

March 18, 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
667 Main Street, Cromwell, Connecticut**

Dear Attorney Bachman:

Cellco Partnership d/b/a Verizon Wireless (“Cellco”) currently maintains an existing wireless telecommunications facility at the above-referenced property address (the “Property”). The facility consists of antennas and remote radio heads on a monopole tower. Related equipment is located on the ground, near the base of the tower. The tower and Cellco’s use of the tower were approved by the Council in September of 2018 (Docket No. 481). A copy of the Council’s Docket No. 481 Decision and Order is included in [Attachment 1](#).

In addition, on May 15, 2023, the Council approved EM-VER-033-230425, permitting the installation of a Multi-Beam Spherical Lens (“MBSL”) antenna on the tower for temporary use during the 2023 and 2024 Travelers Championship golf tournaments.

Cellco now seeks Council authorization of the following three facility changes: 1) remove three (3) existing Beta sector antennas from the existing antenna platform; 2) install one (1) new MBSL antenna and three (3) remote radio heads (“RRHs”) in the sites Beta sector on the existing antenna platform; and 3) allow Cellco to maintain the existing MBSL antennas, approved in EM-VER-033-23425, as a permanent improvement going forward. A set of project plans showing Cellco’s proposed facility modifications and the specifications for Cellco’s new antenna and RRHs are 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 Cromwell’s Chief Elected Official and Land Use Officer. A copy of this letter is being sent to the owner of the Property.

29114746-v1

Robinson+Cole

Melanie A. Bachman, Esq.
March 18, 2024
Page 2

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

The proposed modifications will not result in an increase in the height of the existing tower. The new MBSL antenna will be installed on the existing antenna platform at the same height as Cellco's existing antennas.

The proposed modifications will not involve any change to ground-mounted equipment and, therefore, will not require the extension of the site boundary.

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.

The installation of Cellco's new MBSL 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 are Far Field Approximation Tables demonstrating that the proposed modified facility will comply with the FCC safety standards.

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

According to the attached Structural Analysis Report ("SA") and Antenna Mount Analysis Report ("MA"), the existing tower, tower foundation, and existing and proposed antenna mounts, with certain modifications, can support the proposed facility 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

Attachments
Copy to:

Anthony Salvatore, Town Manager
Stuart Popper, Director of Planning and Development
Cromwell Concrete Products, Inc., Property Owner
Alex Tyurin, Verizon Wireless

ATTACHMENT 1

<p>DOCKET NO. 481 - Cellco Partnership d/b/a Verizon Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at 667, 665, 663 and 663R Main Street, Cromwell, Connecticut.</p>	<p>} } }</p>	<p>Connecticut Siting Council</p>
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July 19, 2018

Decision and Order

Pursuant to Connecticut General Statutes §16-50p and the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, maintenance, and operation of a telecommunications facility, including effects on the natural environment, ecological balance, public health and safety, scenic, historic, and recreational values, agriculture, forests and parks, air and water purity, and fish, aquaculture and wildlife are not disproportionate, either alone or cumulatively with other effects, when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application, and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Cellco Partnership d/b/a Verizon Wireless, hereinafter referred to as the Certificate Holder, for a telecommunications facility at 667, 665, 663 and 663R Main Street, Cromwell, Connecticut.

Unless otherwise approved by the Council, the facility shall be constructed, operated, and maintained substantially as specified in the Council’s record in this matter, and subject to the following conditions:

1. The tower shall be constructed as a monopole at a height of 120 feet above ground level to provide the proposed wireless services, sufficient to accommodate the antennas of Cellco Partnership d/b/a Verizon Wireless and other entities, both public and private. The height of the tower may be extended after the date of this Decision and Order pursuant to regulations of the Federal Communications Commission.

2. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town Cromwell for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:
 - a) final site plan(s) for development of the facility that employ the governing standard in the State of Connecticut for tower design in accordance with the currently adopted International Building Code and include specifications for the tower, tower foundation, antennas and equipment compound including, but not limited to, fencing, radio equipment, access road, utility installation and emergency backup generator with consideration of additional run time capacity;
 - b) the tower shall be designed with a yield point to ensure that the tower setback radius remains within the boundaries of the subject property;
 - c) construction plans for site clearing, grading, landscaping, water drainage and stormwater control, and erosion and sedimentation controls consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended;
 - d) eastern box turtle protection plan;
 - e) plans to protect the tree roots from the utility trench; and
 - f) proposed hours and days of the week for construction activities.

3. Prior to the commencement of operation, the Certificate Holder shall provide the Council worst-case modeling of the electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of the electromagnetic radio frequency power density be submitted to the Council if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.
4. Upon the establishment of any new federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
5. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
6. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed with at least one fully operational wireless telecommunications carrier providing wireless service within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The Certificate Holder shall provide written notice to the Executive Director of any schedule changes as soon as is practicable.
7. Any request for extension of the time period referred to in Condition 6 shall be filed with the Council not later than 60 days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Cromwell.
8. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council within 90 days from the one year period of cessation of service. The Certificate Holder may submit a written request to the Council for an extension of the 90 day period not later than 60 days prior to the expiration of the 90 day period.
9. Any nonfunctioning antenna, and associated antenna mounting equipment, on this facility shall be removed within 60 days of the date the antenna ceased to function.
10. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction, and the commencement of site operation.
11. The Certificate Holder shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v.

12. This Certificate may be transferred in accordance with Conn. Gen. Stat. §16-50k(b), provided both the Certificate Holder/transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. In addition, both the Certificate Holder/transferor and the transferee shall provide the Council a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility.
13. The Certificate Holder shall maintain the facility and associated equipment, including but not limited to, the tower, tower foundation, antennas, equipment compound, radio equipment, access road, utility line and landscaping in a reasonable physical and operational condition that is consistent with this Decision and Order and a Development and Management Plan to be approved by the Council.
14. If the Certificate Holder is a wholly-owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the Certificate Holder within 30 days of the sale and/or transfer.
15. This Certificate may be surrendered by the Certificate Holder upon written notification and acknowledgment by the Council.

We hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed in the Service List, dated March 1, 2018, and notice of issuance published in the Hartford Courant.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

ATTACHMENT 2



WIRELESS COMMUNICATIONS FACILITY

CROMWELL NORTH 2 CT - MULTIBEAM SECTORIZATION

667 MAIN STREET CROMWELL, CT 06416

DRAWING INDEX

- T-1 TITLE SHEET
- C-1 COMPOUND PLAN, TOWER ELEVATION & NOTES
- C-2 EXISTING & NEW EQUIPMENT CONFIGURATION PLAN & ELEVATION
- B-1 RF BILL OF MATERIALS, EQUIPMENT SPECIFICATIONS & DETAILS
- N-1 NOTES & SPECIFICATIONS

SITE DIRECTIONS

- START: 20 ALEXANDER DRIVE
WALLINGFORD, CONNECTICUT 06492**
- END: 667 MAIN STREET
CROMWELL, CT 06416**
1. HEAD SOUTH TOWARDS ALEXANDER DRIVE
 2. TURN RIGHT TOWARDS ALEXANDER DRIVE
 3. TURN RIGHT TOWARDS ALEXANDER DRIVE
 4. TURN RIGHT ONTO ALEXANDER DRIVE
 5. TURN RIGHT ONTO INDUSTRIAL RD S
 6. TURN RIGHT ONTO CROMWELL
 7. CONTINUE STRAIGHT TO STAY ON CT 667
 8. SHARP LEFT 107 WEDGE ONTO MAIN ST
 9. TURN LEFT 90 DEGREES WEST STREET
 10. PAGE END FOR WEST STREET
 11. TURN RIGHT ONTO STATE HWY 41 (AVENUE) STREET
 12. TURN RIGHT ONTO CAPITAL GEAR LUMBER
 13. TURN LEFT ONTO BROOK STREET
 14. TURN LEFT ONTO CROMWELL STREET
 15. TURN RIGHT ONTO CROMWELL STREET (TURN RIGHT ON RIGHT)

- 270 FT
- 167 FT
- 0.3 MI
- 0.1 MI
- 0.2 MI
- 0.3 MI
- 0.2 MI
- 0.1 MI
- 0.5 MI
- 0.2 MI
- 1.0 MI



LOCATION MAP
SCALE 1"=200'

SITE INFORMATION

VZ SITE NAME: CROMWELL NORTH 2 CT
 VZ MEX: LOCATION: 8002524-5993
 VZ PHONE: 173252966
 VZ PRLC: 469424

PROJECT TYPE: MULTIBEAM SECTORIZATION
 LOCATION: 667 MAIN STREET
 CROMWELL, CT 06416

PHASE OF WORK: WITH CONDITIONS DRAWING C-11 ON SCOPE OF WORK

MAP/LOCKLOT: 46715/26C

ZONING DISTRICT: DP (BUSINESS PARK)
 PARCEL: 41-37-56-025-11-411 AND 025-11-412
 LONGITUDE: 72° 30' 10.7277" W 42° 06' 09.9722" N

THE CORPORATION AND CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.

GROUND ELEVATION: 147' - AMSL
 PROPERTY OWNER: CROMWELL CONCRETE PRODUCTS, INC
 667 MAIN STREET
 CROMWELL, CT 06416

APPLICANT: CELLCO PARTNERSHIP
 20 ALEXANDER DRIVE
 WALLINGFORD, CT 06492

PLANNING CONSULTANT: ROBINSON & CO, LLP
 200 TRUMBULL STREET
 HARTFORD, CT 06103

ENGINEER CONTACT: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
 565 VAUGHAN STREET EXTENSION J SUITE 311
 CROMWELL, CT 06416
 850 863 1937



CONTRACT DOCUMENTS

NO.	DATE	REVISION
1	01/11/11	ISSUE FOR PERMITS
2		
3		
4		
5		



DESIGN PROFESSIONALS OF RECORD
 PROF. MICHAEL S. TRODDEN, P.E.
 PROFESSIONAL ENGINEER
 565 VAUGHAN STREET EXT.
 CROMWELL, CT 06416

OWNER: CROMWELL CONCRETE PRODUCTS, INC.
 667 MAIN STREET
 CROMWELL, CT 06416

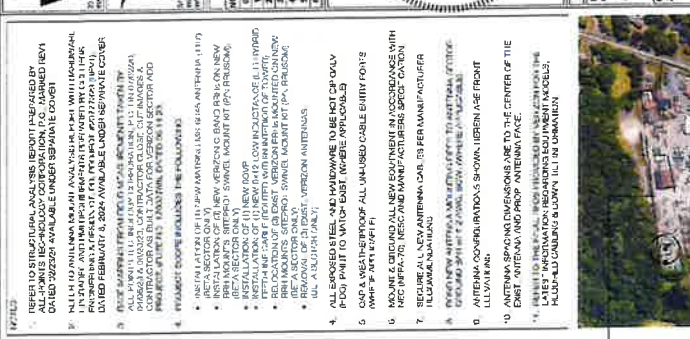
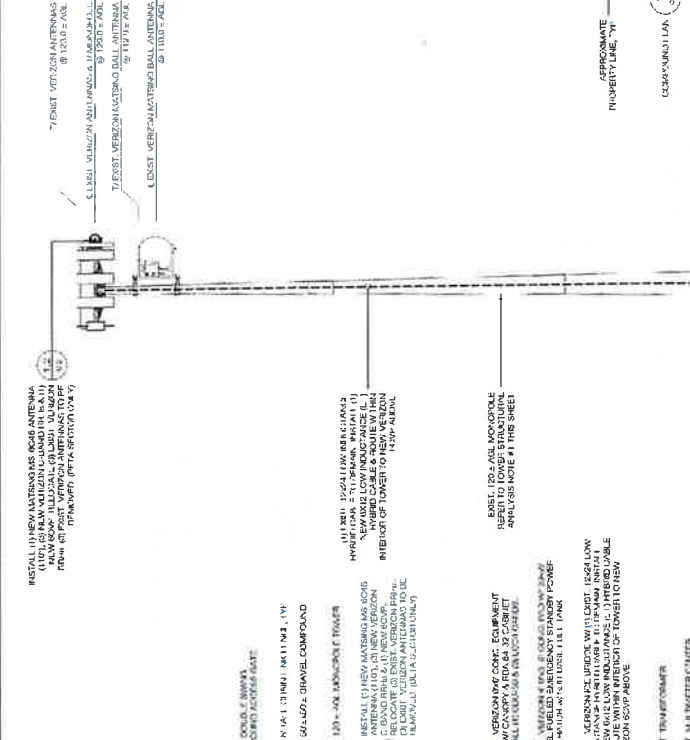
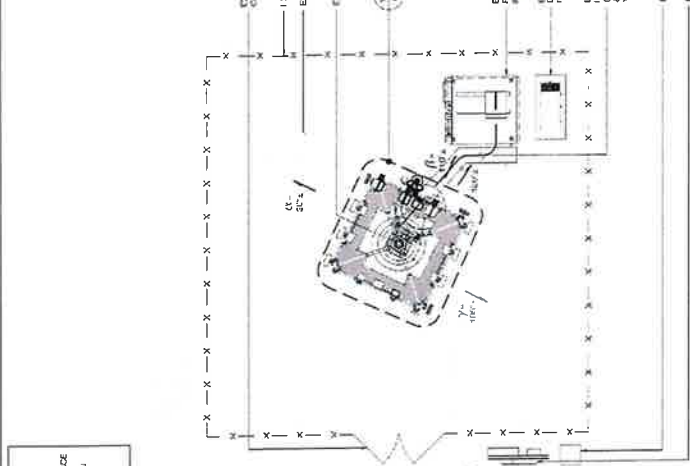
CROMWELL NORTH 2 CT -
 MULTIBEAM SECTORIZATION

SHEET NUMBER: 06492
 SHEET TITLE: T-1

TITLE SHEET

SHEET NUMBER: T-1

- SPECIAL NOTES:**
- 1. ALL NEW WORK TO BE INSTALLED ABOVE GRADE LEVEL UNLESS NOTED OTHERWISE.
 - 2. ALL WORK TO BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
 - 3. ALL MATERIALS TO BE USED SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT.
 - 4. ALL MATERIALS TO BE USED SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT.
 - 5. ALL MATERIALS TO BE USED SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT.
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 - 10. ALL MATERIALS TO BE USED SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT.



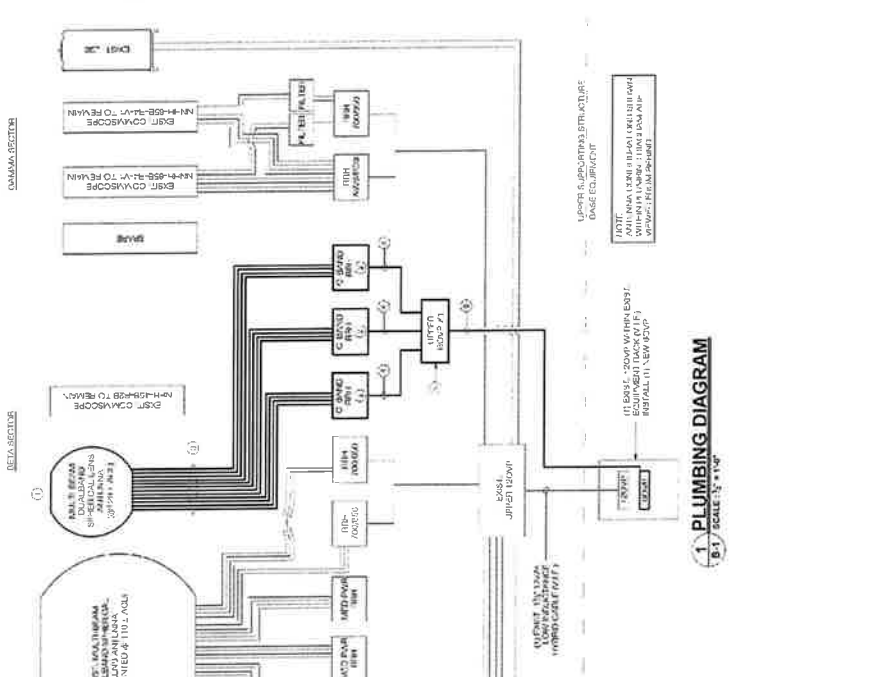
ALL-POINTS TECHNOLOGY CORPORATION 100 MAIN STREET, SUITE 200 WATERFORD, CT 06495 TEL: (203) 333-3333	
CONTRACT DOCUMENTS NO. DATE REVISION 1 01/15/2020 INITIAL ISSUE 2 02/10/2020 REVISED PER COMMENTS	
DESIGN PROFESSIONALS OF RECORD COMPANY ALL-POINTS TECHNOLOGY CORPORATION, P.C. ADDRESS 100 MAIN STREET, SUITE 200, WATERFORD, CT 06495 PROJECT NO. 2019-001 ADDRESS 100 MAIN STREET, SUITE 200, WATERFORD, CT 06495	
PERMITS 1. REFER TO STRUCTURAL ANALYSIS REPORT PREPARED BY ALL-POINTS TECHNOLOGY CORPORATION, P.C. DATED 06/20/2019. AVAILABLE UNDER SEPARATE COVER. 2. ALL NEW WORK TO BE INSTALLED ABOVE GRADE LEVEL UNLESS NOTED OTHERWISE. 3. ALL WORK TO BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS. 4. ALL MATERIALS TO BE USED SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT. 5. ALL MATERIALS TO BE USED SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT. 6. ALL MATERIALS TO BE USED SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT. 7. ALL MATERIALS TO BE USED SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT. 8. ALL MATERIALS TO BE USED SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT. 9. ALL MATERIALS TO BE USED SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT. 10. ALL MATERIALS TO BE USED SHALL BE APPROVED BY THE LOCAL HEALTH DEPARTMENT.	

COMPOUND PLAN TOWER ELEVATION & NOTES	
SHEET NUMBER: C-1	

BILL OF MATERIALS

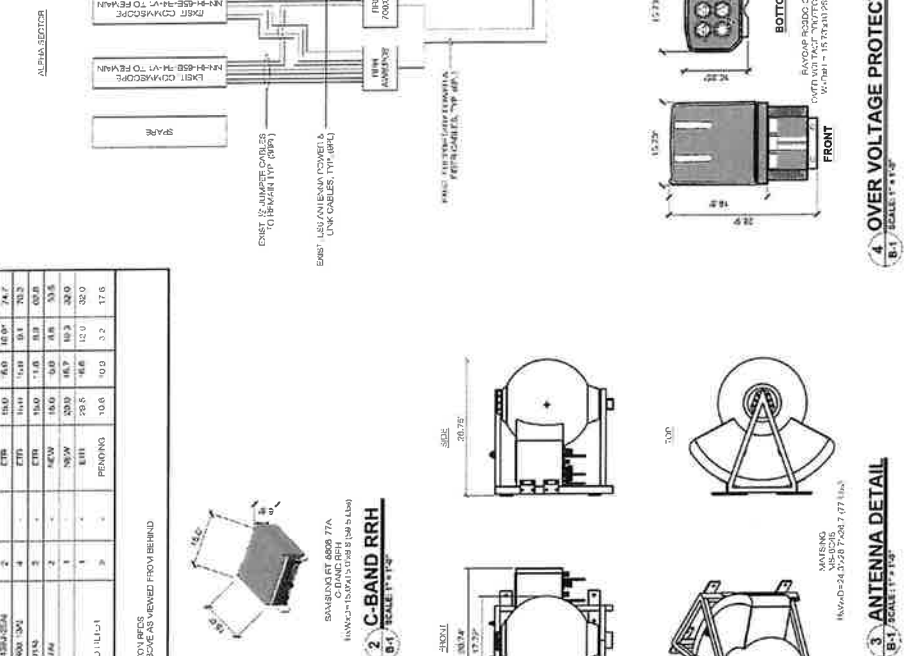
QUANTITY	DESCRIPTION	MATERIALS TAG NO.	COMMENTS
1	MAIN REPAIR MATH 60A		
4	3/8" GALV. SHEET PILING		
1	4" DIA. EXIST. WATER METER		REMOVE AND REPAIR
1	4" DIA. EXIST. WATER METER		REMOVE AND REPAIR
1	4" DIA. EXIST. WATER METER		REMOVE AND REPAIR
1	4" DIA. EXIST. WATER METER		REMOVE AND REPAIR
1	4" DIA. EXIST. WATER METER		REMOVE AND REPAIR
1	4" DIA. EXIST. WATER METER		REMOVE AND REPAIR
1	4" DIA. EXIST. WATER METER		REMOVE AND REPAIR

NOTES:
 1. INFORMATION SHOWN REGARDING CHANGE ORDERS SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
 2. INFORMATION SHOWN REGARDING CHANGE ORDERS SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
 3. INFORMATION SHOWN REGARDING CHANGE ORDERS SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
 4. INSTALL ALL ITEMS LOCATED AT ALL SITES WHERE REQUIRED. COORDINATE WITH ALL OTHER TRADES.
 5. ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
 6. ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.



EQUIPMENT DATA

SECTION	QTY	DESCRIPTION	HIGHT	WIDTH	DEPTH	WEIGHT	INSTALLATION
ANTENNA	1	ANTENNA	1.0	0.5	0.5	1.0	
ANTENNA	1	ANTENNA	1.0	0.5	0.5	1.0	
ANTENNA	1	ANTENNA	1.0	0.5	0.5	1.0	
ANTENNA	1	ANTENNA	1.0	0.5	0.5	1.0	
ANTENNA	1	ANTENNA	1.0	0.5	0.5	1.0	
ANTENNA	1	ANTENNA	1.0	0.5	0.5	1.0	
ANTENNA	1	ANTENNA	1.0	0.5	0.5	1.0	
ANTENNA	1	ANTENNA	1.0	0.5	0.5	1.0	
ANTENNA	1	ANTENNA	1.0	0.5	0.5	1.0	
ANTENNA	1	ANTENNA	1.0	0.5	0.5	1.0	





NO	DATE	REVISION
1		ISSUED FOR PERMITS
2		ISSUED FOR PERMITS
3		ISSUED FOR PERMITS
4		ISSUED FOR PERMITS
5		ISSUED FOR PERMITS
6		ISSUED FOR PERMITS



DESIGN PROFESSIONALS OF RECORD
FRANK MICHAEL S. BRODEEN, P.E.
COMMUNICATIONS TECHNOLOGY CORPORATION
400 W. MAIN STREET, SUITE 100
WATERBURY, CT 06725
OWNER: CROMWELL CONCRETE
ADDRESS: CROMWELL, CT 06460

CROMWELL NORTH 3 CT
MULTI-BREM SECTORIZATION
SITE: 827 MAIN STREET
ADDRESS: CROMWELL, CT 06460

APPROVING NUMBER: 0711, 1019
DATE: 05/09/10
DRAWN BY: ELS
CHECKED BY: JRM
VENDOR: BROADBAND
VEN FILE: 48468
VERIFIED: 10/20/10

NOTES & SPECIFICATIONS
SHEET NUMBER: N-1

THE INFORMATION CONTAINED HEREIN IS THE PROPERTY OF ALL-POINTS TECHNOLOGY CORPORATION. IT IS TO BE USED FOR THE PROJECT AND AT THE LOCATION SPECIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF ALL-POINTS TECHNOLOGY CORPORATION.

ALL INFORMATION CONTAINED HEREIN IS THE PROPERTY OF ALL-POINTS TECHNOLOGY CORPORATION. IT IS TO BE USED FOR THE PROJECT AND AT THE LOCATION SPECIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF ALL-POINTS TECHNOLOGY CORPORATION.

1. GENERAL NOTES: ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRICAL CODE (NEC) AND THE NATIONAL FIRE ALARM AND SIGNAL CODE (NFPA 72), AS APPLICABLE. ALL MATERIALS AND METHODS OF INSTALLATION SHALL BE APPROVED BY THE LOCAL PERMITS AUTHORITY.

2. CONDUIT: ALL CONDUIT SHALL BE LISTED AND APPROVED FOR USE IN THE ENVIRONMENT IN WHICH IT IS TO BE INSTALLED. CONDUIT SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC.

3. RACEWAYS: ALL RACEWAYS SHALL BE LISTED AND APPROVED FOR USE IN THE ENVIRONMENT IN WHICH IT IS TO BE INSTALLED. RACEWAYS SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC.

4. WIRING: ALL WIRING SHALL BE LISTED AND APPROVED FOR USE IN THE ENVIRONMENT IN WHICH IT IS TO BE INSTALLED. WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE NEC.

5. TESTING: ALL WORK SHALL BE TESTED AND INSPECTED BY A QUALIFIED PERSONNEL AS REQUIRED BY THE LOCAL PERMITS AUTHORITY.

6. LABELING: ALL EQUIPMENT AND CONDUIT SHALL BE PROPERLY LABELED FOR IDENTIFICATION.

7. PROTECTION: ALL EXISTING UTILITIES SHALL BE PROTECTED AND NOT DAMAGED DURING THE COURSE OF THE WORK.

8. SAFETY: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE SAFETY REGULATIONS AND PRACTICES.

9. RECORDS: THE CONTRACTOR SHALL MAINTAIN AND SUBMIT TO THE LOCAL PERMITS AUTHORITY A COMPLETE RECORD OF ALL WORK PERFORMED.

10. GUARANTEE: ALL WORK SHALL BE GUARANTEED FOR A PERIOD OF TWO YEARS FROM THE DATE OF COMPLETION.

TECHNICAL SPECIFICATIONS

Frequency	3.7 – 4.2 GHz
Gain	22.6dBi
VSWR	<1.5:1
Polarization	Dual Slant ±45°
Horizontal Coverage	120°
Horizontal Beamwidth (10dB level)	19°
Horizontal Beamwidth (3dB level)	11.5°
Vertical Beamwidth (10dB level)	19°
Vertical Beamwidth (3dB level)	11.5°
Beam Cross-over	10dB typical
Total Number of Beams	6
RET per Beam	0° to 15°
First Sidelobe level	<-16dB
Front to Back Ratio	>28dB
Isolation Port to Port - Polarization	>28dB
Isolation Port to Port - Beam	>28dB
Power Rating	150W per port
Intermodulation	<-153dBc
Impedance	50 ohm
Connector Quantity and Type	12 X 4.3-10 female

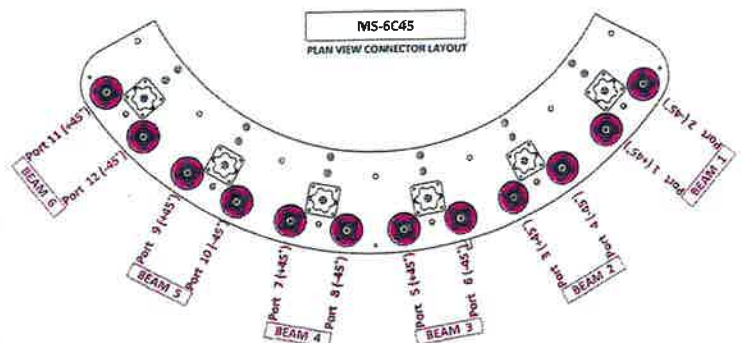
MECHANICAL DATA

	Spherical Lens diameter: 45cm/18inch
Dimensions (H x W x D)	Antenna dimensions: 61.7 x 72.8 x 67.8 cm 24.3 x 28.7 x 26.7 inch
Antenna Weight	35 kg 77 lbs
Radome Material	Fiber Glass
Mounting	Adjustable clamps Compatible pipe diameter: 6.1 – 11.4 cm 2.4 – 4.5 inch

ENVIRONMENTAL RATINGS

Humidity	95% RH @ +30°C
Temperature	-40°C to +70°C
Wind load @ 150m/hr	[N/lbf] Frontal: 263/95 Lateral: 197/44

CONNECTOR LAYOUT:

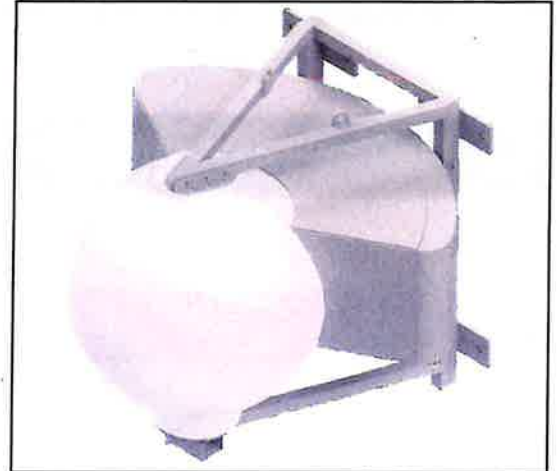


MATSING®

LENS TECHNOLOGY ENABLED

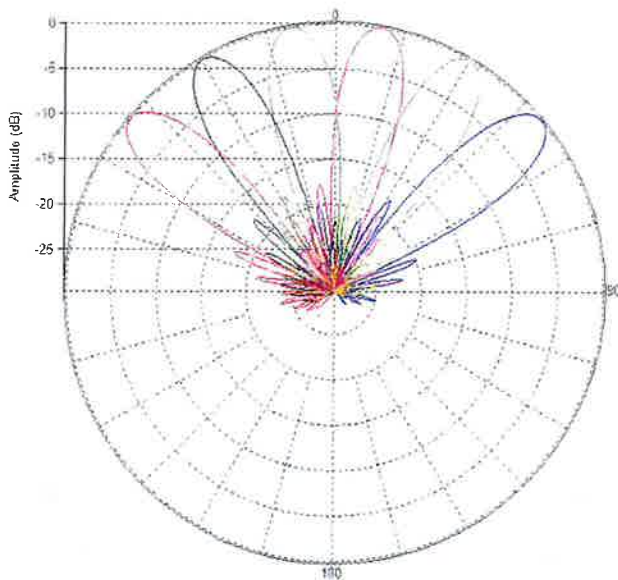
MS-6C45

Multi-Beam Spherical Lens Antenna: 6 independent C-Band (3.7 - 4.2GHz) cross-polarized beams. Each beam has 2X2 MIMO with RET 0-15°.

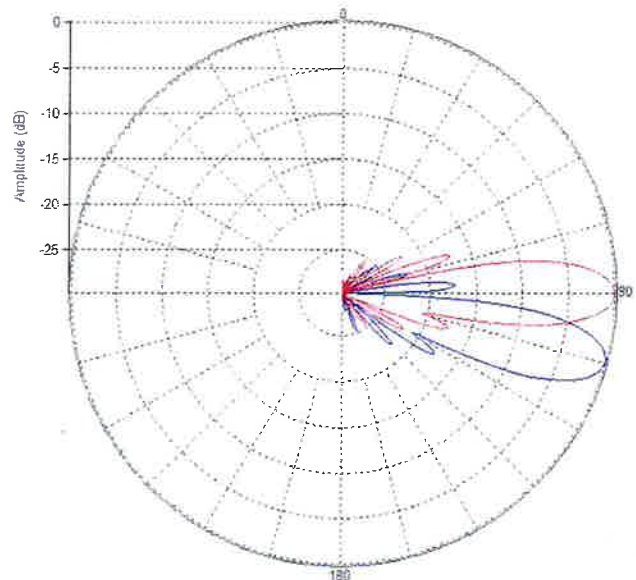


PATTERN RESULTS:

High-Band Horizontal Pattern (3.95GHz)



High-Band Vertical pattern (3.95GHz) tilt 0 & 15°



SAMSUNG

102 RRU Product Specification

for RT8808-77A

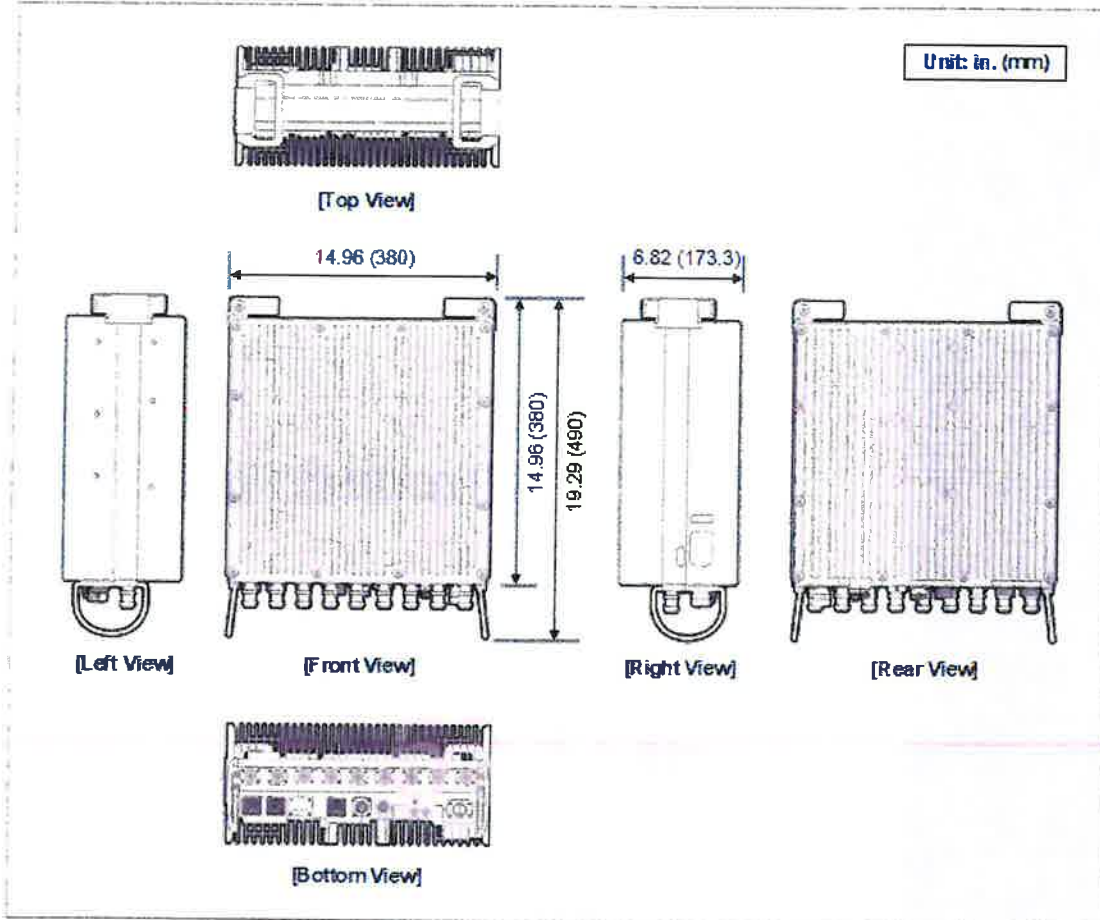
Specifies hardware configuration, functions, specifications, components, ports, and LED information for the radio units.

Document Version 1.0
June 2021

Radio Access Network

Document Number: 2600-00T7PZGA2

Figure 1. Appearance



The RT8808-77A can be mounted on a wall or pole as displayed in the following installation scenario:

Specifications

The following table outlines the main specifications of RT8808-77A.

Table 2. Specifications (RT8808-77A)

Item	RT8808-77A
Radio Technology	5G NR
Operating Frequency	3700 to 3980 MHz
Channel Bandwidth	20/40/60/80/100 MHz
RF Chain	<ul style="list-style-type: none"> • 8T8R, 4T4R+4T4R Bi-sector • 2T2R+2T2R+2T2R Tri-sector • 4T8R+4T8R split mode
RF Output Power	Max. 320W (8 x 40W)
Capacity	Total Max 2C
CPRI interface	15km, 2 ports (25Gbps x 2), SFP28, single mode, Bi-di (Option: Duplex)
Input Voltage	-48 V DC (-38 V DC to -57 V DC)
Power Consumption (Max.)	1,192 W (100% load, 25°C) (w/o RET)
Operating Humidity	5% to 100%RH (Condensing, not to exceed 30g/m3 absolute humidity)
Operating Temperature	-40°C to 55°C (without solar load)
Dimension (in./mm)	14.96/380 (W) × 6.82/173.3(D) × 14.96/380 (H)
Weight (kg)	27 or less than
Cooling	Natural convection
Waterproof/Dustproof	IP65
Wind Resistance	Telcordia GR-487-CORE Issue5 <ul style="list-style-type: none"> • Wind Resistance (Section 3.36)
Earthquake Specification	Telcordia GR-63-CORE, Issue5, <ul style="list-style-type: none"> □ Earthquake (Section 4.4.1)
Vibration Specification	Telcordia GR-63-CORE, Issue5, <ul style="list-style-type: none"> • Office Vibration (Section 4.4.4) • Transportation Vibration (Section 4.4.5)
Altitude	Telcordia GR-63-CORE, Issue5, <ul style="list-style-type: none"> • Altitude (Section 4.1.3)
EMC	FCC Title 47 CFR Part 15
RF	FCC Title 47 CFR Part 27, 24
Safety	UL 62368-1, 2nd Edition
Installation	Pole, Wall, Tower



The power consumption is predicted with a simulation and the measured value is subject to change by ±10%

ATTACHMENT 3

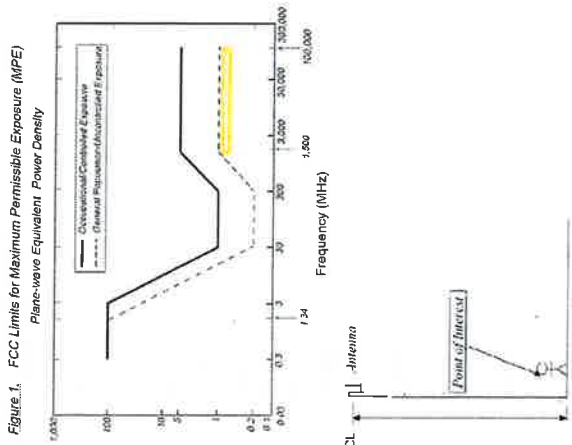
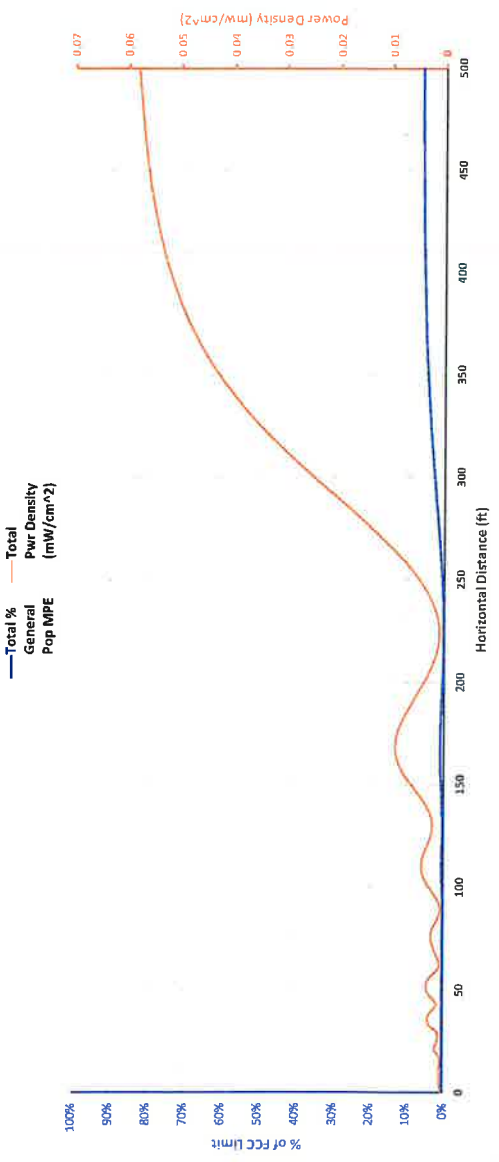
*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Section 1.1310 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz
 mW/cm² = milliwatts per square centimeter
 ERP = Effective Radiated Power

- Absolute worst case maximum values used, including the following assumptions:
1. closest accessible point is distance from antenna to base of pole;
 2. continuous transmission from all available channels at full power for indefinite time period;
 3. calculation takes into account a point of interest of 2m or 6.56ft

Location		Cromwell N Z CT			
Date		3/14/2024			
Band	C-Band	GBRS	AWS	PCS	700
Operating Frequency (MHz)	3,700	3,550	2,145	1,970	746
General Population MPE (mW/cm ²)	1	1	1	1	0.49733333
ERP Per Transmitter (mW/cm ²)	16,513	0	4,035	3,688	714
Number of Transmitters (Noise)	6	0	12	12	6
Antenna Centerline (CL) (feet)	120	110	110	110	110
Total ERP (dBm)	111,077	0	48,415	44,257	3,177
Maximum % of General Population Limit	80	#N/A	77	76	65

RF Exposure 6.56ft. Above Ground Level Far Field Formula (per FCC OET65)



Angle Below Horizon	C-Band	GBRS	AWS	PCS	50A-ITC	700 MHz	700MHz	800MHz	C-Band	AWS	PCS	700 MHz	Distance	Total Pwr Density (mW/cm ²)	Initial % General Pop. Limit
90	9.99851E-05	0	1.26113E-05	2.68612E-05	6.64385E-05	0.000135962	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000341898	0.05%
89	0.000131482	0	2.93636E-05	1.20616E-05	7.00049E-05	0.000328854	0.000	0.000	0.000	0.000	0.000	0.000	1.029848631	0.000375789	0.06%
88	0.000172889	0	5.49991E-05	1.43311E-05	7.11610E-05	0.000313294	0.000	0.000	0.000	0.000	0.000	0.000	2.06093254	0.000444675	0.06%
87	0.000216577	0	7.26207E-05	5.39386E-05	7.60382E-05	0.000288334	0.000	0.000	0.000	0.000	0.000	0.000	3.092058978	0.000548029	0.07%
86	0.000255483	0	6.71055E-05	9.3704E-05	7.61604E-05	0.000278936	0.000	0.000	0.000	0.000	0.000	0.000	4.125681905	0.000622388	0.08%
85	0.000288428	0	5.43711E-05	8.5792E-05	7.8044E-05	0.00027156	0.000	0.000	0.000	0.000	0.000	0.000	5.161831148	0.000693579	0.08%
84	0.000316694	0	3.8627E-05	3.77477E-05	7.84986E-05	0.000265724	0.000	0.000	0.000	0.000	0.000	0.000	6.201169881	0.000789293	0.08%
83	0.000342112	0	1.61929E-05	1.36246E-05	7.89395E-05	0.00025978	0.000	0.000	0.000	0.000	0.000	0.000	7.244289093	0.000857646	0.08%
82	0.000364436	0	1.86925E-07	3.67846E-05	7.75816E-05	0.0002551	0.000	0.000	0.000	0.000	0.000	0.000	8.291589247	0.000905482	0.08%
81	0.000377571	0	2.04136E-05	6.53008E-05	7.46259E-05	0.00025058	0.000	0.000	0.000	0.000	0.000	0.000	9.344681979	0.000951902	0.08%
80	0.000383507	0	7.19578E-05	4.78716E-05	7.17875E-05	0.000246779	0.000	0.000	0.000	0.000	0.000	0.000	10.40329196	0.000996493	0.08%
79	0.000389694	0	0.000100033	9.08118E-06	6.92012E-05	0.000243058	0.000	0.000	0.000	0.000	0.000	0.000	11.468498274	0.001041884	0.08%
78	0.000395994	0	6.96805E-05	1.84974E-05	6.62342E-05	0.000239374	0.000	0.000	0.000	0.000	0.000	0.000	12.54083714	0.001086712	0.08%
77	0.000402406	0	1.46549E-05	8.35569E-05	6.39666E-05	0.0002358	0.000	0.000	0.000	0.000	0.000	0.000	13.62122328	0.001131708	0.07%
76	0.000407014	0	3.05318E-06	0.000118783	6.2057E-05	0.000232102	0.000	0.000	0.000	0.000	0.000	0.000	14.71085217	0.0011768	0.07%
75	0.000410894	0	2.8854E-05	7.39526E-05	6.22862E-05	0.000228481	0.000	0.000	0.000	0.000	0.000	0.000	15.80990235	0.001221909	0.07%
74	0.000414089	0	2.6684E-05	2.1280E-05	6.16531E-05	0.000224851	0.000	0.000	0.000	0.000	0.000	0.000	16.91797776	0.001267064	0.07%
73	0.000416836	0	3.87649E-06	6.9427E-05	6.12929E-05	0.000221247	0.000	0.000	0.000	0.000	0.000	0.000	18.03811021	0.001312212	0.05%
72	0.000419364	0	1.55161E-05	0.000197143	6.07979E-05	0.000217643	0.000	0.000	0.000	0.000	0.000	0.000	19.17026208	0.001357345	0.13%
71	0.000421714	0	7.41331E-05	0.000263034	6.02536E-05	0.000214071	0.000	0.000	0.000	0.000	0.000	0.000	20.31532918	0.001402418	0.16%

ATTACHMENT 4



STRUCTURAL ANALYSIS REPORT
FOR A PROPOSED ANTENNA & APPURTENANCE
INSTALLATION ON AN EXISTING 120'± MONOPOLE TOWER
CROMWELL, CONNECTICUT

Prepared for
Verizon Wireless



Verizon Site Ref:
Cromwell N 2 CT

Site Address: 667 Main Street, Cromwell, CT 06416

FUZE ID: 17152965
Location Code: 469424
MDG Location ID: 5000234399
Project Type: Sector Add

APT Filing No. CT141_14310

~~Rev 0 February 8, 2024~~
Rev 1 February 23, 2024



**STRUCTURAL ANALYSIS REPORT
120'± MONOPOLE TOWER
CROMWELL, CONNECTICUT
prepared for
Verizon Wireless**

EXECUTIVE SUMMARY:

All-Points Technology Corporation, P.C. (APT) performed a structural evaluation of an existing 120'± monopole tower structure to support a proposed Verizon equipment modification.

Details of the proposed equipment configuration are included within the table on the following page.

The results of this analysis indicate that the monopole structure meets the requirements of the 2021 International Building Code (IBC), as amended by the 2022 Connecticut State Building Code, and the ANSI/TIA-222-H standard with Verizon's proposed equipment installation.

Evaluation of the existing foundation was limited to a comparison of the base reactions calculated under the proposed loading against the design reactions indicated within original design documents prepared by Valmont Structures. Reactions imposed by the proposed installation are less than the published design reactions, indicating that the foundation is adequately sized.

The tower steel component usage is summarized in the table below:

Elevation/Component	Capacity
80.92'-120' (L1)	44%
43' - 80.92' (L2)	34%
1' - 43' (L3)	34%
Anchor Bolts	38%
Base Plate	34%

INTRODUCTION:

A structural analysis of the subject communications tower was performed by APT for Verizon Wireless. The subject tower is located at 667 Main Street in Cromwell, Connecticut.

The following information was utilized in the preparation of this analysis:

- Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements prepared by Colliers Engineering & Design (Project #23777329) marked Rev 1 dated 02/08/24.
- Construction Drawings prepared by APT (Project No. CT141_14060), marked Rev 1, dated 02/23/24.
- Structural Analysis Report prepared by APT (Project No. CT141_12280), marked Rev. 1, dated 10/31/23.
- Tower Inspection Report prepared by APT, inspected on June 26, 2020 and submitted on July 2, 2020.
- Field observations compiled during a site visit conducted by APT on June 26, 2020.
- Communication Pole Record Drawings prepared by Valmont Structures (Order No. 456660) dated December 13, 2019.

- Communication Structure Calculation Package prepared by Valmont Structures (Order No. 456600-P1), dated October 23, 2019.

The structure is a 120'±, galvanized steel, 18-sided monopole tower structure designed and manufactured by Valmont Structures.

The analysis was conducted using the following equipment inventory (proposed equipment shown in **bold text**):

Carrier	Antenna and Appurtenance Make/Model	Elevation ¹	Status ²	Mount Type	Coax/Feed-Line ³
Verizon	(1) Raycap RVZDC-6627-PF-48 (12OVP) (1) Raycap PxxDC-3315-PF-48 (6OVP)	122.5'	ETR P	SitePro1 F4P-12W Four-Sided Fortress Platform w/ F4P-HRK12 Handrail kit & (16) existing P2STD x 8' Lg. Pipe Mounts & (1) new P2STD x 8' Lg. Pipe Mount	(1) 12x24 LI Hybrid
	(4) Samsung B5/B13 ORAN (RF4440d-13A) RRHs (2) Samsung B2/B66A ORAN (RF4439d-25A) RRHs, (3) B2/B66A Med Power ORAN (RF4402d-D1A) RRHs	121'	ETR		
	(2) Kaelus BSF0020F3V1-1 mitigation filters, (1) Commscope NHH-45B-R2B antenna, (6) Commscope NNHH-65B-R4 antennas, (2) Samsung MT6407-77A antennas	120'	ETR		
	(1) Samsung MT6407-77A antenna, (2) Commscope NHH-45B-R2B antenna		R		
	(1) Matsing MS-6C45 antenna (3) Samsung RT-8808-77A C-band RRHs		P		(1) 6x12 LI Hybrid
	(1) Matsing MS-12.6DB180	110'	ETR		(2) SitePro1 UDS-NP Dual Antenna Pole Mount Assembly with (2) P2.5STD x 8' Lg. Pipe Mounts

Notes:

1. ETR = Existing to Remain; P = Proposed; R = Removed.
2. Elevations are measured above ground level (AGL). Tower base is approximately 1' above grade.
3. All feed-lines noted above shall be routed within interior of the pole unless otherwise noted.
4. Feed lines routed on exterior of pole from existing Verizon RRHs to existing Verizon Matsing Ball antenna.

STRUCTURAL ANALYSIS:

Methodology:

This structural analysis has been prepared in accordance with the ANSI/TIA-222-H standard entitled "Structural Standard for Antenna Supporting Structures, Antennas and Small Wind Turbine Support Structures"; American Institute of Steel Construction (AISC) Manual of Steel Construction, and the 2021 International Building Code (IBC), as amended by the 2022 Connecticut State Building Code utilizing the following criteria:

- Load Case 1: 120 mph (3-second gust), 0" ice
- Load Case 2: 50 mph (3-second gust) w/ 1.5" ice thickness
- Load Case 3: 60 mph (3-second gust) (Service Load)
- Risk Category: II
- Exposure Category: C
- Topographic Category: 1

ANALYSIS RESULTS:

The analysis was conducted in accordance with the criteria outlined above with the aforementioned loading. The following table summarizes the results of the analysis:

Elevation/Component	Capacity
80.92'-120' (L1)	44%
43' - 80.92' (L2)	34%
1' - 43' (L3)	34%
Anchor Bolts	38%
Base Plate	34%

Foundation:

Evaluation of the existing foundation was limited to a comparison of the base reactions calculated under the proposed loading against the design reactions indicated within original design documents prepared by Valmont Structures. Reactions imposed by the proposed installation are less than the published design reactions, indicating that the foundation is adequately sized.

The calculated base reactions with the proposed equipment loading are indicated within the table below:

Load Effect	Original Design (TIA-222-H)	Calculated Reactions	Result
Axial	36.2 k ⁽⁵⁾	23.7 k ⁽⁶⁾	PASS
Base Shear	47.7 k	20.7 k	PASS
Overturning Moment	4,686 ft-k	1,810 ft-k	PASS

Notes:

- 5. Original vertical reaction based on 0.9DL load combination.
- 6. Calculated vertical reaction based on 0.9DL load combination.

CONCLUSIONS AND RECOMMENDATIONS:

In conclusion, our analysis indicates that the existing tower structure located at 667 Main Street in Cromwell, CT meets the requirements of the 2021 International Building Code (IBC), as amended by the 2022 Connecticut State Building Code, and the ANSI/TIA-222-H standard with Verizon's proposed equipment installation.

Sincerely,
All-Points Technology Corp., P.C.



Domenic Aversa, PE
Senior Structural Engineer



LIMITATIONS:

This report is based on the following:

1. Tower/structure is properly installed and maintained.
2. All members and components are in a non-deteriorated condition.
3. All required members are in place.
4. All bolts are in place and are properly tightened.
5. Tower/structure is in plumb condition.
6. All tower members were properly designed, detailed, fabricated, and installed and have been properly maintained since erection.
7. Material yield stress values as follows:

Monopole: A572 Gr. 65
Base plate: A572 Gr. 50
Anchor bolts: A615 Gr. 75

All-Points Technology Corporation, P.C. (APT) is not responsible for any modifications completed prior to or hereafter which APT is not or was not directly involved. Modifications include but are not limited to:

1. Replacing or reinforcing bracing members.
2. Reinforcing members in any manner.
3. Installing antenna mounts or waveguide cables.
4. Adding or relocating antennas.
5. Extending tower/structure.

APT hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon the information contained and set forth herein. If you are aware of any information which is contrary to that which is contained herein, or you are aware of any defects arising from the original design, material, fabrication and erection deficiencies, you should disregard this report and immediately contact APT. APT disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

Appendix A

Design Criteria

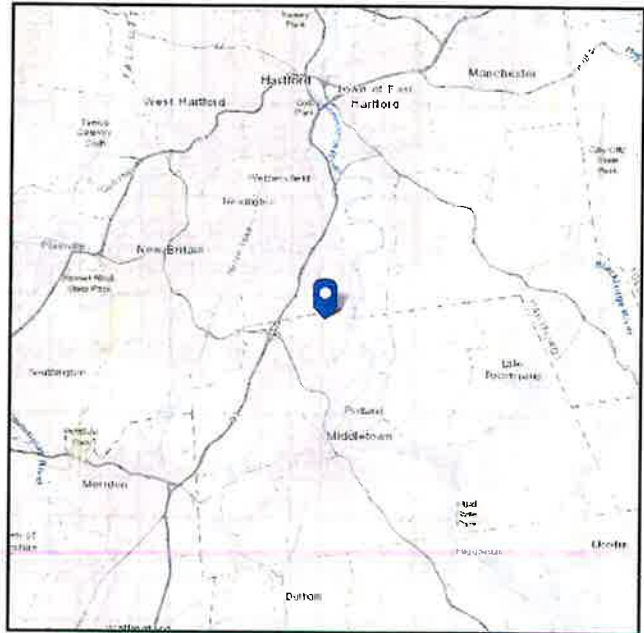
Municipality	Basic Design Wind Speeds, V (mph)				Allowable Stress Design Wind Speeds, V _{asd} (mph)				Ground Snow Load P _g (psf)	MCE Ground Accelerations		Wind-Borne Debris Region ¹		Hurricane-Prone Region
	Risk Cat. I	Risk Cat. II	Risk Cat. III	Risk Cat. IV	Risk Cat. I	Risk Cat. II	Risk Cat. III	Risk Cat. IV		S _s (g)	S ₁ (g)	Risk Cat. III Occup. 1-2	Risk Cat. IV	
Cornwall	105	115	125	130	81	89	97	101	40	0.172	0.054			
Coventry	110	120	130	135	85	93	101	105	30	0.188	0.055			Yes
Cromwell	110	120	130	135	85	93	101	105	30	0.207	0.056			Yes
Danbury	110	120	125	130	85	93	97	101	30	0.225	0.056			Yes
Dartmouth	110	120	130	135	85	93	101	105	30	0.250	0.057	Type B		Yes
Deep River	115	125	135	140	89	97	105	108	30	0.210	0.054			Yes
Derby	110	120	130	135	85	93	101	105	30	0.202	0.054			Yes
Durham	110	120	130	135	85	93	101	105	30	0.211	0.055			Yes
East Granby	110	120	125	130	85	93	97	101	35	0.173	0.054			Yes
East Haddam	115	125	135	135	89	97	105	105	30	0.214	0.056			Yes
East Hampton	110	125	130	135	85	97	101	105	30	0.210	0.056			Yes
East Hartford	110	120	130	135	85	93	101	105	30	0.191	0.055			Yes
East Haven	110	125	135	135	85	97	105	105	30	0.200	0.053	Type B	Type B	Yes
East Lyme	120	130	135	140	93	101	105	108	30	0.198	0.053	Type B	Type B	Yes
East Windsor	110	120	130	135	85	93	101	105	30	0.177	0.055			Yes
Eastford	110	120	130	135	85	93	101	105	40	0.180	0.055			Yes
Easton	110	120	130	135	85	93	101	105	30	0.218	0.055			Yes
Ellington	110	120	130	135	85	93	101	105	35	0.178	0.055			Yes
Enfield	110	120	125	130	85	93	97	101	35	0.172	0.055			Yes
Essex	115	125	135	140	89	97	105	108	30	0.207	0.054			Yes
Fairfield	110	120	130	135	85	93	101	105	30	0.219	0.055	Type B		Yes
Farmington	110	120	130	135	85	93	101	105	35	0.188	0.055			Yes
Franklin	115	125	135	140	89	97	105	108	30	0.195	0.054			Yes
Glastonbury	110	120	130	135	85	93	101	105	30	0.200	0.055			Yes
Goshen	110	115	125	130	85	89	97	101	40	0.172	0.054			Yes
Granby	110	120	125	130	85	93	97	101	35	0.171	0.054			Yes
Greenwich	110	120	130	135	85	93	101	105	30	0.274	0.059	Type B	Type B	Yes
Griswold	120	125	135	140	93	97	105	108	30	0.189	0.054			Yes
Groton	120	130	140	140	93	101	108	108	30	0.190	0.052	Type B	Type A	Yes
Guilford	115	125	135	140	89	97	105	108	30	0.204	0.054	Type B	Type B	Yes
Haddam	115	125	135	135	89	97	105	105	30	0.214	0.055			Yes
Hamden	110	120	130	135	85	93	101	105	30	0.202	0.054			Yes

ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: undefined

Latitude: 41.632375
Longitude: -72.652625
Elevation: 145.43829154378895 ft
(NAVD 88)



Wind

Results:

Wind Speed	119 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	98 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Thu Jan 25 2024

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.



Ice

Results:

Ice Thickness: 1.50 in.

Concurrent Temperature: 15 F

Gust Speed 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Thu Jan 25 2024

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

The ASCE Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

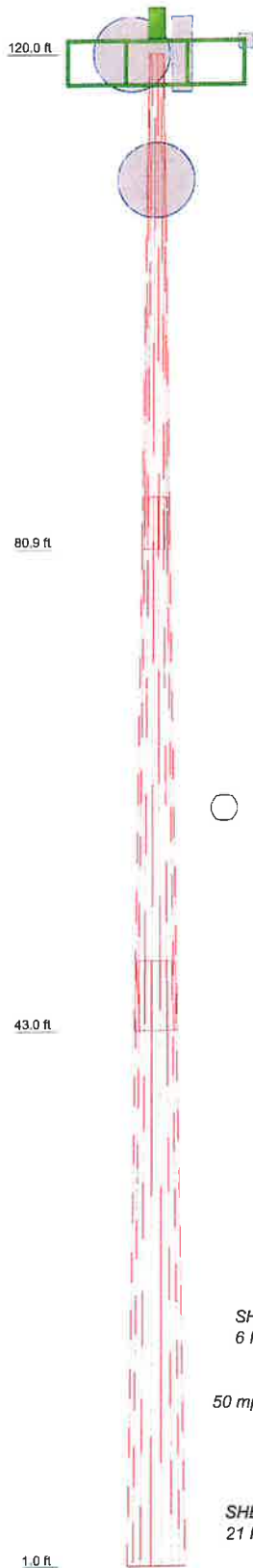
ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE Hazard Tool.

Appendix B

Tower Schematic

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	39.08	18	0.3125	4.08	13.0000	26.6300	A572-65	2.6
2	42.00	18	0.4375	5.50	24.5810	36.2300	A572-65	6.2
3	47.50	18	0.4375	36.4367	53.0000		A572-65	9.9
								18.8



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Raycap RDC-6627-PF-48 OVP (Verizon)	122.5	NNHH-65B-R4-V1 (Verizon)	120
Raycap RDC-3315-PF-48 J-box (Verizon)	122.5	NNHH-R5R-R4-V1 (Verizon)	120
Samsung B2/B66A ORAN RRH (RF4439d-25A) (Verizon)	121	MT6407-77A (Verizon)	120
Samsung B5/B13 ORAN RRH (RF4440d-13A) (Verizon)	121	(2) BSF0020F3V1-1 mitigation filters (Verizon)	120
(2) Samsung B5/B13 ORAN RRH (RF4440d-13A) (Verizon)	121	MT6407-77A (Verizon)	120
Samsung B2/B66A ORAN RRH (RF4439d-25A) (Verizon)	121	(4) P2.0 x 8.0' Pipe Mount (Verizon)	120
Samsung B5/B13 ORAN RRH (RF4440d-13A) (Verizon)	121	(5) P2.0 x 8.0' Pipe Mount (Verizon)	120
(2) Samsung B5/B13 ORAN RRH (RF4440d-13A) (Verizon)	121	(4) P2.0 x 8.0' Pipe Mount (Verizon)	120
Samsung B2/B66A ORAN RRH (RF4439d-25A) (Verizon)	121	(4) P2.0 x 8.0' Pipe Mount (Verizon)	120
Samsung B5/B13 ORAN RRH (RF4440d-13A) (Verizon)	121	Matsing MS-6C45 (Verizon)	120
(2) Samsung B2/B66 ORAN RRH (RF4402d-D1A) (Verizon)	121	NNHH-65B-R4-V1 (Verizon)	120
Samsung B2/B66 ORAN RRH (RF4402d-D1A) (Verizon)	121	NNHH-65B-R4-V1 (Verizon)	120
SitePro1 F4P-HRK12 Hand Rail (Verizon)	121	SitePro1 F4P-12[W] 12' Quad Platform (Verizon)	119.25
(2) RT-8808-77A (Verizon)	121	SitePro1 UDS-NP (Verizon)	113.5
RT-8808-77A (Verizon)	121	(2) P2.5 Std x 8.0' Pipe Mount (Verizon)	110
NHH-45B-R2B (Verizon)	120	Matsing Ball MS-12.6DB180 (Verizon)	110
		SitePro1 UDS-NP (Verizon)	106.5

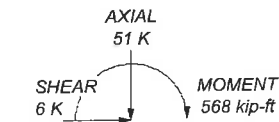
MATERIAL STRENGTH

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

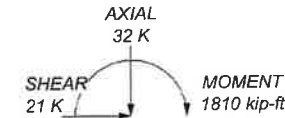
TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 120 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 43.6%

ALL REACTIONS ARE FACTORED



TORQUE 3 kip-ft
50 mph WIND - 1.5000 in ICE



TORQUE 8 kip-ft
REACTIONS - 120 mph WIND

All-Points Technology Corporation, P.C.

567 Vauxhall Street Ext. Suite 311
Waterford, CT 06385
Phone: (860) 663-1697
FAX:

Job: **120' Monopole Tower**

Project: **CT141_14310 Cromwell North 2 CT**

Client: Verizon; 17152965

Drawn by: DJA

App'd:

Code: TIA-222-H

Date: 02/23/24

Scale: NTS

Path:

Dwg No. E-1

Appendix C

Calculations

tnxTower All-Points Technology Corporation, P.C. 567 Vauxhall Street Ext. Suite 311 Waterford, CT 06385 Phone: (860) 663-1697 FAX:	Job 120' Monopole Tower	Page 1 of 7
	Project CT141_14310 Cramwell North 2 CT	Date 11:34:33 02/23/24
	Client Verizon; 17152965	Designed by DJA

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: 1.00 ft.
- Basic wind speed of 120 mph.
- Risk Category II.
- Exposure Category C.
- 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.

