Crown Castle
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

August 24, 2020

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

RE: **Notice of Exempt Modification for AT&T: 806478**
539 Plains Road, Haddam, CT 06438
Latitude: 41° 26′ 35.00″ / Longitude: -72° 30′ 22.40″

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 165-foot mount on the existing 180-foot Self-Support Tower, located at 539 Plains Road, Haddam, CT. The tower is owned by Crown Castle and the property is owned by 539 Plains Road LLC. AT&T now intends to replace three (3) existing antennas with six (6) new antennas. The new antennas will be installed at the 165-ft level of the tower.

This facility was originally approved by the Connecticut Siting Council on July 11, 1986 in Docket No. 58. The facility's original approval limited the height of the tower to 193'. The Council thereafter approved a nine-foot tower extension in Petition No. 434 on October 21, 1999. This nine-foot extension was never brought to construction. Therefore, the tower still stands at 180' as constructed.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §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 Robert McGarry, First Selectman for the Town of Haddam, Gary Vivian, Building Official, Crown Castle as the tower owner, and 539 Plains Road LLC, the property owner.

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

2. The proposed modifications will not require the extension of the site boundary.

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

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, AT&T respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Please send approval/rejection letter to Attn: Anne Marie Zsamba.

Sincerely,

Anne Marie Zsamba
Site Acquisition Specialist
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
(201) 236-9224
AnneMarie.Zsamba@crowncastle.com

Attachments
cc:

Robert McGarry, First Selectman *(via email only to selectman@haddam.org)*
Town of Haddam
30 Field Park Drive
Haddam, CT 06438

Gary Vivian, Building Official *(via email only to building@haddam.org)*
Town of Haddam
30 Field Park Drive
Haddam, CT 06438

539 Plains Road LLC, Property Owner *(via email only to ericpomer82@gmail.com)*
C/O Crown Atlantic Co
4017 Washington Road
McMurry, PA 15317

Crown Castle, Tower Owner

From: Zsamba, Anne Marie
To: building@haddam.org
Subject: Notice of Exempt Modification - AT&T - 539 Plains Road
Date: Monday, August 24, 2020 12:06:00 PM
Attachments: EM-AT&T-539 PLAINS ROAD HADDAM-806478-notice.pdf

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Dear Building Official Vivian:

Attached please find AT&T's exempt modification application that is being submitted to the Connecticut Siting Council, today August 24, 2020.

In light of the present circumstances with Covid-19, The Council has advised that electronic notification of this filing is acceptable. If you could kindly confirm receipt. Thank you.

Best,
Anne Marie Zsamba

ANNE MARIE ZSAMBA
Site Acquisition Specialist
T: (201) 236-9224
M: (518) 350-3639
F: (724) 416-6112

CROWN CASTLE
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
CrownCastle.com

From: Zsamba, Anne Marie
To: "ericpomer82@gmail.com"
Subject: Notice of Exempt Modification - AT&T - 539 Plains Road
Date: Monday, August 24, 2020 12:06:00 PM
Attachments: EM-AT&T-539 PLAINS ROAD HADDAM-806478-notice.pdf

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Dear 539 Plains Road LLC:

Attached please find AT&T's exempt modification application that is being submitted to the Connecticut Siting Council, today August 24, 2020.

In light of the present circumstances with Covid-19, The Council has advised that electronic notification of this filing is acceptable. If you could kindly confirm receipt. Thank you.

Best,
Anne Marie Zsamba

ANNE MARIE ZSAMBA
Site Acquisition Specialist
T: (201) 236-9224
M: (518) 350-3639
F: (724) 416-6112

CROWN CASTLE
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
CrownCastle.com

From: Zsamba, Anne Marie
To: selectman@haddam.org
Subject: Notice of Exempt Modification - AT&T - 539 Plains Road
Date: Monday, August 24, 2020 12:06:00 PM
Attachments: EM-AT&T-539 PLAINS ROAD HADDAM-806478-notice.pdf

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Dear First Selectman McGarry:

Attached please find AT&T's exempt modification application that is being submitted to the Connecticut Siting Council, today August 24, 2020.

In light of the present circumstances with Covid-19, The Council has advised that electronic notification of this filing is acceptable. If you could kindly confirm receipt. Thank you.

Best,
Anne Marie Zsamba

ANNE MARIE ZSAMBA
Site Acquisition Specialist
T: (201) 236-9224
M: (518) 350-3639
F: (724) 416-6112

CROWN CASTLE
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065
CrownCastle.com

Exhibit A

Original Facility Approval

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

Petition No. 434
Docket 58
(Alternately, EM-CROWN-061-990927)
Crown Atlantic Company LLC
Staff Report
October 21, 1999

On October 8, 1999, Connecticut Siting Council (Council) Chairman Mortimer A. Gelston and Council staff Steve Levine conducted a field review of Crown Atlantic Company's (Crown) Turkey Hill communications tower in Haddam. Crown proposes to modify the tower to permit use by Omnipoint Communications, Inc. (Omnipoint), and is petitioning the Council for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need (Certificate) is required for the modification. Crown submits that the proposed modification will not have a substantial adverse environmental effect, but instead will reduce the unnecessary proliferation of telecommunications towers by utilizing an existing structure, and qualifies for an order of tower sharing pursuant to C.G.S. § 16-50aa.

The Turkey Hill tower is a 180-foot-tall lattice tower. In 1986, the Council approved a maximum height of 193 feet, *including antennas, in Docket 58*. According to a verbal communication from Crown's attorney in this matter, 13-foot antennas were originally mounted on this tower to a height of 193 feet, but were removed in the early 1990's. The tower presently supports antennas owned by Bell Atlantic Mobile, Springwich Cellular, and Sprint. The Council recently approved additional shared use of the tower by Nextel Communications. An engineering study submitted by Crown indicates the tower is capable of supporting all of these antennas and the proposed Omnipoint antennas as well.

