3	15.4	7.75	4	b	Front	24	-9	Added	
R4	RF4439d-25A	15	15	7.75	4	a	Behind	24	0	Added	
A13	KA-6030	10.6	3.2	7.75	4	a	Behind	54	4	Added	
A13	KA-6030	10.6	3.2	7.75	4	b	Behind	54	-4	Added	
M61	RVZDC-6627-PF-48	29.5	16.5			Member				Added	

Structure: 5000386309-VZW - NEWTOWN EAST CT

Sector: B

8/18/2023

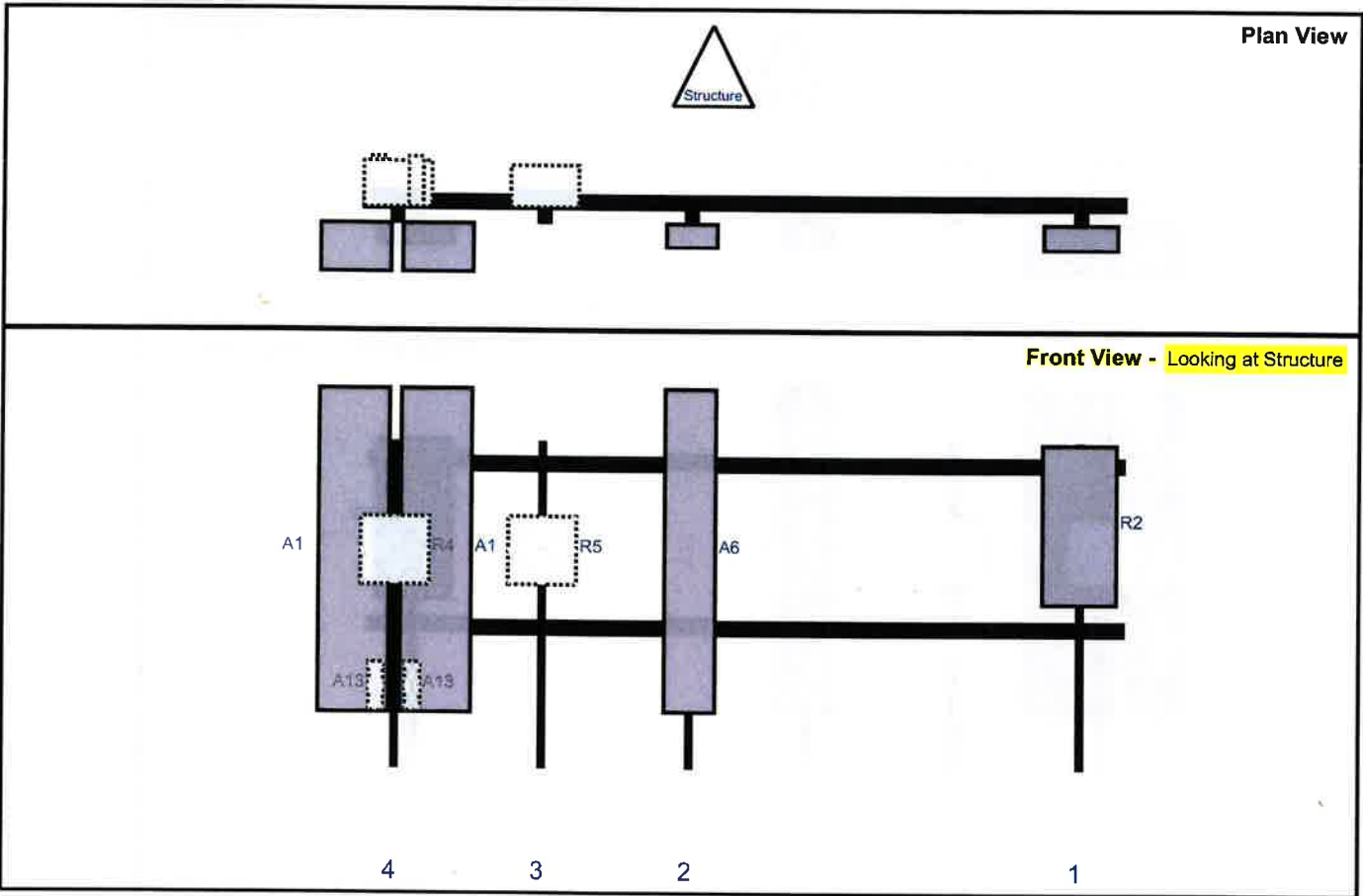
Structure Type: Self Support

10208816



Mount Elev: 97.00

Page: 2



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R2	MT6407-77A	35.1	16.1	158	1	a	Front	18	0	Added	
A6	BXA-70063-6CF-EDIN-X	71	11.2	72.5	2	a	Front	24	0	Retained	04/16/2021
R5	RF4440d-13A	15	15	40	3	a	Behind	24	0	Added	
A1	MX06FRO660-02	71.3	15.4	7.75	4	a	Front	24	9	Added	
A1	MX06FRO660-02	71.3	15.4	7.75	4	b	Front	24	-9	Added	
R4	RF4439d-25A	15	15	7.75	4	a	Behind	24	0	Added	
A13	KA-6030	10.6	3.2	7.75	4	a	Behind	54	4	Added	
A13	KA-6030	10.8	3.2	7.75	4	b	Behind	54	-4	Added	

Structure: 5000386309-VZW - NEWTOWN EAST CT

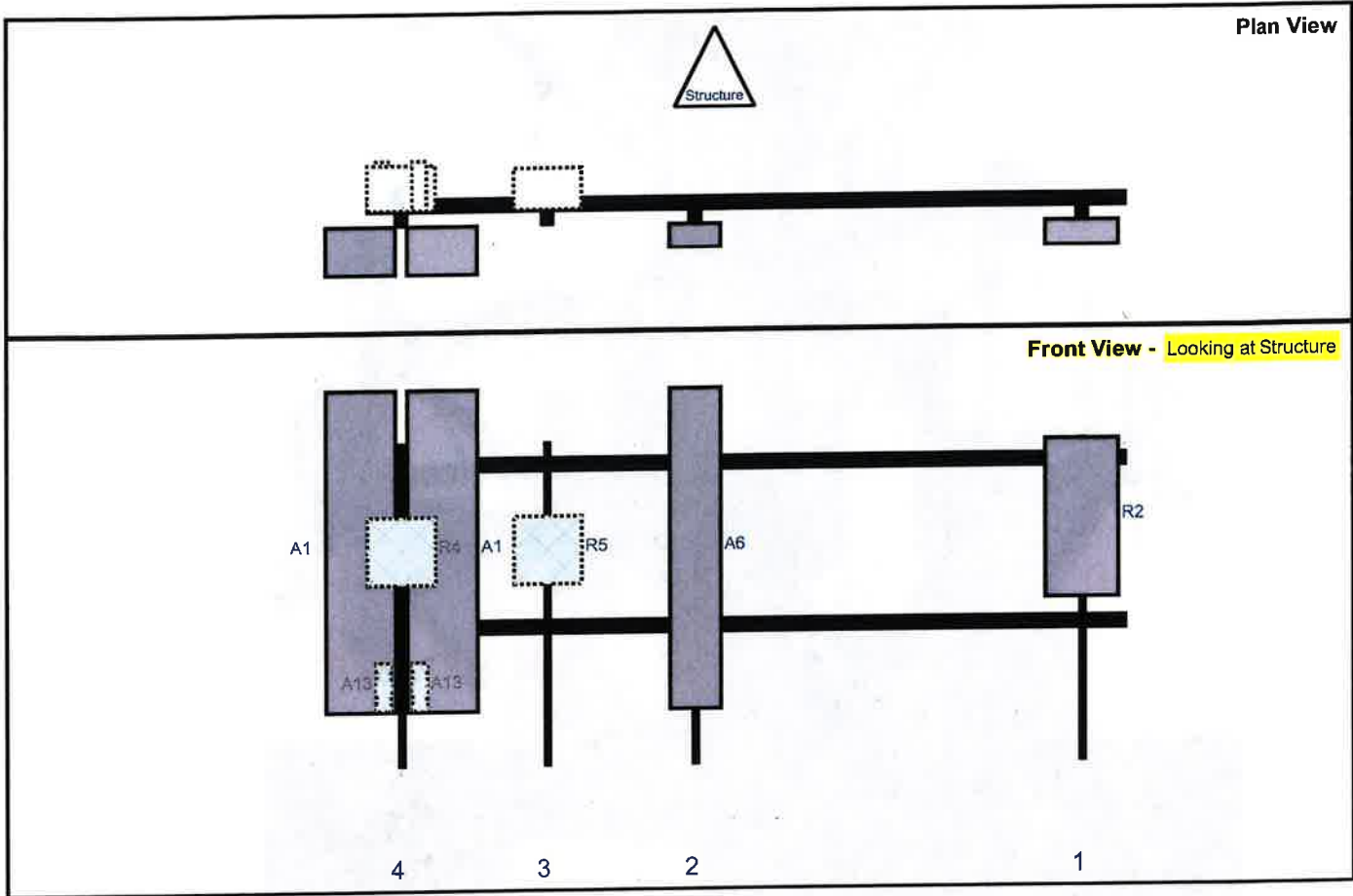
Sector: C
 Structure Type: Self Support
 Mount Elev: 97.00

10208816

8/18/2023



Page: 3



Ref#	Model	Height (in)	Width (in)	H Dist Fm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Fm T.	Ant H Off	Status	Validation
R2	MT6407-77A	35.1	16.1	158	1	a	Front	18	0	Added	
A6	BXA-70063-6CF-EDIN-X	71	11.2	72.5	2	a	Front	24	0	Retained	04/16/2021
R5	RF4440d-13A	15	15	40	3	a	Behind	24	0	Added	
A1	MX06FRO660-02	71.3	15.4	7.75	4	a	Front	24	9	Added	
A1	MX06FRO660-02	71.3	15.4	7.75	4	b	Front	24	-9	Added	
R4	RF4439d-25A	15	15	7.75	4	a	Behind	24	0	Added	
A13	KA-6030	10.6	3.2	7.75	4	a	Behind	54	4	Added	
A13	KA-6030	10.6	3.2	7.75	4	b	Behind	54	-4	Added	



Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1	safety climb was obstructed by mounts, and pretty rusty	305, 306, 307
2		
3		
4		
5		
6		
7		
8		

Observed Obstructions to Tower Lighting System			
If the tower lighting system is being obstructed by the carrier's equipment (for example: a light nested by the antennas), please provide photos and fill in the information below.			Photo #
Description of Obstruction:	305,		
Type of Light:	Photo #	Additional Comments:	
Lighting Technology:	Photo #		
Elevation (AGL) at base of light (Ft.):	Photo #		
Is a service loop available?	Photo #		
Is beacon installed on an extension?	Photo #		

Mapping Notes
<ol style="list-style-type: none"> 1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.) 2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness. 3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab. 4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type. 5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required. 6. Please measure and report the size and length of all existing antenna mounting pipes. 7. Please measure and report the antenna information for all sectors. 8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

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



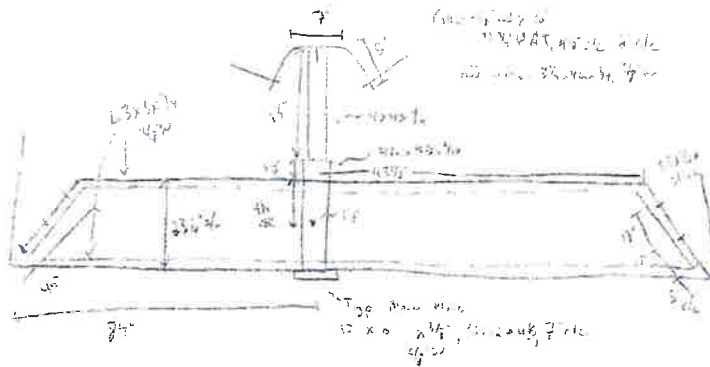
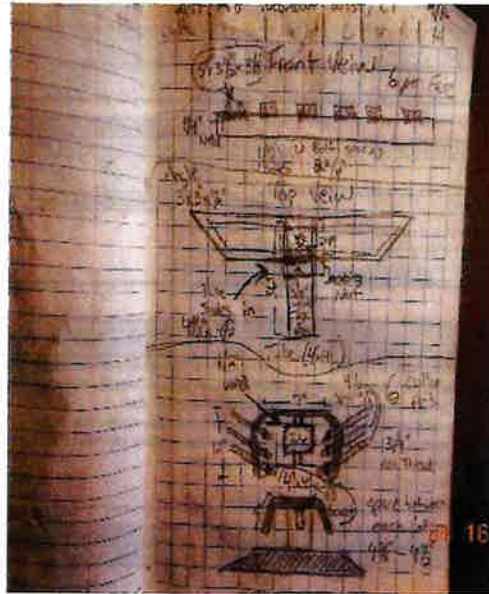
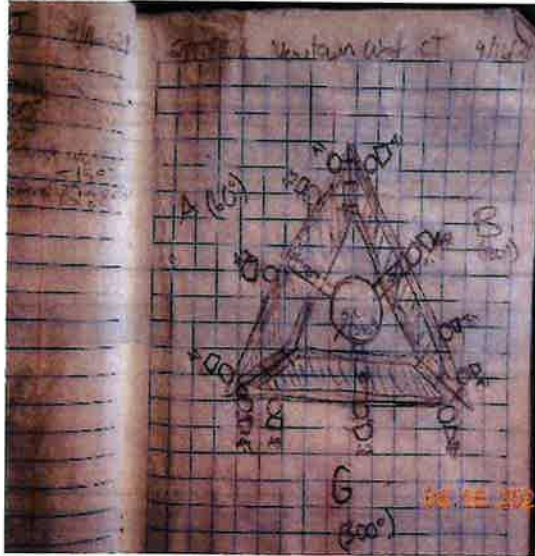
Antenna Mount Mapping Form (PATENT PENDING)

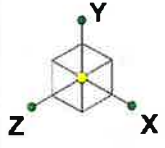
FCC #

Tower Owner:	SBA	Mapping Date:	4/16/2021
Site Name:	Newtown West	Tower Type:	Monopole
Site Number or ID:	16092804	Tower Height (FT.):	124
Mapping Contractor:	Structural Components	Mount Elevation (FT.):	100

This antenna mapping form is the property of TES and under PATENT PENDING. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warranting the stability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.

Please Insert Sketches of the Antenna Mount





Envelope Only Solution

Colliers Engineering & Des..

DAB

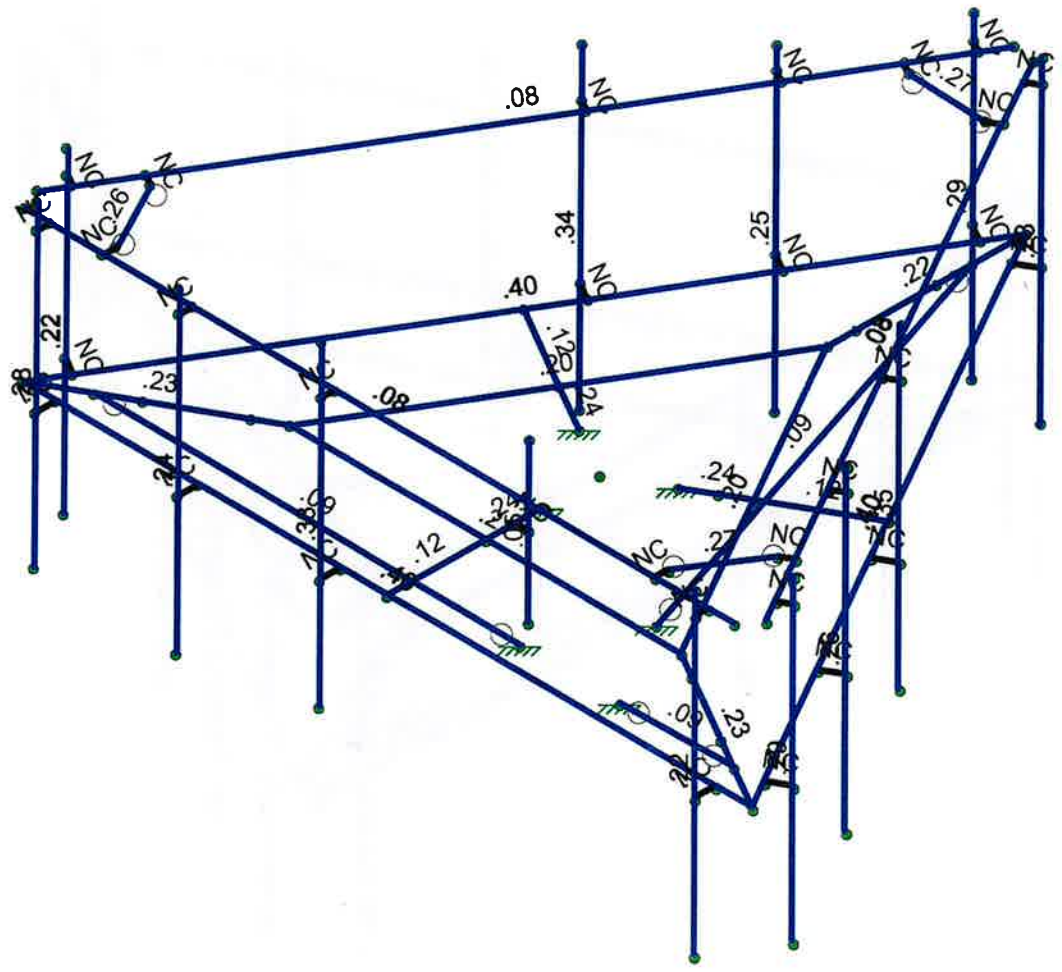
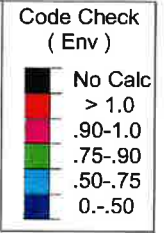
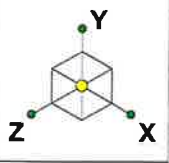
Project No. 10208816

5000386309-VZW_MT_LO_H

SK - 1

Aug 18, 2023 at 10:01 PM

5000386309-VZW_MT_LO_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Colliers Engineering & Des...	5000386309-VZW_MT_LO_H	SK - 2
DAB		Aug 18, 2023 at 10:01 PM
Project No. 10208816		5000386309-VZW_MT_LO_H.r3d



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

Aug 18, 2023
 10:02 PM
 Checked By: DX

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(...
1	Antenna D	None					129		
2	Antenna Di	None					129		
3	Antenna Wo (0 Deg)	None					129		
4	Antenna Wo (30 Deg)	None					129		
5	Antenna Wo (60 Deg)	None					129		
6	Antenna Wo (90 Deg)	None					129		
7	Antenna Wo (120 Deg)	None					129		
8	Antenna Wo (150 Deg)	None					129		
9	Antenna Wo (180 Deg)	None					129		
10	Antenna Wo (210 Deg)	None					129		
11	Antenna Wo (240 Deg)	None					129		
12	Antenna Wo (270 Deg)	None					129		
13	Antenna Wo (300 Deg)	None					129		
14	Antenna Wo (330 Deg)	None					129		
15	Antenna Wi (0 Deg)	None					129		
16	Antenna Wi (30 Deg)	None					129		
17	Antenna Wi (60 Deg)	None					129		
18	Antenna Wi (90 Deg)	None					129		
19	Antenna Wi (120 Deg)	None					129		
20	Antenna Wi (150 Deg)	None					129		
21	Antenna Wi (180 Deg)	None					129		
22	Antenna Wi (210 Deg)	None					129		
23	Antenna Wi (240 Deg)	None					129		
24	Antenna Wi (270 Deg)	None					129		
25	Antenna Wi (300 Deg)	None					129		
26	Antenna Wi (330 Deg)	None					129		
27	Antenna Wm (0 Deg)	None					129		
28	Antenna Wm (30 Deg)	None					129		
29	Antenna Wm (60 Deg)	None					129		
30	Antenna Wm (90 Deg)	None					129		
31	Antenna Wm (120 Deg)	None					129		
32	Antenna Wm (150 Deg)	None					129		
33	Antenna Wm (180 Deg)	None					129		
34	Antenna Wm (210 Deg)	None					129		
35	Antenna Wm (240 Deg)	None					129		
36	Antenna Wm (270 Deg)	None					129		
37	Antenna Wm (300 Deg)	None					129		
38	Antenna Wm (330 Deg)	None					129		
39	Structure D	None		-1					3
40	Structure Di	None						40	3
41	Structure Wo (0 Deg)	None						80	
42	Structure Wo (30 Deg)	None						80	
43	Structure Wo (60 Deg)	None						80	
44	Structure Wo (90 Deg)	None						80	
45	Structure Wo (120 Deg)	None						80	
46	Structure Wo (150 Deg)	None						80	
47	Structure Wo (180 Deg)	None						80	
48	Structure Wo (210 Deg)	None						80	
49	Structure Wo (240 Deg)	None						80	
50	Structure Wo (270 Deg)	None						80	
51	Structure Wo (300 Deg)	None						80	
52	Structure Wo (330 Deg)	None						80	
53	Structure Wi (0 Deg)	None						80	
54	Structure Wi (30 Deg)	None						80	
55	Structure Wi (60 Deg)	None						80	
56	Structure Wi (90 Deg)	None						80	



Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me... Surface...
57 Structure Wi (120 Deg)	None						80
58 Structure Wi (150 Deg)	None						80
59 Structure Wi (180 Deg)	None						80
60 Structure Wi (210 Deg)	None						80
61 Structure Wi (240 Deg)	None						80
62 Structure Wi (270 Deg)	None						80
63 Structure Wi (300 Deg)	None						80
64 Structure Wi (330 Deg)	None						80
65 Structure Wm (0 Deg)	None						80
66 Structure Wm (30 Deg)	None						80
67 Structure Wm (60 Deg)	None						80
68 Structure Wm (90 Deg)	None						80
69 Structure Wm (120 Deg)	None						80
70 Structure Wm (150 Deg)	None						80
71 Structure Wm (180 Deg)	None						80
72 Structure Wm (210 Deg)	None						80
73 Structure Wm (240 Deg)	None						80
74 Structure Wm (270 Deg)	None						80
75 Structure Wm (300 Deg)	None						80
76 Structure Wm (330 Deg)	None						80
77 Lm1	None					1	
78 Lm2	None					1	
79 Lv1	None					1	
80 Lv2	None					1	
81 Antenna Ev	None					129	
82 Antenna Eh (0 Deg)	None					86	
83 Antenna Eh (90 Deg)	None					86	
84 Structure Ev	ELY		-046				3
85 Structure Eh (0 Deg)	ELZ			-114			3
86 Structure Eh (90 Deg)	ELX	.114					3
87 BLC 39 Transient Area Loads	None						27
88 BLC 40 Transient Area Loads	None						27
89 BLC 84 Transient Area Loads	None						27
90 BLC 85 Transient Area Loads	None						27
91 BLC 86 Transient Area Loads	None						27

Load Combinations

Description	S...	P...	S...	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 D...	Yes	Y			1	1.2	39	1.2	2	1	40	1	16	1	54	1			
15 1.2D + 1.0Di + 1.0Wi (60 D...	Yes	Y			1	1.2	39	1.2	2	1	40	1	17	1	55	1			
16 1.2D + 1.0Di + 1.0Wi (90 D...	Yes	Y			1	1.2	39	1.2	2	1	40	1	18	1	56	1			
17 1.2D + 1.0Di + 1.0Wi (120 ...	Yes	Y			1	1.2	39	1.2	2	1	40	1	19	1	57	1			



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Load Combinations (Continued)

	Description	S...	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	
75	0.9D - 1.0Ev + 1.0Eh (330 ...	Yes	Y		1	.9	39	.9	81	-1	E...	-1	82	.866	83	-.5	ELZ	.866	E...	-.5			

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	CP	0.	0	-0.	0	
2	N2	0.	0	1.095417	0	
3	N10	-0.	0	-4.291667	0	
4	N11	-0.	0	-4.833334	0	
5	N12	-0.	0	-6.333334	0	
6	N13	-0.	0	-7.833334	0	
7	N14	-0.	0	-8.002992	0	
8	N15	-3.716692	0	2.145833	0	
9	N16	-6.930794	0	4.001496	0	
10	N17	3.716693	0	2.145833	0	
11	N18	6.930794	0	4.001496	0	
12	N15A	0.	0	2.145833	0	
13	N16A	0.	0	4.001496	0	
14	N15B	-4.18579	0	2.416667	0	
15	N16B	-5.484828	0	3.166667	0	
16	N17A	-6.783866	0	3.916667	0	
17	N18A	4.18579	0	2.416666	0	
18	N19	5.484828	0	3.166666	0	
19	N20	6.783866	0	3.916666	0	
20	N55	6.618294	0	3.46023	0	
21	N59	6.9598	0	3.263061	0	
22	N61	6.9598	3.458333	3.263061	0	
23	N62	6.9598	-2.541667	3.263061	0	
24	N71	3.909961	0	-1.230741	0	
25	N72	4.251467	0	-1.42791	0	
26	N73	0.347461	0	-7.401172	0	
27	N75	0.688967	0	-7.598341	0	
28	N79	5.605634	3.416667	0.917571	0	
29	N80	5.605634	-2.583333	0.917571	0	
30	N83	0.688967	3.4375	-7.598341	0	
31	N84	0.688967	-2.5625	-7.598341	0	
32	N75A	4.251467	3.916667	-1.42791	0	
33	N76A	4.251467	-2.083333	-1.42791	0	
34	N77	0.948658	0	-0.547709	0	
35	N78	1.858346	0	-1.072917	0	
36	N109	-0.948659	0	-0.547708	0	
37	N110	-1.858346	0	-1.072917	0	
38	N108A	3.465397	0	-2.000748	0	
39	N110A	-3.465397	0	-2.000748	0	
40	N119B	1.425334	0	-0.822917	0	
41	N120	5.605636	0	0.917575	0	
42	N121	5.264127	0	1.114745	0	
43	N128	0.	0	1.595417	0	
44	N125	0.25	1.5	1.595417	0	
45	N126A	0.25	-1.5	1.595417	0	
46	N127A	0.25	0	1.595417	0	
47	N48	-0.312499	0	-7.461726	0	
48	N49	-0.654006	0	-7.658895	0	
49	N50	-0.654006	3.458333	-7.658895	0	
50	N51	-0.654006	-2.541667	-7.658895	0	
51	N52	-3.020833	0	-2.770755	0	



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Joint Coordinates and Temperatures (Continued)

	Label	X (ft)	Y (ft)	Z (ft)	Temp (F)	Detach From Diap...
52	N53	-3.362339	0	-2.967924	0	
53	N54	-6.583333	0	3.399676	0	
54	N55A	-6.924839	0	3.202507	0	
55	N56	-2.008176	3.416667	-5.313407	0	
56	N57	-2.008176	-2.583333	-5.313407	0	
57	N58	-6.924839	3.4375	3.202507	0	
58	N59A	-6.924839	-2.5625	3.202507	0	
59	N60	-3.362339	3.916667	-2.967924	0	
60	N61A	-3.362339	-2.083333	-2.967924	0	
61	N62A	-2.008174	0	-5.31341	0	
62	N63	-1.666666	0	-5.11624	0	
63	N65	-6.305794	0	4.001495	0	
64	N66	-6.305794	0	4.395833	0	
65	N67	-6.305794	3.458333	4.395833	0	
66	N68	-6.305794	-2.541667	4.395833	0	
67	N69	-0.889127	0	4.001495	0	
68	N70	-0.889127	0	4.395833	0	
69	N71A	6.235873	0	4.001495	0	
70	N72A	6.235873	0	4.395833	0	
71	N73A	-3.597457	3.416667	4.395835	0	
72	N74	-3.597457	-2.583333	4.395835	0	
73	N75B	6.235873	3.4375	4.395833	0	
74	N76	6.235873	-2.5625	4.395833	0	
75	N77A	-0.889127	3.916667	4.395833	0	
76	N78A	-0.889127	-2.083333	4.395833	0	
77	N79A	-3.59746	0	4.395835	0	
78	N80A	-3.59746	0	4.001495	0	
79	N79B	-0.	0	-7.002992	0	
80	N80B	-0.	-3	-1.095417	0	
81	N81	-6.064769	0	3.501496	0	
82	N82	-0.948658	-3	0.547709	0	
83	N83A	6.064769	0	3.501496	0	
84	N84A	0.948659	-3	0.547708	0	
85	N85	-6.305794	3	4.395833	0	
86	N86	-0.889127	3	4.395833	0	
87	N87	6.235873	3	4.395833	0	
88	N88	-3.59746	3	4.395835	0	
89	N91	-6.305794	3	4.145833	0	
90	N92	-0.889127	3	4.145833	0	
91	N93	6.235873	3	4.145833	0	
92	N94	-3.59746	3	4.145835	0	
93	N95	-6.784944	3	4.145833	0	
94	N96	6.715023	3	4.145833	0	
95	N95A	6.9598	3	3.263061	0	
96	N96A	4.251466	3	-1.42791	0	
97	N97	0.688966	3	-7.598341	0	
98	N98	5.605635	3	0.917575	0	
99	N99	6.743293	3	3.388061	0	
100	N100	4.03496	3	-1.30291	0	
101	N101	0.47246	3	-7.473341	0	
102	N102	5.389129	3	1.042575	0	
103	N103	6.982868	3	3.803017	0	
104	N104	0.232885	3	-7.888297	0	
105	N105	-0.654006	3	-7.658894	0	
106	N106	-3.362339	3	-2.967923	0	
107	N107	-6.924839	3	3.202508	0	
108	N108	-2.008175	3	-5.31341	0	



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Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
109	N109A	-0.4375	3	-7.533894	0	
110	N110B	-3.145833	3	-2.842923	0	
111	N111	-6.708333	3	3.327508	0	
112	N112	-1.791668	3	-5.18841	0	
113	N113	-0.197925	3	-7.94885	0	
114	N114	-6.947908	3	3.742464	0	
115	N115	5.215023	3	4.145833	0	
116	N116	-5.284944	3	4.145833	0	
117	N117	0.982885	3	-6.589259	0	
118	N118	6.232868	3	2.503979	0	
119	N119	-6.197908	3	2.443426	0	
120	N120A	-0.947925	3	-6.649812	0	
121	N121A	5.215023	3	3.895833	0	
122	N122	-5.284944	3	3.895833	0	
123	N126	0.766379	3	-6.464259	0	
124	N127	6.016363	3	2.628979	0	
125	N131	-5.981401	3	2.568425	0	
126	N132	-0.731418	3	-6.524813	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Mount Pipe	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
2	Dual Mount ...	PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
3	Support Rail	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	.627	.627	1.25
4	Bottom Cor...	L15X6.5X6	Beam	Single Angle	A36 Gr.36	Typical	7.922	24.473	192.705	.363
5	Standoff 2	HSS4.5X4.5X3	Beam	Tube	A500 Gr.B Rect	Typical	2.93	9.02	9.02	14.4
6	Cross Mem...	L3X3X4	Beam	Channel	A36 Gr.36	Typical	1.44	1.23	1.23	.031
7	Face Horizo...	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.031
8	Standoff 1	HSS4X4X4	Beam	Tube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
9	Grating Angle	LL3x3x4x0	Beam	Double Angle (No Gap)	A36 Gr.36	Typical	2.88	4.5	2.46	.063
10	Top Corner ...	L2.5x2.5x4	Beam	Single Angle	A36 Gr.36	Typical	1.19	.692	.692	.026
11	MOD Kicker	LL3x3x3x6	Beam	Double Angle (3/8 Gap)	A36 Gr.36	Typical	2.18	4.97	1.9	.027
12	MOD Come...	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.031
13	MOD Suppo...	PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N15A			Standoff 1	Beam	Tube	A500 Gr.B...	Typical
2	M2	N15A	N16A			Standoff 2	Beam	Tube	A500 Gr.B...	Typical
3	M5	N14	N10		180	Grating Angle	Beam	Double Angle (...	A36 Gr.36	Typical
4	M6	N16	N15		180	Grating Angle	Beam	Double Angle (...	A36 Gr.36	Typical
5	M7	N18	N17		180	Grating Angle	Beam	Double Angle (...	A36 Gr.36	Typical



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Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
6	M6A	N17	N15		270	Cross Members	Beam	Channel	A36 Gr.36	Typical
7	M7A	N16	N18		270	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
8	M23A	N10	N17		270	Cross Members	Beam	Channel	A36 Gr.36	Typical
9	M24	N18	N14		270	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
10	M27	N55	N59			RIGID	None	None	RIGID	Typical
11	MP4C	N61	N62		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
12	M32	N120	N121			RIGID	None	None	RIGID	Typical
13	M33	N71	N72			RIGID	None	None	RIGID	Typical
14	M35	N73	N75			RIGID	None	None	RIGID	Typical
15	MP3C	N79	N80		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
16	MP1C	N83	N84		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
17	MP2C	N75A	N76A		240	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
18	M38	N77	N78			Standoff 1	Beam	Tube	A500 Gr.B..	Typical
19	M39A	N15	N10		270	Cross Members	Beam	Channel	A36 Gr.36	Typical
20	M40	N14	N16		270	Face Horizontal	Beam	Single Angle	A36 Gr.36	Typical
21	M54	N109	N110			Standoff 1	Beam	Tube	A500 Gr.B..	Typical
22	M55	N78	N108A			Standoff 2	Beam	Tube	A500 Gr.B..	Typical
23	M56	N110	N110A			Standoff 2	Beam	Tube	A500 Gr.B..	Typical
24	M61	N125	N126A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
25	M62A	N128	N127A			RIGID	None	None	RIGID	Typical
26	M26	N48	N49			RIGID	None	None	RIGID	Typical
27	MP4B	N50	N51		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
28	M28	N62A	N63			RIGID	None	None	RIGID	Typical
29	M29	N52	N53			RIGID	None	None	RIGID	Typical
30	M30	N54	N55A			RIGID	None	None	RIGID	Typical
31	MP3B	N56	N57		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
32	MP1B	N58	N59A		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
33	MP2B	N60	N61A		240	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
34	M34	N65	N66			RIGID	None	None	RIGID	Typical
35	MP4A	N67	N68			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
36	M36	N79A	N80A			RIGID	None	None	RIGID	Typical
37	M37	N69	N70			RIGID	None	None	RIGID	Typical
38	M38A	N71A	N72A			RIGID	None	None	RIGID	Typical
39	MP3A	N73A	N74			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
40	MP1A	N75B	N76		120	Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
41	MP2A	N77A	N78A			Mount Pipe	Beam	Pipe	A53 Gr.B	Typical
42	M42	N80B	N79B			MOD Kicker	Beam	Double Angle (...)	A36 Gr.36	Typical
43	M43	N82	N81			MOD Kicker	Beam	Double Angle (...)	A36 Gr.36	Typical
44	M44	N84A	N83A			MOD Kicker	Beam	Double Angle (...)	A36 Gr.36	Typical
45	M45	N88	N94			RIGID	None	None	RIGID	Typical
46	M46	N86	N92			RIGID	None	None	RIGID	Typical
47	M47	N87	N93			RIGID	None	None	RIGID	Typical
48	M48	N85	N91			RIGID	None	None	RIGID	Typical
49	M49	N95	N96			MOD Support ...	Beam	Pipe	A53 Gr.B	Typical
50	M50	N88	N94			RIGID	None	None	RIGID	Typical
51	M51	N86	N92			RIGID	None	None	RIGID	Typical
52	M52	N87	N93			RIGID	None	None	RIGID	Typical
53	M53	N85	N91			RIGID	None	None	RIGID	Typical
54	M54A	N95	N96			MOD Support ...	Beam	Pipe	A53 Gr.B	Typical
55	M55A	N98	N102			RIGID	None	None	RIGID	Typical
56	M56A	N96A	N100			RIGID	None	None	RIGID	Typical
57	M57	N97	N101			RIGID	None	None	RIGID	Typical
58	M58	N95A	N99			RIGID	None	None	RIGID	Typical
59	M59	N103	N104			MOD Support ...	Beam	Pipe	A53 Gr.B	Typical
60	M60	N98	N102			RIGID	None	None	RIGID	Typical
61	M61A	N96A	N100			RIGID	None	None	RIGID	Typical
62	M62	N97	N101			RIGID	None	None	RIGID	Typical



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Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
63	M63	N95A	N99			RIGID	None	None	RIGID	Typical
64	M64	N103	N104			MOD Support ...	Beam	Pipe	A53 Gr.B	Typical
65	M65	N108	N112			RIGID	None	None	RIGID	Typical
66	M66	N106	N110B			RIGID	None	None	RIGID	Typical
67	M67	N107	N111			RIGID	None	None	RIGID	Typical
68	M68	N105	N109A			RIGID	None	None	RIGID	Typical
69	M69	N113	N114			MOD Support ...	Beam	Pipe	A53 Gr.B	Typical
70	M70	N108	N112			RIGID	None	None	RIGID	Typical
71	M71	N106	N110B			RIGID	None	None	RIGID	Typical
72	M72	N107	N111			RIGID	None	None	RIGID	Typical
73	M73	N105	N109A			RIGID	None	None	RIGID	Typical
74	M74	N113	N114			MOD Support ...	Beam	Pipe	A53 Gr.B	Typical
75	M75	N122	N131		90	MOD Corner A...	Beam	Single Angle	A36 Gr.36	Typical
76	M76	N132	N126		90	MOD Corner A...	Beam	Single Angle	A36 Gr.36	Typical
77	M77	N127	N121A		90	MOD Corner A...	Beam	Single Angle	A36 Gr.36	Typical
78	M78	N121A	N115			RIGID	None	None	RIGID	Typical
79	M79	N122	N116			RIGID	None	None	RIGID	Typical
80	M80	N126	N117			RIGID	None	None	RIGID	Typical
81	M81	N127	N118			RIGID	None	None	RIGID	Typical
82	M82	N131	N119			RIGID	None	None	RIGID	Typical
83	M83	N132	N120A			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset(in)	J Offset(in)	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M2						Yes				None
3	M5						Yes				None
4	M6						Yes				None
5	M7						Yes				None
6	M6A						Yes				None
7	M7A						Yes				None
8	M23A						Yes				None
9	M24						Yes				None
10	M27						Yes	** NA **			None
11	MP4C						Yes				None
12	M32						Yes	** NA **			None
13	M33						Yes	** NA **			None
14	M35						Yes	** NA **			None
15	MP3C						Yes				None
16	MP1C						Yes				None
17	MP2C						Yes				None
18	M38						Yes				None
19	M39A						Yes				None
20	M40						Yes				None
21	M54						Yes				None
22	M55						Yes				None
23	M56						Yes				None
24	M61						Yes				None
25	M62A						Yes	** NA **			None
26	M26						Yes	** NA **			None
27	MP4B						Yes				None
28	M28						Yes	** NA **			None
29	M29						Yes	** NA **			None
30	M30						Yes	** NA **			None
31	MP3B						Yes				None



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Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat..	Analysis ...	Inactive	Seismic...
32	MP1B						Yes				None
33	MP2B						Yes				None
34	M34						Yes	** NA **			None
35	MP4A						Yes				None
36	M36						Yes	** NA **			None
37	M37						Yes	** NA **			None
38	M38A						Yes	** NA **			None
39	MP3A						Yes				None
40	MP1A						Yes				None
41	MP2A						Yes				None
42	M42	BenPIN	BenPIN				Yes				None
43	M43	BenPIN	BenPIN				Yes				None
44	M44	BenPIN	BenPIN				Yes				None
45	M45						Yes	** NA **			None
46	M46						Yes	** NA **			None
47	M47						Yes	** NA **			None
48	M48						Yes	** NA **			None
49	M49						Yes				None
50	M50						Yes	** NA **			None
51	M51						Yes	** NA **			None
52	M52						Yes	** NA **			None
53	M53						Yes	** NA **			None
54	M54A						Yes				None
55	M55A						Yes	** NA **			None
56	M56A						Yes	** NA **			None
57	M57						Yes	** NA **			None
58	M58						Yes	** NA **			None
59	M59						Yes				None
60	M60						Yes	** NA **			None
61	M61A						Yes	** NA **			None
62	M62						Yes	** NA **			None
63	M63						Yes	** NA **			None
64	M64						Yes	** NA **			None
65	M65						Yes	** NA **			None
66	M66						Yes	** NA **			None
67	M67						Yes	** NA **			None
68	M68						Yes	** NA **			None
69	M69						Yes	Default			None
70	M70						Yes	** NA **			None
71	M71						Yes	** NA **			None
72	M72						Yes	** NA **			None
73	M73						Yes	** NA **			None
74	M74						Yes				None
75	M75						Yes	Default			None
76	M76						Yes	Default			None
77	M77						Yes	Default			None
78	M78		000000				Yes	** NA **			None
79	M79		000000				Yes	** NA **			None
80	M80		000000				Yes	** NA **			None
81	M81		000000				Yes	** NA **			None
82	M82		000000				Yes	** NA **			None
83	M83		000000				Yes	** NA **			None



Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	Y	-23	.5
2	MP4A	My	-.011	.5
3	MP4A	Mz	.017	.5
4	MP4A	Y	-23	3.5
5	MP4A	My	-.011	3.5
6	MP4A	Mz	.017	3.5
7	MP4B	Y	-23	.5
8	MP4B	My	-.006	.5
9	MP4B	Mz	-.02	.5
10	MP4B	Y	-23	3.5
11	MP4B	My	-.006	3.5
12	MP4B	Mz	-.02	3.5
13	MP4C	Y	-23	.5
14	MP4C	My	.021	.5
15	MP4C	Mz	.001	.5
16	MP4C	Y	-23	3.5
17	MP4C	My	.021	3.5
18	MP4C	Mz	.001	3.5
19	MP4A	Y	-23	.5
20	MP4A	My	-.011	.5
21	MP4A	Mz	-.017	.5
22	MP4A	Y	-23	3.5
23	MP4A	My	-.011	3.5
24	MP4A	Mz	-.017	3.5
25	MP4B	Y	-23	.5
26	MP4B	My	.021	.5
27	MP4B	Mz	.002	.5
28	MP4B	Y	-23	3.5
29	MP4B	My	.021	3.5
30	MP4B	Mz	.002	3.5
31	MP4C	Y	-23	.5
32	MP4C	My	-.009	.5
33	MP4C	Mz	.019	.5
34	MP4C	Y	-23	3.5
35	MP4C	My	-.009	3.5
36	MP4C	Mz	.019	3.5
37	MP1A	Y	-43.55	.5
38	MP1A	My	-.022	.5
39	MP1A	Mz	0	.5
40	MP1A	Y	-43.55	2.5
41	MP1A	My	-.022	2.5
42	MP1A	Mz	0	2.5
43	MP1B	Y	-43.55	.5
44	MP1B	My	.014	.5
45	MP1B	Mz	-.017	.5
46	MP1B	Y	-43.55	2.5
47	MP1B	My	.014	2.5
48	MP1B	Mz	-.017	2.5
49	MP1C	Y	-43.55	.5
50	MP1C	My	.011	.5
51	MP1C	Mz	.019	.5
52	MP1C	Y	-43.55	2.5
53	MP1C	My	.011	2.5
54	MP1C	Mz	.019	2.5
55	M61	Y	-32	1
56	M61	My	-.016	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
57	M61	Mz	0	1
58	MP4A	Y	-74.7	2
59	MP4A	My	.037	2
60	MP4A	Mz	0	2
61	MP4B	Y	-74.7	2
62	MP4B	My	-.024	2
63	MP4B	Mz	.029	2
64	MP4C	Y	-74.7	2
65	MP4C	My	-.019	2
66	MP4C	Mz	-.032	2
67	MP3A	Y	-70.3	2
68	MP3A	My	.035	2
69	MP3A	Mz	0	2
70	MP3B	Y	-70.3	2
71	MP3B	My	-.023	2
72	MP3B	Mz	.027	2
73	MP3C	Y	-70.3	2
74	MP3C	My	-.018	2
75	MP3C	Mz	-.03	2
76	MP2A	Y	-8.5	.5
77	MP2A	My	-.004	.5
78	MP2A	Mz	0	.5
79	MP2A	Y	-8.5	3.5
80	MP2A	My	-.004	3.5
81	MP2A	Mz	0	3.5
82	MP2B	Y	-8.5	.5
83	MP2B	My	.003	.5
84	MP2B	Mz	-.003	.5
85	MP2B	Y	-8.5	3.5
86	MP2B	My	.003	3.5
87	MP2B	Mz	-.003	3.5
88	MP2C	Y	-8.5	.5
89	MP2C	My	.002	.5
90	MP2C	Mz	.004	.5
91	MP2C	Y	-8.5	3.5
92	MP2C	My	.002	3.5
93	MP2C	Mz	.004	3.5
94	MP4A	Y	-8.8	4
95	MP4A	My	.009	4
96	MP4A	Mz	.003	4
97	MP4A	Y	-8.8	5
98	MP4A	My	.009	5
99	MP4A	Mz	.003	5
100	MP4B	Y	-8.8	4
101	MP4B	My	-.008	4
102	MP4B	Mz	.005	4
103	MP4B	Y	-8.8	5
104	MP4B	My	-.008	5
105	MP4B	Mz	.005	5
106	MP4C	Y	-8.8	4
107	MP4C	My	-.002	4
108	MP4C	Mz	-.009	4
109	MP4C	Y	-8.8	5
110	MP4C	My	-.002	5
111	MP4C	Mz	-.009	5
112	MP4A	Y	-8.8	4
113	MP4A	My	.009	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft, %]
114	MP4A	Mz	-.003	4
115	MP4A	Y	-8.8	5
116	MP4A	My	.009	5
117	MP4A	Mz	-.003	5
118	MP4B	Y	-8.8	4
119	MP4B	My	-.003	4
120	MP4B	Mz	.009	4
121	MP4B	Y	-8.8	5
122	MP4B	My	-.003	5
123	MP4B	Mz	.009	5
124	MP4C	Y	-8.8	4
125	MP4C	My	-.007	4
126	MP4C	Mz	-.006	4
127	MP4C	Y	-8.8	5
128	MP4C	My	-.007	5
129	MP4C	Mz	-.006	5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft, %]
1	MP4A	Y	-79.367	.5
2	MP4A	My	-.04	.5
3	MP4A	Mz	.06	.5
4	MP4A	Y	-79.367	3.5
5	MP4A	My	-.04	3.5
6	MP4A	Mz	.06	3.5
7	MP4B	Y	-79.367	.5
8	MP4B	My	-.02	.5
9	MP4B	Mz	-.069	.5
10	MP4B	Y	-79.367	3.5
11	MP4B	My	-.02	3.5
12	MP4B	Mz	-.069	3.5
13	MP4C	Y	-79.367	.5
14	MP4C	My	.071	.5
15	MP4C	Mz	.005	.5
16	MP4C	Y	-79.367	3.5
17	MP4C	My	.071	3.5
18	MP4C	Mz	.005	3.5
19	MP4A	Y	-79.367	.5
20	MP4A	My	-.04	.5
21	MP4A	Mz	-.06	.5
22	MP4A	Y	-79.367	3.5
23	MP4A	My	-.04	3.5
24	MP4A	Mz	-.06	3.5
25	MP4B	Y	-79.367	.5
26	MP4B	My	.071	.5
27	MP4B	Mz	.008	.5
28	MP4B	Y	-79.367	3.5
29	MP4B	My	.071	3.5
30	MP4B	Mz	.008	3.5
31	MP4C	Y	-79.367	.5
32	MP4C	My	-.032	.5
33	MP4C	Mz	.064	.5
34	MP4C	Y	-79.367	3.5
35	MP4C	My	-.032	3.5
36	MP4C	Mz	.064	3.5
37	MP1A	Y	-34.238	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
38	MP1A	My	-.017	.5
39	MP1A	Mz	0	.5
40	MP1A	Y	-34.238	2.5
41	MP1A	My	-.017	2.5
42	MP1A	Mz	0	2.5
43	MP1B	Y	-34.238	.5
44	MP1B	My	.011	.5
45	MP1B	Mz	-.013	.5
46	MP1B	Y	-34.238	2.5
47	MP1B	My	.011	2.5
48	MP1B	Mz	-.013	2.5
49	MP1C	Y	-34.238	.5
50	MP1C	My	.009	.5
51	MP1C	Mz	.015	.5
52	MP1C	Y	-34.238	2.5
53	MP1C	My	.009	2.5
54	MP1C	Mz	.015	2.5
55	M61	Y	-84.573	1
56	M61	My	-.042	1
57	M61	Mz	0	1
58	MP4A	Y	-43.142	2
59	MP4A	My	.022	2
60	MP4A	Mz	0	2
61	MP4B	Y	-43.142	2
62	MP4B	My	-.014	2
63	MP4B	Mz	.017	2
64	MP4C	Y	-43.142	2
65	MP4C	My	-.011	2
66	MP4C	Mz	-.019	2
67	MP3A	Y	-41.079	2
68	MP3A	My	.021	2
69	MP3A	Mz	0	2
70	MP3B	Y	-41.079	2
71	MP3B	My	-.013	2
72	MP3B	Mz	.016	2
73	MP3C	Y	-41.079	2
74	MP3C	My	-.01	2
75	MP3C	Mz	-.018	2
76	MP2A	Y	-49.747	.5
77	MP2A	My	-.025	.5
78	MP2A	Mz	0	.5
79	MP2A	Y	-49.747	3.5
80	MP2A	My	-.025	3.5
81	MP2A	Mz	0	3.5
82	MP2B	Y	-49.747	.5
83	MP2B	My	.016	.5
84	MP2B	Mz	-.019	.5
85	MP2B	Y	-49.747	3.5
86	MP2B	My	.016	3.5
87	MP2B	Mz	-.019	3.5
88	MP2C	Y	-49.747	.5
89	MP2C	My	.012	.5
90	MP2C	Mz	.022	.5
91	MP2C	Y	-49.747	3.5
92	MP2C	My	.012	3.5
93	MP2C	Mz	.022	3.5
94	MP4A	Y	-8.308	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
95	MP4A	Mv	.008	4
96	MP4A	Mz	.003	4
97	MP4A	Y	-8.308	5
98	MP4A	My	.008	5
99	MP4A	Mz	.003	5
100	MP4B	Y	-8.308	4
101	MP4B	Mv	-.007	4
102	MP4B	Mz	.005	4
103	MP4B	Y	-8.308	5
104	MP4B	My	-.007	5
105	MP4B	Mz	.005	5
106	MP4C	Y	-8.308	4
107	MP4C	Mv	-.002	4
108	MP4C	Mz	-.009	4
109	MP4C	Y	-8.308	5
110	MP4C	My	-.002	5
111	MP4C	Mz	-.009	5
112	MP4A	Y	-8.308	4
113	MP4A	My	.008	4
114	MP4A	Mz	-.003	4
115	MP4A	Y	-8.308	5
116	MP4A	My	.008	5
117	MP4A	Mz	-.003	5
118	MP4B	Y	-8.308	4
119	MP4B	Mv	-.003	4
120	MP4B	Mz	.008	4
121	MP4B	Y	-8.308	5
122	MP4B	My	-.003	5
123	MP4B	Mz	.008	5
124	MP4C	Y	-8.308	4
125	MP4C	Mv	-.007	4
126	MP4C	Mz	-.006	4
127	MP4C	Y	-8.308	5
128	MP4C	My	-.007	5
129	MP4C	Mz	-.006	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	.5
2	MP4A	Z	-148.125	.5
3	MP4A	Mx	-.111	.5
4	MP4A	X	0	3.5
5	MP4A	Z	-148.125	3.5
6	MP4A	Mx	-.111	3.5
7	MP4B	X	0	.5
8	MP4B	Z	-125.826	.5
9	MP4B	Mx	.109	.5
10	MP4B	X	0	3.5
11	MP4B	Z	-125.826	3.5
12	MP4B	Mx	.109	3.5
13	MP4C	X	0	.5
14	MP4C	Z	-119.625	.5
15	MP4C	Mx	-.007	.5
16	MP4C	X	0	3.5
17	MP4C	Z	-119.625	3.5
18	MP4C	Mx	-.007	3.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
19	MP4A	X	0	.5
20	MP4A	Z	-148.125	.5
21	MP4A	Mx	.111	.5
22	MP4A	X	0	3.5
23	MP4A	Z	-148.125	3.5
24	MP4A	Mx	.111	3.5
25	MP4B	X	0	.5
26	MP4B	Z	-125.826	.5
27	MP4B	Mx	-.012	.5
28	MP4B	X	0	3.5
29	MP4B	Z	-125.826	3.5
30	MP4B	Mx	-.012	3.5
31	MP4C	X	0	.5
32	MP4C	Z	-119.625	.5
33	MP4C	Mx	-.097	.5
34	MP4C	X	0	3.5
35	MP4C	Z	-119.625	3.5
36	MP4C	Mx	-.097	3.5
37	MP1A	X	0	.5
38	MP1A	Z	-70.536	.5
39	MP1A	Mx	0	.5
40	MP1A	X	0	2.5
41	MP1A	Z	-70.536	2.5
42	MP1A	Mx	0	2.5
43	MP1B	X	0	.5
44	MP1B	Z	-45.349	.5
45	MP1B	Mx	.017	.5
46	MP1B	X	0	2.5
47	MP1B	Z	-45.349	2.5
48	MP1B	Mx	.017	2.5
49	MP1C	X	0	.5
50	MP1C	Z	-38.345	.5
51	MP1C	Mx	-.017	.5
52	MP1C	X	0	2.5
53	MP1C	Z	-38.345	2.5
54	MP1C	Mx	-.017	2.5
55	M61	X	0	1
56	M61	Z	-121.862	1
57	M61	Mx	0	1
58	MP4A	X	0	2
59	MP4A	Z	-56.128	2
60	MP4A	Mx	0	2
61	MP4B	X	0	2
62	MP4B	Z	-45.208	2
63	MP4B	Mx	-.017	2
64	MP4C	X	0	2
65	MP4C	Z	-42.171	2
66	MP4C	Mx	.018	2
67	MP3A	X	0	2
68	MP3A	Z	-56.128	2
69	MP3A	Mx	0	2
70	MP3B	X	0	2
71	MP3B	Z	-43.226	2
72	MP3B	Mx	-.017	2
73	MP3C	X	0	2
74	MP3C	Z	-39.639	2
75	MP3C	Mx	.017	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
76	MP2A	X	0	.5
77	MP2A	Z	-113.608	.5
78	MP2A	Mx	0	.5
79	MP2A	X	0	3.5
80	MP2A	Z	-113.608	3.5
81	MP2A	Mx	0	3.5
82	MP2B	X	0	.5
83	MP2B	Z	-83.56	.5
84	MP2B	Mx	.032	.5
85	MP2B	X	0	3.5
86	MP2B	Z	-83.56	3.5
87	MP2B	Mx	.032	3.5
88	MP2C	X	0	.5
89	MP2C	Z	-75.204	.5
90	MP2C	Mx	-.033	.5
91	MP2C	X	0	3.5
92	MP2C	Z	-75.204	3.5
93	MP2C	Mx	-.033	3.5
94	MP4A	X	0	4
95	MP4A	Z	-14.407	4
96	MP4A	Mx	-.005	4
97	MP4A	X	0	5
98	MP4A	Z	-14.407	5
99	MP4A	Mx	-.005	5
100	MP4B	X	0	4
101	MP4B	Z	-14.432	4
102	MP4B	Mx	-.008	4
103	MP4B	X	0	5
104	MP4B	Z	-14.432	5
105	MP4B	Mx	-.008	5
106	MP4C	X	0	4
107	MP4C	Z	-14.439	4
108	MP4C	Mx	.015	4
109	MP4C	X	0	5
110	MP4C	Z	-14.439	5
111	MP4C	Mx	.015	5
112	MP4A	X	0	4
113	MP4A	Z	-14.407	4
114	MP4A	Mx	.005	4
115	MP4A	X	0	5
116	MP4A	Z	-14.407	5
117	MP4A	Mx	.005	5
118	MP4B	X	0	4
119	MP4B	Z	-14.432	4
120	MP4B	Mx	-.014	4
121	MP4B	X	0	5
122	MP4B	Z	-14.432	5
123	MP4B	Mx	-.014	5
124	MP4C	X	0	4
125	MP4C	Z	-14.439	4
126	MP4C	Mx	.01	4
127	MP4C	X	0	5
128	MP4C	Z	-14.439	5
129	MP4C	Mx	.01	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
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Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	69.313	.5
2	MP4A	Z	-120.053	.5
3	MP4A	Mx	-.125	.5
4	MP4A	X	69.313	3.5
5	MP4A	Z	-120.053	3.5
6	MP4A	Mx	-.125	3.5
7	MP4B	X	55.636	.5
8	MP4B	Z	-96.364	.5
9	MP4B	Mx	.069	.5
10	MP4B	X	55.636	3.5
11	MP4B	Z	-96.364	3.5
12	MP4B	Mx	.069	3.5
13	MP4C	X	69.313	.5
14	MP4C	Z	-120.053	.5
15	MP4C	Mx	.055	.5
16	MP4C	X	69.313	3.5
17	MP4C	Z	-120.053	3.5
18	MP4C	Mx	.055	3.5
19	MP4A	X	69.313	.5
20	MP4A	Z	-120.053	.5
21	MP4A	Mx	.055	.5
22	MP4A	X	69.313	3.5
23	MP4A	Z	-120.053	3.5
24	MP4A	Mx	.055	3.5
25	MP4B	X	55.636	.5
26	MP4B	Z	-96.364	.5
27	MP4B	Mx	.04	.5
28	MP4B	X	55.636	3.5
29	MP4B	Z	-96.364	3.5
30	MP4B	Mx	.04	3.5
31	MP4C	X	69.313	.5
32	MP4C	Z	-120.053	.5
33	MP4C	Mx	-.125	.5
34	MP4C	X	69.313	3.5
35	MP4C	Z	-120.053	3.5
36	MP4C	Mx	-.125	3.5
37	MP1A	X	29.903	.5
38	MP1A	Z	-51.793	.5
39	MP1A	Mx	-.015	.5
40	MP1A	X	29.903	2.5
41	MP1A	Z	-51.793	2.5
42	MP1A	Mx	-.015	2.5
43	MP1B	X	14.454	.5
44	MP1B	Z	-25.036	.5
45	MP1B	Mx	.014	.5
46	MP1B	X	14.454	2.5
47	MP1B	Z	-25.036	2.5
48	MP1B	Mx	.014	2.5
49	MP1C	X	29.903	.5
50	MP1C	Z	-51.793	.5
51	MP1C	Mx	-.015	.5
52	MP1C	X	29.903	2.5
53	MP1C	Z	-51.793	2.5
54	MP1C	Mx	-.015	2.5
55	M61	X	57.32	1
56	M61	Z	-99.281	1
57	M61	Mx	-.029	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft, %]
58	MP4A	X	25.738	2
59	MP4A	Z	-44.58	2
60	MP4A	Mx	.013	2
61	MP4B	X	19.04	2
62	MP4B	Z	-32.978	2
63	MP4B	Mx	-.019	2
64	MP4C	X	25.738	2
65	MP4C	Z	-44.58	2
66	MP4C	Mx	.013	2
67	MP3A	X	25.316	2
68	MP3A	Z	-43.849	2
69	MP3A	Mx	.013	2
70	MP3B	X	17.403	2
71	MP3B	Z	-30.142	2
72	MP3B	Mx	-.017	2
73	MP3C	X	25.316	2
74	MP3C	Z	-43.849	2
75	MP3C	Mx	.013	2
76	MP2A	X	50.403	.5
77	MP2A	Z	-87.301	.5
78	MP2A	Mx	-.025	.5
79	MP2A	X	50.403	3.5
80	MP2A	Z	-87.301	3.5
81	MP2A	Mx	-.025	3.5
82	MP2B	X	31.974	.5
83	MP2B	Z	-55.38	.5
84	MP2B	Mx	.031	.5
85	MP2B	X	31.974	3.5
86	MP2B	Z	-55.38	3.5
87	MP2B	Mx	.031	3.5
88	MP2C	X	50.403	.5
89	MP2C	Z	-87.301	.5
90	MP2C	Mx	-.025	.5
91	MP2C	X	50.403	3.5
92	MP2C	Z	-87.301	3.5
93	MP2C	Mx	-.025	3.5
94	MP4A	X	7.209	4
95	MP4A	Z	-12.486	4
96	MP4A	Mx	.003	4
97	MP4A	X	7.209	5
98	MP4A	Z	-12.486	5
99	MP4A	Mx	.003	5
100	MP4B	X	7.224	4
101	MP4B	Z	-12.513	4
102	MP4B	Mx	-.013	4
103	MP4B	X	7.224	5
104	MP4B	Z	-12.513	5
105	MP4B	Mx	-.013	5
106	MP4C	X	7.209	4
107	MP4C	Z	-12.486	4
108	MP4C	Mx	.011	4
109	MP4C	X	7.209	5
110	MP4C	Z	-12.486	5
111	MP4C	Mx	.011	5
112	MP4A	X	7.209	4
113	MP4A	Z	-12.486	4
114	MP4A	Mx	.011	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
115	MP4A	X	7.209	5
116	MP4A	Z	-12.486	5
117	MP4A	Mx	.011	5
118	MP4B	X	7.224	4
119	MP4B	Z	-12.513	4
120	MP4B	Mx	-.015	4
121	MP4B	X	7.224	5
122	MP4B	Z	-12.513	5
123	MP4B	Mx	-.015	5
124	MP4C	X	7.209	4
125	MP4C	Z	-12.486	4
126	MP4C	Mx	.003	4
127	MP4C	X	7.209	5
128	MP4C	Z	-12.486	5
129	MP4C	Mx	.003	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	103.598	.5
2	MP4A	Z	-59.813	.5
3	MP4A	Mx	-.097	.5
4	MP4A	X	103.598	3.5
5	MP4A	Z	-59.813	3.5
6	MP4A	Mx	-.097	3.5
7	MP4B	X	99.221	.5
8	MP4B	Z	-57.285	.5
9	MP4B	Mx	.024	.5
10	MP4B	X	99.221	3.5
11	MP4B	Z	-57.285	3.5
12	MP4B	Mx	.024	3.5
13	MP4C	X	128.28	.5
14	MP4C	Z	-74.063	.5
15	MP4C	Mx	.111	.5
16	MP4C	X	128.28	3.5
17	MP4C	Z	-74.063	3.5
18	MP4C	Mx	.111	3.5
19	MP4A	X	103.598	.5
20	MP4A	Z	-59.813	.5
21	MP4A	Mx	-.007	.5
22	MP4A	X	103.598	3.5
23	MP4A	Z	-59.813	3.5
24	MP4A	Mx	-.007	3.5
25	MP4B	X	99.221	.5
26	MP4B	Z	-57.285	.5
27	MP4B	Mx	.083	.5
28	MP4B	X	99.221	3.5
29	MP4B	Z	-57.285	3.5
30	MP4B	Mx	.083	3.5
31	MP4C	X	128.28	.5
32	MP4C	Z	-74.063	.5
33	MP4C	Mx	-.111	.5
34	MP4C	X	128.28	3.5
35	MP4C	Z	-74.063	3.5
36	MP4C	Mx	-.111	3.5
37	MP1A	X	33.208	.5
38	MP1A	Z	-19.172	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
39	MP1A	Mx	-.017	.5
40	MP1A	X	33.208	2.5
41	MP1A	Z	-19.172	2.5
42	MP1A	Mx	-.017	2.5
43	MP1B	X	28.263	.5
44	MP1B	Z	-16.318	.5
45	MP1B	Mx	.015	.5
46	MP1B	X	28.263	2.5
47	MP1B	Z	-16.318	2.5
48	MP1B	Mx	.015	2.5
49	MP1C	X	61.086	.5
50	MP1C	Z	-35.268	.5
51	MP1C	Mx	0	.5
52	MP1C	X	61.086	2.5
53	MP1C	Z	-35.268	2.5
54	MP1C	Mx	0	2.5
55	M61	X	86.771	1
56	M61	Z	-50.097	1
57	M61	Mx	-.043	1
58	MP4A	X	36.522	2
59	MP4A	Z	-21.086	2
60	MP4A	Mx	.018	2
61	MP4B	X	34.378	2
62	MP4B	Z	-19.848	2
63	MP4B	Mx	-.019	2
64	MP4C	X	48.609	2
65	MP4C	Z	-28.064	2
66	MP4C	Mx	0	2
67	MP3A	X	34.328	2
68	MP3A	Z	-19.819	2
69	MP3A	Mx	.017	2
70	MP3B	X	31.795	2
71	MP3B	Z	-18.357	2
72	MP3B	Mx	-.017	2
73	MP3C	X	48.609	2
74	MP3C	Z	-28.064	2
75	MP3C	Mx	0	2
76	MP2A	X	65.129	.5
77	MP2A	Z	-37.602	.5
78	MP2A	Mx	-.033	.5
79	MP2A	X	65.129	3.5
80	MP2A	Z	-37.602	3.5
81	MP2A	Mx	-.033	3.5
82	MP2B	X	59.23	.5
83	MP2B	Z	-34.196	.5
84	MP2B	Mx	.032	.5
85	MP2B	X	59.23	3.5
86	MP2B	Z	-34.196	3.5
87	MP2B	Mx	.032	3.5
88	MP2C	X	98.387	.5
89	MP2C	Z	-56.804	.5
90	MP2C	Mx	0	.5
91	MP2C	X	98.387	3.5
92	MP2C	Z	-56.804	3.5
93	MP2C	Mx	0	3.5
94	MP4A	X	12.505	4
95	MP4A	Z	-7.22	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
96	MP4A	Mx	.01	4
97	MP4A	X	12.505	5
98	MP4A	Z	-7.22	5
99	MP4A	Mx	.01	5
100	MP4B	X	12.51	4
101	MP4B	Z	-7.222	4
102	MP4B	Mx	-.015	4
103	MP4B	X	12.51	5
104	MP4B	Z	-7.222	5
105	MP4B	Mx	-.015	5
106	MP4C	X	12.477	4
107	MP4C	Z	-7.204	4
108	MP4C	Mx	.005	4
109	MP4C	X	12.477	5
110	MP4C	Z	-7.204	5
111	MP4C	Mx	.005	5
112	MP4A	X	12.505	4
113	MP4A	Z	-7.22	4
114	MP4A	Mx	.015	4
115	MP4A	X	12.505	5
116	MP4A	Z	-7.22	5
117	MP4A	Mx	.015	5
118	MP4B	X	12.51	4
119	MP4B	Z	-7.222	4
120	MP4B	Mx	-.012	4
121	MP4B	X	12.51	5
122	MP4B	Z	-7.222	5
123	MP4B	Mx	-.012	5
124	MP4C	X	12.477	4
125	MP4C	Z	-7.204	4
126	MP4C	Mx	-.005	4
127	MP4C	X	12.477	5
128	MP4C	Z	-7.204	5
129	MP4C	Mx	-.005	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	110.125	.5
2	MP4A	Z	0	.5
3	MP4A	Mx	-.055	.5
4	MP4A	X	110.125	3.5
5	MP4A	Z	0	3.5
6	MP4A	Mx	-.055	3.5
7	MP4B	X	132.425	.5
8	MP4B	Z	0	.5
9	MP4B	Mx	-.034	.5
10	MP4B	X	132.425	3.5
11	MP4B	Z	0	3.5
12	MP4B	Mx	-.034	3.5
13	MP4C	X	138.625	.5
14	MP4C	Z	0	.5
15	MP4C	Mx	.125	.5
16	MP4C	X	138.625	3.5
17	MP4C	Z	0	3.5
18	MP4C	Mx	.125	3.5
19	MP4A	X	110.125	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
20	MP4A	Z	0	.5
21	MP4A	Mx	-.055	.5
22	MP4A	X	110.125	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	-.055	3.5
25	MP4B	X	132.425	.5
26	MP4B	Z	0	.5
27	MP4B	Mx	.119	.5
28	MP4B	X	132.425	3.5
29	MP4B	Z	0	3.5
30	MP4B	Mx	.119	3.5
31	MP4C	X	138.625	.5
32	MP4C	Z	0	.5
33	MP4C	Mx	-.055	.5
34	MP4C	X	138.625	3.5
35	MP4C	Z	0	3.5
36	MP4C	Mx	-.055	3.5
37	MP1A	X	27.615	.5
38	MP1A	Z	0	.5
39	MP1A	Mx	-.014	.5
40	MP1A	X	27.615	2.5
41	MP1A	Z	0	2.5
42	MP1A	Mx	-.014	2.5
43	MP1B	X	52.802	.5
44	MP1B	Z	0	.5
45	MP1B	Mx	.017	.5
46	MP1B	X	52.802	2.5
47	MP1B	Z	0	2.5
48	MP1B	Mx	.017	2.5
49	MP1C	X	59.805	.5
50	MP1C	Z	0	.5
51	MP1C	Mx	.015	.5
52	MP1C	X	59.805	2.5
53	MP1C	Z	0	2.5
54	MP1C	Mx	.015	2.5
55	M61	X	92.972	1
56	M61	Z	0	1
57	M61	Mx	-.046	1
58	MP4A	X	37.519	2
59	MP4A	Z	0	2
60	MP4A	Mx	.019	2
61	MP4B	X	48.44	2
62	MP4B	Z	0	2
63	MP4B	Mx	-.016	2
64	MP4C	X	51.476	2
65	MP4C	Z	0	2
66	MP4C	Mx	-.013	2
67	MP3A	X	34.142	2
68	MP3A	Z	0	2
69	MP3A	Mx	.017	2
70	MP3B	X	47.044	2
71	MP3B	Z	0	2
72	MP3B	Mx	-.015	2
73	MP3C	X	50.632	2
74	MP3C	Z	0	2
75	MP3C	Mx	-.013	2
76	MP2A	X	62.403	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
77	MP2A	Z	0	.5
78	MP2A	Mx	-.031	.5
79	MP2A	X	62.403	3.5
80	MP2A	Z	0	3.5
81	MP2A	Mx	-.031	3.5
82	MP2B	X	92.451	.5
83	MP2B	Z	0	.5
84	MP2B	Mx	.03	.5
85	MP2B	X	92.451	3.5
86	MP2B	Z	0	3.5
87	MP2B	Mx	.03	3.5
88	MP2C	X	100.807	.5
89	MP2C	Z	0	.5
90	MP2C	Mx	.025	.5
91	MP2C	X	100.807	3.5
92	MP2C	Z	0	3.5
93	MP2C	Mx	.025	3.5
94	MP4A	X	14.45	4
95	MP4A	Z	0	4
96	MP4A	Mx	.014	4
97	MP4A	X	14.45	5
98	MP4A	Z	0	5
99	MP4A	Mx	.014	5
100	MP4B	X	14.425	4
101	MP4B	Z	0	4
102	MP4B	Mx	-.013	4
103	MP4B	X	14.425	5
104	MP4B	Z	0	5
105	MP4B	Mx	-.013	5
106	MP4C	X	14.418	4
107	MP4C	Z	0	4
108	MP4C	Mx	-.003	4
109	MP4C	X	14.418	5
110	MP4C	Z	0	5
111	MP4C	Mx	-.003	5
112	MP4A	X	14.45	4
113	MP4A	Z	0	4
114	MP4A	Mx	.014	4
115	MP4A	X	14.45	5
116	MP4A	Z	0	5
117	MP4A	Mx	.014	5
118	MP4B	X	14.425	4
119	MP4B	Z	0	4
120	MP4B	Mx	-.006	4
121	MP4B	X	14.425	5
122	MP4B	Z	0	5
123	MP4B	Mx	-.006	5
124	MP4C	X	14.418	4
125	MP4C	Z	0	4
126	MP4C	Mx	-.011	4
127	MP4C	X	14.418	5
128	MP4C	Z	0	5
129	MP4C	Mx	-.011	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
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Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	103.598	.5
2	MP4A	Z	59.813	.5
3	MP4A	Mx	-.007	.5
4	MP4A	X	103.598	3.5
5	MP4A	Z	59.813	3.5
6	MP4A	Mx	-.007	3.5
7	MP4B	X	127.288	.5
8	MP4B	Z	73.49	.5
9	MP4B	Mx	-.096	.5
10	MP4B	X	127.288	3.5
11	MP4B	Z	73.49	3.5
12	MP4B	Mx	-.096	3.5
13	MP4C	X	103.598	.5
14	MP4C	Z	59.813	.5
15	MP4C	Mx	.097	.5
16	MP4C	X	103.598	3.5
17	MP4C	Z	59.813	3.5
18	MP4C	Mx	.097	3.5
19	MP4A	X	103.598	.5
20	MP4A	Z	59.813	.5
21	MP4A	Mx	-.097	.5
22	MP4A	X	103.598	3.5
23	MP4A	Z	59.813	3.5
24	MP4A	Mx	-.097	3.5
25	MP4B	X	127.288	.5
26	MP4B	Z	73.49	.5
27	MP4B	Mx	.121	.5
28	MP4B	X	127.288	3.5
29	MP4B	Z	73.49	3.5
30	MP4B	Mx	.121	3.5
31	MP4C	X	103.598	.5
32	MP4C	Z	59.813	.5
33	MP4C	Mx	.007	.5
34	MP4C	X	103.598	3.5
35	MP4C	Z	59.813	3.5
36	MP4C	Mx	.007	3.5
37	MP1A	X	33.208	.5
38	MP1A	Z	19.172	.5
39	MP1A	Mx	-.017	.5
40	MP1A	X	33.208	2.5
41	MP1A	Z	19.172	2.5
42	MP1A	Mx	-.017	2.5
43	MP1B	X	59.965	.5
44	MP1B	Z	34.621	.5
45	MP1B	Mx	.006	.5
46	MP1B	X	59.965	2.5
47	MP1B	Z	34.621	2.5
48	MP1B	Mx	.006	2.5
49	MP1C	X	33.208	.5
50	MP1C	Z	19.172	.5
51	MP1C	Mx	.017	.5
52	MP1C	X	33.208	2.5
53	MP1C	Z	19.172	2.5
54	MP1C	Mx	.017	2.5
55	M61	X	86.771	1
56	M61	Z	50.097	1
57	M61	Mx	-.043	1



Company : Colliers Engineering & Design
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Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP4A	X	36.522	2
59	MP4A	Z	21.086	2
60	MP4A	Mx	.018	2
61	MP4B	X	48.123	2
62	MP4B	Z	27.784	2
63	MP4B	Mx	-.005	2
64	MP4C	X	36.522	2
65	MP4C	Z	21.086	2
66	MP4C	Mx	-.018	2
67	MP3A	X	34.328	2
68	MP3A	Z	19.819	2
69	MP3A	Mx	.017	2
70	MP3B	X	48.035	2
71	MP3B	Z	27.733	2
72	MP3B	Mx	-.005	2
73	MP3C	X	34.328	2
74	MP3C	Z	19.819	2
75	MP3C	Mx	-.017	2
76	MP2A	X	65.129	.5
77	MP2A	Z	37.602	.5
78	MP2A	Mx	-.033	.5
79	MP2A	X	65.129	3.5
80	MP2A	Z	37.602	3.5
81	MP2A	Mx	-.033	3.5
82	MP2B	X	97.05	.5
83	MP2B	Z	56.032	.5
84	MP2B	Mx	.01	.5
85	MP2B	X	97.05	3.5
86	MP2B	Z	56.032	3.5
87	MP2B	Mx	.01	3.5
88	MP2C	X	65.129	.5
89	MP2C	Z	37.602	.5
90	MP2C	Mx	.033	.5
91	MP2C	X	65.129	3.5
92	MP2C	Z	37.602	3.5
93	MP2C	Mx	.033	3.5
94	MP4A	X	12.505	4
95	MP4A	Z	7.22	4
96	MP4A	Mx	.015	4
97	MP4A	X	12.505	5
98	MP4A	Z	7.22	5
99	MP4A	Mx	.015	5
100	MP4B	X	12.478	4
101	MP4B	Z	7.204	4
102	MP4B	Mx	-.007	4
103	MP4B	X	12.478	5
104	MP4B	Z	7.204	5
105	MP4B	Mx	-.007	5
106	MP4C	X	12.505	4
107	MP4C	Z	7.22	4
108	MP4C	Mx	-.01	4
109	MP4C	X	12.505	5
110	MP4C	Z	7.22	5
111	MP4C	Mx	-.01	5
112	MP4A	X	12.505	4
113	MP4A	Z	7.22	4
114	MP4A	Mx	.01	4



Company : Colliers Engineering & Design
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Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
115	MP4A	X	12.505	5
116	MP4A	Z	7.22	5
117	MP4A	Mx	.01	5
118	MP4B	X	12.478	4
119	MP4B	Z	7.204	4
120	MP4B	Mx	.002	4
121	MP4B	X	12.478	5
122	MP4B	Z	7.204	5
123	MP4B	Mx	.002	5
124	MP4C	X	12.505	4
125	MP4C	Z	7.22	4
126	MP4C	Mx	-.015	4
127	MP4C	X	12.505	5
128	MP4C	Z	7.22	5
129	MP4C	Mx	-.015	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	69.313	.5
2	MP4A	Z	120.053	.5
3	MP4A	Mx	.055	.5
4	MP4A	X	69.313	3.5
5	MP4A	Z	120.053	3.5
6	MP4A	Mx	.055	3.5
7	MP4B	X	71.84	.5
8	MP4B	Z	124.431	.5
9	MP4B	Mx	-.126	.5
10	MP4B	X	71.84	3.5
11	MP4B	Z	124.431	3.5
12	MP4B	Mx	-.126	3.5
13	MP4C	X	55.063	.5
14	MP4C	Z	95.371	.5
15	MP4C	Mx	.055	.5
16	MP4C	X	55.063	3.5
17	MP4C	Z	95.371	3.5
18	MP4C	Mx	.055	3.5
19	MP4A	X	69.313	.5
20	MP4A	Z	120.053	.5
21	MP4A	Mx	-.125	.5
22	MP4A	X	69.313	3.5
23	MP4A	Z	120.053	3.5
24	MP4A	Mx	-.125	3.5
25	MP4B	X	71.84	.5
26	MP4B	Z	124.431	.5
27	MP4B	Mx	.077	.5
28	MP4B	X	71.84	3.5
29	MP4B	Z	124.431	3.5
30	MP4B	Mx	.077	3.5
31	MP4C	X	55.063	.5
32	MP4C	Z	95.371	.5
33	MP4C	Mx	.055	.5
34	MP4C	X	55.063	3.5
35	MP4C	Z	95.371	3.5
36	MP4C	Mx	.055	3.5
37	MP1A	X	29.903	.5
38	MP1A	Z	51.793	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
39	MP1A	Mx	-.015	.5
40	MP1A	X	29.903	2.5
41	MP1A	Z	51.793	2.5
42	MP1A	Mx	-.015	2.5
43	MP1B	X	32.757	.5
44	MP1B	Z	56.738	.5
45	MP1B	Mx	-.011	.5
46	MP1B	X	32.757	2.5
47	MP1B	Z	56.738	2.5
48	MP1B	Mx	-.011	2.5
49	MP1C	X	13.807	.5
50	MP1C	Z	23.915	.5
51	MP1C	Mx	.014	.5
52	MP1C	X	13.807	2.5
53	MP1C	Z	23.915	2.5
54	MP1C	Mx	.014	2.5
55	M61	X	57.32	1
56	M61	Z	99.281	1
57	M61	Mx	-.029	1
58	MP4A	X	25.738	2
59	MP4A	Z	44.58	2
60	MP4A	Mx	.013	2
61	MP4B	X	26.976	2
62	MP4B	Z	46.723	2
63	MP4B	Mx	.009	2
64	MP4C	X	18.76	2
65	MP4C	Z	32.492	2
66	MP4C	Mx	-.019	2
67	MP3A	X	25.316	2
68	MP3A	Z	43.849	2
69	MP3A	Mx	.013	2
70	MP3B	X	26.778	2
71	MP3B	Z	46.381	2
72	MP3B	Mx	.009	2
73	MP3C	X	17.071	2
74	MP3C	Z	29.568	2
75	MP3C	Mx	-.017	2
76	MP2A	X	50.403	.5
77	MP2A	Z	87.301	.5
78	MP2A	Mx	-.025	.5
79	MP2A	X	50.403	3.5
80	MP2A	Z	87.301	3.5
81	MP2A	Mx	-.025	3.5
82	MP2B	X	53.809	.5
83	MP2B	Z	93.2	.5
84	MP2B	Mx	-.018	.5
85	MP2B	X	53.809	3.5
86	MP2B	Z	93.2	3.5
87	MP2B	Mx	-.018	3.5
88	MP2C	X	31.202	.5
89	MP2C	Z	54.043	.5
90	MP2C	Mx	.031	.5
91	MP2C	X	31.202	3.5
92	MP2C	Z	54.043	3.5
93	MP2C	Mx	.031	3.5
94	MP4A	X	7.209	4
95	MP4A	Z	12.486	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
96	MP4A	Mx	.011	4
97	MP4A	X	7.209	5
98	MP4A	Z	12.486	5
99	MP4A	Mx	.011	5
100	MP4B	X	7.206	4
101	MP4B	Z	12.481	4
102	MP4B	Mx	.000415	4
103	MP4B	X	7.206	5
104	MP4B	Z	12.481	5
105	MP4B	Mx	.000415	5
106	MP4C	X	7.225	4
107	MP4C	Z	12.514	4
108	MP4C	Mx	-.014	4
109	MP4C	X	7.225	5
110	MP4C	Z	12.514	5
111	MP4C	Mx	-.014	5
112	MP4A	X	7.209	4
113	MP4A	Z	12.486	4
114	MP4A	Mx	.003	4
115	MP4A	X	7.209	5
116	MP4A	Z	12.486	5
117	MP4A	Mx	.003	5
118	MP4B	X	7.206	4
119	MP4B	Z	12.481	4
120	MP4B	Mx	.009	4
121	MP4B	X	7.206	5
122	MP4B	Z	12.481	5
123	MP4B	Mx	.009	5
124	MP4C	X	7.225	4
125	MP4C	Z	12.514	4
126	MP4C	Mx	-.014	4
127	MP4C	X	7.225	5
128	MP4C	Z	12.514	5
129	MP4C	Mx	-.014	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	0	.5
2	MP4A	Z	148.125	.5
3	MP4A	Mx	.111	.5
4	MP4A	X	0	3.5
5	MP4A	Z	148.125	3.5
6	MP4A	Mx	.111	3.5
7	MP4B	X	0	.5
8	MP4B	Z	125.826	.5
9	MP4B	Mx	-.109	.5
10	MP4B	X	0	3.5
11	MP4B	Z	125.826	3.5
12	MP4B	Mx	-.109	3.5
13	MP4C	X	0	.5
14	MP4C	Z	119.625	.5
15	MP4C	Mx	.007	.5
16	MP4C	X	0	3.5
17	MP4C	Z	119.625	3.5
18	MP4C	Mx	.007	3.5
19	MP4A	X	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
20	MP4A	Z	148.125	.5
21	MP4A	Mx	-.111	.5
22	MP4A	X	0	3.5
23	MP4A	Z	148.125	3.5
24	MP4A	Mx	-.111	3.5
25	MP4B	X	0	.5
26	MP4B	Z	125.826	.5
27	MP4B	Mx	.012	.5
28	MP4B	X	0	3.5
29	MP4B	Z	125.826	3.5
30	MP4B	Mx	.012	3.5
31	MP4C	X	0	.5
32	MP4C	Z	119.625	.5
33	MP4C	Mx	.097	.5
34	MP4C	X	0	3.5
35	MP4C	Z	119.625	3.5
36	MP4C	Mx	.097	3.5
37	MP1A	X	0	.5
38	MP1A	Z	70.536	.5
39	MP1A	Mx	0	.5
40	MP1A	X	0	2.5
41	MP1A	Z	70.536	2.5
42	MP1A	Mx	0	2.5
43	MP1B	X	0	.5
44	MP1B	Z	45.349	.5
45	MP1B	Mx	-.017	.5
46	MP1B	X	0	2.5
47	MP1B	Z	45.349	2.5
48	MP1B	Mx	-.017	2.5
49	MP1C	X	0	.5
50	MP1C	Z	38.345	.5
51	MP1C	Mx	.017	.5
52	MP1C	X	0	2.5
53	MP1C	Z	38.345	2.5
54	MP1C	Mx	.017	2.5
55	M61	X	0	1
56	M61	Z	121.862	1
57	M61	Mx	0	1
58	MP4A	X	0	2
59	MP4A	Z	56.128	2
60	MP4A	Mx	0	2
61	MP4B	X	0	2
62	MP4B	Z	45.208	2
63	MP4B	Mx	.017	2
64	MP4C	X	0	2
65	MP4C	Z	42.171	2
66	MP4C	Mx	-.018	2
67	MP3A	X	0	2
68	MP3A	Z	56.128	2
69	MP3A	Mx	0	2
70	MP3B	X	0	2
71	MP3B	Z	43.226	2
72	MP3B	Mx	.017	2
73	MP3C	X	0	2
74	MP3C	Z	39.639	2
75	MP3C	Mx	-.017	2
76	MP2A	X	0	.5



Company : Colliers Engineering & Design
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Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
77	MP2A	Z	113.608	.5
78	MP2A	Mx	0	.5
79	MP2A	X	0	3.5
80	MP2A	Z	113.608	3.5
81	MP2A	Mx	0	3.5
82	MP2B	X	0	.5
83	MP2B	Z	83.56	.5
84	MP2B	Mx	-.032	.5
85	MP2B	X	0	3.5
86	MP2B	Z	83.56	3.5
87	MP2B	Mx	-.032	3.5
88	MP2C	X	0	.5
89	MP2C	Z	75.204	.5
90	MP2C	Mx	.033	.5
91	MP2C	X	0	3.5
92	MP2C	Z	75.204	3.5
93	MP2C	Mx	.033	3.5
94	MP4A	X	0	4
95	MP4A	Z	14.407	4
96	MP4A	Mx	.005	4
97	MP4A	X	0	5
98	MP4A	Z	14.407	5
99	MP4A	Mx	.005	5
100	MP4B	X	0	4
101	MP4B	Z	14.432	4
102	MP4B	Mx	.008	4
103	MP4B	X	0	5
104	MP4B	Z	14.432	5
105	MP4B	Mx	.008	5
106	MP4C	X	0	4
107	MP4C	Z	14.439	4
108	MP4C	Mx	-.015	4
109	MP4C	X	0	5
110	MP4C	Z	14.439	5
111	MP4C	Mx	-.015	5
112	MP4A	X	0	4
113	MP4A	Z	14.407	4
114	MP4A	Mx	-.005	4
115	MP4A	X	0	5
116	MP4A	Z	14.407	5
117	MP4A	Mx	-.005	5
118	MP4B	X	0	4
119	MP4B	Z	14.432	4
120	MP4B	Mx	.014	4
121	MP4B	X	0	5
122	MP4B	Z	14.432	5
123	MP4B	Mx	.014	5
124	MP4C	X	0	4
125	MP4C	Z	14.439	4
126	MP4C	Mx	-.01	4
127	MP4C	X	0	5
128	MP4C	Z	14.439	5
129	MP4C	Mx	-.01	5

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

Member Label Direction Magnitude[lb,k-ft] Location[ft,%]



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	-69.313	.5
2	MP4A	Z	120.053	.5
3	MP4A	Mx	.125	.5
4	MP4A	X	-69.313	3.5
5	MP4A	Z	120.053	3.5
6	MP4A	Mx	.125	3.5
7	MP4B	X	-55.636	.5
8	MP4B	Z	96.364	.5
9	MP4B	Mx	-.069	.5
10	MP4B	X	-55.636	3.5
11	MP4B	Z	96.364	3.5
12	MP4B	Mx	-.069	3.5
13	MP4C	X	-69.313	.5
14	MP4C	Z	120.053	.5
15	MP4C	Mx	-.055	.5
16	MP4C	X	-69.313	3.5
17	MP4C	Z	120.053	3.5
18	MP4C	Mx	-.055	3.5
19	MP4A	X	-69.313	.5
20	MP4A	Z	120.053	.5
21	MP4A	Mx	-.055	.5
22	MP4A	X	-69.313	3.5
23	MP4A	Z	120.053	3.5
24	MP4A	Mx	-.055	3.5
25	MP4B	X	-55.636	.5
26	MP4B	Z	96.364	.5
27	MP4B	Mx	-.04	.5
28	MP4B	X	-55.636	3.5
29	MP4B	Z	96.364	3.5
30	MP4B	Mx	-.04	3.5
31	MP4C	X	-69.313	.5
32	MP4C	Z	120.053	.5
33	MP4C	Mx	.125	.5
34	MP4C	X	-69.313	3.5
35	MP4C	Z	120.053	3.5
36	MP4C	Mx	.125	3.5
37	MP1A	X	-29.903	.5
38	MP1A	Z	51.793	.5
39	MP1A	Mx	.015	.5
40	MP1A	X	-29.903	2.5
41	MP1A	Z	51.793	2.5
42	MP1A	Mx	.015	2.5
43	MP1B	X	-14.454	.5
44	MP1B	Z	25.036	.5
45	MP1B	Mx	-.014	.5
46	MP1B	X	-14.454	2.5
47	MP1B	Z	25.036	2.5
48	MP1B	Mx	-.014	2.5
49	MP1C	X	-29.903	.5
50	MP1C	Z	51.793	.5
51	MP1C	Mx	.015	.5
52	MP1C	X	-29.903	2.5
53	MP1C	Z	51.793	2.5
54	MP1C	Mx	.015	2.5
55	M61	X	-57.32	1
56	M61	Z	99.281	1
57	M61	Mx	.029	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP4A	X	-25.738	2
59	MP4A	Z	44.58	2
60	MP4A	Mx	-.013	2
61	MP4B	X	-19.04	2
62	MP4B	Z	32.978	2
63	MP4B	Mx	.019	2
64	MP4C	X	-25.738	2
65	MP4C	Z	44.58	2
66	MP4C	Mx	-.013	2
67	MP3A	X	-25.316	2
68	MP3A	Z	43.849	2
69	MP3A	Mx	-.013	2
70	MP3B	X	-17.403	2
71	MP3B	Z	30.142	2
72	MP3B	Mx	.017	2
73	MP3C	X	-25.316	2
74	MP3C	Z	43.849	2
75	MP3C	Mx	-.013	2
76	MP2A	X	-50.403	.5
77	MP2A	Z	87.301	.5
78	MP2A	Mx	.025	.5
79	MP2A	X	-50.403	3.5
80	MP2A	Z	87.301	3.5
81	MP2A	Mx	.025	3.5
82	MP2B	X	-31.974	.5
83	MP2B	Z	55.38	.5
84	MP2B	Mx	-.031	.5
85	MP2B	X	-31.974	3.5
86	MP2B	Z	55.38	3.5
87	MP2B	Mx	-.031	3.5
88	MP2C	X	-50.403	.5
89	MP2C	Z	87.301	.5
90	MP2C	Mx	.025	.5
91	MP2C	X	-50.403	3.5
92	MP2C	Z	87.301	3.5
93	MP2C	Mx	.025	3.5
94	MP4A	X	-7.209	4
95	MP4A	Z	12.486	4
96	MP4A	Mx	-.003	4
97	MP4A	X	-7.209	5
98	MP4A	Z	12.486	5
99	MP4A	Mx	-.003	5
100	MP4B	X	-7.224	4
101	MP4B	Z	12.513	4
102	MP4B	Mx	.013	4
103	MP4B	X	-7.224	5
104	MP4B	Z	12.513	5
105	MP4B	Mx	.013	5
106	MP4C	X	-7.209	4
107	MP4C	Z	12.486	4
108	MP4C	Mx	-.011	4
109	MP4C	X	-7.209	5
110	MP4C	Z	12.486	5
111	MP4C	Mx	-.011	5
112	MP4A	X	-7.209	4
113	MP4A	Z	12.486	4
114	MP4A	Mx	-.011	4



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
115	MP4A	X	-7.209	5
116	MP4A	Z	12.486	5
117	MP4A	Mx	-.011	5
118	MP4B	X	-7.224	4
119	MP4B	Z	12.513	4
120	MP4B	Mx	.015	4
121	MP4B	X	-7.224	5
122	MP4B	Z	12.513	5
123	MP4B	Mx	.015	5
124	MP4C	X	-7.209	4
125	MP4C	Z	12.486	4
126	MP4C	Mx	-.003	4
127	MP4C	X	-7.209	5
128	MP4C	Z	12.486	5
129	MP4C	Mx	-.003	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	-103.598	.5
2	MP4A	Z	59.813	.5
3	MP4A	Mx	.097	.5
4	MP4A	X	-103.598	3.5
5	MP4A	Z	59.813	3.5
6	MP4A	Mx	.097	3.5
7	MP4B	X	-99.221	.5
8	MP4B	Z	57.285	.5
9	MP4B	Mx	-.024	.5
10	MP4B	X	-99.221	3.5
11	MP4B	Z	57.285	3.5
12	MP4B	Mx	-.024	3.5
13	MP4C	X	-128.28	.5
14	MP4C	Z	74.063	.5
15	MP4C	Mx	-.111	.5
16	MP4C	X	-128.28	3.5
17	MP4C	Z	74.063	3.5
18	MP4C	Mx	-.111	3.5
19	MP4A	X	-103.598	.5
20	MP4A	Z	59.813	.5
21	MP4A	Mx	.007	.5
22	MP4A	X	-103.598	3.5
23	MP4A	Z	59.813	3.5
24	MP4A	Mx	.007	3.5
25	MP4B	X	-99.221	.5
26	MP4B	Z	57.285	.5
27	MP4B	Mx	-.083	.5
28	MP4B	X	-99.221	3.5
29	MP4B	Z	57.285	3.5
30	MP4B	Mx	-.083	3.5
31	MP4C	X	-128.28	.5
32	MP4C	Z	74.063	.5
33	MP4C	Mx	.111	.5
34	MP4C	X	-128.28	3.5
35	MP4C	Z	74.063	3.5
36	MP4C	Mx	.111	3.5
37	MP1A	X	-33.208	.5
38	MP1A	Z	19.172	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
39	MP1A	Mx	.017	.5
40	MP1A	X	-33.208	2.5
41	MP1A	Z	19.172	2.5
42	MP1A	Mx	.017	2.5
43	MP1B	X	-28.263	.5
44	MP1B	Z	16.318	.5
45	MP1B	Mx	-.015	.5
46	MP1B	X	-28.263	2.5
47	MP1B	Z	16.318	2.5
48	MP1B	Mx	-.015	2.5
49	MP1C	X	-61.086	.5
50	MP1C	Z	35.268	.5
51	MP1C	Mx	0	.5
52	MP1C	X	-61.086	2.5
53	MP1C	Z	35.268	2.5
54	MP1C	Mx	0	2.5
55	M61	X	-86.771	1
56	M61	Z	50.097	1
57	M61	Mx	.043	1
58	MP4A	X	-36.522	2
59	MP4A	Z	21.086	2
60	MP4A	Mx	-.018	2
61	MP4B	X	-34.378	2
62	MP4B	Z	19.848	2
63	MP4B	Mx	.019	2
64	MP4C	X	-48.609	2
65	MP4C	Z	28.064	2
66	MP4C	Mx	0	2
67	MP3A	X	-34.328	2
68	MP3A	Z	19.819	2
69	MP3A	Mx	-.017	2
70	MP3B	X	-31.795	2
71	MP3B	Z	18.357	2
72	MP3B	Mx	.017	2
73	MP3C	X	-48.609	2
74	MP3C	Z	28.064	2
75	MP3C	Mx	0	2
76	MP2A	X	-65.129	.5
77	MP2A	Z	37.602	.5
78	MP2A	Mx	.033	.5
79	MP2A	X	-65.129	3.5
80	MP2A	Z	37.602	3.5
81	MP2A	Mx	.033	3.5
82	MP2B	X	-59.23	.5
83	MP2B	Z	34.196	.5
84	MP2B	Mx	-.032	.5
85	MP2B	X	-59.23	3.5
86	MP2B	Z	34.196	3.5
87	MP2B	Mx	-.032	3.5
88	MP2C	X	-98.387	.5
89	MP2C	Z	56.804	.5
90	MP2C	Mx	0	.5
91	MP2C	X	-98.387	3.5
92	MP2C	Z	56.804	3.5
93	MP2C	Mx	0	3.5
94	MP4A	X	-12.505	4
95	MP4A	Z	7.22	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
96	MP4A	Mx	-.01	4
97	MP4A	X	-12.505	5
98	MP4A	Z	7.22	5
99	MP4A	Mx	-.01	5
100	MP4B	X	-12.51	4
101	MP4B	Z	7.222	4
102	MP4B	Mx	.015	4
103	MP4B	X	-12.51	5
104	MP4B	Z	7.222	5
105	MP4B	Mx	.015	5
106	MP4C	X	-12.477	4
107	MP4C	Z	7.204	4
108	MP4C	Mx	-.005	4
109	MP4C	X	-12.477	5
110	MP4C	Z	7.204	5
111	MP4C	Mx	-.005	5
112	MP4A	X	-12.505	4
113	MP4A	Z	7.22	4
114	MP4A	Mx	-.015	4
115	MP4A	X	-12.505	5
116	MP4A	Z	7.22	5
117	MP4A	Mx	-.015	5
118	MP4B	X	-12.51	4
119	MP4B	Z	7.222	4
120	MP4B	Mx	.012	4
121	MP4B	X	-12.51	5
122	MP4B	Z	7.222	5
123	MP4B	Mx	.012	5
124	MP4C	X	-12.477	4
125	MP4C	Z	7.204	4
126	MP4C	Mx	.005	4
127	MP4C	X	-12.477	5
128	MP4C	Z	7.204	5
129	MP4C	Mx	.005	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	-110.125	.5
2	MP4A	Z	0	.5
3	MP4A	Mx	.055	.5
4	MP4A	X	-110.125	3.5
5	MP4A	Z	0	3.5
6	MP4A	Mx	.055	3.5
7	MP4B	X	-132.425	.5
8	MP4B	Z	0	.5
9	MP4B	Mx	.034	.5
10	MP4B	X	-132.425	3.5
11	MP4B	Z	0	3.5
12	MP4B	Mx	.034	3.5
13	MP4C	X	-138.625	.5
14	MP4C	Z	0	.5
15	MP4C	Mx	-.125	.5
16	MP4C	X	-138.625	3.5
17	MP4C	Z	0	3.5
18	MP4C	Mx	-.125	3.5
19	MP4A	X	-110.125	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
20	MP4A	Z	0	.5
21	MP4A	Mx	.055	.5
22	MP4A	X	-110.125	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	.055	3.5
25	MP4B	X	-132.425	.5
26	MP4B	Z	0	.5
27	MP4B	Mx	-.119	.5
28	MP4B	X	-132.425	3.5
29	MP4B	Z	0	3.5
30	MP4B	Mx	-.119	3.5
31	MP4C	X	-138.625	.5
32	MP4C	Z	0	.5
33	MP4C	Mx	.055	.5
34	MP4C	X	-138.625	3.5
35	MP4C	Z	0	3.5
36	MP4C	Mx	.055	3.5
37	MP1A	X	-27.615	.5
38	MP1A	Z	0	.5
39	MP1A	Mx	.014	.5
40	MP1A	X	-27.615	2.5
41	MP1A	Z	0	2.5
42	MP1A	Mx	.014	2.5
43	MP1B	X	-52.802	.5
44	MP1B	Z	0	.5
45	MP1B	Mx	-.017	.5
46	MP1B	X	-52.802	2.5
47	MP1B	Z	0	2.5
48	MP1B	Mx	-.017	2.5
49	MP1C	X	-59.805	.5
50	MP1C	Z	0	.5
51	MP1C	Mx	-.015	.5
52	MP1C	X	-59.805	2.5
53	MP1C	Z	0	2.5
54	MP1C	Mx	-.015	2.5
55	M61	X	-92.972	1
56	M61	Z	0	1
57	M61	Mx	.046	1
58	MP4A	X	-37.519	2
59	MP4A	Z	0	2
60	MP4A	Mx	-.019	2
61	MP4B	X	-48.44	2
62	MP4B	Z	0	2
63	MP4B	Mx	.016	2
64	MP4C	X	-51.476	2
65	MP4C	Z	0	2
66	MP4C	Mx	.013	2
67	MP3A	X	-34.142	2
68	MP3A	Z	0	2
69	MP3A	Mx	-.017	2
70	MP3B	X	-47.044	2
71	MP3B	Z	0	2
72	MP3B	Mx	.015	2
73	MP3C	X	-50.632	2
74	MP3C	Z	0	2
75	MP3C	Mx	.013	2
76	MP2A	X	-62.403	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
77	MP2A	Z	0	.5
78	MP2A	Mx	.031	.5
79	MP2A	X	-62.403	3.5
80	MP2A	Z	0	3.5
81	MP2A	Mx	.031	3.5
82	MP2B	X	-92.451	.5
83	MP2B	Z	0	.5
84	MP2B	Mx	-.03	.5
85	MP2B	X	-92.451	3.5
86	MP2B	Z	0	3.5
87	MP2B	Mx	-.03	3.5
88	MP2C	X	-100.807	.5
89	MP2C	Z	0	.5
90	MP2C	Mx	-.025	.5
91	MP2C	X	-100.807	3.5
92	MP2C	Z	0	3.5
93	MP2C	Mx	-.025	3.5
94	MP4A	X	-14.45	4
95	MP4A	Z	0	4
96	MP4A	Mx	-.014	4
97	MP4A	X	-14.45	5
98	MP4A	Z	0	5
99	MP4A	Mx	-.014	5
100	MP4B	X	-14.425	4
101	MP4B	Z	0	4
102	MP4B	Mx	.013	4
103	MP4B	X	-14.425	5
104	MP4B	Z	0	5
105	MP4B	Mx	.013	5
106	MP4C	X	-14.418	4
107	MP4C	Z	0	4
108	MP4C	Mx	.003	4
109	MP4C	X	-14.418	5
110	MP4C	Z	0	5
111	MP4C	Mx	.003	5
112	MP4A	X	-14.45	4
113	MP4A	Z	0	4
114	MP4A	Mx	-.014	4
115	MP4A	X	-14.45	5
116	MP4A	Z	0	5
117	MP4A	Mx	-.014	5
118	MP4B	X	-14.425	4
119	MP4B	Z	0	4
120	MP4B	Mx	.006	4
121	MP4B	X	-14.425	5
122	MP4B	Z	0	5
123	MP4B	Mx	.006	5
124	MP4C	X	-14.418	4
125	MP4C	Z	0	4
126	MP4C	Mx	.011	4
127	MP4C	X	-14.418	5
128	MP4C	Z	0	5
129	MP4C	Mx	.011	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
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Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-103.598	.5
2	MP4A	Z	-59.813	.5
3	MP4A	Mx	.007	.5
4	MP4A	X	-103.598	3.5
5	MP4A	Z	-59.813	3.5
6	MP4A	Mx	.007	3.5
7	MP4B	X	-127.288	.5
8	MP4B	Z	-73.49	.5
9	MP4B	Mx	.096	.5
10	MP4B	X	-127.288	3.5
11	MP4B	Z	-73.49	3.5
12	MP4B	Mx	.096	3.5
13	MP4C	X	-103.598	.5
14	MP4C	Z	-59.813	.5
15	MP4C	Mx	-.097	.5
16	MP4C	X	-103.598	3.5
17	MP4C	Z	-59.813	3.5
18	MP4C	Mx	-.097	3.5
19	MP4A	X	-103.598	.5
20	MP4A	Z	-59.813	.5
21	MP4A	Mx	.097	.5
22	MP4A	X	-103.598	3.5
23	MP4A	Z	-59.813	3.5
24	MP4A	Mx	.097	3.5
25	MP4B	X	-127.288	.5
26	MP4B	Z	-73.49	.5
27	MP4B	Mx	-.121	.5
28	MP4B	X	-127.288	3.5
29	MP4B	Z	-73.49	3.5
30	MP4B	Mx	-.121	3.5
31	MP4C	X	-103.598	.5
32	MP4C	Z	-59.813	.5
33	MP4C	Mx	-.007	.5
34	MP4C	X	-103.598	3.5
35	MP4C	Z	-59.813	3.5
36	MP4C	Mx	-.007	3.5
37	MP1A	X	-33.208	.5
38	MP1A	Z	-19.172	.5
39	MP1A	Mx	.017	.5
40	MP1A	X	-33.208	2.5
41	MP1A	Z	-19.172	2.5
42	MP1A	Mx	.017	2.5
43	MP1B	X	-59.965	.5
44	MP1B	Z	-34.621	.5
45	MP1B	Mx	-.006	.5
46	MP1B	X	-59.965	2.5
47	MP1B	Z	-34.621	2.5
48	MP1B	Mx	-.006	2.5
49	MP1C	X	-33.208	.5
50	MP1C	Z	-19.172	.5
51	MP1C	Mx	-.017	.5
52	MP1C	X	-33.208	2.5
53	MP1C	Z	-19.172	2.5
54	MP1C	Mx	-.017	2.5
55	M61	X	-86.771	1
56	M61	Z	-50.097	1
57	M61	Mx	.043	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
58	MP4A	X	-36.522	2
59	MP4A	Z	-21.086	2
60	MP4A	Mx	-.018	2
61	MP4B	X	-48.123	2
62	MP4B	Z	-27.784	2
63	MP4B	Mx	.005	2
64	MP4C	X	-36.522	2
65	MP4C	Z	-21.086	2
66	MP4C	Mx	.018	2
67	MP3A	X	-34.328	2
68	MP3A	Z	-19.819	2
69	MP3A	Mx	-.017	2
70	MP3B	X	-48.035	2
71	MP3B	Z	-27.733	2
72	MP3B	Mx	.005	2
73	MP3C	X	-34.328	2
74	MP3C	Z	-19.819	2
75	MP3C	Mx	.017	2
76	MP2A	X	-65.129	.5
77	MP2A	Z	-37.602	.5
78	MP2A	Mx	.033	.5
79	MP2A	X	-65.129	3.5
80	MP2A	Z	-37.602	3.5
81	MP2A	Mx	.033	3.5
82	MP2B	X	-97.05	.5
83	MP2B	Z	-56.032	.5
84	MP2B	Mx	-.01	.5
85	MP2B	X	-97.05	3.5
86	MP2B	Z	-56.032	3.5
87	MP2B	Mx	-.01	3.5
88	MP2C	X	-65.129	.5
89	MP2C	Z	-37.602	.5
90	MP2C	Mx	-.033	.5
91	MP2C	X	-65.129	3.5
92	MP2C	Z	-37.602	3.5
93	MP2C	Mx	-.033	3.5
94	MP4A	X	-12.505	4
95	MP4A	Z	-7.22	4
96	MP4A	Mx	-.015	4
97	MP4A	X	-12.505	5
98	MP4A	Z	-7.22	5
99	MP4A	Mx	-.015	5
100	MP4B	X	-12.478	4
101	MP4B	Z	-7.204	4
102	MP4B	Mx	.007	4
103	MP4B	X	-12.478	5
104	MP4B	Z	-7.204	5
105	MP4B	Mx	.007	5
106	MP4C	X	-12.505	4
107	MP4C	Z	-7.22	4
108	MP4C	Mx	.01	4
109	MP4C	X	-12.505	5
110	MP4C	Z	-7.22	5
111	MP4C	Mx	.01	5
112	MP4A	X	-12.505	4
113	MP4A	Z	-7.22	4
114	MP4A	Mx	-.01	4



