Robinson+Cole

KENNETH C. BALDWIN

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Also admitted in Massachusetts
and New York

May 7, 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**
482 Pigeon Hill Road, Windsor, 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 and Cellco's use of the tower were approved by the Council in Docket No. 58. A copy of Docket No. 58's Decision and Order is included in Attachment 1.

Cellco now intends to modify its facility by removing six (6) existing antennas and installing three (3) Samsung 64T64RMMU antennas and three (3) LNX-6513DS-A1M antennas on Cellco's existing antenna mounting system. A set of project plans showing Cellco's proposed and new antennas 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 Windsor's Chief Elected Official and Land Use Officer. Cellco is the owner of the tower and Property.

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

1. The proposed modifications will not result in an increase in the height of the existing tower. Cellco's replacement antennas will be installed on Cellco's existing antenna mounting system.

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 Power Density table for the 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, tower base plate and antenna mounting device, can support Cellco's proposed modifications. Copies of the SA and MA are included in Attachment 4. Also included in Attachment 4 is a separate letter prepared by the consulting engineer responsible for the preparation of the SA and MA verifying that the antenna model described in the SA and MA, respectively, as an L-Sub6 Antenna or VZS01 Antenna, is the Samsung 64T64R model antenna and RRH that will be installed on the tower.

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 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:
Peter Souza, Windsor Town Manger
Eric Barz, Windsor Town Planner
Aleksey Tyurin

Peter Souza, Town Manager
Town of Windsor
275 Broad Street
Windsor, CT 06095

Eric Barz, Town Planner
Town of Windsor
275 Broad Street
Windsor, CT 06095

Aleksey Tyurin
Verizon Wireless
20 Alexander Drive
Wallingford, CT 06492

ATTACHMENT 1

DOCKET NO. 58

AN APPLICATION OF HARTFORD CELLULAR COPANY FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF FACILITIES TO PROVIDE CELLULAR SERVICE IN HARTFORD, TOLLAND AND MIDDLESEX COUNTIES.	CONNECTICUT SITING COUNCIL
	July 11, 1986.

D E C I S I O N A N D O R D E R

Pursuant to the foregoing opinion, the Connecticut Siting Council (Council) hereby directs that a Certificate of Environmental Compatibility and Public Need as provided by Section 16-50k of the General Statutes of Connecticut (CGS) be issued to the Hartford Cellular Company for the construction, maintenance, and operation of cellular mobile phone telecommunication towers and associated equipment in the towns of Glastonbury, Haddam, Hartford, Portland, Rocky Hill, Somers, Vernon, Windsor, and Willington subject to the conditions below.

1) The proposed Bloomfield and Middlefield sites are rejected without prejudice.

2) The antennas on the Glastonbury tower shall be mounted no higher than the 180' level of this existing tower.

3) The Portland and Rocky Hill towers shall be monopoles.

4) The towers shall be no taller than necessary to provide the proposed service, and in no event shall exceed total heights, including antennas, of

a) 193' at the Haddam site;

b) 173' at the Portland site;

c) 153' at the Rocky Hill site;

d) 173' at the Somers site;

e) 173' at the Vernon site;

f) 153' at the Willington site;

g) 173' at the Windsor site.

5) The Hartford site receive antennas shall be mounted below the top of the high point of the building to preclude visibility.

6) Any future actions requiring the removal of the existing Glastonbury tower to be shared by the certificate holder shall also apply to the equipment mounted on that tower by the certificate holder, regardless of that equipment's status under Chapter 277a of the CGS.

7) The certificate holder shall submit a development and management (D&M) plan for the Haddam, Portland, Rocky Hill, Somers, Vernon and Windsor sites pursuant to Sections 16-50j-75 through 16-50j-77 of the Regulations of State Agencies (RSA), except that irrelevant items in Section 16-50j-76 need only be identified as such. In addition to the requirements of Section 16-50j-76, the D&M plan shall provide plans for evergreen screening around the fenced perimeter at the Haddam, Somers, Vernon, and Windsor sites. The D&M plan shall include a proposal for painting the approved monopole structures to blend with the sky. The D&M plan must be approved prior to facility construction. Any changes to specifications in the D&M plan must be approved by the Council prior to facility operation.

8) All certified facilities shall be constructed, operated, and maintained as specified in the Council's record and in the

site plan required by order number 7.

9) The certificate holder shall comply with any future radiofrequency (RF) standards promulgated by state or federal regulatory agencies. Upon the establishment of any new governmental RF standards, the facilities granted in this decison shall continue to be in compliance with such standards.

10) The certificate holder shall permit public or private entities to share space on the towers approved herein, for due consideration received, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing. In addition to complying with Section 16-50j-73 of the RSA, the certificate holder shall notify the Council of the addition of any equipment to any approved tower.

11) A fence not lower than 8' shall surround each tower and associated equipment.

12) Unless necessary to comply with order 13, no lights shall be installed on any of these towers.

13) The facilities' construction and any future tower sharing shall be in accordance with all applicable federal, state, and municipal laws and regulations. Shared uses by entities not subject to jurisdiction pursuant to Section 16-50k of the CGS shall be subject to all applicable federal, state, and municipal laws and regulations.

14) Construction activities shall take place during daylight working hours.

15) This decision and order shall be void and the towers and associate equipment shall be dismantled and removed, or reapplication for any new use shall be made to the Council before any such new use is made, if the towers do not provide or permanently cease to provide cellular service following completion of construction.

16) This decision and order shall be void if all construction authorized herein is not completed within three years of the issuance of this decision, or within three years of the completion of any appeal if appeal of this decision is taken, unless otherwise approved by the Council.

Pursuant to CGS Section 16-50p, we hereby direct that a copy of the decision and order shall be served on each person listed below. A notice of the issuance shall be published in the Hartford Courant, Middletown Press, Manchester Journal Inquirer, and the Willimantic Chronicle.

The parties to the proceeding are:

Metro Mobile (applicant)
5 Eversley Avenue
Norwalk, Connecticut 06855
ATTN: Armand Mascioli
General Manager

Howard L. Slater, Esq. (its attorneys)
Scott A. Gursky, Esq.
Byrne, Slater,Sandler,
Shulman & Rouse, P.C.
111 Pearl Street
Hartford, Connecticut 06103

Richard Rubin, Esq.
Fleischman and Walsh, P.C.
1725 N Street, N.W.
Washington, D. C. 20036

Mr. William Wamester
1225 Randolph Road
Middletown, Connecticut 06457

The Southern New England Telephone Company
227 Church Street
New Haven, Connecticut 06506
ATTN: Peter J. Tyrrell, Esq.

Mr. James W. Tilney — represented by:
Patricia A. Ayars
Samuel Baily, Jr.
Robinson & Cole
One Commercial Plaza
Hartford, CT. 06103-3597

Mr. Samuel DuBosar, Chairman
Bessie Bennett, Esq.
Town Plan & Zoning Commission
P.O. Box 337
Bloomfield, Connecticut 06002

Town of Somers — represented by:

Mr. Robert F. Peters
Town Counsel
Tatoian, Devline, Peters
& Davis
11 South Road
P.O. Box 415
Somers, CT. 06071

Town of Haddam
represented by:

Lucy R. Petrella
Chairperson
Town Office Building
Route 9A
P.O. Box 87
Haddam, CT. 06438

Midstate Regional Planning Agency

represented by:

Thomas M.Gilligan
Regional Planner
P.O. Box 139
Middletown, CT. 06457

Dr. Donald P. LaSalle
Director
Talcott Mountain Science Center
Montevideo Road
Avon, Connecticut 06001

Barnard Tilson (service waived)
Secretary
Avon Planning and Zoning
60 West Main Street
Avon, Connecticut 06001

Alden Giddings
33 Privelege Road
Bloomfield, Connecticut 06002

Town of Bloomfield

represented by:

Joseph M.Suggs, Jr.
Deputy Mayor
Town Hall
880 Bloomfield Avenue
P.O. Box 337
Bloomfield, CT. 06002
(service waived)

Town of Middlefield represented by:

David Silverstone, Esq.
Silverstone & Koontz
37 Lewis Street
Hartford, CT. 06103

with a copy to:

Geoffrey Colegrove
Midstate Regional Planning Agency
100 DeKoven Drive
Middletown, CT. 06457

Zoning Commission represented by:
Town of Somers

Joseph A. Paradis
Chairman
Town Hall
600 Main Street
P.O. Box 803
Somers, CT. 06071

Barbara Sirwilo, Secretary (service waived)
Planning & Zoning Commission
Town of Rocky Hill
600 Old Main Street
P.O. Box 657
Rocky Hill, Connecticut 06067

H. Robert Goodrich (service waived)
Goodrich Lane
Portland, Connecticut 06480

The Honorable Richard P. Antonetti
State Representative (service waived)
5 Sachem Circle
Meriden, Connecticut 06450

John Hevrin
R.D. #1 - Plains Road
Haddam, Connecticut 06438

Norman and Darlene Manning (represented by)

Elizabeth Allen, Esq.
P.O. Box 467
Higganum, CT. 06441
(service waived)

C E R T I F I C A T I O N

The undersigned members of the Connecticut Siting Council hereby certify that they have heard this case or read the record thereof, and that we voted as follows:

Dated at New Britain, Connecticut, this 11th day of July, 1986.

Council Members	Vote Cast
Gloria Dibble Pond Chairperson	Absent
Commissioner John Downey Designee: Patricia Shea	Yes
Commissioner Stanley Pac Designee: Christopher Cooper	Yes
Owen L. Clark	Yes
Mortimer A. Gelston	Yes
James G. Horsfall	Yes
Pamela B. Katz	Absent
William H. Smith	Yes
Colin C. Tait	Yes

STATE OF CONNECTICUT)
: ss. New Britain, July 11, 1986
COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the decision and order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:

Christopher S. Wood, Executive Director
Connecticut Siting Council

ATTACHMENT 2

WIRELESS COMMUNICATIONS FACILITY

SITE NAME:
WINDSOR CT

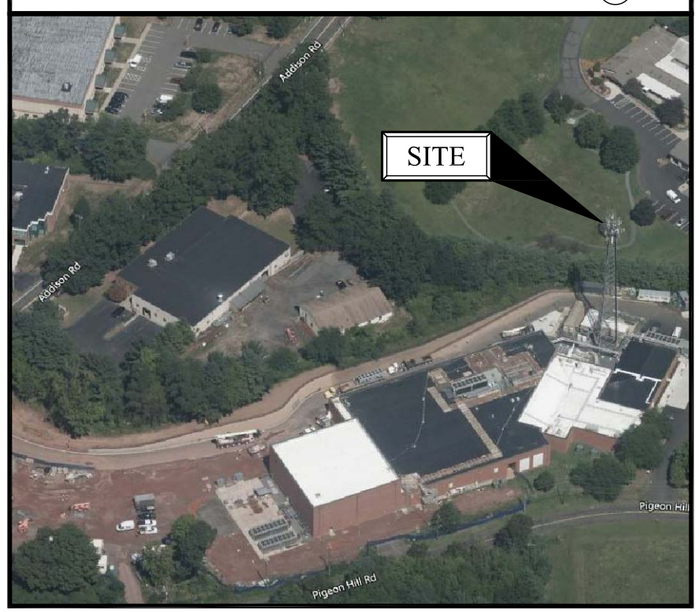
VERIZON SELF-SUPPORT TOWER
482 PIGEON HILL RD.
WINDSOR, CT 06095

ANTENNA MODIFICATION

PROJECT SUMMARY

SITE NAME:	WINDSOR CT
SITE ADDRESS:	482 PIGEON HILL RD. WINDSOR, CT 06095
PROPERTY OWNER:	CELLCO PARTNERSHIP C/O VERIZON WIRELESS P.O. BOX 2549 ADDISON, TX 75001
TOWER OWNER/MGMT:	VERIZON WIRELESS
PARCEL ID:	10082
COORDINATES:	41° 51' 59.904" N 72° 40' 29.2008" W
VERIZON CONSTRUCTION:	WALTER CHARCZYNSKI (860) 306-1806
VERIZON REAL ESTATE:	ALEX TYURIN (860) 550-3195

AERIAL MAP



SHEET INDEX

verizon
WIRELESS COMMUNICATIONS FACILITY

20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

On Air Engineering, LLC
88 Foundry Pond Road
Cold Spring, NY 10516
201-456-4624
onair@optonline.net

LICENSURE

STATE OF CONNECTICUT
DAVID A. WEINPAHL
NO. 22144
LICENSED
LICENSED PROFESSIONAL ENGINEER

DAVID WEINPAHL, P.E.
CT LIC NO. 22144

SUBMITTALS

NO	DATE	DESCRIPTION
0	02.01.21	REVIEW

DRAWN BY:	MRF
CHECKED BY:	DW

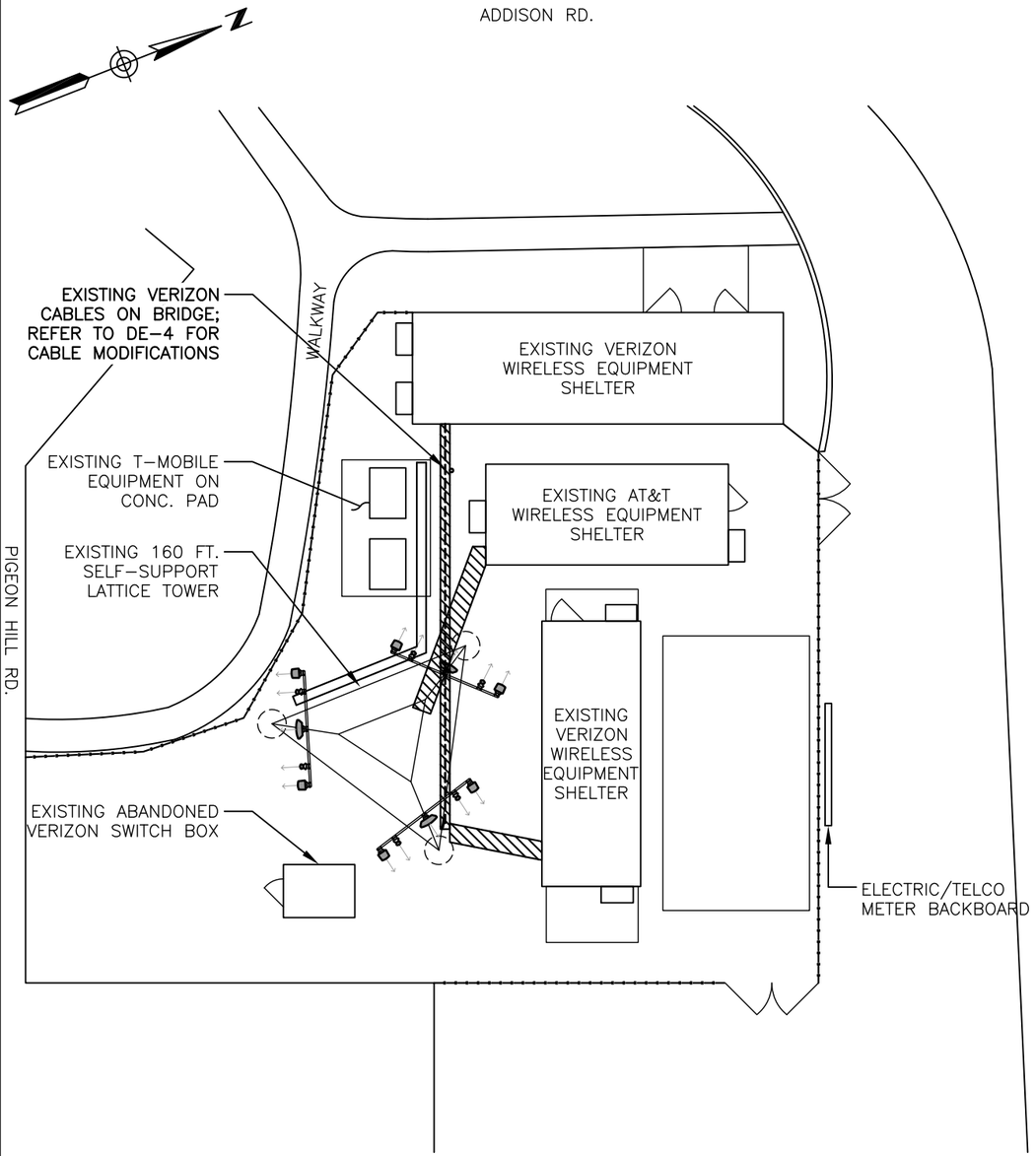
PROJECT NAME:
ANTMO
VZS01
DESIGN EXHIBITS

SITE NAME:
WINDSOR CT

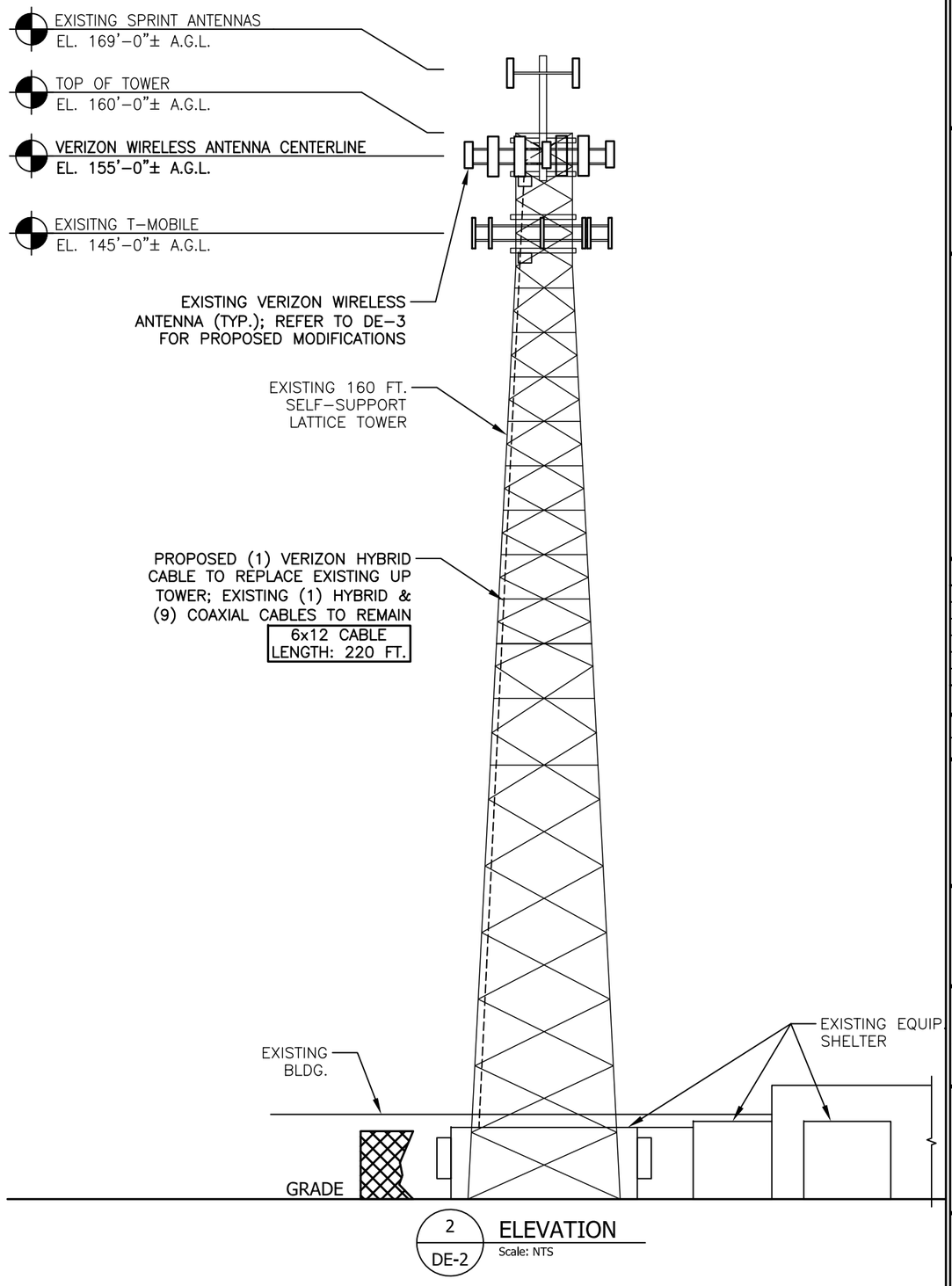
SITE ADDRESS:
VERIZON SELF-SUPPORT TOWER
482 PIGEON HILL RD.
WINDSOR, CT 06095

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
DE-1



1 DE-2 **COMPOUND PLAN**
Scale: 3/32" = 1'-0"



2 DE-2 **ELEVATION**
Scale: NTS

NOTES:
1. COMPOUND PLAN IS COMPILED FROM EXISTING DRAWINGS ON FILE WITH THE CT SITING COUNCIL AND A LIMITED DESIGN VISIT ON 11-09-20 FOR A PROPOSED VERIZON ANTENNA MODIFICATION.
2. PLANS ARE DIAGRAMMATIC ONLY AND NOT TO BE SCALED.
3. REFER TO STRUCTURAL TOWER AND MOUNT ANALYSIS REPORTS, BY OTHERS UNDER SEPARATE COVER, FOR ANY REQUIRED TOWER & MOUNT REINFORCEMENTS, WHICH MUST BE PERFORMED PRIOR TO ANY OTHER VERIZON ANTENNA MODIFICATIONS.

verizon

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DAVID WEINPAHL, P.E.
CT LIC NO. 22144

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0	02.01.21	REVIEW

DRAWN BY: MRF
CHECKED BY: DW

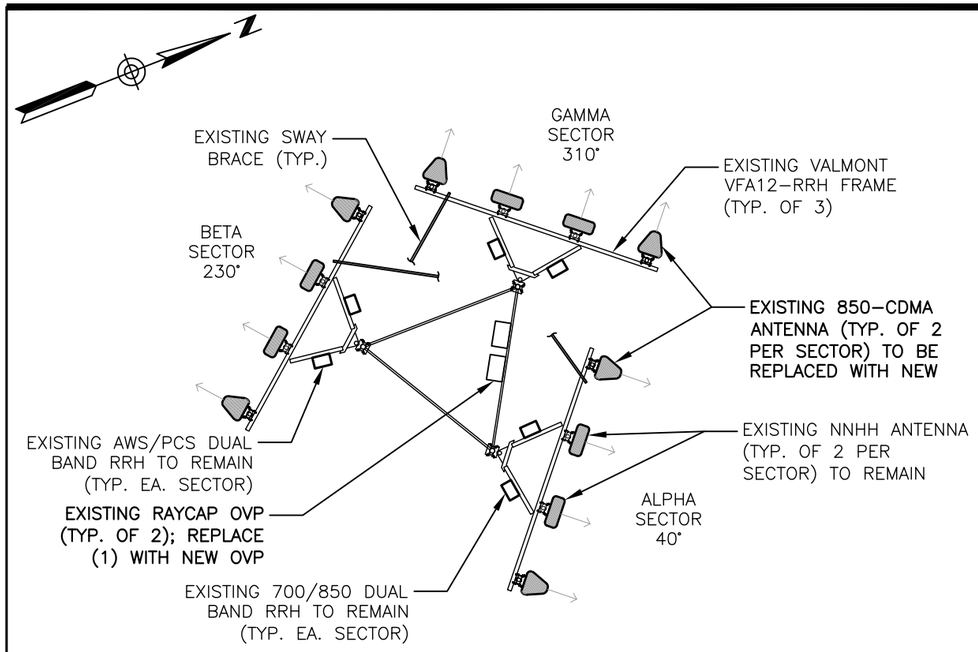
PROJECT NAME:
ANTMO
VZS01
DESIGN EXHIBITS

SITE NAME:
WINDSOR CT

SITE ADDRESS:
VERIZON SELF-SUPPORT TOWER
482 PIGEON HILL RD.
WINDSOR, CT 06095

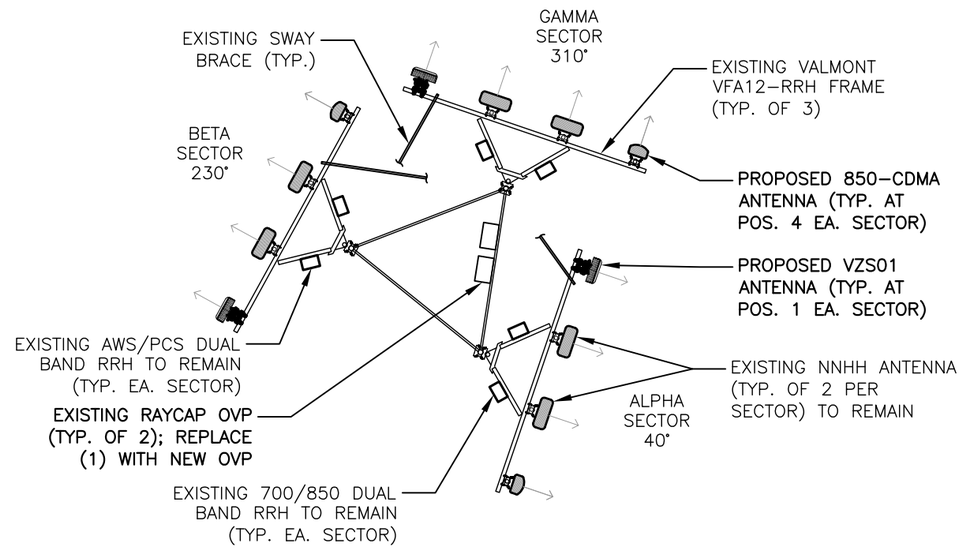
SHEET TITLE:
COMPOUND PLAN & ELEVATION

SHEET NUMBER:
DE-2



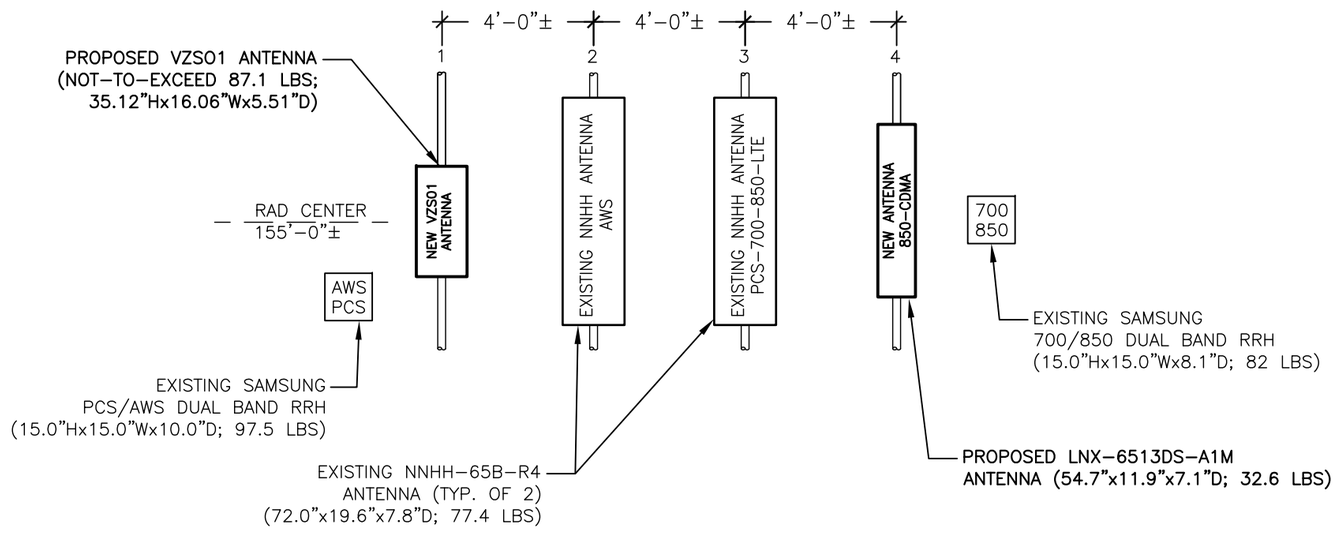
1 DE-3 ANTENNA PLAN @ 155 FT. - EXISTING

Scale: 1/8" = 1'-0"



2 DE-3 ANTENNA PLAN @ 155 FT. - PROPOSED

Scale: 1/8" = 1'-0"



SECTOR VIEWED FROM THE REAR

3 DE-3 ANTENNA ELEVATION (TYP.) - PROPOSED

Scale: 1/4" = 1'-0"

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WIRELESS COMMUNICATIONS FACILITY

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WINDSOR CT

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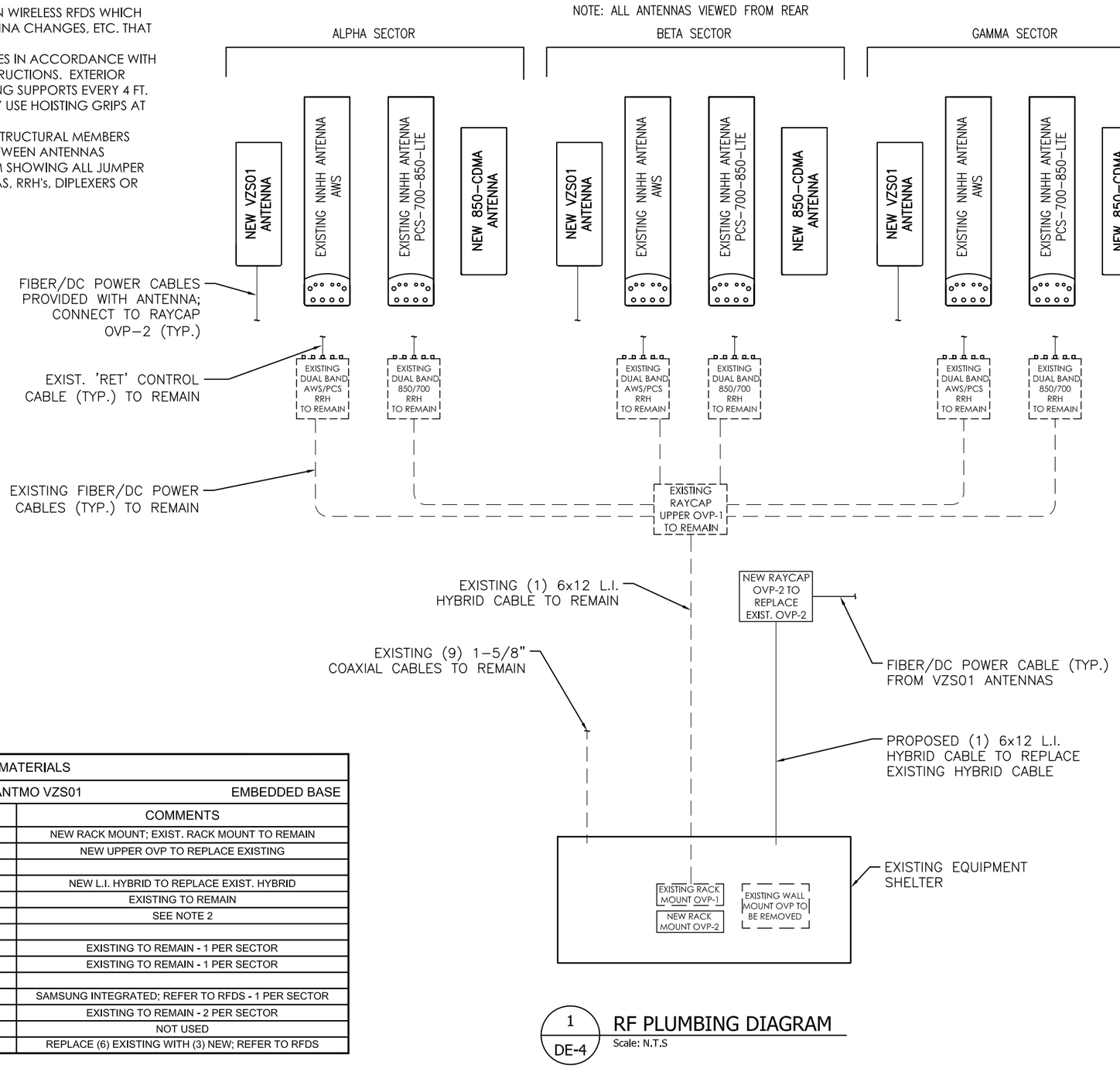
482 PIGEON HILL RD.
WINDSOR, CT 06095

SHEET TITLE:
ANTENNA PLANS & ELEVATION

SHEET NUMBER:
DE-3

GENERAL NOTES:

1. CONTRACTOR SHALL REFER TO THE LATEST VERIZON WIRELESS RFDS WHICH MAY INCLUDE ANTENNA SECTOR AZIMUTHS/ANTENNA CHANGES, ETC. THAT ARE REQUIRED AS PART OF THE PROJECT.
2. CONTRACTOR SHALL SECURE ALL CONTROL CABLES IN ACCORDANCE WITH INDUSTRY STANDARDS AND MANUFACTURERS INSTRUCTIONS. EXTERIOR CABLES MAY BE TAPED OR TIE-WRAPPED TO EXISTING SUPPORTS EVERY 4 FT. MAX. FOR HORIZONTAL RUNS. CONTRACTOR MAY USE HOISTING GRIPS AT TOP OF VERTICAL CABLE RUNS WHEN REQUIRED.
3. ALL CABLES SHALL BE ROUTED AND SECURED ON STRUCTURAL MEMBERS ONLY - DO NOT "LOOP" THE CABLES IN MID-AIR BETWEEN ANTENNAS
4. REFER TO RFDS FOR DETAILED PLUMBING DIAGRAM SHOWING ALL JUMPER AND OTHER CABLING CONNECTIONS AT ANTENNAS, RRH's, DIPLEXERS OR OTHER DEVICES.



1 / DE-4 RF PLUMBING DIAGRAM
Scale: N.T.S

BILL OF MATERIALS

SITE NAME: WINDSOR CT | ANTMO VZS01 | EMBEDDED BASE

DESCRIPTION	QTY	LENGTH	COMMENTS
LOWER OVP	1	-	NEW RACK MOUNT; EXIST. RACK MOUNT TO REMAIN
6-CKT. UPPER OVP	1	-	NEW UPPER OVP TO REPLACE EXISTING
6x12 HYBRID CABLE	1	220 FT.	NEW L.I. HYBRID TO REPLACE EXIST. HYBRID
RET CONTROL CABLE	-	-	EXISTING TO REMAIN
1/2" JUMPERS	-	-	SEE NOTE 2
AWS/PCS DUAL BAND RRH	-	-	EXISTING TO REMAIN - 1 PER SECTOR
700/850 DUAL BAND RRH	-	-	EXISTING TO REMAIN - 1 PER SECTOR
VZS01 ANTENNA	3	-	SAMSUNG INTEGRATED; REFER TO RFDS - 1 PER SECTOR
NNHH ANTENNA	-	-	EXISTING TO REMAIN - 2 PER SECTOR
SBS BRACKETS	-	-	NOT USED
850-CDMA ANTENNA	3	-	REPLACE (6) EXISTING WITH (3) NEW; REFER TO RFDS

NOTES:
1. ITEMS SHOWN ARE FOR MAJOR DESIGN ELEMENTS ONLY. REFER TO VERIZON WIRELESS RFDS FOR ALL MANUFACTURER PART NUMBERS AND ACCESSORY ITEMS REQUIRED FOR A COMPLETE INSTALLATION.
2. CONTRACTOR SHALL DETERMINE AND PROVIDE ALL REQUIRED PRE-FAB JUMPER QUANTITIES AND LENGTHS, KEEPING ALL LENGTHS TO A MINIMUM.

verizon
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WINDSOR, CT 06095

SHEET TITLE:
RF PLUMBING DIAGRAM & B.O.M.

SHEET NUMBER:
DE-4

GENERAL CONSTRUCTION NOTES:

1. CONTRACTOR SHALL NOT COMMENCE ANY WORK UNTIL HE OBTAINS, AT HIS OWN EXPENSE, ALL INSURANCE REQUIRED BY *CELLCO PARTNERSHIP d/b/a VERIZON, THE PRO*PERTY OWNER AND/OR PROPERTY MANAGEMENT COMPANY.

2. ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS AND ALL LOCAL LAWS AND REGULATIONS, CURRENT EDITIONS.

3. CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND MAKE PROVISIONS AS TO THE COST THEREOF. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.

4. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS AT THE SITE PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA AND SUBMIT TO THE ENGINEER ANY DISCREPANCIES FROM THE DRAWINGS.

5. CONTRACTOR IS TO REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUB-CONTRACTORS AND ALL RELATED PARTIES. THE SUB-CONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.

6. CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON DRAWINGS OR WRITTEN IN SPECIFICATIONS.

7. CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.

8. CONTRACTOR SHALL OBTAIN AT HIS OWN EXPENSE ALL PERMITS AND ALL INSPECTIONS REQUIRED FROM FEDERAL AND STATE GOVERNMENTS, COUNTIES, MUNICIPALITIES AND OTHER REGULATORY AGENCIES WHICH MAY BE REQUIRED FOR THE PROJECT.

10. DETAILS ARE INTENDED TO SHOW END RESULT OF DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS, AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK.

11. ALL MATERIAL PROVIDED BY *CELLCO PARTNERSHIP d/b/a VERIZON IS TO BE* REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUB-CONTRACTOR PRIOR TO INSTALLATION. ANY DEFICIENCIES TO PROVIDED MATERIALS SHALL BE BROUGHT TO THE CONSTRUCTION MANAGERS ATTENTION IMMEDIATELY.

12. THE MATERIALS INSTALLED IN THE WORK SHALL MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. NO SUBSTITUTIONS ARE ALLOWED.

13. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION, FOR SEQUENCES AND PROCEDURES TO BE USED, AND TO ENSURE THE SAFETY OF THE EXISTING BUILDING AND ITS COMPONENT DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.

14. CONTRACTOR SHALL COORDINATE ALL CIVIL, STRUCTURAL AND ELECTRICAL DRAWINGS FOR THE LOCATION OF ALL OPENINGS, RECESSES, BUILT-IN WORK, ETC.

15. CONTRACTOR SHALL RECEIVE CLARIFICATION IN WRITING AND SHALL RECEIVE IN WRITING AUTHORIZATION TO PROCEED BEFORE STARTING WORK ON ANY ITEMS NOT CLEARLY DEFINED OR IDENTIFIED BY THE CONTRACT DOCUMENTS.

16. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ALL PRODUCTS OR ITEMS NOTED AS "EXISTING" WHICH ARE NOT FOUND TO BE IN THE FIELD.

17. ERECTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMEN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST-ACCEPTED PRACTICE. ALL MEMBERS SHALL BE LAID PLUMB AND TRUE AS INDICATED ON THE DRAWINGS.

18. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE WORK AREA, ADJACENT AREAS, AND BUILDING OCCUPANTS THAT ARE LIKELY TO BE AFFECTED BY THE WORK UNDER THIS CONTRACT. WORK SHALL CONFORM TO ALL O.S.H.A REQUIREMENTS.

19. CONTRACTOR SHALL COORDINATE HIS WORK AND SCHEDULE HIS ACTIVITIES AND WORKING HOURS IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROPERTY OWNER AND/OR PROPERTY MANAGEMENT COMPANY.

20. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF OTHERS AS IT MAY RELATE TO RADIO EQUIPMENT, ANTENNAS AND ANY OTHER PORTIONS OF THE WORK.

21. CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OR WHERE LOCAL CODES OR REGULATIONS MAY TAKE PRECEDENCE.

22. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING SURFACES, EQUIPMENT, IMPROVEMENTS, PIPING, ANTENNA AND ANTENNA CABLES AND REPAIR ANY DAMAGE THAT OCCURS DURING CONSTRUCTION.

23. CONTRACTOR SHALL REPAIR ALL EXISTING SURFACES DAMAGED DURING CONSTRUCTION SUCH THAT THEY MATCH AND BLEND WITH ADJACENT SURFACES.

24. CONTRACTOR SHALL KEEP CONTRACT AREA CLEAN, HAZARD FREE AND DISPOSE OF ALL DEBRIS AND RUBBISH. EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY OF THE OWNER SHALL BE REMOVED. LEAVE PREMISES IN CLEAN CONDITIONS AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL ITEMS UNTIL COMPLETION OF CONSTRUCTION.

25. BEFORE FINAL ACCEPTANCE OF THE WORK, CONTRACTOR SHALL REMOVE ALL EQUIPMENT, TEMPORARY WORKS, UNUSED AND USELESS MATERIALS, RUBBISH AND TEMPORARY STRUCTURES.

verizon

WIRELESS COMMUNICATIONS FACILITY

20 ALEXANDER DRIVE
WALLINGFORD, CT 06492

On Air Engineering, LLC
88 Foundry Pond Road
Cold Spring, NY 10516
201-456-4624
onair@optonline.net

LICENSURE

STATE OF CONNECTICUT
DAVID A. WEINPAHL
NO. 22144
LICENSED
LICENSED PROFESSIONAL ENGINEER

DAVID WEINPAHL, P.E.
CT LIC NO. 22144

SUBMITTALS

NO	DATE	DESCRIPTION
0	02.01.21	REVIEW

DRAWN BY:	MRF
CHECKED BY:	DW

PROJECT NAME:
ANTMO
VZS01
DESIGN EXHIBITS

SITE NAME:
WINDSOR CT

SITE ADDRESS:
VERIZON SELF-SUPPORT TOWER
482 PIGEON HILL RD.
WINDSOR, CT 06095

SHEET TITLE:
GENERAL CONSTRUCTION NOTES

SHEET NUMBER:
DE-5

LNX-6513DS-A1M

2-port sector antenna, 2x 698–896 MHz, 65° HPBW, factory attached actuator

- Extended tilt range offers better coverage
- Great solution to maximize network coverage and capacity
- Excellent gain, VSWR, front-to-back ratio, and PIM specifications for robust network performance
- Fully compatible with Andrew remote electrical tilt system for greater OpEx savings
- The RF connectors are designed for IP67 rating and the radome for IP56 rating

General Specifications

Antenna Type	Sector
Band	Single band
Color	Light gray
Grounding Type	RF connector inner conductor and 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
RF Connector Interface	7-16 DIN Female
RF Connector Location	Bottom
RF Connector Quantity, low band	2
RF Connector Quantity, total	2

Dimensions

Width	301 mm | 11.85 in
Length	1390 mm | 54.724 in
Length, with installed actuator	1553 mm | 61.142 in
Depth	181 mm | 7.126 in

Electrical Specifications

Impedance	50 ohm
Operating Frequency Band	698 – 896 MHz
Polarization	±45°

LNX-6513DS-A1M

Electrical Specifications

Frequency Band, MHz	698–806	806–896
Gain, dBi	14.6	15.1
Beamwidth, Horizontal, degrees	65	65
Beamwidth, Vertical, degrees	16	14.5
Beam Tilt, degrees	0–10	0–10
USLS, typical, dB	20	20
Front-to-Back Ratio at 180°, dB	30	30
CPR at Boresight, dB	12	12
CPR at Sector, dB	10	10
Isolation, Cross Polarization, dB	30	30
VSWR | Return loss, dB	1.4 | 15.6	1.4 | 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-150	-150
Input Power per Port, maximum, watts	400	400

Electrical Specifications, BASTA

Frequency Band, MHz	698–806	806–896
Beamwidth, Horizontal Tolerance, degrees	±3	±3

Mechanical Specifications

Wind Loading at Velocity, frontal	202.0 N @ 150 km/h | 46.1 lbf @ 150 km/h
Wind Loading at Velocity, lateral	166.0 N @ 150 km/h | 37.3 lbf @ 150 km/h
Wind Loading at Velocity, maximum	390.0 N @ 150 km/h | 87.7 lbf @ 150 km/h
Wind Speed, maximum	241 km/h | 149.75 mph

Packaging and Weights

Width, packed	411 mm | 16.181 in
Depth, packed	284 mm | 11.181 in
Length, packed	1706 mm | 67.165 in
Net Weight, without mounting kit	14.8 kg | 32.628 lb
Weight, gross	30.9 kg | 68.123 lb

Regulatory Compliance/Certifications

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

LNX-6513DS-A1M

ROHS	Compliant

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

SAMSUNG

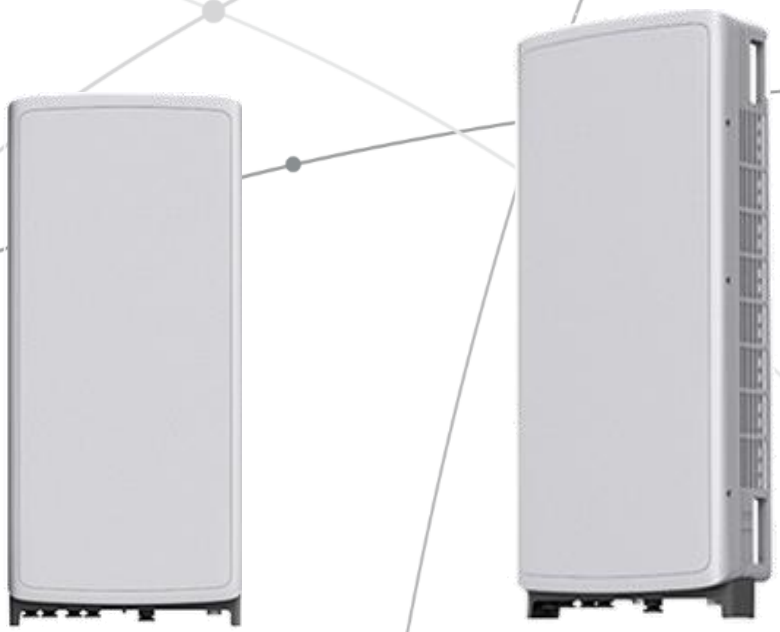
SAMSUNG

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

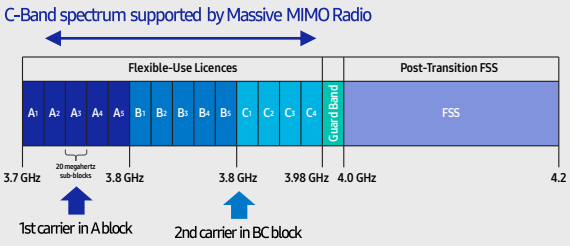


Points of Differentiation

Wide Bandwidth

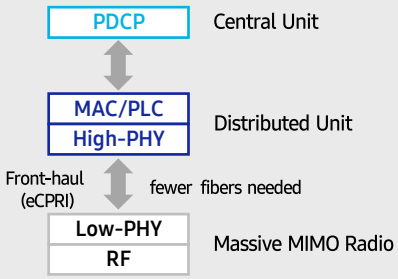
With capability to support up to 2 CC carrier configuration, Samsung C-Band massive MIMO Radio supports 200 MHz bandwidth in the C-Band spectrum.

