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October 11, 2024

Via Electronic Mail

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
11-21 East Main Street, Plainville, Connecticut**

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains an existing wireless telecommunications facility at the Plainville Municipal Center, 11-21 East Main Street in Plainville (the “Property”). The existing Cellco facility consists of antennas and remote radio heads attached to a telecommunications tower and associated equipment on the ground near the base of the tower. The tower is used primarily for municipal and emergency service communications purposes. Cellco’s real estate consultants contacted Town staff in an effort to obtain a copy of the original local tower approval for this municipal structure at the Property. Zoning staff indicated that because the tower is Town-owned it was exempt from local zoning requirements or formal zoning approval. The Town’s building department was also unable to locate a building permit for this tower. Cellco’s shared use of the tower was approved by the Council in August 2004 (TS-VER-110-040729). A copy of Cellco’s tower share approval is included in Attachment 1.

Cellco now intends to modify its facility by removing three (3) antennas installing four (4) new antennas on its existing antenna platform and antenna mounts. A set of project plans showing Cellco’s proposed facility modifications and the specifications for Cellco’s new antennas 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 Plainville’s Chief Elected Official and Land Use Officer. The Town is the owner of the tower and the Property.

The planned modifications to the facility fall squarely within those activities explicitly provided

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Robinson+Cole

Melanie A. Bachman, Esq.
October 11, 2024
Page 2

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. Cellco's new antennas and RRHs will be installed at the same height on the tower.
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 antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. Included in Attachment 3 is a Calculated Radio Frequency Emissions Report demonstrating that the proposed modified facility will comply with the FCC safety standards. The modified facility will be capable of providing Cellco's 5G wireless service.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. According to the attached Structural Analysis Report ("SA") and Antenna Mount Analysis Report ("MA"), the existing tower, tower foundation and antenna mounts, with certain modifications, can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4.

A copy of the parcel map and Property owner information is included in Attachment 5. A Certificate of Mailing verifying that this filing was sent to municipal officials and the property owner is included in Attachment 6.

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:

Michael Paulhus, Town Manger
Mark DeVoe, Town Planner
Ryan Hand, Verizon Wireless
Gavin Jacob, GDP Group

ATTACHMENT 1

August 13, 2004

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

RE: **TS-VER-110-040729** – Cellco Partnership d/b/a Verizon Wireless request for an order to approve tower sharing at an existing telecommunications facility located at 21-35 East Main Street, Plainville, Connecticut.

Dear Attorney Baldwin:

At a public meeting held August 12, 2004, 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 of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

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

The proposed shared use is to be implemented as specified in your letter dated July 29, 2004, including the placement of all necessary equipment and shelters within the tower compound.

Thank you for your attention and cooperation.

Very truly yours,

Pamela B. Katz, P.E.
Chairman

PBK/cm

c: Honorable Helen Bergenty, Town Council Chairman, Town of Plainville
Len Tunderman, Town Planner, Town of Plainville

ATTACHMENT 2

[illegible][illegible]



CAMBRIDGE BROADBAND NETWORKS GROUP

39GHz VectaStar NR gNB Product Specification

Cambridge Broadband Networks Group Ltd
Suites 1a & 1b, Ground Floor, Enterprise House, Vision Park, Histon, CB24 9ZR

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Version History

Issue Number	Author(s)	Version Date	Summary & Comments
0.1	Justin Clark	31 st May 2024	DRAFT – Subject to Review
1	Justin Clark	6 th June 2024	1 st version
2			

1 Introduction

This product specification document is for the VectaStar NR 39GHz n260 3GPP gNB which shall be referred to as the AP or Access Point forming the donor end point for a 5G NR Point to Multi-Point Fixed Wireless Access system. The AP is designed and manufactured by Delta Electronics to CBNG's requirements and is based on a NXP Layerscape® LX2160 Host processor and LS1235 programmable modem.

2 Product Specification

The following table defines the key product specifications for the VectaStar NR gNB.

Description	Specification	Notes
RF Performance		
Frequency Range 1	37 - 40 GHz	n260 FR2 Band
EIRP	+64dBm $\pm$ 3dB	
Antenna Type	Phased array	
Antenna Beam Width	>4.5°	Half Power Beam width
Antenna Scan Range	Azimuth $\pm$ 45°, Elevation $\pm$ 10°	
Antenna Scan Loss	3dB max @ $\pm$ 45°	
Main Beam Sidelobes	20dBc min	
Features		
Channel Bandwidth	100, 200, 400, 800MHz	Contiguous
# of Layers	2	Horizontal & Vertical Antenna Polarization, 2x2 MIMO
Carrier Aggregation	Up to 8CC	800MHz aggregated BW per layer
Component Carrier Bandwidth	100, 200, 400MHz	800MHz aggregated BW per layer
Modulation UL & DL	QPSK, 16QAM, 64QAM, 256QAM	
Duplex Mode	TDD	
Time Sync	IEEE 1588 PTP v2 (Microchip DPLL) GPS with External Antenna Holdover – 8hrs	Holdover occurs when IEEE 1588 Grandmaster and GPS unavailable
MIMO	2T2R	
Interfaces		
Back Haul	2x 10GbE Fiber (SFP+) 1x 1GbE RJ45 as LMT (Local Management)	
Power	DC 54V (Option with External AC Adaptor, 100-240 VAC, 54V $\pm$ 5%, 6.48A)	Peak Power consumption ~320W
LED Indicators	System & Front Haul	
Environmental/Certification		
Operating Temperature Range	-40°C to +55°C	
Operating Humidity Range	5% to 95% RH	
IP Rating	IP67	
Certification	UL, FCC	

	3GPP compliant RoSH and WEEE	
Weight	gNB 18kg AC/DC Power Adaptor 3.2kg Mounting Bracket 2.6kg	
Size	455mm (height) x 409mm (width) x 229mm (depth)	
Software		
Management	HTTPS / Netconf	
Firmware Upgrade	FOTA & Local (via Ethernet)	
LAN	IEEE 802.1Q-1998 / IEEE 802.1AD (VLAN, QinQ) IEEE 802.1P (DSCP QoS) IPv4/IPv6 Dual-Stack NAPT, DNS Proxy, Port Forwarding, VPN Pass-through, DHCP Server/Client MAC/IP Packet Filtering, Stateless Firewall	PDU Type Ethernet supported

2.1 Ethernet Ports

The device supports one 10Gbps Ethernet port for data in an SFP+ format to support LC or RJ45 connector formats via selection of the appropriate transceiver embedded in the data connector housing.

The device supports one 1Gbps Ethernet port for management interface in an RJ45 format supporting 10/100/1000 Base-T.

2.2 Power Supply

The device is powered by a -48V nominal DC Input Power Rating TBC:

2.3 Status & Signal Strength LED Functionality

The device has two LEDs whose functionality is described in the following table.

LED Behaviour

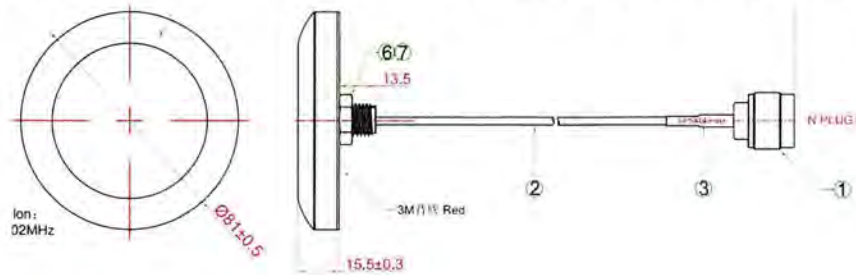
	LED	Description
System	Off	Power Off
	Green - Solid	Operating
	Amber - Solid	System Crash
	Amber – Flashing Slow	PTP Unlock
	Amber – Flashing Fast	HW Failure
Front Haul	Green - Solid	Link Established
	Amber - Flashing	TX Active

2.4 GNSS

The device integrates global navigation satellite system solution that supports L1:

- GPS (North America)
- Galileo (Europe)
- GLONASS (Russia)
- QZSS (Japan)

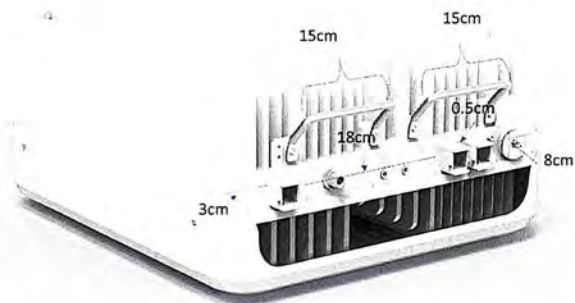
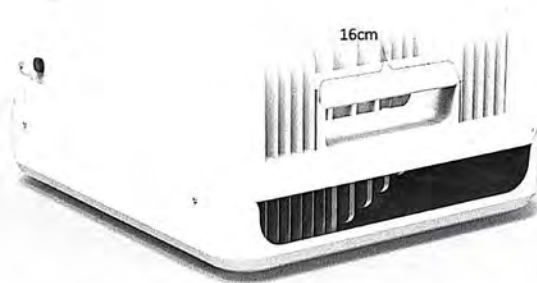
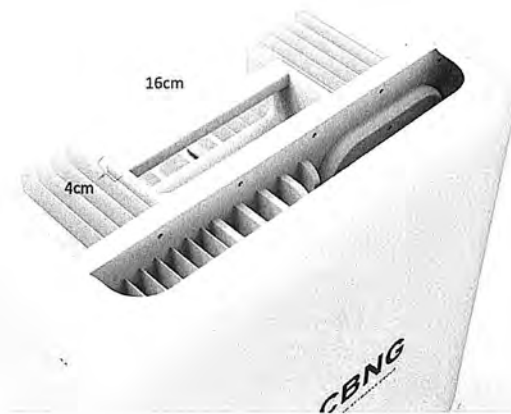
An external antenna is supplied affixed to a bracket attached to the unit, drawing below:



3 Mechanical

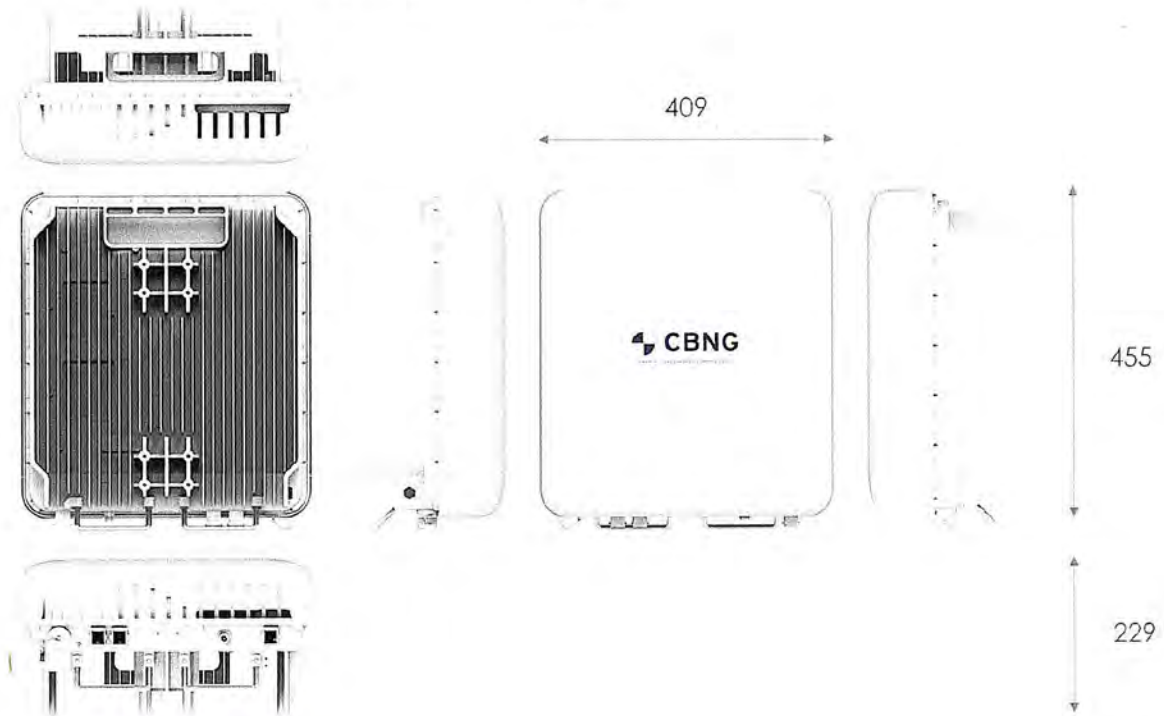
3.1 Device Images





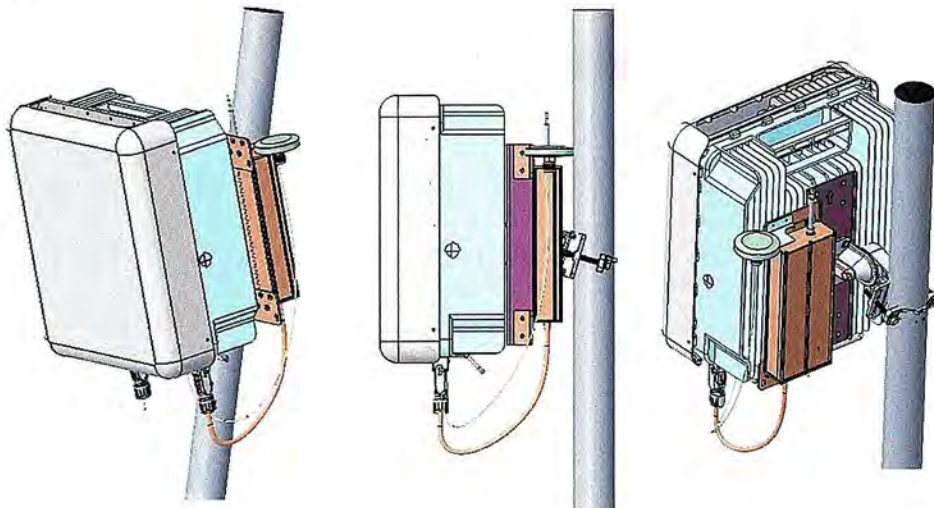
3.2 Device Dimensions

Product Dimensions: 409mm (width) x 455mm (height) x 229mm (depth)

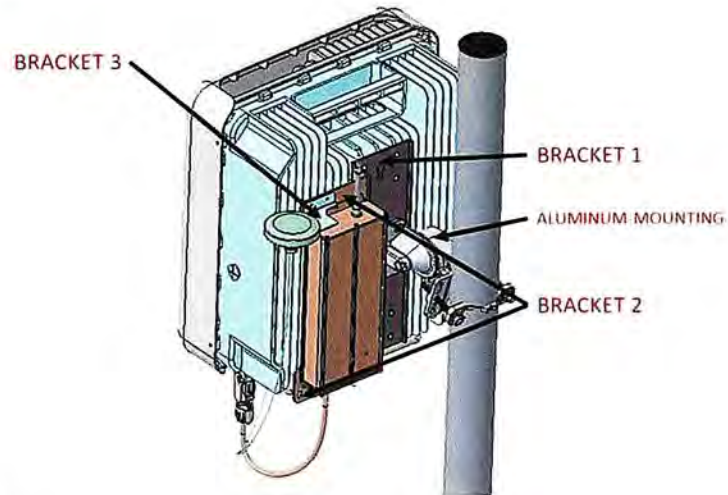


3.3 Mounting Options

Pole Mount

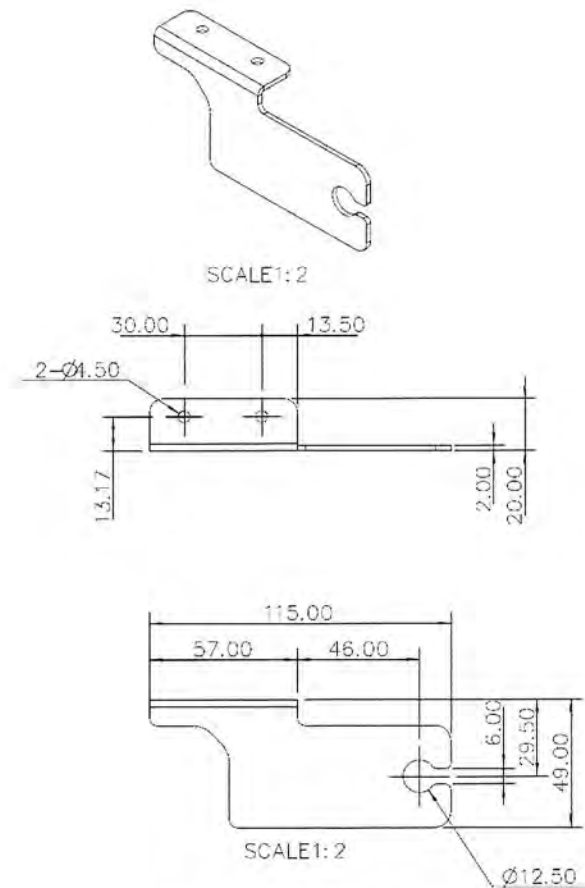


3.4 Mounting Bracket Details

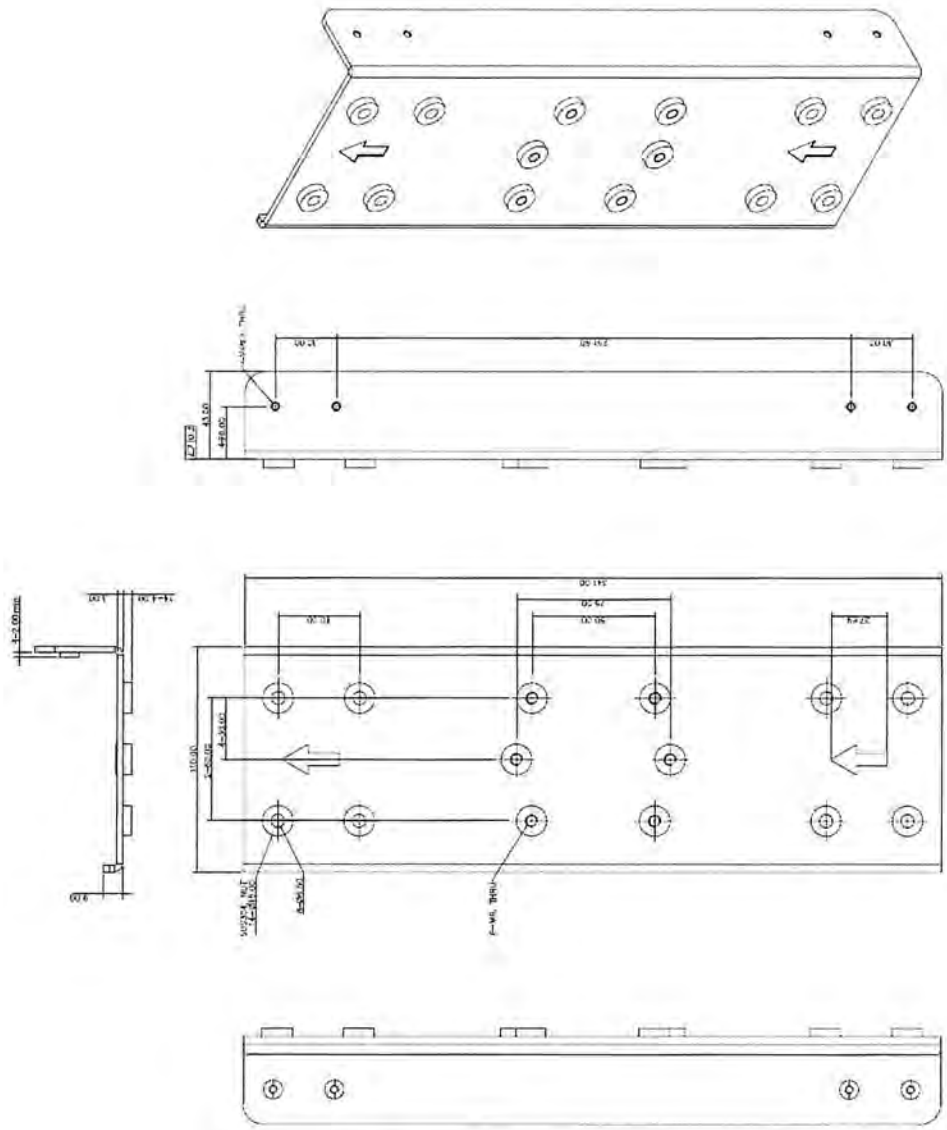


Technical Drawings:

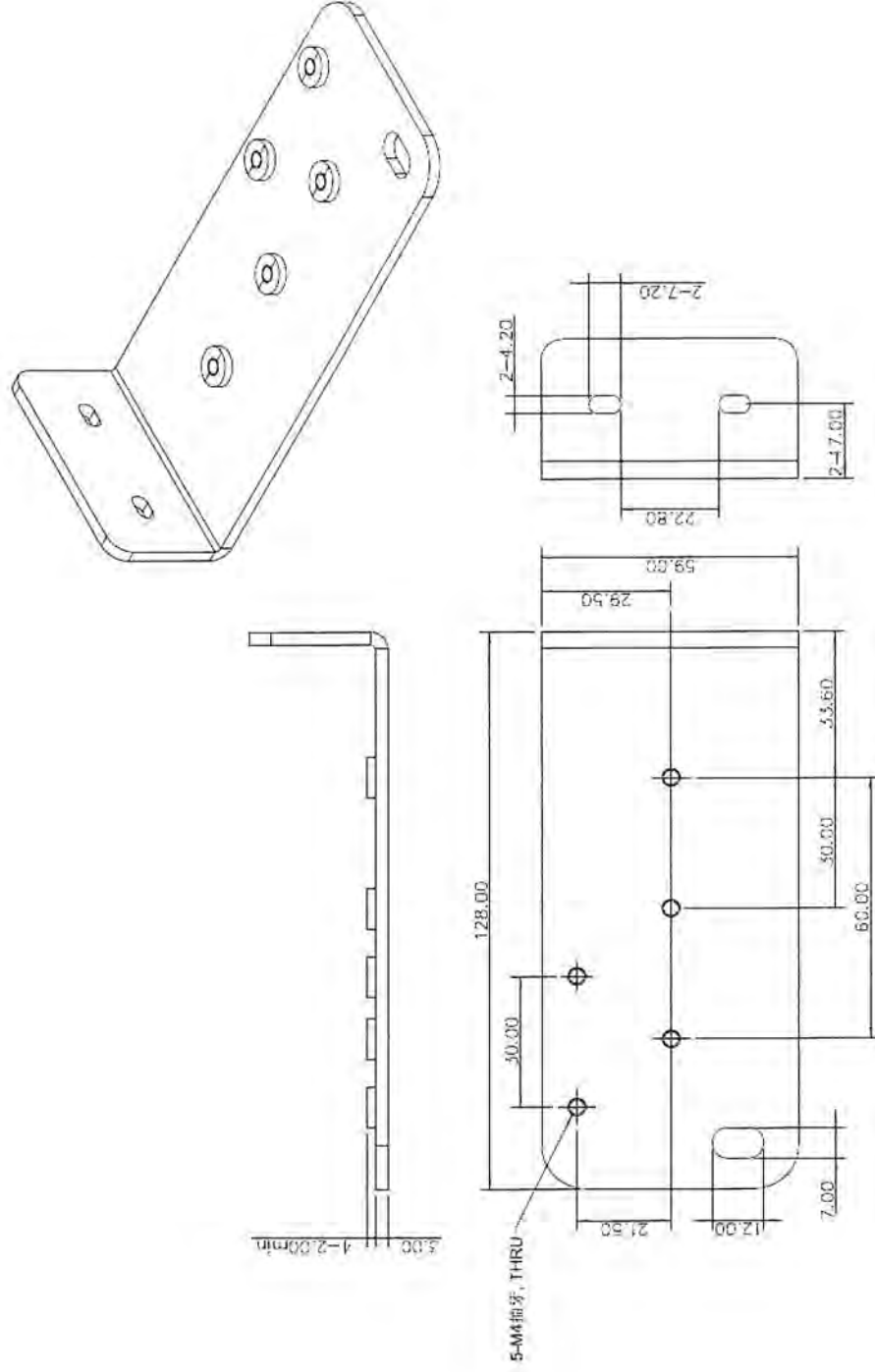
Bracket 3



Bracket 1:

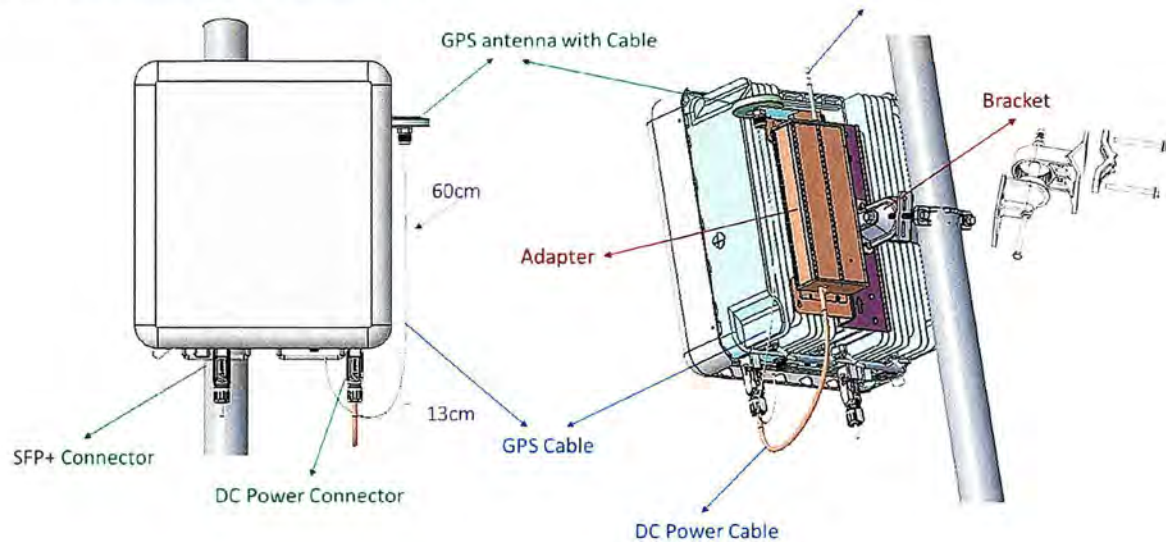


Bracket 2



Commercial-in-Confidence
 Cambridge Broadband Networks Group Ltd
 Suites 1a & 1b, Ground Floor, Enterprise House, Vision Park, Histon, CB24 9ZR

3.5 Connectors and Accessories



SFP/SPF+

- SFP transceiver inside the plug
- Direct heat dissipation to the chassis
- 5 cm² surface savings on the PCB
- Easy access to the SFP for replacement
- No exposure of optical fibers
- EMI shielded
- IP67



Power

- Available with 2 or 4 contacts + cable braid grounding
- Crimped contacts or screw terminal blocks
- Wire size from 1.5 to 6 mm² (10-16AWG)
- Current rating up to 20A per contact
- Lightning protection
- EMI shielded
- IP67

4 Qualification & Certification

The following qualification and certification standards are applicable, Item 6 is under investigation and as the design is in prototype phase compliance to standards has yet to be proven.

1. US UL
 - a. CFR 29 - Part 1910,
 - b. EN 62368-1
2. US FCC
 - a. FCC Title 47 CFR parts 15B,
 - b. part 18,
 - c. part 30,
 - d. CFR 47 - Part 1 §1310

3. 3GPP Rel 16
 - a. TS 38.104,
 - b. TS 38.113,
 - c. TS 38.141-1,
 - d. TS 38.141-2
4. Customer Compliance Requirements (under investigation for compliance)
 - a. TL 9000 Quality Management System - Requirements Handbook,
 - b. TL 9000 Quality Management System - Measurements Handbook,
 - c. GR-63 Network Equipment - Building System (NEBS) Requirements: Physical Protection
 - d. GR-78 Generic Requirements for the Physical Design and Manufacture of Telecommunications Products and Equipment
 - e. GR-282 Software Reliability And Quality Acceptance Criteria (SRQAC), A Module Of RQGR, FR-796 Issue 4
 - f. GR-383 COMMON LANGUAGE® Equipment Codes (CLEITM Codes) - Generic Requirements for Bar Code Labels Issue 3
 - g. GR-485 Common Language® Equipment Codes (CLEITM Codes)- Generic Requirements for Processes and Guidelines Issue 5
 - h. GR-929 Reliability and Quality Measurements for Telecommunications Systems (RQMS-Wire line), A Module of RQMS, FR-929 and RQGR, FR-796 Issue 8
 - i. GR-1089 Electromagnetic Compatibility and Electrical Safety Generic Criteria for Network Telecommunications Equipment Issue 4
 - j. GR-1315 In-Process Quality Metrics (IPQM)
 - k. GR-1421 Generic Requirements for ESD Protective Circuit Packet Containers
 - l. SR-NWT-2759 A View of Packaging, Palletization and Marking Requirements
 - m. SR-332 Reliability Prediction Procedure for Electronic Equipment
 - n. TR-NWT-000357 Generic Requirements for Assuring Reliability of Components Used in Telecommunications Equipment
 - o. GR-418 Generic Reliability Assurance Requirements For Fiber Optic Transport Systems A Module Of RQGR, FR-796 Issue 2
 - p. GR-840 Supplier Support Generic Requirements (SSGR), A Module of LSSGR, FR-64; OTGR, FR-439; and TSGR, FR-440 Issue 1
 - q. TR-NWT-000870 Electrostatic Discharge Control in the Manufacture of Telecommunications Equipment

ATTACHMENT 3



C Squared Systems, LLC
65 Dartmouth Drive
Auburn, NH 03032
(603) 644-2800
support@csquaredsystems.com

Calculated Radio Frequency Emissions Report

verizon✓

Plainville 3 CT

11 East Main Street, Plainville, CT 06062

October 10, 2024

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1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed modification of Verizon's antenna array mounted at 84.5° and 82.75° on an existing monopole tower located at 11 East Main Street in Plainville, CT. The coordinates of the tower are 41° 40' 18.72" N, 72° 52' 1.74" W.

Verizon is proposing the following:

- 1) Remove three (3) directional panel antenna.
- 2) Retain six (9) directional panel antenna (three (3) antennas per sector, three sectors) to support its commercial LTE and 5G network.
- 3) Install four (4) millimeter wave antenna (one (1) antenna per sector, four sectors) to support its 5G network.

This report considers the planned antenna configuration for Verizon¹ as well as existing antenna configuration² for the omni antennas to derive the resulting % Maximum Permissible Exposure (MPE) of its proposed modification.

2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm²). The general population exposure limits for the various frequency ranges are defined in the documents referenced in Attachment A of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment B of this report contains excerpts from OET Bulletin 65 and presents the Maximum Exposure Limits.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

¹ As referenced to Verizon's Radio Frequency Design Sheet, dated 09/09/2024.

² As referenced to Verizon's Connecticut Siting Council Notice of Exempt Modification – 11-21 East Main Street, Plainville, CT dated 04/01/2024

3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{Power Density} = \left(\frac{\text{GRF}^2 \times 1.64 \times \text{ERP}}{4\pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:

ERP = Effective Isotropic Radiated Power

R = Radial Distance = $\sqrt{H^2 + V^2}$

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Off Beam Loss is determined by the selected antenna patterns

Ground reflection factor (GRF) of 1.6

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not take into account actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the final installations.

The percent of MPE values presented in this report reflect levels that one may encounter from one sector of a carrier's antennas. Most carriers use 3 or 4 sectors per site with azimuths approximately 90 or 120 degrees apart, respectively; therefore, one could not be standing in the main beam of all sectors at the same time. In cases where antenna models are not uniform across all sectors, the antenna model with the highest gain was used for the calculations. This results in a conservative or "worst case" assumption for percent of MPE calculations.

4. Antenna Inventory

Table 1 below outlines Verizon's proposed antenna configuration for the site. The associated antenna model data and antenna patterns for these specific antenna models are included in Attachment C.

Operator	Sector / Azimuth	TX Freq (MHz)	Power at Antenna (Watts)	Ant Gain (dBi)	Power EIRP (Watts)	Antenna Model	Beam Width	Mech. Tilt	Length (ft)	Antenna Centerline Height (ft)
Verizon	Alpha / 0°	38000	0.066	-	4211	39 GHz VectaStar NR gNB	4.5	0	1.5	84.5
	Alpha / 30°	750	160	14.9	4944	SBNHH-1D65B	68	0	6	82.75
		850	160	14.7	4722		66			
		1900	160	18.2	10571		66			
		2100	240	18.6	17386		63			
		3700	200	25.5	70963	MT6407-77A	-	0	2.92	82.75
	Beta / 90°	38000	0.066	-	4211	39 GHz VectaStar NR gNB	4.5	0	1.5	84.5
	Beta / 150°	750	160	14.9	4944	SBNHH-1D65B	68	0	6	82.75
		850	160	14.7	4722		66			
		1900	160	18.2	10571		66			
		2100	240	18.6	17386		63			
		3700	200	25.5	70963	MT6407-77A	-	0		82.75
	Gamma / 180°	38000	0.066	-	4211	39 GHz VectaStar NR gNB	4.5	0	1.5	84.5
	Gamma / 280°	750	160	14.9	4944	SBNHH-1D65B	68	0	6	82.75
		850	160	14.7	4722		66			
		1900	160	18.2	10571		66			
		2100	240	18.6	17386		63			
		3700	200	25.5	70963	MT6407-77A	-	0		82.75
	Delta / 270°	38000	0.066	-	4211	39 GHz VectaStar NR gNB	4.5	0	1.5	84.5

Table 1: Proposed Antenna Inventory ^{3, 4}

³ Antenna heights are in referenced to Verizon's Radio Frequency Design Sheet, dated 09/09/2024.

⁴ Transmit power assumes 0 dB of cable loss.

5. Calculation Results

The calculated power density results are shown in Figure 1 below. For completeness, the calculations for this analysis range from 0 feet horizontal distance (directly below the antennas) to a value of 3,000 feet horizontal distance from the site. In addition to the other worst-case scenario considerations that were previously mentioned, the power density calculations to each horizontal distance point away from the antennas was completed using a local maximum off beam antenna gain (within ± 5 degrees of the true mathematical angle) to incorporate a realistic worst-case scenario.

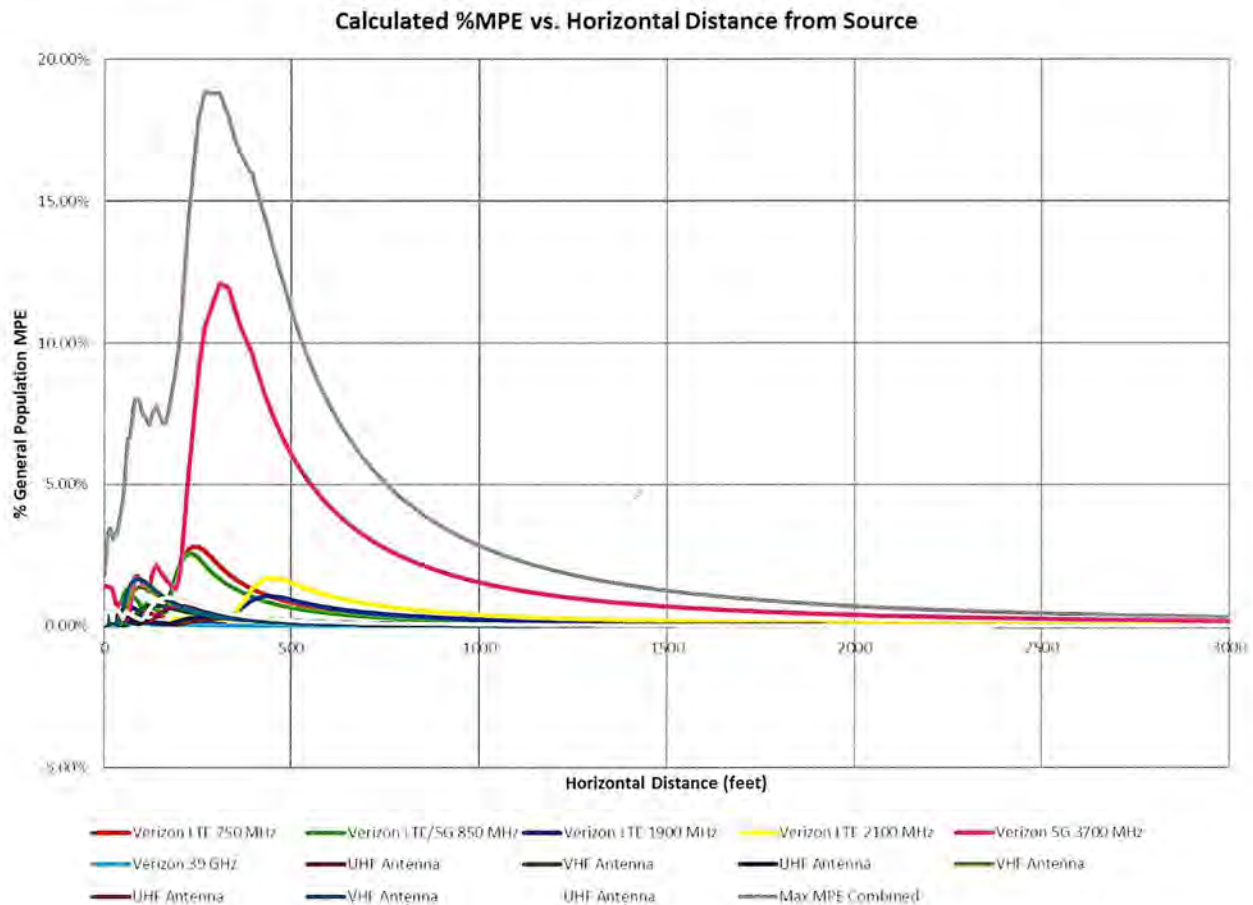


Figure 1: Graph of General Population % MPE vs. Distance

The highest percent of MPE (18.85% of the General Population limit) is calculated to occur at a horizontal distance of 268 feet from antennas. Please note that the percent of MPE calculations close to the site take into account off beam loss, which is determined from the vertical pattern of the antennas used. Therefore, RF power density levels may increase as the distance from the site increases. At distances of approximately 600 feet and beyond, one would now be in the main beam of the antenna pattern and off beam loss is no longer considered. Beyond this point, RF levels become calculated solely on distance from the site and the percent of MPE decreases significantly as distance from the site increases.

Table 2 below lists percent of MPE values as well as the associated parameters that were included in the calculations. The highest percent of MPE value was calculated to occur at a horizontal distance of 373 feet from the site (reference Figure 1).

As stated in Section 3, all calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. In addition, a six foot height offset was considered in this analysis to account for average human height. As a result, the predicted signal levels are significantly higher than the actual signal levels will be from the final configuration. The results presented in Figure 1 and Table 2 assume level ground elevation from the base of the tower out to the horizontal distances calculated.

Carrier	Number of Transmitters	Power out of Base Station Per Transmitter (Watts)	Antenna Height (Feet)	Distance to the Base of Antennas (Feet)	Power Density (mW/cm ²)	Limit (mW/cm ²)	% MPE
UHF Antenna	1	100.0	72.5	268	0.000698	0.300	0.23%
UHF Antenna	1	100.0	65.5	268	0.000981	0.300	0.33%
UHF Antenna	1	100.0	47.5	268	0.001737	0.300	0.58%
UHF Antenna	1	100.0	40.5	268	0.001949	0.300	0.65%
Verizon 39 GHz	1	0.1	84.5	268	0.000261	1.000	0.03%
Verizon 5G 3700 MHz	1	200.0	82.8	268	0.105714	1.000	10.57%
Verizon LTE 1900 MHz	1	160.0	82.8	268	0.001235	1.000	0.12%
Verizon LTE 2100 MHz	1	240.0	82.8	268	0.003039	1.000	0.30%
Verizon LTE 750 MHz	1	160.0	82.8	268	0.013271	0.500	2.65%
Verizon LTE/5G 850 MHz	1	160.0	82.8	268	0.012264	0.567	2.16%
VHF Antenna	1	100.0	67.5	268	0.000756	0.200	0.38%
VHF Antenna	1	100.0	50.5	268	0.000835	0.200	0.42%
VHF Antenna	1	100.0	46.5	268	0.000850	0.200	0.42%
Total							18.85%

Table 2: Maximum Percent of General Population Exposure Values^{5,6,7}

⁵ Frequencies listed are representative of the operating band and are not the specific operating frequency.

⁶ The total % MPE listed is a summation of each unrounded contribution. Therefore, summing each rounded value may not reflect the total value listed in the table.

⁷ For the UHF and VHF antenna, reasonable assumptions was made for the frequency and power.

6. Conclusion

The above analysis verifies that RF exposure levels from the site with Verizon's proposed antenna configuration will be well below the maximum permissible levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Using the conservative calculation methods and parameters detailed above, the maximum cumulative percent of MPE in consideration of all transmitters is calculated to be **18.85%** of the FCC limit (General Population/Uncontrolled). This maximum cumulative percent of MPE value is calculated to occur 268 feet away from the site.

7. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.



Report Prepared By: Ram Acharya
RF Engineer
C Squared Systems, LLC

October 8, 2024
Date



Reviewed/Approved By: Martin Lavin
Senior RF Engineer
C Squared Systems, LLC

October 10, 2024
Date

Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

IEEE C95.1-2019, IEEE Standard Safety Levels With Respect to Human Exposure to Electric, Magnetic, and Electromagnetic Fields, 0 Hz to 300 GHz IEEE-SA Standards Board

IEEE C95.3-2021, IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic, and Electromagnetic Fields with Respect to Human Exposure to Such Fields, 0 Hz-300 GHz IEEE-SA Standards Board

Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)

(A) Limits for Occupational/Controlled Exposure⁸

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure⁹

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz * Plane-wave equivalent power density

Table 3: FCC Limits for Maximum Permissible Exposure

⁸ Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.

⁹ General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

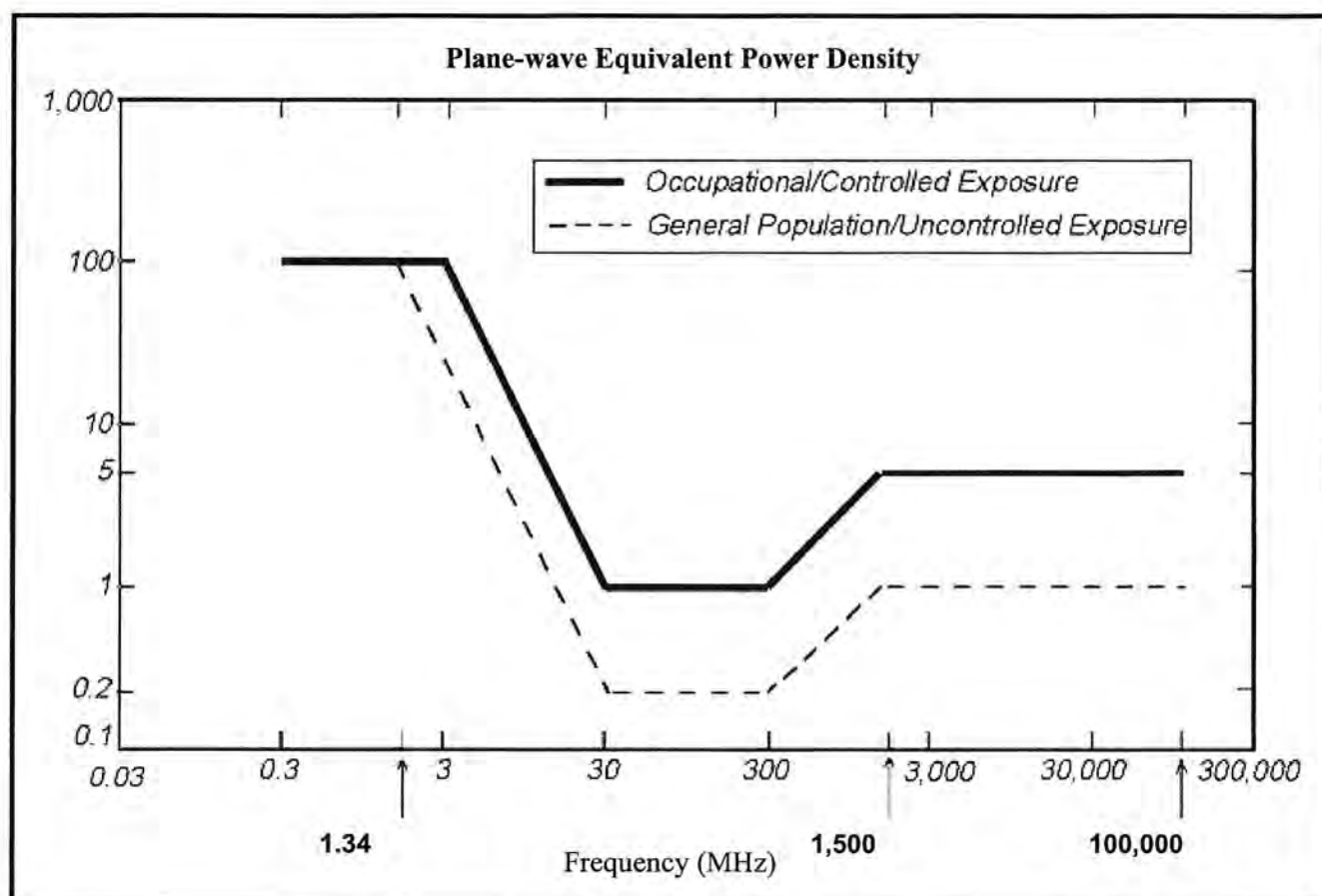
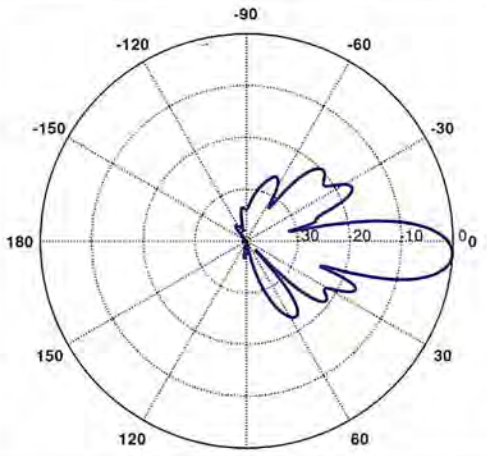
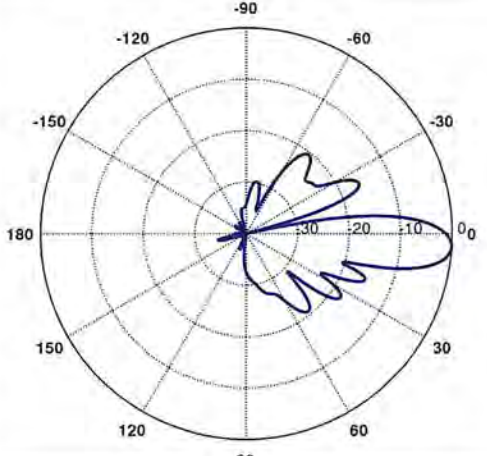
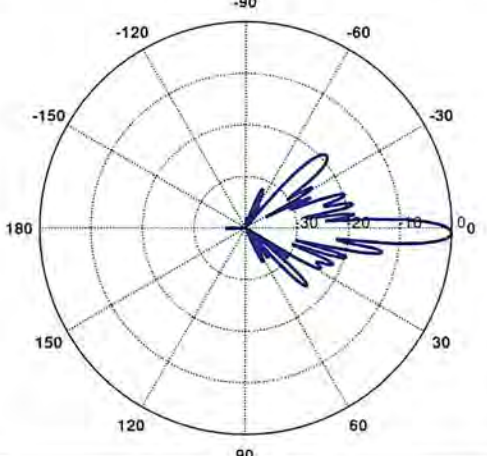
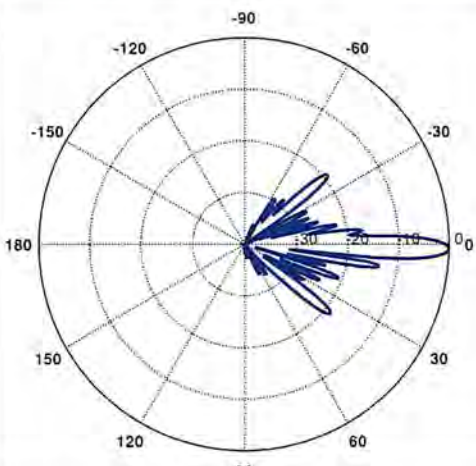


Figure 2: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

Attachment C: Verizon Antenna Model Data and Electrical Patterns

750 MHz Manufacturer: COMMSCOPE Model #: SBNHH-1D65B Frequency Band: 698-806 MHz Gain: 14.9 dBi Vertical Beamwidth: 12.1° Horizontal Beamwidth: 68° Polarization: ±45° Dimensions (L x W x D): 72.87" x 11.85" x 7.09"	
850 MHz Manufacturer: COMMSCOPE Model #: SBNHH-1D65B Frequency Band: 806-896 MHz Gain: 14.7 dBi Vertical Beamwidth: 10.7° Horizontal Beamwidth: 66° Polarization: ±45° Dimensions (L x W x D): 72.87" x 11.85" x 7.09"	
1900 MHz Manufacturer: COMMSCOPE Model #: SBNHH-1D65B Frequency Band: 1850-1990 MHz Gain: 18.2 dBi Vertical Beamwidth: 5.6° Horizontal Beamwidth: 69° Polarization: ±45° Dimensions (L x W x D): 72.87" x 11.85" x 7.09"	

2100 MHz Manufacturer: COMMSCOPE Model #: SBNHH-1D65B Frequency Band: 1920-2200 MHz Gain: 18.6 dBi Vertical Beamwidth: 5° Horizontal Beamwidth: 63° Polarization: ±45° Dimensions (L x W x D): 72.87" x 11.85" x 7.09"	
3700 MHz Manufacturer: SAMSUNG Model #: MT6407-77A Frequency Band: 3700-3980 MHz Gain: 25.5 dBi Vertical Beamwidth: N/A° Horizontal Beamwidth: N/A° Polarization: N/A° Dimensions (L x W x D): 35.06" x 16.06" x 5.51"	N/A
38000 MHz Manufacturer: CBNG Model #: 39 GHz VectaStar NR gNB Frequency Band: 37000-40000 MHz Gain: - dBi Vertical Beamwidth: N/A° Horizontal Beamwidth: N/A° Polarization: N/A° Dimensions (L x W x D): 17.91" x 16.10" x 9.02"	N/A

ATTACHMENT 4



Verizon Wireless
7575 Commerce Court
Lewis Center, OH 43037



GPD Engineering and Architecture
Professional Corporation
Gavin Jacob
520 South Main Street, Suite 2531
Akron, OH 44311
(330) 572-3590
gjacob@gpdgroup.com

GPD# 2024737.467452.01
August 30, 2024

COMPREHENSIVE STRUCTURAL ANALYSIS REPORT

SITE DESIGNATION: Verizon Site #: 467452
Verizon Site Name: Plainville 3 CT

ANALYSIS CRITERIA: Codes: TIA-222-H & 2022 Connecticut State Building Code
127 mph (3-second gust) w/ 0" ice
50 mph (3-second gust) w/ 1.5" ice

SITE DATA: 11 East Main Street, Plainville, CT 06062, Hartford County
Latitude 41° 40' 18.73" N, Longitude 72° 52' 1.74" W
81' 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:	98.6%	Sufficient Capacity
Foundation Ratio with Proposed Equipment:	40.6%	Sufficient Capacity

We at GPD appreciate the opportunity of providing our continuing professional services to you and Verizon Wireless. 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



8/30/2024

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 Wireless.

This analysis has been performed in accordance with the 2022 Connecticut State Building Code based upon a 3-second gust wind speed of 127 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	98.6%	Sufficient Capacity
Base Plate	87.7%	Sufficient Capacity
Anchor Rods	55.6%	Sufficient Capacity
Foundation	40.6%	Sufficient Capacity

RECOMMENDATIONS

The tower and its foundation(s) 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 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
RF Data Sheet	PLAINVILLE 3 CT RFDS, dated 8/6/2024	Verizon Wireless
Amendment Drawings	GPD Project #: 2024737.00.467452.01, dated 8/6/2024	GPD Group
Tower Design	EEL Project #: 11122 Rev. 5, dated 4/2/2003	Verizon Wireless
Foundation Design	EEL Project #: 11122 Rev. 1, dated 10/3/2002	Verizon Wireless
Geotechnical Report	Clarence Welti Assoc., Inc. Project Name: Verizon Tower, dated 4/26/2002	Verizon Wireless
Previous Tower Analysis	PJF Project #: A42921-0008.002.7700 R1, dated 10/27/2021	Verizon Wireless
Verizon Mount Analysis	Colliers Engineering Project #: 24777037 Rev. 3, dated 7/23/2024	Verizon Wireless
Verizon Mount Modification Drawings	Maser Job #: 20777380A, dated 12/23/2020	Verizon Wireless
Modification Drawings	Hudson Design Group Site Name: PLAINVILLE 3 CT, dated 6/22/2017	Verizon Wireless
Modification Drawings	PJF Project #: A42921-0008.002.7700, dated 4/14/2021	Verizon Wireless
Post Modification Inspection Report	Not Provided	N/A

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. Material grades not supplied have been assumed based on previous experience with similar structures.
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 ± 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

General Info	
Client Site #	467452
Client Site Name	Plainville 3 CT
Date of Analysis	8/30/2024
Company Performing Analysis	GPD

Tower Info		Date
Tower Type (G, SST, MP)	MP	
Tower Height (top of steel AGL)	81'	
Tower Manufacturer	n/a	
Tower Model	n/a	
Tower Design	EET Project #: 11322 Rev. 5	4/2/2003
Foundation Design	EET Project #: 11322 Rev. 1	10/5/2002
Geotechnical Report	Clarence Webb Assoc., Inc. Project Name: Verizon Tower	4/26/2002
Previous Tower Analysis	RUE Project #: A42924, 0008 0002-1700 E1	10/27/2024
Verizon Mount Analysis	Collins Engineering Project #: 24777637 Rev. 3	7/23/2024
Verizon Mount Modification Drawings	Miscel Job #: 20777386A	12/23/2020
Modification Drawings	Hudson Design Group Site Name: PLAINVILLE 3 CT	9/22/2017
Amendment Drawings	PJT Project #: A42921, 0008 0002-1700	4/14/2021
	GPD Project #: 20247137, 00467452.01	8/30/2024

Design Parameters	
Design Code Used	TIA-222-H & 2022 Connecticut State Building Code
Location of Tower (County, State)	Hartford, CT
Wind Speed (mph)	127 (3-second gust)
Ice Thickness (in)	1.5
Risk Category (I, II, III)	III
Exposure Category (B, C, D)	B
Topographic Category (1 to 5)	1

Analysis Results (% Maximum Usage)	
Existing/Reserved + Future + Proposed Condition	98.6%
Tower Base (%)	87.7%
Foundation (%)	40.6%
Foundation Adequate?	Yes

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

Existing / Reserved Loading

Antenna			Mount			Transmission Line		
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Quantity	Model	Size
Verizon Wireless	81	82.75	6	Panel	Commscope	3	Unknown	1-5/8"
Verizon Wireless	81	82.75	3*	Panel	Antel	3	BXA-70063-4CF	1-5/8"
Verizon Wireless	81	82.75	3	RRU	Samsung	3	MT609-27A	Hybrid
Verizon Wireless	81	82.75	3	RRU	Samsung		B21B66A RRU-BR6A9	
Verizon Wireless	81	82.75	2	RRU	Samsung		B51B11 RRU-BR64C	
Verizon Wireless	81	82.75	1	Filter	Kurhan		BST0020-3V1-1	
Verizon Wireless	81	82.75	1	Surge	Raycap		DB-81-4C-12AB-42	
Verizon Wireless	81	82.75	1	Surge	Raycap		RV2DC-662T-PT-48	
Verizon Wireless	81	82.75	1	GPS	Unknown		GPS	
Unknown	62.5	72.5	1	Dipole	Antennae	1	20' 4-Bay Dipole	
Unknown	62.5	67.5	1	Omni	Antennae		3" x 10' Omni Whip	
Unknown	62.5	65.5	2	Omni	Antennae		2" Dia 4' Omni	
Unknown	62.5	65.5	3	Panel	Unknown		Panel Antenna	
Unknown	62.5	65.5	1	Dish	Unknown		1' Dish	
Unknown	42.5	50.5	1	Omni	Antennae	1	3" x 10' Omni Whip	
Unknown	42.5	47.5	2	Dipole	Antennae		10' 2-Bay Dipole	
Unknown	42.5	46.5	1	GPS	Unknown		GPS	
Unknown	42.5	46.5	2	Yagi	Antennae		Yagi 3'	
Unknown	42.5	40.5	1	Dipole	Antennae		5' 2-Bay Dipole	

*Indicates equipment/feederline quantity to be removed.