Omnipoint would install three panel-type antennas in an accelerator unit mounted on a mast extending above the 180-foot top of the existing tower. The Omnipoint antennas would extend to a height of 189 feet above grade, four feet under the maximum height approved by the Council in 1986. Omnipoint's antennas would be held in place by a 4-inch diameter, 3-foot-long extension pipe mounted to the top of the tower. The antennas themselves are 19 inches in diameter and rise an additional six feet above the pipe to a total height of 189 feet. Omnipoint also plans to install a 5 x 7-foot equipment cabinet within existing fencing at the base of the tower.

The proposed antennas and associated equipment will not increase the noise levels at the existing site, under normal operating conditions, by six decibels or more. The worst case power density for the telecommunications operations at the site has been calculated to be 13.3% of the applicable standard for uncontrolled environments, including a contribution of 0.5% by Omnipoint. Crown asserts that the proposed installation will not cause a substantial adverse environmental effect, and for this reason would not require a Certificate.

Crown has given separate prior notice of this work as an exempt modification under R.C.S.A. § 16-50j-72(b)(2). See EM-CROWN-061-990927. This item was tabled at the October 8, 1999 Council meeting due to concerns that the pipe might be considered part of the tower, thereby increasing tower height and disqualifying this installation as an exempt modification. Crown would withdraw the Petition from further consideration if the Council chooses to acknowledge the addition of Omnipoint's antennas on the Turkey Hill tower as an exempt modification.

Exhibit B

Property Card

539 PLAINS RD

Location	539 PLAINS RD	**Mblu**	63/ 022/ C/ /
Acct#	PT496400	**Owner**	539 PLAINS RD LLC
Assessment	$275,460	**Appraisal**	$393,510
PID	3240	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$206,010	$187,500	$393,510
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$144,210	$131,250	$275,460

Owner of Record

Owner	539 PLAINS RD LLC	**Sale Price**	$325,000
Co-Owner	C/O CROWN ATLANTIC CO	**Certificate**	
Address	PMB353 4017 WASHINGTON RD MCMURRAY, PA 15317	**Book & Page**	347/ 725
		Sale Date	10/25/2011
		Instrument	00

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
539 PLAINS RD LLC	$325,000		347/ 725	00	10/25/2011
MICHAEL JACQUELINE A	$0		330/ 411	29	06/26/2009
PIONEER ENTERPRISES LLC	$0		308/ 256		12/21/2006
MICHAEL JACQUELINE	$0		284/ 001		10/26/2004
MICHAEL JACK & JACQUELINE	$0		90/ 198		12/02/1958

Building Information

Building 1 : Section 1

Year Built:

Building Photo

Living Area: 0
Replacement Cost: $0
Building Percent Good:
Replacement Cost Less Depreciation: $0

Building Attributes	
Field	**Description**
Style	Outbuildings
Model	
Grade:	
Stories	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Full Bthrms:	
Half Baths:	
Extra Fixtures	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Extra Kitchens	
Fireplace(s)	
Extra Opening(s)	
Gas Fireplace(s)	
Blocked FPL(s)	
Woodstove(s)	
Bsmt Garage(s)	
SF Fin Bsmt	
FBM Quality	
Whirlpool	
Hot Tub	
Sauna	

(http://images.vgsi.com/photos2/HaddamCTPhotos//\00\00\57/59.JPG)

Building Layout

Building Layout
(http://images.vgsi.com/photos2/HaddamCTPhotos//Sketches/3240_3240.j

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Foundation	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	350
Description	Cell Tower
Zone	R-2A
Neighborhood	CELL
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	0.25
Frontage	
Depth	
Assessed Value	$131,250
Appraised Value	$187,500

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
FN1	FENCE-4' CHAIN			1200 L.F.	$10,800	1
SHDC	Cell Shed			315 S.F.	$85,050	1
SHDC	Cell Shed			312 S.F.	$84,240	1
SHDC	Cell Shed			96 S.F.	$25,920	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$206,010	$187,500	$393,510
2017	$206,010	$187,500	$393,510
2016	$206,010	$187,500	$393,510

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2018	$144,210	$131,250	$275,460
2017	$144,210	$131,250	$275,460
2016	$144,210	$131,250	$275,460


Filley Rd
Turkey Hill Rd
Valley Bible Evangelical Free
Valley Bible Evangelical Church
Plains Rd
Chester Bowles Hwy
Roaring Brook
Wigwam Brook
539 Plains Road
Turkey Hill Rd
Plains Rd
Ruth Hill Rd
4th Rd
Ruth Hill Rd
Ruth Hill
Turkey Hill Brook
Turkey Hill Cemetery
Roaring Brook
9
Cedar Lake Rd
Dickinson Rd
Turkey Hill Rd
Rusty Ln
Chester Bowles Hwy
Filley Rd
Cedar Lake Rd
Turkey Hill Rd
N Cedar Lake Rd

Exhibit C

Construction Drawings

AT&T

AT&T SITE NUMBER: 59414
AT&T SITE NAME: CTL02165
AT&T FA CODE: 10035057
AT&T PACE NUMBER: MRCTB047215, MRCTB047020, MRCTB047187
AT&T PROJECT: LTE 4C

BUSINESS UNIT #: 806478
SITE ADDRESS: 539 PLAINS RD HADDAM, CT 06438
COUNTY: MIDDLESEX
SITE TYPE: SELF SUPPORT TOWER
TOWER HEIGHT: 190'-0"