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.

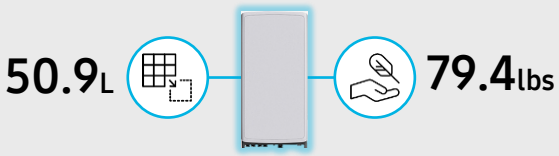
This helps operators reduce their CAPEX as they now need less products to cover the same area than before.

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.

129 Samsung-ro, Yeongtong-gu, Suwon-si Gyeonggi-do, Korea

ATTACHMENT 3

	General	Power	Density					
Site Name: Windsor								
Tower Height: Verizon @ 155'								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**CALC. POWER DENS**	**FREQ.**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
Cingular-UMTS	1	324	169	850	0.0044	0.5667	0.08%	
Cingular-PCS-UMTS	1	1476	169	700	0.0200	0.4667	0.43%	
Cingular -LTE	1	1000	169	850	0.0135	0.5667	0.24%	
Cingular-UMTS	1	1000	169	850	0.0135	0.5667	0.24%	
Cingular-PCS-UMTS	2	3664	169	1900	0.0992	1.0000	0.99%	
Cingular -LTE	1	3837	169	2100	0.0519	1.0000	0.52%	
Cingular -PCS-LTE	1	1285	169	2300	0.0174	1.0000	0.17%	
T-Mobile	2	1668	145	2100	0.0621	1.0000	0.62%	
T-Mobile	2	834	145	2100	0.0310	1.0000	0.31%	
T-Mobile	2	846	145	1950	0.0315	1.0000	0.31%	
T-Mobile	2	846	145	1950	0.0315	1.0000	0.31%	
T-Mobile	1	690	145	700	0.0128	0.4667	0.28%	
Verizon	1	4953	155	1970	0.0802	1.0000	0.80%	
Verizon	1	1918	155	869	0.0311	0.5793	0.54%	
Verizon	3	383	155	869	0.0186	0.5793	0.32%	
Verizon	1	4676	155	2145	0.0757	1.0000	0.76%	
Verizon	1	2466	155	746	0.0399	0.4973	0.80%	
Town of Windsor			163	454	0.0009	0.3027	0.03%	
Town of Windsor			131	454	0.0012	0.3027	0.04%	
Town of Windsor			112	454	0.0032	0.3027	0.11%	
VZW 700	**4**	**2465**	**155**	**0.0014**	**751**	**0.5007**	**0.29%**	
VZW Cellular LTE	**4**	**732**	**155**	**0.0017**	**874**	**0.5827**	**0.29%**	
VZW PCS	**4**	**1238**	**155**	**0.0029**	**1975**	**1.0000**	**0.29%**	
VZW AWS	**4**	**1169**	**155**	**0.0027**	**2120**	**1.0000**	**0.27%**	
VZW CBAND	**4**	**6531**	**155**	**0.0153**	**3730.005**	**1.0000**	**1.53%**	
								10.57%
* Source: Siting Council								

ATTACHMENT 4

PAUL J. FORD & COMPANY

Report Date:	February 15, 2021
Client:	On Air Engineering, LLC 88 Foundry Pond Road Cold Spring, NY 10516 Attn: David Weinpahl, P.E. (201) 456-4624
Structure:	Modified 160-ft Self Support Tower
Verizon Site Name:	Windsor CT
Site Address:	482 Pigeon Hill Rd
City, County, State:	Windsor, Hartford County, CT
Latitude, Longitude:	41.86664, -72.674778
PJF Project:	42921-0006.001.8700

Paul J. Ford and Company is pleased to submit this "**Structural Analysis Report**" to determine the tower stress level.

Analysis Criteria:

This analysis utilizes an ultimate 3-second gust wind speed of 125 mph as required by the 2018 Connecticut State Building Code and Appendix N. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Proposed Appurtenance Loads:

The structure was analyzed with the addition of the proposed appurtenance loads shown in Table 1 combined with the existing loads shown in Table 2 of this report.

Summary of Analysis Results:

Existing Structure:	97.4% Pass
Existing Foundation:	74.7% Pass

We at Paul J. Ford and Company appreciate the opportunity of providing our continuing professional services to you and On Air Engineering, LLC. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully Submitted by:
Paul J. Ford and Company

Sara Mansoori
Structural Designer
smansoori@pauljford.com

AKT

STATE OF CONNECTICUT
JUSTIN T. KLINE
No. 30301
LICENSED PROFESSIONAL ENGINEER

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 160 ft Self Support tower designed by Rohn.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-G
Risk Category:	II
Wind Speed:	97 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
155.0	155.0	3	andrew	LNX-6513DS-A1M w/ Mount Pipe	1	1-5/8 Hybrid	-
		3	ericsson	VZS01			
		1	raycap	OVP			

Table 2 - Existing Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
169.0	169.0	3	ericsson	RRUS 11	6	1-1/4	3
		3	ericsson	RRUS 32			
		6	kmw communications	AM-X-CD-14-65-00T-RET w/ Mount Pipe			
		6	powerwave technologies	TT19-08BP111-001			
		3	ericsson	RADIO 4449 B5/B12	2 1	.78 .39	2
		3	ericsson	RADIO 8843 B2/B66A			
		3	ericsson	RRUS 32 B30			
		1	kathrein	80010964_TIA w/ Mount Pipe			
		2	kathrein	80010965_TIA w/ Mount Pipe			
		1	raycap	DC6-48-60-18-8C			
		3	quintel technology	QS66512-2 w/ Mount Pipe	6 2 1	1-1/4 .7/8 .39	1
		1	raycap	DC6-48-60-18-8F			
		1	tower mounts	T-Arm Mount [TA 701-3]			
160.0	165.0	1	generic	15 ft x 2" omni whip	1	7/8	1
	160.0	1	tower mounts	Side Arm Mount			

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
155.0	155.0	1	raycap	OVP 6-ckt	3	1-5/8	3
		6	amphenol	LPA-80063-4CF-EDIN-X w/ Mount Pipe			
		3	ericsson	B2/B66A RRH	6 1	1-5/8 Hybrid	1
		3	ericsson	B5/B13 RRH			
		6	commscope	NNHH-65B-R4_TIA w/ Mount Pipe			
		3	Tower mount	VFA-12			
		1	raycap	OVP 6-ckt			
145.0	145.0	6	generic	TMA (10" x 8" x 3")	18	1-5/8	1
		3	andrew	LNX-6515DS-A1M w/ Mount Pipe			
		3	celwave	Celwave APX16DWV-16DWV-S-E-A20 w/Mount Pipe			
		3	tower mounts	Sector Mount			
118.0	128.0	1	generic	15 ft x 2" omni whip	1	7/8	1
	118.0	1	tower mounts	Side Arm Mount			
99.0	108.0	1	generic	16 ft x 2" omni whip	1	7/8	1
	99.0	1	tower mounts	Side Arm Mount			
47.0	47.0	1	tower mounts	Side Arm Mount	-	-	1
38.0	46.0	1	generic	12 ft x 2" omni whip	1	1/2	1
	38.0	1	tower mounts	Side Arm Mount			

Notes:
1) Existing Equipment
2) Reserved equipment
3) Equipment To Be Removed

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Source
TOWER STRUCTURAL ANALYSIS REPORTS	All-Points Technology Corporation 06/26/2017	On Air Engineering, LLC
TOWER STRUCTURAL ANALYSIS REPORTS	Centek Engineering, 04/20/2017	On Air Engineering, LLC
FOUNDATION DRAWINGS	Rohn, 04/20/87	On Air Engineering, LLC
GEOTECHNICAL REPORTS	DR. Clarence Welti, 09/20/2010	On Air Engineering, LLC
MODIFICATION LETTER	Centek Engineering, 07/11/2011	On Air Engineering, LLC
PROPOSED TOWER REINFORCEMENT DESIGN/DRAWINGS	PJF, 42918-0018.004.8800 04/11/2019	
TOWER STRUCTURAL ANALYSIS REPORTS	Semaan Engineering solutions, 10,21,2020	On Air Engineering, LLC
VERIZON CD’s	Verizon, 02/01/2021	On Air Engineering, LLC

3.1) Analysis Method

tnxTower (version 8.0.7.5), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) Tower and structures were built and maintained in accordance with the manufacturer's specifications.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
3) The rock anchors information was obtained from Centek Engineering analysis, dated 04/20/2017.

This analysis may be affected if any assumptions are not valid or have been made in error. Paul J. Ford and Company should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	168 - 160	Pole	Pipe 8.625" x 0.322" (8 STD)	1	-3.29	377.97	34.6	Pass
T1	160 - 140	Leg	Pipe 2.875" x 0.203" (2.5 STD)	3	-25.56	57.19	44.7	Pass
T2	140 - 133.333	Leg	Pipe 2.875" x 0.203" (2.5 STD)	33	-34.62	45.45	76.2	Pass
T3	133.333 - 126.667	Leg	Pipe 2.875" x 0.203" (2.5 STD)	45	-43.62	45.45	96.0	Pass
T4	126.667 - 120	Leg	Pipe 2.875" x 0.203" (2.5 STD)	54	-52.24	66.71	78.3	Pass
T5	120 - 100	Leg	Pipe 2.875" x 0.276" (2.5 XS)	69	-80.22	87.71	91.5	Pass
T6	100 - 80	Leg	Pipe 3.5" x 0.300" (3 XS)	99	-108.53	123.39	88.0	Pass
T7	80 - 60	Leg	Pipe 4.5" x 0.337" (4 XS)	129	-134.64	174.33	77.2	Pass
T8	60 - 40	Leg	Pipe 5.563" x 0.375" (5 XS)	150	-163.31	201.25	81.1	Pass
T9	40 - 20	Leg	Pipe 5.563" x 0.375" (5 XS)	165	-190.90	201.23	94.9	Pass
T10	20 - 1e-006	Leg	Pipe 6.625" x 0.340" (6 EHS)	180	-217.96	244.06	89.3	Pass
T1	160 - 140	Diagonal	L 1.75 x 1.75 x 3/16	9	-4.55	5.13	88.8	Pass
T2	140 - 133.333	Diagonal	L 2 x 2 x 3/16	41	-4.16	5.69	73.0	Pass
T3	133.333 - 126.667	Diagonal	L 2 x 2 x 3/16	50	-4.19	5.17	81.0	Pass
T4	126.667 - 120	Diagonal	L 2.5 x 2.5 x 3/16	60	-4.62	9.03	51.2	Pass
T5	120 - 100	Diagonal	L 2.5 x 2.5 x 3/16	72	-4.97	6.93	71.7	Pass
T6	100 - 80	Diagonal	L 3 x 3 x 3/16	102	-6.11	9.64	63.4 70.1 (b)	Pass
T7	80 - 60	Diagonal	L 3 x 3 x 1/4	132	-7.20	8.54	84.3	Pass
T8	60 - 40	Diagonal	L 3.5 x 3.5 x 1/4	153	-7.68	12.00	64.0 67.8 (b)	Pass
T9	40 - 20	Diagonal	L 3.5 x 3.5 x 1/4	168	-7.91	10.09	78.4	Pass
T10	20 - 1e-006	Diagonal	L 4 x 4 x 1/4	183	-9.04	13.13	68.8 77.6 (b)	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T4	126.667 - 120	Secondary Horizontal	L 2 x 2 x 1/4	65	-0.91	8.89	10.2	Pass
T5	120 - 100	Secondary Horizontal	L 2.5 x 2.5 x 3/16	78	-1.39	9.48	14.7	Pass
T6	100 - 80	Secondary Horizontal	L 3 x 3 x 3/16	107	-1.88	12.30	15.3	Pass
T7	80 - 60	Secondary Horizontal	L 3 x 3 x 1/4	137	-2.34	12.58	18.6	Pass
T1	160 - 140	Top Girt	L 2.5 x 2.5 x 3/16	6	-1.47	5.20	28.3	Pass
T2	140 - 133.333	Top Girt	L 2 x 2 x 3/16	36	-0.30	3.89	7.7	Pass
T4	126.667 - 120	Top Girt	L 2.5 x 2.5 x 3/16	58	-0.62	3.66	17.0	Pass
T1	160 - 140	Pole Socket	Pipe 8.625" x 0.322" (8 STD)	197	-3.45	349.58	34.7	Pass
							Summary	
						Pole (L1)	34.6	Pass
						Leg (T3)	96.0	Pass
						Diagonal (T1)	88.8	Pass
						Secondary Horizontal (T7)	18.6	Pass
						Top Girt (T1)	28.3	Pass
						Pole Socket (T1)	34.7	Pass
						Bolt Checks	77.6	Pass
						Rating =	96.0	Pass

Table 5 - Tower Component Stresses vs. Capacity

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	97.4	Pass
1	Base Foundation	0	48.6	Pass
1	Base Foundation Soil Interaction	0	74.7	Pass

Structure Rating (max from all components) =	97.4%

Notes:
1) See additional documentation in “Appendix C – Additional Calculations” for calculations supporting the % capacity consumed.

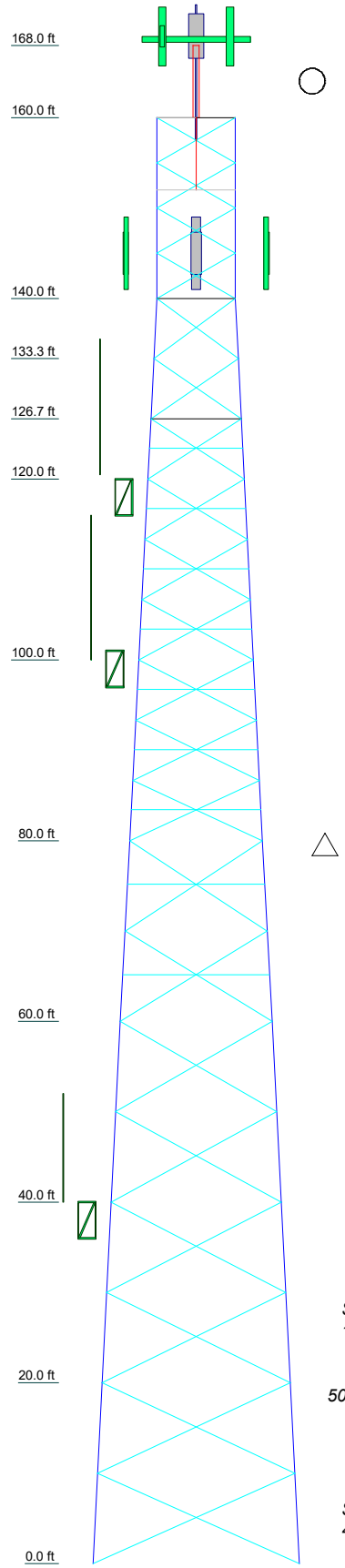
4.1) Recommendations

The tower and its foundation will have sufficient capacity to carry the proposed loading.

APPENDIX A

TNXTOWER OUTPUT

Section		T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	
Legs	A	Pipe 2.875" x 0.203" (2.5 STD)				Pipe 2.875" x 0.276" (2.5 XS)	Pipe 3.5" x 0.300" (3 XS)	Pipe 4.5" x 0.337" (4 XS)	Pipe 5.563" x 0.375" (5 XS)		Pipe 6.625" x 0.340" (6 EHS)	
Leg Grade		A572-50										
Diagonals		L 1.75 x 1.75 x 3/16	L 2 x 2 x 3/16			L 2.5 x 2.5 x 3/16	L 3 x 3 x 3/16	L 3 x 3 x 1/4	L 3.5 x 3.5 x 1/4		L 4 x 4 x 1/4	
Diagonal Grade		A36			A572-50			A36				
Top Girts		L 2.5 x 2.5 x 3/16	B	N.A.	C			N.A.				
Sec. Horizontals		N.A.			D	L 2.5 x 2.5 x 3/16	L 3 x 3 x 3/16	L 3 x 3 x 1/4		N.A.		
Face Width (ft)	22.8646	8.64583		9.3125	9.97917	10.6458	12.6875	14.6979	16.7708	18.7708	20.8646	
# Panels @ (ft)		4 @ 5				9 @ 6.66667			8 @ 10			
Weight (K)	18.2	N.A.	0.4	0.3	0.6	1.6	2.2	2.6	2.8	2.9	3.4	
		0.2	0.4	0.3	0.6	1.6	2.2	2.6	2.8	2.9	3.4	
		1.2										
		0.71875										



SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	Pipe 8.625" x 0.322" (8 STD)	C	L 2.5 x 2.5 x 3/16
B	L 2 x 2 x 3/16	D	L 2 x 2 x 1/4

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-G Standard.
3. Tower designed for a 97.00 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50.00 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60.00 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 96%

ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 225 K
SHEAR: 27 K

UPLIFT: -188 K
SHEAR: 23 K

AXIAL 159 K
SHEAR 14 K *MOMENT 1381 kip-ft*
TORQUE 6 kip-ft
50.00 mph WIND - 1.00 in ICE

AXIAL 45 K
SHEAR 43 K *MOMENT 4156 kip-ft*
TORQUE 21 kip-ft
REACTIONS - 97.00 mph WIND

Paul J. Ford and Company
250 E. Broad St., Ste 600
Columbus, OH 43215
Phone: 614-221-6679
FAX:

Job: **Existing 160 ft self-supporting tower**		
Project: **Windsor, CT**		
Client: VERIZON	Drawn by: Sara Mansoori	App'd:
Code: TIA-222-G	Date: 02/15/21	Scale: NTS
Path: G:\TOWER\429_On Air Engineering\202142921-0006_Windsor, CT\42921-0006.001.8700_SAITNX\42921-0006.001.8700.eri		Dwg No. E-1

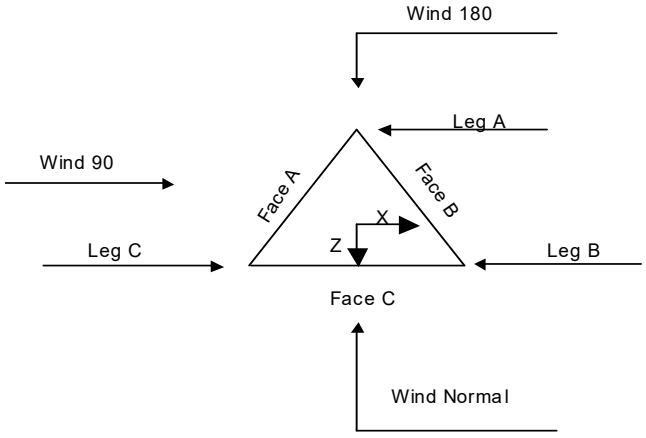
Tower Input Data

The main tower is a 3x free standing tower with an overall height of 168.00 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 8.65 ft at the top and 22.86 ft at the base.
An index plate is provided at the 3x free standing -tower connection.
There is a pole section.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

1) Tower is located in Hartford County, Connecticut.
2) ASCE 7-10 Wind Data is used (wind speeds converted to nominal values).
3) Basic wind speed of 97.00 mph.
4) Structure Class II.
5) Exposure Category B.
6) Topographic Category 1.
7) Crest Height 0.00 ft.
8) Nominal ice thickness of 1.00 in.
9) Ice thickness is considered to increase with height.
10) Ice density of 56 pcf.
11) A wind speed of 50.00 mph is used in combination with ice.
12) Temperature drop of 50 °F.
13) Deflections calculated using a wind speed of 60.00 mph.
14) A non-linear (P-delta) analysis was used.
15) Pressures are calculated at each section.
16) Stress ratio used in pole design is 1.
17) Stress ratio used in tower member design is 1.
18) Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

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



Triangular Tower

Pole Section Geometry

Section	Elevation ft	Section Length ft	Pole Size	Pole Grade	Socket Length ft
L1	168.00-160.00	8.00	Pipe 8.625" x 0.322" (8 STD)	A572-50 (50 ksi)	8.00

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 168.00-160.00				1.05	1	1			

Tower Section Geometry

Tower Section	Tower Elevation ft	Assembly Database	Description	Section Width ft	Number of Sections	Section Length ft
T1	160.00-140.00		08N056	8.65	1	20.00
T2	140.00-133.33		09N115	8.65	1	6.67
T3	133.33-126.67		09N115	9.31	1	6.67
T4	126.67-120.00		09N115	9.98	1	6.67
T5	120.00-100.00		10N106	10.65	1	20.00
T6	100.00-80.00		11N076	12.69	1	20.00
T7	80.00-60.00		12N005	14.70	1	20.00
T8	60.00-40.00		13N011	16.77	1	20.00
T9	40.00-20.00		14N003	18.77	1	20.00
T10	20.00-0.00		15N023	20.86	1	20.00

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	160.00-140.00	5.00	X Brace	No	No	0.00	0.00
T2	140.00-133.33	6.67	X Brace	No	No	0.00	0.00
T3	133.33-126.67	6.67	X Brace	No	No	0.00	0.00
T4	126.67-120.00	6.67	X Brace	No	Yes	0.00	0.00
T5	120.00-100.00	6.67	X Brace	No	Yes	0.00	0.00
T6	100.00-80.00	6.67	X Brace	No	Yes	0.00	0.00
T7	80.00-60.00	10.00	X Brace	No	Yes	0.00	0.00
T8	60.00-40.00	10.00	X Brace	No	No	0.00	0.00
T9	40.00-20.00	10.00	X Brace	No	No	0.00	0.00
T10	20.00-0.00	10.00	X Brace	No	No	0.00	0.00

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 160.00-140.00	Pipe	Pipe 2.875" x 0.203" (2.5 STD)	A572-50 (50 ksi)	Single Angle	L 1.75 x 1.75 x 3/16	A36 (36 ksi)
T2 140.00-133.33	Pipe	Pipe 2.875" x 0.203" (2.5 STD)	A572-50 (50 ksi)	Single Angle	L 2 x 2 x 3/16	A36 (36 ksi)
T3 133.33-126.67	Pipe	Pipe 2.875" x 0.203" (2.5 STD)	A572-50 (50 ksi)	Single Angle	L 2 x 2 x 3/16	A36 (36 ksi)
T4 126.67-120.00	Pipe	Pipe 2.875" x 0.203" (2.5 STD)	A572-50 (50 ksi)	Single Angle	L 2.5 x 2.5 x 3/16	A572-50 (50 ksi)
T5 120.00-100.00	Pipe	Pipe 2.875" x 0.276" (2.5 XS)	A572-50 (50 ksi)	Single Angle	L 2.5 x 2.5 x 3/16	A36 (36 ksi)
T6 100.00-80.00	Pipe	Pipe 3.5" x 0.300" (3 XS)	A572-50 (50 ksi)	Single Angle	L 3 x 3 x 3/16	A36 (36 ksi)
T7 80.00-60.00	Pipe	Pipe 4.5" x 0.337" (4 XS)	A572-50 (50 ksi)	Single Angle	L 3 x 3 x 1/4	A36 (36 ksi)
T8 60.00-40.00	Pipe	Pipe 5.563" x 0.375" (5 XS)	A572-50 (50 ksi)	Single Angle	L 3.5 x 3.5 x 1/4	A36 (36 ksi)
T9 40.00-20.00	Pipe	Pipe 5.563" x 0.375" (5 XS)	A572-50 (50 ksi)	Single Angle	L 3.5 x 3.5 x 1/4	A36 (36 ksi)
T10 20.00-0.00	Pipe	Pipe 6.625" x 0.340" (6 EHS)	A572-50 (50 ksi)	Single Angle	L 4 x 4 x 1/4	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 160.00-140.00	Single Angle	L 2.5 x 2.5 x 3/16	A36 (36 ksi)	Single Angle		A36 (36 ksi)
T2 140.00-133.33	Single Angle	L 2 x 2 x 3/16	A36 (36 ksi)	Single Angle		A36 (36 ksi)
T4 126.67-120.00	Single Angle	L 2.5 x 2.5 x 3/16	A36 (36 ksi)	Single Angle		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T4 126.67-120.00	Single Angle	L 2 x 2 x 1/4	A572-50 (50 ksi)	Single Angle		A36 (36 ksi)
T5 120.00-100.00	Single Angle	L 2.5 x 2.5 x 3/16	A36 (36 ksi)	Single Angle		A36 (36 ksi)
T6 100.00-80.00	Single Angle	L 3 x 3 x 3/16	A36 (36 ksi)	Single Angle		A36 (36 ksi)
T7 80.00-60.00	Single Angle	L 3 x 3 x 1/4	A36 (36 ksi)	Single Angle		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
T1 160.00-140.00	0.00	0.25	A36 (36 ksi)	1.05	1	1.05	6.00	6.00	36.00
T2 140.00-133.33	0.00	0.25	A36 (36 ksi)	1.05	1	1.05	6.00	6.00	36.00
T3 133.33-126.67	0.00	0.25	A36 (36 ksi)	1.05	1	1.05	6.00	6.00	36.00
T4 126.67-120.00	0.00	0.25	A36 (36 ksi)	1.05	1	1.05	6.00	6.00	36.00
T5 120.00-100.00	0.00	0.25	A36 (36 ksi)	1.05	1	1.05	6.00	6.00	36.00
T6 100.00-80.00	0.00	0.25	A36 (36 ksi)	1.05	1	1.05	6.00	6.00	36.00
T7 80.00-60.00	0.00	0.25	A36 (36 ksi)	1.05	1	1.05	6.00	6.00	36.00
T8 60.00-40.00	0.00	0.25	A36 (36 ksi)	1.05	1	1.05	6.00	6.00	36.00
T9 40.00-20.00	0.00	0.25	A36 (36 ksi)	1.05	1	1.05	6.00	6.00	36.00
T10 20.00-0.00	0.00	0.25	A36 (36 ksi)	1.05	1	1.05	6.00	6.00	36.00

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1 160.00-140.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T2 140.00-133.33	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T3 133.33-126.67	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T4 126.67-120.00	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1
T5 120.00-100.00	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1
T6 100.00-80.00	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1
T7 80.00-60.00	No	Yes	1	1 1	1 1	1 1	1 1	1 1	1 0.5	1 1

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T8 60.00-40.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T9 40.00-20.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
T10 20.00-0.00	Yes	Yes	1	1 1	1 1	1 1	1 1	1 1	1 1	1 1

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Net Width Deduct in	Leg U	Diagonal Net Width Deduct in	Diagonal U	Top Girt Net Width Deduct in	Top Girt U	Bottom Girt Net Width Deduct in	Bottom Girt U	Mid Girt Net Width Deduct in	Mid Girt U	Long Horizontal Net Width Deduct in	Long Horizontal U	Short Horizontal Net Width Deduct in	Short Horizontal U
T1 160.00-140.00	0.00	1	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T2 140.00-133.33	0.00	1	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T3 133.33-126.67	0.00	1	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T4 126.67-120.00	0.00	1	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T5 120.00-100.00	0.00	1	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T6 100.00-80.00	0.00	1	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T7 80.00-60.00	0.00	1	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T8 60.00-40.00	0.00	1	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T9 40.00-20.00	0.00	1	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75
T10 20.00-0.00	0.00	1	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75	0.00	0.75

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg Bolt Size in	Leg No.	Diagonal Bolt Size in	Diagonal No.	Top Girt Bolt Size in	Top Girt No.	Bottom Girt Bolt Size in	Bottom Girt No.	Mid Girt Bolt Size in	Mid Girt No.	Long Horizontal Bolt Size in	Long Horizontal No.	Short Horizontal Bolt Size in	Short Horizontal No.
T1 160.00-140.00	Flange	0.63 A325N	4	0.63 A325N	1	0.63 A325N	1	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0
T2 140.00-133.33	Flange	0.63 A325N	0	0.63 A325N	1	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0
T3 133.33-126.67	Flange	0.63 A325N	0	0.63 A325N	1	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0
T4 126.67-120.00	Flange	0.63 A325N	4	0.63 A325N	1	0.63 A325N	1	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.63 A325N	1
T5 120.00-100.00	Flange	0.75 A325N	4	0.63 A325N	1	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.75 A325N	0
T6 100.00-80.00	Flange	0.88 A325N	4	0.63 A325N	1	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.63 A325N	0

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T7 80.00-60.00	Flange	1.00 A325N	4	0.63 A325N	1	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.63 A325N	0
T8 60.00-40.00	Flange	1.00 A325N	4	0.63 A325N	1	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0
T9 40.00-20.00	Flange	1.00 A325N	6	0.63 A325N	1	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0
T10 20.00-0.00	Flange	1.00 A325N	0	0.63 A325N	1	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0	0.00 A325N	0

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
LDF6-50 (1 1/4" foam)	A	No	No	Ar (CaAa)	160.00 - 0.00	0.00	0.3	6	6	0.50 1.00	1.50		0.66
1.5" flat Cable Ladder Rail	A	No	No	Af (CaAa)	160.00 - 0.00	0.00	0.3	2	2	24.00 1.50	1.50		1.80
HFT1206-24SVL-210(1-5/8)	A	No	No	Ar (CaAa)	145.00 - 0.00	0.00	-0.37	18	9	0.27 0.52	1.71		1.92
1.5" flat Cable Ladder Rail ******	A	No	No	Af (CaAa)	145.00 - 0.00	0.00	-0.37	2	2	24.00 1.50	1.50		1.80
LDF5-50A (7/8" foam)	B	No	No	Ar (CaAa)	160.00 - 0.00	0.00	0.4	1	1	1.09	1.09		0.33
Fiber Trunk	B	No	No	Ar (CaAa)	160.00 - 0.00	0.00	-0.35	2	2	1.75	1.75		3.00
DC Trunk	B	No	No	Ar (CaAa)	160.00 - 0.00	0.00	-0.37	4	4	0.26	0.26		0.03
LDF5-50A (7/8" foam)	B	No	No	Ar (CaAa)	120.00 - 0.00	0.00	0.36	1	1	1.09	1.09		0.33
LDF4-50A (1/2" foam)	B	No	No	Ar (CaAa)	40.00 - 0.00	0.00	0.33	1	1	0.63	0.63		0.15
1.5" flat Cable Ladder Rail	B	No	No	Af (CaAa)	160.00 - 0.00	0.00	-0.4	2	2	20.00 1.50	1.50		1.80
1.5" flat Cable Ladder Rail ********	B	No	No	Af (CaAa)	160.00 - 0.00	0.00	0.37	2	2	20.00 1.50	1.50		1.80
HFT1206-24SVL-XXX(1-5/8)	C	No	No	Ar (CaAa)	155.00 - 0.00	0.00	-0.4	7	7	0.50 0.52	1.63		1.92
1.5" flat Cable Ladder Rail	C	No	No	Af (CaAa)	155.00 - 0.00	0.00	-0.4	2	2	24.00 1.50	1.50		1.80
LDF5-50A (7/8" foam)	B	No	No	Ar (CaAa)	99.00 - 0.00	0.00	0.36	1	1	1.09	1.09		0.33

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	168.00-160.00	A	0.000	0.000	0.000	0.000	0.00

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
T1	160.00-140.00	A	0.000	0.000	45.890	0.000	0.34
		B	0.000	0.000	31.228	0.000	0.27
		C	0.000	0.000	24.563	0.000	0.26
T2	140.00-133.33	A	0.000	0.000	33.187	0.000	0.30
		B	0.000	0.000	10.409	0.000	0.09
		C	0.000	0.000	10.917	0.000	0.11
T3	133.33-126.67	A	0.000	0.000	33.187	0.000	0.30
		B	0.000	0.000	10.409	0.000	0.09
		C	0.000	0.000	10.917	0.000	0.11
T4	126.67-120.00	A	0.000	0.000	33.187	0.000	0.30
		B	0.000	0.000	10.409	0.000	0.09
		C	0.000	0.000	10.917	0.000	0.11
T5	120.00-100.00	A	0.000	0.000	99.560	0.000	0.91
		B	0.000	0.000	33.408	0.000	0.28
		C	0.000	0.000	32.750	0.000	0.34
T6	100.00-80.00	A	0.000	0.000	99.560	0.000	0.91
		B	0.000	0.000	35.479	0.000	0.29
		C	0.000	0.000	32.750	0.000	0.34
T7	80.00-60.00	A	0.000	0.000	99.560	0.000	0.91
		B	0.000	0.000	35.588	0.000	0.29
		C	0.000	0.000	32.750	0.000	0.34
T8	60.00-40.00	A	0.000	0.000	99.560	0.000	0.91
		B	0.000	0.000	35.588	0.000	0.29
		C	0.000	0.000	32.750	0.000	0.34
T9	40.00-20.00	A	0.000	0.000	99.560	0.000	0.91
		B	0.000	0.000	36.848	0.000	0.29
		C	0.000	0.000	32.750	0.000	0.34
T10	20.00-0.00	A	0.000	0.000	99.560	0.000	0.91
		B	0.000	0.000	36.848	0.000	0.29
		C	0.000	0.000	32.750	0.000	0.34

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	168.00-160.00	A	2.348	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
T1	160.00-140.00	A	2.327	0.000	0.000	93.866	0.000	1.91
		B		0.000	0.000	118.461	0.000	2.13
		C		0.000	0.000	59.033	0.000	1.22
T2	140.00-133.33	A	2.305	0.000	0.000	53.115	0.000	1.23
		B		0.000	0.000	39.243	0.000	0.70
		C		0.000	0.000	26.134	0.000	0.54
T3	133.33-126.67	A	2.294	0.000	0.000	53.005	0.000	1.22
		B		0.000	0.000	39.113	0.000	0.70
		C		0.000	0.000	26.079	0.000	0.53
T4	126.67-120.00	A	2.282	0.000	0.000	52.889	0.000	1.21
		B		0.000	0.000	38.977	0.000	0.69
		C		0.000	0.000	26.022	0.000	0.53
T5	120.00-100.00	A	2.256	0.000	0.000	157.915	0.000	3.60
		B		0.000	0.000	127.254	0.000	2.24
		C		0.000	0.000	77.694	0.000	1.58
T6	100.00-80.00	A	2.211	0.000	0.000	156.621	0.000	3.54
		B		0.000	0.000	136.028	0.000	2.35
		C		0.000	0.000	77.053	0.000	1.55
T7	80.00-60.00	A	2.156	0.000	0.000	155.036	0.000	3.46
		B		0.000	0.000	134.280	0.000	2.28
		C		0.000	0.000	76.269	0.000	1.51
T8	60.00-40.00	A	2.085	0.000	0.000	152.978	0.000	3.36
		B		0.000	0.000	131.291	0.000	2.18
		C		0.000	0.000	75.251	0.000	1.46
T9	40.00-20.00	A	1.981	0.000	0.000	149.986	0.000	3.22

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B		0.000	0.000	136.127	0.000	2.17
		C		0.000	0.000	73.772	0.000	1.39
T10	20.00-0.00	A	1.775	0.000	0.000	144.059	0.000	2.94
		B		0.000	0.000	126.676	0.000	1.88
		C		0.000	0.000	70.842	0.000	1.26

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	168.00-160.00	0.00	0.00	0.00	0.00
T1	160.00-140.00	6.69	-9.67	8.54	-10.82
T2	140.00-133.33	2.50	-4.48	4.75	-6.58
T3	133.33-126.67	2.90	-5.11	5.38	-7.41
T4	126.67-120.00	2.36	-4.26	4.53	-6.26
T5	120.00-100.00	3.25	-4.64	6.75	-7.00
T6	100.00-80.00	3.74	-4.42	8.40	-6.85
T7	80.00-60.00	4.59	-5.28	10.05	-8.08
T8	60.00-40.00	5.28	-5.99	11.52	-9.26
T9	40.00-20.00	6.03	-6.19	13.77	-9.20
T10	20.00-0.00	5.99	-6.17	13.89	-9.48

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

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	1	LDF6-50 (1 1/4" foam)	140.00 - 160.00	0.6000	0.6000
T1	2	1.5" flat Cable Ladder Rail	140.00 - 160.00	0.6000	0.6000
T1	3	HFT1206-24SVL-210(1-5/8)	140.00 - 145.00	0.6000	0.6000
T1	4	1.5" flat Cable Ladder Rail	140.00 - 145.00	0.6000	0.6000
T1	7	LDF5-50A (7/8" foam)	140.00 - 160.00	0.6000	0.6000
T1	8	Fiber Trunk	140.00 - 160.00	0.6000	0.6000
T1	9	DC Trunk	140.00 - 160.00	0.6000	0.6000
T1	12	1.5" flat Cable Ladder Rail	140.00 - 160.00	0.6000	0.6000
T1	13	1.5" flat Cable Ladder Rail	140.00 - 160.00	0.6000	0.6000
T1	15	HFT1206-24SVL-XXX(1-5/8)	140.00 - 155.00	0.6000	0.6000
T1	16	1.5" flat Cable Ladder Rail	140.00 - 155.00	0.6000	0.6000
T2	1	LDF6-50 (1 1/4" foam)	133.33 - 140.00	0.6000	0.6000
T2	2	1.5" flat Cable Ladder Rail	133.33 - 140.00	0.6000	0.6000
T2	3	HFT1206-24SVL-210(1-5/8)	133.33 - 140.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T2	4	1.5" flat Cable Ladder Rail	133.33 - 140.00	0.6000	0.6000
T2	7	LDF5-50A (7/8" foam)	133.33 - 140.00	0.6000	0.6000
T2	8	Fiber Trunk	133.33 - 140.00	0.6000	0.6000
T2	9	DC Trunk	133.33 - 140.00	0.6000	0.6000
T2	12	1.5" flat Cable Ladder Rail	133.33 - 140.00	0.6000	0.6000
T2	13	1.5" flat Cable Ladder Rail	133.33 - 140.00	0.6000	0.6000
T2	15	HFT1206-24SVL-XXX(1-5/8)	133.33 - 140.00	0.6000	0.6000
T2	16	1.5" flat Cable Ladder Rail	133.33 - 140.00	0.6000	0.6000
T3	1	LDF6-50 (1 1/4" foam)	126.67 - 133.33	0.6000	0.6000
T3	2	1.5" flat Cable Ladder Rail	126.67 - 133.33	0.6000	0.6000
T3	3	HFT1206-24SVL-210(1-5/8)	126.67 - 133.33	0.6000	0.6000
T3	4	1.5" flat Cable Ladder Rail	126.67 - 133.33	0.6000	0.6000
T3	7	LDF5-50A (7/8" foam)	126.67 - 133.33	0.6000	0.6000
T3	8	Fiber Trunk	126.67 - 133.33	0.6000	0.6000
T3	9	DC Trunk	126.67 - 133.33	0.6000	0.6000
T3	12	1.5" flat Cable Ladder Rail	126.67 - 133.33	0.6000	0.6000
T3	13	1.5" flat Cable Ladder Rail	126.67 - 133.33	0.6000	0.6000
T3	15	HFT1206-24SVL-XXX(1-5/8)	126.67 - 133.33	0.6000	0.6000
T3	16	1.5" flat Cable Ladder Rail	126.67 - 133.33	0.6000	0.6000
T4	1	LDF6-50 (1 1/4" foam)	120.00 - 126.67	0.6000	0.5325
T4	2	1.5" flat Cable Ladder Rail	120.00 - 126.67	0.6000	0.5325
T4	3	HFT1206-24SVL-210(1-5/8)	120.00 - 126.67	0.6000	0.5325
T4	4	1.5" flat Cable Ladder Rail	120.00 - 126.67	0.6000	0.5325
T4	7	LDF5-50A (7/8" foam)	120.00 - 126.67	0.6000	0.5325
T4	8	Fiber Trunk	120.00 - 126.67	0.6000	0.5325
T4	9	DC Trunk	120.00 - 126.67	0.6000	0.5325
T4	12	1.5" flat Cable Ladder Rail	120.00 - 126.67	0.6000	0.5325
T4	13	1.5" flat Cable Ladder Rail	120.00 - 126.67	0.6000	0.5325
T4	15	HFT1206-24SVL-XXX(1-5/8)	120.00 - 126.67	0.6000	0.5325
T4	16	1.5" flat Cable Ladder Rail	120.00 - 126.67	0.6000	0.5325
T5	1	LDF6-50 (1 1/4" foam)	100.00 - 120.00	0.6000	0.6000
T5	2	1.5" flat Cable Ladder Rail	100.00 - 120.00	0.6000	0.6000
T5	3	HFT1206-24SVL-210(1-5/8)	100.00 - 120.00	0.6000	0.6000
T5	4	1.5" flat Cable Ladder Rail	100.00 - 120.00	0.6000	0.6000
T5	7	LDF5-50A (7/8" foam)	100.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T5	8	Fiber Trunk	120.00 100.00 -	0.6000	0.6000
T5	9	DC Trunk	120.00 100.00 -	0.6000	0.6000
T5	10	LDF5-50A (7/8" foam)	120.00 100.00 -	0.6000	0.6000
T5	12	1.5" flat Cable Ladder Rail	120.00 100.00 -	0.6000	0.6000
T5	13	1.5" flat Cable Ladder Rail	120.00 100.00 -	0.6000	0.6000
T5	15	HFT1206-24SVL-XXX(1-5/8)	120.00 100.00 -	0.6000	0.6000
T5	16	1.5" flat Cable Ladder Rail	120.00 100.00 -	0.6000	0.6000
T6	1	LDF6-50 (1 1/4" foam)	120.00 80.00 -	0.6000	0.6000
T6	2	1.5" flat Cable Ladder Rail	100.00 80.00 -	0.6000	0.6000
T6	3	HFT1206-24SVL-210(1-5/8)	100.00 80.00 -	0.6000	0.6000
T6	4	1.5" flat Cable Ladder Rail	100.00 80.00 -	0.6000	0.6000
T6	7	LDF5-50A (7/8" foam)	100.00 80.00 -	0.6000	0.6000
T6	8	Fiber Trunk	100.00 80.00 -	0.6000	0.6000
T6	9	DC Trunk	100.00 80.00 -	0.6000	0.6000
T6	10	LDF5-50A (7/8" foam)	100.00 80.00 -	0.6000	0.6000
T6	12	1.5" flat Cable Ladder Rail	100.00 80.00 -	0.6000	0.6000
T6	13	1.5" flat Cable Ladder Rail	100.00 80.00 -	0.6000	0.6000
T6	15	HFT1206-24SVL-XXX(1-5/8)	100.00 80.00 -	0.6000	0.6000
T6	16	1.5" flat Cable Ladder Rail	100.00 80.00 -	0.6000	0.6000
T6	17	LDF5-50A (7/8" foam)	100.00 80.00 -	0.6000	0.6000
T7	1	LDF6-50 (1 1/4" foam)	99.00 60.00 -	0.6000	0.6000
T7	2	1.5" flat Cable Ladder Rail	80.00 60.00 -	0.6000	0.6000
T7	3	HFT1206-24SVL-210(1-5/8)	80.00 60.00 -	0.6000	0.6000
T7	4	1.5" flat Cable Ladder Rail	80.00 60.00 -	0.6000	0.6000
T7	7	LDF5-50A (7/8" foam)	80.00 60.00 -	0.6000	0.6000
T7	8	Fiber Trunk	80.00 60.00 -	0.6000	0.6000
T7	9	DC Trunk	80.00 60.00 -	0.6000	0.6000
T7	10	LDF5-50A (7/8" foam)	80.00 60.00 -	0.6000	0.6000
T7	12	1.5" flat Cable Ladder Rail	80.00 60.00 -	0.6000	0.6000
T7	13	1.5" flat Cable Ladder Rail	80.00 60.00 -	0.6000	0.6000
T7	15	HFT1206-24SVL-XXX(1-5/8)	80.00 60.00 -	0.6000	0.6000
T7	16	1.5" flat Cable Ladder Rail	80.00 60.00 -	0.6000	0.6000
T7	17	LDF5-50A (7/8" foam)	80.00 60.00 -	0.6000	0.6000
T8	1	LDF6-50 (1 1/4" foam)	80.00 40.00 -	0.6000	0.6000
			60.00		

