Robinson+Cole

KENNETH C. BALDWIN

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Also admitted in Massachusetts
and New York

September 23, 2021

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**
382 Colebrook River Road, Colebrook, 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 attached to a tower and related equipment on the ground, near the base of the tower. The tower was approved by the Siting Council ("Council") in February of 2005 (Docket No. 296). Cellco's use of the tower was approved by the Council in October of 2006 (EM-VER-029-060925). A copy of the Council's Docket No. 296 Decision and Order and EM-VER-029-060925 approval are included in Attachment 1.

Cellco now intends to modify its facility by replacing its twelve (12) existing antennas with three (3) Samsung MT6407-77A antennas and six (6) NHH-85B-R2B antennas on its existing antenna mounting platform. Cellco also intends to replace six (6) existing remote radio heads ("RRHs") with six (6) new RRHs behind its antennas. A set of project plans showing Cellco's proposed facility modifications and new antennas and RRH specifications 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 Colebrook's Chief Elected Official and Land Use Officer.

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

1. The proposed modifications will not result in an increase in the height of the existing tower.

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

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

4. The installation of Cellco's new antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative General Power Density table for Cellco's modified facility is included in Attachment 3. The modified facility will be capable of providing Cellco's 5G wireless service.

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

6. According to the attached Structural Analysis ("SA") and Mount Analysis ("MA"), the existing tower, tower foundation and antenna platform can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4.

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

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

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:

Thomas D. McKeon, First Selectman for the Town of Colebrook
Marc Melanson, Colebrook Building Official
382 Colebrook LLC, Property Owner
Karla Hanna

ATTACHMENT 1

DOCKET NO. 296 – Tower Ventures II, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility at one of two sites located at 382 Colebrook River Road, Colebrook, Connecticut.	}	Connecticut Siting Council

February 2, 2005

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish 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 Pubic Need, as provided by General Statutes § 16-50k, be issued to Tower Ventures II, LLC for the construction, maintenance and operation of a wireless telecommunications facility at the site identified as A-1 at 382 Colebrook River Road in Colebrook, Connecticut. The Council denies certification of the site identified as A-2 at 382 Colebrook River Road.

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 designed as a monopole and shall be constructed no taller than 150 feet above ground level to provide telecommunications services to both public and private entities.

2. The location of the tower shall be moved to the north to maintain a minimum distance of 150 feet to property line of the adjacent property to the south.

3. 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 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) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas mountings, equipment building, access road, utility line, and landscaping; and

    b) construction plans for site clearing, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

4. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of 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 electromagnetic radio frequency power density is submitted to the Council in the event other carriers locate at this facility or if circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

5. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

6. 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.

7. The Certificate Holder shall provide reasonable space on the tower for no compensation for any municipal antennas, provided such antennas are compatible with the structural integrity of the tower.

8. If the facility does not initially provide wireless services within one year of completion of construction or 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 before any such use is made.

9. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antennas become obsolete and cease to function.

10. Unless otherwise approved by the Council, this Decision and Order shall be void if the facility authorized herein is not operational within one year of the effective date of this Decision and Order or within one year after all appeals to this Decision and Order have been resolved. Any request for extensions of the period shall be filed with the Council not later than sixty days prior to expiration date of the Certificate and shall be served on all parties and intervenors, as listed in the service list. Any proposed modifications to this Decision and Order shall likewise be so served.

11. 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 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.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Waterbury Republican-American and the Winsted Journal.

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.

The parties and intervenors to this proceeding are:

Applicant	**Its Representative**
Tower Ventures II, LLC	Benjamin S. Proto, Jr., Esq. 2090 Cutspring Road Stratford, CT 06614 (203) 378-9595 Kenneth I. Spigle, Esq. Tower Ventures II, LLC 170 Westminster Street, Suite 701 Providence, RI 02903
Intervenor	**Its Representative**
Nextel Communications, Inc.	Thomas F. Flynn III Nextel Zoning Manager 100 Corporate Place Rocky Hill, CT 06067 860-513-5458 860-513-5444 – fax
Intervenor	**Its Representative**
Colebrook Planning and Zoning Commission	Betsy Little, Chairperson P.O. Box 5 Colebrook, CT 06021 860-379-3359 860-379-7215 – fax

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Internet: ct.gov/csc

Daniel F. Caruso
Chairman

October 17, 2006

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

RE: **EM-VER-029-060925** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 382 Colebrook River Road, Colebrook, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on October 10, 2006, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated September 25, 2006, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

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

Thank you for your attention and cooperation.

Very truly yours,

Daniel F. Caruso
Chairman

DFC/MP/laf

c: The Honorable Jerome F. Rathbun, First Selectman, Town of Colebrook
Karl Nilsen, Zoning Enforcement Officer, Town of Colebrook
Leonard D. Johnson
Thomas J. Regan, Esq., Brown Rudnick Berlack Israels LLP
Christopher B. Fisher, Esq., Cuddy & Feder LLP
Michele G. Briggs, New Cingular Wireless PCS, LLC
David Vivian, Site Development Manager, Gridcom

ATTACHMENT 2

verizon

WIRELESS COMMUNICATIONS FACILITY

COLEBROOK CT
382 COLEBROOK RIVER ROAD
COLEBROOK, CT 06021

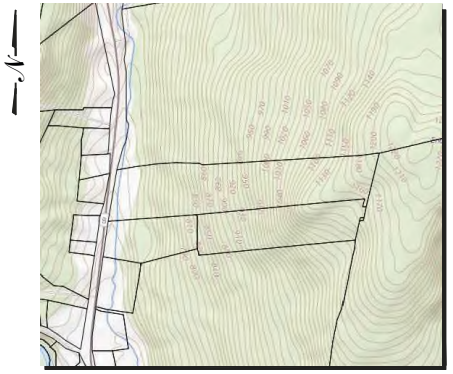
DRAWING INDEX

SITE DIRECTIONS

START: 20 ALEXANDER DRIVE
WALLINGFORD, CONNECTICUT 06492

END: 382 COLEBROOK RIVER ROAD
COLEBROOK, CT 06021

1.	HEAD SOUTH TOWARDS ALEXANDER DRIVE	279 FT
2.	SLIGHT RIGHT TOWARDS ALEXANDER DRIVE	289 FT
3.	TURN RIGHT TOWARDS ALEXANDER DRIVE	167 FT
4.	TURN RIGHT ONTO ALEXANDER DRIVE	0.3 MI
5.	TURN RIGHT ONTO BARNES INDUSTRIAL RD S.	0.1 MI
6.	TURN LEFT ONTO CT-68 W	0.4 MI
7.	TURN RIGHT	0.2 MI
8.	TURN RIGHT ONTO N COLONY ROAD	0.3 MI
9.	TURN RIGHT TO MERGE ONTO CT-15 N TOWARD HARTFORD	0.5 MI
10.	MERGE ONTO CT-15 N	3.2 MI
11.	TAKE EXIT 68 W TO MERGE ONTO I-691 W TOWARD WATERBURY / DANBURY	7.7 MI
12.	TAKE EXIT 1 ONTO I-84 W TOWARD WATERBURY / DANBURY	1.2 MI
13.	MERGE ONTO I-84 W	1.6 MI
14.	KEEP LEFT TO STAY ON I-84	6.1 MI
15.	TAKE EXIT 20 TO MERGE ONTO CT-8 N TOWARD TORRINGTON	9.2 MI
16.	CONTINUE ONTO CT-8 N / US-6 E	377 FT
17.	CONTINUE ONTO CT-8 N	19.1 MI
18.	TURN RIGHT ONTO S MAIN STREET	0.3 MI
19.	TURN RIGHT ONTO PARK PLACE	0.2 MI
20.	CONTINUE ONTO N MAIN STREET	1.7 MI
21.	CONTINUE ONTO COLEBROOK RIVER ROAD (DESTINATION WILL BE ON RIGHT)	3.2 MI



LOCATION MAP
SCALE : 1" = 500'-0"

SITE INFORMATION

VZ SITE NAME: COLEBROOK CT
VZ PROJ FUZE I.D.: 16272050
VZ LOCATION CODE: 468269
VZ PROJECT CODE: 20212234270
LOCATION: 382 COLEBROOK RIVER ROAD
COLEBROOK, CT 06021

PROJECT SCOPE: REFER TO NOTES ON DRAWING C-1 FOR SCOPE OF WORK.

MAP/LOT: 23-13

ZONING DISTRICT: GB (GENERAL BUSINESS)

LATITUDE: 41° 59' 31.4988" N (41.992083° N)

LONGITUDE: 73° 02' 23.3016" W (73.039806° W)

SITE COORDINATES AND GROUND ELEVATION OBTAINED FROM GOOGLE EARTH.

GROUND ELEVATION: 1160'± AMSL

PROPERTY OWNER: 382 COLEBROOK LLC
202 HANG DOG LANE
WETHERSFIELD, CT 06109

APPLICANT: CELLCO PARTNERSHIP
d/b/a VERIZON WIRELESS
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

LEGAL/REGULATORY COUNSEL: ROBINSON & COLE, LLP
KENNETH C. BALDWIN, ESQ.
280 TRUMBULL STREET
HARTFORD, CT 06103

ENGINEER CONTACT: ALL-POINTS TECHNOLOGY CORPORATION., P.C.
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385
(860) 663-1697

VERIZON SMART TOOL PROJECT #: 10044572; 10074937

Cellco Partnership d/b/a
verizon
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	06/09/21	FOR REVIEW: JRM
1	08/25/21	FOR FILING: JRM
2		
3		
4		
5		
6		

STATE OF CONNECTICUT
MICHAEL TRODDEN
33313
LICENSED
PROFESSIONAL ENGINEER

DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: 382 COLEBROOK LLC
ADDRESS: 202 HANG DOG LANE WETHERSFIELD, CT 06109

COLEBROOK CT

SITE ADDRESS: 382 COLEBROOK RIVER ROAD COLEBROOK, CT 06021

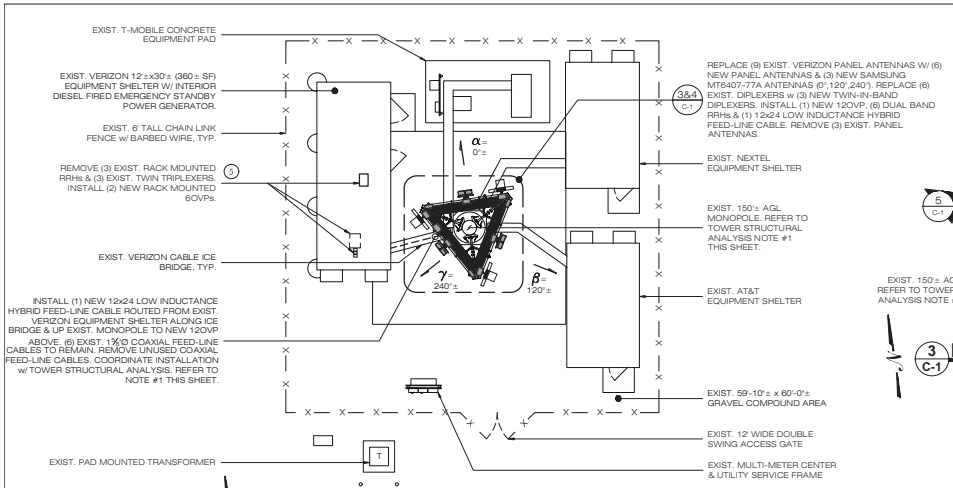
APT FILING NUMBER: CT141_12210

DRAWN BY: THK
DATE: 06/09/21 CHECKED BY: JRM

VZ PROJECT CODE: 20212234270
VZ LOCATION CODE: 468269
VZ FUZE ID: 16272050

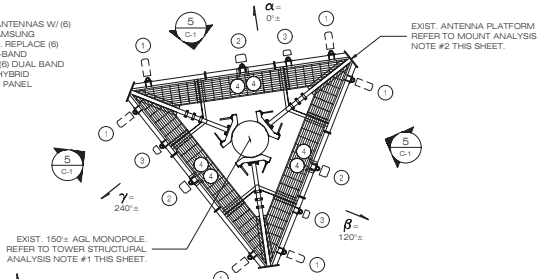
SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T-1

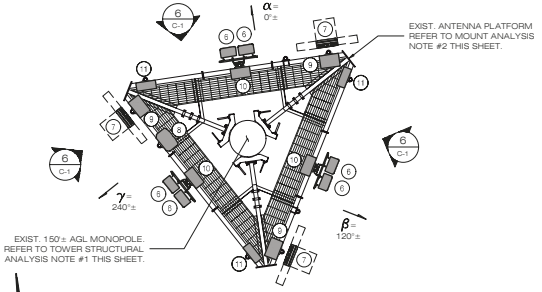


1 COMPOUND PLAN
C-1 SCALE : 1" = 10'-0"

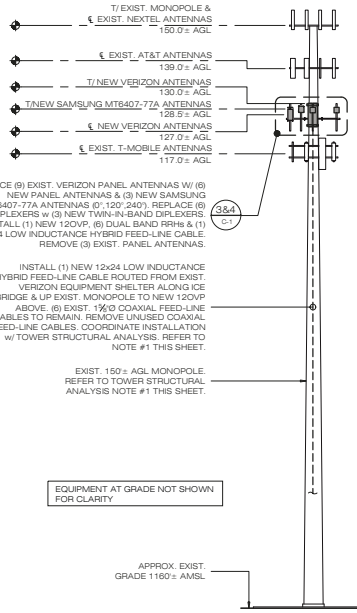
10' SCALE: 1 INCH= 10'-0"



3 EQUIP. CONFIGURATION PLAN (EXIST.)
C-1 SCALE : ¼" = 1'-0"

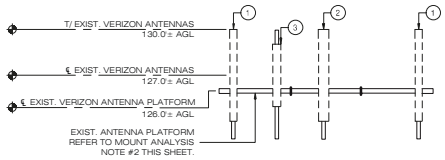


4 EQUIP. CONFIGURATION PLAN (NEW)
C-1 SCALE : ¼" = 1'-0"



2 TOWER ELEVATION
C-1 SCALE : 1/16" = 1'-0"

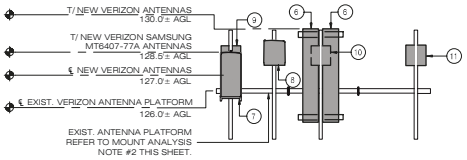
1/16" SCALE: 1 INCH= 16'-0"



EXISTING ELEVATION (FRONT)

EXISTING AZIMUTHS
ALPHA: 0°
BETA: 120°
GAMMA: 240°

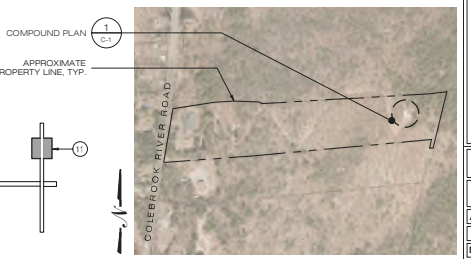
5 EQUIP. MOUNTING CONFIG. (EXIST.)
C-1 SCALE : ¼" = 1'-0"



NEW ELEVATION (FRONT)

NEW AZIMUTHS
ALPHA: 0°
BETA: 120°
GAMMA: 240°

6 EQUIP. MOUNTING CONFIG. (NEW)
C-1 SCALE : ¼" = 1'-0"



LOCATION PLAN
SCALE: 1" = 500'

NOTES:

1. REFER TO TOWER STRUCTURAL ANALYSIS REPORT PREPARED BY (TES) TOWER ENGINEERING SOLUTIONS DATED 08/23/21 AVAILABLE UNDER SEPARATE COVER.
2. REFER TO MOUNT ANALYSIS REPORT PREPARED BY MASER CONSULTING, P.A., PROJECT #21777227A, MARKED REV1 DATED 06/21/21 AVAILABLE UNDER SEPARATE COVER.
3. BASE MAPPING FROM FIELD MEASUREMENTS TAKEN BY ALL-POINTS TECH. CORPORATION, P.C. ON 03/30/21.
4. PROJECT SCOPE INCLUDES THE FOLLOWING:
   - REPLACEMENT OF (9) EXIST. PANEL ANTENNAS W/ (6) NEW PANEL ANTENNAS ON NEW SIDE BY SIDE MOUNTS & (3) NEW SAMSUNG MT6407-77A ANTENNAS.
   - INSTALLATION OF (1) NEW 12OVP.
   - INSTALLATION OF (6) NEW DUAL BAND RRHs.
   - INSTALLATION OF (1) NEW 12x24 LOW INDUCTANCE HYBRID FEED-LINE CABLE.
   - INSTALLATION OF (2) RACK MOUNTED 6OVPs WITHIN EXIST EQUIP. SHELTER.
   - REPLACEMENT OF (6) EXIST. DIPLEXERS w/ (3) NEW TWIN IN-BAND DIPLEXERS.
   - REMOVAL OF (3) EXIST. PANEL ANTENNAS.
   - REMOVAL OF (3) EXIST. RACK MOUNTED RRHs & (3) EXIST. TWIN TRIPLEXERS LOCATED WITHIN EXIST. VERIZON EQUIPMENT SHELTER.
   - REMOVAL OF ALL UN-USED COAXIAL FEED-LINES.
5. ALL EXPOSED STEEL AND HARDWARE TO BE HOT DIP GALV. (HDG). PAINT TO MATCH EXIST. (WHERE APPLICABLE)
6. CAP & WEATHERPROOF ALL UN-USED CABLE ENTRY PORTS (WHERE APPLICABLE).
7. MOUNT & GROUND ALL NEW EQUIPMENT IN ACCORDANCE WITH NEC (NFPA-70), NESC AND MANUFACTURERS SPECIFICATION.
8. SECURE ALL NEW ANTENNA CABLES PER MANUFACTURER RECOMMENDATIONS.
9. BOND NEW ANTENNA MOUNTING PIPES TO ANTENNA SECTOR GROUND BAR w/ # 2 AWG, BCW, (WHERE APPLICABLE).
10. CONTRACTOR SHALL INSTALL NEW SIDE-BY-SIDE & DUAL-MOUNT BRACKETS PER ANTENNA MOUNT MANUFACTURER RECOMMENDATIONS, INCLUDING VERIFICATION OF MINIMUM PIPE MAST DIAMETER REQUIRED TO INSTALL NEW MOUNT BRACKETS. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD SHOULD EXIST. PIPE MASTS REQUIRE REPLACEMENT TO SUPPORT THE NEW MOUNT BRACKETS.
11. ANTENNA CONFIGURATIONS SHOWN HEREIN ARE FRONT ELEVATIONS (UNLESS NOTED OTHERWISE).
12. ANTENNA SPACING DIMENSIONS ARE TO THE CENTER OF THE EXIST. ANTENNA AND NEW ANTENNA FACE.
13. REFER TO THE FINAL RFDS PROVIDED BY VERIZON FOR THE LATEST INFORMATION REGARDING EQUIPMENT MODELS, REQUIRED CABLING & DOWN-TILT INFORMATION.
14. COORDINATE ALL LSUB6 COLOR MATCHING (WHERE APPLICABLE) W/ LSUB6 MANUFACTURER INSTALLATION REQUIREMENTS, VERIZON CONSTRUCTION MANAGER & OWNER.
15. PAINT ALL NEW NON LSUB6 ANTENNAS & APPURTENANCES TO MATCH EXIST. STRUCTURE (WHERE APPLICABLE) COORDINATE W/ VERIZON CONSTRUCTION MANAGER & BUILDING OWNER.

GENERAL ABBREVIATION LIST:

ABP	ABOVE BASE PLATE
AGL	ABOVE GROUND LEVEL
AMSL	ABOVE MEAN SEA LEVEL
AWS	ADVANCED WIRELESS SERVICE
HDG	HOT DIP GALVANIZED
OVP	OVER VOLTAGE PROTECTION
RRH	REMOTE RADIO HEAD
V.I.F.	VERIFY IN FIELD
W.P.	WORK POINT
A.F.R.	ABOVE FINISH ROOF

SCOPE OF WORK (ALL) SECTORS

1. EXIST. ANTENNA (TO BE REPLACED) MODEL: ANTEL LPA-80080-6CF
2. EXIST. ANTENNA (TO BE REPLACED) MODEL: ANTEL BXA-70080-6CF-EDIN
3. EXIST. ANTENNA (TO BE REMOVED) MODEL: ANTEL BXA-171085-8BF-EDIN
4. (6) EXIST. DIPLEXERS TO BE REMOVED (TOWER) MODEL: RFS FD9R6004/2C-3L
5. EXIST. (3) RRHs (TO BE REMOVED FROM WITHIN EXIST. EQUIP. SHELTER) MODEL: ALU B13 4x30W LTE RRH
6. NEW ANTENNA MOUNTED VIA NEW SIDE-BY-SIDE MOUNT BRACKETS (COMMSCOPE BSAMNT-SBS-2-2) MODEL: COMMSCOPE NNH-85B-R2B
7. NEW ANTENNA MODEL: SAMSUNG MT6407-77A
8. NEW 12OVP (GAMMA SECTOR ONLY) MODEL: RAYCAP RVZDC-6627-PF-48
9. NEW DUAL BAND RRH MODEL: SAMSUNG B66/B2A RRH-BR049 (RFV01U-D1A)
10. NEW DUAL BAND RRH MODEL: SAMSUNG B13/B5 RRH-BR04C (RFV01U-D2A)
11. NEW TWIN IN-BAND DIPLEXER @50. MODEL: COMMSCOPE TD-850-LTE78-43

Cellco Partnership d/b/a
verizon
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	06/09/21	FOR REVIEW: JRM
1	08/25/21	FOR FILING: JRM
2		
3		
4		
5		
6		

STATE OF CONNECTICUT · MICHAEL TRODDEN · 33313 · LICENSED PROFESSIONAL ENGINEER

DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: 382 COLEBROOK LLC
ADDRESS: 202 HANG DOG LANE WETHERSFIELD, CT 06109

COLEBROOK CT

SITE ADDRESS: 382 COLEBROOK RIVER ROAD COLEBROOK, CT 06021

APT FILING NUMBER: CT141_12210

DRAWN BY: THK
DATE: 06/09/21
CHECKED BY: JRM

VZ PROJECT CODE: 20212234270
VZ LOCATION CODE: 468269
VZ FUZE ID: 16272050

SHEET TITLE:
COMPOUND PLAN, TOWER ELEVATION, EQUIP. CONFIGURATION PLANS & ELEVATIONS

SHEET NUMBER:
C-1

EQUIPMENT DATA

EQUIPMENT SPECIFICATIONS

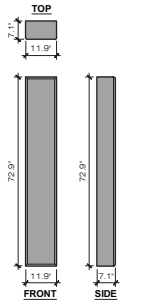
SECTOR	ANTENNA MAKE/MODEL	QTY	AZIMUTH	EQUIPMENT STATUS	HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)	WEIGHT (LBS)
ALPHA	700/850/1900/2100: COMMSCOPE NHH-85B-R2B	1	0°	NEW	72.9	11.9	7.1	43.7 (2)
	700/850/1900/2100: COMMSCOPE NHH-85B-R2B	1	0°	NEW	72.9	11.9	7.1	43.7 (2)
	SAMSUNG MT6407-77A	1	0°	NEW	35.1 (2)	16.1 (2)	5.5 (2)	87.1 (2)(5)
BETA	700/850/1900/2100: COMMSCOPE NHH-85B-R2B	1	120°	NEW	72.9	11.9	7.1	43.7 (2)
	700/850/1900/2100: COMMSCOPE NHH-85B-R2B	1	120°	NEW	72.9	11.9	7.1	43.7 (2)
	SAMSUNG MT6407-77A	1	120°	NEW	35.1 (2)	16.1 (2)	5.5 (2)	87.1 (2)(5)
GAMMA	700/850/1900/2100: COMMSCOPE NHH-85B-R2B	1	240°	NEW	72.9	11.9	7.1	43.7 (2)
	700/850/1900/2100: COMMSCOPE NHH-85B-R2B	1	240°	NEW	72.9	11.9	7.1	43.7 (2)
	SAMSUNG MT6407-77A	1	240°	NEW	35.1 (2)	16.1 (2)	5.5 (2)	87.1 (2)(5)
	APPURTENANCE MAKE/MODEL							
	SAMSUNG B2/B66A RRH-BR049 (RFV01U-D1A)	3	-	NEW	14.9	14.9	10.04	97.5
	SAMSUNG B5/B13 RRH-BR04C (RFV01U-D2A)	3	-	NEW	14.9	14.9	8.14	82.0
	COMMSCOPE TD-850B-LTE78-43	3	-	NEW	15.4	15.3	6.4	53.0
	RAYCAP RVZDC-6627-PF-48	1	-	NEW	29.5	16.5	12.6	32

(1) 'ETR' DENOTES EXIST. TO REMAIN
(2) WEIGHT WITHOUT MOUNTING BRACKET.
(3) REFER TO FINAL RFDS PROVIDED BY VERIZON.
(4) EQUIPMENT CONFIGURATION AS VIEWED FROM BEHIND.
(5) NOT TO EXCEED

BILL OF MATERIALS

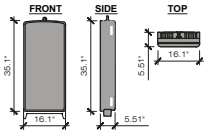
		QUANTITY	LENGTH	COMMENTS
1	700/850/1900/2100	6		(COMMSCOPE NHH-85B-R2B) MOUNTED VIA NEW SIDE-BY-SIDE MOUNT BRACKETS (COMMSCOPE BSAMNT-SBS-2-2)
2	SAMSUNG MT6407-77A	3		MOUNTED TO EXIST. PIPE MAST
3	1/2" JUMPER CABLE	42	15 FT	ROUTE FROM RRH TO ANTENNAS
4	ANTENNA LINK CABLES	6	15 M	ROUTE FROM UPPER OVP TO ANTENNAS
5	ANTENNA POWER CABLES	3	15 M	PROPIETARY POWER CABLE FROM EXIST. OVP TO ANTENNAS
6	TWIN IN-BAND DIPLEXER	3		COMMSCOPE TD850B-LTE78-43
7	AWS/PCS RRH	3		SAMSUNG B2/B66 RRH-BR049 (RFV01U-D1A)
8	700/850 RRH	3		SAMSUNG B5/B13 RRH-BR04C (RFV01U-D2A)
9	RRH CABLES	6	15 M	PROPIETARY POWER & FIBER CABLES
10	UPPER 12OVP	1		(RVZDC-6627-PF-48)
11	HYBRID CABLE	1	180± FT	12x24 LOW INDUCTANCE HYBRID FEED-LINE CABLE

NOTES:
1. INFORMATION SHOWN HEREON IS FOR USE BY VERIZON EQUIPMENT OPERATIONS.
2. REFER TO FINAL RFDS PROVIDED BY VERIZON.
3. * DENOTES EQUIPMENT DESIGNATED 'FOR LEASING ONLY' (WHERE APPLICABLE)
4. INSTALL ALARM BOARDS AT ALL OVPs WHERE REQUIRED. COORDINATE w/ VERIZON EQUIPMENT ENGINEERING.
5. INSTALL UP-CONVERTER(S) LOCATED AT BASE OVPs WHERE REQUIRED. COORDINATE w/ VERIZON EQUIPMENT ENGINEERING AS NECESSARY.
6. COORDINATE ANTENNA CABLING REQUIREMENTS WITH VERIZON ENGINEERING.
7. CONTRACTOR SHALL INSTALL NEW SIDE-BY-SIDE & DUAL-MOUNT BRACKETS PER ANTENNA MOUNT MANUFACTURER RECOMMENDATIONS, INCLUDING VERIFICATION OF MINIMUM PIPE MAST DIAMETER REQUIRED TO INSTALL NEW MOUNT BRACKETS. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD SHOULD EXIST. PIPE MAST REQUIRE REPLACEMENT TO SUPPORT THE NEW MOUNT BRACKETS.



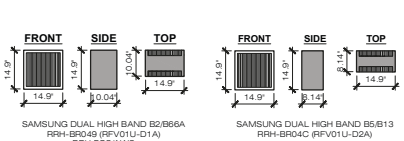
COMMSCOPE NHH-85B-R2B
X-POL ANTENNA
HxWxD=72.9"x11.9"x7.1" (43.7 Lbs)

3 NEW ANTENNA DETAIL
B-1 SCALE : ½" = 1'-0"



SAMSUNG MT6407-77A ANTENNA
HxWxD=35.1"x16.1"x5.51"
WT=87.1 Lbs
(NOT TO EXCEED)

4 NEW ANTENNA DETAIL
B-1 SCALE : ½" = 1'-0"

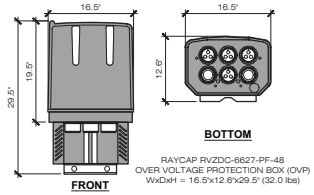


SAMSUNG DUAL HIGH BAND B2/B66A
RRH-BR049 (RFV01U-D1A)
RRH PCS/AWS
REMOTE RADIO HEAD (RRH)
WxDxH=14.9"x14.9"x10.04" (97.5 Lbs)

SAMSUNG DUAL HIGH BAND B5/B13
RRH-BR04C (RFV01U-D2A)
RRH 850/700
REMOTE RADIO HEAD (RRH)
WxDxH=14.9"x14.9"x8.14" (82.0 Lbs)

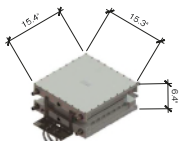
NOTE: WEIGHTS INCLUDE SOLAR SHEILD & MOUNTING BRACKET

5 RRH EQUIPMENT DETAILS
B-1 SCALE : ½" = 1'-0"



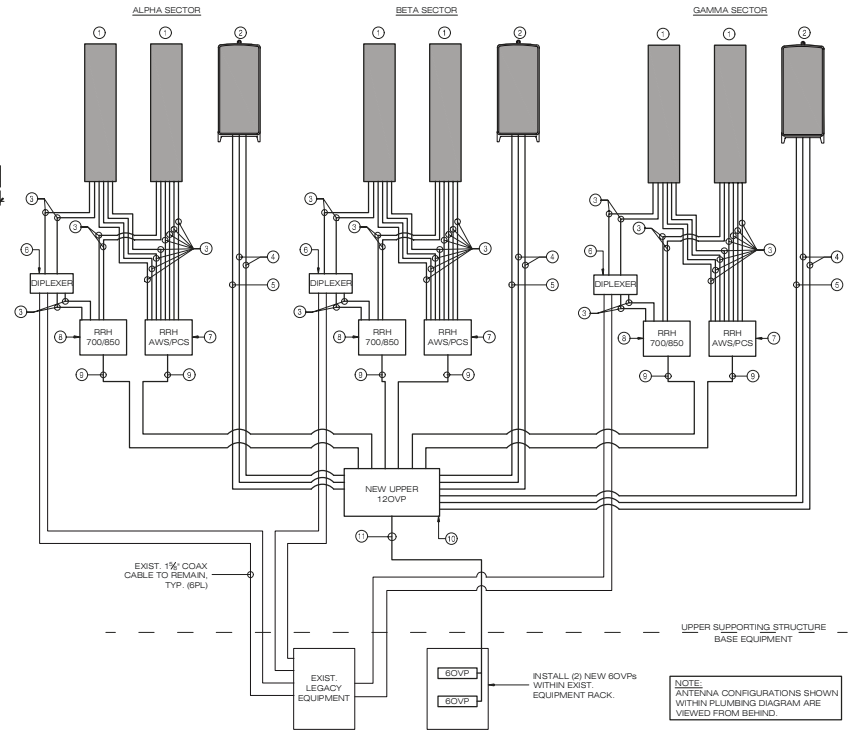
RAYCAP RVZDC-6627-PF-48
OVER VOLTAGE PROTECTION BOX (OVP)
WxDxH = 16.5"x12.6"x29.5" (32.0 lbs)

6 OVER VOLTAGE PROTECTION BOX (OVP)
B-1 SCALE : 1" = 1'-0"



COMMSCOPE TD-850B-LTE78-43
TWIN IN-BAND DIPLEXER (850)
WxDxH = 15.3"x6.4"x15.4" (53.0 lbs)

7 TWIN IN-BAND DIPLEXER
B-1 SCALE : 3/4" = 1'-0"



1 PLUMBING DIAGRAM
B-1 SCALE : ½" = 1'-0"

Cellco Partnership d/b/a
verizon
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

ALL-POINTS TECHNOLOGY CORPORATION
567 VAUXHALL STREET EXTENSION - SUITE 311
WATERFORD, CT 06385 PHONE: (860)-663-1697
WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	06/09/21	FOR REVIEW: JRM
1	08/25/21	FOR FILING: JRM
2		
3		
4		
5		
6		

STATE OF CONNECTICUT
MICHAEL TRODDEN
33313
LICENSED
PROFESSIONAL ENGINEER

DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
ADD: 567 VAUXHALL STREET EXT. SUITE 311 WATERFORD, CT 06385

OWNER: 382 COLEBROOK LLC
ADDRESS: 202 HANG DOG LANE WETHERSFIELD, CT 06109

COLEBROOK CT

SITE ADDRESS: 382 COLEBROOK RIVER ROAD COLEBROOK, CT 06021

APT FILING NUMBER: CT141_12210

DRAWN BY: THK
DATE: 06/09/21 CHECKED BY: JRM

VZ PROJECT CODE: 20212234270
VZ LOCATION CODE: 468269
VZ FUZE ID: 16272050

SHEET TITLE:
RF BILL OF MATERIALS, MECHANICAL SPECIFICATIONS & EQUIPMENT DETAILS

SHEET NUMBER:
B-1

DESIGN BASIS:

GOVERNING CODES/DESIGN STANDARDS:

2015 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED BY THE 2018 CONNECTICUT STATE BUILDING CODE
ASCE 7-10
TIA-222-G (TOWER)

01 GENERAL:

ABBREVIATIONS USED IN THESE SPECIFICATIONS INCLUDE THE FOLLOWING:

ACI	AMERICAN CONCRETE INSTITUTE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AWS	AMERICAN WELDING SOCIETY
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN STANDARDS AND TESTING METHODS
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
ICC-ES	INTERNATIONAL CODE COUNCIL EVALUATION SERVICE
TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
UL	UNDERWIRTERS LABORATORIES
NEC	NATIONAL ELECTRICAL CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

EVERY INDIVIDUAL TRADE, DISCIPLINE, AND CONTRACTOR SHALL INCLUDE THESE GENERAL SPECIFICATIONS.

THE ENGINEER IS NOT RESPONSIBLE FOR NOR A GUARANTOR OF THE INSTALLING CONTRACTORS WORK, ADEQUACY OF ANY SITE COMPONENT, SUPERVISION OF ANY WORK, AND SAFETY IN, ON, OR ABOUT THE WORK SITE.

ANY REFERENCE HEREIN TO AN OR EQUAL ITEM, THAT EQUAL ITEM SHALL BE PRE-APPROVED BY THE CONSTRUCTION MANAGER BEFORE INSTALLATION

ALL TRADES SHALL COORDINATE THEIR WORK WITH ALL OTHER TRADES AND OTHER WORK AND CONDITIONS AS APNEWRIATE OR REQUIRED TO AVOID CONFLICTS. RESOLVE AND COORDINATE ALL CONFLICTS WITH ALL AFFECTED WORK AND SITE OPERATIONS. COORDINATION WITH THE SITE SHALL BE WITH THE OWNER, OR OWNER'S SPECIFIED REPRESENTATIVE, FOR EVERYTHING RELATED TO THE INSTALLATION OF THIS PROJECT.

ALL WORK SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE EDITIONS OF ALL APPLICABLE CODES AND SHALL BE ACCEPTABLE TO ALL AUTHORITIES HAVING JURISDICTION (AHJ). WHERE A CONFLICT EXISTS BETWEEN CODES, PLANS, SPECIFICATIONS, AND/OR AHJ, THE MORE STRINGENT AUTHORITY SHALL APPLY. WHERE CONFLICT EXISTS BETWEEN PLANS AND SPECIFICATIONS, PLAN SHALL APPLY. WHERE CONFLICT EXISTS BETWEEN PLAN SHEETS, CONSTRUCTION MANAGER SHALL BE CONSULTED PRIOR TO COMMENCING ANY WORK.

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND NEWERLY OPERATIVE AND USABLE SYSTEM THROUGHOUT AND AS INDICATED ON THE DRAWINGS AND AS SPECIFIED HEREIN AND/OR OTHERWISE REQUIRED.

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS, INSTALLATIONS, AND EQUIPMENT IN THE FIELD PRIOR TO BID, FABRICATION, AND INSTALLATION OF ANY WORK.

CONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. THE ENGINEER SHALL BE NOTIFIED FOR INSPECTIONS PRIOR TO CLOSING PENETRATIONS AND OF ANY CONDITIONS WHICH PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

CONTRACTOR SHALL VISIT THE SITE TO MANAGE AND GAIN APPROVAL FOR ALL TENANT DISRUPTIONS, POWER OUTAGES, WORK SCHEDULES, DEFINITION OF WORK AREA AND WORK STORAGE, NEWER BUILDING/SITE ACCESS, NOISE AND CLEANLINESS REQUIREMENTS WITH THE BUILDING/SITE MANAGEMENT PRIOR TO ALL WORK. ANY DISRUPTIONS SHALL BE KEPT TO A MINIMUM AND SHALL BE IMPLEMENTED ONLY UPON WRITTEN APPROVAL OF THE OWNER.

THE CONTRACTOR SHALL SAFEGUARD AGAINST CREATING ANY HAZARD AFFECTING TENANT EGRESS OR COMPROMISING SITE SECURITY MEASURES.

PRIOR TO ALL BELOW-GRADE WORK AND ANY SURFACE WORK IN A NEW AREA FOR STRUCTURES OR VEHICLES, CONTRACTOR SHALL ENGAGE A MARKOUT SERVICE TO IDENTIFY ANY UNDERGROUND STRUCTURES, CONDUITS, AND PIPELINES IN THE AREA. ALL EXISTING SEWER, WATER, GAS, ELECTRIC, FIBER OPTIC, AND OTHER UNDERGROUND UTILITIES IDENTIFIED OR ENCOUNTERED, SHALL BE PROTECTED AT ALL TIMES. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN DIGGING OR EXCAVATING IN ANY MANNER AROUND OR NEAR SUCH UTILITIES. CONTRACTOR IS RESPONSIBLE FOR REPAIRS, REPLACEMENT, AND ALL DAMAGES DUE TO DAMAGE OF UTILITIES BY HIS OPERATIONS.

ALL EXISTING AND NEW EQUIPMENT AND MATERIAL LOCATIONS, ROUTING, ORIENTATION, MOUNTING, SPECIFICATIONS AND GENERAL INSTALLED CHARACTERISTICS SHALL BE CONSIDERED DIAGRAMMATIC ON THE PLANS. EXACT CONDITIONS SHALL BE DETERMINED IN THE FIELD PRIOR TO ANY INSTALLATION. ANY DIFFERENCES THAT MAY CAUSE SCHEDULE, COST, OR QUALITY SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER OR ENGINEER PRIOR TO ANY WORK.

ALL REFERENCES HEREIN TO VERIFICATION OF ANY CONDITION OF SITE, FIELD, PLANS, OR SPECIFICATIONS PRIOR TO ANY WORK SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR. ANY AND ALL ADDITIONS, MODIFICATIONS, CHANGES, REPAIR, OR DEMOLITION AS A RESULT OF FAILURE TO BRING ANY EXISTING CONDITION NEWERLY TO THE ATTENTION OF THE OWNER OR ENGINEER SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR WITHOUT DELAY, COST, OR CHANGES IN QUALITY.

ALL NOTES THIS SHEET SHALL APPLY UNLESS SPECIFICALLY NOTED OTHERWISE ON THE INCLUDED DRAWINGS OR IN SEPARATE PROJECT SPECIFICATIONS AS APPLICABLE. ALL SPECIFICATIONS SHALL BE CONSIDERED REQUIRED UNLESS APPROVED EQUAL BY THE OWNER, CONSTRUCTION MANAGER, OR ENGINEER AS APPLICABLE.

THE WORDS "PROVIDE" OR "INSTALL" SHALL MEAN FURNISH AND INSTALL.

CONTRACTOR SHALL PROVIDE ALL CUTTING AND PATCHING AS REQUIRED FOR THE INSTALLATION OF HIS WORK. ANY PATCHING SHALL MATCH EXISTING SURROUNDING AREA IN ALL RESPECTS. ALL REMOVED MATERIAL SHALL BE REMOVED FROM THE PREMISES DAILY IN AN APPROVED SAFE MANNER.

ALL SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE PROMPTLY WHEN DEEMED TO BE SURPLUS.

EVERY CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF HIS WORK AND NEWLY INSTALLED OR EXISTING WORK, INCLUDING PROTECTION OF THE SITE, ALL STRUCTURES, AND ALL OCCUPANTS. FURNISH, INSTALL, MAINTAIN, AND REMOVE AS APNEWRIATE, ALL APNEWRIATE BARRIERS, SAFETY GUARDS, SIGNAGE, AND SECURITY AS REQUIRED.

EVERY CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR RESPECTIVE FEES, PERMITS, INSPECTIONS, TESTING, CERTIFICATES, AND ALL MANAGEMENT OF SAME REQUIRED FOR COMPLETION OF AND LEGAL OCCUPANCY OF THE FINISHED PROJECT.

ALL CONTRACTORS SHALL PROVIDE ALL NECESSARY TOOLS, FIXTURES, SERVICES, MATERIALS, JOB AIDS, AND PERSONNEL REQUIRED FOR THE EXECUTION OF THEIR WORK.

EACH CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP BY THEM TO BE FREE OF DEFECTS AND MAINTAINED FOR A PERIOD OF ONE YEAR AFTER ACCEPTANCE OF THE INSTALLATION BY THE OWNER AND ENGINEER.

ALL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS IN THE TRADE HAVING JURISDICTION.

ANY DEVIATION, MODIFICATION, ADDITION, OR CHANGE IN DESIGN SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE OWNER OR ENGINEER.

ALL CONTRACTORS SHALL SUBMIT SHOP DRAWINGS OF ALL EQUIPMENT AND MATERIALS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION AND INSTALLATION, AND SHALL NOT PROCEED UNTIL ENGINEER APPROVAL IN WRITING IS RETURNED. EACH CONTRACTOR SHALL MAINTAIN ON JOB SITE A COMPLETE SET OF SHOP DRAWINGS WITH ANY DEVIATIONS FROM THE ORIGINAL DESIGN SHALL BE NOTED.

ALL MATERIALS AND EQUIPMENT SHALL BE NEW, WITHOUT BLEMISH OR DEFECT, AND SUITABLE AND LISTED FOR THE INSTALLATION AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS OR SPECIFICATIONS. ALL ITEMS OF EQUIPMENT OR MATERIAL THAT ARE OF ONE GENERIC TYPE SHALL BE ONE MANUFACTURER THROUGHOUT.

ALL MATERIALS, EQUIPMENT, TOOLS, AND ITEMS UNDER THE CONTRACTOR'S RESPONSIBILITY ON THE JOBSITE SHALL BE ADEQUATELY SECURED, MAINTAINED, AND PROTECTED, SO AS NOT TO BECOME DAMAGED OR CREATE ANY HAZARD TO PERSONNEL OR NEWERTY.

THE CONTRACTORS HOURS OF WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES AND BE APPROVED BY THE OWNER.

CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR ALL OF HIS CREW AND INSURE THAT EVERY CREW MEMBER FOLLOWS SAVE WORK PRACTICES. SAFETY TRAINING SHALL INCLUDE, BUT NOT BE LIMITED TO, FALL PROTECTION, CONFINED SPACE ENTRY, ELECTRICAL SAFETY, AND TRENCHING/EXCAVATION SAFETY WHERE SUCH WORK IS EXECUTED OR ENCOUNTERED.

ALL TEMPORARY WORK REQUIRED OR SPECIFIED AS A PART OF THIS WORK, SHALL MEET ALL OF THE SAME REQUIREMENTS AS PERMANENT INSTALLATIONS, SHALL MEET ALL APPLICABLE CODE REQUIREMENTS, AND SHALL BE COMPLETELY REMOVED AFTER ITS PURPOSES HAVE BEEN SERVED.

ANY EXISTING UTILITY, SERVICE, STRUCTURE, EQUIPMENT, OR FIXTURE OBSTRUCTING THE WORK SHALL BE REMOVED AND/OR RELOCATED AS DIRECTED BY THE CONSTRUCTION MANAGER.

IF ASBESTOS IS ENCOUNTERED DURING WORK EXECUTION, CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER AND CEASE ALL ACTIVITIES IN AFFECTED AREAS UNTIL NOTIFIED BY THE CONSTRUCTION TO RESUME OPERATIONS.

EXIST. ELECTRICAL AND MECHANICAL FIXTURES, PIPING, WIRING AND EQUIPMENT OBSTRUCTING THE WORK SHALL BE REMOVED AND/OR RELOCATED AS DIRECTED BY THE CONSTRUCTION MANAGER. TEMPORARY SERVICE INTERRUPTIONS MUST BE COORDINATED WITH OWNER.

05 STEEL:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.

MATERIALS:

WIDE FLANGE	ASTM A992, GR 50
TUBING	ASTM A500, GR B
PIPE	ASTM A53, GR B
BOLTS	ASTM A325
GRATING	TYPE GW-2 (1-1/4"x3/16" BARS)
EXISTING METALS	ASTM A36

PROVIDE CERTIFICATION THAT WELDERS TO BE USED IN WORK ARE LICENSED AND HAVE SATISFACTORILY PASSED AWS QUALIFICATION TEST UNDER THE PROVISIONS OF APPENDIX D, PARTS II AND III OF THE AWS CODE FOR WELDING IN BUILDING CONSTRUCTION.

ALL BUILDING CONNECTION POINTS TO BE CENTERED ON EXISTING STRUCTURAL BEARING POINTS AND THE LOCATIONS ARE TO BE VERIFIED IN FIELD PRIOR TO THE FABRICATION OF STEEL.

DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF AISC SPECIFICATION FOR *"THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS"*.

NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIAMETER GALVANIZED ASTM A 307 BOLTS UNLESS OTHERWISE NOTED.

ALL STEEL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIPPED GALVANIZED) COATINGS" ON IRON AND STEEL PRODUCTS WITH A COATING WEIGHT OF 2 OZ/SF.

ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE EXPOSED TO WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC COATING (HOT-DIP) ON IRON AND STEEL HARDWARE."

DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY TOUCHING UP ALL DAMAGED GALVANIZED STEEL WITH COLD ZINC, "GALVANOX", "DRY GALV", OR "ZINC IT", IN ACCORDANCE WITH MANUFACTURERS GUIDELINES. TOUCH UP DAMAGED NON-GALVANIZED STEEL WITH SAME PAINT APPLIED IN SHOP OR FIELD.

THE ENGINEER SHALL BE NOTIFIED OF ANY INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE ENGINEER REVIEW. FIELD CUTTING OF STRUCTURAL STEEL IS NOT PERMITTED EXCEPT WITH THE PRIOR APPROVAL OF THE ENGINEER.

CONTRACTOR TO REMOVE AND RE-INSTALL ALL FIRE PROOFING AS REQUIRED DURING CONSTRUCTION.

THE STEEL STRUCTURE SHALL BE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER COMPLETION. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE AND TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION.

ALL STEEL ELEMENTS SHALL BE INSTALLED PLUMB AND LEVEL.

TOWER MANUFACTURER'S DESIGNS SHALL PREVAIL FOR TOWER.

CONNECTIONS SHALL BE DESIGNED BY THE FABRICATOR AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AISC *"MANUAL OF STEEL CONSTRUCTION"*. CONNECTIONS SHALL BE PROVIDED TO CONFORM TO THE REQUIREMENTS OF TYPE 2 CONSTRUCTION.

STRUCTURAL CONNECTION BOLTS SHALL CONFORM TO ASTM A325. ALL BOLTS SHALL BE MINIMUM 3/4" DIAMETER AND EACH CONNECTION SHALL HAVE MINIMUM TWO BOLTS. LOCK WASHERS ARE NOT PERMITTED FOR A325 STEEL ASSEMBLIES. IF TENSION CONTROL BOLTS ARE USED, CONNECTIONS SHALL BE DESIGNED FOR SLIP CRITICAL BOLT ALLOWABLE LOAD VALUES.

DESIGN CONNECTIONS AT BEAM ENDS FOR 10 KIPS (MIN).

ALL U-BOLTED CONNECTIONS SHALL BE COMPLETED WITH DOUBLE NUTS OR A LOCK WASHER.

CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS *"STANDARD QUALIFICATION PROCEDURES"*. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND SHALL CONFORM TO AISC AND D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE LARGER OF 1/4" FILLET OR MINIMUM SIZE PER TABLE J2.4 IN THE AISC *"MANUAL OF STEEL CONSTRUCTION"*. AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED. SEE NOTE REGARDING DAMAGED GALVANIZED SURFACES.

ALL ARC AND GAS WELDING SHALL BE DONE BY A LICENSED AND CERTIFIED WELDER IN ACCORDANCE WITH AWS.

SEAL ALL PENETRATIONS AND SEAMS BETWEEN MASONRY AND STEEL WITH DOW CORNING 790 SILICONE BUILDING SEALANT OR EQUAL.

26 ELECTRICAL:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.

ALL ELECTRICAL CONDUCTORS:

- INSULATION SHALL BE MINIMUM 600V TYPE THHN, THWN-2, OR XHHW.
- BRANCH CIRCUIT CONDUCTORS SHALL BE SOFT DRAWN 98% MINIMUM CONDUCTIVITY NEWERLY REFINED COPPER.
- FEEDER CIRCUIT CONDUCTORS SHALL BE EITHER COPPER OR ALUMINUM OF THE APNEWRIATE SIZE FOR THE APPLICATION, OR AS SPECIFICALLY NOTED.
- PERMANENTLY LABEL OR TAG ALL CONDUCTORS WITH THEIR CIRCUIT DESIGNATION AT ALL TERMINATION ENDS, SPLICES, AND VISIBLE AS PASS-THROUGH IN ALL ENCLOSURES.

ALL CONDUIT, RACEWAY, WIREWAYS, DUCTS, ETC. SHALL BE LISTED AND SUITABLE FOR THE APPLICATION. ONLY THE FOLLOWING CONDUITS AS APPROVED AND LISTED FOR THE APPLICATION SHALL BE ACCEPTABLE:

- ELECTRICAL METALLIC TUBING (EMT).
- COMPRESSION COUPLINGS AND CONNECTORS ONLY MADE UP WRENCH TIGHT.
- FLEXIBLE METAL CONDUIT (FMC) AND LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LFMC).
- FINAL CONNECTIONS TO VIBRATING OR ADJUSTABLE EQUIPMENT INCLUDING, BUT NOT LIMITED TO, LIGHT FIXTURES, HVAC UNITS, TRANSFORMERS, MOTORS, ETC. OR WHERE EQUIPMENT IS PLACED UPON SLAB ON-GRADE.
- RIGID GALVANIZED STEEL (RGS).
- ALL FITTINGS, CONNECTORS, AND COUPLINGS SHALL BE THREADED MADE UP WRENCH TIGHT.
- RIGID POLYVINYL CHLORIDE (PVC) SCHEDULE 40 OR SCHEDULE 80.
- MAY BE USED FOR SERVICES, EXTERIOR, BELOW GRADE, AND WET LOCATIONS.
- SHALL NOT BE USED IN CONCRETE SLABS NOR EXPOSED WITHIN A BUILDING OR STRUCTURE.
- METAL-CLAD CABLE (MC)
- CONCEALED INSTALLATIONS ONLY.
- WITHIN A DUCT WITH SMOOTH OR CORRUGATED METAL JACKET AND NO OUTER COVERING OVER THE METAL JACKET.

IN FINISHED SPACES, ALL CONDUITS SHALL BE CONCEALED EXCEPT TO MAKE A FINAL CONNECTION TO EQUIPMENT NOT MOUNTED IN OR AGAINST FINISH MATERIAL.

ALL FEEDER AND BRANCH CIRCUITS SHALL HAVE A SEPARATE NEWERLY SIZED AND MARKED GROUNDING CONDUCTOR, PER APPLICABLE CODES, THAT BONDS ALL ENCLOSURES, BOXES, ETC. CONDUIT SHALL NOT BE USED AS A GROUNDING OR BONDING CONDUCTOR.

IF EXISTING ELECTRIC SERVICE IS TO REMAIN, CONTRACTOR SHALL BE VERIFY THAT IT MEETS PROJECT REQUIREMENTS WITHOUT MODIFICATION. IF IT IS TO BE ADDED OR REPLACED AS A PART OF THIS WORK, CONTRACTOR SHALL ORDER FROM, COORDINATE WITH, AND GAIN APPROVAL FROM THE ELECTRICAL UTILITY. ALL ELECTRICAL EQUIPMENT SHALL BE AS SPECIFIED AND AS APPROVED BY THE LOCAL UTILITY WHERE APPLICABLE.

ALL EQUIPMENT, ENCLOSURES, ETC. SHALL BE SUITABLE FOR THE INSTALLED ENVIRONMENT, MINIMUM NEMA 3R FOR ALL EXTERIOR INSTALLATIONS.

WIRING DEVICES SHALL BE SPECIFICATION GRADE AND WIRING DEVICE COVER PLATES SHALL BE PLASTIC WITH ENGRAVING AS SPECIFIED. COLOR SHALL BE IVORY. ALL DEVICES AND COVER PLATES SHALL BE OF THE SAME MANUFACTURER.

ALL FIRE-RATED PENETRATIONS SHALL BE SEALED USING A SUITABLE AND LISTED FIRE SEALING DEVICE OR GROUT THAT WILL MAINTAIN THE FIRE RATING OF THE STRUCTURE PENETRATED.

PROVIDE PERMANENTLY AFFIXED ENGRAVED NAMEPLATES FOR ALL CODE REQUIRED LABELING AND ON ALL PANELS, METERING, DISCONNECTS, AND ELECTRICAL EQUIPMENT THAT IDENTIFIES EQUIPMENT SERVED, ELECTRICAL SOURCE WITH CIRCUIT IDENTIFICATION, AND VOLTAGES WITHIN.

ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL FINAL TERMINATIONS TO ALL EQUIPMENT.

ALL ELECTRICAL APPURTENANCES THAT ARE DISCONNECTED SHALL BE COMPLETELY REMOVED WITH EXISTING STRUCTURES TO REMAIN, REPAIRED, FINISHED, FILLED, PAINTED, ETC. ALL PANEL SCHEDULES, EQUIPMENT LABELING, AND CODE-REQUIRED LABELING, SHALL BE VERIFIED AND NEWERLY COMPLETED TO MATCH THE INSTALLATION.

26 GROUNDING:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.

GROUND ALL SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH BEST INDUSTRY PRACTICE, THE REQUIREMENTS OF THE NFPA 70 NATIONAL ELECTRICAL CODE (NEC), AND ALL OTHER APPLICABLE CODES AND REGULATIONS.

ALL GROUNDING ELECTRODES PRESENT AT EACH SERVICE LOCATION SHALL BE BONDED TOGETHER TO FORM THE GROUNDING ELECTRODE SYSTEM.

ALL EQUIPMENT ENCLOSURES, DEVICES, AND CONDUITS SHALL BE GROUNDED BY THE INSTALLATION OF A SEPARATE GROUNDING CONDUCTOR FOR ALL FEEDER AND BRANCH CIRCUITS THAT IS SIZED PER CODE OR IS OF THE SIZE INDICATED ON THE DRAWINGS, SHALL BE CONTINUOUS IN LENGTH, AND SHALL BE BONDED TO EACH ENCLOSURE PASSED THROUGH. CONDUIT SHALL NOT BE USED AS A GROUNDING OR BONDING WIRE OR CIRCUIT.

BOND ALL METALLIC CONDUITS TOGETHER THAT ARE CONNECTED TO NON-METALLIC ENCLOSURES, IN-GROUND BOXES, AND TO AN ENCLOSURE WHERE A GROUND BUS IS SPECIFIED OR SUPPLIED. ACCOMPLISH THIS BOND WITH GROUNDING CONDUCTORS MINIMUM SIZED TO THE LARGEST GROUNDING CONDUCTOR PRESENT IN THE ENCLOSURE CONNECTED TO A GROUNDING TYPE BUSHING EQUALLY SIZED OR MAXIMUM GROUND WIRE ACCOMMODATION AVAILABLE IN STANDARD MANUFACTURE FOR THE CONDUIT SIZE, WHICHEVER IS LESS.

EQUIPMENT GROUNDING AND LOAD SIDE BONDING CONDUCTORS SHALL BE SIZED PER THE CIRCUIT'S OVER-CURRENT PROTECTIVE DEVICE (OCPD) SIZE. WHERE THE UNGROUNDED CONDUCTORS ARE INCREASED IN SIZE ABOVE THE STANDARD FOR THE CIRCUIT'S OCPD, INCREASE THE GROUNDING CONDUCTOR NEWORTIONATELY TO THE CROSS-SECTIONAL AREA OF THE UNGROUNDED CONDUCTORS.

SERVICE MAIN BONDING JUMPERS AND GROUNDING ELECTRODE CONDUCTORS SHALL BE SIZED AND INSTALLED PER THE MINIMUM OF ALL APPLICABLE CODES AND REGULATIONS.

26 LIGHTNING PROTECTION:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS AND THE GROUNDING SPECIFICATIONS HEREIN.

THE LIGHTNING PROTECTION GROUNDING SYSTEM (LPGS) SHALL CONSIST OF BONDING ALL EQUIPMENT AND CONDUCTIVE STRUCTURES TO LOCALIZED SINGLE-POINT GROUNDING CONNECTIONS (TYPICALLY GROUND BARS) WHICH ARE BONDED TOGETHER AND TO AN IN-GROUND SYSTEM. IF THE LPGS IS ON A BUILDING, IT SHALL BE EFFECTIVELY BONDED TO THE ELECTRICAL SERVICE MAIN BONDING JUMPER AND TO ADDITIONAL IN-GROUND ELECTRODES AS MAY BE REQUIRED OR INDICATED. IF THE LPGS IS ON A DEDICATED COMMUNICATION SITE, ALL EQUIPMENT AREAS AND TOWERS SHALL EACH HAVE THEIR OWN IN-GROUND RING WITH EVERY RING BONDED TOGETHER, AND ALL CONDUCTIVE STRUCTURES IN CLOSE PROXIMITY (FENCES, ICE BRIDGES, ISOLATED EQUIPMENT, ETC.) ALSO BONDED TO PROVIDE A COMMON ELECTRICAL EQUIPOTENTIAL SYSTEM FOR ALL CONDUCTIVE ELEMENTS AND STRUCTURES.

CONDUCTORS:

- MIN #2 AWG SOLID BARE TINNED COPPER (SBTC) FOR ALL IN-GROUND CONDUCTORS.
- MIN #2 AWG COPPER GREEN STRANDED FOR BONDING STRUCTURES, AND FOR INTER-SYSTEM BONDING OF INDIVIDUAL ELEMENTS SUCH AS GROUND BAR TO GROUND BAR.
- MIN #6 AWG COPPER GREEN STRANDED OR ALL EQUIPMENT BONDING.
- INSTALL ALL IN-GROUND CONDUCTORS IN THE SAME HORIZONTAL PLANE OR IN A DOWNWARD DIRECTION AWAY FROM THE TOWER AND EQUIPMENT AREAS.
- AVOID LONG RUNS. MAKE DIRECT RUNS AS MUCH AS POSSIBLE.
- PLACE THROUGH NON-METALLIC SLEEVES WHEN PASSING THROUGH FLOORS, WALLS, CEILINGS, AND SIMILAR STRUCTURES.
- MAKE ALL CONNECTIONS IN CONTACT WITH EARTH WITH EXOTHERMIC WELDING. MAKE ALL OTHER CONNECTIONS WITH EXOTHERMIC WELDING, IRREVERSIBLE COMPRESSION CONNECTORS, OR LISTED COMPRESSION TWO-HOLE LUGS.
- INSTALL ALL CONDUCTORS WITH A MINIMUM 18 INCH BEND RADIUS AND NO BEND LONGER THAN A 90 DEGREE ARC. ALL BENDS SHALL BE HORIZONTAL, OR DOWNWARD TOWARDS EARTH.
- ALL CONDUCTORS PASSING FROM ABOVE-GROUND TO IN-GROUND CONNECTIONS, WHERE EXPOSED, SHALL BE COVERED AND PROTECTED WITH A NON-METALLIC CONDUIT SEALED AT BOTH ENDS.
- IF 2 OR MORE IN-GROUND CONDUCTOS ARE IN THE SAME PATH (2 RINGS OVERLAPPING, BONDING FOLLOWING ANOTHER RING OR RADIAL, OR SIMILAR), COMBINE WITH A SHARED SINGLE CONDUCTOR.

EQUIPMENT AND TOWER GROUND RINGS SHALL BE:

- BONDED TO ANY CONDUCTIVE OBJECT OR STRUCTURE WITHIN 5 FEET OF EQUIPMENT GROUND RINGS AND WITHIN 20 FEET OF TOWER GROUND RINGS.
- INSTALLED MINIMUM 18 INCHES FROM FOUNDATIONS, FOOTINGS, AND SIMILAR.

INSTALL ALL IN-GROUND RINGS, RADIALS, BONDS CONNECTING THEM, AND ALL SIMILAR GROUNDING:

- MIN 30 INCHES BELOW GRADE, OR 6 INCHES BELOW THE FROST LINE, WHICHEVER IS GREATER DEPTH.
- MIN 2 FEET FROM FOUNDATIONS, FOOTINGS, OTHER GROUNDING SYSTEMS, AND SIMILAR STRUCTURES, EXCEPT WHEN MAKING A BOND TO ANY OF THESE STRUCTURES. DO NOT BOND TO FOUNDATION INTERNAL REINFORCEMENT.

ALL EQUIPMENT GROUPED IN A COMMON AREA, COMPOUND, STRUCTURE, OR SIMILAR SHALL BE BONDED TO A SINGLE-POINT GROUND, PREFERABLY AN ISOLATED GROUND BAR. BOND THE GROUND BAR TO THE SYSTEM WITH MINIMUM SINGLE BONDING CONDUCTOR. IF BONDING TO AN IN-GROUND RING, INSTALL 2 BONDING CONDUCTORS MINIMUM WITH EACH CONDUCTOR INSTALLED DIRECTIONALLY AWAY FROM EACH OTHER AND PARALLEL TO THE IN-GROUND CONDUCTOR, WITH NO TEE CONNECTIONS.

TOWER GROUNDING:

- EACH TOWER LEG SHALL BE BONDED TO ITS RING. SINGLE-LEGGED TOWERS, OR MONOPOLES, SHALL HAVE 2 BONDS ON OPPOSITE SIDES.
- BOND TO TOWER BASE, NOT TO VERTICAL TOWER STRUCTURE, AWAY FROM TOWER MOUNTING HARDWARE.
- EACH BOND SHALL HAVE A CORRESPONDING GROUND ROD ON THE RING.
- EACH BOND SHALL CONSIST OF 2 CONDUCTORS FROM THE TOWER TO ITS RING WITH EACH CONDUCTOR DIRECTED IN OPPOSITE DIRECTIONS WITH A PARALLEL CONNECTION ON THE RING ON OPPOSITE SIDES OF THE GROUND ROD.

EQUIPMENT AREA GROUNDING:

- COMMUNICATION AREAS ON EARTH SHALL HAVE A GROUND RING.
- BOND ALL EQUIPMENT TO A SINGLE-POINT GROUND (GROUND BAR).
- BOND THE EQIPMENT SINGLE-POINT GROUND TO THE EQUIPMENT GROUND RING WITH MINIMUM 2 CONDUCTORS DIRECTED IN OPPOSITE DIRECTIONS WITH PARALLEL CONNECTIONS ON THE RING.
- IF EQUIPMENT IS ENCLOSED IN A SHELTER:
- IF THE SHELTER IS CONSIDERED TO BE EXPOSED TO A DIRECT LIGHTNING STRIKE, INSTALL A BUILDING LIGHTNING PROTECTION SYSTEM PER APPLICABLE VERSION OF NFPA 780.
- BOND ALL FIXED CONDUCTIVE BUILDING COMPONENTS TOGETHER AND TO THE BUILDING RING GROUND AT THE CORNERS. THIS IS TYPICALLY CALLED THE HALO GROUND. DO NOT BOND EQUIPMENT TO THE HALO GROUND.
- BOND ALL EQUIPMENT TOGETHER TO A SINGLE-POINT OR INTERIOR EQUIPMENT RING GROUND (IEGR). BOND THE SINGLE-POINT OR IEGR TO THE EXTERNAL EQUIPMENT RING GROUND.
- PLACE GROUND RODS AT THE EQUIPMENT GROUND RING CORNERS.

GROUND RODS:

- SEPARATION SPACE BETWEEN ANY 2 GROUND RODS SHALL BE NO CLOSER THAN THEIR DEPTH. THIS APPLIES TO ALL RODS IN THE COMPLETE SYSTEM.
- DRIVE VERTICALLY IN UNDISTURBED SOIL WITH THE TOP AT SAME DEPTH AS THE IN-GROUND CONDUCTOR. IF NOT POSSIBLE TO INSTALL VERTICALLY, PLACE AS CLOSE TO VERTICAL AS POSSIBLE AND IN A DIRECTION AWAY FROM THE NEAREST ABOVE-GROUND CONDUCTIVE ELEMENT (TOWER, EQUIPMENT, ETC.).

RADIALS (TYP. NEW DEDICATED COMMUNICATION SITES):

- WHERE FEASIBLE WITH ENOUGH SPACE AVAILABLE, INSTALL A MINIMUM OF 4, MAXIMUM 10 RING RADIALS.
- EACH RADIAL'S LENGTH SHALL BE MIN 20 FT, MAX 80 FT.
- EXTEND RADIALS PERPENDICULAR FROM RINGS IN AS STRAIGHT LINE AS POSSIBLE, AWAY FROM OTHER RING GROUNDS, RADIALS, BONDS, AND SIMILAR.
- A COMMON PRACTICE IS TO PLACE 4 RADIALS FROM THE TOWER RING TO THE 4 CORNERS OF THE AVAILABLE AREA.

AT A MINIMUM, BOND ALL COMPOUND CONDUCTIVE FENCE CORNER POSTS AND GATE POSTS TO THE LPGS. PREFERABLY, INSTALL A GROUND RING THAT FOLLOWS THE FENCE LINE, BONDING ALL POSTS TO THE RING.

27 ANTENNAS & CABLES:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL TRANSMISSION CABLES, JUMPERS, CONNECTORS, GROUNDING STRAPS, ANTENNAS, MOUNT AND HARDWARE. ALL MATERIALS SHALL BE INSPECTED BY THE CONTRACTOR FOR DAMAGE UPON DELIVERY. JUMPERS SHALL BE SUPPLIED AT ANTENNAS AND EQUIPMENT INSIDE SHELTER. COORDINATE LENGTH OF JUMPER CABLES WITH OWNER. COORDINATE AND VERIFY ALL OF THE MATERIALS TO BE PROVIDED WITH OWNER PRIOR TO SUBMITTING BID AND ORDERING MATERIALS.

AFTER INSTALLATION, THE TRANSMISSION LINE SYSTEM SHALL BE PIM / SWEEP TESTED FOR NEWER INSTALLATION AND DAMAGE WITH ANTENNAS CONNECTED. CONTRACTOR SHALL OBTAIN AND USE LATEST TESTING PROCEDURES FROM OWNER OR MANUFACTURER PRIOR TO BIDDING.

ANTENNA CABLES SHALL BE UNIQUELY COLOR-CODED AT THE ANTENNAS, BOTH SIDES OF EQUIPMENT SHELTER WALL, AND JUMPER CABLES AT THE EQUIPMENT.

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL CONNECTORS, ASSOCIATED CABLE MOUNTING AND GROUNDING HARDWARE, WALL MOUNTS, STANDOFFS, AND ALL ASSOCIATED HARDWARE TO INSTALL ALL CABLES AND ANTENNAS TO THE MANUFACTURER'S AND OWNER'S SPECIFICATIONS.

ANTENNA CABLES SHALL BE FOAM DIELECTRIC COAXIAL CABLES AS FOLLOWS:

- BASE STATION ANTENNAS:
  - 7/8" DIAMETER FOR CABLE LENGTHS UP TO 100 FT.
  - 1-5/8" DIAMETER FOR CABLE LENGTHS GREATER THAN 100 FT.
  - GPS ANTENNAS:
  - 7/8" DIAMETER FOR CABLE LENGTHS UP TO 200 FT.
  - 1-5/8" DIAMETER FOR CABLE LENGTHS GREATER THAN 200 FT.