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
1/2 (Verizon)	D	Yes	Surface Ar (CaAa)	120.00 - 110.00	18	9	0.000 0.000	0.5800		0.25

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Shield Leg	Allow	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight plf
1-5/8" 12x24 LI Hybrid (Verizon)	D	No	Yes	Inside Pole	120.00 - 9.00	1	No Ice	0.00	3.20
							1/2" Ice	0.00	3.20
							1" Ice	0.00	3.20
							2" Ice	0.00	3.20
3/8" safety cable	B	No	Yes	CaAa (Out Of Face)	120.00 - 9.00	1	No Ice	0.04	0.22
							1/2" Ice	0.14	0.83
							1" Ice	0.24	1.98
							2" Ice	0.44	6.10
6x12 LI Hybrid (Verizon)	D	No	Yes	Inside Pole	120.00 - 9.00	1	No Ice	0.00	3.20
							1/2" Ice	0.00	3.20
							1" Ice	0.00	3.20
							2" Ice	0.00	3.20

tnxTower All-Points Technology Corporation, P.C. 567 Vauxhall Street Ext. Suite 311 Waterford, CT 06385 Phone: (860) 663-1697 FAX:	Job 120' Monopole Tower	Page 2 of 7
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Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement		C_{AA}	C_{AA}	Weight
			Horz	Vert				Front	Side	
			Lateral	ft	°	ft	ft ²	ft ²	K	
			ft	ft						
			ft	ft						
(2) BSF0020F3V1-1 mitigation filters (Verizon)	D	From Face	6.00	0.0000	120.00	No Ice	0.96	0.29	0.02	
			-6.00			1/2" Ice	1.09	0.37	0.02	
			2.00			1" Ice	1.22	0.45	0.03	
						2" Ice	1.50	0.65	0.06	
NNHH-65B-R4-V1 (Verizon)	A	From Face	6.00	0.0000	120.00	No Ice	12.27	5.72	0.08	
			-6.00			1/2" Ice	12.76	6.18	0.15	
			0.00			1" Ice	13.26	6.64	0.23	
						2" Ice	14.29	7.59	0.41	
NNHH-65B-R4-V1 (Verizon)	A	From Face	6.00	0.0000	120.00	No Ice	12.27	5.72	0.08	
			-2.00			1/2" Ice	12.76	6.18	0.15	
			0.00			1" Ice	13.26	6.64	0.23	
						2" Ice	14.29	7.59	0.41	
NNHH-65B-R4-V1 (Verizon)	A	From Face	6.00	0.0000	120.00	No Ice	12.27	5.72	0.08	
			2.00			1/2" Ice	12.76	6.18	0.15	
			0.00			1" Ice	13.26	6.64	0.23	
						2" Ice	14.29	7.59	0.41	
NHH-45B-R2B (Verizon)	B	From Face	6.00	0.0000	120.00	No Ice	11.40	5.28	0.13	
			2.00			1/2" Ice	11.89	5.74	0.19	
			0.00			1" Ice	12.38	6.20	0.27	
						2" Ice	13.39	7.14	0.43	
NNHH-65B-R4-V1 (Verizon)	C	From Face	6.00	0.0000	120.00	No Ice	12.27	5.72	0.08	
			-6.00			1/2" Ice	12.76	6.18	0.15	
			0.00			1" Ice	13.26	6.64	0.23	
						2" Ice	14.29	7.59	0.41	
NNHH-65B-R4-V1 (Verizon)	C	From Face	6.00	0.0000	120.00	No Ice	12.27	5.72	0.08	
			-2.00			1/2" Ice	12.76	6.18	0.15	
			0.00			1" Ice	13.26	6.64	0.23	
						2" Ice	14.29	7.59	0.41	
NNHH-65B-R4-V1 (Verizon)	C	From Face	6.00	0.0000	120.00	No Ice	12.27	5.72	0.08	
			2.00			1/2" Ice	12.76	6.18	0.15	
			0.00			1" Ice	13.26	6.64	0.23	
						2" Ice	14.29	7.59	0.41	
MT6407-77A (Verizon)	A	From Face	6.00	0.0000	120.00	No Ice	4.71	1.84	0.09	
			6.00			1/2" Ice	5.00	2.07	0.12	
			0.00			1" Ice	5.29	2.30	0.15	
						2" Ice	5.91	2.78	0.23	
MT6407-77A (Verizon)	C	From Face	6.00	0.0000	120.00	No Ice	4.71	1.84	0.09	
			6.00			1/2" Ice	5.00	2.07	0.12	
			0.00			1" Ice	5.29	2.30	0.15	
						2" Ice	5.91	2.78	0.23	
Samsung B2/B66A ORAN RRH (RF4439d-25A) (Verizon)	A	From Face	4.50	0.0000	121.00	No Ice	1.87	1.25	0.07	
			-2.00			1/2" Ice	2.03	1.39	0.09	
			0.00			1" Ice	2.21	1.54	0.11	
						2" Ice	2.59	1.87	0.17	
Samsung B5/B13 ORAN RRH (RF4440d-13A) (Verizon)	A	From Face	4.50	0.0000	121.00	No Ice	1.87	1.13	0.07	
			2.00			1/2" Ice	2.03	1.27	0.09	
			0.00			1" Ice	2.21	1.41	0.11	
						2" Ice	2.59	1.72	0.16	
(2) Samsung B5/B13 ORAN RRH (RF4440d-13A) (Verizon)	B	From Face	4.50	0.0000	121.00	No Ice	1.87	1.13	0.07	
			2.00			1/2" Ice	2.03	1.27	0.09	
			0.00			1" Ice	2.21	1.41	0.11	
						2" Ice	2.59	1.72	0.16	
Samsung B2/B66A ORAN RRH (RF4439d-25A)	C	From Face	4.50	0.0000	121.00	No Ice	1.87	1.25	0.07	
			-2.00			1/2" Ice	2.03	1.39	0.09	

tnxTower All-Points Technology Corporation, P.C. 567 Vauxhall Street Ext. Suite 311 Waterford, CT 06385 Phone: (860) 663-1697 FAX:	Job	120' Monopole Tower	Page	3 of 7
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	Client	Verizon; 17152965	Designed by	DJA

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight
			Horz	Vert					
			ft	ft	°	ft	ft ²	ft ²	K
(Verizon)			0.00						
						1" Ice	2.21	1.54	0.11
						2" Ice	2.59	1.87	0.17
Samsung B5/B13 ORAN RRH (RF4440d-13A)	C	From Face	4.50		0.0000	No Ice	1.87	1.13	0.07
(Verizon)			2.00			1/2" Ice	2.03	1.27	0.09
			0.00			1" Ice	2.21	1.41	0.11
						2" Ice	2.59	1.72	0.16
(2) Samsung B2/B66 ORAN RRH (RF4402d-D1A)	D	From Face	4.50		0.0000	No Ice	1.48	1.11	0.06
(Verizon)			0.00			1/2" Ice	1.63	1.25	0.08
			0.00			1" Ice	1.79	1.39	0.09
						2" Ice	2.13	1.70	0.14
Samsung B2/B66 ORAN RRH (RF4402d-D1A)	B	From Face	4.50		0.0000	No Ice	1.48	1.11	0.06
(Verizon)			-6.00			1/2" Ice	1.63	1.25	0.08
			0.00			1" Ice	1.79	1.39	0.09
						2" Ice	2.13	1.70	0.14
Raycap RDC-6627-PF-48 OVP	D	From Face	4.50		0.0000	No Ice	4.06	3.10	0.03
(Verizon)			0.00			1/2" Ice	4.32	3.34	0.07
			0.00			1" Ice	4.58	3.58	0.11
						2" Ice	5.14	4.09	0.20
SitePro1 F4P-12[W] 12' Quad Platform	D	None			0.0000	No Ice	46.21	46.21	2.64
(Verizon)						1/2" Ice	58.75	58.75	3.48
						1" Ice	75.54	75.54	4.64
						2" Ice	96.37	96.37	6.00
SitePro1 F4P-HRK12 Hand Rail	D	None			0.0000	No Ice	7.57	7.57	0.51
(Verizon)						1/2" Ice	10.54	10.54	0.62
						1" Ice	13.63	13.63	0.77
						2" Ice	19.45	19.45	0.95
(4) P2.0 x 8.0' Pipe Mount	A	From Face	5.50		0.0000	No Ice	1.90	1.90	0.03
(Verizon)			0.00			1/2" Ice	2.73	2.73	0.04
			0.00			1" Ice	3.40	3.40	0.06
						2" Ice	4.40	4.40	0.12
(5) P2.0 x 8.0' Pipe Mount	B	From Face	5.50		0.0000	No Ice	1.90	1.90	0.03
(Verizon)			0.00			1/2" Ice	2.73	2.73	0.04
			0.00			1" Ice	3.40	3.40	0.06
						2" Ice	4.40	4.40	0.12
(4) P2.0 x 8.0' Pipe Mount	C	From Face	5.50		0.0000	No Ice	1.90	1.90	0.03
(Verizon)			0.00			1/2" Ice	2.73	2.73	0.04
			0.00			1" Ice	3.40	3.40	0.06
						2" Ice	4.40	4.40	0.12
(4) P2.0 x 8.0' Pipe Mount	D	From Face	5.50		0.0000	No Ice	1.90	1.90	0.03
(Verizon)			0.00			1/2" Ice	2.73	2.73	0.04
			0.00			1" Ice	3.40	3.40	0.06
						2" Ice	4.40	4.40	0.12
SitePro1 UDS-NP	B	From Face	0.00		0.0000	No Ice	4.24	4.18	0.40
(Verizon)			0.00			1/2" Ice	5.14	5.04	0.46
			0.00			1" Ice	6.11	5.98	0.53
						2" Ice	7.84	7.62	0.63
SitePro1 UDS-NP	B	From Face	0.00		0.0000	No Ice	4.24	4.18	0.40
(Verizon)			0.00			1/2" Ice	5.14	5.04	0.46
			0.00			1" Ice	6.11	5.98	0.53
						2" Ice	7.84	7.62	0.63
Matsing Ball MS-12.6DB180	B	From Face	3.00		0.0000	No Ice	28.00	28.00	0.55
(Verizon)			0.00			1/2" Ice	36.40	36.40	1.09
			0.00			1" Ice	44.80	44.80	1.64
						2" Ice	61.60	61.60	2.73
(2) P2.5 Std x 8.0' Pipe Mount	B	From Face	1.00		0.0000	No Ice	2.30	2.30	0.05
(Verizon)			0.00			1/2" Ice	3.13	3.13	0.06
			0.00			1" Ice	3.62	3.62	0.09

<p>tnxTower</p> <p><i>All-Points Technology Corporation, P.C.</i> 567 Vauxhall Street Ext. Suite 311 Waterford, CT 06385 Phone: (860) 663-1697 FAX:</p>	Job 120' Monopole Tower	Page 4 of 7
	Project CT141_14310 Cromwell North 2 CT	Date 11:34:33 02/23/24
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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						
			Lateral		°	ft	ft ²	ft ²	K	
Matsing MS-6C45 (Verizon)	B	From Face	6.00		0.0000	120.00	2" Ice	4.62	4.62	0.15
			-2.00				No Ice	3.41	2.32	0.08
							1/2" Ice	4.35	3.21	0.11
			0.00				1" Ice	5.29	4.10	0.14
(2) RT-8808-77A (Verizon)	B	From Face	4.50		0.0000	121.00	2" Ice	7.17	5.88	0.21
			-2.00				No Ice	1.88	0.85	0.06
							1/2" Ice	2.05	0.97	0.07
			0.00				1" Ice	2.22	1.11	0.09
RT-8808-77A (Verizon)	B	From Face	4.50		0.0000	121.00	2" Ice	2.60	1.39	0.14
			-6.00				No Ice	1.88	0.85	0.06
							1/2" Ice	2.05	0.97	0.07
			0.00				1" Ice	2.22	1.11	0.09
Raycap RDC-3315-PF-48 J-box (Verizon)	A	From Face	4.50		0.0000	122.50	2" Ice	2.60	1.39	0.14
			0.00				No Ice	2.51	1.64	0.03
							1/2" Ice	2.71	1.81	0.05
			0.00				1" Ice	2.91	1.98	0.08
						2" Ice	3.35	2.35	0.14	

Tower Mast Reaction Summary

Load Combination	Vertical	Shear _x	Shear _z	Overturning Moment, M _x	Overturning Moment, M _z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead Only	26.38	0.00	0.00	-5.43	0.54	-0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	31.66	-0.00	-19.14	-1635.36	0.65	-0.51
0.9 Dead+1.0 Wind 0 deg - No Ice	23.74	0.00	-19.14	-1623.44	0.48	-0.50
1.2 Dead+1.0 Wind 30 deg - No Ice	31.66	9.73	-16.85	-1451.39	-833.51	-5.67
0.9 Dead+1.0 Wind 30 deg - No Ice	23.74	9.73	-16.85	-1440.58	-828.43	-5.65
1.2 Dead+1.0 Wind 45 deg - No Ice	31.66	13.99	-13.99	-1214.21	-1206.98	-7.36
0.9 Dead+1.0 Wind 45 deg - No Ice	23.74	13.99	-13.99	-1204.87	-1199.53	-7.33
1.2 Dead+1.0 Wind 60 deg - No Ice	31.66	17.41	-10.05	-880.27	-1512.62	-8.29
0.9 Dead+1.0 Wind 60 deg - No Ice	23.74	17.41	-10.05	-873.01	-1503.21	-8.26
1.2 Dead+1.0 Wind 90 deg - No Ice	31.66	20.66	0.00	-6.58	-1809.12	-8.50
0.9 Dead+1.0 Wind 90 deg - No Ice	23.74	20.66	0.00	-4.86	-1797.81	-8.47
1.2 Dead+1.0 Wind 120 deg - No Ice	31.66	17.41	10.05	867.10	-1512.60	-7.46
0.9 Dead+1.0 Wind 120 deg - No Ice	23.74	17.41	10.05	863.29	-1503.19	-7.44
1.2 Dead+1.0 Wind 135 deg - No Ice	31.66	13.99	13.99	1201.03	-1206.95	-6.34
0.9 Dead+1.0 Wind 135 deg - No Ice	23.74	13.99	13.99	1195.14	-1199.51	-6.33
1.2 Dead+1.0 Wind 150 deg - No Ice	31.66	9.73	16.85	1438.19	-833.48	-4.61
0.9 Dead+1.0 Wind 150 deg - No Ice	23.74	9.73	16.85	1430.84	-828.42	-4.60

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	Client Verizon; 17152965	Designed by DJA

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
No Ice						
1.2 Dead+1.0 Wind 180 deg -	31.66	-0.00	19.14	1622.15	0.65	0.51
No Ice						
0.9 Dead+1.0 Wind 180 deg -	23.74	0.00	19.14	1613.69	0.48	0.50
No Ice						
1.2 Dead+1.0 Wind 210 deg -	31.66	-9.73	16.85	1438.19	834.79	5.67
No Ice						
0.9 Dead+1.0 Wind 210 deg -	23.74	-9.73	16.85	1430.84	829.38	5.65
No Ice						
1.2 Dead+1.0 Wind 225 deg -	31.66	-13.99	13.99	1201.03	1208.26	7.36
No Ice						
0.9 Dead+1.0 Wind 225 deg -	23.74	-13.99	13.99	1195.14	1200.48	7.33
No Ice						
1.2 Dead+1.0 Wind 240 deg -	31.66	-17.41	10.05	867.10	1513.91	8.29
No Ice						
0.9 Dead+1.0 Wind 240 deg -	23.74	-17.41	10.05	863.29	1504.16	8.26
No Ice						
1.2 Dead+1.0 Wind 270 deg -	31.66	-20.66	0.00	-6.58	1810.43	8.50
No Ice						
0.9 Dead+1.0 Wind 270 deg -	23.74	-20.66	0.00	-4.86	1798.77	8.47
No Ice						
1.2 Dead+1.0 Wind 300 deg -	31.66	-17.41	-10.05	-880.27	1513.93	7.46
No Ice						
0.9 Dead+1.0 Wind 300 deg -	23.74	-17.41	-10.05	-873.01	1504.18	7.44
No Ice						
1.2 Dead+1.0 Wind 315 deg -	31.66	-13.99	-13.99	-1214.21	1208.29	6.33
No Ice						
0.9 Dead+1.0 Wind 315 deg -	23.74	-13.99	-13.99	-1204.87	1200.50	6.32
No Ice						
1.2 Dead+1.0 Wind 330 deg -	31.66	-9.73	-16.85	-1451.39	834.82	4.60
No Ice						
0.9 Dead+1.0 Wind 330 deg -	23.74	-9.73	-16.85	-1440.58	829.40	4.60
No Ice						
1.2 Dead+1.0 Ice+1.0 Temp	51.20	-0.00	-0.00	-18.88	1.32	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0	51.20	-0.00	-6.18	-554.90	1.33	-0.20
Ice+1.0 Temp						
1.2 Dead+1.0 Wind 30 deg+1.0	51.20	3.12	-5.40	-489.18	-270.18	-1.78
Ice+1.0 Temp						
1.2 Dead+1.0 Wind 45 deg+1.0	51.20	4.45	-4.45	-407.85	-387.61	-2.35
Ice+1.0 Temp						
1.2 Dead+1.0 Wind 60 deg+1.0	51.20	5.50	-3.18	-297.45	-481.11	-2.71
Ice+1.0 Temp						
1.2 Dead+1.0 Wind 90 deg+1.0	51.20	6.41	-0.00	-18.91	-562.77	-2.87
Ice+1.0 Temp						
1.2 Dead+1.0 Wind 120	51.20	5.50	3.18	259.62	-481.11	-2.46
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 135	51.20	4.45	4.45	370.02	-387.61	-2.02
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 150	51.20	3.12	5.40	451.34	-270.18	-1.42
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 180	51.20	-0.00	6.18	517.05	1.33	0.19
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 210	51.20	-3.12	5.40	451.34	272.83	1.78
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 225	51.20	-4.45	4.45	370.02	390.26	2.34
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 240	51.20	-5.50	3.18	259.62	483.76	2.70
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 270	51.20	-6.41	-0.00	-18.91	565.42	2.86
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 300	51.20	-5.50	-3.18	-297.45	483.76	2.45

inxTower All-Points Technology Corporation, P.C. 567 Vauxhall Street Ext. Suite 311 Waterford, CT 06385 Phone: (860) 663-1697 FAX:	Job 120' Monopole Tower	Page 6 of 7
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	Client Verizon; 17152965	Designed by DJA

Load Combination	Vertical K	Shear _x K	Shear _y K	Overturning Moment, M _x kip-ft	Overturning Moment, M _y kip-ft	Torque kip-ft
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 315	51.20	-4.45	-4.45	-407.85	390.27	2.01
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 330	51.20	-3.12	-5.40	-489.18	272.83	1.41
deg+1.0 Ice+1.0 Temp						
Dead+Wind 0 deg - Service	26.38	0.00	-4.28	-368.42	0.54	-0.11
Dead+Wind 30 deg - Service	26.38	2.18	-3.77	-327.42	-185.34	-1.27
Dead+Wind 45 deg - Service	26.38	3.13	-3.13	-274.58	-268.57	-1.65
Dead+Wind 60 deg - Service	26.38	3.90	-2.25	-200.16	-336.68	-1.86
Dead+Wind 90 deg - Service	26.38	4.62	0.00	-5.47	-402.77	-1.91
Dead+Wind 120 deg - Service	26.38	3.90	2.25	189.23	-336.68	-1.68
Dead+Wind 135 deg - Service	26.38	3.13	3.13	263.64	-268.56	-1.42
Dead+Wind 150 deg - Service	26.38	2.18	3.77	316.48	-185.34	-1.03
Dead+Wind 180 deg - Service	26.38	0.00	4.28	357.47	0.54	0.11
Dead+Wind 210 deg - Service	26.38	-2.18	3.77	316.48	186.42	1.27
Dead+Wind 225 deg - Service	26.38	-3.13	3.13	263.64	269.65	1.65
Dead+Wind 240 deg - Service	26.38	-3.90	2.25	189.23	337.76	1.86
Dead+Wind 270 deg - Service	26.38	-4.62	0.00	-5.47	403.85	1.91
Dead+Wind 300 deg - Service	26.38	-3.90	-2.25	-200.16	337.76	1.67
Dead+Wind 315 deg - Service	26.38	-3.13	-3.13	-274.58	269.65	1.42
Dead+Wind 330 deg - Service	26.38	-2.18	-3.77	-327.42	186.42	1.03

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	120 - 80.9167	9.867	63	0.9514	0.0314
L2	85 - 43	4.221	63	0.5381	0.0072
L3	48.5 - 1	1.228	63	0.2504	0.0021

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
122.50	Raycap RDC-6627-PF-48 OVP	63	9.867	0.9514	0.0314	28024
121.00	Samsung B2/B66A ORAN RRH (RF4439d-25A)	63	9.867	0.9514	0.0314	28024
120.00	(2) BSF0020F3V1-1 mitigation filters	63	9.867	0.9514	0.0314	28024
119.25	SitePro1 F4P-12[W] 12' Quad Platform	63	9.733	0.9419	0.0308	28024
113.50	SitePro1 UDS-NP	63	8.709	0.8692	0.0260	21557
110.00	Matsing Ball MS-12.6DB180	63	8.094	0.8253	0.0232	14012
106.50	SitePro1 UDS-NP	63	7.489	0.7820	0.0204	10379

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	120 - 80.9167	44.162	26	4.2352	0.1399
L2	85 - 43	18.925	26	2.4121	0.0322
L3	48.5 - 1	5.508	26	1.1229	0.0095

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Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
122.50	Raycap RDC-6627-PF-48 OVP	26	44.162	4.2352	0.1399	6369
121.00	Samsung B2/B66A ORAN RRH (RF4439d-25A)	26	44.162	4.2352	0.1399	6369
120.00	(2) BSF0020F3V1-1 mitigation filters	26	44.162	4.2352	0.1399	6369
119.25	SitePro1 F4P-12[W] 12' Quad Platform	26	43.564	4.1934	0.1371	6369
113.50	SitePro1 UDS-NP	26	38.989	3.8735	0.1159	4899
110.00	Matsing Ball MS-12.6DB180	26	36.240	3.6805	0.1032	3184
106.50	SitePro1 UDS-NP	26	33.538	3.4897	0.0909	2358

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	θP_{allow} K	% Capacity	Pass Fail	
L1	120 - 80.9167	Pole	TP26.63x13x0.3125	1	-10.65	1444.44	43.6	Pass	
L2	80.9167 - 43	Pole	TP39.23x24.581x0.4375	2	-13.22	2332.11	33.9	Pass	
L3	43 - 1	Pole	TP53x36.4367x0.4375	3	-20.32	3080.17	34.4	Pass	
							Summary		
							Pole (L1)	43.6	Pass
							RATING =	43.6	Pass



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Verizon - Cromwell North 2 CT
 667 Main Street, Cromwell, CT 06416
 APT FILING No. CT141_14310

Anchor Bolt and Base Plate Analysis (Circular Pattern)
 Prepared by: DJA, PE: Checked by: MST, PE
 Rev 1: 02/23/24

Anchor Bolt and Base Plate Analysis (Non-Grouted Base Plate)

Note: The following rational circular base analysis methodology shall be utilized when base plate design does not conform to conditions 1 thru 10 of TIA-222-H Annex Q, Section Q3.0.

Input Data:

Tower Reactions (1.2DL +1.0WL):

Overturing Moment = $M_u := 1810 \cdot \text{ft} \cdot \text{kip}$ (Input From tnxTower)
 Axial Force = $R_u := 31.7 \cdot \text{kip}$ (Input From tnxTower)
 Shear Force = $V_u := 20.7 \cdot \text{kip}$ (Input From tnxTower)

Anchor Bolt Data:

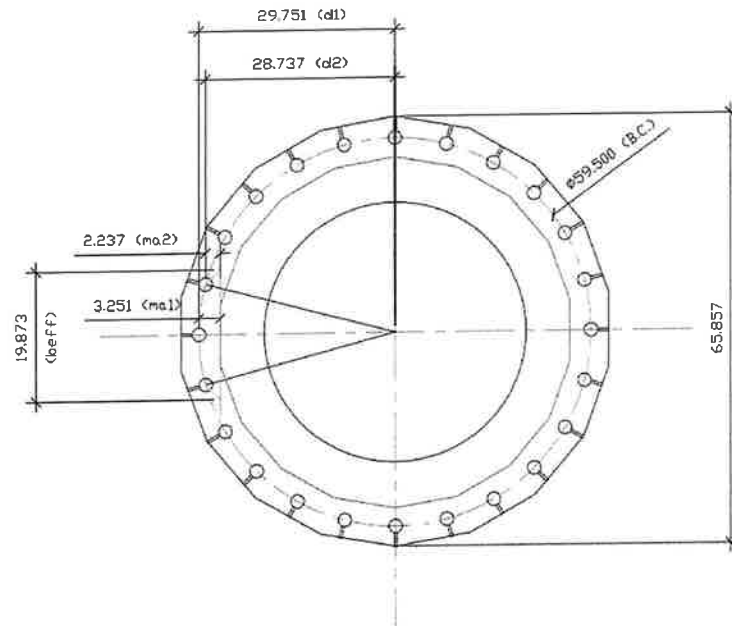
Anchor Bolt Grade = ASTM A615 Gr. 75 (User Input)
 Number of Anchor Bolts = $N := 24$ (User Input)
 Diameter of Bolt Circle = $D_{BC} := 59.50 \cdot \text{in}$ (User Input)
 Bolt "Column" Distance = $l_{ar} := 1.0 \text{ in}$ (Defined as anchor rod projection from supporting structure to bottom of leveling nut)
 Bolt Ultimate Stress = $F_{ub} := 100 \cdot \text{ksi}$ (User Input)
 Bolt Yield Stress = $F_{yb} := 75 \cdot \text{ksi}$ (User Input)
 Bolt Modulus of Elasticity = $E := 29000 \cdot \text{ksi}$ (User Input)
 Nominal Diameter of Anchor Bolts = $D := 1.75 \text{ in}$ (User Input)
 Threads per Inch = $n := 5.0$ (User Input)

Base Plate Data:

ASTM A572-50

Plate Yield Strength = $F_{yf} := 50 \cdot \text{ksi}$ (User Input)
 Base Plate Thickness = $t_{bp} := 2.500 \text{ in}$ (User Input)
 Base Plate Diameter = $D_{bp} := 65.86 \cdot \text{in}$ (User Input)
 Outer Pole Diameter = $D_T := 53.00 \cdot \text{in}$ (User Input)

Geometric Layout Data:



ANCHOR BOLT AND PLATE GEOMETRY



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Distance from Bolts to Centroid of Pole:

Radius of Bolt Circle =:

$$R_{bc} := \frac{D_{BC}}{2} = 29.75 \text{ in}$$

Distance to Bolts =

$$i := 1 .. N$$

$$d_i := \begin{cases} \theta \leftarrow 2 \cdot \pi \cdot \left(\frac{i}{N}\right) \\ d \leftarrow R_{bc} \cdot \sin(\theta) \end{cases}$$

$$d_1 = 7.70 \text{ in}$$

$$d_2 = 14.88 \text{ in}$$

$$d_3 = 21.04 \text{ in}$$

$$d_4 = 25.76 \text{ in}$$

$$d_5 = 28.74 \text{ in}$$

$$d_6 = 29.75 \text{ in}$$

Outer Pole Radius =

$$R_{pole} := \frac{D_T}{2} = 26.5 \text{ in}$$

Moment Arms of Bolts about Neutral Axis =

$$MA_i := \text{if}(d_i \geq R_{pole}, d_i - R_{pole}, 0 \cdot \text{in})$$

$$MA_1 = 0.00 \text{ in}$$

$$MA_7 = 2.24 \text{ in}$$

$$MA_2 = 0.00 \text{ in}$$

$$MA_8 = 0.00 \text{ in}$$

$$MA_3 = 0.00 \text{ in}$$

$$MA_9 = 0.00 \text{ in}$$

$$MA_4 = 0.00 \text{ in}$$

$$MA_{10} = 0.00 \text{ in}$$

$$MA_5 = 2.24 \text{ in}$$

$$MA_{11} = 0.00 \text{ in}$$

$$MA_6 = 3.25 \text{ in}$$

etc.

Effective Width of Baseplate for Bending =

$$B_{eff} := 19.87 \text{ in}$$

(User Input)



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Anchor Bolt and Base Plate Analysis (Circular Pattern)

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Anchor Bolt Properties:

Polar Moment of Inertia = $I_p := \sum_i (d_i)^2 = (1.062 \cdot 10^4) \text{ in}^2$

Nominal Unthreaded Area of Bolt = $A_g := \frac{\pi}{4} \cdot D^2 = 2.405 \text{ in}^2$

Net Area of Bolt = $A_n := \frac{\pi}{4} \cdot \left(D - \frac{0.9743 \cdot \text{in}}{n} \right)^2 = 1.899 \text{ in}^2$

Tensile Root Diameter = $D_{rt} := D - \frac{0.9743 \cdot \text{in}}{n} = 1.555 \text{ in}$

Plastic Section Modulus of Bolt = $Z_x := \frac{D_{rt}^3}{6} = 0.627 \text{ in}^3$

Bolt Radius of Gyration = $r := \frac{D_{rt}}{4} = 0.389 \text{ in}$

Bolt Critical Compression Stress = $F_{cr} = 74.92 \text{ ksi}$

Anchor Bolt Forces:

Maximum Bolt Tension Force = $P_{ut} := M_u \cdot \frac{R_{bc}}{I_p} - \frac{R_u}{N} = 59.5 \text{ kip}$

Maximum Bolt Compression Force = $P_{uc} := M_u \cdot \frac{R_{bc}}{I_p} + \frac{R_u}{N} = 62.2 \text{ kip}$

Maximum Bolt Shear Force = $V_u := \frac{V_u}{N} = 0.86 \text{ kip}$

Bolt Bending Moment = $M_{ub} := 0.65 \cdot V_u \cdot l_{ar} = 0.561 \text{ in} \cdot \text{kip}$

Anchor Bolt Strengths:

Bolt Design Tension Strength = $\phi_t R_{nt} := 0.75 \cdot F_{ub} \cdot A_n = 142.46 \text{ kip}$

Bolt Design Compression Yield Strength = $\phi_c R_{nc} := 0.90 \cdot F_{yb} \cdot A_g = 162.36 \text{ kip}$

Bolt Design Shear Rupture Strength = $\phi_v R_{nv} := 0.75 \cdot 0.5 \cdot F_{ub} \cdot A_g = 90.2 \text{ kip}$

Bolt Design Shear Yield Strength = $\phi_c R_{nvc} := 0.90 \cdot 0.6 \cdot 0.75 \cdot F_{yb} \cdot A_g = 73.06 \text{ kip}$

Bolt Design Buckling Strength = $\phi_c R_{nb} := 0.90 \cdot F_{cr} \cdot A_g = 162.19 \text{ kip}$

Bolt Design Flexural Strength = $\phi M_n := 0.90 F_{yb} \cdot Z_x = 42.31 \text{ in} \cdot \text{kip}$



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Anchor Rod Usage =

$$Usage1 := \begin{cases} \text{if } l_{ar} \leq 1.0 \cdot D & \max \left(\left(\frac{P_{ut}}{\phi_t R_{nt}} \right)^2 + \left(\frac{V_u}{\phi_v R_{nv}} \right)^2, \left(\frac{P_{uc}}{\phi_c R_{nc}} \right)^2 + \left(\frac{V_u}{\phi_c R_{nvc}} \right)^2 \right) \\ \text{also if } 1.0 \cdot D < l_{ar} \leq 4.0 \cdot D & \max \left(\left(\frac{P_{ut}}{\phi_t R_{nt}} + \frac{M_{ub}}{\phi_t M_n} \right)^2 + \left(\frac{V_u}{\phi_v R_{nv}} \right)^2, \left(\frac{P_{uc}}{\phi_c R_{nc}} + \frac{M_{ub}}{\phi_t M_n} \right)^2 + \left(\frac{V_u}{\phi_c R_{nvc}} \right)^2 \right) \\ \text{else} & \max \left(\left(\frac{P_{ut}}{\phi_t R_{nt}} + \frac{M_{ub}}{\phi_t M_n} \right)^2 + \left(\frac{V_u}{\phi_v R_{nv}} \right)^2, \left(\frac{P_{uc}}{\phi_c R_{nc}} + \frac{M_{ub}}{\phi_t M_n} \right)^2 + \left(\frac{V_u}{\phi_c R_{nvc}} \right)^2 \right) \end{cases} = 0.38$$

Note:

Per TIA-222-H Section 4.9.9 when the anchor rod projection (l_{ar}) exceeds $1(d)$ but is not more than 3 in. , it shall be permitted to consider (l_{ar}) less than or equal to $1(d)$ when $5,000 \text{ psi min.}$ 7 day strength non shrink, non metallic grout is installed between the supporting structure and the leveling nuts, otherwise all interaction equations shall be investigated based on (l_{ar}).

Base Plate Analysis:

Plate Plastic Section Modulus = $Z_p := \frac{B_{eff} \cdot t_{bp}^2}{4} = 31.05 \text{ in}^3$

Plate Bending = $M_p := \sum_i C_i \cdot MA_i = 470.77 \text{ in} \cdot \text{kip}$

Available Plate Bending Strength = $\phi M_n := 0.90 \cdot F_{yt} \cdot Z_p = 1397.11 \text{ in} \cdot \text{kip}$

Plate Flexural Usage = $Usage2 := \frac{M_p}{\phi M_n} = 0.34$

Anchor Bolt and Base Plate Analysis Summary:

Anchor Bolt Usage
 (% of Capacity) = $Usage1 = 38\%$

Base Plate Bending Usage
 (% of Capacity) = $Usage2 = 34\%$



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Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis-VZW

SMART Tool Project #: 10215089
 Colliers Engineering Project #: 23777329 (Rev. 1)

February 8, 2024

Site Information

Site ID: 5000234399-VZW / CROMWELL N 2 CT
 - Cromwell Concrete
 Site Name: CROMWELL N 2 CT - Cromwell Concrete
 Carrier Name: Verizon Wireless
 Address: 667 Main St
 Cromwell, Connecticut 06416
 Middlesex County
 Latitude: 41.63239583°
 Longitude: -72.65297972°

Structure Information

Tower Type: 120-Ft Monopole
 Mount Type: 12.50-Ft Platform

FUZE ID # 17152965

Analysis Results

Platform: **63.0% Pass w/ Hardware Upgrades***
 T-Arm: **23.5% Pass***

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

***Contractor PMI Requirements:

Included at the end of this MA report
 Available & Submitted via portal at <https://pmi.vzwsmart.com>

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

Report Prepared By: Frank Centone



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: 2994680, dated February 8, 2024
Desktop Mount Mapping Report	Paul J. Ford & Company, Site ID: PSLC:469424, dated April 8, 2021
Post Modification Inspection Report	Colliers Engineering & Design Project #: 23777003, dated July 5, 2023

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H 2022 Connecticut State Building Code (CSBC), Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 120 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.50 in Risk Category: II Exposure Category: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.995
Seismic Parameters:	S_s : 0.207 g S_1 : 0.056 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
119.25	120.00	1	Matsing	MS-6C45	Added
		3	Samsung	RT-8808-77A	
		1	RFS	DB-B1-6C-12AB-0Z	
		6	Commscope	NNHH-65B-R4	Retained
		1	Commscope	NHH-45B-R2B	
		1	Raycap	RHSDC-6627-PF-48	
		2	Samsung	MT6407-77A	
		3	Samsung	RF4402D-D1A	
		2	Samsung	RF4439d-25A	
		4	Samsung	RF4440d-13A	
110.00	110.00	1	MatSing	MS-12.6DB180	

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:
- o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325

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

Analysis Results:

Platform:

Component	Utilization %	Pass/Fail
Mount Support	27.0%	Pass
Mount Pipe	46.0%	Pass
Support Rail Corner	5.2%	Pass
Support Rail	16.7%	Pass
Face Horizontal	25.5%	Pass
Secondary Standoff	35.8%	Pass
Lower Standoff	63.0%	Pass
Grating Bracing	41.8%	Pass
Side Bracing	19.3%	Pass
Standoff Horizontal	14.3%	Pass
Grating Support	42.4%	Pass
Mount Connection	22.4%	Pass

Structure Rating – (Controlling Utilization of all Components)	63.0%
---	--------------

T-Arm:

Component	Utilization %	Pass/Fail
Mount Pipe	14.3%	Pass
Face Horizontal	21.5%	Pass
Standoff	13.2%	Pass
Mount Connection	23.5%	Pass

Structure Rating – (Controlling Utilization of all Components)	23.5%
---	--------------

Mount Connection Envelope Reactions - Platform:

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 B Top Standoff	119.8	R4	1571	12333	0.120	0.853	3491	16669	0.164	0.282
Sector B Bottom Standoff	118.8	R4A	60	11650	0.100	0.302	130	22756	0.190	0.230
Sector A Top Standoff	119.8	R1	1688	13405	0.130	0.900	3348	15244	0.151	0.304
Sector A Bottom Standoff	118.8	R1A	64	12722	0.110	0.324	127	21309	0.177	0.271
Sector D Top Standoff	119.8	R2	1505	11519	0.112	0.398	3608	17243	0.171	0.136
Sector D Bottom Standoff	118.8	R2A	58	10967	0.094	0.303	133	23357	0.195	0.227
Sector C Top Standoff	119.8	R3	1497	11556	0.112	0.358	3372	15420	0.152	0.130
Sector C Bottom Standoff	118.8	R3A	58	11034	0.095	0.270	127	21536	0.179	0.184

Notes:

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

Mount Connection Envelope Reactions – T-Arm:

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 A Top Standoff	113.5	N2	622	643	0.671	0.454	1575	304	1.462	0.157
Sector A Bottom Standoff	106.5	N15	623	1262	0.682	1.282	1591	351	1.479	0.289

Notes:

- Axial loads act along the axis of the tower leg
- Lateral reactions act perpendicular to the tower leg
- Moment loads introduce bending moment to the tower leg
- Torsion loads introduce twisting moment to the tower leg
- 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:

Platform:

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	45.7	45.7	70.1	70.1
0.5	66.2	66.2	100.8	100.8
1	83.5	83.5	128.3	128.3

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 4 sector(s).
- Ka factors included in (EPA)a calculations

T-Arm:

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	2.0	0.2	6.5	4.8
0.5	2.7	0.3	9.1	6.8
1	3.3	0.3	11.7	8.7

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 1 sector.
- Ka factors included in (EPA)a calculations

Requirements:

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

<p>Contractor shall install a new 96" long PIPE 2 SCH40 mount pipe position 2 (Beta Sector Only). Install 12" from position 3 pipe (Contractor shall field verify as required to install proposed Matsing antenna). Top of pipe shall match existing position 3 pipe location on mount. Attach using VZWSMART MSK1 crossover plates. Refer to placement diagrams.</p> <p>Contractor shall install a new 48" long PIPE 2 SCH40 mount pipe position 4 (Beta Sector Only). Install 24" from position 3 pipe. Attach using VZWSMART MSK1 crossover plates. Refer to placement diagrams.</p> <p>Contractor shall install the proposed and existing radio units on new Site Pro 1 Dual Swivel Mount Kit (Part #: RRUDSM or EOR approved equivalent) in the location shown in the placement diagrams on the Beta Sector only.</p>
--

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 #: 5000234399

SMART Project #: 10215089

Fuze Project ID: 17152965

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 a new 96" long PIPE 2 SCH40 mount pipe position 2 (Beta Sector Only). Install 12" from position 3 pipe (Contractor shall field verify as required to install proposed Matsing antenna). Top of pipe shall match existing position 3 pipe location on mount. Attach using VZWSMART MSK1 crossover plates. Refer to placement diagrams.

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

Response:

Special Instruction Confirmation:

- The contractor has read and acknowledges the above special instructions.
- All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.

The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) and included in the material certification folder is a packing list or invoice for these materials.

OR

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

Comments:

--

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

Yes No

Contractor certifies no new damage created during the current installation:

Yes No

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

Safety Climb in Good Condition Safety Climb Damaged

Certifying Individual:

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

Structure: 5000234399-VZW - CROMWELL N 2 CT - Cromwell Concrete

Sector: A

1/18/2024

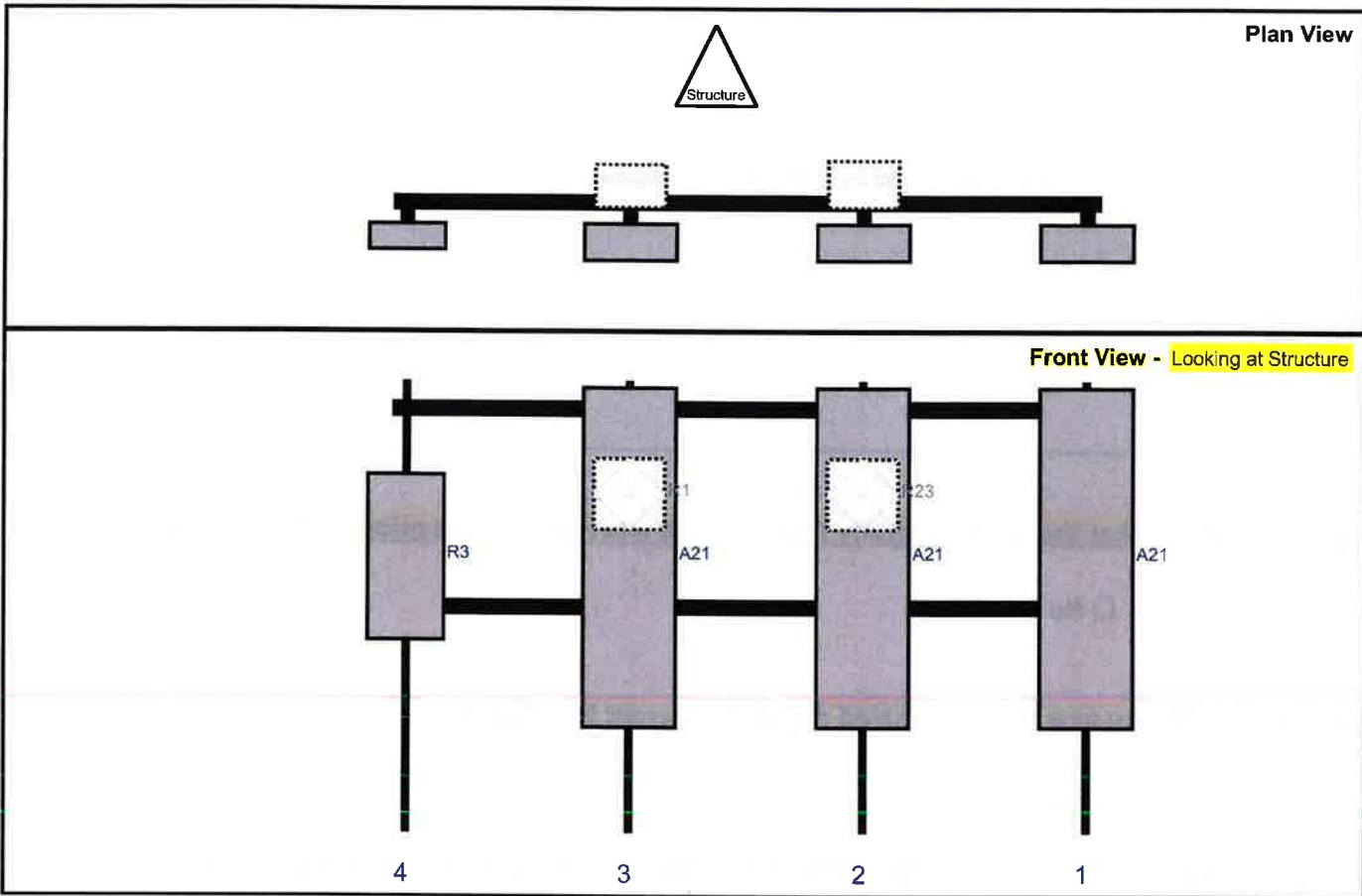
Structure Type: Monopole

10215089



Mount Elev: 119.25

Page: 1



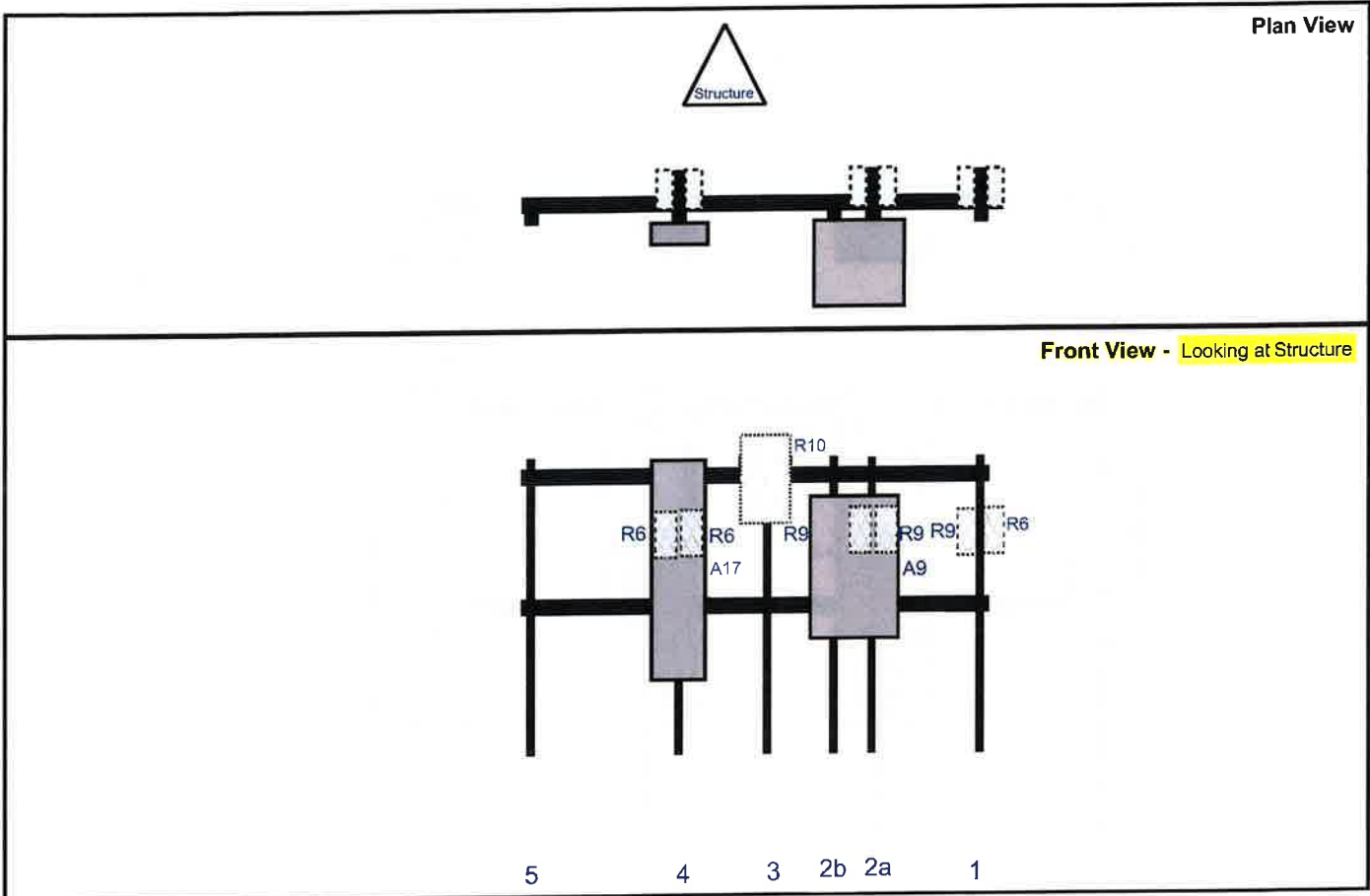
Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A21	NNHH-65B-R4	72	19.6	147	1	a	Front	37.5	0	Retained	06/14/2023
A21	NNHH-65B-R4	72	19.6	99.75	2	a	Front	37.5	0	Retained	06/14/2023
R23	RF4439d-25A	15	15	99.75	2	a	Behind	24	0	Retained	06/14/2023
A21	NNHH-65B-R4	72	19.6	50.25	3	a	Front	37.5	0	Retained	06/14/2023
R1	RF4440d-13A	15	15	50.25	3	a	Behind	24	0	Retained	06/14/2023
R3	MT6407-77A	35.1	16.1	3	4	a	Front	37.5	0	Retained	06/14/2023
OVP	RHSDC-6627-PF-48	29.5	16.5			Member				Retained	06/14/2023
MP3D	RF 4402D-D1A	15	15			Member				Retained	06/14/2023
MP2D	RF 4402D-D1A	15	15			Member				Retained	06/14/2023
MP1D	BSF0020F3V1-1	10.6	10.9			Member				Added	
M515	BSF0020F3V1-1	10.6	10.9			Member				Added	

Sector: **B**
 Structure Type: Monopole
 Mount Elev: 119.25

10215089

1/23/2024

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	RF4440d-13A	15	15	147	1	a	Behind	24	0	Retained	06/14/2023
R9	RT-8808-77A	15	15	147	1	a	Behind	18	12	Added	
A9	MS-6C45	41.4	28.74	99.75	2	a	Front	37.56	0	Added	
R9	RT-8808-77A	15	15	99.75	2	a	Behind	18	12	Added	
R9	RT-8808-77A	15	15	99.75	2	b	Behind	57	12	Added	
A17	NHH-45B-R2B	72	18	50.25	3	a	Front	37.5	0	Retained	06/14/2023
R6	RF4440d-13A	15	15	50.25	3	a	Behind	24	0	Retained	06/14/2023
R6	RF4440d-13A	15	15	50.25	3	a	Behind	24	0	Retained	06/14/2023
R10	DB-B1-6C-12AB-0Z	15	15	99.75	2	a	Behind	18	12	Added	

Structure: 5000234399-VZW - CROMWELL N 2 CT - Cromwell Concrete

Sector: C

1/18/2024

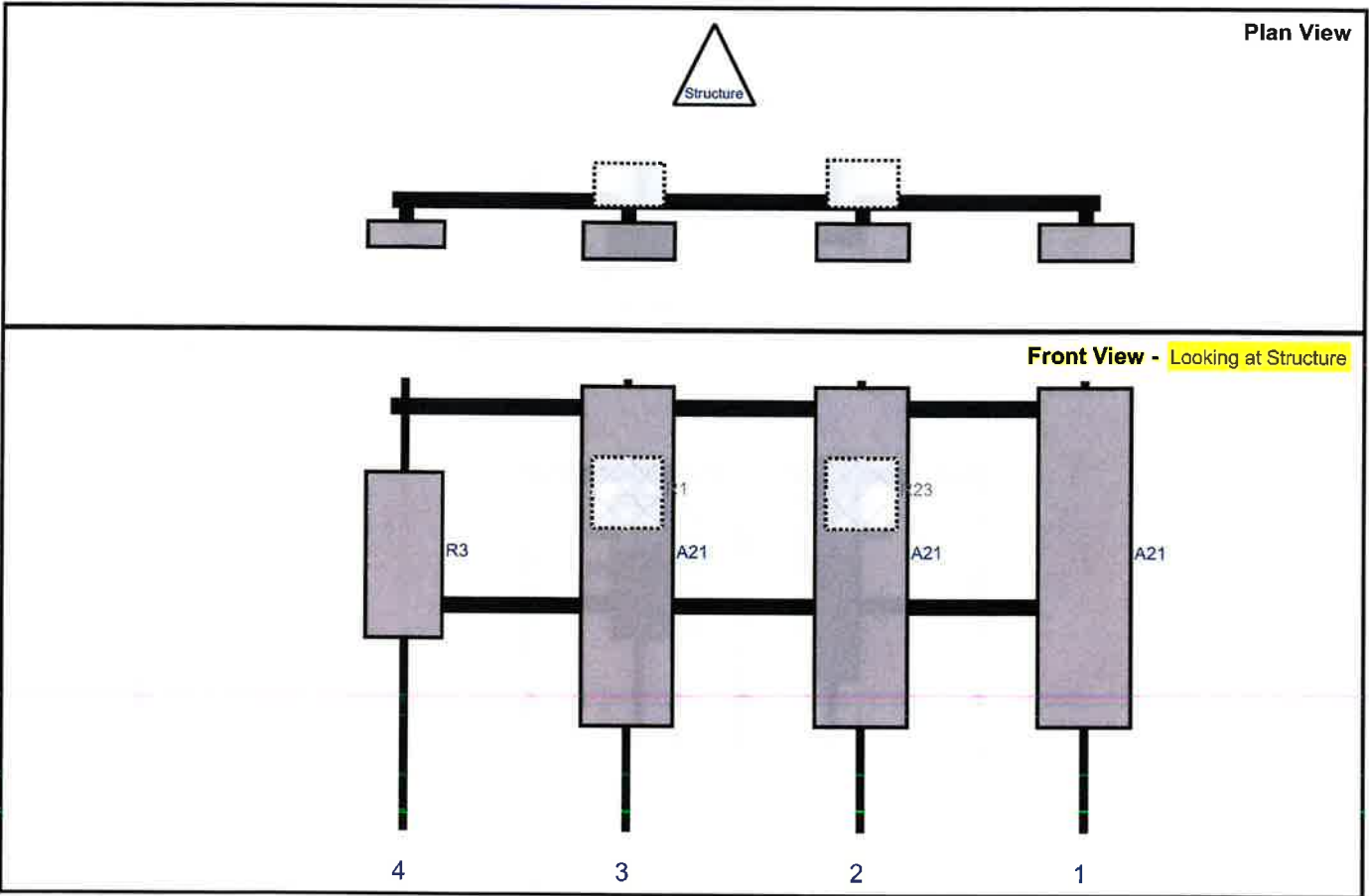
Structure Type: Monopole

10215089



Mount Elev: 119.25

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
A21	NNHH-65B-R4	72	19.6	147	1	a	Front	37.5	0	Retained	06/14/2023
A21	NNHH-65B-R4	72	19.6	99.75	2	a	Front	37.5	0	Retained	06/14/2023
R23	RF4439d-25A	15	15	99.75	2	a	Behind	24	0	Retained	06/14/2023
A21	NNHH-65B-R4	72	19.6	50.25	3	a	Front	37.5	0	Retained	06/14/2023
R1	RF4440d-13A	15	15	50.25	3	a	Behind	24	0	Retained	06/14/2023
R3	MT6407-77A	35.1	16.1	3	4	a	Front	37.5	0	Retained	06/14/2023

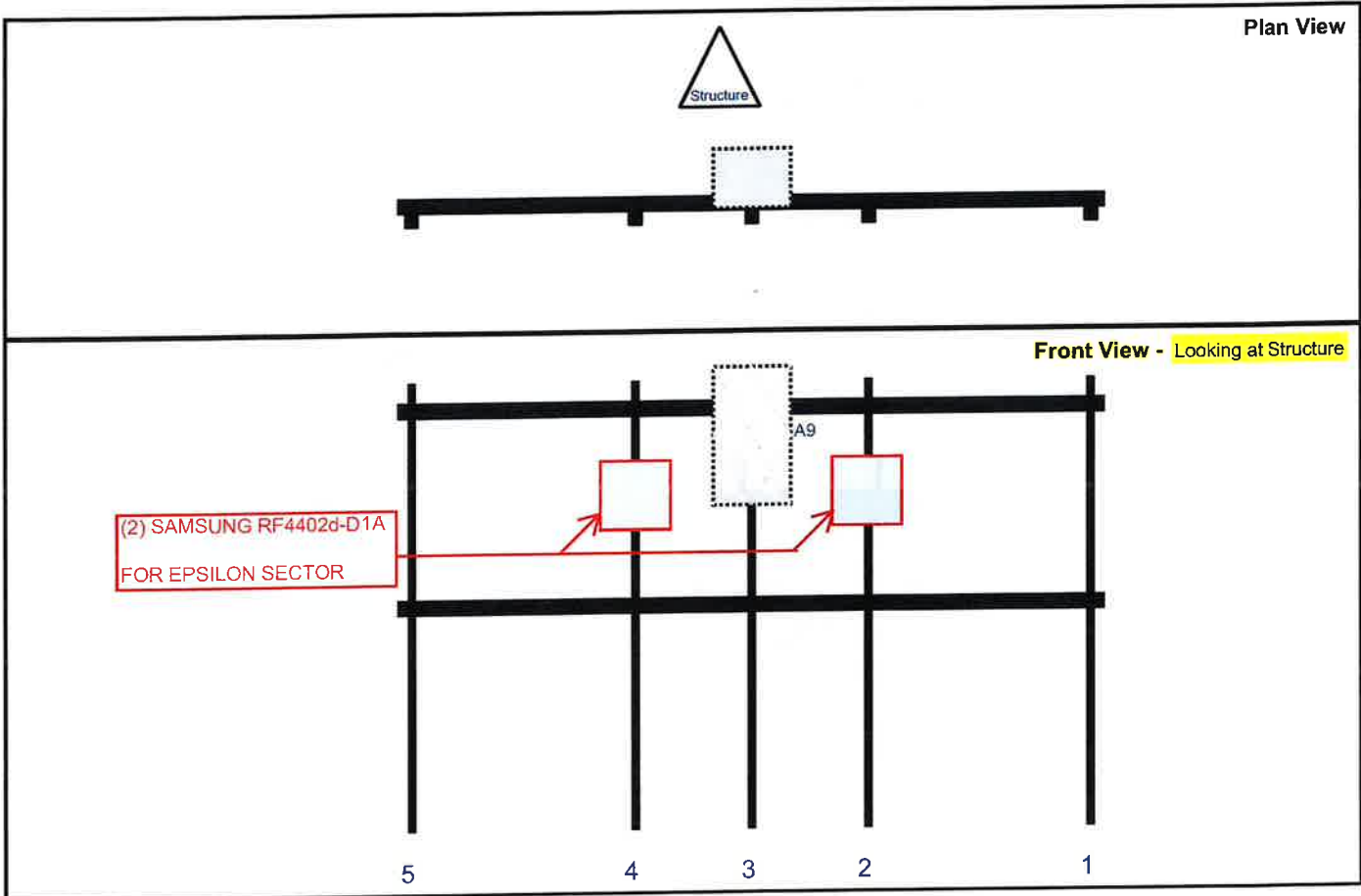
Sector: D
 Structure Type: Monopole
 Mount Elev: 119.25

10215089

10/10/2023



Page: 1



Reff#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A9	RHSDC-6627-PF-48	29.5	16.5	75	3	a	Behind	12	0	Retained	

Sector: A

3/22/2023

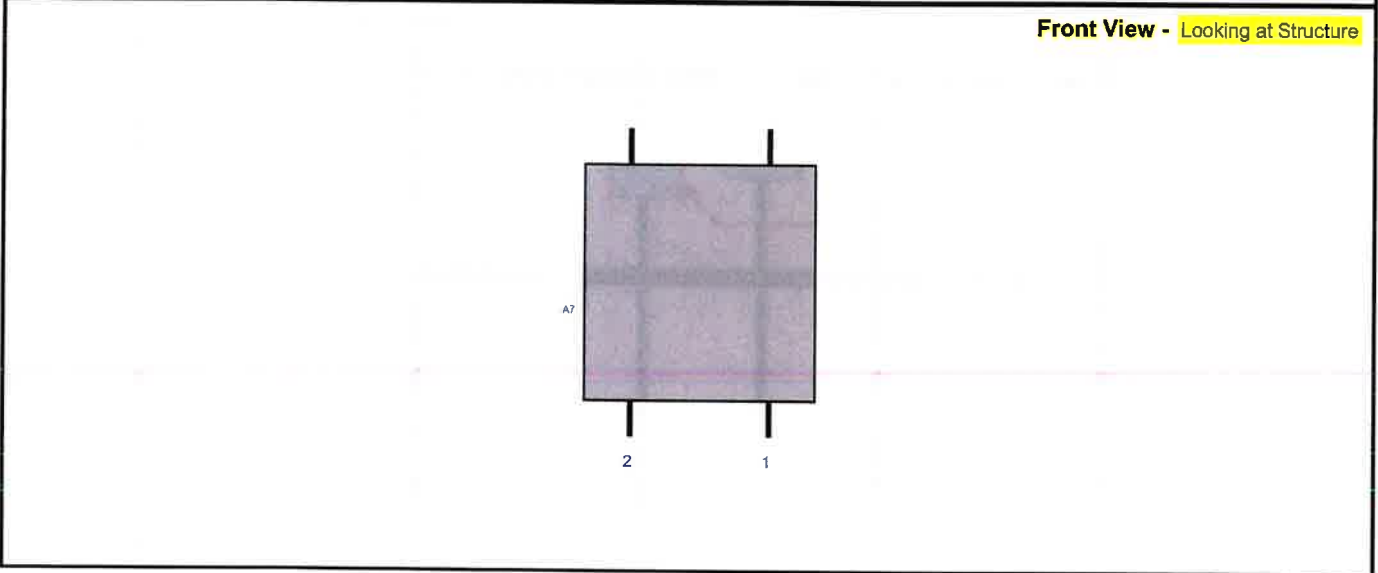
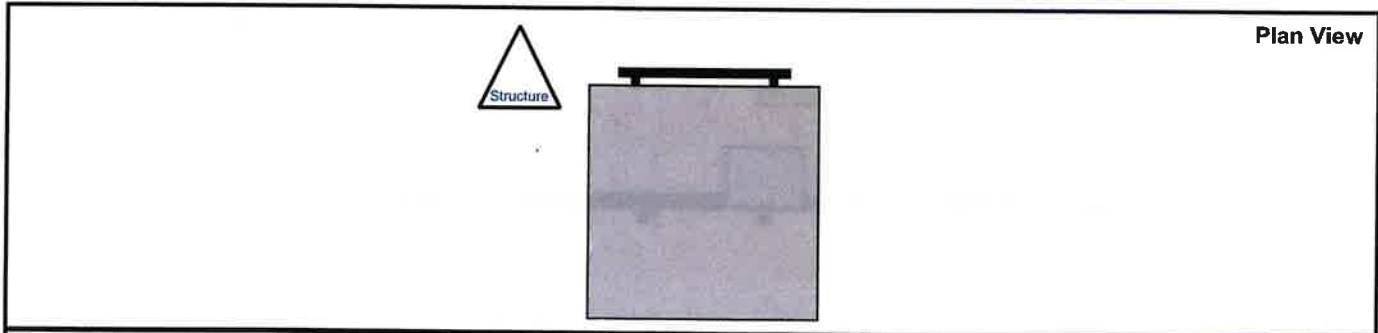
Structure Type: Monopole

10215089



Mount Elev: 110.00


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
A7	MS-12.6DB180	71	80	54	1	a	Front	48	-24	Added	

Jun 14, 2023 at 9:47:42 AM
667 Main St
Cromwell CT 06416
United States


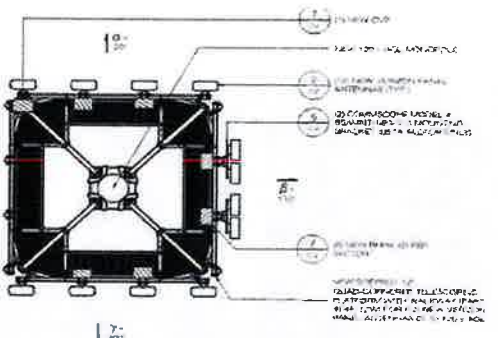


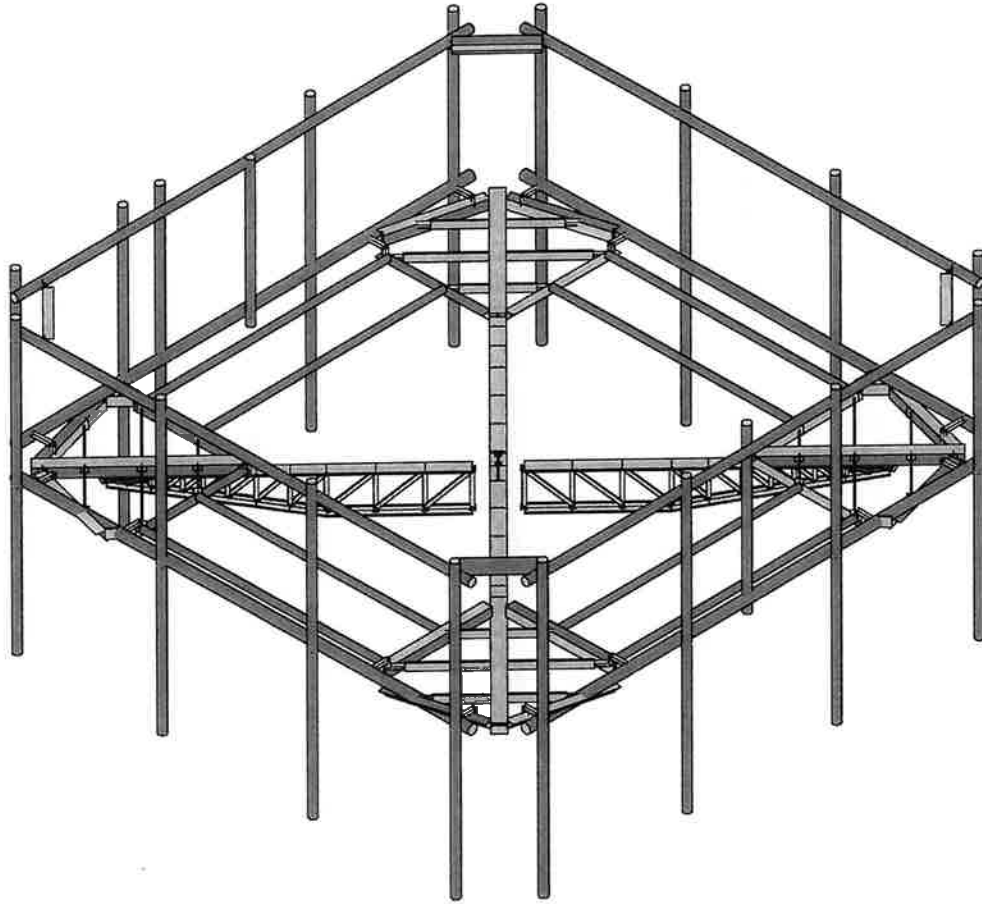
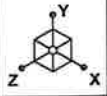
	Desktop Mount Mapping Form			
	Site Name:	Cromwell N 2 CT	Tower Type:	Monopole
	Site ID:		Tower Owner:	
	PSLC:	469424	Tower Height (FL):	120
	Customer:		Mount Elevation (FL):	120
	Colliers Project No.	21777002A	Date:	4/8/2021

The information 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 PJF.

Document Type	Provided? (Yes/No)	Source Name	Project No.	Dated	Comments/Remarks
Previous Mount Mapping	No				
Previous Mapping Photos	No				
Previous Mount Analysis	No				
Previous Mount Modifications	No				
Previous Structural Analysis	No				
Construction Drawings	Yes	Cromwell N 2 CT CD Rev0 11-04-2019	NY141NB6710	11/4/2019	Provided and is the primary source of mount information. Mount part numbers along with graphical details are shown.
Closeout Package	Yes				
Closeout Photos	Yes				Photos are helpful for MA
Handover Package	No				
New Build 445 Documentation	No				
Other	No				
Previous PMI	No				

The desktop mount mapping is based on the engineering review of the available site documents in PJFE, as listed above. In place of a full mount mapping. It is assumed that the information provided in the documents listed above, provide an accurate representation of the existing mount. EOR reserves the right and will typically require additional clarification and verification as will be included in the PMI requirements. During the Post Modification Inspection (PMI) process, the GC on site will be required to confirm all questions, confirmations, and validations as posed by the EOR. The engineering review for this desktop mount mapping was performed in accordance to the ANSI/TIA-222-H requirements and Verizon's NST446 standard.

	
Photo taken from: Closeout Package Photos	Photo taken from: CDs



Colliers Engineering & De...

NL

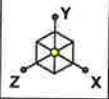
23777329

Mount Analysis

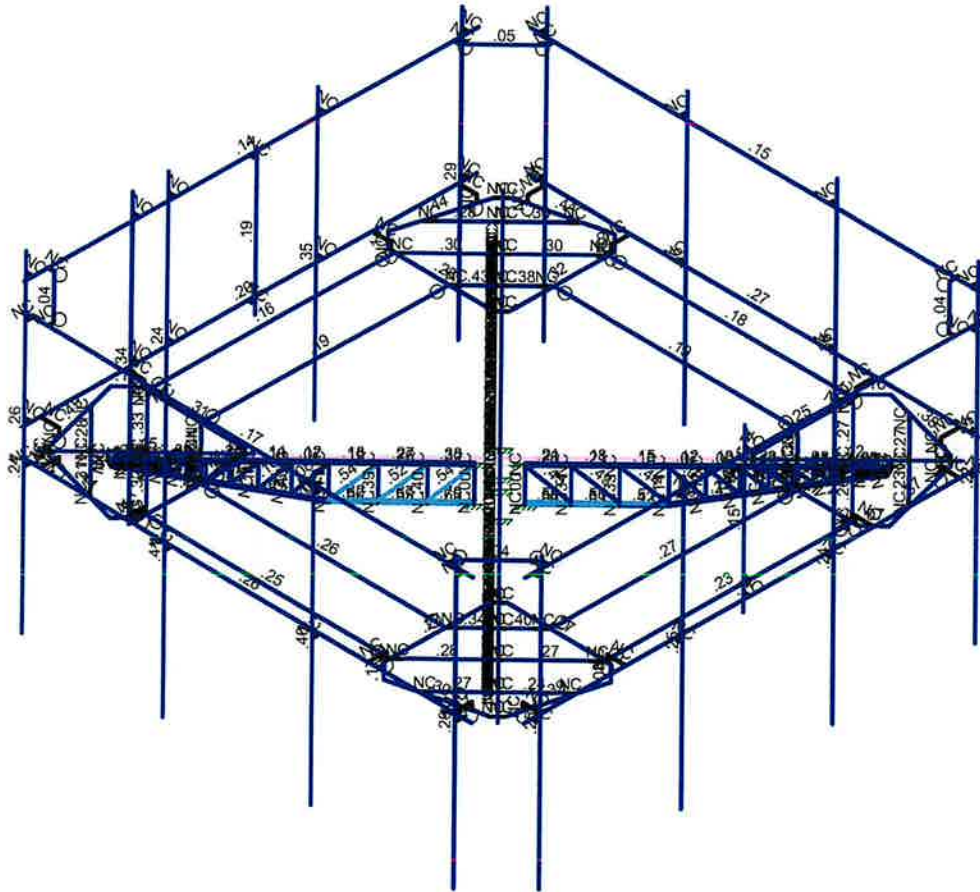
SK - 1

Feb 8, 2024 at 3:38 PM

5000234399-VZW_MT_LO_H_12...

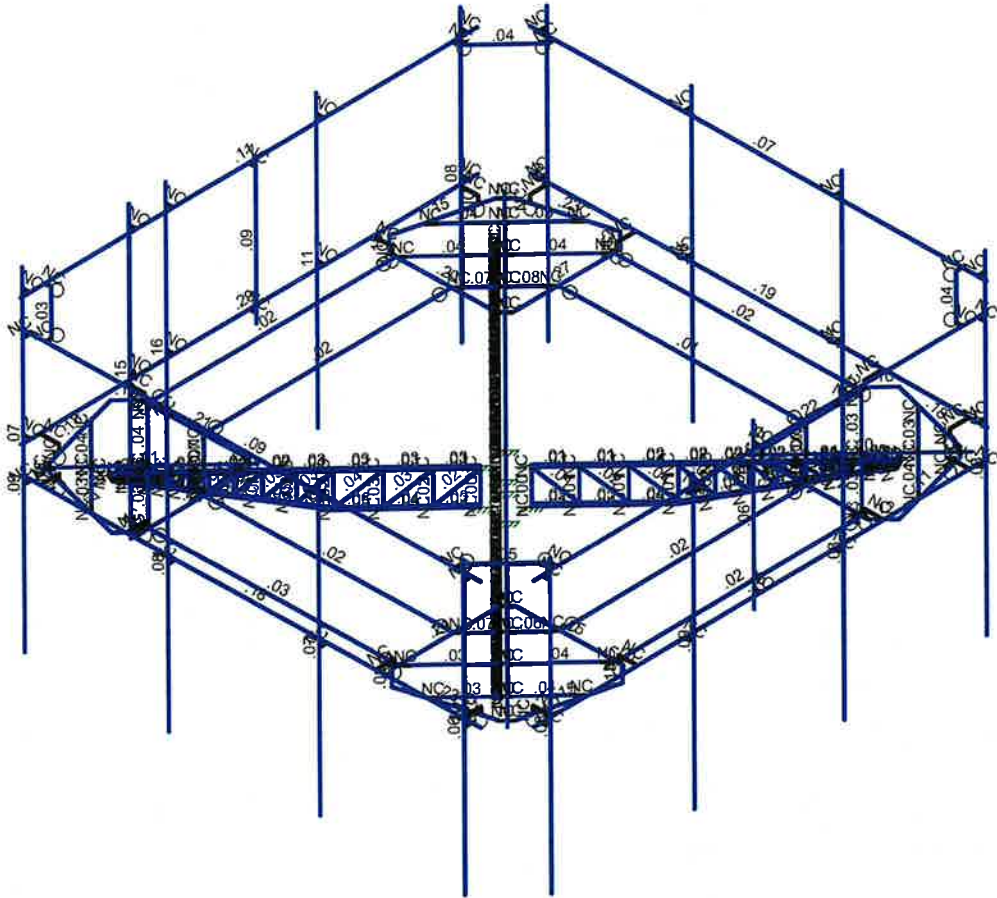
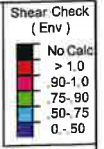
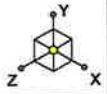


Code Check (Env)	
Black	No Calc
Red	> 1.0
Orange	90-1.0
Yellow	75-90
Green	50-75
Blue	0-.50



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

Colliers Engineering & De...	Mount Analysis	SK - 2
NL		Feb 8, 2024 at 3:38 PM
23777329		5000234399-VZW_MT_LO_H_12...



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

Colliers Engineering & De...
NL
23777329

Mount Analysis

SK - 3

Feb 8, 2024 at 3:39 PM

5000234399-VZW_MT_LO_H_12...



Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface...
1	Antenna D	None					117			
2	Antenna Di	None					117			
3	Antenna Wo (0 Deg)	None					117			
4	Antenna Wo (30 Deg)	None					117			
5	Antenna Wo (60 Deg)	None					117			
6	Antenna Wo (90 Deg)	None					117			
7	Antenna Wo (120 Deg)	None					117			
8	Antenna Wo (150 Deg)	None					117			
9	Antenna Wo (180 Deg)	None					117			
10	Antenna Wo (210 Deg)	None					117			
11	Antenna Wo (240 Deg)	None					117			
12	Antenna Wo (270 Deg)	None					117			
13	Antenna Wo (300 Deg)	None					117			
14	Antenna Wo (330 Deg)	None					117			
15	Antenna Wi (0 Deg)	None					117			
16	Antenna Wi (30 Deg)	None					117			
17	Antenna Wi (60 Deg)	None					117			
18	Antenna Wi (90 Deg)	None					117			
19	Antenna Wi (120 Deg)	None					117			
20	Antenna Wi (150 Deg)	None					117			
21	Antenna Wi (180 Deg)	None					117			
22	Antenna Wi (210 Deg)	None					117			
23	Antenna Wi (240 Deg)	None					117			
24	Antenna Wi (270 Deg)	None					117			
25	Antenna Wi (300 Deg)	None					117			
26	Antenna Wi (330 Deg)	None					117			
27	Antenna Wm (0 Deg)	None					117			
28	Antenna Wm (30 Deg)	None					117			
29	Antenna Wm (60 Deg)	None					117			
30	Antenna Wm (90 Deg)	None					117			
31	Antenna Wm (120 Deg)	None					117			
32	Antenna Wm (150 Deg)	None					117			
33	Antenna Wm (180 Deg)	None					117			
34	Antenna Wm (210 Deg)	None					117			
35	Antenna Wm (240 Deg)	None					117			
36	Antenna Wm (270 Deg)	None					117			
37	Antenna Wm (300 Deg)	None					117			
38	Antenna Wm (330 Deg)	None					117			
39	Structure D	None		-1					22	
40	Structure Di	None						299	22	
41	Structure Wo (0 Deg)	None						598		
42	Structure Wo (30 Deg)	None						598		
43	Structure Wo (60 Deg)	None						598		
44	Structure Wo (90 Deg)	None						598		
45	Structure Wo (120 Deg)	None						598		
46	Structure Wo (150 Deg)	None						598		
47	Structure Wo (180 Deg)	None						598		
48	Structure Wo (210 Deg)	None						598		
49	Structure Wo (240 Deg)	None						598		
50	Structure Wo (270 Deg)	None						598		
51	Structure Wo (300 Deg)	None						598		
52	Structure Wo (330 Deg)	None						598		
53	Structure Wi (0 Deg)	None						598		
54	Structure Wi (30 Deg)	None						598		
55	Structure Wi (60 Deg)	None						598		
56	Structure Wi (90 Deg)	None						598		
57	Structure Wi (120 Deg)	None						598		
58	Structure Wi (150 Deg)	None						598		



Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
59	Structure Wi (180 Deg)	None						598		
60	Structure Wi (210 Deg)	None						598		
61	Structure Wi (240 Deg)	None						598		
62	Structure Wi (270 Deg)	None						598		
63	Structure Wi (300 Deg)	None						598		
64	Structure Wi (330 Deg)	None						598		
65	Structure Wm (0 Deg)	None						598		
66	Structure Wm (30 Deg)	None						598		
67	Structure Wm (60 Deg)	None						598		
68	Structure Wm (90 Deg)	None						598		
69	Structure Wm (120 Deg)	None						598		
70	Structure Wm (150 Deg)	None						598		
71	Structure Wm (180 Deg)	None						598		
72	Structure Wm (210 Deg)	None						598		
73	Structure Wm (240 Deg)	None						598		
74	Structure Wm (270 Deg)	None						598		
75	Structure Wm (300 Deg)	None						598		
76	Structure Wm (330 Deg)	None						598		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					117			
82	Antenna Eh (0 Deg)	None					78			
83	Antenna Eh (90 Deg)	None					78			
84	Structure Ev	ELY		-.044					22	
85	Structure Eh (0 Deg)	ELZ			-.11				22	
86	Structure Eh (90 Deg)	ELX	.11						22	
87	BLC 39 Transient Area Loads	None						363		
88	BLC 40 Transient Area Loads	None						363		
89	BLC 84 Transient Area Loads	None						363		
90	BLC 85 Transient Area Loads	None						363		
91	BLC 86 Transient Area Loads	None						363		

Load Combinations

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



Load Combinations (Continued)

Description	So	P	S	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac	BLCFac
22	1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	24	1	62	1			
23	1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	25	1	63	1			
24	1.2D + 1.0Di + 1.0...	Yes	Y	1	1.2	39	1.2	2	1	40	1	26	1	64	1			
25	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	27	1	65	1					
26	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	28	1	66	1					
27	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	29	1	67	1					
28	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	30	1	68	1					
29	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	31	1	69	1					
30	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	32	1	70	1					
31	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	33	1	71	1					
32	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	34	1	72	1					
33	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	35	1	73	1					
34	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	36	1	74	1					
35	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	37	1	75	1					
36	1.2D + 1.5Lm1 + 1...	Yes	Y	1	1.2	39	1.2	77	1.5	38	1	76	1					
37	1.2D + 1.5Lm2 + 1...	Yes	Y	1	1.2	39	1.2	78	1.5	27	1	65	1					
38	1.2D + 1.5Lm2 + 1...	Yes	Y	1	1.2	39	1.2	78	1.5	28	1	66	1					
39	1.2D + 1.5Lm2 + 1...	Yes	Y	1	1.2	39	1.2	78	1.5	29	1	67	1					
40	1.2D + 1.5Lm2 + 1...	Yes	Y	1	1.2	39	1.2	78	1.5	30	1	68	1					
41	1.2D + 1.5Lm2 + 1...	Yes	Y	1	1.2	39	1.2	78	1.5	31	1	69	1					
42	1.2D + 1.5Lm2 + 1...	Yes	Y	1	1.2	39	1.2	78	1.5	32	1	70	1					
43	1.2D + 1.5Lm2 + 1...	Yes	Y	1	1.2	39	1.2	78	1.5	33	1	71	1					
44	1.2D + 1.5Lm2 + 1...	Yes	Y	1	1.2	39	1.2	78	1.5	34	1	72	1					
45	1.2D + 1.5Lm2 + 1...	Yes	Y	1	1.2	39	1.2	78	1.5	35	1	73	1					
46	1.2D + 1.5Lm2 + 1...	Yes	Y	1	1.2	39	1.2	78	1.5	36	1	74	1					
47	1.2D + 1.5Lm2 + 1...	Yes	Y	1	1.2	39	1.2	78	1.5	37	1	75	1					
48	1.2D + 1.5Lm2 + 1...	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 + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX
53	1.2D + 1.0Ev + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5	ELZ	.866	ELX
54	1.2D + 1.0Ev + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866	ELZ	.5	ELX
55	1.2D + 1.0Ev + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX
56	1.2D + 1.0Ev + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866	ELZ	-.5	ELX
57	1.2D + 1.0Ev + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	.5	ELZ	-.866	ELX
58	1.2D + 1.0Ev + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX
59	1.2D + 1.0Ev + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	-.5	ELZ	-.866	ELX
60	1.2D + 1.0Ev + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.866	ELZ	-.5	ELX
61	1.2D + 1.0Ev + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX
62	1.2D + 1.0Ev + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.866	ELZ	.5	ELX
63	1.2D + 1.0Ev + 1.0...	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5	ELZ	.866	ELX
64	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX
65	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5	ELZ	.866	ELX
66	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	ELZ	.5	ELX
67	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82		83	1	ELZ		ELX
68	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866	ELZ	-.5	ELX
69	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	.5	ELZ	-.866	ELX
70	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX
71	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	-.5	ELZ	-.866	ELX
72	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.866	ELZ	-.5	ELX
73	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX
74	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866	ELZ	.5	ELX
75	0.9D - 1.0Ev + 1.0...	Yes	Y	1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5	ELZ	.866	ELX



Hot Rolled Steel Section Sets

	Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Face Horizontal	PIPE 2.5	None	None	Q235	Typical	1.61	1.45	1.45	2.89
2	Mount Pipe	PIPE 2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
3	Standoff Horizontal	HSS4X3X4	None	None	Q235	Typical	2.91	3.91	6.15	7.96
4	Connector Angle	L2x2x2	None	None	Q235	Typical	.491	.189	.189	.003
5	Grating Support	L3X3X6	None	None	Q235	Typical	2.11	1.75	1.75	.101
6	Secondary Standoff	PL1/2x4	None	None	Q235	Typical	2	.042	2.667	.154
7	Lower Standoff	PL3/8x4	VBrace	RECT	Q235	Typical	1.5	.018	2	.066
8	Bracing	PL3/8X1	None	None	Q235	Typical	.375	.004	.031	.013
9	Grating Bracing	PL3/8x2.375	None	None	Q235	Typical	.891	.01	.419	.038
10	Side Bracing	PL3/8x3	VBrace	RECT	Q235	Typical	1.125	.013	.844	.049
11	Support Rail	PIPE 2.0	None	None	A53 Gr.B	Typical	1.02	.627	.627	1.25
12	Support Rail Corner	WT2.5X8	None	None	A36 Gr.36	Typical	2.35	3.75	.845	.096
13	Mount Support	PIPE 1.5	None	None	Q235	Typical	.749	.293	.293	.586
14	TES Grating Bracing	PL3/8x3	VBrace	RECT	Q235	Typical	1.125	.013	.844	.049
15	TES Support Rail Corner	L3X3X6	None	None	Q235	Typical	2.11	1.75	1.75	.101

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	R3	N77	N35			RIGID	None	None	RIGID	Typical
2	R4	N27	N38			RIGID	None	None	RIGID	Typical
3	R5	N28	N39			RIGID	None	None	RIGID	Typical
4	R6	N79	N41			RIGID	None	None	RIGID	Typical
5	R7	N29	N41A			RIGID	None	None	RIGID	Typical
6	R8	N31	N42			RIGID	None	None	RIGID	Typical
7	R9	N47	N50			RIGID	None	None	RIGID	Typical
8	R10	N49	N52A			RIGID	None	None	RIGID	Typical
9	M57	N77	N69			RIGID	None	None	RIGID	Typical
10	M58	N27	N70			RIGID	None	None	RIGID	Typical
11	M59	N28	N71			RIGID	None	None	RIGID	Typical
12	M63	N64	N72			RIGID	None	None	RIGID	Typical
13	M64	N67	N73			RIGID	None	None	RIGID	Typical
14	M65	N68	N74			RIGID	None	None	RIGID	Typical
15	M67	N47	N78			RIGID	None	None	RIGID	Typical
16	M70	N49	N80			RIGID	None	None	RIGID	Typical
17	M71	N54	N55			RIGID	None	None	RIGID	Typical
18	M72	N55	N56			RIGID	None	None	RIGID	Typical
19	M74A	N58	N59A			RIGID	None	None	RIGID	Typical
20	M75C	N59A	N59			RIGID	None	None	RIGID	Typical
21	M75A	N60A	N61			RIGID	None	None	RIGID	Typical
22	M76	N61	N62A			RIGID	None	None	RIGID	Typical
23	M77	N64A	N65			RIGID	None	None	RIGID	Typical
24	M78	N65	N63			RIGID	None	None	RIGID	Typical
25	M100	N88	N94			RIGID	None	None	RIGID	Typical
26	M101	N90	N95			RIGID	None	None	RIGID	Typical
27	M102	N91	N96			RIGID	None	None	RIGID	Typical
28	M106	N89	N97			RIGID	None	None	RIGID	Typical
29	M107	N92	N98			RIGID	None	None	RIGID	Typical
30	M108	N93	N99			RIGID	None	None	RIGID	Typical
31	M109	N100	N102			RIGID	None	None	RIGID	Typical
32	M111	N101	N104			RIGID	None	None	RIGID	Typical
33	M133	N88	N108			RIGID	None	None	RIGID	Typical
34	M134	N90	N109			RIGID	None	None	RIGID	Typical
35	M135	N91	N110			RIGID	None	None	RIGID	Typical
36	M139	N105	N111			RIGID	None	None	RIGID	Typical
37	M140	N106	N112			RIGID	None	None	RIGID	Typical
38	M141	N107	N113			RIGID	None	None	RIGID	Typical



Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
39	M143	N100	N114			RIGID	None	None	RIGID	Typical
40	M145	N101	N116			RIGID	None	None	RIGID	Typical
41	M146	N117	N118			RIGID	None	None	RIGID	Typical
42	M147	N118	N119			RIGID	None	None	RIGID	Typical
43	M151	N123	N124			RIGID	None	None	RIGID	Typical
44	M152	N124	N120			RIGID	None	None	RIGID	Typical
45	M153	N125	N126			RIGID	None	None	RIGID	Typical
46	M154	N126	N127			RIGID	None	None	RIGID	Typical
47	M155	N129	N130			RIGID	None	None	RIGID	Typical
48	M156	N130	N128			RIGID	None	None	RIGID	Typical
49	M178	N153	N159			RIGID	None	None	RIGID	Typical
50	M179	N155	N160			RIGID	None	None	RIGID	Typical
51	M180	N156	N161			RIGID	None	None	RIGID	Typical
52	M184	N154	N162			RIGID	None	None	RIGID	Typical
53	M185	N157	N163			RIGID	None	None	RIGID	Typical
54	M186	N158	N164			RIGID	None	None	RIGID	Typical
55	M187	N165	N167			RIGID	None	None	RIGID	Typical
56	M189	N166	N169			RIGID	None	None	RIGID	Typical
57	M211	N153	N173			RIGID	None	None	RIGID	Typical
58	M212	N155	N174			RIGID	None	None	RIGID	Typical
59	M213	N156	N175			RIGID	None	None	RIGID	Typical
60	M217	N170	N176			RIGID	None	None	RIGID	Typical
61	M218	N171	N177			RIGID	None	None	RIGID	Typical
62	M219	N172	N178			RIGID	None	None	RIGID	Typical
63	M221	N165	N179			RIGID	None	None	RIGID	Typical
64	M223	N166	N181			RIGID	None	None	RIGID	Typical
65	M224	N182	N183			RIGID	None	None	RIGID	Typical
66	M225	N183	N184			RIGID	None	None	RIGID	Typical
67	M229	N188	N189			RIGID	None	None	RIGID	Typical
68	M230	N189	N185			RIGID	None	None	RIGID	Typical
69	M231	N190	N191			RIGID	None	None	RIGID	Typical
70	M232	N191	N192			RIGID	None	None	RIGID	Typical
71	M233	N194	N195			RIGID	None	None	RIGID	Typical
72	M234	N195	N193			RIGID	None	None	RIGID	Typical
73	M256	N218	N224			RIGID	None	None	RIGID	Typical
74	M257	N220	N225			RIGID	None	None	RIGID	Typical
75	M258	N221	N226			RIGID	None	None	RIGID	Typical
76	M262	N219	N227			RIGID	None	None	RIGID	Typical
77	M263	N222	N228			RIGID	None	None	RIGID	Typical
78	M264	N223	N229			RIGID	None	None	RIGID	Typical
79	M265	N230	N232			RIGID	None	None	RIGID	Typical
80	M267	N231	N234			RIGID	None	None	RIGID	Typical
81	M289	N218	N238			RIGID	None	None	RIGID	Typical
82	M290	N220	N239			RIGID	None	None	RIGID	Typical
83	M291	N221	N240			RIGID	None	None	RIGID	Typical
84	M295	N235	N241			RIGID	None	None	RIGID	Typical
85	M296	N236	N242			RIGID	None	None	RIGID	Typical
86	M297	N237	N243			RIGID	None	None	RIGID	Typical
87	M299	N230	N244			RIGID	None	None	RIGID	Typical
88	M301	N231	N246			RIGID	None	None	RIGID	Typical
89	M302	N247	N248			RIGID	None	None	RIGID	Typical
90	M303	N248	N249			RIGID	None	None	RIGID	Typical
91	M307	N253	N254			RIGID	None	None	RIGID	Typical
92	M308	N254	N250			RIGID	None	None	RIGID	Typical
93	M309	N255	N256			RIGID	None	None	RIGID	Typical
94	M310	N256	N257			RIGID	None	None	RIGID	Typical
95	M311	N259	N260			RIGID	None	None	RIGID	Typical
96	M312	N260	N258			RIGID	None	None	RIGID	Typical
97	M45A	N50	N52		180	Grating Support	None	None	Q235	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
98	M68	N78	N79A		90	Grating Support	None	None	Q235	Typical
99	M74B	N80	N60		180	Grating Support	None	None	Q235	Typical
100	M75B	N52A	N62		90	Grating Support	None	None	Q235	Typical
101	M110	N102	N103		180	Grating Support	None	None	Q235	Typical
102	M144	N114	N115		90	Grating Support	None	None	Q235	Typical
103	M148	N116	N121		180	Grating Support	None	None	Q235	Typical
104	M150	N104	N122		90	Grating Support	None	None	Q235	Typical
105	M188	N167	N168		180	Grating Support	None	None	Q235	Typical
106	M222	N179	N180		90	Grating Support	None	None	Q235	Typical
107	M226	N181	N186		180	Grating Support	None	None	Q235	Typical
108	M228	N169	N187		90	Grating Support	None	None	Q235	Typical
109	M266	N232	N233		180	Grating Support	None	None	Q235	Typical
110	M300	N244	N245		90	Grating Support	None	None	Q235	Typical
111	M304	N246	N251		180	Grating Support	None	None	Q235	Typical
112	M306	N234	N252		90	Grating Support	None	None	Q235	Typical
113	M54	N74A	N75A		90	Standoff Horiz...	None	None	Q235	Typical
114	M130	N85	N86		90	Standoff Horiz...	None	None	Q235	Typical
115	M208	N150	N151		90	Standoff Horiz...	None	None	Q235	Typical
116	M286	N215	N216		90	Standoff Horiz...	None	None	Q235	Typical
117	M66	N79A	N60			Side Bracing	VBrace	RECT	Q235	Typical
118	M74C	N52	N62			Side Bracing	VBrace	RECT	Q235	Typical
119	M142	N115	N121			Side Bracing	VBrace	RECT	Q235	Typical
120	M149	N103	N122			Side Bracing	VBrace	RECT	Q235	Typical
121	M220	N180	N186			Side Bracing	VBrace	RECT	Q235	Typical
122	M227	N168	N187			Side Bracing	VBrace	RECT	Q235	Typical
123	M298	N245	N251			Side Bracing	VBrace	RECT	Q235	Typical
124	M305	N233	N252			Side Bracing	VBrace	RECT	Q235	Typical
125	M31	N38	N29			Grating Bracing	None	None	Q235	Typical
126	M33	N39	N31			Grating Bracing	None	None	Q235	Typical
127	M34A	N35	N79			Grating Bracing	None	None	Q235	Typical
128	M60	N70	N67			Grating Bracing	None	None	Q235	Typical
129	M61	N71	N68			Grating Bracing	None	None	Q235	Typical
130	M62	N69	N64			Grating Bracing	None	None	Q235	Typical
131	M103	N95	N92			Grating Bracing	None	None	Q235	Typical
132	M104	N96	N93			Grating Bracing	None	None	Q235	Typical
133	M105	N94	N89			Grating Bracing	None	None	Q235	Typical
134	M136	N109	N106			Grating Bracing	None	None	Q235	Typical
135	M137	N110	N107			Grating Bracing	None	None	Q235	Typical
136	M138	N108	N105			Grating Bracing	None	None	Q235	Typical
137	M181	N160	N157			Grating Bracing	None	None	Q235	Typical
138	M182	N161	N158			Grating Bracing	None	None	Q235	Typical
139	M183	N159	N154			Grating Bracing	None	None	Q235	Typical
140	M214	N174	N171			Grating Bracing	None	None	Q235	Typical
141	M215	N175	N172			Grating Bracing	None	None	Q235	Typical
142	M216	N173	N170			Grating Bracing	None	None	Q235	Typical
143	M259	N225	N222			Grating Bracing	None	None	Q235	Typical
144	M260	N226	N223			Grating Bracing	None	None	Q235	Typical
145	M261	N224	N219			Grating Bracing	None	None	Q235	Typical
146	M292	N239	N236			Grating Bracing	None	None	Q235	Typical
147	M293	N240	N237			Grating Bracing	None	None	Q235	Typical
148	M294	N238	N235			Grating Bracing	None	None	Q235	Typical
149	MT1	T8	T1			RIGID	None	None	RIGID	Typical
150	MT2	T15	T9			RIGID	None	None	RIGID	Typical
151	MT3	T16	T10			RIGID	None	None	RIGID	Typical
152	MT4	T17	T11			RIGID	None	None	RIGID	Typical
153	MT5	T18	T12			RIGID	None	None	RIGID	Typical
154	MT6	T19	T3			RIGID	None	None	RIGID	Typical
155	MT7	T20	T13			RIGID	None	None	RIGID	Typical
156	MT8	T21	T14			RIGID	None	None	RIGID	Typical



Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
157	MT9	T39	T4			RIGID	None	None	RIGID	Typical
158	MT10	T37	T5			RIGID	None	None	RIGID	Typical
159	MT11	T7	T37			RIGID	None	None	RIGID	Typical
160	MT12	T7	T38			RIGID	None	None	RIGID	Typical
161	MT13	T41	T40			RIGID	None	None	RIGID	Typical
162	MT14	T30	T36			RIGID	None	None	RIGID	Typical
163	MT15	T29	T35			RIGID	None	None	RIGID	Typical
164	MT16	T28	T34			RIGID	None	None	RIGID	Typical
165	MT17	T27	T33			RIGID	None	None	RIGID	Typical
166	MT18	T25	T32			RIGID	None	None	RIGID	Typical
167	MT19	T26	T23			RIGID	None	None	RIGID	Typical
168	MT20	T24	T31			RIGID	None	None	RIGID	Typical
169	MT21	T6	T22			RIGID	None	None	RIGID	Typical
170	MT22	T5	T14		90	Secondary Sta...	None	None	Q235	Typical
171	MT23	T7	T30		90	Lower Standoff	VBrace	RECT	Q235	Typical
172	MT24	T14	T12		90	Secondary Sta...	None	None	Q235	Typical
173	MT25	T12	T10		90	Secondary Sta...	None	None	Q235	Typical
174	MT26	T10	T9		90	Secondary Sta...	None	None	Q235	Typical
175	MT27	T9	T1		90	Secondary Sta...	None	None	Q235	Typical
176	MT28	T30	T27		90	Lower Standoff	VBrace	RECT	Q235	Typical
177	MT29	T27	T26		90	Lower Standoff	VBrace	RECT	Q235	Typical
178	MT30	T26	T24		90	Lower Standoff	VBrace	RECT	Q235	Typical
179	MT31	T24	T6		90	Lower Standoff	VBrace	RECT	Q235	Typical
180	MT32	T37	T21			Bracing	None	None	Q235	Typical
181	MT33	T38	T36			Bracing	None	None	Q235	Typical
182	MT34	T21	T18			Bracing	None	None	Q235	Typical
183	MT35	T18	T16			Bracing	None	None	Q235	Typical
184	MT36	T16	T15			Bracing	None	None	Q235	Typical
185	MT37	T15	T8			Bracing	None	None	Q235	Typical
186	MT38	T36	T33			Bracing	None	None	Q235	Typical
187	MT39	T33	T23			Bracing	None	None	Q235	Typical
188	MT40	T23	T31			Bracing	None	None	Q235	Typical
189	MT41	T31	T22			Bracing	None	None	Q235	Typical
190	MT42	T22	T8		315	Bracing	None	None	Q235	Typical
191	MT43	T40	T39			RIGID	None	None	RIGID	Typical
192	MT44	T8	T31			Bracing	None	None	Q235	Typical
193	MT45	T31	T15		315	Bracing	None	None	Q235	Typical
194	MT46	T15	T23			Bracing	None	None	Q235	Typical
195	MT47	T23	T16		315	Bracing	None	None	Q235	Typical
196	MT48	T32	T16			Bracing	None	None	Q235	Typical
197	MT49	T32	T17		315	Bracing	None	None	Q235	Typical
198	MT50	T33	T17			Bracing	None	None	Q235	Typical
199	MT51	T33	T18		315	Bracing	None	None	Q235	Typical
200	MT52	T34	T18			Bracing	None	None	Q235	Typical
201	MT53	T34	T19		315	Bracing	None	None	Q235	Typical
202	MT54	T35	T19			Bracing	None	None	Q235	Typical
203	MT55	T35	T20		315	Bracing	None	None	Q235	Typical
204	MT56	T36	T20			Bracing	None	None	Q235	Typical
205	MT57	T36	T21			RIGID	None	None	RIGID	Typical
206	MT58	T8	T44			Bracing	None	None	Q235	Typical
207	MT59	T44	T48			Bracing	None	None	Q235	Typical
208	MT60	T48	T52			Bracing	None	None	Q235	Typical
209	MT61	T22	T45			Bracing	None	None	Q235	Typical
210	MT62	T45	T49			Bracing	None	None	Q235	Typical
211	MT63	T49	T53			Bracing	None	None	Q235	Typical
212	MT64	T53	T52		315	Bracing	None	None	Q235	Typical
213	MT65	T6	T43		90	Lower Standoff	VBrace	RECT	Q235	Typical
214	MT66	T43	T47		90	Lower Standoff	VBrace	RECT	Q235	Typical
215	MT67	T47	R4A		90	Lower Standoff	VBrace	RECT	Q235	Typical



Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
216	MT68	T1	T42		90	Secondary Sta..	None	None	Q235	Typical
217	MT69	T42	T46		90	Secondary Sta..	None	None	Q235	Typical
218	MT70	T46	R4		90	Secondary Sta..	None	None	Q235	Typical
219	MT71	T22	T44			Bracing	None	None	Q235	Typical
220	MT72	T45	T44		315	Bracing	None	None	Q235	Typical
221	MT73	T45	T48			Bracing	None	None	Q235	Typical
222	MT74	T49	T48		315	Bracing	None	None	Q235	Typical
223	MT75	T44	T42			RIGID	None	None	RIGID	Typical
224	MT76	T48	T46			RIGID	None	None	RIGID	Typical
225	MT77	T52	R4			RIGID	None	None	RIGID	Typical
226	MT78	R4A	T53			RIGID	None	None	RIGID	Typical
227	MT79	T47	T49			RIGID	None	None	RIGID	Typical
228	MT80	T43	T45			RIGID	None	None	RIGID	Typical
229	MT81	T49	T52			Bracing	None	None	Q235	Typical
230	M250	T13	N76			RIGID	None	None	RIGID	Typical
231	M251	N272A	N47			RIGID	None	None	RIGID	Typical
232	M252	N282	N275A			RIGID	None	None	RIGID	Typical
233	M253	N289	N283			RIGID	None	None	RIGID	Typical
234	M254	N290	N284			RIGID	None	None	RIGID	Typical
235	M255	N291	N285			RIGID	None	None	RIGID	Typical
236	M256A	N292	N286			RIGID	None	None	RIGID	Typical
237	M257A	N293	N277			RIGID	None	None	RIGID	Typical
238	M258A	N294	N287			RIGID	None	None	RIGID	Typical
239	M259A	N295	N288			RIGID	None	None	RIGID	Typical
240	M260A	N313	N278			RIGID	None	None	RIGID	Typical
241	M261A	N311	N279			RIGID	None	None	RIGID	Typical
242	M262A	N281	N311			RIGID	None	None	RIGID	Typical
243	M263A	N281	N312			RIGID	None	None	RIGID	Typical
244	M264A	N315	N314			RIGID	None	None	RIGID	Typical
245	M265A	N304	N310			RIGID	None	None	RIGID	Typical
246	M266A	N303	N309			RIGID	None	None	RIGID	Typical
247	M267A	N302	N308			RIGID	None	None	RIGID	Typical
248	M268	N301	N307			RIGID	None	None	RIGID	Typical
249	M269	N299	N306			RIGID	None	None	RIGID	Typical
250	M270	N300	N297			RIGID	None	None	RIGID	Typical
251	M271	N298	N305			RIGID	None	None	RIGID	Typical
252	M272	N280	N296			RIGID	None	None	RIGID	Typical
253	M273	N279	N288		90	Secondary Sta..	None	None	Q235	Typical
254	M274	N281	N304		90	Lower Standoff	VBrace	RECT	Q235	Typical
255	M275	N288	N286		90	Secondary Sta..	None	None	Q235	Typical
256	M276	N286	N284		90	Secondary Sta..	None	None	Q235	Typical
257	M277	N284	N283		90	Secondary Sta..	None	None	Q235	Typical
258	M278	N283	N275A		90	Secondary Sta..	None	None	Q235	Typical
259	M279	N304	N301		90	Lower Standoff	VBrace	RECT	Q235	Typical
260	M280	N301	N300		90	Lower Standoff	VBrace	RECT	Q235	Typical
261	M281	N300	N298		90	Lower Standoff	VBrace	RECT	Q235	Typical
262	M282	N298	N280		90	Lower Standoff	VBrace	RECT	Q235	Typical
263	M283	N311	N295			Bracing	None	None	Q235	Typical
264	M284	N312	N310			Bracing	None	None	Q235	Typical
265	M285	N295	N292			Bracing	None	None	Q235	Typical
266	M286A	N292	N290			Bracing	None	None	Q235	Typical
267	M287	N290	N289			Bracing	None	None	Q235	Typical
268	M288	N289	N282			Bracing	None	None	Q235	Typical
269	M289A	N310	N307			Bracing	None	None	Q235	Typical
270	M290A	N307	N297			Bracing	None	None	Q235	Typical
271	M291A	N297	N305			Bracing	None	None	Q235	Typical
272	M292A	N305	N296			Bracing	None	None	Q235	Typical
273	M293A	N296	N282		45	Bracing	None	None	Q235	Typical
274	M294A	N314	N313			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
275	M295A	N282	N305			Bracing	None	None	Q235	Typical
276	M296A	N305	N289		45	Bracing	None	None	Q235	Typical
277	M297A	N289	N297			Bracing	None	None	Q235	Typical
278	M298A	N297	N290		45	Bracing	None	None	Q235	Typical
279	M299A	N306	N290			Bracing	None	None	Q235	Typical
280	M300A	N306	N291		45	Bracing	None	None	Q235	Typical
281	M301A	N307	N291			Bracing	None	None	Q235	Typical
282	M302A	N307	N292		45	Bracing	None	None	Q235	Typical
283	M303A	N308	N292			Bracing	None	None	Q235	Typical
284	M304A	N308	N293		45	Bracing	None	None	Q235	Typical
285	M305A	N309	N293			Bracing	None	None	Q235	Typical
286	M306A	N309	N294		45	Bracing	None	None	Q235	Typical
287	M307A	N310	N294			Bracing	None	None	Q235	Typical
288	M308A	N310	N295			RIGID	None	None	RIGID	Typical
289	M309A	N282	N318			Bracing	None	None	Q235	Typical
290	M310A	N318	N322			Bracing	None	None	Q235	Typical
291	M311A	N322	N326			Bracing	None	None	Q235	Typical
292	M312A	N296	N319			Bracing	None	None	Q235	Typical
293	M313A	N319	N323			Bracing	None	None	Q235	Typical
294	M314A	N323	N327			Bracing	None	None	Q235	Typical
295	M315A	N327	N326		45	Bracing	None	None	Q235	Typical
296	M316A	N280	N317		90	Lower Standoff	VBrace	RECT	Q235	Typical
297	M317	N317	N321		90	Lower Standoff	VBrace	RECT	Q235	Typical
298	M318	N321	R1A		90	Lower Standoff	VBrace	RECT	Q235	Typical
299	M319	N275A	N316		90	Secondary Sta..	None	None	Q235	Typical
300	M320	N316	N320		90	Secondary Sta..	None	None	Q235	Typical
301	M321	N320	R1		90	Secondary Sta..	None	None	Q235	Typical
302	M322	N296	N318			Bracing	None	None	Q235	Typical
303	M323	N319	N318		45	Bracing	None	None	Q235	Typical
304	M324	N319	N322			Bracing	None	None	Q235	Typical
305	M325	N323	N322		45	Bracing	None	None	Q235	Typical
306	M326	N318	N316			RIGID	None	None	RIGID	Typical
307	M327	N322	N320			RIGID	None	None	RIGID	Typical
308	M328	N326	R1			RIGID	None	None	RIGID	Typical
309	M329	R1A	N327			RIGID	None	None	RIGID	Typical
310	M330	N321	N323			RIGID	None	None	RIGID	Typical
311	M331	N317	N319			RIGID	None	None	RIGID	Typical
312	M332	N323	N326			Bracing	None	None	Q235	Typical
313	M333	N287	N273			RIGID	None	None	RIGID	Typical
314	M334	N329	N100			RIGID	None	None	RIGID	Typical
315	M335	N338	N331			RIGID	None	None	RIGID	Typical
316	M336	N345	N339			RIGID	None	None	RIGID	Typical
317	M337	N346	N340			RIGID	None	None	RIGID	Typical
318	M338	N347	N341			RIGID	None	None	RIGID	Typical
319	M339	N348	N342			RIGID	None	None	RIGID	Typical
320	M340	N349	N333			RIGID	None	None	RIGID	Typical
321	M341	N350	N343			RIGID	None	None	RIGID	Typical
322	M342	N351	N344			RIGID	None	None	RIGID	Typical
323	M343	N369	N334			RIGID	None	None	RIGID	Typical
324	M344	N367	N335			RIGID	None	None	RIGID	Typical
325	M345	N337	N367			RIGID	None	None	RIGID	Typical
326	M346	N337	N368			RIGID	None	None	RIGID	Typical
327	M347	N371	N370			RIGID	None	None	RIGID	Typical
328	M348	N360	N366			RIGID	None	None	RIGID	Typical
329	M349	N359	N365			RIGID	None	None	RIGID	Typical
330	M350	N358	N364			RIGID	None	None	RIGID	Typical
331	M351	N357	N363			RIGID	None	None	RIGID	Typical
332	M352	N355	N362			RIGID	None	None	RIGID	Typical
333	M353	N356	N353			RIGID	None	None	RIGID	Typical



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

Feb 8, 2024
 3:42 PM
 Checked By: PMA

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
334	M354	N354	N361			RIGID	None	None	RIGID	Typical
335	M355	N336	N352			RIGID	None	None	RIGID	Typical
336	M356	N335	N344		90	Secondary Sta...	None	None	Q235	Typical
337	M357	N337	N360		90	Lower Standoff	VBrace	RECT	Q235	Typical
338	M358	N344	N342		90	Secondary Sta...	None	None	Q235	Typical
339	M359	N342	N340		90	Secondary Sta...	None	None	Q235	Typical
340	M360	N340	N339		90	Secondary Sta...	None	None	Q235	Typical
341	M361	N339	N331		90	Secondary Sta...	None	None	Q235	Typical
342	M362	N360	N357		90	Lower Standoff	VBrace	RECT	Q235	Typical
343	M363	N357	N356		90	Lower Standoff	VBrace	RECT	Q235	Typical
344	M364	N356	N354		90	Lower Standoff	VBrace	RECT	Q235	Typical
345	M365	N354	N336		90	Lower Standoff	VBrace	RECT	Q235	Typical
346	M366	N367	N351			Bracing	None	None	Q235	Typical
347	M367	N368	N366			Bracing	None	None	Q235	Typical
348	M368	N351	N348			Bracing	None	None	Q235	Typical
349	M369	N348	N346			Bracing	None	None	Q235	Typical
350	M370	N346	N345			Bracing	None	None	Q235	Typical
351	M371	N345	N338			Bracing	None	None	Q235	Typical
352	M372	N366	N363			Bracing	None	None	Q235	Typical
353	M373	N363	N353			Bracing	None	None	Q235	Typical
354	M374	N353	N361			Bracing	None	None	Q235	Typical
355	M375	N361	N352			Bracing	None	None	Q235	Typical
356	M376	N352	N338		315	Bracing	None	None	Q235	Typical
357	M377	N370	N369			RIGID	None	None	RIGID	Typical
358	M378	N338	N361			Bracing	None	None	Q235	Typical
359	M379	N361	N345		315	Bracing	None	None	Q235	Typical
360	M380	N345	N353			Bracing	None	None	Q235	Typical
361	M381	N353	N346		315	Bracing	None	None	Q235	Typical
362	M382	N362	N346			Bracing	None	None	Q235	Typical
363	M383	N362	N347		315	Bracing	None	None	Q235	Typical
364	M384	N363	N347			Bracing	None	None	Q235	Typical
365	M385	N363	N348		315	Bracing	None	None	Q235	Typical
366	M386	N364	N348			Bracing	None	None	Q235	Typical
367	M387	N364	N349		315	Bracing	None	None	Q235	Typical
368	M388	N365	N349			Bracing	None	None	Q235	Typical
369	M389	N365	N350		315	Bracing	None	None	Q235	Typical
370	M390	N366	N350			Bracing	None	None	Q235	Typical
371	M391	N366	N351			RIGID	None	None	RIGID	Typical
372	M392	N338	N374			Bracing	None	None	Q235	Typical
373	M393	N374	N378			Bracing	None	None	Q235	Typical
374	M394	N378	N382			Bracing	None	None	Q235	Typical
375	M395	N352	N375			Bracing	None	None	Q235	Typical
376	M396	N375	N379			Bracing	None	None	Q235	Typical
377	M397	N379	N383			Bracing	None	None	Q235	Typical
378	M398	N383	N382		315	Bracing	None	None	Q235	Typical
379	M399	N336	N373		90	Lower Standoff	VBrace	RECT	Q235	Typical
380	M400	N373	N377		90	Lower Standoff	VBrace	RECT	Q235	Typical
381	M401	N377	R2A		90	Lower Standoff	VBrace	RECT	Q235	Typical
382	M402	N331	N372		90	Secondary Sta...	None	None	Q235	Typical
383	M403	N372	N376		90	Secondary Sta...	None	None	Q235	Typical
384	M404	N376	R2		90	Secondary Sta...	None	None	Q235	Typical
385	M405	N352	N374			Bracing	None	None	Q235	Typical
386	M406	N375	N374		315	Bracing	None	None	Q235	Typical
387	M407	N375	N378			Bracing	None	None	Q235	Typical
388	M408	N379	N378		315	Bracing	None	None	Q235	Typical
389	M409	N374	N372			RIGID	None	None	RIGID	Typical
390	M410	N378	N376			RIGID	None	None	RIGID	Typical
391	M411	N382	R2			RIGID	None	None	RIGID	Typical
392	M412	R2A	N383			RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
393	M413	N377	N379			RIGID	None	None	RIGID	Typical
394	M414	N373	N375			RIGID	None	None	RIGID	Typical
395	M415	N379	N382			Bracing	None	None	Q235	Typical
396	M416	N343	N330			RIGID	None	None	RIGID	Typical
397	M417	N385	N165			RIGID	None	None	RIGID	Typical
398	M418	N394	N387			RIGID	None	None	RIGID	Typical
399	M419	N401	N395			RIGID	None	None	RIGID	Typical
400	M420	N402	N396			RIGID	None	None	RIGID	Typical
401	M421	N403	N397			RIGID	None	None	RIGID	Typical
402	M422	N404	N398			RIGID	None	None	RIGID	Typical
403	M423	N405	N389			RIGID	None	None	RIGID	Typical
404	M424	N406	N399			RIGID	None	None	RIGID	Typical
405	M425	N407	N400			RIGID	None	None	RIGID	Typical
406	M426	N425	N390			RIGID	None	None	RIGID	Typical
407	M427	N423	N391			RIGID	None	None	RIGID	Typical
408	M428	N393	N423			RIGID	None	None	RIGID	Typical
409	M429	N393	N424			RIGID	None	None	RIGID	Typical
410	M430	N427	N426			RIGID	None	None	RIGID	Typical
411	M431	N416	N422			RIGID	None	None	RIGID	Typical
412	M432	N415	N421			RIGID	None	None	RIGID	Typical
413	M433	N414	N420			RIGID	None	None	RIGID	Typical
414	M434	N413	N419			RIGID	None	None	RIGID	Typical
415	M435	N411	N418			RIGID	None	None	RIGID	Typical
416	M436	N412	N409			RIGID	None	None	RIGID	Typical
417	M437	N410	N417			RIGID	None	None	RIGID	Typical
418	M438	N392	N408			RIGID	None	None	RIGID	Typical
419	M439	N391	N400		90	Secondary Sta..	None	None	Q235	Typical
420	M440	N393	N416		90	Lower Standoff	VBrace	RECT	Q235	Typical
421	M441	N400	N398		90	Secondary Sta..	None	None	Q235	Typical
422	M442	N398	N396		90	Secondary Sta..	None	None	Q235	Typical
423	M443	N396	N395		90	Secondary Sta..	None	None	Q235	Typical
424	M444	N395	N387		90	Secondary Sta..	None	None	Q235	Typical
425	M445	N416	N413		90	Lower Standoff	VBrace	RECT	Q235	Typical
426	M446	N413	N412		90	Lower Standoff	VBrace	RECT	Q235	Typical
427	M447	N412	N410		90	Lower Standoff	VBrace	RECT	Q235	Typical
428	M448	N410	N392		90	Lower Standoff	VBrace	RECT	Q235	Typical
429	M449	N423	N407			Bracing	None	None	Q235	Typical
430	M450	N424	N422			Bracing	None	None	Q235	Typical
431	M451	N407	N404			Bracing	None	None	Q235	Typical
432	M452	N404	N402			Bracing	None	None	Q235	Typical
433	M453	N402	N401			Bracing	None	None	Q235	Typical
434	M454	N401	N394			Bracing	None	None	Q235	Typical
435	M455	N422	N419			Bracing	None	None	Q235	Typical
436	M456	N419	N409			Bracing	None	None	Q235	Typical
437	M457	N409	N417			Bracing	None	None	Q235	Typical
438	M458	N417	N408			Bracing	None	None	Q235	Typical
439	M459	N408	N394		45	Bracing	None	None	Q235	Typical
440	M460	N426	N425			RIGID	None	None	RIGID	Typical
441	M461	N394	N417			Bracing	None	None	Q235	Typical
442	M462	N417	N401		45	Bracing	None	None	Q235	Typical
443	M463	N401	N409			Bracing	None	None	Q235	Typical
444	M464	N409	N402		45	Bracing	None	None	Q235	Typical
445	M465	N418	N402			Bracing	None	None	Q235	Typical
446	M466	N418	N403		45	Bracing	None	None	Q235	Typical
447	M467	N419	N403			Bracing	None	None	Q235	Typical
448	M468	N419	N404		45	Bracing	None	None	Q235	Typical
449	M469	N420	N404			Bracing	None	None	Q235	Typical
450	M470	N420	N405		45	Bracing	None	None	Q235	Typical
451	M471	N421	N405			Bracing	None	None	Q235	Typical



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 Designer : NL
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Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
452	M472	N421	N406		45	Bracing	None	None	Q235	Typical
453	M473	N422	N406			Bracing	None	None	Q235	Typical
454	M474	N422	N407			RIGID	None	None	RIGID	Typical
455	M475	N394	N430			Bracing	None	None	Q235	Typical
456	M476	N430	N434			Bracing	None	None	Q235	Typical
457	M477	N434	N438			Bracing	None	None	Q235	Typical
458	M478	N408	N431			Bracing	None	None	Q235	Typical
459	M479	N431	N435			Bracing	None	None	Q235	Typical
460	M480	N435	N439			Bracing	None	None	Q235	Typical
461	M481	N439	N438		45	Bracing	None	None	Q235	Typical
462	M482	N392	N429		90	Lower Standoff	VBrace	RECT	Q235	Typical
463	M483	N429	N433		90	Lower Standoff	VBrace	RECT	Q235	Typical
464	M484	N433	R3A		90	Lower Standoff	VBrace	RECT	Q235	Typical
465	M485	N387	N428		90	Secondary Sta..	None	None	Q235	Typical
466	M486	N428	N432		90	Secondary Sta..	None	None	Q235	Typical
467	M487	N432	R3		90	Secondary Sta..	None	None	Q235	Typical
468	M488	N408	N430			Bracing	None	None	Q235	Typical
469	M489	N431	N430		45	Bracing	None	None	Q235	Typical
470	M490	N431	N434			Bracing	None	None	Q235	Typical
471	M491	N435	N434		45	Bracing	None	None	Q235	Typical
472	M492	N430	N428			RIGID	None	None	RIGID	Typical
473	M493	N434	N432			RIGID	None	None	RIGID	Typical
474	M494	N438	R3			RIGID	None	None	RIGID	Typical
475	M495	R3A	N439			RIGID	None	None	RIGID	Typical
476	M496	N433	N435			RIGID	None	None	RIGID	Typical
477	M497	N429	N431			RIGID	None	None	RIGID	Typical
478	M498	N435	N438			Bracing	None	None	Q235	Typical
479	M499	N399	N386			RIGID	None	None	RIGID	Typical
480	M500	N441	N230			RIGID	None	None	RIGID	Typical
481	M501	N295	N314			RIGID	None	None	RIGID	Typical
482	M502	N312	N313			RIGID	None	None	RIGID	Typical
483	M503	N407	N426			RIGID	None	None	RIGID	Typical
484	M504	N425	N424			RIGID	None	None	RIGID	Typical
485	M505	T21	T40			RIGID	None	None	RIGID	Typical
486	M506	T39	T38			RIGID	None	None	RIGID	Typical
487	M507	N351	N370			RIGID	None	None	RIGID	Typical
488	M508	N369	N368			RIGID	None	None	RIGID	Typical
489	M504A	N437	N436			Face Horizontal	None	None	Q235	Typical
490	M509	N391	N437A			RIGID	None	None	RIGID	Typical
491	M510	T5	N434B			RIGID	None	None	RIGID	Typical
492	M511	N279	N435B			RIGID	None	None	RIGID	Typical
493	M512	N335	N436A			RIGID	None	None	RIGID	Typical
494	MP4A	N446	N462			Mount Pipe	None	None	A53 Gr.B	Typical
495	MP3A	N440	N456			Mount Pipe	None	None	A53 Gr.B	Typical
496	MP2A	N441A	N457			Mount Pipe	None	None	A53 Gr.B	Typical
497	MP1A	N444	N460			Mount Pipe	None	None	A53 Gr.B	Typical
498	M696A	N629B	N628B			Face Horizontal	None	None	Q235	Typical
499	M698A	N633	N632			Face Horizontal	None	None	Q235	Typical
500	M700A	N637	N636			Face Horizontal	None	None	Q235	Typical
501	M501A	N659	N429A			RIGID	None	None	RIGID	Typical
502	M502A	N267	N427A			RIGID	None	None	RIGID	Typical
503	M503A	N268	N428A			RIGID	None	None	RIGID	Typical
504	M504B	N661	N430A			RIGID	None	None	RIGID	Typical
505	M505A	N434A	N433A			Support Rail	None	None	A53 Gr.B	Typical
506	M506A	N435A	N439A			RIGID	None	None	RIGID	Typical
507	M507A	N431A	N437B			RIGID	None	None	RIGID	Typical
508	M508A	N432A	N438A			RIGID	None	None	RIGID	Typical
509	M509A	N436B	N440A			RIGID	None	None	RIGID	Typical
510	M510A	N444A	N443			Support Rail	None	None	A53 Gr.B	Typical



Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
511	M511A	N445	N449			RIGID	None	None	RIGID	Typical
512	M512A	N441B	N447			RIGID	None	None	RIGID	Typical
513	M513	N442	N448			RIGID	None	None	RIGID	Typical
514	M514	N446A	N450			RIGID	None	None	RIGID	Typical
515	M515	N454	N453			Support Rail	None	None	A53 Gr.B	Typical
516	M516	N455	N459			RIGID	None	None	RIGID	Typical
517	M517	N451	N457A			RIGID	None	None	RIGID	Typical
518	M518	N452	N458			RIGID	None	None	RIGID	Typical
519	M519	N456A	N460A			RIGID	None	None	RIGID	Typical
520	M520	N464	N463			Support Rail	None	None	A53 Gr.B	Typical
521	M521	N465	N469			RIGID	None	None	RIGID	Typical
522	M522	N461	N467			RIGID	None	None	RIGID	Typical
523	M523	N462A	N468			RIGID	None	None	RIGID	Typical
524	M524	N466	N470			RIGID	None	None	RIGID	Typical
525	MP4D	N476	N480			Mount Pipe	None	None	A53 Gr.B	Typical
526	MP3D	N473	N477			Mount Pipe	None	None	A53 Gr.B	Typical
527	MP2D	N474	N478			Mount Pipe	None	None	A53 Gr.B	Typical
528	MP1D	N475	N479			Mount Pipe	None	None	A53 Gr.B	Typical
529	M529	N481	N485			RIGID	None	None	RIGID	Typical
530	M530	N471	N483			RIGID	None	None	RIGID	Typical
531	M531	N472	N484			RIGID	None	None	RIGID	Typical
532	M532	N482	N486			RIGID	None	None	RIGID	Typical
533	MP4C	N492	N496			Mount Pipe	None	None	A53 Gr.B	Typical
534	MP3C	N489	N493			Mount Pipe	None	None	A53 Gr.B	Typical
535	MP2C	N490	N494			Mount Pipe	None	None	A53 Gr.B	Typical
536	MP1C	N491	N495			Mount Pipe	None	None	A53 Gr.B	Typical
537	M537	N497	N501			RIGID	None	None	RIGID	Typical
538	M538	N487	N499			RIGID	None	None	RIGID	Typical
539	M539	N488	N500			RIGID	None	None	RIGID	Typical
540	M540	N498	N502			RIGID	None	None	RIGID	Typical
541	MP4B	N508	N512			Mount Pipe	None	None	A53 Gr.B	Typical
542	MP3B	N505	N509			Mount Pipe	None	None	A53 Gr.B	Typical
543	MATSING-1	N506	N510			Mount Pipe	None	None	A53 Gr.B	Typical
544	MP1B	N507	N511			Mount Pipe	None	None	A53 Gr.B	Typical
545	M545	N513	N517			RIGID	None	None	RIGID	Typical
546	M546	N503	N515			RIGID	None	None	RIGID	Typical
547	M547	N504	N516			RIGID	None	None	RIGID	Typical
548	M548	N514	N518			RIGID	None	None	RIGID	Typical
549	M549	N519	N520			RIGID	None	None	RIGID	Typical
550	M550	N521	N522			RIGID	None	None	RIGID	Typical
551	M551	N523	N524			RIGID	None	None	RIGID	Typical
552	M552	N525	N526			RIGID	None	None	RIGID	Typical
553	M553	N527	N528			RIGID	None	None	RIGID	Typical
554	M554	N529	N530			RIGID	None	None	RIGID	Typical
555	M555	N531	N532			RIGID	None	None	RIGID	Typical
556	M556	N533	N534			RIGID	None	None	RIGID	Typical
557	M557	N522	N532		270	Support Rail C..	None	None	A36 Gr.36	Typical
558	M558	N534	N528		270	Support Rail C..	None	None	A36 Gr.36	Typical
559	M559	N530	N524		270	Support Rail C..	None	None	A36 Gr.36	Typical
560	M560	N526	N520		270	Support Rail C..	None	None	A36 Gr.36	Typical
561	M561	N535	N536			RIGID	None	None	RIGID	Typical
562	OVP	N538	N539			Mount Pipe	None	None	A53 Gr.B	Typical
563	M563	N537	N540			RIGID	None	None	RIGID	Typical
564	M564	N228	N73			Mount Support	None	None	Q235	Typical
565	M565	N227	N72			Mount Support	None	None	Q235	Typical
566	M566	N177	N98			Mount Support	None	None	Q235	Typical
567	M567	N176	N97			Mount Support	None	None	Q235	Typical
568	M568	N41A	N112			Mount Support	None	None	Q235	Typical
569	M569	N41	N111			Mount Support	None	None	Q235	Typical



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Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
570	M570	N242	N163			Mount Support	None	None	Q235	Typical
571	M571	N241	N162			Mount Support	None	None	Q235	Typical
572	MP2B	N546	N544			Mount Pipe	None	None	A53 Gr.B	Typical
573	M573	N547	N545			RIGID	None	None	RIGID	Typical
574	M574	N548	N543			RIGID	None	None	RIGID	Typical
575	M575	N550	N551			Mount Pipe	None	None	A53 Gr.B	Typical
576	M576	N551A	N552			RIGID	None	None	RIGID	Typical
577	M577	N553	N554			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset(in)	J Offset(in)	T/C Only	Physical	Defl Rat	Analysis ...	Inactive	Seismic..
1	R3						Yes	** NA **			None
2	R4						Yes	** NA **			None
3	R5						Yes	** NA **			None
4	R6						Yes	** NA **			None
5	R7						Yes	** NA **			None
6	R8						Yes	** NA **			None
7	R9						Yes	** NA **			None
8	R10						Yes	** NA **			None
9	M57						Yes	** NA **			None
10	M58						Yes	** NA **			None
11	M59						Yes	** NA **			None
12	M63						Yes	** NA **			None
13	M64						Yes	** NA **			None
14	M65						Yes	** NA **			None
15	M67						Yes	** NA **			None
16	M70						Yes	** NA **			None
17	M71		OOOXOO				Yes	** NA **			None
18	M72		OOOXOO				Yes	** NA **			None
19	M74A		OOOXOO				Yes	** NA **			None
20	M75C		OOOXOO				Yes	** NA **			None
21	M75A		OOOXOO				Yes	** NA **			None
22	M76		OOOXOO				Yes	** NA **			None
23	M77		OOOXOO				Yes	** NA **			None
24	M78		OOOXOO				Yes	** NA **			None
25	M100						Yes	** NA **			None
26	M101						Yes	** NA **			None
27	M102						Yes	** NA **			None
28	M106						Yes	** NA **			None
29	M107						Yes	** NA **			None
30	M108						Yes	** NA **			None
31	M109						Yes	** NA **			None
32	M111						Yes	** NA **			None
33	M133						Yes	** NA **			None
34	M134						Yes	** NA **			None
35	M135						Yes	** NA **			None
36	M139						Yes	** NA **			None
37	M140						Yes	** NA **			None
38	M141						Yes	** NA **			None
39	M143						Yes	** NA **			None
40	M145						Yes	** NA **			None
41	M146		OOOXOO				Yes	** NA **			None
42	M147		OOOXOO				Yes	** NA **			None
43	M151		OOOXOO				Yes	** NA **			None
44	M152		OOOXOO				Yes	** NA **			None
45	M153		OOOXOO				Yes	** NA **			None
46	M154		OOOXOO				Yes	** NA **			None



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Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset(in)	J Offset(in)	T/C Only	Physical	Defl Rat.	Analysis ...	Inactive	Seismic...
47	M155		OOOXOO				Yes	** NA **			None
48	M156						Yes	** NA **			None
49	M178						Yes	** NA **			None
50	M179						Yes	** NA **			None
51	M180						Yes	** NA **			None
52	M184						Yes	** NA **			None
53	M185						Yes	** NA **			None
54	M186						Yes	** NA **			None
55	M187						Yes	** NA **			None
56	M189						Yes	** NA **			None
57	M211						Yes	** NA **			None
58	M212						Yes	** NA **			None
59	M213						Yes	** NA **			None
60	M217						Yes	** NA **			None
61	M218						Yes	** NA **			None
62	M219						Yes	** NA **			None
63	M221						Yes	** NA **			None
64	M223						Yes	** NA **			None
65	M224		OOOXOO				Yes	** NA **			None
66	M225						Yes	** NA **			None
67	M229		OOOXOO				Yes	** NA **			None
68	M230						Yes	** NA **			None
69	M231		OOOXOO				Yes	** NA **			None
70	M232						Yes	** NA **			None
71	M233		OOOXOO				Yes	** NA **			None
72	M234						Yes	** NA **			None
73	M256						Yes	** NA **			None
74	M257						Yes	** NA **			None
75	M258						Yes	** NA **			None
76	M262						Yes	** NA **			None
77	M263						Yes	** NA **			None
78	M264						Yes	** NA **			None
79	M265						Yes	** NA **			None
80	M267						Yes	** NA **			None
81	M289						Yes	** NA **			None
82	M290						Yes	** NA **			None
83	M291						Yes	** NA **			None
84	M295						Yes	** NA **			None
85	M296						Yes	** NA **			None
86	M297						Yes	** NA **			None
87	M299						Yes	** NA **			None
88	M301						Yes	** NA **			None
89	M302		OOOXOO				Yes	** NA **			None
90	M303						Yes	** NA **			None
91	M307		OOOXOO				Yes	** NA **			None
92	M308						Yes	** NA **			None
93	M309		OOOXOO				Yes	** NA **			None
94	M310						Yes	** NA **			None
95	M311		OOOXOO				Yes	** NA **			None
96	M312						Yes	** NA **			None
97	M45A						Yes	** NA **			None
98	M68						Yes	** NA **			None
99	M74B						Yes	** NA **			None
100	M75B						Yes	** NA **			None
101	M110						Yes	** NA **			None
102	M144						Yes	** NA **			None
103	M148						Yes	** NA **			None
104	M150						Yes	** NA **			None
105	M188						Yes	** NA **			None



Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset(in)	J Offset(in)	T/C Only	Physical	Defl Rat.	Analysis ...	Inactive	Seismic...
106	M222						Yes	** NA **			None
107	M226						Yes	** NA **			None
108	M228						Yes	** NA **			None
109	M266						Yes	** NA **			None
110	M300						Yes	** NA **			None
111	M304						Yes	** NA **			None
112	M306						Yes	** NA **			None
113	M54						Yes	** NA **			None
114	M130						Yes	** NA **			None
115	M208						Yes	** NA **			None
116	M286						Yes	** NA **			None
117	M66						Yes	** NA **			None
118	M74C						Yes	** NA **			None
119	M142						Yes	** NA **			None
120	M149						Yes	** NA **			None
121	M220						Yes	** NA **			None
122	M227						Yes	** NA **			None
123	M298						Yes	** NA **			None
124	M305						Yes	** NA **			None
125	M31						Yes	** NA **			None
126	M33						Yes	** NA **			None
127	M34A						Yes	** NA **			None
128	M60						Yes	** NA **			None
129	M61						Yes	** NA **			None
130	M62						Yes	** NA **			None
131	M103						Yes	** NA **			None
132	M104						Yes	** NA **			None
133	M105						Yes	** NA **			None
134	M136						Yes	** NA **			None
135	M137						Yes	** NA **			None
136	M138						Yes	** NA **			None
137	M181						Yes	** NA **			None
138	M182						Yes	** NA **			None
139	M183						Yes	** NA **			None
140	M214						Yes	** NA **			None
141	M215						Yes	** NA **			None
142	M216						Yes	** NA **			None
143	M259						Yes	** NA **			None
144	M260						Yes	** NA **			None
145	M261						Yes	** NA **			None
146	M292						Yes	** NA **			None
147	M293						Yes	** NA **			None
148	M294						Yes	** NA **			None
149	MT1						Yes	** NA **			None
150	MT2						Yes	** NA **			None
151	MT3						Yes	** NA **			None
152	MT4						Yes	** NA **			None
153	MT5						Yes	** NA **			None
154	MT6						Yes	** NA **			None
155	MT7						Yes	** NA **			None
156	MT8						Yes	** NA **			None
157	MT9						Yes	** NA **			None
158	MT10						Yes	** NA **			None
159	MT11						Yes	** NA **			None
160	MT12						Yes	** NA **			None
161	MT13						Yes	** NA **			None
162	MT14						Yes	** NA **			None
163	MT15						Yes	** NA **			None
164	MT16						Yes	** NA **			None



Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset(in)	J Offset(in)	T/C Only	Physical	Defi Rat.	Analysis ...	Inactive	Seismic...
165	MT17						Yes	** NA **			None
166	MT18						Yes	** NA **			None
167	MT19						Yes	** NA **			None
168	MT20						Yes	** NA **			None
169	MT21						Yes	** NA **			None
170	MT22						Yes	** NA **			None
171	MT23						Yes	** NA **			None
172	MT24						Yes	** NA **			None
173	MT25						Yes	** NA **			None
174	MT26						Yes	** NA **			None
175	MT27						Yes	** NA **			None
176	MT28						Yes	** NA **			None
177	MT29						Yes	** NA **			None
178	MT30						Yes	** NA **			None
179	MT31						Yes	** NA **			None
180	MT32						Yes	** NA **			None
181	MT33						Yes	** NA **			None
182	MT34						Yes	** NA **			None
183	MT35						Yes	** NA **			None
184	MT36						Yes	** NA **			None
185	MT37						Yes	** NA **			None
186	MT38						Yes	** NA **			None
187	MT39						Yes	** NA **			None
188	MT40						Yes	** NA **			None
189	MT41						Yes	** NA **			None
190	MT42						Yes	** NA **			None
191	MT43						Yes	** NA **			None
192	MT44						Yes	** NA **			None
193	MT45						Yes	** NA **			None
194	MT46						Yes	** NA **			None
195	MT47						Yes	** NA **			None
196	MT48						Yes	** NA **			None
197	MT49						Yes	** NA **			None
198	MT50						Yes	** NA **			None
199	MT51						Yes	** NA **			None
200	MT52						Yes	** NA **			None
201	MT53						Yes	** NA **			None
202	MT54						Yes	** NA **			None
203	MT55						Yes	** NA **			None
204	MT56						Yes	** NA **			None
205	MT57						Yes	** NA **			None
206	MT58						Yes	** NA **			None
207	MT59						Yes	** NA **			None
208	MT60						Yes	** NA **			None
209	MT61						Yes	** NA **			None
210	MT62						Yes	** NA **			None
211	MT63						Yes	** NA **			None
212	MT64						Yes	** NA **			None
213	MT65						Yes	** NA **			None
214	MT66						Yes	** NA **			None
215	MT67						Yes	** NA **			None
216	MT68						Yes	** NA **			None
217	MT69						Yes	** NA **			None
218	MT70						Yes	** NA **			None
219	MT71						Yes	** NA **			None
220	MT72						Yes	** NA **			None
221	MT73						Yes	** NA **			None
222	MT74						Yes	** NA **			None
223	MT75						Yes	** NA **			None



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

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Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat.	Analysis ...	Inactive	Seismic...
224	MT76						Yes	** NA **			None
225	MT77						Yes	** NA **			None
226	MT78						Yes	** NA **			None
227	MT79						Yes	** NA **			None
228	MT80						Yes	** NA **			None
229	MT81						Yes	** NA **			None
230	M250						Yes	** NA **			None
231	M251						Yes	** NA **			None
232	M252						Yes	** NA **			None
233	M253						Yes	** NA **			None
234	M254						Yes	** NA **			None
235	M255						Yes	** NA **			None
236	M256A						Yes	** NA **			None
237	M257A						Yes	** NA **			None
238	M258A						Yes	** NA **			None
239	M259A						Yes	** NA **			None
240	M260A						Yes	** NA **			None
241	M261A						Yes	** NA **			None
242	M262A						Yes	** NA **			None
243	M263A						Yes	** NA **			None
244	M264A						Yes	** NA **			None
245	M265A						Yes	** NA **			None
246	M266A						Yes	** NA **			None
247	M267A						Yes	** NA **			None
248	M268						Yes	** NA **			None
249	M269						Yes	** NA **			None
250	M270						Yes	** NA **			None
251	M271						Yes	** NA **			None
252	M272						Yes	** NA **			None
253	M273						Yes	** NA **			None
254	M274						Yes	** NA **			None
255	M275						Yes	** NA **			None
256	M276						Yes	** NA **			None
257	M277						Yes	** NA **			None
258	M278						Yes	** NA **			None
259	M279						Yes	** NA **			None
260	M280						Yes	** NA **			None
261	M281						Yes	** NA **			None
262	M282						Yes	** NA **			None
263	M283						Yes	** NA **			None
264	M284						Yes	** NA **			None
265	M285						Yes	** NA **			None
266	M286A						Yes	** NA **			None
267	M287						Yes	** NA **			None
268	M288						Yes	** NA **			None
269	M289A						Yes	** NA **			None
270	M290A						Yes	** NA **			None
271	M291A						Yes	** NA **			None
272	M292A						Yes	** NA **			None
273	M293A						Yes	** NA **			None
274	M294A						Yes	** NA **			None
275	M295A						Yes	** NA **			None
276	M296A						Yes	** NA **			None
277	M297A						Yes	** NA **			None
278	M298A						Yes	** NA **			None
279	M299A						Yes	** NA **			None
280	M300A						Yes	** NA **			None
281	M301A						Yes	** NA **			None
282	M302A						Yes	** NA **			None



Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat..	Analysis ...	Inactive	Seismic..
283	M303A						Yes	** NA **			None
284	M304A						Yes	** NA **			None
285	M305A						Yes	** NA **			None
286	M306A						Yes	** NA **			None
287	M307A						Yes	** NA **			None
288	M308A						Yes	** NA **			None
289	M309A						Yes	** NA **			None
290	M310A						Yes	** NA **			None
291	M311A						Yes	** NA **			None
292	M312A						Yes	** NA **			None
293	M313A						Yes	** NA **			None
294	M314A						Yes	** NA **			None
295	M315A						Yes	** NA **			None
296	M316A						Yes	** NA **			None
297	M317						Yes	** NA **			None
298	M318						Yes	** NA **			None
299	M319						Yes	** NA **			None
300	M320						Yes	** NA **			None
301	M321						Yes	** NA **			None
302	M322						Yes	** NA **			None
303	M323						Yes	** NA **			None
304	M324						Yes	** NA **			None
305	M325						Yes	** NA **			None
306	M326						Yes	** NA **			None
307	M327						Yes	** NA **			None
308	M328						Yes	** NA **			None
309	M329						Yes	** NA **			None
310	M330						Yes	** NA **			None
311	M331						Yes	** NA **			None
312	M332						Yes	** NA **			None
313	M333						Yes	** NA **			None
314	M334						Yes	** NA **			None
315	M335						Yes	** NA **			None
316	M336						Yes	** NA **			None
317	M337						Yes	** NA **			None
318	M338						Yes	** NA **			None
319	M339						Yes	** NA **			None
320	M340						Yes	** NA **			None
321	M341						Yes	** NA **			None
322	M342						Yes	** NA **			None
323	M343						Yes	** NA **			None
324	M344						Yes	** NA **			None
325	M345						Yes	** NA **			None
326	M346						Yes	** NA **			None
327	M347						Yes	** NA **			None
328	M348						Yes	** NA **			None
329	M349						Yes	** NA **			None
330	M350						Yes	** NA **			None
331	M351						Yes	** NA **			None
332	M352						Yes	** NA **			None
333	M353						Yes	** NA **			None
334	M354						Yes	** NA **			None
335	M355						Yes	** NA **			None
336	M356						Yes	** NA **			None
337	M357						Yes	** NA **			None
338	M358						Yes	** NA **			None
339	M359						Yes	** NA **			None
340	M360						Yes	** NA **			None
341	M361						Yes	** NA **			None



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

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Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat.	Analysis ...	Inactive	Seismic...
342	M362						Yes	** NA **			None
343	M363						Yes	** NA **			None
344	M364						Yes	** NA **			None
345	M365						Yes	** NA **			None
346	M366						Yes	** NA **			None
347	M367						Yes	** NA **			None
348	M368						Yes	** NA **			None
349	M369						Yes	** NA **			None
350	M370						Yes	** NA **			None
351	M371						Yes	** NA **			None
352	M372						Yes	** NA **			None
353	M373						Yes	** NA **			None
354	M374						Yes	** NA **			None
355	M375						Yes	** NA **			None
356	M376						Yes	** NA **			None
357	M377						Yes	** NA **			None
358	M378						Yes	** NA **			None
359	M379						Yes	** NA **			None
360	M380						Yes	** NA **			None
361	M381						Yes	** NA **			None
362	M382						Yes	** NA **			None
363	M383						Yes	** NA **			None
364	M384						Yes	** NA **			None
365	M385						Yes	** NA **			None
366	M386						Yes	** NA **			None
367	M387						Yes	** NA **			None
368	M388						Yes	** NA **			None
369	M389						Yes	** NA **			None
370	M390						Yes	** NA **			None
371	M391						Yes	** NA **			None
372	M392						Yes	** NA **			None
373	M393						Yes	** NA **			None
374	M394						Yes	** NA **			None
375	M395						Yes	** NA **			None
376	M396						Yes	** NA **			None
377	M397						Yes	** NA **			None
378	M398						Yes	** NA **			None
379	M399						Yes	** NA **			None
380	M400						Yes	** NA **			None
381	M401						Yes	** NA **			None
382	M402						Yes	** NA **			None
383	M403						Yes	** NA **			None
384	M404						Yes	** NA **			None
385	M405						Yes	** NA **			None
386	M406						Yes	** NA **			None
387	M407						Yes	** NA **			None
388	M408						Yes	** NA **			None
389	M409						Yes	** NA **			None
390	M410						Yes	** NA **			None
391	M411						Yes	** NA **			None
392	M412						Yes	** NA **			None
393	M413						Yes	** NA **			None
394	M414						Yes	** NA **			None
395	M415						Yes	** NA **			None
396	M416						Yes	** NA **			None
397	M417						Yes	** NA **			None
398	M418						Yes	** NA **			None
399	M419						Yes	** NA **			None
400	M420						Yes	** NA **			None



Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset(in)	J Offset(in)	T/C Only	Physical	Defl Rat.	Analysis ...	Inactive	Seismic...
401	M421						Yes	** NA **			None
402	M422						Yes	** NA **			None
403	M423						Yes	** NA **			None
404	M424						Yes	** NA **			None
405	M425						Yes	** NA **			None
406	M426						Yes	** NA **			None
407	M427						Yes	** NA **			None
408	M428						Yes	** NA **			None
409	M429						Yes	** NA **			None
410	M430						Yes	** NA **			None
411	M431						Yes	** NA **			None
412	M432						Yes	** NA **			None
413	M433						Yes	** NA **			None
414	M434						Yes	** NA **			None
415	M435						Yes	** NA **			None
416	M436						Yes	** NA **			None
417	M437						Yes	** NA **			None
418	M438						Yes	** NA **			None
419	M439						Yes	** NA **			None
420	M440						Yes	** NA **			None
421	M441						Yes	** NA **			None
422	M442						Yes	** NA **			None
423	M443						Yes	** NA **			None
424	M444						Yes	** NA **			None
425	M445						Yes	** NA **			None
426	M446						Yes	** NA **			None
427	M447						Yes	** NA **			None
428	M448						Yes	** NA **			None
429	M449						Yes	** NA **			None
430	M450						Yes	** NA **			None
431	M451						Yes	** NA **			None
432	M452						Yes	** NA **			None
433	M453						Yes	** NA **			None
434	M454						Yes	** NA **			None
435	M455						Yes	** NA **			None
436	M456						Yes	** NA **			None
437	M457						Yes	** NA **			None
438	M458						Yes	** NA **			None
439	M459						Yes	** NA **			None
440	M460						Yes	** NA **			None
441	M461						Yes	** NA **			None
442	M462						Yes	** NA **			None
443	M463						Yes	** NA **			None
444	M464						Yes	** NA **			None
445	M465						Yes	** NA **			None
446	M466						Yes	** NA **			None
447	M467						Yes	** NA **			None
448	M468						Yes	** NA **			None
449	M469						Yes	** NA **			None
450	M470						Yes	** NA **			None
451	M471						Yes	** NA **			None
452	M472						Yes	** NA **			None
453	M473						Yes	** NA **			None
454	M474						Yes	** NA **			None
455	M475						Yes	** NA **			None
456	M476						Yes	** NA **			None
457	M477						Yes	** NA **			None
458	M478						Yes	** NA **			None
459	M479						Yes	** NA **			None



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

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Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat	Analysis ...	Inactive	Seismic...
460	M480						Yes	** NA **			None
461	M481						Yes	** NA **			None
462	M482						Yes	** NA **			None
463	M483						Yes	** NA **			None
464	M484						Yes	** NA **			None
465	M485						Yes	** NA **			None
466	M486						Yes	** NA **			None
467	M487						Yes	** NA **			None
468	M488						Yes	** NA **			None
469	M489						Yes	** NA **			None
470	M490						Yes	** NA **			None
471	M491						Yes	** NA **			None
472	M492						Yes	** NA **			None
473	M493						Yes	** NA **			None
474	M494						Yes	** NA **			None
475	M495						Yes	** NA **			None
476	M496						Yes	** NA **			None
477	M497						Yes	** NA **			None
478	M498						Yes	** NA **			None
479	M499						Yes	** NA **			None
480	M500						Yes	** NA **			None
481	M501						Yes	** NA **			None
482	M502						Yes	** NA **			None
483	M503						Yes	** NA **			None
484	M504						Yes	** NA **			None
485	M505						Yes	** NA **			None
486	M506						Yes	** NA **			None
487	M507						Yes	** NA **			None
488	M508						Yes	** NA **			None
489	M504A						Yes	** NA **			None
490	M509					Compres...	Yes	** NA **			None
491	M510					Compres...	Yes	** NA **			None
492	M511					Compres...	Yes	** NA **			None
493	M512					Compres...	Yes	** NA **			None
494	MP4A						Yes	** NA **			None
495	MP3A						Yes	** NA **			None
496	MP2A						Yes	** NA **			None
497	MP1A						Yes	** NA **			None
498	M696A						Yes	** NA **			None
499	M698A						Yes	** NA **			None
500	M700A						Yes	** NA **			None
501	M501A						Yes	** NA **			None
502	M502A						Yes	** NA **			None
503	M503A						Yes	** NA **			None
504	M504B						Yes	** NA **			None
505	M505A						Yes	** NA **			None
506	M506A						Yes	** NA **			None
507	M507A						Yes	** NA **			None
508	M508A						Yes	** NA **			None
509	M509A						Yes	** NA **			None
510	M510A						Yes	** NA **			None
511	M511A						Yes	** NA **			None
512	M512A						Yes	** NA **			None
513	M513						Yes	** NA **			None
514	M514						Yes	** NA **			None
515	M515						Yes	** NA **			None
516	M516						Yes	** NA **			None
517	M517						Yes	** NA **			None
518	M518						Yes	** NA **			None



Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat	Analysis ...	Inactive	Seismic...
519	M519						Yes	** NA **			None
520	M520						Yes	** NA **			None
521	M521						Yes	** NA **			None
522	M522						Yes	** NA **			None
523	M523						Yes	** NA **			None
524	M524						Yes	** NA **			None
525	MP4D						Yes	** NA **			None
526	MP3D						Yes	** NA **			None
527	MP2D						Yes	** NA **			None
528	MP1D						Yes	** NA **			None
529	M529						Yes	** NA **			None
530	M530						Yes	** NA **			None
531	M531						Yes	** NA **			None
532	M532						Yes	** NA **			None
533	MP4C						Yes	** NA **			None
534	MP3C						Yes	** NA **			None
535	MP2C						Yes	** NA **			None
536	MP1C						Yes	** NA **			None
537	M537						Yes	** NA **			None
538	M538						Yes	** NA **			None
539	M539						Yes	** NA **			None
540	M540						Yes	** NA **			None
541	MP4B						Yes	** NA **			None
542	MP3B						Yes	** NA **			None
543	MATSING-1						Yes	** NA **			None
544	MP1B						Yes	** NA **			None
545	M545						Yes	** NA **			None
546	M546						Yes	** NA **			None
547	M547						Yes	** NA **			None
548	M548						Yes	** NA **			None
549	M549	BenPIN					Yes	** NA **			None
550	M550	BenPIN					Yes	** NA **			None
551	M551	BenPIN					Yes	** NA **			None
552	M552	BenPIN					Yes	** NA **			None
553	M553	BenPIN					Yes	** NA **			None
554	M554	BenPIN					Yes	** NA **			None
555	M555	BenPIN					Yes	** NA **			None
556	M556	BenPIN					Yes	** NA **			None
557	M557						Yes	** NA **			None
558	M558						Yes	** NA **			None
559	M559						Yes	** NA **			None
560	M560						Yes	** NA **			None
561	M561						Yes	** NA **			None
562	OVP						Yes	** NA **			None
563	M563						Yes	** NA **			None
564	M564	BenPIN	BenPIN				Yes	** NA **			None
565	M565	BenPIN	BenPIN				Yes	** NA **			None
566	M566	BenPIN	BenPIN				Yes	** NA **			None
567	M567	BenPIN	BenPIN				Yes	** NA **			None
568	M568	BenPIN	BenPIN				Yes	** NA **			None
569	M569	BenPIN	BenPIN				Yes	** NA **			None
570	M570	BenPIN	BenPIN				Yes	** NA **			None
571	M571	BenPIN	BenPIN				Yes	** NA **			None
572	MP2B						Yes	** NA **			None
573	M573						Yes	** NA **			None
574	M574						Yes	** NA **			None
575	M575						Yes	** NA **			None
576	M576						Yes	** NA **			None
577	M577						Yes	** NA **			None



Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	Y	-70.3	2
2	MP1B	My	0	2
3	MP1B	Mz	.023	2
4	MP2B	Y	-70.3	3
5	MP2B	My	0	3
6	MP2B	Mz	.023	3
7	MP3A	Y	-70.3	2
8	MP3A	My	.023	2
9	MP3A	Mz	0	2
10	MP3B	Y	-70.3	2
11	MP3B	My	0	2
12	MP3B	Mz	.023	2
13	MP3C	Y	-70.3	2
14	MP3C	My	-.023	2
15	MP3C	Mz	0	2
16	OVP	Y	-32	1
17	OVP	My	0	1
18	OVP	Mz	0	1
19	MP4A	Y	-43.55	2.13
20	MP4A	My	-.022	2.13
21	MP4A	Mz	0	2.13
22	MP4A	Y	-43.55	4.12
23	MP4A	My	-.022	4.12
24	MP4A	Mz	0	4.12
25	MP4C	Y	-43.55	2.13
26	MP4C	My	.022	2.13
27	MP4C	Mz	0	2.13
28	MP4C	Y	-43.55	4.12
29	MP4C	My	.022	4.12
30	MP4C	Mz	0	4.12
31	MP1A	Y	-38.7	1.5
32	MP1A	My	-.019	1.5
33	MP1A	Mz	0	1.5
34	MP1A	Y	-38.7	4.75
35	MP1A	My	-.019	4.75
36	MP1A	Mz	0	4.75
37	MP1C	Y	-38.7	1.5
38	MP1C	My	.019	1.5
39	MP1C	Mz	0	1.5
40	MP1C	Y	-38.7	4.75
41	MP1C	My	.019	4.75
42	MP1C	Mz	0	4.75
43	MP2A	Y	-38.7	1.5
44	MP2A	My	-.019	1.5
45	MP2A	Mz	0	1.5
46	MP2A	Y	-38.7	4.75
47	MP2A	My	-.019	4.75
48	MP2A	Mz	0	4.75
49	MP2C	Y	-38.7	1.5
50	MP2C	My	.019	1.5
51	MP2C	Mz	0	1.5
52	MP2C	Y	-38.7	4.75
53	MP2C	My	.019	4.75
54	MP2C	Mz	0	4.75
55	MP3A	Y	-38.7	1.5
56	MP3A	My	-.019	1.5
57	MP3A	Mz	0	1.5
58	MP3A	Y	-38.7	4.75

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location(ft.%)
59	MP3A	My	-.019	4.75
60	MP3A	Mz	0	4.75
61	MP3C	Y	-38.7	1.5
62	MP3C	My	.019	1.5
63	MP3C	Mz	0	1.5
64	MP3C	Y	-38.7	4.75
65	MP3C	My	.019	4.75
66	MP3C	Mz	0	4.75
67	MP3B	Y	-61.5	1.5
68	MP3B	My	0	1.5
69	MP3B	Mz	-.031	1.5
70	MP3B	Y	-61.5	4.75
71	MP3B	My	0	4.75
72	MP3B	Mz	-.031	4.75
73	MP2A	Y	-74.7	2
74	MP2A	My	.025	2
75	MP2A	Mz	0	2
76	MP2C	Y	-74.7	2
77	MP2C	My	-.025	2
78	MP2C	Mz	0	2
79	MP3D	Y	-70.3	2
80	MP3D	My	0	2
81	MP3D	Mz	.023	2
82	MP2D	Y	-70.3	2
83	MP2D	My	0	2
84	MP2D	Mz	.023	2
85	MP1D	Y	-17.6	2
86	MP1D	My	0	2
87	MP1D	Mz	.009	2
88	M515	Y	-17.6	10
89	M515	My	.008	10
90	M515	Mz	-.003	10
91	MATSING-1	Y	-19.25	2.38
92	MATSING-1	My	0	2.38
93	MATSING-1	Mz	-.016	2.38
94	MATSING-1	Y	-19.25	3.88
95	MATSING-1	My	0	3.88
96	MATSING-1	Mz	-.016	3.88
97	MP2B	Y	-19.25	2.38
98	MP2B	My	0	2.38
99	MP2B	Mz	-.016	2.38
100	MP2B	Y	-19.25	3.88
101	MP2B	My	0	3.88
102	MP2B	Mz	-.016	3.88
103	MP2B	Y	-59.5	1.5
104	MP2B	My	-.059	1.5
105	MP2B	Mz	.02	1.5
106	MP2B	Y	-59.5	4.75
107	MP2B	My	-.059	4.75
108	MP2B	Mz	.02	4.75
109	MP2B	Y	-59.5	6.8
110	MP2B	My	-.059	6.8
111	MP2B	Mz	.02	6.8
112	MATSING-1	Y	-59.5	4.75
113	MATSING-1	My	0	4.75
114	MATSING-1	Mz	.02	4.75
115	M575	Y	-32	1
116	M575	My	0	1
117	M575	Mz	0	1



Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	Y	-67.309	2
2	MP1B	My	0	2
3	MP1B	Mz	.022	2
4	MP2B	Y	-67.309	3
5	MP2B	My	0	3
6	MP2B	Mz	.022	3
7	MP3A	Y	-67.309	2
8	MP3A	My	.022	2
9	MP3A	Mz	0	2
10	MP3B	Y	-67.309	2
11	MP3B	My	0	2
12	MP3B	Mz	.022	2
13	MP3C	Y	-67.309	2
14	MP3C	My	-.022	2
15	MP3C	Mz	0	2
16	OVP	Y	-135.915	1
17	OVP	My	0	1
18	OVP	Mz	0	1
19	MP4A	Y	-55.536	2.13
20	MP4A	My	-.028	2.13
21	MP4A	Mz	0	2.13
22	MP4A	Y	-55.536	4.12
23	MP4A	My	-.028	4.12
24	MP4A	Mz	0	4.12
25	MP4C	Y	-55.536	2.13
26	MP4C	My	.028	2.13
27	MP4C	Mz	0	2.13
28	MP4C	Y	-55.536	4.12
29	MP4C	My	.028	4.12
30	MP4C	Mz	0	4.12
31	MP1A	Y	-132.555	1.5
32	MP1A	My	-.066	1.5
33	MP1A	Mz	0	1.5
34	MP1A	Y	-132.555	4.75
35	MP1A	My	-.066	4.75
36	MP1A	Mz	0	4.75
37	MP1C	Y	-132.555	1.5
38	MP1C	My	.066	1.5
39	MP1C	Mz	0	1.5
40	MP1C	Y	-132.555	4.75
41	MP1C	My	.066	4.75
42	MP1C	Mz	0	4.75
43	MP2A	Y	-132.555	1.5
44	MP2A	My	-.066	1.5
45	MP2A	Mz	0	1.5
46	MP2A	Y	-132.555	4.75
47	MP2A	My	-.066	4.75
48	MP2A	Mz	0	4.75
49	MP2C	Y	-132.555	1.5
50	MP2C	My	.066	1.5
51	MP2C	Mz	0	1.5
52	MP2C	Y	-132.555	4.75
53	MP2C	My	.066	4.75
54	MP2C	Mz	0	4.75
55	MP3A	Y	-132.555	1.5
56	MP3A	My	-.066	1.5
57	MP3A	Mz	0	1.5
58	MP3A	Y	-132.555	4.75
59	MP3A	My	-.066	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
60	MP3A	Mz	0	4.75
61	MP3C	Y	-132.555	1.5
62	MP3C	My	.066	1.5
63	MP3C	Mz	0	1.5
64	MP3C	Y	-132.555	4.75
65	MP3C	My	.066	4.75
66	MP3C	Mz	0	4.75
67	MP3B	Y	-121.162	1.5
68	MP3B	My	0	1.5
69	MP3B	Mz	-.061	1.5
70	MP3B	Y	-121.162	4.75
71	MP3B	My	0	4.75
72	MP3B	Mz	-.061	4.75
73	MP2A	Y	-70.56	2
74	MP2A	My	.024	2
75	MP2A	Mz	0	2
76	MP2C	Y	-70.56	2
77	MP2C	My	-.024	2
78	MP2C	Mz	0	2
79	MP3D	Y	-67.309	2
80	MP3D	My	0	2
81	MP3D	Mz	.022	2
82	MP2D	Y	-67.309	2
83	MP2D	My	0	2
84	MP2D	Mz	.022	2
85	MP1D	Y	-28.368	2
86	MP1D	My	0	2
87	MP1D	Mz	.014	2
88	M515	Y	-28.368	10
89	M515	My	.013	10
90	M515	Mz	-.005	10
91	MATSING-1	Y	92.75	2.38
92	MATSING-1	My	0	2.38
93	MATSING-1	Mz	.077	2.38
94	MATSING-1	Y	92.75	3.88
95	MATSING-1	My	0	3.88
96	MATSING-1	Mz	.077	3.88
97	MP2B	Y	92.75	2.38
98	MP2B	My	0	2.38
99	MP2B	Mz	.077	2.38
100	MP2B	Y	92.75	3.88
101	MP2B	My	0	3.88
102	MP2B	Mz	.077	3.88
103	MP2B	Y	-58.999	1.5
104	MP2B	My	-.059	1.5
105	MP2B	Mz	.02	1.5
106	MP2B	Y	-58.999	4.75
107	MP2B	My	-.059	4.75
108	MP2B	Mz	.02	4.75
109	MP2B	Y	-58.999	6.8
110	MP2B	My	-.059	6.8
111	MP2B	Mz	.02	6.8
112	MATSING-1	Y	-58.999	4.75
113	MATSING-1	My	0	4.75
114	MATSING-1	Mz	.02	4.75
115	M575	Y	-135.915	1
116	M575	My	0	1
117	M575	Mz	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location(ft.%)
1	MP1B	X	0	2
2	MP1B	Z	-38.713	2
3	MP1B	Mx	-.013	2
4	MP2B	X	0	3
5	MP2B	Z	-38.713	3
6	MP2B	Mx	-.013	3
7	MP3A	X	0	2
8	MP3A	Z	-63.836	2
9	MP3A	Mx	0	2
10	MP3B	X	0	2
11	MP3B	Z	-38.713	2
12	MP3B	Mx	-.013	2
13	MP3C	X	0	2
14	MP3C	Z	-63.836	2
15	MP3C	Mx	0	2
16	OVP	X	0	1
17	OVP	Z	-126.893	1
18	OVP	Mx	0	1
19	MP4A	X	0	2.13
20	MP4A	Z	-80.721	2.13
21	MP4A	Mx	0	2.13
22	MP4A	X	0	4.12
23	MP4A	Z	-80.721	4.12
24	MP4A	Mx	0	4.12
25	MP4C	X	0	2.13
26	MP4C	Z	-80.721	2.13
27	MP4C	Mx	0	2.13
28	MP4C	X	0	4.12
29	MP4C	Z	-80.721	4.12
30	MP4C	Mx	0	4.12
31	MP1A	X	0	1.5
32	MP1A	Z	-252.666	1.5
33	MP1A	Mx	0	1.5
34	MP1A	X	0	4.75
35	MP1A	Z	-252.666	4.75
36	MP1A	Mx	0	4.75
37	MP1C	X	0	1.5
38	MP1C	Z	-252.666	1.5
39	MP1C	Mx	0	1.5
40	MP1C	X	0	4.75
41	MP1C	Z	-252.666	4.75
42	MP1C	Mx	0	4.75
43	MP2A	X	0	1.5
44	MP2A	Z	-252.666	1.5
45	MP2A	Mx	0	1.5
46	MP2A	X	0	4.75
47	MP2A	Z	-252.666	4.75
48	MP2A	Mx	0	4.75
49	MP2C	X	0	1.5
50	MP2C	Z	-252.666	1.5
51	MP2C	Mx	0	1.5
52	MP2C	X	0	4.75
53	MP2C	Z	-252.666	4.75
54	MP2C	Mx	0	4.75
55	MP3A	X	0	1.5
56	MP3A	Z	-252.666	1.5
57	MP3A	Mx	0	1.5
58	MP3A	X	0	4.75
59	MP3A	Z	-252.666	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft,%)
60	MP3A	Mx	0	4.75
61	MP3C	X	0	1.5
62	MP3C	Z	-252.666	1.5
63	MP3C	Mx	0	1.5
64	MP3C	X	0	4.75
65	MP3C	Z	-252.666	4.75
66	MP3C	Mx	0	4.75
67	MP3B	X	0	1.5
68	MP3B	Z	-45.715	1.5
69	MP3B	Mx	.023	1.5
70	MP3B	X	0	4.75
71	MP3B	Z	-45.715	4.75
72	MP3B	Mx	.023	4.75
73	MP2A	X	0	2
74	MP2A	Z	-63.836	2
75	MP2A	Mx	0	2
76	MP2C	X	0	2
77	MP2C	Z	-63.836	2
78	MP2C	Mx	0	2
79	MP3D	X	0	2
80	MP3D	Z	-38.713	2
81	MP3D	Mx	-.013	2
82	MP2D	X	0	2
83	MP2D	Z	-38.713	2
84	MP2D	Mx	-.013	2
85	MP1D	X	0	2
86	MP1D	Z	-11.992	2
87	MP1D	Mx	-.006	2
88	M515	X	0	10
89	M515	Z	-36.315	10
90	M515	Mx	.006	10
91	MATSING-1	X	0	2.38
92	MATSING-1	Z	-92.356	2.38
93	MATSING-1	Mx	.077	2.38
94	MATSING-1	X	0	3.88
95	MATSING-1	Z	-92.356	3.88
96	MATSING-1	Mx	.077	3.88
97	MP2B	X	0	2.38
98	MP2B	Z	-92.356	2.38
99	MP2B	Mx	.077	2.38
100	MP2B	X	0	3.88
101	MP2B	Z	-92.356	3.88
102	MP2B	Mx	.077	3.88
103	MP2B	X	0	1.5
104	MP2B	Z	-35.007	1.5
105	MP2B	Mx	-.012	1.5
106	MP2B	X	0	4.75
107	MP2B	Z	-35.007	4.75
108	MP2B	Mx	-.012	4.75
109	MP2B	X	0	6.8
110	MP2B	Z	-35.007	6.8
111	MP2B	Mx	-.012	6.8
112	MATSING-1	X	0	4.75
113	MATSING-1	Z	-35.007	4.75
114	MATSING-1	Mx	-.012	4.75
115	M575	X	0	1
116	M575	Z	-126.893	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	22.497	2
2	MP1B	Z	-38.966	2
3	MP1B	Mx	-.013	2
4	MP2B	X	22.497	3
5	MP2B	Z	-38.966	3
6	MP2B	Mx	-.013	3
7	MP3A	X	28.778	2
8	MP3A	Z	-49.844	2
9	MP3A	Mx	.01	2
10	MP3B	X	22.497	2
11	MP3B	Z	-38.966	2
12	MP3B	Mx	-.013	2
13	MP3C	X	28.778	2
14	MP3C	Z	-49.844	2
15	MP3C	Mx	-.01	2
16	OVP	X	56.093	1
17	OVP	Z	-97.156	1
18	OVP	Mx	0	1
19	MP4A	X	33.745	2.13
20	MP4A	Z	-58.449	2.13
21	MP4A	Mx	-.017	2.13
22	MP4A	X	33.745	4.12
23	MP4A	Z	-58.449	4.12
24	MP4A	Mx	-.017	4.12
25	MP4C	X	33.745	2.13
26	MP4C	Z	-58.449	2.13
27	MP4C	Mx	.017	2.13
28	MP4C	X	33.745	4.12
29	MP4C	Z	-58.449	4.12
30	MP4C	Mx	.017	4.12
31	MP1A	X	109.55	1.5
32	MP1A	Z	-189.747	1.5
33	MP1A	Mx	-.055	1.5
34	MP1A	X	109.55	4.75
35	MP1A	Z	-189.747	4.75
36	MP1A	Mx	-.055	4.75
37	MP1C	X	109.55	1.5
38	MP1C	Z	-189.747	1.5
39	MP1C	Mx	.055	1.5
40	MP1C	X	109.55	4.75
41	MP1C	Z	-189.747	4.75
42	MP1C	Mx	.055	4.75
43	MP2A	X	109.55	1.5
44	MP2A	Z	-189.747	1.5
45	MP2A	Mx	-.055	1.5
46	MP2A	X	109.55	4.75
47	MP2A	Z	-189.747	4.75
48	MP2A	Mx	-.055	4.75
49	MP2C	X	109.55	1.5
50	MP2C	Z	-189.747	1.5
51	MP2C	Mx	.055	1.5
52	MP2C	X	109.55	4.75
53	MP2C	Z	-189.747	4.75
54	MP2C	Mx	.055	4.75
55	MP3A	X	109.55	1.5
56	MP3A	Z	-189.747	1.5
57	MP3A	Mx	-.055	1.5
58	MP3A	X	109.55	4.75
59	MP3A	Z	-189.747	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft. %)
60	MP3A	Mx	-.055	4.75
61	MP3C	X	109.55	1.5
62	MP3C	Z	-189.747	1.5
63	MP3C	Mx	.055	1.5
64	MP3C	X	109.55	4.75
65	MP3C	Z	-189.747	4.75
66	MP3C	Mx	.055	4.75
67	MP3B	X	44.865	1.5
68	MP3B	Z	-77.709	1.5
69	MP3B	Mx	.039	1.5
70	MP3B	X	44.865	4.75
71	MP3B	Z	-77.709	4.75
72	MP3B	Mx	.039	4.75
73	MP2A	X	29.292	2
74	MP2A	Z	-50.736	2
75	MP2A	Mx	.01	2
76	MP2C	X	29.292	2
77	MP2C	Z	-50.736	2
78	MP2C	Mx	-.01	2
79	MP3D	X	22.497	2
80	MP3D	Z	-38.966	2
81	MP3D	Mx	-.013	2
82	MP2D	X	22.497	2
83	MP2D	Z	-38.966	2
84	MP2D	Mx	-.013	2
85	MP1D	X	9.439	2
86	MP1D	Z	-16.349	2
87	MP1D	Mx	-.008	2
88	M515	X	11.686	10
89	M515	Z	-20.241	10
90	M515	Mx	.009	10
91	MATSING-1	X	42.87	2.38
92	MATSING-1	Z	-74.254	2.38
93	MATSING-1	Mx	.062	2.38
94	MATSING-1	X	42.87	3.88
95	MATSING-1	Z	-74.254	3.88
96	MATSING-1	Mx	.062	3.88
97	MP2B	X	42.87	2.38
98	MP2B	Z	-74.254	2.38
99	MP2B	Mx	.062	2.38
100	MP2B	X	42.87	3.88
101	MP2B	Z	-74.254	3.88
102	MP2B	Mx	.062	3.88
103	MP2B	X	22.754	1.5
104	MP2B	Z	-39.412	1.5
105	MP2B	Mx	-.036	1.5
106	MP2B	X	22.754	4.75
107	MP2B	Z	-39.412	4.75
108	MP2B	Mx	-.036	4.75
109	MP2B	X	22.754	6.8
110	MP2B	Z	-39.412	6.8
111	MP2B	Mx	-.036	6.8
112	MATSING-1	X	22.754	4.75
113	MATSING-1	Z	-39.412	4.75
114	MATSING-1	Mx	-.013	4.75
115	M575	X	56.093	1
116	M575	Z	-97.156	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	49.844	2
2	MP1B	Z	-28.778	2
3	MP1B	Mx	-.01	2
4	MP2B	X	49.844	3
5	MP2B	Z	-28.778	3
6	MP2B	Mx	-.01	3
7	MP3A	X	38.966	2
8	MP3A	Z	-22.497	2
9	MP3A	Mx	.013	2
10	MP3B	X	49.844	2
11	MP3B	Z	-28.778	2
12	MP3B	Mx	-.01	2
13	MP3C	X	38.966	2
14	MP3C	Z	-22.497	2
15	MP3C	Mx	-.013	2
16	OVP	X	86.774	1
17	OVP	Z	-50.099	1
18	OVP	Mx	0	1
19	MP4A	X	35.533	2.13
20	MP4A	Z	-20.515	2.13
21	MP4A	Mx	-.018	2.13
22	MP4A	X	35.533	4.12
23	MP4A	Z	-20.515	4.12
24	MP4A	Mx	-.018	4.12
25	MP4C	X	35.533	2.13
26	MP4C	Z	-20.515	2.13
27	MP4C	Mx	.018	2.13
28	MP4C	X	35.533	4.12
29	MP4C	Z	-20.515	4.12
30	MP4C	Mx	.018	4.12
31	MP1A	X	131.61	1.5
32	MP1A	Z	-75.985	1.5
33	MP1A	Mx	-.066	1.5
34	MP1A	X	131.61	4.75
35	MP1A	Z	-75.985	4.75
36	MP1A	Mx	-.066	4.75
37	MP1C	X	131.61	1.5
38	MP1C	Z	-75.985	1.5
39	MP1C	Mx	.066	1.5
40	MP1C	X	131.61	4.75
41	MP1C	Z	-75.985	4.75
42	MP1C	Mx	.066	4.75
43	MP2A	X	131.61	1.5
44	MP2A	Z	-75.985	1.5
45	MP2A	Mx	-.066	1.5
46	MP2A	X	131.61	4.75
47	MP2A	Z	-75.985	4.75
48	MP2A	Mx	-.066	4.75
49	MP2C	X	131.61	1.5
50	MP2C	Z	-75.985	1.5
51	MP2C	Mx	.066	1.5
52	MP2C	X	131.61	4.75
53	MP2C	Z	-75.985	4.75
54	MP2C	Mx	.066	4.75
55	MP3A	X	131.61	1.5
56	MP3A	Z	-75.985	1.5
57	MP3A	Mx	-.066	1.5
58	MP3A	X	131.61	4.75
59	MP3A	Z	-75.985	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
60	MP3A	Mx	-.066	4.75
61	MP3C	X	131.61	1.5
62	MP3C	Z	-75.985	1.5
63	MP3C	Mx	.066	1.5
64	MP3C	X	131.61	4.75
65	MP3C	Z	-75.985	4.75
66	MP3C	Mx	.066	4.75
67	MP3B	X	153.946	1.5
68	MP3B	Z	-88.881	1.5
69	MP3B	Mx	.044	1.5
70	MP3B	X	153.946	4.75
71	MP3B	Z	-88.881	4.75
72	MP3B	Mx	.044	4.75
73	MP2A	X	41.641	2
74	MP2A	Z	-24.041	2
75	MP2A	Mx	.014	2
76	MP2C	X	41.641	2
77	MP2C	Z	-24.041	2
78	MP2C	Mx	-.014	2
79	MP3D	X	49.844	2
80	MP3D	Z	-28.778	2
81	MP3D	Mx	-.01	2
82	MP2D	X	49.844	2
83	MP2D	Z	-28.778	2
84	MP2D	Mx	-.01	2
85	MP1D	X	28.276	2
86	MP1D	Z	-16.325	2
87	MP1D	Mx	-.008	2
88	M515	X	11.104	10
89	M515	Z	-6.411	10
90	M515	Mx	.006	10
91	MATSING-1	X	62.796	2.38
92	MATSING-1	Z	-36.255	2.38
93	MATSING-1	Mx	.03	2.38
94	MATSING-1	X	62.796	3.88
95	MATSING-1	Z	-36.255	3.88
96	MATSING-1	Mx	.03	3.88
97	MP2B	X	62.796	2.38
98	MP2B	Z	-36.255	2.38
99	MP2B	Mx	.03	2.38
100	MP2B	X	62.796	3.88
101	MP2B	Z	-36.255	3.88
102	MP2B	Mx	.03	3.88
103	MP2B	X	57.602	1.5
104	MP2B	Z	-33.256	1.5
105	MP2B	Mx	-.069	1.5
106	MP2B	X	57.602	4.75
107	MP2B	Z	-33.256	4.75
108	MP2B	Mx	-.069	4.75
109	MP2B	X	57.602	6.8
110	MP2B	Z	-33.256	6.8
111	MP2B	Mx	-.069	6.8
112	MATSING-1	X	57.602	4.75
113	MATSING-1	Z	-33.256	4.75
114	MATSING-1	Mx	-.011	4.75
115	M575	X	86.774	1
116	M575	Z	-50.099	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 2377329
 Model Name : Mount Analysis

Feb 8, 2024
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 Checked By: PMA

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	63.836	2
2	MP1B	Z	0	2
3	MP1B	Mx	0	2
4	MP2B	X	63.836	3
5	MP2B	Z	0	3
6	MP2B	Mx	0	3
7	MP3A	X	38.713	2
8	MP3A	Z	0	2
9	MP3A	Mx	.013	2
10	MP3B	X	63.836	2
11	MP3B	Z	0	2
12	MP3B	Mx	0	2
13	MP3C	X	38.713	2
14	MP3C	Z	0	2
15	MP3C	Mx	-.013	2
16	OVP	X	102.916	1
17	OVP	Z	0	1
18	OVP	Mx	0	1
19	MP4A	X	27.799	2.13
20	MP4A	Z	0	2.13
21	MP4A	Mx	-.014	2.13
22	MP4A	X	27.799	4.12
23	MP4A	Z	0	4.12
24	MP4A	Mx	-.014	4.12
25	MP4C	X	27.799	2.13
26	MP4C	Z	0	2.13
27	MP4C	Mx	.014	2.13
28	MP4C	X	27.799	4.12
29	MP4C	Z	0	4.12
30	MP4C	Mx	.014	4.12
31	MP1A	X	118.405	1.5
32	MP1A	Z	0	1.5
33	MP1A	Mx	-.059	1.5
34	MP1A	X	118.405	4.75
35	MP1A	Z	0	4.75
36	MP1A	Mx	-.059	4.75
37	MP1C	X	118.405	1.5
38	MP1C	Z	0	1.5
39	MP1C	Mx	.059	1.5
40	MP1C	X	118.405	4.75
41	MP1C	Z	0	4.75
42	MP1C	Mx	.059	4.75
43	MP2A	X	118.405	1.5
44	MP2A	Z	0	1.5
45	MP2A	Mx	-.059	1.5
46	MP2A	X	118.405	4.75
47	MP2A	Z	0	4.75
48	MP2A	Mx	-.059	4.75
49	MP2C	X	118.405	1.5
50	MP2C	Z	0	1.5
51	MP2C	Mx	.059	1.5
52	MP2C	X	118.405	4.75
53	MP2C	Z	0	4.75
54	MP2C	Mx	.059	4.75
55	MP3A	X	118.405	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	-.059	1.5
58	MP3A	X	118.405	4.75
59	MP3A	Z	0	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
60	MP3A	Mx	-.059	4.75
61	MP3C	X	118.405	1.5
62	MP3C	Z	0	1.5
63	MP3C	Mx	.059	1.5
64	MP3C	X	118.405	4.75
65	MP3C	Z	0	4.75
66	MP3C	Mx	.059	4.75
67	MP3B	X	221.778	1.5
68	MP3B	Z	0	1.5
69	MP3B	Mx	0	1.5
70	MP3B	X	221.778	4.75
71	MP3B	Z	0	4.75
72	MP3B	Mx	0	4.75
73	MP2A	X	42.832	2
74	MP2A	Z	0	2
75	MP2A	Mx	.014	2
76	MP2C	X	42.832	2
77	MP2C	Z	0	2
78	MP2C	Mx	-.014	2
79	MP3D	X	63.836	2
80	MP3D	Z	0	2
81	MP3D	Mx	0	2
82	MP2D	X	63.836	2
83	MP2D	Z	0	2
84	MP2D	Mx	0	2
85	MP1D	X	39.537	2
86	MP1D	Z	0	2
87	MP1D	Mx	0	2
88	M515	X	15.214	10
89	M515	Z	0	10
90	M515	Mx	.007	10
91	MATSING-1	X	65.895	2.38
92	MATSING-1	Z	0	2.38
93	MATSING-1	Mx	0	2.38
94	MATSING-1	X	65.895	3.88
95	MATSING-1	Z	0	3.88
96	MATSING-1	Mx	0	3.88
97	MP2B	X	65.895	2.38
98	MP2B	Z	0	2.38
99	MP2B	Mx	0	2.38
100	MP2B	X	65.895	3.88
101	MP2B	Z	0	3.88
102	MP2B	Mx	0	3.88
103	MP2B	X	77.015	1.5
104	MP2B	Z	0	1.5
105	MP2B	Mx	-.077	1.5
106	MP2B	X	77.015	4.75
107	MP2B	Z	0	4.75
108	MP2B	Mx	-.077	4.75
109	MP2B	X	77.015	6.8
110	MP2B	Z	0	6.8
111	MP2B	Mx	-.077	6.8
112	MATSING-1	X	77.015	4.75
113	MATSING-1	Z	0	4.75
114	MATSING-1	Mx	0	4.75
115	M575	X	102.916	1
116	M575	Z	0	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

Feb 8, 2024
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 Checked By: PMA

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	49.844	2
2	MP1B	Z	28.778	2
3	MP1B	Mx	.01	2
4	MP2B	X	49.844	3
5	MP2B	Z	28.778	3
6	MP2B	Mx	.01	3
7	MP3A	X	38.966	2
8	MP3A	Z	22.497	2
9	MP3A	Mx	.013	2
10	MP3B	X	49.844	2
11	MP3B	Z	28.778	2
12	MP3B	Mx	.01	2
13	MP3C	X	38.966	2
14	MP3C	Z	22.497	2
15	MP3C	Mx	-.013	2
16	OVP	X	101.864	1
17	OVP	Z	58.811	1
18	OVP	Mx	0	1
19	MP4A	X	35.533	2.13
20	MP4A	Z	20.515	2.13
21	MP4A	Mx	-.018	2.13
22	MP4A	X	35.533	4.12
23	MP4A	Z	20.515	4.12
24	MP4A	Mx	-.018	4.12
25	MP4C	X	35.533	2.13
26	MP4C	Z	20.515	2.13
27	MP4C	Mx	.018	2.13
28	MP4C	X	35.533	4.12
29	MP4C	Z	20.515	4.12
30	MP4C	Mx	.018	4.12
31	MP1A	X	131.61	1.5
32	MP1A	Z	75.985	1.5
33	MP1A	Mx	-.066	1.5
34	MP1A	X	131.61	4.75
35	MP1A	Z	75.985	4.75
36	MP1A	Mx	-.066	4.75
37	MP1C	X	131.61	1.5
38	MP1C	Z	75.985	1.5
39	MP1C	Mx	.066	1.5
40	MP1C	X	131.61	4.75
41	MP1C	Z	75.985	4.75
42	MP1C	Mx	.066	4.75
43	MP2A	X	131.61	1.5
44	MP2A	Z	75.985	1.5
45	MP2A	Mx	-.066	1.5
46	MP2A	X	131.61	4.75
47	MP2A	Z	75.985	4.75
48	MP2A	Mx	-.066	4.75
49	MP2C	X	131.61	1.5
50	MP2C	Z	75.985	1.5
51	MP2C	Mx	.066	1.5
52	MP2C	X	131.61	4.75
53	MP2C	Z	75.985	4.75
54	MP2C	Mx	.066	4.75
55	MP3A	X	131.61	1.5
56	MP3A	Z	75.985	1.5
57	MP3A	Mx	-.066	1.5
58	MP3A	X	131.61	4.75
59	MP3A	Z	75.985	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
60	MP3A	Mx	-.066	4.75
61	MP3C	X	131.61	1.5
62	MP3C	Z	75.985	1.5
63	MP3C	Mx	.066	1.5
64	MP3C	X	131.61	4.75
65	MP3C	Z	75.985	4.75
66	MP3C	Mx	.066	4.75
67	MP3B	X	153.946	1.5
68	MP3B	Z	88.881	1.5
69	MP3B	Mx	-.044	1.5
70	MP3B	X	153.946	4.75
71	MP3B	Z	88.881	4.75
72	MP3B	Mx	-.044	4.75
73	MP2A	X	41.641	2
74	MP2A	Z	24.041	2
75	MP2A	Mx	.014	2
76	MP2C	X	41.641	2
77	MP2C	Z	24.041	2
78	MP2C	Mx	-.014	2
79	MP3D	X	49.844	2
80	MP3D	Z	28.778	2
81	MP3D	Mx	.01	2
82	MP2D	X	49.844	2
83	MP2D	Z	28.778	2
84	MP2D	Mx	.01	2
85	MP1D	X	28.276	2
86	MP1D	Z	16.325	2
87	MP1D	Mx	.008	2
88	M515	X	24.384	10
89	M515	Z	14.078	10
90	M515	Mx	.009	10
91	MATSING-1	X	62.796	2.38
92	MATSING-1	Z	36.255	2.38
93	MATSING-1	Mx	-.03	2.38
94	MATSING-1	X	62.796	3.88
95	MATSING-1	Z	36.255	3.88
96	MATSING-1	Mx	-.03	3.88
97	MP2B	X	62.796	2.38
98	MP2B	Z	36.255	2.38
99	MP2B	Mx	-.03	2.38
100	MP2B	X	62.796	3.88
101	MP2B	Z	36.255	3.88
102	MP2B	Mx	-.03	3.88
103	MP2B	X	57.602	1.5
104	MP2B	Z	33.256	1.5
105	MP2B	Mx	-.047	1.5
106	MP2B	X	57.602	4.75
107	MP2B	Z	33.256	4.75
108	MP2B	Mx	-.047	4.75
109	MP2B	X	57.602	6.8
110	MP2B	Z	33.256	6.8
111	MP2B	Mx	-.047	6.8
112	MATSING-1	X	57.602	4.75
113	MATSING-1	Z	33.256	4.75
114	MATSING-1	Mx	.011	4.75
115	M575	X	101.864	1
116	M575	Z	58.811	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	22.497	2
2	MP1B	Z	38.966	2
3	MP1B	Mx	.013	2
4	MP2B	X	22.497	3
5	MP2B	Z	38.966	3
6	MP2B	Mx	.013	3
7	MP3A	X	28.778	2
8	MP3A	Z	49.844	2
9	MP3A	Mx	.01	2
10	MP3B	X	22.497	2
11	MP3B	Z	38.966	2
12	MP3B	Mx	.013	2
13	MP3C	X	28.778	2
14	MP3C	Z	49.844	2
15	MP3C	Mx	-.01	2
16	OVP	X	64.805	1
17	OVP	Z	112.246	1
18	OVP	Mx	0	1
19	MP4A	X	33.745	2.13
20	MP4A	Z	58.449	2.13
21	MP4A	Mx	-.017	2.13
22	MP4A	X	33.745	4.12
23	MP4A	Z	58.449	4.12
24	MP4A	Mx	-.017	4.12
25	MP4C	X	33.745	2.13
26	MP4C	Z	58.449	2.13
27	MP4C	Mx	.017	2.13
28	MP4C	X	33.745	4.12
29	MP4C	Z	58.449	4.12
30	MP4C	Mx	.017	4.12
31	MP1A	X	109.55	1.5
32	MP1A	Z	189.747	1.5
33	MP1A	Mx	-.055	1.5
34	MP1A	X	109.55	4.75
35	MP1A	Z	189.747	4.75
36	MP1A	Mx	-.055	4.75
37	MP1C	X	109.55	1.5
38	MP1C	Z	189.747	1.5
39	MP1C	Mx	.055	1.5
40	MP1C	X	109.55	4.75
41	MP1C	Z	189.747	4.75
42	MP1C	Mx	.055	4.75
43	MP2A	X	109.55	1.5
44	MP2A	Z	189.747	1.5
45	MP2A	Mx	-.055	1.5
46	MP2A	X	109.55	4.75
47	MP2A	Z	189.747	4.75
48	MP2A	Mx	-.055	4.75
49	MP2C	X	109.55	1.5
50	MP2C	Z	189.747	1.5
51	MP2C	Mx	.055	1.5
52	MP2C	X	109.55	4.75
53	MP2C	Z	189.747	4.75
54	MP2C	Mx	.055	4.75
55	MP3A	X	109.55	1.5
56	MP3A	Z	189.747	1.5
57	MP3A	Mx	-.055	1.5
58	MP3A	X	109.55	4.75
59	MP3A	Z	189.747	4.75



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

	Member Label	Direction	Magnitude(lib.k-ft)	Location(ft.%)
60	MP3A	Mx	-.055	4.75
61	MP3C	X	109.55	1.5
62	MP3C	Z	189.747	1.5
63	MP3C	Mx	.055	1.5
64	MP3C	X	109.55	4.75
65	MP3C	Z	189.747	4.75
66	MP3C	Mx	.055	4.75
67	MP3B	X	44.865	1.5
68	MP3B	Z	77.709	1.5
69	MP3B	Mx	-.039	1.5
70	MP3B	X	44.865	4.75
71	MP3B	Z	77.709	4.75
72	MP3B	Mx	-.039	4.75
73	MP2A	X	29.292	2
74	MP2A	Z	50.736	2
75	MP2A	Mx	.01	2
76	MP2C	X	29.292	2
77	MP2C	Z	50.736	2
78	MP2C	Mx	-.01	2
79	MP3D	X	22.497	2
80	MP3D	Z	38.966	2
81	MP3D	Mx	.013	2
82	MP2D	X	22.497	2
83	MP2D	Z	38.966	2
84	MP2D	Mx	.013	2
85	MP1D	X	9.439	2
86	MP1D	Z	16.349	2
87	MP1D	Mx	.008	2
88	M515	X	19.353	10
89	M515	Z	33.521	10
90	M515	Mx	.003	10
91	MATSING-1	X	42.87	2.38
92	MATSING-1	Z	74.254	2.38
93	MATSING-1	Mx	-.062	2.38
94	MATSING-1	X	42.87	3.88
95	MATSING-1	Z	74.254	3.88
96	MATSING-1	Mx	-.062	3.88
97	MP2B	X	42.87	2.38
98	MP2B	Z	74.254	2.38
99	MP2B	Mx	-.062	2.38
100	MP2B	X	42.87	3.88
101	MP2B	Z	74.254	3.88
102	MP2B	Mx	-.062	3.88
103	MP2B	X	22.754	1.5
104	MP2B	Z	39.412	1.5
105	MP2B	Mx	-.01	1.5
106	MP2B	X	22.754	4.75
107	MP2B	Z	39.412	4.75
108	MP2B	Mx	-.01	4.75
109	MP2B	X	22.754	6.8
110	MP2B	Z	39.412	6.8
111	MP2B	Mx	-.01	6.8
112	MATSING-1	X	22.754	4.75
113	MATSING-1	Z	39.412	4.75
114	MATSING-1	Mx	.013	4.75
115	M575	X	64.805	1
116	M575	Z	112.246	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	0	2
2	MP1B	Z	38.713	2
3	MP1B	Mx	.013	2
4	MP2B	X	0	3
5	MP2B	Z	38.713	3
6	MP2B	Mx	.013	3
7	MP3A	X	0	2
8	MP3A	Z	63.836	2
9	MP3A	Mx	0	2
10	MP3B	X	0	2
11	MP3B	Z	38.713	2
12	MP3B	Mx	.013	2
13	MP3C	X	0	2
14	MP3C	Z	63.836	2
15	MP3C	Mx	0	2
16	OVP	X	0	1
17	OVP	Z	126.893	1
18	OVP	Mx	0	1
19	MP4A	X	0	2.13
20	MP4A	Z	80.721	2.13
21	MP4A	Mx	0	2.13
22	MP4A	X	0	4.12
23	MP4A	Z	80.721	4.12
24	MP4A	Mx	0	4.12
25	MP4C	X	0	2.13
26	MP4C	Z	80.721	2.13
27	MP4C	Mx	0	2.13
28	MP4C	X	0	4.12
29	MP4C	Z	80.721	4.12
30	MP4C	Mx	0	4.12
31	MP1A	X	0	1.5
32	MP1A	Z	252.666	1.5
33	MP1A	Mx	0	1.5
34	MP1A	X	0	4.75
35	MP1A	Z	252.666	4.75
36	MP1A	Mx	0	4.75
37	MP1C	X	0	1.5
38	MP1C	Z	252.666	1.5
39	MP1C	Mx	0	1.5
40	MP1C	X	0	4.75
41	MP1C	Z	252.666	4.75
42	MP1C	Mx	0	4.75
43	MP2A	X	0	1.5
44	MP2A	Z	252.666	1.5
45	MP2A	Mx	0	1.5
46	MP2A	X	0	4.75
47	MP2A	Z	252.666	4.75
48	MP2A	Mx	0	4.75
49	MP2C	X	0	1.5
50	MP2C	Z	252.666	1.5
51	MP2C	Mx	0	1.5
52	MP2C	X	0	4.75
53	MP2C	Z	252.666	4.75
54	MP2C	Mx	0	4.75
55	MP3A	X	0	1.5
56	MP3A	Z	252.666	1.5
57	MP3A	Mx	0	1.5
58	MP3A	X	0	4.75
59	MP3A	Z	252.666	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft,%)
60	MP3A	Mx	0	4.75
61	MP3C	X	0	1.5
62	MP3C	Z	252.666	1.5
63	MP3C	Mx	0	1.5
64	MP3C	X	0	4.75
65	MP3C	Z	252.666	4.75
66	MP3C	Mx	0	4.75
67	MP3B	X	0	1.5
68	MP3B	Z	45.715	1.5
69	MP3B	Mx	-.023	1.5
70	MP3B	X	0	4.75
71	MP3B	Z	45.715	4.75
72	MP3B	Mx	-.023	4.75
73	MP2A	X	0	2
74	MP2A	Z	63.836	2
75	MP2A	Mx	0	2
76	MP2C	X	0	2
77	MP2C	Z	63.836	2
78	MP2C	Mx	0	2
79	MP3D	X	0	2
80	MP3D	Z	38.713	2
81	MP3D	Mx	.013	2
82	MP2D	X	0	2
83	MP2D	Z	38.713	2
84	MP2D	Mx	.013	2
85	MP1D	X	0	2
86	MP1D	Z	11.992	2
87	MP1D	Mx	.006	2
88	M515	X	0	10
89	M515	Z	36.315	10
90	M515	Mx	-.006	10
91	MATSING-1	X	0	2.38
92	MATSING-1	Z	92.356	2.38
93	MATSING-1	Mx	-.077	2.38
94	MATSING-1	X	0	3.88
95	MATSING-1	Z	92.356	3.88
96	MATSING-1	Mx	-.077	3.88
97	MP2B	X	0	2.38
98	MP2B	Z	92.356	2.38
99	MP2B	Mx	-.077	2.38
100	MP2B	X	0	3.88
101	MP2B	Z	92.356	3.88
102	MP2B	Mx	-.077	3.88
103	MP2B	X	0	1.5
104	MP2B	Z	35.007	1.5
105	MP2B	Mx	.012	1.5
106	MP2B	X	0	4.75
107	MP2B	Z	35.007	4.75
108	MP2B	Mx	.012	4.75
109	MP2B	X	0	6.8
110	MP2B	Z	35.007	6.8
111	MP2B	Mx	.012	6.8
112	MATSING-1	X	0	4.75
113	MATSING-1	Z	35.007	4.75
114	MATSING-1	Mx	.012	4.75
115	M575	X	0	1
116	M575	Z	126.893	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-22.497	2
2	MP1B	Z	38.966	2
3	MP1B	Mx	.013	2
4	MP2B	X	-22.497	3
5	MP2B	Z	38.966	3
6	MP2B	Mx	.013	3
7	MP3A	X	-28.778	2
8	MP3A	Z	49.844	2
9	MP3A	Mx	-.01	2
10	MP3B	X	-22.497	2
11	MP3B	Z	38.966	2
12	MP3B	Mx	.013	2
13	MP3C	X	-28.778	2
14	MP3C	Z	49.844	2
15	MP3C	Mx	.01	2
16	OVP	X	-56.093	1
17	OVP	Z	97.156	1
18	OVP	Mx	0	1
19	MP4A	X	-33.745	2.13
20	MP4A	Z	58.449	2.13
21	MP4A	Mx	.017	2.13
22	MP4A	X	-33.745	4.12
23	MP4A	Z	58.449	4.12
24	MP4A	Mx	.017	4.12
25	MP4C	X	-33.745	2.13
26	MP4C	Z	58.449	2.13
27	MP4C	Mx	-.017	2.13
28	MP4C	X	-33.745	4.12
29	MP4C	Z	58.449	4.12
30	MP4C	Mx	-.017	4.12
31	MP1A	X	-109.55	1.5
32	MP1A	Z	189.747	1.5
33	MP1A	Mx	.055	1.5
34	MP1A	X	-109.55	4.75
35	MP1A	Z	189.747	4.75
36	MP1A	Mx	.055	4.75
37	MP1C	X	-109.55	1.5
38	MP1C	Z	189.747	1.5
39	MP1C	Mx	-.055	1.5
40	MP1C	X	-109.55	4.75
41	MP1C	Z	189.747	4.75
42	MP1C	Mx	-.055	4.75
43	MP2A	X	-109.55	1.5
44	MP2A	Z	189.747	1.5
45	MP2A	Mx	.055	1.5
46	MP2A	X	-109.55	4.75
47	MP2A	Z	189.747	4.75
48	MP2A	Mx	.055	4.75
49	MP2C	X	-109.55	1.5
50	MP2C	Z	189.747	1.5
51	MP2C	Mx	-.055	1.5
52	MP2C	X	-109.55	4.75
53	MP2C	Z	189.747	4.75
54	MP2C	Mx	-.055	4.75
55	MP3A	X	-109.55	1.5
56	MP3A	Z	189.747	1.5
57	MP3A	Mx	.055	1.5
58	MP3A	X	-109.55	4.75
59	MP3A	Z	189.747	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
60	MP3A	Mx	.055	4.75
61	MP3C	X	-109.55	1.5
62	MP3C	Z	189.747	1.5
63	MP3C	Mx	-.055	1.5
64	MP3C	X	-109.55	4.75
65	MP3C	Z	189.747	4.75
66	MP3C	Mx	-.055	4.75
67	MP3B	X	-44.865	1.5
68	MP3B	Z	77.709	1.5
69	MP3B	Mx	-.039	1.5
70	MP3B	X	-44.865	4.75
71	MP3B	Z	77.709	4.75
72	MP3B	Mx	-.039	4.75
73	MP2A	X	-29.292	2
74	MP2A	Z	50.736	2
75	MP2A	Mx	-.01	2
76	MP2C	X	-29.292	2
77	MP2C	Z	50.736	2
78	MP2C	Mx	.01	2
79	MP3D	X	-22.497	2
80	MP3D	Z	38.966	2
81	MP3D	Mx	.013	2
82	MP2D	X	-22.497	2
83	MP2D	Z	38.966	2
84	MP2D	Mx	.013	2
85	MP1D	X	-9.439	2
86	MP1D	Z	16.349	2
87	MP1D	Mx	.008	2
88	M515	X	-11.686	10
89	M515	Z	20.241	10
90	M515	Mx	-.009	10
91	MATSING-1	X	-42.87	2.38
92	MATSING-1	Z	74.254	2.38
93	MATSING-1	Mx	-.062	2.38
94	MATSING-1	X	-42.87	3.88
95	MATSING-1	Z	74.254	3.88
96	MATSING-1	Mx	-.062	3.88
97	MP2B	X	-42.87	2.38
98	MP2B	Z	74.254	2.38
99	MP2B	Mx	-.062	2.38
100	MP2B	X	-42.87	3.88
101	MP2B	Z	74.254	3.88
102	MP2B	Mx	-.062	3.88
103	MP2B	X	-22.754	1.5
104	MP2B	Z	39.412	1.5
105	MP2B	Mx	.036	1.5
106	MP2B	X	-22.754	4.75
107	MP2B	Z	39.412	4.75
108	MP2B	Mx	.036	4.75
109	MP2B	X	-22.754	6.8
110	MP2B	Z	39.412	6.8
111	MP2B	Mx	.036	6.8
112	MATSING-1	X	-22.754	4.75
113	MATSING-1	Z	39.412	4.75
114	MATSING-1	Mx	.013	4.75
115	M575	X	-56.093	1
116	M575	Z	97.156	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1B	X	-49.844	2
2	MP1B	Z	28.778	2
3	MP1B	Mx	.01	2
4	MP2B	X	-49.844	3
5	MP2B	Z	28.778	3
6	MP2B	Mx	.01	3
7	MP3A	X	-38.966	2
8	MP3A	Z	22.497	2
9	MP3A	Mx	-.013	2
10	MP3B	X	-49.844	2
11	MP3B	Z	28.778	2
12	MP3B	Mx	.01	2
13	MP3C	X	-38.966	2
14	MP3C	Z	22.497	2
15	MP3C	Mx	.013	2
16	OVP	X	-86.774	1
17	OVP	Z	50.099	1
18	OVP	Mx	0	1
19	MP4A	X	-35.533	2.13
20	MP4A	Z	20.515	2.13
21	MP4A	Mx	.018	2.13
22	MP4A	X	-35.533	4.12
23	MP4A	Z	20.515	4.12
24	MP4A	Mx	.018	4.12
25	MP4C	X	-35.533	2.13
26	MP4C	Z	20.515	2.13
27	MP4C	Mx	-.018	2.13
28	MP4C	X	-35.533	4.12
29	MP4C	Z	20.515	4.12
30	MP4C	Mx	-.018	4.12
31	MP1A	X	-131.61	1.5
32	MP1A	Z	75.985	1.5
33	MP1A	Mx	.066	1.5
34	MP1A	X	-131.61	4.75
35	MP1A	Z	75.985	4.75
36	MP1A	Mx	.066	4.75
37	MP1C	X	-131.61	1.5
38	MP1C	Z	75.985	1.5
39	MP1C	Mx	-.066	1.5
40	MP1C	X	-131.61	4.75
41	MP1C	Z	75.985	4.75
42	MP1C	Mx	-.066	4.75
43	MP2A	X	-131.61	1.5
44	MP2A	Z	75.985	1.5
45	MP2A	Mx	.066	1.5
46	MP2A	X	-131.61	4.75
47	MP2A	Z	75.985	4.75
48	MP2A	Mx	.066	4.75
49	MP2C	X	-131.61	1.5
50	MP2C	Z	75.985	1.5
51	MP2C	Mx	-.066	1.5
52	MP2C	X	-131.61	4.75
53	MP2C	Z	75.985	4.75
54	MP2C	Mx	-.066	4.75
55	MP3A	X	-131.61	1.5
56	MP3A	Z	75.985	1.5
57	MP3A	Mx	.066	1.5
58	MP3A	X	-131.61	4.75
59	MP3A	Z	75.985	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
60	MP3A	Mx	.066	4.75
61	MP3C	X	-131.61	1.5
62	MP3C	Z	75.985	1.5
63	MP3C	Mx	-.066	1.5
64	MP3C	X	-131.61	4.75
65	MP3C	Z	75.985	4.75
66	MP3C	Mx	-.066	4.75
67	MP3B	X	-153.946	1.5
68	MP3B	Z	88.881	1.5
69	MP3B	Mx	-.044	1.5
70	MP3B	X	-153.946	4.75
71	MP3B	Z	88.881	4.75
72	MP3B	Mx	-.044	4.75
73	MP2A	X	-41.641	2
74	MP2A	Z	24.041	2
75	MP2A	Mx	-.014	2
76	MP2C	X	-41.641	2
77	MP2C	Z	24.041	2
78	MP2C	Mx	.014	2
79	MP3D	X	-49.844	2
80	MP3D	Z	28.778	2
81	MP3D	Mx	.01	2
82	MP2D	X	-49.844	2
83	MP2D	Z	28.778	2
84	MP2D	Mx	.01	2
85	MP1D	X	-28.276	2
86	MP1D	Z	16.325	2
87	MP1D	Mx	.008	2
88	M515	X	-11.104	10
89	M515	Z	6.411	10
90	M515	Mx	-.006	10
91	MATSING-1	X	-62.796	2.38
92	MATSING-1	Z	36.255	2.38
93	MATSING-1	Mx	-.03	2.38
94	MATSING-1	X	-62.796	3.88
95	MATSING-1	Z	36.255	3.88
96	MATSING-1	Mx	-.03	3.88
97	MP2B	X	-62.796	2.38
98	MP2B	Z	36.255	2.38
99	MP2B	Mx	-.03	2.38
100	MP2B	X	-62.796	3.88
101	MP2B	Z	36.255	3.88
102	MP2B	Mx	-.03	3.88
103	MP2B	X	-57.602	1.5
104	MP2B	Z	33.256	1.5
105	MP2B	Mx	.069	1.5
106	MP2B	X	-57.602	4.75
107	MP2B	Z	33.256	4.75
108	MP2B	Mx	.069	4.75
109	MP2B	X	-57.602	6.8
110	MP2B	Z	33.256	6.8
111	MP2B	Mx	.069	6.8
112	MATSING-1	X	-57.602	4.75
113	MATSING-1	Z	33.256	4.75
114	MATSING-1	Mx	.011	4.75
115	M575	X	-86.774	1
116	M575	Z	50.099	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 2377329
 Model Name : Mount Analysis

Feb 8, 2024
 3:42 PM
 Checked By: PMA

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-63.836	2
2	MP1B	Z	0	2
3	MP1B	Mx	0	2
4	MP2B	X	-63.836	3
5	MP2B	Z	0	3
6	MP2B	Mx	0	3
7	MP3A	X	-38.713	2
8	MP3A	Z	0	2
9	MP3A	Mx	-.013	2
10	MP3B	X	-63.836	2
11	MP3B	Z	0	2
12	MP3B	Mx	0	2
13	MP3C	X	-38.713	2
14	MP3C	Z	0	2
15	MP3C	Mx	.013	2
16	OVP	X	-102.916	1
17	OVP	Z	0	1
18	OVP	Mx	0	1
19	MP4A	X	-27.799	2.13
20	MP4A	Z	0	2.13
21	MP4A	Mx	.014	2.13
22	MP4A	X	-27.799	4.12
23	MP4A	Z	0	4.12
24	MP4A	Mx	.014	4.12
25	MP4C	X	-27.799	2.13
26	MP4C	Z	0	2.13
27	MP4C	Mx	-.014	2.13
28	MP4C	X	-27.799	4.12
29	MP4C	Z	0	4.12
30	MP4C	Mx	-.014	4.12
31	MP1A	X	-118.405	1.5
32	MP1A	Z	0	1.5
33	MP1A	Mx	.059	1.5
34	MP1A	X	-118.405	4.75
35	MP1A	Z	0	4.75
36	MP1A	Mx	.059	4.75
37	MP1C	X	-118.405	1.5
38	MP1C	Z	0	1.5
39	MP1C	Mx	-.059	1.5
40	MP1C	X	-118.405	4.75
41	MP1C	Z	0	4.75
42	MP1C	Mx	-.059	4.75
43	MP2A	X	-118.405	1.5
44	MP2A	Z	0	1.5
45	MP2A	Mx	.059	1.5
46	MP2A	X	-118.405	4.75
47	MP2A	Z	0	4.75
48	MP2A	Mx	.059	4.75
49	MP2C	X	-118.405	1.5
50	MP2C	Z	0	1.5
51	MP2C	Mx	-.059	1.5
52	MP2C	X	-118.405	4.75
53	MP2C	Z	0	4.75
54	MP2C	Mx	-.059	4.75
55	MP3A	X	-118.405	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	.059	1.5
58	MP3A	X	-118.405	4.75
59	MP3A	Z	0	4.75

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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
60	MP3A	Mx	.059	4.75
61	MP3C	X	-118.405	1.5
62	MP3C	Z	0	1.5
63	MP3C	Mx	-.059	1.5
64	MP3C	X	-118.405	4.75
65	MP3C	Z	0	4.75
66	MP3C	Mx	-.059	4.75
67	MP3B	X	-221.778	1.5
68	MP3B	Z	0	1.5
69	MP3B	Mx	0	1.5
70	MP3B	X	-221.778	4.75
71	MP3B	Z	0	4.75
72	MP3B	Mx	0	4.75
73	MP2A	X	-42.832	2
74	MP2A	Z	0	2
75	MP2A	Mx	-.014	2
76	MP2C	X	-42.832	2
77	MP2C	Z	0	2
78	MP2C	Mx	.014	2
79	MP3D	X	-63.836	2
80	MP3D	Z	0	2
81	MP3D	Mx	0	2
82	MP2D	X	-63.836	2
83	MP2D	Z	0	2
84	MP2D	Mx	0	2
85	MP1D	X	-39.537	2
86	MP1D	Z	0	2
87	MP1D	Mx	0	2
88	M515	X	-15.214	10
89	M515	Z	0	10
90	M515	Mx	-.007	10
91	MATSING-1	X	-65.895	2.38
92	MATSING-1	Z	0	2.38
93	MATSING-1	Mx	0	2.38
94	MATSING-1	X	-65.895	3.88
95	MATSING-1	Z	0	3.88
96	MATSING-1	Mx	0	3.88
97	MP2B	X	-65.895	2.38
98	MP2B	Z	0	2.38
99	MP2B	Mx	0	2.38
100	MP2B	X	-65.895	3.88
101	MP2B	Z	0	3.88
102	MP2B	Mx	0	3.88
103	MP2B	X	-77.015	1.5
104	MP2B	Z	0	1.5
105	MP2B	Mx	.077	1.5
106	MP2B	X	-77.015	4.75
107	MP2B	Z	0	4.75
108	MP2B	Mx	.077	4.75
109	MP2B	X	-77.015	6.8
110	MP2B	Z	0	6.8
111	MP2B	Mx	.077	6.8
112	MATSING-1	X	-77.015	4.75
113	MATSING-1	Z	0	4.75
114	MATSING-1	Mx	0	4.75
115	M575	X	-102.916	1
116	M575	Z	0	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

Feb 8, 2024
 3:42 PM
 Checked By: PMA

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-49.844	2
2	MP1B	Z	-28.778	2
3	MP1B	Mx	-.01	2
4	MP2B	X	-49.844	3
5	MP2B	Z	-28.778	3
6	MP2B	Mx	-.01	3
7	MP3A	X	-38.966	2
8	MP3A	Z	-22.497	2
9	MP3A	Mx	-.013	2
10	MP3B	X	-49.844	2
11	MP3B	Z	-28.778	2
12	MP3B	Mx	-.01	2
13	MP3C	X	-38.966	2
14	MP3C	Z	-22.497	2
15	MP3C	Mx	.013	2
16	OVP	X	-101.864	1
17	OVP	Z	-58.811	1
18	OVP	Mx	0	1
19	MP4A	X	-35.533	2.13
20	MP4A	Z	-20.515	2.13
21	MP4A	Mx	.018	2.13
22	MP4A	X	-35.533	4.12
23	MP4A	Z	-20.515	4.12
24	MP4A	Mx	.018	4.12
25	MP4C	X	-35.533	2.13
26	MP4C	Z	-20.515	2.13
27	MP4C	Mx	-.018	2.13
28	MP4C	X	-35.533	4.12
29	MP4C	Z	-20.515	4.12
30	MP4C	Mx	-.018	4.12
31	MP1A	X	-131.61	1.5
32	MP1A	Z	-75.985	1.5
33	MP1A	Mx	.066	1.5
34	MP1A	X	-131.61	4.75
35	MP1A	Z	-75.985	4.75
36	MP1A	Mx	.066	4.75
37	MP1C	X	-131.61	1.5
38	MP1C	Z	-75.985	1.5
39	MP1C	Mx	-.066	1.5
40	MP1C	X	-131.61	4.75
41	MP1C	Z	-75.985	4.75
42	MP1C	Mx	-.066	4.75
43	MP2A	X	-131.61	1.5
44	MP2A	Z	-75.985	1.5
45	MP2A	Mx	.066	1.5
46	MP2A	X	-131.61	4.75
47	MP2A	Z	-75.985	4.75
48	MP2A	Mx	.066	4.75
49	MP2C	X	-131.61	1.5
50	MP2C	Z	-75.985	1.5
51	MP2C	Mx	-.066	1.5
52	MP2C	X	-131.61	4.75
53	MP2C	Z	-75.985	4.75
54	MP2C	Mx	-.066	4.75
55	MP3A	X	-131.61	1.5
56	MP3A	Z	-75.985	1.5
57	MP3A	Mx	.066	1.5
58	MP3A	X	-131.61	4.75
59	MP3A	Z	-75.985	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
60	MP3A	Mx	.066	4.75
61	MP3C	X	-131.61	1.5
62	MP3C	Z	-75.985	1.5
63	MP3C	Mx	-.066	1.5
64	MP3C	X	-131.61	4.75
65	MP3C	Z	-75.985	4.75
66	MP3C	Mx	-.066	4.75
67	MP3B	X	-153.946	1.5
68	MP3B	Z	-88.881	1.5
69	MP3B	Mx	.044	1.5
70	MP3B	X	-153.946	4.75
71	MP3B	Z	-88.881	4.75
72	MP3B	Mx	.044	4.75
73	MP2A	X	-41.641	2
74	MP2A	Z	-24.041	2
75	MP2A	Mx	-.014	2
76	MP2C	X	-41.641	2
77	MP2C	Z	-24.041	2
78	MP2C	Mx	.014	2
79	MP3D	X	-49.844	2
80	MP3D	Z	-28.778	2
81	MP3D	Mx	-.01	2
82	MP2D	X	-49.844	2
83	MP2D	Z	-28.778	2
84	MP2D	Mx	-.01	2
85	MP1D	X	-28.276	2
86	MP1D	Z	-16.325	2
87	MP1D	Mx	-.008	2
88	M515	X	-24.384	10
89	M515	Z	-14.078	10
90	M515	Mx	-.009	10
91	MATSING-1	X	-62.796	2.38
92	MATSING-1	Z	-36.255	2.38
93	MATSING-1	Mx	.03	2.38
94	MATSING-1	X	-62.796	3.88
95	MATSING-1	Z	-36.255	3.88
96	MATSING-1	Mx	.03	3.88
97	MP2B	X	-62.796	2.38
98	MP2B	Z	-36.255	2.38
99	MP2B	Mx	.03	2.38
100	MP2B	X	-62.796	3.88
101	MP2B	Z	-36.255	3.88
102	MP2B	Mx	.03	3.88
103	MP2B	X	-57.602	1.5
104	MP2B	Z	-33.256	1.5
105	MP2B	Mx	.047	1.5
106	MP2B	X	-57.602	4.75
107	MP2B	Z	-33.256	4.75
108	MP2B	Mx	.047	4.75
109	MP2B	X	-57.602	6.8
110	MP2B	Z	-33.256	6.8
111	MP2B	Mx	.047	6.8
112	MATSING-1	X	-57.602	4.75
113	MATSING-1	Z	-33.256	4.75
114	MATSING-1	Mx	-.011	4.75
115	M575	X	-101.864	1
116	M575	Z	-58.811	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location(ft.%)
1	MP1B	X	-22.497	2
2	MP1B	Z	-38.966	2
3	MP1B	Mx	-.013	2
4	MP2B	X	-22.497	3
5	MP2B	Z	-38.966	3
6	MP2B	Mx	-.013	3
7	MP3A	X	-28.778	2
8	MP3A	Z	-49.844	2
9	MP3A	Mx	-.01	2
10	MP3B	X	-22.497	2
11	MP3B	Z	-38.966	2
12	MP3B	Mx	-.013	2
13	MP3C	X	-28.778	2
14	MP3C	Z	-49.844	2
15	MP3C	Mx	.01	2
16	OVP	X	-64.805	1
17	OVP	Z	-112.246	1
18	OVP	Mx	0	1
19	MP4A	X	-33.745	2.13
20	MP4A	Z	-58.449	2.13
21	MP4A	Mx	.017	2.13
22	MP4A	X	-33.745	4.12
23	MP4A	Z	-58.449	4.12
24	MP4A	Mx	.017	4.12
25	MP4C	X	-33.745	2.13
26	MP4C	Z	-58.449	2.13
27	MP4C	Mx	-.017	2.13
28	MP4C	X	-33.745	4.12
29	MP4C	Z	-58.449	4.12
30	MP4C	Mx	-.017	4.12
31	MP1A	X	-109.55	1.5
32	MP1A	Z	-189.747	1.5
33	MP1A	Mx	.055	1.5
34	MP1A	X	-109.55	4.75
35	MP1A	Z	-189.747	4.75
36	MP1A	Mx	.055	4.75
37	MP1C	X	-109.55	1.5
38	MP1C	Z	-189.747	1.5
39	MP1C	Mx	-.055	1.5
40	MP1C	X	-109.55	4.75
41	MP1C	Z	-189.747	4.75
42	MP1C	Mx	-.055	4.75
43	MP2A	X	-109.55	1.5
44	MP2A	Z	-189.747	1.5
45	MP2A	Mx	.055	1.5
46	MP2A	X	-109.55	4.75
47	MP2A	Z	-189.747	4.75
48	MP2A	Mx	.055	4.75
49	MP2C	X	-109.55	1.5
50	MP2C	Z	-189.747	1.5
51	MP2C	Mx	-.055	1.5
52	MP2C	X	-109.55	4.75
53	MP2C	Z	-189.747	4.75
54	MP2C	Mx	-.055	4.75
55	MP3A	X	-109.55	1.5
56	MP3A	Z	-189.747	1.5
57	MP3A	Mx	.055	1.5
58	MP3A	X	-109.55	4.75
59	MP3A	Z	-189.747	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
60	MP3A	Mx	.055	4.75
61	MP3C	X	-109.55	1.5
62	MP3C	Z	-189.747	1.5
63	MP3C	Mx	-.055	1.5
64	MP3C	X	-109.55	4.75
65	MP3C	Z	-189.747	4.75
66	MP3C	Mx	-.055	4.75
67	MP3B	X	-44.865	1.5
68	MP3B	Z	-77.709	1.5
69	MP3B	Mx	.039	1.5
70	MP3B	X	-44.865	4.75
71	MP3B	Z	-77.709	4.75
72	MP3B	Mx	.039	4.75
73	MP2A	X	-29.292	2
74	MP2A	Z	-50.736	2
75	MP2A	Mx	-.01	2
76	MP2C	X	-29.292	2
77	MP2C	Z	-50.736	2
78	MP2C	Mx	.01	2
79	MP3D	X	-22.497	2
80	MP3D	Z	-38.966	2
81	MP3D	Mx	-.013	2
82	MP2D	X	-22.497	2
83	MP2D	Z	-38.966	2
84	MP2D	Mx	-.013	2
85	MP1D	X	-9.439	2
86	MP1D	Z	-16.349	2
87	MP1D	Mx	-.008	2
88	M515	X	-19.353	10
89	M515	Z	-33.521	10
90	M515	Mx	-.003	10
91	MATSING-1	X	-42.87	2.38
92	MATSING-1	Z	-74.254	2.38
93	MATSING-1	Mx	.062	2.38
94	MATSING-1	X	-42.87	3.88
95	MATSING-1	Z	-74.254	3.88
96	MATSING-1	Mx	.062	3.88
97	MP2B	X	-42.87	2.38
98	MP2B	Z	-74.254	2.38
99	MP2B	Mx	.062	2.38
100	MP2B	X	-42.87	3.88
101	MP2B	Z	-74.254	3.88
102	MP2B	Mx	.062	3.88
103	MP2B	X	-22.754	1.5
104	MP2B	Z	-39.412	1.5
105	MP2B	Mx	.01	1.5
106	MP2B	X	-22.754	4.75
107	MP2B	Z	-39.412	4.75
108	MP2B	Mx	.01	4.75
109	MP2B	X	-22.754	6.8
110	MP2B	Z	-39.412	6.8
111	MP2B	Mx	.01	6.8
112	MATSING-1	X	-22.754	4.75
113	MATSING-1	Z	-39.412	4.75
114	MATSING-1	Mx	-.013	4.75
115	M575	X	-64.805	1
116	M575	Z	-112.246	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
1	MP1B	X	0	2
2	MP1B	Z	-11.395	2
3	MP1B	Mx	-.004	2
4	MP2B	X	0	3
5	MP2B	Z	-11.395	3
6	MP2B	Mx	-.004	3
7	MP3A	X	0	2
8	MP3A	Z	-17.368	2
9	MP3A	Mx	0	2
10	MP3B	X	0	2
11	MP3B	Z	-11.395	2
12	MP3B	Mx	-.004	2
13	MP3C	X	0	2
14	MP3C	Z	-17.368	2
15	MP3C	Mx	0	2
16	OVP	X	0	1
17	OVP	Z	-34.005	1
18	OVP	Mx	0	1
19	MP4A	X	0	2.13
20	MP4A	Z	-20.073	2.13
21	MP4A	Mx	0	2.13
22	MP4A	X	0	4.12
23	MP4A	Z	-20.073	4.12
24	MP4A	Mx	0	4.12
25	MP4C	X	0	2.13
26	MP4C	Z	-20.073	2.13
27	MP4C	Mx	0	2.13
28	MP4C	X	0	4.12
29	MP4C	Z	-20.073	4.12
30	MP4C	Mx	0	4.12
31	MP1A	X	0	1.5
32	MP1A	Z	-49.024	1.5
33	MP1A	Mx	0	1.5
34	MP1A	X	0	4.75
35	MP1A	Z	-49.024	4.75
36	MP1A	Mx	0	4.75
37	MP1C	X	0	1.5
38	MP1C	Z	-49.024	1.5
39	MP1C	Mx	0	1.5
40	MP1C	X	0	4.75
41	MP1C	Z	-49.024	4.75
42	MP1C	Mx	0	4.75
43	MP2A	X	0	1.5
44	MP2A	Z	-49.024	1.5
45	MP2A	Mx	0	1.5
46	MP2A	X	0	4.75
47	MP2A	Z	-49.024	4.75
48	MP2A	Mx	0	4.75
49	MP2C	X	0	1.5
50	MP2C	Z	-49.024	1.5
51	MP2C	Mx	0	1.5
52	MP2C	X	0	4.75
53	MP2C	Z	-49.024	4.75
54	MP2C	Mx	0	4.75
55	MP3A	X	0	1.5
56	MP3A	Z	-49.024	1.5
57	MP3A	Mx	0	1.5
58	MP3A	X	0	4.75
59	MP3A	Z	-49.024	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft. %)
60	MP3A	Mx	0	4.75
61	MP3C	X	0	1.5
62	MP3C	Z	-49.024	1.5
63	MP3C	Mx	0	1.5
64	MP3C	X	0	4.75
65	MP3C	Z	-49.024	4.75
66	MP3C	Mx	0	4.75
67	MP3B	X	0	1.5
68	MP3B	Z	-23.24	1.5
69	MP3B	Mx	.012	1.5
70	MP3B	X	0	4.75
71	MP3B	Z	-23.24	4.75
72	MP3B	Mx	.012	4.75
73	MP2A	X	0	2
74	MP2A	Z	-17.368	2
75	MP2A	Mx	0	2
76	MP2C	X	0	2
77	MP2C	Z	-17.368	2
78	MP2C	Mx	0	2
79	MP3D	X	0	2
80	MP3D	Z	-11.395	2
81	MP3D	Mx	-.004	2
82	MP2D	X	0	2
83	MP2D	Z	-11.395	2
84	MP2D	Mx	-.004	2
85	MP1D	X	0	2
86	MP1D	Z	-4.062	2
87	MP1D	Mx	-.002	2
88	M515	X	0	10
89	M515	Z	-9.162	10
90	M515	Mx	.002	10
91	MATSING-1	X	0	2.38
92	MATSING-1	Z	-19.005	2.38
93	MATSING-1	Mx	.016	2.38
94	MATSING-1	X	0	3.88
95	MATSING-1	Z	-19.005	3.88
96	MATSING-1	Mx	.016	3.88
97	MP2B	X	0	2.38
98	MP2B	Z	-19.005	2.38
99	MP2B	Mx	.016	2.38
100	MP2B	X	0	3.88
101	MP2B	Z	-19.005	3.88
102	MP2B	Mx	.016	3.88
103	MP2B	X	0	1.5
104	MP2B	Z	-9.067	1.5
105	MP2B	Mx	-.003	1.5
106	MP2B	X	0	4.75
107	MP2B	Z	-9.067	4.75
108	MP2B	Mx	-.003	4.75
109	MP2B	X	0	6.8
110	MP2B	Z	-9.067	6.8
111	MP2B	Mx	-.003	6.8
112	MATSING-1	X	0	4.75
113	MATSING-1	Z	-9.067	4.75
114	MATSING-1	Mx	-.003	4.75
115	M575	X	0	1
116	M575	Z	-34.005	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	6.444	2
2	MP1B	Z	-11.162	2
3	MP1B	Mx	-.004	2
4	MP2B	X	6.444	3
5	MP2B	Z	-11.162	3
6	MP2B	Mx	-.004	3
7	MP3A	X	7.937	2
8	MP3A	Z	-13.748	2
9	MP3A	Mx	.003	2
10	MP3B	X	6.444	2
11	MP3B	Z	-11.162	2
12	MP3B	Mx	-.004	2
13	MP3C	X	7.937	2
14	MP3C	Z	-13.748	2
15	MP3C	Mx	-.003	2
16	OVP	X	15.283	1
17	OVP	Z	-26.472	1
18	OVP	Mx	0	1
19	MP4A	X	8.64	2.13
20	MP4A	Z	-14.965	2.13
21	MP4A	Mx	-.004	2.13
22	MP4A	X	8.64	4.12
23	MP4A	Z	-14.965	4.12
24	MP4A	Mx	-.004	4.12
25	MP4C	X	8.64	2.13
26	MP4C	Z	-14.965	2.13
27	MP4C	Mx	.004	2.13
28	MP4C	X	8.64	4.12
29	MP4C	Z	-14.965	4.12
30	MP4C	Mx	.004	4.12
31	MP1A	X	21.502	1.5
32	MP1A	Z	-37.243	1.5
33	MP1A	Mx	-.011	1.5
34	MP1A	X	21.502	4.75
35	MP1A	Z	-37.243	4.75
36	MP1A	Mx	-.011	4.75
37	MP1C	X	21.502	1.5
38	MP1C	Z	-37.243	1.5
39	MP1C	Mx	.011	1.5
40	MP1C	X	21.502	4.75
41	MP1C	Z	-37.243	4.75
42	MP1C	Mx	.011	4.75
43	MP2A	X	21.502	1.5
44	MP2A	Z	-37.243	1.5
45	MP2A	Mx	-.011	1.5
46	MP2A	X	21.502	4.75
47	MP2A	Z	-37.243	4.75
48	MP2A	Mx	-.011	4.75
49	MP2C	X	21.502	1.5
50	MP2C	Z	-37.243	1.5
51	MP2C	Mx	.011	1.5
52	MP2C	X	21.502	4.75
53	MP2C	Z	-37.243	4.75
54	MP2C	Mx	.011	4.75
55	MP3A	X	21.502	1.5
56	MP3A	Z	-37.243	1.5
57	MP3A	Mx	-.011	1.5
58	MP3A	X	21.502	4.75
59	MP3A	Z	-37.243	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
60	MP3A	Mx	-.011	4.75
61	MP3C	X	21.502	1.5
62	MP3C	Z	-37.243	1.5
63	MP3C	Mx	.011	1.5
64	MP3C	X	21.502	4.75
65	MP3C	Z	-37.243	4.75
66	MP3C	Mx	.011	4.75
67	MP3B	X	14.439	1.5
68	MP3B	Z	-25.009	1.5
69	MP3B	Mx	.013	1.5
70	MP3B	X	14.439	4.75
71	MP3B	Z	-25.009	4.75
72	MP3B	Mx	.013	4.75
73	MP2A	X	8.051	2
74	MP2A	Z	-13.945	2
75	MP2A	Mx	.003	2
76	MP2C	X	8.051	2
77	MP2C	Z	-13.945	2
78	MP2C	Mx	-.003	2
79	MP3D	X	6.444	2
80	MP3D	Z	-11.162	2
81	MP3D	Mx	-.004	2
82	MP2D	X	6.444	2
83	MP2D	Z	-11.162	2
84	MP2D	Mx	-.004	2
85	MP1D	X	2.753	2
86	MP1D	Z	-4.768	2
87	MP1D	Mx	-.002	2
88	M515	X	3.224	10
89	M515	Z	-5.584	10
90	M515	Mx	.002	10
91	MATSING-1	X	8.52	2.38
92	MATSING-1	Z	-14.757	2.38
93	MATSING-1	Mx	.012	2.38
94	MATSING-1	X	8.52	3.88
95	MATSING-1	Z	-14.757	3.88
96	MATSING-1	Mx	.012	3.88
97	MP2B	X	8.52	2.38
98	MP2B	Z	-14.757	2.38
99	MP2B	Mx	.012	2.38
100	MP2B	X	8.52	3.88
101	MP2B	Z	-14.757	3.88
102	MP2B	Mx	.012	3.88
103	MP2B	X	5.571	1.5
104	MP2B	Z	-9.649	1.5
105	MP2B	Mx	-.009	1.5
106	MP2B	X	5.571	4.75
107	MP2B	Z	-9.649	4.75
108	MP2B	Mx	-.009	4.75
109	MP2B	X	5.571	6.8
110	MP2B	Z	-9.649	6.8
111	MP2B	Mx	-.009	6.8
112	MATSING-1	X	5.571	4.75
113	MATSING-1	Z	-9.649	4.75
114	MATSING-1	Mx	-.003	4.75
115	M575	X	15.283	1
116	M575	Z	-26.472	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	13.748	2
2	MP1B	Z	-7.937	2
3	MP1B	Mx	-.003	2
4	MP2B	X	13.748	3
5	MP2B	Z	-7.937	3
6	MP2B	Mx	-.003	3
7	MP3A	X	11.162	2
8	MP3A	Z	-6.444	2
9	MP3A	Mx	.004	2
10	MP3B	X	13.748	2
11	MP3B	Z	-7.937	2
12	MP3B	Mx	-.003	2
13	MP3C	X	11.162	2
14	MP3C	Z	-6.444	2
15	MP3C	Mx	-.004	2
16	OVP	X	24.044	1
17	OVP	Z	-13.882	1
18	OVP	Mx	0	1
19	MP4A	X	10.126	2.13
20	MP4A	Z	-5.846	2.13
21	MP4A	Mx	-.005	2.13
22	MP4A	X	10.126	4.12
23	MP4A	Z	-5.846	4.12
24	MP4A	Mx	-.005	4.12
25	MP4C	X	10.126	2.13
26	MP4C	Z	-5.846	2.13
27	MP4C	Mx	.005	2.13
28	MP4C	X	10.126	4.12
29	MP4C	Z	-5.846	4.12
30	MP4C	Mx	.005	4.12
31	MP1A	X	26.816	1.5
32	MP1A	Z	-15.482	1.5
33	MP1A	Mx	-.013	1.5
34	MP1A	X	26.816	4.75
35	MP1A	Z	-15.482	4.75
36	MP1A	Mx	-.013	4.75
37	MP1C	X	26.816	1.5
38	MP1C	Z	-15.482	1.5
39	MP1C	Mx	.013	1.5
40	MP1C	X	26.816	4.75
41	MP1C	Z	-15.482	4.75
42	MP1C	Mx	.013	4.75
43	MP2A	X	26.816	1.5
44	MP2A	Z	-15.482	1.5
45	MP2A	Mx	-.013	1.5
46	MP2A	X	26.816	4.75
47	MP2A	Z	-15.482	4.75
48	MP2A	Mx	-.013	4.75
49	MP2C	X	26.816	1.5
50	MP2C	Z	-15.482	1.5
51	MP2C	Mx	.013	1.5
52	MP2C	X	26.816	4.75
53	MP2C	Z	-15.482	4.75
54	MP2C	Mx	.013	4.75
55	MP3A	X	26.816	1.5
56	MP3A	Z	-15.482	1.5
57	MP3A	Mx	-.013	1.5
58	MP3A	X	26.816	4.75
59	MP3A	Z	-15.482	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
60	MP3A	Mx	-.013	4.75
61	MP3C	X	26.816	1.5
62	MP3C	Z	-15.482	1.5
63	MP3C	Mx	.013	1.5
64	MP3C	X	26.816	4.75
65	MP3C	Z	-15.482	4.75
66	MP3C	Mx	.013	4.75
67	MP3B	X	34.773	1.5
68	MP3B	Z	-20.076	1.5
69	MP3B	Mx	.01	1.5
70	MP3B	X	34.773	4.75
71	MP3B	Z	-20.076	4.75
72	MP3B	Mx	.01	4.75
73	MP2A	X	11.753	2
74	MP2A	Z	-6.786	2
75	MP2A	Mx	.004	2
76	MP2C	X	11.753	2
77	MP2C	Z	-6.786	2
78	MP2C	Mx	-.004	2
79	MP3D	X	13.748	2
80	MP3D	Z	-7.937	2
81	MP3D	Mx	-.003	2
82	MP2D	X	13.748	2
83	MP2D	Z	-7.937	2
84	MP2D	Mx	-.003	2
85	MP1D	X	7.269	2
86	MP1D	Z	-4.197	2
87	MP1D	Mx	-.002	2
88	M515	X	3.668	10
89	M515	Z	-2.118	10
90	M515	Mx	.002	10
91	MATSING-1	X	11.352	2.38
92	MATSING-1	Z	-6.554	2.38
93	MATSING-1	Mx	.005	2.38
94	MATSING-1	X	11.352	3.88
95	MATSING-1	Z	-6.554	3.88
96	MATSING-1	Mx	.005	3.88
97	MP2B	X	11.352	2.38
98	MP2B	Z	-6.554	2.38
99	MP2B	Mx	.005	2.38
100	MP2B	X	11.352	3.88
101	MP2B	Z	-6.554	3.88
102	MP2B	Mx	.005	3.88
103	MP2B	X	13.244	1.5
104	MP2B	Z	-7.646	1.5
105	MP2B	Mx	-.016	1.5
106	MP2B	X	13.244	4.75
107	MP2B	Z	-7.646	4.75
108	MP2B	Mx	-.016	4.75
109	MP2B	X	13.244	6.8
110	MP2B	Z	-7.646	6.8
111	MP2B	Mx	-.016	6.8
112	MATSING-1	X	13.244	4.75
113	MATSING-1	Z	-7.646	4.75
114	MATSING-1	Mx	-.003	4.75
115	M575	X	24.044	1
116	M575	Z	-13.882	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	17.368	2
2	MP1B	Z	0	2
3	MP1B	Mx	0	2
4	MP2B	X	17.368	3
5	MP2B	Z	0	3
6	MP2B	Mx	0	3
7	MP3A	X	11.395	2
8	MP3A	Z	0	2
9	MP3A	Mx	.004	2
10	MP3B	X	17.368	2
11	MP3B	Z	0	2
12	MP3B	Mx	0	2
13	MP3C	X	11.395	2
14	MP3C	Z	0	2
15	MP3C	Mx	-.004	2
16	OVP	X	28.399	1
17	OVP	Z	0	1
18	OVP	Mx	0	1
19	MP4A	X	8.899	2.13
20	MP4A	Z	0	2.13
21	MP4A	Mx	-.004	2.13
22	MP4A	X	8.899	4.12
23	MP4A	Z	0	4.12
24	MP4A	Mx	-.004	4.12
25	MP4C	X	8.899	2.13
26	MP4C	Z	0	2.13
27	MP4C	Mx	.004	2.13
28	MP4C	X	8.899	4.12
29	MP4C	Z	0	4.12
30	MP4C	Mx	.004	4.12
31	MP1A	X	24.945	1.5
32	MP1A	Z	0	1.5
33	MP1A	Mx	-.012	1.5
34	MP1A	X	24.945	4.75
35	MP1A	Z	0	4.75
36	MP1A	Mx	-.012	4.75
37	MP1C	X	24.945	1.5
38	MP1C	Z	0	1.5
39	MP1C	Mx	.012	1.5
40	MP1C	X	24.945	4.75
41	MP1C	Z	0	4.75
42	MP1C	Mx	.012	4.75
43	MP2A	X	24.945	1.5
44	MP2A	Z	0	1.5
45	MP2A	Mx	-.012	1.5
46	MP2A	X	24.945	4.75
47	MP2A	Z	0	4.75
48	MP2A	Mx	-.012	4.75
49	MP2C	X	24.945	1.5
50	MP2C	Z	0	1.5
51	MP2C	Mx	.012	1.5
52	MP2C	X	24.945	4.75
53	MP2C	Z	0	4.75
54	MP2C	Mx	.012	4.75
55	MP3A	X	24.945	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	-.012	1.5
58	MP3A	X	24.945	4.75
59	MP3A	Z	0	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
60	MP3A	Mx	-.012	4.75
61	MP3C	X	24.945	1.5
62	MP3C	Z	0	1.5
63	MP3C	Mx	.012	1.5
64	MP3C	X	24.945	4.75
65	MP3C	Z	0	4.75
66	MP3C	Mx	.012	4.75
67	MP3B	X	45.789	1.5
68	MP3B	Z	0	1.5
69	MP3B	Mx	0	1.5
70	MP3B	X	45.789	4.75
71	MP3B	Z	0	4.75
72	MP3B	Mx	0	4.75
73	MP2A	X	12.306	2
74	MP2A	Z	0	2
75	MP2A	Mx	.004	2
76	MP2C	X	12.306	2
77	MP2C	Z	0	2
78	MP2C	Mx	-.004	2
79	MP3D	X	17.368	2
80	MP3D	Z	0	2
81	MP3D	Mx	0	2
82	MP2D	X	17.368	2
83	MP2D	Z	0	2
84	MP2D	Mx	0	2
85	MP1D	X	9.838	2
86	MP1D	Z	0	2
87	MP1D	Mx	0	2
88	M515	X	4.737	10
89	M515	Z	0	10
90	M515	Mx	.002	10
91	MATSING-1	X	11.143	2.38
92	MATSING-1	Z	0	2.38
93	MATSING-1	Mx	0	2.38
94	MATSING-1	X	11.143	3.88
95	MATSING-1	Z	0	3.88
96	MATSING-1	Mx	0	3.88
97	MP2B	X	11.143	2.38
98	MP2B	Z	0	2.38
99	MP2B	Mx	0	2.38
100	MP2B	X	11.143	3.88
101	MP2B	Z	0	3.88
102	MP2B	Mx	0	3.88
103	MP2B	X	17.368	1.5
104	MP2B	Z	0	1.5
105	MP2B	Mx	-.017	1.5
106	MP2B	X	17.368	4.75
107	MP2B	Z	0	4.75
108	MP2B	Mx	-.017	4.75
109	MP2B	X	17.368	6.8
110	MP2B	Z	0	6.8
111	MP2B	Mx	-.017	6.8
112	MATSING-1	X	17.368	4.75
113	MATSING-1	Z	0	4.75
114	MATSING-1	Mx	0	4.75
115	M575	X	28.399	1
116	M575	Z	0	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	13.748	2
2	MP1B	Z	7.937	2
3	MP1B	Mx	.003	2
4	MP2B	X	13.748	3
5	MP2B	Z	7.937	3
6	MP2B	Mx	.003	3
7	MP3A	X	11.162	2
8	MP3A	Z	6.444	2
9	MP3A	Mx	.004	2
10	MP3B	X	13.748	2
11	MP3B	Z	7.937	2
12	MP3B	Mx	.003	2
13	MP3C	X	11.162	2
14	MP3C	Z	6.444	2
15	MP3C	Mx	-.004	2
16	OVP	X	27.572	1
17	OVP	Z	15.919	1
18	OVP	Mx	0	1
19	MP4A	X	10.126	2.13
20	MP4A	Z	5.846	2.13
21	MP4A	Mx	-.005	2.13
22	MP4A	X	10.126	4.12
23	MP4A	Z	5.846	4.12
24	MP4A	Mx	-.005	4.12
25	MP4C	X	10.126	2.13
26	MP4C	Z	5.846	2.13
27	MP4C	Mx	.005	2.13
28	MP4C	X	10.126	4.12
29	MP4C	Z	5.846	4.12
30	MP4C	Mx	.005	4.12
31	MP1A	X	26.816	1.5
32	MP1A	Z	15.482	1.5
33	MP1A	Mx	-.013	1.5
34	MP1A	X	26.816	4.75
35	MP1A	Z	15.482	4.75
36	MP1A	Mx	-.013	4.75
37	MP1C	X	26.816	1.5
38	MP1C	Z	15.482	1.5
39	MP1C	Mx	.013	1.5
40	MP1C	X	26.816	4.75
41	MP1C	Z	15.482	4.75
42	MP1C	Mx	.013	4.75
43	MP2A	X	26.816	1.5
44	MP2A	Z	15.482	1.5
45	MP2A	Mx	-.013	1.5
46	MP2A	X	26.816	4.75
47	MP2A	Z	15.482	4.75
48	MP2A	Mx	-.013	4.75
49	MP2C	X	26.816	1.5
50	MP2C	Z	15.482	1.5
51	MP2C	Mx	.013	1.5
52	MP2C	X	26.816	4.75
53	MP2C	Z	15.482	4.75
54	MP2C	Mx	.013	4.75
55	MP3A	X	26.816	1.5
56	MP3A	Z	15.482	1.5
57	MP3A	Mx	-.013	1.5
58	MP3A	X	26.816	4.75
59	MP3A	Z	15.482	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
60	MP3A	Mx	-.013	4.75
61	MP3C	X	26.816	1.5
62	MP3C	Z	15.482	1.5
63	MP3C	Mx	.013	1.5
64	MP3C	X	26.816	4.75
65	MP3C	Z	15.482	4.75
66	MP3C	Mx	.013	4.75
67	MP3B	X	34.773	1.5
68	MP3B	Z	20.076	1.5
69	MP3B	Mx	-.01	1.5
70	MP3B	X	34.773	4.75
71	MP3B	Z	20.076	4.75
72	MP3B	Mx	-.01	4.75
73	MP2A	X	11.753	2
74	MP2A	Z	6.786	2
75	MP2A	Mx	.004	2
76	MP2C	X	11.753	2
77	MP2C	Z	6.786	2
78	MP2C	Mx	-.004	2
79	MP3D	X	13.748	2
80	MP3D	Z	7.937	2
81	MP3D	Mx	.003	2
82	MP2D	X	13.748	2
83	MP2D	Z	7.937	2
84	MP2D	Mx	.003	2
85	MP1D	X	7.269	2
86	MP1D	Z	4.197	2
87	MP1D	Mx	.002	2
88	M515	X	6.453	10
89	M515	Z	3.726	10
90	M515	Mx	.002	10
91	MATSING-1	X	11.352	2.38
92	MATSING-1	Z	6.554	2.38
93	MATSING-1	Mx	-.005	2.38
94	MATSING-1	X	11.352	3.88
95	MATSING-1	Z	6.554	3.88
96	MATSING-1	Mx	-.005	3.88
97	MP2B	X	11.352	2.38
98	MP2B	Z	6.554	2.38
99	MP2B	Mx	-.005	2.38
100	MP2B	X	11.352	3.88
101	MP2B	Z	6.554	3.88
102	MP2B	Mx	-.005	3.88
103	MP2B	X	13.244	1.5
104	MP2B	Z	7.646	1.5
105	MP2B	Mx	-.011	1.5
106	MP2B	X	13.244	4.75
107	MP2B	Z	7.646	4.75
108	MP2B	Mx	-.011	4.75
109	MP2B	X	13.244	6.8
110	MP2B	Z	7.646	6.8
111	MP2B	Mx	-.011	6.8
112	MATSING-1	X	13.244	4.75
113	MATSING-1	Z	7.646	4.75
114	MATSING-1	Mx	.003	4.75
115	M575	X	27.572	1
116	M575	Z	15.919	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