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T8	2	1.5" flat Cable Ladder Rail	40.00 - 60.00	0.6000	0.6000
T8	3	HFT1206-24SVL-210(1-5/8)	40.00 - 60.00	0.6000	0.6000
T8	4	1.5" flat Cable Ladder Rail	40.00 - 60.00	0.6000	0.6000
T8	7	LDF5-50A (7/8" foam)	40.00 - 60.00	0.6000	0.6000
T8	8	Fiber Trunk	40.00 - 60.00	0.6000	0.6000
T8	9	DC Trunk	40.00 - 60.00	0.6000	0.6000
T8	10	LDF5-50A (7/8" foam)	40.00 - 60.00	0.6000	0.6000
T8	12	1.5" flat Cable Ladder Rail	40.00 - 60.00	0.6000	0.6000
T8	13	1.5" flat Cable Ladder Rail	40.00 - 60.00	0.6000	0.6000
T8	15	HFT1206-24SVL-XXX(1-5/8)	40.00 - 60.00	0.6000	0.6000
T8	16	1.5" flat Cable Ladder Rail	40.00 - 60.00	0.6000	0.6000
T8	17	LDF5-50A (7/8" foam)	40.00 - 60.00	0.6000	0.6000
T9	1	LDF6-50 (1 1/4" foam)	20.00 - 40.00	0.6000	0.6000
T9	2	1.5" flat Cable Ladder Rail	20.00 - 40.00	0.6000	0.6000
T9	3	HFT1206-24SVL-210(1-5/8)	20.00 - 40.00	0.6000	0.6000
T9	4	1.5" flat Cable Ladder Rail	20.00 - 40.00	0.6000	0.6000
T9	7	LDF5-50A (7/8" foam)	20.00 - 40.00	0.6000	0.6000
T9	8	Fiber Trunk	20.00 - 40.00	0.6000	0.6000
T9	9	DC Trunk	20.00 - 40.00	0.6000	0.6000
T9	10	LDF5-50A (7/8" foam)	20.00 - 40.00	0.6000	0.6000
T9	11	LDF4-50A (1/2" foam)	20.00 - 40.00	0.6000	0.6000
T9	12	1.5" flat Cable Ladder Rail	20.00 - 40.00	0.6000	0.6000
T9	13	1.5" flat Cable Ladder Rail	20.00 - 40.00	0.6000	0.6000
T9	15	HFT1206-24SVL-XXX(1-5/8)	20.00 - 40.00	0.6000	0.6000
T9	16	1.5" flat Cable Ladder Rail	20.00 - 40.00	0.6000	0.6000
T9	17	LDF5-50A (7/8" foam)	20.00 - 40.00	0.6000	0.6000
T10	1	LDF6-50 (1 1/4" foam)	0.00 - 20.00	0.6000	0.6000
T10	2	1.5" flat Cable Ladder Rail	0.00 - 20.00	0.6000	0.6000
T10	3	HFT1206-24SVL-210(1-5/8)	0.00 - 20.00	0.6000	0.6000
T10	4	1.5" flat Cable Ladder Rail	0.00 - 20.00	0.6000	0.6000
T10	7	LDF5-50A (7/8" foam)	0.00 - 20.00	0.6000	0.6000
T10	8	Fiber Trunk	0.00 - 20.00	0.6000	0.6000
T10	9	DC Trunk	0.00 - 20.00	0.6000	0.6000
T10	10	LDF5-50A (7/8" foam)	0.00 - 20.00	0.6000	0.6000
T10	11	LDF4-50A (1/2" foam)	0.00 - 20.00	0.6000	0.6000
T10	12	1.5" flat Cable Ladder Rail	0.00 - 20.00	0.6000	0.6000
T10	13	1.5" flat Cable Ladder Rail	0.00 - 20.00	0.6000	0.6000
T10	15	HFT1206-24SVL-XXX(1-5/8)	0.00 - 20.00	0.6000	0.6000
T10	16	1.5" flat Cable Ladder Rail	0.00 - 20.00	0.6000	0.6000
T10	17	LDF5-50A (7/8" foam)	0.00 - 20.00	0.6000	0.6000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment ° °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
******									
15 ft x 2" omni whip	A	From Leg	1.00 0 5	0.000	160.00	No Ice 1/2" Ice 1" Ice	3.00 4.53 6.07	3.00 4.53 6.07	0.03 0.05 0.09
Side Arm Mount [SO 302-1]	A	From Leg	3.00 0 0	0.000	160.00	No Ice 1/2" Ice 1" Ice	0.81 1.30 1.81	3.31 5.00 6.80	0.06 0.08 0.12
*******									
RADIO 4449 B5/B12	A	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	1.30 1.45 1.60	0.07 0.09 0.11
RADIO 4449 B5/B12	B	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	1.30 1.45 1.60	0.07 0.09 0.11
RADIO 4449 B5/B12	C	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	1.30 1.45 1.60	0.07 0.09 0.11
RADIO 8843 B2/B66A	A	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	1.38 1.53 1.69	0.08 0.09 0.11
RADIO 8843 B2/B66A	B	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	1.38 1.53 1.69	0.08 0.09 0.11
RADIO 8843 B2/B66A	C	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	1.64 1.80 1.97	1.38 1.53 1.69	0.08 0.09 0.11
80010964_TIA w/ Mount Pipe	A	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	10.23 10.74 11.24	5.51 6.37 7.12	0.12 0.19 0.27
80010965_TIA w/ Mount Pipe	B	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	14.05 14.69 15.30	7.63 8.90 9.96	0.14 0.23 0.34
80010965_TIA w/ Mount Pipe	C	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	14.05 14.69 15.30	7.63 8.90 9.96	0.14 0.23 0.34
RRUS 32 B30	A	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	2.74 2.96 3.19	1.67 1.86 2.05	0.05 0.07 0.10
RRUS 32 B30	B	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	2.74 2.96 3.19	1.67 1.86 2.05	0.05 0.07 0.10
RRUS 32 B30	C	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice Ice	2.74 2.96 3.19	1.67 1.86 2.05	0.05 0.07 0.10

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice			
DC6-48-60-18-8C	C	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	2.74 2.96 3.20	2.74 2.96 3.20	0.03 0.05 0.08
QS66512-2 w/ Mount Pipe	A	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	4.04 4.42 4.82	4.18 4.57 4.97	0.14 0.21 0.29
QS66512-2 w/ Mount Pipe	B	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	4.04 4.42 4.82	4.18 4.57 4.97	0.14 0.21 0.29
QS66512-2 w/ Mount Pipe	C	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	4.04 4.42 4.82	4.18 4.57 4.97	0.14 0.21 0.29
DC6-48-60-18-8F	A	From Leg	4.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	1.21 1.89 2.11	1.21 1.89 2.11	0.03 0.05 0.08
T-Arm Mount [TA 701-3]	C	From Centroid-Face	2.00 0 0	0.000	169.00	No Ice 1/2" Ice 1" Ice	23.94 30.04 36.16	23.94 30.04 36.16	1.09 1.48 1.95
********									
LNX-6513DS-A1M_TIA w/ Mount Pipe	A	From Leg	4.00 0 2	0.000	155.00	No Ice 1/2" Ice 1" Ice	6.08 6.52 6.95	5.16 5.92 6.62	0.06 0.12 0.18
LNX-6513DS-A1M_TIA w/ Mount Pipe	B	From Leg	4.00 0 2	0.000	155.00	No Ice 1/2" Ice 1" Ice	6.08 6.52 6.95	5.16 5.92 6.62	0.06 0.12 0.18
LNX-6513DS-A1M_TIA w/ Mount Pipe	C	From Leg	4.00 0 2	0.000	155.00	No Ice 1/2" Ice 1" Ice	6.08 6.52 6.95	5.16 5.92 6.62	0.06 0.12 0.18
VZS01	A	From Leg	4.00 0 2	0.000	155.00	No Ice 1/2" Ice 1" Ice	5.02 5.50 5.98	3.87 4.45 5.03	0.12 0.16 0.22
VZS01	B	From Leg	4.00 0 2	0.000	155.00	No Ice 1/2" Ice 1" Ice	5.02 5.50 5.98	3.87 4.45 5.03	0.12 0.16 0.22
VZS01	C	From Leg	4.00 0 2	0.000	155.00	No Ice 1/2" Ice 1" Ice	5.02 5.50 5.98	3.87 4.45 5.03	0.12 0.16 0.22
(2) NNHH-65B-R4_TIA w/ Mount Pipe	A	From Leg	4.00 0 3	0.000	155.00	No Ice 1/2" Ice 1" Ice	12.51 13.11 13.67	7.41 8.60 9.50	0.10 0.19 0.29
(2) NNHH-65B-R4_TIA w/ Mount Pipe	B	From Leg	4.00 0 3	0.000	155.00	No Ice 1/2" Ice 1" Ice	12.51 13.11 13.67	7.41 8.60 9.50	0.10 0.19 0.29
(2) NNHH-65B-R4_TIA w/ Mount Pipe	C	From Leg	4.00 0 3	0.000	155.00	No Ice 1/2" Ice 1" Ice	12.51 13.11 13.67	7.41 8.60 9.50	0.10 0.19 0.29
B5/B13 RRH	A	From Leg	4.00 0 3	0.000	155.00	No Ice 1/2" Ice	1.88 2.05 2.22	1.01 1.14 1.28	0.07 0.09 0.11

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice			
B5/B13 RRH	B	From Leg	4.00 0 3	0.000	155.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	0.07 0.09 0.11
B5/B13 RRH	C	From Leg	4.00 0 3	0.000	155.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	0.07 0.09 0.11
B2/B66A RRH	A	From Leg	4.00 0 3	0.000	155.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	0.07 0.09 0.11
B2/B66A RRH	B	From Leg	4.00 0 3	0.000	155.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	0.07 0.09 0.11
B2/B66A RRH	C	From Leg	4.00 0 3	0.000	155.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	0.07 0.09 0.11
OVP	B	From Leg	4.00 0 0	0.000	155.00	No Ice 1/2" Ice 1" Ice	3.79 4.04 4.30	2.51 2.73 2.95	0.03 0.06 0.10
OVP	C	From Leg	4.00 0 0	0.000	155.00	No Ice 1/2" Ice 1" Ice	3.79 4.04 4.30	2.51 2.73 2.95	0.03 0.06 0.10
VFA-12	C	None		0.000	155.00	No Ice 1/2" Ice 1" Ice	33.64 48.17 62.70	33.64 48.17 62.70	1.69 2.26 2.82
********									
(2) TMA (10" x 8" x 3")	A	From Leg	4.00 0 0	0.000	145.00	No Ice 1/2" Ice 1" Ice	0.67 0.77 0.88	0.33 0.41 0.50	0.02 0.03 0.03
(2) TMA (10" x 8" x 3")	B	From Leg	4.00 0 0	0.000	145.00	No Ice 1/2" Ice 1" Ice	0.67 0.77 0.88	0.33 0.41 0.50	0.02 0.03 0.03
(2) TMA (10" x 8" x 3")	C	From Leg	4.00 0 0	0.000	145.00	No Ice 1/2" Ice 1" Ice	0.67 0.77 0.88	0.33 0.41 0.50	0.02 0.03 0.03
Celwave APX16DWV-16DWV-S-E-A20 w/Mount Pipe	A	From Leg	4.00 0 0	0.000	145.00	No Ice 1/2" Ice 1" Ice	6.67 7.06 7.47	3.34 3.99 4.64	0.06 0.11 0.16
Celwave APX16DWV-16DWV-S-E-A20 w/Mount Pipe	B	From Leg	4.00 0 0	0.000	145.00	No Ice 1/2" Ice 1" Ice	6.67 7.06 7.47	3.34 3.99 4.64	0.06 0.11 0.16
Celwave APX16DWV-16DWV-S-E-A20 w/Mount Pipe	C	From Leg	4.00 0 0	0.000	145.00	No Ice 1/2" Ice 1" Ice	6.67 7.06 7.47	3.34 3.99 4.64	0.06 0.11 0.16
LNX-6515DS-A1M_TIA w/ Mount Pipe	A	From Leg	4.00 0 0	0.000	145.00	No Ice 1/2" Ice 1" Ice	11.68 12.40 13.14	9.84 11.37 12.91	0.09 0.18 0.28
LNX-6515DS-A1M_TIA w/ Mount Pipe	B	From Leg	4.00 0 0	0.000	145.00	No Ice 1/2" Ice	11.68 12.40 13.14	9.84 11.37 12.91	0.09 0.18 0.28

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
						1" Ice			
LNX-6515DS-A1M_TIA w/ Mount Pipe	C	From Leg	4.00 0 0	0.000	145.00	No Ice 1/2" Ice 1" Ice	11.68 12.40 13.14	9.84 11.37 12.91	0.09 0.18 0.28
Sector Mount [SM 408-3]	C	None		0.000	145.00	No Ice 1/2" Ice 1" Ice	22.38 33.31 44.35	22.38 33.31 44.35	1.02 1.46 2.06
********									
15 ft x 2" omni whip	C	From Leg	6.00 0 10	0.000	118.00	No Ice 1/2" Ice 1" Ice	3.00 4.53 6.07	3.00 4.53 6.07	0.03 0.05 0.09
Side Arm Mount [SO 302-1]	C	From Leg	3.00 0 0	0.000	118.00	No Ice 1/2" Ice 1" Ice	0.81 1.30 1.81	3.31 5.00 6.80	0.06 0.08 0.12
*****									
16 ft x 2" omni whip	C	From Leg	6.00 0 9	0.000	99.00	No Ice 1/2" Ice 1" Ice	3.20 4.83 6.47	3.20 4.83 6.47	0.03 0.06 0.09
Side Arm Mount [SO 302-1]	C	From Leg	3.00 0 0	0.000	99.00	No Ice 1/2" Ice 1" Ice	0.81 1.30 1.81	3.31 5.00 6.80	0.06 0.08 0.12
******									
Side Arm Mount [SO 302-1]	A	From Leg	3.00 0 0	0.000	47.00	No Ice 1/2" Ice 1" Ice	0.81 1.30 1.81	3.31 5.00 6.80	0.06 0.08 0.12
******									
12 ft x 2" omni whip	C	From Leg	6.00 0 8	0.000	38.00	No Ice 1/2" Ice 1" Ice	2.40 3.63 4.87	2.40 3.63 4.87	0.02 0.04 0.07
Side Arm Mount [SO 302-1]	C	From Leg	3.00 0 0	0.000	38.00	No Ice 1/2" Ice 1" Ice	0.81 1.30 1.81	3.31 5.00 6.80	0.06 0.08 0.12

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice
8	1.2 Dead+1.6 Wind 90 deg - No Ice
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice
13	0.9 Dead+1.6 Wind 150 deg - No Ice

Comb. No.	Description
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	18	211.63	21.16	-12.27
	Max. H_x	18	211.63	21.16	-12.27
	Max. H_z	7	-171.33	-17.93	10.41
	Min. Vert	7	-171.33	-17.93	10.41
	Min. H_x	7	-171.33	-17.93	10.41
	Min. H_z	18	211.63	21.16	-12.27
Leg B	Max. Vert	10	224.97	-23.13	-13.05
	Max. H_x	23	-188.42	19.96	11.26
	Max. H_z	23	-188.42	19.96	11.26
	Min. Vert	23	-188.42	19.96	11.26
	Min. H_x	10	224.97	-23.13	-13.05
	Min. H_z	10	224.97	-23.13	-13.05
Leg A	Max. Vert	2	213.80	0.16	25.05
	Max. H_x	21	11.09	3.25	0.90
	Max. H_z	2	213.80	0.16	25.05
	Min. Vert	15	-177.48	-0.20	-21.41
	Min. H_x	8	13.90	-3.29	1.11
	Min. H_z	15	-177.48	-0.20	-21.41

Tower Mast Reaction Summary

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead Only	37.69	0.00	0.00	13	20	0
1.2 Dead+1.6 Wind 0 deg - No Ice	45.23	-0.08	-40.62	-3935	32	7
0.9 Dead+1.6 Wind 0 deg - No Ice	33.92	-0.08	-40.62	-3933	26	7
1.2 Dead+1.6 Wind 30 deg - No Ice	45.23	17.75	-30.73	-3043	-1748	21
0.9 Dead+1.6 Wind 30 deg - No Ice	33.92	17.75	-30.73	-3043	-1751	21
1.2 Dead+1.6 Wind 60 deg - No Ice	45.23	31.83	-18.27	-1795	-3137	-2
0.9 Dead+1.6 Wind 60 deg - No Ice	33.92	31.83	-18.27	-1796	-3139	-2
1.2 Dead+1.6 Wind 90 deg - No Ice	45.23	38.64	0.08	23	-3775	-10
0.9 Dead+1.6 Wind 90 deg - No Ice	33.92	38.64	0.08	19	-3775	-10
1.2 Dead+1.6 Wind 120 deg - No Ice	45.23	37.46	21.61	2096	-3589	10
0.9 Dead+1.6 Wind 120 deg - No Ice	33.92	37.46	21.61	2089	-3590	10
1.2 Dead+1.6 Wind 150 deg - No Ice	45.23	19.84	34.18	3354	-1918	15
0.9 Dead+1.6 Wind 150 deg - No Ice	33.92	19.84	34.18	3345	-1921	15
1.2 Dead+1.6 Wind 180 deg - No Ice	45.23	0.08	37.82	3748	17	-7
0.9 Dead+1.6 Wind 180 deg - No Ice	33.92	0.08	37.82	3738	11	-7
1.2 Dead+1.6 Wind 210 deg - No Ice	45.23	-17.75	30.73	3075	1797	-21
0.9 Dead+1.6 Wind 210 deg - No Ice	33.92	-17.75	30.73	3067	1788	-21
1.2 Dead+1.6 Wind 240 deg - No Ice	45.23	-34.25	19.67	1936	3376	2
0.9 Dead+1.6 Wind 240 deg - No Ice	33.92	-34.25	19.67	1929	3365	2
1.2 Dead+1.6 Wind 270 deg - No Ice	45.23	-38.64	-0.08	8	3824	10
0.9 Dead+1.6 Wind 270 deg - No Ice	33.92	-38.64	-0.08	4	3812	10
1.2 Dead+1.6 Wind 300 deg - No Ice	45.23	-35.03	-20.21	-1955	3448	-10
0.9 Dead+1.6 Wind 300 deg - No Ice	33.92	-35.03	-20.21	-1956	3437	-10
1.2 Dead+1.6 Wind 330 deg - No Ice	45.23	-19.84	-34.18	-3322	1967	-15
0.9 Dead+1.6 Wind 330 deg - No Ice	33.92	-19.84	-34.18	-3322	1958	-15
1.2 Dead+1.0 Ice+1.0 Temp	159.44	0.00	-0.00	9	15	0
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	159.44	-0.05	-13.40	-1341	20	5
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	159.44	6.14	-10.66	-1082	-615	6
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	159.44	11.05	-6.33	-636	-1113	-2
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	159.44	12.97	0.05	14	-1304	-5
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	159.44	11.98	6.93	703	-1189	-2
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	159.44	6.53	11.24	1146	-648	0
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	159.44	0.05	13.03	1331	10	-5
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	159.44	-6.14	10.66	1100	645	-6
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	159.44	-11.38	6.52	669	1168	2
1.2 Dead+1.0 Wind 270	159.44	-12.97	-0.05	4	1333	5

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
deg+1.0 Ice+1.0 Temp						
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	159.44	-11.65	-6.74	-671	1193	2
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	159.44	-6.53	-11.24	-1128	677	0
Dead+Wind 0 deg - Service	37.69	-0.02	-9.72	-932	22	2
Dead+Wind 30 deg - Service	37.69	4.25	-7.36	-719	-404	5
Dead+Wind 60 deg - Service	37.69	7.62	-4.37	-420	-736	0
Dead+Wind 90 deg - Service	37.69	9.25	0.02	15	-889	-2
Dead+Wind 120 deg - Service	37.69	8.97	5.17	511	-844	2
Dead+Wind 150 deg - Service	37.69	4.75	8.18	812	-444	4
Dead+Wind 180 deg - Service	37.69	0.02	9.05	906	19	-2
Dead+Wind 210 deg - Service	37.69	-4.25	7.36	746	445	-5
Dead+Wind 240 deg - Service	37.69	-8.20	4.71	473	823	0
Dead+Wind 270 deg - Service	37.69	-9.25	-0.02	11	930	2
Dead+Wind 300 deg - Service	37.69	-8.39	-4.84	-458	840	-2
Dead+Wind 330 deg - Service	37.69	-4.75	-8.18	-786	485	-4

Solution Summary

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
1	0.00	-37.69	0.00	0.00	37.69	0.00	0.000%
2	-0.08	-45.23	-40.62	0.08	45.23	40.62	0.000%
3	-0.08	-33.92	-40.62	0.08	33.92	40.62	0.000%
4	17.75	-45.23	-30.73	-17.75	45.23	30.73	0.000%
5	17.75	-33.92	-30.73	-17.75	33.92	30.73	0.000%
6	31.83	-45.23	-18.27	-31.83	45.23	18.27	0.000%
7	31.83	-33.92	-18.27	-31.83	33.92	18.27	0.000%
8	38.64	-45.23	0.08	-38.64	45.23	-0.08	0.000%
9	38.64	-33.92	0.08	-38.64	33.92	-0.08	0.000%
10	37.46	-45.23	21.61	-37.46	45.23	-21.61	0.000%
11	37.46	-33.92	21.61	-37.46	33.92	-21.61	0.000%
12	19.84	-45.23	34.18	-19.84	45.23	-34.18	0.000%
13	19.84	-33.92	34.18	-19.84	33.92	-34.18	0.000%
14	0.08	-45.23	37.82	-0.08	45.23	-37.82	0.000%
15	0.08	-33.92	37.82	-0.08	33.92	-37.82	0.000%
16	-17.75	-45.23	30.73	17.75	45.23	-30.73	0.000%
17	-17.75	-33.92	30.73	17.75	33.92	-30.73	0.000%
18	-34.25	-45.23	19.67	34.25	45.23	-19.67	0.000%
19	-34.25	-33.92	19.67	34.25	33.92	-19.67	0.000%
20	-38.64	-45.23	-0.08	38.64	45.23	0.08	0.000%
21	-38.64	-33.92	-0.08	38.64	33.92	0.08	0.000%
22	-35.03	-45.23	-20.21	35.03	45.23	20.21	0.000%
23	-35.03	-33.92	-20.21	35.03	33.92	20.21	0.000%
24	-19.84	-45.23	-34.18	19.84	45.23	34.18	0.000%
25	-19.84	-33.92	-34.18	19.84	33.92	34.18	0.000%
26	0.00	-159.44	0.00	0.00	159.44	0.00	0.000%
27	-0.05	-159.44	-13.40	0.05	159.44	13.40	0.000%
28	6.14	-159.44	-10.66	-6.14	159.44	10.66	0.000%
29	11.05	-159.44	-6.33	-11.05	159.44	6.33	0.000%
30	12.97	-159.44	0.05	-12.97	159.44	-0.05	0.000%
31	11.98	-159.44	6.93	-11.98	159.44	-6.93	0.000%
32	6.53	-159.44	11.24	-6.53	159.44	-11.24	0.000%
33	0.05	-159.44	13.03	-0.05	159.44	-13.03	0.000%
34	-6.14	-159.44	10.66	6.14	159.44	-10.66	0.000%
35	-11.38	-159.44	6.52	11.38	159.44	-6.52	0.000%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
36	-12.97	-159.44	-0.05	12.97	159.44	0.05	0.000%
37	-11.65	-159.44	-6.74	11.65	159.44	6.74	0.000%
38	-6.53	-159.44	-11.24	6.53	159.44	11.24	0.000%
39	-0.02	-37.69	-9.72	0.02	37.69	9.72	0.000%
40	4.25	-37.69	-7.36	-4.25	37.69	7.36	0.000%
41	7.62	-37.69	-4.37	-7.62	37.69	4.37	0.000%
42	9.25	-37.69	0.02	-9.25	37.69	-0.02	0.000%
43	8.97	-37.69	5.17	-8.97	37.69	-5.17	0.000%
44	4.75	-37.69	8.18	-4.75	37.69	-8.18	0.000%
45	0.02	-37.69	9.05	-0.02	37.69	-9.05	0.000%
46	-4.25	-37.69	7.36	4.25	37.69	-7.36	0.000%
47	-8.20	-37.69	4.71	8.20	37.69	-4.71	0.000%
48	-9.25	-37.69	-0.02	9.25	37.69	0.02	0.000%
49	-8.39	-37.69	-4.84	8.39	37.69	4.84	0.000%
50	-4.75	-37.69	-8.18	4.75	37.69	8.18	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	4	0.00000001	0.00000161
3	Yes	4	0.00000001	0.00000146
4	Yes	4	0.00000001	0.00000968
5	Yes	4	0.00000001	0.00000570
6	Yes	4	0.00000001	0.00000864
7	Yes	4	0.00000001	0.00000518
8	Yes	4	0.00000001	0.00001015
9	Yes	4	0.00000001	0.00000582
10	Yes	4	0.00000001	0.00001451
11	Yes	4	0.00000001	0.00000827
12	Yes	4	0.00000001	0.00001045
13	Yes	4	0.00000001	0.00000617
14	Yes	4	0.00000001	0.00000379
15	Yes	4	0.00000001	0.00000312
16	Yes	4	0.00000001	0.00000898
17	Yes	4	0.00000001	0.00000532
18	Yes	4	0.00000001	0.00001090
19	Yes	4	0.00000001	0.00000622
20	Yes	4	0.00000001	0.00001015
21	Yes	4	0.00000001	0.00000583
22	Yes	4	0.00000001	0.00001156
23	Yes	4	0.00000001	0.00000675
24	Yes	4	0.00000001	0.00001116
25	Yes	4	0.00000001	0.00000656
26	Yes	4	0.00000001	0.00000556
27	Yes	4	0.00000001	0.00003139
28	Yes	4	0.00000001	0.00003424
29	Yes	4	0.00000001	0.00003723
30	Yes	4	0.00000001	0.00004052
31	Yes	4	0.00000001	0.00004474
32	Yes	4	0.00000001	0.00004164
33	Yes	4	0.00000001	0.00003817
34	Yes	4	0.00000001	0.00004325
35	Yes	4	0.00000001	0.00004410
36	Yes	4	0.00000001	0.00004171
37	Yes	4	0.00000001	0.00003974
38	Yes	4	0.00000001	0.00003462
39	Yes	4	0.00000001	0.00000001
40	Yes	4	0.00000001	0.00000001
41	Yes	4	0.00000001	0.00000001
42	Yes	4	0.00000001	0.00000001
43	Yes	4	0.00000001	0.00000001
44	Yes	4	0.00000001	0.00000001
45	Yes	4	0.00000001	0.00000001

46	Yes	4	0.00000001	0.00000001
47	Yes	4	0.00000001	0.00000001
48	Yes	4	0.00000001	0.00000001
49	Yes	4	0.00000001	0.00000001
50	Yes	4	0.00000001	0.00000001

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	168 - 160	4.37	43	0.489	0.042
T1	160 - 140	3.71	43	0.220	0.013
T2	140 - 133.333	2.78	43	0.206	0.011
T3	133.333 - 126.667	2.49	43	0.195	0.011
T4	126.667 - 120	2.22	43	0.182	0.010
T5	120 - 100	1.97	43	0.167	0.009
T6	100 - 80	1.32	43	0.128	0.007
T7	80 - 60	0.83	43	0.093	0.005
T8	60 - 40	0.48	43	0.065	0.004
T9	40 - 20	0.23	43	0.044	0.002
T10	20 - 1e-006	0.07	43	0.021	0.001

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
169.00	RADIO 4449 B5/B12	43	4.37	0.489	0.042	3746
160.00	15 ft x 2" omni whip	43	3.71	0.220	0.013	2741
155.00	LNX-6513DS-A1M_TIA w/ Mount Pipe	43	3.40	0.185	0.010	3461
145.00	(2) TMA (10" x 8" x 3")	43	2.97	0.190	0.011	161495
118.00	15 ft x 2" omni whip	43	1.89	0.163	0.009	25287
99.00	16 ft x 2" omni whip	43	1.29	0.126	0.007	32917
47.00	Side Arm Mount [SO 302-1]	43	0.31	0.051	0.003	55365
38.00	12 ft x 2" omni whip	43	0.21	0.042	0.002	56069

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	168 - 160	18.18	10	1.746	0.175
T1	160 - 140	15.56	10	0.918	0.054
T2	140 - 133.333	11.68	10	0.862	0.048
T3	133.333 - 126.667	10.47	10	0.817	0.044
T4	126.667 - 120	9.34	10	0.765	0.041
T5	120 - 100	8.27	10	0.704	0.038
T6	100 - 80	5.56	10	0.538	0.029
T7	80 - 60	3.49	10	0.390	0.021
T8	60 - 40	2.01	10	0.275	0.015
T9	40 - 20	0.96	10	0.185	0.010
T10	20 - 1e-006	0.28	10	0.090	0.005

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
169.00	RADIO 4449 B5/B12	10	18.18	1.746	0.175	1152
160.00	15 ft x 2" omni whip	10	15.56	0.918	0.054	843
155.00	LNX-6513DS-A1M_TIA w/ Mount Pipe	10	14.32	0.716	0.040	1060
145.00	(2) TMA (10" x 8" x 3")	10	12.51	0.794	0.044	51239
118.00	15 ft x 2" omni whip	10	7.97	0.685	0.037	6144
99.00	16 ft x 2" omni whip	10	5.44	0.531	0.028	7812
47.00	Side Arm Mount [SO 302-1]	10	1.28	0.216	0.012	13141
38.00	12 ft x 2" omni whip	10	0.87	0.176	0.009	13305

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load per Bolt K	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	160	Leg	A325N	0.63	4	4.59	20.71	0.221 ✔	1	Bolt Tension
		Diagonal	A325N	0.63	1	4.38	5.81	0.753 ✔	1	Member Block Shear
		Top Girt	A325N	0.63	1	1.51	7.83	0.193 ✔	1	Member Bearing
T2	140	Diagonal	A325N	0.63	1	4.03	6.83	0.590 ✔	1	Member Block Shear
T3	133.333	Diagonal	A325N	0.63	1	4.20	6.83	0.614 ✔	1	Member Block Shear
T4	126.667	Leg	A325N	0.63	4	10.72	20.71	0.517 ✔	1	Bolt Tension
		Diagonal	A325N	0.63	1	4.19	10.44	0.401 ✔	1	Gusset Bearing
		Secondary Horizontal	A325N	0.63	1	0.91	10.44	0.087 ✔	1	Gusset Bearing
		Top Girt	A325N	0.63	1	0.61	7.83	0.078 ✔	1	Member Bearing
T5	120	Leg	A325N	0.75	4	16.88	29.82	0.566 ✔	1	Bolt Tension
		Diagonal	A325N	0.63	1	4.77	7.83	0.610 ✔	1	Member Bearing
T6	100	Leg	A325N	0.88	4	23.01	40.59	0.567 ✔	1	Bolt Tension
		Diagonal	A325N	0.63	1	5.49	7.83	0.701 ✔	1	Member Bearing
T7	80	Leg	A325N	1.00	4	28.51	53.01	0.538 ✔	1	Bolt Tension
		Diagonal	A325N	0.63	1	6.43	10.44	0.616 ✔	1	Member Bearing
T8	60	Leg	A325N	1.00	4	34.54	53.01	0.651 ✔	1	Bolt Tension
		Diagonal	A325N	0.63	1	7.08	10.44	0.678 ✔	1	Gusset Bearing
T9	40	Leg	A325N	1.00	6	26.82	53.01	0.506 ✔	1	Bolt Tension
		Diagonal	A325N	0.63	1	7.27	10.44	0.697 ✔	1	Gusset Bearing
T10	20	Diagonal	A325N	0.63	1	8.11	10.44	0.776 ✔	1	Member Bearing

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	168 - 160 (1)	Pipe 8.625" x 0.322" (8 STD)	8.00	0.00	0.0	8.40	-3.29	377.97	0.009
T1	160 - 140 (197)	Pipe 8.625" x 0.322" (8 STD)	8.00	0.00	32.7 K=1.00	8.40	-3.45	349.58	0.010

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	168 - 160 (1)	Pipe 8.625" x 0.322" (8 STD)	28	83	0.337	0	83	0.000
T1	160 - 140 (197)	Pipe 8.625" x 0.322" (8 STD)	28	83	0.337	0	83	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	168 - 160 (1)	Pipe 8.625" x 0.322" (8 STD)	2.88	188.98	0.015	0	126	0.003
T1	160 - 140 (197)	Pipe 8.625" x 0.322" (8 STD)	3.51	188.98	0.019	0	126	0.003

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	168 - 160 (1)	0.009	0.337	0.000	0.015	0.003	0.346 ✔	1.000	4.8.2 ✔
T1	160 - 140 (197)	0.010	0.337	0.000	0.019	0.003	0.347 ✔	1.000	4.8.2 ✔

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	160 - 140	Pipe 2.875" x 0.203" (2.5 STD)	20.00	5.00	63.3 K=1.00	1.70	-25.56	57.19	0.447 [1]
T2	140 - 133.333	Pipe 2.875" x 0.203" (2.5 STD)	6.68	6.68	84.6 K=1.00	1.70	-34.62	45.45	0.762 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T3	133.333 - 126.667	Pipe 2.875" x 0.203" (2.5 STD)	6.68	6.68	84.6 K=1.00	1.70	-43.62	45.45	0.960 [1]
T4	126.667 - 120	Pipe 2.875" x 0.203" (2.5 STD)	6.68	3.45	43.7 K=1.00	1.70	-52.24	66.71	0.783 [1]
T5	120 - 100	Pipe 2.875" x 0.276" (2.5 XS)	20.03	3.43	44.6 K=1.00	2.25	-80.22	87.71	0.915 [1]
T6	100 - 80	Pipe 3.5" x 0.300" (3 XS)	20.03	3.42	36.1 K=1.00	3.02	-108.53	123.39	0.880 [1]
T7	80 - 60	Pipe 4.5" x 0.337" (4 XS)	20.04	5.17	42.0 K=1.00	4.41	-134.64	174.33	0.772 [1]
T8	60 - 40	Pipe 5.563" x 0.375" (5 XS)	20.03	10.02	65.4 K=1.00	6.11	-163.31	201.25	0.811 [1]
T9	40 - 20	Pipe 5.563" x 0.375" (5 XS)	20.04	10.02	65.4 K=1.00	6.11	-190.90	201.23	0.949 [1]
T10	20 - 1e-006	Pipe 6.625" x 0.340" (6 EHS)	20.03	10.02	54.0 K=1.00	6.71	-217.96	244.06	0.893 [1]

[1] P_u / ϕP_n controls

Leg Bending Design Data (Compression)

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
T1	160 - 140	Pipe 2.875" x 0.203" (2.5 STD)	0	5	0.000	0	5	0.000
T2	140 - 133.333	Pipe 2.875" x 0.203" (2.5 STD)	0	5	0.000	0	5	0.000
T3	133.333 - 126.667	Pipe 2.875" x 0.203" (2.5 STD)	0	5	0.000	0	5	0.000
T4	126.667 - 120	Pipe 2.875" x 0.203" (2.5 STD)	0	5	0.000	0	5	0.000
T5	120 - 100	Pipe 2.875" x 0.276" (2.5 XS)	0	7	0.000	0	7	0.000
T6	100 - 80	Pipe 3.5" x 0.300" (3 XS)	0	12	0.000	0	12	0.000
T7	80 - 60	Pipe 4.5" x 0.337" (4 XS)	0	22	0.000	0	22	0.000
T8	60 - 40	Pipe 5.563" x 0.375" (5 XS)	0	38	0.000	0	38	0.000
T9	40 - 20	Pipe 5.563" x 0.375" (5 XS)	0	38	0.000	0	38	0.000
T10	20 - 1e-006	Pipe 6.625" x 0.340" (6 EHS)	0	50	0.000	0	50	0.000

Leg Interaction Design Data (Compression)

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T1	160 - 140	Pipe 2.875" x 0.203" (2.5 STD)	0.447	0.000	0.000	0.447 [1] ✔	1.000	4.8.1 ✔
T2	140 - 133.333	Pipe 2.875" x 0.203" (2.5 STD)	0.762	0.000	0.000	0.762 [1] ✔	1.000	4.8.1 ✔
T3	133.333 - 126.667	Pipe 2.875" x 0.203" (2.5 STD)	0.960	0.000	0.000	0.960 [1] ✔	1.000	4.8.1 ✔
T4	126.667 - 120	Pipe 2.875" x 0.203" (2.5 STD)	0.783	0.000	0.000	0.783 [1] ✔	1.000	4.8.1 ✔
T5	120 - 100	Pipe 2.875" x 0.276" (2.5 XS)	0.915	0.000	0.000	0.915 [1] ✔	1.000	4.8.1 ✔

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T6	100 - 80	Pipe 3.5" x 0.300" (3 XS)	0.880	0.000	0.000	0.880 [1] ✔	1.000	4.8.1 ✔
T7	80 - 60	Pipe 4.5" x 0.337" (4 XS)	0.772	0.000	0.000	0.772 [1] ✔	1.000	4.8.1 ✔
T8	60 - 40	Pipe 5.563" x 0.375" (5 XS)	0.811	0.000	0.000	0.811 [1] ✔	1.000	4.8.1 ✔
T9	40 - 20	Pipe 5.563" x 0.375" (5 XS)	0.949	0.000	0.000	0.949 [1] ✔	1.000	4.8.1 ✔
T10	20 - 1e-006	Pipe 6.625" x 0.340" (6 EHS)	0.893	0.000	0.000	0.893 [1] ✔	1.000	4.8.1 ✔

[1] P_u / ϕP_n controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	160 - 140	L 1.75 x 1.75 x 3/16	9.99	4.74	165.5 K=1.00	0.62	-4.55	5.13	0.888 [1] ✔
T2	140 - 133.333	L 2 x 2 x 3/16	11.19	5.53	168.5 K=1.00	0.71	-4.16	5.69	0.730 [1] ✔
T3	133.333 - 126.667	L 2 x 2 x 3/16	11.73	5.80	176.7 K=1.00	0.71	-4.19	5.17	0.810 [1] ✔
T4	126.667 - 120	L 2.5 x 2.5 x 3/16	12.28	6.20	150.2 K=1.00	0.90	-4.62	9.03	0.512 [1] ✔
T5	120 - 100	L 2.5 x 2.5 x 3/16	14.03	7.07	171.5 K=1.00	0.90	-4.97	6.93	0.717 [1] ✔
T6	100 - 80	L 3 x 3 x 3/16	15.84	7.94	159.8 K=1.00	1.09	-6.11	9.64	0.634 [1] ✔
T7	80 - 60	L 3 x 3 x 1/4	19.09	9.63	195.0 K=1.00	1.44	-7.20	8.54	0.843 [1] ✔
T8	60 - 40	L 3.5 x 3.5 x 1/4	20.83	10.32	178.4 K=1.00	1.69	-7.68	12.00	0.640 [1] ✔
T9	40 - 20	L 3.5 x 3.5 x 1/4	22.67	11.25	194.5 K=1.00	1.69	-7.91	10.09	0.784 [1] ✔
T10	20 - 1e-006	L 4 x 4 x 1/4	24.50	12.10	182.7 K=1.00	1.94	-9.04	13.13	0.688 [1] ✔

[1] P_u / ϕP_n controls

Secondary Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T4	126.667 - 120	L 2 x 2 x 1/4	10.30	5.03	154.4 K=1.00	0.94	-0.91	8.89	0.102 [1] ✔
T5	120 - 100	L 2.5 x 2.5 x 3/16	12.34	6.05	146.6 K=1.00	0.90	-1.39	9.48	0.147 [1] ✔
T6	100 - 80	L 3 x 3 x 3/16	14.35	7.03	141.5 K=1.00	1.09	-1.88	12.30	0.153 [1] ✔
T7	80 - 60	L 3 x 3 x 1/4	16.24	7.93	160.7 K=1.00	1.44	-2.34	12.58	0.186 [1] ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$

[1] P_u / ϕP_n controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	160 - 140	L 2.5 x 2.5 x 3/16	8.65	8.17	198.0 K=1.00	0.90	-1.47	5.20	0.283 [1] ✔
T2	140 - 133.333	L 2 x 2 x 3/16	8.65	8.41	203.7 K=0.80	0.71	-0.30	3.89	0.077 [1] ✔
T4	126.667 - 120	KL/R > 200 (C) - 36 L 2.5 x 2.5 x 3/16 KL/R > 200 (C) - 58	9.98	9.74	236.1 K=1.00	0.90	-0.62	3.66	0.170 [1] ✔

[1] P_u / ϕP_n controls

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	160 - 140	Pipe 2.875" x 0.203" (2.5 STD)	20.00	5.00	63.3	1.70	18.35	76.68	0.239 [1]
T2	140 - 133.333	Pipe 2.875" x 0.203" (2.5 STD)	6.68	6.68	84.6	1.70	26.76	76.68	0.349 [1]
T3	133.333 - 126.667	Pipe 2.875" x 0.203" (2.5 STD)	6.68	6.68	84.6	1.70	34.93	76.68	0.456 [1]
T4	126.667 - 120	Pipe 2.875" x 0.203" (2.5 STD)	6.68	3.23	40.9	1.70	42.88	76.68	0.559 [1]
T5	120 - 100	Pipe 2.875" x 0.276" (2.5 XS)	20.03	3.25	42.2	2.25	67.56	101.41	0.666 [1]
T6	100 - 80	Pipe 3.5" x 0.300" (3 XS)	20.03	3.26	34.4	3.02	92.10	135.72	0.679 [1]
T7	80 - 60	Pipe 4.5" x 0.337" (4 XS)	20.04	4.85	39.4	4.41	114.14	198.34	0.576 [1]
T8	60 - 40	Pipe 5.563" x 0.375" (5 XS)	20.03	10.02	65.4	6.11	138.15	275.04	0.502 [1]
T9	40 - 20	Pipe 5.563" x 0.375" (5 XS)	20.04	10.02	65.4	6.11	160.94	275.04	0.585 [1]
T10	20 - 1e-006	Pipe 6.625" x 0.340" (6 EHS)	20.03	10.02	54.0	6.71	182.91	302.10	0.605 [1]