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	HRT 080 953381
SITE ADDRESS:	539 PLAINS RD HADDAM, CT 06438
COUNTY:	MIDDLESEX
MAP/PARCEL #:	HADD-000049-006400-P000000
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41° 26' 35.00"
LONGITUDE:	-72° 30' 22.40"
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	516 FT.
CURRENT ZONING:	R-2A
JURISDICTION:	TOWN OF HADDAM
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	MICHAEL, JACQUELINE 4 PARK ROAD C/O ERIC POMERANTZ, ATTNY. SHARON, MA 02067
TOWER OWNER:	CROWN ATLANTIC COMPANY LLC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	AT&T TOWER ASSET GROUP 575 MOROSGO DRIVE ATLANTA, GA 30324-3300
ELECTRIC PROVIDER:	CONNECTICUT LIGHT & POWER CO (800) 922-4455
TELCO PROVIDER:	LIGHTOWER (845) 458-7720

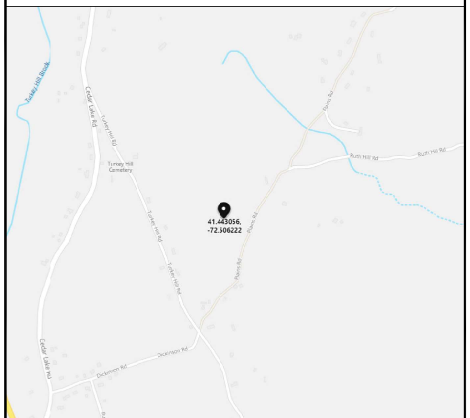
PROJECT TEAM

A&E FIRM:	CROWN CASTLE USA INC. 2000 CORPORATE DRIVE CANONSBURG, PA 15317 CROWNAE.APPROVAL@CROWNCASTLE.COM
CROWN CASTLE USA INC. DISTRICT CONTACTS:	3 CORPORATE PARK DRIVE, SUITE 101 CLIFTON PARK, NY 12065 VERONICA DELIA - PROJECT MANAGER (215) 292-2087 JASON D'AMICO - CONSTRUCTION MANAGER (860) 209-0104

DRAWING INDEX

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 11X17. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

LOCATION MAP



NO SCALE

SITE PHOTO

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

TOWER SCOPE OF WORK:
- REMOVE (3) KMW - AM-X-CD-16-65-00T-RET ANTENNAS
- REMOVE (3) ERICSSON - RRUS-11 B12 RRHs
- RELOCATE (2) RAYCAP - DC6-48-60-18-8F SQUIDS
- INSTALL (3) CCI - DMP65R-BU6DA ANTENNAS
- INSTALL (3) ERICSSON - 4449 B5/B12 RRHs
- INSTALL (3) ERICSSON - 4478 B14 RRHs
- INSTALL (1) RAYCAP - DC6-48-60-18-8C-EV SQUID
- INSTALL (2) COMMSCOPE - ROSENBERGER LEONI - WR-VG86ST-BRD DC CABLES

GROUND SCOPE OF WORK:
- INSTALL (1) 6630 + IDLe
- INSTALL (3) 20A DC BREAKER FEEDS FOR (3) ERICSSON - 4449 B5/B12 RRHs INTO EXISTING DC PLANT
- INSTALL (3) DC BREAKERS FOR (3) ERICSSON - 4478 B14 RRHs
- INSTALL (9) UPCONVERTERS INTO EXISTING DC POWER PLANT

NOTE:
THE ELECTRICAL DESIGN FOR ADDITIONS AND/OR MODIFICATIONS TO THE EXISTING AC ELECTRICAL SYSTEM HAS BEEN PERFORMED BY SWARTLEY BROS. ENGINEERS, INC. THEY ARE SOLELY RESPONSIBLE FOR THE ELECTRICAL DESIGN. THEIR ELECTRICAL DESIGN, AS PROVIDED TO US, HAS BEEN ATTACHED TO THESE DRAWINGS.

APPLICABLE CODES/REFERENCE DOCUMENTS

ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES:

CODE TYPE	CODE
BUILDING	2018 CT STATE BUILDING CODE/2015 IBC W/ CT AMENDMENTS
MECHANICAL	2018 CT STATE BUILDING CODE/2015 IMC W/ CT AMENDMENTS
ELECTRICAL	2018 CT STATE BUILDING CODE/2017 NEC W/ CT AMENDMENTS

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	BY OTHERS
DATED:	
MOUNT ANALYSIS:	POWER OF DESIGN GROUP
DATED:	JUNE 8, 2020
RFDS REVISION:	1
DATED:	06/03/2020
ORDER ID:	517059
REVISION:	0

NOTE:
PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER.

CALL CONNECTICUT ONE CALL (800) 922-4455 CBYD.COM CALL 2 WORKING DAYS BEFORE YOU DIG!

811

AT&T
575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

AT&T SITE NUMBER: **59414**

BU #: **806478**
HRT 080 953381

539 PLAINS RD
HADDAM, CT 06438

EXISTING 190'-0" SELF SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/16/20	JMM	PRELIMINARY	XX
0	08/05/20	JMM	CONSTRUCTION	MB

DocuSigned by:
Malcam Barimani
7BA39AFADCC448D...
STATE OF CONNECTICUT
MAHAM BARIMANI
30501
LICENSED
PROFESSIONAL ENGINEER
8/5/2020 | 1:02:53 PM EDT