Proposed Loading

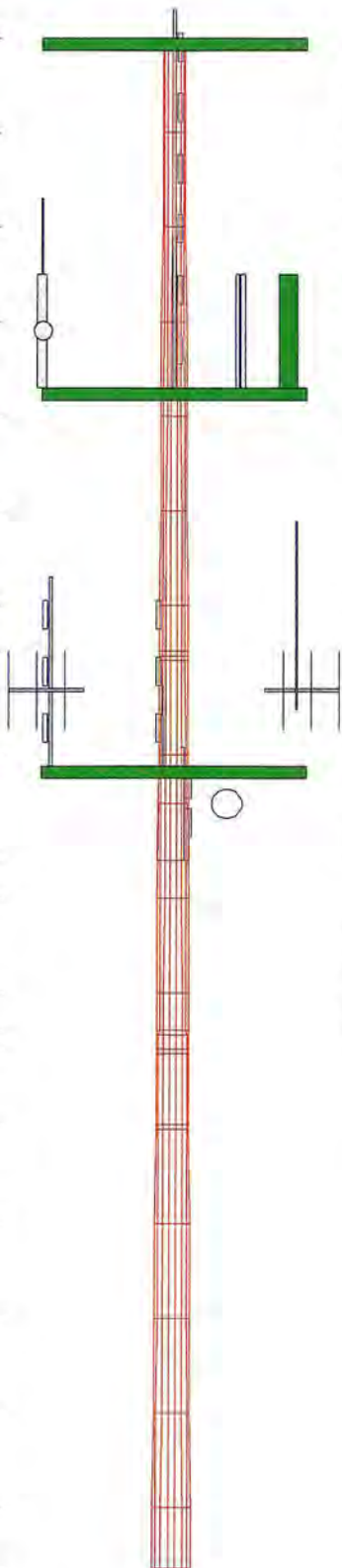
Antenna			Mount			Transmission Line		
Antenna Owner	Mount Height (ft)	Antenna CL (ft)	Quantity	Type	Manufacturer	Quantity	Model	Size
Verizon Wireless	81	84.5	4	Panel	CBNG	3	30GHz VectaStar MR gNB	
Verizon Wireless	81	82.75	1	Surge	Raycap	1	RV2DC-662T-PT-48	

Note: The proposed loading shall be in addition to the remaining existing equipment at the same elevation.
Note: All feedlines shall be installed as indicated in this report in order for the analysis results to be valid.

APPENDIX B

Tower Analysis Output File

Section	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
Length (ft)	3.25	5.00	5.00	5.00	5.00	0.45	3.75	0.47	2.96	5.00	0.47	2.96	5.00	5.54	5.00	0.22	252.42	5.00	5.00	5.00	5.00	5.00	5.00	
Number of Sides	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	
Thickness (in)	0.4875	0.4938	0.5000	0.5125	0.5250	0.5375	0.4875	0.5000	0.5125	0.5250	0.5375	0.5500	0.5625	0.5750	0.5125	0.5188	0.252	0.4875	0.1875	0.1875	0.1875	0.1875	0.1875	
Socket Length (ft)	2.92																							
Top Dia (in)	23.5486	22.8541	22.1587	21.4652	20.7708	20.0764	19.3820	18.6875	18.0000	17.3056	16.6112	15.9168	15.2224	14.5280	13.8336	13.1392	12.4448	11.7504	11.0560	10.3616	9.6672	8.9728	8.2784	
Bot Dia (in)	24.0000	23.5486	22.8541	22.1587	21.4652	20.7708	20.0764	19.3820	18.6875	18.0000	17.3056	16.6112	15.9168	15.2224	14.5280	13.8336	13.1392	12.4448	11.7504	11.0560	10.3616	9.6672	8.9728	
Grade	A572-65																							
Weight (K)	6.5	0.4	0.6	0.6	0.6	0.0	0.4	0.0	0.0	0.2	0.5	0.5	0.5	0.5	0.4	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.1	
	0.0 ft	3.2 ft	6.2 ft	13.2 ft	18.2 ft	23.5 ft	28.5 ft	30.5 ft	35.5 ft	37.5 ft	43.1 ft	48.6 ft	51.0 ft	56.0 ft	61.0 ft	66.0 ft	71.0 ft	76.0 ft	81.0 ft	86.0 ft	91.0 ft	96.0 ft	101.0 ft	



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
17.5' FWT Low Profile Platform	81	B2/B66A RRH-BR049 (RFV01U-D1A)	81
VZWSMART-PLK5 (3)	81	B5/B13 RRH-BR04C (RFV01U-D2A)	81
Collar Mount	81	B5/B13 RRH-BR04C (RFV01U-D2A)	81
PV-DC-PTPC-2020-24	81	B5/B13 RRH-BR04C (RFV01U-D2A)	81
PV-DC-PTPC-2020-24	81	(2) BSF0020F3V1-1	81
PV-DC-PTPC-2020-24	81	DB-B1-6C-12AB-0Z	81
PV-DC-PTPC-2020-12	81	RVZDC-6627-PF-48	81
BSAMNT-SBS-1-2	81	RVZDC-6627-PF-48	81
BSAMNT-SBS-1-2	81	17.5' FWT Low Profile Platform	82.5
BSAMNT-SBS-1-2	81	20' 4-Bay Dipole	82.5
Pipe 2 Std x 7"	81	Pipe 2 Std x 8"	82.5
Pipe 2 Std x 7"	81	Panel Antenna	82.5
Pipe 2 Std x 7"	81	4' x 2" Omni	82.5
Pipe 2 Std x 9"	81	Pipe 2 Std x 8"	82.5
Pipe 2 Std x 9"	81	4' x 2" Omni	82.5
Pipe 2 Std x 9"	81	Panel Antenna	82.5
Pipe 2 Std x 9"	81	Pipe 2 Std x 8"	82.5
GPS	81	3" Dia 10' Omni w/mount pipe	82.5
39GHz VectaStar NR gNB	81	Panel Antenna	82.5
39GHz VectaStar NR gNB	81	1' Dish	82.5
39GHz VectaStar NR gNB	81	Pipe 2 Std x 8"	42.5
39GHz VectaStar NR gNB	81	5' Dipole	42.5
MT6407-77A w/ Mount Pipe	81	Pipe 2 Std x 8"	42.5
MT6407-77A w/ Mount Pipe	81	3' Yagi (horizontal)	42.5
MT6407-77A w/ Mount Pipe	81	GPS	42.5
SBNHH-1D65B w/ 9' Mount Pipe	81	3" Dia 10' Omni w/mount pipe	42.5
SBNHH-1D65B	81	Pipe 2 Std x 8"	42.5
SBNHH-1D65B w/ 9' Mount Pipe	81	10' 2 Bay Dipole	42.5
SBNHH-1D65B	81	Pipe 2 Std x 8"	42.5
SBNHH-1D65B w/ 9' Mount Pipe	81	3' Yagi (horizontal)	42.5
SBNHH-1D65B	81	Pipe 2 Std x 8"	42.5
B2/B66A RRH-BR049 (RFV01U-D1A)	81	10' 2 Bay Dipole	42.5
B2/B66A RRH-BR049 (RFV01U-D1A)	81	17.5' FWT Low Profile Platform	42.5

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower designed for Exposure B to the TIA-222-H Standard.
2. Tower designed for a 127 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category III.
6. Topographic Category 1 with Crest Height of 0.00 ft



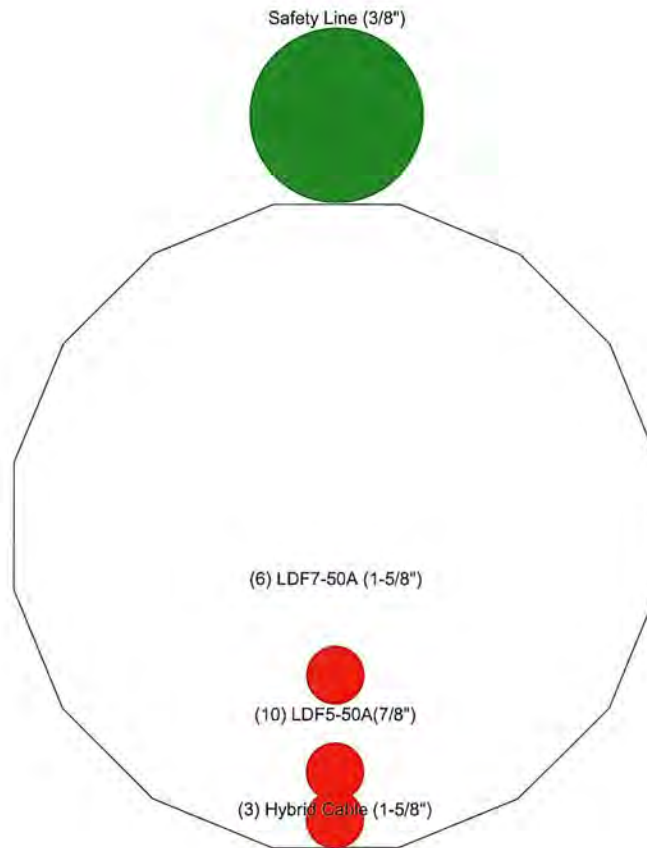
520 South Main Street Suite 2531
Akron, Ohio 44311
Phone: (330) 572-2222
FAX: (330) 572-3722

Job:	467452 / Plainville 3 CT		
Project:	2024737.467452.01		
Client:	Verizon Wireless	Drawn by:	TDeak
Code:	TIA-222-H	Date:	08/30/24
Path:		Scale:	NTS
		Dwg No.	E-1

Feed Line Plan
13'3"

Round Flat App In Face App Out Face

Section @ 13'3"



520 South Main Street Suite 2531
Akron, Ohio 44311
Phone: (330) 572-2222
FAX: (330) 572-3722

Job: 467452 / Plainville 3 CT			
Project: 2024737.467452.01			
Client: Verizon Wireless	Drawn by: TDeak	App'd:	
Code: TIA-222-H	Date: 08/30/24	Scale: NTS	
Path:	Dwg No. E-7		

tnxTower 520 South Main Street Suite 2531 Akron, Ohio 44311 Phone: (330) 572-2222 FAX: (330) 572-3722	Job	467452 / Plainville 3 CT	Page	1 of 19
	Project	2024737.467452.01	Date	08:39:48 08/30/24
	Client	Verizon Wireless	Designed by	TDeak

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: 188.00 ft.

Basic wind speed of 127 mph.

Risk Category III.

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 1.5000 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.

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

Options

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

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	81.00-76.00	5.00	0.00	18	13.0000	13.7098	0.1875	0.7500	A572-65 (65 ksi)
L2	76.00-71.00	5.00	0.00	18	13.7098	14.4197	0.1875	0.7500	A572-65 (65 ksi)
L3	71.00-66.00	5.00	0.00	18	14.4197	15.1295	0.1875	0.7500	A572-65 (65 ksi)

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Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L4	66.00-61.00	5.00	0.00	18	15.1295	15.8394	0.1875	0.7500	A572-65 (65 ksi)
L5	61.00-56.00	5.00	0.00	18	15.8394	16.5492	0.1875	0.7500	A572-65 (65 ksi)
L6	56.00-51.00	5.00	0.00	18	16.5492	17.2591	0.1875	0.7500	A572-65 (65 ksi)
L7	51.00-48.58	2.42	0.00	18	17.2591	17.6027	0.1875	0.7500	A572-65 (65 ksi)
L8	48.58-48.33	0.25	0.00	18	17.6027	17.6381	0.5375	2.1500	A572-65 (65 ksi)
L9	48.33-48.08	0.25	0.00	18	17.6381	17.6736	0.5375	2.1500	A572-65 (65 ksi)
L10	48.08-43.08	5.00	0.00	18	17.6736	18.3835	0.5188	2.0750	A572-65 (65 ksi)
L11	43.08-37.54	5.54	2.92	18	18.3835	19.1700	0.5125	2.0500	A572-65 (65 ksi)
L12	37.54-35.46	5.00	0.00	18	18.3804	19.0749	0.5750	2.3000	A572-65 (65 ksi)
L13	35.46-30.46	5.00	0.00	18	19.0749	19.7694	0.5625	2.2500	A572-65 (65 ksi)
L14	30.46-28.50	1.96	0.00	18	19.7694	20.0416	0.5500	2.2000	A572-65 (65 ksi)
L15	28.50-28.25	0.25	0.00	18	20.0416	20.0763	0.5500	2.2000	A572-65 (65 ksi)
L16	28.25-27.50	0.75	0.00	18	20.0763	20.1805	0.5500	2.2000	A572-65 (65 ksi)
L17	27.50-27.25	0.25	0.00	18	20.1805	20.2152	0.4938	1.9750	A572-65 (65 ksi)
L18	27.25-23.50	3.75	0.00	18	20.2152	20.7360	0.4875	1.9500	A572-65 (65 ksi)
L19	23.50-23.25	0.25	0.00	18	20.7360	20.7708	0.5375	2.1500	A572-65 (65 ksi)
L20	23.25-18.25	5.00	0.00	18	20.7708	21.4652	0.5250	2.1000	A572-65 (65 ksi)
L21	18.25-13.25	5.00	0.00	18	21.4652	22.1597	0.5125	2.0500	A572-65 (65 ksi)
L22	13.25-8.25	5.00	0.00	18	22.1597	22.8541	0.5000	2.0000	A572-65 (65 ksi)
L23	8.25-3.25	5.00	0.00	18	22.8541	23.5486	0.4938	1.9750	A572-65 (65 ksi)
L24	3.25-0.00	3.25		18	23.5486	24.0000	0.4875	1.9500	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L1	13.1716	7.6250	158.1420	4.5484	6.6040	23.9464	316.4921	3.8132	1.9580	10.443
L2	13.8924	8.0475	185.9097	4.8004	6.9646	26.6935	372.0640	4.0245	2.0829	11.109
L3	14.6132	8.4699	216.7511	5.0524	7.3252	29.5898	433.7875	4.2358	2.2079	11.775
L4	15.3340	8.8924	250.8278	5.3044	7.6858	32.6352	501.9857	4.4470	2.3328	12.442
L5	16.0548	9.3148	288.3011	5.5564	8.0464	35.8298	576.9815	4.6583	2.4577	13.108

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Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁶	I/Q in ²	w in	w/t
L6	16.7756	9.7373	329.3322	5.8084	8.4070	39.1735	659.0977	4.8696	2.5827	13.774
	16.7756	9.7373	329.3322	5.8084	8.4070	39.1735	659.0977	4.8696	2.5827	13.774
	17.4964	10.1597	374.0826	6.0604	8.7676	42.6664	748.6574	5.0808	2.7076	14.441
L7	17.4964	10.1597	374.0826	6.0604	8.7676	42.6664	748.6574	5.0808	2.7076	14.441
	17.8453	10.3642	397.1254	6.1824	8.9421	44.4105	794.7734	5.1831	2.7681	14.763
L8	17.7913	29.1136	1071.1580	6.0581	8.9421	119.7875	2143.7255	14.5596	2.1521	4.004
	17.8273	29.1741	1077.8555	6.0707	8.9602	120.2940	2157.1293	14.5898	2.1583	4.015
L9	17.8273	29.1741	1077.8555	6.0707	8.9602	120.2940	2157.1293	14.5898	2.1583	4.015
	17.8634	29.2347	1084.5806	6.0833	8.9782	120.8014	2170.5884	14.6201	2.1646	4.027
L10	17.8663	28.2457	1050.1862	6.0900	8.9782	116.9706	2101.7542	14.1256	2.1976	4.236
	18.5871	29.4145	1186.0212	6.3420	9.3388	126.9991	2373.6029	14.7101	2.3225	4.477
L11	18.5880	29.0703	1172.9620	6.3442	9.3388	125.6008	2347.4674	14.5379	2.3335	4.553
	19.3867	30.3497	1334.7459	6.6234	9.7384	137.0606	2671.2481	15.1777	2.4719	4.823
L12	18.9871	32.4958	1301.5804	6.3209	9.3373	139.3963	2604.8735	16.2510	2.2230	3.866
	19.2805	33.7633	1459.8922	6.5675	9.6901	150.6589	2921.7053	16.8848	2.3452	4.079
L13	19.2824	33.0516	1431.0523	6.5719	9.6901	147.6826	2863.9876	16.5289	2.3672	4.208
	19.9876	34.2915	1598.2190	6.8184	10.0428	159.1402	3198.5409	17.1490	2.4894	4.426
L14	19.9895	33.5512	1565.7560	6.8229	10.0428	155.9077	3133.5724	16.7788	2.5114	4.566
	20.2659	34.0265	1633.2360	6.9195	10.1811	160.4180	3268.6210	17.0165	2.5593	4.653
L15	20.2659	34.0265	1633.2360	6.9195	10.1811	160.4180	3268.6210	17.0165	2.5593	4.653
	20.3012	34.0871	1641.9800	6.9318	10.1988	160.9979	3286.1206	17.0468	2.5654	4.664
L16	20.3012	34.0871	1641.9800	6.9318	10.1988	160.9979	3286.1206	17.0468	2.5654	4.664
	20.4070	34.2689	1668.3994	6.9688	10.2517	162.7439	3338.9941	17.1377	2.5838	4.698
L17	20.4156	30.8523	1510.6798	6.9888	10.2517	147.3592	3023.3475	15.4291	2.6828	5.436
	20.4509	30.9067	1518.6875	7.0011	10.2693	147.8858	3039.3732	15.4563	2.6889	5.446
L18	20.4519	30.5252	1500.8896	7.0033	10.2693	146.1527	3003.7541	15.2655	2.6999	5.538
	20.9807	31.3311	1622.9335	7.1882	10.5339	154.0675	3248.0024	15.6685	2.7915	5.726
L19	20.9730	34.4592	1776.1652	7.1705	10.5339	168.6140	3554.6675	17.2329	2.7035	5.03
	21.0083	34.5185	1785.3411	7.1828	10.5516	169.2017	3573.0314	17.2625	2.7097	5.041
L20	21.0102	33.7365	1747.0555	7.1872	10.5516	165.5733	3496.4098	16.8715	2.7317	5.203
	21.7154	34.8938	1933.0719	7.4338	10.9043	177.2755	3868.6875	17.4502	2.8539	5.436
L21	21.7173	34.0833	1890.4278	7.4382	10.9043	173.3648	3783.3430	17.0449	2.8759	5.611
	22.4225	35.2129	2084.6956	7.6848	11.2571	185.1891	4172.1343	17.6098	2.9981	5.85
L22	22.4244	34.3739	2037.3747	7.6892	11.2571	180.9854	4077.4302	17.1902	3.0201	6.04
	23.1296	35.4760	2239.6934	7.9357	11.6099	192.9123	4482.3338	17.7414	3.1423	6.285
L23	23.1305	35.0424	2213.5528	7.9379	11.6099	190.6607	4430.0183	17.5245	3.1533	6.386
	23.8357	36.1307	2426.2668	8.1845	11.9627	202.8195	4855.7261	18.0688	3.2756	6.634
L24	23.8367	35.6830	2397.5033	8.1867	11.9627	200.4151	4798.1614	17.8449	3.2866	6.742
	24.2950	36.3815	2541.0629	8.3469	12.1920	208.4205	5085.4694	18.1942	3.3660	6.905

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 ²	in							
L1 81.00-76.00				1	1	1			
L2 76.00-71.00				1	1	1			
L3 71.00-66.00				1	1	1			
L4 66.00-61.00				1	1	1			
L5 61.00-56.00				1	1	1			
L6 56.00-51.00				1	1	1			
L7 51.00-48.58				1	1	1			
L8 48.58-48.33				1	1	0.87015			
L9 48.33-48.08				1	1	0.86907			
L10				1	1	0.878118			
48.08-43.08									
L11				1	1	0.87786			
43.08-37.54									
L12				1	1	0.886707			
37.54-35.46									
L13				1	1	0.889118			

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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 ²	in							
35.46-30.46									
L14				1	1	0.902391			
30.46-28.50									
L15				1	1	0.901594			
28.50-28.25									
L16				1	1	0.899222			
28.25-27.50									
L17				1	1	1.03838			
27.50-27.25									
L18				1	1	1.03751			
27.25-23.50									
L19				1	1	1.01493			
23.50-23.25									
L20				1	1	1.01981			
23.25-18.25									
L21				1	1	1.02621			
18.25-13.25									
L22 13.25-8.25				1	1	1.03414			
L23 8.25-3.25				1	1	1.03065			
L24 3.25-0.00				1	1	1.03339			

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 plf
Climbing Pegs	A	No	Surface Ar (CaAa)	81.00 - 10.00	1	1	0.000 0.000	0.1500		0.31

PL4x1.25 Mod Plate	A	No	Surface Af (CaAa)	50.58 - 25.58	1	1	0.000 0.000	4.0000	10.5000	0.00
PL4x1.25 Mod Plate	C	No	Surface Af (CaAa)	50.58 - 25.58	1	1	0.000 0.000	4.0000	10.5000	0.00
PL4x1.25 Mod Plate	B	No	Surface Af (CaAa)	50.50 - 25.50	1	1	0.000 0.000	4.0000	10.5000	0.00
PL5"x1.25" Mod Plate	B	No	Surface Af (CaAa)	30.50 - 0.00	1	1	0.000 0.000	5.0000	12.5000	0.00
PL5"x1.25" Mod Plate	A	No	Surface Af (CaAa)	25.50 - 0.00	1	1	0.000 0.000	5.0000	12.5000	0.00
PL5"x1.25" Mod Plate	C	No	Surface Af (CaAa)	25.50 - 0.00	1	1	0.000 0.000	5.0000	12.5000	0.00

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		CAAA ft ² /ft	Weight plf
Safety Line (3/8")	A	No	No	CaAa (Out Of Face)	81.00 - 10.00	1	No Ice 1/2" Ice 1" Ice	0.04 0.14 0.24	0.22 0.75 1.28

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Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		$C_A A_A$ ft ² /ft	Weight plf
							2" Ice	0.44	2.34

LDF7-50A (1-5/8")	C	No	No	Inside Pole	81.00 - 8.00	6	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82
Hybrid Cable (1-5/8")	C	No	No	Inside Pole	81.00 - 8.00	3	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82

LDF5-50A(7/8")	C	No	No	Inside Pole	62.50 - 42.50	4	No Ice	0.00	0.33
							1/2" Ice	0.00	0.33
							1" Ice	0.00	0.33
							2" Ice	0.00	0.33
LDF5-50A(7/8")	C	No	No	Inside Pole	42.50 - 8.00	10	No Ice	0.00	0.33
							1/2" Ice	0.00	0.33
							1" Ice	0.00	0.33
							2" Ice	0.00	0.33

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
L1	81.00-76.00	A	0.000	0.000	0.075	0.188	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.04
L2	76.00-71.00	A	0.000	0.000	0.075	0.188	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.04
L3	71.00-66.00	A	0.000	0.000	0.075	0.188	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.04
L4	66.00-61.00	A	0.000	0.000	0.075	0.188	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.04
L5	61.00-56.00	A	0.000	0.000	0.075	0.188	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.04
L6	56.00-51.00	A	0.000	0.000	0.075	0.188	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.04
L7	51.00-48.58	A	0.000	0.000	1.370	0.091	0.00
		B	0.000	0.000	1.280	0.000	0.00
		C	0.000	0.000	1.333	0.000	0.02
L8	48.58-48.33	A	0.000	0.000	0.170	0.009	0.00
		B	0.000	0.000	0.167	0.000	0.00
		C	0.000	0.000	0.167	0.000	0.00
L9	48.33-48.08	A	0.000	0.000	0.170	0.009	0.00
		B	0.000	0.000	0.167	0.000	0.00
		C	0.000	0.000	0.167	0.000	0.00
L10	48.08-43.08	A	0.000	0.000	3.408	0.188	0.00
		B	0.000	0.000	3.333	0.000	0.00

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Tower Section	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
L11	43.08-37.54	C	0.000	0.000	3.333	0.000	0.04
		A	0.000	0.000	3.776	0.208	0.00
		B	0.000	0.000	3.693	0.000	0.00
L12	37.54-35.46	C	0.000	0.000	3.693	0.000	0.06
		A	0.000	0.000	1.418	0.078	0.00
		B	0.000	0.000	1.387	0.000	0.00
L13	35.46-30.46	C	0.000	0.000	1.387	0.000	0.02
		A	0.000	0.000	3.408	0.188	0.00
		B	0.000	0.000	3.367	0.000	0.00
L14	30.46-28.50	C	0.000	0.000	3.333	0.000	0.05
		A	0.000	0.000	1.336	0.073	0.00
		B	0.000	0.000	2.940	0.000	0.00
L15	28.50-28.25	C	0.000	0.000	1.307	0.000	0.02
		A	0.000	0.000	0.170	0.009	0.00
		B	0.000	0.000	0.375	0.000	0.00
L16	28.25-27.50	C	0.000	0.000	0.167	0.000	0.00
		A	0.000	0.000	0.511	0.028	0.00
		B	0.000	0.000	1.125	0.000	0.00
L17	27.50-27.25	C	0.000	0.000	0.500	0.000	0.01
		A	0.000	0.000	0.170	0.009	0.00
		B	0.000	0.000	0.375	0.000	0.00
L18	27.25-23.50	C	0.000	0.000	0.167	0.000	0.00
		A	0.000	0.000	2.836	0.141	0.00
		B	0.000	0.000	4.292	0.000	0.00
L19	23.50-23.25	C	0.000	0.000	2.780	0.000	0.04
		A	0.000	0.000	0.212	0.009	0.00
		B	0.000	0.000	0.208	0.000	0.00
L20	23.25-18.25	C	0.000	0.000	0.208	0.000	0.00
		A	0.000	0.000	4.242	0.188	0.00
		B	0.000	0.000	4.167	0.000	0.00
L21	18.25-13.25	C	0.000	0.000	4.167	0.000	0.05
		A	0.000	0.000	4.242	0.188	0.00
		B	0.000	0.000	4.167	0.000	0.00
L22	13.25-8.25	C	0.000	0.000	4.167	0.000	0.05
		A	0.000	0.000	4.215	0.122	0.00
		B	0.000	0.000	4.167	0.000	0.00
L23	8.25-3.25	C	0.000	0.000	4.167	0.000	0.05
		A	0.000	0.000	4.167	0.000	0.00
		B	0.000	0.000	4.167	0.000	0.00
L24	3.25-0.00	C	0.000	0.000	4.167	0.000	0.00
		A	0.000	0.000	2.708	0.000	0.00
		B	0.000	0.000	2.708	0.000	0.00
		C	0.000	0.000	2.708	0.000	0.00

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
L1	81.00-76.00	A	1.881	0.000	0.000	1.956	2.069	0.04
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.04
L2	76.00-71.00	A	1.869	0.000	0.000	1.944	2.056	0.04
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.04
L3	71.00-66.00	A	1.856	0.000	0.000	1.931	2.043	0.04
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.04

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Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
L4	66.00-61.00	A	1.842	0.000	0.000	1.917	2.029	0.03
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.04
L5	61.00-56.00	A	1.827	0.000	0.000	1.902	2.014	0.03
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.04
L6	56.00-51.00	A	1.810	0.000	0.000	1.885	1.998	0.03
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.04
L7	51.00-48.58	A	1.797	0.000	0.000	2.959	0.961	0.04
		B		0.000	0.000	1.970	0.000	0.02
		C		0.000	0.000	2.052	0.000	0.05
L8	48.58-48.33	A	1.793	0.000	0.000	0.350	0.099	0.00
		B		0.000	0.000	0.256	0.000	0.00
		C		0.000	0.000	0.256	0.000	0.01
L9	48.33-48.08	A	1.792	0.000	0.000	0.350	0.099	0.00
		B		0.000	0.000	0.256	0.000	0.00
		C		0.000	0.000	0.256	0.000	0.01
L10	48.08-43.08	A	1.782	0.000	0.000	6.971	1.969	0.09
		B		0.000	0.000	5.115	0.000	0.06
		C		0.000	0.000	5.115	0.000	0.10
L11	43.08-37.54	A	1.760	0.000	0.000	7.676	2.158	0.10
		B		0.000	0.000	5.643	0.000	0.07
		C		0.000	0.000	5.643	0.000	0.12
L12	37.54-35.46	A	1.742	0.000	0.000	2.882	0.810	0.04
		B		0.000	0.000	2.119	0.000	0.02
		C		0.000	0.000	2.119	0.000	0.05
L13	35.46-30.46	A	1.725	0.000	0.000	6.858	1.912	0.09
		B		0.000	0.000	5.105	0.000	0.06
		C		0.000	0.000	5.058	0.000	0.11
L14	30.46-28.50	A	1.706	0.000	0.000	2.673	0.742	0.03
		B		0.000	0.000	4.277	0.000	0.05
		C		0.000	0.000	1.975	0.000	0.04
L15	28.50-28.25	A	1.699	0.000	0.000	0.340	0.094	0.00
		B		0.000	0.000	0.545	0.000	0.01
		C		0.000	0.000	0.252	0.000	0.01
L16	28.25-27.50	A	1.696	0.000	0.000	1.020	0.283	0.01
		B		0.000	0.000	1.634	0.000	0.02
		C		0.000	0.000	0.754	0.000	0.02
L17	27.50-27.25	A	1.693	0.000	0.000	0.340	0.094	0.00
		B		0.000	0.000	0.544	0.000	0.01
		C		0.000	0.000	0.251	0.000	0.01
L18	27.25-23.50	A	1.680	0.000	0.000	5.330	1.401	0.07
		B		0.000	0.000	6.140	0.000	0.07
		C		0.000	0.000	4.013	0.000	0.08
L19	23.50-23.25	A	1.667	0.000	0.000	0.379	0.093	0.00
		B		0.000	0.000	0.292	0.000	0.00
		C		0.000	0.000	0.292	0.000	0.01
L20	23.25-18.25	A	1.647	0.000	0.000	7.535	1.834	0.09
		B		0.000	0.000	5.813	0.000	0.06
		C		0.000	0.000	5.813	0.000	0.11
L21	18.25-13.25	A	1.602	0.000	0.000	7.445	1.789	0.09
		B		0.000	0.000	5.769	0.000	0.06
		C		0.000	0.000	5.769	0.000	0.11
L22	13.25-8.25	A	1.542	0.000	0.000	6.759	1.124	0.07
		B		0.000	0.000	5.708	0.000	0.05
		C		0.000	0.000	5.708	0.000	0.11
L23	8.25-3.25	A	1.448	0.000	0.000	5.615	0.000	0.05
		B		0.000	0.000	5.615	0.000	0.05
		C		0.000	0.000	5.615	0.000	0.05
L24	3.25-0.00	A	1.276	0.000	0.000	3.538	0.000	0.03

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Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
		B		0.000	0.000	3.538	0.000	0.03
		C		0.000	0.000	3.538	0.000	0.03

Feed Line Center of Pressure

Section	Elevation ft	CP_x in	CP_z in	CP_x Ice in	CP_z Ice in
L1	81.00-76.00	-0.1002	-0.3438	-0.9027	-1.6112
L2	76.00-71.00	-0.1004	-0.3448	-0.9207	-1.6443
L3	71.00-66.00	-0.1006	-0.3456	-0.9370	-1.6744
L4	66.00-61.00	-0.1008	-0.3465	-0.9517	-1.7016
L5	61.00-56.00	-0.1010	-0.3472	-0.9647	-1.7261
L6	56.00-51.00	-0.1012	-0.3479	-0.9762	-1.7476
L7	51.00-48.58	-0.1057	-0.1053	-0.5776	-0.9149
L8	48.58-48.33	-0.0368	-0.1266	-0.4803	-0.8603
L9	48.33-48.08	-0.0369	-0.1268	-0.4808	-0.8612
L10	48.08-43.08	-0.0373	-0.1285	-0.4861	-0.8710
L11	43.08-37.54	-0.0383	-0.1319	-0.4960	-0.8894
L12	37.54-35.46	-0.0385	-0.1326	-0.4991	-0.8951
L13	35.46-30.46	-0.0204	-0.1452	-0.4864	-0.9064
L14	30.46-28.50	1.8256	-1.1814	1.0521	-1.6147
L15	28.50-28.25	1.8346	-1.1873	1.0585	-1.6217
L16	28.25-27.50	1.8386	-1.1899	1.0614	-1.6248
L17	27.50-27.25	1.8424	-1.1924	1.0643	-1.6277
L18	27.25-23.50	0.9226	-0.6693	0.3136	-1.2584
L19	23.50-23.25	-0.0355	-0.1221	-0.4740	-0.8521
L20	23.25-18.25	-0.0359	-0.1235	-0.4758	-0.8559
L21	18.25-13.25	-0.0366	-0.1261	-0.4773	-0.8597
L22	13.25-8.25	-0.0243	-0.0836	-0.3182	-0.5740
L23	8.25-3.25	0.0000	0.0000	0.0000	0.0000
L24	3.25-0.00	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_a No Ice	K_a Ice
L1	1	Climbing Pegs	76.00 - 81.00	1.0000	1.0000
L2	1	Climbing Pegs	71.00 - 76.00	1.0000	1.0000
L3	1	Climbing Pegs	66.00 - 71.00	1.0000	1.0000
L4	1	Climbing Pegs	61.00 - 66.00	1.0000	1.0000
L5	1	Climbing Pegs	56.00 - 61.00	1.0000	1.0000
L6	1	Climbing Pegs	51.00 - 56.00	1.0000	1.0000
L7	1	Climbing Pegs	48.58 - 51.00	1.0000	1.0000
L7	10	PL4x1.25 Mod Plate	48.58 - 50.58	1.0000	1.0000
L7	11	PL4x1.25 Mod Plate	48.58 - 50.58	1.0000	1.0000
L7	12	PL4x1.25 Mod Plate	48.58 - 50.50	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
L8	1	Climbing Pegs	48.33 - 48.58	1.0000	1.0000
L8	10	PL4x1.25 Mod Plate	48.33 - 48.58	1.0000	1.0000
L8	11	PL4x1.25 Mod Plate	48.33 - 48.58	1.0000	1.0000
L8	12	PL4x1.25 Mod Plate	48.33 - 48.58	1.0000	1.0000
L9	1	Climbing Pegs	48.08 - 48.33	1.0000	1.0000
L9	10	PL4x1.25 Mod Plate	48.08 - 48.33	1.0000	1.0000
L9	11	PL4x1.25 Mod Plate	48.08 - 48.33	1.0000	1.0000
L9	12	PL4x1.25 Mod Plate	48.08 - 48.33	1.0000	1.0000
L10	1	Climbing Pegs	43.08 - 48.08	1.0000	1.0000
L10	10	PL4x1.25 Mod Plate	43.08 - 48.08	1.0000	1.0000
L10	11	PL4x1.25 Mod Plate	43.08 - 48.08	1.0000	1.0000
L10	12	PL4x1.25 Mod Plate	43.08 - 48.08	1.0000	1.0000
L11	1	Climbing Pegs	37.54 - 43.08	1.0000	1.0000
L11	10	PL4x1.25 Mod Plate	37.54 - 43.08	1.0000	1.0000
L11	11	PL4x1.25 Mod Plate	37.54 - 43.08	1.0000	1.0000
L11	12	PL4x1.25 Mod Plate	37.54 - 43.08	1.0000	1.0000
L12	1	Climbing Pegs	35.46 - 37.54	1.0000	1.0000
L12	10	PL4x1.25 Mod Plate	35.46 - 37.54	1.0000	1.0000
L12	11	PL4x1.25 Mod Plate	35.46 - 37.54	1.0000	1.0000
L12	12	PL4x1.25 Mod Plate	35.46 - 37.54	1.0000	1.0000
L13	1	Climbing Pegs	30.46 - 35.46	1.0000	1.0000
L13	10	PL4x1.25 Mod Plate	30.46 - 35.46	1.0000	1.0000
L13	11	PL4x1.25 Mod Plate	30.46 - 35.46	1.0000	1.0000
L13	12	PL4x1.25 Mod Plate	30.46 - 35.46	1.0000	1.0000
L13	13	PL5"x1.25" Mod Plate	30.46 - 30.50	1.0000	1.0000
L14	1	Climbing Pegs	28.50 - 30.46	1.0000	1.0000
L14	10	PL4x1.25 Mod Plate	28.50 - 30.46	1.0000	1.0000
L14	11	PL4x1.25 Mod Plate	28.50 - 30.46	1.0000	1.0000
L14	12	PL4x1.25 Mod Plate	28.50 - 30.46	1.0000	1.0000
L14	13	PL5"x1.25" Mod Plate	28.50 - 30.46	1.0000	1.0000
L15	1	Climbing Pegs	28.25 - 28.50	1.0000	1.0000
L15	10	PL4x1.25 Mod Plate	28.25 - 28.50	1.0000	1.0000
L15	11	PL4x1.25 Mod Plate	28.25 - 28.50	1.0000	1.0000
L15	12	PL4x1.25 Mod Plate	28.25 - 28.50	1.0000	1.0000
L15	13	PL5"x1.25" Mod Plate	28.25 - 28.50	1.0000	1.0000
L16	1	Climbing Pegs	27.50 - 28.25	1.0000	1.0000
L16	10	PL4x1.25 Mod Plate	27.50 - 28.25	1.0000	1.0000
L16	11	PL4x1.25 Mod Plate	27.50 - 28.25	1.0000	1.0000
L16	12	PL4x1.25 Mod Plate	27.50 - 28.25	1.0000	1.0000
L16	13	PL5"x1.25" Mod Plate	27.50 - 28.25	1.0000	1.0000
L17	1	Climbing Pegs	27.25 - 27.50	1.0000	1.0000
L17	10	PL4x1.25 Mod Plate	27.25 - 27.50	1.0000	1.0000
L17	11	PL4x1.25 Mod Plate	27.25 - 27.50	1.0000	1.0000
L17	12	PL4x1.25 Mod Plate	27.25 - 27.50	1.0000	1.0000
L17	13	PL5"x1.25" Mod Plate	27.25 - 27.50	1.0000	1.0000
L18	1	Climbing Pegs	23.50 - 27.25	1.0000	1.0000
L18	10	PL4x1.25 Mod Plate	25.58 - 27.25	1.0000	1.0000
L18	11	PL4x1.25 Mod Plate	25.58 - 27.25	1.0000	1.0000
L18	12	PL4x1.25 Mod Plate	25.50 - 27.25	1.0000	1.0000
L18	13	PL5"x1.25" Mod Plate	23.50 - 27.25	1.0000	1.0000
L18	14	PL5"x1.25" Mod Plate	23.50 - 25.50	1.0000	1.0000
L18	15	PL5"x1.25" Mod Plate	23.50 - 25.50	1.0000	1.0000
L19	1	Climbing Pegs	23.25 - 23.50	1.0000	1.0000
L19	13	PL5"x1.25" Mod Plate	23.25 - 23.50	1.0000	1.0000
L19	14	PL5"x1.25" Mod Plate	23.25 - 23.50	1.0000	1.0000
L19	15	PL5"x1.25" Mod Plate	23.25 - 23.50	1.0000	1.0000
L20	1	Climbing Pegs	18.25 - 23.25	1.0000	1.0000
L20	13	PL5"x1.25" Mod Plate	18.25 - 23.25	1.0000	1.0000
L20	14	PL5"x1.25" Mod Plate	18.25 - 23.25	1.0000	1.0000
L20	15	PL5"x1.25" Mod Plate	18.25 - 23.25	1.0000	1.0000
L21	1	Climbing Pegs	13.25 - 18.25	1.0000	1.0000
L21	13	PL5"x1.25" Mod Plate	13.25 - 18.25	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
L21	14	PL5"x1.25" Mod Plate	13.25 - 18.25	1.0000	1.0000
L21	15	PL5"x1.25" Mod Plate	13.25 - 18.25	1.0000	1.0000
L22	1	Climbing Pegs	10.00 - 13.25	1.0000	1.0000
L22	13	PL5"x1.25" Mod Plate	8.25 - 13.25	1.0000	1.0000
L22	14	PL5"x1.25" Mod Plate	8.25 - 13.25	1.0000	1.0000
L22	15	PL5"x1.25" Mod Plate	8.25 - 13.25	1.0000	1.0000
L23	13	PL5"x1.25" Mod Plate	3.25 - 8.25	1.0000	1.0000
L23	14	PL5"x1.25" Mod Plate	3.25 - 8.25	1.0000	1.0000
L23	15	PL5"x1.25" Mod Plate	3.25 - 8.25	1.0000	1.0000
L24	13	PL5"x1.25" Mod Plate	0.00 - 3.25	1.0000	1.0000
L24	14	PL5"x1.25" Mod Plate	0.00 - 3.25	1.0000	1.0000
L24	15	PL5"x1.25" Mod Plate	0.00 - 3.25	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
L7	10	PL4x1.25 Mod Plate	48.58 - 50.58	Auto	0.3142
L7	11	PL4x1.25 Mod Plate	48.58 - 50.58	Auto	0.3142
L7	12	PL4x1.25 Mod Plate	48.58 - 50.50	Auto	0.3140
L8	10	PL4x1.25 Mod Plate	48.33 - 48.58	Auto	0.4612
L8	11	PL4x1.25 Mod Plate	48.33 - 48.58	Auto	0.4612
L8	12	PL4x1.25 Mod Plate	48.33 - 48.58	Auto	0.4612
L9	10	PL4x1.25 Mod Plate	48.08 - 48.33	Auto	0.4596
L9	11	PL4x1.25 Mod Plate	48.08 - 48.33	Auto	0.4596
L9	12	PL4x1.25 Mod Plate	48.08 - 48.33	Auto	0.4596
L10	10	PL4x1.25 Mod Plate	43.08 - 48.08	Auto	0.4350
L10	11	PL4x1.25 Mod Plate	43.08 - 48.08	Auto	0.4350
L10	12	PL4x1.25 Mod Plate	43.08 - 48.08	Auto	0.4350
L11	10	PL4x1.25 Mod Plate	37.54 - 43.08	Auto	0.3993
L11	11	PL4x1.25 Mod Plate	37.54 - 43.08	Auto	0.3993
L11	12	PL4x1.25 Mod Plate	37.54 - 43.08	Auto	0.3993
L12	10	PL4x1.25 Mod Plate	35.46 - 37.54	Auto	0.4201
L12	11	PL4x1.25 Mod Plate	35.46 - 37.54	Auto	0.4201
L12	12	PL4x1.25 Mod Plate	35.46 - 37.54	Auto	0.4201
L13	10	PL4x1.25 Mod Plate	30.46 - 35.46	Auto	0.3929
L13	11	PL4x1.25 Mod Plate	30.46 - 35.46	Auto	0.3929
L13	12	PL4x1.25 Mod Plate	30.46 - 35.46	Auto	0.3929
L13	13	PL5"x1.25" Mod Plate	30.46 - 30.50	Auto	0.5022
L14	10	PL4x1.25 Mod Plate	28.50 - 30.46	Auto	0.3662
L14	11	PL4x1.25 Mod Plate	28.50 - 30.46	Auto	0.3662
L14	12	PL4x1.25 Mod Plate	28.50 - 30.46	Auto	0.3662
L14	13	PL5"x1.25" Mod Plate	28.50 - 30.46	Auto	0.4929
L15	10	PL4x1.25 Mod Plate	28.25 - 28.50	Auto	0.3594
L15	11	PL4x1.25 Mod Plate	28.25 - 28.50	Auto	0.3594
L15	12	PL4x1.25 Mod Plate	28.25 - 28.50	Auto	0.3594
L15	13	PL5"x1.25" Mod Plate	28.25 - 28.50	Auto	0.4875
L16	10	PL4x1.25 Mod Plate	27.50 - 28.25	Auto	0.3564
L16	11	PL4x1.25 Mod Plate	27.50 - 28.25	Auto	0.3564
L16	12	PL4x1.25 Mod Plate	27.50 - 28.25	Auto	0.3564
L16	13	PL5"x1.25" Mod Plate	27.50 - 28.25	Auto	0.4851
L17	10	PL4x1.25 Mod Plate	27.25 - 27.50	Auto	0.3285
L17	11	PL4x1.25 Mod Plate	27.25 - 27.50	Auto	0.3285

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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L17	12	PL4x1.25 Mod Plate	27.25 - 27.50	Auto	0.3285
L17	13	PL5"x1.25" Mod Plate	27.25 - 27.50	Auto	0.4628
L18	10	PL4x1.25 Mod Plate	25.58 - 27.25	Auto	0.3199
L18	11	PL4x1.25 Mod Plate	25.58 - 27.25	Auto	0.3199
L18	12	PL4x1.25 Mod Plate	25.50 - 27.25	Auto	0.3197
L18	13	PL5"x1.25" Mod Plate	23.50 - 27.25	Auto	0.4509
L18	14	PL5"x1.25" Mod Plate	23.50 - 25.50	Auto	0.4466
L18	15	PL5"x1.25" Mod Plate	23.50 - 25.50	Auto	0.4466
L19	13	PL5"x1.25" Mod Plate	23.25 - 23.50	Auto	0.4587
L19	14	PL5"x1.25" Mod Plate	23.25 - 23.50	Auto	0.4587
L19	15	PL5"x1.25" Mod Plate	23.25 - 23.50	Auto	0.4587
L20	13	PL5"x1.25" Mod Plate	18.25 - 23.25	Auto	0.4414
L20	14	PL5"x1.25" Mod Plate	18.25 - 23.25	Auto	0.4414
L20	15	PL5"x1.25" Mod Plate	18.25 - 23.25	Auto	0.4414
L21	13	PL5"x1.25" Mod Plate	13.25 - 18.25	Auto	0.4126
L21	14	PL5"x1.25" Mod Plate	13.25 - 18.25	Auto	0.4126
L21	15	PL5"x1.25" Mod Plate	13.25 - 18.25	Auto	0.4126
L22	13	PL5"x1.25" Mod Plate	8.25 - 13.25	Auto	0.3838
L22	14	PL5"x1.25" Mod Plate	8.25 - 13.25	Auto	0.3838
L22	15	PL5"x1.25" Mod Plate	8.25 - 13.25	Auto	0.3838
L23	13	PL5"x1.25" Mod Plate	3.25 - 8.25	Auto	0.3571
L23	14	PL5"x1.25" Mod Plate	3.25 - 8.25	Auto	0.3571
L23	15	PL5"x1.25" Mod Plate	3.25 - 8.25	Auto	0.3571
L24	13	PL5"x1.25" Mod Plate	0.00 - 3.25	Auto	0.3347
L24	14	PL5"x1.25" Mod Plate	0.00 - 3.25	Auto	0.3347
L24	15	PL5"x1.25" Mod Plate	0.00 - 3.25	Auto	0.3347

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
17.5' FWT Low Profile Platform	C	None		0.0000	81.00	No Ice	17.50	17.50	2.27
						1/2" Ice	31.50	31.50	2.70
						1" Ice	52.50	52.50	3.13
						2" Ice	94.50	94.50	3.99
VZWSMART-PLK5 (3)	C	None		0.0000	81.00	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
						2" Ice	32.32	32.32	0.36
Collar Mount	C	None		0.0000	81.00	No Ice	2.14	2.14	0.30
						1/2" Ice	2.35	2.35	0.39
						1" Ice	2.57	2.57	0.48
						2" Ice	2.99	2.99	0.66
PV-DC-PTPC-2020-24	B	From Centroid-Face	4.00	0.0000	81.00	No Ice	1.67	3.95	0.06
			-6.00			1/2" Ice	2.43	5.69	0.09
			3.50			1" Ice	3.21	7.62	0.13
						2" Ice	4.84	12.32	0.25
PV-DC-PTPC-2020-24	B	From Centroid-Face	4.50	0.0000	81.00	No Ice	1.67	3.95	0.06
			6.00			1/2" Ice	2.43	5.69	0.09

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
		cc	3.50			1" Ice 3.21	7.62	0.13
						2" Ice 4.84	12.32	0.25
PV-DC-PTPC-2020-24	C	From Centroid-Fa ce	5.00 6.00 3.50	0.0000	81.00	No Ice 1.67	3.95	0.06
						1/2" Ice 2.43	5.69	0.09
						1" Ice 3.21	7.62	0.13
						2" Ice 4.84	12.32	0.25
PV-DC-PTPC-2020-12	A	From Centroid-Fa ce	5.00 6.00 3.50	0.0000	81.00	No Ice 1.22	2.63	0.04
						1/2" Ice 1.80	3.93	0.06
						1" Ice 2.40	5.47	0.09
						2" Ice 3.70	9.56	0.17
BSAMNT-SBS-1-2	A	From Centroid-Fa ce	4.00 2.00 0.00	0.0000	81.00	No Ice 0.10	0.00	0.03
						1/2" Ice 0.15	0.03	0.03
						1" Ice 0.21	0.08	0.03
						2" Ice 0.35	0.19	0.03
BSAMNT-SBS-1-2	B	From Centroid-Fa ce	4.00 2.00 0.00	0.0000	81.00	No Ice 0.10	0.00	0.03
						1/2" Ice 0.15	0.03	0.03
						1" Ice 0.21	0.08	0.03
						2" Ice 0.35	0.19	0.03
BSAMNT-SBS-1-2	C	From Centroid-Fa ce	4.00 2.00 0.00	0.0000	81.00	No Ice 0.10	0.00	0.03
						1/2" Ice 0.15	0.03	0.03
						1" Ice 0.21	0.08	0.03
						2" Ice 0.35	0.19	0.03
Pipe 2 Std x 7'	A	From Centroid-Fa ce	4.00 5.00 0.00	0.0000	81.00	No Ice 1.67	1.67	0.03
						1/2" Ice 2.39	2.39	0.04
						1" Ice 2.83	2.83	0.06
						2" Ice 3.71	3.71	0.10
Pipe 2 Std x 7'	B	From Centroid-Fa ce	4.00 5.00 0.00	0.0000	81.00	No Ice 1.67	1.67	0.03
						1/2" Ice 2.39	2.39	0.04
						1" Ice 2.83	2.83	0.06
						2" Ice 3.71	3.71	0.10
Pipe 2 Std x 7'	C	From Centroid-Fa ce	4.00 5.00 0.00	0.0000	81.00	No Ice 1.67	1.67	0.03
						1/2" Ice 2.39	2.39	0.04
						1" Ice 2.83	2.83	0.06
						2" Ice 3.71	3.71	0.10
Pipe 2 Std x 9'	A	From Centroid-Fa ce	4.00 6.00 0.00	0.0000	81.00	No Ice 2.14	2.14	0.03
						1/2" Ice 3.07	3.07	0.05
						1" Ice 4.01	4.01	0.07
						2" Ice 5.13	5.13	0.13
Pipe 2 Std x 9'	B	From Centroid-Fa ce	4.00 6.00 0.00	0.0000	81.00	No Ice 2.14	2.14	0.03
						1/2" Ice 3.07	3.07	0.05
						1" Ice 4.01	4.01	0.07
						2" Ice 5.13	5.13	0.13
Pipe 2 Std x 9'	C	From Centroid-Fa ce	4.00 6.00 0.00	0.0000	81.00	No Ice 2.14	2.14	0.03
						1/2" Ice 3.07	3.07	0.05
						1" Ice 4.01	4.01	0.07
						2" Ice 5.13	5.13	0.13
Pipe 2 Std x 9'	A	From Centroid-Fa ce	4.00 -2.00 0.00	0.0000	81.00	No Ice 2.14	2.14	0.03
						1/2" Ice 3.07	3.07	0.05
						1" Ice 4.01	4.01	0.07
						2" Ice 5.13	5.13	0.13
GPS	A	From Centroid-Fa ce	4.00 -2.00 1.75	0.0000	81.00	No Ice 0.12	0.12	0.00
						1/2" Ice 0.21	0.21	0.00
						1" Ice 0.28	0.28	0.01
						2" Ice 0.44	0.44	0.02
39GHz VectaStar NR gNB	B	From Centroid-Fa ce	4.00 -7.00 3.50	0.0000	81.00	No Ice 2.61	1.46	0.04
						1/2" Ice 2.83	1.63	0.06
						1" Ice 3.06	1.81	0.08

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
39GHz VectaStar NR gNB	B	From Centroid-Fa ce	4.50 7.00 3.50	0.0000	81.00	2" Ice No Ice 1/2" Ice 1" Ice 2" Ice	3.51 2.61 2.83 3.06 3.51	2.17 1.46 1.63 1.81 2.17	0.13 0.04 0.06 0.08 0.13
39GHz VectaStar NR gNB	C	From Centroid-Fa ce	5.00 7.00 3.50	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.61 2.83 3.06 3.51	1.46 1.63 1.81 2.17	0.04 0.06 0.08 0.13
39GHz VectaStar NR gNB	A	From Centroid-Fa ce	5.00 7.00 3.50	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.61 2.83 3.06 3.51	1.46 1.63 1.81 2.17	0.04 0.06 0.08 0.13
MT6407-77A w/ Mount Pipe	A	From Centroid-Fa ce	4.00 -6.00 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.91 5.26 5.61 6.36	2.68 3.14 3.62 4.63	0.10 0.14 0.18 0.29
MT6407-77A w/ Mount Pipe	B	From Centroid-Fa ce	4.00 -6.00 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.91 5.26 5.61 6.36	2.68 3.14 3.62 4.63	0.10 0.14 0.18 0.29
MT6407-77A w/ Mount Pipe	C	From Centroid-Fa ce	4.00 -6.00 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.91 5.26 5.61 6.36	2.68 3.14 3.62 4.63	0.10 0.14 0.18 0.29
SBNHH-1D65B w/ 9' Mount Pipe	A	From Centroid-Fa ce	4.00 1.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.76 9.53 10.31 11.63	7.48 8.86 10.27 12.33	0.09 0.16 0.25 0.44
SBNHH-1D65B	A	From Centroid-Fa ce	4.00 2.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.16 8.62 9.09 10.04	5.40 5.85 6.32 7.27	0.04 0.09 0.15 0.28
SBNHH-1D65B w/ 9' Mount Pipe	B	From Centroid-Fa ce	4.00 1.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.76 9.53 10.31 11.63	7.48 8.86 10.27 12.33	0.09 0.16 0.25 0.44
SBNHH-1D65B	B	From Centroid-Fa ce	4.00 2.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.16 8.62 9.09 10.04	5.40 5.85 6.32 7.27	0.04 0.09 0.15 0.28
SBNHH-1D65B w/ 9' Mount Pipe	C	From Centroid-Fa ce	4.00 1.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.76 9.53 10.31 11.63	7.48 8.86 10.27 12.33	0.09 0.16 0.25 0.44
SBNHH-1D65B	C	From Centroid-Fa ce	4.00 2.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	8.16 8.62 9.09 10.04	5.40 5.85 6.32 7.27	0.04 0.09 0.15 0.28
B2/B66A RRH-BR049 (RFV01U-D1A)	A	From Centroid-Fa ce	4.00 4.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.25 1.39 1.54 1.87	1.87 2.03 2.21 2.59	0.08 0.10 0.12 0.18
B2/B66A RRH-BR049 (RFV01U-D1A)	B	From Centroid-Fa ce	4.00 4.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.25 1.39 1.54 1.87	1.87 2.03 2.21 2.59	0.08 0.10 0.12 0.18

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
B2/B66A RRH-BR049 (RFV01U-D1A)	C	From Centroid-Fa ce	4.00 4.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.25 1.39 1.54 1.87	1.87 2.03 2.21 2.59	0.08 0.10 0.12 0.18
B5/B13 RRH-BR04C (RFV01U-D2A)	A	From Centroid-Fa ce	4.00 5.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.87 2.03 2.21 2.59	1.02 1.15 1.29 1.59	0.07 0.09 0.11 0.15
B5/B13 RRH-BR04C (RFV01U-D2A)	B	From Centroid-Fa ce	4.00 5.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.87 2.03 2.21 2.59	1.02 1.15 1.29 1.59	0.07 0.09 0.11 0.15
B5/B13 RRH-BR04C (RFV01U-D2A)	C	From Centroid-Fa ce	4.00 5.50 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.87 2.03 2.21 2.59	1.02 1.15 1.29 1.59	0.07 0.09 0.11 0.15
(2) BSF0020F3V1-1	C	From Centroid-Fa ce	4.00 2.00 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.12 1.27 1.41 1.70	0.32 0.42 0.51 0.70	0.02 0.02 0.03 0.05
DB-B1-6C-12AB-0Z	C	From Centroid-Le g	1.00 0.00 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.64 1.81 1.98 2.35	2.51 2.71 2.92 3.35	0.03 0.05 0.08 0.14
RVZDC-6627-PF-48	C	From Centroid-Le g	1.00 0.00 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.79 4.04 4.30 4.84	2.51 2.73 2.95 3.42	0.03 0.06 0.10 0.18
RVZDC-6627-PF-48	A	From Centroid-Le g	1.00 0.00 1.75	0.0000	81.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.79 4.04 4.30 4.84	2.51 2.73 2.95 3.42	0.03 0.06 0.10 0.18

17.5' FWT Low Profile Platform	C	None		0.0000	62.50	No Ice 1/2" Ice 1" Ice 2" Ice	17.50 31.50 52.50 94.50	17.50 31.50 52.50 94.50	2.27 2.70 3.13 3.99
20' 4-Bay Dipole	B	From Centroid-Fa ce	4.00 -7.00 10.00	0.0000	62.50	No Ice 1/2" Ice 1" Ice 2" Ice	4.00 6.00 8.00 12.00	4.00 6.00 8.00 12.00	0.06 0.10 0.14 0.23
Pipe 2 Std x 8'	B	From Centroid-Fa ce	4.00 -7.00 0.00	0.0000	62.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
Panel Antenna	B	From Centroid-Fa ce	4.00 0.00 3.00	0.0000	62.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.63 1.80 1.99 2.37	0.72 0.87 1.03 1.36	0.02 0.03 0.04 0.08
4' x 2" Omni	B	From Centroid-Fa ce	4.00 0.00 3.00	0.0000	62.50	No Ice 1/2" Ice 1" Ice 2" Ice	0.79 1.03 1.28 1.81	0.79 1.03 1.28 1.81	0.02 0.02 0.03 0.06
Pipe 2 Std x 8'	B	From Centroid-Fa ce	4.00 0.00 0.00	0.0000	62.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
4' x 2" Omni	C	From Centroid-Fa ce	4.00 -6.00 3.00	0.0000	62.50	No Ice 1/2" Ice 1" Ice 2" Ice	0.79 1.03 1.28 1.81	0.79 1.03 1.28 1.81	0.02 0.02 0.03 0.06
Panel Antenna	C	From Centroid-Fa ce	4.00 -6.00 3.00	0.0000	62.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.63 1.80 1.99 2.37	0.72 0.87 1.03 1.36	0.02 0.03 0.04 0.08
Pipe 2 Std x 8'	C	From Centroid-Fa ce	4.00 -6.00 0.00	0.0000	62.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
3" Dia 10' Omni w/mount pipe	A	From Centroid-Fa ce	4.00 -7.00 5.00	0.0000	62.50	No Ice 1/2" Ice 1" Ice 2" Ice	4.11 5.39 6.64 8.42	4.11 5.39 6.64 8.42	0.10 0.14 0.18 0.30
Panel Antenna	A	From Centroid-Fa ce	4.00 -7.00 3.00	0.0000	62.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.63 1.80 1.99 2.37	0.72 0.87 1.03 1.36	0.02 0.03 0.04 0.08

