

July 10, 2024

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

Re: **Notice of Exempt Modification – Facility Modification  
231 Kettle town Road, Southbury, 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 and related equipment on the ground, near the base of the tower. The tower was approved by the Town of Southbury (“Town”) in February 1999. Cellco’s shared use of the tower was approved by the Siting Council (“Council”) in November of 2001 (TS-VER-130-011023). A copy of the Town’s original tower approval and Cellco’s tower share approval are included in [Attachment 1](#).

Cellco’s proposed modification involves the installation of four (4) interference mitigation filters (“Filters”) on its existing antenna platform and antenna mounting assembly. The filter specification sheet is included in [Attachment 2](#).

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

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

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

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Melanie A. Bachman, Esq.  
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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 tower, and mounting assembly, with certain modifications, 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:

Jeff Manville, First Selectman  
Jordan Marcinko, Land Use Administrator  
Alex Tyurin, Verizon Wireless

# **ATTACHMENT 1**

**TOWN OF SOUTHBURY  
ZONING BOARD OF APPEALS**

February 2, 1999

At the Regular Meeting on February 2, 1999 the following motion was unanimously approved.

Peirce Behardt motioned to approve the request from Omnipoint Application # 763 for a variance of Section Schedule B 6 of the Zoning Regulations, relating to Height Requirements with all of the changes set forth by the Zoning Board of Appeals as to permit construction of a monopole telecommunications tower for PCS coverage.

I hereby move that the application of the Omnipoint communications, Inc. dated August 14, 1998 seeking a variance to construct a 199 foot monopole, and an associated equipment cabinet for use as a PCS communications facility on parcel of land to be leased from the town of Southbury on Kettletown Road adjacent to the existing recycling facility in the R-60 zone, as requested in said application and as shown on the site plan submitted therewith, be granted subject to the following conditions:

1. The monopole and equipment cabinet will be completely surrounded by and eight-foot high, chain link, security fence (30' x 30') topped with barbed wire.
2. Omnipoint will obtain access to the site by means of a proposed road leading from Kettletown Road as shown on the site plan submitted with its application.
3. An Omnipoint employee will visit the site as least once a month for equipment checks and routine maintenance.
4. There is no requirement for water supply or sewerage or solid waste disposal.
5. No lights will be mounted on the monopole
6. The monopole shall be able to support at least four (4) additional carriers and shall have a non-reflecting galvanized finish.

November 8, 2001

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

RE: **TS-VER-130-011023** - Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at a telecommunications facility located at 231 Kettletown Road, Southbury, Connecticut.

Dear Attorney Baldwin:

At a public meeting held November 7, 2001, 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 letters dated October 22, 2001, and November 1, 2001.

Thank you for your attention and cooperation.

Very truly yours,

Mortimer A. Gelston  
Chairman

MAG/RKE/laf

c: Honorable Alfio A. Candido, Jr., First Selectman, Town of Southbury  
Mark D. Cody, Zoning Enforcement Officer, Town of Southbury  
Stephen J. Humes, Esq., LeBoeuf, Lamb, Greene & MacRae  
Christopher B. Fisher, Esq., Cuddy & Feder & Worby LLP  
Julie M. Donaldson, Esq., Hurwitz & Sagarin LLC  
Peter W. van Wilgen, SNET Mobility LLC

# **ATTACHMENT 2**

# KA-6030

## TWIN BANDSTOP 900MHZ INTERFERENCE MITIGATION FILTER

The KA-6030 is ideal for co-located 700, 850 and 900 networks. Utilising a 2.6MHz guardband the KA-6030 provides rejection of the 900 UL band while passing 700/850 UL and DL bands. Capable of being used in an outdoor environment the KA-6030 contains two identical bandstop filters, suitable for 2x2 MIMO configuration, offering excellent insertion loss, group delay and rejection.



### FEATURES

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

### TECHNICAL SPECIFICATIONS

BAND NAME	700 PATH / 850 UPLINK PATH	850 DOWNLINK PATH
Passband	698 - 849MHz	869 - 891.5MHz
Insertion loss	0.1dB typical / 0.3dB maximum	0.5dB typical, 1.45dB maximum
Return loss	24dB typical, 18dB minimum	
Maximum input power (Per Port)	100W average	200W average and 66W per 5MHz
Rejection	53dB minimum @ 894.1 - 896.5MHz	
<b>ELECTRICAL</b>		
Impedance	50Ohms	
Intermodulation products	-160dBc maximum in UL Band (assuming 20MHz Signal), with 2 x 43dBm carriers -153dBc maximum with 2 x 43dBm	
<b>DC / AISG</b>		
Passband	0 - 13MHz	
Insertion loss	0.3dB maximum	
Return loss	15dB minimum	
Input voltage range	± 33V	
DC current rating	2A continuous, 4A peak	
Compliance	3GPP TS 25.461	
<b>ENVIRONMENTAL</b>		
For further details of environmental compliance, please contact Kaelus.		
Temperature range	-20°C to +60°C   -4°F to +140°F	
Ingress protection	IP67	
Altitude	2600m   8530ft	
Lightning protection	RF port: ±5kA maximum (8/20us), IEC 61000-4-5 – Unit must be terminated with some lightning protection circuits.	
MTBF	>1,000,000 hours	
Compliance	ETSI EN 300 019 class 4.1H, RoHS, NEBS GR-487-CORE	

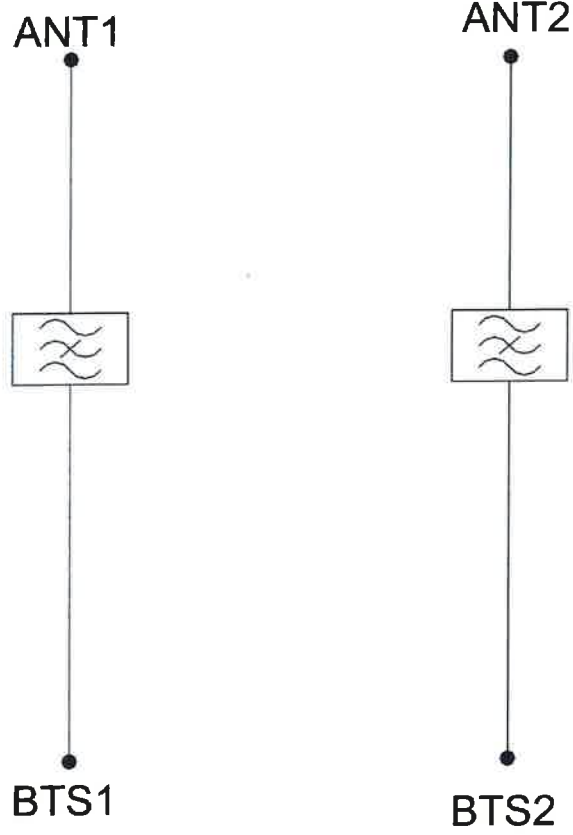
MECHANICAL	
Dimensions H x D x W	269 x 277 x 80mm   10.60 x 10.90 x 3.15in (Excluding brackets and connectors)
Weight	8.0 kg   17.6 lbs (no bracket)
Finish	Powder coated, light grey (RAL7035)
Connectors	RF: 4,3-10 (F) x 4
Mounting	Optional pole/wall bracket supplied with two metal clamps 45-178mm diameter poles or custom bracket. See ordering information.

### ORDERING INFORMATION

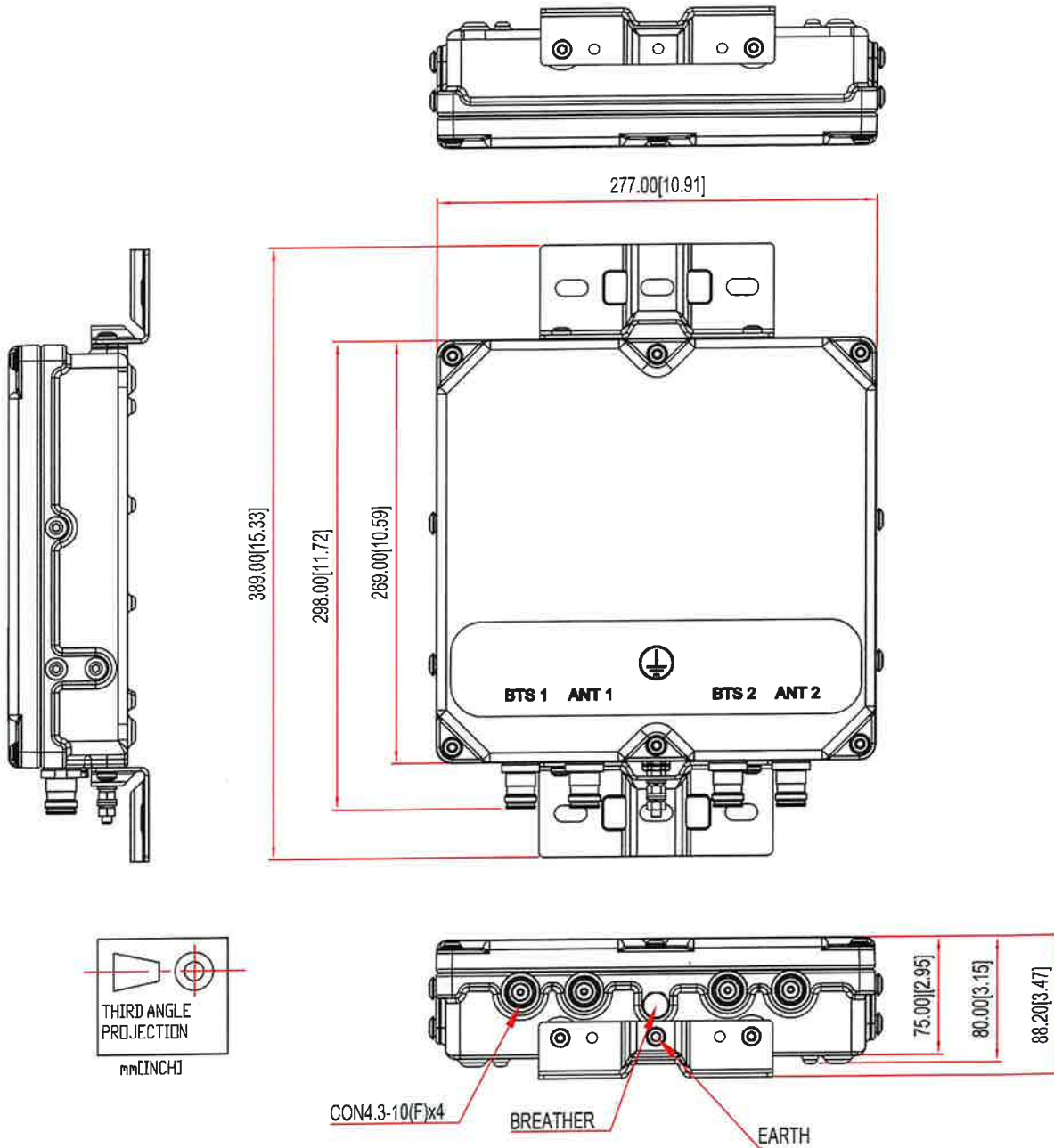
PART NUMBER	CONFIGURATION	OPTIONAL FEATURES	CONNECTORS
KA-6030-2032	TWIN, 2 in / 2 out	DC/AISG PASS	4.3-10 (F)



ELECTRICAL BLOCK DIAGRAM



MECHANICAL BLOCK DIAGRAM



# **ATTACHMENT 3**



**PHOENIX TOWER**  
INTERNATIONAL

Phoenix Tower International  
999 Yamato Road Suite 100  
Boca Raton, FL 33431



GPD Engineering and Architecture  
Professional Corporation

Todd Rasey  
520 South Main Street, Suite 2531  
Akron, OH 44311  
(330) 572-2198  
trasey@gpdgroup.com

**GPD# 2024702.28**

May 28, 2024

**COMPREHENSIVE STRUCTURAL ANALYSIS REPORT**

**SITE DESIGNATION:** PTI Site #: US-CT-1002  
PTI Site Name: Kettletown  
Verizon Site #: 5000384514  
Verizon Site Name: Southbury\_2\_CT

**ANALYSIS CRITERIA:** Codes: TIA-222-H & 2022 Connecticut State Building Code  
120 mph (3-second gust) w/ 0" ice  
50 mph (3-second gust) w/ 1" ice

**SITE DATA:** 231 Kettleton Road, Southbury, CT 06488, New Haven County  
Latitude 41° 28' 16.26" N, Longitude 73° 12' 19.99" W  
196' Modified PiROD Monopole

To whom it may concern,

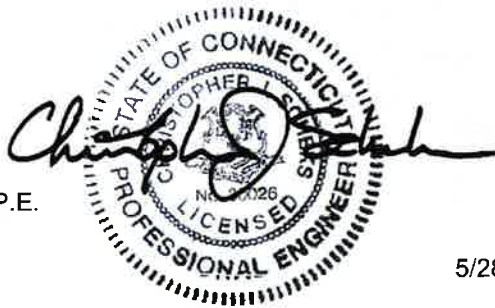
GPD is pleased to submit this Comprehensive Structural Analysis Report to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the existing and proposed loading configuration detailed in the analysis report.

**Analysis Results**

Tower Stress Level with Proposed Equipment:	91.2%	Sufficient Capacity
Foundation Ratio with Proposed Equipment:	65.0%	Sufficient Capacity

We at GPD appreciate the opportunity of providing our continuing professional services to you and Phoenix Tower International. If you have any questions or need further assistance on this or any other projects, please do not hesitate to call.

Respectfully submitted,



Christopher J. Scheks, P.E.  
Connecticut #: 0030026

5/28/2024

## SUMMARY & RESULTS

The purpose of this analysis was to verify whether the existing structure is capable of carrying the proposed loading configuration as specified by Verizon and commissioned by Phoenix Tower International.

This analysis has been performed in accordance with the 2022 Connecticut State Building Code based upon a 3-second gust wind speed of 120 mph. Applicable Standard references and design criteria are listed in Appendices A & B.

**The proposed feedlines shall be installed as shown in Appendices A & B for the analysis results to be valid.**

### TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Monopole	76.1%	Sufficient Capacity
Flange Bolts	70.4%	Sufficient Capacity
Flange Plates	77.1%	Sufficient Capacity
Bridge Stiffeners	91.2%	Sufficient Capacity
Anchor Rods	74.8%	Sufficient Capacity
Base Plate	90.6%	Sufficient Capacity
Foundation	65.0%	Sufficient Capacity

## RECOMMENDATIONS

The tower and its foundation have sufficient capacity to carry the proposed loading configuration. No modifications are required at this time.

## ANALYSIS METHOD

tnxTower (Version 8.2.4.3), a commercially available software program, was used to create a three-dimensional model of the tower and calculate primary member stresses for various load cases. Selected output from the analysis is included in the report appendices. The following table details the information provided to complete this structural analysis. This analysis is based solely on this information.

### DOCUMENTS PROVIDED

Document	Remarks	Source
Collocation Application	PTI Verizon Collocation Application, dated 2/1/2024	PTI
Tower Design	PiROD #: A-115080, dated 3/26/1999	PTI
Foundation Design	PiROD #: A-115080, dated 3/26/1999	PTI
Geotechnical Report	Dr. Clarence Welti, dated 10/7/1998	PTI
Previous Tower Analysis	GPD# 2022791.CT1002.18, dated 10/12/2022	PTI
Tower Modification Design	GPD #: 2010293.91, dated 9/4/2010	PTI
Tower Modification Design	GPD #: 2013792.15 Rev. A, dated 3/11/2014	PTI
Post Modification Inspection	GPD #: 2010299.50, dated 1/12/2011	PTI
Post Modification Inspection	GPD #: 2014506.06, dated 6/3/2014	PTI

## ASSUMPTIONS

This structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the tower. This analysis is from information supplied, and therefore, its results are based on and are as accurate as that supplied data. GPD has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural analysis.

1. The tower member sizes and shapes are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The appurtenance configuration is as supplied, determined from available photos, and/or as modeled in the analysis. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
3. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed. This analysis is limited to analyzing the tower only.
4. The soil parameters are as per data supplied or as assumed and stated in the calculations.
5. Foundations are properly designed and constructed to resist the original design loads indicated in the documents provided.
6. The tower and structures have been properly maintained in accordance with TIA Standards and/or with manufacturer's specifications.
7. All welds and connections are assumed to develop at least the member capacity unless determined otherwise and explicitly stated in this report.
8. All prior structural modifications, if applicable, are assumed to be as per data supplied/available and to have been properly installed.
9. Loading interpreted from photos is accurate to  $\pm 5'$  AGL, antenna size accurate to  $\pm 3.3$  sf, and coax equal to the number of existing antennas without reserve.
10. All existing and proposed loading has been taken from the available site photos as well as documents supplied to GPD at the time of generating this report. All such documents are listed in the Documents Provided Table and are assumed to be accurate. GPD is not responsible for loading scenarios outside those conveyed in the supplied documentation.

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

## DISCLAIMER OF WARRANTIES

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

The engineering services rendered by GPD in connection with this Comprehensive Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

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

GPD does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the capability of adding appurtenances usually accompanied by transmission lines to the structure.

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

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

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

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

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

## APPENDIX A

### Tower Analysis Summary Form



# Tower Analysis Summary Form

<b>General Info</b>	
Carrier Designation	Sonitbury 9 CT (5000) (1514)
Client Site #	UN-CT-1002
Client Site Name	Kettledown
Date of Analysis	5/28/2024
Company Performing Analysis	GPD

Description	Date
Tower Type (G, SST, MP)	
Tower Height (top of steel AGL)	195'
Tower Manufacturer	
Tower Model	
Tower Design	3/20/1999
RFMOJ # - A-115080	3/25/1999
Foundation Design	10/7/1996
Geotechnical Report	10/12/2022
Previous Tower Analysis	
RFMOJ # - A-115080	
Foundation Report	
Previous Tower Analysis	
RFMOJ # - 2022791 CT1002 168	
Tower Mapping	
RFMOJ # - 2010291-50	
Port Modification Inspection	
GPD # - 2014500 05	
RFMOJ # - 2014500 05	
Modification Inspection	
GPD # - 2010293 91	
Modification Design	
GPD # - 2013792 15 Rev. A	
Modification Design	
GPD # - 3112014	

<b>Design Parameters</b>	
Design Code Used	TIA-222-H & 2022 Connecticut State Building Code
Location of Tower (County, State)	New Haven, CT
Wind Speed (mph)	120 (3-second gust)
Ice Thickness (in)	
Risk Category (I, II, III)	II
Exposure Category (B, C, D)	B
Topographic Category (1 to 5)	1

<b>Analysis Results (% Maximum Usage)</b>	
Existing/Recovered	91.7%
Future / Proposed Condition	91.7%
Tower Base (%)	90.0%
Foundation (%)	65.0%
Foundation Adequate?	Yes

<b>Verizon Area Information</b>	
Existing Area (sq')	13,397
Proposed Area (sq')	462
Total Area (sq')	13,329

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

Antenna				Mount				Transmission Line					
Antenna Owner	Mount Height (ft)	Antenna Cl. (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Type	Manufacturer	Model	Size	Attachment Int/Ext
T-Mobile	195	193	3	Panel	RFCS	APXVAAR24	50-150-260	1	LP Platform	Unknown	Unknown	1.50"	Internal
T-Mobile	195	195	3	Panel	RFCS	APX16DWW	50-150-260	1	IRKCTP	Commisscope	Fiber	1.14"	Internal
T-Mobile	195	193	3	Panel	Ericsson	APR6A09			On The Same Mount	On The Same Mount			
T-Mobile	195	193	3	RRH	Ericsson	1449 671-A12			On The Same Mount	On The Same Mount			
T-Mobile	195	193	3	RRH	Ericsson	4414 B66A			On The Same Mount	On The Same Mount			
T-Mobile	195	195	3	RRH	Ericsson	4424 B25			On The Same Mount	On The Same Mount			
T-Mobile	195	195	1	Surge	Raycap	DCR-48-60-18 20F			On The Same Mount	On The Same Mount			
AT&T Mobility	195	185	2	Panel	CCI	NPA-65R-60U-H8	23-142-263	1	LP Platform	Unknown	Unknown	1.14"	Internal
AT&T Mobility	195	185	2	Panel	CCI	CPA65R-B00DA	23-142-263	1	PRK-1245L Kicker Supports	DC Power	Fiber Cable	6AWG	Internal
AT&T Mobility	195	195	2	Panel	CCI	4499 B51B12	23-142-263	1	HRK-14 Handrail Kit	Fiber Cable	Fiber Cable	3B"	Internal
AT&T Mobility	195	185	2	RRU	Ericsson	4499 B51B12			On The Same Mount	On The Same Mount			
AT&T Mobility	195	185	2	RRU	Ericsson	4415 B25			On The Same Mount	On The Same Mount			
AT&T Mobility	195	185	2	RRU	Ericsson	4478 B14			On The Same Mount	On The Same Mount			
AT&T Mobility	195	185	2	RRH	Ericsson	RRUS 27 R30			On The Same Mount	On The Same Mount			
AT&T Mobility	195	185	2	RRH	Ericsson	RRUS 442b B6b			On The Same Mount	On The Same Mount			
AT&T Mobility	195	185	2	Surge	Raycap	DCR-48-60-18 8F			On The Same Mount	On The Same Mount			
AT&T Mobility	195	185	2	Surge	Raycap	DCR-48-60-18 8C-EV			On The Same Mount	On The Same Mount			
Pocket	176	175	3	Panel	RFCS	APXV18-20651YS-C	110-230-350		Fluor Mount	Unknown	Unknown	1.50"	External
Sprint	165	165	3	Panel	RFCS	APXV18-20651YS-C	34070260	1	LP Platform	Unknown	Unknown	1.14"	External
Sprint	165	165	3	Panel	RFCS	APXV18-20651YS-C	34070260	1	On The Same Mount	On The Same Mount			
Sprint	165	165	3	RRH	Alcatel Lucent	RRH 1900 4X45 65 MHz			On The Same Mount	On The Same Mount			
Sprint	165	165	3	RRH	Alcatel Lucent	800 MHz RRH			On The Same Mount	On The Same Mount			
Sprint	165	165	3	RRH	Alcatel Lucent	TD-RRH8x20-25 w Solar Shield			On The Same Mount	On The Same Mount			
Sprint	165	165	3	RRH	Alcatel Lucent	RRH2X50-08 (800 MHz)			On The Same Mount	On The Same Mount			
Verizon Wireless	155	155	3	Panel	Commisscope	NH4 155R-R6	60-180-300	1	Modified LP Platform	Unknown	Unknown	1.50"	External
Verizon Wireless	155	155	3	Panel	Samsung	MTB407-77A	60-180-300	1	On The Same Mount	On The Same Mount			
Verizon Wireless	155	155	3	Panel	Samsung	XXDWMW	60-180-300	1	On The Same Mount	On The Same Mount			
Verizon Wireless	155	155	3	Panel	Samsung	R1-433d 25A			On The Same Mount	On The Same Mount			
Verizon Wireless	155	155	3	Panel	Samsung	RF440d-13A			On The Same Mount	On The Same Mount			
Verizon Wireless	155	155	3	Surge	Raycap	RZDC-6927-PE-49			On The Same Mount	On The Same Mount			
Verizon Wireless	140	140	3	Panel	JMA	MXORFC0565 20_V0F	01120240	1	SHRHR 200	Shelby	Unknown	1.60"	Int/Ext
Verizon Wireless	140	140	3	RRH	Furushu	TA08025-B105			On the same mounts	On the same mounts			
Verizon Wireless	140	140	3	RRH	Furushu	TA08025-B105			On the same mounts	On the same mounts			
Verizon Wireless	140	140	1	Box	Unknown	Junction Box			On the same mounts	On the same mounts			
Sprint	75	75	1	GPS	Poel	TMG-HR 26N-GPS			Pipe Mounted	Unknown	Unknown	7/8"	External

Note: All existing recovered loading shall remain as shown.

Antenna				Mount				Transmission Line					
Antenna Owner	Mount Height (ft)	Antenna Cl. (ft)	Quantity	Type	Manufacturer	Model	Azimuth	Quantity	Type	Manufacturer	Model	Size	Attachment Int/Ext
Verizon Wireless	165	155	4	RF Filter	Kaelus	KA 6030		1	RRUDSM Dual Swivel Mount Kit	RRUDSM			

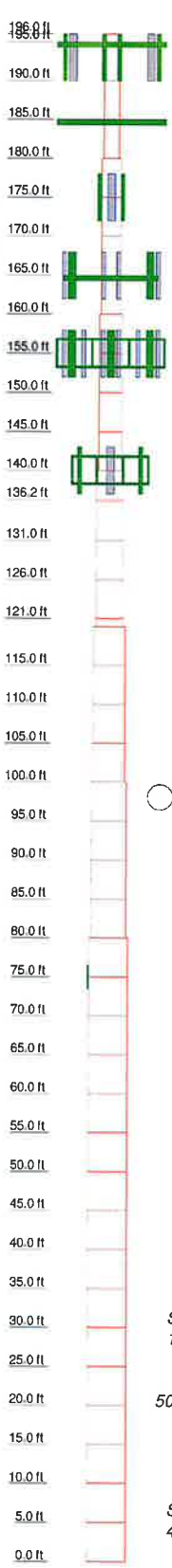
Note: The proposed loading is in addition to the existing loading at the same elevation.

Note: All facilities that are installed as indicated in this report in order for the analysis results to be valid.

## **APPENDIX B**

Tower Analysis Output File

Section	Size	Length (ft)	Grade	Weight (K)
1				
2				
3				
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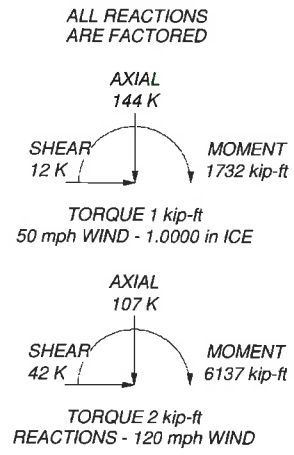



### MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-B-42	42 ksi	63 ksi			

### TOWER DESIGN NOTES

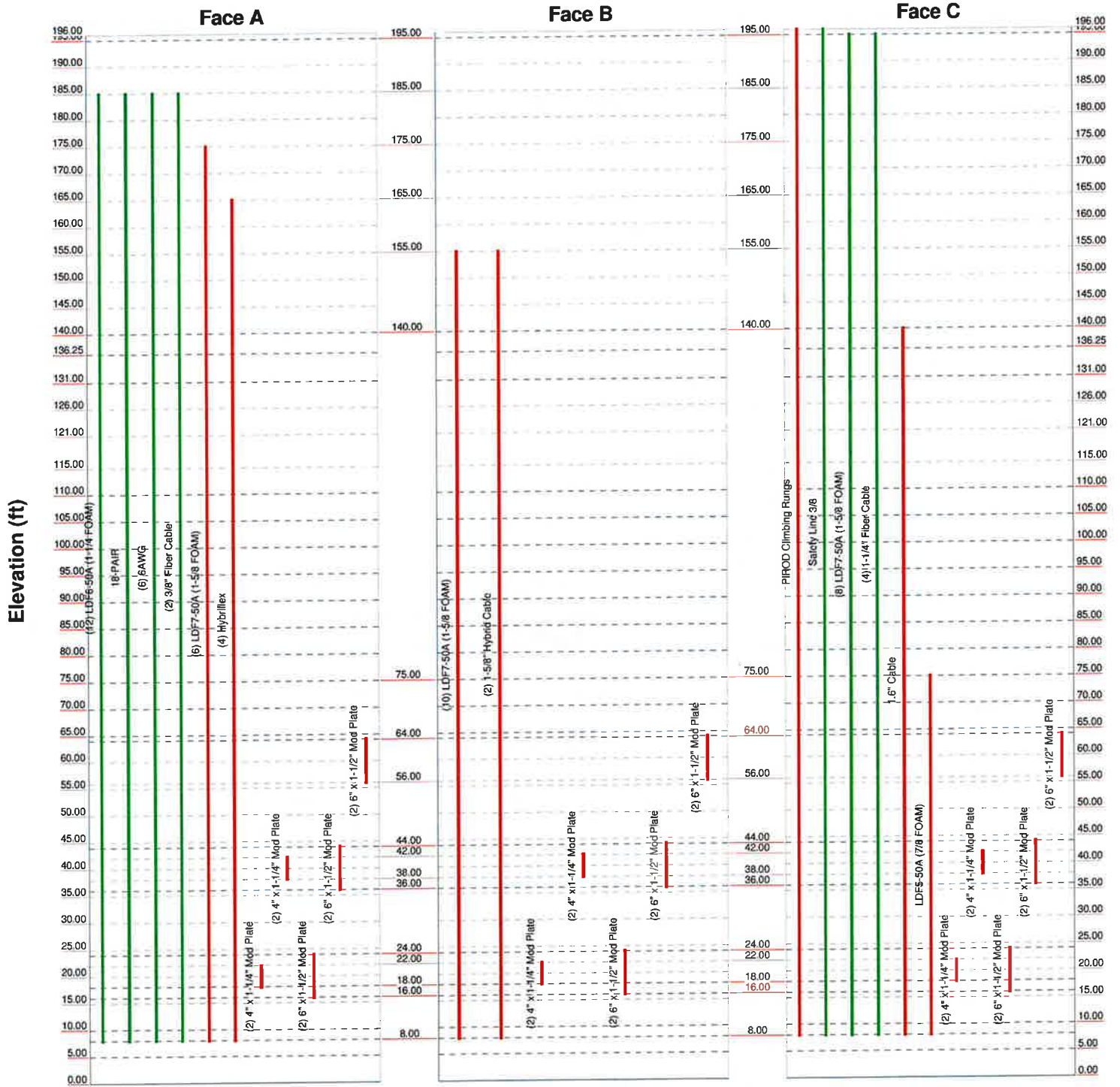
1. Tower designed for Exposure B to the TIA-222-H Standard.
2. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.00 ft



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	<b>Project: 2024702.28</b>		
	Client: PTI	Drawn by: TR	App'd:
	Code: TIA-222-H	Date: 05/28/24	Scale: NTS
	Path:	Dwg No. E-1	

# Feed Line Distribution Chart 0' - 196'

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



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	<b>Project:</b> <u>2024702.28</u>		
	<b>Client:</b> <u>PTI</u>	<b>Drawn by:</b> <u>TR</u>	<b>App'd:</b>
	<b>Code:</b> <u>TIA-222-H</u>	<b>Date:</b> <u>05/28/24</u>	<b>Scale:</b> <u>NTS</u>
	<b>Path:</b>		<b>Dwg No:</b> <u>E-7</u>

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## Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

Tower base elevation above sea level: 408.00 ft.

Basic wind speed of 120 mph.

Risk Category II.

Exposure Category B.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 1.0000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.05.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

## Options

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

Section	Elevation ft	Section Length ft	Pole Size	Pole Grade	Socket Length ft
L1	196.00-195.00	1.00	P18x0.375	A53-B-42 (42 ksi)	
L2	195.00-190.00	5.00	P24x0.375	A53-B-42 (42 ksi)	
L3	190.00-185.00	5.00	P24x0.375	A53-B-42 (42 ksi)	
L4	185.00-180.00	5.00	P24x0.375	A53-B-42	

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Section	Elevation ft	Section Length ft	Pole Size	Pole Grade	Socket Length ft
L5	180.00-175.00	5.00	P30x0.375	A53-B-42 (42 ksi)	
L6	175.00-170.00	5.00	P30x0.375	A53-B-42 (42 ksi)	
L7	170.00-165.00	5.00	P30x0.375	A53-B-42 (42 ksi)	
L8	165.00-160.00	5.00	P30x0.375	A53-B-42 (42 ksi)	
L9	160.00-155.00	5.00	P36x0.375	A53-B-42 (42 ksi)	
L10	155.00-150.00	5.00	P36x0.375	A53-B-42 (42 ksi)	
L11	150.00-145.00	5.00	P36x0.375	A53-B-42 (42 ksi)	
L12	145.00-140.00	5.00	P36x0.375	A53-B-42 (42 ksi)	
L13	140.00-136.25	3.75	P42x0.375	A53-B-42 (42 ksi)	
L14	136.25-136.00	0.25	P42x0.6375	A53-B-42 (42 ksi)	
L15	136.00-131.00	5.00	P42x0.6375	A53-B-42 (42 ksi)	
L16	131.00-126.00	5.00	P42x0.6375	A53-B-42 (42 ksi)	
L17	126.00-121.00	5.00	P42x0.6375	A53-B-42 (42 ksi)	
L18	121.00-120.00	1.00	P42x0.6375	A53-B-42 (42 ksi)	
L19	120.00-115.00	5.00	P48x0.6	A53-B-42 (42 ksi)	
L20	115.00-110.00	5.00	P48x0.6	A53-B-42 (42 ksi)	
L21	110.00-105.00	5.00	P48x0.6	A53-B-42 (42 ksi)	
L22	105.00-100.00	5.00	P48x0.6	A53-B-42 (42 ksi)	
L23	100.00-95.00	5.00	P54x0.5625	A53-B-42 (42 ksi)	
L24	95.00-90.00	5.00	P54x0.5625	A53-B-42 (42 ksi)	
L25	90.00-85.00	5.00	P54x0.5625	A53-B-42 (42 ksi)	
L26	85.00-80.00	5.00	P54x0.5625	A53-B-42 (42 ksi)	
L27	80.00-75.00	5.00	P60x0.55	A53-B-42 (42 ksi)	
L28	75.00-70.00	5.00	P60x0.55	A53-B-42 (42 ksi)	
L29	70.00-65.00	5.00	P60x0.55	A53-B-42 (42 ksi)	
L30	65.00-60.00	5.00	P60x0.55	A53-B-42 (42 ksi)	
L31	60.00-55.00	5.00	P60x0.675	A53-B-42 (42 ksi)	
L32	55.00-50.00	5.00	P60x0.675	A53-B-42 (42 ksi)	
L33	50.00-45.00	5.00	P60x0.675	A53-B-42 (42 ksi)	
L34	45.00-40.00	5.00	P60x0.675	A53-B-42 (42 ksi)	

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Section	Elevation ft	Section Length ft	Pole Size	Pole Grade	Socket Length ft
L35	40.00-35.00	5.00	P60x0.8	A53-B-42 (42 ksi)	
L36	35.00-30.00	5.00	P60x0.8	A53-B-42 (42 ksi)	
L37	30.00-25.00	5.00	P60x0.8	A53-B-42 (42 ksi)	
L38	25.00-20.00	5.00	P60x0.8	A53-B-42 (42 ksi)	
L39	20.00-15.00	5.00	P60x0.8	A53-B-42 (42 ksi)	
L40	15.00-10.00	5.00	P60x0.8	A53-B-42 (42 ksi)	
L41	10.00-5.00	5.00	P60x0.8	A53-B-42 (42 ksi)	
L42	5.00-0.00	5.00	P60x0.8	A53-B-42 (42 ksi)	

Tower Elevation ft	Gusset Area (per face) ft <sup>2</sup>	Gusset Thickness in	Gusset Grade	Adjust. Factor A <sub>f</sub>	Adjust. Factor A <sub>r</sub>	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1				1	1	1			
196.00-195.00				1	1	1			
L2				1	1	1			
195.00-190.00				1	1	1			
L3				1	1	1			
190.00-185.00				1	1	1			
L4				1	1	1			
185.00-180.00				1	1	1			
L5				1	1	1			
180.00-175.00				1	1	1			
L6				1	1	1			
175.00-170.00				1	1	1			
L7				1	1	1			
170.00-165.00				1	1	1			
L8				1	1	1			
165.00-160.00				1	1	1			
L9				1	1	1			
160.00-155.00				1	1	1			
L10				1	1	1			
155.00-150.00				1	1	1			
L11				1	1	1			
150.00-145.00				1	1	1			
L12				1	1	1			
145.00-140.00				1	1	1			
L13				1	1	1			
140.00-136.25				1	1	1			
L14				1	1	0.945061			
136.25-136.00				1	1	0.945061			
L15				1	1	0.945061			
136.00-131.00				1	1	0.945061			
L16				1	1	0.945061			
131.00-126.00				1	1	0.945061			
L17				1	1	0.945061			
126.00-121.00				1	1	0.945061			
L18				1	1	0.945061			
121.00-120.00				1	1	0.945061			

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Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor $A_f$	Adjust. Factor $A_r$	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft <sup>2</sup>	in							
L19				1	1	0.955342			
120.00-115.00				1	1	0.955342			
L20				1	1	0.955342			
115.00-110.00				1	1	0.955342			
L21				1	1	0.955342			
110.00-105.00				1	1	0.955342			
L22				1	1	0.955342			
105.00-100.00				1	1	0.978753			
L23				1	1	0.978753			
100.00-95.00				1	1	0.978753			
L24				1	1	0.978753			
95.00-90.00				1	1	0.978753			
L25				1	1	0.978753			
90.00-85.00				1	1	0.978753			
L26				1	1	0.978753			
85.00-80.00				1	1	0.968574			
L27				1	1	0.968574			
80.00-75.00				1	1	0.968574			
L28				1	1	0.968574			
75.00-70.00				1	1	0.968574			
L29				1	1	0.968574			
70.00-65.00				1	1	0.968574			
L30				1	1	0.975432			
65.00-60.00				1	1	0.975432			
L31				1	1	0.975432			
60.00-55.00				1	1	0.975432			
L32				1	1	0.975432			
55.00-50.00				1	1	0.975432			
L33				1	1	0.975432			
50.00-45.00				1	1	0.975432			
L34				1	1	0.975432			
45.00-40.00				1	1	0.980151			
L35				1	1	0.980151			
40.00-35.00				1	1	0.980151			
L36				1	1	0.980151			
35.00-30.00				1	1	0.980151			
L37				1	1	0.980151			
30.00-25.00				1	1	0.980151			
L38				1	1	0.980151			
25.00-20.00				1	1	0.980151			
L39				1	1	0.980151			
20.00-15.00				1	1	0.980151			
L40				1	1	0.980151			
15.00-10.00				1	1	0.980151			
L41				1	1	0.980151			
10.00-5.00				1	1	0.980151			
L42				1	1	0.980151			
5.00-0.00				1	1	0.980151			

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

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
PiROD Climbing Rungs	C	No	Surface Ar (CaAa)	196.00 - 8.00	1	1	0.000 - 0.000	0.6250		0.00



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Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
LDF7-50A (1-5/8 FOAM)	A	No	Surface Ar (CaAa)	175.00 - 8.00	6	6	-0.250 0.000	1.9800		0.00
Hybriflex	A	No	Surface Ar (CaAa)	165.00 - 8.00	4	4	0.000 0.200	0.0000		0.00
LDF7-50A (1-5/8 FOAM)	B	No	Surface Ar (CaAa)	155.00 - 8.00	10	5	0.100 0.500	1.9800		0.00
1-5/8" Hybrid Cable	B	No	Surface Ar (CaAa)	155.00 - 8.00	2	1	0.000 0.100	0.0000		0.00
1.6" Cable	C	No	Surface Ar (CaAa)	140.00 - 8.00	1	1	0.000 0.000	1.6000		0.00
LDF5-50A (7/8 FOAM)	C	No	Surface Ar (CaAa)	75.00 - 8.00	1	1	0.100 0.100	0.0000		0.00
4" x 1-1/4" Mod Plate	A	No	Surface Af (CaAa)	22.00 - 18.00	2	2	0.000 0.000	4.0000	10.5000	0.02
4" x 1-1/4" Mod Plate	B	No	Surface Af (CaAa)	22.00 - 18.00	2	2	0.000 0.000	4.0000	10.5000	0.02
4" x 1-1/4" Mod Plate	C	No	Surface Af (CaAa)	22.00 - 18.00	2	2	0.000 0.000	4.0000	10.5000	0.02
4" x 1-1/4" Mod Plate	A	No	Surface Af (CaAa)	42.00 - 38.00	2	2	0.000 0.000	4.0000	10.5000	0.02
4" x 1-1/4" Mod Plate	B	No	Surface Af (CaAa)	42.00 - 38.00	2	2	0.000 0.000	4.0000	10.5000	0.02
4" x 1-1/4" Mod Plate	C	No	Surface Af (CaAa)	42.00 - 38.00	2	2	0.000 0.000	4.0000	10.5000	0.02
6" x 1-1/2" Mod Plate	A	No	Surface Af (CaAa)	24.00 - 16.00	2	2	0.000 0.000	0.0000	0.0000	0.03
6" x 1-1/2" Mod Plate	B	No	Surface Af (CaAa)	24.00 - 16.00	2	1	0.000 0.000	0.0000	0.0000	0.03
6" x 1-1/2" Mod Plate	C	No	Surface Af (CaAa)	24.00 - 16.00	2	1	0.000 0.000	0.0000	0.0000	0.03
6" x 1-1/2" Mod Plate	A	No	Surface Af (CaAa)	44.00 - 36.00	2	1	0.000 0.000	0.0000	0.0000	0.03
6" x 1-1/2" Mod Plate	B	No	Surface Af (CaAa)	44.00 - 36.00	2	1	0.000 0.000	0.0000	0.0000	0.03
6" x 1-1/2" Mod Plate	C	No	Surface Af (CaAa)	44.00 - 36.00	2	1	0.000 0.000	0.0000	0.0000	0.03
6" x 1-1/2" Mod Plate	A	No	Surface Af (CaAa)	64.00 - 56.00	2	1	0.000 0.000	0.0000	0.0000	0.03
6" x 1-1/2" Mod Plate	B	No	Surface Af (CaAa)	64.00 - 56.00	2	1	0.000 0.000	0.0000	0.0000	0.03
6" x 1-1/2" Mod Plate	C	No	Surface Af (CaAa)	64.00 - 56.00	2	1	0.000 0.000	0.0000	0.0000	0.03

### Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C <sub>A</sub> A <sub>A</sub> ft <sup>2</sup> /ft	Weight klf
Safety Line 3/8	C	No	No	CaAa (Out Of Face)	196.00 - 8.00	1	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00
LDF7-50A (1-5/8 FOAM)	C	No	No	Inside Pole	195.00 - 8.00	8	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00
1-1/4" Fiber Cable	C	No	No	Inside Pole	195.00 - 8.00	4	No Ice 1/2" Ice	0.00 0.00

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Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C <sub>A</sub> A <sub>A</sub>			Weight klf
							1" Ice	0.00	0.00	
LDF6-50A (1-1/4 FOAM)	A	No	No	Inside Pole	185.00 - 8.00	12	No Ice	0.00	0.00	0.00
							1/2" Ice	0.00	0.00	0.00
							1" Ice	0.00	0.00	0.00
							1" Ice	0.00	0.00	0.00
18-PAIR	A	No	No	Inside Pole	185.00 - 8.00	1	No Ice	0.00	0.00	0.00
							1/2" Ice	0.00	0.00	0.00
							1" Ice	0.00	0.00	0.00
							1" Ice	0.00	0.00	0.00
6AWG	A	No	No	Inside Pole	185.00 - 8.00	6	No Ice	0.00	0.00	0.00
							1/2" Ice	0.00	0.00	0.00
							1" Ice	0.00	0.00	0.00
							1" Ice	0.00	0.00	0.00
3/8" Fiber Cable	A	No	No	Inside Pole	185.00 - 8.00	2	No Ice	0.00	0.00	0.00
							1/2" Ice	0.00	0.00	0.00
							1" Ice	0.00	0.00	0.00
							1" Ice	0.00	0.00	0.00

### Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>A</sub> A <sub>A</sub>		Weight K
					In Face ft <sup>2</sup>	Out Face ft <sup>2</sup>	
L1	196.00-195.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.062	0.037	0.00
L2	195.00-190.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.312	0.188	0.07
L3	190.00-185.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.312	0.188	0.07
L4	185.00-180.00	A	0.000	0.000	0.000	0.000	0.05
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.312	0.188	0.07
L5	180.00-175.00	A	0.000	0.000	0.000	0.000	0.05
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.312	0.188	0.07
L6	175.00-170.00	A	0.000	0.000	5.940	0.000	0.08
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.312	0.188	0.07
L7	170.00-165.00	A	0.000	0.000	5.940	0.000	0.08
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.312	0.188	0.07
L8	165.00-160.00	A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.312	0.188	0.07
L9	160.00-155.00	A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.312	0.188	0.07
L10	155.00-150.00	A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
		C	0.000	0.000	0.312	0.188	0.07
L11	150.00-145.00	A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
		C	0.000	0.000	0.312	0.188	0.07
L12	145.00-140.00	A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05

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	<b>Client</b> PTI	<b>Designed by</b> TR

Tower Section	Tower Elevation ft	Face	$A_R$	$A_F$	$C_{AA}$	$C_{AA}$	Weight K
			$ft^2$	$ft^2$	In Face $ft^2$	Out Face $ft^2$	
L13	140.00-136.25	C	0.000	0.000	0.312	0.188	0.07
		A	0.000	0.000	4.455	0.000	0.07
		B	0.000	0.000	3.713	0.000	0.04
L14	136.25-136.00	C	0.000	0.000	0.834	0.141	0.06
		A	0.000	0.000	0.297	0.000	0.00
		B	0.000	0.000	0.247	0.000	0.00
L15	136.00-131.00	C	0.000	0.000	0.056	0.009	0.00
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L16	131.00-126.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L17	126.00-121.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L18	121.00-120.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	1.188	0.000	0.02
		B	0.000	0.000	0.990	0.000	0.01
L19	120.00-115.00	C	0.000	0.000	0.223	0.037	0.02
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L20	115.00-110.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L21	110.00-105.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L22	105.00-100.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L23	100.00-95.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L24	95.00-90.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L25	90.00-85.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L26	85.00-80.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L27	80.00-75.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L28	75.00-70.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L29	70.00-65.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
L30	65.00-60.00	C	0.000	0.000	1.113	0.188	0.08
		A	0.000	0.000	5.940	0.000	0.34
		B	0.000	0.000	4.950	0.000	0.29
L31	60.00-55.00	C	0.000	0.000	1.113	0.188	0.32
		A	0.000	0.000	5.940	0.000	0.34
		B	0.000	0.000	4.950	0.000	0.29
L32	55.00-50.00	C	0.000	0.000	1.113	0.188	0.32
		A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
		C	0.000	0.000	1.113	0.188	0.08

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Tower Section	Tower Elevation ft	Face	$A_R$	$A_F$	$C_{AA}$ In Face	$C_{AA}$ Out Face	Weight K
			$ft^2$	$ft^2$	$ft^2$	$ft^2$	
L33	50.00-45.00	A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
		C	0.000	0.000	1.113	0.188	0.08
L34	45.00-40.00	A	0.000	0.000	8.005	0.000	0.41
		B	0.000	0.000	7.015	0.000	0.36
		C	0.000	0.000	3.177	0.188	0.39
L35	40.00-35.00	A	0.000	0.000	8.005	0.000	0.41
		B	0.000	0.000	7.015	0.000	0.36
		C	0.000	0.000	3.177	0.188	0.39
L36	35.00-30.00	A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
		C	0.000	0.000	1.113	0.188	0.08
L37	30.00-25.00	A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
		C	0.000	0.000	1.113	0.188	0.08
L38	25.00-20.00	A	0.000	0.000	8.005	0.000	0.41
		B	0.000	0.000	7.015	0.000	0.36
		C	0.000	0.000	3.177	0.188	0.39
L39	20.00-15.00	A	0.000	0.000	8.005	0.000	0.41
		B	0.000	0.000	7.015	0.000	0.36
		C	0.000	0.000	3.177	0.188	0.39
L40	15.00-10.00	A	0.000	0.000	5.940	0.000	0.10
		B	0.000	0.000	4.950	0.000	0.05
		C	0.000	0.000	1.113	0.188	0.08
L41	10.00-5.00	A	0.000	0.000	2.376	0.000	0.04
		B	0.000	0.000	1.980	0.000	0.02
		C	0.000	0.000	0.445	0.075	0.03
L42	5.00-0.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00

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

Tower Section	Tower Elevation ft	Face or Leg	<i>Ice</i> Thickness in	$A_R$	$A_F$	$C_{AA}$ In Face	$C_{AA}$ Out Face	Weight K
				$ft^2$	$ft^2$	$ft^2$	$ft^2$	
L1	196.00-195.00	A	1.195	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.301	0.276	0.01
L2	195.00-190.00	A	1.193	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	1.505	1.380	0.09
L3	190.00-185.00	A	1.190	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	1.502	1.377	0.09
L4	185.00-180.00	A	1.187	0.000	0.000	0.000	0.000	0.05
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	1.499	1.374	0.09
L5	180.00-175.00	A	1.183	0.000	0.000	0.000	0.000	0.05
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	1.496	1.371	0.09
L6	175.00-170.00	A	1.180	0.000	0.000	8.900	0.000	0.16
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	1.492	1.367	0.09
L7	170.00-165.00	A	1.176	0.000	0.000	8.895	0.000	0.16
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	1.489	1.364	0.09
L8	165.00-160.00	A	1.173	0.000	0.000	10.357	0.000	0.18

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Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A <sub>R</sub> ft <sup>2</sup>	A <sub>F</sub> ft <sup>2</sup>	C <sub>AA</sub> In Face ft <sup>2</sup>	C <sub>AA</sub> Out Face ft <sup>2</sup>	Weight K
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	1.485	1.360	0.09
L9	160.00-155.00	A	1.169	0.000	0.000	10.348	0.000	0.18
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	1.482	1.357	0.09
L10	155.00-150.00	A	1.165	0.000	0.000	10.339	0.000	0.18
		B		0.000	0.000	8.810	0.000	0.15
		C		0.000	0.000	1.478	1.353	0.09
L11	150.00-145.00	A	1.162	0.000	0.000	10.329	0.000	0.18
		B		0.000	0.000	8.801	0.000	0.15
		C		0.000	0.000	1.474	1.349	0.09
L12	145.00-140.00	A	1.158	0.000	0.000	10.319	0.000	0.18
		B		0.000	0.000	8.792	0.000	0.15
		C		0.000	0.000	1.470	1.345	0.09
L13	140.00-136.25	A	1.154	0.000	0.000	7.732	0.000	0.14
		B		0.000	0.000	6.588	0.000	0.11
		C		0.000	0.000	2.565	1.006	0.09
L14	136.25-136.00	A	1.152	0.000	0.000	0.515	0.000	0.01
		B		0.000	0.000	0.439	0.000	0.01
		C		0.000	0.000	0.171	0.067	0.01
L15	136.00-131.00	A	1.150	0.000	0.000	10.300	0.000	0.18
		B		0.000	0.000	8.775	0.000	0.15
		C		0.000	0.000	3.412	1.338	0.11
L16	131.00-126.00	A	1.146	0.000	0.000	10.289	0.000	0.18
		B		0.000	0.000	8.765	0.000	0.15
		C		0.000	0.000	3.404	1.333	0.11
L17	126.00-121.00	A	1.141	0.000	0.000	10.278	0.000	0.18
		B		0.000	0.000	8.755	0.000	0.15
		C		0.000	0.000	3.395	1.329	0.11
L18	121.00-120.00	A	1.138	0.000	0.000	2.054	0.000	0.04
		B		0.000	0.000	1.750	0.000	0.03
		C		0.000	0.000	0.678	0.265	0.02
L19	120.00-115.00	A	1.135	0.000	0.000	10.264	0.000	0.18
		B		0.000	0.000	8.742	0.000	0.14
		C		0.000	0.000	3.383	1.323	0.11
L20	115.00-110.00	A	1.130	0.000	0.000	10.251	0.000	0.18
		B		0.000	0.000	8.731	0.000	0.14
		C		0.000	0.000	3.373	1.318	0.11
L21	110.00-105.00	A	1.125	0.000	0.000	10.238	0.000	0.18
		B		0.000	0.000	8.720	0.000	0.14
		C		0.000	0.000	3.363	1.313	0.11
L22	105.00-100.00	A	1.120	0.000	0.000	10.225	0.000	0.18
		B		0.000	0.000	8.708	0.000	0.14
		C		0.000	0.000	3.353	1.308	0.11
L23	100.00-95.00	A	1.114	0.000	0.000	10.211	0.000	0.18
		B		0.000	0.000	8.695	0.000	0.14
		C		0.000	0.000	3.341	1.302	0.11
L24	95.00-90.00	A	1.109	0.000	0.000	10.196	0.000	0.18
		B		0.000	0.000	8.682	0.000	0.14
		C		0.000	0.000	3.330	1.296	0.11
L25	90.00-85.00	A	1.102	0.000	0.000	10.181	0.000	0.18
		B		0.000	0.000	8.668	0.000	0.14
		C		0.000	0.000	3.317	1.290	0.11
L26	85.00-80.00	A	1.096	0.000	0.000	10.165	0.000	0.18
		B		0.000	0.000	8.653	0.000	0.14
		C		0.000	0.000	3.304	1.283	0.11
L27	80.00-75.00	A	1.089	0.000	0.000	10.148	0.000	0.18
		B		0.000	0.000	8.638	0.000	0.14
		C		0.000	0.000	3.291	1.277	0.11
L28	75.00-70.00	A	1.082	0.000	0.000	10.130	0.000	0.18
		B		0.000	0.000	8.622	0.000	0.14

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Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	$A_R$	$A_F$	$C_{AA}$ In Face	$C_{AA}$ Out Face	Weight K
				$ft^2$	$ft^2$	$ft^2$	$ft^2$	
L29	70.00-65.00	C		0.000	0.000	4.358	1.269	0.12
		A	1.074	0.000	0.000	10.110	0.000	0.18
		B		0.000	0.000	8.604	0.000	0.14
L30	65.00-60.00	C		0.000	0.000	4.335	1.262	0.12
		A	1.066	0.000	0.000	11.597	0.000	0.43
		B		0.000	0.000	10.093	0.000	0.40
L31	60.00-55.00	C		0.000	0.000	5.818	1.253	0.38
		A	1.057	0.000	0.000	11.563	0.000	0.43
		B		0.000	0.000	10.061	0.000	0.40
L32	55.00-50.00	C		0.000	0.000	5.779	1.245	0.38
		A	1.048	0.000	0.000	10.044	0.000	0.17
		B		0.000	0.000	8.544	0.000	0.14
L33	50.00-45.00	C		0.000	0.000	4.255	1.235	0.12
		A	1.037	0.000	0.000	10.018	0.000	0.17
		B		0.000	0.000	8.521	0.000	0.14
L34	45.00-40.00	C		0.000	0.000	4.224	1.225	0.12
		A	1.026	0.000	0.000	11.440	0.000	0.52
		B		0.000	0.000	9.946	0.000	0.48
L35	40.00-35.00	C		0.000	0.000	5.640	1.213	0.46
		A	1.013	0.000	0.000	11.390	0.000	0.51
		B		0.000	0.000	9.899	0.000	0.48
L36	35.00-30.00	C		0.000	0.000	5.584	1.200	0.46
		A	0.998	0.000	0.000	9.921	0.000	0.17
		B		0.000	0.000	8.434	0.000	0.13
L37	30.00-25.00	C		0.000	0.000	4.108	1.186	0.12
		A	0.982	0.000	0.000	9.880	0.000	0.17
		B		0.000	0.000	8.397	0.000	0.13
L38	25.00-20.00	C		0.000	0.000	4.058	1.169	0.11
		A	0.962	0.000	0.000	9.831	0.000	0.50
		B		0.000	0.000	9.714	0.000	0.47
L39	20.00-15.00	C		0.000	0.000	5.361	1.150	0.45
		A	0.939	0.000	0.000	9.771	0.000	0.50
		B		0.000	0.000	9.627	0.000	0.47
L40	15.00-10.00	C		0.000	0.000	5.255	1.126	0.45
		A	0.907	0.000	0.000	9.694	0.000	0.16
		B		0.000	0.000	8.229	0.000	0.12
L41	10.00-5.00	C		0.000	0.000	3.835	1.095	0.11
		A	0.862	0.000	0.000	3.832	0.000	0.06
		B		0.000	0.000	3.251	0.000	0.05
L42	5.00-0.00	C		0.000	0.000	1.480	0.420	0.04
		A	0.773	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00

### Feed Line Center of Pressure

Section	Elevation ft	$CP_x$	$CP_z$	$CP_x$ Ice	$CP_z$ Ice
		in	in	in	in
L1	196.00-195.00	-0.2923	0.7508	-0.8234	1.5481
L2	195.00-190.00	-0.2998	0.7650	-0.8922	1.6679
L3	190.00-185.00	-0.2998	0.7650	-0.8907	1.6653
L4	185.00-180.00	-0.2998	0.7650	-0.8891	1.6626
L5	180.00-175.00	-0.3045	0.7739	-0.9347	1.7420
L6	175.00-170.00	-6.7561	-1.3193	-5.0640	-0.1215
L7	170.00-165.00	-6.7561	-1.3193	-5.0635	-0.1236
L8	165.00-160.00	-6.7561	-1.3193	-5.1077	-0.5534

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Section	Elevation	CP <sub>x</sub>	CP <sub>z</sub>	CP <sub>x</sub>	CP <sub>z</sub>
				Ice	Ice
	ft	in	in	in	in
L9	160.00-155.00	-7.2461	-1.4109	-5.5784	-0.6007
L10	155.00-150.00	-0.6106	-0.5169	-0.6759	-0.3027
L11	150.00-145.00	-0.6106	-0.5169	-0.6754	-0.3031
L12	145.00-140.00	-0.6106	-0.5169	-0.6748	-0.3035
L13	140.00-136.25	-0.6856	0.1730	-0.7336	0.4860
L14	136.25-136.00	-0.6856	0.1730	-0.7334	0.4855
L15	136.00-131.00	-0.6856	0.1730	-0.7331	0.4848
L16	131.00-126.00	-0.6856	0.1730	-0.7325	0.4833
L17	126.00-121.00	-0.6856	0.1730	-0.7318	0.4818
L18	121.00-120.00	-0.6856	0.1730	-0.7315	0.4809
L19	120.00-115.00	-0.7739	0.1881	-0.8072	0.5155
L20	115.00-110.00	-0.7739	0.1881	-0.8064	0.5137
L21	110.00-105.00	-0.7739	0.1881	-0.8055	0.5119
L22	105.00-100.00	-0.7739	0.1881	-0.8047	0.5099
L23	100.00-95.00	-0.8551	0.2019	-0.8716	0.5392
L24	95.00-90.00	-0.8551	0.2019	-0.8706	0.5369
L25	90.00-85.00	-0.8551	0.2019	-0.8694	0.5345
L26	85.00-80.00	-0.8551	0.2019	-0.8682	0.5319
L27	80.00-75.00	-0.9285	0.2144	-0.9277	0.5568
L28	75.00-70.00	-0.9285	0.2144	-1.0189	1.0561
L29	70.00-65.00	-0.9285	0.2144	-1.0169	1.0501
L30	65.00-60.00	-0.9285	0.2144	-0.9454	0.9725
L31	60.00-55.00	-0.9285	0.2144	-0.9436	0.9665
L32	55.00-50.00	-0.9285	0.2144	-1.0097	1.0293
L33	50.00-45.00	-0.9285	0.2144	-1.0068	1.0211
L34	45.00-40.00	-0.7562	0.1746	-0.8405	0.8474
L35	40.00-35.00	-0.7562	0.1746	-0.8380	0.8394
L36	35.00-30.00	-0.9285	0.2144	-0.9962	0.9903
L37	30.00-25.00	-0.9285	0.2144	-0.9916	0.9769
L38	25.00-20.00	-0.7563	0.1746	-0.3381	1.0970
L39	20.00-15.00	-0.7563	0.1746	-0.3424	1.0759
L40	15.00-10.00	-0.9285	0.2144	-0.9704	0.9156
L41	10.00-5.00	-0.5081	0.1173	-0.5365	0.4917
L42	5.00-0.00	0.0000	0.0000	0.0000	0.0000

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

### Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L1	1	PiROD Climbing Rungs	195.00 - 196.00	1.0000	1.0000
L2	1	PiROD Climbing Rungs	190.00 - 195.00	1.0000	1.0000
L3	1	PiROD Climbing Rungs	185.00 - 190.00	1.0000	1.0000
L4	1	PiROD Climbing Rungs	180.00 - 185.00	1.0000	1.0000
L5	1	PiROD Climbing Rungs	175.00 - 180.00	1.0000	1.0000
L6	1	PiROD Climbing Rungs	170.00 - 175.00	1.0000	1.0000
L6	9	LDF7-50A (1-5/8 FOAM)	170.00 -	1.0000	1.0000

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	<b>Client</b> PTI	<b>Designed by</b> TR

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
			175.00		
L7	1	PiROD Climbing Rungs	165.00 - 170.00	1.0000	1.0000
L7	9	LDF7-50A (1-5/8 FOAM)	165.00 - 170.00	1.0000	1.0000
L8	1	PiROD Climbing Rungs	160.00 - 165.00	1.0000	1.0000
L8	9	LDF7-50A (1-5/8 FOAM)	160.00 - 165.00	1.0000	1.0000
L8	10	Hybriflex	160.00 - 165.00	1.0000	1.0000
L9	1	PiROD Climbing Rungs	155.00 - 160.00	1.0000	1.0000
L9	9	LDF7-50A (1-5/8 FOAM)	155.00 - 160.00	1.0000	1.0000
L9	10	Hybriflex	155.00 - 160.00	1.0000	1.0000
L10	1	PiROD Climbing Rungs	150.00 - 155.00	1.0000	1.0000
L10	9	LDF7-50A (1-5/8 FOAM)	150.00 - 155.00	1.0000	1.0000
L10	10	Hybriflex	150.00 - 155.00	1.0000	1.0000
L10	11	LDF7-50A (1-5/8 FOAM)	150.00 - 155.00	1.0000	1.0000
L10	12	1-5/8" Hybrid Cable	150.00 - 155.00	1.0000	1.0000
L11	1	PiROD Climbing Rungs	145.00 - 150.00	1.0000	1.0000
L11	9	LDF7-50A (1-5/8 FOAM)	145.00 - 150.00	1.0000	1.0000
L11	10	Hybriflex	145.00 - 150.00	1.0000	1.0000
L11	11	LDF7-50A (1-5/8 FOAM)	145.00 - 150.00	1.0000	1.0000
L11	12	1-5/8" Hybrid Cable	145.00 - 150.00	1.0000	1.0000
L12	1	PiROD Climbing Rungs	140.00 - 145.00	1.0000	1.0000
L12	9	LDF7-50A (1-5/8 FOAM)	140.00 - 145.00	1.0000	1.0000
L12	10	Hybriflex	140.00 - 145.00	1.0000	1.0000
L12	11	LDF7-50A (1-5/8 FOAM)	140.00 - 145.00	1.0000	1.0000
L12	12	1-5/8" Hybrid Cable	140.00 - 145.00	1.0000	1.0000
L13	1	PiROD Climbing Rungs	136.25 - 140.00	1.0000	1.0000
L13	9	LDF7-50A (1-5/8 FOAM)	136.25 - 140.00	1.0000	1.0000
L13	10	Hybriflex	136.25 - 140.00	1.0000	1.0000
L13	11	LDF7-50A (1-5/8 FOAM)	136.25 - 140.00	1.0000	1.0000
L13	12	1-5/8" Hybrid Cable	136.25 - 140.00	1.0000	1.0000
L13	13	1.6" Cable	136.25 - 140.00	1.0000	1.0000
L14	1	PiROD Climbing Rungs	136.00 - 136.25	1.0000	1.0000
L14	9	LDF7-50A (1-5/8 FOAM)	136.00 -	1.0000	1.0000



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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L14	10	Hybriflex	136.25 136.00 - 136.25	1.0000	1.0000
L14	11	LDF7-50A (1-5/8 FOAM)	136.00 - 136.25	1.0000	1.0000
L14	12	1-5/8" Hybrid Cable	136.00 - 136.25	1.0000	1.0000
L14	13	1.6" Cable	136.00 - 136.25	1.0000	1.0000
L15	1	PiROD Climbing Rungs	131.00 - 136.00	1.0000	1.0000
L15	9	LDF7-50A (1-5/8 FOAM)	131.00 - 136.00	1.0000	1.0000
L15	10	Hybriflex	131.00 - 136.00	1.0000	1.0000
L15	11	LDF7-50A (1-5/8 FOAM)	131.00 - 136.00	1.0000	1.0000
L15	12	1-5/8" Hybrid Cable	131.00 - 136.00	1.0000	1.0000
L15	13	1.6" Cable	131.00 - 136.00	1.0000	1.0000
L16	1	PiROD Climbing Rungs	126.00 - 131.00	1.0000	1.0000
L16	9	LDF7-50A (1-5/8 FOAM)	126.00 - 131.00	1.0000	1.0000
L16	10	Hybriflex	126.00 - 131.00	1.0000	1.0000
L16	11	LDF7-50A (1-5/8 FOAM)	126.00 - 131.00	1.0000	1.0000
L16	12	1-5/8" Hybrid Cable	126.00 - 131.00	1.0000	1.0000
L16	13	1.6" Cable	126.00 - 131.00	1.0000	1.0000
L17	1	PiROD Climbing Rungs	121.00 - 126.00	1.0000	1.0000
L17	9	LDF7-50A (1-5/8 FOAM)	121.00 - 126.00	1.0000	1.0000
L17	10	Hybriflex	121.00 - 126.00	1.0000	1.0000
L17	11	LDF7-50A (1-5/8 FOAM)	121.00 - 126.00	1.0000	1.0000
L17	12	1-5/8" Hybrid Cable	121.00 - 126.00	1.0000	1.0000
L17	13	1.6" Cable	121.00 - 126.00	1.0000	1.0000
L18	1	PiROD Climbing Rungs	120.00 - 121.00	1.0000	1.0000
L18	9	LDF7-50A (1-5/8 FOAM)	120.00 - 121.00	1.0000	1.0000
L18	10	Hybriflex	120.00 - 121.00	1.0000	1.0000
L18	11	LDF7-50A (1-5/8 FOAM)	120.00 - 121.00	1.0000	1.0000
L18	12	1-5/8" Hybrid Cable	120.00 - 121.00	1.0000	1.0000
L18	13	1.6" Cable	120.00 - 121.00	1.0000	1.0000
L19	1	PiROD Climbing Rungs	115.00 - 120.00	1.0000	1.0000
L19	9	LDF7-50A (1-5/8 FOAM)	115.00 - 120.00	1.0000	1.0000
L19	10	Hybriflex	115.00 -	1.0000	1.0000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	$K_a$ No Ice	$K_a$ Ice
L19	11	LDF7-50A (1-5/8 FOAM)	120.00 115.00 -	1.0000	1.0000
L19	12	1-5/8" Hybrid Cable	120.00 115.00 -	1.0000	1.0000
L19	13	1.6" Cable	120.00 115.00 -	1.0000	1.0000
L20	1	PiROD Climbing Rungs	120.00 110.00 -	1.0000	1.0000
L20	9	LDF7-50A (1-5/8 FOAM)	115.00 110.00 -	1.0000	1.0000
L20	10	Hybriflex	115.00 110.00 -	1.0000	1.0000
L20	11	LDF7-50A (1-5/8 FOAM)	115.00 110.00 -	1.0000	1.0000
L20	12	1-5/8" Hybrid Cable	115.00 110.00 -	1.0000	1.0000
L20	13	1.6" Cable	115.00 110.00 -	1.0000	1.0000
L21	1	PiROD Climbing Rungs	115.00 105.00 -	1.0000	1.0000
L21	9	LDF7-50A (1-5/8 FOAM)	110.00 105.00 -	1.0000	1.0000
L21	10	Hybriflex	110.00 105.00 -	1.0000	1.0000
L21	11	LDF7-50A (1-5/8 FOAM)	110.00 105.00 -	1.0000	1.0000
L21	12	1-5/8" Hybrid Cable	110.00 105.00 -	1.0000	1.0000
L21	13	1.6" Cable	110.00 105.00 -	1.0000	1.0000
L22	1	PiROD Climbing Rungs	110.00 100.00 -	1.0000	1.0000
L22	9	LDF7-50A (1-5/8 FOAM)	105.00 100.00 -	1.0000	1.0000
L22	10	Hybriflex	105.00 100.00 -	1.0000	1.0000
L22	11	LDF7-50A (1-5/8 FOAM)	105.00 100.00 -	1.0000	1.0000
L22	12	1-5/8" Hybrid Cable	105.00 100.00 -	1.0000	1.0000
L22	13	1.6" Cable	105.00 100.00 -	1.0000	1.0000
L23	1	PiROD Climbing Rungs	105.00 - 100.00	1.0000	1.0000
L23	9	LDF7-50A (1-5/8 FOAM)	95.00 - 100.00	1.0000	1.0000
L23	10	Hybriflex	95.00 - 100.00	1.0000	1.0000
L23	11	LDF7-50A (1-5/8 FOAM)	95.00 - 100.00	1.0000	1.0000
L23	12	1-5/8" Hybrid Cable	95.00 - 100.00	1.0000	1.0000
L23	13	1.6" Cable	95.00 - 100.00	1.0000	1.0000
L24	1	PiROD Climbing Rungs	90.00 - 95.00	1.0000	1.0000
L24	9	LDF7-50A (1-5/8 FOAM)	90.00 - 95.00	1.0000	1.0000
L24	10	Hybriflex	90.00 - 95.00	1.0000	1.0000
L24	11	LDF7-50A (1-5/8 FOAM)	90.00 - 95.00	1.0000	1.0000
L24	12	1-5/8" Hybrid Cable	90.00 - 95.00	1.0000	1.0000
L24	13	1.6" Cable	90.00 - 95.00	1.0000	1.0000
L25	1	PiROD Climbing Rungs	85.00 - 90.00	1.0000	1.0000
L25	9	LDF7-50A (1-5/8 FOAM)	85.00 - 90.00	1.0000	1.0000
L25	10	Hybriflex	85.00 - 90.00	1.0000	1.0000
L25	11	LDF7-50A (1-5/8 FOAM)	85.00 - 90.00	1.0000	1.0000
L25	12	1-5/8" Hybrid Cable	85.00 - 90.00	1.0000	1.0000
L25	13	1.6" Cable	85.00 - 90.00	1.0000	1.0000
L26	1	PiROD Climbing Rungs	80.00 - 85.00	1.0000	1.0000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L26	9	LDF7-50A (1-5/8 FOAM)	80.00 - 85.00	1.0000	1.0000
L26	10	Hybriflex	80.00 - 85.00	1.0000	1.0000
L26	11	LDF7-50A (1-5/8 FOAM)	80.00 - 85.00	1.0000	1.0000
L26	12	1-5/8" Hybrid Cable	80.00 - 85.00	1.0000	1.0000
L26	13	1.6" Cable	80.00 - 85.00	1.0000	1.0000
L27	1	PiROD Climbing Rungs	75.00 - 80.00	1.0000	1.0000
L27	9	LDF7-50A (1-5/8 FOAM)	75.00 - 80.00	1.0000	1.0000
L27	10	Hybriflex	75.00 - 80.00	1.0000	1.0000
L27	11	LDF7-50A (1-5/8 FOAM)	75.00 - 80.00	1.0000	1.0000
L27	12	1-5/8" Hybrid Cable	75.00 - 80.00	1.0000	1.0000
L27	13	1.6" Cable	75.00 - 80.00	1.0000	1.0000
L28	1	PiROD Climbing Rungs	70.00 - 75.00	1.0000	1.0000
L28	9	LDF7-50A (1-5/8 FOAM)	70.00 - 75.00	1.0000	1.0000
L28	10	Hybriflex	70.00 - 75.00	1.0000	1.0000
L28	11	LDF7-50A (1-5/8 FOAM)	70.00 - 75.00	1.0000	1.0000
L28	12	1-5/8" Hybrid Cable	70.00 - 75.00	1.0000	1.0000
L28	13	1.6" Cable	70.00 - 75.00	1.0000	1.0000
L28	14	LDF5-50A (7/8 FOAM)	70.00 - 75.00	1.0000	1.0000
L29	1	PiROD Climbing Rungs	65.00 - 70.00	1.0000	1.0000
L29	9	LDF7-50A (1-5/8 FOAM)	65.00 - 70.00	1.0000	1.0000
L29	10	Hybriflex	65.00 - 70.00	1.0000	1.0000
L29	11	LDF7-50A (1-5/8 FOAM)	65.00 - 70.00	1.0000	1.0000
L29	12	1-5/8" Hybrid Cable	65.00 - 70.00	1.0000	1.0000
L29	13	1.6" Cable	65.00 - 70.00	1.0000	1.0000
L29	14	LDF5-50A (7/8 FOAM)	65.00 - 70.00	1.0000	1.0000
L30	1	PiROD Climbing Rungs	60.00 - 65.00	1.0000	1.0000
L30	9	LDF7-50A (1-5/8 FOAM)	60.00 - 65.00	1.0000	1.0000
L30	10	Hybriflex	60.00 - 65.00	1.0000	1.0000
L30	11	LDF7-50A (1-5/8 FOAM)	60.00 - 65.00	1.0000	1.0000
L30	12	1-5/8" Hybrid Cable	60.00 - 65.00	1.0000	1.0000
L30	13	1.6" Cable	60.00 - 65.00	1.0000	1.0000
L30	14	LDF5-50A (7/8 FOAM)	60.00 - 65.00	1.0000	1.0000
L30	27	6" x 1-1/2" Mod Plate	60.00 - 64.00	1.0000	1.0000
L30	28	6" x 1-1/2" Mod Plate	60.00 - 64.00	1.0000	1.0000
L30	29	6" x 1-1/2" Mod Plate	60.00 - 64.00	1.0000	1.0000
L31	1	PiROD Climbing Rungs	55.00 - 60.00	1.0000	1.0000
L31	9	LDF7-50A (1-5/8 FOAM)	55.00 - 60.00	1.0000	1.0000
L31	10	Hybriflex	55.00 - 60.00	1.0000	1.0000
L31	11	LDF7-50A (1-5/8 FOAM)	55.00 - 60.00	1.0000	1.0000
L31	12	1-5/8" Hybrid Cable	55.00 - 60.00	1.0000	1.0000
L31	13	1.6" Cable	55.00 - 60.00	1.0000	1.0000
L31	14	LDF5-50A (7/8 FOAM)	55.00 - 60.00	1.0000	1.0000
L31	27	6" x 1-1/2" Mod Plate	56.00 - 60.00	1.0000	1.0000
L31	28	6" x 1-1/2" Mod Plate	56.00 - 60.00	1.0000	1.0000
L31	29	6" x 1-1/2" Mod Plate	56.00 - 60.00	1.0000	1.0000
L32	1	PiROD Climbing Rungs	50.00 - 55.00	1.0000	1.0000
L32	9	LDF7-50A (1-5/8 FOAM)	50.00 - 55.00	1.0000	1.0000
L32	10	Hybriflex	50.00 - 55.00	1.0000	1.0000
L32	11	LDF7-50A (1-5/8 FOAM)	50.00 - 55.00	1.0000	1.0000
L32	12	1-5/8" Hybrid Cable	50.00 - 55.00	1.0000	1.0000
L32	13	1.6" Cable	50.00 - 55.00	1.0000	1.0000
L32	14	LDF5-50A (7/8 FOAM)	50.00 - 55.00	1.0000	1.0000
L33	1	PiROD Climbing Rungs	45.00 - 50.00	1.0000	1.0000
L33	9	LDF7-50A (1-5/8 FOAM)	45.00 - 50.00	1.0000	1.0000
L33	10	Hybriflex	45.00 - 50.00	1.0000	1.0000
L33	11	LDF7-50A (1-5/8 FOAM)	45.00 - 50.00	1.0000	1.0000
L33	12	1-5/8" Hybrid Cable	45.00 - 50.00	1.0000	1.0000
L33	13	1.6" Cable	45.00 - 50.00	1.0000	1.0000
L33	14	LDF5-50A (7/8 FOAM)	45.00 - 50.00	1.0000	1.0000
L34	1	PiROD Climbing Rungs	40.00 - 45.00	1.0000	1.0000
L34	9	LDF7-50A (1-5/8 FOAM)	40.00 - 45.00	1.0000	1.0000
L34	10	Hybriflex	40.00 - 45.00	1.0000	1.0000

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	<b>Client</b> PTI	<b>Designed by</b> TR

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L34	11	LDF7-50A (1-5/8 FOAM)	40.00 - 45.00	1.0000	1.0000
L34	12	1-5/8" Hybrid Cable	40.00 - 45.00	1.0000	1.0000
L34	13	1.6" Cable	40.00 - 45.00	1.0000	1.0000
L34	14	LDF5-50A (7/8 FOAM)	40.00 - 45.00	1.0000	1.0000
L34	18	4" x 1-1/4" Mod Plate	40.00 - 42.00	1.0000	1.0000
L34	19	4" x 1-1/4" Mod Plate	40.00 - 42.00	1.0000	1.0000
L34	20	4" x 1-1/4" Mod Plate	40.00 - 42.00	1.0000	1.0000
L34	24	6" x 1-1/2" Mod Plate	40.00 - 44.00	1.0000	1.0000
L34	25	6" x 1-1/2" Mod Plate	40.00 - 44.00	1.0000	1.0000
L34	26	6" x 1-1/2" Mod Plate	40.00 - 44.00	1.0000	1.0000
L35	1	PiROD Climbing Rungs	35.00 - 40.00	1.0000	1.0000
L35	9	LDF7-50A (1-5/8 FOAM)	35.00 - 40.00	1.0000	1.0000
L35	10	Hybriflex	35.00 - 40.00	1.0000	1.0000
L35	11	LDF7-50A (1-5/8 FOAM)	35.00 - 40.00	1.0000	1.0000
L35	12	1-5/8" Hybrid Cable	35.00 - 40.00	1.0000	1.0000
L35	13	1.6" Cable	35.00 - 40.00	1.0000	1.0000
L35	14	LDF5-50A (7/8 FOAM)	35.00 - 40.00	1.0000	1.0000
L35	18	4" x 1-1/4" Mod Plate	38.00 - 40.00	1.0000	1.0000
L35	19	4" x 1-1/4" Mod Plate	38.00 - 40.00	1.0000	1.0000
L35	20	4" x 1-1/4" Mod Plate	38.00 - 40.00	1.0000	1.0000
L35	24	6" x 1-1/2" Mod Plate	36.00 - 40.00	1.0000	1.0000
L35	25	6" x 1-1/2" Mod Plate	36.00 - 40.00	1.0000	1.0000
L35	26	6" x 1-1/2" Mod Plate	36.00 - 40.00	1.0000	1.0000
L36	1	PiROD Climbing Rungs	30.00 - 35.00	1.0000	1.0000
L36	9	LDF7-50A (1-5/8 FOAM)	30.00 - 35.00	1.0000	1.0000
L36	10	Hybriflex	30.00 - 35.00	1.0000	1.0000
L36	11	LDF7-50A (1-5/8 FOAM)	30.00 - 35.00	1.0000	1.0000
L36	12	1-5/8" Hybrid Cable	30.00 - 35.00	1.0000	1.0000
L36	13	1.6" Cable	30.00 - 35.00	1.0000	1.0000
L36	14	LDF5-50A (7/8 FOAM)	30.00 - 35.00	1.0000	1.0000
L37	1	PiROD Climbing Rungs	25.00 - 30.00	1.0000	1.0000
L37	9	LDF7-50A (1-5/8 FOAM)	25.00 - 30.00	1.0000	1.0000
L37	10	Hybriflex	25.00 - 30.00	1.0000	1.0000
L37	11	LDF7-50A (1-5/8 FOAM)	25.00 - 30.00	1.0000	1.0000
L37	12	1-5/8" Hybrid Cable	25.00 - 30.00	1.0000	1.0000
L37	13	1.6" Cable	25.00 - 30.00	1.0000	1.0000
L37	14	LDF5-50A (7/8 FOAM)	25.00 - 30.00	1.0000	1.0000
L38	1	PiROD Climbing Rungs	20.00 - 25.00	1.0000	1.0000
L38	9	LDF7-50A (1-5/8 FOAM)	20.00 - 25.00	1.0000	1.0000
L38	10	Hybriflex	20.00 - 25.00	1.0000	1.0000
L38	11	LDF7-50A (1-5/8 FOAM)	20.00 - 25.00	1.0000	1.0000
L38	12	1-5/8" Hybrid Cable	20.00 - 25.00	1.0000	1.0000
L38	13	1.6" Cable	20.00 - 25.00	1.0000	1.0000
L38	14	LDF5-50A (7/8 FOAM)	20.00 - 25.00	1.0000	1.0000
L38	15	4" x 1-1/4" Mod Plate	20.00 - 22.00	1.0000	1.0000
L38	16	4" x 1-1/4" Mod Plate	20.00 - 22.00	1.0000	1.0000
L38	17	4" x 1-1/4" Mod Plate	20.00 - 22.00	1.0000	1.0000
L38	21	6" x 1-1/2" Mod Plate	20.00 - 24.00	1.0000	1.0000
L38	22	6" x 1-1/2" Mod Plate	20.00 - 24.00	1.0000	1.0000
L38	23	6" x 1-1/2" Mod Plate	20.00 - 24.00	1.0000	1.0000
L39	1	PiROD Climbing Rungs	15.00 - 20.00	1.0000	1.0000
L39	9	LDF7-50A (1-5/8 FOAM)	15.00 - 20.00	1.0000	1.0000
L39	10	Hybriflex	15.00 - 20.00	1.0000	1.0000
L39	11	LDF7-50A (1-5/8 FOAM)	15.00 - 20.00	1.0000	1.0000
L39	12	1-5/8" Hybrid Cable	15.00 - 20.00	1.0000	1.0000
L39	13	1.6" Cable	15.00 - 20.00	1.0000	1.0000
L39	14	LDF5-50A (7/8 FOAM)	15.00 - 20.00	1.0000	1.0000
L39	15	4" x 1-1/4" Mod Plate	18.00 - 20.00	1.0000	1.0000
L39	16	4" x 1-1/4" Mod Plate	18.00 - 20.00	1.0000	1.0000
L39	17	4" x 1-1/4" Mod Plate	18.00 - 20.00	1.0000	1.0000
L39	21	6" x 1-1/2" Mod Plate	16.00 - 20.00	1.0000	1.0000
L39	22	6" x 1-1/2" Mod Plate	16.00 - 20.00	1.0000	1.0000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K <sub>a</sub> No Ice	K <sub>a</sub> Ice
L39	23	6" x 1-1/2" Mod Plate	16.00 - 20.00	1.0000	1.0000
L40	1	PIROD Climbing Rungs	10.00 - 15.00	1.0000	1.0000
L40	9	LDF7-50A (1-5/8 FOAM)	10.00 - 15.00	1.0000	1.0000
L40	10	Hybriflex	10.00 - 15.00	1.0000	1.0000
L40	11	LDF7-50A (1-5/8 FOAM)	10.00 - 15.00	1.0000	1.0000
L40	12	1-5/8" Hybrid Cable	10.00 - 15.00	1.0000	1.0000
L40	13	1.6" Cable	10.00 - 15.00	1.0000	1.0000
L40	14	LDF5-50A (7/8 FOAM)	10.00 - 15.00	1.0000	1.0000
L41	1	PIROD Climbing Rungs	8.00 - 10.00	1.0000	1.0000
L41	9	LDF7-50A (1-5/8 FOAM)	8.00 - 10.00	1.0000	1.0000
L41	10	Hybriflex	8.00 - 10.00	1.0000	1.0000
L41	11	LDF7-50A (1-5/8 FOAM)	8.00 - 10.00	1.0000	1.0000
L41	12	1-5/8" Hybrid Cable	8.00 - 10.00	1.0000	1.0000
L41	13	1.6" Cable	8.00 - 10.00	1.0000	1.0000
L41	14	LDF5-50A (7/8 FOAM)	8.00 - 10.00	1.0000	1.0000

### Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L30	27	6" x 1-1/2" Mod Plate	60.00 - 64.00	Manual	1.0000
L30	28	6" x 1-1/2" Mod Plate	60.00 - 64.00	Manual	1.0000
L30	29	6" x 1-1/2" Mod Plate	60.00 - 64.00	Manual	1.0000
L31	27	6" x 1-1/2" Mod Plate	56.00 - 60.00	Manual	1.0000
L31	28	6" x 1-1/2" Mod Plate	56.00 - 60.00	Manual	1.0000
L31	29	6" x 1-1/2" Mod Plate	56.00 - 60.00	Manual	1.0000
L34	18	4" x 1-1/4" Mod Plate	40.00 - 42.00	Auto	1.0000
L34	19	4" x 1-1/4" Mod Plate	40.00 - 42.00	Auto	1.0000
L34	20	4" x 1-1/4" Mod Plate	40.00 - 42.00	Auto	1.0000
L34	24	6" x 1-1/2" Mod Plate	40.00 - 44.00	Manual	1.0000
L34	25	6" x 1-1/2" Mod Plate	40.00 - 44.00	Manual	1.0000
L34	26	6" x 1-1/2" Mod Plate	40.00 - 44.00	Manual	1.0000
L35	18	4" x 1-1/4" Mod Plate	38.00 - 40.00	Auto	1.0000
L35	19	4" x 1-1/4" Mod Plate	38.00 - 40.00	Auto	1.0000
L35	20	4" x 1-1/4" Mod Plate	38.00 - 40.00	Auto	1.0000
L35	24	6" x 1-1/2" Mod Plate	36.00 - 40.00	Manual	1.0000
L35	25	6" x 1-1/2" Mod Plate	36.00 - 40.00	Manual	1.0000
L35	26	6" x 1-1/2" Mod Plate	36.00 - 40.00	Manual	1.0000
L38	15	4" x 1-1/4" Mod Plate	20.00 - 22.00	Auto	1.0000
L38	16	4" x 1-1/4" Mod Plate	20.00 - 22.00	Auto	1.0000
L38	17	4" x 1-1/4" Mod Plate	20.00 - 22.00	Auto	1.0000
L38	21	6" x 1-1/2" Mod Plate	20.00 - 24.00	Manual	1.0000
L38	22	6" x 1-1/2" Mod Plate	20.00 - 24.00	Manual	1.0000
L38	23	6" x 1-1/2" Mod Plate	20.00 - 24.00	Manual	1.0000
L39	15	4" x 1-1/4" Mod Plate	18.00 - 20.00	Auto	1.0000
L39	16	4" x 1-1/4" Mod Plate	18.00 - 20.00	Auto	1.0000
L39	17	4" x 1-1/4" Mod Plate	18.00 - 20.00	Auto	1.0000
L39	21	6" x 1-1/2" Mod Plate	16.00 - 20.00	Manual	1.0000
L39	22	6" x 1-1/2" Mod Plate	16.00 - 20.00	Manual	1.0000
L39	23	6" x 1-1/2" Mod Plate	16.00 - 20.00	Manual	1.0000

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### Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A <sub>Front</sub>	C <sub>A</sub> A <sub>Side</sub>	Weight
			Horz Lateral	Vert					
Pirod 16.5' LP Platform	C	None			0.0000	195.00	No Ice 20.80 1/2" Ice 28.10 1" Ice 35.40	20.80 28.10 35.40	1.80 2.07 2.33
(3) Commscope VSR-MA-B w/ 15.5' Horizontal Pipe	C	None			0.0000	193.00	No Ice 16.65 1/2" Ice 25.43 1" Ice 34.21	16.65 25.43 34.21	0.56 0.73 0.89
APXVAARR24 w/ Mount Pipe	A	From Centroid-Le g	4.00 0.00 -2.00		50.0000	195.00	No Ice 20.24 1/2" Ice 20.89 1" Ice 21.55	10.79 12.21 13.49	0.16 0.29 0.44
APXVAARR24 w/ Mount Pipe	B	From Centroid-Le g	4.00 0.00 -2.00		30.0000	195.00	No Ice 20.24 1/2" Ice 20.89 1" Ice 21.55	10.79 12.21 13.49	0.16 0.29 0.44
APXVAARR24 w/ Mount Pipe	C	From Centroid-Le g	4.00 0.00 -2.00		20.0000	195.00	No Ice 20.24 1/2" Ice 20.89 1" Ice 21.55	10.79 12.21 13.49	0.16 0.29 0.44
APX16DWV w/ Mount Pipe	A	From Centroid-Le g	4.00 0.00 0.00		50.0000	195.00	No Ice 7.14 1/2" Ice 7.76 1" Ice 8.29	3.81 4.88 5.66	0.07 0.12 0.18
APX16DWV w/ Mount Pipe	B	From Centroid-Le g	4.00 0.00 0.00		30.0000	195.00	No Ice 7.14 1/2" Ice 7.76 1" Ice 8.29	3.81 4.88 5.66	0.07 0.12 0.18
APX16DWV w/ Mount Pipe	C	From Centroid-Le g	4.00 0.00 0.00		20.0000	195.00	No Ice 7.14 1/2" Ice 7.76 1" Ice 8.29	3.81 4.88 5.66	0.07 0.12 0.18
AIR6449 w/ Mount Pipe	A	From Centroid-Le g	4.00 0.00 0.00		0.0000	195.00	No Ice 6.45 1/2" Ice 7.02 1" Ice 7.53	3.92 4.64 5.25	0.13 0.18 0.24
AIR6449 w/ Mount Pipe	B	From Centroid-Le g	4.00 0.00 0.00		0.0000	195.00	No Ice 6.45 1/2" Ice 7.02 1" Ice 7.53	3.92 4.64 5.25	0.13 0.18 0.24
AIR6449 w/ Mount Pipe	C	From Centroid-Le g	4.00 0.00 0.00		0.0000	195.00	No Ice 6.45 1/2" Ice 7.02 1" Ice 7.53	3.92 4.64 5.25	0.13 0.18 0.24
RADIO 4449 B12/B71	A	From Centroid-Le g	4.00 0.00 -2.00		0.0000	195.00	No Ice 1.65 1/2" Ice 1.81 1" Ice 1.98	1.16 1.30 1.45	0.07 0.09 0.11
RADIO 4449 B12/B71	B	From Centroid-Le g	4.00 0.00 -2.00		0.0000	195.00	No Ice 1.65 1/2" Ice 1.81 1" Ice 1.98	1.16 1.30 1.45	0.07 0.09 0.11
RADIO 4449 B12/B71	C	From Centroid-Le g	4.00 0.00 -2.00		0.0000	195.00	No Ice 1.65 1/2" Ice 1.81 1" Ice 1.98	1.16 1.30 1.45	0.07 0.09 0.11
RADIO 4415 B66A	A	From Centroid-Le g	4.00 0.00 0.00		0.0000	195.00	No Ice 1.86 1/2" Ice 2.03 1" Ice 2.20	0.87 1.00 1.13	0.05 0.06 0.08
RADIO 4415 B66A	B	From Centroid-Le g	4.00 0.00 0.00		0.0000	195.00	No Ice 1.86 1/2" Ice 2.03 1" Ice 2.20	0.87 1.00 1.13	0.05 0.06 0.08
RADIO 4415 B66A	C	From Centroid-Le g	4.00 0.00 0.00		0.0000	195.00	No Ice 1.86 1/2" Ice 2.03 1" Ice 2.20	0.87 1.00 1.13	0.05 0.06 0.08

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub>		Weight
			Horz	Lateral			Front	Side	
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K
		g	0.00			1" Ice	2.20	1.13	0.08
4424 B25	A	From	4.00	0.0000	195.00	No Ice	1.86	1.32	0.09
		Centroid-Le	0.00			1/2" Ice	2.03	1.47	0.11
		g	-2.00			1" Ice	2.20	1.62	0.13
4424 B25	B	From	4.00	0.0000	195.00	No Ice	1.86	1.32	0.09
		Centroid-Le	0.00			1/2" Ice	2.03	1.47	0.11
		g	-2.00			1" Ice	2.20	1.62	0.13
4424 B25	C	From	4.00	0.0000	195.00	No Ice	1.86	1.32	0.09
		Centroid-Le	0.00			1/2" Ice	2.03	1.47	0.11
		g	-2.00			1" Ice	2.20	1.62	0.13
DC4-48-60-8-20F	A	From	4.00	0.0000	195.00	No Ice	1.43	0.59	0.01
		Centroid-Le	0.00			1/2" Ice	1.58	0.70	0.02
		g	0.00			1" Ice	1.74	0.81	0.03
T-Mobile Reserved	A	From	4.00	50.0000	195.00	No Ice	5.10	6.78	0.05
		Centroid-Le	0.00			1/2" Ice	5.86	7.46	0.08
		g	0.00			1" Ice	6.54	8.10	0.12
T-Mobile Reserved	B	From	4.00	30.0000	195.00	No Ice	5.10	6.78	0.05
		Centroid-Le	0.00			1/2" Ice	5.10	7.46	0.08
		g	0.00			1" Ice	6.54	8.10	0.12
T-Mobile Reserved	C	From	4.00	20.0000	195.00	No Ice	5.10	6.78	0.05
		Centroid-Le	0.00			1/2" Ice	5.10	7.46	0.08
		g	0.00			1" Ice	6.54	8.10	0.12
PiROD 13' Low Profile Platform (Monopole)	C	None		0.0000	185.00	No Ice	15.70	15.70	1.30
						1/2" Ice	20.10	20.10	1.76
						1" Ice	24.50	24.50	2.23
Kickers [NA 509-3]	C	None		0.0000	185.00	No Ice	11.84	11.84	0.28
						1/2" Ice	16.96	16.96	0.30
						1" Ice	22.08	22.08	0.32
Handrail Kit [NA 510-1]	C	None		0.0000	185.00	No Ice	6.36	6.36	0.26
						1/2" Ice	8.52	8.52	0.34
						1" Ice	10.62	10.62	0.46
HPA-65R-BUU-H8 w/ Mount Pipe	A	From	4.00	23.0000	185.00	No Ice	13.05	9.42	0.09
		Centroid-Le	0.00			1/2" Ice	13.66	10.82	0.19
		g	0.00			1" Ice	14.27	12.07	0.29
HPA-65R-BUU-H8 w/ Mount Pipe	B	From	4.00	23.0000	185.00	No Ice	13.05	9.42	0.09
		Centroid-Le	0.00			1/2" Ice	13.66	10.82	0.19
		g	0.00			1" Ice	14.27	12.07	0.29
HPA-65R-BUU-H8 w/ Mount Pipe	C	From	4.00	23.0000	185.00	No Ice	13.05	9.42	0.09
		Centroid-Le	0.00			1/2" Ice	13.66	10.82	0.19
		g	0.00			1" Ice	14.27	12.07	0.29
OPA65R-BU6DA w/ Mount Pipe	A	From	4.00	23.0000	185.00	No Ice	12.89	7.10	0.08
		Centroid-Le	0.00			1/2" Ice	13.39	8.05	0.17
		g	0.00			1" Ice	13.90	8.88	0.27
OPA65R-BU6DA w/ Mount Pipe	B	From	4.00	23.0000	185.00	No Ice	12.89	7.10	0.08
		Centroid-Le	0.00			1/2" Ice	13.39	8.05	0.17
		g	0.00			1" Ice	13.90	8.88	0.27
OPA65R-BU6DA w/ Mount Pipe	C	From	4.00	23.0000	185.00	No Ice	12.89	7.10	0.08
		Centroid-Le	0.00			1/2" Ice	13.39	8.05	0.17
		g	0.00			1" Ice	13.90	8.88	0.27
DMP65R-BU8DA w/ Mount Pipe	A	From	4.00	23.0000	185.00	No Ice	17.87	10.02	0.03
		Centroid-Le	0.00			1/2" Ice	18.50	11.44	0.15
		g	0.00			1" Ice	19.14	12.72	0.28
DMP65R-BU8DA w/ Mount Pipe	B	From	4.00	23.0000	185.00	No Ice	17.87	10.02	0.03
		Centroid-Le	0.00			1/2" Ice	18.50	11.44	0.15
		g	0.00			1" Ice	19.14	12.72	0.28
DMP65R-BU8DA w/ Mount Pipe	C	From	4.00	23.0000	185.00	No Ice	17.87	10.02	0.03
		Centroid-Le	0.00			1/2" Ice	18.50	11.44	0.15

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A		Weight
			Horz Lateral	Vert			Front	Side	
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K
4449 B5/B12	A	g	0.00			1" Ice	19.14	12.72	0.28
		From	4.00	23.0000	185.00	No Ice	1.97	1.41	0.07
		Centroid-Le	0.00			1/2" Ice	2.14	1.56	0.09
4449 B5/B12	B	g	0.00			1" Ice	2.33	1.73	0.11
		From	4.00	23.0000	185.00	No Ice	1.97	1.41	0.07
		Centroid-Le	0.00			1/2" Ice	2.14	1.56	0.09
4449 B5/B12	C	g	0.00			1" Ice	2.33	1.73	0.11
		From	4.00	23.0000	185.00	No Ice	1.97	1.41	0.07
		Centroid-Le	0.00			1/2" Ice	2.14	1.56	0.09
4415 B25	A	g	0.00			1" Ice	2.33	1.73	0.11
		From	4.00	23.0000	185.00	No Ice	1.65	0.68	0.05
		Centroid-Le	0.00			1/2" Ice	1.81	0.79	0.06
4415 B25	B	g	0.00			1" Ice	1.98	0.92	0.07
		From	4.00	23.0000	185.00	No Ice	1.65	0.68	0.05
		Centroid-Le	0.00			1/2" Ice	1.81	0.79	0.06
4415 B25	C	g	0.00			1" Ice	1.98	0.92	0.07
		From	4.00	23.0000	185.00	No Ice	1.65	0.68	0.05
		Centroid-Le	0.00			1/2" Ice	1.81	0.79	0.06
4478 B14	A	g	0.00			1" Ice	1.98	0.92	0.07
		From	4.00	23.0000	185.00	No Ice	1.96	1.25	0.06
		Centroid-Le	0.00			1/2" Ice	2.14	1.40	0.08
4478 B14	B	g	0.00			1" Ice	2.32	1.55	0.10
		From	4.00	23.0000	185.00	No Ice	1.96	1.25	0.06
		Centroid-Le	0.00			1/2" Ice	2.14	1.40	0.08
4478 B14	C	g	0.00			1" Ice	2.32	1.55	0.10
		From	4.00	23.0000	185.00	No Ice	1.96	1.25	0.06
		Centroid-Le	0.00			1/2" Ice	2.14	1.40	0.08
RRUS 32 B30	A	g	0.00			1" Ice	3.14	1.95	0.10
		From	4.00	23.0000	185.00	No Ice	2.69	1.57	0.06
		Centroid-Le	0.00			1/2" Ice	2.91	1.76	0.08
RRUS 32 B30	B	g	0.00			1" Ice	3.14	1.95	0.10
		From	4.00	23.0000	185.00	No Ice	2.69	1.57	0.06
		Centroid-Le	0.00			1/2" Ice	2.91	1.76	0.08
RRUS 32 B30	C	g	0.00			1" Ice	3.14	1.95	0.10
		From	4.00	23.0000	185.00	No Ice	2.69	1.57	0.06
		Centroid-Le	0.00			1/2" Ice	2.91	1.76	0.08
RRUS 4426 B66	A	g	0.00			1" Ice	3.14	1.95	0.10
		From	4.00	23.0000	185.00	No Ice	1.64	0.73	0.05
		Centroid-Le	0.00			1/2" Ice	1.80	0.84	0.06
RRUS 4426 B66	B	g	0.00			1" Ice	1.97	0.97	0.08
		From	4.00	23.0000	185.00	No Ice	1.64	0.73	0.05
		Centroid-Le	0.00			1/2" Ice	1.80	0.84	0.06
RRUS 4426 B66	C	g	0.00			1" Ice	1.97	0.97	0.08
		From	4.00	23.0000	185.00	No Ice	1.64	0.73	0.05
		Centroid-Le	0.00			1/2" Ice	1.80	0.84	0.06
DC6-48-60-18-8F Surge Suppression Unit	A	g	0.00			1" Ice	1.97	0.97	0.08
		From	4.00	23.0000	185.00	No Ice	0.92	0.92	0.02
		Centroid-Le	0.00			1/2" Ice	1.46	1.46	0.04
DC6-48-60-18-8F Surge Suppression Unit	B	g	0.00			1" Ice	1.64	1.64	0.06
		From	4.00	23.0000	185.00	No Ice	0.92	0.92	0.02
		Centroid-Le	0.00			1/2" Ice	1.46	1.46	0.04
DC9-48-60-24-8C-EV	C	g	0.00			1" Ice	1.64	1.64	0.06
		From	4.00	23.0000	185.00	No Ice	2.74	4.78	0.03
		Centroid-Le	0.00			1/2" Ice	2.96	5.06	0.06
Valmont Light Duty Tri-Bracket (1)	C	g	0.00			1" Ice	3.20	5.35	0.10
		None		0.0000	175.00	No Ice	1.76	1.76	0.05
						1/2" Ice	2.08	2.08	0.07



<b>tnxTower</b>  <b>GPD</b> 520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2100 FAX: (330) 572-2101	<b>Job</b> US-CT-1002	<b>Page</b> 21 of 28
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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub>		Weight
			Horz	Vert			Front	Side	
			Lateral	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K
APXV18-206517S-C w/ Mount Pipe	A	From Leg	0.50	-10.0000	175.00	1" Ice	2.40	2.40	0.09
			0.00			No Ice	5.17	4.46	0.05
			0.00			1/2" Ice	5.62	5.39	0.09
APXV18-206517S-C w/ Mount Pipe	B	From Leg	0.50	-10.0000	175.00	1" Ice	6.08	6.20	0.14
			0.00			No Ice	5.17	4.46	0.05
			0.00			1/2" Ice	5.62	5.39	0.09
APXV18-206517S-C w/ Mount Pipe	C	From Leg	0.50	-10.0000	175.00	1" Ice	6.08	6.20	0.14
			0.00			No Ice	5.17	4.46	0.05
			0.00			1/2" Ice	5.62	5.39	0.09
MTS 12.5' LP Platform	C	None		0.0000	165.00	1" Ice	6.08	6.20	0.14
						No Ice	14.66	14.66	1.25
						1/2" Ice	18.87	18.87	1.48
APXVTM14-ALU-I20 w/ Mount Pipe	A	From Centroid-Fa	4.00	40.0000	165.00	1" Ice	23.08	23.08	1.71
			0.00			No Ice	6.58	4.96	0.08
			0.00			1/2" Ice	7.03	5.75	0.13
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Centroid-Fa	4.00	10.0000	165.00	1" Ice	7.47	6.47	0.19
			0.00			No Ice	6.58	4.96	0.08
			0.00			1/2" Ice	7.03	5.75	0.13
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Centroid-Fa	4.00	80.0000	165.00	1" Ice	7.47	6.47	0.19
			0.00			No Ice	6.58	4.96	0.08
			0.00			1/2" Ice	7.03	5.75	0.13
NNVV-65B-R4 w/ Mount Pipe	A	From Centroid-Fa	4.00	40.0000	165.00	1" Ice	7.47	6.47	0.19
			0.00			No Ice	12.27	7.17	0.10
			0.00			1/2" Ice	12.77	8.13	0.19
NNVV-65B-R4 w/ Mount Pipe	B	From Centroid-Fa	4.00	10.0000	165.00	1" Ice	13.27	8.97	0.28
			0.00			No Ice	12.27	7.17	0.10
			0.00			1/2" Ice	12.77	8.13	0.19
NNVV-65B-R4 w/ Mount Pipe	C	From Centroid-Fa	4.00	80.0000	165.00	1" Ice	13.27	8.97	0.28
			0.00			No Ice	12.27	7.17	0.10
			0.00			1/2" Ice	12.77	8.13	0.19
RRH 1900 4x45 65 MHz	A	From Centroid-Fa	4.00	40.0000	165.00	1" Ice	13.27	8.97	0.28
			0.00			No Ice	2.29	2.29	0.06
			0.00			1/2" Ice	2.50	2.50	0.08
RRH 1900 4x45 65 MHz	B	From Centroid-Fa	4.00	10.0000	165.00	1" Ice	2.71	2.71	0.11
			0.00			No Ice	2.29	2.29	0.06
			0.00			1/2" Ice	2.50	2.50	0.08
RRH 1900 4x45 65 MHz	C	From Centroid-Fa	4.00	80.0000	165.00	1" Ice	2.71	2.71	0.11
			0.00			No Ice	2.29	2.29	0.06
			0.00			1/2" Ice	2.50	2.50	0.08
800 MHz RRH	A	From Centroid-Fa	4.00	40.0000	165.00	1" Ice	2.71	2.71	0.11
			0.00			No Ice	1.70	1.28	0.05
			0.00			1/2" Ice	1.86	1.43	0.07
800 MHz RRH	B	From Centroid-Fa	4.00	10.0000	165.00	1" Ice	2.03	1.58	0.09
			0.00			No Ice	1.70	1.28	0.05
			0.00			1/2" Ice	1.86	1.43	0.07
800 MHz RRH	C	From Centroid-Fa	4.00	80.0000	165.00	1" Ice	2.03	1.58	0.09
			0.00			No Ice	1.70	1.28	0.05
			0.00			1/2" Ice	1.86	1.43	0.07
TD-RRH8x20-25 w/ Solar Shield	A	From Centroid-Fa	4.00	40.0000	165.00	1" Ice	2.03	1.58	0.09
			0.00			No Ice	3.70	1.29	0.07
			0.00			1/2" Ice	3.95	1.46	0.09
TD-RRH8x20-25 w/ Solar Shield	B	From Centroid-Fa	4.00	10.0000	165.00	1" Ice	4.20	1.64	0.12
			0.00			No Ice	3.70	1.29	0.07
			0.00			1/2" Ice	3.95	1.46	0.09
TD-RRH8x20-25 w/ Solar Shield	C	From Centroid-Fa	4.00	80.0000	165.00	1" Ice	4.20	1.64	0.12
			0.00			No Ice	3.70	1.29	0.07
			0.00			1/2" Ice	3.95	1.46	0.09

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A		Weight
			Horz	Lateral			Front	Side	
			Vert						
			ft		ft	ft <sup>2</sup>	ft <sup>2</sup>	K	
			ft						
RRH2X50-08 (800 MHz)	A	ce	0.00			1" Ice	4.20	1.64	0.12
		From	4.00	40.0000	165.00	No Ice	1.70	1.28	0.05
		Centroid-Fa	0.00			1/2" Ice	1.86	1.43	0.07
RRH2X50-08 (800 MHz)	B	ce	0.00			1" Ice	2.03	1.58	0.09
		From	4.00	10.0000	165.00	No Ice	1.70	1.28	0.05
		Centroid-Fa	0.00			1/2" Ice	1.86	1.43	0.07
RRH2X50-08 (800 MHz)	C	ce	0.00			1" Ice	2.03	1.58	0.09
		From	4.00	80.0000	165.00	No Ice	1.70	1.28	0.05
		Centroid-Fa	0.00			1/2" Ice	1.86	1.43	0.07
Platform Mount [LP 404-1_KCKR]	C	ce	0.00			1" Ice	2.03	1.58	0.09
		From	4.00	0.0000	155.00	No Ice	35.82	35.82	2.32
		Centroid-Fa	0.00			1/2" Ice	45.85	45.85	3.02
Additional Mod Components	C	ce	0.00			1" Ice	55.76	55.76	3.89
		From	4.00	0.0000	155.00	No Ice	6.20	6.20	0.20
		Centroid-Fa	0.00			1/2" Ice	7.19	7.19	0.26
NNH4-65B-R6 w/ Mount Pipe	A	ce	0.00			1" Ice	8.18	8.18	0.32
		From	4.00	0.0000	155.00	No Ice	12.27	7.17	0.11
		Centroid-Fa	0.00			1/2" Ice	12.77	8.13	0.20
NNH4-65B-R6 w/ Mount Pipe	B	ce	0.00			1" Ice	13.27	8.97	0.29
		From	4.00	0.0000	155.00	No Ice	12.27	7.17	0.11
		Centroid-Fa	0.00			1/2" Ice	12.77	8.13	0.20
NNH4-65B-R6 w/ Mount Pipe	C	ce	0.00			1" Ice	13.27	8.97	0.29
		From	4.00	0.0000	155.00	No Ice	12.27	7.17	0.11
		Centroid-Fa	0.00			1/2" Ice	12.77	8.13	0.20
MT6407-77A w/ Mount Pipe	A	ce	0.00			1" Ice	13.27	8.97	0.29
		From	4.00	0.0000	155.00	No Ice	4.91	2.68	0.10
		Centroid-Fa	0.00			1/2" Ice	5.26	3.14	0.14
MT6407-77A w/ Mount Pipe	B	ce	0.00			1" Ice	5.61	3.62	0.18
		From	4.00	0.0000	155.00	No Ice	4.91	2.68	0.10
		Centroid-Fa	0.00			1/2" Ice	5.26	3.14	0.14
MT6407-77A w/ Mount Pipe	C	ce	0.00			1" Ice	5.61	3.62	0.18
		From	4.00	0.0000	155.00	No Ice	4.91	2.68	0.10
		Centroid-Fa	0.00			1/2" Ice	5.26	3.14	0.14
XXDWMM w/ Mount Pipe	A	ce	0.00			1" Ice	5.61	3.62	0.18
		From	4.00	0.0000	155.00	No Ice	2.64	2.18	0.05
		Centroid-Fa	0.00			1/2" Ice	3.19	2.80	0.08
XXDWMM w/ Mount Pipe	B	ce	0.00			1" Ice	3.64	3.29	0.11
		From	4.00	0.0000	155.00	No Ice	2.64	2.18	0.05
		Centroid-Fa	0.00			1/2" Ice	3.19	2.80	0.08
XXDWMM w/ Mount Pipe	C	ce	0.00			1" Ice	3.64	3.29	0.11
		From	4.00	0.0000	155.00	No Ice	2.64	2.18	0.05
		Centroid-Fa	0.00			1/2" Ice	3.19	2.80	0.08
RF4439D-25A	A	ce	0.00			1" Ice	3.64	3.29	0.11
		From	4.00	0.0000	155.00	No Ice	1.87	1.25	0.07
		Centroid-Fa	0.00			1/2" Ice	2.03	1.39	0.09
RF4439D-25A	B	ce	0.00			1" Ice	2.21	1.54	0.11
		From	4.00	0.0000	155.00	No Ice	1.87	1.25	0.07
		Centroid-Fa	0.00			1/2" Ice	2.03	1.39	0.09
RF4439D-25A	C	ce	0.00			1" Ice	2.21	1.54	0.11
		From	4.00	0.0000	155.00	No Ice	1.87	1.25	0.07
		Centroid-Fa	0.00			1/2" Ice	2.03	1.39	0.09
RF4440D-13A	A	ce	0.00			1" Ice	2.21	1.54	0.11
		From	4.00	0.0000	155.00	No Ice	1.87	1.13	0.07
		Centroid-Fa	0.00			1/2" Ice	2.03	1.27	0.09
RF4440D-13A	B	ce	0.00			1" Ice	2.21	1.41	0.11
		From	4.00	0.0000	155.00	No Ice	1.87	1.13	0.07
		Centroid-Fa	0.00			1/2" Ice	2.03	1.27	0.09

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub>		Weight
			Horz	Vert			Front	Side	
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K
RF4440D-13A	C	ce	0.00			1" Ice	2.21	1.41	0.11
		From	4.00	0.0000	155.00	No Ice	1.87	1.13	0.07
		Centroid-Fa	0.00			1/2" Ice	2.03	1.27	0.09
RVZDC-6627-PF-48	A	ce	0.00			1" Ice	2.21	1.41	0.11
		From	4.00	0.0000	155.00	No Ice	3.79	2.51	0.03
		Centroid-Fa	0.00			1/2" Ice	4.04	2.73	0.06
(2) Pipe 2 Std x 6'	A	ce	0.00			1" Ice	4.30	2.95	0.10
		From	4.00	0.0000	155.00	No Ice	1.43	1.43	0.02
		Centroid-Fa	0.00			1/2" Ice	1.93	1.93	0.03
(2) Pipe 2 Std x 6'	B	ce	0.00			1" Ice	2.30	2.30	0.05
		From	4.00	0.0000	155.00	No Ice	1.43	1.43	0.02
		Centroid-Fa	0.00			1/2" Ice	1.93	1.93	0.03
(2) Pipe 2 Std x 6'	C	ce	0.00			1" Ice	2.30	2.30	0.05
		From	4.00	0.0000	155.00	No Ice	1.43	1.43	0.02
		Centroid-Fa	0.00			1/2" Ice	1.93	1.93	0.03
(2) RRUDSM	A	ce	0.00			1" Ice	2.30	2.30	0.05
		From	3.00	0.0000	155.00	No Ice	0.80	0.80	0.02
		Centroid-Fa	0.00			1/2" Ice	1.05	1.00	0.02
(2) RRUDSM	C	ce	0.00			1" Ice	1.30	1.20	0.03
		From	3.00	0.0000	155.00	No Ice	0.80	0.80	0.02
		Centroid-Fa	0.00			1/2" Ice	1.05	1.00	0.02
(2) KA-6030	A	ce	0.00			1" Ice	1.30	1.20	0.03
		From	3.00	0.0000	155.00	No Ice	0.96	0.29	0.02
		Centroid-Fa	0.00			1/2" Ice	1.09	0.36	0.02
(2) KA-6030	C	ce	0.00			1" Ice	1.22	0.45	0.03
		From	3.00	0.0000	155.00	No Ice	0.96	0.29	0.02
		Centroid-Fa	0.00			1/2" Ice	1.09	0.36	0.02
SNP8HR-396	C	ce	0.00			1" Ice	1.22	0.45	0.03
		None	0.0000	140.00	No Ice	26.80	26.80	1.51	
					1/2" Ice	32.20	32.20	1.81	
MX08FRO665-20_V0F w/ Mount Pipe	A	From Leg	3.00	0.0000	140.00	1" Ice	37.60	37.60	2.11
			0.00			No Ice	12.96	7.77	0.08
			0.00			1/2" Ice	13.67	9.05	0.18
MX08FRO665-20_V0F w/ Mount Pipe	B	From Leg	3.00	0.0000	140.00	1" Ice	14.34	10.19	0.28
			0.00			No Ice	12.96	7.77	0.08
			0.00			1/2" Ice	13.67	9.05	0.18
MX08FRO665-20_V0F w/ Mount Pipe	C	From Leg	3.00	0.0000	140.00	1" Ice	14.34	10.19	0.28
			0.00			No Ice	12.96	7.77	0.08
			0.00			1/2" Ice	13.67	9.05	0.18
TA8025-B605	A	From Leg	3.00	0.0000	140.00	1" Ice	14.34	10.19	0.28
			0.00			No Ice	1.96	1.05	0.06
			0.00			1/2" Ice	2.14	1.18	0.08
TA8025-B605	B	From Leg	3.00	0.0000	140.00	1" Ice	2.32	1.32	0.10
			0.00			No Ice	1.96	1.05	0.06
			0.00			1/2" Ice	2.14	1.18	0.08
TA8025-B605	C	From Leg	3.00	0.0000	140.00	1" Ice	2.32	1.32	0.10
			0.00			No Ice	1.96	1.05	0.06
			0.00			1/2" Ice	2.14	1.18	0.08
TA8025-B604	A	From Leg	3.00	0.0000	140.00	1" Ice	2.32	1.32	0.10
			0.00			No Ice	1.96	1.05	0.06
			0.00			1/2" Ice	2.14	1.18	0.08
TA8025-B604	B	From Leg	3.00	0.0000	140.00	1" Ice	2.32	1.32	0.10
			0.00			No Ice	1.96	1.05	0.06
			0.00			1/2" Ice	2.14	1.18	0.08
TA8025-B604	C	From Leg	3.00	0.0000	140.00	1" Ice	2.32	1.32	0.10
			0.00			No Ice	1.96	1.05	0.06
			0.00			1/2" Ice	2.14	1.18	0.08

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>A</sub> A <sub>A</sub> Front	C <sub>A</sub> A <sub>A</sub> Side	Weight	
			Horz	Lateral						Vert
Junction Box	A	From Leg	0.00		0.0000	140.00	1" Ice	2.32	1.32	0.10
			3.00				No Ice	1.03	2.31	0.03
			0.00				1/2" Ice	1.17	2.50	0.05
DISH Reserved	A	From Leg	0.00		0.0000	140.00	1" Ice	1.31	2.70	0.07
			3.00				No Ice	17.44	14.76	0.16
			0.00				1/2" Ice	18.90	16.30	0.24
DISH Reserved	B	From Leg	0.00		0.0000	140.00	1" Ice	20.24	17.70	0.34
			3.00				No Ice	17.44	14.76	0.16
			0.00				1/2" Ice	18.90	16.30	0.24
DISH Reserved	C	From Leg	0.00		0.0000	140.00	1" Ice	20.24	17.70	0.34
			3.00				No Ice	17.44	14.76	0.16
			0.00				1/2" Ice	18.90	16.30	0.24
(2) Pipe 2 Std x 8'	A	From Leg	0.00		0.0000	140.00	1" Ice	20.24	17.70	0.34
			3.00				No Ice	1.90	1.90	0.03
			0.00				1/2" Ice	2.73	2.73	0.04
(2) Pipe 2 Std x 8'	B	From Leg	0.00		0.0000	140.00	1" Ice	3.40	3.40	0.06
			3.00				No Ice	1.90	1.90	0.03
			0.00				1/2" Ice	2.73	2.73	0.04
(2) Pipe 2 Std x 8'	C	From Leg	0.00		0.0000	140.00	1" Ice	3.40	3.40	0.06
			3.00				No Ice	1.90	1.90	0.03
			0.00				1/2" Ice	2.73	2.73	0.04
Pipe Mount 3'x4.5"	C	From Leg	0.00		0.0000	75.00	1" Ice	3.40	3.40	0.06
			0.50				No Ice	0.89	0.89	0.03
			0.00				1/2" Ice	1.12	1.12	0.04
GPS-TMG-HR-26N	C	From Leg	0.00		0.0000	75.00	1" Ice	1.33	1.33	0.05
			0.50				No Ice	0.13	0.13	0.00
			0.00				1/2" Ice	0.18	0.18	0.00
Bridge Stiffener (3.25 sq ft)	A	From Leg	0.00		90.0000	120.00	1" Ice	0.24	0.24	0.01
			0.50				No Ice	3.25	0.74	0.00
			0.00				1/2" Ice	3.60	1.25	0.00
Bridge Stiffener (3.25 sq ft)	B	From Leg	0.00		90.0000	120.00	1" Ice	3.94	1.73	0.00
			0.50				No Ice	3.25	0.74	0.00
			0.00				1/2" Ice	3.60	1.25	0.00
Bridge Stiffener (3.25 sq ft)	C	From Leg	0.00		90.0000	120.00	1" Ice	3.94	1.73	0.00
			0.50				No Ice	3.25	0.74	0.00
			0.00				1/2" Ice	3.60	1.25	0.00
Bridge Stiffener (3.25 sq ft)	A	From Leg	0.00		90.0000	100.00	1" Ice	3.94	1.73	0.00
			0.50				No Ice	3.25	0.74	0.00
			0.00				1/2" Ice	3.60	1.25	0.00
Bridge Stiffener (3.25 sq ft)	B	From Leg	0.00		90.0000	100.00	1" Ice	3.94	1.73	0.00
			0.50				No Ice	3.25	0.74	0.00
			0.00				1/2" Ice	3.60	1.25	0.00
Bridge Stiffener (3.25 sq ft)	C	From Leg	0.00		90.0000	100.00	1" Ice	3.94	1.73	0.00
			0.50				No Ice	3.25	0.74	0.00
			0.00				1/2" Ice	3.60	1.25	0.00
Bridge Stiffener (3.25 sq ft)	A	From Leg	0.00		90.0000	80.00	1" Ice	3.94	1.73	0.00
			0.50				No Ice	3.25	0.74	0.00
			0.00				1/2" Ice	3.60	1.25	0.00
Bridge Stiffener (3.25 sq ft)	B	From Leg	0.00		90.0000	80.00	1" Ice	3.94	1.73	0.00
			0.50				No Ice	3.25	0.74	0.00
			0.00				1/2" Ice	3.60	1.25	0.00
Bridge Stiffener (3.25 sq ft)	C	From Leg	0.00		90.0000	80.00	1" Ice	3.94	1.73	0.00
			0.50				No Ice	3.25	0.74	0.00
			0.00				1/2" Ice	3.60	1.25	0.00
			0.00				1" Ice	3.94	1.73	0.00

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**Load Combinations**

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice
25	0.9 Dead+1.0 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

**Maximum Tower Deflections - Service Wind**

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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	196 - 195	20.075	40	0.9322	0.0015
L2	195 - 190	19.880	40	0.9322	0.0015
L3	190 - 185	18.906	40	0.9304	0.0014
L4	185 - 180	17.938	40	0.9230	0.0014
L5	180 - 175	16.981	40	0.9069	0.0013
L6	175 - 170	16.040	40	0.8929	0.0013
L7	170 - 165	15.116	40	0.8728	0.0012
L8	165 - 160	14.217	40	0.8462	0.0012
L9	160 - 155	13.349	40	0.8122	0.0010
L10	155 - 150	12.512	40	0.7880	0.0010
L11	150 - 145	11.703	40	0.7584	0.0008
L12	145 - 140	10.927	40	0.7229	0.0007
L13	140 - 136.25	10.191	40	0.6818	0.0006
L14	136.25 - 136	9.664	40	0.6597	0.0006
L15	136 - 131	9.629	40	0.6588	0.0006
L16	131 - 126	8.950	40	0.6386	0.0005
L17	126 - 121	8.293	40	0.6156	0.0005
L18	121 - 120	7.661	40	0.5897	0.0005
L19	120 - 115	7.539	40	0.5842	0.0005
L20	115 - 110	6.937	40	0.5635	0.0004
L21	110 - 105	6.359	40	0.5407	0.0004
L22	105 - 100	5.806	40	0.5158	0.0004
L23	100 - 95	5.280	40	0.4888	0.0003
L24	95 - 90	4.779	40	0.4670	0.0003
L25	90 - 85	4.302	40	0.4436	0.0003
L26	85 - 80	3.851	40	0.4185	0.0003
L27	80 - 75	3.426	40	0.3917	0.0002
L28	75 - 70	3.027	40	0.3706	0.0002
L29	70 - 65	2.651	40	0.3481	0.0002
L30	65 - 60	2.298	40	0.3244	0.0002
L31	60 - 55	1.972	40	0.2993	0.0002
L32	55 - 50	1.670	40	0.2776	0.0002
L33	50 - 45	1.391	40	0.2548	0.0001
L34	45 - 40	1.136	40	0.2309	0.0001
L35	40 - 35	0.907	40	0.2059	0.0001
L36	35 - 30	0.703	40	0.1837	0.0001
L37	30 - 25	0.523	40	0.1604	0.0001
L38	25 - 20	0.368	40	0.1362	0.0001
L39	20 - 15	0.238	40	0.1110	0.0001
L40	15 - 10	0.136	40	0.0848	0.0000
L41	10 - 5	0.061	40	0.0575	0.0000
L42	5 - 0	0.015	40	0.0293	0.0000

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

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
195.00	PiROD 16.5' LP Platform	40	19.880	0.9322	0.0015	84016
193.00	(3) Commscope VSR-MA-B w/ 15.5' Horizontal Pipe	40	19.490	0.9319	0.0015	84016
185.00	PiROD 13' Low Profile Platform (Monopole)	40	17.938	0.9230	0.0015	25327
175.00	Valmont Light Duty Tri-Bracket (1)	40	16.040	0.8929	0.0013	16750
165.00	MTS 12.5' LP Platform	40	14.217	0.8462	0.0012	9478
155.00	Platform Mount [LP 404-1_KCKR]	40	12.512	0.7880	0.0010	10668

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Elevation	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
140.00	SNP8HR-396	40	10.191	0.6818	0.0006	8026
120.00	Bridge Stiffener (3.25 sq ft)	40	7.539	0.5842	0.0005	12068
100.00	Bridge Stiffener (3.25 sq ft)	40	5.280	0.4888	0.0003	11703
80.00	Bridge Stiffener (3.25 sq ft)	40	3.426	0.3917	0.0002	11939
75.00	Pipe Mount 3'x4.5"	40	3.027	0.3706	0.0002	13142

**Maximum Tower Deflections - Design Wind**

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	196 - 195	90.301	4	4.1962	0.0065
L2	195 - 190	89.425	4	4.1962	0.0065
L3	190 - 185	85.047	4	4.1881	0.0062
L4	185 - 180	80.690	4	4.1545	0.0062
L5	180 - 175	76.385	4	4.0820	0.0057
L6	175 - 170	72.152	4	4.0188	0.0055
L7	170 - 165	67.999	4	3.9279	0.0053
L8	165 - 160	63.955	4	3.8081	0.0053
L9	160 - 155	60.052	4	3.6555	0.0046
L10	155 - 150	56.285	4	3.5466	0.0042
L11	150 - 145	52.643	4	3.4136	0.0038
L12	145 - 140	49.153	4	3.2551	0.0033
L13	140 - 136.25	45.842	4	3.0695	0.0028
L14	136.25 - 136	43.471	4	2.9699	0.0026
L15	136 - 131	43.316	4	2.9657	0.0026
L16	131 - 126	40.259	4	2.8747	0.0024
L17	126 - 121	37.304	4	2.7710	0.0022
L18	121 - 120	34.464	4	2.6546	0.0020
L19	120 - 115	33.911	4	2.6297	0.0020
L20	115 - 110	31.207	4	2.5364	0.0019
L21	110 - 105	28.605	4	2.4338	0.0017
L22	105 - 100	26.116	4	2.3216	0.0016
L23	100 - 95	23.749	4	2.1997	0.0015
L24	95 - 90	21.497	4	2.1017	0.0014
L25	90 - 85	19.351	4	1.9963	0.0013
L26	85 - 80	17.320	4	1.8833	0.0012
L27	80 - 75	15.411	4	1.7628	0.0011
L28	75 - 70	13.615	4	1.6675	0.0010
L29	70 - 65	11.921	4	1.5664	0.0009
L30	65 - 60	10.337	4	1.4594	0.0008
L31	60 - 55	8.867	4	1.3465	0.0008
L32	55 - 50	7.508	4	1.2490	0.0007
L33	50 - 45	6.254	4	1.1464	0.0006
L34	45 - 40	5.109	4	1.0388	0.0006
L35	40 - 35	4.080	4	0.9261	0.0005
L36	35 - 30	3.163	4	0.8260	0.0004
L37	30 - 25	2.352	4	0.7215	0.0004
L38	25 - 20	1.653	4	0.6125	0.0003
L39	20 - 15	1.071	4	0.4991	0.0002
L40	15 - 10	0.609	4	0.3812	0.0002
L41	10 - 5	0.274	4	0.2587	0.0001
L42	5 - 0	0.069	4	0.1316	0.0001

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<b>Critical Deflections and Radius of Curvature - Design Wind</b>
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<i>Elevation</i>	<i>Appurtenance</i>	<i>Gov. Load Comb.</i>	<i>Deflection</i>	<i>Tilt</i>	<i>Twist</i>	<i>Radius of Curvature</i>
<i>ft</i>			<i>in</i>	<i>°</i>	<i>°</i>	<i>ft</i>
195.00	Pirod 16.5' LP Platform	4	89.425	4.1962	0.0072	18865
193.00	(3) Commscope VSR-MA-B w/ 15.5' Horizontal Pipe	4	87.673	4.1948	0.0071	18865
185.00	PiROD 13' Low Profile Platform (Monopole)	4	80.690	4.1545	0.0068	5692
175.00	Valmont Light Duty Tri-Bracket (1)	4	72.152	4.0188	0.0060	3765
165.00	MTS 12.5' LP Platform	4	63.955	3.8081	0.0055	2128
155.00	Platform Mount [LP 404-1_KCKR]	4	56.285	3.5466	0.0045	2394
140.00	SNP8HR-396	4	45.842	3.0695	0.0030	1795
120.00	Bridge Stiffener (3.25 sq ft)	4	33.911	2.6297	0.0021	2692
100.00	Bridge Stiffener (3.25 sq ft)	4	23.749	2.1997	0.0015	2606
80.00	Bridge Stiffener (3.25 sq ft)	4	15.411	1.7628	0.0011	2657
75.00	Pipe Mount 3'x4.5"	4	13.615	1.6675	0.0010	2924



**Pole Geometry**

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	196	1		0	18	18	0.375		A53-B-42
2	195	15		0	24.00	24	0.375		A53-B-42
3	180	20		0	30.00	30	0.375		A53-B-42
4	160	20		0	36.00	36	0.375		A53-B-42
5	140	20		0	42.00	42	0.375		A53-B-42
6	120	20		0	48.00	48	0.375		A53-B-42
7	100	20		0	54.00	54	0.375		A53-B-42
8	80	20		0	60.00	60	0.375		A53-B-42
9	60	20		0	60.00	60	0.5		A53-B-42
10	40	40		0	60.00	60	0.625		A53-B-42

**Reinforcement Configuration**

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	0	136.25	plate	PL6.5x1.5	3	0	120	240															
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							

**Reinforcement Details**

	B (in)	H (in)	Gross Area (in <sup>2</sup> )	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in <sup>2</sup> )	Bolt Hole Size (in)	Reinforcement Material
1	6.5	1.5	9.75	0.75	PC 8.8 - M20 (100)	33	PC 8.8 - M20 (100)	33.000	18.000	7.875	1.1875	A572-65

**Connection Details for Custom Reinforcements**

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
PL6.5x1.5	Top	11	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	11	N	3	3	-	-	-	-	-	-	-	-	-

# TNX Geometry Input

Increment (ft):  Export to TNX

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (In)	Bottom Diameter (In)	Wall Thickness (In)	Tapered Pole Grade	Weight Multiplier
1	196 - 195	1	0	0	18.000	18.000	0.375	A53-B-42	1.000
2	195 - 190	5		0	24.000	24.000	0.375	A53-B-42	1.000
3	190 - 185	5		0	24.000	24.000	0.375	A53-B-42	1.000
4	185 - 180	5	0	0	24.000	24.000	0.375	A53-B-42	1.000
5	180 - 175	5		0	30.000	30.000	0.375	A53-B-42	1.000
6	175 - 170	5		0	30.000	30.000	0.375	A53-B-42	1.000
7	170 - 165	5		0	30.000	30.000	0.375	A53-B-42	1.000
8	165 - 160	5	0	0	30.000	30.000	0.375	A53-B-42	1.000
9	160 - 155	5		0	36.000	36.000	0.375	A53-B-42	1.000
10	155 - 150	5		0	36.000	36.000	0.375	A53-B-42	1.000
11	150 - 145	5		0	36.000	36.000	0.375	A53-B-42	1.000
12	145 - 140	5	0	0	36.000	36.000	0.375	A53-B-42	1.000
13	140 - 136.25	3.75		0	42.000	42.000	0.375	A53-B-42	1.000
14	136.25 - 136	0.25		0	42.000	42.000	0.6375	A53-B-42	0.945
15	136 - 131	5		0	42.000	42.000	0.6375	A53-B-42	0.945
16	131 - 126	5		0	42.000	42.000	0.6375	A53-B-42	0.945
17	126 - 121	5		0	42.000	42.000	0.6375	A53-B-42	0.945
18	121 - 120	1	0	0	42.000	42.000	0.6375	A53-B-42	0.945
19	120 - 115	5		0	48.000	48.000	0.6	A53-B-42	0.955
20	115 - 110	5		0	48.000	48.000	0.6	A53-B-42	0.955
21	110 - 105	5		0	48.000	48.000	0.6	A53-B-42	0.955
22	105 - 100	5	0	0	48.000	48.000	0.6	A53-B-42	0.955
23	100 - 95	5		0	54.000	54.000	0.5625	A53-B-42	0.979
24	95 - 90	5		0	54.000	54.000	0.5625	A53-B-42	0.979
25	90 - 85	5		0	54.000	54.000	0.5625	A53-B-42	0.979
26	85 - 80	5	0	0	54.000	54.000	0.5625	A53-B-42	0.979
27	80 - 75	5		0	60.000	60.000	0.55	A53-B-42	0.969
28	75 - 70	5		0	60.000	60.000	0.55	A53-B-42	0.969
29	70 - 65	5		0	60.000	60.000	0.55	A53-B-42	0.969
30	65 - 60	5	0	0	60.000	60.000	0.55	A53-B-42	0.969
31	60 - 55	5		0	60.000	60.000	0.675	A53-B-42	0.975
32	55 - 50	5		0	60.000	60.000	0.675	A53-B-42	0.975
33	50 - 45	5		0	60.000	60.000	0.675	A53-B-42	0.975
34	45 - 40	5	0	0	60.000	60.000	0.675	A53-B-42	0.975
35	40 - 35	5		0	60.000	60.000	0.8	A53-B-42	0.980
36	35 - 30	5		0	60.000	60.000	0.8	A53-B-42	0.980
37	30 - 25	5		0	60.000	60.000	0.8	A53-B-42	0.980
38	25 - 20	5		0	60.000	60.000	0.8	A53-B-42	0.980
39	20 - 15	5		0	60.000	60.000	0.8	A53-B-42	0.980
40	15 - 10	5		0	60.000	60.000	0.8	A53-B-42	0.980
41	10 - 5	5		0	60.000	60.000	0.8	A53-B-42	0.980
42	5 - 0	5		0	60.000	60.000	0.8	A53-B-42	0.980

## TNX Section Forces

Increment (ft):		TNX Output		
	5	P <sub>u</sub> (K)	M <sub>ux</sub> (kip-ft)	V <sub>u</sub> (K)
	Section Height (ft)			
1	196 - 195	0.09	0.03	0.05
2	195 - 190	5.31	28.00	7.02
3	190 - 185	5.95	63.91	7.34
4	185 - 180	10.24	134.35	14.23
5	180 - 175	11.09	206.51	14.62
6	175 - 170	12.19	283.93	15.67
7	170 - 165	13.09	363.21	16.04
8	165 - 160	16.79	461.17	19.76
9	160 - 155	17.87	561.07	20.18
10	155 - 150	23.57	686.16	25.16
11	150 - 145	24.74	812.86	25.54
12	145 - 140	25.92	941.42	25.91
13	140 - 136.25	30.02	1056.45	30.88
14	136.25 - 136	30.12	1064.17	30.90
15	136 - 131	32.01	1219.81	31.38
16	131 - 126	33.91	1377.80	31.88
17	126 - 121	35.82	1538.25	32.32
18	121 - 120	36.21	1570.61	32.41
19	120 - 115	38.25	1733.87	32.91
20	115 - 110	40.30	1899.62	33.40
21	110 - 105	42.36	2067.76	33.87
22	105 - 100	44.42	2238.19	34.32
23	100 - 95	46.62	2411.02	34.83
24	95 - 90	48.81	2586.98	35.62
25	90 - 85	51.02	2766.31	36.10
26	85 - 80	53.23	2947.98	36.56
27	80 - 75	55.58	3132.08	37.07
28	75 - 70	57.97	3318.72	37.59
29	70 - 65	60.33	3507.82	38.05
30	65 - 60	63.58	3699.19	38.50
31	60 - 55	67.29	3892.85	38.96
32	55 - 50	70.13	4088.68	39.37
33	50 - 45	72.97	4286.47	39.75
34	45 - 40	76.94	4486.15	40.12
35	40 - 35	81.38	4687.69	40.49
36	35 - 30	84.70	4890.91	40.80
37	30 - 25	88.02	5095.59	41.08
38	25 - 20	92.48	5301.66	41.35
39	20 - 15	96.93	5509.04	41.61
40	15 - 10	100.27	5717.58	41.82
41	10 - 5	103.45	5927.06	42.01
42	5 - 0	106.52	6137.39	42.17

## Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
196 - 195	Pole	TP18x18x0.375	Pole	0.0%	Pass
195 - 190	Pole	TP24x24x0.375	Pole	4.8%	Pass
190 - 185	Pole	TP24x24x0.375	Pole	10.3%	Pass
185 - 180	Pole	TP24x24x0.375	Pole	21.6%	Pass
180 - 175	Pole	TP30x30x0.375	Pole	21.7%	Pass
175 - 170	Pole	TP30x30x0.375	Pole	29.6%	Pass
170 - 165	Pole	TP30x30x0.375	Pole	37.6%	Pass
165 - 160	Pole	TP30x30x0.375	Pole	47.8%	Pass
160 - 155	Pole	TP36x36x0.375	Pole	41.2%	Pass
155 - 150	Pole	TP36x36x0.375	Pole	50.6%	Pass
150 - 145	Pole	TP36x36x0.375	Pole	59.7%	Pass
145 - 140	Pole	TP36x36x0.375	Pole	68.9%	Pass
140 - 136.25	Pole	TP42x42x0.375	Pole	58.2%	Pass
136.25 - 136	Pole + Reinf.	TP42x42x0.6375	Pole	35.0%	Pass
136 - 131	Pole + Reinf.	TP42x42x0.6375	Pole	40.0%	Pass
131 - 126	Pole + Reinf.	TP42x42x0.6375	Pole	45.2%	Pass
126 - 121	Pole + Reinf.	TP42x42x0.6375	Pole	50.3%	Pass
121 - 120	Pole + Reinf.	TP42x42x0.6375	Pole	51.4%	Pass
120 - 115	Pole + Reinf.	TP48x48x0.6	Pole	46.5%	Pass
115 - 110	Pole + Reinf.	TP48x48x0.6	Pole	50.9%	Pass
110 - 105	Pole + Reinf.	TP48x48x0.6	Pole	55.4%	Pass
105 - 100	Pole + Reinf.	TP48x48x0.6	Pole	59.9%	Pass
100 - 95	Pole + Reinf.	TP54x54x0.5625	Pole	53.9%	Pass
95 - 90	Pole + Reinf.	TP54x54x0.5625	Pole	57.8%	Pass
90 - 85	Pole + Reinf.	TP54x54x0.5625	Pole	61.8%	Pass
85 - 80	Pole + Reinf.	TP54x54x0.5625	Pole	65.8%	Pass
80 - 75	Pole + Reinf.	TP60x60x0.55	Pole	59.3%	Pass
75 - 70	Pole + Reinf.	TP60x60x0.55	Pole	62.8%	Pass
70 - 65	Pole + Reinf.	TP60x60x0.55	Pole	66.4%	Pass
65 - 60	Pole + Reinf.	TP60x60x0.55	Pole	70.0%	Pass
60 - 55	Pole + Reinf.	TP60x60x0.675	Pole	58.5%	Pass
55 - 50	Pole + Reinf.	TP60x60x0.675	Pole	61.5%	Pass
50 - 45	Pole + Reinf.	TP60x60x0.675	Pole	64.4%	Pass
45 - 40	Pole + Reinf.	TP60x60x0.675	Pole	67.4%	Pass
40 - 35	Pole + Reinf.	TP60x60x0.8	Pole	58.1%	Pass
35 - 30	Pole + Reinf.	TP60x60x0.8	Pole	60.6%	Pass
30 - 25	Pole + Reinf.	TP60x60x0.8	Pole	63.2%	Pass
25 - 20	Pole + Reinf.	TP60x60x0.8	Pole	65.7%	Pass
20 - 15	Pole + Reinf.	TP60x60x0.8	Pole	68.3%	Pass
15 - 10	Pole + Reinf.	TP60x60x0.8	Pole	70.9%	Pass
10 - 5	Pole + Reinf.	TP60x60x0.8	Pole	73.5%	Pass
5 - 0	Pole + Reinf.	TP60x60x0.8	Pole	76.1%	Pass
				Summary	
			Pole	76.1%	Pass
			Reinforcement	72.0%	Pass
			Overall	76.1%	Pass

## Additional Calculations

Section Elevation (ft)	Moment of Inertia (in <sup>4</sup> )			Area (in <sup>2</sup> )			% Capacity* (100% Max. Allowable)	
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1
196 - 195	807	n/a	807	20.76	n/a	20.76	0.0%	
195 - 190	1942	n/a	1942	27.83	n/a	27.83	4.8%	
190 - 185	1942	n/a	1942	27.83	n/a	27.83	10.3%	
185 - 180	1942	n/a	1942	27.83	n/a	27.83	21.6%	
180 - 175	3829	n/a	3829	34.90	n/a	34.90	21.7%	
175 - 170	3829	n/a	3829	34.90	n/a	34.90	29.6%	
170 - 165	3829	n/a	3829	34.90	n/a	34.90	37.6%	
165 - 160	3829	n/a	3829	34.90	n/a	34.90	47.8%	
160 - 155	6659	n/a	6659	41.97	n/a	41.97	41.2%	
155 - 150	6659	n/a	6659	41.97	n/a	41.97	50.6%	
150 - 145	6659	n/a	6659	41.97	n/a	41.97	59.7%	
145 - 140	6659	n/a	6659	41.97	n/a	41.97	68.9%	
140 - 136.25	10622	n/a	10622	49.04	n/a	49.04	58.2%	
136.25 - 136	10622	6973	17594	49.04	29.25	78.29	35.0%	32.9%
136 - 131	10622	6973	17594	49.04	29.25	78.29	40.0%	36.6%
131 - 126	10622	6973	17594	49.04	29.25	78.29	45.2%	41.2%
126 - 121	10622	6973	17594	49.04	29.25	78.29	50.3%	46.0%
121 - 120	10622	6973	17594	49.04	29.25	78.29	51.4%	46.9%
120 - 115	15908	9013	24921	56.11	29.25	85.36	46.5%	41.7%
115 - 110	15908	9013	24921	56.11	29.25	85.36	50.9%	45.7%
110 - 105	15908	9013	24921	56.11	29.25	85.36	55.4%	49.7%
105 - 100	15908	9013	24921	56.11	29.25	85.36	59.9%	53.7%
100 - 95	22710	11316	34026	63.18	29.25	92.43	53.9%	47.7%
95 - 90	22710	11316	34026	63.18	29.25	92.43	57.8%	51.1%
90 - 85	22710	11316	34026	63.18	29.25	92.43	61.8%	54.6%
85 - 80	22710	11316	34026	63.18	29.25	92.43	65.8%	58.2%
80 - 75	31217	13883	45100	70.24	29.25	99.49	59.3%	51.8%
75 - 70	31217	13883	45100	70.24	29.25	99.49	62.8%	54.9%
70 - 65	31217	13883	45100	70.24	29.25	99.49	66.4%	58.0%
65 - 60	31217	13883	45100	70.24	29.25	99.49	70.0%	61.2%
60 - 55	41363	13883	55246	93.46	29.25	122.71	58.5%	52.5%
55 - 50	41363	13883	55246	93.46	29.25	122.71	61.5%	55.1%
50 - 45	41363	13883	55246	93.46	29.25	122.71	64.4%	57.8%
45 - 40	41363	13883	55246	93.46	29.25	122.71	67.4%	60.5%
40 - 35	51381	13883	65264	116.58	29.25	145.83	58.1%	53.5%
35 - 30	51381	13883	65264	116.58	29.25	145.83	60.6%	55.8%
30 - 25	51381	13883	65264	116.58	29.25	145.83	63.2%	58.1%
25 - 20	51381	13883	65264	116.58	29.25	145.83	65.7%	60.5%
20 - 15	51381	13883	65264	116.58	29.25	145.83	68.3%	62.9%
15 - 10	51381	13883	65264	116.58	29.25	145.83	70.9%	65.2%
10 - 5	51381	13883	65264	116.58	29.25	145.83	73.5%	67.6%
5 - 0	51381	13883	65264	116.58	29.25	145.83	76.1%	72.0%

Note: Section capacity checked using 5 degree increments.

\*Rating per TIA-222-H Section 15.5.

## APPENDIX C

### Additional Calculations



Existing Flange Connection @  
US-CT-1002 Kettletown  
2024702.28

180'

Moment =	134.36	k-ft
Axial =	10.24	k
Shear =	14.23	k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

Flange Bolts	
# Bolts =	20
Bolt Type =	A325
Threads Included? =	Yes
Bolt Diameter =	1 in
Bolt Circle =	27 in
$\phi_b$ =	0.75
$\phi_r$ =	0.75
$F_{ub}$ =	120 ksi
$A_b$ =	0.785 in <sup>2</sup>
$A_n$ =	0.606 in <sup>2</sup>
$\phi R_{nv}$ =	35.34 k
$\phi R_n$ =	54.54 k
$\phi R_n$ (adjusted) =	54.53 k
$V_{ub}$ =	0.71 k
$T_{ub}$ =	11.42 k
Max Comp. on Bolt =	12.45 k
<i>Prying Action Check</i>	
N/A, top flange thickness > t <sub>c</sub>	
Shear Capacity =	1.9%
Tensile Capacity =	19.9%
Interaction Capacity =	4.2%
<b>Bolt Capacity =</b>	<b>19.9% OK</b>

Upper Flange Plate	
Location =	External
Plate Strength ( $F_y$ ) =	36 ksi
Plate Tensile ( $F_u$ ) =	58 ksi
Plate Thickness =	1.25 in
Outer Diameter =	30.375 in
$\phi_r$ =	0.9
w <sub>calc</sub> =	12.37 in
w <sub>max</sub> =	20.84 in
w =	12.37 in
Z =	4.83 in <sup>3</sup>
$M_u$ =	38.58 k-in
$\phi M_n$ =	156.55 k-in
<b>Upper Plate Capacity =</b>	<b>23.5% OK</b>

Upper Stiffeners	
Configuration =	None

Pole Information	
Shaft Diam. (Upper) =	24 in
Thickness (Upper) =	0.375 in
# of Sides (Upper) =	Round
$F_y$ (Upper) =	42 ksi
Shaft Diam. (Lower) =	30 in
Thickness (Lower) =	0.375 in
# of Sides (Lower) =	Round
$F_y$ (Lower) =	42 ksi

Lower Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Thickness =	1.25 in
Hole Diameter =	24.25 in
Pole Inner Diameter =	29.25 in
e =	1.13 in
w =	4.59 in
Z =	1.79 in <sup>3</sup>
$M_u$ =	14.00 k-in
$\phi M_n$ =	58.15 k-in
<b>Lower Plate Capacity =</b>	<b>22.9% OK</b>

Lower Stiffeners	
Configuration =	None



Existing Flange Connection @  
US-CT-1002 Kettletown  
2024702.28

160'

Moment =	461.17	k-ft
Axial =	16.79	k
Shear =	19.76	k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

Flange Bolts	
# Bolts =	24
Bolt Type =	A325
Threads Included? =	Yes
Bolt Diameter =	1 in
Bolt Circle =	33 in
$\phi_b$ =	0.75
$\phi_s$ =	0.75
$F_{ub}$ =	120 ksi
$A_b$ =	0.785 in <sup>2</sup>
$A_n$ =	0.606 in <sup>2</sup>
$\phi R_{nv}$ =	35.34 k
$\phi R_{nt}$ =	54.54 k
$\phi R_m$ (adjusted) =	54.53 k
$V_{ub}$ =	0.82 k
$T_{ub}$ =	27.24 k
Max Comp. on Bolt =	28.64 k
<i>Prying Action Check</i>	
N/A, top flange thickness > lc	
Shear Capacity =	2.2%
Tensile Capacity =	47.6%
Interaction Capacity =	23.8%
<b>Bolt Capacity =</b>	<b>47.6% OK</b>

Upper Flange Plate	
Location =	External
Plate Strength ( $F_y$ ) =	36 ksi
Plate Tensile ( $F_u$ ) =	58 ksi
Plate Thickness =	1.25 in
Outer Diameter =	36.375 in
$\phi_t$ =	0.9
wcalc =	13.75 in
wmax =	21.04 in
w =	13.75 in
Z =	5.37 in <sup>3</sup>
$M_u$ =	94.88 k-in
$\phi M_n$ =	173.99 k-in
<b>Upper Plate Capacity =</b>	<b>51.9% OK</b>

Upper Stiffeners	
Configuration =	None

Pole Information	
Shaft Diam. (Upper) =	30 in
Thickness (Upper) =	0.375 in
# of Sides (Upper) =	Round
$F_y$ (Upper) =	42 ksi
Shaft Diam. (Lower) =	36 in
Thickness (Lower) =	0.375 in
# of Sides (Lower) =	Round
$F_y$ (Lower) =	42 ksi

Lower Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Thickness =	1.25 in
Hole Diameter =	27.375 in
Pole Inner Diameter =	35.25 in
e =	1.13 in
w =	4.61 in
Z =	1.80 in <sup>3</sup>
$M_u$ =	32.22 k-in
$\phi M_n$ =	58.40 k-in
<b>Lower Plate Capacity =</b>	<b>52.5% OK</b>

Lower Stiffeners	
Configuration =	None





**Existing Flange Connection @**  
**US-CT-1002 Kettletown**  
 2024702.28

140'

Moment =	938.19	k-ft
Axial =	25.91	k
Shear =	25.72	k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

Flange Bolts	
# Bolts =	28
Bolt Type =	A325
Threads Included? =	Yes
Bolt Diameter =	1 in
Bolt Circle =	39 in
$\phi_r$ =	0.75
$\phi_p$ =	0.75
$F_{ub}$ =	120 ksi
$A_b$ =	0.785 in <sup>2</sup>
$A_n$ =	0.606 in <sup>2</sup>
$\phi R_{nv}$ =	35.34 k
$\phi R_{nt}$ =	54.54 k
$\phi R_n$ (adjusted) =	54.52 k
$V_{ub}$ =	0.92 k
$T_{ub}$ =	40.30 k
Max Comp. on Bolt =	42.15 k
<b>Prying Action Check</b>	
N/A, top flange thickness > 1c	
Shear Capacity =	2.5%
Tensile Capacity =	70.4%
Interaction Capacity =	52.1%
<b>Bolt Capacity =</b>	<b>70.4% OK</b>

Upper Flange Plate	
Location =	External
Plate Strength ( $F_y$ ) =	36 ksi
Plate Tensile ( $F_u$ ) =	58 ksi
Plate Thickness =	1.25 in
Outer Diameter =	42.375 in
$\phi_r$ =	0.9
wcalc =	15.00 in
wmax =	25.38 in
w =	15.00 in
Z =	5.86 in <sup>3</sup>
$M_u$ =	147.78 k-in
$\phi M_n$ =	189.84 k-in
<b>Upper Plate Capacity =</b>	<b>74.1% OK</b>

Upper Stiffeners	
Configuration =	None

Pole Information	
Shaft Diam. (Upper) =	36 in
Thickness (Upper) =	0.375 in
# of Sides (Upper) =	Round
$F_y$ (Upper) =	42 ksi
Shaft Diam. (Lower) =	42 in
Thickness (Lower) =	0.375 in
# of Sides (Lower) =	Round
$F_y$ (Lower) =	42 ksi

Lower Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Thickness =	1.25 in
Hole Diameter =	33.375 in
Pole Inner Diameter =	41.25 in
e =	1.13 in
w =	4.63 in
Z =	1.81 in <sup>3</sup>
$M_u$ =	47.42 k-in
$\phi M_n$ =	58.58 k-in
<b>Lower Plate Capacity =</b>	<b>77.1% OK</b>

Lower Stiffeners	
Configuration =	None



**GPD GROUP**

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Project #: #####

**BOLT AND BRIDGE STIFFENER CALCULATIONS @ 120'**

Moment from TNX (M) = 1570.61 kip-ft  
 Axial from TNX (P) = 36.21 kip ASIF = 1.00

Inner Bolt Diameter = 1 in  
 Inner Bolt Area ( $A_{inner}$ ) = 0.79 in<sup>2</sup>  
 Inner Bolt MOI ( $I_{o,inner}$ ) = 0.05 in<sup>4</sup>  
 Number Inner Bolts ( $N_{inner}$ ) = 32  
 Inner Bolt Circle (BC<sub>inner</sub>) = 45 in  
 Total Area ( $A_{tot, in}$ ) = 25.13 in<sup>2</sup>  
 Percent Total Area ( $\eta_{in}$ ) = 48.2%  
 Axial, Inner Bolts ( $P * \eta_{in}$ ) = 17.45 kips

Bridge Stiffener Width = 6.00 in  
 Bridge Stiffener Thickness = 1.50 in  
 Bridge Stiffener Unbraced Length = 12.00 in  
 Bridge Stiffener Area ( $A_{pl}$ ) = 9.00 in<sup>2</sup>  
 Bridge Stiffener MOI ( $I_o$ ) = 27.00 in<sup>4</sup>  
 Number Bridge Stiffeners ( $N_{pl}$ ) = 3  
 Connection Bolt Hole Size = 0 in  
 Net Bridge Stiffener Area ( $A_{e, pl}$ ) = 9 in<sup>2</sup>  
 Bridge Stiffener Circle (BC<sub>pl</sub>) = 51 in  
 Total Area ( $A_{tot, pl}$ ) = 27.00 in<sup>2</sup>  
 Percent Total Area ( $\eta_{pl}$ ) = 51.8%  
 Axial, Bridge Stiffener ( $P * \eta_{pl}$ ) = 18.75 kips

$$I_{inner} = 6363.30 \text{ in.}^4$$

$$I_{pl} = \frac{N_{inner} * A_{inner} * BC_{inner}^2 / 8 + N_{inner} * I_{o, inner}}{N_{pl} * A_{pl} * BC_{pl}^2 / 8 + N_{pl} * I_{o, pl}} = 8859.38 \text{ in.}^4$$

$$I_{tot} = (I_{inner} + I_{outer} + I_{pl}) = 15222.67 \text{ in.}^4$$

$$P_{u, inner} = \frac{M * (BC_{inner} / 2) * A_{inner} / I_{total} - P * \eta_{in} / N_{inner}}{M * (BC_{pl} / 2) * A_{pl} / I_{total} - P * \eta_{pl} / N_{pl}} = 21.3 \text{ kips}$$

$$P_{u, pl} = \frac{M * (BC_{pl} / 2) * A_{pl} / I_{total} - P * \eta_{pl} / N_{pl}}{M * (BC_{pl} / 2) * A_{pl} / I_{total} + P * \eta_{pl} / N_{pl}} = 277.9 \text{ kips}$$

$$P_{u, c, pl} = 290.4 \text{ kips}$$

$$\phi P_{n, bolt} = 61.85 \text{ kips}$$

Bolt Rating = 32.9% OK

Bridge Stiffener Check

$f_y = 50$  ksi  
 $f_u = 65$  ksi  
 $E = 29000$  ksi  
 $K = 0.85$   
 $KL/r = 23.556$   
 $F_e = 515.82$  ksi  
 $F_{cr} = 48.01$  ksi  
 $\phi P_{nc} = 388.90$  kips  
 $\phi P_{nt} = 438.75$  kips  
 Bridge Stiffener Rating = 71.1% OK



**Existing Flange Connection @**  
**US-CT-1002 Kettletown**  
 2024702.28

120'

*Moment =	673.1092838	k-ft
Axial =	36.21	k
Shear =	32.41	k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

\*Above reactions have been adjusted due to consideration of modifications. See attached hand calculations for determination of flange bolt forces used in the analysis.

Flange Bolts	
# Bolts =	32
Bolt Type =	A325
Threads Included? =	Yes
Bolt Diameter =	1 in
Bolt Circle =	45 in
$\phi_1$ =	0.75
$\phi_v$ =	0.75
$F_{ub}$ =	120 ksi
$A_b$ =	0.785 in <sup>2</sup>
$A_n$ =	0.606 in <sup>2</sup>
$\phi R_{nv}$ =	35.34 k
$\phi R_{nt}$ =	54.54 k
$\phi R_{nt}$ (adjusted) =	54.52 k
$V_{ub}$ =	1.01 k
$T_{ub}$ =	21.30 k
Max Comp. on Bolt =	23.56 k
<b>Prying Action Check</b>	
N/A, top flange thickness > t <sub>c</sub>	
Shear Capacity =	2.7%
Tensile Capacity =	37.2%
Interaction Capacity =	14.6%
<b>Bolt Capacity =</b>	<b>37.2% OK</b>

Upper Flange Plate	
Location =	External
Plate Strength ( $F_y$ ) =	36 ksi
Plate Tensile ( $F_u$ ) =	58 ksi
Plate Thickness =	1.25 in
Outer Diameter =	48.375 in
$\phi_1$ =	0.9
w <sub>calc</sub> =	16.16 in
w <sub>max</sub> =	25.56 in
w =	16.16 in
Z =	6.31 in <sup>3</sup>
$M_u$ =	89.29 k-in
$\phi M_n$ =	204.47 k-in
<b>Upper Plate Capacity =</b>	<b>41.6% OK</b>

Upper Stiffeners	
Configuration =	None

Pole Information	
Shaft Diam. (Upper) =	42 in
Thickness (Upper) =	0.375 in
# of Sides (Upper) =	Round
$F_y$ (Upper) =	42 ksi
Shaft Diam. (Lower) =	48 in
Thickness (Lower) =	0.375 in
# of Sides (Lower) =	Round
$F_y$ (Lower) =	42 ksi

Lower Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Thickness =	1.25 in
Hole Diameter =	39.375 in
Pole Inner Diameter =	47.25 in
e =	1.13 in
w =	4.64 in
Z =	1.81 in <sup>3</sup>
$M_u$ =	26.51 k-in
$\phi M_n$ =	58.71 k-in
<b>Lower Plate Capacity =</b>	<b>43.0% OK</b>

Lower Stiffeners	
Configuration =	None



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Project #: #####

**BOLT AND BRIDGE STIFFENER CALCULATIONS @ 100'**

Moment from TNX (M) = 2238.19 kip-ft  
 Axial from TNX (P) = 44.42 kip ASIF = 1.00

Inner Bolt Diameter = 1 in  
 Inner Bolt Area ( $A_{inner}$ ) = 0.79 in<sup>2</sup>  
 Inner Bolt MOI ( $I_{o,inner}$ ) = 0.05 in<sup>4</sup>  
 Number Inner Bolts ( $N_{inner}$ ) = 33  
 Inner Bolt Circle (BC<sub>inner</sub>) = 51 in  
 Total Area ( $A_{tot, in}$ ) = 25.92 in<sup>2</sup>  
 Percent Total Area ( $\eta_{in}$ ) = 49.0%  
 Axial, Inner Bolts ( $P^* \eta_{in}$ ) = 21.76 kips

Bridge Stiffener Width = 6.00 in  
 Bridge Stiffener Thickness = 1.50 in  
 Bridge Stiffener Unbraced Length = 12.00 in  
 Bridge Stiffener Area ( $A_{pl}$ ) = 9.00 in<sup>2</sup>  
 Bridge Stiffener MOI ( $I_o$ ) = 27.00 in<sup>4</sup>  
 Number Bridge Stiffeners ( $N_{pl}$ ) = 3  
 Connection Bolt Hole Size = 0 in  
 Net Bridge Stiffener Area ( $A_{e, pl}$ ) = 9 in<sup>2</sup>  
 Bridge Stiffener Circle (BC<sub>pl</sub>) = 57 in  
 Total Area ( $A_{tot, pl}$ ) = 27.00 in<sup>2</sup>  
 Percent Total Area ( $\eta_{pl}$ ) = 51.0%  
 Axial, Bridge Stiffener ( $P^* \eta_{pl}$ ) = 22.67 kips

$$I_{inner} = 8428.25 \text{ in.}^4$$

$$I_{pl} = \frac{11046.38 \text{ in.}^4}{19474.63 \text{ in.}^4}$$

$$I_{tot} = (N_{inner} * A_{inner} * BC_{inner}^2 / 8 + N_{inner} * I_{o, inner})$$

$$(N_{pl} * A_{pl} * BC_{pl}^2 / 8 + N_{pl} * I_{o, pl})$$

$$(I_{inner} + I_{outer} + I_{pl})$$

$$P_{u, inner} = \frac{27.0 \text{ kips}}{346.2 \text{ kips}}$$

$$P_{u, pl} = \frac{361.3 \text{ kips}}{61.85 \text{ kips}}$$

$$P_{u, c, pl} = \frac{61.85 \text{ kips}}{41.5\%}$$

$$\text{ØP}_{n, bolt} = 41.5\% \text{ OK}$$

$$P_{u, inner} = \frac{(M * (BC_{inner} / 2) * A_{inner}) / I_{total} - P^* \eta_{in} / N_{inner}}{(M * (BC_{pl} / 2) * A_{pl}) / I_{total} - P^* \eta_{pl} / N_{pl}}$$

$$P_{u, c, pl} = \frac{(M * (BC_{pl} / 2) * A_{pl}) / I_{total} + P^* \eta_{pl} / N_{pl}}{(M * (BC_{pl} / 2) * A_{pl}) / I_{total} + P^* \eta_{pl} / N_{pl}}$$

**Bridge Stiffener Check**

$f_y$  = 50 ksi  
 $f_u$  = 65 ksi  
 E = 29000 ksi  
 K = 0.85  
 KL/r = 23.556  
 $F_e$  = 515.82 ksi  
 $F_{cr}$  = 48.01 ksi  
 $\text{ØP}_{nc}$  = 388.90 kips  
 $\text{ØP}_{nt}$  = 438.75 kips  
 Bridge Stiffener Rating = 88.5% **OK**



**Existing Flange Connection @**  
**US-CT-1002 Kettletown**  
 2024702.28

**100'**

*Moment =	1080.155978	k-ft
Axial =	44.42	k
Shear =	34.32	k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

\*Above reactions have been adjusted due to consideration of modifications. See attached hand calculations for determination of flange bolt forces used in the analysis.

Flange Bolts	
# Bolts =	36
Bolt Type =	A325
Threads Included? =	Yes
Bolt Diameter =	1 in
Bolt Circle =	51 in
$\phi_b$ =	0.75
$\phi_v$ =	0.75
$F_{ub}$ =	120 ksi
$A_b$ =	0.785 in <sup>2</sup>
$A_n$ =	0.606 in <sup>2</sup>
$\phi R_{tn}$ =	35.34 k
$\phi R_{tn}$ =	54.54 k
$\phi R_{tn}$ (adjusted) =	54.52 k
$V_{ub}$ =	0.95 k
$T_{ub}$ =	27.00 k
Max Comp. on Bolt =	29.47 k
<b>Prying Action Check</b>	
N/A, top flange thickness > lc	
Shear Capacity =	2.6%
Tensile Capacity =	47.1%
Interaction Capacity =	23.4%
<b>Bolt Capacity =</b>	<b>47.1% OK</b>

Upper Flange Plate	
Location =	External
Plate Strength ( $F_y$ ) =	36 ksi
Plate Tensile ( $F_u$ ) =	58 ksi
Plate Thickness =	1.25 in
Outer Diameter =	54.375 in
$\phi_t$ =	0.9
wcalc =	17.23 in
wmax =	25.70 in
w =	17.23 in
Z =	6.73 in <sup>3</sup>
$M_u$ =	118.36 k-in
$\phi M_n$ =	218.11 k-in
<b>Upper Plate Capacity =</b>	<b>51.7% OK</b>

Upper Stiffeners	
Configuration =	None

Pole Information	
Shaft Diam. (Upper) =	48 in
Thickness (Upper) =	0.375 in
# of Sides (Upper) =	Round
$F_y$ (Upper) =	42 ksi
Shaft Diam. (Lower) =	54 in
Thickness (Lower) =	0.375 in
# of Sides (Lower) =	Round
$F_y$ (Lower) =	42 ksi

Lower Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Thickness =	1.25 in
Hole Diameter =	45.375 in
Pole Inner Diameter =	53.25 in
$e$ =	1.13 in
w =	4.65 in
Z =	1.82 in <sup>3</sup>
$M_u$ =	33.15 k-in
$\phi M_n$ =	58.81 k-in
<b>Lower Plate Capacity =</b>	<b>53.7% OK</b>

Lower Stiffeners	
Configuration =	None



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**BOLT AND BRIDGE STIFFENER CALCULATIONS @ 80'**

Moment from TNX (M) = 2947.98 kip-ft ASIF = 1.00  
 Axial from TNX (P) = 53.23 kip

Inner Bolt Diameter = 1 in  
 Inner Bolt Area ( $A_{inner}$ ) = 0.79 in<sup>2</sup>  
 Inner Bolt MOI ( $I_{o,inner}$ ) = 0.05 in<sup>4</sup>  
 Number Inner Bolts ( $N_{inner}$ ) = 48

Inner Bolt Circle (BC<sub>inner</sub>) = 57 in  
 Total Area ( $A_{tot, in}$ ) = 37.70 in<sup>2</sup>  
 Percent Total Area ( $\eta_{in}$ ) = 58.3%  
 Axial, Inner Bolts ( $P^* \eta_{in}$ ) = 31.02 kips

Bridge Stiffener Width = 6.00 in  
 Bridge Stiffener Thickness = 1.50 in  
 Bridge Stiffener Unbraced Length = 12.00 in  
 Bridge Stiffener Area ( $A_{pl}$ ) = 9.00 in<sup>2</sup>  
 Bridge Stiffener MOI ( $I_o$ ) = 27.00 in<sup>4</sup>  
 Number Bridge Stiffeners ( $N_{pl}$ ) = 3

Connection Bolt Hole Size = 0 in  
 Net Bridge Stiffener Area ( $A_{e,pl}$ ) = 9 in  
 Bridge Stiffener Circle (BC<sub>pl</sub>) = 63 in  
 Total Area ( $A_{tot, pl}$ ) = 27.00 in<sup>2</sup>  
 Percent Total Area ( $\eta_{pl}$ ) = 41.7%  
 Axial, Bridge Stiffener ( $P^* \eta_{pl}$ ) = 22.21 kips

$$I_{inner} = 15312.91 \text{ in.}^4$$

$$I_{pl} = \frac{N_{inner} * A_{inner} * BC_{inner}^2 / 8 + N_{inner} * I_{o,inner}}{N_{pl} * A_{pl} * BC_{pl}^2 / 8 + N_{pl} * I_{o,pl}} = 13476.38 \text{ in.}^4$$

$$I_{tot} = (I_{inner} + I_{outer} + I_{pl}) = 28789.28 \text{ in.}^4$$

$$P_{u, inner} = \frac{M * (BC_{inner} / 2) * A_{inner} / I_{total} - P^* \eta_{in} / N_{inner}}{M * (BC_{pl} / 2) * A_{pl} / I_{total} - P^* \eta_{pl} / N_{pl}} = 26.9 \text{ kips}$$

$$P_{u, pl} = \frac{M * (BC_{pl} / 2) * A_{pl} / I_{total} - P^* \eta_{pl} / N_{pl}}{M * (BC_{pl} / 2) * A_{pl} / I_{total} + P^* \eta_{pl} / N_{pl}} = 341.0 \text{ kips}$$

$$P_{u, cpl} = 355.8 \text{ kips}$$

$$\phi P_{n, bolt} = 61.85 \text{ kips}$$

Bolt Rating = 41.4% OK

Bridge Stiffener Check

$f_y$  = 50 ksi  
 $f_u$  = 65 ksi  
 E = 29000 ksi  
 K = 0.85  
 KL/r = 23.556  
 $F_c$  = 515.82 ksi  
 $F_{cr}$  = 48.01 ksi  
 $\phi P_{nc}$  = 388.90 kips  
 $\phi P_{nt}$  = 438.75 kips  
 Bridge Stiffener Rating = 87.1% OK



**Existing Flange Connection @**  
**US-CT-1002 Kettletown**  
 2024702.28

80'

*Moment =	1596.758893 k-ft
Axial =	53.23 k
Shear =	36.56 k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

\*Above reactions have been adjusted due to consideration of modifications. See attached hand calculations for determination of flange bolt forces used in the analysis.