Crown Castle USA Inc.
Certificate of Registration #PEC.0001101

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER:	REVISION:
T-1	0

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED– NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800–788–7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
2. "LOOK UP" – CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT:
   THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
3. PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED–STD–10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA–322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH QAS–STD–10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE" AND LATEST VERSION OF ANSI/TIA–1019–A–2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS."
6. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES.
14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION
   CARRIER: AT&T
   TOWER OWNER: CROWN CASTLE USA INC.
2. THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
4. NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
5. SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
6. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE.
7. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
8. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
9. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN DRAWINGS.
12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC.
13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST–IN–PLACE CONCRETE.
2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED TO BE 1000 psf.
3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF PLACEMENT.
4. CONCRETE EXPOSED TO FREEZE–THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER–TO–CEMENT RATIO (W/C) OF 0.45.
5. ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
   #4 BARS AND SMALLER 40 ksi
   #5 BARS AND LARGER 60 ksi
6. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
   CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
   CONCRETE EXPOSED TO EARTH OR WEATHER:
   #6 BARS AND LARGER 2"
   #5 BARS AND SMALLER 1–1/2"
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
   SLAB AND WALLS 3/4"
   BEAMS AND COLUMNS 1–1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL–OF–POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON–ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON–METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON–METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD–WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
   4.1. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENT OF THE NATIONAL ELECTRICAL CODE.
   4.2. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERYIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR–CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
9. ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI–CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI–CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP–STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (90° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL METALLIC TUBING (EMT) OR METAL–CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE GRADE PVC CONDUIT.
18. LIQUID–TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID–TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION–TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREMOLD SPECMATE WIREWAY).
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON–PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER–ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY–COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY–COATED OR NON–CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "AT&T".
30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE

SYSTEM	CONDUCTOR	COLOR
120/240V, 1Ø	A PHASE	BLACK
	B PHASE	RED
	NEUTRAL	WHITE
	GROUND	GREEN
120/208V, 3Ø	A PHASE	BLACK
	B PHASE	RED
	C PHASE	BLUE
	NEUTRAL	WHITE
	GROUND	GREEN
277/480V, 3Ø	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
	GROUND	GREEN
DC VOLTAGE	POS (+)	RED**
	NEG (–)	BLACK**

* SEE NEC 210.5(C)(1) AND (2)
** POLARITY MARKED AT TERMINATION

APWA UNIFORM COLOR CODE:

WHITE	PROPOSED EXCAVATION
PINK	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES
YELLOW	GAS, OIL, STEAM, PETROLEUM, OR GASEOUS MATERIALS
ORANGE	COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS
BLUE	POTABLE WATER
PURPLE	RECLAIMED WATER, IRRIGATION, AND SLURRY LINES
GREEN	SEWERS AND DRAIN LINES

ABBREVIATIONS:

ANT	ANTENNA
(E)	EXISTING
FIF	FACILITY INTERFACE FRAME
GEN	GENERATOR
GPS	GLOBAL POSITIONING SYSTEM
GSM	GLOBAL SYSTEM FOR MOBILE
LTE	LONG TERM EVOLUTION
MGB	MASTER GROUND BAR
MW	MICROWAVE
(N)	NEW
NEC	NATIONAL ELECTRIC CODE
(P)	PROPOSED
PP	POWER PLANT
QTY	QUANTITY
RECT	RECTIFIER
RBS	RADIO BASE STATION
RET	REMOTE ELECTRIC TILT
RFDS	RADIO FREQUENCY DATA SHEET
RRH	REMOTE RADIO HEAD
RRU	REMOTE RADIO UNIT
SIAD	SMART INTEGRATED DEVICE
TMA	TOWER MOUNTED AMPLIFIER
TYP	TYPICAL
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
W.P.	WORK POINT

AT&T

575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE

3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

AT&T SITE NUMBER: **59414**

BU #: **806478**
HRT 080 953381

539 PLAINS RD
HADDAM, CT 06438

EXISTING 190'-0" SELF SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/16/20	JMM	PRELIMINARY	XX
0	08/05/20	JMM	CONSTRUCTION	MB

DocuSigned by:
Maham Barimani
0BA38AFADCC448D...