Company : Colliers Engineering & Design
 Designer : DAB
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Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
115	MP4A	X	-12.505	5
116	MP4A	Z	-7.22	5
117	MP4A	Mx	-.01	5
118	MP4B	X	-12.478	4
119	MP4B	Z	-7.204	4
120	MP4B	Mx	-.002	4
121	MP4B	X	-12.478	5
122	MP4B	Z	-7.204	5
123	MP4B	Mx	-.002	5
124	MP4C	X	-12.505	4
125	MP4C	Z	-7.22	4
126	MP4C	Mx	.015	4
127	MP4C	X	-12.505	5
128	MP4C	Z	-7.22	5
129	MP4C	Mx	.015	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-69.313	.5
2	MP4A	Z	-120.053	.5
3	MP4A	Mx	-.055	.5
4	MP4A	X	-69.313	3.5
5	MP4A	Z	-120.053	3.5
6	MP4A	Mx	-.055	3.5
7	MP4B	X	-71.84	.5
8	MP4B	Z	-124.431	.5
9	MP4B	Mx	.126	.5
10	MP4B	X	-71.84	3.5
11	MP4B	Z	-124.431	3.5
12	MP4B	Mx	.126	3.5
13	MP4C	X	-55.063	.5
14	MP4C	Z	-95.371	.5
15	MP4C	Mx	-.055	.5
16	MP4C	X	-55.063	3.5
17	MP4C	Z	-95.371	3.5
18	MP4C	Mx	-.055	3.5
19	MP4A	X	-69.313	.5
20	MP4A	Z	-120.053	.5
21	MP4A	Mx	.125	.5
22	MP4A	X	-69.313	3.5
23	MP4A	Z	-120.053	3.5
24	MP4A	Mx	.125	3.5
25	MP4B	X	-71.84	.5
26	MP4B	Z	-124.431	.5
27	MP4B	Mx	-.077	.5
28	MP4B	X	-71.84	3.5
29	MP4B	Z	-124.431	3.5
30	MP4B	Mx	-.077	3.5
31	MP4C	X	-55.063	.5
32	MP4C	Z	-95.371	.5
33	MP4C	Mx	-.055	.5
34	MP4C	X	-55.063	3.5
35	MP4C	Z	-95.371	3.5
36	MP4C	Mx	-.055	3.5
37	MP1A	X	-29.903	.5
38	MP1A	Z	-51.793	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
39	MP1A	Mx	.015	.5
40	MP1A	X	-29.903	2.5
41	MP1A	Z	-51.793	2.5
42	MP1A	Mx	.015	2.5
43	MP1B	X	-32.757	.5
44	MP1B	Z	-56.738	.5
45	MP1B	Mx	.011	.5
46	MP1B	X	-32.757	2.5
47	MP1B	Z	-56.738	2.5
48	MP1B	Mx	.011	2.5
49	MP1C	X	-13.807	.5
50	MP1C	Z	-23.915	.5
51	MP1C	Mx	-.014	.5
52	MP1C	X	-13.807	2.5
53	MP1C	Z	-23.915	2.5
54	MP1C	Mx	-.014	2.5
55	M61	X	-57.32	1
56	M61	Z	-99.281	1
57	M61	Mx	.029	1
58	MP4A	X	-25.738	2
59	MP4A	Z	-44.58	2
60	MP4A	Mx	-.013	2
61	MP4B	X	-26.976	2
62	MP4B	Z	-46.723	2
63	MP4B	Mx	-.009	2
64	MP4C	X	-18.76	2
65	MP4C	Z	-32.492	2
66	MP4C	Mx	.019	2
67	MP3A	X	-25.316	2
68	MP3A	Z	-43.849	2
69	MP3A	Mx	-.013	2
70	MP3B	X	-26.778	2
71	MP3B	Z	-46.381	2
72	MP3B	Mx	-.009	2
73	MP3C	X	-17.071	2
74	MP3C	Z	-29.568	2
75	MP3C	Mx	.017	2
76	MP2A	X	-50.403	.5
77	MP2A	Z	-87.301	.5
78	MP2A	Mx	.025	.5
79	MP2A	X	-50.403	3.5
80	MP2A	Z	-87.301	3.5
81	MP2A	Mx	.025	3.5
82	MP2B	X	-53.809	.5
83	MP2B	Z	-93.2	.5
84	MP2B	Mx	.018	.5
85	MP2B	X	-53.809	3.5
86	MP2B	Z	-93.2	3.5
87	MP2B	Mx	.018	3.5
88	MP2C	X	-31.202	.5
89	MP2C	Z	-54.043	.5
90	MP2C	Mx	-.031	.5
91	MP2C	X	-31.202	3.5
92	MP2C	Z	-54.043	3.5
93	MP2C	Mx	-.031	3.5
94	MP4A	X	-7.209	4
95	MP4A	Z	-12.486	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
96	MP4A	Mx	-.011	4
97	MP4A	X	-7.209	5
98	MP4A	Z	-12.486	5
99	MP4A	Mx	-.011	5
100	MP4B	X	-7.206	4
101	MP4B	Z	-12.481	4
102	MP4B	Mx	-.000415	4
103	MP4B	X	-7.206	5
104	MP4B	Z	-12.481	5
105	MP4B	Mx	-.000415	5
106	MP4C	X	-7.225	4
107	MP4C	Z	-12.514	4
108	MP4C	Mx	.014	4
109	MP4C	X	-7.225	5
110	MP4C	Z	-12.514	5
111	MP4C	Mx	.014	5
112	MP4A	X	-7.209	4
113	MP4A	Z	-12.486	4
114	MP4A	Mx	-.003	4
115	MP4A	X	-7.209	5
116	MP4A	Z	-12.486	5
117	MP4A	Mx	-.003	5
118	MP4B	X	-7.206	4
119	MP4B	Z	-12.481	4
120	MP4B	Mx	-.009	4
121	MP4B	X	-7.206	5
122	MP4B	Z	-12.481	5
123	MP4B	Mx	-.009	5
124	MP4C	X	-7.225	4
125	MP4C	Z	-12.514	4
126	MP4C	Mx	.014	4
127	MP4C	X	-7.225	5
128	MP4C	Z	-12.514	5
129	MP4C	Mx	.014	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	.5
2	MP4A	Z	-27.958	.5
3	MP4A	Mx	-.021	.5
4	MP4A	X	0	3.5
5	MP4A	Z	-27.958	3.5
6	MP4A	Mx	-.021	3.5
7	MP4B	X	0	.5
8	MP4B	Z	-23.956	.5
9	MP4B	Mx	.021	.5
10	MP4B	X	0	3.5
11	MP4B	Z	-23.956	3.5
12	MP4B	Mx	.021	3.5
13	MP4C	X	0	.5
14	MP4C	Z	-22.843	.5
15	MP4C	Mx	-.001	.5
16	MP4C	X	0	3.5
17	MP4C	Z	-22.843	3.5
18	MP4C	Mx	-.001	3.5
19	MP4A	X	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
20	MP4A	Z	-27.958	.5
21	MP4A	Mx	.021	.5
22	MP4A	X	0	3.5
23	MP4A	Z	-27.958	3.5
24	MP4A	Mx	.021	3.5
25	MP4B	X	0	.5
26	MP4B	Z	-23.956	.5
27	MP4B	Mx	-.002	.5
28	MP4B	X	0	3.5
29	MP4B	Z	-23.956	3.5
30	MP4B	Mx	-.002	3.5
31	MP4C	X	0	.5
32	MP4C	Z	-22.843	.5
33	MP4C	Mx	-.018	.5
34	MP4C	X	0	3.5
35	MP4C	Z	-22.843	3.5
36	MP4C	Mx	-.018	3.5
37	MP1A	X	0	.5
38	MP1A	Z	-13.777	.5
39	MP1A	Mx	0	.5
40	MP1A	X	0	2.5
41	MP1A	Z	-13.777	2.5
42	MP1A	Mx	0	2.5
43	MP1B	X	0	.5
44	MP1B	Z	-9.126	.5
45	MP1B	Mx	.003	.5
46	MP1B	X	0	2.5
47	MP1B	Z	-9.126	2.5
48	MP1B	Mx	.003	2.5
49	MP1C	X	0	.5
50	MP1C	Z	-7.833	.5
51	MP1C	Mx	-.003	.5
52	MP1C	X	0	2.5
53	MP1C	Z	-7.833	2.5
54	MP1C	Mx	-.003	2.5
55	M61	X	0	1
56	M61	Z	-23.859	1
57	M61	Mx	0	1
58	MP4A	X	0	2
59	MP4A	Z	-11.589	2
60	MP4A	Mx	0	2
61	MP4B	X	0	2
62	MP4B	Z	-9.512	2
63	MP4B	Mx	-.004	2
64	MP4C	X	0	2
65	MP4C	Z	-8.935	2
66	MP4C	Mx	.004	2
67	MP3A	X	0	2
68	MP3A	Z	-11.589	2
69	MP3A	Mx	0	2
70	MP3B	X	0	2
71	MP3B	Z	-9.139	2
72	MP3B	Mx	-.004	2
73	MP3C	X	0	2
74	MP3C	Z	-8.457	2
75	MP3C	Mx	.004	2
76	MP2A	X	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
77	MP2A	Z	-21.76	.5
78	MP2A	Mx	0	.5
79	MP2A	X	0	3.5
80	MP2A	Z	-21.76	3.5
81	MP2A	Mx	0	3.5
82	MP2B	X	0	.5
83	MP2B	Z	-16.454	.5
84	MP2B	Mx	.006	.5
85	MP2B	X	0	3.5
86	MP2B	Z	-16.454	3.5
87	MP2B	Mx	.006	3.5
88	MP2C	X	0	.5
89	MP2C	Z	-14.979	.5
90	MP2C	Mx	-.006	.5
91	MP2C	X	0	3.5
92	MP2C	Z	-14.979	3.5
93	MP2C	Mx	-.006	3.5
94	MP4A	X	0	4
95	MP4A	Z	-1.189	4
96	MP4A	Mx	-.000396	4
97	MP4A	X	0	5
98	MP4A	Z	-1.189	5
99	MP4A	Mx	-.000396	5
100	MP4B	X	0	4
101	MP4B	Z	-2.356	4
102	MP4B	Mx	-.001	4
103	MP4B	X	0	5
104	MP4B	Z	-2.356	5
105	MP4B	Mx	-.001	5
106	MP4C	X	0	4
107	MP4C	Z	-2.681	4
108	MP4C	Mx	.003	4
109	MP4C	X	0	5
110	MP4C	Z	-2.681	5
111	MP4C	Mx	.003	5
112	MP4A	X	0	4
113	MP4A	Z	-1.189	4
114	MP4A	Mx	.000396	4
115	MP4A	X	0	5
116	MP4A	Z	-1.189	5
117	MP4A	Mx	.000396	5
118	MP4B	X	0	4
119	MP4B	Z	-2.356	4
120	MP4B	Mx	-.002	4
121	MP4B	X	0	5
122	MP4B	Z	-2.356	5
123	MP4B	Mx	-.002	5
124	MP4C	X	0	4
125	MP4C	Z	-2.681	4
126	MP4C	Mx	.002	4
127	MP4C	X	0	5
128	MP4C	Z	-2.681	5
129	MP4C	Mx	.002	5

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
1	MP4A	X	13.127	.5
2	MP4A	Z	-22.736	.5
3	MP4A	Mx	-.024	.5
4	MP4A	X	13.127	3.5
5	MP4A	Z	-22.736	3.5
6	MP4A	Mx	-.024	3.5
7	MP4B	X	10.671	.5
8	MP4B	Z	-18.483	.5
9	MP4B	Mx	.013	.5
10	MP4B	X	10.671	3.5
11	MP4B	Z	-18.483	3.5
12	MP4B	Mx	.013	3.5
13	MP4C	X	13.127	.5
14	MP4C	Z	-22.736	.5
15	MP4C	Mx	.01	.5
16	MP4C	X	13.127	3.5
17	MP4C	Z	-22.736	3.5
18	MP4C	Mx	.01	3.5
19	MP4A	X	13.127	.5
20	MP4A	Z	-22.736	.5
21	MP4A	Mx	.01	.5
22	MP4A	X	13.127	3.5
23	MP4A	Z	-22.736	3.5
24	MP4A	Mx	.01	3.5
25	MP4B	X	10.671	.5
26	MP4B	Z	-18.483	.5
27	MP4B	Mx	.008	.5
28	MP4B	X	10.671	3.5
29	MP4B	Z	-18.483	3.5
30	MP4B	Mx	.008	3.5
31	MP4C	X	13.127	.5
32	MP4C	Z	-22.736	.5
33	MP4C	Mx	-.024	.5
34	MP4C	X	13.127	3.5
35	MP4C	Z	-22.736	3.5
36	MP4C	Mx	-.024	3.5
37	MP1A	X	5.898	.5
38	MP1A	Z	-10.215	.5
39	MP1A	Mx	-.003	.5
40	MP1A	X	5.898	2.5
41	MP1A	Z	-10.215	2.5
42	MP1A	Mx	-.003	2.5
43	MP1B	X	3.045	.5
44	MP1B	Z	-5.274	.5
45	MP1B	Mx	.003	.5
46	MP1B	X	3.045	2.5
47	MP1B	Z	-5.274	2.5
48	MP1B	Mx	.003	2.5
49	MP1C	X	5.898	.5
50	MP1C	Z	-10.215	.5
51	MP1C	Mx	-.003	.5
52	MP1C	X	5.898	2.5
53	MP1C	Z	-10.215	2.5
54	MP1C	Mx	-.003	2.5
55	M61	X	11.277	1
56	M61	Z	-19.533	1
57	M61	Mx	-.006	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP4A	X	5.352	2
59	MP4A	Z	-9.27	2
60	MP4A	Mx	.003	2
61	MP4B	X	4.078	2
62	MP4B	Z	-7.064	2
63	MP4B	Mx	-.004	2
64	MP4C	X	5.352	2
65	MP4C	Z	-9.27	2
66	MP4C	Mx	.003	2
67	MP3A	X	5.273	2
68	MP3A	Z	-9.132	2
69	MP3A	Mx	.003	2
70	MP3B	X	3.77	2
71	MP3B	Z	-6.529	2
72	MP3B	Mx	-.004	2
73	MP3C	X	5.273	2
74	MP3C	Z	-9.132	2
75	MP3C	Mx	.003	2
76	MP2A	X	9.75	.5
77	MP2A	Z	-16.887	.5
78	MP2A	Mx	-.005	.5
79	MP2A	X	9.75	3.5
80	MP2A	Z	-16.887	3.5
81	MP2A	Mx	-.005	3.5
82	MP2B	X	6.496	.5
83	MP2B	Z	-11.251	.5
84	MP2B	Mx	.006	.5
85	MP2B	X	6.496	3.5
86	MP2B	Z	-11.251	3.5
87	MP2B	Mx	.006	3.5
88	MP2C	X	9.75	.5
89	MP2C	Z	-16.887	.5
90	MP2C	Mx	-.005	.5
91	MP2C	X	9.75	3.5
92	MP2C	Z	-16.887	3.5
93	MP2C	Mx	-.005	3.5
94	MP4A	X	.843	4
95	MP4A	Z	-1.46	4
96	MP4A	Mx	.000356	4
97	MP4A	X	.843	5
98	MP4A	Z	-1.46	5
99	MP4A	Mx	.000356	5
100	MP4B	X	1.559	4
101	MP4B	Z	-2.7	4
102	MP4B	Mx	-.003	4
103	MP4B	X	1.559	5
104	MP4B	Z	-2.7	5
105	MP4B	Mx	-.003	5
106	MP4C	X	.843	4
107	MP4C	Z	-1.46	4
108	MP4C	Mx	.001	4
109	MP4C	X	.843	5
110	MP4C	Z	-1.46	5
111	MP4C	Mx	.001	5
112	MP4A	X	.843	4
113	MP4A	Z	-1.46	4
114	MP4A	Mx	.001	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
115	MP4A	X	.843	5
116	MP4A	Z	-1.46	5
117	MP4A	Mx	.001	5
118	MP4B	X	1.559	4
119	MP4B	Z	-2.7	4
120	MP4B	Mx	-.003	4
121	MP4B	X	1.559	5
122	MP4B	Z	-2.7	5
123	MP4B	Mx	-.003	5
124	MP4C	X	.843	4
125	MP4C	Z	-1.46	4
126	MP4C	Mx	.000356	4
127	MP4C	X	.843	5
128	MP4C	Z	-1.46	5
129	MP4C	Mx	.000356	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	19.782	.5
2	MP4A	Z	-11.421	.5
3	MP4A	Mx	-.018	.5
4	MP4A	X	19.782	3.5
5	MP4A	Z	-11.421	3.5
6	MP4A	Mx	-.018	3.5
7	MP4B	X	18.996	.5
8	MP4B	Z	-10.968	.5
9	MP4B	Mx	.005	.5
10	MP4B	X	18.996	3.5
11	MP4B	Z	-10.968	3.5
12	MP4B	Mx	.005	3.5
13	MP4C	X	24.213	.5
14	MP4C	Z	-13.979	.5
15	MP4C	Mx	.021	.5
16	MP4C	X	24.213	3.5
17	MP4C	Z	-13.979	3.5
18	MP4C	Mx	.021	3.5
19	MP4A	X	19.782	.5
20	MP4A	Z	-11.421	.5
21	MP4A	Mx	-.001	.5
22	MP4A	X	19.782	3.5
23	MP4A	Z	-11.421	3.5
24	MP4A	Mx	-.001	3.5
25	MP4B	X	18.996	.5
26	MP4B	Z	-10.968	.5
27	MP4B	Mx	.016	.5
28	MP4B	X	18.996	3.5
29	MP4B	Z	-10.968	3.5
30	MP4B	Mx	.016	3.5
31	MP4C	X	24.213	.5
32	MP4C	Z	-13.979	.5
33	MP4C	Mx	-.021	.5
34	MP4C	X	24.213	3.5
35	MP4C	Z	-13.979	3.5
36	MP4C	Mx	-.021	3.5
37	MP1A	X	6.783	.5
38	MP1A	Z	-3.916	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
39	MP1A	Mx	-.003	.5
40	MP1A	X	6.783	2.5
41	MP1A	Z	-3.916	2.5
42	MP1A	Mx	-.003	2.5
43	MP1B	X	5.87	.5
44	MP1B	Z	-3.389	.5
45	MP1B	Mx	.003	.5
46	MP1B	X	5.87	2.5
47	MP1B	Z	-3.389	2.5
48	MP1B	Mx	.003	2.5
49	MP1C	X	11.932	.5
50	MP1C	Z	-6.889	.5
51	MP1C	Mx	0	.5
52	MP1C	X	11.932	2.5
53	MP1C	Z	-6.889	2.5
54	MP1C	Mx	0	2.5
55	M61	X	17.274	1
56	M61	Z	-9.973	1
57	M61	Mx	-.009	1
58	MP4A	X	7.738	2
59	MP4A	Z	-4.467	2
60	MP4A	Mx	.004	2
61	MP4B	X	7.33	2
62	MP4B	Z	-4.232	2
63	MP4B	Mx	-.004	2
64	MP4C	X	10.037	2
65	MP4C	Z	-5.795	2
66	MP4C	Mx	0	2
67	MP3A	X	7.324	2
68	MP3A	Z	-4.229	2
69	MP3A	Mx	.004	2
70	MP3B	X	6.843	2
71	MP3B	Z	-3.951	2
72	MP3B	Mx	-.004	2
73	MP3C	X	10.037	2
74	MP3C	Z	-5.795	2
75	MP3C	Mx	0	2
76	MP2A	X	12.972	.5
77	MP2A	Z	-7.489	.5
78	MP2A	Mx	-.006	.5
79	MP2A	X	12.972	3.5
80	MP2A	Z	-7.489	3.5
81	MP2A	Mx	-.006	3.5
82	MP2B	X	11.931	.5
83	MP2B	Z	-6.888	.5
84	MP2B	Mx	.006	.5
85	MP2B	X	11.931	3.5
86	MP2B	Z	-6.888	3.5
87	MP2B	Mx	.006	3.5
88	MP2C	X	18.845	.5
89	MP2C	Z	-10.88	.5
90	MP2C	Mx	0	.5
91	MP2C	X	18.845	3.5
92	MP2C	Z	-10.88	3.5
93	MP2C	Mx	0	3.5
94	MP4A	X	2.322	4
95	MP4A	Z	-1.34	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft, %]
96	MP4A	Mx	.002	4
97	MP4A	X	2.322	5
98	MP4A	Z	-1.34	5
99	MP4A	Mx	.002	5
100	MP4B	X	2.551	4
101	MP4B	Z	-1.473	4
102	MP4B	Mx	-.003	4
103	MP4B	X	2.551	5
104	MP4B	Z	-1.473	5
105	MP4B	Mx	-.003	5
106	MP4C	X	1.029	4
107	MP4C	Z	-.594	4
108	MP4C	Mx	.000396	4
109	MP4C	X	1.029	5
110	MP4C	Z	-.594	5
111	MP4C	Mx	.000396	5
112	MP4A	X	2.322	4
113	MP4A	Z	-1.34	4
114	MP4A	Mx	.003	4
115	MP4A	X	2.322	5
116	MP4A	Z	-1.34	5
117	MP4A	Mx	.003	5
118	MP4B	X	2.551	4
119	MP4B	Z	-1.473	4
120	MP4B	Mx	-.002	4
121	MP4B	X	2.551	5
122	MP4B	Z	-1.473	5
123	MP4B	Mx	-.002	5
124	MP4C	X	1.029	4
125	MP4C	Z	-.594	4
126	MP4C	Mx	-.000396	4
127	MP4C	X	1.029	5
128	MP4C	Z	-.594	5
129	MP4C	Mx	-.000396	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft, %]
1	MP4A	X	21.137	.5
2	MP4A	Z	0	.5
3	MP4A	Mx	-.011	.5
4	MP4A	X	21.137	3.5
5	MP4A	Z	0	3.5
6	MP4A	Mx	-.011	3.5
7	MP4B	X	25.14	.5
8	MP4B	Z	0	.5
9	MP4B	Mx	-.006	.5
10	MP4B	X	25.14	3.5
11	MP4B	Z	0	3.5
12	MP4B	Mx	-.006	3.5
13	MP4C	X	26.253	.5
14	MP4C	Z	0	.5
15	MP4C	Mx	.024	.5
16	MP4C	X	26.253	3.5
17	MP4C	Z	0	3.5
18	MP4C	Mx	.024	3.5
19	MP4A	X	21.137	.5



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
20	MP4A	Z	0	.5
21	MP4A	Mx	-.011	.5
22	MP4A	X	21.137	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	-.011	3.5
25	MP4B	X	25.14	.5
26	MP4B	Z	0	.5
27	MP4B	Mx	.023	.5
28	MP4B	X	25.14	3.5
29	MP4B	Z	0	3.5
30	MP4B	Mx	.023	3.5
31	MP4C	X	26.253	.5
32	MP4C	Z	0	.5
33	MP4C	Mx	-.01	.5
34	MP4C	X	26.253	3.5
35	MP4C	Z	0	3.5
36	MP4C	Mx	-.01	3.5
37	MP1A	X	5.851	.5
38	MP1A	Z	0	.5
39	MP1A	Mx	-.003	.5
40	MP1A	X	5.851	2.5
41	MP1A	Z	0	2.5
42	MP1A	Mx	-.003	2.5
43	MP1B	X	10.502	.5
44	MP1B	Z	0	.5
45	MP1B	Mx	.003	.5
46	MP1B	X	10.502	2.5
47	MP1B	Z	0	2.5
48	MP1B	Mx	.003	2.5
49	MP1C	X	11.796	.5
50	MP1C	Z	0	.5
51	MP1C	Mx	.003	.5
52	MP1C	X	11.796	2.5
53	MP1C	Z	0	2.5
54	MP1C	Mx	.003	2.5
55	M61	X	18.642	1
56	M61	Z	0	1
57	M61	Mx	-.009	1
58	MP4A	X	8.05	2
59	MP4A	Z	0	2
60	MP4A	Mx	.004	2
61	MP4B	X	10.127	2
62	MP4B	Z	0	2
63	MP4B	Mx	-.003	2
64	MP4C	X	10.704	2
65	MP4C	Z	0	2
66	MP4C	Mx	-.003	2
67	MP3A	X	7.413	2
68	MP3A	Z	0	2
69	MP3A	Mx	.004	2
70	MP3B	X	9.864	2
71	MP3B	Z	0	2
72	MP3B	Mx	-.003	2
73	MP3C	X	10.545	2
74	MP3C	Z	0	2
75	MP3C	Mx	-.003	2
76	MP2A	X	12.719	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft, %]
77	MP2A	Z	0	.5
78	MP2A	Mx	-.006	.5
79	MP2A	X	12.719	3.5
80	MP2A	Z	0	3.5
81	MP2A	Mx	-.006	3.5
82	MP2B	X	18.024	.5
83	MP2B	Z	0	.5
84	MP2B	Mx	.006	.5
85	MP2B	X	18.024	3.5
86	MP2B	Z	0	3.5
87	MP2B	Mx	.006	3.5
88	MP2C	X	19.5	.5
89	MP2C	Z	0	.5
90	MP2C	Mx	.005	.5
91	MP2C	X	19.5	3.5
92	MP2C	Z	0	3.5
93	MP2C	Mx	.005	3.5
94	MP4A	X	3.178	4
95	MP4A	Z	0	4
96	MP4A	Mx	.003	4
97	MP4A	X	3.178	5
98	MP4A	Z	0	5
99	MP4A	Mx	.003	5
100	MP4B	X	2.011	4
101	MP4B	Z	0	4
102	MP4B	Mx	-.002	4
103	MP4B	X	2.011	5
104	MP4B	Z	0	5
105	MP4B	Mx	-.002	5
106	MP4C	X	1.686	4
107	MP4C	Z	0	4
108	MP4C	Mx	-.000356	4
109	MP4C	X	1.686	5
110	MP4C	Z	0	5
111	MP4C	Mx	-.000356	5
112	MP4A	X	3.178	4
113	MP4A	Z	0	4
114	MP4A	Mx	.003	4
115	MP4A	X	3.178	5
116	MP4A	Z	0	5
117	MP4A	Mx	.003	5
118	MP4B	X	2.011	4
119	MP4B	Z	0	4
120	MP4B	Mx	-.000779	4
121	MP4B	X	2.011	5
122	MP4B	Z	0	5
123	MP4B	Mx	-.000779	5
124	MP4C	X	1.686	4
125	MP4C	Z	0	4
126	MP4C	Mx	-.001	4
127	MP4C	X	1.686	5
128	MP4C	Z	0	5
129	MP4C	Mx	-.001	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
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 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	19.782	.5
2	MP4A	Z	11.421	.5
3	MP4A	Mx	-.001	.5
4	MP4A	X	19.782	3.5
5	MP4A	Z	11.421	3.5
6	MP4A	Mx	-.001	3.5
7	MP4B	X	24.035	.5
8	MP4B	Z	13.876	.5
9	MP4B	Mx	-.018	.5
10	MP4B	X	24.035	3.5
11	MP4B	Z	13.876	3.5
12	MP4B	Mx	-.018	3.5
13	MP4C	X	19.782	.5
14	MP4C	Z	11.421	.5
15	MP4C	Mx	.018	.5
16	MP4C	X	19.782	3.5
17	MP4C	Z	11.421	3.5
18	MP4C	Mx	.018	3.5
19	MP4A	X	19.782	.5
20	MP4A	Z	11.421	.5
21	MP4A	Mx	-.018	.5
22	MP4A	X	19.782	3.5
23	MP4A	Z	11.421	3.5
24	MP4A	Mx	-.018	3.5
25	MP4B	X	24.035	.5
26	MP4B	Z	13.876	.5
27	MP4B	Mx	.023	.5
28	MP4B	X	24.035	3.5
29	MP4B	Z	13.876	3.5
30	MP4B	Mx	.023	3.5
31	MP4C	X	19.782	.5
32	MP4C	Z	11.421	.5
33	MP4C	Mx	.001	.5
34	MP4C	X	19.782	3.5
35	MP4C	Z	11.421	3.5
36	MP4C	Mx	.001	3.5
37	MP1A	X	6.783	.5
38	MP1A	Z	3.916	.5
39	MP1A	Mx	-.003	.5
40	MP1A	X	6.783	2.5
41	MP1A	Z	3.916	2.5
42	MP1A	Mx	-.003	2.5
43	MP1B	X	11.725	.5
44	MP1B	Z	6.769	.5
45	MP1B	Mx	.001	.5
46	MP1B	X	11.725	2.5
47	MP1B	Z	6.769	2.5
48	MP1B	Mx	.001	2.5
49	MP1C	X	6.783	.5
50	MP1C	Z	3.916	.5
51	MP1C	Mx	.003	.5
52	MP1C	X	6.783	2.5
53	MP1C	Z	3.916	2.5
54	MP1C	Mx	.003	2.5
55	M61	X	17.274	1
56	M61	Z	9.973	1
57	M61	Mx	-.009	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
58	MP4A	X	7.738	2
59	MP4A	Z	4.467	2
60	MP4A	Mx	.004	2
61	MP4B	X	9.944	2
62	MP4B	Z	5.741	2
63	MP4B	Mx	-.000997	2
64	MP4C	X	7.738	2
65	MP4C	Z	4.467	2
66	MP4C	Mx	-.004	2
67	MP3A	X	7.324	2
68	MP3A	Z	4.229	2
69	MP3A	Mx	.004	2
70	MP3B	X	9.927	2
71	MP3B	Z	5.732	2
72	MP3B	Mx	-.000995	2
73	MP3C	X	7.324	2
74	MP3C	Z	4.229	2
75	MP3C	Mx	-.004	2
76	MP2A	X	12.972	.5
77	MP2A	Z	7.489	.5
78	MP2A	Mx	-.006	.5
79	MP2A	X	12.972	3.5
80	MP2A	Z	7.489	3.5
81	MP2A	Mx	-.006	3.5
82	MP2B	X	18.608	.5
83	MP2B	Z	10.744	.5
84	MP2B	Mx	.002	.5
85	MP2B	X	18.608	3.5
86	MP2B	Z	10.744	3.5
87	MP2B	Mx	.002	3.5
88	MP2C	X	12.972	.5
89	MP2C	Z	7.489	.5
90	MP2C	Mx	.006	.5
91	MP2C	X	12.972	3.5
92	MP2C	Z	7.489	3.5
93	MP2C	Mx	.006	3.5
94	MP4A	X	2.322	4
95	MP4A	Z	1.34	4
96	MP4A	Mx	.003	4
97	MP4A	X	2.322	5
98	MP4A	Z	1.34	5
99	MP4A	Mx	.003	5
100	MP4B	X	1.081	4
101	MP4B	Z	.624	4
102	MP4B	Mx	-.000627	4
103	MP4B	X	1.081	5
104	MP4B	Z	.624	5
105	MP4B	Mx	-.000627	5
106	MP4C	X	2.322	4
107	MP4C	Z	1.34	4
108	MP4C	Mx	-.002	4
109	MP4C	X	2.322	5
110	MP4C	Z	1.34	5
111	MP4C	Mx	-.002	5
112	MP4A	X	2.322	4
113	MP4A	Z	1.34	4
114	MP4A	Mx	.002	4



Company : Colliers Engineering & Design
 Designer : DAB
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Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
115	MP4A	X	2.322	5
116	MP4A	Z	1.34	5
117	MP4A	Mx	.002	5
118	MP4B	X	1.081	4
119	MP4B	Z	.624	4
120	MP4B	Mx	.000193	4
121	MP4B	X	1.081	5
122	MP4B	Z	.624	5
123	MP4B	Mx	.000193	5
124	MP4C	X	2.322	4
125	MP4C	Z	1.34	4
126	MP4C	Mx	-.003	4
127	MP4C	X	2.322	5
128	MP4C	Z	1.34	5
129	MP4C	Mx	-.003	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	13.127	.5
2	MP4A	Z	22.736	.5
3	MP4A	Mx	.01	.5
4	MP4A	X	13.127	3.5
5	MP4A	Z	22.736	3.5
6	MP4A	Mx	.01	3.5
7	MP4B	X	13.58	.5
8	MP4B	Z	23.522	.5
9	MP4B	Mx	-.024	.5
10	MP4B	X	13.58	3.5
11	MP4B	Z	23.522	3.5
12	MP4B	Mx	-.024	3.5
13	MP4C	X	10.569	.5
14	MP4C	Z	18.305	.5
15	MP4C	Mx	.011	.5
16	MP4C	X	10.569	3.5
17	MP4C	Z	18.305	3.5
18	MP4C	Mx	.011	3.5
19	MP4A	X	13.127	.5
20	MP4A	Z	22.736	.5
21	MP4A	Mx	-.024	.5
22	MP4A	X	13.127	3.5
23	MP4A	Z	22.736	3.5
24	MP4A	Mx	-.024	3.5
25	MP4B	X	13.58	.5
26	MP4B	Z	23.522	.5
27	MP4B	Mx	.014	.5
28	MP4B	X	13.58	3.5
29	MP4B	Z	23.522	3.5
30	MP4B	Mx	.014	3.5
31	MP4C	X	10.569	.5
32	MP4C	Z	18.305	.5
33	MP4C	Mx	.011	.5
34	MP4C	X	10.569	3.5
35	MP4C	Z	18.305	3.5
36	MP4C	Mx	.011	3.5
37	MP1A	X	5.898	.5
38	MP1A	Z	10.215	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
39	MP1A	Mx	-.003	.5
40	MP1A	X	5.898	2.5
41	MP1A	Z	10.215	2.5
42	MP1A	Mx	-.003	2.5
43	MP1B	X	6.425	.5
44	MP1B	Z	11.129	.5
45	MP1B	Mx	-.002	.5
46	MP1B	X	6.425	2.5
47	MP1B	Z	11.129	2.5
48	MP1B	Mx	-.002	2.5
49	MP1C	X	2.926	.5
50	MP1C	Z	5.067	.5
51	MP1C	Mx	.003	.5
52	MP1C	X	2.926	2.5
53	MP1C	Z	5.067	2.5
54	MP1C	Mx	.003	2.5
55	M61	X	11.277	1
56	M61	Z	19.533	1
57	M61	Mx	-.006	1
58	MP4A	X	5.352	2
59	MP4A	Z	9.27	2
60	MP4A	Mx	.003	2
61	MP4B	X	5.588	2
62	MP4B	Z	9.678	2
63	MP4B	Mx	.002	2
64	MP4C	X	4.025	2
65	MP4C	Z	6.972	2
66	MP4C	Mx	-.004	2
67	MP3A	X	5.273	2
68	MP3A	Z	9.132	2
69	MP3A	Mx	.003	2
70	MP3B	X	5.55	2
71	MP3B	Z	9.613	2
72	MP3B	Mx	.002	2
73	MP3C	X	3.707	2
74	MP3C	Z	6.42	2
75	MP3C	Mx	-.004	2
76	MP2A	X	9.75	.5
77	MP2A	Z	16.887	.5
78	MP2A	Mx	-.005	.5
79	MP2A	X	9.75	3.5
80	MP2A	Z	16.887	3.5
81	MP2A	Mx	-.005	3.5
82	MP2B	X	10.351	.5
83	MP2B	Z	17.929	.5
84	MP2B	Mx	-.004	.5
85	MP2B	X	10.351	3.5
86	MP2B	Z	17.929	3.5
87	MP2B	Mx	-.004	3.5
88	MP2C	X	6.359	.5
89	MP2C	Z	11.015	.5
90	MP2C	Mx	.006	.5
91	MP2C	X	6.359	3.5
92	MP2C	Z	11.015	3.5
93	MP2C	Mx	.006	3.5
94	MP4A	X	.843	4
95	MP4A	Z	1.46	4



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
96	MP4A	Mx	.001	4
97	MP4A	X	.843	5
98	MP4A	Z	1.46	5
99	MP4A	Mx	.001	5
100	MP4B	X	.711	4
101	MP4B	Z	1.231	4
102	MP4B	Mx	4.1e-5	4
103	MP4B	X	.711	5
104	MP4B	Z	1.231	5
105	MP4B	Mx	4.1e-5	5
106	MP4C	X	1.589	4
107	MP4C	Z	2.752	4
108	MP4C	Mx	-.003	4
109	MP4C	X	1.589	5
110	MP4C	Z	2.752	5
111	MP4C	Mx	-.003	5
112	MP4A	X	.843	4
113	MP4A	Z	1.46	4
114	MP4A	Mx	.000356	4
115	MP4A	X	.843	5
116	MP4A	Z	1.46	5
117	MP4A	Mx	.000356	5
118	MP4B	X	.711	4
119	MP4B	Z	1.231	4
120	MP4B	Mx	.000931	4
121	MP4B	X	.711	5
122	MP4B	Z	1.231	5
123	MP4B	Mx	.000931	5
124	MP4C	X	1.589	4
125	MP4C	Z	2.752	4
126	MP4C	Mx	-.003	4
127	MP4C	X	1.589	5
128	MP4C	Z	2.752	5
129	MP4C	Mx	-.003	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	0	.5
2	MP4A	Z	27.958	.5
3	MP4A	Mx	.021	.5
4	MP4A	X	0	3.5
5	MP4A	Z	27.958	3.5
6	MP4A	Mx	.021	3.5
7	MP4B	X	0	.5
8	MP4B	Z	23.956	.5
9	MP4B	Mx	-.021	.5
10	MP4B	X	0	3.5
11	MP4B	Z	23.956	3.5
12	MP4B	Mx	-.021	3.5
13	MP4C	X	0	.5
14	MP4C	Z	22.843	.5
15	MP4C	Mx	.001	.5
16	MP4C	X	0	3.5
17	MP4C	Z	22.843	3.5
18	MP4C	Mx	.001	3.5
19	MP4A	X	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
20	MP4A	Z	27.958	.5
21	MP4A	Mx	-.021	.5
22	MP4A	X	0	3.5
23	MP4A	Z	27.958	3.5
24	MP4A	Mx	-.021	3.5
25	MP4B	X	0	.5
26	MP4B	Z	23.956	.5
27	MP4B	Mx	.002	.5
28	MP4B	X	0	3.5
29	MP4B	Z	23.956	3.5
30	MP4B	Mx	.002	3.5
31	MP4C	X	0	.5
32	MP4C	Z	22.843	.5
33	MP4C	Mx	.018	.5
34	MP4C	X	0	3.5
35	MP4C	Z	22.843	3.5
36	MP4C	Mx	.018	3.5
37	MP1A	X	0	.5
38	MP1A	Z	13.777	.5
39	MP1A	Mx	0	.5
40	MP1A	X	0	2.5
41	MP1A	Z	13.777	2.5
42	MP1A	Mx	0	2.5
43	MP1B	X	0	.5
44	MP1B	Z	9.126	.5
45	MP1B	Mx	-.003	.5
46	MP1B	X	0	2.5
47	MP1B	Z	9.126	2.5
48	MP1B	Mx	-.003	2.5
49	MP1C	X	0	.5
50	MP1C	Z	7.833	.5
51	MP1C	Mx	.003	.5
52	MP1C	X	0	2.5
53	MP1C	Z	7.833	2.5
54	MP1C	Mx	.003	2.5
55	M61	X	0	1
56	M61	Z	23.859	1
57	M61	Mx	0	1
58	MP4A	X	0	2
59	MP4A	Z	11.589	2
60	MP4A	Mx	0	2
61	MP4B	X	0	2
62	MP4B	Z	9.512	2
63	MP4B	Mx	.004	2
64	MP4C	X	0	2
65	MP4C	Z	8.935	2
66	MP4C	Mx	-.004	2
67	MP3A	X	0	2
68	MP3A	Z	11.589	2
69	MP3A	Mx	0	2
70	MP3B	X	0	2
71	MP3B	Z	9.139	2
72	MP3B	Mx	.004	2
73	MP3C	X	0	2
74	MP3C	Z	8.457	2
75	MP3C	Mx	-.004	2
76	MP2A	X	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft, %]
77	MP2A	Z	21.76	.5
78	MP2A	Mx	0	.5
79	MP2A	X	0	3.5
80	MP2A	Z	21.76	3.5
81	MP2A	Mx	0	3.5
82	MP2B	X	0	.5
83	MP2B	Z	16.454	.5
84	MP2B	Mx	-.006	.5
85	MP2B	X	0	3.5
86	MP2B	Z	16.454	3.5
87	MP2B	Mx	-.006	3.5
88	MP2C	X	0	.5
89	MP2C	Z	14.979	.5
90	MP2C	Mx	.006	.5
91	MP2C	X	0	3.5
92	MP2C	Z	14.979	3.5
93	MP2C	Mx	.006	3.5
94	MP4A	X	0	4
95	MP4A	Z	1.189	4
96	MP4A	Mx	.000396	4
97	MP4A	X	0	5
98	MP4A	Z	1.189	5
99	MP4A	Mx	.000396	5
100	MP4B	X	0	4
101	MP4B	Z	2.356	4
102	MP4B	Mx	.001	4
103	MP4B	X	0	5
104	MP4B	Z	2.356	5
105	MP4B	Mx	.001	5
106	MP4C	X	0	4
107	MP4C	Z	2.681	4
108	MP4C	Mx	-.003	4
109	MP4C	X	0	5
110	MP4C	Z	2.681	5
111	MP4C	Mx	-.003	5
112	MP4A	X	0	4
113	MP4A	Z	1.189	4
114	MP4A	Mx	-.000396	4
115	MP4A	X	0	5
116	MP4A	Z	1.189	5
117	MP4A	Mx	-.000396	5
118	MP4B	X	0	4
119	MP4B	Z	2.356	4
120	MP4B	Mx	.002	4
121	MP4B	X	0	5
122	MP4B	Z	2.356	5
123	MP4B	Mx	.002	5
124	MP4C	X	0	4
125	MP4C	Z	2.681	4
126	MP4C	Mx	-.002	4
127	MP4C	X	0	5
128	MP4C	Z	2.681	5
129	MP4C	Mx	-.002	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
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Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	-13.127	.5
2	MP4A	Z	22.736	.5
3	MP4A	Mx	.024	.5
4	MP4A	X	-13.127	3.5
5	MP4A	Z	22.736	3.5
6	MP4A	Mx	.024	3.5
7	MP4B	X	-10.671	.5
8	MP4B	Z	18.483	.5
9	MP4B	Mx	-.013	.5
10	MP4B	X	-10.671	3.5
11	MP4B	Z	18.483	3.5
12	MP4B	Mx	-.013	3.5
13	MP4C	X	-13.127	.5
14	MP4C	Z	22.736	.5
15	MP4C	Mx	-.01	.5
16	MP4C	X	-13.127	3.5
17	MP4C	Z	22.736	3.5
18	MP4C	Mx	-.01	3.5
19	MP4A	X	-13.127	.5
20	MP4A	Z	22.736	.5
21	MP4A	Mx	-.01	.5
22	MP4A	X	-13.127	3.5
23	MP4A	Z	22.736	3.5
24	MP4A	Mx	-.01	3.5
25	MP4B	X	-10.671	.5
26	MP4B	Z	18.483	.5
27	MP4B	Mx	-.008	.5
28	MP4B	X	-10.671	3.5
29	MP4B	Z	18.483	3.5
30	MP4B	Mx	-.008	3.5
31	MP4C	X	-13.127	.5
32	MP4C	Z	22.736	.5
33	MP4C	Mx	.024	.5
34	MP4C	X	-13.127	3.5
35	MP4C	Z	22.736	3.5
36	MP4C	Mx	.024	3.5
37	MP1A	X	-5.898	.5
38	MP1A	Z	10.215	.5
39	MP1A	Mx	.003	.5
40	MP1A	X	-5.898	2.5
41	MP1A	Z	10.215	2.5
42	MP1A	Mx	.003	2.5
43	MP1B	X	-3.045	.5
44	MP1B	Z	5.274	.5
45	MP1B	Mx	-.003	.5
46	MP1B	X	-3.045	2.5
47	MP1B	Z	5.274	2.5
48	MP1B	Mx	-.003	2.5
49	MP1C	X	-5.898	.5
50	MP1C	Z	10.215	.5
51	MP1C	Mx	.003	.5
52	MP1C	X	-5.898	2.5
53	MP1C	Z	10.215	2.5
54	MP1C	Mx	.003	2.5
55	M61	X	-11.277	1
56	M61	Z	19.533	1
57	M61	Mx	.006	1