17.5' FWT Low Profile Platform	C	None		0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	17.50 31.50 52.50 94.50	17.50 31.50 52.50 94.50	2.27 2.70 3.13 3.99
Pipe 2 Std x 8'	B	From Centroid-Fa ce	4.00 -6.00 0.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
5' Dipole	B	From Centroid-Fa ce	4.00 -6.00 -2.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.36 1.67 1.98 2.64	1.36 1.67 1.98 2.64	0.01 0.02 0.04 0.08
Pipe 2 Std x 8'	B	From Centroid-Fa ce	4.00 0.00 0.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
3' Yagi (horizontal)	B	From Centroid-Fa ce	5.50 0.00 4.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	0.35 0.48 0.63 0.94	0.52 0.71 0.90 1.33	0.01 0.02 0.03 0.05
GPS	B	From Centroid-Fa ce	4.00 0.00 4.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	0.12 0.21 0.28 0.44	0.12 0.21 0.28 0.44	0.00 0.00 0.01 0.02
3" Dia 10' Omni w/mount pipe	B	From Centroid-Fa ce	4.00 6.00 8.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	4.11 5.39 6.64 8.42	4.11 5.39 6.64 8.42	0.10 0.14 0.18 0.30
Pipe 2 Std x 8'	A	From Centroid-Fa ce	4.00 -6.00 0.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
10' 2 Bay Dipole	A	From Centroid-Fa ce	4.00 -6.00 5.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	2.00 3.00 4.00 6.00	2.00 3.00 4.00 6.00	0.03 0.04 0.04 0.06

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K
Pipe 2 Std x 8'	A	From Centroid-Fa ce	4.00 0.00 0.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
3' Yagi (horizontal)	A	From Centroid-Fa ce	5.50 0.00 4.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	0.35 0.48 0.63 0.94	0.52 0.71 0.90 1.33	0.01 0.02 0.03 0.05
Pipe 2 Std x 8'	A	From Centroid-Fa ce	4.00 6.00 0.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
10' 2 Bay Dipole	A	From Centroid-Fa ce	4.00 6.00 5.00	0.0000	42.50	No Ice 1/2" Ice 1" Ice 2" Ice	2.00 3.00 4.00 6.00	2.00 3.00 4.00 6.00	0.03 0.04 0.04 0.06

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft ²	Weight K
1' Dish	A	Paraboloid w/o Radome	From Centroid -Face	4.00 -7.00 3.00	-90.0000		62.50	1.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.79 0.92 1.06 1.33	0.00 0.00 0.00 0.00

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

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Comb. No.	Description
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

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	81 - 76	12.750	50	1.5700	0.0188
L2	76 - 71	11.126	39	1.5269	0.0162
L3	71 - 66	9.569	39	1.4444	0.0140
L4	66 - 61	8.115	39	1.3329	0.0121
L5	61 - 56	6.788	39	1.1986	0.0102
L6	56 - 51	5.614	39	1.0412	0.0082
L7	51 - 48.58	4.613	39	0.8682	0.0064
L8	48.58 - 48.33	4.195	39	0.7802	0.0056
L9	48.33 - 48.08	4.154	39	0.7768	0.0056
L10	48.08 - 43.08	4.114	39	0.7734	0.0056
L11	43.08 - 37.54	3.342	39	0.7011	0.0050
L12	40.46 - 35.46	2.968	39	0.6614	0.0046
L13	35.46 - 30.46	2.298	39	0.6078	0.0041
L14	30.46 - 28.5	1.703	39	0.5294	0.0034
L15	28.5 - 28.25	1.492	39	0.4984	0.0031
L16	28.25 - 27.5	1.466	39	0.4943	0.0031
L17	27.5 - 27.25	1.389	39	0.4823	0.0030
L18	27.25 - 23.5	1.364	39	0.4778	0.0029

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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L19	23.5 - 23.25	1.015	39	0.4096	0.0024
L20	23.25 - 18.25	0.994	39	0.4054	0.0024
L21	18.25 - 13.25	0.614	39	0.3203	0.0018
L22	13.25 - 8.25	0.324	39	0.2336	0.0013
L23	8.25 - 3.25	0.126	39	0.1455	0.0008
L24	3.25 - 0	0.020	39	0.0573	0.0003

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
81.00	17.5' FWT Low Profile Platform	50	12.750	1.5700	0.0199	4499
65.50	1' Dish	39	7.976	1.3205	0.0130	2288
62.50	17.5' FWT Low Profile Platform	39	7.171	1.2418	0.0118	2055
42.50	17.5' FWT Low Profile Platform	39	3.257	0.6919	0.0053	4302

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	81 - 76	63.537	2	7.7979	0.0932
L2	76 - 71	55.480	2	7.5980	0.0805
L3	71 - 66	47.740	2	7.1961	0.0695
L4	66 - 61	40.499	2	6.6461	0.0600
L5	61 - 56	33.890	2	5.9814	0.0506
L6	56 - 51	28.036	2	5.2008	0.0407
L7	51 - 48.58	23.041	2	4.3373	0.0319
L8	48.58 - 48.33	20.955	2	3.8976	0.0280
L9	48.33 - 48.08	20.752	2	3.8805	0.0278
L10	48.08 - 43.08	20.549	2	3.8634	0.0277
L11	43.08 - 37.54	16.694	2	3.5021	0.0249
L12	40.46 - 35.46	14.827	2	3.3042	0.0228
L13	35.46 - 30.46	11.484	2	3.0368	0.0201
L14	30.46 - 28.5	8.509	2	2.6459	0.0166
L15	28.5 - 28.25	7.455	2	2.4909	0.0154
L16	28.25 - 27.5	7.325	2	2.4707	0.0152
L17	27.5 - 27.25	6.942	2	2.4104	0.0147
L18	27.25 - 23.5	6.816	2	2.3881	0.0145
L19	23.5 - 23.25	5.075	2	2.0473	0.0120
L20	23.25 - 18.25	4.968	2	2.0265	0.0118
L21	18.25 - 13.25	3.069	2	1.6011	0.0089
L22	13.25 - 8.25	1.620	2	1.1675	0.0062
L23	8.25 - 3.25	0.628	2	0.7271	0.0037
L24	3.25 - 0	0.097	2	0.2865	0.0014

Critical Deflections and Radius of Curvature - Design Wind

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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>
81.00	17.5' FWT Low Profile Platform	2	63.537	7.7979	0.0984	969
65.50	1' Dish	2	39.807	6.5852	0.0642	474
62.50	17.5' FWT Low Profile Platform	2	35.799	6.1955	0.0583	424
42.50	17.5' FWT Low Profile Platform	2	16.273	3.4564	0.0259	868

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	81	43.46	2.92	18	13	19.17	0.1875	Auto	A572-65
2	40.46	40.46	0	18	18.38	24	0.25	Auto	A572-65

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
0	23.5	plate	PL5x1-1/4	2								x						x				
0	28.5	plate	PL5x1-1/4	1			x															
27.5	48.5	plate	PL4x1-1/4	1		x																
23.5	48.58	plate	PL4x1-1/4	2								x						x				
5																						
6																						
7																						
8																						
9																						
10																						

Reinforcement Details

	B (in)	H (in)	Gross Area (in ²)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in ²)	Bolt Hole Size (in)	Reinforcement Material
1	5	1.25	6.25	0.625	NexGen2 - M20	24	NexGen2 - M20	24.000	23.000	4.688	1.1875	A572-65
2	5	1.25	6.25	0.625	NexGen2 - M20	24	NexGen2 - M20	24.000	23.000	4.688	1.1875	A572-65
3	4	1.25	5	0.625	NexGen2 - M20	24	NexGen2 - M20	24.000	27.000	3.438	1.1875	A572-65
4	4	1.25	5	0.625	NexGen2 - M20	24	NexGen2 - M20	24.000	27.000	3.438	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)
PL5x1-1/4	Top	8	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	8	N	3	3	-	-	-	-	-	-	-	-	-
PL4x1-1/4	Top	8	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	8	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	81 - 76	5		18	13.000	13.710	0.1875	A572-65	1.000
2	76 - 71	5		18	13.710	14.420	0.1875	A572-65	1.000
3	71 - 66	5		18	14.420	15.130	0.1875	A572-65	1.000
4	66 - 61	5		18	15.130	15.839	0.1875	A572-65	1.000
5	61 - 56	5		18	15.839	16.549	0.1875	A572-65	1.000
6	56 - 51	5		18	16.549	17.259	0.1875	A572-65	1.000
7	51 - 48.58	2.42		18	17.259	17.603	0.1875	A572-65	1.000
8	48.58 - 48.33	0.25		18	17.603	17.638	0.5375	A572-65	0.870
9	48.33 - 48.08	0.25		18	17.638	17.674	0.5375	A572-65	0.869
10	48.08 - 43.08	5		18	17.674	18.383	0.51875	A572-65	0.878
11	43.08 - 40.46	5.54	2.92	18	18.383	19.170	0.5125	A572-65	0.878
12	40.46 - 35.46	5		18	18.380	19.075	0.575	A572-65	0.887
13	35.46 - 30.46	5		18	19.075	19.769	0.5625	A572-65	0.889
14	30.46 - 28.5	1.96		18	19.769	20.042	0.55	A572-65	0.902
15	28.5 - 28.25	0.25		18	20.042	20.076	0.55	A572-65	0.902
16	28.25 - 27.5	0.75		18	20.076	20.180	0.55	A572-65	0.899
17	27.5 - 27.25	0.25		18	20.180	20.215	0.49375	A572-65	1.038
18	27.25 - 23.5	3.75		18	20.215	20.736	0.4875	A572-65	1.038
19	23.5 - 23.25	0.25		18	20.736	20.771	0.5375	A572-65	1.015
20	23.25 - 18.25	5		18	20.771	21.465	0.525	A572-65	1.020
21	18.25 - 13.25	5		18	21.465	22.160	0.5125	A572-65	1.026
22	13.25 - 8.25	5		18	22.160	22.854	0.5	A572-65	1.034
23	8.25 - 3.25	5		18	22.854	23.549	0.49375	A572-65	1.031
24	3.25 - 0	3.25		18	23.549	24.000	0.4875	A572-65	1.033

TNX Section Forces

Increment (ft): 5		TNX Output		
	Section Height (ft)	P _u (K)	M _{ux} (kip-ft)	V _u (K)
1	81 - 76	5.12	40.78	6.52
2	76 - 71	5.36	73.78	6.69
3	71 - 66	5.63	107.58	6.84
4	66 - 61	8.89	147.82	8.70
5	61 - 56	9.24	191.49	8.79
6	56 - 51	9.61	235.57	8.87
7	51 - 48.58	9.80	257.04	8.91
8	48.58 - 48.33	9.84	259.27	8.90
9	48.33 - 48.08	9.87	261.49	8.91
10	48.08 - 43.08	10.48	306.43	9.08
11	43.08 - 40.46	13.88	335.60	10.60
12	40.46 - 35.46	14.90	389.05	10.78
13	35.46 - 30.46	15.64	443.20	10.90
14	30.46 - 28.5	15.93	464.59	10.95
15	28.5 - 28.25	15.98	467.32	10.94
16	28.25 - 27.5	16.09	475.53	10.96
17	27.5 - 27.25	16.13	478.27	10.96
18	27.25 - 23.5	16.73	519.50	11.04
19	23.5 - 23.25	16.78	522.26	11.04
20	23.25 - 18.25	17.63	577.67	11.14
21	18.25 - 13.25	18.50	633.55	11.23
22	13.25 - 8.25	19.39	689.85	11.31
23	8.25 - 3.25	20.23	746.52	11.38
24	3.25 - 0	20.78	783.53	11.43

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
81 - 76	Pole	TP13.71x13x0.1875	Pole	26.0%	Pass
76 - 71	Pole	TP14.42x13.71x0.1875	Pole	41.5%	Pass
71 - 66	Pole	TP15.13x14.42x0.1875	Pole	54.5%	Pass
66 - 61	Pole	TP15.839x15.13x0.1875	Pole	68.5%	Pass
61 - 56	Pole	TP16.549x15.839x0.1875	Pole	80.8%	Pass
56 - 51	Pole	TP17.259x16.549x0.1875	Pole	91.0%	Pass
51 - 48.58	Pole	TP17.603x17.259x0.1875	Pole	95.3%	Pass
48.58 - 48.33	Pole + Reinf.	TP17.638x17.603x0.5375	Reinf. 4 Tension Rupture	66.8%	Pass
48.33 - 48.08	Pole + Reinf.	TP17.674x17.638x0.5375	Reinf. 4 Tension Rupture	67.2%	Pass
48.08 - 43.08	Pole + Reinf.	TP18.383x17.674x0.5188	Reinf. 4 Tension Rupture	74.6%	Pass
43.08 - 40.46	Pole + Reinf.	TP19.17x18.383x0.5125	Reinf. 4 Tension Rupture	79.7%	Pass
40.46 - 35.46	Pole + Reinf.	TP19.075x18.38x0.575	Reinf. 4 Tension Rupture	80.1%	Pass
35.46 - 30.46	Pole + Reinf.	TP19.769x19.075x0.5625	Reinf. 4 Tension Rupture	86.6%	Pass
30.46 - 28.5	Pole + Reinf.	TP20.042x19.769x0.55	Reinf. 4 Tension Rupture	88.9%	Pass
28.5 - 28.25	Pole + Reinf.	TP20.076x20.042x0.55	Reinf. 4 Tension Rupture	89.2%	Pass
28.25 - 27.5	Pole + Reinf.	TP20.18x20.076x0.55	Reinf. 4 Tension Rupture	90.1%	Pass
27.5 - 27.25	Pole + Reinf.	TP20.215x20.18x0.4938	Reinf. 4 Tension Rupture	94.3%	Pass
27.25 - 23.5	Pole + Reinf.	TP20.736x20.215x0.4875	Reinf. 4 Tension Rupture	98.6%	Pass
23.5 - 23.25	Pole + Reinf.	TP20.771x20.736x0.5375	Reinf. 1 Tension Rupture	80.7%	Pass
23.25 - 18.25	Pole + Reinf.	TP21.465x20.771x0.525	Reinf. 1 Tension Rupture	85.1%	Pass
18.25 - 13.25	Pole + Reinf.	TP22.16x21.465x0.5125	Reinf. 1 Tension Rupture	89.0%	Pass
13.25 - 8.25	Pole + Reinf.	TP22.854x22.16x0.5	Reinf. 1 Tension Rupture	92.6%	Pass
8.25 - 3.25	Pole + Reinf.	TP23.549x22.854x0.4938	Reinf. 1 Tension Rupture	95.8%	Pass
3.25 - 0	Pole + Reinf.	TP24x23.549x0.4875	Reinf. 1 Tension Rupture	97.7%	Pass
				Summary	
			Pole	95.3%	Pass
			Reinforcement	98.6%	Pass
			Overall	98.6%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in ⁴)			Area (in ²)			% Capacity				
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4
81 - 76	186	n/a	186	8.05	n/a	8.05	26.0%				
76 - 71	217	n/a	217	8.47	n/a	8.47	41.5%				
71 - 66	251	n/a	251	8.89	n/a	8.89	54.5%				
66 - 61	288	n/a	288	9.31	n/a	9.31	68.5%				
61 - 56	329	n/a	329	9.74	n/a	9.74	80.8%				
56 - 51	374	n/a	374	10.16	n/a	10.16	91.0%				
51 - 48.58	397	n/a	397	10.36	n/a	10.36	95.3%				
48.58 - 48.33	399	680	1079	10.38	15.00	25.38	35.0%			66.8%	66.8%
48.33 - 48.08	402	682	1084	10.41	15.00	25.41	35.2%			67.2%	67.2%
48.08 - 43.08	453	734	1187	10.83	15.00	25.83	39.4%			74.6%	74.6%
43.08 - 40.46	481	761	1243	11.05	15.00	26.05	42.5%			79.7%	79.7%
40.46 - 35.46	669	786	1454	14.94	15.00	29.94	42.2%			80.1%	80.1%
35.46 - 30.46	745	839	1585	15.49	15.00	30.49	45.7%			86.6%	86.6%
30.46 - 28.5	777	861	1638	15.70	15.00	30.70	47.0%			88.9%	88.9%
28.5 - 28.25	781	864	1645	15.73	15.00	30.73	47.1%			89.2%	89.2%
28.25 - 27.5	793	872	1666	15.81	15.00	30.81	47.6%			90.1%	90.1%
27.5 - 27.25	800	722	1522	15.84	16.25	32.09	54.9%		73.2%		94.3%
27.25 - 23.5	864	757	1621	16.26	16.25	32.51	57.4%		76.6%		98.6%
23.5 - 23.25	872	919	1790	16.28	18.75	35.03	53.4%	80.7%	76.2%		
23.25 - 18.25	963	976	1939	16.83	18.75	35.58	56.3%	85.1%	80.4%		
18.25 - 13.25	1060	1035	2096	17.38	18.75	36.13	58.9%	89.0%	84.2%		
13.25 - 8.25	1164	1096	2261	17.94	18.75	36.69	61.2%	92.6%	87.6%		
8.25 - 3.25	1275	1159	2434	18.49	18.75	37.24	63.4%	95.8%	90.7%		
3.25 - 0	1350	1201	2551	18.84	18.75	37.59	64.7%	97.7%	92.6%		

Note: Section capacity checked using 5 degree increments.

APPENDIX C

Additional Calculations



Anchor Rod and Base Plate Stresses, TIA-222-H-1
467452 / Plainville 3 CT
2024737.467452.01

Overturning Moment =	783.53	k*ft
Axial Force =	20.78	k
Shear Force =	11.43	k

Maximum Capacity	105%
Apply TIA-222-H Section 15.5?	No

Anchor Rods		
Number of Rods =	8	
Rod Yield Strength, F_y =	75	ksi
Rod Ultimate Strength, F_u =	100	ksi
Rod Circle =	32	in
Rod Diameter =	2.25	in
Rod Projection, l_{ar} =	2.25	in
Is grout present?	No	
Max Tension on Rod, P_{ut} =	143.95	k
Max Compression on Rod, P_{uc} =	149.15	k
Shear on Rod, V_u =	1.43	k
Moment on Rod, M_u =	0.00	k-in
Tension Interaction =	34.9%	OK
Compression Interaction =	55.6%	OK

Stiffeners		
Configuration =	None	

Base Plate		
Location =	External	
Plate Strength, F_y =	60	ksi
ϕ =	0.9	
Outside Diameter =	38	in
Plate Thickness =	1.75	in
w_{calc} =	21.17	in
w_{max} =	29.75	in
w =	21.17	in
Z =	16.21	in ³
M_u =	767.81	k-in
ϕM_n =	875.08	k-in
BP Capacity =	87.7%	OK

Pole		
Pole Diameter =	24	in
Number of Sides =	18	
Thickness =	0.25	in
Pole Yield Strength =	65	ksi

Drilled Pier Foundation

TIA-222 Revision: H
Tower Type: Monopole

Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	783.53	
Axial Force (kips)	20.78	
Shear Force (kips)	11.43	

Material Properties	
Concrete Strength, f'c:	4 ksi
Rebar Strength, Fy:	60 ksi
Tie Yield Strength, Fy:	60 ksi

Pier Design Data	
Depth	20 ft
Ext. Above Grade	1 ft
Pier Section 1	
From 1' above grade to 20' below grade	
Pier Diameter	5 ft
Rebar Quantity	12
Rebar Size	11
Clear Cover to Ties	4 in
Tie Size	5
Tie Spacing	12 in

Rebar & Pier Options
Embedded Pole Inputs
Rebar Pier Inputs

Check Limitation	
Apply TIA-222-H Section 15.5:	☐
	N/A
Design Options	
Input Effective Depths (else Actual):	☐
Consider non-tapered moment capacity:	☐
Check Shear along Depth of Pier:	☒
Utilize Shear-Friction Methodology:	☐
Override Critical Depth:	☐

Go to Soil Calculations

Analysis Results			
Soil Lateral Check		Compression	Uplift
D ₅₀ (ft from TOC)		6.12	-
Soil Safety Factor		4.21	-
Max Moment (kip-ft)		853.81	-
Rating		31.6%	-
Soil Vertical Check		Compression	Uplift
Skin Friction (kips)		129.59	-
End Bearing (kips)		156.10	-
Weight of Concrete (kips)		59.51	-
Total Capacity (kips)		285.69	-
Axial (kips)		80.29	-
Rating		28.1%	-
Reinforced Concrete Flexure		Compression	Uplift
Critical Depth (ft from TOC)		5.89	-
Critical Moment (kip-ft)		853.61	-
Critical Moment Capacity		2100.59	-
Rating		40.6%	-
Reinforced Concrete Shear		Compression	Uplift
Critical Depth (ft from TOC)		15.00	-
Critical Shear (kip)		122.27	-
Critical Shear Capacity		386.69	-
Rating		31.6%	-
Structural Foundation Rating		40.6%	
Soil Interaction Rating		31.6%	

Soil Profile									
Groundwater Depth		10	# of Layers		5				

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ _{soil} (pcf)	γ _{concrete} (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Net Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	3.33	3.33	120	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	3.33	5	1.67	120	150	0	34	0.000	0.000	0.00	0.00			Cohesionless
3	5	10	5	120	150	0	34	0.000	0.000	0.60	0.60			Cohesionless
4	10	15	5	60	87.6	0	34	0.000	0.000	0.60	0.60			Cohesionless
5	15	20	5	60	87.6	0	34	0.000	0.000	1.00	1.00	8.8		Cohesionless



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Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis-VZW

SMART Tool Project #: 10243317
Colliers Engineering & Design Project #: 24777037 (Rev.3)

July 23, 2024

Site Information

Site ID: 5000176778-VZW / Plainville 3 CT
Site Name: Plainville 3 CT
Carrier Name: Verizon Wireless
Address: 11 East Main Street
Plainville, Connecticut 06062
Hartford County
Latitude: 41.671869°
Longitude: -72.867150°

Structure Information

Tower Type: 81-Ft Monopole
Mount Type: 17.47-Ft Platform

FUZE ID # 17289004

Analysis Results

Platform: **99.6% 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

Report Prepared By: Nathan LaPorte

Dejian Xu

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: 324682, dated June 12, 2024
Mount Mapping Report	Tower Engineering Professionals, Site ID: 467452, dated November 18, 2020
Post Modification Inspection Report	Colliers Engineering & Design, Project #: 20777380, dated December 21, 2023

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code CBSC 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: 1.50 in Risk Category: II Exposure Category: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.993
Seismic Parameters:	S_s : 0.191 g S_1 : 0.055 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Load, L_v : 250 lbs. Maintenance Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V21)

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
81.25	84.50	4	CBNG	CBNG Integrated Unit	Added
		1	Raycap	RVZDC-6627-PF-48*	
	82.75	2	KAelus	BSF0020F3V1-1	Retained
		3	Samsung	MT6407-77A	
		6	Andrew	SBNHH-1D65B	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		1	-	GPS	
		1	Raycap	RRFDC-3315-PF-48*	
		1	RFS	DB-B1-6C-12AB-0Z*	

* Equipment is flush mounted directly to the Monopole. They are not mounted on platform mount and are not included in this mount analysis.

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

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

Standard Conditions:

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

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

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

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.
4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.
6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - HSS (Rectangular) ASTM 500 (Gr. B-46)
 - Pipe ASTM A53 (Gr. B-35)
 - Threaded Rod F1554 (Gr. 36)
 - Bolts ASTM A325

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

Analysis Results:

Component	Utilization %	Pass/Fail
Mount Pipe	59.7%	Pass
Extended Pipe Mount	15.4%	Pass
Kicker	15.7%	Pass
GPS Pipe	1.9%	Pass
Threaded Rod	44.2%	Pass
Grating Support	9.6%	Pass
Face Horizontal	28.4%	Pass
Standoff Horizontal	38.2%	Pass
Mount Connection	99.6%	Pass

Structure Rating – (Controlling Utilization of all Components)	99.6%*
---	---------------

* Results valid after hardware upgrades noted in the PMI Requirements are installed.

Mount Connection Envelope Reactions:

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector C Standoff	78	N47A	446	4105	0.811	1.889	733	4174	1.103	0.582
Sector B Standoff	78	N20	443	4045	0.800	1.469	714	3993	1.110	0.431
Sector A Standoff	78	N22	546	4449	1.006	2.287	880	4723	1.358	0.671
Sector A Reinforcement	74.5	N114	1958	2749	0.001	0.001	3818	5381	0.000	0.000
Sector B Reinforcement	74.5	N116	1926	2704	0.001	0.001	3699	5211	0.000	0.000
Sector C Reinforcement	74.5	N118	2147	3022	0.001	0.001	4190	5918	0.000	0.000

Notes:

- Axial loads act along the axis of the tower
- Lateral reactions act perpendicular to the tower
- Moment loads introduce bending moment to the tower
- Torsion loads introduce twisting moment to the tower
- Batch solutions by individual load cases are included at the end of this document

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	31.0	30.5	51.2	50.6
0.5	40.1	39.7	68.9	68.1
1	47.9	47.4	85.3	84.3

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 new pipe-to-pipe assemblies (Perfect Vision PV-DC-PTPC-2020-24 w/ 48" long PIPE 2 SCH40, or EOR equivalent) in alpha and beta sector locations supporting the new 39Ghz antennas. Contractor shall install new pipe-to-pipe assemblies (Perfect Vision PV-DC-PTPC-2020-12 w/ 48" long PIPE 2 SCH40, or EOR equivalent) in gamma sector supporting the new 39Ghz antennas. Refer to placement diagrams and Hardware Upgrades Sketch.

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

MDG #: 5000176778

SMART Project #: 10243317

Fuze Project ID: 17289004

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 new pipe-to-pipe assemblies (Perfect Vision PV-DC-PTPC-2020-24 w/ 48" long PIPE 2 SCH40, or EOR equivalent) in alpha and beta sector locations supporting the new 39Ghz antennas. Contractor shall install new pipe-to-pipe assemblies (Perfect Vision PV-DC-PTPC-2020-12 w/ 48" long PIPE 2 SCH40, or EOR equivalent) in gamma sector supporting the new 39Ghz antennas. Refer to placement diagrams and Hardware Upgrades Sketch.

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

Contractor to provide measurement from top of the highest equipment/steel to the bottom of the lowest equipment/steel by documenting it using the most appropriate illustration below along with supporting photos:

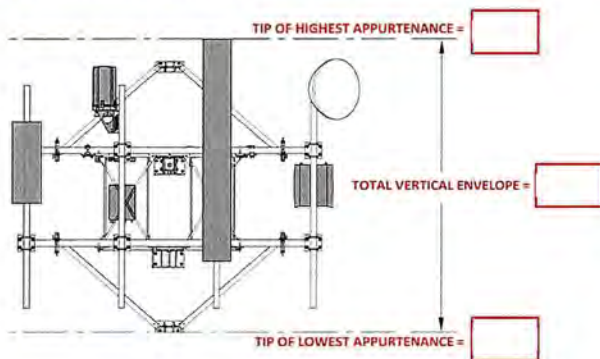


Illustration #1

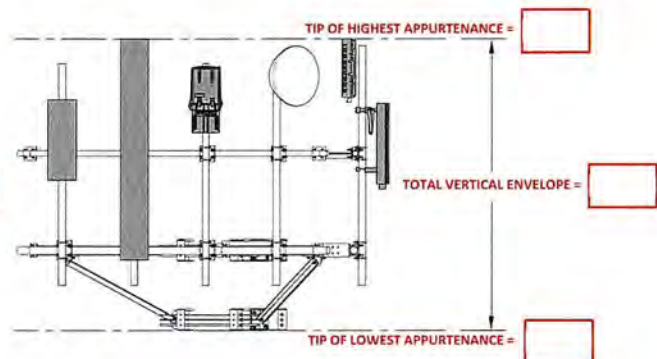


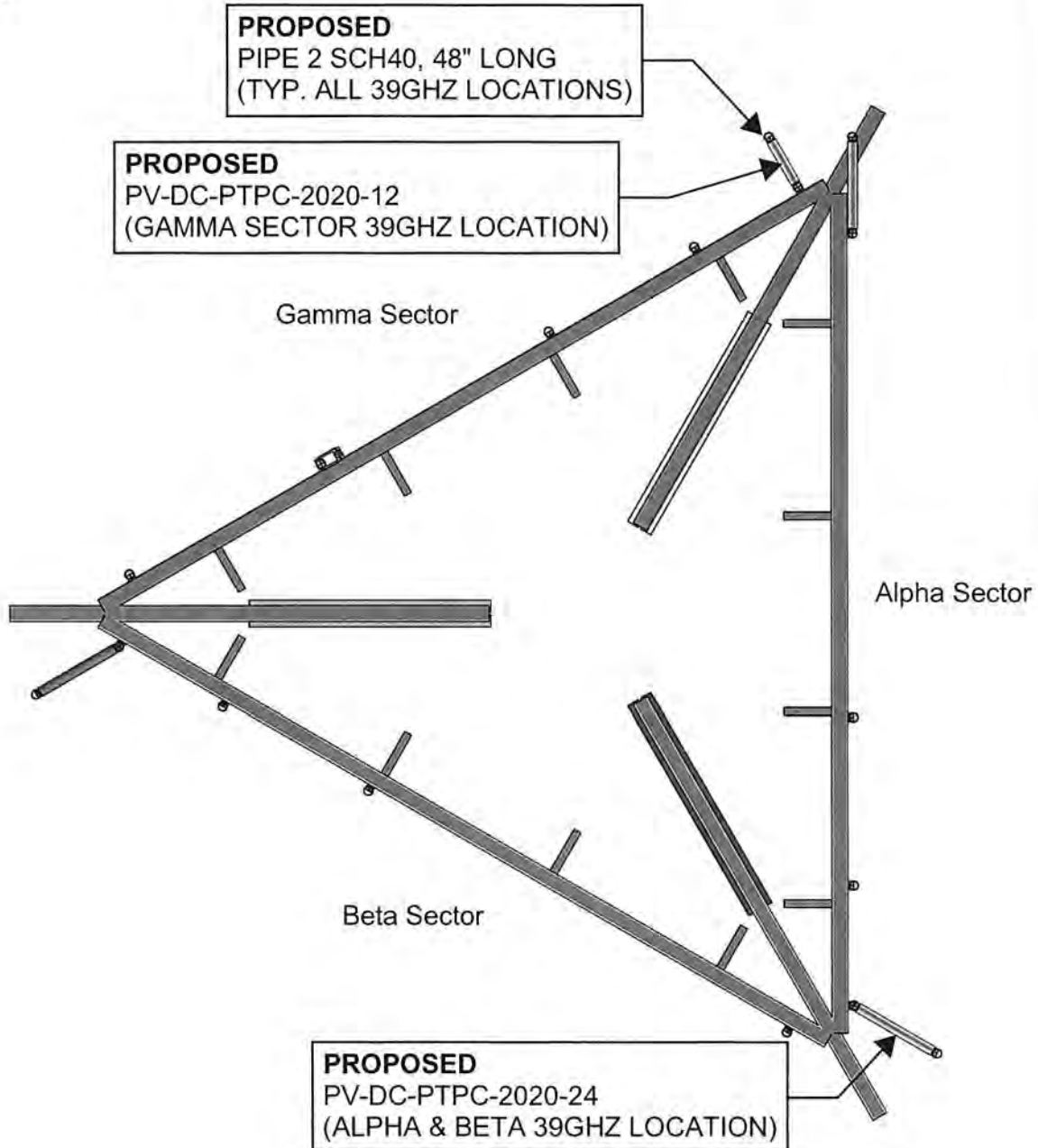
Illustration #2

Certifying Individual:

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



Hardware Upgrades Sketch



MOUNT FRAME PLAN VIEW
N.T.S.



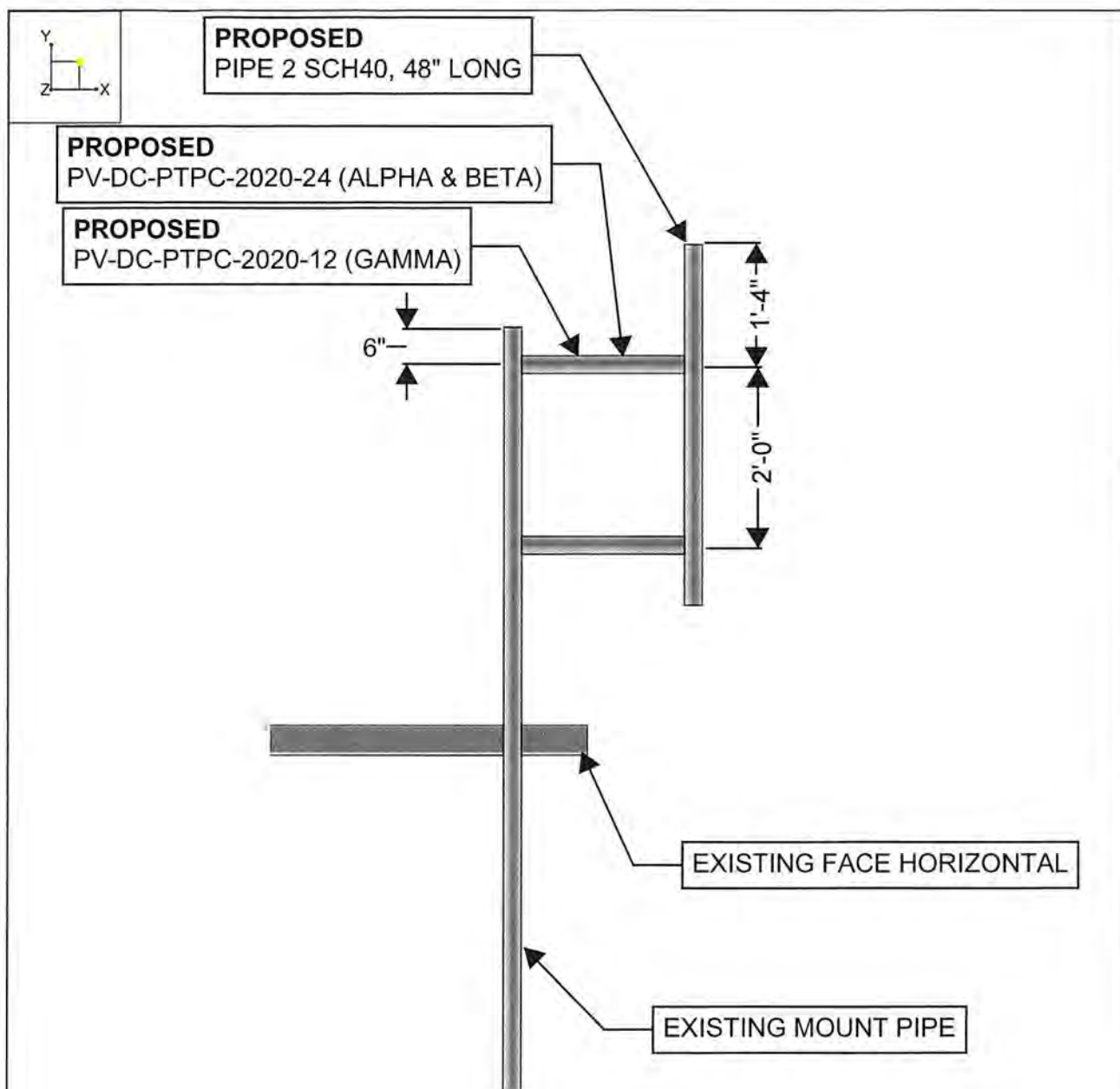
Colliers Engineering & D...
NL
24777037 (Rev. 2)

Mount ReAnalysis-VZW

SK-4

May 20, 2024 at 12:56 PM

5000176778-VZW_MT_LO...



Structure: 5000176778-VZW - Plainville 3 CT

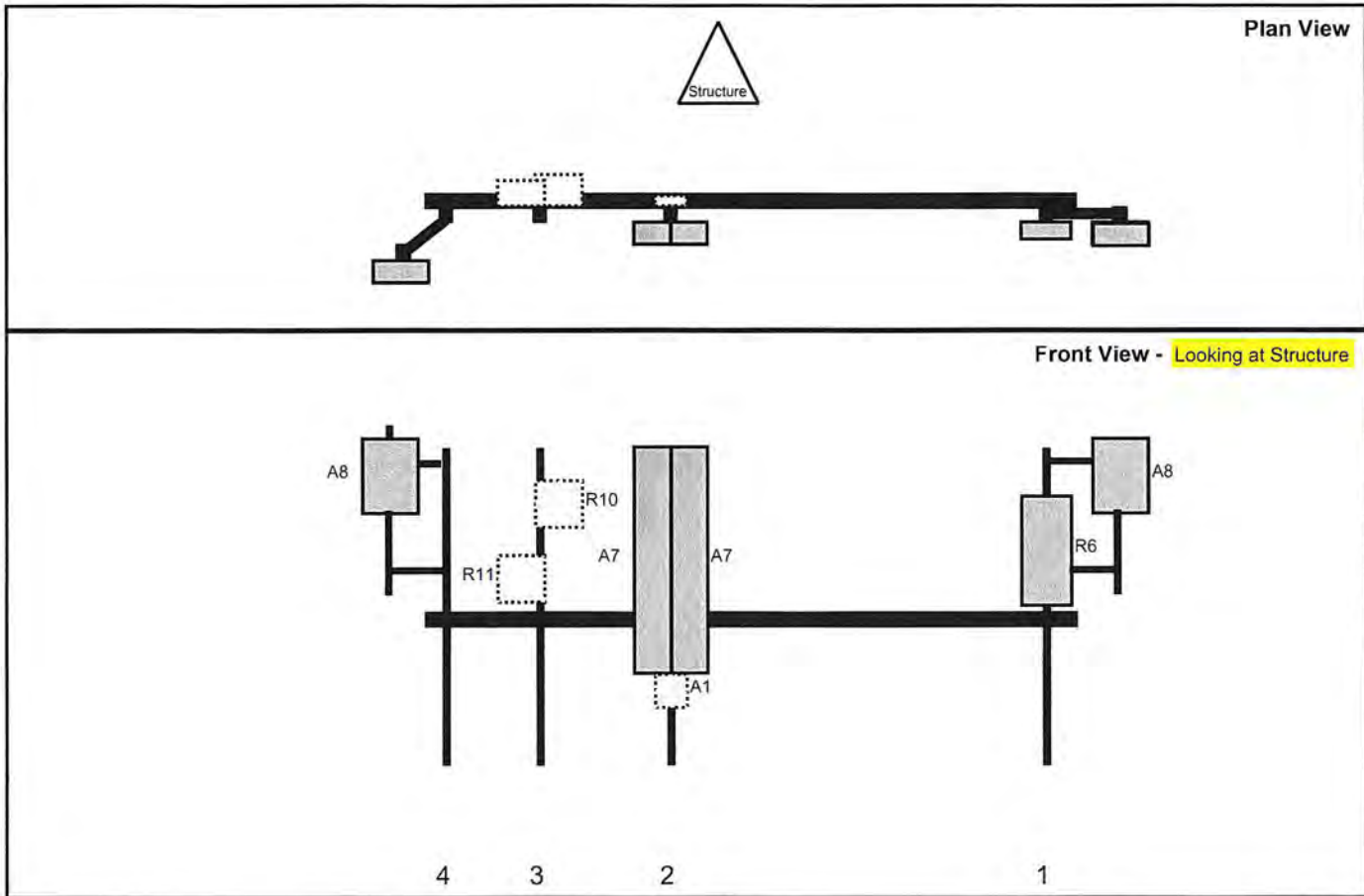
Sector: A
Structure Type: Monopole
Mount Elev: 81.25

10243317

7/23/2024

Colliers Engineering & Design

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
A8	CBNG Integrated Unit	24	18	199.694	1	a	Front	9	24	Added	12/05/2023
R6	MT6407-77A	35.1	16.1	199.694	1	a	Front	33	0	Retained	12/05/2023
A7	SBNHH-1D65B	72.6	11.9	78.9438	2	a	Front	36	6	Retained	12/05/2023
A7	SBNHH-1D65B	72.6	11.9	78.9438	2	b	Front	36	-6	Retained	12/05/2023
A1	BSF0020F3V1-1	10.6	10.2	78.9438	2	a	Behind	78	0	Retained	12/05/2023
R10	B2/B66A RRH-BR049	15	15	36.9438	3	a	Behind	18	6	Retained	12/05/2023
R11	B5/B13 RRH-BR04C	15	15	36.9438	3	a	Behind	42	-6	Retained	12/05/2023
A8	CBNG Integrated Unit	24	18	6.94379	4	a	Front	9	-18	Added	12/05/2023

Sector: B

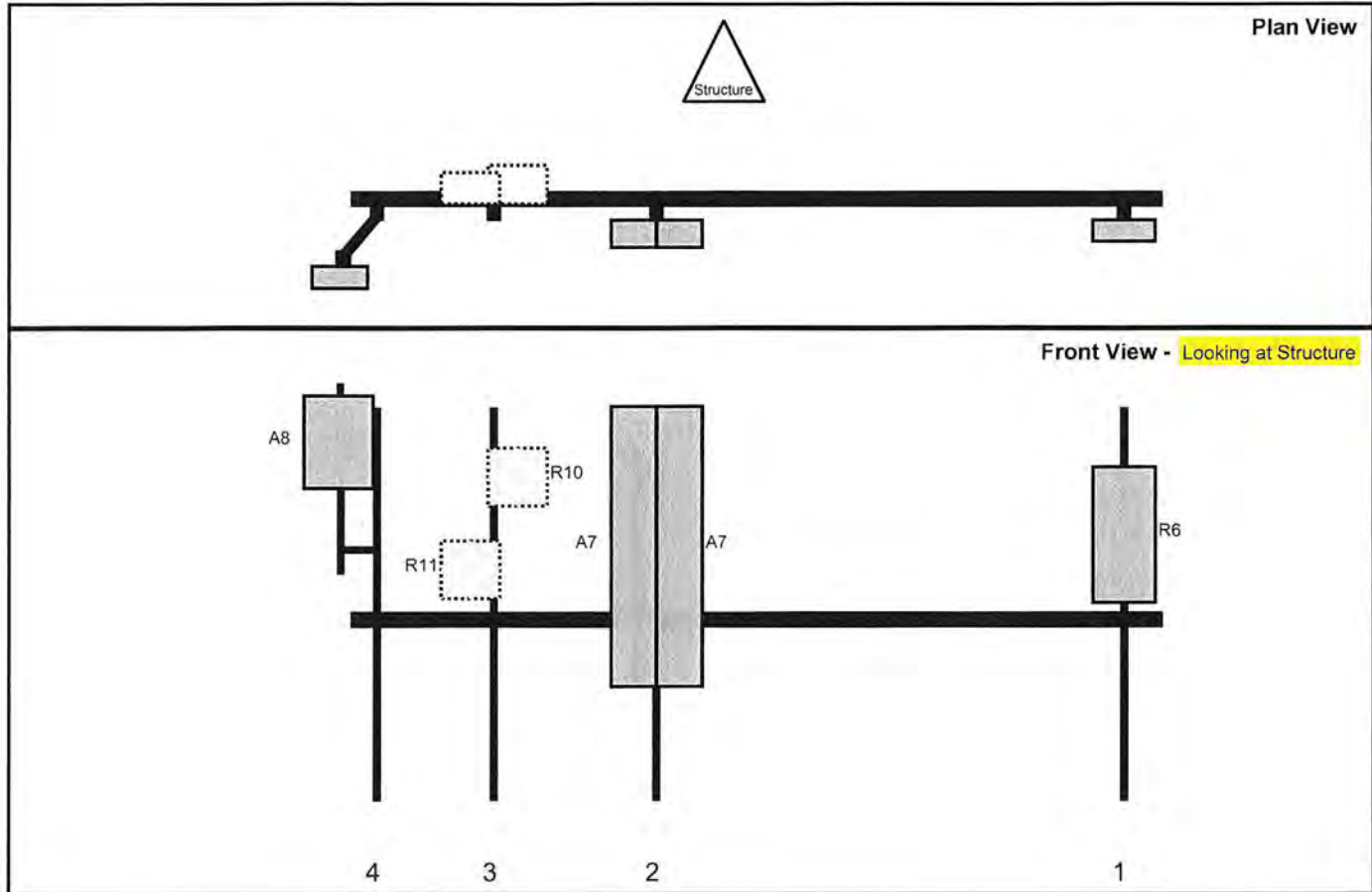
7/23/2024

Structure Type: Monopole

10243317

Mount Elev: 81.25

Page: 2



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R6	MT6407-77A	35.1	16.1	199.694	1	a	Front	33	0	Retained	12/05/2023
A7	SBNHH-1D65B	72.6	11.9	78.9438	2	a	Front	36	6	Retained	12/05/2023
A7	SBNHH-1D65B	72.6	11.9	78.9438	2	b	Front	36	-6	Retained	12/05/2023
R10	B2/B66A RRH-BR049	15	15	36.9438	3	a	Behind	18	6	Retained	12/05/2023
R11	B5/B13 RRH-BR04C	15	15	36.9438	3	a	Behind	42	-6	Retained	12/05/2023
A8	CBNG Integrated Unit	24	18	6.94379	4	a	Front	9	-10	Added	12/05/2023

Sector: C

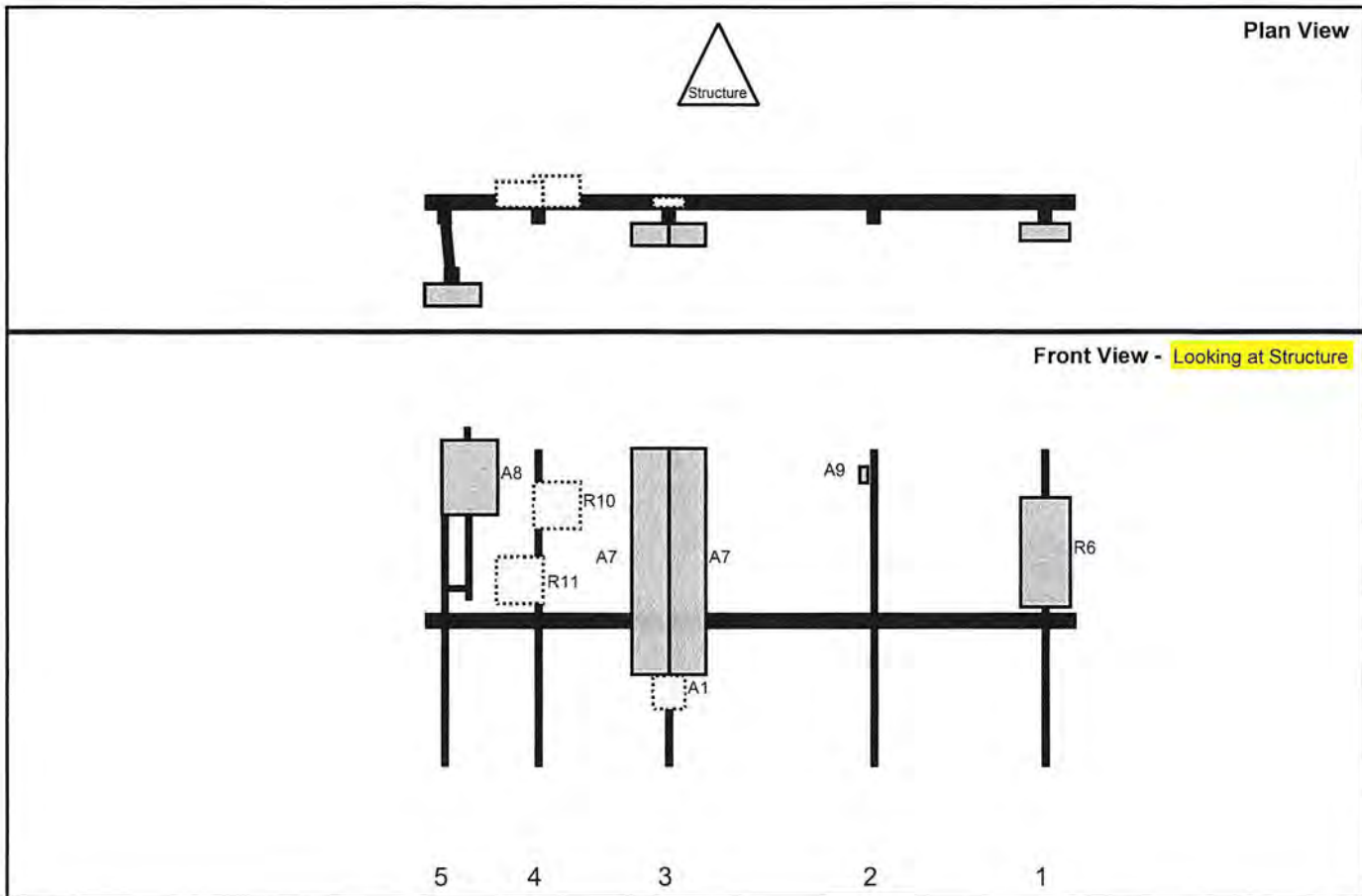
7/23/2024

Structure Type: Monopole

10243317

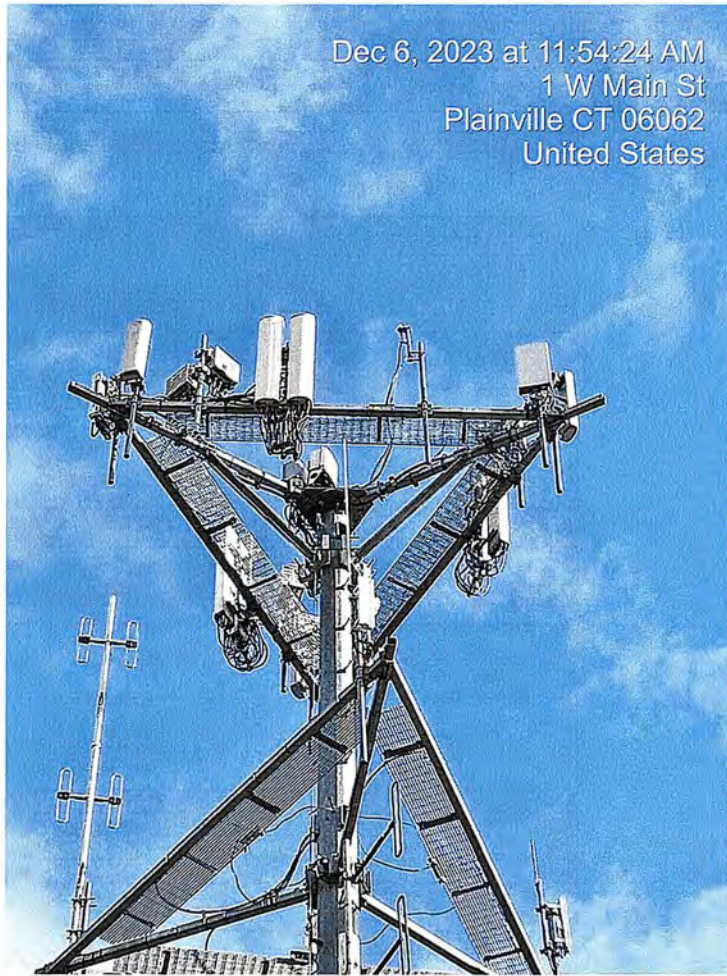
Mount Elev: 81.25

Page: 3



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
R6	MT6407-77A	35.1	16.1	199.694	1	a	Front	33	0	Retained	12/05/2023
A7	SBNHH-1D65B	72.6	11.9	78.4438	3	a	Front	36	6	Retained	12/05/2023
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A1	BSF0020F3V1-1	10.6	10.2	78.4438	3	a	Behind	78	0	Retained	12/05/2023
R10	B2/B66A RRH-BR049	15	15	36.4438	4	a	Behind	18	6	Retained	12/05/2023
R11	B5/B13 RRH-BR04C	15	15	36.4438	4	a	Behind	42	-6	Retained	12/05/2023
A8	CBNG Integrated Unit	24	18	6.44379	5	a	Front	9	8	Added	12/05/2023
A9	GPS	5.2	2.6	144.444	2	a	Front	12	-4	Retained	12/05/2023

Dec 6, 2023 at 11:54:24 AM
1 W Main St
Plainville CT 06062
United States

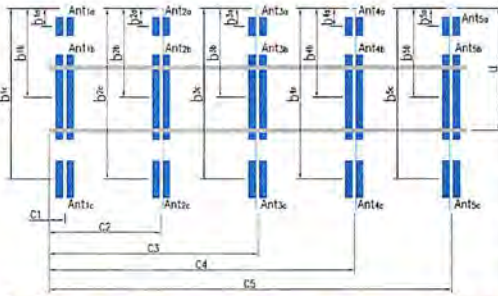
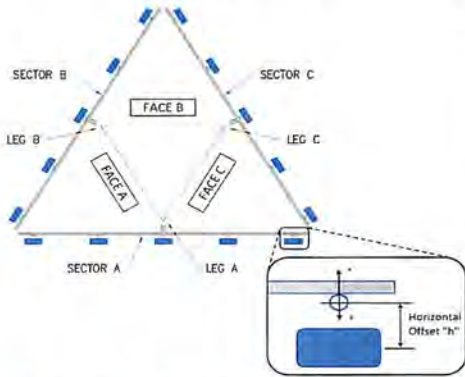
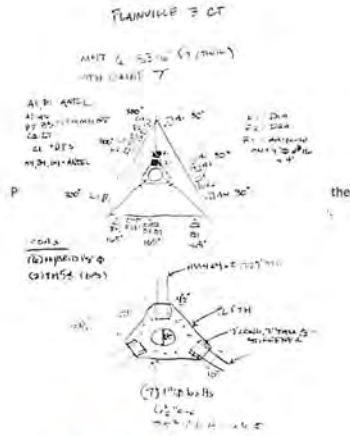


Dec 5, 2023 at 4:02:51 PM
21 E Main St
Plainville CT 06062
United States



Antenna Mount Mapping Form (PATENT PENDING)				FCC #
				N/A
Tower Owner:	Unknown		Mapping Date:	11/18/2020
Site Name:	Plainville 3 CT		Tower Type:	Monopole
Site Number or ID:	467452		Tower Height (ft.):	83.5
Mapping Contractor:	TEP		Mount Elevation (ft.):	83.5

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



Antenna Layout (Looking Out From Tower)

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"Ø x 5/32" x 8'-6"	55.00	10.00	C1	2.4"Ø x 5/32" x 8'-6"	56.50	10.00
A2	2.4"Ø x 5/32" x 8'-6"	54.50	130.75	C2	2.4"Ø x 5/32" x 8'-6"	57.00	65.25
A3	2.4"Ø x 5/32" x 7'-0"	57.00	172.75	C3	2.4"Ø x 5/32" x 8'-6"	56.50	131.25
A4	2.4"Ø x 5/32" x 8'-6"	56.00	202.75	C4	2.4"Ø x 5/32" x 7'-0"	57.00	173.25
A5				C5	2.4"Ø x 5/32" x 8'-6"	56.00	203.25
A6				C6			
B1	2.4"Ø x 5/32" x 8'-6"	55.00	10.00	D1			
B2	2.4"Ø x 5/32" x 8'-6"	54.50	130.75	D2			
B3	2.4"Ø x 5/32" x 7'-0"	57.00	172.75	D3			
B4	2.4"Ø x 5/32" x 8'-6"	56.00	202.75	D4			
B5				D5			
B6				D6			
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details.:							0.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.):							
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.):							2
Please enter additional information or comments below.							
There is a dipole antenna on the mount below Verizon's mount - Tip of dipole is 2-ft from the bottom support rail							
Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):					13.23

Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations (Units are inches and degrees)			Photos of antennas	
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances "b1, b2, b3, b4, b5, b6, b7, b8, b9, b10, b11, b12, b13, b14, b15, b16, b17, b18, b19, b20, b21, b22, b23, b24, b25, b26, b27, b28, b29, b30, b31, b32, b33, b34, b35, b36, b37, b38, b39, b40, b41, b42, b43, b44, b45, b46, b47, b48, b49, b50, b51, b52, b53, b54, b55, b56, b57, b58, b59, b60, b61, b62, b63, b64, b65, b66, b67, b68, b69, b70, b71, b72, b73, b74, b75, b76, b77, b78, b79, b80, b81, b82, b83, b84, b85, b86, b87, b88, b89, b90, b91, b92, b93, b94, b95, b96, b97, b98, b99, b100"	Horiz. Offset "h" (Use "x" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant1a	BXA-70063-6CF-EDIN	11.20	5.20	71.00	None	85.2917	33.50	8.00	30.00	31-33
Ant1b										
Ant1c										
Ant2a	(2) SBNHH-1D65B	11.90	7.10	72.00	Raycap	85.375	32.00	10.00	30.00	34-37
Ant2b										
Ant2c										
Ant3a	RFV01U-D1A	15.88	10.03	19.73	Raycap	86.7917	17.50	12.00		38-39
Ant3b	RFV01U-D2A	15.88	10.03	19.73	Raycap	85.3333	35.00	12.00		40-41
Ant3c										
Ant4a	BXA-70063-4CF-EDIN	11.20	5.00	47.40	(2) 1.625	86	26.00	8.50	30.00	42-43
Ant4b										
Ant4c										
Ant5a										
Ant5b										
Ant5c										
Ant on Standoff										
Ant on Standoff										
Ant on Tower	RRFDC-3315-PF-48	15.73	10.25	25.66	(1) 1.5 Hybrid					71-72
Ant on Tower	RRFDC-3315-PF-48	15.73	10.25	25.66	(1) 1.5 Hybrid					73-74