STATE OF CONNECTICUT ★ MAHAM BARIMANI ★ 30501 LICENSED PROFESSIONAL ENGINEER

8/5/2020 | 1:02:53 PM EDT

Crown Castle USA Inc.
Certificate of Registration #PEC.0001101

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SHEET NUMBER: **T-2**

REVISION: **0**

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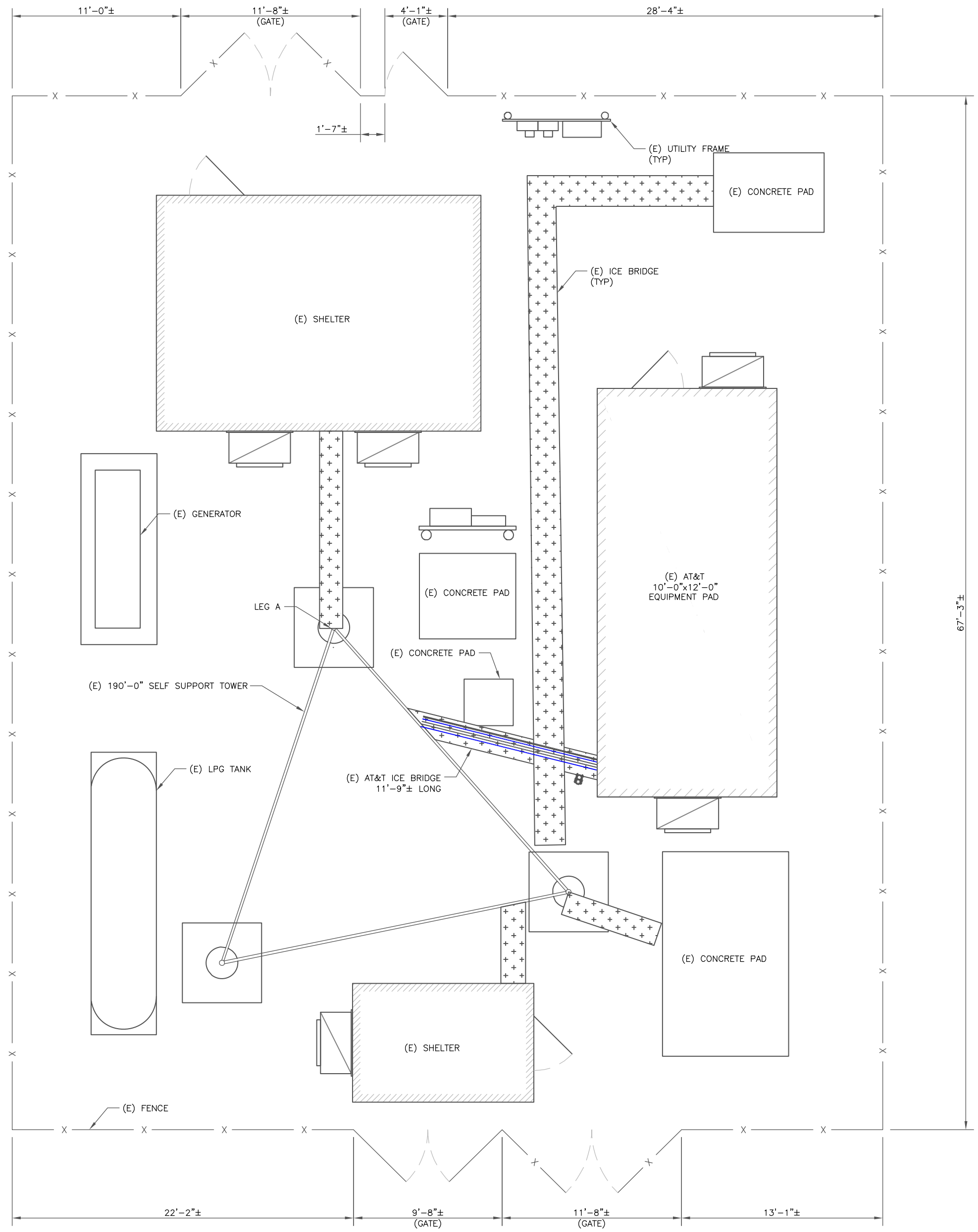

1 SITE PLAN

SCALE: 4' 3' 2' 1' 0 4' 1/4"=1'-0" (FULL SIZE) 1/8"=1'-0" (11x17)

AT&T

575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE

3 CORPORATE PARK DRIVE, SUITE 101
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DocuSigned by:
Maham Barimani
DBA38AFADCC448D...

STATE OF CONNECTICUT
MAHAM BARIMANI
30501
LICENSED
PROFESSIONAL ENGINEER

8/5/2020 | 1:02:53 PM EDT

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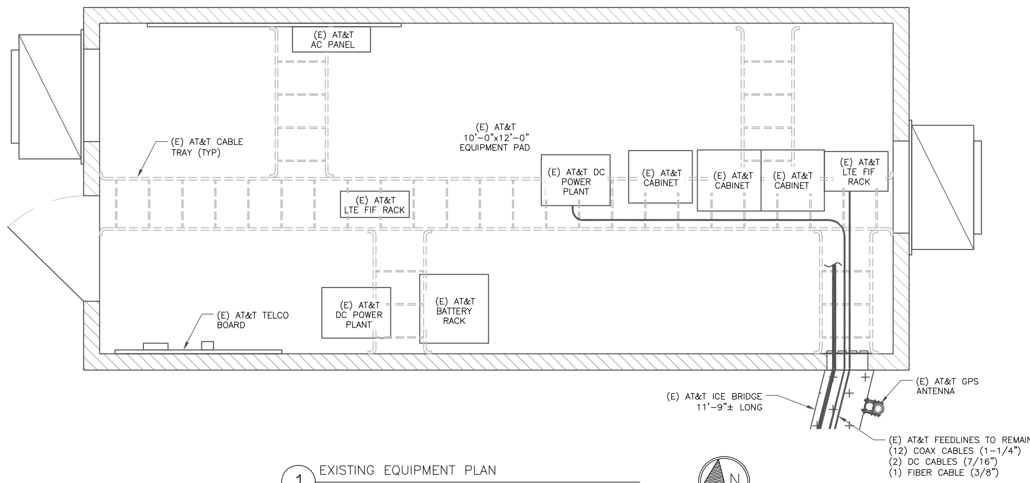
SHEET NUMBER: C-1.1