MINIMUM BENDING RADIUS FOR COAXIAL CABLES SHALL BE:

- 15 FT FOR 7/8" COAXIAL CABLES.
- 25 FT FOR 1-5/8" COAXIAL CABLES.

CABLE SHALL BE INSTALLED WITH A MINIMUM NUMBER OF BENDS WHERE POSSIBLE. CABLE SHALL NOT BE LEFT UNTERMINATED AND SHALL BE SEALED IMMEDIATELY AFTER BEING INSTALLED.

ALL EXTERIOR CABLE CONNECTIONS SHALL BE COVERED WITH A WATERPROOF SPLICING KIT.

CONTRACTOR SHALL VERIFY EXACT LENGTH AND DIRECTION OF TRAVEL IN FIELD PRIOR TO CONSTRUCTION.

CABLE SHALL BE FURNISHED AND INSTALLED WITHOUT SPLICES AND WITH CONNECTORS AT EACH END.

27 CABLE TRAY:

THESE SPECIFICATIONS SHALL INCLUDE THE GENERAL SPECIFICATIONS HEREIN.

CABLE TRAY SHALL BE MADE OF EITHER CORROSION RESISTANT METAL OR WITH A CORROSION RESISTANT FINISH.

CABLE TRAY SHALL BE OF LADDER TRAY TYPE WITH FLAT COVER CLAMPED TO SIDE RAILS.

CABLE LADDER SHALL BE SIZED TO FIT ALL CABLES IN ACCORDANCE WITH NEC AND NEMA 11-15-84.

CABLE LADDER TRAYS SHALL BE NEMA CLASS 12A BY PW INDUSTRIES, INC. OR EQUAL.

CABLE LADDER TRAY SHALL BE SUPPORTED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

ALL WORKMANSHIP SHALL CONFORM TO THESE REQUIREMENTS AND ALL LOCAL CODES AND STANDARDS TO ENSURE SAFE AND ADEQUATE GROUNDING SYSTEM.

Cellco Partnership d/b/a

verizon

20 ALEXANDER DRIVE
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ALL-POINTS TECHNOLOGY CORPORATION

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CONSTRUCTION DOCUMENTS

NO	DATE	REVISION
0	06/09/21	FOR REVIEW: JRM
1	08/25/21	FOR FILING: JRM
2		
3		
4		
5		
6		

DESIGN PROFESSIONALS OF RECORD

PROF: MICHAEL S. TRODDEN P.E.
COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C.
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COLEBROOK CT

SITE ADDRESS: 382 COLEBROOK RIVER ROAD COLEBROOK, CT 06021

APT FILING NUMBER: CT141_12210	
	DRAWN BY: THK
DATE: 06/09/21	CHECKED BY: JRM
VZ PROJECT CODE: 20212234270	
VZ LOCATION CODE: 468269	
VZ FUZE ID: 16272050	

SHEET TITLE:

NOTES& SPECIFICATIONS

SHEET NUMBER:

N-1

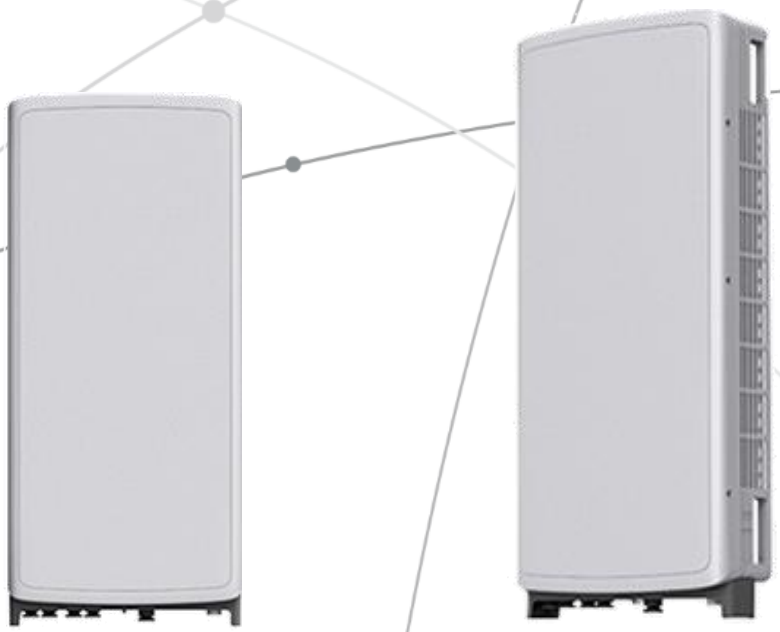
SAMSUNG

SAMSUNG C-Band 64T64R Massive MIMO Radio

for High Capacity and Wide Coverage

Samsung C-Band 64T64R Massive MIMO Radio enables mobile operators to increase coverage range, boost data speeds and ultimately offer enriched 5G experiences to users in the U.S..

Model Code : MT6407-77A

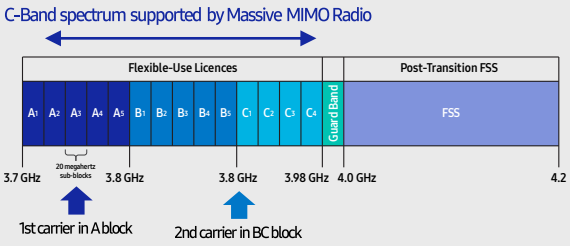


Points of Differentiation

Wide Bandwidth

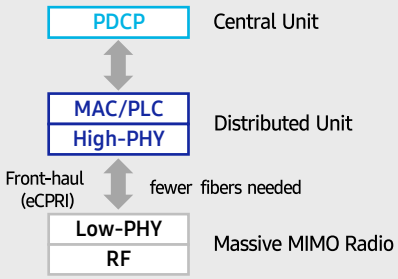
With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

Samsung C-Band massive MIMO Radio covers the entire C-Band 280 MHz spectrum, so it can meet the operator's needs in current A block and future B/C blocks



Future Proof Product

Samsung C-Band 64T64R Massive MIMO radio supports not only CPRI but also eCPRI as front-haul interface.
It enables operators can cut down on OPEX/CAPEX by reducing front-haul bandwidth through low layer split and using ethernet based higher efficient line.



Enhanced Performance

C-Band massive MIMO Radio creates sharp beams and extends networks' coverage on the critical mid-band spectrum using a large number of antenna elements and high output power to boost data speeds.

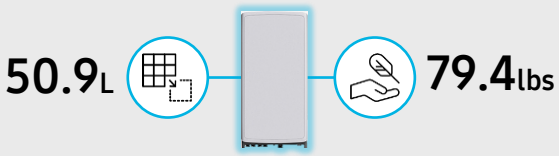
This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

Furthermore, as C-Band massive MIMO Radio supports MU-MIMO(Multi-user MIMO) , it enables to increase user throughput by minimizing interference.

Well Matched Design

Samsung C-Band Massive MIMO radio utilizes 64 antennas, supports up to 280MHz bandwidth, and delivers a 200W output power. despite the above advanced performance, the Radio has a compact size of 50.9L and 79.4lbs. This makes it easy to install the Radio.

It is designed to look solid and compact, with a low profile appearance so that, when installed, harmonizes well with the surrounding environment..



Technical Specifications

Item	Specification
Tech	NR
Band	n77
Frequency Band	3700 - 3980 MHz
EIRP	78.5dBm (53.0 dBm+25.5 dBi)
IBW/OBW	280 MHz / 200 MHz
Installation	Pole/Wall
Size/ Weight	16.06 x 35.06 x 5.51 inch (50.86L)/ 79.4 lbs

SAMSUNG

About Samsung Electronics Co., Ltd.

Samsung inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, digital appliances, network systems, and memory, system LSI, foundry and LED solutions.

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SAMSUNG

Dual-Band Radio Unit
700/850MHz (B13/B5)
RFV01U-D2A

Samsung's RFV01U-D2A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.

The RFV01U-D2A RU targets dual-band support across Band 13 (700MHz) and Band 5 (850MHz), making it an ideal product for broad coverage footprints across multiple common low-end, long-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation

Key Technical Specifications

Duplex Type: FDD
Operating Frequencies:
B13: DL(746-756MHz)/UL(777-787MHz)
B5: DL(869-894MHz)/UL(824-849MHz)
Instantaneous Bandwidth: 10MHz(B13) + 25MHz(B5)
RF Chain: 4T4R/2T4R/2T2R
Output Power: Total 320W
DU-RU Interface: CPRI (10Gbps)
Dimensions: 380 x 380 x 207mm (29.9L)
Weight: 31.9kg
Input Power: -48V DC
Operating Temp.: -40 - 55°(w/o solar load)
Cooling: Natural convection

SAMSUNG

Dual-Band Radio Unit
AWS/PCS (B66/B2)
RFV01U-D1A

Samsung's RFV01U-D1A is a compact remote Radio Unit (RU) designed for deployments that require flexibility in installation and rapid onlining, without compromising on coverage, capacity or operational expenses.

The RFV01U-D1A RU targets dual-band support across Band 66 (AWS) and Band 2 (PCS), making it an ideal product for broad coverage footprints across multiple common mid-range frequencies.

The RU handles all Radio Frequency (RF) processing in a single, compact unit, and is designed to interface via CPRI with Samsung's CDU baseband offerings, in both distributed- and central-RAN configurations.

In addition to its minimal footprint and ease of installation, the RU is also designed to reduce cost of ownership through its integrated spectrum analyzer, which allows for remote RF monitoring, greatly reducing the need for on-site maintenance visits.

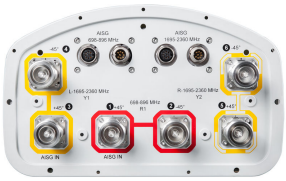
Features and Benefits

- Dual-band support for broad frequency coverage
- Minimal footprint reduces site costs
- Rapid, easy installation
- Flexibly deployable in any location
- Remote RF monitoring capability
- Convection cooled, silent operation
- Built-in Broadcast Auxiliary Services (BAS) filter ensures compliant AWS operation without impacting footprint

Key Technical Specifications

Duplex Type: FDD
Operating Frequencies:
    B66: DL(2,110-2,180MHz)/UL(1,710-1,780MHz)
    B2: DL(1,930-1,990MHz)/UL(1,850-1,910MHz)
Instantaneous Bandwidth:
    70MHz(B66) + 60MHz(B2)
RF Chain: 4T4R/2T4R/2T2R
Output Power: Total 320W
DU-RU Interface: CPRI (10Gbps)
Dimensions: 380 x 380 x 255mm (36.8L)
Weight: 38.3kg
Input Power: -48V DC
Operating Temp.: -40 - 55°(w/o solar load)
Cooling: Natural convection

NHH-85B-R2B



6-port sector antenna, 2x 698–896 and 4x 1695–2360 MHz, 85° HPBW, 2x RET. Both high bands share the same electrical tilt.

- Interleaved dipole technology providing for attractive, low wind load mechanical package
- Internal SBT on low and high band allow remote RET control from the radio over the RF jumper cable
- Separate RS-485 RET input/output for low and high band
- One RET for low band and one RET for both high bands to ensure same tilt level for 4x Rx or 4x MIMO

General Specifications

Antenna Type	Sector
Band	Multiband
Color	Light gray
Grounding Type	RF connector body grounded to reflector and mounting bracket
Performance Note	Outdoor usage | Wind loading figures are validated by wind tunnel measurements described in white paper WP-112534-EN
Radome Material	Fiberglass, UV resistant
Radiator Material	Aluminum | Low loss circuit board
Reflector Material	Aluminum
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, high band	4
RF Connector Quantity, low band	2
RF Connector Quantity, total	6

Remote Electrical Tilt (RET) Information

RET Interface	8-pin DIN Female | 8-pin DIN Male
RET Interface, quantity	2 female | 2 male
Input Voltage	10–30 Vdc
Internal Bias Tee	Port 1 | Port 3
Internal RET	High band (1) | Low band (1)
Power Consumption, idle state, maximum	2 W
Power Consumption, normal conditions, maximum	13 W

NHH-85B-R2B

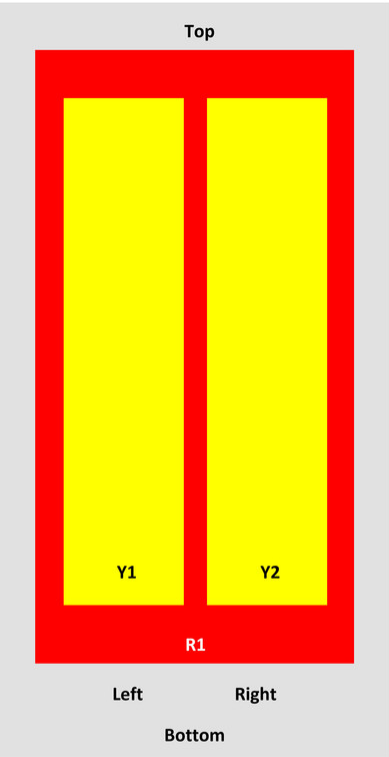
Protocol	3GPP/AISG 2.0 (Single RET)

Dimensions

Width	301 mm | 11.85 in
Depth	180 mm | 7.087 in
Length	1851 mm | 72.874 in
Net Weight, without mounting kit	19.8 kg | 43.651 lb

Array Layout

NHH



Array	Freq (MHz)	Conns	RET (SRET)	AISG RET UID
R1	698-896	1-2	1	ANxxxxxxxxxxxxxxx1
Y1	1695-2360	3-4	2	ANxxxxxxxxxxxxxxx2
Y2	1695-2360	5-6		

View from the front of the antenna

(Sizes of colored boxes are not true depictions of array sizes)

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	1695 – 2360 MHz | 698 – 896 MHz

NHH-85B-R2B

Polarization	±45°
Total Input Power, maximum	900 W @ 50 °C

Electrical Specifications

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain, dBi	14.4	14.4	17.1	17.6	17.9	18.1
Beamwidth, Horizontal, degrees	82.5	87	80	79.3	78	78
Beamwidth, Vertical, degrees	12.3	11.2	5.7	5.3	5	4.6
Beam Tilt, degrees	0–12	0–12	0–8	0–8	0–8	0–8
USLS (First Lobe), dB	18	16	14	16	17	18
Front-to-Back Ratio at 180°, dB	28	26	34	30	30	30
Isolation, Cross Polarization, dB	25	25	25	25	25	25
Isolation, Inter-band, dB	30	30	25	25	25	25
VSWR | Return loss, dB	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0	1.5 | 14.0
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153	-153	-153	-153
Input Power per Port at 50°C, maximum, watts	300	300	250	250	250	200

Electrical Specifications, BASTA

Frequency Band, MHz	**698–806**	**806–896**	**1695–1880**	**1850–1990**	**1920–2200**	**2300–2360**
Gain by all Beam Tilts, average, dBi	14.1	14.1	16.6	17.3	17.6	17.7
Gain by all Beam Tilts Tolerance, dB	±0.3	±0.5	±0.6	±0.4	±0.4	±0.4
Gain by Beam Tilt, average, dBi	0 ° | 14.1 6 ° | 14.2 12 ° | 14.0	0 ° | 14.0 6 ° | 14.3 12 ° | 13.8	0 ° | 16.6 4 ° | 16.6 8 ° | 16.7	0 ° | 17.3 4 ° | 17.4 8 ° | 17.3	0 ° | 17.6 4 ° | 17.6 8 ° | 17.5	0 ° | 17.6 4 ° | 17.8 8 ° | 17.6
Beamwidth, Horizontal Tolerance, degrees	±1.8	±2	±4.8	±4.0	±4.0	±2.6
Beamwidth, Vertical Tolerance, degrees	±0.8	±0.9	±0.2	±0.2	±0.3	±0.2
USLS, beampeak to 20° above beampeak, dB	18	16	14	15	16	17
Front-to-Back Total Power at 180° ± 30°, dB	22	22	27	26	25	26
CPR at Boresight, dB	21	22	19	19	19	22

CPR at Sector, dB	20	20	15	17	17	16

Mechanical Specifications

Effective Projective Area (EPA), frontal	0.27 m² | 2.906 ft²
Effective Projective Area (EPA), lateral	0.22 m² | 2.368 ft²
Wind Loading at Velocity, frontal	283.0 N @ 150 km/h | 63.6 lbf @ 150 km/h
Wind Loading at Velocity, lateral	234.0 N @ 150 km/h | 52.6 lbf @ 150 km/h
Wind Loading at Velocity, maximum	122.5 lbf @ 150 km/h | 545.0 N @ 150 km/h
Wind Loading at Velocity, rear	287.0 N @ 150 km/h | 64.5 lbf @ 150 km/h
Wind Speed, maximum	241 km/h | 149.75 mph

Packaging and Weights

Width, packed	409 mm | 16.102 in
Depth, packed	299 mm | 11.772 in
Length, packed	1970 mm | 77.559 in
Weight, gross	31.9 kg | 70.327 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Above maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
ROHS	Compliant/Exempted

Included Products

BSAMNT-3	–	Wide Profile Antenna Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

* Footnotes

Performance Note	Severe environmental conditions may degrade optimum performance

ATTACHMENT 3

	General	Power	Density					
Site Name: Colebrook								
Tower Height: Verizon @ 127ft								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**FREQ.**	**CALC. POWER DENS**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
*Nextel	12	100	147.5	851	0.0216	0.5673	0.38%	
*T-Mobile	2	2334	117	2100	0.1362	1.0000	1.36%	
*T-Mobile	2	2334	117	1900	0.1362	1.0000	1.36%	
*T-Mobile	2	1403	117	1900	0.0819	1.0000	0.82%	
*T-Mobile	1	620	117	600	0.0181	0.4000	0.45%	
*T-Mobile	1	679	117	700	0.0198	0.4667	0.42%	
*AT&T	1	321	139	850	0.0065	0.5667	0.12%	
*AT&T	1	2951	139	700	0.0600	0.4667	1.29%	
*AT&T	1	3837	139	700	0.0780	0.4667	1.67%	
*AT&T	1	1475	139	1900	0.0300	1.0000	0.30%	
*AT&T	1	1000	139	700	0.0203	0.4667	0.44%	
*AT&T	1	3664	139	850	0.0745	0.5667	1.31%	
*AT&T	1	1000	139	2100	0.0203	1.0000	0.20%	
VZW 700	**4**	**336**	**127**	**751**	**0.0030**	**0.5007**	**0.60%**	
VZW CDMA	**2**	**226**	**127**	**878.49**	**0.0010**	**0.5857**	**0.17%**	
VZW Cellular	**4**	**333**	**127**	**874**	**0.0030**	**0.5827**	**0.51%**	
VZW PCS	**4**	**735**	**127**	**1975**	**0.0066**	**1.0000**	**0.66%**	
VZW AWS	**4**	**771**	**127**	**2120**	**0.0069**	**1.0000**	**0.69%**	
VZW CBAND	**4**	**6531**	**127**	**3730.08**	**0.0583**	**1.0000**	**5.83%**	
								18.59%
* Source: Siting Council								

ATTACHMENT 4

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 150 ft PennSummit Monopole
Customer Name: SBA Communications Corp
Customer Site Number: CT13613-A
Customer Site Name: Johnson
Carrier Name: Verizon (App#: 148100, V3)
Carrier Site ID / Name: 468269 / Colebrook CT
Site Location: 382 Colebrook River Rd
Colebrook, Connecticut
Litchfield County
Latitude: 41.992083
Longitude: -73.039805

Analysis Result:

Max Structural Usage: 55.6% [Pass]
Max Foundation Usage: 33.0% [Pass]
Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Younus Alkarawi

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

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Latitude: 41.992083

Longitude: -73.039805

Analysis Result:

Max Structural Usage: 55.6% [Pass]

Max Foundation Usage: 33.0% [Pass]

Additional Usage Caused by New Mount/Mount Modification:

Report Prepared By: Younus Alkarawi

Introduction

The purpose of this report is to summarize the analysis results on the 150 ft PennSummit Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Paul J. Ford; Job #29205-0113; 5/24/2005
Foundation Drawing	Paul J. Ford; Job #29205-0113; 5/24/2005
Geotechnical Report	JGI Eastern, Inc; Project #05268G; 5/16/2005
Modification Drawings	
Mount Analysis	Verizon MA by TES # Maser Consulting Connecticut Project #: 21777227A, dated

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA- In accordance with this standard, the structure was analyzed using **TESPoles,** a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed V_{ult} = 120.0 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 93.0 mph (3-Sec. Gust)
Wind Speed with Ice:	40 mph (3-Sec. Gust) with 1" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	
Structure Class:	
Topographic Category:	
Crest Height:	0 ft
Seismic Parameters:	

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

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
			Decibel DB846G90A-XY	Low Profile Platform		Nextel
			Powerwave 7770	Low Profile Platform	(1) 7/16" Fiber	
			Kathrein 800 10764			
			Powerwave LGP 21401			
			Powerwave LGP 13519			
			Ericsson RRUS 11			
			Raycap DC6-48-60-18-8F - SP			
		1	Commscope ABT-DFDM-ADBH - Bias T			
			Antel LPA-80080/6CF	Low Profile Platform		Verizon
			Antel BXA-70080-6CF-EDIN			
			Antel BXA-171085-8BF-EDIN			
			Ericsson Air 32	SitePro F4P-10W w/ Handrail Kit	(4) 1 5/8" Fiber	T-Mobile
			Ericsson S11B12			
			Ericsson RRU 2217 B2			
			Motorola RRA4905A	Direct		Verizon

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
			Commscope NHH-85B-R2B - Panel	Low Profile Platform	Hybrid	Verizon
			Samsung MT6407-77A - Panel			
			Commscope TD-850B-LTE78-43-Diplexer / Dual Coupler			
			Samsung RFV01U-D2A RRU			
			Samsung RFV01U-D1A RRU			
			RFS DB-C1-12C-24ab-0Z-OVP			

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:			
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)
Original Design Reactions		
Analysis Reactions		
Factored Reactions*		
% of Design Reactions		

* Per section 15.5.1 of the TIA-222-G standard, factored reactions were obtained by multiplying a 1.35 factor to the original design reactions.

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 0.9237 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the TIA-222 Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

This analysis was performed based on the information supplied to **Tower Engineering Solutions,** Verification of the information provided was not included in the Scope of Work for . The accuracy of the analysis is dependent on the accuracy of the information provided.

The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.

The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of . In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the ANSI/TIA-222 standard or other codes, should be notified in writing and the applicable minimum values provided by the client.

The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, should be notified immediately to evaluate the effect of the discrepancy on the analysis results.

The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.

If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Usage Diagram - Max Ratio 55.63% at 51.0ft

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021
Site Name:	Johnson	**Exposure:**	B	
Height:	150.00 (ft)	**Gh:**	1.1	
Base Elev:	0.000 (ft)			Page: 1

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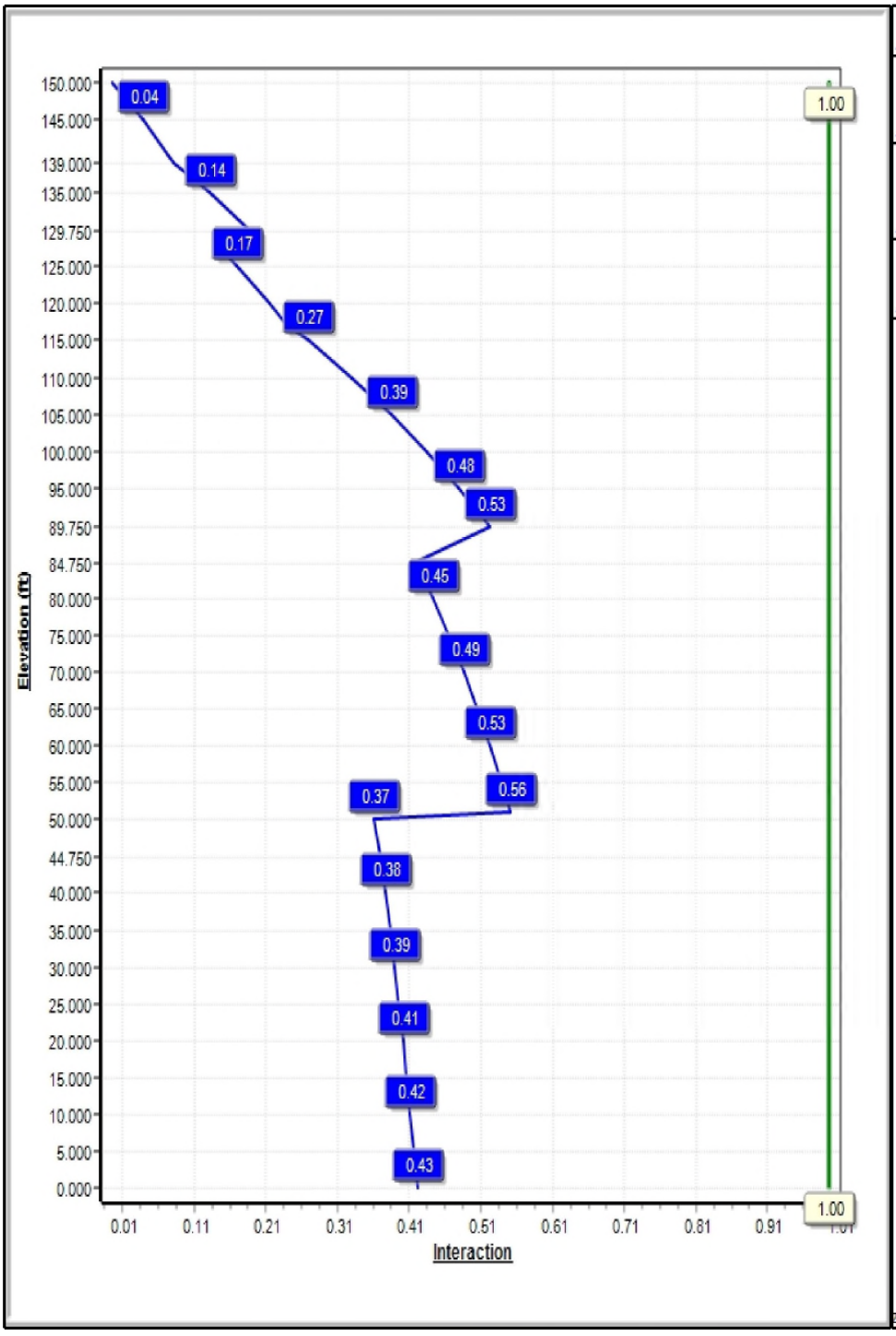
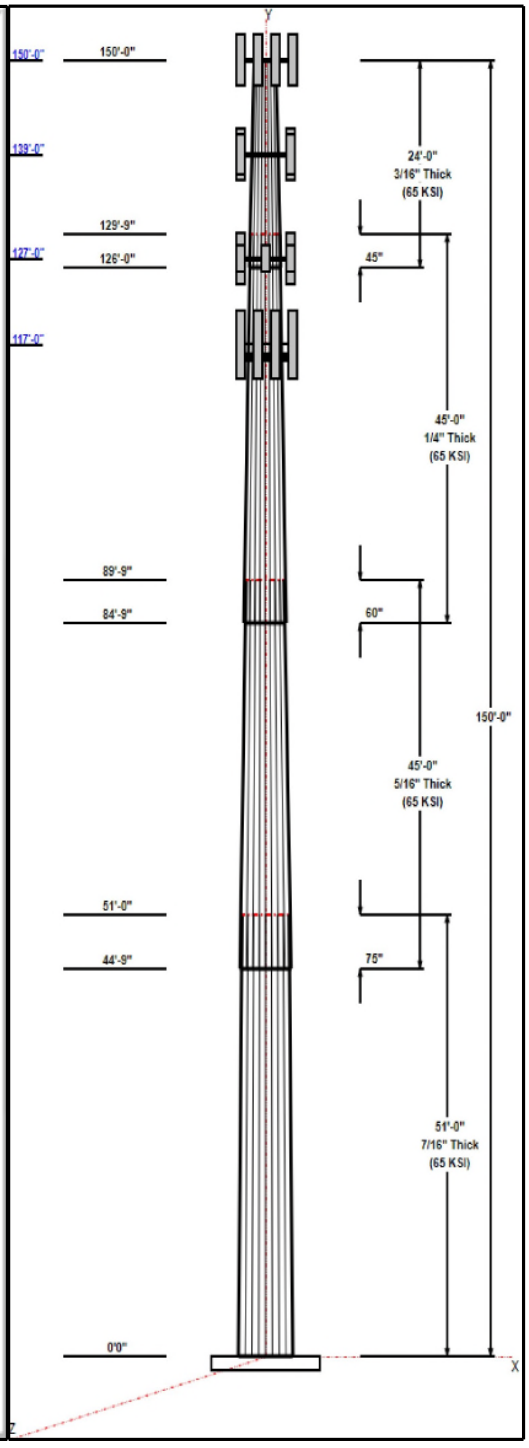
Dead Load Factor:	1.20	**Iterations:**	22
Wind Load Factor:	1.60		

Load Case : 1.2D + 1.6W 93 mph Wind





Structure: CT13613-A-SBA

Type: Tapered
Site Name: Johnson
Height: 150.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.26000

8/23/2021

Tower Engineering Solutions

Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	51.00	46.74	60.00	0.438		0.26000	65
2	45.00	37.29	48.99	0.313	Slip	0.26000	65
3	45.00	27.39	39.09	0.250	Slip	0.26000	65
4	24.00	22.50	28.74	0.188	Slip	0.26000	65

Discrete Appurtenances

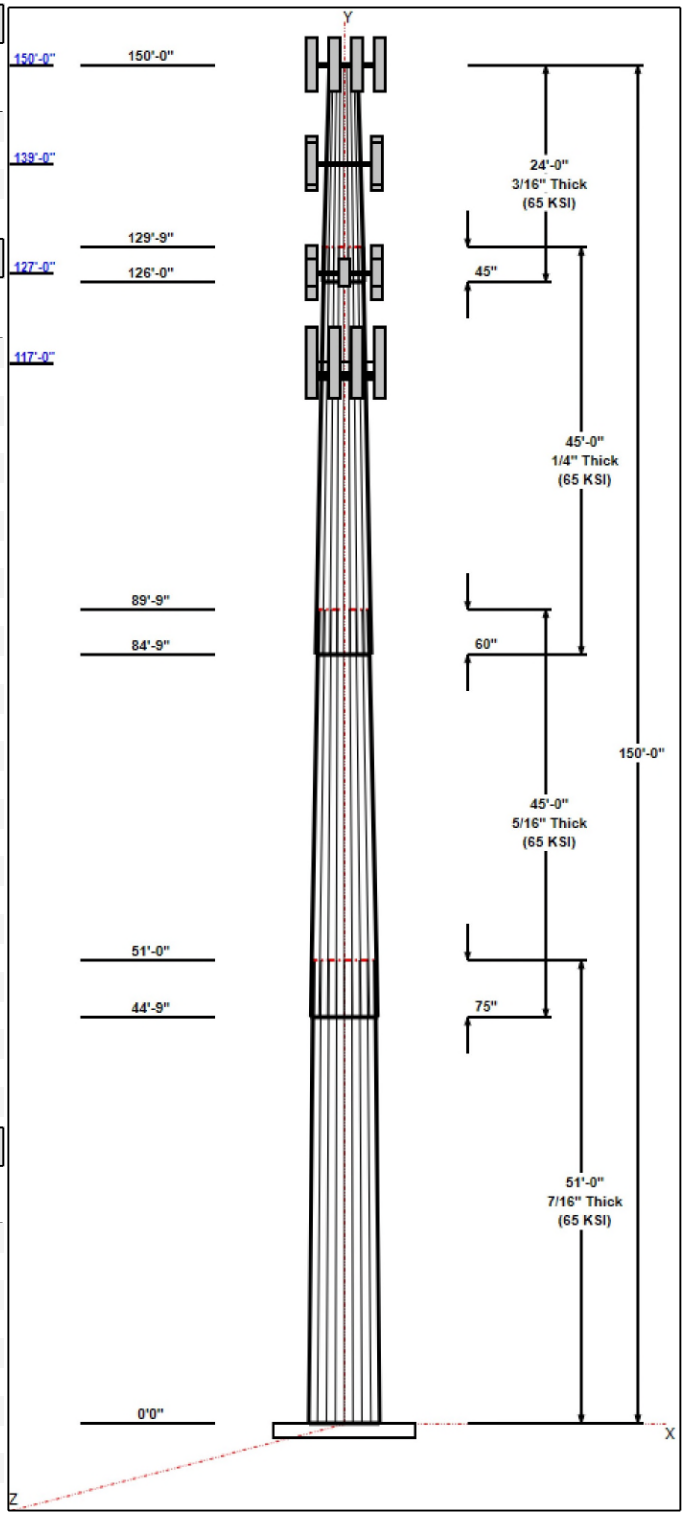
Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
150.00	150.00	1	Low Profile Platform	Nextel
150.00	150.00	12	Decibel DB846G90A-XY	Nextel
139.00	139.00	1	Low Profile Platform	AT&T
139.00	139.00	6	Powerwave 7770	AT&T
139.00	139.00	1	Kathrein 800 10764	AT&T
139.00	139.00	2	KMW	AT&T
139.00	139.00	6	Powerwave LGP 21401	AT&T
139.00	139.00	6	Powerwave LGP 13519	AT&T
139.00	139.00	6	Ericsson RRUS 11	AT&T
139.00	139.00	1	Raycap DC6-48-60-18-8F -	AT&T
139.00	139.00	1	Commscope	AT&T
127.00	127.00	1	Low Profile Platform	Verizon
127.00	127.00	6	Commscope	Verizon
127.00	127.00	3	Samsung MT6407-77A	Verizon
127.00	127.00	3	Commscope	Verizon
127.00	127.00	3	Samsung RFV01U-D2A	Verizon
127.00	127.00	3	Samsung RFV01U-D1A	Verizon
127.00	127.00	1	RFS	Verizon
117.00	117.00	1	SitePro F4P-10W	T-Mobile
117.00	117.00	1	F4P-HRK10	T-Mobile
117.00	117.00	4	Ericsson Air 32	T-Mobile
117.00	117.00	4	RFS	T-Mobile
117.00	117.00	4	RFS	T-Mobile
117.00	117.00	4	Ericsson S11B12	T-Mobile
117.00	117.00	4	Ericsson RRU 2217 B2	T-Mobile
117.00	117.00	1	Fastback IBR1300	T-Mobile
65.00	65.00	2	Motorola RRA4905A	Verizon

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	150.00	Inside	1 5/8" Coax	Nextel
0.00	139.00	Inside	1 5/8" Coax	AT&T
0.00	139.00	Inside	3/4" DC	AT&T
0.00	139.00	Inside	7/16" Fiber	AT&T
0.00	127.00	Inside	1 5/8" Coax	Verizon
0.00	127.00	Inside	1 5/8" Hybrid	Verizon
0.00	117.00	Inside	1 5/8" Fiber	T-Mobile
0.00	117.00	Inside	1/2" Fiber	T-Mobile
0.00	117.00	Inside	CAT6	T-Mobile
0.00	65.00	Outside	1/2" Coax	Verizon

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
20	2.25" 18J	75.0	Cluster



Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.7500	66.0	50.0	Clipped

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 93 mph Wind	2836.8	25.9	49.3
0.9D + 1.6W 93 mph Wind	2813.4	25.9	37.0
1.2D + 1.0Di + 1.0Wi 40 mph Wind	603.9	5.5	86.4
1.2D + 1.0E	176.0	1.6	49.3
0.9D + 1.0E	174.4	1.6	37.0
1.0D + 1.0W 60 mph Wind	734.2	6.7	41.1

Structure: CT13613-A-SBA - Coax Line Placement

Type: Monopole
Site Name: Johnson
Height: 150.00 (ft)

8/23/2021

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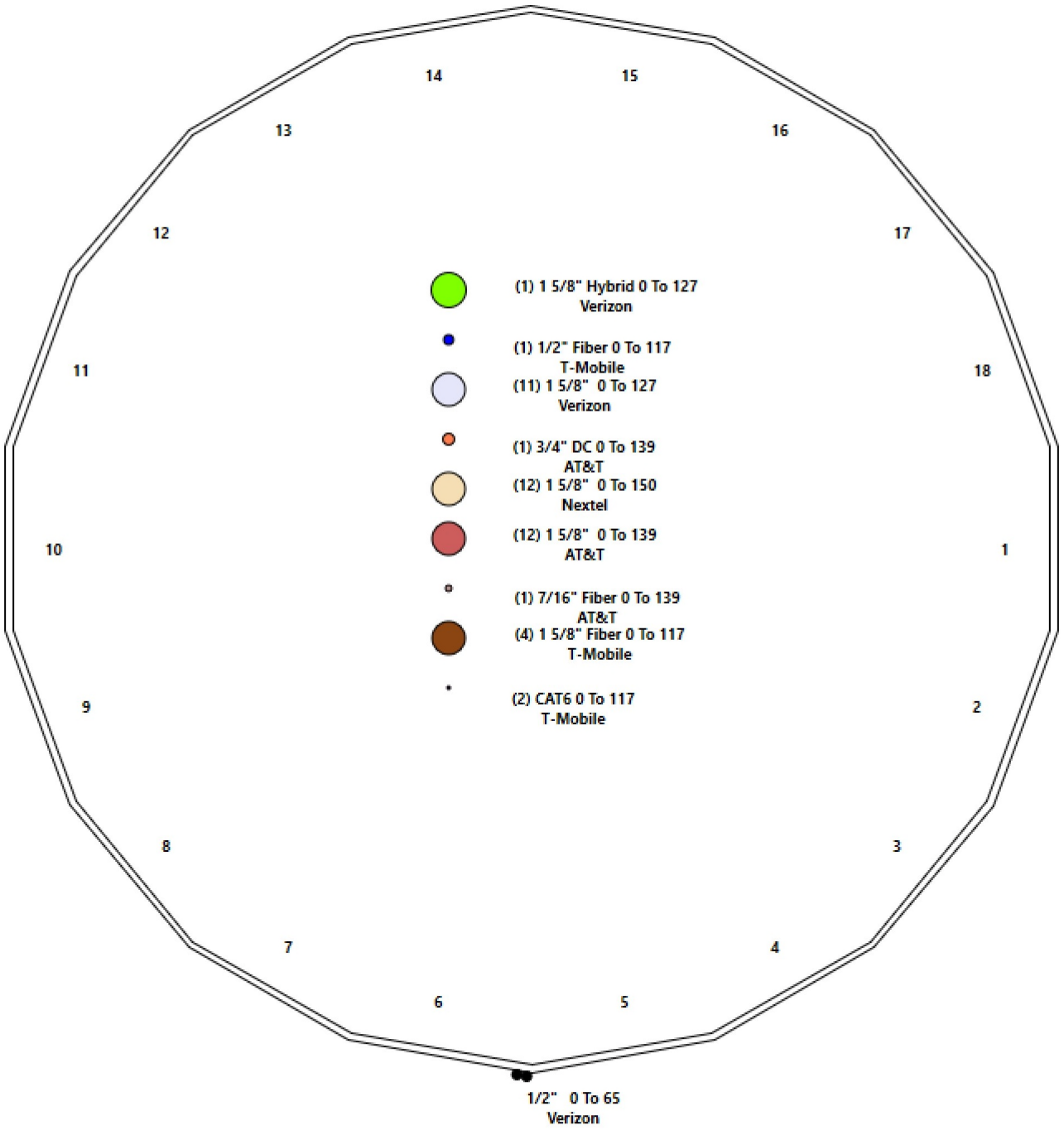

Shaft Properties

Structure:	CT13613-A-SBA		**Code:**	EIA/TIA-222-G	8/23/2021
Site Name:	Johnson		**Exposure:**	B	
Height:	150.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 5

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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	51.000	0.4375	65		0.00	12,755
2	18	45.000	0.3125	65	Slip	75.00	6,504
3	18	45.000	0.2500	65	Slip	60.00	4,008
4	18	24.000	0.1875	65	Slip	45.00	1,236
					Total Shaft Weight:		**24,504**

	Bottom						Top						
Sec. No.	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Dia (in)**	**Elev (ft)**	**Area (sqin)**	**Ix (in^4)**	**W/t Ratio**	**D/t Ratio**	**Taper**
1	60.00	0.00	82.71	37071.59	22.77	137.14	46.74	51.00	64.29	17415.4	17.43	106.8	0.260000
2	48.99	44.75	48.28	14453.71	26.23	156.77	37.29	89.75	36.68	6335.88	19.63	119.3	0.260000
3	39.09	84.75	30.82	5873.84	26.16	156.36	27.39	129.75	21.53	2004.07	17.91	109.5	0.260000
4	28.74	126.0	16.99	1750.16	25.62	153.28	22.50	150.00	13.28	835.20	19.75	120.0	0.260000

Load Summary

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 6	

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Discrete Appurtenances

				No Ice			Ice				
No.	Elev (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	150.00	Low Profile Platform	1	1500.00	22.00	1.00	3245.22	45.549	1.00	0.00	0.00
2	150.00	Decibel DB846G90A-XY	12	15.40	5.01	1.12	244.68	6.674	1.12	0.00	0.00
3	139.00	Low Profile Platform	1	1500.00	22.00	1.00	3231.97	45.370	1.00	0.00	0.00
4	139.00	Powerwave 7770	6	35.00	5.50	0.73	221.12	6.928	0.73	0.00	0.00
5	139.00	Kathrein 800 10764	1	40.80	5.88	1.00	209.53	8.715	1.00	0.00	0.00
6	139.00	KMW AM-X-CD-16-65-00T-RET	2	48.50	8.02	0.90	263.23	11.717	0.90	0.00	0.00
7	139.00	Powerwave LGP 21401	6	17.50	0.00	0.67	49.83	0.000	0.67	0.00	0.00
8	139.00	Powerwave LGP 13519	6	5.30	0.34	0.67	17.87	0.941	0.67	0.00	0.00
9	139.00	Ericsson RRUS 11	6	50.70	2.52	0.67	144.37	3.684	0.67	0.00	0.00
10	139.00	Raycap DC6-48-60-18-8F - SP	1	31.80	0.92	1.00	113.61	1.500	1.00	0.00	0.00
11	139.00	Commscope ABT-DFDM-ADBH -	1	1.10	0.05	1.00	4.05	0.305	1.00	0.00	0.00
12	127.00	Low Profile Platform	1	1500.00	22.00	1.00	3216.41	45.160	1.00	0.00	0.00
13	127.00	Commscope NHH-85B-R2B	6	43.70	8.17	0.85	327.19	9.947	0.85	0.00	0.00
14	127.00	Samsung MT6407-77A	3	79.40	4.69	0.70	246.60	5.950	0.70	0.00	0.00
15	127.00	Commscope TD-850B-LTE78-43	3	7.90	1.48	0.50	62.85	2.640	0.50	0.00	0.00
16	127.00	Samsung RFV01U-D2A RRU	3	82.00	1.88	0.67	156.39	2.603	0.67	0.00	0.00
17	127.00	Samsung RFV01U-D1A RRU	3	97.50	1.88	0.67	175.15	2.603	0.67	0.00	0.00
18	127.00	RFS DB-C1-12C-24AB-0Z-OVP	1	32.00	4.06	1.00	181.40	5.138	1.00	0.00	0.00
19	117.00	SitePro F4P-10W	1	2396.00	58.98	1.00	5441.59	50.016	1.00	0.00	0.00
20	117.00	F4P-HRK10	1	478.27	9.00	1.00	1086.21	22.892	1.00	0.00	0.00
21	117.00	Ericsson Air 32	4	105.80	6.51	0.87	340.86	7.994	0.87	0.00	0.00
22	117.00	RFS APXVAA24_43-U-A20	4	99.00	20.24	0.73	711.39	22.739	0.73	0.00	0.00
23	117.00	RFS APXV18-206517S-A20	4	26.40	5.17	0.73	147.16	8.259	0.73	0.00	0.00
24	117.00	Ericsson S11B12	4	51.00	2.83	0.67	141.53	3.704	0.67	0.00	0.00
25	117.00	Ericsson RRU 2217 B2	4	44.00	2.57	0.67	126.30	3.410	0.67	0.00	0.00
26	117.00	Fastback IBR1300	1	8.82	0.67	1.00	31.87	1.121	1.00	0.00	0.00
27	65.00	Motorola RRA4905A	2	1.00	0.14	1.00	12.56	0.616	1.00	0.00	0.00
		Totals:	**88**	**10,790.99**			**32,603.76**				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	150.00	(12) 1 5/8" Coax	0.00	Inside
0.00	139.00	(12) 1 5/8" Coax	0.00	Inside
0.00	139.00	(1) 3/4" DC	0.00	Inside
0.00	139.00	(1) 7/16" Fiber	0.00	Inside
0.00	127.00	(11) 1 5/8" Coax	0.00	Inside
0.00	127.00	(1) 1 5/8" Hybrid	0.00	Inside
0.00	117.00	(4) 1 5/8" Fiber	0.00	Inside
0.00	117.00	(1) 1/2" Fiber	0.00	Inside
0.00	117.00	(2) CAT6	0.00	Inside
0.00	65.00	(2) 1/2" Coax	0.65	Outside

Shaft Section Properties

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 7	

Tower Engineering Solutions

Increment Length: **5 (ft)**

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.4375	60.000	82.707	37071.6	22.77	137.14	74.6	1216.	0.0
5.00		0.4375	58.700	80.902	34696.8	22.25	134.17	75.2	1164.	1391.8
10.00		0.4375	57.400	79.097	32425.7	21.72	131.20	75.8	1112.	1361.1
15.00		0.4375	56.100	77.292	30255.9	21.20	128.23	76.5	1062.	1330.4
20.00		0.4375	54.800	75.486	28185.2	20.68	125.26	77.1	1013.	1299.7
25.00		0.4375	53.500	73.681	26211.1	20.15	122.29	77.7	965.0	1269.0
30.00		0.4375	52.200	71.876	24331.5	19.63	119.31	78.3	918.1	1238.2
35.00		0.4375	50.900	70.071	22543.9	19.10	116.34	78.9	872.4	1207.5
40.00		0.4375	49.600	68.266	20846.1	18.58	113.37	79.5	827.8	1176.8
44.75	Bot - Section 2	0.4375	48.365	66.551	19314.2	18.08	110.55	80.1	786.6	1089.5
45.00		0.4375	48.300	66.461	19235.7	18.06	110.40	80.2	784.4	97.6
50.00		0.4375	47.000	64.656	17710.5	17.53	107.43	80.8	742.2	1924.8
51.00	Top - Section 1	0.3125	47.365	46.669	13054.0	25.31	151.57	0.0	0.0	378.6
55.00		0.3125	46.325	45.637	12207.4	24.73	148.24	72.3	519.0	628.2
60.00		0.3125	45.025	44.348	11201.6	23.99	144.08	73.2	490.0	765.5
65.00		0.3125	43.725	43.058	10252.7	23.26	139.92	74.0	461.8	743.6
70.00		0.3125	42.425	41.769	9359.0	22.53	135.76	74.9	434.5	721.6
75.00		0.3125	41.125	40.479	8518.7	21.79	131.60	75.8	408.0	699.7
80.00		0.3125	39.825	39.190	7730.3	21.06	127.44	76.6	382.3	677.7
84.75	Bot - Section 3	0.3125	38.590	37.965	7027.9	20.36	123.49	77.4	358.7	623.5
85.00		0.3125	38.525	37.901	6992.2	20.33	123.28	77.5	357.5	58.5
89.75	Top - Section 2	0.2500	37.790	29.787	5303.6	25.24	151.16	0.0	0.0	1092.1
90.00		0.2500	37.725	29.735	5276.1	25.20	150.90	71.8	275.5	25.3
95.00		0.2500	36.425	28.704	4745.8	24.28	145.70	72.8	256.6	497.1
100.00		0.2500	35.125	27.672	4252.3	23.36	140.50	73.9	238.4	479.6
105.00		0.2500	33.825	26.641	3794.3	22.45	135.30	75.0	220.9	462.0
110.00		0.2500	32.525	25.609	3370.4	21.53	130.10	76.1	204.1	444.5
115.00		0.2500	31.225	24.578	2979.3	20.61	124.90	77.2	187.9	426.9
117.00		0.2500	30.705	24.165	2831.8	20.25	122.82	77.6	181.6	165.9
120.00		0.2500	29.925	23.546	2619.7	19.70	119.70	78.2	172.4	243.5
125.00		0.2500	28.625	22.515	2290.3	18.78	114.50	79.3	157.6	391.8
126.00	Bot - Section 4	0.2500	28.365	22.308	2227.9	18.60	113.46	79.5	154.7	76.3
127.00		0.2500	28.105	22.102	2166.7	18.41	112.42	79.7	151.8	133.1
129.75	Top - Section 3	0.1875	27.765	16.411	1576.9	24.70	148.08	0.0	0.0	359.7
130.00		0.1875	27.700	16.373	1565.8	24.64	147.73	72.4	111.3	13.9
135.00		0.1875	26.400	15.599	1354.2	23.42	140.80	73.9	101.0	272.0
139.00		0.1875	25.360	14.980	1199.3	22.44	135.25	75.0	93.1	208.1
140.00		0.1875	25.100	14.826	1162.5	22.19	133.87	75.3	91.2	50.7
145.00		0.1875	23.800	14.052	989.9	20.97	126.93	76.7	81.9	245.7
150.00		0.1875	22.500	13.278	835.2	19.75	120.00	78.2	73.1	232.5
										24504.2

Wind Loading - Shaft

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 8	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	14.724	16.20	395.05	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	14.724	16.20	386.49	0.650	0.000	5.00	25.111	16.32	423.0	0.0	1670.2
10.00		1.00	0.70	14.724	16.20	377.93	0.650	0.000	5.00	24.561	15.96	413.7	0.0	1633.3
15.00		1.00	0.70	14.724	16.20	369.37	0.650	0.000	5.00	24.011	15.61	404.4	0.0	1596.5
20.00		1.00	0.70	14.724	16.20	360.81	0.650	0.000	5.00	23.461	15.25	395.2	0.0	1559.6
25.00		1.00	0.70	14.724	16.20	352.25	0.650	0.000	5.00	22.911	14.89	385.9	0.0	1522.8
30.00		1.00	0.70	14.736	16.21	343.84	0.650	0.000	5.00	22.361	14.53	377.0	0.0	1485.9
35.00		1.00	0.73	15.400	16.94	342.74	0.650	0.000	5.00	21.811	14.18	384.2	0.0	1449.0
40.00		1.00	0.76	15.999	17.60	340.42	0.650	0.000	5.00	21.260	13.82	389.1	0.0	1412.2
44.75	Bot - Section 2	1.00	0.79	16.520	18.17	337.31	0.650	0.000	4.75	19.688	12.80	372.1	0.0	1307.4
45.00		1.00	0.79	16.546	18.20	337.12	0.650	0.000	0.25	1.036	0.67	19.6	0.0	117.1
50.00		1.00	0.81	17.052	18.76	333.02	0.650	0.000	5.00	20.425	13.28	398.4	0.0	2309.7
51.00	Top - Section 1	1.00	0.82	17.149	18.86	332.12	0.650	0.000	1.00	4.019	2.61	78.8	0.0	454.4
55.00		1.00	0.83	17.523	19.28	332.74	0.650	0.000	4.00	15.856	10.31	317.9	0.0	753.8
60.00		1.00	0.85	17.964	19.76	327.45	0.650	0.000	5.00	19.325	12.56	397.1	0.0	918.6
65.00	Appurtenance(s)	1.00	0.87	18.380	20.22	321.65	0.650	0.000	5.00	18.775	12.20	394.8	0.0	892.3
70.00		1.00	0.89	18.773	20.65	315.41	0.650	0.000	5.00	18.225	11.85	391.4	0.0	865.9
75.00		1.00	0.91	19.147	21.06	308.77	0.650	0.000	5.00	17.675	11.49	387.1	0.0	839.6
80.00		1.00	0.93	19.503	21.45	301.78	0.650	0.000	5.00	17.125	11.13	382.1	0.0	813.3
84.75	Bot - Section 3	1.00	0.94	19.827	21.81	294.84	0.650	0.000	4.75	15.759	10.24	357.4	0.0	748.2
85.00		1.00	0.94	19.844	21.83	294.47	0.650	0.000	0.25	0.826	0.54	18.8	0.0	70.2
89.75	Top - Section 2	1.00	0.96	20.154	22.17	287.25	0.650	0.000	4.75	15.437	10.03	355.9	0.0	1310.5
90.00		1.00	0.96	20.170	22.19	290.72	0.650	0.000	0.25	0.799	0.52	18.4	0.0	30.4
95.00		1.00	0.97	20.484	22.53	282.88	0.650	0.000	5.00	15.686	10.20	367.6	0.0	596.6
100.00		1.00	0.99	20.787	22.87	274.79	0.650	0.000	5.00	15.136	9.84	359.9	0.0	575.5
105.00		1.00	1.00	21.079	23.19	266.47	0.650	0.000	5.00	14.586	9.48	351.7	0.0	554.4
110.00		1.00	1.02	21.361	23.50	257.93	0.650	0.000	5.00	14.036	9.12	343.0	0.0	533.4
115.00		1.00	1.03	21.634	23.80	249.20	0.650	0.000	5.00	13.486	8.77	333.8	0.0	512.3
117.00	Appurtenance(s)	1.00	1.03	21.741	23.91	245.66	0.650	0.000	2.00	5.240	3.41	130.3	0.0	199.0
120.00		1.00	1.04	21.898	24.09	240.28	0.650	0.000	3.00	7.696	5.00	192.8	0.0	292.2
125.00		1.00	1.05	22.155	24.37	231.19	0.650	0.000	5.00	12.386	8.05	313.9	0.0	470.2
126.00	Bot - Section 4	1.00	1.06	22.206	24.43	229.35	0.650	0.000	1.00	2.411	1.57	61.3	0.0	91.5
127.00	Appurtenance(s)	1.00	1.06	22.256	24.48	227.51	0.650	0.000	1.00	2.421	1.57	61.6	0.0	159.7
129.75	Top - Section 3	1.00	1.06	22.393	24.63	222.40	0.650	0.000	2.75	6.544	4.25	167.6	0.0	431.7
130.00		1.00	1.07	22.405	24.65	224.98	0.650	0.000	0.25	0.587	0.38	15.0	0.0	16.7
135.00		1.00	1.08	22.648	24.91	215.58	0.650	0.000	5.00	11.445	7.44	296.5	0.0	326.4
139.00	Appurtenance(s)	1.00	1.09	22.838	25.12	207.95	0.650	0.000	4.00	8.760	5.69	228.9	0.0	249.7
140.00		1.00	1.09	22.884	25.17	206.03	0.650	0.000	1.00	2.135	1.39	55.9	0.0	60.9
145.00		1.00	1.10	23.115	25.43	196.34	0.650	0.000	5.00	10.345	6.72	273.5	0.0	294.8
150.00	Appurtenance(s)	1.00	1.11	23.340	25.67	186.52	0.650	0.000	5.00	9.795	6.37	261.5	0.0	279.0
								Totals:	**150.00**			**10,877.5**		**29,405.0**

Discrete Appurtenance Forces

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 9	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	150.00	Decibel DB846G90A-XY	12	23.340	25.674	1.01	0.90	60.60	221.76	0.000	0.000	2489.38	0.00	0.00
2	150.00	Low Profile Platform	1	23.340	25.674	1.00	1.00	22.00	1800.00	0.000	0.000	903.72	0.00	0.00
3	139.00	Low Profile Platform	1	22.838	25.121	1.00	1.00	22.00	1800.00	0.000	0.000	884.27	0.00	0.00
4	139.00	Powerwave 7770	6	22.838	25.121	0.58	0.80	19.27	252.00	0.000	0.000	774.62	0.00	0.00
5	139.00	Kathrein 800 10764	1	22.838	25.121	1.00	1.00	5.88	48.96	0.000	0.000	236.34	0.00	0.00
6	139.00	KMW	2	22.838	25.121	0.81	0.90	12.99	116.40	0.000	0.000	522.22	0.00	0.00
7	139.00	Powerwave LGP 21401	6	22.838	25.121	0.54	0.80	0.00	126.00	0.000	0.000	0.00	0.00	0.00
8	139.00	Powerwave LGP 13519	6	22.838	25.121	0.54	0.80	1.09	38.16	0.000	0.000	43.95	0.00	0.00
9	139.00	Ericsson RRUS 11	6	22.838	25.121	0.54	0.80	8.10	365.04	0.000	0.000	325.75	0.00	0.00
10	139.00	Raycap DC6-48-60-18-8F	1	22.838	25.121	1.00	1.00	0.92	38.16	0.000	0.000	36.98	0.00	0.00
11	139.00	Commscope	1	22.838	25.121	1.00	1.00	0.05	1.32	0.000	0.000	2.01	0.00	0.00
12	127.00	RFS	1	22.256	24.482	1.00	1.00	4.06	38.40	0.000	0.000	159.03	0.00	0.00
13	127.00	Samsung RFV01U-D1A	3	22.256	24.482	0.54	0.80	3.02	351.00	0.000	0.000	118.41	0.00	0.00
14	127.00	Samsung RFV01U-D2A	3	22.256	24.482	0.54	0.80	3.02	295.20	0.000	0.000	118.41	0.00	0.00
15	127.00	Samsung MT6407-77A	3	22.256	24.482	0.56	0.80	7.88	285.84	0.000	0.000	308.63	0.00	0.00
16	127.00	Commscope	6	22.256	24.482	0.68	0.80	33.33	314.64	0.000	0.000	1305.69	0.00	0.00
17	127.00	Low Profile Platform	1	22.256	24.482	1.00	1.00	22.00	1800.00	0.000	0.000	861.75	0.00	0.00
18	127.00	Commscope	3	22.256	24.482	0.40	0.80	1.78	28.44	0.000	0.000	69.57	0.00	0.00
19	117.00	Ericsson Air 32	4	21.741	23.915	0.65	0.75	16.99	507.84	0.000	0.000	650.14	0.00	0.00
20	117.00	Fastback IBR1300	1	21.741	23.915	1.00	1.00	0.67	10.58	0.000	0.000	25.64	0.00	0.00
21	117.00	SitePro F4P-10W	1	21.741	23.915	1.00	1.00	58.98	2875.20	0.000	0.000	2256.77	0.00	0.00
22	117.00	F4P-HRK10	1	21.741	23.915	1.00	1.00	9.00	573.92	0.000	0.000	344.37	0.00	0.00
23	117.00	RFS	4	21.741	23.915	0.55	0.75	11.32	126.72	0.000	0.000	433.23	0.00	0.00
24	117.00	RFS	4	21.741	23.915	0.55	0.75	44.33	475.20	0.000	0.000	1696.04	0.00	0.00
25	117.00	Ericsson S11B12	4	21.741	23.915	0.50	0.75	5.69	244.80	0.000	0.000	217.65	0.00	0.00
26	117.00	Ericsson RRU 2217 B2	4	21.741	23.915	0.50	0.75	5.17	211.20	0.000	0.000	197.66	0.00	0.00
27	65.00	Motorola RRA4905A	2	18.380	20.217	1.00	1.00	0.28	2.40	0.000	0.000	9.06	0.00	0.00
							Totals:		**12,949.19**			**14,991.29**		

Total Applied Force Summary

Structure:	CT13613-A-SBA		**Code:**	EIA/TIA-222-G	8/23/2021
Site Name:	Johnson		**Exposure:**	B	
Height:	150.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 10

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		422.97	1926.61	0.00	0.00
10.00		413.71	1889.76	0.00	0.00
15.00		404.44	1852.90	0.00	0.00
20.00		395.18	1816.05	0.00	0.00
25.00		385.91	1779.19	0.00	0.00
30.00		376.97	1742.34	0.00	0.00
35.00		384.25	1705.48	0.00	0.00
40.00		389.13	1668.63	0.00	0.00
44.75		372.09	1551.06	0.00	0.00
45.00		19.60	129.97	0.00	0.00
50.00		398.44	2566.16	0.00	0.00
51.00		78.85	505.65	0.00	0.00
55.00		317.85	958.98	0.00	0.00
60.00		397.14	1175.03	0.00	0.00
65.00	(2) attachments	403.82	1151.11	0.00	0.00
70.00		391.40	1120.46	0.00	0.00
75.00		387.14	1094.14	0.00	0.00
80.00		382.08	1067.81	0.00	0.00
84.75		357.45	990.04	0.00	0.00
85.00		18.76	82.88	0.00	0.00
89.75		355.94	1552.28	0.00	0.00
90.00		18.43	43.11	0.00	0.00
95.00		367.59	851.09	0.00	0.00
100.00		359.94	830.03	0.00	0.00
105.00		351.73	808.97	0.00	0.00
110.00		343.00	787.91	0.00	0.00
115.00		333.77	766.85	0.00	0.00
117.00	(23) attachments	5951.83	5326.31	0.00	0.00
120.00		192.79	429.25	0.00	0.00
125.00		313.93	698.57	0.00	0.00
126.00		61.25	137.19	0.00	0.00
127.00	(20) attachments	3003.14	3318.93	0.00	0.00
129.75		167.64	515.90	0.00	0.00
130.00		15.04	24.39	0.00	0.00
135.00		296.52	479.50	0.00	0.00
139.00	(30) attachments	3054.99	3158.27	0.00	0.00
140.00		55.89	75.83	0.00	0.00
145.00		273.55	369.67	0.00	0.00
150.00	(13) attachments	3654.63	2375.64	0.00	0.00
	Totals:	**25,868.77**	**49,323.90**	**0.00**	**0.00**

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 11	

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.011	0.000	14.724	0.00	1.92
10.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.011	0.000	14.724	0.00	1.92
15.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.011	0.000	14.724	0.00	1.92
20.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	14.724	0.00	1.92
25.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	14.724	0.00	1.92
30.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	14.736	0.00	1.92
35.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	15.400	0.00	1.92
40.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	15.999	0.00	1.92
44.75	1/2" Coax	Yes	4.75	0.000	0.65	0.26	0.00	0.013	0.000	16.520	0.00	1.82
45.00	1/2" Coax	Yes	0.25	0.000	0.65	0.01	0.00	0.013	0.000	16.546	0.00	0.10
50.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	17.052	0.00	1.92
51.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.014	0.000	17.149	0.00	0.38
55.00	1/2" Coax	Yes	4.00	0.000	0.65	0.22	0.00	0.014	0.000	17.523	0.00	1.54
60.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	17.964	0.00	1.92
65.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	18.380	0.00	1.92
									Totals:		**0.0**	**25.0**

Calculated Forces

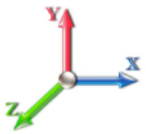
Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 12	

Tower Engineering Solutions

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60



Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-49.30	-25.91	0.00	-2836.8	0.00	2836.82	5554.25	2777.13	13600.6	6810.41	0.00	0.000	0.000	0.426
5.00	-47.33	-25.58	0.00	-2707.2	0.00	2707.25	5477.89	2738.95	13118.7	6569.12	0.06	-0.106	0.000	0.421
10.00	-45.39	-25.25	0.00	-2579.3	0.00	2579.36	5399.54	2699.77	12640.4	6329.59	0.23	-0.215	0.000	0.416
15.00	-43.49	-24.92	0.00	-2453.1	0.00	2453.13	5319.17	2659.59	12165.9	6092.00	0.51	-0.325	0.000	0.411
20.00	-41.63	-24.59	0.00	-2328.5	0.00	2328.54	5236.81	2618.40	11695.6	5856.50	0.91	-0.438	0.000	0.406
25.00	-39.80	-24.27	0.00	-2205.5	0.00	2205.58	5152.44	2576.22	11229.8	5623.26	1.43	-0.552	0.000	0.400
30.00	-38.02	-23.95	0.00	-2084.2	0.00	2084.22	5066.07	2533.04	10768.8	5392.43	2.07	-0.668	0.000	0.394
35.00	-36.27	-23.62	0.00	-1964.4	0.00	1964.45	4977.70	2488.85	10313.0	5164.19	2.84	-0.787	0.000	0.388
40.00	-34.56	-23.28	0.00	-1846.3	0.00	1846.34	4887.33	2443.67	9862.71	4938.68	3.73	-0.907	0.000	0.381
44.75	-32.99	-22.92	0.00	-1735.7	0.00	1735.75	4799.62	2399.81	9440.25	4727.14	4.69	-1.023	0.000	0.374
45.00	-32.83	-22.93	0.00	-1730.0	0.00	1730.02	4794.96	2397.48	9418.17	4716.08	4.74	-1.029	0.000	0.374
50.00	-30.24	-22.53	0.00	-1615.3	0.00	1615.35	4700.58	2350.29	8979.75	4496.55	5.89	-1.153	0.000	0.366
51.00	-29.71	-22.47	0.00	-1592.8	0.00	1592.83	3008.41	1504.20	5823.48	2916.07	6.13	-1.179	0.000	0.556
55.00	-28.71	-22.20	0.00	-1502.9	0.00	1502.95	2970.26	1485.13	5621.72	2815.04	7.16	-1.280	0.000	0.544
60.00	-27.48	-21.86	0.00	-1391.9	0.00	1391.96	2920.78	1460.39	5370.82	2689.40	8.59	-1.449	0.000	0.527
65.00	-26.28	-21.50	0.00	-1282.6	0.00	1282.68	2869.29	1434.64	5121.68	2564.65	10.20	-1.619	0.000	0.510
70.00	-25.11	-21.15	0.00	-1175.1	0.00	1175.18	2815.80	1407.90	4874.61	2440.93	11.99	-1.789	0.000	0.491
75.00	-23.96	-20.80	0.00	-1069.4	0.00	1069.44	2760.31	1380.15	4629.95	2318.41	13.96	-1.960	0.000	0.470
80.00	-22.85	-20.44	0.00	-965.45	0.00	965.45	2702.81	1351.41	4388.01	2197.26	16.10	-2.130	0.000	0.448
84.75	-21.85	-20.08	0.00	-868.34	0.00	868.34	2646.34	1323.17	4160.98	2083.58	18.30	-2.290	0.000	0.425
85.00	-21.73	-20.09	0.00	-863.32	0.00	863.32	2643.31	1321.66	4149.11	2077.64	18.42	-2.299	0.000	0.424
89.75	-20.17	-19.70	0.00	-767.89	0.00	767.89	1922.43	961.22	2968.94	1486.68	20.79	-2.456	0.000	0.527
90.00	-20.09	-19.72	0.00	-762.97	0.00	762.97	1920.55	960.27	2960.86	1482.63	20.92	-2.465	0.000	0.525
95.00	-19.19	-19.37	0.00	-664.39	0.00	664.39	1881.78	940.89	2799.79	1401.97	23.61	-2.657	0.000	0.485
100.00	-18.32	-19.03	0.00	-567.53	0.00	567.53	1841.02	920.51	2640.02	1321.97	26.49	-2.842	0.000	0.440
105.00	-17.48	-18.69	0.00	-472.37	0.00	472.37	1798.25	899.12	2481.89	1242.79	29.56	-3.016	0.000	0.390
110.00	-16.66	-18.35	0.00	-378.92	0.00	378.92	1753.48	876.74	2325.70	1164.58	32.81	-3.175	0.000	0.335
115.00	-15.89	-18.00	0.00	-287.18	0.00	287.18	1706.70	853.35	2171.78	1087.50	36.21	-3.316	0.000	0.274
117.00	-10.90	-11.76	0.00	-251.18	0.00	251.18	1687.43	843.72	2110.92	1057.03	37.61	-3.367	0.000	0.244
120.00	-10.47	-11.56	0.00	-215.91	0.00	215.91	1657.93	828.96	2020.46	1011.73	39.75	-3.438	0.000	0.220
125.00	-9.78	-11.21	0.00	-158.14	0.00	158.14	1607.15	803.57	1872.06	937.42	43.40	-3.539	0.000	0.175
126.00	-9.64	-11.14	0.00	-146.93	0.00	146.93	1596.75	798.38	1842.76	922.75	44.15	-3.558	0.000	0.165
127.00	-6.51	-7.94	0.00	-135.79	0.00	135.79	1586.28	793.14	1813.59	908.14	44.89	-3.576	0.000	0.154
129.75	-6.01	-7.75	0.00	-113.95	0.00	113.95	1068.62	534.31	1212.20	607.00	46.97	-3.621	0.000	0.194
130.00	-5.98	-7.73	0.00	-112.01	0.00	112.01	1067.16	533.58	1207.67	604.73	47.16	-3.625	0.000	0.191
135.00	-5.51	-7.41	0.00	-73.34	0.00	73.34	1036.93	518.46	1117.63	559.65	51.00	-3.710	0.000	0.137
139.00	-2.55	-4.16	0.00	-43.69	0.00	43.69	1011.29	505.65	1046.45	524.00	54.13	-3.759	0.000	0.086
140.00	-2.48	-4.10	0.00	-39.53	0.00	39.53	1004.68	502.34	1028.80	515.16	54.92	-3.769	0.000	0.079
145.00	-2.13	-3.80	0.00	-19.02	0.00	19.02	970.44	485.22	941.49	471.44	58.88	-3.804	0.000	0.043
150.00	0.00	-3.65	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65	62.87	-3.818	0.000	0.000