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

	Member Label	Direction	Magnitudel[lb.k-ft]	Location[ft, %]
58	MP4A	X	-5.352	2
59	MP4A	Z	9.27	2
60	MP4A	Mx	-.003	2
61	MP4B	X	-4.078	2
62	MP4B	Z	7.064	2
63	MP4B	Mx	.004	2
64	MP4C	X	-5.352	2
65	MP4C	Z	9.27	2
66	MP4C	Mx	-.003	2
67	MP3A	X	-5.273	2
68	MP3A	Z	9.132	2
69	MP3A	Mx	-.003	2
70	MP3B	X	-3.77	2
71	MP3B	Z	6.529	2
72	MP3B	Mx	.004	2
73	MP3C	X	-5.273	2
74	MP3C	Z	9.132	2
75	MP3C	Mx	-.003	2
76	MP2A	X	-9.75	.5
77	MP2A	Z	16.887	.5
78	MP2A	Mx	.005	.5
79	MP2A	X	-9.75	3.5
80	MP2A	Z	16.887	3.5
81	MP2A	Mx	.005	3.5
82	MP2B	X	-6.496	.5
83	MP2B	Z	11.251	.5
84	MP2B	Mx	-.006	.5
85	MP2B	X	-6.496	3.5
86	MP2B	Z	11.251	3.5
87	MP2B	Mx	-.006	3.5
88	MP2C	X	-9.75	.5
89	MP2C	Z	16.887	.5
90	MP2C	Mx	.005	.5
91	MP2C	X	-9.75	3.5
92	MP2C	Z	16.887	3.5
93	MP2C	Mx	.005	3.5
94	MP4A	X	-.843	4
95	MP4A	Z	1.46	4
96	MP4A	Mx	-.000356	4
97	MP4A	X	-.843	5
98	MP4A	Z	1.46	5
99	MP4A	Mx	-.000356	5
100	MP4B	X	-1.559	4
101	MP4B	Z	2.7	4
102	MP4B	Mx	.003	4
103	MP4B	X	-1.559	5
104	MP4B	Z	2.7	5
105	MP4B	Mx	.003	5
106	MP4C	X	-.843	4
107	MP4C	Z	1.46	4
108	MP4C	Mx	-.001	4
109	MP4C	X	-.843	5
110	MP4C	Z	1.46	5
111	MP4C	Mx	-.001	5
112	MP4A	X	-.843	4
113	MP4A	Z	1.46	4
114	MP4A	Mx	-.001	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
115	MP4A	X	-.843	5
116	MP4A	Z	1.46	5
117	MP4A	Mx	-.001	5
118	MP4B	X	-1.559	4
119	MP4B	Z	2.7	4
120	MP4B	Mx	.003	4
121	MP4B	X	-1.559	5
122	MP4B	Z	2.7	5
123	MP4B	Mx	.003	5
124	MP4C	X	-.843	4
125	MP4C	Z	1.46	4
126	MP4C	Mx	-.000356	4
127	MP4C	X	-.843	5
128	MP4C	Z	1.46	5
129	MP4C	Mx	-.000356	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	-19.782	.5
2	MP4A	Z	11.421	.5
3	MP4A	Mx	.018	.5
4	MP4A	X	-19.782	3.5
5	MP4A	Z	11.421	3.5
6	MP4A	Mx	.018	3.5
7	MP4B	X	-18.996	.5
8	MP4B	Z	10.968	.5
9	MP4B	Mx	-.005	.5
10	MP4B	X	-18.996	3.5
11	MP4B	Z	10.968	3.5
12	MP4B	Mx	-.005	3.5
13	MP4C	X	-24.213	.5
14	MP4C	Z	13.979	.5
15	MP4C	Mx	-.021	.5
16	MP4C	X	-24.213	3.5
17	MP4C	Z	13.979	3.5
18	MP4C	Mx	-.021	3.5
19	MP4A	X	-19.782	.5
20	MP4A	Z	11.421	.5
21	MP4A	Mx	.001	.5
22	MP4A	X	-19.782	3.5
23	MP4A	Z	11.421	3.5
24	MP4A	Mx	.001	3.5
25	MP4B	X	-18.996	.5
26	MP4B	Z	10.968	.5
27	MP4B	Mx	-.016	.5
28	MP4B	X	-18.996	3.5
29	MP4B	Z	10.968	3.5
30	MP4B	Mx	-.016	3.5
31	MP4C	X	-24.213	.5
32	MP4C	Z	13.979	.5
33	MP4C	Mx	.021	.5
34	MP4C	X	-24.213	3.5
35	MP4C	Z	13.979	3.5
36	MP4C	Mx	.021	3.5
37	MP1A	X	-6.783	.5
38	MP1A	Z	3.916	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
39	MP1A	Mx	.003	.5
40	MP1A	X	-6.783	2.5
41	MP1A	Z	3.916	2.5
42	MP1A	Mx	.003	2.5
43	MP1B	X	-5.87	.5
44	MP1B	Z	3.389	.5
45	MP1B	Mx	-.003	.5
46	MP1B	X	-5.87	2.5
47	MP1B	Z	3.389	2.5
48	MP1B	Mx	-.003	2.5
49	MP1C	X	-11.932	.5
50	MP1C	Z	6.889	.5
51	MP1C	Mx	0	.5
52	MP1C	X	-11.932	2.5
53	MP1C	Z	6.889	2.5
54	MP1C	Mx	0	2.5
55	M61	X	-17.274	1
56	M61	Z	9.973	1
57	M61	Mx	.009	1
58	MP4A	X	-7.738	2
59	MP4A	Z	4.467	2
60	MP4A	Mx	-.004	2
61	MP4B	X	-7.33	2
62	MP4B	Z	4.232	2
63	MP4B	Mx	.004	2
64	MP4C	X	-10.037	2
65	MP4C	Z	5.795	2
66	MP4C	Mx	0	2
67	MP3A	X	-7.324	2
68	MP3A	Z	4.229	2
69	MP3A	Mx	-.004	2
70	MP3B	X	-6.843	2
71	MP3B	Z	3.951	2
72	MP3B	Mx	.004	2
73	MP3C	X	-10.037	2
74	MP3C	Z	5.795	2
75	MP3C	Mx	0	2
76	MP2A	X	-12.972	.5
77	MP2A	Z	7.489	.5
78	MP2A	Mx	.006	.5
79	MP2A	X	-12.972	3.5
80	MP2A	Z	7.489	3.5
81	MP2A	Mx	.006	3.5
82	MP2B	X	-11.931	.5
83	MP2B	Z	6.888	.5
84	MP2B	Mx	-.006	.5
85	MP2B	X	-11.931	3.5
86	MP2B	Z	6.888	3.5
87	MP2B	Mx	-.006	3.5
88	MP2C	X	-18.845	.5
89	MP2C	Z	10.88	.5
90	MP2C	Mx	0	.5
91	MP2C	X	-18.845	3.5
92	MP2C	Z	10.88	3.5
93	MP2C	Mx	0	3.5
94	MP4A	X	-2.322	4
95	MP4A	Z	1.34	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
96	MP4A	Mx	-.002	4
97	MP4A	X	-2.322	5
98	MP4A	Z	1.34	5
99	MP4A	Mx	-.002	5
100	MP4B	X	-2.551	4
101	MP4B	Z	1.473	4
102	MP4B	Mx	.003	4
103	MP4B	X	-2.551	5
104	MP4B	Z	1.473	5
105	MP4B	Mx	.003	5
106	MP4C	X	-1.029	4
107	MP4C	Z	.594	4
108	MP4C	Mx	-.000396	4
109	MP4C	X	-1.029	5
110	MP4C	Z	.594	5
111	MP4C	Mx	-.000396	5
112	MP4A	X	-2.322	4
113	MP4A	Z	1.34	4
114	MP4A	Mx	-.003	4
115	MP4A	X	-2.322	5
116	MP4A	Z	1.34	5
117	MP4A	Mx	-.003	5
118	MP4B	X	-2.551	4
119	MP4B	Z	1.473	4
120	MP4B	Mx	.002	4
121	MP4B	X	-2.551	5
122	MP4B	Z	1.473	5
123	MP4B	Mx	.002	5
124	MP4C	X	-1.029	4
125	MP4C	Z	.594	4
126	MP4C	Mx	.000396	4
127	MP4C	X	-1.029	5
128	MP4C	Z	.594	5
129	MP4C	Mx	.000396	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-21.137	.5
2	MP4A	Z	0	.5
3	MP4A	Mx	.011	.5
4	MP4A	X	-21.137	3.5
5	MP4A	Z	0	3.5
6	MP4A	Mx	.011	3.5
7	MP4B	X	-25.14	.5
8	MP4B	Z	0	.5
9	MP4B	Mx	.006	.5
10	MP4B	X	-25.14	3.5
11	MP4B	Z	0	3.5
12	MP4B	Mx	.006	3.5
13	MP4C	X	-26.253	.5
14	MP4C	Z	0	.5
15	MP4C	Mx	-.024	.5
16	MP4C	X	-26.253	3.5
17	MP4C	Z	0	3.5
18	MP4C	Mx	-.024	3.5
19	MP4A	X	-21.137	.5



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft,%)
20	MP4A	Z	0	.5
21	MP4A	Mx	.011	.5
22	MP4A	X	-21.137	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	.011	3.5
25	MP4B	X	-25.14	.5
26	MP4B	Z	0	.5
27	MP4B	Mx	-.023	.5
28	MP4B	X	-25.14	3.5
29	MP4B	Z	0	3.5
30	MP4B	Mx	-.023	3.5
31	MP4C	X	-26.253	.5
32	MP4C	Z	0	.5
33	MP4C	Mx	.01	.5
34	MP4C	X	-26.253	3.5
35	MP4C	Z	0	3.5
36	MP4C	Mx	.01	3.5
37	MP1A	X	-5.851	.5
38	MP1A	Z	0	.5
39	MP1A	Mx	.003	.5
40	MP1A	X	-5.851	2.5
41	MP1A	Z	0	2.5
42	MP1A	Mx	.003	2.5
43	MP1B	X	-10.502	.5
44	MP1B	Z	0	.5
45	MP1B	Mx	-.003	.5
46	MP1B	X	-10.502	2.5
47	MP1B	Z	0	2.5
48	MP1B	Mx	-.003	2.5
49	MP1C	X	-11.796	.5
50	MP1C	Z	0	.5
51	MP1C	Mx	-.003	.5
52	MP1C	X	-11.796	2.5
53	MP1C	Z	0	2.5
54	MP1C	Mx	-.003	2.5
55	M61	X	-18.642	1
56	M61	Z	0	1
57	M61	Mx	.009	1
58	MP4A	X	-8.05	2
59	MP4A	Z	0	2
60	MP4A	Mx	-.004	2
61	MP4B	X	-10.127	2
62	MP4B	Z	0	2
63	MP4B	Mx	.003	2
64	MP4C	X	-10.704	2
65	MP4C	Z	0	2
66	MP4C	Mx	.003	2
67	MP3A	X	-7.413	2
68	MP3A	Z	0	2
69	MP3A	Mx	-.004	2
70	MP3B	X	-9.864	2
71	MP3B	Z	0	2
72	MP3B	Mx	.003	2
73	MP3C	X	-10.545	2
74	MP3C	Z	0	2
75	MP3C	Mx	.003	2
76	MP2A	X	-12.719	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
77	MP2A	Z	0	.5
78	MP2A	Mx	.006	.5
79	MP2A	X	-12.719	3.5
80	MP2A	Z	0	3.5
81	MP2A	Mx	.006	3.5
82	MP2B	X	-18.024	.5
83	MP2B	Z	0	.5
84	MP2B	Mx	-.006	.5
85	MP2B	X	-18.024	3.5
86	MP2B	Z	0	3.5
87	MP2B	Mx	-.006	3.5
88	MP2C	X	-19.5	.5
89	MP2C	Z	0	.5
90	MP2C	Mx	-.005	.5
91	MP2C	X	-19.5	3.5
92	MP2C	Z	0	3.5
93	MP2C	Mx	-.005	3.5
94	MP4A	X	-3.178	4
95	MP4A	Z	0	4
96	MP4A	Mx	-.003	4
97	MP4A	X	-3.178	5
98	MP4A	Z	0	5
99	MP4A	Mx	-.003	5
100	MP4B	X	-2.011	4
101	MP4B	Z	0	4
102	MP4B	Mx	.002	4
103	MP4B	X	-2.011	5
104	MP4B	Z	0	5
105	MP4B	Mx	.002	5
106	MP4C	X	-1.686	4
107	MP4C	Z	0	4
108	MP4C	Mx	.000356	4
109	MP4C	X	-1.686	5
110	MP4C	Z	0	5
111	MP4C	Mx	.000356	5
112	MP4A	X	-3.178	4
113	MP4A	Z	0	4
114	MP4A	Mx	-.003	4
115	MP4A	X	-3.178	5
116	MP4A	Z	0	5
117	MP4A	Mx	-.003	5
118	MP4B	X	-2.011	4
119	MP4B	Z	0	4
120	MP4B	Mx	.000779	4
121	MP4B	X	-2.011	5
122	MP4B	Z	0	5
123	MP4B	Mx	.000779	5
124	MP4C	X	-1.686	4
125	MP4C	Z	0	4
126	MP4C	Mx	.001	4
127	MP4C	X	-1.686	5
128	MP4C	Z	0	5
129	MP4C	Mx	.001	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
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Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-19.782	.5
2	MP4A	Z	-11.421	.5
3	MP4A	Mx	.001	.5
4	MP4A	X	-19.782	3.5
5	MP4A	Z	-11.421	3.5
6	MP4A	Mx	.001	3.5
7	MP4B	X	-24.035	.5
8	MP4B	Z	-13.876	.5
9	MP4B	Mx	.018	.5
10	MP4B	X	-24.035	3.5
11	MP4B	Z	-13.876	3.5
12	MP4B	Mx	.018	3.5
13	MP4C	X	-19.782	.5
14	MP4C	Z	-11.421	.5
15	MP4C	Mx	-.018	.5
16	MP4C	X	-19.782	3.5
17	MP4C	Z	-11.421	3.5
18	MP4C	Mx	-.018	3.5
19	MP4A	X	-19.782	.5
20	MP4A	Z	-11.421	.5
21	MP4A	Mx	.018	.5
22	MP4A	X	-19.782	3.5
23	MP4A	Z	-11.421	3.5
24	MP4A	Mx	.018	3.5
25	MP4B	X	-24.035	.5
26	MP4B	Z	-13.876	.5
27	MP4B	Mx	-.023	.5
28	MP4B	X	-24.035	3.5
29	MP4B	Z	-13.876	3.5
30	MP4B	Mx	-.023	3.5
31	MP4C	X	-19.782	.5
32	MP4C	Z	-11.421	.5
33	MP4C	Mx	-.001	.5
34	MP4C	X	-19.782	3.5
35	MP4C	Z	-11.421	3.5
36	MP4C	Mx	-.001	3.5
37	MP1A	X	-6.783	.5
38	MP1A	Z	-3.916	.5
39	MP1A	Mx	.003	.5
40	MP1A	X	-6.783	2.5
41	MP1A	Z	-3.916	2.5
42	MP1A	Mx	.003	2.5
43	MP1B	X	-11.725	.5
44	MP1B	Z	-6.769	.5
45	MP1B	Mx	-.001	.5
46	MP1B	X	-11.725	2.5
47	MP1B	Z	-6.769	2.5
48	MP1B	Mx	-.001	2.5
49	MP1C	X	-6.783	.5
50	MP1C	Z	-3.916	.5
51	MP1C	Mx	-.003	.5
52	MP1C	X	-6.783	2.5
53	MP1C	Z	-3.916	2.5
54	MP1C	Mx	-.003	2.5
55	M61	X	-17.274	1
56	M61	Z	-9.973	1
57	M61	Mx	.009	1



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft,%)
58	MP4A	X	-7.738	2
59	MP4A	Z	-4.467	2
60	MP4A	Mx	-.004	2
61	MP4B	X	-9.944	2
62	MP4B	Z	-5.741	2
63	MP4B	Mx	.000997	2
64	MP4C	X	-7.738	2
65	MP4C	Z	-4.467	2
66	MP4C	Mx	.004	2
67	MP3A	X	-7.324	2
68	MP3A	Z	-4.229	2
69	MP3A	Mx	-.004	2
70	MP3B	X	-9.927	2
71	MP3B	Z	-5.732	2
72	MP3B	Mx	.000995	2
73	MP3C	X	-7.324	2
74	MP3C	Z	-4.229	2
75	MP3C	Mx	.004	2
76	MP2A	X	-12.972	.5
77	MP2A	Z	-7.489	.5
78	MP2A	Mx	.006	.5
79	MP2A	X	-12.972	3.5
80	MP2A	Z	-7.489	3.5
81	MP2A	Mx	.006	3.5
82	MP2B	X	-18.608	.5
83	MP2B	Z	-10.744	.5
84	MP2B	Mx	-.002	.5
85	MP2B	X	-18.608	3.5
86	MP2B	Z	-10.744	3.5
87	MP2B	Mx	-.002	3.5
88	MP2C	X	-12.972	.5
89	MP2C	Z	-7.489	.5
90	MP2C	Mx	-.006	.5
91	MP2C	X	-12.972	3.5
92	MP2C	Z	-7.489	3.5
93	MP2C	Mx	-.006	3.5
94	MP4A	X	-2.322	4
95	MP4A	Z	-1.34	4
96	MP4A	Mx	-.003	4
97	MP4A	X	-2.322	5
98	MP4A	Z	-1.34	5
99	MP4A	Mx	-.003	5
100	MP4B	X	-1.081	4
101	MP4B	Z	-.624	4
102	MP4B	Mx	.000627	4
103	MP4B	X	-1.081	5
104	MP4B	Z	-.624	5
105	MP4B	Mx	.000627	5
106	MP4C	X	-2.322	4
107	MP4C	Z	-1.34	4
108	MP4C	Mx	.002	4
109	MP4C	X	-2.322	5
110	MP4C	Z	-1.34	5
111	MP4C	Mx	.002	5
112	MP4A	X	-2.322	4
113	MP4A	Z	-1.34	4
114	MP4A	Mx	-.002	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
115	MP4A	X	-2.322	5
116	MP4A	Z	-1.34	5
117	MP4A	Mx	-.002	5
118	MP4B	X	-1.081	4
119	MP4B	Z	-.624	4
120	MP4B	Mx	-.000193	4
121	MP4B	X	-1.081	5
122	MP4B	Z	-.624	5
123	MP4B	Mx	-.000193	5
124	MP4C	X	-2.322	4
125	MP4C	Z	-1.34	4
126	MP4C	Mx	.003	4
127	MP4C	X	-2.322	5
128	MP4C	Z	-1.34	5
129	MP4C	Mx	.003	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-13.127	.5
2	MP4A	Z	-22.736	.5
3	MP4A	Mx	-.01	.5
4	MP4A	X	-13.127	3.5
5	MP4A	Z	-22.736	3.5
6	MP4A	Mx	-.01	3.5
7	MP4B	X	-13.58	.5
8	MP4B	Z	-23.522	.5
9	MP4B	Mx	.024	.5
10	MP4B	X	-13.58	3.5
11	MP4B	Z	-23.522	3.5
12	MP4B	Mx	.024	3.5
13	MP4C	X	-10.569	.5
14	MP4C	Z	-18.305	.5
15	MP4C	Mx	-.011	.5
16	MP4C	X	-10.569	3.5
17	MP4C	Z	-18.305	3.5
18	MP4C	Mx	-.011	3.5
19	MP4A	X	-13.127	.5
20	MP4A	Z	-22.736	.5
21	MP4A	Mx	.024	.5
22	MP4A	X	-13.127	3.5
23	MP4A	Z	-22.736	3.5
24	MP4A	Mx	.024	3.5
25	MP4B	X	-13.58	.5
26	MP4B	Z	-23.522	.5
27	MP4B	Mx	-.014	.5
28	MP4B	X	-13.58	3.5
29	MP4B	Z	-23.522	3.5
30	MP4B	Mx	-.014	3.5
31	MP4C	X	-10.569	.5
32	MP4C	Z	-18.305	.5
33	MP4C	Mx	-.011	.5
34	MP4C	X	-10.569	3.5
35	MP4C	Z	-18.305	3.5
36	MP4C	Mx	-.011	3.5
37	MP1A	X	-5.898	.5
38	MP1A	Z	-10.215	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
39	MP1A	Mx	.003	.5
40	MP1A	X	-5.898	2.5
41	MP1A	Z	-10.215	2.5
42	MP1A	Mx	.003	2.5
43	MP1B	X	-6.425	.5
44	MP1B	Z	-11.129	.5
45	MP1B	Mx	.002	.5
46	MP1B	X	-6.425	2.5
47	MP1B	Z	-11.129	2.5
48	MP1B	Mx	.002	2.5
49	MP1C	X	-2.926	.5
50	MP1C	Z	-5.067	.5
51	MP1C	Mx	-.003	.5
52	MP1C	X	-2.926	2.5
53	MP1C	Z	-5.067	2.5
54	MP1C	Mx	-.003	2.5
55	M61	X	-11.277	1
56	M61	Z	-19.533	1
57	M61	Mx	.006	1
58	MP4A	X	-5.352	2
59	MP4A	Z	-9.27	2
60	MP4A	Mx	-.003	2
61	MP4B	X	-5.588	2
62	MP4B	Z	-9.678	2
63	MP4B	Mx	-.002	2
64	MP4C	X	-4.025	2
65	MP4C	Z	-6.972	2
66	MP4C	Mx	.004	2
67	MP3A	X	-5.273	2
68	MP3A	Z	-9.132	2
69	MP3A	Mx	-.003	2
70	MP3B	X	-5.55	2
71	MP3B	Z	-9.613	2
72	MP3B	Mx	-.002	2
73	MP3C	X	-3.707	2
74	MP3C	Z	-6.42	2
75	MP3C	Mx	.004	2
76	MP2A	X	-9.75	.5
77	MP2A	Z	-16.887	.5
78	MP2A	Mx	.005	.5
79	MP2A	X	-9.75	3.5
80	MP2A	Z	-16.887	3.5
81	MP2A	Mx	.005	3.5
82	MP2B	X	-10.351	.5
83	MP2B	Z	-17.929	.5
84	MP2B	Mx	.004	.5
85	MP2B	X	-10.351	3.5
86	MP2B	Z	-17.929	3.5
87	MP2B	Mx	.004	3.5
88	MP2C	X	-6.359	.5
89	MP2C	Z	-11.015	.5
90	MP2C	Mx	-.006	.5
91	MP2C	X	-6.359	3.5
92	MP2C	Z	-11.015	3.5
93	MP2C	Mx	-.006	3.5
94	MP4A	X	-.843	4
95	MP4A	Z	-1.46	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
96	MP4A	Mx	-.001	4
97	MP4A	X	-.843	5
98	MP4A	Z	-1.46	5
99	MP4A	Mx	-.001	5
100	MP4B	X	-.711	4
101	MP4B	Z	-1.231	4
102	MP4B	Mx	-4.1e-5	4
103	MP4B	X	-.711	5
104	MP4B	Z	-1.231	5
105	MP4B	Mx	-4.1e-5	5
106	MP4C	X	-1.589	4
107	MP4C	Z	-2.752	4
108	MP4C	Mx	.003	4
109	MP4C	X	-1.589	5
110	MP4C	Z	-2.752	5
111	MP4C	Mx	.003	5
112	MP4A	X	-.843	4
113	MP4A	Z	-1.46	4
114	MP4A	Mx	-.000356	4
115	MP4A	X	-.843	5
116	MP4A	Z	-1.46	5
117	MP4A	Mx	-.000356	5
118	MP4B	X	-.711	4
119	MP4B	Z	-1.231	4
120	MP4B	Mx	-.000931	4
121	MP4B	X	-.711	5
122	MP4B	Z	-1.231	5
123	MP4B	Mx	-.000931	5
124	MP4C	X	-1.589	4
125	MP4C	Z	-2.752	4
126	MP4C	Mx	.003	4
127	MP4C	X	-1.589	5
128	MP4C	Z	-2.752	5
129	MP4C	Mx	.003	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	0	.5
2	MP4A	Z	-9.258	.5
3	MP4A	Mx	-.007	.5
4	MP4A	X	0	3.5
5	MP4A	Z	-9.258	3.5
6	MP4A	Mx	-.007	3.5
7	MP4B	X	0	.5
8	MP4B	Z	-7.864	.5
9	MP4B	Mx	.007	.5
10	MP4B	X	0	3.5
11	MP4B	Z	-7.864	3.5
12	MP4B	Mx	.007	3.5
13	MP4C	X	0	.5
14	MP4C	Z	-7.477	.5
15	MP4C	Mx	-.000434	.5
16	MP4C	X	0	3.5
17	MP4C	Z	-7.477	3.5
18	MP4C	Mx	-.000434	3.5
19	MP4A	X	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
20	MP4A	Z	-9.258	.5
21	MP4A	Mx	.007	.5
22	MP4A	X	0	3.5
23	MP4A	Z	-9.258	3.5
24	MP4A	Mx	.007	3.5
25	MP4B	X	0	.5
26	MP4B	Z	-7.864	.5
27	MP4B	Mx	-.000779	.5
28	MP4B	X	0	3.5
29	MP4B	Z	-7.864	3.5
30	MP4B	Mx	-.000779	3.5
31	MP4C	X	0	.5
32	MP4C	Z	-7.477	.5
33	MP4C	Mx	-.006	.5
34	MP4C	X	0	3.5
35	MP4C	Z	-7.477	3.5
36	MP4C	Mx	-.006	3.5
37	MP1A	X	0	.5
38	MP1A	Z	-4.408	.5
39	MP1A	Mx	0	.5
40	MP1A	X	0	2.5
41	MP1A	Z	-4.408	2.5
42	MP1A	Mx	0	2.5
43	MP1B	X	0	.5
44	MP1B	Z	-2.834	.5
45	MP1B	Mx	.001	.5
46	MP1B	X	0	2.5
47	MP1B	Z	-2.834	2.5
48	MP1B	Mx	.001	2.5
49	MP1C	X	0	.5
50	MP1C	Z	-2.397	.5
51	MP1C	Mx	-.001	.5
52	MP1C	X	0	2.5
53	MP1C	Z	-2.397	2.5
54	MP1C	Mx	-.001	2.5
55	M61	X	0	1
56	M61	Z	-7.616	1
57	M61	Mx	0	1
58	MP4A	X	0	2
59	MP4A	Z	-3.508	2
60	MP4A	Mx	0	2
61	MP4B	X	0	2
62	MP4B	Z	-2.826	2
63	MP4B	Mx	-.001	2
64	MP4C	X	0	2
65	MP4C	Z	-2.636	2
66	MP4C	Mx	.001	2
67	MP3A	X	0	2
68	MP3A	Z	-3.508	2
69	MP3A	Mx	0	2
70	MP3B	X	0	2
71	MP3B	Z	-2.702	2
72	MP3B	Mx	-.001	2
73	MP3C	X	0	2
74	MP3C	Z	-2.477	2
75	MP3C	Mx	.001	2
76	MP2A	X	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
77	MP2A	Z	-7.1	.5
78	MP2A	Mx	0	.5
79	MP2A	X	0	3.5
80	MP2A	Z	-7.1	3.5
81	MP2A	Mx	0	3.5
82	MP2B	X	0	.5
83	MP2B	Z	-5.222	.5
84	MP2B	Mx	.002	.5
85	MP2B	X	0	3.5
86	MP2B	Z	-5.222	3.5
87	MP2B	Mx	.002	3.5
88	MP2C	X	0	.5
89	MP2C	Z	-4.7	.5
90	MP2C	Mx	-.002	.5
91	MP2C	X	0	3.5
92	MP2C	Z	-4.7	3.5
93	MP2C	Mx	-.002	3.5
94	MP4A	X	0	4
95	MP4A	Z	-9	4
96	MP4A	Mx	-.0003	4
97	MP4A	X	0	5
98	MP4A	Z	-9	5
99	MP4A	Mx	-.0003	5
100	MP4B	X	0	4
101	MP4B	Z	-.902	4
102	MP4B	Mx	-.000498	4
103	MP4B	X	0	5
104	MP4B	Z	-.902	5
105	MP4B	Mx	-.000498	5
106	MP4C	X	0	4
107	MP4C	Z	-.902	4
108	MP4C	Mx	.000931	4
109	MP4C	X	0	5
110	MP4C	Z	-.902	5
111	MP4C	Mx	.000931	5
112	MP4A	X	0	4
113	MP4A	Z	-.9	4
114	MP4A	Mx	.0003	4
115	MP4A	X	0	5
116	MP4A	Z	-.9	5
117	MP4A	Mx	.0003	5
118	MP4B	X	0	4
119	MP4B	Z	-.902	4
120	MP4B	Mx	-.000884	4
121	MP4B	X	0	5
122	MP4B	Z	-.902	5
123	MP4B	Mx	-.000884	5
124	MP4C	X	0	4
125	MP4C	Z	-.902	4
126	MP4C	Mx	.000631	4
127	MP4C	X	0	5
128	MP4C	Z	-.902	5
129	MP4C	Mx	.000631	5

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

Member Label Direction Magnitude[lb.k-ft] / Location[ft.%]



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	4.332	.5
2	MP4A	Z	-7.503	.5
3	MP4A	Mx	-.008	.5
4	MP4A	X	4.332	3.5
5	MP4A	Z	-7.503	3.5
6	MP4A	Mx	-.008	3.5
7	MP4B	X	3.477	.5
8	MP4B	Z	-6.023	.5
9	MP4B	Mx	.004	.5
10	MP4B	X	3.477	3.5
11	MP4B	Z	-6.023	3.5
12	MP4B	Mx	.004	3.5
13	MP4C	X	4.332	.5
14	MP4C	Z	-7.503	.5
15	MP4C	Mx	.003	.5
16	MP4C	X	4.332	3.5
17	MP4C	Z	-7.503	3.5
18	MP4C	Mx	.003	3.5
19	MP4A	X	4.332	.5
20	MP4A	Z	-7.503	.5
21	MP4A	Mx	.003	.5
22	MP4A	X	4.332	3.5
23	MP4A	Z	-7.503	3.5
24	MP4A	Mx	.003	3.5
25	MP4B	X	3.477	.5
26	MP4B	Z	-6.023	.5
27	MP4B	Mx	.003	.5
28	MP4B	X	3.477	3.5
29	MP4B	Z	-6.023	3.5
30	MP4B	Mx	.003	3.5
31	MP4C	X	4.332	.5
32	MP4C	Z	-7.503	.5
33	MP4C	Mx	-.008	.5
34	MP4C	X	4.332	3.5
35	MP4C	Z	-7.503	3.5
36	MP4C	Mx	-.008	3.5
37	MP1A	X	1.869	.5
38	MP1A	Z	-3.237	.5
39	MP1A	Mx	-.000934	.5
40	MP1A	X	1.869	2.5
41	MP1A	Z	-3.237	2.5
42	MP1A	Mx	-.000934	2.5
43	MP1B	X	.903	.5
44	MP1B	Z	-1.565	.5
45	MP1B	Mx	.00089	.5
46	MP1B	X	.903	2.5
47	MP1B	Z	-1.565	2.5
48	MP1B	Mx	.00089	2.5
49	MP1C	X	1.869	.5
50	MP1C	Z	-3.237	.5
51	MP1C	Mx	-.000934	.5
52	MP1C	X	1.869	2.5
53	MP1C	Z	-3.237	2.5
54	MP1C	Mx	-.000934	2.5
55	M61	X	3.582	1
56	M61	Z	-6.205	1
57	M61	Mx	-.002	1



Company : Colliers Engineering & Design
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Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
58	MP4A	X	1.609	2
59	MP4A	Z	-2.786	2
60	MP4A	Mx	.000804	2
61	MP4B	X	1.19	2
62	MP4B	Z	-2.061	2
63	MP4B	Mx	-.001	2
64	MP4C	X	1.609	2
65	MP4C	Z	-2.786	2
66	MP4C	Mx	.000804	2
67	MP3A	X	1.582	2
68	MP3A	Z	-2.741	2
69	MP3A	Mx	.000791	2
70	MP3B	X	1.088	2
71	MP3B	Z	-1.884	2
72	MP3B	Mx	-.001	2
73	MP3C	X	1.582	2
74	MP3C	Z	-2.741	2
75	MP3C	Mx	.000791	2
76	MP2A	X	3.15	.5
77	MP2A	Z	-5.456	.5
78	MP2A	Mx	-.002	.5
79	MP2A	X	3.15	3.5
80	MP2A	Z	-5.456	3.5
81	MP2A	Mx	-.002	3.5
82	MP2B	X	1.998	.5
83	MP2B	Z	-3.461	.5
84	MP2B	Mx	.002	.5
85	MP2B	X	1.998	3.5
86	MP2B	Z	-3.461	3.5
87	MP2B	Mx	.002	3.5
88	MP2C	X	3.15	.5
89	MP2C	Z	-5.456	.5
90	MP2C	Mx	-.002	.5
91	MP2C	X	3.15	3.5
92	MP2C	Z	-5.456	3.5
93	MP2C	Mx	-.002	3.5
94	MP4A	X	.451	4
95	MP4A	Z	-.78	4
96	MP4A	Mx	.000191	4
97	MP4A	X	.451	5
98	MP4A	Z	-.78	5
99	MP4A	Mx	.000191	5
100	MP4B	X	.452	4
101	MP4B	Z	-.782	4
102	MP4B	Mx	-.000837	4
103	MP4B	X	.452	5
104	MP4B	Z	-.782	5
105	MP4B	Mx	-.000837	5
106	MP4C	X	.451	4
107	MP4C	Z	-.78	4
108	MP4C	Mx	.00071	4
109	MP4C	X	.451	5
110	MP4C	Z	-.78	5
111	MP4C	Mx	.00071	5
112	MP4A	X	.451	4
113	MP4A	Z	-.78	4
114	MP4A	Mx	.000711	4



Company : Colliers Engineering & Design
 Designer : DAB
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Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
115	MP4A	X	.451	5
116	MP4A	Z	-.78	5
117	MP4A	Mx	.000711	5
118	MP4B	X	.452	4
119	MP4B	Z	-.782	4
120	MP4B	Mx	-.000942	4
121	MP4B	X	.452	5
122	MP4B	Z	-.782	5
123	MP4B	Mx	-.000942	5
124	MP4C	X	.451	4
125	MP4C	Z	-.78	4
126	MP4C	Mx	.00019	4
127	MP4C	X	.451	5
128	MP4C	Z	-.78	5
129	MP4C	Mx	.00019	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	6.475	.5
2	MP4A	Z	-3.738	.5
3	MP4A	Mx	-.006	.5
4	MP4A	X	6.475	3.5
5	MP4A	Z	-3.738	3.5
6	MP4A	Mx	-.006	3.5
7	MP4B	X	6.201	.5
8	MP4B	Z	-3.58	.5
9	MP4B	Mx	.002	.5
10	MP4B	X	6.201	3.5
11	MP4B	Z	-3.58	3.5
12	MP4B	Mx	.002	3.5
13	MP4C	X	8.018	.5
14	MP4C	Z	-4.629	.5
15	MP4C	Mx	.007	.5
16	MP4C	X	8.018	3.5
17	MP4C	Z	-4.629	3.5
18	MP4C	Mx	.007	3.5
19	MP4A	X	6.475	.5
20	MP4A	Z	-3.738	.5
21	MP4A	Mx	-.000434	.5
22	MP4A	X	6.475	3.5
23	MP4A	Z	-3.738	3.5
24	MP4A	Mx	-.000434	3.5
25	MP4B	X	6.201	.5
26	MP4B	Z	-3.58	.5
27	MP4B	Mx	.005	.5
28	MP4B	X	6.201	3.5
29	MP4B	Z	-3.58	3.5
30	MP4B	Mx	.005	3.5
31	MP4C	X	8.018	.5
32	MP4C	Z	-4.629	.5
33	MP4C	Mx	-.007	.5
34	MP4C	X	8.018	3.5
35	MP4C	Z	-4.629	3.5
36	MP4C	Mx	-.007	3.5
37	MP1A	X	2.075	.5
38	MP1A	Z	-1.198	.5



Company : Colliers Engineering & Design
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Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
39	MP1A	Mx	-.001	.5
40	MP1A	X	2.075	2.5
41	MP1A	Z	-1.198	2.5
42	MP1A	Mx	-.001	2.5
43	MP1B	X	1.766	.5
44	MP1B	Z	-1.02	.5
45	MP1B	Mx	.000958	.5
46	MP1B	X	1.766	2.5
47	MP1B	Z	-1.02	2.5
48	MP1B	Mx	.000958	2.5
49	MP1C	X	3.818	.5
50	MP1C	Z	-2.204	.5
51	MP1C	Mx	0	.5
52	MP1C	X	3.818	2.5
53	MP1C	Z	-2.204	2.5
54	MP1C	Mx	0	2.5
55	M61	X	5.423	1
56	M61	Z	-3.131	1
57	M61	Mx	-.003	1
58	MP4A	X	2.283	2
59	MP4A	Z	-1.318	2
60	MP4A	Mx	.001	2
61	MP4B	X	2.149	2
62	MP4B	Z	-1.24	2
63	MP4B	Mx	-.001	2
64	MP4C	X	3.038	2
65	MP4C	Z	-1.754	2
66	MP4C	Mx	0	2
67	MP3A	X	2.146	2
68	MP3A	Z	-1.239	2
69	MP3A	Mx	.001	2
70	MP3B	X	1.987	2
71	MP3B	Z	-1.147	2
72	MP3B	Mx	-.001	2
73	MP3C	X	3.038	2
74	MP3C	Z	-1.754	2
75	MP3C	Mx	0	2
76	MP2A	X	4.071	.5
77	MP2A	Z	-2.35	.5
78	MP2A	Mx	-.002	.5
79	MP2A	X	4.071	3.5
80	MP2A	Z	-2.35	3.5
81	MP2A	Mx	-.002	3.5
82	MP2B	X	3.702	.5
83	MP2B	Z	-2.137	.5
84	MP2B	Mx	.002	.5
85	MP2B	X	3.702	3.5
86	MP2B	Z	-2.137	3.5
87	MP2B	Mx	.002	3.5
88	MP2C	X	6.149	.5
89	MP2C	Z	-3.55	.5
90	MP2C	Mx	0	.5
91	MP2C	X	6.149	3.5
92	MP2C	Z	-3.55	3.5
93	MP2C	Mx	0	3.5
94	MP4A	X	.782	4
95	MP4A	Z	-.451	4



Company : Colliers Engineering & Design
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Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
96	MP4A	Mx	.000632	4
97	MP4A	X	.782	5
98	MP4A	Z	-.451	5
99	MP4A	Mx	.000632	5
100	MP4B	X	.782	4
101	MP4B	Z	-.451	4
102	MP4B	Mx	-.000951	4
103	MP4B	X	.782	5
104	MP4B	Z	-.451	5
105	MP4B	Mx	-.000951	5
106	MP4C	X	.78	4
107	MP4C	Z	-.45	4
108	MP4C	Mx	.0003	4
109	MP4C	X	.78	5
110	MP4C	Z	-.45	5
111	MP4C	Mx	.0003	5
112	MP4A	X	.782	4
113	MP4A	Z	-.451	4
114	MP4A	Mx	.000932	4
115	MP4A	X	.782	5
116	MP4A	Z	-.451	5
117	MP4A	Mx	.000932	5
118	MP4B	X	.782	4
119	MP4B	Z	-.451	4
120	MP4B	Mx	-.000745	4
121	MP4B	X	.782	5
122	MP4B	Z	-.451	5
123	MP4B	Mx	-.000745	5
124	MP4C	X	.78	4
125	MP4C	Z	-.45	4
126	MP4C	Mx	-.0003	4
127	MP4C	X	.78	5
128	MP4C	Z	-.45	5
129	MP4C	Mx	-.0003	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	6.883	.5
2	MP4A	Z	0	.5
3	MP4A	Mx	-.003	.5
4	MP4A	X	6.883	3.5
5	MP4A	Z	0	3.5
6	MP4A	Mx	-.003	3.5
7	MP4B	X	8.277	.5
8	MP4B	Z	0	.5
9	MP4B	Mx	-.002	.5
10	MP4B	X	8.277	3.5
11	MP4B	Z	0	3.5
12	MP4B	Mx	-.002	3.5
13	MP4C	X	8.664	.5
14	MP4C	Z	0	.5
15	MP4C	Mx	.008	.5
16	MP4C	X	8.664	3.5
17	MP4C	Z	0	3.5
18	MP4C	Mx	.008	3.5
19	MP4A	X	6.883	.5



Company : Colliers Engineering & Design
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Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
20	MP4A	Z	0	.5
21	MP4A	Mx	-.003	.5
22	MP4A	X	6.883	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	-.003	3.5
25	MP4B	X	8.277	.5
26	MP4B	Z	0	.5
27	MP4B	Mx	.007	.5
28	MP4B	X	8.277	3.5
29	MP4B	Z	0	3.5
30	MP4B	Mx	.007	3.5
31	MP4C	X	8.664	.5
32	MP4C	Z	0	.5
33	MP4C	Mx	-.003	.5
34	MP4C	X	8.664	3.5
35	MP4C	Z	0	3.5
36	MP4C	Mx	-.003	3.5
37	MP1A	X	1.726	.5
38	MP1A	Z	0	.5
39	MP1A	Mx	-.000863	.5
40	MP1A	X	1.726	2.5
41	MP1A	Z	0	2.5
42	MP1A	Mx	-.000863	2.5
43	MP1B	X	3.3	.5
44	MP1B	Z	0	.5
45	MP1B	Mx	.001	.5
46	MP1B	X	3.3	2.5
47	MP1B	Z	0	2.5
48	MP1B	Mx	.001	2.5
49	MP1C	X	3.738	.5
50	MP1C	Z	0	.5
51	MP1C	Mx	.000934	.5
52	MP1C	X	3.738	2.5
53	MP1C	Z	0	2.5
54	MP1C	Mx	.000934	2.5
55	M61	X	5.811	1
56	M61	Z	0	1
57	M61	Mx	-.003	1
58	MP4A	X	2.345	2
59	MP4A	Z	0	2
60	MP4A	Mx	.001	2
61	MP4B	X	3.027	2
62	MP4B	Z	0	2
63	MP4B	Mx	-.000973	2
64	MP4C	X	3.217	2
65	MP4C	Z	0	2
66	MP4C	Mx	-.000804	2
67	MP3A	X	2.134	2
68	MP3A	Z	0	2
69	MP3A	Mx	.001	2
70	MP3B	X	2.94	2
71	MP3B	Z	0	2
72	MP3B	Mx	-.000945	2
73	MP3C	X	3.164	2
74	MP3C	Z	0	2
75	MP3C	Mx	-.000791	2
76	MP2A	X	3.9	.5



Company : Colliers Engineering & Design
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Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft, %]
77	MP2A	Z	0	.5
78	MP2A	Mx	-.002	.5
79	MP2A	X	3.9	3.5
80	MP2A	Z	0	3.5
81	MP2A	Mx	-.002	3.5
82	MP2B	X	5.778	.5
83	MP2B	Z	0	.5
84	MP2B	Mx	.002	.5
85	MP2B	X	5.778	3.5
86	MP2B	Z	0	3.5
87	MP2B	Mx	.002	3.5
88	MP2C	X	6.3	.5
89	MP2C	Z	0	.5
90	MP2C	Mx	.002	.5
91	MP2C	X	6.3	3.5
92	MP2C	Z	0	3.5
93	MP2C	Mx	.002	3.5
94	MP4A	X	.903	4
95	MP4A	Z	0	4
96	MP4A	Mx	.000903	4
97	MP4A	X	.903	5
98	MP4A	Z	0	5
99	MP4A	Mx	.000903	5
100	MP4B	X	.902	4
101	MP4B	Z	0	4
102	MP4B	Mx	-.00081	4
103	MP4B	X	.902	5
104	MP4B	Z	0	5
105	MP4B	Mx	-.00081	5
106	MP4C	X	.901	4
107	MP4C	Z	0	4
108	MP4C	Mx	-.00019	4
109	MP4C	X	.901	5
110	MP4C	Z	0	5
111	MP4C	Mx	-.00019	5
112	MP4A	X	.903	4
113	MP4A	Z	0	4
114	MP4A	Mx	.000903	4
115	MP4A	X	.903	5
116	MP4A	Z	0	5
117	MP4A	Mx	.000903	5
118	MP4B	X	.902	4
119	MP4B	Z	0	4
120	MP4B	Mx	-.000349	4
121	MP4B	X	.902	5
122	MP4B	Z	0	5
123	MP4B	Mx	-.000349	5
124	MP4C	X	.901	4
125	MP4C	Z	0	4
126	MP4C	Mx	-.000711	4
127	MP4C	X	.901	5
128	MP4C	Z	0	5
129	MP4C	Mx	-.000711	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft, %]
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Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	6.475	.5
2	MP4A	Z	3.738	.5
3	MP4A	Mx	-.000434	.5
4	MP4A	X	6.475	3.5
5	MP4A	Z	3.738	3.5
6	MP4A	Mx	-.000434	3.5
7	MP4B	X	7.955	.5
8	MP4B	Z	4.593	.5
9	MP4B	Mx	-.006	.5
10	MP4B	X	7.955	3.5
11	MP4B	Z	4.593	3.5
12	MP4B	Mx	-.006	3.5
13	MP4C	X	6.475	.5
14	MP4C	Z	3.738	.5
15	MP4C	Mx	.006	.5
16	MP4C	X	6.475	3.5
17	MP4C	Z	3.738	3.5
18	MP4C	Mx	.006	3.5
19	MP4A	X	6.475	.5
20	MP4A	Z	3.738	.5
21	MP4A	Mx	-.006	.5
22	MP4A	X	6.475	3.5
23	MP4A	Z	3.738	3.5
24	MP4A	Mx	-.006	3.5
25	MP4B	X	7.955	.5
26	MP4B	Z	4.593	.5
27	MP4B	Mx	.008	.5
28	MP4B	X	7.955	3.5
29	MP4B	Z	4.593	3.5
30	MP4B	Mx	.008	3.5
31	MP4C	X	6.475	.5
32	MP4C	Z	3.738	.5
33	MP4C	Mx	.000433	.5
34	MP4C	X	6.475	3.5
35	MP4C	Z	3.738	3.5
36	MP4C	Mx	.000433	3.5
37	MP1A	X	2.075	.5
38	MP1A	Z	1.198	.5
39	MP1A	Mx	-.001	.5
40	MP1A	X	2.075	2.5
41	MP1A	Z	1.198	2.5
42	MP1A	Mx	-.001	2.5
43	MP1B	X	3.748	.5
44	MP1B	Z	2.164	.5
45	MP1B	Mx	.000376	.5
46	MP1B	X	3.748	2.5
47	MP1B	Z	2.164	2.5
48	MP1B	Mx	.000376	2.5
49	MP1C	X	2.075	.5
50	MP1C	Z	1.198	.5
51	MP1C	Mx	.001	.5
52	MP1C	X	2.075	2.5
53	MP1C	Z	1.198	2.5
54	MP1C	Mx	.001	2.5
55	M61	X	5.423	1
56	M61	Z	3.131	1
57	M61	Mx	-.003	1