[1] P_u / ϕP_n controls

Leg Bending Design Data (Tension)

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
T1	160 - 140	Pipe 2.875" x 0.203" (2.5 STD)	0	5	0.000	0	5	0.000
T2	140 - 133.333	Pipe 2.875" x 0.203" (2.5 STD)	0	5	0.000	0	5	0.000
T3	133.333 - 126.667	Pipe 2.875" x 0.203" (2.5 STD)	0	5	0.000	0	5	0.000
T4	126.667 - 120	Pipe 2.875" x 0.203" (2.5 STD)	0	5	0.000	0	5	0.000
T5	120 - 100	Pipe 2.875" x 0.276" (2.5 XS)	0	7	0.000	0	7	0.000
T6	100 - 80	Pipe 3.5" x 0.300" (3 XS)	0	12	0.000	0	12	0.000
T7	80 - 60	Pipe 4.5" x 0.337" (4 XS)	0	22	0.000	0	22	0.000
T8	60 - 40	Pipe 5.563" x 0.375" (5 XS)	0	38	0.000	0	38	0.000
T9	40 - 20	Pipe 5.563" x 0.375" (5 XS)	0	38	0.000	0	38	0.000
T10	20 - 1e-006	Pipe 6.625" x 0.340" (6 EHS)	0	50	0.000	0	50	0.000

Leg Interaction Design Data (Tension)

Section No.	Elevation ft	Size	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T1	160 - 140	Pipe 2.875" x 0.203" (2.5 STD)	0.239	0.000	0.000	0.239 [1] ✔	1.000	4.8.1 ✔
T2	140 - 133.333	Pipe 2.875" x 0.203" (2.5 STD)	0.349	0.000	0.000	0.349 [1] ✔	1.000	4.8.1 ✔
T3	133.333 - 126.667	Pipe 2.875" x 0.203" (2.5 STD)	0.456	0.000	0.000	0.456 [1] ✔	1.000	4.8.1 ✔
T4	126.667 - 120	Pipe 2.875" x 0.203" (2.5 STD)	0.559	0.000	0.000	0.559 [1] ✔	1.000	4.8.1 ✔
T5	120 - 100	Pipe 2.875" x 0.276" (2.5 XS)	0.666	0.000	0.000	0.666 [1] ✔	1.000	4.8.1 ✔
T6	100 - 80	Pipe 3.5" x 0.300" (3 XS)	0.679	0.000	0.000	0.679 [1] ✔	1.000	4.8.1 ✔
T7	80 - 60	Pipe 4.5" x 0.337" (4 XS)	0.576	0.000	0.000	0.576 [1] ✔	1.000	4.8.1 ✔
T8	60 - 40	Pipe 5.563" x 0.375" (5 XS)	0.502	0.000	0.000	0.502 [1] ✔	1.000	4.8.1 ✔
T9	40 - 20	Pipe 5.563" x 0.375" (5 XS)	0.585	0.000	0.000	0.585 [1] ✔	1.000	4.8.1 ✔
T10	20 - 1e-006	Pipe 6.625" x 0.340" (6 EHS)	0.605	0.000	0.000	0.605 [1] ✔	1.000	4.8.1 ✔

[1] P_u / ϕP_n controls

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T1	160 - 140	L 1.75 x 1.75 x 3/16	9.99	4.74	162.8	0.36	4.38	15.68	0.279 [1] ✔
T2	140 - 133.333	L 2 x 2 x 3/16	11.19	5.53	160.8	0.43	4.03	18.74	0.215 [1] ✔

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T3	133.333 - 126.667	L 2 x 2 x 3/16	11.73	5.80	168.8	0.43	4.20	18.74	0.224 [1] ✓
T4	126.667 - 120	L 2.5 x 2.5 x 3/16	12.28	6.20	140.2	0.57	4.19	27.84	0.150 [1] ✓
T5	120 - 100	L 2.5 x 2.5 x 3/16	14.03	7.07	160.5	0.57	4.77	24.84	0.192 [1] ✓
T6	100 - 80	L 3 x 3 x 3/16	15.84	7.94	149.8	0.71	5.49	30.97	0.177 [1] ✓
T7	80 - 60	L 3 x 3 x 1/4	19.09	9.63	182.3	0.94	6.43	40.78	0.158 [1] ✓
T8	60 - 40	L 3.5 x 3.5 x 1/4	19.96	9.88	161.9	1.13	7.08	49.02	0.144 [1] ✓
T9	40 - 20	L 3.5 x 3.5 x 1/4	21.73	10.78	176.7	1.13	7.27	49.02	0.148 [1] ✓
T10	20 - 1e-006	L 4 x 4 x 1/4	23.59	11.65	166.6	1.31	8.11	57.18	0.142 [1] ✓

[1] P_u / ϕP_n controls

Secondary Horizontal Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T4	126.667 - 120	L 2 x 2 x 1/4	10.30	5.03	198.3	0.56	0.91	27.44	0.033 [1] ✓
T5	120 - 100	L 2.5 x 2.5 x 3/16	12.34	6.05	186.4	0.90	1.39	29.22	0.048 [1] ✓
T6	100 - 80	L 3 x 3 x 3/16	14.35	7.03	179.7	1.09	1.88	35.31	0.053 [1] ✓
T7	80 - 60	L 3 x 3 x 1/4	16.24	7.93	204.6	1.44	2.34	46.58	0.050 [1] ✓

[1] P_u / ϕP_n controls

Top Girt Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
T1	160 - 140	L 2.5 x 2.5 x 3/16	8.65	8.17	129.5	0.57	1.51	24.84	0.061 [1] ✓
T2	140 - 133.333	L 2 x 2 x 3/16	8.65	8.41	163.5	0.71	0.25	23.17	0.011 [1] ✓
T4	126.667 - 120	L 2.5 x 2.5 x 3/16	9.98	9.74	150.1	0.57	0.61	24.84	0.025 [1] ✓

[1] P_u / ϕP_n controls

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	168 - 160	Pole	Pipe 8.625" x 0.322" (8 STD)	1	-3.29	377.97	34.6	Pass
T1	160 - 140	Leg	Pipe 2.875" x 0.203" (2.5 STD)	3	-25.56	57.19	44.7	Pass
T2	140 - 133.333	Leg	Pipe 2.875" x 0.203" (2.5 STD)	33	-34.62	45.45	76.2	Pass
T3	133.333 - 126.667	Leg	Pipe 2.875" x 0.203" (2.5 STD)	45	-43.62	45.45	96.0	Pass
T4	126.667 - 120	Leg	Pipe 2.875" x 0.203" (2.5 STD)	54	-52.24	66.71	78.3	Pass
T5	120 - 100	Leg	Pipe 2.875" x 0.276" (2.5 XS)	69	-80.22	87.71	91.5	Pass
T6	100 - 80	Leg	Pipe 3.5" x 0.300" (3 XS)	99	-108.53	123.39	88.0	Pass
T7	80 - 60	Leg	Pipe 4.5" x 0.337" (4 XS)	129	-134.64	174.33	77.2	Pass
T8	60 - 40	Leg	Pipe 5.563" x 0.375" (5 XS)	150	-163.31	201.25	81.1	Pass
T9	40 - 20	Leg	Pipe 5.563" x 0.375" (5 XS)	165	-190.90	201.23	94.9	Pass
T10	20 - 1e-006	Leg	Pipe 6.625" x 0.340" (6 EHS)	180	-217.96	244.06	89.3	Pass
T1	160 - 140	Diagonal	L 1.75 x 1.75 x 3/16	9	-4.55	5.13	88.8	Pass
T2	140 - 133.333	Diagonal	L 2 x 2 x 3/16	41	-4.16	5.69	73.0	Pass
T3	133.333 - 126.667	Diagonal	L 2 x 2 x 3/16	50	-4.19	5.17	81.0	Pass
T4	126.667 - 120	Diagonal	L 2.5 x 2.5 x 3/16	60	-4.62	9.03	51.2	Pass
T5	120 - 100	Diagonal	L 2.5 x 2.5 x 3/16	72	-4.97	6.93	71.7	Pass
T6	100 - 80	Diagonal	L 3 x 3 x 3/16	102	-6.11	9.64	63.4 70.1 (b)	Pass
T7	80 - 60	Diagonal	L 3 x 3 x 1/4	132	-7.20	8.54	84.3	Pass
T8	60 - 40	Diagonal	L 3.5 x 3.5 x 1/4	153	-7.68	12.00	64.0 67.8 (b)	Pass
T9	40 - 20	Diagonal	L 3.5 x 3.5 x 1/4	168	-7.91	10.09	78.4	Pass
T10	20 - 1e-006	Diagonal	L 4 x 4 x 1/4	183	-9.04	13.13	68.8 77.6 (b)	Pass
T4	126.667 - 120	Secondary Horizontal	L 2 x 2 x 1/4	65	-0.91	8.89	10.2	Pass
T5	120 - 100	Secondary Horizontal	L 2.5 x 2.5 x 3/16	78	-1.39	9.48	14.7	Pass
T6	100 - 80	Secondary Horizontal	L 3 x 3 x 3/16	107	-1.88	12.30	15.3	Pass
T7	80 - 60	Secondary Horizontal	L 3 x 3 x 1/4	137	-2.34	12.58	18.6	Pass
T1	160 - 140	Top Girt	L 2.5 x 2.5 x 3/16	6	-1.47	5.20	28.3	Pass
T2	140 - 133.333	Top Girt	L 2 x 2 x 3/16	36	-0.30	3.89	7.7	Pass
T4	126.667 - 120	Top Girt	L 2.5 x 2.5 x 3/16	58	-0.62	3.66	17.0	Pass
T1	160 - 140	Pole Socket	Pipe 8.625" x 0.322" (8 STD)	197	-3.45	349.58	34.7	Pass
						Summary		
						Pole (L1)	34.6	Pass
						Leg (T3)	96.0	Pass
						Diagonal (T1)	88.8	Pass
						Secondary Horizontal (T7)	18.6	Pass
						Top Girt (T1)	28.3	Pass
						Pole Socket (T1)	34.7	Pass
						Bolt Checks	77.6	Pass
						RATING =	**96.0**	**Pass**

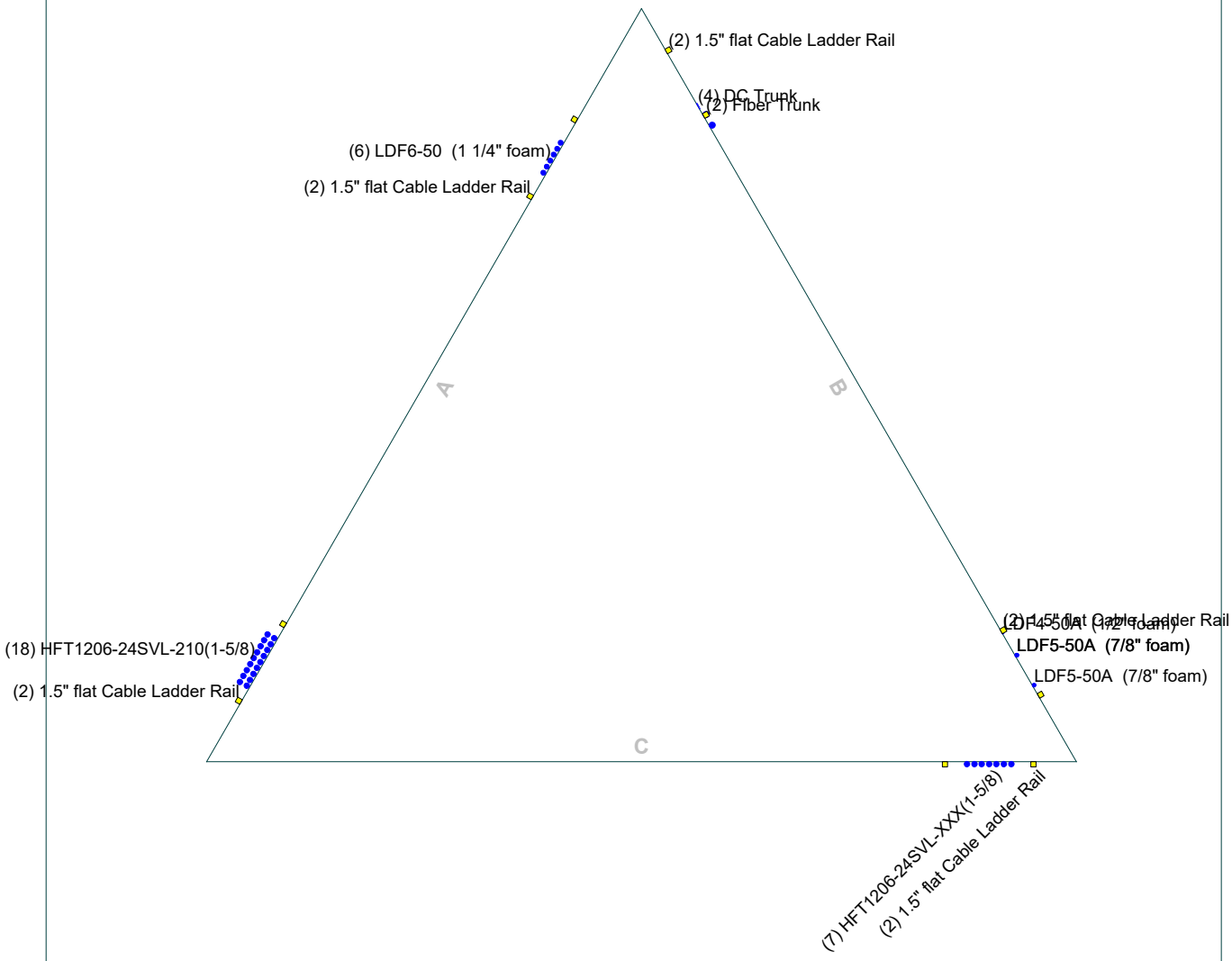
APPENDIX B

BASE LEVEL DRAWING

Feed Line Plan
20'

Round Flat App In Face App Out Face

Section @ 20'



Paul J. Ford and Company
250 E. Broad St., Ste 600
Columbus, OH 43215
Phone: 614-221-6679
FAX:

Job: ***Existing 160 ft self-supporting tower***			
Project: ***Windsor, CT***			
Client: VERIZON	Drawn by: Sara Mansoori	App'd:	
Code: TIA-222-G	Date: 02/15/21	Scale: NTS	
Path: G:\TOWER\429_On Air Engineering\202142921-0006_Windsor, CT\42921-0006.001.8700_SAITNX\42921-0006.001.8700.eri		Dwg No. E-7	

APPENDIX C

ADDITIONAL CALCULATIONS

PAUL J. FORD & COMPANY
250 E Broad St, Ste 600 • Columbus, OH 43215
Phone 614.221.6679 www.pauljford.com

Page	1	of	1
By	SFM	Date	2/15/2021
Project #	42921-0006		

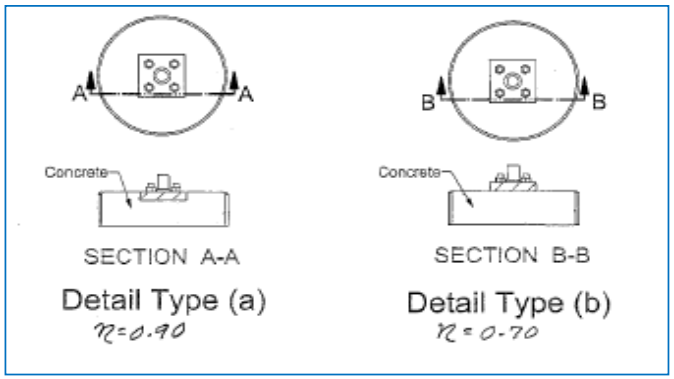
Self-Support Tower Anchor Rod Capacity - TIA-G

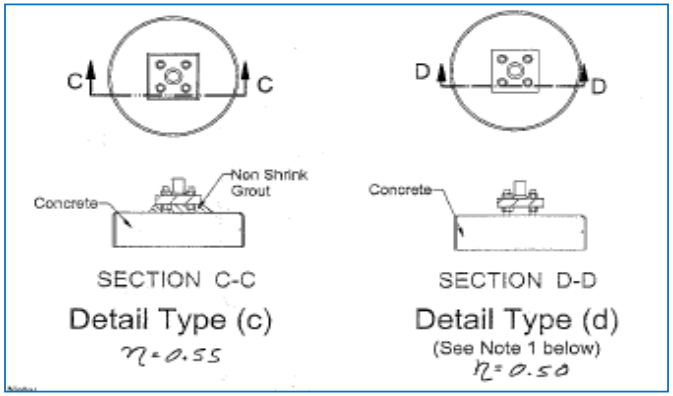
Loads

Compression :	225	kips	Tension :	188	kips	Code:	TIA-G
Comp. Shear :	27	kips	Ten.Shear :	23	kips	Maximum Ratio:	1.00

Existing Anchor Rods

Anchor Rod Condition (n) :	0.5				
Anchor Rod ø :	1	in	l_{ar} :	1	inches
Anchor Rod Quantity :	6		Comp. M_u :	17.55	k-in
Anchor Rod Grade :	A449 (1/4 to 1 Incl.)				
F_y :	92	ksi	ϕ_v :	0.75	
F_u :	120	ksi	ϕ_f :	0.90	
Threads per Inch	8		$\phi_v R_{nv}$:	190.85	kips
Net Tensile Area	0.61	in^2	$\phi_f R_{nm}$:	52.86	k-in
ϕ_t :	0.80				
$\phi_t R_{nt}$:	348.91	kip			
Anchor Rod Ratio :	0.974				





Factored Foundation Loads:

	Comp	Uplift	
Factored Axial Load (+Comp, -Ten) =	**225**	**-188**	kips
Factored Horiz. Load at Top of Pier =	**27**	**23**	kips
Factored OTM at Top of Pier =	**0**	**0**	k-ft

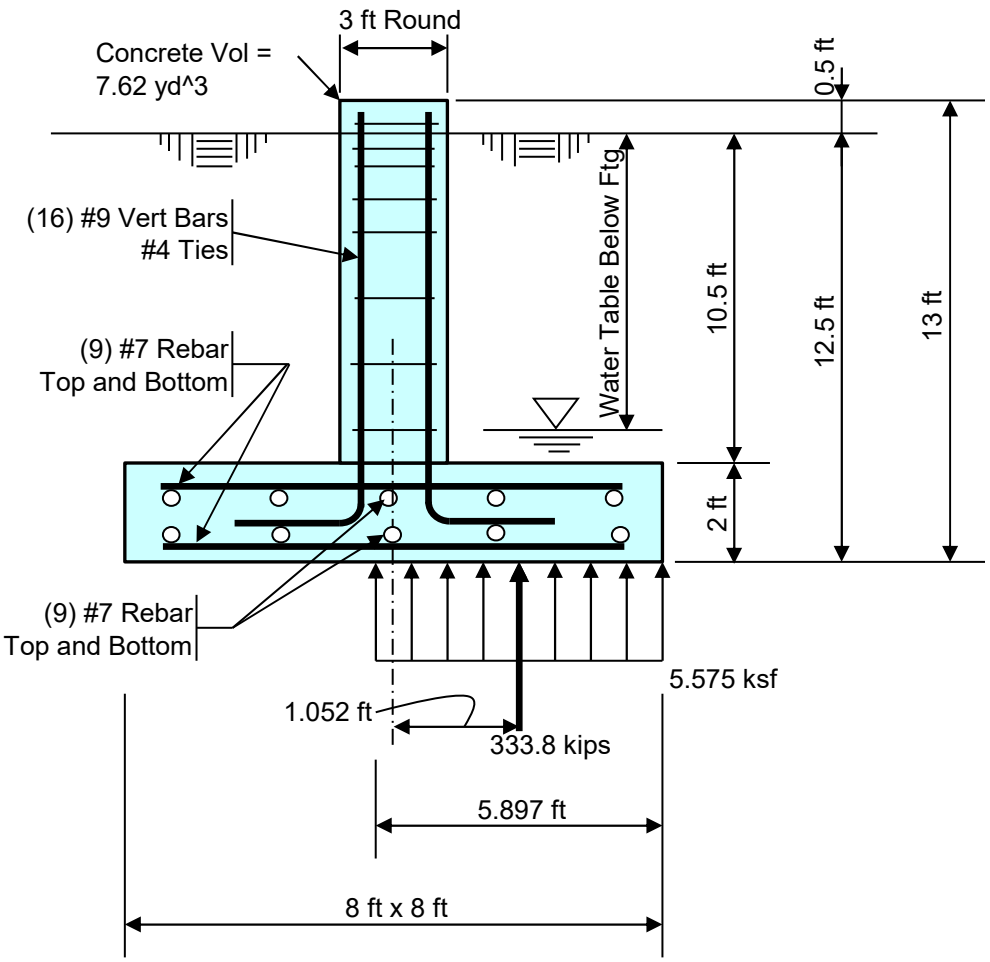
LRFD Resistance and Load Factors:

	Φ	Dead Load Factors	
Soil Bearing =	**0.75**		
Soil Weight =	**0.75**	1.2	0.9
Concrete Weight =	**0.75**	1.2	0.9

Soil Properties:

Depth to Water Table =	**99**	ft
Uplift Cone from	**Top**	of footing
Depth to Ignore for Uplift and PP =	**0**	ft

Layer Thk ft	Soil Density pcf	Cohesion ksf	Friction Angle degrees	Ult Bearing ksf	Depth ft
13	**100**	**0**	**30**	**10**	**13.00**



Dimensions:

Pier Shape =	**Round**	
Pier Width =	**3**	ft Diameter
Pier Height above Grade =	**0.5**	ft
Depth to Bottom of Footing =	**12.5**	ft
Footing Thickness =	**2**	ft
Footing Width, B =	**8**	ft
Footing Length, L =	**8**	ft

Concrete:

Concrete Strength =	**3**	ksi
Rebar Strength =	**60**	ksi

Total Pad Reinf Stl =	**10.80**	in^2 >= 4.15 in^2 = Min Stl, OK
Total Pier Reinf Stl =	**16.00**	in^2 >= 5.09 in^2 = Min Stl, OK
Footing Thickness =	**2.00**	ft >= 1.69 ft = Min Ftg Thk, OK

Summary Results:

	Required		Available		
Maximum Net Soil Bearing =	**5.601**	ksf	**7.500**	ksf	Stress Ratio = **74.7%** in Soil Bearing
Uplift =	**188.0**	kips	**663.0**	kips	Stress Ratio = **28.4%** in Uplift
Punching Shear Stress =	**0.061**	ksi	**0.164**	ksi	Stress Ratio = **36.9%** in Punching Shear
Bending Shear Stress =	**-50.8**	kips	**155.3**	kips	Stress Ratio = **32.7%** in Bending Shear
Bending Moment =	**224.69**	k-ft	**462.3**	k-ft	Stress Ratio = **48.6%** in Bending Moment
Conc Pier Reinforcing Steel =	**253.0**	k-ft	**799.8**	k-ft	Stress Ratio = **31.6%** in Pier Rebar

STANDARD CONDITIONS FOR FURNISHING OF PROFESSIONAL ENGINEERING SERVICES ON EXISTING STRUCTURES BY PAUL J. FORD AND COMPANY

1) Paul J. Ford and Company has not made a field inspection to verify the tower member sizes or the antenna/coax loading. If the existing conditions are not as represented on these drawings, we should be contacted immediately to evaluate the significance of the deviation.

2) No allowance was made for any damaged, missing, or rusted members. The analysis of this tower assumes that no physical deterioration has occurred in any of the structural components of the tower and that all the tower members have the same load carrying capacity as the day the tower was erected.

3) It is not possible to have all the detailed information to perform a thorough analysis of every structural sub-component of an existing tower. The structural analysis by Paul J. Ford and Company verifies the adequacy of the main structural members of the tower. Paul J. Ford and Company provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc.

4) The structural integrity of the existing tower foundation can only be verified if exact foundation sizes and soil conditions are known. Paul J. Ford and Company will not accept any responsibility for the adequacy of the existing foundations unless the foundation sizes and a soils report are provided.

5) This tower has been analyzed according to the minimum design wind loads recommended by the Telecommunications Industry Association Standard ANSI/TIA-222-G. If the owner or local or state agencies require a higher design wind load, Paul J. Ford and Company should be made aware of this requirement.

6) The enclosed sketches are a schematic representation of the tower that we have analyzed. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions and for the proper fit and clearance in the field.

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

PAUL J. FORD & COMPANY

Date: **April 23, 2021**

Andrew Leone
Verizon Wireless
118 Flanders Road
Westborough, MA 01581

Paul J. Ford & Company
250 East Broad Street, Suite 600
Columbus, OH 43215
614.221.6679

Re: Windsor CT – L-Sub6/VZS01 Verizon Project

Structure:	Modified 160-ft Self Support Tower
Site Name:	Windsor CT
Site Address:	482 Pigeon Hill Rd
City, County, State:	Windsor, Hartford County, CT
Latitude, Longitude:	41.86664, -72.674778
PJF Project:	42921-0006.001.8700

Dear Mr. Leone,

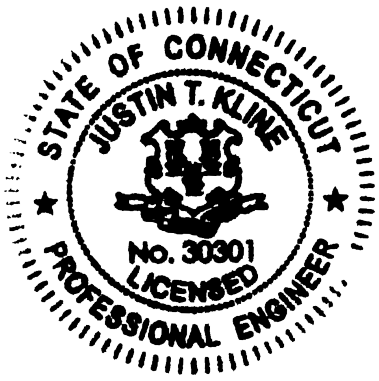
I am writing this letter to confirm that the Samsung 64T64R MMU antenna (referenced in the report as the VZS01 antenna) was used in Paul J. Ford & Company's Structural Analysis dated 2/15/2021 for the tower described above.

We at Paul J. Ford and Company appreciate the opportunity of providing our continuing professional services to you and Verizon Wireless. If you have any questions or need further assistance on this or any other projects, please give us a call.

Respectfully submitted by:

Seth Tschanen

Seth Tschanen, P.E.
Project Engineer
stschanen@pauljford.com



Maser Consulting Connecticut
2000 Midlantic Drive, Suite 100
Mt. Laurel, NJ 08054
856.797.0412
GDulnik@maserconsulting.com

Antenna Mount Analysis Report and PMI Requirements

Mount Analysis

SMART Tool Project #: 10019504
Maser Consulting Connecticut Project #: 20777393A

November 25, 2020

Site Information	*Site ID:*	*469487-VZW / Windsor CT*
	Site Name:	*Windsor CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*482 Pigeon Hill Rd. Windsor, Connecticut 06095, Hartford County*
	Latitude:	*41.866640°*
	Longitude:	*-72.674778°*
Structure Information	*Tower Type:*	*160-Ft Self Support*
	Mount Type:	*12.50-Ft Sector Frame*

FUZE ID # 16244125

Analysis Results

Sector Frame: **43.3% 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: Carol Luengas

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: 325169, dated November 13, 2020*
Mount Mapping	*Delta Oaks Group Site ID: 469487, dated November 11, 2020*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	116 mph
	Ice Wind Speed (3-sec. Gust):	50 mph
	Design Ice Thickness:	1.50 in
	Risk Category:	II
	Exposure Category:	C
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.994
Seismic Parameters:	S_S:	0.179
	S_1:	0.055
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 mounts:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
155.00	155.00	3	Andrew	LNX-6513DS-A1M	Added
		3	-	VZS01	
		6	Commscope	NNHH-65B-R4	Retained
		3	Nokia	B2/B66A RRH-BR049	
		3	Nokia	B5/B13 RRH-BR04C	
		1	Raycap	RHSDC-3315-PF-48*	
		1	Raycap	RRFDC-3315-PF-48*	

* Equipment is flush mounted directly to the self support tower. They are not mounted on the mounts and are not included in this mount analysis.

Any proposed antennas not currently installed should be mounted such that the centerline of the antennas does not exceed 6 inches vertically from the center of the antenna mounts.

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Maser Consulting Connecticut 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 Connecticut 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 Connecticut, 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 Connecticut is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

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

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

Analysis Results:

Component	Utilization %	Pass/Fail
Antenna Pipe	*32.6*	*Pass*
Face Horizontal	*33.0*	*Pass*
Standoff Horizontal	*36.7*	*Pass*
Standoff Diagonal	*7.1*	*Pass*
Tieback	*13.4*	*Pass*
Standoff Vertical	*9.7*	*Pass*
Standoff Plate	*43.3*	*Pass*
RRH Pipe	*6.1*	*Pass*
Mount Connection	*15.1*	*Pass*

Structure Rating – *(Controlling Utilization of all Components)*	**43.3%**

Recommendation:

The existing mounts are **SUFFICIENT** for the final loading configuration and do 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:

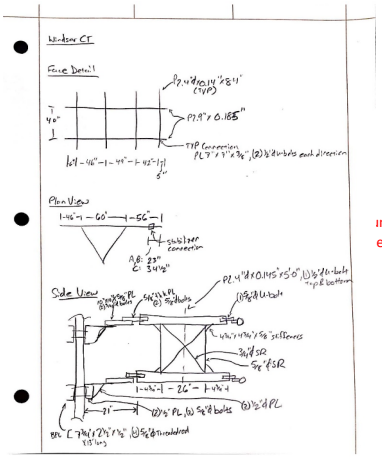
1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Wind Speed Usage Letter

V3.0 Updated on 8-31-2020

Antenna Mount Mapping Form (PATENT PENDING)

FCC #: n/a

Tower Owner:	Verizon Wireless	**Mapping Date:**	11/11/2020
Site Name:	Windsor CT	**Tower Type:**	Self Support
Site Number or ID:	469487	**Tower Height (Ft.):**	160
Mapping Contractor:	Delta Oaks Group	**Mount Elevation (Ft.):**	157



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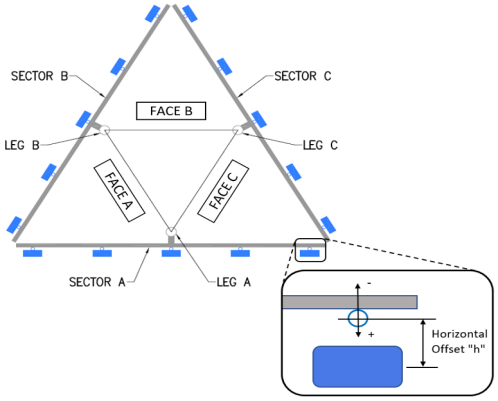
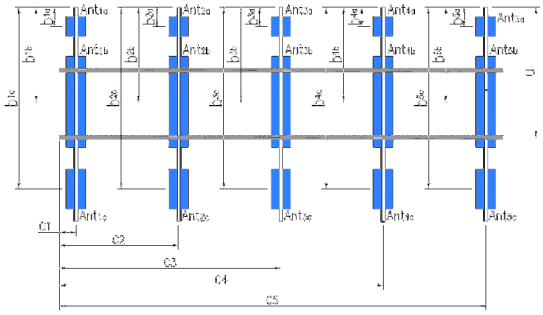
ers here.

Scanned with CamScanner





Antenna Layout (Looking Out From Tower)

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	2.4"x0.14"x84"	68.00	5.00	C1	2.4"x0.14"x84"	68.00	5.00
A2	2.4"x0.14"x84"	68.00	51.00	C2	2.4"x0.14"x84"	68.00	51.00
A3	2.4"x0.14"x84"	68.00	100.00	C3	2.4"x0.14"x84"	68.00	100.00
A4	2.4"x0.14"x84"	68.00	147.00	C4	2.4"x0.14"x84"	68.00	147.00
A5				C5			
A6				C6			
B1	2.4"x0.14"x84"	68.00	5.00	D1			
B2	2.4"x0.14"x84"	68.00	51.00	D2			
B3	2.4"x0.14"x84"	68.00	100.00	D3			
B4	2.4"x0.14"x84"	68.00	147.00	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. :	20.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	5.2

Please enter additional infomation or comments below.

(1) RFV01U-D1A ON EACH LEFT MOUNT ARM AND (1) RFV01U-D2A ON EACH RIGHT MOUNT ARM.

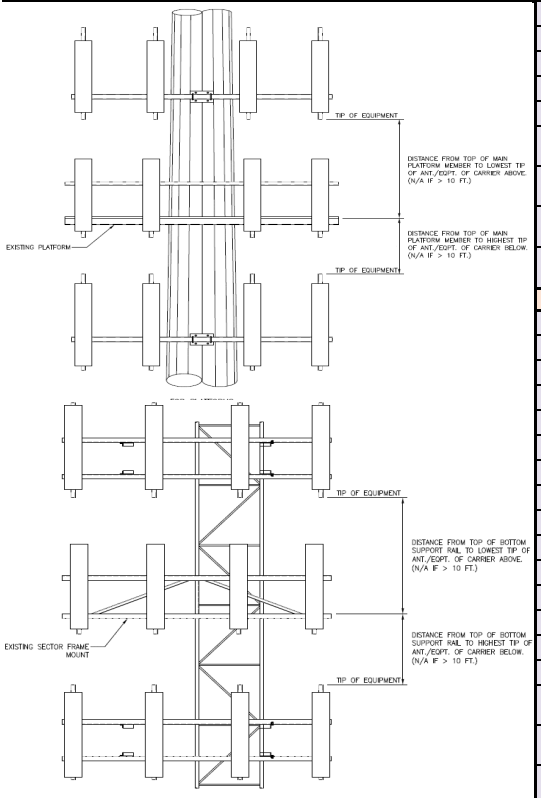
(1) RHSDC-3315-PF-48, (1) RRFDC-3315-PF-48 ON LEG B AT 154 FEET.

Tower Face Width at Mount Elev. (ft.):	8.75	Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.):	2.9

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}	LPA 80063/4CF E-DIN	15.20	13.10	47.40	1/2" HYBR	158.25	33.00	14.00	322.00	96
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	NNHH-65B-R4-V1	19.60	7.80	72.00		158.25	33.00	9.50	322.00	98
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	NNHH-65B-R4-V1	19.60	7.80	72.00		158.25	33.00	9.50	322.00	100
Ant_{3b}										
Ant_{3c}										
Ant_{4a}	LPA 80063/4CF E-DIN	15.20	13.10	47.40		158.25	33.00	14.00	322.00	103
Ant_{4b}										
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:	327.00	Deg	Leg A:	345.00	Deg
Sector B:	80.00	Deg	Leg B:	105.00	Deg
Sector C:	214.00	Deg	Leg C:	225.00	Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	225.00	Deg	On Leg B
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was obstructed.
	Condition:		Missing safety cable.



Sector B										
Ant_{1a}	LPA 80063/4CF E-DIN	15.20	13.10	47.40		158.25	33.00	14.00	80.00	118
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	NNHH-65B-R4-V1	19.60	7.80	72.00		158.25	33.00	9.50	80.00	120
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	NNHH-65B-R4-V1	19.60	7.80	72.00		158.25	33.00	9.50	80.00	123
Ant_{3b}										
Ant_{3c}										
Ant_{4a}	LPA 80063/4CF E-DIN	15.20	13.10	47.40		158.25	33.00	14.00	80.00	125
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}	LPA 80063/4CF E-DIN	15.20	13.10	47.40		158.25	33.00	14.00	214.00	236
Ant_{1b}										
Ant_{1c}										
Ant_{2a}	NNHH-65B-R4-V1	19.60	7.80	72.00		158.25	33.00	9.50	214.00	244
Ant_{2b}										
Ant_{2c}										
Ant_{3a}	NNHH-65B-R4-V1	19.60	7.80	72.00		158.25	33.00	9.50	214.00	293
Ant_{3b}										
Ant_{3c}										
Ant_{4a}	LPA 80063/4CF E-DIN	15.20	13.10	47.40		158.25	33.00	14.00	214.00	314
Ant_{4b}										
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	No safety climb present and the step pegs stop at 80 feet.	62
2		
3		
4		
5		
6		
7		
8		

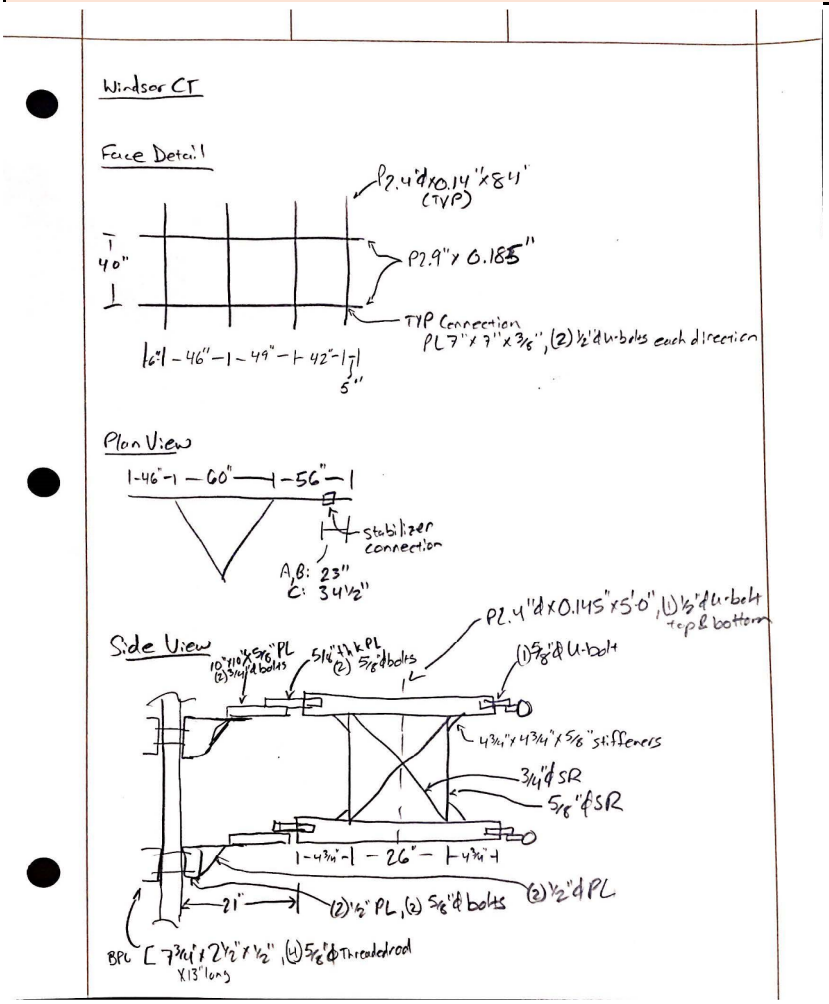
Mapping Notes
1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)
2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use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

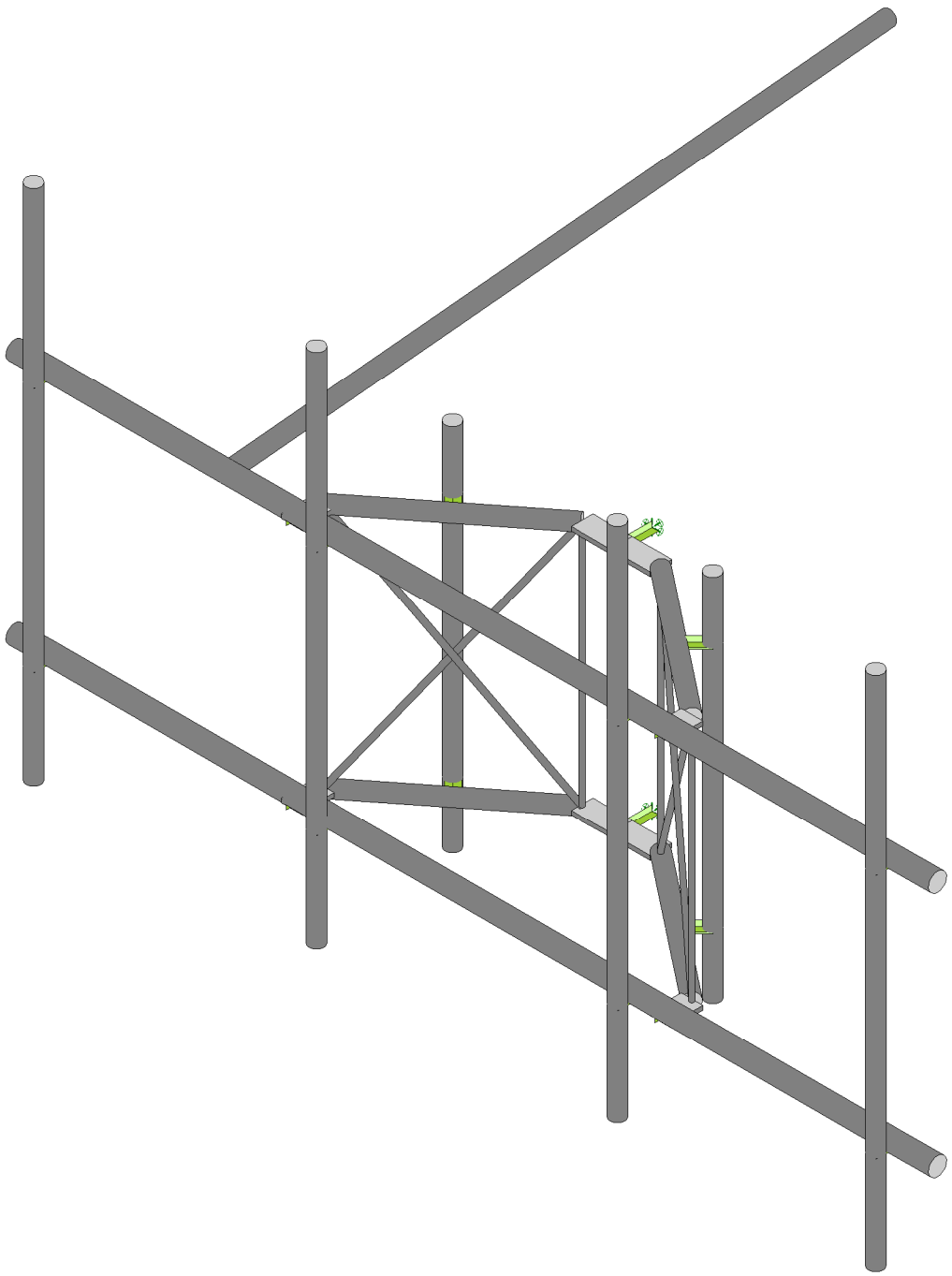
Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

Antenna Mount Mapping Form (PATENT PENDING)

FCC #			n/a
Tower Owner:	Verizon Wireless	**Mapping Date:**	11/11/2020
Site Name:	Windsor CT	**Tower Type:**	Self Support
Site Number or ID:	469487	**Tower Height (Ft.):**	160
Mapping Contractor:	Delta Oaks Group	**Mount Elevation (Ft.):**	157