Wind Loading - Shaft

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 13	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	14.724	16.20	395.05	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	14.724	16.20	386.49	0.650	0.000	5.00	25.111	16.32	423.0	0.0	1252.6
10.00		1.00	0.70	14.724	16.20	377.93	0.650	0.000	5.00	24.561	15.96	413.7	0.0	1225.0
15.00		1.00	0.70	14.724	16.20	369.37	0.650	0.000	5.00	24.011	15.61	404.4	0.0	1197.3
20.00		1.00	0.70	14.724	16.20	360.81	0.650	0.000	5.00	23.461	15.25	395.2	0.0	1169.7
25.00		1.00	0.70	14.724	16.20	352.25	0.650	0.000	5.00	22.911	14.89	385.9	0.0	1142.1
30.00		1.00	0.70	14.736	16.21	343.84	0.650	0.000	5.00	22.361	14.53	377.0	0.0	1114.4
35.00		1.00	0.73	15.400	16.94	342.74	0.650	0.000	5.00	21.811	14.18	384.2	0.0	1086.8
40.00		1.00	0.76	15.999	17.60	340.42	0.650	0.000	5.00	21.260	13.82	389.1	0.0	1059.1
44.75	Bot - Section 2	1.00	0.79	16.520	18.17	337.31	0.650	0.000	4.75	19.688	12.80	372.1	0.0	980.6
45.00		1.00	0.79	16.546	18.20	337.12	0.650	0.000	0.25	1.036	0.67	19.6	0.0	87.9
50.00		1.00	0.81	17.052	18.76	333.02	0.650	0.000	5.00	20.425	13.28	398.4	0.0	1732.3
51.00	Top - Section 1	1.00	0.82	17.149	18.86	332.12	0.650	0.000	1.00	4.019	2.61	78.8	0.0	340.8
55.00		1.00	0.83	17.523	19.28	332.74	0.650	0.000	4.00	15.856	10.31	317.9	0.0	565.4
60.00		1.00	0.85	17.964	19.76	327.45	0.650	0.000	5.00	19.325	12.56	397.1	0.0	688.9
65.00	Appurtenance(s)	1.00	0.87	18.380	20.22	321.65	0.650	0.000	5.00	18.775	12.20	394.8	0.0	669.2
70.00		1.00	0.89	18.773	20.65	315.41	0.650	0.000	5.00	18.225	11.85	391.4	0.0	649.5
75.00		1.00	0.91	19.147	21.06	308.77	0.650	0.000	5.00	17.675	11.49	387.1	0.0	629.7
80.00		1.00	0.93	19.503	21.45	301.78	0.650	0.000	5.00	17.125	11.13	382.1	0.0	610.0
84.75	Bot - Section 3	1.00	0.94	19.827	21.81	294.84	0.650	0.000	4.75	15.759	10.24	357.4	0.0	561.2
85.00		1.00	0.94	19.844	21.83	294.47	0.650	0.000	0.25	0.826	0.54	18.8	0.0	52.6
89.75	Top - Section 2	1.00	0.96	20.154	22.17	287.25	0.650	0.000	4.75	15.437	10.03	355.9	0.0	982.9
90.00		1.00	0.96	20.170	22.19	290.72	0.650	0.000	0.25	0.799	0.52	18.4	0.0	22.8
95.00		1.00	0.97	20.484	22.53	282.88	0.650	0.000	5.00	15.686	10.20	367.6	0.0	447.4
100.00		1.00	0.99	20.787	22.87	274.79	0.650	0.000	5.00	15.136	9.84	359.9	0.0	431.6
105.00		1.00	1.00	21.079	23.19	266.47	0.650	0.000	5.00	14.586	9.48	351.7	0.0	415.8
110.00		1.00	1.02	21.361	23.50	257.93	0.650	0.000	5.00	14.036	9.12	343.0	0.0	400.0
115.00		1.00	1.03	21.634	23.80	249.20	0.650	0.000	5.00	13.486	8.77	333.8	0.0	384.2
117.00	Appurtenance(s)	1.00	1.03	21.741	23.91	245.66	0.650	0.000	2.00	5.240	3.41	130.3	0.0	149.3
120.00		1.00	1.04	21.898	24.09	240.28	0.650	0.000	3.00	7.696	5.00	192.8	0.0	219.2
125.00		1.00	1.05	22.155	24.37	231.19	0.650	0.000	5.00	12.386	8.05	313.9	0.0	352.7
126.00	Bot - Section 4	1.00	1.06	22.206	24.43	229.35	0.650	0.000	1.00	2.411	1.57	61.3	0.0	68.6
127.00	Appurtenance(s)	1.00	1.06	22.256	24.48	227.51	0.650	0.000	1.00	2.421	1.57	61.6	0.0	119.8
129.75	Top - Section 3	1.00	1.06	22.393	24.63	222.40	0.650	0.000	2.75	6.544	4.25	167.6	0.0	323.8
130.00		1.00	1.07	22.405	24.65	224.98	0.650	0.000	0.25	0.587	0.38	15.0	0.0	12.6
135.00		1.00	1.08	22.648	24.91	215.58	0.650	0.000	5.00	11.445	7.44	296.5	0.0	244.8
139.00	Appurtenance(s)	1.00	1.09	22.838	25.12	207.95	0.650	0.000	4.00	8.760	5.69	228.9	0.0	187.3
140.00		1.00	1.09	22.884	25.17	206.03	0.650	0.000	1.00	2.135	1.39	55.9	0.0	45.6
145.00		1.00	1.10	23.115	25.43	196.34	0.650	0.000	5.00	10.345	6.72	273.5	0.0	221.1
150.00	Appurtenance(s)	1.00	1.11	23.340	25.67	186.52	0.650	0.000	5.00	9.795	6.37	261.5	0.0	209.2
								Totals:	**150.00**			**10,877.5**		**22,053.8**

Discrete Appurtenance Forces

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 14	

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	150.00	Decibel DB846G90A-XY	12	23.340	25.674	1.01	0.90	60.60	166.32	0.000	0.000	2489.38	0.00	0.00
2	150.00	Low Profile Platform	1	23.340	25.674	1.00	1.00	22.00	1350.00	0.000	0.000	903.72	0.00	0.00
3	139.00	Low Profile Platform	1	22.838	25.121	1.00	1.00	22.00	1350.00	0.000	0.000	884.27	0.00	0.00
4	139.00	Powerwave 7770	6	22.838	25.121	0.58	0.80	19.27	189.00	0.000	0.000	774.62	0.00	0.00
5	139.00	Kathrein 800 10764	1	22.838	25.121	1.00	1.00	5.88	36.72	0.000	0.000	236.34	0.00	0.00
6	139.00	KMW	2	22.838	25.121	0.81	0.90	12.99	87.30	0.000	0.000	522.22	0.00	0.00
7	139.00	Powerwave LGP 21401	6	22.838	25.121	0.54	0.80	0.00	94.50	0.000	0.000	0.00	0.00	0.00
8	139.00	Powerwave LGP 13519	6	22.838	25.121	0.54	0.80	1.09	28.62	0.000	0.000	43.95	0.00	0.00
9	139.00	Ericsson RRUS 11	6	22.838	25.121	0.54	0.80	8.10	273.78	0.000	0.000	325.75	0.00	0.00
10	139.00	Raycap DC6-48-60-18-8F	1	22.838	25.121	1.00	1.00	0.92	28.62	0.000	0.000	36.98	0.00	0.00
11	139.00	Commscope	1	22.838	25.121	1.00	1.00	0.05	0.99	0.000	0.000	2.01	0.00	0.00
12	127.00	RFS	1	22.256	24.482	1.00	1.00	4.06	28.80	0.000	0.000	159.03	0.00	0.00
13	127.00	Samsung RFV01U-D1A	3	22.256	24.482	0.54	0.80	3.02	263.25	0.000	0.000	118.41	0.00	0.00
14	127.00	Samsung RFV01U-D2A	3	22.256	24.482	0.54	0.80	3.02	221.40	0.000	0.000	118.41	0.00	0.00
15	127.00	Samsung MT6407-77A	3	22.256	24.482	0.56	0.80	7.88	214.38	0.000	0.000	308.63	0.00	0.00
16	127.00	Commscope	6	22.256	24.482	0.68	0.80	33.33	235.98	0.000	0.000	1305.69	0.00	0.00
17	127.00	Low Profile Platform	1	22.256	24.482	1.00	1.00	22.00	1350.00	0.000	0.000	861.75	0.00	0.00
18	127.00	Commscope	3	22.256	24.482	0.40	0.80	1.78	21.33	0.000	0.000	69.57	0.00	0.00
19	117.00	Ericsson Air 32	4	21.741	23.915	0.65	0.75	16.99	380.88	0.000	0.000	650.14	0.00	0.00
20	117.00	Fastback IBR1300	1	21.741	23.915	1.00	1.00	0.67	7.94	0.000	0.000	25.64	0.00	0.00
21	117.00	SitePro F4P-10W	1	21.741	23.915	1.00	1.00	58.98	2156.40	0.000	0.000	2256.77	0.00	0.00
22	117.00	F4P-HRK10	1	21.741	23.915	1.00	1.00	9.00	430.44	0.000	0.000	344.37	0.00	0.00
23	117.00	RFS	4	21.741	23.915	0.55	0.75	11.32	95.04	0.000	0.000	433.23	0.00	0.00
24	117.00	RFS	4	21.741	23.915	0.55	0.75	44.33	356.40	0.000	0.000	1696.04	0.00	0.00
25	117.00	Ericsson S11B12	4	21.741	23.915	0.50	0.75	5.69	183.60	0.000	0.000	217.65	0.00	0.00
26	117.00	Ericsson RRU 2217 B2	4	21.741	23.915	0.50	0.75	5.17	158.40	0.000	0.000	197.66	0.00	0.00
27	65.00	Motorola RRA4905A	2	18.380	20.217	1.00	1.00	0.28	1.80	0.000	0.000	9.06	0.00	0.00
							Totals:		**9,711.89**			**14,991.29**		

Total Applied Force Summary

Structure:	CT13613-A-SBA		**Code:**	EIA/TIA-222-G	8/23/2021
Site Name:	Johnson		**Exposure:**	B	
Height:	150.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 15

Tower Engineering Solutions

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		422.97	1444.96	0.00	0.00
10.00		413.71	1417.32	0.00	0.00
15.00		404.44	1389.68	0.00	0.00
20.00		395.18	1362.04	0.00	0.00
25.00		385.91	1334.39	0.00	0.00
30.00		376.97	1306.75	0.00	0.00
35.00		384.25	1279.11	0.00	0.00
40.00		389.13	1251.47	0.00	0.00
44.75		372.09	1163.29	0.00	0.00
45.00		19.60	97.47	0.00	0.00
50.00		398.44	1924.62	0.00	0.00
51.00		78.85	379.24	0.00	0.00
55.00		317.85	719.24	0.00	0.00
60.00		397.14	881.27	0.00	0.00
65.00	(2) attachments	403.82	863.33	0.00	0.00
70.00		391.40	840.35	0.00	0.00
75.00		387.14	820.60	0.00	0.00
80.00		382.08	800.86	0.00	0.00
84.75		357.45	742.53	0.00	0.00
85.00		18.76	62.16	0.00	0.00
89.75		355.94	1164.21	0.00	0.00
90.00		18.43	32.33	0.00	0.00
95.00		367.59	638.31	0.00	0.00
100.00		359.94	622.52	0.00	0.00
105.00		351.73	606.72	0.00	0.00
110.00		343.00	590.93	0.00	0.00
115.00		333.77	575.13	0.00	0.00
117.00	(23) attachments	5951.83	3994.73	0.00	0.00
120.00		192.79	321.94	0.00	0.00
125.00		313.93	523.92	0.00	0.00
126.00		61.25	102.89	0.00	0.00
127.00	(20) attachments	3003.14	2489.20	0.00	0.00
129.75		167.64	386.92	0.00	0.00
130.00		15.04	18.29	0.00	0.00
135.00		296.52	359.63	0.00	0.00
139.00	(30) attachments	3054.99	2368.70	0.00	0.00
140.00		55.89	56.87	0.00	0.00
145.00		273.55	277.25	0.00	0.00
150.00	(13) attachments	3654.63	1781.73	0.00	0.00
	Totals:	**25,868.77**	**36,992.93**	**0.00**	**0.00**

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 16	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.011	0.000	14.724	0.00	1.44
10.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.011	0.000	14.724	0.00	1.44
15.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.011	0.000	14.724	0.00	1.44
20.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	14.724	0.00	1.44
25.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	14.724	0.00	1.44
30.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	14.736	0.00	1.44
35.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	15.400	0.00	1.44
40.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	15.999	0.00	1.44
44.75	1/2" Coax	Yes	4.75	0.000	0.65	0.26	0.00	0.013	0.000	16.520	0.00	1.37
45.00	1/2" Coax	Yes	0.25	0.000	0.65	0.01	0.00	0.013	0.000	16.546	0.00	0.07
50.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	17.052	0.00	1.44
51.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.014	0.000	17.149	0.00	0.29
55.00	1/2" Coax	Yes	4.00	0.000	0.65	0.22	0.00	0.014	0.000	17.523	0.00	1.15
60.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	17.964	0.00	1.44
65.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	18.380	0.00	1.44
									Totals:		**0.0**	**18.7**

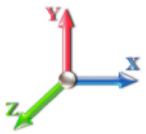
Calculated Forces

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 17	

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-36.97	-25.90	0.00	-2813.3	0.00	2813.37	5554.25	2777.13	13600.6	6810.41	0.00	0.000	0.000	0.420
5.00	-35.48	-25.54	0.00	-2683.8	0.00	2683.86	5477.89	2738.95	13118.7	6569.12	0.06	-0.105	0.000	0.415
10.00	-34.01	-25.19	0.00	-2556.1	0.00	2556.14	5399.54	2699.77	12640.4	6329.59	0.23	-0.213	0.000	0.410
15.00	-32.58	-24.84	0.00	-2430.1	0.00	2430.19	5319.17	2659.59	12165.9	6092.00	0.51	-0.322	0.000	0.405
20.00	-31.17	-24.50	0.00	-2305.9	0.00	2305.97	5236.81	2618.40	11695.6	5856.50	0.91	-0.434	0.000	0.400
25.00	-29.79	-24.16	0.00	-2183.4	0.00	2183.48	5152.44	2576.22	11229.8	5623.26	1.42	-0.547	0.000	0.394
30.00	-28.44	-23.83	0.00	-2062.6	0.00	2062.67	5066.07	2533.04	10768.8	5392.43	2.06	-0.662	0.000	0.388
35.00	-27.12	-23.48	0.00	-1943.5	0.00	1943.52	4977.70	2488.85	10313.0	5164.19	2.81	-0.779	0.000	0.382
40.00	-25.82	-23.13	0.00	-1826.1	0.00	1826.10	4887.33	2443.67	9862.71	4938.68	3.69	-0.898	0.000	0.375
44.75	-24.64	-22.76	0.00	-1716.2	0.00	1716.24	4799.62	2399.81	9440.25	4727.14	4.64	-1.013	0.000	0.368
45.00	-24.52	-22.77	0.00	-1710.5	0.00	1710.55	4794.96	2397.48	9418.17	4716.08	4.70	-1.019	0.000	0.368
50.00	-22.58	-22.36	0.00	-1596.7	0.00	1596.70	4700.58	2350.29	8979.75	4496.55	5.83	-1.142	0.000	0.360
51.00	-22.17	-22.30	0.00	-1574.3	0.00	1574.33	3008.41	1504.20	5823.48	2916.07	6.07	-1.167	0.000	0.547
55.00	-21.41	-22.02	0.00	-1485.1	0.00	1485.12	2970.26	1485.13	5621.72	2815.04	7.09	-1.267	0.000	0.535
60.00	-20.47	-21.66	0.00	-1375.0	0.00	1375.02	2920.78	1460.39	5370.82	2689.40	8.51	-1.434	0.000	0.519
65.00	-19.56	-21.29	0.00	-1266.7	0.00	1266.71	2869.29	1434.64	5121.68	2564.65	10.10	-1.601	0.000	0.501
70.00	-18.67	-20.93	0.00	-1160.2	0.00	1160.25	2815.80	1407.90	4874.61	2440.93	11.87	-1.770	0.000	0.482
75.00	-17.80	-20.57	0.00	-1055.5	0.00	1055.59	2760.31	1380.15	4629.95	2318.41	13.82	-1.938	0.000	0.462
80.00	-16.96	-20.21	0.00	-952.74	0.00	952.74	2702.81	1351.41	4388.01	2197.26	15.94	-2.106	0.000	0.440
84.75	-16.20	-19.85	0.00	-856.75	0.00	856.75	2646.34	1323.17	4160.98	2083.58	18.11	-2.264	0.000	0.418
85.00	-16.11	-19.85	0.00	-851.79	0.00	851.79	2643.31	1321.66	4149.11	2077.64	18.23	-2.273	0.000	0.416
89.75	-14.93	-19.47	0.00	-757.51	0.00	757.51	1922.43	961.22	2968.94	1486.68	20.57	-2.428	0.000	0.518
90.00	-14.87	-19.47	0.00	-752.64	0.00	752.64	1920.55	960.27	2960.86	1482.63	20.70	-2.437	0.000	0.516
95.00	-14.19	-19.12	0.00	-655.27	0.00	655.27	1881.78	940.89	2799.79	1401.97	23.36	-2.626	0.000	0.475
100.00	-13.52	-18.78	0.00	-559.66	0.00	559.66	1841.02	920.51	2640.02	1321.97	26.21	-2.809	0.000	0.431
105.00	-12.88	-18.43	0.00	-465.77	0.00	465.77	1798.25	899.12	2481.89	1242.79	29.24	-2.980	0.000	0.382
110.00	-12.26	-18.09	0.00	-373.61	0.00	373.61	1753.48	876.74	2325.70	1164.58	32.45	-3.137	0.000	0.328
115.00	-11.68	-17.74	0.00	-283.17	0.00	283.17	1706.70	853.35	2171.78	1087.50	35.81	-3.276	0.000	0.268
117.00	-8.02	-11.58	0.00	-247.68	0.00	247.68	1687.43	843.72	2110.92	1057.03	37.19	-3.327	0.000	0.239
120.00	-7.69	-11.38	0.00	-212.94	0.00	212.94	1657.93	828.96	2020.46	1011.73	39.31	-3.396	0.000	0.215
125.00	-7.18	-11.04	0.00	-156.05	0.00	156.05	1607.15	803.57	1872.06	937.42	42.92	-3.496	0.000	0.171
126.00	-7.08	-10.98	0.00	-145.00	0.00	145.00	1596.75	798.38	1842.76	922.75	43.65	-3.515	0.000	0.162
127.00	-4.77	-7.83	0.00	-134.03	0.00	134.03	1586.28	793.14	1813.59	908.14	44.39	-3.533	0.000	0.151
129.75	-4.39	-7.64	0.00	-112.50	0.00	112.50	1068.62	534.31	1212.20	607.00	46.44	-3.577	0.000	0.190
130.00	-4.37	-7.63	0.00	-110.59	0.00	110.59	1067.16	533.58	1207.67	604.73	46.62	-3.581	0.000	0.187
135.00	-4.02	-7.31	0.00	-72.45	0.00	72.45	1036.93	518.46	1117.63	559.65	50.42	-3.664	0.000	0.134
139.00	-1.85	-4.11	0.00	-43.20	0.00	43.20	1011.29	505.65	1046.45	524.00	53.51	-3.713	0.000	0.084
140.00	-1.80	-4.05	0.00	-39.09	0.00	39.09	1004.68	502.34	1028.80	515.16	54.29	-3.723	0.000	0.078
145.00	-1.54	-3.76	0.00	-18.82	0.00	18.82	970.44	485.22	941.49	471.44	58.21	-3.758	0.000	0.042
150.00	0.00	-3.65	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65	62.15	-3.772	0.000	0.000

Wind Loading - Shaft

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 18	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 22

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	2.724	3.00	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	2.724	3.00	0.00	1.200	1.656	5.00	26.491	31.79	95.2	626.1	2296.3
10.00		1.00	0.70	2.724	3.00	0.00	1.200	1.775	5.00	26.040	31.25	93.6	657.9	2291.2
15.00		1.00	0.70	2.724	3.00	0.00	1.200	1.848	5.00	25.551	30.66	91.9	670.9	2267.4
20.00		1.00	0.70	2.724	3.00	0.00	1.200	1.902	5.00	25.046	30.06	90.1	675.6	2235.2
25.00		1.00	0.70	2.724	3.00	0.00	1.200	1.945	5.00	24.532	29.44	88.2	675.5	2198.3
30.00		1.00	0.70	2.726	3.00	0.00	1.200	1.981	5.00	24.011	28.81	86.4	672.3	2158.2
35.00		1.00	0.73	2.849	3.13	0.00	1.200	2.012	5.00	23.487	28.18	88.3	666.7	2115.7
40.00		1.00	0.76	2.960	3.26	0.00	1.200	2.039	5.00	22.960	27.55	89.7	659.4	2071.6
44.75	Bot - Section 2	1.00	0.79	3.056	3.36	0.00	1.200	2.062	4.75	21.320	25.58	86.0	618.6	1926.0
45.00		1.00	0.79	3.061	3.37	0.00	1.200	2.063	0.25	1.122	1.35	4.5	32.9	150.1
50.00		1.00	0.81	3.155	3.47	0.00	1.200	2.085	5.00	22.162	26.59	92.3	649.0	2958.8
51.00	Top - Section 1	1.00	0.82	3.172	3.49	0.00	1.200	2.089	1.00	4.367	5.24	18.3	129.4	583.8
55.00		1.00	0.83	3.242	3.57	0.00	1.200	2.105	4.00	17.259	20.71	73.9	510.7	1264.5
60.00		1.00	0.85	3.323	3.66	0.00	1.200	2.123	5.00	21.094	25.31	92.5	626.9	1545.5
65.00	Appurtenance(s)	1.00	0.87	3.400	3.74	0.00	1.200	2.140	5.00	20.558	24.67	92.3	614.7	1507.0
70.00		1.00	0.89	3.473	3.82	0.00	1.200	2.156	5.00	20.022	24.03	91.8	601.9	1467.9
75.00		1.00	0.91	3.542	3.90	0.00	1.200	2.171	5.00	19.484	23.38	91.1	588.6	1428.2
80.00		1.00	0.93	3.608	3.97	0.00	1.200	2.185	5.00	18.946	22.73	90.2	574.8	1388.1
84.75	Bot - Section 3	1.00	0.94	3.668	4.03	0.00	1.200	2.198	4.75	17.499	21.00	84.7	533.2	1281.5
85.00		1.00	0.94	3.671	4.04	0.00	1.200	2.198	0.25	0.918	1.10	4.4	28.4	98.5
89.75	Top - Section 2	1.00	0.96	3.728	4.10	0.00	1.200	2.210	4.75	17.187	20.62	84.6	525.9	1836.4
90.00		1.00	0.96	3.731	4.10	0.00	1.200	2.211	0.25	0.891	1.07	4.4	27.6	58.0
95.00		1.00	0.97	3.789	4.17	0.00	1.200	2.223	5.00	17.539	21.05	87.7	537.9	1134.5
100.00		1.00	0.99	3.845	4.23	0.00	1.200	2.234	5.00	16.998	20.40	86.3	522.7	1098.2
105.00		1.00	1.00	3.899	4.29	0.00	1.200	2.245	5.00	16.457	19.75	84.7	507.1	1061.5
110.00		1.00	1.02	3.952	4.35	0.00	1.200	2.256	5.00	15.916	19.10	83.0	491.2	1024.6
115.00		1.00	1.03	4.002	4.40	0.00	1.200	2.266	5.00	15.374	18.45	81.2	475.1	987.4
117.00	Appurtenance(s)	1.00	1.03	4.022	4.42	0.00	1.200	2.270	2.00	5.997	7.20	31.8	187.4	386.5
120.00		1.00	1.04	4.051	4.46	0.00	1.200	2.276	3.00	8.833	10.60	47.2	275.2	567.5
125.00		1.00	1.05	4.099	4.51	0.00	1.200	2.285	5.00	14.290	17.15	77.3	442.1	912.3
126.00	Bot - Section 4	1.00	1.06	4.108	4.52	0.00	1.200	2.287	1.00	2.792	3.35	15.1	87.7	179.3
127.00	Appurtenance(s)	1.00	1.06	4.117	4.53	0.00	1.200	2.289	1.00	2.802	3.36	15.2	88.2	247.9
129.75	Top - Section 3	1.00	1.06	4.142	4.56	0.00	1.200	2.293	2.75	7.595	9.11	41.5	237.3	669.0
130.00		1.00	1.07	4.145	4.56	0.00	1.200	2.294	0.25	0.682	0.82	3.7	21.5	38.3
135.00		1.00	1.08	4.190	4.61	0.00	1.200	2.303	5.00	13.364	16.04	73.9	413.7	740.0
139.00	Appurtenance(s)	1.00	1.09	4.225	4.65	0.00	1.200	2.309	4.00	10.299	12.36	57.4	319.9	569.7
140.00		1.00	1.09	4.233	4.66	0.00	1.200	2.311	1.00	2.520	3.02	14.1	79.3	140.1
145.00		1.00	1.10	4.276	4.70	0.00	1.200	2.319	5.00	12.277	14.73	69.3	379.1	673.9
150.00	Appurtenance(s)	1.00	1.11	4.318	4.75	0.00	1.200	2.327	5.00	11.734	14.08	66.9	361.5	640.5
								Totals:	**150.00**			**2,571.0**		**46,199.2**

Discrete Appurtenance Forces

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 19	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 22

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	150.00	Decibel DB846G90A-XY	12	4.318	4.749	1.01	0.90	80.73	2973.14	0.000	0.000	383.41	0.00	0.00
2	150.00	Low Profile Platform	1	4.318	4.749	1.00	1.00	45.55	3245.22	0.000	0.000	216.33	0.00	0.00
3	139.00	Low Profile Platform	1	4.225	4.647	1.00	1.00	45.37	3231.97	0.000	0.000	210.85	0.00	0.00
4	139.00	Powerwave 7770	6	4.225	4.647	0.58	0.80	24.27	1578.75	0.000	0.000	112.81	0.00	0.00
5	139.00	Kathrein 800 10764	1	4.225	4.647	1.00	1.00	8.72	181.19	0.000	0.000	40.50	0.00	0.00
6	139.00	KMW	2	4.225	4.647	0.81	0.90	18.98	452.86	0.000	0.000	88.21	0.00	0.00
7	139.00	Powerwave LGP 21401	6	4.225	4.647	0.54	0.80	0.00	424.98	0.000	0.000	0.00	0.00	0.00
8	139.00	Powerwave LGP 13519	6	4.225	4.647	0.54	0.80	3.03	97.36	0.000	0.000	14.06	0.00	0.00
9	139.00	Ericsson RRUS 11	6	4.225	4.647	0.54	0.80	11.85	835.23	0.000	0.000	55.06	0.00	0.00
10	139.00	Raycap DC6-48-60-18-8F	1	4.225	4.647	1.00	1.00	1.50	102.27	0.000	0.000	6.97	0.00	0.00
11	139.00	Commscope	1	4.225	4.647	1.00	1.00	0.30	3.57	0.000	0.000	1.42	0.00	0.00
12	127.00	RFS	1	4.117	4.529	1.00	1.00	5.14	159.20	0.000	0.000	23.27	0.00	0.00
13	127.00	Samsung RFV01U-D1A	3	4.117	4.529	0.54	0.80	4.19	517.65	0.000	0.000	18.95	0.00	0.00
14	127.00	Samsung RFV01U-D2A	3	4.117	4.529	0.54	0.80	4.19	518.67	0.000	0.000	18.95	0.00	0.00
15	127.00	Samsung MT6407-77A	3	4.117	4.529	0.56	0.80	10.00	787.43	0.000	0.000	45.27	0.00	0.00
16	127.00	Commscope	6	4.117	4.529	0.68	0.80	40.58	2015.56	0.000	0.000	183.79	0.00	0.00
17	127.00	Low Profile Platform	1	4.117	4.529	1.00	1.00	45.16	3216.41	0.000	0.000	204.53	0.00	0.00
18	127.00	Commscope	3	4.117	4.529	0.40	0.80	3.17	157.30	0.000	0.000	14.35	0.00	0.00
19	117.00	Ericsson Air 32	4	4.022	4.424	0.65	0.75	20.86	1283.68	0.000	0.000	92.30	0.00	0.00
20	117.00	Fastback IBR1300	1	4.022	4.424	1.00	1.00	1.12	29.45	0.000	0.000	4.96	0.00	0.00
21	117.00	SitePro F4P-10W	1	4.022	4.424	1.00	1.00	150.02	5229.79	0.000	0.000	663.67	0.00	0.00
22	117.00	F4P-HRK10	1	4.022	4.424	1.00	1.00	22.89	1660.13	0.000	0.000	101.27	0.00	0.00
23	117.00	RFS	4	4.022	4.424	0.55	0.75	18.09	503.36	0.000	0.000	80.02	0.00	0.00
24	117.00	RFS	4	4.022	4.424	0.55	0.75	49.80	2510.78	0.000	0.000	220.31	0.00	0.00
25	117.00	Ericsson S11B12	4	4.022	4.424	0.50	0.75	7.44	542.50	0.000	0.000	32.93	0.00	0.00
26	117.00	Ericsson RRU 2217 B2	4	4.022	4.424	0.50	0.75	6.85	481.98	0.000	0.000	30.32	0.00	0.00
27	65.00	Motorola RRA4905A	2	3.400	3.740	1.00	1.00	1.23	20.13	0.000	0.000	4.61	0.00	0.00
							Totals:		**32,760.55**			**2,869.13**		

Total Applied Force Summary

Structure:	CT13613-A-SBA		**Code:**	EIA/TIA-222-G	8/23/2021
Site Name:	Johnson		**Exposure:**	B	
Height:	150.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 20

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 22

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		95.25	2578.20	0.00	0.00
10.00		93.63	2576.22	0.00	0.00
15.00		91.87	2554.36	0.00	0.00
20.00		90.05	2523.73	0.00	0.00
25.00		88.20	2488.02	0.00	0.00
30.00		86.41	2448.93	0.00	0.00
35.00		88.32	2407.42	0.00	0.00
40.00		89.70	2364.06	0.00	0.00
44.75		86.01	2204.57	0.00	0.00
45.00		4.53	164.74	0.00	0.00
50.00		92.28	3252.65	0.00	0.00
51.00		18.29	642.56	0.00	0.00
55.00		73.85	1500.13	0.00	0.00
60.00		92.53	1840.56	0.00	0.00
65.00	(2) attachments	96.88	1822.72	0.00	0.00
70.00		91.78	1722.41	0.00	0.00
75.00		91.10	1682.76	0.00	0.00
80.00		90.23	1642.64	0.00	0.00
84.75		84.72	1523.28	0.00	0.00
85.00		4.45	111.26	0.00	0.00
89.75		84.59	2078.22	0.00	0.00
90.00		4.39	70.75	0.00	0.00
95.00		87.73	1389.03	0.00	0.00
100.00		86.28	1352.69	0.00	0.00
105.00		84.71	1316.04	0.00	0.00
110.00		83.02	1279.11	0.00	0.00
115.00		81.22	1241.92	0.00	0.00
117.00	(23) attachments	1257.62	12729.93	0.00	0.00
120.00		47.24	704.47	0.00	0.00
125.00		77.31	1140.66	0.00	0.00
126.00		15.14	224.94	0.00	0.00
127.00	(20) attachments	524.34	7665.78	0.00	0.00
129.75		41.53	753.22	0.00	0.00
130.00		3.73	45.92	0.00	0.00
135.00		73.91	893.16	0.00	0.00
139.00	(30) attachments	587.31	7600.34	0.00	0.00
140.00		14.08	155.12	0.00	0.00
145.00		69.30	748.74	0.00	0.00
150.00	(13) attachments	666.62	6933.74	0.00	0.00
	Totals:	**5,440.13**	**86,375.01**	**0.00**	**0.00**

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 21	

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 22

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1/2" Coax	Yes	5.00	0.000	0.65	1.65	0.00	0.011	0.000	2.724	0.00	27.40
10.00	1/2" Coax	Yes	5.00	0.000	0.65	1.75	0.00	0.011	0.000	2.724	0.00	30.49
15.00	1/2" Coax	Yes	5.00	0.000	0.65	1.81	0.00	0.011	0.000	2.724	0.00	32.49
20.00	1/2" Coax	Yes	5.00	0.000	0.65	1.86	0.00	0.012	0.000	2.724	0.00	34.00
25.00	1/2" Coax	Yes	5.00	0.000	0.65	1.89	0.00	0.012	0.000	2.724	0.00	35.22
30.00	1/2" Coax	Yes	5.00	0.000	0.65	1.92	0.00	0.012	0.000	2.726	0.00	36.26
35.00	1/2" Coax	Yes	5.00	0.000	0.65	1.95	0.00	0.012	0.000	2.849	0.00	37.17
40.00	1/2" Coax	Yes	5.00	0.000	0.65	1.97	0.00	0.013	0.000	2.960	0.00	37.97
44.75	1/2" Coax	Yes	4.75	0.000	0.65	1.89	0.00	0.013	0.000	3.056	0.00	36.73
45.00	1/2" Coax	Yes	0.25	0.000	0.65	0.10	0.00	0.013	0.000	3.061	0.00	1.94
50.00	1/2" Coax	Yes	5.00	0.000	0.65	2.01	0.00	0.013	0.000	3.155	0.00	39.36
51.00	1/2" Coax	Yes	1.00	0.000	0.65	0.40	0.00	0.014	0.000	3.172	0.00	7.90
55.00	1/2" Coax	Yes	4.00	0.000	0.65	1.62	0.00	0.014	0.000	3.242	0.00	31.98
60.00	1/2" Coax	Yes	5.00	0.000	0.65	2.04	0.00	0.014	0.000	3.323	0.00	40.54
65.00	1/2" Coax	Yes	5.00	0.000	0.65	2.05	0.00	0.014	0.000	3.400	0.00	41.08
										Totals:	**0.0**	**470.5**

Calculated Forces

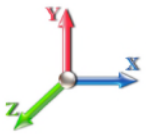
Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 22	

Tower Engineering Solutions

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 22

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-86.37	-5.46	0.00	-603.93	0.00	603.93	5554.25	2777.13	13600.6	6810.41	0.00	0.000	0.000	0.104
5.00	-83.79	-5.40	0.00	-576.65	0.00	576.65	5477.89	2738.95	13118.7	6569.12	0.01	-0.023	0.000	0.103
10.00	-81.22	-5.33	0.00	-549.67	0.00	549.67	5399.54	2699.77	12640.4	6329.59	0.05	-0.046	0.000	0.102
15.00	-78.66	-5.27	0.00	-523.01	0.00	523.01	5319.17	2659.59	12165.9	6092.00	0.11	-0.069	0.000	0.101
20.00	-76.13	-5.21	0.00	-496.65	0.00	496.65	5236.81	2618.40	11695.6	5856.50	0.19	-0.093	0.000	0.099
25.00	-73.64	-5.15	0.00	-470.61	0.00	470.61	5152.44	2576.22	11229.8	5623.26	0.31	-0.118	0.000	0.098
30.00	-71.19	-5.09	0.00	-444.86	0.00	444.86	5066.07	2533.04	10768.8	5392.43	0.44	-0.142	0.000	0.097
35.00	-68.78	-5.02	0.00	-419.43	0.00	419.43	4977.70	2488.85	10313.0	5164.19	0.60	-0.168	0.000	0.095
40.00	-66.42	-4.96	0.00	-394.31	0.00	394.31	4887.33	2443.67	9862.71	4938.68	0.79	-0.193	0.000	0.093
44.75	-64.21	-4.88	0.00	-370.77	0.00	370.77	4799.62	2399.81	9440.25	4727.14	1.00	-0.218	0.000	0.092
45.00	-64.05	-4.89	0.00	-369.55	0.00	369.55	4794.96	2397.48	9418.17	4716.08	1.01	-0.220	0.000	0.092
50.00	-60.79	-4.80	0.00	-345.12	0.00	345.12	4700.58	2350.29	8979.75	4496.55	1.26	-0.246	0.000	0.090
51.00	-60.15	-4.79	0.00	-340.32	0.00	340.32	3008.41	1504.20	5823.48	2916.07	1.31	-0.252	0.000	0.137
55.00	-58.65	-4.74	0.00	-321.16	0.00	321.16	2970.26	1485.13	5621.72	2815.04	1.53	-0.273	0.000	0.134
60.00	-56.80	-4.67	0.00	-297.46	0.00	297.46	2920.78	1460.39	5370.82	2689.40	1.83	-0.309	0.000	0.130
65.00	-54.98	-4.60	0.00	-274.09	0.00	274.09	2869.29	1434.64	5121.68	2564.65	2.18	-0.345	0.000	0.126
70.00	-53.25	-4.53	0.00	-251.08	0.00	251.08	2815.80	1407.90	4874.61	2440.93	2.56	-0.382	0.000	0.122
75.00	-51.57	-4.46	0.00	-228.42	0.00	228.42	2760.31	1380.15	4629.95	2318.41	2.98	-0.418	0.000	0.117
80.00	-49.92	-4.39	0.00	-206.11	0.00	206.11	2702.81	1351.41	4388.01	2197.26	3.44	-0.455	0.000	0.112
84.75	-48.40	-4.31	0.00	-185.25	0.00	185.25	2646.34	1323.17	4160.98	2083.58	3.91	-0.489	0.000	0.107
85.00	-48.29	-4.32	0.00	-184.18	0.00	184.18	2643.31	1321.66	4149.11	2077.64	3.93	-0.491	0.000	0.107
89.75	-46.21	-4.23	0.00	-163.66	0.00	163.66	1922.43	961.22	2968.94	1486.68	4.44	-0.524	0.000	0.134
90.00	-46.14	-4.24	0.00	-162.61	0.00	162.61	1920.55	960.27	2960.86	1482.63	4.46	-0.526	0.000	0.134
95.00	-44.75	-4.17	0.00	-141.40	0.00	141.40	1881.78	940.89	2799.79	1401.97	5.04	-0.567	0.000	0.125
100.00	-43.39	-4.10	0.00	-120.54	0.00	120.54	1841.02	920.51	2640.02	1321.97	5.65	-0.606	0.000	0.115
105.00	-42.07	-4.03	0.00	-100.03	0.00	100.03	1798.25	899.12	2481.89	1242.79	6.31	-0.643	0.000	0.104
110.00	-40.79	-3.95	0.00	-79.89	0.00	79.89	1753.48	876.74	2325.70	1164.58	7.00	-0.677	0.000	0.092
115.00	-39.55	-3.87	0.00	-60.13	0.00	60.13	1706.70	853.35	2171.78	1087.50	7.73	-0.707	0.000	0.078
117.00	-26.84	-2.46	0.00	-52.39	0.00	52.39	1687.43	843.72	2110.92	1057.03	8.03	-0.717	0.000	0.065
120.00	-26.13	-2.41	0.00	-45.01	0.00	45.01	1657.93	828.96	2020.46	1011.73	8.48	-0.732	0.000	0.060
125.00	-24.99	-2.33	0.00	-32.95	0.00	32.95	1607.15	803.57	1872.06	937.42	9.26	-0.753	0.000	0.051
126.00	-24.77	-2.31	0.00	-30.62	0.00	30.62	1596.75	798.38	1842.76	922.75	9.42	-0.757	0.000	0.049
127.00	-17.11	-1.69	0.00	-28.31	0.00	28.31	1586.28	793.14	1813.59	908.14	9.58	-0.761	0.000	0.042
129.75	-16.36	-1.64	0.00	-23.68	0.00	23.68	1068.62	534.31	1212.20	607.00	10.02	-0.770	0.000	0.054
130.00	-16.31	-1.63	0.00	-23.27	0.00	23.27	1067.16	533.58	1207.67	604.73	10.06	-0.771	0.000	0.054
135.00	-15.42	-1.55	0.00	-15.10	0.00	15.10	1036.93	518.46	1117.63	559.65	10.88	-0.789	0.000	0.042
139.00	-7.83	-0.86	0.00	-8.90	0.00	8.90	1011.29	505.65	1046.45	524.00	11.54	-0.799	0.000	0.025
140.00	-7.67	-0.84	0.00	-8.04	0.00	8.04	1004.68	502.34	1028.80	515.16	11.71	-0.801	0.000	0.023
145.00	-6.92	-0.76	0.00	-3.82	0.00	3.82	970.44	485.22	941.49	471.44	12.55	-0.808	0.000	0.015
150.00	0.00	-0.67	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65	13.40	-0.811	0.000	0.000

Seismic Segment Forces (Factored)

Structure:	CT13613-A-SBA		**Code:**	EIA/TIA-222-G	8/23/2021
Site Name:	Johnson		**Exposure:**	B	
Height:	150.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 23

Tower Engineering Solutions

Load Case:	1.2D + 1.0E							**Iterations**	20
Gust Response Factor	1.10				**Sds**	0.19		**Ss**	0.17
Dead Load Factor	1.20	**Seismic Load Factor**		1.00	**Sd1**	0.10		**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**		0.41	**SA**	0.04	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1391.8	0.00	0.03	0.02	21.26	
10.00		1361.1	0.01	0.05	0.03	30.99	
15.00		1330.3	0.02	0.06	0.04	35.43	
20.00		1299.6	0.03	0.07	0.04	37.28	
25.00		1268.9	0.05	0.07	0.04	37.95	
30.00		1238.2	0.08	0.07	0.04	38.15	
35.00		1207.5	0.10	0.07	0.04	38.19	
40.00		1176.8	0.13	0.07	0.03	38.11	
44.75	Bot - Section 2	1089.5	0.17	0.07	0.03	35.85	
45.00		97.62	0.17	0.07	0.03	3.21	
50.00		1924.7	0.21	0.06	0.02	63.41	
51.00	Top - Section 1	378.64	0.22	0.06	0.02	12.44	
55.00		628.19	0.25	0.05	0.02	20.10	
60.00		765.49	0.30	0.04	0.01	22.63	
65.00	Appurtenance(s)	745.56	0.35	0.03	0.01	18.73	
70.00		721.62	0.41	0.01	0.01	13.25	
75.00		699.68	0.47	-0.01	0.01	6.58	
80.00		677.74	0.54	-0.03	0.01	-0.66	
84.75	Bot - Section 3	623.54	0.60	-0.05	0.01	-6.77	
85.00		58.46	0.61	-0.06	0.02	-0.66	
89.75	Top - Section 2	1092.0	0.68	-0.08	0.03	-21.47	
90.00		25.32	0.68	-0.08	0.03	-0.51	
95.00		497.14	0.76	-0.10	0.04	-12.67	
100.00		479.59	0.84	-0.12	0.07	-12.82	
105.00		462.04	0.93	-0.12	0.10	-10.74	
110.00		444.49	1.02	-0.11	0.14	-6.59	
115.00		426.94	1.11	-0.06	0.19	-0.61	
117.00	Appurtenance(s)	4353.7	1.15	-0.04	0.22	23.26	
120.00		243.53	1.21	0.01	0.26	4.14	
125.00		391.84	1.31	0.14	0.35	15.85	
126.00	Bot - Section 4	76.26	1.33	0.17	0.37	3.49	
127.00	Appurtenance(s)	2727.7	1.35	0.20	0.39	139.79	
129.75	Top - Section 3	359.73	1.41	0.31	0.45	24.26	
130.00		13.94	1.42	0.32	0.45	0.96	
135.00		271.98	1.53	0.58	0.58	27.92	
139.00	Appurtenance(s)	2529.8	1.62	0.85	0.70	337.43	
140.00		50.71	1.65	0.93	0.73	7.18	
145.00		245.66	1.77	1.39	0.92	45.65	
150.00	Appurtenance(s)	1917.3	1.89	1.98	1.14	451.61	
	Totals:	**35,295.2**				**1,481.6**	**Total Wind:** **25,868.8**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 24	

Tower Engineering Solutions

Load Case: 1.2D + 1.0E

Iterations 20

Gust Response Factor	1.10			**Sds**	0.19			**Ss**	0.17
Dead Load Factor	1.20	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.41	**SA**	0.04	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-49.32	-1.56	0.00	-175.96	0.00	175.96	5554.25	2777.13	13600.6	6810.41		0.00	0.00	0.035
5.00	-47.40	-1.54	0.00	-168.18	0.00	168.18	5477.89	2738.95	13118.7	6569.12		0.00	-0.01	0.034
10.00	-45.51	-1.52	0.00	-160.47	0.00	160.47	5399.54	2699.77	12640.4	6329.59		0.01	-0.01	0.034
15.00	-43.65	-1.48	0.00	-152.89	0.00	152.89	5319.17	2659.59	12165.9	6092.00		0.03	-0.02	0.033
20.00	-41.84	-1.45	0.00	-145.47	0.00	145.47	5236.81	2618.40	11695.6	5856.50		0.06	-0.03	0.033
25.00	-40.06	-1.42	0.00	-138.21	0.00	138.21	5152.44	2576.22	11229.8	5623.26		0.09	-0.03	0.032
30.00	-38.32	-1.38	0.00	-131.13	0.00	131.13	5066.07	2533.04	10768.8	5392.43		0.13	-0.04	0.032
35.00	-36.61	-1.35	0.00	-124.21	0.00	124.21	4977.70	2488.85	10313.0	5164.19		0.18	-0.05	0.031
40.00	-34.94	-1.31	0.00	-117.47	0.00	117.47	4887.33	2443.67	9862.71	4938.68		0.23	-0.06	0.031
44.75	-33.39	-1.28	0.00	-111.23	0.00	111.23	4799.62	2399.81	9440.25	4727.14		0.29	-0.06	0.030
45.00	-33.26	-1.28	0.00	-110.91	0.00	110.91	4794.96	2397.48	9418.17	4716.08		0.30	-0.06	0.030
50.00	-30.69	-1.21	0.00	-104.52	0.00	104.52	4700.58	2350.29	8979.75	4496.55		0.37	-0.07	0.030
51.00	-30.19	-1.20	0.00	-103.31	0.00	103.31	3008.41	1504.20	5823.48	2916.07		0.38	-0.07	0.045
55.00	-29.23	-1.19	0.00	-98.49	0.00	98.49	2970.26	1485.13	5621.72	2815.04		0.45	-0.08	0.045
60.00	-28.05	-1.17	0.00	-92.57	0.00	92.57	2920.78	1460.39	5370.82	2689.40		0.54	-0.09	0.044
65.00	-26.90	-1.15	0.00	-86.73	0.00	86.73	2869.29	1434.64	5121.68	2564.65		0.64	-0.10	0.043
70.00	-25.78	-1.14	0.00	-80.97	0.00	80.97	2815.80	1407.90	4874.61	2440.93		0.76	-0.11	0.042
75.00	-24.69	-1.14	0.00	-75.26	0.00	75.26	2760.31	1380.15	4629.95	2318.41		0.88	-0.13	0.041
80.00	-23.62	-1.14	0.00	-69.58	0.00	69.58	2702.81	1351.41	4388.01	2197.26		1.02	-0.14	0.040
84.75	-22.63	-1.14	0.00	-64.16	0.00	64.16	2646.34	1323.17	4160.98	2083.58		1.17	-0.15	0.039
85.00	-22.55	-1.14	0.00	-63.87	0.00	63.87	2643.31	1321.66	4149.11	2077.64		1.17	-0.15	0.039
89.75	-20.99	-1.14	0.00	-58.45	0.00	58.45	1922.43	961.22	2968.94	1486.68		1.33	-0.16	0.050
90.00	-20.95	-1.14	0.00	-58.16	0.00	58.16	1920.55	960.27	2960.86	1482.63		1.34	-0.16	0.050
95.00	-20.10	-1.15	0.00	-52.44	0.00	52.44	1881.78	940.89	2799.79	1401.97		1.52	-0.18	0.048
100.00	-19.27	-1.15	0.00	-46.71	0.00	46.71	1841.02	920.51	2640.02	1321.97		1.71	-0.19	0.046
105.00	-18.46	-1.15	0.00	-40.97	0.00	40.97	1798.25	899.12	2481.89	1242.79		1.92	-0.21	0.043
110.00	-17.67	-1.15	0.00	-35.22	0.00	35.22	1753.48	876.74	2325.70	1164.58		2.15	-0.22	0.040
115.00	-16.90	-1.15	0.00	-29.46	0.00	29.46	1706.70	853.35	2171.78	1087.50		2.39	-0.24	0.037
117.00	-11.58	-1.11	0.00	-27.16	0.00	27.16	1687.43	843.72	2110.92	1057.03		2.49	-0.24	0.033
120.00	-11.15	-1.10	0.00	-23.84	0.00	23.84	1657.93	828.96	2020.46	1011.73		2.65	-0.25	0.030
125.00	-10.45	-1.09	0.00	-18.32	0.00	18.32	1607.15	803.57	1872.06	937.42		2.91	-0.26	0.026
126.00	-10.31	-1.08	0.00	-17.24	0.00	17.24	1596.75	798.38	1842.76	922.75		2.97	-0.26	0.025
127.00	-6.99	-0.93	0.00	-16.16	0.00	16.16	1586.28	793.14	1813.59	908.14		3.02	-0.27	0.022
129.75	-6.48	-0.90	0.00	-13.61	0.00	13.61	1068.62	534.31	1212.20	607.00		3.18	-0.27	0.028
130.00	-6.45	-0.90	0.00	-13.38	0.00	13.38	1067.16	533.58	1207.67	604.73		3.19	-0.27	0.028
135.00	-5.98	-0.87	0.00	-8.88	0.00	8.88	1036.93	518.46	1117.63	559.65		3.48	-0.28	0.022
139.00	-2.82	-0.52	0.00	-5.39	0.00	5.39	1011.29	505.65	1046.45	524.00		3.72	-0.29	0.013
140.00	-2.74	-0.51	0.00	-4.87	0.00	4.87	1004.68	502.34	1028.80	515.16		3.78	-0.29	0.012
145.00	-2.37	-0.46	0.00	-2.32	0.00	2.32	970.44	485.22	941.49	471.44		4.08	-0.29	0.007
150.00	0.00	-0.45	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65		4.39	-0.29	0.000

Seismic Segment Forces (Factored)

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 25	

Tower Engineering Solutions

Load Case:	0.9D + 1.0E							**Iterations**	20
Gust Response Factor	1.10				**Sds**	0.19		**Ss**	0.17
Dead Load Factor	0.90	**Seismic Load Factor**	1.00		**Sd1**	0.10		**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.41		**SA**	0.04	**Seismic Importance Factor**		1.00

Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		1391.8	0.00	0.03	0.02	21.26	
10.00		1361.1	0.01	0.05	0.03	30.99	
15.00		1330.3	0.02	0.06	0.04	35.43	
20.00		1299.6	0.03	0.07	0.04	37.28	
25.00		1268.9	0.05	0.07	0.04	37.95	
30.00		1238.2	0.08	0.07	0.04	38.15	
35.00		1207.5	0.10	0.07	0.04	38.19	
40.00		1176.8	0.13	0.07	0.03	38.11	
44.75	Bot - Section 2	1089.5	0.17	0.07	0.03	35.85	
45.00		97.62	0.17	0.07	0.03	3.21	
50.00		1924.7	0.21	0.06	0.02	63.41	
51.00	Top - Section 1	378.64	0.22	0.06	0.02	12.44	
55.00		628.19	0.25	0.05	0.02	20.10	
60.00		765.49	0.30	0.04	0.01	22.63	
65.00	Appurtenance(s)	745.56	0.35	0.03	0.01	18.73	
70.00		721.62	0.41	0.01	0.01	13.25	
75.00		699.68	0.47	-0.01	0.01	6.58	
80.00		677.74	0.54	-0.03	0.01	-0.66	
84.75	Bot - Section 3	623.54	0.60	-0.05	0.01	-6.77	
85.00		58.46	0.61	-0.06	0.02	-0.66	
89.75	Top - Section 2	1092.0	0.68	-0.08	0.03	-21.47	
90.00		25.32	0.68	-0.08	0.03	-0.51	
95.00		497.14	0.76	-0.10	0.04	-12.67	
100.00		479.59	0.84	-0.12	0.07	-12.82	
105.00		462.04	0.93	-0.12	0.10	-10.74	
110.00		444.49	1.02	-0.11	0.14	-6.59	
115.00		426.94	1.11	-0.06	0.19	-0.61	
117.00	Appurtenance(s)	4353.7	1.15	-0.04	0.22	23.26	
120.00		243.53	1.21	0.01	0.26	4.14	
125.00		391.84	1.31	0.14	0.35	15.85	
126.00	Bot - Section 4	76.26	1.33	0.17	0.37	3.49	
127.00	Appurtenance(s)	2727.7	1.35	0.20	0.39	139.79	
129.75	Top - Section 3	359.73	1.41	0.31	0.45	24.26	
130.00		13.94	1.42	0.32	0.45	0.96	
135.00		271.98	1.53	0.58	0.58	27.92	
139.00	Appurtenance(s)	2529.8	1.62	0.85	0.70	337.43	
140.00		50.71	1.65	0.93	0.73	7.18	
145.00		245.66	1.77	1.39	0.92	45.65	
150.00	Appurtenance(s)	1917.3	1.89	1.98	1.14	451.61	
	Totals:	**35,295.2**				**1,481.6**	**Total Wind:** **25,868.8**

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure:	CT13613-A-SBA		**Code:**	EIA/TIA-222-G	8/23/2021
Site Name:	Johnson		**Exposure:**	B	
Height:	150.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 26

Tower Engineering Solutions

Load Case:	0.9D + 1.0E							**Iterations**	20
Gust Response Factor	1.10			**Sds**	0.19			**Ss**	0.17
Dead Load Factor	0.90	**Seismic Load Factor**	1.00	**Sd1**	0.10			**S1**	0.07
Wind Load Factor	0.00	**Structure Frequency (f1)**	0.41	**SA**	0.04	**Seismic Importance Factor**			1.00

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-36.99	-1.56	0.00	-174.40	0.00	174.40	5554.25	2777.13	13600.6	6810.41		0.00	0.00	0.032
5.00	-35.55	-1.54	0.00	-166.61	0.00	166.61	5477.89	2738.95	13118.7	6569.12		0.00	-0.01	0.032
10.00	-34.13	-1.51	0.00	-158.92	0.00	158.92	5399.54	2699.77	12640.4	6329.59		0.01	-0.01	0.031
15.00	-32.74	-1.48	0.00	-151.36	0.00	151.36	5319.17	2659.59	12165.9	6092.00		0.03	-0.02	0.031
20.00	-31.38	-1.45	0.00	-143.96	0.00	143.96	5236.81	2618.40	11695.6	5856.50		0.06	-0.03	0.031
25.00	-30.04	-1.41	0.00	-136.73	0.00	136.73	5152.44	2576.22	11229.8	5623.26		0.09	-0.03	0.030
30.00	-28.74	-1.38	0.00	-129.68	0.00	129.68	5066.07	2533.04	10768.8	5392.43		0.13	-0.04	0.030
35.00	-27.46	-1.34	0.00	-122.80	0.00	122.80	4977.70	2488.85	10313.0	5164.19		0.18	-0.05	0.029
40.00	-26.21	-1.30	0.00	-116.10	0.00	116.10	4887.33	2443.67	9862.71	4938.68		0.23	-0.06	0.029
44.75	-25.04	-1.27	0.00	-109.90	0.00	109.90	4799.62	2399.81	9440.25	4727.14		0.29	-0.06	0.028
45.00	-24.94	-1.27	0.00	-109.59	0.00	109.59	4794.96	2397.48	9418.17	4716.08		0.29	-0.06	0.028
50.00	-23.02	-1.20	0.00	-103.25	0.00	103.25	4700.58	2350.29	8979.75	4496.55		0.36	-0.07	0.028
51.00	-22.64	-1.19	0.00	-102.05	0.00	102.05	3008.41	1504.20	5823.48	2916.07		0.38	-0.07	0.043
55.00	-21.92	-1.17	0.00	-97.28	0.00	97.28	2970.26	1485.13	5621.72	2815.04		0.44	-0.08	0.042
60.00	-21.04	-1.15	0.00	-91.41	0.00	91.41	2920.78	1460.39	5370.82	2689.40		0.53	-0.09	0.041
65.00	-20.18	-1.14	0.00	-85.63	0.00	85.63	2869.29	1434.64	5121.68	2564.65		0.63	-0.10	0.040
70.00	-19.34	-1.13	0.00	-79.94	0.00	79.94	2815.80	1407.90	4874.61	2440.93		0.75	-0.11	0.040
75.00	-18.52	-1.12	0.00	-74.30	0.00	74.30	2760.31	1380.15	4629.95	2318.41		0.87	-0.13	0.039
80.00	-17.71	-1.12	0.00	-68.69	0.00	68.69	2702.81	1351.41	4388.01	2197.26		1.01	-0.14	0.038
84.75	-16.97	-1.12	0.00	-63.34	0.00	63.34	2646.34	1323.17	4160.98	2083.58		1.15	-0.15	0.037
85.00	-16.91	-1.13	0.00	-63.06	0.00	63.06	2643.31	1321.66	4149.11	2077.64		1.16	-0.15	0.037
89.75	-15.74	-1.13	0.00	-57.71	0.00	57.71	1922.43	961.22	2968.94	1486.68		1.32	-0.16	0.047
90.00	-15.71	-1.13	0.00	-57.43	0.00	57.43	1920.55	960.27	2960.86	1482.63		1.32	-0.16	0.047
95.00	-15.07	-1.13	0.00	-51.80	0.00	51.80	1881.78	940.89	2799.79	1401.97		1.50	-0.18	0.045
100.00	-14.45	-1.13	0.00	-46.15	0.00	46.15	1841.02	920.51	2640.02	1321.97		1.69	-0.19	0.043
105.00	-13.84	-1.13	0.00	-40.49	0.00	40.49	1798.25	899.12	2481.89	1242.79		1.90	-0.21	0.040
110.00	-13.25	-1.13	0.00	-34.83	0.00	34.83	1753.48	876.74	2325.70	1164.58		2.13	-0.22	0.037
115.00	-12.68	-1.13	0.00	-29.17	0.00	29.17	1706.70	853.35	2171.78	1087.50		2.36	-0.23	0.034
117.00	-8.68	-1.09	0.00	-26.90	0.00	26.90	1687.43	843.72	2110.92	1057.03		2.46	-0.24	0.031
120.00	-8.36	-1.09	0.00	-23.62	0.00	23.62	1657.93	828.96	2020.46	1011.73		2.62	-0.25	0.028
125.00	-7.84	-1.07	0.00	-18.16	0.00	18.16	1607.15	803.57	1872.06	937.42		2.88	-0.26	0.024
126.00	-7.73	-1.07	0.00	-17.09	0.00	17.09	1596.75	798.38	1842.76	922.75		2.93	-0.26	0.023
127.00	-5.25	-0.92	0.00	-16.02	0.00	16.02	1586.28	793.14	1813.59	908.14		2.99	-0.26	0.021
129.75	-4.86	-0.89	0.00	-13.50	0.00	13.50	1068.62	534.31	1212.20	607.00		3.14	-0.27	0.027
130.00	-4.84	-0.89	0.00	-13.27	0.00	13.27	1067.16	533.58	1207.67	604.73		3.16	-0.27	0.026
135.00	-4.48	-0.86	0.00	-8.81	0.00	8.81	1036.93	518.46	1117.63	559.65		3.44	-0.28	0.020
139.00	-2.11	-0.51	0.00	-5.35	0.00	5.35	1011.29	505.65	1046.45	524.00		3.68	-0.28	0.012
140.00	-2.06	-0.51	0.00	-4.84	0.00	4.84	1004.68	502.34	1028.80	515.16		3.74	-0.28	0.011
145.00	-1.78	-0.46	0.00	-2.30	0.00	2.30	970.44	485.22	941.49	471.44		4.04	-0.29	0.007
150.00	0.00	-0.45	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65		4.34	-0.29	0.000

Wind Loading - Shaft

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 27	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 21

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.74	254.87	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	6.129	6.74	249.35	0.650	0.000	5.00	25.111	16.32	110.0	0.0	1391.8
10.00		1.00	0.70	6.129	6.74	243.83	0.650	0.000	5.00	24.561	15.96	107.6	0.0	1361.1
15.00		1.00	0.70	6.129	6.74	238.30	0.650	0.000	5.00	24.011	15.61	105.2	0.0	1330.4
20.00		1.00	0.70	6.129	6.74	232.78	0.650	0.000	5.00	23.461	15.25	102.8	0.0	1299.7
25.00		1.00	0.70	6.129	6.74	227.26	0.650	0.000	5.00	22.911	14.89	100.4	0.0	1269.0
30.00		1.00	0.70	6.134	6.75	221.83	0.650	0.000	5.00	22.361	14.53	98.1	0.0	1238.2
35.00		1.00	0.73	6.410	7.05	221.12	0.650	0.000	5.00	21.811	14.18	100.0	0.0	1207.5
40.00		1.00	0.76	6.659	7.33	219.62	0.650	0.000	5.00	21.260	13.82	101.2	0.0	1176.8
44.75	Bot - Section 2	1.00	0.79	6.876	7.56	217.62	0.650	0.000	4.75	19.688	12.80	96.8	0.0	1089.5
45.00		1.00	0.79	6.887	7.58	217.50	0.650	0.000	0.25	1.036	0.67	5.1	0.0	97.6
50.00		1.00	0.81	7.098	7.81	214.85	0.650	0.000	5.00	20.425	13.28	103.7	0.0	1924.8
51.00	Top - Section 1	1.00	0.82	7.138	7.85	214.27	0.650	0.000	1.00	4.019	2.61	20.5	0.0	378.6
55.00		1.00	0.83	7.294	8.02	214.67	0.650	0.000	4.00	15.856	10.31	82.7	0.0	628.2
60.00		1.00	0.85	7.477	8.22	211.26	0.650	0.000	5.00	19.325	12.56	103.3	0.0	765.5
65.00	Appurtenance(s)	1.00	0.87	7.650	8.42	207.52	0.650	0.000	5.00	18.775	12.20	102.7	0.0	743.6
70.00		1.00	0.89	7.814	8.60	203.49	0.650	0.000	5.00	18.225	11.85	101.8	0.0	721.6
75.00		1.00	0.91	7.969	8.77	199.21	0.650	0.000	5.00	17.675	11.49	100.7	0.0	699.7
80.00		1.00	0.93	8.118	8.93	194.70	0.650	0.000	5.00	17.125	11.13	99.4	0.0	677.7
84.75	Bot - Section 3	1.00	0.94	8.253	9.08	190.22	0.650	0.000	4.75	15.759	10.24	93.0	0.0	623.5
85.00		1.00	0.94	8.260	9.09	189.98	0.650	0.000	0.25	0.826	0.54	4.9	0.0	58.5
89.75	Top - Section 2	1.00	0.96	8.389	9.23	185.32	0.650	0.000	4.75	15.437	10.03	92.6	0.0	1092.1
90.00		1.00	0.96	8.396	9.24	187.56	0.650	0.000	0.25	0.799	0.52	4.8	0.0	25.3
95.00		1.00	0.97	8.526	9.38	182.50	0.650	0.000	5.00	15.686	10.20	95.6	0.0	497.1
100.00		1.00	0.99	8.652	9.52	177.28	0.650	0.000	5.00	15.136	9.84	93.6	0.0	479.6
105.00		1.00	1.00	8.774	9.65	171.91	0.650	0.000	5.00	14.586	9.48	91.5	0.0	462.0
110.00		1.00	1.02	8.891	9.78	166.41	0.650	0.000	5.00	14.036	9.12	89.2	0.0	444.5
115.00		1.00	1.03	9.005	9.91	160.78	0.650	0.000	5.00	13.486	8.77	86.8	0.0	426.9
117.00	Appurtenance(s)	1.00	1.03	9.049	9.95	158.49	0.650	0.000	2.00	5.240	3.41	33.9	0.0	165.9
120.00		1.00	1.04	9.115	10.03	155.02	0.650	0.000	3.00	7.696	5.00	50.2	0.0	243.5
125.00		1.00	1.05	9.222	10.14	149.15	0.650	0.000	5.00	12.386	8.05	81.7	0.0	391.8
126.00	Bot - Section 4	1.00	1.06	9.243	10.17	147.97	0.650	0.000	1.00	2.411	1.57	15.9	0.0	76.3
127.00	Appurtenance(s)	1.00	1.06	9.264	10.19	146.78	0.650	0.000	1.00	2.421	1.57	16.0	0.0	133.1
129.75	Top - Section 3	1.00	1.06	9.321	10.25	143.48	0.650	0.000	2.75	6.544	4.25	43.6	0.0	359.7
130.00		1.00	1.07	9.326	10.26	145.15	0.650	0.000	0.25	0.587	0.38	3.9	0.0	13.9
135.00		1.00	1.08	9.427	10.37	139.08	0.650	0.000	5.00	11.445	7.44	77.1	0.0	272.0
139.00	Appurtenance(s)	1.00	1.09	9.506	10.46	134.16	0.650	0.000	4.00	8.760	5.69	59.5	0.0	208.1
140.00		1.00	1.09	9.525	10.48	132.92	0.650	0.000	1.00	2.135	1.39	14.5	0.0	50.7
145.00		1.00	1.10	9.621	10.58	126.67	0.650	0.000	5.00	10.345	6.72	71.2	0.0	245.7
150.00	Appurtenance(s)	1.00	1.11	9.715	10.69	120.33	0.650	0.000	5.00	9.795	6.37	68.0	0.0	232.5
								Totals:	**150.00**			**2,829.7**		**24,504.2**