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector		Sector B										
Sector A:	40.00	Deg	Leg A:		Deg	Ant _{1a}	BXA-70063-6CF-EDIN	11.20	5.20	71.00	None	85.2917	33.50	8.00	165.00	44-46
Sector B:	160.00	Deg	Leg B:		Deg	Ant _{1b}										
Sector C:	280.00	Deg	Leg C:		Deg	Ant _{2a}	(2) SBNHH-1D65B	11.90	7.10	72.00	Raycap	85.375	32.00	10.00	165.00	47-50
Sector D:		Deg	Leg D:		Deg	Ant _{2b}										
Climbing Facility Information						Ant _{2c}										
Location:	340.00	Deg	Sector A			Ant _{3a}	RFV01U-D1A	15.88	10.03	19.73	Raycap	86.7917	17.50	12.00		51-52
Climbing Facility	Corrosion Type:		Good condition.			Ant _{3b}	RFV01U-D2A	15.88	10.03	19.73	Raycap	85.3333	35.00	12.00		53-54
	Access:		Climbing path was unobstructed.			Ant _{3c}										
	Condition:		Good condition.			Ant _{4a}	BXA-70063-4CF-EDIN	11.20	5.00	47.40	(2) 1.625	86	26.00	8.50	165.00	55-56

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 #
N/A

Tower Owner:	Unknown	Mapping Date:	11/18/2020
Site Name:	Plainville 3 CT	Tower Type:	Monopole
Site Number or ID:	467452	Tower Height (Ft.):	83.5
Mapping Contractor:	TEP	Mount Elevation (Ft.):	83.5

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

Please Insert Sketches of the Antenna Mount

PLAINVILLE 3 CT

MNT L = 53'-6" (T/TWAL)

WAVE @ MNT = 7"

A1, B1 = ANTEL

A2-A3

B2-B3 = LOMMSCOPE

G2-G3

C1 = RFS

A4, B4, G4 = ANTEL

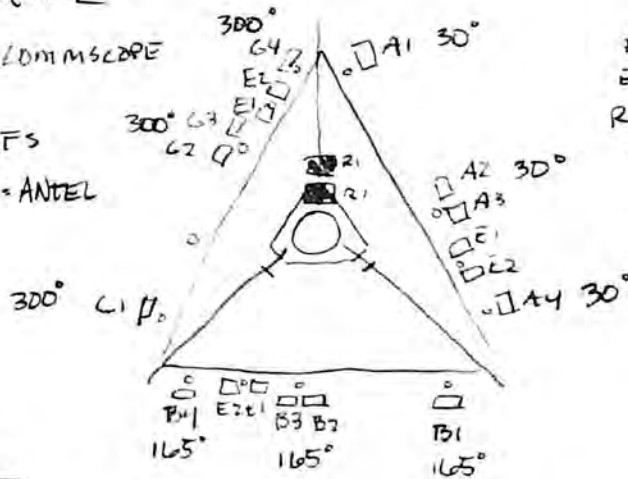
F1 = DIA

E2 = D2A

R1 = 24" x 4"

ON 24" ϕ x 16"

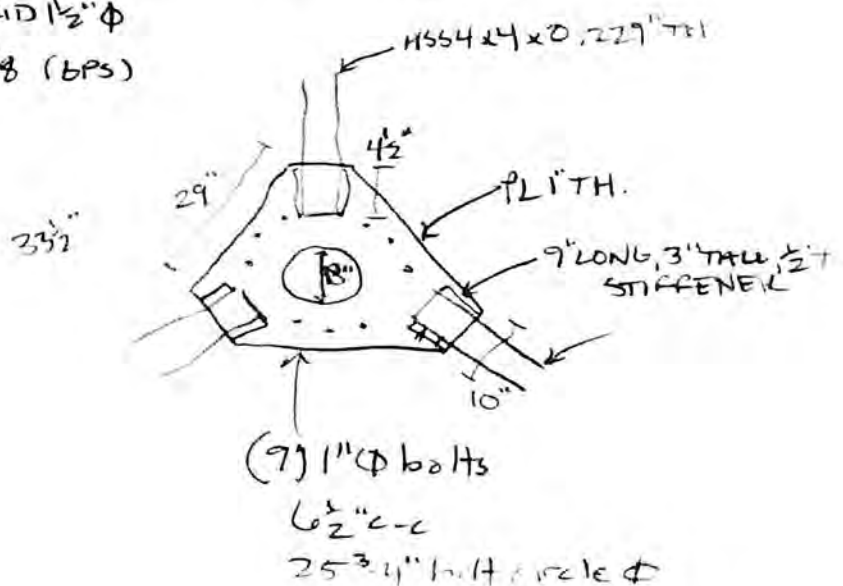
x 4'



COAX

(6) HYBRID 1/2" ϕ

(2) FMSB (BPS)

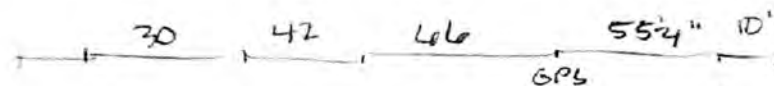


ALPHA DE 7



Gamma

STANDOFF
0.229 TH



TYPE 1
M.P. L x N
PL 7 x 8 x 1/4
(4) 1/2" Ø 0-60 HT
5" L CH, 6" L CR

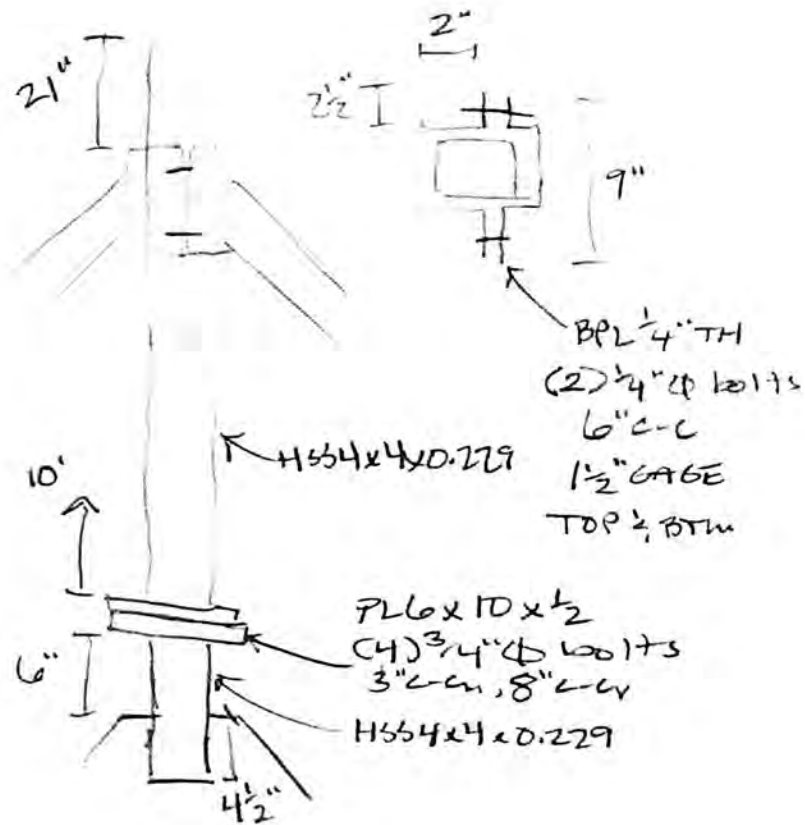
2.4" Ø x 5/32 x 7"

2.4" Ø x 5/32 x 8 1/2"
(TYPE DE 4)

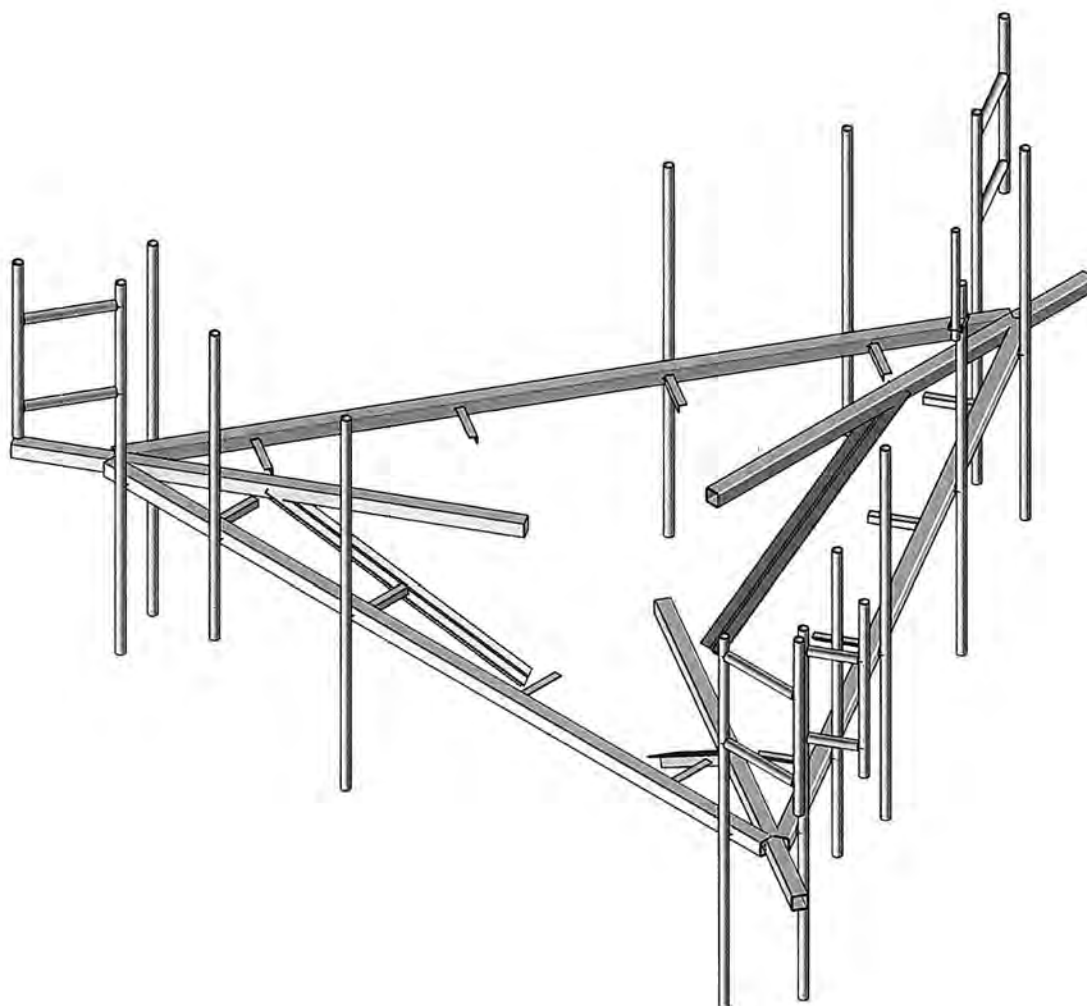
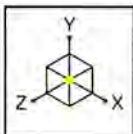
1155 4 x 4 x
0.227

2.4" Ø x 5/32 x 8 1/2"
2.4" Ø x 5/32 x 7" (TYPE DE 3)

1155 4 x 4



		B	U	H
A1, B1		33 1/2	55	58
A2, A3	}	32	54 1/2	10
B2, B3				
G2, G3				
G1		34 1/2	56 1/2	8
A4	}	26	56	8 1/2
B4				
G4				
D1A	E1	17 1/2	57	12
D2A	E2	35	57	12



Envelope Only Solution



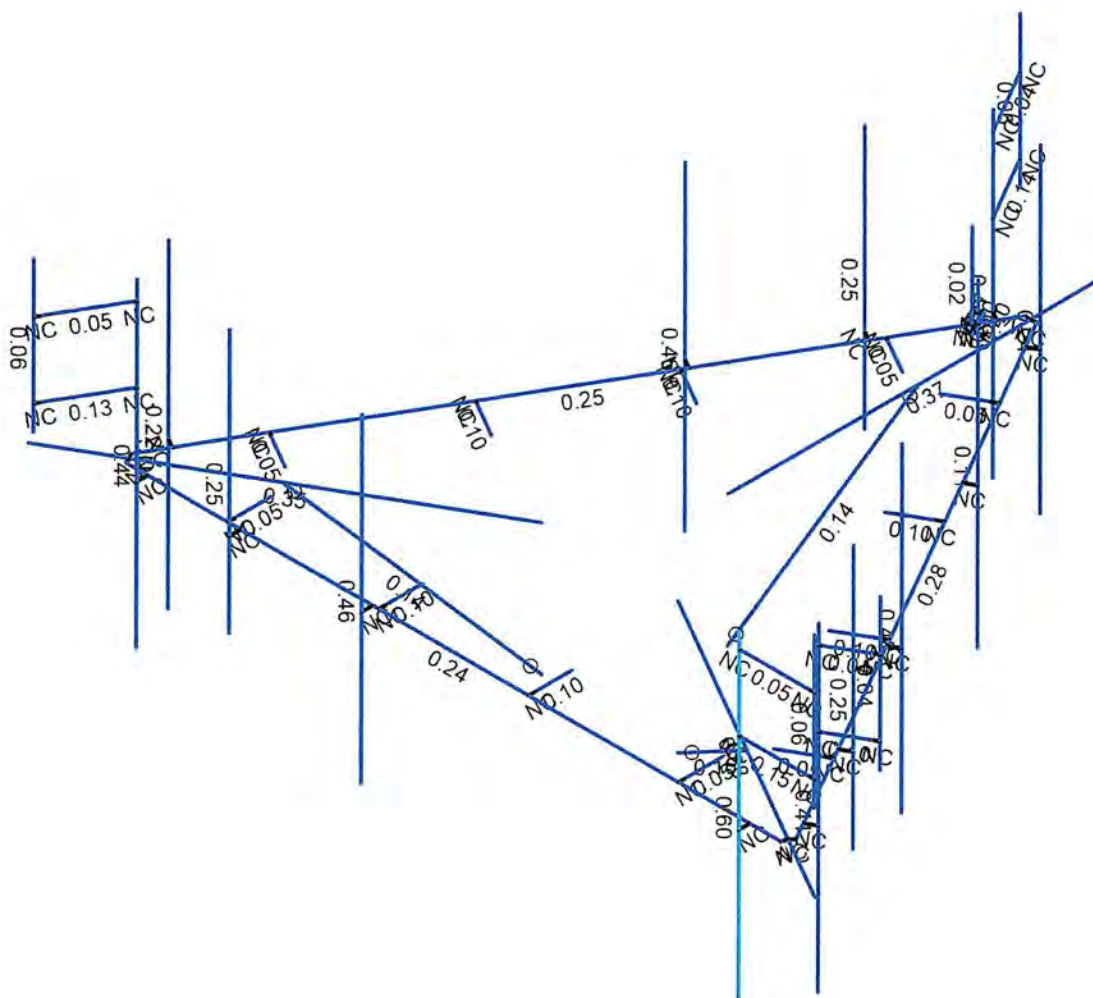
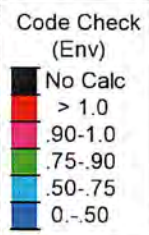
Colliers Engineering & De...
NL
24777037 (Rev. 3)

Mount ReAnalysis-VZW

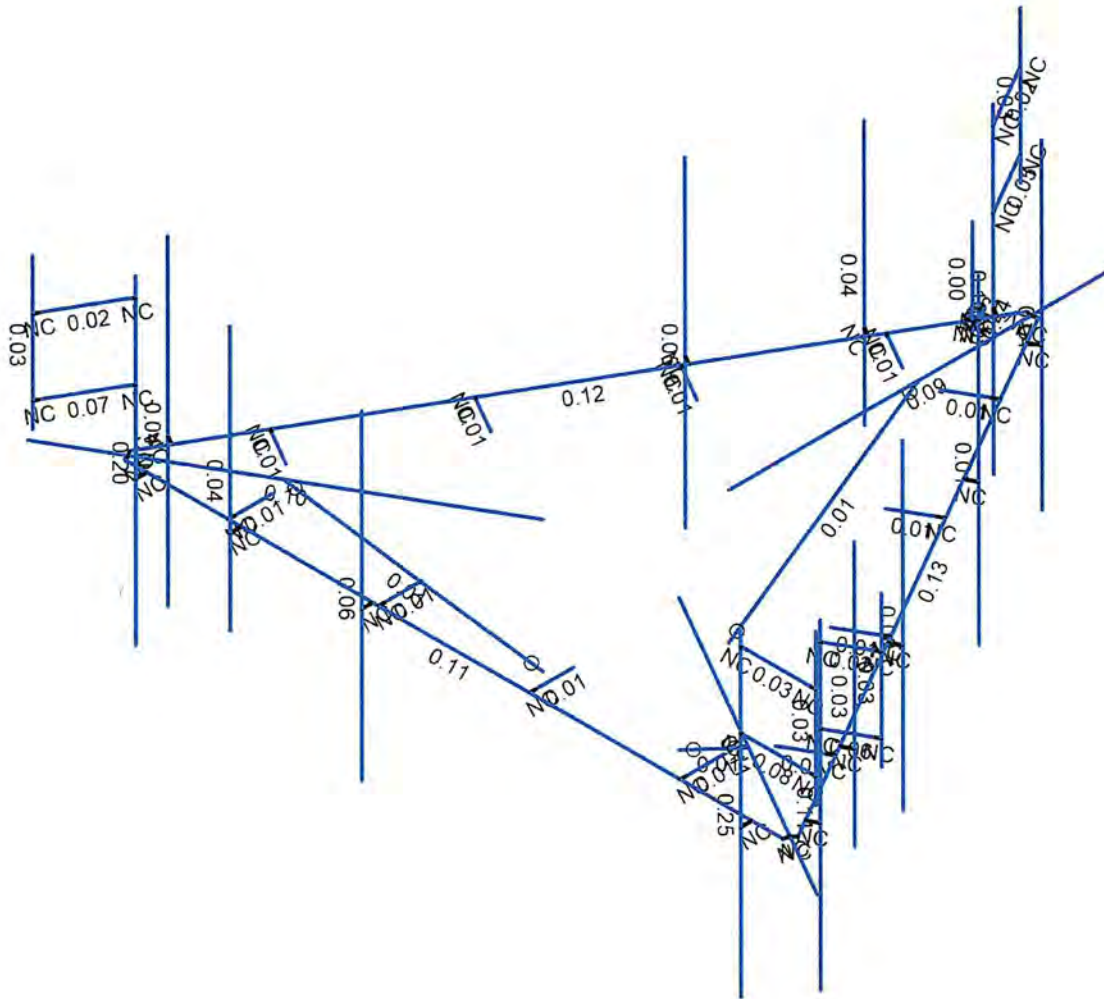
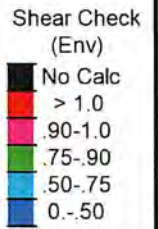
SK-1

Jul 23, 2024 at 10:24 AM

5000176778-VZW_MT_LO_...



5000176778-VZW_MT_LO_...



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution



Colliers Engineering & De...
NL
24777037 (Rev. 3)

Mount ReAnalysis-VZW

SK-3

Jul 23, 2024 at 10:24 AM

5000176778-VZW_MT_LO_...

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
1	Antenna D	None				105		
2	Antenna Di	None				105		
3	Antenna Wo (0 Deg)	None				105		
4	Antenna Wo (30 Deg)	None				105		
5	Antenna Wo (60 Deg)	None				105		
6	Antenna Wo (90 Deg)	None				105		
7	Antenna Wo (120 Deg)	None				105		
8	Antenna Wo (150 Deg)	None				105		
9	Antenna Wo (180 Deg)	None				105		
10	Antenna Wo (210 Deg)	None				105		
11	Antenna Wo (240 Deg)	None				105		
12	Antenna Wo (270 Deg)	None				105		
13	Antenna Wo (300 Deg)	None				105		
14	Antenna Wo (330 Deg)	None				105		
15	Antenna Wi (0 Deg)	None				105		
16	Antenna Wi (30 Deg)	None				105		
17	Antenna Wi (60 Deg)	None				105		
18	Antenna Wi (90 Deg)	None				105		
19	Antenna Wi (120 Deg)	None				105		
20	Antenna Wi (150 Deg)	None				105		
21	Antenna Wi (180 Deg)	None				105		
22	Antenna Wi (210 Deg)	None				105		
23	Antenna Wi (240 Deg)	None				105		
24	Antenna Wi (270 Deg)	None				105		
25	Antenna Wi (300 Deg)	None				105		
26	Antenna Wi (330 Deg)	None				105		
27	Antenna Wm (0 Deg)	None				105		
28	Antenna Wm (30 Deg)	None				105		
29	Antenna Wm (60 Deg)	None				105		
30	Antenna Wm (90 Deg)	None				105		
31	Antenna Wm (120 Deg)	None				105		
32	Antenna Wm (150 Deg)	None				105		
33	Antenna Wm (180 Deg)	None				105		
34	Antenna Wm (210 Deg)	None				105		
35	Antenna Wm (240 Deg)	None				105		
36	Antenna Wm (270 Deg)	None				105		
37	Antenna Wm (300 Deg)	None				105		
38	Antenna Wm (330 Deg)	None				105		
39	Structure D	None		-1				3
40	Structure Di	None					49	3
41	Structure Wo (0 Deg)	None					98	
42	Structure Wo (30 Deg)	None					98	
43	Structure Wo (60 Deg)	None					98	
44	Structure Wo (90 Deg)	None					98	
45	Structure Wo (120 Deg)	None					98	
46	Structure Wo (150 Deg)	None					98	
47	Structure Wo (180 Deg)	None					98	
48	Structure Wo (210 Deg)	None					98	
49	Structure Wo (240 Deg)	None					98	
50	Structure Wo (270 Deg)	None					98	
51	Structure Wo (300 Deg)	None					98	
52	Structure Wo (330 Deg)	None					98	
53	Structure Wi (0 Deg)	None					98	
54	Structure Wi (30 Deg)	None					98	
55	Structure Wi (60 Deg)	None					98	

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
56	Structure Wi (90 Deg)	None					98	
57	Structure Wi (120 Deg)	None					98	
58	Structure Wi (150 Deg)	None					98	
59	Structure Wi (180 Deg)	None					98	
60	Structure Wi (210 Deg)	None					98	
61	Structure Wi (240 Deg)	None					98	
62	Structure Wi (270 Deg)	None					98	
63	Structure Wi (300 Deg)	None					98	
64	Structure Wi (330 Deg)	None					98	
65	Structure Wm (0 Deg)	None					98	
66	Structure Wm (30 Deg)	None					98	
67	Structure Wm (60 Deg)	None					98	
68	Structure Wm (90 Deg)	None					98	
69	Structure Wm (120 Deg)	None					98	
70	Structure Wm (150 Deg)	None					98	
71	Structure Wm (180 Deg)	None					98	
72	Structure Wm (210 Deg)	None					98	
73	Structure Wm (240 Deg)	None					98	
74	Structure Wm (270 Deg)	None					98	
75	Structure Wm (300 Deg)	None					98	
76	Structure Wm (330 Deg)	None					98	
77	Lm1	None				1		
78	Lm2	None				1		
79	Lv1	None				1		
80	Lv2	None				1		
81	Antenna Ev	None				105		
82	Antenna Eh (0 Deg)	None				70		
83	Antenna Eh (90 Deg)	None				70		
84	Structure Ev	ELY		-0.041				3
85	Structure Eh (0 Deg)	ELZ			-0.102			3
86	Structure Eh (90 Deg)	ELX	0.102					3
87	BLC 39 Transient Area Loads	None					12	
88	BLC 40 Transient Area Loads	None					12	
89	BLC 84 Transient Area Loads	None					30	
90	BLC 85 Transient Area Loads	None					30	
91	BLC 86 Transient Area Loads	None					30	

Load Combinations

	Description	Solve	P-Delta	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
1	1.2D+1.0Wo (0 Deg)	Yes	Y	1	1.2	39	1.2	3	1	41	1								
2	1.2D+1.0Wo (30 Deg)	Yes	Y	1	1.2	39	1.2	4	1	42	1								
3	1.2D+1.0Wo (60 Deg)	Yes	Y	1	1.2	39	1.2	5	1	43	1								
4	1.2D+1.0Wo (90 Deg)	Yes	Y	1	1.2	39	1.2	6	1	44	1								
5	1.2D+1.0Wo (120 Deg)	Yes	Y	1	1.2	39	1.2	7	1	45	1								
6	1.2D+1.0Wo (150 Deg)	Yes	Y	1	1.2	39	1.2	8	1	46	1								
7	1.2D+1.0Wo (180 Deg)	Yes	Y	1	1.2	39	1.2	9	1	47	1								
8	1.2D+1.0Wo (210 Deg)	Yes	Y	1	1.2	39	1.2	10	1	48	1								
9	1.2D+1.0Wo (240 Deg)	Yes	Y	1	1.2	39	1.2	11	1	49	1								
10	1.2D+1.0Wo (270 Deg)	Yes	Y	1	1.2	39	1.2	12	1	50	1								
11	1.2D+1.0Wo (300 Deg)	Yes	Y	1	1.2	39	1.2	13	1	51	1								
12	1.2D+1.0Wo (330 Deg)	Yes	Y	1	1.2	39	1.2	14	1	52	1								
13	1.2D + 1.0Di + 1.0Wi (0 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	15	1	53	1				
14	1.2D + 1.0Di + 1.0Wi (30 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	16	1	54	1				
15	1.2D + 1.0Di + 1.0Wi (60 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	17	1	55	1				
16	1.2D + 1.0Di + 1.0Wi (90 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	18	1	56	1				

Load Combinations (Continued)

Description	Solve	P	Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
17 1.2D + 1.0Di + 1.0Wi (120 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	19	1	57	1					
18 1.2D + 1.0Di + 1.0Wi (150 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	20	1	58	1					
19 1.2D + 1.0Di + 1.0Wi (180 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	21	1	59	1					
20 1.2D + 1.0Di + 1.0Wi (210 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	22	1	60	1					
21 1.2D + 1.0Di + 1.0Wi (240 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	23	1	61	1					
22 1.2D + 1.0Di + 1.0Wi (270 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	24	1	62	1					
23 1.2D + 1.0Di + 1.0Wi (300 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	25	1	63	1					
24 1.2D + 1.0Di + 1.0Wi (330 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	26	1	64	1					
25 1.2D + 1.5Lm1 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	27	1	65	1							
26 1.2D + 1.5Lm1 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	28	1	66	1							
27 1.2D + 1.5Lm1 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	29	1	67	1							
28 1.2D + 1.5Lm1 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	30	1	68	1							
29 1.2D + 1.5Lm1 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	31	1	69	1							
30 1.2D + 1.5Lm1 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	32	1	70	1							
31 1.2D + 1.5Lm1 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	33	1	71	1							
32 1.2D + 1.5Lm1 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	34	1	72	1							
33 1.2D + 1.5Lm1 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	35	1	73	1							
34 1.2D + 1.5Lm1 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	36	1	74	1							
35 1.2D + 1.5Lm1 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	37	1	75	1							
36 1.2D + 1.5Lm1 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	38	1	76	1							
37 1.2D + 1.5Lm2 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	27	1	65	1							
38 1.2D + 1.5Lm2 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	28	1	66	1							
39 1.2D + 1.5Lm2 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	29	1	67	1							
40 1.2D + 1.5Lm2 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	30	1	68	1							
41 1.2D + 1.5Lm2 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	31	1	69	1							
42 1.2D + 1.5Lm2 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	32	1	70	1							
43 1.2D + 1.5Lm2 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	33	1	71	1							
44 1.2D + 1.5Lm2 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	34	1	72	1							
45 1.2D + 1.5Lm2 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	35	1	73	1							
46 1.2D + 1.5Lm2 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	36	1	74	1							
47 1.2D + 1.5Lm2 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	37	1	75	1							
48 1.2D + 1.5Lm2 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	38	1	76	1							
49 1.2D + 1.5Lv1	Yes	Y	1	1.2	39	1.2	79	1.5											
50 1.2D + 1.5Lv2	Yes	Y	1	1.2	39	1.2	80	1.5											
51 1.4D	Yes	Y	1	1.4	39	1.4													
52 1.2D + 1.0Ev + 1.0Eh (0 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX		
53 1.2D + 1.0Ev + 1.0Eh (30 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	0.5	ELZ	0.866	ELX	0.5	
54 1.2D + 1.0Ev + 1.0Eh (60 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	0.866	ELZ	0.5	ELX	0.866	
55 1.2D + 1.0Ev + 1.0Eh (90 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1	
56 1.2D + 1.0Ev + 1.0Eh (120 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	0.866	ELZ	-0.5	ELX	0.866	
57 1.2D + 1.0Ev + 1.0Eh (150 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	0.5	ELZ	-0.866	ELX	0.5	
58 1.2D + 1.0Ev + 1.0Eh (180 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX		
59 1.2D + 1.0Ev + 1.0Eh (210 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	-0.5	ELZ	-0.866	ELX	-0.5	
60 1.2D + 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866	
61 1.2D + 1.0Ev + 1.0Eh (270 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1	
62 1.2D + 1.0Ev + 1.0Eh (300 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866	
63 1.2D + 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5	
64 0.9D - 1.0Ev + 1.0Eh (0 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX		
65 0.9D - 1.0Ev + 1.0Eh (30 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.866	83	0.5	ELZ	0.866	ELX	0.5	
66 0.9D - 1.0Ev + 1.0Eh (60 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.5	83	0.866	ELZ	0.5	ELX	0.866	
67 0.9D - 1.0Ev + 1.0Eh (90 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1	
68 0.9D - 1.0Ev + 1.0Eh (120 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.5	83	0.866	ELZ	-0.5	ELX	0.866	
69 0.9D - 1.0Ev + 1.0Eh (150 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.866	83	0.5	ELZ	-0.866	ELX	0.5	
70 0.9D - 1.0Ev + 1.0Eh (180 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX		
71 0.9D - 1.0Ev + 1.0Eh (210 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.866	83	-0.5	ELZ	-0.866	ELX	-0.5	

Load Combinations (Continued)

Description		Solve	P-Delta	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor	BLCFactor		
72	0.9D - 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866
73	0.9D - 1.0Ev + 1.0Eh (270 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1
74	0.9D - 1.0Ev + 1.0Eh (300 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866
75	0.9D - 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5

Hot Rolled Steel Section Sets

Label	Shape	Type	Design List	Material	Design Rule	Area [in²]	Iyy [in⁴]	Izz [in⁴]	J [in⁴]
1 Face Horizontal	HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
2 Standoff Horizontal	HSS4X4X4	Beam	SquareTube	A500 Gr.B Rect	Typical	3.37	7.8	7.8	12.8
3 Mount Pipe	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
4 GPS Pipe	PIPE 1.5	Column	Pipe	A53 Gr.B	Typical	0.749	0.293	0.293	0.586
5 Grating Support	L2X2X3	Beam	Single Angle	A36 Gr.36	Typical	0.722	0.271	0.271	0.009
6 Threaded Rod	SR 0.5	Beam	BAR	A36 Gr.36	Typical	0.196	0.003	0.003	0.006
7 Kicker	LL3X3X3X6	Beam	Double Angle (No Gap)	A36 Gr.36	Typical	2.18	4.97	1.9	0.027
8 Extended Pipe Mount	PIPE 2.0	Beam	HSS Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25

Hot Rolled Steel Properties

Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e⁵°F⁻¹]	Density [k/ft³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1 A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2 A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3 A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4 A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5 A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6 A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7 A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3
8 Q235	29000	11154	0.3	0.65	0.49	35	1.5	58	1.2

Member Primary Data

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1 M40	N47A	N48A		Standoff Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
2 M13	N20	N21		Standoff Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
3 M14	N22	N23		Standoff Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
4 M16	N28	N24		RIGID	None	None	RIGID	Typical
5 M20	N33	N24		RIGID	None	None	RIGID	Typical
6 M21	N30	N28		Face Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
7 M15	N26	N25		RIGID	None	None	RIGID	Typical
8 M16A	N27	N25		RIGID	None	None	RIGID	Typical
9 M17	N29A	N28A		RIGID	None	None	RIGID	Typical
10 M18	N30	N28A		RIGID	None	None	RIGID	Typical
11 M19	N33	N26		Face Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
12 M20A	N27	N29A		Face Horizontal	Beam	SquareTube	A500 Gr.B Rect	Typical
13 M21A	N34	N35	180	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
14 M22	N33A	N34		RIGID	None	None	RIGID	Typical
15 M15A	N24A	N25A	180	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
16 M16B	N31	N24A		RIGID	None	None	RIGID	Typical
17 M17A	N27A	N28B	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
18 M18A	N30A	N27A		RIGID	None	None	RIGID	Typical
19 M19A	N30B	N31A	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
20 M20B	N32	N30B		RIGID	None	None	RIGID	Typical
21 M21B	N33B	N34A	180	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
22 M22A	N32A	N33B		RIGID	None	None	RIGID	Typical
23 M23	N35A	N36	180	Grating Support	Beam	Single Angle	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
24	M24	N30C	N35A		RIGID	None	None	RIGID	Typical
25	M25	N37	N38	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
26	M26	N29	N37		RIGID	None	None	RIGID	Typical
27	M27	N39	N40	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
28	M28	N31B	N39		RIGID	None	None	RIGID	Typical
29	M29	N45	N46	180	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
30	M30	N44	N45		RIGID	None	None	RIGID	Typical
31	M31	N47	N48	180	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
32	M32	N42	N47		RIGID	None	None	RIGID	Typical
33	M33	N49	N50	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
34	M34	N41	N49		RIGID	None	None	RIGID	Typical
35	M35	N51	N52	90	Grating Support	Beam	Single Angle	A36 Gr.36	Typical
36	M36	N43	N51		RIGID	None	None	RIGID	Typical
37	M37	N54	N53		RIGID	None	None	RIGID	Typical
38	MP1A	N55	N56		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
39	M39	N58	N57		RIGID	None	None	RIGID	Typical
40	MP2A	N59	N60		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
41	M41	N62	N61		RIGID	None	None	RIGID	Typical
42	MP3A	N63	N64		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
43	M43	N66	N65		RIGID	None	None	RIGID	Typical
44	MP4A	N67	N68		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
45	M45	N70	N69		RIGID	None	None	RIGID	Typical
46	MP1B	N71	N72		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
47	M47	N74	N73		RIGID	None	None	RIGID	Typical
48	MP2B	N75	N76		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
49	M49	N78	N77		RIGID	None	None	RIGID	Typical
50	MP3B	N79	N80		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
51	M51	N82	N81		RIGID	None	None	RIGID	Typical
52	MP4B	N83	N84		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
53	M53	N86	N85		RIGID	None	None	RIGID	Typical
54	MP1C	N87	N88		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
55	M55	N90	N89		RIGID	None	None	RIGID	Typical
56	MP2C	N91	N92		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
57	M57	N94	N93		RIGID	None	None	RIGID	Typical
58	MP3C	N95	N96		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
59	M59	N98	N97		RIGID	None	None	RIGID	Typical
60	MP4C	N99	N100		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
61	M61	N102	N101		RIGID	None	None	RIGID	Typical
62	MP5C	N103	N104		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
63	M63	N106	N105		RIGID	None	None	RIGID	Typical
64	M64	N105	N107		RIGID	None	None	RIGID	Typical
65	M65	N109	N108		RIGID	None	None	RIGID	Typical
66	M66	N108	N110		RIGID	None	None	RIGID	Typical
67	M67	N109	N106		Threaded Rod	Beam	BAR	A36 Gr.36	Typical
68	M68	N110	N107		Threaded Rod	Beam	BAR	A36 Gr.36	Typical
69	M69	N112	N111		GPS Pipe	Column	Pipe	A53 Gr.B	Typical
70	M70	N113	N114		Kicker	Beam	Double Angle (No Gap)	A36 Gr.36	Typical
71	M71	N115	N116		Kicker	Beam	Double Angle (No Gap)	A36 Gr.36	Typical
72	M72	N117	N118		Kicker	Beam	Double Angle (No Gap)	A36 Gr.36	Typical
73	DONOR-A1	N119	N120		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
74	M74	N127	N125		Extended Pipe Mount	Beam	HSS Pipe	A53 Gr.B	Typical
75	M75	N128	N126		Extended Pipe Mount	Beam	HSS Pipe	A53 Gr.B	Typical
76	M76	N123	N127		RIGID	None	None	RIGID	Typical
77	M77	N124	N128		RIGID	None	None	RIGID	Typical
78	M78	N125	N121		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
79	M79	N126	N122		RIGID	None	None	RIGID	Typical
80	DONOR-A4	N131	N132	120	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
81	M81	N139	N137		Extended Pipe Mount	Beam	HSS Pipe	A53 Gr.B	Typical
82	M82	N140	N138		Extended Pipe Mount	Beam	HSS Pipe	A53 Gr.B	Typical
83	M83	N135	N139		RIGID	None	None	RIGID	Typical
84	M84	N136	N140		RIGID	None	None	RIGID	Typical
85	M85	N137	N133		RIGID	None	None	RIGID	Typical
86	M86	N138	N134		RIGID	None	None	RIGID	Typical
87	M87	N152	N166		Extended Pipe Mount	Beam	HSS Pipe	A53 Gr.B	Typical
88	M88	N151	N165		Extended Pipe Mount	Beam	HSS Pipe	A53 Gr.B	Typical
89	M89	N143	N151		RIGID	None	None	RIGID	Typical
90	M90	N148	N152		RIGID	None	None	RIGID	Typical
91	M91	N165	N147		RIGID	None	None	RIGID	Typical
92	M92	N166	N144		RIGID	None	None	RIGID	Typical
93	DONOR-C4	N145	N146	90	Mount Pipe	Column	Pipe	A53 Gr.B	Typical
94	M94	N164	N162		Extended Pipe Mount	Beam	HSS Pipe	A53 Gr.B	Typical
95	M95	N163	N161		Extended Pipe Mount	Beam	HSS Pipe	A53 Gr.B	Typical
96	M96	N155	N163		RIGID	None	None	RIGID	Typical
97	M97	N160	N164		RIGID	None	None	RIGID	Typical
98	M98	N161	N159		RIGID	None	None	RIGID	Typical
99	M99	N162	N156		RIGID	None	None	RIGID	Typical
100	DONOR-B4	N157	N158	120	Mount Pipe	Column	Pipe	A53 Gr.B	Typical

Member Advanced Data

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
1	M40			Yes	N/A	None
2	M13			Yes	N/A	None
3	M14			Yes	N/A	None
4	M16			Yes	** NA **	None
5	M20			Yes	** NA **	None
6	M21			Yes	N/A	None
7	M15			Yes	** NA **	None
8	M16A			Yes	** NA **	None
9	M17			Yes	** NA **	None
10	M18			Yes	** NA **	None
11	M19			Yes	N/A	None
12	M20A			Yes	N/A	None
13	M21A			Yes	N/A	None
14	M22			Yes	** NA **	None
15	M15A			Yes	N/A	None
16	M16B			Yes	** NA **	None
17	M17A			Yes	N/A	None
18	M18A			Yes	** NA **	None
19	M19A			Yes	N/A	None
20	M20B			Yes	** NA **	None
21	M21B			Yes	N/A	None
22	M22A			Yes	** NA **	None
23	M23			Yes	N/A	None
24	M24			Yes	** NA **	None
25	M25			Yes	N/A	None
26	M26			Yes	** NA **	None
27	M27			Yes	N/A	None
28	M28			Yes	** NA **	None
29	M29			Yes	N/A	None
30	M30			Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
31	M31			Yes	N/A	None
32	M32			Yes	** NA **	None
33	M33			Yes	N/A	None
34	M34			Yes	** NA **	None
35	M35			Yes	N/A	None
36	M36			Yes	** NA **	None
37	M37			Yes	** NA **	None
38	MP1A			Yes	** NA **	None
39	M39			Yes	** NA **	None
40	MP2A			Yes	** NA **	None
41	M41			Yes	** NA **	None
42	MP3A			Yes	** NA **	None
43	M43			Yes	** NA **	None
44	MP4A			Yes	** NA **	None
45	M45			Yes	** NA **	None
46	MP1B			Yes	** NA **	None
47	M47			Yes	** NA **	None
48	MP2B			Yes	** NA **	None
49	M49			Yes	** NA **	None
50	MP3B			Yes	** NA **	None
51	M51			Yes	** NA **	None
52	MP4B			Yes	** NA **	None
53	M53			Yes	** NA **	None
54	MP1C			Yes	** NA **	None
55	M55			Yes	** NA **	None
56	MP2C			Yes	** NA **	None
57	M57			Yes	** NA **	None
58	MP3C			Yes	** NA **	None
59	M59			Yes	** NA **	None
60	MP4C			Yes	** NA **	None
61	M61			Yes	** NA **	None
62	MP5C			Yes	** NA **	None
63	M63			Yes	** NA **	None
64	M64			Yes	** NA **	None
65	M65			Yes	** NA **	None
66	M66	OOOXOX		Yes	** NA **	None
67	M67			Yes	N/A	None
68	M68			Yes	N/A	None
69	M69			Yes	** NA **	None
70	M70	BenPIN	BenPIN	Yes	Default	None
71	M71	BenPIN	BenPIN	Yes	Default	None
72	M72	BenPIN	BenPIN	Yes	Default	None
73	DONOR-A1			Yes	** NA **	None
74	M74			Yes	Default	None
75	M75			Yes	Default	None
76	M76			Yes	** NA **	None
77	M77			Yes	** NA **	None
78	M78			Yes	** NA **	None
79	M79			Yes	** NA **	None
80	DONOR-A4			Yes	** NA **	None
81	M81			Yes	Default	None
82	M82			Yes	Default	None
83	M83			Yes	** NA **	None
84	M84			Yes	** NA **	None
85	M85			Yes	** NA **	None

Member Advanced Data (Continued)