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
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Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Member Label	Direction	Magnitude(lb.k-ft)	Location(fft,%)
58	MP4A	X	2.283	2
59	MP4A	Z	1.318	2
60	MP4A	Mx	.001	2
61	MP4B	X	3.008	2
62	MP4B	Z	1.736	2
63	MP4B	Mx	-.000302	2
64	MP4C	X	2.283	2
65	MP4C	Z	1.318	2
66	MP4C	Mx	-.001	2
67	MP3A	X	2.146	2
68	MP3A	Z	1.239	2
69	MP3A	Mx	.001	2
70	MP3B	X	3.002	2
71	MP3B	Z	1.733	2
72	MP3B	Mx	-.000301	2
73	MP3C	X	2.146	2
74	MP3C	Z	1.239	2
75	MP3C	Mx	-.001	2
76	MP2A	X	4.071	.5
77	MP2A	Z	2.35	.5
78	MP2A	Mx	-.002	.5
79	MP2A	X	4.071	3.5
80	MP2A	Z	2.35	3.5
81	MP2A	Mx	-.002	3.5
82	MP2B	X	6.066	.5
83	MP2B	Z	3.502	.5
84	MP2B	Mx	.000608	.5
85	MP2B	X	6.066	3.5
86	MP2B	Z	3.502	3.5
87	MP2B	Mx	.000608	3.5
88	MP2C	X	4.071	.5
89	MP2C	Z	2.35	.5
90	MP2C	Mx	.002	.5
91	MP2C	X	4.071	3.5
92	MP2C	Z	2.35	3.5
93	MP2C	Mx	.002	3.5
94	MP4A	X	.782	4
95	MP4A	Z	.451	4
96	MP4A	Mx	.000932	4
97	MP4A	X	.782	5
98	MP4A	Z	.451	5
99	MP4A	Mx	.000932	5
100	MP4B	X	.78	4
101	MP4B	Z	.45	4
102	MP4B	Mx	-.000452	4
103	MP4B	X	.78	5
104	MP4B	Z	.45	5
105	MP4B	Mx	-.000452	5
106	MP4C	X	.782	4
107	MP4C	Z	.451	4
108	MP4C	Mx	-.000631	4
109	MP4C	X	.782	5
110	MP4C	Z	.451	5
111	MP4C	Mx	-.000631	5
112	MP4A	X	.782	4
113	MP4A	Z	.451	4
114	MP4A	Mx	.000632	4



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
115	MP4A	X	.782	5
116	MP4A	Z	.451	5
117	MP4A	Mx	.000632	5
118	MP4B	X	.78	4
119	MP4B	Z	.45	4
120	MP4B	Mx	.000139	4
121	MP4B	X	.78	5
122	MP4B	Z	.45	5
123	MP4B	Mx	.000139	5
124	MP4C	X	.782	4
125	MP4C	Z	.451	4
126	MP4C	Mx	-.000932	4
127	MP4C	X	.782	5
128	MP4C	Z	.451	5
129	MP4C	Mx	-.000932	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	4.332	.5
2	MP4A	Z	7.503	.5
3	MP4A	Mx	.003	.5
4	MP4A	X	4.332	3.5
5	MP4A	Z	7.503	3.5
6	MP4A	Mx	.003	3.5
7	MP4B	X	4.49	.5
8	MP4B	Z	7.777	.5
9	MP4B	Mx	-.008	.5
10	MP4B	X	4.49	3.5
11	MP4B	Z	7.777	3.5
12	MP4B	Mx	-.008	3.5
13	MP4C	X	3.441	.5
14	MP4C	Z	5.961	.5
15	MP4C	Mx	.003	.5
16	MP4C	X	3.441	3.5
17	MP4C	Z	5.961	3.5
18	MP4C	Mx	.003	3.5
19	MP4A	X	4.332	.5
20	MP4A	Z	7.503	.5
21	MP4A	Mx	-.008	.5
22	MP4A	X	4.332	3.5
23	MP4A	Z	7.503	3.5
24	MP4A	Mx	-.008	3.5
25	MP4B	X	4.49	.5
26	MP4B	Z	7.777	.5
27	MP4B	Mx	.005	.5
28	MP4B	X	4.49	3.5
29	MP4B	Z	7.777	3.5
30	MP4B	Mx	.005	3.5
31	MP4C	X	3.441	.5
32	MP4C	Z	5.961	.5
33	MP4C	Mx	.003	.5
34	MP4C	X	3.441	3.5
35	MP4C	Z	5.961	3.5
36	MP4C	Mx	.003	3.5
37	MP1A	X	1.869	.5
38	MP1A	Z	3.237	.5



Company : Colliers Engineering & Design
 Designer : DAB
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 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
39	MP1A	Mx	-0.00934	.5
40	MP1A	X	1.869	2.5
41	MP1A	Z	3.237	2.5
42	MP1A	Mx	-0.00934	2.5
43	MP1B	X	2.047	.5
44	MP1B	Z	3.546	.5
45	MP1B	Mx	-0.007	.5
46	MP1B	X	2.047	2.5
47	MP1B	Z	3.546	2.5
48	MP1B	Mx	-0.007	2.5
49	MP1C	X	.863	.5
50	MP1C	Z	1.495	.5
51	MP1C	Mx	.000863	.5
52	MP1C	X	.863	2.5
53	MP1C	Z	1.495	2.5
54	MP1C	Mx	.000863	2.5
55	M61	X	3.582	1
56	M61	Z	6.205	1
57	M61	Mx	-.002	1
58	MP4A	X	1.609	2
59	MP4A	Z	2.786	2
60	MP4A	Mx	.000804	2
61	MP4B	X	1.686	2
62	MP4B	Z	2.92	2
63	MP4B	Mx	.000577	2
64	MP4C	X	1.172	2
65	MP4C	Z	2.031	2
66	MP4C	Mx	-.001	2
67	MP3A	X	1.582	2
68	MP3A	Z	2.741	2
69	MP3A	Mx	.000791	2
70	MP3B	X	1.674	2
71	MP3B	Z	2.899	2
72	MP3B	Mx	.000572	2
73	MP3C	X	1.067	2
74	MP3C	Z	1.848	2
75	MP3C	Mx	-.001	2
76	MP2A	X	3.15	.5
77	MP2A	Z	5.456	.5
78	MP2A	Mx	-.002	.5
79	MP2A	X	3.15	3.5
80	MP2A	Z	5.456	3.5
81	MP2A	Mx	-.002	3.5
82	MP2B	X	3.363	.5
83	MP2B	Z	5.825	.5
84	MP2B	Mx	-.001	.5
85	MP2B	X	3.363	3.5
86	MP2B	Z	5.825	3.5
87	MP2B	Mx	-.001	3.5
88	MP2C	X	1.95	.5
89	MP2C	Z	3.378	.5
90	MP2C	Mx	.002	.5
91	MP2C	X	1.95	3.5
92	MP2C	Z	3.378	3.5
93	MP2C	Mx	.002	3.5
94	MP4A	X	.451	4
95	MP4A	Z	.78	4



Company : Colliers Engineering & Design
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Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
96	MP4A	Mx	.000711	4
97	MP4A	X	.451	5
98	MP4A	Z	.78	5
99	MP4A	Mx	.000711	5
100	MP4B	X	.45	4
101	MP4B	Z	.78	4
102	MP4B	Mx	2.6e-5	4
103	MP4B	X	.45	5
104	MP4B	Z	.78	5
105	MP4B	Mx	2.6e-5	5
106	MP4C	X	.452	4
107	MP4C	Z	.782	4
108	MP4C	Mx	-.000903	4
109	MP4C	X	.452	5
110	MP4C	Z	.782	5
111	MP4C	Mx	-.000903	5
112	MP4A	X	.451	4
113	MP4A	Z	.78	4
114	MP4A	Mx	.000191	4
115	MP4A	X	.451	5
116	MP4A	Z	.78	5
117	MP4A	Mx	.000191	5
118	MP4B	X	.45	4
119	MP4B	Z	.78	4
120	MP4B	Mx	.00059	4
121	MP4B	X	.45	5
122	MP4B	Z	.78	5
123	MP4B	Mx	.00059	5
124	MP4C	X	.452	4
125	MP4C	Z	.782	4
126	MP4C	Mx	-.000903	4
127	MP4C	X	.452	5
128	MP4C	Z	.782	5
129	MP4C	Mx	-.000903	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	0	.5
2	MP4A	Z	9.258	.5
3	MP4A	Mx	.007	.5
4	MP4A	X	0	3.5
5	MP4A	Z	9.258	3.5
6	MP4A	Mx	.007	3.5
7	MP4B	X	0	.5
8	MP4B	Z	7.864	.5
9	MP4B	Mx	-.007	.5
10	MP4B	X	0	3.5
11	MP4B	Z	7.864	3.5
12	MP4B	Mx	-.007	3.5
13	MP4C	X	0	.5
14	MP4C	Z	7.477	.5
15	MP4C	Mx	.000434	.5
16	MP4C	X	0	3.5
17	MP4C	Z	7.477	3.5
18	MP4C	Mx	.000434	3.5
19	MP4A	X	0	.5



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
20	MP4A	Z	9.258	.5
21	MP4A	Mx	-.007	.5
22	MP4A	X	0	3.5
23	MP4A	Z	9.258	3.5
24	MP4A	Mx	-.007	3.5
25	MP4B	X	0	.5
26	MP4B	Z	7.864	.5
27	MP4B	Mx	.000779	.5
28	MP4B	X	0	3.5
29	MP4B	Z	7.864	3.5
30	MP4B	Mx	.000779	3.5
31	MP4C	X	0	.5
32	MP4C	Z	7.477	.5
33	MP4C	Mx	.006	.5
34	MP4C	X	0	3.5
35	MP4C	Z	7.477	3.5
36	MP4C	Mx	.006	3.5
37	MP1A	X	0	.5
38	MP1A	Z	4.408	.5
39	MP1A	Mx	0	.5
40	MP1A	X	0	2.5
41	MP1A	Z	4.408	2.5
42	MP1A	Mx	0	2.5
43	MP1B	X	0	.5
44	MP1B	Z	2.834	.5
45	MP1B	Mx	-.001	.5
46	MP1B	X	0	2.5
47	MP1B	Z	2.834	2.5
48	MP1B	Mx	-.001	2.5
49	MP1C	X	0	.5
50	MP1C	Z	2.397	.5
51	MP1C	Mx	.001	.5
52	MP1C	X	0	2.5
53	MP1C	Z	2.397	2.5
54	MP1C	Mx	.001	2.5
55	M61	X	0	1
56	M61	Z	7.616	1
57	M61	Mx	0	1
58	MP4A	X	0	2
59	MP4A	Z	3.508	2
60	MP4A	Mx	0	2
61	MP4B	X	0	2
62	MP4B	Z	2.826	2
63	MP4B	Mx	.001	2
64	MP4C	X	0	2
65	MP4C	Z	2.636	2
66	MP4C	Mx	-.001	2
67	MP3A	X	0	2
68	MP3A	Z	3.508	2
69	MP3A	Mx	0	2
70	MP3B	X	0	2
71	MP3B	Z	2.702	2
72	MP3B	Mx	.001	2
73	MP3C	X	0	2
74	MP3C	Z	2.477	2
75	MP3C	Mx	-.001	2
76	MP2A	X	0	.5



Company : Colliers Engineering & Design
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Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
77	MP2A	Z	7.1	.5
78	MP2A	Mx	0	.5
79	MP2A	X	0	3.5
80	MP2A	Z	7.1	3.5
81	MP2A	Mx	0	3.5
82	MP2B	X	0	.5
83	MP2B	Z	5.222	.5
84	MP2B	Mx	-.002	.5
85	MP2B	X	0	3.5
86	MP2B	Z	5.222	3.5
87	MP2B	Mx	-.002	3.5
88	MP2C	X	0	.5
89	MP2C	Z	4.7	.5
90	MP2C	Mx	.002	.5
91	MP2C	X	0	3.5
92	MP2C	Z	4.7	3.5
93	MP2C	Mx	.002	3.5
94	MP4A	X	0	4
95	MP4A	Z	.9	4
96	MP4A	Mx	.0003	4
97	MP4A	X	0	5
98	MP4A	Z	.9	5
99	MP4A	Mx	.0003	5
100	MP4B	X	0	4
101	MP4B	Z	.902	4
102	MP4B	Mx	.000498	4
103	MP4B	X	0	5
104	MP4B	Z	.902	5
105	MP4B	Mx	.000498	5
106	MP4C	X	0	4
107	MP4C	Z	.902	4
108	MP4C	Mx	-.000931	4
109	MP4C	X	0	5
110	MP4C	Z	.902	5
111	MP4C	Mx	-.000931	5
112	MP4A	X	0	4
113	MP4A	Z	.9	4
114	MP4A	Mx	-.0003	4
115	MP4A	X	0	5
116	MP4A	Z	.9	5
117	MP4A	Mx	-.0003	5
118	MP4B	X	0	4
119	MP4B	Z	.902	4
120	MP4B	Mx	.000884	4
121	MP4B	X	0	5
122	MP4B	Z	.902	5
123	MP4B	Mx	.000884	5
124	MP4C	X	0	4
125	MP4C	Z	.902	4
126	MP4C	Mx	-.000631	4
127	MP4C	X	0	5
128	MP4C	Z	.902	5
129	MP4C	Mx	-.000631	5

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

Member Label Direction Magnitude[lb.k-ft] Location[ft. %]



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 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	-4.332	.5
2	MP4A	Z	7.503	.5
3	MP4A	Mx	.008	.5
4	MP4A	X	-4.332	3.5
5	MP4A	Z	7.503	3.5
6	MP4A	Mx	.008	3.5
7	MP4B	X	-3.477	.5
8	MP4B	Z	6.023	.5
9	MP4B	Mx	-.004	.5
10	MP4B	X	-3.477	3.5
11	MP4B	Z	6.023	3.5
12	MP4B	Mx	-.004	3.5
13	MP4C	X	-4.332	.5
14	MP4C	Z	7.503	.5
15	MP4C	Mx	-.003	.5
16	MP4C	X	-4.332	3.5
17	MP4C	Z	7.503	3.5
18	MP4C	Mx	-.003	3.5
19	MP4A	X	-4.332	.5
20	MP4A	Z	7.503	.5
21	MP4A	Mx	-.003	.5
22	MP4A	X	-4.332	3.5
23	MP4A	Z	7.503	3.5
24	MP4A	Mx	-.003	3.5
25	MP4B	X	-3.477	.5
26	MP4B	Z	6.023	.5
27	MP4B	Mx	-.003	.5
28	MP4B	X	-3.477	3.5
29	MP4B	Z	6.023	3.5
30	MP4B	Mx	-.003	3.5
31	MP4C	X	-4.332	.5
32	MP4C	Z	7.503	.5
33	MP4C	Mx	.008	.5
34	MP4C	X	-4.332	3.5
35	MP4C	Z	7.503	3.5
36	MP4C	Mx	.008	3.5
37	MP1A	X	-1.869	.5
38	MP1A	Z	3.237	.5
39	MP1A	Mx	.000934	.5
40	MP1A	X	-1.869	2.5
41	MP1A	Z	3.237	2.5
42	MP1A	Mx	.000934	2.5
43	MP1B	X	-.903	.5
44	MP1B	Z	1.565	.5
45	MP1B	Mx	-.00089	.5
46	MP1B	X	-.903	2.5
47	MP1B	Z	1.565	2.5
48	MP1B	Mx	-.00089	2.5
49	MP1C	X	-1.869	.5
50	MP1C	Z	3.237	.5
51	MP1C	Mx	.000934	.5
52	MP1C	X	-1.869	2.5
53	MP1C	Z	3.237	2.5
54	MP1C	Mx	.000934	2.5
55	M61	X	-3.582	1
56	M61	Z	6.205	1
57	M61	Mx	.002	1



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
58	MP4A	X	-1.609	2
59	MP4A	Z	2.786	2
60	MP4A	Mx	-0.00804	2
61	MP4B	X	-1.19	2
62	MP4B	Z	2.061	2
63	MP4B	Mx	.001	2
64	MP4C	X	-1.609	2
65	MP4C	Z	2.786	2
66	MP4C	Mx	-0.00804	2
67	MP3A	X	-1.582	2
68	MP3A	Z	2.741	2
69	MP3A	Mx	-0.00791	2
70	MP3B	X	-1.088	2
71	MP3B	Z	1.884	2
72	MP3B	Mx	.001	2
73	MP3C	X	-1.582	2
74	MP3C	Z	2.741	2
75	MP3C	Mx	-0.00791	2
76	MP2A	X	-3.15	.5
77	MP2A	Z	5.456	.5
78	MP2A	Mx	.002	.5
79	MP2A	X	-3.15	3.5
80	MP2A	Z	5.456	3.5
81	MP2A	Mx	.002	3.5
82	MP2B	X	-1.998	.5
83	MP2B	Z	3.461	.5
84	MP2B	Mx	-.002	.5
85	MP2B	X	-1.998	3.5
86	MP2B	Z	3.461	3.5
87	MP2B	Mx	-.002	3.5
88	MP2C	X	-3.15	.5
89	MP2C	Z	5.456	.5
90	MP2C	Mx	.002	.5
91	MP2C	X	-3.15	3.5
92	MP2C	Z	5.456	3.5
93	MP2C	Mx	.002	3.5
94	MP4A	X	-.451	4
95	MP4A	Z	.78	4
96	MP4A	Mx	-0.00191	4
97	MP4A	X	-.451	5
98	MP4A	Z	.78	5
99	MP4A	Mx	-0.00191	5
100	MP4B	X	-.452	4
101	MP4B	Z	.782	4
102	MP4B	Mx	.000837	4
103	MP4B	X	-.452	5
104	MP4B	Z	.782	5
105	MP4B	Mx	.000837	5
106	MP4C	X	-.451	4
107	MP4C	Z	.78	4
108	MP4C	Mx	-0.00071	4
109	MP4C	X	-.451	5
110	MP4C	Z	.78	5
111	MP4C	Mx	-0.00071	5
112	MP4A	X	-.451	4
113	MP4A	Z	.78	4
114	MP4A	Mx	-0.000711	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
115	MP4A	X	- .451	5
116	MP4A	Z	.78	5
117	MP4A	Mx	-.000711	5
118	MP4B	X	-.452	4
119	MP4B	Z	.782	4
120	MP4B	Mx	.000942	4
121	MP4B	X	-.452	5
122	MP4B	Z	.782	5
123	MP4B	Mx	.000942	5
124	MP4C	X	-.451	4
125	MP4C	Z	.78	4
126	MP4C	Mx	-.00019	4
127	MP4C	X	-.451	5
128	MP4C	Z	.78	5
129	MP4C	Mx	-.00019	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-6.475	.5
2	MP4A	Z	3.738	.5
3	MP4A	Mx	.006	.5
4	MP4A	X	-6.475	3.5
5	MP4A	Z	3.738	3.5
6	MP4A	Mx	.006	3.5
7	MP4B	X	-6.201	.5
8	MP4B	Z	3.58	.5
9	MP4B	Mx	-.002	.5
10	MP4B	X	-6.201	3.5
11	MP4B	Z	3.58	3.5
12	MP4B	Mx	-.002	3.5
13	MP4C	X	-8.018	.5
14	MP4C	Z	4.629	.5
15	MP4C	Mx	-.007	.5
16	MP4C	X	-8.018	3.5
17	MP4C	Z	4.629	3.5
18	MP4C	Mx	-.007	3.5
19	MP4A	X	-6.475	.5
20	MP4A	Z	3.738	.5
21	MP4A	Mx	.000434	.5
22	MP4A	X	-6.475	3.5
23	MP4A	Z	3.738	3.5
24	MP4A	Mx	.000434	3.5
25	MP4B	X	-6.201	.5
26	MP4B	Z	3.58	.5
27	MP4B	Mx	-.005	.5
28	MP4B	X	-6.201	3.5
29	MP4B	Z	3.58	3.5
30	MP4B	Mx	-.005	3.5
31	MP4C	X	-8.018	.5
32	MP4C	Z	4.629	.5
33	MP4C	Mx	.007	.5
34	MP4C	X	-8.018	3.5
35	MP4C	Z	4.629	3.5
36	MP4C	Mx	.007	3.5
37	MP1A	X	-2.075	.5
38	MP1A	Z	1.198	.5



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
39	MP1A	Mx	.001	.5
40	MP1A	X	-2.075	2.5
41	MP1A	Z	1.198	2.5
42	MP1A	Mx	.001	2.5
43	MP1B	X	-1.766	.5
44	MP1B	Z	1.02	.5
45	MP1B	Mx	-.000958	.5
46	MP1B	X	-1.766	2.5
47	MP1B	Z	1.02	2.5
48	MP1B	Mx	-.000958	2.5
49	MP1C	X	-3.818	.5
50	MP1C	Z	2.204	.5
51	MP1C	Mx	0	.5
52	MP1C	X	-3.818	2.5
53	MP1C	Z	2.204	2.5
54	MP1C	Mx	0	2.5
55	M61	X	-5.423	1
56	M61	Z	3.131	1
57	M61	Mx	.003	1
58	MP4A	X	-2.283	2
59	MP4A	Z	1.318	2
60	MP4A	Mx	-.001	2
61	MP4B	X	-2.149	2
62	MP4B	Z	1.24	2
63	MP4B	Mx	.001	2
64	MP4C	X	-3.038	2
65	MP4C	Z	1.754	2
66	MP4C	Mx	0	2
67	MP3A	X	-2.146	2
68	MP3A	Z	1.239	2
69	MP3A	Mx	-.001	2
70	MP3B	X	-1.987	2
71	MP3B	Z	1.147	2
72	MP3B	Mx	.001	2
73	MP3C	X	-3.038	2
74	MP3C	Z	1.754	2
75	MP3C	Mx	0	2
76	MP2A	X	-4.071	.5
77	MP2A	Z	2.35	.5
78	MP2A	Mx	.002	.5
79	MP2A	X	-4.071	3.5
80	MP2A	Z	2.35	3.5
81	MP2A	Mx	.002	3.5
82	MP2B	X	-3.702	.5
83	MP2B	Z	2.137	.5
84	MP2B	Mx	-.002	.5
85	MP2B	X	-3.702	3.5
86	MP2B	Z	2.137	3.5
87	MP2B	Mx	-.002	3.5
88	MP2C	X	-6.149	.5
89	MP2C	Z	3.55	.5
90	MP2C	Mx	0	.5
91	MP2C	X	-6.149	3.5
92	MP2C	Z	3.55	3.5
93	MP2C	Mx	0	3.5
94	MP4A	X	-.782	4
95	MP4A	Z	.451	4



Company : Colliers Engineering & Design
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Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
96	MP4A	Mx	-.000632	4
97	MP4A	X	-.782	5
98	MP4A	Z	.451	5
99	MP4A	Mx	-.000632	5
100	MP4B	X	-.782	4
101	MP4B	Z	.451	4
102	MP4B	Mx	.000951	4
103	MP4B	X	-.782	5
104	MP4B	Z	.451	5
105	MP4B	Mx	.000951	5
106	MP4C	X	-.78	4
107	MP4C	Z	.45	4
108	MP4C	Mx	-.0003	4
109	MP4C	X	-.78	5
110	MP4C	Z	.45	5
111	MP4C	Mx	-.0003	5
112	MP4A	X	-.782	4
113	MP4A	Z	.451	4
114	MP4A	Mx	-.000932	4
115	MP4A	X	-.782	5
116	MP4A	Z	.451	5
117	MP4A	Mx	-.000932	5
118	MP4B	X	-.782	4
119	MP4B	Z	.451	4
120	MP4B	Mx	.000745	4
121	MP4B	X	-.782	5
122	MP4B	Z	.451	5
123	MP4B	Mx	.000745	5
124	MP4C	X	-.78	4
125	MP4C	Z	.45	4
126	MP4C	Mx	.0003	4
127	MP4C	X	-.78	5
128	MP4C	Z	.45	5
129	MP4C	Mx	.0003	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	-6.883	.5
2	MP4A	Z	0	.5
3	MP4A	Mx	.003	.5
4	MP4A	X	-6.883	3.5
5	MP4A	Z	0	3.5
6	MP4A	Mx	.003	3.5
7	MP4B	X	-8.277	.5
8	MP4B	Z	0	.5
9	MP4B	Mx	.002	.5
10	MP4B	X	-8.277	3.5
11	MP4B	Z	0	3.5
12	MP4B	Mx	.002	3.5
13	MP4C	X	-8.664	.5
14	MP4C	Z	0	.5
15	MP4C	Mx	-.008	.5
16	MP4C	X	-8.664	3.5
17	MP4C	Z	0	3.5
18	MP4C	Mx	-.008	3.5
19	MP4A	X	-6.883	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
20	MP4A	Z	0	.5
21	MP4A	Mx	.003	.5
22	MP4A	X	-6.883	3.5
23	MP4A	Z	0	3.5
24	MP4A	Mx	.003	3.5
25	MP4B	X	-8.277	.5
26	MP4B	Z	0	.5
27	MP4B	Mx	-.007	.5
28	MP4B	X	-8.277	3.5
29	MP4B	Z	0	3.5
30	MP4B	Mx	-.007	3.5
31	MP4C	X	-8.664	.5
32	MP4C	Z	0	.5
33	MP4C	Mx	.003	.5
34	MP4C	X	-8.664	3.5
35	MP4C	Z	0	3.5
36	MP4C	Mx	.003	3.5
37	MP1A	X	-1.726	.5
38	MP1A	Z	0	.5
39	MP1A	Mx	.000863	.5
40	MP1A	X	-1.726	2.5
41	MP1A	Z	0	2.5
42	MP1A	Mx	.000863	2.5
43	MP1B	X	-3.3	.5
44	MP1B	Z	0	.5
45	MP1B	Mx	-.001	.5
46	MP1B	X	-3.3	2.5
47	MP1B	Z	0	2.5
48	MP1B	Mx	-.001	2.5
49	MP1C	X	-3.738	.5
50	MP1C	Z	0	.5
51	MP1C	Mx	-.000934	.5
52	MP1C	X	-3.738	2.5
53	MP1C	Z	0	2.5
54	MP1C	Mx	-.000934	2.5
55	M61	X	-5.811	1
56	M61	Z	0	1
57	M61	Mx	.003	1
58	MP4A	X	-2.345	2
59	MP4A	Z	0	2
60	MP4A	Mx	-.001	2
61	MP4B	X	-3.027	2
62	MP4B	Z	0	2
63	MP4B	Mx	.000973	2
64	MP4C	X	-3.217	2
65	MP4C	Z	0	2
66	MP4C	Mx	.000804	2
67	MP3A	X	-2.134	2
68	MP3A	Z	0	2
69	MP3A	Mx	-.001	2
70	MP3B	X	-2.94	2
71	MP3B	Z	0	2
72	MP3B	Mx	.000945	2
73	MP3C	X	-3.164	2
74	MP3C	Z	0	2
75	MP3C	Mx	.000791	2
76	MP2A	X	-3.9	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
77	MP2A	Z	0	.5
78	MP2A	Mx	.002	.5
79	MP2A	X	-3.9	3.5
80	MP2A	Z	0	3.5
81	MP2A	Mx	.002	3.5
82	MP2B	X	-5.778	.5
83	MP2B	Z	0	.5
84	MP2B	Mx	-.002	.5
85	MP2B	X	-5.778	3.5
86	MP2B	Z	0	3.5
87	MP2B	Mx	-.002	3.5
88	MP2C	X	-6.3	.5
89	MP2C	Z	0	.5
90	MP2C	Mx	-.002	.5
91	MP2C	X	-6.3	3.5
92	MP2C	Z	0	3.5
93	MP2C	Mx	-.002	3.5
94	MP4A	X	-.903	4
95	MP4A	Z	0	4
96	MP4A	Mx	-.000903	4
97	MP4A	X	-.903	5
98	MP4A	Z	0	5
99	MP4A	Mx	-.000903	5
100	MP4B	X	-.902	4
101	MP4B	Z	0	4
102	MP4B	Mx	.00081	4
103	MP4B	X	-.902	5
104	MP4B	Z	0	5
105	MP4B	Mx	.00081	5
106	MP4C	X	-.901	4
107	MP4C	Z	0	4
108	MP4C	Mx	.00019	4
109	MP4C	X	-.901	5
110	MP4C	Z	0	5
111	MP4C	Mx	.00019	5
112	MP4A	X	-.903	4
113	MP4A	Z	0	4
114	MP4A	Mx	-.000903	4
115	MP4A	X	-.903	5
116	MP4A	Z	0	5
117	MP4A	Mx	-.000903	5
118	MP4B	X	-.902	4
119	MP4B	Z	0	4
120	MP4B	Mx	.000349	4
121	MP4B	X	-.902	5
122	MP4B	Z	0	5
123	MP4B	Mx	.000349	5
124	MP4C	X	-.901	4
125	MP4C	Z	0	4
126	MP4C	Mx	.000711	4
127	MP4C	X	-.901	5
128	MP4C	Z	0	5
129	MP4C	Mx	.000711	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
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Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	-6.475	.5
2	MP4A	Z	-3.738	.5
3	MP4A	Mx	.000434	.5
4	MP4A	X	-6.475	3.5
5	MP4A	Z	-3.738	3.5
6	MP4A	Mx	.000434	3.5
7	MP4B	X	-7.955	.5
8	MP4B	Z	-4.593	.5
9	MP4B	Mx	.006	.5
10	MP4B	X	-7.955	3.5
11	MP4B	Z	-4.593	3.5
12	MP4B	Mx	.006	3.5
13	MP4C	X	-6.475	.5
14	MP4C	Z	-3.738	.5
15	MP4C	Mx	-.006	.5
16	MP4C	X	-6.475	3.5
17	MP4C	Z	-3.738	3.5
18	MP4C	Mx	-.006	3.5
19	MP4A	X	-6.475	.5
20	MP4A	Z	-3.738	.5
21	MP4A	Mx	.006	.5
22	MP4A	X	-6.475	3.5
23	MP4A	Z	-3.738	3.5
24	MP4A	Mx	.006	3.5
25	MP4B	X	-7.955	.5
26	MP4B	Z	-4.593	.5
27	MP4B	Mx	-.008	.5
28	MP4B	X	-7.955	3.5
29	MP4B	Z	-4.593	3.5
30	MP4B	Mx	-.008	3.5
31	MP4C	X	-6.475	.5
32	MP4C	Z	-3.738	.5
33	MP4C	Mx	-.000433	.5
34	MP4C	X	-6.475	3.5
35	MP4C	Z	-3.738	3.5
36	MP4C	Mx	-.000433	3.5
37	MP1A	X	-2.075	.5
38	MP1A	Z	-1.198	.5
39	MP1A	Mx	.001	.5
40	MP1A	X	-2.075	2.5
41	MP1A	Z	-1.198	2.5
42	MP1A	Mx	.001	2.5
43	MP1B	X	-3.748	.5
44	MP1B	Z	-2.164	.5
45	MP1B	Mx	-.000376	.5
46	MP1B	X	-3.748	2.5
47	MP1B	Z	-2.164	2.5
48	MP1B	Mx	-.000376	2.5
49	MP1C	X	-2.075	.5
50	MP1C	Z	-1.198	.5
51	MP1C	Mx	-.001	.5
52	MP1C	X	-2.075	2.5
53	MP1C	Z	-1.198	2.5
54	MP1C	Mx	-.001	2.5
55	M61	X	-5.423	1
56	M61	Z	-3.131	1
57	M61	Mx	.003	1



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
58	MP4A	X	-2.283	2
59	MP4A	Z	-1.318	2
60	MP4A	Mx	-.001	2
61	MP4B	X	-3.008	2
62	MP4B	Z	-1.736	2
63	MP4B	Mx	.000302	2
64	MP4C	X	-2.283	2
65	MP4C	Z	-1.318	2
66	MP4C	Mx	.001	2
67	MP3A	X	-2.146	2
68	MP3A	Z	-1.239	2
69	MP3A	Mx	-.001	2
70	MP3B	X	-3.002	2
71	MP3B	Z	-1.733	2
72	MP3B	Mx	.000301	2
73	MP3C	X	-2.146	2
74	MP3C	Z	-1.239	2
75	MP3C	Mx	.001	2
76	MP2A	X	-4.071	.5
77	MP2A	Z	-2.35	.5
78	MP2A	Mx	.002	.5
79	MP2A	X	-4.071	3.5
80	MP2A	Z	-2.35	3.5
81	MP2A	Mx	.002	3.5
82	MP2B	X	-6.066	.5
83	MP2B	Z	-3.502	.5
84	MP2B	Mx	-.000608	.5
85	MP2B	X	-6.066	3.5
86	MP2B	Z	-3.502	3.5
87	MP2B	Mx	-.000608	3.5
88	MP2C	X	-4.071	.5
89	MP2C	Z	-2.35	.5
90	MP2C	Mx	-.002	.5
91	MP2C	X	-4.071	3.5
92	MP2C	Z	-2.35	3.5
93	MP2C	Mx	-.002	3.5
94	MP4A	X	-.782	4
95	MP4A	Z	-.451	4
96	MP4A	Mx	-.000932	4
97	MP4A	X	-.782	5
98	MP4A	Z	-.451	5
99	MP4A	Mx	-.000932	5
100	MP4B	X	-.78	4
101	MP4B	Z	-.45	4
102	MP4B	Mx	.000452	4
103	MP4B	X	-.78	5
104	MP4B	Z	-.45	5
105	MP4B	Mx	.000452	5
106	MP4C	X	-.782	4
107	MP4C	Z	-.451	4
108	MP4C	Mx	.000631	4
109	MP4C	X	-.782	5
110	MP4C	Z	-.451	5
111	MP4C	Mx	.000631	5
112	MP4A	X	-.782	4
113	MP4A	Z	-.451	4
114	MP4A	Mx	-.000632	4



Company : Colliers Engineering & Design
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Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
115	MP4A	X	-782	5
116	MP4A	Z	-451	5
117	MP4A	Mx	-.000632	5
118	MP4B	X	-78	4
119	MP4B	Z	-45	4
120	MP4B	Mx	-.000139	4
121	MP4B	X	-78	5
122	MP4B	Z	-45	5
123	MP4B	Mx	-.000139	5
124	MP4C	X	-782	4
125	MP4C	Z	-451	4
126	MP4C	Mx	.000932	4
127	MP4C	X	-782	5
128	MP4C	Z	-451	5
129	MP4C	Mx	.000932	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	X	-4.332	.5
2	MP4A	Z	-7.503	.5
3	MP4A	Mx	-.003	.5
4	MP4A	X	-4.332	3.5
5	MP4A	Z	-7.503	3.5
6	MP4A	Mx	-.003	3.5
7	MP4B	X	-4.49	.5
8	MP4B	Z	-7.777	.5
9	MP4B	Mx	.008	.5
10	MP4B	X	-4.49	3.5
11	MP4B	Z	-7.777	3.5
12	MP4B	Mx	.008	3.5
13	MP4C	X	-3.441	.5
14	MP4C	Z	-5.961	.5
15	MP4C	Mx	-.003	.5
16	MP4C	X	-3.441	3.5
17	MP4C	Z	-5.961	3.5
18	MP4C	Mx	-.003	3.5
19	MP4A	X	-4.332	.5
20	MP4A	Z	-7.503	.5
21	MP4A	Mx	.008	.5
22	MP4A	X	-4.332	3.5
23	MP4A	Z	-7.503	3.5
24	MP4A	Mx	.008	3.5
25	MP4B	X	-4.49	.5
26	MP4B	Z	-7.777	.5
27	MP4B	Mx	-.005	.5
28	MP4B	X	-4.49	3.5
29	MP4B	Z	-7.777	3.5
30	MP4B	Mx	-.005	3.5
31	MP4C	X	-3.441	.5
32	MP4C	Z	-5.961	.5
33	MP4C	Mx	-.003	.5
34	MP4C	X	-3.441	3.5
35	MP4C	Z	-5.961	3.5
36	MP4C	Mx	-.003	3.5
37	MP1A	X	-1.869	.5
38	MP1A	Z	-3.237	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
39	MP1A	Mx	.000934	.5
40	MP1A	X	-1.869	2.5
41	MP1A	Z	-3.237	2.5
42	MP1A	Mx	.000934	2.5
43	MP1B	X	-2.047	.5
44	MP1B	Z	-3.546	.5
45	MP1B	Mx	.0007	.5
46	MP1B	X	-2.047	2.5
47	MP1B	Z	-3.546	2.5
48	MP1B	Mx	.0007	2.5
49	MP1C	X	-.863	.5
50	MP1C	Z	-1.495	.5
51	MP1C	Mx	-.000863	.5
52	MP1C	X	-.863	2.5
53	MP1C	Z	-1.495	2.5
54	MP1C	Mx	-.000863	2.5
55	M61	X	-3.582	1
56	M61	Z	-6.205	1
57	M61	Mx	.002	1
58	MP4A	X	-1.609	2
59	MP4A	Z	-2.786	2
60	MP4A	Mx	-.000804	2
61	MP4B	X	-1.686	2
62	MP4B	Z	-2.92	2
63	MP4B	Mx	-.000577	2
64	MP4C	X	-1.172	2
65	MP4C	Z	-2.031	2
66	MP4C	Mx	.001	2
67	MP3A	X	-1.582	2
68	MP3A	Z	-2.741	2
69	MP3A	Mx	-.000791	2
70	MP3B	X	-1.674	2
71	MP3B	Z	-2.899	2
72	MP3B	Mx	-.000572	2
73	MP3C	X	-1.067	2
74	MP3C	Z	-1.848	2
75	MP3C	Mx	.001	2
76	MP2A	X	-3.15	.5
77	MP2A	Z	-5.456	.5
78	MP2A	Mx	.002	.5
79	MP2A	X	-3.15	3.5
80	MP2A	Z	-5.456	3.5
81	MP2A	Mx	.002	3.5
82	MP2B	X	-3.363	.5
83	MP2B	Z	-5.825	.5
84	MP2B	Mx	.001	.5
85	MP2B	X	-3.363	3.5
86	MP2B	Z	-5.825	3.5
87	MP2B	Mx	.001	3.5
88	MP2C	X	-1.95	.5
89	MP2C	Z	-3.378	.5
90	MP2C	Mx	-.002	.5
91	MP2C	X	-1.95	3.5
92	MP2C	Z	-3.378	3.5
93	MP2C	Mx	-.002	3.5
94	MP4A	X	-.451	4
95	MP4A	Z	-.78	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
96	MP4A	Mx	-.000711	4
97	MP4A	X	-.451	5
98	MP4A	Z	-.78	5
99	MP4A	Mx	-.000711	5
100	MP4B	X	-.45	4
101	MP4B	Z	-.78	4
102	MP4B	Mx	-2.6e-5	4
103	MP4B	X	-.45	5
104	MP4B	Z	-.78	5
105	MP4B	Mx	-2.6e-5	5
106	MP4C	X	-.452	4
107	MP4C	Z	-.782	4
108	MP4C	Mx	.000903	4
109	MP4C	X	-.452	5
110	MP4C	Z	-.782	5
111	MP4C	Mx	.000903	5
112	MP4A	X	-.451	4
113	MP4A	Z	-.78	4
114	MP4A	Mx	-.000191	4
115	MP4A	X	-.451	5
116	MP4A	Z	-.78	5
117	MP4A	Mx	-.000191	5
118	MP4B	X	-.45	4
119	MP4B	Z	-.78	4
120	MP4B	Mx	-.00059	4
121	MP4B	X	-.45	5
122	MP4B	Z	-.78	5
123	MP4B	Mx	-.00059	5
124	MP4C	X	-.452	4
125	MP4C	Z	-.782	4
126	MP4C	Mx	.000903	4
127	MP4C	X	-.452	5
128	MP4C	Z	-.782	5
129	MP4C	Mx	.000903	5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M7A	Y	-500	%5

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M7A	Y	-500	%95

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M7A	Y	-250	%50

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M7A	Y	-250	%100

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	Y	-1.05	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
2	MP4A	My	-0.00525	.5
3	MP4A	Mz	.000788	.5
4	MP4A	Y	-1.05	3.5
5	MP4A	My	-0.00525	3.5
6	MP4A	Mz	.000788	3.5
7	MP4B	Y	-1.05	.5
8	MP4B	My	-0.00266	.5
9	MP4B	Mz	-0.00908	.5
10	MP4B	Y	-1.05	3.5
11	MP4B	My	-0.00266	3.5
12	MP4B	Mz	-0.00908	3.5
13	MP4C	Y	-1.05	.5
14	MP4C	My	.000945	.5
15	MP4C	Mz	6.1e-5	.5
16	MP4C	Y	-1.05	3.5
17	MP4C	My	.000945	3.5
18	MP4C	Mz	6.1e-5	3.5
19	MP4A	Y	-1.05	.5
20	MP4A	My	-0.00525	.5
21	MP4A	Mz	-0.00788	.5
22	MP4A	Y	-1.05	3.5
23	MP4A	My	-0.00525	3.5
24	MP4A	Mz	-0.00788	3.5
25	MP4B	Y	-1.05	.5
26	MP4B	My	.000941	.5
27	MP4B	Mz	.000104	.5
28	MP4B	Y	-1.05	3.5
29	MP4B	My	.000941	3.5
30	MP4B	Mz	.000104	3.5
31	MP4C	Y	-1.05	.5
32	MP4C	My	-0.0042	.5
33	MP4C	Mz	.000848	.5
34	MP4C	Y	-1.05	3.5
35	MP4C	My	-0.0042	3.5
36	MP4C	Mz	.000848	3.5
37	MP1A	Y	-1.988	.5
38	MP1A	My	-0.00994	.5
39	MP1A	Mz	0	.5
40	MP1A	Y	-1.988	2.5
41	MP1A	My	-0.00994	2.5
42	MP1A	Mz	0	2.5
43	MP1B	Y	-1.988	.5
44	MP1B	My	.000639	.5
45	MP1B	Mz	-0.00762	.5
46	MP1B	Y	-1.988	2.5
47	MP1B	My	.000639	2.5
48	MP1B	Mz	-0.00762	2.5
49	MP1C	Y	-1.988	.5
50	MP1C	My	.000497	.5
51	MP1C	Mz	.000861	.5
52	MP1C	Y	-1.988	2.5
53	MP1C	My	.000497	2.5
54	MP1C	Mz	.000861	2.5
55	M61	Y	-1.461	1
56	M61	My	-0.0073	1
57	M61	Mz	0	1
58	MP4A	Y	-3.41	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
59	MP4A	Mv	.002	2
60	MP4A	Mz	0	2
61	MP4B	Y	-3.41	2
62	MP4B	My	-.001	2
63	MP4B	Mz	.001	2
64	MP4C	Y	-3.41	2
65	MP4C	Mv	-.000853	2
66	MP4C	Mz	-.001	2
67	MP3A	Y	-3.209	2
68	MP3A	My	.002	2
69	MP3A	Mz	0	2
70	MP3B	Y	-3.209	2
71	MP3B	Mv	-.001	2
72	MP3B	Mz	.001	2
73	MP3C	Y	-3.209	2
74	MP3C	My	-.000802	2
75	MP3C	Mz	-.001	2
76	MP2A	Y	-.388	.5
77	MP2A	Mv	-.000194	.5
78	MP2A	Mz	0	.5
79	MP2A	Y	-.388	3.5
80	MP2A	My	-.000194	3.5
81	MP2A	Mz	0	3.5
82	MP2B	Y	-.388	.5
83	MP2B	Mv	.000125	.5
84	MP2B	Mz	-.000149	.5
85	MP2B	Y	-.388	3.5
86	MP2B	My	.000125	3.5
87	MP2B	Mz	-.000149	3.5
88	MP2C	Y	-.388	.5
89	MP2C	Mv	9.7e-5	.5
90	MP2C	Mz	.000168	.5
91	MP2C	Y	-.388	3.5
92	MP2C	My	9.7e-5	3.5
93	MP2C	Mz	.000168	3.5
94	MP4A	Y	-.402	4
95	MP4A	Mv	.000402	4
96	MP4A	Mz	.000134	4
97	MP4A	Y	-.402	5
98	MP4A	My	.000402	5
99	MP4A	Mz	.000134	5
100	MP4B	Y	-.402	4
101	MP4B	My	-.000361	4
102	MP4B	Mz	.000222	4
103	MP4B	Y	-.402	5
104	MP4B	My	-.000361	5
105	MP4B	Mz	.000222	5
106	MP4C	Y	-.402	4
107	MP4C	My	-8.5e-5	4
108	MP4C	Mz	-.000415	4
109	MP4C	Y	-.402	5
110	MP4C	My	-8.5e-5	5
111	MP4C	Mz	-.000415	5
112	MP4A	Y	-.402	4
113	MP4A	Mv	.000402	4
114	MP4A	Mz	-.000134	4
115	MP4A	Y	-.402	5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
116	MP4A	My	.000402	5
117	MP4A	Mz	-.000134	5
118	MP4B	Y	-.402	4
119	MP4B	My	-.000156	4
120	MP4B	Mz	.000394	4
121	MP4B	Y	-.402	5
122	MP4B	My	-.000156	5
123	MP4B	Mz	.000394	5
124	MP4C	Y	-.402	4
125	MP4C	My	-.000317	4
126	MP4C	Mz	-.000281	4
127	MP4C	Y	-.402	5
128	MP4C	My	-.000317	5
129	MP4C	Mz	-.000281	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP4A	Z	-2.625	.5
2	MP4A	Mx	-.002	.5
3	MP4A	Z	-2.625	3.5
4	MP4A	Mx	-.002	3.5
5	MP4B	Z	-2.625	.5
6	MP4B	Mx	.002	.5
7	MP4B	Z	-2.625	3.5
8	MP4B	Mx	.002	3.5
9	MP4C	Z	-2.625	.5
10	MP4C	Mx	-.000152	.5
11	MP4C	Z	-2.625	3.5
12	MP4C	Mx	-.000152	3.5
13	MP4A	Z	-2.625	.5
14	MP4A	Mx	.002	.5
15	MP4A	Z	-2.625	3.5
16	MP4A	Mx	.002	3.5
17	MP4B	Z	-2.625	.5
18	MP4B	Mx	-.00026	.5
19	MP4B	Z	-2.625	3.5
20	MP4B	Mx	-.00026	3.5
21	MP4C	Z	-2.625	.5
22	MP4C	Mx	-.002	.5
23	MP4C	Z	-2.625	3.5
24	MP4C	Mx	-.002	3.5
25	MP1A	Z	-4.971	.5
26	MP1A	Mx	0	.5
27	MP1A	Z	-4.971	2.5
28	MP1A	Mx	0	2.5
29	MP1B	Z	-4.971	.5
30	MP1B	Mx	.002	.5
31	MP1B	Z	-4.971	2.5
32	MP1B	Mx	.002	2.5
33	MP1C	Z	-4.971	.5
34	MP1C	Mx	-.002	.5
35	MP1C	Z	-4.971	2.5
36	MP1C	Mx	-.002	2.5
37	M61	Z	-3.652	1
38	M61	Mx	0	1
39	MP4A	Z	-8.526	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
40	MP4A	Mx	0	2
41	MP4B	Z	-8.526	2
42	MP4B	Mx	-.003	2
43	MP4C	Z	-8.526	2
44	MP4C	Mx	.004	2
45	MP3A	Z	-8.024	2
46	MP3A	Mx	0	2
47	MP3B	Z	-8.024	2
48	MP3B	Mx	-.003	2
49	MP3C	Z	-8.024	2
50	MP3C	Mx	.003	2
51	MP2A	Z	-.97	.5
52	MP2A	Mx	0	.5
53	MP2A	Z	-.97	3.5
54	MP2A	Mx	0	3.5
55	MP2B	Z	-.97	.5
56	MP2B	Mx	.000372	.5
57	MP2B	Z	-.97	3.5
58	MP2B	Mx	.000372	3.5
59	MP2C	Z	-.97	.5
60	MP2C	Mx	-.00042	.5
61	MP2C	Z	-.97	3.5
62	MP2C	Mx	-.00042	3.5
63	MP4A	Z	-1.004	4
64	MP4A	Mx	-.000335	4
65	MP4A	Z	-1.004	5
66	MP4A	Mx	-.000335	5
67	MP4B	Z	-1.004	4
68	MP4B	Mx	-.000554	4
69	MP4B	Z	-1.004	5
70	MP4B	Mx	-.000554	5
71	MP4C	Z	-1.004	4
72	MP4C	Mx	.001	4
73	MP4C	Z	-1.004	5
74	MP4C	Mx	.001	5
75	MP4A	Z	-1.004	4
76	MP4A	Mx	.000335	4
77	MP4A	Z	-1.004	5
78	MP4A	Mx	.000335	5
79	MP4B	Z	-1.004	4
80	MP4B	Mx	-.000985	4
81	MP4B	Z	-1.004	5
82	MP4B	Mx	-.000985	5
83	MP4C	Z	-1.004	4
84	MP4C	Mx	.000702	4
85	MP4C	Z	-1.004	5
86	MP4C	Mx	.000702	5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	2.625	.5
2	MP4A	Mx	-.001	.5
3	MP4A	X	2.625	3.5
4	MP4A	Mx	-.001	3.5
5	MP4B	X	2.625	.5
6	MP4B	Mx	-.000665	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
7	MP4B	X	2.625	3.5
8	MP4B	Mx	-.000665	3.5
9	MP4C	X	2.625	.5
10	MP4C	Mx	.002	.5
11	MP4C	X	2.625	3.5
12	MP4C	Mx	.002	3.5
13	MP4A	X	2.625	.5
14	MP4A	Mx	-.001	.5
15	MP4A	X	2.625	3.5
16	MP4A	Mx	-.001	3.5
17	MP4B	X	2.625	.5
18	MP4B	Mx	.002	.5
19	MP4B	X	2.625	3.5
20	MP4B	Mx	.002	3.5
21	MP4C	X	2.625	.5
22	MP4C	Mx	-.001	.5
23	MP4C	X	2.625	3.5
24	MP4C	Mx	-.001	3.5
25	MP1A	X	4.971	.5
26	MP1A	Mx	-.002	.5
27	MP1A	X	4.971	2.5
28	MP1A	Mx	-.002	2.5
29	MP1B	X	4.971	.5
30	MP1B	Mx	.002	.5
31	MP1B	X	4.971	2.5
32	MP1B	Mx	.002	2.5
33	MP1C	X	4.971	.5
34	MP1C	Mx	.001	.5
35	MP1C	X	4.971	2.5
36	MP1C	Mx	.001	2.5
37	M61	X	3.652	1
38	M61	Mx	-.002	1
39	MP4A	X	8.526	2
40	MP4A	Mx	.004	2
41	MP4B	X	8.526	2
42	MP4B	Mx	-.003	2
43	MP4C	X	8.526	2
44	MP4C	Mx	-.002	2
45	MP3A	X	8.024	2
46	MP3A	Mx	.004	2
47	MP3B	X	8.024	2
48	MP3B	Mx	-.003	2
49	MP3C	X	8.024	2
50	MP3C	Mx	-.002	2
51	MP2A	X	.97	.5
52	MP2A	Mx	-.000485	.5
53	MP2A	X	.97	3.5
54	MP2A	Mx	-.000485	3.5
55	MP2B	X	.97	.5
56	MP2B	Mx	.000312	.5
57	MP2B	X	.97	3.5
58	MP2B	Mx	.000312	3.5
59	MP2C	X	.97	.5
60	MP2C	Mx	.000243	.5
61	MP2C	X	.97	3.5
62	MP2C	Mx	.000243	3.5
63	MP4A	X	1.004	4