Feb 8, 2024
 3:42 PM
 Checked By: PMA

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location(ft.%)
1	MP1B	X	6.444	2
2	MP1B	Z	11.162	2
3	MP1B	Mx	.004	2
4	MP2B	X	6.444	3
5	MP2B	Z	11.162	3
6	MP2B	Mx	.004	3
7	MP3A	X	7.937	2
8	MP3A	Z	13.748	2
9	MP3A	Mx	.003	2
10	MP3B	X	6.444	2
11	MP3B	Z	11.162	2
12	MP3B	Mx	.004	2
13	MP3C	X	7.937	2
14	MP3C	Z	13.748	2
15	MP3C	Mx	-.003	2
16	OVP	X	17.32	1
17	OVP	Z	29.999	1
18	OVP	Mx	0	1
19	MP4A	X	8.64	2.13
20	MP4A	Z	14.965	2.13
21	MP4A	Mx	-.004	2.13
22	MP4A	X	8.64	4.12
23	MP4A	Z	14.965	4.12
24	MP4A	Mx	-.004	4.12
25	MP4C	X	8.64	2.13
26	MP4C	Z	14.965	2.13
27	MP4C	Mx	.004	2.13
28	MP4C	X	8.64	4.12
29	MP4C	Z	14.965	4.12
30	MP4C	Mx	.004	4.12
31	MP1A	X	21.502	1.5
32	MP1A	Z	37.243	1.5
33	MP1A	Mx	-.011	1.5
34	MP1A	X	21.502	4.75
35	MP1A	Z	37.243	4.75
36	MP1A	Mx	-.011	4.75
37	MP1C	X	21.502	1.5
38	MP1C	Z	37.243	1.5
39	MP1C	Mx	.011	1.5
40	MP1C	X	21.502	4.75
41	MP1C	Z	37.243	4.75
42	MP1C	Mx	.011	4.75
43	MP2A	X	21.502	1.5
44	MP2A	Z	37.243	1.5
45	MP2A	Mx	-.011	1.5
46	MP2A	X	21.502	4.75
47	MP2A	Z	37.243	4.75
48	MP2A	Mx	-.011	4.75
49	MP2C	X	21.502	1.5
50	MP2C	Z	37.243	1.5
51	MP2C	Mx	.011	1.5
52	MP2C	X	21.502	4.75
53	MP2C	Z	37.243	4.75
54	MP2C	Mx	.011	4.75
55	MP3A	X	21.502	1.5
56	MP3A	Z	37.243	1.5
57	MP3A	Mx	-.011	1.5
58	MP3A	X	21.502	4.75
59	MP3A	Z	37.243	4.75



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

	Member Label	Direction	Magnitude(lb. k-ft)	Location(ft. %)
60	MP3A	Mx	-.011	4.75
61	MP3C	X	21.502	1.5
62	MP3C	Z	37.243	1.5
63	MP3C	Mx	.011	1.5
64	MP3C	X	21.502	4.75
65	MP3C	Z	37.243	4.75
66	MP3C	Mx	.011	4.75
67	MP3B	X	14.439	1.5
68	MP3B	Z	25.009	1.5
69	MP3B	Mx	-.013	1.5
70	MP3B	X	14.439	4.75
71	MP3B	Z	25.009	4.75
72	MP3B	Mx	-.013	4.75
73	MP2A	X	8.051	2
74	MP2A	Z	13.945	2
75	MP2A	Mx	.003	2
76	MP2C	X	8.051	2
77	MP2C	Z	13.945	2
78	MP2C	Mx	-.003	2
79	MP3D	X	6.444	2
80	MP3D	Z	11.162	2
81	MP3D	Mx	.004	2
82	MP2D	X	6.444	2
83	MP2D	Z	11.162	2
84	MP2D	Mx	.004	2
85	MP1D	X	2.753	2
86	MP1D	Z	4.768	2
87	MP1D	Mx	.002	2
88	M515	X	4.832	10
89	M515	Z	8.369	10
90	M515	Mx	.000839	10
91	MATSING-1	X	8.52	2.38
92	MATSING-1	Z	14.757	2.38
93	MATSING-1	Mx	-.012	2.38
94	MATSING-1	X	8.52	3.88
95	MATSING-1	Z	14.757	3.88
96	MATSING-1	Mx	-.012	3.88
97	MP2B	X	8.52	2.38
98	MP2B	Z	14.757	2.38
99	MP2B	Mx	-.012	2.38
100	MP2B	X	8.52	3.88
101	MP2B	Z	14.757	3.88
102	MP2B	Mx	-.012	3.88
103	MP2B	X	5.571	1.5
104	MP2B	Z	9.649	1.5
105	MP2B	Mx	-.002	1.5
106	MP2B	X	5.571	4.75
107	MP2B	Z	9.649	4.75
108	MP2B	Mx	-.002	4.75
109	MP2B	X	5.571	6.8
110	MP2B	Z	9.649	6.8
111	MP2B	Mx	-.002	6.8
112	MATSING-1	X	5.571	4.75
113	MATSING-1	Z	9.649	4.75
114	MATSING-1	Mx	.003	4.75
115	M575	X	17.32	1
116	M575	Z	29.999	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1B	X	0	2
2	MP1B	Z	11.395	2
3	MP1B	Mx	.004	2
4	MP2B	X	0	3
5	MP2B	Z	11.395	3
6	MP2B	Mx	.004	3
7	MP3A	X	0	2
8	MP3A	Z	17.368	2
9	MP3A	Mx	0	2
10	MP3B	X	0	2
11	MP3B	Z	11.395	2
12	MP3B	Mx	.004	2
13	MP3C	X	0	2
14	MP3C	Z	17.368	2
15	MP3C	Mx	0	2
16	OVP	X	0	1
17	OVP	Z	34.005	1
18	OVP	Mx	0	1
19	MP4A	X	0	2.13
20	MP4A	Z	20.073	2.13
21	MP4A	Mx	0	2.13
22	MP4A	X	0	4.12
23	MP4A	Z	20.073	4.12
24	MP4A	Mx	0	4.12
25	MP4C	X	0	2.13
26	MP4C	Z	20.073	2.13
27	MP4C	Mx	0	2.13
28	MP4C	X	0	4.12
29	MP4C	Z	20.073	4.12
30	MP4C	Mx	0	4.12
31	MP1A	X	0	1.5
32	MP1A	Z	49.024	1.5
33	MP1A	Mx	0	1.5
34	MP1A	X	0	4.75
35	MP1A	Z	49.024	4.75
36	MP1A	Mx	0	4.75
37	MP1C	X	0	1.5
38	MP1C	Z	49.024	1.5
39	MP1C	Mx	0	1.5
40	MP1C	X	0	4.75
41	MP1C	Z	49.024	4.75
42	MP1C	Mx	0	4.75
43	MP2A	X	0	1.5
44	MP2A	Z	49.024	1.5
45	MP2A	Mx	0	1.5
46	MP2A	X	0	4.75
47	MP2A	Z	49.024	4.75
48	MP2A	Mx	0	4.75
49	MP2C	X	0	1.5
50	MP2C	Z	49.024	1.5
51	MP2C	Mx	0	1.5
52	MP2C	X	0	4.75
53	MP2C	Z	49.024	4.75
54	MP2C	Mx	0	4.75
55	MP3A	X	0	1.5
56	MP3A	Z	49.024	1.5
57	MP3A	Mx	0	1.5
58	MP3A	X	0	4.75
59	MP3A	Z	49.024	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
60	MP3A	Mx	0	4.75
61	MP3C	X	0	1.5
62	MP3C	Z	49.024	1.5
63	MP3C	Mx	0	1.5
64	MP3C	X	0	4.75
65	MP3C	Z	49.024	4.75
66	MP3C	Mx	0	4.75
67	MP3B	X	0	1.5
68	MP3B	Z	23.24	1.5
69	MP3B	Mx	-.012	1.5
70	MP3B	X	0	4.75
71	MP3B	Z	23.24	4.75
72	MP3B	Mx	-.012	4.75
73	MP2A	X	0	2
74	MP2A	Z	17.368	2
75	MP2A	Mx	0	2
76	MP2C	X	0	2
77	MP2C	Z	17.368	2
78	MP2C	Mx	0	2
79	MP3D	X	0	2
80	MP3D	Z	11.395	2
81	MP3D	Mx	.004	2
82	MP2D	X	0	2
83	MP2D	Z	11.395	2
84	MP2D	Mx	.004	2
85	MP1D	X	0	2
86	MP1D	Z	4.062	2
87	MP1D	Mx	.002	2
88	M515	X	0	10
89	M515	Z	9.162	10
90	M515	Mx	-.002	10
91	MATSING-1	X	0	2.38
92	MATSING-1	Z	19.005	2.38
93	MATSING-1	Mx	-.016	2.38
94	MATSING-1	X	0	3.88
95	MATSING-1	Z	19.005	3.88
96	MATSING-1	Mx	-.016	3.88
97	MP2B	X	0	2.38
98	MP2B	Z	19.005	2.38
99	MP2B	Mx	-.016	2.38
100	MP2B	X	0	3.88
101	MP2B	Z	19.005	3.88
102	MP2B	Mx	-.016	3.88
103	MP2B	X	0	1.5
104	MP2B	Z	9.067	1.5
105	MP2B	Mx	.003	1.5
106	MP2B	X	0	4.75
107	MP2B	Z	9.067	4.75
108	MP2B	Mx	.003	4.75
109	MP2B	X	0	6.8
110	MP2B	Z	9.067	6.8
111	MP2B	Mx	.003	6.8
112	MATSING-1	X	0	4.75
113	MATSING-1	Z	9.067	4.75
114	MATSING-1	Mx	.003	4.75
115	M575	X	0	1
116	M575	Z	34.005	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-6.444	2
2	MP1B	Z	11.162	2
3	MP1B	Mx	.004	2
4	MP2B	X	-6.444	3
5	MP2B	Z	11.162	3
6	MP2B	Mx	.004	3
7	MP3A	X	-7.937	2
8	MP3A	Z	13.748	2
9	MP3A	Mx	-.003	2
10	MP3B	X	-6.444	2
11	MP3B	Z	11.162	2
12	MP3B	Mx	.004	2
13	MP3C	X	-7.937	2
14	MP3C	Z	13.748	2
15	MP3C	Mx	.003	2
16	OVP	X	-15.283	1
17	OVP	Z	26.472	1
18	OVP	Mx	0	1
19	MP4A	X	-8.64	2.13
20	MP4A	Z	14.965	2.13
21	MP4A	Mx	.004	2.13
22	MP4A	X	-8.64	4.12
23	MP4A	Z	14.965	4.12
24	MP4A	Mx	.004	4.12
25	MP4C	X	-8.64	2.13
26	MP4C	Z	14.965	2.13
27	MP4C	Mx	-.004	2.13
28	MP4C	X	-8.64	4.12
29	MP4C	Z	14.965	4.12
30	MP4C	Mx	-.004	4.12
31	MP1A	X	-21.502	1.5
32	MP1A	Z	37.243	1.5
33	MP1A	Mx	.011	1.5
34	MP1A	X	-21.502	4.75
35	MP1A	Z	37.243	4.75
36	MP1A	Mx	.011	4.75
37	MP1C	X	-21.502	1.5
38	MP1C	Z	37.243	1.5
39	MP1C	Mx	-.011	1.5
40	MP1C	X	-21.502	4.75
41	MP1C	Z	37.243	4.75
42	MP1C	Mx	-.011	4.75
43	MP2A	X	-21.502	1.5
44	MP2A	Z	37.243	1.5
45	MP2A	Mx	.011	1.5
46	MP2A	X	-21.502	4.75
47	MP2A	Z	37.243	4.75
48	MP2A	Mx	.011	4.75
49	MP2C	X	-21.502	1.5
50	MP2C	Z	37.243	1.5
51	MP2C	Mx	-.011	1.5
52	MP2C	X	-21.502	4.75
53	MP2C	Z	37.243	4.75
54	MP2C	Mx	-.011	4.75
55	MP3A	X	-21.502	1.5
56	MP3A	Z	37.243	1.5
57	MP3A	Mx	.011	1.5
58	MP3A	X	-21.502	4.75
59	MP3A	Z	37.243	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft. %)
60	MP3A	Mx	.011	4.75
61	MP3C	X	-21.502	1.5
62	MP3C	Z	37.243	1.5
63	MP3C	Mx	-.011	1.5
64	MP3C	X	-21.502	4.75
65	MP3C	Z	37.243	4.75
66	MP3C	Mx	-.011	4.75
67	MP3B	X	-14.439	1.5
68	MP3B	Z	25.009	1.5
69	MP3B	Mx	-.013	1.5
70	MP3B	X	-14.439	4.75
71	MP3B	Z	25.009	4.75
72	MP3B	Mx	-.013	4.75
73	MP2A	X	-8.051	2
74	MP2A	Z	13.945	2
75	MP2A	Mx	-.003	2
76	MP2C	X	-8.051	2
77	MP2C	Z	13.945	2
78	MP2C	Mx	.003	2
79	MP3D	X	-6.444	2
80	MP3D	Z	11.162	2
81	MP3D	Mx	.004	2
82	MP2D	X	-6.444	2
83	MP2D	Z	11.162	2
84	MP2D	Mx	.004	2
85	MP1D	X	-2.753	2
86	MP1D	Z	4.768	2
87	MP1D	Mx	.002	2
88	M515	X	-3.224	10
89	M515	Z	5.584	10
90	M515	Mx	-.002	10
91	MATSING-1	X	-8.52	2.38
92	MATSING-1	Z	14.757	2.38
93	MATSING-1	Mx	-.012	2.38
94	MATSING-1	X	-8.52	3.88
95	MATSING-1	Z	14.757	3.88
96	MATSING-1	Mx	-.012	3.88
97	MP2B	X	-8.52	2.38
98	MP2B	Z	14.757	2.38
99	MP2B	Mx	-.012	2.38
100	MP2B	X	-8.52	3.88
101	MP2B	Z	14.757	3.88
102	MP2B	Mx	-.012	3.88
103	MP2B	X	-5.571	1.5
104	MP2B	Z	9.649	1.5
105	MP2B	Mx	.009	1.5
106	MP2B	X	-5.571	4.75
107	MP2B	Z	9.649	4.75
108	MP2B	Mx	.009	4.75
109	MP2B	X	-5.571	6.8
110	MP2B	Z	9.649	6.8
111	MP2B	Mx	.009	6.8
112	MATSING-1	X	-5.571	4.75
113	MATSING-1	Z	9.649	4.75
114	MATSING-1	Mx	.003	4.75
115	M575	X	-15.283	1
116	M575	Z	26.472	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 2377329
 Model Name : Mount Analysis

Feb 8, 2024
 3:42 PM
 Checked By: PMA

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location(ft.%)
1	MP1B	X	-13.748	2
2	MP1B	Z	7.937	2
3	MP1B	Mx	.003	2
4	MP2B	X	-13.748	3
5	MP2B	Z	7.937	3
6	MP2B	Mx	.003	3
7	MP3A	X	-11.162	2
8	MP3A	Z	6.444	2
9	MP3A	Mx	-.004	2
10	MP3B	X	-13.748	2
11	MP3B	Z	7.937	2
12	MP3B	Mx	.003	2
13	MP3C	X	-11.162	2
14	MP3C	Z	6.444	2
15	MP3C	Mx	.004	2
16	OVP	X	-24.044	1
17	OVP	Z	13.882	1
18	OVP	Mx	0	1
19	MP4A	X	-10.126	2.13
20	MP4A	Z	5.846	2.13
21	MP4A	Mx	.005	2.13
22	MP4A	X	-10.126	4.12
23	MP4A	Z	5.846	4.12
24	MP4A	Mx	.005	4.12
25	MP4C	X	-10.126	2.13
26	MP4C	Z	5.846	2.13
27	MP4C	Mx	-.005	2.13
28	MP4C	X	-10.126	4.12
29	MP4C	Z	5.846	4.12
30	MP4C	Mx	-.005	4.12
31	MP1A	X	-26.816	1.5
32	MP1A	Z	15.482	1.5
33	MP1A	Mx	.013	1.5
34	MP1A	X	-26.816	4.75
35	MP1A	Z	15.482	4.75
36	MP1A	Mx	.013	4.75
37	MP1C	X	-26.816	1.5
38	MP1C	Z	15.482	1.5
39	MP1C	Mx	-.013	1.5
40	MP1C	X	-26.816	4.75
41	MP1C	Z	15.482	4.75
42	MP1C	Mx	-.013	4.75
43	MP2A	X	-26.816	1.5
44	MP2A	Z	15.482	1.5
45	MP2A	Mx	.013	1.5
46	MP2A	X	-26.816	4.75
47	MP2A	Z	15.482	4.75
48	MP2A	Mx	.013	4.75
49	MP2C	X	-26.816	1.5
50	MP2C	Z	15.482	1.5
51	MP2C	Mx	-.013	1.5
52	MP2C	X	-26.816	4.75
53	MP2C	Z	15.482	4.75
54	MP2C	Mx	-.013	4.75
55	MP3A	X	-26.816	1.5
56	MP3A	Z	15.482	1.5
57	MP3A	Mx	.013	1.5
58	MP3A	X	-26.816	4.75
59	MP3A	Z	15.482	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft. %)
60	MP3A	Mx	.013	4.75
61	MP3C	X	-26.816	1.5
62	MP3C	Z	15.482	1.5
63	MP3C	Mx	-.013	1.5
64	MP3C	X	-26.816	4.75
65	MP3C	Z	15.482	4.75
66	MP3C	Mx	-.013	4.75
67	MP3B	X	-34.773	1.5
68	MP3B	Z	20.076	1.5
69	MP3B	Mx	-.01	1.5
70	MP3B	X	-34.773	4.75
71	MP3B	Z	20.076	4.75
72	MP3B	Mx	-.01	4.75
73	MP2A	X	-11.753	2
74	MP2A	Z	6.786	2
75	MP2A	Mx	-.004	2
76	MP2C	X	-11.753	2
77	MP2C	Z	6.786	2
78	MP2C	Mx	.004	2
79	MP3D	X	-13.748	2
80	MP3D	Z	7.937	2
81	MP3D	Mx	.003	2
82	MP2D	X	-13.748	2
83	MP2D	Z	7.937	2
84	MP2D	Mx	.003	2
85	MP1D	X	-7.269	2
86	MP1D	Z	4.197	2
87	MP1D	Mx	.002	2
88	M515	X	-3.668	10
89	M515	Z	2.118	10
90	M515	Mx	-.002	10
91	MATSING-1	X	-11.352	2.38
92	MATSING-1	Z	6.554	2.38
93	MATSING-1	Mx	-.005	2.38
94	MATSING-1	X	-11.352	3.88
95	MATSING-1	Z	6.554	3.88
96	MATSING-1	Mx	-.005	3.88
97	MP2B	X	-11.352	2.38
98	MP2B	Z	6.554	2.38
99	MP2B	Mx	-.005	2.38
100	MP2B	X	-11.352	3.88
101	MP2B	Z	6.554	3.88
102	MP2B	Mx	-.005	3.88
103	MP2B	X	-13.244	1.5
104	MP2B	Z	7.646	1.5
105	MP2B	Mx	.016	1.5
106	MP2B	X	-13.244	4.75
107	MP2B	Z	7.646	4.75
108	MP2B	Mx	.016	4.75
109	MP2B	X	-13.244	6.8
110	MP2B	Z	7.646	6.8
111	MP2B	Mx	.016	6.8
112	MATSING-1	X	-13.244	4.75
113	MATSING-1	Z	7.646	4.75
114	MATSING-1	Mx	.003	4.75
115	M575	X	-24.044	1
116	M575	Z	13.882	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-17.368	2
2	MP1B	Z	0	2
3	MP1B	Mx	0	2
4	MP2B	X	-17.368	3
5	MP2B	Z	0	3
6	MP2B	Mx	0	3
7	MP3A	X	-11.395	2
8	MP3A	Z	0	2
9	MP3A	Mx	-.004	2
10	MP3B	X	-17.368	2
11	MP3B	Z	0	2
12	MP3B	Mx	0	2
13	MP3C	X	-11.395	2
14	MP3C	Z	0	2
15	MP3C	Mx	.004	2
16	OVP	X	-28.399	1
17	OVP	Z	0	1
18	OVP	Mx	0	1
19	MP4A	X	-8.899	2.13
20	MP4A	Z	0	2.13
21	MP4A	Mx	.004	2.13
22	MP4A	X	-8.899	4.12
23	MP4A	Z	0	4.12
24	MP4A	Mx	.004	4.12
25	MP4C	X	-8.899	2.13
26	MP4C	Z	0	2.13
27	MP4C	Mx	-.004	2.13
28	MP4C	X	-8.899	4.12
29	MP4C	Z	0	4.12
30	MP4C	Mx	-.004	4.12
31	MP1A	X	-24.945	1.5
32	MP1A	Z	0	1.5
33	MP1A	Mx	.012	1.5
34	MP1A	X	-24.945	4.75
35	MP1A	Z	0	4.75
36	MP1A	Mx	.012	4.75
37	MP1C	X	-24.945	1.5
38	MP1C	Z	0	1.5
39	MP1C	Mx	-.012	1.5
40	MP1C	X	-24.945	4.75
41	MP1C	Z	0	4.75
42	MP1C	Mx	-.012	4.75
43	MP2A	X	-24.945	1.5
44	MP2A	Z	0	1.5
45	MP2A	Mx	.012	1.5
46	MP2A	X	-24.945	4.75
47	MP2A	Z	0	4.75
48	MP2A	Mx	.012	4.75
49	MP2C	X	-24.945	1.5
50	MP2C	Z	0	1.5
51	MP2C	Mx	-.012	1.5
52	MP2C	X	-24.945	4.75
53	MP2C	Z	0	4.75
54	MP2C	Mx	-.012	4.75
55	MP3A	X	-24.945	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	.012	1.5
58	MP3A	X	-24.945	4.75
59	MP3A	Z	0	4.75

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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft. %)
60	MP3A	Mx	.012	4.75
61	MP3C	X	-24.945	1.5
62	MP3C	Z	0	1.5
63	MP3C	Mx	-.012	1.5
64	MP3C	X	-24.945	4.75
65	MP3C	Z	0	4.75
66	MP3C	Mx	-.012	4.75
67	MP3B	X	-45.789	1.5
68	MP3B	Z	0	1.5
69	MP3B	Mx	0	1.5
70	MP3B	X	-45.789	4.75
71	MP3B	Z	0	4.75
72	MP3B	Mx	0	4.75
73	MP2A	X	-12.306	2
74	MP2A	Z	0	2
75	MP2A	Mx	-.004	2
76	MP2C	X	-12.306	2
77	MP2C	Z	0	2
78	MP2C	Mx	.004	2
79	MP3D	X	-17.368	2
80	MP3D	Z	0	2
81	MP3D	Mx	0	2
82	MP2D	X	-17.368	2
83	MP2D	Z	0	2
84	MP2D	Mx	0	2
85	MP1D	X	-9.838	2
86	MP1D	Z	0	2
87	MP1D	Mx	0	2
88	M515	X	-4.737	10
89	M515	Z	0	10
90	M515	Mx	-.002	10
91	MATSING-1	X	-11.143	2.38
92	MATSING-1	Z	0	2.38
93	MATSING-1	Mx	0	2.38
94	MATSING-1	X	-11.143	3.88
95	MATSING-1	Z	0	3.88
96	MATSING-1	Mx	0	3.88
97	MP2B	X	-11.143	2.38
98	MP2B	Z	0	2.38
99	MP2B	Mx	0	2.38
100	MP2B	X	-11.143	3.88
101	MP2B	Z	0	3.88
102	MP2B	Mx	0	3.88
103	MP2B	X	-17.368	1.5
104	MP2B	Z	0	1.5
105	MP2B	Mx	.017	1.5
106	MP2B	X	-17.368	4.75
107	MP2B	Z	0	4.75
108	MP2B	Mx	.017	4.75
109	MP2B	X	-17.368	6.8
110	MP2B	Z	0	6.8
111	MP2B	Mx	.017	6.8
112	MATSING-1	X	-17.368	4.75
113	MATSING-1	Z	0	4.75
114	MATSING-1	Mx	0	4.75
115	M575	X	-28.399	1
116	M575	Z	0	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-13.748	2
2	MP1B	Z	-7.937	2
3	MP1B	Mx	-.003	2
4	MP2B	X	-13.748	3
5	MP2B	Z	-7.937	3
6	MP2B	Mx	-.003	3
7	MP3A	X	-11.162	2
8	MP3A	Z	-6.444	2
9	MP3A	Mx	-.004	2
10	MP3B	X	-13.748	2
11	MP3B	Z	-7.937	2
12	MP3B	Mx	-.003	2
13	MP3C	X	-11.162	2
14	MP3C	Z	-6.444	2
15	MP3C	Mx	.004	2
16	OVP	X	-27.572	1
17	OVP	Z	-15.919	1
18	OVP	Mx	0	1
19	MP4A	X	-10.126	2.13
20	MP4A	Z	-5.846	2.13
21	MP4A	Mx	.005	2.13
22	MP4A	X	-10.126	4.12
23	MP4A	Z	-5.846	4.12
24	MP4A	Mx	.005	4.12
25	MP4C	X	-10.126	2.13
26	MP4C	Z	-5.846	2.13
27	MP4C	Mx	-.005	2.13
28	MP4C	X	-10.126	4.12
29	MP4C	Z	-5.846	4.12
30	MP4C	Mx	-.005	4.12
31	MP1A	X	-26.816	1.5
32	MP1A	Z	-15.482	1.5
33	MP1A	Mx	.013	1.5
34	MP1A	X	-26.816	4.75
35	MP1A	Z	-15.482	4.75
36	MP1A	Mx	.013	4.75
37	MP1C	X	-26.816	1.5
38	MP1C	Z	-15.482	1.5
39	MP1C	Mx	-.013	1.5
40	MP1C	X	-26.816	4.75
41	MP1C	Z	-15.482	4.75
42	MP1C	Mx	-.013	4.75
43	MP2A	X	-26.816	1.5
44	MP2A	Z	-15.482	1.5
45	MP2A	Mx	.013	1.5
46	MP2A	X	-26.816	4.75
47	MP2A	Z	-15.482	4.75
48	MP2A	Mx	.013	4.75
49	MP2C	X	-26.816	1.5
50	MP2C	Z	-15.482	1.5
51	MP2C	Mx	-.013	1.5
52	MP2C	X	-26.816	4.75
53	MP2C	Z	-15.482	4.75
54	MP2C	Mx	-.013	4.75
55	MP3A	X	-26.816	1.5
56	MP3A	Z	-15.482	1.5
57	MP3A	Mx	.013	1.5
58	MP3A	X	-26.816	4.75
59	MP3A	Z	-15.482	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-6.444	2
2	MP1B	Z	-11.162	2
3	MP1B	Mx	-.004	2
4	MP2B	X	-6.444	3
5	MP2B	Z	-11.162	3
6	MP2B	Mx	-.004	3
7	MP3A	X	-7.937	2
8	MP3A	Z	-13.748	2
9	MP3A	Mx	-.003	2
10	MP3B	X	-6.444	2
11	MP3B	Z	-11.162	2
12	MP3B	Mx	-.004	2
13	MP3C	X	-7.937	2
14	MP3C	Z	-13.748	2
15	MP3C	Mx	.003	2
16	OVP	X	-17.32	1
17	OVP	Z	-29.999	1
18	OVP	Mx	0	1
19	MP4A	X	-8.64	2.13
20	MP4A	Z	-14.965	2.13
21	MP4A	Mx	.004	2.13
22	MP4A	X	-8.64	4.12
23	MP4A	Z	-14.965	4.12
24	MP4A	Mx	.004	4.12
25	MP4C	X	-8.64	2.13
26	MP4C	Z	-14.965	2.13
27	MP4C	Mx	-.004	2.13
28	MP4C	X	-8.64	4.12
29	MP4C	Z	-14.965	4.12
30	MP4C	Mx	-.004	4.12
31	MP1A	X	-21.502	1.5
32	MP1A	Z	-37.243	1.5
33	MP1A	Mx	.011	1.5
34	MP1A	X	-21.502	4.75
35	MP1A	Z	-37.243	4.75
36	MP1A	Mx	.011	4.75
37	MP1C	X	-21.502	1.5
38	MP1C	Z	-37.243	1.5
39	MP1C	Mx	-.011	1.5
40	MP1C	X	-21.502	4.75
41	MP1C	Z	-37.243	4.75
42	MP1C	Mx	-.011	4.75
43	MP2A	X	-21.502	1.5
44	MP2A	Z	-37.243	1.5
45	MP2A	Mx	.011	1.5
46	MP2A	X	-21.502	4.75
47	MP2A	Z	-37.243	4.75
48	MP2A	Mx	.011	4.75
49	MP2C	X	-21.502	1.5
50	MP2C	Z	-37.243	1.5
51	MP2C	Mx	-.011	1.5
52	MP2C	X	-21.502	4.75
53	MP2C	Z	-37.243	4.75
54	MP2C	Mx	-.011	4.75
55	MP3A	X	-21.502	1.5
56	MP3A	Z	-37.243	1.5
57	MP3A	Mx	.011	1.5
58	MP3A	X	-21.502	4.75
59	MP3A	Z	-37.243	4.75

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

	Member Label	Direction	Magnitude [lb.k-ft]	Location [ft. %]
60	MP3A	Mx	.011	4.75
61	MP3C	X	-21.502	1.5
62	MP3C	Z	-37.243	1.5
63	MP3C	Mx	-.011	1.5
64	MP3C	X	-21.502	4.75
65	MP3C	Z	-37.243	4.75
66	MP3C	Mx	-.011	4.75
67	MP3B	X	-14.439	1.5
68	MP3B	Z	-25.009	1.5
69	MP3B	Mx	.013	1.5
70	MP3B	X	-14.439	4.75
71	MP3B	Z	-25.009	4.75
72	MP3B	Mx	.013	4.75
73	MP2A	X	-8.051	2
74	MP2A	Z	-13.945	2
75	MP2A	Mx	-.003	2
76	MP2C	X	-8.051	2
77	MP2C	Z	-13.945	2
78	MP2C	Mx	.003	2
79	MP3D	X	-6.444	2
80	MP3D	Z	-11.162	2
81	MP3D	Mx	-.004	2
82	MP2D	X	-6.444	2
83	MP2D	Z	-11.162	2
84	MP2D	Mx	-.004	2
85	MP1D	X	-2.753	2
86	MP1D	Z	-4.768	2
87	MP1D	Mx	-.002	2
88	M515	X	-4.832	10
89	M515	Z	-8.369	10
90	M515	Mx	-.000839	10
91	MATSING-1	X	-8.52	2.38
92	MATSING-1	Z	-14.757	2.38
93	MATSING-1	Mx	.012	2.38
94	MATSING-1	X	-8.52	3.88
95	MATSING-1	Z	-14.757	3.88
96	MATSING-1	Mx	.012	3.88
97	MP2B	X	-8.52	2.38
98	MP2B	Z	-14.757	2.38
99	MP2B	Mx	.012	2.38
100	MP2B	X	-8.52	3.88
101	MP2B	Z	-14.757	3.88
102	MP2B	Mx	.012	3.88
103	MP2B	X	-5.571	1.5
104	MP2B	Z	-9.649	1.5
105	MP2B	Mx	.002	1.5
106	MP2B	X	-5.571	4.75
107	MP2B	Z	-9.649	4.75
108	MP2B	Mx	.002	4.75
109	MP2B	X	-5.571	6.8
110	MP2B	Z	-9.649	6.8
111	MP2B	Mx	.002	6.8
112	MATSING-1	X	-5.571	4.75
113	MATSING-1	Z	-9.649	4.75
114	MATSING-1	Mx	-.003	4.75
115	M575	X	-17.32	1
116	M575	Z	-29.999	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
1	MP1B	X	0	2
2	MP1B	Z	-2.42	2
3	MP1B	Mx	-.000807	2
4	MP2B	X	0	3
5	MP2B	Z	-2.42	3
6	MP2B	Mx	-.000807	3
7	MP3A	X	0	2
8	MP3A	Z	-3.99	2
9	MP3A	Mx	0	2
10	MP3B	X	0	2
11	MP3B	Z	-2.42	2
12	MP3B	Mx	-.000807	2
13	MP3C	X	0	2
14	MP3C	Z	-3.99	2
15	MP3C	Mx	0	2
16	OVP	X	0	1
17	OVP	Z	-7.931	1
18	OVP	Mx	0	1
19	MP4A	X	0	2.13
20	MP4A	Z	-5.045	2.13
21	MP4A	Mx	0	2.13
22	MP4A	X	0	4.12
23	MP4A	Z	-5.045	4.12
24	MP4A	Mx	0	4.12
25	MP4C	X	0	2.13
26	MP4C	Z	-5.045	2.13
27	MP4C	Mx	0	2.13
28	MP4C	X	0	4.12
29	MP4C	Z	-5.045	4.12
30	MP4C	Mx	0	4.12
31	MP1A	X	0	1.5
32	MP1A	Z	-15.792	1.5
33	MP1A	Mx	0	1.5
34	MP1A	X	0	4.75
35	MP1A	Z	-15.792	4.75
36	MP1A	Mx	0	4.75
37	MP1C	X	0	1.5
38	MP1C	Z	-15.792	1.5
39	MP1C	Mx	0	1.5
40	MP1C	X	0	4.75
41	MP1C	Z	-15.792	4.75
42	MP1C	Mx	0	4.75
43	MP2A	X	0	1.5
44	MP2A	Z	-15.792	1.5
45	MP2A	Mx	0	1.5
46	MP2A	X	0	4.75
47	MP2A	Z	-15.792	4.75
48	MP2A	Mx	0	4.75
49	MP2C	X	0	1.5
50	MP2C	Z	-15.792	1.5
51	MP2C	Mx	0	1.5
52	MP2C	X	0	4.75
53	MP2C	Z	-15.792	4.75
54	MP2C	Mx	0	4.75
55	MP3A	X	0	1.5
56	MP3A	Z	-15.792	1.5
57	MP3A	Mx	0	1.5
58	MP3A	X	0	4.75
59	MP3A	Z	-15.792	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
60	MP3A	Mx	0	4.75
61	MP3C	X	0	1.5
62	MP3C	Z	-15.792	1.5
63	MP3C	Mx	0	1.5
64	MP3C	X	0	4.75
65	MP3C	Z	-15.792	4.75
66	MP3C	Mx	0	4.75
67	MP3B	X	0	1.5
68	MP3B	Z	-2.857	1.5
69	MP3B	Mx	.001	1.5
70	MP3B	X	0	4.75
71	MP3B	Z	-2.857	4.75
72	MP3B	Mx	.001	4.75
73	MP2A	X	0	2
74	MP2A	Z	-3.99	2
75	MP2A	Mx	0	2
76	MP2C	X	0	2
77	MP2C	Z	-3.99	2
78	MP2C	Mx	0	2
79	MP3D	X	0	2
80	MP3D	Z	-2.42	2
81	MP3D	Mx	-.000807	2
82	MP2D	X	0	2
83	MP2D	Z	-2.42	2
84	MP2D	Mx	-.000807	2
85	MP1D	X	0	2
86	MP1D	Z	-.749	2
87	MP1D	Mx	-.000374	2
88	M515	X	0	10
89	M515	Z	-2.27	10
90	M515	Mx	.000388	10
91	MATSING-1	X	0	2.38
92	MATSING-1	Z	-5.772	2.38
93	MATSING-1	Mx	.005	2.38
94	MATSING-1	X	0	3.88
95	MATSING-1	Z	-5.772	3.88
96	MATSING-1	Mx	.005	3.88
97	MP2B	X	0	2.38
98	MP2B	Z	-5.772	2.38
99	MP2B	Mx	.005	2.38
100	MP2B	X	0	3.88
101	MP2B	Z	-5.772	3.88
102	MP2B	Mx	.005	3.88
103	MP2B	X	0	1.5
104	MP2B	Z	-2.188	1.5
105	MP2B	Mx	-.000729	1.5
106	MP2B	X	0	4.75
107	MP2B	Z	-2.188	4.75
108	MP2B	Mx	-.000729	4.75
109	MP2B	X	0	6.8
110	MP2B	Z	-2.188	6.8
111	MP2B	Mx	-.000729	6.8
112	MATSING-1	X	0	4.75
113	MATSING-1	Z	-2.188	4.75
114	MATSING-1	Mx	-.000729	4.75
115	M575	X	0	1
116	M575	Z	-7.931	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP1B	X	1.406	2
2	MP1B	Z	-2.435	2
3	MP1B	Mx	-.000812	2
4	MP2B	X	1.406	3
5	MP2B	Z	-2.435	3
6	MP2B	Mx	-.000812	3
7	MP3A	X	1.799	2
8	MP3A	Z	-3.115	2
9	MP3A	Mx	.0006	2
10	MP3B	X	1.406	2
11	MP3B	Z	-2.435	2
12	MP3B	Mx	-.000812	2
13	MP3C	X	1.799	2
14	MP3C	Z	-3.115	2
15	MP3C	Mx	-.0006	2
16	OVP	X	3.506	1
17	OVP	Z	-6.072	1
18	OVP	Mx	0	1
19	MP4A	X	2.109	2.13
20	MP4A	Z	-3.653	2.13
21	MP4A	Mx	-.001	2.13
22	MP4A	X	2.109	4.12
23	MP4A	Z	-3.653	4.12
24	MP4A	Mx	-.001	4.12
25	MP4C	X	2.109	2.13
26	MP4C	Z	-3.653	2.13
27	MP4C	Mx	.001	2.13
28	MP4C	X	2.109	4.12
29	MP4C	Z	-3.653	4.12
30	MP4C	Mx	.001	4.12
31	MP1A	X	6.847	1.5
32	MP1A	Z	-11.859	1.5
33	MP1A	Mx	-.003	1.5
34	MP1A	X	6.847	4.75
35	MP1A	Z	-11.859	4.75
36	MP1A	Mx	-.003	4.75
37	MP1C	X	6.847	1.5
38	MP1C	Z	-11.859	1.5
39	MP1C	Mx	.003	1.5
40	MP1C	X	6.847	4.75
41	MP1C	Z	-11.859	4.75
42	MP1C	Mx	.003	4.75
43	MP2A	X	6.847	1.5
44	MP2A	Z	-11.859	1.5
45	MP2A	Mx	-.003	1.5
46	MP2A	X	6.847	4.75
47	MP2A	Z	-11.859	4.75
48	MP2A	Mx	-.003	4.75
49	MP2C	X	6.847	1.5
50	MP2C	Z	-11.859	1.5
51	MP2C	Mx	.003	1.5
52	MP2C	X	6.847	4.75
53	MP2C	Z	-11.859	4.75
54	MP2C	Mx	.003	4.75
55	MP3A	X	6.847	1.5
56	MP3A	Z	-11.859	1.5
57	MP3A	Mx	-.003	1.5
58	MP3A	X	6.847	4.75
59	MP3A	Z	-11.859	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
60	MP3A	Mx	-.003	4.75
61	MP3C	X	6.847	1.5
62	MP3C	Z	-11.859	1.5
63	MP3C	Mx	.003	1.5
64	MP3C	X	6.847	4.75
65	MP3C	Z	-11.859	4.75
66	MP3C	Mx	.003	4.75
67	MP3B	X	2.804	1.5
68	MP3B	Z	-4.857	1.5
69	MP3B	Mx	.002	1.5
70	MP3B	X	2.804	4.75
71	MP3B	Z	-4.857	4.75
72	MP3B	Mx	.002	4.75
73	MP2A	X	1.831	2
74	MP2A	Z	-3.171	2
75	MP2A	Mx	.00061	2
76	MP2C	X	1.831	2
77	MP2C	Z	-3.171	2
78	MP2C	Mx	-.00061	2
79	MP3D	X	1.406	2
80	MP3D	Z	-2.435	2
81	MP3D	Mx	-.000812	2
82	MP2D	X	1.406	2
83	MP2D	Z	-2.435	2
84	MP2D	Mx	-.000812	2
85	MP1D	X	.59	2
86	MP1D	Z	-1.022	2
87	MP1D	Mx	-.000511	2
88	M515	X	.73	10
89	M515	Z	-1.265	10
90	M515	Mx	.000559	10
91	MATSING-1	X	2.679	2.38
92	MATSING-1	Z	-4.641	2.38
93	MATSING-1	Mx	.004	2.38
94	MATSING-1	X	2.679	3.88
95	MATSING-1	Z	-4.641	3.88
96	MATSING-1	Mx	.004	3.88
97	MP2B	X	2.679	2.38
98	MP2B	Z	-4.641	2.38
99	MP2B	Mx	.004	2.38
100	MP2B	X	2.679	3.88
101	MP2B	Z	-4.641	3.88
102	MP2B	Mx	.004	3.88
103	MP2B	X	1.422	1.5
104	MP2B	Z	-2.463	1.5
105	MP2B	Mx	-.002	1.5
106	MP2B	X	1.422	4.75
107	MP2B	Z	-2.463	4.75
108	MP2B	Mx	-.002	4.75
109	MP2B	X	1.422	6.8
110	MP2B	Z	-2.463	6.8
111	MP2B	Mx	-.002	6.8
112	MATSING-1	X	1.422	4.75
113	MATSING-1	Z	-2.463	4.75
114	MATSING-1	Mx	-.000821	4.75
115	M575	X	3.506	1
116	M575	Z	-6.072	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	3.115	2
2	MP1B	Z	-1.799	2
3	MP1B	Mx	-.0006	2
4	MP2B	X	3.115	3
5	MP2B	Z	-1.799	3
6	MP2B	Mx	-.0006	3
7	MP3A	X	2.435	2
8	MP3A	Z	-1.406	2
9	MP3A	Mx	.000812	2
10	MP3B	X	3.115	2
11	MP3B	Z	-1.799	2
12	MP3B	Mx	-.0006	2
13	MP3C	X	2.435	2
14	MP3C	Z	-1.406	2
15	MP3C	Mx	-.000812	2
16	OVP	X	5.423	1
17	OVP	Z	-3.131	1
18	OVP	Mx	0	1
19	MP4A	X	2.221	2.13
20	MP4A	Z	-1.282	2.13
21	MP4A	Mx	-.001	2.13
22	MP4A	X	2.221	4.12
23	MP4A	Z	-1.282	4.12
24	MP4A	Mx	-.001	4.12
25	MP4C	X	2.221	2.13
26	MP4C	Z	-1.282	2.13
27	MP4C	Mx	.001	2.13
28	MP4C	X	2.221	4.12
29	MP4C	Z	-1.282	4.12
30	MP4C	Mx	.001	4.12
31	MP1A	X	8.226	1.5
32	MP1A	Z	-4.749	1.5
33	MP1A	Mx	-.004	1.5
34	MP1A	X	8.226	4.75
35	MP1A	Z	-4.749	4.75
36	MP1A	Mx	-.004	4.75
37	MP1C	X	8.226	1.5
38	MP1C	Z	-4.749	1.5
39	MP1C	Mx	.004	1.5
40	MP1C	X	8.226	4.75
41	MP1C	Z	-4.749	4.75
42	MP1C	Mx	.004	4.75
43	MP2A	X	8.226	1.5
44	MP2A	Z	-4.749	1.5
45	MP2A	Mx	-.004	1.5
46	MP2A	X	8.226	4.75
47	MP2A	Z	-4.749	4.75
48	MP2A	Mx	-.004	4.75
49	MP2C	X	8.226	1.5
50	MP2C	Z	-4.749	1.5
51	MP2C	Mx	.004	1.5
52	MP2C	X	8.226	4.75
53	MP2C	Z	-4.749	4.75
54	MP2C	Mx	.004	4.75
55	MP3A	X	8.226	1.5
56	MP3A	Z	-4.749	1.5
57	MP3A	Mx	-.004	1.5
58	MP3A	X	8.226	4.75
59	MP3A	Z	-4.749	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft,%)
60	MP3A	Mx	-.004	4.75
61	MP3C	X	8.226	1.5
62	MP3C	Z	-4.749	1.5
63	MP3C	Mx	.004	1.5
64	MP3C	X	8.226	4.75
65	MP3C	Z	-4.749	4.75
66	MP3C	Mx	.004	4.75
67	MP3B	X	9.622	1.5
68	MP3B	Z	-5.555	1.5
69	MP3B	Mx	.003	1.5
70	MP3B	X	9.622	4.75
71	MP3B	Z	-5.555	4.75
72	MP3B	Mx	.003	4.75
73	MP2A	X	2.603	2
74	MP2A	Z	-1.503	2
75	MP2A	Mx	.000868	2
76	MP2C	X	2.603	2
77	MP2C	Z	-1.503	2
78	MP2C	Mx	-.000868	2
79	MP3D	X	3.115	2
80	MP3D	Z	-1.799	2
81	MP3D	Mx	-.0006	2
82	MP2D	X	3.115	2
83	MP2D	Z	-1.799	2
84	MP2D	Mx	-.0006	2
85	MP1D	X	1.767	2
86	MP1D	Z	-1.02	2
87	MP1D	Mx	-.00051	2
88	M515	X	.694	10
89	M515	Z	-.401	10
90	M515	Mx	.000395	10
91	MATSING-1	X	3.925	2.38
92	MATSING-1	Z	-2.266	2.38
93	MATSING-1	Mx	.002	2.38
94	MATSING-1	X	3.925	3.88
95	MATSING-1	Z	-2.266	3.88
96	MATSING-1	Mx	.002	3.88
97	MP2B	X	3.925	2.38
98	MP2B	Z	-2.266	2.38
99	MP2B	Mx	.002	2.38
100	MP2B	X	3.925	3.88
101	MP2B	Z	-2.266	3.88
102	MP2B	Mx	.002	3.88
103	MP2B	X	3.6	1.5
104	MP2B	Z	-2.079	1.5
105	MP2B	Mx	-.004	1.5
106	MP2B	X	3.6	4.75
107	MP2B	Z	-2.079	4.75
108	MP2B	Mx	-.004	4.75
109	MP2B	X	3.6	6.8
110	MP2B	Z	-2.079	6.8
111	MP2B	Mx	-.004	6.8
112	MATSING-1	X	3.6	4.75
113	MATSING-1	Z	-2.079	4.75
114	MATSING-1	Mx	-.000693	4.75
115	M575	X	5.423	1
116	M575	Z	-3.131	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	3.99	2
2	MP1B	Z	0	2
3	MP1B	Mx	0	2
4	MP2B	X	3.99	3
5	MP2B	Z	0	3
6	MP2B	Mx	0	3
7	MP3A	X	2.42	2
8	MP3A	Z	0	2
9	MP3A	Mx	.000807	2
10	MP3B	X	3.99	2
11	MP3B	Z	0	2
12	MP3B	Mx	0	2
13	MP3C	X	2.42	2
14	MP3C	Z	0	2
15	MP3C	Mx	-.000807	2
16	OVP	X	6.432	1
17	OVP	Z	0	1
18	OVP	Mx	0	1
19	MP4A	X	1.737	2.13
20	MP4A	Z	0	2.13
21	MP4A	Mx	-.000868	2.13
22	MP4A	X	1.737	4.12
23	MP4A	Z	0	4.12
24	MP4A	Mx	-.000868	4.12
25	MP4C	X	1.737	2.13
26	MP4C	Z	0	2.13
27	MP4C	Mx	.000868	2.13
28	MP4C	X	1.737	4.12
29	MP4C	Z	0	4.12
30	MP4C	Mx	.000868	4.12
31	MP1A	X	7.4	1.5
32	MP1A	Z	0	1.5
33	MP1A	Mx	-.004	1.5
34	MP1A	X	7.4	4.75
35	MP1A	Z	0	4.75
36	MP1A	Mx	-.004	4.75
37	MP1C	X	7.4	1.5
38	MP1C	Z	0	1.5
39	MP1C	Mx	.004	1.5
40	MP1C	X	7.4	4.75
41	MP1C	Z	0	4.75
42	MP1C	Mx	.004	4.75
43	MP2A	X	7.4	1.5
44	MP2A	Z	0	1.5
45	MP2A	Mx	-.004	1.5
46	MP2A	X	7.4	4.75
47	MP2A	Z	0	4.75
48	MP2A	Mx	-.004	4.75
49	MP2C	X	7.4	1.5
50	MP2C	Z	0	1.5
51	MP2C	Mx	.004	1.5
52	MP2C	X	7.4	4.75
53	MP2C	Z	0	4.75
54	MP2C	Mx	.004	4.75
55	MP3A	X	7.4	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	-.004	1.5
58	MP3A	X	7.4	4.75
59	MP3A	Z	0	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
60	MP3A	Mx	-.004	4.75
61	MP3C	X	7.4	1.5
62	MP3C	Z	0	1.5
63	MP3C	Mx	.004	1.5
64	MP3C	X	7.4	4.75
65	MP3C	Z	0	4.75
66	MP3C	Mx	.004	4.75
67	MP3B	X	13.861	1.5
68	MP3B	Z	0	1.5
69	MP3B	Mx	0	1.5
70	MP3B	X	13.861	4.75
71	MP3B	Z	0	4.75
72	MP3B	Mx	0	4.75
73	MP2A	X	2.677	2
74	MP2A	Z	0	2
75	MP2A	Mx	.000892	2
76	MP2C	X	2.677	2
77	MP2C	Z	0	2
78	MP2C	Mx	-.000892	2
79	MP3D	X	3.99	2
80	MP3D	Z	0	2
81	MP3D	Mx	0	2
82	MP2D	X	3.99	2
83	MP2D	Z	0	2
84	MP2D	Mx	0	2
85	MP1D	X	2.471	2
86	MP1D	Z	0	2
87	MP1D	Mx	0	2
88	M515	X	.951	10
89	M515	Z	0	10
90	M515	Mx	.000447	10
91	MATSING-1	X	4.118	2.38
92	MATSING-1	Z	0	2.38
93	MATSING-1	Mx	0	2.38
94	MATSING-1	X	4.118	3.88
95	MATSING-1	Z	0	3.88
96	MATSING-1	Mx	0	3.88
97	MP2B	X	4.118	2.38
98	MP2B	Z	0	2.38
99	MP2B	Mx	0	2.38
100	MP2B	X	4.118	3.88
101	MP2B	Z	0	3.88
102	MP2B	Mx	0	3.88
103	MP2B	X	4.813	1.5
104	MP2B	Z	0	1.5
105	MP2B	Mx	-.005	1.5
106	MP2B	X	4.813	4.75
107	MP2B	Z	0	4.75
108	MP2B	Mx	-.005	4.75
109	MP2B	X	4.813	6.8
110	MP2B	Z	0	6.8
111	MP2B	Mx	-.005	6.8
112	MATSING-1	X	4.813	4.75
113	MATSING-1	Z	0	4.75
114	MATSING-1	Mx	0	4.75
115	M575	X	6.432	1
116	M575	Z	0	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location(ft.%)
1	MP1B	X	3.115	2
2	MP1B	Z	1.799	2
3	MP1B	Mx	.0006	2
4	MP2B	X	3.115	3
5	MP2B	Z	1.799	3
6	MP2B	Mx	.0006	3
7	MP3A	X	2.435	2
8	MP3A	Z	1.406	2
9	MP3A	Mx	.000812	2
10	MP3B	X	3.115	2
11	MP3B	Z	1.799	2
12	MP3B	Mx	.0006	2
13	MP3C	X	2.435	2
14	MP3C	Z	1.406	2
15	MP3C	Mx	-.000812	2
16	OVP	X	6.366	1
17	OVP	Z	3.676	1
18	OVP	Mx	0	1
19	MP4A	X	2.221	2.13
20	MP4A	Z	1.282	2.13
21	MP4A	Mx	-.001	2.13
22	MP4A	X	2.221	4.12
23	MP4A	Z	1.282	4.12
24	MP4A	Mx	-.001	4.12
25	MP4C	X	2.221	2.13
26	MP4C	Z	1.282	2.13
27	MP4C	Mx	.001	2.13
28	MP4C	X	2.221	4.12
29	MP4C	Z	1.282	4.12
30	MP4C	Mx	.001	4.12
31	MP1A	X	8.226	1.5
32	MP1A	Z	4.749	1.5
33	MP1A	Mx	-.004	1.5
34	MP1A	X	8.226	4.75
35	MP1A	Z	4.749	4.75
36	MP1A	Mx	-.004	4.75
37	MP1C	X	8.226	1.5
38	MP1C	Z	4.749	1.5
39	MP1C	Mx	.004	1.5
40	MP1C	X	8.226	4.75
41	MP1C	Z	4.749	4.75
42	MP1C	Mx	.004	4.75
43	MP2A	X	8.226	1.5
44	MP2A	Z	4.749	1.5
45	MP2A	Mx	-.004	1.5
46	MP2A	X	8.226	4.75
47	MP2A	Z	4.749	4.75
48	MP2A	Mx	-.004	4.75
49	MP2C	X	8.226	1.5
50	MP2C	Z	4.749	1.5
51	MP2C	Mx	.004	1.5
52	MP2C	X	8.226	4.75
53	MP2C	Z	4.749	4.75
54	MP2C	Mx	.004	4.75
55	MP3A	X	8.226	1.5
56	MP3A	Z	4.749	1.5
57	MP3A	Mx	-.004	1.5
58	MP3A	X	8.226	4.75
59	MP3A	Z	4.749	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
60	MP3A	Mx	-.004	4.75
61	MP3C	X	8.226	1.5
62	MP3C	Z	4.749	1.5
63	MP3C	Mx	.004	1.5
64	MP3C	X	8.226	4.75
65	MP3C	Z	4.749	4.75
66	MP3C	Mx	.004	4.75
67	MP3B	X	9.622	1.5
68	MP3B	Z	5.555	1.5
69	MP3B	Mx	-.003	1.5
70	MP3B	X	9.622	4.75
71	MP3B	Z	5.555	4.75
72	MP3B	Mx	-.003	4.75
73	MP2A	X	2.603	2
74	MP2A	Z	1.503	2
75	MP2A	Mx	.000868	2
76	MP2C	X	2.603	2
77	MP2C	Z	1.503	2
78	MP2C	Mx	-.000868	2
79	MP3D	X	3.115	2
80	MP3D	Z	1.799	2
81	MP3D	Mx	.0006	2
82	MP2D	X	3.115	2
83	MP2D	Z	1.799	2
84	MP2D	Mx	.0006	2
85	MP1D	X	1.767	2
86	MP1D	Z	1.02	2
87	MP1D	Mx	.00051	2
88	M515	X	1.524	10
89	M515	Z	.88	10
90	M515	Mx	.000566	10
91	MATSING-1	X	3.925	2.38
92	MATSING-1	Z	2.266	2.38
93	MATSING-1	Mx	-.002	2.38
94	MATSING-1	X	3.925	3.88
95	MATSING-1	Z	2.266	3.88
96	MATSING-1	Mx	-.002	3.88
97	MP2B	X	3.925	2.38
98	MP2B	Z	2.266	2.38
99	MP2B	Mx	-.002	2.38
100	MP2B	X	3.925	3.88
101	MP2B	Z	2.266	3.88
102	MP2B	Mx	-.002	3.88
103	MP2B	X	3.6	1.5
104	MP2B	Z	2.079	1.5
105	MP2B	Mx	-.003	1.5
106	MP2B	X	3.6	4.75
107	MP2B	Z	2.079	4.75
108	MP2B	Mx	-.003	4.75
109	MP2B	X	3.6	6.8
110	MP2B	Z	2.079	6.8
111	MP2B	Mx	-.003	6.8
112	MATSING-1	X	3.6	4.75
113	MATSING-1	Z	2.079	4.75
114	MATSING-1	Mx	.000693	4.75
115	M575	X	6.366	1
116	M575	Z	3.676	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 2377329
 Model Name : Mount Analysis