Please Insert Sketches of the Antenna Mount





Loads: BLC 81,
Envelope Only Solution

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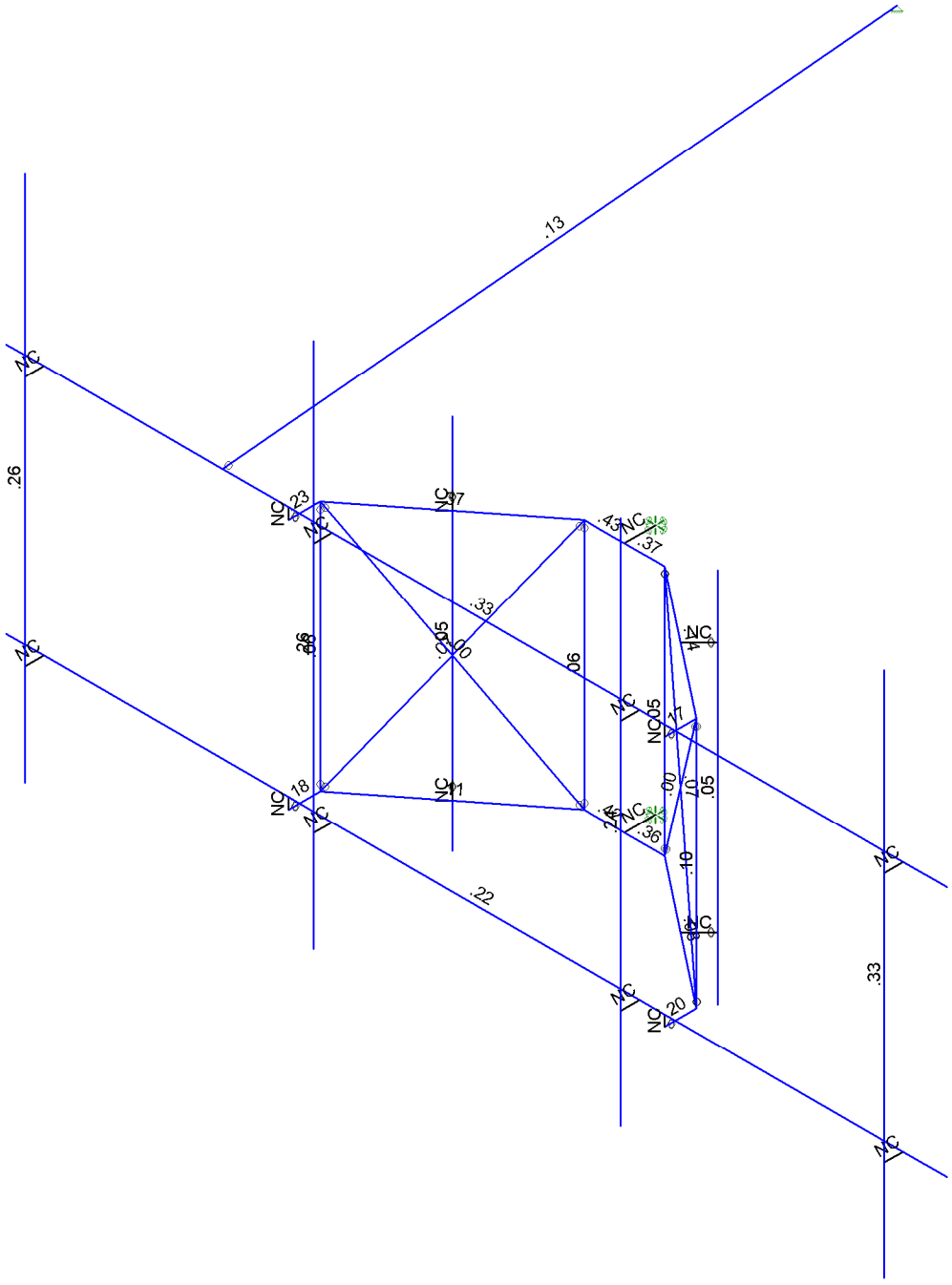
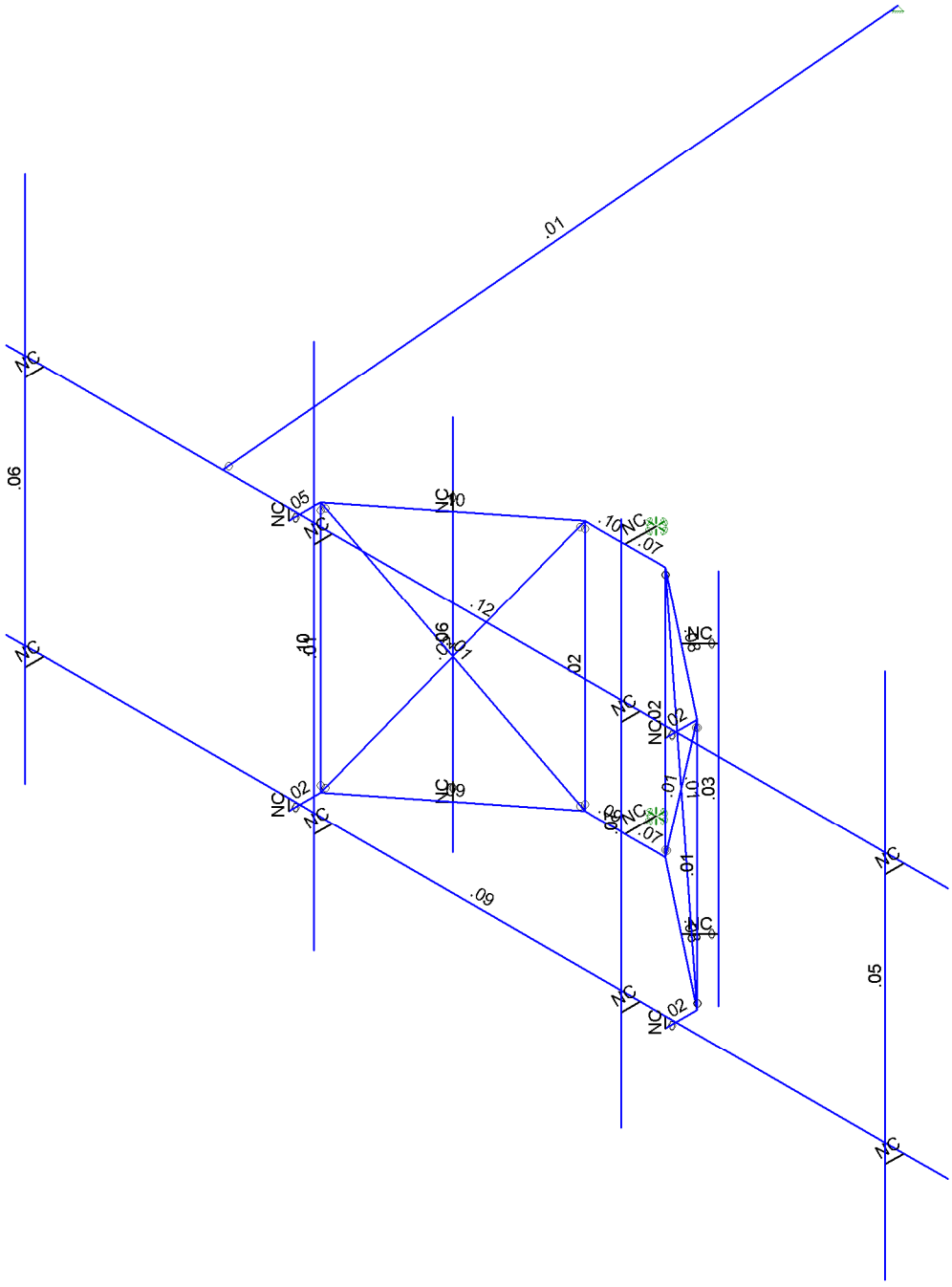
		Nov 25, 2020 at 8:54 AM
		469487-VZW_MT_LOT_A_H.r3d



Member Code Checks Displayed (Enveloped)
Loads: BLC 81,
Envelope Only Solution

		SK - 2
		Nov 25, 2020 at 8:54 AM
		469487-VZW_MT_LOT_A_H.r3d



Member Shear Checks Displayed (Enveloped)
Loads: BLC 81,
Envelope Only Solution

		SK - 3
		Nov 25, 2020 at 8:54 AM
		469487-VZW_MT_LOT_A_H.r3d

Basic Load Cases

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

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(...
54	Structure Wi (30 Deg)	None						58		
55	Structure Wi (60 Deg)	None						58		
56	Structure Wi (90 Deg)	None						58		
57	Structure Wi (120 Deg)	None						58		
58	Structure Wi (150 Deg)	None						58		
59	Structure Wi (180 Deg)	None						58		
60	Structure Wi (210 Deg)	None						58		
61	Structure Wi (240 Deg)	None						58		
62	Structure Wi (270 Deg)	None						58		
63	Structure Wi (300 Deg)	None						58		
64	Structure Wi (330 Deg)	None						58		
65	Structure Wm (0 Deg)	None						58		
66	Structure Wm (30 Deg)	None						58		
67	Structure Wm (60 Deg)	None						58		
68	Structure Wm (90 Deg)	None						58		
69	Structure Wm (120 Deg)	None						58		
70	Structure Wm (150 Deg)	None						58		
71	Structure Wm (180 Deg)	None						58		
72	Structure Wm (210 Deg)	None						58		
73	Structure Wm (240 Deg)	None						58		
74	Structure Wm (270 Deg)	None						58		
75	Structure Wm (300 Deg)	None						58		
76	Structure Wm (330 Deg)	None						58		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			

Load Combinations

	Description	So...	P...	S...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...	BLC	Fac...
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 (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1								
14	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1								
15	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1								
16	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1								
17	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1								
18	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1								
19	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1								
20	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1								
21	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1								
22	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1								
23	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1								
24	1.2D + 1.0Di + 1.0Wi (...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1								
25	1.2D + 1.5Lm1 + 1.0W...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1										

Load Combinations (Continued)

	Description	So..	P...	S...	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..	BLC	Fac..
26	1.2D + 1.5Lm1 + 1.0W..	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5Lm1 + 1.0W..	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1.0W..	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + 1.0W..	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1.0W..	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1.0W..	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1.0W..	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1.0W..	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1.0W..	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1.0W..	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1.0W..	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1.0W..	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1.0W..	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1.0W..	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1.0W..	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1.0W..	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1.0W..	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1.0W..	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1.0W..	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1.0W..	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1.0W..	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1.0W..	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1.0W..	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 (...		Y		1	1.2	39	1.2	SX		SY	1	SZ	-1										
54	1.2D + 1.0Ev + 1.0Eh (...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866										
55	1.2D + 1.0Ev + 1.0Eh (...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5										
56	1.2D + 1.0Ev + 1.0Eh (...		Y		1	1.2	39	1.2	SX	1	SY	1	SZ											
57	1.2D + 1.0Ev + 1.0Eh (...		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	.5										
58	1.2D + 1.0Ev + 1.0Eh (...		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.866										
59	1.2D + 1.0Ev + 1.0Eh (...		Y		1	1.2	39	1.2	SX		SY	1	SZ	1										
60	1.2D + 1.0Ev + 1.0Eh (...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866										
61	1.2D + 1.0Ev + 1.0Eh (...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	.5										
62	1.2D + 1.0Ev + 1.0Eh (...		Y		1	1.2	39	1.2	SX	-1	SY	1	SZ											
63	1.2D + 1.0Ev + 1.0Eh (...		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	-.5										
64	1.2D + 1.0Ev + 1.0Eh (...		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.866										

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	3.416667	0.145833	8.083333	0	
2	N2	-9.083333	0.145833	8.083333	0	
3	N3	3.416667	3.479167	8.083333	0	
4	N4	-9.083333	3.479167	8.083333	0	
5	N5	-8.583333	0.145833	8.083333	0	
6	N6	-8.583333	3.479167	8.083333	0	
7	N7	-4.75	0.145833	8.083333	0	
8	N8	-4.75	3.479167	8.083333	0	
9	N9	-0.666667	0.145833	8.083333	0	
10	N10	-0.666667	3.479167	8.083333	0	
11	N11	2.833333	0.145833	8.083333	0	
12	N12	2.833333	3.479167	8.083333	0	
13	N13	-8.583333	0.145833	8.333333	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
14	N14	-8.583333	3.479167	8.333333	0	
15	N15	-4.75	0.145833	8.333333	0	
16	N16	-4.75	3.479167	8.333333	0	
17	N17	-0.666667	0.145833	8.333333	0	
18	N18	-0.666667	3.479167	8.333333	0	
19	N19	2.833333	0.145833	8.333333	0	
20	N20	2.833333	3.479167	8.333333	0	
21	N21	-5.333333	0	8.083333	0	
22	N22	-5.333333	3.333333	8.083333	0	
23	N23	-0.333333	0	8.083333	0	
24	N24	-0.333333	3.333333	8.083333	0	
25	N25	-5.333333	0	7.661458	0	
26	N26	-5.333333	3.333333	7.661458	0	
27	N27	-0.333333	0	7.661458	0	
28	N28	-0.333333	3.333333	7.661458	0	
29	N29	-2.833333	0	6.119792	0	
30	N30	-2.833333	3.333333	6.119792	0	
31	N31	-3.364583	0	6.119792	0	
32	N32	-3.364583	3.333333	6.119792	0	
33	N33	-2.302083	0	6.119792	0	
34	N34	-2.302083	3.333333	6.119792	0	
35	N35	-2.833333	0	5.703125	0	
36	N36	-2.833333	3.333333	5.703125	0	
37	N37	-6.208333	3.479167	8.083333	0	
38	N39	-8.583333	5.8125	8.333333	0	
39	N40	-4.75	5.8125	8.333333	0	
40	N41	-0.666667	5.8125	8.333333	0	
41	N42	2.833333	5.8125	8.333333	0	
42	N43	-8.583333	-1.1875	8.333333	0	
43	N44	-4.75	-1.1875	8.333333	0	
44	N45	-0.666667	-1.1875	8.333333	0	
45	N46	2.833333	-1.1875	8.333333	0	
46	N58	-5.333333	3.333333	7.708333	0	
47	N76	-2.927083	0	6.119792	0	
48	N77	-3.229167	0	6.119792	0	
49	N78	-2.739583	0	6.119792	0	
50	N79	-2.4375	0	6.119792	0	
51	N80	-2.927083	3.333333	6.119792	0	
52	N81	-3.229167	3.333333	6.119792	0	
53	N82	-2.739583	3.333333	6.119792	0	
54	N83	-2.4375	3.333333	6.119792	0	
55	N58A	-2.833333	3.479167	8.083333	0	
56	N59	-5.333333	0.145833	8.083333	0	
57	N60	-5.333333	3.479167	8.083333	0	
58	N61	-0.333333	0.145833	8.083333	0	
59	N62	-0.333333	3.479167	8.083333	0	
60	N61A	-4.348958	3.333333	6.890625	0	
61	N62A	-4.348958	0	6.890625	0	
62	N63	-1.317708	0	6.890625	0	
63	N64	-1.317708	3.333333	6.890625	0	
64	N65	-4.598958	3.333333	6.640625	0	
65	N66	-4.598958	0	6.640625	0	
66	N67	-1.067708	0	6.640625	0	
67	N68	-1.067708	3.333333	6.640625	0	
68	N69	-4.598958	4.166667	6.640625	0	
69	N70	-1.067708	4.166667	6.640625	0	
70	N71	-4.598958	-0.833333	6.640625	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
71	N72	-1.067708	-0.833333	6.640625	0	
72	N73	-7.208333	3.333333	-1.874597	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Horizontal mount pipe	PIPE_2.5	Beam	Pipe	Q235	Typical	1.61	1.45	1.45	2.89
3	Standoff Horizontal	PIPE_2.0	Beam	Pipe	Q235	Typical	1.02	.627	.627	1.25
4	Standoff Diagonal	SR_0.75	Beam	BAR	Q235	Typical	.442	.016	.016	.031
5	Tieback	PIPE_2.0	Beam	Pipe	Q235	Typical	1.02	.627	.627	1.25
6	Standoff Vertical	SR_0.625	Beam	BAR	Q235	Typical	.307	.007	.007	.015
7	Standoff Plate	PL5/8x3.5	Beam	BAR	Q235	Typical	2.188	.071	2.233	.253
8	RRH Pipe	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/...	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
7	Q235	29000	11154	.3	.65	.49	35	1.5	58	1.2

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N1			Horizontal mou...	Beam	Pipe	Q235	Typical
2	M2	N4	N3			Horizontal mou...	Beam	Pipe	Q235	Typical
3	M3	N5	N13			RIGID	None	None	RIGID	Typical
4	M4	N6	N14			RIGID	None	None	RIGID	Typical
5	M5	N8	N16			RIGID	None	None	RIGID	Typical
6	M6	N7	N15			RIGID	None	None	RIGID	Typical
7	M9	N10	N18			RIGID	None	None	RIGID	Typical
8	M10	N9	N17			RIGID	None	None	RIGID	Typical
9	M11	N12	N20			RIGID	None	None	RIGID	Typical
10	M12	N11	N19			RIGID	None	None	RIGID	Typical
11	M13	N22	N26		90	Standoff Plate	Beam	BAR	Q235	Typical
12	M14	N21	N25		90	Standoff Plate	Beam	BAR	Q235	Typical
13	M15	N23	N27		90	Standoff Plate	Beam	BAR	Q235	Typical
14	M16	N24	N28		90	Standoff Plate	Beam	BAR	Q235	Typical
15	M17	N26	N32			Standoff Horiz...	Beam	Pipe	Q235	Typical
16	M18	N25	N31			Standoff Horiz...	Beam	Pipe	Q235	Typical
17	M19	N27	N33			Standoff Horiz...	Beam	Pipe	Q235	Typical
18	M20	N28	N34			Standoff Horiz...	Beam	Pipe	Q235	Typical
19	M21	N32	N30		90	Standoff Plate	Beam	BAR	Q235	Typical
20	M22	N34	N30		90	Standoff Plate	Beam	BAR	Q235	Typical
21	M23	N31	N29		90	Standoff Plate	Beam	BAR	Q235	Typical
22	M24	N33	N29		90	Standoff Plate	Beam	BAR	Q235	Typical
23	M25	N31	N26			Standoff Diago...	Beam	BAR	Q235	Typical
24	M26	N32	N25			Standoff Diago...	Beam	BAR	Q235	Typical
25	M27	N33	N28			Standoff Diago...	Beam	BAR	Q235	Typical
26	M28	N27	N34			Standoff Diago...	Beam	BAR	Q235	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
27	M29	N29	N35			RIGID	None	None	RIGID	Typical
28	M30	N30	N36			RIGID	None	None	RIGID	Typical
29	M31	N37	N73			Tieback	Beam	Pipe	Q235	Typical
30	MP4A	N39	N43			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
31	MP3A	N40	N44			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
32	MP2A	N41	N45			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
33	MP1A	N42	N46			Antenna Pipe	Beam	Pipe	A53 Gr. B	Typical
34	M44	N25	N26			Standoff Vertical	Beam	BAR	Q235	Typical
35	M45	N31	N32			Standoff Vertical	Beam	BAR	Q235	Typical
36	M46	N33	N34			Standoff Vertical	Beam	BAR	Q235	Typical
37	M47	N27	N28			Standoff Vertical	Beam	BAR	Q235	Typical
38	M47B	N22	N60			RIGID	None	None	RIGID	Typical
39	M48A	N21	N59			RIGID	None	None	RIGID	Typical
40	M49A	N24	N62			RIGID	None	None	RIGID	Typical
41	M50A	N23	N61			RIGID	None	None	RIGID	Typical
42	M51A	N30	N36			RIGID	None	None	RIGID	Typical
43	M52A	N29	N35			RIGID	None	None	RIGID	Typical
44	M44A	N62A	N66			RIGID	None	None	RIGID	Typical
45	M45A	N63	N67			RIGID	None	None	RIGID	Typical
46	M46A	N64	N68			RIGID	None	None	RIGID	Typical
47	M47A	N61A	N65			RIGID	None	None	RIGID	Typical
48	M48	N69	N71			RRH Pipe	Beam	Pipe	A53 Gr. B	Typical
49	M49	N70	N72			RRH Pipe	Beam	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	M2						Yes				None
3	M3						Yes	** NA **			None
4	M4						Yes	** NA **			None
5	M5						Yes	** NA **			None
6	M6						Yes	** NA **			None
7	M9						Yes	** NA **			None
8	M10						Yes	** NA **			None
9	M11						Yes	** NA **			None
10	M12						Yes	** NA **			None
11	M13	OOOXOX					Yes	Default			None
12	M14	OOOXOX					Yes	Default			None
13	M15	OOOXOX					Yes				None
14	M16	OOOXOX					Yes				None
15	M17						Yes	Default			None
16	M18						Yes				None
17	M19						Yes				None
18	M20						Yes	Default			None
19	M21						Yes	Default			None
20	M22						Yes				None
21	M23						Yes				None
22	M24						Yes				None
23	M25	BenPIN	BenPIN			Euler Buc..	Yes	Default			None
24	M26	BenPIN	BenPIN			Euler Buc..	Yes	Default			None
25	M27	BenPIN	BenPIN			Euler Buc..	Yes				None
26	M28	BenPIN	BenPIN			Euler Buc..	Yes				None
27	M29						Yes	** NA **		Inactive	None
28	M30						Yes	** NA **		Inactive	None
29	M31	BenPIN					Yes	Default			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
30	MP4A						Yes				None
31	MP3A						Yes				None
32	MP2A						Yes				None
33	MP1A						Yes				None
34	M44	BenPIN	BenPIN				Yes				None
35	M45	BenPIN	BenPIN				Yes				None
36	M46	BenPIN	BenPIN				Yes				None
37	M47	BenPIN	BenPIN				Yes	Default			None
38	M47B						Yes	** NA **			None
39	M48A						Yes	** NA **			None
40	M49A						Yes	** NA **			None
41	M50A						Yes	** NA **			None
42	M51A						Yes	** NA **			None
43	M52A						Yes	** NA **			None
44	M44A		OOOXOO				Yes	** NA **			None
45	M45A		OOOXOO				Yes	** NA **			None
46	M46A		OOOXOO				Yes	** NA **			None
47	M47A		OOOXOO				Yes	** NA **			None
48	M48						Yes				None
49	M49						Yes				None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-15.2	2
2	MP1A	My	-.008	2
3	MP1A	Mz	-.007	2
4	MP1A	Y	-15.2	5.5
5	MP1A	My	-.008	5.5
6	MP1A	Mz	-.007	5.5
7	MP4A	Y	-43.55	2.5
8	MP4A	My	-.008	2.5
9	MP4A	Mz	-.007	2.5
10	MP4A	Y	-43.55	4.5
11	MP4A	My	-.008	4.5
12	MP4A	Mz	-.007	4.5
13	MP2A	Y	-38.7	1
14	MP2A	My	-.02	1
15	MP2A	Mz	-.017	1
16	MP2A	Y	-38.7	6
17	MP2A	My	-.02	6
18	MP2A	Mz	-.017	6
19	MP3A	Y	-38.7	1
20	MP3A	My	-.02	1
21	MP3A	Mz	-.017	1
22	MP3A	Y	-38.7	6
23	MP3A	My	-.02	6
24	MP3A	Mz	-.017	6
25	M49	Y	-79.4	2.5
26	M49	My	0	2.5
27	M49	Mz	0	2.5
28	M48	Y	-73	2.5
29	M48	My	0	2.5
30	M48	Mz	0	2.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-75.634	2
2	MP1A	My	-.039	2
3	MP1A	Mz	-.032	2
4	MP1A	Y	-75.634	5.5
5	MP1A	My	-.039	5.5
6	MP1A	Mz	-.032	5.5
7	MP4A	Y	-53.114	2.5
8	MP4A	My	-.01	2.5
9	MP4A	Mz	-.009	2.5
10	MP4A	Y	-53.114	4.5
11	MP4A	My	-.01	4.5
12	MP4A	Mz	-.009	4.5
13	MP2A	Y	-136.496	1
14	MP2A	My	-.07	1
15	MP2A	Mz	-.058	1
16	MP2A	Y	-136.496	6
17	MP2A	My	-.07	6
18	MP2A	Mz	-.058	6
19	MP3A	Y	-136.496	1
20	MP3A	My	-.07	1
21	MP3A	Mz	-.058	1
22	MP3A	Y	-136.496	6
23	MP3A	My	-.07	6
24	MP3A	Mz	-.058	6
25	M49	Y	-72.521	2.5
26	M49	My	0	2.5
27	M49	Mz	0	2.5
28	M48	Y	-72.53	2.5
29	M48	My	0	2.5
30	M48	Mz	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	2
2	MP1A	Z	-101.722	2
3	MP1A	Mx	.044	2
4	MP1A	X	0	5.5
5	MP1A	Z	-101.722	5.5
6	MP1A	Mx	.044	5.5
7	MP4A	X	0	2.5
8	MP4A	Z	-65.135	2.5
9	MP4A	Mx	.01	2.5
10	MP4A	X	0	4.5
11	MP4A	Z	-65.135	4.5
12	MP4A	Mx	.01	4.5
13	MP2A	X	0	1
14	MP2A	Z	-194.532	1
15	MP2A	Mx	.083	1
16	MP2A	X	0	6
17	MP2A	Z	-194.532	6
18	MP2A	Mx	.083	6
19	MP3A	X	0	1
20	MP3A	Z	-194.532	1
21	MP3A	Mx	.083	1
22	MP3A	X	0	6
23	MP3A	Z	-194.532	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP3A	Mx	.083	6
25	M49	X	0	2.5
26	M49	Z	-77.022	2.5
27	M49	Mx	0	2.5
28	M48	X	0	2.5
29	M48	Z	-76.102	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	58.606	2
2	MP1A	Z	-101.509	2
3	MP1A	Mx	.014	2
4	MP1A	X	58.606	5.5
5	MP1A	Z	-101.509	5.5
6	MP1A	Mx	.014	5.5
7	MP4A	X	42.865	2.5
8	MP4A	Z	-74.244	2.5
9	MP4A	Mx	.004	2.5
10	MP4A	X	42.865	4.5
11	MP4A	Z	-74.244	4.5
12	MP4A	Mx	.004	4.5
13	MP2A	X	122.631	1
14	MP2A	Z	-212.404	1
15	MP2A	Mx	.028	1
16	MP2A	X	122.631	6
17	MP2A	Z	-212.404	6
18	MP2A	Mx	.028	6
19	MP3A	X	122.631	1
20	MP3A	Z	-212.404	1
21	MP3A	Mx	.028	1
22	MP3A	X	122.631	6
23	MP3A	Z	-212.404	6
24	MP3A	Mx	.028	6
25	M49	X	45.559	2.5
26	M49	Z	-78.91	2.5
27	M49	Mx	0	2.5
28	M48	X	44.583	2.5
29	M48	Z	-77.221	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	98.468	2
2	MP1A	Z	-56.851	2
3	MP1A	Mx	-.026	2
4	MP1A	X	98.468	5.5
5	MP1A	Z	-56.851	5.5
6	MP1A	Mx	-.026	5.5
7	MP4A	X	70.201	2.5
8	MP4A	Z	-40.531	2.5
9	MP4A	Mx	-.007	2.5
10	MP4A	X	70.201	4.5
11	MP4A	Z	-40.531	4.5
12	MP4A	Mx	-.007	4.5
13	MP2A	X	202.445	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP2A	Z	-116.881	1
15	MP2A	Mx	-.053	1
16	MP2A	X	202.445	6
17	MP2A	Z	-116.881	6
18	MP2A	Mx	-.053	6
19	MP3A	X	202.445	1
20	MP3A	Z	-116.881	1
21	MP3A	Mx	-.053	1
22	MP3A	X	202.445	6
23	MP3A	Z	-116.881	6
24	MP3A	Mx	-.053	6
25	M49	X	76.143	2.5
26	M49	Z	-43.961	2.5
27	M49	Mx	0	2.5
28	M48	X	74.656	2.5
29	M48	Z	-43.103	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	94.699	2
2	MP1A	Z	0	2
3	MP1A	Mx	-.048	2
4	MP1A	X	94.699	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	-.048	5.5
7	MP4A	X	55.797	2.5
8	MP4A	Z	0	2.5
9	MP4A	Mx	-.011	2.5
10	MP4A	X	55.797	4.5
11	MP4A	Z	0	4.5
12	MP4A	Mx	-.011	4.5
13	MP2A	X	171.532	1
14	MP2A	Z	0	1
15	MP2A	Mx	-.088	1
16	MP2A	X	171.532	6
17	MP2A	Z	0	6
18	MP2A	Mx	-.088	6
19	MP3A	X	171.532	1
20	MP3A	Z	0	1
21	MP3A	Mx	-.088	1
22	MP3A	X	171.532	6
23	MP3A	Z	0	6
24	MP3A	Mx	-.088	6
25	M49	X	70.632	2.5
26	M49	Z	0	2.5
27	M49	Mx	0	2.5
28	M48	X	70.179	2.5
29	M48	Z	0	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	68.597	2
2	MP1A	Z	39.604	2
3	MP1A	Mx	-.052	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP1A	X	68.597	5.5
5	MP1A	Z	39.604	5.5
6	MP1A	Mx	-.052	5.5
7	MP4A	X	30.486	2.5
8	MP4A	Z	17.601	2.5
9	MP4A	Mx	-.009	2.5
10	MP4A	X	30.486	4.5
11	MP4A	Z	17.601	4.5
12	MP4A	Mx	-.009	4.5
13	MP2A	X	104.617	1
14	MP2A	Z	60.401	1
15	MP2A	Mx	-.079	1
16	MP2A	X	104.617	6
17	MP2A	Z	60.401	6
18	MP2A	Mx	-.079	6
19	MP3A	X	104.617	1
20	MP3A	Z	60.401	1
21	MP3A	Mx	-.079	1
22	MP3A	X	104.617	6
23	MP3A	Z	60.401	6
24	MP3A	Mx	-.079	6
25	M49	X	48.962	2.5
26	M49	Z	28.268	2.5
27	M49	Mx	0	2.5
28	M48	X	49.462	2.5
29	M48	Z	28.557	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	41.36	2
2	MP1A	Z	71.638	2
3	MP1A	Mx	-.052	2
4	MP1A	X	41.36	5.5
5	MP1A	Z	71.638	5.5
6	MP1A	Mx	-.052	5.5
7	MP4A	X	19.935	2.5
8	MP4A	Z	34.529	2.5
9	MP4A	Mx	-.009	2.5
10	MP4A	X	19.935	4.5
11	MP4A	Z	34.529	4.5
12	MP4A	Mx	-.009	4.5
13	MP2A	X	66.15	1
14	MP2A	Z	114.576	1
15	MP2A	Mx	-.083	1
16	MP2A	X	66.15	6
17	MP2A	Z	114.576	6
18	MP2A	Mx	-.083	6
19	MP3A	X	66.15	1
20	MP3A	Z	114.576	1
21	MP3A	Mx	-.083	1
22	MP3A	X	66.15	6
23	MP3A	Z	114.576	6
24	MP3A	Mx	-.083	6
25	M49	X	29.866	2.5
26	M49	Z	51.729	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	M49	Mx	0	2.5
28	M48	X	30.038	2.5
29	M48	Z	52.027	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	2
2	MP1A	Z	101.722	2
3	MP1A	Mx	-.044	2
4	MP1A	X	0	5.5
5	MP1A	Z	101.722	5.5
6	MP1A	Mx	-.044	5.5
7	MP4A	X	0	2.5
8	MP4A	Z	65.135	2.5
9	MP4A	Mx	-.01	2.5
10	MP4A	X	0	4.5
11	MP4A	Z	65.135	4.5
12	MP4A	Mx	-.01	4.5
13	MP2A	X	0	1
14	MP2A	Z	194.532	1
15	MP2A	Mx	-.083	1
16	MP2A	X	0	6
17	MP2A	Z	194.532	6
18	MP2A	Mx	-.083	6
19	MP3A	X	0	1
20	MP3A	Z	194.532	1
21	MP3A	Mx	-.083	1
22	MP3A	X	0	6
23	MP3A	Z	194.532	6
24	MP3A	Mx	-.083	6
25	M49	X	0	2.5
26	M49	Z	77.022	2.5
27	M49	Mx	0	2.5
28	M48	X	0	2.5
29	M48	Z	76.102	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-58.606	2
2	MP1A	Z	101.509	2
3	MP1A	Mx	-.014	2
4	MP1A	X	-58.606	5.5
5	MP1A	Z	101.509	5.5
6	MP1A	Mx	-.014	5.5
7	MP4A	X	-42.865	2.5
8	MP4A	Z	74.244	2.5
9	MP4A	Mx	-.004	2.5
10	MP4A	X	-42.865	4.5
11	MP4A	Z	74.244	4.5
12	MP4A	Mx	-.004	4.5
13	MP2A	X	-122.631	1
14	MP2A	Z	212.404	1
15	MP2A	Mx	-.028	1
16	MP2A	X	-122.631	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP2A	Z	212.404	6
18	MP2A	Mx	-.028	6
19	MP3A	X	-122.631	1
20	MP3A	Z	212.404	1
21	MP3A	Mx	-.028	1
22	MP3A	X	-122.631	6
23	MP3A	Z	212.404	6
24	MP3A	Mx	-.028	6
25	M49	X	-45.559	2.5
26	M49	Z	78.91	2.5
27	M49	Mx	0	2.5
28	M48	X	-44.583	2.5
29	M48	Z	77.221	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-98.468	2
2	MP1A	Z	56.851	2
3	MP1A	Mx	.026	2
4	MP1A	X	-98.468	5.5
5	MP1A	Z	56.851	5.5
6	MP1A	Mx	.026	5.5
7	MP4A	X	-70.201	2.5
8	MP4A	Z	40.531	2.5
9	MP4A	Mx	.007	2.5
10	MP4A	X	-70.201	4.5
11	MP4A	Z	40.531	4.5
12	MP4A	Mx	.007	4.5
13	MP2A	X	-202.445	1
14	MP2A	Z	116.881	1
15	MP2A	Mx	.053	1
16	MP2A	X	-202.445	6
17	MP2A	Z	116.881	6
18	MP2A	Mx	.053	6
19	MP3A	X	-202.445	1
20	MP3A	Z	116.881	1
21	MP3A	Mx	.053	1
22	MP3A	X	-202.445	6
23	MP3A	Z	116.881	6
24	MP3A	Mx	.053	6
25	M49	X	-76.143	2.5
26	M49	Z	43.961	2.5
27	M49	Mx	0	2.5
28	M48	X	-74.656	2.5
29	M48	Z	43.103	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-94.699	2
2	MP1A	Z	0	2
3	MP1A	Mx	.048	2
4	MP1A	X	-94.699	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	.048	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	-55.797	2.5
8	MP4A	Z	0	2.5
9	MP4A	Mx	.011	2.5
10	MP4A	X	-55.797	4.5
11	MP4A	Z	0	4.5
12	MP4A	Mx	.011	4.5
13	MP2A	X	-171.532	1
14	MP2A	Z	0	1
15	MP2A	Mx	.088	1
16	MP2A	X	-171.532	6
17	MP2A	Z	0	6
18	MP2A	Mx	.088	6
19	MP3A	X	-171.532	1
20	MP3A	Z	0	1
21	MP3A	Mx	.088	1
22	MP3A	X	-171.532	6
23	MP3A	Z	0	6
24	MP3A	Mx	.088	6
25	M49	X	-70.632	2.5
26	M49	Z	0	2.5
27	M49	Mx	0	2.5
28	M48	X	-70.179	2.5
29	M48	Z	0	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-68.597	2
2	MP1A	Z	-39.604	2
3	MP1A	Mx	.052	2
4	MP1A	X	-68.597	5.5
5	MP1A	Z	-39.604	5.5
6	MP1A	Mx	.052	5.5
7	MP4A	X	-30.486	2.5
8	MP4A	Z	-17.601	2.5
9	MP4A	Mx	.009	2.5
10	MP4A	X	-30.486	4.5
11	MP4A	Z	-17.601	4.5
12	MP4A	Mx	.009	4.5
13	MP2A	X	-104.617	1
14	MP2A	Z	-60.401	1
15	MP2A	Mx	.079	1
16	MP2A	X	-104.617	6
17	MP2A	Z	-60.401	6
18	MP2A	Mx	.079	6
19	MP3A	X	-104.617	1
20	MP3A	Z	-60.401	1
21	MP3A	Mx	.079	1
22	MP3A	X	-104.617	6
23	MP3A	Z	-60.401	6
24	MP3A	Mx	.079	6
25	M49	X	-48.962	2.5
26	M49	Z	-28.268	2.5
27	M49	Mx	0	2.5
28	M48	X	-49.462	2.5
29	M48	Z	-28.557	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-41.36	2
2	MP1A	Z	-71.638	2
3	MP1A	Mx	.052	2
4	MP1A	X	-41.36	5.5
5	MP1A	Z	-71.638	5.5
6	MP1A	Mx	.052	5.5
7	MP4A	X	-19.935	2.5
8	MP4A	Z	-34.529	2.5
9	MP4A	Mx	.009	2.5
10	MP4A	X	-19.935	4.5
11	MP4A	Z	-34.529	4.5
12	MP4A	Mx	.009	4.5
13	MP2A	X	-66.15	1
14	MP2A	Z	-114.576	1
15	MP2A	Mx	.083	1
16	MP2A	X	-66.15	6
17	MP2A	Z	-114.576	6
18	MP2A	Mx	.083	6
19	MP3A	X	-66.15	1
20	MP3A	Z	-114.576	1
21	MP3A	Mx	.083	1
22	MP3A	X	-66.15	6
23	MP3A	Z	-114.576	6
24	MP3A	Mx	.083	6
25	M49	X	-29.866	2.5
26	M49	Z	-51.729	2.5
27	M49	Mx	0	2.5
28	M48	X	-30.038	2.5
29	M48	Z	-52.027	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	2
2	MP1A	Z	-22.837	2
3	MP1A	Mx	.01	2
4	MP1A	X	0	5.5
5	MP1A	Z	-22.837	5.5
6	MP1A	Mx	.01	5.5
7	MP4A	X	0	2.5
8	MP4A	Z	-15.047	2.5
9	MP4A	Mx	.002	2.5
10	MP4A	X	0	4.5
11	MP4A	Z	-15.047	4.5
12	MP4A	Mx	.002	4.5
13	MP2A	X	0	1
14	MP2A	Z	-41.393	1
15	MP2A	Mx	.018	1
16	MP2A	X	0	6
17	MP2A	Z	-41.393	6
18	MP2A	Mx	.018	6
19	MP3A	X	0	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP3A	Z	-41.393	1
21	MP3A	Mx	.018	1
22	MP3A	X	0	6
23	MP3A	Z	-41.393	6
24	MP3A	Mx	.018	6
25	M49	X	0	2.5
26	M49	Z	-18.832	2.5
27	M49	Mx	0	2.5
28	M48	X	0	2.5
29	M48	Z	-18.64	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	12.945	2
2	MP1A	Z	-22.421	2
3	MP1A	Mx	.003	2
4	MP1A	X	12.945	5.5
5	MP1A	Z	-22.421	5.5
6	MP1A	Mx	.003	5.5
7	MP4A	X	9.623	2.5
8	MP4A	Z	-16.667	2.5
9	MP4A	Mx	.000835	2.5
10	MP4A	X	9.623	4.5
11	MP4A	Z	-16.667	4.5
12	MP4A	Mx	.000835	4.5
13	MP2A	X	25.57	1
14	MP2A	Z	-44.288	1
15	MP2A	Mx	.006	1
16	MP2A	X	25.57	6
17	MP2A	Z	-44.288	6
18	MP2A	Mx	.006	6
19	MP3A	X	25.57	1
20	MP3A	Z	-44.288	1
21	MP3A	Mx	.006	1
22	MP3A	X	25.57	6
23	MP3A	Z	-44.288	6
24	MP3A	Mx	.006	6
25	M49	X	10.894	2.5
26	M49	Z	-18.87	2.5
27	M49	Mx	0	2.5
28	M48	X	10.681	2.5
29	M48	Z	-18.5	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	21.822	2
2	MP1A	Z	-12.599	2
3	MP1A	Mx	-.006	2
4	MP1A	X	21.822	5.5
5	MP1A	Z	-12.599	5.5
6	MP1A	Mx	-.006	5.5
7	MP4A	X	15.843	2.5
8	MP4A	Z	-9.147	2.5
9	MP4A	Mx	-.002	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP4A	X	15.843	4.5
11	MP4A	Z	-9.147	4.5
12	MP4A	Mx	-.002	4.5
13	MP2A	X	42.375	1
14	MP2A	Z	-24.465	1
15	MP2A	Mx	-.011	1
16	MP2A	X	42.375	6
17	MP2A	Z	-24.465	6
18	MP2A	Mx	-.011	6
19	MP3A	X	42.375	1
20	MP3A	Z	-24.465	1
21	MP3A	Mx	-.011	1
22	MP3A	X	42.375	6
23	MP3A	Z	-24.465	6
24	MP3A	Mx	-.011	6
25	M49	X	18.289	2.5
26	M49	Z	-10.559	2.5
27	M49	Mx	0	2.5
28	M48	X	17.966	2.5
29	M48	Z	-10.373	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	21.454	2
2	MP1A	Z	0	2
3	MP1A	Mx	-.011	2
4	MP1A	X	21.454	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	-.011	5.5
7	MP4A	X	13.144	2.5
8	MP4A	Z	0	2.5
9	MP4A	Mx	-.003	2.5
10	MP4A	X	13.144	4.5
11	MP4A	Z	0	4.5
12	MP4A	Mx	-.003	4.5
13	MP2A	X	36.974	1
14	MP2A	Z	0	1
15	MP2A	Mx	-.019	1
16	MP2A	X	36.974	6
17	MP2A	Z	0	6
18	MP2A	Mx	-.019	6
19	MP3A	X	36.974	1
20	MP3A	Z	0	1
21	MP3A	Mx	-.019	1
22	MP3A	X	36.974	6
23	MP3A	Z	0	6
24	MP3A	Mx	-.019	6
25	M49	X	17.492	2.5
26	M49	Z	0	2.5
27	M49	Mx	0	2.5
28	M48	X	17.405	2.5
29	M48	Z	0	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	15.936	2
2	MP1A	Z	9.201	2
3	MP1A	Mx	-.012	2
4	MP1A	X	15.936	5.5
5	MP1A	Z	9.201	5.5
6	MP1A	Mx	-.012	5.5
7	MP4A	X	7.747	2.5
8	MP4A	Z	4.473	2.5
9	MP4A	Mx	-.002	2.5
10	MP4A	X	7.747	4.5
11	MP4A	Z	4.473	4.5
12	MP4A	Mx	-.002	4.5
13	MP2A	X	23.58	1
14	MP2A	Z	13.614	1
15	MP2A	Mx	-.018	1
16	MP2A	X	23.58	6
17	MP2A	Z	13.614	6
18	MP2A	Mx	-.018	6
19	MP3A	X	23.58	1
20	MP3A	Z	13.614	1
21	MP3A	Mx	-.018	1
22	MP3A	X	23.58	6
23	MP3A	Z	13.614	6
24	MP3A	Mx	-.018	6
25	M49	X	12.588	2.5
26	M49	Z	7.268	2.5
27	M49	Mx	0	2.5
28	M48	X	12.716	2.5
29	M48	Z	7.341	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	9.547	2
2	MP1A	Z	16.535	2
3	MP1A	Mx	-.012	2
4	MP1A	X	9.547	5.5
5	MP1A	Z	16.535	5.5
6	MP1A	Mx	-.012	5.5
7	MP4A	X	4.949	2.5
8	MP4A	Z	8.571	2.5
9	MP4A	Mx	-.002	2.5
10	MP4A	X	4.949	4.5
11	MP4A	Z	8.571	4.5
12	MP4A	Mx	-.002	4.5
13	MP2A	X	14.719	1
14	MP2A	Z	25.493	1
15	MP2A	Mx	-.018	1
16	MP2A	X	14.719	6
17	MP2A	Z	25.493	6
18	MP2A	Mx	-.018	6
19	MP3A	X	14.719	1
20	MP3A	Z	25.493	1
21	MP3A	Mx	-.018	1
22	MP3A	X	14.719	6
23	MP3A	Z	25.493	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP3A	Mx	-.018	6
25	M49	X	7.603	2.5
26	M49	Z	13.168	2.5
27	M49	Mx	0	2.5
28	M48	X	7.65	2.5
29	M48	Z	13.25	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	2
2	MP1A	Z	22.837	2
3	MP1A	Mx	-.01	2
4	MP1A	X	0	5.5
5	MP1A	Z	22.837	5.5
6	MP1A	Mx	-.01	5.5
7	MP4A	X	0	2.5
8	MP4A	Z	15.047	2.5
9	MP4A	Mx	-.002	2.5
10	MP4A	X	0	4.5
11	MP4A	Z	15.047	4.5
12	MP4A	Mx	-.002	4.5
13	MP2A	X	0	1
14	MP2A	Z	41.393	1
15	MP2A	Mx	-.018	1
16	MP2A	X	0	6
17	MP2A	Z	41.393	6
18	MP2A	Mx	-.018	6
19	MP3A	X	0	1
20	MP3A	Z	41.393	1
21	MP3A	Mx	-.018	1
22	MP3A	X	0	6
23	MP3A	Z	41.393	6
24	MP3A	Mx	-.018	6
25	M49	X	0	2.5
26	M49	Z	18.832	2.5
27	M49	Mx	0	2.5
28	M48	X	0	2.5
29	M48	Z	18.64	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-12.945	2
2	MP1A	Z	22.421	2
3	MP1A	Mx	-.003	2
4	MP1A	X	-12.945	5.5
5	MP1A	Z	22.421	5.5
6	MP1A	Mx	-.003	5.5
7	MP4A	X	-9.623	2.5
8	MP4A	Z	16.667	2.5
9	MP4A	Mx	-.000835	2.5
10	MP4A	X	-9.623	4.5
11	MP4A	Z	16.667	4.5
12	MP4A	Mx	-.000835	4.5
13	MP2A	X	-25.57	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
14	MP2A	Z	44.288	1
15	MP2A	Mx	-.006	1
16	MP2A	X	-25.57	6
17	MP2A	Z	44.288	6
18	MP2A	Mx	-.006	6
19	MP3A	X	-25.57	1
20	MP3A	Z	44.288	1
21	MP3A	Mx	-.006	1
22	MP3A	X	-25.57	6
23	MP3A	Z	44.288	6
24	MP3A	Mx	-.006	6
25	M49	X	-10.894	2.5
26	M49	Z	18.87	2.5
27	M49	Mx	0	2.5
28	M48	X	-10.681	2.5
29	M48	Z	18.5	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-21.822	2
2	MP1A	Z	12.599	2
3	MP1A	Mx	.006	2
4	MP1A	X	-21.822	5.5
5	MP1A	Z	12.599	5.5
6	MP1A	Mx	.006	5.5
7	MP4A	X	-15.843	2.5
8	MP4A	Z	9.147	2.5
9	MP4A	Mx	.002	2.5
10	MP4A	X	-15.843	4.5
11	MP4A	Z	9.147	4.5
12	MP4A	Mx	.002	4.5
13	MP2A	X	-42.375	1
14	MP2A	Z	24.465	1
15	MP2A	Mx	.011	1
16	MP2A	X	-42.375	6
17	MP2A	Z	24.465	6
18	MP2A	Mx	.011	6
19	MP3A	X	-42.375	1
20	MP3A	Z	24.465	1
21	MP3A	Mx	.011	1
22	MP3A	X	-42.375	6
23	MP3A	Z	24.465	6
24	MP3A	Mx	.011	6
25	M49	X	-18.289	2.5
26	M49	Z	10.559	2.5
27	M49	Mx	0	2.5
28	M48	X	-17.966	2.5
29	M48	Z	10.373	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-21.454	2
2	MP1A	Z	0	2
3	MP1A	Mx	.011	2