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
64	MP4A	Mx	.001	4
65	MP4A	X	1.004	5
66	MP4A	Mx	.001	5
67	MP4B	X	1.004	4
68	MP4B	Mx	-.000902	4
69	MP4B	X	1.004	5
70	MP4B	Mx	-.000902	5
71	MP4C	X	1.004	4
72	MP4C	Mx	-.000212	4
73	MP4C	X	1.004	5
74	MP4C	Mx	-.000212	5
75	MP4A	X	1.004	4
76	MP4A	Mx	.001	4
77	MP4A	X	1.004	5
78	MP4A	Mx	.001	5
79	MP4B	X	1.004	4
80	MP4B	Mx	-.000389	4
81	MP4B	X	1.004	5
82	MP4B	Mx	-.000389	5
83	MP4C	X	1.004	4
84	MP4C	Mx	-.000792	4
85	MP4C	X	1.004	5
86	MP4C	Mx	-.000792	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	-9.214	-9.214	0	%100
2	M2	Y	-10.176	-10.176	0	%100
3	M5	Y	-9.681	-9.681	0	%100
4	M6	Y	-9.681	-9.681	0	%100
5	M7	Y	-9.681	-9.681	0	%100
6	M6A	Y	-7.289	-7.289	0	%100
7	M7A	Y	-7.289	-7.289	0	%100
8	M23A	Y	-7.289	-7.289	0	%100
9	M24	Y	-7.289	-7.289	0	%100
10	MP4C	Y	-4.748	-4.748	0	%100
11	MP3C	Y	-4.748	-4.748	0	%100
12	MP1C	Y	-4.748	-4.748	0	%100
13	MP2C	Y	-4.748	-4.748	0	%100
14	M38	Y	-9.214	-9.214	0	%100
15	M39A	Y	-7.289	-7.289	0	%100
16	M40	Y	-7.289	-7.289	0	%100
17	M54	Y	-9.214	-9.214	0	%100
18	M55	Y	-10.176	-10.176	0	%100
19	M56	Y	-10.176	-10.176	0	%100
20	M61	Y	-4.748	-4.748	0	%100
21	MP4B	Y	-4.748	-4.748	0	%100
22	MP3B	Y	-4.748	-4.748	0	%100
23	MP1B	Y	-4.748	-4.748	0	%100
24	MP2B	Y	-4.748	-4.748	0	%100
25	MP4A	Y	-4.748	-4.748	0	%100
26	MP3A	Y	-4.748	-4.748	0	%100
27	MP1A	Y	-4.748	-4.748	0	%100
28	MP2A	Y	-4.748	-4.748	0	%100
29	M42	Y	-10.701	-10.701	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
30	M43	Y	-10.701	-10.701	0	%100
31	M44	Y	-10.701	-10.701	0	%100
32	M49	Y	-5.428	-5.428	0	%100
33	M54A	Y	-5.428	-5.428	0	%100
34	M59	Y	-5.428	-5.428	0	%100
35	M64	Y	-5.428	-5.428	0	%100
36	M69	Y	-5.428	-5.428	0	%100
37	M74	Y	-5.428	-5.428	0	%100
38	M75	Y	-7.289	-7.289	0	%100
39	M76	Y	-7.289	-7.289	0	%100
40	M77	Y	-7.289	-7.289	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	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	M6	X	0	0	0	%100
8	M6	Z	-9.351	-9.351	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	-9.351	-9.351	0	%100
11	M6A	X	0	0	0	%100
12	M6A	Z	-15.008	-15.008	0	%100
13	M7A	X	0	0	0	%100
14	M7A	Z	-15.008	-15.008	0	%100
15	M23A	X	0	0	0	%100
16	M23A	Z	-3.752	-3.752	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	-3.752	-3.752	0	%100
19	MP4C	X	0	0	0	%100
20	MP4C	Z	-7.129	-7.129	0	%100
21	MP3C	X	0	0	0	%100
22	MP3C	Z	-7.129	-7.129	0	%100
23	MP1C	X	0	0	0	%100
24	MP1C	Z	-7.129	-7.129	0	%100
25	MP2C	X	0	0	0	%100
26	MP2C	Z	-7.129	-7.129	0	%100
27	M38	X	0	0	0	%100
28	M38	Z	-6.433	-6.433	0	%100
29	M39A	X	0	0	0	%100
30	M39A	Z	-3.752	-3.752	0	%100
31	M40	X	0	0	0	%100
32	M40	Z	-3.752	-3.752	0	%100
33	M54	X	0	0	0	%100
34	M54	Z	-6.433	-6.433	0	%100
35	M55	X	0	0	0	%100
36	M55	Z	-8.316	-8.316	0	%100
37	M56	X	0	0	0	%100
38	M56	Z	-8.316	-8.316	0	%100
39	M61	X	0	0	0	%100
40	M61	Z	-5.829	-5.829	0	%100
41	MP4B	X	0	0	0	%100
42	MP4B	Z	-7.129	-7.129	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.%]
43	MP3B	X	0	0	0	%100
44	MP3B	Z	-7.129	-7.129	0	%100
45	MP1B	X	0	0	0	%100
46	MP1B	Z	-7.129	-7.129	0	%100
47	MP2B	X	0	0	0	%100
48	MP2B	Z	-7.129	-7.129	0	%100
49	MP4A	X	0	0	0	%100
50	MP4A	Z	-7.129	-7.129	0	%100
51	MP3A	X	0	0	0	%100
52	MP3A	Z	-7.129	-7.129	0	%100
53	MP1A	X	0	0	0	%100
54	MP1A	Z	-7.129	-7.129	0	%100
55	MP2A	X	0	0	0	%100
56	MP2A	Z	-7.129	-7.129	0	%100
57	M42	X	0	0	0	%100
58	M42	Z	-5.397	-5.397	0	%100
59	M43	X	0	0	0	%100
60	M43	Z	-12.605	-12.605	0	%100
61	M44	X	0	0	0	%100
62	M44	Z	-12.605	-12.605	0	%100
63	M49	X	0	0	0	%100
64	M49	Z	-8.629	-8.629	0	%100
65	M54A	X	0	0	0	%100
66	M54A	Z	-8.629	-8.629	0	%100
67	M59	X	0	0	0	%100
68	M59	Z	-2.157	-2.157	0	%100
69	M64	X	0	0	0	%100
70	M64	Z	-2.157	-2.157	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	-2.157	-2.157	0	%100
73	M74	X	0	0	0	%100
74	M74	Z	-2.157	-2.157	0	%100
75	M75	X	0	0	0	%100
76	M75	Z	-2.195	-2.195	0	%100
77	M76	X	0	0	0	%100
78	M76	Z	-10.154	-10.154	0	%100
79	M77	X	0	0	0	%100
80	M77	Z	-2.906	-2.906	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.072	1.072	0	%100
2	M1	Z	-1.857	-1.857	0	%100
3	M2	X	1.386	1.386	0	%100
4	M2	Z	-2.401	-2.401	0	%100
5	M5	X	1.558	1.558	0	%100
6	M5	Z	-2.699	-2.699	0	%100
7	M6	X	1.558	1.558	0	%100
8	M6	Z	-2.699	-2.699	0	%100
9	M7	X	6.234	6.234	0	%100
10	M7	Z	-10.797	-10.797	0	%100
11	M6A	X	5.628	5.628	0	%100
12	M6A	Z	-9.748	-9.748	0	%100
13	M7A	X	5.628	5.628	0	%100
14	M7A	Z	-9.748	-9.748	0	%100
15	M23A	X	5.628	5.628	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.%]
16	M23A	Z	-9.748	-9.748	0	%100
17	M24	X	5.628	5.628	0	%100
18	M24	Z	-9.748	-9.748	0	%100
19	MP4C	X	3.564	3.564	0	%100
20	MP4C	Z	-6.174	-6.174	0	%100
21	MP3C	X	3.564	3.564	0	%100
22	MP3C	Z	-6.174	-6.174	0	%100
23	MP1C	X	3.564	3.564	0	%100
24	MP1C	Z	-6.174	-6.174	0	%100
25	MP2C	X	3.564	3.564	0	%100
26	MP2C	Z	-6.174	-6.174	0	%100
27	M38	X	1.072	1.072	0	%100
28	M38	Z	-1.857	-1.857	0	%100
29	M39A	X	0	0	0	%100
30	M39A	Z	0	0	0	%100
31	M40	X	0	0	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	4.288	4.288	0	%100
34	M54	Z	-7.428	-7.428	0	%100
35	M55	X	1.386	1.386	0	%100
36	M55	Z	-2.401	-2.401	0	%100
37	M56	X	5.544	5.544	0	%100
38	M56	Z	-9.603	-9.603	0	%100
39	M61	X	2.915	2.915	0	%100
40	M61	Z	-5.048	-5.048	0	%100
41	MP4B	X	3.564	3.564	0	%100
42	MP4B	Z	-6.174	-6.174	0	%100
43	MP3B	X	3.564	3.564	0	%100
44	MP3B	Z	-6.174	-6.174	0	%100
45	MP1B	X	3.564	3.564	0	%100
46	MP1B	Z	-6.174	-6.174	0	%100
47	MP2B	X	3.564	3.564	0	%100
48	MP2B	Z	-6.174	-6.174	0	%100
49	MP4A	X	3.564	3.564	0	%100
50	MP4A	Z	-6.174	-6.174	0	%100
51	MP3A	X	3.564	3.564	0	%100
52	MP3A	Z	-6.174	-6.174	0	%100
53	MP1A	X	3.564	3.564	0	%100
54	MP1A	Z	-6.174	-6.174	0	%100
55	MP2A	X	3.564	3.564	0	%100
56	MP2A	Z	-6.174	-6.174	0	%100
57	M42	X	3.9	3.9	0	%100
58	M42	Z	-6.755	-6.755	0	%100
59	M43	X	3.9	3.9	0	%100
60	M43	Z	-6.755	-6.755	0	%100
61	M44	X	7.504	7.504	0	%100
62	M44	Z	-12.997	-12.997	0	%100
63	M49	X	3.236	3.236	0	%100
64	M49	Z	-5.605	-5.605	0	%100
65	M54A	X	3.236	3.236	0	%100
66	M54A	Z	-5.605	-5.605	0	%100
67	M59	X	3.236	3.236	0	%100
68	M59	Z	-5.605	-5.605	0	%100
69	M64	X	3.236	3.236	0	%100
70	M64	Z	-5.605	-5.605	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	0	0	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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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.%]
73	M74	X	0	0	0	%100
74	M74	Z	0	0	0	%100
75	M75	X	3.632	3.632	0	%100
76	M75	Z	-6.291	-6.291	0	%100
77	M76	X	3.988	3.988	0	%100
78	M76	Z	-6.907	-6.907	0	%100
79	M77	X	.008	.008	0	%100
80	M77	Z	-.014	-.014	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	5.571	5.571	0	%100
2	M1	Z	-3.216	-3.216	0	%100
3	M2	X	7.202	7.202	0	%100
4	M2	Z	-4.158	-4.158	0	%100
5	M5	X	8.098	8.098	0	%100
6	M5	Z	-4.675	-4.675	0	%100
7	M6	X	0	0	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	8.098	8.098	0	%100
10	M7	Z	-4.675	-4.675	0	%100
11	M6A	X	3.249	3.249	0	%100
12	M6A	Z	-1.876	-1.876	0	%100
13	M7A	X	3.249	3.249	0	%100
14	M7A	Z	-1.876	-1.876	0	%100
15	M23A	X	12.997	12.997	0	%100
16	M23A	Z	-7.504	-7.504	0	%100
17	M24	X	12.997	12.997	0	%100
18	M24	Z	-7.504	-7.504	0	%100
19	MP4C	X	6.174	6.174	0	%100
20	MP4C	Z	-3.564	-3.564	0	%100
21	MP3C	X	6.174	6.174	0	%100
22	MP3C	Z	-3.564	-3.564	0	%100
23	MP1C	X	6.174	6.174	0	%100
24	MP1C	Z	-3.564	-3.564	0	%100
25	MP2C	X	6.174	6.174	0	%100
26	MP2C	Z	-3.564	-3.564	0	%100
27	M38	X	0	0	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	3.249	3.249	0	%100
30	M39A	Z	-1.876	-1.876	0	%100
31	M40	X	3.249	3.249	0	%100
32	M40	Z	-1.876	-1.876	0	%100
33	M54	X	5.571	5.571	0	%100
34	M54	Z	-3.216	-3.216	0	%100
35	M55	X	0	0	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	7.202	7.202	0	%100
38	M56	Z	-4.158	-4.158	0	%100
39	M61	X	5.048	5.048	0	%100
40	M61	Z	-2.915	-2.915	0	%100
41	MP4B	X	6.174	6.174	0	%100
42	MP4B	Z	-3.564	-3.564	0	%100
43	MP3B	X	6.174	6.174	0	%100
44	MP3B	Z	-3.564	-3.564	0	%100
45	MP1B	X	6.174	6.174	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.%]
46	MP1B	Z	-3.564	-3.564	0	%100
47	MP2B	X	6.174	6.174	0	%100
48	MP2B	Z	-3.564	-3.564	0	%100
49	MP4A	X	6.174	6.174	0	%100
50	MP4A	Z	-3.564	-3.564	0	%100
51	MP3A	X	6.174	6.174	0	%100
52	MP3A	Z	-3.564	-3.564	0	%100
53	MP1A	X	6.174	6.174	0	%100
54	MP1A	Z	-3.564	-3.564	0	%100
55	MP2A	X	6.174	6.174	0	%100
56	MP2A	Z	-3.564	-3.564	0	%100
57	M42	X	10.916	10.916	0	%100
58	M42	Z	-6.303	-6.303	0	%100
59	M43	X	4.674	4.674	0	%100
60	M43	Z	-2.699	-2.699	0	%100
61	M44	X	10.916	10.916	0	%100
62	M44	Z	-6.303	-6.303	0	%100
63	M49	X	1.868	1.868	0	%100
64	M49	Z	-1.079	-1.079	0	%100
65	M54A	X	1.868	1.868	0	%100
66	M54A	Z	-1.079	-1.079	0	%100
67	M59	X	7.473	7.473	0	%100
68	M59	Z	-4.315	-4.315	0	%100
69	M64	X	7.473	7.473	0	%100
70	M64	Z	-4.315	-4.315	0	%100
71	M69	X	1.868	1.868	0	%100
72	M69	Z	-1.079	-1.079	0	%100
73	M74	X	1.868	1.868	0	%100
74	M74	Z	-1.079	-1.079	0	%100
75	M75	X	8.794	8.794	0	%100
76	M75	Z	-5.077	-5.077	0	%100
77	M76	X	2.517	2.517	0	%100
78	M76	Z	-1.453	-1.453	0	%100
79	M77	X	1.901	1.901	0	%100
80	M77	Z	-1.098	-1.098	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	8.577	8.577	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	11.088	11.088	0	%100
4	M2	Z	0	0	0	%100
5	M5	X	12.468	12.468	0	%100
6	M5	Z	0	0	0	%100
7	M6	X	3.117	3.117	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	3.117	3.117	0	%100
10	M7	Z	0	0	0	%100
11	M6A	X	0	0	0	%100
12	M6A	Z	0	0	0	%100
13	M7A	X	0	0	0	%100
14	M7A	Z	0	0	0	%100
15	M23A	X	11.256	11.256	0	%100
16	M23A	Z	0	0	0	%100
17	M24	X	11.256	11.256	0	%100
18	M24	Z	0	0	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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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.%]
19	MP4C	X	7.129	7.129	0	%100
20	MP4C	Z	0	0	0	%100
21	MP3C	X	7.129	7.129	0	%100
22	MP3C	Z	0	0	0	%100
23	MP1C	X	7.129	7.129	0	%100
24	MP1C	Z	0	0	0	%100
25	MP2C	X	7.129	7.129	0	%100
26	MP2C	Z	0	0	0	%100
27	M38	X	2.144	2.144	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	11.256	11.256	0	%100
30	M39A	Z	0	0	0	%100
31	M40	X	11.256	11.256	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	2.144	2.144	0	%100
34	M54	Z	0	0	0	%100
35	M55	X	2.772	2.772	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	2.772	2.772	0	%100
38	M56	Z	0	0	0	%100
39	M61	X	5.829	5.829	0	%100
40	M61	Z	0	0	0	%100
41	MP4B	X	7.129	7.129	0	%100
42	MP4B	Z	0	0	0	%100
43	MP3B	X	7.129	7.129	0	%100
44	MP3B	Z	0	0	0	%100
45	MP1B	X	7.129	7.129	0	%100
46	MP1B	Z	0	0	0	%100
47	MP2B	X	7.129	7.129	0	%100
48	MP2B	Z	0	0	0	%100
49	MP4A	X	7.129	7.129	0	%100
50	MP4A	Z	0	0	0	%100
51	MP3A	X	7.129	7.129	0	%100
52	MP3A	Z	0	0	0	%100
53	MP1A	X	7.129	7.129	0	%100
54	MP1A	Z	0	0	0	%100
55	MP2A	X	7.129	7.129	0	%100
56	MP2A	Z	0	0	0	%100
57	M42	X	15.008	15.008	0	%100
58	M42	Z	0	0	0	%100
59	M43	X	7.8	7.8	0	%100
60	M43	Z	0	0	0	%100
61	M44	X	7.8	7.8	0	%100
62	M44	Z	0	0	0	%100
63	M49	X	0	0	0	%100
64	M49	Z	0	0	0	%100
65	M54A	X	0	0	0	%100
66	M54A	Z	0	0	0	%100
67	M59	X	6.472	6.472	0	%100
68	M59	Z	0	0	0	%100
69	M64	X	6.472	6.472	0	%100
70	M64	Z	0	0	0	%100
71	M69	X	6.472	6.472	0	%100
72	M69	Z	0	0	0	%100
73	M74	X	6.472	6.472	0	%100
74	M74	Z	0	0	0	%100
75	M75	X	7.975	7.975	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.%]
76	M75	Z	0	0	0	%100
77	M76	X	.017	.017	0	%100
78	M76	Z	0	0	0	%100
79	M77	X	7.264	7.264	0	%100
80	M77	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	5.571	5.571	0	%100
2	M1	Z	3.216	3.216	0	%100
3	M2	X	7.202	7.202	0	%100
4	M2	Z	4.158	4.158	0	%100
5	M5	X	8.098	8.098	0	%100
6	M5	Z	4.675	4.675	0	%100
7	M6	X	8.098	8.098	0	%100
8	M6	Z	4.675	4.675	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	0	0	0	%100
11	M6A	X	3.249	3.249	0	%100
12	M6A	Z	1.876	1.876	0	%100
13	M7A	X	3.249	3.249	0	%100
14	M7A	Z	1.876	1.876	0	%100
15	M23A	X	3.249	3.249	0	%100
16	M23A	Z	1.876	1.876	0	%100
17	M24	X	3.249	3.249	0	%100
18	M24	Z	1.876	1.876	0	%100
19	MP4C	X	6.174	6.174	0	%100
20	MP4C	Z	3.564	3.564	0	%100
21	MP3C	X	6.174	6.174	0	%100
22	MP3C	Z	3.564	3.564	0	%100
23	MP1C	X	6.174	6.174	0	%100
24	MP1C	Z	3.564	3.564	0	%100
25	MP2C	X	6.174	6.174	0	%100
26	MP2C	Z	3.564	3.564	0	%100
27	M38	X	5.571	5.571	0	%100
28	M38	Z	3.216	3.216	0	%100
29	M39A	X	12.997	12.997	0	%100
30	M39A	Z	7.504	7.504	0	%100
31	M40	X	12.997	12.997	0	%100
32	M40	Z	7.504	7.504	0	%100
33	M54	X	0	0	0	%100
34	M54	Z	0	0	0	%100
35	M55	X	7.202	7.202	0	%100
36	M55	Z	4.158	4.158	0	%100
37	M56	X	0	0	0	%100
38	M56	Z	0	0	0	%100
39	M61	X	5.048	5.048	0	%100
40	M61	Z	2.915	2.915	0	%100
41	MP4B	X	6.174	6.174	0	%100
42	MP4B	Z	3.564	3.564	0	%100
43	MP3B	X	6.174	6.174	0	%100
44	MP3B	Z	3.564	3.564	0	%100
45	MP1B	X	6.174	6.174	0	%100
46	MP1B	Z	3.564	3.564	0	%100
47	MP2B	X	6.174	6.174	0	%100
48	MP2B	Z	3.564	3.564	0	%100



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.%]
22	MP3C	Z	6.174	6.174	0	%100
23	MP1C	X	3.564	3.564	0	%100
24	MP1C	Z	6.174	6.174	0	%100
25	MP2C	X	3.564	3.564	0	%100
26	MP2C	Z	6.174	6.174	0	%100
27	M38	X	4.288	4.288	0	%100
28	M38	Z	7.428	7.428	0	%100
29	M39A	X	5.628	5.628	0	%100
30	M39A	Z	9.748	9.748	0	%100
31	M40	X	5.628	5.628	0	%100
32	M40	Z	9.748	9.748	0	%100
33	M54	X	1.072	1.072	0	%100
34	M54	Z	1.857	1.857	0	%100
35	M55	X	5.544	5.544	0	%100
36	M55	Z	9.603	9.603	0	%100
37	M56	X	1.386	1.386	0	%100
38	M56	Z	2.401	2.401	0	%100
39	M61	X	2.915	2.915	0	%100
40	M61	Z	5.048	5.048	0	%100
41	MP4B	X	3.564	3.564	0	%100
42	MP4B	Z	6.174	6.174	0	%100
43	MP3B	X	3.564	3.564	0	%100
44	MP3B	Z	6.174	6.174	0	%100
45	MP1B	X	3.564	3.564	0	%100
46	MP1B	Z	6.174	6.174	0	%100
47	MP2B	X	3.564	3.564	0	%100
48	MP2B	Z	6.174	6.174	0	%100
49	MP4A	X	3.564	3.564	0	%100
50	MP4A	Z	6.174	6.174	0	%100
51	MP3A	X	3.564	3.564	0	%100
52	MP3A	Z	6.174	6.174	0	%100
53	MP1A	X	3.564	3.564	0	%100
54	MP1A	Z	6.174	6.174	0	%100
55	MP2A	X	3.564	3.564	0	%100
56	MP2A	Z	6.174	6.174	0	%100
57	M42	X	3.9	3.9	0	%100
58	M42	Z	6.755	6.755	0	%100
59	M43	X	7.504	7.504	0	%100
60	M43	Z	12.997	12.997	0	%100
61	M44	X	3.9	3.9	0	%100
62	M44	Z	6.755	6.755	0	%100
63	M49	X	3.236	3.236	0	%100
64	M49	Z	5.605	5.605	0	%100
65	M54A	X	3.236	3.236	0	%100
66	M54A	Z	5.605	5.605	0	%100
67	M59	X	0	0	0	%100
68	M59	Z	0	0	0	%100
69	M64	X	0	0	0	%100
70	M64	Z	0	0	0	%100
71	M69	X	3.236	3.236	0	%100
72	M69	Z	5.605	5.605	0	%100
73	M74	X	3.236	3.236	0	%100
74	M74	Z	5.605	5.605	0	%100
75	M75	X	.008	.008	0	%100
76	M75	Z	.014	.014	0	%100
77	M76	X	3.632	3.632	0	%100
78	M76	Z	6.291	6.291	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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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.%]
79	M77	X	3.988	3.988	0	%100
80	M77	Z	6.907	6.907	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	M6	X	0	0	0	%100
8	M6	Z	9.351	9.351	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	9.351	9.351	0	%100
11	M6A	X	0	0	0	%100
12	M6A	Z	15.008	15.008	0	%100
13	M7A	X	0	0	0	%100
14	M7A	Z	15.008	15.008	0	%100
15	M23A	X	0	0	0	%100
16	M23A	Z	3.752	3.752	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	3.752	3.752	0	%100
19	MP4C	X	0	0	0	%100
20	MP4C	Z	7.129	7.129	0	%100
21	MP3C	X	0	0	0	%100
22	MP3C	Z	7.129	7.129	0	%100
23	MP1C	X	0	0	0	%100
24	MP1C	Z	7.129	7.129	0	%100
25	MP2C	X	0	0	0	%100
26	MP2C	Z	7.129	7.129	0	%100
27	M38	X	0	0	0	%100
28	M38	Z	6.433	6.433	0	%100
29	M39A	X	0	0	0	%100
30	M39A	Z	3.752	3.752	0	%100
31	M40	X	0	0	0	%100
32	M40	Z	3.752	3.752	0	%100
33	M54	X	0	0	0	%100
34	M54	Z	6.433	6.433	0	%100
35	M55	X	0	0	0	%100
36	M55	Z	8.316	8.316	0	%100
37	M56	X	0	0	0	%100
38	M56	Z	8.316	8.316	0	%100
39	M61	X	0	0	0	%100
40	M61	Z	5.829	5.829	0	%100
41	MP4B	X	0	0	0	%100
42	MP4B	Z	7.129	7.129	0	%100
43	MP3B	X	0	0	0	%100
44	MP3B	Z	7.129	7.129	0	%100
45	MP1B	X	0	0	0	%100
46	MP1B	Z	7.129	7.129	0	%100
47	MP2B	X	0	0	0	%100
48	MP2B	Z	7.129	7.129	0	%100
49	MP4A	X	0	0	0	%100
50	MP4A	Z	7.129	7.129	0	%100
51	MP3A	X	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
52	MP3A	Z	7.129	7.129	0	%100
53	MP1A	X	0	0	0	%100
54	MP1A	Z	7.129	7.129	0	%100
55	MP2A	X	0	0	0	%100
56	MP2A	Z	7.129	7.129	0	%100
57	M42	X	0	0	0	%100
58	M42	Z	5.397	5.397	0	%100
59	M43	X	0	0	0	%100
60	M43	Z	12.605	12.605	0	%100
61	M44	X	0	0	0	%100
62	M44	Z	12.605	12.605	0	%100
63	M49	X	0	0	0	%100
64	M49	Z	8.629	8.629	0	%100
65	M54A	X	0	0	0	%100
66	M54A	Z	8.629	8.629	0	%100
67	M59	X	0	0	0	%100
68	M59	Z	2.157	2.157	0	%100
69	M64	X	0	0	0	%100
70	M64	Z	2.157	2.157	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	2.157	2.157	0	%100
73	M74	X	0	0	0	%100
74	M74	Z	2.157	2.157	0	%100
75	M75	X	0	0	0	%100
76	M75	Z	2.195	2.195	0	%100
77	M76	X	0	0	0	%100
78	M76	Z	10.154	10.154	0	%100
79	M77	X	0	0	0	%100
80	M77	Z	2.906	2.906	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.072	-1.072	0	%100
2	M1	Z	1.857	1.857	0	%100
3	M2	X	-1.386	-1.386	0	%100
4	M2	Z	2.401	2.401	0	%100
5	M5	X	-1.558	-1.558	0	%100
6	M5	Z	2.699	2.699	0	%100
7	M6	X	-1.558	-1.558	0	%100
8	M6	Z	2.699	2.699	0	%100
9	M7	X	-6.234	-6.234	0	%100
10	M7	Z	10.797	10.797	0	%100
11	M6A	X	-5.628	-5.628	0	%100
12	M6A	Z	9.748	9.748	0	%100
13	M7A	X	-5.628	-5.628	0	%100
14	M7A	Z	9.748	9.748	0	%100
15	M23A	X	-5.628	-5.628	0	%100
16	M23A	Z	9.748	9.748	0	%100
17	M24	X	-5.628	-5.628	0	%100
18	M24	Z	9.748	9.748	0	%100
19	MP4C	X	-3.564	-3.564	0	%100
20	MP4C	Z	6.174	6.174	0	%100
21	MP3C	X	-3.564	-3.564	0	%100
22	MP3C	Z	6.174	6.174	0	%100
23	MP1C	X	-3.564	-3.564	0	%100
24	MP1C	Z	6.174	6.174	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
25	MP2C	X	-3.564	-3.564	0	%100
26	MP2C	Z	6.174	6.174	0	%100
27	M38	X	-1.072	-1.072	0	%100
28	M38	Z	1.857	1.857	0	%100
29	M39A	X	0	0	0	%100
30	M39A	Z	0	0	0	%100
31	M40	X	0	0	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	-4.288	-4.288	0	%100
34	M54	Z	7.428	7.428	0	%100
35	M55	X	-1.386	-1.386	0	%100
36	M55	Z	2.401	2.401	0	%100
37	M56	X	-5.544	-5.544	0	%100
38	M56	Z	9.603	9.603	0	%100
39	M61	X	-2.915	-2.915	0	%100
40	M61	Z	5.048	5.048	0	%100
41	MP4B	X	-3.564	-3.564	0	%100
42	MP4B	Z	6.174	6.174	0	%100
43	MP3B	X	-3.564	-3.564	0	%100
44	MP3B	Z	6.174	6.174	0	%100
45	MP1B	X	-3.564	-3.564	0	%100
46	MP1B	Z	6.174	6.174	0	%100
47	MP2B	X	-3.564	-3.564	0	%100
48	MP2B	Z	6.174	6.174	0	%100
49	MP4A	X	-3.564	-3.564	0	%100
50	MP4A	Z	6.174	6.174	0	%100
51	MP3A	X	-3.564	-3.564	0	%100
52	MP3A	Z	6.174	6.174	0	%100
53	MP1A	X	-3.564	-3.564	0	%100
54	MP1A	Z	6.174	6.174	0	%100
55	MP2A	X	-3.564	-3.564	0	%100
56	MP2A	Z	6.174	6.174	0	%100
57	M42	X	-3.9	-3.9	0	%100
58	M42	Z	6.755	6.755	0	%100
59	M43	X	-3.9	-3.9	0	%100
60	M43	Z	6.755	6.755	0	%100
61	M44	X	-7.504	-7.504	0	%100
62	M44	Z	12.997	12.997	0	%100
63	M49	X	-3.236	-3.236	0	%100
64	M49	Z	5.605	5.605	0	%100
65	M54A	X	-3.236	-3.236	0	%100
66	M54A	Z	5.605	5.605	0	%100
67	M59	X	-3.236	-3.236	0	%100
68	M59	Z	5.605	5.605	0	%100
69	M64	X	-3.236	-3.236	0	%100
70	M64	Z	5.605	5.605	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	0	0	0	%100
73	M74	X	0	0	0	%100
74	M74	Z	0	0	0	%100
75	M75	X	-3.632	-3.632	0	%100
76	M75	Z	6.291	6.291	0	%100
77	M76	X	-3.988	-3.988	0	%100
78	M76	Z	6.907	6.907	0	%100
79	M77	X	-.008	-.008	0	%100
80	M77	Z	.014	.014	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	-5.571	-5.571	0	%100
2	M1	Z	3.216	3.216	0	%100
3	M2	X	-7.202	-7.202	0	%100
4	M2	Z	4.158	4.158	0	%100
5	M5	X	-8.098	-8.098	0	%100
6	M5	Z	4.675	4.675	0	%100
7	M6	X	0	0	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	-8.098	-8.098	0	%100
10	M7	Z	4.675	4.675	0	%100
11	M6A	X	-3.249	-3.249	0	%100
12	M6A	Z	1.876	1.876	0	%100
13	M7A	X	-3.249	-3.249	0	%100
14	M7A	Z	1.876	1.876	0	%100
15	M23A	X	-12.997	-12.997	0	%100
16	M23A	Z	7.504	7.504	0	%100
17	M24	X	-12.997	-12.997	0	%100
18	M24	Z	7.504	7.504	0	%100
19	MP4C	X	-6.174	-6.174	0	%100
20	MP4C	Z	3.564	3.564	0	%100
21	MP3C	X	-6.174	-6.174	0	%100
22	MP3C	Z	3.564	3.564	0	%100
23	MP1C	X	-6.174	-6.174	0	%100
24	MP1C	Z	3.564	3.564	0	%100
25	MP2C	X	-6.174	-6.174	0	%100
26	MP2C	Z	3.564	3.564	0	%100
27	M38	X	0	0	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	-3.249	-3.249	0	%100
30	M39A	Z	1.876	1.876	0	%100
31	M40	X	-3.249	-3.249	0	%100
32	M40	Z	1.876	1.876	0	%100
33	M54	X	-5.571	-5.571	0	%100
34	M54	Z	3.216	3.216	0	%100
35	M55	X	0	0	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	-7.202	-7.202	0	%100
38	M56	Z	4.158	4.158	0	%100
39	M61	X	-5.048	-5.048	0	%100
40	M61	Z	2.915	2.915	0	%100
41	MP4B	X	-6.174	-6.174	0	%100
42	MP4B	Z	3.564	3.564	0	%100
43	MP3B	X	-6.174	-6.174	0	%100
44	MP3B	Z	3.564	3.564	0	%100
45	MP1B	X	-6.174	-6.174	0	%100
46	MP1B	Z	3.564	3.564	0	%100
47	MP2B	X	-6.174	-6.174	0	%100
48	MP2B	Z	3.564	3.564	0	%100
49	MP4A	X	-6.174	-6.174	0	%100
50	MP4A	Z	3.564	3.564	0	%100
51	MP3A	X	-6.174	-6.174	0	%100
52	MP3A	Z	3.564	3.564	0	%100
53	MP1A	X	-6.174	-6.174	0	%100
54	MP1A	Z	3.564	3.564	0	%100
55	MP2A	X	-6.174	-6.174	0	%100
56	MP2A	Z	3.564	3.564	0	%100
57	M42	X	-10.916	-10.916	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
58	M42	Z	6.303	6.303	0	%100
59	M43	X	-4.674	-4.674	0	%100
60	M43	Z	2.699	2.699	0	%100
61	M44	X	-10.916	-10.916	0	%100
62	M44	Z	6.303	6.303	0	%100
63	M49	X	-1.868	-1.868	0	%100
64	M49	Z	1.079	1.079	0	%100
65	M54A	X	-1.868	-1.868	0	%100
66	M54A	Z	1.079	1.079	0	%100
67	M59	X	-7.473	-7.473	0	%100
68	M59	Z	4.315	4.315	0	%100
69	M64	X	-7.473	-7.473	0	%100
70	M64	Z	4.315	4.315	0	%100
71	M69	X	-1.868	-1.868	0	%100
72	M69	Z	1.079	1.079	0	%100
73	M74	X	-1.868	-1.868	0	%100
74	M74	Z	1.079	1.079	0	%100
75	M75	X	-8.794	-8.794	0	%100
76	M75	Z	5.077	5.077	0	%100
77	M76	X	-2.517	-2.517	0	%100
78	M76	Z	1.453	1.453	0	%100
79	M77	X	-1.901	-1.901	0	%100
80	M77	Z	1.098	1.098	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	-8.577	-8.577	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-11.088	-11.088	0	%100
4	M2	Z	0	0	0	%100
5	M5	X	-12.468	-12.468	0	%100
6	M5	Z	0	0	0	%100
7	M6	X	-3.117	-3.117	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	-3.117	-3.117	0	%100
10	M7	Z	0	0	0	%100
11	M6A	X	0	0	0	%100
12	M6A	Z	0	0	0	%100
13	M7A	X	0	0	0	%100
14	M7A	Z	0	0	0	%100
15	M23A	X	-11.256	-11.256	0	%100
16	M23A	Z	0	0	0	%100
17	M24	X	-11.256	-11.256	0	%100
18	M24	Z	0	0	0	%100
19	MP4C	X	-7.129	-7.129	0	%100
20	MP4C	Z	0	0	0	%100
21	MP3C	X	-7.129	-7.129	0	%100
22	MP3C	Z	0	0	0	%100
23	MP1C	X	-7.129	-7.129	0	%100
24	MP1C	Z	0	0	0	%100
25	MP2C	X	-7.129	-7.129	0	%100
26	MP2C	Z	0	0	0	%100
27	M38	X	-2.144	-2.144	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	-11.256	-11.256	0	%100
30	M39A	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
31	M40	X	-11.256	-11.256	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	-2.144	-2.144	0	%100
34	M54	Z	0	0	0	%100
35	M55	X	-2.772	-2.772	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	-2.772	-2.772	0	%100
38	M56	Z	0	0	0	%100
39	M61	X	-5.829	-5.829	0	%100
40	M61	Z	0	0	0	%100
41	MP4B	X	-7.129	-7.129	0	%100
42	MP4B	Z	0	0	0	%100
43	MP3B	X	-7.129	-7.129	0	%100
44	MP3B	Z	0	0	0	%100
45	MP1B	X	-7.129	-7.129	0	%100
46	MP1B	Z	0	0	0	%100
47	MP2B	X	-7.129	-7.129	0	%100
48	MP2B	Z	0	0	0	%100
49	MP4A	X	-7.129	-7.129	0	%100
50	MP4A	Z	0	0	0	%100
51	MP3A	X	-7.129	-7.129	0	%100
52	MP3A	Z	0	0	0	%100
53	MP1A	X	-7.129	-7.129	0	%100
54	MP1A	Z	0	0	0	%100
55	MP2A	X	-7.129	-7.129	0	%100
56	MP2A	Z	0	0	0	%100
57	M42	X	-15.008	-15.008	0	%100
58	M42	Z	0	0	0	%100
59	M43	X	-7.8	-7.8	0	%100
60	M43	Z	0	0	0	%100
61	M44	X	-7.8	-7.8	0	%100
62	M44	Z	0	0	0	%100
63	M49	X	0	0	0	%100
64	M49	Z	0	0	0	%100
65	M54A	X	0	0	0	%100
66	M54A	Z	0	0	0	%100
67	M59	X	-6.472	-6.472	0	%100
68	M59	Z	0	0	0	%100
69	M64	X	-6.472	-6.472	0	%100
70	M64	Z	0	0	0	%100
71	M69	X	-6.472	-6.472	0	%100
72	M69	Z	0	0	0	%100
73	M74	X	-6.472	-6.472	0	%100
74	M74	Z	0	0	0	%100
75	M75	X	-7.975	-7.975	0	%100
76	M75	Z	0	0	0	%100
77	M76	X	-.017	-.017	0	%100
78	M76	Z	0	0	0	%100
79	M77	X	-7.264	-7.264	0	%100
80	M77	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	-5.571	-5.571	0	%100
2	M1	Z	-3.216	-3.216	0	%100
3	M2	X	-7.202	-7.202	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F....]	Start Location[ft.%]	End Location[ft.%]
4	M2	Z	-4.158	-4.158	0	%100
5	M5	X	-8.098	-8.098	0	%100
6	M5	Z	-4.675	-4.675	0	%100
7	M6	X	-8.098	-8.098	0	%100
8	M6	Z	-4.675	-4.675	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	0	0	0	%100
11	M6A	X	-3.249	-3.249	0	%100
12	M6A	Z	-1.876	-1.876	0	%100
13	M7A	X	-3.249	-3.249	0	%100
14	M7A	Z	-1.876	-1.876	0	%100
15	M23A	X	-3.249	-3.249	0	%100
16	M23A	Z	-1.876	-1.876	0	%100
17	M24	X	-3.249	-3.249	0	%100
18	M24	Z	-1.876	-1.876	0	%100
19	MP4C	X	-6.174	-6.174	0	%100
20	MP4C	Z	-3.564	-3.564	0	%100
21	MP3C	X	-6.174	-6.174	0	%100
22	MP3C	Z	-3.564	-3.564	0	%100
23	MP1C	X	-6.174	-6.174	0	%100
24	MP1C	Z	-3.564	-3.564	0	%100
25	MP2C	X	-6.174	-6.174	0	%100
26	MP2C	Z	-3.564	-3.564	0	%100
27	M38	X	-5.571	-5.571	0	%100
28	M38	Z	-3.216	-3.216	0	%100
29	M39A	X	-12.997	-12.997	0	%100
30	M39A	Z	-7.504	-7.504	0	%100
31	M40	X	-12.997	-12.997	0	%100
32	M40	Z	-7.504	-7.504	0	%100
33	M54	X	0	0	0	%100
34	M54	Z	0	0	0	%100
35	M55	X	-7.202	-7.202	0	%100
36	M55	Z	-4.158	-4.158	0	%100
37	M56	X	0	0	0	%100
38	M56	Z	0	0	0	%100
39	M61	X	-5.048	-5.048	0	%100
40	M61	Z	-2.915	-2.915	0	%100
41	MP4B	X	-6.174	-6.174	0	%100
42	MP4B	Z	-3.564	-3.564	0	%100
43	MP3B	X	-6.174	-6.174	0	%100
44	MP3B	Z	-3.564	-3.564	0	%100
45	MP1B	X	-6.174	-6.174	0	%100
46	MP1B	Z	-3.564	-3.564	0	%100
47	MP2B	X	-6.174	-6.174	0	%100
48	MP2B	Z	-3.564	-3.564	0	%100
49	MP4A	X	-6.174	-6.174	0	%100
50	MP4A	Z	-3.564	-3.564	0	%100
51	MP3A	X	-6.174	-6.174	0	%100
52	MP3A	Z	-3.564	-3.564	0	%100
53	MP1A	X	-6.174	-6.174	0	%100
54	MP1A	Z	-3.564	-3.564	0	%100
55	MP2A	X	-6.174	-6.174	0	%100
56	MP2A	Z	-3.564	-3.564	0	%100
57	M42	X	-10.916	-10.916	0	%100
58	M42	Z	-6.303	-6.303	0	%100
59	M43	X	-10.916	-10.916	0	%100
60	M43	Z	-6.303	-6.303	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
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 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
61	M44	X	-4.674	-4.674	0	%100
62	M44	Z	-2.699	-2.699	0	%100
63	M49	X	-1.868	-1.868	0	%100
64	M49	Z	-1.079	-1.079	0	%100
65	M54A	X	-1.868	-1.868	0	%100
66	M54A	Z	-1.079	-1.079	0	%100
67	M59	X	-1.868	-1.868	0	%100
68	M59	Z	-1.079	-1.079	0	%100
69	M64	X	-1.868	-1.868	0	%100
70	M64	Z	-1.079	-1.079	0	%100
71	M69	X	-7.473	-7.473	0	%100
72	M69	Z	-4.315	-4.315	0	%100
73	M74	X	-7.473	-7.473	0	%100
74	M74	Z	-4.315	-4.315	0	%100
75	M75	X	-2.517	-2.517	0	%100
76	M75	Z	-1.453	-1.453	0	%100
77	M76	X	-1.901	-1.901	0	%100
78	M76	Z	-1.098	-1.098	0	%100
79	M77	X	-8.794	-8.794	0	%100
80	M77	Z	-5.077	-5.077	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.072	-1.072	0	%100
2	M1	Z	-1.857	-1.857	0	%100
3	M2	X	-1.386	-1.386	0	%100
4	M2	Z	-2.401	-2.401	0	%100
5	M5	X	-1.558	-1.558	0	%100
6	M5	Z	-2.699	-2.699	0	%100
7	M6	X	-6.234	-6.234	0	%100
8	M6	Z	-10.797	-10.797	0	%100
9	M7	X	-1.558	-1.558	0	%100
10	M7	Z	-2.699	-2.699	0	%100
11	M6A	X	-5.628	-5.628	0	%100
12	M6A	Z	-9.748	-9.748	0	%100
13	M7A	X	-5.628	-5.628	0	%100
14	M7A	Z	-9.748	-9.748	0	%100
15	M23A	X	0	0	0	%100
16	M23A	Z	0	0	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	0	0	0	%100
19	MP4C	X	-3.564	-3.564	0	%100
20	MP4C	Z	-6.174	-6.174	0	%100
21	MP3C	X	-3.564	-3.564	0	%100
22	MP3C	Z	-6.174	-6.174	0	%100
23	MP1C	X	-3.564	-3.564	0	%100
24	MP1C	Z	-6.174	-6.174	0	%100
25	MP2C	X	-3.564	-3.564	0	%100
26	MP2C	Z	-6.174	-6.174	0	%100
27	M38	X	-4.288	-4.288	0	%100
28	M38	Z	-7.428	-7.428	0	%100
29	M39A	X	-5.628	-5.628	0	%100
30	M39A	Z	-9.748	-9.748	0	%100
31	M40	X	-5.628	-5.628	0	%100
32	M40	Z	-9.748	-9.748	0	%100
33	M54	X	-1.072	-1.072	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW MT LO H