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	1.406	2
2	MP1B	Z	2.435	2
3	MP1B	Mx	.000812	2
4	MP2B	X	1.406	3
5	MP2B	Z	2.435	3
6	MP2B	Mx	.000812	3
7	MP3A	X	1.799	2
8	MP3A	Z	3.115	2
9	MP3A	Mx	.0006	2
10	MP3B	X	1.406	2
11	MP3B	Z	2.435	2
12	MP3B	Mx	.000812	2
13	MP3C	X	1.799	2
14	MP3C	Z	3.115	2
15	MP3C	Mx	-.0006	2
16	OVP	X	4.05	1
17	OVP	Z	7.015	1
18	OVP	Mx	0	1
19	MP4A	X	2.109	2.13
20	MP4A	Z	3.653	2.13
21	MP4A	Mx	-.001	2.13
22	MP4A	X	2.109	4.12
23	MP4A	Z	3.653	4.12
24	MP4A	Mx	-.001	4.12
25	MP4C	X	2.109	2.13
26	MP4C	Z	3.653	2.13
27	MP4C	Mx	.001	2.13
28	MP4C	X	2.109	4.12
29	MP4C	Z	3.653	4.12
30	MP4C	Mx	.001	4.12
31	MP1A	X	6.847	1.5
32	MP1A	Z	11.859	1.5
33	MP1A	Mx	-.003	1.5
34	MP1A	X	6.847	4.75
35	MP1A	Z	11.859	4.75
36	MP1A	Mx	-.003	4.75
37	MP1C	X	6.847	1.5
38	MP1C	Z	11.859	1.5
39	MP1C	Mx	.003	1.5
40	MP1C	X	6.847	4.75
41	MP1C	Z	11.859	4.75
42	MP1C	Mx	.003	4.75
43	MP2A	X	6.847	1.5
44	MP2A	Z	11.859	1.5
45	MP2A	Mx	-.003	1.5
46	MP2A	X	6.847	4.75
47	MP2A	Z	11.859	4.75
48	MP2A	Mx	-.003	4.75
49	MP2C	X	6.847	1.5
50	MP2C	Z	11.859	1.5
51	MP2C	Mx	.003	1.5
52	MP2C	X	6.847	4.75
53	MP2C	Z	11.859	4.75
54	MP2C	Mx	.003	4.75
55	MP3A	X	6.847	1.5
56	MP3A	Z	11.859	1.5
57	MP3A	Mx	-.003	1.5
58	MP3A	X	6.847	4.75
59	MP3A	Z	11.859	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
60	MP3A	Mx	-.003	4.75
61	MP3C	X	6.847	1.5
62	MP3C	Z	11.859	1.5
63	MP3C	Mx	.003	1.5
64	MP3C	X	6.847	4.75
65	MP3C	Z	11.859	4.75
66	MP3C	Mx	.003	4.75
67	MP3B	X	2.804	1.5
68	MP3B	Z	4.857	1.5
69	MP3B	Mx	-.002	1.5
70	MP3B	X	2.804	4.75
71	MP3B	Z	4.857	4.75
72	MP3B	Mx	-.002	4.75
73	MP2A	X	1.831	2
74	MP2A	Z	3.171	2
75	MP2A	Mx	.00061	2
76	MP2C	X	1.831	2
77	MP2C	Z	3.171	2
78	MP2C	Mx	-.00061	2
79	MP3D	X	1.406	2
80	MP3D	Z	2.435	2
81	MP3D	Mx	.000812	2
82	MP2D	X	1.406	2
83	MP2D	Z	2.435	2
84	MP2D	Mx	.000812	2
85	MP1D	X	.59	2
86	MP1D	Z	1.022	2
87	MP1D	Mx	.000511	2
88	M515	X	1.21	10
89	M515	Z	2.095	10
90	M515	Mx	.00021	10
91	MATSING-1	X	2.679	2.38
92	MATSING-1	Z	4.641	2.38
93	MATSING-1	Mx	-.004	2.38
94	MATSING-1	X	2.679	3.88
95	MATSING-1	Z	4.641	3.88
96	MATSING-1	Mx	-.004	3.88
97	MP2B	X	2.679	2.38
98	MP2B	Z	4.641	2.38
99	MP2B	Mx	-.004	2.38
100	MP2B	X	2.679	3.88
101	MP2B	Z	4.641	3.88
102	MP2B	Mx	-.004	3.88
103	MP2B	X	1.422	1.5
104	MP2B	Z	2.463	1.5
105	MP2B	Mx	-.000601	1.5
106	MP2B	X	1.422	4.75
107	MP2B	Z	2.463	4.75
108	MP2B	Mx	-.000601	4.75
109	MP2B	X	1.422	6.8
110	MP2B	Z	2.463	6.8
111	MP2B	Mx	-.000601	6.8
112	MATSING-1	X	1.422	4.75
113	MATSING-1	Z	2.463	4.75
114	MATSING-1	Mx	.000821	4.75
115	M575	X	4.05	1
116	M575	Z	7.015	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
1	MP1B	X	0	2
2	MP1B	Z	2.42	2
3	MP1B	Mx	.000807	2
4	MP2B	X	0	3
5	MP2B	Z	2.42	3
6	MP2B	Mx	.000807	3
7	MP3A	X	0	2
8	MP3A	Z	3.99	2
9	MP3A	Mx	0	2
10	MP3B	X	0	2
11	MP3B	Z	2.42	2
12	MP3B	Mx	.000807	2
13	MP3C	X	0	2
14	MP3C	Z	3.99	2
15	MP3C	Mx	0	2
16	OVP	X	0	1
17	OVP	Z	7.931	1
18	OVP	Mx	0	1
19	MP4A	X	0	2.13
20	MP4A	Z	5.045	2.13
21	MP4A	Mx	0	2.13
22	MP4A	X	0	4.12
23	MP4A	Z	5.045	4.12
24	MP4A	Mx	0	4.12
25	MP4C	X	0	2.13
26	MP4C	Z	5.045	2.13
27	MP4C	Mx	0	2.13
28	MP4C	X	0	4.12
29	MP4C	Z	5.045	4.12
30	MP4C	Mx	0	4.12
31	MP1A	X	0	1.5
32	MP1A	Z	15.792	1.5
33	MP1A	Mx	0	1.5
34	MP1A	X	0	4.75
35	MP1A	Z	15.792	4.75
36	MP1A	Mx	0	4.75
37	MP1C	X	0	1.5
38	MP1C	Z	15.792	1.5
39	MP1C	Mx	0	1.5
40	MP1C	X	0	4.75
41	MP1C	Z	15.792	4.75
42	MP1C	Mx	0	4.75
43	MP2A	X	0	1.5
44	MP2A	Z	15.792	1.5
45	MP2A	Mx	0	1.5
46	MP2A	X	0	4.75
47	MP2A	Z	15.792	4.75
48	MP2A	Mx	0	4.75
49	MP2C	X	0	1.5
50	MP2C	Z	15.792	1.5
51	MP2C	Mx	0	1.5
52	MP2C	X	0	4.75
53	MP2C	Z	15.792	4.75
54	MP2C	Mx	0	4.75
55	MP3A	X	0	1.5
56	MP3A	Z	15.792	1.5
57	MP3A	Mx	0	1.5
58	MP3A	X	0	4.75
59	MP3A	Z	15.792	4.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
60	MP3A	Mx	0	4.75
61	MP3C	X	0	1.5
62	MP3C	Z	15.792	1.5
63	MP3C	Mx	0	1.5
64	MP3C	X	0	4.75
65	MP3C	Z	15.792	4.75
66	MP3C	Mx	0	4.75
67	MP3B	X	0	1.5
68	MP3B	Z	2.857	1.5
69	MP3B	Mx	-.001	1.5
70	MP3B	X	0	4.75
71	MP3B	Z	2.857	4.75
72	MP3B	Mx	-.001	4.75
73	MP2A	X	0	2
74	MP2A	Z	3.99	2
75	MP2A	Mx	0	2
76	MP2C	X	0	2
77	MP2C	Z	3.99	2
78	MP2C	Mx	0	2
79	MP3D	X	0	2
80	MP3D	Z	2.42	2
81	MP3D	Mx	.000807	2
82	MP2D	X	0	2
83	MP2D	Z	2.42	2
84	MP2D	Mx	.000807	2
85	MP1D	X	0	2
86	MP1D	Z	.749	2
87	MP1D	Mx	.000374	2
88	M515	X	0	10
89	M515	Z	2.27	10
90	M515	Mx	-.000388	10
91	MATSING-1	X	0	2.38
92	MATSING-1	Z	5.772	2.38
93	MATSING-1	Mx	-.005	2.38
94	MATSING-1	X	0	3.88
95	MATSING-1	Z	5.772	3.88
96	MATSING-1	Mx	-.005	3.88
97	MP2B	X	0	2.38
98	MP2B	Z	5.772	2.38
99	MP2B	Mx	-.005	2.38
100	MP2B	X	0	3.88
101	MP2B	Z	5.772	3.88
102	MP2B	Mx	-.005	3.88
103	MP2B	X	0	1.5
104	MP2B	Z	2.188	1.5
105	MP2B	Mx	.000729	1.5
106	MP2B	X	0	4.75
107	MP2B	Z	2.188	4.75
108	MP2B	Mx	.000729	4.75
109	MP2B	X	0	6.8
110	MP2B	Z	2.188	6.8
111	MP2B	Mx	.000729	6.8
112	MATSING-1	X	0	4.75
113	MATSING-1	Z	2.188	4.75
114	MATSING-1	Mx	.000729	4.75
115	M575	X	0	1
116	M575	Z	7.931	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-1.406	2
2	MP1B	Z	2.435	2
3	MP1B	Mx	.000812	2
4	MP2B	X	-1.406	3
5	MP2B	Z	2.435	3
6	MP2B	Mx	.000812	3
7	MP3A	X	-1.799	2
8	MP3A	Z	3.115	2
9	MP3A	Mx	-.0006	2
10	MP3B	X	-1.406	2
11	MP3B	Z	2.435	2
12	MP3B	Mx	.000812	2
13	MP3C	X	-1.799	2
14	MP3C	Z	3.115	2
15	MP3C	Mx	.0006	2
16	OVP	X	-3.506	1
17	OVP	Z	6.072	1
18	OVP	Mx	0	1
19	MP4A	X	-2.109	2.13
20	MP4A	Z	3.653	2.13
21	MP4A	Mx	.001	2.13
22	MP4A	X	-2.109	4.12
23	MP4A	Z	3.653	4.12
24	MP4A	Mx	.001	4.12
25	MP4C	X	-2.109	2.13
26	MP4C	Z	3.653	2.13
27	MP4C	Mx	-.001	2.13
28	MP4C	X	-2.109	4.12
29	MP4C	Z	3.653	4.12
30	MP4C	Mx	-.001	4.12
31	MP1A	X	-6.847	1.5
32	MP1A	Z	11.859	1.5
33	MP1A	Mx	.003	1.5
34	MP1A	X	-6.847	4.75
35	MP1A	Z	11.859	4.75
36	MP1A	Mx	.003	4.75
37	MP1C	X	-6.847	1.5
38	MP1C	Z	11.859	1.5
39	MP1C	Mx	-.003	1.5
40	MP1C	X	-6.847	4.75
41	MP1C	Z	11.859	4.75
42	MP1C	Mx	-.003	4.75
43	MP2A	X	-6.847	1.5
44	MP2A	Z	11.859	1.5
45	MP2A	Mx	.003	1.5
46	MP2A	X	-6.847	4.75
47	MP2A	Z	11.859	4.75
48	MP2A	Mx	.003	4.75
49	MP2C	X	-6.847	1.5
50	MP2C	Z	11.859	1.5
51	MP2C	Mx	-.003	1.5
52	MP2C	X	-6.847	4.75
53	MP2C	Z	11.859	4.75
54	MP2C	Mx	-.003	4.75
55	MP3A	X	-6.847	1.5
56	MP3A	Z	11.859	1.5
57	MP3A	Mx	.003	1.5
58	MP3A	X	-6.847	4.75
59	MP3A	Z	11.859	4.75



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

	Member Label	Direction	Magnitude(lib.k-ft)	Location(ft.%)
60	MP3A	Mx	.003	4.75
61	MP3C	X	-6.847	1.5
62	MP3C	Z	11.859	1.5
63	MP3C	Mx	-.003	1.5
64	MP3C	X	-6.847	4.75
65	MP3C	Z	11.859	4.75
66	MP3C	Mx	-.003	4.75
67	MP3B	X	-2.804	1.5
68	MP3B	Z	4.857	1.5
69	MP3B	Mx	-.002	1.5
70	MP3B	X	-2.804	4.75
71	MP3B	Z	4.857	4.75
72	MP3B	Mx	-.002	4.75
73	MP2A	X	-1.831	2
74	MP2A	Z	3.171	2
75	MP2A	Mx	-.00061	2
76	MP2C	X	-1.831	2
77	MP2C	Z	3.171	2
78	MP2C	Mx	.00061	2
79	MP3D	X	-1.406	2
80	MP3D	Z	2.435	2
81	MP3D	Mx	.000812	2
82	MP2D	X	-1.406	2
83	MP2D	Z	2.435	2
84	MP2D	Mx	.000812	2
85	MP1D	X	-.59	2
86	MP1D	Z	1.022	2
87	MP1D	Mx	.000511	2
88	M515	X	-.73	10
89	M515	Z	1.265	10
90	M515	Mx	-.000559	10
91	MATSING-1	X	-2.679	2.38
92	MATSING-1	Z	4.641	2.38
93	MATSING-1	Mx	-.004	2.38
94	MATSING-1	X	-2.679	3.88
95	MATSING-1	Z	4.641	3.88
96	MATSING-1	Mx	-.004	3.88
97	MP2B	X	-2.679	2.38
98	MP2B	Z	4.641	2.38
99	MP2B	Mx	-.004	2.38
100	MP2B	X	-2.679	3.88
101	MP2B	Z	4.641	3.88
102	MP2B	Mx	-.004	3.88
103	MP2B	X	-1.422	1.5
104	MP2B	Z	2.463	1.5
105	MP2B	Mx	.002	1.5
106	MP2B	X	-1.422	4.75
107	MP2B	Z	2.463	4.75
108	MP2B	Mx	.002	4.75
109	MP2B	X	-1.422	6.8
110	MP2B	Z	2.463	6.8
111	MP2B	Mx	.002	6.8
112	MATSING-1	X	-1.422	4.75
113	MATSING-1	Z	2.463	4.75
114	MATSING-1	Mx	.000821	4.75
115	M575	X	-3.506	1
116	M575	Z	6.072	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-3.115	2
2	MP1B	Z	1.799	2
3	MP1B	Mx	.0006	2
4	MP2B	X	-3.115	3
5	MP2B	Z	1.799	3
6	MP2B	Mx	.0006	3
7	MP3A	X	-2.435	2
8	MP3A	Z	1.406	2
9	MP3A	Mx	-.000812	2
10	MP3B	X	-3.115	2
11	MP3B	Z	1.799	2
12	MP3B	Mx	.0006	2
13	MP3C	X	-2.435	2
14	MP3C	Z	1.406	2
15	MP3C	Mx	.000812	2
16	OVP	X	-5.423	1
17	OVP	Z	3.131	1
18	OVP	Mx	0	1
19	MP4A	X	-2.221	2.13
20	MP4A	Z	1.282	2.13
21	MP4A	Mx	.001	2.13
22	MP4A	X	-2.221	4.12
23	MP4A	Z	1.282	4.12
24	MP4A	Mx	.001	4.12
25	MP4C	X	-2.221	2.13
26	MP4C	Z	1.282	2.13
27	MP4C	Mx	-.001	2.13
28	MP4C	X	-2.221	4.12
29	MP4C	Z	1.282	4.12
30	MP4C	Mx	-.001	4.12
31	MP1A	X	-8.226	1.5
32	MP1A	Z	4.749	1.5
33	MP1A	Mx	.004	1.5
34	MP1A	X	-8.226	4.75
35	MP1A	Z	4.749	4.75
36	MP1A	Mx	.004	4.75
37	MP1C	X	-8.226	1.5
38	MP1C	Z	4.749	1.5
39	MP1C	Mx	-.004	1.5
40	MP1C	X	-8.226	4.75
41	MP1C	Z	4.749	4.75
42	MP1C	Mx	-.004	4.75
43	MP2A	X	-8.226	1.5
44	MP2A	Z	4.749	1.5
45	MP2A	Mx	.004	1.5
46	MP2A	X	-8.226	4.75
47	MP2A	Z	4.749	4.75
48	MP2A	Mx	.004	4.75
49	MP2C	X	-8.226	1.5
50	MP2C	Z	4.749	1.5
51	MP2C	Mx	-.004	1.5
52	MP2C	X	-8.226	4.75
53	MP2C	Z	4.749	4.75
54	MP2C	Mx	-.004	4.75
55	MP3A	X	-8.226	1.5
56	MP3A	Z	4.749	1.5
57	MP3A	Mx	.004	1.5
58	MP3A	X	-8.226	4.75
59	MP3A	Z	4.749	4.75

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
60	MP3A	Mx	.004	4.75
61	MP3C	X	-8.226	1.5
62	MP3C	Z	4.749	1.5
63	MP3C	Mx	-.004	1.5
64	MP3C	X	-8.226	4.75
65	MP3C	Z	4.749	4.75
66	MP3C	Mx	-.004	4.75
67	MP3B	X	-9.622	1.5
68	MP3B	Z	5.555	1.5
69	MP3B	Mx	-.003	1.5
70	MP3B	X	-9.622	4.75
71	MP3B	Z	5.555	4.75
72	MP3B	Mx	-.003	4.75
73	MP2A	X	-2.603	2
74	MP2A	Z	1.503	2
75	MP2A	Mx	-.000868	2
76	MP2C	X	-2.603	2
77	MP2C	Z	1.503	2
78	MP2C	Mx	.000868	2
79	MP3D	X	-3.115	2
80	MP3D	Z	1.799	2
81	MP3D	Mx	.0006	2
82	MP2D	X	-3.115	2
83	MP2D	Z	1.799	2
84	MP2D	Mx	.0006	2
85	MP1D	X	-1.767	2
86	MP1D	Z	1.02	2
87	MP1D	Mx	.00051	2
88	M515	X	-.694	10
89	M515	Z	.401	10
90	M515	Mx	-.000395	10
91	MATSING-1	X	-3.925	2.38
92	MATSING-1	Z	2.266	2.38
93	MATSING-1	Mx	-.002	2.38
94	MATSING-1	X	-3.925	3.88
95	MATSING-1	Z	2.266	3.88
96	MATSING-1	Mx	-.002	3.88
97	MP2B	X	-3.925	2.38
98	MP2B	Z	2.266	2.38
99	MP2B	Mx	-.002	2.38
100	MP2B	X	-3.925	3.88
101	MP2B	Z	2.266	3.88
102	MP2B	Mx	-.002	3.88
103	MP2B	X	-3.6	1.5
104	MP2B	Z	2.079	1.5
105	MP2B	Mx	.004	1.5
106	MP2B	X	-3.6	4.75
107	MP2B	Z	2.079	4.75
108	MP2B	Mx	.004	4.75
109	MP2B	X	-3.6	6.8
110	MP2B	Z	2.079	6.8
111	MP2B	Mx	.004	6.8
112	MATSING-1	X	-3.6	4.75
113	MATSING-1	Z	2.079	4.75
114	MATSING-1	Mx	.000693	4.75
115	M575	X	-5.423	1
116	M575	Z	3.131	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-3.99	2
2	MP1B	Z	0	2
3	MP1B	Mx	0	2
4	MP2B	X	-3.99	3
5	MP2B	Z	0	3
6	MP2B	Mx	0	3
7	MP3A	X	-2.42	2
8	MP3A	Z	0	2
9	MP3A	Mx	-.000807	2
10	MP3B	X	-3.99	2
11	MP3B	Z	0	2
12	MP3B	Mx	0	2
13	MP3C	X	-2.42	2
14	MP3C	Z	0	2
15	MP3C	Mx	.000807	2
16	OVP	X	-6.432	1
17	OVP	Z	0	1
18	OVP	Mx	0	1
19	MP4A	X	-1.737	2.13
20	MP4A	Z	0	2.13
21	MP4A	Mx	.000868	2.13
22	MP4A	X	-1.737	4.12
23	MP4A	Z	0	4.12
24	MP4A	Mx	.000868	4.12
25	MP4C	X	-1.737	2.13
26	MP4C	Z	0	2.13
27	MP4C	Mx	-.000868	2.13
28	MP4C	X	-1.737	4.12
29	MP4C	Z	0	4.12
30	MP4C	Mx	-.000868	4.12
31	MP1A	X	-7.4	1.5
32	MP1A	Z	0	1.5
33	MP1A	Mx	.004	1.5
34	MP1A	X	-7.4	4.75
35	MP1A	Z	0	4.75
36	MP1A	Mx	.004	4.75
37	MP1C	X	-7.4	1.5
38	MP1C	Z	0	1.5
39	MP1C	Mx	-.004	1.5
40	MP1C	X	-7.4	4.75
41	MP1C	Z	0	4.75
42	MP1C	Mx	-.004	4.75
43	MP2A	X	-7.4	1.5
44	MP2A	Z	0	1.5
45	MP2A	Mx	.004	1.5
46	MP2A	X	-7.4	4.75
47	MP2A	Z	0	4.75
48	MP2A	Mx	.004	4.75
49	MP2C	X	-7.4	1.5
50	MP2C	Z	0	1.5
51	MP2C	Mx	-.004	1.5
52	MP2C	X	-7.4	4.75
53	MP2C	Z	0	4.75
54	MP2C	Mx	-.004	4.75
55	MP3A	X	-7.4	1.5
56	MP3A	Z	0	1.5
57	MP3A	Mx	.004	1.5
58	MP3A	X	-7.4	4.75
59	MP3A	Z	0	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft, %)
60	MP3A	Mx	.004	4.75
61	MP3C	X	-7.4	1.5
62	MP3C	Z	0	1.5
63	MP3C	Mx	-.004	1.5
64	MP3C	X	-7.4	4.75
65	MP3C	Z	0	4.75
66	MP3C	Mx	-.004	4.75
67	MP3B	X	-13.861	1.5
68	MP3B	Z	0	1.5
69	MP3B	Mx	0	1.5
70	MP3B	X	-13.861	4.75
71	MP3B	Z	0	4.75
72	MP3B	Mx	0	4.75
73	MP2A	X	-2.677	2
74	MP2A	Z	0	2
75	MP2A	Mx	-.000892	2
76	MP2C	X	-2.677	2
77	MP2C	Z	0	2
78	MP2C	Mx	.000892	2
79	MP3D	X	-3.99	2
80	MP3D	Z	0	2
81	MP3D	Mx	0	2
82	MP2D	X	-3.99	2
83	MP2D	Z	0	2
84	MP2D	Mx	0	2
85	MP1D	X	-2.471	2
86	MP1D	Z	0	2
87	MP1D	Mx	0	2
88	M515	X	-.951	10
89	M515	Z	0	10
90	M515	Mx	-.000447	10
91	MATSING-1	X	-4.118	2.38
92	MATSING-1	Z	0	2.38
93	MATSING-1	Mx	0	2.38
94	MATSING-1	X	-4.118	3.88
95	MATSING-1	Z	0	3.88
96	MATSING-1	Mx	0	3.88
97	MP2B	X	-4.118	2.38
98	MP2B	Z	0	2.38
99	MP2B	Mx	0	2.38
100	MP2B	X	-4.118	3.88
101	MP2B	Z	0	3.88
102	MP2B	Mx	0	3.88
103	MP2B	X	-4.813	1.5
104	MP2B	Z	0	1.5
105	MP2B	Mx	.005	1.5
106	MP2B	X	-4.813	4.75
107	MP2B	Z	0	4.75
108	MP2B	Mx	.005	4.75
109	MP2B	X	-4.813	6.8
110	MP2B	Z	0	6.8
111	MP2B	Mx	.005	6.8
112	MATSING-1	X	-4.813	4.75
113	MATSING-1	Z	0	4.75
114	MATSING-1	Mx	0	4.75
115	M575	X	-6.432	1
116	M575	Z	0	1
117	M575	Mx	0	1



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-3.115	2
2	MP1B	Z	-1.799	2
3	MP1B	Mx	-.0006	2
4	MP2B	X	-3.115	3
5	MP2B	Z	-1.799	3
6	MP2B	Mx	-.0006	3
7	MP3A	X	-2.435	2
8	MP3A	Z	-1.406	2
9	MP3A	Mx	-.000812	2
10	MP3B	X	-3.115	2
11	MP3B	Z	-1.799	2
12	MP3B	Mx	-.0006	2
13	MP3C	X	-2.435	2
14	MP3C	Z	-1.406	2
15	MP3C	Mx	.000812	2
16	OVP	X	-6.366	1
17	OVP	Z	-3.676	1
18	OVP	Mx	0	1
19	MP4A	X	-2.221	2.13
20	MP4A	Z	-1.282	2.13
21	MP4A	Mx	.001	2.13
22	MP4A	X	-2.221	4.12
23	MP4A	Z	-1.282	4.12
24	MP4A	Mx	.001	4.12
25	MP4C	X	-2.221	2.13
26	MP4C	Z	-1.282	2.13
27	MP4C	Mx	-.001	2.13
28	MP4C	X	-2.221	4.12
29	MP4C	Z	-1.282	4.12
30	MP4C	Mx	-.001	4.12
31	MP1A	X	-8.226	1.5
32	MP1A	Z	-4.749	1.5
33	MP1A	Mx	.004	1.5
34	MP1A	X	-8.226	4.75
35	MP1A	Z	-4.749	4.75
36	MP1A	Mx	.004	4.75
37	MP1C	X	-8.226	1.5
38	MP1C	Z	-4.749	1.5
39	MP1C	Mx	-.004	1.5
40	MP1C	X	-8.226	4.75
41	MP1C	Z	-4.749	4.75
42	MP1C	Mx	-.004	4.75
43	MP2A	X	-8.226	1.5
44	MP2A	Z	-4.749	1.5
45	MP2A	Mx	.004	1.5
46	MP2A	X	-8.226	4.75
47	MP2A	Z	-4.749	4.75
48	MP2A	Mx	.004	4.75
49	MP2C	X	-8.226	1.5
50	MP2C	Z	-4.749	1.5
51	MP2C	Mx	-.004	1.5
52	MP2C	X	-8.226	4.75
53	MP2C	Z	-4.749	4.75
54	MP2C	Mx	-.004	4.75
55	MP3A	X	-8.226	1.5
56	MP3A	Z	-4.749	1.5
57	MP3A	Mx	.004	1.5
58	MP3A	X	-8.226	4.75
59	MP3A	Z	-4.749	4.75

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
60	MP3A	Mx	.004	4.75
61	MP3C	X	-8.226	1.5
62	MP3C	Z	-4.749	1.5
63	MP3C	Mx	-.004	1.5
64	MP3C	X	-8.226	4.75
65	MP3C	Z	-4.749	4.75
66	MP3C	Mx	-.004	4.75
67	MP3B	X	-9.622	1.5
68	MP3B	Z	-5.555	1.5
69	MP3B	Mx	.003	1.5
70	MP3B	X	-9.622	4.75
71	MP3B	Z	-5.555	4.75
72	MP3B	Mx	.003	4.75
73	MP2A	X	-2.603	2
74	MP2A	Z	-1.503	2
75	MP2A	Mx	-.000868	2
76	MP2C	X	-2.603	2
77	MP2C	Z	-1.503	2
78	MP2C	Mx	.000868	2
79	MP3D	X	-3.115	2
80	MP3D	Z	-1.799	2
81	MP3D	Mx	-.0006	2
82	MP2D	X	-3.115	2
83	MP2D	Z	-1.799	2
84	MP2D	Mx	-.0006	2
85	MP1D	X	-1.767	2
86	MP1D	Z	-1.02	2
87	MP1D	Mx	-.00051	2
88	M515	X	-1.524	10
89	M515	Z	-.88	10
90	M515	Mx	-.000566	10
91	MATSING-1	X	-3.925	2.38
92	MATSING-1	Z	-2.266	2.38
93	MATSING-1	Mx	.002	2.38
94	MATSING-1	X	-3.925	3.88
95	MATSING-1	Z	-2.266	3.88
96	MATSING-1	Mx	.002	3.88
97	MP2B	X	-3.925	2.38
98	MP2B	Z	-2.266	2.38
99	MP2B	Mx	.002	2.38
100	MP2B	X	-3.925	3.88
101	MP2B	Z	-2.266	3.88
102	MP2B	Mx	.002	3.88
103	MP2B	X	-3.6	1.5
104	MP2B	Z	-2.079	1.5
105	MP2B	Mx	.003	1.5
106	MP2B	X	-3.6	4.75
107	MP2B	Z	-2.079	4.75
108	MP2B	Mx	.003	4.75
109	MP2B	X	-3.6	6.8
110	MP2B	Z	-2.079	6.8
111	MP2B	Mx	.003	6.8
112	MATSING-1	X	-3.6	4.75
113	MATSING-1	Z	-2.079	4.75
114	MATSING-1	Mx	-.000693	4.75
115	M575	X	-6.366	1
116	M575	Z	-3.676	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

Feb 8, 2024
 3:42 PM
 Checked By: PMA

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	-1.406	2
2	MP1B	Z	-2.435	2
3	MP1B	Mx	-0.00812	2
4	MP2B	X	-1.406	3
5	MP2B	Z	-2.435	3
6	MP2B	Mx	-0.00812	3
7	MP3A	X	-1.799	2
8	MP3A	Z	-3.115	2
9	MP3A	Mx	-0.006	2
10	MP3B	X	-1.406	2
11	MP3B	Z	-2.435	2
12	MP3B	Mx	-0.00812	2
13	MP3C	X	-1.799	2
14	MP3C	Z	-3.115	2
15	MP3C	Mx	.0006	2
16	OVP	X	-4.05	1
17	OVP	Z	-7.015	1
18	OVP	Mx	0	1
19	MP4A	X	-2.109	2.13
20	MP4A	Z	-3.653	2.13
21	MP4A	Mx	.001	2.13
22	MP4A	X	-2.109	4.12
23	MP4A	Z	-3.653	4.12
24	MP4A	Mx	.001	4.12
25	MP4C	X	-2.109	2.13
26	MP4C	Z	-3.653	2.13
27	MP4C	Mx	-.001	2.13
28	MP4C	X	-2.109	4.12
29	MP4C	Z	-3.653	4.12
30	MP4C	Mx	-.001	4.12
31	MP1A	X	-6.847	1.5
32	MP1A	Z	-11.859	1.5
33	MP1A	Mx	.003	1.5
34	MP1A	X	-6.847	4.75
35	MP1A	Z	-11.859	4.75
36	MP1A	Mx	.003	4.75
37	MP1C	X	-6.847	1.5
38	MP1C	Z	-11.859	1.5
39	MP1C	Mx	-.003	1.5
40	MP1C	X	-6.847	4.75
41	MP1C	Z	-11.859	4.75
42	MP1C	Mx	-.003	4.75
43	MP2A	X	-6.847	1.5
44	MP2A	Z	-11.859	1.5
45	MP2A	Mx	.003	1.5
46	MP2A	X	-6.847	4.75
47	MP2A	Z	-11.859	4.75
48	MP2A	Mx	.003	4.75
49	MP2C	X	-6.847	1.5
50	MP2C	Z	-11.859	1.5
51	MP2C	Mx	-.003	1.5
52	MP2C	X	-6.847	4.75
53	MP2C	Z	-11.859	4.75
54	MP2C	Mx	-.003	4.75
55	MP3A	X	-6.847	1.5
56	MP3A	Z	-11.859	1.5
57	MP3A	Mx	.003	1.5
58	MP3A	X	-6.847	4.75
59	MP3A	Z	-11.859	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
60	MP3A	Mx	.003	4.75
61	MP3C	X	-6.847	1.5
62	MP3C	Z	-11.859	1.5
63	MP3C	Mx	-.003	1.5
64	MP3C	X	-6.847	4.75
65	MP3C	Z	-11.859	4.75
66	MP3C	Mx	-.003	4.75
67	MP3B	X	-2.804	1.5
68	MP3B	Z	-4.857	1.5
69	MP3B	Mx	.002	1.5
70	MP3B	X	-2.804	4.75
71	MP3B	Z	-4.857	4.75
72	MP3B	Mx	.002	4.75
73	MP2A	X	-1.831	2
74	MP2A	Z	-3.171	2
75	MP2A	Mx	-.00061	2
76	MP2C	X	-1.831	2
77	MP2C	Z	-3.171	2
78	MP2C	Mx	.00061	2
79	MP3D	X	-1.406	2
80	MP3D	Z	-2.435	2
81	MP3D	Mx	-.000812	2
82	MP2D	X	-1.406	2
83	MP2D	Z	-2.435	2
84	MP2D	Mx	-.000812	2
85	MP1D	X	-.59	2
86	MP1D	Z	-1.022	2
87	MP1D	Mx	-.000511	2
88	M515	X	-1.21	10
89	M515	Z	-2.095	10
90	M515	Mx	-.00021	10
91	MATSING-1	X	-2.679	2.38
92	MATSING-1	Z	-4.641	2.38
93	MATSING-1	Mx	.004	2.38
94	MATSING-1	X	-2.679	3.88
95	MATSING-1	Z	-4.641	3.88
96	MATSING-1	Mx	.004	3.88
97	MP2B	X	-2.679	2.38
98	MP2B	Z	-4.641	2.38
99	MP2B	Mx	.004	2.38
100	MP2B	X	-2.679	3.88
101	MP2B	Z	-4.641	3.88
102	MP2B	Mx	.004	3.88
103	MP2B	X	-1.422	1.5
104	MP2B	Z	-2.463	1.5
105	MP2B	Mx	.000601	1.5
106	MP2B	X	-1.422	4.75
107	MP2B	Z	-2.463	4.75
108	MP2B	Mx	.000601	4.75
109	MP2B	X	-1.422	6.8
110	MP2B	Z	-2.463	6.8
111	MP2B	Mx	.000601	6.8
112	MATSING-1	X	-1.422	4.75
113	MATSING-1	Z	-2.463	4.75
114	MATSING-1	Mx	-.000821	4.75
115	M575	X	-4.05	1
116	M575	Z	-7.015	1
117	M575	Mx	0	1



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

Feb 8, 2024
 3:42 PM
 Checked By: PMA

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M700A	Y	-500	%66

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M700A	Y	-500	%34

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M700A	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M700A	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	Y	-3.104	2
2	MP1B	My	0	2
3	MP1B	Mz	.001	2
4	MP2B	Y	-3.104	3
5	MP2B	My	0	3
6	MP2B	Mz	.001	3
7	MP3A	Y	-3.104	2
8	MP3A	My	.001	2
9	MP3A	Mz	0	2
10	MP3B	Y	-3.104	2
11	MP3B	My	0	2
12	MP3B	Mz	.001	2
13	MP3C	Y	-3.104	2
14	MP3C	My	-.001	2
15	MP3C	Mz	0	2
16	OVP	Y	-1.413	1
17	OVP	My	0	1
18	OVP	Mz	0	1
19	MP4A	Y	-1.923	2.13
20	MP4A	My	-.000962	2.13
21	MP4A	Mz	0	2.13
22	MP4A	Y	-1.923	4.12
23	MP4A	My	-.000962	4.12
24	MP4A	Mz	0	4.12
25	MP4C	Y	-1.923	2.13
26	MP4C	My	.000962	2.13
27	MP4C	Mz	0	2.13
28	MP4C	Y	-1.923	4.12
29	MP4C	My	.000962	4.12
30	MP4C	Mz	0	4.12
31	MP1A	Y	-1.709	1.5
32	MP1A	My	-.000854	1.5
33	MP1A	Mz	0	1.5
34	MP1A	Y	-1.709	4.75
35	MP1A	My	-.000854	4.75
36	MP1A	Mz	0	4.75
37	MP1C	Y	-1.709	1.5
38	MP1C	My	.000854	1.5
39	MP1C	Mz	0	1.5
40	MP1C	Y	-1.709	4.75
41	MP1C	Mv	.000854	4.75



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

	Member Label	Direction	Magnitude(lb.k-ft)	Location(ft.%)
42	MP1C	Mz	0	4.75
43	MP2A	Y	-1.709	1.5
44	MP2A	My	-.000854	1.5
45	MP2A	Mz	0	1.5
46	MP2A	Y	-1.709	4.75
47	MP2A	My	-.000854	4.75
48	MP2A	Mz	0	4.75
49	MP2C	Y	-1.709	1.5
50	MP2C	My	.000854	1.5
51	MP2C	Mz	0	1.5
52	MP2C	Y	-1.709	4.75
53	MP2C	My	.000854	4.75
54	MP2C	Mz	0	4.75
55	MP3A	Y	-1.709	1.5
56	MP3A	My	-.000854	1.5
57	MP3A	Mz	0	1.5
58	MP3A	Y	-1.709	4.75
59	MP3A	My	-.000854	4.75
60	MP3A	Mz	0	4.75
61	MP3C	Y	-1.709	1.5
62	MP3C	My	.000854	1.5
63	MP3C	Mz	0	1.5
64	MP3C	Y	-1.709	4.75
65	MP3C	My	.000854	4.75
66	MP3C	Mz	0	4.75
67	MP3B	Y	-2.716	1.5
68	MP3B	My	0	1.5
69	MP3B	Mz	-.001	1.5
70	MP3B	Y	-2.716	4.75
71	MP3B	My	0	4.75
72	MP3B	Mz	-.001	4.75
73	MP2A	Y	-3.299	2
74	MP2A	My	.001	2
75	MP2A	Mz	0	2
76	MP2C	Y	-3.299	2
77	MP2C	My	-.001	2
78	MP2C	Mz	0	2
79	MP3D	Y	-3.104	2
80	MP3D	My	0	2
81	MP3D	Mz	.001	2
82	MP2D	Y	-3.104	2
83	MP2D	My	0	2
84	MP2D	Mz	.001	2
85	MP1D	Y	-.777	2
86	MP1D	My	0	2
87	MP1D	Mz	.000389	2
88	M515	Y	-.777	10
89	M515	My	.000365	10
90	M515	Mz	-.000133	10
91	MATSING-1	Y	-.85	2.38
92	MATSING-1	My	0	2.38
93	MATSING-1	Mz	-.000708	2.38
94	MATSING-1	Y	-.85	3.88
95	MATSING-1	My	0	3.88
96	MATSING-1	Mz	-.000708	3.88
97	MP2B	Y	-.85	2.38
98	MP2B	My	0	2.38
99	MP2B	Mz	-.000708	2.38
100	MP2B	Y	-.85	3.88



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
101	MP2B	My	0	3.88
102	MP2B	Mz	-.000708	3.88
103	MP2B	Y	-2.628	1.5
104	MP2B	My	-.003	1.5
105	MP2B	Mz	.000876	1.5
106	MP2B	Y	-2.628	4.75
107	MP2B	My	-.003	4.75
108	MP2B	Mz	.000876	4.75
109	MP2B	Y	-2.628	6.8
110	MP2B	My	-.003	6.8
111	MP2B	Mz	.000876	6.8
112	MATSING-1	Y	-2.628	4.75
113	MATSING-1	My	0	4.75
114	MATSING-1	Mz	.000876	4.75
115	M575	Y	-1.413	1
116	M575	My	0	1
117	M575	Mz	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	Z	-7.761	2
2	MP1B	Mx	-.003	2
3	MP2B	Z	-7.761	3
4	MP2B	Mx	-.003	3
5	MP3A	Z	-7.761	2
6	MP3A	Mx	0	2
7	MP3B	Z	-7.761	2
8	MP3B	Mx	-.003	2
9	MP3C	Z	-7.761	2
10	MP3C	Mx	0	2
11	OVP	Z	-3.533	1
12	OVP	Mx	0	1
13	MP4A	Z	-4.808	2.13
14	MP4A	Mx	0	2.13
15	MP4A	Z	-4.808	4.12
16	MP4A	Mx	0	4.12
17	MP4C	Z	-4.808	2.13
18	MP4C	Mx	0	2.13
19	MP4C	Z	-4.808	4.12
20	MP4C	Mx	0	4.12
21	MP1A	Z	-4.272	1.5
22	MP1A	Mx	0	1.5
23	MP1A	Z	-4.272	4.75
24	MP1A	Mx	0	4.75
25	MP1C	Z	-4.272	1.5
26	MP1C	Mx	0	1.5
27	MP1C	Z	-4.272	4.75
28	MP1C	Mx	0	4.75
29	MP2A	Z	-4.272	1.5
30	MP2A	Mx	0	1.5
31	MP2A	Z	-4.272	4.75
32	MP2A	Mx	0	4.75
33	MP2C	Z	-4.272	1.5
34	MP2C	Mx	0	1.5
35	MP2C	Z	-4.272	4.75
36	MP2C	Mx	0	4.75
37	MP3A	Z	-4.272	1.5
38	MP3A	Mx	0	1.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
39	MP3A	Z	-4.272	4.75
40	MP3A	Mx	0	4.75
41	MP3C	Z	-4.272	1.5
42	MP3C	Mx	0	1.5
43	MP3C	Z	-4.272	4.75
44	MP3C	Mx	0	4.75
45	MP3B	Z	-6.79	1.5
46	MP3B	Mx	.003	1.5
47	MP3B	Z	-6.79	4.75
48	MP3B	Mx	.003	4.75
49	MP2A	Z	-8.247	2
50	MP2A	Mx	0	2
51	MP2C	Z	-8.247	2
52	MP2C	Mx	0	2
53	MP3D	Z	-7.761	2
54	MP3D	Mx	-.003	2
55	MP2D	Z	-7.761	2
56	MP2D	Mx	-.003	2
57	MP1D	Z	-1.943	2
58	MP1D	Mx	-.000972	2
59	M515	Z	-1.943	10
60	M515	Mx	.000332	10
61	MATSING-1	Z	-2.125	2.38
62	MATSING-1	Mx	.002	2.38
63	MATSING-1	Z	-2.125	3.88
64	MATSING-1	Mx	.002	3.88
65	MP2B	Z	-2.125	2.38
66	MP2B	Mx	.002	2.38
67	MP2B	Z	-2.125	3.88
68	MP2B	Mx	.002	3.88
69	MP2B	Z	-6.569	1.5
70	MP2B	Mx	-.002	1.5
71	MP2B	Z	-6.569	4.75
72	MP2B	Mx	-.002	4.75
73	MP2B	Z	-6.569	6.8
74	MP2B	Mx	-.002	6.8
75	MATSING-1	Z	-6.569	4.75
76	MATSING-1	Mx	-.002	4.75
77	M575	Z	-3.533	1
78	M575	Mx	0	1

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1B	X	7.761	2
2	MP1B	Mx	0	2
3	MP2B	X	7.761	3
4	MP2B	Mx	0	3
5	MP3A	X	7.761	2
6	MP3A	Mx	.003	2
7	MP3B	X	7.761	2
8	MP3B	Mx	0	2
9	MP3C	X	7.761	2
10	MP3C	Mx	-.003	2
11	OVP	X	3.533	1
12	OVP	Mx	0	1
13	MP4A	X	4.808	2.13
14	MP4A	Mx	-.002	2.13
15	MP4A	X	4.808	4.12



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
16	MP4A	Mx	-.002	4.12
17	MP4C	X	4.808	2.13
18	MP4C	Mx	.002	2.13
19	MP4C	X	4.808	4.12
20	MP4C	Mx	.002	4.12
21	MP1A	X	4.272	1.5
22	MP1A	Mx	-.002	1.5
23	MP1A	X	4.272	4.75
24	MP1A	Mx	-.002	4.75
25	MP1C	X	4.272	1.5
26	MP1C	Mx	.002	1.5
27	MP1C	X	4.272	4.75
28	MP1C	Mx	.002	4.75
29	MP2A	X	4.272	1.5
30	MP2A	Mx	-.002	1.5
31	MP2A	X	4.272	4.75
32	MP2A	Mx	-.002	4.75
33	MP2C	X	4.272	1.5
34	MP2C	Mx	.002	1.5
35	MP2C	X	4.272	4.75
36	MP2C	Mx	.002	4.75
37	MP3A	X	4.272	1.5
38	MP3A	Mx	-.002	1.5
39	MP3A	X	4.272	4.75
40	MP3A	Mx	-.002	4.75
41	MP3C	X	4.272	1.5
42	MP3C	Mx	.002	1.5
43	MP3C	X	4.272	4.75
44	MP3C	Mx	.002	4.75
45	MP3B	X	6.79	1.5
46	MP3B	Mx	0	1.5
47	MP3B	X	6.79	4.75
48	MP3B	Mx	0	4.75
49	MP2A	X	8.247	2
50	MP2A	Mx	.003	2
51	MP2C	X	8.247	2
52	MP2C	Mx	-.003	2
53	MP3D	X	7.761	2
54	MP3D	Mx	0	2
55	MP2D	X	7.761	2
56	MP2D	Mx	0	2
57	MP1D	X	1.943	2
58	MP1D	Mx	0	2
59	M515	X	1.943	10
60	M515	Mx	.000913	10
61	MATSING-1	X	2.125	2.38
62	MATSING-1	Mx	0	2.38
63	MATSING-1	X	2.125	3.88
64	MATSING-1	Mx	0	3.88
65	MP2B	X	2.125	2.38
66	MP2B	Mx	0	2.38
67	MP2B	X	2.125	3.88
68	MP2B	Mx	0	3.88
69	MP2B	X	6.569	1.5
70	MP2B	Mx	-.007	1.5
71	MP2B	X	6.569	4.75
72	MP2B	Mx	-.007	4.75
73	MP2B	X	6.569	6.8
74	MP2B	Mx	-.007	6.8

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
75	MATSING-1	X	6.569	4.75
76	MATSING-1	Mx	0	4.75
77	M575	X	3.533	1
78	M575	Mx	0	1

Member Area Loads (BLC 39 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N251	N245	N244	N246	Y	Two Way	-.005
2	N244	N230	N231	N246	Y	Two Way	-.005
3	N252	N233	N232	N234	Y	Two Way	-.005
4	N234	N231	N230	N232	Y	Two Way	-.005
5	N62	N52	N50	N52A	Y	Two Way	-.005
6	N52A	N49	N47	N50	Y	Two Way	-.005
7	N60	N79A	N78	N80	Y	Two Way	-.005
8	N80	N49	N47	N78	Y	Two Way	-.005
9	N121	N115	N114	N116	Y	Two Way	-.005
10	N116	N101	N100	N114	Y	Two Way	-.005
11	N122	N103	N102	N104	Y	Two Way	-.005
12	N104	N101	N100	N102	Y	Two Way	-.005
13	N186	N180	N179	N181	Y	Two Way	-.005
14	N181	N166	N165	N179	Y	Two Way	-.005
15	N187	N168	N167	N169	Y	Two Way	-.005
16	N169	N166	N165	N167	Y	Two Way	-.005
17	N241	N162	N163	N242	Y	Two Way	-.005
18	N111	N41	N41A	N112	Y	Two Way	-.005
19	N72	N227	N228	N73	Y	Two Way	-.005
20	N176	N97	N98	N177	Y	Two Way	-.005
21	N97	N176	N177	N98	Y	Two Way	-.005
22	N162	N241	N242	N163	Y	Two Way	-.005

Member Area Loads (BLC 40 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N251	N245	N244	N246	Y	Two Way	-.013
2	N244	N230	N231	N246	Y	Two Way	-.013
3	N252	N233	N232	N234	Y	Two Way	-.013
4	N234	N231	N230	N232	Y	Two Way	-.013
5	N62	N52	N50	N52A	Y	Two Way	-.013
6	N52A	N49	N47	N50	Y	Two Way	-.013
7	N60	N79A	N78	N80	Y	Two Way	-.013
8	N80	N49	N47	N78	Y	Two Way	-.013
9	N121	N115	N114	N116	Y	Two Way	-.013
10	N116	N101	N100	N114	Y	Two Way	-.013
11	N122	N103	N102	N104	Y	Two Way	-.013
12	N104	N101	N100	N102	Y	Two Way	-.013
13	N186	N180	N179	N181	Y	Two Way	-.013
14	N181	N166	N165	N179	Y	Two Way	-.013
15	N187	N168	N167	N169	Y	Two Way	-.013
16	N169	N166	N165	N167	Y	Two Way	-.013
17	N241	N162	N163	N242	Y	Two Way	-.013
18	N111	N41	N41A	N112	Y	Two Way	-.013
19	N72	N227	N228	N73	Y	Two Way	-.013
20	N176	N97	N98	N177	Y	Two Way	-.013
21	N97	N176	N177	N98	Y	Two Way	-.013
22	N162	N241	N242	N163	Y	Two Way	-.013

Member Area Loads (BLC 84 : Structure Ev)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
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Member Area Loads (BLC 84 : Structure Ev) (Continued)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N251	N245	N244	N246	Y	Two Way	-0.0023
2	N244	N230	N231	N246	Y	Two Way	-0.0023
3	N252	N233	N232	N234	Y	Two Way	-0.0023
4	N234	N231	N230	N232	Y	Two Way	-0.0023
5	N62	N52	N50	N52A	Y	Two Way	-0.0023
6	N52A	N49	N47	N50	Y	Two Way	-0.0023
7	N60	N79A	N78	N80	Y	Two Way	-0.0023
8	N80	N49	N47	N78	Y	Two Way	-0.0023
9	N121	N115	N114	N116	Y	Two Way	-0.0023
10	N116	N101	N100	N114	Y	Two Way	-0.0023
11	N122	N103	N102	N104	Y	Two Way	-0.0023
12	N104	N101	N100	N102	Y	Two Way	-0.0023
13	N186	N180	N179	N181	Y	Two Way	-0.0023
14	N181	N166	N165	N179	Y	Two Way	-0.0023
15	N187	N168	N167	N169	Y	Two Way	-0.0023
16	N169	N166	N165	N167	Y	Two Way	-0.0023
17	N241	N162	N163	N242	Y	Two Way	-0.0023
18	N111	N41	N41A	N112	Y	Two Way	-0.0023
19	N72	N227	N228	N73	Y	Two Way	-0.0023
20	N176	N97	N98	N177	Y	Two Way	-0.0023
21	N97	N176	N177	N98	Y	Two Way	-0.0023
22	N162	N241	N242	N163	Y	Two Way	-0.0023

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N251	N245	N244	N246	Z	Two Way	-0.00574
2	N244	N230	N231	N246	Z	Two Way	-0.00574
3	N252	N233	N232	N234	Z	Two Way	-0.00574
4	N234	N231	N230	N232	Z	Two Way	-0.00574
5	N62	N52	N50	N52A	Z	Two Way	-0.00574
6	N52A	N49	N47	N50	Z	Two Way	-0.00574
7	N60	N79A	N78	N80	Z	Two Way	-0.00574
8	N80	N49	N47	N78	Z	Two Way	-0.00574
9	N121	N115	N114	N116	Z	Two Way	-0.00574
10	N116	N101	N100	N114	Z	Two Way	-0.00574
11	N122	N103	N102	N104	Z	Two Way	-0.00574
12	N104	N101	N100	N102	Z	Two Way	-0.00574
13	N186	N180	N179	N181	Z	Two Way	-0.00574
14	N181	N166	N165	N179	Z	Two Way	-0.00574
15	N187	N168	N167	N169	Z	Two Way	-0.00574
16	N169	N166	N165	N167	Z	Two Way	-0.00574
17	N241	N162	N163	N242	Z	Two Way	-0.00574
18	N111	N41	N41A	N112	Z	Two Way	-0.00574
19	N72	N227	N228	N73	Z	Two Way	-0.00574
20	N176	N97	N98	N177	Z	Two Way	-0.00574
21	N97	N176	N177	N98	Z	Two Way	-0.00574
22	N162	N241	N242	N163	Z	Two Way	-0.00574

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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N251	N245	N244	N246	X	Two Way	.000574
2	N244	N230	N231	N246	X	Two Way	.000574
3	N252	N233	N232	N234	X	Two Way	.000574
4	N234	N231	N230	N232	X	Two Way	.000574
5	N62	N52	N50	N52A	X	Two Way	.000574
6	N52A	N49	N47	N50	X	Two Way	.000574
7	N60	N79A	N78	N80	X	Two Way	.000574
8	N80	N49	N47	N78	X	Two Way	.000574



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

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
9	N121	N115	N114	N116	X	Two Way	.000574
10	N116	N101	N100	N114	X	Two Way	.000574
11	N122	N103	N102	N104	X	Two Way	.000574
12	N104	N101	N100	N102	X	Two Way	.000574
13	N186	N180	N179	N181	X	Two Way	.000574
14	N181	N166	N165	N179	X	Two Way	.000574
15	N187	N168	N167	N169	X	Two Way	.000574
16	N169	N166	N165	N167	X	Two Way	.000574
17	N241	N162	N163	N242	X	Two Way	.000574
18	N111	N41	N41A	N112	X	Two Way	.000574
19	N72	N227	N228	N73	X	Two Way	.000574
20	N176	N97	N98	N177	X	Two Way	.000574
21	N97	N176	N177	N98	X	Two Way	.000574
22	N162	N241	N242	N163	X	Two Way	.000574

Envelope Joint Reactions

LC	Joint	max	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	R4	max	12788.581	24	3721.754	24	12939.556	24	.009	6	1.158	1	.128	24
2		min	-1032.911	6	925.432	69	-1466.832	6	-.124	24	-1.166	7	-.012	6
3	R4A	max	-3146.458	6	134.576	24	-3264.061	6	-.028	6	.502	12	.147	24
4		min	-17324.935	24	39.633	69	-17339.164	24	-.144	24	-.483	6	.021	6
5	R1	max	13786.247	20	3952.713	20	-453.828	2	.135	20	1.297	12	.138	20
6		min	752.202	2	1159.975	65	-13895.64	20	.008	2	-1.274	6	.006	2
7	R1A	max	-5066.139	2	139.88	19	18301.41	20	.152	21	.476	12	.155	20
8		min	-18286.471	20	47.835	65	5132.931	2	.044	2	-.566	6	.038	2
9	R2	max	2016.36	12	3521.969	18	1878.283	12	.11	18	.725	11	.019	12
10		min	-11586.617	18	786.997	74	-11595.441	18	-.016	12	-.689	5	-.119	18
11	R2A	max	16057.505	18	130.777	18	16133.419	18	.134	18	.455	12	-.02	12
12		min	2453.887	12	34.634	75	2361.312	12	.016	12	-.486	6	-.135	18
13	R3	max	1710.972	8	3319.031	14	10507.151	14	.014	8	.501	2	.016	8
14		min	-10500.012	14	797.999	71	-1619.2	8	-.1	14	-.518	6	-.107	14
15	R3A	max	14980.801	14	126.25	14	-2598.408	8	-.018	8	.454	12	-.021	8
16		min	2657.055	8	35.014	71	-15045.122	14	-.125	14	-.409	6	-.125	14
17	Totals:	max	6520.981	10	14673.564	21	7937.7	1						
18		min	-6520.886	4	3905.315	66	-7937.695	7						

Joint Reactions

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	R4	8003.1	1630.552	8579.589	-.079	1.158	.082
2	R4A	-8406.736	62.654	-8287.527	-.068	.474	.076
3	R1	2065.774	1352.687	-1534.702	.021	1.129	.016
4	R1A	-5632.854	58.189	5732.997	.051	.425	.043
5	R2	713.829	873.033	723.728	-.003	.433	.008
6	R2A	3062.055	41.182	3001.056	.023	.404	-.024
7	R3	-6880.592	1401.958	6861.507	-.064	.448	-.07
8	R3A	7075.822	55.53	-7138.948	-.062	.428	-.06
9	Totals:	.398	5475.785	7937.7			
10	COG (ft):	X: -.763	Y: .853	Z: .277			
11	R4	5417.401	1447.864	5955.997	-.055	1.057	.057
12	R4A	-6988.993	58.299	-6859.079	-.054	.432	.063
13	R1	752.202	1304.889	-453.828	.008	.778	.006
14	R1A	-5066.139	57.243	5132.931	.044	.353	.038
15	R2	-1883.356	1039.974	-1837.58	.02	.336	-.018
16	R2A	4392.085	45.927	4374.976	.036	.318	-.036
17	R3	-8056.074	1464.627	7951.487	-.075	.501	-.08
18	R3A	7654.116	56.922	-7719.138	-.067	.381	-.065



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
19	2	Totals:	-3778.758	5475.744	6545.766			
20	2	COG (ft):	X: -.763	Y: .853	Z: .277			
21	3	R4	2849.441	1265.41	3249.666	-.03	.736	.031
22	3	R4A	-5566.978	53.748	-5466.56	-.043	.278	.049
23	3	R1	1191.702	1370.806	-1205.414	.012	.212	.014
24	3	R1A	-5469.343	59.301	5486.447	.045	.187	.044
25	3	R2	-4362.32	1202.082	-4291.433	.043	.151	-.043
26	3	R2A	5637.04	50.144	5658.034	.048	.156	-.047
27	3	R3	-7568.339	1418.588	7401.574	-.072	.441	-.073
28	3	R3A	7356.816	55.662	-7407.327	-.065	.242	-.062
29	3	Totals:	-5931.98	5475.739	3424.987			
30	3	COG (ft):	X: -.763	Y: .853	Z: .277			
31	4	R4	920.941	1127.885	1073.161	-.009	.116	.012
32	4	R4A	-4452.763	50.093	-4444.765	-.035	-.061	.037
33	4	R1	2553.508	1479.021	-2897.696	.026	-.524	.029
34	4	R1A	-6326.722	62.196	6254.534	.05	-.147	.054
35	4	R2	-6176.99	1317.417	-5988.708	.059	-.313	-.06
36	4	R2A	6502.175	53.009	6561.393	.057	-.132	-.054
37	4	R3	-6258.996	1332.635	6176.524	-.061	.03	-.06
38	4	R3A	6717.962	53.489	-6734.457	-.058	-.04	-.057
39	4	Totals:	-6520.886	5475.746	-.014			
40	4	COG (ft):	X: -.763	Y: .853	Z: .277			
41	5	R4	-525.387	1012.41	-693.38	.005	-.599	-.004
42	5	R4A	-3542.219	46.669	-3626.636	-.03	-.383	.026
43	5	R1	4465.865	1614.075	-5046.795	.046	-1.106	.048
44	5	R1A	-7416.912	65.396	7262.543	.058	-.468	.066
45	5	R2	-7554.74	1412.645	-7296.926	.071	-.689	-.074
46	5	R2A	7204.267	55.482	7295.026	.064	-.401	-.06
47	5	R3	-4470.26	1218.41	4501.563	-.044	-.416	-.044
48	5	R3A	5863.452	50.674	-5845.503	-.049	-.31	-.05
49	5	Totals:	-5975.934	5475.76	-3450.107			
50	5	COG (ft):	X: -.763	Y: .853	Z: .277			
51	6	R4	-1032.911	953.094	-1466.832	.009	-1.054	-.012
52	6	R4A	-3146.458	44.746	-3264.061	-.028	-.483	.021
53	6	R1	7124.387	1794.537	-7769.662	.073	-1.274	.073
54	6	R1A	-8851.712	69.331	8684.783	.07	-.566	.079
55	6	R2	-8004.061	1459.783	-7858.628	.074	-.633	-.08
56	6	R2A	7512.93	56.799	7606.428	.066	-.486	-.063
57	6	R3	-1976.085	1051.203	2007.286	-.021	-.518	-.019
58	6	R3A	4569.368	46.312	-4528.564	-.037	-.409	-.039
59	6	Totals:	-3804.542	5475.806	-6589.248			
60	6	COG (ft):	X: -.763	Y: .853	Z: .277			
61	7	R4	213.853	1024.406	-339.181	-.003	-1.166	-.002
62	7	R4A	-3779.785	46.806	-3896.729	-.035	-.445	.026
63	7	R1	9822.653	1959.651	-10366.078	.098	-1.109	.098
64	7	R1A	-10241.071	72.531	10112.252	.084	-.507	.092
65	7	R2	-6686.944	1387.526	-6703.728	.062	-.398	-.069
66	7	R2A	6896.208	55.128	6963.871	.06	-.435	-.059
67	7	R3	545.499	888.115	-534.39	.002	-.454	.006
68	7	R3A	3229.278	41.709	-3173.713	-.024	-.39	-.026
69	7	Totals:	-.308	5475.871	-7937.695			
70	7	COG (ft):	X: -.763	Y: .853	Z: .277			
71	8	R4	2813.471	1204.41	2274.219	-.027	-1.07	.023
72	8	R4A	-5207.055	51.829	-5322.078	-.048	-.396	.039
73	8	R1	11128.281	2009.607	-11441.732	.11	-.762	.108
74	8	R1A	-10807.996	73.102	10715.693	.091	-.43	.096
75	8	R2	-4077.812	1218.289	-4153.228	.038	-.286	-.044
76	8	R2A	5561.936	50.896	5598.974	.047	-.358	-.047
77	8	R3	1710.972	827.803	-1619.2	.014	-.505	.016



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
78	8	R3A	2657.055	39.977	-2598.408	-.018	-.342	-.021
79	8	Totals:	3778.852	5475.912	-6545.76			
80	8	COG (ft):	X: -.763	Y: .853	Z: .277			
81	9	R4	5386.175	1386.505	4967.717	-.052	-.753	.049
82	9	R4A	-6634.624	56.448	-6712.418	-.06	-.24	.053
83	9	R1	10691.422	1942.855	-10672.359	.107	-.194	.1
84	9	R1A	-10407.402	71.393	10355.179	.09	-.269	.09
85	9	R2	-1600.573	1056.852	-1714.737	.015	-.092	-.019
86	9	R2A	4318.83	46.698	4326.527	.035	-.205	-.036
87	9	R3	1223.784	873.678	-1054.79	.011	-.456	.009
88	9	R3A	2954.465	41.487	-2920.097	-.021	-.196	-.024
89	9	Totals:	5932.077	5475.916	-3424.979			
90	9	COG (ft):	X: -.763	Y: .853	Z: .277			
91	10	R4	7303.229	1525.22	7140.738	-.073	-.131	.068
92	10	R4A	-7743.967	59.754	-7735.621	-.067	.093	.065
93	10	R1	9342.524	1832.741	-8967.551	.093	.548	.085
94	10	R1A	-9554.186	68.987	9577.075	.085	.055	.08
95	10	R2	197.523	943.643	-21.972	-.001	.365	-.002
96	10	R2A	3460.963	43.576	3425.567	.025	.083	-.029
97	10	R3	-71.506	957.965	180.466	0	-.061	-.004
98	10	R3A	3586.401	44.023	-3598.68	-.028	.094	-.03
99	10	Totals:	6520.981	5475.909	.023			
100	10	COG (ft):	X: -.763	Y: .853	Z: .277			
101	11	R4	8734.526	1642.868	8921.37	-.088	.592	.084
102	11	R4A	-8647.787	62.639	-8563.218	-.073	.403	.076
103	11	R1	7440.393	1696.285	-6826.459	.072	1.133	.066
104	11	R1A	-8467.911	66.102	8570.273	.078	.371	.069
105	11	R2	1562.459	850.092	1300.79	-.013	.725	.012
106	11	R2A	2765.392	40.697	2684.043	.018	.362	-.023
107	11	R3	-1846.499	1070.113	1847.764	-.017	.382	-.021
108	11	R3A	4435.454	47.099	-4484.448	-.037	.364	-.036
109	11	Totals:	5976.027	5475.895	3450.116			
110	11	COG (ft):	X: -.763	Y: .853	Z: .277			
111	12	R4	9238.907	1703.628	9708.876	-.092	1.05	.092
112	12	R4A	-9038.411	64.235	-8927.777	-.074	.502	.081
113	12	R1	4776.399	1515.608	-4121.825	.046	1.297	.041
114	12	R1A	-7028.397	62.058	7154.993	.065	.476	.055
115	12	R2	2016.36	803.081	1878.283	-.016	.661	.019
116	12	R2A	2453.887	39.118	2361.312	.016	.455	-.02
117	12	R3	-4345.131	1236.677	4326.638	-.04	.497	-.045
118	12	R3A	5731.02	51.445	-5791.244	-.049	.454	-.048
119	12	Totals:	3804.633	5475.85	6589.255			
120	12	COG (ft):	X: -.763	Y: .853	Z: .277			
121	13	R4	12420.725	3701.974	12618.446	-.121	.352	.125
122	13	R4A	-17153.087	134.482	-17157.341	-.142	.051	.146
123	13	R1	11259.839	3777.418	-11119.486	.109	.295	.112
124	13	R1A	-16925.72	138.654	16982.952	.142	.191	.141
125	13	R2	-9136.685	3364.645	-9192.818	.087	.183	-.094
126	13	R2A	14866.844	129.328	14932.21	.123	-.038	-.125
127	13	R3	-10147.491	3300.903	10181.263	-.097	.082	-.104
128	13	R3A	14815.771	126.124	-14872.866	-.123	.22	-.124
129	13	Totals:	.196	14673.527	2372.361			
130	13	COG (ft):	X: -.346	Y: .786	Z: .121			
131	14	R4	11698.98	3654.035	11896.746	-.114	.325	.118
132	14	R4A	-16785.159	134.124	-16778.774	-.139	.042	.142
133	14	R1	10877.175	3763.366	-10812.538	.106	.182	.109
134	14	R1A	-16769.402	138.726	16811.954	.14	.159	.14
135	14	R2	-9855.786	3408.274	-9882.014	.094	.13	-.101
136	14	R2A	15206.39	129.71	15289.662	.126	-.074	-.128



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount Analysis

Feb 8, 2024
 3:42 PM
 Checked By: PMA

Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
137	14	R3	-10500.012	3319.031	10507.151	-.1	.091	-.107
138	14	R3A	14980.801	126.25	-15045.122	-.125	.208	-.125
139	14	Totals:	-1147.013	14673.515	1987.066			
140	14	COG (ft):	X: -.346	Y: .786	Z: .121			
141	15	R4	10960.584	3603.522	11117.728	-.107	.227	.11
142	15	R4A	-16402.855	133.748	-16402.627	-.136	-.006	.139
143	15	R1	10955.031	3778.617	-10988.751	.107	.01	.111
144	15	R1A	-16856.115	139.003	16886.445	.14	.107	.141
145	15	R2	-10575.991	3452.777	-10580.101	.101	.056	-.108
146	15	R2A	15542.705	130.058	15632.117	.129	-.121	-.131
147	15	R3	-10409.61	3309.702	10398.33	-.1	.068	-.106
148	15	R3A	14924.467	126.086	-14988.134	-.124	.165	-.125
149	15	Totals:	-1861.784	14673.513	1075.007			
150	15	COG (ft):	X: -.346	Y: .786	Z: .121			
151	16	R4	10391.008	3564.241	10475.245	-.1	.072	.105
152	16	R4A	-16093.997	133.432	-16117.5	-.134	-.09	.135
153	16	R1	11325.586	3807.233	-11455.178	.111	-.177	.115
154	16	R1A	-17080.387	139.27	17090.204	.141	.026	.144
155	16	R2	-11127.999	3486.732	-11109.471	.106	-.048	-.114
156	16	R2A	15803.577	130.334	15886.424	.132	-.175	-.133
157	16	R3	-10045.135	3286.457	10041.291	-.097	-.014	-.102
158	16	R3A	14743.989	125.817	-14810.988	-.123	.108	-.123
159	16	Totals:	-2083.358	14673.514	.028			
160	16	COG (ft):	X: -.346	Y: .786	Z: .121			
161	17	R4	9998.927	3534.045	9991.979	-.096	-.105	.101
162	17	R4A	-15858.114	133.099	-15902.16	-.132	-.166	.133
163	17	R1	11895.411	3845.394	-12092.306	.117	-.32	.12
164	17	R1A	-17384.921	139.494	17372.836	.143	-.052	.147
165	17	R2	-11506.73	3512.273	-11484.579	.11	-.121	-.117
166	17	R2A	15998.669	130.611	16076.775	.134	-.227	-.134
167	17	R3	-9501.156	3253.104	9516.715	-.091	-.11	-.097
168	17	R3A	14486.172	125.5	-14559.893	-.12	.059	-.121
169	17	Totals:	-1871.741	14673.519	-1080.632			
170	17	COG (ft):	X: -.346	Y: .786	Z: .121			
171	18	R4	9901.973	3520.672	9812.252	-.095	-.244	.099
172	18	R4A	-15772.874	132.875	-15826.173	-.132	-.202	.131
173	18	R1	12658.353	3894.813	-12875.443	.125	-.378	.127
174	18	R1A	-17770.064	139.736	17754.956	.147	-.085	.15
175	18	R2	-11586.617	3521.969	-11595.441	.11	-.114	-.119
176	18	R2A	16057.505	130.777	16133.419	.134	-.255	-.135
177	18	R3	-8779.265	3207.625	8807.692	-.084	-.16	-.09
178	18	R3A	14138.108	125.066	-14208.107	-.117	.027	-.118
179	18	Totals:	-1152.881	14673.532	-1996.845			
180	18	COG (ft):	X: -.346	Y: .786	Z: .121			
181	19	R4	10270.512	3540.29	10133.381	-.099	-.302	.102
182	19	R4A	-15944.735	133.003	-16007.53	-.134	-.21	.133
183	19	R1	13404.052	3938.48	-13589.133	.131	-.344	.135
184	19	R1A	-18130.038	139.88	18130.18	.15	-.072	.154
185	19	R2	-11203.056	3501.906	-11256.304	.107	-.063	-.115
186	19	R2A	15884.66	130.652	15949.106	.132	-.245	-.134
187	19	R3	-8076.221	3164.707	8119.346	-.078	-.174	-.083
188	19	R3A	13794.817	124.631	-13851.34	-.113	.014	-.115
189	19	Totals:	-.009	14673.55	-2372.294			
190	19	COG (ft):	X: -.346	Y: .786	Z: .121			
191	20	R4	10993.267	3588.011	10854.13	-.105	-.276	.11
192	20	R4A	-16313.259	133.406	-16385.707	-.138	-.2	.136
193	20	R1	13786.247	3952.713	-13895.64	.135	-.231	.138
194	20	R1A	-18286.471	139.781	18301.41	.152	-.04	.155
195	20	R2	-10482.969	3458.089	-10567.895	.1	-.009	-.108



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
196	20	R2A	15544.674	130.304	15592.189	.129	-.21	-.131
197	20	R3	-7724.535	3146.779	7793.994	-.075	-.183	-.08
198	20	R3A	13630.248	124.478	-13679.48	-.112	.026	-.114
199	20	Totals:	1147.2	14673.561	-1986.999			
200	20	COG (ft):	X: -.346	Y: .786	Z: .121			
201	21	R4	11731.959	3638.5	11632.103	-.113	-.178	.117
202	21	R4A	-16695.893	133.786	-16761.617	-.141	-.152	.14
203	21	R1	13708.73	3937.411	-13718.035	.134	-.059	.136
204	21	R1A	-18199.963	139.524	18226.336	.152	.011	.153
205	21	R2	-9762.956	3413.631	-9870.889	.094	.067	-.101
206	21	R2A	15208.417	129.956	15250.353	.125	-.164	-.128
207	21	R3	-7814.786	3156.1	7903.918	-.075	-.161	-.081
208	21	R3A	13686.462	124.655	-13737.109	-.112	.069	-.114
209	21	Totals:	1861.971	14673.564	-1074.94			
210	21	COG (ft):	X: -.346	Y: .786	Z: .121			
211	22	R4	12300.778	3677.905	12274.393	-.119	-.023	.122
212	22	R4A	-17004.457	134.076	-17046.856	-.143	-.068	.143
213	22	R1	13339.049	3908.632	-13250.727	.13	.129	.132
214	22	R1A	-17975.871	139.292	18021.86	.151	.091	.151
215	22	R2	-9212.122	3379.857	-9341.836	.088	.17	-.096
216	22	R2A	14948.019	129.659	14996.179	.123	-.11	-.126
217	22	R3	-8178.212	3179.189	8261.544	-.079	-.08	-.085
218	22	R3A	13866.362	124.951	-13914.519	-.114	.127	-.116
219	22	Totals:	2083.545	14673.562	.039			
220	22	COG (ft):	X: -.346	Y: .786	Z: .121			
221	23	R4	12691.906	3708.29	12758.677	-.123	.155	.127
222	23	R4A	-17240.016	134.371	-17262.886	-.144	.007	.146
223	23	R1	12769.845	3870.328	-12614.123	.124	.272	.127
224	23	R1A	-17671.548	139.092	17739.292	.149	.17	.147
225	23	R2	-8834.325	3354.471	-8965.847	.085	.242	-.092
226	23	R2A	14753.471	129.352	14805.436	.121	-.057	-.124
227	23	R3	-8721.232	3212.364	8785.544	-.084	.016	-.09
228	23	R3A	14123.826	125.289	-14165.393	-.116	.177	-.118
229	23	Totals:	1871.928	14673.558	1080.699			
230	23	COG (ft):	X: -.346	Y: .786	Z: .121			
231	24	R4	12788.581	3721.754	12939.556	-.124	.294	.128
232	24	R4A	-17324.935	134.576	-17339.164	-.144	.043	.147
233	24	R1	12006.478	3820.895	-11832.325	.116	.329	.119
234	24	R1A	-17286.099	138.842	17357.674	.146	.203	.144
235	24	R2	-8754.23	3344.78	-8853.866	.084	.234	-.091
236	24	R2A	14694.592	129.173	14748.127	.121	-.028	-.123
237	24	R3	-9443.341	3257.8	9493.458	-.091	.067	-.097
238	24	R3A	14472.022	125.723	-14516.547	-.12	.208	-.121
239	24	Totals:	1153.068	14673.545	1996.912			
240	24	COG (ft):	X: -.346	Y: .786	Z: .121			
241	25	R4	3816.414	1302.205	3845.929	-.038	.065	.038
242	25	R4A	-5965.753	54.435	-5957.859	-.05	.029	.05
243	25	R1	6697.4	1902.332	-6681.56	.065	.052	.066
244	25	R1A	-9048.479	73.904	9069.123	.077	.059	.077
245	25	R2	-5384.446	1695.966	-5444.368	.049	.099	-.058
246	25	R2A	7750.873	67.705	7829.753	.064	-.133	-.067
247	25	R3	-2643.245	1082.316	2645.618	-.025	.036	-.028
248	25	R3A	4777.333	46.896	-4810.527	-.04	.087	-.04
249	25	Totals:	.096	6225.76	496.108			
250	25	COG (ft):	X: -.43	Y: .79	Z: 1.084			
251	26	R4	3654.462	1290.892	3682.331	-.036	.058	.036
252	26	R4A	-5876.9	54.14	-5868.723	-.049	.027	.049
253	26	R1	6615.567	1899.281	-6614.23	.064	.031	.066
254	26	R1A	-9013.043	73.865	9031.563	.076	.055	.077



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
255	26	R2	-5546.911	1706.501	-5603.8	.051	.093	-.059
256	26	R2A	7833.88	67.94	7914.969	.065	-.138	-.067
257	26	R3	-2716.444	1086.144	2713.608	-.026	.04	-.028
258	26	R3A	4813.289	46.996	-4846.619	-.04	.084	-.04
259	26	Totals:	-236.101	6225.758	409.1			
260	26	COG (ft):	X: -.43	Y: .79	Z: 1.084			
261	27	R4	3493.842	1279.511	3513.633	-.035	.038	.035
262	27	R4A	-5787.83	53.849	-5781.757	-.048	.017	.049
263	27	R1	6642.741	1903.407	-6661.593	.064	-.005	.066
264	27	R1A	-9037.887	73.976	9053.687	.077	.044	.077
265	27	R2	-5701.71	1716.662	-5756.373	.052	.081	-.061
266	27	R2A	7911.499	68.159	7994.416	.066	-.148	-.068
267	27	R3	-2686.142	1083.285	2678.945	-.026	.036	-.028
268	27	R3A	4794.805	46.908	-4826.897	-.04	.075	-.04
269	27	Totals:	-370.682	6225.757	214.06			
270	27	COG (ft):	X: -.43	Y: .79	Z: 1.084			
271	28	R4	3373.552	1270.874	3377.702	-.034	0	.033
272	28	R4A	-5718.206	53.627	-5717.786	-.048	-.004	.048
273	28	R1	6727.25	1910.225	-6767.678	.065	-.051	.067
274	28	R1A	-9091.059	74.13	9101.906	.077	.024	.077
275	28	R2	-5814.764	1723.852	-5861.993	.053	.052	-.062
276	28	R2A	7965.457	68.316	8050.385	.066	-.166	-.068
277	28	R3	-2604.875	1077.976	2602.134	-.025	.011	-.027
278	28	R3A	4755.169	46.758	-4784.676	-.039	.057	-.04
279	28	Totals:	-407.477	6225.758	-.006			
280	28	COG (ft):	X: -.43	Y: .79	Z: 1.084			
281	29	R4	3283.558	1263.594	3266.934	-.033	-.045	.032
282	29	R4A	-5661.431	53.426	-5666.367	-.047	-.024	.047
283	29	R1	6846.313	1918.715	-6901.749	.066	-.088	.068
284	29	R1A	-9158.863	74.304	9164.843	.077	.004	.078
285	29	R2	-5900.553	1729.784	-5943.837	.054	.029	-.063
286	29	R2A	8009.177	68.457	8096.019	.067	-.182	-.069
287	29	R3	-2493.585	1070.908	2497.683	-.024	-.017	-.026
288	29	R3A	4701.956	46.57	-4729.166	-.039	.04	-.039
289	29	Totals:	-373.429	6225.759	-215.64			
290	29	COG (ft):	X: -.43	Y: .79	Z: 1.084			
291	30	R4	3252.033	1259.856	3218.34	-.032	-.074	.032
292	30	R4A	-5636.915	53.315	-5643.733	-.047	-.03	.047
293	30	R1	7012.439	1929.989	-7071.209	.068	-.098	.07
294	30	R1A	-9248.429	74.53	9253.313	.078	-.002	.079
295	30	R2	-5928.658	1732.737	-5979.176	.054	.032	-.063
296	30	R2A	8028.402	68.536	8115.5	.067	-.188	-.069
297	30	R3	-2337.67	1060.506	2342.331	-.022	-.023	-.024
298	30	R3A	4621.085	46.292	-4647.193	-.038	.034	-.039
299	30	Totals:	-237.713	6225.762	-411.827			
300	30	COG (ft):	X: -.43	Y: .79	Z: 1.084			
301	31	R4	3329.681	1264.357	3288.925	-.033	-.081	.033
302	31	R4A	-5676.483	53.431	-5683.525	-.048	-.028	.047
303	31	R1	7181.231	1940.222	-7232.949	.07	-.088	.072
304	31	R1A	-9335.215	74.728	9342.077	.079	.001	.08
305	31	R2	-5846.801	1728.28	-5907.112	.054	.047	-.063
306	31	R2A	7990.115	68.442	8075.504	.067	-.185	-.069
307	31	R3	-2179.748	1050.292	2183.786	-.021	-.02	-.023
308	31	R3A	4537.271	46.013	-4562.824	-.037	.036	-.038
309	31	Totals:	.052	6225.766	-496.117			
310	31	COG (ft):	X: -.43	Y: .79	Z: 1.084			
311	32	R4	3491.688	1275.66	3452.483	-.035	-.074	.034
312	32	R4A	-5765.373	53.729	-5772.649	-.048	-.025	.048
313	32	R1	7263.032	1943.282	-7300.259	.07	-.066	.072