Flange Bolts	
# Bolts =	48
Bolt Type =	A325
Threads Included? =	Yes
Bolt Diameter =	1 in
Bolt Circle =	57 in
$\phi_b$ =	0.75
$\phi_v$ =	0.75
$F_{ub}$ =	120 ksi
$A_b$ =	0.785 in <sup>2</sup>
$A_n$ =	0.606 in <sup>2</sup>
$\phi R_{nv}$ =	35.34 k
$\phi R_{nt}$ =	54.54 k
$\phi R_{nt}$ (adjusted) =	54.53 k
$V_{ub}$ =	0.76 k
$T_{ub}$ =	26.90 k
Max Comp. on Bolt =	29.12 k
<b>Prying Action Check</b>	
N/A, top flange thickness > lc	
Shear Capacity =	2.1%
Tensile Capacity =	47.0%
Interaction Capacity =	23.2%
<b>Bolt Capacity =</b>	<b>47.0% OK</b>

Upper Flange Plate	
Location =	External
Plate Strength ( $F_y$ ) =	36 ksi
Plate Tensile ( $F_u$ ) =	58 ksi
Plate Thickness =	1.25 in
Outer Diameter =	60.375 in
$\phi_t$ =	0.9
$b$ =	3.11 in
$L_e$ =	3.00 in
$Z$ =	2.34 in <sup>3</sup>
$M_u$ =	36.99 k-in
$\phi M_n$ =	75.94 k-in
<b>Upper Plate Capacity =</b>	<b>46.4% OK</b>

Upper Stiffeners	
Configuration =	Every Bolt
Thickness =	0.625 in
Width =	3 in
Notch =	0.5 in
Height =	5 in
Stiffener Strength ( $F_y$ ) =	36 ksi
Weld Info, Known? =	Yes
Vertical Weld Size =	0.3125 in
Horiz. Weld Type =	Fillet
Fillet Size =	0.3125 in
Weld Strength =	70 ksi
Stiffener Vertical Force =	16.63 k
Vert. Weld Capacity =	34.8%
Horiz. Weld Capacity =	49.6%
Stiffener Capacity =	55.1%
<b>Controlling Capacity =</b>	<b>55.1% OK</b>

Pole Information	
Shaft Diam. (Upper) =	54 in
Thickness (Upper) =	0.375 in
# of Sides (Upper) =	Round
$F_y$ (Upper) =	42 ksi
Shaft Diam. (Lower) =	60 in
Thickness (Lower) =	0.375 in
# of Sides (Lower) =	Round
$F_y$ (Lower) =	42 ksi

Lower Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Thickness =	1.25 in
Hole Diameter =	51.375 in
$b$ =	3.11 in
$L_e$ =	2.00 in
$Z$ =	2.34 in <sup>3</sup>
$M_u$ =	44.17 k-in
$\phi M_n$ =	75.94 k-in
<b>Lower Plate Capacity =</b>	<b>55.4% OK</b>

Lower Stiffeners	
Configuration =	Every Bolt
Thickness =	0.625 in
Width =	2 in
Notch =	0.5 in
Height =	3.5 in
Stiffener Strength ( $F_y$ ) =	36 ksi
Weld Info, Known? =	Yes
Vertical Weld Size =	0.3125 in
Horiz. Weld Type =	Fillet
Fillet Size =	0.3125 in
Weld Strength =	70 ksi
Stiffener Vertical Force =	10.76 k
Vert. Weld Capacity =	33.4%
Horiz. Weld Capacity =	53.6%
Stiffener Capacity =	50.5%
<b>Controlling Capacity =</b>	<b>53.6% OK</b>



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**BOLT AND BRIDGE STIFFENER CALCULATIONS @ 60'**

Moment from TNX (M) =	3699.20 kip-ft	ASIF =	1.00
Axial from TNX (P) =	63.58 kip		
Inner Bolt Diameter =	1.25 in	Inner Bolt Circle (BC <sub>inner</sub> ) =	47 in
Inner Bolt Area (A <sub>inner</sub> ) =	1.23 in <sup>2</sup>	Total Area (A <sub>tot, in</sub> ) =	39.27 in <sup>2</sup>
Inner Bolt MOI (I <sub>o, inner</sub> ) =	0.12 in <sup>4</sup>	Percent Total Area (η <sub>in</sub> ) =	29.6%
Number Inner Bolts (N <sub>inner</sub> ) =	32		
Axial, Inner Bolts (P*η <sub>in</sub> ) =			18.84 kips
Outer Bolt Diameter =	1.25 in	Outer Bolt Circle (BC <sub>outer</sub> ) =	53 in
Outer Bolt Area (A <sub>outer</sub> ) =	1.23 in <sup>2</sup>	Total Area (A <sub>tot, out</sub> ) =	39.27 in <sup>2</sup>
Outer Bolt MOI (I <sub>o, outer</sub> ) =	0.12 in <sup>4</sup>	Percent Total Area (η <sub>out</sub> ) =	29.6%
Number Outer Bolts (N <sub>outer</sub> ) =	32		
Axial, Outer Bolts (P*η <sub>out</sub> ) =			18.84 kips
Bridge Stiffener Width =	6.00 in	Connection Bolt Hole Size =	1.21875 in
Bridge Stiffener Thickness =	1.50 in	Net Bridge Stiffener Area (A <sub>o, pl</sub> ) =	7.17188 in
Bridge Stiffener Unbraced Length =	30.00 in	Bridge Stiffener Circle (BC <sub>pl</sub> ) =	63 in
Bridge Stiffener Area (A <sub>pl</sub> ) =	9.00 in <sup>2</sup>	Total Area (A <sub>tot, pl</sub> ) =	54.00 in <sup>2</sup>
Bridge Stiffener MOI (I <sub>o</sub> ) =	27.00 in <sup>4</sup>	Percent Total Area (η <sub>pl</sub> ) =	40.7%
Number Bridge Stiffeners (N <sub>pl</sub> ) =	6		
Axial, Bridge Stiffener (P*η <sub>pl</sub> ) =			25.90 kips
I <sub>inner</sub> =	10847.24 in. <sup>4</sup>	(N <sub>inner</sub> *A <sub>inner</sub> *BC <sub>inner</sub> <sup>2</sup> /8 + N <sub>inner</sub> *I <sub>o, inner</sub> )	
I <sub>outer</sub> =	13792.48 in. <sup>4</sup>	(N <sub>outer</sub> *A <sub>outer</sub> *BC <sub>outer</sub> <sup>2</sup> /8 + N <sub>outer</sub> *I <sub>o, outer</sub> )	
I <sub>pl</sub> =	26952.75 in. <sup>4</sup>	(N <sub>pl</sub> *A <sub>pl</sub> *BC <sub>pl</sub> <sup>2</sup> /8 + N <sub>pl</sub> *I <sub>o, pl</sub> )	
I <sub>tot</sub> =	51592.47 in. <sup>4</sup>	(I <sub>inner</sub> + I <sub>outer</sub> + I <sub>pl</sub> )	
P <sub>u, inner</sub> =	24.2 kips	(M*(BC <sub>inner</sub> /2)*A <sub>inner</sub> /I <sub>total</sub> - P*η <sub>in</sub> /N <sub>inner</sub> )	
P <sub>u, outer</sub> =	27.4 kips	(M*(BC <sub>outer</sub> /2)*A <sub>outer</sub> /I <sub>total</sub> - P*η <sub>out</sub> /N <sub>outer</sub> )	
P <sub>u, pl</sub> =	239.6 kips	(M*(BC <sub>pl</sub> /2)*A <sub>pl</sub> /I <sub>total</sub> - P*η <sub>pl</sub> /N <sub>pl</sub> )	
P <sub>u, cpl</sub> =	248.2 kips	(M*(BC <sub>pl</sub> /2)*A <sub>pl</sub> /I <sub>total</sub> + P*η <sub>pl</sub> /N <sub>pl</sub> )	
ØP <sub>nt, bolt</sub> =	96.64 kips		
Bolt Rating =	27.0%		OK
		Bridge Stiffener Rating =	75.2% OK

Bridge Stiffener Check	
f <sub>y</sub> =	50 ksi
f <sub>u</sub> =	65 ksi
E =	29000 ksi
K =	0.85
K/Lr =	58.890
F <sub>c</sub> =	82.53 ksi
F <sub>cr</sub> =	38.80 ksi
ØP <sub>nc</sub> =	314.29 kips
ØP <sub>nt</sub> =	349.63 kips





Existing Flange Connection @  
US-CT-1002 Kettletown  
2024702.28

60'

*Moment =	1573.120336 k-ft
Axial =	63.58 k
Shear =	38.50 k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

\*Above reactions have been adjusted due to consideration of modifications. See attached hand calculations for determination of flange bolt forces used in the analysis

Flange Bolts	
# Bolts =	32
Bolt Type =	A325
Threads Included? =	Yes
Bolt Diameter =	1.75 in
Bolt Circle =	44 in
$\phi_i$ =	0.75
$\phi_v$ =	0.75
$F_{ub}$ =	105 ksi
$A_b$ =	2.405 in <sup>2</sup>
$A_n$ =	1.9 in <sup>2</sup>
$\phi R_{nv}$ =	94.71 k
$\phi R_{nt}$ =	149.63 k
$\phi R_{nt}$ (adjusted) =	149.61 k
$V_{ub}$ =	1.20 k
$T_{ub}$ =	51.60 k
Max Comp. on Bolt =	55.57 k
<i>Prying Action Check</i>	
N/A for stiffened flange	
Shear Capacity =	1.2%
Tensile Capacity =	32.8%
Interaction Capacity =	11.3%
<b>Bolt Capacity =</b>	<b>32.8% OK</b>

Upper Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Tensile ( $F_u$ ) =	58 ksi
Plate Thickness =	1.25 in
Hole Diameter =	43 in
$\phi_i$ =	0.9
$b$ =	3.69 in
$L_e$ =	7.00 in
$Z$ =	2.34 in <sup>3</sup>
$M_u$ =	32.80 k-in
$\phi M_n$ =	75.94 k-in
<b>Upper Plate Capacity =</b>	<b>41.1% OK</b>

Upper Stiffeners	
Configuration =	Every Bolt
Thickness =	0.625 in
Width =	7 in
Notch =	0.5 in
Height =	10 in
Stiffener Strength ( $F_y$ ) =	36 ksi
Weld Info. Known? =	No
Stiffener Vertical Force =	27.76 k
Vert. Weld Capacity =	Not Verified
Horiz. Weld Capacity =	Not Verified
Stiffener Capacity =	48.3%
<b>Controlling Capacity =</b>	<b>48.3% OK</b>

Pole Information	
Shaft Diam. (Upper) =	60 in
Thickness (Upper) =	0.375 in
# of Sides (Upper) =	Round
$F_y$ (Upper) =	42 ksi
Shaft Diam. (Lower) =	60 in
Thickness (Lower) =	0.5 in
# of Sides (Lower) =	Round
$F_y$ (Lower) =	42 ksi

Lower Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Thickness =	1.25 in
Hole Diameter =	43 in
$b$ =	3.69 in
$L_e$ =	7.00 in
$Z$ =	2.34 in <sup>3</sup>
$M_u$ =	32.80 k-in
$\phi M_n$ =	75.94 k-in
<b>Lower Plate Capacity =</b>	<b>41.1% OK</b>

Lower Stiffeners	
Configuration =	Every Bolt
Thickness =	0.625 in
Width =	7 in
Notch =	0.5 in
Height =	10 in
Stiffener Strength ( $F_y$ ) =	36 ksi
Weld Info. Known? =	No
Stiffener Vertical Force =	24.48 k
Vert. Weld Capacity =	Not Verified
Horiz. Weld Capacity =	Not Verified
Stiffener Capacity =	42.5%
<b>Controlling Capacity =</b>	<b>42.5% OK</b>



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**BOLT AND BRIDGE STIFFENER CALCULATIONS @ 40'**

Moment from TNX (M) =	4486.15 kip-ft	ASIF =	1.00
Axial from TNX (P) =	76.94 kip		
Inner Bolt Diameter =	1.25 in	Inner Bolt Circle (BC <sub>inner</sub> ) =	47 in
Inner Bolt Area (A <sub>inner</sub> ) =	1.23 in <sup>2</sup>	Total Area (A <sub>tot,in</sub> ) =	39.27 in <sup>2</sup>
Inner Bolt MOI (I <sub>o,inner</sub> ) =	0.12 in <sup>4</sup>	Percent Total Area (η <sub>in</sub> ) =	29.6%
Number Inner Bolts (N <sub>inner</sub> ) =	32		
Outer Bolt Diameter =	1.25 in	Outer Bolt Circle (BC <sub>outer</sub> ) =	53 in
Outer Bolt Area (A <sub>outer</sub> ) =	1.23 in <sup>2</sup>	Total Area (A <sub>tot,out</sub> ) =	39.27 in <sup>2</sup>
Outer Bolt MOI (I <sub>o,outer</sub> ) =	0.12 in <sup>4</sup>	Percent Total Area (η <sub>out</sub> ) =	29.6%
Number Outer Bolts (N <sub>outer</sub> ) =	32		
Bridge Stiffener Width =	6.00 in	Connection Bolt Hole Size =	1.18 in
Bridge Stiffener Thickness =	1.50 in	Net Bridge Stiffener Area (A <sub>c,pl</sub> ) =	7.23 in
Bridge Stiffener Unbraced Length =	30.00 in	Bridge Stiffener Circle (BC <sub>pl</sub> ) =	63 in
Bridge Stiffener Area (A <sub>pl</sub> ) =	9.00 in <sup>2</sup>	Total Area (A <sub>tot,pl</sub> ) =	54.00 in <sup>2</sup>
Bridge Stiffener MOI (I <sub>o</sub> ) =	27.00 in <sup>4</sup>	Percent Total Area (η <sub>pl</sub> ) =	40.7%
Number Bridge Stiffeners (N <sub>pl</sub> ) =	6		
		Axial, Inner Bolts (P*η <sub>in</sub> ) =	22.80 kips
		Axial, Outer Bolts (P*η <sub>out</sub> ) =	22.80 kips
		Axial, Bridge Stiffener (P*η <sub>pl</sub> ) =	31.35 kips
I <sub>inner</sub> =	10847.24 in. <sup>4</sup>		
I <sub>outer</sub> =	13792.48 in. <sup>4</sup>		
I <sub>pl</sub> =	26952.75 in. <sup>4</sup>		
I <sub>tot</sub> =	51592.47 in. <sup>4</sup>		
P <sub>u,inner</sub> =	29.4 kips		
P <sub>u,outer</sub> =	33.2 kips		
P <sub>u,pl</sub> =	290.6 kips		
P <sub>u,cpl</sub> =	301.0 kips		
ØP <sub>nt,bolt</sub> =	96.64 kips		
Bolt Rating =	32.7% OK		
		Bridge Stiffener Rating =	91.2% OK

Bridge Stiffener Check	
f <sub>y</sub> =	50 ksi
f <sub>u</sub> =	65 ksi
E =	29000 ksi
K =	0.85
K/Lr =	58.890
F <sub>c</sub> =	82.53 ksi
F <sub>cr</sub> =	38.80 ksi
ØP <sub>nc</sub> =	314.29 kips
ØP <sub>nt</sub> =	352.46 kips



Existing Flange Connection @  
US-CT-1002 Kettletown  
2024702.28

40'

*Moment =	2157.278858 k-ft
Axial =	76.942 k
Shear =	40.124 k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

\*Above reactions have been adjusted due to consideration of modifications. See attached hand calculations for determination of flange bolt forces used in the analysis

Flange Bolts	
# Bolts =	32
Bolt Type =	A325
Threads Included? =	Yes
Bolt Diameter =	1.75 in
Bolt Circle =	50 in
$\phi_b$ =	0.75
$\phi_v$ =	0.75
$F_{ub}$ =	105 ksi
$A_b$ =	2.405 in <sup>2</sup>
$A_n$ =	1.9 in <sup>2</sup>
$\phi R_{nv}$ =	94.71 k
$\phi R_{nt}$ =	149.63 k
$\phi R_n$ (adjusted) =	149.61 k
$V_{ub}$ =	1.25 k
$T_{ub}$ =	62.27 k
Max Comp. on Bolt =	67.08 k
Prying Action Check	
N/A for stiffened flange	
Shear Capacity =	1.3%
Tensile Capacity =	39.6%
Interaction Capacity =	16.5%
<b>Bolt Capacity =</b>	<b>39.6% OK</b>

Upper Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Tensile ( $F_u$ ) =	58 ksi
Plate Thickness =	1.25 in
Hole Diameter =	43 in
$\phi_t$ =	0.9
$b$ =	4.28 in
$L_e$ =	7.00 in
$Z$ =	2.34 in <sup>3</sup>
$M_u$ =	42.69 k-in
$\phi M_n$ =	75.94 k-in
<b>Upper Plate Capacity =</b>	<b>53.5% OK</b>

Upper Stiffeners	
Configuration =	Every Bolt
Thickness =	0.625 in
Width =	7 in
Notch =	0.5 in
Height =	10 in
Stiffener Strength ( $F_y$ ) =	36 ksi
Weld Info. Known? =	No
Stiffener Vertical Force =	33.38 k
Vert. Weld Capacity =	Not Verified
Horiz. Weld Capacity =	Not Verified
Stiffener Capacity =	58.0%
<b>Controlling Capacity =</b>	<b>58.0% OK</b>

Pole Information	
Shaft Diam. (Upper) =	60 in
Thickness (Upper) =	0.5 in
# of Sides (Upper) =	Round
$F_y$ (Upper) =	42 ksi
Shaft Diam. (Lower) =	60 in
Thickness (Lower) =	0.625 in
# of Sides (Lower) =	Round
$F_y$ (Lower) =	42 ksi

Lower Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Thickness =	1.25 in
Hole Diameter =	43 in
$b$ =	4.28 in
$L_e$ =	7.00 in
$Z$ =	2.34 in <sup>3</sup>
$M_u$ =	42.69 k-in
$\phi M_n$ =	75.94 k-in
<b>Lower Plate Capacity =</b>	<b>53.5% OK</b>

Lower Stiffeners	
Configuration =	Every Bolt
Thickness =	0.625 in
Width =	7 in
Notch =	0.5 in
Height =	10 in
Stiffener Strength ( $F_y$ ) =	36 ksi
Weld Info. Known? =	No
Stiffener Vertical Force =	29.85 k
Vert. Weld Capacity =	Not Verified
Horiz. Weld Capacity =	Not Verified
Stiffener Capacity =	51.9%
<b>Controlling Capacity =</b>	<b>51.9% OK</b>

**GPD GROUP**

Engineers • Architects • Planners

Project #: #####

**BOLT AND BRIDGE STIFFENER CALCULATIONS @ 20'**

Moment from TNX (M) = 5301.66 kip-ft ASIF = 1.00  
 Axial from TNX (P) = 92.48 kip

Inner Bolt Diameter = 1.25 in  
 Inner Bolt Area ( $A_{inner}$ ) = 1.23 in<sup>2</sup>  
 Inner Bolt MOI ( $I_{o,inner}$ ) = 0.12 in<sup>4</sup>  
 Number Inner Bolts ( $N_{inner}$ ) = 32  
 Inner Bolt Circle ( $BC_{inner}$ ) = 47 in  
 Total Area ( $A_{tot, in}$ ) = 39.27 in<sup>2</sup>  
 Percent Total Area ( $\eta_{in}$ ) = 24.2%

Axial, Inner Bolts ( $P * \eta_{in}$ ) = 22.34 kips

Outer Bolt Diameter = 1.25 in  
 Outer Bolt Area ( $A_{outer}$ ) = 1.23 in<sup>2</sup>  
 Outer Bolt MOI ( $I_{o,outer}$ ) = 0.12 in<sup>4</sup>  
 Number Outer Bolts ( $N_{outer}$ ) = 32  
 Outer Bolt Circle ( $BC_{outer}$ ) = 53 in  
 Total Area ( $A_{tot, out}$ ) = 39.27 in<sup>2</sup>  
 Percent Total Area ( $\eta_{out}$ ) = 24.2%

Axial, Outer Bolts ( $P * \eta_{out}$ ) = 22.34 kips

Bridge Stiffener Width = 6.00 in  
 Bridge Stiffener Thickness = 1.50 in  
 Bridge Stiffener Unbraced Length = 30.00 in  
 Bridge Stiffener Area ( $A_{st}$ ) = 9.00 in<sup>2</sup>  
 Bridge Stiffener MOI ( $I_s$ ) = 27.00 in<sup>4</sup>  
 Number Bridge Stiffeners ( $N_{st}$ ) = 6  
 Connection Bolt Hole Size = 1.21875 in  
 Net Bridge Stiffener Area ( $A_{s, net}$ ) = 7.17188 in  
 Bridge Stiffener Circle ( $BC_{st}$ ) = 60.75 in  
 Total Area ( $A_{tot, st}$ ) = 54.00 in<sup>2</sup>  
 Percent Total Area ( $\eta_{st}$ ) = 33.2%

Axial, Bridge Stiffener ( $P * \eta_{st}$ ) = 30.72 kips

Bridge Stiffener Width = 4.00 in  
 Bridge Stiffener Thickness = 1.25 in  
 Bridge Stiffener Unbraced Length = 12.00 in  
 Bridge Stiffener Area ( $A_{st}$ ) = 5.00 in<sup>2</sup>  
 Bridge Stiffener MOI ( $I_s$ ) = 6.67 in<sup>4</sup>  
 Number Bridge Stiffeners ( $N_{st}$ ) = 6  
 Connection Bolt Hole Size = 1.21875 in  
 Net Bridge Stiffener Area ( $A_{s, net}$ ) = 3.47656 in  
 Bridge Stiffener Circle ( $BC_{st}$ ) = 60.625 in  
 Total Area ( $A_{tot, st}$ ) = 30.00 in<sup>2</sup>  
 Percent Total Area ( $\eta_{st}$ ) = 18.5%

Axial, Bridge Stiffener ( $P * \eta_{st}$ ) = 17.07 kips

$I_{inner} = 10847.24 \text{ in}^4$   
 $I_{outer} = 13792.48 \text{ in}^4$   
 $I_{pl} = 25073.30 \text{ in}^4$   
 $I_{pl} = 13822.71 \text{ in}^4$   
 $I_{tot} = 63535.73 \text{ in}^4$

Bridge Stiffener Check  
 $f_y = 50 \text{ ksi}$   
 $f_u = 65 \text{ ksi}$   
 $E = 290000 \text{ ksi}$   
 $K = 0.85$   
 $KL/r = 58.890$

$P_{u, inner} = 28.2 \text{ kips}$   
 $P_{u, outer} = 31.9 \text{ kips}$   
 $P_{u, st} = 268.6 \text{ kips}$   
 $P_{u, c, pl} = 278.9 \text{ kips}$   
 $P_{u, t, pl} = 148.9 \text{ kips}$   
 $P_{u, c, pl} = 154.6 \text{ kips}$   
 $\phi P_{n, bolt} = 96.64 \text{ kips}$

Bridge Stiffener Rating = 84.5% **OK**

Bolt Rating = 31.4% **OK**



**Existing Flange Connection @**  
**US-CT-1002 Kettletown**  
 2024702.28

20'

*Moment =	2100.948543 k-ft
Axial =	92.476 k
Shear =	41.354 k

Maximum Capacity	100%
Apply TIA-222-H Section 15.5?	Yes

\*Above reactions have been adjusted due to consideration of modifications. See attached hand calculations for determination of flange bolt forces used in the analysis

Flange Bolts	
# Bolts =	32
Bolt Type =	A325
Threads Included? =	Yes
Bolt Diameter =	1.75 in
Bolt Circle =	50 in
$\phi_b$ =	0.75
$\phi_s$ =	0.75
$F_{ub}$ =	105 ksi
$A_b$ =	2.405 in <sup>2</sup>
$A_n$ =	1.9 in <sup>2</sup>
$\phi R_{nv}$ =	94.71 k
$\phi R_{nt}$ =	149.63 k
$\phi R_{nt}$ (adjusted) =	149.61 k
$V_{ub}$ =	1.29 k
$T_{ub}$ =	60.10 k
Max Comp. on Bolt =	65.88 k
<b>Prying Action Check</b>	
N/A for stiffened flange	
Shear Capacity =	1.3%
Tensile Capacity =	38.3%
Interaction Capacity =	15.4%
<b>Bolt Capacity =</b>	<b>38.3% OK</b>

Upper Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Tensile ( $F_u$ ) =	58 ksi
Plate Thickness =	1.25 in
Hole Diameter =	43 in
$\phi_t$ =	0.9
$b$ =	4.28 in
$L_e$ =	7.00 in
$Z$ =	2.34 in <sup>3</sup>
$M_u$ =	41.93 k-in
$\phi M_n$ =	75.94 k-in
<b>Upper Plate Capacity =</b>	<b>52.6% OK</b>

Upper Stiffeners	
Configuration =	Every Bolt
Thickness =	0.625 in
Width =	7 in
Notch =	0.5 in
Height =	10 in
Stiffener Strength ( $F_y$ ) =	36 ksi
Weld Info. Known? =	No
Stiffener Vertical Force =	29.36 k
Vert. Weld Capacity =	Not Verified
Horiz. Weld Capacity =	Not Verified
Stiffener Capacity =	51.0%
<b>Controlling Capacity =</b>	<b>51.0% OK</b>

Pole Information	
Shaft Diam. (Upper) =	60 in
Thickness (Upper) =	0.625 in
# of Sides (Upper) =	Round
$F_y$ (Upper) =	42 ksi
Shaft Diam. (Lower) =	60 in
Thickness (Lower) =	0.625 in
# of Sides (Lower) =	Round
$F_y$ (Lower) =	42 ksi

Lower Flange Plate	
Location =	Internal
Plate Strength ( $F_y$ ) =	36 ksi
Plate Thickness =	1.25 in
Hole Diameter =	43 in
$b$ =	4.28 in
$L_e$ =	7.00 in
$Z$ =	2.34 in <sup>3</sup>
$M_u$ =	41.93 k-in
$\phi M_n$ =	75.94 k-in
<b>Lower Plate Capacity =</b>	<b>52.6% OK</b>

Lower Stiffeners	
Configuration =	Every Bolt
Thickness =	0.625 in
Width =	7 in
Notch =	0.5 in
Height =	10 in
Stiffener Strength ( $F_y$ ) =	36 ksi
Weld Info. Known? =	No
Stiffener Vertical Force =	29.36 k
Vert. Weld Capacity =	Not Verified
Horiz. Weld Capacity =	Not Verified
Stiffener Capacity =	51.0%
<b>Controlling Capacity =</b>	<b>51.0% OK</b>

**ANCHOR ROD BRACKET CALCULATIONS - TIA-222-H**

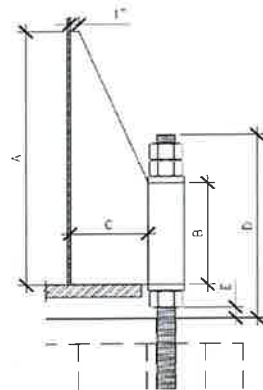
Site Name: US-CT-1002 Kettletown

GPD Project No: 2024702.28

Sheet Application: Analysis

Max Capacity: 100%

Apply TIA-222-H Section 15.5? Yes



Anchor Rod Properties		
$F_u$	125	ksi
$F_y$	105	ksi
Diameter	1.25	in
Rod Tension Force	71.3	kips
Rod Compression Force	71.3	kips

Bracket Plate Properties		
A	36	in
B	9	in
C	5.25	in
Unbraced Length of Anchor Rod, E	1.25	in
Bracket Thickness	1.25	in
$F_y$	50	ksi
$F_u$	65	ksi
ARB connected to flat plate?	No	

Anchor Rod Buckling		
Buckling K Factor	1.2	
Nominal Diameter, d	1.25	in
Gross Area, $A_g$	1.227	in <sup>2</sup>
Moment of Inertia, I	0.120	in <sup>4</sup>
Radius of Gyration, r	0.313	in
$KL/r$	4.80	
$F_{cr}$	12422.7	ksi
$F_{cr}$	104.6	ksi
$\phi_{buckling}$	0.9	
Capacity	lar <= 4d	OK

Pipe Yielding		
Pipe Size	P 3 XX-STR	
Outer Diameter	3.5	in
Inner Diameter	2.3	in
Area	5.47	in <sup>2</sup>
Yield Stress, $F_y$	35	ksi
Ultimate Stress, $F_u$	60	ksi
$\phi$	0.97	
$\phi P_n$	172.19	kips
Capacity	39.5%	OK

Flexure and Combined Flexure & Shear (Pipe-to-Bracket)		
Plastic Modulus, Z	25.31	in <sup>3</sup>
Elastic Modulus, S	16.88	in <sup>3</sup>
$\phi M$	0.9	
$\phi V$	1.0	
$\phi M_{n,yield, LTB}$	1139.1	kip-in
$\phi V_n$	337.5	kips
$M_u$	124.8	kip-in
$V_u$	71.3	kips
Capacity	10.4%	OK

Shear Strength (Pipe-to-Bracket)		
$A_w$	11.25	in <sup>2</sup>
$F_y$	50	ksi
$F_u$	65	ksi
$\phi_{yield}$	1.0	
$\phi_{rupture}$	0.75	
$\phi V_{n,yield}$	337.5	kips
$\phi V_{n,rupture}$	329.1	kips
$V_u$	71.3	kips
Capacity	20.6%	OK

Rupture Strength at Welds (Bracket-to-Tower)		
Pole Thickness	0.625	in
Pole $F_y$	42	ksi
Pole $F_u$	63	ksi
Applied Force	132	k/in
Rupture Strength of Pole	23.625	k/in
Capacity	5.6%	OK

Flexure and Combined Flexure & Shear (Bracket-to-Tower)		
Plastic Modulus, Z	405.00	in <sup>3</sup>
Elastic Modulus, S	270.00	in <sup>3</sup>
$\phi M$	0.9	
$\phi V$	1.0	
$\phi M_{n,yield, LTB}$	17773.7	kip-in
$\phi V_n$	1350	kips
$M_u$	499.3	kip-in
$V_u$	71.3	kips
Capacity	2.7%	OK

Shear Strength (Bracket-to-Tower)		
$A_w$	45	in <sup>2</sup>
$F_y$	50	ksi
$F_u$	65	ksi
$\phi_{yield}$	1.0	
$\phi_{rupture}$	0.75	
$\phi V_{n,yield}$	1350.0	kips
$\phi V_{n,rupture}$	1316.3	kips
$V_u$	71.3	kips
Capacity	5.2%	OK

Pipe Punching Shear		
Eccentricity, e	1.75	in
Induced Moment, M	124.83	k-in
$\phi$	0.75	
$\phi M_{n,punching}$	437.4	k-in
Capacity	27.2%	OK

Pole Punching Shear (max per unit length)		
Eccentricity, e	7	in
Induced Moment, M	499.31	k-in
Elastic Modulus, S	270.00	in <sup>3</sup>
Shear Force, fv	2.31	kips
$\phi_{yield}$	1.0	
$\phi_{rupture}$	0.75	
$\phi F_v, yield$	31.50	kips
$\phi F_v, rupture$	35.4375	kips
Capacity	7.0%	OK

Weld Check (Pipe-to-Bracket)		
Weld Length	9	in
Fillet Weld Size	0.375	in
Weld Strength	70	ksi
e	1.75	in
a	0.194	
D	6	
C1	1	
C	3.53	
$\phi$	0.75	
$\phi R_n$	142.88	kips
Capacity	47.5%	OK

Weld Check (Bracket-to-Tower)		
Weld Length	36	in
Fillet Weld Size	0.3125	in
Weld Strength	70	ksi
e	7	in
a	0.194	
D	5	
C1	1	
C	3.53	
$\phi$	0.75	
$\phi R_n$	476.25	kips
Capacity	14.3%	OK

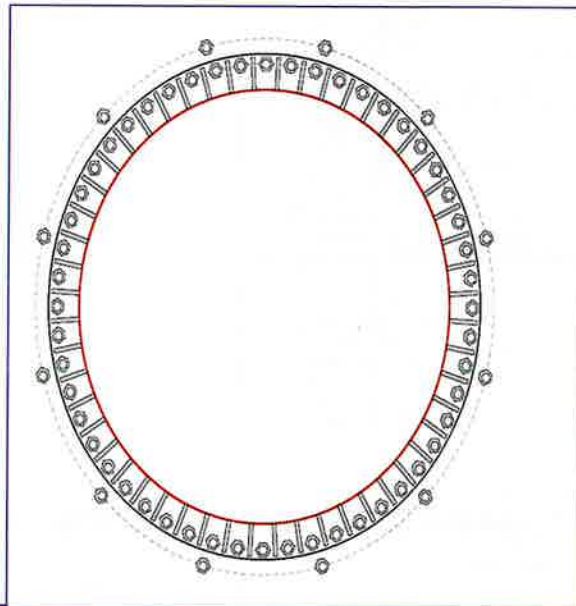
# Monopole Base Plate Connection

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	See Custom Sheet
$I_{bar}$ (in)	See Custom Sheet

\*BARB CL = 1.875 ft

Applied Loads	
Moment (kip-ft)	6137.00
Axial Force (kips)	107.00
Shear Force (kips)	42.00

\*TIA-222-H Section 15.5 Applied



## Connection Properties

### Anchor Rod Data

GROUP 1: (52) 1-1/4"  $\phi$  bolts (A687 N; Fy=105 ksi, Fu=125 ksi) on 67" BC  
 GROUP 2: (12) 1-1/4"  $\phi$  bolts (F1554-105 N; Fy=105 ksi, Fu=125 ksi) on 74" BC

### Base Plate Data

69.75" OD x 1.25" Plate (A36; Fy=36 ksi, Fu=58 ksi)

### Stiffener Data

(52) 8"H x 4.5"W x 0.625"T, Notch: 0.5"  
 plate: Fy= 36 ksi ; weld: Fy= 70 ksi  
 horiz. weld: 0.3125" fillet  
 vert. weld: 0.3125" fillet

### Pole Data

60" x 0.625" round pole (A53-B-42; Fy=42 ksi, Fu=63 ksi)

## Analysis Results

### Anchor Rod Summary

(units of kips, kip-in)

#### GROUP 1:

Pu_t = 71.33	$\phi Pn_t = 90.84$	Stress Rating
Vu = 0.81	$\phi Vn = 57.52$	74.8%
Mu = n/a	$\phi Mn = n/a$	Pass

#### GROUP 2: (BARB)

Pu_t = 71.19	$\phi Pn_t = 90.84$	Stress Rating
Vu = 0	$\phi Vn = 57.52$	74.6%
Mu = n/a	$\phi Mn = n/a$	Pass

### Base Plate Summary

Max Stress (ksi):	6.67	(Shear)
Allowable Stress (ksi):	21.6	
Stress Rating:	29.4%	Pass

### Stiffener Summary

Horizontal Weld:	83.5%	Pass
Vertical Weld:	53.7%	Pass
Plate Flexure+Shear:	42.5%	Pass
Plate Tension+Shear:	65.9%	Pass
Plate Compression:	90.6%	Pass

### Pole Summary

Punching Shear:	15.7%	Pass
-----------------	-------	------





# Pile Analysis

US-CT-1002 Kettletown  
2024702.28

M 6137.00 k-ft  
P 107.00 k  
V 42.00 k  
M tot 6368 k-ft  
M tot 45 4502.856 k-ft  
d 5.5 ft  
h 46 ft  
Vconc 11638 ft<sup>3</sup>  
wconc 1745.7 k

## Pile Ultimate Capacities

Existing  
Compression 150 k  
Tension 100 k

Modification  
Compression 100 k  
Tension 100 k

Wequip 75 k (weight of the equipment above the pad)

n existing 24  
n mod 48

## Total force on piles

	n	x (ft)	y (ft)	X			45	
				Pc (k)	Pt (k)	Mu (k-ft)	Pc (k)	Pt (k)
Existing	4	0	0	25.73	25.73	0.00	25.73	25.73
	10	6	6	28.13	23.34	843.77	29.12	22.35
	10	12	12	30.52	20.94	1831.18	32.50	18.96
	24							
Mod	2	0	0	25.73	25.73	0.00	25.73	25.73
	4	3.5	3.5	27.13	24.34	189.90	27.71	23.76
	4	7	7	28.52	22.94	399.35	29.68	21.78
	4	10.5	10.5	29.92	21.54	628.34	31.66	19.81
	4	14	14	31.32	20.15	876.89	33.63	17.83
	4	17.5	17.5	32.71	18.75	1144.99	35.61	15.86
	26	21	21	34.11	17.35	9312.13	37.58	13.88
	48							

## Pile Capacities

Existing  
Compression 38.8%  
Tension 49.0%

## Modification

Compression 65.0%  
Tension 49.0%

## Reinforcement Capacity

Mu 15226.55 k-ft  
a 4.262575 in  
d 60.885 in  
Phi Mn 22473.3 k-ft

Capacity 64.5%



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## Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10208064  
Colliers Engineering & Design CT, P.C. Project #: 23777219

August 2, 2023

### Site Information

Site ID: 5000384514-VZW / SOUTHBURY 2 CT  
Site Name: SOUTHBURY 2 CT  
Carrier Name: Verizon Wireless  
Address: 231 Kettle town Rd  
Southbury, Connecticut 06488  
New Haven County  
Latitude: 41.474444°  
Longitude: -73.208333°

### Structure Information

Tower Type: 200-Ft Monopole  
Mount Type: 15.50-Ft Platform

FUZE ID # 17123854

### Analysis Results

Platform: **60.1% Pass w/ Hardware Upgrades\***

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

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

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

Report Prepared By: Grant Walters



**Executive Summary:**

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

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

**Sources of Information:**

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon RFDS Site ID: 675047, dated October 27, 2021
Mount Mapping Report	Tower Engineering Professionals Site Name: NE Southbury 2 CT, dated May 4, 2020
Previous Mount Modification	Maser Consulting Connecticut Project #: 21781081 (Rev 1), dated November 4, 2021
Previous Post Modification Inspection	Colliers Engineering & Design Project #: 21781081, Dated June 27, 2023
Filter Add Scope	Provided by Verizon Wireless

**Analysis Criteria:**

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), $V_{ULT}$ : 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, $K_e$ : 0.989
Seismic Parameters:	$S_s$ : 0.199 g $S_1$ : 0.054 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
154.00	155.00	3	Commscope	NHH-65B-R2B	Retained
		3	Samsung	MT6407-77A	
		3	Samsung	XXDWMM-12.5-65-8T-CBRS	
		3	Samsung	RF4439d-25A	
		3	Samsung	RF4440d-13A	
		1	Raycap	RVZDC-6627-PF-48	
		4	KAelus	KA-6030	Added

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

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

**Standard Conditions:**

1. All engineering services are performed on the basis that the information provided to Colliers Engineering & Design CT, P.C. and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design CT, P.C. to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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

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

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

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

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

**Analysis Results:**

Component	Utilization %	Pass/Fail
Corner Plate	41.9 %	Pass
Face Horizontal	24.2 %	Pass
Standoff Horizontal	21.2 %	Pass
Grating Support	6.9 %	Pass
Cross Brace	60.1 %	Pass
Mount Pipe	32.8 %	Pass
Support Rail	13.7 %	Pass
Support Rail Corner	21.0 %	Pass
V-Brace	21.5 %	Pass
Mount Connection	14.0 %	Pass

<b>Structure Rating – (Controlling Utilization of all Components)</b>	<b>60.1%*</b>
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\* Results valid after hardware upgrades noted in the PMI Requirements are installed.

**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	36.0	36.0	54.8	54.8
0.5	47.4	47.4	74.1	74.1
1	57.9	57.9	92.6	92.6

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 will be **SUFFICIENT** for the final loading configuration shown in attachment 2 upon the completion of the requirements listed below.

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

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

**Attachments:**

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

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

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

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

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

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

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MDG #: 5000384514

SMART Project #: 10208064

Fuze Project ID: 17123854

**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 Kit (Part #: RRUDSM or EOR approved equivalent) in the location shown in the placement diagrams.

**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:	

Structure: 5000384514-VZW - SOUTHBURY 2 CT

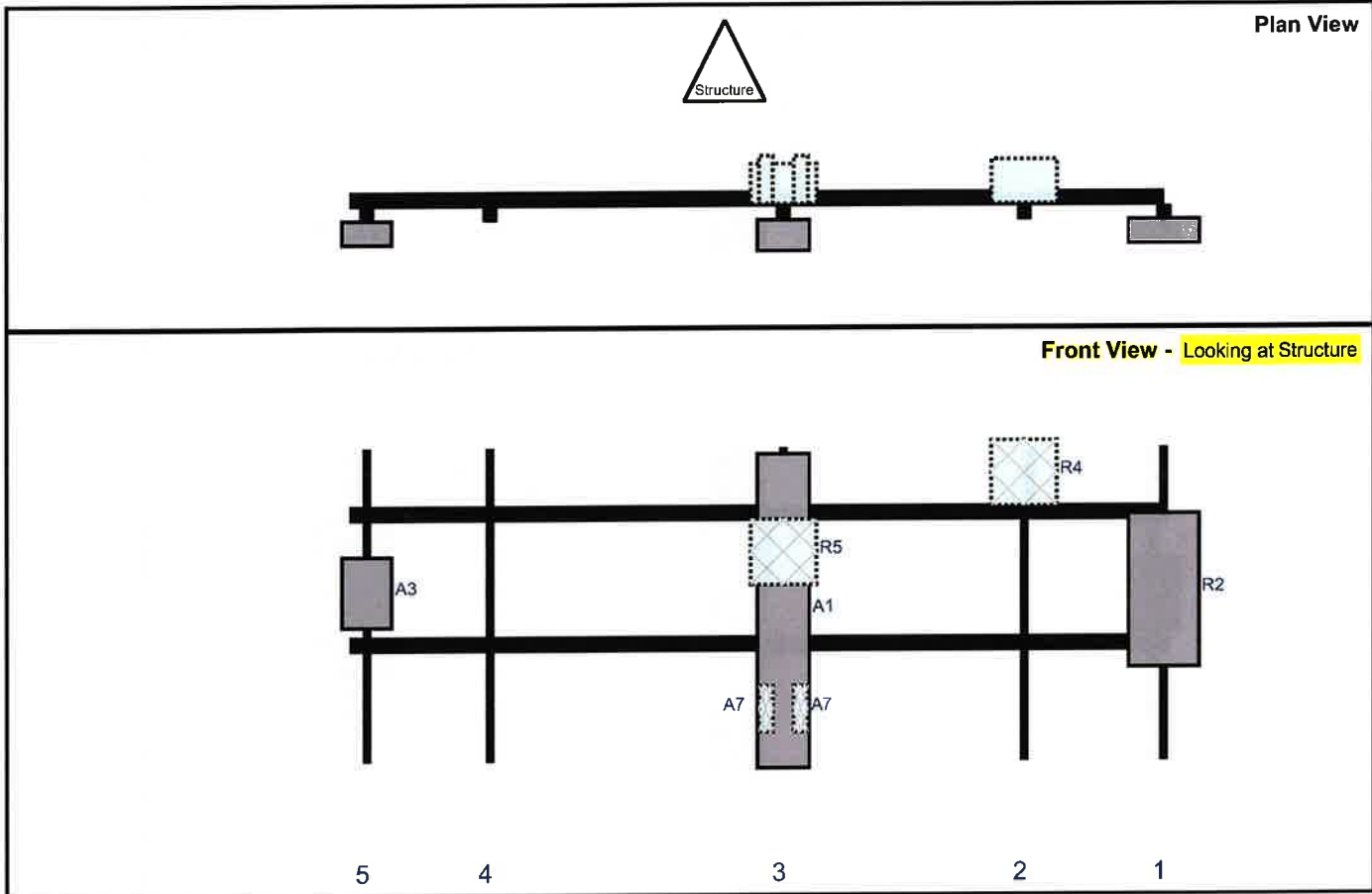
Sector: A  
 Structure Type: Monopole  
 Mount Elev: 154.00

10208064

8/2/2023



Page: 1



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	186	1	a	Front	33	0	Retained	12/13/2022
R4	RF4439d-25A	15	15	154	2	a	Behind	6	0	Retained	12/13/2022
A1	NHH-65B-R2B	72	11.9	99	3	a	Front	37.5	0	Retained	12/13/2022
R5	RF4440d-13A	15	15	99	3	b	Behind	24	0	Retained	12/13/2022
A7	KA-6030	10.6	3.2	99	3	a	Behind	60	-4	Added	
A7	KA-6030	10.6	3.2	99	3	b	Behind	60	4	Added	
A3	XXDWMM-12.5-65-8T-CBRS	16.2	11.4	4	5	a	Front	33	0	Retained	12/13/2022
OVP	RVZDC-6627-PF-48	29.5	16.5			Member				Retained	12/13/2022

Structure: 5000384514-VZW - SOUTHBURY 2 CT

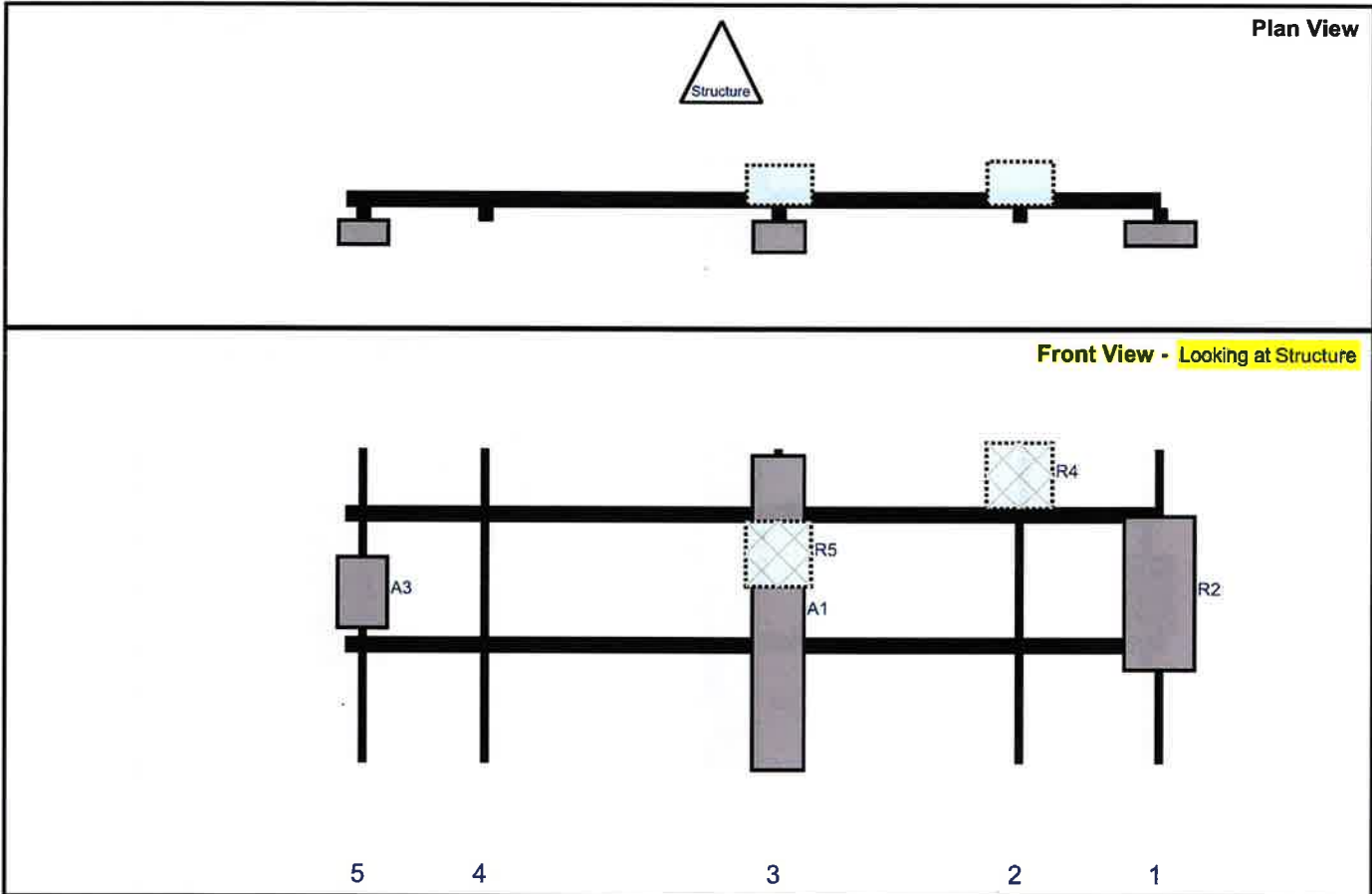
Sector: B  
 Structure Type: Monopole  
 Mount Elev: 154.00

10208064

8/2/2023



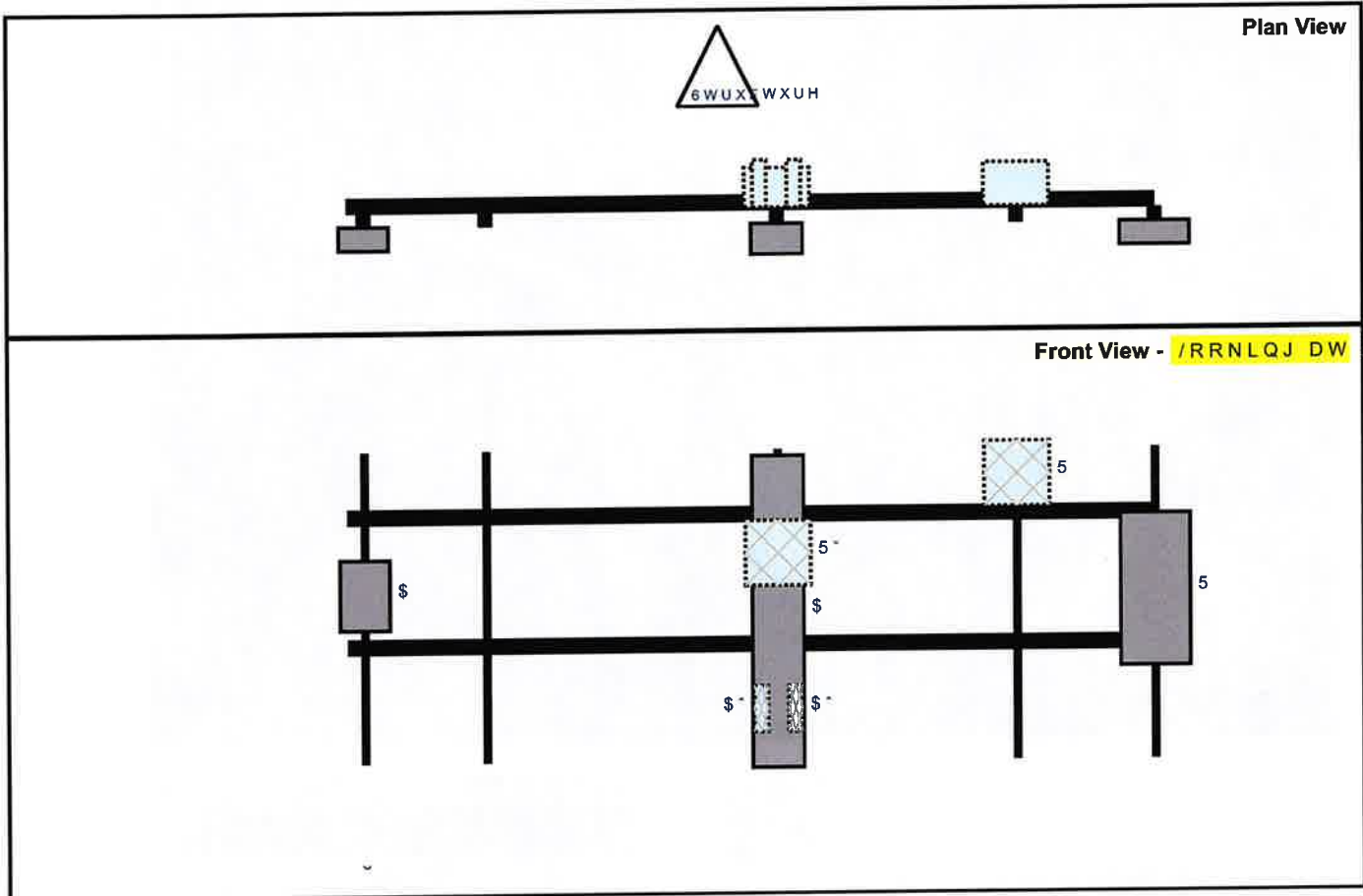
Page: 2



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	186	1	a	Front	33	0	Retained	12/13/2022
R4	RF4439d-25A	15	15	154	2	a	Behind	6	0	Retained	12/13/2022
A1	NHH-65B-R2B	72	11.9	99	3	a	Front	37.5	0	Retained	12/13/2022
R5	RF4440d-13A	15	15	99	3	b	Behind	24	0	Retained	12/13/2022
A3	XXDWMM-12.5-65-8T-CBRS	16.2	11.4	4	5	a	Front	33	0	Retained	12/13/2022

6HFWRU, C  
 6WUXFWXU RQ7RSRQH  
 0RXQW (OHY,

3DJH,



+HLJKWLGWK+ 'LVW3LSH3LSH\$QW & \$QW\$QW

5HI 0RGHO

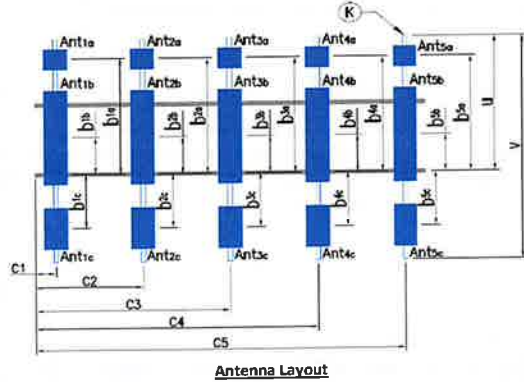
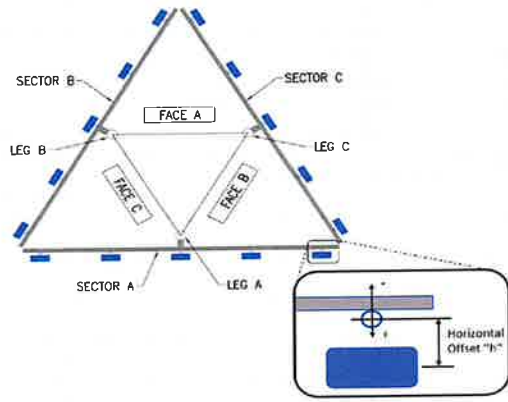
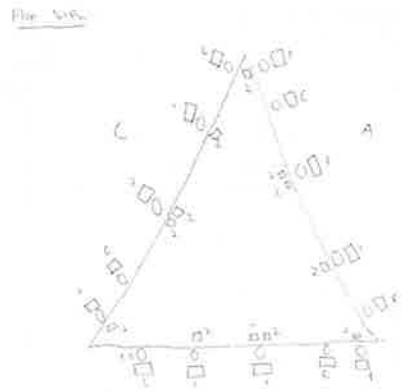
LQ LQ )UP / 3RV ØRV )UP 7 + 2II 6WDWXV9DOLGDWLRQ

5	07"	---	\$	-	-	-	D	)URQW	5HWDLQHG
5	5)	G	\$	-	-	-	D	%HKLQG	5HWDLQHG
\$	1++	--	% 5	%	-	-	D	)URQW	5HWDLQHG
5"	5)	G	\$	-	-	-	E	%HKLQG	5HWDLQHG
\$"	.\$	"		-	-	-	D	%HKLQG	\$GGHG
\$"	.\$	"		-	-	-	E	%HKLQG	\$GGHG
\$	00	---	7 & % 56	-	-	-	D	)URQW	5HWDLQHG



	<b>Antenna Mount Mapping Form (PATENT PENDING)</b>			FCC #
	Tower Owner:	Phoenix Tower International	Mapping Date:	5/4/2020
	Site Name:	NE Southbury 2 CT	Tower Type:	Monopole
	Site Number or ID:		Tower Height (Ft.):	200
Mapping Contractor:	Tower Engineering Professionals	Mount Elevation (Ft.):	155	

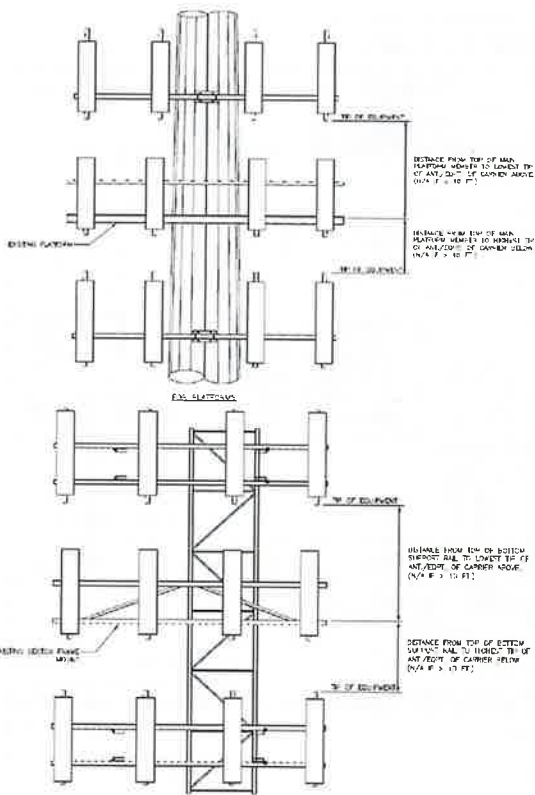
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Mount Pipe Configuration and Geometries (Unit = Inches)								
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "v"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "v"	Horizontal Offset "C1, C2, C3, etc."	
A1	2.4"O.D.x7'-0" Longx 0.154"th	42.00	4.50	C1	2.4"O.D.x7'-0" Longx 0.154"th	42.00	4.50	
A2	2.4"O.D.x6'-0" Longx 0.154"th	41.50	32.00	C2	2.4"O.D.x6'-0" Longx 0.154"th	41.50	32.00	
A3	2.4"O.D.x6'-0" Longx 0.154"th	45.00	87.00	C3	2.4"O.D.x6'-0" Longx 0.154"th	45.00	87.00	
A4	2.4"O.D.x7'-0" Longx 0.154"th	42.00	154.00	C4	2.4"O.D.x7'-0" Longx 0.154"th	42.00	154.00	
A5	2.4"O.D.x7'-0" Longx 0.154"th	40.50	182.00	C5	2.4"O.D.x7'-0" Longx 0.154"th	40.50	182.00	
A6				C6				
B1	2.4"O.D.x7'-0" Longx 0.154"th	42.00	4.50	D1				
B2	2.4"O.D.x6'-0" Longx 0.154"th	41.50	32.00	D2				
B3	2.4"O.D.x6'-0" Longx 0.154"th	45.00	87.00	D3				
B4	2.4"O.D.x7'-0" Longx 0.154"th	42.00	154.00	D4				
B5	2.4"O.D.x7'-0" Longx 0.154"th	40.50	182.00	D5				
B6				D6				
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.)							66	
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.)								
Please enter additional information or comments below.								
Tower Face Width at Mount Elev. (ft.):				Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):				30

Ants. Items	Enter antenna model. If not labeled, enter "Unknown".					Mounting Locations [Units are inches and degrees]			Photos of antennas Photo Numbers
	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Vertical Distances "b1a, b2a, b3a, b1b,..." (in.)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	
<b>Sector A</b>									
Ant1a	RFS FD9R6004/2C-3L	6.50	1.50	5.80	1) 1 5/8 Ft	12.00			83
Ant1b	Andrew HBXX-6516D	12.01	6.54	51.06		22.00	5.00	320.00	083-084
Ant1c									
Ant2a									
Ant2b	Unknown	6.50	7.75	48.00		24.00	5.00	320.00	085-086
Ant2c									
Ant3a	(2) RFS FD9R6004/2C-3L	6.50	1.50	5.80	2) 1 5/8 Ft	14.00			090-093
Ant3b	Amphenol BXA-7006	11.20	5.00	47.40		24.00	5.00	320.00	087-089
Ant3c									
Ant4a	RFS FD9R6004/2C-3L	6.50	1.50	5.80	1) 1 5/8 Ft	21.00			096-097
Ant4b	Andrew HBXX-6516D	12.01	6.54	51.06		22.00	5.00	320.00	094-095
Ant4c									
Ant5a									
Ant5b	Unknown	6.50	7.75	48.00		24.00	5.00	320.00	098-099
Ant5c									
<b>Sector B</b>									
Ant1a	RFS FD9R6004/2C-3L	6.50	1.50	5.80	1) 1 5/8 Ft	12.00			103-104
Ant1b	Andrew HBXX-6516D	12.01	6.54	51.06		22.00	5.00	80.00	100-102
Ant1c									
Ant2a									
Ant2b	Unknown	6.50	7.75	48.00		24.00	5.00	80.00	105-106
Ant2c									
Ant3a	RFS FD9R6004/2C-3L	6.50	1.50	5.80	1) 1 5/8 Ft	14.00			111-113
Ant3b	Amphenol BXA-7006	11.20	5.00	47.40		24.00	5.00	80.00	107-109
Ant3c	Unknown TMA	6.00	1.75	7.50	1) 1 5/8 Ft	27.00			110
Ant4a	RFS FD9R6004/2C-3L	6.50	1.50	5.80	1) 1 5/8 Ft	21.00			116-118
Ant4b	Andrew HBXX-6516D	12.01	6.54	51.06		22.00	5.00	80.00	114-115
Ant4c									
Ant5a	GPS					42.00			121
Ant5b	Unknown	6.50	7.75	48.00		24.00	5.00	80.00	119-120
Ant5c									

Mount Azimuth (Degree) for Each Sector and Climbing Information		
Sector A:	320.00	Deg
Sector B:	80.00	Deg
Sector C:	200.00	Deg
Sector D:		Deg
Climbing	75.00	Deg Sector B
Climbing Facility	Corrosion Type:	Good condition.
	Access:	Climbing path was unobstructed.
	Condition:	Good condition.



Sector C									
Ant <sub>1a</sub>	RFS FD9R6004/2C-3L	6.50	1.50	5.80	1) 1 5/8 F	12.00			124-125
Ant <sub>1b</sub>	Andrew HBXX-6516D	12.01	6.54	51.06		22.00	5.00	200.00	122-123
Ant <sub>1c</sub>									
Ant <sub>2a</sub>									
Ant <sub>2b</sub>	Unknown	6.50	7.75	48.00		24.00	5.00	200.00	126-127
Ant <sub>2c</sub>									
Ant <sub>3a</sub>	(2) RFS FD9R6004/2C	6.50	1.50	5.80	2) 1 5/8 F	14.00			131-134
Ant <sub>3b</sub>	Amphenol BXA-70063	11.20	5.00	47.40		24.00	5.00	200.00	128-130
Ant <sub>3c</sub>									
Ant <sub>4a</sub>	RFS FD9R6004/2C-3L	6.50	1.50	5.80	1) 1 5/8 F	21.00			137-138
Ant <sub>4b</sub>	Andrew HBXX-6516D	12.01	6.54	51.06		22.00	5.00	200.00	135-136
Ant <sub>4c</sub>									
Ant <sub>5a</sub>									
Ant <sub>5b</sub>	Unknown	6.50	7.75	48.00		24.00	5.00	200.00	139-140
Ant <sub>5c</sub>									
Sector D									
Ant <sub>1a</sub>									
Ant <sub>1b</sub>									
Ant <sub>1c</sub>									
Ant <sub>2a</sub>									
Ant <sub>2b</sub>									
Ant <sub>2c</sub>									
Ant <sub>3a</sub>									
Ant <sub>3b</sub>									
Ant <sub>3c</sub>									
Ant <sub>4a</sub>									
Ant <sub>4b</sub>									
Ant <sub>4c</sub>									
Ant <sub>5a</sub>									
Ant <sub>5b</sub>									
Ant <sub>5c</sub>									

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1		
2		
3		
4		
5		
6		
7		
8		

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

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



### Antenna Mount Mapping Form (PATENT PENDING)

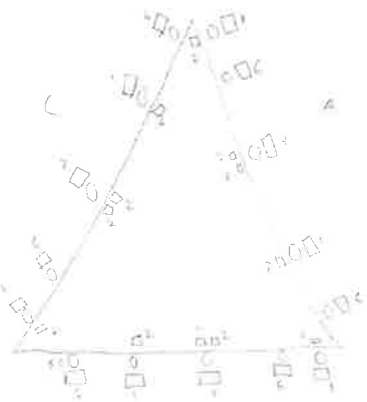
FCC #

Tower Owner:	Phoenix Tower International	Mapping Date:	5/4/2020
Site Name:	NE Southbury 2 CT	Tower Type:	Monopole
Site Number or ID:		Tower Height (Ft.):	200
Mapping Contractor:	Tower Engineering Professionals	Mount Elevation (Ft.):	155

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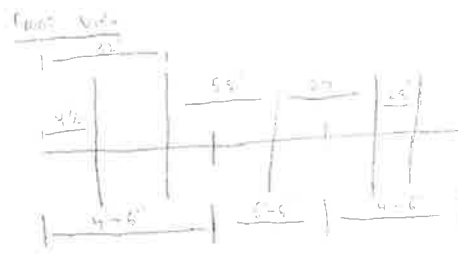
#### Please Insert Sketches of the Antenna Mount

Plan view



1. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
2. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
3. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
4. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
5. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
6. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.

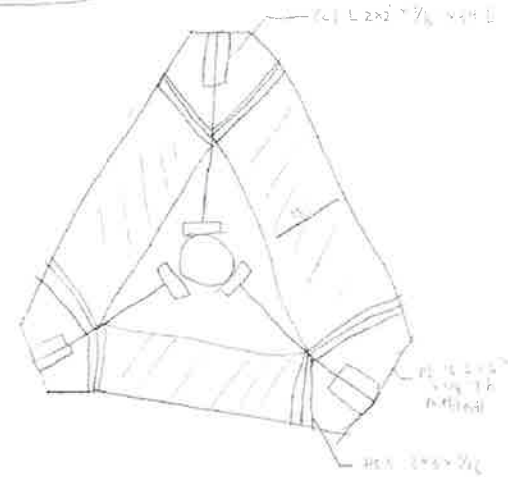
1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.  
 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.  
 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.



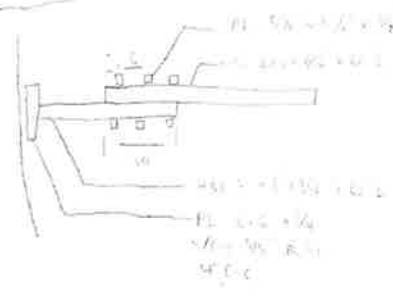
- TP 3 S/B
- 1. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
  - 2. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
  - 3. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
  - 4. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
  - 5. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.

- Component List
1. ANT 1 20' 1/2" dia.
  2. ANT 2 20' 1/2" dia.
  3. ANT 3 20' 1/2" dia.
  4. ANT 4 20' 1/2" dia.
  5. ANT 5 20' 1/2" dia.

Plan view (side)



Side view

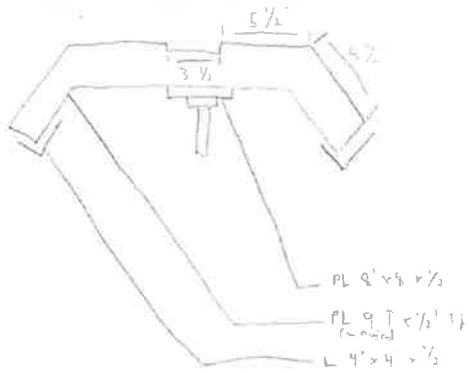


- Mount Pipe Connections
- 1. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
  - 2. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
  - 3. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
  - 4. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.

- Side view notes
- 1. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.
  - 2. 1/2" dia. 40x4 - 6.5x6.5 - 1/2" dia.

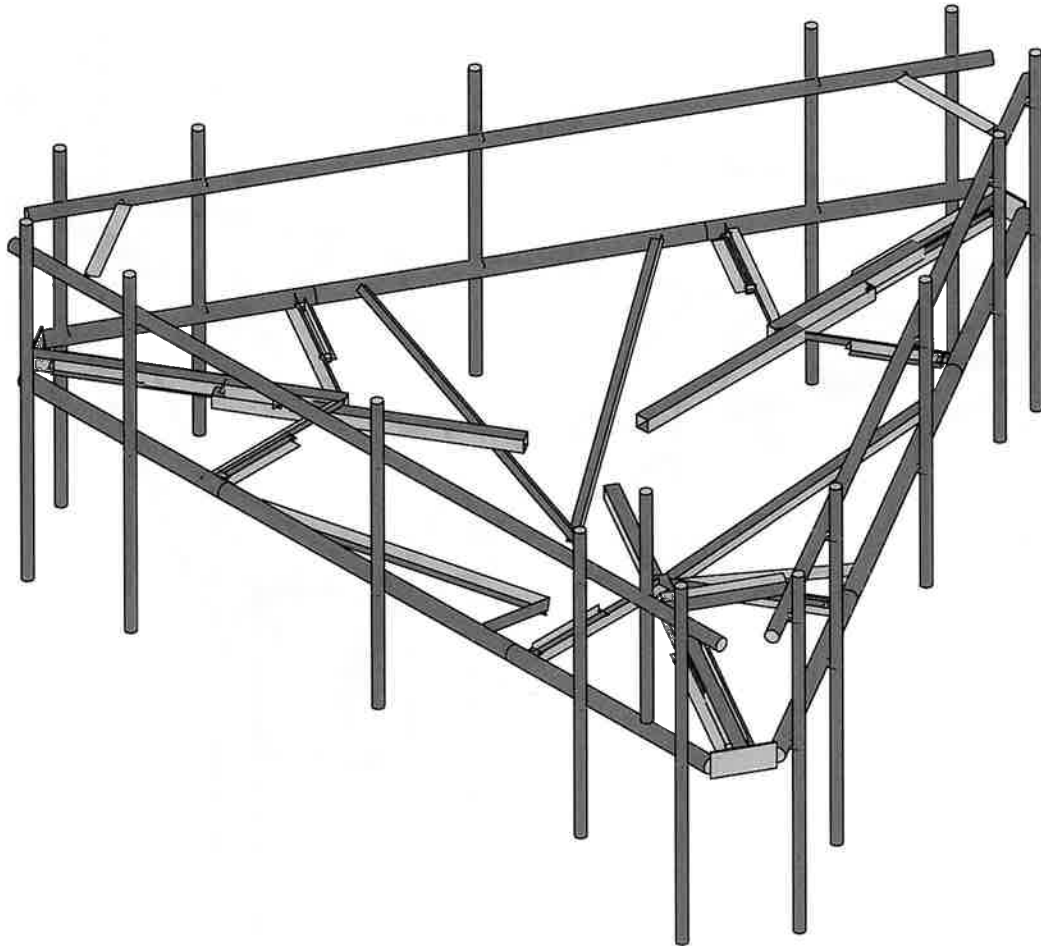
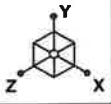


Collar



- (1) 5/8"  $\phi$  Threaded Rods
- 2 1/2" C C
- 2 1/2" (1 for Spacing)

Distance to brace 66'  
Elev: 144.5  
Pole # 20  
at 12 1/2" SH



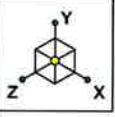
Colliers Engineering & De...  
NL  
Project No. 10208064

5000384514-VZW\_MT\_LO\_H

SK - 1

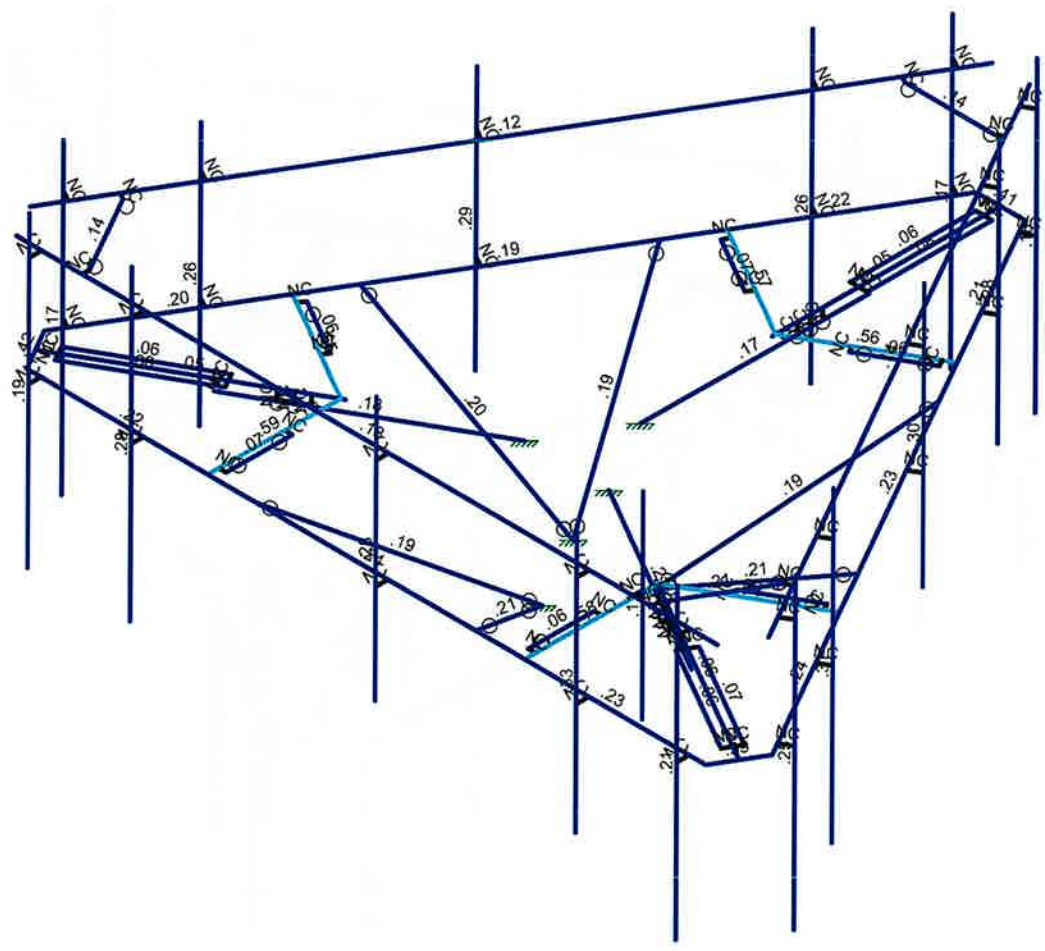
Aug 2, 2023 at 11:17 AM

5000384514-VZW\_MT\_LO\_H.r3d



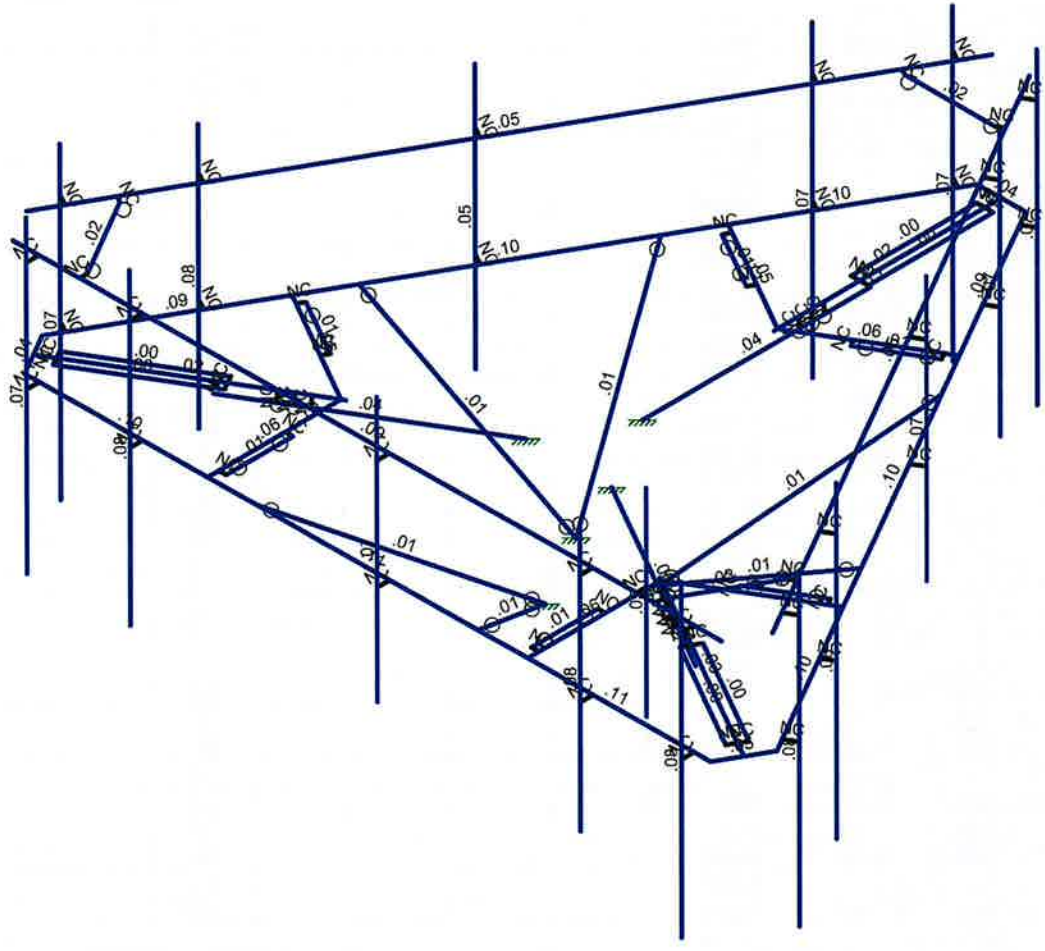
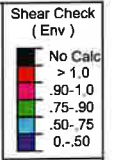
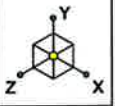
Code Check  
( Env )

- No Calc
- > 1.0
- 90-1.0
- 75-90
- 50-75
- 0-.50



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

Colliers Engineering & De...	5000384514-VZW_MT_LO_H	SK - 2
NL		Aug 2, 2023 at 11:17 AM
Project No. 10208064		5000384514-VZW_MT_LO_H.r3d



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

Colliers Engineering & De...	5000384514-VZW_MT_LO_H	SK - 3
NL		Aug 2, 2023 at 11:17 AM
Project No. 10208064		5000384514-VZW_MT_LO_H.r3d



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

Aug 2, 2023  
 11:17 AM  
 Checked By: DX

**Basic Load Cases**

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	DistributedArea(Me...	Surface(...
1	Antenna D	None					90		
2	Antenna Di	None					90		
3	Antenna Wo (0 Deg)	None					90		
4	Antenna Wo (30 Deg)	None					90		
5	Antenna Wo (60 Deg)	None					90		
6	Antenna Wo (90 Deg)	None					90		
7	Antenna Wo (120 Deg)	None					90		
8	Antenna Wo (150 Deg)	None					90		
9	Antenna Wo (180 Deg)	None					90		
10	Antenna Wo (210 Deg)	None					90		
11	Antenna Wo (240 Deg)	None					90		
12	Antenna Wo (270 Deg)	None					90		
13	Antenna Wo (300 Deg)	None					90		
14	Antenna Wo (330 Deg)	None					90		
15	Antenna Wi (0 Deg)	None					90		
16	Antenna Wi (30 Deg)	None					90		
17	Antenna Wi (60 Deg)	None					90		
18	Antenna Wi (90 Deg)	None					90		
19	Antenna Wi (120 Deg)	None					90		
20	Antenna Wi (150 Deg)	None					90		
21	Antenna Wi (180 Deg)	None					90		
22	Antenna Wi (210 Deg)	None					90		
23	Antenna Wi (240 Deg)	None					90		
24	Antenna Wi (270 Deg)	None					90		
25	Antenna Wi (300 Deg)	None					90		
26	Antenna Wi (330 Deg)	None					90		
27	Antenna Wm (0 Deg)	None					90		
28	Antenna Wm (30 Deg)	None					90		
29	Antenna Wm (60 Deg)	None					90		
30	Antenna Wm (90 Deg)	None					90		
31	Antenna Wm (120 Deg)	None					90		
32	Antenna Wm (150 Deg)	None					90		
33	Antenna Wm (180 Deg)	None					90		
34	Antenna Wm (210 Deg)	None					90		
35	Antenna Wm (240 Deg)	None					90		
36	Antenna Wm (270 Deg)	None					90		
37	Antenna Wm (300 Deg)	None					90		
38	Antenna Wm (330 Deg)	None					90		
39	Structure D	None		-1				9	
40	Structure Di	None						64	9
41	Structure Wo (0 Deg)	None						128	
42	Structure Wo (30 Deg)	None						128	
43	Structure Wo (60 Deg)	None						128	
44	Structure Wo (90 Deg)	None						128	
45	Structure Wo (120 Deg)	None						128	
46	Structure Wo (150 Deg)	None						128	
47	Structure Wo (180 Deg)	None						128	
48	Structure Wo (210 Deg)	None						128	
49	Structure Wo (240 Deg)	None						128	
50	Structure Wo (270 Deg)	None						128	
51	Structure Wo (300 Deg)	None						128	
52	Structure Wo (330 Deg)	None						128	
53	Structure Wi (0 Deg)	None						128	
54	Structure Wi (30 Deg)	None						128	
55	Structure Wi (60 Deg)	None						128	
56	Structure Wi (90 Deg)	None						128	



**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						128
58 Structure Wi (150 Deg)	None						128
59 Structure Wi (180 Deg)	None						128
60 Structure Wi (210 Deg)	None						128
61 Structure Wi (240 Deg)	None						128
62 Structure Wi (270 Deg)	None						128
63 Structure Wi (300 Deg)	None						128
64 Structure Wi (330 Deg)	None						128
65 Structure Wm (0 Deg)	None						128
66 Structure Wm (30 Deg)	None						128
67 Structure Wm (60 Deg)	None						128
68 Structure Wm (90 Deg)	None						128
69 Structure Wm (120 Deg)	None						128
70 Structure Wm (150 Deg)	None						128
71 Structure Wm (180 Deg)	None						128
72 Structure Wm (210 Deg)	None						128
73 Structure Wm (240 Deg)	None						128
74 Structure Wm (270 Deg)	None						128
75 Structure Wm (300 Deg)	None						128
76 Structure Wm (330 Deg)	None						128
77 Lm1	None					1	
78 Lm2	None					1	
79 Lv1	None					1	
80 Lv2	None					1	
81 Antenna Ev	None					90	
82 Antenna Eh (0 Deg)	None					60	
83 Antenna Eh (90 Deg)	None					60	
84 Structure Ev	ELY		-042				9
85 Structure Eh (0 Deg)	ELZ			-106			9
86 Structure Eh (90 Deg)	ELX	.106					9
87 BLC 39 Transient Area Loads	None						72
88 BLC 40 Transient Area Loads	None						72
89 BLC 84 Transient Area Loads	None						72
90 BLC 85 Transient Area Loads	None						72
91 BLC 86 Transient Area Loads	None						72

**Load Combinations**

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





Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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 Checked By: DX

**Load Combinations (Continued)**

	Description	Solve	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	BLCFa...	BLC Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
75	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	E...	.866	E...	-.5

**Joint Coordinates and Temperatures**

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	-8.296696	0	4.156742	0	
2	N2	-0.554183	0	-9.253684	0	
3	N3	-7.748204	0	5.106758	0	
4	N4	0.	-25	-0.	0	
5	N5	7.748192	0	5.106779	0	
6	N6	5.886568	0	-0.01772	0	
7	N7	8.296684	0	4.156762	0	
8	N8	3.248192	0	5.106779	0	
9	N9	-3.236808	0	5.106779	0	
10	N10	0.000012	0	-9.258628	0	
11	N11	0.000012	0	-4.091953	0	
12	N12	0.548504	0	-9.26352	0	
13	N13	2.61661	0	-5.681457	0	
14	N14	-2.616604	0	-5.681467	0	
15	N15	0.000012	0	-7.380195	0	
16	N16	0.000012	0	-4.172389	0	
17	N17	0.000012	-25	-1.117287	0	
18	N18	0.000012	-25	-6.284787	0	
19	N19	0.000012	0	-4.661953	0	
20	N20	0.000012	0	-4.946953	0	
21	N21	0.000012	0	-5.231953	0	
22	N22	0.000012	-25	-4.661953	0	
23	N23	0.000012	-25	-4.946953	0	
24	N24	0.000012	-25	-5.231953	0	
25	N25	0.000012	0	-8.88352	0	
26	N26	0.000012	0	-6.050187	0	
27	N27	0.190012	0	-8.88352	0	
28	N28	0.190012	0	-6.050187	0	
29	N29	-0.190012	0	-8.88352	0	
30	N30	-0.190012	0	-6.050187	0	
31	N31	7.373192	0	5.106779	0	
32	N32	7.373192	0	5.391779	0	
33	N33	7.373192	-3.5	5.391779	0	
34	N34	7.373192	3.5	5.391779	0	
35	N35	2.798504	0	-5.366406	0	
36	N36	6.041004	0	0.249769	0	
37	N37	-6.046696	0	0.259627	0	
38	N38	-2.804196	0	-5.356548	0	
39	N39	-8.022444	0	4.63176	0	
40	N40	-3.543741	0	2.045966	0	
41	N41	-6.228591	0	0.574678	0	
42	N42	-3.611993	0	5.106779	0	
43	N43	-6.391442	0	3.690087	0	
44	N44	-3.6134	0	2.086184	0	
45	N45	-0.967605	-25	0.558633	0	
46	N46	-5.442791	-25	3.142383	0	
47	N47	-4.037373	0	2.330966	0	
48	N48	-4.284189	0	2.473466	0	
49	N49	-4.531005	0	2.615966	0	
50	N50	-4.037376	-25	2.330966	0	
51	N51	-4.284193	-25	2.473466	0	





Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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**Joint Coordinates and Temperatures (Continued)**

	Label	X (ft)	Y (ft)	Z (ft)	Temp (F)	Detach From Diap...
52	N52	-4.53101	-0.25	2.615966	0	
53	N53	-7.693355	0	4.441759	0	
54	N54	-5.239619	0	3.025087	0	
55	N55	-7.78836	0	4.277205	0	
56	N56	-5.334621	0	2.860538	0	
57	N57	-7.598348	0	4.606315	0	
58	N58	-5.14461	0	3.189649	0	
59	N59	-3.612109	0	4.856779	0	
60	N60	-3.612808	0	3.356779	0	
61	N61	-3.445326	0	4.856779	0	
62	N62	-3.445326	0	3.356779	0	
63	N63	8.022444	0	4.63176	0	
64	N64	3.543729	0	2.045987	0	
65	N65	3.611981	0	5.106779	0	
66	N66	6.228595	0	0.574689	0	
67	N67	6.39143	0	3.690108	0	
68	N68	3.613389	0	2.086204	0	
69	N69	0.967593	-0.25	0.558654	0	
70	N70	5.442779	-0.25	3.142404	0	
71	N71	4.037367	0	2.330987	0	
72	N72	4.284185	0	2.473487	0	
73	N73	4.531004	0	2.615987	0	
74	N74	4.037364	-0.25	2.330987	0	
75	N75	4.284181	-0.25	2.473487	0	
76	N76	4.530998	-0.25	2.615987	0	
77	N77	7.693354	0	4.441761	0	
78	N78	5.239612	0	3.0251	0	
79	N79	7.598348	0	4.606315	0	
80	N80	5.14461	0	3.189649	0	
81	N81	7.78836	0	4.277205	0	
82	N82	5.334621	0	2.860538	0	
83	N83	3.612097	0	4.856779	0	
84	N84	3.612796	0	3.356779	0	
85	N85	3.445326	0	4.856779	0	
86	N86	3.445326	0	3.356779	0	
87	N87	5.081525	0	5.106779	0	
88	N88	5.081525	0	5.391779	0	
89	N89	5.081525	-2.541667	5.391779	0	
90	N90	5.081525	3.458333	5.391779	0	
91	N91	0.498192	0	5.106779	0	
92	N92	0.498192	0	5.391779	0	
93	N93	0.498192	-2.25	5.391779	0	
94	N94	0.498192	3.75	5.391779	0	
95	N95	-5.085142	0	5.106779	0	
96	N96	-5.085142	0	5.391779	0	
97	N97	-5.085142	-3.5	5.391779	0	
98	N98	-5.085142	3.5	5.391779	0	
99	N99	-7.418475	0	5.106779	0	
100	N100	-7.418475	0	5.391779	0	
101	N101	-7.418475	-3.625	5.391779	0	
102	N102	-7.418475	3.375	5.391779	0	
103	N103	0.736004	0	-8.938761	0	
104	N104	0.982821	0	-9.081261	0	
105	N105	0.982821	-3.5	-9.081261	0	
106	N106	0.982821	3.5	-9.081261	0	
107	N107	1.881838	0	-6.954119	0	
108	N108	2.128655	0	-7.096619	0	