Discrete Appurtenance Forces

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 28	

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 21

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	150.00	Decibel DB846G90A-XY	12	9.715	10.686	1.01	0.90	60.60	184.80	0.000	0.000	647.60	0.00	0.00
2	150.00	Low Profile Platform	1	9.715	10.686	1.00	1.00	22.00	1500.00	0.000	0.000	235.10	0.00	0.00
3	139.00	Low Profile Platform	1	9.506	10.456	1.00	1.00	22.00	1500.00	0.000	0.000	230.04	0.00	0.00
4	139.00	Powerwave 7770	6	9.506	10.456	0.58	0.80	19.27	210.00	0.000	0.000	201.51	0.00	0.00
5	139.00	Kathrein 800 10764	1	9.506	10.456	1.00	1.00	5.88	40.80	0.000	0.000	61.48	0.00	0.00
6	139.00	KMW	2	9.506	10.456	0.81	0.90	12.99	97.00	0.000	0.000	135.85	0.00	0.00
7	139.00	Powerwave LGP 21401	6	9.506	10.456	0.54	0.80	0.00	105.00	0.000	0.000	0.00	0.00	0.00
8	139.00	Powerwave LGP 13519	6	9.506	10.456	0.54	0.80	1.09	31.80	0.000	0.000	11.43	0.00	0.00
9	139.00	Ericsson RRUS 11	6	9.506	10.456	0.54	0.80	8.10	304.20	0.000	0.000	84.74	0.00	0.00
10	139.00	Raycap DC6-48-60-18-8F	1	9.506	10.456	1.00	1.00	0.92	31.80	0.000	0.000	9.62	0.00	0.00
11	139.00	Commscope	1	9.506	10.456	1.00	1.00	0.05	1.10	0.000	0.000	0.52	0.00	0.00
12	127.00	RFS	1	9.264	10.190	1.00	1.00	4.06	32.00	0.000	0.000	41.37	0.00	0.00
13	127.00	Samsung RFV01U-D1A	3	9.264	10.190	0.54	0.80	3.02	292.50	0.000	0.000	30.80	0.00	0.00
14	127.00	Samsung RFV01U-D2A	3	9.264	10.190	0.54	0.80	3.02	246.00	0.000	0.000	30.80	0.00	0.00
15	127.00	Samsung MT6407-77A	3	9.264	10.190	0.56	0.80	7.88	238.20	0.000	0.000	80.29	0.00	0.00
16	127.00	Commscope	6	9.264	10.190	0.68	0.80	33.33	262.20	0.000	0.000	339.67	0.00	0.00
17	127.00	Low Profile Platform	1	9.264	10.190	1.00	1.00	22.00	1500.00	0.000	0.000	224.18	0.00	0.00
18	127.00	Commscope	3	9.264	10.190	0.40	0.80	1.78	23.70	0.000	0.000	18.10	0.00	0.00
19	117.00	Ericsson Air 32	4	9.049	9.954	0.65	0.75	16.99	423.20	0.000	0.000	169.13	0.00	0.00
20	117.00	Fastback IBR1300	1	9.049	9.954	1.00	1.00	0.67	8.82	0.000	0.000	6.67	0.00	0.00
21	117.00	SitePro F4P-10W	1	9.049	9.954	1.00	1.00	58.98	2396.00	0.000	0.000	587.09	0.00	0.00
22	117.00	F4P-HRK10	1	9.049	9.954	1.00	1.00	9.00	478.27	0.000	0.000	89.59	0.00	0.00
23	117.00	RFS	4	9.049	9.954	0.55	0.75	11.32	105.60	0.000	0.000	112.70	0.00	0.00
24	117.00	RFS	4	9.049	9.954	0.55	0.75	44.33	396.00	0.000	0.000	441.22	0.00	0.00
25	117.00	Ericsson S11B12	4	9.049	9.954	0.50	0.75	5.69	204.00	0.000	0.000	56.62	0.00	0.00
26	117.00	Ericsson RRU 2217 B2	4	9.049	9.954	0.50	0.75	5.17	176.00	0.000	0.000	51.42	0.00	0.00
27	65.00	Motorola RRA4905A	2	7.650	8.415	1.00	1.00	0.28	2.00	0.000	0.000	2.36	0.00	0.00
							Totals:		**10,790.99**			**3,899.92**		

Total Applied Force Summary

Structure:	CT13613-A-SBA		**Code:**	EIA/TIA-222-G	8/23/2021
Site Name:	Johnson		**Exposure:**	B	
Height:	150.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 29

Tower Engineering Solutions

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 21

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		110.03	1605.51	0.00	0.00
10.00		107.62	1574.80	0.00	0.00
15.00		105.21	1544.09	0.00	0.00
20.00		102.80	1513.37	0.00	0.00
25.00		100.39	1482.66	0.00	0.00
30.00		98.07	1451.95	0.00	0.00
35.00		99.96	1421.24	0.00	0.00
40.00		101.23	1390.52	0.00	0.00
44.75		96.80	1292.55	0.00	0.00
45.00		5.10	108.31	0.00	0.00
50.00		103.65	2138.47	0.00	0.00
51.00		20.51	421.38	0.00	0.00
55.00		82.69	799.15	0.00	0.00
60.00		103.31	979.19	0.00	0.00
65.00	(2) attachments	105.05	959.26	0.00	0.00
70.00		101.82	933.72	0.00	0.00
75.00		100.71	911.78	0.00	0.00
80.00		99.40	889.84	0.00	0.00
84.75		92.99	825.03	0.00	0.00
85.00		4.88	69.07	0.00	0.00
89.75		92.60	1293.56	0.00	0.00
90.00		4.79	35.92	0.00	0.00
95.00		95.63	709.24	0.00	0.00
100.00		93.64	691.69	0.00	0.00
105.00		91.50	674.14	0.00	0.00
110.00		89.23	656.59	0.00	0.00
115.00		86.83	639.04	0.00	0.00
117.00	(23) attachments	1548.34	4438.59	0.00	0.00
120.00		50.15	357.71	0.00	0.00
125.00		81.67	582.14	0.00	0.00
126.00		15.93	114.32	0.00	0.00
127.00	(20) attachments	781.25	2765.78	0.00	0.00
129.75		43.61	429.91	0.00	0.00
130.00		3.91	20.32	0.00	0.00
135.00		77.14	399.58	0.00	0.00
139.00	(30) attachments	794.74	2631.89	0.00	0.00
140.00		14.54	63.19	0.00	0.00
145.00		71.16	308.06	0.00	0.00
150.00	(13) attachments	950.74	1979.70	0.00	0.00
	Totals:	**6,729.65**	**41,103.25**	**0.00**	**0.00**

Linear Appurtenance Segment Forces (Factored)

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 30	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations 21

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
5.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.011	0.000	6.129	0.00	1.60
10.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.011	0.000	6.129	0.00	1.60
15.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.011	0.000	6.129	0.00	1.60
20.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	6.129	0.00	1.60
25.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	6.129	0.00	1.60
30.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	6.134	0.00	1.60
35.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.012	0.000	6.410	0.00	1.60
40.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	6.659	0.00	1.60
44.75	1/2" Coax	Yes	4.75	0.000	0.65	0.26	0.00	0.013	0.000	6.876	0.00	1.52
45.00	1/2" Coax	Yes	0.25	0.000	0.65	0.01	0.00	0.013	0.000	6.887	0.00	0.08
50.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.013	0.000	7.098	0.00	1.60
51.00	1/2" Coax	Yes	1.00	0.000	0.65	0.05	0.00	0.014	0.000	7.138	0.00	0.32
55.00	1/2" Coax	Yes	4.00	0.000	0.65	0.22	0.00	0.014	0.000	7.294	0.00	1.28
60.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	7.477	0.00	1.60
65.00	1/2" Coax	Yes	5.00	0.000	0.65	0.27	0.00	0.014	0.000	7.650	0.00	1.60
									Totals:		**0.0**	**20.8**

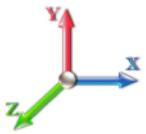
Calculated Forces

Structure:	CT13613-A-SBA	**Code:**	EIA/TIA-222-G	8/23/2021	
Site Name:	Johnson	**Exposure:**	B		
Height:	150.00 (ft)	**Crest Height:**	0.00		
Base Elev:	0.000 (ft)	**Site Class:**	D - Stiff Soil		
Gh:	1.1 **Topography:** 1	**Struct Class:**	II	Page: 31	

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 21

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-41.10	-6.74	0.00	-734.21	0.00	734.21	5554.25	2777.13	13600.6	6810.41	0.00	0.000	0.000	0.115
5.00	-39.49	-6.65	0.00	-700.51	0.00	700.51	5477.89	2738.95	13118.7	6569.12	0.01	-0.028	0.000	0.114
10.00	-37.91	-6.56	0.00	-667.28	0.00	667.28	5399.54	2699.77	12640.4	6329.59	0.06	-0.056	0.000	0.112
15.00	-36.37	-6.47	0.00	-634.49	0.00	634.49	5319.17	2659.59	12165.9	6092.00	0.13	-0.084	0.000	0.111
20.00	-34.85	-6.38	0.00	-602.15	0.00	602.15	5236.81	2618.40	11695.6	5856.50	0.24	-0.113	0.000	0.109
25.00	-33.37	-6.29	0.00	-570.25	0.00	570.25	5152.44	2576.22	11229.8	5623.26	0.37	-0.143	0.000	0.108
30.00	-31.91	-6.21	0.00	-538.77	0.00	538.77	5066.07	2533.04	10768.8	5392.43	0.54	-0.173	0.000	0.106
35.00	-30.49	-6.12	0.00	-507.73	0.00	507.73	4977.70	2488.85	10313.0	5164.19	0.73	-0.203	0.000	0.104
40.00	-29.09	-6.03	0.00	-477.12	0.00	477.12	4887.33	2443.67	9862.71	4938.68	0.96	-0.235	0.000	0.103
44.75	-27.80	-5.94	0.00	-448.48	0.00	448.48	4799.62	2399.81	9440.25	4727.14	1.21	-0.265	0.000	0.101
45.00	-27.69	-5.94	0.00	-446.99	0.00	446.99	4794.96	2397.48	9418.17	4716.08	1.23	-0.266	0.000	0.101
50.00	-25.55	-5.83	0.00	-417.30	0.00	417.30	4700.58	2350.29	8979.75	4496.55	1.52	-0.298	0.000	0.098
51.00	-25.13	-5.82	0.00	-411.47	0.00	411.47	3008.41	1504.20	5823.48	2916.07	1.59	-0.305	0.000	0.149
55.00	-24.32	-5.74	0.00	-388.21	0.00	388.21	2970.26	1485.13	5621.72	2815.04	1.85	-0.331	0.000	0.146
60.00	-23.34	-5.65	0.00	-359.48	0.00	359.48	2920.78	1460.39	5370.82	2689.40	2.22	-0.374	0.000	0.142
65.00	-22.38	-5.56	0.00	-331.22	0.00	331.22	2869.29	1434.64	5121.68	2564.65	2.64	-0.418	0.000	0.137
70.00	-21.44	-5.47	0.00	-303.43	0.00	303.43	2815.80	1407.90	4874.61	2440.93	3.10	-0.462	0.000	0.132
75.00	-20.53	-5.37	0.00	-276.10	0.00	276.10	2760.31	1380.15	4629.95	2318.41	3.61	-0.506	0.000	0.127
80.00	-19.63	-5.28	0.00	-249.23	0.00	249.23	2702.81	1351.41	4388.01	2197.26	4.16	-0.550	0.000	0.121
84.75	-18.81	-5.19	0.00	-224.15	0.00	224.15	2646.34	1323.17	4160.98	2083.58	4.73	-0.592	0.000	0.115
85.00	-18.74	-5.19	0.00	-222.85	0.00	222.85	2643.31	1321.66	4149.11	2077.64	4.76	-0.594	0.000	0.114
89.75	-17.44	-5.09	0.00	-198.21	0.00	198.21	1922.43	961.22	2968.94	1486.68	5.37	-0.635	0.000	0.142
90.00	-17.40	-5.09	0.00	-196.94	0.00	196.94	1920.55	960.27	2960.86	1482.63	5.41	-0.637	0.000	0.142
95.00	-16.69	-5.00	0.00	-171.48	0.00	171.48	1881.78	940.89	2799.79	1401.97	6.10	-0.686	0.000	0.131
100.00	-16.00	-4.91	0.00	-146.48	0.00	146.48	1841.02	920.51	2640.02	1321.97	6.85	-0.734	0.000	0.120
105.00	-15.32	-4.82	0.00	-121.92	0.00	121.92	1798.25	899.12	2481.89	1242.79	7.64	-0.779	0.000	0.107
110.00	-14.66	-4.73	0.00	-97.80	0.00	97.80	1753.48	876.74	2325.70	1164.58	8.48	-0.820	0.000	0.092
115.00	-14.02	-4.64	0.00	-74.13	0.00	74.13	1706.70	853.35	2171.78	1087.50	9.36	-0.857	0.000	0.076
117.00	-9.61	-3.03	0.00	-64.84	0.00	64.84	1687.43	843.72	2110.92	1057.03	9.72	-0.870	0.000	0.067
120.00	-9.25	-2.98	0.00	-55.75	0.00	55.75	1657.93	828.96	2020.46	1011.73	10.27	-0.888	0.000	0.061
125.00	-8.67	-2.89	0.00	-40.85	0.00	40.85	1607.15	803.57	1872.06	937.42	11.22	-0.914	0.000	0.049
126.00	-8.55	-2.87	0.00	-37.96	0.00	37.96	1596.75	798.38	1842.76	922.75	11.41	-0.919	0.000	0.047
127.00	-5.80	-2.05	0.00	-35.08	0.00	35.08	1586.28	793.14	1813.59	908.14	11.60	-0.924	0.000	0.042
129.75	-5.37	-2.00	0.00	-29.44	0.00	29.44	1068.62	534.31	1212.20	607.00	12.14	-0.935	0.000	0.054
130.00	-5.35	-2.00	0.00	-28.94	0.00	28.94	1067.16	533.58	1207.67	604.73	12.19	-0.936	0.000	0.053
135.00	-4.95	-1.91	0.00	-18.96	0.00	18.96	1036.93	518.46	1117.63	559.65	13.18	-0.958	0.000	0.039
139.00	-2.33	-1.08	0.00	-11.30	0.00	11.30	1011.29	505.65	1046.45	524.00	13.99	-0.971	0.000	0.024
140.00	-2.27	-1.06	0.00	-10.23	0.00	10.23	1004.68	502.34	1028.80	515.16	14.19	-0.973	0.000	0.022
145.00	-1.96	-0.98	0.00	-4.92	0.00	4.92	970.44	485.22	941.49	471.44	15.22	-0.983	0.000	0.012
150.00	0.00	-0.95	0.00	0.00	0.00	0.00	934.20	467.10	856.03	428.65	16.25	-0.986	0.000	0.000

Final Analysis Summary

Structure:	CT13613-A-SBA		**Code:**	EIA/TIA-222-G	8/23/2021
Site Name:	Johnson		**Exposure:**	B	
Height:	150.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 32

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 93 mph Wind	25.9	0.00	49.30	0.00	0.00	2836.82
0.9D + 1.6W 93 mph Wind	25.9	0.00	36.97	0.00	0.00	2813.37
1.2D + 1.0Di + 1.0Wi 40 mph Wind	5.5	0.00	86.37	0.00	0.00	603.93
1.2D + 1.0E	1.6	0.00	49.32	0.00	0.00	175.96
0.9D + 1.0E	1.6	0.00	36.99	0.00	0.00	174.40
1.0D + 1.0W 60 mph Wind	6.7	0.00	41.10	0.00	0.00	734.21

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 93 mph Wind	-29.71	-22.47	0.00	-1592.8	0.00	-1592.8	3008.41	1504.2	5823.48	2916.07	51.00	0.556
0.9D + 1.6W 93 mph Wind	-22.17	-22.30	0.00	-1574.3	0.00	-1574.3	3008.41	1504.2	5823.48	2916.07	51.00	0.547
1.2D + 1.0Di + 1.0Wi 40 mph Wind	-60.15	-4.79	0.00	-340.32	0.00	-340.32	3008.41	1504.2	5823.48	2916.07	51.00	0.137
1.2D + 1.0E	-20.99	-1.14	0.00	-58.45	0.00	-58.45	1922.43	961.22	2968.94	1486.68	89.75	0.050
0.9D + 1.0E	-15.74	-1.13	0.00	-57.71	0.00	-57.71	1922.43	961.22	2968.94	1486.68	89.75	0.047
1.0D + 1.0W 60 mph Wind	-25.13	-5.82	0.00	-411.47	0.00	-411.47	3008.41	1504.2	5823.48	2916.07	51.00	0.149

Base Plate Summary

Structure:	CT13613-A-SB		**Code:**	EIA/TIA-222-G	8/23/2021
Site Name:	Johnson		**Exposure:**	B	
Height:	150.00 (ft)		**Crest Height:**	0.00	
Base Elev:	0.000 (ft)		**Site Class:**	D - Stiff Soil	
Gh:	1.1	**Topography:** 1	**Struct Class:**	II	Page: 33

Tower Engineering Solutions

Reactions	
Original Design	
Moment (kip-ft):	4200.00
Axial (kip):	36.00
Shear (kip):	39.00
Analysis (1.2D + 1.6W)	
Moment (kip-ft):	2836.82
Axial (kip):	49.30
Shear (kip):	25.91

Base Plate	
Yield (ksi):	50.00
Width (in):	66.00
Style:	Clipped
Polygon Sides:	0.00
Clip Length (in):	14.00
Effective Len (in):	9.14
Moment (kip-in):	370.78
Allow Stress (ksi):	67.50
Applied Stress (ksi):	32.40
Stress Ratio:	0.48

Anchor Bolts	
Bolt Circle:	67.00
Number Bolts:	20.00
Bolt Type:	2.25" 18J
Bolt Diameter (in):	2.25
Yield (ksi):	75.00
Ultimate (ksi):	100.00
Arrangement:	Clustered
Cluster Dist (in):	6.00
Start Angle (deg):	45.00
Compression	
Force (kip):	105.94
Allowable (kip):	260.00
Ratio:	0.42
Tension	
Force (kip):	97.30
Allowable (kip):	260.00
Ratio:	0.38

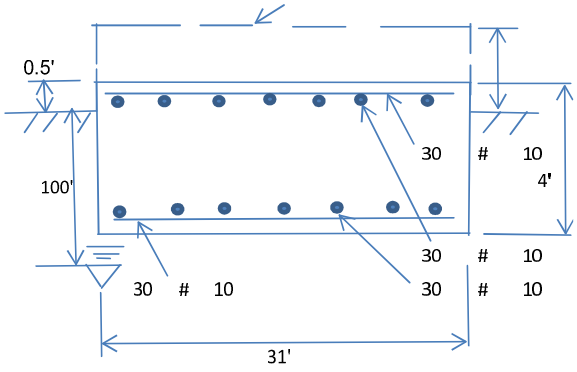
Monopole Mat Foundation Design

				Date
				7/30/2020
Customer Name:		**EIA/TIA Standard:**	EIA-222-G	
Site Name:		**Structure Height (Ft.):**	300	
Site Number:	194213-VZW	**Engineer Name:**	T. Alajaj	
Engr. Number:		**Engineer Login ID:**		

Foundation Info Obtained from: Mapping Operation

Structure Type: Monopole

Analysis or Design? Analysis

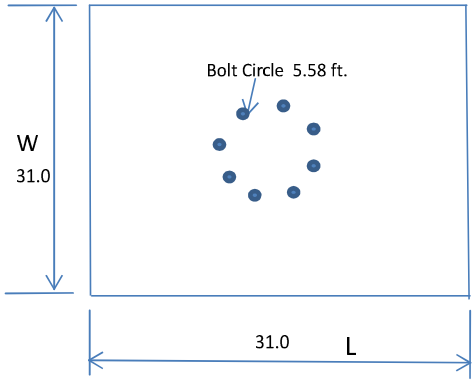


Base Reactions (Factored):

Axial Load (Kips):	49.3	Shear Force (Kips):	25.9
Uplift Force (Kips):	0.0	Moment (Kips-ft):	2836.8
Allowable overstress %:	5.0%		

Foundation Geometries:

		Mods required -Yes/No ?:	No
Anchor Bolt Circle (ft.):	5.58	Depth of Base BG (ft.):	3.50
Thickness of Pad (ft):	4.00		
Length of Pad (ft.):	31	Width of Pad (ft.):	31
Final Length of pad (ft)	31.0	Final width of pad (ft):	31.0



Material Properties and Reabr Info:

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Pad Rebar Yield (Ksi):	60	Tie Spacing (in):	12.0	
Pad Steel Rebar Size (#):	10			
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	30	Qty. of Rebar in Pad (W):	30	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	30	Qty. of Rebar in Pad (W):	30	
Apply 1.35 factor for e/w Per G:	1.35			

Soil Design Parameters:

Water Table B.G.S. (ft):	100.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	8000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00			

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	0.00	Total Dry Soil Weight (Kips):	0.00
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	0.00	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	3844.00	Total Dry Concrete Weight (Kips):	576.60
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	576.60	Total Vertical Load on Base (Kips):	625.90

Check Soil Capacities:

				Load/ Capacity Ratio	
Calculated Maxium Net Soil Pressure under the base (psf):	1470	<	Allowable Factored Soil Bearing (psf): 6000	0.25	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	8807.7	>	Design Factored Momont (kips-ft): 2942	0.33	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	2.99	OK!			

Check the capacities of Reinforceing Concrete:

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

Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):		One-Way Factored Shear (L-D. Kips):	279.3
One-Way Design Shear Capacity (W-Direction, Kips):		One-Way Factored Shear (W-D., Kips	
One-Way Design Shear Capacity (Corner-Corner. Kips):		One-Way Factored Shear (C-C, Kips):	412.0
Lower Steel Pad Reinforcement Ratio (L-Direct.):		Lower Steel Pad Reinf. Ratio (W-Direc	
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):		Moment at Bottom (L-Direct. K-Ft):	1223.7
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):		Moment at Bottom (W-Direct. K-Ft):	1223.7
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):		Moment at Bottom (C-C Dir. K-Ft):	
Upper Steel Pad Reinforcement Ratio (L-Direct.):		Upper Steel Reinf. Ratio (W-Direct.):	0.0023
Upper Steel Pad Moment Capacity (L-Direction. Kips-ft):		Moment at the top (L-Dir Kips-Ft):	
Upper Steel Pad Moment Capacity (W-Direction. Kips-ft):		Moment at the top (W-Dir Kips-Ft):	354.0
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):		Moment at the top (C-C Direc. K-Ft):	449.7

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Antenna Mount Analysis Report and PMI Requirements

Mount ReAnalysis-VZW

SMART Tool Project #: 10074937
Maser Consulting Connecticut Project #: 21777227A

June 21, 2021

Site Information	*Site ID:*	*468269-VZW / COLEBROOK CT*
	Site Name:	*COLEBROOK CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*382 Colebrook River Rd* *Colebrook, Connecticut 06021* *Litchfield County*
	Latitude:	*41.992083°*
	Longitude:	*-73.039806°*
Structure Information	*Tower Type:*	*Monopole*
	Mount Type:	*13.75-Ft Platform*

FUZE ID # 16272050

Analysis Results

Platform: **65.4% Pass**

******Contractor PMI Requirements*:**
Included at the end of this MA report
Available & Submitted via portal at https://pmi.vzwsmart.com
Contractor - Please Review Specific Site PMI Requirements Upon Award
Requirements also Noted on Mount Modification Drawings
Requirements may also be Noted on A & E drawings

Report Prepared By: Erin Towler

Digitally signed by Derek Hartzell
Date: 2021.06.23 08:55:20-07'00'

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: 323611, dated May 10, 2021*
Mount Mapping Report	*Roaming Networks Inc., Site ID: PSLC:468269, dated March 29, 2021*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	114 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	B
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.959
Seismic Parameters:	S_S:	0.166
	S_1:	0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
126.00	127.00	6	Commscope	NHH-85B-R2B	Added
		3	Samsung	MT6407-77A	
		1	RFS	DB-C1-12C-24AB-0Z	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		3	Commscope	TD-850B-LTE78-43	

The recent mount mapping did not report existing OVP units. It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

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

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Maser Consulting and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Maser Consulting 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 by Maser Consulting, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Maser Consulting is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff	52.7 %	Pass
Corner Plate	58.2 %	Pass
Face Horizontal	30.3 %	Pass
Platform Support	8.9 %	Pass
Mount Pipe	18.9 %	Pass
Mount Connection	65.4 %	Pass

Structure Rating – *(Controlling Utilization of all Components)*	**65.4%**

Recommendation:

The existing mount is **SUFFICIENT** for the final loading configuration and does not require modifications.

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. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Wind Speed Usage Letter


03/29/2021 16:04:48
COLEBROOK CT


03/29/2021 17:57:59
-73.03966799999999, 41.992111972222226
COLEBROOK CT

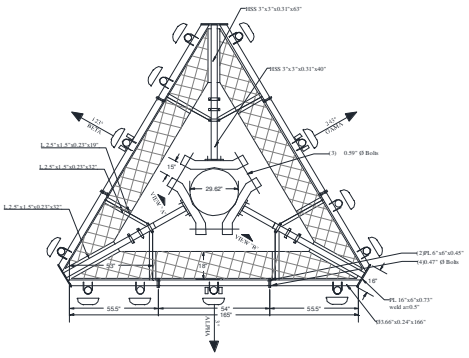
V3.0 Updated on 8-31-2020

PAUL J. FORD & COMPANY

Antenna Mount Mapping Form (PATENT PENDING)

FCC #
N/A

Tower Owner:	SBA	**Mapping Date:**	03/29/2021
Site Name:	VZW: COLEBROOK CT	**Tower Type:**	Monopole
Site Number or ID:	PSLC: 468269	**Tower Height (Ft.):**	N/A
Mapping Contractor:	Roaming Networks Inc.	**Mount Elevation (Ft.):**	127.42



OVERALL MOUNT SCHEMATIC

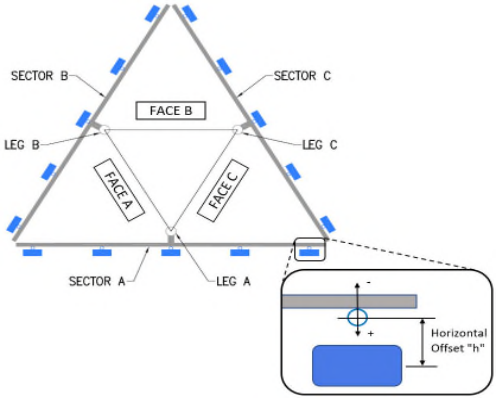
Mount Pipe Configuration and Geometries [Unit = Inches]

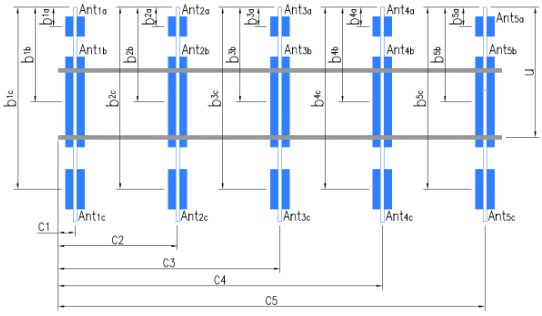
Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	PIPE Ø 2.37"x0.13"x84"	41.00	11.00	C1	PIPE Ø 2.37"x0.13"x84"	41.00	11.00
A2	PIPE Ø 2.37"x0.13"x84"	41.00	84.50	C2	PIPE Ø 2.37"x0.13"x84"	41.00	84.50
A3	PIPE Ø 2.37"x0.13"x84"	42.00	120.50	C3	PIPE Ø 2.37"x0.13"x84"	42.00	120.50
A4	PIPE Ø 2.37"x0.13"x84"	41.00	154.00	C4	PIPE Ø 2.37"x0.13"x84"	41.00	154.00
A5				C5			
A6				C6			
B1	PIPE Ø 2.37"x0.13"x84"	41.00	11.00	D1			
B2	PIPE Ø 2.37"x0.13"x84"	41.00	84.50	D2			
B3	PIPE Ø 2.37"x0.13"x84"	42.00	120.50	D3			
B4	PIPE Ø 2.37"x0.13"x84"	41.00	154.00	D4			
B5				D5			
B6				D6			

Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	0.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	7.08
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	5.17

Please enter additional infomation or comments below.

Tower Face Width at Mount Elev. (ft.):		Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	29.62



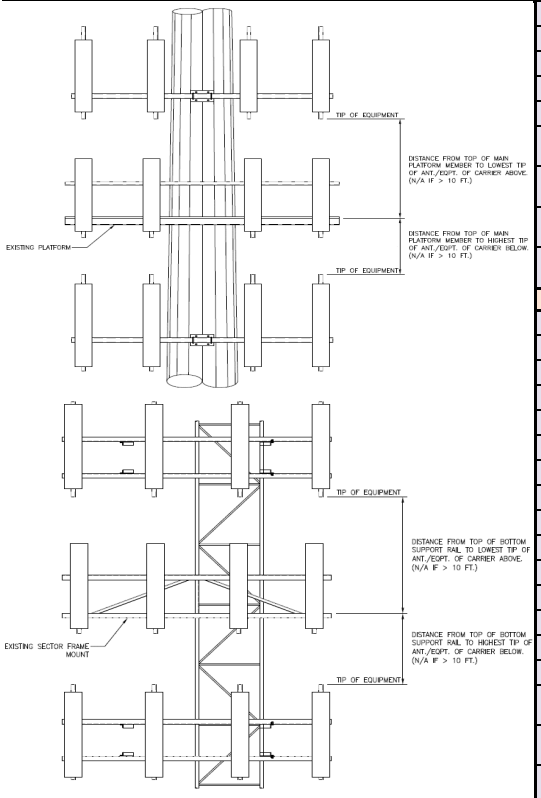


Antenna Layout (Looking Out From Tower)

Ants. Items	Enter antenna model. If not labeled, enter "Unknown". Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Mounting Locations [Units are inches and degrees] Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photos of antennas Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}	Unknown	5.50	13.50	69.50		128.128	32.50	14.50	3.00	8,9,10
Ant_{1c}										
Ant_{2a}	(2)Unknown	6.75	1.00	4.75		129.295	18.50			13,14,15
Ant_{2b}	BXA70080/6CFEDIN2	8.00	5.90	94.60		128.045	33.50	8.50	3.00	11
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA171085/8BFEDIN4	6.00	3.00	49.00		128.795	25.50	6.50	3.00	4,5
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	Unknown	5.50	13.50	69.50		128.253	31.00	16.00	3.00	6
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	3.00	Deg	Leg A:		Deg
Sector B:	123.00	Deg	Leg B:		Deg
Sector C:	243.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	3.00	Deg	Sector A
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.



Sector B										
Ant_{1a}										
Ant_{1b}	Unknown	5.50	13.50	69.50		128.128	32.50	14.50	123.00	8,9,10
Ant_{1c}										
Ant_{2a}	(2)Unknown	6.75	1.00	4.75		129.295	18.50			13,14,15
Ant_{2b}	BXA70080/6CFEDIN2	8.00	5.90	94.60		128.045	33.50	8.50	123.00	11
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA171085/8BFEDIN4	6.00	3.00	49.00		128.795	25.50	6.50	123.00	4,5
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	Unknown	5.50	13.50	69.50		128.253	31.00	16.00	123.00	6
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	Unknown	5.50	13.50	69.50		128.128	32.50	14.50	243.00	8,9,10
Ant_{1c}										
Ant_{2a}	(2)Unknown	6.75	1.00	4.75		129.295	18.50			13,14,15
Ant_{2b}	BXA70080/6CFEDIN2	8.00	5.90	94.60		128.045	33.50	8.50	243.00	11
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BXA171085/8BFEDIN4	6.00	3.00	49.00		128.795	25.50	6.50	243.00	4,5
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	Unknown	5.50	13.50	69.50		128.253	31.00	16.00	243.00	6
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #

1		
2		
3		
4		
5		
6		
7		
8		

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

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

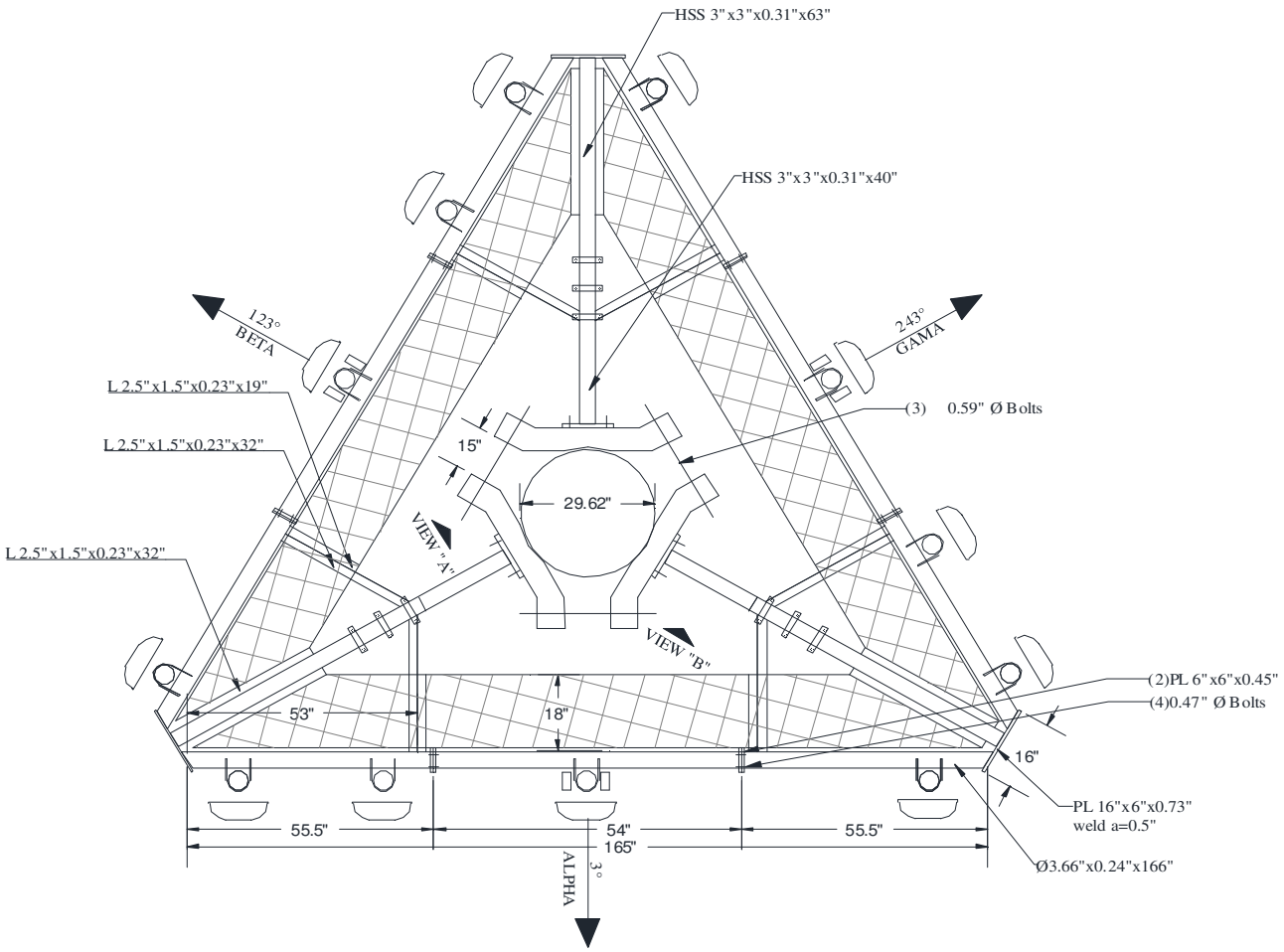
PAUL J. FORD & COMPANY

Antenna Mount Mapping Form (PATENT PENDING)

FCC #
N/A

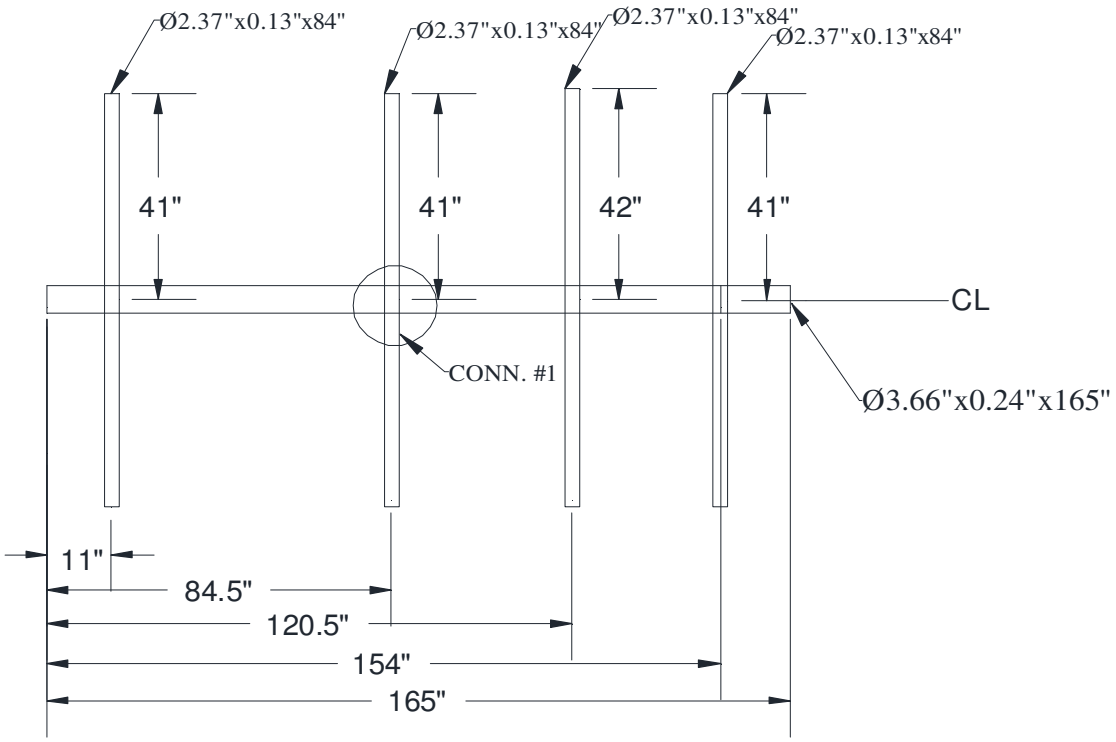
Tower Owner:	SBA	**Mapping Date:**	03/29/2021
Site Name:	VZW: COLEBROOK CT	**Tower Type:**	Monopole
Site Number or ID:	PSLC: 468269	**Tower Height (Ft.):**	N/A
Mapping Contractor:	Roaming Networks Inc.	**Mount Elevation (Ft.):**	127.42

Please Insert Sketches of the Antenna Mount



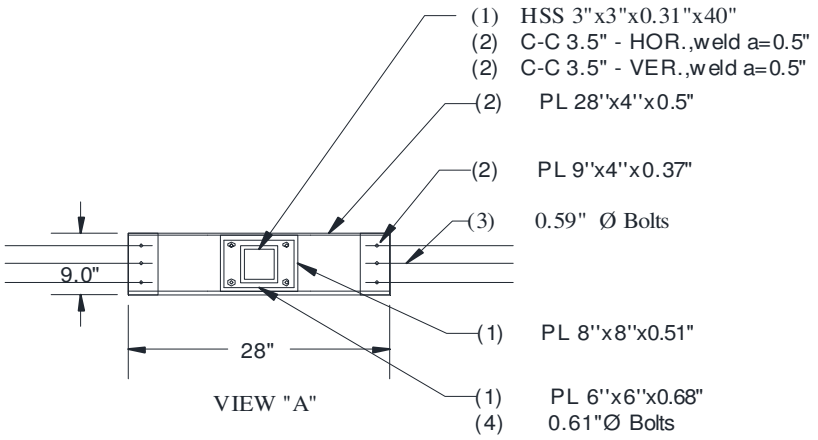
OVERALL MOUNT SCHEMATIC

Please Insert Sketches of the Antenna Mount, cont'd

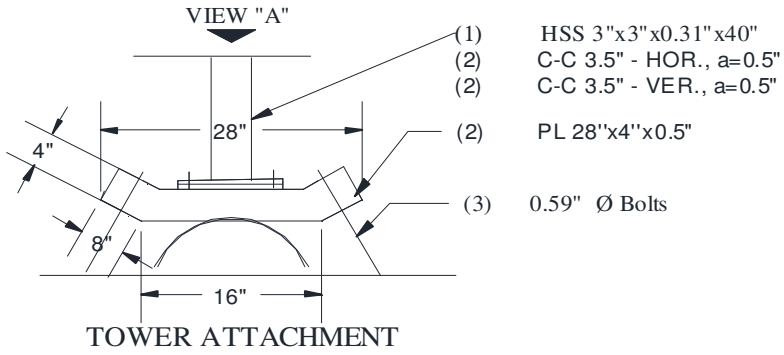


SECTOR A, B, C

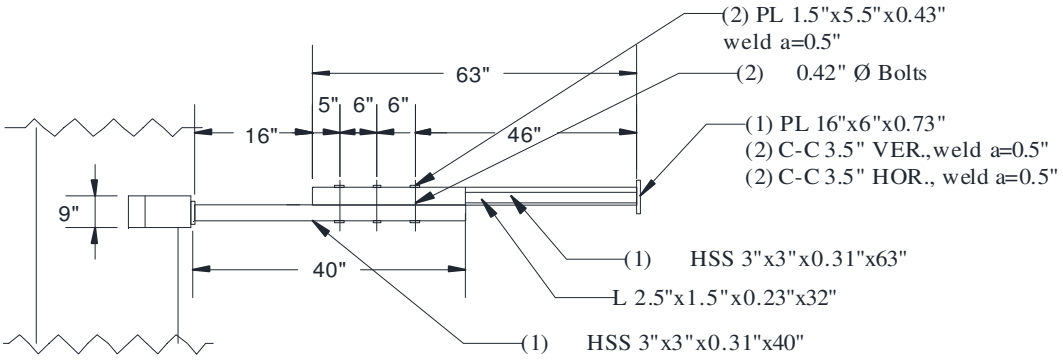
Please Insert Sketches of the Antenna Mount, cont'd



VIEW "A"

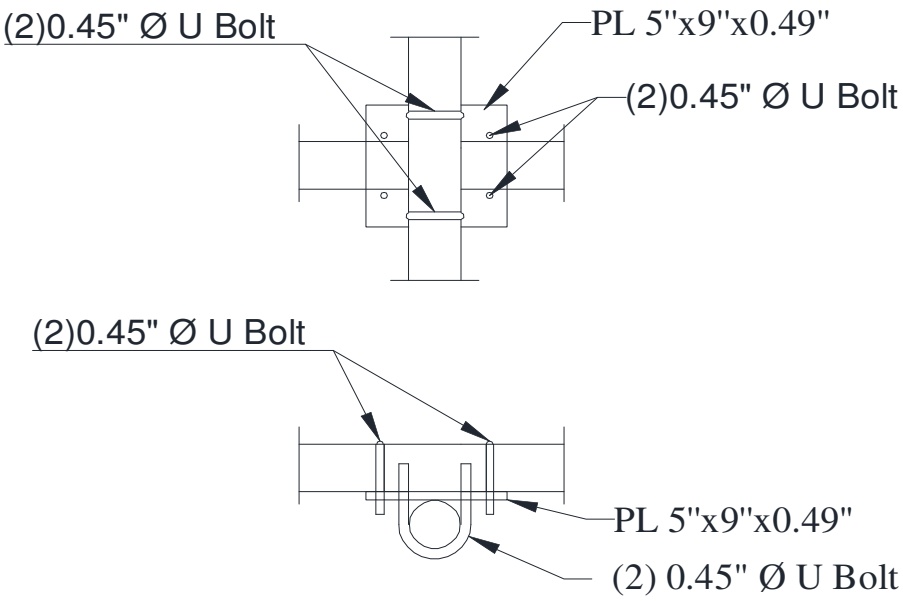


TOWER ATTACHMENT

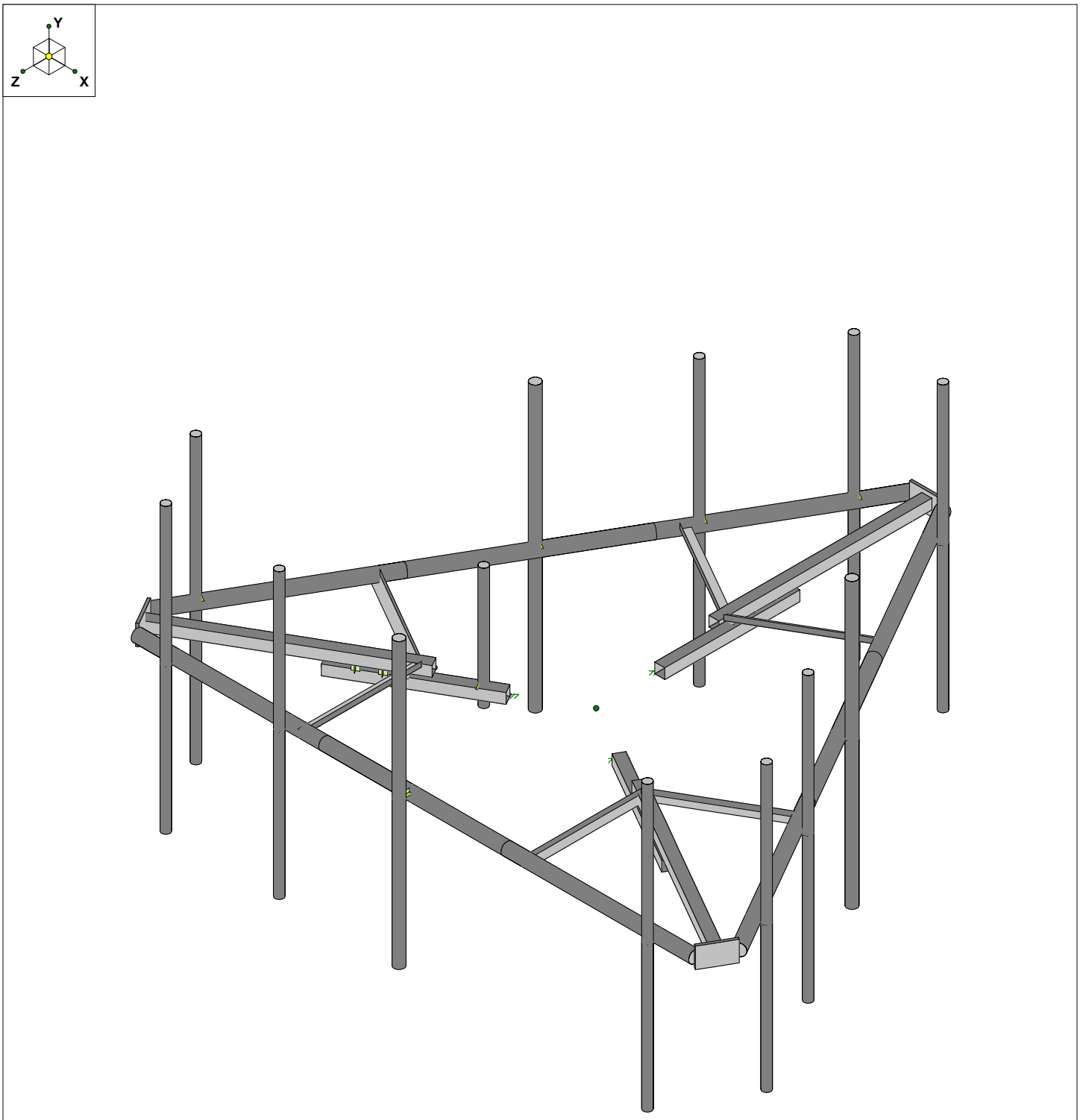


VIEW "B"

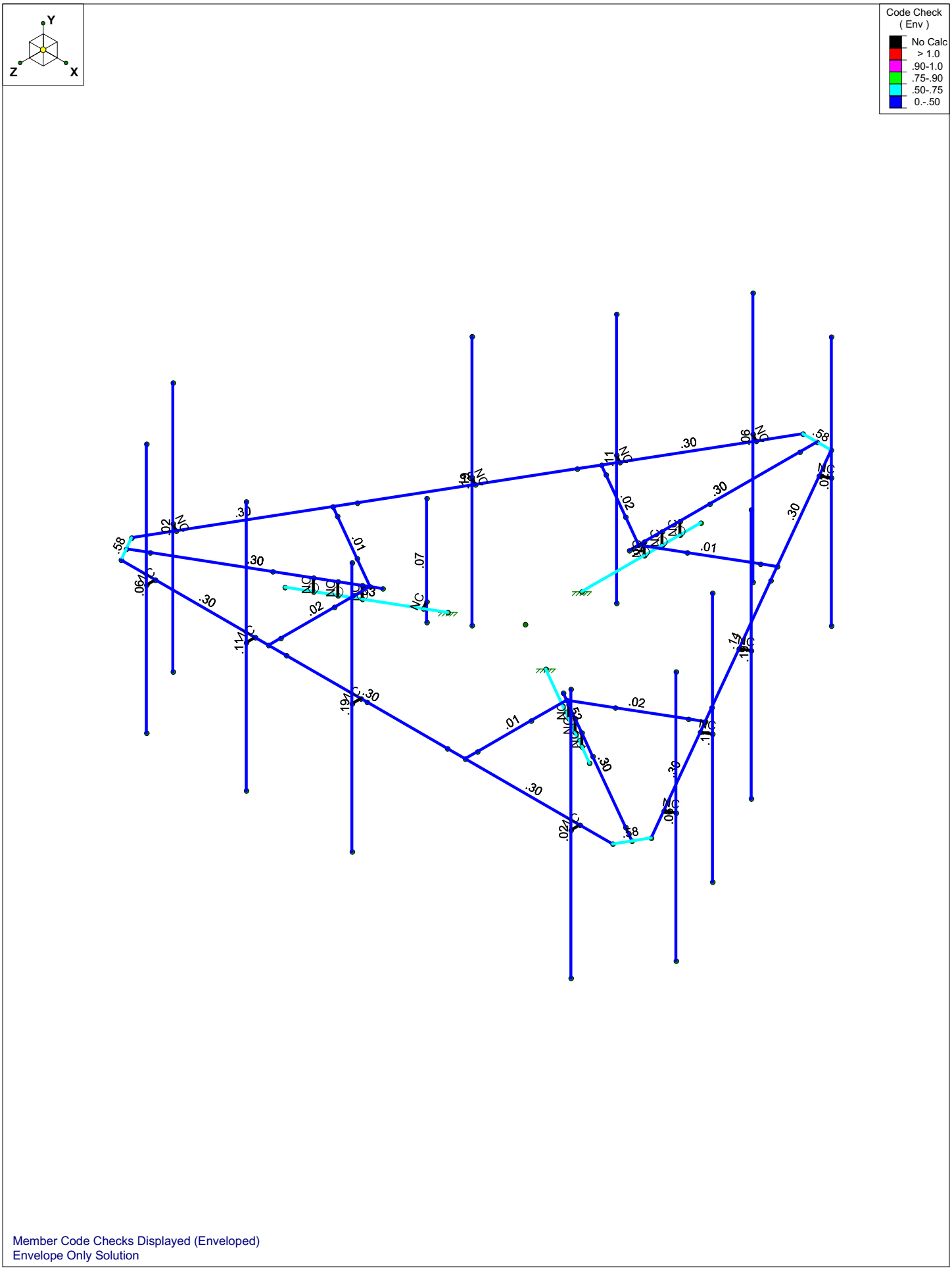
Please Insert Sketches of the Antenna Mount, cont'd



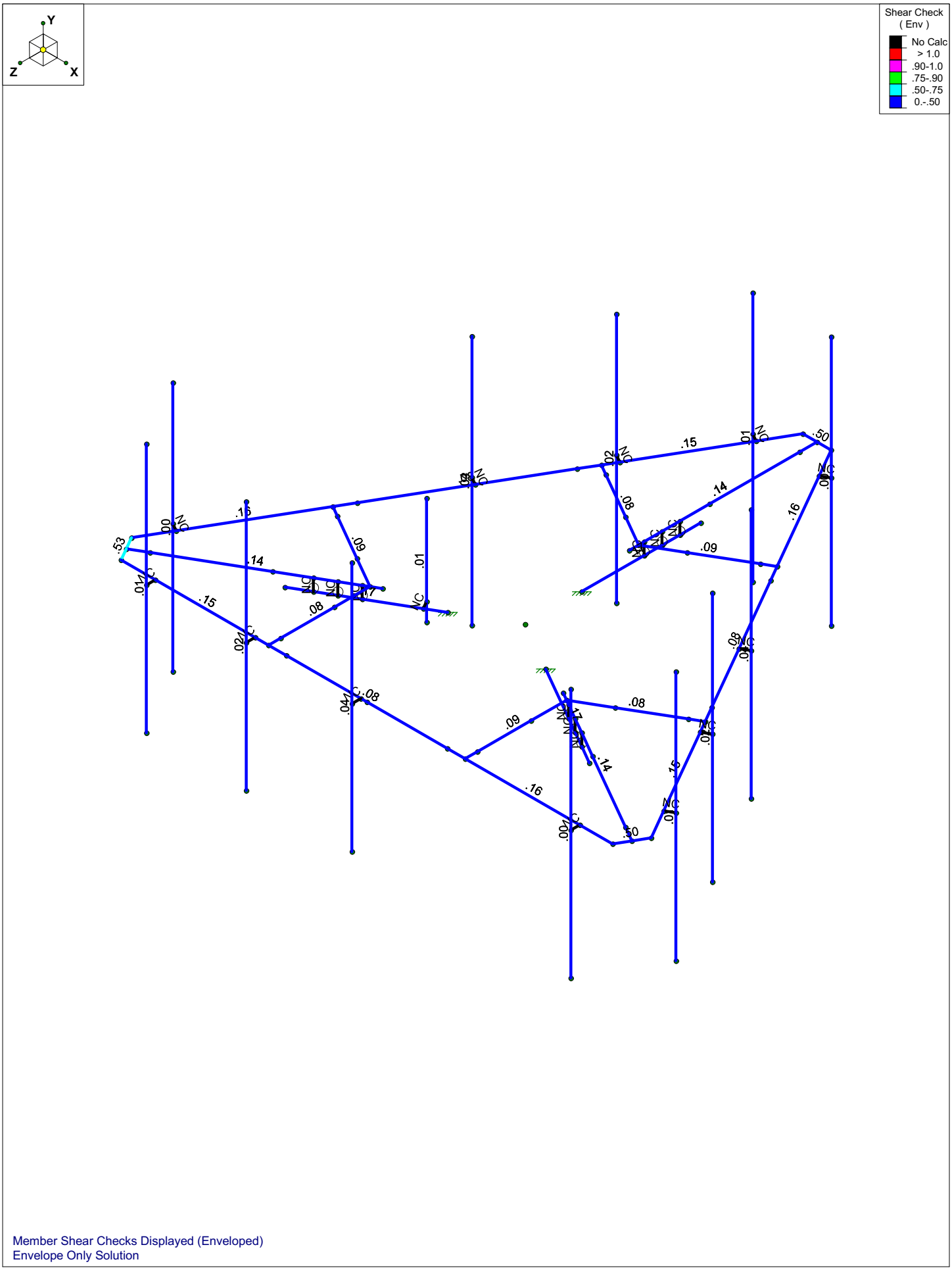
CONN. #1



Envelope Only Solution



Member Code Checks Displayed (Enveloped)
Envelope Only Solution



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
1	Antenna D	None					84			
2	Antenna Di	None					84			
3	Antenna Wo (0 Deg)	None					84			
4	Antenna Wo (30 Deg)	None					84			
5	Antenna Wo (60 Deg)	None					84			
6	Antenna Wo (90 Deg)	None					84			
7	Antenna Wo (120 Deg)	None					84			
8	Antenna Wo (150 Deg)	None					84			
9	Antenna Wo (180 Deg)	None					84			
10	Antenna Wo (210 Deg)	None					84			
11	Antenna Wo (240 Deg)	None					84			
12	Antenna Wo (270 Deg)	None					84			
13	Antenna Wo (300 Deg)	None					84			
14	Antenna Wo (330 Deg)	None					84			
15	Antenna Wi (0 Deg)	None					84			
16	Antenna Wi (30 Deg)	None					84			
17	Antenna Wi (60 Deg)	None					84			
18	Antenna Wi (90 Deg)	None					84			
19	Antenna Wi (120 Deg)	None					84			
20	Antenna Wi (150 Deg)	None					84			
21	Antenna Wi (180 Deg)	None					84			
22	Antenna Wi (210 Deg)	None					84			
23	Antenna Wi (240 Deg)	None					84			
24	Antenna Wi (270 Deg)	None					84			
25	Antenna Wi (300 Deg)	None					84			
26	Antenna Wi (330 Deg)	None					84			
27	Antenna Wm (0 Deg)	None					84			
28	Antenna Wm (30 Deg)	None					84			
29	Antenna Wm (60 Deg)	None					84			
30	Antenna Wm (90 Deg)	None					84			
31	Antenna Wm (120 Deg)	None					84			
32	Antenna Wm (150 Deg)	None					84			
33	Antenna Wm (180 Deg)	None					84			
34	Antenna Wm (210 Deg)	None					84			
35	Antenna Wm (240 Deg)	None					84			
36	Antenna Wm (270 Deg)	None					84			
37	Antenna Wm (300 Deg)	None					84			
38	Antenna Wm (330 Deg)	None					84			
39	Structure D	None		-1					3	
40	Structure Di	None						37	3	
41	Structure Wo (0 Deg)	None						74		
42	Structure Wo (30 Deg)	None						74		
43	Structure Wo (60 Deg)	None						74		
44	Structure Wo (90 Deg)	None						74		
45	Structure Wo (120 Deg)	None						74		
46	Structure Wo (150 Deg)	None						74		
47	Structure Wo (180 Deg)	None						74		
48	Structure Wo (210 Deg)	None						74		
49	Structure Wo (240 Deg)	None						74		
50	Structure Wo (270 Deg)	None						74		
51	Structure Wo (300 Deg)	None						74		
52	Structure Wo (330 Deg)	None						74		
53	Structure Wi (0 Deg)	None						74		
54	Structure Wi (30 Deg)	None						74		
55	Structure Wi (60 Deg)	None						74		
56	Structure Wi (90 Deg)	None						74		
57	Structure Wi (120 Deg)	None						74		
58	Structure Wi (150 Deg)	None						74		
59	Structure Wi (180 Deg)	None						74		
60	Structure Wi (210 Deg)	None						74		
61	Structure Wi (240 Deg)	None						74		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distribut...	Area(Me...	Surface(...
62	Structure Wi (270 Deg)	None						74		
63	Structure Wi (300 Deg)	None						74		
64	Structure Wi (330 Deg)	None						74		
65	Structure Wm (0 Deg)	None						74		
66	Structure Wm (30 Deg)	None						74		
67	Structure Wm (60 Deg)	None						74		
68	Structure Wm (90 Deg)	None						74		
69	Structure Wm (120 Deg)	None						74		
70	Structure Wm (150 Deg)	None						74		
71	Structure Wm (180 Deg)	None						74		
72	Structure Wm (210 Deg)	None						74		
73	Structure Wm (240 Deg)	None						74		
74	Structure Wm (270 Deg)	None						74		
75	Structure Wm (300 Deg)	None						74		
76	Structure Wm (330 Deg)	None						74		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			
81	BLC 39 Transient Area Loads	None						15		
82	BLC 40 Transient Area Loads	None						15		

Load Combinations

	Description	S...	PDe...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1														
2	1.2D+1.0Wo (30 Deg)	Yes	Y		1	1.2	39	1.2	4	1	42	1														
3	1.2D+1.0Wo (60 Deg)	Yes	Y		1	1.2	39	1.2	5	1	43	1														
4	1.2D+1.0Wo (90 Deg)	Yes	Y		1	1.2	39	1.2	6	1	44	1														
5	1.2D+1.0Wo (120 Deg)	Yes	Y		1	1.2	39	1.2	7	1	45	1														
6	1.2D+1.0Wo (150 Deg)	Yes	Y		1	1.2	39	1.2	8	1	46	1														
7	1.2D+1.0Wo (180 Deg)	Yes	Y		1	1.2	39	1.2	9	1	47	1														
8	1.2D+1.0Wo (210 Deg)	Yes	Y		1	1.2	39	1.2	10	1	48	1														
9	1.2D+1.0Wo (240 Deg)	Yes	Y		1	1.2	39	1.2	11	1	49	1														
10	1.2D+1.0Wo (270 Deg)	Yes	Y		1	1.2	39	1.2	12	1	50	1														
11	1.2D+1.0Wo (300 Deg)	Yes	Y		1	1.2	39	1.2	13	1	51	1														
12	1.2D+1.0Wo (330 Deg)	Yes	Y		1	1.2	39	1.2	14	1	52	1														
13	1.2D + 1.0Di + 1.0Wi (0 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1										
14	1.2D + 1.0Di + 1.0Wi (30 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1										
15	1.2D + 1.0Di + 1.0Wi (60 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1										
16	1.2D + 1.0Di + 1.0Wi (90 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1										
17	1.2D + 1.0Di + 1.0Wi (120 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1										
18	1.2D + 1.0Di + 1.0Wi (150 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1										
19	1.2D + 1.0Di + 1.0Wi (180 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1										
20	1.2D + 1.0Di + 1.0Wi (210 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1										
21	1.2D + 1.0Di + 1.0Wi (240 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1										
22	1.2D + 1.0Di + 1.0Wi (270 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1										
23	1.2D + 1.0Di + 1.0Wi (300 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1										
24	1.2D + 1.0Di + 1.0Wi (330 Deg)	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1										
25	1.2D + 1.5Lm1 + 1.0Wm (0 Deg)	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1												
26	1.2D + 1.5Lm1 + 1.0Wm (30 D...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1												
27	1.2D + 1.5Lm1 + 1.0Wm (60 D...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1												
28	1.2D + 1.5Lm1 + 1.0Wm (90 D...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1												
29	1.2D + 1.5Lm1 + 1.0Wm (120 ...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1												
30	1.2D + 1.5Lm1 + 1.0Wm (150 ...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1												
31	1.2D + 1.5Lm1 + 1.0Wm (180 ...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1												
32	1.2D + 1.5Lm1 + 1.0Wm (210 ...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1												
33	1.2D + 1.5Lm1 + 1.0Wm (240 ...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1												
34	1.2D + 1.5Lm1 + 1.0Wm (270 ...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1												
35	1.2D + 1.5Lm1 + 1.0Wm (300 ...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1												
36	1.2D + 1.5Lm1 + 1.0Wm (330 ...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1												

Load Combinations (Continued)

	Description	S...	PDe...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
37	1.2D + 1.5Lm2 + 1.0Wm (0 Deg)	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1.0Wm (30 D...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1.0Wm (60 D...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1.0Wm (90 D...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1.0Wm (120 ...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1.0Wm (150 ...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1.0Wm (180 ...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1.0Wm (210 ...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1.0Wm (240 ...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1.0Wm (270 ...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1.0Wm (300 ...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1.0Wm (330 ...	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	Seismic Mass		Y		1	1	39	1																
53	1.2D + 1.0Ev + 1.0Eh (0 Deg)		Y		1	1.2	39	1.2	SX		SY	1	SZ	-1										
54	1.2D + 1.0Ev + 1.0Eh (30 Deg)		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	-.8...										
55	1.2D + 1.0Ev + 1.0Eh (60 Deg)		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5										
56	1.2D + 1.0Ev + 1.0Eh (90 Deg)		Y		1	1.2	39	1.2	SX	1	SY	1	SZ											
57	1.2D + 1.0Ev + 1.0Eh (120 Deg)		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	.5										
58	1.2D + 1.0Ev + 1.0Eh (150 Deg)		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.866										
59	1.2D + 1.0Ev + 1.0Eh (180 Deg)		Y		1	1.2	39	1.2	SX		SY	1	SZ	1										
60	1.2D + 1.0Ev + 1.0Eh (210 Deg)		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866										
61	1.2D + 1.0Ev + 1.0Eh (240 Deg)		Y		1	1.2	39	1.2	SX	-.8...	SY	1	SZ	.5										
62	1.2D + 1.0Ev + 1.0Eh (270 Deg)		Y		1	1.2	39	1.2	SX	-1	SY	1	SZ											
63	1.2D + 1.0Ev + 1.0Eh (300 Deg)		Y		1	1.2	39	1.2	SX	-.8...	SY	1	SZ	-.5										
64	1.2D + 1.0Ev + 1.0Eh (330 Deg)		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.8...										