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
34	M54	Z	-1.857	-1.857	0	%100
35	M55	X	-5.544	-5.544	0	%100
36	M55	Z	-9.603	-9.603	0	%100
37	M56	X	-1.386	-1.386	0	%100
38	M56	Z	-2.401	-2.401	0	%100
39	M61	X	-2.915	-2.915	0	%100
40	M61	Z	-5.048	-5.048	0	%100
41	MP4B	X	-3.564	-3.564	0	%100
42	MP4B	Z	-6.174	-6.174	0	%100
43	MP3B	X	-3.564	-3.564	0	%100
44	MP3B	Z	-6.174	-6.174	0	%100
45	MP1B	X	-3.564	-3.564	0	%100
46	MP1B	Z	-6.174	-6.174	0	%100
47	MP2B	X	-3.564	-3.564	0	%100
48	MP2B	Z	-6.174	-6.174	0	%100
49	MP4A	X	-3.564	-3.564	0	%100
50	MP4A	Z	-6.174	-6.174	0	%100
51	MP3A	X	-3.564	-3.564	0	%100
52	MP3A	Z	-6.174	-6.174	0	%100
53	MP1A	X	-3.564	-3.564	0	%100
54	MP1A	Z	-6.174	-6.174	0	%100
55	MP2A	X	-3.564	-3.564	0	%100
56	MP2A	Z	-6.174	-6.174	0	%100
57	M42	X	-3.9	-3.9	0	%100
58	M42	Z	-6.755	-6.755	0	%100
59	M43	X	-7.504	-7.504	0	%100
60	M43	Z	-12.997	-12.997	0	%100
61	M44	X	-3.9	-3.9	0	%100
62	M44	Z	-6.755	-6.755	0	%100
63	M49	X	-3.236	-3.236	0	%100
64	M49	Z	-5.605	-5.605	0	%100
65	M54A	X	-3.236	-3.236	0	%100
66	M54A	Z	-5.605	-5.605	0	%100
67	M59	X	0	0	0	%100
68	M59	Z	0	0	0	%100
69	M64	X	0	0	0	%100
70	M64	Z	0	0	0	%100
71	M69	X	-3.236	-3.236	0	%100
72	M69	Z	-5.605	-5.605	0	%100
73	M74	X	-3.236	-3.236	0	%100
74	M74	Z	-5.605	-5.605	0	%100
75	M75	X	-.008	-.008	0	%100
76	M75	Z	-.014	-.014	0	%100
77	M76	X	-3.632	-3.632	0	%100
78	M76	Z	-6.291	-6.291	0	%100
79	M77	X	-3.988	-3.988	0	%100
80	M77	Z	-6.907	-6.907	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
7	M6	X	0	0	0	%100
8	M6	Z	-2.413	-2.413	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	-2.413	-2.413	0	%100
11	M6A	X	0	0	0	%100
12	M6A	Z	-3.766	-3.766	0	%100
13	M7A	X	0	0	0	%100
14	M7A	Z	-3.766	-3.766	0	%100
15	M23A	X	0	0	0	%100
16	M23A	Z	-.942	-.942	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	-.942	-.942	0	%100
19	MP4C	X	0	0	0	%100
20	MP4C	Z	-2.398	-2.398	0	%100
21	MP3C	X	0	0	0	%100
22	MP3C	Z	-2.398	-2.398	0	%100
23	MP1C	X	0	0	0	%100
24	MP1C	Z	-2.398	-2.398	0	%100
25	MP2C	X	0	0	0	%100
26	MP2C	Z	-2.398	-2.398	0	%100
27	M38	X	0	0	0	%100
28	M38	Z	-1.676	-1.676	0	%100
29	M39A	X	0	0	0	%100
30	M39A	Z	-.942	-.942	0	%100
31	M40	X	0	0	0	%100
32	M40	Z	-.942	-.942	0	%100
33	M54	X	0	0	0	%100
34	M54	Z	-1.676	-1.676	0	%100
35	M55	X	0	0	0	%100
36	M55	Z	-2.072	-2.072	0	%100
37	M56	X	0	0	0	%100
38	M56	Z	-2.072	-2.072	0	%100
39	M61	X	0	0	0	%100
40	M61	Z	-1.983	-1.983	0	%100
41	MP4B	X	0	0	0	%100
42	MP4B	Z	-2.398	-2.398	0	%100
43	MP3B	X	0	0	0	%100
44	MP3B	Z	-2.398	-2.398	0	%100
45	MP1B	X	0	0	0	%100
46	MP1B	Z	-2.398	-2.398	0	%100
47	MP2B	X	0	0	0	%100
48	MP2B	Z	-2.398	-2.398	0	%100
49	MP4A	X	0	0	0	%100
50	MP4A	Z	-2.398	-2.398	0	%100
51	MP3A	X	0	0	0	%100
52	MP3A	Z	-2.398	-2.398	0	%100
53	MP1A	X	0	0	0	%100
54	MP1A	Z	-2.398	-2.398	0	%100
55	MP2A	X	0	0	0	%100
56	MP2A	Z	-2.398	-2.398	0	%100
57	M42	X	0	0	0	%100
58	M42	Z	-1.175	-1.175	0	%100
59	M43	X	0	0	0	%100
60	M43	Z	-3.119	-3.119	0	%100
61	M44	X	0	0	0	%100
62	M44	Z	-3.119	-3.119	0	%100
63	M49	X	0	0	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
64	M49	Z	-2.659	-2.659	0	%100
65	M54A	X	0	0	0	%100
66	M54A	Z	-2.659	-2.659	0	%100
67	M59	X	0	0	0	%100
68	M59	Z	-.665	-.665	0	%100
69	M64	X	0	0	0	%100
70	M64	Z	-.665	-.665	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	-.665	-.665	0	%100
73	M74	X	0	0	0	%100
74	M74	Z	-.665	-.665	0	%100
75	M75	X	0	0	0	%100
76	M75	Z	-.553	-.553	0	%100
77	M76	X	0	0	0	%100
78	M76	Z	-2.559	-2.559	0	%100
79	M77	X	0	0	0	%100
80	M77	Z	-.732	-.732	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	.279	.279	0	%100
2	M1	Z	-.484	-.484	0	%100
3	M2	X	.345	.345	0	%100
4	M2	Z	-.598	-.598	0	%100
5	M5	X	.402	.402	0	%100
6	M5	Z	-.697	-.697	0	%100
7	M6	X	.402	.402	0	%100
8	M6	Z	-.697	-.697	0	%100
9	M7	X	1.609	1.609	0	%100
10	M7	Z	-2.787	-2.787	0	%100
11	M6A	X	1.412	1.412	0	%100
12	M6A	Z	-2.446	-2.446	0	%100
13	M7A	X	1.412	1.412	0	%100
14	M7A	Z	-2.446	-2.446	0	%100
15	M23A	X	1.412	1.412	0	%100
16	M23A	Z	-2.446	-2.446	0	%100
17	M24	X	1.412	1.412	0	%100
18	M24	Z	-2.446	-2.446	0	%100
19	MP4C	X	1.199	1.199	0	%100
20	MP4C	Z	-2.077	-2.077	0	%100
21	MP3C	X	1.199	1.199	0	%100
22	MP3C	Z	-2.077	-2.077	0	%100
23	MP1C	X	1.199	1.199	0	%100
24	MP1C	Z	-2.077	-2.077	0	%100
25	MP2C	X	1.199	1.199	0	%100
26	MP2C	Z	-2.077	-2.077	0	%100
27	M38	X	.279	.279	0	%100
28	M38	Z	-.484	-.484	0	%100
29	M39A	X	0	0	0	%100
30	M39A	Z	0	0	0	%100
31	M40	X	0	0	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	1.117	1.117	0	%100
34	M54	Z	-1.935	-1.935	0	%100
35	M55	X	.345	.345	0	%100
36	M55	Z	-.598	-.598	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
37	M56	X	1.382	1.382	0	%100
38	M56	Z	-2.393	-2.393	0	%100
39	M61	X	.991	.991	0	%100
40	M61	Z	-1.717	-1.717	0	%100
41	MP4B	X	1.199	1.199	0	%100
42	MP4B	Z	-2.077	-2.077	0	%100
43	MP3B	X	1.199	1.199	0	%100
44	MP3B	Z	-2.077	-2.077	0	%100
45	MP1B	X	1.199	1.199	0	%100
46	MP1B	Z	-2.077	-2.077	0	%100
47	MP2B	X	1.199	1.199	0	%100
48	MP2B	Z	-2.077	-2.077	0	%100
49	MP4A	X	1.199	1.199	0	%100
50	MP4A	Z	-2.077	-2.077	0	%100
51	MP3A	X	1.199	1.199	0	%100
52	MP3A	Z	-2.077	-2.077	0	%100
53	MP1A	X	1.199	1.199	0	%100
54	MP1A	Z	-2.077	-2.077	0	%100
55	MP2A	X	1.199	1.199	0	%100
56	MP2A	Z	-2.077	-2.077	0	%100
57	M42	X	.911	.911	0	%100
58	M42	Z	-1.579	-1.579	0	%100
59	M43	X	.911	.911	0	%100
60	M43	Z	-1.579	-1.579	0	%100
61	M44	X	1.883	1.883	0	%100
62	M44	Z	-3.262	-3.262	0	%100
63	M49	X	.997	.997	0	%100
64	M49	Z	-1.727	-1.727	0	%100
65	M54A	X	.997	.997	0	%100
66	M54A	Z	-1.727	-1.727	0	%100
67	M59	X	.997	.997	0	%100
68	M59	Z	-1.727	-1.727	0	%100
69	M64	X	.997	.997	0	%100
70	M64	Z	-1.727	-1.727	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	0	0	0	%100
73	M74	X	0	0	0	%100
74	M74	Z	0	0	0	%100
75	M75	X	.915	.915	0	%100
76	M75	Z	-1.585	-1.585	0	%100
77	M76	X	1.005	1.005	0	%100
78	M76	Z	-1.74	-1.74	0	%100
79	M77	X	.002	.002	0	%100
80	M77	Z	-.004	-.004	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	1.451	1.451	0	%100
2	M1	Z	-.838	-.838	0	%100
3	M2	X	1.795	1.795	0	%100
4	M2	Z	-1.036	-1.036	0	%100
5	M5	X	2.09	2.09	0	%100
6	M5	Z	-1.207	-1.207	0	%100
7	M6	X	0	0	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	2.09	2.09	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
10	M7	Z	-1.207	-1.207	0	%100
11	M6A	X	.815	.815	0	%100
12	M6A	Z	-.471	-.471	0	%100
13	M7A	X	.815	.815	0	%100
14	M7A	Z	-.471	-.471	0	%100
15	M23A	X	3.262	3.262	0	%100
16	M23A	Z	-1.883	-1.883	0	%100
17	M24	X	3.262	3.262	0	%100
18	M24	Z	-1.883	-1.883	0	%100
19	MP4C	X	2.077	2.077	0	%100
20	MP4C	Z	-1.199	-1.199	0	%100
21	MP3C	X	2.077	2.077	0	%100
22	MP3C	Z	-1.199	-1.199	0	%100
23	MP1C	X	2.077	2.077	0	%100
24	MP1C	Z	-1.199	-1.199	0	%100
25	MP2C	X	2.077	2.077	0	%100
26	MP2C	Z	-1.199	-1.199	0	%100
27	M38	X	0	0	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	.815	.815	0	%100
30	M39A	Z	-.471	-.471	0	%100
31	M40	X	.815	.815	0	%100
32	M40	Z	-.471	-.471	0	%100
33	M54	X	1.451	1.451	0	%100
34	M54	Z	-.838	-.838	0	%100
35	M55	X	0	0	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	1.795	1.795	0	%100
38	M56	Z	-1.036	-1.036	0	%100
39	M61	X	1.717	1.717	0	%100
40	M61	Z	-.991	-.991	0	%100
41	MP4B	X	2.077	2.077	0	%100
42	MP4B	Z	-1.199	-1.199	0	%100
43	MP3B	X	2.077	2.077	0	%100
44	MP3B	Z	-1.199	-1.199	0	%100
45	MP1B	X	2.077	2.077	0	%100
46	MP1B	Z	-1.199	-1.199	0	%100
47	MP2B	X	2.077	2.077	0	%100
48	MP2B	Z	-1.199	-1.199	0	%100
49	MP4A	X	2.077	2.077	0	%100
50	MP4A	Z	-1.199	-1.199	0	%100
51	MP3A	X	2.077	2.077	0	%100
52	MP3A	Z	-1.199	-1.199	0	%100
53	MP1A	X	2.077	2.077	0	%100
54	MP1A	Z	-1.199	-1.199	0	%100
55	MP2A	X	2.077	2.077	0	%100
56	MP2A	Z	-1.199	-1.199	0	%100
57	M42	X	2.701	2.701	0	%100
58	M42	Z	-1.559	-1.559	0	%100
59	M43	X	1.018	1.018	0	%100
60	M43	Z	-.588	-.588	0	%100
61	M44	X	2.701	2.701	0	%100
62	M44	Z	-1.559	-1.559	0	%100
63	M49	X	.576	.576	0	%100
64	M49	Z	-.332	-.332	0	%100
65	M54A	X	.576	.576	0	%100
66	M54A	Z	-.332	-.332	0	%100



Company : Colliers Engineering & Design
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Member Distributed Loads (BLC 55 : Structure Wi (60 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
67	M59	X	2.303	2.303	0	%100
68	M59	Z	-1.33	-1.33	0	%100
69	M64	X	2.303	2.303	0	%100
70	M64	Z	-1.33	-1.33	0	%100
71	M69	X	.576	.576	0	%100
72	M69	Z	-.332	-.332	0	%100
73	M74	X	.576	.576	0	%100
74	M74	Z	-.332	-.332	0	%100
75	M75	X	2.216	2.216	0	%100
76	M75	Z	-1.279	-1.279	0	%100
77	M76	X	.634	.634	0	%100
78	M76	Z	-.366	-.366	0	%100
79	M77	X	.479	.479	0	%100
80	M77	Z	-.277	-.277	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	2.234	2.234	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	2.763	2.763	0	%100
4	M2	Z	0	0	0	%100
5	M5	X	3.218	3.218	0	%100
6	M5	Z	0	0	0	%100
7	M6	X	.804	.804	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	.804	.804	0	%100
10	M7	Z	0	0	0	%100
11	M6A	X	0	0	0	%100
12	M6A	Z	0	0	0	%100
13	M7A	X	0	0	0	%100
14	M7A	Z	0	0	0	%100
15	M23A	X	2.825	2.825	0	%100
16	M23A	Z	0	0	0	%100
17	M24	X	2.825	2.825	0	%100
18	M24	Z	0	0	0	%100
19	MP4C	X	2.398	2.398	0	%100
20	MP4C	Z	0	0	0	%100
21	MP3C	X	2.398	2.398	0	%100
22	MP3C	Z	0	0	0	%100
23	MP1C	X	2.398	2.398	0	%100
24	MP1C	Z	0	0	0	%100
25	MP2C	X	2.398	2.398	0	%100
26	MP2C	Z	0	0	0	%100
27	M38	X	.559	.559	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	2.825	2.825	0	%100
30	M39A	Z	0	0	0	%100
31	M40	X	2.825	2.825	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	.559	.559	0	%100
34	M54	Z	0	0	0	%100
35	M55	X	.691	.691	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	.691	.691	0	%100
38	M56	Z	0	0	0	%100
39	M61	X	1.983	1.983	0	%100



Company : Colliers Engineering & Design
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 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
40	M61	Z	0	0	0	%100
41	MP4B	X	2.398	2.398	0	%100
42	MP4B	Z	0	0	0	%100
43	MP3B	X	2.398	2.398	0	%100
44	MP3B	Z	0	0	0	%100
45	MP1B	X	2.398	2.398	0	%100
46	MP1B	Z	0	0	0	%100
47	MP2B	X	2.398	2.398	0	%100
48	MP2B	Z	0	0	0	%100
49	MP4A	X	2.398	2.398	0	%100
50	MP4A	Z	0	0	0	%100
51	MP3A	X	2.398	2.398	0	%100
52	MP3A	Z	0	0	0	%100
53	MP1A	X	2.398	2.398	0	%100
54	MP1A	Z	0	0	0	%100
55	MP2A	X	2.398	2.398	0	%100
56	MP2A	Z	0	0	0	%100
57	M42	X	3.766	3.766	0	%100
58	M42	Z	0	0	0	%100
59	M43	X	1.823	1.823	0	%100
60	M43	Z	0	0	0	%100
61	M44	X	1.823	1.823	0	%100
62	M44	Z	0	0	0	%100
63	M49	X	0	0	0	%100
64	M49	Z	0	0	0	%100
65	M54A	X	0	0	0	%100
66	M54A	Z	0	0	0	%100
67	M59	X	1.994	1.994	0	%100
68	M59	Z	0	0	0	%100
69	M64	X	1.994	1.994	0	%100
70	M64	Z	0	0	0	%100
71	M69	X	1.994	1.994	0	%100
72	M69	Z	0	0	0	%100
73	M74	X	1.994	1.994	0	%100
74	M74	Z	0	0	0	%100
75	M75	X	2.01	2.01	0	%100
76	M75	Z	0	0	0	%100
77	M76	X	.004	.004	0	%100
78	M76	Z	0	0	0	%100
79	M77	X	1.83	1.83	0	%100
80	M77	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	1.451	1.451	0	%100
2	M1	Z	.838	.838	0	%100
3	M2	X	1.795	1.795	0	%100
4	M2	Z	1.036	1.036	0	%100
5	M5	X	2.09	2.09	0	%100
6	M5	Z	1.207	1.207	0	%100
7	M6	X	2.09	2.09	0	%100
8	M6	Z	1.207	1.207	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	0	0	0	%100
11	M6A	X	.815	.815	0	%100
12	M6A	Z	.471	.471	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
13	M7A	X	.815	.815	0	%100
14	M7A	Z	.471	.471	0	%100
15	M23A	X	.815	.815	0	%100
16	M23A	Z	.471	.471	0	%100
17	M24	X	.815	.815	0	%100
18	M24	Z	.471	.471	0	%100
19	MP4C	X	2.077	2.077	0	%100
20	MP4C	Z	1.199	1.199	0	%100
21	MP3C	X	2.077	2.077	0	%100
22	MP3C	Z	1.199	1.199	0	%100
23	MP1C	X	2.077	2.077	0	%100
24	MP1C	Z	1.199	1.199	0	%100
25	MP2C	X	2.077	2.077	0	%100
26	MP2C	Z	1.199	1.199	0	%100
27	M38	X	1.451	1.451	0	%100
28	M38	Z	.838	.838	0	%100
29	M39A	X	3.262	3.262	0	%100
30	M39A	Z	1.883	1.883	0	%100
31	M40	X	3.262	3.262	0	%100
32	M40	Z	1.883	1.883	0	%100
33	M54	X	0	0	0	%100
34	M54	Z	0	0	0	%100
35	M55	X	1.795	1.795	0	%100
36	M55	Z	1.036	1.036	0	%100
37	M56	X	0	0	0	%100
38	M56	Z	0	0	0	%100
39	M61	X	1.717	1.717	0	%100
40	M61	Z	.991	.991	0	%100
41	MP4B	X	2.077	2.077	0	%100
42	MP4B	Z	1.199	1.199	0	%100
43	MP3B	X	2.077	2.077	0	%100
44	MP3B	Z	1.199	1.199	0	%100
45	MP1B	X	2.077	2.077	0	%100
46	MP1B	Z	1.199	1.199	0	%100
47	MP2B	X	2.077	2.077	0	%100
48	MP2B	Z	1.199	1.199	0	%100
49	MP4A	X	2.077	2.077	0	%100
50	MP4A	Z	1.199	1.199	0	%100
51	MP3A	X	2.077	2.077	0	%100
52	MP3A	Z	1.199	1.199	0	%100
53	MP1A	X	2.077	2.077	0	%100
54	MP1A	Z	1.199	1.199	0	%100
55	MP2A	X	2.077	2.077	0	%100
56	MP2A	Z	1.199	1.199	0	%100
57	M42	X	2.701	2.701	0	%100
58	M42	Z	1.559	1.559	0	%100
59	M43	X	2.701	2.701	0	%100
60	M43	Z	1.559	1.559	0	%100
61	M44	X	1.018	1.018	0	%100
62	M44	Z	.588	.588	0	%100
63	M49	X	.576	.576	0	%100
64	M49	Z	.332	.332	0	%100
65	M54A	X	.576	.576	0	%100
66	M54A	Z	.332	.332	0	%100
67	M59	X	.576	.576	0	%100
68	M59	Z	.332	.332	0	%100
69	M64	X	.576	.576	0	%100



Company : Colliers Engineering & Design
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Member Distributed Loads (BLC 57 : Structure Wi (120 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
70	M64	Z	.332	.332	0	%100
71	M69	X	2.303	2.303	0	%100
72	M69	Z	1.33	1.33	0	%100
73	M74	X	2.303	2.303	0	%100
74	M74	Z	1.33	1.33	0	%100
75	M75	X	.634	.634	0	%100
76	M75	Z	.366	.366	0	%100
77	M76	X	.479	.479	0	%100
78	M76	Z	.277	.277	0	%100
79	M77	X	2.216	2.216	0	%100
80	M77	Z	1.279	1.279	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	.279	.279	0	%100
2	M1	Z	.484	.484	0	%100
3	M2	X	.345	.345	0	%100
4	M2	Z	.598	.598	0	%100
5	M5	X	.402	.402	0	%100
6	M5	Z	.697	.697	0	%100
7	M6	X	1.609	1.609	0	%100
8	M6	Z	2.787	2.787	0	%100
9	M7	X	.402	.402	0	%100
10	M7	Z	.697	.697	0	%100
11	M6A	X	1.412	1.412	0	%100
12	M6A	Z	2.446	2.446	0	%100
13	M7A	X	1.412	1.412	0	%100
14	M7A	Z	2.446	2.446	0	%100
15	M23A	X	0	0	0	%100
16	M23A	Z	0	0	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	0	0	0	%100
19	MP4C	X	1.199	1.199	0	%100
20	MP4C	Z	2.077	2.077	0	%100
21	MP3C	X	1.199	1.199	0	%100
22	MP3C	Z	2.077	2.077	0	%100
23	MP1C	X	1.199	1.199	0	%100
24	MP1C	Z	2.077	2.077	0	%100
25	MP2C	X	1.199	1.199	0	%100
26	MP2C	Z	2.077	2.077	0	%100
27	M38	X	1.117	1.117	0	%100
28	M38	Z	1.935	1.935	0	%100
29	M39A	X	1.412	1.412	0	%100
30	M39A	Z	2.446	2.446	0	%100
31	M40	X	1.412	1.412	0	%100
32	M40	Z	2.446	2.446	0	%100
33	M54	X	.279	.279	0	%100
34	M54	Z	.484	.484	0	%100
35	M55	X	1.382	1.382	0	%100
36	M55	Z	2.393	2.393	0	%100
37	M56	X	.345	.345	0	%100
38	M56	Z	.598	.598	0	%100
39	M61	X	.991	.991	0	%100
40	M61	Z	1.717	1.717	0	%100
41	MP4B	X	1.199	1.199	0	%100
42	MP4B	Z	2.077	2.077	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
43	MP3B	X	1.199	1.199	0	%100
44	MP3B	Z	2.077	2.077	0	%100
45	MP1B	X	1.199	1.199	0	%100
46	MP1B	Z	2.077	2.077	0	%100
47	MP2B	X	1.199	1.199	0	%100
48	MP2B	Z	2.077	2.077	0	%100
49	MP4A	X	1.199	1.199	0	%100
50	MP4A	Z	2.077	2.077	0	%100
51	MP3A	X	1.199	1.199	0	%100
52	MP3A	Z	2.077	2.077	0	%100
53	MP1A	X	1.199	1.199	0	%100
54	MP1A	Z	2.077	2.077	0	%100
55	MP2A	X	1.199	1.199	0	%100
56	MP2A	Z	2.077	2.077	0	%100
57	M42	X	.911	.911	0	%100
58	M42	Z	1.579	1.579	0	%100
59	M43	X	1.883	1.883	0	%100
60	M43	Z	3.262	3.262	0	%100
61	M44	X	.911	.911	0	%100
62	M44	Z	1.579	1.579	0	%100
63	M49	X	.997	.997	0	%100
64	M49	Z	1.727	1.727	0	%100
65	M54A	X	.997	.997	0	%100
66	M54A	Z	1.727	1.727	0	%100
67	M59	X	0	0	0	%100
68	M59	Z	0	0	0	%100
69	M64	X	0	0	0	%100
70	M64	Z	0	0	0	%100
71	M69	X	.997	.997	0	%100
72	M69	Z	1.727	1.727	0	%100
73	M74	X	.997	.997	0	%100
74	M74	Z	1.727	1.727	0	%100
75	M75	X	.002	.002	0	%100
76	M75	Z	.004	.004	0	%100
77	M76	X	.915	.915	0	%100
78	M76	Z	1.585	1.585	0	%100
79	M77	X	1.005	1.005	0	%100
80	M77	Z	1.74	1.74	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	M6	X	0	0	0	%100
8	M6	Z	2.413	2.413	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	2.413	2.413	0	%100
11	M6A	X	0	0	0	%100
12	M6A	Z	3.766	3.766	0	%100
13	M7A	X	0	0	0	%100
14	M7A	Z	3.766	3.766	0	%100
15	M23A	X	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
16	M23A	Z	.942	.942	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	.942	.942	0	%100
19	MP4C	X	0	0	0	%100
20	MP4C	Z	2.398	2.398	0	%100
21	MP3C	X	0	0	0	%100
22	MP3C	Z	2.398	2.398	0	%100
23	MP1C	X	0	0	0	%100
24	MP1C	Z	2.398	2.398	0	%100
25	MP2C	X	0	0	0	%100
26	MP2C	Z	2.398	2.398	0	%100
27	M38	X	0	0	0	%100
28	M38	Z	1.676	1.676	0	%100
29	M39A	X	0	0	0	%100
30	M39A	Z	.942	.942	0	%100
31	M40	X	0	0	0	%100
32	M40	Z	.942	.942	0	%100
33	M54	X	0	0	0	%100
34	M54	Z	1.676	1.676	0	%100
35	M55	X	0	0	0	%100
36	M55	Z	2.072	2.072	0	%100
37	M56	X	0	0	0	%100
38	M56	Z	2.072	2.072	0	%100
39	M61	X	0	0	0	%100
40	M61	Z	1.983	1.983	0	%100
41	MP4B	X	0	0	0	%100
42	MP4B	Z	2.398	2.398	0	%100
43	MP3B	X	0	0	0	%100
44	MP3B	Z	2.398	2.398	0	%100
45	MP1B	X	0	0	0	%100
46	MP1B	Z	2.398	2.398	0	%100
47	MP2B	X	0	0	0	%100
48	MP2B	Z	2.398	2.398	0	%100
49	MP4A	X	0	0	0	%100
50	MP4A	Z	2.398	2.398	0	%100
51	MP3A	X	0	0	0	%100
52	MP3A	Z	2.398	2.398	0	%100
53	MP1A	X	0	0	0	%100
54	MP1A	Z	2.398	2.398	0	%100
55	MP2A	X	0	0	0	%100
56	MP2A	Z	2.398	2.398	0	%100
57	M42	X	0	0	0	%100
58	M42	Z	1.175	1.175	0	%100
59	M43	X	0	0	0	%100
60	M43	Z	3.119	3.119	0	%100
61	M44	X	0	0	0	%100
62	M44	Z	3.119	3.119	0	%100
63	M49	X	0	0	0	%100
64	M49	Z	2.659	2.659	0	%100
65	M54A	X	0	0	0	%100
66	M54A	Z	2.659	2.659	0	%100
67	M59	X	0	0	0	%100
68	M59	Z	.665	.665	0	%100
69	M64	X	0	0	0	%100
70	M64	Z	.665	.665	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	.665	.665	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
73	M74	X	0	0	0	%100
74	M74	Z	.665	.665	0	%100
75	M75	X	0	0	0	%100
76	M75	Z	.553	.553	0	%100
77	M76	X	0	0	0	%100
78	M76	Z	2.559	2.559	0	%100
79	M77	X	0	0	0	%100
80	M77	Z	.732	.732	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	-.279	-.279	0	%100
2	M1	Z	.484	.484	0	%100
3	M2	X	-.345	-.345	0	%100
4	M2	Z	.598	.598	0	%100
5	M5	X	-.402	-.402	0	%100
6	M5	Z	.697	.697	0	%100
7	M6	X	-.402	-.402	0	%100
8	M6	Z	.697	.697	0	%100
9	M7	X	-1.609	-1.609	0	%100
10	M7	Z	2.787	2.787	0	%100
11	M6A	X	-1.412	-1.412	0	%100
12	M6A	Z	2.446	2.446	0	%100
13	M7A	X	-1.412	-1.412	0	%100
14	M7A	Z	2.446	2.446	0	%100
15	M23A	X	-1.412	-1.412	0	%100
16	M23A	Z	2.446	2.446	0	%100
17	M24	X	-1.412	-1.412	0	%100
18	M24	Z	2.446	2.446	0	%100
19	MP4C	X	-1.199	-1.199	0	%100
20	MP4C	Z	2.077	2.077	0	%100
21	MP3C	X	-1.199	-1.199	0	%100
22	MP3C	Z	2.077	2.077	0	%100
23	MP1C	X	-1.199	-1.199	0	%100
24	MP1C	Z	2.077	2.077	0	%100
25	MP2C	X	-1.199	-1.199	0	%100
26	MP2C	Z	2.077	2.077	0	%100
27	M38	X	-.279	-.279	0	%100
28	M38	Z	.484	.484	0	%100
29	M39A	X	0	0	0	%100
30	M39A	Z	0	0	0	%100
31	M40	X	0	0	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	-1.117	-1.117	0	%100
34	M54	Z	1.935	1.935	0	%100
35	M55	X	-.345	-.345	0	%100
36	M55	Z	.598	.598	0	%100
37	M56	X	-1.382	-1.382	0	%100
38	M56	Z	2.393	2.393	0	%100
39	M61	X	-.991	-.991	0	%100
40	M61	Z	1.717	1.717	0	%100
41	MP4B	X	-1.199	-1.199	0	%100
42	MP4B	Z	2.077	2.077	0	%100
43	MP3B	X	-1.199	-1.199	0	%100
44	MP3B	Z	2.077	2.077	0	%100
45	MP1B	X	-1.199	-1.199	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft...	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
46	MP1B	Z	2.077	2.077	0	%100
47	MP2B	X	-1.199	-1.199	0	%100
48	MP2B	Z	2.077	2.077	0	%100
49	MP4A	X	-1.199	-1.199	0	%100
50	MP4A	Z	2.077	2.077	0	%100
51	MP3A	X	-1.199	-1.199	0	%100
52	MP3A	Z	2.077	2.077	0	%100
53	MP1A	X	-1.199	-1.199	0	%100
54	MP1A	Z	2.077	2.077	0	%100
55	MP2A	X	-1.199	-1.199	0	%100
56	MP2A	Z	2.077	2.077	0	%100
57	M42	X	-911	-911	0	%100
58	M42	Z	1.579	1.579	0	%100
59	M43	X	-911	-911	0	%100
60	M43	Z	1.579	1.579	0	%100
61	M44	X	-1.883	-1.883	0	%100
62	M44	Z	3.262	3.262	0	%100
63	M49	X	-997	-997	0	%100
64	M49	Z	1.727	1.727	0	%100
65	M54A	X	-997	-997	0	%100
66	M54A	Z	1.727	1.727	0	%100
67	M59	X	-997	-997	0	%100
68	M59	Z	1.727	1.727	0	%100
69	M64	X	-997	-997	0	%100
70	M64	Z	1.727	1.727	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	0	0	0	%100
73	M74	X	0	0	0	%100
74	M74	Z	0	0	0	%100
75	M75	X	-915	-915	0	%100
76	M75	Z	1.585	1.585	0	%100
77	M76	X	-1.005	-1.005	0	%100
78	M76	Z	1.74	1.74	0	%100
79	M77	X	-.002	-.002	0	%100
80	M77	Z	.004	.004	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	-1.451	-1.451	0	%100
2	M1	Z	.838	.838	0	%100
3	M2	X	-1.795	-1.795	0	%100
4	M2	Z	1.036	1.036	0	%100
5	M5	X	-2.09	-2.09	0	%100
6	M5	Z	1.207	1.207	0	%100
7	M6	X	0	0	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	-2.09	-2.09	0	%100
10	M7	Z	1.207	1.207	0	%100
11	M6A	X	-.815	-.815	0	%100
12	M6A	Z	.471	.471	0	%100
13	M7A	X	-.815	-.815	0	%100
14	M7A	Z	.471	.471	0	%100
15	M23A	X	-3.262	-3.262	0	%100
16	M23A	Z	1.883	1.883	0	%100
17	M24	X	-3.262	-3.262	0	%100
18	M24	Z	1.883	1.883	0	%100



Company : Colliers Engineering & Design
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Member Distributed Loads (BLC 61 : Structure Wi (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft...	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
19	MP4C	X	-2.077	-2.077	0	%100
20	MP4C	Z	1.199	1.199	0	%100
21	MP3C	X	-2.077	-2.077	0	%100
22	MP3C	Z	1.199	1.199	0	%100
23	MP1C	X	-2.077	-2.077	0	%100
24	MP1C	Z	1.199	1.199	0	%100
25	MP2C	X	-2.077	-2.077	0	%100
26	MP2C	Z	1.199	1.199	0	%100
27	M38	X	0	0	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	-815	-815	0	%100
30	M39A	Z	.471	.471	0	%100
31	M40	X	-815	-815	0	%100
32	M40	Z	.471	.471	0	%100
33	M54	X	-1.451	-1.451	0	%100
34	M54	Z	.838	.838	0	%100
35	M55	X	0	0	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	-1.795	-1.795	0	%100
38	M56	Z	1.036	1.036	0	%100
39	M61	X	-1.717	-1.717	0	%100
40	M61	Z	.991	.991	0	%100
41	MP4B	X	-2.077	-2.077	0	%100
42	MP4B	Z	1.199	1.199	0	%100
43	MP3B	X	-2.077	-2.077	0	%100
44	MP3B	Z	1.199	1.199	0	%100
45	MP1B	X	-2.077	-2.077	0	%100
46	MP1B	Z	1.199	1.199	0	%100
47	MP2B	X	-2.077	-2.077	0	%100
48	MP2B	Z	1.199	1.199	0	%100
49	MP4A	X	-2.077	-2.077	0	%100
50	MP4A	Z	1.199	1.199	0	%100
51	MP3A	X	-2.077	-2.077	0	%100
52	MP3A	Z	1.199	1.199	0	%100
53	MP1A	X	-2.077	-2.077	0	%100
54	MP1A	Z	1.199	1.199	0	%100
55	MP2A	X	-2.077	-2.077	0	%100
56	MP2A	Z	1.199	1.199	0	%100
57	M42	X	-2.701	-2.701	0	%100
58	M42	Z	1.559	1.559	0	%100
59	M43	X	-1.018	-1.018	0	%100
60	M43	Z	.588	.588	0	%100
61	M44	X	-2.701	-2.701	0	%100
62	M44	Z	1.559	1.559	0	%100
63	M49	X	-576	-576	0	%100
64	M49	Z	.332	.332	0	%100
65	M54A	X	-576	-576	0	%100
66	M54A	Z	.332	.332	0	%100
67	M59	X	-2.303	-2.303	0	%100
68	M59	Z	1.33	1.33	0	%100
69	M64	X	-2.303	-2.303	0	%100
70	M64	Z	1.33	1.33	0	%100
71	M69	X	-576	-576	0	%100
72	M69	Z	.332	.332	0	%100
73	M74	X	-576	-576	0	%100
74	M74	Z	.332	.332	0	%100
75	M75	X	-2.216	-2.216	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
76	M75	Z	1.279	1.279	0	%100
77	M76	X	-.634	-.634	0	%100
78	M76	Z	.366	.366	0	%100
79	M77	X	-.479	-.479	0	%100
80	M77	Z	.277	.277	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	-2.234	-2.234	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-2.763	-2.763	0	%100
4	M2	Z	0	0	0	%100
5	M5	X	-3.218	-3.218	0	%100
6	M5	Z	0	0	0	%100
7	M6	X	-.804	-.804	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	-.804	-.804	0	%100
10	M7	Z	0	0	0	%100
11	M6A	X	0	0	0	%100
12	M6A	Z	0	0	0	%100
13	M7A	X	0	0	0	%100
14	M7A	Z	0	0	0	%100
15	M23A	X	-2.825	-2.825	0	%100
16	M23A	Z	0	0	0	%100
17	M24	X	-2.825	-2.825	0	%100
18	M24	Z	0	0	0	%100
19	MP4C	X	-2.398	-2.398	0	%100
20	MP4C	Z	0	0	0	%100
21	MP3C	X	-2.398	-2.398	0	%100
22	MP3C	Z	0	0	0	%100
23	MP1C	X	-2.398	-2.398	0	%100
24	MP1C	Z	0	0	0	%100
25	MP2C	X	-2.398	-2.398	0	%100
26	MP2C	Z	0	0	0	%100
27	M38	X	-.559	-.559	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	-2.825	-2.825	0	%100
30	M39A	Z	0	0	0	%100
31	M40	X	-2.825	-2.825	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	-.559	-.559	0	%100
34	M54	Z	0	0	0	%100
35	M55	X	-.691	-.691	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	-.691	-.691	0	%100
38	M56	Z	0	0	0	%100
39	M61	X	-1.983	-1.983	0	%100
40	M61	Z	0	0	0	%100
41	MP4B	X	-2.398	-2.398	0	%100
42	MP4B	Z	0	0	0	%100
43	MP3B	X	-2.398	-2.398	0	%100
44	MP3B	Z	0	0	0	%100
45	MP1B	X	-2.398	-2.398	0	%100
46	MP1B	Z	0	0	0	%100
47	MP2B	X	-2.398	-2.398	0	%100
48	MP2B	Z	0	0	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
22	MP3C	Z	-1.199	-1.199	0 %100
23	MP1C	X	-2.077	-2.077	0 %100
24	MP1C	Z	-1.199	-1.199	0 %100
25	MP2C	X	-2.077	-2.077	0 %100
26	MP2C	Z	-1.199	-1.199	0 %100
27	M38	X	-1.451	-1.451	0 %100
28	M38	Z	-.838	-.838	0 %100
29	M39A	X	-3.262	-3.262	0 %100
30	M39A	Z	-1.883	-1.883	0 %100
31	M40	X	-3.262	-3.262	0 %100
32	M40	Z	-1.883	-1.883	0 %100
33	M54	X	0	0	0 %100
34	M54	Z	0	0	0 %100
35	M55	X	-1.795	-1.795	0 %100
36	M55	Z	-1.036	-1.036	0 %100
37	M56	X	0	0	0 %100
38	M56	Z	0	0	0 %100
39	M61	X	-1.717	-1.717	0 %100
40	M61	Z	-.991	-.991	0 %100
41	MP4B	X	-2.077	-2.077	0 %100
42	MP4B	Z	-1.199	-1.199	0 %100
43	MP3B	X	-2.077	-2.077	0 %100
44	MP3B	Z	-1.199	-1.199	0 %100
45	MP1B	X	-2.077	-2.077	0 %100
46	MP1B	Z	-1.199	-1.199	0 %100
47	MP2B	X	-2.077	-2.077	0 %100
48	MP2B	Z	-1.199	-1.199	0 %100
49	MP4A	X	-2.077	-2.077	0 %100
50	MP4A	Z	-1.199	-1.199	0 %100
51	MP3A	X	-2.077	-2.077	0 %100
52	MP3A	Z	-1.199	-1.199	0 %100
53	MP1A	X	-2.077	-2.077	0 %100
54	MP1A	Z	-1.199	-1.199	0 %100
55	MP2A	X	-2.077	-2.077	0 %100
56	MP2A	Z	-1.199	-1.199	0 %100
57	M42	X	-2.701	-2.701	0 %100
58	M42	Z	-1.559	-1.559	0 %100
59	M43	X	-2.701	-2.701	0 %100
60	M43	Z	-1.559	-1.559	0 %100
61	M44	X	-1.018	-1.018	0 %100
62	M44	Z	-.588	-.588	0 %100
63	M49	X	-.576	-.576	0 %100
64	M49	Z	-.332	-.332	0 %100
65	M54A	X	-.576	-.576	0 %100
66	M54A	Z	-.332	-.332	0 %100
67	M59	X	-.576	-.576	0 %100
68	M59	Z	-.332	-.332	0 %100
69	M64	X	-.576	-.576	0 %100
70	M64	Z	-.332	-.332	0 %100
71	M69	X	-2.303	-2.303	0 %100
72	M69	Z	-1.33	-1.33	0 %100
73	M74	X	-2.303	-2.303	0 %100
74	M74	Z	-1.33	-1.33	0 %100
75	M75	X	-.634	-.634	0 %100
76	M75	Z	-.366	-.366	0 %100
77	M76	X	-.479	-.479	0 %100
78	M76	Z	-.277	-.277	0 %100



Company : Colliers Engineering & Design
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Member Distributed Loads (BLC 63 : Structure Wi (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
79	M77	X	-2.216	-2.216	0	%100
80	M77	Z	-1.279	-1.279	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	-279	-279	0	%100
2	M1	Z	-484	-484	0	%100
3	M2	X	-345	-345	0	%100
4	M2	Z	-598	-598	0	%100
5	M5	X	-402	-402	0	%100
6	M5	Z	-697	-697	0	%100
7	M6	X	-1.609	-1.609	0	%100
8	M6	Z	-2.787	-2.787	0	%100
9	M7	X	-402	-402	0	%100
10	M7	Z	-697	-697	0	%100
11	M6A	X	-1.412	-1.412	0	%100
12	M6A	Z	-2.446	-2.446	0	%100
13	M7A	X	-1.412	-1.412	0	%100
14	M7A	Z	-2.446	-2.446	0	%100
15	M23A	X	0	0	0	%100
16	M23A	Z	0	0	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	0	0	0	%100
19	MP4C	X	-1.199	-1.199	0	%100
20	MP4C	Z	-2.077	-2.077	0	%100
21	MP3C	X	-1.199	-1.199	0	%100
22	MP3C	Z	-2.077	-2.077	0	%100
23	MP1C	X	-1.199	-1.199	0	%100
24	MP1C	Z	-2.077	-2.077	0	%100
25	MP2C	X	-1.199	-1.199	0	%100
26	MP2C	Z	-2.077	-2.077	0	%100
27	M38	X	-1.117	-1.117	0	%100
28	M38	Z	-1.935	-1.935	0	%100
29	M39A	X	-1.412	-1.412	0	%100
30	M39A	Z	-2.446	-2.446	0	%100
31	M40	X	-1.412	-1.412	0	%100
32	M40	Z	-2.446	-2.446	0	%100
33	M54	X	-279	-279	0	%100
34	M54	Z	-484	-484	0	%100
35	M55	X	-1.382	-1.382	0	%100
36	M55	Z	-2.393	-2.393	0	%100
37	M56	X	-345	-345	0	%100
38	M56	Z	-598	-598	0	%100
39	M61	X	-991	-991	0	%100
40	M61	Z	-1.717	-1.717	0	%100
41	MP4B	X	-1.199	-1.199	0	%100
42	MP4B	Z	-2.077	-2.077	0	%100
43	MP3B	X	-1.199	-1.199	0	%100
44	MP3B	Z	-2.077	-2.077	0	%100
45	MP1B	X	-1.199	-1.199	0	%100
46	MP1B	Z	-2.077	-2.077	0	%100
47	MP2B	X	-1.199	-1.199	0	%100
48	MP2B	Z	-2.077	-2.077	0	%100
49	MP4A	X	-1.199	-1.199	0	%100
50	MP4A	Z	-2.077	-2.077	0	%100
51	MP3A	X	-1.199	-1.199	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
52	MP3A	Z	-2.077	-2.077	0	%100
53	MP1A	X	-1.199	-1.199	0	%100
54	MP1A	Z	-2.077	-2.077	0	%100
55	MP2A	X	-1.199	-1.199	0	%100
56	MP2A	Z	-2.077	-2.077	0	%100
57	M42	X	-911	-911	0	%100
58	M42	Z	-1.579	-1.579	0	%100
59	M43	X	-1.883	-1.883	0	%100
60	M43	Z	-3.262	-3.262	0	%100
61	M44	X	-911	-911	0	%100
62	M44	Z	-1.579	-1.579	0	%100
63	M49	X	-997	-997	0	%100
64	M49	Z	-1.727	-1.727	0	%100
65	M54A	X	-997	-997	0	%100
66	M54A	Z	-1.727	-1.727	0	%100
67	M59	X	0	0	0	%100
68	M59	Z	0	0	0	%100
69	M64	X	0	0	0	%100
70	M64	Z	0	0	0	%100
71	M69	X	-997	-997	0	%100
72	M69	Z	-1.727	-1.727	0	%100
73	M74	X	-997	-997	0	%100
74	M74	Z	-1.727	-1.727	0	%100
75	M75	X	-002	-002	0	%100
76	M75	Z	-004	-004	0	%100
77	M76	X	-915	-915	0	%100
78	M76	Z	-1.585	-1.585	0	%100
79	M77	X	-1.005	-1.005	0	%100
80	M77	Z	-1.74	-1.74	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	M6	X	0	0	0	%100
8	M6	Z	-584	-584	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	-584	-584	0	%100
11	M6A	X	0	0	0	%100
12	M6A	Z	-938	-938	0	%100
13	M7A	X	0	0	0	%100
14	M7A	Z	-938	-938	0	%100
15	M23A	X	0	0	0	%100
16	M23A	Z	-234	-234	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	-234	-234	0	%100
19	MP4C	X	0	0	0	%100
20	MP4C	Z	-446	-446	0	%100
21	MP3C	X	0	0	0	%100
22	MP3C	Z	-446	-446	0	%100
23	MP1C	X	0	0	0	%100
24	MP1C	Z	-446	-446	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft. %]	End Location[ft. %]
25	MP2C	X	0	0	0	%100
26	MP2C	Z	-446	-446	0	%100
27	M38	X	0	0	0	%100
28	M38	Z	-402	-402	0	%100
29	M39A	X	0	0	0	%100
30	M39A	Z	-234	-234	0	%100
31	M40	X	0	0	0	%100
32	M40	Z	-234	-234	0	%100
33	M54	X	0	0	0	%100
34	M54	Z	-402	-402	0	%100
35	M55	X	0	0	0	%100
36	M55	Z	-52	-52	0	%100
37	M56	X	0	0	0	%100
38	M56	Z	-52	-52	0	%100
39	M61	X	0	0	0	%100
40	M61	Z	-364	-364	0	%100
41	MP4B	X	0	0	0	%100
42	MP4B	Z	-446	-446	0	%100
43	MP3B	X	0	0	0	%100
44	MP3B	Z	-446	-446	0	%100
45	MP1B	X	0	0	0	%100
46	MP1B	Z	-446	-446	0	%100
47	MP2B	X	0	0	0	%100
48	MP2B	Z	-446	-446	0	%100
49	MP4A	X	0	0	0	%100
50	MP4A	Z	-446	-446	0	%100
51	MP3A	X	0	0	0	%100
52	MP3A	Z	-446	-446	0	%100
53	MP1A	X	0	0	0	%100
54	MP1A	Z	-446	-446	0	%100
55	MP2A	X	0	0	0	%100
56	MP2A	Z	-446	-446	0	%100
57	M42	X	0	0	0	%100
58	M42	Z	-337	-337	0	%100
59	M43	X	0	0	0	%100
60	M43	Z	-788	-788	0	%100
61	M44	X	0	0	0	%100
62	M44	Z	-788	-788	0	%100
63	M49	X	0	0	0	%100
64	M49	Z	-539	-539	0	%100
65	M54A	X	0	0	0	%100
66	M54A	Z	-539	-539	0	%100
67	M59	X	0	0	0	%100
68	M59	Z	-135	-135	0	%100
69	M64	X	0	0	0	%100
70	M64	Z	-135	-135	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	-135	-135	0	%100
73	M74	X	0	0	0	%100
74	M74	Z	-135	-135	0	%100
75	M75	X	0	0	0	%100
76	M75	Z	-137	-137	0	%100
77	M76	X	0	0	0	%100
78	M76	Z	-635	-635	0	%100
79	M77	X	0	0	0	%100
80	M77	Z	-182	-182	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW MT_LO_H

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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	.067	.067	0	%100
2	M1	Z	-.116	-.116	0	%100
3	M2	X	.087	.087	0	%100
4	M2	Z	-.15	-.15	0	%100
5	M5	X	.097	.097	0	%100
6	M5	Z	-.169	-.169	0	%100
7	M6	X	.097	.097	0	%100
8	M6	Z	-.169	-.169	0	%100
9	M7	X	.39	.39	0	%100
10	M7	Z	-.675	-.675	0	%100
11	M6A	X	.352	.352	0	%100
12	M6A	Z	-.609	-.609	0	%100
13	M7A	X	.352	.352	0	%100
14	M7A	Z	-.609	-.609	0	%100
15	M23A	X	.352	.352	0	%100
16	M23A	Z	-.609	-.609	0	%100
17	M24	X	.352	.352	0	%100
18	M24	Z	-.609	-.609	0	%100
19	MP4C	X	.223	.223	0	%100
20	MP4C	Z	-.386	-.386	0	%100
21	MP3C	X	.223	.223	0	%100
22	MP3C	Z	-.386	-.386	0	%100
23	MP1C	X	.223	.223	0	%100
24	MP1C	Z	-.386	-.386	0	%100
25	MP2C	X	.223	.223	0	%100
26	MP2C	Z	-.386	-.386	0	%100
27	M38	X	.067	.067	0	%100
28	M38	Z	-.116	-.116	0	%100
29	M39A	X	0	0	0	%100
30	M39A	Z	0	0	0	%100
31	M40	X	0	0	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	.268	.268	0	%100
34	M54	Z	-.464	-.464	0	%100
35	M55	X	.087	.087	0	%100
36	M55	Z	-.15	-.15	0	%100
37	M56	X	.347	.347	0	%100
38	M56	Z	-.6	-.6	0	%100
39	M61	X	.182	.182	0	%100
40	M61	Z	-.316	-.316	0	%100
41	MP4B	X	.223	.223	0	%100
42	MP4B	Z	-.386	-.386	0	%100
43	MP3B	X	.223	.223	0	%100
44	MP3B	Z	-.386	-.386	0	%100
45	MP1B	X	.223	.223	0	%100
46	MP1B	Z	-.386	-.386	0	%100
47	MP2B	X	.223	.223	0	%100
48	MP2B	Z	-.386	-.386	0	%100
49	MP4A	X	.223	.223	0	%100
50	MP4A	Z	-.386	-.386	0	%100
51	MP3A	X	.223	.223	0	%100
52	MP3A	Z	-.386	-.386	0	%100
53	MP1A	X	.223	.223	0	%100
54	MP1A	Z	-.386	-.386	0	%100
55	MP2A	X	.223	.223	0	%100
56	MP2A	Z	-.386	-.386	0	%100
57	M42	X	.244	.244	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
58	M42	Z	- .422	- .422	0	%100
59	M43	X	.244	.244	0	%100
60	M43	Z	- .422	- .422	0	%100
61	M44	X	.469	.469	0	%100
62	M44	Z	- .812	- .812	0	%100
63	M49	X	.202	.202	0	%100
64	M49	Z	- .35	- .35	0	%100
65	M54A	X	.202	.202	0	%100
66	M54A	Z	- .35	- .35	0	%100
67	M59	X	.202	.202	0	%100
68	M59	Z	- .35	- .35	0	%100
69	M64	X	.202	.202	0	%100
70	M64	Z	- .35	- .35	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	0	0	0	%100
73	M74	X	0	0	0	%100
74	M74	Z	0	0	0	%100
75	M75	X	.227	.227	0	%100
76	M75	Z	- .393	- .393	0	%100
77	M76	X	.249	.249	0	%100
78	M76	Z	- .432	- .432	0	%100
79	M77	X	.000519	.000519	0	%100
80	M77	Z	- .000898	- .000898	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	.348	.348	0	%100
2	M1	Z	- .201	- .201	0	%100
3	M2	X	.45	.45	0	%100
4	M2	Z	- .26	- .26	0	%100
5	M5	X	.506	.506	0	%100
6	M5	Z	- .292	- .292	0	%100
7	M6	X	0	0	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	.506	.506	0	%100
10	M7	Z	- .292	- .292	0	%100
11	M6A	X	.203	.203	0	%100
12	M6A	Z	- .117	- .117	0	%100
13	M7A	X	.203	.203	0	%100
14	M7A	Z	- .117	- .117	0	%100
15	M23A	X	.812	.812	0	%100
16	M23A	Z	- .469	- .469	0	%100
17	M24	X	.812	.812	0	%100
18	M24	Z	- .469	- .469	0	%100
19	MP4C	X	.386	.386	0	%100
20	MP4C	Z	- .223	- .223	0	%100
21	MP3C	X	.386	.386	0	%100
22	MP3C	Z	- .223	- .223	0	%100
23	MP1C	X	.386	.386	0	%100
24	MP1C	Z	- .223	- .223	0	%100
25	MP2C	X	.386	.386	0	%100
26	MP2C	Z	- .223	- .223	0	%100
27	M38	X	0	0	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	.203	.203	0	%100
30	M39A	Z	- .117	- .117	0	%100