	Label	I Release	J Release	Physical	Deflection Ratio Options	Seismic DR
86	M86			Yes	** NA **	None
87	M87			Yes	Default	None
88	M88			Yes	Default	None
89	M89			Yes	** NA **	None
90	M90			Yes	** NA **	None
91	M91			Yes	** NA **	None
92	M92			Yes	** NA **	None
93	DONOR-C4			Yes	** NA **	None
94	M94			Yes	Default	None
95	M95			Yes	Default	None
96	M96			Yes	** NA **	None
97	M97			Yes	** NA **	None
98	M98			Yes	** NA **	None
99	M99			Yes	** NA **	None
100	DONOR-B4			Yes	** NA **	None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-43.55	2.25
2	MP1A	My	-0.022	2.25
3	MP1A	Mz	0	2.25
4	MP1A	Y	-43.55	3.25
5	MP1A	My	-0.022	3.25
6	MP1A	Mz	0	3.25
7	MP1B	Y	-43.55	2.25
8	MP1B	My	0.011	2.25
9	MP1B	Mz	-0.019	2.25
10	MP1B	Y	-43.55	3.25
11	MP1B	My	0.011	3.25
12	MP1B	Mz	-0.019	3.25
13	MP1C	Y	-43.55	2.25
14	MP1C	My	0.007	2.25
15	MP1C	Mz	0.02	2.25
16	MP1C	Y	-43.55	3.25
17	MP1C	My	0.007	3.25
18	MP1C	Mz	0.02	3.25
19	MP2A	Y	-20	1
20	MP2A	My	-0.01	1
21	MP2A	Mz	0.01	1
22	MP2A	Y	-20	5
23	MP2A	My	-0.01	5
24	MP2A	Mz	0.01	5
25	MP2B	Y	-20	1
26	MP2B	My	-0.004	1
27	MP2B	Mz	-0.014	1
28	MP2B	Y	-20	5
29	MP2B	My	-0.004	5
30	MP2B	Mz	-0.014	5
31	MP2A	Y	-20	1
32	MP2A	My	-0.01	1
33	MP2A	Mz	-0.01	1
34	MP2A	Y	-20	5
35	MP2A	My	-0.01	5
36	MP2A	Mz	-0.01	5
37	MP2B	Y	-20	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
38	MP2B	My	0.014	1
39	MP2B	Mz	-0.004	1
40	MP2B	Y	-20	5
41	MP2B	My	0.014	5
42	MP2B	Mz	-0.004	5
43	MP3C	Y	-20	1
44	MP3C	My	0.013	1
45	MP3C	Mz	0.006	1
46	MP3C	Y	-20	5
47	MP3C	My	0.013	5
48	MP3C	Mz	0.006	5
49	MP3C	Y	-20	1
50	MP3C	My	-0.006	1
51	MP3C	Mz	0.013	1
52	MP3C	Y	-20	5
53	MP3C	My	-0.006	5
54	MP3C	Mz	0.013	5
55	MP3A	Y	-84.4	1.5
56	MP3A	My	0.042	1.5
57	MP3A	Mz	0.042	1.5
58	MP3B	Y	-84.4	1.5
59	MP3B	My	-0.058	1.5
60	MP3B	Mz	0.015	1.5
61	MP4C	Y	-84.4	1.5
62	MP4C	My	0.025	1.5
63	MP4C	Mz	-0.054	1.5
64	MP3A	Y	-70.3	3.5
65	MP3A	My	0.035	3.5
66	MP3A	Mz	-0.035	3.5
67	MP3B	Y	-70.3	3.5
68	MP3B	My	0.013	3.5
69	MP3B	Mz	0.048	3.5
70	MP4C	Y	-70.3	3.5
71	MP4C	My	-0.045	3.5
72	MP4C	Mz	-0.021	3.5
73	M69	Y	-0.5	1
74	M69	My	-0.000157	1
75	M69	Mz	5.7e-5	1
76	DONOR-A1	Y	-16.5	0.83
77	DONOR-A1	My	-0.007	0.83
78	DONOR-A1	Mz	0.004	0.83
79	DONOR-A1	Y	-16.5	2.83
80	DONOR-A1	My	-0.007	2.83
81	DONOR-A1	Mz	0.004	2.83
82	DONOR-A4	Y	-16.5	0.83
83	DONOR-A4	My	-0.004	0.83
84	DONOR-A4	Mz	-0.007	0.83
85	DONOR-A4	Y	-16.5	2.83
86	DONOR-A4	My	-0.004	2.83
87	DONOR-A4	Mz	-0.007	2.83
88	DONOR-B4	Y	-16.5	0.83
89	DONOR-B4	My	0.007	0.83
90	DONOR-B4	Mz	-0.004	0.83
91	DONOR-B4	Y	-16.5	2.83
92	DONOR-B4	My	0.007	2.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
93	DONOR-B4	Mz	-0.004	2.83
94	DONOR-C4	Y	-16.5	0.83
95	DONOR-C4	My	0.004	0.83
96	DONOR-C4	Mz	0.007	0.83
97	DONOR-C4	Y	-16.5	2.83
98	DONOR-C4	My	0.004	2.83
99	DONOR-C4	Mz	0.007	2.83
100	MP2A	Y	-17.6	6.5
101	MP2A	My	-0.009	6.5
102	MP2A	Mz	0	6.5
103	MP3C	Y	-17.6	6.5
104	MP3C	My	0.003	6.5
105	MP3C	Mz	0.008	6.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-53.06	2.25
2	MP1A	My	-0.027	2.25
3	MP1A	Mz	0	2.25
4	MP1A	Y	-53.06	3.25
5	MP1A	My	-0.027	3.25
6	MP1A	Mz	0	3.25
7	MP1B	Y	-53.06	2.25
8	MP1B	My	0.013	2.25
9	MP1B	Mz	-0.023	2.25
10	MP1B	Y	-53.06	3.25
11	MP1B	My	0.013	3.25
12	MP1B	Mz	-0.023	3.25
13	MP1C	Y	-53.06	2.25
14	MP1C	My	0.009	2.25
15	MP1C	Mz	0.025	2.25
16	MP1C	Y	-53.06	3.25
17	MP1C	My	0.009	3.25
18	MP1C	Mz	0.025	3.25
19	MP2A	Y	-90.766	1
20	MP2A	My	-0.045	1
21	MP2A	Mz	0.045	1
22	MP2A	Y	-90.766	5
23	MP2A	My	-0.045	5
24	MP2A	Mz	0.045	5
25	MP2B	Y	-90.766	1
26	MP2B	My	-0.017	1
27	MP2B	Mz	-0.062	1
28	MP2B	Y	-90.766	5
29	MP2B	My	-0.017	5
30	MP2B	Mz	-0.062	5
31	MP2A	Y	-90.766	1
32	MP2A	My	-0.045	1
33	MP2A	Mz	-0.045	1
34	MP2A	Y	-90.766	5
35	MP2A	My	-0.045	5
36	MP2A	Mz	-0.045	5
37	MP2B	Y	-90.766	1
38	MP2B	My	0.062	1
39	MP2B	Mz	-0.017	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
40	MP2B	Y	-90.766	5
41	MP2B	My	0.062	5
42	MP2B	Mz	-0.017	5
43	MP3C	Y	-90.766	1
44	MP3C	My	0.058	1
45	MP3C	Mz	0.027	1
46	MP3C	Y	-90.766	5
47	MP3C	My	0.058	5
48	MP3C	Mz	0.027	5
49	MP3C	Y	-90.766	1
50	MP3C	My	-0.027	1
51	MP3C	Mz	0.058	1
52	MP3C	Y	-90.766	5
53	MP3C	My	-0.027	5
54	MP3C	Mz	0.058	5
55	MP3A	Y	-67.451	1.5
56	MP3A	My	0.034	1.5
57	MP3A	Mz	0.034	1.5
58	MP3B	Y	-67.451	1.5
59	MP3B	My	-0.046	1.5
60	MP3B	Mz	0.012	1.5
61	MP4C	Y	-67.451	1.5
62	MP4C	My	0.02	1.5
63	MP4C	Mz	-0.043	1.5
64	MP3A	Y	-60.774	3.5
65	MP3A	My	0.03	3.5
66	MP3A	Mz	-0.03	3.5
67	MP3B	Y	-60.774	3.5
68	MP3B	My	0.011	3.5
69	MP3B	Mz	0.042	3.5
70	MP4C	Y	-60.774	3.5
71	MP4C	My	-0.039	3.5
72	MP4C	Mz	-0.018	3.5
73	M69	Y	-2.603	1
74	M69	My	-0.000815	1
75	M69	Mz	0.000297	1
76	DONOR-A1	Y	-45.761	0.83
77	DONOR-A1	My	-0.02	0.83
78	DONOR-A1	Mz	0.011	0.83
79	DONOR-A1	Y	-45.761	2.83
80	DONOR-A1	My	-0.02	2.83
81	DONOR-A1	Mz	0.011	2.83
82	DONOR-A4	Y	-45.761	0.83
83	DONOR-A4	My	-0.011	0.83
84	DONOR-A4	Mz	-0.02	0.83
85	DONOR-A4	Y	-45.761	2.83
86	DONOR-A4	My	-0.011	2.83
87	DONOR-A4	Mz	-0.02	2.83
88	DONOR-B4	Y	-45.761	0.83
89	DONOR-B4	My	0.02	0.83
90	DONOR-B4	Mz	-0.011	0.83
91	DONOR-B4	Y	-45.761	2.83
92	DONOR-B4	My	0.02	2.83
93	DONOR-B4	Mz	-0.011	2.83
94	DONOR-C4	Y	-45.761	0.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
95	DONOR-C4	My	0.011	0.83
96	DONOR-C4	Mz	0.02	0.83
97	DONOR-C4	Y	-45.761	2.83
98	DONOR-C4	My	0.011	2.83
99	DONOR-C4	Mz	0.02	2.83
100	MP2A	Y	-25.695	6.5
101	MP2A	My	-0.013	6.5
102	MP2A	Mz	0	6.5
103	MP3C	Y	-25.695	6.5
104	MP3C	My	0.004	6.5
105	MP3C	Mz	0.012	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2.25
2	MP1A	Z	-74.194	2.25
3	MP1A	Mx	0	2.25
4	MP1A	X	0	3.25
5	MP1A	Z	-74.194	3.25
6	MP1A	Mx	0	3.25
7	MP1B	X	0	2.25
8	MP1B	Z	-37.712	2.25
9	MP1B	Mx	0.016	2.25
10	MP1B	X	0	3.25
11	MP1B	Z	-37.712	3.25
12	MP1B	Mx	0.016	3.25
13	MP1C	X	0	2.25
14	MP1C	Z	-31.242	2.25
15	MP1C	Mx	-0.015	2.25
16	MP1C	X	0	3.25
17	MP1C	Z	-31.242	3.25
18	MP1C	Mx	-0.015	3.25
19	MP2A	X	0	1
20	MP2A	Z	-104.56	1
21	MP2A	Mx	-0.052	1
22	MP2A	X	0	5
23	MP2A	Z	-104.56	5
24	MP2A	Mx	-0.052	5
25	MP2B	X	0	1
26	MP2B	Z	-59.871	1
27	MP2B	Mx	0.041	1
28	MP2B	X	0	5
29	MP2B	Z	-59.871	5
30	MP2B	Mx	0.041	5
31	MP2A	X	0	1
32	MP2A	Z	-104.56	1
33	MP2A	Mx	0.052	1
34	MP2A	X	0	5
35	MP2A	Z	-104.56	5
36	MP2A	Mx	0.052	5
37	MP2B	X	0	1
38	MP2B	Z	-59.871	1
39	MP2B	Mx	0.011	1
40	MP2B	X	0	5
41	MP2B	Z	-59.871	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
42	MP2B	Mx	0.011	5
43	MP3C	X	0	1
44	MP3C	Z	-51.944	1
45	MP3C	Mx	-0.016	1
46	MP3C	X	0	5
47	MP3C	Z	-51.944	5
48	MP3C	Mx	-0.016	5
49	MP3C	X	0	1
50	MP3C	Z	-51.944	1
51	MP3C	Mx	-0.033	1
52	MP3C	X	0	5
53	MP3C	Z	-51.944	5
54	MP3C	Mx	-0.033	5
55	MP3A	X	0	1.5
56	MP3A	Z	-58.827	1.5
57	MP3A	Mx	-0.029	1.5
58	MP3B	X	0	1.5
59	MP3B	Z	-44.31	1.5
60	MP3B	Mx	-0.008	1.5
61	MP4C	X	0	1.5
62	MP4C	Z	-41.735	1.5
63	MP4C	Mx	0.027	1.5
64	MP3A	X	0	3.5
65	MP3A	Z	-58.674	3.5
66	MP3A	Mx	0.029	3.5
67	MP3B	X	0	3.5
68	MP3B	Z	-38.801	3.5
69	MP3B	Mx	-0.027	3.5
70	MP4C	X	0	3.5
71	MP4C	Z	-35.276	3.5
72	MP4C	Mx	0.011	3.5
73	M69	X	0	1
74	M69	Z	-4.109	1
75	M69	Mx	-0.000468	1
76	DONOR-A1	X	0	0.83
77	DONOR-A1	Z	-57.889	0.83
78	DONOR-A1	Mx	-0.014	0.83
79	DONOR-A1	X	0	2.83
80	DONOR-A1	Z	-57.889	2.83
81	DONOR-A1	Mx	-0.014	2.83
82	DONOR-A4	X	0	0.83
83	DONOR-A4	Z	-37.75	0.83
84	DONOR-A4	Mx	0.016	0.83
85	DONOR-A4	X	0	2.83
86	DONOR-A4	Z	-37.75	2.83
87	DONOR-A4	Mx	0.016	2.83
88	DONOR-B4	X	0	0.83
89	DONOR-B4	Z	-57.889	0.83
90	DONOR-B4	Mx	0.014	0.83
91	DONOR-B4	X	0	2.83
92	DONOR-B4	Z	-57.889	2.83
93	DONOR-B4	Mx	0.014	2.83
94	DONOR-C4	X	0	0.83
95	DONOR-C4	Z	-37.75	0.83
96	DONOR-C4	Mx	-0.016	0.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
97	DONOR-C4	X	0	2.83
98	DONOR-C4	Z	-37.75	2.83
99	DONOR-C4	Mx	-0.016	2.83
100	MP2A	X	0	6.5
101	MP2A	Z	-36.245	6.5
102	MP2A	Mx	0	6.5
103	MP3C	X	0	6.5
104	MP3C	Z	-13.947	6.5
105	MP3C	Mx	-0.007	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	31.017	2.25
2	MP1A	Z	-53.723	2.25
3	MP1A	Mx	-0.016	2.25
4	MP1A	X	31.017	3.25
5	MP1A	Z	-53.723	3.25
6	MP1A	Mx	-0.016	3.25
7	MP1B	X	12.776	2.25
8	MP1B	Z	-22.128	2.25
9	MP1B	Mx	0.013	2.25
10	MP1B	X	12.776	3.25
11	MP1B	Z	-22.128	3.25
12	MP1B	Mx	0.013	3.25
13	MP1C	X	27.048	2.25
14	MP1C	Z	-46.849	2.25
15	MP1C	Mx	-0.017	2.25
16	MP1C	X	27.048	3.25
17	MP1C	Z	-46.849	3.25
18	MP1C	Mx	-0.017	3.25
19	MP2A	X	44.832	1
20	MP2A	Z	-77.651	1
21	MP2A	Mx	-0.061	1
22	MP2A	X	44.832	5
23	MP2A	Z	-77.651	5
24	MP2A	Mx	-0.061	5
25	MP2B	X	22.487	1
26	MP2B	Z	-38.949	1
27	MP2B	Mx	0.022	1
28	MP2B	X	22.487	5
29	MP2B	Z	-38.949	5
30	MP2B	Mx	0.022	5
31	MP2A	X	44.832	1
32	MP2A	Z	-77.651	1
33	MP2A	Mx	0.016	1
34	MP2A	X	44.832	5
35	MP2A	Z	-77.651	5
36	MP2A	Mx	0.016	5
37	MP2B	X	22.487	1
38	MP2B	Z	-38.949	1
39	MP2B	Mx	0.022	1
40	MP2B	X	22.487	5
41	MP2B	Z	-38.949	5
42	MP2B	Mx	0.022	5
43	MP3C	X	39.97	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
44	MP3C	Z	-69.231	1
45	MP3C	Mx	0.005	1
46	MP3C	X	39.97	5
47	MP3C	Z	-69.231	5
48	MP3C	Mx	0.005	5
49	MP3C	X	39.97	1
50	MP3C	Z	-69.231	1
51	MP3C	Mx	-0.056	1
52	MP3C	X	39.97	5
53	MP3C	Z	-69.231	5
54	MP3C	Mx	-0.056	5
55	MP3A	X	26.994	1.5
56	MP3A	Z	-46.755	1.5
57	MP3A	Mx	-0.01	1.5
58	MP3B	X	19.735	1.5
59	MP3B	Z	-34.183	1.5
60	MP3B	Mx	-0.02	1.5
61	MP4C	X	25.415	1.5
62	MP4C	Z	-44.02	1.5
63	MP4C	Mx	0.036	1.5
64	MP3A	X	26.025	3.5
65	MP3A	Z	-45.076	3.5
66	MP3A	Mx	0.036	3.5
67	MP3B	X	16.088	3.5
68	MP3B	Z	-27.865	3.5
69	MP3B	Mx	-0.016	3.5
70	MP4C	X	23.863	3.5
71	MP4C	Z	-41.332	3.5
72	MP4C	Mx	-0.003	3.5
73	M69	X	1.765	1
74	M69	Z	-3.057	1
75	M69	Mx	-0.000901	1
76	DONOR-A1	X	18.875	0.83
77	DONOR-A1	Z	-32.692	0.83
78	DONOR-A1	Mx	-0.016	0.83
79	DONOR-A1	X	18.875	2.83
80	DONOR-A1	Z	-32.692	2.83
81	DONOR-A1	Mx	-0.016	2.83
82	DONOR-A4	X	28.944	0.83
83	DONOR-A4	Z	-50.133	0.83
84	DONOR-A4	Mx	0.014	0.83
85	DONOR-A4	X	28.944	2.83
86	DONOR-A4	Z	-50.133	2.83
87	DONOR-A4	Mx	0.014	2.83
88	DONOR-B4	X	18.875	0.83
89	DONOR-B4	Z	-32.692	0.83
90	DONOR-B4	Mx	0.016	0.83
91	DONOR-B4	X	18.875	2.83
92	DONOR-B4	Z	-32.692	2.83
93	DONOR-B4	Mx	0.016	2.83
94	DONOR-C4	X	28.944	0.83
95	DONOR-C4	Z	-50.133	0.83
96	DONOR-C4	Mx	-0.014	0.83
97	DONOR-C4	X	28.944	2.83
98	DONOR-C4	Z	-50.133	2.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
99	DONOR-C4	Mx	-0.014	2.83
100	MP2A	X	14.966	6.5
101	MP2A	Z	-25.922	6.5
102	MP2A	Mx	-0.007	6.5
103	MP3C	X	12.906	6.5
104	MP3C	Z	-22.353	6.5
105	MP3C	Mx	-0.008	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	32.66	2.25
2	MP1A	Z	-18.856	2.25
3	MP1A	Mx	-0.016	2.25
4	MP1A	X	32.66	3.25
5	MP1A	Z	-18.856	3.25
6	MP1A	Mx	-0.016	3.25
7	MP1B	X	32.66	2.25
8	MP1B	Z	-18.856	2.25
9	MP1B	Mx	0.016	2.25
10	MP1B	X	32.66	3.25
11	MP1B	Z	-18.856	3.25
12	MP1B	Mx	0.016	3.25
13	MP1C	X	62.984	2.25
14	MP1C	Z	-36.364	2.25
15	MP1C	Mx	-0.006	2.25
16	MP1C	X	62.984	3.25
17	MP1C	Z	-36.364	3.25
18	MP1C	Mx	-0.006	3.25
19	MP2A	X	51.849	1
20	MP2A	Z	-29.935	1
21	MP2A	Mx	-0.041	1
22	MP2A	X	51.849	5
23	MP2A	Z	-29.935	5
24	MP2A	Mx	-0.041	5
25	MP2B	X	51.849	1
26	MP2B	Z	-29.935	1
27	MP2B	Mx	0.011	1
28	MP2B	X	51.849	5
29	MP2B	Z	-29.935	5
30	MP2B	Mx	0.011	5
31	MP2A	X	51.849	1
32	MP2A	Z	-29.935	1
33	MP2A	Mx	-0.011	1
34	MP2A	X	51.849	5
35	MP2A	Z	-29.935	5
36	MP2A	Mx	-0.011	5
37	MP2B	X	51.849	1
38	MP2B	Z	-29.935	1
39	MP2B	Mx	0.041	1
40	MP2B	X	51.849	5
41	MP2B	Z	-29.935	5
42	MP2B	Mx	0.041	5
43	MP3C	X	88.996	1
44	MP3C	Z	-51.382	1
45	MP3C	Mx	0.042	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
46	MP3C	X	88.996	5
47	MP3C	Z	-51.382	5
48	MP3C	Mx	0.042	5
49	MP3C	X	88.996	1
50	MP3C	Z	-51.382	1
51	MP3C	Mx	-0.06	1
52	MP3C	X	88.996	5
53	MP3C	Z	-51.382	5
54	MP3C	Mx	-0.06	5
55	MP3A	X	38.374	1.5
56	MP3A	Z	-22.155	1.5
57	MP3A	Mx	0.008	1.5
58	MP3B	X	38.374	1.5
59	MP3B	Z	-22.155	1.5
60	MP3B	Mx	-0.03	1.5
61	MP4C	X	50.44	1.5
62	MP4C	Z	-29.122	1.5
63	MP4C	Mx	0.034	1.5
64	MP3A	X	33.602	3.5
65	MP3A	Z	-19.4	3.5
66	MP3A	Mx	0.027	3.5
67	MP3B	X	33.602	3.5
68	MP3B	Z	-19.4	3.5
69	MP3B	Mx	-0.007	3.5
70	MP4C	X	50.121	3.5
71	MP4C	Z	-28.938	3.5
72	MP4C	Mx	-0.023	3.5
73	M69	X	2.648	1
74	M69	Z	-1.529	1
75	M69	Mx	-0.001	1
76	DONOR-A1	X	23.971	0.83
77	DONOR-A1	Z	-13.84	0.83
78	DONOR-A1	Mx	-0.014	0.83
79	DONOR-A1	X	23.971	2.83
80	DONOR-A1	Z	-13.84	2.83
81	DONOR-A1	Mx	-0.014	2.83
82	DONOR-A4	X	58.854	0.83
83	DONOR-A4	Z	-33.979	0.83
84	DONOR-A4	Mx	0	0.83
85	DONOR-A4	X	58.854	2.83
86	DONOR-A4	Z	-33.979	2.83
87	DONOR-A4	Mx	0	2.83
88	DONOR-B4	X	23.971	0.83
89	DONOR-B4	Z	-13.84	0.83
90	DONOR-B4	Mx	0.014	0.83
91	DONOR-B4	X	23.971	2.83
92	DONOR-B4	Z	-13.84	2.83
93	DONOR-B4	Mx	0.014	2.83
94	DONOR-C4	X	58.854	0.83
95	DONOR-C4	Z	-33.979	0.83
96	DONOR-C4	Mx	0	0.83
97	DONOR-C4	X	58.854	2.83
98	DONOR-C4	Z	-33.979	2.83
99	DONOR-C4	Mx	0	2.83
100	MP2A	X	14.987	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
101	MP2A	Z	-8.653	6.5
102	MP2A	Mx	-0.007	6.5
103	MP3C	X	30.729	6.5
104	MP3C	Z	-17.742	6.5
105	MP3C	Mx	-0.003	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	25.552	2.25
2	MP1A	Z	0	2.25
3	MP1A	Mx	-0.013	2.25
4	MP1A	X	25.552	3.25
5	MP1A	Z	0	3.25
6	MP1A	Mx	-0.013	3.25
7	MP1B	X	62.034	2.25
8	MP1B	Z	0	2.25
9	MP1B	Mx	0.016	2.25
10	MP1B	X	62.034	3.25
11	MP1B	Z	0	3.25
12	MP1B	Mx	0.016	3.25
13	MP1C	X	68.504	2.25
14	MP1C	Z	0	2.25
15	MP1C	Mx	0.012	2.25
16	MP1C	X	68.504	3.25
17	MP1C	Z	0	3.25
18	MP1C	Mx	0.012	3.25
19	MP2A	X	44.974	1
20	MP2A	Z	0	1
21	MP2A	Mx	-0.022	1
22	MP2A	X	44.974	5
23	MP2A	Z	0	5
24	MP2A	Mx	-0.022	5
25	MP2B	X	89.664	1
26	MP2B	Z	0	1
27	MP2B	Mx	-0.016	1
28	MP2B	X	89.664	5
29	MP2B	Z	0	5
30	MP2B	Mx	-0.016	5
31	MP2A	X	44.974	1
32	MP2A	Z	0	1
33	MP2A	Mx	-0.022	1
34	MP2A	X	44.974	5
35	MP2A	Z	0	5
36	MP2A	Mx	-0.022	5
37	MP2B	X	89.664	1
38	MP2B	Z	0	1
39	MP2B	Mx	0.061	1
40	MP2B	X	89.664	5
41	MP2B	Z	0	5
42	MP2B	Mx	0.061	5
43	MP3C	X	97.59	1
44	MP3C	Z	0	1
45	MP3C	Mx	0.063	1
46	MP3C	X	97.59	5
47	MP3C	Z	0	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
48	MP3C	Mx	0.063	5
49	MP3C	X	97.59	1
50	MP3C	Z	0	1
51	MP3C	Mx	-0.029	1
52	MP3C	X	97.59	5
53	MP3C	Z	0	5
54	MP3C	Mx	-0.029	5
55	MP3A	X	39.471	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	0.02	1.5
58	MP3B	X	53.988	1.5
59	MP3B	Z	0	1.5
60	MP3B	Mx	-0.037	1.5
61	MP4C	X	56.563	1.5
62	MP4C	Z	0	1.5
63	MP4C	Mx	0.017	1.5
64	MP3A	X	32.176	3.5
65	MP3A	Z	0	3.5
66	MP3A	Mx	0.016	3.5
67	MP3B	X	52.05	3.5
68	MP3B	Z	0	3.5
69	MP3B	Mx	0.01	3.5
70	MP4C	X	55.575	3.5
71	MP4C	Z	0	3.5
72	MP4C	Mx	-0.036	3.5
73	M69	X	3.165	1
74	M69	Z	0	1
75	M69	Mx	-0.000991	1
76	DONOR-A1	X	37.75	0.83
77	DONOR-A1	Z	0	0.83
78	DONOR-A1	Mx	-0.016	0.83
79	DONOR-A1	X	37.75	2.83
80	DONOR-A1	Z	0	2.83
81	DONOR-A1	Mx	-0.016	2.83
82	DONOR-A4	X	57.889	0.83
83	DONOR-A4	Z	0	0.83
84	DONOR-A4	Mx	-0.014	0.83
85	DONOR-A4	X	57.889	2.83
86	DONOR-A4	Z	0	2.83
87	DONOR-A4	Mx	-0.014	2.83
88	DONOR-B4	X	37.75	0.83
89	DONOR-B4	Z	0	0.83
90	DONOR-B4	Mx	0.016	0.83
91	DONOR-B4	X	37.75	2.83
92	DONOR-B4	Z	0	2.83
93	DONOR-B4	Mx	0.016	2.83
94	DONOR-C4	X	57.889	0.83
95	DONOR-C4	Z	0	0.83
96	DONOR-C4	Mx	0.014	0.83
97	DONOR-C4	X	57.889	2.83
98	DONOR-C4	Z	0	2.83
99	DONOR-C4	Mx	0.014	2.83
100	MP2A	X	10.993	6.5
101	MP2A	Z	0	6.5
102	MP2A	Mx	-0.005	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
103	MP3C	X	33.291	6.5
104	MP3C	Z	0	6.5
105	MP3C	Mx	0.006	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	32.66	2.25
2	MP1A	Z	18.856	2.25
3	MP1A	Mx	-0.016	2.25
4	MP1A	X	32.66	3.25
5	MP1A	Z	18.856	3.25
6	MP1A	Mx	-0.016	3.25
7	MP1B	X	64.254	2.25
8	MP1B	Z	37.097	2.25
9	MP1B	Mx	0	2.25
10	MP1B	X	64.254	3.25
11	MP1B	Z	37.097	3.25
12	MP1B	Mx	0	3.25
13	MP1C	X	39.534	2.25
14	MP1C	Z	22.825	2.25
15	MP1C	Mx	0.017	2.25
16	MP1C	X	39.534	3.25
17	MP1C	Z	22.825	3.25
18	MP1C	Mx	0.017	3.25
19	MP2A	X	51.849	1
20	MP2A	Z	29.935	1
21	MP2A	Mx	-0.011	1
22	MP2A	X	51.849	5
23	MP2A	Z	29.935	5
24	MP2A	Mx	-0.011	5
25	MP2B	X	90.552	1
26	MP2B	Z	52.28	1
27	MP2B	Mx	-0.052	1
28	MP2B	X	90.552	5
29	MP2B	Z	52.28	5
30	MP2B	Mx	-0.052	5
31	MP2A	X	51.849	1
32	MP2A	Z	29.935	1
33	MP2A	Mx	-0.041	1
34	MP2A	X	51.849	5
35	MP2A	Z	29.935	5
36	MP2A	Mx	-0.041	5
37	MP2B	X	90.552	1
38	MP2B	Z	52.28	1
39	MP2B	Mx	0.052	1
40	MP2B	X	90.552	5
41	MP2B	Z	52.28	5
42	MP2B	Mx	0.052	5
43	MP3C	X	60.27	1
44	MP3C	Z	34.797	1
45	MP3C	Mx	0.049	1
46	MP3C	X	60.27	5
47	MP3C	Z	34.797	5
48	MP3C	Mx	0.049	5
49	MP3C	X	60.27	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
50	MP3C	Z	34.797	1
51	MP3C	Mx	0.004	1
52	MP3C	X	60.27	5
53	MP3C	Z	34.797	5
54	MP3C	Mx	0.004	5
55	MP3A	X	38.374	1.5
56	MP3A	Z	22.155	1.5
57	MP3A	Mx	0.03	1.5
58	MP3B	X	50.946	1.5
59	MP3B	Z	29.413	1.5
60	MP3B	Mx	-0.029	1.5
61	MP4C	X	41.109	1.5
62	MP4C	Z	23.734	1.5
63	MP4C	Mx	-0.003	1.5
64	MP3A	X	33.602	3.5
65	MP3A	Z	19.4	3.5
66	MP3A	Mx	0.007	3.5
67	MP3B	X	50.813	3.5
68	MP3B	Z	29.337	3.5
69	MP3B	Mx	0.029	3.5
70	MP4C	X	37.347	3.5
71	MP4C	Z	21.562	3.5
72	MP4C	Mx	-0.03	3.5
73	M69	X	3.243	1
74	M69	Z	1.872	1
75	M69	Mx	-0.000802	1
76	DONOR-A1	X	50.133	0.83
77	DONOR-A1	Z	28.944	0.83
78	DONOR-A1	Mx	-0.014	0.83
79	DONOR-A1	X	50.133	2.83
80	DONOR-A1	Z	28.944	2.83
81	DONOR-A1	Mx	-0.014	2.83
82	DONOR-A4	X	32.692	0.83
83	DONOR-A4	Z	18.875	0.83
84	DONOR-A4	Mx	-0.016	0.83
85	DONOR-A4	X	32.692	2.83
86	DONOR-A4	Z	18.875	2.83
87	DONOR-A4	Mx	-0.016	2.83
88	DONOR-B4	X	50.133	0.83
89	DONOR-B4	Z	28.944	0.83
90	DONOR-B4	Mx	0.014	0.83
91	DONOR-B4	X	50.133	2.83
92	DONOR-B4	Z	28.944	2.83
93	DONOR-B4	Mx	0.014	2.83
94	DONOR-C4	X	32.692	0.83
95	DONOR-C4	Z	18.875	0.83
96	DONOR-C4	Mx	0.016	0.83
97	DONOR-C4	X	32.692	2.83
98	DONOR-C4	Z	18.875	2.83
99	DONOR-C4	Mx	0.016	2.83
100	MP2A	X	14.987	6.5
101	MP2A	Z	8.653	6.5
102	MP2A	Mx	-0.007	6.5
103	MP3C	X	18.556	6.5
104	MP3C	Z	10.713	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
105	MP3C	Mx	0.008	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	31.017	2.25
2	MP1A	Z	53.723	2.25
3	MP1A	Mx	-0.016	2.25
4	MP1A	X	31.017	3.25
5	MP1A	Z	53.723	3.25
6	MP1A	Mx	-0.016	3.25
7	MP1B	X	31.017	2.25
8	MP1B	Z	53.723	2.25
9	MP1B	Mx	-0.016	2.25
10	MP1B	X	31.017	3.25
11	MP1B	Z	53.723	3.25
12	MP1B	Mx	-0.016	3.25
13	MP1C	X	13.509	2.25
14	MP1C	Z	23.399	2.25
15	MP1C	Mx	0.013	2.25
16	MP1C	X	13.509	3.25
17	MP1C	Z	23.399	3.25
18	MP1C	Mx	0.013	3.25
19	MP2A	X	44.832	1
20	MP2A	Z	77.651	1
21	MP2A	Mx	0.016	1
22	MP2A	X	44.832	5
23	MP2A	Z	77.651	5
24	MP2A	Mx	0.016	5
25	MP2B	X	44.832	1
26	MP2B	Z	77.651	1
27	MP2B	Mx	-0.061	1
28	MP2B	X	44.832	5
29	MP2B	Z	77.651	5
30	MP2B	Mx	-0.061	5
31	MP2A	X	44.832	1
32	MP2A	Z	77.651	1
33	MP2A	Mx	-0.061	1
34	MP2A	X	44.832	5
35	MP2A	Z	77.651	5
36	MP2A	Mx	-0.061	5
37	MP2B	X	44.832	1
38	MP2B	Z	77.651	1
39	MP2B	Mx	0.016	1
40	MP2B	X	44.832	5
41	MP2B	Z	77.651	5
42	MP2B	Mx	0.016	5
43	MP3C	X	23.385	1
44	MP3C	Z	40.505	1
45	MP3C	Mx	0.027	1
46	MP3C	X	23.385	5
47	MP3C	Z	40.505	5
48	MP3C	Mx	0.027	5
49	MP3C	X	23.385	1
50	MP3C	Z	40.505	1
51	MP3C	Mx	0.019	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
52	MP3C	X	23.385	5
53	MP3C	Z	40.505	5
54	MP3C	Mx	0.019	5
55	MP3A	X	26.994	1.5
56	MP3A	Z	46.755	1.5
57	MP3A	Mx	0.037	1.5
58	MP3B	X	26.994	1.5
59	MP3B	Z	46.755	1.5
60	MP3B	Mx	-0.01	1.5
61	MP4C	X	20.027	1.5
62	MP4C	Z	34.688	1.5
63	MP4C	Mx	-0.016	1.5
64	MP3A	X	26.025	3.5
65	MP3A	Z	45.076	3.5
66	MP3A	Mx	-0.01	3.5
67	MP3B	X	26.025	3.5
68	MP3B	Z	45.076	3.5
69	MP3B	Mx	0.036	3.5
70	MP4C	X	16.488	3.5
71	MP4C	Z	28.557	3.5
72	MP4C	Mx	-0.019	3.5
73	M69	X	2.108	1
74	M69	Z	3.652	1
75	M69	Mx	-0.000244	1
76	DONOR-A1	X	33.979	0.83
77	DONOR-A1	Z	58.854	0.83
78	DONOR-A1	Mx	0	0.83
79	DONOR-A1	X	33.979	2.83
80	DONOR-A1	Z	58.854	2.83
81	DONOR-A1	Mx	0	2.83
82	DONOR-A4	X	13.84	0.83
83	DONOR-A4	Z	23.971	0.83
84	DONOR-A4	Mx	-0.014	0.83
85	DONOR-A4	X	13.84	2.83
86	DONOR-A4	Z	23.971	2.83
87	DONOR-A4	Mx	-0.014	2.83
88	DONOR-B4	X	33.979	0.83
89	DONOR-B4	Z	58.854	0.83
90	DONOR-B4	Mx	0	0.83
91	DONOR-B4	X	33.979	2.83
92	DONOR-B4	Z	58.854	2.83
93	DONOR-B4	Mx	0	2.83
94	DONOR-C4	X	13.84	0.83
95	DONOR-C4	Z	23.971	0.83
96	DONOR-C4	Mx	0.014	0.83
97	DONOR-C4	X	13.84	2.83
98	DONOR-C4	Z	23.971	2.83
99	DONOR-C4	Mx	0.014	2.83
100	MP2A	X	14.966	6.5
101	MP2A	Z	25.922	6.5
102	MP2A	Mx	-0.007	6.5
103	MP3C	X	5.877	6.5
104	MP3C	Z	10.18	6.5
105	MP3C	Mx	0.006	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2.25
2	MP1A	Z	74.194	2.25
3	MP1A	Mx	0	2.25
4	MP1A	X	0	3.25
5	MP1A	Z	74.194	3.25
6	MP1A	Mx	0	3.25
7	MP1B	X	0	2.25
8	MP1B	Z	37.712	2.25
9	MP1B	Mx	-0.016	2.25
10	MP1B	X	0	3.25
11	MP1B	Z	37.712	3.25
12	MP1B	Mx	-0.016	3.25
13	MP1C	X	0	2.25
14	MP1C	Z	31.242	2.25
15	MP1C	Mx	0.015	2.25
16	MP1C	X	0	3.25
17	MP1C	Z	31.242	3.25
18	MP1C	Mx	0.015	3.25
19	MP2A	X	0	1
20	MP2A	Z	104.56	1
21	MP2A	Mx	0.052	1
22	MP2A	X	0	5
23	MP2A	Z	104.56	5
24	MP2A	Mx	0.052	5
25	MP2B	X	0	1
26	MP2B	Z	59.871	1
27	MP2B	Mx	-0.041	1
28	MP2B	X	0	5
29	MP2B	Z	59.871	5
30	MP2B	Mx	-0.041	5
31	MP2A	X	0	1
32	MP2A	Z	104.56	1
33	MP2A	Mx	-0.052	1
34	MP2A	X	0	5
35	MP2A	Z	104.56	5
36	MP2A	Mx	-0.052	5
37	MP2B	X	0	1
38	MP2B	Z	59.871	1
39	MP2B	Mx	-0.011	1
40	MP2B	X	0	5
41	MP2B	Z	59.871	5
42	MP2B	Mx	-0.011	5
43	MP3C	X	0	1
44	MP3C	Z	51.944	1
45	MP3C	Mx	0.016	1
46	MP3C	X	0	5
47	MP3C	Z	51.944	5
48	MP3C	Mx	0.016	5
49	MP3C	X	0	1
50	MP3C	Z	51.944	1
51	MP3C	Mx	0.033	1
52	MP3C	X	0	5
53	MP3C	Z	51.944	5
54	MP3C	Mx	0.033	5
55	MP3A	X	0	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	MP3A	Z	58.827	1.5
57	MP3A	Mx	0.029	1.5
58	MP3B	X	0	1.5
59	MP3B	Z	44.31	1.5
60	MP3B	Mx	0.008	1.5
61	MP4C	X	0	1.5
62	MP4C	Z	41.735	1.5
63	MP4C	Mx	-0.027	1.5
64	MP3A	X	0	3.5
65	MP3A	Z	58.674	3.5
66	MP3A	Mx	-0.029	3.5
67	MP3B	X	0	3.5
68	MP3B	Z	38.801	3.5
69	MP3B	Mx	0.027	3.5
70	MP4C	X	0	3.5
71	MP4C	Z	35.276	3.5
72	MP4C	Mx	-0.011	3.5
73	M69	X	0	1
74	M69	Z	4.109	1
75	M69	Mx	0.000468	1
76	DONOR-A1	X	0	0.83
77	DONOR-A1	Z	57.889	0.83
78	DONOR-A1	Mx	0.014	0.83
79	DONOR-A1	X	0	2.83
80	DONOR-A1	Z	57.889	2.83
81	DONOR-A1	Mx	0.014	2.83
82	DONOR-A4	X	0	0.83
83	DONOR-A4	Z	37.75	0.83
84	DONOR-A4	Mx	-0.016	0.83
85	DONOR-A4	X	0	2.83
86	DONOR-A4	Z	37.75	2.83
87	DONOR-A4	Mx	-0.016	2.83
88	DONOR-B4	X	0	0.83
89	DONOR-B4	Z	57.889	0.83
90	DONOR-B4	Mx	-0.014	0.83
91	DONOR-B4	X	0	2.83
92	DONOR-B4	Z	57.889	2.83
93	DONOR-B4	Mx	-0.014	2.83
94	DONOR-C4	X	0	0.83
95	DONOR-C4	Z	37.75	0.83
96	DONOR-C4	Mx	0.016	0.83
97	DONOR-C4	X	0	2.83
98	DONOR-C4	Z	37.75	2.83
99	DONOR-C4	Mx	0.016	2.83
100	MP2A	X	0	6.5
101	MP2A	Z	36.245	6.5
102	MP2A	Mx	0	6.5
103	MP3C	X	0	6.5
104	MP3C	Z	13.947	6.5
105	MP3C	Mx	0.007	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-31.017	2.25
2	MP1A	Z	53.723	2.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
3	MP1A	Mx	0.016	2.25
4	MP1A	X	-31.017	3.25
5	MP1A	Z	53.723	3.25
6	MP1A	Mx	0.016	3.25
7	MP1B	X	-12.776	2.25
8	MP1B	Z	22.128	2.25
9	MP1B	Mx	-0.013	2.25
10	MP1B	X	-12.776	3.25
11	MP1B	Z	22.128	3.25
12	MP1B	Mx	-0.013	3.25
13	MP1C	X	-27.048	2.25
14	MP1C	Z	46.849	2.25
15	MP1C	Mx	0.017	2.25
16	MP1C	X	-27.048	3.25
17	MP1C	Z	46.849	3.25
18	MP1C	Mx	0.017	3.25
19	MP2A	X	-44.832	1
20	MP2A	Z	77.651	1
21	MP2A	Mx	0.061	1
22	MP2A	X	-44.832	5
23	MP2A	Z	77.651	5
24	MP2A	Mx	0.061	5
25	MP2B	X	-22.487	1
26	MP2B	Z	38.949	1
27	MP2B	Mx	-0.022	1
28	MP2B	X	-22.487	5
29	MP2B	Z	38.949	5
30	MP2B	Mx	-0.022	5
31	MP2A	X	-44.832	1
32	MP2A	Z	77.651	1
33	MP2A	Mx	-0.016	1
34	MP2A	X	-44.832	5
35	MP2A	Z	77.651	5
36	MP2A	Mx	-0.016	5
37	MP2B	X	-22.487	1
38	MP2B	Z	38.949	1
39	MP2B	Mx	-0.022	1
40	MP2B	X	-22.487	5
41	MP2B	Z	38.949	5
42	MP2B	Mx	-0.022	5
43	MP3C	X	-39.97	1
44	MP3C	Z	69.231	1
45	MP3C	Mx	-0.005	1
46	MP3C	X	-39.97	5
47	MP3C	Z	69.231	5
48	MP3C	Mx	-0.005	5
49	MP3C	X	-39.97	1
50	MP3C	Z	69.231	1
51	MP3C	Mx	0.056	1
52	MP3C	X	-39.97	5
53	MP3C	Z	69.231	5
54	MP3C	Mx	0.056	5
55	MP3A	X	-26.994	1.5
56	MP3A	Z	46.755	1.5
57	MP3A	Mx	0.01	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
58	MP3B	X	-19.735	1.5
59	MP3B	Z	34.183	1.5
60	MP3B	Mx	0.02	1.5
61	MP4C	X	-25.415	1.5
62	MP4C	Z	44.02	1.5
63	MP4C	Mx	-0.036	1.5
64	MP3A	X	-26.025	3.5
65	MP3A	Z	45.076	3.5
66	MP3A	Mx	-0.036	3.5
67	MP3B	X	-16.088	3.5
68	MP3B	Z	27.865	3.5
69	MP3B	Mx	0.016	3.5
70	MP4C	X	-23.863	3.5
71	MP4C	Z	41.332	3.5
72	MP4C	Mx	0.003	3.5
73	M69	X	-1.765	1
74	M69	Z	3.057	1
75	M69	Mx	0.000901	1
76	DONOR-A1	X	-18.875	0.83
77	DONOR-A1	Z	32.692	0.83
78	DONOR-A1	Mx	0.016	0.83
79	DONOR-A1	X	-18.875	2.83
80	DONOR-A1	Z	32.692	2.83
81	DONOR-A1	Mx	0.016	2.83
82	DONOR-A4	X	-28.944	0.83
83	DONOR-A4	Z	50.133	0.83
84	DONOR-A4	Mx	-0.014	0.83
85	DONOR-A4	X	-28.944	2.83
86	DONOR-A4	Z	50.133	2.83
87	DONOR-A4	Mx	-0.014	2.83
88	DONOR-B4	X	-18.875	0.83
89	DONOR-B4	Z	32.692	0.83
90	DONOR-B4	Mx	-0.016	0.83
91	DONOR-B4	X	-18.875	2.83
92	DONOR-B4	Z	32.692	2.83
93	DONOR-B4	Mx	-0.016	2.83
94	DONOR-C4	X	-28.944	0.83
95	DONOR-C4	Z	50.133	0.83
96	DONOR-C4	Mx	0.014	0.83
97	DONOR-C4	X	-28.944	2.83
98	DONOR-C4	Z	50.133	2.83
99	DONOR-C4	Mx	0.014	2.83
100	MP2A	X	-14.966	6.5
101	MP2A	Z	25.922	6.5
102	MP2A	Mx	0.007	6.5
103	MP3C	X	-12.906	6.5
104	MP3C	Z	22.353	6.5
105	MP3C	Mx	0.008	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-32.66	2.25
2	MP1A	Z	18.856	2.25
3	MP1A	Mx	0.016	2.25
4	MP1A	X	-32.66	3.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
5	MP1A	Z	18.856	3.25
6	MP1A	Mx	0.016	3.25
7	MP1B	X	-32.66	2.25
8	MP1B	Z	18.856	2.25
9	MP1B	Mx	-0.016	2.25
10	MP1B	X	-32.66	3.25
11	MP1B	Z	18.856	3.25
12	MP1B	Mx	-0.016	3.25
13	MP1C	X	-62.984	2.25
14	MP1C	Z	36.364	2.25
15	MP1C	Mx	0.006	2.25
16	MP1C	X	-62.984	3.25
17	MP1C	Z	36.364	3.25
18	MP1C	Mx	0.006	3.25
19	MP2A	X	-51.849	1
20	MP2A	Z	29.935	1
21	MP2A	Mx	0.041	1
22	MP2A	X	-51.849	5
23	MP2A	Z	29.935	5
24	MP2A	Mx	0.041	5
25	MP2B	X	-51.849	1
26	MP2B	Z	29.935	1
27	MP2B	Mx	-0.011	1
28	MP2B	X	-51.849	5
29	MP2B	Z	29.935	5
30	MP2B	Mx	-0.011	5
31	MP2A	X	-51.849	1
32	MP2A	Z	29.935	1
33	MP2A	Mx	0.011	1
34	MP2A	X	-51.849	5
35	MP2A	Z	29.935	5
36	MP2A	Mx	0.011	5
37	MP2B	X	-51.849	1
38	MP2B	Z	29.935	1
39	MP2B	Mx	-0.041	1
40	MP2B	X	-51.849	5
41	MP2B	Z	29.935	5
42	MP2B	Mx	-0.041	5
43	MP3C	X	-88.996	1
44	MP3C	Z	51.382	1
45	MP3C	Mx	-0.042	1
46	MP3C	X	-88.996	5
47	MP3C	Z	51.382	5
48	MP3C	Mx	-0.042	5
49	MP3C	X	-88.996	1
50	MP3C	Z	51.382	1
51	MP3C	Mx	0.06	1
52	MP3C	X	-88.996	5
53	MP3C	Z	51.382	5
54	MP3C	Mx	0.06	5
55	MP3A	X	-38.374	1.5
56	MP3A	Z	22.155	1.5
57	MP3A	Mx	-0.008	1.5
58	MP3B	X	-38.374	1.5
59	MP3B	Z	22.155	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
60	MP3B	Mx	0.03	1.5
61	MP4C	X	-50.44	1.5
62	MP4C	Z	29.122	1.5
63	MP4C	Mx	-0.034	1.5
64	MP3A	X	-33.602	3.5
65	MP3A	Z	19.4	3.5
66	MP3A	Mx	-0.027	3.5
67	MP3B	X	-33.602	3.5
68	MP3B	Z	19.4	3.5
69	MP3B	Mx	0.007	3.5
70	MP4C	X	-50.121	3.5
71	MP4C	Z	28.938	3.5
72	MP4C	Mx	0.023	3.5
73	M69	X	-2.648	1
74	M69	Z	1.529	1
75	M69	Mx	0.001	1
76	DONOR-A1	X	-23.971	0.83
77	DONOR-A1	Z	13.84	0.83
78	DONOR-A1	Mx	0.014	0.83
79	DONOR-A1	X	-23.971	2.83
80	DONOR-A1	Z	13.84	2.83
81	DONOR-A1	Mx	0.014	2.83
82	DONOR-A4	X	-58.854	0.83
83	DONOR-A4	Z	33.979	0.83
84	DONOR-A4	Mx	0	0.83
85	DONOR-A4	X	-58.854	2.83
86	DONOR-A4	Z	33.979	2.83
87	DONOR-A4	Mx	0	2.83
88	DONOR-B4	X	-23.971	0.83
89	DONOR-B4	Z	13.84	0.83
90	DONOR-B4	Mx	-0.014	0.83
91	DONOR-B4	X	-23.971	2.83
92	DONOR-B4	Z	13.84	2.83
93	DONOR-B4	Mx	-0.014	2.83
94	DONOR-C4	X	-58.854	0.83
95	DONOR-C4	Z	33.979	0.83
96	DONOR-C4	Mx	0	0.83
97	DONOR-C4	X	-58.854	2.83
98	DONOR-C4	Z	33.979	2.83
99	DONOR-C4	Mx	0	2.83
100	MP2A	X	-14.987	6.5
101	MP2A	Z	8.653	6.5
102	MP2A	Mx	0.007	6.5
103	MP3C	X	-30.729	6.5
104	MP3C	Z	17.742	6.5
105	MP3C	Mx	0.003	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-25.552	2.25
2	MP1A	Z	0	2.25
3	MP1A	Mx	0.013	2.25
4	MP1A	X	-25.552	3.25
5	MP1A	Z	0	3.25
6	MP1A	Mx	0.013	3.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
7	MP1B	X	-62.034	2.25
8	MP1B	Z	0	2.25
9	MP1B	Mx	-0.016	2.25
10	MP1B	X	-62.034	3.25
11	MP1B	Z	0	3.25
12	MP1B	Mx	-0.016	3.25
13	MP1C	X	-68.504	2.25
14	MP1C	Z	0	2.25
15	MP1C	Mx	-0.012	2.25
16	MP1C	X	-68.504	3.25
17	MP1C	Z	0	3.25
18	MP1C	Mx	-0.012	3.25
19	MP2A	X	-44.974	1
20	MP2A	Z	0	1
21	MP2A	Mx	0.022	1
22	MP2A	X	-44.974	5
23	MP2A	Z	0	5
24	MP2A	Mx	0.022	5
25	MP2B	X	-89.664	1
26	MP2B	Z	0	1
27	MP2B	Mx	0.016	1
28	MP2B	X	-89.664	5
29	MP2B	Z	0	5
30	MP2B	Mx	0.016	5
31	MP2A	X	-44.974	1
32	MP2A	Z	0	1
33	MP2A	Mx	0.022	1
34	MP2A	X	-44.974	5
35	MP2A	Z	0	5
36	MP2A	Mx	0.022	5
37	MP2B	X	-89.664	1
38	MP2B	Z	0	1
39	MP2B	Mx	-0.061	1
40	MP2B	X	-89.664	5
41	MP2B	Z	0	5
42	MP2B	Mx	-0.061	5
43	MP3C	X	-97.59	1
44	MP3C	Z	0	1
45	MP3C	Mx	-0.063	1
46	MP3C	X	-97.59	5
47	MP3C	Z	0	5
48	MP3C	Mx	-0.063	5
49	MP3C	X	-97.59	1
50	MP3C	Z	0	1
51	MP3C	Mx	0.029	1
52	MP3C	X	-97.59	5
53	MP3C	Z	0	5
54	MP3C	Mx	0.029	5
55	MP3A	X	-39.471	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	-0.02	1.5
58	MP3B	X	-53.988	1.5
59	MP3B	Z	0	1.5
60	MP3B	Mx	0.037	1.5
61	MP4C	X	-56.563	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
62	MP4C	Z	0	1.5
63	MP4C	Mx	-0.017	1.5
64	MP3A	X	-32.176	3.5
65	MP3A	Z	0	3.5
66	MP3A	Mx	-0.016	3.5
67	MP3B	X	-52.05	3.5
68	MP3B	Z	0	3.5
69	MP3B	Mx	-0.01	3.5
70	MP4C	X	-55.575	3.5
71	MP4C	Z	0	3.5
72	MP4C	Mx	0.036	3.5
73	M69	X	-3.165	1
74	M69	Z	0	1
75	M69	Mx	0.000991	1
76	DONOR-A1	X	-37.75	0.83
77	DONOR-A1	Z	0	0.83
78	DONOR-A1	Mx	0.016	0.83
79	DONOR-A1	X	-37.75	2.83
80	DONOR-A1	Z	0	2.83
81	DONOR-A1	Mx	0.016	2.83
82	DONOR-A4	X	-57.889	0.83
83	DONOR-A4	Z	0	0.83
84	DONOR-A4	Mx	0.014	0.83
85	DONOR-A4	X	-57.889	2.83
86	DONOR-A4	Z	0	2.83
87	DONOR-A4	Mx	0.014	2.83
88	DONOR-B4	X	-37.75	0.83
89	DONOR-B4	Z	0	0.83
90	DONOR-B4	Mx	-0.016	0.83
91	DONOR-B4	X	-37.75	2.83
92	DONOR-B4	Z	0	2.83
93	DONOR-B4	Mx	-0.016	2.83
94	DONOR-C4	X	-57.889	0.83
95	DONOR-C4	Z	0	0.83
96	DONOR-C4	Mx	-0.014	0.83
97	DONOR-C4	X	-57.889	2.83
98	DONOR-C4	Z	0	2.83
99	DONOR-C4	Mx	-0.014	2.83
100	MP2A	X	-10.993	6.5
101	MP2A	Z	0	6.5
102	MP2A	Mx	0.005	6.5
103	MP3C	X	-33.291	6.5
104	MP3C	Z	0	6.5
105	MP3C	Mx	-0.006	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-32.66	2.25
2	MP1A	Z	-18.856	2.25
3	MP1A	Mx	0.016	2.25
4	MP1A	X	-32.66	3.25
5	MP1A	Z	-18.856	3.25
6	MP1A	Mx	0.016	3.25
7	MP1B	X	-64.254	2.25
8	MP1B	Z	-37.097	2.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
9	MP1B	Mx	0	2.25
10	MP1B	X	-64.254	3.25
11	MP1B	Z	-37.097	3.25
12	MP1B	Mx	0	3.25
13	MP1C	X	-39.534	2.25
14	MP1C	Z	-22.825	2.25
15	MP1C	Mx	-0.017	2.25
16	MP1C	X	-39.534	3.25
17	MP1C	Z	-22.825	3.25
18	MP1C	Mx	-0.017	3.25
19	MP2A	X	-51.849	1
20	MP2A	Z	-29.935	1
21	MP2A	Mx	0.011	1
22	MP2A	X	-51.849	5
23	MP2A	Z	-29.935	5
24	MP2A	Mx	0.011	5
25	MP2B	X	-90.552	1
26	MP2B	Z	-52.28	1
27	MP2B	Mx	0.052	1
28	MP2B	X	-90.552	5
29	MP2B	Z	-52.28	5
30	MP2B	Mx	0.052	5
31	MP2A	X	-51.849	1
32	MP2A	Z	-29.935	1
33	MP2A	Mx	0.041	1
34	MP2A	X	-51.849	5
35	MP2A	Z	-29.935	5
36	MP2A	Mx	0.041	5
37	MP2B	X	-90.552	1
38	MP2B	Z	-52.28	1
39	MP2B	Mx	-0.052	1
40	MP2B	X	-90.552	5
41	MP2B	Z	-52.28	5
42	MP2B	Mx	-0.052	5
43	MP3C	X	-60.27	1
44	MP3C	Z	-34.797	1
45	MP3C	Mx	-0.049	1
46	MP3C	X	-60.27	5
47	MP3C	Z	-34.797	5
48	MP3C	Mx	-0.049	5
49	MP3C	X	-60.27	1
50	MP3C	Z	-34.797	1
51	MP3C	Mx	-0.004	1
52	MP3C	X	-60.27	5
53	MP3C	Z	-34.797	5
54	MP3C	Mx	-0.004	5
55	MP3A	X	-38.374	1.5
56	MP3A	Z	-22.155	1.5
57	MP3A	Mx	-0.03	1.5
58	MP3B	X	-50.946	1.5
59	MP3B	Z	-29.413	1.5
60	MP3B	Mx	0.029	1.5
61	MP4C	X	-41.109	1.5
62	MP4C	Z	-23.734	1.5
63	MP4C	Mx	0.003	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
64	MP3A	X	-33.602	3.5
65	MP3A	Z	-19.4	3.5
66	MP3A	Mx	-0.007	3.5
67	MP3B	X	-50.813	3.5
68	MP3B	Z	-29.337	3.5
69	MP3B	Mx	-0.029	3.5
70	MP4C	X	-37.347	3.5
71	MP4C	Z	-21.562	3.5
72	MP4C	Mx	0.03	3.5
73	M69	X	-3.243	1
74	M69	Z	-1.872	1
75	M69	Mx	0.000802	1
76	DONOR-A1	X	-50.133	0.83
77	DONOR-A1	Z	-28.944	0.83
78	DONOR-A1	Mx	0.014	0.83
79	DONOR-A1	X	-50.133	2.83
80	DONOR-A1	Z	-28.944	2.83
81	DONOR-A1	Mx	0.014	2.83
82	DONOR-A4	X	-32.692	0.83
83	DONOR-A4	Z	-18.875	0.83
84	DONOR-A4	Mx	0.016	0.83
85	DONOR-A4	X	-32.692	2.83
86	DONOR-A4	Z	-18.875	2.83
87	DONOR-A4	Mx	0.016	2.83
88	DONOR-B4	X	-50.133	0.83
89	DONOR-B4	Z	-28.944	0.83
90	DONOR-B4	Mx	-0.014	0.83
91	DONOR-B4	X	-50.133	2.83
92	DONOR-B4	Z	-28.944	2.83
93	DONOR-B4	Mx	-0.014	2.83
94	DONOR-C4	X	-32.692	0.83
95	DONOR-C4	Z	-18.875	0.83
96	DONOR-C4	Mx	-0.016	0.83
97	DONOR-C4	X	-32.692	2.83
98	DONOR-C4	Z	-18.875	2.83
99	DONOR-C4	Mx	-0.016	2.83
100	MP2A	X	-14.987	6.5
101	MP2A	Z	-8.653	6.5
102	MP2A	Mx	0.007	6.5
103	MP3C	X	-18.556	6.5
104	MP3C	Z	-10.713	6.5
105	MP3C	Mx	-0.008	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-31.017	2.25
2	MP1A	Z	-53.723	2.25
3	MP1A	Mx	0.016	2.25
4	MP1A	X	-31.017	3.25
5	MP1A	Z	-53.723	3.25
6	MP1A	Mx	0.016	3.25
7	MP1B	X	-31.017	2.25
8	MP1B	Z	-53.723	2.25
9	MP1B	Mx	0.016	2.25
10	MP1B	X	-31.017	3.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
11	MP1B	Z	-53.723	3.25
12	MP1B	Mx	0.016	3.25
13	MP1C	X	-13.509	2.25
14	MP1C	Z	-23.399	2.25
15	MP1C	Mx	-0.013	2.25
16	MP1C	X	-13.509	3.25
17	MP1C	Z	-23.399	3.25
18	MP1C	Mx	-0.013	3.25
19	MP2A	X	-44.832	1
20	MP2A	Z	-77.651	1
21	MP2A	Mx	-0.016	1
22	MP2A	X	-44.832	5
23	MP2A	Z	-77.651	5
24	MP2A	Mx	-0.016	5
25	MP2B	X	-44.832	1
26	MP2B	Z	-77.651	1
27	MP2B	Mx	0.061	1
28	MP2B	X	-44.832	5
29	MP2B	Z	-77.651	5
30	MP2B	Mx	0.061	5
31	MP2A	X	-44.832	1
32	MP2A	Z	-77.651	1
33	MP2A	Mx	0.061	1
34	MP2A	X	-44.832	5
35	MP2A	Z	-77.651	5
36	MP2A	Mx	0.061	5
37	MP2B	X	-44.832	1
38	MP2B	Z	-77.651	1
39	MP2B	Mx	-0.016	1
40	MP2B	X	-44.832	5
41	MP2B	Z	-77.651	5
42	MP2B	Mx	-0.016	5
43	MP3C	X	-23.385	1
44	MP3C	Z	-40.505	1
45	MP3C	Mx	-0.027	1
46	MP3C	X	-23.385	5
47	MP3C	Z	-40.505	5
48	MP3C	Mx	-0.027	5
49	MP3C	X	-23.385	1
50	MP3C	Z	-40.505	1
51	MP3C	Mx	-0.019	1
52	MP3C	X	-23.385	5
53	MP3C	Z	-40.505	5
54	MP3C	Mx	-0.019	5
55	MP3A	X	-26.994	1.5
56	MP3A	Z	-46.755	1.5
57	MP3A	Mx	-0.037	1.5
58	MP3B	X	-26.994	1.5
59	MP3B	Z	-46.755	1.5
60	MP3B	Mx	0.01	1.5
61	MP4C	X	-20.027	1.5
62	MP4C	Z	-34.688	1.5
63	MP4C	Mx	0.016	1.5
64	MP3A	X	-26.025	3.5
65	MP3A	Z	-45.076	3.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
66	MP3A	Mx	0.01	3.5
67	MP3B	X	-26.025	3.5
68	MP3B	Z	-45.076	3.5
69	MP3B	Mx	-0.036	3.5
70	MP4C	X	-16.488	3.5
71	MP4C	Z	-28.557	3.5
72	MP4C	Mx	0.019	3.5
73	M69	X	-2.108	1
74	M69	Z	-3.652	1
75	M69	Mx	0.000244	1
76	DONOR-A1	X	-33.979	0.83
77	DONOR-A1	Z	-58.854	0.83
78	DONOR-A1	Mx	0	0.83
79	DONOR-A1	X	-33.979	2.83
80	DONOR-A1	Z	-58.854	2.83
81	DONOR-A1	Mx	0	2.83
82	DONOR-A4	X	-13.84	0.83
83	DONOR-A4	Z	-23.971	0.83
84	DONOR-A4	Mx	0.014	0.83
85	DONOR-A4	X	-13.84	2.83
86	DONOR-A4	Z	-23.971	2.83
87	DONOR-A4	Mx	0.014	2.83
88	DONOR-B4	X	-33.979	0.83
89	DONOR-B4	Z	-58.854	0.83
90	DONOR-B4	Mx	0	0.83
91	DONOR-B4	X	-33.979	2.83
92	DONOR-B4	Z	-58.854	2.83
93	DONOR-B4	Mx	0	2.83
94	DONOR-C4	X	-13.84	0.83
95	DONOR-C4	Z	-23.971	0.83
96	DONOR-C4	Mx	-0.014	0.83
97	DONOR-C4	X	-13.84	2.83
98	DONOR-C4	Z	-23.971	2.83
99	DONOR-C4	Mx	-0.014	2.83
100	MP2A	X	-14.966	6.5
101	MP2A	Z	-25.922	6.5
102	MP2A	Mx	0.007	6.5
103	MP3C	X	-5.877	6.5
104	MP3C	Z	-10.18	6.5
105	MP3C	Mx	-0.006	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2.25
2	MP1A	Z	-18.329	2.25
3	MP1A	Mx	0	2.25
4	MP1A	X	0	3.25
5	MP1A	Z	-18.329	3.25
6	MP1A	Mx	0	3.25
7	MP1B	X	0	2.25
8	MP1B	Z	-10.648	2.25
9	MP1B	Mx	0.005	2.25
10	MP1B	X	0	3.25
11	MP1B	Z	-10.648	3.25
12	MP1B	Mx	0.005	3.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
13	MP1C	X	0	2.25
14	MP1C	Z	-9.286	2.25
15	MP1C	Mx	-0.004	2.25
16	MP1C	X	0	3.25
17	MP1C	Z	-9.286	3.25
18	MP1C	Mx	-0.004	3.25
19	MP2A	X	0	1
20	MP2A	Z	-30.896	1
21	MP2A	Mx	-0.015	1
22	MP2A	X	0	5
23	MP2A	Z	-30.896	5
24	MP2A	Mx	-0.015	5
25	MP2B	X	0	1
26	MP2B	Z	-23.97	1
27	MP2B	Mx	0.016	1
28	MP2B	X	0	5
29	MP2B	Z	-23.97	5
30	MP2B	Mx	0.016	5
31	MP2A	X	0	1
32	MP2A	Z	-30.896	1
33	MP2A	Mx	0.015	1
34	MP2A	X	0	5
35	MP2A	Z	-30.896	5
36	MP2A	Mx	0.015	5
37	MP2B	X	0	1
38	MP2B	Z	-23.97	1
39	MP2B	Mx	0.004	1
40	MP2B	X	0	5
41	MP2B	Z	-23.97	5
42	MP2B	Mx	0.004	5
43	MP3C	X	0	1
44	MP3C	Z	-22.742	1
45	MP3C	Mx	-0.007	1
46	MP3C	X	0	5
47	MP3C	Z	-22.742	5
48	MP3C	Mx	-0.007	5
49	MP3C	X	0	1
50	MP3C	Z	-22.742	1
51	MP3C	Mx	-0.015	1
52	MP3C	X	0	5
53	MP3C	Z	-22.742	5
54	MP3C	Mx	-0.015	5
55	MP3A	X	0	1.5
56	MP3A	Z	-15.855	1.5
57	MP3A	Mx	-0.008	1.5
58	MP3B	X	0	1.5
59	MP3B	Z	-12.372	1.5
60	MP3B	Mx	-0.002	1.5
61	MP4C	X	0	1.5
62	MP4C	Z	-11.755	1.5
63	MP4C	Mx	0.008	1.5
64	MP3A	X	0	3.5
65	MP3A	Z	-15.809	3.5
66	MP3A	Mx	0.008	3.5
67	MP3B	X	0	3.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
68	MP3B	Z	-11.016	3.5
69	MP3B	Mx	-0.008	3.5
70	MP4C	X	0	3.5
71	MP4C	Z	-10.166	3.5
72	MP4C	Mx	0.003	3.5
73	M69	X	0	1
74	M69	Z	-1.895	1
75	M69	Mx	-0.000216	1
76	DONOR-A1	X	0	0.83
77	DONOR-A1	Z	-12.24	0.83
78	DONOR-A1	Mx	-0.003	0.83
79	DONOR-A1	X	0	2.83
80	DONOR-A1	Z	-12.24	2.83
81	DONOR-A1	Mx	-0.003	2.83
82	DONOR-A4	X	0	0.83
83	DONOR-A4	Z	-8.398	0.83
84	DONOR-A4	Mx	0.004	0.83
85	DONOR-A4	X	0	2.83
86	DONOR-A4	Z	-8.398	2.83
87	DONOR-A4	Mx	0.004	2.83
88	DONOR-B4	X	0	0.83
89	DONOR-B4	Z	-12.24	0.83
90	DONOR-B4	Mx	0.003	0.83
91	DONOR-B4	X	0	2.83
92	DONOR-B4	Z	-12.24	2.83
93	DONOR-B4	Mx	0.003	2.83
94	DONOR-C4	X	0	0.83
95	DONOR-C4	Z	-8.398	0.83
96	DONOR-C4	Mx	-0.004	0.83
97	DONOR-C4	X	0	2.83
98	DONOR-C4	Z	-8.398	2.83
99	DONOR-C4	Mx	-0.004	2.83
100	MP2A	X	0	6.5
101	MP2A	Z	-8.419	6.5
102	MP2A	Mx	0	6.5
103	MP3C	X	0	6.5
104	MP3C	Z	-4.195	6.5
105	MP3C	Mx	-0.002	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	7.884	2.25
2	MP1A	Z	-13.656	2.25
3	MP1A	Mx	-0.004	2.25
4	MP1A	X	7.884	3.25
5	MP1A	Z	-13.656	3.25
6	MP1A	Mx	-0.004	3.25
7	MP1B	X	4.044	2.25
8	MP1B	Z	-7.005	2.25
9	MP1B	Mx	0.004	2.25
10	MP1B	X	4.044	3.25
11	MP1B	Z	-7.005	3.25
12	MP1B	Mx	0.004	3.25
13	MP1C	X	7.049	2.25
14	MP1C	Z	-12.209	2.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
15	MP1C	Mx	-0.005	2.25
16	MP1C	X	7.049	3.25
17	MP1C	Z	-12.209	3.25
18	MP1C	Mx	-0.005	3.25
19	MP2A	X	14.294	1
20	MP2A	Z	-24.757	1
21	MP2A	Mx	-0.02	1
22	MP2A	X	14.294	5
23	MP2A	Z	-24.757	5
24	MP2A	Mx	-0.02	5
25	MP2B	X	10.831	1
26	MP2B	Z	-18.759	1
27	MP2B	Mx	0.011	1
28	MP2B	X	10.831	5
29	MP2B	Z	-18.759	5
30	MP2B	Mx	0.011	5
31	MP2A	X	14.294	1
32	MP2A	Z	-24.757	1
33	MP2A	Mx	0.005	1
34	MP2A	X	14.294	5
35	MP2A	Z	-24.757	5
36	MP2A	Mx	0.005	5
37	MP2B	X	10.831	1
38	MP2B	Z	-18.759	1
39	MP2B	Mx	0.011	1
40	MP2B	X	10.831	5
41	MP2B	Z	-18.759	5
42	MP2B	Mx	0.011	5
43	MP3C	X	13.54	1
44	MP3C	Z	-23.452	1
45	MP3C	Mx	0.002	1
46	MP3C	X	13.54	5
47	MP3C	Z	-23.452	5
48	MP3C	Mx	0.002	5
49	MP3C	X	13.54	1
50	MP3C	Z	-23.452	1
51	MP3C	Mx	-0.019	1
52	MP3C	X	13.54	5
53	MP3C	Z	-23.452	5
54	MP3C	Mx	-0.019	5
55	MP3A	X	7.347	1.5
56	MP3A	Z	-12.726	1.5
57	MP3A	Mx	-0.003	1.5
58	MP3B	X	5.606	1.5
59	MP3B	Z	-9.709	1.5
60	MP3B	Mx	-0.006	1.5
61	MP4C	X	6.968	1.5
62	MP4C	Z	-12.069	1.5
63	MP4C	Mx	0.01	1.5
64	MP3A	X	7.106	3.5
65	MP3A	Z	-12.308	3.5
66	MP3A	Mx	0.01	3.5
67	MP3B	X	4.709	3.5
68	MP3B	Z	-8.156	3.5
69	MP3B	Mx	-0.005	3.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
70	MP4C	X	6.584	3.5
71	MP4C	Z	-11.404	3.5
72	MP4C	Mx	-0.000811	3.5
73	M69	X	0.947	1
74	M69	Z	-1.641	1
75	M69	Mx	-0.000484	1
76	DONOR-A1	X	4.199	0.83
77	DONOR-A1	Z	-7.273	0.83
78	DONOR-A1	Mx	-0.004	0.83
79	DONOR-A1	X	4.199	2.83
80	DONOR-A1	Z	-7.273	2.83
81	DONOR-A1	Mx	-0.004	2.83
82	DONOR-A4	X	6.12	0.83
83	DONOR-A4	Z	-10.6	0.83
84	DONOR-A4	Mx	0.003	0.83
85	DONOR-A4	X	6.12	2.83
86	DONOR-A4	Z	-10.6	2.83
87	DONOR-A4	Mx	0.003	2.83
88	DONOR-B4	X	4.199	0.83
89	DONOR-B4	Z	-7.273	0.83
90	DONOR-B4	Mx	0.004	0.83
91	DONOR-B4	X	4.199	2.83
92	DONOR-B4	Z	-7.273	2.83
93	DONOR-B4	Mx	0.004	2.83
94	DONOR-C4	X	6.12	0.83
95	DONOR-C4	Z	-10.6	0.83
96	DONOR-C4	Mx	-0.003	0.83
97	DONOR-C4	X	6.12	2.83
98	DONOR-C4	Z	-10.6	2.83
99	DONOR-C4	Mx	-0.003	2.83
100	MP2A	X	3.611	6.5
101	MP2A	Z	-6.255	6.5
102	MP2A	Mx	-0.002	6.5
103	MP3C	X	3.221	6.5
104	MP3C	Z	-5.579	6.5
105	MP3C	Mx	-0.002	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	9.222	2.25
2	MP1A	Z	-5.324	2.25
3	MP1A	Mx	-0.005	2.25
4	MP1A	X	9.222	3.25
5	MP1A	Z	-5.324	3.25
6	MP1A	Mx	-0.005	3.25
7	MP1B	X	9.222	2.25
8	MP1B	Z	-5.324	2.25
9	MP1B	Mx	0.005	2.25
10	MP1B	X	9.222	3.25
11	MP1B	Z	-5.324	3.25
12	MP1B	Mx	0.005	3.25
13	MP1C	X	15.606	2.25
14	MP1C	Z	-9.01	2.25
15	MP1C	Mx	-0.002	2.25
16	MP1C	X	15.606	3.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
17	MP1C	Z	-9.01	3.25
18	MP1C	Mx	-0.002	3.25
19	MP2A	X	20.759	1
20	MP2A	Z	-11.985	1
21	MP2A	Mx	-0.016	1
22	MP2A	X	20.759	5
23	MP2A	Z	-11.985	5
24	MP2A	Mx	-0.016	5
25	MP2B	X	20.759	1
26	MP2B	Z	-11.985	1
27	MP2B	Mx	0.004	1
28	MP2B	X	20.759	5
29	MP2B	Z	-11.985	5
30	MP2B	Mx	0.004	5
31	MP2A	X	20.759	1
32	MP2A	Z	-11.985	1
33	MP2A	Mx	-0.004	1
34	MP2A	X	20.759	5
35	MP2A	Z	-11.985	5
36	MP2A	Mx	-0.004	5
37	MP2B	X	20.759	1
38	MP2B	Z	-11.985	1
39	MP2B	Mx	0.016	1
40	MP2B	X	20.759	5
41	MP2B	Z	-11.985	5
42	MP2B	Mx	0.016	5
43	MP3C	X	26.515	1
44	MP3C	Z	-15.309	1
45	MP3C	Mx	0.012	1
46	MP3C	X	26.515	5
47	MP3C	Z	-15.309	5
48	MP3C	Mx	0.012	5
49	MP3C	X	26.515	1
50	MP3C	Z	-15.309	1
51	MP3C	Mx	-0.018	1
52	MP3C	X	26.515	5
53	MP3C	Z	-15.309	5
54	MP3C	Mx	-0.018	5
55	MP3A	X	10.715	1.5
56	MP3A	Z	-6.186	1.5
57	MP3A	Mx	0.002	1.5
58	MP3B	X	10.715	1.5
59	MP3B	Z	-6.186	1.5
60	MP3B	Mx	-0.008	1.5
61	MP4C	X	13.61	1.5
62	MP4C	Z	-7.858	1.5
63	MP4C	Mx	0.009	1.5
64	MP3A	X	9.54	3.5
65	MP3A	Z	-5.508	3.5
66	MP3A	Mx	0.008	3.5
67	MP3B	X	9.54	3.5
68	MP3B	Z	-5.508	3.5
69	MP3B	Mx	-0.002	3.5
70	MP4C	X	13.524	3.5
71	MP4C	Z	-7.808	3.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
72	MP4C	Mx	-0.006	3.5
73	M69	X	1.641	1
74	M69	Z	-0.947	1
75	M69	Mx	-0.000622	1
76	DONOR-A1	X	5.61	0.83
77	DONOR-A1	Z	-3.239	0.83
78	DONOR-A1	Mx	-0.003	0.83
79	DONOR-A1	X	5.61	2.83
80	DONOR-A1	Z	-3.239	2.83
81	DONOR-A1	Mx	-0.003	2.83
82	DONOR-A4	X	12.264	0.83
83	DONOR-A4	Z	-7.081	0.83
84	DONOR-A4	Mx	0	0.83
85	DONOR-A4	X	12.264	2.83
86	DONOR-A4	Z	-7.081	2.83
87	DONOR-A4	Mx	0	2.83
88	DONOR-B4	X	5.61	0.83
89	DONOR-B4	Z	-3.239	0.83
90	DONOR-B4	Mx	0.003	0.83
91	DONOR-B4	X	5.61	2.83
92	DONOR-B4	Z	-3.239	2.83
93	DONOR-B4	Mx	0.003	2.83
94	DONOR-C4	X	12.264	0.83
95	DONOR-C4	Z	-7.081	0.83
96	DONOR-C4	Mx	0	0.83
97	DONOR-C4	X	12.264	2.83
98	DONOR-C4	Z	-7.081	2.83
99	DONOR-C4	Mx	0	2.83
100	MP2A	X	4.184	6.5
101	MP2A	Z	-2.415	6.5
102	MP2A	Mx	-0.002	6.5
103	MP3C	X	7.166	6.5
104	MP3C	Z	-4.137	6.5
105	MP3C	Mx	-0.000718	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	8.088	2.25
2	MP1A	Z	0	2.25
3	MP1A	Mx	-0.004	2.25
4	MP1A	X	8.088	3.25
5	MP1A	Z	0	3.25
6	MP1A	Mx	-0.004	3.25
7	MP1B	X	15.769	2.25
8	MP1B	Z	0	2.25
9	MP1B	Mx	0.004	2.25
10	MP1B	X	15.769	3.25
11	MP1B	Z	0	3.25
12	MP1B	Mx	0.004	3.25
13	MP1C	X	17.131	2.25
14	MP1C	Z	0	2.25
15	MP1C	Mx	0.003	2.25
16	MP1C	X	17.131	3.25
17	MP1C	Z	0	3.25
18	MP1C	Mx	0.003	3.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
19	MP2A	X	21.662	1
20	MP2A	Z	0	1
21	MP2A	Mx	-0.011	1
22	MP2A	X	21.662	5
23	MP2A	Z	0	5
24	MP2A	Mx	-0.011	5
25	MP2B	X	28.587	1
26	MP2B	Z	0	1
27	MP2B	Mx	-0.005	1
28	MP2B	X	28.587	5
29	MP2B	Z	0	5
30	MP2B	Mx	-0.005	5
31	MP2A	X	21.662	1
32	MP2A	Z	0	1
33	MP2A	Mx	-0.011	1
34	MP2A	X	21.662	5
35	MP2A	Z	0	5
36	MP2A	Mx	-0.011	5
37	MP2B	X	28.587	1
38	MP2B	Z	0	1
39	MP2B	Mx	0.02	1
40	MP2B	X	28.587	5
41	MP2B	Z	0	5
42	MP2B	Mx	0.02	5
43	MP3C	X	29.816	1
44	MP3C	Z	0	1
45	MP3C	Mx	0.019	1
46	MP3C	X	29.816	5
47	MP3C	Z	0	5
48	MP3C	Mx	0.019	5
49	MP3C	X	29.816	1
50	MP3C	Z	0	1
51	MP3C	Mx	-0.009	1
52	MP3C	X	29.816	5
53	MP3C	Z	0	5
54	MP3C	Mx	-0.009	5
55	MP3A	X	11.211	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	0.006	1.5
58	MP3B	X	14.694	1.5
59	MP3B	Z	0	1.5
60	MP3B	Mx	-0.01	1.5
61	MP4C	X	15.312	1.5
62	MP4C	Z	0	1.5
63	MP4C	Mx	0.005	1.5
64	MP3A	X	9.418	3.5
65	MP3A	Z	0	3.5
66	MP3A	Mx	0.005	3.5
67	MP3B	X	14.212	3.5
68	MP3B	Z	0	3.5
69	MP3B	Mx	0.003	3.5
70	MP4C	X	15.062	3.5
71	MP4C	Z	0	3.5
72	MP4C	Mx	-0.01	3.5
73	M69	X	1.895	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
74	M69	Z	0	1
75	M69	Mx	-0.000594	1
76	DONOR-A1	X	8.398	0.83
77	DONOR-A1	Z	0	0.83
78	DONOR-A1	Mx	-0.004	0.83
79	DONOR-A1	X	8.398	2.83
80	DONOR-A1	Z	0	2.83
81	DONOR-A1	Mx	-0.004	2.83
82	DONOR-A4	X	12.24	0.83
83	DONOR-A4	Z	0	0.83
84	DONOR-A4	Mx	-0.003	0.83
85	DONOR-A4	X	12.24	2.83
86	DONOR-A4	Z	0	2.83
87	DONOR-A4	Mx	-0.003	2.83
88	DONOR-B4	X	8.398	0.83
89	DONOR-B4	Z	0	0.83
90	DONOR-B4	Mx	0.004	0.83
91	DONOR-B4	X	8.398	2.83
92	DONOR-B4	Z	0	2.83
93	DONOR-B4	Mx	0.004	2.83
94	DONOR-C4	X	12.24	0.83
95	DONOR-C4	Z	0	0.83
96	DONOR-C4	Mx	0.003	0.83
97	DONOR-C4	X	12.24	2.83
98	DONOR-C4	Z	0	2.83
99	DONOR-C4	Mx	0.003	2.83
100	MP2A	X	3.635	6.5
101	MP2A	Z	0	6.5
102	MP2A	Mx	-0.002	6.5
103	MP3C	X	7.859	6.5
104	MP3C	Z	0	6.5
105	MP3C	Mx	0.001	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	9.222	2.25
2	MP1A	Z	5.324	2.25
3	MP1A	Mx	-0.005	2.25
4	MP1A	X	9.222	3.25
5	MP1A	Z	5.324	3.25
6	MP1A	Mx	-0.005	3.25
7	MP1B	X	15.873	2.25
8	MP1B	Z	9.164	2.25
9	MP1B	Mx	0	2.25
10	MP1B	X	15.873	3.25
11	MP1B	Z	9.164	3.25
12	MP1B	Mx	0	3.25
13	MP1C	X	10.669	2.25
14	MP1C	Z	6.16	2.25
15	MP1C	Mx	0.005	2.25
16	MP1C	X	10.669	3.25
17	MP1C	Z	6.16	3.25
18	MP1C	Mx	0.005	3.25
19	MP2A	X	20.759	1
20	MP2A	Z	11.985	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 24777037 (Rev. 3)
 Model Name : Mount ReAnalysis-VZW