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Di...
1	N1	0	-0.333333	0	0	
2	N2	0	0	-2.916667	0	
3	N3	0	0	-8.166667	0	
4	N4	0.395115	0	-8.166667	0	
5	N5	-0.395115	0	-8.166667	0	
6	N6	0	-0.333333	-1.583333	0	
7	N7	0	-0.333333	-4.916667	0	
8	N8	0	0	-7.68125	0	
9	N9	0	0	-3.333333	0	
10	N10	0	-0.333333	-3.333333	0	
11	N11	0	0	-3.833333	0	
12	N12	0	-0.333333	-3.833333	0	
13	N13	0	0	-4.333333	0	
14	N14	0	-0.333333	-4.333333	0	
15	N15	-2.525907	0	1.458333	0	
16	N16	-7.072541	0	4.083333	0	
17	N17	-7.270098	0	3.741154	0	
18	N18	-6.875	0	4.425484	0	
19	N19	-1.371207	-0.333333	0.791667	0	
20	N20	-4.257958	-0.333333	2.458333	0	
21	N21	-6.652158	0	3.840625	0	
22	N22	-2.886751	0	1.666667	0	
23	N23	-2.886751	-0.333333	1.666667	0	
24	N24	-3.319764	0	1.916667	0	
25	N25	-3.319764	-0.333333	1.916667	0	
26	N26	-3.752777	0	2.166667	0	
27	N27	-3.752777	-0.333333	2.166667	0	
28	N28	2.525907	0	1.458333	0	
29	N29	7.072541	0	4.083333	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Di...
30	N30	6.874983	0	4.425513	0	
31	N31	7.270098	0	3.741154	0	
32	N32	1.371207	-0.333333	0.791667	0	
33	N33	4.257958	-0.333333	2.458333	0	
34	N34	6.652158	0	3.840625	0	
35	N35	2.886751	0	1.666667	0	
36	N36	2.886751	-0.333333	1.666667	0	
37	N37	3.319764	0	1.916667	0	
38	N38	3.319764	-0.333333	1.916667	0	
39	N39	3.752777	0	2.166667	0	
40	N40	3.752777	-0.333333	2.166667	0	
41	N41	0.	0	4.425513	0	
42	N42	-2.25	0	4.425513	0	
43	N43	2.25	0	4.425513	0	
44	N44	4.957606	0	-0.264199	0	
45	N45	2.707606	0	-4.161313	0	
46	N46	-2.707606	0	-4.161313	0	
47	N47	-4.957606	0	-0.264199	0	
48	N48	-2.75	0	4.425513	0	
49	N49	2.75	0	4.425513	0	
50	N50	-2.75	0	1.587713	0	
51	N51	2.75	0	1.587713	0	
52	N52	5.207606	0	0.168814	0	
53	N53	2.457606	0	-4.594326	0	
54	N54	-0.	0	-3.175426	0	
55	N55	-2.457606	0	-4.594326	0	
56	N56	-5.207606	0	0.168814	0	
57	N57	-2.75	0	4.083333	0	
58	N58	-2.75	0	2.583333	0	
59	N59	2.75	0	4.083333	0	
60	N60	2.75	0	2.583333	0	
61	N61	-4.474465	0	2.583333	0	
62	N62	4.91127	0	0.339903	0	
63	N63	3.612232	0	1.089903	0	
64	N64	2.16127	0	-4.423237	0	
65	N65	0.862232	0	-3.673237	0	
66	N66	4.474465	0	2.583333	0	
67	N67	-2.16127	0	-4.423237	0	
68	N68	-0.862232	0	-3.673237	0	
69	N69	-4.91127	0	0.339903	0	
70	N70	-3.612232	0	1.089903	0	
71	N71	-0.	0	-5.166667	0	
72	N72	5.958317	0	4.425513	0	
73	N73	5.958317	0	4.675513	0	
74	N74	5.958317	3.416667	4.675513	0	
75	N75	5.958317	-3.583333	4.675513	0	
76	N76	-0.166683	0	4.425513	0	
77	N77	-0.166683	0	4.675513	0	
78	N78	-0.166683	3.416667	4.675513	0	
79	N79	-0.166683	-3.583333	4.675513	0	
80	N80	-3.125017	0	4.425513	0	
81	N81	-3.125017	0	4.675513	0	
82	N82	-3.125017	3.416667	4.675513	0	
83	N83	-3.125017	-3.583333	4.675513	0	
84	N84	-5.916683	0	4.425513	0	
85	N85	-5.916683	0	4.675513	0	
86	N86	-5.916683	3.416667	4.675513	0	
87	N87	-5.916683	-3.583333	4.675513	0	
88	N88	0.853448	0	-7.37281	0	
89	N89	1.069954	0	-7.49781	0	
90	N90	1.069954	3.416667	-7.49781	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Di...
91	N91	1.069954	-3.583333	-7.49781	0	
92	N92	3.915948	0	-2.068404	0	
93	N93	4.132454	0	-2.193404	0	
94	N94	4.132454	3.416667	-2.193404	0	
95	N95	4.132454	-3.583333	-2.193404	0	
96	N96	5.395115	0	0.493587	0	
97	N97	5.611621	0	0.368587	0	
98	N98	5.611621	3.416667	0.368587	0	
99	N99	5.611621	-3.583333	0.368587	0	
100	N100	6.790948	0	2.911242	0	
101	N101	7.007454	0	2.786242	0	
102	N102	7.007454	3.416667	2.786242	0	
103	N103	7.007454	-3.583333	2.786242	0	
104	N104	-6.811765	0	2.947297	0	
105	N105	-7.028271	0	2.822297	0	
106	N106	-7.028271	3.416667	2.822297	0	
107	N107	-7.028271	-3.583333	2.822297	0	
108	N108	-3.749265	0	-2.357108	0	
109	N109	-3.965771	0	-2.482108	0	
110	N110	-3.965771	3.416667	-2.482108	0	
111	N111	-3.965771	-3.583333	-2.482108	0	
112	N112	-2.270098	0	-4.9191	0	
113	N113	-2.486604	0	-5.0441	0	
114	N114	-2.486604	3.416667	-5.0441	0	
115	N115	-2.486604	-3.583333	-5.0441	0	
116	N116	-0.874265	0	-7.336754	0	
117	N117	-1.090771	0	-7.461754	0	
118	N118	-1.090771	3.416667	-7.461754	0	
119	N119	-1.090771	-3.583333	-7.461754	0	
120	N120	-1.80422	-0.333333	1.041667	0	
121	N121	-1.92922	-0.333333	0.82516	0	
122	N122	-1.92922	-0.833333	0.82516	0	
123	N123	-1.92922	2.166667	0.82516	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Standoff Off	HSS3X3X5	Beam	Tube	A500 Gr. B 46	Typical	2.94	3.45	3.45	5.94
2	Face Horizontal	PIPE_3.0	Beam	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
3	Platform Support	L2.5x1.5x4	Beam	Single Angle	A36 Gr.36	Typical	.947	.16	.594	.021
4	Mount Pipe	PIPE_2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
5	Corner Plate	PL3/4X6	Beam	RECT	A36 Gr.36	Typical	4.5	.211	13.5	.777
6	Dual Antenna	PIPE_2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89

Hot Rolled Steel Properties

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

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rot...	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N3			Standoff Off	Beam	Tube	A500 Gr. B...	Typical
2	M4	N5	N4			Corner Plate	Beam	RECT	A36 Gr.36	Typical
3	M8	N6	N7			Standoff Off	Beam	Tube	A500 Gr. B...	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rot...	Section/Shape	Type	Design List	Material	Design Rules
4	M45	N9	N10	N1		RIGID	None	None	RIGID	Typical
5	M46	N11	N12	N1		RIGID	None	None	RIGID	Typical
6	M47	N13	N14	N1		RIGID	None	None	RIGID	Typical
7	M11	N15	N16			Standoff Off	Beam	Tube	A500 Gr. B...	Typical
8	M12	N18	N17			Corner Plate	Beam	RECT	A36 Gr.36	Typical
9	M13	N19	N20			Standoff Off	Beam	Tube	A500 Gr. B...	Typical
10	M16	N22	N23	N1		RIGID	None	None	RIGID	Typical
11	M17A	N24	N25	N1		RIGID	None	None	RIGID	Typical
12	M18	N26	N27	N1		RIGID	None	None	RIGID	Typical
13	M21A	N28	N29			Standoff Off	Beam	Tube	A500 Gr. B...	Typical
14	M22	N31	N30			Corner Plate	Beam	RECT	A36 Gr.36	Typical
15	M23	N32	N33			Standoff Off	Beam	Tube	A500 Gr. B...	Typical
16	M26	N35	N36	N1		RIGID	None	None	RIGID	Typical
17	M27	N37	N38	N1		RIGID	None	None	RIGID	Typical
18	M28	N39	N40	N1		RIGID	None	None	RIGID	Typical
19	M31	N18	N42			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
20	M32	N42	N43			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
21	M33	N43	N30			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
22	M22A	N31	N44			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
23	M23A	N44	N45			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
24	M24	N45	N4			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
25	M25	N5	N46			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
26	M26A	N46	N47			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
27	M27A	N47	N17			Face Horizontal	Beam	Pipe	A53 Gr. B	Typical
28	M28A	N48	N50		270	Platform Support	Beam	Single Angle	A36 Gr.36	Typical
29	M29	N51	N49		270	Platform Support	Beam	Single Angle	A36 Gr.36	Typical
30	M30	N52	N51		270	Platform Support	Beam	Single Angle	A36 Gr.36	Typical
31	M31A	N54	N53		270	Platform Support	Beam	Single Angle	A36 Gr.36	Typical
32	M32A	N55	N54		270	Platform Support	Beam	Single Angle	A36 Gr.36	Typical
33	M33A	N50	N56		270	Platform Support	Beam	Single Angle	A36 Gr.36	Typical
34	M34	N72	N73			RIGID	None	None	RIGID	Typical
35	MP1A	N74	N75			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
36	M36	N76	N77			RIGID	None	None	RIGID	Typical
37	MP2A	N78	N79			Dual Antenna	Column	Pipe	A53 Gr. B	Typical
38	M38	N80	N81			RIGID	None	None	RIGID	Typical
39	MP3A	N82	N83			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
40	M40	N84	N85			RIGID	None	None	RIGID	Typical
41	MP4A	N86	N87			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
42	M42	N88	N89			RIGID	None	None	RIGID	Typical
43	MP1C	N90	N91			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
44	M44	N92	N93			RIGID	None	None	RIGID	Typical
45	MP2C	N94	N95			Dual Antenna	Column	Pipe	A53 Gr. B	Typical
46	M46A	N96	N97			RIGID	None	None	RIGID	Typical
47	MP3C	N98	N99			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
48	M48	N100	N101			RIGID	None	None	RIGID	Typical
49	MP4C	N102	N103			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
50	M50	N104	N105			RIGID	None	None	RIGID	Typical
51	MP1B	N106	N107			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
52	M52	N108	N109			RIGID	None	None	RIGID	Typical
53	MP2B	N110	N111			Dual Antenna	Column	Pipe	A53 Gr. B	Typical
54	M54	N112	N113			RIGID	None	None	RIGID	Typical
55	MP3B	N114	N115			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
56	M56	N116	N117			RIGID	None	None	RIGID	Typical
57	MP4B	N118	N119			Mount Pipe	Column	Pipe	A53 Gr. B	Typical
58	M58	N120	N121			RIGID	None	None	RIGID	Typical
59	M59	N123	N122			Mount Pipe	Column	Pipe	A53 Gr. B	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M4						Yes				None
3	M8						Yes				None
4	M45	BenPIN					Yes	** NA **			None
5	M46	BenPIN					Yes	** NA **			None
6	M47	BenPIN					Yes	** NA **			None
7	M11						Yes				None
8	M12						Yes				None
9	M13						Yes				None
10	M16	BenPIN					Yes	** NA **			None
11	M17A	BenPIN					Yes	** NA **			None
12	M18	BenPIN					Yes	** NA **			None
13	M21A						Yes				None
14	M22						Yes				None
15	M23						Yes				None
16	M26	BenPIN					Yes	** NA **			None
17	M27	BenPIN					Yes	** NA **			None
18	M28	BenPIN					Yes	** NA **			None
19	M31						Yes				None
20	M32						Yes				None
21	M33						Yes				None
22	M22A						Yes				None
23	M23A						Yes				None
24	M24						Yes				None
25	M25						Yes				None
26	M26A						Yes				None
27	M27A						Yes				None
28	M28A					Euler Buc...	Yes				None
29	M29					Euler Buc...	Yes				None
30	M30					Euler Buc...	Yes				None
31	M31A					Euler Buc...	Yes				None
32	M32A					Euler Buc...	Yes				None
33	M33A					Euler Buc...	Yes	Default			None
34	M34						Yes	** NA **			None
35	MP1A						Yes	** NA **			None
36	M36						Yes	** NA **			None
37	MP2A						Yes	** NA **			None
38	M38						Yes	** NA **			None
39	MP3A						Yes	** NA **			None
40	M40						Yes	** NA **			None
41	MP4A						Yes	** NA **			None
42	M42						Yes	** NA **			None
43	MP1C						Yes	** NA **			None
44	M44						Yes	** NA **			None
45	MP2C						Yes	** NA **			None
46	M46A						Yes	** NA **			None
47	MP3C						Yes	** NA **			None
48	M48						Yes	** NA **			None
49	MP4C						Yes	** NA **			None
50	M50						Yes	** NA **			None
51	MP1B						Yes	** NA **			None
52	M52						Yes	** NA **			None
53	MP2B						Yes	** NA **			None
54	M54						Yes	** NA **			None
55	MP3B						Yes	** NA **			None
56	M56						Yes	** NA **			None
57	MP4B						Yes	** NA **			None
58	M58						Yes	** NA **			None
59	M59						Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-21.85	1
2	MP2A	My	-.011	1
3	MP2A	Mz	.013	1
4	MP2A	Y	-21.85	5
5	MP2A	My	-.011	5
6	MP2A	Mz	.013	5
7	MP2B	Y	-21.85	1
8	MP2B	My	-.006	1
9	MP2B	Mz	-.016	1
10	MP2B	Y	-21.85	5
11	MP2B	My	-.006	5
12	MP2B	Mz	-.016	5
13	MP2C	Y	-21.85	1
14	MP2C	My	.017	1
15	MP2C	Mz	.003	1
16	MP2C	Y	-21.85	5
17	MP2C	My	.017	5
18	MP2C	Mz	.003	5
19	MP2A	Y	-21.85	1
20	MP2A	My	-.011	1
21	MP2A	Mz	-.013	1
22	MP2A	Y	-21.85	5
23	MP2A	My	-.011	5
24	MP2A	Mz	-.013	5
25	MP2B	Y	-21.85	1
26	MP2B	My	.017	1
27	MP2B	Mz	-.003	1
28	MP2B	Y	-21.85	5
29	MP2B	My	.017	5
30	MP2B	Mz	-.003	5
31	MP2C	Y	-21.85	1
32	MP2C	My	-.006	1
33	MP2C	Mz	.016	1
34	MP2C	Y	-21.85	5
35	MP2C	My	-.006	5
36	MP2C	Mz	.016	5
37	MP3A	Y	-43.55	2
38	MP3A	My	-.022	2
39	MP3A	Mz	0	2
40	MP3A	Y	-43.55	4
41	MP3A	My	-.022	4
42	MP3A	Mz	0	4
43	MP3B	Y	-43.55	2
44	MP3B	My	.011	2
45	MP3B	Mz	-.019	2
46	MP3B	Y	-43.55	4
47	MP3B	My	.011	4
48	MP3B	Mz	-.019	4
49	MP3C	Y	-43.55	2
50	MP3C	My	.011	2
51	MP3C	Mz	.019	2
52	MP3C	Y	-43.55	4
53	MP3C	My	.011	4
54	MP3C	Mz	.019	4
55	M59	Y	-32	1.5
56	M59	My	0	1.5
57	M59	Mz	0	1.5
58	MP2A	Y	-84.4	2.5
59	MP2A	My	.042	2.5
60	MP2A	Mz	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
61	MP2B	Y	-84.4	2.5
62	MP2B	My	-.021	2.5
63	MP2B	Mz	.037	2.5
64	MP2C	Y	-84.4	2.5
65	MP2C	My	-.021	2.5
66	MP2C	Mz	-.037	2.5
67	MP3A	Y	-70.3	2.5
68	MP3A	My	.035	2.5
69	MP3A	Mz	0	2.5
70	MP3B	Y	-70.3	2.5
71	MP3B	My	-.018	2.5
72	MP3B	Mz	.03	2.5
73	MP3C	Y	-70.3	2.5
74	MP3C	My	-.018	2.5
75	MP3C	Mz	-.03	2.5
76	MP4A	Y	-52.9	2.5
77	MP4A	My	.013	2.5
78	MP4A	Mz	0	2.5
79	MP4B	Y	-52.9	2.5
80	MP4B	My	-.007	2.5
81	MP4B	Mz	.011	2.5
82	MP4C	Y	-52.9	2.5
83	MP4C	My	-.007	2.5
84	MP4C	Mz	-.011	2.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	Y	-60.671	1
2	MP2A	My	-.03	1
3	MP2A	Mz	.035	1
4	MP2A	Y	-60.671	5
5	MP2A	My	-.03	5
6	MP2A	Mz	.035	5
7	MP2B	Y	-60.671	1
8	MP2B	My	-.015	1
9	MP2B	Mz	-.044	1
10	MP2B	Y	-60.671	5
11	MP2B	My	-.015	5
12	MP2B	Mz	-.044	5
13	MP2C	Y	-60.671	1
14	MP2C	My	.046	1
15	MP2C	Mz	.009	1
16	MP2C	Y	-60.671	5
17	MP2C	My	.046	5
18	MP2C	Mz	.009	5
19	MP2A	Y	-60.671	1
20	MP2A	My	-.03	1
21	MP2A	Mz	-.035	1
22	MP2A	Y	-60.671	5
23	MP2A	My	-.03	5
24	MP2A	Mz	-.035	5
25	MP2B	Y	-60.671	1
26	MP2B	My	.046	1
27	MP2B	Mz	-.009	1
28	MP2B	Y	-60.671	5
29	MP2B	My	.046	5
30	MP2B	Mz	-.009	5
31	MP2C	Y	-60.671	1
32	MP2C	My	-.015	1
33	MP2C	Mz	.044	1
34	MP2C	Y	-60.671	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP2C	My	-.015	5
36	MP2C	Mz	.044	5
37	MP3A	Y	-35.248	2
38	MP3A	My	-.018	2
39	MP3A	Mz	0	2
40	MP3A	Y	-35.248	4
41	MP3A	My	-.018	4
42	MP3A	Mz	0	4
43	MP3B	Y	-35.248	2
44	MP3B	My	.009	2
45	MP3B	Mz	-.015	2
46	MP3B	Y	-35.248	4
47	MP3B	My	.009	4
48	MP3B	Mz	-.015	4
49	MP3C	Y	-35.248	2
50	MP3C	My	.009	2
51	MP3C	Mz	.015	2
52	MP3C	Y	-35.248	4
53	MP3C	My	.009	4
54	MP3C	Mz	.015	4
55	M59	Y	-87.026	1.5
56	M59	My	0	1.5
57	M59	Mz	0	1.5
58	MP2A	Y	-44.433	2.5
59	MP2A	My	.022	2.5
60	MP2A	Mz	0	2.5
61	MP2B	Y	-44.433	2.5
62	MP2B	My	-.011	2.5
63	MP2B	Mz	.019	2.5
64	MP2C	Y	-44.433	2.5
65	MP2C	My	-.011	2.5
66	MP2C	Mz	-.019	2.5
67	MP3A	Y	-39.956	2.5
68	MP3A	My	.02	2.5
69	MP3A	Mz	0	2.5
70	MP3B	Y	-39.956	2.5
71	MP3B	My	-.01	2.5
72	MP3B	Mz	.017	2.5
73	MP3C	Y	-39.956	2.5
74	MP3C	My	-.01	2.5
75	MP3C	Mz	-.017	2.5
76	MP4A	Y	-36.988	2.5
77	MP4A	My	.009	2.5
78	MP4A	Mz	0	2.5
79	MP4B	Y	-36.988	2.5
80	MP4B	My	-.005	2.5
81	MP4B	Mz	.008	2.5
82	MP4C	Y	-36.988	2.5
83	MP4C	My	-.005	2.5
84	MP4C	Mz	-.008	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1
2	MP2A	Z	-117.644	1
3	MP2A	Mx	-.069	1
4	MP2A	X	0	5
5	MP2A	Z	-117.644	5
6	MP2A	Mx	-.069	5
7	MP2B	X	0	1
8	MP2B	Z	-87.984	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
9	MP2B	Mx	.064	1
10	MP2B	X	0	5
11	MP2B	Z	-87.984	5
12	MP2B	Mx	.064	5
13	MP2C	X	0	1
14	MP2C	Z	-87.984	1
15	MP2C	Mx	-.012	1
16	MP2C	X	0	5
17	MP2C	Z	-87.984	5
18	MP2C	Mx	-.012	5
19	MP2A	X	0	1
20	MP2A	Z	-117.644	1
21	MP2A	Mx	.069	1
22	MP2A	X	0	5
23	MP2A	Z	-117.644	5
24	MP2A	Mx	.069	5
25	MP2B	X	0	1
26	MP2B	Z	-87.984	1
27	MP2B	Mx	.012	1
28	MP2B	X	0	5
29	MP2B	Z	-87.984	5
30	MP2B	Mx	.012	5
31	MP2C	X	0	1
32	MP2C	Z	-87.984	1
33	MP2C	Mx	-.064	1
34	MP2C	X	0	5
35	MP2C	Z	-87.984	5
36	MP2C	Mx	-.064	5
37	MP3A	X	0	2
38	MP3A	Z	-67.678	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	-67.678	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	-36.791	2
45	MP3B	Mx	.016	2
46	MP3B	X	0	4
47	MP3B	Z	-36.791	4
48	MP3B	Mx	.016	4
49	MP3C	X	0	2
50	MP3C	Z	-36.791	2
51	MP3C	Mx	-.016	2
52	MP3C	X	0	4
53	MP3C	Z	-36.791	4
54	MP3C	Mx	-.016	4
55	M59	X	0	1.5
56	M59	Z	-116.924	1.5
57	M59	Mx	0	1.5
58	MP2A	X	0	2.5
59	MP2A	Z	-53.854	2.5
60	MP2A	Mx	0	2.5
61	MP2B	X	0	2.5
62	MP2B	Z	-40.463	2.5
63	MP2B	Mx	-.018	2.5
64	MP2C	X	0	2.5
65	MP2C	Z	-40.463	2.5
66	MP2C	Mx	.018	2.5
67	MP3A	X	0	2.5
68	MP3A	Z	-53.854	2.5
69	MP3A	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
70	MP3B	X	0	2.5
71	MP3B	Z	-35.333	2.5
72	MP3B	Mx	-.015	2.5
73	MP3C	X	0	2.5
74	MP3C	Z	-35.333	2.5
75	MP3C	Mx	.015	2.5
76	MP4A	X	0	2.5
77	MP4A	Z	-56.446	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	2.5
80	MP4B	Z	-31.852	2.5
81	MP4B	Mx	-.007	2.5
82	MP4C	X	0	2.5
83	MP4C	Z	-31.852	2.5
84	MP4C	Mx	.007	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	53.879	1
2	MP2A	Z	-93.321	1
3	MP2A	Mx	-.081	1
4	MP2A	X	53.879	5
5	MP2A	Z	-93.321	5
6	MP2A	Mx	-.081	5
7	MP2B	X	39.049	1
8	MP2B	Z	-67.634	1
9	MP2B	Mx	.039	1
10	MP2B	X	39.049	5
11	MP2B	Z	-67.634	5
12	MP2B	Mx	.039	5
13	MP2C	X	53.879	1
14	MP2C	Z	-93.321	1
15	MP2C	Mx	.027	1
16	MP2C	X	53.879	5
17	MP2C	Z	-93.321	5
18	MP2C	Mx	.027	5
19	MP2A	X	53.879	1
20	MP2A	Z	-93.321	1
21	MP2A	Mx	.027	1
22	MP2A	X	53.879	5
23	MP2A	Z	-93.321	5
24	MP2A	Mx	.027	5
25	MP2B	X	39.049	1
26	MP2B	Z	-67.634	1
27	MP2B	Mx	.039	1
28	MP2B	X	39.049	5
29	MP2B	Z	-67.634	5
30	MP2B	Mx	.039	5
31	MP2C	X	53.879	1
32	MP2C	Z	-93.321	1
33	MP2C	Mx	-.081	1
34	MP2C	X	53.879	5
35	MP2C	Z	-93.321	5
36	MP2C	Mx	-.081	5
37	MP3A	X	28.691	2
38	MP3A	Z	-49.694	2
39	MP3A	Mx	-.014	2
40	MP3A	X	28.691	4
41	MP3A	Z	-49.694	4
42	MP3A	Mx	-.014	4
43	MP3B	X	13.248	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
44	MP3B	Z	-22.946	2
45	MP3B	Mx	.013	2
46	MP3B	X	13.248	4
47	MP3B	Z	-22.946	4
48	MP3B	Mx	.013	4
49	MP3C	X	28.691	2
50	MP3C	Z	-49.694	2
51	MP3C	Mx	-.014	2
52	MP3C	X	28.691	4
53	MP3C	Z	-49.694	4
54	MP3C	Mx	-.014	4
55	M59	X	54.997	1.5
56	M59	Z	-95.258	1.5
57	M59	Mx	0	1.5
58	MP2A	X	24.695	2.5
59	MP2A	Z	-42.773	2.5
60	MP2A	Mx	.012	2.5
61	MP2B	X	17.999	2.5
62	MP2B	Z	-31.176	2.5
63	MP2B	Mx	-.018	2.5
64	MP2C	X	24.695	2.5
65	MP2C	Z	-42.773	2.5
66	MP2C	Mx	.012	2.5
67	MP3A	X	23.84	2.5
68	MP3A	Z	-41.292	2.5
69	MP3A	Mx	.012	2.5
70	MP3B	X	14.579	2.5
71	MP3B	Z	-25.252	2.5
72	MP3B	Mx	-.015	2.5
73	MP3C	X	23.84	2.5
74	MP3C	Z	-41.292	2.5
75	MP3C	Mx	.012	2.5
76	MP4A	X	24.124	2.5
77	MP4A	Z	-41.784	2.5
78	MP4A	Mx	.006	2.5
79	MP4B	X	11.827	2.5
80	MP4B	Z	-20.485	2.5
81	MP4B	Mx	-.006	2.5
82	MP4C	X	24.124	2.5
83	MP4C	Z	-41.784	2.5
84	MP4C	Mx	.006	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	76.196	1
2	MP2A	Z	-43.992	1
3	MP2A	Mx	-.064	1
4	MP2A	X	76.196	5
5	MP2A	Z	-43.992	5
6	MP2A	Mx	-.064	5
7	MP2B	X	76.196	1
8	MP2B	Z	-43.992	1
9	MP2B	Mx	.012	1
10	MP2B	X	76.196	5
11	MP2B	Z	-43.992	5
12	MP2B	Mx	.012	5
13	MP2C	X	101.883	1
14	MP2C	Z	-58.822	1
15	MP2C	Mx	.069	1
16	MP2C	X	101.883	5
17	MP2C	Z	-58.822	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
18	MP2C	Mx	.069	5
19	MP2A	X	76.196	1
20	MP2A	Z	-43.992	1
21	MP2A	Mx	-.012	1
22	MP2A	X	76.196	5
23	MP2A	Z	-43.992	5
24	MP2A	Mx	-.012	5
25	MP2B	X	76.196	1
26	MP2B	Z	-43.992	1
27	MP2B	Mx	.064	1
28	MP2B	X	76.196	5
29	MP2B	Z	-43.992	5
30	MP2B	Mx	.064	5
31	MP2C	X	101.883	1
32	MP2C	Z	-58.822	1
33	MP2C	Mx	-.069	1
34	MP2C	X	101.883	5
35	MP2C	Z	-58.822	5
36	MP2C	Mx	-.069	5
37	MP3A	X	31.862	2
38	MP3A	Z	-18.396	2
39	MP3A	Mx	-.016	2
40	MP3A	X	31.862	4
41	MP3A	Z	-18.396	4
42	MP3A	Mx	-.016	4
43	MP3B	X	31.862	2
44	MP3B	Z	-18.396	2
45	MP3B	Mx	.016	2
46	MP3B	X	31.862	4
47	MP3B	Z	-18.396	4
48	MP3B	Mx	.016	4
49	MP3C	X	58.611	2
50	MP3C	Z	-33.839	2
51	MP3C	Mx	0	2
52	MP3C	X	58.611	4
53	MP3C	Z	-33.839	4
54	MP3C	Mx	0	4
55	M59	X	83.255	1.5
56	M59	Z	-48.067	1.5
57	M59	Mx	0	1.5
58	MP2A	X	35.042	2.5
59	MP2A	Z	-20.231	2.5
60	MP2A	Mx	.018	2.5
61	MP2B	X	35.042	2.5
62	MP2B	Z	-20.231	2.5
63	MP2B	Mx	-.018	2.5
64	MP2C	X	46.639	2.5
65	MP2C	Z	-26.927	2.5
66	MP2C	Mx	0	2.5
67	MP3A	X	30.599	2.5
68	MP3A	Z	-17.666	2.5
69	MP3A	Mx	.015	2.5
70	MP3B	X	30.599	2.5
71	MP3B	Z	-17.666	2.5
72	MP3B	Mx	-.015	2.5
73	MP3C	X	46.639	2.5
74	MP3C	Z	-26.927	2.5
75	MP3C	Mx	0	2.5
76	MP4A	X	27.584	2.5
77	MP4A	Z	-15.926	2.5
78	MP4A	Mx	.007	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
79	MP4B	X	27.584	2.5
80	MP4B	Z	-15.926	2.5
81	MP4B	Mx	-.007	2.5
82	MP4C	X	48.884	2.5
83	MP4C	Z	-28.223	2.5
84	MP4C	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	78.097	1
2	MP2A	Z	0	1
3	MP2A	Mx	-.039	1
4	MP2A	X	78.097	5
5	MP2A	Z	0	5
6	MP2A	Mx	-.039	5
7	MP2B	X	107.757	1
8	MP2B	Z	0	1
9	MP2B	Mx	-.027	1
10	MP2B	X	107.757	5
11	MP2B	Z	0	5
12	MP2B	Mx	-.027	5
13	MP2C	X	107.757	1
14	MP2C	Z	0	1
15	MP2C	Mx	.081	1
16	MP2C	X	107.757	5
17	MP2C	Z	0	5
18	MP2C	Mx	.081	5
19	MP2A	X	78.097	1
20	MP2A	Z	0	1
21	MP2A	Mx	-.039	1
22	MP2A	X	78.097	5
23	MP2A	Z	0	5
24	MP2A	Mx	-.039	5
25	MP2B	X	107.757	1
26	MP2B	Z	0	1
27	MP2B	Mx	.081	1
28	MP2B	X	107.757	5
29	MP2B	Z	0	5
30	MP2B	Mx	.081	5
31	MP2C	X	107.757	1
32	MP2C	Z	0	1
33	MP2C	Mx	-.027	1
34	MP2C	X	107.757	5
35	MP2C	Z	0	5
36	MP2C	Mx	-.027	5
37	MP3A	X	26.496	2
38	MP3A	Z	0	2
39	MP3A	Mx	-.013	2
40	MP3A	X	26.496	4
41	MP3A	Z	0	4
42	MP3A	Mx	-.013	4
43	MP3B	X	57.382	2
44	MP3B	Z	0	2
45	MP3B	Mx	.014	2
46	MP3B	X	57.382	4
47	MP3B	Z	0	4
48	MP3B	Mx	.014	4
49	MP3C	X	57.382	2
50	MP3C	Z	0	2
51	MP3C	Mx	.014	2
52	MP3C	X	57.382	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
53	MP3C	Z	0	4
54	MP3C	Mx	.014	4
55	M59	X	89.205	1.5
56	M59	Z	0	1.5
57	M59	Mx	0	1.5
58	MP2A	X	35.999	2.5
59	MP2A	Z	0	2.5
60	MP2A	Mx	.018	2.5
61	MP2B	X	49.39	2.5
62	MP2B	Z	0	2.5
63	MP2B	Mx	-.012	2.5
64	MP2C	X	49.39	2.5
65	MP2C	Z	0	2.5
66	MP2C	Mx	-.012	2.5
67	MP3A	X	29.159	2.5
68	MP3A	Z	0	2.5
69	MP3A	Mx	.015	2.5
70	MP3B	X	47.68	2.5
71	MP3B	Z	0	2.5
72	MP3B	Mx	-.012	2.5
73	MP3C	X	47.68	2.5
74	MP3C	Z	0	2.5
75	MP3C	Mx	-.012	2.5
76	MP4A	X	23.654	2.5
77	MP4A	Z	0	2.5
78	MP4A	Mx	.006	2.5
79	MP4B	X	48.248	2.5
80	MP4B	Z	0	2.5
81	MP4B	Mx	-.006	2.5
82	MP4C	X	48.248	2.5
83	MP4C	Z	0	2.5
84	MP4C	Mx	-.006	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	76.196	1
2	MP2A	Z	43.992	1
3	MP2A	Mx	-.012	1
4	MP2A	X	76.196	5
5	MP2A	Z	43.992	5
6	MP2A	Mx	-.012	5
7	MP2B	X	101.883	1
8	MP2B	Z	58.822	1
9	MP2B	Mx	-.069	1
10	MP2B	X	101.883	5
11	MP2B	Z	58.822	5
12	MP2B	Mx	-.069	5
13	MP2C	X	76.196	1
14	MP2C	Z	43.992	1
15	MP2C	Mx	.064	1
16	MP2C	X	76.196	5
17	MP2C	Z	43.992	5
18	MP2C	Mx	.064	5
19	MP2A	X	76.196	1
20	MP2A	Z	43.992	1
21	MP2A	Mx	-.064	1
22	MP2A	X	76.196	5
23	MP2A	Z	43.992	5
24	MP2A	Mx	-.064	5
25	MP2B	X	101.883	1
26	MP2B	Z	58.822	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	MP2B	Mx	.069	1
28	MP2B	X	101.883	5
29	MP2B	Z	58.822	5
30	MP2B	Mx	.069	5
31	MP2C	X	76.196	1
32	MP2C	Z	43.992	1
33	MP2C	Mx	.012	1
34	MP2C	X	76.196	5
35	MP2C	Z	43.992	5
36	MP2C	Mx	.012	5
37	MP3A	X	31.862	2
38	MP3A	Z	18.396	2
39	MP3A	Mx	-.016	2
40	MP3A	X	31.862	4
41	MP3A	Z	18.396	4
42	MP3A	Mx	-.016	4
43	MP3B	X	58.611	2
44	MP3B	Z	33.839	2
45	MP3B	Mx	0	2
46	MP3B	X	58.611	4
47	MP3B	Z	33.839	4
48	MP3B	Mx	0	4
49	MP3C	X	31.862	2
50	MP3C	Z	18.396	2
51	MP3C	Mx	.016	2
52	MP3C	X	31.862	4
53	MP3C	Z	18.396	4
54	MP3C	Mx	.016	4
55	M59	X	83.255	1.5
56	M59	Z	48.067	1.5
57	M59	Mx	0	1.5
58	MP2A	X	35.042	2.5
59	MP2A	Z	20.231	2.5
60	MP2A	Mx	.018	2.5
61	MP2B	X	46.639	2.5
62	MP2B	Z	26.927	2.5
63	MP2B	Mx	0	2.5
64	MP2C	X	35.042	2.5
65	MP2C	Z	20.231	2.5
66	MP2C	Mx	-.018	2.5
67	MP3A	X	30.599	2.5
68	MP3A	Z	17.666	2.5
69	MP3A	Mx	.015	2.5
70	MP3B	X	46.639	2.5
71	MP3B	Z	26.927	2.5
72	MP3B	Mx	0	2.5
73	MP3C	X	30.599	2.5
74	MP3C	Z	17.666	2.5
75	MP3C	Mx	-.015	2.5
76	MP4A	X	27.584	2.5
77	MP4A	Z	15.926	2.5
78	MP4A	Mx	.007	2.5
79	MP4B	X	48.884	2.5
80	MP4B	Z	28.223	2.5
81	MP4B	Mx	0	2.5
82	MP4C	X	27.584	2.5
83	MP4C	Z	15.926	2.5
84	MP4C	Mx	-.007	2.5