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**Joint Coordinates and Temperatures (Continued)**

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
109	N109	2.128655	-2.541667	-7.096619	0	
110	N110	2.128655	3.458333	-7.096619	0	
111	N111	4.173504	0	-2.984836	0	
112	N112	4.420321	0	-3.127336	0	
113	N113	4.420321	-2.25	-3.127336	0	
114	N114	4.420321	3.75	-3.127336	0	
115	N115	6.965164	0	1.850477	0	
116	N116	7.211988	0	1.707972	0	
117	N117	7.211988	-3.5	1.707972	0	
118	N118	7.211988	3.5	1.707972	0	
119	N119	8.131821	0	3.871208	0	
120	N120	8.378655	0	3.728698	0	
121	N121	8.378655	-3.625	3.728698	0	
122	N122	8.378655	3.375	3.728698	0	
123	N123	-8.109196	0	3.831982	0	
124	N124	-8.356013	0	3.689482	0	
125	N125	-8.356013	-3.5	3.689482	0	
126	N126	-8.356013	3.5	3.689482	0	
127	N127	-6.963363	0	1.84734	0	
128	N128	-7.21018	0	1.70484	0	
129	N129	-7.21018	-2.541667	1.70484	0	
130	N130	-7.21018	3.458333	1.70484	0	
131	N131	-4.671696	0	-2.121943	0	
132	N132	-4.918513	0	-2.264443	0	
133	N133	-4.918513	-2.25	-2.264443	0	
134	N134	-4.918513	3.75	-2.264443	0	
135	N135	-1.880029	0	-6.957251	0	
136	N136	-2.126847	0	-7.099751	0	
137	N137	-2.126847	-3.5	-7.099751	0	
138	N138	-2.126847	3.5	-7.099751	0	
139	N139	-0.713363	0	-8.977977	0	
140	N140	-0.96018	0	-9.120477	0	
141	N141	-0.96018	-3.625	-9.120477	0	
142	N142	-0.96018	3.375	-9.120477	0	
143	N143	6.012148	0	0.699789	0	
144	N144	4.71346	0	1.450394	0	
145	N145	5.928757	0	0.555351	0	
146	N146	4.629719	0	1.305351	0	
147	N147	2.400045	0	-5.556558	0	
148	N148	1.100657	0	-4.807163	0	
149	N149	2.483431	0	-5.412129	0	
150	N150	1.184392	0	-4.662129	0	
151	N151	-2.400039	0	-5.556568	0	
152	N152	-1.100651	0	-4.807173	0	
153	N153	-2.483431	0	-5.412129	0	
154	N154	-1.184392	0	-4.662129	0	
155	N155	-6.012142	0	0.699779	0	
156	N156	-4.713454	0	1.450384	0	
157	N157	-5.928757	0	0.555351	0	
158	N158	-4.629719	0	1.305351	0	
159	N159	-7.999995	2.5	5.106758	0	
160	N160	7.999983	2.5	5.106779	0	
161	N161	7.373192	2.5	5.106779	0	
162	N162	7.373192	2.5	5.391779	0	
163	N163	5.081525	2.5	5.106779	0	
164	N164	5.081525	2.5	5.391779	0	
165	N165	0.498192	2.5	5.106779	0	



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
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**Joint Coordinates and Temperatures (Continued)**

	Label	X (ft)	Y (ft)	Z (ft)	Temp (F)	Detach From Diap...
166	N166	0.498192	2.5	5.391779	0	
167	N167	-5.085142	2.5	5.106779	0	
168	N168	-5.085142	2.5	5.391779	0	
169	N169	-7.418475	2.5	5.106779	0	
170	N170	-7.418475	2.5	5.391779	0	
171	N171	-6.499995	2.5	5.106758	0	
172	N172	-6.499995	2.5	4.940091	0	
173	N173	6.499995	2.5	5.106758	0	
174	N174	6.499995	2.5	4.940091	0	
175	N175	8.42258	2.5	4.37482	0	
176	N176	0.422608	2.5	-9.481578	0	
177	N177	0.736004	2.5	-8.938761	0	
178	N178	0.982821	2.5	-9.081261	0	
179	N179	1.881838	2.5	-6.954119	0	
180	N180	2.128655	2.5	-7.096619	0	
181	N181	4.173504	2.5	-2.984836	0	
182	N182	4.420321	2.5	-3.127336	0	
183	N183	6.965171	2.5	1.850472	0	
184	N184	7.211988	2.5	1.707972	0	
185	N185	8.131838	2.5	3.871198	0	
186	N186	8.378655	2.5	3.728698	0	
187	N187	7.67258	2.5	3.075782	0	
188	N188	7.528242	2.5	3.159115	0	
189	N189	1.172584	2.5	-8.18254	0	
190	N190	1.028247	2.5	-8.099207	0	
191	N191	-0.422584	2.5	-9.481578	0	
192	N192	-8.422592	2.5	4.3748	0	
193	N193	-8.109196	2.5	3.831982	0	
194	N194	-8.356013	2.5	3.689482	0	
195	N195	-6.963363	2.5	1.84734	0	
196	N196	-7.21018	2.5	1.70484	0	
197	N197	-4.671696	2.5	-2.121943	0	
198	N198	-4.918513	2.5	-2.264443	0	
199	N199	-1.880029	2.5	-6.957251	0	
200	N200	-2.126847	2.5	-7.099751	0	
201	N201	-0.713363	2.5	-8.977977	0	
202	N202	-0.96018	2.5	-9.120477	0	
203	N203	-1.172584	2.5	-8.18254	0	
204	N204	-1.028247	2.5	-8.099207	0	
205	N205	-7.67258	2.5	3.075782	0	
206	N206	-7.528242	2.5	3.159115	0	
207	N213	0	-2.75	1.092869	0	
208	N208	-2.498192	0	5.106779	0	
209	N209	2.498192	0	5.106779	0	
210	N210	0.946452	-2.75	-0.546434	0	
211	N211	5.671696	0	-0.389892	0	
212	N212	3.173504	0	-4.716887	0	
213	N213A	-0.946452	-2.75	-0.546434	0	
214	N214	-3.173504	0	-4.716887	0	
215	N215	-5.671696	0	-0.389892	0	
216	N218	6.081525	-0.041667	4.891779	0	
217	N219	6.081525	4.458333	4.891779	0	
218	N220	6.081525	2.5	5.106779	0	
219	N221	6.081525	2.5	4.891779	0	



**Hot Rolled Steel Section Sets**

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Face Horizontal	PIPE 3.0	Beam	Pipe	A53 Gr. B (35ksi)	Typical	2.07	2.85	2.85	5.69
2	Standoff Horizontal	HSS3X3X6	Beam	SquareTube	A500 Gr.46	Typical	3.39	3.78	3.78	6.64
3	Cross Brace	L2.5x1.5x4	Beam	Single Angle	A36 Gr.36	Typical	.947	.16	.594	.021
4	Grating Support	L2.5x1.5x4	Beam	Single Angle	A36 Gr.36	Typical	.947	.16	.594	.021
5	Coner Plate	PL3/8x6	Beam	RECT	A36 Gr.36	Typical	2.25	.026	6.75	.101
6	Mount Pipe	PIPE 2.0	Column	Pipe	A53 Gr. B (35ksi)	Typical	1.02	.627	.627	1.25
7	Support Rail	PIPE 2.5	Beam	Pipe	A53 Gr. B (35ksi)	Typical	1.61	1.45	1.45	2.89
8	Support Rail Corner	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	.031
9	V-Brace	L2.5x2.5x4	Column	Single Angle	A36 Gr.36	Typical	1.19	.692	.692	.026
10	Kicker	LL3x3x3x3	Column	Double Angl...	A36 Gr.36	Typical	2.18	4.09	1.9	.027

**Hot Rolled Steel Properties**

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft^3]	Yield[ksi]	Rv	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	58	1.2
3	A992	29000	11154	.3	.65	.49	50	1.1	58	1.2
4	A500 Gr.42	29000	11154	.3	.65	.49	42	1.3	58	1.1
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.2	58	1.1
6	Q235	29000	11154	.3	.65	.49	34	1.5	58	1.2
7	Grade 2	29000	11154	.3	.65	.49	57	1.1	58	1.2
8	A53 Gr. B (35ksi)	29000	11154	.3	.65	.49	35	1.5	60	1.2

**Member Primary Data**

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N3	N1			Coner Plate	Beam	RECT	A36 Gr.36	Typical
2	M2	N5	N8			Face Horizontal	Beam	Pipe	A53 Gr. B ...	Typical
3	M3	N7	N5			Coner Plate	Beam	RECT	A36 Gr.36	Typical
4	M4	N8	N9			Face Horizontal	Beam	Pipe	A53 Gr. B ...	Typical
5	M5	N9	N3			Face Horizontal	Beam	Pipe	A53 Gr. B ...	Typical
6	M6	N11	N10			Standoff Horizontal	Beam	SquareTube	A500 Gr.46	Typical
7	M7	N2	N12			Coner Plate	Beam	RECT	A36 Gr.36	Typical
8	M8	N17	N18			Standoff Horizontal	Beam	SquareTube	A500 Gr.46	Typical
9	M9	N22	N19			RIGID	None	None	RIGID	DR1
10	M10	N23	N20			RIGID	None	None	RIGID	DR1
11	M11	N24	N21			RIGID	None	None	RIGID	DR1
12	M12	N28	N26			RIGID	None	None	RIGID	DR1
13	M13	N27	N25			RIGID	None	None	RIGID	DR1
14	M14	N27	N28		270	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
15	M15	N30	N26			RIGID	None	None	RIGID	DR1
16	M16	N29	N25			RIGID	None	None	RIGID	DR1
17	M17	N29	N30			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
18	M18	N16	N13		270	Cross Brace	Beam	Single Angle	A36 Gr.36	Typical
19	M19	N14	N16		270	Cross Brace	Beam	Single Angle	A36 Gr.36	Typical
20	M20	N32	N31			RIGID	None	None	RIGID	DR1
21	MP1A	N34	N33			Mount Pipe	Column	Pipe	A53 Gr. B ...	Typical
22	M22	N12	N35			Face Horizontal	Beam	Pipe	A53 Gr. B ...	Typical
23	M23	N35	N36			Face Horizontal	Beam	Pipe	A53 Gr. B ...	Typical
24	M24	N36	N7			Face Horizontal	Beam	Pipe	A53 Gr. B ...	Typical
25	M25	N1	N37			Face Horizontal	Beam	Pipe	A53 Gr. B ...	Typical
26	M26	N37	N38			Face Horizontal	Beam	Pipe	A53 Gr. B ...	Typical
27	M27	N38	N2			Face Horizontal	Beam	Pipe	A53 Gr. B ...	Typical
28	M28	N40	N39			Standoff Horizontal	Beam	SquareTube	A500 Gr.46	Typical
29	M29	N45	N46			Standoff Horizontal	Beam	SquareTube	A500 Gr.46	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
30	M30	N50	N47			RIGID	None	None	RIGID	DR1
31	M31	N51	N48			RIGID	None	None	RIGID	DR1
32	M32	N52	N49			RIGID	None	None	RIGID	DR1
33	M33	N56	N54			RIGID	None	None	RIGID	DR1
34	M34	N55	N53			RIGID	None	None	RIGID	DR1
35	M35	N55	N56		270	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
36	M36	N58	N54			RIGID	None	None	RIGID	DR1
37	M37	N57	N53			RIGID	None	None	RIGID	DR1
38	M38	N57	N58			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
39	M39	N44	N41		270	Cross Brace	Beam	Single Angle	A36 Gr.36	Typical
40	M40	N42	N44		270	Cross Brace	Beam	Single Angle	A36 Gr.36	Typical
41	M41	N62	N61		270	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
42	M42	N59	N61			RIGID	None	None	RIGID	DR1
43	M43	N60	N62			RIGID	None	None	RIGID	DR1
44	M44	N64	N63			Standoff Horizontal	Beam	SquareTube	A500 Gr.46	Typical
45	M45	N69	N70			Standoff Horizontal	Beam	SquareTube	A500 Gr.46	Typical
46	M46	N74	N71			RIGID	None	None	RIGID	DR1
47	M47	N75	N72			RIGID	None	None	RIGID	DR1
48	M48	N76	N73			RIGID	None	None	RIGID	DR1
49	M49	N80	N78			RIGID	None	None	RIGID	DR1
50	M50	N79	N77			RIGID	None	None	RIGID	DR1
51	M51	N79	N80		270	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
52	M52	N82	N78			RIGID	None	None	RIGID	DR1
53	M53	N81	N77			RIGID	None	None	RIGID	DR1
54	M54	N81	N82			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
55	M55	N68	N65		270	Cross Brace	Beam	Single Angle	A36 Gr.36	Typical
56	M56	N66	N68		270	Cross Brace	Beam	Single Angle	A36 Gr.36	Typical
57	M57	N86	N85			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
58	M58	N83	N85			RIGID	None	None	RIGID	DR1
59	M59	N84	N86			RIGID	None	None	RIGID	DR1
60	M60	N88	N87			RIGID	None	None	RIGID	DR1
61	MP2A	N90	N89			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
62	M62	N92	N91			RIGID	None	None	RIGID	DR1
63	MP3A	N94	N93			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
64	M64	N96	N95			RIGID	None	None	RIGID	DR1
65	MP4A	N98	N97			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
66	M66	N100	N99			RIGID	None	None	RIGID	DR1
67	MP5A	N102	N101			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
68	M68	N104	N103			RIGID	None	None	RIGID	DR1
69	MP1C	N106	N105			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
70	M70	N108	N107			RIGID	None	None	RIGID	DR1
71	MP2C	N110	N109			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
72	M72	N112	N111			RIGID	None	None	RIGID	DR1
73	MP3C	N114	N113			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
74	M74	N116	N115			RIGID	None	None	RIGID	DR1
75	MP4C	N118	N117			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
76	M76	N120	N119			RIGID	None	None	RIGID	DR1
77	MP5C	N122	N121			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
78	M78	N124	N123			RIGID	None	None	RIGID	DR1
79	MP1B	N126	N125			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
80	M80	N128	N127			RIGID	None	None	RIGID	DR1
81	MP2B	N130	N129			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
82	M82	N132	N131			RIGID	None	None	RIGID	DR1
83	MP3B	N134	N133			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
84	M84	N136	N135			RIGID	None	None	RIGID	DR1
85	MP4B	N138	N137			Mount Pipe	Column	Pipe	A53 Gr. B...	Typical
86	M86	N140	N139			RIGID	None	None	RIGID	DR1



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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
87	MP5B	N142	N141			Mount Pipe	Column	Pipe	A53 Gr. B ...	Typical
88	M88	N146	N145		270	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
89	M89	N143	N145			RIGID	None	None	RIGID	DR1
90	M90	N144	N146			RIGID	None	None	RIGID	DR1
91	M91	N150	N149			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
92	M92	N147	N149			RIGID	None	None	RIGID	DR1
93	M93	N148	N150			RIGID	None	None	RIGID	DR1
94	M94	N154	N153		270	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
95	M95	N151	N153			RIGID	None	None	RIGID	DR1
96	M96	N152	N154			RIGID	None	None	RIGID	DR1
97	M97	N158	N157			Grating Support	Beam	Single Angle	A36 Gr.36	Typical
98	M98	N155	N157			RIGID	None	None	RIGID	DR1
99	M99	N156	N158			RIGID	None	None	RIGID	DR1
100	M100	N162	N161			RIGID	None	None	RIGID	DR1
101	M101	N164	N163			RIGID	None	None	RIGID	DR1
102	M102	N166	N165			RIGID	None	None	RIGID	DR1
103	M103	N168	N167			RIGID	None	None	RIGID	DR1
104	M104	N170	N169			RIGID	None	None	RIGID	DR1
105	M105	N159	N160			Support Rail	Beam	Pipe	A53 Gr. B ...	Typical
106	M106	N171	N172			RIGID	None	None	RIGID	DR1
107	M107	N173	N174			RIGID	None	None	RIGID	DR1
108	M108	N178	N177			RIGID	None	None	RIGID	DR1
109	M109	N180	N179			RIGID	None	None	RIGID	DR1
110	M110	N182	N181			RIGID	None	None	RIGID	DR1
111	M111	N184	N183			RIGID	None	None	RIGID	DR1
112	M112	N186	N185			RIGID	None	None	RIGID	DR1
113	M113	N175	N176			Support Rail	Beam	Pipe	A53 Gr. B ...	Typical
114	M114	N187	N188			RIGID	None	None	RIGID	DR1
115	M115	N189	N190			RIGID	None	None	RIGID	DR1
116	M116	N194	N193			RIGID	None	None	RIGID	DR1
117	M117	N196	N195			RIGID	None	None	RIGID	DR1
118	M118	N198	N197			RIGID	None	None	RIGID	DR1
119	M119	N200	N199			RIGID	None	None	RIGID	DR1
120	M120	N202	N201			RIGID	None	None	RIGID	DR1
121	M121	N191	N192			Support Rail	Beam	Pipe	A53 Gr. B ...	Typical
122	M122	N203	N204			RIGID	None	None	RIGID	DR1
123	M123	N205	N206			RIGID	None	None	RIGID	DR1
124	M124	N172	N206		90	Support Rail Corner	Beam	Single Angle	A36 Gr.36	Typical
125	M125	N204	N190		90	Support Rail Corner	Beam	Single Angle	A36 Gr.36	Typical
126	M126	N188	N174		90	Support Rail Corner	Beam	Single Angle	A36 Gr.36	Typical
127	M127	N208	N213			V-Brace	Column	Single Angle	A36 Gr.36	Typical
128	M128	N209	N213		270	V-Brace	Column	Single Angle	A36 Gr.36	Typical
129	M129	N211	N210			V-Brace	Column	Single Angle	A36 Gr.36	Typical
130	M130	N212	N210		270	V-Brace	Column	Single Angle	A36 Gr.36	Typical
131	M131	N214	N213A			V-Brace	Column	Single Angle	A36 Gr.36	Typical
132	M132	N215	N213A		270	V-Brace	Column	Single Angle	A36 Gr.36	Typical
133	OVP	N219	N218			Mount Pipe	Column	Pipe	A53 Gr. B ...	Typical
134	M135	N221	N220			RIGID	None	None	RIGID	DR1

**Member Advanced Data**

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati...A...	Inactive	Seismic ...
1	M1						Yes			None
2	M2						Yes			None
3	M3						Yes			None
4	M4						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 Rati...A...	Inactive	Seismic ...
5	M5						Yes			None
6	M6						Yes			None
7	M7						Yes			None
8	M8						Yes			None
9	M9		BenPIN				Yes	** NA **		None
10	M10		BenPIN				Yes	** NA **		None
11	M11		BenPIN				Yes	** NA **		None
12	M12						Yes	** NA **		None
13	M13						Yes	** NA **		None
14	M14						Yes			None
15	M15						Yes	** NA **		None
16	M16						Yes	** NA **		None
17	M17						Yes			None
18	M18						Yes			None
19	M19						Yes			None
20	M20						Yes	** NA **		None
21	MP1A						Yes	** NA **		None
22	M22						Yes			None
23	M23						Yes			None
24	M24						Yes			None
25	M25						Yes			None
26	M26						Yes			None
27	M27						Yes			None
28	M28						Yes			None
29	M29						Yes			None
30	M30		BenPIN				Yes	** NA **		None
31	M31		BenPIN				Yes	** NA **		None
32	M32		BenPIN				Yes	** NA **		None
33	M33						Yes	** NA **		None
34	M34						Yes	** NA **		None
35	M35						Yes			None
36	M36						Yes	** NA **		None
37	M37						Yes	** NA **		None
38	M38						Yes			None
39	M39						Yes			None
40	M40						Yes			None
41	M41	BenPIN	BenPIN				Yes			None
42	M42						Yes	** NA **		None
43	M43						Yes	** NA **		None
44	M44						Yes			None
45	M45						Yes			None
46	M46		BenPIN				Yes	** NA **		None
47	M47		BenPIN				Yes	** NA **		None
48	M48		BenPIN				Yes	** NA **		None
49	M49						Yes	** NA **		None
50	M50						Yes	** NA **		None
51	M51						Yes			None
52	M52						Yes	** NA **		None
53	M53						Yes	** NA **		None
54	M54						Yes			None
55	M55						Yes			None
56	M56						Yes			None
57	M57	BenPIN	BenPIN				Yes			None
58	M58						Yes	** NA **		None
59	M59						Yes	** NA **		None
60	M60						Yes	** NA **		None
61	MP2A						Yes	** NA **		None



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**Member Advanced Data (Continued)**

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati... A...	Inactive	Seismic ...
62	M62						Yes	** NA **		None
63	MP3A						Yes	** NA **		None
64	M64						Yes	** NA **		None
65	MP4A						Yes	** NA **		None
66	M66						Yes	** NA **		None
67	MP5A						Yes	** NA **		None
68	M68						Yes	** NA **		None
69	MP1C						Yes	** NA **		None
70	M70						Yes	** NA **		None
71	MP2C						Yes	** NA **		None
72	M72						Yes	** NA **		None
73	MP3C						Yes	** NA **		None
74	M74						Yes	** NA **		None
75	MP4C						Yes	** NA **		None
76	M76						Yes	** NA **		None
77	MP5C						Yes	** NA **		None
78	M78						Yes	** NA **		None
79	MP1B						Yes	** NA **		None
80	M80						Yes	** NA **		None
81	MP2B						Yes	** NA **		None
82	M82						Yes	** NA **		None
83	MP3B						Yes	** NA **		None
84	M84						Yes	** NA **		None
85	MP4B						Yes	** NA **		None
86	M86						Yes	** NA **		None
87	MP5B						Yes	** NA **		None
88	M88	BenPIN	BenPIN				Yes	** NA **		None
89	M89						Yes	** NA **		None
90	M90						Yes	** NA **		None
91	M91	BenPIN	BenPIN				Yes	** NA **		None
92	M92						Yes	** NA **		None
93	M93						Yes	** NA **		None
94	M94	BenPIN	BenPIN				Yes	** NA **		None
95	M95						Yes	** NA **		None
96	M96						Yes	** NA **		None
97	M97	BenPIN	BenPIN				Yes	** NA **		None
98	M98						Yes	** NA **		None
99	M99						Yes	** NA **		None
100	M100						Yes	** NA **		None
101	M101						Yes	** NA **		None
102	M102						Yes	** NA **		None
103	M103						Yes	** NA **		None
104	M104						Yes	** NA **		None
105	M105						Yes	** NA **		None
106	M106	OOOOOX					Yes	** NA **		None
107	M107	OOOOOX					Yes	** NA **		None
108	M108						Yes	** NA **		None
109	M109						Yes	** NA **		None
110	M110						Yes	** NA **		None
111	M111						Yes	** NA **		None
112	M112						Yes	** NA **		None
113	M113						Yes	** NA **		None
114	M114	OOOOOX					Yes	** NA **		None
115	M115	OOOOOX					Yes	** NA **		None
116	M116						Yes	** NA **		None
117	M117						Yes	** NA **		None
118	M118						Yes	** NA **		None





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 Designer : NL  
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**Member Advanced Data (Continued)**

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rati...A...	Inactive	Seismic ...
119	M119						Yes	** NA **		None
120	M120						Yes	** NA **		None
121	M121						Yes			None
122	M122	OOOOOX					Yes	** NA **		None
123	M123	OOOOOX					Yes	** NA **		None
124	M124						Yes			None
125	M125						Yes			None
126	M126						Yes			None
127	M127	BenPIN	BenPIN				Yes	** NA **		None
128	M128	BenPIN	BenPIN				Yes	** NA **		None
129	M129	BenPIN	BenPIN				Yes	** NA **		None
130	M130	BenPIN	BenPIN				Yes	** NA **		None
131	M131	BenPIN	BenPIN				Yes	** NA **		None
132	M132	BenPIN	BenPIN				Yes	** NA **		None
133	OVP						Yes	** NA **		None
134	M135						Yes	** NA **		None

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP3A	Y	-21.85	.5
2	MP3A	My	-.011	.5
3	MP3A	Mz	0	.5
4	MP3A	Y	-21.85	5.75
5	MP3A	Mv	-.011	5.75
6	MP3A	Mz	0	5.75
7	MP3B	Y	-21.85	.5
8	MP3B	My	.005	.5
9	MP3B	Mz	-.009	.5
10	MP3B	Y	-21.85	5.75
11	MP3B	Mv	.005	5.75
12	MP3B	Mz	-.009	5.75
13	MP3C	Y	-21.85	.5
14	MP3C	My	.005	.5
15	MP3C	Mz	.009	.5
16	MP3C	Y	-21.85	5.75
17	MP3C	Mv	.005	5.75
18	MP3C	Mz	.009	5.75
19	MP1A	Y	-43.55	1.75
20	MP1A	My	-.033	1.75
21	MP1A	Mz	0	1.75
22	MP1A	Y	-43.55	3.75
23	MP1A	Mv	-.033	3.75
24	MP1A	Mz	0	3.75
25	MP1B	Y	-43.55	1.75
26	MP1B	My	.016	1.75
27	MP1B	Mz	-.028	1.75
28	MP1B	Y	-43.55	3.75
29	MP1B	Mv	.016	3.75
30	MP1B	Mz	-.028	3.75
31	MP1C	Y	-43.55	1.75
32	MP1C	My	.016	1.75
33	MP1C	Mz	.028	1.75
34	MP1C	Y	-43.55	3.75
35	MP1C	Mv	.016	3.75
36	MP1C	Mz	.028	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
37	MP5A	Y	-23.2	2.75
38	MP5A	My	-.017	2.75
39	MP5A	Mz	0	2.75
40	MP5B	Y	-23.2	2.75
41	MP5B	My	.009	2.75
42	MP5B	Mz	-.015	2.75
43	MP5C	Y	-23.2	2.75
44	MP5C	My	.009	2.75
45	MP5C	Mz	.015	2.75
46	MP2A	Y	-74.7	.5
47	MP2A	My	.025	.5
48	MP2A	Mz	0	.5
49	MP2B	Y	-74.7	.5
50	MP2B	My	-.012	.5
51	MP2B	Mz	.022	.5
52	MP2C	Y	-74.7	.5
53	MP2C	My	-.012	.5
54	MP2C	Mz	-.022	.5
55	MP3A	Y	-70.3	2
56	MP3A	My	.023	2
57	MP3A	Mz	0	2
58	MP3B	Y	-70.3	2
59	MP3B	Mv	-.012	2
60	MP3B	Mz	.02	2
61	MP3C	Y	-70.3	2
62	MP3C	My	-.012	2
63	MP3C	Mz	-.02	2
64	OVP	Y	-32	.5
65	OVP	My	.024	.5
66	OVP	Mz	0	.5
67	MP3A	Y	-8.8	4.5
68	MP3A	My	.009	4.5
69	MP3A	Mz	-.003	4.5
70	MP3A	Y	-8.8	5.5
71	MP3A	My	.009	5.5
72	MP3A	Mz	-.003	5.5
73	MP3C	Y	-8.8	4.5
74	MP3C	My	-.007	4.5
75	MP3C	Mz	-.006	4.5
76	MP3C	Y	-8.8	5.5
77	MP3C	My	-.007	5.5
78	MP3C	Mz	-.006	5.5
79	MP3A	Y	-8.8	4.5
80	MP3A	My	.009	4.5
81	MP3A	Mz	.003	4.5
82	MP3A	Y	-8.8	5.5
83	MP3A	My	.009	5.5
84	MP3A	Mz	.003	5.5
85	MP3C	Y	-8.8	4.5
86	MP3C	My	-.002	4.5
87	MP3C	Mz	-.009	4.5
88	MP3C	Y	-8.8	5.5
89	MP3C	My	-.002	5.5
90	MP3C	Mz	-.009	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
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**Member Point Loads (BLC 2 : Antenna Di) (Continued)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	Y	-61.322	.5
2	MP3A	My	-.031	.5
3	MP3A	Mz	0	.5
4	MP3A	Y	-61.322	5.75
5	MP3A	My	-.031	5.75
6	MP3A	Mz	0	5.75
7	MP3B	Y	-61.322	.5
8	MP3B	My	.015	.5
9	MP3B	Mz	-.027	.5
10	MP3B	Y	-61.322	5.75
11	MP3B	My	.015	5.75
12	MP3B	Mz	-.027	5.75
13	MP3C	Y	-61.322	.5
14	MP3C	My	.015	.5
15	MP3C	Mz	.027	.5
16	MP3C	Y	-61.322	5.75
17	MP3C	My	.015	5.75
18	MP3C	Mz	.027	5.75
19	MP1A	Y	-36.045	1.75
20	MP1A	My	-.027	1.75
21	MP1A	Mz	0	1.75
22	MP1A	Y	-36.045	3.75
23	MP1A	My	-.027	3.75
24	MP1A	Mz	0	3.75
25	MP1B	Y	-36.045	1.75
26	MP1B	My	.014	1.75
27	MP1B	Mz	-.023	1.75
28	MP1B	Y	-36.045	3.75
29	MP1B	My	.014	3.75
30	MP1B	Mz	-.023	3.75
31	MP1C	Y	-36.045	1.75
32	MP1C	My	.014	1.75
33	MP1C	Mz	.023	1.75
34	MP1C	Y	-36.045	3.75
35	MP1C	My	.014	3.75
36	MP1C	Mz	.023	3.75
37	MP5A	Y	-30.242	2.75
38	MP5A	My	-.023	2.75
39	MP5A	Mz	0	2.75
40	MP5B	Y	-30.242	2.75
41	MP5B	My	.011	2.75
42	MP5B	Mz	-.02	2.75
43	MP5C	Y	-30.242	2.75
44	MP5C	My	.011	2.75
45	MP5C	Mz	.02	2.75
46	MP2A	Y	-45.452	.5
47	MP2A	My	.015	.5
48	MP2A	Mz	0	.5
49	MP2B	Y	-45.452	.5
50	MP2B	My	-.008	.5
51	MP2B	Mz	.013	.5
52	MP2C	Y	-45.452	.5
53	MP2C	My	-.008	.5
54	MP2C	Mz	-.013	.5
55	MP3A	Y	-43.286	2
56	MP3A	My	.014	2
57	MP3A	Mz	0	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP3B	Y	-43.286	2
59	MP3B	My	-.007	2
60	MP3B	Mz	.012	2
61	MP3C	Y	-43.286	2
62	MP3C	My	-.007	2
63	MP3C	Mz	-.012	2
64	OVP	Y	-88.96	.5
65	OVP	My	.067	.5
66	OVP	Mz	0	.5
67	MP3A	Y	3.3	4.5
68	MP3A	My	-.003	4.5
69	MP3A	Mz	.001	4.5
70	MP3A	Y	3.3	5.5
71	MP3A	My	-.003	5.5
72	MP3A	Mz	.001	5.5
73	MP3C	Y	3.3	4.5
74	MP3C	My	.003	4.5
75	MP3C	Mz	.002	4.5
76	MP3C	Y	3.3	5.5
77	MP3C	My	.003	5.5
78	MP3C	Mz	.002	5.5
79	MP3A	Y	3.3	4.5
80	MP3A	My	-.003	4.5
81	MP3A	Mz	-.001	4.5
82	MP3A	Y	3.3	5.5
83	MP3A	My	-.003	5.5
84	MP3A	Mz	-.001	5.5
85	MP3C	Y	3.3	4.5
86	MP3C	My	.000697	4.5
87	MP3C	Mz	.003	4.5
88	MP3C	Y	3.3	5.5
89	MP3C	My	.000697	5.5
90	MP3C	Mz	.003	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	.5
2	MP3A	Z	-94.627	.5
3	MP3A	Mx	0	.5
4	MP3A	X	0	5.75
5	MP3A	Z	-94.627	5.75
6	MP3A	Mx	0	5.75
7	MP3B	X	0	.5
8	MP3B	Z	-54.11	.5
9	MP3B	Mx	.023	.5
10	MP3B	X	0	5.75
11	MP3B	Z	-54.11	5.75
12	MP3B	Mx	.023	5.75
13	MP3C	X	0	.5
14	MP3C	Z	-54.11	.5
15	MP3C	Mx	-.023	.5
16	MP3C	X	0	5.75
17	MP3C	Z	-54.11	5.75
18	MP3C	Mx	-.023	5.75
19	MP1A	X	0	1.75
20	MP1A	Z	-68.313	1.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
21	MP1A	Mx	0	1.75
22	MP1A	X	0	3.75
23	MP1A	Z	-68.313	3.75
24	MP1A	Mx	0	3.75
25	MP1B	X	0	1.75
26	MP1B	Z	-34.723	1.75
27	MP1B	Mx	.023	1.75
28	MP1B	X	0	3.75
29	MP1B	Z	-34.723	3.75
30	MP1B	Mx	.023	3.75
31	MP1C	X	0	1.75
32	MP1C	Z	-34.723	1.75
33	MP1C	Mx	-.023	1.75
34	MP1C	X	0	3.75
35	MP1C	Z	-34.723	3.75
36	MP1C	Mx	-.023	3.75
37	MP5A	X	0	2.75
38	MP5A	Z	-53.326	2.75
39	MP5A	Mx	0	2.75
40	MP5B	X	0	2.75
41	MP5B	Z	-33.061	2.75
42	MP5B	Mx	.021	2.75
43	MP5C	X	0	2.75
44	MP5C	Z	-33.061	2.75
45	MP5C	Mx	-.021	2.75
46	MP2A	X	0	.5
47	MP2A	Z	-54.023	.5
48	MP2A	Mx	0	.5
49	MP2B	X	0	.5
50	MP2B	Z	-40.691	.5
51	MP2B	Mx	-.012	.5
52	MP2C	X	0	.5
53	MP2C	Z	-40.691	.5
54	MP2C	Mx	.012	.5
55	MP3A	X	0	2
56	MP3A	Z	-54.023	2
57	MP3A	Mx	0	2
58	MP3B	X	0	2
59	MP3B	Z	-38.077	2
60	MP3B	Mx	-.011	2
61	MP3C	X	0	2
62	MP3C	Z	-38.077	2
63	MP3C	Mx	.011	2
64	OVP	X	0	.5
65	OVP	Z	-110.486	.5
66	OVP	Mx	0	.5
67	MP3A	X	0	4.5
68	MP3A	Z	-16.73	4.5
69	MP3A	Mx	.006	4.5
70	MP3A	X	0	5.5
71	MP3A	Z	-16.73	5.5
72	MP3A	Mx	.006	5.5
73	MP3C	X	0	4.5
74	MP3C	Z	-16.767	4.5
75	MP3C	Mx	.012	4.5
76	MP3C	X	0	5.5
77	MP3C	Z	-16.767	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
78	MP3C	Mx	.012	5.5
79	MP3A	X	0	4.5
80	MP3A	Z	-16.73	4.5
81	MP3A	Mx	-.006	4.5
82	MP3A	X	0	5.5
83	MP3A	Z	-16.73	5.5
84	MP3A	Mx	-.006	5.5
85	MP3C	X	0	4.5
86	MP3C	Z	-16.767	4.5
87	MP3C	Mx	.017	4.5
88	MP3C	X	0	5.5
89	MP3C	Z	-16.767	5.5
90	MP3C	Mx	.017	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	40.561	.5
2	MP3A	Z	-70.253	.5
3	MP3A	Mx	-.02	.5
4	MP3A	X	40.561	5.75
5	MP3A	Z	-70.253	5.75
6	MP3A	Mx	-.02	5.75
7	MP3B	X	20.302	.5
8	MP3B	Z	-35.164	.5
9	MP3B	Mx	.02	.5
10	MP3B	X	20.302	5.75
11	MP3B	Z	-35.164	5.75
12	MP3B	Mx	.02	5.75
13	MP3C	X	40.561	.5
14	MP3C	Z	-70.253	.5
15	MP3C	Mx	-.02	.5
16	MP3C	X	40.561	5.75
17	MP3C	Z	-70.253	5.75
18	MP3C	Mx	-.02	5.75
19	MP1A	X	28.558	1.75
20	MP1A	Z	-49.464	1.75
21	MP1A	Mx	-.021	1.75
22	MP1A	X	28.558	3.75
23	MP1A	Z	-49.464	3.75
24	MP1A	Mx	-.021	3.75
25	MP1B	X	11.763	1.75
26	MP1B	Z	-20.374	1.75
27	MP1B	Mx	.018	1.75
28	MP1B	X	11.763	3.75
29	MP1B	Z	-20.374	3.75
30	MP1B	Mx	.018	3.75
31	MP1C	X	28.558	1.75
32	MP1C	Z	-49.464	1.75
33	MP1C	Mx	-.021	1.75
34	MP1C	X	28.558	3.75
35	MP1C	Z	-49.464	3.75
36	MP1C	Mx	-.021	3.75
37	MP5A	X	23.285	2.75
38	MP5A	Z	-40.332	2.75
39	MP5A	Mx	-.017	2.75
40	MP5B	X	13.153	2.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
41	MP5B	Z	-22.781	2.75
42	MP5B	Mx	.02	2.75
43	MP5C	X	23.285	2.75
44	MP5C	Z	-40.332	2.75
45	MP5C	Mx	-.017	2.75
46	MP2A	X	24.79	.5
47	MP2A	Z	-42.937	.5
48	MP2A	Mx	.008	.5
49	MP2B	X	18.124	.5
50	MP2B	Z	-31.391	.5
51	MP2B	Mx	-.012	.5
52	MP2C	X	24.79	.5
53	MP2C	Z	-42.937	.5
54	MP2C	Mx	.008	.5
55	MP3A	X	24.354	2
56	MP3A	Z	-42.182	2
57	MP3A	Mx	.008	2
58	MP3B	X	16.381	2
59	MP3B	Z	-28.373	2
60	MP3B	Mx	-.011	2
61	MP3C	X	24.354	2
62	MP3C	Z	-42.182	2
63	MP3C	Mx	.008	2
64	OVP	X	51.932	.5
65	OVP	Z	-89.948	.5
66	OVP	Mx	.039	.5
67	MP3A	X	8.371	4.5
68	MP3A	Z	-14.499	4.5
69	MP3A	Mx	.013	4.5
70	MP3A	X	8.371	5.5
71	MP3A	Z	-14.499	5.5
72	MP3A	Mx	.013	5.5
73	MP3C	X	8.371	4.5
74	MP3C	Z	-14.499	4.5
75	MP3C	Mx	.004	4.5
76	MP3C	X	8.371	5.5
77	MP3C	Z	-14.499	5.5
78	MP3C	Mx	.004	5.5
79	MP3A	X	8.371	4.5
80	MP3A	Z	-14.499	4.5
81	MP3A	Mx	.004	4.5
82	MP3A	X	8.371	5.5
83	MP3A	Z	-14.499	5.5
84	MP3A	Mx	.004	5.5
85	MP3C	X	8.371	4.5
86	MP3C	Z	-14.499	4.5
87	MP3C	Mx	.013	4.5
88	MP3C	X	8.371	5.5
89	MP3C	Z	-14.499	5.5
90	MP3C	Mx	.013	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	46.861	.5
2	MP3A	Z	-27.055	.5
3	MP3A	Mx	-.023	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
4	MP3A	X	46.861	5.75
5	MP3A	Z	-27.055	5.75
6	MP3A	Mx	-.023	5.75
7	MP3B	X	46.861	.5
8	MP3B	Z	-27.055	.5
9	MP3B	Mx	.023	.5
10	MP3B	X	46.861	5.75
11	MP3B	Z	-27.055	5.75
12	MP3B	Mx	.023	5.75
13	MP3C	X	81.95	.5
14	MP3C	Z	-47.314	.5
15	MP3C	Mx	0	.5
16	MP3C	X	81.95	5.75
17	MP3C	Z	-47.314	5.75
18	MP3C	Mx	0	5.75
19	MP1A	X	30.071	1.75
20	MP1A	Z	-17.361	1.75
21	MP1A	Mx	-.023	1.75
22	MP1A	X	30.071	3.75
23	MP1A	Z	-17.361	3.75
24	MP1A	Mx	-.023	3.75
25	MP1B	X	30.071	1.75
26	MP1B	Z	-17.361	1.75
27	MP1B	Mx	.023	1.75
28	MP1B	X	30.071	3.75
29	MP1B	Z	-17.361	3.75
30	MP1B	Mx	.023	3.75
31	MP1C	X	59.161	1.75
32	MP1C	Z	-34.156	1.75
33	MP1C	Mx	0	1.75
34	MP1C	X	59.161	3.75
35	MP1C	Z	-34.156	3.75
36	MP1C	Mx	0	3.75
37	MP5A	X	28.631	2.75
38	MP5A	Z	-16.53	2.75
39	MP5A	Mx	-.021	2.75
40	MP5B	X	28.631	2.75
41	MP5B	Z	-16.53	2.75
42	MP5B	Mx	.021	2.75
43	MP5C	X	46.182	2.75
44	MP5C	Z	-26.663	2.75
45	MP5C	Mx	0	2.75
46	MP2A	X	35.24	.5
47	MP2A	Z	-20.346	.5
48	MP2A	Mx	.012	.5
49	MP2B	X	35.24	.5
50	MP2B	Z	-20.346	.5
51	MP2B	Mx	-.012	.5
52	MP2C	X	46.785	.5
53	MP2C	Z	-27.011	.5
54	MP2C	Mx	0	.5
55	MP3A	X	32.976	2
56	MP3A	Z	-19.039	2
57	MP3A	Mx	.011	2
58	MP3B	X	32.976	2
59	MP3B	Z	-19.039	2
60	MP3B	Mx	-.011	2





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
61	MP3C	X	46.785	2
62	MP3C	Z	-27.011	2
63	MP3C	Mx	0	2
64	OVP	X	78.478	.5
65	OVP	Z	-45.31	.5
66	OVP	Mx	.059	.5
67	MP3A	X	14.52	4.5
68	MP3A	Z	-8.383	4.5
69	MP3A	Mx	.017	4.5
70	MP3A	X	14.52	5.5
71	MP3A	Z	-8.383	5.5
72	MP3A	Mx	.017	5.5
73	MP3C	X	14.488	4.5
74	MP3C	Z	-8.365	4.5
75	MP3C	Mx	-.006	4.5
76	MP3C	X	14.488	5.5
77	MP3C	Z	-8.365	5.5
78	MP3C	Mx	-.006	5.5
79	MP3A	X	14.52	4.5
80	MP3A	Z	-8.383	4.5
81	MP3A	Mx	.012	4.5
82	MP3A	X	14.52	5.5
83	MP3A	Z	-8.383	5.5
84	MP3A	Mx	.012	5.5
85	MP3C	X	14.488	4.5
86	MP3C	Z	-8.365	4.5
87	MP3C	Mx	.006	4.5
88	MP3C	X	14.488	5.5
89	MP3C	Z	-8.365	5.5
90	MP3C	Mx	.006	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	40.604	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	-.02	.5
4	MP3A	X	40.604	5.75
5	MP3A	Z	0	5.75
6	MP3A	Mx	-.02	5.75
7	MP3B	X	81.122	.5
8	MP3B	Z	0	.5
9	MP3B	Mx	.02	.5
10	MP3B	X	81.122	5.75
11	MP3B	Z	0	5.75
12	MP3B	Mx	.02	5.75
13	MP3C	X	81.122	.5
14	MP3C	Z	0	.5
15	MP3C	Mx	.02	.5
16	MP3C	X	81.122	5.75
17	MP3C	Z	0	5.75
18	MP3C	Mx	.02	5.75
19	MP1A	X	23.526	1.75
20	MP1A	Z	0	1.75
21	MP1A	Mx	-.018	1.75
22	MP1A	X	23.526	3.75
23	MP1A	Z	0	3.75



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP1A	Mx	-.018	3.75
25	MP1B	X	57.116	1.75
26	MP1B	Z	0	1.75
27	MP1B	Mx	.021	1.75
28	MP1B	X	57.116	3.75
29	MP1B	Z	0	3.75
30	MP1B	Mx	.021	3.75
31	MP1C	X	57.116	1.75
32	MP1C	Z	0	1.75
33	MP1C	Mx	.021	1.75
34	MP1C	X	57.116	3.75
35	MP1C	Z	0	3.75
36	MP1C	Mx	.021	3.75
37	MP5A	X	26.306	2.75
38	MP5A	Z	0	2.75
39	MP5A	Mx	-.02	2.75
40	MP5B	X	46.571	2.75
41	MP5B	Z	0	2.75
42	MP5B	Mx	.017	2.75
43	MP5C	X	46.571	2.75
44	MP5C	Z	0	2.75
45	MP5C	Mx	.017	2.75
46	MP2A	X	36.248	.5
47	MP2A	Z	0	.5
48	MP2A	Mx	.012	.5
49	MP2B	X	49.579	.5
50	MP2B	Z	0	.5
51	MP2B	Mx	-.008	.5
52	MP2C	X	49.579	.5
53	MP2C	Z	0	.5
54	MP2C	Mx	-.008	.5
55	MP3A	X	32.762	2
56	MP3A	Z	0	2
57	MP3A	Mx	.011	2
58	MP3B	X	48.708	2
59	MP3B	Z	0	2
60	MP3B	Mx	-.008	2
61	MP3C	X	48.708	2
62	MP3C	Z	0	2
63	MP3C	Mx	-.008	2
64	OVP	X	83.997	.5
65	OVP	Z	0	.5
66	OVP	Mx	.063	.5
67	MP3A	X	16.779	4.5
68	MP3A	Z	0	4.5
69	MP3A	Mx	.017	4.5
70	MP3A	X	16.779	5.5
71	MP3A	Z	0	5.5
72	MP3A	Mx	.017	5.5
73	MP3C	X	16.742	4.5
74	MP3C	Z	0	4.5
75	MP3C	Mx	-.013	4.5
76	MP3C	X	16.742	5.5
77	MP3C	Z	0	5.5
78	MP3C	Mx	-.013	5.5
79	MP3A	X	16.779	4.5
80	MP3A	Z	0	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
81	MP3A	Mx	.017	4.5
82	MP3A	X	16.779	5.5
83	MP3A	Z	0	5.5
84	MP3A	Mx	.017	5.5
85	MP3C	X	16.742	4.5
86	MP3C	Z	0	4.5
87	MP3C	Mx	-.004	4.5
88	MP3C	X	16.742	5.5
89	MP3C	Z	0	5.5
90	MP3C	Mx	-.004	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	46.861	.5
2	MP3A	Z	27.055	.5
3	MP3A	Mx	-.023	.5
4	MP3A	X	46.861	5.75
5	MP3A	Z	27.055	5.75
6	MP3A	Mx	-.023	5.75
7	MP3B	X	81.95	.5
8	MP3B	Z	47.314	.5
9	MP3B	Mx	0	.5
10	MP3B	X	81.95	5.75
11	MP3B	Z	47.314	5.75
12	MP3B	Mx	0	5.75
13	MP3C	X	46.861	.5
14	MP3C	Z	27.055	.5
15	MP3C	Mx	.023	.5
16	MP3C	X	46.861	5.75
17	MP3C	Z	27.055	5.75
18	MP3C	Mx	.023	5.75
19	MP1A	X	30.071	1.75
20	MP1A	Z	17.361	1.75
21	MP1A	Mx	-.023	1.75
22	MP1A	X	30.071	3.75
23	MP1A	Z	17.361	3.75
24	MP1A	Mx	-.023	3.75
25	MP1B	X	59.161	1.75
26	MP1B	Z	34.156	1.75
27	MP1B	Mx	0	1.75
28	MP1B	X	59.161	3.75
29	MP1B	Z	34.156	3.75
30	MP1B	Mx	0	3.75
31	MP1C	X	30.071	1.75
32	MP1C	Z	17.361	1.75
33	MP1C	Mx	.023	1.75
34	MP1C	X	30.071	3.75
35	MP1C	Z	17.361	3.75
36	MP1C	Mx	.023	3.75
37	MP5A	X	28.631	2.75
38	MP5A	Z	16.53	2.75
39	MP5A	Mx	-.021	2.75
40	MP5B	X	46.182	2.75
41	MP5B	Z	26.663	2.75
42	MP5B	Mx	0	2.75
43	MP5C	X	28.631	2.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
44	MP5C	Z	16.53	2.75
45	MP5C	Mx	.021	2.75
46	MP2A	X	35.24	.5
47	MP2A	Z	20.346	.5
48	MP2A	Mx	.012	.5
49	MP2B	X	46.785	.5
50	MP2B	Z	27.011	.5
51	MP2B	Mx	0	.5
52	MP2C	X	35.24	.5
53	MP2C	Z	20.346	.5
54	MP2C	Mx	-.012	.5
55	MP3A	X	32.976	2
56	MP3A	Z	19.039	2
57	MP3A	Mx	.011	2
58	MP3B	X	46.785	2
59	MP3B	Z	27.011	2
60	MP3B	Mx	0	2
61	MP3C	X	32.976	2
62	MP3C	Z	19.039	2
63	MP3C	Mx	-.011	2
64	OVP	X	78.478	.5
65	OVP	Z	45.31	.5
66	OVP	Mx	.059	.5
67	MP3A	X	14.52	4.5
68	MP3A	Z	8.383	4.5
69	MP3A	Mx	.012	4.5
70	MP3A	X	14.52	5.5
71	MP3A	Z	8.383	5.5
72	MP3A	Mx	.012	5.5
73	MP3C	X	14.52	4.5
74	MP3C	Z	8.383	4.5
75	MP3C	Mx	-.017	4.5
76	MP3C	X	14.52	5.5
77	MP3C	Z	8.383	5.5
78	MP3C	Mx	-.017	5.5
79	MP3A	X	14.52	4.5
80	MP3A	Z	8.383	4.5
81	MP3A	Mx	.017	4.5
82	MP3A	X	14.52	5.5
83	MP3A	Z	8.383	5.5
84	MP3A	Mx	.017	5.5
85	MP3C	X	14.52	4.5
86	MP3C	Z	8.383	4.5
87	MP3C	Mx	-.012	4.5
88	MP3C	X	14.52	5.5
89	MP3C	Z	8.383	5.5
90	MP3C	Mx	-.012	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	40.561	.5
2	MP3A	Z	70.253	.5
3	MP3A	Mx	-.02	.5
4	MP3A	X	40.561	5.75
5	MP3A	Z	70.253	5.75
6	MP3A	Mx	-.02	5.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
7	MP3B	X	40.561	.5
8	MP3B	Z	70.253	.5
9	MP3B	Mx	-.02	.5
10	MP3B	X	40.561	5.75
11	MP3B	Z	70.253	5.75
12	MP3B	Mx	-.02	5.75
13	MP3C	X	20.302	.5
14	MP3C	Z	35.164	.5
15	MP3C	Mx	.02	.5
16	MP3C	X	20.302	5.75
17	MP3C	Z	35.164	5.75
18	MP3C	Mx	.02	5.75
19	MP1A	X	28.558	1.75
20	MP1A	Z	49.464	1.75
21	MP1A	Mx	-.021	1.75
22	MP1A	X	28.558	3.75
23	MP1A	Z	49.464	3.75
24	MP1A	Mx	-.021	3.75
25	MP1B	X	28.558	1.75
26	MP1B	Z	49.464	1.75
27	MP1B	Mx	-.021	1.75
28	MP1B	X	28.558	3.75
29	MP1B	Z	49.464	3.75
30	MP1B	Mx	-.021	3.75
31	MP1C	X	11.763	1.75
32	MP1C	Z	20.374	1.75
33	MP1C	Mx	.018	1.75
34	MP1C	X	11.763	3.75
35	MP1C	Z	20.374	3.75
36	MP1C	Mx	.018	3.75
37	MP5A	X	23.285	2.75
38	MP5A	Z	40.332	2.75
39	MP5A	Mx	-.017	2.75
40	MP5B	X	23.285	2.75
41	MP5B	Z	40.332	2.75
42	MP5B	Mx	-.017	2.75
43	MP5C	X	13.153	2.75
44	MP5C	Z	22.781	2.75
45	MP5C	Mx	.02	2.75
46	MP2A	X	24.79	.5
47	MP2A	Z	42.937	.5
48	MP2A	Mx	.008	.5
49	MP2B	X	24.79	.5
50	MP2B	Z	42.937	.5
51	MP2B	Mx	.008	.5
52	MP2C	X	18.124	.5
53	MP2C	Z	31.391	.5
54	MP2C	Mx	-.012	.5
55	MP3A	X	24.354	2
56	MP3A	Z	42.182	2
57	MP3A	Mx	.008	2
58	MP3B	X	24.354	2
59	MP3B	Z	42.182	2
60	MP3B	Mx	.008	2
61	MP3C	X	16.381	2
62	MP3C	Z	28.373	2
63	MP3C	Mx	-.011	2



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

Aug 2, 2023  
 11:17 AM  
 Checked By: DX

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
64	OVP	X	51.932	.5
65	OVP	Z	89.948	.5
66	OVP	Mx	.039	.5
67	MP3A	X	8.371	4.5
68	MP3A	Z	14.499	4.5
69	MP3A	Mx	.004	4.5
70	MP3A	X	8.371	5.5
71	MP3A	Z	14.499	5.5
72	MP3A	Mx	.004	5.5
73	MP3C	X	8.39	4.5
74	MP3C	Z	14.531	4.5
75	MP3C	Mx	-.017	4.5
76	MP3C	X	8.39	5.5
77	MP3C	Z	14.531	5.5
78	MP3C	Mx	-.017	5.5
79	MP3A	X	8.371	4.5
80	MP3A	Z	14.499	4.5
81	MP3A	Mx	.013	4.5
82	MP3A	X	8.371	5.5
83	MP3A	Z	14.499	5.5
84	MP3A	Mx	.013	5.5
85	MP3C	X	8.39	4.5
86	MP3C	Z	14.531	4.5
87	MP3C	Mx	-.017	4.5
88	MP3C	X	8.39	5.5
89	MP3C	Z	14.531	5.5
90	MP3C	Mx	-.017	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	.5
2	MP3A	Z	94.627	.5
3	MP3A	Mx	0	.5
4	MP3A	X	0	5.75
5	MP3A	Z	94.627	5.75
6	MP3A	Mx	0	5.75
7	MP3B	X	0	.5
8	MP3B	Z	54.11	.5
9	MP3B	Mx	-.023	.5
10	MP3B	X	0	5.75
11	MP3B	Z	54.11	5.75
12	MP3B	Mx	-.023	5.75
13	MP3C	X	0	.5
14	MP3C	Z	54.11	.5
15	MP3C	Mx	.023	.5
16	MP3C	X	0	5.75
17	MP3C	Z	54.11	5.75
18	MP3C	Mx	.023	5.75
19	MP1A	X	0	1.75
20	MP1A	Z	68.313	1.75
21	MP1A	Mx	0	1.75
22	MP1A	X	0	3.75
23	MP1A	Z	68.313	3.75
24	MP1A	Mx	0	3.75
25	MP1B	X	0	1.75
26	MP1B	Z	34.723	1.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
27	MP1B	Mx	-.023	1.75
28	MP1B	X	0	3.75
29	MP1B	Z	34.723	3.75
30	MP1B	Mx	-.023	3.75
31	MP1C	X	0	1.75
32	MP1C	Z	34.723	1.75
33	MP1C	Mx	.023	1.75
34	MP1C	X	0	3.75
35	MP1C	Z	34.723	3.75
36	MP1C	Mx	.023	3.75
37	MP5A	X	0	2.75
38	MP5A	Z	53.326	2.75
39	MP5A	Mx	0	2.75
40	MP5B	X	0	2.75
41	MP5B	Z	33.061	2.75
42	MP5B	Mx	-.021	2.75
43	MP5C	X	0	2.75
44	MP5C	Z	33.061	2.75
45	MP5C	Mx	.021	2.75
46	MP2A	X	0	.5
47	MP2A	Z	54.023	.5
48	MP2A	Mx	0	.5
49	MP2B	X	0	.5
50	MP2B	Z	40.691	.5
51	MP2B	Mx	.012	.5
52	MP2C	X	0	.5
53	MP2C	Z	40.691	.5
54	MP2C	Mx	-.012	.5
55	MP3A	X	0	2
56	MP3A	Z	54.023	2
57	MP3A	Mx	0	2
58	MP3B	X	0	2
59	MP3B	Z	38.077	2
60	MP3B	Mx	.011	2
61	MP3C	X	0	2
62	MP3C	Z	38.077	2
63	MP3C	Mx	-.011	2
64	OVP	X	0	.5
65	OVP	Z	110.486	.5
66	OVP	Mx	0	.5
67	MP3A	X	0	4.5
68	MP3A	Z	16.73	4.5
69	MP3A	Mx	-.006	4.5
70	MP3A	X	0	5.5
71	MP3A	Z	16.73	5.5
72	MP3A	Mx	-.006	5.5
73	MP3C	X	0	4.5
74	MP3C	Z	16.767	4.5
75	MP3C	Mx	-.012	4.5
76	MP3C	X	0	5.5
77	MP3C	Z	16.767	5.5
78	MP3C	Mx	-.012	5.5
79	MP3A	X	0	4.5
80	MP3A	Z	16.73	4.5
81	MP3A	Mx	.006	4.5
82	MP3A	X	0	5.5
83	MP3A	Z	16.73	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
84	MP3A	Mx	.006	5.5
85	MP3C	X	0	4.5
86	MP3C	Z	16.767	4.5
87	MP3C	Mx	-.017	4.5
88	MP3C	X	0	5.5
89	MP3C	Z	16.767	5.5
90	MP3C	Mx	-.017	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-40.561	.5
2	MP3A	Z	70.253	.5
3	MP3A	Mx	.02	.5
4	MP3A	X	-40.561	5.75
5	MP3A	Z	70.253	5.75
6	MP3A	Mx	.02	5.75
7	MP3B	X	-20.302	.5
8	MP3B	Z	35.164	.5
9	MP3B	Mx	-.02	.5
10	MP3B	X	-20.302	5.75
11	MP3B	Z	35.164	5.75
12	MP3B	Mx	-.02	5.75
13	MP3C	X	-40.561	.5
14	MP3C	Z	70.253	.5
15	MP3C	Mx	.02	.5
16	MP3C	X	-40.561	5.75
17	MP3C	Z	70.253	5.75
18	MP3C	Mx	.02	5.75
19	MP1A	X	-28.558	1.75
20	MP1A	Z	49.464	1.75
21	MP1A	Mx	.021	1.75
22	MP1A	X	-28.558	3.75
23	MP1A	Z	49.464	3.75
24	MP1A	Mx	.021	3.75
25	MP1B	X	-11.763	1.75
26	MP1B	Z	20.374	1.75
27	MP1B	Mx	-.018	1.75
28	MP1B	X	-11.763	3.75
29	MP1B	Z	20.374	3.75
30	MP1B	Mx	-.018	3.75
31	MP1C	X	-28.558	1.75
32	MP1C	Z	49.464	1.75
33	MP1C	Mx	.021	1.75
34	MP1C	X	-28.558	3.75
35	MP1C	Z	49.464	3.75
36	MP1C	Mx	.021	3.75
37	MP5A	X	-23.285	2.75
38	MP5A	Z	40.332	2.75
39	MP5A	Mx	.017	2.75
40	MP5B	X	-13.153	2.75
41	MP5B	Z	22.781	2.75
42	MP5B	Mx	-.02	2.75
43	MP5C	X	-23.285	2.75
44	MP5C	Z	40.332	2.75
45	MP5C	Mx	.017	2.75
46	MP2A	X	-24.79	.5





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
47	MP2A	Z	42.937	.5
48	MP2A	Mx	-.008	.5
49	MP2B	X	-18.124	.5
50	MP2B	Z	31.391	.5
51	MP2B	Mx	.012	.5
52	MP2C	X	-24.79	.5
53	MP2C	Z	42.937	.5
54	MP2C	Mx	-.008	.5
55	MP3A	X	-24.354	2
56	MP3A	Z	42.182	2
57	MP3A	Mx	-.008	2
58	MP3B	X	-16.381	2
59	MP3B	Z	28.373	2
60	MP3B	Mx	.011	2
61	MP3C	X	-24.354	2
62	MP3C	Z	42.182	2
63	MP3C	Mx	-.008	2
64	OVP	X	-51.932	.5
65	OVP	Z	89.948	.5
66	OVP	Mx	-.039	.5
67	MP3A	X	-8.371	4.5
68	MP3A	Z	14.499	4.5
69	MP3A	Mx	-.013	4.5
70	MP3A	X	-8.371	5.5
71	MP3A	Z	14.499	5.5
72	MP3A	Mx	-.013	5.5
73	MP3C	X	-8.371	4.5
74	MP3C	Z	14.499	4.5
75	MP3C	Mx	-.004	4.5
76	MP3C	X	-8.371	5.5
77	MP3C	Z	14.499	5.5
78	MP3C	Mx	-.004	5.5
79	MP3A	X	-8.371	4.5
80	MP3A	Z	14.499	4.5
81	MP3A	Mx	-.004	4.5
82	MP3A	X	-8.371	5.5
83	MP3A	Z	14.499	5.5
84	MP3A	Mx	-.004	5.5
85	MP3C	X	-8.371	4.5
86	MP3C	Z	14.499	4.5
87	MP3C	Mx	-.013	4.5
88	MP3C	X	-8.371	5.5
89	MP3C	Z	14.499	5.5
90	MP3C	Mx	-.013	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-46.861	.5
2	MP3A	Z	27.055	.5
3	MP3A	Mx	.023	.5
4	MP3A	X	-46.861	5.75
5	MP3A	Z	27.055	5.75
6	MP3A	Mx	.023	5.75
7	MP3B	X	-46.861	.5
8	MP3B	Z	27.055	.5
9	MP3B	Mx	-.023	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
10	MP3B	X	-46.861	5.75
11	MP3B	Z	27.055	5.75
12	MP3B	Mx	-.023	5.75
13	MP3C	X	-81.95	.5
14	MP3C	Z	47.314	.5
15	MP3C	Mx	0	.5
16	MP3C	X	-81.95	5.75
17	MP3C	Z	47.314	5.75
18	MP3C	Mx	0	5.75
19	MP1A	X	-30.071	1.75
20	MP1A	Z	17.361	1.75
21	MP1A	Mx	.023	1.75
22	MP1A	X	-30.071	3.75
23	MP1A	Z	17.361	3.75
24	MP1A	Mx	.023	3.75
25	MP1B	X	-30.071	1.75
26	MP1B	Z	17.361	1.75
27	MP1B	Mx	-.023	1.75
28	MP1B	X	-30.071	3.75
29	MP1B	Z	17.361	3.75
30	MP1B	Mx	-.023	3.75
31	MP1C	X	-59.161	1.75
32	MP1C	Z	34.156	1.75
33	MP1C	Mx	0	1.75
34	MP1C	X	-59.161	3.75
35	MP1C	Z	34.156	3.75
36	MP1C	Mx	0	3.75
37	MP5A	X	-28.631	2.75
38	MP5A	Z	16.53	2.75
39	MP5A	Mx	.021	2.75
40	MP5B	X	-28.631	2.75
41	MP5B	Z	16.53	2.75
42	MP5B	Mx	-.021	2.75
43	MP5C	X	-46.182	2.75
44	MP5C	Z	26.663	2.75
45	MP5C	Mx	0	2.75
46	MP2A	X	-35.24	.5
47	MP2A	Z	20.346	.5
48	MP2A	Mx	-.012	.5
49	MP2B	X	-35.24	.5
50	MP2B	Z	20.346	.5
51	MP2B	Mx	.012	.5
52	MP2C	X	-46.785	.5
53	MP2C	Z	27.011	.5
54	MP2C	Mx	0	.5
55	MP3A	X	-32.976	2
56	MP3A	Z	19.039	2
57	MP3A	Mx	-.011	2
58	MP3B	X	-32.976	2
59	MP3B	Z	19.039	2
60	MP3B	Mx	.011	2
61	MP3C	X	-46.785	2
62	MP3C	Z	27.011	2
63	MP3C	Mx	0	2
64	OVP	X	-78.478	.5
65	OVP	Z	45.31	.5
66	OVP	Mx	-.059	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
67	MP3A	X	-14.52	4.5
68	MP3A	Z	8.383	4.5
69	MP3A	Mx	-.017	4.5
70	MP3A	X	-14.52	5.5
71	MP3A	Z	8.383	5.5
72	MP3A	Mx	-.017	5.5
73	MP3C	X	-14.488	4.5
74	MP3C	Z	8.365	4.5
75	MP3C	Mx	.006	4.5
76	MP3C	X	-14.488	5.5
77	MP3C	Z	8.365	5.5
78	MP3C	Mx	.006	5.5
79	MP3A	X	-14.52	4.5
80	MP3A	Z	8.383	4.5
81	MP3A	Mx	-.012	4.5
82	MP3A	X	-14.52	5.5
83	MP3A	Z	8.383	5.5
84	MP3A	Mx	-.012	5.5
85	MP3C	X	-14.488	4.5
86	MP3C	Z	8.365	4.5
87	MP3C	Mx	-.006	4.5
88	MP3C	X	-14.488	5.5
89	MP3C	Z	8.365	5.5
90	MP3C	Mx	-.006	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-40.604	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	.02	.5
4	MP3A	X	-40.604	5.75
5	MP3A	Z	0	5.75
6	MP3A	Mx	.02	5.75
7	MP3B	X	-81.122	.5
8	MP3B	Z	0	.5
9	MP3B	Mx	-.02	.5
10	MP3B	X	-81.122	5.75
11	MP3B	Z	0	5.75
12	MP3B	Mx	-.02	5.75
13	MP3C	X	-81.122	.5
14	MP3C	Z	0	.5
15	MP3C	Mx	-.02	.5
16	MP3C	X	-81.122	5.75
17	MP3C	Z	0	5.75
18	MP3C	Mx	-.02	5.75
19	MP1A	X	-23.526	1.75
20	MP1A	Z	0	1.75
21	MP1A	Mx	.018	1.75
22	MP1A	X	-23.526	3.75
23	MP1A	Z	0	3.75
24	MP1A	Mx	.018	3.75
25	MP1B	X	-57.116	1.75
26	MP1B	Z	0	1.75
27	MP1B	Mx	-.021	1.75
28	MP1B	X	-57.116	3.75
29	MP1B	Z	0	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
30	MP1B	Mx	-.021	3.75
31	MP1C	X	-57.116	1.75
32	MP1C	Z	0	1.75
33	MP1C	Mx	-.021	1.75
34	MP1C	X	-57.116	3.75
35	MP1C	Z	0	3.75
36	MP1C	Mx	-.021	3.75
37	MP5A	X	-26.306	2.75
38	MP5A	Z	0	2.75
39	MP5A	Mx	.02	2.75
40	MP5B	X	-46.571	2.75
41	MP5B	Z	0	2.75
42	MP5B	Mx	-.017	2.75
43	MP5C	X	-46.571	2.75
44	MP5C	Z	0	2.75
45	MP5C	Mx	-.017	2.75
46	MP2A	X	-36.248	.5
47	MP2A	Z	0	.5
48	MP2A	Mx	-.012	.5
49	MP2B	X	-49.579	.5
50	MP2B	Z	0	.5
51	MP2B	Mx	.008	.5
52	MP2C	X	-49.579	.5
53	MP2C	Z	0	.5
54	MP2C	Mx	.008	.5
55	MP3A	X	-32.762	2
56	MP3A	Z	0	2
57	MP3A	Mx	-.011	2
58	MP3B	X	-48.708	2
59	MP3B	Z	0	2
60	MP3B	Mx	.008	2
61	MP3C	X	-48.708	2
62	MP3C	Z	0	2
63	MP3C	Mx	.008	2
64	OVP	X	-83.997	.5
65	OVP	Z	0	.5
66	OVP	Mx	-.063	.5
67	MP3A	X	-16.779	4.5
68	MP3A	Z	0	4.5
69	MP3A	Mx	-.017	4.5
70	MP3A	X	-16.779	5.5
71	MP3A	Z	0	5.5
72	MP3A	Mx	-.017	5.5
73	MP3C	X	-16.742	4.5
74	MP3C	Z	0	4.5
75	MP3C	Mx	.013	4.5
76	MP3C	X	-16.742	5.5
77	MP3C	Z	0	5.5
78	MP3C	Mx	.013	5.5
79	MP3A	X	-16.779	4.5
80	MP3A	Z	0	4.5
81	MP3A	Mx	-.017	4.5
82	MP3A	X	-16.779	5.5
83	MP3A	Z	0	5.5
84	MP3A	Mx	-.017	5.5
85	MP3C	X	-16.742	4.5
86	MP3C	Z	0	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
87	MP3C	Mx	.004	4.5
88	MP3C	X	-16.742	5.5
89	MP3C	Z	0	5.5
90	MP3C	Mx	.004	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-46.861	.5
2	MP3A	Z	-27.055	.5
3	MP3A	Mx	.023	.5
4	MP3A	X	-46.861	5.75
5	MP3A	Z	-27.055	5.75
6	MP3A	Mx	.023	5.75
7	MP3B	X	-81.95	.5
8	MP3B	Z	-47.314	.5
9	MP3B	Mx	0	.5
10	MP3B	X	-81.95	5.75
11	MP3B	Z	-47.314	5.75
12	MP3B	Mx	0	5.75
13	MP3C	X	-46.861	.5
14	MP3C	Z	-27.055	.5
15	MP3C	Mx	-.023	.5
16	MP3C	X	-46.861	5.75
17	MP3C	Z	-27.055	5.75
18	MP3C	Mx	-.023	5.75
19	MP1A	X	-30.071	1.75
20	MP1A	Z	-17.361	1.75
21	MP1A	Mx	.023	1.75
22	MP1A	X	-30.071	3.75
23	MP1A	Z	-17.361	3.75
24	MP1A	Mx	.023	3.75
25	MP1B	X	-59.161	1.75
26	MP1B	Z	-34.156	1.75
27	MP1B	Mx	0	1.75
28	MP1B	X	-59.161	3.75
29	MP1B	Z	-34.156	3.75
30	MP1B	Mx	0	3.75
31	MP1C	X	-30.071	1.75
32	MP1C	Z	-17.361	1.75
33	MP1C	Mx	-.023	1.75
34	MP1C	X	-30.071	3.75
35	MP1C	Z	-17.361	3.75
36	MP1C	Mx	-.023	3.75
37	MP5A	X	-28.631	2.75
38	MP5A	Z	-16.53	2.75
39	MP5A	Mx	.021	2.75
40	MP5B	X	-46.182	2.75
41	MP5B	Z	-26.663	2.75
42	MP5B	Mx	0	2.75
43	MP5C	X	-28.631	2.75
44	MP5C	Z	-16.53	2.75
45	MP5C	Mx	-.021	2.75
46	MP2A	X	-35.24	.5
47	MP2A	Z	-20.346	.5
48	MP2A	Mx	-.012	.5
49	MP2B	X	-46.785	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
50	MP2B	Z	-27.011	.5
51	MP2B	Mx	0	.5
52	MP2C	X	-35.24	.5
53	MP2C	Z	-20.346	.5
54	MP2C	Mx	.012	.5
55	MP3A	X	-32.976	2
56	MP3A	Z	-19.039	2
57	MP3A	Mx	-.011	2
58	MP3B	X	-46.785	2
59	MP3B	Z	-27.011	2
60	MP3B	Mx	0	2
61	MP3C	X	-32.976	2
62	MP3C	Z	-19.039	2
63	MP3C	Mx	.011	2
64	OVP	X	-78.478	.5
65	OVP	Z	-45.31	.5
66	OVP	Mx	-.059	.5
67	MP3A	X	-14.52	4.5
68	MP3A	Z	-8.383	4.5
69	MP3A	Mx	-.012	4.5
70	MP3A	X	-14.52	5.5
71	MP3A	Z	-8.383	5.5
72	MP3A	Mx	-.012	5.5
73	MP3C	X	-14.52	4.5
74	MP3C	Z	-8.383	4.5
75	MP3C	Mx	.017	4.5
76	MP3C	X	-14.52	5.5
77	MP3C	Z	-8.383	5.5
78	MP3C	Mx	.017	5.5
79	MP3A	X	-14.52	4.5
80	MP3A	Z	-8.383	4.5
81	MP3A	Mx	-.017	4.5
82	MP3A	X	-14.52	5.5
83	MP3A	Z	-8.383	5.5
84	MP3A	Mx	-.017	5.5
85	MP3C	X	-14.52	4.5
86	MP3C	Z	-8.383	4.5
87	MP3C	Mx	.012	4.5
88	MP3C	X	-14.52	5.5
89	MP3C	Z	-8.383	5.5
90	MP3C	Mx	.012	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-40.561	.5
2	MP3A	Z	-70.253	.5
3	MP3A	Mx	.02	.5
4	MP3A	X	-40.561	5.75
5	MP3A	Z	-70.253	5.75
6	MP3A	Mx	.02	5.75
7	MP3B	X	-40.561	.5
8	MP3B	Z	-70.253	.5
9	MP3B	Mx	.02	.5
10	MP3B	X	-40.561	5.75
11	MP3B	Z	-70.253	5.75
12	MP3B	Mx	.02	5.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
13	MP3C	X	-20.302	.5
14	MP3C	Z	-35.164	.5
15	MP3C	Mx	-.02	.5
16	MP3C	X	-20.302	5.75
17	MP3C	Z	-35.164	5.75
18	MP3C	Mx	-.02	5.75
19	MP1A	X	-28.558	1.75
20	MP1A	Z	-49.464	1.75
21	MP1A	Mx	.021	1.75
22	MP1A	X	-28.558	3.75
23	MP1A	Z	-49.464	3.75
24	MP1A	Mx	.021	3.75
25	MP1B	X	-28.558	1.75
26	MP1B	Z	-49.464	1.75
27	MP1B	Mx	.021	1.75
28	MP1B	X	-28.558	3.75
29	MP1B	Z	-49.464	3.75
30	MP1B	Mx	.021	3.75
31	MP1C	X	-11.763	1.75
32	MP1C	Z	-20.374	1.75
33	MP1C	Mx	-.018	1.75
34	MP1C	X	-11.763	3.75
35	MP1C	Z	-20.374	3.75
36	MP1C	Mx	-.018	3.75
37	MP5A	X	-23.285	2.75
38	MP5A	Z	-40.332	2.75
39	MP5A	Mx	.017	2.75
40	MP5B	X	-23.285	2.75
41	MP5B	Z	-40.332	2.75
42	MP5B	Mx	.017	2.75
43	MP5C	X	-13.153	2.75
44	MP5C	Z	-22.781	2.75
45	MP5C	Mx	-.02	2.75
46	MP2A	X	-24.79	.5
47	MP2A	Z	-42.937	.5
48	MP2A	Mx	-.008	.5
49	MP2B	X	-24.79	.5
50	MP2B	Z	-42.937	.5
51	MP2B	Mx	-.008	.5
52	MP2C	X	-18.124	.5
53	MP2C	Z	-31.391	.5
54	MP2C	Mx	.012	.5
55	MP3A	X	-24.354	2
56	MP3A	Z	-42.182	2
57	MP3A	Mx	-.008	2
58	MP3B	X	-24.354	2
59	MP3B	Z	-42.182	2
60	MP3B	Mx	-.008	2
61	MP3C	X	-16.381	2
62	MP3C	Z	-28.373	2
63	MP3C	Mx	.011	2
64	OVP	X	-51.932	.5
65	OVP	Z	-89.948	.5
66	OVP	Mx	-.039	.5
67	MP3A	X	-8.371	4.5
68	MP3A	Z	-14.499	4.5
69	MP3A	Mx	-.004	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
70	MP3A	X	-8.371	5.5
71	MP3A	Z	-14.499	5.5
72	MP3A	Mx	-.004	5.5
73	MP3C	X	-8.39	4.5
74	MP3C	Z	-14.531	4.5
75	MP3C	Mx	.017	4.5
76	MP3C	X	-8.39	5.5
77	MP3C	Z	-14.531	5.5
78	MP3C	Mx	.017	5.5
79	MP3A	X	-8.371	4.5
80	MP3A	Z	-14.499	4.5
81	MP3A	Mx	-.013	4.5
82	MP3A	X	-8.371	5.5
83	MP3A	Z	-14.499	5.5
84	MP3A	Mx	-.013	5.5
85	MP3C	X	-8.39	4.5
86	MP3C	Z	-14.531	4.5
87	MP3C	Mx	.017	4.5
88	MP3C	X	-8.39	5.5
89	MP3C	Z	-14.531	5.5
90	MP3C	Mx	.017	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	.5
2	MP3A	Z	-26.995	.5
3	MP3A	Mx	0	.5
4	MP3A	X	0	5.75
5	MP3A	Z	-26.995	5.75
6	MP3A	Mx	0	5.75
7	MP3B	X	0	.5
8	MP3B	Z	-20.716	.5
9	MP3B	Mx	.009	.5
10	MP3B	X	0	5.75
11	MP3B	Z	-20.716	5.75
12	MP3B	Mx	.009	5.75
13	MP3C	X	0	.5
14	MP3C	Z	-20.716	.5
15	MP3C	Mx	-.009	.5
16	MP3C	X	0	5.75
17	MP3C	Z	-20.716	5.75
18	MP3C	Mx	-.009	5.75
19	MP1A	X	0	1.75
20	MP1A	Z	-16.085	1.75
21	MP1A	Mx	0	1.75
22	MP1A	X	0	3.75
23	MP1A	Z	-16.085	3.75
24	MP1A	Mx	0	3.75
25	MP1B	X	0	1.75
26	MP1B	Z	-9.164	1.75
27	MP1B	Mx	.006	1.75
28	MP1B	X	0	3.75
29	MP1B	Z	-9.164	3.75
30	MP1B	Mx	.006	3.75
31	MP1C	X	0	1.75
32	MP1C	Z	-9.164	1.75