7/23/2024
 10:25:34 AM
 Checked By : DX

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
21	MP2A	Mx	-0.004	1
22	MP2A	X	20.759	5
23	MP2A	Z	11.985	5
24	MP2A	Mx	-0.004	5
25	MP2B	X	26.756	1
26	MP2B	Z	15.448	1
27	MP2B	Mx	-0.015	1
28	MP2B	X	26.756	5
29	MP2B	Z	15.448	5
30	MP2B	Mx	-0.015	5
31	MP2A	X	20.759	1
32	MP2A	Z	11.985	1
33	MP2A	Mx	-0.016	1
34	MP2A	X	20.759	5
35	MP2A	Z	11.985	5
36	MP2A	Mx	-0.016	5
37	MP2B	X	26.756	1
38	MP2B	Z	15.448	1
39	MP2B	Mx	0.015	1
40	MP2B	X	26.756	5
41	MP2B	Z	15.448	5
42	MP2B	Mx	0.015	5
43	MP3C	X	22.064	1
44	MP3C	Z	12.738	1
45	MP3C	Mx	0.018	1
46	MP3C	X	22.064	5
47	MP3C	Z	12.738	5
48	MP3C	Mx	0.018	5
49	MP3C	X	22.064	1
50	MP3C	Z	12.738	1
51	MP3C	Mx	0.002	1
52	MP3C	X	22.064	5
53	MP3C	Z	12.738	5
54	MP3C	Mx	0.002	5
55	MP3A	X	10.715	1.5
56	MP3A	Z	6.186	1.5
57	MP3A	Mx	0.008	1.5
58	MP3B	X	13.731	1.5
59	MP3B	Z	7.928	1.5
60	MP3B	Mx	-0.008	1.5
61	MP4C	X	11.371	1.5
62	MP4C	Z	6.565	1.5
63	MP4C	Mx	-0.000809	1.5
64	MP3A	X	9.54	3.5
65	MP3A	Z	5.508	3.5
66	MP3A	Mx	0.002	3.5
67	MP3B	X	13.691	3.5
68	MP3B	Z	7.905	3.5
69	MP3B	Mx	0.008	3.5
70	MP4C	X	10.443	3.5
71	MP4C	Z	6.029	3.5
72	MP4C	Mx	-0.008	3.5
73	M69	X	1.641	1
74	M69	Z	0.947	1
75	M69	Mx	-0.000406	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
76	DONOR-A1	X	10.6	0.83
77	DONOR-A1	Z	6.12	0.83
78	DONOR-A1	Mx	-0.003	0.83
79	DONOR-A1	X	10.6	2.83
80	DONOR-A1	Z	6.12	2.83
81	DONOR-A1	Mx	-0.003	2.83
82	DONOR-A4	X	7.273	0.83
83	DONOR-A4	Z	4.199	0.83
84	DONOR-A4	Mx	-0.004	0.83
85	DONOR-A4	X	7.273	2.83
86	DONOR-A4	Z	4.199	2.83
87	DONOR-A4	Mx	-0.004	2.83
88	DONOR-B4	X	10.6	0.83
89	DONOR-B4	Z	6.12	0.83
90	DONOR-B4	Mx	0.003	0.83
91	DONOR-B4	X	10.6	2.83
92	DONOR-B4	Z	6.12	2.83
93	DONOR-B4	Mx	0.003	2.83
94	DONOR-C4	X	7.273	0.83
95	DONOR-C4	Z	4.199	0.83
96	DONOR-C4	Mx	0.004	0.83
97	DONOR-C4	X	7.273	2.83
98	DONOR-C4	Z	4.199	2.83
99	DONOR-C4	Mx	0.004	2.83
100	MP2A	X	4.184	6.5
101	MP2A	Z	2.415	6.5
102	MP2A	Mx	-0.002	6.5
103	MP3C	X	4.86	6.5
104	MP3C	Z	2.806	6.5
105	MP3C	Mx	0.002	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	7.884	2.25
2	MP1A	Z	13.656	2.25
3	MP1A	Mx	-0.004	2.25
4	MP1A	X	7.884	3.25
5	MP1A	Z	13.656	3.25
6	MP1A	Mx	-0.004	3.25
7	MP1B	X	7.884	2.25
8	MP1B	Z	13.656	2.25
9	MP1B	Mx	-0.004	2.25
10	MP1B	X	7.884	3.25
11	MP1B	Z	13.656	3.25
12	MP1B	Mx	-0.004	3.25
13	MP1C	X	4.198	2.25
14	MP1C	Z	7.272	2.25
15	MP1C	Mx	0.004	2.25
16	MP1C	X	4.198	3.25
17	MP1C	Z	7.272	3.25
18	MP1C	Mx	0.004	3.25
19	MP2A	X	14.294	1
20	MP2A	Z	24.757	1
21	MP2A	Mx	0.005	1
22	MP2A	X	14.294	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
23	MP2A	Z	24.757	5
24	MP2A	Mx	0.005	5
25	MP2B	X	14.294	1
26	MP2B	Z	24.757	1
27	MP2B	Mx	-0.02	1
28	MP2B	X	14.294	5
29	MP2B	Z	24.757	5
30	MP2B	Mx	-0.02	5
31	MP2A	X	14.294	1
32	MP2A	Z	24.757	1
33	MP2A	Mx	-0.02	1
34	MP2A	X	14.294	5
35	MP2A	Z	24.757	5
36	MP2A	Mx	-0.02	5
37	MP2B	X	14.294	1
38	MP2B	Z	24.757	1
39	MP2B	Mx	0.005	1
40	MP2B	X	14.294	5
41	MP2B	Z	24.757	5
42	MP2B	Mx	0.005	5
43	MP3C	X	10.97	1
44	MP3C	Z	19.001	1
45	MP3C	Mx	0.013	1
46	MP3C	X	10.97	5
47	MP3C	Z	19.001	5
48	MP3C	Mx	0.013	5
49	MP3C	X	10.97	1
50	MP3C	Z	19.001	1
51	MP3C	Mx	0.009	1
52	MP3C	X	10.97	5
53	MP3C	Z	19.001	5
54	MP3C	Mx	0.009	5
55	MP3A	X	7.347	1.5
56	MP3A	Z	12.726	1.5
57	MP3A	Mx	0.01	1.5
58	MP3B	X	7.347	1.5
59	MP3B	Z	12.726	1.5
60	MP3B	Mx	-0.003	1.5
61	MP4C	X	5.676	1.5
62	MP4C	Z	9.831	1.5
63	MP4C	Mx	-0.005	1.5
64	MP3A	X	7.106	3.5
65	MP3A	Z	12.308	3.5
66	MP3A	Mx	-0.003	3.5
67	MP3B	X	7.106	3.5
68	MP3B	Z	12.308	3.5
69	MP3B	Mx	0.01	3.5
70	MP4C	X	4.805	3.5
71	MP4C	Z	8.323	3.5
72	MP4C	Mx	-0.006	3.5
73	M69	X	0.947	1
74	M69	Z	1.641	1
75	M69	Mx	-0.00011	1
76	DONOR-A1	X	7.081	0.83
77	DONOR-A1	Z	12.264	0.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
78	DONOR-A1	Mx	0	0.83
79	DONOR-A1	X	7.081	2.83
80	DONOR-A1	Z	12.264	2.83
81	DONOR-A1	Mx	0	2.83
82	DONOR-A4	X	3.239	0.83
83	DONOR-A4	Z	5.61	0.83
84	DONOR-A4	Mx	-0.003	0.83
85	DONOR-A4	X	3.239	2.83
86	DONOR-A4	Z	5.61	2.83
87	DONOR-A4	Mx	-0.003	2.83
88	DONOR-B4	X	7.081	0.83
89	DONOR-B4	Z	12.264	0.83
90	DONOR-B4	Mx	0	0.83
91	DONOR-B4	X	7.081	2.83
92	DONOR-B4	Z	12.264	2.83
93	DONOR-B4	Mx	0	2.83
94	DONOR-C4	X	3.239	0.83
95	DONOR-C4	Z	5.61	0.83
96	DONOR-C4	Mx	0.003	0.83
97	DONOR-C4	X	3.239	2.83
98	DONOR-C4	Z	5.61	2.83
99	DONOR-C4	Mx	0.003	2.83
100	MP2A	X	3.611	6.5
101	MP2A	Z	6.255	6.5
102	MP2A	Mx	-0.002	6.5
103	MP3C	X	1.89	6.5
104	MP3C	Z	3.273	6.5
105	MP3C	Mx	0.002	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2.25
2	MP1A	Z	18.329	2.25
3	MP1A	Mx	0	2.25
4	MP1A	X	0	3.25
5	MP1A	Z	18.329	3.25
6	MP1A	Mx	0	3.25
7	MP1B	X	0	2.25
8	MP1B	Z	10.648	2.25
9	MP1B	Mx	-0.005	2.25
10	MP1B	X	0	3.25
11	MP1B	Z	10.648	3.25
12	MP1B	Mx	-0.005	3.25
13	MP1C	X	0	2.25
14	MP1C	Z	9.286	2.25
15	MP1C	Mx	0.004	2.25
16	MP1C	X	0	3.25
17	MP1C	Z	9.286	3.25
18	MP1C	Mx	0.004	3.25
19	MP2A	X	0	1
20	MP2A	Z	30.896	1
21	MP2A	Mx	0.015	1
22	MP2A	X	0	5
23	MP2A	Z	30.896	5
24	MP2A	Mx	0.015	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
25	MP2B	X	0	1
26	MP2B	Z	23.97	1
27	MP2B	Mx	-0.016	1
28	MP2B	X	0	5
29	MP2B	Z	23.97	5
30	MP2B	Mx	-0.016	5
31	MP2A	X	0	1
32	MP2A	Z	30.896	1
33	MP2A	Mx	-0.015	1
34	MP2A	X	0	5
35	MP2A	Z	30.896	5
36	MP2A	Mx	-0.015	5
37	MP2B	X	0	1
38	MP2B	Z	23.97	1
39	MP2B	Mx	-0.004	1
40	MP2B	X	0	5
41	MP2B	Z	23.97	5
42	MP2B	Mx	-0.004	5
43	MP3C	X	0	1
44	MP3C	Z	22.742	1
45	MP3C	Mx	0.007	1
46	MP3C	X	0	5
47	MP3C	Z	22.742	5
48	MP3C	Mx	0.007	5
49	MP3C	X	0	1
50	MP3C	Z	22.742	1
51	MP3C	Mx	0.015	1
52	MP3C	X	0	5
53	MP3C	Z	22.742	5
54	MP3C	Mx	0.015	5
55	MP3A	X	0	1.5
56	MP3A	Z	15.855	1.5
57	MP3A	Mx	0.008	1.5
58	MP3B	X	0	1.5
59	MP3B	Z	12.372	1.5
60	MP3B	Mx	0.002	1.5
61	MP4C	X	0	1.5
62	MP4C	Z	11.755	1.5
63	MP4C	Mx	-0.008	1.5
64	MP3A	X	0	3.5
65	MP3A	Z	15.809	3.5
66	MP3A	Mx	-0.008	3.5
67	MP3B	X	0	3.5
68	MP3B	Z	11.016	3.5
69	MP3B	Mx	0.008	3.5
70	MP4C	X	0	3.5
71	MP4C	Z	10.166	3.5
72	MP4C	Mx	-0.003	3.5
73	M69	X	0	1
74	M69	Z	1.895	1
75	M69	Mx	0.000216	1
76	DONOR-A1	X	0	0.83
77	DONOR-A1	Z	12.24	0.83
78	DONOR-A1	Mx	0.003	0.83
79	DONOR-A1	X	0	2.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
80	DONOR-A1	Z	12.24	2.83
81	DONOR-A1	Mx	0.003	2.83
82	DONOR-A4	X	0	0.83
83	DONOR-A4	Z	8.398	0.83
84	DONOR-A4	Mx	-0.004	0.83
85	DONOR-A4	X	0	2.83
86	DONOR-A4	Z	8.398	2.83
87	DONOR-A4	Mx	-0.004	2.83
88	DONOR-B4	X	0	0.83
89	DONOR-B4	Z	12.24	0.83
90	DONOR-B4	Mx	-0.003	0.83
91	DONOR-B4	X	0	2.83
92	DONOR-B4	Z	12.24	2.83
93	DONOR-B4	Mx	-0.003	2.83
94	DONOR-C4	X	0	0.83
95	DONOR-C4	Z	8.398	0.83
96	DONOR-C4	Mx	0.004	0.83
97	DONOR-C4	X	0	2.83
98	DONOR-C4	Z	8.398	2.83
99	DONOR-C4	Mx	0.004	2.83
100	MP2A	X	0	6.5
101	MP2A	Z	8.419	6.5
102	MP2A	Mx	0	6.5
103	MP3C	X	0	6.5
104	MP3C	Z	4.195	6.5
105	MP3C	Mx	0.002	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-7.884	2.25
2	MP1A	Z	13.656	2.25
3	MP1A	Mx	0.004	2.25
4	MP1A	X	-7.884	3.25
5	MP1A	Z	13.656	3.25
6	MP1A	Mx	0.004	3.25
7	MP1B	X	-4.044	2.25
8	MP1B	Z	7.005	2.25
9	MP1B	Mx	-0.004	2.25
10	MP1B	X	-4.044	3.25
11	MP1B	Z	7.005	3.25
12	MP1B	Mx	-0.004	3.25
13	MP1C	X	-7.049	2.25
14	MP1C	Z	12.209	2.25
15	MP1C	Mx	0.005	2.25
16	MP1C	X	-7.049	3.25
17	MP1C	Z	12.209	3.25
18	MP1C	Mx	0.005	3.25
19	MP2A	X	-14.294	1
20	MP2A	Z	24.757	1
21	MP2A	Mx	0.02	1
22	MP2A	X	-14.294	5
23	MP2A	Z	24.757	5
24	MP2A	Mx	0.02	5
25	MP2B	X	-10.831	1
26	MP2B	Z	18.759	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
27	MP2B	Mx	-0.011	1
28	MP2B	X	-10.831	5
29	MP2B	Z	18.759	5
30	MP2B	Mx	-0.011	5
31	MP2A	X	-14.294	1
32	MP2A	Z	24.757	1
33	MP2A	Mx	-0.005	1
34	MP2A	X	-14.294	5
35	MP2A	Z	24.757	5
36	MP2A	Mx	-0.005	5
37	MP2B	X	-10.831	1
38	MP2B	Z	18.759	1
39	MP2B	Mx	-0.011	1
40	MP2B	X	-10.831	5
41	MP2B	Z	18.759	5
42	MP2B	Mx	-0.011	5
43	MP3C	X	-13.54	1
44	MP3C	Z	23.452	1
45	MP3C	Mx	-0.002	1
46	MP3C	X	-13.54	5
47	MP3C	Z	23.452	5
48	MP3C	Mx	-0.002	5
49	MP3C	X	-13.54	1
50	MP3C	Z	23.452	1
51	MP3C	Mx	0.019	1
52	MP3C	X	-13.54	5
53	MP3C	Z	23.452	5
54	MP3C	Mx	0.019	5
55	MP3A	X	-7.347	1.5
56	MP3A	Z	12.726	1.5
57	MP3A	Mx	0.003	1.5
58	MP3B	X	-5.606	1.5
59	MP3B	Z	9.709	1.5
60	MP3B	Mx	0.006	1.5
61	MP4C	X	-6.968	1.5
62	MP4C	Z	12.069	1.5
63	MP4C	Mx	-0.01	1.5
64	MP3A	X	-7.106	3.5
65	MP3A	Z	12.308	3.5
66	MP3A	Mx	-0.01	3.5
67	MP3B	X	-4.709	3.5
68	MP3B	Z	8.156	3.5
69	MP3B	Mx	0.005	3.5
70	MP4C	X	-6.584	3.5
71	MP4C	Z	11.404	3.5
72	MP4C	Mx	0.000811	3.5
73	M69	X	-0.947	1
74	M69	Z	1.641	1
75	M69	Mx	0.000484	1
76	DONOR-A1	X	-4.199	0.83
77	DONOR-A1	Z	7.273	0.83
78	DONOR-A1	Mx	0.004	0.83
79	DONOR-A1	X	-4.199	2.83
80	DONOR-A1	Z	7.273	2.83
81	DONOR-A1	Mx	0.004	2.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
82	DONOR-A4	X	-6.12	0.83
83	DONOR-A4	Z	10.6	0.83
84	DONOR-A4	Mx	-0.003	0.83
85	DONOR-A4	X	-6.12	2.83
86	DONOR-A4	Z	10.6	2.83
87	DONOR-A4	Mx	-0.003	2.83
88	DONOR-B4	X	-4.199	0.83
89	DONOR-B4	Z	7.273	0.83
90	DONOR-B4	Mx	-0.004	0.83
91	DONOR-B4	X	-4.199	2.83
92	DONOR-B4	Z	7.273	2.83
93	DONOR-B4	Mx	-0.004	2.83
94	DONOR-C4	X	-6.12	0.83
95	DONOR-C4	Z	10.6	0.83
96	DONOR-C4	Mx	0.003	0.83
97	DONOR-C4	X	-6.12	2.83
98	DONOR-C4	Z	10.6	2.83
99	DONOR-C4	Mx	0.003	2.83
100	MP2A	X	-3.611	6.5
101	MP2A	Z	6.255	6.5
102	MP2A	Mx	0.002	6.5
103	MP3C	X	-3.221	6.5
104	MP3C	Z	5.579	6.5
105	MP3C	Mx	0.002	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-9.222	2.25
2	MP1A	Z	5.324	2.25
3	MP1A	Mx	0.005	2.25
4	MP1A	X	-9.222	3.25
5	MP1A	Z	5.324	3.25
6	MP1A	Mx	0.005	3.25
7	MP1B	X	-9.222	2.25
8	MP1B	Z	5.324	2.25
9	MP1B	Mx	-0.005	2.25
10	MP1B	X	-9.222	3.25
11	MP1B	Z	5.324	3.25
12	MP1B	Mx	-0.005	3.25
13	MP1C	X	-15.606	2.25
14	MP1C	Z	9.01	2.25
15	MP1C	Mx	0.002	2.25
16	MP1C	X	-15.606	3.25
17	MP1C	Z	9.01	3.25
18	MP1C	Mx	0.002	3.25
19	MP2A	X	-20.759	1
20	MP2A	Z	11.985	1
21	MP2A	Mx	0.016	1
22	MP2A	X	-20.759	5
23	MP2A	Z	11.985	5
24	MP2A	Mx	0.016	5
25	MP2B	X	-20.759	1
26	MP2B	Z	11.985	1
27	MP2B	Mx	-0.004	1
28	MP2B	X	-20.759	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
29	MP2B	Z	11.985	5
30	MP2B	Mx	-0.004	5
31	MP2A	X	-20.759	1
32	MP2A	Z	11.985	1
33	MP2A	Mx	0.004	1
34	MP2A	X	-20.759	5
35	MP2A	Z	11.985	5
36	MP2A	Mx	0.004	5
37	MP2B	X	-20.759	1
38	MP2B	Z	11.985	1
39	MP2B	Mx	-0.016	1
40	MP2B	X	-20.759	5
41	MP2B	Z	11.985	5
42	MP2B	Mx	-0.016	5
43	MP3C	X	-26.515	1
44	MP3C	Z	15.309	1
45	MP3C	Mx	-0.012	1
46	MP3C	X	-26.515	5
47	MP3C	Z	15.309	5
48	MP3C	Mx	-0.012	5
49	MP3C	X	-26.515	1
50	MP3C	Z	15.309	1
51	MP3C	Mx	0.018	1
52	MP3C	X	-26.515	5
53	MP3C	Z	15.309	5
54	MP3C	Mx	0.018	5
55	MP3A	X	-10.715	1.5
56	MP3A	Z	6.186	1.5
57	MP3A	Mx	-0.002	1.5
58	MP3B	X	-10.715	1.5
59	MP3B	Z	6.186	1.5
60	MP3B	Mx	0.008	1.5
61	MP4C	X	-13.61	1.5
62	MP4C	Z	7.858	1.5
63	MP4C	Mx	-0.009	1.5
64	MP3A	X	-9.54	3.5
65	MP3A	Z	5.508	3.5
66	MP3A	Mx	-0.008	3.5
67	MP3B	X	-9.54	3.5
68	MP3B	Z	5.508	3.5
69	MP3B	Mx	0.002	3.5
70	MP4C	X	-13.524	3.5
71	MP4C	Z	7.808	3.5
72	MP4C	Mx	0.006	3.5
73	M69	X	-1.641	1
74	M69	Z	0.947	1
75	M69	Mx	0.000622	1
76	DONOR-A1	X	-5.61	0.83
77	DONOR-A1	Z	3.239	0.83
78	DONOR-A1	Mx	0.003	0.83
79	DONOR-A1	X	-5.61	2.83
80	DONOR-A1	Z	3.239	2.83
81	DONOR-A1	Mx	0.003	2.83
82	DONOR-A4	X	-12.264	0.83
83	DONOR-A4	Z	7.081	0.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
84	DONOR-A4	Mx	0	0.83
85	DONOR-A4	X	-12.264	2.83
86	DONOR-A4	Z	7.081	2.83
87	DONOR-A4	Mx	0	2.83
88	DONOR-B4	X	-5.61	0.83
89	DONOR-B4	Z	3.239	0.83
90	DONOR-B4	Mx	-0.003	0.83
91	DONOR-B4	X	-5.61	2.83
92	DONOR-B4	Z	3.239	2.83
93	DONOR-B4	Mx	-0.003	2.83
94	DONOR-C4	X	-12.264	0.83
95	DONOR-C4	Z	7.081	0.83
96	DONOR-C4	Mx	0	0.83
97	DONOR-C4	X	-12.264	2.83
98	DONOR-C4	Z	7.081	2.83
99	DONOR-C4	Mx	0	2.83
100	MP2A	X	-4.184	6.5
101	MP2A	Z	2.415	6.5
102	MP2A	Mx	0.002	6.5
103	MP3C	X	-7.166	6.5
104	MP3C	Z	4.137	6.5
105	MP3C	Mx	0.000718	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-8.088	2.25
2	MP1A	Z	0	2.25
3	MP1A	Mx	0.004	2.25
4	MP1A	X	-8.088	3.25
5	MP1A	Z	0	3.25
6	MP1A	Mx	0.004	3.25
7	MP1B	X	-15.769	2.25
8	MP1B	Z	0	2.25
9	MP1B	Mx	-0.004	2.25
10	MP1B	X	-15.769	3.25
11	MP1B	Z	0	3.25
12	MP1B	Mx	-0.004	3.25
13	MP1C	X	-17.131	2.25
14	MP1C	Z	0	2.25
15	MP1C	Mx	-0.003	2.25
16	MP1C	X	-17.131	3.25
17	MP1C	Z	0	3.25
18	MP1C	Mx	-0.003	3.25
19	MP2A	X	-21.662	1
20	MP2A	Z	0	1
21	MP2A	Mx	0.011	1
22	MP2A	X	-21.662	5
23	MP2A	Z	0	5
24	MP2A	Mx	0.011	5
25	MP2B	X	-28.587	1
26	MP2B	Z	0	1
27	MP2B	Mx	0.005	1
28	MP2B	X	-28.587	5
29	MP2B	Z	0	5
30	MP2B	Mx	0.005	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
31	MP2A	X	-21.662	1
32	MP2A	Z	0	1
33	MP2A	Mx	0.011	1
34	MP2A	X	-21.662	5
35	MP2A	Z	0	5
36	MP2A	Mx	0.011	5
37	MP2B	X	-28.587	1
38	MP2B	Z	0	1
39	MP2B	Mx	-0.02	1
40	MP2B	X	-28.587	5
41	MP2B	Z	0	5
42	MP2B	Mx	-0.02	5
43	MP3C	X	-29.816	1
44	MP3C	Z	0	1
45	MP3C	Mx	-0.019	1
46	MP3C	X	-29.816	5
47	MP3C	Z	0	5
48	MP3C	Mx	-0.019	5
49	MP3C	X	-29.816	1
50	MP3C	Z	0	1
51	MP3C	Mx	0.009	1
52	MP3C	X	-29.816	5
53	MP3C	Z	0	5
54	MP3C	Mx	0.009	5
55	MP3A	X	-11.211	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	-0.006	1.5
58	MP3B	X	-14.694	1.5
59	MP3B	Z	0	1.5
60	MP3B	Mx	0.01	1.5
61	MP4C	X	-15.312	1.5
62	MP4C	Z	0	1.5
63	MP4C	Mx	-0.005	1.5
64	MP3A	X	-9.418	3.5
65	MP3A	Z	0	3.5
66	MP3A	Mx	-0.005	3.5
67	MP3B	X	-14.212	3.5
68	MP3B	Z	0	3.5
69	MP3B	Mx	-0.003	3.5
70	MP4C	X	-15.062	3.5
71	MP4C	Z	0	3.5
72	MP4C	Mx	0.01	3.5
73	M69	X	-1.895	1
74	M69	Z	0	1
75	M69	Mx	0.000594	1
76	DONOR-A1	X	-8.398	0.83
77	DONOR-A1	Z	0	0.83
78	DONOR-A1	Mx	0.004	0.83
79	DONOR-A1	X	-8.398	2.83
80	DONOR-A1	Z	0	2.83
81	DONOR-A1	Mx	0.004	2.83
82	DONOR-A4	X	-12.24	0.83
83	DONOR-A4	Z	0	0.83
84	DONOR-A4	Mx	0.003	0.83
85	DONOR-A4	X	-12.24	2.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
86	DONOR-A4	Z	0	2.83
87	DONOR-A4	Mx	0.003	2.83
88	DONOR-B4	X	-8.398	0.83
89	DONOR-B4	Z	0	0.83
90	DONOR-B4	Mx	-0.004	0.83
91	DONOR-B4	X	-8.398	2.83
92	DONOR-B4	Z	0	2.83
93	DONOR-B4	Mx	-0.004	2.83
94	DONOR-C4	X	-12.24	0.83
95	DONOR-C4	Z	0	0.83
96	DONOR-C4	Mx	-0.003	0.83
97	DONOR-C4	X	-12.24	2.83
98	DONOR-C4	Z	0	2.83
99	DONOR-C4	Mx	-0.003	2.83
100	MP2A	X	-3.635	6.5
101	MP2A	Z	0	6.5
102	MP2A	Mx	0.002	6.5
103	MP3C	X	-7.859	6.5
104	MP3C	Z	0	6.5
105	MP3C	Mx	-0.001	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-9.222	2.25
2	MP1A	Z	-5.324	2.25
3	MP1A	Mx	0.005	2.25
4	MP1A	X	-9.222	3.25
5	MP1A	Z	-5.324	3.25
6	MP1A	Mx	0.005	3.25
7	MP1B	X	-15.873	2.25
8	MP1B	Z	-9.164	2.25
9	MP1B	Mx	0	2.25
10	MP1B	X	-15.873	3.25
11	MP1B	Z	-9.164	3.25
12	MP1B	Mx	0	3.25
13	MP1C	X	-10.669	2.25
14	MP1C	Z	-6.16	2.25
15	MP1C	Mx	-0.005	2.25
16	MP1C	X	-10.669	3.25
17	MP1C	Z	-6.16	3.25
18	MP1C	Mx	-0.005	3.25
19	MP2A	X	-20.759	1
20	MP2A	Z	-11.985	1
21	MP2A	Mx	0.004	1
22	MP2A	X	-20.759	5
23	MP2A	Z	-11.985	5
24	MP2A	Mx	0.004	5
25	MP2B	X	-26.756	1
26	MP2B	Z	-15.448	1
27	MP2B	Mx	0.015	1
28	MP2B	X	-26.756	5
29	MP2B	Z	-15.448	5
30	MP2B	Mx	0.015	5
31	MP2A	X	-20.759	1
32	MP2A	Z	-11.985	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
33	MP2A	Mx	0.016	1
34	MP2A	X	-20.759	5
35	MP2A	Z	-11.985	5
36	MP2A	Mx	0.016	5
37	MP2B	X	-26.756	1
38	MP2B	Z	-15.448	1
39	MP2B	Mx	-0.015	1
40	MP2B	X	-26.756	5
41	MP2B	Z	-15.448	5
42	MP2B	Mx	-0.015	5
43	MP3C	X	-22.064	1
44	MP3C	Z	-12.738	1
45	MP3C	Mx	-0.018	1
46	MP3C	X	-22.064	5
47	MP3C	Z	-12.738	5
48	MP3C	Mx	-0.018	5
49	MP3C	X	-22.064	1
50	MP3C	Z	-12.738	1
51	MP3C	Mx	-0.002	1
52	MP3C	X	-22.064	5
53	MP3C	Z	-12.738	5
54	MP3C	Mx	-0.002	5
55	MP3A	X	-10.715	1.5
56	MP3A	Z	-6.186	1.5
57	MP3A	Mx	-0.008	1.5
58	MP3B	X	-13.731	1.5
59	MP3B	Z	-7.928	1.5
60	MP3B	Mx	0.008	1.5
61	MP4C	X	-11.371	1.5
62	MP4C	Z	-6.565	1.5
63	MP4C	Mx	0.000809	1.5
64	MP3A	X	-9.54	3.5
65	MP3A	Z	-5.508	3.5
66	MP3A	Mx	-0.002	3.5
67	MP3B	X	-13.691	3.5
68	MP3B	Z	-7.905	3.5
69	MP3B	Mx	-0.008	3.5
70	MP4C	X	-10.443	3.5
71	MP4C	Z	-6.029	3.5
72	MP4C	Mx	0.008	3.5
73	M69	X	-1.641	1
74	M69	Z	-0.947	1
75	M69	Mx	0.000406	1
76	DONOR-A1	X	-10.6	0.83
77	DONOR-A1	Z	-6.12	0.83
78	DONOR-A1	Mx	0.003	0.83
79	DONOR-A1	X	-10.6	2.83
80	DONOR-A1	Z	-6.12	2.83
81	DONOR-A1	Mx	0.003	2.83
82	DONOR-A4	X	-7.273	0.83
83	DONOR-A4	Z	-4.199	0.83
84	DONOR-A4	Mx	0.004	0.83
85	DONOR-A4	X	-7.273	2.83
86	DONOR-A4	Z	-4.199	2.83
87	DONOR-A4	Mx	0.004	2.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
88	DONOR-B4	X	-10.6	0.83
89	DONOR-B4	Z	-6.12	0.83
90	DONOR-B4	Mx	-0.003	0.83
91	DONOR-B4	X	-10.6	2.83
92	DONOR-B4	Z	-6.12	2.83
93	DONOR-B4	Mx	-0.003	2.83
94	DONOR-C4	X	-7.273	0.83
95	DONOR-C4	Z	-4.199	0.83
96	DONOR-C4	Mx	-0.004	0.83
97	DONOR-C4	X	-7.273	2.83
98	DONOR-C4	Z	-4.199	2.83
99	DONOR-C4	Mx	-0.004	2.83
100	MP2A	X	-4.184	6.5
101	MP2A	Z	-2.415	6.5
102	MP2A	Mx	0.002	6.5
103	MP3C	X	-4.86	6.5
104	MP3C	Z	-2.806	6.5
105	MP3C	Mx	-0.002	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-7.884	2.25
2	MP1A	Z	-13.656	2.25
3	MP1A	Mx	0.004	2.25
4	MP1A	X	-7.884	3.25
5	MP1A	Z	-13.656	3.25
6	MP1A	Mx	0.004	3.25
7	MP1B	X	-7.884	2.25
8	MP1B	Z	-13.656	2.25
9	MP1B	Mx	0.004	2.25
10	MP1B	X	-7.884	3.25
11	MP1B	Z	-13.656	3.25
12	MP1B	Mx	0.004	3.25
13	MP1C	X	-4.198	2.25
14	MP1C	Z	-7.272	2.25
15	MP1C	Mx	-0.004	2.25
16	MP1C	X	-4.198	3.25
17	MP1C	Z	-7.272	3.25
18	MP1C	Mx	-0.004	3.25
19	MP2A	X	-14.294	1
20	MP2A	Z	-24.757	1
21	MP2A	Mx	-0.005	1
22	MP2A	X	-14.294	5
23	MP2A	Z	-24.757	5
24	MP2A	Mx	-0.005	5
25	MP2B	X	-14.294	1
26	MP2B	Z	-24.757	1
27	MP2B	Mx	0.02	1
28	MP2B	X	-14.294	5
29	MP2B	Z	-24.757	5
30	MP2B	Mx	0.02	5
31	MP2A	X	-14.294	1
32	MP2A	Z	-24.757	1
33	MP2A	Mx	0.02	1
34	MP2A	X	-14.294	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
35	MP2A	Z	-24.757	5
36	MP2A	Mx	0.02	5
37	MP2B	X	-14.294	1
38	MP2B	Z	-24.757	1
39	MP2B	Mx	-0.005	1
40	MP2B	X	-14.294	5
41	MP2B	Z	-24.757	5
42	MP2B	Mx	-0.005	5
43	MP3C	X	-10.97	1
44	MP3C	Z	-19.001	1
45	MP3C	Mx	-0.013	1
46	MP3C	X	-10.97	5
47	MP3C	Z	-19.001	5
48	MP3C	Mx	-0.013	5
49	MP3C	X	-10.97	1
50	MP3C	Z	-19.001	1
51	MP3C	Mx	-0.009	1
52	MP3C	X	-10.97	5
53	MP3C	Z	-19.001	5
54	MP3C	Mx	-0.009	5
55	MP3A	X	-7.347	1.5
56	MP3A	Z	-12.726	1.5
57	MP3A	Mx	-0.01	1.5
58	MP3B	X	-7.347	1.5
59	MP3B	Z	-12.726	1.5
60	MP3B	Mx	0.003	1.5
61	MP4C	X	-5.676	1.5
62	MP4C	Z	-9.831	1.5
63	MP4C	Mx	0.005	1.5
64	MP3A	X	-7.106	3.5
65	MP3A	Z	-12.308	3.5
66	MP3A	Mx	0.003	3.5
67	MP3B	X	-7.106	3.5
68	MP3B	Z	-12.308	3.5
69	MP3B	Mx	-0.01	3.5
70	MP4C	X	-4.805	3.5
71	MP4C	Z	-8.323	3.5
72	MP4C	Mx	0.006	3.5
73	M69	X	-0.947	1
74	M69	Z	-1.641	1
75	M69	Mx	0.00011	1
76	DONOR-A1	X	-7.081	0.83
77	DONOR-A1	Z	-12.264	0.83
78	DONOR-A1	Mx	0	0.83
79	DONOR-A1	X	-7.081	2.83
80	DONOR-A1	Z	-12.264	2.83
81	DONOR-A1	Mx	0	2.83
82	DONOR-A4	X	-3.239	0.83
83	DONOR-A4	Z	-5.61	0.83
84	DONOR-A4	Mx	0.003	0.83
85	DONOR-A4	X	-3.239	2.83
86	DONOR-A4	Z	-5.61	2.83
87	DONOR-A4	Mx	0.003	2.83
88	DONOR-B4	X	-7.081	0.83
89	DONOR-B4	Z	-12.264	0.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
90	DONOR-B4	Mx	0	0.83
91	DONOR-B4	X	-7.081	2.83
92	DONOR-B4	Z	-12.264	2.83
93	DONOR-B4	Mx	0	2.83
94	DONOR-C4	X	-3.239	0.83
95	DONOR-C4	Z	-5.61	0.83
96	DONOR-C4	Mx	-0.003	0.83
97	DONOR-C4	X	-3.239	2.83
98	DONOR-C4	Z	-5.61	2.83
99	DONOR-C4	Mx	-0.003	2.83
100	MP2A	X	-3.611	6.5
101	MP2A	Z	-6.255	6.5
102	MP2A	Mx	0.002	6.5
103	MP3C	X	-1.89	6.5
104	MP3C	Z	-3.273	6.5
105	MP3C	Mx	-0.002	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2.25
2	MP1A	Z	-4.637	2.25
3	MP1A	Mx	0	2.25
4	MP1A	X	0	3.25
5	MP1A	Z	-4.637	3.25
6	MP1A	Mx	0	3.25
7	MP1B	X	0	2.25
8	MP1B	Z	-2.357	2.25
9	MP1B	Mx	0.001	2.25
10	MP1B	X	0	3.25
11	MP1B	Z	-2.357	3.25
12	MP1B	Mx	0.001	3.25
13	MP1C	X	0	2.25
14	MP1C	Z	-1.953	2.25
15	MP1C	Mx	-0.000918	2.25
16	MP1C	X	0	3.25
17	MP1C	Z	-1.953	3.25
18	MP1C	Mx	-0.000918	3.25
19	MP2A	X	0	1
20	MP2A	Z	-6.535	1
21	MP2A	Mx	-0.003	1
22	MP2A	X	0	5
23	MP2A	Z	-6.535	5
24	MP2A	Mx	-0.003	5
25	MP2B	X	0	1
26	MP2B	Z	-3.742	1
27	MP2B	Mx	0.003	1
28	MP2B	X	0	5
29	MP2B	Z	-3.742	5
30	MP2B	Mx	0.003	5
31	MP2A	X	0	1
32	MP2A	Z	-6.535	1
33	MP2A	Mx	0.003	1
34	MP2A	X	0	5
35	MP2A	Z	-6.535	5
36	MP2A	Mx	0.003	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
37	MP2B	X	0	1
38	MP2B	Z	-3.742	1
39	MP2B	Mx	0.000685	1
40	MP2B	X	0	5
41	MP2B	Z	-3.742	5
42	MP2B	Mx	0.000685	5
43	MP3C	X	0	1
44	MP3C	Z	-3.247	1
45	MP3C	Mx	-0.00097	1
46	MP3C	X	0	5
47	MP3C	Z	-3.247	5
48	MP3C	Mx	-0.00097	5
49	MP3C	X	0	1
50	MP3C	Z	-3.247	1
51	MP3C	Mx	-0.002	1
52	MP3C	X	0	5
53	MP3C	Z	-3.247	5
54	MP3C	Mx	-0.002	5
55	MP3A	X	0	1.5
56	MP3A	Z	-3.677	1.5
57	MP3A	Mx	-0.002	1.5
58	MP3B	X	0	1.5
59	MP3B	Z	-2.769	1.5
60	MP3B	Mx	-0.000507	1.5
61	MP4C	X	0	1.5
62	MP4C	Z	-2.608	1.5
63	MP4C	Mx	0.002	1.5
64	MP3A	X	0	3.5
65	MP3A	Z	-3.667	3.5
66	MP3A	Mx	0.002	3.5
67	MP3B	X	0	3.5
68	MP3B	Z	-2.425	3.5
69	MP3B	Mx	-0.002	3.5
70	MP4C	X	0	3.5
71	MP4C	Z	-2.205	3.5
72	MP4C	Mx	0.000659	3.5
73	M69	X	0	1
74	M69	Z	-0.257	1
75	M69	Mx	-2.9e-5	1
76	DONOR-A1	X	0	0.83
77	DONOR-A1	Z	-3.618	0.83
78	DONOR-A1	Mx	-0.000904	0.83
79	DONOR-A1	X	0	2.83
80	DONOR-A1	Z	-3.618	2.83
81	DONOR-A1	Mx	-0.000904	2.83
82	DONOR-A4	X	0	0.83
83	DONOR-A4	Z	-2.359	0.83
84	DONOR-A4	Mx	0.001	0.83
85	DONOR-A4	X	0	2.83
86	DONOR-A4	Z	-2.359	2.83
87	DONOR-A4	Mx	0.001	2.83
88	DONOR-B4	X	0	0.83
89	DONOR-B4	Z	-3.618	0.83
90	DONOR-B4	Mx	0.000904	0.83
91	DONOR-B4	X	0	2.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
92	DONOR-B4	Z	-3.618	2.83
93	DONOR-B4	Mx	0.000904	2.83
94	DONOR-C4	X	0	0.83
95	DONOR-C4	Z	-2.359	0.83
96	DONOR-C4	Mx	-0.001	0.83
97	DONOR-C4	X	0	2.83
98	DONOR-C4	Z	-2.359	2.83
99	DONOR-C4	Mx	-0.001	2.83
100	MP2A	X	0	6.5
101	MP2A	Z	-2.265	6.5
102	MP2A	Mx	0	6.5
103	MP3C	X	0	6.5
104	MP3C	Z	-0.872	6.5
105	MP3C	Mx	-0.00041	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	1.939	2.25
2	MP1A	Z	-3.358	2.25
3	MP1A	Mx	-0.00097	2.25
4	MP1A	X	1.939	3.25
5	MP1A	Z	-3.358	3.25
6	MP1A	Mx	-0.00097	3.25
7	MP1B	X	0.798	2.25
8	MP1B	Z	-1.383	2.25
9	MP1B	Mx	0.000798	2.25
10	MP1B	X	0.798	3.25
11	MP1B	Z	-1.383	3.25
12	MP1B	Mx	0.000798	3.25
13	MP1C	X	1.691	2.25
14	MP1C	Z	-2.928	2.25
15	MP1C	Mx	-0.001	2.25
16	MP1C	X	1.691	3.25
17	MP1C	Z	-2.928	3.25
18	MP1C	Mx	-0.001	3.25
19	MP2A	X	2.802	1
20	MP2A	Z	-4.853	1
21	MP2A	Mx	-0.004	1
22	MP2A	X	2.802	5
23	MP2A	Z	-4.853	5
24	MP2A	Mx	-0.004	5
25	MP2B	X	1.405	1
26	MP2B	Z	-2.434	1
27	MP2B	Mx	0.001	1
28	MP2B	X	1.405	5
29	MP2B	Z	-2.434	5
30	MP2B	Mx	0.001	5
31	MP2A	X	2.802	1
32	MP2A	Z	-4.853	1
33	MP2A	Mx	0.001	1
34	MP2A	X	2.802	5
35	MP2A	Z	-4.853	5
36	MP2A	Mx	0.001	5
37	MP2B	X	1.405	1
38	MP2B	Z	-2.434	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
39	MP2B	Mx	0.001	1
40	MP2B	X	1.405	5
41	MP2B	Z	-2.434	5
42	MP2B	Mx	0.001	5
43	MP3C	X	2.498	1
44	MP3C	Z	-4.327	1
45	MP3C	Mx	0.000308	1
46	MP3C	X	2.498	5
47	MP3C	Z	-4.327	5
48	MP3C	Mx	0.000308	5
49	MP3C	X	2.498	1
50	MP3C	Z	-4.327	1
51	MP3C	Mx	-0.004	1
52	MP3C	X	2.498	5
53	MP3C	Z	-4.327	5
54	MP3C	Mx	-0.004	5
55	MP3A	X	1.687	1.5
56	MP3A	Z	-2.922	1.5
57	MP3A	Mx	-0.000618	1.5
58	MP3B	X	1.233	1.5
59	MP3B	Z	-2.136	1.5
60	MP3B	Mx	-0.001	1.5
61	MP4C	X	1.588	1.5
62	MP4C	Z	-2.751	1.5
63	MP4C	Mx	0.002	1.5
64	MP3A	X	1.627	3.5
65	MP3A	Z	-2.817	3.5
66	MP3A	Mx	0.002	3.5
67	MP3B	X	1.006	3.5
68	MP3B	Z	-1.742	3.5
69	MP3B	Mx	-0.001	3.5
70	MP4C	X	1.491	3.5
71	MP4C	Z	-2.583	3.5
72	MP4C	Mx	-0.000184	3.5
73	M69	X	0.11	1
74	M69	Z	-0.191	1
75	M69	Mx	-5.6e-5	1
76	DONOR-A1	X	1.18	0.83
77	DONOR-A1	Z	-2.043	0.83
78	DONOR-A1	Mx	-0.001	0.83
79	DONOR-A1	X	1.18	2.83
80	DONOR-A1	Z	-2.043	2.83
81	DONOR-A1	Mx	-0.001	2.83
82	DONOR-A4	X	1.809	0.83
83	DONOR-A4	Z	-3.133	0.83
84	DONOR-A4	Mx	0.000904	0.83
85	DONOR-A4	X	1.809	2.83
86	DONOR-A4	Z	-3.133	2.83
87	DONOR-A4	Mx	0.000904	2.83
88	DONOR-B4	X	1.18	0.83
89	DONOR-B4	Z	-2.043	0.83
90	DONOR-B4	Mx	0.001	0.83
91	DONOR-B4	X	1.18	2.83
92	DONOR-B4	Z	-2.043	2.83
93	DONOR-B4	Mx	0.001	2.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
94	DONOR-C4	X	1.809	0.83
95	DONOR-C4	Z	-3.133	0.83
96	DONOR-C4	Mx	-0.000904	0.83
97	DONOR-C4	X	1.809	2.83
98	DONOR-C4	Z	-3.133	2.83
99	DONOR-C4	Mx	-0.000904	2.83
100	MP2A	X	0.935	6.5
101	MP2A	Z	-1.62	6.5
102	MP2A	Mx	-0.000468	6.5
103	MP3C	X	0.807	6.5
104	MP3C	Z	-1.397	6.5
105	MP3C	Mx	-0.000518	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	2.041	2.25
2	MP1A	Z	-1.179	2.25
3	MP1A	Mx	-0.001	2.25
4	MP1A	X	2.041	3.25
5	MP1A	Z	-1.179	3.25
6	MP1A	Mx	-0.001	3.25
7	MP1B	X	2.041	2.25
8	MP1B	Z	-1.179	2.25
9	MP1B	Mx	0.001	2.25
10	MP1B	X	2.041	3.25
11	MP1B	Z	-1.179	3.25
12	MP1B	Mx	0.001	3.25
13	MP1C	X	3.937	2.25
14	MP1C	Z	-2.273	2.25
15	MP1C	Mx	-0.000395	2.25
16	MP1C	X	3.937	3.25
17	MP1C	Z	-2.273	3.25
18	MP1C	Mx	-0.000395	3.25
19	MP2A	X	3.241	1
20	MP2A	Z	-1.871	1
21	MP2A	Mx	-0.003	1
22	MP2A	X	3.241	5
23	MP2A	Z	-1.871	5
24	MP2A	Mx	-0.003	5
25	MP2B	X	3.241	1
26	MP2B	Z	-1.871	1
27	MP2B	Mx	0.000685	1
28	MP2B	X	3.241	5
29	MP2B	Z	-1.871	5
30	MP2B	Mx	0.000685	5
31	MP2A	X	3.241	1
32	MP2A	Z	-1.871	1
33	MP2A	Mx	-0.000685	1
34	MP2A	X	3.241	5
35	MP2A	Z	-1.871	5
36	MP2A	Mx	-0.000685	5
37	MP2B	X	3.241	1
38	MP2B	Z	-1.871	1
39	MP2B	Mx	0.003	1
40	MP2B	X	3.241	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
41	MP2B	Z	-1.871	5
42	MP2B	Mx	0.003	5
43	MP3C	X	5.562	1
44	MP3C	Z	-3.211	1
45	MP3C	Mx	0.003	1
46	MP3C	X	5.562	5
47	MP3C	Z	-3.211	5
48	MP3C	Mx	0.003	5
49	MP3C	X	5.562	1
50	MP3C	Z	-3.211	1
51	MP3C	Mx	-0.004	1
52	MP3C	X	5.562	5
53	MP3C	Z	-3.211	5
54	MP3C	Mx	-0.004	5
55	MP3A	X	2.398	1.5
56	MP3A	Z	-1.385	1.5
57	MP3A	Mx	0.000507	1.5
58	MP3B	X	2.398	1.5
59	MP3B	Z	-1.385	1.5
60	MP3B	Mx	-0.002	1.5
61	MP4C	X	3.153	1.5
62	MP4C	Z	-1.82	1.5
63	MP4C	Mx	0.002	1.5
64	MP3A	X	2.1	3.5
65	MP3A	Z	-1.213	3.5
66	MP3A	Mx	0.002	3.5
67	MP3B	X	2.1	3.5
68	MP3B	Z	-1.213	3.5
69	MP3B	Mx	-0.000444	3.5
70	MP4C	X	3.133	3.5
71	MP4C	Z	-1.809	3.5
72	MP4C	Mx	-0.001	3.5
73	M69	X	0.165	1
74	M69	Z	-0.096	1
75	M69	Mx	-6.3e-5	1
76	DONOR-A1	X	1.498	0.83
77	DONOR-A1	Z	-0.865	0.83
78	DONOR-A1	Mx	-0.000865	0.83
79	DONOR-A1	X	1.498	2.83
80	DONOR-A1	Z	-0.865	2.83
81	DONOR-A1	Mx	-0.000865	2.83
82	DONOR-A4	X	3.678	0.83
83	DONOR-A4	Z	-2.124	0.83
84	DONOR-A4	Mx	0	0.83
85	DONOR-A4	X	3.678	2.83
86	DONOR-A4	Z	-2.124	2.83
87	DONOR-A4	Mx	0	2.83
88	DONOR-B4	X	1.498	0.83
89	DONOR-B4	Z	-0.865	0.83
90	DONOR-B4	Mx	0.000865	0.83
91	DONOR-B4	X	1.498	2.83
92	DONOR-B4	Z	-0.865	2.83
93	DONOR-B4	Mx	0.000865	2.83
94	DONOR-C4	X	3.678	0.83
95	DONOR-C4	Z	-2.124	0.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
96	DONOR-C4	Mx	0	0.83
97	DONOR-C4	X	3.678	2.83
98	DONOR-C4	Z	-2.124	2.83
99	DONOR-C4	Mx	0	2.83
100	MP2A	X	0.937	6.5
101	MP2A	Z	-0.541	6.5
102	MP2A	Mx	-0.000468	6.5
103	MP3C	X	1.921	6.5
104	MP3C	Z	-1.109	6.5
105	MP3C	Mx	-0.000193	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	1.597	2.25
2	MP1A	Z	0	2.25
3	MP1A	Mx	-0.000798	2.25
4	MP1A	X	1.597	3.25
5	MP1A	Z	0	3.25
6	MP1A	Mx	-0.000798	3.25
7	MP1B	X	3.877	2.25
8	MP1B	Z	0	2.25
9	MP1B	Mx	0.000969	2.25
10	MP1B	X	3.877	3.25
11	MP1B	Z	0	3.25
12	MP1B	Mx	0.000969	3.25
13	MP1C	X	4.282	2.25
14	MP1C	Z	0	2.25
15	MP1C	Mx	0.000732	2.25
16	MP1C	X	4.282	3.25
17	MP1C	Z	0	3.25
18	MP1C	Mx	0.000732	3.25
19	MP2A	X	2.811	1
20	MP2A	Z	0	1
21	MP2A	Mx	-0.001	1
22	MP2A	X	2.811	5
23	MP2A	Z	0	5
24	MP2A	Mx	-0.001	5
25	MP2B	X	5.604	1
26	MP2B	Z	0	1
27	MP2B	Mx	-0.001	1
28	MP2B	X	5.604	5
29	MP2B	Z	0	5
30	MP2B	Mx	-0.001	5
31	MP2A	X	2.811	1
32	MP2A	Z	0	1
33	MP2A	Mx	-0.001	1
34	MP2A	X	2.811	5
35	MP2A	Z	0	5
36	MP2A	Mx	-0.001	5
37	MP2B	X	5.604	1
38	MP2B	Z	0	1
39	MP2B	Mx	0.004	1
40	MP2B	X	5.604	5
41	MP2B	Z	0	5
42	MP2B	Mx	0.004	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
43	MP3C	X	6.099	1
44	MP3C	Z	0	1
45	MP3C	Mx	0.004	1
46	MP3C	X	6.099	5
47	MP3C	Z	0	5
48	MP3C	Mx	0.004	5
49	MP3C	X	6.099	1
50	MP3C	Z	0	1
51	MP3C	Mx	-0.002	1
52	MP3C	X	6.099	5
53	MP3C	Z	0	5
54	MP3C	Mx	-0.002	5
55	MP3A	X	2.467	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	0.001	1.5
58	MP3B	X	3.374	1.5
59	MP3B	Z	0	1.5
60	MP3B	Mx	-0.002	1.5
61	MP4C	X	3.535	1.5
62	MP4C	Z	0	1.5
63	MP4C	Mx	0.001	1.5
64	MP3A	X	2.011	3.5
65	MP3A	Z	0	3.5
66	MP3A	Mx	0.001	3.5
67	MP3B	X	3.253	3.5
68	MP3B	Z	0	3.5
69	MP3B	Mx	0.000595	3.5
70	MP4C	X	3.473	3.5
71	MP4C	Z	0	3.5
72	MP4C	Mx	-0.002	3.5
73	M69	X	0.198	1
74	M69	Z	0	1
75	M69	Mx	-6.2e-5	1
76	DONOR-A1	X	2.359	0.83
77	DONOR-A1	Z	0	0.83
78	DONOR-A1	Mx	-0.001	0.83
79	DONOR-A1	X	2.359	2.83
80	DONOR-A1	Z	0	2.83
81	DONOR-A1	Mx	-0.001	2.83
82	DONOR-A4	X	3.618	0.83
83	DONOR-A4	Z	0	0.83
84	DONOR-A4	Mx	-0.000904	0.83
85	DONOR-A4	X	3.618	2.83
86	DONOR-A4	Z	0	2.83
87	DONOR-A4	Mx	-0.000904	2.83
88	DONOR-B4	X	2.359	0.83
89	DONOR-B4	Z	0	0.83
90	DONOR-B4	Mx	0.001	0.83
91	DONOR-B4	X	2.359	2.83
92	DONOR-B4	Z	0	2.83
93	DONOR-B4	Mx	0.001	2.83
94	DONOR-C4	X	3.618	0.83
95	DONOR-C4	Z	0	0.83
96	DONOR-C4	Mx	0.000904	0.83
97	DONOR-C4	X	3.618	2.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
98	DONOR-C4	Z	0	2.83
99	DONOR-C4	Mx	0.000904	2.83
100	MP2A	X	0.687	6.5
101	MP2A	Z	0	6.5
102	MP2A	Mx	-0.000344	6.5
103	MP3C	X	2.081	6.5
104	MP3C	Z	0	6.5
105	MP3C	Mx	0.000356	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	2.041	2.25
2	MP1A	Z	1.179	2.25
3	MP1A	Mx	-0.001	2.25
4	MP1A	X	2.041	3.25
5	MP1A	Z	1.179	3.25
6	MP1A	Mx	-0.001	3.25
7	MP1B	X	4.016	2.25
8	MP1B	Z	2.319	2.25
9	MP1B	Mx	0	2.25
10	MP1B	X	4.016	3.25
11	MP1B	Z	2.319	3.25
12	MP1B	Mx	0	3.25
13	MP1C	X	2.471	2.25
14	MP1C	Z	1.427	2.25
15	MP1C	Mx	0.001	2.25
16	MP1C	X	2.471	3.25
17	MP1C	Z	1.427	3.25
18	MP1C	Mx	0.001	3.25
19	MP2A	X	3.241	1
20	MP2A	Z	1.871	1
21	MP2A	Mx	-0.000685	1
22	MP2A	X	3.241	5
23	MP2A	Z	1.871	5
24	MP2A	Mx	-0.000685	5
25	MP2B	X	5.659	1
26	MP2B	Z	3.268	1
27	MP2B	Mx	-0.003	1
28	MP2B	X	5.659	5
29	MP2B	Z	3.268	5
30	MP2B	Mx	-0.003	5
31	MP2A	X	3.241	1
32	MP2A	Z	1.871	1
33	MP2A	Mx	-0.003	1
34	MP2A	X	3.241	5
35	MP2A	Z	1.871	5
36	MP2A	Mx	-0.003	5
37	MP2B	X	5.659	1
38	MP2B	Z	3.268	1
39	MP2B	Mx	0.003	1
40	MP2B	X	5.659	5
41	MP2B	Z	3.268	5
42	MP2B	Mx	0.003	5
43	MP3C	X	3.767	1
44	MP3C	Z	2.175	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
45	MP3C	Mx	0.003	1
46	MP3C	X	3.767	5
47	MP3C	Z	2.175	5
48	MP3C	Mx	0.003	5
49	MP3C	X	3.767	1
50	MP3C	Z	2.175	1
51	MP3C	Mx	0.000268	1
52	MP3C	X	3.767	5
53	MP3C	Z	2.175	5
54	MP3C	Mx	0.000268	5
55	MP3A	X	2.398	1.5
56	MP3A	Z	1.385	1.5
57	MP3A	Mx	0.002	1.5
58	MP3B	X	3.184	1.5
59	MP3B	Z	1.838	1.5
60	MP3B	Mx	-0.002	1.5
61	MP4C	X	2.569	1.5
62	MP4C	Z	1.483	1.5
63	MP4C	Mx	-0.000183	1.5
64	MP3A	X	2.1	3.5
65	MP3A	Z	1.213	3.5
66	MP3A	Mx	0.000444	3.5
67	MP3B	X	3.176	3.5
68	MP3B	Z	1.834	3.5
69	MP3B	Mx	0.002	3.5
70	MP4C	X	2.334	3.5
71	MP4C	Z	1.348	3.5
72	MP4C	Mx	-0.002	3.5
73	M69	X	0.203	1
74	M69	Z	0.117	1
75	M69	Mx	-5e-5	1
76	DONOR-A1	X	3.133	0.83
77	DONOR-A1	Z	1.809	0.83
78	DONOR-A1	Mx	-0.000904	0.83
79	DONOR-A1	X	3.133	2.83
80	DONOR-A1	Z	1.809	2.83
81	DONOR-A1	Mx	-0.000904	2.83
82	DONOR-A4	X	2.043	0.83
83	DONOR-A4	Z	1.18	0.83
84	DONOR-A4	Mx	-0.001	0.83
85	DONOR-A4	X	2.043	2.83
86	DONOR-A4	Z	1.18	2.83
87	DONOR-A4	Mx	-0.001	2.83
88	DONOR-B4	X	3.133	0.83
89	DONOR-B4	Z	1.809	0.83
90	DONOR-B4	Mx	0.000904	0.83
91	DONOR-B4	X	3.133	2.83
92	DONOR-B4	Z	1.809	2.83
93	DONOR-B4	Mx	0.000904	2.83
94	DONOR-C4	X	2.043	0.83
95	DONOR-C4	Z	1.18	0.83
96	DONOR-C4	Mx	0.001	0.83
97	DONOR-C4	X	2.043	2.83
98	DONOR-C4	Z	1.18	2.83
99	DONOR-C4	Mx	0.001	2.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
100	MP2A	X	0.937	6.5
101	MP2A	Z	0.541	6.5
102	MP2A	Mx	-0.000468	6.5
103	MP3C	X	1.16	6.5
104	MP3C	Z	0.67	6.5
105	MP3C	Mx	0.000513	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	1.939	2.25
2	MP1A	Z	3.358	2.25
3	MP1A	Mx	-0.00097	2.25
4	MP1A	X	1.939	3.25
5	MP1A	Z	3.358	3.25
6	MP1A	Mx	-0.00097	3.25
7	MP1B	X	1.939	2.25
8	MP1B	Z	3.358	2.25
9	MP1B	Mx	-0.000969	2.25
10	MP1B	X	1.939	3.25
11	MP1B	Z	3.358	3.25
12	MP1B	Mx	-0.000969	3.25
13	MP1C	X	0.844	2.25
14	MP1C	Z	1.462	2.25
15	MP1C	Mx	0.000831	2.25
16	MP1C	X	0.844	3.25
17	MP1C	Z	1.462	3.25
18	MP1C	Mx	0.000831	3.25
19	MP2A	X	2.802	1
20	MP2A	Z	4.853	1
21	MP2A	Mx	0.001	1
22	MP2A	X	2.802	5
23	MP2A	Z	4.853	5
24	MP2A	Mx	0.001	5
25	MP2B	X	2.802	1
26	MP2B	Z	4.853	1
27	MP2B	Mx	-0.004	1
28	MP2B	X	2.802	5
29	MP2B	Z	4.853	5
30	MP2B	Mx	-0.004	5
31	MP2A	X	2.802	1
32	MP2A	Z	4.853	1
33	MP2A	Mx	-0.004	1
34	MP2A	X	2.802	5
35	MP2A	Z	4.853	5
36	MP2A	Mx	-0.004	5
37	MP2B	X	2.802	1
38	MP2B	Z	4.853	1
39	MP2B	Mx	0.001	1
40	MP2B	X	2.802	5
41	MP2B	Z	4.853	5
42	MP2B	Mx	0.001	5
43	MP3C	X	1.462	1
44	MP3C	Z	2.532	1
45	MP3C	Mx	0.002	1
46	MP3C	X	1.462	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
47	MP3C	Z	2.532	5
48	MP3C	Mx	0.002	5
49	MP3C	X	1.462	1
50	MP3C	Z	2.532	1
51	MP3C	Mx	0.001	1
52	MP3C	X	1.462	5
53	MP3C	Z	2.532	5
54	MP3C	Mx	0.001	5
55	MP3A	X	1.687	1.5
56	MP3A	Z	2.922	1.5
57	MP3A	Mx	0.002	1.5
58	MP3B	X	1.687	1.5
59	MP3B	Z	2.922	1.5
60	MP3B	Mx	-0.000617	1.5
61	MP4C	X	1.252	1.5
62	MP4C	Z	2.168	1.5
63	MP4C	Mx	-0.001	1.5
64	MP3A	X	1.627	3.5
65	MP3A	Z	2.817	3.5
66	MP3A	Mx	-0.000595	3.5
67	MP3B	X	1.627	3.5
68	MP3B	Z	2.817	3.5
69	MP3B	Mx	0.002	3.5
70	MP4C	X	1.03	3.5
71	MP4C	Z	1.785	3.5
72	MP4C	Mx	-0.001	3.5
73	M69	X	0.132	1
74	M69	Z	0.228	1
75	M69	Mx	-1.5e-5	1
76	DONOR-A1	X	2.124	0.83
77	DONOR-A1	Z	3.678	0.83
78	DONOR-A1	Mx	0	0.83
79	DONOR-A1	X	2.124	2.83
80	DONOR-A1	Z	3.678	2.83
81	DONOR-A1	Mx	0	2.83
82	DONOR-A4	X	0.865	0.83
83	DONOR-A4	Z	1.498	0.83
84	DONOR-A4	Mx	-0.000865	0.83
85	DONOR-A4	X	0.865	2.83
86	DONOR-A4	Z	1.498	2.83
87	DONOR-A4	Mx	-0.000865	2.83
88	DONOR-B4	X	2.124	0.83
89	DONOR-B4	Z	3.678	0.83
90	DONOR-B4	Mx	0	0.83
91	DONOR-B4	X	2.124	2.83
92	DONOR-B4	Z	3.678	2.83
93	DONOR-B4	Mx	0	2.83
94	DONOR-C4	X	0.865	0.83
95	DONOR-C4	Z	1.498	0.83
96	DONOR-C4	Mx	0.000865	0.83
97	DONOR-C4	X	0.865	2.83
98	DONOR-C4	Z	1.498	2.83
99	DONOR-C4	Mx	0.000865	2.83
100	MP2A	X	0.935	6.5
101	MP2A	Z	1.62	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
102	MP2A	Mx	-0.000468	6.5
103	MP3C	X	0.367	6.5
104	MP3C	Z	0.636	6.5
105	MP3C	Mx	0.000362	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	2.25
2	MP1A	Z	4.637	2.25
3	MP1A	Mx	0	2.25
4	MP1A	X	0	3.25
5	MP1A	Z	4.637	3.25
6	MP1A	Mx	0	3.25
7	MP1B	X	0	2.25
8	MP1B	Z	2.357	2.25
9	MP1B	Mx	-0.001	2.25
10	MP1B	X	0	3.25
11	MP1B	Z	2.357	3.25
12	MP1B	Mx	-0.001	3.25
13	MP1C	X	0	2.25
14	MP1C	Z	1.953	2.25
15	MP1C	Mx	0.000918	2.25
16	MP1C	X	0	3.25
17	MP1C	Z	1.953	3.25
18	MP1C	Mx	0.000918	3.25
19	MP2A	X	0	1
20	MP2A	Z	6.535	1
21	MP2A	Mx	0.003	1
22	MP2A	X	0	5
23	MP2A	Z	6.535	5
24	MP2A	Mx	0.003	5
25	MP2B	X	0	1
26	MP2B	Z	3.742	1
27	MP2B	Mx	-0.003	1
28	MP2B	X	0	5
29	MP2B	Z	3.742	5
30	MP2B	Mx	-0.003	5
31	MP2A	X	0	1
32	MP2A	Z	6.535	1
33	MP2A	Mx	-0.003	1
34	MP2A	X	0	5
35	MP2A	Z	6.535	5
36	MP2A	Mx	-0.003	5
37	MP2B	X	0	1
38	MP2B	Z	3.742	1
39	MP2B	Mx	-0.000685	1
40	MP2B	X	0	5
41	MP2B	Z	3.742	5
42	MP2B	Mx	-0.000685	5
43	MP3C	X	0	1
44	MP3C	Z	3.247	1
45	MP3C	Mx	0.00097	1
46	MP3C	X	0	5
47	MP3C	Z	3.247	5
48	MP3C	Mx	0.00097	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
49	MP3C	X	0	1
50	MP3C	Z	3.247	1
51	MP3C	Mx	0.002	1
52	MP3C	X	0	5
53	MP3C	Z	3.247	5
54	MP3C	Mx	0.002	5
55	MP3A	X	0	1.5
56	MP3A	Z	3.677	1.5
57	MP3A	Mx	0.002	1.5
58	MP3B	X	0	1.5
59	MP3B	Z	2.769	1.5
60	MP3B	Mx	0.000507	1.5
61	MP4C	X	0	1.5
62	MP4C	Z	2.608	1.5
63	MP4C	Mx	-0.002	1.5
64	MP3A	X	0	3.5
65	MP3A	Z	3.667	3.5
66	MP3A	Mx	-0.002	3.5
67	MP3B	X	0	3.5
68	MP3B	Z	2.425	3.5
69	MP3B	Mx	0.002	3.5
70	MP4C	X	0	3.5
71	MP4C	Z	2.205	3.5
72	MP4C	Mx	-0.000659	3.5
73	M69	X	0	1
74	M69	Z	0.257	1
75	M69	Mx	2.9e-5	1
76	DONOR-A1	X	0	0.83
77	DONOR-A1	Z	3.618	0.83
78	DONOR-A1	Mx	0.000904	0.83
79	DONOR-A1	X	0	2.83
80	DONOR-A1	Z	3.618	2.83
81	DONOR-A1	Mx	0.000904	2.83
82	DONOR-A4	X	0	0.83
83	DONOR-A4	Z	2.359	0.83
84	DONOR-A4	Mx	-0.001	0.83
85	DONOR-A4	X	0	2.83
86	DONOR-A4	Z	2.359	2.83
87	DONOR-A4	Mx	-0.001	2.83
88	DONOR-B4	X	0	0.83
89	DONOR-B4	Z	3.618	0.83
90	DONOR-B4	Mx	-0.000904	0.83
91	DONOR-B4	X	0	2.83
92	DONOR-B4	Z	3.618	2.83
93	DONOR-B4	Mx	-0.000904	2.83
94	DONOR-C4	X	0	0.83
95	DONOR-C4	Z	2.359	0.83
96	DONOR-C4	Mx	0.001	0.83
97	DONOR-C4	X	0	2.83
98	DONOR-C4	Z	2.359	2.83
99	DONOR-C4	Mx	0.001	2.83
100	MP2A	X	0	6.5
101	MP2A	Z	2.265	6.5
102	MP2A	Mx	0	6.5
103	MP3C	X	0	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
104	MP3C	Z	0.872	6.5
105	MP3C	Mx	0.00041	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-1.939	2.25
2	MP1A	Z	3.358	2.25
3	MP1A	Mx	0.00097	2.25
4	MP1A	X	-1.939	3.25
5	MP1A	Z	3.358	3.25
6	MP1A	Mx	0.00097	3.25
7	MP1B	X	-0.798	2.25
8	MP1B	Z	1.383	2.25
9	MP1B	Mx	-0.000798	2.25
10	MP1B	X	-0.798	3.25
11	MP1B	Z	1.383	3.25
12	MP1B	Mx	-0.000798	3.25
13	MP1C	X	-1.691	2.25
14	MP1C	Z	2.928	2.25
15	MP1C	Mx	0.001	2.25
16	MP1C	X	-1.691	3.25
17	MP1C	Z	2.928	3.25
18	MP1C	Mx	0.001	3.25
19	MP2A	X	-2.802	1
20	MP2A	Z	4.853	1
21	MP2A	Mx	0.004	1
22	MP2A	X	-2.802	5
23	MP2A	Z	4.853	5
24	MP2A	Mx	0.004	5
25	MP2B	X	-1.405	1
26	MP2B	Z	2.434	1
27	MP2B	Mx	-0.001	1
28	MP2B	X	-1.405	5
29	MP2B	Z	2.434	5
30	MP2B	Mx	-0.001	5
31	MP2A	X	-2.802	1
32	MP2A	Z	4.853	1
33	MP2A	Mx	-0.001	1
34	MP2A	X	-2.802	5
35	MP2A	Z	4.853	5
36	MP2A	Mx	-0.001	5
37	MP2B	X	-1.405	1
38	MP2B	Z	2.434	1
39	MP2B	Mx	-0.001	1
40	MP2B	X	-1.405	5
41	MP2B	Z	2.434	5
42	MP2B	Mx	-0.001	5
43	MP3C	X	-2.498	1
44	MP3C	Z	4.327	1
45	MP3C	Mx	-0.000308	1
46	MP3C	X	-2.498	5
47	MP3C	Z	4.327	5
48	MP3C	Mx	-0.000308	5
49	MP3C	X	-2.498	1
50	MP3C	Z	4.327	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
51	MP3C	Mx	0.004	1
52	MP3C	X	-2.498	5
53	MP3C	Z	4.327	5
54	MP3C	Mx	0.004	5
55	MP3A	X	-1.687	1.5
56	MP3A	Z	2.922	1.5
57	MP3A	Mx	0.000618	1.5
58	MP3B	X	-1.233	1.5
59	MP3B	Z	2.136	1.5
60	MP3B	Mx	0.001	1.5
61	MP4C	X	-1.588	1.5
62	MP4C	Z	2.751	1.5
63	MP4C	Mx	-0.002	1.5
64	MP3A	X	-1.627	3.5
65	MP3A	Z	2.817	3.5
66	MP3A	Mx	-0.002	3.5
67	MP3B	X	-1.006	3.5
68	MP3B	Z	1.742	3.5
69	MP3B	Mx	0.001	3.5
70	MP4C	X	-1.491	3.5
71	MP4C	Z	2.583	3.5
72	MP4C	Mx	0.000184	3.5
73	M69	X	-0.11	1
74	M69	Z	0.191	1
75	M69	Mx	5.6e-5	1
76	DONOR-A1	X	-1.18	0.83
77	DONOR-A1	Z	2.043	0.83
78	DONOR-A1	Mx	0.001	0.83
79	DONOR-A1	X	-1.18	2.83
80	DONOR-A1	Z	2.043	2.83
81	DONOR-A1	Mx	0.001	2.83
82	DONOR-A4	X	-1.809	0.83
83	DONOR-A4	Z	3.133	0.83
84	DONOR-A4	Mx	-0.000904	0.83
85	DONOR-A4	X	-1.809	2.83
86	DONOR-A4	Z	3.133	2.83
87	DONOR-A4	Mx	-0.000904	2.83
88	DONOR-B4	X	-1.18	0.83
89	DONOR-B4	Z	2.043	0.83
90	DONOR-B4	Mx	-0.001	0.83
91	DONOR-B4	X	-1.18	2.83
92	DONOR-B4	Z	2.043	2.83
93	DONOR-B4	Mx	-0.001	2.83
94	DONOR-C4	X	-1.809	0.83
95	DONOR-C4	Z	3.133	0.83
96	DONOR-C4	Mx	0.000904	0.83
97	DONOR-C4	X	-1.809	2.83
98	DONOR-C4	Z	3.133	2.83
99	DONOR-C4	Mx	0.000904	2.83
100	MP2A	X	-0.935	6.5
101	MP2A	Z	1.62	6.5
102	MP2A	Mx	0.000468	6.5
103	MP3C	X	-0.807	6.5
104	MP3C	Z	1.397	6.5
105	MP3C	Mx	0.000518	6.5