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
314	32	R1A	-9370.651	74.766	9379.65	.079	.006	.08
315	32	R2	-5684.289	1717.736	-5747.721	.052	.053	-.061
316	32	R2A	7907.091	68.209	7990.323	.066	-.18	-.068
317	32	R3	-2106.588	1046.473	2115.816	-.02	-.023	-.022
318	32	R3A	4501.339	45.913	-4526.751	-.037	.039	-.038
319	32	Totals:	236.249	6225.768	-409.109			
320	32	COG (ft):	X: -.43	Y: .79	Z: 1.084			
321	33	R4	3652.327	1287.039	3621.131	-.036	-.055	.036
322	33	R4A	-5854.465	54.02	-5859.607	-.049	-.016	.049
323	33	R1	7235.869	1939.153	-7252.826	.07	-.03	.072
324	33	R1A	-9345.817	74.656	9357.499	.079	.016	.08
325	33	R2	-5529.497	1707.578	-5595.209	.051	.065	-.059
326	33	R2A	7829.479	67.99	7910.918	.065	-.17	-.067
327	33	R3	-2136.888	1049.332	2150.535	-.02	-.02	-.023
328	33	R3A	4519.823	46.001	-4546.511	-.037	.048	-.038
329	33	Totals:	370.83	6225.769	-214.069			
330	33	COG (ft):	X: -.43	Y: .79	Z: 1.084			
331	34	R4	3772.572	1295.681	3757.049	-.037	-.016	.037
332	34	R4A	-5924.07	54.24	-5923.583	-.05	.005	.05
333	34	R1	7151.41	1932.328	-7146.692	.069	.016	.071
334	34	R1A	-9292.661	74.504	9309.24	.079	.037	.079
335	34	R2	-5416.508	1700.396	-5489.606	.05	.094	-.058
336	34	R2A	7775.549	67.832	7854.957	.065	-.152	-.067
337	34	R3	-2218.099	1054.634	2227.386	-.021	.005	-.024
338	34	R3A	4559.432	46.152	-4588.754	-.037	.066	-.038
339	34	Totals:	407.625	6225.768	-.003			
340	34	COG (ft):	X: -.43	Y: .79	Z: 1.084			
341	35	R4	3862.508	1302.97	3867.872	-.038	.029	.038
342	35	R4A	-5980.818	54.439	-5975.039	-.05	.025	.05
343	35	R1	7032.387	1923.832	-7012.652	.068	.053	.07
344	35	R1A	-9224.872	74.331	9246.308	.079	.056	.078
345	35	R2	-5330.769	1694.471	-5407.705	.049	.118	-.057
346	35	R2A	7731.855	67.689	7809.293	.064	-.135	-.066
347	35	R3	-2329.336	1061.694	2331.807	-.022	.033	-.025
348	35	R3A	4612.623	46.341	-4644.252	-.038	.082	-.038
349	35	Totals:	373.577	6225.767	215.631			
350	35	COG (ft):	X: -.43	Y: .79	Z: 1.084			
351	36	R4	3894.02	1306.713	3916.52	-.039	.058	.038
352	36	R4A	-6005.315	54.549	-5997.681	-.05	.031	.051
353	36	R1	6866.24	1912.557	-6843.263	.066	.063	.068
354	36	R1A	-9135.288	74.104	9157.865	.078	.063	.078
355	36	R2	-5302.646	1691.518	-5372.305	.049	.114	-.057
356	36	R2A	7712.619	67.609	7789.768	.064	-.13	-.066
357	36	R3	-2485.269	1072.094	2487.099	-.024	.04	-.026
358	36	R3A	4693.501	46.62	-4726.186	-.039	.088	-.039
359	36	Totals:	237.861	6225.764	411.818			
360	36	COG (ft):	X: -.43	Y: .79	Z: 1.084			
361	37	R4	3592.711	1264.746	3612.774	-.036	.042	.036
362	37	R4A	-5735.656	53.185	-5733.796	-.048	.013	.048
363	37	R1	8349.842	2228.373	-8344.731	.08	.037	.084
364	37	R1A	-10702.875	83.515	10751.877	.091	.113	.092
365	37	R2	-3730.117	1371.889	-3778.406	.035	.084	-.04
366	37	R2A	6090.844	57.128	6138.88	.05	-.076	-.052
367	37	R3	-2865.117	1118.822	2876.404	-.027	.015	-.03
368	37	R3A	5000.446	48.153	-5026.904	-.042	.069	-.042
369	37	Totals:	.078	6225.811	496.097			
370	37	COG (ft):	X: -.912	Y: .79	Z: 1.084			
371	38	R4	3430.768	1253.447	3449.214	-.034	.036	.034
372	38	R4A	-5646.828	52.887	-5644.7	-.047	.01	.047



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
373	38	R1	8267.968	2225.313	-8277.434	.079	.016	.083
374	38	R1A	-10667.395	83.486	10714.345	.091	.109	.091
375	38	R2	-3892.6	1382.376	-3937.918	.036	.078	-.042
376	38	R2A	6173.876	57.388	6224.192	.051	-.081	-.052
377	38	R3	-2938.335	1122.66	2944.42	-.028	.018	-.03
378	38	R3A	5036.427	48.252	-5063.03	-.042	.066	-.042
379	38	Totals:	-236.12	6225.809	409.089			
380	38	COG (ft):	X: -.912	Y: .79	Z: 1.084			
381	39	R4	3270.118	1242.072	3280.53	-.033	.016	.033
382	39	R4A	-5557.731	52.593	-5557.739	-.046	0	.046
383	39	R1	8295.073	2229.479	-8324.894	.079	-.02	.084
384	39	R1A	-10692.151	83.591	10736.543	.091	.099	.092
385	39	R2	-4047.34	1392.475	-4090.569	.038	.066	-.043
386	39	R2A	6251.429	57.631	6303.731	.052	-.091	-.053
387	39	R3	-2908.045	1119.803	2909.779	-.028	.014	-.03
388	39	R3A	5017.946	48.165	-5043.331	-.042	.057	-.042
389	39	Totals:	-370.701	6225.809	214.049			
390	39	COG (ft):	X: -.912	Y: .79	Z: 1.084			
391	40	R4	3149.767	1233.432	3144.595	-.031	-.023	.031
392	40	R4A	-5488.04	52.368	-5493.754	-.046	-.021	.046
393	40	R1	8379.463	2236.352	-8431.159	.08	-.066	.085
394	40	R1A	-10745.177	83.73	10784.921	.091	.078	.092
395	40	R2	-4160.22	1399.61	-4196.28	.039	.037	-.044
396	40	R2A	6305.19	57.804	6359.798	.052	-.108	-.053
397	40	R3	-2826.795	1114.495	2833.013	-.027	-.011	-.029
398	40	R3A	4978.316	48.017	-5001.15	-.041	.039	-.042
399	40	Totals:	-407.495	6225.809	-.017			
400	40	COG (ft):	X: -.912	Y: .79	Z: 1.084			
401	41	R4	3059.728	1226.153	3033.836	-.03	-.067	.03
402	41	R4A	-5431.228	52.165	-5442.346	-.045	-.041	.045
403	41	R1	8498.407	2244.896	-8565.377	.081	-.103	.086
404	41	R1A	-10812.844	83.885	10847.999	.091	.059	.093
405	41	R2	-4245.861	1405.494	-4278.219	.039	.014	-.045
406	41	R2A	6348.75	57.958	6405.543	.053	-.125	-.054
407	41	R3	-2715.508	1107.427	2728.587	-.026	-.039	-.028
408	41	R3A	4925.108	47.831	-4945.675	-.041	.022	-.041
409	41	Totals:	-373.447	6225.81	-215.651			
410	41	COG (ft):	X: -.912	Y: .79	Z: 1.084			
411	42	R4	3028.189	1222.417	2985.253	-.03	-.096	.03
412	42	R4A	-5406.712	52.052	-5419.728	-.045	-.047	.045
413	42	R1	8664.487	2256.228	-8734.866	.083	-.113	.087
414	42	R1A	-10902.358	84.084	10936.496	.092	.052	.094
415	42	R2	-4273.938	1408.418	-4313.597	.04	.017	-.046
416	42	R2A	6367.955	58.043	6425.087	.053	-.131	-.054
417	42	R3	-2559.57	1097.014	2573.2	-.025	-.045	-.027
418	42	R3A	4844.215	47.556	-4863.684	-.04	.016	-.041
419	42	Totals:	-237.731	6225.813	-411.838			
420	42	COG (ft):	X: -.912	Y: .79	Z: 1.084			
421	43	R4	3105.823	1226.908	3055.817	-.031	-.103	.031
422	43	R4A	-5446.264	52.17	-5459.496	-.046	-.045	.045
423	43	R1	8833.298	2266.513	-8896.576	.084	-.103	.089
424	43	R1A	-10989.161	84.255	11025.224	.093	.056	.095
425	43	R2	-4192.085	1403.971	-4241.489	.039	.032	-.045
426	43	R2A	6329.678	57.936	6385.055	.052	-.128	-.054
427	43	R3	-2401.616	1086.783	2414.602	-.023	-.042	-.025
428	43	R3A	4760.361	47.28	-4779.264	-.039	.018	-.04
429	43	Totals:	.033	6225.817	-496.128			
430	43	COG (ft):	X: -.912	Y: .79	Z: 1.084			
431	44	R4	3267.821	1238.197	3219.337	-.032	-.097	.032



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
432	44	R4A	-5535.129	52.471	-5548.58	-.046	-.042	.046
433	44	R1	8915.141	2269.581	-8963.853	.085	-.081	.09
434	44	R1A	-11024.641	84.283	11062.768	.093	.06	.095
435	44	R2	-4029.555	1393.475	-4082.019	.037	.039	-.043
436	44	R2A	6246.629	57.678	6299.778	.052	-.123	-.053
437	44	R3	-2328.438	1082.954	2346.606	-.022	-.045	-.024
438	44	R3A	4724.403	47.18	-4743.157	-.039	.021	-.04
439	44	Totals:	236.231	6225.819	-409.12			
440	44	COG (ft):	X: -.912	Y: .79	Z: 1.084			
441	45	R4	3428.489	1249.57	3387.972	-.034	-.077	.034
442	45	R4A	-5624.248	52.765	-5635.533	-.047	-.033	.047
443	45	R1	8888.047	2265.412	-8916.323	.085	-.045	.089
444	45	R1A	-10999.895	84.18	11040.543	.093	.07	.095
445	45	R2	-3874.822	1383.378	-3929.428	.036	.051	-.042
446	45	R2A	6169.083	57.435	6220.28	.051	-.113	-.052
447	45	R3	-2358.726	1085.811	2381.303	-.023	-.042	-.025
448	45	R3A	4742.884	47.268	-4762.895	-.039	.03	-.04
449	45	Totals:	370.812	6225.82	-214.08			
450	45	COG (ft):	X: -.912	Y: .79	Z: 1.084			
451	46	R4	3548.795	1258.214	3523.893	-.035	-.038	.035
452	46	R4A	-5693.92	52.989	-5699.523	-.048	-.011	.047
453	46	R1	8803.706	2258.531	-8810.009	.084	0	.088
454	46	R1A	-10946.885	84.043	10992.126	.093	.091	.094
455	46	R2	-3762.007	1376.251	-3823.734	.035	.08	-.041
456	46	R2A	6115.35	57.262	6164.221	.05	-.095	-.052
457	46	R3	-2439.921	1091.112	2458.11	-.023	-.016	-.026
458	46	R3A	4782.487	47.417	-4805.098	-.039	.048	-.04
459	46	Totals:	407.606	6225.819	-.015			
460	46	COG (ft):	X: -.912	Y: .79	Z: 1.084			
461	47	R4	3638.775	1265.502	3634.707	-.036	.007	.036
462	47	R4A	-5750.705	53.19	-5750.969	-.048	.008	.048
463	47	R1	8684.802	2249.982	-8675.823	.083	.038	.087
464	47	R1A	-10879.233	83.889	10929.053	.093	.11	.093
465	47	R2	-3676.417	1370.374	-3741.739	.034	.103	-.04
466	47	R2A	6071.816	57.106	6118.446	.05	-.078	-.052
467	47	R3	-2551.154	1098.172	2562.506	-.024	.011	-.027
468	47	R3A	4835.674	47.604	-4860.561	-.04	.065	-.04
469	47	Totals:	373.558	6225.818	215.62			
470	47	COG (ft):	X: -.912	Y: .79	Z: 1.084			
471	48	R4	3670.302	1269.244	3683.345	-.036	.035	.036
472	48	R4A	-5775.201	53.301	-5773.594	-.048	.015	.048
473	48	R1	8518.701	2238.649	-8506.405	.081	.048	.085
474	48	R1A	-10789.701	83.689	10840.583	.092	.117	.092
475	48	R2	-3648.321	1367.45	-3706.3	.034	.099	-.039
476	48	R2A	6052.6	57.02	6098.858	.05	-.073	-.051
477	48	R3	-2707.11	1108.582	2717.832	-.026	.018	-.028
478	48	R3A	4916.573	47.88	-4942.512	-.041	.07	-.041
479	48	Totals:	237.842	6225.816	411.807			
480	48	COG (ft):	X: -.912	Y: .79	Z: 1.084			
481	49	R4	3769.462	1312.525	3757.938	-.038	-.018	.037
482	49	R4A	-5953.38	54.884	-5943.664	-.05	.016	.05
483	49	R1	8029.908	2036.278	-8028.481	.078	.002	.077
484	49	R1A	-10228.283	77.209	10214.26	.088	-.026	.088
485	49	R2	-2756.766	1141.366	-2782.6	.027	.038	-.029
486	49	R2A	4952.162	49.072	4971.972	.041	-.035	-.041
487	49	R3	-2861.271	1130.871	2873.408	-.028	-.013	-.029
488	49	R3A	5048.221	48.636	-5062.842	-.042	.029	-.042
489	49	Totals:	.054	5850.842	-.01			
490	49	COG (ft):	X: -1.115	Y: .819	Z: .706			



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
491	50	R4	3792.082	1294.724	3783.367	-.038	-.015	.037
492	50	R4A	-5903.293	54.197	-5900.003	-.049	.004	.049
493	50	R1	6858.207	1870.906	-6865.499	.067	-.007	.067
494	50	R1A	-8979.15	72.637	8982.312	.076	.007	.076
495	50	R2	-3887.061	1340.764	-3925.326	.037	.048	-.041
496	50	R2A	6006.928	55.823	6047.882	.05	-.079	-.051
497	50	R3	-2846.639	1113.773	2856.161	-.027	-.008	-.029
498	50	R3A	4958.982	47.982	-4978.898	-.041	.04	-.042
499	50	Totals:	.057	5850.807	-.003			
500	50	COG (ft):	X: -.714	Y: .819	Z: .706			
501	51	R4	4806.889	1548.844	4798.963	-.048	-.011	.047
502	51	R4A	-7128.188	63.542	-7116.788	-.06	.02	.06
503	51	R1	6944.394	1932.857	-6930.658	.069	.016	.066
504	51	R1A	-9275.803	75.417	9248.512	.079	-.054	.078
505	51	R2	-3485.47	1319.002	-3507.468	.034	.031	-.036
506	51	R2A	5816.103	56.003	5831.285	.048	-.029	-.049
507	51	R3	-3694.807	1336.283	3708.291	-.036	-.016	-.037
508	51	R3A	6016.937	56.517	-6032.132	-.05	.03	-.05
509	51	Totals:	.056	6388.465	.005			
510	51	COG (ft):	X: -.763	Y: .853	Z: .277			
511	52	R4	4493.872	1391.123	4520.206	-.045	.062	.044
512	52	R4A	-6455.151	57.401	-6435.516	-.054	.052	.054
513	52	R1	5946.613	1701.632	-5900.285	.059	.087	.057
514	52	R1A	-8120.313	67.617	8104.899	.069	-.014	.068
515	52	R2	-2881.147	1158.45	-2904.635	.028	.063	-.03
516	52	R2A	5066.83	49.807	5077.531	.042	.002	-.042
517	52	R3	-3497.476	1200.374	3505.005	-.034	.023	-.035
518	52	R3A	5446.847	50.97	-5463.383	-.046	.054	-.046
519	52	Totals:	.076	5677.374	503.821			
520	52	COG (ft):	X: -.763	Y: .853	Z: .277			
521	53	R4	4351.747	1382.362	4376.409	-.043	.05	.043
522	53	R4A	-6384.401	57.192	-6365.919	-.053	.043	.054
523	53	R1	5850.853	1697.168	-5823.503	.058	.054	.056
524	53	R1A	-8081.868	67.533	8062.246	.069	-.026	.068
525	53	R2	-3029.908	1166.933	-3042.613	.03	.04	-.031
526	53	R2A	5133.88	50.022	5148.046	.042	-.009	-.043
527	53	R3	-3579.328	1205.075	3585.105	-.035	.015	-.036
528	53	R3A	5487.188	51.087	-5503.464	-.046	.046	-.046
529	53	Totals:	-.251.838	5677.371	436.308			
530	53	COG (ft):	X: -.763	Y: .853	Z: .277			
531	54	R4	4187.887	1371.853	4202.411	-.042	.022	.041
532	54	R4A	-6299.859	56.937	-6284.775	-.053	.027	.053
533	54	R1	5840.791	1697.992	-5836.419	.058	.01	.056
534	54	R1A	-8086.307	67.562	8061.182	.069	-.044	.068
535	54	R2	-3196.56	1176.706	-3200.289	.031	.014	-.033
536	54	R2A	5209.872	50.271	5227.316	.043	-.025	-.043
537	54	R3	-3581.748	1204.967	3587.467	-.035	0	-.036
538	54	R3A	5489.678	51.081	-5504.982	-.046	.033	-.046
539	54	Totals:	-436.245	5677.369	251.911			
540	54	COG (ft):	X: -.763	Y: .853	Z: .277			
541	55	R4	4046.168	1362.412	4044.824	-.04	-.014	.04
542	55	R4A	-6224.162	56.706	-6213.821	-.052	.009	.052
543	55	R1	5919.108	1703.884	-5935.602	.059	-.033	.057
544	55	R1A	-8132.433	67.694	8102.003	.069	-.062	.069
545	55	R2	-3336.471	1185.151	-3335.427	.032	-.009	-.034
546	55	R2A	5274.458	50.488	5294.107	.044	-.04	-.044
547	55	R3	-3504.097	1200.079	3511.438	-.034	-.02	-.035
548	55	R3A	5453.657	50.956	-5467.519	-.045	.018	-.046
549	55	Totals:	-503.77	5677.369	.002			



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
550	55	COG (ft):	X: -.763	Y: .853	Z: .277			
551	56	R4	3964.609	1356.568	3945.901	-.04	-.05	.039
552	56	R4A	-6177.612	56.56	-6172.078	-.052	-.007	.051
553	56	R1	6064.817	1713.269	-6094.501	.061	-.063	.058
554	56	R1A	-8207.888	67.895	8173.79	.07	-.077	.069
555	56	R2	-3412.101	1190.001	-3411.793	.033	-.023	-.035
556	56	R2A	5310.31	50.613	5330.512	.044	-.052	-.044
557	56	R3	-3367.185	1191.723	3377.367	-.033	-.037	-.034
558	56	R3A	5388.779	50.743	-5401.103	-.045	.006	-.045
559	56	Totals:	-436.272	5677.371	-251.906			
560	56	COG (ft):	X: -.763	Y: .853	Z: .277			
561	57	R4	3965.065	1355.883	3932.113	-.04	-.075	.039
562	57	R4A	-6172.684	56.54	-6170.711	-.052	-.016	.051
563	57	R1	6238.838	1723.632	-6270.499	.062	-.073	.06
564	57	R1A	-8292.441	68.109	8257.291	.07	-.084	.07
565	57	R2	-3403.187	1189.954	-3408.958	.033	-.023	-.035
566	57	R2A	5307.82	50.616	5326.792	.044	-.056	-.044
567	57	R3	-3207.739	1182.141	3221.216	-.031	-.049	-.032
568	57	R3A	5312.444	50.499	-5323.547	-.044	-.001	-.045
569	57	Totals:	-251.883	5677.374	-436.301			
570	57	COG (ft):	X: -.763	Y: .853	Z: .277			
571	58	R4	4047.413	1360.538	4007.13	-.04	-.082	.039
572	58	R4A	-6210.698	56.65	-6210.078	-.052	-.016	.052
573	58	R1	6394.588	1732.2	-6416.443	.064	-.059	.061
574	58	R1A	-8363.456	68.28	8330.135	.071	-.081	.071
575	58	R2	-3312.123	1185.024	-3327.697	.032	-.009	-.034
576	58	R2A	5267.655	50.493	5283.95	.044	-.052	-.044
577	58	R3	-3068.442	1173.901	3084.819	-.03	-.051	-.031
578	58	R3A	5245.086	50.29	-5255.626	-.043	0	-.044
579	58	Totals:	.024	5677.378	-503.812			
580	58	COG (ft):	X: -.763	Y: .853	Z: .277			
581	59	R4	4189.587	1369.291	4150.869	-.042	-.07	.041
582	59	R4A	-6281.47	56.861	-6279.644	-.053	-.007	.052
583	59	R1	6490.327	1736.672	-6493.187	.065	-.026	.062
584	59	R1A	-8401.899	68.362	8372.78	.071	-.069	.071
585	59	R2	-3163.318	1176.534	-3189.769	.031	.014	-.033
586	59	R2A	5200.578	50.279	5213.456	.043	-.041	-.043
587	59	R3	-2986.624	1169.209	3004.754	-.029	-.043	-.03
588	59	R3A	5204.757	50.173	-5215.559	-.043	.008	-.044
589	59	Totals:	251.937	5677.38	-436.299			
590	59	COG (ft):	X: -.763	Y: .853	Z: .277			
591	60	R4	4353.445	1379.797	4324.807	-.043	-.042	.042
592	60	R4A	-6366.014	57.116	-6360.766	-.054	.009	.053
593	60	R1	6500.423	1735.847	-6480.199	.065	.018	.062
594	60	R1A	-8397.477	68.334	8373.81	.072	-.052	.071
595	60	R2	-2996.686	1166.763	-3032.138	.029	.041	-.031
596	60	R2A	5124.585	50.03	5134.204	.042	-.026	-.043
597	60	R3	-2984.181	1169.317	3002.449	-.029	-.028	-.03
598	60	R3A	5202.25	50.178	-5214.069	-.043	.021	-.044
599	60	Totals:	436.345	5677.382	-251.902			
600	60	COG (ft):	X: -.763	Y: .853	Z: .277			
601	61	R4	4495.114	1389.244	4482.392	-.045	-.006	.044
602	61	R4A	-6441.692	57.346	-6431.73	-.054	.027	.054
603	61	R1	6422.162	1729.948	-6380.984	.064	.061	.061
604	61	R1A	-8351.37	68.203	8332.962	.071	-.033	.07
605	61	R2	-2856.838	1158.326	-2896.995	.028	.064	-.03
606	61	R2A	5060.024	49.812	5067.408	.042	-.01	-.042
607	61	R3	-3061.776	1174.198	3078.499	-.03	-.008	-.031
608	61	R3A	5238.245	50.305	-5251.544	-.043	.036	-.044



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
609	61	Totals:	503.87	5677.382	.007			
610	61	COG (ft):	X: -.763	Y: .853	Z: .277			
611	62	R4	4576.625	1395.097	4581.372	-.046	.03	.044
612	62	R4A	-6488.22	57.49	-6473.505	-.055	.043	.054
613	62	R1	6276.474	1720.555	-6222.123	.062	.091	.06
614	62	R1A	-8275.915	68.004	8261.182	.071	-.018	.07
615	62	R2	-2781.251	1153.484	-2820.579	.027	.077	-.029
616	62	R2A	5024.198	49.685	5030.981	.041	.001	-.042
617	62	R3	-3198.652	1182.545	3212.534	-.031	.009	-.033
618	62	R3A	5303.112	50.519	-5317.947	-.044	.048	-.044
619	62	Totals:	436.371	5677.38	251.915			
620	62	COG (ft):	X: -.763	Y: .853	Z: .277			
621	63	R4	4576.17	1395.785	4595.22	-.046	.055	.045
622	63	R4A	-6493.145	57.51	-6474.894	-.054	.052	.055
623	63	R1	6102.418	1710.192	-6046.197	.061	.1	.058
624	63	R1A	-8191.347	67.789	8177.715	.07	-.011	.069
625	63	R2	-2790.145	1153.529	-2823.37	.027	.077	-.029
626	63	R2A	5026.689	49.683	5034.684	.041	.006	-.042
627	63	R3	-3358.122	1192.126	3368.628	-.032	.021	-.034
628	63	R3A	5379.463	50.763	-5395.476	-.045	.055	-.045
629	63	Totals:	251.982	5677.377	436.31			
630	63	COG (ft):	X: -.763	Y: .853	Z: .277			
631	64	R4	3159.331	960.624	3187.471	-.032	.065	.031
632	64	R4A	-4475.935	40.604	-4458.868	-.037	.046	.038
633	64	R1	4018.782	1164.418	-3976.683	.04	.082	.038
634	64	R1A	-5544.851	47.938	5537.526	.047	.001	.047
635	64	R2	-1913.032	791.952	-1930.222	.019	.055	-.02
636	64	R2A	3451.462	34.771	3457.618	.028	.01	-.029
637	64	R3	-2471.742	829.118	2475.845	-.024	.027	-.025
638	64	R3A	3776.045	35.894	-3788.867	-.032	.046	-.032
639	64	Totals:	.06	3905.32	503.819			
640	64	COG (ft):	X: -.763	Y: .853	Z: .277			
641	65	R4	3017.024	951.872	3043.601	-.03	.053	.03
642	65	R4A	-4404.96	40.366	-4389.202	-.037	.037	.037
643	65	R1	3923.041	1159.975	-3899.729	.039	.049	.038
644	65	R1A	-5506.433	47.835	5494.659	.047	-.011	.046
645	65	R2	-2061.841	800.424	-2068.334	.02	.032	-.021
646	65	R2A	3518.519	35.01	3528.282	.029	-.001	-.029
647	65	R3	-2553.69	833.812	2555.961	-.025	.019	-.026
648	65	R3A	3816.486	36.024	-3828.93	-.032	.038	-.032
649	65	Totals:	-251.853	3905.317	436.307			
650	65	COG (ft):	X: -.763	Y: .853	Z: .277			
651	66	R4	2852.924	941.376	2869.544	-.028	.026	.028
652	66	R4A	-4320.123	40.079	-4308.026	-.036	.021	.036
653	66	R1	3913.128	1160.804	-3912.505	.039	.005	.038
654	66	R1A	-5511.052	47.865	5493.401	.047	-.029	.046
655	66	R2	-2228.532	810.185	-2226.181	.022	.005	-.023
656	66	R2A	3594.508	35.284	3607.755	.03	-.017	-.03
657	66	R3	-2556.184	833.704	2558.265	-.025	.004	-.026
658	66	R3A	3819.07	36.019	-3830.344	-.032	.025	-.032
659	66	Totals:	-436.261	3905.315	251.909			
660	66	COG (ft):	X: -.763	Y: .853	Z: .277			
661	67	R4	2710.971	931.948	2711.929	-.027	-.011	.027
662	67	R4A	-4244.14	39.818	-4237.082	-.036	.003	.035
663	67	R1	3991.685	1166.682	-4011.616	.04	-.037	.039
664	67	R1A	-5557.464	48.02	5534.104	.047	-.048	.047
665	67	R2	-2368.466	818.621	-2361.482	.023	-.018	-.024
666	67	R2A	3659.08	35.522	3674.75	.03	-.032	-.031
667	67	R3	-2478.562	828.822	2482.118	-.024	-.015	-.025



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
668	67	R3A	3783.109	35.881	-3792.72	-.032	.01	-.032
669	67	Totals:	-503.786	3905.315	0			
670	67	COG (ft):	X: -.763	Y: .853	Z: .277			
671	68	R4	2629.247	926.114	2613.017	-.026	-.047	.026
672	68	R4A	-4197.39	39.655	-4195.39	-.035	-.013	.035
673	68	R1	4137.661	1176.039	-4170.531	.041	-.067	.04
674	68	R1A	-5633.234	48.257	5605.877	.048	-.063	.048
675	68	R2	-2444.095	823.468	-2437.958	.024	-.031	-.025
676	68	R2A	3694.914	35.66	3711.305	.031	-.044	-.031
677	68	R3	-2341.63	820.478	2347.901	-.023	-.033	-.024
678	68	R3A	3718.241	35.646	-3726.128	-.031	-.003	-.031
679	68	Totals:	-436.287	3905.317	-251.907			
680	68	COG (ft):	X: -.763	Y: .853	Z: .277			
681	69	R4	2629.651	925.432	2599.275	-.026	-.071	.026
682	69	R4A	-4192.401	39.633	-4194.101	-.035	-.022	.035
683	69	R1	4311.903	1186.368	-4346.628	.043	-.076	.042
684	69	R1A	-5718.046	48.513	5689.474	.048	-.07	.049
685	69	R2	-2435.157	823.424	-2435.152	.024	-.031	-.025
686	69	R2A	3692.404	35.662	3707.641	.031	-.048	-.031
687	69	R3	-2182.116	810.911	2191.617	-.021	-.044	-.022
688	69	R3A	3641.864	35.377	-3648.428	-.03	-.01	-.031
689	69	Totals:	-251.898	3905.32	-436.303			
690	69	COG (ft):	X: -.763	Y: .853	Z: .277			
691	70	R4	2712.074	930.084	2674.362	-.027	-.079	.026
692	70	R4A	-4230.509	39.759	-4233.553	-.036	-.022	.035
693	70	R1	4467.77	1194.904	-4492.729	.045	-.063	.043
694	70	R1A	-5789.196	48.719	5762.497	.049	-.067	.049
695	70	R2	-2344.052	818.502	-2353.831	.023	-.017	-.024
696	70	R2A	3652.222	35.526	3664.744	.03	-.045	-.03
697	70	R3	-2042.725	802.684	2055.133	-.02	-.046	-.021
698	70	R3A	3574.424	35.145	-3580.436	-.03	-.009	-.03
699	70	Totals:	.008	3905.324	-503.813			
700	70	COG (ft):	X: -.763	Y: .853	Z: .277			
701	71	R4	2854.43	938.827	2818.175	-.028	-.067	.028
702	71	R4A	-4301.506	39.998	-4303.187	-.036	-.013	.036
703	71	R1	4563.49	1199.355	-4569.643	.045	-.03	.044
704	71	R1A	-5827.611	48.821	5805.357	.05	-.055	.049
705	71	R2	-2195.2	810.023	-2215.77	.021	.006	-.023
706	71	R2A	3585.138	35.289	3594.102	.03	-.033	-.03
707	71	R3	-1960.811	797.999	1975.052	-.019	-.039	-.02
708	71	R3A	3533.993	35.014	-3540.387	-.029	0	-.03
709	71	Totals:	251.922	3905.327	-436.301			
710	71	COG (ft):	X: -.763	Y: .853	Z: .277			
711	72	R4	3018.528	949.32	2992.171	-.03	-.039	.029
712	72	R4A	-4386.345	40.286	-4384.342	-.037	.003	.037
713	72	R1	4573.438	1198.526	-4556.796	.046	.014	.044
714	72	R1A	-5823.009	48.791	5806.58	.05	-.037	.049
715	72	R2	-2028.529	800.263	-2057.968	.02	.033	-.021
716	72	R2A	3509.148	35.014	3514.647	.029	-.018	-.029
717	72	R3	-1958.295	798.108	1972.805	-.019	-.023	-.02
718	72	R3A	3531.394	35.019	-3539	-.029	.012	-.03
719	72	Totals:	436.33	3905.328	-251.903			
720	72	COG (ft):	X: -.763	Y: .853	Z: .277			
721	73	R4	3160.431	958.754	3149.783	-.032	-.003	.031
722	73	R4A	-4462.309	40.545	-4455.296	-.038	.022	.037
723	73	R1	4494.937	1192.64	-4457.653	.045	.057	.043
724	73	R1A	-5776.616	48.638	5765.85	.049	-.018	.049
725	73	R2	-1888.658	791.836	-1922.662	.018	.055	-.02
726	73	R2A	3444.6	34.775	3447.648	.028	-.002	-.029



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
727	73	R3	-2035.859	802.982	2048.972	-.02	-.004	-.021
728	73	R3A	3567.329	35.159	-3576.637	-.03	.027	-.03
729	73	Totals:	503.854	3905.328	.005			
730	73	COG (ft):	X: -.763	Y: .853	Z: .277			
731	74	R4	3242.107	964.598	3248.753	-.032	.033	.032
732	74	R4A	-4509.037	40.707	-4497.02	-.038	.037	.038
733	74	R1	4348.982	1183.276	-4298.776	.043	.087	.041
734	74	R1A	-5700.847	48.402	5694.084	.049	-.003	.048
735	74	R2	-1813.072	786.997	-1846.136	.018	.069	-.019
736	74	R2A	3408.794	34.636	3411.071	.028	.009	-.028
737	74	R3	-2172.758	811.317	2183.153	-.021	.013	-.022
738	74	R3A	3632.186	35.395	-3643.215	-.03	.04	-.03
739	74	Totals:	436.356	3905.326	251.913			
740	74	COG (ft):	X: -.763	Y: .853	Z: .277			
741	75	R4	3241.705	965.282	3262.555	-.032	.058	.032
742	75	R4A	-4514.024	40.728	-4498.33	-.038	.046	.038
743	75	R1	4174.705	1172.946	-4122.751	.042	.096	.04
744	75	R1A	-5616.019	48.145	5610.522	.048	.004	.047
745	75	R2	-1821.99	787.039	-1848.897	.018	.068	-.019
746	75	R2A	3411.305	34.634	3414.718	.028	.014	-.028
747	75	R3	-2332.293	820.883	2339.381	-.022	.025	-.024
748	75	R3A	3708.578	35.664	-3720.888	-.031	.047	-.031
749	75	Totals:	251.967	3905.323	436.309			
750	75	COG (ft):	X: -.763	Y: .853	Z: .277			

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

Member	Shape	Code C...	Loc[ft]	LC Shear...	Loc[ft]	Dir	LC phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y...	phi*Mn z...	Cb	Eqn	
1	M45A	L3X3X6	.280	0	16	.200	2.914	y 22	65547.821	66465	2.243	5.174	1... H2-1
2	M68	L3X3X6	.318	2.761	7	.265	2.914	y 13	66460.728	66465	2.243	5.174	1... H2-1
3	M74B	L3X3X6	.438	0	13	.231	0	y 13	66373.078	66465	2.243	5.174	1... H2-1
4	M75B	L3X3X6	.436	0	22	.151	.377	y 7	66373.078	66465	2.243	5.174	2... H2-1
5	M110	L3X3X6	.280	0	13	.257	2.914	y 19	65547.821	66465	2.243	5.174	1... H2-1
6	M144	L3X3X6	.313	2.761	4	.209	2.914	z 9	66460.728	66465	2.243	5.174	1... H2-1
7	M148	L3X3X6	.445	0	22	.184	0	y 10	66373.078	66465	2.243	5.174	1... H2-1
8	M150	L3X3X6	.443	0	19	.167	0	z 19	66373.078	66465	2.243	5.174	1... H2-1
9	M188	L3X3X6	.273	0	22	.145	2.761	y 16	65547.821	66465	2.243	5.174	1... H2-1
10	M222	L3X3X6	.271	2.761	1	.239	2.914	y 19	66460.728	66465	2.243	5.174	1... H2-1
11	M226	L3X3X6	.392	0	19	.235	0	y 19	66373.078	66465	2.243	5.174	1... H2-1
12	M228	L3X3X6	.388	0	16	.152	.377	y 7	66373.078	66465	2.243	5.174	2... H2-1
13	M266	L3X3X6	.247	0	20	.224	2.838	z 13	65547.821	66465	2.243	5.174	1... H2-1
14	M300	L3X3X6	.267	0	21	.140	2.914	z 15	65547.821	66465	2.243	5.174	1... H2-1
15	M304	L3X3X6	.370	0	16	.106	0	z 12	66373.078	66465	2.243	5.174	1... H2-1
16	M306	L3X3X6	.378	0	13	.179	0	z 13	66373.078	66465	2.243	5.174	1... H2-1
17	M54	HSS4X3X4	.147	4.021	13	.117	2.904	z 13	83040.402	91665	8.19	10.001	1... H1-1b
18	M130	HSS4X3X4	.151	4.021	22	.113	2.904	z 19	83040.402	91665	8.19	10.001	1... H1-1b
19	M208	HSS4X3X4	.133	4.021	19	.113	2.904	z 19	83040.402	91665	8.19	10.001	1... H1-1b
20	M286	HSS4X3X4	.125	4.021	13	.102	2.904	z 13	83040.402	91665	8.19	10.001	1... H1-1b
21	M66	PL3/8x3	.190	0	13	.116	.605	y 23	32152.749	35437.5	.277	2.215	1... H1-1b
22	M74C	PL3/8x3	.138	0	9	.147	.605	y 24	32152.749	35437.5	.277	2.215	1... H1-1b
23	M142	PL3/8x3	.161	0	11	.106	.605	y 19	32152.749	35437.5	.277	2.215	1... H1-1b
24	M149	PL3/8x3	.167	0	19	.128	.605	y 21	32152.749	35437.5	.277	2.215	1... H1-1b
25	M220	PL3/8x3	.175	0	19	.089	.605	y 17	32152.749	35437.5	.277	2.215	1... H1-1b
26	M227	PL3/8x3	.078	0	19	.132	.605	y 19	32152.749	35437.5	.277	2.215	2... H1-1b
27	M298	PL3/8x3	.068	0	13	.121	.605	y 13	32152.749	35437.5	.277	2.215	1... H1-1b
28	M305	PL3/8x3	.163	0	13	.099	.605	y 15	32152.749	35437.5	.277	2.215	1... H1-1b
29	M31	PL3/8x2.375	.301	0	13	.036	0	y 16	26251.56	28054.688	.219	1.388	1... H1-1b
30	M33	PL3/8x2.375	.284	0	22	.044	0	y 13	26251.56	28054.688	.219	1.388	1... H1-1b



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

Member	Shape	Code C	Loc(ft)	LC Shear	Loc(ft)	Dir	LC phi*Pnc (lb)	phi*Pnt (lb)	phi*Mn y	phi*Mn z	Cb	Eqn			
31	M34A	PL3/8x2.375	.429	0	14	.074	0	y	23	26251.56	28054.688	.219	1.388	1...	H1-1b
32	M60	PL3/8x2.375	.301	0	18	.035	0	y	7	26251.56	28054.688	.219	1.388	1...	H1-1b
33	M61	PL3/8x2.375	.304	0	13	.030	0	y	13	26251.56	28054.688	.219	1.388	1...	H1-1b
34	M62	PL3/8x2.375	.376	0	20	.077	0	y	13	26251.56	28054.688	.219	1.388	1...	H1-1b
35	M103	PL3/8x2.375	.317	0	14	.031	0	y	1	26251.56	28054.688	.219	1.388	1...	H1-1b
36	M104	PL3/8x2.375	.308	0	19	.032	0	y	22	26251.56	28054.688	.219	1.388	1...	H1-1b
37	M105	PL3/8x2.375	.404	0	23	.081	0	y	19	26251.56	28054.688	.219	1.388	1...	H1-1b
38	M136	PL3/8x2.375	.330	0	18	.044	0	y	16	26251.56	28054.688	.219	1.388	1...	H1-1b
39	M137	PL3/8x2.375	.283	0	22	.037	0	y	19	26251.56	28054.688	.219	1.388	1...	H1-1b
40	M138	PL3/8x2.375	.439	0	17	.075	0	y	21	26251.56	28054.688	.219	1.388	1...	H1-1b
41	M181	PL3/8x2.375	.270	0	20	.036	0	y	22	26251.56	28054.688	.219	1.388	1...	H1-1b
42	M182	PL3/8x2.375	.245	0	16	.040	0	y	19	26251.56	28054.688	.219	1.388	1...	H1-1b
43	M183	PL3/8x2.375	.401	0	20	.064	0	y	16	26251.56	28054.688	.219	1.388	1...	H1-1b
44	M214	PL3/8x2.375	.277	0	24	.029	0	y	1	26251.56	28054.688	.219	1.388	1...	H1-1b
45	M215	PL3/8x2.375	.273	0	19	.029	0	y	19	26251.56	28054.688	.219	1.388	1...	H1-1b
46	M216	PL3/8x2.375	.344	0	13	.070	0	y	19	26251.56	28054.688	.219	1.388	1...	H1-1b
47	M259	PL3/8x2.375	.270	0	20	.025	0	y	7	26251.56	28054.688	.219	1.388	1...	H1-1b
48	M260	PL3/8x2.375	.267	0	13	.026	0	y	24	26251.56	28054.688	.219	1.388	1...	H1-1b
49	M261	PL3/8x2.375	.333	0	18	.069	0	y	13	26251.56	28054.688	.219	1.388	1...	H1-1b
50	M292	PL3/8x2.375	.260	0	24	.034	0	y	22	26251.56	28054.688	.219	1.388	1...	H1-1b
51	M293	PL3/8x2.375	.235	0	16	.036	0	y	13	26251.56	28054.688	.219	1.388	1...	H1-1b
52	M294	PL3/8x2.375	.387	0	24	.061	0	y	16	26251.56	28054.688	.219	1.388	1...	H1-1b
53	MT22	PL1/2x4	.001	.943	20	.000	.943	z	24	55152.186	63000	.656	5.25	1...	H1-1b
54	MT23	PL3/8x4	.001	.874	21	.000	.874	z	22	38573.215	47250	.369	3.938	2...	H1-1b
55	MT24	PL1/2x4	.086	.286	13	.038	.26	y	2	54437.008	63000	.656	5.25	4...	H1-1b
56	MT25	PL1/2x4	.225	.784	6	.040	.919	y	1	53800.851	63000	.656	5.25	4...	H1-1b
57	MT26	PL1/2x4	.119	0	1	.018	.655	y	8	59083.088	63000	.656	5.25	1...	H1-1b
58	MT27	PL1/2x4	.100	.718	11	.028	.718	y	7	58324.528	63000	.656	5.25	1...	H1-1b
59	MT28	PL3/8x4	.254	1.006	24	.021	1.006	y	12	36117.002	47250	.369	3.938	1...	H1-1a
60	MT29	PL3/8x4	.314	1.045	24	.023	.468	y	12	35344.479	47250	.369	3.938	1...	H1-1a
61	MT30	PL3/8x4	.292	.667	24	.026	0	y	11	41988.622	47250	.369	3.938	1...	H1-1a
62	MT31	PL3/8x4	.334	.742	24	.042	0	y	11	40816.383	47250	.369	3.938	1...	H1-1a
63	MT32	PL3/8X1	.001	.943	8	.000	.943	y	24	9324.721	11812.5	.092	.246	1...	H1-1b
64	MT33	PL3/8X1	.001	.872	9	.000	.872	y	22	9649.585	11812.5	.092	.246	2...	H1-1b
65	MT34	PL3/8X1	.125	.286	24	.038	.572	y	24	9110.863	11812.5	.092	.246	2...	H1-1b
66	MT35	PL3/8X1	.127	1.028	24	.022	.46	y	13	8922.461	11812.5	.092	.246	2...	H1-1b
67	MT36	PL3/8X1	.098	.655	24	.017	.655	y	15	10538.698	11812.5	.092	.246	2...	H1-1b
68	MT37	PL3/8X1	.071	.718	6	.013	.718	y	7	10299.381	11812.5	.092	.246	2...	H1-1b*
69	MT38	PL3/8X1	.206	1.006	24	.042	.582	y	21	9029.527	11812.5	.092	.246	1...	H1-1b
70	MT39	PL3/8X1	.332	1.045	24	.029	.468	y	12	8836.412	11812.5	.092	.246	2...	H1-1a
71	MT40	PL3/8X1	.304	.667	24	.025	.667	y	17	10497.297	11812.5	.092	.246	2...	H1-1a
72	MT41	PL3/8X1	.342	.731	24	.041	.731	y	11	10249.195	11812.5	.092	.246	2...	H1-1a
73	MT42	PL3/8X1	.123	0	6	.022	0	y	7	9657.416	11812.5	.092	.246	1...	H1-1b
74	MT44	PL3/8X1	.074	.27	15	.029	0	y	12	8921.838	11812.5	.092	.246	1...	H1-1b
75	MT45	PL3/8X1	.121	0	17	.016	0	y	7	10232.577	11812.5	.092	.246	2...	H1-1b*
76	MT46	PL3/8X1	.092	0	15	.025	.898	y	12	9536.081	11812.5	.092	.246	2...	H1-1b
77	MT47	PL3/8X1	.126	0	18	.014	0	y	17	10688.698	11812.5	.092	.246	2...	H1-1b*
78	MT48	PL3/8X1	.105	.756	24	.033	0	y	1	10146.905	11812.5	.092	.246	2...	H1-1b
79	MT49	PL3/8X1	.127	0	24	.016	.51	y	12	11025.158	11812.5	.092	.246	2...	H1-1b*
80	MT50	PL3/8X1	.097	.631	13	.031	0	y	1	10626.842	11812.5	.092	.246	2...	H1-1b
81	MT51	PL3/8X1	.124	.422	13	.022	0	y	19	11265.531	11812.5	.092	.246	2...	H1-1b
82	MT52	PL3/8X1	.091	.527	24	.023	0	y	1	10972.087	11812.5	.092	.246	2...	H1-1b
83	MT53	PL3/8X1	.147	.349	13	.027	0	y	18	11436.264	11812.5	.092	.246	2...	H1-1b
84	MT54	PL3/8X1	.089	.44	24	.018	0	y	1	11220.726	11812.5	.092	.246	2...	H1-1b
85	MT55	PL3/8X1	.125	0	24	.019	0	y	17	11556.566	11812.5	.092	.246	2...	H1-1b*
86	MT56	PL3/8X1	.069	.353	13	.015	0	y	1	11426.997	11812.5	.092	.246	2...	H1-1b
87	MT58	PL3/8X1	.181	.958	24	.022	.958	y	14	9254.828	11812.5	.092	.246	2...	H1-1b
88	MT59	PL3/8X1	.246	.958	24	.025	.958	y	13	9254.828	11812.5	.092	.246	2...	H1-1b
89	MT60	PL3/8X1	.301	.917	24	.028	.917	y	13	9448.941	11812.5	.092	.246	2...	H1-1b



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

Member	Shape	Code C...	Locftl	LC Shear ...	Locftl	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y...	phi*Mn z...	Cb	Eqn	
90	MT61	PL3/8X1	.588	.958	24	.054	.958	y 1	9254.828	11812.5	.092	.246	2...	H1-1a
91	MT62	PL3/8X1	.639	.958	24	.037	.958	y 1	9254.828	11812.5	.092	.246	2...	H1-1a
92	MT63	PL3/8X1	.665	.917	24	.028	.917	y 13	9448.941	11812.5	.092	.246	2...	H1-1a
93	MT64	PL3/8X1	.003	0	10	.000	0	y 12	9657.416	11812.5	.092	.246	2...	H1-1b
94	MT65	PL3/8x4	.476	.958	24	.050	.958	y 7	37018.285	47250	.369	3.72	1...	H1-1a
95	MT66	PL3/8x4	.558	.958	24	.033	.958	y 7	37018.285	47250	.369	3.83	1...	H1-1a
96	MT67	PL3/8x4	.610	.917	21	.022	.917	y 7	37794.803	47250	.369	3.938	1...	H1-1a
97	MT68	PL1/2x4	.181	.958	12	.028	.958	y 7	54919.25	63000	.656	5.25	1...	H1-1b
98	MT69	PL1/2x4	.256	.958	12	.028	.958	y 7	54919.25	63000	.656	5.25	1...	H1-1b
99	MT70	PL1/2x4	.356	.917	24	.025	.917	y 7	55564.307	63000	.656	5.25	1...	H1-1a
100	MT71	PL3/8X1	.505	0	24	.042	1.295	y 12	7566.368	11812.5	.092	.246	2...	H1-1a
101	MT72	PL3/8X1	.367	.871	24	.024	0	y 7	9657.416	11812.5	.092	.246	1...	H1-1a
102	MT73	PL3/8X1	.488	1.295	24	.025	1.295	y 12	7566.368	11812.5	.092	.246	2...	H1-1a
103	MT74	PL3/8X1	.380	.871	24	.017	0	y 7	9657.416	11812.5	.092	.246	1...	H1-1a
104	MT81	PL3/8X1	.506	1.264	24	.021	0	y 1	7725.066	11812.5	.092	.246	2...	H1-1a
105	M273	PL1/2x4	.001	.943	24	.000	.943	z 24	55152.186	63000	.656	5.25	1...	H1-1b
106	M274	PL3/8x4	.001	.874	23	.000	.874	z 22	38573.215	47250	.369	3.938	2...	H1-1b
107	M275	PL1/2x4	.091	.286	19	.038	.26	y 10	54437.008	63000	.656	5.25	1...	H1-1b
108	M276	PL1/2x4	.256	.784	9	.044	.919	y 6	53800.851	63000	.656	5.25	4...	H1-1b
109	M277	PL1/2x4	.145	0	10	.023	.655	y 12	59083.088	63000	.656	5.25	1...	H1-1b
110	M278	PL1/2x4	.119	0	9	.033	.718	y 12	58324.528	63000	.656	5.25	1...	H1-1b
111	M279	PL3/8x4	.264	1.006	21	.024	1.006	y 6	36117.002	47250	.369	3.787	1...	H1-1a
112	M280	PL3/8x4	.328	1.045	20	.027	.468	y 6	35344.479	47250	.369	3.938	1...	H1-1a
113	M281	PL3/8x4	.307	.667	20	.026	.667	y 8	41988.622	47250	.369	3.938	1...	H1-1a
114	M282	PL3/8x4	.352	.742	20	.041	.742	y 8	40816.383	47250	.369	3.938	1...	H1-1a
115	M283	PL3/8X1	.001	.943	12	.000	.943	y 24	9324.721	11812.5	.092	.246	1...	H1-1b
116	M284	PL3/8X1	.001	.872	11	.000	.872	y 22	9649.585	11812.5	.092	.246	2...	H1-1b
117	M285	PL3/8X1	.133	.286	20	.040	.572	y 19	9110.863	11812.5	.092	.246	2...	H1-1b
118	M286A	PL3/8X1	.133	1.028	20	.022	.46	y 19	8922.461	11812.5	.092	.246	2...	H1-1b
119	M287	PL3/8X1	.105	.655	20	.016	.655	y 17	10538.698	11812.5	.092	.246	2...	H1-1b
120	M288	PL3/8X1	.075	.718	20	.015	.718	y 12	10299.381	11812.5	.092	.246	2...	H1-1b
121	M289A	PL3/8X1	.215	1.006	21	.044	.582	y 23	9029.527	11812.5	.092	.246	1...	H1-1b
122	M290A	PL3/8X1	.349	1.045	20	.033	.468	y 7	8836.412	11812.5	.092	.246	2...	H1-1a
123	M291A	PL3/8X1	.321	.667	20	.024	.667	y 14	10497.297	11812.5	.092	.246	2...	H1-1a
124	M292A	PL3/8X1	.361	.731	20	.039	.731	y 8	10249.195	11812.5	.092	.246	2...	H1-1a
125	M293A	PL3/8X1	.113	0	6	.025	0	y 12	9657.416	11812.5	.092	.246	1...	H1-1b
126	M295A	PL3/8X1	.082	.27	17	.030	1.028	y 6	8921.838	11812.5	.092	.246	2...	H1-1b*
127	M296A	PL3/8X1	.133	0	15	.018	0	y 12	10232.577	11812.5	.092	.246	2...	H1-1b*
128	M297A	PL3/8X1	.103	0	16	.028	0	y 6	9536.081	11812.5	.092	.246	2...	H1-1b*
129	M298A	PL3/8X1	.140	0	15	.012	0	y 14	10688.698	11812.5	.092	.246	2...	H1-1b*
130	M299A	PL3/8X1	.108	.756	7	.034	.756	y 6	10146.905	11812.5	.092	.246	2...	H1-1b
131	M300A	PL3/8X1	.137	0	20	.019	.51	y 7	11025.158	11812.5	.092	.246	2...	H1-1b*
132	M301A	PL3/8X1	.102	.631	19	.033	.631	y 6	10626.842	11812.5	.092	.246	2...	H1-1b
133	M302A	PL3/8X1	.130	.422	19	.023	.422	y 7	11265.531	11812.5	.092	.246	2...	H1-1b
134	M303A	PL3/8X1	.094	.527	20	.024	.527	y 6	10972.087	11812.5	.092	.246	2...	H1-1b
135	M304A	PL3/8X1	.152	.349	19	.027	.349	y 23	11436.264	11812.5	.092	.246	2...	H1-1b
136	M305A	PL3/8X1	.092	.44	19	.017	.44	y 6	11220.726	11812.5	.092	.246	2...	H1-1b
137	M306A	PL3/8X1	.133	0	20	.017	0	y 15	11556.566	11812.5	.092	.246	2...	H1-1b*
138	M307A	PL3/8X1	.063	.353	18	.014	.353	y 11	11426.997	11812.5	.092	.246	2...	H1-1b
139	M309A	PL3/8X1	.195	.958	20	.022	.958	y 18	9254.828	11812.5	.092	.246	2...	H1-1b
140	M310A	PL3/8X1	.262	.958	20	.025	.958	y 18	9254.828	11812.5	.092	.246	2...	H1-1b
141	M311A	PL3/8X1	.320	.917	20	.028	.917	y 16	9448.941	11812.5	.092	.246	2...	H1-1a
142	M312A	PL3/8X1	.620	.958	20	.059	.958	y 12	9254.828	11812.5	.092	.246	2...	H1-1a
143	M313A	PL3/8X1	.675	.958	20	.041	.958	y 12	9254.828	11812.5	.092	.246	2...	H1-1a
144	M314A	PL3/8X1	.702	.917	20	.029	.917	y 18	9448.941	11812.5	.092	.246	2...	H1-1a
145	M315A	PL3/8X1	.003	0	10	.000	0	y 9	9657.416	11812.5	.092	.246	2...	H1-1b
146	M316A	PL3/8x4	.501	.958	20	.054	.958	y 12	37018.285	47250	.369	3.729	1...	H1-1a
147	M317	PL3/8x4	.588	.958	19	.036	.958	y 12	37018.285	47250	.369	3.794	1...	H1-1a
148	M318	PL3/8x4	.648	.917	23	.025	.917	y 12	37794.803	47250	.369	3.938	1...	H1-1a



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

Member	Shape	Code C...	Loc(ft)	LC Shear ...	Loc(ft)	Dir	LC phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y...	phi*Mn z...	Cb	Eqn			
149	M319	PL1/2x4	.182	.958	7	.033	.958	y	12	54919.25	63000	.656	5.25	1...	H1-1b
150	M320	PL1/2x4	.268	.958	7	.032	.958	y	12	54919.25	63000	.656	5.25	1...	H1-1b
151	M321	PL1/2x4	.380	.917	19	.028	.917	y	12	55564.307	63000	.656	5.25	1...	H1-1a
152	M322	PL3/8X1	.536	0	20	.043	1.295	y	6	7566.368	11812.5	.092	.246	2...	H1-1a
153	M323	PL3/8X1	.389	.871	20	.027	0	y	12	9657.416	11812.5	.092	.246	1...	H1-1a
154	M324	PL3/8X1	.518	1.295	20	.027	1.295	y	6	7566.368	11812.5	.092	.246	2...	H1-1a
155	M325	PL3/8X1	.402	.871	20	.019	0	y	12	9657.416	11812.5	.092	.246	1...	H1-1a
156	M332	PL3/8X1	.537	1.264	19	.024	1.264	y	6	7725.066	11812.5	.092	.246	2...	H1-1a
157	M356	PL1/2x4	.001	.943	21	.000	.943	z	24	55152.186	63000	.656	5.25	1...	H1-1b
158	M357	PL3/8x4	.001	.874	20	.000	.874	z	19	38573.215	47250	.369	3.938	2...	H1-1b
159	M358	PL1/2x4	.080	.286	7	.047	.26	y	7	54437.008	63000	.656	5.25	1...	H1-1b
160	M359	PL1/2x4	.237	.784	12	.035	.784	y	25	53800.851	63000	.656	5.25	3...	H1-1b
161	M360	PL1/2x4	.135	0	7	.026	.655	y	35	59083.088	63000	.656	5.25	1...	H1-1b
162	M361	PL1/2x4	.125	0	1	.022	.718	y	35	58324.528	63000	.656	5.208	1...	H1-1b
163	M362	PL3/8x4	.184	1.006	18	.017	.609	y	18	36117.002	47250	.369	3.938	1...	H1-1b*
164	M363	PL3/8x4	.286	1.045	17	.024	.495	y	6	35344.479	47250	.369	3.938	1...	H1-1a
165	M364	PL3/8x4	.262	.667	15	.037	0	y	7	41988.622	47250	.369	3.938	1...	H1-1a
166	M365	PL3/8x4	.313	.742	18	.061	0	y	7	40816.383	47250	.369	3.938	1...	H1-1a
167	M366	PL3/8X1	.001	.943	9	.000	.943	y	24	9324.721	11812.5	.092	.246	1...	H1-1b
168	M367	PL3/8X1	.001	.872	8	.000	.872	y	19	9649.585	11812.5	.092	.246	2...	H1-1b
169	M368	PL3/8X1	.114	.286	18	.035	.572	y	17	9110.863	11812.5	.092	.246	2...	H1-1b
170	M369	PL3/8X1	.113	1.028	18	.022	1.028	y	18	8922.461	11812.5	.092	.246	2...	H1-1b
171	M370	PL3/8X1	.093	.655	12	.023	.655	y	24	10538.698	11812.5	.092	.246	2...	H1-1b*
172	M371	PL3/8X1	.079	.718	12	.018	.718	y	23	10299.381	11812.5	.092	.246	2...	H1-1b*
173	M372	PL3/8X1	.191	1.006	18	.044	.582	y	18	9029.527	11812.5	.092	.246	1...	H1-1b
174	M373	PL3/8X1	.307	1.045	18	.032	.468	y	18	8836.412	11812.5	.092	.246	2...	H1-1a
175	M374	PL3/8X1	.288	.667	18	.032	.667	y	7	10497.297	11812.5	.092	.246	2...	H1-1a
176	M375	PL3/8X1	.322	.731	18	.058	.731	y	7	10249.195	11812.5	.092	.246	2...	H1-1a
177	M376	PL3/8X1	.143	0	12	.015	0	y	23	9657.416	11812.5	.092	.246	1...	H1-1b
178	M378	PL3/8X1	.075	.433	23	.030	0	y	6	8921.838	11812.5	.092	.246	1...	H1-1b
179	M379	PL3/8X1	.121	0	23	.018	0	y	22	10232.577	11812.5	.092	.246	2...	H1-1b*
180	M380	PL3/8X1	.093	0	23	.019	.898	y	6	9536.081	11812.5	.092	.246	2...	H1-1b
181	M381	PL3/8X1	.127	0	24	.019	0	y	22	10688.698	11812.5	.092	.246	2...	H1-1b*
182	M382	PL3/8X1	.087	.756	17	.017	.756	y	5	10146.905	11812.5	.092	.246	2...	H1-1b
183	M383	PL3/8X1	.118	0	18	.018	.51	y	17	11025.158	11812.5	.092	.246	2...	H1-1b*
184	M384	PL3/8X1	.087	.631	17	.015	.631	y	29	10626.842	11812.5	.092	.246	2...	H1-1b
185	M385	PL3/8X1	.109	.422	17	.025	.422	y	18	11265.531	11812.5	.092	.246	2...	H1-1b
186	M386	PL3/8X1	.080	.527	18	.009	.527	y	28	10972.087	11812.5	.092	.246	2...	H1-1b
187	M387	PL3/8X1	.131	.349	18	.031	.349	y	18	11436.264	11812.5	.092	.246	2...	H1-1b
188	M388	PL3/8X1	.083	.44	18	.010	0	y	7	11220.726	11812.5	.092	.246	2...	H1-1b
189	M389	PL3/8X1	.115	.287	19	.022	.287	y	19	11556.566	11812.5	.092	.246	2...	H1-1b
190	M390	PL3/8X1	.066	.353	19	.015	0	y	7	11426.997	11812.5	.092	.246	2...	H1-1b
191	M392	PL3/8X1	.170	.958	18	.026	.958	y	19	9254.828	11812.5	.092	.246	2...	H1-1b
192	M393	PL3/8X1	.229	.958	18	.029	.958	y	19	9254.828	11812.5	.092	.246	2...	H1-1b
193	M394	PL3/8X1	.279	.917	18	.030	.917	y	19	9448.941	11812.5	.092	.246	2...	H1-1b
194	M395	PL3/8X1	.547	.958	18	.042	.958	y	24	9254.828	11812.5	.092	.246	2...	H1-1a
195	M396	PL3/8X1	.598	.958	18	.034	.958	y	23	9254.828	11812.5	.092	.246	2...	H1-1a
196	M397	PL3/8X1	.625	.917	18	.026	.917	y	23	9448.941	11812.5	.092	.246	2...	H1-1a
197	M398	PL3/8X1	.003	0	10	.000	.871	y	12	9657.416	11812.5	.092	.246	2...	H1-1b
198	M399	PL3/8x4	.460	.958	18	.039	0	y	12	37018.285	47250	.369	3.938	1...	H1-1a
199	M400	PL3/8x4	.552	.958	18	.021	.958	y	11	37018.285	47250	.369	3.938	1...	H1-1a
200	M401	PL3/8x4	.612	.917	18	.013	.917	y	11	37794.803	47250	.369	3.938	1...	H1-1a
201	M402	PL1/2x4	.164	.958	6	.019	.958	y	22	54919.25	63000	.656	5.25	1...	H1-1b
202	M403	PL1/2x4	.198	.958	6	.017	.958	y	22	54919.25	63000	.656	5.25	1...	H1-1b
203	M404	PL1/2x4	.237	.917	5	.015	.917	y	22	55564.307	63000	.656	5.25	1...	H1-1b
204	M405	PL3/8X1	.472	0	18	.044	1.295	y	6	7566.368	11812.5	.092	.246	2...	H1-1a
205	M406	PL3/8X1	.353	.871	18	.015	0	y	23	9657.416	11812.5	.092	.246	1...	H1-1a
206	M407	PL3/8X1	.461	1.295	18	.025	1.295	y	6	7566.368	11812.5	.092	.246	2...	H1-1a
207	M408	PL3/8X1	.365	.871	18	.011	0	y	23	9657.416	11812.5	.092	.246	1...	H1-1a



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

Member	Shape	Code C...	Loc(ft)	LC Shear	...	Loc(ft)	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn v...	phi*Mn z...	Cb	Eqn	
208	M415	PL3/8X1	.477	1.264	18	.016	1.264	v	6	7725.066	11812.5	.092	.246	2...	H1-1a
209	M439	PL1/2x4	.001	.943	23	.000	.943	z	24	55152.186	63000	.656	5.25	1...	H1-1b
210	M440	PL3/8x4	.001	.874	24	.000	.874	z	16	38573.215	47250	.369	3.938	2...	H1-1b
211	M441	PL1/2x4	.075	.286	1	.044	.26	v	12	54437.008	63000	.656	5.25	1...	H1-1b
212	M442	PL1/2x4	.226	.784	8	.025	1.028	z	20	53800.851	63000	.656	5.25	3...	H1-1b
213	M443	PL1/2x4	.128	.655	1	.018	.655	v	21	59083.088	63000	.656	5.25	1...	H1-1b
214	M444	PL1/2x4	.119	0	1	.016	.718	v	21	58324.528	63000	.656	5.219	1...	H1-1b
215	M445	PL3/8x4	.167	1.006	14	.017	.609	v	12	36117.002	47250	.369	3.938	1.2	H1-1b*
216	M446	PL3/8x4	.263	1.045	15	.024	.495	v	12	35344.479	47250	.369	3.938	1...	H1-1a
217	M447	PL3/8x4	.244	.667	16	.037	0	v	12	41988.622	47250	.369	3.938	1...	H1-1a
218	M448	PL3/8x4	.288	.742	14	.062	0	v	12	40816.383	47250	.369	3.938	1...	H1-1a
219	M449	PL3/8X1	.001	.943	11	.000	.943	v	24	9324.721	11812.5	.092	.246	1...	H1-1b
220	M450	PL3/8X1	.001	.872	12	.000	.872	v	16	9649.585	11812.5	.092	.246	2...	H1-1b
221	M451	PL3/8X1	.106	.286	14	.032	.572	v	15	9110.863	11812.5	.092	.246	2...	H1-1b
222	M452	PL3/8X1	.102	1.028	14	.020	1.028	v	14	8922.461	11812.5	.092	.246	2...	H1-1b
223	M453	PL3/8X1	.088	.655	8	.021	.655	v	20	10538.698	11812.5	.092	.246	2...	H1-1b*
224	M454	PL3/8X1	.074	.718	8	.016	.718	v	21	10299.381	11812.5	.092	.246	2...	H1-1b*
225	M455	PL3/8X1	.176	1.006	14	.041	.582	v	14	9029.527	11812.5	.092	.246	1...	H1-1b
226	M456	PL3/8X1	.283	1.045	14	.029	.468	v	14	8836.412	11812.5	.092	.246	2...	H1-1a
227	M457	PL3/8X1	.191	.667	14	.033	.667	v	12	10497.297	11812.5	.092	.246	2...	H1-1b*
228	M458	PL3/8X1	.214	.731	14	.059	.731	v	12	10249.195	11812.5	.092	.246	2...	H1-1b
229	M459	PL3/8X1	.138	0	12	.012	0	v	21	9657.416	11812.5	.092	.246	1...	H1-1b
230	M461	PL3/8X1	.072	.46	21	.029	1.028	v	12	8921.838	11812.5	.092	.246	1...	H1-1b
231	M462	PL3/8X1	.117	0	20	.015	0	v	22	10232.577	11812.5	.092	.246	2...	H1-1b*
232	M463	PL3/8X1	.089	0	21	.018	0	v	12	9536.081	11812.5	.092	.246	2...	H1-1b
233	M464	PL3/8X1	.124	0	20	.017	0	v	22	10688.698	11812.5	.092	.246	2...	H1-1b*
234	M465	PL3/8X1	.079	.756	15	.012	.756	v	3	10146.905	11812.5	.092	.246	2...	H1-1b
235	M466	PL3/8X1	.111	0	14	.015	.51	v	15	11025.158	11812.5	.092	.246	2...	H1-1b*
236	M467	PL3/8X1	.081	.631	15	.010	.631	v	15	10626.842	11812.5	.092	.246	2...	H1-1b
237	M468	PL3/8X1	.101	.422	15	.022	.422	v	13	11265.531	11812.5	.092	.246	2...	H1-1b
238	M469	PL3/8X1	.075	.527	14	.006	.527	v	3	10972.087	11812.5	.092	.246	2...	H1-1b
239	M470	PL3/8X1	.121	.349	14	.028	.349	v	13	11436.264	11812.5	.092	.246	2...	H1-1b
240	M471	PL3/8X1	.076	.44	14	.008	0	v	1	11220.726	11812.5	.092	.246	2...	H1-1b
241	M472	PL3/8X1	.106	.287	13	.021	.287	v	24	11556.566	11812.5	.092	.246	2...	H1-1b
242	M473	PL3/8X1	.060	.353	13	.013	.353	v	12	11426.997	11812.5	.092	.246	2...	H1-1b
243	M475	PL3/8X1	.156	.958	14	.023	.958	v	24	9254.828	11812.5	.092	.246	2...	H1-1b
244	M476	PL3/8X1	.211	.958	14	.026	.958	v	13	9254.828	11812.5	.092	.246	2...	H1-1b
245	M477	PL3/8X1	.259	.917	14	.028	.917	v	13	9448.941	11812.5	.092	.246	2...	H1-1b
246	M478	PL3/8X1	.510	.958	14	.040	.958	v	6	9254.828	11812.5	.092	.246	2...	H1-1a
247	M479	PL3/8X1	.559	.958	14	.031	.958	v	18	9254.828	11812.5	.092	.246	2...	H1-1a
248	M480	PL3/8X1	.584	.917	14	.023	.917	v	21	9448.941	11812.5	.092	.246	2...	H1-1a
249	M481	PL3/8X1	.003	0	10	.000	.871	v	9	9657.416	11812.5	.092	.246	2...	H1-1b
250	M482	PL3/8x4	.424	.958	14	.037	0	v	6	37018.285	47250	.369	3.938	1...	H1-1a
251	M483	PL3/8x4	.509	.958	14	.016	0	v	6	37018.285	47250	.369	3.938	1...	H1-1a
252	M484	PL3/8x4	.565	.917	14	.009	0	y	8	37794.803	47250	.369	3.938	1.1	H1-1a
253	M485	PL1/2x4	.150	.958	1	.015	.958	y	22	54919.25	63000	.656	5.108	1	H1-1b
254	M486	PL1/2x4	.178	.958	2	.014	.958	y	22	54919.25	63000	.656	5.25	1...	H1-1b
255	M487	PL1/2x4	.208	.917	2	.011	.917	y	22	55564.307	63000	.656	5.25	1...	H1-1b
256	M488	PL3/8X1	.444	0	17	.042	1.295	y	12	7566.368	11812.5	.092	.246	2...	H1-1a
257	M489	PL3/8X1	.331	.871	14	.012	0	y	21	9657.416	11812.5	.092	.246	1...	H1-1a
258	M490	PL3/8X1	.434	1.295	14	.022	1.295	y	12	7566.368	11812.5	.092	.246	2...	H1-1a
259	M491	PL3/8X1	.342	.871	14	.009	0	y	21	9657.416	11812.5	.092	.246	1...	H1-1a
260	M498	PL3/8X1	.449	1.264	14	.014	1.264	y	12	7725.066	11812.5	.092	.246	2...	H1-1a
261	M504A	PIPE 2.5	.169	.658	23	.147	.329	7	29547.045	50715	3.596	3.596	1...	H1-1b	
262	MP4A	PIPE 2.0	.237	4	23	.090	4	7	14916.096	32130	1.872	1.872	1...	H1-1b	
263	MP3A	PIPE 2.0	.413	4	12	.080	1.895	10	14916.096	32130	1.872	1.872	1...	H1-1b	
264	MP2A	PIPE 2.0	.399	4	1	.071	4	5	14916.096	32130	1.872	1.872	2...	H1-1b	
265	MP1A	PIPE 2.0	.289	4	1	.064	4	6	14916.096	32130	1.872	1.872	1...	H1-1b	
266	M696A	PIPE 2.5	.265	9.539	7	.194	9.539	7	29547.045	50715	3.596	3.596	1...	H1-1b	

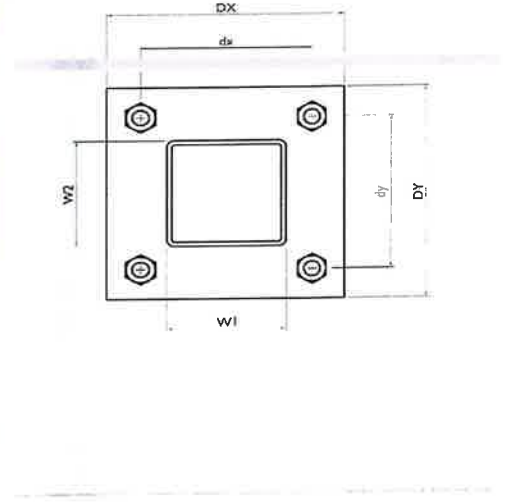


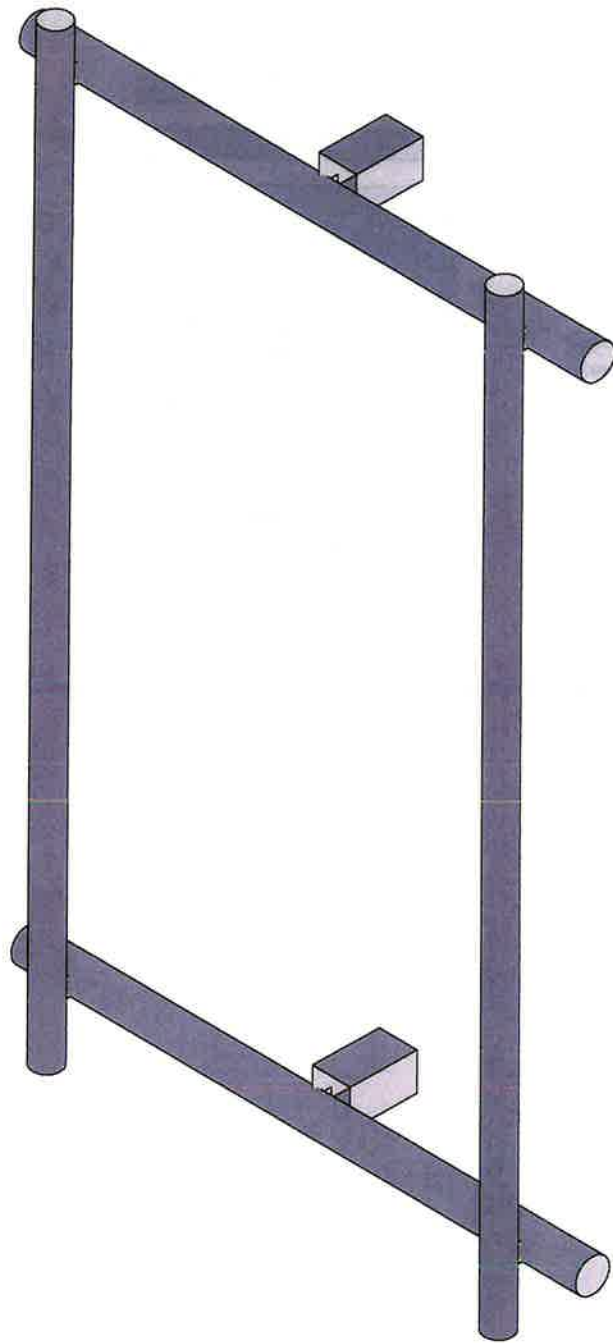
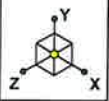
Envelope AISC 15th(360-16): LRFD Steel Code Checks (Continued)

Member	Shape	Code C	Loc(ft)	LC	Shear	Loc(ft)	Dir	LC	phi*Pnc (lb)	phi*Pnt (lb)	phi*Mn y	phi*Mn z	Cb	Eqn
267	M698A	PIPE 2.5	.201	2.961	3	.288	9.539	16	29547.045	50715	3.596	3.596	1...	H1-1b
268	M700A	PIPE 2.5	.258	2.961	1	.183	2.961	1	29547.045	50715	3.596	3.596	1...	H1-1b
269	M505A	PIPE 2.0	.166	8.553	30	.086	.987	7	14559.939	32130	1.872	1.872	2...	H1-1b
270	M510A	PIPE 2.0	.113	.658	7	.100	.329	7	14559.939	32130	1.872	1.872	1...	H1-1b
271	M515	PIPE 2.0	.153	12.171	24	.069	.987	1	14559.939	32130	1.872	1.872	2...	H1-1b
272	M520	PIPE 2.0	.137	6.25	11	.112	4.276	1	14559.939	32130	1.872	1.872	1...	H1-1b
273	MP4D	PIPE 2.0	.254	4	7	.085	4	7	14916.096	32130	1.872	1.872	1...	H1-1b
274	MP3D	PIPE 2.0	.247	4	7	.087	4	7	14916.096	32130	1.872	1.872	1...	H1-1b
275	MP2D	PIPE 2.0	.238	4	1	.080	4	1	14916.096	32130	1.872	1.872	1...	H1-1b
276	MP1D	PIPE 2.0	.220	4	1	.077	4	1	14916.096	32130	1.872	1.872	1...	H1-1b
277	MP4C	PIPE 2.0	.247	4	17	.070	4	1	14916.096	32130	1.872	1.872	1...	H1-1b
278	MP3C	PIPE 2.0	.376	4	7	.072	4	5	14916.096	32130	1.872	1.872	1...	H1-1b
279	MP2C	PIPE 2.0	.460	4	7	.079	1.895	10	14916.096	32130	1.872	1.872	1...	H1-1b
280	MP1C	PIPE 2.0	.315	4	7	.086	4	12	14916.096	32130	1.872	1.872	1...	H1-1b
281	MP4B	PIPE 2.0	.286	4	1	.080	4	1	14916.096	32130	1.872	1.872	1...	H1-1b
282	MP3B	PIPE 2.0	.355	4	2	.110	1.895	1	14916.096	32130	1.872	1.872	1...	H1-1b
283	MATSING-1	PIPE 2.0	.244	4	7	.156	4	7	14916.096	32130	1.872	1.872	1...	H1-1b
284	MP1B	PIPE 2.0	.260	4	7	.067	1.895	7	14916.096	32130	1.872	1.872	1...	H1-1b
285	M557	WT2.5X8	.042	.915	8	.031	0	z 10	71103.057	76140	6.156	1.112	1...	H1-1b
286	M558	WT2.5X8	.049	1.19	1	.042	0	z 13	71103.057	76140	6.156	1.112	1...	H1-1b
287	M559	WT2.5X8	.037	.641	1	.037	1.739	z 13	71103.057	76140	6.156	1.112	1...	H1-1b
288	M560	WT2.5X8	.044	1.235	7	.052	0	z 19	71103.057	76140	6.156	1.112	1...	H1-1b
289	OVP	PIPE 2.0	.146	3.908	7	.063	3.908	7	25203.807	32130	1.872	1.872	1...	H1-1b
290	M564	PIPE 1.5	.180	3.392	19	.016	0	16	16356.78	23593.5	1.105	1.105	1...	H1-1b
291	M565	PIPE 1.5	.187	3.392	19	.013	0	22	16356.78	23593.5	1.105	1.105	1...	H1-1b
292	M566	PIPE 1.5	.254	3.392	13	.025	6.784	22	16356.78	23593.5	1.105	1.105	1...	H1-1b
293	M567	PIPE 1.5	.262	3.392	13	.023	6.784	22	16356.78	23593.5	1.105	1.105	1...	H1-1b
294	M568	PIPE 1.5	.161	3.392	16	.020	6.784	1	16356.78	23593.5	1.105	1.105	1...	H1-1b
295	M569	PIPE 1.5	.193	3.392	16	.015	6.784	21	16356.78	23593.5	1.105	1.105	1...	H1-1b
296	M570	PIPE 1.5	.230	3.392	22	.022	6.784	19	16356.78	23593.5	1.105	1.105	1...	H1-1b
297	M571	PIPE 1.5	.267	3.392	22	.020	6.784	15	16356.78	23593.5	1.105	1.105	1...	H1-1b
298	MP2B	PIPE 2.0	.337	4	4	.152	4	7	14916.096	32130	1.872	1.872	1...	H1-1b
299	M575	PIPE 2.0	.192	3.684	1	.092	3.684	1	26521.4	32130	1.872	1.872	1...	H1-1b

I. Mount-to-Tower Connection Check - 120' Mount

<u>Custom Orientation Required</u>	No
<u>Tower Connection Bolt Checks</u>	Yes
<u>Bolt Orientation</u>	Parallel
Bolt Quantity per Reaction:	4
d_x (in) (Delta X of typ. bolt config. sketch):	6
d_y (in) (Delta Y of typ. bolt config. sketch):	4
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength / bolt (kips):	4.6
Required Shear Strength / bolt (kips):	0.9
Tensile Capacity / bolt (kips):	20.7
Shear Capacity / bolt (kips):	12.4
Bolt Overall Utilization:	22.4%
<u>Tower Connection Baseplate Checks</u>	No





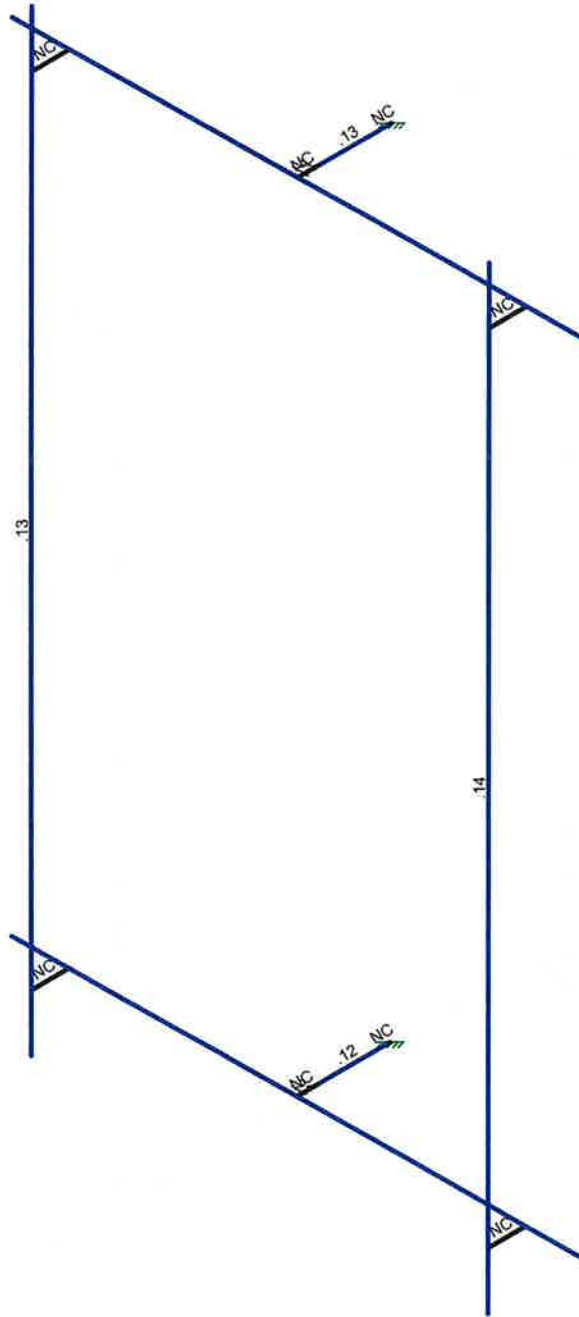
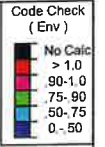
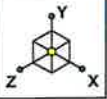
Colliers Engineering & De...
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23777329

Mount ReAnalysis-VZW

SK - 4

Feb 8, 2024 at 3:45 PM

5000234399-VZW_MT_LO_H_11...