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

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	53.879	1
2	MP2A	Z	93.321	1
3	MP2A	Mx	.027	1
4	MP2A	X	53.879	5
5	MP2A	Z	93.321	5
6	MP2A	Mx	.027	5
7	MP2B	X	53.879	1
8	MP2B	Z	93.321	1
9	MP2B	Mx	-.081	1
10	MP2B	X	53.879	5
11	MP2B	Z	93.321	5
12	MP2B	Mx	-.081	5
13	MP2C	X	39.049	1
14	MP2C	Z	67.634	1
15	MP2C	Mx	.039	1
16	MP2C	X	39.049	5
17	MP2C	Z	67.634	5
18	MP2C	Mx	.039	5
19	MP2A	X	53.879	1
20	MP2A	Z	93.321	1
21	MP2A	Mx	-.081	1
22	MP2A	X	53.879	5
23	MP2A	Z	93.321	5
24	MP2A	Mx	-.081	5
25	MP2B	X	53.879	1
26	MP2B	Z	93.321	1
27	MP2B	Mx	.027	1
28	MP2B	X	53.879	5
29	MP2B	Z	93.321	5
30	MP2B	Mx	.027	5
31	MP2C	X	39.049	1
32	MP2C	Z	67.634	1
33	MP2C	Mx	.039	1
34	MP2C	X	39.049	5
35	MP2C	Z	67.634	5
36	MP2C	Mx	.039	5
37	MP3A	X	28.691	2
38	MP3A	Z	49.694	2
39	MP3A	Mx	-.014	2
40	MP3A	X	28.691	4
41	MP3A	Z	49.694	4
42	MP3A	Mx	-.014	4
43	MP3B	X	28.691	2
44	MP3B	Z	49.694	2
45	MP3B	Mx	-.014	2
46	MP3B	X	28.691	4
47	MP3B	Z	49.694	4
48	MP3B	Mx	-.014	4
49	MP3C	X	13.248	2
50	MP3C	Z	22.946	2
51	MP3C	Mx	.013	2
52	MP3C	X	13.248	4
53	MP3C	Z	22.946	4
54	MP3C	Mx	.013	4
55	M59	X	54.997	1.5
56	M59	Z	95.258	1.5
57	M59	Mx	0	1.5
58	MP2A	X	24.695	2.5
59	MP2A	Z	42.773	2.5
60	MP2A	Mx	.012	2.5
61	MP2B	X	24.695	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
62	MP2B	Z	42.773	2.5
63	MP2B	Mx	.012	2.5
64	MP2C	X	17.999	2.5
65	MP2C	Z	31.176	2.5
66	MP2C	Mx	-.018	2.5
67	MP3A	X	23.84	2.5
68	MP3A	Z	41.292	2.5
69	MP3A	Mx	.012	2.5
70	MP3B	X	23.84	2.5
71	MP3B	Z	41.292	2.5
72	MP3B	Mx	.012	2.5
73	MP3C	X	14.579	2.5
74	MP3C	Z	25.252	2.5
75	MP3C	Mx	-.015	2.5
76	MP4A	X	24.124	2.5
77	MP4A	Z	41.784	2.5
78	MP4A	Mx	.006	2.5
79	MP4B	X	24.124	2.5
80	MP4B	Z	41.784	2.5
81	MP4B	Mx	.006	2.5
82	MP4C	X	11.827	2.5
83	MP4C	Z	20.485	2.5
84	MP4C	Mx	-.006	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1
2	MP2A	Z	117.644	1
3	MP2A	Mx	.069	1
4	MP2A	X	0	5
5	MP2A	Z	117.644	5
6	MP2A	Mx	.069	5
7	MP2B	X	0	1
8	MP2B	Z	87.984	1
9	MP2B	Mx	-.064	1
10	MP2B	X	0	5
11	MP2B	Z	87.984	5
12	MP2B	Mx	-.064	5
13	MP2C	X	0	1
14	MP2C	Z	87.984	1
15	MP2C	Mx	.012	1
16	MP2C	X	0	5
17	MP2C	Z	87.984	5
18	MP2C	Mx	.012	5
19	MP2A	X	0	1
20	MP2A	Z	117.644	1
21	MP2A	Mx	-.069	1
22	MP2A	X	0	5
23	MP2A	Z	117.644	5
24	MP2A	Mx	-.069	5
25	MP2B	X	0	1
26	MP2B	Z	87.984	1
27	MP2B	Mx	-.012	1
28	MP2B	X	0	5
29	MP2B	Z	87.984	5
30	MP2B	Mx	-.012	5
31	MP2C	X	0	1
32	MP2C	Z	87.984	1
33	MP2C	Mx	.064	1
34	MP2C	X	0	5
35	MP2C	Z	87.984	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP2C	Mx	.064	5
37	MP3A	X	0	2
38	MP3A	Z	67.678	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	67.678	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	36.791	2
45	MP3B	Mx	-.016	2
46	MP3B	X	0	4
47	MP3B	Z	36.791	4
48	MP3B	Mx	-.016	4
49	MP3C	X	0	2
50	MP3C	Z	36.791	2
51	MP3C	Mx	.016	2
52	MP3C	X	0	4
53	MP3C	Z	36.791	4
54	MP3C	Mx	.016	4
55	M59	X	0	1.5
56	M59	Z	116.924	1.5
57	M59	Mx	0	1.5
58	MP2A	X	0	2.5
59	MP2A	Z	53.854	2.5
60	MP2A	Mx	0	2.5
61	MP2B	X	0	2.5
62	MP2B	Z	40.463	2.5
63	MP2B	Mx	.018	2.5
64	MP2C	X	0	2.5
65	MP2C	Z	40.463	2.5
66	MP2C	Mx	-.018	2.5
67	MP3A	X	0	2.5
68	MP3A	Z	53.854	2.5
69	MP3A	Mx	0	2.5
70	MP3B	X	0	2.5
71	MP3B	Z	35.333	2.5
72	MP3B	Mx	.015	2.5
73	MP3C	X	0	2.5
74	MP3C	Z	35.333	2.5
75	MP3C	Mx	-.015	2.5
76	MP4A	X	0	2.5
77	MP4A	Z	56.446	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	2.5
80	MP4B	Z	31.852	2.5
81	MP4B	Mx	.007	2.5
82	MP4C	X	0	2.5
83	MP4C	Z	31.852	2.5
84	MP4C	Mx	-.007	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-53.879	1
2	MP2A	Z	93.321	1
3	MP2A	Mx	.081	1
4	MP2A	X	-53.879	5
5	MP2A	Z	93.321	5
6	MP2A	Mx	.081	5
7	MP2B	X	-39.049	1
8	MP2B	Z	67.634	1
9	MP2B	Mx	-.039	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP2B	X	-39.049	5
11	MP2B	Z	67.634	5
12	MP2B	Mx	-.039	5
13	MP2C	X	-53.879	1
14	MP2C	Z	93.321	1
15	MP2C	Mx	-.027	1
16	MP2C	X	-53.879	5
17	MP2C	Z	93.321	5
18	MP2C	Mx	-.027	5
19	MP2A	X	-53.879	1
20	MP2A	Z	93.321	1
21	MP2A	Mx	-.027	1
22	MP2A	X	-53.879	5
23	MP2A	Z	93.321	5
24	MP2A	Mx	-.027	5
25	MP2B	X	-39.049	1
26	MP2B	Z	67.634	1
27	MP2B	Mx	-.039	1
28	MP2B	X	-39.049	5
29	MP2B	Z	67.634	5
30	MP2B	Mx	-.039	5
31	MP2C	X	-53.879	1
32	MP2C	Z	93.321	1
33	MP2C	Mx	.081	1
34	MP2C	X	-53.879	5
35	MP2C	Z	93.321	5
36	MP2C	Mx	.081	5
37	MP3A	X	-28.691	2
38	MP3A	Z	49.694	2
39	MP3A	Mx	.014	2
40	MP3A	X	-28.691	4
41	MP3A	Z	49.694	4
42	MP3A	Mx	.014	4
43	MP3B	X	-13.248	2
44	MP3B	Z	22.946	2
45	MP3B	Mx	-.013	2
46	MP3B	X	-13.248	4
47	MP3B	Z	22.946	4
48	MP3B	Mx	-.013	4
49	MP3C	X	-28.691	2
50	MP3C	Z	49.694	2
51	MP3C	Mx	.014	2
52	MP3C	X	-28.691	4
53	MP3C	Z	49.694	4
54	MP3C	Mx	.014	4
55	M59	X	-54.997	1.5
56	M59	Z	95.258	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-24.695	2.5
59	MP2A	Z	42.773	2.5
60	MP2A	Mx	-.012	2.5
61	MP2B	X	-17.999	2.5
62	MP2B	Z	31.176	2.5
63	MP2B	Mx	.018	2.5
64	MP2C	X	-24.695	2.5
65	MP2C	Z	42.773	2.5
66	MP2C	Mx	-.012	2.5
67	MP3A	X	-23.84	2.5
68	MP3A	Z	41.292	2.5
69	MP3A	Mx	-.012	2.5
70	MP3B	X	-14.579	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
71	MP3B	Z	25.252	2.5
72	MP3B	Mx	.015	2.5
73	MP3C	X	-23.84	2.5
74	MP3C	Z	41.292	2.5
75	MP3C	Mx	-.012	2.5
76	MP4A	X	-24.124	2.5
77	MP4A	Z	41.784	2.5
78	MP4A	Mx	-.006	2.5
79	MP4B	X	-11.827	2.5
80	MP4B	Z	20.485	2.5
81	MP4B	Mx	.006	2.5
82	MP4C	X	-24.124	2.5
83	MP4C	Z	41.784	2.5
84	MP4C	Mx	-.006	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-76.196	1
2	MP2A	Z	43.992	1
3	MP2A	Mx	.064	1
4	MP2A	X	-76.196	5
5	MP2A	Z	43.992	5
6	MP2A	Mx	.064	5
7	MP2B	X	-76.196	1
8	MP2B	Z	43.992	1
9	MP2B	Mx	-.012	1
10	MP2B	X	-76.196	5
11	MP2B	Z	43.992	5
12	MP2B	Mx	-.012	5
13	MP2C	X	-101.883	1
14	MP2C	Z	58.822	1
15	MP2C	Mx	-.069	1
16	MP2C	X	-101.883	5
17	MP2C	Z	58.822	5
18	MP2C	Mx	-.069	5
19	MP2A	X	-76.196	1
20	MP2A	Z	43.992	1
21	MP2A	Mx	.012	1
22	MP2A	X	-76.196	5
23	MP2A	Z	43.992	5
24	MP2A	Mx	.012	5
25	MP2B	X	-76.196	1
26	MP2B	Z	43.992	1
27	MP2B	Mx	-.064	1
28	MP2B	X	-76.196	5
29	MP2B	Z	43.992	5
30	MP2B	Mx	-.064	5
31	MP2C	X	-101.883	1
32	MP2C	Z	58.822	1
33	MP2C	Mx	.069	1
34	MP2C	X	-101.883	5
35	MP2C	Z	58.822	5
36	MP2C	Mx	.069	5
37	MP3A	X	-31.862	2
38	MP3A	Z	18.396	2
39	MP3A	Mx	.016	2
40	MP3A	X	-31.862	4
41	MP3A	Z	18.396	4
42	MP3A	Mx	.016	4
43	MP3B	X	-31.862	2
44	MP3B	Z	18.396	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
45	MP3B	Mx	-.016	2
46	MP3B	X	-31.862	4
47	MP3B	Z	18.396	4
48	MP3B	Mx	-.016	4
49	MP3C	X	-58.611	2
50	MP3C	Z	33.839	2
51	MP3C	Mx	0	2
52	MP3C	X	-58.611	4
53	MP3C	Z	33.839	4
54	MP3C	Mx	0	4
55	M59	X	-83.255	1.5
56	M59	Z	48.067	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-35.042	2.5
59	MP2A	Z	20.231	2.5
60	MP2A	Mx	-.018	2.5
61	MP2B	X	-35.042	2.5
62	MP2B	Z	20.231	2.5
63	MP2B	Mx	.018	2.5
64	MP2C	X	-46.639	2.5
65	MP2C	Z	26.927	2.5
66	MP2C	Mx	0	2.5
67	MP3A	X	-30.599	2.5
68	MP3A	Z	17.666	2.5
69	MP3A	Mx	-.015	2.5
70	MP3B	X	-30.599	2.5
71	MP3B	Z	17.666	2.5
72	MP3B	Mx	.015	2.5
73	MP3C	X	-46.639	2.5
74	MP3C	Z	26.927	2.5
75	MP3C	Mx	0	2.5
76	MP4A	X	-27.584	2.5
77	MP4A	Z	15.926	2.5
78	MP4A	Mx	-.007	2.5
79	MP4B	X	-27.584	2.5
80	MP4B	Z	15.926	2.5
81	MP4B	Mx	.007	2.5
82	MP4C	X	-48.884	2.5
83	MP4C	Z	28.223	2.5
84	MP4C	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-78.097	1
2	MP2A	Z	0	1
3	MP2A	Mx	.039	1
4	MP2A	X	-78.097	5
5	MP2A	Z	0	5
6	MP2A	Mx	.039	5
7	MP2B	X	-107.757	1
8	MP2B	Z	0	1
9	MP2B	Mx	.027	1
10	MP2B	X	-107.757	5
11	MP2B	Z	0	5
12	MP2B	Mx	.027	5
13	MP2C	X	-107.757	1
14	MP2C	Z	0	1
15	MP2C	Mx	-.081	1
16	MP2C	X	-107.757	5
17	MP2C	Z	0	5
18	MP2C	Mx	-.081	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
19	MP2A	X	-78.097	1
20	MP2A	Z	0	1
21	MP2A	Mx	.039	1
22	MP2A	X	-78.097	5
23	MP2A	Z	0	5
24	MP2A	Mx	.039	5
25	MP2B	X	-107.757	1
26	MP2B	Z	0	1
27	MP2B	Mx	-.081	1
28	MP2B	X	-107.757	5
29	MP2B	Z	0	5
30	MP2B	Mx	-.081	5
31	MP2C	X	-107.757	1
32	MP2C	Z	0	1
33	MP2C	Mx	.027	1
34	MP2C	X	-107.757	5
35	MP2C	Z	0	5
36	MP2C	Mx	.027	5
37	MP3A	X	-26.496	2
38	MP3A	Z	0	2
39	MP3A	Mx	.013	2
40	MP3A	X	-26.496	4
41	MP3A	Z	0	4
42	MP3A	Mx	.013	4
43	MP3B	X	-57.382	2
44	MP3B	Z	0	2
45	MP3B	Mx	-.014	2
46	MP3B	X	-57.382	4
47	MP3B	Z	0	4
48	MP3B	Mx	-.014	4
49	MP3C	X	-57.382	2
50	MP3C	Z	0	2
51	MP3C	Mx	-.014	2
52	MP3C	X	-57.382	4
53	MP3C	Z	0	4
54	MP3C	Mx	-.014	4
55	M59	X	-89.205	1.5
56	M59	Z	0	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-35.999	2.5
59	MP2A	Z	0	2.5
60	MP2A	Mx	-.018	2.5
61	MP2B	X	-49.39	2.5
62	MP2B	Z	0	2.5
63	MP2B	Mx	.012	2.5
64	MP2C	X	-49.39	2.5
65	MP2C	Z	0	2.5
66	MP2C	Mx	.012	2.5
67	MP3A	X	-29.159	2.5
68	MP3A	Z	0	2.5
69	MP3A	Mx	-.015	2.5
70	MP3B	X	-47.68	2.5
71	MP3B	Z	0	2.5
72	MP3B	Mx	.012	2.5
73	MP3C	X	-47.68	2.5
74	MP3C	Z	0	2.5
75	MP3C	Mx	.012	2.5
76	MP4A	X	-23.654	2.5
77	MP4A	Z	0	2.5
78	MP4A	Mx	-.006	2.5
79	MP4B	X	-48.248	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
80	MP4B	Z	0	2.5
81	MP4B	Mx	.006	2.5
82	MP4C	X	-48.248	2.5
83	MP4C	Z	0	2.5
84	MP4C	Mx	.006	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-76.196	1
2	MP2A	Z	-43.992	1
3	MP2A	Mx	.012	1
4	MP2A	X	-76.196	5
5	MP2A	Z	-43.992	5
6	MP2A	Mx	.012	5
7	MP2B	X	-101.883	1
8	MP2B	Z	-58.822	1
9	MP2B	Mx	.069	1
10	MP2B	X	-101.883	5
11	MP2B	Z	-58.822	5
12	MP2B	Mx	.069	5
13	MP2C	X	-76.196	1
14	MP2C	Z	-43.992	1
15	MP2C	Mx	-.064	1
16	MP2C	X	-76.196	5
17	MP2C	Z	-43.992	5
18	MP2C	Mx	-.064	5
19	MP2A	X	-76.196	1
20	MP2A	Z	-43.992	1
21	MP2A	Mx	.064	1
22	MP2A	X	-76.196	5
23	MP2A	Z	-43.992	5
24	MP2A	Mx	.064	5
25	MP2B	X	-101.883	1
26	MP2B	Z	-58.822	1
27	MP2B	Mx	-.069	1
28	MP2B	X	-101.883	5
29	MP2B	Z	-58.822	5
30	MP2B	Mx	-.069	5
31	MP2C	X	-76.196	1
32	MP2C	Z	-43.992	1
33	MP2C	Mx	-.012	1
34	MP2C	X	-76.196	5
35	MP2C	Z	-43.992	5
36	MP2C	Mx	-.012	5
37	MP3A	X	-31.862	2
38	MP3A	Z	-18.396	2
39	MP3A	Mx	.016	2
40	MP3A	X	-31.862	4
41	MP3A	Z	-18.396	4
42	MP3A	Mx	.016	4
43	MP3B	X	-58.611	2
44	MP3B	Z	-33.839	2
45	MP3B	Mx	0	2
46	MP3B	X	-58.611	4
47	MP3B	Z	-33.839	4
48	MP3B	Mx	0	4
49	MP3C	X	-31.862	2
50	MP3C	Z	-18.396	2
51	MP3C	Mx	-.016	2
52	MP3C	X	-31.862	4
53	MP3C	Z	-18.396	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
54	MP3C	Mx	-.016	4
55	M59	X	-83.255	1.5
56	M59	Z	-48.067	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-35.042	2.5
59	MP2A	Z	-20.231	2.5
60	MP2A	Mx	-.018	2.5
61	MP2B	X	-46.639	2.5
62	MP2B	Z	-26.927	2.5
63	MP2B	Mx	0	2.5
64	MP2C	X	-35.042	2.5
65	MP2C	Z	-20.231	2.5
66	MP2C	Mx	.018	2.5
67	MP3A	X	-30.599	2.5
68	MP3A	Z	-17.666	2.5
69	MP3A	Mx	-.015	2.5
70	MP3B	X	-46.639	2.5
71	MP3B	Z	-26.927	2.5
72	MP3B	Mx	0	2.5
73	MP3C	X	-30.599	2.5
74	MP3C	Z	-17.666	2.5
75	MP3C	Mx	.015	2.5
76	MP4A	X	-27.584	2.5
77	MP4A	Z	-15.926	2.5
78	MP4A	Mx	-.007	2.5
79	MP4B	X	-48.884	2.5
80	MP4B	Z	-28.223	2.5
81	MP4B	Mx	0	2.5
82	MP4C	X	-27.584	2.5
83	MP4C	Z	-15.926	2.5
84	MP4C	Mx	.007	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-53.879	1
2	MP2A	Z	-93.321	1
3	MP2A	Mx	-.027	1
4	MP2A	X	-53.879	5
5	MP2A	Z	-93.321	5
6	MP2A	Mx	-.027	5
7	MP2B	X	-53.879	1
8	MP2B	Z	-93.321	1
9	MP2B	Mx	.081	1
10	MP2B	X	-53.879	5
11	MP2B	Z	-93.321	5
12	MP2B	Mx	.081	5
13	MP2C	X	-39.049	1
14	MP2C	Z	-67.634	1
15	MP2C	Mx	-.039	1
16	MP2C	X	-39.049	5
17	MP2C	Z	-67.634	5
18	MP2C	Mx	-.039	5
19	MP2A	X	-53.879	1
20	MP2A	Z	-93.321	1
21	MP2A	Mx	.081	1
22	MP2A	X	-53.879	5
23	MP2A	Z	-93.321	5
24	MP2A	Mx	.081	5
25	MP2B	X	-53.879	1
26	MP2B	Z	-93.321	1
27	MP2B	Mx	-.027	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
28	MP2B	X	-53.879	5
29	MP2B	Z	-93.321	5
30	MP2B	Mx	-.027	5
31	MP2C	X	-39.049	1
32	MP2C	Z	-67.634	1
33	MP2C	Mx	-.039	1
34	MP2C	X	-39.049	5
35	MP2C	Z	-67.634	5
36	MP2C	Mx	-.039	5
37	MP3A	X	-28.691	2
38	MP3A	Z	-49.694	2
39	MP3A	Mx	.014	2
40	MP3A	X	-28.691	4
41	MP3A	Z	-49.694	4
42	MP3A	Mx	.014	4
43	MP3B	X	-28.691	2
44	MP3B	Z	-49.694	2
45	MP3B	Mx	.014	2
46	MP3B	X	-28.691	4
47	MP3B	Z	-49.694	4
48	MP3B	Mx	.014	4
49	MP3C	X	-13.248	2
50	MP3C	Z	-22.946	2
51	MP3C	Mx	-.013	2
52	MP3C	X	-13.248	4
53	MP3C	Z	-22.946	4
54	MP3C	Mx	-.013	4
55	M59	X	-54.997	1.5
56	M59	Z	-95.258	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-24.695	2.5
59	MP2A	Z	-42.773	2.5
60	MP2A	Mx	-.012	2.5
61	MP2B	X	-24.695	2.5
62	MP2B	Z	-42.773	2.5
63	MP2B	Mx	-.012	2.5
64	MP2C	X	-17.999	2.5
65	MP2C	Z	-31.176	2.5
66	MP2C	Mx	.018	2.5
67	MP3A	X	-23.84	2.5
68	MP3A	Z	-41.292	2.5
69	MP3A	Mx	-.012	2.5
70	MP3B	X	-23.84	2.5
71	MP3B	Z	-41.292	2.5
72	MP3B	Mx	-.012	2.5
73	MP3C	X	-14.579	2.5
74	MP3C	Z	-25.252	2.5
75	MP3C	Mx	.015	2.5
76	MP4A	X	-24.124	2.5
77	MP4A	Z	-41.784	2.5
78	MP4A	Mx	-.006	2.5
79	MP4B	X	-24.124	2.5
80	MP4B	Z	-41.784	2.5
81	MP4B	Mx	-.006	2.5
82	MP4C	X	-11.827	2.5
83	MP4C	Z	-20.485	2.5
84	MP4C	Mx	.006	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
2	MP2A	Z	-25.021	1
3	MP2A	Mx	-.015	1
4	MP2A	X	0	5
5	MP2A	Z	-25.021	5
6	MP2A	Mx	-.015	5
7	MP2B	X	0	1
8	MP2B	Z	-19.194	1
9	MP2B	Mx	.014	1
10	MP2B	X	0	5
11	MP2B	Z	-19.194	5
12	MP2B	Mx	.014	5
13	MP2C	X	0	1
14	MP2C	Z	-19.194	1
15	MP2C	Mx	-.003	1
16	MP2C	X	0	5
17	MP2C	Z	-19.194	5
18	MP2C	Mx	-.003	5
19	MP2A	X	0	1
20	MP2A	Z	-25.021	1
21	MP2A	Mx	.015	1
22	MP2A	X	0	5
23	MP2A	Z	-25.021	5
24	MP2A	Mx	.015	5
25	MP2B	X	0	1
26	MP2B	Z	-19.194	1
27	MP2B	Mx	.003	1
28	MP2B	X	0	5
29	MP2B	Z	-19.194	5
30	MP2B	Mx	.003	5
31	MP2C	X	0	1
32	MP2C	Z	-19.194	1
33	MP2C	Mx	-.014	1
34	MP2C	X	0	5
35	MP2C	Z	-19.194	5
36	MP2C	Mx	-.014	5
37	MP3A	X	0	2
38	MP3A	Z	-14.691	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	-14.691	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	-8.363	2
45	MP3B	Mx	.004	2
46	MP3B	X	0	4
47	MP3B	Z	-8.363	4
48	MP3B	Mx	.004	4
49	MP3C	X	0	2
50	MP3C	Z	-8.363	2
51	MP3C	Mx	-.004	2
52	MP3C	X	0	4
53	MP3C	Z	-8.363	4
54	MP3C	Mx	-.004	4
55	M59	X	0	1.5
56	M59	Z	-25.445	1.5
57	M59	Mx	0	1.5
58	MP2A	X	0	2.5
59	MP2A	Z	-12.376	2.5
60	MP2A	Mx	0	2.5
61	MP2B	X	0	2.5
62	MP2B	Z	-9.548	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
63	MP2B	Mx	-.004	2.5
64	MP2C	X	0	2.5
65	MP2C	Z	-9.548	2.5
66	MP2C	Mx	.004	2.5
67	MP3A	X	0	2.5
68	MP3A	Z	-12.376	2.5
69	MP3A	Mx	0	2.5
70	MP3B	X	0	2.5
71	MP3B	Z	-8.473	2.5
72	MP3B	Mx	-.004	2.5
73	MP3C	X	0	2.5
74	MP3C	Z	-8.473	2.5
75	MP3C	Mx	.004	2.5
76	MP4A	X	0	2.5
77	MP4A	Z	-12.832	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	2.5
80	MP4B	Z	-7.733	2.5
81	MP4B	Mx	-.002	2.5
82	MP4C	X	0	2.5
83	MP4C	Z	-7.733	2.5
84	MP4C	Mx	.002	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	11.539	1
2	MP2A	Z	-19.987	1
3	MP2A	Mx	-.017	1
4	MP2A	X	11.539	5
5	MP2A	Z	-19.987	5
6	MP2A	Mx	-.017	5
7	MP2B	X	8.625	1
8	MP2B	Z	-14.94	1
9	MP2B	Mx	.009	1
10	MP2B	X	8.625	5
11	MP2B	Z	-14.94	5
12	MP2B	Mx	.009	5
13	MP2C	X	11.539	1
14	MP2C	Z	-19.987	1
15	MP2C	Mx	.006	1
16	MP2C	X	11.539	5
17	MP2C	Z	-19.987	5
18	MP2C	Mx	.006	5
19	MP2A	X	11.539	1
20	MP2A	Z	-19.987	1
21	MP2A	Mx	.006	1
22	MP2A	X	11.539	5
23	MP2A	Z	-19.987	5
24	MP2A	Mx	.006	5
25	MP2B	X	8.625	1
26	MP2B	Z	-14.94	1
27	MP2B	Mx	.009	1
28	MP2B	X	8.625	5
29	MP2B	Z	-14.94	5
30	MP2B	Mx	.009	5
31	MP2C	X	11.539	1
32	MP2C	Z	-19.987	1
33	MP2C	Mx	-.017	1
34	MP2C	X	11.539	5
35	MP2C	Z	-19.987	5
36	MP2C	Mx	-.017	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
37	MP3A	X	6.291	2
38	MP3A	Z	-10.896	2
39	MP3A	Mx	-.003	2
40	MP3A	X	6.291	4
41	MP3A	Z	-10.896	4
42	MP3A	Mx	-.003	4
43	MP3B	X	3.127	2
44	MP3B	Z	-5.415	2
45	MP3B	Mx	.003	2
46	MP3B	X	3.127	4
47	MP3B	Z	-5.415	4
48	MP3B	Mx	.003	4
49	MP3C	X	6.291	2
50	MP3C	Z	-10.896	2
51	MP3C	Mx	-.003	2
52	MP3C	X	6.291	4
53	MP3C	Z	-10.896	4
54	MP3C	Mx	-.003	4
55	M59	X	12.029	1.5
56	M59	Z	-20.834	1.5
57	M59	Mx	0	1.5
58	MP2A	X	5.717	2.5
59	MP2A	Z	-9.901	2.5
60	MP2A	Mx	.003	2.5
61	MP2B	X	4.303	2.5
62	MP2B	Z	-7.452	2.5
63	MP2B	Mx	-.004	2.5
64	MP2C	X	5.717	2.5
65	MP2C	Z	-9.901	2.5
66	MP2C	Mx	.003	2.5
67	MP3A	X	5.537	2.5
68	MP3A	Z	-9.591	2.5
69	MP3A	Mx	.003	2.5
70	MP3B	X	3.586	2.5
71	MP3B	Z	-6.212	2.5
72	MP3B	Mx	-.004	2.5
73	MP3C	X	5.537	2.5
74	MP3C	Z	-9.591	2.5
75	MP3C	Mx	.003	2.5
76	MP4A	X	5.566	2.5
77	MP4A	Z	-9.641	2.5
78	MP4A	Mx	.001	2.5
79	MP4B	X	3.017	2.5
80	MP4B	Z	-5.225	2.5
81	MP4B	Mx	-.002	2.5
82	MP4C	X	5.566	2.5
83	MP4C	Z	-9.641	2.5
84	MP4C	Mx	.001	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	16.622	1
2	MP2A	Z	-9.597	1
3	MP2A	Mx	-.014	1
4	MP2A	X	16.622	5
5	MP2A	Z	-9.597	5
6	MP2A	Mx	-.014	5
7	MP2B	X	16.622	1
8	MP2B	Z	-9.597	1
9	MP2B	Mx	.003	1
10	MP2B	X	16.622	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
11	MP2B	Z	-9.597	5
12	MP2B	Mx	.003	5
13	MP2C	X	21.669	1
14	MP2C	Z	-12.511	1
15	MP2C	Mx	.015	1
16	MP2C	X	21.669	5
17	MP2C	Z	-12.511	5
18	MP2C	Mx	.015	5
19	MP2A	X	16.622	1
20	MP2A	Z	-9.597	1
21	MP2A	Mx	-.003	1
22	MP2A	X	16.622	5
23	MP2A	Z	-9.597	5
24	MP2A	Mx	-.003	5
25	MP2B	X	16.622	1
26	MP2B	Z	-9.597	1
27	MP2B	Mx	.014	1
28	MP2B	X	16.622	5
29	MP2B	Z	-9.597	5
30	MP2B	Mx	.014	5
31	MP2C	X	21.669	1
32	MP2C	Z	-12.511	1
33	MP2C	Mx	-.015	1
34	MP2C	X	21.669	5
35	MP2C	Z	-12.511	5
36	MP2C	Mx	-.015	5
37	MP3A	X	7.242	2
38	MP3A	Z	-4.181	2
39	MP3A	Mx	-.004	2
40	MP3A	X	7.242	4
41	MP3A	Z	-4.181	4
42	MP3A	Mx	-.004	4
43	MP3B	X	7.242	2
44	MP3B	Z	-4.181	2
45	MP3B	Mx	.004	2
46	MP3B	X	7.242	4
47	MP3B	Z	-4.181	4
48	MP3B	Mx	.004	4
49	MP3C	X	12.723	2
50	MP3C	Z	-7.346	2
51	MP3C	Mx	0	2
52	MP3C	X	12.723	4
53	MP3C	Z	-7.346	4
54	MP3C	Mx	0	4
55	M59	X	18.43	1.5
56	M59	Z	-10.641	1.5
57	M59	Mx	0	1.5
58	MP2A	X	8.269	2.5
59	MP2A	Z	-4.774	2.5
60	MP2A	Mx	.004	2.5
61	MP2B	X	8.269	2.5
62	MP2B	Z	-4.774	2.5
63	MP2B	Mx	-.004	2.5
64	MP2C	X	10.718	2.5
65	MP2C	Z	-6.188	2.5
66	MP2C	Mx	0	2.5
67	MP3A	X	7.338	2.5
68	MP3A	Z	-4.237	2.5
69	MP3A	Mx	.004	2.5
70	MP3B	X	7.338	2.5
71	MP3B	Z	-4.237	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
72	MP3B	Mx	-.004	2.5
73	MP3C	X	10.718	2.5
74	MP3C	Z	-6.188	2.5
75	MP3C	Mx	0	2.5
76	MP4A	X	6.697	2.5
77	MP4A	Z	-3.867	2.5
78	MP4A	Mx	.002	2.5
79	MP4B	X	6.697	2.5
80	MP4B	Z	-3.867	2.5
81	MP4B	Mx	-.002	2.5
82	MP4C	X	11.113	2.5
83	MP4C	Z	-6.416	2.5
84	MP4C	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	17.251	1
2	MP2A	Z	0	1
3	MP2A	Mx	-.009	1
4	MP2A	X	17.251	5
5	MP2A	Z	0	5
6	MP2A	Mx	-.009	5
7	MP2B	X	23.079	1
8	MP2B	Z	0	1
9	MP2B	Mx	-.006	1
10	MP2B	X	23.079	5
11	MP2B	Z	0	5
12	MP2B	Mx	-.006	5
13	MP2C	X	23.079	1
14	MP2C	Z	0	1
15	MP2C	Mx	.017	1
16	MP2C	X	23.079	5
17	MP2C	Z	0	5
18	MP2C	Mx	.017	5
19	MP2A	X	17.251	1
20	MP2A	Z	0	1
21	MP2A	Mx	-.009	1
22	MP2A	X	17.251	5
23	MP2A	Z	0	5
24	MP2A	Mx	-.009	5
25	MP2B	X	23.079	1
26	MP2B	Z	0	1
27	MP2B	Mx	.017	1
28	MP2B	X	23.079	5
29	MP2B	Z	0	5
30	MP2B	Mx	.017	5
31	MP2C	X	23.079	1
32	MP2C	Z	0	1
33	MP2C	Mx	-.006	1
34	MP2C	X	23.079	5
35	MP2C	Z	0	5
36	MP2C	Mx	-.006	5
37	MP3A	X	6.253	2
38	MP3A	Z	0	2
39	MP3A	Mx	-.003	2
40	MP3A	X	6.253	4
41	MP3A	Z	0	4
42	MP3A	Mx	-.003	4
43	MP3B	X	12.582	2
44	MP3B	Z	0	2
45	MP3B	Mx	.003	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
46	MP3B	X	12.582	4
47	MP3B	Z	0	4
48	MP3B	Mx	.003	4
49	MP3C	X	12.582	2
50	MP3C	Z	0	2
51	MP3C	Mx	.003	2
52	MP3C	X	12.582	4
53	MP3C	Z	0	4
54	MP3C	Mx	.003	4
55	M59	X	19.894	1.5
56	M59	Z	0	1.5
57	M59	Mx	0	1.5
58	MP2A	X	8.605	2.5
59	MP2A	Z	0	2.5
60	MP2A	Mx	.004	2.5
61	MP2B	X	11.433	2.5
62	MP2B	Z	0	2.5
63	MP2B	Mx	-.003	2.5
64	MP2C	X	11.433	2.5
65	MP2C	Z	0	2.5
66	MP2C	Mx	-.003	2.5
67	MP3A	X	7.173	2.5
68	MP3A	Z	0	2.5
69	MP3A	Mx	.004	2.5
70	MP3B	X	11.075	2.5
71	MP3B	Z	0	2.5
72	MP3B	Mx	-.003	2.5
73	MP3C	X	11.075	2.5
74	MP3C	Z	0	2.5
75	MP3C	Mx	-.003	2.5
76	MP4A	X	6.033	2.5
77	MP4A	Z	0	2.5
78	MP4A	Mx	.002	2.5
79	MP4B	X	11.132	2.5
80	MP4B	Z	0	2.5
81	MP4B	Mx	-.001	2.5
82	MP4C	X	11.132	2.5
83	MP4C	Z	0	2.5
84	MP4C	Mx	-.001	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	16.622	1
2	MP2A	Z	9.597	1
3	MP2A	Mx	-.003	1
4	MP2A	X	16.622	5
5	MP2A	Z	9.597	5
6	MP2A	Mx	-.003	5
7	MP2B	X	21.669	1
8	MP2B	Z	12.511	1
9	MP2B	Mx	-.015	1
10	MP2B	X	21.669	5
11	MP2B	Z	12.511	5
12	MP2B	Mx	-.015	5
13	MP2C	X	16.622	1
14	MP2C	Z	9.597	1
15	MP2C	Mx	.014	1
16	MP2C	X	16.622	5
17	MP2C	Z	9.597	5
18	MP2C	Mx	.014	5
19	MP2A	X	16.622	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP2A	Z	9.597	1
21	MP2A	Mx	-.014	1
22	MP2A	X	16.622	5
23	MP2A	Z	9.597	5
24	MP2A	Mx	-.014	5
25	MP2B	X	21.669	1
26	MP2B	Z	12.511	1
27	MP2B	Mx	.015	1
28	MP2B	X	21.669	5
29	MP2B	Z	12.511	5
30	MP2B	Mx	.015	5
31	MP2C	X	16.622	1
32	MP2C	Z	9.597	1
33	MP2C	Mx	.003	1
34	MP2C	X	16.622	5
35	MP2C	Z	9.597	5
36	MP2C	Mx	.003	5
37	MP3A	X	7.242	2
38	MP3A	Z	4.181	2
39	MP3A	Mx	-.004	2
40	MP3A	X	7.242	4
41	MP3A	Z	4.181	4
42	MP3A	Mx	-.004	4
43	MP3B	X	12.723	2
44	MP3B	Z	7.346	2
45	MP3B	Mx	0	2
46	MP3B	X	12.723	4
47	MP3B	Z	7.346	4
48	MP3B	Mx	0	4
49	MP3C	X	7.242	2
50	MP3C	Z	4.181	2
51	MP3C	Mx	.004	2
52	MP3C	X	7.242	4
53	MP3C	Z	4.181	4
54	MP3C	Mx	.004	4
55	M59	X	18.43	1.5
56	M59	Z	10.641	1.5
57	M59	Mx	0	1.5
58	MP2A	X	8.269	2.5
59	MP2A	Z	4.774	2.5
60	MP2A	Mx	.004	2.5
61	MP2B	X	10.718	2.5
62	MP2B	Z	6.188	2.5
63	MP2B	Mx	0	2.5
64	MP2C	X	8.269	2.5
65	MP2C	Z	4.774	2.5
66	MP2C	Mx	-.004	2.5
67	MP3A	X	7.338	2.5
68	MP3A	Z	4.237	2.5
69	MP3A	Mx	.004	2.5
70	MP3B	X	10.718	2.5
71	MP3B	Z	6.188	2.5
72	MP3B	Mx	0	2.5
73	MP3C	X	7.338	2.5
74	MP3C	Z	4.237	2.5
75	MP3C	Mx	-.004	2.5
76	MP4A	X	6.697	2.5
77	MP4A	Z	3.867	2.5
78	MP4A	Mx	.002	2.5
79	MP4B	X	11.113	2.5
80	MP4B	Z	6.416	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
81	MP4B	Mx	0	2.5
82	MP4C	X	6.697	2.5
83	MP4C	Z	3.867	2.5
84	MP4C	Mx	-.002	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	11.539	1
2	MP2A	Z	19.987	1
3	MP2A	Mx	.006	1
4	MP2A	X	11.539	5
5	MP2A	Z	19.987	5
6	MP2A	Mx	.006	5
7	MP2B	X	11.539	1
8	MP2B	Z	19.987	1
9	MP2B	Mx	-.017	1
10	MP2B	X	11.539	5
11	MP2B	Z	19.987	5
12	MP2B	Mx	-.017	5
13	MP2C	X	8.625	1
14	MP2C	Z	14.94	1
15	MP2C	Mx	.009	1
16	MP2C	X	8.625	5
17	MP2C	Z	14.94	5
18	MP2C	Mx	.009	5
19	MP2A	X	11.539	1
20	MP2A	Z	19.987	1
21	MP2A	Mx	-.017	1
22	MP2A	X	11.539	5
23	MP2A	Z	19.987	5
24	MP2A	Mx	-.017	5
25	MP2B	X	11.539	1
26	MP2B	Z	19.987	1
27	MP2B	Mx	.006	1
28	MP2B	X	11.539	5
29	MP2B	Z	19.987	5
30	MP2B	Mx	.006	5
31	MP2C	X	8.625	1
32	MP2C	Z	14.94	1
33	MP2C	Mx	.009	1
34	MP2C	X	8.625	5
35	MP2C	Z	14.94	5
36	MP2C	Mx	.009	5
37	MP3A	X	6.291	2
38	MP3A	Z	10.896	2
39	MP3A	Mx	-.003	2
40	MP3A	X	6.291	4
41	MP3A	Z	10.896	4
42	MP3A	Mx	-.003	4
43	MP3B	X	6.291	2
44	MP3B	Z	10.896	2
45	MP3B	Mx	-.003	2
46	MP3B	X	6.291	4
47	MP3B	Z	10.896	4
48	MP3B	Mx	-.003	4
49	MP3C	X	3.127	2
50	MP3C	Z	5.415	2
51	MP3C	Mx	.003	2
52	MP3C	X	3.127	4
53	MP3C	Z	5.415	4
54	MP3C	Mx	.003	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
55	M59	X	12.029	1.5
56	M59	Z	20.834	1.5
57	M59	Mx	0	1.5
58	MP2A	X	5.717	2.5
59	MP2A	Z	9.901	2.5
60	MP2A	Mx	.003	2.5
61	MP2B	X	5.717	2.5
62	MP2B	Z	9.901	2.5
63	MP2B	Mx	.003	2.5
64	MP2C	X	4.303	2.5
65	MP2C	Z	7.452	2.5
66	MP2C	Mx	-.004	2.5
67	MP3A	X	5.537	2.5
68	MP3A	Z	9.591	2.5
69	MP3A	Mx	.003	2.5
70	MP3B	X	5.537	2.5
71	MP3B	Z	9.591	2.5
72	MP3B	Mx	.003	2.5
73	MP3C	X	3.586	2.5
74	MP3C	Z	6.212	2.5
75	MP3C	Mx	-.004	2.5
76	MP4A	X	5.566	2.5
77	MP4A	Z	9.641	2.5
78	MP4A	Mx	.001	2.5
79	MP4B	X	5.566	2.5
80	MP4B	Z	9.641	2.5
81	MP4B	Mx	.001	2.5
82	MP4C	X	3.017	2.5
83	MP4C	Z	5.225	2.5
84	MP4C	Mx	-.002	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1
2	MP2A	Z	25.021	1
3	MP2A	Mx	.015	1
4	MP2A	X	0	5
5	MP2A	Z	25.021	5
6	MP2A	Mx	.015	5
7	MP2B	X	0	1
8	MP2B	Z	19.194	1
9	MP2B	Mx	-.014	1
10	MP2B	X	0	5
11	MP2B	Z	19.194	5
12	MP2B	Mx	-.014	5
13	MP2C	X	0	1
14	MP2C	Z	19.194	1
15	MP2C	Mx	.003	1
16	MP2C	X	0	5
17	MP2C	Z	19.194	5
18	MP2C	Mx	.003	5
19	MP2A	X	0	1
20	MP2A	Z	25.021	1
21	MP2A	Mx	-.015	1
22	MP2A	X	0	5
23	MP2A	Z	25.021	5
24	MP2A	Mx	-.015	5
25	MP2B	X	0	1
26	MP2B	Z	19.194	1
27	MP2B	Mx	-.003	1
28	MP2B	X	0	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
29	MP2B	Z	19.194	5
30	MP2B	Mx	-.003	5
31	MP2C	X	0	1
32	MP2C	Z	19.194	1
33	MP2C	Mx	.014	1
34	MP2C	X	0	5
35	MP2C	Z	19.194	5
36	MP2C	Mx	.014	5
37	MP3A	X	0	2
38	MP3A	Z	14.691	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	14.691	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	8.363	2
45	MP3B	Mx	-.004	2
46	MP3B	X	0	4
47	MP3B	Z	8.363	4
48	MP3B	Mx	-.004	4
49	MP3C	X	0	2
50	MP3C	Z	8.363	2
51	MP3C	Mx	.004	2
52	MP3C	X	0	4
53	MP3C	Z	8.363	4
54	MP3C	Mx	.004	4
55	M59	X	0	1.5
56	M59	Z	25.445	1.5
57	M59	Mx	0	1.5
58	MP2A	X	0	2.5
59	MP2A	Z	12.376	2.5
60	MP2A	Mx	0	2.5
61	MP2B	X	0	2.5
62	MP2B	Z	9.548	2.5
63	MP2B	Mx	.004	2.5
64	MP2C	X	0	2.5
65	MP2C	Z	9.548	2.5
66	MP2C	Mx	-.004	2.5
67	MP3A	X	0	2.5
68	MP3A	Z	12.376	2.5
69	MP3A	Mx	0	2.5
70	MP3B	X	0	2.5
71	MP3B	Z	8.473	2.5
72	MP3B	Mx	.004	2.5
73	MP3C	X	0	2.5
74	MP3C	Z	8.473	2.5
75	MP3C	Mx	-.004	2.5
76	MP4A	X	0	2.5
77	MP4A	Z	12.832	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	2.5
80	MP4B	Z	7.733	2.5
81	MP4B	Mx	.002	2.5
82	MP4C	X	0	2.5
83	MP4C	Z	7.733	2.5
84	MP4C	Mx	-.002	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-11.539	1
2	MP2A	Z	19.987	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
3	MP2A	Mx	.017	1
4	MP2A	X	-11.539	5
5	MP2A	Z	19.987	5
6	MP2A	Mx	.017	5
7	MP2B	X	-8.625	1
8	MP2B	Z	14.94	1
9	MP2B	Mx	-.009	1
10	MP2B	X	-8.625	5
11	MP2B	Z	14.94	5
12	MP2B	Mx	-.009	5
13	MP2C	X	-11.539	1
14	MP2C	Z	19.987	1
15	MP2C	Mx	-.006	1
16	MP2C	X	-11.539	5
17	MP2C	Z	19.987	5
18	MP2C	Mx	-.006	5
19	MP2A	X	-11.539	1
20	MP2A	Z	19.987	1
21	MP2A	Mx	-.006	1
22	MP2A	X	-11.539	5
23	MP2A	Z	19.987	5
24	MP2A	Mx	-.006	5
25	MP2B	X	-8.625	1
26	MP2B	Z	14.94	1
27	MP2B	Mx	-.009	1
28	MP2B	X	-8.625	5
29	MP2B	Z	14.94	5
30	MP2B	Mx	-.009	5
31	MP2C	X	-11.539	1
32	MP2C	Z	19.987	1
33	MP2C	Mx	.017	1
34	MP2C	X	-11.539	5
35	MP2C	Z	19.987	5
36	MP2C	Mx	.017	5
37	MP3A	X	-6.291	2
38	MP3A	Z	10.896	2
39	MP3A	Mx	.003	2
40	MP3A	X	-6.291	4
41	MP3A	Z	10.896	4
42	MP3A	Mx	.003	4
43	MP3B	X	-3.127	2
44	MP3B	Z	5.415	2
45	MP3B	Mx	-.003	2
46	MP3B	X	-3.127	4
47	MP3B	Z	5.415	4
48	MP3B	Mx	-.003	4
49	MP3C	X	-6.291	2
50	MP3C	Z	10.896	2
51	MP3C	Mx	.003	2
52	MP3C	X	-6.291	4
53	MP3C	Z	10.896	4
54	MP3C	Mx	.003	4
55	M59	X	-12.029	1.5
56	M59	Z	20.834	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-5.717	2.5
59	MP2A	Z	9.901	2.5
60	MP2A	Mx	-.003	2.5
61	MP2B	X	-4.303	2.5
62	MP2B	Z	7.452	2.5
63	MP2B	Mx	.004	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
64	MP2C	X	-5.717	2.5
65	MP2C	Z	9.901	2.5
66	MP2C	Mx	-.003	2.5
67	MP3A	X	-5.537	2.5
68	MP3A	Z	9.591	2.5
69	MP3A	Mx	-.003	2.5
70	MP3B	X	-3.586	2.5
71	MP3B	Z	6.212	2.5
72	MP3B	Mx	.004	2.5
73	MP3C	X	-5.537	2.5
74	MP3C	Z	9.591	2.5
75	MP3C	Mx	-.003	2.5
76	MP4A	X	-5.566	2.5
77	MP4A	Z	9.641	2.5
78	MP4A	Mx	-.001	2.5
79	MP4B	X	-3.017	2.5
80	MP4B	Z	5.225	2.5
81	MP4B	Mx	.002	2.5
82	MP4C	X	-5.566	2.5
83	MP4C	Z	9.641	2.5
84	MP4C	Mx	-.001	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-16.622	1
2	MP2A	Z	9.597	1
3	MP2A	Mx	.014	1
4	MP2A	X	-16.622	5
5	MP2A	Z	9.597	5
6	MP2A	Mx	.014	5
7	MP2B	X	-16.622	1
8	MP2B	Z	9.597	1
9	MP2B	Mx	-.003	1
10	MP2B	X	-16.622	5
11	MP2B	Z	9.597	5
12	MP2B	Mx	-.003	5
13	MP2C	X	-21.669	1
14	MP2C	Z	12.511	1
15	MP2C	Mx	-.015	1
16	MP2C	X	-21.669	5
17	MP2C	Z	12.511	5
18	MP2C	Mx	-.015	5
19	MP2A	X	-16.622	1
20	MP2A	Z	9.597	1
21	MP2A	Mx	.003	1
22	MP2A	X	-16.622	5
23	MP2A	Z	9.597	5
24	MP2A	Mx	.003	5
25	MP2B	X	-16.622	1
26	MP2B	Z	9.597	1
27	MP2B	Mx	-.014	1
28	MP2B	X	-16.622	5
29	MP2B	Z	9.597	5
30	MP2B	Mx	-.014	5
31	MP2C	X	-21.669	1
32	MP2C	Z	12.511	1
33	MP2C	Mx	.015	1
34	MP2C	X	-21.669	5
35	MP2C	Z	12.511	5
36	MP2C	Mx	.015	5
37	MP3A	X	-7.242	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
38	MP3A	Z	4.181	2
39	MP3A	Mx	.004	2
40	MP3A	X	-7.242	4
41	MP3A	Z	4.181	4
42	MP3A	Mx	.004	4
43	MP3B	X	-7.242	2
44	MP3B	Z	4.181	2
45	MP3B	Mx	-.004	2
46	MP3B	X	-7.242	4
47	MP3B	Z	4.181	4
48	MP3B	Mx	-.004	4
49	MP3C	X	-12.723	2
50	MP3C	Z	7.346	2
51	MP3C	Mx	0	2
52	MP3C	X	-12.723	4
53	MP3C	Z	7.346	4
54	MP3C	Mx	0	4
55	M59	X	-18.43	1.5
56	M59	Z	10.641	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-8.269	2.5
59	MP2A	Z	4.774	2.5
60	MP2A	Mx	-.004	2.5
61	MP2B	X	-8.269	2.5
62	MP2B	Z	4.774	2.5
63	MP2B	Mx	.004	2.5
64	MP2C	X	-10.718	2.5
65	MP2C	Z	6.188	2.5
66	MP2C	Mx	0	2.5
67	MP3A	X	-7.338	2.5
68	MP3A	Z	4.237	2.5
69	MP3A	Mx	-.004	2.5
70	MP3B	X	-7.338	2.5
71	MP3B	Z	4.237	2.5
72	MP3B	Mx	.004	2.5
73	MP3C	X	-10.718	2.5
74	MP3C	Z	6.188	2.5
75	MP3C	Mx	0	2.5
76	MP4A	X	-6.697	2.5
77	MP4A	Z	3.867	2.5
78	MP4A	Mx	-.002	2.5
79	MP4B	X	-6.697	2.5
80	MP4B	Z	3.867	2.5
81	MP4B	Mx	.002	2.5
82	MP4C	X	-11.113	2.5
83	MP4C	Z	6.416	2.5
84	MP4C	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-17.251	1
2	MP2A	Z	0	1
3	MP2A	Mx	.009	1
4	MP2A	X	-17.251	5
5	MP2A	Z	0	5
6	MP2A	Mx	.009	5
7	MP2B	X	-23.079	1
8	MP2B	Z	0	1
9	MP2B	Mx	.006	1
10	MP2B	X	-23.079	5
11	MP2B	Z	0	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
12	MP2B	Mx	.006	5
13	MP2C	X	-23.079	1
14	MP2C	Z	0	1
15	MP2C	Mx	-.017	1
16	MP2C	X	-23.079	5
17	MP2C	Z	0	5
18	MP2C	Mx	-.017	5
19	MP2A	X	-17.251	1
20	MP2A	Z	0	1
21	MP2A	Mx	.009	1
22	MP2A	X	-17.251	5
23	MP2A	Z	0	5
24	MP2A	Mx	.009	5
25	MP2B	X	-23.079	1
26	MP2B	Z	0	1
27	MP2B	Mx	-.017	1
28	MP2B	X	-23.079	5
29	MP2B	Z	0	5
30	MP2B	Mx	-.017	5
31	MP2C	X	-23.079	1
32	MP2C	Z	0	1
33	MP2C	Mx	.006	1
34	MP2C	X	-23.079	5
35	MP2C	Z	0	5
36	MP2C	Mx	.006	5
37	MP3A	X	-6.253	2
38	MP3A	Z	0	2
39	MP3A	Mx	.003	2
40	MP3A	X	-6.253	4
41	MP3A	Z	0	4
42	MP3A	Mx	.003	4
43	MP3B	X	-12.582	2
44	MP3B	Z	0	2
45	MP3B	Mx	-.003	2
46	MP3B	X	-12.582	4
47	MP3B	Z	0	4
48	MP3B	Mx	-.003	4
49	MP3C	X	-12.582	2
50	MP3C	Z	0	2
51	MP3C	Mx	-.003	2
52	MP3C	X	-12.582	4
53	MP3C	Z	0	4
54	MP3C	Mx	-.003	4
55	M59	X	-19.894	1.5
56	M59	Z	0	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-8.605	2.5
59	MP2A	Z	0	2.5
60	MP2A	Mx	-.004	2.5
61	MP2B	X	-11.433	2.5
62	MP2B	Z	0	2.5
63	MP2B	Mx	.003	2.5
64	MP2C	X	-11.433	2.5
65	MP2C	Z	0	2.5
66	MP2C	Mx	.003	2.5
67	MP3A	X	-7.173	2.5
68	MP3A	Z	0	2.5
69	MP3A	Mx	-.004	2.5
70	MP3B	X	-11.075	2.5
71	MP3B	Z	0	2.5
72	MP3B	Mx	.003	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
73	MP3C	X	-11.075	2.5
74	MP3C	Z	0	2.5
75	MP3C	Mx	.003	2.5
76	MP4A	X	-6.033	2.5
77	MP4A	Z	0	2.5
78	MP4A	Mx	-.002	2.5
79	MP4B	X	-11.132	2.5
80	MP4B	Z	0	2.5
81	MP4B	Mx	.001	2.5
82	MP4C	X	-11.132	2.5
83	MP4C	Z	0	2.5
84	MP4C	Mx	.001	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-16.622	1
2	MP2A	Z	-9.597	1
3	MP2A	Mx	.003	1
4	MP2A	X	-16.622	5
5	MP2A	Z	-9.597	5
6	MP2A	Mx	.003	5
7	MP2B	X	-21.669	1
8	MP2B	Z	-12.511	1
9	MP2B	Mx	.015	1
10	MP2B	X	-21.669	5
11	MP2B	Z	-12.511	5
12	MP2B	Mx	.015	5
13	MP2C	X	-16.622	1
14	MP2C	Z	-9.597	1
15	MP2C	Mx	-.014	1
16	MP2C	X	-16.622	5
17	MP2C	Z	-9.597	5
18	MP2C	Mx	-.014	5
19	MP2A	X	-16.622	1
20	MP2A	Z	-9.597	1
21	MP2A	Mx	.014	1
22	MP2A	X	-16.622	5
23	MP2A	Z	-9.597	5
24	MP2A	Mx	.014	5
25	MP2B	X	-21.669	1
26	MP2B	Z	-12.511	1
27	MP2B	Mx	-.015	1
28	MP2B	X	-21.669	5
29	MP2B	Z	-12.511	5
30	MP2B	Mx	-.015	5
31	MP2C	X	-16.622	1
32	MP2C	Z	-9.597	1
33	MP2C	Mx	-.003	1
34	MP2C	X	-16.622	5
35	MP2C	Z	-9.597	5
36	MP2C	Mx	-.003	5
37	MP3A	X	-7.242	2
38	MP3A	Z	-4.181	2
39	MP3A	Mx	.004	2
40	MP3A	X	-7.242	4
41	MP3A	Z	-4.181	4
42	MP3A	Mx	.004	4
43	MP3B	X	-12.723	2
44	MP3B	Z	-7.346	2
45	MP3B	Mx	0	2
46	MP3B	X	-12.723	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
47	MP3B	Z	-7.346	4
48	MP3B	Mx	0	4
49	MP3C	X	-7.242	2
50	MP3C	Z	-4.181	2
51	MP3C	Mx	-.004	2
52	MP3C	X	-7.242	4
53	MP3C	Z	-4.181	4
54	MP3C	Mx	-.004	4
55	M59	X	-18.43	1.5
56	M59	Z	-10.641	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-8.269	2.5
59	MP2A	Z	-4.774	2.5
60	MP2A	Mx	-.004	2.5
61	MP2B	X	-10.718	2.5
62	MP2B	Z	-6.188	2.5
63	MP2B	Mx	0	2.5
64	MP2C	X	-8.269	2.5
65	MP2C	Z	-4.774	2.5
66	MP2C	Mx	.004	2.5
67	MP3A	X	-7.338	2.5
68	MP3A	Z	-4.237	2.5
69	MP3A	Mx	-.004	2.5
70	MP3B	X	-10.718	2.5
71	MP3B	Z	-6.188	2.5
72	MP3B	Mx	0	2.5
73	MP3C	X	-7.338	2.5
74	MP3C	Z	-4.237	2.5
75	MP3C	Mx	.004	2.5
76	MP4A	X	-6.697	2.5
77	MP4A	Z	-3.867	2.5
78	MP4A	Mx	-.002	2.5
79	MP4B	X	-11.113	2.5
80	MP4B	Z	-6.416	2.5
81	MP4B	Mx	0	2.5
82	MP4C	X	-6.697	2.5
83	MP4C	Z	-3.867	2.5
84	MP4C	Mx	.002	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-11.539	1
2	MP2A	Z	-19.987	1
3	MP2A	Mx	-.006	1
4	MP2A	X	-11.539	5
5	MP2A	Z	-19.987	5
6	MP2A	Mx	-.006	5
7	MP2B	X	-11.539	1
8	MP2B	Z	-19.987	1
9	MP2B	Mx	.017	1
10	MP2B	X	-11.539	5
11	MP2B	Z	-19.987	5
12	MP2B	Mx	.017	5
13	MP2C	X	-8.625	1
14	MP2C	Z	-14.94	1
15	MP2C	Mx	-.009	1
16	MP2C	X	-8.625	5
17	MP2C	Z	-14.94	5
18	MP2C	Mx	-.009	5
19	MP2A	X	-11.539	1
20	MP2A	Z	-19.987	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	.017	1
22	MP2A	X	-11.539	5
23	MP2A	Z	-19.987	5
24	MP2A	Mx	.017	5
25	MP2B	X	-11.539	1
26	MP2B	Z	-19.987	1
27	MP2B	Mx	-.006	1
28	MP2B	X	-11.539	5
29	MP2B	Z	-19.987	5
30	MP2B	Mx	-.006	5
31	MP2C	X	-8.625	1
32	MP2C	Z	-14.94	1
33	MP2C	Mx	-.009	1
34	MP2C	X	-8.625	5
35	MP2C	Z	-14.94	5
36	MP2C	Mx	-.009	5
37	MP3A	X	-6.291	2
38	MP3A	Z	-10.896	2
39	MP3A	Mx	.003	2
40	MP3A	X	-6.291	4
41	MP3A	Z	-10.896	4
42	MP3A	Mx	.003	4
43	MP3B	X	-6.291	2
44	MP3B	Z	-10.896	2
45	MP3B	Mx	.003	2
46	MP3B	X	-6.291	4
47	MP3B	Z	-10.896	4
48	MP3B	Mx	.003	4
49	MP3C	X	-3.127	2
50	MP3C	Z	-5.415	2
51	MP3C	Mx	-.003	2
52	MP3C	X	-3.127	4
53	MP3C	Z	-5.415	4
54	MP3C	Mx	-.003	4
55	M59	X	-12.029	1.5
56	M59	Z	-20.834	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-5.717	2.5
59	MP2A	Z	-9.901	2.5
60	MP2A	Mx	-.003	2.5
61	MP2B	X	-5.717	2.5
62	MP2B	Z	-9.901	2.5
63	MP2B	Mx	-.003	2.5
64	MP2C	X	-4.303	2.5
65	MP2C	Z	-7.452	2.5
66	MP2C	Mx	.004	2.5
67	MP3A	X	-5.537	2.5
68	MP3A	Z	-9.591	2.5
69	MP3A	Mx	-.003	2.5
70	MP3B	X	-5.537	2.5
71	MP3B	Z	-9.591	2.5
72	MP3B	Mx	-.003	2.5
73	MP3C	X	-3.586	2.5
74	MP3C	Z	-6.212	2.5
75	MP3C	Mx	.004	2.5
76	MP4A	X	-5.566	2.5
77	MP4A	Z	-9.641	2.5
78	MP4A	Mx	-.001	2.5
79	MP4B	X	-5.566	2.5
80	MP4B	Z	-9.641	2.5
81	MP4B	Mx	-.001	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
82	MP4C	X	-3.017	2.5
83	MP4C	Z	-5.225	2.5
84	MP4C	Mx	.002	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1
2	MP2A	Z	-8.147	1
3	MP2A	Mx	-.005	1
4	MP2A	X	0	5
5	MP2A	Z	-8.147	5
6	MP2A	Mx	-.005	5
7	MP2B	X	0	1
8	MP2B	Z	-6.093	1
9	MP2B	Mx	.004	1
10	MP2B	X	0	5
11	MP2B	Z	-6.093	5
12	MP2B	Mx	.004	5
13	MP2C	X	0	1
14	MP2C	Z	-6.093	1
15	MP2C	Mx	-.000861	1
16	MP2C	X	0	5
17	MP2C	Z	-6.093	5
18	MP2C	Mx	-.000861	5
19	MP2A	X	0	1
20	MP2A	Z	-8.147	1
21	MP2A	Mx	.005	1
22	MP2A	X	0	5
23	MP2A	Z	-8.147	5
24	MP2A	Mx	.005	5
25	MP2B	X	0	1
26	MP2B	Z	-6.093	1
27	MP2B	Mx	.000861	1
28	MP2B	X	0	5
29	MP2B	Z	-6.093	5
30	MP2B	Mx	.000861	5
31	MP2C	X	0	1
32	MP2C	Z	-6.093	1
33	MP2C	Mx	-.004	1
34	MP2C	X	0	5
35	MP2C	Z	-6.093	5
36	MP2C	Mx	-.004	5
37	MP3A	X	0	2
38	MP3A	Z	-4.687	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	-4.687	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	-2.548	2
45	MP3B	Mx	.001	2
46	MP3B	X	0	4
47	MP3B	Z	-2.548	4
48	MP3B	Mx	.001	4
49	MP3C	X	0	2
50	MP3C	Z	-2.548	2
51	MP3C	Mx	-.001	2
52	MP3C	X	0	4
53	MP3C	Z	-2.548	4
54	MP3C	Mx	-.001	4
55	M59	X	0	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
56	M59	Z	-8.097	1.5
57	M59	Mx	0	1.5
58	MP2A	X	0	2.5
59	MP2A	Z	-3.73	2.5
60	MP2A	Mx	0	2.5
61	MP2B	X	0	2.5
62	MP2B	Z	-2.802	2.5
63	MP2B	Mx	-.001	2.5
64	MP2C	X	0	2.5
65	MP2C	Z	-2.802	2.5
66	MP2C	Mx	.001	2.5
67	MP3A	X	0	2.5
68	MP3A	Z	-3.73	2.5
69	MP3A	Mx	0	2.5
70	MP3B	X	0	2.5
71	MP3B	Z	-2.447	2.5
72	MP3B	Mx	-.001	2.5
73	MP3C	X	0	2.5
74	MP3C	Z	-2.447	2.5
75	MP3C	Mx	.001	2.5
76	MP4A	X	0	2.5
77	MP4A	Z	-3.909	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	2.5
80	MP4B	Z	-2.206	2.5
81	MP4B	Mx	-.000478	2.5
82	MP4C	X	0	2.5
83	MP4C	Z	-2.206	2.5
84	MP4C	Mx	.000478	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	3.731	1
2	MP2A	Z	-6.463	1
3	MP2A	Mx	-.006	1
4	MP2A	X	3.731	5
5	MP2A	Z	-6.463	5
6	MP2A	Mx	-.006	5
7	MP2B	X	2.704	1
8	MP2B	Z	-4.684	1
9	MP2B	Mx	.003	1
10	MP2B	X	2.704	5
11	MP2B	Z	-4.684	5
12	MP2B	Mx	.003	5
13	MP2C	X	3.731	1
14	MP2C	Z	-6.463	1
15	MP2C	Mx	.002	1
16	MP2C	X	3.731	5
17	MP2C	Z	-6.463	5
18	MP2C	Mx	.002	5
19	MP2A	X	3.731	1
20	MP2A	Z	-6.463	1
21	MP2A	Mx	.002	1
22	MP2A	X	3.731	5
23	MP2A	Z	-6.463	5
24	MP2A	Mx	.002	5
25	MP2B	X	2.704	1
26	MP2B	Z	-4.684	1
27	MP2B	Mx	.003	1
28	MP2B	X	2.704	5
29	MP2B	Z	-4.684	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	MP2B	Mx	.003	5
31	MP2C	X	3.731	1
32	MP2C	Z	-6.463	1
33	MP2C	Mx	-.006	1
34	MP2C	X	3.731	5
35	MP2C	Z	-6.463	5
36	MP2C	Mx	-.006	5
37	MP3A	X	1.987	2
38	MP3A	Z	-3.441	2
39	MP3A	Mx	-.000994	2
40	MP3A	X	1.987	4
41	MP3A	Z	-3.441	4
42	MP3A	Mx	-.000994	4
43	MP3B	X	.917	2
44	MP3B	Z	-1.589	2
45	MP3B	Mx	.000917	2
46	MP3B	X	.917	4
47	MP3B	Z	-1.589	4
48	MP3B	Mx	.000917	4
49	MP3C	X	1.987	2
50	MP3C	Z	-3.441	2
51	MP3C	Mx	-.000993	2
52	MP3C	X	1.987	4
53	MP3C	Z	-3.441	4
54	MP3C	Mx	-.000993	4
55	M59	X	3.809	1.5
56	M59	Z	-6.597	1.5
57	M59	Mx	0	1.5
58	MP2A	X	1.71	2.5
59	MP2A	Z	-2.962	2.5
60	MP2A	Mx	.000855	2.5
61	MP2B	X	1.246	2.5
62	MP2B	Z	-2.159	2.5
63	MP2B	Mx	-.001	2.5
64	MP2C	X	1.71	2.5
65	MP2C	Z	-2.962	2.5
66	MP2C	Mx	.000855	2.5
67	MP3A	X	1.651	2.5
68	MP3A	Z	-2.86	2.5
69	MP3A	Mx	.000826	2.5
70	MP3B	X	1.01	2.5
71	MP3B	Z	-1.749	2.5
72	MP3B	Mx	-.001	2.5
73	MP3C	X	1.651	2.5
74	MP3C	Z	-2.86	2.5
75	MP3C	Mx	.000826	2.5
76	MP4A	X	1.671	2.5
77	MP4A	Z	-2.894	2.5
78	MP4A	Mx	.000418	2.5
79	MP4B	X	.819	2.5
80	MP4B	Z	-1.419	2.5
81	MP4B	Mx	-.00041	2.5
82	MP4C	X	1.671	2.5
83	MP4C	Z	-2.894	2.5
84	MP4C	Mx	.000418	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	5.277	1
2	MP2A	Z	-3.047	1
3	MP2A	Mx	-.004	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP2A	X	5.277	5
5	MP2A	Z	-3.047	5
6	MP2A	Mx	-.004	5
7	MP2B	X	5.277	1
8	MP2B	Z	-3.047	1
9	MP2B	Mx	.000862	1
10	MP2B	X	5.277	5
11	MP2B	Z	-3.047	5
12	MP2B	Mx	.000862	5
13	MP2C	X	7.056	1
14	MP2C	Z	-4.074	1
15	MP2C	Mx	.005	1
16	MP2C	X	7.056	5
17	MP2C	Z	-4.074	5
18	MP2C	Mx	.005	5
19	MP2A	X	5.277	1
20	MP2A	Z	-3.047	1
21	MP2A	Mx	-.000861	1
22	MP2A	X	5.277	5
23	MP2A	Z	-3.047	5
24	MP2A	Mx	-.000861	5
25	MP2B	X	5.277	1
26	MP2B	Z	-3.047	1
27	MP2B	Mx	.004	1
28	MP2B	X	5.277	5
29	MP2B	Z	-3.047	5
30	MP2B	Mx	.004	5
31	MP2C	X	7.056	1
32	MP2C	Z	-4.074	1
33	MP2C	Mx	-.005	1
34	MP2C	X	7.056	5
35	MP2C	Z	-4.074	5
36	MP2C	Mx	-.005	5
37	MP3A	X	2.207	2
38	MP3A	Z	-1.274	2
39	MP3A	Mx	-.001	2
40	MP3A	X	2.207	4
41	MP3A	Z	-1.274	4
42	MP3A	Mx	-.001	4
43	MP3B	X	2.207	2
44	MP3B	Z	-1.274	2
45	MP3B	Mx	.001	2
46	MP3B	X	2.207	4
47	MP3B	Z	-1.274	4
48	MP3B	Mx	.001	4
49	MP3C	X	4.059	2
50	MP3C	Z	-2.343	2
51	MP3C	Mx	0	2
52	MP3C	X	4.059	4
53	MP3C	Z	-2.343	4
54	MP3C	Mx	0	4
55	M59	X	5.766	1.5
56	M59	Z	-3.329	1.5
57	M59	Mx	0	1.5
58	MP2A	X	2.427	2.5
59	MP2A	Z	-1.401	2.5
60	MP2A	Mx	.001	2.5
61	MP2B	X	2.427	2.5
62	MP2B	Z	-1.401	2.5
63	MP2B	Mx	-.001	2.5
64	MP2C	X	3.23	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
65	MP2C	Z	-1.865	2.5
66	MP2C	Mx	0	2.5
67	MP3A	X	2.119	2.5
68	MP3A	Z	-1.223	2.5
69	MP3A	Mx	.001	2.5
70	MP3B	X	2.119	2.5
71	MP3B	Z	-1.223	2.5
72	MP3B	Mx	-.001	2.5
73	MP3C	X	3.23	2.5
74	MP3C	Z	-1.865	2.5
75	MP3C	Mx	0	2.5
76	MP4A	X	1.91	2.5
77	MP4A	Z	-1.103	2.5
78	MP4A	Mx	.000477	2.5
79	MP4B	X	1.91	2.5
80	MP4B	Z	-1.103	2.5
81	MP4B	Mx	-.000478	2.5
82	MP4C	X	3.385	2.5
83	MP4C	Z	-1.955	2.5
84	MP4C	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	5.408	1
2	MP2A	Z	0	1
3	MP2A	Mx	-.003	1
4	MP2A	X	5.408	5
5	MP2A	Z	0	5
6	MP2A	Mx	-.003	5
7	MP2B	X	7.462	1
8	MP2B	Z	0	1
9	MP2B	Mx	-.002	1
10	MP2B	X	7.462	5
11	MP2B	Z	0	5
12	MP2B	Mx	-.002	5
13	MP2C	X	7.462	1
14	MP2C	Z	0	1
15	MP2C	Mx	.006	1
16	MP2C	X	7.462	5
17	MP2C	Z	0	5
18	MP2C	Mx	.006	5
19	MP2A	X	5.408	1
20	MP2A	Z	0	1
21	MP2A	Mx	-.003	1
22	MP2A	X	5.408	5
23	MP2A	Z	0	5
24	MP2A	Mx	-.003	5
25	MP2B	X	7.462	1
26	MP2B	Z	0	1
27	MP2B	Mx	.006	1
28	MP2B	X	7.462	5
29	MP2B	Z	0	5
30	MP2B	Mx	.006	5
31	MP2C	X	7.462	1
32	MP2C	Z	0	1
33	MP2C	Mx	-.002	1
34	MP2C	X	7.462	5
35	MP2C	Z	0	5
36	MP2C	Mx	-.002	5
37	MP3A	X	1.835	2
38	MP3A	Z	0	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
39	MP3A	Mx	-.000918	2
40	MP3A	X	1.835	4
41	MP3A	Z	0	4
42	MP3A	Mx	-.000918	4
43	MP3B	X	3.974	2
44	MP3B	Z	0	2
45	MP3B	Mx	.000994	2
46	MP3B	X	3.974	4
47	MP3B	Z	0	4
48	MP3B	Mx	.000994	4
49	MP3C	X	3.974	2
50	MP3C	Z	0	2
51	MP3C	Mx	.000994	2
52	MP3C	X	3.974	4
53	MP3C	Z	0	4
54	MP3C	Mx	.000994	4
55	M59	X	6.178	1.5
56	M59	Z	0	1.5
57	M59	Mx	0	1.5
58	MP2A	X	2.493	2.5
59	MP2A	Z	0	2.5
60	MP2A	Mx	.001	2.5
61	MP2B	X	3.42	2.5
62	MP2B	Z	0	2.5
63	MP2B	Mx	-.000855	2.5
64	MP2C	X	3.42	2.5
65	MP2C	Z	0	2.5
66	MP2C	Mx	-.000855	2.5
67	MP3A	X	2.019	2.5
68	MP3A	Z	0	2.5
69	MP3A	Mx	.001	2.5
70	MP3B	X	3.302	2.5
71	MP3B	Z	0	2.5
72	MP3B	Mx	-.000826	2.5
73	MP3C	X	3.302	2.5
74	MP3C	Z	0	2.5
75	MP3C	Mx	-.000826	2.5
76	MP4A	X	1.638	2.5
77	MP4A	Z	0	2.5
78	MP4A	Mx	.00041	2.5
79	MP4B	X	3.341	2.5
80	MP4B	Z	0	2.5
81	MP4B	Mx	-.000418	2.5
82	MP4C	X	3.341	2.5
83	MP4C	Z	0	2.5
84	MP4C	Mx	-.000418	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	5.277	1
2	MP2A	Z	3.047	1
3	MP2A	Mx	-.000861	1
4	MP2A	X	5.277	5
5	MP2A	Z	3.047	5
6	MP2A	Mx	-.000861	5
7	MP2B	X	7.056	1
8	MP2B	Z	4.074	1
9	MP2B	Mx	-.005	1
10	MP2B	X	7.056	5
11	MP2B	Z	4.074	5
12	MP2B	Mx	-.005	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
13	MP2C	X	5.277	1
14	MP2C	Z	3.047	1
15	MP2C	Mx	.004	1
16	MP2C	X	5.277	5
17	MP2C	Z	3.047	5
18	MP2C	Mx	.004	5
19	MP2A	X	5.277	1
20	MP2A	Z	3.047	1
21	MP2A	Mx	-.004	1
22	MP2A	X	5.277	5
23	MP2A	Z	3.047	5
24	MP2A	Mx	-.004	5
25	MP2B	X	7.056	1
26	MP2B	Z	4.074	1
27	MP2B	Mx	.005	1
28	MP2B	X	7.056	5
29	MP2B	Z	4.074	5
30	MP2B	Mx	.005	5
31	MP2C	X	5.277	1
32	MP2C	Z	3.047	1
33	MP2C	Mx	.000862	1
34	MP2C	X	5.277	5
35	MP2C	Z	3.047	5
36	MP2C	Mx	.000862	5
37	MP3A	X	2.207	2
38	MP3A	Z	1.274	2
39	MP3A	Mx	-.001	2
40	MP3A	X	2.207	4
41	MP3A	Z	1.274	4
42	MP3A	Mx	-.001	4
43	MP3B	X	4.059	2
44	MP3B	Z	2.343	2
45	MP3B	Mx	0	2
46	MP3B	X	4.059	4
47	MP3B	Z	2.343	4
48	MP3B	Mx	0	4
49	MP3C	X	2.207	2
50	MP3C	Z	1.274	2
51	MP3C	Mx	.001	2
52	MP3C	X	2.207	4
53	MP3C	Z	1.274	4
54	MP3C	Mx	.001	4
55	M59	X	5.766	1.5
56	M59	Z	3.329	1.5
57	M59	Mx	0	1.5
58	MP2A	X	2.427	2.5
59	MP2A	Z	1.401	2.5
60	MP2A	Mx	.001	2.5
61	MP2B	X	3.23	2.5
62	MP2B	Z	1.865	2.5
63	MP2B	Mx	0	2.5
64	MP2C	X	2.427	2.5
65	MP2C	Z	1.401	2.5
66	MP2C	Mx	-.001	2.5
67	MP3A	X	2.119	2.5
68	MP3A	Z	1.223	2.5
69	MP3A	Mx	.001	2.5
70	MP3B	X	3.23	2.5
71	MP3B	Z	1.865	2.5
72	MP3B	Mx	0	2.5
73	MP3C	X	2.119	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
74	MP3C	Z	1.223	2.5
75	MP3C	Mx	-.001	2.5
76	MP4A	X	1.91	2.5
77	MP4A	Z	1.103	2.5
78	MP4A	Mx	.000477	2.5
79	MP4B	X	3.385	2.5
80	MP4B	Z	1.955	2.5
81	MP4B	Mx	0	2.5
82	MP4C	X	1.91	2.5
83	MP4C	Z	1.103	2.5
84	MP4C	Mx	-.000478	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	3.731	1
2	MP2A	Z	6.463	1
3	MP2A	Mx	.002	1
4	MP2A	X	3.731	5
5	MP2A	Z	6.463	5
6	MP2A	Mx	.002	5
7	MP2B	X	3.731	1
8	MP2B	Z	6.463	1
9	MP2B	Mx	-.006	1
10	MP2B	X	3.731	5
11	MP2B	Z	6.463	5
12	MP2B	Mx	-.006	5
13	MP2C	X	2.704	1
14	MP2C	Z	4.684	1
15	MP2C	Mx	.003	1
16	MP2C	X	2.704	5
17	MP2C	Z	4.684	5
18	MP2C	Mx	.003	5
19	MP2A	X	3.731	1
20	MP2A	Z	6.463	1
21	MP2A	Mx	-.006	1
22	MP2A	X	3.731	5
23	MP2A	Z	6.463	5
24	MP2A	Mx	-.006	5
25	MP2B	X	3.731	1
26	MP2B	Z	6.463	1
27	MP2B	Mx	.002	1
28	MP2B	X	3.731	5
29	MP2B	Z	6.463	5
30	MP2B	Mx	.002	5
31	MP2C	X	2.704	1
32	MP2C	Z	4.684	1
33	MP2C	Mx	.003	1
34	MP2C	X	2.704	5
35	MP2C	Z	4.684	5
36	MP2C	Mx	.003	5
37	MP3A	X	1.987	2
38	MP3A	Z	3.441	2
39	MP3A	Mx	-.000994	2
40	MP3A	X	1.987	4
41	MP3A	Z	3.441	4
42	MP3A	Mx	-.000994	4
43	MP3B	X	1.987	2
44	MP3B	Z	3.441	2
45	MP3B	Mx	-.000993	2
46	MP3B	X	1.987	4
47	MP3B	Z	3.441	4

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
48	MP3B	Mx	-.000993	4
49	MP3C	X	.917	2
50	MP3C	Z	1.589	2
51	MP3C	Mx	.000917	2
52	MP3C	X	.917	4
53	MP3C	Z	1.589	4
54	MP3C	Mx	.000917	4
55	M59	X	3.809	1.5
56	M59	Z	6.597	1.5
57	M59	Mx	0	1.5
58	MP2A	X	1.71	2.5
59	MP2A	Z	2.962	2.5
60	MP2A	Mx	.000855	2.5
61	MP2B	X	1.71	2.5
62	MP2B	Z	2.962	2.5
63	MP2B	Mx	.000855	2.5
64	MP2C	X	1.246	2.5
65	MP2C	Z	2.159	2.5
66	MP2C	Mx	-.001	2.5
67	MP3A	X	1.651	2.5
68	MP3A	Z	2.86	2.5
69	MP3A	Mx	.000826	2.5
70	MP3B	X	1.651	2.5
71	MP3B	Z	2.86	2.5
72	MP3B	Mx	.000826	2.5
73	MP3C	X	1.01	2.5
74	MP3C	Z	1.749	2.5
75	MP3C	Mx	-.001	2.5
76	MP4A	X	1.671	2.5
77	MP4A	Z	2.894	2.5
78	MP4A	Mx	.000418	2.5
79	MP4B	X	1.671	2.5
80	MP4B	Z	2.894	2.5
81	MP4B	Mx	.000418	2.5
82	MP4C	X	.819	2.5
83	MP4C	Z	1.419	2.5
84	MP4C	Mx	-.00041	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	0	1
2	MP2A	Z	8.147	1
3	MP2A	Mx	.005	1
4	MP2A	X	0	5
5	MP2A	Z	8.147	5
6	MP2A	Mx	.005	5
7	MP2B	X	0	1
8	MP2B	Z	6.093	1
9	MP2B	Mx	-.004	1
10	MP2B	X	0	5
11	MP2B	Z	6.093	5
12	MP2B	Mx	-.004	5
13	MP2C	X	0	1
14	MP2C	Z	6.093	1
15	MP2C	Mx	.000861	1
16	MP2C	X	0	5
17	MP2C	Z	6.093	5
18	MP2C	Mx	.000861	5
19	MP2A	X	0	1
20	MP2A	Z	8.147	1
21	MP2A	Mx	-.005	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
22	MP2A	X	0	5
23	MP2A	Z	8.147	5
24	MP2A	Mx	-.005	5
25	MP2B	X	0	1
26	MP2B	Z	6.093	1
27	MP2B	Mx	-.000861	1
28	MP2B	X	0	5
29	MP2B	Z	6.093	5
30	MP2B	Mx	-.000861	5
31	MP2C	X	0	1
32	MP2C	Z	6.093	1
33	MP2C	Mx	.004	1
34	MP2C	X	0	5
35	MP2C	Z	6.093	5
36	MP2C	Mx	.004	5
37	MP3A	X	0	2
38	MP3A	Z	4.687	2
39	MP3A	Mx	0	2
40	MP3A	X	0	4
41	MP3A	Z	4.687	4
42	MP3A	Mx	0	4
43	MP3B	X	0	2
44	MP3B	Z	2.548	2
45	MP3B	Mx	-.001	2
46	MP3B	X	0	4
47	MP3B	Z	2.548	4
48	MP3B	Mx	-.001	4
49	MP3C	X	0	2
50	MP3C	Z	2.548	2
51	MP3C	Mx	.001	2
52	MP3C	X	0	4
53	MP3C	Z	2.548	4
54	MP3C	Mx	.001	4
55	M59	X	0	1.5
56	M59	Z	8.097	1.5
57	M59	Mx	0	1.5
58	MP2A	X	0	2.5
59	MP2A	Z	3.73	2.5
60	MP2A	Mx	0	2.5
61	MP2B	X	0	2.5
62	MP2B	Z	2.802	2.5
63	MP2B	Mx	.001	2.5
64	MP2C	X	0	2.5
65	MP2C	Z	2.802	2.5
66	MP2C	Mx	-.001	2.5
67	MP3A	X	0	2.5
68	MP3A	Z	3.73	2.5
69	MP3A	Mx	0	2.5
70	MP3B	X	0	2.5
71	MP3B	Z	2.447	2.5
72	MP3B	Mx	.001	2.5
73	MP3C	X	0	2.5
74	MP3C	Z	2.447	2.5
75	MP3C	Mx	-.001	2.5
76	MP4A	X	0	2.5
77	MP4A	Z	3.909	2.5
78	MP4A	Mx	0	2.5
79	MP4B	X	0	2.5
80	MP4B	Z	2.206	2.5
81	MP4B	Mx	.000478	2.5
82	MP4C	X	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
83	MP4C	Z	2.206	2.5
84	MP4C	Mx	-.000478	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-3.731	1
2	MP2A	Z	6.463	1
3	MP2A	Mx	.006	1
4	MP2A	X	-3.731	5
5	MP2A	Z	6.463	5
6	MP2A	Mx	.006	5
7	MP2B	X	-2.704	1
8	MP2B	Z	4.684	1
9	MP2B	Mx	-.003	1
10	MP2B	X	-2.704	5
11	MP2B	Z	4.684	5
12	MP2B	Mx	-.003	5
13	MP2C	X	-3.731	1
14	MP2C	Z	6.463	1
15	MP2C	Mx	-.002	1
16	MP2C	X	-3.731	5
17	MP2C	Z	6.463	5
18	MP2C	Mx	-.002	5
19	MP2A	X	-3.731	1
20	MP2A	Z	6.463	1
21	MP2A	Mx	-.002	1
22	MP2A	X	-3.731	5
23	MP2A	Z	6.463	5
24	MP2A	Mx	-.002	5
25	MP2B	X	-2.704	1
26	MP2B	Z	4.684	1
27	MP2B	Mx	-.003	1
28	MP2B	X	-2.704	5
29	MP2B	Z	4.684	5
30	MP2B	Mx	-.003	5
31	MP2C	X	-3.731	1
32	MP2C	Z	6.463	1
33	MP2C	Mx	.006	1
34	MP2C	X	-3.731	5
35	MP2C	Z	6.463	5
36	MP2C	Mx	.006	5
37	MP3A	X	-1.987	2
38	MP3A	Z	3.441	2
39	MP3A	Mx	.000994	2
40	MP3A	X	-1.987	4
41	MP3A	Z	3.441	4
42	MP3A	Mx	.000994	4
43	MP3B	X	-.917	2
44	MP3B	Z	1.589	2
45	MP3B	Mx	-.000917	2
46	MP3B	X	-.917	4
47	MP3B	Z	1.589	4
48	MP3B	Mx	-.000917	4
49	MP3C	X	-1.987	2
50	MP3C	Z	3.441	2
51	MP3C	Mx	.000993	2
52	MP3C	X	-1.987	4
53	MP3C	Z	3.441	4
54	MP3C	Mx	.000993	4
55	M59	X	-3.809	1.5
56	M59	Z	6.597	1.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
57	M59	Mx	0	1.5
58	MP2A	X	-1.71	2.5
59	MP2A	Z	2.962	2.5
60	MP2A	Mx	-.000855	2.5
61	MP2B	X	-1.246	2.5
62	MP2B	Z	2.159	2.5
63	MP2B	Mx	.001	2.5
64	MP2C	X	-1.71	2.5
65	MP2C	Z	2.962	2.5
66	MP2C	Mx	-.000855	2.5
67	MP3A	X	-1.651	2.5
68	MP3A	Z	2.86	2.5
69	MP3A	Mx	-.000826	2.5
70	MP3B	X	-1.01	2.5
71	MP3B	Z	1.749	2.5
72	MP3B	Mx	.001	2.5
73	MP3C	X	-1.651	2.5
74	MP3C	Z	2.86	2.5
75	MP3C	Mx	-.000826	2.5
76	MP4A	X	-1.671	2.5
77	MP4A	Z	2.894	2.5
78	MP4A	Mx	-.000418	2.5
79	MP4B	X	-.819	2.5
80	MP4B	Z	1.419	2.5
81	MP4B	Mx	.00041	2.5
82	MP4C	X	-1.671	2.5
83	MP4C	Z	2.894	2.5
84	MP4C	Mx	-.000418	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-5.277	1
2	MP2A	Z	3.047	1
3	MP2A	Mx	.004	1
4	MP2A	X	-5.277	5
5	MP2A	Z	3.047	5
6	MP2A	Mx	.004	5
7	MP2B	X	-5.277	1
8	MP2B	Z	3.047	1
9	MP2B	Mx	-.000862	1
10	MP2B	X	-5.277	5
11	MP2B	Z	3.047	5
12	MP2B	Mx	-.000862	5
13	MP2C	X	-7.056	1
14	MP2C	Z	4.074	1
15	MP2C	Mx	-.005	1
16	MP2C	X	-7.056	5
17	MP2C	Z	4.074	5
18	MP2C	Mx	-.005	5
19	MP2A	X	-5.277	1
20	MP2A	Z	3.047	1
21	MP2A	Mx	.000861	1
22	MP2A	X	-5.277	5
23	MP2A	Z	3.047	5
24	MP2A	Mx	.000861	5
25	MP2B	X	-5.277	1
26	MP2B	Z	3.047	1
27	MP2B	Mx	-.004	1
28	MP2B	X	-5.277	5
29	MP2B	Z	3.047	5
30	MP2B	Mx	-.004	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
31	MP2C	X	-7.056	1
32	MP2C	Z	4.074	1
33	MP2C	Mx	.005	1
34	MP2C	X	-7.056	5
35	MP2C	Z	4.074	5
36	MP2C	Mx	.005	5
37	MP3A	X	-2.207	2
38	MP3A	Z	1.274	2
39	MP3A	Mx	.001	2
40	MP3A	X	-2.207	4
41	MP3A	Z	1.274	4
42	MP3A	Mx	.001	4
43	MP3B	X	-2.207	2
44	MP3B	Z	1.274	2
45	MP3B	Mx	-.001	2
46	MP3B	X	-2.207	4
47	MP3B	Z	1.274	4
48	MP3B	Mx	-.001	4
49	MP3C	X	-4.059	2
50	MP3C	Z	2.343	2
51	MP3C	Mx	0	2
52	MP3C	X	-4.059	4
53	MP3C	Z	2.343	4
54	MP3C	Mx	0	4
55	M59	X	-5.766	1.5
56	M59	Z	3.329	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-2.427	2.5
59	MP2A	Z	1.401	2.5
60	MP2A	Mx	-.001	2.5
61	MP2B	X	-2.427	2.5
62	MP2B	Z	1.401	2.5
63	MP2B	Mx	.001	2.5
64	MP2C	X	-3.23	2.5
65	MP2C	Z	1.865	2.5
66	MP2C	Mx	0	2.5
67	MP3A	X	-2.119	2.5
68	MP3A	Z	1.223	2.5
69	MP3A	Mx	-.001	2.5
70	MP3B	X	-2.119	2.5
71	MP3B	Z	1.223	2.5
72	MP3B	Mx	.001	2.5
73	MP3C	X	-3.23	2.5
74	MP3C	Z	1.865	2.5
75	MP3C	Mx	0	2.5
76	MP4A	X	-1.91	2.5
77	MP4A	Z	1.103	2.5
78	MP4A	Mx	-.000477	2.5
79	MP4B	X	-1.91	2.5
80	MP4B	Z	1.103	2.5
81	MP4B	Mx	.000478	2.5
82	MP4C	X	-3.385	2.5
83	MP4C	Z	1.955	2.5
84	MP4C	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-5.408	1
2	MP2A	Z	0	1
3	MP2A	Mx	.003	1
4	MP2A	X	-5.408	5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
5	MP2A	Z	0	5
6	MP2A	Mx	.003	5
7	MP2B	X	-7.462	1
8	MP2B	Z	0	1
9	MP2B	Mx	.002	1
10	MP2B	X	-7.462	5
11	MP2B	Z	0	5
12	MP2B	Mx	.002	5
13	MP2C	X	-7.462	1
14	MP2C	Z	0	1
15	MP2C	Mx	-.006	1
16	MP2C	X	-7.462	5
17	MP2C	Z	0	5
18	MP2C	Mx	-.006	5
19	MP2A	X	-5.408	1
20	MP2A	Z	0	1
21	MP2A	Mx	.003	1
22	MP2A	X	-5.408	5
23	MP2A	Z	0	5
24	MP2A	Mx	.003	5
25	MP2B	X	-7.462	1
26	MP2B	Z	0	1
27	MP2B	Mx	-.006	1
28	MP2B	X	-7.462	5
29	MP2B	Z	0	5
30	MP2B	Mx	-.006	5
31	MP2C	X	-7.462	1
32	MP2C	Z	0	1
33	MP2C	Mx	.002	1
34	MP2C	X	-7.462	5
35	MP2C	Z	0	5
36	MP2C	Mx	.002	5
37	MP3A	X	-1.835	2
38	MP3A	Z	0	2
39	MP3A	Mx	.000918	2
40	MP3A	X	-1.835	4
41	MP3A	Z	0	4
42	MP3A	Mx	.000918	4
43	MP3B	X	-3.974	2
44	MP3B	Z	0	2
45	MP3B	Mx	-.000994	2
46	MP3B	X	-3.974	4
47	MP3B	Z	0	4
48	MP3B	Mx	-.000994	4
49	MP3C	X	-3.974	2
50	MP3C	Z	0	2
51	MP3C	Mx	-.000994	2
52	MP3C	X	-3.974	4
53	MP3C	Z	0	4
54	MP3C	Mx	-.000994	4
55	M59	X	-6.178	1.5
56	M59	Z	0	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-2.493	2.5
59	MP2A	Z	0	2.5
60	MP2A	Mx	-.001	2.5
61	MP2B	X	-3.42	2.5
62	MP2B	Z	0	2.5
63	MP2B	Mx	.000855	2.5
64	MP2C	X	-3.42	2.5
65	MP2C	Z	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
66	MP2C	Mx	.000855	2.5
67	MP3A	X	-2.019	2.5
68	MP3A	Z	0	2.5
69	MP3A	Mx	-.001	2.5
70	MP3B	X	-3.302	2.5
71	MP3B	Z	0	2.5
72	MP3B	Mx	.000826	2.5
73	MP3C	X	-3.302	2.5
74	MP3C	Z	0	2.5
75	MP3C	Mx	.000826	2.5
76	MP4A	X	-1.638	2.5
77	MP4A	Z	0	2.5
78	MP4A	Mx	-.00041	2.5
79	MP4B	X	-3.341	2.5
80	MP4B	Z	0	2.5
81	MP4B	Mx	.000418	2.5
82	MP4C	X	-3.341	2.5
83	MP4C	Z	0	2.5
84	MP4C	Mx	.000418	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-5.277	1
2	MP2A	Z	-3.047	1
3	MP2A	Mx	.000861	1
4	MP2A	X	-5.277	5
5	MP2A	Z	-3.047	5
6	MP2A	Mx	.000861	5
7	MP2B	X	-7.056	1
8	MP2B	Z	-4.074	1
9	MP2B	Mx	.005	1
10	MP2B	X	-7.056	5
11	MP2B	Z	-4.074	5
12	MP2B	Mx	.005	5
13	MP2C	X	-5.277	1
14	MP2C	Z	-3.047	1
15	MP2C	Mx	-.004	1
16	MP2C	X	-5.277	5
17	MP2C	Z	-3.047	5
18	MP2C	Mx	-.004	5
19	MP2A	X	-5.277	1
20	MP2A	Z	-3.047	1
21	MP2A	Mx	.004	1
22	MP2A	X	-5.277	5
23	MP2A	Z	-3.047	5
24	MP2A	Mx	.004	5
25	MP2B	X	-7.056	1
26	MP2B	Z	-4.074	1
27	MP2B	Mx	-.005	1
28	MP2B	X	-7.056	5
29	MP2B	Z	-4.074	5
30	MP2B	Mx	-.005	5
31	MP2C	X	-5.277	1
32	MP2C	Z	-3.047	1
33	MP2C	Mx	-.000862	1
34	MP2C	X	-5.277	5
35	MP2C	Z	-3.047	5
36	MP2C	Mx	-.000862	5
37	MP3A	X	-2.207	2
38	MP3A	Z	-1.274	2
39	MP3A	Mx	.001	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
40	MP3A	X	-2.207	4
41	MP3A	Z	-1.274	4
42	MP3A	Mx	.001	4
43	MP3B	X	-4.059	2
44	MP3B	Z	-2.343	2
45	MP3B	Mx	0	2
46	MP3B	X	-4.059	4
47	MP3B	Z	-2.343	4
48	MP3B	Mx	0	4
49	MP3C	X	-2.207	2
50	MP3C	Z	-1.274	2
51	MP3C	Mx	-.001	2
52	MP3C	X	-2.207	4
53	MP3C	Z	-1.274	4
54	MP3C	Mx	-.001	4
55	M59	X	-5.766	1.5
56	M59	Z	-3.329	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-2.427	2.5
59	MP2A	Z	-1.401	2.5
60	MP2A	Mx	-.001	2.5
61	MP2B	X	-3.23	2.5
62	MP2B	Z	-1.865	2.5
63	MP2B	Mx	0	2.5
64	MP2C	X	-2.427	2.5
65	MP2C	Z	-1.401	2.5
66	MP2C	Mx	.001	2.5
67	MP3A	X	-2.119	2.5
68	MP3A	Z	-1.223	2.5
69	MP3A	Mx	-.001	2.5
70	MP3B	X	-3.23	2.5
71	MP3B	Z	-1.865	2.5
72	MP3B	Mx	0	2.5
73	MP3C	X	-2.119	2.5
74	MP3C	Z	-1.223	2.5
75	MP3C	Mx	.001	2.5
76	MP4A	X	-1.91	2.5
77	MP4A	Z	-1.103	2.5
78	MP4A	Mx	-.000477	2.5
79	MP4B	X	-3.385	2.5
80	MP4B	Z	-1.955	2.5
81	MP4B	Mx	0	2.5
82	MP4C	X	-1.91	2.5
83	MP4C	Z	-1.103	2.5
84	MP4C	Mx	.000478	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP2A	X	-3.731	1
2	MP2A	Z	-6.463	1
3	MP2A	Mx	-.002	1
4	MP2A	X	-3.731	5
5	MP2A	Z	-6.463	5
6	MP2A	Mx	-.002	5
7	MP2B	X	-3.731	1
8	MP2B	Z	-6.463	1
9	MP2B	Mx	.006	1
10	MP2B	X	-3.731	5
11	MP2B	Z	-6.463	5
12	MP2B	Mx	.006	5
13	MP2C	X	-2.704	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP2C	Z	-4.684	1
15	MP2C	Mx	-.003	1
16	MP2C	X	-2.704	5
17	MP2C	Z	-4.684	5
18	MP2C	Mx	-.003	5
19	MP2A	X	-3.731	1
20	MP2A	Z	-6.463	1
21	MP2A	Mx	.006	1
22	MP2A	X	-3.731	5
23	MP2A	Z	-6.463	5
24	MP2A	Mx	.006	5
25	MP2B	X	-3.731	1
26	MP2B	Z	-6.463	1
27	MP2B	Mx	-.002	1
28	MP2B	X	-3.731	5
29	MP2B	Z	-6.463	5
30	MP2B	Mx	-.002	5
31	MP2C	X	-2.704	1
32	MP2C	Z	-4.684	1
33	MP2C	Mx	-.003	1
34	MP2C	X	-2.704	5
35	MP2C	Z	-4.684	5
36	MP2C	Mx	-.003	5
37	MP3A	X	-1.987	2
38	MP3A	Z	-3.441	2
39	MP3A	Mx	.000994	2
40	MP3A	X	-1.987	4
41	MP3A	Z	-3.441	4
42	MP3A	Mx	.000994	4
43	MP3B	X	-1.987	2
44	MP3B	Z	-3.441	2
45	MP3B	Mx	.000993	2
46	MP3B	X	-1.987	4
47	MP3B	Z	-3.441	4
48	MP3B	Mx	.000993	4
49	MP3C	X	-.917	2
50	MP3C	Z	-1.589	2
51	MP3C	Mx	-.000917	2
52	MP3C	X	-.917	4
53	MP3C	Z	-1.589	4
54	MP3C	Mx	-.000917	4
55	M59	X	-3.809	1.5
56	M59	Z	-6.597	1.5
57	M59	Mx	0	1.5
58	MP2A	X	-1.71	2.5
59	MP2A	Z	-2.962	2.5
60	MP2A	Mx	-.000855	2.5
61	MP2B	X	-1.71	2.5
62	MP2B	Z	-2.962	2.5
63	MP2B	Mx	-.000855	2.5
64	MP2C	X	-1.246	2.5
65	MP2C	Z	-2.159	2.5
66	MP2C	Mx	.001	2.5
67	MP3A	X	-1.651	2.5
68	MP3A	Z	-2.86	2.5
69	MP3A	Mx	-.000826	2.5
70	MP3B	X	-1.651	2.5
71	MP3B	Z	-2.86	2.5
72	MP3B	Mx	-.000826	2.5
73	MP3C	X	-1.01	2.5
74	MP3C	Z	-1.749	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
75	MP3C	Mx	.001	2.5
76	MP4A	X	-1.671	2.5
77	MP4A	Z	-2.894	2.5
78	MP4A	Mx	-.000418	2.5
79	MP4B	X	-1.671	2.5
80	MP4B	Z	-2.894	2.5
81	MP4B	Mx	-.000418	2.5
82	MP4C	X	-.819	2.5
83	MP4C	Z	-1.419	2.5
84	MP4C	Mx	.00041	2.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M31	Y	-500	%81