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
4	MP1A	X	-21.454	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	.011	5.5
7	MP4A	X	-13.144	2.5
8	MP4A	Z	0	2.5
9	MP4A	Mx	.003	2.5
10	MP4A	X	-13.144	4.5
11	MP4A	Z	0	4.5
12	MP4A	Mx	.003	4.5
13	MP2A	X	-36.974	1
14	MP2A	Z	0	1
15	MP2A	Mx	.019	1
16	MP2A	X	-36.974	6
17	MP2A	Z	0	6
18	MP2A	Mx	.019	6
19	MP3A	X	-36.974	1
20	MP3A	Z	0	1
21	MP3A	Mx	.019	1
22	MP3A	X	-36.974	6
23	MP3A	Z	0	6
24	MP3A	Mx	.019	6
25	M49	X	-17.492	2.5
26	M49	Z	0	2.5
27	M49	Mx	0	2.5
28	M48	X	-17.405	2.5
29	M48	Z	0	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-15.936	2
2	MP1A	Z	-9.201	2
3	MP1A	Mx	.012	2
4	MP1A	X	-15.936	5.5
5	MP1A	Z	-9.201	5.5
6	MP1A	Mx	.012	5.5
7	MP4A	X	-7.747	2.5
8	MP4A	Z	-4.473	2.5
9	MP4A	Mx	.002	2.5
10	MP4A	X	-7.747	4.5
11	MP4A	Z	-4.473	4.5
12	MP4A	Mx	.002	4.5
13	MP2A	X	-23.58	1
14	MP2A	Z	-13.614	1
15	MP2A	Mx	.018	1
16	MP2A	X	-23.58	6
17	MP2A	Z	-13.614	6
18	MP2A	Mx	.018	6
19	MP3A	X	-23.58	1
20	MP3A	Z	-13.614	1
21	MP3A	Mx	.018	1
22	MP3A	X	-23.58	6
23	MP3A	Z	-13.614	6
24	MP3A	Mx	.018	6
25	M49	X	-12.588	2.5
26	M49	Z	-7.268	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
27	M49	Mx	0	2.5
28	M48	X	-12.716	2.5
29	M48	Z	-7.341	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-9.547	2
2	MP1A	Z	-16.535	2
3	MP1A	Mx	.012	2
4	MP1A	X	-9.547	5.5
5	MP1A	Z	-16.535	5.5
6	MP1A	Mx	.012	5.5
7	MP4A	X	-4.949	2.5
8	MP4A	Z	-8.571	2.5
9	MP4A	Mx	.002	2.5
10	MP4A	X	-4.949	4.5
11	MP4A	Z	-8.571	4.5
12	MP4A	Mx	.002	4.5
13	MP2A	X	-14.719	1
14	MP2A	Z	-25.493	1
15	MP2A	Mx	.018	1
16	MP2A	X	-14.719	6
17	MP2A	Z	-25.493	6
18	MP2A	Mx	.018	6
19	MP3A	X	-14.719	1
20	MP3A	Z	-25.493	1
21	MP3A	Mx	.018	1
22	MP3A	X	-14.719	6
23	MP3A	Z	-25.493	6
24	MP3A	Mx	.018	6
25	M49	X	-7.603	2.5
26	M49	Z	-13.168	2.5
27	M49	Mx	0	2.5
28	M48	X	-7.65	2.5
29	M48	Z	-13.25	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	2
2	MP1A	Z	-6.804	2
3	MP1A	Mx	.003	2
4	MP1A	X	0	5.5
5	MP1A	Z	-6.804	5.5
6	MP1A	Mx	.003	5.5
7	MP4A	X	0	2.5
8	MP4A	Z	-4.357	2.5
9	MP4A	Mx	.0007	2.5
10	MP4A	X	0	4.5
11	MP4A	Z	-4.357	4.5
12	MP4A	Mx	.0007	4.5
13	MP2A	X	0	1
14	MP2A	Z	-13.011	1
15	MP2A	Mx	.006	1
16	MP2A	X	0	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
17	MP2A	Z	-13.011	6
18	MP2A	Mx	.006	6
19	MP3A	X	0	1
20	MP3A	Z	-13.011	1
21	MP3A	Mx	.006	1
22	MP3A	X	0	6
23	MP3A	Z	-13.011	6
24	MP3A	Mx	.006	6
25	M49	X	0	2.5
26	M49	Z	-5.152	2.5
27	M49	Mx	0	2.5
28	M48	X	0	2.5
29	M48	Z	-5.09	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	3.92	2
2	MP1A	Z	-6.789	2
3	MP1A	Mx	.000907	2
4	MP1A	X	3.92	5.5
5	MP1A	Z	-6.789	5.5
6	MP1A	Mx	.000907	5.5
7	MP4A	X	2.867	2.5
8	MP4A	Z	-4.966	2.5
9	MP4A	Mx	.000249	2.5
10	MP4A	X	2.867	4.5
11	MP4A	Z	-4.966	4.5
12	MP4A	Mx	.000249	4.5
13	MP2A	X	8.202	1
14	MP2A	Z	-14.207	1
15	MP2A	Mx	.002	1
16	MP2A	X	8.202	6
17	MP2A	Z	-14.207	6
18	MP2A	Mx	.002	6
19	MP3A	X	8.202	1
20	MP3A	Z	-14.207	1
21	MP3A	Mx	.002	1
22	MP3A	X	8.202	6
23	MP3A	Z	-14.207	6
24	MP3A	Mx	.002	6
25	M49	X	3.047	2.5
26	M49	Z	-5.278	2.5
27	M49	Mx	0	2.5
28	M48	X	2.982	2.5
29	M48	Z	-5.165	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	6.586	2
2	MP1A	Z	-3.802	2
3	MP1A	Mx	-.002	2
4	MP1A	X	6.586	5.5
5	MP1A	Z	-3.802	5.5
6	MP1A	Mx	-.002	5.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	4.695	2.5
8	MP4A	Z	-2.711	2.5
9	MP4A	Mx	-.000463	2.5
10	MP4A	X	4.695	4.5
11	MP4A	Z	-2.711	4.5
12	MP4A	Mx	-.000463	4.5
13	MP2A	X	13.54	1
14	MP2A	Z	-7.818	1
15	MP2A	Mx	-.004	1
16	MP2A	X	13.54	6
17	MP2A	Z	-7.818	6
18	MP2A	Mx	-.004	6
19	MP3A	X	13.54	1
20	MP3A	Z	-7.818	1
21	MP3A	Mx	-.004	1
22	MP3A	X	13.54	6
23	MP3A	Z	-7.818	6
24	MP3A	Mx	-.004	6
25	M49	X	5.093	2.5
26	M49	Z	-2.94	2.5
27	M49	Mx	0	2.5
28	M48	X	4.993	2.5
29	M48	Z	-2.883	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	6.334	2
2	MP1A	Z	0	2
3	MP1A	Mx	-.003	2
4	MP1A	X	6.334	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	-.003	5.5
7	MP4A	X	3.732	2.5
8	MP4A	Z	0	2.5
9	MP4A	Mx	-.000715	2.5
10	MP4A	X	3.732	4.5
11	MP4A	Z	0	4.5
12	MP4A	Mx	-.000715	4.5
13	MP2A	X	11.473	1
14	MP2A	Z	0	1
15	MP2A	Mx	-.006	1
16	MP2A	X	11.473	6
17	MP2A	Z	0	6
18	MP2A	Mx	-.006	6
19	MP3A	X	11.473	1
20	MP3A	Z	0	1
21	MP3A	Mx	-.006	1
22	MP3A	X	11.473	6
23	MP3A	Z	0	6
24	MP3A	Mx	-.006	6
25	M49	X	4.724	2.5
26	M49	Z	0	2.5
27	M49	Mx	0	2.5
28	M48	X	4.694	2.5
29	M48	Z	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	4.588	2
2	MP1A	Z	2.649	2
3	MP1A	Mx	-.003	2
4	MP1A	X	4.588	5.5
5	MP1A	Z	2.649	5.5
6	MP1A	Mx	-.003	5.5
7	MP4A	X	2.039	2.5
8	MP4A	Z	1.177	2.5
9	MP4A	Mx	-.00058	2.5
10	MP4A	X	2.039	4.5
11	MP4A	Z	1.177	4.5
12	MP4A	Mx	-.00058	4.5
13	MP2A	X	6.997	1
14	MP2A	Z	4.04	1
15	MP2A	Mx	-.005	1
16	MP2A	X	6.997	6
17	MP2A	Z	4.04	6
18	MP2A	Mx	-.005	6
19	MP3A	X	6.997	1
20	MP3A	Z	4.04	1
21	MP3A	Mx	-.005	1
22	MP3A	X	6.997	6
23	MP3A	Z	4.04	6
24	MP3A	Mx	-.005	6
25	M49	X	3.275	2.5
26	M49	Z	1.891	2.5
27	M49	Mx	0	2.5
28	M48	X	3.308	2.5
29	M48	Z	1.91	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	2.766	2
2	MP1A	Z	4.791	2
3	MP1A	Mx	-.003	2
4	MP1A	X	2.766	5.5
5	MP1A	Z	4.791	5.5
6	MP1A	Mx	-.003	5.5
7	MP4A	X	1.333	2.5
8	MP4A	Z	2.309	2.5
9	MP4A	Mx	-.000626	2.5
10	MP4A	X	1.333	4.5
11	MP4A	Z	2.309	4.5
12	MP4A	Mx	-.000626	4.5
13	MP2A	X	4.424	1
14	MP2A	Z	7.663	1
15	MP2A	Mx	-.006	1
16	MP2A	X	4.424	6
17	MP2A	Z	7.663	6
18	MP2A	Mx	-.006	6
19	MP3A	X	4.424	1

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
20	MP3A	Z	7.663	1
21	MP3A	Mx	-.006	1
22	MP3A	X	4.424	6
23	MP3A	Z	7.663	6
24	MP3A	Mx	-.006	6
25	M49	X	1.998	2.5
26	M49	Z	3.46	2.5
27	M49	Mx	0	2.5
28	M48	X	2.009	2.5
29	M48	Z	3.48	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	2
2	MP1A	Z	6.804	2
3	MP1A	Mx	-.003	2
4	MP1A	X	0	5.5
5	MP1A	Z	6.804	5.5
6	MP1A	Mx	-.003	5.5
7	MP4A	X	0	2.5
8	MP4A	Z	4.357	2.5
9	MP4A	Mx	-.0007	2.5
10	MP4A	X	0	4.5
11	MP4A	Z	4.357	4.5
12	MP4A	Mx	-.0007	4.5
13	MP2A	X	0	1
14	MP2A	Z	13.011	1
15	MP2A	Mx	-.006	1
16	MP2A	X	0	6
17	MP2A	Z	13.011	6
18	MP2A	Mx	-.006	6
19	MP3A	X	0	1
20	MP3A	Z	13.011	1
21	MP3A	Mx	-.006	1
22	MP3A	X	0	6
23	MP3A	Z	13.011	6
24	MP3A	Mx	-.006	6
25	M49	X	0	2.5
26	M49	Z	5.152	2.5
27	M49	Mx	0	2.5
28	M48	X	0	2.5
29	M48	Z	5.09	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-3.92	2
2	MP1A	Z	6.789	2
3	MP1A	Mx	-.000907	2
4	MP1A	X	-3.92	5.5
5	MP1A	Z	6.789	5.5
6	MP1A	Mx	-.000907	5.5
7	MP4A	X	-2.867	2.5
8	MP4A	Z	4.966	2.5
9	MP4A	Mx	-.000249	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
10	MP4A	X	-2.867	4.5
11	MP4A	Z	4.966	4.5
12	MP4A	Mx	-.000249	4.5
13	MP2A	X	-8.202	1
14	MP2A	Z	14.207	1
15	MP2A	Mx	-.002	1
16	MP2A	X	-8.202	6
17	MP2A	Z	14.207	6
18	MP2A	Mx	-.002	6
19	MP3A	X	-8.202	1
20	MP3A	Z	14.207	1
21	MP3A	Mx	-.002	1
22	MP3A	X	-8.202	6
23	MP3A	Z	14.207	6
24	MP3A	Mx	-.002	6
25	M49	X	-3.047	2.5
26	M49	Z	5.278	2.5
27	M49	Mx	0	2.5
28	M48	X	-2.982	2.5
29	M48	Z	5.165	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-6.586	2
2	MP1A	Z	3.802	2
3	MP1A	Mx	.002	2
4	MP1A	X	-6.586	5.5
5	MP1A	Z	3.802	5.5
6	MP1A	Mx	.002	5.5
7	MP4A	X	-4.695	2.5
8	MP4A	Z	2.711	2.5
9	MP4A	Mx	.000463	2.5
10	MP4A	X	-4.695	4.5
11	MP4A	Z	2.711	4.5
12	MP4A	Mx	.000463	4.5
13	MP2A	X	-13.54	1
14	MP2A	Z	7.818	1
15	MP2A	Mx	.004	1
16	MP2A	X	-13.54	6
17	MP2A	Z	7.818	6
18	MP2A	Mx	.004	6
19	MP3A	X	-13.54	1
20	MP3A	Z	7.818	1
21	MP3A	Mx	.004	1
22	MP3A	X	-13.54	6
23	MP3A	Z	7.818	6
24	MP3A	Mx	.004	6
25	M49	X	-5.093	2.5
26	M49	Z	2.94	2.5
27	M49	Mx	0	2.5
28	M48	X	-4.993	2.5
29	M48	Z	2.883	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-6.334	2
2	MP1A	Z	0	2
3	MP1A	Mx	.003	2
4	MP1A	X	-6.334	5.5
5	MP1A	Z	0	5.5
6	MP1A	Mx	.003	5.5
7	MP4A	X	-3.732	2.5
8	MP4A	Z	0	2.5
9	MP4A	Mx	.000715	2.5
10	MP4A	X	-3.732	4.5
11	MP4A	Z	0	4.5
12	MP4A	Mx	.000715	4.5
13	MP2A	X	-11.473	1
14	MP2A	Z	0	1
15	MP2A	Mx	.006	1
16	MP2A	X	-11.473	6
17	MP2A	Z	0	6
18	MP2A	Mx	.006	6
19	MP3A	X	-11.473	1
20	MP3A	Z	0	1
21	MP3A	Mx	.006	1
22	MP3A	X	-11.473	6
23	MP3A	Z	0	6
24	MP3A	Mx	.006	6
25	M49	X	-4.724	2.5
26	M49	Z	0	2.5
27	M49	Mx	0	2.5
28	M48	X	-4.694	2.5
29	M48	Z	0	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-4.588	2
2	MP1A	Z	-2.649	2
3	MP1A	Mx	.003	2
4	MP1A	X	-4.588	5.5
5	MP1A	Z	-2.649	5.5
6	MP1A	Mx	.003	5.5
7	MP4A	X	-2.039	2.5
8	MP4A	Z	-1.177	2.5
9	MP4A	Mx	.00058	2.5
10	MP4A	X	-2.039	4.5
11	MP4A	Z	-1.177	4.5
12	MP4A	Mx	.00058	4.5
13	MP2A	X	-6.997	1
14	MP2A	Z	-4.04	1
15	MP2A	Mx	.005	1
16	MP2A	X	-6.997	6
17	MP2A	Z	-4.04	6
18	MP2A	Mx	.005	6
19	MP3A	X	-6.997	1
20	MP3A	Z	-4.04	1
21	MP3A	Mx	.005	1
22	MP3A	X	-6.997	6
23	MP3A	Z	-4.04	6

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
24	MP3A	Mx	.005	6
25	M49	X	-3.275	2.5
26	M49	Z	-1.891	2.5
27	M49	Mx	0	2.5
28	M48	X	-3.308	2.5
29	M48	Z	-1.91	2.5
30	M48	Mx	0	2.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-2.766	2
2	MP1A	Z	-4.791	2
3	MP1A	Mx	.003	2
4	MP1A	X	-2.766	5.5
5	MP1A	Z	-4.791	5.5
6	MP1A	Mx	.003	5.5
7	MP4A	X	-1.333	2.5
8	MP4A	Z	-2.309	2.5
9	MP4A	Mx	.000626	2.5
10	MP4A	X	-1.333	4.5
11	MP4A	Z	-2.309	4.5
12	MP4A	Mx	.000626	4.5
13	MP2A	X	-4.424	1
14	MP2A	Z	-7.663	1
15	MP2A	Mx	.006	1
16	MP2A	X	-4.424	6
17	MP2A	Z	-7.663	6
18	MP2A	Mx	.006	6
19	MP3A	X	-4.424	1
20	MP3A	Z	-7.663	1
21	MP3A	Mx	.006	1
22	MP3A	X	-4.424	6
23	MP3A	Z	-7.663	6
24	MP3A	Mx	.006	6
25	M49	X	-1.998	2.5
26	M49	Z	-3.46	2.5
27	M49	Mx	0	2.5
28	M48	X	-2.009	2.5
29	M48	Z	-3.48	2.5
30	M48	Mx	0	2.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M6	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M12	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-250	%50

Member Point Loads (BLC 80 : Lv2)

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

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M1	Y	-250	0

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	Y	-9.896	-9.896	0	%100
2	M2	Y	-9.896	-9.896	0	%100
3	M13	Y	-11.351	-11.351	0	%100
4	M14	Y	-11.351	-11.351	0	%100
5	M15	Y	-11.351	-11.351	0	%100
6	M16	Y	-11.351	-11.351	0	%100
7	M17	Y	-8.826	-8.826	0	%100
8	M18	Y	-8.826	-8.826	0	%100
9	M19	Y	-8.826	-8.826	0	%100
10	M20	Y	-8.826	-8.826	0	%100
11	M21	Y	-11.351	-11.351	0	%100
12	M22	Y	-11.351	-11.351	0	%100
13	M23	Y	-11.351	-11.351	0	%100
14	M24	Y	-11.351	-11.351	0	%100
15	M25	Y	-5.35	-5.35	0	%100
16	M26	Y	-5.35	-5.35	0	%100
17	M27	Y	-5.35	-5.35	0	%100
18	M28	Y	-5.35	-5.35	0	%100
19	M31	Y	-8.826	-8.826	0	%100
20	MP4A	Y	-8.826	-8.826	0	%100
21	MP3A	Y	-8.826	-8.826	0	%100
22	MP2A	Y	-8.826	-8.826	0	%100
23	MP1A	Y	-8.826	-8.826	0	%100
24	M44	Y	-5.083	-5.083	0	%100
25	M45	Y	-5.083	-5.083	0	%100
26	M46	Y	-5.083	-5.083	0	%100
27	M47	Y	-5.083	-5.083	0	%100
28	M48	Y	-8.826	-8.826	0	%100
29	M49	Y	-8.826	-8.826	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	0	0	0	%100
2	M1	Z	-11.681	-11.681	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-11.681	-11.681	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-4.612	-4.612	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-4.612	-4.612	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	-4.612	-4.612	0	%100
19	M20	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
20	M20	Z	-4.612	-4.612	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-2.539	-2.539	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-2.539	-2.539	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-2.539	-2.539	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-2.539	-2.539	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-2.63	-2.63	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-2.63	-2.63	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-2.63	-2.63	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-2.63	-2.63	0	%100
37	M31	X	0	0	0	%100
38	M31	Z	-.098	-.098	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	-8.398	-8.398	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	-8.398	-8.398	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	-8.398	-8.398	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	-8.398	-8.398	0	%100
47	M44	X	0	0	0	%100
48	M44	Z	-2.539	-2.539	0	%100
49	M45	X	0	0	0	%100
50	M45	Z	-2.539	-2.539	0	%100
51	M46	X	0	0	0	%100
52	M46	Z	-2.539	-2.539	0	%100
53	M47	X	0	0	0	%100
54	M47	Z	-2.539	-2.539	0	%100
55	M48	X	0	0	0	%100
56	M48	Z	-8.398	-8.398	0	%100
57	M49	X	0	0	0	%100
58	M49	Z	-8.398	-8.398	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	4.38	4.38	0	%100
2	M1	Z	-7.587	-7.587	0	%100
3	M2	X	4.38	4.38	0	%100
4	M2	Z	-7.587	-7.587	0	%100
5	M13	X	.317	.317	0	%100
6	M13	Z	-.55	-.55	0	%100
7	M14	X	.317	.317	0	%100
8	M14	Z	-.55	-.55	0	%100
9	M15	X	.317	.317	0	%100
10	M15	Z	-.55	-.55	0	%100
11	M16	X	.317	.317	0	%100
12	M16	Z	-.55	-.55	0	%100
13	M17	X	.519	.519	0	%100
14	M17	Z	-.899	-.899	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
15	M18	X	.519	.519	0	%100
16	M18	Z	-.899	-.899	0	%100
17	M19	X	3.647	3.647	0	%100
18	M19	Z	-6.316	-6.316	0	%100
19	M20	X	3.647	3.647	0	%100
20	M20	Z	-6.316	-6.316	0	%100
21	M21	X	.952	.952	0	%100
22	M21	Z	-1.649	-1.649	0	%100
23	M22	X	.952	.952	0	%100
24	M22	Z	-1.649	-1.649	0	%100
25	M23	X	.952	.952	0	%100
26	M23	Z	-1.649	-1.649	0	%100
27	M24	X	.952	.952	0	%100
28	M24	Z	-1.649	-1.649	0	%100
29	M25	X	1.052	1.052	0	%100
30	M25	Z	-1.821	-1.821	0	%100
31	M26	X	1.052	1.052	0	%100
32	M26	Z	-1.821	-1.821	0	%100
33	M27	X	1.513	1.513	0	%100
34	M27	Z	-2.62	-2.62	0	%100
35	M28	X	1.513	1.513	0	%100
36	M28	Z	-2.62	-2.62	0	%100
37	M31	X	1.646	1.646	0	%100
38	M31	Z	-2.851	-2.851	0	%100
39	MP4A	X	4.355	4.355	0	%100
40	MP4A	Z	-7.544	-7.544	0	%100
41	MP3A	X	4.355	4.355	0	%100
42	MP3A	Z	-7.544	-7.544	0	%100
43	MP2A	X	4.355	4.355	0	%100
44	MP2A	Z	-7.544	-7.544	0	%100
45	MP1A	X	4.355	4.355	0	%100
46	MP1A	Z	-7.544	-7.544	0	%100
47	M44	X	1.27	1.27	0	%100
48	M44	Z	-2.199	-2.199	0	%100
49	M45	X	1.27	1.27	0	%100
50	M45	Z	-2.199	-2.199	0	%100
51	M46	X	1.27	1.27	0	%100
52	M46	Z	-2.199	-2.199	0	%100
53	M47	X	1.27	1.27	0	%100
54	M47	Z	-2.199	-2.199	0	%100
55	M48	X	4.355	4.355	0	%100
56	M48	Z	-7.544	-7.544	0	%100
57	M49	X	4.355	4.355	0	%100
58	M49	Z	-7.544	-7.544	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
1	M1	X	2.529	2.529	0	%100
2	M1	Z	-1.46	-1.46	0	%100
3	M2	X	2.529	2.529	0	%100
4	M2	Z	-1.46	-1.46	0	%100
5	M13	X	1.649	1.649	0	%100
6	M13	Z	-.952	-.952	0	%100
7	M14	X	1.649	1.649	0	%100
8	M14	Z	-.952	-.952	0	%100
9	M15	X	1.649	1.649	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
10	M15	Z	-.952	-.952	0	%100
11	M16	X	1.649	1.649	0	%100
12	M16	Z	-.952	-.952	0	%100
13	M17	X	.127	.127	0	%100
14	M17	Z	-.073	-.073	0	%100
15	M18	X	.127	.127	0	%100
16	M18	Z	-.073	-.073	0	%100
17	M19	X	5.544	5.544	0	%100
18	M19	Z	-3.201	-3.201	0	%100
19	M20	X	5.544	5.544	0	%100
20	M20	Z	-3.201	-3.201	0	%100
21	M21	X	.55	.55	0	%100
22	M21	Z	-.317	-.317	0	%100
23	M22	X	.55	.55	0	%100
24	M22	Z	-.317	-.317	0	%100
25	M23	X	.55	.55	0	%100
26	M23	Z	-.317	-.317	0	%100
27	M24	X	.55	.55	0	%100
28	M24	Z	-.317	-.317	0	%100
29	M25	X	1.707	1.707	0	%100
30	M25	Z	-.986	-.986	0	%100
31	M26	X	1.707	1.707	0	%100
32	M26	Z	-.986	-.986	0	%100
33	M27	X	2.506	2.506	0	%100
34	M27	Z	-1.447	-1.447	0	%100
35	M28	X	2.506	2.506	0	%100
36	M28	Z	-1.447	-1.447	0	%100
37	M31	X	6.945	6.945	0	%100
38	M31	Z	-4.01	-4.01	0	%100
39	MP4A	X	8.086	8.086	0	%100
40	MP4A	Z	-4.668	-4.668	0	%100
41	MP3A	X	8.086	8.086	0	%100
42	MP3A	Z	-4.668	-4.668	0	%100
43	MP2A	X	8.086	8.086	0	%100
44	MP2A	Z	-4.668	-4.668	0	%100
45	MP1A	X	8.086	8.086	0	%100
46	MP1A	Z	-4.668	-4.668	0	%100
47	M44	X	2.199	2.199	0	%100
48	M44	Z	-1.27	-1.27	0	%100
49	M45	X	2.199	2.199	0	%100
50	M45	Z	-1.27	-1.27	0	%100
51	M46	X	2.199	2.199	0	%100
52	M46	Z	-1.27	-1.27	0	%100
53	M47	X	2.199	2.199	0	%100
54	M47	Z	-1.27	-1.27	0	%100
55	M48	X	8.086	8.086	0	%100
56	M48	Z	-4.668	-4.668	0	%100
57	M49	X	8.086	8.086	0	%100
58	M49	Z	-4.668	-4.668	0	%100

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

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

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
5	M13	X	2.539	2.539	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	2.539	2.539	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	2.539	2.539	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	2.539	2.539	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	2.828	2.828	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	2.828	2.828	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	2.828	2.828	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	2.828	2.828	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	2.367	2.367	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	2.367	2.367	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	2.367	2.367	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	2.367	2.367	0	%100
36	M28	Z	0	0	0	%100
37	M31	X	9.553	9.553	0	%100
38	M31	Z	0	0	0	%100
39	MP4A	X	9.649	9.649	0	%100
40	MP4A	Z	0	0	0	%100
41	MP3A	X	9.649	9.649	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	9.649	9.649	0	%100
44	MP2A	Z	0	0	0	%100
45	MP1A	X	9.649	9.649	0	%100
46	MP1A	Z	0	0	0	%100
47	M44	X	2.539	2.539	0	%100
48	M44	Z	0	0	0	%100
49	M45	X	2.539	2.539	0	%100
50	M45	Z	0	0	0	%100
51	M46	X	2.539	2.539	0	%100
52	M46	Z	0	0	0	%100
53	M47	X	2.539	2.539	0	%100
54	M47	Z	0	0	0	%100
55	M48	X	9.649	9.649	0	%100
56	M48	Z	0	0	0	%100
57	M49	X	9.649	9.649	0	%100
58	M49	Z	0	0	0	%100

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

Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	2.529	2.529	0	%100
2	M1	Z	1.46	1.46	0	%100
3	M2	X	2.529	2.529	0	%100
4	M2	Z	1.46	1.46	0	%100
5	M13	X	1.649	1.649	0	%100
6	M13	Z	.952	.952	0	%100
7	M14	X	1.649	1.649	0	%100
8	M14	Z	.952	.952	0	%100
9	M15	X	1.649	1.649	0	%100
10	M15	Z	.952	.952	0	%100
11	M16	X	1.649	1.649	0	%100
12	M16	Z	.952	.952	0	%100
13	M17	X	5.544	5.544	0	%100
14	M17	Z	3.201	3.201	0	%100
15	M18	X	5.544	5.544	0	%100
16	M18	Z	3.201	3.201	0	%100
17	M19	X	.127	.127	0	%100
18	M19	Z	.073	.073	0	%100
19	M20	X	.127	.127	0	%100
20	M20	Z	.073	.073	0	%100
21	M21	X	.55	.55	0	%100
22	M21	Z	.317	.317	0	%100
23	M22	X	.55	.55	0	%100
24	M22	Z	.317	.317	0	%100
25	M23	X	.55	.55	0	%100
26	M23	Z	.317	.317	0	%100
27	M24	X	.55	.55	0	%100
28	M24	Z	.317	.317	0	%100
29	M25	X	2.506	2.506	0	%100
30	M25	Z	1.447	1.447	0	%100
31	M26	X	2.506	2.506	0	%100
32	M26	Z	1.447	1.447	0	%100
33	M27	X	1.707	1.707	0	%100
34	M27	Z	.986	.986	0	%100
35	M28	X	1.707	1.707	0	%100
36	M28	Z	.986	.986	0	%100
37	M31	X	5.507	5.507	0	%100
38	M31	Z	3.179	3.179	0	%100
39	MP4A	X	8.086	8.086	0	%100
40	MP4A	Z	4.668	4.668	0	%100
41	MP3A	X	8.086	8.086	0	%100
42	MP3A	Z	4.668	4.668	0	%100
43	MP2A	X	8.086	8.086	0	%100
44	MP2A	Z	4.668	4.668	0	%100
45	MP1A	X	8.086	8.086	0	%100
46	MP1A	Z	4.668	4.668	0	%100
47	M44	X	2.199	2.199	0	%100
48	M44	Z	1.27	1.27	0	%100
49	M45	X	2.199	2.199	0	%100
50	M45	Z	1.27	1.27	0	%100
51	M46	X	2.199	2.199	0	%100
52	M46	Z	1.27	1.27	0	%100
53	M47	X	2.199	2.199	0	%100
54	M47	Z	1.27	1.27	0	%100
55	M48	X	8.086	8.086	0	%100
56	M48	Z	4.668	4.668	0	%100
57	M49	X	8.086	8.086	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
58	M49	Z	4.668	4.668	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	4.38	4.38	0	%100
2	M1	Z	7.587	7.587	0	%100
3	M2	X	4.38	4.38	0	%100
4	M2	Z	7.587	7.587	0	%100
5	M13	X	.317	.317	0	%100
6	M13	Z	.55	.55	0	%100
7	M14	X	.317	.317	0	%100
8	M14	Z	.55	.55	0	%100
9	M15	X	.317	.317	0	%100
10	M15	Z	.55	.55	0	%100
11	M16	X	.317	.317	0	%100
12	M16	Z	.55	.55	0	%100
13	M17	X	3.647	3.647	0	%100
14	M17	Z	6.316	6.316	0	%100
15	M18	X	3.647	3.647	0	%100
16	M18	Z	6.316	6.316	0	%100
17	M19	X	.519	.519	0	%100
18	M19	Z	.899	.899	0	%100
19	M20	X	.519	.519	0	%100
20	M20	Z	.899	.899	0	%100
21	M21	X	.952	.952	0	%100
22	M21	Z	1.649	1.649	0	%100
23	M22	X	.952	.952	0	%100
24	M22	Z	1.649	1.649	0	%100
25	M23	X	.952	.952	0	%100
26	M23	Z	1.649	1.649	0	%100
27	M24	X	.952	.952	0	%100
28	M24	Z	1.649	1.649	0	%100
29	M25	X	1.513	1.513	0	%100
30	M25	Z	2.62	2.62	0	%100
31	M26	X	1.513	1.513	0	%100
32	M26	Z	2.62	2.62	0	%100
33	M27	X	1.052	1.052	0	%100
34	M27	Z	1.821	1.821	0	%100
35	M28	X	1.052	1.052	0	%100
36	M28	Z	1.821	1.821	0	%100
37	M31	X	.816	.816	0	%100
38	M31	Z	1.413	1.413	0	%100
39	MP4A	X	4.355	4.355	0	%100
40	MP4A	Z	7.544	7.544	0	%100
41	MP3A	X	4.355	4.355	0	%100
42	MP3A	Z	7.544	7.544	0	%100
43	MP2A	X	4.355	4.355	0	%100
44	MP2A	Z	7.544	7.544	0	%100
45	MP1A	X	4.355	4.355	0	%100
46	MP1A	Z	7.544	7.544	0	%100
47	M44	X	1.27	1.27	0	%100
48	M44	Z	2.199	2.199	0	%100
49	M45	X	1.27	1.27	0	%100
50	M45	Z	2.199	2.199	0	%100
51	M46	X	1.27	1.27	0	%100
52	M46	Z	2.199	2.199	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
53	M47	X	1.27	1.27	0	%100
54	M47	Z	2.199	2.199	0	%100
55	M48	X	4.355	4.355	0	%100
56	M48	Z	7.544	7.544	0	%100
57	M49	X	4.355	4.355	0	%100
58	M49	Z	7.544	7.544	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	0	0	0	%100
2	M1	Z	11.681	11.681	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	11.681	11.681	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	4.612	4.612	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	4.612	4.612	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	4.612	4.612	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	4.612	4.612	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	2.539	2.539	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	2.539	2.539	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	2.539	2.539	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	2.539	2.539	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	2.63	2.63	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	2.63	2.63	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	2.63	2.63	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	2.63	2.63	0	%100
37	M31	X	0	0	0	%100
38	M31	Z	.098	.098	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	8.398	8.398	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	8.398	8.398	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	8.398	8.398	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	8.398	8.398	0	%100
47	M44	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
48	M44	Z	2.539	2.539	0	%100
49	M45	X	0	0	0	%100
50	M45	Z	2.539	2.539	0	%100
51	M46	X	0	0	0	%100
52	M46	Z	2.539	2.539	0	%100
53	M47	X	0	0	0	%100
54	M47	Z	2.539	2.539	0	%100
55	M48	X	0	0	0	%100
56	M48	Z	8.398	8.398	0	%100
57	M49	X	0	0	0	%100
58	M49	Z	8.398	8.398	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
1	M1	X	-4.38	-4.38	0	%100
2	M1	Z	7.587	7.587	0	%100
3	M2	X	-4.38	-4.38	0	%100
4	M2	Z	7.587	7.587	0	%100
5	M13	X	-.317	-.317	0	%100
6	M13	Z	.55	.55	0	%100
7	M14	X	-.317	-.317	0	%100
8	M14	Z	.55	.55	0	%100
9	M15	X	-.317	-.317	0	%100
10	M15	Z	.55	.55	0	%100
11	M16	X	-.317	-.317	0	%100
12	M16	Z	.55	.55	0	%100
13	M17	X	-.519	-.519	0	%100
14	M17	Z	.899	.899	0	%100
15	M18	X	-.519	-.519	0	%100
16	M18	Z	.899	.899	0	%100
17	M19	X	-3.647	-3.647	0	%100
18	M19	Z	6.316	6.316	0	%100
19	M20	X	-3.647	-3.647	0	%100
20	M20	Z	6.316	6.316	0	%100
21	M21	X	-.952	-.952	0	%100
22	M21	Z	1.649	1.649	0	%100
23	M22	X	-.952	-.952	0	%100
24	M22	Z	1.649	1.649	0	%100
25	M23	X	-.952	-.952	0	%100
26	M23	Z	1.649	1.649	0	%100
27	M24	X	-.952	-.952	0	%100
28	M24	Z	1.649	1.649	0	%100
29	M25	X	-1.052	-1.052	0	%100
30	M25	Z	1.821	1.821	0	%100
31	M26	X	-1.052	-1.052	0	%100
32	M26	Z	1.821	1.821	0	%100
33	M27	X	-1.513	-1.513	0	%100
34	M27	Z	2.62	2.62	0	%100
35	M28	X	-1.513	-1.513	0	%100
36	M28	Z	2.62	2.62	0	%100
37	M31	X	-1.646	-1.646	0	%100
38	M31	Z	2.851	2.851	0	%100
39	MP4A	X	-4.355	-4.355	0	%100
40	MP4A	Z	7.544	7.544	0	%100
41	MP3A	X	-4.355	-4.355	0	%100
42	MP3A	Z	7.544	7.544	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
43	MP2A	X	-4.355	-4.355	0	%100
44	MP2A	Z	7.544	7.544	0	%100
45	MP1A	X	-4.355	-4.355	0	%100
46	MP1A	Z	7.544	7.544	0	%100
47	M44	X	-1.27	-1.27	0	%100
48	M44	Z	2.199	2.199	0	%100
49	M45	X	-1.27	-1.27	0	%100
50	M45	Z	2.199	2.199	0	%100
51	M46	X	-1.27	-1.27	0	%100
52	M46	Z	2.199	2.199	0	%100
53	M47	X	-1.27	-1.27	0	%100
54	M47	Z	2.199	2.199	0	%100
55	M48	X	-4.355	-4.355	0	%100
56	M48	Z	7.544	7.544	0	%100
57	M49	X	-4.355	-4.355	0	%100
58	M49	Z	7.544	7.544	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	-2.529	-2.529	0	%100
2	M1	Z	1.46	1.46	0	%100
3	M2	X	-2.529	-2.529	0	%100
4	M2	Z	1.46	1.46	0	%100
5	M13	X	-1.649	-1.649	0	%100
6	M13	Z	.952	.952	0	%100
7	M14	X	-1.649	-1.649	0	%100
8	M14	Z	.952	.952	0	%100
9	M15	X	-1.649	-1.649	0	%100
10	M15	Z	.952	.952	0	%100
11	M16	X	-1.649	-1.649	0	%100
12	M16	Z	.952	.952	0	%100
13	M17	X	-.127	-.127	0	%100
14	M17	Z	.073	.073	0	%100
15	M18	X	-.127	-.127	0	%100
16	M18	Z	.073	.073	0	%100
17	M19	X	-5.544	-5.544	0	%100
18	M19	Z	3.201	3.201	0	%100
19	M20	X	-5.544	-5.544	0	%100
20	M20	Z	3.201	3.201	0	%100
21	M21	X	-.55	-.55	0	%100
22	M21	Z	.317	.317	0	%100
23	M22	X	-.55	-.55	0	%100
24	M22	Z	.317	.317	0	%100
25	M23	X	-.55	-.55	0	%100
26	M23	Z	.317	.317	0	%100
27	M24	X	-.55	-.55	0	%100
28	M24	Z	.317	.317	0	%100
29	M25	X	-1.707	-1.707	0	%100
30	M25	Z	.986	.986	0	%100
31	M26	X	-1.707	-1.707	0	%100
32	M26	Z	.986	.986	0	%100
33	M27	X	-2.506	-2.506	0	%100
34	M27	Z	1.447	1.447	0	%100
35	M28	X	-2.506	-2.506	0	%100
36	M28	Z	1.447	1.447	0	%100
37	M31	X	-6.945	-6.945	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
38	M31	Z	4.01	4.01	0	%100
39	MP4A	X	-8.086	-8.086	0	%100
40	MP4A	Z	4.668	4.668	0	%100
41	MP3A	X	-8.086	-8.086	0	%100
42	MP3A	Z	4.668	4.668	0	%100
43	MP2A	X	-8.086	-8.086	0	%100
44	MP2A	Z	4.668	4.668	0	%100
45	MP1A	X	-8.086	-8.086	0	%100
46	MP1A	Z	4.668	4.668	0	%100
47	M44	X	-2.199	-2.199	0	%100
48	M44	Z	1.27	1.27	0	%100
49	M45	X	-2.199	-2.199	0	%100
50	M45	Z	1.27	1.27	0	%100
51	M46	X	-2.199	-2.199	0	%100
52	M46	Z	1.27	1.27	0	%100
53	M47	X	-2.199	-2.199	0	%100
54	M47	Z	1.27	1.27	0	%100
55	M48	X	-8.086	-8.086	0	%100
56	M48	Z	4.668	4.668	0	%100
57	M49	X	-8.086	-8.086	0	%100
58	M49	Z	4.668	4.668	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-2.539	-2.539	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-2.539	-2.539	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-2.539	-2.539	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-2.539	-2.539	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-2.828	-2.828	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-2.828	-2.828	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-2.828	-2.828	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-2.828	-2.828	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-2.367	-2.367	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-2.367	-2.367	0	%100
32	M26	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
33	M27	X	-2.367	-2.367	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-2.367	-2.367	0	%100
36	M28	Z	0	0	0	%100
37	M31	X	-9.553	-9.553	0	%100
38	M31	Z	0	0	0	%100
39	MP4A	X	-9.649	-9.649	0	%100
40	MP4A	Z	0	0	0	%100
41	MP3A	X	-9.649	-9.649	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	-9.649	-9.649	0	%100
44	MP2A	Z	0	0	0	%100
45	MP1A	X	-9.649	-9.649	0	%100
46	MP1A	Z	0	0	0	%100
47	M44	X	-2.539	-2.539	0	%100
48	M44	Z	0	0	0	%100
49	M45	X	-2.539	-2.539	0	%100
50	M45	Z	0	0	0	%100
51	M46	X	-2.539	-2.539	0	%100
52	M46	Z	0	0	0	%100
53	M47	X	-2.539	-2.539	0	%100
54	M47	Z	0	0	0	%100
55	M48	X	-9.649	-9.649	0	%100
56	M48	Z	0	0	0	%100
57	M49	X	-9.649	-9.649	0	%100
58	M49	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
1	M1	X	-2.529	-2.529	0	%100
2	M1	Z	-1.46	-1.46	0	%100
3	M2	X	-2.529	-2.529	0	%100
4	M2	Z	-1.46	-1.46	0	%100
5	M13	X	-1.649	-1.649	0	%100
6	M13	Z	-.952	-.952	0	%100
7	M14	X	-1.649	-1.649	0	%100
8	M14	Z	-.952	-.952	0	%100
9	M15	X	-1.649	-1.649	0	%100
10	M15	Z	-.952	-.952	0	%100
11	M16	X	-1.649	-1.649	0	%100
12	M16	Z	-.952	-.952	0	%100
13	M17	X	-5.544	-5.544	0	%100
14	M17	Z	-3.201	-3.201	0	%100
15	M18	X	-5.544	-5.544	0	%100
16	M18	Z	-3.201	-3.201	0	%100
17	M19	X	-.127	-.127	0	%100
18	M19	Z	-.073	-.073	0	%100
19	M20	X	-.127	-.127	0	%100
20	M20	Z	-.073	-.073	0	%100
21	M21	X	-.55	-.55	0	%100
22	M21	Z	-.317	-.317	0	%100
23	M22	X	-.55	-.55	0	%100
24	M22	Z	-.317	-.317	0	%100
25	M23	X	-.55	-.55	0	%100
26	M23	Z	-.317	-.317	0	%100
27	M24	X	-.55	-.55	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
28	M24	Z	-.317	-.317	0	%100
29	M25	X	-2.506	-2.506	0	%100
30	M25	Z	-1.447	-1.447	0	%100
31	M26	X	-2.506	-2.506	0	%100
32	M26	Z	-1.447	-1.447	0	%100
33	M27	X	-1.707	-1.707	0	%100
34	M27	Z	-.986	-.986	0	%100
35	M28	X	-1.707	-1.707	0	%100
36	M28	Z	-.986	-.986	0	%100
37	M31	X	-5.507	-5.507	0	%100
38	M31	Z	-3.179	-3.179	0	%100
39	MP4A	X	-8.086	-8.086	0	%100
40	MP4A	Z	-4.668	-4.668	0	%100
41	MP3A	X	-8.086	-8.086	0	%100
42	MP3A	Z	-4.668	-4.668	0	%100
43	MP2A	X	-8.086	-8.086	0	%100
44	MP2A	Z	-4.668	-4.668	0	%100
45	MP1A	X	-8.086	-8.086	0	%100
46	MP1A	Z	-4.668	-4.668	0	%100
47	M44	X	-2.199	-2.199	0	%100
48	M44	Z	-1.27	-1.27	0	%100
49	M45	X	-2.199	-2.199	0	%100
50	M45	Z	-1.27	-1.27	0	%100
51	M46	X	-2.199	-2.199	0	%100
52	M46	Z	-1.27	-1.27	0	%100
53	M47	X	-2.199	-2.199	0	%100
54	M47	Z	-1.27	-1.27	0	%100
55	M48	X	-8.086	-8.086	0	%100
56	M48	Z	-4.668	-4.668	0	%100
57	M49	X	-8.086	-8.086	0	%100
58	M49	Z	-4.668	-4.668	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	-4.38	-4.38	0	%100
2	M1	Z	-7.587	-7.587	0	%100
3	M2	X	-4.38	-4.38	0	%100
4	M2	Z	-7.587	-7.587	0	%100
5	M13	X	-.317	-.317	0	%100
6	M13	Z	-.55	-.55	0	%100
7	M14	X	-.317	-.317	0	%100
8	M14	Z	-.55	-.55	0	%100
9	M15	X	-.317	-.317	0	%100
10	M15	Z	-.55	-.55	0	%100
11	M16	X	-.317	-.317	0	%100
12	M16	Z	-.55	-.55	0	%100
13	M17	X	-3.647	-3.647	0	%100
14	M17	Z	-6.316	-6.316	0	%100
15	M18	X	-3.647	-3.647	0	%100
16	M18	Z	-6.316	-6.316	0	%100
17	M19	X	-.519	-.519	0	%100
18	M19	Z	-.899	-.899	0	%100
19	M20	X	-.519	-.519	0	%100
20	M20	Z	-.899	-.899	0	%100
21	M21	X	-.952	-.952	0	%100
22	M21	Z	-1.649	-1.649	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
23	M22	X	-.952	-.952	0	%100
24	M22	Z	-1.649	-1.649	0	%100
25	M23	X	-.952	-.952	0	%100
26	M23	Z	-1.649	-1.649	0	%100
27	M24	X	-.952	-.952	0	%100
28	M24	Z	-1.649	-1.649	0	%100
29	M25	X	-1.513	-1.513	0	%100
30	M25	Z	-2.62	-2.62	0	%100
31	M26	X	-1.513	-1.513	0	%100
32	M26	Z	-2.62	-2.62	0	%100
33	M27	X	-1.052	-1.052	0	%100
34	M27	Z	-1.821	-1.821	0	%100
35	M28	X	-1.052	-1.052	0	%100
36	M28	Z	-1.821	-1.821	0	%100
37	M31	X	-.816	-.816	0	%100
38	M31	Z	-1.413	-1.413	0	%100
39	MP4A	X	-4.355	-4.355	0	%100
40	MP4A	Z	-7.544	-7.544	0	%100
41	MP3A	X	-4.355	-4.355	0	%100
42	MP3A	Z	-7.544	-7.544	0	%100
43	MP2A	X	-4.355	-4.355	0	%100
44	MP2A	Z	-7.544	-7.544	0	%100
45	MP1A	X	-4.355	-4.355	0	%100
46	MP1A	Z	-7.544	-7.544	0	%100
47	M44	X	-1.27	-1.27	0	%100
48	M44	Z	-2.199	-2.199	0	%100
49	M45	X	-1.27	-1.27	0	%100
50	M45	Z	-2.199	-2.199	0	%100
51	M46	X	-1.27	-1.27	0	%100
52	M46	Z	-2.199	-2.199	0	%100
53	M47	X	-1.27	-1.27	0	%100
54	M47	Z	-2.199	-2.199	0	%100
55	M48	X	-4.355	-4.355	0	%100
56	M48	Z	-7.544	-7.544	0	%100
57	M49	X	-4.355	-4.355	0	%100
58	M49	Z	-7.544	-7.544	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	0	0	0	%100
2	M1	Z	-4.814	-4.814	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-4.814	-4.814	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-1.997	-1.997	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-1.997	-1.997	0	%100
17	M19	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
18	M19	Z	-1.997	-1.997	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-1.997	-1.997	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-2.014	-2.014	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-2.014	-2.014	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-2.014	-2.014	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-2.014	-2.014	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-2.317	-2.317	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-2.317	-2.317	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-2.317	-2.317	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-2.317	-2.317	0	%100
37	M31	X	0	0	0	%100
38	M31	Z	-.045	-.045	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	-4.154	-4.154	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	-4.154	-4.154	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	-4.154	-4.154	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	-4.154	-4.154	0	%100
47	M44	X	0	0	0	%100
48	M44	Z	-2.451	-2.451	0	%100
49	M45	X	0	0	0	%100
50	M45	Z	-2.451	-2.451	0	%100
51	M46	X	0	0	0	%100
52	M46	Z	-2.451	-2.451	0	%100
53	M47	X	0	0	0	%100
54	M47	Z	-2.451	-2.451	0	%100
55	M48	X	0	0	0	%100
56	M48	Z	-3.819	-3.819	0	%100
57	M49	X	0	0	0	%100
58	M49	Z	-3.819	-3.819	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	1.805	1.805	0	%100
2	M1	Z	-3.126	-3.126	0	%100
3	M2	X	1.805	1.805	0	%100
4	M2	Z	-3.126	-3.126	0	%100
5	M13	X	.252	.252	0	%100
6	M13	Z	-.436	-.436	0	%100
7	M14	X	.252	.252	0	%100
8	M14	Z	-.436	-.436	0	%100
9	M15	X	.252	.252	0	%100
10	M15	Z	-.436	-.436	0	%100
11	M16	X	.252	.252	0	%100
12	M16	Z	-.436	-.436	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
13	M17	X	.225	.225	0	%100
14	M17	Z	-.389	-.389	0	%100
15	M18	X	.225	.225	0	%100
16	M18	Z	-.389	-.389	0	%100
17	M19	X	1.579	1.579	0	%100
18	M19	Z	-2.735	-2.735	0	%100
19	M20	X	1.579	1.579	0	%100
20	M20	Z	-2.735	-2.735	0	%100
21	M21	X	.755	.755	0	%100
22	M21	Z	-1.308	-1.308	0	%100
23	M22	X	.755	.755	0	%100
24	M22	Z	-1.308	-1.308	0	%100
25	M23	X	.755	.755	0	%100
26	M23	Z	-1.308	-1.308	0	%100
27	M24	X	.755	.755	0	%100
28	M24	Z	-1.308	-1.308	0	%100
29	M25	X	.926	.926	0	%100
30	M25	Z	-1.605	-1.605	0	%100
31	M26	X	.926	.926	0	%100
32	M26	Z	-1.605	-1.605	0	%100
33	M27	X	1.333	1.333	0	%100
34	M27	Z	-2.309	-2.309	0	%100
35	M28	X	1.333	1.333	0	%100
36	M28	Z	-2.309	-2.309	0	%100
37	M31	X	.757	.757	0	%100
38	M31	Z	-1.311	-1.311	0	%100
39	MP4A	X	2.106	2.106	0	%100
40	MP4A	Z	-3.648	-3.648	0	%100
41	MP3A	X	2.106	2.106	0	%100
42	MP3A	Z	-3.648	-3.648	0	%100
43	MP2A	X	2.106	2.106	0	%100
44	MP2A	Z	-3.648	-3.648	0	%100
45	MP1A	X	2.106	2.106	0	%100
46	MP1A	Z	-3.648	-3.648	0	%100
47	M44	X	1.225	1.225	0	%100
48	M44	Z	-2.122	-2.122	0	%100
49	M45	X	1.225	1.225	0	%100
50	M45	Z	-2.122	-2.122	0	%100
51	M46	X	1.225	1.225	0	%100
52	M46	Z	-2.122	-2.122	0	%100
53	M47	X	1.225	1.225	0	%100
54	M47	Z	-2.122	-2.122	0	%100
55	M48	X	1.938	1.938	0	%100
56	M48	Z	-3.357	-3.357	0	%100
57	M49	X	1.938	1.938	0	%100
58	M49	Z	-3.357	-3.357	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	1.042	1.042	0	%100
2	M1	Z	-.602	-.602	0	%100
3	M2	X	1.042	1.042	0	%100
4	M2	Z	-.602	-.602	0	%100
5	M13	X	1.308	1.308	0	%100
6	M13	Z	-.755	-.755	0	%100
7	M14	X	1.308	1.308	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
8	M14	Z	-.755	-.755	0	%100
9	M15	X	1.308	1.308	0	%100
10	M15	Z	-.755	-.755	0	%100
11	M16	X	1.308	1.308	0	%100
12	M16	Z	-.755	-.755	0	%100
13	M17	X	.055	.055	0	%100
14	M17	Z	-.032	-.032	0	%100
15	M18	X	.055	.055	0	%100
16	M18	Z	-.032	-.032	0	%100
17	M19	X	2.4	2.4	0	%100
18	M19	Z	-1.386	-1.386	0	%100
19	M20	X	2.4	2.4	0	%100
20	M20	Z	-1.386	-1.386	0	%100
21	M21	X	.436	.436	0	%100
22	M21	Z	-.252	-.252	0	%100
23	M22	X	.436	.436	0	%100
24	M22	Z	-.252	-.252	0	%100
25	M23	X	.436	.436	0	%100
26	M23	Z	-.252	-.252	0	%100
27	M24	X	.436	.436	0	%100
28	M24	Z	-.252	-.252	0	%100
29	M25	X	1.504	1.504	0	%100
30	M25	Z	-.868	-.868	0	%100
31	M26	X	1.504	1.504	0	%100
32	M26	Z	-.868	-.868	0	%100
33	M27	X	2.208	2.208	0	%100
34	M27	Z	-1.275	-1.275	0	%100
35	M28	X	2.208	2.208	0	%100
36	M28	Z	-1.275	-1.275	0	%100
37	M31	X	3.193	3.193	0	%100
38	M31	Z	-1.844	-1.844	0	%100
39	MP4A	X	3.749	3.749	0	%100
40	MP4A	Z	-2.164	-2.164	0	%100
41	MP3A	X	3.749	3.749	0	%100
42	MP3A	Z	-2.164	-2.164	0	%100
43	MP2A	X	3.749	3.749	0	%100
44	MP2A	Z	-2.164	-2.164	0	%100
45	MP1A	X	3.749	3.749	0	%100
46	MP1A	Z	-2.164	-2.164	0	%100
47	M44	X	2.122	2.122	0	%100
48	M44	Z	-1.225	-1.225	0	%100
49	M45	X	2.122	2.122	0	%100
50	M45	Z	-1.225	-1.225	0	%100
51	M46	X	2.122	2.122	0	%100
52	M46	Z	-1.225	-1.225	0	%100
53	M47	X	2.122	2.122	0	%100
54	M47	Z	-1.225	-1.225	0	%100
55	M48	X	3.458	3.458	0	%100
56	M48	Z	-1.996	-1.996	0	%100
57	M49	X	3.458	3.458	0	%100
58	M49	Z	-1.996	-1.996	0	%100