REVISION: 0

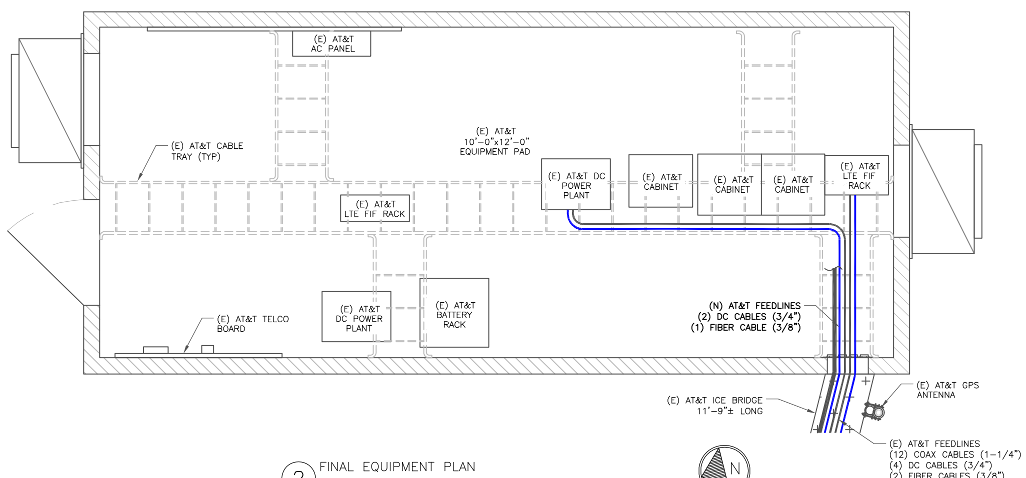


1 EXISTING EQUIPMENT PLAN
SCALE: 1/2"=1'-0" (FULL SIZE) 1/4"=1'-0" (11x17)

N

GROUND SCOPE OF WORK:

- INSTALL (1) 6630 + IDLe
- INSTALL (3) 20A DC BREAKER FEEDS FOR (3) ERICSSON – 4449 B5/B12 RRHS INTO EXISTING DC PLANT
- INSTALL (3) DC BREAKERS FOR (3) ERICSSON – 4478 B14 RRHS
- INSTALL (9) UPCONVERTERS INTO EXISTING DC POWER PLANT



2 FINAL EQUIPMENT PLAN
SCALE: 1/2"=1'-0" (FULL SIZE) 1/4"=1'-0" (11x17)

N

AT&T
575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

AT&T SITE NUMBER: **59414**

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EXISTING 190'-0" SELF SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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0	08/05/20	JMM	CONSTRUCTION	MB

DocuSigned by:
Malcom Barmani
7BA2E1FADCC448D...
STATE OF CONNECTICUT
MALCOM BARMANI
30501
LICENSED
PROFESSIONAL ENGINEER
8/5/2020 | 12:02:53 PM EDT

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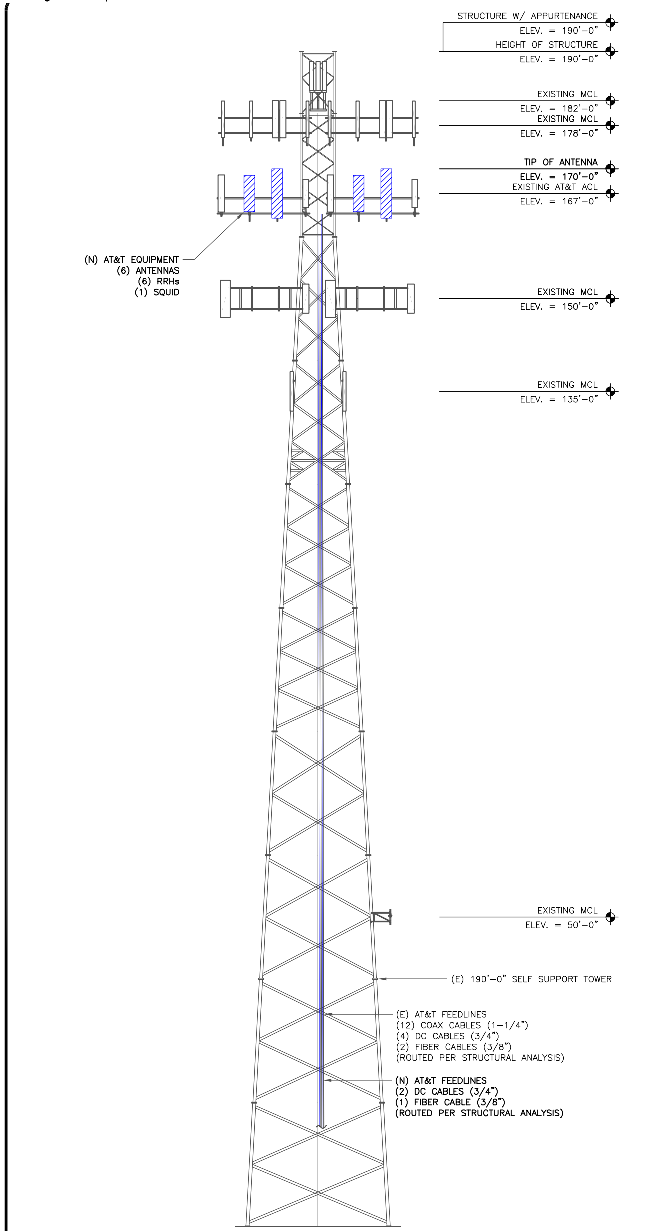
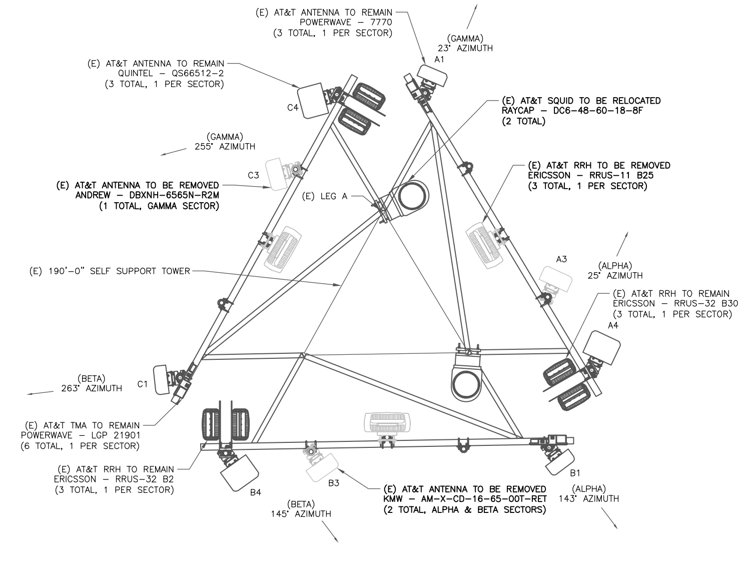
SHEET NUMBER: C-1.2
REVISION: 0