Company : Colliers Engineering & Design
Designer : NL
Job Number : 24777037 (Rev. 3)
Model Name : Mount ReAnalysis-VZW

7/23/2024
10:25:34 AM
Checked By : DX

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

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
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Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-2.041	2.25
2	MP1A	Z	1.179	2.25
3	MP1A	Mx	0.001	2.25
4	MP1A	X	-2.041	3.25
5	MP1A	Z	1.179	3.25
6	MP1A	Mx	0.001	3.25
7	MP1B	X	-2.041	2.25
8	MP1B	Z	1.179	2.25
9	MP1B	Mx	-0.001	2.25
10	MP1B	X	-2.041	3.25
11	MP1B	Z	1.179	3.25
12	MP1B	Mx	-0.001	3.25
13	MP1C	X	-3.937	2.25
14	MP1C	Z	2.273	2.25
15	MP1C	Mx	0.000395	2.25
16	MP1C	X	-3.937	3.25
17	MP1C	Z	2.273	3.25
18	MP1C	Mx	0.000395	3.25
19	MP2A	X	-3.241	1
20	MP2A	Z	1.871	1
21	MP2A	Mx	0.003	1
22	MP2A	X	-3.241	5
23	MP2A	Z	1.871	5
24	MP2A	Mx	0.003	5
25	MP2B	X	-3.241	1
26	MP2B	Z	1.871	1
27	MP2B	Mx	-0.000685	1
28	MP2B	X	-3.241	5
29	MP2B	Z	1.871	5
30	MP2B	Mx	-0.000685	5
31	MP2A	X	-3.241	1
32	MP2A	Z	1.871	1
33	MP2A	Mx	0.000685	1
34	MP2A	X	-3.241	5
35	MP2A	Z	1.871	5
36	MP2A	Mx	0.000685	5
37	MP2B	X	-3.241	1
38	MP2B	Z	1.871	1
39	MP2B	Mx	-0.003	1
40	MP2B	X	-3.241	5
41	MP2B	Z	1.871	5
42	MP2B	Mx	-0.003	5
43	MP3C	X	-5.562	1
44	MP3C	Z	3.211	1
45	MP3C	Mx	-0.003	1
46	MP3C	X	-5.562	5
47	MP3C	Z	3.211	5
48	MP3C	Mx	-0.003	5
49	MP3C	X	-5.562	1
50	MP3C	Z	3.211	1
51	MP3C	Mx	0.004	1
52	MP3C	X	-5.562	5
53	MP3C	Z	3.211	5
54	MP3C	Mx	0.004	5
55	MP3A	X	-2.398	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	MP3A	Z	1.385	1.5
57	MP3A	Mx	-0.000507	1.5
58	MP3B	X	-2.398	1.5
59	MP3B	Z	1.385	1.5
60	MP3B	Mx	0.002	1.5
61	MP4C	X	-3.153	1.5
62	MP4C	Z	1.82	1.5
63	MP4C	Mx	-0.002	1.5
64	MP3A	X	-2.1	3.5
65	MP3A	Z	1.213	3.5
66	MP3A	Mx	-0.002	3.5
67	MP3B	X	-2.1	3.5
68	MP3B	Z	1.213	3.5
69	MP3B	Mx	0.000444	3.5
70	MP4C	X	-3.133	3.5
71	MP4C	Z	1.809	3.5
72	MP4C	Mx	0.001	3.5
73	M69	X	-0.165	1
74	M69	Z	0.096	1
75	M69	Mx	6.3e-5	1
76	DONOR-A1	X	-1.498	0.83
77	DONOR-A1	Z	0.865	0.83
78	DONOR-A1	Mx	0.000865	0.83
79	DONOR-A1	X	-1.498	2.83
80	DONOR-A1	Z	0.865	2.83
81	DONOR-A1	Mx	0.000865	2.83
82	DONOR-A4	X	-3.678	0.83
83	DONOR-A4	Z	2.124	0.83
84	DONOR-A4	Mx	0	0.83
85	DONOR-A4	X	-3.678	2.83
86	DONOR-A4	Z	2.124	2.83
87	DONOR-A4	Mx	0	2.83
88	DONOR-B4	X	-1.498	0.83
89	DONOR-B4	Z	0.865	0.83
90	DONOR-B4	Mx	-0.000865	0.83
91	DONOR-B4	X	-1.498	2.83
92	DONOR-B4	Z	0.865	2.83
93	DONOR-B4	Mx	-0.000865	2.83
94	DONOR-C4	X	-3.678	0.83
95	DONOR-C4	Z	2.124	0.83
96	DONOR-C4	Mx	0	0.83
97	DONOR-C4	X	-3.678	2.83
98	DONOR-C4	Z	2.124	2.83
99	DONOR-C4	Mx	0	2.83
100	MP2A	X	-0.937	6.5
101	MP2A	Z	0.541	6.5
102	MP2A	Mx	0.000468	6.5
103	MP3C	X	-1.921	6.5
104	MP3C	Z	1.109	6.5
105	MP3C	Mx	0.000193	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-1.597	2.25
2	MP1A	Z	0	2.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
3	MP1A	Mx	0.000798	2.25
4	MP1A	X	-1.597	3.25
5	MP1A	Z	0	3.25
6	MP1A	Mx	0.000798	3.25
7	MP1B	X	-3.877	2.25
8	MP1B	Z	0	2.25
9	MP1B	Mx	-0.000969	2.25
10	MP1B	X	-3.877	3.25
11	MP1B	Z	0	3.25
12	MP1B	Mx	-0.000969	3.25
13	MP1C	X	-4.282	2.25
14	MP1C	Z	0	2.25
15	MP1C	Mx	-0.000732	2.25
16	MP1C	X	-4.282	3.25
17	MP1C	Z	0	3.25
18	MP1C	Mx	-0.000732	3.25
19	MP2A	X	-2.811	1
20	MP2A	Z	0	1
21	MP2A	Mx	0.001	1
22	MP2A	X	-2.811	5
23	MP2A	Z	0	5
24	MP2A	Mx	0.001	5
25	MP2B	X	-5.604	1
26	MP2B	Z	0	1
27	MP2B	Mx	0.001	1
28	MP2B	X	-5.604	5
29	MP2B	Z	0	5
30	MP2B	Mx	0.001	5
31	MP2A	X	-2.811	1
32	MP2A	Z	0	1
33	MP2A	Mx	0.001	1
34	MP2A	X	-2.811	5
35	MP2A	Z	0	5
36	MP2A	Mx	0.001	5
37	MP2B	X	-5.604	1
38	MP2B	Z	0	1
39	MP2B	Mx	-0.004	1
40	MP2B	X	-5.604	5
41	MP2B	Z	0	5
42	MP2B	Mx	-0.004	5
43	MP3C	X	-6.099	1
44	MP3C	Z	0	1
45	MP3C	Mx	-0.004	1
46	MP3C	X	-6.099	5
47	MP3C	Z	0	5
48	MP3C	Mx	-0.004	5
49	MP3C	X	-6.099	1
50	MP3C	Z	0	1
51	MP3C	Mx	0.002	1
52	MP3C	X	-6.099	5
53	MP3C	Z	0	5
54	MP3C	Mx	0.002	5
55	MP3A	X	-2.467	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	-0.001	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
58	MP3B	X	-3.374	1.5
59	MP3B	Z	0	1.5
60	MP3B	Mx	0.002	1.5
61	MP4C	X	-3.535	1.5
62	MP4C	Z	0	1.5
63	MP4C	Mx	-0.001	1.5
64	MP3A	X	-2.011	3.5
65	MP3A	Z	0	3.5
66	MP3A	Mx	-0.001	3.5
67	MP3B	X	-3.253	3.5
68	MP3B	Z	0	3.5
69	MP3B	Mx	-0.000595	3.5
70	MP4C	X	-3.473	3.5
71	MP4C	Z	0	3.5
72	MP4C	Mx	0.002	3.5
73	M69	X	-0.198	1
74	M69	Z	0	1
75	M69	Mx	6.2e-5	1
76	DONOR-A1	X	-2.359	0.83
77	DONOR-A1	Z	0	0.83
78	DONOR-A1	Mx	0.001	0.83
79	DONOR-A1	X	-2.359	2.83
80	DONOR-A1	Z	0	2.83
81	DONOR-A1	Mx	0.001	2.83
82	DONOR-A4	X	-3.618	0.83
83	DONOR-A4	Z	0	0.83
84	DONOR-A4	Mx	0.000904	0.83
85	DONOR-A4	X	-3.618	2.83
86	DONOR-A4	Z	0	2.83
87	DONOR-A4	Mx	0.000904	2.83
88	DONOR-B4	X	-2.359	0.83
89	DONOR-B4	Z	0	0.83
90	DONOR-B4	Mx	-0.001	0.83
91	DONOR-B4	X	-2.359	2.83
92	DONOR-B4	Z	0	2.83
93	DONOR-B4	Mx	-0.001	2.83
94	DONOR-C4	X	-3.618	0.83
95	DONOR-C4	Z	0	0.83
96	DONOR-C4	Mx	-0.000904	0.83
97	DONOR-C4	X	-3.618	2.83
98	DONOR-C4	Z	0	2.83
99	DONOR-C4	Mx	-0.000904	2.83
100	MP2A	X	-0.687	6.5
101	MP2A	Z	0	6.5
102	MP2A	Mx	0.000344	6.5
103	MP3C	X	-2.081	6.5
104	MP3C	Z	0	6.5
105	MP3C	Mx	-0.000356	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-2.041	2.25
2	MP1A	Z	-1.179	2.25
3	MP1A	Mx	0.001	2.25
4	MP1A	X	-2.041	3.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
5	MP1A	Z	-1.179	3.25
6	MP1A	Mx	0.001	3.25
7	MP1B	X	-4.016	2.25
8	MP1B	Z	-2.319	2.25
9	MP1B	Mx	0	2.25
10	MP1B	X	-4.016	3.25
11	MP1B	Z	-2.319	3.25
12	MP1B	Mx	0	3.25
13	MP1C	X	-2.471	2.25
14	MP1C	Z	-1.427	2.25
15	MP1C	Mx	-0.001	2.25
16	MP1C	X	-2.471	3.25
17	MP1C	Z	-1.427	3.25
18	MP1C	Mx	-0.001	3.25
19	MP2A	X	-3.241	1
20	MP2A	Z	-1.871	1
21	MP2A	Mx	0.000685	1
22	MP2A	X	-3.241	5
23	MP2A	Z	-1.871	5
24	MP2A	Mx	0.000685	5
25	MP2B	X	-5.659	1
26	MP2B	Z	-3.268	1
27	MP2B	Mx	0.003	1
28	MP2B	X	-5.659	5
29	MP2B	Z	-3.268	5
30	MP2B	Mx	0.003	5
31	MP2A	X	-3.241	1
32	MP2A	Z	-1.871	1
33	MP2A	Mx	0.003	1
34	MP2A	X	-3.241	5
35	MP2A	Z	-1.871	5
36	MP2A	Mx	0.003	5
37	MP2B	X	-5.659	1
38	MP2B	Z	-3.268	1
39	MP2B	Mx	-0.003	1
40	MP2B	X	-5.659	5
41	MP2B	Z	-3.268	5
42	MP2B	Mx	-0.003	5
43	MP3C	X	-3.767	1
44	MP3C	Z	-2.175	1
45	MP3C	Mx	-0.003	1
46	MP3C	X	-3.767	5
47	MP3C	Z	-2.175	5
48	MP3C	Mx	-0.003	5
49	MP3C	X	-3.767	1
50	MP3C	Z	-2.175	1
51	MP3C	Mx	-0.000268	1
52	MP3C	X	-3.767	5
53	MP3C	Z	-2.175	5
54	MP3C	Mx	-0.000268	5
55	MP3A	X	-2.398	1.5
56	MP3A	Z	-1.385	1.5
57	MP3A	Mx	-0.002	1.5
58	MP3B	X	-3.184	1.5
59	MP3B	Z	-1.838	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
60	MP3B	Mx	0.002	1.5
61	MP4C	X	-2.569	1.5
62	MP4C	Z	-1.483	1.5
63	MP4C	Mx	0.000183	1.5
64	MP3A	X	-2.1	3.5
65	MP3A	Z	-1.213	3.5
66	MP3A	Mx	-0.000444	3.5
67	MP3B	X	-3.176	3.5
68	MP3B	Z	-1.834	3.5
69	MP3B	Mx	-0.002	3.5
70	MP4C	X	-2.334	3.5
71	MP4C	Z	-1.348	3.5
72	MP4C	Mx	0.002	3.5
73	M69	X	-0.203	1
74	M69	Z	-0.117	1
75	M69	Mx	5e-5	1
76	DONOR-A1	X	-3.133	0.83
77	DONOR-A1	Z	-1.809	0.83
78	DONOR-A1	Mx	0.000904	0.83
79	DONOR-A1	X	-3.133	2.83
80	DONOR-A1	Z	-1.809	2.83
81	DONOR-A1	Mx	0.000904	2.83
82	DONOR-A4	X	-2.043	0.83
83	DONOR-A4	Z	-1.18	0.83
84	DONOR-A4	Mx	0.001	0.83
85	DONOR-A4	X	-2.043	2.83
86	DONOR-A4	Z	-1.18	2.83
87	DONOR-A4	Mx	0.001	2.83
88	DONOR-B4	X	-3.133	0.83
89	DONOR-B4	Z	-1.809	0.83
90	DONOR-B4	Mx	-0.000904	0.83
91	DONOR-B4	X	-3.133	2.83
92	DONOR-B4	Z	-1.809	2.83
93	DONOR-B4	Mx	-0.000904	2.83
94	DONOR-C4	X	-2.043	0.83
95	DONOR-C4	Z	-1.18	0.83
96	DONOR-C4	Mx	-0.001	0.83
97	DONOR-C4	X	-2.043	2.83
98	DONOR-C4	Z	-1.18	2.83
99	DONOR-C4	Mx	-0.001	2.83
100	MP2A	X	-0.937	6.5
101	MP2A	Z	-0.541	6.5
102	MP2A	Mx	0.000468	6.5
103	MP3C	X	-1.16	6.5
104	MP3C	Z	-0.67	6.5
105	MP3C	Mx	-0.000513	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-1.939	2.25
2	MP1A	Z	-3.358	2.25
3	MP1A	Mx	0.00097	2.25
4	MP1A	X	-1.939	3.25
5	MP1A	Z	-3.358	3.25
6	MP1A	Mx	0.00097	3.25

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
7	MP1B	X	-1.939	2.25
8	MP1B	Z	-3.358	2.25
9	MP1B	Mx	0.000969	2.25
10	MP1B	X	-1.939	3.25
11	MP1B	Z	-3.358	3.25
12	MP1B	Mx	0.000969	3.25
13	MP1C	X	-0.844	2.25
14	MP1C	Z	-1.462	2.25
15	MP1C	Mx	-0.000831	2.25
16	MP1C	X	-0.844	3.25
17	MP1C	Z	-1.462	3.25
18	MP1C	Mx	-0.000831	3.25
19	MP2A	X	-2.802	1
20	MP2A	Z	-4.853	1
21	MP2A	Mx	-0.001	1
22	MP2A	X	-2.802	5
23	MP2A	Z	-4.853	5
24	MP2A	Mx	-0.001	5
25	MP2B	X	-2.802	1
26	MP2B	Z	-4.853	1
27	MP2B	Mx	0.004	1
28	MP2B	X	-2.802	5
29	MP2B	Z	-4.853	5
30	MP2B	Mx	0.004	5
31	MP2A	X	-2.802	1
32	MP2A	Z	-4.853	1
33	MP2A	Mx	0.004	1
34	MP2A	X	-2.802	5
35	MP2A	Z	-4.853	5
36	MP2A	Mx	0.004	5
37	MP2B	X	-2.802	1
38	MP2B	Z	-4.853	1
39	MP2B	Mx	-0.001	1
40	MP2B	X	-2.802	5
41	MP2B	Z	-4.853	5
42	MP2B	Mx	-0.001	5
43	MP3C	X	-1.462	1
44	MP3C	Z	-2.532	1
45	MP3C	Mx	-0.002	1
46	MP3C	X	-1.462	5
47	MP3C	Z	-2.532	5
48	MP3C	Mx	-0.002	5
49	MP3C	X	-1.462	1
50	MP3C	Z	-2.532	1
51	MP3C	Mx	-0.001	1
52	MP3C	X	-1.462	5
53	MP3C	Z	-2.532	5
54	MP3C	Mx	-0.001	5
55	MP3A	X	-1.687	1.5
56	MP3A	Z	-2.922	1.5
57	MP3A	Mx	-0.002	1.5
58	MP3B	X	-1.687	1.5
59	MP3B	Z	-2.922	1.5
60	MP3B	Mx	0.000617	1.5
61	MP4C	X	-1.252	1.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
62	MP4C	Z	-2.168	1.5
63	MP4C	Mx	0.001	1.5
64	MP3A	X	-1.627	3.5
65	MP3A	Z	-2.817	3.5
66	MP3A	Mx	0.000595	3.5
67	MP3B	X	-1.627	3.5
68	MP3B	Z	-2.817	3.5
69	MP3B	Mx	-0.002	3.5
70	MP4C	X	-1.03	3.5
71	MP4C	Z	-1.785	3.5
72	MP4C	Mx	0.001	3.5
73	M69	X	-0.132	1
74	M69	Z	-0.228	1
75	M69	Mx	1.5e-5	1
76	DONOR-A1	X	-2.124	0.83
77	DONOR-A1	Z	-3.678	0.83
78	DONOR-A1	Mx	0	0.83
79	DONOR-A1	X	-2.124	2.83
80	DONOR-A1	Z	-3.678	2.83
81	DONOR-A1	Mx	0	2.83
82	DONOR-A4	X	-0.865	0.83
83	DONOR-A4	Z	-1.498	0.83
84	DONOR-A4	Mx	0.000865	0.83
85	DONOR-A4	X	-0.865	2.83
86	DONOR-A4	Z	-1.498	2.83
87	DONOR-A4	Mx	0.000865	2.83
88	DONOR-B4	X	-2.124	0.83
89	DONOR-B4	Z	-3.678	0.83
90	DONOR-B4	Mx	0	0.83
91	DONOR-B4	X	-2.124	2.83
92	DONOR-B4	Z	-3.678	2.83
93	DONOR-B4	Mx	0	2.83
94	DONOR-C4	X	-0.865	0.83
95	DONOR-C4	Z	-1.498	0.83
96	DONOR-C4	Mx	-0.000865	0.83
97	DONOR-C4	X	-0.865	2.83
98	DONOR-C4	Z	-1.498	2.83
99	DONOR-C4	Mx	-0.000865	2.83
100	MP2A	X	-0.935	6.5
101	MP2A	Z	-1.62	6.5
102	MP2A	Mx	0.000468	6.5
103	MP3C	X	-0.367	6.5
104	MP3C	Z	-0.636	6.5
105	MP3C	Mx	-0.000362	6.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M37	Y	-500	%100

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M41	Y	-500	%100

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M20A	Y	-250	%50

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M20A	Y	-250	0

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-1.775	2.25
2	MP1A	My	-0.000887	2.25
3	MP1A	Mz	0	2.25
4	MP1A	Y	-1.775	3.25
5	MP1A	My	-0.000887	3.25
6	MP1A	Mz	0	3.25
7	MP1B	Y	-1.775	2.25
8	MP1B	My	0.000444	2.25
9	MP1B	Mz	-0.000768	2.25
10	MP1B	Y	-1.775	3.25
11	MP1B	My	0.000444	3.25
12	MP1B	Mz	-0.000768	3.25
13	MP1C	Y	-1.775	2.25
14	MP1C	My	0.000303	2.25
15	MP1C	Mz	0.000834	2.25
16	MP1C	Y	-1.775	3.25
17	MP1C	My	0.000303	3.25
18	MP1C	Mz	0.000834	3.25
19	MP2A	Y	-0.815	1
20	MP2A	My	-0.000407	1
21	MP2A	Mz	0.000407	1
22	MP2A	Y	-0.815	5
23	MP2A	My	-0.000407	5
24	MP2A	Mz	0.000407	5
25	MP2B	Y	-0.815	1
26	MP2B	My	-0.000149	1
27	MP2B	Mz	-0.000557	1
28	MP2B	Y	-0.815	5
29	MP2B	My	-0.000149	5
30	MP2B	Mz	-0.000557	5
31	MP2A	Y	-0.815	1
32	MP2A	My	-0.000407	1
33	MP2A	Mz	-0.000407	1
34	MP2A	Y	-0.815	5
35	MP2A	My	-0.000407	5
36	MP2A	Mz	-0.000407	5
37	MP2B	Y	-0.815	1
38	MP2B	My	0.000557	1
39	MP2B	Mz	-0.000149	1
40	MP2B	Y	-0.815	5
41	MP2B	My	0.000557	5
42	MP2B	Mz	-0.000149	5
43	MP3C	Y	-0.815	1
44	MP3C	My	0.000522	1

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
45	MP3C	Mz	0.000244	1
46	MP3C	Y	-0.815	5
47	MP3C	My	0.000522	5
48	MP3C	Mz	0.000244	5
49	MP3C	Y	-0.815	1
50	MP3C	My	-0.000244	1
51	MP3C	Mz	0.000522	1
52	MP3C	Y	-0.815	5
53	MP3C	My	-0.000244	5
54	MP3C	Mz	0.000522	5
55	MP3A	Y	-3.439	1.5
56	MP3A	My	0.002	1.5
57	MP3A	Mz	0.002	1.5
58	MP3B	Y	-3.439	1.5
59	MP3B	My	-0.002	1.5
60	MP3B	Mz	0.000629	1.5
61	MP4C	Y	-3.439	1.5
62	MP4C	My	0.001	1.5
63	MP4C	Mz	-0.002	1.5
64	MP3A	Y	-2.864	3.5
65	MP3A	My	0.001	3.5
66	MP3A	Mz	-0.001	3.5
67	MP3B	Y	-2.864	3.5
68	MP3B	My	0.000524	3.5
69	MP3B	Mz	0.002	3.5
70	MP4C	Y	-2.864	3.5
71	MP4C	My	-0.002	3.5
72	MP4C	Mz	-0.000856	3.5
73	M69	Y	-0.02	1
74	M69	My	-6e-6	1
75	M69	Mz	2e-6	1
76	DONOR-A1	Y	-0.672	0.83
77	DONOR-A1	My	-0.000291	0.83
78	DONOR-A1	Mz	0.000168	0.83
79	DONOR-A1	Y	-0.672	2.83
80	DONOR-A1	My	-0.000291	2.83
81	DONOR-A1	Mz	0.000168	2.83
82	DONOR-A4	Y	-0.672	0.83
83	DONOR-A4	My	-0.000168	0.83
84	DONOR-A4	Mz	-0.000291	0.83
85	DONOR-A4	Y	-0.672	2.83
86	DONOR-A4	My	-0.000168	2.83
87	DONOR-A4	Mz	-0.000291	2.83
88	DONOR-B4	Y	-0.672	0.83
89	DONOR-B4	My	0.000291	0.83
90	DONOR-B4	Mz	-0.000168	0.83
91	DONOR-B4	Y	-0.672	2.83
92	DONOR-B4	My	0.000291	2.83
93	DONOR-B4	Mz	-0.000168	2.83
94	DONOR-C4	Y	-0.672	0.83
95	DONOR-C4	My	0.000168	0.83
96	DONOR-C4	Mz	0.000291	0.83
97	DONOR-C4	Y	-0.672	2.83
98	DONOR-C4	My	0.000168	2.83
99	DONOR-C4	Mz	0.000291	2.83

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
100	MP2A	Y	-0.717	6.5
101	MP2A	My	-0.000359	6.5
102	MP2A	Mz	0	6.5
103	MP3C	Y	-0.717	6.5
104	MP3C	My	0.000123	6.5
105	MP3C	Mz	0.000337	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Z	-4.436	2.25
2	MP1A	Mx	0	2.25
3	MP1A	Z	-4.436	3.25
4	MP1A	Mx	0	3.25
5	MP1B	Z	-4.436	2.25
6	MP1B	Mx	0.002	2.25
7	MP1B	Z	-4.436	3.25
8	MP1B	Mx	0.002	3.25
9	MP1C	Z	-4.436	2.25
10	MP1C	Mx	-0.002	2.25
11	MP1C	Z	-4.436	3.25
12	MP1C	Mx	-0.002	3.25
13	MP2A	Z	-2.037	1
14	MP2A	Mx	-0.001	1
15	MP2A	Z	-2.037	5
16	MP2A	Mx	-0.001	5
17	MP2B	Z	-2.037	1
18	MP2B	Mx	0.001	1
19	MP2B	Z	-2.037	5
20	MP2B	Mx	0.001	5
21	MP2A	Z	-2.037	1
22	MP2A	Mx	0.001	1
23	MP2A	Z	-2.037	5
24	MP2A	Mx	0.001	5
25	MP2B	Z	-2.037	1
26	MP2B	Mx	0.000373	1
27	MP2B	Z	-2.037	5
28	MP2B	Mx	0.000373	5
29	MP3C	Z	-2.037	1
30	MP3C	Mx	-0.000609	1
31	MP3C	Z	-2.037	5
32	MP3C	Mx	-0.000609	5
33	MP3C	Z	-2.037	1
34	MP3C	Mx	-0.001	1
35	MP3C	Z	-2.037	5
36	MP3C	Mx	-0.001	5
37	MP3A	Z	-8.598	1.5
38	MP3A	Mx	-0.004	1.5
39	MP3B	Z	-8.598	1.5
40	MP3B	Mx	-0.002	1.5
41	MP4C	Z	-8.598	1.5
42	MP4C	Mx	0.006	1.5
43	MP3A	Z	-7.161	3.5
44	MP3A	Mx	0.004	3.5
45	MP3B	Z	-7.161	3.5
46	MP3B	Mx	-0.005	3.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
47	MP4C	Z	-7.161	3.5
48	MP4C	Mx	0.002	3.5
49	M69	Z	-0.051	1
50	M69	Mx	-6e-6	1
51	DONOR-A1	Z	-1.681	0.83
52	DONOR-A1	Mx	-0.00042	0.83
53	DONOR-A1	Z	-1.681	2.83
54	DONOR-A1	Mx	-0.00042	2.83
55	DONOR-A4	Z	-1.681	0.83
56	DONOR-A4	Mx	0.000728	0.83
57	DONOR-A4	Z	-1.681	2.83
58	DONOR-A4	Mx	0.000728	2.83
59	DONOR-B4	Z	-1.681	0.83
60	DONOR-B4	Mx	0.00042	0.83
61	DONOR-B4	Z	-1.681	2.83
62	DONOR-B4	Mx	0.00042	2.83
63	DONOR-C4	Z	-1.681	0.83
64	DONOR-C4	Mx	-0.000728	0.83
65	DONOR-C4	Z	-1.681	2.83
66	DONOR-C4	Mx	-0.000728	2.83
67	MP2A	Z	-1.793	6.5
68	MP2A	Mx	0	6.5
69	MP3C	Z	-1.793	6.5
70	MP3C	Mx	-0.000842	6.5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	4.436	2.25
2	MP1A	Mx	-0.002	2.25
3	MP1A	X	4.436	3.25
4	MP1A	Mx	-0.002	3.25
5	MP1B	X	4.436	2.25
6	MP1B	Mx	0.001	2.25
7	MP1B	X	4.436	3.25
8	MP1B	Mx	0.001	3.25
9	MP1C	X	4.436	2.25
10	MP1C	Mx	0.000759	2.25
11	MP1C	X	4.436	3.25
12	MP1C	Mx	0.000759	3.25
13	MP2A	X	2.037	1
14	MP2A	Mx	-0.001	1
15	MP2A	X	2.037	5
16	MP2A	Mx	-0.001	5
17	MP2B	X	2.037	1
18	MP2B	Mx	-0.000373	1
19	MP2B	X	2.037	5
20	MP2B	Mx	-0.000373	5
21	MP2A	X	2.037	1
22	MP2A	Mx	-0.001	1
23	MP2A	X	2.037	5
24	MP2A	Mx	-0.001	5
25	MP2B	X	2.037	1
26	MP2B	Mx	0.001	1
27	MP2B	X	2.037	5
28	MP2B	Mx	0.001	5

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
29	MP3C	X	2.037	1
30	MP3C	Mx	0.001	1
31	MP3C	X	2.037	5
32	MP3C	Mx	0.001	5
33	MP3C	X	2.037	1
34	MP3C	Mx	-0.000609	1
35	MP3C	X	2.037	5
36	MP3C	Mx	-0.000609	5
37	MP3A	X	8.598	1.5
38	MP3A	Mx	0.004	1.5
39	MP3B	X	8.598	1.5
40	MP3B	Mx	-0.006	1.5
41	MP4C	X	8.598	1.5
42	MP4C	Mx	0.003	1.5
43	MP3A	X	7.161	3.5
44	MP3A	Mx	0.004	3.5
45	MP3B	X	7.161	3.5
46	MP3B	Mx	0.001	3.5
47	MP4C	X	7.161	3.5
48	MP4C	Mx	-0.005	3.5
49	M69	X	0.051	1
50	M69	Mx	-1.6e-5	1
51	DONOR-A1	X	1.681	0.83
52	DONOR-A1	Mx	-0.000728	0.83
53	DONOR-A1	X	1.681	2.83
54	DONOR-A1	Mx	-0.000728	2.83
55	DONOR-A4	X	1.681	0.83
56	DONOR-A4	Mx	-0.00042	0.83
57	DONOR-A4	X	1.681	2.83
58	DONOR-A4	Mx	-0.00042	2.83
59	DONOR-B4	X	1.681	0.83
60	DONOR-B4	Mx	0.000728	0.83
61	DONOR-B4	X	1.681	2.83
62	DONOR-B4	Mx	0.000728	2.83
63	DONOR-C4	X	1.681	0.83
64	DONOR-C4	Mx	0.00042	0.83
65	DONOR-C4	X	1.681	2.83
66	DONOR-C4	Mx	0.00042	2.83
67	MP2A	X	1.793	6.5
68	MP2A	Mx	-0.000896	6.5
69	MP3C	X	1.793	6.5
70	MP3C	Mx	0.000307	6.5

Member Area Loads (BLC 39 : Structure D)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N34	N35	N31A	N30B	Y	B-C	-0.009
2	N52	N51	N45	N46	Y	B-C	-0.009
3	N40	N39	N33B	N34A	Y	B-C	-0.009

Member Area Loads (BLC 40 : Structure Di)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N34	N35	N31A	N30B	Y	B-C	-0.012
2	N52	N51	N45	N46	Y	B-C	-0.012

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

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
3	N40	N39	N33B	N34A	Y	B-C	-0.012

Member Area Loads (BLC 84 : Structure Ev)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N34	N35	N31A	N30B	Y	Two Way	-0.000212
2	N52	N51	N45	N46	Y	Two Way	-0.000212
3	N40	N39	N33B	N34A	Y	Two Way	-0.000212

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

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N34	N35	N31A	N30B	Z	Two Way	-0.00053
2	N52	N51	N45	N46	Z	Two Way	-0.00053
3	N40	N39	N33B	N34A	Z	Two Way	-0.00053

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

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N34	N35	N31A	N30B	X	Two Way	0.00053
2	N52	N51	N45	N46	X	Two Way	0.00053
3	N40	N39	N33B	N34A	X	Two Way	0.00053

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
0	N47A	max	578.41	10	-92.246	7	4173.441	13	-0.158	7	1.889	4	0.636	4
1		min	-578.534	4	-733.409	13	-1426.306	7	-1.098	13	-1.887	10	-0.67	10
2	N20	max	3500.693	9	-86.766	3	739.149	3	0.646	11	1.467	12	1.09	19
3		min	-1268.304	3	-714.177	21	-2025.831	9	-0.374	5	-1.469	6	0.014	1
4	N22	max	1259.558	11	-75.311	11	698.588	11	1.022	14	2.285	8	0.141	1
5		min	-4095.692	17	-879.672	17	-2352.009	17	-0.381	9	-2.286	2	-1.087	19
6	N114	max	53.384	10	3817.691	13	-1485.921	70	0	75	0.001	8	0.001	2
7		min	-53.353	4	1043.584	7	-5381.109	13	0	1	-0.001	2	-0.001	8
8	N116	max	-1248.099	3	3699.441	21	2605.128	21	0.001	2	0.001	8	0	8
9		min	-4512.582	21	1005.422	3	721.104	3	-0.001	8	0	2	0	2
10	N118	max	5125.243	17	4190.135	17	2959.361	17	0.001	4	0.001	4	0	4
11		min	1347.607	11	1084.871	11	777.679	11	-0.001	10	0	10	0	10
12	Totals:	max	4064.281	10	9105.434	18	3975.864	1						
13		min	-4064.314	4	2681.871	75	-3975.942	7						