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
33	MP1C	Mx	-0.006	1.75
34	MP1C	X	0	3.75
35	MP1C	Z	-9.164	3.75
36	MP1C	Mx	-0.006	3.75
37	MP5A	X	0	2.75
38	MP5A	Z	-11.367	2.75
39	MP5A	Mx	0	2.75
40	MP5B	X	0	2.75
41	MP5B	Z	-7.448	2.75
42	MP5B	Mx	.005	2.75
43	MP5C	X	0	2.75
44	MP5C	Z	-7.448	2.75
45	MP5C	Mx	-.005	2.75
46	MP2A	X	0	.5
47	MP2A	Z	-13.564	.5
48	MP2A	Mx	0	.5
49	MP2B	X	0	.5
50	MP2B	Z	-10.471	.5
51	MP2B	Mx	-.003	.5
52	MP2C	X	0	.5
53	MP2C	Z	-10.471	.5
54	MP2C	Mx	.003	.5
55	MP3A	X	0	2
56	MP3A	Z	-13.564	2
57	MP3A	Mx	0	2
58	MP3B	X	0	2
59	MP3B	Z	-9.914	2
60	MP3B	Mx	-.003	2
61	MP3C	X	0	2
62	MP3C	Z	-9.914	2
63	MP3C	Mx	.003	2
64	OVP	X	0	.5
65	OVP	Z	-27.861	.5
66	OVP	Mx	0	.5
67	MP3A	X	0	4.5
68	MP3A	Z	-1.409	4.5
69	MP3A	Mx	.00047	4.5
70	MP3A	X	0	5.5
71	MP3A	Z	-1.409	5.5
72	MP3A	Mx	.00047	5.5
73	MP3C	X	0	4.5
74	MP3C	Z	-3.15	4.5
75	MP3C	Mx	.002	4.5
76	MP3C	X	0	5.5
77	MP3C	Z	-3.15	5.5
78	MP3C	Mx	.002	5.5
79	MP3A	X	0	4.5
80	MP3A	Z	-1.409	4.5
81	MP3A	Mx	-.00047	4.5
82	MP3A	X	0	5.5
83	MP3A	Z	-1.409	5.5
84	MP3A	Mx	-.00047	5.5
85	MP3C	X	0	4.5
86	MP3C	Z	-3.15	4.5
87	MP3C	Mx	.003	4.5
88	MP3C	X	0	5.5
89	MP3C	Z	-3.15	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
90	MP3C	Mx	.003	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	12.451	.5
2	MP3A	Z	-21.566	.5
3	MP3A	Mx	-.006	.5
4	MP3A	X	12.451	5.75
5	MP3A	Z	-21.566	5.75
6	MP3A	Mx	-.006	5.75
7	MP3B	X	9.312	.5
8	MP3B	Z	-16.128	.5
9	MP3B	Mx	.009	.5
10	MP3B	X	9.312	5.75
11	MP3B	Z	-16.128	5.75
12	MP3B	Mx	.009	5.75
13	MP3C	X	12.451	.5
14	MP3C	Z	-21.566	.5
15	MP3C	Mx	-.006	.5
16	MP3C	X	12.451	5.75
17	MP3C	Z	-21.566	5.75
18	MP3C	Mx	-.006	5.75
19	MP1A	X	6.889	1.75
20	MP1A	Z	-11.932	1.75
21	MP1A	Mx	-.005	1.75
22	MP1A	X	6.889	3.75
23	MP1A	Z	-11.932	3.75
24	MP1A	Mx	-.005	3.75
25	MP1B	X	3.429	1.75
26	MP1B	Z	-5.939	1.75
27	MP1B	Mx	.005	1.75
28	MP1B	X	3.429	3.75
29	MP1B	Z	-5.939	3.75
30	MP1B	Mx	.005	3.75
31	MP1C	X	6.889	1.75
32	MP1C	Z	-11.932	1.75
33	MP1C	Mx	-.005	1.75
34	MP1C	X	6.889	3.75
35	MP1C	Z	-11.932	3.75
36	MP1C	Mx	-.005	3.75
37	MP5A	X	5.03	2.75
38	MP5A	Z	-8.713	2.75
39	MP5A	Mx	-.004	2.75
40	MP5B	X	3.071	2.75
41	MP5B	Z	-5.319	2.75
42	MP5B	Mx	.005	2.75
43	MP5C	X	5.03	2.75
44	MP5C	Z	-8.713	2.75
45	MP5C	Mx	-.004	2.75
46	MP2A	X	6.267	.5
47	MP2A	Z	-10.854	.5
48	MP2A	Mx	.002	.5
49	MP2B	X	4.72	.5
50	MP2B	Z	-8.175	.5
51	MP2B	Mx	-.003	.5
52	MP2C	X	6.267	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
53	MP2C	Z	-10.854	.5
54	MP2C	Mx	.002	.5
55	MP3A	X	6.174	2
56	MP3A	Z	-10.693	2
57	MP3A	Mx	.002	2
58	MP3B	X	4.348	2
59	MP3B	Z	-7.532	2
60	MP3B	Mx	-.003	2
61	MP3C	X	6.174	2
62	MP3C	Z	-10.693	2
63	MP3C	Mx	.002	2
64	OVP	X	13.172	.5
65	OVP	Z	-22.814	.5
66	OVP	Mx	.01	.5
67	MP3A	X	.995	4.5
68	MP3A	Z	-1.723	4.5
69	MP3A	Mx	.002	4.5
70	MP3A	X	.995	5.5
71	MP3A	Z	-1.723	5.5
72	MP3A	Mx	.002	5.5
73	MP3C	X	.995	4.5
74	MP3C	Z	-1.723	4.5
75	MP3C	Mx	.00042	4.5
76	MP3C	X	.995	5.5
77	MP3C	Z	-1.723	5.5
78	MP3C	Mx	.00042	5.5
79	MP3A	X	.995	4.5
80	MP3A	Z	-1.723	4.5
81	MP3A	Mx	.000421	4.5
82	MP3A	X	.995	5.5
83	MP3A	Z	-1.723	5.5
84	MP3A	Mx	.000421	5.5
85	MP3C	X	.995	4.5
86	MP3C	Z	-1.723	4.5
87	MP3C	Mx	.002	4.5
88	MP3C	X	.995	5.5
89	MP3C	Z	-1.723	5.5
90	MP3C	Mx	.002	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	17.941	.5
2	MP3A	Z	-10.358	.5
3	MP3A	Mx	-.009	.5
4	MP3A	X	17.941	5.75
5	MP3A	Z	-10.358	5.75
6	MP3A	Mx	-.009	5.75
7	MP3B	X	17.941	.5
8	MP3B	Z	-10.358	.5
9	MP3B	Mx	.009	.5
10	MP3B	X	17.941	5.75
11	MP3B	Z	-10.358	5.75
12	MP3B	Mx	.009	5.75
13	MP3C	X	23.378	.5
14	MP3C	Z	-13.497	.5
15	MP3C	Mx	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
16	MP3C	X	23.378	5.75
17	MP3C	Z	-13.497	5.75
18	MP3C	Mx	0	5.75
19	MP1A	X	7.937	1.75
20	MP1A	Z	-4.582	1.75
21	MP1A	Mx	-.006	1.75
22	MP1A	X	7.937	3.75
23	MP1A	Z	-4.582	3.75
24	MP1A	Mx	-.006	3.75
25	MP1B	X	7.937	1.75
26	MP1B	Z	-4.582	1.75
27	MP1B	Mx	.006	1.75
28	MP1B	X	7.937	3.75
29	MP1B	Z	-4.582	3.75
30	MP1B	Mx	.006	3.75
31	MP1C	X	13.93	1.75
32	MP1C	Z	-8.042	1.75
33	MP1C	Mx	0	1.75
34	MP1C	X	13.93	3.75
35	MP1C	Z	-8.042	3.75
36	MP1C	Mx	0	3.75
37	MP5A	X	6.45	2.75
38	MP5A	Z	-3.724	2.75
39	MP5A	Mx	-.005	2.75
40	MP5B	X	6.45	2.75
41	MP5B	Z	-3.724	2.75
42	MP5B	Mx	.005	2.75
43	MP5C	X	9.844	2.75
44	MP5C	Z	-5.683	2.75
45	MP5C	Mx	0	2.75
46	MP2A	X	9.068	.5
47	MP2A	Z	-5.235	.5
48	MP2A	Mx	.003	.5
49	MP2B	X	9.068	.5
50	MP2B	Z	-5.235	.5
51	MP2B	Mx	-.003	.5
52	MP2C	X	11.747	.5
53	MP2C	Z	-6.782	.5
54	MP2C	Mx	0	.5
55	MP3A	X	8.586	2
56	MP3A	Z	-4.957	2
57	MP3A	Mx	.003	2
58	MP3B	X	8.586	2
59	MP3B	Z	-4.957	2
60	MP3B	Mx	-.003	2
61	MP3C	X	11.747	2
62	MP3C	Z	-6.782	2
63	MP3C	Mx	0	2
64	OVP	X	20.187	.5
65	OVP	Z	-11.655	.5
66	OVP	Mx	.015	.5
67	MP3A	X	2.728	4.5
68	MP3A	Z	-1.575	4.5
69	MP3A	Mx	.003	4.5
70	MP3A	X	2.728	5.5
71	MP3A	Z	-1.575	5.5
72	MP3A	Mx	.003	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
73	MP3C	X	1.22	4.5
74	MP3C	Z	- .704	4.5
75	MP3C	Mx	- .00047	4.5
76	MP3C	X	1.22	5.5
77	MP3C	Z	- .704	5.5
78	MP3C	Mx	- .00047	5.5
79	MP3A	X	2.728	4.5
80	MP3A	Z	-1.575	4.5
81	MP3A	Mx	.002	4.5
82	MP3A	X	2.728	5.5
83	MP3A	Z	-1.575	5.5
84	MP3A	Mx	.002	5.5
85	MP3C	X	1.22	4.5
86	MP3C	Z	- .704	4.5
87	MP3C	Mx	.000469	4.5
88	MP3C	X	1.22	5.5
89	MP3C	Z	- .704	5.5
90	MP3C	Mx	.000469	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	18.623	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	- .009	.5
4	MP3A	X	18.623	5.75
5	MP3A	Z	0	5.75
6	MP3A	Mx	- .009	5.75
7	MP3B	X	24.902	.5
8	MP3B	Z	0	.5
9	MP3B	Mx	.006	.5
10	MP3B	X	24.902	5.75
11	MP3B	Z	0	5.75
12	MP3B	Mx	.006	5.75
13	MP3C	X	24.902	.5
14	MP3C	Z	0	.5
15	MP3C	Mx	.006	.5
16	MP3C	X	24.902	5.75
17	MP3C	Z	0	5.75
18	MP3C	Mx	.006	5.75
19	MP1A	X	6.858	1.75
20	MP1A	Z	0	1.75
21	MP1A	Mx	- .005	1.75
22	MP1A	X	6.858	3.75
23	MP1A	Z	0	3.75
24	MP1A	Mx	- .005	3.75
25	MP1B	X	13.778	1.75
26	MP1B	Z	0	1.75
27	MP1B	Mx	.005	1.75
28	MP1B	X	13.778	3.75
29	MP1B	Z	0	3.75
30	MP1B	Mx	.005	3.75
31	MP1C	X	13.778	1.75
32	MP1C	Z	0	1.75
33	MP1C	Mx	.005	1.75
34	MP1C	X	13.778	3.75
35	MP1C	Z	0	3.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
36	MP1C	Mx	.005	3.75
37	MP5A	X	6.142	2.75
38	MP5A	Z	0	2.75
39	MP5A	Mx	-.005	2.75
40	MP5B	X	10.06	2.75
41	MP5B	Z	0	2.75
42	MP5B	Mx	.004	2.75
43	MP5C	X	10.06	2.75
44	MP5C	Z	0	2.75
45	MP5C	Mx	.004	2.75
46	MP2A	X	9.439	.5
47	MP2A	Z	0	.5
48	MP2A	Mx	.003	.5
49	MP2B	X	12.533	.5
50	MP2B	Z	0	.5
51	MP2B	Mx	-.002	.5
52	MP2C	X	12.533	.5
53	MP2C	Z	0	.5
54	MP2C	Mx	-.002	.5
55	MP3A	X	8.697	2
56	MP3A	Z	0	2
57	MP3A	Mx	.003	2
58	MP3B	X	12.348	2
59	MP3B	Z	0	2
60	MP3B	Mx	-.002	2
61	MP3C	X	12.348	2
62	MP3C	Z	0	2
63	MP3C	Mx	-.002	2
64	OVP	X	21.792	.5
65	OVP	Z	0	.5
66	OVP	Mx	.016	.5
67	MP3A	X	3.731	4.5
68	MP3A	Z	0	4.5
69	MP3A	Mx	.004	4.5
70	MP3A	X	3.731	5.5
71	MP3A	Z	0	5.5
72	MP3A	Mx	.004	5.5
73	MP3C	X	1.989	4.5
74	MP3C	Z	0	4.5
75	MP3C	Mx	-.002	4.5
76	MP3C	X	1.989	5.5
77	MP3C	Z	0	5.5
78	MP3C	Mx	-.002	5.5
79	MP3A	X	3.731	4.5
80	MP3A	Z	0	4.5
81	MP3A	Mx	.004	4.5
82	MP3A	X	3.731	5.5
83	MP3A	Z	0	5.5
84	MP3A	Mx	.004	5.5
85	MP3C	X	1.989	4.5
86	MP3C	Z	0	4.5
87	MP3C	Mx	-.00042	4.5
88	MP3C	X	1.989	5.5
89	MP3C	Z	0	5.5
90	MP3C	Mx	-.00042	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	17.941	.5
2	MP3A	Z	10.358	.5
3	MP3A	Mx	-.009	.5
4	MP3A	X	17.941	5.75
5	MP3A	Z	10.358	5.75
6	MP3A	Mx	-.009	5.75
7	MP3B	X	23.378	.5
8	MP3B	Z	13.497	.5
9	MP3B	Mx	0	.5
10	MP3B	X	23.378	5.75
11	MP3B	Z	13.497	5.75
12	MP3B	Mx	0	5.75
13	MP3C	X	17.941	.5
14	MP3C	Z	10.358	.5
15	MP3C	Mx	.009	.5
16	MP3C	X	17.941	5.75
17	MP3C	Z	10.358	5.75
18	MP3C	Mx	.009	5.75
19	MP1A	X	7.937	1.75
20	MP1A	Z	4.582	1.75
21	MP1A	Mx	-.006	1.75
22	MP1A	X	7.937	3.75
23	MP1A	Z	4.582	3.75
24	MP1A	Mx	-.006	3.75
25	MP1B	X	13.93	1.75
26	MP1B	Z	8.042	1.75
27	MP1B	Mx	0	1.75
28	MP1B	X	13.93	3.75
29	MP1B	Z	8.042	3.75
30	MP1B	Mx	0	3.75
31	MP1C	X	7.937	1.75
32	MP1C	Z	4.582	1.75
33	MP1C	Mx	.006	1.75
34	MP1C	X	7.937	3.75
35	MP1C	Z	4.582	3.75
36	MP1C	Mx	.006	3.75
37	MP5A	X	6.45	2.75
38	MP5A	Z	3.724	2.75
39	MP5A	Mx	-.005	2.75
40	MP5B	X	9.844	2.75
41	MP5B	Z	5.683	2.75
42	MP5B	Mx	0	2.75
43	MP5C	X	6.45	2.75
44	MP5C	Z	3.724	2.75
45	MP5C	Mx	.005	2.75
46	MP2A	X	9.068	.5
47	MP2A	Z	5.235	.5
48	MP2A	Mx	.003	.5
49	MP2B	X	11.747	.5
50	MP2B	Z	6.782	.5
51	MP2B	Mx	0	.5
52	MP2C	X	9.068	.5
53	MP2C	Z	5.235	.5
54	MP2C	Mx	-.003	.5
55	MP3A	X	8.586	2
56	MP3A	Z	4.957	2
57	MP3A	Mx	.003	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
58	MP3B	X	11.747	2
59	MP3B	Z	6.782	2
60	MP3B	Mx	0	2
61	MP3C	X	8.586	2
62	MP3C	Z	4.957	2
63	MP3C	Mx	-.003	2
64	OVP	X	20.187	.5
65	OVP	Z	11.655	.5
66	OVP	Mx	.015	.5
67	MP3A	X	2.728	4.5
68	MP3A	Z	1.575	4.5
69	MP3A	Mx	.002	4.5
70	MP3A	X	2.728	5.5
71	MP3A	Z	1.575	5.5
72	MP3A	Mx	.002	5.5
73	MP3C	X	2.728	4.5
74	MP3C	Z	1.575	4.5
75	MP3C	Mx	-.003	4.5
76	MP3C	X	2.728	5.5
77	MP3C	Z	1.575	5.5
78	MP3C	Mx	-.003	5.5
79	MP3A	X	2.728	4.5
80	MP3A	Z	1.575	4.5
81	MP3A	Mx	.003	4.5
82	MP3A	X	2.728	5.5
83	MP3A	Z	1.575	5.5
84	MP3A	Mx	.003	5.5
85	MP3C	X	2.728	4.5
86	MP3C	Z	1.575	4.5
87	MP3C	Mx	-.002	4.5
88	MP3C	X	2.728	5.5
89	MP3C	Z	1.575	5.5
90	MP3C	Mx	-.002	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	12.451	.5
2	MP3A	Z	21.566	.5
3	MP3A	Mx	-.006	.5
4	MP3A	X	12.451	5.75
5	MP3A	Z	21.566	5.75
6	MP3A	Mx	-.006	5.75
7	MP3B	X	12.451	.5
8	MP3B	Z	21.566	.5
9	MP3B	Mx	-.006	.5
10	MP3B	X	12.451	5.75
11	MP3B	Z	21.566	5.75
12	MP3B	Mx	-.006	5.75
13	MP3C	X	9.312	.5
14	MP3C	Z	16.128	.5
15	MP3C	Mx	.009	.5
16	MP3C	X	9.312	5.75
17	MP3C	Z	16.128	5.75
18	MP3C	Mx	.009	5.75
19	MP1A	X	6.889	1.75
20	MP1A	Z	11.932	1.75





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
21	MP1A	Mx	-0.05	1.75
22	MP1A	X	6.889	3.75
23	MP1A	Z	11.932	3.75
24	MP1A	Mx	-0.05	3.75
25	MP1B	X	6.889	1.75
26	MP1B	Z	11.932	1.75
27	MP1B	Mx	-0.05	1.75
28	MP1B	X	6.889	3.75
29	MP1B	Z	11.932	3.75
30	MP1B	Mx	-0.05	3.75
31	MP1C	X	3.429	1.75
32	MP1C	Z	5.939	1.75
33	MP1C	Mx	.005	1.75
34	MP1C	X	3.429	3.75
35	MP1C	Z	5.939	3.75
36	MP1C	Mx	.005	3.75
37	MP5A	X	5.03	2.75
38	MP5A	Z	8.713	2.75
39	MP5A	Mx	-0.04	2.75
40	MP5B	X	5.03	2.75
41	MP5B	Z	8.713	2.75
42	MP5B	Mx	-0.04	2.75
43	MP5C	X	3.071	2.75
44	MP5C	Z	5.319	2.75
45	MP5C	Mx	.005	2.75
46	MP2A	X	6.267	.5
47	MP2A	Z	10.854	.5
48	MP2A	Mx	.002	.5
49	MP2B	X	6.267	.5
50	MP2B	Z	10.854	.5
51	MP2B	Mx	.002	.5
52	MP2C	X	4.72	.5
53	MP2C	Z	8.175	.5
54	MP2C	Mx	-0.03	.5
55	MP3A	X	6.174	2
56	MP3A	Z	10.693	2
57	MP3A	Mx	.002	2
58	MP3B	X	6.174	2
59	MP3B	Z	10.693	2
60	MP3B	Mx	.002	2
61	MP3C	X	4.348	2
62	MP3C	Z	7.532	2
63	MP3C	Mx	-0.03	2
64	OVP	X	13.172	.5
65	OVP	Z	22.814	.5
66	OVP	Mx	.01	.5
67	MP3A	X	.995	4.5
68	MP3A	Z	1.723	4.5
69	MP3A	Mx	.000421	4.5
70	MP3A	X	.995	5.5
71	MP3A	Z	1.723	5.5
72	MP3A	Mx	.000421	5.5
73	MP3C	X	1.865	4.5
74	MP3C	Z	3.231	4.5
75	MP3C	Mx	-0.04	4.5
76	MP3C	X	1.865	5.5
77	MP3C	Z	3.231	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
78	MP3C	Mx	-.004	5.5
79	MP3A	X	.995	4.5
80	MP3A	Z	1.723	4.5
81	MP3A	Mx	.002	4.5
82	MP3A	X	.995	5.5
83	MP3A	Z	1.723	5.5
84	MP3A	Mx	.002	5.5
85	MP3C	X	1.865	4.5
86	MP3C	Z	3.231	4.5
87	MP3C	Mx	-.004	4.5
88	MP3C	X	1.865	5.5
89	MP3C	Z	3.231	5.5
90	MP3C	Mx	-.004	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	.5
2	MP3A	Z	26.995	.5
3	MP3A	Mx	0	.5
4	MP3A	X	0	5.75
5	MP3A	Z	26.995	5.75
6	MP3A	Mx	0	5.75
7	MP3B	X	0	.5
8	MP3B	Z	20.716	.5
9	MP3B	Mx	-.009	.5
10	MP3B	X	0	5.75
11	MP3B	Z	20.716	5.75
12	MP3B	Mx	-.009	5.75
13	MP3C	X	0	.5
14	MP3C	Z	20.716	.5
15	MP3C	Mx	.009	.5
16	MP3C	X	0	5.75
17	MP3C	Z	20.716	5.75
18	MP3C	Mx	.009	5.75
19	MP1A	X	0	1.75
20	MP1A	Z	16.085	1.75
21	MP1A	Mx	0	1.75
22	MP1A	X	0	3.75
23	MP1A	Z	16.085	3.75
24	MP1A	Mx	0	3.75
25	MP1B	X	0	1.75
26	MP1B	Z	9.164	1.75
27	MP1B	Mx	-.006	1.75
28	MP1B	X	0	3.75
29	MP1B	Z	9.164	3.75
30	MP1B	Mx	-.006	3.75
31	MP1C	X	0	1.75
32	MP1C	Z	9.164	1.75
33	MP1C	Mx	.006	1.75
34	MP1C	X	0	3.75
35	MP1C	Z	9.164	3.75
36	MP1C	Mx	.006	3.75
37	MP5A	X	0	2.75
38	MP5A	Z	11.367	2.75
39	MP5A	Mx	0	2.75
40	MP5B	X	0	2.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
41	MP5B	Z	7.448	2.75
42	MP5B	Mx	-.005	2.75
43	MP5C	X	0	2.75
44	MP5C	Z	7.448	2.75
45	MP5C	Mx	.005	2.75
46	MP2A	X	0	.5
47	MP2A	Z	13.564	.5
48	MP2A	Mx	0	.5
49	MP2B	X	0	.5
50	MP2B	Z	10.471	.5
51	MP2B	Mx	.003	.5
52	MP2C	X	0	.5
53	MP2C	Z	10.471	.5
54	MP2C	Mx	-.003	.5
55	MP3A	X	0	2
56	MP3A	Z	13.564	2
57	MP3A	Mx	0	2
58	MP3B	X	0	2
59	MP3B	Z	9.914	2
60	MP3B	Mx	.003	2
61	MP3C	X	0	2
62	MP3C	Z	9.914	2
63	MP3C	Mx	-.003	2
64	OVP	X	0	.5
65	OVP	Z	27.861	.5
66	OVP	Mx	0	.5
67	MP3A	X	0	4.5
68	MP3A	Z	1.409	4.5
69	MP3A	Mx	-.00047	4.5
70	MP3A	X	0	5.5
71	MP3A	Z	1.409	5.5
72	MP3A	Mx	-.00047	5.5
73	MP3C	X	0	4.5
74	MP3C	Z	3.15	4.5
75	MP3C	Mx	-.002	4.5
76	MP3C	X	0	5.5
77	MP3C	Z	3.15	5.5
78	MP3C	Mx	-.002	5.5
79	MP3A	X	0	4.5
80	MP3A	Z	1.409	4.5
81	MP3A	Mx	.00047	4.5
82	MP3A	X	0	5.5
83	MP3A	Z	1.409	5.5
84	MP3A	Mx	.00047	5.5
85	MP3C	X	0	4.5
86	MP3C	Z	3.15	4.5
87	MP3C	Mx	-.003	4.5
88	MP3C	X	0	5.5
89	MP3C	Z	3.15	5.5
90	MP3C	Mx	-.003	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-12.451	.5
2	MP3A	Z	21.566	.5
3	MP3A	Mx	.006	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
4	MP3A	X	-12.451	5.75
5	MP3A	Z	21.566	5.75
6	MP3A	Mx	.006	5.75
7	MP3B	X	-9.312	.5
8	MP3B	Z	16.128	.5
9	MP3B	Mx	-.009	.5
10	MP3B	X	-9.312	5.75
11	MP3B	Z	16.128	5.75
12	MP3B	Mx	-.009	5.75
13	MP3C	X	-12.451	.5
14	MP3C	Z	21.566	.5
15	MP3C	Mx	.006	.5
16	MP3C	X	-12.451	5.75
17	MP3C	Z	21.566	5.75
18	MP3C	Mx	.006	5.75
19	MP1A	X	-6.889	1.75
20	MP1A	Z	11.932	1.75
21	MP1A	Mx	.005	1.75
22	MP1A	X	-6.889	3.75
23	MP1A	Z	11.932	3.75
24	MP1A	Mx	.005	3.75
25	MP1B	X	-3.429	1.75
26	MP1B	Z	5.939	1.75
27	MP1B	Mx	-.005	1.75
28	MP1B	X	-3.429	3.75
29	MP1B	Z	5.939	3.75
30	MP1B	Mx	-.005	3.75
31	MP1C	X	-6.889	1.75
32	MP1C	Z	11.932	1.75
33	MP1C	Mx	.005	1.75
34	MP1C	X	-6.889	3.75
35	MP1C	Z	11.932	3.75
36	MP1C	Mx	.005	3.75
37	MP5A	X	-5.03	2.75
38	MP5A	Z	8.713	2.75
39	MP5A	Mx	.004	2.75
40	MP5B	X	-3.071	2.75
41	MP5B	Z	5.319	2.75
42	MP5B	Mx	-.005	2.75
43	MP5C	X	-5.03	2.75
44	MP5C	Z	8.713	2.75
45	MP5C	Mx	.004	2.75
46	MP2A	X	-6.267	.5
47	MP2A	Z	10.854	.5
48	MP2A	Mx	-.002	.5
49	MP2B	X	-4.72	.5
50	MP2B	Z	8.175	.5
51	MP2B	Mx	.003	.5
52	MP2C	X	-6.267	.5
53	MP2C	Z	10.854	.5
54	MP2C	Mx	-.002	.5
55	MP3A	X	-6.174	2
56	MP3A	Z	10.693	2
57	MP3A	Mx	-.002	2
58	MP3B	X	-4.348	2
59	MP3B	Z	7.532	2
60	MP3B	Mx	.003	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
61	MP3C	X	-6.174	2
62	MP3C	Z	10.693	2
63	MP3C	Mx	-0.002	2
64	OVP	X	-13.172	.5
65	OVP	Z	22.814	.5
66	OVP	Mx	-.01	.5
67	MP3A	X	-.995	4.5
68	MP3A	Z	1.723	4.5
69	MP3A	Mx	-0.002	4.5
70	MP3A	X	-.995	5.5
71	MP3A	Z	1.723	5.5
72	MP3A	Mx	-0.002	5.5
73	MP3C	X	-.995	4.5
74	MP3C	Z	1.723	4.5
75	MP3C	Mx	-0.0042	4.5
76	MP3C	X	-.995	5.5
77	MP3C	Z	1.723	5.5
78	MP3C	Mx	-0.0042	5.5
79	MP3A	X	-.995	4.5
80	MP3A	Z	1.723	4.5
81	MP3A	Mx	-0.00421	4.5
82	MP3A	X	-.995	5.5
83	MP3A	Z	1.723	5.5
84	MP3A	Mx	-0.00421	5.5
85	MP3C	X	-.995	4.5
86	MP3C	Z	1.723	4.5
87	MP3C	Mx	-0.002	4.5
88	MP3C	X	-.995	5.5
89	MP3C	Z	1.723	5.5
90	MP3C	Mx	-0.002	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-17.941	.5
2	MP3A	Z	10.358	.5
3	MP3A	Mx	.009	.5
4	MP3A	X	-17.941	5.75
5	MP3A	Z	10.358	5.75
6	MP3A	Mx	.009	5.75
7	MP3B	X	-17.941	.5
8	MP3B	Z	10.358	.5
9	MP3B	Mx	-.009	.5
10	MP3B	X	-17.941	5.75
11	MP3B	Z	10.358	5.75
12	MP3B	Mx	-.009	5.75
13	MP3C	X	-23.378	.5
14	MP3C	Z	13.497	.5
15	MP3C	Mx	0	.5
16	MP3C	X	-23.378	5.75
17	MP3C	Z	13.497	5.75
18	MP3C	Mx	0	5.75
19	MP1A	X	-7.937	1.75
20	MP1A	Z	4.582	1.75
21	MP1A	Mx	.006	1.75
22	MP1A	X	-7.937	3.75
23	MP1A	Z	4.582	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
24	MP1A	Mx	.006	3.75
25	MP1B	X	-7.937	1.75
26	MP1B	Z	4.582	1.75
27	MP1B	Mx	-.006	1.75
28	MP1B	X	-7.937	3.75
29	MP1B	Z	4.582	3.75
30	MP1B	Mx	-.006	3.75
31	MP1C	X	-13.93	1.75
32	MP1C	Z	8.042	1.75
33	MP1C	Mx	0	1.75
34	MP1C	X	-13.93	3.75
35	MP1C	Z	8.042	3.75
36	MP1C	Mx	0	3.75
37	MP5A	X	-6.45	2.75
38	MP5A	Z	3.724	2.75
39	MP5A	Mx	.005	2.75
40	MP5B	X	-6.45	2.75
41	MP5B	Z	3.724	2.75
42	MP5B	Mx	-.005	2.75
43	MP5C	X	-9.844	2.75
44	MP5C	Z	5.683	2.75
45	MP5C	Mx	0	2.75
46	MP2A	X	-9.068	.5
47	MP2A	Z	5.235	.5
48	MP2A	Mx	-.003	.5
49	MP2B	X	-9.068	.5
50	MP2B	Z	5.235	.5
51	MP2B	Mx	.003	.5
52	MP2C	X	-11.747	.5
53	MP2C	Z	6.782	.5
54	MP2C	Mx	0	.5
55	MP3A	X	-8.586	2
56	MP3A	Z	4.957	2
57	MP3A	Mx	-.003	2
58	MP3B	X	-8.586	2
59	MP3B	Z	4.957	2
60	MP3B	Mx	.003	2
61	MP3C	X	-11.747	2
62	MP3C	Z	6.782	2
63	MP3C	Mx	0	2
64	OVP	X	-20.187	.5
65	OVP	Z	11.655	.5
66	OVP	Mx	-.015	.5
67	MP3A	X	-2.728	4.5
68	MP3A	Z	1.575	4.5
69	MP3A	Mx	-.003	4.5
70	MP3A	X	-2.728	5.5
71	MP3A	Z	1.575	5.5
72	MP3A	Mx	-.003	5.5
73	MP3C	X	-1.22	4.5
74	MP3C	Z	.704	4.5
75	MP3C	Mx	.00047	4.5
76	MP3C	X	-1.22	5.5
77	MP3C	Z	.704	5.5
78	MP3C	Mx	.00047	5.5
79	MP3A	X	-2.728	4.5
80	MP3A	Z	1.575	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
81	MP3A	Mx	-0.002	4.5
82	MP3A	X	-2.728	5.5
83	MP3A	Z	1.575	5.5
84	MP3A	Mx	-0.002	5.5
85	MP3C	X	-1.22	4.5
86	MP3C	Z	.704	4.5
87	MP3C	Mx	-0.000469	4.5
88	MP3C	X	-1.22	5.5
89	MP3C	Z	.704	5.5
90	MP3C	Mx	-0.000469	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-18.623	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	.009	.5
4	MP3A	X	-18.623	5.75
5	MP3A	Z	0	5.75
6	MP3A	Mx	.009	5.75
7	MP3B	X	-24.902	.5
8	MP3B	Z	0	.5
9	MP3B	Mx	-.006	.5
10	MP3B	X	-24.902	5.75
11	MP3B	Z	0	5.75
12	MP3B	Mx	-.006	5.75
13	MP3C	X	-24.902	.5
14	MP3C	Z	0	.5
15	MP3C	Mx	-.006	.5
16	MP3C	X	-24.902	5.75
17	MP3C	Z	0	5.75
18	MP3C	Mx	-.006	5.75
19	MP1A	X	-6.858	1.75
20	MP1A	Z	0	1.75
21	MP1A	Mx	.005	1.75
22	MP1A	X	-6.858	3.75
23	MP1A	Z	0	3.75
24	MP1A	Mx	.005	3.75
25	MP1B	X	-13.778	1.75
26	MP1B	Z	0	1.75
27	MP1B	Mx	-.005	1.75
28	MP1B	X	-13.778	3.75
29	MP1B	Z	0	3.75
30	MP1B	Mx	-.005	3.75
31	MP1C	X	-13.778	1.75
32	MP1C	Z	0	1.75
33	MP1C	Mx	-.005	1.75
34	MP1C	X	-13.778	3.75
35	MP1C	Z	0	3.75
36	MP1C	Mx	-.005	3.75
37	MP5A	X	-6.142	2.75
38	MP5A	Z	0	2.75
39	MP5A	Mx	.005	2.75
40	MP5B	X	-10.06	2.75
41	MP5B	Z	0	2.75
42	MP5B	Mx	-.004	2.75
43	MP5C	X	-10.06	2.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
44	MP5C	Z	0	2.75
45	MP5C	Mx	-.004	2.75
46	MP2A	X	-9.439	.5
47	MP2A	Z	0	.5
48	MP2A	Mx	-.003	.5
49	MP2B	X	-12.533	.5
50	MP2B	Z	0	.5
51	MP2B	Mx	.002	.5
52	MP2C	X	-12.533	.5
53	MP2C	Z	0	.5
54	MP2C	Mx	.002	.5
55	MP3A	X	-8.697	2
56	MP3A	Z	0	2
57	MP3A	Mx	-.003	2
58	MP3B	X	-12.348	2
59	MP3B	Z	0	2
60	MP3B	Mx	.002	2
61	MP3C	X	-12.348	2
62	MP3C	Z	0	2
63	MP3C	Mx	.002	2
64	OVP	X	-21.792	.5
65	OVP	Z	0	.5
66	OVP	Mx	-.016	.5
67	MP3A	X	-3.731	4.5
68	MP3A	Z	0	4.5
69	MP3A	Mx	-.004	4.5
70	MP3A	X	-3.731	5.5
71	MP3A	Z	0	5.5
72	MP3A	Mx	-.004	5.5
73	MP3C	X	-1.989	4.5
74	MP3C	Z	0	4.5
75	MP3C	Mx	.002	4.5
76	MP3C	X	-1.989	5.5
77	MP3C	Z	0	5.5
78	MP3C	Mx	.002	5.5
79	MP3A	X	-3.731	4.5
80	MP3A	Z	0	4.5
81	MP3A	Mx	-.004	4.5
82	MP3A	X	-3.731	5.5
83	MP3A	Z	0	5.5
84	MP3A	Mx	-.004	5.5
85	MP3C	X	-1.989	4.5
86	MP3C	Z	0	4.5
87	MP3C	Mx	.00042	4.5
88	MP3C	X	-1.989	5.5
89	MP3C	Z	0	5.5
90	MP3C	Mx	.00042	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-17.941	.5
2	MP3A	Z	-10.358	.5
3	MP3A	Mx	.009	.5
4	MP3A	X	-17.941	5.75
5	MP3A	Z	-10.358	5.75
6	MP3A	Mx	.009	5.75





Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
7	MP3B	X	-23.378	.5
8	MP3B	Z	-13.497	.5
9	MP3B	Mx	0	.5
10	MP3B	X	-23.378	5.75
11	MP3B	Z	-13.497	5.75
12	MP3B	Mx	0	5.75
13	MP3C	X	-17.941	.5
14	MP3C	Z	-10.358	.5
15	MP3C	Mx	-.009	.5
16	MP3C	X	-17.941	5.75
17	MP3C	Z	-10.358	5.75
18	MP3C	Mx	-.009	5.75
19	MP1A	X	-7.937	1.75
20	MP1A	Z	-4.582	1.75
21	MP1A	Mx	.006	1.75
22	MP1A	X	-7.937	3.75
23	MP1A	Z	-4.582	3.75
24	MP1A	Mx	.006	3.75
25	MP1B	X	-13.93	1.75
26	MP1B	Z	-8.042	1.75
27	MP1B	Mx	0	1.75
28	MP1B	X	-13.93	3.75
29	MP1B	Z	-8.042	3.75
30	MP1B	Mx	0	3.75
31	MP1C	X	-7.937	1.75
32	MP1C	Z	-4.582	1.75
33	MP1C	Mx	-.006	1.75
34	MP1C	X	-7.937	3.75
35	MP1C	Z	-4.582	3.75
36	MP1C	Mx	-.006	3.75
37	MP5A	X	-6.45	2.75
38	MP5A	Z	-3.724	2.75
39	MP5A	Mx	.005	2.75
40	MP5B	X	-9.844	2.75
41	MP5B	Z	-5.683	2.75
42	MP5B	Mx	0	2.75
43	MP5C	X	-6.45	2.75
44	MP5C	Z	-3.724	2.75
45	MP5C	Mx	-.005	2.75
46	MP2A	X	-9.068	.5
47	MP2A	Z	-5.235	.5
48	MP2A	Mx	-.003	.5
49	MP2B	X	-11.747	.5
50	MP2B	Z	-6.782	.5
51	MP2B	Mx	0	.5
52	MP2C	X	-9.068	.5
53	MP2C	Z	-5.235	.5
54	MP2C	Mx	.003	.5
55	MP3A	X	-8.586	2
56	MP3A	Z	-4.957	2
57	MP3A	Mx	-.003	2
58	MP3B	X	-11.747	2
59	MP3B	Z	-6.782	2
60	MP3B	Mx	0	2
61	MP3C	X	-8.586	2
62	MP3C	Z	-4.957	2
63	MP3C	Mx	.003	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
64	OVP	X	-20.187	.5
65	OVP	Z	-11.655	.5
66	OVP	Mx	-.015	.5
67	MP3A	X	-2.728	4.5
68	MP3A	Z	-1.575	4.5
69	MP3A	Mx	-.002	4.5
70	MP3A	X	-2.728	5.5
71	MP3A	Z	-1.575	5.5
72	MP3A	Mx	-.002	5.5
73	MP3C	X	-2.728	4.5
74	MP3C	Z	-1.575	4.5
75	MP3C	Mx	.003	4.5
76	MP3C	X	-2.728	5.5
77	MP3C	Z	-1.575	5.5
78	MP3C	Mx	.003	5.5
79	MP3A	X	-2.728	4.5
80	MP3A	Z	-1.575	4.5
81	MP3A	Mx	-.003	4.5
82	MP3A	X	-2.728	5.5
83	MP3A	Z	-1.575	5.5
84	MP3A	Mx	-.003	5.5
85	MP3C	X	-2.728	4.5
86	MP3C	Z	-1.575	4.5
87	MP3C	Mx	.002	4.5
88	MP3C	X	-2.728	5.5
89	MP3C	Z	-1.575	5.5
90	MP3C	Mx	.002	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-12.451	.5
2	MP3A	Z	-21.566	.5
3	MP3A	Mx	.006	.5
4	MP3A	X	-12.451	5.75
5	MP3A	Z	-21.566	5.75
6	MP3A	Mx	.006	5.75
7	MP3B	X	-12.451	.5
8	MP3B	Z	-21.566	.5
9	MP3B	Mx	.006	.5
10	MP3B	X	-12.451	5.75
11	MP3B	Z	-21.566	5.75
12	MP3B	Mx	.006	5.75
13	MP3C	X	-9.312	.5
14	MP3C	Z	-16.128	.5
15	MP3C	Mx	-.009	.5
16	MP3C	X	-9.312	5.75
17	MP3C	Z	-16.128	5.75
18	MP3C	Mx	-.009	5.75
19	MP1A	X	-6.889	1.75
20	MP1A	Z	-11.932	1.75
21	MP1A	Mx	.005	1.75
22	MP1A	X	-6.889	3.75
23	MP1A	Z	-11.932	3.75
24	MP1A	Mx	.005	3.75
25	MP1B	X	-6.889	1.75
26	MP1B	Z	-11.932	1.75



Company : Colliers Engineering & Design  
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 Model Name : 5000384514-VZW\_MT\_LO\_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
27	MP1B	Mx	.005	1.75
28	MP1B	X	-6.889	3.75
29	MP1B	Z	-11.932	3.75
30	MP1B	Mx	.005	3.75
31	MP1C	X	-3.429	1.75
32	MP1C	Z	-5.939	1.75
33	MP1C	Mx	-.005	1.75
34	MP1C	X	-3.429	3.75
35	MP1C	Z	-5.939	3.75
36	MP1C	Mx	-.005	3.75
37	MP5A	X	-5.03	2.75
38	MP5A	Z	-8.713	2.75
39	MP5A	Mx	.004	2.75
40	MP5B	X	-5.03	2.75
41	MP5B	Z	-8.713	2.75
42	MP5B	Mx	.004	2.75
43	MP5C	X	-3.071	2.75
44	MP5C	Z	-5.319	2.75
45	MP5C	Mx	-.005	2.75
46	MP2A	X	-6.267	.5
47	MP2A	Z	-10.854	.5
48	MP2A	Mx	-.002	.5
49	MP2B	X	-6.267	.5
50	MP2B	Z	-10.854	.5
51	MP2B	Mx	-.002	.5
52	MP2C	X	-4.72	.5
53	MP2C	Z	-8.175	.5
54	MP2C	Mx	.003	.5
55	MP3A	X	-6.174	2
56	MP3A	Z	-10.693	2
57	MP3A	Mx	-.002	2
58	MP3B	X	-6.174	2
59	MP3B	Z	-10.693	2
60	MP3B	Mx	-.002	2
61	MP3C	X	-4.348	2
62	MP3C	Z	-7.532	2
63	MP3C	Mx	.003	2
64	OVP	X	-13.172	.5
65	OVP	Z	-22.814	.5
66	OVP	Mx	-.01	.5
67	MP3A	X	-.995	4.5
68	MP3A	Z	-1.723	4.5
69	MP3A	Mx	-.000421	4.5
70	MP3A	X	-.995	5.5
71	MP3A	Z	-1.723	5.5
72	MP3A	Mx	-.000421	5.5
73	MP3C	X	-1.865	4.5
74	MP3C	Z	-3.231	4.5
75	MP3C	Mx	.004	4.5
76	MP3C	X	-1.865	5.5
77	MP3C	Z	-3.231	5.5
78	MP3C	Mx	.004	5.5
79	MP3A	X	-.995	4.5
80	MP3A	Z	-1.723	4.5
81	MP3A	Mx	-.002	4.5
82	MP3A	X	-.995	5.5
83	MP3A	Z	-1.723	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
84	MP3A	Mx	-.002	5.5
85	MP3C	X	-1.865	4.5
86	MP3C	Z	-3.231	4.5
87	MP3C	Mx	.004	4.5
88	MP3C	X	-1.865	5.5
89	MP3C	Z	-3.231	5.5
90	MP3C	Mx	.004	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	0	.5
2	MP3A	Z	-5.914	.5
3	MP3A	Mx	0	.5
4	MP3A	X	0	5.75
5	MP3A	Z	-5.914	5.75
6	MP3A	Mx	0	5.75
7	MP3B	X	0	.5
8	MP3B	Z	-3.382	.5
9	MP3B	Mx	.001	.5
10	MP3B	X	0	5.75
11	MP3B	Z	-3.382	5.75
12	MP3B	Mx	.001	5.75
13	MP3C	X	0	.5
14	MP3C	Z	-3.382	.5
15	MP3C	Mx	-.001	.5
16	MP3C	X	0	5.75
17	MP3C	Z	-3.382	5.75
18	MP3C	Mx	-.001	5.75
19	MP1A	X	0	1.75
20	MP1A	Z	-4.27	1.75
21	MP1A	Mx	0	1.75
22	MP1A	X	0	3.75
23	MP1A	Z	-4.27	3.75
24	MP1A	Mx	0	3.75
25	MP1B	X	0	1.75
26	MP1B	Z	-2.17	1.75
27	MP1B	Mx	.001	1.75
28	MP1B	X	0	3.75
29	MP1B	Z	-2.17	3.75
30	MP1B	Mx	.001	3.75
31	MP1C	X	0	1.75
32	MP1C	Z	-2.17	1.75
33	MP1C	Mx	-.001	1.75
34	MP1C	X	0	3.75
35	MP1C	Z	-2.17	3.75
36	MP1C	Mx	-.001	3.75
37	MP5A	X	0	2.75
38	MP5A	Z	-3.333	2.75
39	MP5A	Mx	0	2.75
40	MP5B	X	0	2.75
41	MP5B	Z	-2.066	2.75
42	MP5B	Mx	.001	2.75
43	MP5C	X	0	2.75
44	MP5C	Z	-2.066	2.75
45	MP5C	Mx	-.001	2.75
46	MP2A	X	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
47	MP2A	Z	-3.376	.5
48	MP2A	Mx	0	.5
49	MP2B	X	0	.5
50	MP2B	Z	-2.543	.5
51	MP2B	Mx	-.000734	.5
52	MP2C	X	0	.5
53	MP2C	Z	-2.543	.5
54	MP2C	Mx	.000734	.5
55	MP3A	X	0	2
56	MP3A	Z	-3.376	2
57	MP3A	Mx	0	2
58	MP3B	X	0	2
59	MP3B	Z	-2.38	2
60	MP3B	Mx	-.000687	2
61	MP3C	X	0	2
62	MP3C	Z	-2.38	2
63	MP3C	Mx	.000687	2
64	OVP	X	0	.5
65	OVP	Z	-6.905	.5
66	OVP	Mx	0	.5
67	MP3A	X	0	4.5
68	MP3A	Z	-1.046	4.5
69	MP3A	Mx	.000349	4.5
70	MP3A	X	0	5.5
71	MP3A	Z	-1.046	5.5
72	MP3A	Mx	.000349	5.5
73	MP3C	X	0	4.5
74	MP3C	Z	-1.048	4.5
75	MP3C	Mx	.000733	4.5
76	MP3C	X	0	5.5
77	MP3C	Z	-1.048	5.5
78	MP3C	Mx	.000733	5.5
79	MP3A	X	0	4.5
80	MP3A	Z	-1.046	4.5
81	MP3A	Mx	-.000349	4.5
82	MP3A	X	0	5.5
83	MP3A	Z	-1.046	5.5
84	MP3A	Mx	-.000349	5.5
85	MP3C	X	0	4.5
86	MP3C	Z	-1.048	4.5
87	MP3C	Mx	.001	4.5
88	MP3C	X	0	5.5
89	MP3C	Z	-1.048	5.5
90	MP3C	Mx	.001	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	2.535	.5
2	MP3A	Z	-4.391	.5
3	MP3A	Mx	-.001	.5
4	MP3A	X	2.535	5.75
5	MP3A	Z	-4.391	5.75
6	MP3A	Mx	-.001	5.75
7	MP3B	X	1.269	.5
8	MP3B	Z	-2.198	.5
9	MP3B	Mx	.001	.5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP3B	X	1.269	5.75
11	MP3B	Z	-2.198	5.75
12	MP3B	Mx	.001	5.75
13	MP3C	X	2.535	.5
14	MP3C	Z	-4.391	.5
15	MP3C	Mx	-.001	.5
16	MP3C	X	2.535	5.75
17	MP3C	Z	-4.391	5.75
18	MP3C	Mx	-.001	5.75
19	MP1A	X	1.785	1.75
20	MP1A	Z	-3.092	1.75
21	MP1A	Mx	-.001	1.75
22	MP1A	X	1.785	3.75
23	MP1A	Z	-3.092	3.75
24	MP1A	Mx	-.001	3.75
25	MP1B	X	.735	1.75
26	MP1B	Z	-1.273	1.75
27	MP1B	Mx	.001	1.75
28	MP1B	X	.735	3.75
29	MP1B	Z	-1.273	3.75
30	MP1B	Mx	.001	3.75
31	MP1C	X	1.785	1.75
32	MP1C	Z	-3.092	1.75
33	MP1C	Mx	-.001	1.75
34	MP1C	X	1.785	3.75
35	MP1C	Z	-3.092	3.75
36	MP1C	Mx	-.001	3.75
37	MP5A	X	1.455	2.75
38	MP5A	Z	-2.521	2.75
39	MP5A	Mx	-.001	2.75
40	MP5B	X	.822	2.75
41	MP5B	Z	-1.424	2.75
42	MP5B	Mx	.001	2.75
43	MP5C	X	1.455	2.75
44	MP5C	Z	-2.521	2.75
45	MP5C	Mx	-.001	2.75
46	MP2A	X	1.549	.5
47	MP2A	Z	-2.684	.5
48	MP2A	Mx	.000516	.5
49	MP2B	X	1.133	.5
50	MP2B	Z	-1.962	.5
51	MP2B	Mx	-.000755	.5
52	MP2C	X	1.549	.5
53	MP2C	Z	-2.684	.5
54	MP2C	Mx	.000517	.5
55	MP3A	X	1.522	2
56	MP3A	Z	-2.636	2
57	MP3A	Mx	.000507	2
58	MP3B	X	1.024	2
59	MP3B	Z	-1.773	2
60	MP3B	Mx	-.000682	2
61	MP3C	X	1.522	2
62	MP3C	Z	-2.636	2
63	MP3C	Mx	.000507	2
64	OVP	X	3.246	.5
65	OVP	Z	-5.622	.5
66	OVP	Mx	.002	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
67	MP3A	X	.523	4.5
68	MP3A	Z	-.906	4.5
69	MP3A	Mx	.000825	4.5
70	MP3A	X	.523	5.5
71	MP3A	Z	-.906	5.5
72	MP3A	Mx	.000825	5.5
73	MP3C	X	.523	4.5
74	MP3C	Z	-.906	4.5
75	MP3C	Mx	.000221	4.5
76	MP3C	X	.523	5.5
77	MP3C	Z	-.906	5.5
78	MP3C	Mx	.000221	5.5
79	MP3A	X	.523	4.5
80	MP3A	Z	-.906	4.5
81	MP3A	Mx	.000221	4.5
82	MP3A	X	.523	5.5
83	MP3A	Z	-.906	5.5
84	MP3A	Mx	.000221	5.5
85	MP3C	X	.523	4.5
86	MP3C	Z	-.906	4.5
87	MP3C	Mx	.000825	4.5
88	MP3C	X	.523	5.5
89	MP3C	Z	-.906	5.5
90	MP3C	Mx	.000825	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	2.929	.5
2	MP3A	Z	-1.691	.5
3	MP3A	Mx	-.001	.5
4	MP3A	X	2.929	5.75
5	MP3A	Z	-1.691	5.75
6	MP3A	Mx	-.001	5.75
7	MP3B	X	2.929	.5
8	MP3B	Z	-1.691	.5
9	MP3B	Mx	.001	.5
10	MP3B	X	2.929	5.75
11	MP3B	Z	-1.691	5.75
12	MP3B	Mx	.001	5.75
13	MP3C	X	5.122	.5
14	MP3C	Z	-2.957	.5
15	MP3C	Mx	0	.5
16	MP3C	X	5.122	5.75
17	MP3C	Z	-2.957	5.75
18	MP3C	Mx	0	5.75
19	MP1A	X	1.879	1.75
20	MP1A	Z	-1.085	1.75
21	MP1A	Mx	-.001	1.75
22	MP1A	X	1.879	3.75
23	MP1A	Z	-1.085	3.75
24	MP1A	Mx	-.001	3.75
25	MP1B	X	1.879	1.75
26	MP1B	Z	-1.085	1.75
27	MP1B	Mx	.001	1.75
28	MP1B	X	1.879	3.75
29	MP1B	Z	-1.085	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
30	MP1B	Mx	.001	3.75
31	MP1C	X	3.698	1.75
32	MP1C	Z	-2.135	1.75
33	MP1C	Mx	0	1.75
34	MP1C	X	3.698	3.75
35	MP1C	Z	-2.135	3.75
36	MP1C	Mx	0	3.75
37	MP5A	X	1.789	2.75
38	MP5A	Z	-1.033	2.75
39	MP5A	Mx	-.001	2.75
40	MP5B	X	1.789	2.75
41	MP5B	Z	-1.033	2.75
42	MP5B	Mx	.001	2.75
43	MP5C	X	2.886	2.75
44	MP5C	Z	-1.666	2.75
45	MP5C	Mx	0	2.75
46	MP2A	X	2.202	.5
47	MP2A	Z	-1.272	.5
48	MP2A	Mx	.000734	.5
49	MP2B	X	2.202	.5
50	MP2B	Z	-1.272	.5
51	MP2B	Mx	-.000734	.5
52	MP2C	X	2.924	.5
53	MP2C	Z	-1.688	.5
54	MP2C	Mx	0	.5
55	MP3A	X	2.061	2
56	MP3A	Z	-1.19	2
57	MP3A	Mx	.000687	2
58	MP3B	X	2.061	2
59	MP3B	Z	-1.19	2
60	MP3B	Mx	-.000687	2
61	MP3C	X	2.924	2
62	MP3C	Z	-1.688	2
63	MP3C	Mx	0	2
64	OVP	X	4.905	.5
65	OVP	Z	-2.832	.5
66	OVP	Mx	.004	.5
67	MP3A	X	.908	4.5
68	MP3A	Z	-.524	4.5
69	MP3A	Mx	.001	4.5
70	MP3A	X	.908	5.5
71	MP3A	Z	-.524	5.5
72	MP3A	Mx	.001	5.5
73	MP3C	X	.906	4.5
74	MP3C	Z	-.523	4.5
75	MP3C	Mx	-.000349	4.5
76	MP3C	X	.906	5.5
77	MP3C	Z	-.523	5.5
78	MP3C	Mx	-.000349	5.5
79	MP3A	X	.908	4.5
80	MP3A	Z	-.524	4.5
81	MP3A	Mx	.000733	4.5
82	MP3A	X	.908	5.5
83	MP3A	Z	-.524	5.5
84	MP3A	Mx	.000733	5.5
85	MP3C	X	.906	4.5
86	MP3C	Z	-.523	4.5





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
87	MP3C	Mx	.000349	4.5
88	MP3C	X	.906	5.5
89	MP3C	Z	-.523	5.5
90	MP3C	Mx	.000349	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	2.538	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	-.001	.5
4	MP3A	X	2.538	5.75
5	MP3A	Z	0	5.75
6	MP3A	Mx	-.001	5.75
7	MP3B	X	5.07	.5
8	MP3B	Z	0	.5
9	MP3B	Mx	.001	.5
10	MP3B	X	5.07	5.75
11	MP3B	Z	0	5.75
12	MP3B	Mx	.001	5.75
13	MP3C	X	5.07	.5
14	MP3C	Z	0	.5
15	MP3C	Mx	.001	.5
16	MP3C	X	5.07	5.75
17	MP3C	Z	0	5.75
18	MP3C	Mx	.001	5.75
19	MP1A	X	1.47	1.75
20	MP1A	Z	0	1.75
21	MP1A	Mx	-.001	1.75
22	MP1A	X	1.47	3.75
23	MP1A	Z	0	3.75
24	MP1A	Mx	-.001	3.75
25	MP1B	X	3.57	1.75
26	MP1B	Z	0	1.75
27	MP1B	Mx	.001	1.75
28	MP1B	X	3.57	3.75
29	MP1B	Z	0	3.75
30	MP1B	Mx	.001	3.75
31	MP1C	X	3.57	1.75
32	MP1C	Z	0	1.75
33	MP1C	Mx	.001	1.75
34	MP1C	X	3.57	3.75
35	MP1C	Z	0	3.75
36	MP1C	Mx	.001	3.75
37	MP5A	X	1.644	2.75
38	MP5A	Z	0	2.75
39	MP5A	Mx	-.001	2.75
40	MP5B	X	2.911	2.75
41	MP5B	Z	0	2.75
42	MP5B	Mx	.001	2.75
43	MP5C	X	2.911	2.75
44	MP5C	Z	0	2.75
45	MP5C	Mx	.001	2.75
46	MP2A	X	2.265	.5
47	MP2A	Z	0	.5
48	MP2A	Mx	.000755	.5
49	MP2B	X	3.099	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
50	MP2B	Z	0	.5
51	MP2B	Mx	-.000516	.5
52	MP2C	X	3.099	.5
53	MP2C	Z	0	.5
54	MP2C	Mx	-.000516	.5
55	MP3A	X	2.048	2
56	MP3A	Z	0	2
57	MP3A	Mx	.000683	2
58	MP3B	X	3.044	2
59	MP3B	Z	0	2
60	MP3B	Mx	-.000507	2
61	MP3C	X	3.044	2
62	MP3C	Z	0	2
63	MP3C	Mx	-.000507	2
64	OVP	X	5.25	.5
65	OVP	Z	0	.5
66	OVP	Mx	.004	.5
67	MP3A	X	1.049	4.5
68	MP3A	Z	0	4.5
69	MP3A	Mx	.001	4.5
70	MP3A	X	1.049	5.5
71	MP3A	Z	0	5.5
72	MP3A	Mx	.001	5.5
73	MP3C	X	1.046	4.5
74	MP3C	Z	0	4.5
75	MP3C	Mx	-.000825	4.5
76	MP3C	X	1.046	5.5
77	MP3C	Z	0	5.5
78	MP3C	Mx	-.000825	5.5
79	MP3A	X	1.049	4.5
80	MP3A	Z	0	4.5
81	MP3A	Mx	.001	4.5
82	MP3A	X	1.049	5.5
83	MP3A	Z	0	5.5
84	MP3A	Mx	.001	5.5
85	MP3C	X	1.046	4.5
86	MP3C	Z	0	4.5
87	MP3C	Mx	-.000221	4.5
88	MP3C	X	1.046	5.5
89	MP3C	Z	0	5.5
90	MP3C	Mx	-.000221	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	2.929	.5
2	MP3A	Z	1.691	.5
3	MP3A	Mx	-.001	.5
4	MP3A	X	2.929	5.75
5	MP3A	Z	1.691	5.75
6	MP3A	Mx	-.001	5.75
7	MP3B	X	5.122	.5
8	MP3B	Z	2.957	.5
9	MP3B	Mx	0	.5
10	MP3B	X	5.122	5.75
11	MP3B	Z	2.957	5.75
12	MP3B	Mx	0	5.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
13	MP3C	X	2.929	.5
14	MP3C	Z	1.691	.5
15	MP3C	Mx	.001	.5
16	MP3C	X	2.929	5.75
17	MP3C	Z	1.691	5.75
18	MP3C	Mx	.001	5.75
19	MP1A	X	1.879	1.75
20	MP1A	Z	1.085	1.75
21	MP1A	Mx	-.001	1.75
22	MP1A	X	1.879	3.75
23	MP1A	Z	1.085	3.75
24	MP1A	Mx	-.001	3.75
25	MP1B	X	3.698	1.75
26	MP1B	Z	2.135	1.75
27	MP1B	Mx	0	1.75
28	MP1B	X	3.698	3.75
29	MP1B	Z	2.135	3.75
30	MP1B	Mx	0	3.75
31	MP1C	X	1.879	1.75
32	MP1C	Z	1.085	1.75
33	MP1C	Mx	.001	1.75
34	MP1C	X	1.879	3.75
35	MP1C	Z	1.085	3.75
36	MP1C	Mx	.001	3.75
37	MP5A	X	1.789	2.75
38	MP5A	Z	1.033	2.75
39	MP5A	Mx	-.001	2.75
40	MP5B	X	2.886	2.75
41	MP5B	Z	1.666	2.75
42	MP5B	Mx	0	2.75
43	MP5C	X	1.789	2.75
44	MP5C	Z	1.033	2.75
45	MP5C	Mx	.001	2.75
46	MP2A	X	2.202	.5
47	MP2A	Z	1.272	.5
48	MP2A	Mx	.000734	.5
49	MP2B	X	2.924	.5
50	MP2B	Z	1.688	.5
51	MP2B	Mx	0	.5
52	MP2C	X	2.202	.5
53	MP2C	Z	1.272	.5
54	MP2C	Mx	-.000734	.5
55	MP3A	X	2.061	2
56	MP3A	Z	1.19	2
57	MP3A	Mx	.000687	2
58	MP3B	X	2.924	2
59	MP3B	Z	1.688	2
60	MP3B	Mx	0	2
61	MP3C	X	2.061	2
62	MP3C	Z	1.19	2
63	MP3C	Mx	-.000687	2
64	OVP	X	4.905	.5
65	OVP	Z	2.832	.5
66	OVP	Mx	.004	.5
67	MP3A	X	.908	4.5
68	MP3A	Z	.524	4.5
69	MP3A	Mx	.000733	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
70	MP3A	X	.908	5.5
71	MP3A	Z	.524	5.5
72	MP3A	Mx	.000733	5.5
73	MP3C	X	.908	4.5
74	MP3C	Z	.524	4.5
75	MP3C	Mx	-.001	4.5
76	MP3C	X	.908	5.5
77	MP3C	Z	.524	5.5
78	MP3C	Mx	-.001	5.5
79	MP3A	X	.908	4.5
80	MP3A	Z	.524	4.5
81	MP3A	Mx	.001	4.5
82	MP3A	X	.908	5.5
83	MP3A	Z	.524	5.5
84	MP3A	Mx	.001	5.5
85	MP3C	X	.908	4.5
86	MP3C	Z	.524	4.5
87	MP3C	Mx	-.000733	4.5
88	MP3C	X	.908	5.5
89	MP3C	Z	.524	5.5
90	MP3C	Mx	-.000733	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	2.535	.5
2	MP3A	Z	4.391	.5
3	MP3A	Mx	-.001	.5
4	MP3A	X	2.535	5.75
5	MP3A	Z	4.391	5.75
6	MP3A	Mx	-.001	5.75
7	MP3B	X	2.535	.5
8	MP3B	Z	4.391	.5
9	MP3B	Mx	-.001	.5
10	MP3B	X	2.535	5.75
11	MP3B	Z	4.391	5.75
12	MP3B	Mx	-.001	5.75
13	MP3C	X	1.269	.5
14	MP3C	Z	2.198	.5
15	MP3C	Mx	.001	.5
16	MP3C	X	1.269	5.75
17	MP3C	Z	2.198	5.75
18	MP3C	Mx	.001	5.75
19	MP1A	X	1.785	1.75
20	MP1A	Z	3.092	1.75
21	MP1A	Mx	-.001	1.75
22	MP1A	X	1.785	3.75
23	MP1A	Z	3.092	3.75
24	MP1A	Mx	-.001	3.75
25	MP1B	X	1.785	1.75
26	MP1B	Z	3.092	1.75
27	MP1B	Mx	-.001	1.75
28	MP1B	X	1.785	3.75
29	MP1B	Z	3.092	3.75
30	MP1B	Mx	-.001	3.75
31	MP1C	X	.735	1.75
32	MP1C	Z	1.273	1.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
33	MP1C	Mx	.001	1.75
34	MP1C	X	.735	3.75
35	MP1C	Z	1.273	3.75
36	MP1C	Mx	.001	3.75
37	MP5A	X	1.455	2.75
38	MP5A	Z	2.521	2.75
39	MP5A	Mx	-.001	2.75
40	MP5B	X	1.455	2.75
41	MP5B	Z	2.521	2.75
42	MP5B	Mx	-.001	2.75
43	MP5C	X	.822	2.75
44	MP5C	Z	1.424	2.75
45	MP5C	Mx	.001	2.75
46	MP2A	X	1.549	.5
47	MP2A	Z	2.684	.5
48	MP2A	Mx	.000516	.5
49	MP2B	X	1.549	.5
50	MP2B	Z	2.684	.5
51	MP2B	Mx	.000517	.5
52	MP2C	X	1.133	.5
53	MP2C	Z	1.962	.5
54	MP2C	Mx	-.000755	.5
55	MP3A	X	1.522	2
56	MP3A	Z	2.636	2
57	MP3A	Mx	.000507	2
58	MP3B	X	1.522	2
59	MP3B	Z	2.636	2
60	MP3B	Mx	.000507	2
61	MP3C	X	1.024	2
62	MP3C	Z	1.773	2
63	MP3C	Mx	-.000682	2
64	OVP	X	3.246	.5
65	OVP	Z	5.622	.5
66	OVP	Mx	.002	.5
67	MP3A	X	.523	4.5
68	MP3A	Z	.906	4.5
69	MP3A	Mx	.000221	4.5
70	MP3A	X	.523	5.5
71	MP3A	Z	.906	5.5
72	MP3A	Mx	.000221	5.5
73	MP3C	X	.524	4.5
74	MP3C	Z	.908	4.5
75	MP3C	Mx	-.001	4.5
76	MP3C	X	.524	5.5
77	MP3C	Z	.908	5.5
78	MP3C	Mx	-.001	5.5
79	MP3A	X	.523	4.5
80	MP3A	Z	.906	4.5
81	MP3A	Mx	.000825	4.5
82	MP3A	X	.523	5.5
83	MP3A	Z	.906	5.5
84	MP3A	Mx	.000825	5.5
85	MP3C	X	.524	4.5
86	MP3C	Z	.908	4.5
87	MP3C	Mx	-.001	4.5
88	MP3C	X	.524	5.5
89	MP3C	Z	.908	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
90	MP3C	Mx	-.001	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	0	.5
2	MP3A	Z	5.914	.5
3	MP3A	Mx	0	.5
4	MP3A	X	0	5.75
5	MP3A	Z	5.914	5.75
6	MP3A	Mx	0	5.75
7	MP3B	X	0	.5
8	MP3B	Z	3.382	.5
9	MP3B	Mx	-.001	.5
10	MP3B	X	0	5.75
11	MP3B	Z	3.382	5.75
12	MP3B	Mx	-.001	5.75
13	MP3C	X	0	.5
14	MP3C	Z	3.382	.5
15	MP3C	Mx	.001	.5
16	MP3C	X	0	5.75
17	MP3C	Z	3.382	5.75
18	MP3C	Mx	.001	5.75
19	MP1A	X	0	1.75
20	MP1A	Z	4.27	1.75
21	MP1A	Mx	0	1.75
22	MP1A	X	0	3.75
23	MP1A	Z	4.27	3.75
24	MP1A	Mx	0	3.75
25	MP1B	X	0	1.75
26	MP1B	Z	2.17	1.75
27	MP1B	Mx	-.001	1.75
28	MP1B	X	0	3.75
29	MP1B	Z	2.17	3.75
30	MP1B	Mx	-.001	3.75
31	MP1C	X	0	1.75
32	MP1C	Z	2.17	1.75
33	MP1C	Mx	.001	1.75
34	MP1C	X	0	3.75
35	MP1C	Z	2.17	3.75
36	MP1C	Mx	.001	3.75
37	MP5A	X	0	2.75
38	MP5A	Z	3.333	2.75
39	MP5A	Mx	0	2.75
40	MP5B	X	0	2.75
41	MP5B	Z	2.066	2.75
42	MP5B	Mx	-.001	2.75
43	MP5C	X	0	2.75
44	MP5C	Z	2.066	2.75
45	MP5C	Mx	.001	2.75
46	MP2A	X	0	.5
47	MP2A	Z	3.376	.5
48	MP2A	Mx	0	.5
49	MP2B	X	0	.5
50	MP2B	Z	2.543	.5
51	MP2B	Mx	.000734	.5
52	MP2C	X	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
53	MP2C	Z	2.543	.5
54	MP2C	Mx	-.000734	.5
55	MP3A	X	0	2
56	MP3A	Z	3.376	2
57	MP3A	Mx	0	2
58	MP3B	X	0	2
59	MP3B	Z	2.38	2
60	MP3B	Mx	.000687	2
61	MP3C	X	0	2
62	MP3C	Z	2.38	2
63	MP3C	Mx	-.000687	2
64	OVP	X	0	.5
65	OVP	Z	6.905	.5
66	OVP	Mx	0	.5
67	MP3A	X	0	4.5
68	MP3A	Z	1.046	4.5
69	MP3A	Mx	-.000349	4.5
70	MP3A	X	0	5.5
71	MP3A	Z	1.046	5.5
72	MP3A	Mx	-.000349	5.5
73	MP3C	X	0	4.5
74	MP3C	Z	1.048	4.5
75	MP3C	Mx	-.000733	4.5
76	MP3C	X	0	5.5
77	MP3C	Z	1.048	5.5
78	MP3C	Mx	-.000733	5.5
79	MP3A	X	0	4.5
80	MP3A	Z	1.046	4.5
81	MP3A	Mx	.000349	4.5
82	MP3A	X	0	5.5
83	MP3A	Z	1.046	5.5
84	MP3A	Mx	.000349	5.5
85	MP3C	X	0	4.5
86	MP3C	Z	1.048	4.5
87	MP3C	Mx	-.001	4.5
88	MP3C	X	0	5.5
89	MP3C	Z	1.048	5.5
90	MP3C	Mx	-.001	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-2.535	.5
2	MP3A	Z	4.391	.5
3	MP3A	Mx	.001	.5
4	MP3A	X	-2.535	5.75
5	MP3A	Z	4.391	5.75
6	MP3A	Mx	.001	5.75
7	MP3B	X	-1.269	.5
8	MP3B	Z	2.198	.5
9	MP3B	Mx	-.001	.5
10	MP3B	X	-1.269	5.75
11	MP3B	Z	2.198	5.75
12	MP3B	Mx	-.001	5.75
13	MP3C	X	-2.535	.5
14	MP3C	Z	4.391	.5
15	MP3C	Mx	.001	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
16	MP3C	X	-2.535	5.75
17	MP3C	Z	4.391	5.75
18	MP3C	Mx	.001	5.75
19	MP1A	X	-1.785	1.75
20	MP1A	Z	3.092	1.75
21	MP1A	Mx	.001	1.75
22	MP1A	X	-1.785	3.75
23	MP1A	Z	3.092	3.75
24	MP1A	Mx	.001	3.75
25	MP1B	X	-.735	1.75
26	MP1B	Z	1.273	1.75
27	MP1B	Mx	-.001	1.75
28	MP1B	X	-.735	3.75
29	MP1B	Z	1.273	3.75
30	MP1B	Mx	-.001	3.75
31	MP1C	X	-1.785	1.75
32	MP1C	Z	3.092	1.75
33	MP1C	Mx	.001	1.75
34	MP1C	X	-1.785	3.75
35	MP1C	Z	3.092	3.75
36	MP1C	Mx	.001	3.75
37	MP5A	X	-1.455	2.75
38	MP5A	Z	2.521	2.75
39	MP5A	Mx	.001	2.75
40	MP5B	X	-.822	2.75
41	MP5B	Z	1.424	2.75
42	MP5B	Mx	-.001	2.75
43	MP5C	X	-1.455	2.75
44	MP5C	Z	2.521	2.75
45	MP5C	Mx	.001	2.75
46	MP2A	X	-1.549	.5
47	MP2A	Z	2.684	.5
48	MP2A	Mx	-.000516	.5
49	MP2B	X	-1.133	.5
50	MP2B	Z	1.962	.5
51	MP2B	Mx	.000755	.5
52	MP2C	X	-1.549	.5
53	MP2C	Z	2.684	.5
54	MP2C	Mx	-.000517	.5
55	MP3A	X	-1.522	2
56	MP3A	Z	2.636	2
57	MP3A	Mx	-.000507	2
58	MP3B	X	-1.024	2
59	MP3B	Z	1.773	2
60	MP3B	Mx	.000682	2
61	MP3C	X	-1.522	2
62	MP3C	Z	2.636	2
63	MP3C	Mx	-.000507	2
64	OVP	X	-3.246	.5
65	OVP	Z	5.622	.5
66	OVP	Mx	-.002	.5
67	MP3A	X	-.523	4.5
68	MP3A	Z	.906	4.5
69	MP3A	Mx	-.000825	4.5
70	MP3A	X	-.523	5.5
71	MP3A	Z	.906	5.5
72	MP3A	Mx	-.000825	5.5





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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
73	MP3C	X	-.523	4.5
74	MP3C	Z	.906	4.5
75	MP3C	Mx	-.000221	4.5
76	MP3C	X	-.523	5.5
77	MP3C	Z	.906	5.5
78	MP3C	Mx	-.000221	5.5
79	MP3A	X	-.523	4.5
80	MP3A	Z	.906	4.5
81	MP3A	Mx	-.000221	4.5
82	MP3A	X	-.523	5.5
83	MP3A	Z	.906	5.5
84	MP3A	Mx	-.000221	5.5
85	MP3C	X	-.523	4.5
86	MP3C	Z	.906	4.5
87	MP3C	Mx	-.000825	4.5
88	MP3C	X	-.523	5.5
89	MP3C	Z	.906	5.5
90	MP3C	Mx	-.000825	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-2.929	.5
2	MP3A	Z	1.691	.5
3	MP3A	Mx	.001	.5
4	MP3A	X	-2.929	5.75
5	MP3A	Z	1.691	5.75
6	MP3A	Mx	.001	5.75
7	MP3B	X	-2.929	.5
8	MP3B	Z	1.691	.5
9	MP3B	Mx	-.001	.5
10	MP3B	X	-2.929	5.75
11	MP3B	Z	1.691	5.75
12	MP3B	Mx	-.001	5.75
13	MP3C	X	-5.122	.5
14	MP3C	Z	2.957	.5
15	MP3C	Mx	0	.5
16	MP3C	X	-5.122	5.75
17	MP3C	Z	2.957	5.75
18	MP3C	Mx	0	5.75
19	MP1A	X	-1.879	1.75
20	MP1A	Z	1.085	1.75
21	MP1A	Mx	.001	1.75
22	MP1A	X	-1.879	3.75
23	MP1A	Z	1.085	3.75
24	MP1A	Mx	.001	3.75
25	MP1B	X	-1.879	1.75
26	MP1B	Z	1.085	1.75
27	MP1B	Mx	-.001	1.75
28	MP1B	X	-1.879	3.75
29	MP1B	Z	1.085	3.75
30	MP1B	Mx	-.001	3.75
31	MP1C	X	-3.698	1.75
32	MP1C	Z	2.135	1.75
33	MP1C	Mx	0	1.75
34	MP1C	X	-3.698	3.75
35	MP1C	Z	2.135	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
36	MP1C	Mx	0	3.75
37	MP5A	X	-1.789	2.75
38	MP5A	Z	1.033	2.75
39	MP5A	Mx	.001	2.75
40	MP5B	X	-1.789	2.75
41	MP5B	Z	1.033	2.75
42	MP5B	Mx	-.001	2.75
43	MP5C	X	-2.886	2.75
44	MP5C	Z	1.666	2.75
45	MP5C	Mx	0	2.75
46	MP2A	X	-2.202	.5
47	MP2A	Z	1.272	.5
48	MP2A	Mx	-.000734	.5
49	MP2B	X	-2.202	.5
50	MP2B	Z	1.272	.5
51	MP2B	Mx	.000734	.5
52	MP2C	X	-2.924	.5
53	MP2C	Z	1.688	.5
54	MP2C	Mx	0	.5
55	MP3A	X	-2.061	2
56	MP3A	Z	1.19	2
57	MP3A	Mx	-.000687	2
58	MP3B	X	-2.061	2
59	MP3B	Z	1.19	2
60	MP3B	Mx	.000687	2
61	MP3C	X	-2.924	2
62	MP3C	Z	1.688	2
63	MP3C	Mx	0	2
64	OVP	X	-4.905	.5
65	OVP	Z	2.832	.5
66	OVP	Mx	-.004	.5
67	MP3A	X	-.908	4.5
68	MP3A	Z	.524	4.5
69	MP3A	Mx	-.001	4.5
70	MP3A	X	-.908	5.5
71	MP3A	Z	.524	5.5
72	MP3A	Mx	-.001	5.5
73	MP3C	X	-.906	4.5
74	MP3C	Z	.523	4.5
75	MP3C	Mx	.000349	4.5
76	MP3C	X	-.906	5.5
77	MP3C	Z	.523	5.5
78	MP3C	Mx	.000349	5.5
79	MP3A	X	-.908	4.5
80	MP3A	Z	.524	4.5
81	MP3A	Mx	-.000733	4.5
82	MP3A	X	-.908	5.5
83	MP3A	Z	.524	5.5
84	MP3A	Mx	-.000733	5.5
85	MP3C	X	-.906	4.5
86	MP3C	Z	.523	4.5
87	MP3C	Mx	-.000349	4.5
88	MP3C	X	-.906	5.5
89	MP3C	Z	.523	5.5
90	MP3C	Mx	-.000349	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	-2.538	.5
2	MP3A	Z	0	.5
3	MP3A	Mx	.001	.5
4	MP3A	X	-2.538	5.75
5	MP3A	Z	0	5.75
6	MP3A	Mx	.001	5.75
7	MP3B	X	-5.07	.5
8	MP3B	Z	0	.5
9	MP3B	Mx	-.001	.5
10	MP3B	X	-5.07	5.75
11	MP3B	Z	0	5.75
12	MP3B	Mx	-.001	5.75
13	MP3C	X	-5.07	.5
14	MP3C	Z	0	.5
15	MP3C	Mx	-.001	.5
16	MP3C	X	-5.07	5.75
17	MP3C	Z	0	5.75
18	MP3C	Mx	-.001	5.75
19	MP1A	X	-1.47	1.75
20	MP1A	Z	0	1.75
21	MP1A	Mx	.001	1.75
22	MP1A	X	-1.47	3.75
23	MP1A	Z	0	3.75
24	MP1A	Mx	.001	3.75
25	MP1B	X	-3.57	1.75
26	MP1B	Z	0	1.75
27	MP1B	Mx	-.001	1.75
28	MP1B	X	-3.57	3.75
29	MP1B	Z	0	3.75
30	MP1B	Mx	-.001	3.75
31	MP1C	X	-3.57	1.75
32	MP1C	Z	0	1.75
33	MP1C	Mx	-.001	1.75
34	MP1C	X	-3.57	3.75
35	MP1C	Z	0	3.75
36	MP1C	Mx	-.001	3.75
37	MP5A	X	-1.644	2.75
38	MP5A	Z	0	2.75
39	MP5A	Mx	.001	2.75
40	MP5B	X	-2.911	2.75
41	MP5B	Z	0	2.75
42	MP5B	Mx	-.001	2.75
43	MP5C	X	-2.911	2.75
44	MP5C	Z	0	2.75
45	MP5C	Mx	-.001	2.75
46	MP2A	X	-2.265	.5
47	MP2A	Z	0	.5
48	MP2A	Mx	-.000755	.5
49	MP2B	X	-3.099	.5
50	MP2B	Z	0	.5
51	MP2B	Mx	.000516	.5
52	MP2C	X	-3.099	.5
53	MP2C	Z	0	.5
54	MP2C	Mx	.000516	.5
55	MP3A	X	-2.048	2
56	MP3A	Z	0	2
57	MP3A	Mx	-.000683	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP3B	X	-3.044	2
59	MP3B	Z	0	2
60	MP3B	Mx	.000507	2
61	MP3C	X	-3.044	2
62	MP3C	Z	0	2
63	MP3C	Mx	.000507	2
64	OVP	X	-5.25	.5
65	OVP	Z	0	.5
66	OVP	Mx	-.004	.5
67	MP3A	X	-1.049	4.5
68	MP3A	Z	0	4.5
69	MP3A	Mx	-.001	4.5
70	MP3A	X	-1.049	5.5
71	MP3A	Z	0	5.5
72	MP3A	Mx	-.001	5.5
73	MP3C	X	-1.046	4.5
74	MP3C	Z	0	4.5
75	MP3C	Mx	.000825	4.5
76	MP3C	X	-1.046	5.5
77	MP3C	Z	0	5.5
78	MP3C	Mx	.000825	5.5
79	MP3A	X	-1.049	4.5
80	MP3A	Z	0	4.5
81	MP3A	Mx	-.001	4.5
82	MP3A	X	-1.049	5.5
83	MP3A	Z	0	5.5
84	MP3A	Mx	-.001	5.5
85	MP3C	X	-1.046	4.5
86	MP3C	Z	0	4.5
87	MP3C	Mx	.000221	4.5
88	MP3C	X	-1.046	5.5
89	MP3C	Z	0	5.5
90	MP3C	Mx	.000221	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-2.929	.5
2	MP3A	Z	-1.691	.5
3	MP3A	Mx	.001	.5
4	MP3A	X	-2.929	5.75
5	MP3A	Z	-1.691	5.75
6	MP3A	Mx	.001	5.75
7	MP3B	X	-5.122	.5
8	MP3B	Z	-2.957	.5
9	MP3B	Mx	0	.5
10	MP3B	X	-5.122	5.75
11	MP3B	Z	-2.957	5.75
12	MP3B	Mx	0	5.75
13	MP3C	X	-2.929	.5
14	MP3C	Z	-1.691	.5
15	MP3C	Mx	-.001	.5
16	MP3C	X	-2.929	5.75
17	MP3C	Z	-1.691	5.75
18	MP3C	Mx	-.001	5.75
19	MP1A	X	-1.879	1.75
20	MP1A	Z	-1.085	1.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
21	MP1A	Mx	.001	1.75
22	MP1A	X	-1.879	3.75
23	MP1A	Z	-1.085	3.75
24	MP1A	Mx	.001	3.75
25	MP1B	X	-3.698	1.75
26	MP1B	Z	-2.135	1.75
27	MP1B	Mx	0	1.75
28	MP1B	X	-3.698	3.75
29	MP1B	Z	-2.135	3.75
30	MP1B	Mx	0	3.75
31	MP1C	X	-1.879	1.75
32	MP1C	Z	-1.085	1.75
33	MP1C	Mx	-.001	1.75
34	MP1C	X	-1.879	3.75
35	MP1C	Z	-1.085	3.75
36	MP1C	Mx	-.001	3.75
37	MP5A	X	-1.789	2.75
38	MP5A	Z	-1.033	2.75
39	MP5A	Mx	.001	2.75
40	MP5B	X	-2.886	2.75
41	MP5B	Z	-1.666	2.75
42	MP5B	Mx	0	2.75
43	MP5C	X	-1.789	2.75
44	MP5C	Z	-1.033	2.75
45	MP5C	Mx	-.001	2.75
46	MP2A	X	-2.202	.5
47	MP2A	Z	-1.272	.5
48	MP2A	Mx	-.000734	.5
49	MP2B	X	-2.924	.5
50	MP2B	Z	-1.688	.5
51	MP2B	Mx	0	.5
52	MP2C	X	-2.202	.5
53	MP2C	Z	-1.272	.5
54	MP2C	Mx	.000734	.5
55	MP3A	X	-2.061	2
56	MP3A	Z	-1.19	2
57	MP3A	Mx	-.000687	2
58	MP3B	X	-2.924	2
59	MP3B	Z	-1.688	2
60	MP3B	Mx	0	2
61	MP3C	X	-2.061	2
62	MP3C	Z	-1.19	2
63	MP3C	Mx	.000687	2
64	OVP	X	-4.905	.5
65	OVP	Z	-2.832	.5
66	OVP	Mx	-.004	.5
67	MP3A	X	-.908	4.5
68	MP3A	Z	-.524	4.5
69	MP3A	Mx	-.000733	4.5
70	MP3A	X	-.908	5.5
71	MP3A	Z	-.524	5.5
72	MP3A	Mx	-.000733	5.5
73	MP3C	X	-.908	4.5
74	MP3C	Z	-.524	4.5
75	MP3C	Mx	.001	4.5
76	MP3C	X	-.908	5.5
77	MP3C	Z	-.524	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
78	MP3C	Mx	.001	5.5
79	MP3A	X	-.908	4.5
80	MP3A	Z	-.524	4.5
81	MP3A	Mx	-.001	4.5
82	MP3A	X	-.908	5.5
83	MP3A	Z	-.524	5.5
84	MP3A	Mx	-.001	5.5
85	MP3C	X	-.908	4.5
86	MP3C	Z	-.524	4.5
87	MP3C	Mx	.000733	4.5
88	MP3C	X	-.908	5.5
89	MP3C	Z	-.524	5.5
90	MP3C	Mx	.000733	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	X	-2.535	.5
2	MP3A	Z	-4.391	.5
3	MP3A	Mx	.001	.5
4	MP3A	X	-2.535	5.75
5	MP3A	Z	-4.391	5.75
6	MP3A	Mx	.001	5.75
7	MP3B	X	-2.535	.5
8	MP3B	Z	-4.391	.5
9	MP3B	Mx	.001	.5
10	MP3B	X	-2.535	5.75
11	MP3B	Z	-4.391	5.75
12	MP3B	Mx	.001	5.75
13	MP3C	X	-1.269	.5
14	MP3C	Z	-2.198	.5
15	MP3C	Mx	-.001	.5
16	MP3C	X	-1.269	5.75
17	MP3C	Z	-2.198	5.75
18	MP3C	Mx	-.001	5.75
19	MP1A	X	-1.785	1.75
20	MP1A	Z	-3.092	1.75
21	MP1A	Mx	.001	1.75
22	MP1A	X	-1.785	3.75
23	MP1A	Z	-3.092	3.75
24	MP1A	Mx	.001	3.75
25	MP1B	X	-1.785	1.75
26	MP1B	Z	-3.092	1.75
27	MP1B	Mx	.001	1.75
28	MP1B	X	-1.785	3.75
29	MP1B	Z	-3.092	3.75
30	MP1B	Mx	.001	3.75
31	MP1C	X	-.735	1.75
32	MP1C	Z	-1.273	1.75
33	MP1C	Mx	-.001	1.75
34	MP1C	X	-.735	3.75
35	MP1C	Z	-1.273	3.75
36	MP1C	Mx	-.001	3.75
37	MP5A	X	-1.455	2.75
38	MP5A	Z	-2.521	2.75
39	MP5A	Mx	.001	2.75
40	MP5B	X	-1.455	2.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
41	MP5B	Z	-2.521	2.75
42	MP5B	Mx	.001	2.75
43	MP5C	X	-.822	2.75
44	MP5C	Z	-1.424	2.75
45	MP5C	Mx	-.001	2.75
46	MP2A	X	-1.549	.5
47	MP2A	Z	-2.684	.5
48	MP2A	Mx	-.000516	.5
49	MP2B	X	-1.549	.5
50	MP2B	Z	-2.684	.5
51	MP2B	Mx	-.000517	.5
52	MP2C	X	-1.133	.5
53	MP2C	Z	-1.962	.5
54	MP2C	Mx	.000755	.5
55	MP3A	X	-1.522	2
56	MP3A	Z	-2.636	2
57	MP3A	Mx	-.000507	2
58	MP3B	X	-1.522	2
59	MP3B	Z	-2.636	2
60	MP3B	Mx	-.000507	2
61	MP3C	X	-1.024	2
62	MP3C	Z	-1.773	2
63	MP3C	Mx	.000682	2
64	OVP	X	-3.246	.5
65	OVP	Z	-5.622	.5
66	OVP	Mx	-.002	.5
67	MP3A	X	-.523	4.5
68	MP3A	Z	-.906	4.5
69	MP3A	Mx	-.000221	4.5
70	MP3A	X	-.523	5.5
71	MP3A	Z	-.906	5.5
72	MP3A	Mx	-.000221	5.5
73	MP3C	X	-.524	4.5
74	MP3C	Z	-.908	4.5
75	MP3C	Mx	.001	4.5
76	MP3C	X	-.524	5.5
77	MP3C	Z	-.908	5.5
78	MP3C	Mx	.001	5.5
79	MP3A	X	-.523	4.5
80	MP3A	Z	-.906	4.5
81	MP3A	Mx	-.000825	4.5
82	MP3A	X	-.523	5.5
83	MP3A	Z	-.906	5.5
84	MP3A	Mx	-.000825	5.5
85	MP3C	X	-.524	4.5
86	MP3C	Z	-.908	4.5
87	MP3C	Mx	.001	4.5
88	MP3C	X	-.524	5.5
89	MP3C	Z	-.908	5.5
90	MP3C	Mx	.001	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	M20	Y	-500	%100



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M62	Y	-500	%100

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

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

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M5	Y	-250	%100

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	Y	-.928	.5
2	MP3A	Mv	-.000464	.5
3	MP3A	Mz	0	.5
4	MP3A	Y	-.928	5.75
5	MP3A	Mv	-.000464	5.75
6	MP3A	Mz	0	5.75
7	MP3B	Y	-.928	.5
8	MP3B	Mv	.000232	.5
9	MP3B	Mz	-.000402	.5
10	MP3B	Y	-.928	5.75
11	MP3B	Mv	.000232	5.75
12	MP3B	Mz	-.000402	5.75
13	MP3C	Y	-.928	.5
14	MP3C	Mv	.000232	.5
15	MP3C	Mz	.000402	.5
16	MP3C	Y	-.928	5.75
17	MP3C	Mv	.000232	5.75
18	MP3C	Mz	.000402	5.75
19	MP1A	Y	-1.849	1.75
20	MP1A	Mv	-.001	1.75
21	MP1A	Mz	0	1.75
22	MP1A	Y	-1.849	3.75
23	MP1A	Mv	-.001	3.75
24	MP1A	Mz	0	3.75
25	MP1B	Y	-1.849	1.75
26	MP1B	Mv	.000693	1.75
27	MP1B	Mz	-.001	1.75
28	MP1B	Y	-1.849	3.75
29	MP1B	Mv	.000693	3.75
30	MP1B	Mz	-.001	3.75
31	MP1C	Y	-1.849	1.75
32	MP1C	Mv	.000693	1.75
33	MP1C	Mz	.001	1.75
34	MP1C	Y	-1.849	3.75
35	MP1C	Mv	.000693	3.75
36	MP1C	Mz	.001	3.75
37	MP5A	Y	-.985	2.75
38	MP5A	Mv	-.000739	2.75
39	MP5A	Mz	0	2.75
40	MP5B	Y	-.985	2.75
41	MP5B	Mv	.000369	2.75
42	MP5B	Mz	-.00064	2.75
43	MP5C	Y	-.985	2.75





Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
44	MP5C	My	.000369	2.75
45	MP5C	Mz	.00064	2.75
46	MP2A	Y	-3.171	.5
47	MP2A	My	.001	.5
48	MP2A	Mz	0	.5
49	MP2B	Y	-3.171	.5
50	MP2B	My	-.000529	.5
51	MP2B	Mz	.000915	.5
52	MP2C	Y	-3.171	.5
53	MP2C	My	-.000529	.5
54	MP2C	Mz	-.000915	.5
55	MP3A	Y	-2.984	2
56	MP3A	My	.000995	2
57	MP3A	Mz	0	2
58	MP3B	Y	-2.984	2
59	MP3B	My	-.000497	2
60	MP3B	Mz	.000862	2
61	MP3C	Y	-2.984	2
62	MP3C	My	-.000497	2
63	MP3C	Mz	-.000862	2
64	OVP	Y	-1.359	.5
65	OVP	My	.001	.5
66	OVP	Mz	0	.5
67	MP3A	Y	-.374	4.5
68	MP3A	My	.000374	4.5
69	MP3A	Mz	-.000125	4.5
70	MP3A	Y	-.374	5.5
71	MP3A	My	.000374	5.5
72	MP3A	Mz	-.000125	5.5
73	MP3C	Y	-.374	4.5
74	MP3C	My	-.000295	4.5
75	MP3C	Mz	-.000261	4.5
76	MP3C	Y	-.374	5.5
77	MP3C	My	-.000295	5.5
78	MP3C	Mz	-.000261	5.5
79	MP3A	Y	-.374	4.5
80	MP3A	My	.000374	4.5
81	MP3A	Mz	.000125	4.5
82	MP3A	Y	-.374	5.5
83	MP3A	My	.000374	5.5
84	MP3A	Mz	.000125	5.5
85	MP3C	Y	-.374	4.5
86	MP3C	My	-7.9e-5	4.5
87	MP3C	Mz	-.000386	4.5
88	MP3C	Y	-.374	5.5
89	MP3C	My	-7.9e-5	5.5
90	MP3C	Mz	-.000386	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP3A	Z	-2.319	.5
2	MP3A	Mx	0	.5
3	MP3A	Z	-2.319	5.75
4	MP3A	Mx	0	5.75
5	MP3B	Z	-2.319	.5
6	MP3B	Mx	.001	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
7	MP3B	Z	-2.319	5.75
8	MP3B	Mx	.001	5.75
9	MP3C	Z	-2.319	.5
10	MP3C	Mx	-.001	.5
11	MP3C	Z	-2.319	5.75
12	MP3C	Mx	-.001	5.75
13	MP1A	Z	-4.622	1.75
14	MP1A	Mx	0	1.75
15	MP1A	Z	-4.622	3.75
16	MP1A	Mx	0	3.75
17	MP1B	Z	-4.622	1.75
18	MP1B	Mx	.003	1.75
19	MP1B	Z	-4.622	3.75
20	MP1B	Mx	.003	3.75
21	MP1C	Z	-4.622	1.75
22	MP1C	Mx	-.003	1.75
23	MP1C	Z	-4.622	3.75
24	MP1C	Mx	-.003	3.75
25	MP5A	Z	-2.462	2.75
26	MP5A	Mx	0	2.75
27	MP5B	Z	-2.462	2.75
28	MP5B	Mx	.002	2.75
29	MP5C	Z	-2.462	2.75
30	MP5C	Mx	-.002	2.75
31	MP2A	Z	-7.928	.5
32	MP2A	Mx	0	.5
33	MP2B	Z	-7.928	.5
34	MP2B	Mx	-.002	.5
35	MP2C	Z	-7.928	.5
36	MP2C	Mx	.002	.5
37	MP3A	Z	-7.461	2
38	MP3A	Mx	0	2
39	MP3B	Z	-7.461	2
40	MP3B	Mx	-.002	2
41	MP3C	Z	-7.461	2
42	MP3C	Mx	.002	2
43	OVP	Z	-3.396	.5
44	OVP	Mx	0	.5
45	MP3A	Z	-.934	4.5
46	MP3A	Mx	.000311	4.5
47	MP3A	Z	-.934	5.5
48	MP3A	Mx	.000311	5.5
49	MP3C	Z	-.934	4.5
50	MP3C	Mx	.000653	4.5
51	MP3C	Z	-.934	5.5
52	MP3C	Mx	.000653	5.5
53	MP3A	Z	-.934	4.5
54	MP3A	Mx	-.000311	4.5
55	MP3A	Z	-.934	5.5
56	MP3A	Mx	-.000311	5.5
57	MP3C	Z	-.934	4.5
58	MP3C	Mx	.000965	4.5
59	MP3C	Z	-.934	5.5
60	MP3C	Mx	.000965	5.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
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**Member Point Loads (BLC 83 : Antenna Eh (90 Deg)) (Continued)**

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP3A	X	2.319	.5
2	MP3A	Mx	-.001	.5
3	MP3A	X	2.319	5.75
4	MP3A	Mx	-.001	5.75
5	MP3B	X	2.319	.5
6	MP3B	Mx	.00058	.5
7	MP3B	X	2.319	5.75
8	MP3B	Mx	.00058	5.75
9	MP3C	X	2.319	.5
10	MP3C	Mx	.00058	.5
11	MP3C	X	2.319	5.75
12	MP3C	Mx	.00058	5.75
13	MP1A	X	4.622	1.75
14	MP1A	Mx	-.003	1.75
15	MP1A	X	4.622	3.75
16	MP1A	Mx	-.003	3.75
17	MP1B	X	4.622	1.75
18	MP1B	Mx	.002	1.75
19	MP1B	X	4.622	3.75
20	MP1B	Mx	.002	3.75
21	MP1C	X	4.622	1.75
22	MP1C	Mx	.002	1.75
23	MP1C	X	4.622	3.75
24	MP1C	Mx	.002	3.75
25	MP5A	X	2.462	2.75
26	MP5A	Mx	-.002	2.75
27	MP5B	X	2.462	2.75
28	MP5B	Mx	.000923	2.75
29	MP5C	X	2.462	2.75
30	MP5C	Mx	.000923	2.75
31	MP2A	X	7.928	.5
32	MP2A	Mx	.003	.5
33	MP2B	X	7.928	.5
34	MP2B	Mx	-.001	.5
35	MP2C	X	7.928	.5
36	MP2C	Mx	-.001	.5
37	MP3A	X	7.461	2
38	MP3A	Mx	.002	2
39	MP3B	X	7.461	2
40	MP3B	Mx	-.001	2
41	MP3C	X	7.461	2
42	MP3C	Mx	-.001	2
43	OVP	X	3.396	.5
44	OVP	Mx	.003	.5
45	MP3A	X	.934	4.5
46	MP3A	Mx	.000934	4.5
47	MP3A	X	.934	5.5
48	MP3A	Mx	.000934	5.5
49	MP3C	X	.934	4.5
50	MP3C	Mx	-.000737	4.5
51	MP3C	X	.934	5.5
52	MP3C	Mx	-.000737	5.5
53	MP3A	X	.934	4.5
54	MP3A	Mx	.000934	4.5
55	MP3A	X	.934	5.5
56	MP3A	Mx	.000934	5.5
57	MP3C	X	.934	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
58	MP3C	Mx	-.000197	4.5
59	MP3C	X	.934	5.5
60	MP3C	Mx	-.000197	5.5

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

	Member Label	Direction	Start Magnitude[lb/ft.]	End Magnitude[lb/ft.]	Start Location[ft.%]	End Location[ft.%]
1	M1	Y	-10.23	-10.23	0	%100
2	M2	Y	-6.651	-6.651	0	%100
3	M3	Y	-10.23	-10.23	0	%100
4	M4	Y	-6.651	-6.651	0	%100
5	M5	Y	-6.651	-6.651	0	%100
6	M6	Y	-7.709	-7.709	0	%100
7	M7	Y	-10.23	-10.23	0	%100
8	M8	Y	-7.709	-7.709	0	%100
9	M14	Y	-5.818	-5.818	0	%100
10	M17	Y	-5.818	-5.818	0	%100
11	M18	Y	-5.818	-5.818	0	%100
12	M19	Y	-5.818	-5.818	0	%100
13	MP1A	Y	-5.047	-5.047	0	%100
14	M22	Y	-6.651	-6.651	0	%100
15	M23	Y	-6.651	-6.651	0	%100
16	M24	Y	-6.651	-6.651	0	%100
17	M25	Y	-6.651	-6.651	0	%100
18	M26	Y	-6.651	-6.651	0	%100
19	M27	Y	-6.651	-6.651	0	%100
20	M28	Y	-7.709	-7.709	0	%100
21	M29	Y	-7.709	-7.709	0	%100
22	M35	Y	-5.818	-5.818	0	%100
23	M38	Y	-5.818	-5.818	0	%100
24	M39	Y	-5.818	-5.818	0	%100
25	M40	Y	-5.818	-5.818	0	%100
26	M41	Y	-5.818	-5.818	0	%100
27	M44	Y	-7.709	-7.709	0	%100
28	M45	Y	-7.709	-7.709	0	%100
29	M51	Y	-5.818	-5.818	0	%100
30	M54	Y	-5.818	-5.818	0	%100
31	M55	Y	-5.818	-5.818	0	%100
32	M56	Y	-5.818	-5.818	0	%100
33	M57	Y	-5.818	-5.818	0	%100
34	MP2A	Y	-5.047	-5.047	0	%100
35	MP3A	Y	-5.047	-5.047	0	%100
36	MP4A	Y	-5.047	-5.047	0	%100
37	MP5A	Y	-5.047	-5.047	0	%100
38	MP1C	Y	-5.047	-5.047	0	%100
39	MP2C	Y	-5.047	-5.047	0	%100
40	MP3C	Y	-5.047	-5.047	0	%100
41	MP4C	Y	-5.047	-5.047	0	%100
42	MP5C	Y	-5.047	-5.047	0	%100
43	MP1B	Y	-5.047	-5.047	0	%100
44	MP2B	Y	-5.047	-5.047	0	%100
45	MP3B	Y	-5.047	-5.047	0	%100
46	MP4B	Y	-5.047	-5.047	0	%100
47	MP5B	Y	-5.047	-5.047	0	%100
48	M88	Y	-5.818	-5.818	0	%100
49	M91	Y	-5.818	-5.818	0	%100



**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.%]
50	M94	Y	-5.818	-5.818	0	%100
51	M97	Y	-5.818	-5.818	0	%100
52	M105	Y	-5.76	-5.76	0	%100
53	M113	Y	-5.76	-5.76	0	%100
54	M121	Y	-5.76	-5.76	0	%100
55	M124	Y	-7.709	-7.709	0	%100
56	M125	Y	-7.709	-7.709	0	%100
57	M126	Y	-7.709	-7.709	0	%100
58	M127	Y	-6.701	-6.701	0	%100
59	M128	Y	-6.701	-6.701	0	%100
60	M129	Y	-6.701	-6.701	0	%100
61	M130	Y	-6.701	-6.701	0	%100
62	M131	Y	-6.701	-6.701	0	%100
63	M132	Y	-6.701	-6.701	0	%100
64	OVP	Y	-5.047	-5.047	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	-5.228	-5.228	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-10.037	-10.037	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-5.228	-5.228	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	-11.574	-11.574	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	-10.045	-10.045	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	-20.91	-20.91	0	%100
15	M8	X	0	0	0	%100
16	M8	Z	0	0	0	%100
17	M14	X	0	0	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	-5.394	-5.394	0	%100
23	M19	X	0	0	0	%100
24	M19	Z	-5.394	-5.394	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	-8.278	-8.278	0	%100
27	M22	X	0	0	0	%100
28	M22	Z	-2.509	-2.509	0	%100
29	M23	X	0	0	0	%100
30	M23	Z	-2.893	-2.893	0	%100
31	M24	X	0	0	0	%100
32	M24	Z	-2.511	-2.511	0	%100
33	M25	X	0	0	0	%100
34	M25	Z	-2.509	-2.509	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	-2.893	-2.893	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	-2.509	-2.509	0	%100



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**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.%]
39	M28	X	0	0	0	%100
40	M28	Z	-7.621	-7.621	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	-7.619	-7.619	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	-5.293	-5.293	0	%100
45	M38	X	0	0	0	%100
46	M38	Z	-8.822	-8.822	0	%100
47	M39	X	0	0	0	%100
48	M39	Z	-5.388	-5.388	0	%100
49	M40	X	0	0	0	%100
50	M40	Z	-2e-6	-2e-6	0	%100
51	M41	X	0	0	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	-7.621	-7.621	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	-7.619	-7.619	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	-5.293	-5.293	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	-8.822	-8.822	0	%100
61	M55	X	0	0	0	%100
62	M55	Z	-2e-6	-2e-6	0	%100
63	M56	X	0	0	0	%100
64	M56	Z	-5.388	-5.388	0	%100
65	M57	X	0	0	0	%100
66	M57	Z	0	0	0	%100
67	MP2A	X	0	0	0	%100
68	MP2A	Z	-8.278	-8.278	0	%100
69	MP3A	X	0	0	0	%100
70	MP3A	Z	-8.278	-8.278	0	%100
71	MP4A	X	0	0	0	%100
72	MP4A	Z	-8.278	-8.278	0	%100
73	MP5A	X	0	0	0	%100
74	MP5A	Z	-8.278	-8.278	0	%100
75	MP1C	X	0	0	0	%100
76	MP1C	Z	-8.278	-8.278	0	%100
77	MP2C	X	0	0	0	%100
78	MP2C	Z	-8.278	-8.278	0	%100
79	MP3C	X	0	0	0	%100
80	MP3C	Z	-8.278	-8.278	0	%100
81	MP4C	X	0	0	0	%100
82	MP4C	Z	-8.278	-8.278	0	%100
83	MP5C	X	0	0	0	%100
84	MP5C	Z	-8.278	-8.278	0	%100
85	MP1B	X	0	0	0	%100
86	MP1B	Z	-8.278	-8.278	0	%100
87	MP2B	X	0	0	0	%100
88	MP2B	Z	-8.278	-8.278	0	%100
89	MP3B	X	0	0	0	%100
90	MP3B	Z	-8.278	-8.278	0	%100
91	MP4B	X	0	0	0	%100
92	MP4B	Z	-8.278	-8.278	0	%100
93	MP5B	X	0	0	0	%100
94	MP5B	Z	-8.278	-8.278	0	%100
95	M88	X	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
96	M88	Z	-4.596	-4.596	0	%100
97	M91	X	0	0	0	%100
98	M91	Z	-7.661	-7.661	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	-4.596	-4.596	0	%100
101	M97	X	0	0	0	%100
102	M97	Z	-7.661	-7.661	0	%100
103	M105	X	0	0	0	%100
104	M105	Z	-10.02	-10.02	0	%100
105	M113	X	0	0	0	%100
106	M113	Z	-2.505	-2.505	0	%100
107	M121	X	0	0	0	%100
108	M121	Z	-2.505	-2.505	0	%100
109	M124	X	0	0	0	%100
110	M124	Z	-3.139	-3.139	0	%100
111	M125	X	0	0	0	%100
112	M125	Z	-12.555	-12.555	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	-3.139	-3.139	0	%100
115	M127	X	0	0	0	%100
116	M127	Z	-6.701	-6.701	0	%100
117	M128	X	0	0	0	%100
118	M128	Z	-6.701	-6.701	0	%100
119	M129	X	0	0	0	%100
120	M129	Z	-14.51	-14.51	0	%100
121	M130	X	0	0	0	%100
122	M130	Z	-6.079	-6.079	0	%100
123	M131	X	0	0	0	%100
124	M131	Z	-6.079	-6.079	0	%100
125	M132	X	0	0	0	%100
126	M132	Z	-14.51	-14.51	0	%100
127	OVP	X	0	0	0	%100
128	OVP	Z	-7.931	-7.931	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	7.842	7.842	0	%100
2	M1	Z	-13.583	-13.583	0	%100
3	M2	X	3.764	3.764	0	%100
4	M2	Z	-6.519	-6.519	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	4.34	4.34	0	%100
8	M4	Z	-7.517	-7.517	0	%100
9	M5	X	3.767	3.767	0	%100
10	M5	Z	-6.525	-6.525	0	%100
11	M6	X	1.27	1.27	0	%100
12	M6	Z	-2.199	-2.199	0	%100
13	M7	X	7.761	7.761	0	%100
14	M7	Z	-13.442	-13.442	0	%100
15	M8	X	1.27	1.27	0	%100
16	M8	Z	-2.199	-2.199	0	%100
17	M14	X	.882	.882	0	%100
18	M14	Z	-1.528	-1.528	0	%100
19	M17	X	1.47	1.47	0	%100
20	M17	Z	-2.547	-2.547	0	%100



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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.%]
21	M18	X	.9	.9	0	%100
22	M18	Z	-1.559	-1.559	0	%100
23	M19	X	3.594	3.594	0	%100
24	M19	Z	-6.225	-6.225	0	%100
25	MP1A	X	4.139	4.139	0	%100
26	MP1A	Z	-7.169	-7.169	0	%100
27	M22	X	3.764	3.764	0	%100
28	M22	Z	-6.519	-6.519	0	%100
29	M23	X	4.34	4.34	0	%100
30	M23	Z	-7.517	-7.517	0	%100
31	M24	X	3.767	3.767	0	%100
32	M24	Z	-6.525	-6.525	0	%100
33	M25	X	0	0	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	1.27	1.27	0	%100
40	M28	Z	-2.2	-2.2	0	%100
41	M29	X	1.27	1.27	0	%100
42	M29	Z	-2.199	-2.199	0	%100
43	M35	X	.882	.882	0	%100
44	M35	Z	-1.528	-1.528	0	%100
45	M38	X	1.47	1.47	0	%100
46	M38	Z	-2.547	-2.547	0	%100
47	M39	X	3.594	3.594	0	%100
48	M39	Z	-6.225	-6.225	0	%100
49	M40	X	.9	.9	0	%100
50	M40	Z	-1.559	-1.559	0	%100
51	M41	X	.766	.766	0	%100
52	M41	Z	-1.327	-1.327	0	%100
53	M44	X	5.08	5.08	0	%100
54	M44	Z	-8.8	-8.8	0	%100
55	M45	X	5.079	5.079	0	%100
56	M45	Z	-8.797	-8.797	0	%100
57	M51	X	3.529	3.529	0	%100
58	M51	Z	-6.112	-6.112	0	%100
59	M54	X	5.882	5.882	0	%100
60	M54	Z	-10.187	-10.187	0	%100
61	M55	X	.897	.897	0	%100
62	M55	Z	-1.554	-1.554	0	%100
63	M56	X	.897	.897	0	%100
64	M56	Z	-1.554	-1.554	0	%100
65	M57	X	1.277	1.277	0	%100
66	M57	Z	-2.211	-2.211	0	%100
67	MP2A	X	4.139	4.139	0	%100
68	MP2A	Z	-7.169	-7.169	0	%100
69	MP3A	X	4.139	4.139	0	%100
70	MP3A	Z	-7.169	-7.169	0	%100
71	MP4A	X	4.139	4.139	0	%100
72	MP4A	Z	-7.169	-7.169	0	%100
73	MP5A	X	4.139	4.139	0	%100
74	MP5A	Z	-7.169	-7.169	0	%100
75	MP1C	X	4.139	4.139	0	%100
76	MP1C	Z	-7.169	-7.169	0	%100
77	MP2C	X	4.139	4.139	0	%100





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 Designer : NL  
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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.%]
78	MP2C	Z	-7.169	-7.169	0	%100
79	MP3C	X	4.139	4.139	0	%100
80	MP3C	Z	-7.169	-7.169	0	%100
81	MP4C	X	4.139	4.139	0	%100
82	MP4C	Z	-7.169	-7.169	0	%100
83	MP5C	X	4.139	4.139	0	%100
84	MP5C	Z	-7.169	-7.169	0	%100
85	MP1B	X	4.139	4.139	0	%100
86	MP1B	Z	-7.169	-7.169	0	%100
87	MP2B	X	4.139	4.139	0	%100
88	MP2B	Z	-7.169	-7.169	0	%100
89	MP3B	X	4.139	4.139	0	%100
90	MP3B	Z	-7.169	-7.169	0	%100
91	MP4B	X	4.139	4.139	0	%100
92	MP4B	Z	-7.169	-7.169	0	%100
93	MP5B	X	4.139	4.139	0	%100
94	MP5B	Z	-7.169	-7.169	0	%100
95	M88	X	.766	.766	0	%100
96	M88	Z	-1.327	-1.327	0	%100
97	M91	X	1.277	1.277	0	%100
98	M91	Z	-2.211	-2.211	0	%100
99	M94	X	3.064	3.064	0	%100
100	M94	Z	-5.307	-5.307	0	%100
101	M97	X	5.107	5.107	0	%100
102	M97	Z	-8.846	-8.846	0	%100
103	M105	X	3.758	3.758	0	%100
104	M105	Z	-6.508	-6.508	0	%100
105	M113	X	3.758	3.758	0	%100
106	M113	Z	-6.508	-6.508	0	%100
107	M121	X	0	0	0	%100
108	M121	Z	0	0	0	%100
109	M124	X	4.708	4.708	0	%100
110	M124	Z	-8.155	-8.155	0	%100
111	M125	X	4.708	4.708	0	%100
112	M125	Z	-8.155	-8.155	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	0	0	0	%100
115	M127	X	1.842	1.842	0	%100
116	M127	Z	-3.19	-3.19	0	%100
117	M128	X	6.057	6.057	0	%100
118	M128	Z	-10.492	-10.492	0	%100
119	M129	X	6.057	6.057	0	%100
120	M129	Z	-10.492	-10.492	0	%100
121	M130	X	1.842	1.842	0	%100
122	M130	Z	-3.19	-3.19	0	%100
123	M131	X	5.746	5.746	0	%100
124	M131	Z	-9.953	-9.953	0	%100
125	M132	X	5.746	5.746	0	%100
126	M132	Z	-9.953	-9.953	0	%100
127	OVP	X	3.965	3.965	0	%100
128	OVP	Z	-6.868	-6.868	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	18.11	18.11	0	%100
2	M1	Z	-10.456	-10.456	0	%100



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**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.%]
3	M2	X	2.173	2.173	0	%100
4	M2	Z	-1.255	-1.255	0	%100
5	M3	X	4.528	4.528	0	%100
6	M3	Z	-2.614	-2.614	0	%100
7	M4	X	2.506	2.506	0	%100
8	M4	Z	-1.447	-1.447	0	%100
9	M5	X	2.175	2.175	0	%100
10	M5	Z	-1.256	-1.256	0	%100
11	M6	X	6.598	6.598	0	%100
12	M6	Z	-3.809	-3.809	0	%100
13	M7	X	4.388	4.388	0	%100
14	M7	Z	-2.534	-2.534	0	%100
15	M8	X	6.598	6.598	0	%100
16	M8	Z	-3.809	-3.809	0	%100
17	M14	X	4.584	4.584	0	%100
18	M14	Z	-2.647	-2.647	0	%100
19	M17	X	7.64	7.64	0	%100
20	M17	Z	-4.411	-4.411	0	%100
21	M18	X	1e-6	1e-6	0	%100
22	M18	Z	-1e-6	-1e-6	0	%100
23	M19	X	4.666	4.666	0	%100
24	M19	Z	-2.694	-2.694	0	%100
25	MP1A	X	7.169	7.169	0	%100
26	MP1A	Z	-4.139	-4.139	0	%100
27	M22	X	8.692	8.692	0	%100
28	M22	Z	-5.018	-5.018	0	%100
29	M23	X	10.023	10.023	0	%100
30	M23	Z	-5.787	-5.787	0	%100
31	M24	X	8.7	8.7	0	%100
32	M24	Z	-5.023	-5.023	0	%100
33	M25	X	2.173	2.173	0	%100
34	M25	Z	-1.255	-1.255	0	%100
35	M26	X	2.506	2.506	0	%100
36	M26	Z	-1.447	-1.447	0	%100
37	M27	X	2.173	2.173	0	%100
38	M27	Z	-1.255	-1.255	0	%100
39	M28	X	0	0	0	%100
40	M28	Z	0	0	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	0	0	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	0	0	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	4.671	4.671	0	%100
48	M39	Z	-2.697	-2.697	0	%100
49	M40	X	4.671	4.671	0	%100
50	M40	Z	-2.697	-2.697	0	%100
51	M41	X	3.981	3.981	0	%100
52	M41	Z	-2.298	-2.298	0	%100
53	M44	X	6.6	6.6	0	%100
54	M44	Z	-3.81	-3.81	0	%100
55	M45	X	6.598	6.598	0	%100
56	M45	Z	-3.809	-3.809	0	%100
57	M51	X	4.584	4.584	0	%100
58	M51	Z	-2.647	-2.647	0	%100
59	M54	X	7.64	7.64	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.%]
60	M54	Z	-4.411	-4.411	0	%100
61	M55	X	4.666	4.666	0	%100
62	M55	Z	-2.694	-2.694	0	%100
63	M56	X	1e-6	1e-6	0	%100
64	M56	Z	-1e-6	-1e-6	0	%100
65	M57	X	6.634	6.634	0	%100
66	M57	Z	-3.83	-3.83	0	%100
67	MP2A	X	7.169	7.169	0	%100
68	MP2A	Z	-4.139	-4.139	0	%100
69	MP3A	X	7.169	7.169	0	%100
70	MP3A	Z	-4.139	-4.139	0	%100
71	MP4A	X	7.169	7.169	0	%100
72	MP4A	Z	-4.139	-4.139	0	%100
73	MP5A	X	7.169	7.169	0	%100
74	MP5A	Z	-4.139	-4.139	0	%100
75	MP1C	X	7.169	7.169	0	%100
76	MP1C	Z	-4.139	-4.139	0	%100
77	MP2C	X	7.169	7.169	0	%100
78	MP2C	Z	-4.139	-4.139	0	%100
79	MP3C	X	7.169	7.169	0	%100
80	MP3C	Z	-4.139	-4.139	0	%100
81	MP4C	X	7.169	7.169	0	%100
82	MP4C	Z	-4.139	-4.139	0	%100
83	MP5C	X	7.169	7.169	0	%100
84	MP5C	Z	-4.139	-4.139	0	%100
85	MP1B	X	7.169	7.169	0	%100
86	MP1B	Z	-4.139	-4.139	0	%100
87	MP2B	X	7.169	7.169	0	%100
88	MP2B	Z	-4.139	-4.139	0	%100
89	MP3B	X	7.169	7.169	0	%100
90	MP3B	Z	-4.139	-4.139	0	%100
91	MP4B	X	7.169	7.169	0	%100
92	MP4B	Z	-4.139	-4.139	0	%100
93	MP5B	X	7.169	7.169	0	%100
94	MP5B	Z	-4.139	-4.139	0	%100
95	M88	X	0	0	0	%100
96	M88	Z	0	0	0	%100
97	M91	X	0	0	0	%100
98	M91	Z	0	0	0	%100
99	M94	X	3.981	3.981	0	%100
100	M94	Z	-2.298	-2.298	0	%100
101	M97	X	6.634	6.634	0	%100
102	M97	Z	-3.83	-3.83	0	%100
103	M105	X	2.169	2.169	0	%100
104	M105	Z	-1.253	-1.253	0	%100
105	M113	X	8.678	8.678	0	%100
106	M113	Z	-5.01	-5.01	0	%100
107	M121	X	2.169	2.169	0	%100
108	M121	Z	-1.253	-1.253	0	%100
109	M124	X	10.873	10.873	0	%100
110	M124	Z	-6.277	-6.277	0	%100
111	M125	X	2.718	2.718	0	%100
112	M125	Z	-1.569	-1.569	0	%100
113	M126	X	2.718	2.718	0	%100
114	M126	Z	-1.569	-1.569	0	%100
115	M127	X	5.265	5.265	0	%100
116	M127	Z	-3.039	-3.039	0	%100



Company : Colliers Engineering & Design  
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**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.%]
117	M128	X	12.566	12.566	0	%100
118	M128	Z	-7.255	-7.255	0	%100
119	M129	X	5.803	5.803	0	%100
120	M129	Z	-3.35	-3.35	0	%100
121	M130	X	5.803	5.803	0	%100
122	M130	Z	-3.35	-3.35	0	%100
123	M131	X	12.566	12.566	0	%100
124	M131	Z	-7.255	-7.255	0	%100
125	M132	X	5.265	5.265	0	%100
126	M132	Z	-3.039	-3.039	0	%100
127	OVP	X	6.868	6.868	0	%100
128	OVP	Z	-3.965	-3.965	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	15.684	15.684	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	15.684	15.684	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	10.158	10.158	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	.002	.002	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	10.158	10.158	0	%100
16	M8	Z	0	0	0	%100
17	M14	X	7.058	7.058	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	11.763	11.763	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	1.794	1.794	0	%100
22	M18	Z	0	0	0	%100
23	M19	X	1.794	1.794	0	%100
24	M19	Z	0	0	0	%100
25	MP1A	X	8.278	8.278	0	%100
26	MP1A	Z	0	0	0	%100
27	M22	X	7.527	7.527	0	%100
28	M22	Z	0	0	0	%100
29	M23	X	8.68	8.68	0	%100
30	M23	Z	0	0	0	%100
31	M24	X	7.534	7.534	0	%100
32	M24	Z	0	0	0	%100
33	M25	X	7.527	7.527	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	8.68	8.68	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	7.527	7.527	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	2.54	2.54	0	%100
40	M28	Z	0	0	0	%100
41	M29	X	2.54	2.54	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.%]
42	M29	Z	0	0	0	%100
43	M35	X	1.764	1.764	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	2.941	2.941	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	1.8	1.8	0	%100
48	M39	Z	0	0	0	%100
49	M40	X	7.188	7.188	0	%100
50	M40	Z	0	0	0	%100
51	M41	X	6.128	6.128	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	2.54	2.54	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	2.54	2.54	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	1.764	1.764	0	%100
58	M51	Z	0	0	0	%100
59	M54	X	2.941	2.941	0	%100
60	M54	Z	0	0	0	%100
61	M55	X	7.188	7.188	0	%100
62	M55	Z	0	0	0	%100
63	M56	X	1.8	1.8	0	%100
64	M56	Z	0	0	0	%100
65	M57	X	10.214	10.214	0	%100
66	M57	Z	0	0	0	%100
67	MP2A	X	8.278	8.278	0	%100
68	MP2A	Z	0	0	0	%100
69	MP3A	X	8.278	8.278	0	%100
70	MP3A	Z	0	0	0	%100
71	MP4A	X	8.278	8.278	0	%100
72	MP4A	Z	0	0	0	%100
73	MP5A	X	8.278	8.278	0	%100
74	MP5A	Z	0	0	0	%100
75	MP1C	X	8.278	8.278	0	%100
76	MP1C	Z	0	0	0	%100
77	MP2C	X	8.278	8.278	0	%100
78	MP2C	Z	0	0	0	%100
79	MP3C	X	8.278	8.278	0	%100
80	MP3C	Z	0	0	0	%100
81	MP4C	X	8.278	8.278	0	%100
82	MP4C	Z	0	0	0	%100
83	MP5C	X	8.278	8.278	0	%100
84	MP5C	Z	0	0	0	%100
85	MP1B	X	8.278	8.278	0	%100
86	MP1B	Z	0	0	0	%100
87	MP2B	X	8.278	8.278	0	%100
88	MP2B	Z	0	0	0	%100
89	MP3B	X	8.278	8.278	0	%100
90	MP3B	Z	0	0	0	%100
91	MP4B	X	8.278	8.278	0	%100
92	MP4B	Z	0	0	0	%100
93	MP5B	X	8.278	8.278	0	%100
94	MP5B	Z	0	0	0	%100
95	M88	X	1.532	1.532	0	%100
96	M88	Z	0	0	0	%100
97	M91	X	2.554	2.554	0	%100
98	M91	Z	0	0	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-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/f.F...	Start Location[ft.%]	End Location[ft.%]
99	M94	X	1.532	1.532	0	%100
100	M94	Z	0	0	0	%100
101	M97	X	2.554	2.554	0	%100
102	M97	Z	0	0	0	%100
103	M105	X	0	0	0	%100
104	M105	Z	0	0	0	%100
105	M113	X	7.515	7.515	0	%100
106	M113	Z	0	0	0	%100
107	M121	X	7.515	7.515	0	%100
108	M121	Z	0	0	0	%100
109	M124	X	9.416	9.416	0	%100
110	M124	Z	0	0	0	%100
111	M125	X	0	0	0	%100
112	M125	Z	0	0	0	%100
113	M126	X	9.416	9.416	0	%100
114	M126	Z	0	0	0	%100
115	M127	X	11.493	11.493	0	%100
116	M127	Z	0	0	0	%100
117	M128	X	11.493	11.493	0	%100
118	M128	Z	0	0	0	%100
119	M129	X	3.683	3.683	0	%100
120	M129	Z	0	0	0	%100
121	M130	X	12.115	12.115	0	%100
122	M130	Z	0	0	0	%100
123	M131	X	12.115	12.115	0	%100
124	M131	Z	0	0	0	%100
125	M132	X	3.683	3.683	0	%100
126	M132	Z	0	0	0	%100
127	OVP	X	7.931	7.931	0	%100
128	OVP	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/f.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	4.528	4.528	0	%100
2	M1	Z	2.614	2.614	0	%100
3	M2	X	2.173	2.173	0	%100
4	M2	Z	1.255	1.255	0	%100
5	M3	X	18.11	18.11	0	%100
6	M3	Z	10.456	10.456	0	%100
7	M4	X	2.506	2.506	0	%100
8	M4	Z	1.447	1.447	0	%100
9	M5	X	2.175	2.175	0	%100
10	M5	Z	1.256	1.256	0	%100
11	M6	X	6.598	6.598	0	%100
12	M6	Z	3.809	3.809	0	%100
13	M7	X	4.668	4.668	0	%100
14	M7	Z	2.695	2.695	0	%100
15	M8	X	6.598	6.598	0	%100
16	M8	Z	3.809	3.809	0	%100
17	M14	X	4.584	4.584	0	%100
18	M14	Z	2.647	2.647	0	%100
19	M17	X	7.64	7.64	0	%100
20	M17	Z	4.411	4.411	0	%100
21	M18	X	4.666	4.666	0	%100
22	M18	Z	2.694	2.694	0	%100
23	M19	X	1e-6	1e-6	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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

	Member Label	Direction	Start Magnitude[lb/ft.]	End Magnitude[lb/ft.F.]	Start Location[ft.%]	End Location[ft.%]
24	M19	Z	1e-6	1e-6	0	%100
25	MP1A	X	7.169	7.169	0	%100
26	MP1A	Z	4.139	4.139	0	%100
27	M22	X	2.173	2.173	0	%100
28	M22	Z	1.255	1.255	0	%100
29	M23	X	2.506	2.506	0	%100
30	M23	Z	1.447	1.447	0	%100
31	M24	X	2.175	2.175	0	%100
32	M24	Z	1.256	1.256	0	%100
33	M25	X	8.692	8.692	0	%100
34	M25	Z	5.018	5.018	0	%100
35	M26	X	10.023	10.023	0	%100
36	M26	Z	5.787	5.787	0	%100
37	M27	X	8.692	8.692	0	%100
38	M27	Z	5.018	5.018	0	%100
39	M28	X	6.6	6.6	0	%100
40	M28	Z	3.81	3.81	0	%100
41	M29	X	6.598	6.598	0	%100
42	M29	Z	3.809	3.809	0	%100
43	M35	X	4.584	4.584	0	%100
44	M35	Z	2.647	2.647	0	%100
45	M38	X	7.64	7.64	0	%100
46	M38	Z	4.411	4.411	0	%100
47	M39	X	1e-6	1e-6	0	%100
48	M39	Z	1e-6	1e-6	0	%100
49	M40	X	4.666	4.666	0	%100
50	M40	Z	2.694	2.694	0	%100
51	M41	X	3.981	3.981	0	%100
52	M41	Z	2.298	2.298	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	0	0	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	0	0	0	%100
61	M55	X	4.671	4.671	0	%100
62	M55	Z	2.697	2.697	0	%100
63	M56	X	4.671	4.671	0	%100
64	M56	Z	2.697	2.697	0	%100
65	M57	X	6.634	6.634	0	%100
66	M57	Z	3.83	3.83	0	%100
67	MP2A	X	7.169	7.169	0	%100
68	MP2A	Z	4.139	4.139	0	%100
69	MP3A	X	7.169	7.169	0	%100
70	MP3A	Z	4.139	4.139	0	%100
71	MP4A	X	7.169	7.169	0	%100
72	MP4A	Z	4.139	4.139	0	%100
73	MP5A	X	7.169	7.169	0	%100
74	MP5A	Z	4.139	4.139	0	%100
75	MP1C	X	7.169	7.169	0	%100
76	MP1C	Z	4.139	4.139	0	%100
77	MP2C	X	7.169	7.169	0	%100
78	MP2C	Z	4.139	4.139	0	%100
79	MP3C	X	7.169	7.169	0	%100
80	MP3C	Z	4.139	4.139	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
81	MP4C	X	7.169	7.169	0	%100
82	MP4C	Z	4.139	4.139	0	%100
83	MP5C	X	7.169	7.169	0	%100
84	MP5C	Z	4.139	4.139	0	%100
85	MP1B	X	7.169	7.169	0	%100
86	MP1B	Z	4.139	4.139	0	%100
87	MP2B	X	7.169	7.169	0	%100
88	MP2B	Z	4.139	4.139	0	%100
89	MP3B	X	7.169	7.169	0	%100
90	MP3B	Z	4.139	4.139	0	%100
91	MP4B	X	7.169	7.169	0	%100
92	MP4B	Z	4.139	4.139	0	%100
93	MP5B	X	7.169	7.169	0	%100
94	MP5B	Z	4.139	4.139	0	%100
95	M88	X	3.981	3.981	0	%100
96	M88	Z	2.298	2.298	0	%100
97	M91	X	6.634	6.634	0	%100
98	M91	Z	3.83	3.83	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	0	0	0	%100
101	M97	X	0	0	0	%100
102	M97	Z	0	0	0	%100
103	M105	X	2.169	2.169	0	%100
104	M105	Z	1.253	1.253	0	%100
105	M113	X	2.169	2.169	0	%100
106	M113	Z	1.253	1.253	0	%100
107	M121	X	8.678	8.678	0	%100
108	M121	Z	5.01	5.01	0	%100
109	M124	X	2.718	2.718	0	%100
110	M124	Z	1.569	1.569	0	%100
111	M125	X	2.718	2.718	0	%100
112	M125	Z	1.569	1.569	0	%100
113	M126	X	10.873	10.873	0	%100
114	M126	Z	6.277	6.277	0	%100
115	M127	X	12.566	12.566	0	%100
116	M127	Z	7.255	7.255	0	%100
117	M128	X	5.265	5.265	0	%100
118	M128	Z	3.039	3.039	0	%100
119	M129	X	5.265	5.265	0	%100
120	M129	Z	3.039	3.039	0	%100
121	M130	X	12.566	12.566	0	%100
122	M130	Z	7.255	7.255	0	%100
123	M131	X	5.803	5.803	0	%100
124	M131	Z	3.35	3.35	0	%100
125	M132	X	5.803	5.803	0	%100
126	M132	Z	3.35	3.35	0	%100
127	OVP	X	6.868	6.868	0	%100
128	OVP	Z	3.965	3.965	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	3.764	3.764	0	%100
4	M2	Z	6.519	6.519	0	%100
5	M3	X	7.842	7.842	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.%]
6	M3	Z	13.583	13.583	0	%100
7	M4	X	4.34	4.34	0	%100
8	M4	Z	7.517	7.517	0	%100
9	M5	X	3.767	3.767	0	%100
10	M5	Z	6.525	6.525	0	%100
11	M6	X	1.27	1.27	0	%100
12	M6	Z	2.199	2.199	0	%100
13	M7	X	7.922	7.922	0	%100
14	M7	Z	13.722	13.722	0	%100
15	M8	X	1.27	1.27	0	%100
16	M8	Z	2.199	2.199	0	%100
17	M14	X	.882	.882	0	%100
18	M14	Z	1.528	1.528	0	%100
19	M17	X	1.47	1.47	0	%100
20	M17	Z	2.547	2.547	0	%100
21	M18	X	3.594	3.594	0	%100
22	M18	Z	6.225	6.225	0	%100
23	M19	X	.9	.9	0	%100
24	M19	Z	1.559	1.559	0	%100
25	MP1A	X	4.139	4.139	0	%100
26	MP1A	Z	7.169	7.169	0	%100
27	M22	X	0	0	0	%100
28	M22	Z	0	0	0	%100
29	M23	X	0	0	0	%100
30	M23	Z	0	0	0	%100
31	M24	X	0	0	0	%100
32	M24	Z	0	0	0	%100
33	M25	X	3.764	3.764	0	%100
34	M25	Z	6.519	6.519	0	%100
35	M26	X	4.34	4.34	0	%100
36	M26	Z	7.517	7.517	0	%100
37	M27	X	3.764	3.764	0	%100
38	M27	Z	6.519	6.519	0	%100
39	M28	X	5.08	5.08	0	%100
40	M28	Z	8.8	8.8	0	%100
41	M29	X	5.079	5.079	0	%100
42	M29	Z	8.797	8.797	0	%100
43	M35	X	3.529	3.529	0	%100
44	M35	Z	6.112	6.112	0	%100
45	M38	X	5.882	5.882	0	%100
46	M38	Z	10.187	10.187	0	%100
47	M39	X	.897	.897	0	%100
48	M39	Z	1.554	1.554	0	%100
49	M40	X	.897	.897	0	%100
50	M40	Z	1.554	1.554	0	%100
51	M41	X	.766	.766	0	%100
52	M41	Z	1.327	1.327	0	%100
53	M44	X	1.27	1.27	0	%100
54	M44	Z	2.2	2.2	0	%100
55	M45	X	1.27	1.27	0	%100
56	M45	Z	2.199	2.199	0	%100
57	M51	X	.882	.882	0	%100
58	M51	Z	1.528	1.528	0	%100
59	M54	X	1.47	1.47	0	%100
60	M54	Z	2.547	2.547	0	%100
61	M55	X	.9	.9	0	%100
62	M55	Z	1.559	1.559	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-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.%]
63	M56	X	3.594	3.594	0 %100
64	M56	Z	6.225	6.225	0 %100
65	M57	X	1.277	1.277	0 %100
66	M57	Z	2.211	2.211	0 %100
67	MP2A	X	4.139	4.139	0 %100
68	MP2A	Z	7.169	7.169	0 %100
69	MP3A	X	4.139	4.139	0 %100
70	MP3A	Z	7.169	7.169	0 %100
71	MP4A	X	4.139	4.139	0 %100
72	MP4A	Z	7.169	7.169	0 %100
73	MP5A	X	4.139	4.139	0 %100
74	MP5A	Z	7.169	7.169	0 %100
75	MP1C	X	4.139	4.139	0 %100
76	MP1C	Z	7.169	7.169	0 %100
77	MP2C	X	4.139	4.139	0 %100
78	MP2C	Z	7.169	7.169	0 %100
79	MP3C	X	4.139	4.139	0 %100
80	MP3C	Z	7.169	7.169	0 %100
81	MP4C	X	4.139	4.139	0 %100
82	MP4C	Z	7.169	7.169	0 %100
83	MP5C	X	4.139	4.139	0 %100
84	MP5C	Z	7.169	7.169	0 %100
85	MP1B	X	4.139	4.139	0 %100
86	MP1B	Z	7.169	7.169	0 %100
87	MP2B	X	4.139	4.139	0 %100
88	MP2B	Z	7.169	7.169	0 %100
89	MP3B	X	4.139	4.139	0 %100
90	MP3B	Z	7.169	7.169	0 %100
91	MP4B	X	4.139	4.139	0 %100
92	MP4B	Z	7.169	7.169	0 %100
93	MP5B	X	4.139	4.139	0 %100
94	MP5B	Z	7.169	7.169	0 %100
95	M88	X	3.064	3.064	0 %100
96	M88	Z	5.307	5.307	0 %100
97	M91	X	5.107	5.107	0 %100
98	M91	Z	8.846	8.846	0 %100
99	M94	X	.766	.766	0 %100
100	M94	Z	1.327	1.327	0 %100
101	M97	X	1.277	1.277	0 %100
102	M97	Z	2.211	2.211	0 %100
103	M105	X	3.758	3.758	0 %100
104	M105	Z	6.508	6.508	0 %100
105	M113	X	0	0	0 %100
106	M113	Z	0	0	0 %100
107	M121	X	3.758	3.758	0 %100
108	M121	Z	6.508	6.508	0 %100
109	M124	X	0	0	0 %100
110	M124	Z	0	0	0 %100
111	M125	X	4.708	4.708	0 %100
112	M125	Z	8.155	8.155	0 %100
113	M126	X	4.708	4.708	0 %100
114	M126	Z	8.155	8.155	0 %100
115	M127	X	6.057	6.057	0 %100
116	M127	Z	10.492	10.492	0 %100
117	M128	X	1.842	1.842	0 %100
118	M128	Z	3.19	3.19	0 %100
119	M129	X	5.746	5.746	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.%]
120	M129	Z	9.953	9.953	0	%100
121	M130	X	5.746	5.746	0	%100
122	M130	Z	9.953	9.953	0	%100
123	M131	X	1.842	1.842	0	%100
124	M131	Z	3.19	3.19	0	%100
125	M132	X	6.057	6.057	0	%100
126	M132	Z	10.492	10.492	0	%100
127	OVP	X	3.965	3.965	0	%100
128	OVP	Z	6.868	6.868	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	5.228	5.228	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	10.037	10.037	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	5.228	5.228	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	11.574	11.574	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	10.045	10.045	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	20.91	20.91	0	%100
15	M8	X	0	0	0	%100
16	M8	Z	0	0	0	%100
17	M14	X	0	0	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	5.394	5.394	0	%100
23	M19	X	0	0	0	%100
24	M19	Z	5.394	5.394	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	8.278	8.278	0	%100
27	M22	X	0	0	0	%100
28	M22	Z	2.509	2.509	0	%100
29	M23	X	0	0	0	%100
30	M23	Z	2.893	2.893	0	%100
31	M24	X	0	0	0	%100
32	M24	Z	2.511	2.511	0	%100
33	M25	X	0	0	0	%100
34	M25	Z	2.509	2.509	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	2.893	2.893	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	2.509	2.509	0	%100
39	M28	X	0	0	0	%100
40	M28	Z	7.621	7.621	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	7.619	7.619	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	5.293	5.293	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.%]	
45	M38	X	0	0	0	%100
46	M38	Z	8.822	8.822	0	%100
47	M39	X	0	0	0	%100
48	M39	Z	5.388	5.388	0	%100
49	M40	X	0	0	0	%100
50	M40	Z	2e-6	2e-6	0	%100
51	M41	X	0	0	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	7.621	7.621	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	7.619	7.619	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	5.293	5.293	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	8.822	8.822	0	%100
61	M55	X	0	0	0	%100
62	M55	Z	2e-6	2e-6	0	%100
63	M56	X	0	0	0	%100
64	M56	Z	5.388	5.388	0	%100
65	M57	X	0	0	0	%100
66	M57	Z	0	0	0	%100
67	MP2A	X	0	0	0	%100
68	MP2A	Z	8.278	8.278	0	%100
69	MP3A	X	0	0	0	%100
70	MP3A	Z	8.278	8.278	0	%100
71	MP4A	X	0	0	0	%100
72	MP4A	Z	8.278	8.278	0	%100
73	MP5A	X	0	0	0	%100
74	MP5A	Z	8.278	8.278	0	%100
75	MP1C	X	0	0	0	%100
76	MP1C	Z	8.278	8.278	0	%100
77	MP2C	X	0	0	0	%100
78	MP2C	Z	8.278	8.278	0	%100
79	MP3C	X	0	0	0	%100
80	MP3C	Z	8.278	8.278	0	%100
81	MP4C	X	0	0	0	%100
82	MP4C	Z	8.278	8.278	0	%100
83	MP5C	X	0	0	0	%100
84	MP5C	Z	8.278	8.278	0	%100
85	MP1B	X	0	0	0	%100
86	MP1B	Z	8.278	8.278	0	%100
87	MP2B	X	0	0	0	%100
88	MP2B	Z	8.278	8.278	0	%100
89	MP3B	X	0	0	0	%100
90	MP3B	Z	8.278	8.278	0	%100
91	MP4B	X	0	0	0	%100
92	MP4B	Z	8.278	8.278	0	%100
93	MP5B	X	0	0	0	%100
94	MP5B	Z	8.278	8.278	0	%100
95	M88	X	0	0	0	%100
96	M88	Z	4.596	4.596	0	%100
97	M91	X	0	0	0	%100
98	M91	Z	7.661	7.661	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	4.596	4.596	0	%100
101	M97	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.%]
102	M97	Z	7.661	7.661	0	%100
103	M105	X	0	0	0	%100
104	M105	Z	10.02	10.02	0	%100
105	M113	X	0	0	0	%100
106	M113	Z	2.505	2.505	0	%100
107	M121	X	0	0	0	%100
108	M121	Z	2.505	2.505	0	%100
109	M124	X	0	0	0	%100
110	M124	Z	3.139	3.139	0	%100
111	M125	X	0	0	0	%100
112	M125	Z	12.555	12.555	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	3.139	3.139	0	%100
115	M127	X	0	0	0	%100
116	M127	Z	6.701	6.701	0	%100
117	M128	X	0	0	0	%100
118	M128	Z	6.701	6.701	0	%100
119	M129	X	0	0	0	%100
120	M129	Z	14.51	14.51	0	%100
121	M130	X	0	0	0	%100
122	M130	Z	6.079	6.079	0	%100
123	M131	X	0	0	0	%100
124	M131	Z	6.079	6.079	0	%100
125	M132	X	0	0	0	%100
126	M132	Z	14.51	14.51	0	%100
127	OVP	X	0	0	0	%100
128	OVP	Z	7.931	7.931	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	-7.842	-7.842	0	%100
2	M1	Z	13.583	13.583	0	%100
3	M2	X	-3.764	-3.764	0	%100
4	M2	Z	6.519	6.519	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	-4.34	-4.34	0	%100
8	M4	Z	7.517	7.517	0	%100
9	M5	X	-3.767	-3.767	0	%100
10	M5	Z	6.525	6.525	0	%100
11	M6	X	-1.27	-1.27	0	%100
12	M6	Z	2.199	2.199	0	%100
13	M7	X	-7.761	-7.761	0	%100
14	M7	Z	13.442	13.442	0	%100
15	M8	X	-1.27	-1.27	0	%100
16	M8	Z	2.199	2.199	0	%100
17	M14	X	-882	-882	0	%100
18	M14	Z	1.528	1.528	0	%100
19	M17	X	-1.47	-1.47	0	%100
20	M17	Z	2.547	2.547	0	%100
21	M18	X	-9	-9	0	%100
22	M18	Z	1.559	1.559	0	%100
23	M19	X	-3.594	-3.594	0	%100
24	M19	Z	6.225	6.225	0	%100
25	MP1A	X	-4.139	-4.139	0	%100
26	MP1A	Z	7.169	7.169	0	%100



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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.%]
27	M22	X	-3.764	-3.764	0	%100
28	M22	Z	6.519	6.519	0	%100
29	M23	X	-4.34	-4.34	0	%100
30	M23	Z	7.517	7.517	0	%100
31	M24	X	-3.767	-3.767	0	%100
32	M24	Z	6.525	6.525	0	%100
33	M25	X	0	0	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	-1.27	-1.27	0	%100
40	M28	Z	2.2	2.2	0	%100
41	M29	X	-1.27	-1.27	0	%100
42	M29	Z	2.199	2.199	0	%100
43	M35	X	-882	-882	0	%100
44	M35	Z	1.528	1.528	0	%100
45	M38	X	-1.47	-1.47	0	%100
46	M38	Z	2.547	2.547	0	%100
47	M39	X	-3.594	-3.594	0	%100
48	M39	Z	6.225	6.225	0	%100
49	M40	X	-9	-9	0	%100
50	M40	Z	1.559	1.559	0	%100
51	M41	X	-766	-766	0	%100
52	M41	Z	1.327	1.327	0	%100
53	M44	X	-5.08	-5.08	0	%100
54	M44	Z	8.8	8.8	0	%100
55	M45	X	-5.079	-5.079	0	%100
56	M45	Z	8.797	8.797	0	%100
57	M51	X	-3.529	-3.529	0	%100
58	M51	Z	6.112	6.112	0	%100
59	M54	X	-5.882	-5.882	0	%100
60	M54	Z	10.187	10.187	0	%100
61	M55	X	-897	-897	0	%100
62	M55	Z	1.554	1.554	0	%100
63	M56	X	-897	-897	0	%100
64	M56	Z	1.554	1.554	0	%100
65	M57	X	-1.277	-1.277	0	%100
66	M57	Z	2.211	2.211	0	%100
67	MP2A	X	-4.139	-4.139	0	%100
68	MP2A	Z	7.169	7.169	0	%100
69	MP3A	X	-4.139	-4.139	0	%100
70	MP3A	Z	7.169	7.169	0	%100
71	MP4A	X	-4.139	-4.139	0	%100
72	MP4A	Z	7.169	7.169	0	%100
73	MP5A	X	-4.139	-4.139	0	%100
74	MP5A	Z	7.169	7.169	0	%100
75	MP1C	X	-4.139	-4.139	0	%100
76	MP1C	Z	7.169	7.169	0	%100
77	MP2C	X	-4.139	-4.139	0	%100
78	MP2C	Z	7.169	7.169	0	%100
79	MP3C	X	-4.139	-4.139	0	%100
80	MP3C	Z	7.169	7.169	0	%100
81	MP4C	X	-4.139	-4.139	0	%100
82	MP4C	Z	7.169	7.169	0	%100
83	MP5C	X	-4.139	-4.139	0	%100



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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.%]
84	MP5C	Z	7.169	7.169	0	%100
85	MP1B	X	-4.139	-4.139	0	%100
86	MP1B	Z	7.169	7.169	0	%100
87	MP2B	X	-4.139	-4.139	0	%100
88	MP2B	Z	7.169	7.169	0	%100
89	MP3B	X	-4.139	-4.139	0	%100
90	MP3B	Z	7.169	7.169	0	%100
91	MP4B	X	-4.139	-4.139	0	%100
92	MP4B	Z	7.169	7.169	0	%100
93	MP5B	X	-4.139	-4.139	0	%100
94	MP5B	Z	7.169	7.169	0	%100
95	M88	X	-766	-766	0	%100
96	M88	Z	1.327	1.327	0	%100
97	M91	X	-1.277	-1.277	0	%100
98	M91	Z	2.211	2.211	0	%100
99	M94	X	-3.064	-3.064	0	%100
100	M94	Z	5.307	5.307	0	%100
101	M97	X	-5.107	-5.107	0	%100
102	M97	Z	8.846	8.846	0	%100
103	M105	X	-3.758	-3.758	0	%100
104	M105	Z	6.508	6.508	0	%100
105	M113	X	-3.758	-3.758	0	%100
106	M113	Z	6.508	6.508	0	%100
107	M121	X	0	0	0	%100
108	M121	Z	0	0	0	%100
109	M124	X	-4.708	-4.708	0	%100
110	M124	Z	8.155	8.155	0	%100
111	M125	X	-4.708	-4.708	0	%100
112	M125	Z	8.155	8.155	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	0	0	0	%100
115	M127	X	-1.842	-1.842	0	%100
116	M127	Z	3.19	3.19	0	%100
117	M128	X	-6.057	-6.057	0	%100
118	M128	Z	10.492	10.492	0	%100
119	M129	X	-6.057	-6.057	0	%100
120	M129	Z	10.492	10.492	0	%100
121	M130	X	-1.842	-1.842	0	%100
122	M130	Z	3.19	3.19	0	%100
123	M131	X	-5.746	-5.746	0	%100
124	M131	Z	9.953	9.953	0	%100
125	M132	X	-5.746	-5.746	0	%100
126	M132	Z	9.953	9.953	0	%100
127	OVP	X	-3.965	-3.965	0	%100
128	OVP	Z	6.868	6.868	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	-18.11	-18.11	0	%100
2	M1	Z	10.456	10.456	0	%100
3	M2	X	-2.173	-2.173	0	%100
4	M2	Z	1.255	1.255	0	%100
5	M3	X	-4.528	-4.528	0	%100
6	M3	Z	2.614	2.614	0	%100
7	M4	X	-2.506	-2.506	0	%100
8	M4	Z	1.447	1.447	0	%100



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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.%]
9	M5	X	-2.175	-2.175	0	%100
10	M5	Z	1.256	1.256	0	%100
11	M6	X	-6.598	-6.598	0	%100
12	M6	Z	3.809	3.809	0	%100
13	M7	X	-4.388	-4.388	0	%100
14	M7	Z	2.534	2.534	0	%100
15	M8	X	-6.598	-6.598	0	%100
16	M8	Z	3.809	3.809	0	%100
17	M14	X	-4.584	-4.584	0	%100
18	M14	Z	2.647	2.647	0	%100
19	M17	X	-7.64	-7.64	0	%100
20	M17	Z	4.411	4.411	0	%100
21	M18	X	-1e-6	-1e-6	0	%100
22	M18	Z	1e-6	1e-6	0	%100
23	M19	X	-4.666	-4.666	0	%100
24	M19	Z	2.694	2.694	0	%100
25	MP1A	X	-7.169	-7.169	0	%100
26	MP1A	Z	4.139	4.139	0	%100
27	M22	X	-8.692	-8.692	0	%100
28	M22	Z	5.018	5.018	0	%100
29	M23	X	-10.023	-10.023	0	%100
30	M23	Z	5.787	5.787	0	%100
31	M24	X	-8.7	-8.7	0	%100
32	M24	Z	5.023	5.023	0	%100
33	M25	X	-2.173	-2.173	0	%100
34	M25	Z	1.255	1.255	0	%100
35	M26	X	-2.506	-2.506	0	%100
36	M26	Z	1.447	1.447	0	%100
37	M27	X	-2.173	-2.173	0	%100
38	M27	Z	1.255	1.255	0	%100
39	M28	X	0	0	0	%100
40	M28	Z	0	0	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	0	0	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	0	0	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	-4.671	-4.671	0	%100
48	M39	Z	2.697	2.697	0	%100
49	M40	X	-4.671	-4.671	0	%100
50	M40	Z	2.697	2.697	0	%100
51	M41	X	-3.981	-3.981	0	%100
52	M41	Z	2.298	2.298	0	%100
53	M44	X	-6.6	-6.6	0	%100
54	M44	Z	3.81	3.81	0	%100
55	M45	X	-6.598	-6.598	0	%100
56	M45	Z	3.809	3.809	0	%100
57	M51	X	-4.584	-4.584	0	%100
58	M51	Z	2.647	2.647	0	%100
59	M54	X	-7.64	-7.64	0	%100
60	M54	Z	4.411	4.411	0	%100
61	M55	X	-4.666	-4.666	0	%100
62	M55	Z	2.694	2.694	0	%100
63	M56	X	-1e-6	-1e-6	0	%100
64	M56	Z	1e-6	1e-6	0	%100
65	M57	X	-6.634	-6.634	0	%100





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 Model Name : 5000384514-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/f.F...	Start Location[ft.%]	End Location[ft.%]
66	M57	Z	3.83	3.83	0 %100
67	MP2A	X	-7.169	-7.169	0 %100
68	MP2A	Z	4.139	4.139	0 %100
69	MP3A	X	-7.169	-7.169	0 %100
70	MP3A	Z	4.139	4.139	0 %100
71	MP4A	X	-7.169	-7.169	0 %100
72	MP4A	Z	4.139	4.139	0 %100
73	MP5A	X	-7.169	-7.169	0 %100
74	MP5A	Z	4.139	4.139	0 %100
75	MP1C	X	-7.169	-7.169	0 %100
76	MP1C	Z	4.139	4.139	0 %100
77	MP2C	X	-7.169	-7.169	0 %100
78	MP2C	Z	4.139	4.139	0 %100
79	MP3C	X	-7.169	-7.169	0 %100
80	MP3C	Z	4.139	4.139	0 %100
81	MP4C	X	-7.169	-7.169	0 %100
82	MP4C	Z	4.139	4.139	0 %100
83	MP5C	X	-7.169	-7.169	0 %100
84	MP5C	Z	4.139	4.139	0 %100
85	MP1B	X	-7.169	-7.169	0 %100
86	MP1B	Z	4.139	4.139	0 %100
87	MP2B	X	-7.169	-7.169	0 %100
88	MP2B	Z	4.139	4.139	0 %100
89	MP3B	X	-7.169	-7.169	0 %100
90	MP3B	Z	4.139	4.139	0 %100
91	MP4B	X	-7.169	-7.169	0 %100
92	MP4B	Z	4.139	4.139	0 %100
93	MP5B	X	-7.169	-7.169	0 %100
94	MP5B	Z	4.139	4.139	0 %100
95	M88	X	0	0	0 %100
96	M88	Z	0	0	0 %100
97	M91	X	0	0	0 %100
98	M91	Z	0	0	0 %100
99	M94	X	-3.981	-3.981	0 %100
100	M94	Z	2.298	2.298	0 %100
101	M97	X	-6.634	-6.634	0 %100
102	M97	Z	3.83	3.83	0 %100
103	M105	X	-2.169	-2.169	0 %100
104	M105	Z	1.253	1.253	0 %100
105	M113	X	-8.678	-8.678	0 %100
106	M113	Z	5.01	5.01	0 %100
107	M121	X	-2.169	-2.169	0 %100
108	M121	Z	1.253	1.253	0 %100
109	M124	X	-10.873	-10.873	0 %100
110	M124	Z	6.277	6.277	0 %100
111	M125	X	-2.718	-2.718	0 %100
112	M125	Z	1.569	1.569	0 %100
113	M126	X	-2.718	-2.718	0 %100
114	M126	Z	1.569	1.569	0 %100
115	M127	X	-5.265	-5.265	0 %100
116	M127	Z	3.039	3.039	0 %100
117	M128	X	-12.566	-12.566	0 %100
118	M128	Z	7.255	7.255	0 %100
119	M129	X	-5.803	-5.803	0 %100
120	M129	Z	3.35	3.35	0 %100
121	M130	X	-5.803	-5.803	0 %100
122	M130	Z	3.35	3.35	0 %100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-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.%]
123	M131	X	-12.566	-12.566	0	%100
124	M131	Z	7.255	7.255	0	%100
125	M132	X	-5.265	-5.265	0	%100
126	M132	Z	3.039	3.039	0	%100
127	OVP	X	-6.868	-6.868	0	%100
128	OVP	Z	3.965	3.965	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	-15.684	-15.684	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	-15.684	-15.684	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	-10.158	-10.158	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	-0.002	-0.002	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	-10.158	-10.158	0	%100
16	M8	Z	0	0	0	%100
17	M14	X	-7.058	-7.058	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	-11.763	-11.763	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	-1.794	-1.794	0	%100
22	M18	Z	0	0	0	%100
23	M19	X	-1.794	-1.794	0	%100
24	M19	Z	0	0	0	%100
25	MP1A	X	-8.278	-8.278	0	%100
26	MP1A	Z	0	0	0	%100
27	M22	X	-7.527	-7.527	0	%100
28	M22	Z	0	0	0	%100
29	M23	X	-8.68	-8.68	0	%100
30	M23	Z	0	0	0	%100
31	M24	X	-7.534	-7.534	0	%100
32	M24	Z	0	0	0	%100
33	M25	X	-7.527	-7.527	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	-8.68	-8.68	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	-7.527	-7.527	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	-2.54	-2.54	0	%100
40	M28	Z	0	0	0	%100
41	M29	X	-2.54	-2.54	0	%100
42	M29	Z	0	0	0	%100
43	M35	X	-1.764	-1.764	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	-2.941	-2.941	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	-1.8	-1.8	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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

	Member Label	Direction	Start Magnitude[lb/ft...	End Magnitude[lb/f...	Start Location[ft,%]	End Location[ft,%]
48	M39	Z	0	0	0	%100
49	M40	X	-7.188	-7.188	0	%100
50	M40	Z	0	0	0	%100
51	M41	X	-6.128	-6.128	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	-2.54	-2.54	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	-2.54	-2.54	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	-1.764	-1.764	0	%100
58	M51	Z	0	0	0	%100
59	M54	X	-2.941	-2.941	0	%100
60	M54	Z	0	0	0	%100
61	M55	X	-7.188	-7.188	0	%100
62	M55	Z	0	0	0	%100
63	M56	X	-1.8	-1.8	0	%100
64	M56	Z	0	0	0	%100
65	M57	X	-10.214	-10.214	0	%100
66	M57	Z	0	0	0	%100
67	MP2A	X	-8.278	-8.278	0	%100
68	MP2A	Z	0	0	0	%100
69	MP3A	X	-8.278	-8.278	0	%100
70	MP3A	Z	0	0	0	%100
71	MP4A	X	-8.278	-8.278	0	%100
72	MP4A	Z	0	0	0	%100
73	MP5A	X	-8.278	-8.278	0	%100
74	MP5A	Z	0	0	0	%100
75	MP1C	X	-8.278	-8.278	0	%100
76	MP1C	Z	0	0	0	%100
77	MP2C	X	-8.278	-8.278	0	%100
78	MP2C	Z	0	0	0	%100
79	MP3C	X	-8.278	-8.278	0	%100
80	MP3C	Z	0	0	0	%100
81	MP4C	X	-8.278	-8.278	0	%100
82	MP4C	Z	0	0	0	%100
83	MP5C	X	-8.278	-8.278	0	%100
84	MP5C	Z	0	0	0	%100
85	MP1B	X	-8.278	-8.278	0	%100
86	MP1B	Z	0	0	0	%100
87	MP2B	X	-8.278	-8.278	0	%100
88	MP2B	Z	0	0	0	%100
89	MP3B	X	-8.278	-8.278	0	%100
90	MP3B	Z	0	0	0	%100
91	MP4B	X	-8.278	-8.278	0	%100
92	MP4B	Z	0	0	0	%100
93	MP5B	X	-8.278	-8.278	0	%100
94	MP5B	Z	0	0	0	%100
95	M88	X	-1.532	-1.532	0	%100
96	M88	Z	0	0	0	%100
97	M91	X	-2.554	-2.554	0	%100
98	M91	Z	0	0	0	%100
99	M94	X	-1.532	-1.532	0	%100
100	M94	Z	0	0	0	%100
101	M97	X	-2.554	-2.554	0	%100
102	M97	Z	0	0	0	%100
103	M105	X	0	0	0	%100
104	M105	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.%]
105	M113	X	-7.515	-7.515	0	%100
106	M113	Z	0	0	0	%100
107	M121	X	-7.515	-7.515	0	%100
108	M121	Z	0	0	0	%100
109	M124	X	-9.416	-9.416	0	%100
110	M124	Z	0	0	0	%100
111	M125	X	0	0	0	%100
112	M125	Z	0	0	0	%100
113	M126	X	-9.416	-9.416	0	%100
114	M126	Z	0	0	0	%100
115	M127	X	-11.493	-11.493	0	%100
116	M127	Z	0	0	0	%100
117	M128	X	-11.493	-11.493	0	%100
118	M128	Z	0	0	0	%100
119	M129	X	-3.683	-3.683	0	%100
120	M129	Z	0	0	0	%100
121	M130	X	-12.115	-12.115	0	%100
122	M130	Z	0	0	0	%100
123	M131	X	-12.115	-12.115	0	%100
124	M131	Z	0	0	0	%100
125	M132	X	-3.683	-3.683	0	%100
126	M132	Z	0	0	0	%100
127	OVP	X	-7.931	-7.931	0	%100
128	OVP	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	-4.528	-4.528	0	%100
2	M1	Z	-2.614	-2.614	0	%100
3	M2	X	-2.173	-2.173	0	%100
4	M2	Z	-1.255	-1.255	0	%100
5	M3	X	-18.11	-18.11	0	%100
6	M3	Z	-10.456	-10.456	0	%100
7	M4	X	-2.506	-2.506	0	%100
8	M4	Z	-1.447	-1.447	0	%100
9	M5	X	-2.175	-2.175	0	%100
10	M5	Z	-1.256	-1.256	0	%100
11	M6	X	-6.598	-6.598	0	%100
12	M6	Z	-3.809	-3.809	0	%100
13	M7	X	-4.668	-4.668	0	%100
14	M7	Z	-2.695	-2.695	0	%100
15	M8	X	-6.598	-6.598	0	%100
16	M8	Z	-3.809	-3.809	0	%100
17	M14	X	-4.584	-4.584	0	%100
18	M14	Z	-2.647	-2.647	0	%100
19	M17	X	-7.64	-7.64	0	%100
20	M17	Z	-4.411	-4.411	0	%100
21	M18	X	-4.666	-4.666	0	%100
22	M18	Z	-2.694	-2.694	0	%100
23	M19	X	-1e-6	-1e-6	0	%100
24	M19	Z	-1e-6	-1e-6	0	%100
25	MP1A	X	-7.169	-7.169	0	%100
26	MP1A	Z	-4.139	-4.139	0	%100
27	M22	X	-2.173	-2.173	0	%100
28	M22	Z	-1.255	-1.255	0	%100
29	M23	X	-2.506	-2.506	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-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.F...	Start Location[ft,%]	End Location[ft,%]
30	M23	Z	-1.447	-1.447	0	%100
31	M24	X	-2.175	-2.175	0	%100
32	M24	Z	-1.256	-1.256	0	%100
33	M25	X	-8.692	-8.692	0	%100
34	M25	Z	-5.018	-5.018	0	%100
35	M26	X	-10.023	-10.023	0	%100
36	M26	Z	-5.787	-5.787	0	%100
37	M27	X	-8.692	-8.692	0	%100
38	M27	Z	-5.018	-5.018	0	%100
39	M28	X	-6.6	-6.6	0	%100
40	M28	Z	-3.81	-3.81	0	%100
41	M29	X	-6.598	-6.598	0	%100
42	M29	Z	-3.809	-3.809	0	%100
43	M35	X	-4.584	-4.584	0	%100
44	M35	Z	-2.647	-2.647	0	%100
45	M38	X	-7.64	-7.64	0	%100
46	M38	Z	-4.411	-4.411	0	%100
47	M39	X	-1e-6	-1e-6	0	%100
48	M39	Z	-1e-6	-1e-6	0	%100
49	M40	X	-4.666	-4.666	0	%100
50	M40	Z	-2.694	-2.694	0	%100
51	M41	X	-3.981	-3.981	0	%100
52	M41	Z	-2.298	-2.298	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	0	0	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	0	0	0	%100
61	M55	X	-4.671	-4.671	0	%100
62	M55	Z	-2.697	-2.697	0	%100
63	M56	X	-4.671	-4.671	0	%100
64	M56	Z	-2.697	-2.697	0	%100
65	M57	X	-6.634	-6.634	0	%100
66	M57	Z	-3.83	-3.83	0	%100
67	MP2A	X	-7.169	-7.169	0	%100
68	MP2A	Z	-4.139	-4.139	0	%100
69	MP3A	X	-7.169	-7.169	0	%100
70	MP3A	Z	-4.139	-4.139	0	%100
71	MP4A	X	-7.169	-7.169	0	%100
72	MP4A	Z	-4.139	-4.139	0	%100
73	MP5A	X	-7.169	-7.169	0	%100
74	MP5A	Z	-4.139	-4.139	0	%100
75	MP1C	X	-7.169	-7.169	0	%100
76	MP1C	Z	-4.139	-4.139	0	%100
77	MP2C	X	-7.169	-7.169	0	%100
78	MP2C	Z	-4.139	-4.139	0	%100
79	MP3C	X	-7.169	-7.169	0	%100
80	MP3C	Z	-4.139	-4.139	0	%100
81	MP4C	X	-7.169	-7.169	0	%100
82	MP4C	Z	-4.139	-4.139	0	%100
83	MP5C	X	-7.169	-7.169	0	%100
84	MP5C	Z	-4.139	-4.139	0	%100
85	MP1B	X	-7.169	-7.169	0	%100
86	MP1B	Z	-4.139	-4.139	0	%100



**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.%]
87	MP2B	X	-7.169	-7.169	0	%100
88	MP2B	Z	-4.139	-4.139	0	%100
89	MP3B	X	-7.169	-7.169	0	%100
90	MP3B	Z	-4.139	-4.139	0	%100
91	MP4B	X	-7.169	-7.169	0	%100
92	MP4B	Z	-4.139	-4.139	0	%100
93	MP5B	X	-7.169	-7.169	0	%100
94	MP5B	Z	-4.139	-4.139	0	%100
95	M88	X	-3.981	-3.981	0	%100
96	M88	Z	-2.298	-2.298	0	%100
97	M91	X	-6.634	-6.634	0	%100
98	M91	Z	-3.83	-3.83	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	0	0	0	%100
101	M97	X	0	0	0	%100
102	M97	Z	0	0	0	%100
103	M105	X	-2.169	-2.169	0	%100
104	M105	Z	-1.253	-1.253	0	%100
105	M113	X	-2.169	-2.169	0	%100
106	M113	Z	-1.253	-1.253	0	%100
107	M121	X	-8.678	-8.678	0	%100
108	M121	Z	-5.01	-5.01	0	%100
109	M124	X	-2.718	-2.718	0	%100
110	M124	Z	-1.569	-1.569	0	%100
111	M125	X	-2.718	-2.718	0	%100
112	M125	Z	-1.569	-1.569	0	%100
113	M126	X	-10.873	-10.873	0	%100
114	M126	Z	-6.277	-6.277	0	%100
115	M127	X	-12.566	-12.566	0	%100
116	M127	Z	-7.255	-7.255	0	%100
117	M128	X	-5.265	-5.265	0	%100
118	M128	Z	-3.039	-3.039	0	%100
119	M129	X	-5.265	-5.265	0	%100
120	M129	Z	-3.039	-3.039	0	%100
121	M130	X	-12.566	-12.566	0	%100
122	M130	Z	-7.255	-7.255	0	%100
123	M131	X	-5.803	-5.803	0	%100
124	M131	Z	-3.35	-3.35	0	%100
125	M132	X	-5.803	-5.803	0	%100
126	M132	Z	-3.35	-3.35	0	%100
127	OVP	X	-6.868	-6.868	0	%100
128	OVP	Z	-3.965	-3.965	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	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-3.764	-3.764	0	%100
4	M2	Z	-6.519	-6.519	0	%100
5	M3	X	-7.842	-7.842	0	%100
6	M3	Z	-13.583	-13.583	0	%100
7	M4	X	-4.34	-4.34	0	%100
8	M4	Z	-7.517	-7.517	0	%100
9	M5	X	-3.767	-3.767	0	%100
10	M5	Z	-6.525	-6.525	0	%100
11	M6	X	-1.27	-1.27	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-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.%]
12	M6	Z	-2.199	-2.199	0	%100
13	M7	X	-7.922	-7.922	0	%100
14	M7	Z	-13.722	-13.722	0	%100
15	M8	X	-1.27	-1.27	0	%100
16	M8	Z	-2.199	-2.199	0	%100
17	M14	X	-.882	-.882	0	%100
18	M14	Z	-1.528	-1.528	0	%100
19	M17	X	-1.47	-1.47	0	%100
20	M17	Z	-2.547	-2.547	0	%100
21	M18	X	-3.594	-3.594	0	%100
22	M18	Z	-6.225	-6.225	0	%100
23	M19	X	-.9	-.9	0	%100
24	M19	Z	-1.559	-1.559	0	%100
25	MP1A	X	-4.139	-4.139	0	%100
26	MP1A	Z	-7.169	-7.169	0	%100
27	M22	X	0	0	0	%100
28	M22	Z	0	0	0	%100
29	M23	X	0	0	0	%100
30	M23	Z	0	0	0	%100
31	M24	X	0	0	0	%100
32	M24	Z	0	0	0	%100
33	M25	X	-3.764	-3.764	0	%100
34	M25	Z	-6.519	-6.519	0	%100
35	M26	X	-4.34	-4.34	0	%100
36	M26	Z	-7.517	-7.517	0	%100
37	M27	X	-3.764	-3.764	0	%100
38	M27	Z	-6.519	-6.519	0	%100
39	M28	X	-5.08	-5.08	0	%100
40	M28	Z	-8.8	-8.8	0	%100
41	M29	X	-5.079	-5.079	0	%100
42	M29	Z	-8.797	-8.797	0	%100
43	M35	X	-3.529	-3.529	0	%100
44	M35	Z	-6.112	-6.112	0	%100
45	M38	X	-5.882	-5.882	0	%100
46	M38	Z	-10.187	-10.187	0	%100
47	M39	X	-.897	-.897	0	%100
48	M39	Z	-1.554	-1.554	0	%100
49	M40	X	-.897	-.897	0	%100
50	M40	Z	-1.554	-1.554	0	%100
51	M41	X	-.766	-.766	0	%100
52	M41	Z	-1.327	-1.327	0	%100
53	M44	X	-1.27	-1.27	0	%100
54	M44	Z	-2.2	-2.2	0	%100
55	M45	X	-1.27	-1.27	0	%100
56	M45	Z	-2.199	-2.199	0	%100
57	M51	X	-.882	-.882	0	%100
58	M51	Z	-1.528	-1.528	0	%100
59	M54	X	-1.47	-1.47	0	%100
60	M54	Z	-2.547	-2.547	0	%100
61	M55	X	-.9	-.9	0	%100
62	M55	Z	-1.559	-1.559	0	%100
63	M56	X	-3.594	-3.594	0	%100
64	M56	Z	-6.225	-6.225	0	%100
65	M57	X	-1.277	-1.277	0	%100
66	M57	Z	-2.211	-2.211	0	%100
67	MP2A	X	-4.139	-4.139	0	%100
68	MP2A	Z	-7.169	-7.169	0	%100



**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.%)
69	MP3A	X	-4.139	-4.139	0 %100
70	MP3A	Z	-7.169	-7.169	0 %100
71	MP4A	X	-4.139	-4.139	0 %100
72	MP4A	Z	-7.169	-7.169	0 %100
73	MP5A	X	-4.139	-4.139	0 %100
74	MP5A	Z	-7.169	-7.169	0 %100
75	MP1C	X	-4.139	-4.139	0 %100
76	MP1C	Z	-7.169	-7.169	0 %100
77	MP2C	X	-4.139	-4.139	0 %100
78	MP2C	Z	-7.169	-7.169	0 %100
79	MP3C	X	-4.139	-4.139	0 %100
80	MP3C	Z	-7.169	-7.169	0 %100
81	MP4C	X	-4.139	-4.139	0 %100
82	MP4C	Z	-7.169	-7.169	0 %100
83	MP5C	X	-4.139	-4.139	0 %100
84	MP5C	Z	-7.169	-7.169	0 %100
85	MP1B	X	-4.139	-4.139	0 %100
86	MP1B	Z	-7.169	-7.169	0 %100
87	MP2B	X	-4.139	-4.139	0 %100
88	MP2B	Z	-7.169	-7.169	0 %100
89	MP3B	X	-4.139	-4.139	0 %100
90	MP3B	Z	-7.169	-7.169	0 %100
91	MP4B	X	-4.139	-4.139	0 %100
92	MP4B	Z	-7.169	-7.169	0 %100
93	MP5B	X	-4.139	-4.139	0 %100
94	MP5B	Z	-7.169	-7.169	0 %100
95	M88	X	-3.064	-3.064	0 %100
96	M88	Z	-5.307	-5.307	0 %100
97	M91	X	-5.107	-5.107	0 %100
98	M91	Z	-8.846	-8.846	0 %100
99	M94	X	-.766	-.766	0 %100
100	M94	Z	-1.327	-1.327	0 %100
101	M97	X	-1.277	-1.277	0 %100
102	M97	Z	-2.211	-2.211	0 %100
103	M105	X	-3.758	-3.758	0 %100
104	M105	Z	-6.508	-6.508	0 %100
105	M113	X	0	0	0 %100
106	M113	Z	0	0	0 %100
107	M121	X	-3.758	-3.758	0 %100
108	M121	Z	-6.508	-6.508	0 %100
109	M124	X	0	0	0 %100
110	M124	Z	0	0	0 %100
111	M125	X	-4.708	-4.708	0 %100
112	M125	Z	-8.155	-8.155	0 %100
113	M126	X	-4.708	-4.708	0 %100
114	M126	Z	-8.155	-8.155	0 %100
115	M127	X	-6.057	-6.057	0 %100
116	M127	Z	-10.492	-10.492	0 %100
117	M128	X	-1.842	-1.842	0 %100
118	M128	Z	-3.19	-3.19	0 %100
119	M129	X	-5.746	-5.746	0 %100
120	M129	Z	-9.953	-9.953	0 %100
121	M130	X	-5.746	-5.746	0 %100
122	M130	Z	-9.953	-9.953	0 %100
123	M131	X	-1.842	-1.842	0 %100
124	M131	Z	-3.19	-3.19	0 %100
125	M132	X	-6.057	-6.057	0 %100





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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.%]
126	M132	Z	-10.492	-10.492	0	%100
127	OVP	X	-3.965	-3.965	0	%100
128	OVP	Z	-6.868	-6.868	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	-1.134	-1.134	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-3.106	-3.106	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-1.134	-1.134	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	-3.421	-3.421	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	-3.109	-3.109	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	-4.537	-4.537	0	%100
15	M8	X	0	0	0	%100
16	M8	Z	0	0	0	%100
17	M14	X	0	0	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	-1.81	-1.81	0	%100
23	M19	X	0	0	0	%100
24	M19	Z	-1.81	-1.81	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	-2.849	-2.849	0	%100
27	M22	X	0	0	0	%100
28	M22	Z	-.776	-.776	0	%100
29	M23	X	0	0	0	%100
30	M23	Z	-.855	-.855	0	%100
31	M24	X	0	0	0	%100
32	M24	Z	-.777	-.777	0	%100
33	M25	X	0	0	0	%100
34	M25	Z	-.776	-.776	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	-.855	-.855	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	-.776	-.776	0	%100
39	M28	X	0	0	0	%100
40	M28	Z	-2.382	-2.382	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	-2.381	-2.381	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	-1.773	-1.773	0	%100
45	M38	X	0	0	0	%100
46	M38	Z	-2.386	-2.386	0	%100
47	M39	X	0	0	0	%100
48	M39	Z	-1.808	-1.808	0	%100
49	M40	X	0	0	0	%100
50	M40	Z	-1e-6	-1e-6	0	%100



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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.%]
51	M41	X	0	0	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	-2.382	-2.382	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	-2.381	-2.381	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	-1.773	-1.773	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	-2.386	-2.386	0	%100
61	M55	X	0	0	0	%100
62	M55	Z	-1e-6	-1e-6	0	%100
63	M56	X	0	0	0	%100
64	M56	Z	-1.808	-1.808	0	%100
65	M57	X	0	0	0	%100
66	M57	Z	0	0	0	%100
67	MP2A	X	0	0	0	%100
68	MP2A	Z	-2.849	-2.849	0	%100
69	MP3A	X	0	0	0	%100
70	MP3A	Z	-2.849	-2.849	0	%100
71	MP4A	X	0	0	0	%100
72	MP4A	Z	-2.849	-2.849	0	%100
73	MP5A	X	0	0	0	%100
74	MP5A	Z	-2.849	-2.849	0	%100
75	MP1C	X	0	0	0	%100
76	MP1C	Z	-2.849	-2.849	0	%100
77	MP2C	X	0	0	0	%100
78	MP2C	Z	-2.849	-2.849	0	%100
79	MP3C	X	0	0	0	%100
80	MP3C	Z	-2.849	-2.849	0	%100
81	MP4C	X	0	0	0	%100
82	MP4C	Z	-2.849	-2.849	0	%100
83	MP5C	X	0	0	0	%100
84	MP5C	Z	-2.849	-2.849	0	%100
85	MP1B	X	0	0	0	%100
86	MP1B	Z	-2.849	-2.849	0	%100
87	MP2B	X	0	0	0	%100
88	MP2B	Z	-2.849	-2.849	0	%100
89	MP3B	X	0	0	0	%100
90	MP3B	Z	-2.849	-2.849	0	%100
91	MP4B	X	0	0	0	%100
92	MP4B	Z	-2.849	-2.849	0	%100
93	MP5B	X	0	0	0	%100
94	MP5B	Z	-2.849	-2.849	0	%100
95	M88	X	0	0	0	%100
96	M88	Z	-1.518	-1.518	0	%100
97	M91	X	0	0	0	%100
98	M91	Z	-2.05	-2.05	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	-1.518	-1.518	0	%100
101	M97	X	0	0	0	%100
102	M97	Z	-2.05	-2.05	0	%100
103	M105	X	0	0	0	%100
104	M105	Z	-3.151	-3.151	0	%100
105	M113	X	0	0	0	%100
106	M113	Z	-.788	-.788	0	%100
107	M121	X	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
108	M121	Z	-788	-788	0	%100
109	M124	X	0	0	0	%100
110	M124	Z	-.804	-.804	0	%100
111	M125	X	0	0	0	%100
112	M125	Z	-3.214	-3.214	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	-.804	-.804	0	%100
115	M127	X	0	0	0	%100
116	M127	Z	-1.815	-1.815	0	%100
117	M128	X	0	0	0	%100
118	M128	Z	-1.815	-1.815	0	%100
119	M129	X	0	0	0	%100
120	M129	Z	-3.93	-3.93	0	%100
121	M130	X	0	0	0	%100
122	M130	Z	-1.646	-1.646	0	%100
123	M131	X	0	0	0	%100
124	M131	Z	-1.646	-1.646	0	%100
125	M132	X	0	0	0	%100
126	M132	Z	-3.93	-3.93	0	%100
127	OVP	X	0	0	0	%100
128	OVP	Z	-2.74	-2.74	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	1.701	1.701	0	%100
2	M1	Z	-2.946	-2.946	0	%100
3	M2	X	1.165	1.165	0	%100
4	M2	Z	-2.017	-2.017	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	1.283	1.283	0	%100
8	M4	Z	-2.222	-2.222	0	%100
9	M5	X	1.166	1.166	0	%100
10	M5	Z	-2.019	-2.019	0	%100
11	M6	X	.397	.397	0	%100
12	M6	Z	-.687	-.687	0	%100
13	M7	X	1.684	1.684	0	%100
14	M7	Z	-2.916	-2.916	0	%100
15	M8	X	.397	.397	0	%100
16	M8	Z	-.687	-.687	0	%100
17	M14	X	.296	.296	0	%100
18	M14	Z	-.512	-.512	0	%100
19	M17	X	.398	.398	0	%100
20	M17	Z	-.689	-.689	0	%100
21	M18	X	.302	.302	0	%100
22	M18	Z	-.523	-.523	0	%100
23	M19	X	1.206	1.206	0	%100
24	M19	Z	-2.089	-2.089	0	%100
25	MP1A	X	1.424	1.424	0	%100
26	MP1A	Z	-2.467	-2.467	0	%100
27	M22	X	1.165	1.165	0	%100
28	M22	Z	-2.017	-2.017	0	%100
29	M23	X	1.283	1.283	0	%100
30	M23	Z	-2.222	-2.222	0	%100
31	M24	X	1.166	1.166	0	%100
32	M24	Z	-2.019	-2.019	0	%100