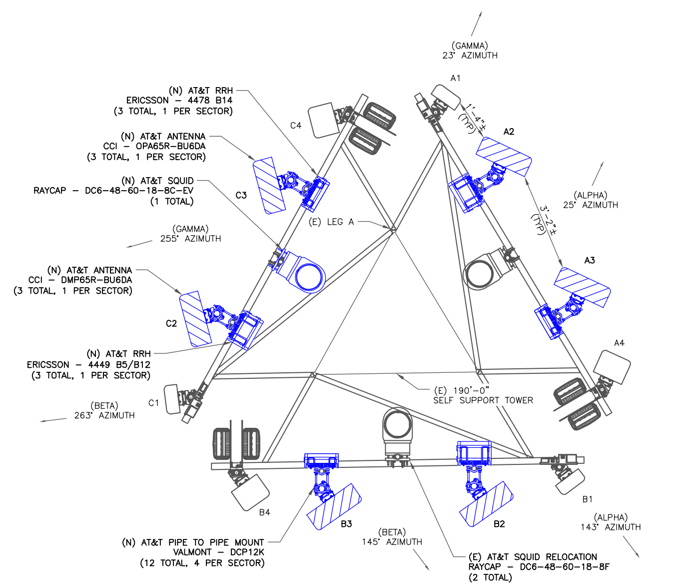
DocuSign Envelope ID: 3EAA69E6-997B-4408-BCC2-195EC7E26CDC



1 FINAL ELEVATION
SCALE: NOT TO SCALE



2 EXISTING ANTENNA PLAN
SCALE: 1/2"=1'-0" (FULL SIZE) 1/4"=1'-0" (11x17)



3 FINAL ANTENNA PLAN
SCALE: 1/2"=1'-0" (FULL SIZE) 1/4"=1'-0" (11x17)

"LOOK UP" – CROWN CASTLE USA INC.
SAFETY CLIMB REQUIREMENT:

THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TAGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.

INSTALLER NOTES:

1. REFERENCE C-3 FOR FINAL EQUIPMENT SCHEDULE.
2. REFERENCE C-4.1 FOR NEW EQUIPMENT SPECIFICATIONS.
3. CONTRACTOR TO VERIFY ALL ANTENNA TIP HEIGHTS DO NOT EXCEED BEACON BASE HEIGHT.
4. 3'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE ANTENNAS ON SAME SECTOR.
5. 6'-0" MINIMUM DISTANCE REQUIRED BETWEEN 700BC & 700DE ANTENNAS ON SAME SECTOR.
6. 4'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE 700 ANTENNAS ON OPPOSING SECTORS.
7. ALL ANTENNA MEASUREMENT DISTANCES MUST BE EDGE TO EDGE (RELOCATE ANTENNAS AS NEEDED).
8. 8" MINIMUM DISTANCE REQUIRED BETWEEN ANTENNA & RADIO. SEE GENERIC EXAMPLE DETAIL ON SHEET C-4.1.

AT&T

575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

AT&T SITE NUMBER: **59414**

BU #: **806478**
HRT 080 953381

539 PLAINS RD
HADDAM, CT 06438

EXISTING 190'-0" SELF SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/16/20	JMM	PRELIMINARY	XX
0	08/05/20	JMM	CONSTRUCTION	MB

DocuSigned by: Malcolm Barkman
7BA24AFADCC448D...
STATE OF CONNECTICUT · MALCOLM BARKMAN · 30501 · LICENSED PROFESSIONAL ENGINEER
8/5/2020 | 1:02:53 PM EDT

Crown Castle USA Inc.
Certificate of Registration #PEC.0001101

SHEET NUMBER: C-2
REVISION: 0

FINAL EQUIPMENT SCHEDULE
(VERIFY WITH CURRENT RFDS)