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

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

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	2.014	2.014	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	2.014	2.014	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	2.014	2.014	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	2.014	2.014	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	1.224	1.224	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	1.224	1.224	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	1.224	1.224	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	1.224	1.224	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	2.085	2.085	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	2.085	2.085	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	2.085	2.085	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	2.085	2.085	0	%100
36	M28	Z	0	0	0	%100
37	M31	X	4.392	4.392	0	%100
38	M31	Z	0	0	0	%100
39	MP4A	X	4.387	4.387	0	%100
40	MP4A	Z	0	0	0	%100
41	MP3A	X	4.387	4.387	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	4.387	4.387	0	%100
44	MP2A	Z	0	0	0	%100
45	MP1A	X	4.387	4.387	0	%100
46	MP1A	Z	0	0	0	%100
47	M44	X	2.451	2.451	0	%100
48	M44	Z	0	0	0	%100
49	M45	X	2.451	2.451	0	%100
50	M45	Z	0	0	0	%100
51	M46	X	2.451	2.451	0	%100
52	M46	Z	0	0	0	%100
53	M47	X	2.451	2.451	0	%100
54	M47	Z	0	0	0	%100
55	M48	X	4.051	4.051	0	%100
56	M48	Z	0	0	0	%100
57	M49	X	4.051	4.051	0	%100
58	M49	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	1.042	1.042	0	%100
2	M1	Z	.602	.602	0	%100
3	M2	X	1.042	1.042	0	%100
4	M2	Z	.602	.602	0	%100
5	M13	X	1.308	1.308	0	%100
6	M13	Z	.755	.755	0	%100
7	M14	X	1.308	1.308	0	%100
8	M14	Z	.755	.755	0	%100
9	M15	X	1.308	1.308	0	%100
10	M15	Z	.755	.755	0	%100
11	M16	X	1.308	1.308	0	%100
12	M16	Z	.755	.755	0	%100
13	M17	X	2.4	2.4	0	%100
14	M17	Z	1.386	1.386	0	%100
15	M18	X	2.4	2.4	0	%100
16	M18	Z	1.386	1.386	0	%100
17	M19	X	.055	.055	0	%100
18	M19	Z	.032	.032	0	%100
19	M20	X	.055	.055	0	%100
20	M20	Z	.032	.032	0	%100
21	M21	X	.436	.436	0	%100
22	M21	Z	.252	.252	0	%100
23	M22	X	.436	.436	0	%100
24	M22	Z	.252	.252	0	%100
25	M23	X	.436	.436	0	%100
26	M23	Z	.252	.252	0	%100
27	M24	X	.436	.436	0	%100
28	M24	Z	.252	.252	0	%100
29	M25	X	2.208	2.208	0	%100
30	M25	Z	1.275	1.275	0	%100
31	M26	X	2.208	2.208	0	%100
32	M26	Z	1.275	1.275	0	%100
33	M27	X	1.504	1.504	0	%100
34	M27	Z	.868	.868	0	%100
35	M28	X	1.504	1.504	0	%100
36	M28	Z	.868	.868	0	%100
37	M31	X	2.532	2.532	0	%100
38	M31	Z	1.462	1.462	0	%100
39	MP4A	X	3.749	3.749	0	%100
40	MP4A	Z	2.164	2.164	0	%100
41	MP3A	X	3.749	3.749	0	%100
42	MP3A	Z	2.164	2.164	0	%100
43	MP2A	X	3.749	3.749	0	%100
44	MP2A	Z	2.164	2.164	0	%100
45	MP1A	X	3.749	3.749	0	%100
46	MP1A	Z	2.164	2.164	0	%100
47	M44	X	2.122	2.122	0	%100
48	M44	Z	1.225	1.225	0	%100
49	M45	X	2.122	2.122	0	%100
50	M45	Z	1.225	1.225	0	%100
51	M46	X	2.122	2.122	0	%100
52	M46	Z	1.225	1.225	0	%100
53	M47	X	2.122	2.122	0	%100
54	M47	Z	1.225	1.225	0	%100
55	M48	X	3.458	3.458	0	%100
56	M48	Z	1.996	1.996	0	%100
57	M49	X	3.458	3.458	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
58	M49	Z	1.996	1.996	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	1.805	1.805	0	%100
2	M1	Z	3.126	3.126	0	%100
3	M2	X	1.805	1.805	0	%100
4	M2	Z	3.126	3.126	0	%100
5	M13	X	.252	.252	0	%100
6	M13	Z	.436	.436	0	%100
7	M14	X	.252	.252	0	%100
8	M14	Z	.436	.436	0	%100
9	M15	X	.252	.252	0	%100
10	M15	Z	.436	.436	0	%100
11	M16	X	.252	.252	0	%100
12	M16	Z	.436	.436	0	%100
13	M17	X	1.579	1.579	0	%100
14	M17	Z	2.735	2.735	0	%100
15	M18	X	1.579	1.579	0	%100
16	M18	Z	2.735	2.735	0	%100
17	M19	X	.225	.225	0	%100
18	M19	Z	.389	.389	0	%100
19	M20	X	.225	.225	0	%100
20	M20	Z	.389	.389	0	%100
21	M21	X	.755	.755	0	%100
22	M21	Z	1.308	1.308	0	%100
23	M22	X	.755	.755	0	%100
24	M22	Z	1.308	1.308	0	%100
25	M23	X	.755	.755	0	%100
26	M23	Z	1.308	1.308	0	%100
27	M24	X	.755	.755	0	%100
28	M24	Z	1.308	1.308	0	%100
29	M25	X	1.333	1.333	0	%100
30	M25	Z	2.309	2.309	0	%100
31	M26	X	1.333	1.333	0	%100
32	M26	Z	2.309	2.309	0	%100
33	M27	X	.926	.926	0	%100
34	M27	Z	1.605	1.605	0	%100
35	M28	X	.926	.926	0	%100
36	M28	Z	1.605	1.605	0	%100
37	M31	X	.375	.375	0	%100
38	M31	Z	.649	.649	0	%100
39	MP4A	X	2.106	2.106	0	%100
40	MP4A	Z	3.648	3.648	0	%100
41	MP3A	X	2.106	2.106	0	%100
42	MP3A	Z	3.648	3.648	0	%100
43	MP2A	X	2.106	2.106	0	%100
44	MP2A	Z	3.648	3.648	0	%100
45	MP1A	X	2.106	2.106	0	%100
46	MP1A	Z	3.648	3.648	0	%100
47	M44	X	1.225	1.225	0	%100
48	M44	Z	2.122	2.122	0	%100
49	M45	X	1.225	1.225	0	%100
50	M45	Z	2.122	2.122	0	%100
51	M46	X	1.225	1.225	0	%100
52	M46	Z	2.122	2.122	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
53	M47	X	1.225	1.225	0	%100
54	M47	Z	2.122	2.122	0	%100
55	M48	X	1.938	1.938	0	%100
56	M48	Z	3.357	3.357	0	%100
57	M49	X	1.938	1.938	0	%100
58	M49	Z	3.357	3.357	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	0	0	0	%100
2	M1	Z	4.814	4.814	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	4.814	4.814	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	1.997	1.997	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	1.997	1.997	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	1.997	1.997	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	1.997	1.997	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	2.014	2.014	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	2.014	2.014	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	2.014	2.014	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	2.014	2.014	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	2.317	2.317	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	2.317	2.317	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	2.317	2.317	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	2.317	2.317	0	%100
37	M31	X	0	0	0	%100
38	M31	Z	.045	.045	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	4.154	4.154	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	4.154	4.154	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	4.154	4.154	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	4.154	4.154	0	%100
47	M44	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
48	M44	Z	2.451	2.451	0	%100
49	M45	X	0	0	0	%100
50	M45	Z	2.451	2.451	0	%100
51	M46	X	0	0	0	%100
52	M46	Z	2.451	2.451	0	%100
53	M47	X	0	0	0	%100
54	M47	Z	2.451	2.451	0	%100
55	M48	X	0	0	0	%100
56	M48	Z	3.819	3.819	0	%100
57	M49	X	0	0	0	%100
58	M49	Z	3.819	3.819	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	-1.805	-1.805	0	%100
2	M1	Z	3.126	3.126	0	%100
3	M2	X	-1.805	-1.805	0	%100
4	M2	Z	3.126	3.126	0	%100
5	M13	X	-.252	-.252	0	%100
6	M13	Z	.436	.436	0	%100
7	M14	X	-.252	-.252	0	%100
8	M14	Z	.436	.436	0	%100
9	M15	X	-.252	-.252	0	%100
10	M15	Z	.436	.436	0	%100
11	M16	X	-.252	-.252	0	%100
12	M16	Z	.436	.436	0	%100
13	M17	X	-.225	-.225	0	%100
14	M17	Z	.389	.389	0	%100
15	M18	X	-.225	-.225	0	%100
16	M18	Z	.389	.389	0	%100
17	M19	X	-1.579	-1.579	0	%100
18	M19	Z	2.735	2.735	0	%100
19	M20	X	-1.579	-1.579	0	%100
20	M20	Z	2.735	2.735	0	%100
21	M21	X	-.755	-.755	0	%100
22	M21	Z	1.308	1.308	0	%100
23	M22	X	-.755	-.755	0	%100
24	M22	Z	1.308	1.308	0	%100
25	M23	X	-.755	-.755	0	%100
26	M23	Z	1.308	1.308	0	%100
27	M24	X	-.755	-.755	0	%100
28	M24	Z	1.308	1.308	0	%100
29	M25	X	-.926	-.926	0	%100
30	M25	Z	1.605	1.605	0	%100
31	M26	X	-.926	-.926	0	%100
32	M26	Z	1.605	1.605	0	%100
33	M27	X	-1.333	-1.333	0	%100
34	M27	Z	2.309	2.309	0	%100
35	M28	X	-1.333	-1.333	0	%100
36	M28	Z	2.309	2.309	0	%100
37	M31	X	-.757	-.757	0	%100
38	M31	Z	1.311	1.311	0	%100
39	MP4A	X	-2.106	-2.106	0	%100
40	MP4A	Z	3.648	3.648	0	%100
41	MP3A	X	-2.106	-2.106	0	%100
42	MP3A	Z	3.648	3.648	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
43	MP2A	X	-2.106	-2.106	0	%100
44	MP2A	Z	3.648	3.648	0	%100
45	MP1A	X	-2.106	-2.106	0	%100
46	MP1A	Z	3.648	3.648	0	%100
47	M44	X	-1.225	-1.225	0	%100
48	M44	Z	2.122	2.122	0	%100
49	M45	X	-1.225	-1.225	0	%100
50	M45	Z	2.122	2.122	0	%100
51	M46	X	-1.225	-1.225	0	%100
52	M46	Z	2.122	2.122	0	%100
53	M47	X	-1.225	-1.225	0	%100
54	M47	Z	2.122	2.122	0	%100
55	M48	X	-1.938	-1.938	0	%100
56	M48	Z	3.357	3.357	0	%100
57	M49	X	-1.938	-1.938	0	%100
58	M49	Z	3.357	3.357	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	-1.042	-1.042	0	%100
2	M1	Z	.602	.602	0	%100
3	M2	X	-1.042	-1.042	0	%100
4	M2	Z	.602	.602	0	%100
5	M13	X	-1.308	-1.308	0	%100
6	M13	Z	.755	.755	0	%100
7	M14	X	-1.308	-1.308	0	%100
8	M14	Z	.755	.755	0	%100
9	M15	X	-1.308	-1.308	0	%100
10	M15	Z	.755	.755	0	%100
11	M16	X	-1.308	-1.308	0	%100
12	M16	Z	.755	.755	0	%100
13	M17	X	-.055	-.055	0	%100
14	M17	Z	.032	.032	0	%100
15	M18	X	-.055	-.055	0	%100
16	M18	Z	.032	.032	0	%100
17	M19	X	-2.4	-2.4	0	%100
18	M19	Z	1.386	1.386	0	%100
19	M20	X	-2.4	-2.4	0	%100
20	M20	Z	1.386	1.386	0	%100
21	M21	X	-.436	-.436	0	%100
22	M21	Z	.252	.252	0	%100
23	M22	X	-.436	-.436	0	%100
24	M22	Z	.252	.252	0	%100
25	M23	X	-.436	-.436	0	%100
26	M23	Z	.252	.252	0	%100
27	M24	X	-.436	-.436	0	%100
28	M24	Z	.252	.252	0	%100
29	M25	X	-1.504	-1.504	0	%100
30	M25	Z	.868	.868	0	%100
31	M26	X	-1.504	-1.504	0	%100
32	M26	Z	.868	.868	0	%100
33	M27	X	-2.208	-2.208	0	%100
34	M27	Z	1.275	1.275	0	%100
35	M28	X	-2.208	-2.208	0	%100
36	M28	Z	1.275	1.275	0	%100
37	M31	X	-3.193	-3.193	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
38	M31	Z	1.844	1.844	0	%100
39	MP4A	X	-3.749	-3.749	0	%100
40	MP4A	Z	2.164	2.164	0	%100
41	MP3A	X	-3.749	-3.749	0	%100
42	MP3A	Z	2.164	2.164	0	%100
43	MP2A	X	-3.749	-3.749	0	%100
44	MP2A	Z	2.164	2.164	0	%100
45	MP1A	X	-3.749	-3.749	0	%100
46	MP1A	Z	2.164	2.164	0	%100
47	M44	X	-2.122	-2.122	0	%100
48	M44	Z	1.225	1.225	0	%100
49	M45	X	-2.122	-2.122	0	%100
50	M45	Z	1.225	1.225	0	%100
51	M46	X	-2.122	-2.122	0	%100
52	M46	Z	1.225	1.225	0	%100
53	M47	X	-2.122	-2.122	0	%100
54	M47	Z	1.225	1.225	0	%100
55	M48	X	-3.458	-3.458	0	%100
56	M48	Z	1.996	1.996	0	%100
57	M49	X	-3.458	-3.458	0	%100
58	M49	Z	1.996	1.996	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-2.014	-2.014	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-2.014	-2.014	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-2.014	-2.014	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-2.014	-2.014	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-1.224	-1.224	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-1.224	-1.224	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-1.224	-1.224	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-1.224	-1.224	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-2.085	-2.085	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-2.085	-2.085	0	%100
32	M26	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
33	M27	X	-2.085	-2.085	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-2.085	-2.085	0	%100
36	M28	Z	0	0	0	%100
37	M31	X	-4.392	-4.392	0	%100
38	M31	Z	0	0	0	%100
39	MP4A	X	-4.387	-4.387	0	%100
40	MP4A	Z	0	0	0	%100
41	MP3A	X	-4.387	-4.387	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	-4.387	-4.387	0	%100
44	MP2A	Z	0	0	0	%100
45	MP1A	X	-4.387	-4.387	0	%100
46	MP1A	Z	0	0	0	%100
47	M44	X	-2.451	-2.451	0	%100
48	M44	Z	0	0	0	%100
49	M45	X	-2.451	-2.451	0	%100
50	M45	Z	0	0	0	%100
51	M46	X	-2.451	-2.451	0	%100
52	M46	Z	0	0	0	%100
53	M47	X	-2.451	-2.451	0	%100
54	M47	Z	0	0	0	%100
55	M48	X	-4.051	-4.051	0	%100
56	M48	Z	0	0	0	%100
57	M49	X	-4.051	-4.051	0	%100
58	M49	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
1	M1	X	-1.042	-1.042	0	%100
2	M1	Z	-.602	-.602	0	%100
3	M2	X	-1.042	-1.042	0	%100
4	M2	Z	-.602	-.602	0	%100
5	M13	X	-1.308	-1.308	0	%100
6	M13	Z	-.755	-.755	0	%100
7	M14	X	-1.308	-1.308	0	%100
8	M14	Z	-.755	-.755	0	%100
9	M15	X	-1.308	-1.308	0	%100
10	M15	Z	-.755	-.755	0	%100
11	M16	X	-1.308	-1.308	0	%100
12	M16	Z	-.755	-.755	0	%100
13	M17	X	-2.4	-2.4	0	%100
14	M17	Z	-1.386	-1.386	0	%100
15	M18	X	-2.4	-2.4	0	%100
16	M18	Z	-1.386	-1.386	0	%100
17	M19	X	-.055	-.055	0	%100
18	M19	Z	-.032	-.032	0	%100
19	M20	X	-.055	-.055	0	%100
20	M20	Z	-.032	-.032	0	%100
21	M21	X	-.436	-.436	0	%100
22	M21	Z	-.252	-.252	0	%100
23	M22	X	-.436	-.436	0	%100
24	M22	Z	-.252	-.252	0	%100
25	M23	X	-.436	-.436	0	%100
26	M23	Z	-.252	-.252	0	%100
27	M24	X	-.436	-.436	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
28	M24	Z	-.252	-.252	0	%100
29	M25	X	-2.208	-2.208	0	%100
30	M25	Z	-1.275	-1.275	0	%100
31	M26	X	-2.208	-2.208	0	%100
32	M26	Z	-1.275	-1.275	0	%100
33	M27	X	-1.504	-1.504	0	%100
34	M27	Z	-.868	-.868	0	%100
35	M28	X	-1.504	-1.504	0	%100
36	M28	Z	-.868	-.868	0	%100
37	M31	X	-2.532	-2.532	0	%100
38	M31	Z	-1.462	-1.462	0	%100
39	MP4A	X	-3.749	-3.749	0	%100
40	MP4A	Z	-2.164	-2.164	0	%100
41	MP3A	X	-3.749	-3.749	0	%100
42	MP3A	Z	-2.164	-2.164	0	%100
43	MP2A	X	-3.749	-3.749	0	%100
44	MP2A	Z	-2.164	-2.164	0	%100
45	MP1A	X	-3.749	-3.749	0	%100
46	MP1A	Z	-2.164	-2.164	0	%100
47	M44	X	-2.122	-2.122	0	%100
48	M44	Z	-1.225	-1.225	0	%100
49	M45	X	-2.122	-2.122	0	%100
50	M45	Z	-1.225	-1.225	0	%100
51	M46	X	-2.122	-2.122	0	%100
52	M46	Z	-1.225	-1.225	0	%100
53	M47	X	-2.122	-2.122	0	%100
54	M47	Z	-1.225	-1.225	0	%100
55	M48	X	-3.458	-3.458	0	%100
56	M48	Z	-1.996	-1.996	0	%100
57	M49	X	-3.458	-3.458	0	%100
58	M49	Z	-1.996	-1.996	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	-1.805	-1.805	0	%100
2	M1	Z	-3.126	-3.126	0	%100
3	M2	X	-1.805	-1.805	0	%100
4	M2	Z	-3.126	-3.126	0	%100
5	M13	X	-.252	-.252	0	%100
6	M13	Z	-.436	-.436	0	%100
7	M14	X	-.252	-.252	0	%100
8	M14	Z	-.436	-.436	0	%100
9	M15	X	-.252	-.252	0	%100
10	M15	Z	-.436	-.436	0	%100
11	M16	X	-.252	-.252	0	%100
12	M16	Z	-.436	-.436	0	%100
13	M17	X	-1.579	-1.579	0	%100
14	M17	Z	-2.735	-2.735	0	%100
15	M18	X	-1.579	-1.579	0	%100
16	M18	Z	-2.735	-2.735	0	%100
17	M19	X	-.225	-.225	0	%100
18	M19	Z	-.389	-.389	0	%100
19	M20	X	-.225	-.225	0	%100
20	M20	Z	-.389	-.389	0	%100
21	M21	X	-.755	-.755	0	%100
22	M21	Z	-1.308	-1.308	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
23	M22	X	-.755	-.755	0	%100
24	M22	Z	-1.308	-1.308	0	%100
25	M23	X	-.755	-.755	0	%100
26	M23	Z	-1.308	-1.308	0	%100
27	M24	X	-.755	-.755	0	%100
28	M24	Z	-1.308	-1.308	0	%100
29	M25	X	-1.333	-1.333	0	%100
30	M25	Z	-2.309	-2.309	0	%100
31	M26	X	-1.333	-1.333	0	%100
32	M26	Z	-2.309	-2.309	0	%100
33	M27	X	-.926	-.926	0	%100
34	M27	Z	-1.605	-1.605	0	%100
35	M28	X	-.926	-.926	0	%100
36	M28	Z	-1.605	-1.605	0	%100
37	M31	X	-.375	-.375	0	%100
38	M31	Z	-.649	-.649	0	%100
39	MP4A	X	-2.106	-2.106	0	%100
40	MP4A	Z	-3.648	-3.648	0	%100
41	MP3A	X	-2.106	-2.106	0	%100
42	MP3A	Z	-3.648	-3.648	0	%100
43	MP2A	X	-2.106	-2.106	0	%100
44	MP2A	Z	-3.648	-3.648	0	%100
45	MP1A	X	-2.106	-2.106	0	%100
46	MP1A	Z	-3.648	-3.648	0	%100
47	M44	X	-1.225	-1.225	0	%100
48	M44	Z	-2.122	-2.122	0	%100
49	M45	X	-1.225	-1.225	0	%100
50	M45	Z	-2.122	-2.122	0	%100
51	M46	X	-1.225	-1.225	0	%100
52	M46	Z	-2.122	-2.122	0	%100
53	M47	X	-1.225	-1.225	0	%100
54	M47	Z	-2.122	-2.122	0	%100
55	M48	X	-1.938	-1.938	0	%100
56	M48	Z	-3.357	-3.357	0	%100
57	M49	X	-1.938	-1.938	0	%100
58	M49	Z	-3.357	-3.357	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	0	0	0	%100
2	M1	Z	-.781	-.781	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-.781	-.781	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	-.308	-.308	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	-.308	-.308	0	%100
17	M19	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
18	M19	Z	-.308	-.308	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	-.308	-.308	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	-.17	-.17	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	-.17	-.17	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	-.17	-.17	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	-.17	-.17	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	-.176	-.176	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	-.176	-.176	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	-.176	-.176	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	-.176	-.176	0	%100
37	M31	X	0	0	0	%100
38	M31	Z	-.007	-.007	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	-.562	-.562	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	-.562	-.562	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	-.562	-.562	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	-.562	-.562	0	%100
47	M44	X	0	0	0	%100
48	M44	Z	-.17	-.17	0	%100
49	M45	X	0	0	0	%100
50	M45	Z	-.17	-.17	0	%100
51	M46	X	0	0	0	%100
52	M46	Z	-.17	-.17	0	%100
53	M47	X	0	0	0	%100
54	M47	Z	-.17	-.17	0	%100
55	M48	X	0	0	0	%100
56	M48	Z	-.562	-.562	0	%100
57	M49	X	0	0	0	%100
58	M49	Z	-.562	-.562	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	.293	.293	0	%100
2	M1	Z	-.507	-.507	0	%100
3	M2	X	.293	.293	0	%100
4	M2	Z	-.507	-.507	0	%100
5	M13	X	.021	.021	0	%100
6	M13	Z	-.037	-.037	0	%100
7	M14	X	.021	.021	0	%100
8	M14	Z	-.037	-.037	0	%100
9	M15	X	.021	.021	0	%100
10	M15	Z	-.037	-.037	0	%100
11	M16	X	.021	.021	0	%100
12	M16	Z	-.037	-.037	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
13	M17	X	.035	.035	0	%100
14	M17	Z	-.06	-.06	0	%100
15	M18	X	.035	.035	0	%100
16	M18	Z	-.06	-.06	0	%100
17	M19	X	.244	.244	0	%100
18	M19	Z	-.422	-.422	0	%100
19	M20	X	.244	.244	0	%100
20	M20	Z	-.422	-.422	0	%100
21	M21	X	.064	.064	0	%100
22	M21	Z	-.11	-.11	0	%100
23	M22	X	.064	.064	0	%100
24	M22	Z	-.11	-.11	0	%100
25	M23	X	.064	.064	0	%100
26	M23	Z	-.11	-.11	0	%100
27	M24	X	.064	.064	0	%100
28	M24	Z	-.11	-.11	0	%100
29	M25	X	.07	.07	0	%100
30	M25	Z	-.122	-.122	0	%100
31	M26	X	.07	.07	0	%100
32	M26	Z	-.122	-.122	0	%100
33	M27	X	.101	.101	0	%100
34	M27	Z	-.175	-.175	0	%100
35	M28	X	.101	.101	0	%100
36	M28	Z	-.175	-.175	0	%100
37	M31	X	.11	.11	0	%100
38	M31	Z	-.191	-.191	0	%100
39	MP4A	X	.291	.291	0	%100
40	MP4A	Z	-.505	-.505	0	%100
41	MP3A	X	.291	.291	0	%100
42	MP3A	Z	-.505	-.505	0	%100
43	MP2A	X	.291	.291	0	%100
44	MP2A	Z	-.505	-.505	0	%100
45	MP1A	X	.291	.291	0	%100
46	MP1A	Z	-.505	-.505	0	%100
47	M44	X	.085	.085	0	%100
48	M44	Z	-.147	-.147	0	%100
49	M45	X	.085	.085	0	%100
50	M45	Z	-.147	-.147	0	%100
51	M46	X	.085	.085	0	%100
52	M46	Z	-.147	-.147	0	%100
53	M47	X	.085	.085	0	%100
54	M47	Z	-.147	-.147	0	%100
55	M48	X	.291	.291	0	%100
56	M48	Z	-.505	-.505	0	%100
57	M49	X	.291	.291	0	%100
58	M49	Z	-.505	-.505	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
1	M1	X	.169	.169	0	%100
2	M1	Z	-.098	-.098	0	%100
3	M2	X	.169	.169	0	%100
4	M2	Z	-.098	-.098	0	%100
5	M13	X	.11	.11	0	%100
6	M13	Z	-.064	-.064	0	%100
7	M14	X	.11	.11	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
8	M14	Z	-.064	-.064	0	%100
9	M15	X	.11	.11	0	%100
10	M15	Z	-.064	-.064	0	%100
11	M16	X	.11	.11	0	%100
12	M16	Z	-.064	-.064	0	%100
13	M17	X	.008	.008	0	%100
14	M17	Z	-.005	-.005	0	%100
15	M18	X	.008	.008	0	%100
16	M18	Z	-.005	-.005	0	%100
17	M19	X	.371	.371	0	%100
18	M19	Z	-.214	-.214	0	%100
19	M20	X	.371	.371	0	%100
20	M20	Z	-.214	-.214	0	%100
21	M21	X	.037	.037	0	%100
22	M21	Z	-.021	-.021	0	%100
23	M22	X	.037	.037	0	%100
24	M22	Z	-.021	-.021	0	%100
25	M23	X	.037	.037	0	%100
26	M23	Z	-.021	-.021	0	%100
27	M24	X	.037	.037	0	%100
28	M24	Z	-.021	-.021	0	%100
29	M25	X	.114	.114	0	%100
30	M25	Z	-.066	-.066	0	%100
31	M26	X	.114	.114	0	%100
32	M26	Z	-.066	-.066	0	%100
33	M27	X	.168	.168	0	%100
34	M27	Z	-.097	-.097	0	%100
35	M28	X	.168	.168	0	%100
36	M28	Z	-.097	-.097	0	%100
37	M31	X	.465	.465	0	%100
38	M31	Z	-.268	-.268	0	%100
39	MP4A	X	.541	.541	0	%100
40	MP4A	Z	-.312	-.312	0	%100
41	MP3A	X	.541	.541	0	%100
42	MP3A	Z	-.312	-.312	0	%100
43	MP2A	X	.541	.541	0	%100
44	MP2A	Z	-.312	-.312	0	%100
45	MP1A	X	.541	.541	0	%100
46	MP1A	Z	-.312	-.312	0	%100
47	M44	X	.147	.147	0	%100
48	M44	Z	-.085	-.085	0	%100
49	M45	X	.147	.147	0	%100
50	M45	Z	-.085	-.085	0	%100
51	M46	X	.147	.147	0	%100
52	M46	Z	-.085	-.085	0	%100
53	M47	X	.147	.147	0	%100
54	M47	Z	-.085	-.085	0	%100
55	M48	X	.541	.541	0	%100
56	M48	Z	-.312	-.312	0	%100
57	M49	X	.541	.541	0	%100
58	M49	Z	-.312	-.312	0	%100