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**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.%]
33	M25	X	0	0	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	.397	.397	0	%100
40	M28	Z	-.688	-.688	0	%100
41	M29	X	.397	.397	0	%100
42	M29	Z	-.687	-.687	0	%100
43	M35	X	.296	.296	0	%100
44	M35	Z	-.512	-.512	0	%100
45	M38	X	.398	.398	0	%100
46	M38	Z	-.689	-.689	0	%100
47	M39	X	1.206	1.206	0	%100
48	M39	Z	-2.089	-2.089	0	%100
49	M40	X	.302	.302	0	%100
50	M40	Z	-.523	-.523	0	%100
51	M41	X	.253	.253	0	%100
52	M41	Z	-.438	-.438	0	%100
53	M44	X	1.588	1.588	0	%100
54	M44	Z	-2.75	-2.75	0	%100
55	M45	X	1.588	1.588	0	%100
56	M45	Z	-2.75	-2.75	0	%100
57	M51	X	1.182	1.182	0	%100
58	M51	Z	-2.048	-2.048	0	%100
59	M54	X	1.591	1.591	0	%100
60	M54	Z	-2.755	-2.755	0	%100
61	M55	X	.301	.301	0	%100
62	M55	Z	-.521	-.521	0	%100
63	M56	X	.301	.301	0	%100
64	M56	Z	-.521	-.521	0	%100
65	M57	X	.342	.342	0	%100
66	M57	Z	-.592	-.592	0	%100
67	MP2A	X	1.424	1.424	0	%100
68	MP2A	Z	-2.467	-2.467	0	%100
69	MP3A	X	1.424	1.424	0	%100
70	MP3A	Z	-2.467	-2.467	0	%100
71	MP4A	X	1.424	1.424	0	%100
72	MP4A	Z	-2.467	-2.467	0	%100
73	MP5A	X	1.424	1.424	0	%100
74	MP5A	Z	-2.467	-2.467	0	%100
75	MP1C	X	1.424	1.424	0	%100
76	MP1C	Z	-2.467	-2.467	0	%100
77	MP2C	X	1.424	1.424	0	%100
78	MP2C	Z	-2.467	-2.467	0	%100
79	MP3C	X	1.424	1.424	0	%100
80	MP3C	Z	-2.467	-2.467	0	%100
81	MP4C	X	1.424	1.424	0	%100
82	MP4C	Z	-2.467	-2.467	0	%100
83	MP5C	X	1.424	1.424	0	%100
84	MP5C	Z	-2.467	-2.467	0	%100
85	MP1B	X	1.424	1.424	0	%100
86	MP1B	Z	-2.467	-2.467	0	%100
87	MP2B	X	1.424	1.424	0	%100
88	MP2B	Z	-2.467	-2.467	0	%100
89	MP3B	X	1.424	1.424	0	%100



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**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.%]
90	MP3B	Z	-2.467	-2.467	0	%100
91	MP4B	X	1.424	1.424	0	%100
92	MP4B	Z	-2.467	-2.467	0	%100
93	MP5B	X	1.424	1.424	0	%100
94	MP5B	Z	-2.467	-2.467	0	%100
95	M88	X	.253	.253	0	%100
96	M88	Z	-.438	-.438	0	%100
97	M91	X	.342	.342	0	%100
98	M91	Z	-.592	-.592	0	%100
99	M94	X	1.012	1.012	0	%100
100	M94	Z	-1.753	-1.753	0	%100
101	M97	X	1.367	1.367	0	%100
102	M97	Z	-2.367	-2.367	0	%100
103	M105	X	1.182	1.182	0	%100
104	M105	Z	-2.047	-2.047	0	%100
105	M113	X	1.182	1.182	0	%100
106	M113	Z	-2.047	-2.047	0	%100
107	M121	X	0	0	0	%100
108	M121	Z	0	0	0	%100
109	M124	X	1.205	1.205	0	%100
110	M124	Z	-2.088	-2.088	0	%100
111	M125	X	1.205	1.205	0	%100
112	M125	Z	-2.088	-2.088	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	0	0	0	%100
115	M127	X	.499	.499	0	%100
116	M127	Z	-.864	-.864	0	%100
117	M128	X	1.64	1.64	0	%100
118	M128	Z	-2.841	-2.841	0	%100
119	M129	X	1.64	1.64	0	%100
120	M129	Z	-2.841	-2.841	0	%100
121	M130	X	.499	.499	0	%100
122	M130	Z	-.864	-.864	0	%100
123	M131	X	1.556	1.556	0	%100
124	M131	Z	-2.695	-2.695	0	%100
125	M132	X	1.556	1.556	0	%100
126	M132	Z	-2.695	-2.695	0	%100
127	OVP	X	1.37	1.37	0	%100
128	OVP	Z	-2.373	-2.373	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	3.928	3.928	0	%100
2	M1	Z	-2.268	-2.268	0	%100
3	M2	X	.672	.672	0	%100
4	M2	Z	-.388	-.388	0	%100
5	M3	X	.982	.982	0	%100
6	M3	Z	-.567	-.567	0	%100
7	M4	X	.741	.741	0	%100
8	M4	Z	-.428	-.428	0	%100
9	M5	X	.673	.673	0	%100
10	M5	Z	-.389	-.389	0	%100
11	M6	X	2.062	2.062	0	%100
12	M6	Z	-1.191	-1.191	0	%100
13	M7	X	.952	.952	0	%100
14	M7	Z	-.55	-.55	0	%100



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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.%]
15	M8	X	2.062	2.062	0	%100
16	M8	Z	-1.191	-1.191	0	%100
17	M14	X	1.536	1.536	0	%100
18	M14	Z	-887	-887	0	%100
19	M17	X	2.066	2.066	0	%100
20	M17	Z	-1.193	-1.193	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	0	0	0	%100
23	M19	X	1.566	1.566	0	%100
24	M19	Z	-904	-904	0	%100
25	MP1A	X	2.467	2.467	0	%100
26	MP1A	Z	-1.424	-1.424	0	%100
27	M22	X	2.69	2.69	0	%100
28	M22	Z	-1.553	-1.553	0	%100
29	M23	X	2.963	2.963	0	%100
30	M23	Z	-1.711	-1.711	0	%100
31	M24	X	2.692	2.692	0	%100
32	M24	Z	-1.554	-1.554	0	%100
33	M25	X	.672	.672	0	%100
34	M25	Z	-.388	-.388	0	%100
35	M26	X	.741	.741	0	%100
36	M26	Z	-.428	-.428	0	%100
37	M27	X	.672	.672	0	%100
38	M27	Z	-.388	-.388	0	%100
39	M28	X	0	0	0	%100
40	M28	Z	0	0	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	0	0	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	0	0	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	1.568	1.568	0	%100
48	M39	Z	-.905	-.905	0	%100
49	M40	X	1.568	1.568	0	%100
50	M40	Z	-.905	-.905	0	%100
51	M41	X	1.315	1.315	0	%100
52	M41	Z	-.759	-.759	0	%100
53	M44	X	2.063	2.063	0	%100
54	M44	Z	-1.191	-1.191	0	%100
55	M45	X	2.062	2.062	0	%100
56	M45	Z	-1.191	-1.191	0	%100
57	M51	X	1.536	1.536	0	%100
58	M51	Z	-.887	-.887	0	%100
59	M54	X	2.066	2.066	0	%100
60	M54	Z	-1.193	-1.193	0	%100
61	M55	X	1.566	1.566	0	%100
62	M55	Z	-.904	-.904	0	%100
63	M56	X	0	0	0	%100
64	M56	Z	0	0	0	%100
65	M57	X	1.775	1.775	0	%100
66	M57	Z	-1.025	-1.025	0	%100
67	MP2A	X	2.467	2.467	0	%100
68	MP2A	Z	-1.424	-1.424	0	%100
69	MP3A	X	2.467	2.467	0	%100
70	MP3A	Z	-1.424	-1.424	0	%100
71	MP4A	X	2.467	2.467	0	%100



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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.%]
72	MP4A	Z	-1.424	-1.424	0 %100
73	MP5A	X	2.467	2.467	0 %100
74	MP5A	Z	-1.424	-1.424	0 %100
75	MP1C	X	2.467	2.467	0 %100
76	MP1C	Z	-1.424	-1.424	0 %100
77	MP2C	X	2.467	2.467	0 %100
78	MP2C	Z	-1.424	-1.424	0 %100
79	MP3C	X	2.467	2.467	0 %100
80	MP3C	Z	-1.424	-1.424	0 %100
81	MP4C	X	2.467	2.467	0 %100
82	MP4C	Z	-1.424	-1.424	0 %100
83	MP5C	X	2.467	2.467	0 %100
84	MP5C	Z	-1.424	-1.424	0 %100
85	MP1B	X	2.467	2.467	0 %100
86	MP1B	Z	-1.424	-1.424	0 %100
87	MP2B	X	2.467	2.467	0 %100
88	MP2B	Z	-1.424	-1.424	0 %100
89	MP3B	X	2.467	2.467	0 %100
90	MP3B	Z	-1.424	-1.424	0 %100
91	MP4B	X	2.467	2.467	0 %100
92	MP4B	Z	-1.424	-1.424	0 %100
93	MP5B	X	2.467	2.467	0 %100
94	MP5B	Z	-1.424	-1.424	0 %100
95	M88	X	0	0	0 %100
96	M88	Z	0	0	0 %100
97	M91	X	0	0	0 %100
98	M91	Z	0	0	0 %100
99	M94	X	1.315	1.315	0 %100
100	M94	Z	-0.759	-0.759	0 %100
101	M97	X	1.775	1.775	0 %100
102	M97	Z	-1.025	-1.025	0 %100
103	M105	X	0.682	0.682	0 %100
104	M105	Z	-0.394	-0.394	0 %100
105	M113	X	2.729	2.729	0 %100
106	M113	Z	-1.576	-1.576	0 %100
107	M121	X	0.682	0.682	0 %100
108	M121	Z	-0.394	-0.394	0 %100
109	M124	X	2.784	2.784	0 %100
110	M124	Z	-1.607	-1.607	0 %100
111	M125	X	0.696	0.696	0 %100
112	M125	Z	-0.402	-0.402	0 %100
113	M126	X	0.696	0.696	0 %100
114	M126	Z	-0.402	-0.402	0 %100
115	M127	X	1.426	1.426	0 %100
116	M127	Z	-0.823	-0.823	0 %100
117	M128	X	3.403	3.403	0 %100
118	M128	Z	-1.965	-1.965	0 %100
119	M129	X	1.572	1.572	0 %100
120	M129	Z	-0.907	-0.907	0 %100
121	M130	X	1.572	1.572	0 %100
122	M130	Z	-0.907	-0.907	0 %100
123	M131	X	3.403	3.403	0 %100
124	M131	Z	-1.965	-1.965	0 %100
125	M132	X	1.426	1.426	0 %100
126	M132	Z	-0.823	-0.823	0 %100
127	OVP	X	2.373	2.373	0 %100
128	OVP	Z	-1.37	-1.37	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	3.402	3.402	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	3.402	3.402	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	3.175	3.175	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	.000361	.000361	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	3.175	3.175	0	%100
16	M8	Z	0	0	0	%100
17	M14	X	2.364	2.364	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	3.181	3.181	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	.602	.602	0	%100
22	M18	Z	0	0	0	%100
23	M19	X	.602	.602	0	%100
24	M19	Z	0	0	0	%100
25	MP1A	X	2.849	2.849	0	%100
26	MP1A	Z	0	0	0	%100
27	M22	X	2.329	2.329	0	%100
28	M22	Z	0	0	0	%100
29	M23	X	2.566	2.566	0	%100
30	M23	Z	0	0	0	%100
31	M24	X	2.332	2.332	0	%100
32	M24	Z	0	0	0	%100
33	M25	X	2.329	2.329	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	2.566	2.566	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	2.329	2.329	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	.794	.794	0	%100
40	M28	Z	0	0	0	%100
41	M29	X	.794	.794	0	%100
42	M29	Z	0	0	0	%100
43	M35	X	.591	.591	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	.795	.795	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	.604	.604	0	%100
48	M39	Z	0	0	0	%100
49	M40	X	2.412	2.412	0	%100
50	M40	Z	0	0	0	%100
51	M41	X	2.024	2.024	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	.794	.794	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	.794	.794	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	.591	.591	0	%100





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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.%]
58	M51	Z	0	0	%100
59	M54	X	.795	.795	%100
60	M54	Z	0	0	%100
61	M55	X	2.412	2.412	%100
62	M55	Z	0	0	%100
63	M56	X	.604	.604	%100
64	M56	Z	0	0	%100
65	M57	X	2.733	2.733	%100
66	M57	Z	0	0	%100
67	MP2A	X	2.849	2.849	%100
68	MP2A	Z	0	0	%100
69	MP3A	X	2.849	2.849	%100
70	MP3A	Z	0	0	%100
71	MP4A	X	2.849	2.849	%100
72	MP4A	Z	0	0	%100
73	MP5A	X	2.849	2.849	%100
74	MP5A	Z	0	0	%100
75	MP1C	X	2.849	2.849	%100
76	MP1C	Z	0	0	%100
77	MP2C	X	2.849	2.849	%100
78	MP2C	Z	0	0	%100
79	MP3C	X	2.849	2.849	%100
80	MP3C	Z	0	0	%100
81	MP4C	X	2.849	2.849	%100
82	MP4C	Z	0	0	%100
83	MP5C	X	2.849	2.849	%100
84	MP5C	Z	0	0	%100
85	MP1B	X	2.849	2.849	%100
86	MP1B	Z	0	0	%100
87	MP2B	X	2.849	2.849	%100
88	MP2B	Z	0	0	%100
89	MP3B	X	2.849	2.849	%100
90	MP3B	Z	0	0	%100
91	MP4B	X	2.849	2.849	%100
92	MP4B	Z	0	0	%100
93	MP5B	X	2.849	2.849	%100
94	MP5B	Z	0	0	%100
95	M88	X	.506	.506	%100
96	M88	Z	0	0	%100
97	M91	X	.683	.683	%100
98	M91	Z	0	0	%100
99	M94	X	.506	.506	%100
100	M94	Z	0	0	%100
101	M97	X	.683	.683	%100
102	M97	Z	0	0	%100
103	M105	X	0	0	%100
104	M105	Z	0	0	%100
105	M113	X	2.364	2.364	%100
106	M113	Z	0	0	%100
107	M121	X	2.364	2.364	%100
108	M121	Z	0	0	%100
109	M124	X	2.411	2.411	%100
110	M124	Z	0	0	%100
111	M125	X	0	0	%100
112	M125	Z	0	0	%100
113	M126	X	2.411	2.411	%100
114	M126	Z	0	0	%100



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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.%]
115	M127	X	3.112	3.112	0	%100
116	M127	Z	0	0	0	%100
117	M128	X	3.112	3.112	0	%100
118	M128	Z	0	0	0	%100
119	M129	X	.997	.997	0	%100
120	M129	Z	0	0	0	%100
121	M130	X	3.281	3.281	0	%100
122	M130	Z	0	0	0	%100
123	M131	X	3.281	3.281	0	%100
124	M131	Z	0	0	0	%100
125	M132	X	.997	.997	0	%100
126	M132	Z	0	0	0	%100
127	OVP	X	2.74	2.74	0	%100
128	OVP	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	.982	.982	0	%100
2	M1	Z	.567	.567	0	%100
3	M2	X	.672	.672	0	%100
4	M2	Z	.388	.388	0	%100
5	M3	X	3.928	3.928	0	%100
6	M3	Z	2.268	2.268	0	%100
7	M4	X	.741	.741	0	%100
8	M4	Z	.428	.428	0	%100
9	M5	X	.673	.673	0	%100
10	M5	Z	.389	.389	0	%100
11	M6	X	2.062	2.062	0	%100
12	M6	Z	1.191	1.191	0	%100
13	M7	X	1.013	1.013	0	%100
14	M7	Z	.585	.585	0	%100
15	M8	X	2.062	2.062	0	%100
16	M8	Z	1.191	1.191	0	%100
17	M14	X	1.536	1.536	0	%100
18	M14	Z	.887	.887	0	%100
19	M17	X	2.066	2.066	0	%100
20	M17	Z	1.193	1.193	0	%100
21	M18	X	1.566	1.566	0	%100
22	M18	Z	.904	.904	0	%100
23	M19	X	0	0	0	%100
24	M19	Z	0	0	0	%100
25	MP1A	X	2.467	2.467	0	%100
26	MP1A	Z	1.424	1.424	0	%100
27	M22	X	.672	.672	0	%100
28	M22	Z	.388	.388	0	%100
29	M23	X	.741	.741	0	%100
30	M23	Z	.428	.428	0	%100
31	M24	X	.673	.673	0	%100
32	M24	Z	.389	.389	0	%100
33	M25	X	2.69	2.69	0	%100
34	M25	Z	1.553	1.553	0	%100
35	M26	X	2.963	2.963	0	%100
36	M26	Z	1.711	1.711	0	%100
37	M27	X	2.69	2.69	0	%100
38	M27	Z	1.553	1.553	0	%100
39	M28	X	2.063	2.063	0	%100



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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.%]
40	M28	Z	1.191	1.191	0	%100
41	M29	X	2.062	2.062	0	%100
42	M29	Z	1.191	1.191	0	%100
43	M35	X	1.536	1.536	0	%100
44	M35	Z	.887	.887	0	%100
45	M38	X	2.066	2.066	0	%100
46	M38	Z	1.193	1.193	0	%100
47	M39	X	0	0	0	%100
48	M39	Z	0	0	0	%100
49	M40	X	1.566	1.566	0	%100
50	M40	Z	.904	.904	0	%100
51	M41	X	1.315	1.315	0	%100
52	M41	Z	.759	.759	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	0	0	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	0	0	0	%100
61	M55	X	1.568	1.568	0	%100
62	M55	Z	.905	.905	0	%100
63	M56	X	1.568	1.568	0	%100
64	M56	Z	.905	.905	0	%100
65	M57	X	1.775	1.775	0	%100
66	M57	Z	1.025	1.025	0	%100
67	MP2A	X	2.467	2.467	0	%100
68	MP2A	Z	1.424	1.424	0	%100
69	MP3A	X	2.467	2.467	0	%100
70	MP3A	Z	1.424	1.424	0	%100
71	MP4A	X	2.467	2.467	0	%100
72	MP4A	Z	1.424	1.424	0	%100
73	MP5A	X	2.467	2.467	0	%100
74	MP5A	Z	1.424	1.424	0	%100
75	MP1C	X	2.467	2.467	0	%100
76	MP1C	Z	1.424	1.424	0	%100
77	MP2C	X	2.467	2.467	0	%100
78	MP2C	Z	1.424	1.424	0	%100
79	MP3C	X	2.467	2.467	0	%100
80	MP3C	Z	1.424	1.424	0	%100
81	MP4C	X	2.467	2.467	0	%100
82	MP4C	Z	1.424	1.424	0	%100
83	MP5C	X	2.467	2.467	0	%100
84	MP5C	Z	1.424	1.424	0	%100
85	MP1B	X	2.467	2.467	0	%100
86	MP1B	Z	1.424	1.424	0	%100
87	MP2B	X	2.467	2.467	0	%100
88	MP2B	Z	1.424	1.424	0	%100
89	MP3B	X	2.467	2.467	0	%100
90	MP3B	Z	1.424	1.424	0	%100
91	MP4B	X	2.467	2.467	0	%100
92	MP4B	Z	1.424	1.424	0	%100
93	MP5B	X	2.467	2.467	0	%100
94	MP5B	Z	1.424	1.424	0	%100
95	M88	X	1.315	1.315	0	%100
96	M88	Z	.759	.759	0	%100



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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.%]
97	M91	X	1.775	1.775	0	%100
98	M91	Z	1.025	1.025	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	0	0	0	%100
101	M97	X	0	0	0	%100
102	M97	Z	0	0	0	%100
103	M105	X	.682	.682	0	%100
104	M105	Z	.394	.394	0	%100
105	M113	X	.682	.682	0	%100
106	M113	Z	.394	.394	0	%100
107	M121	X	2.729	2.729	0	%100
108	M121	Z	1.576	1.576	0	%100
109	M124	X	.696	.696	0	%100
110	M124	Z	.402	.402	0	%100
111	M125	X	.696	.696	0	%100
112	M125	Z	.402	.402	0	%100
113	M126	X	2.784	2.784	0	%100
114	M126	Z	1.607	1.607	0	%100
115	M127	X	3.403	3.403	0	%100
116	M127	Z	1.965	1.965	0	%100
117	M128	X	1.426	1.426	0	%100
118	M128	Z	.823	.823	0	%100
119	M129	X	1.426	1.426	0	%100
120	M129	Z	.823	.823	0	%100
121	M130	X	3.403	3.403	0	%100
122	M130	Z	1.965	1.965	0	%100
123	M131	X	1.572	1.572	0	%100
124	M131	Z	.907	.907	0	%100
125	M132	X	1.572	1.572	0	%100
126	M132	Z	.907	.907	0	%100
127	OVP	X	2.373	2.373	0	%100
128	OVP	Z	1.37	1.37	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	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	1.165	1.165	0	%100
4	M2	Z	2.017	2.017	0	%100
5	M3	X	1.701	1.701	0	%100
6	M3	Z	2.946	2.946	0	%100
7	M4	X	1.283	1.283	0	%100
8	M4	Z	2.222	2.222	0	%100
9	M5	X	1.166	1.166	0	%100
10	M5	Z	2.019	2.019	0	%100
11	M6	X	.397	.397	0	%100
12	M6	Z	.687	.687	0	%100
13	M7	X	1.719	1.719	0	%100
14	M7	Z	2.977	2.977	0	%100
15	M8	X	.397	.397	0	%100
16	M8	Z	.687	.687	0	%100
17	M14	X	.296	.296	0	%100
18	M14	Z	.512	.512	0	%100
19	M17	X	.398	.398	0	%100
20	M17	Z	.689	.689	0	%100
21	M18	X	1.206	1.206	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
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**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.%]
22	M18	Z	2.089	2.089	0 %100
23	M19	X	.302	.302	0 %100
24	M19	Z	.523	.523	0 %100
25	MP1A	X	1.424	1.424	0 %100
26	MP1A	Z	2.467	2.467	0 %100
27	M22	X	0	0	0 %100
28	M22	Z	0	0	0 %100
29	M23	X	0	0	0 %100
30	M23	Z	0	0	0 %100
31	M24	X	0	0	0 %100
32	M24	Z	0	0	0 %100
33	M25	X	1.165	1.165	0 %100
34	M25	Z	2.017	2.017	0 %100
35	M26	X	1.283	1.283	0 %100
36	M26	Z	2.222	2.222	0 %100
37	M27	X	1.165	1.165	0 %100
38	M27	Z	2.017	2.017	0 %100
39	M28	X	1.588	1.588	0 %100
40	M28	Z	2.75	2.75	0 %100
41	M29	X	1.588	1.588	0 %100
42	M29	Z	2.75	2.75	0 %100
43	M35	X	1.182	1.182	0 %100
44	M35	Z	2.048	2.048	0 %100
45	M38	X	1.591	1.591	0 %100
46	M38	Z	2.755	2.755	0 %100
47	M39	X	.301	.301	0 %100
48	M39	Z	.521	.521	0 %100
49	M40	X	.301	.301	0 %100
50	M40	Z	.521	.521	0 %100
51	M41	X	.253	.253	0 %100
52	M41	Z	.438	.438	0 %100
53	M44	X	.397	.397	0 %100
54	M44	Z	.688	.688	0 %100
55	M45	X	.397	.397	0 %100
56	M45	Z	.687	.687	0 %100
57	M51	X	.296	.296	0 %100
58	M51	Z	.512	.512	0 %100
59	M54	X	.398	.398	0 %100
60	M54	Z	.689	.689	0 %100
61	M55	X	.302	.302	0 %100
62	M55	Z	.523	.523	0 %100
63	M56	X	1.206	1.206	0 %100
64	M56	Z	2.089	2.089	0 %100
65	M57	X	.342	.342	0 %100
66	M57	Z	.592	.592	0 %100
67	MP2A	X	1.424	1.424	0 %100
68	MP2A	Z	2.467	2.467	0 %100
69	MP3A	X	1.424	1.424	0 %100
70	MP3A	Z	2.467	2.467	0 %100
71	MP4A	X	1.424	1.424	0 %100
72	MP4A	Z	2.467	2.467	0 %100
73	MP5A	X	1.424	1.424	0 %100
74	MP5A	Z	2.467	2.467	0 %100
75	MP1C	X	1.424	1.424	0 %100
76	MP1C	Z	2.467	2.467	0 %100
77	MP2C	X	1.424	1.424	0 %100
78	MP2C	Z	2.467	2.467	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.%]
79	MP3C	X	1.424	1.424	0	%100
80	MP3C	Z	2.467	2.467	0	%100
81	MP4C	X	1.424	1.424	0	%100
82	MP4C	Z	2.467	2.467	0	%100
83	MP5C	X	1.424	1.424	0	%100
84	MP5C	Z	2.467	2.467	0	%100
85	MP1B	X	1.424	1.424	0	%100
86	MP1B	Z	2.467	2.467	0	%100
87	MP2B	X	1.424	1.424	0	%100
88	MP2B	Z	2.467	2.467	0	%100
89	MP3B	X	1.424	1.424	0	%100
90	MP3B	Z	2.467	2.467	0	%100
91	MP4B	X	1.424	1.424	0	%100
92	MP4B	Z	2.467	2.467	0	%100
93	MP5B	X	1.424	1.424	0	%100
94	MP5B	Z	2.467	2.467	0	%100
95	M88	X	1.012	1.012	0	%100
96	M88	Z	1.753	1.753	0	%100
97	M91	X	1.367	1.367	0	%100
98	M91	Z	2.367	2.367	0	%100
99	M94	X	.253	.253	0	%100
100	M94	Z	.438	.438	0	%100
101	M97	X	.342	.342	0	%100
102	M97	Z	.592	.592	0	%100
103	M105	X	1.182	1.182	0	%100
104	M105	Z	2.047	2.047	0	%100
105	M113	X	0	0	0	%100
106	M113	Z	0	0	0	%100
107	M121	X	1.182	1.182	0	%100
108	M121	Z	2.047	2.047	0	%100
109	M124	X	0	0	0	%100
110	M124	Z	0	0	0	%100
111	M125	X	1.205	1.205	0	%100
112	M125	Z	2.088	2.088	0	%100
113	M126	X	1.205	1.205	0	%100
114	M126	Z	2.088	2.088	0	%100
115	M127	X	1.64	1.64	0	%100
116	M127	Z	2.841	2.841	0	%100
117	M128	X	.499	.499	0	%100
118	M128	Z	.864	.864	0	%100
119	M129	X	1.556	1.556	0	%100
120	M129	Z	2.695	2.695	0	%100
121	M130	X	1.556	1.556	0	%100
122	M130	Z	2.695	2.695	0	%100
123	M131	X	.499	.499	0	%100
124	M131	Z	.864	.864	0	%100
125	M132	X	1.64	1.64	0	%100
126	M132	Z	2.841	2.841	0	%100
127	OVP	X	1.37	1.37	0	%100
128	OVP	Z	2.373	2.373	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	1.134	1.134	0	%100
3	M2	X	0	0	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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**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.%]
4	M2	Z	3.106	3.106	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	1.134	1.134	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	3.421	3.421	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	3.109	3.109	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	4.537	4.537	0	%100
15	M8	X	0	0	0	%100
16	M8	Z	0	0	0	%100
17	M14	X	0	0	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	1.81	1.81	0	%100
23	M19	X	0	0	0	%100
24	M19	Z	1.81	1.81	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	2.849	2.849	0	%100
27	M22	X	0	0	0	%100
28	M22	Z	.776	.776	0	%100
29	M23	X	0	0	0	%100
30	M23	Z	.855	.855	0	%100
31	M24	X	0	0	0	%100
32	M24	Z	.777	.777	0	%100
33	M25	X	0	0	0	%100
34	M25	Z	.776	.776	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	.855	.855	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	.776	.776	0	%100
39	M28	X	0	0	0	%100
40	M28	Z	2.382	2.382	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	2.381	2.381	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	1.773	1.773	0	%100
45	M38	X	0	0	0	%100
46	M38	Z	2.386	2.386	0	%100
47	M39	X	0	0	0	%100
48	M39	Z	1.808	1.808	0	%100
49	M40	X	0	0	0	%100
50	M40	Z	1e-6	1e-6	0	%100
51	M41	X	0	0	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	2.382	2.382	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	2.381	2.381	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	1.773	1.773	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	2.386	2.386	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.%]	
61	M55	X	0	0	0	%100
62	M55	Z	1e-6	1e-6	0	%100
63	M56	X	0	0	0	%100
64	M56	Z	1.808	1.808	0	%100
65	M57	X	0	0	0	%100
66	M57	Z	0	0	0	%100
67	MP2A	X	0	0	0	%100
68	MP2A	Z	2.849	2.849	0	%100
69	MP3A	X	0	0	0	%100
70	MP3A	Z	2.849	2.849	0	%100
71	MP4A	X	0	0	0	%100
72	MP4A	Z	2.849	2.849	0	%100
73	MP5A	X	0	0	0	%100
74	MP5A	Z	2.849	2.849	0	%100
75	MP1C	X	0	0	0	%100
76	MP1C	Z	2.849	2.849	0	%100
77	MP2C	X	0	0	0	%100
78	MP2C	Z	2.849	2.849	0	%100
79	MP3C	X	0	0	0	%100
80	MP3C	Z	2.849	2.849	0	%100
81	MP4C	X	0	0	0	%100
82	MP4C	Z	2.849	2.849	0	%100
83	MP5C	X	0	0	0	%100
84	MP5C	Z	2.849	2.849	0	%100
85	MP1B	X	0	0	0	%100
86	MP1B	Z	2.849	2.849	0	%100
87	MP2B	X	0	0	0	%100
88	MP2B	Z	2.849	2.849	0	%100
89	MP3B	X	0	0	0	%100
90	MP3B	Z	2.849	2.849	0	%100
91	MP4B	X	0	0	0	%100
92	MP4B	Z	2.849	2.849	0	%100
93	MP5B	X	0	0	0	%100
94	MP5B	Z	2.849	2.849	0	%100
95	M88	X	0	0	0	%100
96	M88	Z	1.518	1.518	0	%100
97	M91	X	0	0	0	%100
98	M91	Z	2.05	2.05	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	1.518	1.518	0	%100
101	M97	X	0	0	0	%100
102	M97	Z	2.05	2.05	0	%100
103	M105	X	0	0	0	%100
104	M105	Z	3.151	3.151	0	%100
105	M113	X	0	0	0	%100
106	M113	Z	.788	.788	0	%100
107	M121	X	0	0	0	%100
108	M121	Z	.788	.788	0	%100
109	M124	X	0	0	0	%100
110	M124	Z	.804	.804	0	%100
111	M125	X	0	0	0	%100
112	M125	Z	3.214	3.214	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	.804	.804	0	%100
115	M127	X	0	0	0	%100
116	M127	Z	1.815	1.815	0	%100
117	M128	X	0	0	0	%100





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 Designer : NL  
 Job Number : Project No. 10208064  
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**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.%]
118	M128	Z	1.815	1.815	0	%100
119	M129	X	0	0	0	%100
120	M129	Z	3.93	3.93	0	%100
121	M130	X	0	0	0	%100
122	M130	Z	1.646	1.646	0	%100
123	M131	X	0	0	0	%100
124	M131	Z	1.646	1.646	0	%100
125	M132	X	0	0	0	%100
126	M132	Z	3.93	3.93	0	%100
127	OVP	X	0	0	0	%100
128	OVP	Z	2.74	2.74	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-1.701	-1.701	0	%100
2	M1	Z	2.946	2.946	0	%100
3	M2	X	-1.165	-1.165	0	%100
4	M2	Z	2.017	2.017	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	-1.283	-1.283	0	%100
8	M4	Z	2.222	2.222	0	%100
9	M5	X	-1.166	-1.166	0	%100
10	M5	Z	2.019	2.019	0	%100
11	M6	X	-.397	-.397	0	%100
12	M6	Z	.687	.687	0	%100
13	M7	X	-1.684	-1.684	0	%100
14	M7	Z	2.916	2.916	0	%100
15	M8	X	-.397	-.397	0	%100
16	M8	Z	.687	.687	0	%100
17	M14	X	-.296	-.296	0	%100
18	M14	Z	.512	.512	0	%100
19	M17	X	-.398	-.398	0	%100
20	M17	Z	.689	.689	0	%100
21	M18	X	-.302	-.302	0	%100
22	M18	Z	.523	.523	0	%100
23	M19	X	-1.206	-1.206	0	%100
24	M19	Z	2.089	2.089	0	%100
25	MP1A	X	-1.424	-1.424	0	%100
26	MP1A	Z	2.467	2.467	0	%100
27	M22	X	-1.165	-1.165	0	%100
28	M22	Z	2.017	2.017	0	%100
29	M23	X	-1.283	-1.283	0	%100
30	M23	Z	2.222	2.222	0	%100
31	M24	X	-1.166	-1.166	0	%100
32	M24	Z	2.019	2.019	0	%100
33	M25	X	0	0	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	-.397	-.397	0	%100
40	M28	Z	.688	.688	0	%100
41	M29	X	-.397	-.397	0	%100
42	M29	Z	.687	.687	0	%100



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**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.%]
43	M35	X	-.296	-.296	0	%100
44	M35	Z	.512	.512	0	%100
45	M38	X	-.398	-.398	0	%100
46	M38	Z	.689	.689	0	%100
47	M39	X	-1.206	-1.206	0	%100
48	M39	Z	2.089	2.089	0	%100
49	M40	X	-.302	-.302	0	%100
50	M40	Z	.523	.523	0	%100
51	M41	X	-.253	-.253	0	%100
52	M41	Z	.438	.438	0	%100
53	M44	X	-1.588	-1.588	0	%100
54	M44	Z	2.75	2.75	0	%100
55	M45	X	-1.588	-1.588	0	%100
56	M45	Z	2.75	2.75	0	%100
57	M51	X	-1.182	-1.182	0	%100
58	M51	Z	2.048	2.048	0	%100
59	M54	X	-1.591	-1.591	0	%100
60	M54	Z	2.755	2.755	0	%100
61	M55	X	-.301	-.301	0	%100
62	M55	Z	.521	.521	0	%100
63	M56	X	-.301	-.301	0	%100
64	M56	Z	.521	.521	0	%100
65	M57	X	-.342	-.342	0	%100
66	M57	Z	.592	.592	0	%100
67	MP2A	X	-1.424	-1.424	0	%100
68	MP2A	Z	2.467	2.467	0	%100
69	MP3A	X	-1.424	-1.424	0	%100
70	MP3A	Z	2.467	2.467	0	%100
71	MP4A	X	-1.424	-1.424	0	%100
72	MP4A	Z	2.467	2.467	0	%100
73	MP5A	X	-1.424	-1.424	0	%100
74	MP5A	Z	2.467	2.467	0	%100
75	MP1C	X	-1.424	-1.424	0	%100
76	MP1C	Z	2.467	2.467	0	%100
77	MP2C	X	-1.424	-1.424	0	%100
78	MP2C	Z	2.467	2.467	0	%100
79	MP3C	X	-1.424	-1.424	0	%100
80	MP3C	Z	2.467	2.467	0	%100
81	MP4C	X	-1.424	-1.424	0	%100
82	MP4C	Z	2.467	2.467	0	%100
83	MP5C	X	-1.424	-1.424	0	%100
84	MP5C	Z	2.467	2.467	0	%100
85	MP1B	X	-1.424	-1.424	0	%100
86	MP1B	Z	2.467	2.467	0	%100
87	MP2B	X	-1.424	-1.424	0	%100
88	MP2B	Z	2.467	2.467	0	%100
89	MP3B	X	-1.424	-1.424	0	%100
90	MP3B	Z	2.467	2.467	0	%100
91	MP4B	X	-1.424	-1.424	0	%100
92	MP4B	Z	2.467	2.467	0	%100
93	MP5B	X	-1.424	-1.424	0	%100
94	MP5B	Z	2.467	2.467	0	%100
95	M88	X	-.253	-.253	0	%100
96	M88	Z	.438	.438	0	%100
97	M91	X	-.342	-.342	0	%100
98	M91	Z	.592	.592	0	%100
99	M94	X	-1.012	-1.012	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.%]
100	M94	Z	1.753	1.753	0	%100
101	M97	X	-1.367	-1.367	0	%100
102	M97	Z	2.367	2.367	0	%100
103	M105	X	-1.182	-1.182	0	%100
104	M105	Z	2.047	2.047	0	%100
105	M113	X	-1.182	-1.182	0	%100
106	M113	Z	2.047	2.047	0	%100
107	M121	X	0	0	0	%100
108	M121	Z	0	0	0	%100
109	M124	X	-1.205	-1.205	0	%100
110	M124	Z	2.088	2.088	0	%100
111	M125	X	-1.205	-1.205	0	%100
112	M125	Z	2.088	2.088	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	0	0	0	%100
115	M127	X	-499	-499	0	%100
116	M127	Z	.864	.864	0	%100
117	M128	X	-1.64	-1.64	0	%100
118	M128	Z	2.841	2.841	0	%100
119	M129	X	-1.64	-1.64	0	%100
120	M129	Z	2.841	2.841	0	%100
121	M130	X	-499	-499	0	%100
122	M130	Z	.864	.864	0	%100
123	M131	X	-1.556	-1.556	0	%100
124	M131	Z	2.695	2.695	0	%100
125	M132	X	-1.556	-1.556	0	%100
126	M132	Z	2.695	2.695	0	%100
127	OVP	X	-1.37	-1.37	0	%100
128	OVP	Z	2.373	2.373	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	-3.928	-3.928	0	%100
2	M1	Z	2.268	2.268	0	%100
3	M2	X	-.672	-.672	0	%100
4	M2	Z	.388	.388	0	%100
5	M3	X	-.982	-.982	0	%100
6	M3	Z	.567	.567	0	%100
7	M4	X	-.741	-.741	0	%100
8	M4	Z	.428	.428	0	%100
9	M5	X	-.673	-.673	0	%100
10	M5	Z	.389	.389	0	%100
11	M6	X	-2.062	-2.062	0	%100
12	M6	Z	1.191	1.191	0	%100
13	M7	X	-.952	-.952	0	%100
14	M7	Z	.55	.55	0	%100
15	M8	X	-2.062	-2.062	0	%100
16	M8	Z	1.191	1.191	0	%100
17	M14	X	-1.536	-1.536	0	%100
18	M14	Z	.887	.887	0	%100
19	M17	X	-2.066	-2.066	0	%100
20	M17	Z	1.193	1.193	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	0	0	0	%100
23	M19	X	-1.566	-1.566	0	%100
24	M19	Z	.904	.904	0	%100



**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.%]
25	MP1A	X	-2.467	-2.467	0	%100
26	MP1A	Z	1.424	1.424	0	%100
27	M22	X	-2.69	-2.69	0	%100
28	M22	Z	1.553	1.553	0	%100
29	M23	X	-2.963	-2.963	0	%100
30	M23	Z	1.711	1.711	0	%100
31	M24	X	-2.692	-2.692	0	%100
32	M24	Z	1.554	1.554	0	%100
33	M25	X	-.672	-.672	0	%100
34	M25	Z	.388	.388	0	%100
35	M26	X	-.741	-.741	0	%100
36	M26	Z	.428	.428	0	%100
37	M27	X	-.672	-.672	0	%100
38	M27	Z	.388	.388	0	%100
39	M28	X	0	0	0	%100
40	M28	Z	0	0	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	0	0	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	0	0	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	-1.568	-1.568	0	%100
48	M39	Z	.905	.905	0	%100
49	M40	X	-1.568	-1.568	0	%100
50	M40	Z	.905	.905	0	%100
51	M41	X	-1.315	-1.315	0	%100
52	M41	Z	.759	.759	0	%100
53	M44	X	-2.063	-2.063	0	%100
54	M44	Z	1.191	1.191	0	%100
55	M45	X	-2.062	-2.062	0	%100
56	M45	Z	1.191	1.191	0	%100
57	M51	X	-1.536	-1.536	0	%100
58	M51	Z	.887	.887	0	%100
59	M54	X	-2.066	-2.066	0	%100
60	M54	Z	1.193	1.193	0	%100
61	M55	X	-1.566	-1.566	0	%100
62	M55	Z	.904	.904	0	%100
63	M56	X	0	0	0	%100
64	M56	Z	0	0	0	%100
65	M57	X	-1.775	-1.775	0	%100
66	M57	Z	1.025	1.025	0	%100
67	MP2A	X	-2.467	-2.467	0	%100
68	MP2A	Z	1.424	1.424	0	%100
69	MP3A	X	-2.467	-2.467	0	%100
70	MP3A	Z	1.424	1.424	0	%100
71	MP4A	X	-2.467	-2.467	0	%100
72	MP4A	Z	1.424	1.424	0	%100
73	MP5A	X	-2.467	-2.467	0	%100
74	MP5A	Z	1.424	1.424	0	%100
75	MP1C	X	-2.467	-2.467	0	%100
76	MP1C	Z	1.424	1.424	0	%100
77	MP2C	X	-2.467	-2.467	0	%100
78	MP2C	Z	1.424	1.424	0	%100
79	MP3C	X	-2.467	-2.467	0	%100
80	MP3C	Z	1.424	1.424	0	%100
81	MP4C	X	-2.467	-2.467	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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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.%]
82	MP4C	Z	1.424	1.424	0	%100
83	MP5C	X	-2.467	-2.467	0	%100
84	MP5C	Z	1.424	1.424	0	%100
85	MP1B	X	-2.467	-2.467	0	%100
86	MP1B	Z	1.424	1.424	0	%100
87	MP2B	X	-2.467	-2.467	0	%100
88	MP2B	Z	1.424	1.424	0	%100
89	MP3B	X	-2.467	-2.467	0	%100
90	MP3B	Z	1.424	1.424	0	%100
91	MP4B	X	-2.467	-2.467	0	%100
92	MP4B	Z	1.424	1.424	0	%100
93	MP5B	X	-2.467	-2.467	0	%100
94	MP5B	Z	1.424	1.424	0	%100
95	M88	X	0	0	0	%100
96	M88	Z	0	0	0	%100
97	M91	X	0	0	0	%100
98	M91	Z	0	0	0	%100
99	M94	X	-1.315	-1.315	0	%100
100	M94	Z	.759	.759	0	%100
101	M97	X	-1.775	-1.775	0	%100
102	M97	Z	1.025	1.025	0	%100
103	M105	X	-.682	-.682	0	%100
104	M105	Z	.394	.394	0	%100
105	M113	X	-2.729	-2.729	0	%100
106	M113	Z	1.576	1.576	0	%100
107	M121	X	-.682	-.682	0	%100
108	M121	Z	.394	.394	0	%100
109	M124	X	-2.784	-2.784	0	%100
110	M124	Z	1.607	1.607	0	%100
111	M125	X	-.696	-.696	0	%100
112	M125	Z	.402	.402	0	%100
113	M126	X	-.696	-.696	0	%100
114	M126	Z	.402	.402	0	%100
115	M127	X	-1.426	-1.426	0	%100
116	M127	Z	.823	.823	0	%100
117	M128	X	-3.403	-3.403	0	%100
118	M128	Z	1.965	1.965	0	%100
119	M129	X	-1.572	-1.572	0	%100
120	M129	Z	.907	.907	0	%100
121	M130	X	-1.572	-1.572	0	%100
122	M130	Z	.907	.907	0	%100
123	M131	X	-3.403	-3.403	0	%100
124	M131	Z	1.965	1.965	0	%100
125	M132	X	-1.426	-1.426	0	%100
126	M132	Z	.823	.823	0	%100
127	OVP	X	-2.373	-2.373	0	%100
128	OVP	Z	1.37	1.37	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	-3.402	-3.402	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	-3.402	-3.402	0	%100
6	M3	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
7	M4	X	0	0	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	-3.175	-3.175	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	-0.000361	-0.000361	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	-3.175	-3.175	0	%100
16	M8	Z	0	0	0	%100
17	M14	X	-2.364	-2.364	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	-3.181	-3.181	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	-0.602	-0.602	0	%100
22	M18	Z	0	0	0	%100
23	M19	X	-0.602	-0.602	0	%100
24	M19	Z	0	0	0	%100
25	MP1A	X	-2.849	-2.849	0	%100
26	MP1A	Z	0	0	0	%100
27	M22	X	-2.329	-2.329	0	%100
28	M22	Z	0	0	0	%100
29	M23	X	-2.566	-2.566	0	%100
30	M23	Z	0	0	0	%100
31	M24	X	-2.332	-2.332	0	%100
32	M24	Z	0	0	0	%100
33	M25	X	-2.329	-2.329	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	-2.566	-2.566	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	-2.329	-2.329	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	-0.794	-0.794	0	%100
40	M28	Z	0	0	0	%100
41	M29	X	-0.794	-0.794	0	%100
42	M29	Z	0	0	0	%100
43	M35	X	-0.591	-0.591	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	-0.795	-0.795	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	-0.604	-0.604	0	%100
48	M39	Z	0	0	0	%100
49	M40	X	-2.412	-2.412	0	%100
50	M40	Z	0	0	0	%100
51	M41	X	-2.024	-2.024	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	-0.794	-0.794	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	-0.794	-0.794	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	-0.591	-0.591	0	%100
58	M51	Z	0	0	0	%100
59	M54	X	-0.795	-0.795	0	%100
60	M54	Z	0	0	0	%100
61	M55	X	-2.412	-2.412	0	%100
62	M55	Z	0	0	0	%100
63	M56	X	-0.604	-0.604	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
64	M56	Z	0	0	0	%100
65	M57	X	-2.733	-2.733	0	%100
66	M57	Z	0	0	0	%100
67	MP2A	X	-2.849	-2.849	0	%100
68	MP2A	Z	0	0	0	%100
69	MP3A	X	-2.849	-2.849	0	%100
70	MP3A	Z	0	0	0	%100
71	MP4A	X	-2.849	-2.849	0	%100
72	MP4A	Z	0	0	0	%100
73	MP5A	X	-2.849	-2.849	0	%100
74	MP5A	Z	0	0	0	%100
75	MP1C	X	-2.849	-2.849	0	%100
76	MP1C	Z	0	0	0	%100
77	MP2C	X	-2.849	-2.849	0	%100
78	MP2C	Z	0	0	0	%100
79	MP3C	X	-2.849	-2.849	0	%100
80	MP3C	Z	0	0	0	%100
81	MP4C	X	-2.849	-2.849	0	%100
82	MP4C	Z	0	0	0	%100
83	MP5C	X	-2.849	-2.849	0	%100
84	MP5C	Z	0	0	0	%100
85	MP1B	X	-2.849	-2.849	0	%100
86	MP1B	Z	0	0	0	%100
87	MP2B	X	-2.849	-2.849	0	%100
88	MP2B	Z	0	0	0	%100
89	MP3B	X	-2.849	-2.849	0	%100
90	MP3B	Z	0	0	0	%100
91	MP4B	X	-2.849	-2.849	0	%100
92	MP4B	Z	0	0	0	%100
93	MP5B	X	-2.849	-2.849	0	%100
94	MP5B	Z	0	0	0	%100
95	M88	X	-506	-506	0	%100
96	M88	Z	0	0	0	%100
97	M91	X	-683	-683	0	%100
98	M91	Z	0	0	0	%100
99	M94	X	-506	-506	0	%100
100	M94	Z	0	0	0	%100
101	M97	X	-683	-683	0	%100
102	M97	Z	0	0	0	%100
103	M105	X	0	0	0	%100
104	M105	Z	0	0	0	%100
105	M113	X	-2.364	-2.364	0	%100
106	M113	Z	0	0	0	%100
107	M121	X	-2.364	-2.364	0	%100
108	M121	Z	0	0	0	%100
109	M124	X	-2.411	-2.411	0	%100
110	M124	Z	0	0	0	%100
111	M125	X	0	0	0	%100
112	M125	Z	0	0	0	%100
113	M126	X	-2.411	-2.411	0	%100
114	M126	Z	0	0	0	%100
115	M127	X	-3.112	-3.112	0	%100
116	M127	Z	0	0	0	%100
117	M128	X	-3.112	-3.112	0	%100
118	M128	Z	0	0	0	%100
119	M129	X	-997	-997	0	%100
120	M129	Z	0	0	0	%100



Company : Colliers Engineering & Design  
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**Member Distributed Loads (BLC 62 : Structure Wi (270 Deg)) (Continued)**

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
121	M130	X	-3.281	-3.281	0	%100
122	M130	Z	0	0	0	%100
123	M131	X	-3.281	-3.281	0	%100
124	M131	Z	0	0	0	%100
125	M132	X	-.997	-.997	0	%100
126	M132	Z	0	0	0	%100
127	OVP	X	-2.74	-2.74	0	%100
128	OVP	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.982	-.982	0	%100
2	M1	Z	-.567	-.567	0	%100
3	M2	X	-.672	-.672	0	%100
4	M2	Z	-.388	-.388	0	%100
5	M3	X	-3.928	-3.928	0	%100
6	M3	Z	-2.268	-2.268	0	%100
7	M4	X	-.741	-.741	0	%100
8	M4	Z	-.428	-.428	0	%100
9	M5	X	-.673	-.673	0	%100
10	M5	Z	-.389	-.389	0	%100
11	M6	X	-2.062	-2.062	0	%100
12	M6	Z	-1.191	-1.191	0	%100
13	M7	X	-1.013	-1.013	0	%100
14	M7	Z	-.585	-.585	0	%100
15	M8	X	-2.062	-2.062	0	%100
16	M8	Z	-1.191	-1.191	0	%100
17	M14	X	-1.536	-1.536	0	%100
18	M14	Z	-.887	-.887	0	%100
19	M17	X	-2.066	-2.066	0	%100
20	M17	Z	-1.193	-1.193	0	%100
21	M18	X	-1.566	-1.566	0	%100
22	M18	Z	-.904	-.904	0	%100
23	M19	X	0	0	0	%100
24	M19	Z	0	0	0	%100
25	MP1A	X	-2.467	-2.467	0	%100
26	MP1A	Z	-1.424	-1.424	0	%100
27	M22	X	-.672	-.672	0	%100
28	M22	Z	-.388	-.388	0	%100
29	M23	X	-.741	-.741	0	%100
30	M23	Z	-.428	-.428	0	%100
31	M24	X	-.673	-.673	0	%100
32	M24	Z	-.389	-.389	0	%100
33	M25	X	-2.69	-2.69	0	%100
34	M25	Z	-1.553	-1.553	0	%100
35	M26	X	-2.963	-2.963	0	%100
36	M26	Z	-1.711	-1.711	0	%100
37	M27	X	-2.69	-2.69	0	%100
38	M27	Z	-1.553	-1.553	0	%100
39	M28	X	-2.063	-2.063	0	%100
40	M28	Z	-1.191	-1.191	0	%100
41	M29	X	-2.062	-2.062	0	%100
42	M29	Z	-1.191	-1.191	0	%100
43	M35	X	-1.536	-1.536	0	%100
44	M35	Z	-.887	-.887	0	%100
45	M38	X	-2.066	-2.066	0	%100





**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.%]
46	M38	Z	-1.193	-1.193	0	%100
47	M39	X	0	0	0	%100
48	M39	Z	0	0	0	%100
49	M40	X	-1.566	-1.566	0	%100
50	M40	Z	-.904	-.904	0	%100
51	M41	X	-1.315	-1.315	0	%100
52	M41	Z	-.759	-.759	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	0	0	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	0	0	0	%100
61	M55	X	-1.568	-1.568	0	%100
62	M55	Z	-.905	-.905	0	%100
63	M56	X	-1.568	-1.568	0	%100
64	M56	Z	-.905	-.905	0	%100
65	M57	X	-1.775	-1.775	0	%100
66	M57	Z	-1.025	-1.025	0	%100
67	MP2A	X	-2.467	-2.467	0	%100
68	MP2A	Z	-1.424	-1.424	0	%100
69	MP3A	X	-2.467	-2.467	0	%100
70	MP3A	Z	-1.424	-1.424	0	%100
71	MP4A	X	-2.467	-2.467	0	%100
72	MP4A	Z	-1.424	-1.424	0	%100
73	MP5A	X	-2.467	-2.467	0	%100
74	MP5A	Z	-1.424	-1.424	0	%100
75	MP1C	X	-2.467	-2.467	0	%100
76	MP1C	Z	-1.424	-1.424	0	%100
77	MP2C	X	-2.467	-2.467	0	%100
78	MP2C	Z	-1.424	-1.424	0	%100
79	MP3C	X	-2.467	-2.467	0	%100
80	MP3C	Z	-1.424	-1.424	0	%100
81	MP4C	X	-2.467	-2.467	0	%100
82	MP4C	Z	-1.424	-1.424	0	%100
83	MP5C	X	-2.467	-2.467	0	%100
84	MP5C	Z	-1.424	-1.424	0	%100
85	MP1B	X	-2.467	-2.467	0	%100
86	MP1B	Z	-1.424	-1.424	0	%100
87	MP2B	X	-2.467	-2.467	0	%100
88	MP2B	Z	-1.424	-1.424	0	%100
89	MP3B	X	-2.467	-2.467	0	%100
90	MP3B	Z	-1.424	-1.424	0	%100
91	MP4B	X	-2.467	-2.467	0	%100
92	MP4B	Z	-1.424	-1.424	0	%100
93	MP5B	X	-2.467	-2.467	0	%100
94	MP5B	Z	-1.424	-1.424	0	%100
95	M88	X	-1.315	-1.315	0	%100
96	M88	Z	-.759	-.759	0	%100
97	M91	X	-1.775	-1.775	0	%100
98	M91	Z	-1.025	-1.025	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	0	0	0	%100
101	M97	X	0	0	0	%100
102	M97	Z	0	0	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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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.%]
103	M105	X	- 682	- 682	0	%100
104	M105	Z	- 394	- 394	0	%100
105	M113	X	- 682	- 682	0	%100
106	M113	Z	- 394	- 394	0	%100
107	M121	X	-2.729	-2.729	0	%100
108	M121	Z	-1.576	-1.576	0	%100
109	M124	X	- 696	- 696	0	%100
110	M124	Z	- 402	- 402	0	%100
111	M125	X	- 696	- 696	0	%100
112	M125	Z	- 402	- 402	0	%100
113	M126	X	-2.784	-2.784	0	%100
114	M126	Z	-1.607	-1.607	0	%100
115	M127	X	-3.403	-3.403	0	%100
116	M127	Z	-1.965	-1.965	0	%100
117	M128	X	-1.426	-1.426	0	%100
118	M128	Z	- 823	- 823	0	%100
119	M129	X	-1.426	-1.426	0	%100
120	M129	Z	- 823	- 823	0	%100
121	M130	X	-3.403	-3.403	0	%100
122	M130	Z	-1.965	-1.965	0	%100
123	M131	X	-1.572	-1.572	0	%100
124	M131	Z	- 907	- 907	0	%100
125	M132	X	-1.572	-1.572	0	%100
126	M132	Z	- 907	- 907	0	%100
127	OVP	X	-2.373	-2.373	0	%100
128	OVP	Z	-1.37	-1.37	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	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-1.165	-1.165	0	%100
4	M2	Z	-2.017	-2.017	0	%100
5	M3	X	-1.701	-1.701	0	%100
6	M3	Z	-2.946	-2.946	0	%100
7	M4	X	-1.283	-1.283	0	%100
8	M4	Z	-2.222	-2.222	0	%100
9	M5	X	-1.166	-1.166	0	%100
10	M5	Z	-2.019	-2.019	0	%100
11	M6	X	- 397	- 397	0	%100
12	M6	Z	- 687	- 687	0	%100
13	M7	X	-1.719	-1.719	0	%100
14	M7	Z	-2.977	-2.977	0	%100
15	M8	X	- 397	- 397	0	%100
16	M8	Z	- 687	- 687	0	%100
17	M14	X	- 296	- 296	0	%100
18	M14	Z	- 512	- 512	0	%100
19	M17	X	- 398	- 398	0	%100
20	M17	Z	- 689	- 689	0	%100
21	M18	X	-1.206	-1.206	0	%100
22	M18	Z	-2.089	-2.089	0	%100
23	M19	X	- 302	- 302	0	%100
24	M19	Z	- 523	- 523	0	%100
25	MP1A	X	-1.424	-1.424	0	%100
26	MP1A	Z	-2.467	-2.467	0	%100
27	M22	X	0	0	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
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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.%]
28	M22	Z	0	0	0	%100
29	M23	X	0	0	0	%100
30	M23	Z	0	0	0	%100
31	M24	X	0	0	0	%100
32	M24	Z	0	0	0	%100
33	M25	X	-1.165	-1.165	0	%100
34	M25	Z	-2.017	-2.017	0	%100
35	M26	X	-1.283	-1.283	0	%100
36	M26	Z	-2.222	-2.222	0	%100
37	M27	X	-1.165	-1.165	0	%100
38	M27	Z	-2.017	-2.017	0	%100
39	M28	X	-1.588	-1.588	0	%100
40	M28	Z	-2.75	-2.75	0	%100
41	M29	X	-1.588	-1.588	0	%100
42	M29	Z	-2.75	-2.75	0	%100
43	M35	X	-1.182	-1.182	0	%100
44	M35	Z	-2.048	-2.048	0	%100
45	M38	X	-1.591	-1.591	0	%100
46	M38	Z	-2.755	-2.755	0	%100
47	M39	X	-301	-301	0	%100
48	M39	Z	-521	-521	0	%100
49	M40	X	-301	-301	0	%100
50	M40	Z	-521	-521	0	%100
51	M41	X	-253	-253	0	%100
52	M41	Z	-438	-438	0	%100
53	M44	X	-397	-397	0	%100
54	M44	Z	-688	-688	0	%100
55	M45	X	-397	-397	0	%100
56	M45	Z	-687	-687	0	%100
57	M51	X	-296	-296	0	%100
58	M51	Z	-512	-512	0	%100
59	M54	X	-398	-398	0	%100
60	M54	Z	-689	-689	0	%100
61	M55	X	-302	-302	0	%100
62	M55	Z	-523	-523	0	%100
63	M56	X	-1.206	-1.206	0	%100
64	M56	Z	-2.089	-2.089	0	%100
65	M57	X	-342	-342	0	%100
66	M57	Z	-592	-592	0	%100
67	MP2A	X	-1.424	-1.424	0	%100
68	MP2A	Z	-2.467	-2.467	0	%100
69	MP3A	X	-1.424	-1.424	0	%100
70	MP3A	Z	-2.467	-2.467	0	%100
71	MP4A	X	-1.424	-1.424	0	%100
72	MP4A	Z	-2.467	-2.467	0	%100
73	MP5A	X	-1.424	-1.424	0	%100
74	MP5A	Z	-2.467	-2.467	0	%100
75	MP1C	X	-1.424	-1.424	0	%100
76	MP1C	Z	-2.467	-2.467	0	%100
77	MP2C	X	-1.424	-1.424	0	%100
78	MP2C	Z	-2.467	-2.467	0	%100
79	MP3C	X	-1.424	-1.424	0	%100
80	MP3C	Z	-2.467	-2.467	0	%100
81	MP4C	X	-1.424	-1.424	0	%100
82	MP4C	Z	-2.467	-2.467	0	%100
83	MP5C	X	-1.424	-1.424	0	%100
84	MP5C	Z	-2.467	-2.467	0	%100



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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.%]
85	MP1B	X	-1.424	-1.424	0	%100
86	MP1B	Z	-2.467	-2.467	0	%100
87	MP2B	X	-1.424	-1.424	0	%100
88	MP2B	Z	-2.467	-2.467	0	%100
89	MP3B	X	-1.424	-1.424	0	%100
90	MP3B	Z	-2.467	-2.467	0	%100
91	MP4B	X	-1.424	-1.424	0	%100
92	MP4B	Z	-2.467	-2.467	0	%100
93	MP5B	X	-1.424	-1.424	0	%100
94	MP5B	Z	-2.467	-2.467	0	%100
95	M88	X	-1.012	-1.012	0	%100
96	M88	Z	-1.753	-1.753	0	%100
97	M91	X	-1.367	-1.367	0	%100
98	M91	Z	-2.367	-2.367	0	%100
99	M94	X	-.253	-.253	0	%100
100	M94	Z	-.438	-.438	0	%100
101	M97	X	-.342	-.342	0	%100
102	M97	Z	-.592	-.592	0	%100
103	M105	X	-1.182	-1.182	0	%100
104	M105	Z	-2.047	-2.047	0	%100
105	M113	X	0	0	0	%100
106	M113	Z	0	0	0	%100
107	M121	X	-1.182	-1.182	0	%100
108	M121	Z	-2.047	-2.047	0	%100
109	M124	X	0	0	0	%100
110	M124	Z	0	0	0	%100
111	M125	X	-1.205	-1.205	0	%100
112	M125	Z	-2.088	-2.088	0	%100
113	M126	X	-1.205	-1.205	0	%100
114	M126	Z	-2.088	-2.088	0	%100
115	M127	X	-1.64	-1.64	0	%100
116	M127	Z	-2.841	-2.841	0	%100
117	M128	X	-.499	-.499	0	%100
118	M128	Z	-.864	-.864	0	%100
119	M129	X	-1.556	-1.556	0	%100
120	M129	Z	-2.695	-2.695	0	%100
121	M130	X	-1.556	-1.556	0	%100
122	M130	Z	-2.695	-2.695	0	%100
123	M131	X	-.499	-.499	0	%100
124	M131	Z	-.864	-.864	0	%100
125	M132	X	-1.64	-1.64	0	%100
126	M132	Z	-2.841	-2.841	0	%100
127	OVP	X	-1.37	-1.37	0	%100
128	OVP	Z	-2.373	-2.373	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	-.327	-.327	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-.627	-.627	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	-.327	-.327	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	-.723	-.723	0	%100
9	M5	X	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
10	M5	Z	- .628	- .628	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	-1.307	-1.307	0	%100
15	M8	X	0	0	0	%100
16	M8	Z	0	0	0	%100
17	M14	X	0	0	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	-.337	-.337	0	%100
23	M19	X	0	0	0	%100
24	M19	Z	-.337	-.337	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	-.517	-.517	0	%100
27	M22	X	0	0	0	%100
28	M22	Z	-.157	-.157	0	%100
29	M23	X	0	0	0	%100
30	M23	Z	-.181	-.181	0	%100
31	M24	X	0	0	0	%100
32	M24	Z	-.157	-.157	0	%100
33	M25	X	0	0	0	%100
34	M25	Z	-.157	-.157	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	-.181	-.181	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	-.157	-.157	0	%100
39	M28	X	0	0	0	%100
40	M28	Z	-.476	-.476	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	-.476	-.476	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	-.331	-.331	0	%100
45	M38	X	0	0	0	%100
46	M38	Z	-.551	-.551	0	%100
47	M39	X	0	0	0	%100
48	M39	Z	-.337	-.337	0	%100
49	M40	X	0	0	0	%100
50	M40	Z	0	0	0	%100
51	M41	X	0	0	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	-.476	-.476	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	-.476	-.476	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	-.331	-.331	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	-.551	-.551	0	%100
61	M55	X	0	0	0	%100
62	M55	Z	0	0	0	%100
63	M56	X	0	0	0	%100
64	M56	Z	-.337	-.337	0	%100
65	M57	X	0	0	0	%100
66	M57	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
67	MP2A	X	0	0	0	%100
68	MP2A	Z	-517	-517	0	%100
69	MP3A	X	0	0	0	%100
70	MP3A	Z	-517	-517	0	%100
71	MP4A	X	0	0	0	%100
72	MP4A	Z	-517	-517	0	%100
73	MP5A	X	0	0	0	%100
74	MP5A	Z	-517	-517	0	%100
75	MP1C	X	0	0	0	%100
76	MP1C	Z	-517	-517	0	%100
77	MP2C	X	0	0	0	%100
78	MP2C	Z	-517	-517	0	%100
79	MP3C	X	0	0	0	%100
80	MP3C	Z	-517	-517	0	%100
81	MP4C	X	0	0	0	%100
82	MP4C	Z	-517	-517	0	%100
83	MP5C	X	0	0	0	%100
84	MP5C	Z	-517	-517	0	%100
85	MP1B	X	0	0	0	%100
86	MP1B	Z	-517	-517	0	%100
87	MP2B	X	0	0	0	%100
88	MP2B	Z	-517	-517	0	%100
89	MP3B	X	0	0	0	%100
90	MP3B	Z	-517	-517	0	%100
91	MP4B	X	0	0	0	%100
92	MP4B	Z	-517	-517	0	%100
93	MP5B	X	0	0	0	%100
94	MP5B	Z	-517	-517	0	%100
95	M88	X	0	0	0	%100
96	M88	Z	-287	-287	0	%100
97	M91	X	0	0	0	%100
98	M91	Z	-479	-479	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	-287	-287	0	%100
101	M97	X	0	0	0	%100
102	M97	Z	-479	-479	0	%100
103	M105	X	0	0	0	%100
104	M105	Z	-626	-626	0	%100
105	M113	X	0	0	0	%100
106	M113	Z	-157	-157	0	%100
107	M121	X	0	0	0	%100
108	M121	Z	-157	-157	0	%100
109	M124	X	0	0	0	%100
110	M124	Z	-196	-196	0	%100
111	M125	X	0	0	0	%100
112	M125	Z	-785	-785	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	-196	-196	0	%100
115	M127	X	0	0	0	%100
116	M127	Z	-419	-419	0	%100
117	M128	X	0	0	0	%100
118	M128	Z	-419	-419	0	%100
119	M129	X	0	0	0	%100
120	M129	Z	-907	-907	0	%100
121	M130	X	0	0	0	%100
122	M130	Z	-38	-38	0	%100
123	M131	X	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/f.F...	Start Location[ft.%]	End Location[ft.%]
124	M131	Z	-38	-38	0	%100
125	M132	X	0	0	0	%100
126	M132	Z	-907	-907	0	%100
127	OVP	X	0	0	0	%100
128	OVP	Z	-496	-496	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/f.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.49	.49	0	%100
2	M1	Z	-.849	-.849	0	%100
3	M2	X	.235	.235	0	%100
4	M2	Z	-.407	-.407	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	.271	.271	0	%100
8	M4	Z	-.47	-.47	0	%100
9	M5	X	.235	.235	0	%100
10	M5	Z	-.408	-.408	0	%100
11	M6	X	.079	.079	0	%100
12	M6	Z	-.137	-.137	0	%100
13	M7	X	.485	.485	0	%100
14	M7	Z	-.84	-.84	0	%100
15	M8	X	.079	.079	0	%100
16	M8	Z	-.137	-.137	0	%100
17	M14	X	.055	.055	0	%100
18	M14	Z	-.096	-.096	0	%100
19	M17	X	.092	.092	0	%100
20	M17	Z	-.159	-.159	0	%100
21	M18	X	.056	.056	0	%100
22	M18	Z	-.097	-.097	0	%100
23	M19	X	.225	.225	0	%100
24	M19	Z	-.389	-.389	0	%100
25	MP1A	X	.259	.259	0	%100
26	MP1A	Z	-.448	-.448	0	%100
27	M22	X	.235	.235	0	%100
28	M22	Z	-.407	-.407	0	%100
29	M23	X	.271	.271	0	%100
30	M23	Z	-.47	-.47	0	%100
31	M24	X	.235	.235	0	%100
32	M24	Z	-.408	-.408	0	%100
33	M25	X	0	0	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	.079	.079	0	%100
40	M28	Z	-.137	-.137	0	%100
41	M29	X	.079	.079	0	%100
42	M29	Z	-.137	-.137	0	%100
43	M35	X	.055	.055	0	%100
44	M35	Z	-.096	-.096	0	%100
45	M38	X	.092	.092	0	%100
46	M38	Z	-.159	-.159	0	%100
47	M39	X	.225	.225	0	%100
48	M39	Z	-.389	-.389	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
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**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.%]
49	M40	X	.056	.056	0	%100
50	M40	Z	-.097	-.097	0	%100
51	M41	X	.048	.048	0	%100
52	M41	Z	-.083	-.083	0	%100
53	M44	X	.318	.318	0	%100
54	M44	Z	-.55	-.55	0	%100
55	M45	X	.317	.317	0	%100
56	M45	Z	-.55	-.55	0	%100
57	M51	X	.221	.221	0	%100
58	M51	Z	-.382	-.382	0	%100
59	M54	X	.368	.368	0	%100
60	M54	Z	-.637	-.637	0	%100
61	M55	X	.056	.056	0	%100
62	M55	Z	-.097	-.097	0	%100
63	M56	X	.056	.056	0	%100
64	M56	Z	-.097	-.097	0	%100
65	M57	X	.08	.08	0	%100
66	M57	Z	-.138	-.138	0	%100
67	MP2A	X	.259	.259	0	%100
68	MP2A	Z	-.448	-.448	0	%100
69	MP3A	X	.259	.259	0	%100
70	MP3A	Z	-.448	-.448	0	%100
71	MP4A	X	.259	.259	0	%100
72	MP4A	Z	-.448	-.448	0	%100
73	MP5A	X	.259	.259	0	%100
74	MP5A	Z	-.448	-.448	0	%100
75	MP1C	X	.259	.259	0	%100
76	MP1C	Z	-.448	-.448	0	%100
77	MP2C	X	.259	.259	0	%100
78	MP2C	Z	-.448	-.448	0	%100
79	MP3C	X	.259	.259	0	%100
80	MP3C	Z	-.448	-.448	0	%100
81	MP4C	X	.259	.259	0	%100
82	MP4C	Z	-.448	-.448	0	%100
83	MP5C	X	.259	.259	0	%100
84	MP5C	Z	-.448	-.448	0	%100
85	MP1B	X	.259	.259	0	%100
86	MP1B	Z	-.448	-.448	0	%100
87	MP2B	X	.259	.259	0	%100
88	MP2B	Z	-.448	-.448	0	%100
89	MP3B	X	.259	.259	0	%100
90	MP3B	Z	-.448	-.448	0	%100
91	MP4B	X	.259	.259	0	%100
92	MP4B	Z	-.448	-.448	0	%100
93	MP5B	X	.259	.259	0	%100
94	MP5B	Z	-.448	-.448	0	%100
95	M88	X	.048	.048	0	%100
96	M88	Z	-.083	-.083	0	%100
97	M91	X	.08	.08	0	%100
98	M91	Z	-.138	-.138	0	%100
99	M94	X	.192	.192	0	%100
100	M94	Z	-.332	-.332	0	%100
101	M97	X	.319	.319	0	%100
102	M97	Z	-.553	-.553	0	%100
103	M105	X	.235	.235	0	%100
104	M105	Z	-.407	-.407	0	%100
105	M113	X	.235	.235	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.%]
106	M113	Z	-.407	-.407	0	%100
107	M121	X	0	0	0	%100
108	M121	Z	0	0	0	%100
109	M124	X	.294	.294	0	%100
110	M124	Z	-.51	-.51	0	%100
111	M125	X	.294	.294	0	%100
112	M125	Z	-.51	-.51	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	0	0	0	%100
115	M127	X	.115	.115	0	%100
116	M127	Z	-.199	-.199	0	%100
117	M128	X	.379	.379	0	%100
118	M128	Z	-.656	-.656	0	%100
119	M129	X	.379	.379	0	%100
120	M129	Z	-.656	-.656	0	%100
121	M130	X	.115	.115	0	%100
122	M130	Z	-.199	-.199	0	%100
123	M131	X	.359	.359	0	%100
124	M131	Z	-.622	-.622	0	%100
125	M132	X	.359	.359	0	%100
126	M132	Z	-.622	-.622	0	%100
127	OVP	X	.248	.248	0	%100
128	OVP	Z	-.429	-.429	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	1.132	1.132	0	%100
2	M1	Z	-.654	-.654	0	%100
3	M2	X	.136	.136	0	%100
4	M2	Z	-.078	-.078	0	%100
5	M3	X	.283	.283	0	%100
6	M3	Z	-.163	-.163	0	%100
7	M4	X	.157	.157	0	%100
8	M4	Z	-.09	-.09	0	%100
9	M5	X	.136	.136	0	%100
10	M5	Z	-.078	-.078	0	%100
11	M6	X	.412	.412	0	%100
12	M6	Z	-.238	-.238	0	%100
13	M7	X	.274	.274	0	%100
14	M7	Z	-.158	-.158	0	%100
15	M8	X	.412	.412	0	%100
16	M8	Z	-.238	-.238	0	%100
17	M14	X	.287	.287	0	%100
18	M14	Z	-.165	-.165	0	%100
19	M17	X	.478	.478	0	%100
20	M17	Z	-.276	-.276	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	0	0	0	%100
23	M19	X	.292	.292	0	%100
24	M19	Z	-.168	-.168	0	%100
25	MP1A	X	.448	.448	0	%100
26	MP1A	Z	-.259	-.259	0	%100
27	M22	X	.543	.543	0	%100
28	M22	Z	-.314	-.314	0	%100
29	M23	X	.626	.626	0	%100
30	M23	Z	-.362	-.362	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-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	M24	X	.544	.544	0	%100
32	M24	Z	-.314	-.314	0	%100
33	M25	X	.136	.136	0	%100
34	M25	Z	-.078	-.078	0	%100
35	M26	X	.157	.157	0	%100
36	M26	Z	-.09	-.09	0	%100
37	M27	X	.136	.136	0	%100
38	M27	Z	-.078	-.078	0	%100
39	M28	X	0	0	0	%100
40	M28	Z	0	0	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	0	0	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	0	0	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	.292	.292	0	%100
48	M39	Z	-.169	-.169	0	%100
49	M40	X	.292	.292	0	%100
50	M40	Z	-.169	-.169	0	%100
51	M41	X	.249	.249	0	%100
52	M41	Z	-.144	-.144	0	%100
53	M44	X	.412	.412	0	%100
54	M44	Z	-.238	-.238	0	%100
55	M45	X	.412	.412	0	%100
56	M45	Z	-.238	-.238	0	%100
57	M51	X	.287	.287	0	%100
58	M51	Z	-.165	-.165	0	%100
59	M54	X	.478	.478	0	%100
60	M54	Z	-.276	-.276	0	%100
61	M55	X	.292	.292	0	%100
62	M55	Z	-.168	-.168	0	%100
63	M56	X	0	0	0	%100
64	M56	Z	0	0	0	%100
65	M57	X	.415	.415	0	%100
66	M57	Z	-.239	-.239	0	%100
67	MP2A	X	.448	.448	0	%100
68	MP2A	Z	-.259	-.259	0	%100
69	MP3A	X	.448	.448	0	%100
70	MP3A	Z	-.259	-.259	0	%100
71	MP4A	X	.448	.448	0	%100
72	MP4A	Z	-.259	-.259	0	%100
73	MP5A	X	.448	.448	0	%100
74	MP5A	Z	-.259	-.259	0	%100
75	MP1C	X	.448	.448	0	%100
76	MP1C	Z	-.259	-.259	0	%100
77	MP2C	X	.448	.448	0	%100
78	MP2C	Z	-.259	-.259	0	%100
79	MP3C	X	.448	.448	0	%100
80	MP3C	Z	-.259	-.259	0	%100
81	MP4C	X	.448	.448	0	%100
82	MP4C	Z	-.259	-.259	0	%100
83	MP5C	X	.448	.448	0	%100
84	MP5C	Z	-.259	-.259	0	%100
85	MP1B	X	.448	.448	0	%100
86	MP1B	Z	-.259	-.259	0	%100
87	MP2B	X	.448	.448	0	%100



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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.%]
88	MP2B	Z	-.259	-.259	0	%100
89	MP3B	X	.448	.448	0	%100
90	MP3B	Z	-.259	-.259	0	%100
91	MP4B	X	.448	.448	0	%100
92	MP4B	Z	-.259	-.259	0	%100
93	MP5B	X	.448	.448	0	%100
94	MP5B	Z	-.259	-.259	0	%100
95	M88	X	0	0	0	%100
96	M88	Z	0	0	0	%100
97	M91	X	0	0	0	%100
98	M91	Z	0	0	0	%100
99	M94	X	.249	.249	0	%100
100	M94	Z	-.144	-.144	0	%100
101	M97	X	.415	.415	0	%100
102	M97	Z	-.239	-.239	0	%100
103	M105	X	.136	.136	0	%100
104	M105	Z	-.078	-.078	0	%100
105	M113	X	.542	.542	0	%100
106	M113	Z	-.313	-.313	0	%100
107	M121	X	.136	.136	0	%100
108	M121	Z	-.078	-.078	0	%100
109	M124	X	.68	.68	0	%100
110	M124	Z	-.392	-.392	0	%100
111	M125	X	.17	.17	0	%100
112	M125	Z	-.098	-.098	0	%100
113	M126	X	.17	.17	0	%100
114	M126	Z	-.098	-.098	0	%100
115	M127	X	.329	.329	0	%100
116	M127	Z	-.19	-.19	0	%100
117	M128	X	.785	.785	0	%100
118	M128	Z	-.453	-.453	0	%100
119	M129	X	.363	.363	0	%100
120	M129	Z	-.209	-.209	0	%100
121	M130	X	.363	.363	0	%100
122	M130	Z	-.209	-.209	0	%100
123	M131	X	.785	.785	0	%100
124	M131	Z	-.453	-.453	0	%100
125	M132	X	.329	.329	0	%100
126	M132	Z	-.19	-.19	0	%100
127	OVP	X	.429	.429	0	%100
128	OVP	Z	-.248	-.248	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	.98	.98	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	.98	.98	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	.635	.635	0	%100
12	M6	Z	0	0	0	%100



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 Model Name : 5000384514-VZW\_MT\_LO\_H

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**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.%]
13	M7	X	.000104	.000104	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	.635	.635	0	%100
16	M8	Z	0	0	0	%100
17	M14	X	.441	.441	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	.735	.735	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	.112	.112	0	%100
22	M18	Z	0	0	0	%100
23	M19	X	.112	.112	0	%100
24	M19	Z	0	0	0	%100
25	MP1A	X	.517	.517	0	%100
26	MP1A	Z	0	0	0	%100
27	M22	X	.47	.47	0	%100
28	M22	Z	0	0	0	%100
29	M23	X	.543	.543	0	%100
30	M23	Z	0	0	0	%100
31	M24	X	.471	.471	0	%100
32	M24	Z	0	0	0	%100
33	M25	X	.47	.47	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	.543	.543	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	.47	.47	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	.159	.159	0	%100
40	M28	Z	0	0	0	%100
41	M29	X	.159	.159	0	%100
42	M29	Z	0	0	0	%100
43	M35	X	.11	.11	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	.184	.184	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	.112	.112	0	%100
48	M39	Z	0	0	0	%100
49	M40	X	.449	.449	0	%100
50	M40	Z	0	0	0	%100
51	M41	X	.383	.383	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	.159	.159	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	.159	.159	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	.11	.11	0	%100
58	M51	Z	0	0	0	%100
59	M54	X	.184	.184	0	%100
60	M54	Z	0	0	0	%100
61	M55	X	.449	.449	0	%100
62	M55	Z	0	0	0	%100
63	M56	X	.113	.113	0	%100
64	M56	Z	0	0	0	%100
65	M57	X	.638	.638	0	%100
66	M57	Z	0	0	0	%100
67	MP2A	X	.517	.517	0	%100
68	MP2A	Z	0	0	0	%100
69	MP3A	X	.517	.517	0	%100



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

Member Label	Direction	Start Magnitude[lb./ft.]	End Magnitude[lb./ft.]	Start Location[ft.%]	End Location[ft.%]	
70	MP3A	Z	0	0	%100	
71	MP4A	X	.517	.517	0	%100
72	MP4A	Z	0	0	0	%100
73	MP5A	X	.517	.517	0	%100
74	MP5A	Z	0	0	0	%100
75	MP1C	X	.517	.517	0	%100
76	MP1C	Z	0	0	0	%100
77	MP2C	X	.517	.517	0	%100
78	MP2C	Z	0	0	0	%100
79	MP3C	X	.517	.517	0	%100
80	MP3C	Z	0	0	0	%100
81	MP4C	X	.517	.517	0	%100
82	MP4C	Z	0	0	0	%100
83	MP5C	X	.517	.517	0	%100
84	MP5C	Z	0	0	0	%100
85	MP1B	X	.517	.517	0	%100
86	MP1B	Z	0	0	0	%100
87	MP2B	X	.517	.517	0	%100
88	MP2B	Z	0	0	0	%100
89	MP3B	X	.517	.517	0	%100
90	MP3B	Z	0	0	0	%100
91	MP4B	X	.517	.517	0	%100
92	MP4B	Z	0	0	0	%100
93	MP5B	X	.517	.517	0	%100
94	MP5B	Z	0	0	0	%100
95	M88	X	.096	.096	0	%100
96	M88	Z	0	0	0	%100
97	M91	X	.16	.16	0	%100
98	M91	Z	0	0	0	%100
99	M94	X	.096	.096	0	%100
100	M94	Z	0	0	0	%100
101	M97	X	.16	.16	0	%100
102	M97	Z	0	0	0	%100
103	M105	X	0	0	0	%100
104	M105	Z	0	0	0	%100
105	M113	X	.47	.47	0	%100
106	M113	Z	0	0	0	%100
107	M121	X	.47	.47	0	%100
108	M121	Z	0	0	0	%100
109	M124	X	.589	.589	0	%100
110	M124	Z	0	0	0	%100
111	M125	X	0	0	0	%100
112	M125	Z	0	0	0	%100
113	M126	X	.589	.589	0	%100
114	M126	Z	0	0	0	%100
115	M127	X	.718	.718	0	%100
116	M127	Z	0	0	0	%100
117	M128	X	.718	.718	0	%100
118	M128	Z	0	0	0	%100
119	M129	X	.23	.23	0	%100
120	M129	Z	0	0	0	%100
121	M130	X	.757	.757	0	%100
122	M130	Z	0	0	0	%100
123	M131	X	.757	.757	0	%100
124	M131	Z	0	0	0	%100
125	M132	X	.23	.23	0	%100
126	M132	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.%]
127	OVP	X	.496	.496	0	%100
128	OVP	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	.283	.283	0	%100
2	M1	Z	.163	.163	0	%100
3	M2	X	.136	.136	0	%100
4	M2	Z	.078	.078	0	%100
5	M3	X	1.132	1.132	0	%100
6	M3	Z	.654	.654	0	%100
7	M4	X	.157	.157	0	%100
8	M4	Z	.09	.09	0	%100
9	M5	X	.136	.136	0	%100
10	M5	Z	.078	.078	0	%100
11	M6	X	.412	.412	0	%100
12	M6	Z	.238	.238	0	%100
13	M7	X	.292	.292	0	%100
14	M7	Z	.168	.168	0	%100
15	M8	X	.412	.412	0	%100
16	M8	Z	.238	.238	0	%100
17	M14	X	.287	.287	0	%100
18	M14	Z	.165	.165	0	%100
19	M17	X	.478	.478	0	%100
20	M17	Z	.276	.276	0	%100
21	M18	X	.292	.292	0	%100
22	M18	Z	.168	.168	0	%100
23	M19	X	0	0	0	%100
24	M19	Z	0	0	0	%100
25	MP1A	X	.448	.448	0	%100
26	MP1A	Z	.259	.259	0	%100
27	M22	X	.136	.136	0	%100
28	M22	Z	.078	.078	0	%100
29	M23	X	.157	.157	0	%100
30	M23	Z	.09	.09	0	%100
31	M24	X	.136	.136	0	%100
32	M24	Z	.078	.078	0	%100
33	M25	X	.543	.543	0	%100
34	M25	Z	.314	.314	0	%100
35	M26	X	.626	.626	0	%100
36	M26	Z	.362	.362	0	%100
37	M27	X	.543	.543	0	%100
38	M27	Z	.314	.314	0	%100
39	M28	X	.412	.412	0	%100
40	M28	Z	.238	.238	0	%100
41	M29	X	.412	.412	0	%100
42	M29	Z	.238	.238	0	%100
43	M35	X	.287	.287	0	%100
44	M35	Z	.165	.165	0	%100
45	M38	X	.478	.478	0	%100
46	M38	Z	.276	.276	0	%100
47	M39	X	0	0	0	%100
48	M39	Z	0	0	0	%100
49	M40	X	.292	.292	0	%100
50	M40	Z	.168	.168	0	%100
51	M41	X	.249	.249	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft...	End Magnitude[lb/f.F...	Start Location[ft.%]	End Location[ft.%]
52	M41	Z	.144	.144	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	0	0	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	0	0	0	%100
61	M55	X	.292	.292	0	%100
62	M55	Z	.169	.169	0	%100
63	M56	X	.292	.292	0	%100
64	M56	Z	.169	.169	0	%100
65	M57	X	.415	.415	0	%100
66	M57	Z	.239	.239	0	%100
67	MP2A	X	.448	.448	0	%100
68	MP2A	Z	.259	.259	0	%100
69	MP3A	X	.448	.448	0	%100
70	MP3A	Z	.259	.259	0	%100
71	MP4A	X	.448	.448	0	%100
72	MP4A	Z	.259	.259	0	%100
73	MP5A	X	.448	.448	0	%100
74	MP5A	Z	.259	.259	0	%100
75	MP1C	X	.448	.448	0	%100
76	MP1C	Z	.259	.259	0	%100
77	MP2C	X	.448	.448	0	%100
78	MP2C	Z	.259	.259	0	%100
79	MP3C	X	.448	.448	0	%100
80	MP3C	Z	.259	.259	0	%100
81	MP4C	X	.448	.448	0	%100
82	MP4C	Z	.259	.259	0	%100
83	MP5C	X	.448	.448	0	%100
84	MP5C	Z	.259	.259	0	%100
85	MP1B	X	.448	.448	0	%100
86	MP1B	Z	.259	.259	0	%100
87	MP2B	X	.448	.448	0	%100
88	MP2B	Z	.259	.259	0	%100
89	MP3B	X	.448	.448	0	%100
90	MP3B	Z	.259	.259	0	%100
91	MP4B	X	.448	.448	0	%100
92	MP4B	Z	.259	.259	0	%100
93	MP5B	X	.448	.448	0	%100
94	MP5B	Z	.259	.259	0	%100
95	M88	X	.249	.249	0	%100
96	M88	Z	.144	.144	0	%100
97	M91	X	.415	.415	0	%100
98	M91	Z	.239	.239	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	0	0	0	%100
101	M97	X	0	0	0	%100
102	M97	Z	0	0	0	%100
103	M105	X	.136	.136	0	%100
104	M105	Z	.078	.078	0	%100
105	M113	X	.136	.136	0	%100
106	M113	Z	.078	.078	0	%100
107	M121	X	.542	.542	0	%100
108	M121	Z	.313	.313	0	%100