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M32	Y	-500	%46

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M31	Y	-250	0

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M32	Y	-250	%50

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-7.524	-7.524	0	%100
2	M4	Y	-10.044	-10.044	0	%100
3	M8	Y	-7.524	-7.524	0	%100
4	M11	Y	-7.524	-7.524	0	%100
5	M12	Y	-10.044	-10.044	0	%100
6	M13	Y	-7.524	-7.524	0	%100
7	M21A	Y	-7.524	-7.524	0	%100
8	M22	Y	-10.044	-10.044	0	%100
9	M23	Y	-7.524	-7.524	0	%100
10	M31	Y	-6.486	-6.486	0	%100
11	M32	Y	-6.486	-6.486	0	%100
12	M33	Y	-6.486	-6.486	0	%100
13	M22A	Y	-6.486	-6.486	0	%100
14	M23A	Y	-6.486	-6.486	0	%100
15	M24	Y	-6.486	-6.486	0	%100
16	M25	Y	-6.486	-6.486	0	%100
17	M26A	Y	-6.486	-6.486	0	%100
18	M27A	Y	-6.486	-6.486	0	%100
19	M28A	Y	-5.67	-5.67	0	%100
20	M29	Y	-5.67	-5.67	0	%100
21	M30	Y	-5.67	-5.67	0	%100
22	M31A	Y	-5.67	-5.67	0	%100
23	M32A	Y	-5.67	-5.67	0	%100
24	M33A	Y	-5.67	-5.67	0	%100
25	MP1A	Y	-4.915	-4.915	0	%100
26	MP2A	Y	-5.613	-5.613	0	%100
27	MP3A	Y	-4.915	-4.915	0	%100
28	MP4A	Y	-4.915	-4.915	0	%100
29	MP1C	Y	-4.915	-4.915	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
30	MP2C	Y	-5.613	-5.613	0	%100
31	MP3C	Y	-4.915	-4.915	0	%100
32	MP4C	Y	-4.915	-4.915	0	%100
33	MP1B	Y	-4.915	-4.915	0	%100
34	MP2B	Y	-5.613	-5.613	0	%100
35	MP3B	Y	-4.915	-4.915	0	%100
36	MP4B	Y	-4.915	-4.915	0	%100
37	M59	Y	-4.915	-4.915	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	-17.279	-17.279	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	-6.33	-6.33	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	-4.32	-4.32	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	-5.525	-5.525	0	%100
13	M21A	X	0	0	0	%100
14	M21A	Z	-6.33	-6.33	0	%100
15	M22	X	0	0	0	%100
16	M22	Z	-4.32	-4.32	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	-5.525	-5.525	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	-8.373	-8.373	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	-8.293	-8.293	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	-8.373	-8.373	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	-2.093	-2.093	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	-2.073	-2.073	0	%100
29	M24	X	0	0	0	%100
30	M24	Z	-2.093	-2.093	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	-2.093	-2.093	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	-2.073	-2.073	0	%100
35	M27A	X	0	0	0	%100
36	M27A	Z	-2.093	-2.093	0	%100
37	M28A	X	0	0	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	0	0	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	-4.376	-4.376	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	-4.376	-4.376	0	%100
45	M32A	X	0	0	0	%100
46	M32A	Z	-4.376	-4.376	0	%100
47	M33A	X	0	0	0	%100
48	M33A	Z	-4.376	-4.376	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	-6.84	-6.84	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
51	MP2A	X	0	0	0	%100
52	MP2A	Z	-8.28	-8.28	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	-6.84	-6.84	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	-6.84	-6.84	0	%100
57	MP1C	X	0	0	0	%100
58	MP1C	Z	-6.84	-6.84	0	%100
59	MP2C	X	0	0	0	%100
60	MP2C	Z	-8.28	-8.28	0	%100
61	MP3C	X	0	0	0	%100
62	MP3C	Z	-6.84	-6.84	0	%100
63	MP4C	X	0	0	0	%100
64	MP4C	Z	-6.84	-6.84	0	%100
65	MP1B	X	0	0	0	%100
66	MP1B	Z	-6.84	-6.84	0	%100
67	MP2B	X	0	0	0	%100
68	MP2B	Z	-8.28	-8.28	0	%100
69	MP3B	X	0	0	0	%100
70	MP3B	Z	-6.84	-6.84	0	%100
71	MP4B	X	0	0	0	%100
72	MP4B	Z	-6.84	-6.84	0	%100
73	M59	X	0	0	0	%100
74	M59	Z	-5.593	-5.593	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.055	1.055	0	%100
2	M1	Z	-1.827	-1.827	0	%100
3	M4	X	6.48	6.48	0	%100
4	M4	Z	-11.223	-11.223	0	%100
5	M8	X	.921	.921	0	%100
6	M8	Z	-1.595	-1.595	0	%100
7	M11	X	1.055	1.055	0	%100
8	M11	Z	-1.827	-1.827	0	%100
9	M12	X	6.48	6.48	0	%100
10	M12	Z	-11.223	-11.223	0	%100
11	M13	X	.921	.921	0	%100
12	M13	Z	-1.595	-1.595	0	%100
13	M21A	X	4.22	4.22	0	%100
14	M21A	Z	-7.309	-7.309	0	%100
15	M22	X	0	0	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	3.683	3.683	0	%100
18	M23	Z	-6.379	-6.379	0	%100
19	M31	X	3.14	3.14	0	%100
20	M31	Z	-5.438	-5.438	0	%100
21	M32	X	3.11	3.11	0	%100
22	M32	Z	-5.386	-5.386	0	%100
23	M33	X	3.14	3.14	0	%100
24	M33	Z	-5.438	-5.438	0	%100
25	M22A	X	3.14	3.14	0	%100
26	M22A	Z	-5.438	-5.438	0	%100
27	M23A	X	3.11	3.11	0	%100
28	M23A	Z	-5.386	-5.386	0	%100
29	M24	X	3.14	3.14	0	%100
30	M24	Z	-5.438	-5.438	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
35	M27A	X	0	0	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	.729	.729	0	%100
38	M28A	Z	-1.263	-1.263	0	%100
39	M29	X	.729	.729	0	%100
40	M29	Z	-1.263	-1.263	0	%100
41	M30	X	.729	.729	0	%100
42	M30	Z	-1.263	-1.263	0	%100
43	M31A	X	.729	.729	0	%100
44	M31A	Z	-1.263	-1.263	0	%100
45	M32A	X	2.917	2.917	0	%100
46	M32A	Z	-5.053	-5.053	0	%100
47	M33A	X	2.917	2.917	0	%100
48	M33A	Z	-5.053	-5.053	0	%100
49	MP1A	X	3.42	3.42	0	%100
50	MP1A	Z	-5.923	-5.923	0	%100
51	MP2A	X	4.14	4.14	0	%100
52	MP2A	Z	-7.17	-7.17	0	%100
53	MP3A	X	3.42	3.42	0	%100
54	MP3A	Z	-5.923	-5.923	0	%100
55	MP4A	X	3.42	3.42	0	%100
56	MP4A	Z	-5.923	-5.923	0	%100
57	MP1C	X	3.42	3.42	0	%100
58	MP1C	Z	-5.923	-5.923	0	%100
59	MP2C	X	4.14	4.14	0	%100
60	MP2C	Z	-7.17	-7.17	0	%100
61	MP3C	X	3.42	3.42	0	%100
62	MP3C	Z	-5.923	-5.923	0	%100
63	MP4C	X	3.42	3.42	0	%100
64	MP4C	Z	-5.923	-5.923	0	%100
65	MP1B	X	3.42	3.42	0	%100
66	MP1B	Z	-5.923	-5.923	0	%100
67	MP2B	X	4.14	4.14	0	%100
68	MP2B	Z	-7.17	-7.17	0	%100
69	MP3B	X	3.42	3.42	0	%100
70	MP3B	Z	-5.923	-5.923	0	%100
71	MP4B	X	3.42	3.42	0	%100
72	MP4B	Z	-5.923	-5.923	0	%100
73	M59	X	2.797	2.797	0	%100
74	M59	Z	-4.844	-4.844	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	5.482	5.482	0	%100
2	M1	Z	-3.165	-3.165	0	%100
3	M4	X	3.741	3.741	0	%100
4	M4	Z	-2.16	-2.16	0	%100
5	M8	X	4.785	4.785	0	%100
6	M8	Z	-2.762	-2.762	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	14.964	14.964	0	%100
10	M12	Z	-8.64	-8.64	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	5.482	5.482	0	%100
14	M21A	Z	-3.165	-3.165	0	%100
15	M22	X	3.741	3.741	0	%100
16	M22	Z	-2.16	-2.16	0	%100
17	M23	X	4.785	4.785	0	%100
18	M23	Z	-2.762	-2.762	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
19	M31	X	1.813	1.813	0	%100
20	M31	Z	-1.047	-1.047	0	%100
21	M32	X	1.795	1.795	0	%100
22	M32	Z	-1.037	-1.037	0	%100
23	M33	X	1.813	1.813	0	%100
24	M33	Z	-1.047	-1.047	0	%100
25	M22A	X	7.251	7.251	0	%100
26	M22A	Z	-4.187	-4.187	0	%100
27	M23A	X	7.182	7.182	0	%100
28	M23A	Z	-4.147	-4.147	0	%100
29	M24	X	7.251	7.251	0	%100
30	M24	Z	-4.187	-4.187	0	%100
31	M25	X	1.813	1.813	0	%100
32	M25	Z	-1.047	-1.047	0	%100
33	M26A	X	1.795	1.795	0	%100
34	M26A	Z	-1.037	-1.037	0	%100
35	M27A	X	1.813	1.813	0	%100
36	M27A	Z	-1.047	-1.047	0	%100
37	M28A	X	3.79	3.79	0	%100
38	M28A	Z	-2.188	-2.188	0	%100
39	M29	X	3.79	3.79	0	%100
40	M29	Z	-2.188	-2.188	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	3.79	3.79	0	%100
46	M32A	Z	-2.188	-2.188	0	%100
47	M33A	X	3.79	3.79	0	%100
48	M33A	Z	-2.188	-2.188	0	%100
49	MP1A	X	5.923	5.923	0	%100
50	MP1A	Z	-3.42	-3.42	0	%100
51	MP2A	X	7.17	7.17	0	%100
52	MP2A	Z	-4.14	-4.14	0	%100
53	MP3A	X	5.923	5.923	0	%100
54	MP3A	Z	-3.42	-3.42	0	%100
55	MP4A	X	5.923	5.923	0	%100
56	MP4A	Z	-3.42	-3.42	0	%100
57	MP1C	X	5.923	5.923	0	%100
58	MP1C	Z	-3.42	-3.42	0	%100
59	MP2C	X	7.17	7.17	0	%100
60	MP2C	Z	-4.14	-4.14	0	%100
61	MP3C	X	5.923	5.923	0	%100
62	MP3C	Z	-3.42	-3.42	0	%100
63	MP4C	X	5.923	5.923	0	%100
64	MP4C	Z	-3.42	-3.42	0	%100
65	MP1B	X	5.923	5.923	0	%100
66	MP1B	Z	-3.42	-3.42	0	%100
67	MP2B	X	7.17	7.17	0	%100
68	MP2B	Z	-4.14	-4.14	0	%100
69	MP3B	X	5.923	5.923	0	%100
70	MP3B	Z	-3.42	-3.42	0	%100
71	MP4B	X	5.923	5.923	0	%100
72	MP4B	Z	-3.42	-3.42	0	%100
73	M59	X	4.844	4.844	0	%100
74	M59	Z	-2.797	-2.797	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	8.44	8.44	0	%100
2	M1	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	M8	X	7.366	7.366	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	2.11	2.11	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	12.96	12.96	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	1.842	1.842	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	2.11	2.11	0	%100
14	M21A	Z	0	0	0	%100
15	M22	X	12.96	12.96	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	1.842	1.842	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	0	0	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	0	0	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	0	0	0	%100
25	M22A	X	6.28	6.28	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	6.22	6.22	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	6.28	6.28	0	%100
30	M24	Z	0	0	0	%100
31	M25	X	6.28	6.28	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	6.22	6.22	0	%100
34	M26A	Z	0	0	0	%100
35	M27A	X	6.28	6.28	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	5.834	5.834	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	5.834	5.834	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	1.459	1.459	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	1.459	1.459	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	1.459	1.459	0	%100
46	M32A	Z	0	0	0	%100
47	M33A	X	1.459	1.459	0	%100
48	M33A	Z	0	0	0	%100
49	MP1A	X	6.84	6.84	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	8.28	8.28	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	6.84	6.84	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	6.84	6.84	0	%100
56	MP4A	Z	0	0	0	%100
57	MP1C	X	6.84	6.84	0	%100
58	MP1C	Z	0	0	0	%100
59	MP2C	X	8.28	8.28	0	%100
60	MP2C	Z	0	0	0	%100
61	MP3C	X	6.84	6.84	0	%100
62	MP3C	Z	0	0	0	%100
63	MP4C	X	6.84	6.84	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
64	MP4C	Z	0	0	0	%100
65	MP1B	X	6.84	6.84	0	%100
66	MP1B	Z	0	0	0	%100
67	MP2B	X	8.28	8.28	0	%100
68	MP2B	Z	0	0	0	%100
69	MP3B	X	6.84	6.84	0	%100
70	MP3B	Z	0	0	0	%100
71	MP4B	X	6.84	6.84	0	%100
72	MP4B	Z	0	0	0	%100
73	M59	X	5.593	5.593	0	%100
74	M59	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	5.482	5.482	0	%100
2	M1	Z	3.165	3.165	0	%100
3	M4	X	3.741	3.741	0	%100
4	M4	Z	2.16	2.16	0	%100
5	M8	X	4.785	4.785	0	%100
6	M8	Z	2.762	2.762	0	%100
7	M11	X	5.482	5.482	0	%100
8	M11	Z	3.165	3.165	0	%100
9	M12	X	3.741	3.741	0	%100
10	M12	Z	2.16	2.16	0	%100
11	M13	X	4.785	4.785	0	%100
12	M13	Z	2.762	2.762	0	%100
13	M21A	X	0	0	0	%100
14	M21A	Z	0	0	0	%100
15	M22	X	14.964	14.964	0	%100
16	M22	Z	8.64	8.64	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	1.813	1.813	0	%100
20	M31	Z	1.047	1.047	0	%100
21	M32	X	1.795	1.795	0	%100
22	M32	Z	1.037	1.037	0	%100
23	M33	X	1.813	1.813	0	%100
24	M33	Z	1.047	1.047	0	%100
25	M22A	X	1.813	1.813	0	%100
26	M22A	Z	1.047	1.047	0	%100
27	M23A	X	1.795	1.795	0	%100
28	M23A	Z	1.037	1.037	0	%100
29	M24	X	1.813	1.813	0	%100
30	M24	Z	1.047	1.047	0	%100
31	M25	X	7.251	7.251	0	%100
32	M25	Z	4.187	4.187	0	%100
33	M26A	X	7.182	7.182	0	%100
34	M26A	Z	4.147	4.147	0	%100
35	M27A	X	7.251	7.251	0	%100
36	M27A	Z	4.187	4.187	0	%100
37	M28A	X	3.79	3.79	0	%100
38	M28A	Z	2.188	2.188	0	%100
39	M29	X	3.79	3.79	0	%100
40	M29	Z	2.188	2.188	0	%100
41	M30	X	3.79	3.79	0	%100
42	M30	Z	2.188	2.188	0	%100
43	M31A	X	3.79	3.79	0	%100
44	M31A	Z	2.188	2.188	0	%100
45	M32A	X	0	0	0	%100
46	M32A	Z	0	0	0	%100
47	M33A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
48	M33A	Z	0	0	0	%100
49	MP1A	X	5.923	5.923	0	%100
50	MP1A	Z	3.42	3.42	0	%100
51	MP2A	X	7.17	7.17	0	%100
52	MP2A	Z	4.14	4.14	0	%100
53	MP3A	X	5.923	5.923	0	%100
54	MP3A	Z	3.42	3.42	0	%100
55	MP4A	X	5.923	5.923	0	%100
56	MP4A	Z	3.42	3.42	0	%100
57	MP1C	X	5.923	5.923	0	%100
58	MP1C	Z	3.42	3.42	0	%100
59	MP2C	X	7.17	7.17	0	%100
60	MP2C	Z	4.14	4.14	0	%100
61	MP3C	X	5.923	5.923	0	%100
62	MP3C	Z	3.42	3.42	0	%100
63	MP4C	X	5.923	5.923	0	%100
64	MP4C	Z	3.42	3.42	0	%100
65	MP1B	X	5.923	5.923	0	%100
66	MP1B	Z	3.42	3.42	0	%100
67	MP2B	X	7.17	7.17	0	%100
68	MP2B	Z	4.14	4.14	0	%100
69	MP3B	X	5.923	5.923	0	%100
70	MP3B	Z	3.42	3.42	0	%100
71	MP4B	X	5.923	5.923	0	%100
72	MP4B	Z	3.42	3.42	0	%100
73	M59	X	4.844	4.844	0	%100
74	M59	Z	2.797	2.797	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.055	1.055	0	%100
2	M1	Z	1.827	1.827	0	%100
3	M4	X	6.48	6.48	0	%100
4	M4	Z	11.223	11.223	0	%100
5	M8	X	.921	.921	0	%100
6	M8	Z	1.595	1.595	0	%100
7	M11	X	4.22	4.22	0	%100
8	M11	Z	7.309	7.309	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	3.683	3.683	0	%100
12	M13	Z	6.379	6.379	0	%100
13	M21A	X	1.055	1.055	0	%100
14	M21A	Z	1.827	1.827	0	%100
15	M22	X	6.48	6.48	0	%100
16	M22	Z	11.223	11.223	0	%100
17	M23	X	.921	.921	0	%100
18	M23	Z	1.595	1.595	0	%100
19	M31	X	3.14	3.14	0	%100
20	M31	Z	5.438	5.438	0	%100
21	M32	X	3.11	3.11	0	%100
22	M32	Z	5.386	5.386	0	%100
23	M33	X	3.14	3.14	0	%100
24	M33	Z	5.438	5.438	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	0	0	0	%100
30	M24	Z	0	0	0	%100
31	M25	X	3.14	3.14	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
32	M25	Z	5.438	5.438	0	%100
33	M26A	X	3.11	3.11	0	%100
34	M26A	Z	5.386	5.386	0	%100
35	M27A	X	3.14	3.14	0	%100
36	M27A	Z	5.438	5.438	0	%100
37	M28A	X	.729	.729	0	%100
38	M28A	Z	1.263	1.263	0	%100
39	M29	X	.729	.729	0	%100
40	M29	Z	1.263	1.263	0	%100
41	M30	X	2.917	2.917	0	%100
42	M30	Z	5.053	5.053	0	%100
43	M31A	X	2.917	2.917	0	%100
44	M31A	Z	5.053	5.053	0	%100
45	M32A	X	.729	.729	0	%100
46	M32A	Z	1.263	1.263	0	%100
47	M33A	X	.729	.729	0	%100
48	M33A	Z	1.263	1.263	0	%100
49	MP1A	X	3.42	3.42	0	%100
50	MP1A	Z	5.923	5.923	0	%100
51	MP2A	X	4.14	4.14	0	%100
52	MP2A	Z	7.17	7.17	0	%100
53	MP3A	X	3.42	3.42	0	%100
54	MP3A	Z	5.923	5.923	0	%100
55	MP4A	X	3.42	3.42	0	%100
56	MP4A	Z	5.923	5.923	0	%100
57	MP1C	X	3.42	3.42	0	%100
58	MP1C	Z	5.923	5.923	0	%100
59	MP2C	X	4.14	4.14	0	%100
60	MP2C	Z	7.17	7.17	0	%100
61	MP3C	X	3.42	3.42	0	%100
62	MP3C	Z	5.923	5.923	0	%100
63	MP4C	X	3.42	3.42	0	%100
64	MP4C	Z	5.923	5.923	0	%100
65	MP1B	X	3.42	3.42	0	%100
66	MP1B	Z	5.923	5.923	0	%100
67	MP2B	X	4.14	4.14	0	%100
68	MP2B	Z	7.17	7.17	0	%100
69	MP3B	X	3.42	3.42	0	%100
70	MP3B	Z	5.923	5.923	0	%100
71	MP4B	X	3.42	3.42	0	%100
72	MP4B	Z	5.923	5.923	0	%100
73	M59	X	2.797	2.797	0	%100
74	M59	Z	4.844	4.844	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	17.279	17.279	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	6.33	6.33	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	4.32	4.32	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	5.525	5.525	0	%100
13	M21A	X	0	0	0	%100
14	M21A	Z	6.33	6.33	0	%100
15	M22	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
16	M22	Z	4.32	4.32	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	5.525	5.525	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	8.373	8.373	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	8.293	8.293	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	8.373	8.373	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	2.093	2.093	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	2.073	2.073	0	%100
29	M24	X	0	0	0	%100
30	M24	Z	2.093	2.093	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	2.093	2.093	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	2.073	2.073	0	%100
35	M27A	X	0	0	0	%100
36	M27A	Z	2.093	2.093	0	%100
37	M28A	X	0	0	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	0	0	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	4.376	4.376	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	4.376	4.376	0	%100
45	M32A	X	0	0	0	%100
46	M32A	Z	4.376	4.376	0	%100
47	M33A	X	0	0	0	%100
48	M33A	Z	4.376	4.376	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	6.84	6.84	0	%100
51	MP2A	X	0	0	0	%100
52	MP2A	Z	8.28	8.28	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	6.84	6.84	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	6.84	6.84	0	%100
57	MP1C	X	0	0	0	%100
58	MP1C	Z	6.84	6.84	0	%100
59	MP2C	X	0	0	0	%100
60	MP2C	Z	8.28	8.28	0	%100
61	MP3C	X	0	0	0	%100
62	MP3C	Z	6.84	6.84	0	%100
63	MP4C	X	0	0	0	%100
64	MP4C	Z	6.84	6.84	0	%100
65	MP1B	X	0	0	0	%100
66	MP1B	Z	6.84	6.84	0	%100
67	MP2B	X	0	0	0	%100
68	MP2B	Z	8.28	8.28	0	%100
69	MP3B	X	0	0	0	%100
70	MP3B	Z	6.84	6.84	0	%100
71	MP4B	X	0	0	0	%100
72	MP4B	Z	6.84	6.84	0	%100
73	M59	X	0	0	0	%100
74	M59	Z	5.593	5.593	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.055	-1.055	0	%100
2	M1	Z	1.827	1.827	0	%100
3	M4	X	-6.48	-6.48	0	%100
4	M4	Z	11.223	11.223	0	%100
5	M8	X	-.921	-.921	0	%100
6	M8	Z	1.595	1.595	0	%100
7	M11	X	-1.055	-1.055	0	%100
8	M11	Z	1.827	1.827	0	%100
9	M12	X	-6.48	-6.48	0	%100
10	M12	Z	11.223	11.223	0	%100
11	M13	X	-.921	-.921	0	%100
12	M13	Z	1.595	1.595	0	%100
13	M21A	X	-4.22	-4.22	0	%100
14	M21A	Z	7.309	7.309	0	%100
15	M22	X	0	0	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	-3.683	-3.683	0	%100
18	M23	Z	6.379	6.379	0	%100
19	M31	X	-3.14	-3.14	0	%100
20	M31	Z	5.438	5.438	0	%100
21	M32	X	-3.11	-3.11	0	%100
22	M32	Z	5.386	5.386	0	%100
23	M33	X	-3.14	-3.14	0	%100
24	M33	Z	5.438	5.438	0	%100
25	M22A	X	-3.14	-3.14	0	%100
26	M22A	Z	5.438	5.438	0	%100
27	M23A	X	-3.11	-3.11	0	%100
28	M23A	Z	5.386	5.386	0	%100
29	M24	X	-3.14	-3.14	0	%100
30	M24	Z	5.438	5.438	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	0	0	0	%100
35	M27A	X	0	0	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	-.729	-.729	0	%100
38	M28A	Z	1.263	1.263	0	%100
39	M29	X	-.729	-.729	0	%100
40	M29	Z	1.263	1.263	0	%100
41	M30	X	-.729	-.729	0	%100
42	M30	Z	1.263	1.263	0	%100
43	M31A	X	-.729	-.729	0	%100
44	M31A	Z	1.263	1.263	0	%100
45	M32A	X	-2.917	-2.917	0	%100
46	M32A	Z	5.053	5.053	0	%100
47	M33A	X	-2.917	-2.917	0	%100
48	M33A	Z	5.053	5.053	0	%100
49	MP1A	X	-3.42	-3.42	0	%100
50	MP1A	Z	5.923	5.923	0	%100
51	MP2A	X	-4.14	-4.14	0	%100
52	MP2A	Z	7.17	7.17	0	%100
53	MP3A	X	-3.42	-3.42	0	%100
54	MP3A	Z	5.923	5.923	0	%100
55	MP4A	X	-3.42	-3.42	0	%100
56	MP4A	Z	5.923	5.923	0	%100
57	MP1C	X	-3.42	-3.42	0	%100
58	MP1C	Z	5.923	5.923	0	%100
59	MP2C	X	-4.14	-4.14	0	%100
60	MP2C	Z	7.17	7.17	0	%100
61	MP3C	X	-3.42	-3.42	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
62	MP3C	Z	5.923	5.923	0	%100
63	MP4C	X	-3.42	-3.42	0	%100
64	MP4C	Z	5.923	5.923	0	%100
65	MP1B	X	-3.42	-3.42	0	%100
66	MP1B	Z	5.923	5.923	0	%100
67	MP2B	X	-4.14	-4.14	0	%100
68	MP2B	Z	7.17	7.17	0	%100
69	MP3B	X	-3.42	-3.42	0	%100
70	MP3B	Z	5.923	5.923	0	%100
71	MP4B	X	-3.42	-3.42	0	%100
72	MP4B	Z	5.923	5.923	0	%100
73	M59	X	-2.797	-2.797	0	%100
74	M59	Z	4.844	4.844	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-5.482	-5.482	0	%100
2	M1	Z	3.165	3.165	0	%100
3	M4	X	-3.741	-3.741	0	%100
4	M4	Z	2.16	2.16	0	%100
5	M8	X	-4.785	-4.785	0	%100
6	M8	Z	2.762	2.762	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	-14.964	-14.964	0	%100
10	M12	Z	8.64	8.64	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	-5.482	-5.482	0	%100
14	M21A	Z	3.165	3.165	0	%100
15	M22	X	-3.741	-3.741	0	%100
16	M22	Z	2.16	2.16	0	%100
17	M23	X	-4.785	-4.785	0	%100
18	M23	Z	2.762	2.762	0	%100
19	M31	X	-1.813	-1.813	0	%100
20	M31	Z	1.047	1.047	0	%100
21	M32	X	-1.795	-1.795	0	%100
22	M32	Z	1.037	1.037	0	%100
23	M33	X	-1.813	-1.813	0	%100
24	M33	Z	1.047	1.047	0	%100
25	M22A	X	-7.251	-7.251	0	%100
26	M22A	Z	4.187	4.187	0	%100
27	M23A	X	-7.182	-7.182	0	%100
28	M23A	Z	4.147	4.147	0	%100
29	M24	X	-7.251	-7.251	0	%100
30	M24	Z	4.187	4.187	0	%100
31	M25	X	-1.813	-1.813	0	%100
32	M25	Z	1.047	1.047	0	%100
33	M26A	X	-1.795	-1.795	0	%100
34	M26A	Z	1.037	1.037	0	%100
35	M27A	X	-1.813	-1.813	0	%100
36	M27A	Z	1.047	1.047	0	%100
37	M28A	X	-3.79	-3.79	0	%100
38	M28A	Z	2.188	2.188	0	%100
39	M29	X	-3.79	-3.79	0	%100
40	M29	Z	2.188	2.188	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	-3.79	-3.79	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
46	M32A	Z	2.188	2.188	0	%100
47	M33A	X	-3.79	-3.79	0	%100
48	M33A	Z	2.188	2.188	0	%100
49	MP1A	X	-5.923	-5.923	0	%100
50	MP1A	Z	3.42	3.42	0	%100
51	MP2A	X	-7.17	-7.17	0	%100
52	MP2A	Z	4.14	4.14	0	%100
53	MP3A	X	-5.923	-5.923	0	%100
54	MP3A	Z	3.42	3.42	0	%100
55	MP4A	X	-5.923	-5.923	0	%100
56	MP4A	Z	3.42	3.42	0	%100
57	MP1C	X	-5.923	-5.923	0	%100
58	MP1C	Z	3.42	3.42	0	%100
59	MP2C	X	-7.17	-7.17	0	%100
60	MP2C	Z	4.14	4.14	0	%100
61	MP3C	X	-5.923	-5.923	0	%100
62	MP3C	Z	3.42	3.42	0	%100
63	MP4C	X	-5.923	-5.923	0	%100
64	MP4C	Z	3.42	3.42	0	%100
65	MP1B	X	-5.923	-5.923	0	%100
66	MP1B	Z	3.42	3.42	0	%100
67	MP2B	X	-7.17	-7.17	0	%100
68	MP2B	Z	4.14	4.14	0	%100
69	MP3B	X	-5.923	-5.923	0	%100
70	MP3B	Z	3.42	3.42	0	%100
71	MP4B	X	-5.923	-5.923	0	%100
72	MP4B	Z	3.42	3.42	0	%100
73	M59	X	-4.844	-4.844	0	%100
74	M59	Z	2.797	2.797	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-8.44	-8.44	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	M8	X	-7.366	-7.366	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	-2.11	-2.11	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	-12.96	-12.96	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	-1.842	-1.842	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	-2.11	-2.11	0	%100
14	M21A	Z	0	0	0	%100
15	M22	X	-12.96	-12.96	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	-1.842	-1.842	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	0	0	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	0	0	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	0	0	0	%100
25	M22A	X	-6.28	-6.28	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	-6.22	-6.22	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	-6.28	-6.28	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
30	M24	Z	0	0	0	%100
31	M25	X	-6.28	-6.28	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	-6.22	-6.22	0	%100
34	M26A	Z	0	0	0	%100
35	M27A	X	-6.28	-6.28	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	-5.834	-5.834	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	-5.834	-5.834	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	-1.459	-1.459	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	-1.459	-1.459	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	-1.459	-1.459	0	%100
46	M32A	Z	0	0	0	%100
47	M33A	X	-1.459	-1.459	0	%100
48	M33A	Z	0	0	0	%100
49	MP1A	X	-6.84	-6.84	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	-8.28	-8.28	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	-6.84	-6.84	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	-6.84	-6.84	0	%100
56	MP4A	Z	0	0	0	%100
57	MP1C	X	-6.84	-6.84	0	%100
58	MP1C	Z	0	0	0	%100
59	MP2C	X	-8.28	-8.28	0	%100
60	MP2C	Z	0	0	0	%100
61	MP3C	X	-6.84	-6.84	0	%100
62	MP3C	Z	0	0	0	%100
63	MP4C	X	-6.84	-6.84	0	%100
64	MP4C	Z	0	0	0	%100
65	MP1B	X	-6.84	-6.84	0	%100
66	MP1B	Z	0	0	0	%100
67	MP2B	X	-8.28	-8.28	0	%100
68	MP2B	Z	0	0	0	%100
69	MP3B	X	-6.84	-6.84	0	%100
70	MP3B	Z	0	0	0	%100
71	MP4B	X	-6.84	-6.84	0	%100
72	MP4B	Z	0	0	0	%100
73	M59	X	-5.593	-5.593	0	%100
74	M59	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-5.482	-5.482	0	%100
2	M1	Z	-3.165	-3.165	0	%100
3	M4	X	-3.741	-3.741	0	%100
4	M4	Z	-2.16	-2.16	0	%100
5	M8	X	-4.785	-4.785	0	%100
6	M8	Z	-2.762	-2.762	0	%100
7	M11	X	-5.482	-5.482	0	%100
8	M11	Z	-3.165	-3.165	0	%100
9	M12	X	-3.741	-3.741	0	%100
10	M12	Z	-2.16	-2.16	0	%100
11	M13	X	-4.785	-4.785	0	%100
12	M13	Z	-2.762	-2.762	0	%100
13	M21A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	M21A	Z	0	0	0	%100
15	M22	X	-14.964	-14.964	0	%100
16	M22	Z	-8.64	-8.64	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	-1.813	-1.813	0	%100
20	M31	Z	-1.047	-1.047	0	%100
21	M32	X	-1.795	-1.795	0	%100
22	M32	Z	-1.037	-1.037	0	%100
23	M33	X	-1.813	-1.813	0	%100
24	M33	Z	-1.047	-1.047	0	%100
25	M22A	X	-1.813	-1.813	0	%100
26	M22A	Z	-1.047	-1.047	0	%100
27	M23A	X	-1.795	-1.795	0	%100
28	M23A	Z	-1.037	-1.037	0	%100
29	M24	X	-1.813	-1.813	0	%100
30	M24	Z	-1.047	-1.047	0	%100
31	M25	X	-7.251	-7.251	0	%100
32	M25	Z	-4.187	-4.187	0	%100
33	M26A	X	-7.182	-7.182	0	%100
34	M26A	Z	-4.147	-4.147	0	%100
35	M27A	X	-7.251	-7.251	0	%100
36	M27A	Z	-4.187	-4.187	0	%100
37	M28A	X	-3.79	-3.79	0	%100
38	M28A	Z	-2.188	-2.188	0	%100
39	M29	X	-3.79	-3.79	0	%100
40	M29	Z	-2.188	-2.188	0	%100
41	M30	X	-3.79	-3.79	0	%100
42	M30	Z	-2.188	-2.188	0	%100
43	M31A	X	-3.79	-3.79	0	%100
44	M31A	Z	-2.188	-2.188	0	%100
45	M32A	X	0	0	0	%100
46	M32A	Z	0	0	0	%100
47	M33A	X	0	0	0	%100
48	M33A	Z	0	0	0	%100
49	MP1A	X	-5.923	-5.923	0	%100
50	MP1A	Z	-3.42	-3.42	0	%100
51	MP2A	X	-7.17	-7.17	0	%100
52	MP2A	Z	-4.14	-4.14	0	%100
53	MP3A	X	-5.923	-5.923	0	%100
54	MP3A	Z	-3.42	-3.42	0	%100
55	MP4A	X	-5.923	-5.923	0	%100
56	MP4A	Z	-3.42	-3.42	0	%100
57	MP1C	X	-5.923	-5.923	0	%100
58	MP1C	Z	-3.42	-3.42	0	%100
59	MP2C	X	-7.17	-7.17	0	%100
60	MP2C	Z	-4.14	-4.14	0	%100
61	MP3C	X	-5.923	-5.923	0	%100
62	MP3C	Z	-3.42	-3.42	0	%100
63	MP4C	X	-5.923	-5.923	0	%100
64	MP4C	Z	-3.42	-3.42	0	%100
65	MP1B	X	-5.923	-5.923	0	%100
66	MP1B	Z	-3.42	-3.42	0	%100
67	MP2B	X	-7.17	-7.17	0	%100
68	MP2B	Z	-4.14	-4.14	0	%100
69	MP3B	X	-5.923	-5.923	0	%100
70	MP3B	Z	-3.42	-3.42	0	%100
71	MP4B	X	-5.923	-5.923	0	%100
72	MP4B	Z	-3.42	-3.42	0	%100
73	M59	X	-4.844	-4.844	0	%100
74	M59	Z	-2.797	-2.797	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.055	-1.055	0	%100
2	M1	Z	-1.827	-1.827	0	%100
3	M4	X	-6.48	-6.48	0	%100
4	M4	Z	-11.223	-11.223	0	%100
5	M8	X	-.921	-.921	0	%100
6	M8	Z	-1.595	-1.595	0	%100
7	M11	X	-4.22	-4.22	0	%100
8	M11	Z	-7.309	-7.309	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	-3.683	-3.683	0	%100
12	M13	Z	-6.379	-6.379	0	%100
13	M21A	X	-1.055	-1.055	0	%100
14	M21A	Z	-1.827	-1.827	0	%100
15	M22	X	-6.48	-6.48	0	%100
16	M22	Z	-11.223	-11.223	0	%100
17	M23	X	-.921	-.921	0	%100
18	M23	Z	-1.595	-1.595	0	%100
19	M31	X	-3.14	-3.14	0	%100
20	M31	Z	-5.438	-5.438	0	%100
21	M32	X	-3.11	-3.11	0	%100
22	M32	Z	-5.386	-5.386	0	%100
23	M33	X	-3.14	-3.14	0	%100
24	M33	Z	-5.438	-5.438	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	0	0	0	%100
30	M24	Z	0	0	0	%100
31	M25	X	-3.14	-3.14	0	%100
32	M25	Z	-5.438	-5.438	0	%100
33	M26A	X	-3.11	-3.11	0	%100
34	M26A	Z	-5.386	-5.386	0	%100
35	M27A	X	-3.14	-3.14	0	%100
36	M27A	Z	-5.438	-5.438	0	%100
37	M28A	X	-.729	-.729	0	%100
38	M28A	Z	-1.263	-1.263	0	%100
39	M29	X	-.729	-.729	0	%100
40	M29	Z	-1.263	-1.263	0	%100
41	M30	X	-2.917	-2.917	0	%100
42	M30	Z	-5.053	-5.053	0	%100
43	M31A	X	-2.917	-2.917	0	%100
44	M31A	Z	-5.053	-5.053	0	%100
45	M32A	X	-.729	-.729	0	%100
46	M32A	Z	-1.263	-1.263	0	%100
47	M33A	X	-.729	-.729	0	%100
48	M33A	Z	-1.263	-1.263	0	%100
49	MP1A	X	-3.42	-3.42	0	%100
50	MP1A	Z	-5.923	-5.923	0	%100
51	MP2A	X	-4.14	-4.14	0	%100
52	MP2A	Z	-7.17	-7.17	0	%100
53	MP3A	X	-3.42	-3.42	0	%100
54	MP3A	Z	-5.923	-5.923	0	%100
55	MP4A	X	-3.42	-3.42	0	%100
56	MP4A	Z	-5.923	-5.923	0	%100
57	MP1C	X	-3.42	-3.42	0	%100
58	MP1C	Z	-5.923	-5.923	0	%100
59	MP2C	X	-4.14	-4.14	0	%100
60	MP2C	Z	-7.17	-7.17	0	%100
61	MP3C	X	-3.42	-3.42	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
62	MP3C	Z	-5.923	-5.923	0	%100
63	MP4C	X	-3.42	-3.42	0	%100
64	MP4C	Z	-5.923	-5.923	0	%100
65	MP1B	X	-3.42	-3.42	0	%100
66	MP1B	Z	-5.923	-5.923	0	%100
67	MP2B	X	-4.14	-4.14	0	%100
68	MP2B	Z	-7.17	-7.17	0	%100
69	MP3B	X	-3.42	-3.42	0	%100
70	MP3B	Z	-5.923	-5.923	0	%100
71	MP4B	X	-3.42	-3.42	0	%100
72	MP4B	Z	-5.923	-5.923	0	%100
73	M59	X	-2.797	-2.797	0	%100
74	M59	Z	-4.844	-4.844	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	-4.102	-4.102	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	-2.168	-2.168	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	-1.025	-1.025	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	-1.881	-1.881	0	%100
13	M21A	X	0	0	0	%100
14	M21A	Z	-2.168	-2.168	0	%100
15	M22	X	0	0	0	%100
16	M22	Z	-1.025	-1.025	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	-1.881	-1.881	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	-2.86	-2.86	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	-2.83	-2.83	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	-2.86	-2.86	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	-.715	-.715	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	-.707	-.707	0	%100
29	M24	X	0	0	0	%100
30	M24	Z	-.715	-.715	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	-.715	-.715	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	-.707	-.707	0	%100
35	M27A	X	0	0	0	%100
36	M27A	Z	-.715	-.715	0	%100
37	M28A	X	0	0	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	0	0	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	-1.614	-1.614	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	-1.614	-1.614	0	%100
45	M32A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
46	M32A	Z	-1.614	-1.614	0	%100
47	M33A	X	0	0	0	%100
48	M33A	Z	-1.614	-1.614	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	-2.583	-2.583	0	%100
51	MP2A	X	0	0	0	%100
52	MP2A	Z	-2.86	-2.86	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	-2.583	-2.583	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	-2.583	-2.583	0	%100
57	MP1C	X	0	0	0	%100
58	MP1C	Z	-2.583	-2.583	0	%100
59	MP2C	X	0	0	0	%100
60	MP2C	Z	-2.86	-2.86	0	%100
61	MP3C	X	0	0	0	%100
62	MP3C	Z	-2.583	-2.583	0	%100
63	MP4C	X	0	0	0	%100
64	MP4C	Z	-2.583	-2.583	0	%100
65	MP1B	X	0	0	0	%100
66	MP1B	Z	-2.583	-2.583	0	%100
67	MP2B	X	0	0	0	%100
68	MP2B	Z	-2.86	-2.86	0	%100
69	MP3B	X	0	0	0	%100
70	MP3B	Z	-2.583	-2.583	0	%100
71	MP4B	X	0	0	0	%100
72	MP4B	Z	-2.583	-2.583	0	%100
73	M59	X	0	0	0	%100
74	M59	Z	-2.126	-2.126	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.361	.361	0	%100
2	M1	Z	-.626	-.626	0	%100
3	M4	X	1.538	1.538	0	%100
4	M4	Z	-2.664	-2.664	0	%100
5	M8	X	.313	.313	0	%100
6	M8	Z	-.543	-.543	0	%100
7	M11	X	.361	.361	0	%100
8	M11	Z	-.626	-.626	0	%100
9	M12	X	1.538	1.538	0	%100
10	M12	Z	-2.664	-2.664	0	%100
11	M13	X	.313	.313	0	%100
12	M13	Z	-.543	-.543	0	%100
13	M21A	X	1.445	1.445	0	%100
14	M21A	Z	-2.503	-2.503	0	%100
15	M22	X	0	0	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	1.254	1.254	0	%100
18	M23	Z	-2.172	-2.172	0	%100
19	M31	X	1.073	1.073	0	%100
20	M31	Z	-1.858	-1.858	0	%100
21	M32	X	1.061	1.061	0	%100
22	M32	Z	-1.838	-1.838	0	%100
23	M33	X	1.073	1.073	0	%100
24	M33	Z	-1.858	-1.858	0	%100
25	M22A	X	1.073	1.073	0	%100
26	M22A	Z	-1.858	-1.858	0	%100
27	M23A	X	1.061	1.061	0	%100
28	M23A	Z	-1.838	-1.838	0	%100
29	M24	X	1.073	1.073	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
30	M24	Z	-1.858	-1.858	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	0	0	0	%100
35	M27A	X	0	0	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	.269	.269	0	%100
38	M28A	Z	-.466	-.466	0	%100
39	M29	X	.269	.269	0	%100
40	M29	Z	-.466	-.466	0	%100
41	M30	X	.269	.269	0	%100
42	M30	Z	-.466	-.466	0	%100
43	M31A	X	.269	.269	0	%100
44	M31A	Z	-.466	-.466	0	%100
45	M32A	X	1.076	1.076	0	%100
46	M32A	Z	-1.864	-1.864	0	%100
47	M33A	X	1.076	1.076	0	%100
48	M33A	Z	-1.864	-1.864	0	%100
49	MP1A	X	1.291	1.291	0	%100
50	MP1A	Z	-2.237	-2.237	0	%100
51	MP2A	X	1.43	1.43	0	%100
52	MP2A	Z	-2.476	-2.476	0	%100
53	MP3A	X	1.291	1.291	0	%100
54	MP3A	Z	-2.237	-2.237	0	%100
55	MP4A	X	1.291	1.291	0	%100
56	MP4A	Z	-2.237	-2.237	0	%100
57	MP1C	X	1.291	1.291	0	%100
58	MP1C	Z	-2.237	-2.237	0	%100
59	MP2C	X	1.43	1.43	0	%100
60	MP2C	Z	-2.476	-2.476	0	%100
61	MP3C	X	1.291	1.291	0	%100
62	MP3C	Z	-2.237	-2.237	0	%100
63	MP4C	X	1.291	1.291	0	%100
64	MP4C	Z	-2.237	-2.237	0	%100
65	MP1B	X	1.291	1.291	0	%100
66	MP1B	Z	-2.237	-2.237	0	%100
67	MP2B	X	1.43	1.43	0	%100
68	MP2B	Z	-2.476	-2.476	0	%100
69	MP3B	X	1.291	1.291	0	%100
70	MP3B	Z	-2.237	-2.237	0	%100
71	MP4B	X	1.291	1.291	0	%100
72	MP4B	Z	-2.237	-2.237	0	%100
73	M59	X	1.063	1.063	0	%100
74	M59	Z	-1.841	-1.841	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.877	1.877	0	%100
2	M1	Z	-1.084	-1.084	0	%100
3	M4	X	.888	.888	0	%100
4	M4	Z	-.513	-.513	0	%100
5	M8	X	1.629	1.629	0	%100
6	M8	Z	-.94	-.94	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	3.552	3.552	0	%100
10	M12	Z	-2.051	-2.051	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	1.877	1.877	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	M21A	Z	-1.084	-1.084	0	%100
15	M22	X	.888	.888	0	%100
16	M22	Z	-.513	-.513	0	%100
17	M23	X	1.629	1.629	0	%100
18	M23	Z	-.94	-.94	0	%100
19	M31	X	.619	.619	0	%100
20	M31	Z	-.358	-.358	0	%100
21	M32	X	.613	.613	0	%100
22	M32	Z	-.354	-.354	0	%100
23	M33	X	.619	.619	0	%100
24	M33	Z	-.358	-.358	0	%100
25	M22A	X	2.477	2.477	0	%100
26	M22A	Z	-1.43	-1.43	0	%100
27	M23A	X	2.451	2.451	0	%100
28	M23A	Z	-1.415	-1.415	0	%100
29	M24	X	2.477	2.477	0	%100
30	M24	Z	-1.43	-1.43	0	%100
31	M25	X	.619	.619	0	%100
32	M25	Z	-.358	-.358	0	%100
33	M26A	X	.613	.613	0	%100
34	M26A	Z	-.354	-.354	0	%100
35	M27A	X	.619	.619	0	%100
36	M27A	Z	-.358	-.358	0	%100
37	M28A	X	1.398	1.398	0	%100
38	M28A	Z	-.807	-.807	0	%100
39	M29	X	1.398	1.398	0	%100
40	M29	Z	-.807	-.807	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	1.398	1.398	0	%100
46	M32A	Z	-.807	-.807	0	%100
47	M33A	X	1.398	1.398	0	%100
48	M33A	Z	-.807	-.807	0	%100
49	MP1A	X	2.237	2.237	0	%100
50	MP1A	Z	-1.291	-1.291	0	%100
51	MP2A	X	2.476	2.476	0	%100
52	MP2A	Z	-1.43	-1.43	0	%100
53	MP3A	X	2.237	2.237	0	%100
54	MP3A	Z	-1.291	-1.291	0	%100
55	MP4A	X	2.237	2.237	0	%100
56	MP4A	Z	-1.291	-1.291	0	%100
57	MP1C	X	2.237	2.237	0	%100
58	MP1C	Z	-1.291	-1.291	0	%100
59	MP2C	X	2.476	2.476	0	%100
60	MP2C	Z	-1.43	-1.43	0	%100
61	MP3C	X	2.237	2.237	0	%100
62	MP3C	Z	-1.291	-1.291	0	%100
63	MP4C	X	2.237	2.237	0	%100
64	MP4C	Z	-1.291	-1.291	0	%100
65	MP1B	X	2.237	2.237	0	%100
66	MP1B	Z	-1.291	-1.291	0	%100
67	MP2B	X	2.476	2.476	0	%100
68	MP2B	Z	-1.43	-1.43	0	%100
69	MP3B	X	2.237	2.237	0	%100
70	MP3B	Z	-1.291	-1.291	0	%100
71	MP4B	X	2.237	2.237	0	%100
72	MP4B	Z	-1.291	-1.291	0	%100
73	M59	X	1.841	1.841	0	%100
74	M59	Z	-1.063	-1.063	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	2.89	2.89	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	M8	X	2.508	2.508	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	.723	.723	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	3.076	3.076	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	.627	.627	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	.723	.723	0	%100
14	M21A	Z	0	0	0	%100
15	M22	X	3.076	3.076	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	.627	.627	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	0	0	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	0	0	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	0	0	0	%100
25	M22A	X	2.145	2.145	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	2.122	2.122	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	2.145	2.145	0	%100
30	M24	Z	0	0	0	%100
31	M25	X	2.145	2.145	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	2.122	2.122	0	%100
34	M26A	Z	0	0	0	%100
35	M27A	X	2.145	2.145	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	2.152	2.152	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	2.152	2.152	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	.538	.538	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	.538	.538	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	.538	.538	0	%100
46	M32A	Z	0	0	0	%100
47	M33A	X	.538	.538	0	%100
48	M33A	Z	0	0	0	%100
49	MP1A	X	2.583	2.583	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	2.86	2.86	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	2.583	2.583	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	2.583	2.583	0	%100
56	MP4A	Z	0	0	0	%100
57	MP1C	X	2.583	2.583	0	%100
58	MP1C	Z	0	0	0	%100
59	MP2C	X	2.86	2.86	0	%100
60	MP2C	Z	0	0	0	%100
61	MP3C	X	2.583	2.583	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
62	MP3C	Z	0	0	0	%100
63	MP4C	X	2.583	2.583	0	%100
64	MP4C	Z	0	0	0	%100
65	MP1B	X	2.583	2.583	0	%100
66	MP1B	Z	0	0	0	%100
67	MP2B	X	2.86	2.86	0	%100
68	MP2B	Z	0	0	0	%100
69	MP3B	X	2.583	2.583	0	%100
70	MP3B	Z	0	0	0	%100
71	MP4B	X	2.583	2.583	0	%100
72	MP4B	Z	0	0	0	%100
73	M59	X	2.126	2.126	0	%100
74	M59	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	1.877	1.877	0	%100
2	M1	Z	1.084	1.084	0	%100
3	M4	X	.888	.888	0	%100
4	M4	Z	.513	.513	0	%100
5	M8	X	1.629	1.629	0	%100
6	M8	Z	.94	.94	0	%100
7	M11	X	1.877	1.877	0	%100
8	M11	Z	1.084	1.084	0	%100
9	M12	X	.888	.888	0	%100
10	M12	Z	.513	.513	0	%100
11	M13	X	1.629	1.629	0	%100
12	M13	Z	.94	.94	0	%100
13	M21A	X	0	0	0	%100
14	M21A	Z	0	0	0	%100
15	M22	X	3.552	3.552	0	%100
16	M22	Z	2.051	2.051	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	.619	.619	0	%100
20	M31	Z	.358	.358	0	%100
21	M32	X	.613	.613	0	%100
22	M32	Z	.354	.354	0	%100
23	M33	X	.619	.619	0	%100
24	M33	Z	.358	.358	0	%100
25	M22A	X	.619	.619	0	%100
26	M22A	Z	.358	.358	0	%100
27	M23A	X	.613	.613	0	%100
28	M23A	Z	.354	.354	0	%100
29	M24	X	.619	.619	0	%100
30	M24	Z	.358	.358	0	%100
31	M25	X	2.477	2.477	0	%100
32	M25	Z	1.43	1.43	0	%100
33	M26A	X	2.451	2.451	0	%100
34	M26A	Z	1.415	1.415	0	%100
35	M27A	X	2.477	2.477	0	%100
36	M27A	Z	1.43	1.43	0	%100
37	M28A	X	1.398	1.398	0	%100
38	M28A	Z	.807	.807	0	%100
39	M29	X	1.398	1.398	0	%100
40	M29	Z	.807	.807	0	%100
41	M30	X	1.398	1.398	0	%100
42	M30	Z	.807	.807	0	%100
43	M31A	X	1.398	1.398	0	%100
44	M31A	Z	.807	.807	0	%100
45	M32A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
46	M32A	Z	0	0	0	%100
47	M33A	X	0	0	0	%100
48	M33A	Z	0	0	0	%100
49	MP1A	X	2.237	2.237	0	%100
50	MP1A	Z	1.291	1.291	0	%100
51	MP2A	X	2.476	2.476	0	%100
52	MP2A	Z	1.43	1.43	0	%100
53	MP3A	X	2.237	2.237	0	%100
54	MP3A	Z	1.291	1.291	0	%100
55	MP4A	X	2.237	2.237	0	%100
56	MP4A	Z	1.291	1.291	0	%100
57	MP1C	X	2.237	2.237	0	%100
58	MP1C	Z	1.291	1.291	0	%100
59	MP2C	X	2.476	2.476	0	%100
60	MP2C	Z	1.43	1.43	0	%100
61	MP3C	X	2.237	2.237	0	%100
62	MP3C	Z	1.291	1.291	0	%100
63	MP4C	X	2.237	2.237	0	%100
64	MP4C	Z	1.291	1.291	0	%100
65	MP1B	X	2.237	2.237	0	%100
66	MP1B	Z	1.291	1.291	0	%100
67	MP2B	X	2.476	2.476	0	%100
68	MP2B	Z	1.43	1.43	0	%100
69	MP3B	X	2.237	2.237	0	%100
70	MP3B	Z	1.291	1.291	0	%100
71	MP4B	X	2.237	2.237	0	%100
72	MP4B	Z	1.291	1.291	0	%100
73	M59	X	1.841	1.841	0	%100
74	M59	Z	1.063	1.063	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.361	.361	0	%100
2	M1	Z	.626	.626	0	%100
3	M4	X	1.538	1.538	0	%100
4	M4	Z	2.664	2.664	0	%100
5	M8	X	.313	.313	0	%100
6	M8	Z	.543	.543	0	%100
7	M11	X	1.445	1.445	0	%100
8	M11	Z	2.503	2.503	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	1.254	1.254	0	%100
12	M13	Z	2.172	2.172	0	%100
13	M21A	X	.361	.361	0	%100
14	M21A	Z	.626	.626	0	%100
15	M22	X	1.538	1.538	0	%100
16	M22	Z	2.664	2.664	0	%100
17	M23	X	.313	.313	0	%100
18	M23	Z	.543	.543	0	%100
19	M31	X	1.073	1.073	0	%100
20	M31	Z	1.858	1.858	0	%100
21	M32	X	1.061	1.061	0	%100
22	M32	Z	1.838	1.838	0	%100
23	M33	X	1.073	1.073	0	%100
24	M33	Z	1.858	1.858	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
30	M24	Z	0	0	0	%100
31	M25	X	1.073	1.073	0	%100
32	M25	Z	1.858	1.858	0	%100
33	M26A	X	1.061	1.061	0	%100
34	M26A	Z	1.838	1.838	0	%100
35	M27A	X	1.073	1.073	0	%100
36	M27A	Z	1.858	1.858	0	%100
37	M28A	X	.269	.269	0	%100
38	M28A	Z	.466	.466	0	%100
39	M29	X	.269	.269	0	%100
40	M29	Z	.466	.466	0	%100
41	M30	X	1.076	1.076	0	%100
42	M30	Z	1.864	1.864	0	%100
43	M31A	X	1.076	1.076	0	%100
44	M31A	Z	1.864	1.864	0	%100
45	M32A	X	.269	.269	0	%100
46	M32A	Z	.466	.466	0	%100
47	M33A	X	.269	.269	0	%100
48	M33A	Z	.466	.466	0	%100
49	MP1A	X	1.291	1.291	0	%100
50	MP1A	Z	2.237	2.237	0	%100
51	MP2A	X	1.43	1.43	0	%100
52	MP2A	Z	2.476	2.476	0	%100
53	MP3A	X	1.291	1.291	0	%100
54	MP3A	Z	2.237	2.237	0	%100
55	MP4A	X	1.291	1.291	0	%100
56	MP4A	Z	2.237	2.237	0	%100
57	MP1C	X	1.291	1.291	0	%100
58	MP1C	Z	2.237	2.237	0	%100
59	MP2C	X	1.43	1.43	0	%100
60	MP2C	Z	2.476	2.476	0	%100
61	MP3C	X	1.291	1.291	0	%100
62	MP3C	Z	2.237	2.237	0	%100
63	MP4C	X	1.291	1.291	0	%100
64	MP4C	Z	2.237	2.237	0	%100
65	MP1B	X	1.291	1.291	0	%100
66	MP1B	Z	2.237	2.237	0	%100
67	MP2B	X	1.43	1.43	0	%100
68	MP2B	Z	2.476	2.476	0	%100
69	MP3B	X	1.291	1.291	0	%100
70	MP3B	Z	2.237	2.237	0	%100
71	MP4B	X	1.291	1.291	0	%100
72	MP4B	Z	2.237	2.237	0	%100
73	M59	X	1.063	1.063	0	%100
74	M59	Z	1.841	1.841	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	4.102	4.102	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	2.168	2.168	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	1.025	1.025	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	1.881	1.881	0	%100
13	M21A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	M21A	Z	2.168	2.168	0	%100
15	M22	X	0	0	0	%100
16	M22	Z	1.025	1.025	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	1.881	1.881	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	2.86	2.86	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	2.83	2.83	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	2.86	2.86	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	.715	.715	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	.707	.707	0	%100
29	M24	X	0	0	0	%100
30	M24	Z	.715	.715	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	.715	.715	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	.707	.707	0	%100
35	M27A	X	0	0	0	%100
36	M27A	Z	.715	.715	0	%100
37	M28A	X	0	0	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	0	0	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	1.614	1.614	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	1.614	1.614	0	%100
45	M32A	X	0	0	0	%100
46	M32A	Z	1.614	1.614	0	%100
47	M33A	X	0	0	0	%100
48	M33A	Z	1.614	1.614	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	2.583	2.583	0	%100
51	MP2A	X	0	0	0	%100
52	MP2A	Z	2.86	2.86	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	2.583	2.583	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	2.583	2.583	0	%100
57	MP1C	X	0	0	0	%100
58	MP1C	Z	2.583	2.583	0	%100
59	MP2C	X	0	0	0	%100
60	MP2C	Z	2.86	2.86	0	%100
61	MP3C	X	0	0	0	%100
62	MP3C	Z	2.583	2.583	0	%100
63	MP4C	X	0	0	0	%100
64	MP4C	Z	2.583	2.583	0	%100
65	MP1B	X	0	0	0	%100
66	MP1B	Z	2.583	2.583	0	%100
67	MP2B	X	0	0	0	%100
68	MP2B	Z	2.86	2.86	0	%100
69	MP3B	X	0	0	0	%100
70	MP3B	Z	2.583	2.583	0	%100
71	MP4B	X	0	0	0	%100
72	MP4B	Z	2.583	2.583	0	%100
73	M59	X	0	0	0	%100
74	M59	Z	2.126	2.126	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.361	-.361	0	%100
2	M1	Z	.626	.626	0	%100
3	M4	X	-1.538	-1.538	0	%100
4	M4	Z	2.664	2.664	0	%100
5	M8	X	-.313	-.313	0	%100
6	M8	Z	.543	.543	0	%100
7	M11	X	-.361	-.361	0	%100
8	M11	Z	.626	.626	0	%100
9	M12	X	-1.538	-1.538	0	%100
10	M12	Z	2.664	2.664	0	%100
11	M13	X	-.313	-.313	0	%100
12	M13	Z	.543	.543	0	%100
13	M21A	X	-1.445	-1.445	0	%100
14	M21A	Z	2.503	2.503	0	%100
15	M22	X	0	0	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	-1.254	-1.254	0	%100
18	M23	Z	2.172	2.172	0	%100
19	M31	X	-1.073	-1.073	0	%100
20	M31	Z	1.858	1.858	0	%100
21	M32	X	-1.061	-1.061	0	%100
22	M32	Z	1.838	1.838	0	%100
23	M33	X	-1.073	-1.073	0	%100
24	M33	Z	1.858	1.858	0	%100
25	M22A	X	-1.073	-1.073	0	%100
26	M22A	Z	1.858	1.858	0	%100
27	M23A	X	-1.061	-1.061	0	%100
28	M23A	Z	1.838	1.838	0	%100
29	M24	X	-1.073	-1.073	0	%100
30	M24	Z	1.858	1.858	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	0	0	0	%100
35	M27A	X	0	0	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	-.269	-.269	0	%100
38	M28A	Z	.466	.466	0	%100
39	M29	X	-.269	-.269	0	%100
40	M29	Z	.466	.466	0	%100
41	M30	X	-.269	-.269	0	%100
42	M30	Z	.466	.466	0	%100
43	M31A	X	-.269	-.269	0	%100
44	M31A	Z	.466	.466	0	%100
45	M32A	X	-1.076	-1.076	0	%100
46	M32A	Z	1.864	1.864	0	%100
47	M33A	X	-1.076	-1.076	0	%100
48	M33A	Z	1.864	1.864	0	%100
49	MP1A	X	-1.291	-1.291	0	%100
50	MP1A	Z	2.237	2.237	0	%100
51	MP2A	X	-1.43	-1.43	0	%100
52	MP2A	Z	2.476	2.476	0	%100
53	MP3A	X	-1.291	-1.291	0	%100
54	MP3A	Z	2.237	2.237	0	%100
55	MP4A	X	-1.291	-1.291	0	%100
56	MP4A	Z	2.237	2.237	0	%100
57	MP1C	X	-1.291	-1.291	0	%100
58	MP1C	Z	2.237	2.237	0	%100
59	MP2C	X	-1.43	-1.43	0	%100
60	MP2C	Z	2.476	2.476	0	%100
61	MP3C	X	-1.291	-1.291	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
62	MP3C	Z	2.237	2.237	0	%100
63	MP4C	X	-1.291	-1.291	0	%100
64	MP4C	Z	2.237	2.237	0	%100
65	MP1B	X	-1.291	-1.291	0	%100
66	MP1B	Z	2.237	2.237	0	%100
67	MP2B	X	-1.43	-1.43	0	%100
68	MP2B	Z	2.476	2.476	0	%100
69	MP3B	X	-1.291	-1.291	0	%100
70	MP3B	Z	2.237	2.237	0	%100
71	MP4B	X	-1.291	-1.291	0	%100
72	MP4B	Z	2.237	2.237	0	%100
73	M59	X	-1.063	-1.063	0	%100
74	M59	Z	1.841	1.841	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.877	-1.877	0	%100
2	M1	Z	1.084	1.084	0	%100
3	M4	X	-.888	-.888	0	%100
4	M4	Z	.513	.513	0	%100
5	M8	X	-1.629	-1.629	0	%100
6	M8	Z	.94	.94	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	-3.552	-3.552	0	%100
10	M12	Z	2.051	2.051	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	-1.877	-1.877	0	%100
14	M21A	Z	1.084	1.084	0	%100
15	M22	X	-.888	-.888	0	%100
16	M22	Z	.513	.513	0	%100
17	M23	X	-1.629	-1.629	0	%100
18	M23	Z	.94	.94	0	%100
19	M31	X	-.619	-.619	0	%100
20	M31	Z	.358	.358	0	%100
21	M32	X	-.613	-.613	0	%100
22	M32	Z	.354	.354	0	%100
23	M33	X	-.619	-.619	0	%100
24	M33	Z	.358	.358	0	%100
25	M22A	X	-2.477	-2.477	0	%100
26	M22A	Z	1.43	1.43	0	%100
27	M23A	X	-2.451	-2.451	0	%100
28	M23A	Z	1.415	1.415	0	%100
29	M24	X	-2.477	-2.477	0	%100
30	M24	Z	1.43	1.43	0	%100
31	M25	X	-.619	-.619	0	%100
32	M25	Z	.358	.358	0	%100
33	M26A	X	-.613	-.613	0	%100
34	M26A	Z	.354	.354	0	%100
35	M27A	X	-.619	-.619	0	%100
36	M27A	Z	.358	.358	0	%100
37	M28A	X	-1.398	-1.398	0	%100
38	M28A	Z	.807	.807	0	%100
39	M29	X	-1.398	-1.398	0	%100
40	M29	Z	.807	.807	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	-1.398	-1.398	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
46	M32A	Z	.807	.807	0	%100
47	M33A	X	-1.398	-1.398	0	%100
48	M33A	Z	.807	.807	0	%100
49	MP1A	X	-2.237	-2.237	0	%100
50	MP1A	Z	1.291	1.291	0	%100
51	MP2A	X	-2.476	-2.476	0	%100
52	MP2A	Z	1.43	1.43	0	%100
53	MP3A	X	-2.237	-2.237	0	%100
54	MP3A	Z	1.291	1.291	0	%100
55	MP4A	X	-2.237	-2.237	0	%100
56	MP4A	Z	1.291	1.291	0	%100
57	MP1C	X	-2.237	-2.237	0	%100
58	MP1C	Z	1.291	1.291	0	%100
59	MP2C	X	-2.476	-2.476	0	%100
60	MP2C	Z	1.43	1.43	0	%100
61	MP3C	X	-2.237	-2.237	0	%100
62	MP3C	Z	1.291	1.291	0	%100
63	MP4C	X	-2.237	-2.237	0	%100
64	MP4C	Z	1.291	1.291	0	%100
65	MP1B	X	-2.237	-2.237	0	%100
66	MP1B	Z	1.291	1.291	0	%100
67	MP2B	X	-2.476	-2.476	0	%100
68	MP2B	Z	1.43	1.43	0	%100
69	MP3B	X	-2.237	-2.237	0	%100
70	MP3B	Z	1.291	1.291	0	%100
71	MP4B	X	-2.237	-2.237	0	%100
72	MP4B	Z	1.291	1.291	0	%100
73	M59	X	-1.841	-1.841	0	%100
74	M59	Z	1.063	1.063	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-2.89	-2.89	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	M8	X	-2.508	-2.508	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	-.723	-.723	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	-3.076	-3.076	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	-.627	-.627	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	-.723	-.723	0	%100
14	M21A	Z	0	0	0	%100
15	M22	X	-3.076	-3.076	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	-.627	-.627	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	0	0	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	0	0	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	0	0	0	%100
25	M22A	X	-2.145	-2.145	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	-2.122	-2.122	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	-2.145	-2.145	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
30	M24	Z	0	0	0	%100
31	M25	X	-2.145	-2.145	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	-2.122	-2.122	0	%100
34	M26A	Z	0	0	0	%100
35	M27A	X	-2.145	-2.145	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	-2.152	-2.152	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	-2.152	-2.152	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	-.538	-.538	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	-.538	-.538	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	-.538	-.538	0	%100
46	M32A	Z	0	0	0	%100
47	M33A	X	-.538	-.538	0	%100
48	M33A	Z	0	0	0	%100
49	MP1A	X	-2.583	-2.583	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	-2.86	-2.86	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	-2.583	-2.583	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	-2.583	-2.583	0	%100
56	MP4A	Z	0	0	0	%100
57	MP1C	X	-2.583	-2.583	0	%100
58	MP1C	Z	0	0	0	%100
59	MP2C	X	-2.86	-2.86	0	%100
60	MP2C	Z	0	0	0	%100
61	MP3C	X	-2.583	-2.583	0	%100
62	MP3C	Z	0	0	0	%100
63	MP4C	X	-2.583	-2.583	0	%100
64	MP4C	Z	0	0	0	%100
65	MP1B	X	-2.583	-2.583	0	%100
66	MP1B	Z	0	0	0	%100
67	MP2B	X	-2.86	-2.86	0	%100
68	MP2B	Z	0	0	0	%100
69	MP3B	X	-2.583	-2.583	0	%100
70	MP3B	Z	0	0	0	%100
71	MP4B	X	-2.583	-2.583	0	%100
72	MP4B	Z	0	0	0	%100
73	M59	X	-2.126	-2.126	0	%100
74	M59	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-1.877	-1.877	0	%100
2	M1	Z	-1.084	-1.084	0	%100
3	M4	X	-.888	-.888	0	%100
4	M4	Z	-.513	-.513	0	%100
5	M8	X	-1.629	-1.629	0	%100
6	M8	Z	-.94	-.94	0	%100
7	M11	X	-1.877	-1.877	0	%100
8	M11	Z	-1.084	-1.084	0	%100
9	M12	X	-.888	-.888	0	%100
10	M12	Z	-.513	-.513	0	%100
11	M13	X	-1.629	-1.629	0	%100
12	M13	Z	-.94	-.94	0	%100
13	M21A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	M21A	Z	0	0	0	%100
15	M22	X	-3.552	-3.552	0	%100
16	M22	Z	-2.051	-2.051	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	-.619	-.619	0	%100
20	M31	Z	-.358	-.358	0	%100
21	M32	X	-.613	-.613	0	%100
22	M32	Z	-.354	-.354	0	%100
23	M33	X	-.619	-.619	0	%100
24	M33	Z	-.358	-.358	0	%100
25	M22A	X	-.619	-.619	0	%100
26	M22A	Z	-.358	-.358	0	%100
27	M23A	X	-.613	-.613	0	%100
28	M23A	Z	-.354	-.354	0	%100
29	M24	X	-.619	-.619	0	%100
30	M24	Z	-.358	-.358	0	%100
31	M25	X	-2.477	-2.477	0	%100
32	M25	Z	-1.43	-1.43	0	%100
33	M26A	X	-2.451	-2.451	0	%100
34	M26A	Z	-1.415	-1.415	0	%100
35	M27A	X	-2.477	-2.477	0	%100
36	M27A	Z	-1.43	-1.43	0	%100
37	M28A	X	-1.398	-1.398	0	%100
38	M28A	Z	-.807	-.807	0	%100
39	M29	X	-1.398	-1.398	0	%100
40	M29	Z	-.807	-.807	0	%100
41	M30	X	-1.398	-1.398	0	%100
42	M30	Z	-.807	-.807	0	%100
43	M31A	X	-1.398	-1.398	0	%100
44	M31A	Z	-.807	-.807	0	%100
45	M32A	X	0	0	0	%100
46	M32A	Z	0	0	0	%100
47	M33A	X	0	0	0	%100
48	M33A	Z	0	0	0	%100
49	MP1A	X	-2.237	-2.237	0	%100
50	MP1A	Z	-1.291	-1.291	0	%100
51	MP2A	X	-2.476	-2.476	0	%100
52	MP2A	Z	-1.43	-1.43	0	%100
53	MP3A	X	-2.237	-2.237	0	%100
54	MP3A	Z	-1.291	-1.291	0	%100
55	MP4A	X	-2.237	-2.237	0	%100
56	MP4A	Z	-1.291	-1.291	0	%100
57	MP1C	X	-2.237	-2.237	0	%100
58	MP1C	Z	-1.291	-1.291	0	%100
59	MP2C	X	-2.476	-2.476	0	%100
60	MP2C	Z	-1.43	-1.43	0	%100
61	MP3C	X	-2.237	-2.237	0	%100
62	MP3C	Z	-1.291	-1.291	0	%100
63	MP4C	X	-2.237	-2.237	0	%100
64	MP4C	Z	-1.291	-1.291	0	%100
65	MP1B	X	-2.237	-2.237	0	%100
66	MP1B	Z	-1.291	-1.291	0	%100
67	MP2B	X	-2.476	-2.476	0	%100
68	MP2B	Z	-1.43	-1.43	0	%100
69	MP3B	X	-2.237	-2.237	0	%100
70	MP3B	Z	-1.291	-1.291	0	%100
71	MP4B	X	-2.237	-2.237	0	%100
72	MP4B	Z	-1.291	-1.291	0	%100
73	M59	X	-1.841	-1.841	0	%100
74	M59	Z	-1.063	-1.063	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.361	-.361	0	%100
2	M1	Z	-.626	-.626	0	%100
3	M4	X	-1.538	-1.538	0	%100
4	M4	Z	-2.664	-2.664	0	%100
5	M8	X	-.313	-.313	0	%100
6	M8	Z	-.543	-.543	0	%100
7	M11	X	-1.445	-1.445	0	%100
8	M11	Z	-2.503	-2.503	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	-1.254	-1.254	0	%100
12	M13	Z	-2.172	-2.172	0	%100
13	M21A	X	-.361	-.361	0	%100
14	M21A	Z	-.626	-.626	0	%100
15	M22	X	-1.538	-1.538	0	%100
16	M22	Z	-2.664	-2.664	0	%100
17	M23	X	-.313	-.313	0	%100
18	M23	Z	-.543	-.543	0	%100
19	M31	X	-1.073	-1.073	0	%100
20	M31	Z	-1.858	-1.858	0	%100
21	M32	X	-1.061	-1.061	0	%100
22	M32	Z	-1.838	-1.838	0	%100
23	M33	X	-1.073	-1.073	0	%100
24	M33	Z	-1.858	-1.858	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	0	0	0	%100
30	M24	Z	0	0	0	%100
31	M25	X	-1.073	-1.073	0	%100
32	M25	Z	-1.858	-1.858	0	%100
33	M26A	X	-1.061	-1.061	0	%100
34	M26A	Z	-1.838	-1.838	0	%100
35	M27A	X	-1.073	-1.073	0	%100
36	M27A	Z	-1.858	-1.858	0	%100
37	M28A	X	-.269	-.269	0	%100
38	M28A	Z	-.466	-.466	0	%100
39	M29	X	-.269	-.269	0	%100
40	M29	Z	-.466	-.466	0	%100
41	M30	X	-1.076	-1.076	0	%100
42	M30	Z	-1.864	-1.864	0	%100
43	M31A	X	-1.076	-1.076	0	%100
44	M31A	Z	-1.864	-1.864	0	%100
45	M32A	X	-.269	-.269	0	%100
46	M32A	Z	-.466	-.466	0	%100
47	M33A	X	-.269	-.269	0	%100
48	M33A	Z	-.466	-.466	0	%100
49	MP1A	X	-1.291	-1.291	0	%100
50	MP1A	Z	-2.237	-2.237	0	%100
51	MP2A	X	-1.43	-1.43	0	%100
52	MP2A	Z	-2.476	-2.476	0	%100
53	MP3A	X	-1.291	-1.291	0	%100
54	MP3A	Z	-2.237	-2.237	0	%100
55	MP4A	X	-1.291	-1.291	0	%100
56	MP4A	Z	-2.237	-2.237	0	%100
57	MP1C	X	-1.291	-1.291	0	%100
58	MP1C	Z	-2.237	-2.237	0	%100
59	MP2C	X	-1.43	-1.43	0	%100
60	MP2C	Z	-2.476	-2.476	0	%100
61	MP3C	X	-1.291	-1.291	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
62	MP3C	Z	-2.237	-2.237	0	%100
63	MP4C	X	-1.291	-1.291	0	%100
64	MP4C	Z	-2.237	-2.237	0	%100
65	MP1B	X	-1.291	-1.291	0	%100
66	MP1B	Z	-2.237	-2.237	0	%100
67	MP2B	X	-1.43	-1.43	0	%100
68	MP2B	Z	-2.476	-2.476	0	%100
69	MP3B	X	-1.291	-1.291	0	%100
70	MP3B	Z	-2.237	-2.237	0	%100
71	MP4B	X	-1.291	-1.291	0	%100
72	MP4B	Z	-2.237	-2.237	0	%100
73	M59	X	-1.063	-1.063	0	%100
74	M59	Z	-1.841	-1.841	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	-1.197	-1.197	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	-.438	-.438	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	-.299	-.299	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	-.383	-.383	0	%100
13	M21A	X	0	0	0	%100
14	M21A	Z	-.438	-.438	0	%100
15	M22	X	0	0	0	%100
16	M22	Z	-.299	-.299	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	-.383	-.383	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	-.58	-.58	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	-.574	-.574	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	-.58	-.58	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	-.145	-.145	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	-.144	-.144	0	%100
29	M24	X	0	0	0	%100
30	M24	Z	-.145	-.145	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	-.145	-.145	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	-.144	-.144	0	%100
35	M27A	X	0	0	0	%100
36	M27A	Z	-.145	-.145	0	%100
37	M28A	X	0	0	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	0	0	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	-.303	-.303	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	-.303	-.303	0	%100
45	M32A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
46	M32A	Z	-.303	-.303	0	%100
47	M33A	X	0	0	0	%100
48	M33A	Z	-.303	-.303	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	-.474	-.474	0	%100
51	MP2A	X	0	0	0	%100
52	MP2A	Z	-.573	-.573	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	-.474	-.474	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	-.474	-.474	0	%100
57	MP1C	X	0	0	0	%100
58	MP1C	Z	-.474	-.474	0	%100
59	MP2C	X	0	0	0	%100
60	MP2C	Z	-.573	-.573	0	%100
61	MP3C	X	0	0	0	%100
62	MP3C	Z	-.474	-.474	0	%100
63	MP4C	X	0	0	0	%100
64	MP4C	Z	-.474	-.474	0	%100
65	MP1B	X	0	0	0	%100
66	MP1B	Z	-.474	-.474	0	%100
67	MP2B	X	0	0	0	%100
68	MP2B	Z	-.573	-.573	0	%100
69	MP3B	X	0	0	0	%100
70	MP3B	Z	-.474	-.474	0	%100
71	MP4B	X	0	0	0	%100
72	MP4B	Z	-.474	-.474	0	%100
73	M59	X	0	0	0	%100
74	M59	Z	-.387	-.387	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.073	.073	0	%100
2	M1	Z	-.127	-.127	0	%100
3	M4	X	.449	.449	0	%100
4	M4	Z	-.777	-.777	0	%100
5	M8	X	.064	.064	0	%100
6	M8	Z	-.11	-.11	0	%100
7	M11	X	.073	.073	0	%100
8	M11	Z	-.127	-.127	0	%100
9	M12	X	.449	.449	0	%100
10	M12	Z	-.777	-.777	0	%100
11	M13	X	.064	.064	0	%100
12	M13	Z	-.11	-.11	0	%100
13	M21A	X	.292	.292	0	%100
14	M21A	Z	-.506	-.506	0	%100
15	M22	X	0	0	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	.255	.255	0	%100
18	M23	Z	-.442	-.442	0	%100
19	M31	X	.217	.217	0	%100
20	M31	Z	-.377	-.377	0	%100
21	M32	X	.215	.215	0	%100
22	M32	Z	-.373	-.373	0	%100
23	M33	X	.217	.217	0	%100
24	M33	Z	-.377	-.377	0	%100
25	M22A	X	.217	.217	0	%100
26	M22A	Z	-.377	-.377	0	%100
27	M23A	X	.215	.215	0	%100
28	M23A	Z	-.373	-.373	0	%100
29	M24	X	.217	.217	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
30	M24	Z	-.377	-.377	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	0	0	0	%100
35	M27A	X	0	0	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	.051	.051	0	%100
38	M28A	Z	-.087	-.087	0	%100
39	M29	X	.051	.051	0	%100
40	M29	Z	-.087	-.087	0	%100
41	M30	X	.051	.051	0	%100
42	M30	Z	-.087	-.087	0	%100
43	M31A	X	.051	.051	0	%100
44	M31A	Z	-.087	-.087	0	%100
45	M32A	X	.202	.202	0	%100
46	M32A	Z	-.35	-.35	0	%100
47	M33A	X	.202	.202	0	%100
48	M33A	Z	-.35	-.35	0	%100
49	MP1A	X	.237	.237	0	%100
50	MP1A	Z	-.41	-.41	0	%100
51	MP2A	X	.287	.287	0	%100
52	MP2A	Z	-.497	-.497	0	%100
53	MP3A	X	.237	.237	0	%100
54	MP3A	Z	-.41	-.41	0	%100
55	MP4A	X	.237	.237	0	%100
56	MP4A	Z	-.41	-.41	0	%100
57	MP1C	X	.237	.237	0	%100
58	MP1C	Z	-.41	-.41	0	%100
59	MP2C	X	.287	.287	0	%100
60	MP2C	Z	-.497	-.497	0	%100
61	MP3C	X	.237	.237	0	%100
62	MP3C	Z	-.41	-.41	0	%100
63	MP4C	X	.237	.237	0	%100
64	MP4C	Z	-.41	-.41	0	%100
65	MP1B	X	.237	.237	0	%100
66	MP1B	Z	-.41	-.41	0	%100
67	MP2B	X	.287	.287	0	%100
68	MP2B	Z	-.497	-.497	0	%100
69	MP3B	X	.237	.237	0	%100
70	MP3B	Z	-.41	-.41	0	%100
71	MP4B	X	.237	.237	0	%100
72	MP4B	Z	-.41	-.41	0	%100
73	M59	X	.194	.194	0	%100
74	M59	Z	-.335	-.335	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.38	.38	0	%100
2	M1	Z	-.219	-.219	0	%100
3	M4	X	.259	.259	0	%100
4	M4	Z	-.15	-.15	0	%100
5	M8	X	.331	.331	0	%100
6	M8	Z	-.191	-.191	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	1.036	1.036	0	%100
10	M12	Z	-.598	-.598	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	.38	.38	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	M21A	Z	-.219	-.219	0	%100
15	M22	X	.259	.259	0	%100
16	M22	Z	-.15	-.15	0	%100
17	M23	X	.331	.331	0	%100
18	M23	Z	-.191	-.191	0	%100
19	M31	X	.126	.126	0	%100
20	M31	Z	-.072	-.072	0	%100
21	M32	X	.124	.124	0	%100
22	M32	Z	-.072	-.072	0	%100
23	M33	X	.126	.126	0	%100
24	M33	Z	-.072	-.072	0	%100
25	M22A	X	.502	.502	0	%100
26	M22A	Z	-.29	-.29	0	%100
27	M23A	X	.497	.497	0	%100
28	M23A	Z	-.287	-.287	0	%100
29	M24	X	.502	.502	0	%100
30	M24	Z	-.29	-.29	0	%100
31	M25	X	.126	.126	0	%100
32	M25	Z	-.072	-.072	0	%100
33	M26A	X	.124	.124	0	%100
34	M26A	Z	-.072	-.072	0	%100
35	M27A	X	.126	.126	0	%100
36	M27A	Z	-.072	-.072	0	%100
37	M28A	X	.262	.262	0	%100
38	M28A	Z	-.152	-.152	0	%100
39	M29	X	.262	.262	0	%100
40	M29	Z	-.152	-.152	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	.262	.262	0	%100
46	M32A	Z	-.152	-.152	0	%100
47	M33A	X	.262	.262	0	%100
48	M33A	Z	-.152	-.152	0	%100
49	MP1A	X	.41	.41	0	%100
50	MP1A	Z	-.237	-.237	0	%100
51	MP2A	X	.497	.497	0	%100
52	MP2A	Z	-.287	-.287	0	%100
53	MP3A	X	.41	.41	0	%100
54	MP3A	Z	-.237	-.237	0	%100
55	MP4A	X	.41	.41	0	%100
56	MP4A	Z	-.237	-.237	0	%100
57	MP1C	X	.41	.41	0	%100
58	MP1C	Z	-.237	-.237	0	%100
59	MP2C	X	.497	.497	0	%100
60	MP2C	Z	-.287	-.287	0	%100
61	MP3C	X	.41	.41	0	%100
62	MP3C	Z	-.237	-.237	0	%100
63	MP4C	X	.41	.41	0	%100
64	MP4C	Z	-.237	-.237	0	%100
65	MP1B	X	.41	.41	0	%100
66	MP1B	Z	-.237	-.237	0	%100
67	MP2B	X	.497	.497	0	%100
68	MP2B	Z	-.287	-.287	0	%100
69	MP3B	X	.41	.41	0	%100
70	MP3B	Z	-.237	-.237	0	%100
71	MP4B	X	.41	.41	0	%100
72	MP4B	Z	-.237	-.237	0	%100
73	M59	X	.335	.335	0	%100
74	M59	Z	-.194	-.194	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.584	.584	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	M8	X	.51	.51	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	.146	.146	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	.897	.897	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	.128	.128	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	.146	.146	0	%100
14	M21A	Z	0	0	0	%100
15	M22	X	.897	.897	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	.128	.128	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	0	0	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	0	0	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	0	0	0	%100
25	M22A	X	.435	.435	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	.431	.431	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	.435	.435	0	%100
30	M24	Z	0	0	0	%100
31	M25	X	.435	.435	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	.431	.431	0	%100
34	M26A	Z	0	0	0	%100
35	M27A	X	.435	.435	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	.404	.404	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	.404	.404	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	.101	.101	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	.101	.101	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	.101	.101	0	%100
46	M32A	Z	0	0	0	%100
47	M33A	X	.101	.101	0	%100
48	M33A	Z	0	0	0	%100
49	MP1A	X	.474	.474	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	.573	.573	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	.474	.474	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	.474	.474	0	%100
56	MP4A	Z	0	0	0	%100
57	MP1C	X	.474	.474	0	%100
58	MP1C	Z	0	0	0	%100
59	MP2C	X	.573	.573	0	%100
60	MP2C	Z	0	0	0	%100
61	MP3C	X	.474	.474	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
62	MP3C	Z	0	0	0	%100
63	MP4C	X	.474	.474	0	%100
64	MP4C	Z	0	0	0	%100
65	MP1B	X	.474	.474	0	%100
66	MP1B	Z	0	0	0	%100
67	MP2B	X	.573	.573	0	%100
68	MP2B	Z	0	0	0	%100
69	MP3B	X	.474	.474	0	%100
70	MP3B	Z	0	0	0	%100
71	MP4B	X	.474	.474	0	%100
72	MP4B	Z	0	0	0	%100
73	M59	X	.387	.387	0	%100
74	M59	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.38	.38	0	%100
2	M1	Z	.219	.219	0	%100
3	M4	X	.259	.259	0	%100
4	M4	Z	.15	.15	0	%100
5	M8	X	.331	.331	0	%100
6	M8	Z	.191	.191	0	%100
7	M11	X	.38	.38	0	%100
8	M11	Z	.219	.219	0	%100
9	M12	X	.259	.259	0	%100
10	M12	Z	.15	.15	0	%100
11	M13	X	.331	.331	0	%100
12	M13	Z	.191	.191	0	%100
13	M21A	X	0	0	0	%100
14	M21A	Z	0	0	0	%100
15	M22	X	1.036	1.036	0	%100
16	M22	Z	.598	.598	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	.126	.126	0	%100
20	M31	Z	.072	.072	0	%100
21	M32	X	.124	.124	0	%100
22	M32	Z	.072	.072	0	%100
23	M33	X	.126	.126	0	%100
24	M33	Z	.072	.072	0	%100
25	M22A	X	.126	.126	0	%100
26	M22A	Z	.072	.072	0	%100
27	M23A	X	.124	.124	0	%100
28	M23A	Z	.072	.072	0	%100
29	M24	X	.126	.126	0	%100
30	M24	Z	.072	.072	0	%100
31	M25	X	.502	.502	0	%100
32	M25	Z	.29	.29	0	%100
33	M26A	X	.497	.497	0	%100
34	M26A	Z	.287	.287	0	%100
35	M27A	X	.502	.502	0	%100
36	M27A	Z	.29	.29	0	%100
37	M28A	X	.262	.262	0	%100
38	M28A	Z	.152	.152	0	%100
39	M29	X	.262	.262	0	%100
40	M29	Z	.152	.152	0	%100
41	M30	X	.262	.262	0	%100
42	M30	Z	.152	.152	0	%100
43	M31A	X	.262	.262	0	%100
44	M31A	Z	.152	.152	0	%100
45	M32A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
46	M32A	Z	0	0	0	%100
47	M33A	X	0	0	0	%100
48	M33A	Z	0	0	0	%100
49	MP1A	X	.41	.41	0	%100
50	MP1A	Z	.237	.237	0	%100
51	MP2A	X	.497	.497	0	%100
52	MP2A	Z	.287	.287	0	%100
53	MP3A	X	.41	.41	0	%100
54	MP3A	Z	.237	.237	0	%100
55	MP4A	X	.41	.41	0	%100
56	MP4A	Z	.237	.237	0	%100
57	MP1C	X	.41	.41	0	%100
58	MP1C	Z	.237	.237	0	%100
59	MP2C	X	.497	.497	0	%100
60	MP2C	Z	.287	.287	0	%100
61	MP3C	X	.41	.41	0	%100
62	MP3C	Z	.237	.237	0	%100
63	MP4C	X	.41	.41	0	%100
64	MP4C	Z	.237	.237	0	%100
65	MP1B	X	.41	.41	0	%100
66	MP1B	Z	.237	.237	0	%100
67	MP2B	X	.497	.497	0	%100
68	MP2B	Z	.287	.287	0	%100
69	MP3B	X	.41	.41	0	%100
70	MP3B	Z	.237	.237	0	%100
71	MP4B	X	.41	.41	0	%100
72	MP4B	Z	.237	.237	0	%100
73	M59	X	.335	.335	0	%100
74	M59	Z	.194	.194	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	.073	.073	0	%100
2	M1	Z	.127	.127	0	%100
3	M4	X	.449	.449	0	%100
4	M4	Z	.777	.777	0	%100
5	M8	X	.064	.064	0	%100
6	M8	Z	.11	.11	0	%100
7	M11	X	.292	.292	0	%100
8	M11	Z	.506	.506	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	.255	.255	0	%100
12	M13	Z	.442	.442	0	%100
13	M21A	X	.073	.073	0	%100
14	M21A	Z	.127	.127	0	%100
15	M22	X	.449	.449	0	%100
16	M22	Z	.777	.777	0	%100
17	M23	X	.064	.064	0	%100
18	M23	Z	.11	.11	0	%100
19	M31	X	.217	.217	0	%100
20	M31	Z	.377	.377	0	%100
21	M32	X	.215	.215	0	%100
22	M32	Z	.373	.373	0	%100
23	M33	X	.217	.217	0	%100
24	M33	Z	.377	.377	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
30	M24	Z	0	0	0	%100
31	M25	X	.217	.217	0	%100
32	M25	Z	.377	.377	0	%100
33	M26A	X	.215	.215	0	%100
34	M26A	Z	.373	.373	0	%100
35	M27A	X	.217	.217	0	%100
36	M27A	Z	.377	.377	0	%100
37	M28A	X	.051	.051	0	%100
38	M28A	Z	.087	.087	0	%100
39	M29	X	.051	.051	0	%100
40	M29	Z	.087	.087	0	%100
41	M30	X	.202	.202	0	%100
42	M30	Z	.35	.35	0	%100
43	M31A	X	.202	.202	0	%100
44	M31A	Z	.35	.35	0	%100
45	M32A	X	.051	.051	0	%100
46	M32A	Z	.087	.087	0	%100
47	M33A	X	.051	.051	0	%100
48	M33A	Z	.087	.087	0	%100
49	MP1A	X	.237	.237	0	%100
50	MP1A	Z	.41	.41	0	%100
51	MP2A	X	.287	.287	0	%100
52	MP2A	Z	.497	.497	0	%100
53	MP3A	X	.237	.237	0	%100
54	MP3A	Z	.41	.41	0	%100
55	MP4A	X	.237	.237	0	%100
56	MP4A	Z	.41	.41	0	%100
57	MP1C	X	.237	.237	0	%100
58	MP1C	Z	.41	.41	0	%100
59	MP2C	X	.287	.287	0	%100
60	MP2C	Z	.497	.497	0	%100
61	MP3C	X	.237	.237	0	%100
62	MP3C	Z	.41	.41	0	%100
63	MP4C	X	.237	.237	0	%100
64	MP4C	Z	.41	.41	0	%100
65	MP1B	X	.237	.237	0	%100
66	MP1B	Z	.41	.41	0	%100
67	MP2B	X	.287	.287	0	%100
68	MP2B	Z	.497	.497	0	%100
69	MP3B	X	.237	.237	0	%100
70	MP3B	Z	.41	.41	0	%100
71	MP4B	X	.237	.237	0	%100
72	MP4B	Z	.41	.41	0	%100
73	M59	X	.194	.194	0	%100
74	M59	Z	.335	.335	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	1.197	1.197	0	%100
5	M8	X	0	0	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	.438	.438	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	.299	.299	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	.383	.383	0	%100
13	M21A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	M21A	Z	.438	.438	0	%100
15	M22	X	0	0	0	%100
16	M22	Z	.299	.299	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	.383	.383	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	.58	.58	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	.574	.574	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	.58	.58	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	.145	.145	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	.144	.144	0	%100
29	M24	X	0	0	0	%100
30	M24	Z	.145	.145	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	.145	.145	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	.144	.144	0	%100
35	M27A	X	0	0	0	%100
36	M27A	Z	.145	.145	0	%100
37	M28A	X	0	0	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	0	0	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	.303	.303	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	.303	.303	0	%100
45	M32A	X	0	0	0	%100
46	M32A	Z	.303	.303	0	%100
47	M33A	X	0	0	0	%100
48	M33A	Z	.303	.303	0	%100
49	MP1A	X	0	0	0	%100
50	MP1A	Z	.474	.474	0	%100
51	MP2A	X	0	0	0	%100
52	MP2A	Z	.573	.573	0	%100
53	MP3A	X	0	0	0	%100
54	MP3A	Z	.474	.474	0	%100
55	MP4A	X	0	0	0	%100
56	MP4A	Z	.474	.474	0	%100
57	MP1C	X	0	0	0	%100
58	MP1C	Z	.474	.474	0	%100
59	MP2C	X	0	0	0	%100
60	MP2C	Z	.573	.573	0	%100
61	MP3C	X	0	0	0	%100
62	MP3C	Z	.474	.474	0	%100
63	MP4C	X	0	0	0	%100
64	MP4C	Z	.474	.474	0	%100
65	MP1B	X	0	0	0	%100
66	MP1B	Z	.474	.474	0	%100
67	MP2B	X	0	0	0	%100
68	MP2B	Z	.573	.573	0	%100
69	MP3B	X	0	0	0	%100
70	MP3B	Z	.474	.474	0	%100
71	MP4B	X	0	0	0	%100
72	MP4B	Z	.474	.474	0	%100
73	M59	X	0	0	0	%100
74	M59	Z	.387	.387	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.073	-.073	0	%100
2	M1	Z	.127	.127	0	%100
3	M4	X	-.449	-.449	0	%100
4	M4	Z	.777	.777	0	%100
5	M8	X	-.064	-.064	0	%100
6	M8	Z	.11	.11	0	%100
7	M11	X	-.073	-.073	0	%100
8	M11	Z	.127	.127	0	%100
9	M12	X	-.449	-.449	0	%100
10	M12	Z	.777	.777	0	%100
11	M13	X	-.064	-.064	0	%100
12	M13	Z	.11	.11	0	%100
13	M21A	X	-.292	-.292	0	%100
14	M21A	Z	.506	.506	0	%100
15	M22	X	0	0	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	-.255	-.255	0	%100
18	M23	Z	.442	.442	0	%100
19	M31	X	-.217	-.217	0	%100
20	M31	Z	.377	.377	0	%100
21	M32	X	-.215	-.215	0	%100
22	M32	Z	.373	.373	0	%100
23	M33	X	-.217	-.217	0	%100
24	M33	Z	.377	.377	0	%100
25	M22A	X	-.217	-.217	0	%100
26	M22A	Z	.377	.377	0	%100
27	M23A	X	-.215	-.215	0	%100
28	M23A	Z	.373	.373	0	%100
29	M24	X	-.217	-.217	0	%100
30	M24	Z	.377	.377	0	%100
31	M25	X	0	0	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	0	0	0	%100
34	M26A	Z	0	0	0	%100
35	M27A	X	0	0	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	-.051	-.051	0	%100
38	M28A	Z	.087	.087	0	%100
39	M29	X	-.051	-.051	0	%100
40	M29	Z	.087	.087	0	%100
41	M30	X	-.051	-.051	0	%100
42	M30	Z	.087	.087	0	%100
43	M31A	X	-.051	-.051	0	%100
44	M31A	Z	.087	.087	0	%100
45	M32A	X	-.202	-.202	0	%100
46	M32A	Z	.35	.35	0	%100
47	M33A	X	-.202	-.202	0	%100
48	M33A	Z	.35	.35	0	%100
49	MP1A	X	-.237	-.237	0	%100
50	MP1A	Z	.41	.41	0	%100
51	MP2A	X	-.287	-.287	0	%100
52	MP2A	Z	.497	.497	0	%100
53	MP3A	X	-.237	-.237	0	%100
54	MP3A	Z	.41	.41	0	%100
55	MP4A	X	-.237	-.237	0	%100
56	MP4A	Z	.41	.41	0	%100
57	MP1C	X	-.237	-.237	0	%100
58	MP1C	Z	.41	.41	0	%100
59	MP2C	X	-.287	-.287	0	%100
60	MP2C	Z	.497	.497	0	%100
61	MP3C	X	-.237	-.237	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
62	MP3C	Z	.41	.41	0	%100
63	MP4C	X	-.237	-.237	0	%100
64	MP4C	Z	.41	.41	0	%100
65	MP1B	X	-.237	-.237	0	%100
66	MP1B	Z	.41	.41	0	%100
67	MP2B	X	-.287	-.287	0	%100
68	MP2B	Z	.497	.497	0	%100
69	MP3B	X	-.237	-.237	0	%100
70	MP3B	Z	.41	.41	0	%100
71	MP4B	X	-.237	-.237	0	%100
72	MP4B	Z	.41	.41	0	%100
73	M59	X	-.194	-.194	0	%100
74	M59	Z	.335	.335	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.38	-.38	0	%100
2	M1	Z	.219	.219	0	%100
3	M4	X	-.259	-.259	0	%100
4	M4	Z	.15	.15	0	%100
5	M8	X	-.331	-.331	0	%100
6	M8	Z	.191	.191	0	%100
7	M11	X	0	0	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	-1.036	-1.036	0	%100
10	M12	Z	.598	.598	0	%100
11	M13	X	0	0	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	-.38	-.38	0	%100
14	M21A	Z	.219	.219	0	%100
15	M22	X	-.259	-.259	0	%100
16	M22	Z	.15	.15	0	%100
17	M23	X	-.331	-.331	0	%100
18	M23	Z	.191	.191	0	%100
19	M31	X	-.126	-.126	0	%100
20	M31	Z	.072	.072	0	%100
21	M32	X	-.124	-.124	0	%100
22	M32	Z	.072	.072	0	%100
23	M33	X	-.126	-.126	0	%100
24	M33	Z	.072	.072	0	%100
25	M22A	X	-.502	-.502	0	%100
26	M22A	Z	.29	.29	0	%100
27	M23A	X	-.497	-.497	0	%100
28	M23A	Z	.287	.287	0	%100
29	M24	X	-.502	-.502	0	%100
30	M24	Z	.29	.29	0	%100
31	M25	X	-.126	-.126	0	%100
32	M25	Z	.072	.072	0	%100
33	M26A	X	-.124	-.124	0	%100
34	M26A	Z	.072	.072	0	%100
35	M27A	X	-.126	-.126	0	%100
36	M27A	Z	.072	.072	0	%100
37	M28A	X	-.262	-.262	0	%100
38	M28A	Z	.152	.152	0	%100
39	M29	X	-.262	-.262	0	%100
40	M29	Z	.152	.152	0	%100
41	M30	X	0	0	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	0	0	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	-.262	-.262	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
46	M32A	Z	.152	.152	0	%100
47	M33A	X	-.262	-.262	0	%100
48	M33A	Z	.152	.152	0	%100
49	MP1A	X	-.41	-.41	0	%100
50	MP1A	Z	.237	.237	0	%100
51	MP2A	X	-.497	-.497	0	%100
52	MP2A	Z	.287	.287	0	%100
53	MP3A	X	-.41	-.41	0	%100
54	MP3A	Z	.237	.237	0	%100
55	MP4A	X	-.41	-.41	0	%100
56	MP4A	Z	.237	.237	0	%100
57	MP1C	X	-.41	-.41	0	%100
58	MP1C	Z	.237	.237	0	%100
59	MP2C	X	-.497	-.497	0	%100
60	MP2C	Z	.287	.287	0	%100
61	MP3C	X	-.41	-.41	0	%100
62	MP3C	Z	.237	.237	0	%100
63	MP4C	X	-.41	-.41	0	%100
64	MP4C	Z	.237	.237	0	%100
65	MP1B	X	-.41	-.41	0	%100
66	MP1B	Z	.237	.237	0	%100
67	MP2B	X	-.497	-.497	0	%100
68	MP2B	Z	.287	.287	0	%100
69	MP3B	X	-.41	-.41	0	%100
70	MP3B	Z	.237	.237	0	%100
71	MP4B	X	-.41	-.41	0	%100
72	MP4B	Z	.237	.237	0	%100
73	M59	X	-.335	-.335	0	%100
74	M59	Z	.194	.194	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.584	-.584	0	%100
2	M1	Z	0	0	0	%100
3	M4	X	0	0	0	%100
4	M4	Z	0	0	0	%100
5	M8	X	-.51	-.51	0	%100
6	M8	Z	0	0	0	%100
7	M11	X	-.146	-.146	0	%100
8	M11	Z	0	0	0	%100
9	M12	X	-.897	-.897	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	-.128	-.128	0	%100
12	M13	Z	0	0	0	%100
13	M21A	X	-.146	-.146	0	%100
14	M21A	Z	0	0	0	%100
15	M22	X	-.897	-.897	0	%100
16	M22	Z	0	0	0	%100
17	M23	X	-.128	-.128	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	0	0	0	%100
20	M31	Z	0	0	0	%100
21	M32	X	0	0	0	%100
22	M32	Z	0	0	0	%100
23	M33	X	0	0	0	%100
24	M33	Z	0	0	0	%100
25	M22A	X	-.435	-.435	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	-.431	-.431	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	-.435	-.435	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
30	M24	Z	0	0	0	%100
31	M25	X	-.435	-.435	0	%100
32	M25	Z	0	0	0	%100
33	M26A	X	-.431	-.431	0	%100
34	M26A	Z	0	0	0	%100
35	M27A	X	-.435	-.435	0	%100
36	M27A	Z	0	0	0	%100
37	M28A	X	-.404	-.404	0	%100
38	M28A	Z	0	0	0	%100
39	M29	X	-.404	-.404	0	%100
40	M29	Z	0	0	0	%100
41	M30	X	-.101	-.101	0	%100
42	M30	Z	0	0	0	%100
43	M31A	X	-.101	-.101	0	%100
44	M31A	Z	0	0	0	%100
45	M32A	X	-.101	-.101	0	%100
46	M32A	Z	0	0	0	%100
47	M33A	X	-.101	-.101	0	%100
48	M33A	Z	0	0	0	%100
49	MP1A	X	-.474	-.474	0	%100
50	MP1A	Z	0	0	0	%100
51	MP2A	X	-.573	-.573	0	%100
52	MP2A	Z	0	0	0	%100
53	MP3A	X	-.474	-.474	0	%100
54	MP3A	Z	0	0	0	%100
55	MP4A	X	-.474	-.474	0	%100
56	MP4A	Z	0	0	0	%100
57	MP1C	X	-.474	-.474	0	%100
58	MP1C	Z	0	0	0	%100
59	MP2C	X	-.573	-.573	0	%100
60	MP2C	Z	0	0	0	%100
61	MP3C	X	-.474	-.474	0	%100
62	MP3C	Z	0	0	0	%100
63	MP4C	X	-.474	-.474	0	%100
64	MP4C	Z	0	0	0	%100
65	MP1B	X	-.474	-.474	0	%100
66	MP1B	Z	0	0	0	%100
67	MP2B	X	-.573	-.573	0	%100
68	MP2B	Z	0	0	0	%100
69	MP3B	X	-.474	-.474	0	%100
70	MP3B	Z	0	0	0	%100
71	MP4B	X	-.474	-.474	0	%100
72	MP4B	Z	0	0	0	%100
73	M59	X	-.387	-.387	0	%100
74	M59	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.38	-.38	0	%100
2	M1	Z	-.219	-.219	0	%100
3	M4	X	-.259	-.259	0	%100
4	M4	Z	-.15	-.15	0	%100
5	M8	X	-.331	-.331	0	%100
6	M8	Z	-.191	-.191	0	%100
7	M11	X	-.38	-.38	0	%100
8	M11	Z	-.219	-.219	0	%100
9	M12	X	-.259	-.259	0	%100
10	M12	Z	-.15	-.15	0	%100
11	M13	X	-.331	-.331	0	%100
12	M13	Z	-.191	-.191	0	%100
13	M21A	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
14	M21A	Z	0	0	0	%100
15	M22	X	-1.036	-1.036	0	%100
16	M22	Z	-.598	-.598	0	%100
17	M23	X	0	0	0	%100
18	M23	Z	0	0	0	%100
19	M31	X	-.126	-.126	0	%100
20	M31	Z	-.072	-.072	0	%100
21	M32	X	-.124	-.124	0	%100
22	M32	Z	-.072	-.072	0	%100
23	M33	X	-.126	-.126	0	%100
24	M33	Z	-.072	-.072	0	%100
25	M22A	X	-.126	-.126	0	%100
26	M22A	Z	-.072	-.072	0	%100
27	M23A	X	-.124	-.124	0	%100
28	M23A	Z	-.072	-.072	0	%100
29	M24	X	-.126	-.126	0	%100
30	M24	Z	-.072	-.072	0	%100
31	M25	X	-.502	-.502	0	%100
32	M25	Z	-.29	-.29	0	%100
33	M26A	X	-.497	-.497	0	%100
34	M26A	Z	-.287	-.287	0	%100
35	M27A	X	-.502	-.502	0	%100
36	M27A	Z	-.29	-.29	0	%100
37	M28A	X	-.262	-.262	0	%100
38	M28A	Z	-.152	-.152	0	%100
39	M29	X	-.262	-.262	0	%100
40	M29	Z	-.152	-.152	0	%100
41	M30	X	-.262	-.262	0	%100
42	M30	Z	-.152	-.152	0	%100
43	M31A	X	-.262	-.262	0	%100
44	M31A	Z	-.152	-.152	0	%100
45	M32A	X	0	0	0	%100
46	M32A	Z	0	0	0	%100
47	M33A	X	0	0	0	%100
48	M33A	Z	0	0	0	%100
49	MP1A	X	-.41	-.41	0	%100
50	MP1A	Z	-.237	-.237	0	%100
51	MP2A	X	-.497	-.497	0	%100
52	MP2A	Z	-.287	-.287	0	%100
53	MP3A	X	-.41	-.41	0	%100
54	MP3A	Z	-.237	-.237	0	%100
55	MP4A	X	-.41	-.41	0	%100
56	MP4A	Z	-.237	-.237	0	%100
57	MP1C	X	-.41	-.41	0	%100
58	MP1C	Z	-.237	-.237	0	%100
59	MP2C	X	-.497	-.497	0	%100
60	MP2C	Z	-.287	-.287	0	%100
61	MP3C	X	-.41	-.41	0	%100
62	MP3C	Z	-.237	-.237	0	%100
63	MP4C	X	-.41	-.41	0	%100
64	MP4C	Z	-.237	-.237	0	%100
65	MP1B	X	-.41	-.41	0	%100
66	MP1B	Z	-.237	-.237	0	%100
67	MP2B	X	-.497	-.497	0	%100
68	MP2B	Z	-.287	-.287	0	%100
69	MP3B	X	-.41	-.41	0	%100
70	MP3B	Z	-.237	-.237	0	%100
71	MP4B	X	-.41	-.41	0	%100
72	MP4B	Z	-.237	-.237	0	%100
73	M59	X	-.335	-.335	0	%100
74	M59	Z	-.194	-.194	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	X	-.073	-.073	0	%100
2	M1	Z	-.127	-.127	0	%100
3	M4	X	-.449	-.449	0	%100
4	M4	Z	-.777	-.777	0	%100
5	M8	X	-.064	-.064	0	%100
6	M8	Z	-.11	-.11	0	%100
7	M11	X	-.292	-.292	0	%100
8	M11	Z	-.506	-.506	0	%100
9	M12	X	0	0	0	%100
10	M12	Z	0	0	0	%100
11	M13	X	-.255	-.255	0	%100
12	M13	Z	-.442	-.442	0	%100
13	M21A	X	-.073	-.073	0	%100
14	M21A	Z	-.127	-.127	0	%100
15	M22	X	-.449	-.449	0	%100
16	M22	Z	-.777	-.777	0	%100
17	M23	X	-.064	-.064	0	%100
18	M23	Z	-.11	-.11	0	%100
19	M31	X	-.217	-.217	0	%100
20	M31	Z	-.377	-.377	0	%100
21	M32	X	-.215	-.215	0	%100
22	M32	Z	-.373	-.373	0	%100
23	M33	X	-.217	-.217	0	%100
24	M33	Z	-.377	-.377	0	%100
25	M22A	X	0	0	0	%100
26	M22A	Z	0	0	0	%100
27	M23A	X	0	0	0	%100
28	M23A	Z	0	0	0	%100
29	M24	X	0	0	0	%100
30	M24	Z	0	0	0	%100
31	M25	X	-.217	-.217	0	%100
32	M25	Z	-.377	-.377	0	%100
33	M26A	X	-.215	-.215	0	%100
34	M26A	Z	-.373	-.373	0	%100
35	M27A	X	-.217	-.217	0	%100
36	M27A	Z	-.377	-.377	0	%100
37	M28A	X	-.051	-.051	0	%100
38	M28A	Z	-.087	-.087	0	%100
39	M29	X	-.051	-.051	0	%100
40	M29	Z	-.087	-.087	0	%100
41	M30	X	-.202	-.202	0	%100
42	M30	Z	-.35	-.35	0	%100
43	M31A	X	-.202	-.202	0	%100
44	M31A	Z	-.35	-.35	0	%100
45	M32A	X	-.051	-.051	0	%100
46	M32A	Z	-.087	-.087	0	%100
47	M33A	X	-.051	-.051	0	%100
48	M33A	Z	-.087	-.087	0	%100
49	MP1A	X	-.237	-.237	0	%100
50	MP1A	Z	-.41	-.41	0	%100
51	MP2A	X	-.287	-.287	0	%100
52	MP2A	Z	-.497	-.497	0	%100
53	MP3A	X	-.237	-.237	0	%100
54	MP3A	Z	-.41	-.41	0	%100
55	MP4A	X	-.237	-.237	0	%100
56	MP4A	Z	-.41	-.41	0	%100
57	MP1C	X	-.237	-.237	0	%100
58	MP1C	Z	-.41	-.41	0	%100
59	MP2C	X	-.287	-.287	0	%100
60	MP2C	Z	-.497	-.497	0	%100
61	MP3C	X	-.237	-.237	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
62	MP3C	Z	-.41	-.41	0	%100
63	MP4C	X	-.237	-.237	0	%100
64	MP4C	Z	-.41	-.41	0	%100
65	MP1B	X	-.237	-.237	0	%100
66	MP1B	Z	-.41	-.41	0	%100
67	MP2B	X	-.287	-.287	0	%100
68	MP2B	Z	-.497	-.497	0	%100
69	MP3B	X	-.237	-.237	0	%100
70	MP3B	Z	-.41	-.41	0	%100
71	MP4B	X	-.237	-.237	0	%100
72	MP4B	Z	-.41	-.41	0	%100
73	M59	X	-.194	-.194	0	%100
74	M59	Z	-.335	-.335	0	%100