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO H

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
31	M40	X	.203	.203	0	%100
32	M40	Z	-.117	-.117	0	%100
33	M54	X	.348	.348	0	%100
34	M54	Z	-.201	-.201	0	%100
35	M55	X	0	0	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	.45	.45	0	%100
38	M56	Z	-.26	-.26	0	%100
39	M61	X	.316	.316	0	%100
40	M61	Z	-.182	-.182	0	%100
41	MP4B	X	.386	.386	0	%100
42	MP4B	Z	-.223	-.223	0	%100
43	MP3B	X	.386	.386	0	%100
44	MP3B	Z	-.223	-.223	0	%100
45	MP1B	X	.386	.386	0	%100
46	MP1B	Z	-.223	-.223	0	%100
47	MP2B	X	.386	.386	0	%100
48	MP2B	Z	-.223	-.223	0	%100
49	MP4A	X	.386	.386	0	%100
50	MP4A	Z	-.223	-.223	0	%100
51	MP3A	X	.386	.386	0	%100
52	MP3A	Z	-.223	-.223	0	%100
53	MP1A	X	.386	.386	0	%100
54	MP1A	Z	-.223	-.223	0	%100
55	MP2A	X	.386	.386	0	%100
56	MP2A	Z	-.223	-.223	0	%100
57	M42	X	.682	.682	0	%100
58	M42	Z	-.394	-.394	0	%100
59	M43	X	.292	.292	0	%100
60	M43	Z	-.169	-.169	0	%100
61	M44	X	.682	.682	0	%100
62	M44	Z	-.394	-.394	0	%100
63	M49	X	.117	.117	0	%100
64	M49	Z	-.067	-.067	0	%100
65	M54A	X	.117	.117	0	%100
66	M54A	Z	-.067	-.067	0	%100
67	M59	X	.467	.467	0	%100
68	M59	Z	-.27	-.27	0	%100
69	M64	X	.467	.467	0	%100
70	M64	Z	-.27	-.27	0	%100
71	M69	X	.117	.117	0	%100
72	M69	Z	-.067	-.067	0	%100
73	M74	X	.117	.117	0	%100
74	M74	Z	-.067	-.067	0	%100
75	M75	X	.55	.55	0	%100
76	M75	Z	-.317	-.317	0	%100
77	M76	X	.157	.157	0	%100
78	M76	Z	-.091	-.091	0	%100
79	M77	X	.119	.119	0	%100
80	M77	Z	-.069	-.069	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	.536	.536	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	.693	.693	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
4	M2	Z	0	0	0	%100
5	M5	X	.779	.779	0	%100
6	M5	Z	0	0	0	%100
7	M6	X	.195	.195	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	.195	.195	0	%100
10	M7	Z	0	0	0	%100
11	M6A	X	0	0	0	%100
12	M6A	Z	0	0	0	%100
13	M7A	X	0	0	0	%100
14	M7A	Z	0	0	0	%100
15	M23A	X	.703	.703	0	%100
16	M23A	Z	0	0	0	%100
17	M24	X	.703	.703	0	%100
18	M24	Z	0	0	0	%100
19	MP4C	X	.446	.446	0	%100
20	MP4C	Z	0	0	0	%100
21	MP3C	X	.446	.446	0	%100
22	MP3C	Z	0	0	0	%100
23	MP1C	X	.446	.446	0	%100
24	MP1C	Z	0	0	0	%100
25	MP2C	X	.446	.446	0	%100
26	MP2C	Z	0	0	0	%100
27	M38	X	.134	.134	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	.703	.703	0	%100
30	M39A	Z	0	0	0	%100
31	M40	X	.703	.703	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	.134	.134	0	%100
34	M54	Z	0	0	0	%100
35	M55	X	.173	.173	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	.173	.173	0	%100
38	M56	Z	0	0	0	%100
39	M61	X	.364	.364	0	%100
40	M61	Z	0	0	0	%100
41	MP4B	X	.446	.446	0	%100
42	MP4B	Z	0	0	0	%100
43	MP3B	X	.446	.446	0	%100
44	MP3B	Z	0	0	0	%100
45	MP1B	X	.446	.446	0	%100
46	MP1B	Z	0	0	0	%100
47	MP2B	X	.446	.446	0	%100
48	MP2B	Z	0	0	0	%100
49	MP4A	X	.446	.446	0	%100
50	MP4A	Z	0	0	0	%100
51	MP3A	X	.446	.446	0	%100
52	MP3A	Z	0	0	0	%100
53	MP1A	X	.446	.446	0	%100
54	MP1A	Z	0	0	0	%100
55	MP2A	X	.446	.446	0	%100
56	MP2A	Z	0	0	0	%100
57	M42	X	.938	.938	0	%100
58	M42	Z	0	0	0	%100
59	M43	X	.487	.487	0	%100
60	M43	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
61	M44	X	.487	.487	0	%100
62	M44	Z	0	0	0	%100
63	M49	X	0	0	0	%100
64	M49	Z	0	0	0	%100
65	M54A	X	0	0	0	%100
66	M54A	Z	0	0	0	%100
67	M59	X	.405	.405	0	%100
68	M59	Z	0	0	0	%100
69	M64	X	.405	.405	0	%100
70	M64	Z	0	0	0	%100
71	M69	X	.405	.405	0	%100
72	M69	Z	0	0	0	%100
73	M74	X	.405	.405	0	%100
74	M74	Z	0	0	0	%100
75	M75	X	.498	.498	0	%100
76	M75	Z	0	0	0	%100
77	M76	X	.001	.001	0	%100
78	M76	Z	0	0	0	%100
79	M77	X	.454	.454	0	%100
80	M77	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	.348	.348	0	%100
2	M1	Z	.201	.201	0	%100
3	M2	X	.45	.45	0	%100
4	M2	Z	.26	.26	0	%100
5	M5	X	.506	.506	0	%100
6	M5	Z	.292	.292	0	%100
7	M6	X	.506	.506	0	%100
8	M6	Z	.292	.292	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	0	0	0	%100
11	M6A	X	.203	.203	0	%100
12	M6A	Z	.117	.117	0	%100
13	M7A	X	.203	.203	0	%100
14	M7A	Z	.117	.117	0	%100
15	M23A	X	.203	.203	0	%100
16	M23A	Z	.117	.117	0	%100
17	M24	X	.203	.203	0	%100
18	M24	Z	.117	.117	0	%100
19	MP4C	X	.386	.386	0	%100
20	MP4C	Z	.223	.223	0	%100
21	MP3C	X	.386	.386	0	%100
22	MP3C	Z	.223	.223	0	%100
23	MP1C	X	.386	.386	0	%100
24	MP1C	Z	.223	.223	0	%100
25	MP2C	X	.386	.386	0	%100
26	MP2C	Z	.223	.223	0	%100
27	M38	X	.348	.348	0	%100
28	M38	Z	.201	.201	0	%100
29	M39A	X	.812	.812	0	%100
30	M39A	Z	.469	.469	0	%100
31	M40	X	.812	.812	0	%100
32	M40	Z	.469	.469	0	%100
33	M54	X	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
34	M54	Z	0	0	0	%100
35	M55	X	.45	.45	0	%100
36	M55	Z	.26	.26	0	%100
37	M56	X	0	0	0	%100
38	M56	Z	0	0	0	%100
39	M61	X	.316	.316	0	%100
40	M61	Z	.182	.182	0	%100
41	MP4B	X	.386	.386	0	%100
42	MP4B	Z	.223	.223	0	%100
43	MP3B	X	.386	.386	0	%100
44	MP3B	Z	.223	.223	0	%100
45	MP1B	X	.386	.386	0	%100
46	MP1B	Z	.223	.223	0	%100
47	MP2B	X	.386	.386	0	%100
48	MP2B	Z	.223	.223	0	%100
49	MP4A	X	.386	.386	0	%100
50	MP4A	Z	.223	.223	0	%100
51	MP3A	X	.386	.386	0	%100
52	MP3A	Z	.223	.223	0	%100
53	MP1A	X	.386	.386	0	%100
54	MP1A	Z	.223	.223	0	%100
55	MP2A	X	.386	.386	0	%100
56	MP2A	Z	.223	.223	0	%100
57	M42	X	.682	.682	0	%100
58	M42	Z	.394	.394	0	%100
59	M43	X	.682	.682	0	%100
60	M43	Z	.394	.394	0	%100
61	M44	X	.292	.292	0	%100
62	M44	Z	.169	.169	0	%100
63	M49	X	.117	.117	0	%100
64	M49	Z	.067	.067	0	%100
65	M54A	X	.117	.117	0	%100
66	M54A	Z	.067	.067	0	%100
67	M59	X	.117	.117	0	%100
68	M59	Z	.067	.067	0	%100
69	M64	X	.117	.117	0	%100
70	M64	Z	.067	.067	0	%100
71	M69	X	.467	.467	0	%100
72	M69	Z	.27	.27	0	%100
73	M74	X	.467	.467	0	%100
74	M74	Z	.27	.27	0	%100
75	M75	X	.157	.157	0	%100
76	M75	Z	.091	.091	0	%100
77	M76	X	.119	.119	0	%100
78	M76	Z	.069	.069	0	%100
79	M77	X	.55	.55	0	%100
80	M77	Z	.317	.317	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	.067	.067	0	%100
2	M1	Z	.116	.116	0	%100
3	M2	X	.087	.087	0	%100
4	M2	Z	.15	.15	0	%100
5	M5	X	.097	.097	0	%100
6	M5	Z	.169	.169	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
7	M6	X	.39	.39	0	%100
8	M6	Z	.675	.675	0	%100
9	M7	X	.097	.097	0	%100
10	M7	Z	.169	.169	0	%100
11	M6A	X	.352	.352	0	%100
12	M6A	Z	.609	.609	0	%100
13	M7A	X	.352	.352	0	%100
14	M7A	Z	.609	.609	0	%100
15	M23A	X	0	0	0	%100
16	M23A	Z	0	0	0	%100
17	M24	X	0	0	0	%100
18	M24	Z	0	0	0	%100
19	MP4C	X	.223	.223	0	%100
20	MP4C	Z	.386	.386	0	%100
21	MP3C	X	.223	.223	0	%100
22	MP3C	Z	.386	.386	0	%100
23	MP1C	X	.223	.223	0	%100
24	MP1C	Z	.386	.386	0	%100
25	MP2C	X	.223	.223	0	%100
26	MP2C	Z	.386	.386	0	%100
27	M38	X	.268	.268	0	%100
28	M38	Z	.464	.464	0	%100
29	M39A	X	.352	.352	0	%100
30	M39A	Z	.609	.609	0	%100
31	M40	X	.352	.352	0	%100
32	M40	Z	.609	.609	0	%100
33	M54	X	.067	.067	0	%100
34	M54	Z	.116	.116	0	%100
35	M55	X	.347	.347	0	%100
36	M55	Z	.6	.6	0	%100
37	M56	X	.087	.087	0	%100
38	M56	Z	.15	.15	0	%100
39	M61	X	.182	.182	0	%100
40	M61	Z	.316	.316	0	%100
41	MP4B	X	.223	.223	0	%100
42	MP4B	Z	.386	.386	0	%100
43	MP3B	X	.223	.223	0	%100
44	MP3B	Z	.386	.386	0	%100
45	MP1B	X	.223	.223	0	%100
46	MP1B	Z	.386	.386	0	%100
47	MP2B	X	.223	.223	0	%100
48	MP2B	Z	.386	.386	0	%100
49	MP4A	X	.223	.223	0	%100
50	MP4A	Z	.386	.386	0	%100
51	MP3A	X	.223	.223	0	%100
52	MP3A	Z	.386	.386	0	%100
53	MP1A	X	.223	.223	0	%100
54	MP1A	Z	.386	.386	0	%100
55	MP2A	X	.223	.223	0	%100
56	MP2A	Z	.386	.386	0	%100
57	M42	X	.244	.244	0	%100
58	M42	Z	.422	.422	0	%100
59	M43	X	.469	.469	0	%100
60	M43	Z	.812	.812	0	%100
61	M44	X	.244	.244	0	%100
62	M44	Z	.422	.422	0	%100
63	M49	X	.202	.202	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
37	M56	X	0	0	0	%100
38	M56	Z	.52	.52	0	%100
39	M61	X	0	0	0	%100
40	M61	Z	.364	.364	0	%100
41	MP4B	X	0	0	0	%100
42	MP4B	Z	.446	.446	0	%100
43	MP3B	X	0	0	0	%100
44	MP3B	Z	.446	.446	0	%100
45	MP1B	X	0	0	0	%100
46	MP1B	Z	.446	.446	0	%100
47	MP2B	X	0	0	0	%100
48	MP2B	Z	.446	.446	0	%100
49	MP4A	X	0	0	0	%100
50	MP4A	Z	.446	.446	0	%100
51	MP3A	X	0	0	0	%100
52	MP3A	Z	.446	.446	0	%100
53	MP1A	X	0	0	0	%100
54	MP1A	Z	.446	.446	0	%100
55	MP2A	X	0	0	0	%100
56	MP2A	Z	.446	.446	0	%100
57	M42	X	0	0	0	%100
58	M42	Z	.337	.337	0	%100
59	M43	X	0	0	0	%100
60	M43	Z	.788	.788	0	%100
61	M44	X	0	0	0	%100
62	M44	Z	.788	.788	0	%100
63	M49	X	0	0	0	%100
64	M49	Z	.539	.539	0	%100
65	M54A	X	0	0	0	%100
66	M54A	Z	.539	.539	0	%100
67	M59	X	0	0	0	%100
68	M59	Z	.135	.135	0	%100
69	M64	X	0	0	0	%100
70	M64	Z	.135	.135	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	.135	.135	0	%100
73	M74	X	0	0	0	%100
74	M74	Z	.135	.135	0	%100
75	M75	X	0	0	0	%100
76	M75	Z	.137	.137	0	%100
77	M76	X	0	0	0	%100
78	M76	Z	.635	.635	0	%100
79	M77	X	0	0	0	%100
80	M77	Z	.182	.182	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	-.067	-.067	0	%100
2	M1	Z	.116	.116	0	%100
3	M2	X	-.087	-.087	0	%100
4	M2	Z	.15	.15	0	%100
5	M5	X	-.097	-.097	0	%100
6	M5	Z	.169	.169	0	%100
7	M6	X	-.097	-.097	0	%100
8	M6	Z	.169	.169	0	%100
9	M7	X	-.39	-.39	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
10	M7	Z	.675	.675	0	%100
11	M6A	X	-.352	-.352	0	%100
12	M6A	Z	.609	.609	0	%100
13	M7A	X	-.352	-.352	0	%100
14	M7A	Z	.609	.609	0	%100
15	M23A	X	-.352	-.352	0	%100
16	M23A	Z	.609	.609	0	%100
17	M24	X	-.352	-.352	0	%100
18	M24	Z	.609	.609	0	%100
19	MP4C	X	-.223	-.223	0	%100
20	MP4C	Z	.386	.386	0	%100
21	MP3C	X	-.223	-.223	0	%100
22	MP3C	Z	.386	.386	0	%100
23	MP1C	X	-.223	-.223	0	%100
24	MP1C	Z	.386	.386	0	%100
25	MP2C	X	-.223	-.223	0	%100
26	MP2C	Z	.386	.386	0	%100
27	M38	X	-.067	-.067	0	%100
28	M38	Z	.116	.116	0	%100
29	M39A	X	0	0	0	%100
30	M39A	Z	0	0	0	%100
31	M40	X	0	0	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	-.268	-.268	0	%100
34	M54	Z	.464	.464	0	%100
35	M55	X	-.087	-.087	0	%100
36	M55	Z	.15	.15	0	%100
37	M56	X	-.347	-.347	0	%100
38	M56	Z	.6	.6	0	%100
39	M61	X	-.182	-.182	0	%100
40	M61	Z	.316	.316	0	%100
41	MP4B	X	-.223	-.223	0	%100
42	MP4B	Z	.386	.386	0	%100
43	MP3B	X	-.223	-.223	0	%100
44	MP3B	Z	.386	.386	0	%100
45	MP1B	X	-.223	-.223	0	%100
46	MP1B	Z	.386	.386	0	%100
47	MP2B	X	-.223	-.223	0	%100
48	MP2B	Z	.386	.386	0	%100
49	MP4A	X	-.223	-.223	0	%100
50	MP4A	Z	.386	.386	0	%100
51	MP3A	X	-.223	-.223	0	%100
52	MP3A	Z	.386	.386	0	%100
53	MP1A	X	-.223	-.223	0	%100
54	MP1A	Z	.386	.386	0	%100
55	MP2A	X	-.223	-.223	0	%100
56	MP2A	Z	.386	.386	0	%100
57	M42	X	-.244	-.244	0	%100
58	M42	Z	.422	.422	0	%100
59	M43	X	-.244	-.244	0	%100
60	M43	Z	.422	.422	0	%100
61	M44	X	-.469	-.469	0	%100
62	M44	Z	.812	.812	0	%100
63	M49	X	-.202	-.202	0	%100
64	M49	Z	.35	.35	0	%100
65	M54A	X	-.202	-.202	0	%100
66	M54A	Z	.35	.35	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
67	M59	X	-.202	-.202	0	%100
68	M59	Z	.35	.35	0	%100
69	M64	X	-.202	-.202	0	%100
70	M64	Z	.35	.35	0	%100
71	M69	X	0	0	0	%100
72	M69	Z	0	0	0	%100
73	M74	X	0	0	0	%100
74	M74	Z	0	0	0	%100
75	M75	X	-.227	-.227	0	%100
76	M75	Z	.393	.393	0	%100
77	M76	X	-.249	-.249	0	%100
78	M76	Z	.432	.432	0	%100
79	M77	X	-.000519	-.000519	0	%100
80	M77	Z	.000898	.000898	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	-.348	-.348	0	%100
2	M1	Z	.201	.201	0	%100
3	M2	X	-.45	-.45	0	%100
4	M2	Z	.26	.26	0	%100
5	M5	X	-.506	-.506	0	%100
6	M5	Z	.292	.292	0	%100
7	M6	X	0	0	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	-.506	-.506	0	%100
10	M7	Z	.292	.292	0	%100
11	M6A	X	-.203	-.203	0	%100
12	M6A	Z	.117	.117	0	%100
13	M7A	X	-.203	-.203	0	%100
14	M7A	Z	.117	.117	0	%100
15	M23A	X	-.812	-.812	0	%100
16	M23A	Z	.469	.469	0	%100
17	M24	X	-.812	-.812	0	%100
18	M24	Z	.469	.469	0	%100
19	MP4C	X	-.386	-.386	0	%100
20	MP4C	Z	.223	.223	0	%100
21	MP3C	X	-.386	-.386	0	%100
22	MP3C	Z	.223	.223	0	%100
23	MP1C	X	-.386	-.386	0	%100
24	MP1C	Z	.223	.223	0	%100
25	MP2C	X	-.386	-.386	0	%100
26	MP2C	Z	.223	.223	0	%100
27	M38	X	0	0	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	-.203	-.203	0	%100
30	M39A	Z	.117	.117	0	%100
31	M40	X	-.203	-.203	0	%100
32	M40	Z	.117	.117	0	%100
33	M54	X	-.348	-.348	0	%100
34	M54	Z	.201	.201	0	%100
35	M55	X	0	0	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	-.45	-.45	0	%100
38	M56	Z	.26	.26	0	%100
39	M61	X	-.316	-.316	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
40	M61	Z	.182	.182	0	%100
41	MP4B	X	-.386	-.386	0	%100
42	MP4B	Z	.223	.223	0	%100
43	MP3B	X	-.386	-.386	0	%100
44	MP3B	Z	.223	.223	0	%100
45	MP1B	X	-.386	-.386	0	%100
46	MP1B	Z	.223	.223	0	%100
47	MP2B	X	-.386	-.386	0	%100
48	MP2B	Z	.223	.223	0	%100
49	MP4A	X	-.386	-.386	0	%100
50	MP4A	Z	.223	.223	0	%100
51	MP3A	X	-.386	-.386	0	%100
52	MP3A	Z	.223	.223	0	%100
53	MP1A	X	-.386	-.386	0	%100
54	MP1A	Z	.223	.223	0	%100
55	MP2A	X	-.386	-.386	0	%100
56	MP2A	Z	.223	.223	0	%100
57	M42	X	-.682	-.682	0	%100
58	M42	Z	.394	.394	0	%100
59	M43	X	-.292	-.292	0	%100
60	M43	Z	.169	.169	0	%100
61	M44	X	-.682	-.682	0	%100
62	M44	Z	.394	.394	0	%100
63	M49	X	-.117	-.117	0	%100
64	M49	Z	.067	.067	0	%100
65	M54A	X	-.117	-.117	0	%100
66	M54A	Z	.067	.067	0	%100
67	M59	X	-.467	-.467	0	%100
68	M59	Z	.27	.27	0	%100
69	M64	X	-.467	-.467	0	%100
70	M64	Z	.27	.27	0	%100
71	M69	X	-.117	-.117	0	%100
72	M69	Z	.067	.067	0	%100
73	M74	X	-.117	-.117	0	%100
74	M74	Z	.067	.067	0	%100
75	M75	X	-.55	-.55	0	%100
76	M75	Z	.317	.317	0	%100
77	M76	X	-.157	-.157	0	%100
78	M76	Z	.091	.091	0	%100
79	M77	X	-.119	-.119	0	%100
80	M77	Z	.069	.069	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	-.536	-.536	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-.693	-.693	0	%100
4	M2	Z	0	0	0	%100
5	M5	X	-.779	-.779	0	%100
6	M5	Z	0	0	0	%100
7	M6	X	-.195	-.195	0	%100
8	M6	Z	0	0	0	%100
9	M7	X	-.195	-.195	0	%100
10	M7	Z	0	0	0	%100
11	M6A	X	0	0	0	%100
12	M6A	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
13	M7A	X	0	0	0	%100
14	M7A	Z	0	0	0	%100
15	M23A	X	-703	-703	0	%100
16	M23A	Z	0	0	0	%100
17	M24	X	-703	-703	0	%100
18	M24	Z	0	0	0	%100
19	MP4C	X	-446	-446	0	%100
20	MP4C	Z	0	0	0	%100
21	MP3C	X	-446	-446	0	%100
22	MP3C	Z	0	0	0	%100
23	MP1C	X	-446	-446	0	%100
24	MP1C	Z	0	0	0	%100
25	MP2C	X	-446	-446	0	%100
26	MP2C	Z	0	0	0	%100
27	M38	X	-134	-134	0	%100
28	M38	Z	0	0	0	%100
29	M39A	X	-703	-703	0	%100
30	M39A	Z	0	0	0	%100
31	M40	X	-703	-703	0	%100
32	M40	Z	0	0	0	%100
33	M54	X	-134	-134	0	%100
34	M54	Z	0	0	0	%100
35	M55	X	-173	-173	0	%100
36	M55	Z	0	0	0	%100
37	M56	X	-173	-173	0	%100
38	M56	Z	0	0	0	%100
39	M61	X	-364	-364	0	%100
40	M61	Z	0	0	0	%100
41	MP4B	X	-446	-446	0	%100
42	MP4B	Z	0	0	0	%100
43	MP3B	X	-446	-446	0	%100
44	MP3B	Z	0	0	0	%100
45	MP1B	X	-446	-446	0	%100
46	MP1B	Z	0	0	0	%100
47	MP2B	X	-446	-446	0	%100
48	MP2B	Z	0	0	0	%100
49	MP4A	X	-446	-446	0	%100
50	MP4A	Z	0	0	0	%100
51	MP3A	X	-446	-446	0	%100
52	MP3A	Z	0	0	0	%100
53	MP1A	X	-446	-446	0	%100
54	MP1A	Z	0	0	0	%100
55	MP2A	X	-446	-446	0	%100
56	MP2A	Z	0	0	0	%100
57	M42	X	-938	-938	0	%100
58	M42	Z	0	0	0	%100
59	M43	X	-487	-487	0	%100
60	M43	Z	0	0	0	%100
61	M44	X	-487	-487	0	%100
62	M44	Z	0	0	0	%100
63	M49	X	0	0	0	%100
64	M49	Z	0	0	0	%100
65	M54A	X	0	0	0	%100
66	M54A	Z	0	0	0	%100
67	M59	X	-405	-405	0	%100
68	M59	Z	0	0	0	%100
69	M64	X	-405	-405	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
70	M64	Z	0	0	0	%100
71	M69	X	-405	-405	0	%100
72	M69	Z	0	0	0	%100
73	M74	X	-405	-405	0	%100
74	M74	Z	0	0	0	%100
75	M75	X	-498	-498	0	%100
76	M75	Z	0	0	0	%100
77	M76	X	-001	-001	0	%100
78	M76	Z	0	0	0	%100
79	M77	X	-454	-454	0	%100
80	M77	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	-348	-348	0	%100
2	M1	Z	-201	-201	0	%100
3	M2	X	-45	-45	0	%100
4	M2	Z	-26	-26	0	%100
5	M5	X	-506	-506	0	%100
6	M5	Z	-292	-292	0	%100
7	M6	X	-506	-506	0	%100
8	M6	Z	-292	-292	0	%100
9	M7	X	0	0	0	%100
10	M7	Z	0	0	0	%100
11	M6A	X	-203	-203	0	%100
12	M6A	Z	-117	-117	0	%100
13	M7A	X	-203	-203	0	%100
14	M7A	Z	-117	-117	0	%100
15	M23A	X	-203	-203	0	%100
16	M23A	Z	-117	-117	0	%100
17	M24	X	-203	-203	0	%100
18	M24	Z	-117	-117	0	%100
19	MP4C	X	-386	-386	0	%100
20	MP4C	Z	-223	-223	0	%100
21	MP3C	X	-386	-386	0	%100
22	MP3C	Z	-223	-223	0	%100
23	MP1C	X	-386	-386	0	%100
24	MP1C	Z	-223	-223	0	%100
25	MP2C	X	-386	-386	0	%100
26	MP2C	Z	-223	-223	0	%100
27	M38	X	-348	-348	0	%100
28	M38	Z	-201	-201	0	%100
29	M39A	X	-812	-812	0	%100
30	M39A	Z	-469	-469	0	%100
31	M40	X	-812	-812	0	%100
32	M40	Z	-469	-469	0	%100
33	M54	X	0	0	0	%100
34	M54	Z	0	0	0	%100
35	M55	X	-45	-45	0	%100
36	M55	Z	-26	-26	0	%100
37	M56	X	0	0	0	%100
38	M56	Z	0	0	0	%100
39	M61	X	-316	-316	0	%100
40	M61	Z	-182	-182	0	%100
41	MP4B	X	-386	-386	0	%100
42	MP4B	Z	-223	-223	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
43	MP3B	X	-386	-386	0	%100
44	MP3B	Z	-223	-223	0	%100
45	MP1B	X	-386	-386	0	%100
46	MP1B	Z	-223	-223	0	%100
47	MP2B	X	-386	-386	0	%100
48	MP2B	Z	-223	-223	0	%100
49	MP4A	X	-386	-386	0	%100
50	MP4A	Z	-223	-223	0	%100
51	MP3A	X	-386	-386	0	%100
52	MP3A	Z	-223	-223	0	%100
53	MP1A	X	-386	-386	0	%100
54	MP1A	Z	-223	-223	0	%100
55	MP2A	X	-386	-386	0	%100
56	MP2A	Z	-223	-223	0	%100
57	M42	X	-682	-682	0	%100
58	M42	Z	-394	-394	0	%100
59	M43	X	-682	-682	0	%100
60	M43	Z	-394	-394	0	%100
61	M44	X	-292	-292	0	%100
62	M44	Z	-169	-169	0	%100
63	M49	X	-117	-117	0	%100
64	M49	Z	-067	-067	0	%100
65	M54A	X	-117	-117	0	%100
66	M54A	Z	-067	-067	0	%100
67	M59	X	-117	-117	0	%100
68	M59	Z	-067	-067	0	%100
69	M64	X	-117	-117	0	%100
70	M64	Z	-067	-067	0	%100
71	M69	X	-467	-467	0	%100
72	M69	Z	-27	-27	0	%100
73	M74	X	-467	-467	0	%100
74	M74	Z	-27	-27	0	%100
75	M75	X	-157	-157	0	%100
76	M75	Z	-091	-091	0	%100
77	M76	X	-119	-119	0	%100
78	M76	Z	-069	-069	0	%100
79	M77	X	-55	-55	0	%100
80	M77	Z	-317	-317	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	-067	-067	0	%100
2	M1	Z	-116	-116	0	%100
3	M2	X	-087	-087	0	%100
4	M2	Z	-15	-15	0	%100
5	M5	X	-097	-097	0	%100
6	M5	Z	-169	-169	0	%100
7	M6	X	-39	-39	0	%100
8	M6	Z	-675	-675	0	%100
9	M7	X	-097	-097	0	%100
10	M7	Z	-169	-169	0	%100
11	M6A	X	-352	-352	0	%100
12	M6A	Z	-609	-609	0	%100
13	M7A	X	-352	-352	0	%100
14	M7A	Z	-609	-609	0	%100
15	M23A	X	0	0	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
16	M23A	Z	0	0	%100
17	M24	X	0	0	%100
18	M24	Z	0	0	%100
19	MP4C	X	-223	-223	%100
20	MP4C	Z	-386	-386	%100
21	MP3C	X	-223	-223	%100
22	MP3C	Z	-386	-386	%100
23	MP1C	X	-223	-223	%100
24	MP1C	Z	-386	-386	%100
25	MP2C	X	-223	-223	%100
26	MP2C	Z	-386	-386	%100
27	M38	X	-268	-268	%100
28	M38	Z	-464	-464	%100
29	M39A	X	-352	-352	%100
30	M39A	Z	-609	-609	%100
31	M40	X	-352	-352	%100
32	M40	Z	-609	-609	%100
33	M54	X	-067	-067	%100
34	M54	Z	-116	-116	%100
35	M55	X	-347	-347	%100
36	M55	Z	-6	-6	%100
37	M56	X	-087	-087	%100
38	M56	Z	-15	-15	%100
39	M61	X	-182	-182	%100
40	M61	Z	-316	-316	%100
41	MP4B	X	-223	-223	%100
42	MP4B	Z	-386	-386	%100
43	MP3B	X	-223	-223	%100
44	MP3B	Z	-386	-386	%100
45	MP1B	X	-223	-223	%100
46	MP1B	Z	-386	-386	%100
47	MP2B	X	-223	-223	%100
48	MP2B	Z	-386	-386	%100
49	MP4A	X	-223	-223	%100
50	MP4A	Z	-386	-386	%100
51	MP3A	X	-223	-223	%100
52	MP3A	Z	-386	-386	%100
53	MP1A	X	-223	-223	%100
54	MP1A	Z	-386	-386	%100
55	MP2A	X	-223	-223	%100
56	MP2A	Z	-386	-386	%100
57	M42	X	-244	-244	%100
58	M42	Z	-422	-422	%100
59	M43	X	-469	-469	%100
60	M43	Z	-812	-812	%100
61	M44	X	-244	-244	%100
62	M44	Z	-422	-422	%100
63	M49	X	-202	-202	%100
64	M49	Z	-35	-35	%100
65	M54A	X	-202	-202	%100
66	M54A	Z	-35	-35	%100
67	M59	X	0	0	%100
68	M59	Z	0	0	%100
69	M64	X	0	0	%100
70	M64	Z	0	0	%100
71	M69	X	-202	-202	%100
72	M69	Z	-35	-35	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
73	M74	X	-.202	-.202	0	%100
74	M74	Z	-.35	-.35	0	%100
75	M75	X	-.000519	-.000519	0	%100
76	M75	Z	-.000898	-.000898	0	%100
77	M76	X	-.227	-.227	0	%100
78	M76	Z	-.393	-.393	0	%100
79	M77	X	-.249	-.249	0	%100
80	M77	Z	-.432	-.432	0	%100

Member Distributed Loads (BLC 87 : BLC 39 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M6	Y	-.937	-4.739	0	1.856
2	M6	Y	-4.739	-8.541	1.856	3.711
3	M7	Y	-.937	-4.739	0	1.856
4	M7	Y	-4.739	-8.541	1.856	3.711
5	M6A	Y	-4.893	-4.893	.02	7.414
6	M7A	Y	-.267	-3.627	0	2.31
7	M7A	Y	-3.627	-4.766	2.31	4.621
8	M7A	Y	-4.766	-4.146	4.621	6.931
9	M7A	Y	-4.146	-4.766	6.931	9.241
10	M7A	Y	-4.766	-3.627	9.241	11.551
11	M7A	Y	-3.627	-.267	11.551	13.862
12	M5	Y	-.937	-4.739	0	1.856
13	M5	Y	-4.739	-8.541	1.856	3.711
14	M23A	Y	-4.893	-4.893	.02	7.414
15	M24	Y	-.267	-3.627	0	2.31
16	M24	Y	-3.627	-4.766	2.31	4.621
17	M24	Y	-4.766	-4.146	4.621	6.931
18	M24	Y	-4.146	-4.766	6.931	9.241
19	M24	Y	-4.766	-3.627	9.241	11.551
20	M24	Y	-3.627	-.267	11.551	13.862
21	M39A	Y	-4.893	-4.893	.02	7.414
22	M40	Y	-.267	-3.627	0	2.31
23	M40	Y	-3.627	-4.766	2.31	4.621
24	M40	Y	-4.766	-4.146	4.621	6.931
25	M40	Y	-4.146	-4.766	6.931	9.241
26	M40	Y	-4.766	-3.627	9.241	11.551
27	M40	Y	-3.627	-.267	11.551	13.862

Member Distributed Loads (BLC 88 : BLC 40 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M6	Y	-1.778	-8.991	0	1.856
2	M6	Y	-8.991	-16.204	1.856	3.711
3	M7	Y	-1.778	-8.991	0	1.856
4	M7	Y	-8.991	-16.204	1.856	3.711
5	M6A	Y	-9.283	-9.283	.02	7.414
6	M7A	Y	-.506	-6.881	0	2.31
7	M7A	Y	-6.881	-9.042	2.31	4.621
8	M7A	Y	-9.042	-7.865	4.621	6.931
9	M7A	Y	-7.865	-9.042	6.931	9.241
10	M7A	Y	-9.042	-6.881	9.241	11.551
11	M7A	Y	-6.881	-.506	11.551	13.862
12	M5	Y	-1.778	-8.991	0	1.856
13	M5	Y	-8.991	-16.204	1.856	3.711
14	M23A	Y	-9.283	-9.283	.02	7.414
15	M24	Y	-.506	-6.881	0	2.31



Member Distributed Loads (BLC 88 : BLC 40 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
16	M24	Y	-6.881	-9.042	2.31	4.621
17	M24	Y	-9.042	-7.865	4.621	6.931
18	M24	Y	-7.865	-9.042	6.931	9.241
19	M24	Y	-9.042	-6.881	9.241	11.551
20	M24	Y	-6.881	-.506	11.551	13.862
21	M39A	Y	-9.283	-9.283	.02	7.414
22	M40	Y	-.506	-6.881	0	2.31
23	M40	Y	-6.881	-9.042	2.31	4.621
24	M40	Y	-9.042	-7.865	4.621	6.931
25	M40	Y	-7.865	-9.042	6.931	9.241
26	M40	Y	-9.042	-6.881	9.241	11.551
27	M40	Y	-6.881	-.506	11.551	13.862

Member Distributed Loads (BLC 89 : BLC 84 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M6	Y	-.043	-.216	0	1.856
2	M6	Y	-.216	-.389	1.856	3.711
3	M7	Y	-.043	-.216	0	1.856
4	M7	Y	-.216	-.389	1.856	3.711
5	M6A	Y	-.223	-.223	.02	7.414
6	M7A	Y	-.012	-.165	0	2.31
7	M7A	Y	-.165	-.217	2.31	4.621
8	M7A	Y	-.217	-.189	4.621	6.931
9	M7A	Y	-.189	-.217	6.931	9.241
10	M7A	Y	-.217	-.165	9.241	11.551
11	M7A	Y	-.165	-.012	11.551	13.862
12	M5	Y	-.043	-.216	0	1.856
13	M5	Y	-.216	-.389	1.856	3.711
14	M23A	Y	-.223	-.223	.02	7.414
15	M24	Y	-.012	-.165	0	2.31
16	M24	Y	-.165	-.217	2.31	4.621
17	M24	Y	-.217	-.189	4.621	6.931
18	M24	Y	-.189	-.217	6.931	9.241
19	M24	Y	-.217	-.165	9.241	11.551
20	M24	Y	-.165	-.012	11.551	13.862
21	M39A	Y	-.223	-.223	.02	7.414
22	M40	Y	-.012	-.165	0	2.31
23	M40	Y	-.165	-.217	2.31	4.621
24	M40	Y	-.217	-.189	4.621	6.931
25	M40	Y	-.189	-.217	6.931	9.241
26	M40	Y	-.217	-.165	9.241	11.551
27	M40	Y	-.165	-.012	11.551	13.862

Member Distributed Loads (BLC 90 : BLC 85 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M6	Z	-.107	-.54	0	1.856
2	M6	Z	-.54	-.974	1.856	3.711
3	M7	Z	-.107	-.54	0	1.856
4	M7	Z	-.54	-.974	1.856	3.711
5	M6A	Z	-.558	-.558	.02	7.414
6	M7A	Z	-.03	-.414	0	2.31
7	M7A	Z	-.414	-.544	2.31	4.621
8	M7A	Z	-.544	-.473	4.621	6.931
9	M7A	Z	-.473	-.544	6.931	9.241
10	M7A	Z	-.544	-.414	9.241	11.551
11	M7A	Z	-.414	-.03	11.551	13.862



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Member Distributed Loads (BLC 90 : BLC 85 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
12	M5	Z	-.107	-.54	0	1.856
13	M5	Z	-.54	-.974	1.856	3.711
14	M23A	Z	-.558	-.558	.02	7.414
15	M24	Z	-.03	-.414	0	2.31
16	M24	Z	-.414	-.544	2.31	4.621
17	M24	Z	-.544	-.473	4.621	6.931
18	M24	Z	-.473	-.544	6.931	9.241
19	M24	Z	-.544	-.414	9.241	11.551
20	M24	Z	-.414	-.03	11.551	13.862
21	M39A	Z	-.558	-.558	.02	7.414
22	M40	Z	-.03	-.414	0	2.31
23	M40	Z	-.414	-.544	2.31	4.621
24	M40	Z	-.544	-.473	4.621	6.931
25	M40	Z	-.473	-.544	6.931	9.241
26	M40	Z	-.544	-.414	9.241	11.551
27	M40	Z	-.414	-.03	11.551	13.862

Member Distributed Loads (BLC 91 : BLC 86 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M6	X	.107	.54	0	1.856
2	M6	X	.54	.974	1.856	3.711
3	M7	X	.107	.54	0	1.856
4	M7	X	.54	.974	1.856	3.711
5	M6A	X	.558	.558	.02	7.414
6	M7A	X	.03	.414	0	2.31
7	M7A	X	.414	.544	2.31	4.621
8	M7A	X	.544	.473	4.621	6.931
9	M7A	X	.473	.544	6.931	9.241
10	M7A	X	.544	.414	9.241	11.551
11	M7A	X	.414	.03	11.551	13.862
12	M5	X	.107	.54	0	1.856
13	M5	X	.54	.974	1.856	3.711
14	M23A	X	.558	.558	.02	7.414
15	M24	X	.03	.414	0	2.31
16	M24	X	.414	.544	2.31	4.621
17	M24	X	.544	.473	4.621	6.931
18	M24	X	.473	.544	6.931	9.241
19	M24	X	.544	.414	9.241	11.551
20	M24	X	.414	.03	11.551	13.862
21	M39A	X	.558	.558	.02	7.414
22	M40	X	.03	.414	0	2.31
23	M40	X	.414	.544	2.31	4.621
24	M40	X	.544	.473	4.621	6.931
25	M40	X	.473	.544	6.931	9.241
26	M40	X	.544	.414	9.241	11.551
27	M40	X	.414	.03	11.551	13.862

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N16	N15	N17	N18	Y	Two Way	-.005
2	N18	N17	N10	N14	Y	Two Way	-.005
3	N14	N10	N15	N16	Y	Two Way	-.005

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
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Member Area Loads (BLC 40 : Structure Di) (Continued)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N16	N15	N17	N18	Y	Two Way	-.01
2	N18	N17	N10	N14	Y	Two Way	-.01
3	N14	N10	N15	N16	Y	Two Way	-.01

Member Area Loads (BLC 84 : Structure Ev)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N16	N15	N17	N18	Y	Two Way	-.000237
2	N18	N17	N10	N14	Y	Two Way	-.000237
3	N14	N10	N15	N16	Y	Two Way	-.000237

Member Area Loads (BLC 85 : Structure Eh (0 Deg))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N16	N15	N17	N18	Z	Two Way	-.000593
2	N18	N17	N10	N14	Z	Two Way	-.000593
3	N14	N10	N15	N16	Z	Two Way	-.000593

Member Area Loads (BLC 86 : Structure Eh (90 Deg))

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N16	N15	N17	N18	X	Two Way	.000593
2	N18	N17	N10	N14	X	Two Way	.000593
3	N14	N10	N15	N16	X	Two Way	.000593

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	N2	max	3269.686	10	945.448	15	587.318	1	-299	10	2.574	9	-.014	39
2		min	-3249.33	4	181.516	9	-583.067	7	-2.163	16	-2.531	3	-.139	21
3	N77	max	1744.721	11	792.45	23	2793.589	1	.872	24	2.434	5	1.825	24
4		min	-1707.753	5	138.812	6	-2744.776	7	.071	6	-2.454	11	.259	6
5	N109	max	1591.05	9	801.758	19	2838.836	1	1.157	20	2.528	1	-.182	2
6		min	-1591.394	3	125.571	1	-2845.856	7	.18	2	-2.504	7	-1.687	20
7	N80B	max	48.998	10	1848.528	13	-471.629	7	0	75	0	12	0	6
8		min	-48.669	4	260.134	7	-3511.121	13	0	1	0	6	0	12
9	N82	max	-431.567	3	1863.031	21	1769.823	21	0	2	0	32	0	32
10		min	-3065.553	21	273.709	3	249.194	3	0	32	0	2	0	2
11	N84A	max	3065.067	17	1862.784	17	1769.688	17	0	16	0	16	0	16
12		min	393.862	11	251.574	11	227.386	11	0	46	0	46	0	46
13	Totals:	max	4550.836	10	7614.444	19	4703.932	1						
14		min	-4550.84	4	2446.35	64	-4703.935	7						

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

Member	Shape	Code	Loc[ft]	LC	Shear	Loc[ft]	Dir	LC	phi*Pnc	phi*Pnt	phi*Mn y	phi*Mn z	Cb	Eqn
1	M1	HSS4X4X4	.245	0	3	.092	0	z	10	138875...	139518	16.181	16.181	1...H1-1b
2	M2	HSS4.5X4.5X3	.118	0	4	.036	0	y	14	119994...	121302	16.25	16.25	1...H1-1b
3	M5	LL3x3x4x0	.223	0	13	.058	.966	y	13	76568.26	93312	6.48	4.369	1...H1-1b
4	M6	LL3x3x4x0	.225	0	20	.059	.966	y	21	76568.26	93312	6.48	4.369	1...H1-1b
5	M7	LL3x3x4x0	.229	0	44	.058	.966	y	17	76568.26	93312	6.48	4.369	1...H1-1b
6	M6A	L3X3X4	.207	3.717	12	.009	0	y	2	13991.9...	46656	1.688	3.176	1...H2-1
7	M7A	L3X3X4	.404	0	23	.135	6.931	y	1	15778.1...	46656	1.688	2.174	1...H2-1
8	M23A	L3X3X4	.202	3.717	8	.008	3.717	z	22	13991.9...	46656	1.688	3.189	1...H2-1
9	M24	L3X3X4	.403	0	19	.132	6.931	y	9	15778.1...	46656	1.688	2.174	1...H2-1
10	MP4C	PIPE 2.0	.286	3.438	6	.074	.5	7	20866.7...	32130	1.872	1.872	2...H1-1b	
11	MP3C	PIPE 2.0	.263	438	12	.074	1.938	10	20866.7...	32130	1.872	1.872	2...H1-1b	



Company : Colliers Engineering & Design
 Designer : DAB
 Job Number : Project No. 10208816
 Model Name : 5000386309-VZW_MT_LO_H

Aug 18, 2023
 10:02 PM
 Checked By: DX

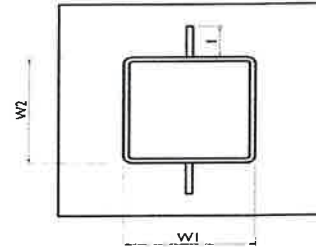
Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

Member	Shape	Code	Loc[ft]	LC	Shear	Loc[ft]	Dir	LC	phi*Pnc	phi*Pnt	phi*Mn y	phi*Mn z	Cb	Eqn
12	MP1C	PIPE 2.0	.231	.5	12	.071	.438	11	20866.7...	32130	1.872	1.872	2...	H1-1b
13	MP2C	PIPE 2.0	.352	3.875	12	.095	3.875	11	20866.7...	32130	1.872	1.872	2...	H1-1b
14	M38	HSS4X4X4	.240	0	11	.091	0	z 12	138875....	139518	16.181	16.181	1...	H1-1b
15	M39A	L3X3X4	.204	3.794	7	.009	0	y 6	13991.9...	46656	1.688	3.08	1...	H2-1
16	M40	L3X3X4	.400	0	15	.132	6.931	y 11	15778.1...	46656	1.688	2.174	1	H2-1
17	M54	HSS4X4X4	.243	0	7	.089	0	z 8	138875....	139518	16.181	16.181	1...	H1-1b
18	M55	HSS4.5X4.5X3	.122	0	12	.035	0	y 22	119994....	121302	16.25	16.25	1...	H1-1b
19	M56	HSS4.5X4.5X3	.120	0	8	.035	0	y 18	119994....	121302	16.25	16.25	1...	H1-1b
20	M61	PIPE 2.0	.047	1.5	7	.039	1.5	10	28843.4...	32130	1.872	1.872	1	H1-1b
21	MP4B	PIPE 2.0	.291	3.438	2	.074	.5	3	20866.7...	32130	1.872	1.872	2...	H1-1b
22	MP3B	PIPE 2.0	.251	.438	8	.073	1.938	6	20866.7...	32130	1.872	1.872	1...	H1-1b
23	MP1B	PIPE 2.0	.221	.5	8	.068	.438	7	20866.7...	32130	1.872	1.872	2...	H1-1b
24	MP2B	PIPE 2.0	.340	3.875	8	.095	3.875	7	20866.7...	32130	1.872	1.872	2...	H1-1b
25	MP4A	PIPE 2.0	.283	3.438	10	.074	.5	11	20866.7...	32130	1.872	1.872	1...	H1-1b
26	MP3A	PIPE 2.0	.245	.438	4	.075	1.938	2	20866.7...	32130	1.872	1.872	1...	H1-1b
27	MP1A	PIPE 2.0	.216	.5	4	.070	.438	2	20866.7...	32130	1.872	1.872	2...	H1-1b
28	MP2A	PIPE 2.0	.331	3.875	4	.092	3.875	3	20866.7...	32130	1.872	1.872	2...	H1-1b
29	M42	LL3x3x3x6	.086	0	13	.005	0	y 24	45884.9...	70632	6.362	3.743	1	H1-1b*
30	M43	LL3x3x3x6	.087	0	21	.005	6.626	y 20	45884.9...	70632	6.362	3.743	1	H1-1b*
31	M44	LL3x3x3x6	.087	0	17	.005	6.626	y 16	45884.9...	70632	6.362	3.743	1	H1-1b*
32	M49	PIPE 2.5	.081	11.953	3	.037	1.406	8	12481.8...	50715	3.596	3.596	1...	H1-1b
33	M54A	PIPE 2.5	.081	11.953	3	.037	1.406	8	12481.8...	50715	3.596	3.596	1...	H1-1b
34	M59	PIPE 2.5	.085	11.953	12	.040	1.406	4	12481.8...	50715	3.596	3.596	1...	H1-1b
35	M64	PIPE 2.5	.085	11.953	12	.040	1.406	4	12481.8...	50715	3.596	3.596	1...	H1-1b
36	M69	PIPE 2.5	.082	11.953	1	.043	1.406	12	12481.8...	50715	3.596	3.596	1...	H1-1b
37	M74	PIPE 2.5	.082	11.953	1	.043	1.406	12	12481.8...	50715	3.596	3.596	1...	H1-1b
38	M75	L3X3X4	.258	0	6	.044	1.499	y 7	44390.5...	46656	1.688	3.756	2...	H2-1
39	M76	L3X3X4	.269	0	10	.047	1.499	y 11	44390.5...	46656	1.688	3.756	2...	H2-1
40	M77	L3X3X4	.271	0	2	.046	1.499	y 3	44390.5...	46656	1.688	3.756	2...	H2-1

Tower Connection Weld Checks

Weld Shape:
Weld Stiffener Configuration:
Stiffener Notch Present?
Stiffener Length, l (in):
Stiffener Spacing/Width, s (in):
Weld Size (1/16 in):
W1 (in):
W2 (in):
Weld Total Length (in):
 Z_x (in³/in):
 Z_y (in³/in):
 J_p (in⁴/in):
 c_x (in)
 c_y (in)
Required combined strength (kip/in):
Weld Capacity (kip/in):
Weld Utilization:

Yes
Rectangle
(1) Stiffener on top/bottom
No
3.8125
6
4
4
31.25
64.55
21.33
336.50
5.8125
5.8125
1.26
8.35
15.1%



ATTACHMENT 4



Property Information

Property Location	8 FERRIS ROAD
Owner	GERTSCH ERICH & PATRICIA A
Co-Owner	
Mailing Address	8 FERRIS RD NEWTOWN CT 06470
Land Use	4310 CELL SITE
Land Class	I
Zoning Code	R-1
Census Tract	12
Sub Lot	
Neighborhood	
Acreage	0
Utilities	Well,Septic
Lot Setting/Desc	
Survey Map	
TC Survey Numbers	

Photo

No Photo Available

Sketch

Primary Construction Details


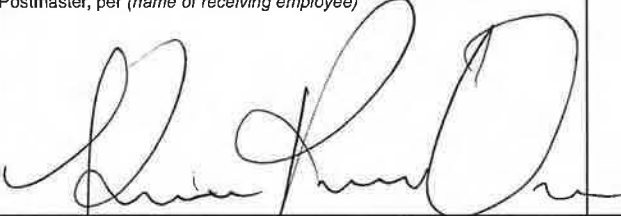
Year Built	
Stories	
Building Style	
Building Use	
Building Condition	
Floors	
Total Rooms	

Bedrooms	
Full Bathrooms	
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	
Roof Cover	

Exterior Walls	
Interior Walls	
Heating Type	
Heating Fuel	
AC Type	
Gross Bldg Area	
Total Living Area	

ATTACHMENT 5



Name and Address of Sender Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103	TOTAL NO. of Pieces Listed by Sender 3	TOTAL NO. of Pieces Received at Post Office™ 3	Affix Stamp Here <i>Postmark with Date of Receipt.</i> neopost [®] 09/13/2023 US POSTAGE \$003.19  ZIP 06103 041L12203937
	Postmaster, per (name of receiving employee) 		

USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Daniel Rosenthal, First Selectman Town of Newtown 3 Primrose Street Newtown, CT 06470				
2.	Rob Sibley, Director of Land Use Town of Newtown 3 Primrose Street Newtown, CT 06470				
3.	Erich and Patricia Gersch 8 Ferris Road Newtown, CT 06470				
4.					
5.					
6.					