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

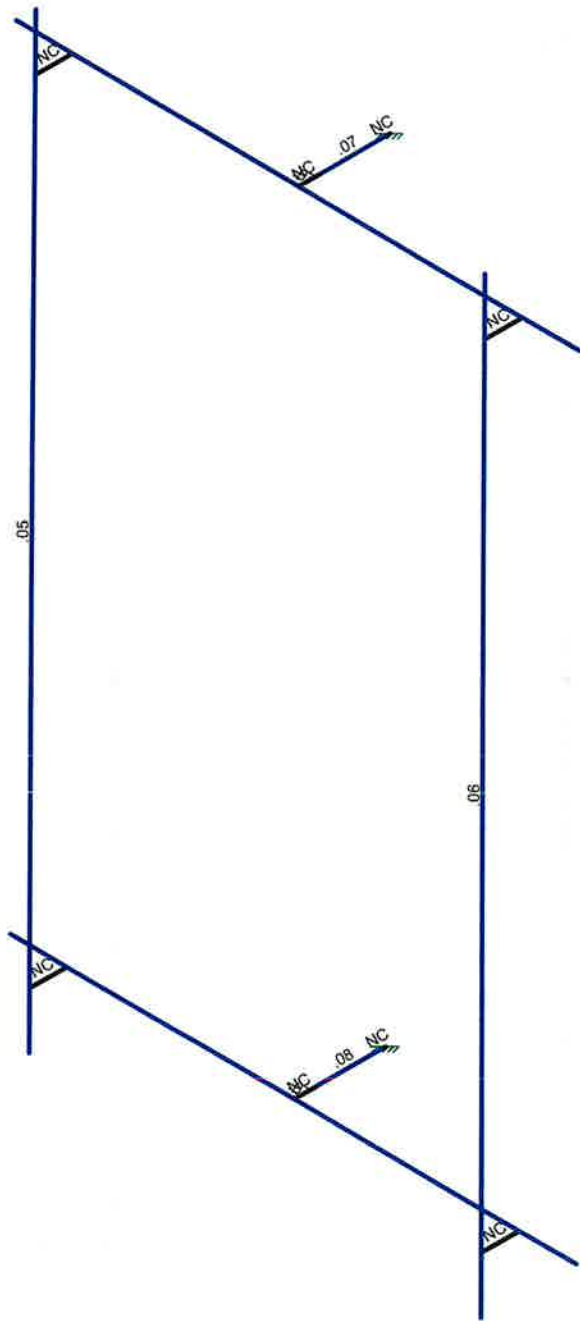
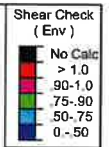
Colliers Engineering & De...
NL
23777329

Mount ReAnalysis-VZW

SK - 5

Feb 8, 2024 at 3:45 PM

5000234399-VZW_MT_LO_H_11...



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

Colliers Engineering & De. ...	Mount ReAnalysis-VZW	SK - 6
NL		Feb 8, 2024 at 3:45 PM
23777329		5000234399-VZW_MT_LO_H_11...



Basic Load Cases

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



Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
59	Structure Wi (180 Deg)	None						12		
60	Structure Wi (210 Deg)	None						12		
61	Structure Wi (240 Deg)	None						12		
62	Structure Wi (270 Deg)	None						12		
63	Structure Wi (300 Deg)	None						12		
64	Structure Wi (330 Deg)	None						12		
65	Structure Wm (0 Deg)	None						12		
66	Structure Wm (30 Deg)	None						12		
67	Structure Wm (60 Deg)	None						12		
68	Structure Wm (90 Deg)	None						12		
69	Structure Wm (120 Deg)	None						12		
70	Structure Wm (150 Deg)	None						12		
71	Structure Wm (180 Deg)	None						12		
72	Structure Wm (210 Deg)	None						12		
73	Structure Wm (240 Deg)	None						12		
74	Structure Wm (270 Deg)	None						12		
75	Structure Wm (300 Deg)	None						12		
76	Structure Wm (330 Deg)	None						12		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	Antenna Ev	None					18			
82	Antenna Eh (0 Deg)	None					12			
83	Antenna Eh (90 Deg)	None					12			
84	Structure Ev	ELY		-043						
85	Structure Eh (0 Deg)	ELZ			-108					
86	Structure Eh (90 Deg)	ELX	.108							

Load Combinations

	Description	So...	P...	S...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...	BLCFac...
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1		
2	1.2D+1.0Wo (30 D...	Yes	Y		1	1.2	39	1.2	4	1	42	1		
3	1.2D+1.0Wo (60 D...	Yes	Y		1	1.2	39	1.2	5	1	43	1		
4	1.2D+1.0Wo (90 D...	Yes	Y		1	1.2	39	1.2	6	1	44	1		
5	1.2D+1.0Wo (120 ...	Yes	Y		1	1.2	39	1.2	7	1	45	1		
6	1.2D+1.0Wo (150 ...	Yes	Y		1	1.2	39	1.2	8	1	46	1		
7	1.2D+1.0Wo (180 ...	Yes	Y		1	1.2	39	1.2	9	1	47	1		
8	1.2D+1.0Wo (210 ...	Yes	Y		1	1.2	39	1.2	10	1	48	1		
9	1.2D+1.0Wo (240 ...	Yes	Y		1	1.2	39	1.2	11	1	49	1		
10	1.2D+1.0Wo (270 ...	Yes	Y		1	1.2	39	1.2	12	1	50	1		
11	1.2D+1.0Wo (300 ...	Yes	Y		1	1.2	39	1.2	13	1	51	1		
12	1.2D+1.0Wo (330 ...	Yes	Y		1	1.2	39	1.2	14	1	52	1		
13	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1
14	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1
15	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1
16	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1
17	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1
18	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1
19	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1
20	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1
21	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1
22	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1
23	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1
24	1.2D + 1.0Di + 1.0...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1
25	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1
26	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1



Load Combinations (Continued)

	Description	So...	P...	S...	BLC Fac.	BLC Fac.	BLC Fac.	BLC Fac.	BLC Fac.	BLC Fac.	BLC Fac.	BLC Fac.	BLC Fac.	BLC Fac.	BLC Fac.	BLC Fac.
27	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1		
28	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1		
29	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1		
30	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1		
31	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1		
32	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1		
33	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1		
34	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1		
35	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1		
36	1.2D + 1.5Lm1 + 1...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1		
37	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1		
38	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1		
39	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1		
40	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1		
41	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1		
42	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1		
43	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1		
44	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1		
45	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1		
46	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1		
47	1.2D + 1.5Lm2 + 1...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1		
48	1.2D + 1.5Lm2 + 1...	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 + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	1	83	ELZ 1 ELX
53	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	.5 ELZ .866 ELX .5
54	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	.866 ELZ .5 ELX .866
55	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	1 ELZ ELX 1
56	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	.866 ELZ -.5 ELX .866
57	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	.5 ELZ -.866 ELX .5
58	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-1	83	ELZ -1 ELX
59	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.866	83	-.5 ELZ -.866 ELX -.5
60	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	-.5	83	-.866 ELZ -.5 ELX -.866
61	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82		83	-1 ELZ ELX -1
62	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.5	83	-.866 ELZ .5 ELX -.866
63	1.2D + 1.0Ev + 1.0...	Yes	Y		1	1.2	39	1.2	81	1	ELY	1	82	.866	83	-.5 ELZ .866 ELX -.5
64	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	1	83	ELZ 1 ELX
65	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	.5 ELZ .866 ELX .5
66	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	.866 ELZ .5 ELX .866
67	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	1 ELZ ELX 1
68	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	.866 ELZ -.5 ELX .866
69	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	.5 ELZ -.866 ELX .5
70	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-1	83	ELZ -1 ELX
71	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.866	83	-.5 ELZ -.866 ELX -.5
72	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	-.5	83	-.866 ELZ -.5 ELX -.866
73	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82		83	-1 ELZ ELX -1
74	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.5	83	-.866 ELZ .5 ELX -.866
75	0.9D - 1.0Ev + 1.0...	Yes	Y		1	.9	39	.9	81	-1	ELY	-1	82	.866	83	-.5 ELZ .866 ELX -.5

Hot Rolled Steel Section Sets

Label	Shape	Type	Design L...	Material	Design ...	A [in2]	Iy [in4]	Izz [in4]	J [in4]	
1	Mount Pipe	PIPE 2.5	Beam	HSS Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89
2	Face Horizontal	PIPE 3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
3	Standoff	HSS4X4X3	Beam	Tube	A500 Gr.B Recl	Typical	2.58	6.21	6.21	10



Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N16	N3			Standoff	Beam	Tube	A500 Gr.B..	Typical
2	M2	N3	N4			RIGID	None	None	RIGID	Typical
3	M3	N5	N6			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
4	M4	N7	N8			RIGID	None	None	RIGID	Typical
5	MP1	N10	N11			Mount Pipe	Beam	HSS Pipe	A53 Gr.B	Typical
6	M8	N16	N2			RIGID	None	None	RIGID	Typical
7	M9	N28	N29			RIGID	None	None	RIGID	Typical
8	MP2	N31	N32			Mount Pipe	Beam	HSS Pipe	A53 Gr.B	Typical
9	M9A	N22	N16A			Standoff	Beam	Tube	A500 Gr.B..	Typical
10	M10	N16A	N17			RIGID	None	None	RIGID	Typical
11	M11	N18	N19			Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
12	M12	N20	N21			RIGID	None	None	RIGID	Typical
13	M13	N22	N15			RIGID	None	None	RIGID	Typical
14	M14	N23	N24			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset(in)	J Offset(in)	T/C Only	Physical	Defl Rat..	Analysis ...	Inactive	Seismic..
1	M1						Yes	Default			None
2	M2						Yes	** NA **			None
3	M3						Yes				None
4	M4						Yes	** NA **			None
5	MP1						Yes	Default			None
6	M8						Yes	** NA **			None
7	M9						Yes	** NA **			None
8	MP2						Yes	Default			None
9	M9A						Yes	Default			None
10	M10						Yes	** NA **			None
11	M11						Yes				None
12	M12						Yes	** NA **			None
13	M13						Yes	** NA **			None
14	M14						Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb.k-ft]	Location(ft. %)
1	MP1	Y	-90.67	1.25
2	MP1	My	0	1.25
3	MP1	Mz	0	1.25
4	MP1	Y	-90.67	3.75
5	MP1	My	0	3.75
6	MP1	Mz	0	3.75
7	MP1	Y	-90.67	6.25
8	MP1	My	0	6.25
9	MP1	Mz	0	6.25
10	MP2	Y	-90.67	1.25
11	MP2	My	0	1.25
12	MP2	Mz	0	1.25
13	MP2	Y	-90.67	3.75
14	MP2	My	0	3.75
15	MP2	Mz	0	3.75
16	MP2	Y	-90.67	6.25
17	MP2	My	0	6.25
18	MP2	Mz	0	6.25

Member Point Loads (BLC 2 : Antenna Di)

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	Y	-712.201	1.25
2	MP1	My	0	1.25
3	MP1	Mz	0	1.25
4	MP1	Y	-123.041	3.75
5	MP1	My	0	3.75
6	MP1	Mz	0	3.75
7	MP1	Y	-123.041	6.25
8	MP1	My	0	6.25
9	MP1	Mz	0	6.25
10	MP2	Y	-712.201	1.25
11	MP2	My	0	1.25
12	MP2	Mz	0	1.25
13	MP2	Y	-123.041	3.75
14	MP2	My	0	3.75
15	MP2	Mz	0	3.75
16	MP2	Y	-123.041	6.25
17	MP2	My	0	6.25
18	MP2	Mz	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	0	1.25
2	MP1	Z	-236.157	1.25
3	MP1	Mx	0	1.25
4	MP1	X	0	3.75
5	MP1	Z	-161.737	3.75
6	MP1	Mx	0	3.75
7	MP1	X	0	6.25
8	MP1	Z	-161.737	6.25
9	MP1	Mx	0	6.25
10	MP2	X	0	1.25
11	MP2	Z	-236.157	1.25
12	MP2	Mx	0	1.25
13	MP2	X	0	3.75
14	MP2	Z	-161.737	3.75
15	MP2	Mx	0	3.75
16	MP2	X	0	6.25
17	MP2	Z	-161.737	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	224.504	1.25
2	MP1	Z	-388.852	1.25
3	MP1	Mx	0	1.25
4	MP1	X	37.839	3.75
5	MP1	Z	-65.54	3.75
6	MP1	Mx	0	3.75
7	MP1	X	37.839	6.25
8	MP1	Z	-65.54	6.25
9	MP1	Mx	0	6.25
10	MP2	X	224.504	1.25
11	MP2	Z	-388.852	1.25
12	MP2	Mx	0	1.25
13	MP2	X	37.839	3.75
14	MP2	Z	-65.54	3.75
15	MP2	Mx	0	3.75
16	MP2	X	37.839	6.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
17	MP2	Z	-65.54	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	539.122	1.25
2	MP1	Z	-311.262	1.25
3	MP1	Mx	0	1.25
4	MP1	X	4.783	3.75
5	MP1	Z	-2.762	3.75
6	MP1	Mx	0	3.75
7	MP1	X	4.783	6.25
8	MP1	Z	-2.762	6.25
9	MP1	Mx	0	6.25
10	MP2	X	539.122	1.25
11	MP2	Z	-311.262	1.25
12	MP2	Mx	0	1.25
13	MP2	X	4.783	3.75
14	MP2	Z	-2.762	3.75
15	MP2	Mx	0	3.75
16	MP2	X	4.783	6.25
17	MP2	Z	-2.762	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	583.191	1.25
2	MP1	Z	0	1.25
3	MP1	Mx	0	1.25
4	MP1	X	21.426	3.75
5	MP1	Z	0	3.75
6	MP1	Mx	0	3.75
7	MP1	X	21.426	6.25
8	MP1	Z	0	6.25
9	MP1	Mx	0	6.25
10	MP2	X	583.191	1.25
11	MP2	Z	0	1.25
12	MP2	Mx	0	1.25
13	MP2	X	21.426	3.75
14	MP2	Z	0	3.75
15	MP2	Mx	0	3.75
16	MP2	X	21.426	6.25
17	MP2	Z	0	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	320.725	1.25
2	MP1	Z	185.17	1.25
3	MP1	Mx	0	1.25
4	MP1	X	93.085	3.75
5	MP1	Z	53.742	3.75
6	MP1	Mx	0	3.75
7	MP1	X	93.085	6.25
8	MP1	Z	53.742	6.25
9	MP1	Mx	0	6.25
10	MP2	X	320.725	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location(ft.%)
11	MP2	Z	185.17	1.25
12	MP2	Mx	0	1.25
13	MP2	X	93.085	3.75
14	MP2	Z	53.742	3.75
15	MP2	Mx	0	3.75
16	MP2	X	93.085	6.25
17	MP2	Z	53.742	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location(ft.%)
1	MP1	X	98.412	1.25
2	MP1	Z	170.454	1.25
3	MP1	Mx	0	1.25
4	MP1	X	88.82	3.75
5	MP1	Z	153.841	3.75
6	MP1	Mx	0	3.75
7	MP1	X	88.82	6.25
8	MP1	Z	153.841	6.25
9	MP1	Mx	0	6.25
10	MP2	X	98.412	1.25
11	MP2	Z	170.454	1.25
12	MP2	Mx	0	1.25
13	MP2	X	88.82	3.75
14	MP2	Z	153.841	3.75
15	MP2	Mx	0	3.75
16	MP2	X	88.82	6.25
17	MP2	Z	153.841	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location(ft.%)
1	MP1	X	0	1.25
2	MP1	Z	236.157	1.25
3	MP1	Mx	0	1.25
4	MP1	X	0	3.75
5	MP1	Z	161.737	3.75
6	MP1	Mx	0	3.75
7	MP1	X	0	6.25
8	MP1	Z	161.737	6.25
9	MP1	Mx	0	6.25
10	MP2	X	0	1.25
11	MP2	Z	236.157	1.25
12	MP2	Mx	0	1.25
13	MP2	X	0	3.75
14	MP2	Z	161.737	3.75
15	MP2	Mx	0	3.75
16	MP2	X	0	6.25
17	MP2	Z	161.737	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location(ft.%)
1	MP1	X	-224.504	1.25
2	MP1	Z	388.852	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-37.839	3.75

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
5	MP1	Z	65.54	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-37.839	6.25
8	MP1	Z	65.54	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-224.504	1.25
11	MP2	Z	388.852	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-37.839	3.75
14	MP2	Z	65.54	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-37.839	6.25
17	MP2	Z	65.54	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-539.122	1.25
2	MP1	Z	311.262	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-4.783	3.75
5	MP1	Z	2.762	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-4.783	6.25
8	MP1	Z	2.762	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-539.122	1.25
11	MP2	Z	311.262	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-4.783	3.75
14	MP2	Z	2.762	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-4.783	6.25
17	MP2	Z	2.762	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-583.191	1.25
2	MP1	Z	0	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-21.426	3.75
5	MP1	Z	0	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-21.426	6.25
8	MP1	Z	0	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-583.191	1.25
11	MP2	Z	0	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-21.426	3.75
14	MP2	Z	0	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-21.426	6.25
17	MP2	Z	0	6.25
18	MP2	Mx	0	6.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-320.725	1.25
2	MP1	Z	-185.17	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-93.085	3.75
5	MP1	Z	-53.742	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-93.085	6.25
8	MP1	Z	-53.742	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-320.725	1.25
11	MP2	Z	-185.17	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-93.085	3.75
14	MP2	Z	-53.742	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-93.085	6.25
17	MP2	Z	-53.742	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-98.412	1.25
2	MP1	Z	-170.454	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-88.82	3.75
5	MP1	Z	-153.841	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-88.82	6.25
8	MP1	Z	-153.841	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-98.412	1.25
11	MP2	Z	-170.454	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-88.82	3.75
14	MP2	Z	-153.841	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-88.82	6.25
17	MP2	Z	-153.841	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	0	1.25
2	MP1	Z	-70.421	1.25
3	MP1	Mx	0	1.25
4	MP1	X	0	3.75
5	MP1	Z	-56.251	3.75
6	MP1	Mx	0	3.75
7	MP1	X	0	6.25
8	MP1	Z	-56.251	6.25
9	MP1	Mx	0	6.25
10	MP2	X	0	1.25
11	MP2	Z	-70.421	1.25
12	MP2	Mx	0	1.25
13	MP2	X	0	3.75
14	MP2	Z	-56.251	3.75
15	MP2	Mx	0	3.75
16	MP2	X	0	6.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
17	MP2	Z	-56.251	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	49.68	1.25
2	MP1	Z	-86.048	1.25
3	MP1	Mx	0	1.25
4	MP1	X	14.138	3.75
5	MP1	Z	-24.487	3.75
6	MP1	Mx	0	3.75
7	MP1	X	14.138	6.25
8	MP1	Z	-24.487	6.25
9	MP1	Mx	0	6.25
10	MP2	X	49.68	1.25
11	MP2	Z	-86.048	1.25
12	MP2	Mx	0	1.25
13	MP2	X	14.138	3.75
14	MP2	Z	-24.487	3.75
15	MP2	Mx	0	3.75
16	MP2	X	14.138	6.25
17	MP2	Z	-24.487	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	106.478	1.25
2	MP1	Z	-61.475	1.25
3	MP1	Mx	0	1.25
4	MP1	X	4.737	3.75
5	MP1	Z	-2.735	3.75
6	MP1	Mx	0	3.75
7	MP1	X	4.737	6.25
8	MP1	Z	-2.735	6.25
9	MP1	Mx	0	6.25
10	MP2	X	106.478	1.25
11	MP2	Z	-61.475	1.25
12	MP2	Mx	0	1.25
13	MP2	X	4.737	3.75
14	MP2	Z	-2.735	3.75
15	MP2	Mx	0	3.75
16	MP2	X	4.737	6.25
17	MP2	Z	-2.735	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	117.602	1.25
2	MP1	Z	0	1.25
3	MP1	Mx	0	1.25
4	MP1	X	10.639	3.75
5	MP1	Z	0	3.75
6	MP1	Mx	0	3.75
7	MP1	X	10.639	6.25
8	MP1	Z	0	6.25
9	MP1	Mx	0	6.25
10	MP2	X	117.602	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
11	MP2	Z	0	1.25
12	MP2	Mx	0	1.25
13	MP2	X	10.639	3.75
14	MP2	Z	0	3.75
15	MP2	Mx	0	3.75
16	MP2	X	10.639	6.25
17	MP2	Z	0	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	76.786	1.25
2	MP1	Z	44.332	1.25
3	MP1	Mx	0	1.25
4	MP1	X	33.442	3.75
5	MP1	Z	19.307	3.75
6	MP1	Mx	0	3.75
7	MP1	X	33.442	6.25
8	MP1	Z	19.307	6.25
9	MP1	Mx	0	6.25
10	MP2	X	76.786	1.25
11	MP2	Z	44.332	1.25
12	MP2	Mx	0	1.25
13	MP2	X	33.442	3.75
14	MP2	Z	19.307	3.75
15	MP2	Mx	0	3.75
16	MP2	X	33.442	6.25
17	MP2	Z	19.307	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	32.537	1.25
2	MP1	Z	56.356	1.25
3	MP1	Mx	0	1.25
4	MP1	X	30.711	3.75
5	MP1	Z	53.192	3.75
6	MP1	Mx	0	3.75
7	MP1	X	30.711	6.25
8	MP1	Z	53.192	6.25
9	MP1	Mx	0	6.25
10	MP2	X	32.537	1.25
11	MP2	Z	56.356	1.25
12	MP2	Mx	0	1.25
13	MP2	X	30.711	3.75
14	MP2	Z	53.192	3.75
15	MP2	Mx	0	3.75
16	MP2	X	30.711	6.25
17	MP2	Z	53.192	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	0	1.25
2	MP1	Z	70.421	1.25
3	MP1	Mx	0	1.25
4	MP1	X	0	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
5	MP1	Z	56.251	3.75
6	MP1	Mx	0	3.75
7	MP1	X	0	6.25
8	MP1	Z	56.251	6.25
9	MP1	Mx	0	6.25
10	MP2	X	0	1.25
11	MP2	Z	70.421	1.25
12	MP2	Mx	0	1.25
13	MP2	X	0	3.75
14	MP2	Z	56.251	3.75
15	MP2	Mx	0	3.75
16	MP2	X	0	6.25
17	MP2	Z	56.251	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-49.68	1.25
2	MP1	Z	86.048	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-14.138	3.75
5	MP1	Z	24.487	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-14.138	6.25
8	MP1	Z	24.487	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-49.68	1.25
11	MP2	Z	86.048	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-14.138	3.75
14	MP2	Z	24.487	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-14.138	6.25
17	MP2	Z	24.487	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-106.478	1.25
2	MP1	Z	61.475	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-4.737	3.75
5	MP1	Z	2.735	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-4.737	6.25
8	MP1	Z	2.735	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-106.478	1.25
11	MP2	Z	61.475	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-4.737	3.75
14	MP2	Z	2.735	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-4.737	6.25
17	MP2	Z	2.735	6.25
18	MP2	Mx	0	6.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-117.602	1.25
2	MP1	Z	0	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-10.639	3.75
5	MP1	Z	0	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-10.639	6.25
8	MP1	Z	0	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-117.602	1.25
11	MP2	Z	0	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-10.639	3.75
14	MP2	Z	0	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-10.639	6.25
17	MP2	Z	0	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-76.786	1.25
2	MP1	Z	-44.332	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-33.442	3.75
5	MP1	Z	-19.307	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-33.442	6.25
8	MP1	Z	-19.307	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-76.786	1.25
11	MP2	Z	-44.332	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-33.442	3.75
14	MP2	Z	-19.307	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-33.442	6.25
17	MP2	Z	-19.307	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-32.537	1.25
2	MP1	Z	-56.356	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-30.711	3.75
5	MP1	Z	-53.192	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-30.711	6.25
8	MP1	Z	-53.192	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-32.537	1.25
11	MP2	Z	-56.356	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-30.711	3.75
14	MP2	Z	-53.192	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-30.711	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
17	MP2	Z	-53.192	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	0	1.25
2	MP1	Z	-15.009	1.25
3	MP1	Mx	0	1.25
4	MP1	X	0	3.75
5	MP1	Z	-10.279	3.75
6	MP1	Mx	0	3.75
7	MP1	X	0	6.25
8	MP1	Z	-10.279	6.25
9	MP1	Mx	0	6.25
10	MP2	X	0	1.25
11	MP2	Z	-15.009	1.25
12	MP2	Mx	0	1.25
13	MP2	X	0	3.75
14	MP2	Z	-10.279	3.75
15	MP2	Mx	0	3.75
16	MP2	X	0	6.25
17	MP2	Z	-10.279	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	14.268	1.25
2	MP1	Z	-24.713	1.25
3	MP1	Mx	0	1.25
4	MP1	X	2.405	3.75
5	MP1	Z	-4.165	3.75
6	MP1	Mx	0	3.75
7	MP1	X	2.405	6.25
8	MP1	Z	-4.165	6.25
9	MP1	Mx	0	6.25
10	MP2	X	14.268	1.25
11	MP2	Z	-24.713	1.25
12	MP2	Mx	0	1.25
13	MP2	X	2.405	3.75
14	MP2	Z	-4.165	3.75
15	MP2	Mx	0	3.75
16	MP2	X	2.405	6.25
17	MP2	Z	-4.165	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	34.264	1.25
2	MP1	Z	-19.782	1.25
3	MP1	Mx	0	1.25
4	MP1	X	.304	3.75
5	MP1	Z	-.176	3.75
6	MP1	Mx	0	3.75
7	MP1	X	.304	6.25
8	MP1	Z	-.176	6.25
9	MP1	Mx	0	6.25
10	MP2	X	34.264	1.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
11	MP2	Z	-19.782	1.25
12	MP2	Mx	0	1.25
13	MP2	X	.304	3.75
14	MP2	Z	-.176	3.75
15	MP2	Mx	0	3.75
16	MP2	X	.304	6.25
17	MP2	Z	-.176	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	37.065	1.25
2	MP1	Z	0	1.25
3	MP1	Mx	0	1.25
4	MP1	X	1.362	3.75
5	MP1	Z	0	3.75
6	MP1	Mx	0	3.75
7	MP1	X	1.362	6.25
8	MP1	Z	0	6.25
9	MP1	Mx	0	6.25
10	MP2	X	37.065	1.25
11	MP2	Z	0	1.25
12	MP2	Mx	0	1.25
13	MP2	X	1.362	3.75
14	MP2	Z	0	3.75
15	MP2	Mx	0	3.75
16	MP2	X	1.362	6.25
17	MP2	Z	0	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	20.384	1.25
2	MP1	Z	11.768	1.25
3	MP1	Mx	0	1.25
4	MP1	X	5.916	3.75
5	MP1	Z	3.416	3.75
6	MP1	Mx	0	3.75
7	MP1	X	5.916	6.25
8	MP1	Z	3.416	6.25
9	MP1	Mx	0	6.25
10	MP2	X	20.384	1.25
11	MP2	Z	11.768	1.25
12	MP2	Mx	0	1.25
13	MP2	X	5.916	3.75
14	MP2	Z	3.416	3.75
15	MP2	Mx	0	3.75
16	MP2	X	5.916	6.25
17	MP2	Z	3.416	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	6.255	1.25
2	MP1	Z	10.833	1.25
3	MP1	Mx	0	1.25
4	MP1	X	5.645	3.75

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
5	MP1	Z	9.777	3.75
6	MP1	Mx	0	3.75
7	MP1	X	5.645	6.25
8	MP1	Z	9.777	6.25
9	MP1	Mx	0	6.25
10	MP2	X	6.255	1.25
11	MP2	Z	10.833	1.25
12	MP2	Mx	0	1.25
13	MP2	X	5.645	3.75
14	MP2	Z	9.777	3.75
15	MP2	Mx	0	3.75
16	MP2	X	5.645	6.25
17	MP2	Z	9.777	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	0	1.25
2	MP1	Z	15.009	1.25
3	MP1	Mx	0	1.25
4	MP1	X	0	3.75
5	MP1	Z	10.279	3.75
6	MP1	Mx	0	3.75
7	MP1	X	0	6.25
8	MP1	Z	10.279	6.25
9	MP1	Mx	0	6.25
10	MP2	X	0	1.25
11	MP2	Z	15.009	1.25
12	MP2	Mx	0	1.25
13	MP2	X	0	3.75
14	MP2	Z	10.279	3.75
15	MP2	Mx	0	3.75
16	MP2	X	0	6.25
17	MP2	Z	10.279	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-14.268	1.25
2	MP1	Z	24.713	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-2.405	3.75
5	MP1	Z	4.165	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-2.405	6.25
8	MP1	Z	4.165	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-14.268	1.25
11	MP2	Z	24.713	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-2.405	3.75
14	MP2	Z	4.165	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-2.405	6.25
17	MP2	Z	4.165	6.25
18	MP2	Mx	0	6.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-34.264	1.25
2	MP1	Z	19.782	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-.304	3.75
5	MP1	Z	.176	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-.304	6.25
8	MP1	Z	.176	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-34.264	1.25
11	MP2	Z	19.782	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-.304	3.75
14	MP2	Z	.176	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-.304	6.25
17	MP2	Z	.176	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-37.065	1.25
2	MP1	Z	0	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-1.362	3.75
5	MP1	Z	0	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-1.362	6.25
8	MP1	Z	0	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-37.065	1.25
11	MP2	Z	0	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-1.362	3.75
14	MP2	Z	0	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-1.362	6.25
17	MP2	Z	0	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-20.384	1.25
2	MP1	Z	-11.768	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-5.916	3.75
5	MP1	Z	-3.416	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-5.916	6.25
8	MP1	Z	-3.416	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-20.384	1.25
11	MP2	Z	-11.768	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-5.916	3.75
14	MP2	Z	-3.416	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-5.916	6.25



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
17	MP2	Z	-3.416	6.25
18	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	-6.255	1.25
2	MP1	Z	-10.833	1.25
3	MP1	Mx	0	1.25
4	MP1	X	-5.645	3.75
5	MP1	Z	-9.777	3.75
6	MP1	Mx	0	3.75
7	MP1	X	-5.645	6.25
8	MP1	Z	-9.777	6.25
9	MP1	Mx	0	6.25
10	MP2	X	-6.255	1.25
11	MP2	Z	-10.833	1.25
12	MP2	Mx	0	1.25
13	MP2	X	-5.645	3.75
14	MP2	Z	-9.777	3.75
15	MP2	Mx	0	3.75
16	MP2	X	-5.645	6.25
17	MP2	Z	-9.777	6.25
18	MP2	Mx	0	6.25

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M4	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M9	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M3	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	M3	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	Y	-3.927	1.25
2	MP1	My	0	1.25
3	MP1	Mz	0	1.25
4	MP1	Y	-3.927	3.75
5	MP1	My	0	3.75
6	MP1	Mz	0	3.75
7	MP1	Y	-3.927	6.25
8	MP1	My	0	6.25
9	MP1	Mz	0	6.25
10	MP2	Y	-3.927	1.25
11	MP2	My	0	1.25
12	MP2	Mz	0	1.25
13	MP2	Y	-3.927	3.75
14	MP2	My	0	3.75



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
15	MP2	Mz	0	3.75
16	MP2	Y	-3.927	6.25
17	MP2	My	0	6.25
18	MP2	Mz	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	Z	-9.817	1.25
2	MP1	Mx	0	1.25
3	MP1	Z	-9.817	3.75
4	MP1	Mx	0	3.75
5	MP1	Z	-9.817	6.25
6	MP1	Mx	0	6.25
7	MP2	Z	-9.817	1.25
8	MP2	Mx	0	1.25
9	MP2	Z	-9.817	3.75
10	MP2	Mx	0	3.75
11	MP2	Z	-9.817	6.25
12	MP2	Mx	0	6.25

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1	X	9.817	1.25
2	MP1	Mx	0	1.25
3	MP1	X	9.817	3.75
4	MP1	Mx	0	3.75
5	MP1	X	9.817	6.25
6	MP1	Mx	0	6.25
7	MP2	X	9.817	1.25
8	MP2	Mx	0	1.25
9	MP2	X	9.817	3.75
10	MP2	Mx	0	3.75
11	MP2	X	9.817	6.25
12	MP2	Mx	0	6.25

Member Area Loads

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

Envelope Joint Reactions

Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
1	N2	max	376.766	11	1575.109	13	624.625	1	-.093	1	.453	11	.541	34
2		min	-376.775	5	232.92	7	-575.141	7	-1.462	19	-.454	5	-.541	40
3	N15	max	1189.266	10	1591.121	19	880.569	2	-.084	7	1.282	10	.472	30
4		min	-1189.266	4	233.501	1	-930.06	8	-1.479	13	-1.282	4	-.472	48
5	Totals:	max	1416.557	10	3031.867	13	1388.843	1						
6		min	-1416.557	4	610.933	70	-1388.843	7						

Joint Reactions

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	1	N2	0	622.254	624.625	-.093	0
2	1	N15	0	233.501	764.219	-.682	0
3	1	Totals:	0	855.755	1388.843		



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
4	1	COG (ft):	X: 0	Y: .191	Z: 1.597		
5	2	N2	-194.695	572.48	370.002	-.206	-.239
6	2	N15	-527.321	283.275	880.569	-.644	-.569
7	2	Totals:	-722.016	855.755	1250.57		.008
8	2	COG (ft):	X: 0	Y: .191	Z: 1.597		
9	3	N2	-177.063	500.129	134.299	-.315	-.261
10	3	N15	-1085.506	355.626	594.646	-.534	-1.164
11	3	Totals:	-1262.57	855.754	728.945		
12	3	COG (ft):	X: 0	Y: .191	Z: 1.597		
13	4	N2	-227.291	427.613	24.773	-.382	-.325
14	4	N15	-1189.266	428.142	-24.775	-.383	-1.282
15	4	Totals:	-1416.557	855.754	-.002		-.036
16	4	COG (ft):	X: 0	Y: .191	Z: 1.597		
17	5	N2	-376.775	338.845	-196.191	-.5	-.454
18	5	N15	-802.208	516.909	-484.493	-.233	-.878
19	5	Totals:	-1178.984	855.754	-680.684		-.138
20	5	COG (ft):	X: 0	Y: .191	Z: 1.597		
21	6	N2	-309.998	254.609	-513.49	-.646	-.35
22	6	N15	-363.758	601.145	-653.49	-.125	-.404
23	6	Totals:	-673.756	855.754	-1166.98		.056
24	6	COG (ft):	X: 0	Y: .191	Z: 1.597		
25	7	N2	0	232.92	-575.141	-.671	0
26	7	N15	0	622.835	-813.702	-.084	0
27	7	Totals:	0	855.754	-1388.843		0
28	7	COG (ft):	X: 0	Y: .191	Z: 1.597		
29	8	N2	194.707	282.68	-320.511	-.559	.239
30	8	N15	527.309	573.074	-930.06	-.123	.571
31	8	Totals:	722.016	855.754	-1250.571		.089
32	8	COG (ft):	X: 0	Y: .191	Z: 1.597		
33	9	N2	177.081	355.11	-84.769	-.45	.261
34	9	N15	1085.488	500.645	-644.176	-.232	1.166
35	9	Totals:	1262.57	855.755	-728.945		.045
36	9	COG (ft):	X: 0	Y: .191	Z: 1.597		
37	10	N2	227.291	427.613	24.773	-.382	.325
38	10	N15	1189.266	428.142	-24.771	-.383	1.282
39	10	Totals:	1416.557	855.755	.002		.036
40	10	COG (ft):	X: 0	Y: .191	Z: 1.597		
41	11	N2	376.766	516.269	245.707	-.265	.453
42	11	N15	802.217	339.486	434.976	-.533	.876
43	11	Totals:	1178.984	855.755	680.684		-.04
44	11	COG (ft):	X: 0	Y: .191	Z: 1.597		
45	12	N2	309.996	600.537	562.98	-.119	.35
46	12	N15	363.76	255.218	604	-.641	.403
47	12	Totals:	673.756	855.755	1166.98		-.056
48	12	COG (ft):	X: 0	Y: .191	Z: 1.597		
49	13	N2	0	1575.109	303.672	-1.26	0
50	13	N15	0	1456.758	168.554	-1.479	0
51	13	Totals:	0	3031.867	472.225		0
52	13	COG (ft):	X: 0	Y: 1.183	Z: 1.613		
53	14	N2	-69.088	1551.73	212.006	-1.302	-.081
54	14	N15	-135.306	1480.137	142.011	-1.451	-.147
55	14	Totals:	-204.394	3031.867	354.016		.007
56	14	COG (ft):	X: 0	Y: 1.183	Z: 1.613		
57	15	N2	-62.521	1526.45	128.262	-1.341	-.082
58	15	N15	-237.046	1505.418	44.693	-1.413	-.255
59	15	Totals:	-299.567	3031.867	172.955		-.041
60	15	COG (ft):	X: 0	Y: 1.183	Z: 1.613		
61	16	N2	-80.305	1507.923	90.777	-1.361	-.104
62	16	N15	-266.169	1523.945	-90.778	-1.377	-.289
		Totals:					-.047
		COG (ft):	X: 0	Y: 1.183	Z: 1.613		0



Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
63	16	Totals:	-346.474	3031.867	0			
64	16	COG (ft):	X: 0	Y: 1.183	Z: 1.613			
65	17	N2	-133.716	1479.564	12.89	-1.401	-.157	-.038
66	17	N15	-221.287	1552.304	-217.847	-1.331	-.244	.019
67	17	Totals:	-355.003	3031.867	-204.958			
68	17	COG (ft):	X: 0	Y: 1.183	Z: 1.613			
69	18	N2	-110.192	1447.089	-100.436	-1.454	-.124	-.021
70	18	N15	-126.207	1584.778	-309.017	-1.286	-.14	.02
71	18	Totals:	-236.4	3031.867	-409.453			
72	18	COG (ft):	X: 0	Y: 1.183	Z: 1.613			
73	19	N2	0	1440.746	-122.121	-1.462	0	0
74	19	N15	0	1591.121	-350.104	-1.275	0	0
75	19	Totals:	0	3031.867	-472.226			
76	19	COG (ft):	X: 0	Y: 1.183	Z: 1.613			
77	20	N2	69.088	1464.118	-30.455	-1.419	.081	.022
78	20	N15	135.305	1567.75	-323.562	-1.303	.147	-.007
79	20	Totals:	204.394	3031.867	-354.016			
80	20	COG (ft):	X: 0	Y: 1.183	Z: 1.613			
81	21	N2	62.522	1489.397	53.291	-1.381	.082	.041
82	21	N15	237.045	1542.471	-226.246	-1.341	.255	.004
83	21	Totals:	299.567	3031.867	-172.955			
84	21	COG (ft):	X: 0	Y: 1.183	Z: 1.613			
85	22	N2	80.305	1507.923	90.777	-1.361	.104	.047
86	22	N15	266.169	1523.945	-90.777	-1.377	.289	0
87	22	Totals:	346.474	3031.867	0			
88	22	COG (ft):	X: 0	Y: 1.183	Z: 1.613			
89	23	N2	133.715	1536.281	168.663	-1.321	.157	.038
90	23	N15	221.287	1495.586	36.294	-1.423	.244	-.019
91	23	Totals:	355.003	3031.867	204.957			
92	23	COG (ft):	X: 0	Y: 1.183	Z: 1.613			
93	24	N2	110.192	1568.764	281.987	-1.268	.124	.021
94	24	N15	126.207	1463.103	127.465	-1.468	.14	-.02
95	24	Totals:	236.4	3031.867	409.453			
96	24	COG (ft):	X: 0	Y: 1.183	Z: 1.613			
97	25	N2	71.937	855.791	68.661	-.601	.072	.528
98	25	N15	-71.937	749.964	19.606	-.734	-.072	.469
99	25	Totals:	0	1605.755	88.267			
100	25	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
101	26	N2	59.56	852.623	52.482	-.608	.056	.522
102	26	N15	-105.448	753.132	26.995	-.732	-.108	.469
103	26	Totals:	-45.888	1605.755	79.477			
104	26	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
105	27	N2	60.679	848.014	37.505	-.615	.055	.516
106	27	N15	-140.922	757.741	8.824	-.725	-.146	.466
107	27	Totals:	-80.243	1605.755	46.329			
108	27	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
109	28	N2	57.487	843.404	30.539	-.619	.051	.514
110	28	N15	-147.518	762.351	-30.539	-.715	-.153	.466
111	28	Totals:	-90.031	1605.755	0			
112	28	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
113	29	N2	47.989	837.773	16.492	-.627	.043	.519
114	29	N15	-122.919	767.982	-59.753	-.705	-.127	.471
115	29	Totals:	-74.931	1605.755	-43.262			
116	29	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
117	30	N2	52.233	832.424	-3.672	-.636	.049	.524
118	30	N15	-95.055	773.33	-70.494	-.699	-.097	.472
119	30	Totals:	-42.822	1605.755	-74.166			
120	30	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
121	31	N2	71.937	831.045	-7.592	-.638	.072	.528



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]	
122	31	N15	-71.937	774.71	-80.676	-.696	-.072	.469
123	31	Totals:	0	1605.755	-88.267			
124	31	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
125	32	N2	84.314	834.213	8.588	-.63	.087	.533
126	32	N15	-38.427	771.542	-88.065	-.698	-.035	.468
127	32	Totals:	45.888	1605.755	-79.477			
128	32	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
129	33	N2	83.196	838.822	23.565	-.623	.088	.54
130	33	N15	-2.953	766.933	-69.894	-.705	.002	.472
131	33	Totals:	80.243	1605.755	-46.329			
132	33	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
133	34	N2	86.388	843.432	30.531	-.619	.092	.541
134	34	N15	3.643	762.323	-30.531	-.715	.01	.471
135	34	Totals:	90.031	1605.755	0			
136	34	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
137	35	N2	95.886	849.062	44.578	-.612	.1	.537
138	35	N15	-20.955	756.693	-1.317	-.724	-.016	.466
139	35	Totals:	74.931	1605.755	43.262			
140	35	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
141	36	N2	91.641	854.411	64.742	-.602	.094	.531
142	36	N15	-48.819	751.344	9.424	-.731	-.046	.465
143	36	Totals:	42.822	1605.755	74.165			
144	36	COG (ft):	X: .934	Y: -1.533	Z: 1.464			
145	37	N2	-71.937	855.79	68.661	-.601	-.072	-.528
146	37	N15	71.937	749.964	19.606	-.734	.072	-.469
147	37	Totals:	0	1605.754	88.267			
148	37	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			
149	38	N2	-84.313	852.632	52.479	-.608	-.087	-.533
150	38	N15	38.426	753.122	26.998	-.732	.035	-.468
151	38	Totals:	-45.888	1605.754	79.477			
152	38	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			
153	39	N2	-83.194	848.04	37.498	-.615	-.088	-.54
154	39	N15	2.951	757.714	8.832	-.725	-.002	-.472
155	39	Totals:	-80.243	1605.754	46.329			
156	39	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			
157	40	N2	-86.388	843.432	30.531	-.619	-.092	-.541
158	40	N15	-3.643	762.323	-30.531	-.715	-.01	-.471
159	40	Totals:	-90.031	1605.754	0			
160	40	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			
161	41	N2	-95.886	837.784	16.488	-.627	-.1	-.537
162	41	N15	20.955	767.97	-59.749	-.705	.016	-.466
163	41	Totals:	-74.931	1605.754	-43.262			
164	41	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			
165	42	N2	-91.641	832.424	-3.673	-.636	-.094	-.531
166	42	N15	48.819	773.33	-70.493	-.699	.046	-.465
167	42	Totals:	-42.822	1605.754	-74.165			
168	42	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			
169	43	N2	-71.937	831.045	-7.592	-.638	-.072	-.528
170	43	N15	71.937	774.71	-80.676	-.696	.072	-.469
171	43	Totals:	0	1605.754	-88.267			
172	43	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			
173	44	N2	-59.561	834.203	8.59	-.63	-.056	-.522
174	44	N15	105.449	771.551	-88.068	-.698	.108	-.469
175	44	Totals:	45.888	1605.754	-79.477			
176	44	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			
177	45	N2	-60.68	838.795	23.572	-.623	-.055	-.516
178	45	N15	140.923	766.959	-69.901	-.705	.146	-.466
179	45	Totals:	80.243	1605.754	-46.329			
180	45	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			



Joint Reactions (Continued)

	LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
181	46	N2	-57.487	843.404	30.539	-.619	-.051	-.514
182	46	N15	147.518	762.351	-30.539	-.715	.153	-.466
183	46	Totals:	90.031	1605.754	0			
184	46	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			
185	47	N2	-47.988	849.051	44.582	-.612	-.043	-.519
186	47	N15	122.919	756.704	-1.32	-.725	.127	-.471
187	47	Totals:	74.931	1605.754	43.262			
188	47	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			
189	48	N2	-52.234	854.41	64.742	-.602	-.049	-.524
190	48	N15	95.055	751.344	9.423	-.731	.097	-.472
191	48	Totals:	42.822	1605.754	74.166			
192	48	COG (ft):	X: -.934	Y: -1.533	Z: 1.464			
193	49	N2	-50.277	584.181	27.742	-.448	-.05	-.292
194	49	N15	50.277	646.573	-27.742	-.601	.05	-.294
195	49	Totals:	0	1230.754	0			
196	49	COG (ft):	X: -.762	Y: -.934	Z: 1.51			
197	50	N2	0	787.111	27.434	-.657	0	0
198	50	N15	0	443.643	-27.434	-.394	0	0
199	50	Totals:	0	1230.755	0			
200	50	COG (ft):	X: 0	Y: -.934	Z: 1.51			
201	51	N2	0	498.753	28.871	-.446	0	0
202	51	N15	0	499.627	-28.871	-.447	0	0
203	51	Totals:	0	998.38	0			
204	51	COG (ft):	X: 0	Y: .191	Z: 1.597			
205	52	N2	0	453.927	62.23	-.379	0	0
206	52	N15	0	432.711	14.978	-.413	0	0
207	52	Totals:	0	886.638	77.208			
208	52	COG (ft):	X: 0	Y: .191	Z: 1.597			
209	53	N2	-18.266	452.454	57.327	-.381	-.02	-.003
210	53	N15	-20.338	434.184	9.536	-.411	-.022	.003
211	53	Totals:	-38.604	886.638	66.862			
212	53	COG (ft):	X: 0	Y: .191	Z: 1.597			
213	54	N2	-31.637	448.43	43.935	-.388	-.035	-.005
214	54	N15	-35.225	438.208	-5.331	-.405	-.038	.006
215	54	Totals:	-66.862	886.638	38.604			
216	54	COG (ft):	X: 0	Y: .191	Z: 1.597			
217	55	N2	-36.532	442.934	25.639	-.396	-.04	-.006
218	55	N15	-40.676	443.704	-25.639	-.397	-.044	.006
219	55	Totals:	-77.208	886.638	0			
220	55	COG (ft):	X: 0	Y: .191	Z: 1.597			
221	56	N2	-31.637	437.437	7.344	-.404	-.035	-.005
222	56	N15	-35.225	449.201	-45.948	-.389	-.038	.006
223	56	Totals:	-66.862	886.638	-38.604			
224	56	COG (ft):	X: 0	Y: .191	Z: 1.597			
225	57	N2	-18.266	433.413	-6.048	-.411	-.02	-.003
226	57	N15	-20.338	453.225	-60.814	-.383	-.022	.003
227	57	Totals:	-38.604	886.638	-66.862			
228	57	COG (ft):	X: 0	Y: .191	Z: 1.597			
229	58	N2	0	431.94	-10.951	-.413	0	0
230	58	N15	0	454.698	-66.257	-.381	0	0
231	58	Totals:	0	886.638	-77.208			
232	58	COG (ft):	X: 0	Y: .191	Z: 1.597			
233	59	N2	18.266	433.413	-6.048	-.411	.02	.003
234	59	N15	20.338	453.225	-60.814	-.383	.022	-.003
235	59	Totals:	38.604	886.638	-66.862			
236	59	COG (ft):	X: 0	Y: .191	Z: 1.597			
237	60	N2	31.637	437.437	7.344	-.404	.035	.005
238	60	N15	35.225	449.201	-45.948	-.389	.038	-.006
239	60	Totals:	66.862	886.638	-38.604			



Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
240	60	COG (ft):	X: 0	Y: .191	Z: 1.597		
241	61	N2	36.533	442.934	25.639	-.396	.04
242	61	N15	40.676	443.704	-25.639	-.397	.044
243	61	Totals:	77.208	886.638	0		-.006
244	61	COG (ft):	X: 0	Y: .191	Z: 1.597		
245	62	N2	31.637	448.43	43.935	-.388	.035
246	62	N15	35.225	438.208	-5.33	-.405	.038
247	62	Totals:	66.862	886.638	38.604		
248	62	COG (ft):	X: 0	Y: .191	Z: 1.597		
249	63	N2	18.266	452.454	57.327	-.381	.02
250	63	N15	20.338	434.184	9.536	-.411	.022
251	63	Totals:	38.604	886.638	66.862		-.003
252	63	COG (ft):	X: 0	Y: .191	Z: 1.597		
253	64	N2	0	316.198	54.257	-.256	0
254	64	N15	0	294.734	22.951	-.29	0
255	64	Totals:	0	610.933	77.208		
256	64	COG (ft):	X: 0	Y: .191	Z: 1.597		
257	65	N2	-18.266	314.725	49.354	-.258	-.02
258	65	N15	-20.338	296.207	17.508	-.288	-.022
259	65	Totals:	-38.604	610.933	66.862		.003
260	65	COG (ft):	X: 0	Y: .191	Z: 1.597		
261	66	N2	-31.636	310.702	35.962	-.264	-.035
262	66	N15	-35.226	300.231	2.642	-.282	-.038
263	66	Totals:	-66.862	610.933	38.604		.006
264	66	COG (ft):	X: 0	Y: .191	Z: 1.597		
265	67	N2	-36.532	305.205	17.667	-.273	-.04
266	67	N15	-40.677	305.728	-17.667	-.273	-.044
267	67	Totals:	-77.208	610.933	0		.006
268	67	COG (ft):	X: 0	Y: .191	Z: 1.597		
269	68	N2	-31.636	299.708	-.629	-.281	-.035
270	68	N15	-35.226	311.225	-37.976	-.265	-.038
271	68	Totals:	-66.862	610.933	-38.604		.006
272	68	COG (ft):	X: 0	Y: .191	Z: 1.597		
273	69	N2	-18.266	295.685	-14.021	-.288	-.02
274	69	N15	-20.338	315.248	-52.842	-.259	-.022
275	69	Totals:	-38.604	610.933	-66.862		.003
276	69	COG (ft):	X: 0	Y: .191	Z: 1.597		
277	70	N2	0	294.212	-18.924	-.29	0
278	70	N15	0	316.721	-58.284	-.257	0
279	70	Totals:	0	610.933	-77.208		0
280	70	COG (ft):	X: 0	Y: .191	Z: 1.597		
281	71	N2	18.266	295.685	-14.021	-.288	.02
282	71	N15	20.338	315.248	-52.842	-.259	.022
283	71	Totals:	38.604	610.933	-66.862		-.003
284	71	COG (ft):	X: 0	Y: .191	Z: 1.597		
285	72	N2	31.636	299.708	-.629	-.281	.035
286	72	N15	35.226	311.225	-37.975	-.265	.038
287	72	Totals:	66.862	610.933	-38.604		-.006
288	72	COG (ft):	X: 0	Y: .191	Z: 1.597		
289	73	N2	36.532	305.205	17.667	-.273	.04
290	73	N15	40.677	305.728	-17.667	-.273	.044
291	73	Totals:	77.208	610.933	0		-.006
292	73	COG (ft):	X: 0	Y: .191	Z: 1.597		
293	74	N2	31.636	310.702	35.962	-.264	.035
294	74	N15	35.226	300.231	2.642	-.282	.038
295	74	Totals:	66.862	610.933	38.604		-.006
296	74	COG (ft):	X: 0	Y: .191	Z: 1.597		
297	75	N2	18.266	314.725	49.354	-.258	.02
298	75	N15	20.338	296.207	17.508	-.288	.022



Company : Colliers Engineering & Design
 Designer : NL
 Job Number : 23777329
 Model Name : Mount ReAnalysis-VZW

Feb 8, 2024
 3:46 PM
 Checked By: PMA

Joint Reactions (Continued)

LC	Joint Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
299	75	Totals:	38.604	610.933	66.862		
300	75	COG (ft):	X: 0	Y: .191	Z: 1.597		

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

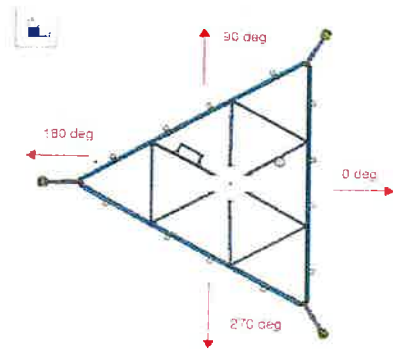
Member	Shape	Code C...	Loc(ft)	LC Shear ...	Loc(ft)	Dir	LC phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y...	phi*Mn z...	Cb	Eqn			
1	M1	HSS4X4X3	.120	0	18	.079	0	y	39	106665.8...	106812	12.662	12.662	1...	H1-1b
2	M3	PIPE 3.0	.212	2.5	24	.068	2.5		18	57037.472	65205	5.749	5.749	1...	H1-1b
3	MP1	PIPE 2.5	.143	7.5	24	.057	.5		3	30038.461	50715	3.596	3.596	2...	H1-1b
4	MP2	PIPE 2.5	.133	7.5	14	.048	.5		10	30038.461	50715	3.596	3.596	2...	H1-1b
5	M9A	HSS4X4X3	.132	0	3	.071	0	y	30	106665.8...	106812	12.662	12.662	1...	H1-1b
6	M11	PIPE 3.0	.215	2.5	18	.069	2.5		1	57037.472	65205	5.749	5.749	1...	H1-1b

I. Mount-to-Tower Connection Check - 110' Mount

Custom Orientation Required

Yes

Nodes (labeled per Risa)	Orientation (per graphic of typical platform)
N2	0
N15	0



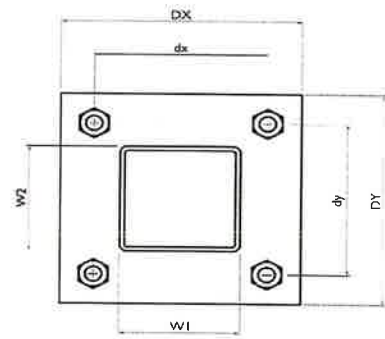
Tower Connection Bolt Checks

Yes

Bolt Orientation

Parallel

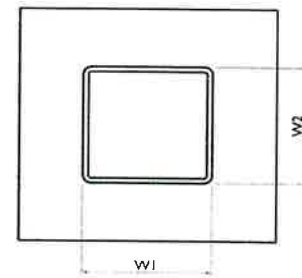
Bolt Quantity per Reaction:	4
d_x (in) (Delta X of typ. bolt config. sketch):	6
d_y (in) (Delta Y of typ. bolt config. sketch):	6
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength / bolt (kips):	1.7
Required Shear Strength / bolt (kips):	0.4
Tensile Capacity / bolt (kips):	20.7
Shear Capacity / bolt (kips):	12.4
Bolt Overall Utilization:	8.2%



Tower Connection Baseplate Checks

Yes

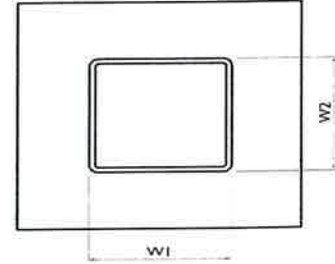
Connecting Standoff Member Shape:	Rect Tube
Weld Stiffener Configuration:	No Stiffeners
Plate Width, D_x (in):	8
Plate Height, D_y (in):	8
W_1 (in):	4
W_2 (in):	4
Member Thickness (in):	0.25
Stiffener location a_1 (in):	
Stiffener location b_1 (in):	
Stiffener location a_2 (in):	
Stiffener location b_2 (in):	
F_y (ksi, plate):	36
Plate Thickness (in):	0.5
Length of Yield Line, L_y (in):	5.85
Bolt Eccentricity, e (in):	1.65
M_u (kip-in):	2.78
$\Phi * M_n$ (kip-in):	11.85
Plate Bending Utilization:	23.5%



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
2.25
2.25
0.65
5.57
11.7%



ATTACHMENT 5

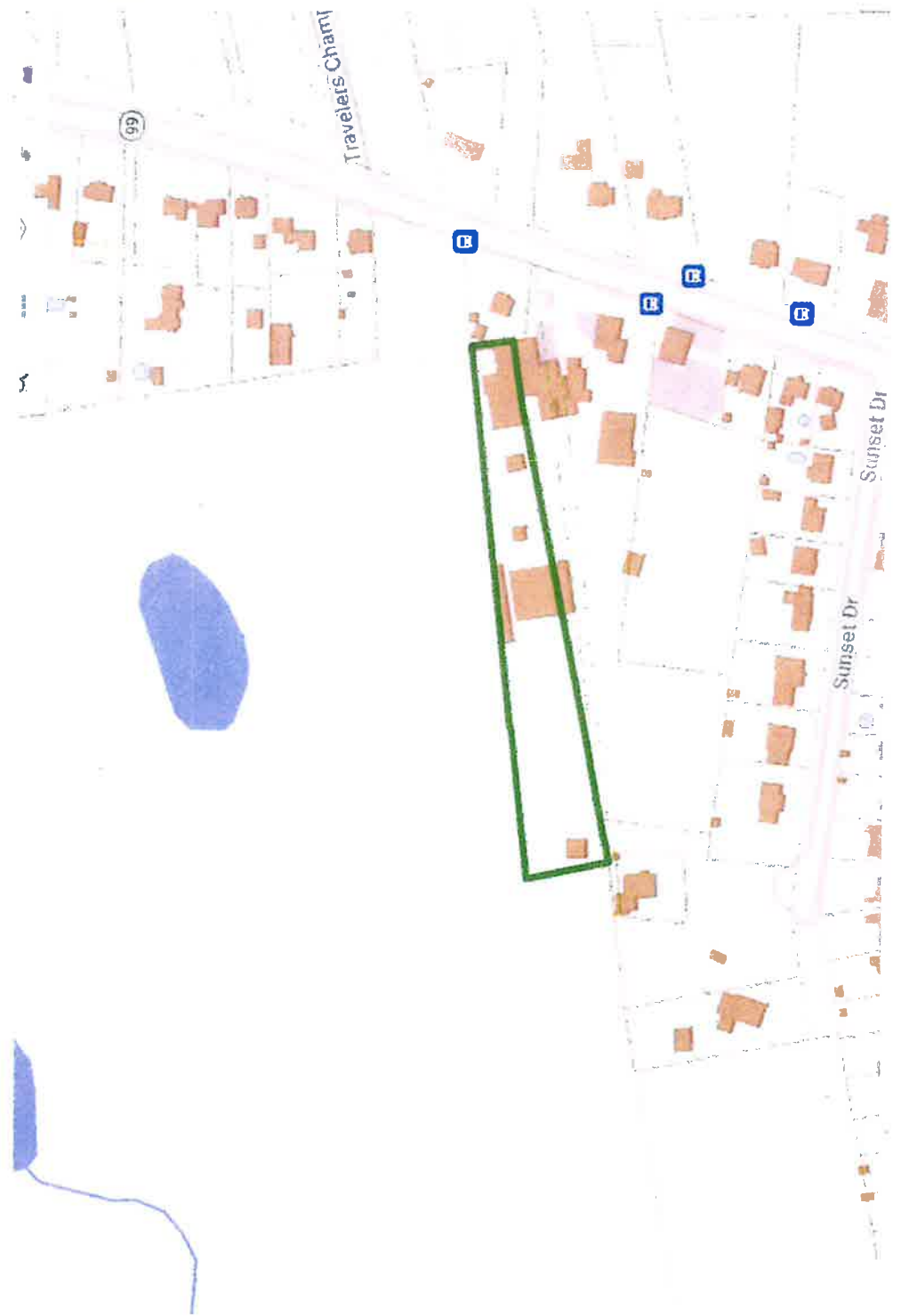
Source

Advanced Search

Download Results More

Showing 1-1 results. Scroll to see more.

667 MAIN STREET
CROMWELL CONCRETE PRODUCTS INC
2647





Patriot
Properties Inc.

Parcel ID: 00285900 Location: 667 MAIN STREET Map-Lot 48-28C Last Revaluation - October 1, 2022

Current Owner	Percent	PA 490 Value	Building Value	Mkt Adj Cost	Outbuildings	Total Value	Total Assessed
CROMWELL CONCRETE PRODUCTS INC	100	211,400	0	501,300	102,500	815,200	570,640
TOTAL		211,400	0	501,300	102,500	815,200	570,640

667 MAIN STREET
CROMWELL CT 06416

Previous Value Information

Tax Yr	Land Value	Bldg Value	Outbuildings	Total Value	Total Assessment
2021	184,000	344,900	99,800	628,700	440,090
2020	184,000	344,900	99,800	628,700	440,090
2019	184,000	344,900	99,800	628,700	440,090
2018	184,000	344,900	99,800	628,700	440,090
2017	184,000	324,500	99,800	608,300	425,810
2016	213,470	328,340	41,800	583,610	408,520

General Notes

CROMWELL CONCRETE
80 SHED(15X32) IS OFFICE W/ 2PC LAV; 3(1 4X12) OHD'S.
Commercial Garage for fixing company vehicles

Sales Information

Grantee: CROMWELL CONCRETE PRO
Vol-Page: 42-487
Type: 10/24/1950
Sale Price: 0
Sale Verif: 0
GeneralNotes:

Zoning Data

Desc. %
BP 130.00
Utilities
Public Water
2
BAA
07K

Activity Information

Date	Results	Visited By	Date	Permit #	Description	Amount	% Comp	Visit Date	CO Date	GeneralNotes
08/15/2022	Change - Value Change Company	DM	07/16/2021	27842	Electric	19,000	100		14-Sep-2021	CELL SITE
09/06/2018	Permit - Measure Exterior	Assessor Office	10/29/2015	23731	Addition	10,000	100	06-Sep-2018		Cold Storage Building
09/09/2017	Change - Value Change Company	John Valente	03/25/2013	21504	Propane Tank	1,000	100	25-Mar-2013		120gal
06/15/2017	Permit - Measure Exterior	Mike Mondarski	04/30/2012	20716	Electric	1,000	100	12-Sep-2012		For propane filling stati
05/19/2017	No Change - Field Review	Dave Stannard	03/15/2012	20592	Propane Tank	1,000	100	12-Sep-2012	26-Mar-2013	1000gal ag tank/pump stat
09/13/2016	Permit - Walk Exterior	Mike Mondarski								
10/28/2015	Permit - Miscellaneous	Assessor Office								
03/25/2013	Permit - Miscellaneous	Assessor Office								
09/12/2012	Permit - Miscellaneous	Assessor Office								
09/12/2012	Permit - Miscellaneous	Assessor Office								

Land Data

Use	Description	Units	Neigh	Special Land Calc	Appraised Value	PA 490 Asmt Order	Neigh Order	Notes
201	Commercial	43,560	SF		185,100	0	4240	
201	Commercial	1,000	AC		26,300	0	4240	SITE
Total Area:		2.00						
					Total Appraised:	211,400		Assessed Value: 147,980

Disclaimer: This information is believed to be correct but is subject to change and is not warranted.

ATTACHMENT 6



Name and Address of Sender

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

TOTAL NO.
of Pieces Listed by Sender

Postmaster, per (Name of receiving employee)

[Handwritten signature]

TOTAL NO.
of Pieces Received at Post Office™

[Handwritten signature]

Affix Stamp Here
 Postmark with Date of Receipt.



USPS® Tracking Number
 Firm-specific Identifier

Address
 (Name, Street, City, State, and ZIP Code™)

1. Anthony Salvatore, Town Manger
 Town of Cromwell
 41 West Street
 Cromwell, CT 06416
 2. Stuart Popper, Director of Planning and Development
 Town of Cromwell
 41 West Street
 Cromwell, CT 06416
 3. Cromwell Concrete Products, Inc.
 667 Main Street
 Cromwell, CT 06416
 4.
 5.
 6.

Postage

Fee

Special Handling

Parcel Airlift