Member Distributed Loads (BLC 81 : BLC 39 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M11	Y	0	-45.1	2.1	2.73
2	M11	Y	-45.1	-48.165	2.73	3.36
3	M11	Y	-48.165	-54.824	3.36	3.99
4	M11	Y	-54.824	-51.759	3.99	4.62
5	M11	Y	-51.759	0	4.62	5.25
6	M21A	Y	-2.256e-15	-45.1	2.1	2.73
7	M21A	Y	-45.1	-48.165	2.73	3.36
8	M21A	Y	-48.165	-54.824	3.36	3.99
9	M21A	Y	-54.824	-51.759	3.99	4.62
10	M21A	Y	-51.759	-2.256e-15	4.62	5.25
11	M1	Y	2.256e-15	-45.1	2.1	2.73
12	M1	Y	-45.1	-48.165	2.73	3.36
13	M1	Y	-48.165	-54.824	3.36	3.99
14	M1	Y	-54.824	-51.759	3.99	4.62
15	M1	Y	-51.759	2.256e-15	4.62	5.25

Member Distributed Loads (BLC 82 : BLC 40 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M11	Y	-9.023e-15	-53.619	2.1	2.73
2	M11	Y	-53.619	-57.263	2.73	3.36
3	M11	Y	-57.263	-65.18	3.36	3.99
4	M11	Y	-65.18	-61.536	3.99	4.62
5	M11	Y	-61.536	-9.023e-15	4.62	5.25
6	M21A	Y	0	-53.619	2.1	2.73
7	M21A	Y	-53.619	-57.263	2.73	3.36
8	M21A	Y	-57.263	-65.18	3.36	3.99
9	M21A	Y	-65.18	-61.536	3.99	4.62
10	M21A	Y	-61.536	0	4.62	5.25
11	M1	Y	4.511e-15	-53.619	2.1	2.73
12	M1	Y	-53.619	-57.263	2.73	3.36
13	M1	Y	-57.263	-65.18	3.36	3.99
14	M1	Y	-65.18	-61.536	3.99	4.62
15	M1	Y	-61.536	4.511e-15	4.62	5.25

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	N6	max	906.035	10	1938.236	13	-3437.969	1	4.619	13	1.18	4	.295	4
2		min	-907.814	4	799.154	43	-9432.125	19	1.214	43	-1.184	10	-.294	10
3	N19	max	-2939.758	9	2091.097	21	4846.678	13	-.564	1	1.233	12	-1.245	3
4		min	-8176.178	15	952.165	3	1169.182	7	-2.361	19	-1.237	6	-4.105	21
5	N32	max	8188.557	22	1938.251	17	4747.469	13	-.766	12	1.176	8	4.003	17
6		min	2899.044	4	901.434	11	1558.083	8	-2.307	18	-1.179	2	1.283	11
7	Totals:	max	2892.771	10	5910.911	21	2920.502	1						

Envelope Joint Reactions (Continued)

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
8		min	-2892.771	4	3047.295	3	-2920.501	7						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc ...	phi*Pnt [...	phi*Mn y...	phi*Mn z...	Cb	Eqn
1	M1	HSS3X3X5	.297	1.422	23	.139	1.367	y	23	96947.7...	121716	10.005	10.005	1....	H1-1b
2	M4	PL3/4X6	.582	.395	19	.500	.395	y	15	131794....	145800	2.278	18.225	1....	H1-1b
3	M8	HSS3X3X5	.517	0	23	.175	2.257	y	24	111049....	121716	10.005	10.005	2....	H1-1b
4	M11	HSS3X3X5	.297	1.422	19	.139	1.367	y	19	96947.7...	121716	10.005	10.005	1....	H1-1b
5	M12	PL3/4X6	.580	.395	15	.528	.387	y	35	131795....	145800	2.278	18.225	1....	H1-1b
6	M13	HSS3X3X5	.527	0	19	.175	2.257	y	20	111049....	121716	10.005	10.005	2....	H1-1b
7	M21A	HSS3X3X5	.297	1.422	15	.139	1.367	y	15	96947.7...	121716	10.005	10.005	1....	H1-1b
8	M22	PL3/4X6	.581	.395	23	.500	.395	y	19	131794....	145800	2.278	18.225	1....	H1-1b
9	M23	HSS3X3X5	.517	0	15	.175	2.257	y	16	111049....	121716	10.005	10.005	2....	H1-1b
10	M31	PIPE_3.0	.303	0	23	.151	0		19	58150.23	65205	5.749	5.749	2....	H1-1b
11	M32	PIPE_3.0	.303	2.063	44	.077	4.5		19	58506.3...	65205	5.749	5.749	1....	H1-1b
12	M33	PIPE_3.0	.300	4.625	15	.161	4.625		18	58150.2...	65205	5.749	5.749	1....	H1-1b
13	M22A	PIPE_3.0	.303	0	19	.151	0		15	58150.2...	65205	5.749	5.749	2....	H1-1b
14	M23A	PIPE_3.0	.142	4.5	22	.077	4.5		15	58506.3...	65205	5.749	5.749	1....	H1-1b
15	M24	PIPE_3.0	.300	4.625	23	.161	4.625		14	58150.2...	65205	5.749	5.749	1....	H1-1b
16	M25	PIPE_3.0	.303	0	15	.151	0		23	58150.2...	65205	5.749	5.749	2....	H1-1b
17	M26A	PIPE_3.0	.179	4.5	30	.077	4.5		23	58506.3...	65205	5.749	5.749	2....	H1-1b
18	M27A	PIPE_3.0	.300	4.625	19	.161	4.625		22	58150.2...	65205	5.749	5.749	1....	H1-1b
19	M28A	L2.5x1.5x4	.020	0	7	.079	2.838	z	23	16966.31	30682.8	.461	1.597	2....	H2-1*
20	M29	L2.5x1.5x4	.010	0	8	.089	0	z	15	16966.31	30682.8	.461	1.597	1....	H2-1*
21	M30	L2.5x1.5x4	.020	0	3	.079	2.838	z	19	16966.31	30682.8	.461	1.597	2....	H2-1*
22	M31A	L2.5x1.5x4	.010	0	4	.089	0	z	23	16966.31	30682.8	.461	1.597	1....	H2-1*
23	M32A	L2.5x1.5x4	.020	0	11	.079	2.838	z	15	16966.31	30682.8	.461	1.597	2....	H2-1*
24	M33A	L2.5x1.5x4	.010	0	12	.089	0	z	19	16966.31	30682.8	.461	1.597	1....	H2-1*
25	MP1A	PIPE_2.0	.024	3.427	6	.003	3.427		6	17855.0...	32130	1.872	1.872	1....	H1-1b
26	MP2A	PIPE_2.5	.189	3.354	1	.038	3.427		9	33961.6...	50715	3.596	3.596	1....	H1-1b
27	MP3A	PIPE_2.0	.107	3.354	1	.017	3.427		8	17855.0...	32130	1.872	1.872	1....	H1-1b
28	MP4A	PIPE_2.0	.057	3.354	1	.011	3.354		8	17855.0...	32130	1.872	1.872	2....	H1-1b
29	MP1C	PIPE_2.0	.024	3.427	2	.003	3.427		2	17855.0...	32130	1.872	1.872	1....	H1-1b
30	MP2C	PIPE_2.5	.189	3.354	9	.038	3.427		5	33961.6...	50715	3.596	3.596	2....	H1-1b
31	MP3C	PIPE_2.0	.107	3.354	9	.017	3.427		4	17855.0...	32130	1.872	1.872	2....	H1-1b
32	MP4C	PIPE_2.0	.057	3.354	9	.011	3.354		4	17855.0...	32130	1.872	1.872	2....	H1-1b
33	MP1B	PIPE_2.0	.024	3.427	10	.003	3.427		10	17855.0...	32130	1.872	1.872	1....	H1-1b
34	MP2B	PIPE_2.5	.189	3.354	5	.038	3.427		1	33961.6...	50715	3.596	3.596	2....	H1-1b
35	MP3B	PIPE_2.0	.107	3.354	5	.017	3.427		12	17855.0...	32130	1.872	1.872	2....	H1-1b
36	MP4B	PIPE_2.0	.057	3.354	5	.011	3.354		12	17855.0...	32130	1.872	1.872	2....	H1-1b
37	M59	PIPE_2.0	.073	2.5	7	.014	2.5		7	28843.4...	32130	1.872	1.872	1....	H1-1b

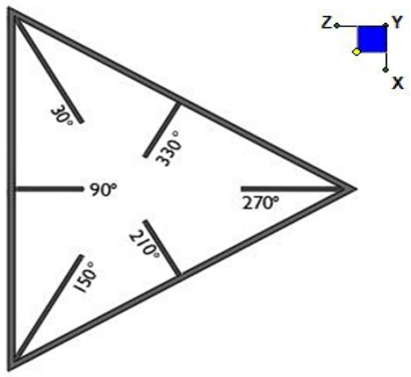
Client:	Verizon	Date:	6/21/2021
Site Name:	Colebrook CT		
Project No.	21777227A		
Title:	Mount Analysis	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

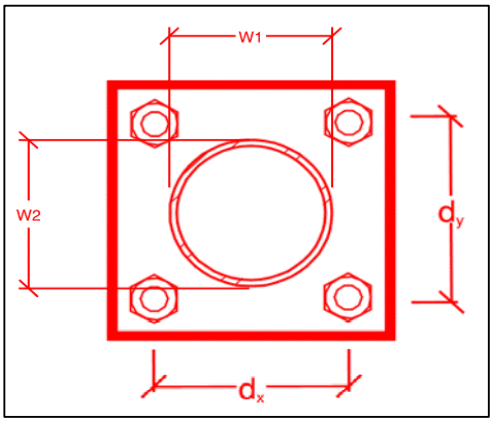
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N19	30
N6	270
N32	150



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:	yes
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	4
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	4
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength (kips):	37.1
Required Shear Strength (kips):	4.1
Tensile Strength / bolt (kips):	20.7
Shear Strength / bolt (kips):	12.4
Tensile Capacity Overall:	**44.8%***
Shear Capacity Overall:	**8.2%**



**Note: Tension reduction not required if tension or shear capacity < 30%*

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:	Rect
Plate Width (in):	6
Plate Height (in):	6
W1 (in):	3
W2 (in):	3
Fy (ksi, plate):	36
t_{Plate} (in):	0.68
Weld Size (1/16 in):	6
Phi*Rn (kip/in):	8.35
Required Weld Strength (kip/in):	5.46
Plate Bending Capacity:	**42.5%**
Weld Capacity:	**65.4%**

Max Plate Bending Strengths

Mu_{xx} *(kip-in)* :	9.1
Phi*Mn_{xx} *(kip-in)* :	22.5
Mu_{yy} *(kip-in)* :	0.5
Phi*Mn_{yy} *(kip-in)* :	22.5

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

Purpose – to provide Maser Consulting 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:

- Any special photos outside of the standard requirements will be indicated on the passing MA
- Verification that loading is as communicated in the Passing Mount Analysis. NOTE If loading is different than what is conveyed contact Maser Consulting immediately.
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- 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.
- The photos in the file structure should be uploaded to ***https://pmi.vzwsmart.com*** as depicted on the drawings

Photo Requirements:

- *Base and "During Installation Photos"*
  - Base pictures include
    - Photo of Gate Signs showing the tower owner, site name, and number
    - Photo of carrier shelter showing the carrier site name and number if available
    - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
  - "During Installation Photos if provided - must be placed only in this folder
- *Photos taken at ground level*
  - Overall tower structure before and after installation of the equipment modifications
  - Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed
- *Photos taken at Mount Elevation*
  - Photos showing each individual sector before and also after installation of equipment.

These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis

- Photos showing the safety climb wire rope above and below the mount prior to modification.
- Photos showing the climbing facility and safety climb if present.

Antenna & equipment placement and Geometry Confirmation:

- The contractor must certify that the antenna & equipment placement and geometry is in accordance with the antenna placement diagrams as included in this mount analysis.

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the antenna placement diagrams as included in this mount analysis.

☐ The contractor notes that the equipment on the mount is not in accordance with the antenna placement diagrams and has accordingly marked up the diagrams or provided a diagram outlining the differences.

Certifying Individual: Company _____

Name _____

Signature _____

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

Issue:

Contractor shall install new safety climb wire clip standoff such that the existing wire rope does not make contact with existing mount members Contractor shall replace existing mount pipe in position 2 (position 1 being on the left side of the mount looking out from the tower) on all sectors with new 84" long P2.5 STD mount pipe. Connect new mount pipe to existing face horizontals using new crossover plates (VZWSMART-MSK2). Contractor shall install proposed OVP unit onto new 36" long P2.0 STD equipment pipe. Connect new pipe to existing standoff horizontal between the Alpha and Beta sectors using crossover plates (Perfect Vision Part #: PV-XP-30ST20 or EOR approved equivalent . The new equipment pipe shall be installed 6" from tower connection.

Response:

Schedule A – Photo & Document File Structure

- VzW Site Number / Name
  - Base & "During Installation" Photos
  - Pre-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
  - Post-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
    - Photos of climbing facility and safety climb – If Present
  - Certifications – Submission of this document including certifications
  - Specific Required Additional Photos

Structure: 468269-VZW - COLEBROOK CT

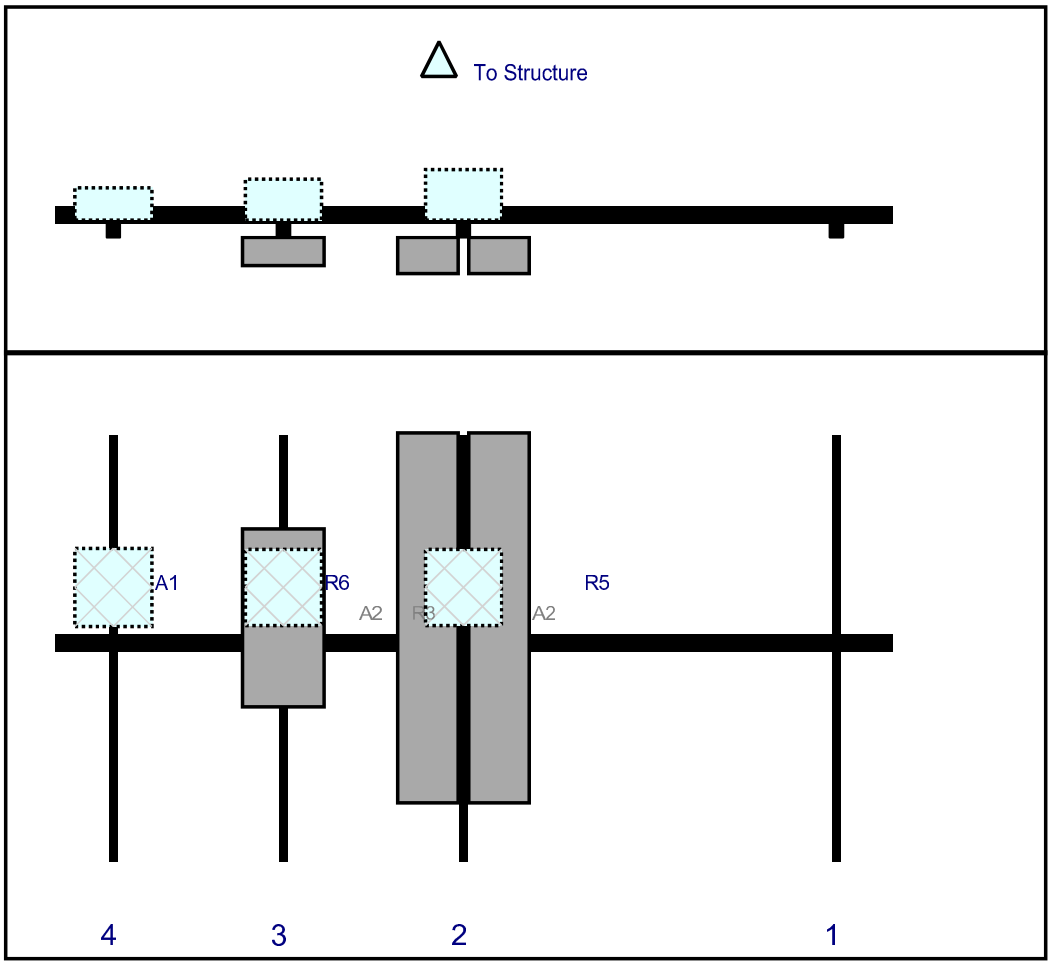
Sector: **A** 6/21/2021

Structure Type: Monopole 10074937

Mount Elev: 126.00 Page: 1

Plan View

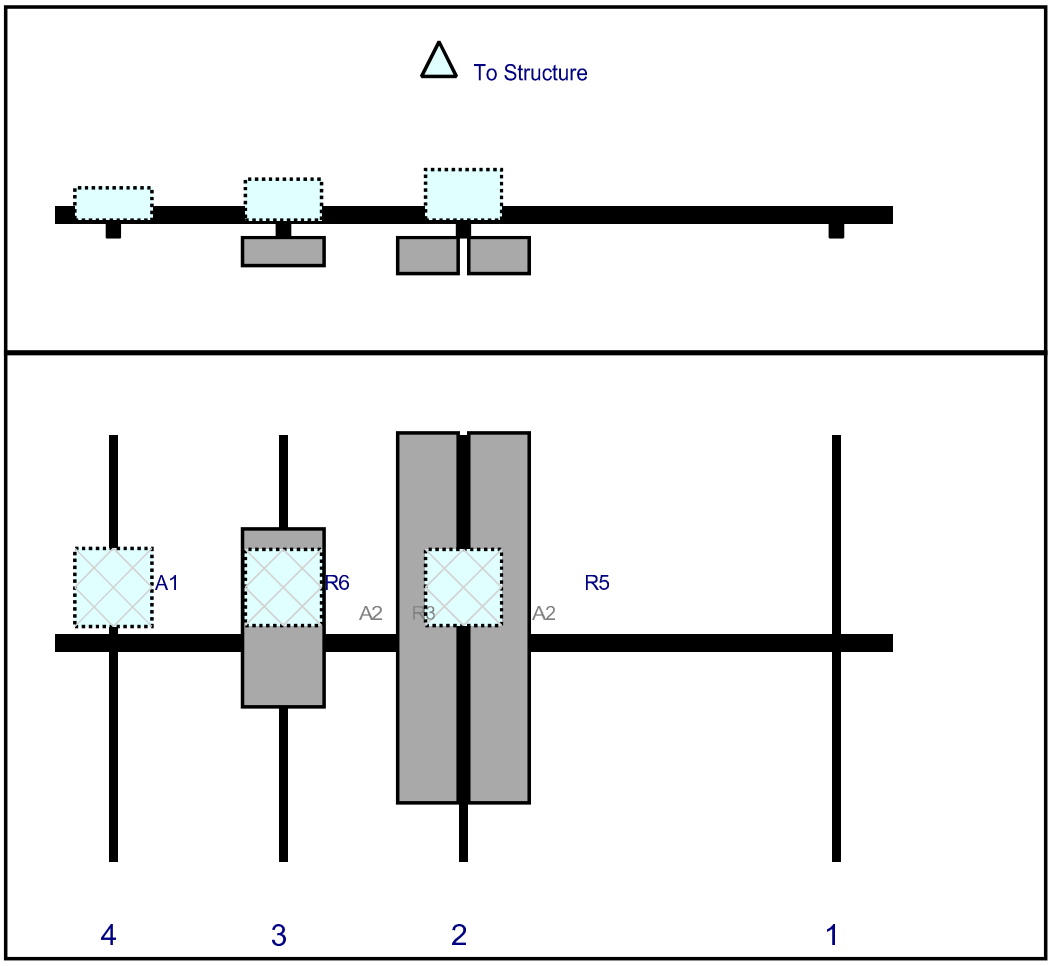
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	NHH-85B-R2B	72.9	11.9	80.5	2	a	Front	36	7	Added	
A2	NHH-85B-R2B	72.9	11.9	80.5	2	b	Front	36	-7	Added	
R5	B2/B66A RRH-BR049	15	15	80.5	2	a	Behind	30	0	Added	
R3	MT6407-77A	35.1	16.1	45	3	a	Front	36	0	Added	
R6	B5/B13 RRH-BR04C	15	15	45	3	a	Behind	30	0	Added	
A1	TD-850B-LTE78-43	15.4	15.2	11.5	4	a	Behind	30	0	Added	

Plan View

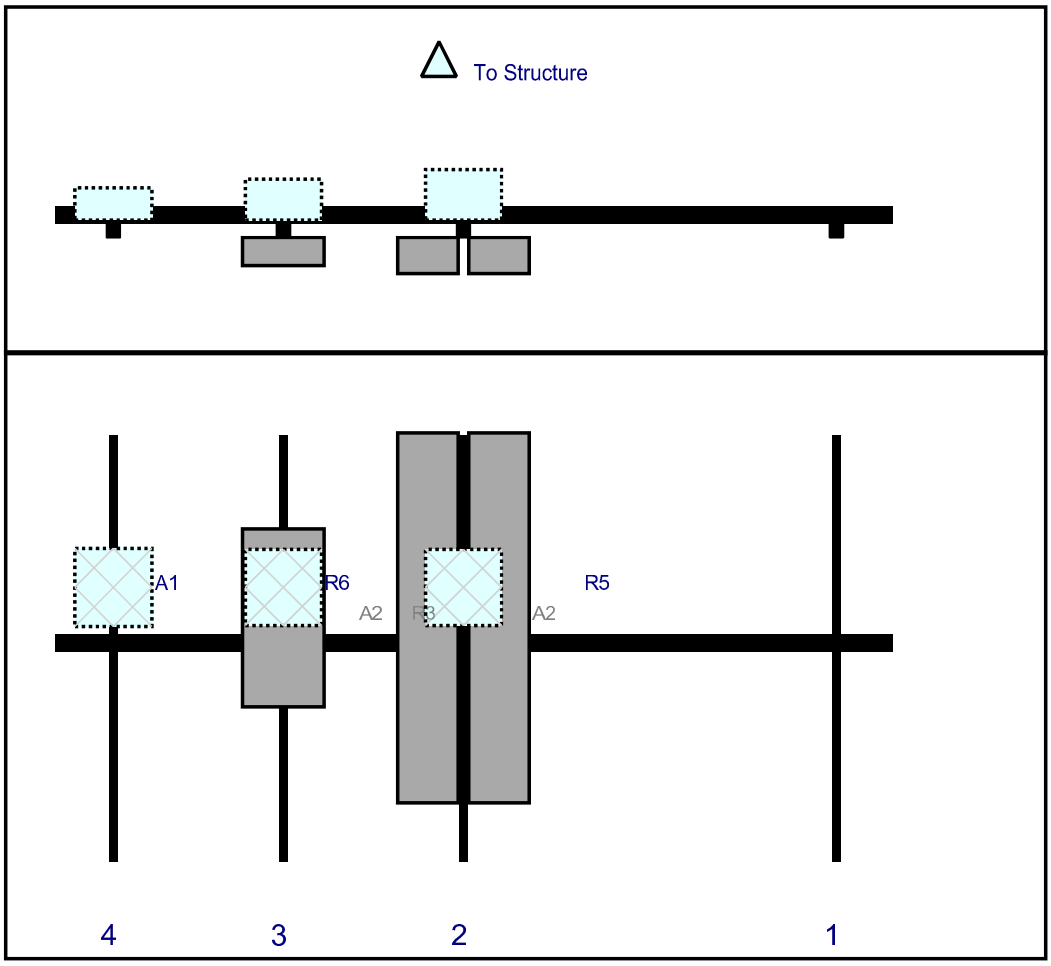
Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	NHH-85B-R2B	72.9	11.9	80.5	2	a	Front	36	7	Added	
A2	NHH-85B-R2B	72.9	11.9	80.5	2	b	Front	36	-7	Added	
R5	B2/B66A RRH-BR049	15	15	80.5	2	a	Behind	30	0	Added	
R3	MT6407-77A	35.1	16.1	45	3	a	Front	36	0	Added	
R6	B5/B13 RRH-BR04C	15	15	45	3	a	Behind	30	0	Added	
A1	TD-850B-LTE78-43	15.4	15.2	11.5	4	a	Behind	30	0	Added	

Plan View

Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A2	NHH-85B-R2B	72.9	11.9	80.5	2	a	Front	36	7	Added	
A2	NHH-85B-R2B	72.9	11.9	80.5	2	b	Front	36	-7	Added	
R5	B2/B66A RRH-BR049	15	15	80.5	2	a	Behind	30	0	Added	
R3	MT6407-77A	35.1	16.1	45	3	a	Front	36	0	Added	
R6	B5/B13 RRH-BR04C	15	15	45	3	a	Behind	30	0	Added	
A1	TD-850B-LTE78-43	15.4	15.2	11.5	4	a	Behind	30	0	Added	

Maser Consulting Connecticut

TIA-222-H Usage

Subject

Site Information		
	Site ID:	468269-VZW / COLEBROOK CT
	Site Name:	COLEBROOK CT
	Carrier Name:	Verizon Wireless
	Address:	382 Colebrook River Rd Colebrook, Connecticut 06021 Litchfield County
	Latitude:	41.992083°
	Longitude:	-73.039806°
Structure Information	Tower Type:	Monopole
	Mount Type:	13.75-Ft Platform

To Whom It May Concern,

We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

The 2015 International Building Code states that, in Section 3108, telecommunication towers shall be designed and constructed in accordance with the provisions of TIA-222. TIA-222-H is the latest revision of the TIA-222 Standard, effective as of January 01, 2018.

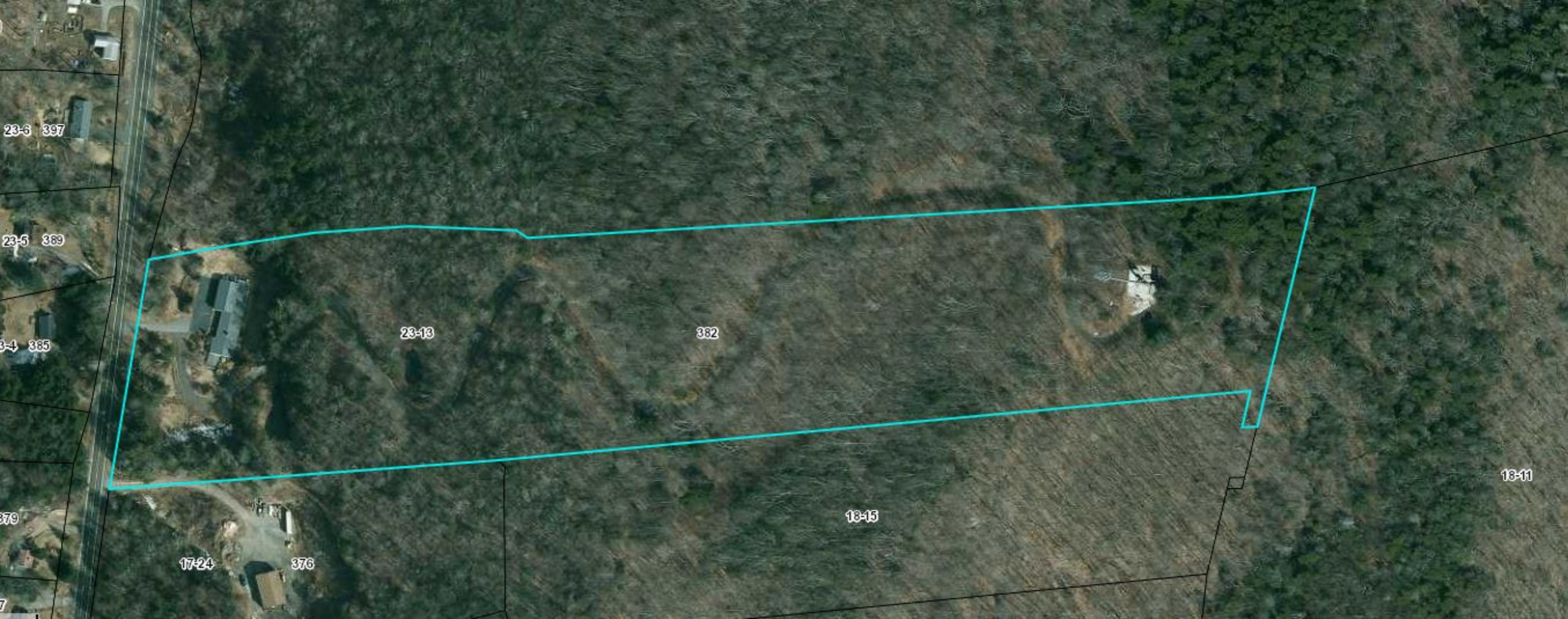
As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H Standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates the latest wind speed maps by ASCE 7 based on updated studies of the wind data.

The TIA-222-H standard clarifies these specific requirements for the antenna mount analysis such as modeling methods, seismic analysis, 30-degree increment wind directions and maintenance loading. Therefore, it is our opinion that TIA-222-H is the most appropriate standard for antenna mount structural analysis and is acceptable for use at this site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,

Derek Hartzell, PE
Technical Specialist

ATTACHMENT 5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397
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Summary

Account Number	100423
Parcel ID	698
Property Address	382 COLEBROOK RIVER ROAD
Use Class/Description	1-3 1 Family
Map/Lot/Lot Cut	23/13
Zoning	GB
Acres	18.9

View Map

Owner

382 COLEBROOK LLC
202 HANG DOG LANE
WETHERSFIELD, CT 06109

Valuation

Columns

Valuation

Assessed Year	2020	2019
Appraised Building Value	$188,000.00	$244,000.00
Appraised XF/OB Value	$0.00	$355,400.00
Appraised Land Value	$168,600.00	$184,900.00
Appraised Total Value	**$356,600.00**	**$784,300.00**
Assessed Building Value	$131,600.00	$170,800.00
Assessed XF/OB Value	$0.00	$248,800.00
Assessed Land Value	$118,100.00	$129,400.00
Assessed Total Value	**$249,700.00**	**$549,000.00**

Land

Building Number 1
Land Use 2-2 - Comm Bldg.
Land Units 1 AC
Value 85,500

Building Number 1
Land Use 1-3 - 1 Family
Land Units 1 AC
Value 45,100

Building Number 1
Land Use 1-2 - Acreage
Land Units 16.9 AC

ATTACHMENT 6

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2.	Marc Melanson, Building Official Town of Colebrook 562 Colebrook Road Colebrook, CT 06021				
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4.					
5.					
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