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

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

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	.17	.17	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	.17	.17	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	.17	.17	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	.17	.17	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	.189	.189	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	.189	.189	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	.189	.189	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	.189	.189	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	.158	.158	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	.158	.158	0	%100
32	M26	Z	0	0	0	%100
33	M27	X	.158	.158	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	.158	.158	0	%100
36	M28	Z	0	0	0	%100
37	M31	X	.639	.639	0	%100
38	M31	Z	0	0	0	%100
39	MP4A	X	.645	.645	0	%100
40	MP4A	Z	0	0	0	%100
41	MP3A	X	.645	.645	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	.645	.645	0	%100
44	MP2A	Z	0	0	0	%100
45	MP1A	X	.645	.645	0	%100
46	MP1A	Z	0	0	0	%100
47	M44	X	.17	.17	0	%100
48	M44	Z	0	0	0	%100
49	M45	X	.17	.17	0	%100
50	M45	Z	0	0	0	%100
51	M46	X	.17	.17	0	%100
52	M46	Z	0	0	0	%100
53	M47	X	.17	.17	0	%100
54	M47	Z	0	0	0	%100
55	M48	X	.645	.645	0	%100
56	M48	Z	0	0	0	%100
57	M49	X	.645	.645	0	%100
58	M49	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	.169	.169	0	%100
2	M1	Z	.098	.098	0	%100
3	M2	X	.169	.169	0	%100
4	M2	Z	.098	.098	0	%100
5	M13	X	.11	.11	0	%100
6	M13	Z	.064	.064	0	%100
7	M14	X	.11	.11	0	%100
8	M14	Z	.064	.064	0	%100
9	M15	X	.11	.11	0	%100
10	M15	Z	.064	.064	0	%100
11	M16	X	.11	.11	0	%100
12	M16	Z	.064	.064	0	%100
13	M17	X	.371	.371	0	%100
14	M17	Z	.214	.214	0	%100
15	M18	X	.371	.371	0	%100
16	M18	Z	.214	.214	0	%100
17	M19	X	.008	.008	0	%100
18	M19	Z	.005	.005	0	%100
19	M20	X	.008	.008	0	%100
20	M20	Z	.005	.005	0	%100
21	M21	X	.037	.037	0	%100
22	M21	Z	.021	.021	0	%100
23	M22	X	.037	.037	0	%100
24	M22	Z	.021	.021	0	%100
25	M23	X	.037	.037	0	%100
26	M23	Z	.021	.021	0	%100
27	M24	X	.037	.037	0	%100
28	M24	Z	.021	.021	0	%100
29	M25	X	.168	.168	0	%100
30	M25	Z	.097	.097	0	%100
31	M26	X	.168	.168	0	%100
32	M26	Z	.097	.097	0	%100
33	M27	X	.114	.114	0	%100
34	M27	Z	.066	.066	0	%100
35	M28	X	.114	.114	0	%100
36	M28	Z	.066	.066	0	%100
37	M31	X	.368	.368	0	%100
38	M31	Z	.213	.213	0	%100
39	MP4A	X	.541	.541	0	%100
40	MP4A	Z	.312	.312	0	%100
41	MP3A	X	.541	.541	0	%100
42	MP3A	Z	.312	.312	0	%100
43	MP2A	X	.541	.541	0	%100
44	MP2A	Z	.312	.312	0	%100
45	MP1A	X	.541	.541	0	%100
46	MP1A	Z	.312	.312	0	%100
47	M44	X	.147	.147	0	%100
48	M44	Z	.085	.085	0	%100
49	M45	X	.147	.147	0	%100
50	M45	Z	.085	.085	0	%100
51	M46	X	.147	.147	0	%100
52	M46	Z	.085	.085	0	%100
53	M47	X	.147	.147	0	%100
54	M47	Z	.085	.085	0	%100
55	M48	X	.541	.541	0	%100
56	M48	Z	.312	.312	0	%100
57	M49	X	.541	.541	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
58	M49	Z	.312	.312	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	.293	.293	0	%100
2	M1	Z	.507	.507	0	%100
3	M2	X	.293	.293	0	%100
4	M2	Z	.507	.507	0	%100
5	M13	X	.021	.021	0	%100
6	M13	Z	.037	.037	0	%100
7	M14	X	.021	.021	0	%100
8	M14	Z	.037	.037	0	%100
9	M15	X	.021	.021	0	%100
10	M15	Z	.037	.037	0	%100
11	M16	X	.021	.021	0	%100
12	M16	Z	.037	.037	0	%100
13	M17	X	.244	.244	0	%100
14	M17	Z	.422	.422	0	%100
15	M18	X	.244	.244	0	%100
16	M18	Z	.422	.422	0	%100
17	M19	X	.035	.035	0	%100
18	M19	Z	.06	.06	0	%100
19	M20	X	.035	.035	0	%100
20	M20	Z	.06	.06	0	%100
21	M21	X	.064	.064	0	%100
22	M21	Z	.11	.11	0	%100
23	M22	X	.064	.064	0	%100
24	M22	Z	.11	.11	0	%100
25	M23	X	.064	.064	0	%100
26	M23	Z	.11	.11	0	%100
27	M24	X	.064	.064	0	%100
28	M24	Z	.11	.11	0	%100
29	M25	X	.101	.101	0	%100
30	M25	Z	.175	.175	0	%100
31	M26	X	.101	.101	0	%100
32	M26	Z	.175	.175	0	%100
33	M27	X	.07	.07	0	%100
34	M27	Z	.122	.122	0	%100
35	M28	X	.07	.07	0	%100
36	M28	Z	.122	.122	0	%100
37	M31	X	.055	.055	0	%100
38	M31	Z	.094	.094	0	%100
39	MP4A	X	.291	.291	0	%100
40	MP4A	Z	.505	.505	0	%100
41	MP3A	X	.291	.291	0	%100
42	MP3A	Z	.505	.505	0	%100
43	MP2A	X	.291	.291	0	%100
44	MP2A	Z	.505	.505	0	%100
45	MP1A	X	.291	.291	0	%100
46	MP1A	Z	.505	.505	0	%100
47	M44	X	.085	.085	0	%100
48	M44	Z	.147	.147	0	%100
49	M45	X	.085	.085	0	%100
50	M45	Z	.147	.147	0	%100
51	M46	X	.085	.085	0	%100
52	M46	Z	.147	.147	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
53	M47	X	.085	.085	0	%100
54	M47	Z	.147	.147	0	%100
55	M48	X	.291	.291	0	%100
56	M48	Z	.505	.505	0	%100
57	M49	X	.291	.291	0	%100
58	M49	Z	.505	.505	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	0	0	0	%100
2	M1	Z	.781	.781	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.781	.781	0	%100
5	M13	X	0	0	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	0	0	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	0	0	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	0	0	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	0	0	0	%100
14	M17	Z	.308	.308	0	%100
15	M18	X	0	0	0	%100
16	M18	Z	.308	.308	0	%100
17	M19	X	0	0	0	%100
18	M19	Z	.308	.308	0	%100
19	M20	X	0	0	0	%100
20	M20	Z	.308	.308	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	.17	.17	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	.17	.17	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	.17	.17	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	.17	.17	0	%100
29	M25	X	0	0	0	%100
30	M25	Z	.176	.176	0	%100
31	M26	X	0	0	0	%100
32	M26	Z	.176	.176	0	%100
33	M27	X	0	0	0	%100
34	M27	Z	.176	.176	0	%100
35	M28	X	0	0	0	%100
36	M28	Z	.176	.176	0	%100
37	M31	X	0	0	0	%100
38	M31	Z	.007	.007	0	%100
39	MP4A	X	0	0	0	%100
40	MP4A	Z	.562	.562	0	%100
41	MP3A	X	0	0	0	%100
42	MP3A	Z	.562	.562	0	%100
43	MP2A	X	0	0	0	%100
44	MP2A	Z	.562	.562	0	%100
45	MP1A	X	0	0	0	%100
46	MP1A	Z	.562	.562	0	%100
47	M44	X	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
48	M44	Z	.17	.17	0	%100
49	M45	X	0	0	0	%100
50	M45	Z	.17	.17	0	%100
51	M46	X	0	0	0	%100
52	M46	Z	.17	.17	0	%100
53	M47	X	0	0	0	%100
54	M47	Z	.17	.17	0	%100
55	M48	X	0	0	0	%100
56	M48	Z	.562	.562	0	%100
57	M49	X	0	0	0	%100
58	M49	Z	.562	.562	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
1	M1	X	-.293	-.293	0	%100
2	M1	Z	.507	.507	0	%100
3	M2	X	-.293	-.293	0	%100
4	M2	Z	.507	.507	0	%100
5	M13	X	-.021	-.021	0	%100
6	M13	Z	.037	.037	0	%100
7	M14	X	-.021	-.021	0	%100
8	M14	Z	.037	.037	0	%100
9	M15	X	-.021	-.021	0	%100
10	M15	Z	.037	.037	0	%100
11	M16	X	-.021	-.021	0	%100
12	M16	Z	.037	.037	0	%100
13	M17	X	-.035	-.035	0	%100
14	M17	Z	.06	.06	0	%100
15	M18	X	-.035	-.035	0	%100
16	M18	Z	.06	.06	0	%100
17	M19	X	-.244	-.244	0	%100
18	M19	Z	.422	.422	0	%100
19	M20	X	-.244	-.244	0	%100
20	M20	Z	.422	.422	0	%100
21	M21	X	-.064	-.064	0	%100
22	M21	Z	.11	.11	0	%100
23	M22	X	-.064	-.064	0	%100
24	M22	Z	.11	.11	0	%100
25	M23	X	-.064	-.064	0	%100
26	M23	Z	.11	.11	0	%100
27	M24	X	-.064	-.064	0	%100
28	M24	Z	.11	.11	0	%100
29	M25	X	-.07	-.07	0	%100
30	M25	Z	.122	.122	0	%100
31	M26	X	-.07	-.07	0	%100
32	M26	Z	.122	.122	0	%100
33	M27	X	-.101	-.101	0	%100
34	M27	Z	.175	.175	0	%100
35	M28	X	-.101	-.101	0	%100
36	M28	Z	.175	.175	0	%100
37	M31	X	-.11	-.11	0	%100
38	M31	Z	.191	.191	0	%100
39	MP4A	X	-.291	-.291	0	%100
40	MP4A	Z	.505	.505	0	%100
41	MP3A	X	-.291	-.291	0	%100
42	MP3A	Z	.505	.505	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
43	MP2A	X	-.291	-.291	0	%100
44	MP2A	Z	.505	.505	0	%100
45	MP1A	X	-.291	-.291	0	%100
46	MP1A	Z	.505	.505	0	%100
47	M44	X	-.085	-.085	0	%100
48	M44	Z	.147	.147	0	%100
49	M45	X	-.085	-.085	0	%100
50	M45	Z	.147	.147	0	%100
51	M46	X	-.085	-.085	0	%100
52	M46	Z	.147	.147	0	%100
53	M47	X	-.085	-.085	0	%100
54	M47	Z	.147	.147	0	%100
55	M48	X	-.291	-.291	0	%100
56	M48	Z	.505	.505	0	%100
57	M49	X	-.291	-.291	0	%100
58	M49	Z	.505	.505	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	-.169	-.169	0	%100
2	M1	Z	.098	.098	0	%100
3	M2	X	-.169	-.169	0	%100
4	M2	Z	.098	.098	0	%100
5	M13	X	-.11	-.11	0	%100
6	M13	Z	.064	.064	0	%100
7	M14	X	-.11	-.11	0	%100
8	M14	Z	.064	.064	0	%100
9	M15	X	-.11	-.11	0	%100
10	M15	Z	.064	.064	0	%100
11	M16	X	-.11	-.11	0	%100
12	M16	Z	.064	.064	0	%100
13	M17	X	-.008	-.008	0	%100
14	M17	Z	.005	.005	0	%100
15	M18	X	-.008	-.008	0	%100
16	M18	Z	.005	.005	0	%100
17	M19	X	-.371	-.371	0	%100
18	M19	Z	.214	.214	0	%100
19	M20	X	-.371	-.371	0	%100
20	M20	Z	.214	.214	0	%100
21	M21	X	-.037	-.037	0	%100
22	M21	Z	.021	.021	0	%100
23	M22	X	-.037	-.037	0	%100
24	M22	Z	.021	.021	0	%100
25	M23	X	-.037	-.037	0	%100
26	M23	Z	.021	.021	0	%100
27	M24	X	-.037	-.037	0	%100
28	M24	Z	.021	.021	0	%100
29	M25	X	-.114	-.114	0	%100
30	M25	Z	.066	.066	0	%100
31	M26	X	-.114	-.114	0	%100
32	M26	Z	.066	.066	0	%100
33	M27	X	-.168	-.168	0	%100
34	M27	Z	.097	.097	0	%100
35	M28	X	-.168	-.168	0	%100
36	M28	Z	.097	.097	0	%100
37	M31	X	-.465	-.465	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
38	M31	Z	.268	.268	0	%100
39	MP4A	X	-.541	-.541	0	%100
40	MP4A	Z	.312	.312	0	%100
41	MP3A	X	-.541	-.541	0	%100
42	MP3A	Z	.312	.312	0	%100
43	MP2A	X	-.541	-.541	0	%100
44	MP2A	Z	.312	.312	0	%100
45	MP1A	X	-.541	-.541	0	%100
46	MP1A	Z	.312	.312	0	%100
47	M44	X	-.147	-.147	0	%100
48	M44	Z	.085	.085	0	%100
49	M45	X	-.147	-.147	0	%100
50	M45	Z	.085	.085	0	%100
51	M46	X	-.147	-.147	0	%100
52	M46	Z	.085	.085	0	%100
53	M47	X	-.147	-.147	0	%100
54	M47	Z	.085	.085	0	%100
55	M48	X	-.541	-.541	0	%100
56	M48	Z	.312	.312	0	%100
57	M49	X	-.541	-.541	0	%100
58	M49	Z	.312	.312	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	0	0	0	%100
5	M13	X	-.17	-.17	0	%100
6	M13	Z	0	0	0	%100
7	M14	X	-.17	-.17	0	%100
8	M14	Z	0	0	0	%100
9	M15	X	-.17	-.17	0	%100
10	M15	Z	0	0	0	%100
11	M16	X	-.17	-.17	0	%100
12	M16	Z	0	0	0	%100
13	M17	X	-.189	-.189	0	%100
14	M17	Z	0	0	0	%100
15	M18	X	-.189	-.189	0	%100
16	M18	Z	0	0	0	%100
17	M19	X	-.189	-.189	0	%100
18	M19	Z	0	0	0	%100
19	M20	X	-.189	-.189	0	%100
20	M20	Z	0	0	0	%100
21	M21	X	0	0	0	%100
22	M21	Z	0	0	0	%100
23	M22	X	0	0	0	%100
24	M22	Z	0	0	0	%100
25	M23	X	0	0	0	%100
26	M23	Z	0	0	0	%100
27	M24	X	0	0	0	%100
28	M24	Z	0	0	0	%100
29	M25	X	-.158	-.158	0	%100
30	M25	Z	0	0	0	%100
31	M26	X	-.158	-.158	0	%100
32	M26	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
33	M27	X	-.158	-.158	0	%100
34	M27	Z	0	0	0	%100
35	M28	X	-.158	-.158	0	%100
36	M28	Z	0	0	0	%100
37	M31	X	-.639	-.639	0	%100
38	M31	Z	0	0	0	%100
39	MP4A	X	-.645	-.645	0	%100
40	MP4A	Z	0	0	0	%100
41	MP3A	X	-.645	-.645	0	%100
42	MP3A	Z	0	0	0	%100
43	MP2A	X	-.645	-.645	0	%100
44	MP2A	Z	0	0	0	%100
45	MP1A	X	-.645	-.645	0	%100
46	MP1A	Z	0	0	0	%100
47	M44	X	-.17	-.17	0	%100
48	M44	Z	0	0	0	%100
49	M45	X	-.17	-.17	0	%100
50	M45	Z	0	0	0	%100
51	M46	X	-.17	-.17	0	%100
52	M46	Z	0	0	0	%100
53	M47	X	-.17	-.17	0	%100
54	M47	Z	0	0	0	%100
55	M48	X	-.645	-.645	0	%100
56	M48	Z	0	0	0	%100
57	M49	X	-.645	-.645	0	%100
58	M49	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
1	M1	X	-.169	-.169	0	%100
2	M1	Z	-.098	-.098	0	%100
3	M2	X	-.169	-.169	0	%100
4	M2	Z	-.098	-.098	0	%100
5	M13	X	-.11	-.11	0	%100
6	M13	Z	-.064	-.064	0	%100
7	M14	X	-.11	-.11	0	%100
8	M14	Z	-.064	-.064	0	%100
9	M15	X	-.11	-.11	0	%100
10	M15	Z	-.064	-.064	0	%100
11	M16	X	-.11	-.11	0	%100
12	M16	Z	-.064	-.064	0	%100
13	M17	X	-.371	-.371	0	%100
14	M17	Z	-.214	-.214	0	%100
15	M18	X	-.371	-.371	0	%100
16	M18	Z	-.214	-.214	0	%100
17	M19	X	-.008	-.008	0	%100
18	M19	Z	-.005	-.005	0	%100
19	M20	X	-.008	-.008	0	%100
20	M20	Z	-.005	-.005	0	%100
21	M21	X	-.037	-.037	0	%100
22	M21	Z	-.021	-.021	0	%100
23	M22	X	-.037	-.037	0	%100
24	M22	Z	-.021	-.021	0	%100
25	M23	X	-.037	-.037	0	%100
26	M23	Z	-.021	-.021	0	%100
27	M24	X	-.037	-.037	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
28	M24	Z	-.021	-.021	0	%100
29	M25	X	-.168	-.168	0	%100
30	M25	Z	-.097	-.097	0	%100
31	M26	X	-.168	-.168	0	%100
32	M26	Z	-.097	-.097	0	%100
33	M27	X	-.114	-.114	0	%100
34	M27	Z	-.066	-.066	0	%100
35	M28	X	-.114	-.114	0	%100
36	M28	Z	-.066	-.066	0	%100
37	M31	X	-.368	-.368	0	%100
38	M31	Z	-.213	-.213	0	%100
39	MP4A	X	-.541	-.541	0	%100
40	MP4A	Z	-.312	-.312	0	%100
41	MP3A	X	-.541	-.541	0	%100
42	MP3A	Z	-.312	-.312	0	%100
43	MP2A	X	-.541	-.541	0	%100
44	MP2A	Z	-.312	-.312	0	%100
45	MP1A	X	-.541	-.541	0	%100
46	MP1A	Z	-.312	-.312	0	%100
47	M44	X	-.147	-.147	0	%100
48	M44	Z	-.085	-.085	0	%100
49	M45	X	-.147	-.147	0	%100
50	M45	Z	-.085	-.085	0	%100
51	M46	X	-.147	-.147	0	%100
52	M46	Z	-.085	-.085	0	%100
53	M47	X	-.147	-.147	0	%100
54	M47	Z	-.085	-.085	0	%100
55	M48	X	-.541	-.541	0	%100
56	M48	Z	-.312	-.312	0	%100
57	M49	X	-.541	-.541	0	%100
58	M49	Z	-.312	-.312	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l..	Start Location[ft...	End Location[ft,...
1	M1	X	-.293	-.293	0	%100
2	M1	Z	-.507	-.507	0	%100
3	M2	X	-.293	-.293	0	%100
4	M2	Z	-.507	-.507	0	%100
5	M13	X	-.021	-.021	0	%100
6	M13	Z	-.037	-.037	0	%100
7	M14	X	-.021	-.021	0	%100
8	M14	Z	-.037	-.037	0	%100
9	M15	X	-.021	-.021	0	%100
10	M15	Z	-.037	-.037	0	%100
11	M16	X	-.021	-.021	0	%100
12	M16	Z	-.037	-.037	0	%100
13	M17	X	-.244	-.244	0	%100
14	M17	Z	-.422	-.422	0	%100
15	M18	X	-.244	-.244	0	%100
16	M18	Z	-.422	-.422	0	%100
17	M19	X	-.035	-.035	0	%100
18	M19	Z	-.06	-.06	0	%100
19	M20	X	-.035	-.035	0	%100
20	M20	Z	-.06	-.06	0	%100
21	M21	X	-.064	-.064	0	%100
22	M21	Z	-.11	-.11	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft...	End Location[ft,...
23	M22	X	-.064	-.064	0	%100
24	M22	Z	-.11	-.11	0	%100
25	M23	X	-.064	-.064	0	%100
26	M23	Z	-.11	-.11	0	%100
27	M24	X	-.064	-.064	0	%100
28	M24	Z	-.11	-.11	0	%100
29	M25	X	-.101	-.101	0	%100
30	M25	Z	-.175	-.175	0	%100
31	M26	X	-.101	-.101	0	%100
32	M26	Z	-.175	-.175	0	%100
33	M27	X	-.07	-.07	0	%100
34	M27	Z	-.122	-.122	0	%100
35	M28	X	-.07	-.07	0	%100
36	M28	Z	-.122	-.122	0	%100
37	M31	X	-.055	-.055	0	%100
38	M31	Z	-.094	-.094	0	%100
39	MP4A	X	-.291	-.291	0	%100
40	MP4A	Z	-.505	-.505	0	%100
41	MP3A	X	-.291	-.291	0	%100
42	MP3A	Z	-.505	-.505	0	%100
43	MP2A	X	-.291	-.291	0	%100
44	MP2A	Z	-.505	-.505	0	%100
45	MP1A	X	-.291	-.291	0	%100
46	MP1A	Z	-.505	-.505	0	%100
47	M44	X	-.085	-.085	0	%100
48	M44	Z	-.147	-.147	0	%100
49	M45	X	-.085	-.085	0	%100
50	M45	Z	-.147	-.147	0	%100
51	M46	X	-.085	-.085	0	%100
52	M46	Z	-.147	-.147	0	%100
53	M47	X	-.085	-.085	0	%100
54	M47	Z	-.147	-.147	0	%100
55	M48	X	-.291	-.291	0	%100
56	M48	Z	-.505	-.505	0	%100
57	M49	X	-.291	-.291	0	%100
58	M49	Z	-.505	-.505	0	%100

Member Area Loads

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

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

	Member	Shape	Code Check	Loc[ft]	LC	Sh...	Loc[ft]	...	LC	phi*...	phi*...	phi*...	phi*...	...	Eqn
1	M21	PL5/8x...	.433	.531	20	.103	.133	y	3	6759...	6890...	.897	5.024	...	H1-...
2	M23	PL5/8x...	.419	.531	14	.092	.437	y	2	6759...	6890...	.897	5.024	...	H1-...
3	M22	PL5/8x...	.375	.531	44	.066	.531	y	20	6759...	6890...	.897	5.024	...	H1-...
4	M17	PIPE_...	.367	0	9	.095	0		21	3112...	32130	1.872	1.872	...	H1-...
5	M24	PL5/8x...	.365	.531	48	.066	.437	y	13	6759...	6890...	.897	5.024	...	H1-...
6	M2	PIPE_...	.330	3.776	9	.123	3.646		3	1455...	50715	3.596	3.596	...	H1-...
7	MP1A	PIPE_...	.326	2.333	40	.049	5.542		40	1785...	32130	1.872	1.872	...	H1-...
8	MP3A	PIPE_...	.261	2.333	9	.097	2.333		3	1785...	32130	1.872	1.872	...	H1-...
9	MP4A	PIPE_...	.258	5.615	50	.064	2.333		9	1785...	32130	1.872	1.872	...	H1-...
10	MP2A	PIPE_...	.237	2.333	9	.073	2.333		10	1785...	32130	1.872	1.872	...	H1-...
11	M13	PL5/8x...	.226	.422	21	.054	.422	y	9	6618...	6890...	.897	5.024	...	H1-...

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

	Member	Shape	Code Check	Loc[ft]	LC	Sh...	Loc[ft]	...	LC	phi*...	phi*...	phi*...	phi*...	...	Eqn
12	M1	PIPE_...	.217	8.854	45	.093	3.776		8	1455..	50715	3.596	3.596	...	H1-...
13	M15	PL5/8x..	.198	0	44	.018	.422	z	44	6618..	6890....	.897	5.024	...	H1-...
14	M14	PL5/8x..	.180	.422	24	.016	.422	y	2	6618..	6890....	.897	5.024	...	H1-...
15	M16	PL5/8x..	.171	.422	19	.021	0	y	8	6618..	6890....	.897	5.024	...	H1-...
16	M20	PIPE_...	.143	2.501	8	.079	0		14	3112..	32130	1.872	1.872	...	H1-...
17	M31	PIPE_...	.134	0	9	.007	10.0...		16	9818..	32130	1.872	1.872	...	H1-...
18	M18	PIPE_...	.110	0	2	.090	0		20	3112..	32130	1.872	1.872	...	H1-...
19	M47	SR_0....	.097	0	2	.012	0		45	2158..	9664....	.101	.101	...	H1-...
20	M19	PIPE_...	.084	0	1	.085	0		20	3112..	32130	1.872	1.872	...	H1-...
21	M28	SR_0.75	.071	4.167	44	.014	4.167		9	2863..	1391....	.174	.174	...	H1-...
22	M26	SR_0.75	.070	0	19	.020	0		3	2863..	1391....	.174	.174	...	H1-...
23	M44	SR_0....	.059	1.667	1	.009	0		50	2158..	9664....	.101	.101	1	H1-...
24	M45	SR_0....	.059	1.667	8	.021	0		9	2158..	9664....	.101	.101	...	H1-...
25	M46	SR_0....	.054	1.667	8	.017	0		3	2158..	9664....	.101	.101	...	H1-...
26	M49	PIPE_...	.047	2.5	8	.034	4.167		3	2380..	32130	1.872	1.872	...	H1-...
27	M48	PIPE_...	.046	2.5	8	.061	4.167		3	2380..	32130	1.872	1.872	...	H1-...
28	M25	SR_0.75	.000	0	51	.011	0		20	2863..	1391....	.174	.174	...	H1-...
29	M27	SR_0.75	.000	0	51	.011	0		44	2863..	1391....	.174	.174	...	H1-...

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	N35	max	1042.231	45	1421.963	15	1873.365	13	-.152	2	0	51	.191	45
2		min	-779.243	50	458.436	9	-235.598	7	-.557	20	0	1	-.14	50
3	N36	max	1206.373	9	1430.378	20	1545.801	2	-.157	2	0	51	.192	45
4		min	-1072.445	39	472.328	2	-2579.797	8	-.561	20	0	1	-.141	50
5	N73	max	165.154	10	69.999	21	1270.23	9	0	51	0	51	0	51
6		min	-166.244	4	2.043	3	-1272.315	3	0	1	0	1	0	1
7	Totals:	max	1834.617	9	2904.598	22	2006.318	1						
8		min	-1834.618	3	996.437	4	-2006.317	7						

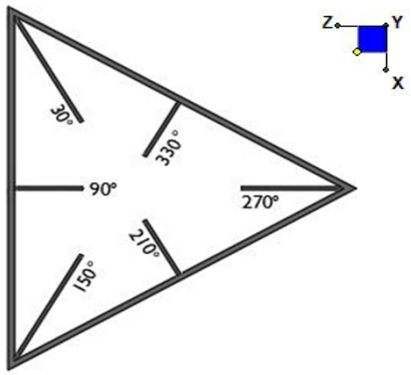
Client:	Verizon	Date:	11/25/2020
Site Name:	Windsor CT		
Project No.	20777393A		
Title:	Antenna Mount Analysis	Page:	1

Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

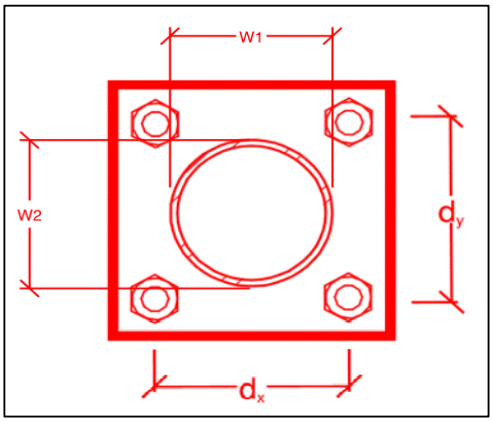
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N35	90
N36	90



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)* :	9.5
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	3.5
Bolt Type:	A307
Bolt Diameter (in):	0.625
Required Tensile Strength (kips):	6.1
Required Shear Strength (kips):	1.8
Tensile Strength / bolt (kips):	10.0
Shear Strength / bolt (kips):	6.0
Tensile Capacity Overall:	**15.1%***
Shear Capacity Overall:	**7.7%**



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

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Passing Mount Analysis

Purpose – to provide Maser Consulting Connecticut 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 Connecticut 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 **vzwpmi@testower.us** 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:

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

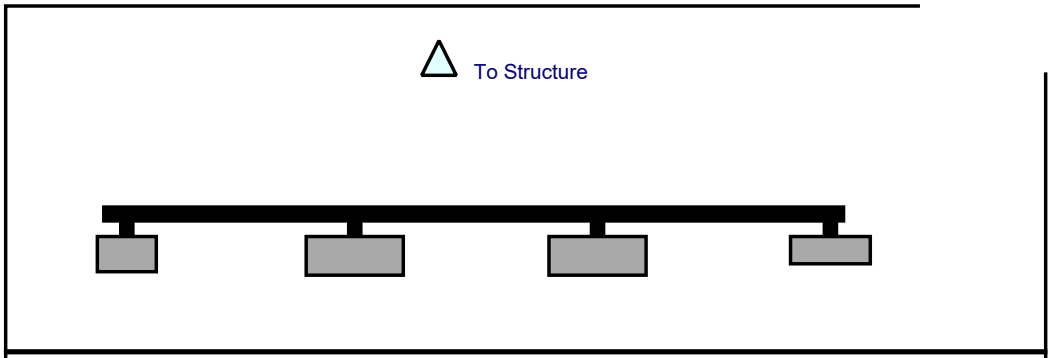
Structure: 6 -VZW - Windsor CT

Sector: **A** 11/25/2020

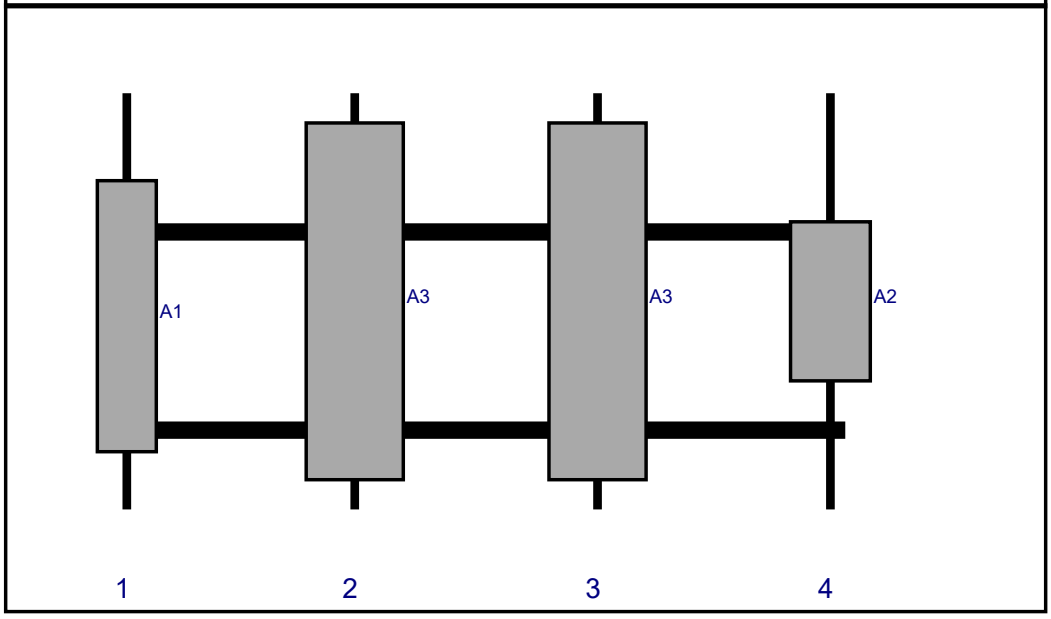
Structure Type: Self Support

Mount Elev: 155.00 Page: 1

Plan Vie



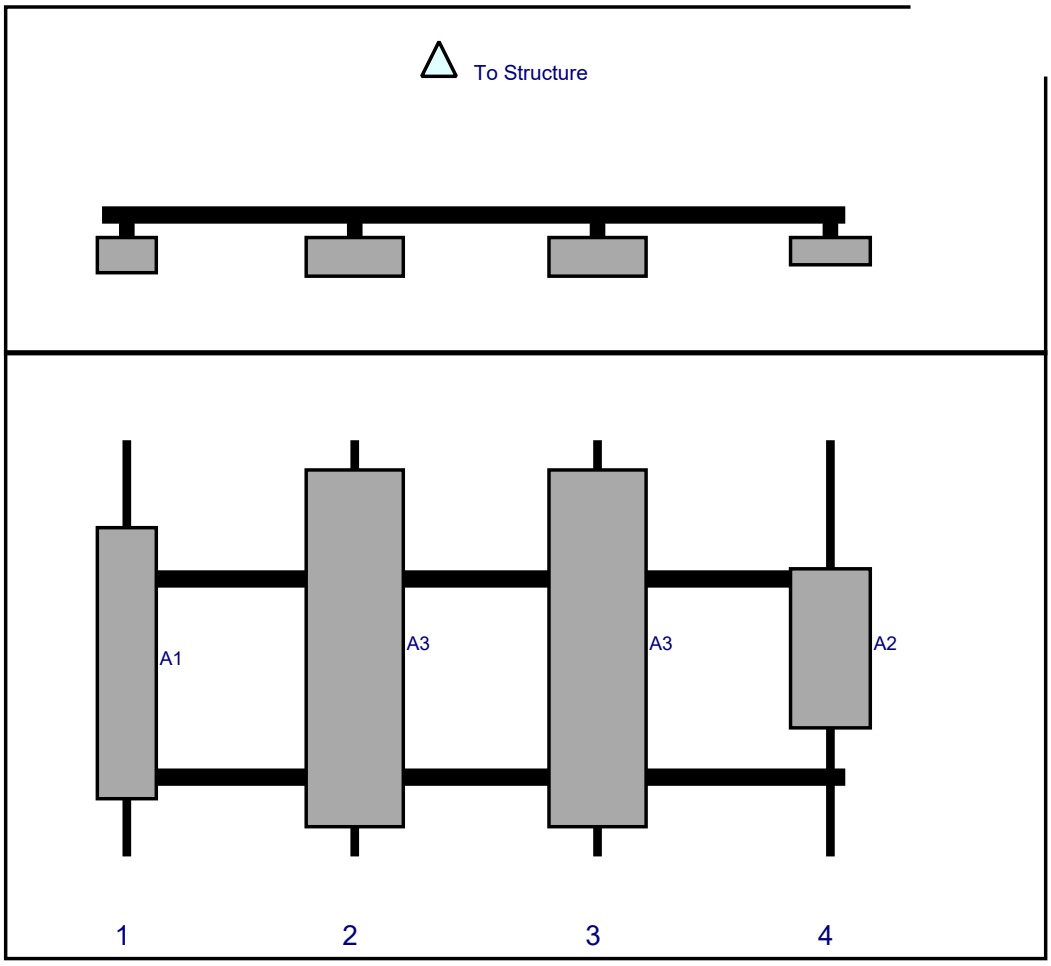
Front Vie
Loo ing at Structure



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
A1	L -6513DS-A1M	54.7	11.9	5	1	a	Front	45	0	Added	
A3	HH-65B-R4	72	19.6	51	2	a	Front	42	0	Retained	11/11/2020
A3	HH-65B-R4	72	19.6	100	3	a	Front	42	0	Retained	11/11/2020
A2	VZS01	32.1	16.1	147	4	a	Front	42	0	Added	

Plan Vie

Front Vie
Loo ing at Structure



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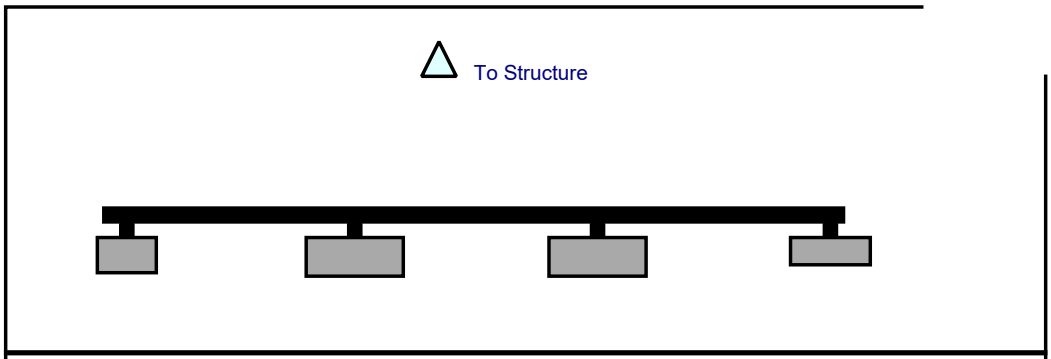
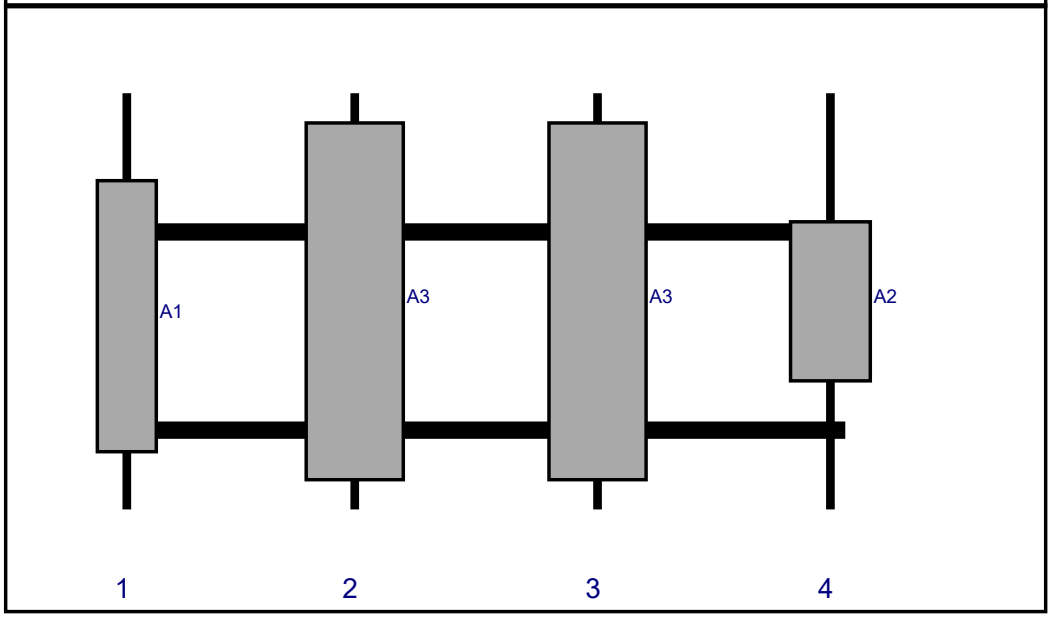
A1	L -6513DS-A1M	54.7	11.9	5	1	a	Front	45	0	Added	
A3	HH-65B-R4	72	19.6	51	2	a	Front	42	0	Retained	11/11/2020
A3	HH-65B-R4	72	19.6	100	3	a	Front	42	0	Retained	11/11/2020
A2	VZS01	32.1	16.1	147	4	a	Front	42	0	Added	

Plan Vie



Front Vie
Loo ing 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
A1	L -6513DS-A1M	54.7	11.9	5	1	a	Front	45	0	Added	
A3	HH-65B-R4	72	19.6	51	2	a	Front	42	0	Retained	11/11/2020
A3	HH-65B-R4	72	19.6	100	3	a	Front	42	0	Retained	11/11/2020
A2	VZS01	32.1	16.1	147	4	a	Front	42	0	Added	

Maser Consulting Connecticut

Subject	TIA-222-H Usage
Site Information	Site ID: 469487-VZW Site Name: Windsor CT Carrier Name: Verizon Wireless Address: 482 Pigeon Hill Rd., Windsor, Connecticut 06095 Latitude: *41.866640°* Longitude: -72.674778°
Structure Information	Tower Type: 160-Ft Self Support Mount Type: 12.5-Ft Sector Frame

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. The 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 tower site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,

Petros E. Tsoukalas, PE
Geographic Discipline Leader

MASER CONSULTING
— CONNECTICUT —

331 Newman Springs Road, Suite 203
Red Bank, NJ 07701
T: 732.383.1950
www.maserconsulting.com

March 29, 2021

Mr. Andrew Leone
Verizon Wireless
20 Alexander Dr.
Wallingford, CT 06492

Re: Verizon Wireless antenna Model Clarification for CT Siting Council

Dear Mr. Leone,

This letter is intended to clarify and confirm the antenna naming convention used by Verizon Wireless as a part of an antenna upgrade project on numerous wireless facilities.

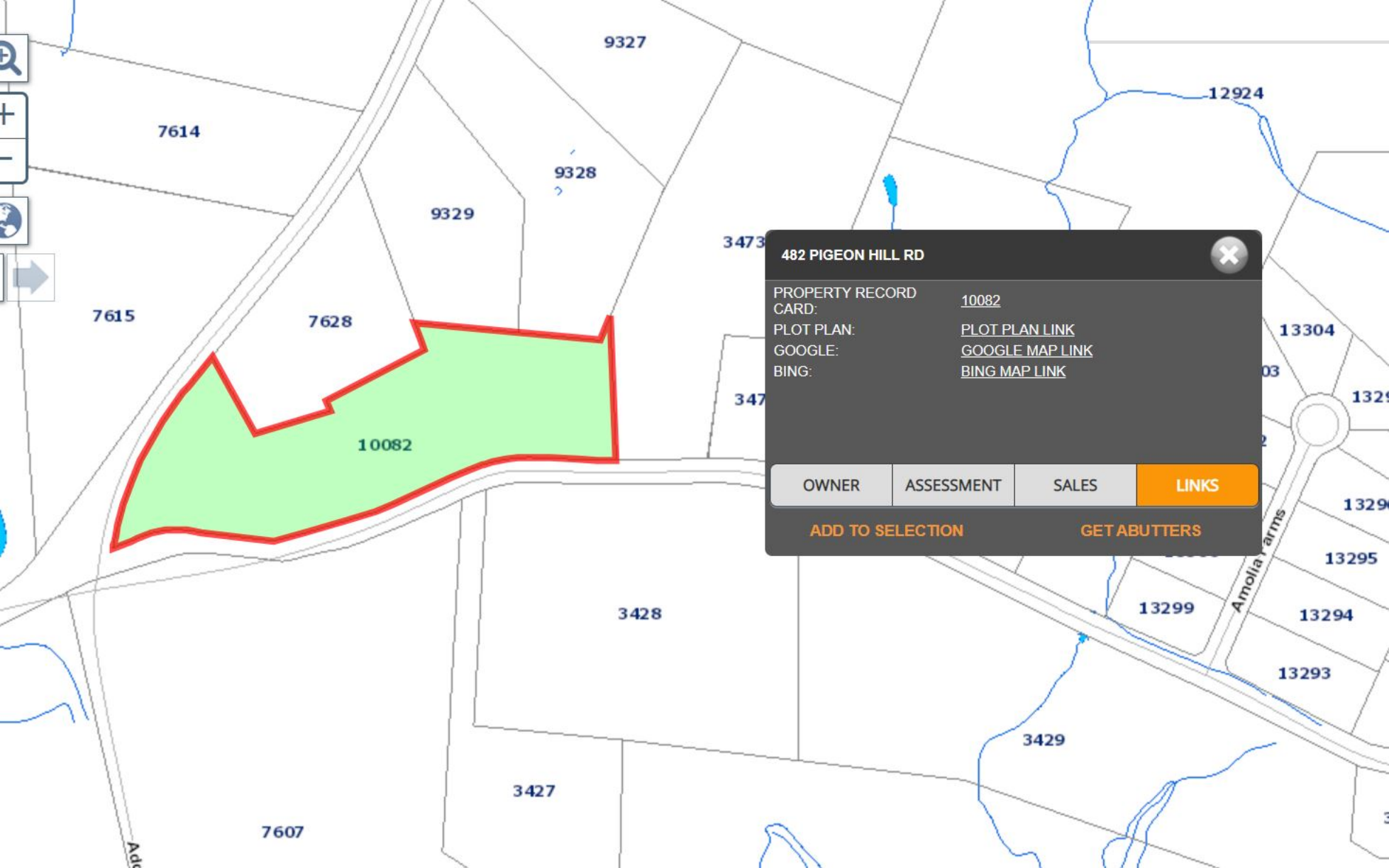
The antenna naming convention "Licensed Sub-6, L-Sub6, nL-Sub6, VZS01" and any other slight variants refer to the 64T64RMMU antenna manufactured by Samsung Electronics. These names are interchangeable and are used in various documents, including but not limited to the "Antenna Mount Analysis".

If you have any questions or comments, or require additional information, please do not hesitate to contact me.

Very truly yours,
MASER CONSULTING CONNECTICUT

Petros Toukalas
Connecticut Professional Engineer
License Number: 32577

ATTACHMENT 5


9327
12924
7614
9328
9329
3473
482 PIGEON HILL RD
PROPERTY RECORD CARD:
10082
PLOT PLAN:
PLOT PLAN LINK
GOOGLE:
GOOGLE MAP LINK
BING:
BING MAP LINK
OWNER
ASSESSMENT
SALES
LINKS
ADD TO SELECTION
GET ABUTTERS
7615
7628
13304
10082
347
13295
13299
13294
3428
13293
3429
3427
7607

Address Search

482 pigeon hill

SEARCH

482 PIGEON HILL RD

PRINT

SUMMARY | IMPROVEMENTS | VALUE/SALES | SKETCH/OBY

Filecode:
10082

Map:
35

Owner:
CELLCO PARTNERSHIP

Block:
108

Co-Owner:
C/O VERIZON WIRELESS

Lot:
108

Mailing Address:
P.O. BOX 2549 ADDISON, TX 75001

Property Type:
Tel X Station

Zone:
I

Land Area (Acres):
6.66

Census Tract:
4735.01

ATTACHMENT 6

UNITED STATES POSTAL SERVICE®

Certificate of Mailing — Firm

Name and Address of Sender	TOTAL NO. of Pieces Listed by Sender	TOTAL NO. of Pieces Received at Post Office™	Affix Stamp Here *Postmark with Date of Receipt.*
Kenneth C. Baldwin, Esq. Robinson & Cole LLP 280 Trumbull Street Hartford, CT 06103		2	neopost 05/07/2021 US POSTAGE $002.89⁰ ZIP 06103 041L12200367
	Postmaster, per *(name of receiving employee)*		

USPS® Tracking Number / Firm-specific Identifier	Address (Name, Street, City, State, and ZIP Code™)	Postage	Fee	Special Handling	Parcel Airlift
1.	Peter Souza, Town Manager Town of Windsor 275 Broad Street Windsor, CT 06095				
2.	Eric Barz, Town Planner Town of Windsor 275 Broad Street Windsor, CT 06095				
3.					
4.					
5.					
6.					

OLD STATE HOUSE STATION 06103
MAY 07 2021
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