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 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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**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.%]
109	M124	X	.17	.17	0	%100
110	M124	Z	.098	.098	0	%100
111	M125	X	.17	.17	0	%100
112	M125	Z	.098	.098	0	%100
113	M126	X	.68	.68	0	%100
114	M126	Z	.392	.392	0	%100
115	M127	X	.785	.785	0	%100
116	M127	Z	.453	.453	0	%100
117	M128	X	.329	.329	0	%100
118	M128	Z	.19	.19	0	%100
119	M129	X	.329	.329	0	%100
120	M129	Z	.19	.19	0	%100
121	M130	X	.785	.785	0	%100
122	M130	Z	.453	.453	0	%100
123	M131	X	.363	.363	0	%100
124	M131	Z	.209	.209	0	%100
125	M132	X	.363	.363	0	%100
126	M132	Z	.209	.209	0	%100
127	OVP	X	.429	.429	0	%100
128	OVP	Z	.248	.248	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	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	.235	.235	0	%100
4	M2	Z	.407	.407	0	%100
5	M3	X	.49	.49	0	%100
6	M3	Z	.849	.849	0	%100
7	M4	X	.271	.271	0	%100
8	M4	Z	.47	.47	0	%100
9	M5	X	.235	.235	0	%100
10	M5	Z	.408	.408	0	%100
11	M6	X	.079	.079	0	%100
12	M6	Z	.137	.137	0	%100
13	M7	X	.495	.495	0	%100
14	M7	Z	.858	.858	0	%100
15	M8	X	.079	.079	0	%100
16	M8	Z	.137	.137	0	%100
17	M14	X	.055	.055	0	%100
18	M14	Z	.096	.096	0	%100
19	M17	X	.092	.092	0	%100
20	M17	Z	.159	.159	0	%100
21	M18	X	.225	.225	0	%100
22	M18	Z	.389	.389	0	%100
23	M19	X	.056	.056	0	%100
24	M19	Z	.097	.097	0	%100
25	MP1A	X	.259	.259	0	%100
26	MP1A	Z	.448	.448	0	%100
27	M22	X	0	0	0	%100
28	M22	Z	0	0	0	%100
29	M23	X	0	0	0	%100
30	M23	Z	0	0	0	%100
31	M24	X	0	0	0	%100
32	M24	Z	0	0	0	%100
33	M25	X	.235	.235	0	%100





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 Designer : NL  
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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.%]
34	M25	Z	.407	.407	0	%100
35	M26	X	.271	.271	0	%100
36	M26	Z	.47	.47	0	%100
37	M27	X	.235	.235	0	%100
38	M27	Z	.407	.407	0	%100
39	M28	X	.318	.318	0	%100
40	M28	Z	.55	.55	0	%100
41	M29	X	.317	.317	0	%100
42	M29	Z	.55	.55	0	%100
43	M35	X	.221	.221	0	%100
44	M35	Z	.382	.382	0	%100
45	M38	X	.368	.368	0	%100
46	M38	Z	.637	.637	0	%100
47	M39	X	.056	.056	0	%100
48	M39	Z	.097	.097	0	%100
49	M40	X	.056	.056	0	%100
50	M40	Z	.097	.097	0	%100
51	M41	X	.048	.048	0	%100
52	M41	Z	.083	.083	0	%100
53	M44	X	.079	.079	0	%100
54	M44	Z	.137	.137	0	%100
55	M45	X	.079	.079	0	%100
56	M45	Z	.137	.137	0	%100
57	M51	X	.055	.055	0	%100
58	M51	Z	.096	.096	0	%100
59	M54	X	.092	.092	0	%100
60	M54	Z	.159	.159	0	%100
61	M55	X	.056	.056	0	%100
62	M55	Z	.097	.097	0	%100
63	M56	X	.225	.225	0	%100
64	M56	Z	.389	.389	0	%100
65	M57	X	.08	.08	0	%100
66	M57	Z	.138	.138	0	%100
67	MP2A	X	.259	.259	0	%100
68	MP2A	Z	.448	.448	0	%100
69	MP3A	X	.259	.259	0	%100
70	MP3A	Z	.448	.448	0	%100
71	MP4A	X	.259	.259	0	%100
72	MP4A	Z	.448	.448	0	%100
73	MP5A	X	.259	.259	0	%100
74	MP5A	Z	.448	.448	0	%100
75	MP1C	X	.259	.259	0	%100
76	MP1C	Z	.448	.448	0	%100
77	MP2C	X	.259	.259	0	%100
78	MP2C	Z	.448	.448	0	%100
79	MP3C	X	.259	.259	0	%100
80	MP3C	Z	.448	.448	0	%100
81	MP4C	X	.259	.259	0	%100
82	MP4C	Z	.448	.448	0	%100
83	MP5C	X	.259	.259	0	%100
84	MP5C	Z	.448	.448	0	%100
85	MP1B	X	.259	.259	0	%100
86	MP1B	Z	.448	.448	0	%100
87	MP2B	X	.259	.259	0	%100
88	MP2B	Z	.448	.448	0	%100
89	MP3B	X	.259	.259	0	%100
90	MP3B	Z	.448	.448	0	%100



**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.%]
91	MP4B	X	.259	.259	0	%100
92	MP4B	Z	.448	.448	0	%100
93	MP5B	X	.259	.259	0	%100
94	MP5B	Z	.448	.448	0	%100
95	M88	X	.192	.192	0	%100
96	M88	Z	.332	.332	0	%100
97	M91	X	.319	.319	0	%100
98	M91	Z	.553	.553	0	%100
99	M94	X	.048	.048	0	%100
100	M94	Z	.083	.083	0	%100
101	M97	X	.08	.08	0	%100
102	M97	Z	.138	.138	0	%100
103	M105	X	.235	.235	0	%100
104	M105	Z	.407	.407	0	%100
105	M113	X	0	0	0	%100
106	M113	Z	0	0	0	%100
107	M121	X	.235	.235	0	%100
108	M121	Z	.407	.407	0	%100
109	M124	X	0	0	0	%100
110	M124	Z	0	0	0	%100
111	M125	X	.294	.294	0	%100
112	M125	Z	.51	.51	0	%100
113	M126	X	.294	.294	0	%100
114	M126	Z	.51	.51	0	%100
115	M127	X	.379	.379	0	%100
116	M127	Z	.656	.656	0	%100
117	M128	X	.115	.115	0	%100
118	M128	Z	.199	.199	0	%100
119	M129	X	.359	.359	0	%100
120	M129	Z	.622	.622	0	%100
121	M130	X	.359	.359	0	%100
122	M130	Z	.622	.622	0	%100
123	M131	X	.115	.115	0	%100
124	M131	Z	.199	.199	0	%100
125	M132	X	.379	.379	0	%100
126	M132	Z	.656	.656	0	%100
127	OVP	X	.248	.248	0	%100
128	OVP	Z	.429	.429	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	0	0	0	%100
2	M1	Z	.327	.327	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.627	.627	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	.327	.327	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	.723	.723	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	.628	.628	0	%100
11	M6	X	0	0	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	0	0	0	%100
14	M7	Z	1.307	1.307	0	%100
15	M8	X	0	0	0	%100



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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.%]
16	M8	Z	0	0	0	%100
17	M14	X	0	0	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	0	0	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	.337	.337	0	%100
23	M19	X	0	0	0	%100
24	M19	Z	.337	.337	0	%100
25	MP1A	X	0	0	0	%100
26	MP1A	Z	.517	.517	0	%100
27	M22	X	0	0	0	%100
28	M22	Z	.157	.157	0	%100
29	M23	X	0	0	0	%100
30	M23	Z	.181	.181	0	%100
31	M24	X	0	0	0	%100
32	M24	Z	.157	.157	0	%100
33	M25	X	0	0	0	%100
34	M25	Z	.157	.157	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	.181	.181	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	.157	.157	0	%100
39	M28	X	0	0	0	%100
40	M28	Z	.476	.476	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	.476	.476	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	.331	.331	0	%100
45	M38	X	0	0	0	%100
46	M38	Z	.551	.551	0	%100
47	M39	X	0	0	0	%100
48	M39	Z	.337	.337	0	%100
49	M40	X	0	0	0	%100
50	M40	Z	0	0	0	%100
51	M41	X	0	0	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	.476	.476	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	.476	.476	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	.331	.331	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	.551	.551	0	%100
61	M55	X	0	0	0	%100
62	M55	Z	0	0	0	%100
63	M56	X	0	0	0	%100
64	M56	Z	.337	.337	0	%100
65	M57	X	0	0	0	%100
66	M57	Z	0	0	0	%100
67	MP2A	X	0	0	0	%100
68	MP2A	Z	.517	.517	0	%100
69	MP3A	X	0	0	0	%100
70	MP3A	Z	.517	.517	0	%100
71	MP4A	X	0	0	0	%100
72	MP4A	Z	.517	.517	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.%]
73	MP5A	X	0	0	0	%100
74	MP5A	Z	.517	.517	0	%100
75	MP1C	X	0	0	0	%100
76	MP1C	Z	.517	.517	0	%100
77	MP2C	X	0	0	0	%100
78	MP2C	Z	.517	.517	0	%100
79	MP3C	X	0	0	0	%100
80	MP3C	Z	.517	.517	0	%100
81	MP4C	X	0	0	0	%100
82	MP4C	Z	.517	.517	0	%100
83	MP5C	X	0	0	0	%100
84	MP5C	Z	.517	.517	0	%100
85	MP1B	X	0	0	0	%100
86	MP1B	Z	.517	.517	0	%100
87	MP2B	X	0	0	0	%100
88	MP2B	Z	.517	.517	0	%100
89	MP3B	X	0	0	0	%100
90	MP3B	Z	.517	.517	0	%100
91	MP4B	X	0	0	0	%100
92	MP4B	Z	.517	.517	0	%100
93	MP5B	X	0	0	0	%100
94	MP5B	Z	.517	.517	0	%100
95	M88	X	0	0	0	%100
96	M88	Z	.287	.287	0	%100
97	M91	X	0	0	0	%100
98	M91	Z	.479	.479	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	.287	.287	0	%100
101	M97	X	0	0	0	%100
102	M97	Z	.479	.479	0	%100
103	M105	X	0	0	0	%100
104	M105	Z	.626	.626	0	%100
105	M113	X	0	0	0	%100
106	M113	Z	.157	.157	0	%100
107	M121	X	0	0	0	%100
108	M121	Z	.157	.157	0	%100
109	M124	X	0	0	0	%100
110	M124	Z	.196	.196	0	%100
111	M125	X	0	0	0	%100
112	M125	Z	.785	.785	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	.196	.196	0	%100
115	M127	X	0	0	0	%100
116	M127	Z	.419	.419	0	%100
117	M128	X	0	0	0	%100
118	M128	Z	.419	.419	0	%100
119	M129	X	0	0	0	%100
120	M129	Z	.907	.907	0	%100
121	M130	X	0	0	0	%100
122	M130	Z	.38	.38	0	%100
123	M131	X	0	0	0	%100
124	M131	Z	.38	.38	0	%100
125	M132	X	0	0	0	%100
126	M132	Z	.907	.907	0	%100
127	OVP	X	0	0	0	%100
128	OVP	Z	.496	.496	0	%100



Company : Colliers Engineering & Design  
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**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	-.49	-.49	0	%100
2	M1	Z	.849	.849	0	%100
3	M2	X	-.235	-.235	0	%100
4	M2	Z	.407	.407	0	%100
5	M3	X	0	0	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	-.271	-.271	0	%100
8	M4	Z	.47	.47	0	%100
9	M5	X	-.235	-.235	0	%100
10	M5	Z	.408	.408	0	%100
11	M6	X	-.079	-.079	0	%100
12	M6	Z	.137	.137	0	%100
13	M7	X	-.485	-.485	0	%100
14	M7	Z	.84	.84	0	%100
15	M8	X	-.079	-.079	0	%100
16	M8	Z	.137	.137	0	%100
17	M14	X	-.055	-.055	0	%100
18	M14	Z	.096	.096	0	%100
19	M17	X	-.092	-.092	0	%100
20	M17	Z	.159	.159	0	%100
21	M18	X	-.056	-.056	0	%100
22	M18	Z	.097	.097	0	%100
23	M19	X	-.225	-.225	0	%100
24	M19	Z	.389	.389	0	%100
25	MP1A	X	-.259	-.259	0	%100
26	MP1A	Z	.448	.448	0	%100
27	M22	X	-.235	-.235	0	%100
28	M22	Z	.407	.407	0	%100
29	M23	X	-.271	-.271	0	%100
30	M23	Z	.47	.47	0	%100
31	M24	X	-.235	-.235	0	%100
32	M24	Z	.408	.408	0	%100
33	M25	X	0	0	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	0	0	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	0	0	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	-.079	-.079	0	%100
40	M28	Z	.137	.137	0	%100
41	M29	X	-.079	-.079	0	%100
42	M29	Z	.137	.137	0	%100
43	M35	X	-.055	-.055	0	%100
44	M35	Z	.096	.096	0	%100
45	M38	X	-.092	-.092	0	%100
46	M38	Z	.159	.159	0	%100
47	M39	X	-.225	-.225	0	%100
48	M39	Z	.389	.389	0	%100
49	M40	X	-.056	-.056	0	%100
50	M40	Z	.097	.097	0	%100
51	M41	X	-.048	-.048	0	%100
52	M41	Z	.083	.083	0	%100
53	M44	X	-.318	-.318	0	%100
54	M44	Z	.55	.55	0	%100
55	M45	X	-.317	-.317	0	%100
56	M45	Z	.55	.55	0	%100
57	M51	X	-.221	-.221	0	%100



Company : Colliers Engineering & Design  
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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.%]
58	M51	Z	.382	.382	0	%100
59	M54	X	-.368	-.368	0	%100
60	M54	Z	.637	.637	0	%100
61	M55	X	-.056	-.056	0	%100
62	M55	Z	.097	.097	0	%100
63	M56	X	-.056	-.056	0	%100
64	M56	Z	.097	.097	0	%100
65	M57	X	-.08	-.08	0	%100
66	M57	Z	.138	.138	0	%100
67	MP2A	X	-.259	-.259	0	%100
68	MP2A	Z	.448	.448	0	%100
69	MP3A	X	-.259	-.259	0	%100
70	MP3A	Z	.448	.448	0	%100
71	MP4A	X	-.259	-.259	0	%100
72	MP4A	Z	.448	.448	0	%100
73	MP5A	X	-.259	-.259	0	%100
74	MP5A	Z	.448	.448	0	%100
75	MP1C	X	-.259	-.259	0	%100
76	MP1C	Z	.448	.448	0	%100
77	MP2C	X	-.259	-.259	0	%100
78	MP2C	Z	.448	.448	0	%100
79	MP3C	X	-.259	-.259	0	%100
80	MP3C	Z	.448	.448	0	%100
81	MP4C	X	-.259	-.259	0	%100
82	MP4C	Z	.448	.448	0	%100
83	MP5C	X	-.259	-.259	0	%100
84	MP5C	Z	.448	.448	0	%100
85	MP1B	X	-.259	-.259	0	%100
86	MP1B	Z	.448	.448	0	%100
87	MP2B	X	-.259	-.259	0	%100
88	MP2B	Z	.448	.448	0	%100
89	MP3B	X	-.259	-.259	0	%100
90	MP3B	Z	.448	.448	0	%100
91	MP4B	X	-.259	-.259	0	%100
92	MP4B	Z	.448	.448	0	%100
93	MP5B	X	-.259	-.259	0	%100
94	MP5B	Z	.448	.448	0	%100
95	M88	X	-.048	-.048	0	%100
96	M88	Z	.083	.083	0	%100
97	M91	X	-.08	-.08	0	%100
98	M91	Z	.138	.138	0	%100
99	M94	X	-.192	-.192	0	%100
100	M94	Z	.332	.332	0	%100
101	M97	X	-.319	-.319	0	%100
102	M97	Z	.553	.553	0	%100
103	M105	X	-.235	-.235	0	%100
104	M105	Z	.407	.407	0	%100
105	M113	X	-.235	-.235	0	%100
106	M113	Z	.407	.407	0	%100
107	M121	X	0	0	0	%100
108	M121	Z	0	0	0	%100
109	M124	X	-.294	-.294	0	%100
110	M124	Z	.51	.51	0	%100
111	M125	X	-.294	-.294	0	%100
112	M125	Z	.51	.51	0	%100
113	M126	X	0	0	0	%100
114	M126	Z	0	0	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.%]
115	M127	X	-.115	-.115	0	%100
116	M127	Z	.199	.199	0	%100
117	M128	X	-.379	-.379	0	%100
118	M128	Z	.656	.656	0	%100
119	M129	X	-.379	-.379	0	%100
120	M129	Z	.656	.656	0	%100
121	M130	X	-.115	-.115	0	%100
122	M130	Z	.199	.199	0	%100
123	M131	X	-.359	-.359	0	%100
124	M131	Z	.622	.622	0	%100
125	M132	X	-.359	-.359	0	%100
126	M132	Z	.622	.622	0	%100
127	OVP	X	-.248	-.248	0	%100
128	OVP	Z	.429	.429	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	-1.132	-1.132	0	%100
2	M1	Z	.654	.654	0	%100
3	M2	X	-.136	-.136	0	%100
4	M2	Z	.078	.078	0	%100
5	M3	X	-.283	-.283	0	%100
6	M3	Z	.163	.163	0	%100
7	M4	X	-.157	-.157	0	%100
8	M4	Z	.09	.09	0	%100
9	M5	X	-.136	-.136	0	%100
10	M5	Z	.078	.078	0	%100
11	M6	X	-.412	-.412	0	%100
12	M6	Z	.238	.238	0	%100
13	M7	X	-.274	-.274	0	%100
14	M7	Z	.158	.158	0	%100
15	M8	X	-.412	-.412	0	%100
16	M8	Z	.238	.238	0	%100
17	M14	X	-.287	-.287	0	%100
18	M14	Z	.165	.165	0	%100
19	M17	X	-.478	-.478	0	%100
20	M17	Z	.276	.276	0	%100
21	M18	X	0	0	0	%100
22	M18	Z	0	0	0	%100
23	M19	X	-.292	-.292	0	%100
24	M19	Z	.168	.168	0	%100
25	MP1A	X	-.448	-.448	0	%100
26	MP1A	Z	.259	.259	0	%100
27	M22	X	-.543	-.543	0	%100
28	M22	Z	.314	.314	0	%100
29	M23	X	-.626	-.626	0	%100
30	M23	Z	.362	.362	0	%100
31	M24	X	-.544	-.544	0	%100
32	M24	Z	.314	.314	0	%100
33	M25	X	-.136	-.136	0	%100
34	M25	Z	.078	.078	0	%100
35	M26	X	-.157	-.157	0	%100
36	M26	Z	.09	.09	0	%100
37	M27	X	-.136	-.136	0	%100
38	M27	Z	.078	.078	0	%100
39	M28	X	0	0	0	%100



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**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	M28	Z	0	0	0	%100
41	M29	X	0	0	0	%100
42	M29	Z	0	0	0	%100
43	M35	X	0	0	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	0	0	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	-.292	-.292	0	%100
48	M39	Z	.169	.169	0	%100
49	M40	X	-.292	-.292	0	%100
50	M40	Z	.169	.169	0	%100
51	M41	X	-.249	-.249	0	%100
52	M41	Z	.144	.144	0	%100
53	M44	X	-.412	-.412	0	%100
54	M44	Z	.238	.238	0	%100
55	M45	X	-.412	-.412	0	%100
56	M45	Z	.238	.238	0	%100
57	M51	X	-.287	-.287	0	%100
58	M51	Z	.165	.165	0	%100
59	M54	X	-.478	-.478	0	%100
60	M54	Z	.276	.276	0	%100
61	M55	X	-.292	-.292	0	%100
62	M55	Z	.168	.168	0	%100
63	M56	X	0	0	0	%100
64	M56	Z	0	0	0	%100
65	M57	X	-.415	-.415	0	%100
66	M57	Z	.239	.239	0	%100
67	MP2A	X	-.448	-.448	0	%100
68	MP2A	Z	.259	.259	0	%100
69	MP3A	X	-.448	-.448	0	%100
70	MP3A	Z	.259	.259	0	%100
71	MP4A	X	-.448	-.448	0	%100
72	MP4A	Z	.259	.259	0	%100
73	MP5A	X	-.448	-.448	0	%100
74	MP5A	Z	.259	.259	0	%100
75	MP1C	X	-.448	-.448	0	%100
76	MP1C	Z	.259	.259	0	%100
77	MP2C	X	-.448	-.448	0	%100
78	MP2C	Z	.259	.259	0	%100
79	MP3C	X	-.448	-.448	0	%100
80	MP3C	Z	.259	.259	0	%100
81	MP4C	X	-.448	-.448	0	%100
82	MP4C	Z	.259	.259	0	%100
83	MP5C	X	-.448	-.448	0	%100
84	MP5C	Z	.259	.259	0	%100
85	MP1B	X	-.448	-.448	0	%100
86	MP1B	Z	.259	.259	0	%100
87	MP2B	X	-.448	-.448	0	%100
88	MP2B	Z	.259	.259	0	%100
89	MP3B	X	-.448	-.448	0	%100
90	MP3B	Z	.259	.259	0	%100
91	MP4B	X	-.448	-.448	0	%100
92	MP4B	Z	.259	.259	0	%100
93	MP5B	X	-.448	-.448	0	%100
94	MP5B	Z	.259	.259	0	%100
95	M88	X	0	0	0	%100
96	M88	Z	0	0	0	%100





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**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.%]
97	M91	X	0	0	0	%100
98	M91	Z	0	0	0	%100
99	M94	X	-.249	-.249	0	%100
100	M94	Z	.144	.144	0	%100
101	M97	X	-.415	-.415	0	%100
102	M97	Z	.239	.239	0	%100
103	M105	X	-.136	-.136	0	%100
104	M105	Z	.078	.078	0	%100
105	M113	X	-.542	-.542	0	%100
106	M113	Z	.313	.313	0	%100
107	M121	X	-.136	-.136	0	%100
108	M121	Z	.078	.078	0	%100
109	M124	X	-.68	-.68	0	%100
110	M124	Z	.392	.392	0	%100
111	M125	X	-.17	-.17	0	%100
112	M125	Z	.098	.098	0	%100
113	M126	X	-.17	-.17	0	%100
114	M126	Z	.098	.098	0	%100
115	M127	X	-.329	-.329	0	%100
116	M127	Z	.19	.19	0	%100
117	M128	X	-.785	-.785	0	%100
118	M128	Z	.453	.453	0	%100
119	M129	X	-.363	-.363	0	%100
120	M129	Z	.209	.209	0	%100
121	M130	X	-.363	-.363	0	%100
122	M130	Z	.209	.209	0	%100
123	M131	X	-.785	-.785	0	%100
124	M131	Z	.453	.453	0	%100
125	M132	X	-.329	-.329	0	%100
126	M132	Z	.19	.19	0	%100
127	OVP	X	-.429	-.429	0	%100
128	OVP	Z	.248	.248	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	-.98	-.98	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M3	X	-.98	-.98	0	%100
6	M3	Z	0	0	0	%100
7	M4	X	0	0	0	%100
8	M4	Z	0	0	0	%100
9	M5	X	0	0	0	%100
10	M5	Z	0	0	0	%100
11	M6	X	-.635	-.635	0	%100
12	M6	Z	0	0	0	%100
13	M7	X	-.000104	-.000104	0	%100
14	M7	Z	0	0	0	%100
15	M8	X	-.635	-.635	0	%100
16	M8	Z	0	0	0	%100
17	M14	X	-.441	-.441	0	%100
18	M14	Z	0	0	0	%100
19	M17	X	-.735	-.735	0	%100
20	M17	Z	0	0	0	%100
21	M18	X	-.112	-.112	0	%100



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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.%]
22	M18	Z	0	0	0	%100
23	M19	X	-.112	-.112	0	%100
24	M19	Z	0	0	0	%100
25	MP1A	X	-.517	-.517	0	%100
26	MP1A	Z	0	0	0	%100
27	M22	X	-.47	-.47	0	%100
28	M22	Z	0	0	0	%100
29	M23	X	-.543	-.543	0	%100
30	M23	Z	0	0	0	%100
31	M24	X	-.471	-.471	0	%100
32	M24	Z	0	0	0	%100
33	M25	X	-.47	-.47	0	%100
34	M25	Z	0	0	0	%100
35	M26	X	-.543	-.543	0	%100
36	M26	Z	0	0	0	%100
37	M27	X	-.47	-.47	0	%100
38	M27	Z	0	0	0	%100
39	M28	X	-.159	-.159	0	%100
40	M28	Z	0	0	0	%100
41	M29	X	-.159	-.159	0	%100
42	M29	Z	0	0	0	%100
43	M35	X	-.11	-.11	0	%100
44	M35	Z	0	0	0	%100
45	M38	X	-.184	-.184	0	%100
46	M38	Z	0	0	0	%100
47	M39	X	-.112	-.112	0	%100
48	M39	Z	0	0	0	%100
49	M40	X	-.449	-.449	0	%100
50	M40	Z	0	0	0	%100
51	M41	X	-.383	-.383	0	%100
52	M41	Z	0	0	0	%100
53	M44	X	-.159	-.159	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	-.159	-.159	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	-.11	-.11	0	%100
58	M51	Z	0	0	0	%100
59	M54	X	-.184	-.184	0	%100
60	M54	Z	0	0	0	%100
61	M55	X	-.449	-.449	0	%100
62	M55	Z	0	0	0	%100
63	M56	X	-.113	-.113	0	%100
64	M56	Z	0	0	0	%100
65	M57	X	-.638	-.638	0	%100
66	M57	Z	0	0	0	%100
67	MP2A	X	-.517	-.517	0	%100
68	MP2A	Z	0	0	0	%100
69	MP3A	X	-.517	-.517	0	%100
70	MP3A	Z	0	0	0	%100
71	MP4A	X	-.517	-.517	0	%100
72	MP4A	Z	0	0	0	%100
73	MP5A	X	-.517	-.517	0	%100
74	MP5A	Z	0	0	0	%100
75	MP1C	X	-.517	-.517	0	%100
76	MP1C	Z	0	0	0	%100
77	MP2C	X	-.517	-.517	0	%100
78	MP2C	Z	0	0	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.%]
79	MP3C	X	- .517	- .517	0	%100
80	MP3C	Z	0	0	0	%100
81	MP4C	X	- .517	- .517	0	%100
82	MP4C	Z	0	0	0	%100
83	MP5C	X	- .517	- .517	0	%100
84	MP5C	Z	0	0	0	%100
85	MP1B	X	- .517	- .517	0	%100
86	MP1B	Z	0	0	0	%100
87	MP2B	X	- .517	- .517	0	%100
88	MP2B	Z	0	0	0	%100
89	MP3B	X	- .517	- .517	0	%100
90	MP3B	Z	0	0	0	%100
91	MP4B	X	- .517	- .517	0	%100
92	MP4B	Z	0	0	0	%100
93	MP5B	X	- .517	- .517	0	%100
94	MP5B	Z	0	0	0	%100
95	M88	X	- .096	- .096	0	%100
96	M88	Z	0	0	0	%100
97	M91	X	- .16	- .16	0	%100
98	M91	Z	0	0	0	%100
99	M94	X	- .096	- .096	0	%100
100	M94	Z	0	0	0	%100
101	M97	X	- .16	- .16	0	%100
102	M97	Z	0	0	0	%100
103	M105	X	0	0	0	%100
104	M105	Z	0	0	0	%100
105	M113	X	- .47	- .47	0	%100
106	M113	Z	0	0	0	%100
107	M121	X	- .47	- .47	0	%100
108	M121	Z	0	0	0	%100
109	M124	X	- .589	- .589	0	%100
110	M124	Z	0	0	0	%100
111	M125	X	0	0	0	%100
112	M125	Z	0	0	0	%100
113	M126	X	- .589	- .589	0	%100
114	M126	Z	0	0	0	%100
115	M127	X	- .718	- .718	0	%100
116	M127	Z	0	0	0	%100
117	M128	X	- .718	- .718	0	%100
118	M128	Z	0	0	0	%100
119	M129	X	- .23	- .23	0	%100
120	M129	Z	0	0	0	%100
121	M130	X	- .757	- .757	0	%100
122	M130	Z	0	0	0	%100
123	M131	X	- .757	- .757	0	%100
124	M131	Z	0	0	0	%100
125	M132	X	- .23	- .23	0	%100
126	M132	Z	0	0	0	%100
127	OVP	X	- .496	- .496	0	%100
128	OVP	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	- .283	- .283	0	%100
2	M1	Z	- .163	- .163	0	%100
3	M2	X	- .136	- .136	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.%]
4	M2	Z	-078	-078	0	%100
5	M3	X	-1.132	-1.132	0	%100
6	M3	Z	-654	-654	0	%100
7	M4	X	-157	-157	0	%100
8	M4	Z	-09	-09	0	%100
9	M5	X	-136	-136	0	%100
10	M5	Z	-078	-078	0	%100
11	M6	X	-412	-412	0	%100
12	M6	Z	-238	-238	0	%100
13	M7	X	-292	-292	0	%100
14	M7	Z	-168	-168	0	%100
15	M8	X	-412	-412	0	%100
16	M8	Z	-238	-238	0	%100
17	M14	X	-287	-287	0	%100
18	M14	Z	-165	-165	0	%100
19	M17	X	-478	-478	0	%100
20	M17	Z	-276	-276	0	%100
21	M18	X	-292	-292	0	%100
22	M18	Z	-168	-168	0	%100
23	M19	X	0	0	0	%100
24	M19	Z	0	0	0	%100
25	MP1A	X	-448	-448	0	%100
26	MP1A	Z	-259	-259	0	%100
27	M22	X	-136	-136	0	%100
28	M22	Z	-078	-078	0	%100
29	M23	X	-157	-157	0	%100
30	M23	Z	-09	-09	0	%100
31	M24	X	-136	-136	0	%100
32	M24	Z	-078	-078	0	%100
33	M25	X	-543	-543	0	%100
34	M25	Z	-314	-314	0	%100
35	M26	X	-626	-626	0	%100
36	M26	Z	-362	-362	0	%100
37	M27	X	-543	-543	0	%100
38	M27	Z	-314	-314	0	%100
39	M28	X	-412	-412	0	%100
40	M28	Z	-238	-238	0	%100
41	M29	X	-412	-412	0	%100
42	M29	Z	-238	-238	0	%100
43	M35	X	-287	-287	0	%100
44	M35	Z	-165	-165	0	%100
45	M38	X	-478	-478	0	%100
46	M38	Z	-276	-276	0	%100
47	M39	X	0	0	0	%100
48	M39	Z	0	0	0	%100
49	M40	X	-292	-292	0	%100
50	M40	Z	-168	-168	0	%100
51	M41	X	-249	-249	0	%100
52	M41	Z	-144	-144	0	%100
53	M44	X	0	0	0	%100
54	M44	Z	0	0	0	%100
55	M45	X	0	0	0	%100
56	M45	Z	0	0	0	%100
57	M51	X	0	0	0	%100
58	M51	Z	0	0	0	%100
59	M54	X	0	0	0	%100
60	M54	Z	0	0	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.%]
61	M55	X	-.292	-.292	0	%100
62	M55	Z	-.169	-.169	0	%100
63	M56	X	-.292	-.292	0	%100
64	M56	Z	-.169	-.169	0	%100
65	M57	X	-.415	-.415	0	%100
66	M57	Z	-.239	-.239	0	%100
67	MP2A	X	-.448	-.448	0	%100
68	MP2A	Z	-.259	-.259	0	%100
69	MP3A	X	-.448	-.448	0	%100
70	MP3A	Z	-.259	-.259	0	%100
71	MP4A	X	-.448	-.448	0	%100
72	MP4A	Z	-.259	-.259	0	%100
73	MP5A	X	-.448	-.448	0	%100
74	MP5A	Z	-.259	-.259	0	%100
75	MP1C	X	-.448	-.448	0	%100
76	MP1C	Z	-.259	-.259	0	%100
77	MP2C	X	-.448	-.448	0	%100
78	MP2C	Z	-.259	-.259	0	%100
79	MP3C	X	-.448	-.448	0	%100
80	MP3C	Z	-.259	-.259	0	%100
81	MP4C	X	-.448	-.448	0	%100
82	MP4C	Z	-.259	-.259	0	%100
83	MP5C	X	-.448	-.448	0	%100
84	MP5C	Z	-.259	-.259	0	%100
85	MP1B	X	-.448	-.448	0	%100
86	MP1B	Z	-.259	-.259	0	%100
87	MP2B	X	-.448	-.448	0	%100
88	MP2B	Z	-.259	-.259	0	%100
89	MP3B	X	-.448	-.448	0	%100
90	MP3B	Z	-.259	-.259	0	%100
91	MP4B	X	-.448	-.448	0	%100
92	MP4B	Z	-.259	-.259	0	%100
93	MP5B	X	-.448	-.448	0	%100
94	MP5B	Z	-.259	-.259	0	%100
95	M88	X	-.249	-.249	0	%100
96	M88	Z	-.144	-.144	0	%100
97	M91	X	-.415	-.415	0	%100
98	M91	Z	-.239	-.239	0	%100
99	M94	X	0	0	0	%100
100	M94	Z	0	0	0	%100
101	M97	X	0	0	0	%100
102	M97	Z	0	0	0	%100
103	M105	X	-.136	-.136	0	%100
104	M105	Z	-.078	-.078	0	%100
105	M113	X	-.136	-.136	0	%100
106	M113	Z	-.078	-.078	0	%100
107	M121	X	-.542	-.542	0	%100
108	M121	Z	-.313	-.313	0	%100
109	M124	X	-.17	-.17	0	%100
110	M124	Z	-.098	-.098	0	%100
111	M125	X	-.17	-.17	0	%100
112	M125	Z	-.098	-.098	0	%100
113	M126	X	-.68	-.68	0	%100
114	M126	Z	-.392	-.392	0	%100
115	M127	X	-.785	-.785	0	%100
116	M127	Z	-.453	-.453	0	%100
117	M128	X	-.329	-.329	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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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.%]
118	M128	Z	-19	-19	0	%100
119	M129	X	-.329	-.329	0	%100
120	M129	Z	-.19	-.19	0	%100
121	M130	X	-.785	-.785	0	%100
122	M130	Z	-.453	-.453	0	%100
123	M131	X	-.363	-.363	0	%100
124	M131	Z	-.209	-.209	0	%100
125	M132	X	-.363	-.363	0	%100
126	M132	Z	-.209	-.209	0	%100
127	OVP	X	-.429	-.429	0	%100
128	OVP	Z	-.248	-.248	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	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-.235	-.235	0	%100
4	M2	Z	-.407	-.407	0	%100
5	M3	X	-.49	-.49	0	%100
6	M3	Z	-.849	-.849	0	%100
7	M4	X	-.271	-.271	0	%100
8	M4	Z	-.47	-.47	0	%100
9	M5	X	-.235	-.235	0	%100
10	M5	Z	-.408	-.408	0	%100
11	M6	X	-.079	-.079	0	%100
12	M6	Z	-.137	-.137	0	%100
13	M7	X	-.495	-.495	0	%100
14	M7	Z	-.858	-.858	0	%100
15	M8	X	-.079	-.079	0	%100
16	M8	Z	-.137	-.137	0	%100
17	M14	X	-.055	-.055	0	%100
18	M14	Z	-.096	-.096	0	%100
19	M17	X	-.092	-.092	0	%100
20	M17	Z	-.159	-.159	0	%100
21	M18	X	-.225	-.225	0	%100
22	M18	Z	-.389	-.389	0	%100
23	M19	X	-.056	-.056	0	%100
24	M19	Z	-.097	-.097	0	%100
25	MP1A	X	-.259	-.259	0	%100
26	MP1A	Z	-.448	-.448	0	%100
27	M22	X	0	0	0	%100
28	M22	Z	0	0	0	%100
29	M23	X	0	0	0	%100
30	M23	Z	0	0	0	%100
31	M24	X	0	0	0	%100
32	M24	Z	0	0	0	%100
33	M25	X	-.235	-.235	0	%100
34	M25	Z	-.407	-.407	0	%100
35	M26	X	-.271	-.271	0	%100
36	M26	Z	-.47	-.47	0	%100
37	M27	X	-.235	-.235	0	%100
38	M27	Z	-.407	-.407	0	%100
39	M28	X	-.318	-.318	0	%100
40	M28	Z	-.55	-.55	0	%100
41	M29	X	-.317	-.317	0	%100
42	M29	Z	-.55	-.55	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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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.%]
43	M35	X	-.221	-.221	0	%100
44	M35	Z	-.382	-.382	0	%100
45	M38	X	-.368	-.368	0	%100
46	M38	Z	-.637	-.637	0	%100
47	M39	X	-.056	-.056	0	%100
48	M39	Z	-.097	-.097	0	%100
49	M40	X	-.056	-.056	0	%100
50	M40	Z	-.097	-.097	0	%100
51	M41	X	-.048	-.048	0	%100
52	M41	Z	-.083	-.083	0	%100
53	M44	X	-.079	-.079	0	%100
54	M44	Z	-.137	-.137	0	%100
55	M45	X	-.079	-.079	0	%100
56	M45	Z	-.137	-.137	0	%100
57	M51	X	-.055	-.055	0	%100
58	M51	Z	-.096	-.096	0	%100
59	M54	X	-.092	-.092	0	%100
60	M54	Z	-.159	-.159	0	%100
61	M55	X	-.056	-.056	0	%100
62	M55	Z	-.097	-.097	0	%100
63	M56	X	-.225	-.225	0	%100
64	M56	Z	-.389	-.389	0	%100
65	M57	X	-.08	-.08	0	%100
66	M57	Z	-.138	-.138	0	%100
67	MP2A	X	-.259	-.259	0	%100
68	MP2A	Z	-.448	-.448	0	%100
69	MP3A	X	-.259	-.259	0	%100
70	MP3A	Z	-.448	-.448	0	%100
71	MP4A	X	-.259	-.259	0	%100
72	MP4A	Z	-.448	-.448	0	%100
73	MP5A	X	-.259	-.259	0	%100
74	MP5A	Z	-.448	-.448	0	%100
75	MP1C	X	-.259	-.259	0	%100
76	MP1C	Z	-.448	-.448	0	%100
77	MP2C	X	-.259	-.259	0	%100
78	MP2C	Z	-.448	-.448	0	%100
79	MP3C	X	-.259	-.259	0	%100
80	MP3C	Z	-.448	-.448	0	%100
81	MP4C	X	-.259	-.259	0	%100
82	MP4C	Z	-.448	-.448	0	%100
83	MP5C	X	-.259	-.259	0	%100
84	MP5C	Z	-.448	-.448	0	%100
85	MP1B	X	-.259	-.259	0	%100
86	MP1B	Z	-.448	-.448	0	%100
87	MP2B	X	-.259	-.259	0	%100
88	MP2B	Z	-.448	-.448	0	%100
89	MP3B	X	-.259	-.259	0	%100
90	MP3B	Z	-.448	-.448	0	%100
91	MP4B	X	-.259	-.259	0	%100
92	MP4B	Z	-.448	-.448	0	%100
93	MP5B	X	-.259	-.259	0	%100
94	MP5B	Z	-.448	-.448	0	%100
95	M88	X	-.192	-.192	0	%100
96	M88	Z	-.332	-.332	0	%100
97	M91	X	-.319	-.319	0	%100
98	M91	Z	-.553	-.553	0	%100
99	M94	X	-.048	-.048	0	%100



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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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.%]
100	M94	Z	-.083	-.083	0	%100
101	M97	X	-.08	-.08	0	%100
102	M97	Z	-.138	-.138	0	%100
103	M105	X	-.235	-.235	0	%100
104	M105	Z	-.407	-.407	0	%100
105	M113	X	0	0	0	%100
106	M113	Z	0	0	0	%100
107	M121	X	-.235	-.235	0	%100
108	M121	Z	-.407	-.407	0	%100
109	M124	X	0	0	0	%100
110	M124	Z	0	0	0	%100
111	M125	X	-.294	-.294	0	%100
112	M125	Z	-.51	-.51	0	%100
113	M126	X	-.294	-.294	0	%100
114	M126	Z	-.51	-.51	0	%100
115	M127	X	-.379	-.379	0	%100
116	M127	Z	-.656	-.656	0	%100
117	M128	X	-.115	-.115	0	%100
118	M128	Z	-.199	-.199	0	%100
119	M129	X	-.359	-.359	0	%100
120	M129	Z	-.622	-.622	0	%100
121	M130	X	-.359	-.359	0	%100
122	M130	Z	-.622	-.622	0	%100
123	M131	X	-.115	-.115	0	%100
124	M131	Z	-.199	-.199	0	%100
125	M132	X	-.379	-.379	0	%100
126	M132	Z	-.656	-.656	0	%100
127	OVP	X	-.248	-.248	0	%100
128	OVP	Z	-.429	-.429	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	M26	Y	-3.797	-10.547	.492	1.181
2	M26	Y	-10.547	-13.922	1.181	1.87
3	M26	Y	-13.922	-13.922	1.87	2.559
4	M26	Y	-13.922	-13.922	2.559	3.248
5	M26	Y	-13.922	-13.922	3.248	3.937
6	M26	Y	-13.922	-13.922	3.937	4.626
7	M26	Y	-13.922	-10.547	4.626	5.315
8	M26	Y	-10.547	-3.797	5.315	6.004
9	M94	Y	-9.302	-9.302	0	1.5
10	M97	Y	-9.302	-9.302	0	1.5
11	M15	Y	-28.425	-28.425	0	.19
12	M17	Y	-2.507	-4.339	0	1.417
13	M17	Y	-4.339	-6.171	1.417	2.833
14	M19	Y	-6.314	-6.314	.268	1.789
15	M27	Y	-7.181	-6.361	1.058	1.718
16	M27	Y	-6.361	-5.196	1.718	2.379
17	M27	Y	-5.196	-3.683	2.379	3.039
18	M12	Y	-28.429	-28.429	0	.19
19	M14	Y	-2.507	-4.339	0	1.417
20	M14	Y	-4.339	-6.171	1.417	2.833
21	M18	Y	-6.314	-6.314	1.231	2.752
22	M22	Y	-3.683	-5.196	1.473	2.133
23	M22	Y	-5.196	-6.361	2.133	2.793
24	M22	Y	-6.361	-7.181	2.793	3.453





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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
25	M23	Y	-3.797	-10.547	.492	1.181
26	M23	Y	-10.547	-13.922	1.181	1.87
27	M23	Y	-13.922	-13.922	1.87	2.559
28	M23	Y	-13.922	-13.922	2.559	3.248
29	M23	Y	-13.922	-13.922	3.248	3.937
30	M23	Y	-13.922	-13.922	3.937	4.626
31	M23	Y	-13.922	-10.547	4.626	5.315
32	M23	Y	-10.547	-3.797	5.315	6.004
33	M88	Y	-9.302	-9.302	0	1.5
34	M91	Y	-9.302	-9.302	0	1.5
35	M24	Y	-7.181	-6.361	1.058	1.718
36	M24	Y	-6.361	-5.196	1.718	2.379
37	M24	Y	-5.196	-3.683	2.379	3.039
38	M52	Y	-28.426	-28.426	0	.19
39	M54	Y	-2.507	-4.339	0	1.417
40	M54	Y	-4.339	-6.171	1.417	2.833
41	M56	Y	-6.314	-6.314	.268	1.789
42	M2	Y	-3.683	-5.196	1.473	2.133
43	M2	Y	-5.196	-6.361	2.133	2.793
44	M2	Y	-6.361	-7.181	2.793	3.453
45	M49	Y	-28.428	-28.428	0	.19
46	M51	Y	-2.507	-4.339	0	1.417
47	M51	Y	-4.339	-6.171	1.417	2.833
48	M55	Y	-6.314	-6.314	1.231	2.752
49	M4	Y	-3.797	-10.547	.492	1.181
50	M4	Y	-10.547	-13.922	1.181	1.87
51	M4	Y	-13.922	-13.922	1.87	2.559
52	M4	Y	-13.922	-13.922	2.559	3.248
53	M4	Y	-13.922	-13.922	3.248	3.937
54	M4	Y	-13.922	-13.922	3.937	4.626
55	M4	Y	-13.922	-10.547	4.626	5.315
56	M4	Y	-10.547	-3.797	5.315	6.004
57	M41	Y	-9.302	-9.302	0	1.5
58	M57	Y	-9.302	-9.302	0	1.5
59	M5	Y	-7.181	-6.361	1.058	1.718
60	M5	Y	-6.361	-5.196	1.718	2.379
61	M5	Y	-5.196	-3.683	2.379	3.039
62	M36	Y	-28.426	-28.426	0	.19
63	M38	Y	-2.507	-4.339	0	1.417
64	M38	Y	-4.339	-6.171	1.417	2.833
65	M40	Y	-6.314	-6.314	.268	1.789
66	M25	Y	-3.683	-5.196	1.473	2.133
67	M25	Y	-5.196	-6.361	2.133	2.793
68	M25	Y	-6.361	-7.181	2.793	3.453
69	M33	Y	-28.428	-28.428	0	.19
70	M35	Y	-2.507	-4.339	0	1.417
71	M35	Y	-4.339	-6.171	1.417	2.833
72	M39	Y	-6.314	-6.314	1.231	2.752

**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	M26	Y	-4.266	-11.849	.492	1.181
2	M26	Y	-11.849	-15.64	1.181	1.87
3	M26	Y	-15.64	-15.64	1.87	2.559
4	M26	Y	-15.64	-15.64	2.559	3.248
5	M26	Y	-15.64	-15.64	3.248	3.937



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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**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.%]
6	M26	Y	-15.64	-15.64	3.937	4.626
7	M26	Y	-15.64	-11.849	4.626	5.315
8	M26	Y	-11.849	-4.266	5.315	6.004
9	M94	Y	-10.451	-10.451	0	1.5
10	M97	Y	-10.451	-10.451	0	1.5
11	M15	Y	-31.934	-31.934	0	.19
12	M17	Y	-2.817	-4.875	0	1.417
13	M17	Y	-4.875	-6.932	1.417	2.833
14	M19	Y	-7.094	-7.094	.268	1.789
15	M27	Y	-8.067	-7.147	1.058	1.718
16	M27	Y	-7.147	-5.837	1.718	2.379
17	M27	Y	-5.837	-4.138	2.379	3.039
18	M12	Y	-31.938	-31.938	0	.19
19	M14	Y	-2.817	-4.875	0	1.417
20	M14	Y	-4.875	-6.932	1.417	2.833
21	M18	Y	-7.094	-7.094	1.231	2.752
22	M22	Y	-4.138	-5.837	1.473	2.133
23	M22	Y	-5.837	-7.147	2.133	2.793
24	M22	Y	-7.147	-8.067	2.793	3.453
25	M23	Y	-4.266	-11.849	.492	1.181
26	M23	Y	-11.849	-15.64	1.181	1.87
27	M23	Y	-15.64	-15.64	1.87	2.559
28	M23	Y	-15.64	-15.64	2.559	3.248
29	M23	Y	-15.64	-15.64	3.248	3.937
30	M23	Y	-15.64	-15.64	3.937	4.626
31	M23	Y	-15.64	-11.849	4.626	5.315
32	M23	Y	-11.849	-4.266	5.315	6.004
33	M88	Y	-10.451	-10.451	0	1.5
34	M91	Y	-10.451	-10.451	0	1.5
35	M24	Y	-8.067	-7.147	1.058	1.718
36	M24	Y	-7.147	-5.837	1.718	2.379
37	M24	Y	-5.837	-4.138	2.379	3.039
38	M52	Y	-31.935	-31.935	0	.19
39	M54	Y	-2.817	-4.875	0	1.417
40	M54	Y	-4.875	-6.932	1.417	2.833
41	M56	Y	-7.094	-7.094	.268	1.789
42	M2	Y	-4.138	-5.837	1.473	2.133
43	M2	Y	-5.837	-7.147	2.133	2.793
44	M2	Y	-7.147	-8.067	2.793	3.453
45	M49	Y	-31.937	-31.937	0	.19
46	M51	Y	-2.817	-4.875	0	1.417
47	M51	Y	-4.875	-6.932	1.417	2.833
48	M55	Y	-7.094	-7.094	1.231	2.752
49	M4	Y	-4.266	-11.849	.492	1.181
50	M4	Y	-11.849	-15.64	1.181	1.87
51	M4	Y	-15.64	-15.64	1.87	2.559
52	M4	Y	-15.64	-15.64	2.559	3.248
53	M4	Y	-15.64	-15.64	3.248	3.937
54	M4	Y	-15.64	-15.64	3.937	4.626
55	M4	Y	-15.64	-11.849	4.626	5.315
56	M4	Y	-11.849	-4.266	5.315	6.004
57	M41	Y	-10.451	-10.451	0	1.5
58	M57	Y	-10.451	-10.451	0	1.5
59	M5	Y	-8.067	-7.147	1.058	1.718
60	M5	Y	-7.147	-5.837	1.718	2.379
61	M5	Y	-5.837	-4.138	2.379	3.039
62	M36	Y	-31.935	-31.935	0	.19



**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.%]
63	M38	Y	-2.817	-4.875	0	1.417
64	M38	Y	-4.875	-6.932	1.417	2.833
65	M40	Y	-7.094	-7.094	.268	1.789
66	M25	Y	-4.138	-5.837	1.473	2.133
67	M25	Y	-5.837	-7.147	2.133	2.793
68	M25	Y	-7.147	-8.067	2.793	3.453
69	M33	Y	-31.937	-31.937	0	.19
70	M35	Y	-2.817	-4.875	0	1.417
71	M35	Y	-4.875	-6.932	1.417	2.833
72	M39	Y	-7.094	-7.094	1.231	2.752

**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	M26	Y	-.093	-.259	.492	1.181
2	M26	Y	-.259	-.342	1.181	1.87
3	M26	Y	-.342	-.342	1.87	2.559
4	M26	Y	-.342	-.342	2.559	3.248
5	M26	Y	-.342	-.342	3.248	3.937
6	M26	Y	-.342	-.342	3.937	4.626
7	M26	Y	-.342	-.259	4.626	5.315
8	M26	Y	-.259	-.093	5.315	6.004
9	M94	Y	-.228	-.228	0	1.5
10	M97	Y	-.228	-.228	0	1.5
11	M15	Y	-.698	-.698	0	.19
12	M17	Y	-.062	-.107	0	1.417
13	M17	Y	-.107	-.152	1.417	2.833
14	M19	Y	-.155	-.155	.268	1.789
15	M27	Y	-.176	-.156	1.058	1.718
16	M27	Y	-.156	-.128	1.718	2.379
17	M27	Y	-.128	-.09	2.379	3.039
18	M12	Y	-.698	-.698	0	.19
19	M14	Y	-.062	-.107	0	1.417
20	M14	Y	-.107	-.152	1.417	2.833
21	M18	Y	-.155	-.155	1.231	2.752
22	M22	Y	-.09	-.128	1.473	2.133
23	M22	Y	-.128	-.156	2.133	2.793
24	M22	Y	-.156	-.176	2.793	3.453
25	M23	Y	-.093	-.259	.492	1.181
26	M23	Y	-.259	-.342	1.181	1.87
27	M23	Y	-.342	-.342	1.87	2.559
28	M23	Y	-.342	-.342	2.559	3.248
29	M23	Y	-.342	-.342	3.248	3.937
30	M23	Y	-.342	-.342	3.937	4.626
31	M23	Y	-.342	-.259	4.626	5.315
32	M23	Y	-.259	-.093	5.315	6.004
33	M88	Y	-.228	-.228	0	1.5
34	M91	Y	-.228	-.228	0	1.5
35	M24	Y	-.176	-.156	1.058	1.718
36	M24	Y	-.156	-.128	1.718	2.379
37	M24	Y	-.128	-.09	2.379	3.039
38	M52	Y	-.698	-.698	0	.19
39	M54	Y	-.062	-.107	0	1.417
40	M54	Y	-.107	-.152	1.417	2.833
41	M56	Y	-.155	-.155	.268	1.789
42	M2	Y	-.09	-.128	1.473	2.133
43	M2	Y	-.128	-.156	2.133	2.793



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
44	M2	Y	-156	-176	2.793	3.453
45	M49	Y	-698	-698	0	.19
46	M51	Y	-.062	-.107	0	1.417
47	M51	Y	-.107	-.152	1.417	2.833
48	M55	Y	-.155	-.155	1.231	2.752
49	M4	Y	-.093	-.259	.492	1.181
50	M4	Y	-.259	-.342	1.181	1.87
51	M4	Y	-.342	-.342	1.87	2.559
52	M4	Y	-.342	-.342	2.559	3.248
53	M4	Y	-.342	-.342	3.248	3.937
54	M4	Y	-.342	-.342	3.937	4.626
55	M4	Y	-.342	-.259	4.626	5.315
56	M4	Y	-.259	-.093	5.315	6.004
57	M41	Y	-.228	-.228	0	1.5
58	M57	Y	-.228	-.228	0	1.5
59	M5	Y	-.176	-.156	1.058	1.718
60	M5	Y	-.156	-.128	1.718	2.379
61	M5	Y	-.128	-.09	2.379	3.039
62	M36	Y	-.698	-.698	0	.19
63	M38	Y	-.062	-.107	0	1.417
64	M38	Y	-.107	-.152	1.417	2.833
65	M40	Y	-.155	-.155	.268	1.789
66	M25	Y	-.09	-.128	1.473	2.133
67	M25	Y	-.128	-.156	2.133	2.793
68	M25	Y	-.156	-.176	2.793	3.453
69	M33	Y	-.698	-.698	0	.19
70	M35	Y	-.062	-.107	0	1.417
71	M35	Y	-.107	-.152	1.417	2.833
72	M39	Y	-.155	-.155	1.231	2.752

**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	M26	Z	-.233	-.647	.492	1.181
2	M26	Z	-.647	-.854	1.181	1.87
3	M26	Z	-.854	-.854	1.87	2.559
4	M26	Z	-.854	-.854	2.559	3.248
5	M26	Z	-.854	-.854	3.248	3.937
6	M26	Z	-.854	-.854	3.937	4.626
7	M26	Z	-.854	-.647	4.626	5.315
8	M26	Z	-.647	-.233	5.315	6.004
9	M94	Z	-.571	-.571	0	1.5
10	M97	Z	-.571	-.571	0	1.5
11	M15	Z	-1.743	-1.743	0	.19
12	M17	Z	-.154	-.266	0	1.417
13	M17	Z	-.266	-.378	1.417	2.833
14	M19	Z	-.387	-.387	.268	1.789
15	M27	Z	-.44	-.39	1.058	1.718
16	M27	Z	-.39	-.319	1.718	2.379
17	M27	Z	-.319	-.226	2.379	3.039
18	M12	Z	-1.744	-1.744	0	.19
19	M14	Z	-.154	-.266	0	1.417
20	M14	Z	-.266	-.378	1.417	2.833
21	M18	Z	-.387	-.387	1.231	2.752
22	M22	Z	-.226	-.319	1.473	2.133
23	M22	Z	-.319	-.39	2.133	2.793
24	M22	Z	-.39	-.44	2.793	3.453



**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.%]
25	M23	Z	-.233	-.647	.492	1.181
26	M23	Z	-.647	-.854	1.181	1.87
27	M23	Z	-.854	-.854	1.87	2.559
28	M23	Z	-.854	-.854	2.559	3.248
29	M23	Z	-.854	-.854	3.248	3.937
30	M23	Z	-.854	-.854	3.937	4.626
31	M23	Z	-.854	-.647	4.626	5.315
32	M23	Z	-.647	-.233	5.315	6.004
33	M88	Z	-.571	-.571	0	1.5
34	M91	Z	-.571	-.571	0	1.5
35	M24	Z	-.44	-.39	1.058	1.718
36	M24	Z	-.39	-.319	1.718	2.379
37	M24	Z	-.319	-.226	2.379	3.039
38	M52	Z	-1.743	-1.743	0	.19
39	M54	Z	-.154	-.266	0	1.417
40	M54	Z	-.266	-.378	1.417	2.833
41	M56	Z	-.387	-.387	.268	1.789
42	M2	Z	-.226	-.319	1.473	2.133
43	M2	Z	-.319	-.39	2.133	2.793
44	M2	Z	-.39	-.44	2.793	3.453
45	M49	Z	-1.744	-1.744	0	.19
46	M51	Z	-.154	-.266	0	1.417
47	M51	Z	-.266	-.378	1.417	2.833
48	M55	Z	-.387	-.387	1.231	2.752
49	M4	Z	-.233	-.647	.492	1.181
50	M4	Z	-.647	-.854	1.181	1.87
51	M4	Z	-.854	-.854	1.87	2.559
52	M4	Z	-.854	-.854	2.559	3.248
53	M4	Z	-.854	-.854	3.248	3.937
54	M4	Z	-.854	-.854	3.937	4.626
55	M4	Z	-.854	-.647	4.626	5.315
56	M4	Z	-.647	-.233	5.315	6.004
57	M41	Z	-.571	-.571	0	1.5
58	M57	Z	-.571	-.571	0	1.5
59	M5	Z	-.44	-.39	1.058	1.718
60	M5	Z	-.39	-.319	1.718	2.379
61	M5	Z	-.319	-.226	2.379	3.039
62	M36	Z	-1.743	-1.743	0	.19
63	M38	Z	-.154	-.266	0	1.417
64	M38	Z	-.266	-.378	1.417	2.833
65	M40	Z	-.387	-.387	.268	1.789
66	M25	Z	-.226	-.319	1.473	2.133
67	M25	Z	-.319	-.39	2.133	2.793
68	M25	Z	-.39	-.44	2.793	3.453
69	M33	Z	-1.744	-1.744	0	.19
70	M35	Z	-.154	-.266	0	1.417
71	M35	Z	-.266	-.378	1.417	2.833
72	M39	Z	-.387	-.387	1.231	2.752

**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	M26	X	.233	.647	.492	1.181
2	M26	X	.647	.854	1.181	1.87
3	M26	X	.854	.854	1.87	2.559
4	M26	X	.854	.854	2.559	3.248
5	M26	X	.854	.854	3.248	3.937



Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
6	M26	X	.854	.854	3.937	4.626
7	M26	X	.854	.647	4.626	5.315
8	M26	X	.647	.233	5.315	6.004
9	M94	X	.571	.571	0	1.5
10	M97	X	.571	.571	0	1.5
11	M15	X	1.743	1.743	0	.19
12	M17	X	.154	.266	0	1.417
13	M17	X	.266	.378	1.417	2.833
14	M19	X	.387	.387	.268	1.789
15	M27	X	.44	.39	1.058	1.718
16	M27	X	.39	.319	1.718	2.379
17	M27	X	.319	.226	2.379	3.039
18	M12	X	1.744	1.744	0	.19
19	M14	X	.154	.266	0	1.417
20	M14	X	.266	.378	1.417	2.833
21	M18	X	.387	.387	1.231	2.752
22	M22	X	.226	.319	1.473	2.133
23	M22	X	.319	.39	2.133	2.793
24	M22	X	.39	.44	2.793	3.453
25	M23	X	.233	.647	.492	1.181
26	M23	X	.647	.854	1.181	1.87
27	M23	X	.854	.854	1.87	2.559
28	M23	X	.854	.854	2.559	3.248
29	M23	X	.854	.854	3.248	3.937
30	M23	X	.854	.854	3.937	4.626
31	M23	X	.854	.647	4.626	5.315
32	M23	X	.647	.233	5.315	6.004
33	M88	X	.571	.571	0	1.5
34	M91	X	.571	.571	0	1.5
35	M24	X	.44	.39	1.058	1.718
36	M24	X	.39	.319	1.718	2.379
37	M24	X	.319	.226	2.379	3.039
38	M52	X	1.743	1.743	0	.19
39	M54	X	.154	.266	0	1.417
40	M54	X	.266	.378	1.417	2.833
41	M56	X	.387	.387	.268	1.789
42	M2	X	.226	.319	1.473	2.133
43	M2	X	.319	.39	2.133	2.793
44	M2	X	.39	.44	2.793	3.453
45	M49	X	1.744	1.744	0	.19
46	M51	X	.154	.266	0	1.417
47	M51	X	.266	.378	1.417	2.833
48	M55	X	.387	.387	1.231	2.752
49	M4	X	.233	.647	.492	1.181
50	M4	X	.647	.854	1.181	1.87
51	M4	X	.854	.854	1.87	2.559
52	M4	X	.854	.854	2.559	3.248
53	M4	X	.854	.854	3.248	3.937
54	M4	X	.854	.854	3.937	4.626
55	M4	X	.854	.647	4.626	5.315
56	M4	X	.647	.233	5.315	6.004
57	M41	X	.571	.571	0	1.5
58	M57	X	.571	.571	0	1.5
59	M5	X	.44	.39	1.058	1.718
60	M5	X	.39	.319	1.718	2.379
61	M5	X	.319	.226	2.379	3.039
62	M36	X	1.743	1.743	0	.19



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

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft.F...]	Start Location[ft.%]	End Location[ft.%]
63	M38	X	.154	.266	0	1.417
64	M38	X	.266	.378	1.417	2.833
65	M40	X	.387	.387	.268	1.789
66	M25	X	.226	.319	1.473	2.133
67	M25	X	.319	.39	2.133	2.793
68	M25	X	.39	.44	2.793	3.453
69	M33	X	1.744	1.744	0	.19
70	M35	X	.154	.266	0	1.417
71	M35	X	.266	.378	1.417	2.833
72	M39	X	.387	.387	1.231	2.752

**Member Area Loads (BLC 39 : Structure D)**

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N157	N153	N154	N158	Y	Two Way	-.009
2	N151	N29	N30	N152	Y	Two Way	-.009
3	N28	N27	N147	N148	Y	Two Way	-.009
4	N150	N149	N145	N146	Y	Two Way	-.009
5	N144	N143	N81	N82	Y	Two Way	-.009
6	N80	N79	N83	N84	Y	Two Way	-.009
7	N85	N86	N62	N61	Y	Two Way	-.009
8	N59	N60	N58	N57	Y	Two Way	-.009
9	N56	N55	N155	N156	Y	Two Way	-.009

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N157	N153	N154	N158	Y	Two Way	-.01
2	N151	N29	N30	N152	Y	Two Way	-.01
3	N28	N27	N147	N148	Y	Two Way	-.01
4	N150	N149	N145	N146	Y	Two Way	-.01
5	N144	N143	N81	N82	Y	Two Way	-.01
6	N80	N79	N83	N84	Y	Two Way	-.01
7	N85	N86	N62	N61	Y	Two Way	-.01
8	N59	N60	N58	N57	Y	Two Way	-.01
9	N56	N55	N155	N156	Y	Two Way	-.01

**Member Area Loads (BLC 84 : Structure Ev)**

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N157	N153	N154	N158	Y	Two Way	-.000221
2	N151	N29	N30	N152	Y	Two Way	-.000221
3	N28	N27	N147	N148	Y	Two Way	-.000221
4	N150	N149	N145	N146	Y	Two Way	-.000221
5	N144	N143	N81	N82	Y	Two Way	-.000221
6	N80	N79	N83	N84	Y	Two Way	-.000221
7	N85	N86	N62	N61	Y	Two Way	-.000221
8	N59	N60	N58	N57	Y	Two Way	-.000221
9	N56	N55	N155	N156	Y	Two Way	-.000221

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N157	N153	N154	N158	Z	Two Way	-.000552
2	N151	N29	N30	N152	Z	Two Way	-.000552
3	N28	N27	N147	N148	Z	Two Way	-.000552
4	N150	N149	N145	N146	Z	Two Way	-.000552
5	N144	N143	N81	N82	Z	Two Way	-.000552



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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
6	N80	N79	N83	N84	Z	Two Way	-.000552
7	N85	N86	N62	N61	Z	Two Way	-.000552
8	N59	N60	N58	N57	Z	Two Way	-.000552
9	N56	N55	N155	N156	Z	Two Way	-.000552

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N157	N153	N154	N158	X	Two Way	.000552
2	N151	N29	N30	N152	X	Two Way	.000552
3	N28	N27	N147	N148	X	Two Way	.000552
4	N150	N149	N145	N146	X	Two Way	.000552
5	N144	N143	N81	N82	X	Two Way	.000552
6	N80	N79	N83	N84	X	Two Way	.000552
7	N85	N86	N62	N61	X	Two Way	.000552
8	N59	N60	N58	N57	X	Two Way	.000552
9	N56	N55	N155	N156	X	Two Way	.000552

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

Member	Shape	Code Check	L	LC	Shear C	Loc	phi*P	phi*P	phi*M	phi*M	Eqn		
1	M1	PL3/8x6	.419	5	3	.039	.548	z 4	33469..	72900	.57	9.113	H1-1b
2	M2	PIPE 3.0	.230	4	19	.111	4.5	31	24571..	65205	5.749	5.749	1 H1-1b
3	M3	PL3/8x6	.394	5	11	.049	0	y 32	33469..	72900	.57	9.113	H1-1b
4	M4	PIPE 3.0	.242	7	28	.112	.743	31	24571..	65205	5.749	5.749	1 H1-1b
5	M5	PIPE 3.0	.221	3	19	.098	0	19	24571..	65205	5.749	5.749	1 H1-1b
6	M6	HSS3X3	.053	1	4	.025	.538	z 4	11129..	140346	11.213	11.213	H1-1b
7	M7	PL3/8x6	.414	5	7	.038	.563	z 8	33196..	72900	.57	8.797	H1-1b
8	M8	HSS3X3	.170	0	4	.036	0	z 4	11128..	140346	11.213	11.213	H1-1b
9	M14	L2.5x1.5	.056	1	10	.004	0	z 16	16997..	30682	.461	1.591	H2-1
10	M17	L2.5x1.5	.062	0	4	.003	0	z 10	16997..	30682	.461	1.443	H2-1
11	M18	L2.5x1.5	.556	3	20	.057	2.8	y 19	15681..	30682	.461	1.597	H2-1
12	M19	L2.5x1.5	.570	0	18	.054	.22	y 19	15680..	30682	.461	1.597	H2-1
13	MP1A	PIPE 2.0	.210	3.5	32	.084	1.0	8	17855..	32130	1.872	1.872	H1-1b
14	M22	PIPE 3.0	.208	4	15	.086	4.5	15	24571..	65205	5.749	5.749	1 H1-1b
15	M23	PIPE 3.0	.227	5	30	.102	5.8	15	24571..	65205	5.749	5.749	1 H1-1b
16	M24	PIPE 3.0	.240	3	15	.102	0	15	24571..	65205	5.749	5.749	1 H1-1b
17	M25	PIPE 3.0	.202	4	23	.087	4.5	20	24571..	65205	5.749	5.749	1 H1-1b
18	M26	PIPE 3.0	.190	5	14	.096	5.8	13	24571..	65205	5.749	5.749	1 H1-1b
19	M27	PIPE 3.0	.225	3	13	.096	0	13	24571..	65205	5.749	5.749	1 H1-1b
20	M28	HSS3X3	.051	1	12	.025	.539	z 12	11124..	140346	11.213	11.213	H1-1b
21	M29	HSS3X3	.178	0	6	.038	0	z 6	11128..	140346	11.213	11.213	H1-1b
22	M35	L2.5x1.5	.059	1	6	.004	2.8	z 13	16997..	30682	.461	1.595	H2-1
23	M38	L2.5x1.5	.060	0	12	.004	0	z 12	16997..	30682	.461	1.445	H2-1
24	M39	L2.5x1.5	.550	3	16	.057	2.8	y 15	15681..	30682	.461	1.597	H2-1
25	M40	L2.5x1.5	.587	0	14	.055	.22	y 15	15680..	30682	.461	1.597	H2-1
26	M41	L2.5x1.5	.068	.75	14	.010	1.5	z 17	26001..	30682	.461	1.597	H2-1
27	M44	HSS3X3	.062	1	8	.032	.539	z 8	11124..	140346	11.213	11.213	H1-1b
28	M45	HSS3X3	.212	0	2	.046	0	z 8	11128..	140346	11.213	11.213	H1-1b
29	M51	L2.5x1.5	.063	1	2	.004	0	z 20	16997..	30682	.461	1.597	H2-1
30	M54	L2.5x1.5	.067	0	8	.004	0	z 8	16997..	30682	.461	1.445	H2-1
31	M55	L2.5x1.5	.580	3	24	.058	2.8	y 23	15681..	30682	.461	1.597	H2-1
32	M56	L2.5x1.5	.601	0	22	.055	.22	y 23	15680..	30682	.461	1.597	H2-1
33	M57	L2.5x1.5	.060	.75	16	.011	1.5	y 20	26001..	30682	.461	1.574	H2-1
34	MP2A	PIPE 2.0	.328	3	32	.081	3.4	7	20866..	32130	1.872	1.872	H1-1b
35	MP3A	PIPE 2.0	.280	3	10	.067	3.75	10	20866..	32130	1.872	1.872	H1-1b
36	MP4A	PIPE 2.0	.283	3.5	17	.076	3.5	7	17855..	32130	1.872	1.872	H1-1b





Company : Colliers Engineering & Design  
 Designer : NL  
 Job Number : Project No. 10208064  
 Model Name : 5000384514-VZW\_MT\_LO\_H

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

Member	Shape	Code Check	L	LC	Shear C.	Loc.	phi*P	phi*P...	phi*M	phi*M...	Egn				
37	MP5A	PIPE 2.0	.190	3...	18	.071	2.6...	6	17855..	32130	1.872	1.872	...	H1-1b	
38	MP1C	PIPE 2.0	.183	3.5	16	.070	1.0...	4	17855..	32130	1.872	1.872	...	H1-1b	
39	MP2C	PIPE 2.0	.281	3...	17	.074	3.4...	3	20866..	32130	1.872	1.872	...	H1-1b	
40	MP3C	PIPE 2.0	.296	3...	6	.069	3.75	6	20866..	32130	1.872	1.872	...	H1-1b	
41	MP4C	PIPE 2.0	.314	3.5	13	.078	3.5	2	17855..	32130	1.872	1.872	...	H1-1b	
42	MP5C	PIPE 2.0	.246	3...	26	.082	2.6...	2	17855..	32130	1.872	1.872	...	H1-1b	
43	MP1B	PIPE 2.0	.172	3.5	24	.071	1.0...	12	17855..	32130	1.872	1.872	...	H1-1b	
44	MP2B	PIPE 2.0	.261	3...	24	.076	3.4...	11	20866..	32130	1.872	1.872	...	H1-1b	
45	MP3B	PIPE 2.0	.286	3...	2	.052	3.75	2	20866..	32130	1.872	1.872	...	H1-1b	
46	MP4B	PIPE 2.0	.260	3.5	21	.074	3.5	11	17855..	32130	1.872	1.872	...	H1-1b	
47	MP5B	PIPE 2.0	.175	3...	22	.068	2.6...	10	17855..	32130	1.872	1.872	...	H1-1b	
48	M88	L2.5x1.5...	.069	.75	14	.010	0	z	13	26001..	30682..	.461	1.597	...	H2-1
49	M91	L2.5x1.5...	.058	.75	24	.010	0	y	16	26001..	30682..	.461	1.574	...	H2-1
50	M94	L2.5x1.5...	.066	.75	18	.010	0	z	21	26001..	30682..	.461	1.597	...	H2-1
51	M97	L2.5x1.5...	.058	.75	20	.010	0	y	13	26001..	30682..	.461	1.574	...	H2-1
52	M105	PIPE 2.5	.134	8.5	21	.087	14.5	1	8886...	50715	3.596	3.596	...	H1-1b	
53	M113	PIPE 2.5	.137	2...	30	.053	14.5	3	8886...	50715	3.596	3.596	...	H1-1b	
54	M121	PIPE 2.5	.122	8.5	13	.052	14.5	11	8886...	50715	3.596	3.596	...	H1-1b	
55	M124	L3X3X4	.142	0	11	.018	0	y	11	42483..	46656	1.688	3.756	...	H2-1
56	M125	L3X3X4	.144	0	3	.018	0	y	3	42483..	46656	1.688	3.756	...	H2-1
57	M126	L3X3X4	.210	0	7	.027	0	y	7	42483..	46656	1.688	3.756	...	H2-1
58	M127	L2.5x2.5...	.189	2...	22	.006	5.4...	z	6	14498..	38556	1.114	2.203	...	H2-1
59	M128	L2.5x2.5...	.215	2...	16	.006	0	y	9	14498..	38556	1.114	2.203	...	H2-1
60	M129	L2.5x2.5...	.206	2...	18	.006	0	z	1	14498..	38556	1.114	2.203	...	H2-1
61	M130	L2.5x2.5...	.194	2...	24	.006	5.4...	y	5	14498..	38556	1.114	2.203	...	H2-1
62	M131	L2.5x2.5...	.191	2...	14	.006	0	z	9	14498..	38556	1.114	2.203	...	H2-1
63	M132	L2.5x2.5...	.196	2...	20	.006	0	y	1	14498..	38556	1.114	2.203	...	H2-1
64	OVP	PIPE 2.0	.108	1...	1	.048	1.9...	4	25203..	32130	1.872	1.872	...	H1-1b	

**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	N17	max	669.658	10	236.201	19	2548.579	1	.961	13	1.424	4	.161	4
2		min	-696.398	4	92.856	64	-1658.854	7	.088	7	-1.419	10	-.154	10
3	N45	max	2200.21	9	236.443	14	767.567	3	-.061	3	1.369	12	-.071	3
4		min	-1470.264	3	92.813	72	-1245.835	9	-.484	21	-1.512	6	-.824	21
5	N69	max	1330.264	11	238.911	24	810.663	1	-.028	1	1.822	8	.951	29
6		min	-2360.113	5	93.866	68	-1421.979	7	-.566	31	-1.846	2	.094	11
7	N213	max	710.014	28	2292.47	19	3258.72	19	0	1	0	28	0	28
8		min	-308.507	10	813.221	64	1162.753	64	0	7	0	10	0	10
9	N210	max	2838.593	17	2259.894	15	-465.667	6	0	12	0	12	0	3
10		min	996.182	73	805.929	72	-1612.128	24	0	30	0	30	0	9
11	N213A	max	-936.903	67	2126.785	23	-269.064	8	0	1	0	8	0	5
12		min	-2651.798	20	755.896	68	-1578.398	14	0	7	0	2	0	11
13	Totals:	max	3337.845	10	7258.109	16	3363.828	1						
14		min	-3337.867	4	2707.897	72	-3363.645	7						

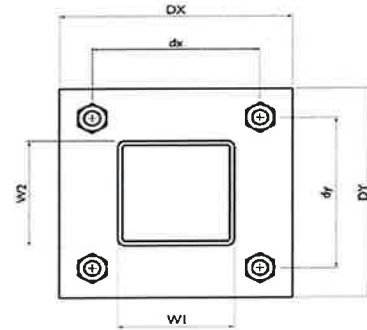
**I. Mount-to-Tower Connection Check**

Custom Orientation Required  No

Tower Connection Bolt Checks  Yes

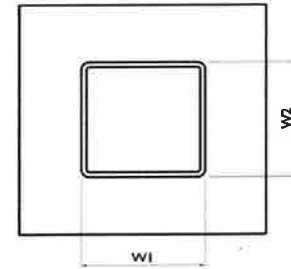
Bolt Orientation  Parallel

Bolt Quantity per Reaction:	4
$d_x$ (in) (Delta X of typ. bolt config. sketch):	4
$d_y$ (in) (Delta Y of typ. bolt config. sketch):	4
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength / bolt (kips):	2.5
Required Shear Strength / bolt (kips):	0.1
Tensile Capacity / bolt (kips):	20.7
Shear Capacity / bolt (kips):	12.4
Bolt Overall Utilization:	<b>12.2%</b>



Tower Connection Baseplate Checks  Yes

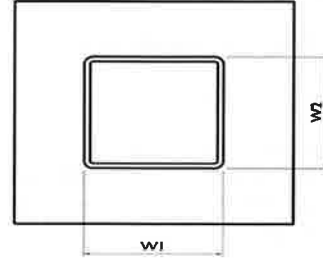
Connecting Standoff Member Shape:	Rect Tube
Weld Stiffener Configuration:	No Stiffeners
Plate Width, $D_x$ (in):	6
Plate Height, $D_y$ (in):	6
$W_1$ (in):	3
$W_2$ (in):	3
Member Thickness (in):	0.375
Stiffener location $a_1$ (in):	
Stiffener location $b_1$ (in):	
Stiffener location $a_2$ (in):	
Stiffener location $b_2$ (in):	
$F_y$ (ksi, plate):	36
Plate Thickness (in):	0.75
Length of Yield Line, $L_y$ (in):	4.19
Bolt Eccentricity, $e$ (in):	1.06
$M_u$ (kip-in):	2.68
$\Phi * M_n$ (kip-in):	19.09
Plate Bending Utilization:	<b>14.0%</b>



Tower Connection Weld Checks

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

Yes
Rectangle
None
6
3
3
12.00
12.00
12.00
36.00
1.875
1.875
1.06
8.35
12.7%

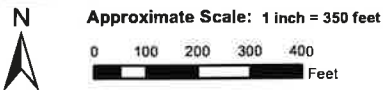
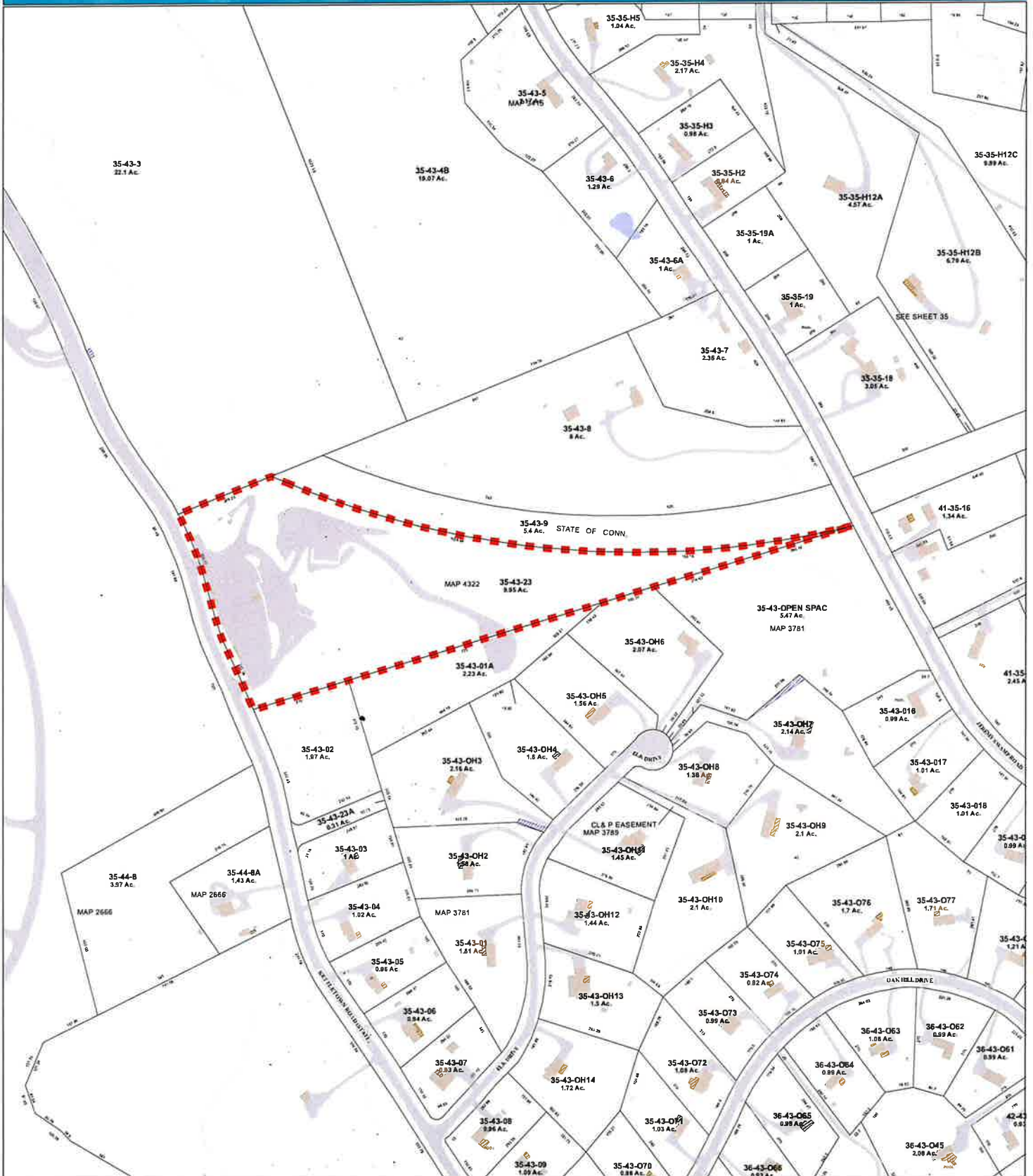


# **ATTACHMENT 4**

# Town of Southbury Connecticut - Assessment Parcel Map

Parcel: 35-43-23

Location: 231 KETTLETOWN ROAD



Map Produced November 2021

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

# 231 KETTLETOWN ROAD

[Sales](#)
[Print](#)
[Map It](#)

**Location** 231 KETTLETOWN ROAD **Mblu** 35/ 43/ 23/ /  
**Acct#** 00369500 **Owner** SOUTHBURY TOWN OF  
**Assessment** \$264,210 **Appraisal** \$377,430  
**PID** 4358 **Building Count** 1

## Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2017	\$85,880	\$291,550	\$377,430
Assessment			
Valuation Year	Improvements	Land	Total
2017	\$60,120	\$204,090	\$264,210

## Owner of Record

**Owner** SOUTHBURY TOWN OF  
**Co-Owner**  
**Address** 501 MAIN ST SO  
 SOUTHBURY, CT 06488  
**Sale Price** \$0  
**Certificate**  
**Book & Page** 0112/0334  
**Sale Date** 03/15/1973  
**Instrument** 25

# **ATTACHMENT 5**

**Certificate of Mailing — Firm**



Name and Address of Sender

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

TOTAL NO.  
of Pieces Listed by Sender

2

TOTAL NO.  
of Pieces Received at Post Office™

2

Postmaster, per (name of receiving employee)

*[Handwritten Signature]*

Affix Stamp Here  
Postmark with Date of Receipt.



US POSTAGE

USPS® Tracking Number  
Firm-specific Identifier

1.

Address  
(Name, Street, City, State, and ZIP Code™)  
**Jeff Manville, First Selectman**  
Town of Southbury  
501 Main Street South  
Southbury, CT 06488  
Jordan Marcinko, Land Use Administrator  
Town of Southbury  
501 Main Street South  
Southbury, CT 06488

2.

3.

4.

5.

6.

Postage

Fee

Special Handling

Parcel Airlift