Node Reactions

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
0	1	N47A	123.237	-446.055	4102.563	-0.66	-0.542	0.03
1	1	N20	-53.794	-171.003	382.965	0.516	0.579	0.014
2	1	N22	-205.326	-176.291	325.026	0.789	-1.222	0.141
3	1	N114	-1.914	1957.631	-2749.159	0	0	0
4	1	N116	-1503.013	1231.869	918.61	0.001	0	0
5	1	N118	1640.766	1341.46	995.86	0.001	0	0
6	1	Totals:	-0.043	3737.613	3975.864			
7	1	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
8	2	N47A	72.788	-422.701	3737.411	-0.627	-0.806	0.327
9	2	N20	-1001.423	-110.441	600.877	0.322	-0.572	0.028

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
10	2	N22	-1666.677	-311.699	-224.494	0.976	-2.286	0.018
11	2	N114	-23.074	1895.006	-2657.778	0	-0.001	0.001
12	2	N116	-1320.383	1070.892	786.748	0.001	0	0
13	2	N118	1957.186	1616.558	1189.64	0	0	0
14	2	Totals:	-1981.583	3737.617	3432.403			
15	2	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
16	3	N47A	-284.141	-373.707	2771.375	-0.56	0.571	0.538
17	3	N20	-1268.304	-86.766	739.149	0.041	-0.148	0.15
18	3	N22	-2909.34	-444.088	-1142.496	0.985	-1.385	-0.203
19	3	N114	-43.755	1745.799	-2450.54	0	0	0.001
20	3	N116	-1248.099	1005.422	721.104	0	0	0
21	3	N118	2282.986	1890.961	1365.309	0.001	0	0
22	3	Totals:	-3470.653	3737.622	2003.9			
23	3	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
24	4	N47A	-578.534	-277.764	1270.092	-0.423	1.889	0.636
25	4	N20	-994.623	-105.164	589.267	-0.234	0.423	0.339
26	4	N22	-3639.34	-521.901	-1949.312	0.812	0.018	-0.433
27	4	N114	-53.353	1506.035	-2130.5	0	0	0
28	4	N116	-1321.955	1055.449	739.529	-0.001	0	0
29	4	N118	2523.491	2080.97	1480.887	0.001	0.001	0
30	4	Totals:	-4064.314	3737.625	-0.037			
31	4	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
32	5	N47A	-433.856	-163.686	-257.797	-0.258	1.277	0.554
33	5	N20	-266.338	-171.564	-146.528	-0.374	-0.539	0.529
34	5	N22	-3864.398	-545.865	-2204.391	0.499	0.063	-0.653
35	5	N114	-42.324	1245.205	-1780.165	0	0	0.001
36	5	N116	-1540.398	1226.586	838.642	-0.001	0.001	0
37	5	N118	2616.874	2146.95	1511.583	0	0	0
38	5	Totals:	-3530.44	3737.626	-2038.655			
39	5	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
40	6	N47A	-158.408	-97.003	-1203.477	-0.163	0.227	0.284
41	6	N20	925.474	-268.721	-1099.859	-0.357	-1.469	0.678
42	6	N22	-3481.883	-525.965	-2079.804	0.135	-0.039	-0.832
43	6	N114	-19.444	1078.015	-1547.119	0	0	0
44	6	N116	-1826.777	1469.498	991.645	0	0	0
45	6	N118	2544.97	2081.801	1446.064	0	0	0
46	6	Totals:	-2016.067	3737.627	-3492.55			
47	6	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
48	7	N47A	-119.616	-92.246	-1426.306	-0.158	0.542	-0.061
49	7	N20	2278.423	-359.191	-1669.453	-0.245	-0.584	0.762
50	7	N22	-2398.131	-445.989	-1832.692	-0.182	1.222	-0.881
51	7	N114	1.007	1043.584	-1496.419	0	0	0
52	7	N116	-2086.647	1699.705	1154.05	-0.001	0.001	0
53	7	N118	2324.976	1891.765	1294.878	0	0	0
54	7	Totals:	0.011	3737.626	-3975.942			
55	7	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
56	8	N47A	-67.159	-115.963	-1065.919	-0.192	0.81	-0.359
57	8	N20	3229.836	-418.593	-1881.294	-0.051	0.568	0.747
58	8	N22	-942.331	-310.531	-1281.023	-0.37	2.285	-0.759
59	8	N114	21.509	1106.567	-1588.264	0	0.001	-0.001
60	8	N116	-2268.946	1859.747	1283.992	-0.001	0.001	0
61	8	N118	2008.643	1616.396	1100.028	0	0	0
62	8	Totals:	1981.551	3737.622	-3432.48			
63	8	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
64	9	N47A	282.165	-165.616	-99.493	-0.259	-0.566	-0.572

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
65	9	N20	3500.693	-442.511	-2025.831	0.23	0.148	0.624
66	9	N22	304.223	-177.223	-355.831	-0.381	1.382	-0.538
67	9	N114	43.938	1256.414	-1796.326	0	0.001	-0.001
68	9	N116	-2341.901	1926.094	1351.105	0	0	0
69	9	N118	1681.504	1340.459	922.399	0	0	0
70	9	Totals:	3470.622	3737.617	-2003.977			
71	9	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
72	10	N47A	578.41	-261.89	1407.238	-0.396	-1.887	-0.67
73	10	N20	3221.875	-424.908	-1878.917	0.507	-0.421	0.436
74	10	N22	1039.334	-98.956	445.828	-0.207	-0.02	-0.307
75	10	N114	53.384	1496.416	-2116.652	0	0	0
76	10	N116	-2268.44	1876.955	1334.469	0	0	0
77	10	N118	1439.718	1149.995	807.994	-0.001	0	0
78	10	Totals:	4064.281	3737.614	-0.04			
79	10	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
80	11	N47A	437.826	-374.894	2930.702	-0.56	-1.277	-0.587
81	11	N20	2495.435	-359.434	-1138.423	0.646	0.543	0.248
82	11	N22	1259.558	-75.311	698.588	0.106	-0.062	-0.087
83	11	N114	41.469	1755.743	-2464.886	0	0	-0.001
84	11	N116	-2051.488	1706.638	1234.916	0	0	0
85	11	N118	1347.607	1084.871	777.679	0	0	0
86	11	Totals:	3530.408	3737.613	2038.577			
87	11	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
88	12	N47A	158.363	-440.896	3875.755	-0.655	-0.228	-0.316
89	12	N20	1304.87	-262.65	-188.408	0.629	1.467	0.099
90	12	N22	877.452	-95.778	577.058	0.472	0.04	0.092
91	12	N114	19.515	1922.339	-2697.186	0	0	0
92	12	N116	-1764.992	1463.753	1082.083	0	0	0
93	12	N118	1420.826	1150.844	843.17	0.001	0	0
94	12	Totals:	2016.035	3737.613	3492.472			
95	12	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
96	13	N47A	38.216	-733.409	4173.441	-1.098	-0.171	-0.055
97	13	N20	2295.441	-635.828	-1212.602	0.418	0.183	0.87
98	13	N22	-2905.754	-773.275	-1528.783	0.967	-0.407	-0.789
99	13	N114	-1.182	3817.691	-5381.109	0	0	0
100	13	N116	-4252.564	3486.021	2469.006	0	0	0
101	13	N118	4825.794	3944.229	2797.677	0	0	0
102	13	Totals:	-0.049	9105.429	1317.63			
103	13	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			
104	14	N47A	5.326	-728.065	4053.654	-1.091	-0.17	0.038
105	14	N20	1989.01	-618.595	-1126.261	0.356	-0.107	0.878
106	14	N22	-3374.205	-812.15	-1720.596	1.022	-0.67	-0.823
107	14	N114	-6.654	3799.5	-5354.023	0	0	0
108	14	N116	-4194.617	3436.367	2428.98	0	0	0
109	14	N118	4923.748	4028.372	2856.769	0	0	0
110	14	Totals:	-657.392	9105.43	1138.523			
111	14	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			
112	15	N47A	-103.644	-711.33	3725.42	-1.068	0.241	0.105
113	15	N20	1896.505	-611.03	-1084.378	0.273	-0.005	0.914
114	15	N22	-3776.513	-848.578	-2015.825	1.022	-0.403	-0.885
115	15	N114	-11.406	3749.73	-5283.641	0	0	0
116	15	N116	-4171.537	3416.046	2408.662	0	0	0
117	15	N118	5021.404	4110.593	2910.844	0	0	0
118	15	Totals:	-1145.192	9105.432	661.082			
119	15	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
120	16	N47A	-183.388	-681.881	3233.01	-1.026	0.582	0.13
121	16	N20	1983.741	-615.848	-1149.123	0.192	0.095	0.968
122	16	N22	-4019.655	-871.111	-2265.215	0.969	-0.028	-0.952
123	16	N114	-13.233	3674.199	-5181.699	0	0	0
124	16	N116	-4194.934	3431.764	2415.162	0	0	0
125	16	N118	5094.618	4168.309	2947.745	0	0	0
126	16	Totals:	-1332.851	9105.433	-0.121			
127	16	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			
128	17	N47A	-139.718	-649.974	2740.492	-0.981	0.403	0.097
129	17	N20	2226.236	-635.388	-1387.694	0.148	-0.196	1.025
130	17	N22	-4095.692	-879.672	-2352.009	0.878	0.003	-1.019
131	17	N114	-10.397	3595.834	-5075.676	0	0	0
132	17	N116	-4262.474	3484.498	2447.461	0	0	0
133	17	N118	5125.243	4190.135	2959.361	0	0	0
134	17	Totals:	-1156.801	9105.433	-668.066			
135	17	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			
136	18	N47A	-60.101	-629.981	2423.945	-0.952	0.122	0.015
137	18	N20	2617.395	-663.679	-1685.202	0.151	-0.431	1.07
138	18	N22	-3969.234	-873.683	-2323.689	0.769	0.033	-1.073
139	18	N114	-4.665	3543.184	-5001.155	0	0	0
140	18	N116	-4350.511	3558.783	2495.24	0	0	0
141	18	N118	5103.019	4170.811	2940.403	0	0	0
142	18	Totals:	-664.097	9105.434	-1150.458			
143	18	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			
144	19	N47A	-38.449	-624.883	2335.554	-0.945	0.174	-0.089
145	19	N20	3053.907	-689.47	-1876.807	0.186	-0.188	1.09
146	19	N22	-3617.515	-848.786	-2237.605	0.673	0.405	-1.087
147	19	N114	1.11	3527.648	-4977.909	0	0	0
148	19	N116	-4431.559	3629.492	2544.823	0	0	0
149	19	N118	5032.466	4111.431	2894.089	0	0	0
150	19	Totals:	-0.04	9105.434	-1317.856			
151	19	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			
152	20	N47A	-5.545	-630.251	2454.924	-0.952	0.173	-0.183
153	20	N20	3360.725	-706.608	-1962.75	0.248	0.103	1.082
154	20	N22	-3149.49	-809.909	-2045.476	0.618	0.669	-1.053
155	20	N114	6.558	3545.872	-5005.036	0	0	0
156	20	N116	-4489.468	3679.066	2584.7	0	0	0
157	20	N118	4934.524	4027.262	2834.889	0	0	0
158	20	Totals:	657.303	9105.432	-1138.749			
159	20	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			
160	21	N47A	102.738	-647.053	2783.214	-0.975	-0.238	-0.25
161	21	N20	3453.569	-714.177	-2005.177	0.332	0.001	1.047
162	21	N22	-2746.828	-773.399	-1749.602	0.618	0.401	-0.991
163	21	N114	11.463	3595.716	-5075.515	0	0	0
164	21	N116	-4512.582	3699.441	2605.128	0	0	0
165	21	N118	4836.743	3944.903	2780.644	0	0	0
166	21	Totals:	1145.103	9105.431	-661.308			
167	21	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			
168	22	N47A	182.725	-676.541	3276.037	-1.017	-0.578	-0.274
169	22	N20	3365.942	-709.427	-1940.564	0.412	-0.098	0.993
170	22	N22	-2503.322	-750.815	-1500.666	0.67	0.026	-0.924
171	22	N114	13.257	3671.276	-5177.493	0	0	0
172	22	N116	-4489.244	3683.809	2598.764	0	0	0
173	22	N118	4763.404	3887.128	2743.817	0	0	0
174	22	Totals:	1332.762	9105.43	-0.105			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
175	22	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			
176	23	N47A	139.468	-708.381	3768.201	-1.063	-0.4	-0.242
177	23	N20	3123.597	-689.979	-1701.559	0.456	0.192	0.936
178	23	N22	-2427.708	-742.276	-1414.108	0.762	-0.005	-0.857
179	23	N114	10.338	3749.534	-5283.367	0	0	0
180	23	N116	-4421.855	3631.164	2566.439	0	0	0
181	23	N118	4732.873	3865.367	2732.235	0	0	0
182	23	Totals:	1156.712	9105.429	667.84			
183	23	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			
184	24	N47A	59.584	-728.312	4084.755	-1.091	-0.119	-0.159
185	24	N20	2732.439	-661.716	-1404.325	0.454	0.427	0.891
186	24	N22	-2554.104	-748.321	-1442.29	0.87	-0.035	-0.803
187	24	N114	4.668	3802.124	-5357.813	0	0	0
188	24	N116	-4333.794	3556.875	2518.677	0	0	0
189	24	N118	4755.217	3884.778	2751.227	0	0	0
190	24	Totals:	664.008	9105.429	1150.232			
191	24	COG (ft):	X: 0.266	Y: 0.94	Z: 0.06			
192	25	N47A	6.539	-280.814	1260.453	-0.429	-0.029	-0.032
193	25	N20	876.287	-263.296	-485.147	0.127	0.031	0.393
194	25	N22	-2515.534	-682.717	-1424.329	0.491	-0.077	-0.908
195	25	N114	-0.076	1493.483	-2110.386	0	0	0
196	25	N116	-1783.277	1456.532	1032.767	0	0	0
197	25	N118	3416.073	2764.445	1975.125	0	0	0
198	25	Totals:	0.013	4487.633	248.482			
199	25	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
200	26	N47A	3.325	-279.344	1237.774	-0.427	-0.045	-0.014
201	26	N20	816.963	-259.542	-471.694	0.115	-0.041	0.393
202	26	N22	-2606.701	-691.101	-1458.594	0.502	-0.143	-0.916
203	26	N114	-1.377	1489.555	-2104.655	0	0	0
204	26	N116	-1771.872	1446.498	1024.582	0	0	0
205	26	N118	3435.83	2781.567	1987.096	0	0	0
206	26	Totals:	-123.832	4487.633	214.51			
207	26	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
208	27	N47A	-18.735	-276.258	1177.394	-0.423	0.041	-0.001
209	27	N20	800.156	-258.049	-462.863	0.098	-0.015	0.401
210	27	N22	-2684.356	-699.32	-1516.245	0.503	-0.087	-0.93
211	27	N114	-2.726	1480.206	-2091.672	0	0	0
212	27	N116	-1767.32	1442.369	1020.427	0	0	0
213	27	N118	3456.08	2798.685	1998.198	0	0	0
214	27	Totals:	-216.9	4487.633	125.239			
215	27	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
216	28	N47A	-37.162	-270.243	1083.391	-0.414	0.123	0.006
217	28	N20	817.398	-259.17	-472.143	0.08	0.021	0.413
218	28	N22	-2730.022	-704.142	-1566.646	0.492	0.001	-0.944
219	28	N114	-3.327	1465.205	-2071.65	0	0	0
220	28	N116	-1771.902	1445.451	1021.512	0	0	0
221	28	N118	3471.013	2810.532	2005.523	0	0	0
222	28	Totals:	-254.001	4487.633	-0.012			
223	28	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
224	29	N47A	-28.251	-263.136	988.019	-0.404	0.085	0
225	29	N20	862.86	-263.291	-518.25	0.072	-0.039	0.425
226	29	N22	-2743.954	-705.606	-1582.488	0.473	0.004	-0.958
227	29	N114	-2.609	1448.949	-2049.818	0	0	0
228	29	N116	-1785.488	1456.105	1027.708	0	0	0
229	29	N118	3476.808	2814.613	2007.395	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
230	29	Totals:	-220.634	4487.633	-127.435			
231	29	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
232	30	N47A	-10.939	-258.982	928.949	-0.398	0.019	-0.016
233	30	N20	937.302	-269.352	-577.714	0.073	-0.097	0.434
234	30	N22	-2720.086	-704.353	-1574.748	0.45	-0.003	-0.969
235	30	N114	-1.203	1438.528	-2035.292	0	0	0
236	30	N116	-1803.37	1471.27	1037.254	0	0	0
237	30	N118	3472.303	2810.522	2003.258	0	0	0
238	30	Totals:	-125.992	4487.633	-218.292			
239	30	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
240	31	N47A	-8.617	-258.665	914.9	-0.398	0.039	-0.038
241	31	N20	1022.021	-275.042	-613.376	0.08	-0.042	0.439
242	31	N22	-2652.342	-699.384	-1559.296	0.43	0.076	-0.972
243	31	N114	0.102	1436.355	-2032.092	0	0	0
244	31	N116	-1819.666	1485.702	1047.431	0	0	0
245	31	N118	3458.519	2798.668	1993.926	0	0	0
246	31	Totals:	0.017	4487.633	-248.507			
247	31	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
248	32	N47A	-5.396	-260.137	937.56	-0.4	0.056	-0.057
249	32	N20	1081.361	-278.791	-626.806	0.092	0.03	0.438
250	32	N22	-2561.197	-691	-1525.023	0.418	0.143	-0.964
251	32	N114	1.401	1440.285	-2037.824	0	0	0
252	32	N116	-1831.069	1495.731	1055.608	0	0	0
253	32	N118	3438.763	2781.545	1981.95	0	0	0
254	32	Totals:	123.862	4487.633	-214.535			
255	32	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
256	33	N47A	16.635	-263.226	997.942	-0.404	-0.03	-0.07
257	33	N20	1098.182	-280.286	-635.661	0.109	0.004	0.431
258	33	N22	-2483.527	-682.778	-1467.344	0.418	0.086	-0.951
259	33	N114	2.756	1449.637	-2050.81	0	0	0
260	33	N116	-1835.624	1499.864	1059.769	0	0	0
261	33	N118	3418.507	2764.421	1970.84	0	0	0
262	33	Totals:	216.93	4487.633	-125.264			
263	33	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
264	34	N47A	35.069	-269.242	1091.966	-0.412	-0.113	-0.076
265	34	N20	1080.921	-279.168	-626.393	0.127	-0.032	0.419
266	34	N22	-2437.841	-677.954	-1416.963	0.429	-0.001	-0.936
267	34	N114	3.357	1464.638	-2070.834	0	0	0
268	34	N116	-1831.044	1496.786	1058.69	0	0	0
269	34	N118	3403.569	2752.572	1963.52	0	0	0
270	34	Totals:	254.031	4487.633	-0.013			
271	34	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
272	35	N47A	26.174	-276.344	1187.321	-0.423	-0.074	-0.071
273	35	N20	1035.466	-275.05	-580.267	0.135	0.028	0.407
274	35	N22	-2423.927	-676.491	-1401.13	0.448	-0.004	-0.923
275	35	N114	2.636	1480.889	-2092.658	0	0	0
276	35	N116	-1817.463	1486.135	1052.494	0	0	0
277	35	N118	3397.779	2748.494	1961.65	0	0	0
278	35	Totals:	220.665	4487.633	127.41			
279	35	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
280	36	N47A	8.846	-280.496	1246.388	-0.429	-0.009	-0.054
281	36	N20	961.029	-268.991	-520.816	0.134	0.086	0.398
282	36	N22	-2447.794	-677.746	-1408.858	0.471	0.002	-0.912
283	36	N114	1.233	1491.307	-2107.181	0	0	0
284	36	N116	-1799.581	1470.969	1042.948	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
285	36	N118	3402.29	2752.589	1965.786	0	0	0
286	36	Totals:	126.022	4487.633	218.266			
287	36	COG (ft):	X: 1.498	Y: 0.727	Z: 0.915			
288	37	N47A	8.188	-271.363	1277.653	-0.414	-0.037	0.024
289	37	N20	2026.22	-468.589	-1148.021	0.009	0.035	0.801
290	37	N22	-1200.733	-298.121	-666.192	0.203	-0.073	-0.402
291	37	N114	-0.099	1482.623	-2094.737	0	0	0
292	37	N116	-2905.341	2355.462	1680.561	0	0	0
293	37	N118	2071.757	1687.606	1199.134	0	0	0
294	37	Totals:	-0.008	4487.619	248.398			
295	37	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
296	38	N47A	4.974	-269.884	1254.959	-0.411	-0.054	0.043
297	38	N20	1966.868	-464.863	-1134.685	-0.003	-0.037	0.802
298	38	N22	-1291.885	-306.584	-700.594	0.215	-0.139	-0.409
299	38	N114	-1.399	1478.694	-2089.007	0	0	0
300	38	N116	-2893.922	2345.467	1672.499	0	0	0
301	38	N118	2091.512	1704.788	1211.254	0	0	0
302	38	Totals:	-123.853	4487.619	214.426			
303	38	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
304	39	N47A	-17.089	-266.791	1194.575	-0.407	0.032	0.056
305	39	N20	1950.081	-463.351	-1125.783	-0.021	-0.011	0.809
306	39	N22	-1369.645	-314.871	-758.168	0.215	-0.083	-0.423
307	39	N114	-2.75	1469.346	-2076.025	0	0	0
308	39	N116	-2889.393	2341.33	1668.275	0	0	0
309	39	N118	2111.876	1721.956	1222.28	0	0	0
310	39	Totals:	-216.921	4487.619	125.154			
311	39	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
312	40	N47A	-35.518	-260.768	1100.574	-0.399	0.115	0.062
313	40	N20	1967.336	-464.422	-1134.966	-0.038	0.025	0.821
314	40	N22	-1415.4	-319.723	-808.427	0.204	0.005	-0.437
315	40	N114	-3.352	1454.341	-2055.996	0	0	0
316	40	N116	-2893.982	2344.38	1669.261	0	0	0
317	40	N118	2126.896	1733.811	1229.458	0	0	0
318	40	Totals:	-254.022	4487.62	-0.097			
319	40	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
320	41	N47A	-26.607	-253.656	1005.191	-0.388	0.077	0.057
321	41	N20	2012.731	-468.484	-1181.137	-0.047	-0.035	0.833
322	41	N22	-1429.297	-321.18	-824.278	0.185	0.007	-0.451
323	41	N114	-2.634	1438.067	-2034.139	0	0	0
324	41	N116	-2907.494	2355.004	1675.511	0	0	0
325	41	N118	2132.645	1737.869	1231.334	0	0	0
326	41	Totals:	-220.655	4487.62	-127.519			
327	41	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
328	42	N47A	-9.293	-249.503	946.109	-0.382	0.011	0.04
329	42	N20	2087.091	-474.482	-1240.662	-0.046	-0.093	0.842
330	42	N22	-1405.387	-319.897	-816.567	0.162	0.001	-0.462
331	42	N114	-1.226	1427.628	-2019.586	0	0	0
332	42	N116	-2925.283	2370.125	1685.11	0	0	0
333	42	N118	2128.085	1733.749	1227.219	0	0	0
334	42	Totals:	-126.013	4487.62	-218.376			
335	42	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
336	43	N47A	-6.971	-249.194	932.065	-0.382	0.031	0.018
337	43	N20	2171.805	-480.115	-1276.206	-0.039	-0.038	0.847
338	43	N22	-1337.689	-314.873	-800.979	0.142	0.08	-0.465
339	43	N114	0.078	1425.447	-2016.374	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
340	43	N116	-2941.561	2384.496	1695.165	0	0	0
341	43	N118	2114.335	1721.858	1217.738	0	0	0
342	43	Totals:	-0.004	4487.62	-248.592			
343	43	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
344	44	N47A	-3.749	-250.674	954.739	-0.384	0.047	0
345	44	N20	2231.172	-483.836	-1289.518	-0.027	0.034	0.847
346	44	N22	-1246.559	-306.41	-766.568	0.13	0.146	-0.458
347	44	N114	1.376	1429.377	-2022.107	0	0	0
348	44	N116	-2952.979	2394.487	1703.219	0	0	0
349	44	N118	2094.58	1704.675	1205.614	0	0	0
350	44	Totals:	123.841	4487.619	-214.62			
351	44	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
352	45	N47A	18.284	-253.77	1015.125	-0.388	-0.039	-0.014
353	45	N20	2247.975	-485.349	-1298.444	-0.009	0.008	0.839
354	45	N22	-1168.783	-298.12	-708.966	0.13	0.09	-0.444
355	45	N114	2.733	1438.728	-2035.092	0	0	0
356	45	N116	-2957.51	2398.628	1707.449	0	0	0
357	45	N118	2074.211	1687.501	1194.58	0	0	0
358	45	Totals:	216.909	4487.619	-125.349			
359	45	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
360	46	N47A	36.72	-259.793	1109.148	-0.397	-0.121	-0.02
361	46	N20	2230.7	-484.281	-1289.273	0.008	-0.028	0.827
362	46	N22	-1123.008	-293.266	-658.727	0.141	0.002	-0.43
363	46	N114	3.335	1453.734	-2055.122	0	0	0
364	46	N116	-2952.923	2395.581	1706.47	0	0	0
365	46	N118	2059.186	1675.644	1187.407	0	0	0
366	46	Totals:	254.01	4487.619	-0.097			
367	46	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
368	47	N47A	27.824	-266.901	1204.513	-0.407	-0.083	-0.014
369	47	N20	2185.312	-480.223	-1243.084	0.017	0.033	0.815
370	47	N22	-1109.13	-291.81	-642.885	0.16	0	-0.416
371	47	N114	2.613	1470.002	-2076.97	0	0	0
372	47	N116	-2939.417	2384.961	1700.218	0	0	0
373	47	N118	2053.441	1671.59	1185.533	0	0	0
374	47	Totals:	220.644	4487.619	127.325			
375	47	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
376	48	N47A	10.495	-271.052	1263.593	-0.413	-0.017	0.002
377	48	N20	2110.957	-474.226	-1183.572	0.016	0.09	0.806
378	48	N22	-1133.039	-293.095	-650.584	0.183	0.006	-0.405
379	48	N114	1.209	1480.439	-2091.521	0	0	0
380	48	N116	-2921.627	2369.84	1690.619	0	0	0
381	48	N118	2058.007	1675.713	1189.647	0	0	0
382	48	Totals:	126.001	4487.619	218.182			
383	48	COG (ft):	X: -0.769	Y: 0.727	Z: 0.915			
384	49	N47A	-0.094	-260.83	1230.86	-0.397	0	-0.017
385	49	N20	1309.769	-270.027	-756.524	-0.041	-0.002	0.488
386	49	N22	-1497.479	-316.15	-864.7	0.127	0.001	-0.471
387	49	N114	0.001	1472.664	-2082.409	0	0	0
388	49	N116	-2047.525	1668.251	1182.145	0	0	0
389	49	N118	2235.32	1818.709	1290.565	0	0	0
390	49	Totals:	-0.008	4112.616	-0.063			
391	49	COG (ft):	X: 0.193	Y: 0.793	Z: 0.523			
392	50	N47A	0.439	-272.686	1209.287	-0.416	-0.002	-0.015
393	50	N20	1816.176	-495.944	-1048.707	0.293	-0.001	0.702
394	50	N22	-1197.686	-315.094	-692.039	0.302	0.002	-0.38

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
395	50	N114	-0.006	1486.309	-2102.07	0	0	0
396	50	N116	-2590.125	2102.958	1495.413	0	0	0
397	50	N118	1971.173	1607.08	1138.065	0	0	0
398	50	Totals:	-0.031	4112.623	-0.052			
399	50	COG (ft):	X: -0.604	Y: 0.793	Z: 0.523			
400	51	N47A	-0.121	-316.721	1562.109	-0.481	0.001	-0.019
401	51	N20	1302.077	-311.602	-751.899	0.16	-0.001	0.456
402	51	N22	-1521.14	-365.488	-878.175	0.356	0	-0.435
403	51	N114	0.002	1753.374	-2480.393	0	0	0
404	51	N116	-2097.321	1712.704	1210.891	0	0	0
405	51	N118	2316.484	1888.291	1337.421	0	0	0
406	51	Totals:	-0.019	4360.556	-0.045			
407	51	COG (ft):	X: 0.212	Y: 0.873	Z: 0.053			
408	52	N47A	4.679	-291.923	1593.163	-0.442	-0.021	-0.016
409	52	N20	1070.928	-270.501	-593.041	0.164	0.046	0.382
410	52	N22	-1268.155	-316.958	-702.004	0.341	-0.075	-0.36
411	52	N114	-0.06	1580.163	-2233.692	0	0	0
412	52	N116	-1838.846	1501.959	1063.918	0	0	0
413	52	N118	2031.436	1656.224	1174.982	0	0	0
414	52	Totals:	-0.018	3858.963	303.326			
415	52	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
416	53	N47A	-9.689	-290.493	1563.701	-0.44	0.015	0.002
417	53	N20	1001.191	-266.621	-563.203	0.151	0.023	0.383
418	53	N22	-1363.865	-323.757	-751.2	0.351	-0.089	-0.365
419	53	N114	-1.157	1576.456	-2228.659	0	0	0
420	53	N116	-1827.466	1491.93	1056.41	0	0	0
421	53	N118	2049.298	1671.448	1185.623	0	0	0
422	53	Totals:	-151.688	3858.963	262.672			
423	53	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
424	54	N47A	-21.485	-286.381	1485.689	-0.435	0.048	0.015
425	54	N20	971.947	-265.242	-560.748	0.135	-0.006	0.39
426	54	N22	-1454.884	-330.532	-807.382	0.352	-0.079	-0.376
427	54	N114	-1.944	1566.158	-2214.662	0	0	0
428	54	N116	-1823.769	1488.305	1052.984	0	0	0
429	54	N118	2067.424	1686.655	1195.757	0	0	0
430	54	Totals:	-262.711	3858.963	151.638			
431	54	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
432	55	N47A	-27.548	-280.688	1380.019	-0.427	0.068	0.019
433	55	N20	991.022	-266.732	-586.334	0.121	-0.033	0.401
434	55	N22	-1516.84	-335.47	-855.512	0.342	-0.047	-0.39
435	55	N114	-2.21	1552.026	-2195.447	0	0	0
436	55	N116	-1828.743	1492.054	1054.556	0	0	0
437	55	N118	2080.961	1697.773	1202.672	0	0	0
438	55	Totals:	-303.358	3858.964	-0.046			
439	55	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
440	56	N47A	-26.254	-274.937	1275.012	-0.419	0.069	0.014
441	56	N20	1053.316	-270.692	-633.114	0.113	-0.052	0.412
442	56	N22	-1533.112	-337.248	-882.683	0.326	-0.004	-0.402
443	56	N114	-1.885	1537.845	-2176.163	0	0	0
444	56	N116	-1841.055	1502.172	1060.707	0	0	0
445	56	N118	2086.281	1701.823	1204.514	0	0	0
446	56	Totals:	-262.709	3858.964	-151.728			
447	56	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
448	57	N47A	-17.958	-270.671	1198.807	-0.413	0.053	0
449	57	N20	1142.123	-276.059	-688.546	0.112	-0.057	0.421

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
450	57	N22	-1499.355	-335.391	-881.615	0.306	0.041	-0.41
451	57	N114	-1.053	1527.419	-2161.98	0	0	0
452	57	N116	-1857.403	1515.946	1069.785	0	0	0
453	57	N118	2081.961	1697.722	1200.791	0	0	0
454	57	Totals:	-151.686	3858.964	-262.757			
455	57	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
456	58	N47A	-4.882	-269.034	1171.806	-0.41	0.022	-0.019
457	58	N20	1233.67	-281.395	-737.784	0.119	-0.047	0.425
458	58	N22	-1424.611	-330.395	-852.586	0.289	0.075	-0.412
459	58	N114	0.061	1523.539	-2156.698	0	0	0
460	58	N116	-1873.409	1529.686	1079.359	0	0	0
461	58	N118	2069.155	1686.564	1192.497	0	0	0
462	58	Totals:	-0.015	3858.964	-303.405			
463	58	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
464	59	N47A	9.471	-270.466	1201.263	-0.412	-0.014	-0.037
465	59	N20	1303.418	-285.271	-767.625	0.133	-0.025	0.424
466	59	N22	-1328.903	-323.597	-803.371	0.28	0.088	-0.406
467	59	N114	1.16	1527.248	-2161.735	0	0	0
468	59	N116	-1884.784	1539.71	1086.864	0	0	0
469	59	N118	2051.293	1671.339	1181.853	0	0	0
470	59	Totals:	151.655	3858.964	-262.751			
471	59	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
472	60	N47A	21.261	-274.581	1279.267	-0.418	-0.047	-0.049
473	60	N20	1332.678	-286.65	-770.077	0.148	0.004	0.417
474	60	N22	-1237.889	-316.819	-747.173	0.279	0.078	-0.395
475	60	N114	1.948	1537.55	-2175.737	0	0	0
476	60	N116	-1888.484	1543.336	1090.29	0	0	0
477	60	N118	2033.163	1656.128	1171.713	0	0	0
478	60	Totals:	262.678	3858.963	-151.717			
479	60	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
480	61	N47A	27.333	-280.277	1384.934	-0.426	-0.066	-0.054
481	61	N20	1313.608	-285.163	-744.484	0.162	0.032	0.407
482	61	N22	-1175.935	-311.878	-699.045	0.289	0.047	-0.382
483	61	N114	2.213	1551.683	-2194.953	0	0	0
484	61	N116	-1883.516	1539.592	1088.719	0	0	0
485	61	N118	2019.622	1645.006	1164.796	0	0	0
486	61	Totals:	303.325	3858.963	-0.034			
487	61	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
488	62	N47A	26.054	-286.026	1489.946	-0.434	-0.068	-0.048
489	62	N20	1251.304	-281.207	-697.701	0.171	0.051	0.395
490	62	N22	-1159.661	-310.099	-671.892	0.305	0.003	-0.369
491	62	N114	1.885	1565.86	-2214.233	0	0	0
492	62	N116	-1871.208	1529.477	1082.572	0	0	0
493	62	N118	2014.302	1640.956	1162.956	0	0	0
494	62	Totals:	262.676	3858.963	151.648			
495	62	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
496	63	N47A	17.763	-290.288	1566.159	-0.44	-0.052	-0.034
497	63	N20	1162.481	-275.841	-642.273	0.172	0.056	0.386
498	63	N22	-1193.413	-311.959	-672.977	0.324	-0.042	-0.361
499	63	N114	1.053	1576.283	-2228.411	0	0	0
500	63	N116	-1854.858	1515.704	1073.494	0	0	0
501	63	N118	2018.626	1645.063	1166.685	0	0	0
502	63	Totals:	151.653	3858.963	262.678			
503	63	COG (ft):	X: 0.213	Y: 0.874	Z: 0.053			
504	64	N47A	4.7	-205.589	1170.793	-0.311	-0.021	-0.01

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
505	64	N20	718.99	-185.5	-389.809	0.12	0.046	0.257
506	64	N22	-856.419	-217.236	-464.332	0.244	-0.075	-0.241
507	64	N114	-0.043	1106.044	-1562.989	0	0	0
508	64	N116	-1271.81	1038.898	736.557	0	0	0
509	64	N118	1404.568	1145.253	813.118	0	0	0
510	64	Totals:	-0.013	2681.871	303.338			
511	64	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			
512	65	N47A	-9.662	-204.154	1141.329	-0.309	0.015	0.008
513	65	N20	649.252	-181.604	-359.966	0.107	0.024	0.259
514	65	N22	-952.132	-224.058	-513.533	0.254	-0.089	-0.246
515	65	N114	-1.158	1102.334	-1557.953	0	0	0
516	65	N116	-1260.425	1028.858	729.033	0	0	0
517	65	N118	1422.441	1160.493	823.774	0	0	0
518	65	Totals:	-151.683	2681.871	262.684			
519	65	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			
520	66	N47A	-21.45	-200.026	1063.313	-0.303	0.048	0.02
521	66	N20	620.009	-180.218	-357.509	0.091	-0.005	0.266
522	66	N22	-1043.158	-230.855	-569.714	0.254	-0.079	-0.257
523	66	N114	-1.963	1092.026	-1543.943	0	0	0
524	66	N116	-1256.729	1025.228	725.593	0	0	0
525	66	N118	1440.586	1175.716	833.909	0	0	0
526	66	Totals:	-262.706	2681.871	151.65			
527	66	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			
528	67	N47A	-27.506	-194.309	957.637	-0.295	0.067	0.024
529	67	N20	639.085	-181.714	-383.095	0.077	-0.033	0.276
530	67	N22	-1105.122	-235.809	-617.836	0.245	-0.047	-0.271
531	67	N114	-2.244	1077.877	-1524.71	0	0	0
532	67	N116	-1261.711	1028.98	727.158	0	0	0
533	67	N118	1454.145	1186.846	840.812	0	0	0
534	67	Totals:	-303.353	2681.871	-0.034			
535	67	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			
536	68	N47A	-26.207	-188.535	852.624	-0.287	0.069	0.019
537	68	N20	701.38	-185.691	-429.877	0.069	-0.052	0.288
538	68	N22	-1121.402	-237.592	-644.996	0.228	-0.004	-0.283
539	68	N114	-1.923	1063.68	-1505.408	0	0	0
540	68	N116	-1274.035	1039.108	733.309	0	0	0
541	68	N118	1459.483	1190.9	842.632	0	0	0
542	68	Totals:	-262.704	2681.872	-151.716			
543	68	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			
544	69	N47A	-17.909	-184.251	776.415	-0.281	0.053	0.005
545	69	N20	790.188	-191.079	-485.312	0.068	-0.057	0.297
546	69	N22	-1087.651	-235.727	-643.915	0.209	0.041	-0.291
547	69	N114	-1.087	1053.241	-1491.21	0	0	0
548	69	N116	-1290.395	1052.895	742.395	0	0	0
549	69	N118	1455.173	1186.794	838.882	0	0	0
550	69	Totals:	-151.681	2681.872	-262.745			
551	69	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			
552	70	N47A	-4.837	-182.607	749.413	-0.279	0.022	-0.013
553	70	N20	881.737	-196.437	-534.556	0.076	-0.047	0.301
554	70	N22	-1012.907	-230.714	-614.876	0.192	0.075	-0.293
555	70	N114	0.042	1049.355	-1485.921	0	0	0
556	70	N116	-1306.411	1066.649	751.983	0	0	0
557	70	N118	1442.367	1175.625	830.563	0	0	0
558	70	Totals:	-0.01	2681.872	-303.393			
559	70	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
560	71	N47A	9.51	-184.044	778.872	-0.281	-0.014	-0.031
561	71	N20	951.485	-200.33	-564.401	0.089	-0.024	0.3
562	71	N22	-917.197	-223.893	-565.655	0.182	0.088	-0.287
563	71	N114	1.159	1053.068	-1490.962	0	0	0
564	71	N116	-1317.792	1076.685	759.503	0	0	0
565	71	N118	1424.494	1160.384	819.904	0	0	0
566	71	Totals:	151.66	2681.871	-262.739			
567	71	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			
568	72	N47A	21.292	-188.175	856.88	-0.286	-0.047	-0.044
569	72	N20	980.744	-201.715	-566.856	0.105	0.005	0.293
570	72	N22	-826.175	-217.093	-509.459	0.182	0.078	-0.276
571	72	N114	1.966	1063.38	-1504.976	0	0	0
572	72	N116	-1321.49	1080.316	762.943	0	0	0
573	72	N118	1406.345	1145.157	809.763	0	0	0
574	72	Totals:	262.682	2681.871	-151.705			
575	72	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			
576	73	N47A	27.357	-193.894	962.553	-0.294	-0.067	-0.048
577	73	N20	961.674	-200.222	-541.264	0.119	0.032	0.282
578	73	N22	-764.213	-212.135	-461.339	0.191	0.047	-0.263
579	73	N114	2.245	1077.53	-1524.21	0	0	0
580	73	N116	-1316.514	1076.569	761.381	0	0	0
581	73	N118	1392.782	1134.023	802.857	0	0	0
582	73	Totals:	303.33	2681.871	-0.022			
583	73	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			
584	74	N47A	26.072	-199.666	1067.571	-0.302	-0.069	-0.043
585	74	N20	899.368	-196.249	-494.478	0.127	0.051	0.271
586	74	N22	-747.931	-210.352	-434.197	0.208	0.003	-0.25
587	74	N114	1.922	1091.724	-1543.508	0	0	0
588	74	N116	-1304.194	1066.445	755.233	0	0	0
589	74	N118	1387.443	1129.97	801.04	0	0	0
590	74	Totals:	262.681	2681.871	151.66			
591	74	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			
592	75	N47A	17.781	-203.946	1143.788	-0.308	-0.052	-0.029
593	75	N20	810.544	-190.861	-439.046	0.128	0.056	0.262
594	75	N22	-781.677	-212.219	-435.295	0.227	-0.041	-0.242
595	75	N114	1.085	1102.16	-1557.701	0	0	0
596	75	N116	-1287.832	1052.657	746.147	0	0	0
597	75	N118	1391.758	1134.08	804.796	0	0	0
598	75	Totals:	151.658	2681.871	262.69			
599	75	COG (ft):	X: 0.212	Y: 0.871	Z: 0.052			

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

Member	Shape	Code Check	Loc [ft]	LC Shear	Check Loc [ft]	Dir	LC phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
0	M40	HSS4X4X4	0.368	8.021	22	0.091	5.104	y 22	91806.571	139518	16.181	1.715 H1-1b
1	M13	HSS4X4X4	0.347	8.021	24	0.097	5.104	y 18	91806.571	139518	16.181	1.7 H1-1b
2	M14	HSS4X4X4	0.382	8.021	20	0.111	5.104	y 14	91806.571	139518	16.181	1.649 H1-1b
3	M21	HSS4X4X4	0.284	0	21	0.126	0	z 3	40074.055	139518	16.181	2.734 H1-1b
4	M19	HSS4X4X4	0.248	0	17	0.12	0	z 11	40074.055	139518	16.181	2.619 H1-1b
5	M20A	HSS4X4X4	0.242	0	13	0.114	0	z 7	40074.055	139518	16.181	2.433 H1-1b
6	M21A	L2X2X3	0.054	0	22	0.008	0	y 15	22249.751	23392.8	0.558	1.5 H2-1
7	M15A	L2X2X3	0.096	0	22	0.014	0	y 15	22249.751	23392.8	0.558	1.5 H2-1
8	M17A	L2X2X3	0.096	0	16	0.014	0	z 22	22249.751	23392.8	0.558	1.5 H2-1
9	M19A	L2X2X3	0.054	0	16	0.008	0	z 19	22249.751	23392.8	0.558	1.5 H2-1
10	M21B	L2X2X3	0.054	0	18	0.008	0	y 23	22249.751	23392.8	0.558	1.5 H2-1
11	M23	L2X2X3	0.096	0	18	0.014	0	y 23	22249.751	23392.8	0.558	1.5 H2-1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 24777037 (Rev. 3)
 Model Name : Mount ReAnalysis-VZW

7/23/2024
 10:25:34 AM
 Checked By : DX

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

	Member	Shape	Code	Check	Loc(ft)	LC	Shear	Check	Loc(ft)	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
12	M25	L2X2X3	0.096	0	24	0.014	0	z	18	22249.751	23392.8	0.558	1.239	1.5	H2-1		
13	M27	L2X2X3	0.054	0	24	0.008	0	z	18	22249.751	23392.8	0.558	1.239	1.5	H2-1		
14	M29	L2X2X3	0.054	0	14	0.008	0	y	19	22249.751	23392.8	0.558	1.239	1.5	H2-1		
15	M31	L2X2X3	0.096	0	14	0.014	0	y	20	22249.751	23392.8	0.558	1.239	1.5	H2-1		
16	M33	L2X2X3	0.096	0	20	0.014	0	z	14	22249.751	23392.8	0.558	1.239	1.5	H2-1		
17	M35	L2X2X3	0.054	0	20	0.008	0	z	21	22249.751	23392.8	0.558	1.239	1.5	H2-1		
18	MP1A	PIPE 2.0	0.597	4.516	6	0.247	4.516	7	13511.278	32130	1.872	1.872	1	H1-1b			
19	MP2A	PIPE 2.0	0.459	4.516	7	0.057	4.604	6	13511.278	32130	1.872	1.872	1	H1-1b			
20	MP3A	PIPE 2.0	0.253	4.74	1	0.036	4.74	5	17855.085	32130	1.872	1.872	1	H1-1b			
21	MP4A	PIPE 2.0	0.44	4.604	9	0.203	4.604	4	13511.278	32130	1.872	1.872	1	H1-1b			
22	MP1B	PIPE 2.0	0.223	4.516	11	0.036	4.516	12	13511.278	32130	1.872	1.872	1	H1-1b			
23	MP2B	PIPE 2.0	0.459	4.516	11	0.05	4.516	10	13511.278	32130	1.872	1.872	1	H1-1b			
24	MP3B	PIPE 2.0	0.253	4.74	5	0.036	4.74	9	17855.085	32130	1.872	1.872	1	H1-1b			
25	MP4B	PIPE 2.0	0.438	4.604	12	0.159	4.604	4	13511.278	32130	1.872	1.872	1	H1-1b			
26	MP1C	PIPE 2.0	0.237	4.693	3	0.037	4.693	2	13511.278	32130	1.872	1.872	1	H1-1b			
27	MP2C	PIPE 2.0	0.107	4.693	7	0.012	4.693	3	13511.278	32130	1.872	1.872	1	H1-1b			
28	MP3C	PIPE 2.0	0.475	4.693	3	0.059	4.781	2	13511.278	32130	1.872	1.872	1	H1-1b			
29	MP4C	PIPE 2.0	0.25	4.74	9	0.035	4.74	1	17855.085	32130	1.872	1.872	1	H1-1b			
30	MP5C	PIPE 2.0	0.415	4.604	3	0.106	4.604	11	13511.278	32130	1.872	1.872	1	H1-1b			
31	M67	SR 0.5	0.396	0	6	0.442	0.417	9	5827.173	6350.4	0.052	0.052	1	H1-1b			
32	M68	SR 0.5	0.305	0.417	7	0.132	0.417	7	5827.173	6350.4	0.052	0.052	1	H1-1b			
33	M69	PIPE 1.5	0.019	2.24	6	0.003	2.24	4	20972.614	23593.5	1.105	1.105	1	H1-1b			
34	M70	LL3X3X3X6	0.143	6.137	13	0.005	6.137	y	2	46068.083	70632	6.362	3.751	1	H1-1b*		
35	M71	LL3X3X3X6	0.139	6.137	21	0.006	6.137	y	8	46068.083	70632	6.362	3.751	1	H1-1b*		
36	M72	LL3X3X3X6	0.157	6.137	17	0.005	6.137	y	4	46068.083	70632	6.362	3.751	1	H1-1b*		
37	DONOR-A1	PIPE 2.0	0.062	3.333	19	0.031	3.333	7	26521.424	32130	1.872	1.872	1	H1-1b			
38	M74	PIPE 2.0	0.052	0	7	0.027	0	7	30894.636	32130	1.872	1.872	1	H1-1b			
39	M75	PIPE 2.0	0.154	0	17	0.076	0	7	30894.636	32130	1.872	1.872	1	H1-1b			
40	DONOR-A4	PIPE 2.0	0.056	3.333	23	0.027	3.333	10	26521.424	32130	1.872	1.872	1	H1-1b			
41	M81	PIPE 2.0	0.048	0	10	0.023	0	10	30894.636	32130	1.872	1.872	1	H1-1b			
42	M82	PIPE 2.0	0.134	0	21	0.065	0	10	30894.636	32130	1.872	1.872	1	H1-1b			
43	M87	PIPE 2.0	0.1	0	15	0.056	0	5	31747.067	32130	1.872	1.872	1	H1-1b			
44	M88	PIPE 2.0	0.036	0	3	0.018	0	8	31747.067	32130	1.872	1.872	1	H1-1b			
45	DONOR-C4	PIPE 2.0	0.042	3.333	5	0.026	3.333	7	26521.424	32130	1.872	1.872	1	H1-1b			
46	M94	PIPE 2.0	0.141	0	24	0.053	0	2	30894.636	32130	1.872	1.872	1	H1-1b			
47	M95	PIPE 2.0	0.04	0	5	0.02	0	4	30894.636	32130	1.872	1.872	1	H1-1b			
48	DONOR-B4	PIPE 2.0	0.058	3.333	15	0.025	3.333	4	26521.424	32130	1.872	1.872	1	H1-1b			

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):

3

d_y (in) (Delta Y of typ. bolt config. sketch):

8

Bolt Type:

A307

Bolt Diameter (in):

0.75

Required Tensile Strength / bolt (kips):

5.3

Required Shear Strength / bolt (kips):

0.7

Tensile Capacity / bolt (kips):

14.9

Shear Capacity / bolt (kips):

8.9

Bolt Overall Utilization:

35.7%

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):

10

$W1$ (in):

4

$W2$ (in):

4

Member Thickness (in):

0.25

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):

0.5

Length of Yield Line, L_y (in):

4.90

Bolt Eccentricity, e (in):

1.86

M_u (kip-in):

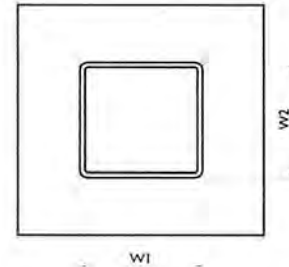
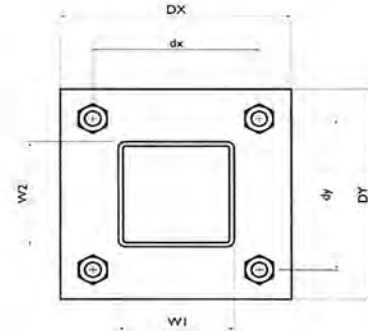
9.88

$\Phi * M_n$ (kip-in):

9.92

Plate Bending Utilization:

99.6%



VzW
SMART Tool[®]
Vendor

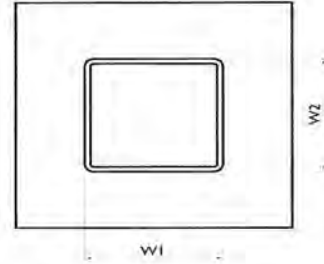
Client:	Verizon Wireless	Date:	7/23/2024
Site Name:	Plainville 3 CT		
MDG #:	5000176778		
Fuze ID #:	17123831	Page:	2

Version 2.00

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 (in³/in):
 Z_y (in³/in):
 J_p (in⁴/in):
 c_x (in):
 c_y (in):
Required combined strength (kip/in):
Weld Capacity (kip/in):
Weld Utilization:

Yes
Rectangle
None
4
4
4
16.00
21.33
21.33
85.33
2.248
2.248
1.16
5.57
20.8%

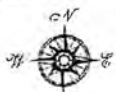
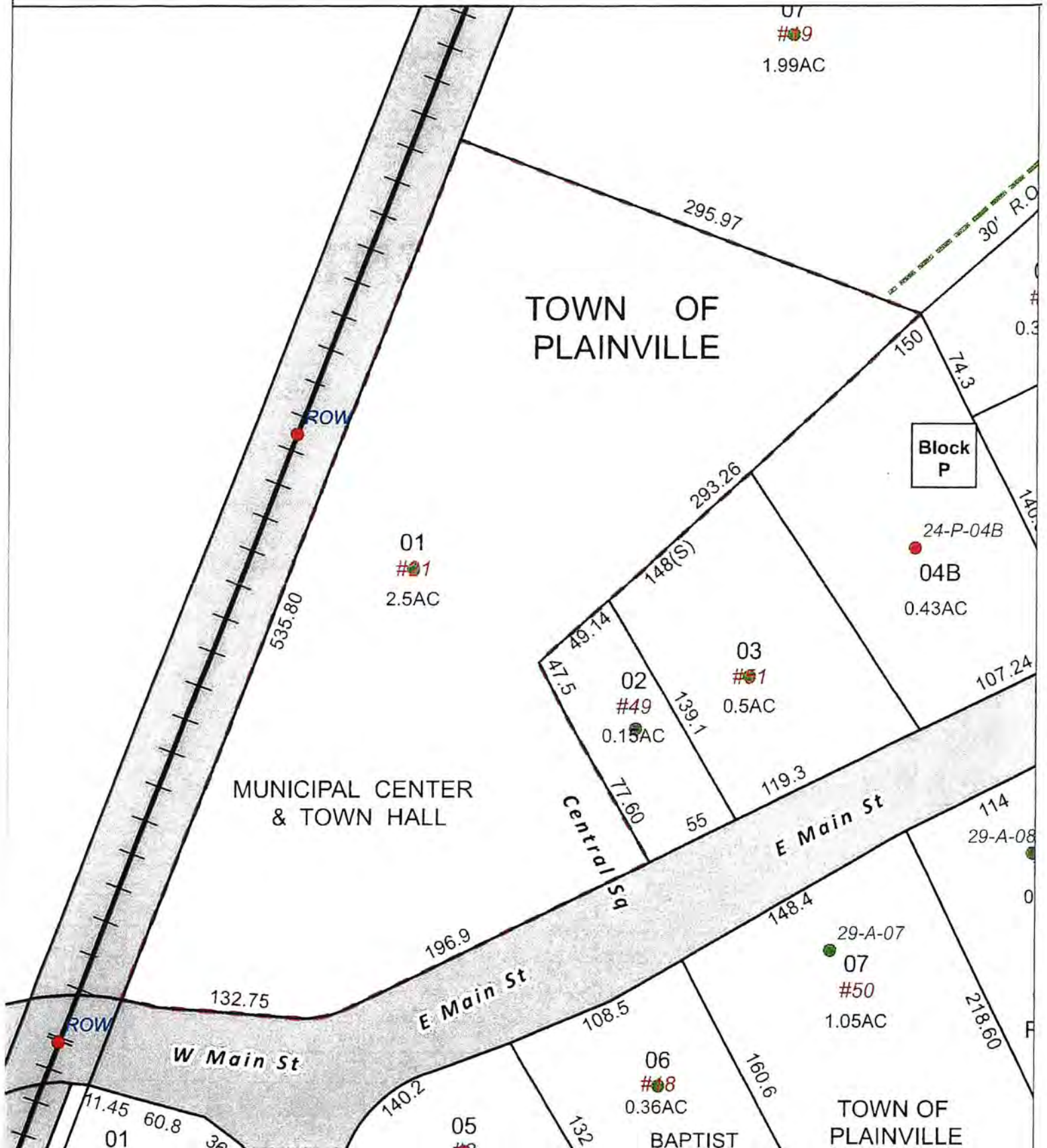


ATTACHMENT 5

Town of Plainville, Connecticut - Assessment Parcel Map

Parcel: 24-P-01

Address: 21 EAST MAIN ST

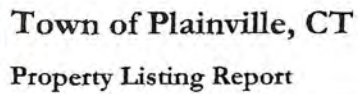


0 25 50 75 100
Feet

Approximate Scale:
1 inch = 75 feet

Map Produced May 2023

Disclaimer: This map is for informational purposes only. All information is subject to verification by any user.



Unique Identifier **R07119**

Developer Lot

Property Information

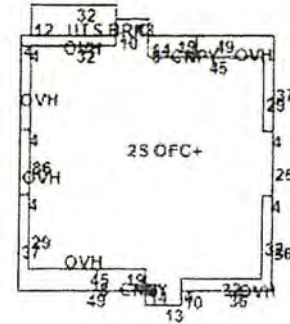
Property Location	21 EAST MAIN ST
Mailing Address	1 CENTRAL SQ PLAINVILLE CT 06062
Land Use	Town Owned
Zoning Code	CC
Neighborhood	810

Owner	PLAINVILLE TOWN OF
Co-Owner	
Book / Page	0173/0633
Land Class	Commercial
Census Tract	4202
Acreage	2.5

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	3371700	2360190
Outbuildings	1357400	950180
Land	384000	268800
Total	5113100	3579170

Electric	No
Gas	No
Sewer	Yes
Public Water	Yes
Well	No



Year Built	1973
Building Desc.	Commercial
Building Style	
Stories	2
Exterior Walls	Brick Veneer
Exterior Walls 2	
Interior Walls	Normal
Interior Walls 2	
Interior Floors 1	
Interior Floors 2	

Heating Fuel	
Heating Type	Hot Air No
AC Type	Central
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	
Occupancy	0

Livable Area (ft)	17584
Building Use	Office Low
Building Condition	Average
Frame Type	A
Building Grade	-25
Fireplaces	0
Wood Stoves	0
Attic Access	
Roof Style	
Roof Cover	

Bsmt Area	0
Fin Bsmt Area	0
Fin Bsmt Quality	
Bsmt Access	
Bsmt Gar	0
Bsmt Sump Pump	No

ATTACHMENT 6



Certificate of Mailing — Firm

Certificate of Mailing — Firm

Name and Address of Sender		TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here Postmark with Date of Receipt.			
Kenneth C. Baldwin, Esq. Robinson & Cole LLP One State Street Hartford, CT 06103		2					
Postmaster, per (name of receiving employee)							
USPS® Tracking Number Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift		
1.	Michael Paulhus, Town Manager Town of Plainville - Municipal Center One Central Square Plainville, CT 06062						
2.	Mark DeVoe, Town Planner Town of Plainville - Municipal Center One Central Square Plainville, CT 06062						
3.							
4.							
5.							
6.							