POSITION	ANTENNA TECH.	ANTENNA STATUS/MANUFACTURER MODEL	AZIMUTH	RAD CENTER	RADIO QTY.	RADIO STATUS/MODEL	RADIO LOCATION	DIPLEXER QTY.	DIPLEXER STATUS	DIPLEXER LOCATION	TMA QTY.	TMA STATUS	SURGE PROTECTION QTY.	SURGE PROTECTION STATUS/MODEL	CABLES QTY.	CABLES STATUS/TYPE	CABLES SIZE	CABLES LENGTH
ALPHA																		
A1	UMTS 850	(E) POWERWAVE TECH 7770	35°	167'-0"	–	–	–	2	(E)	GROUND	2	(E)	–	–	4	(E) COAX	1-5/8"	217'-0"
A2	LTE 700/ LTE 850/ 5G 850	(N) CCI DMP65R-BU6DA	25°	167'-0"	1	(N) 4449 B5/B12	TOWER	–	–	–	–	–	1	(E) DC6-48-60-18-8F	2	(E) DC	3/4"	217'-0"
															1	(N) FIBER	3/8"	217'-0"
A3	LTE 700	(N) CCI OPA65R-BU6DA	25°	167'-0"	1	(N) 4478 B14	TOWER	–	–	–	–	–	1	(N) DC6-48-60-18-8C-EV	2	(N) DC	3/4"	217'-0"
A4	LTE PCS/ LTE WCS/	(E) POWERWAVE TECH RA21.7775.00	25°	167'-0"	1	(E) RRUS-32 B2	TOWER	–	–	–	–	–	1	(E) DC6-48-60-18-8F	2	(E) DC	3/4"	217'-0"
					1	(E) RRUS-32 B30	TOWER								1	(E) FIBER	3/8"	217'-0"
BETA																		
B1	UMTS 850	(E) POWERWAVE TECH 7770	263°	167'-0"	–	–	–	2	(E)	GROUND	2	(E)	–	–	4	(E) COAX	1-5/8"	217'-0"
B2	LTE 700/ LTE 850/ 5G 850	(N) CCI DMP65R-BU6DA	145°	167'-0"	1	(N) 4449 B5/B12	TOWER	–	–	–	–	–	–	–	–	–	–	–
B3	LTE 700	(N) CCI OPA65R-BU6DA	145°	167'-0"	1	(N) 4478 B14	TOWER	–	–	–	–	–	–	–	–	–	–	–
B4	LTE PCS/ LTE WCS/	(E) POWERWAVE TECH RA21.7775.00	145°	167'-0"	1	(E) RRUS-32 B2	TOWER	–	–	–	–	–	–	–	–	–	–	–
					1	(E) RRUS-32 B30	TOWER											
GAMMA																		
C1	UMTS 850	(E) POWERWAVE TECH 7770	23°	167'-0"	–	–	–	2	(E)	GROUND	2	(E)	–	–	4	(E) COAX	1-5/8"	217'-0"
C2	LTE 700/ LTE 850/ 5G 850	(N) CCI DMP65R-BU6DA	255°	167'-0"	1	(N) 4449 B5/B12	TOWER	–	–	–	–	–	–	–	–	–	–	–
C3	LTE 700	(N) CCI OPA65R-BU6DA	255°	167'-0"	1	(N) 4478 B14	TOWER	–	–	–	–	–	–	–	–	–	–	–
C4	LTE PCS/ LTE WCS/	(E) POWERWAVE TECH RA21.7775.00	255°	167'-0"	1	(E) RRUS-32 B2	TOWER	–	–	–	–	–	–	–	–	–	–	–
					1	(E) RRUS-32 B30	TOWER											

NOTE:
(E) – EXISTING
(N) – NEW

1 FINAL EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE

AT&T
575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

AT&T SITE NUMBER: **59414**

BU #: **806478**
HRT 080 953381

539 PLAINS RD
HADDAM, CT 06438

EXISTING 190'-0" SELF SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/16/20	JMM	PRELIMINARY	XX
0	08/05/20	JMM	CONSTRUCTION	MB

DocuSigned by:
Malam Barmani
7BA3FAFADCC448D...
STATE OF CONNECTICUT
MAHAM BARMANI
30501
LICENSED
PROFESSIONAL ENGINEER
8/5/2020 | 1:02:53 PM EDT

Crown Castle USA Inc.
Certificate of Registration #PEC.0001101

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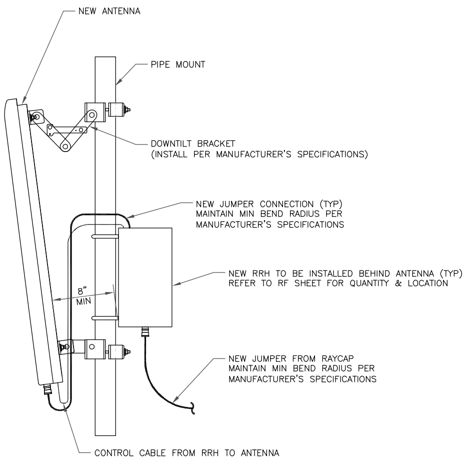
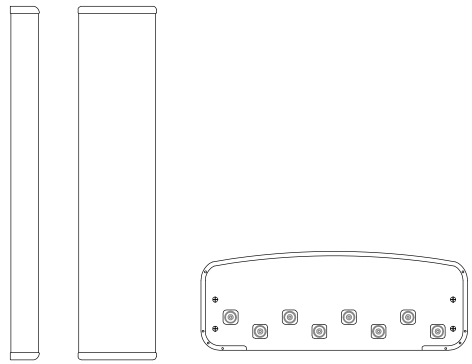
SHEET NUMBER: C-3
REVISION: 0

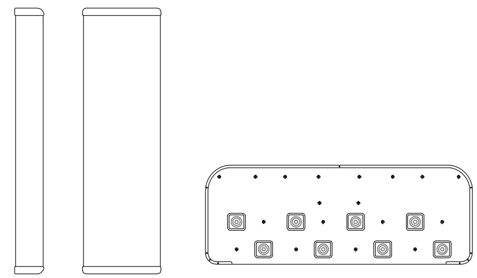


1 GENERIC ANTENNA MOUNTING ELEVATION
SCALE: NOT TO SCALE



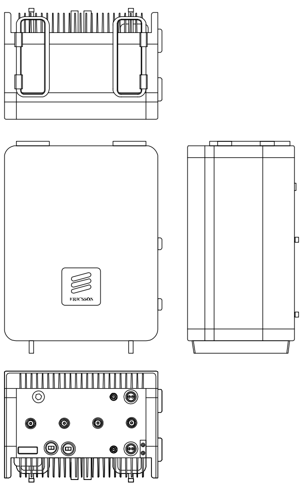
CCI ANTENNAS – DMP65R–BU8DA
WEIGHT (WITHOUT MOUNTING HARDWARE): 105.6 LBS
SIZE (HxWxD): 96.0x20.7x7.7 IN.
MOUNTING HARDWARE P/N: MBK–01
RATED WIND VELOCITY: 150.0 MPH

2 CCI ANTENNAS – DMP65R–BU8DA
SCALE: NOT TO SCALE



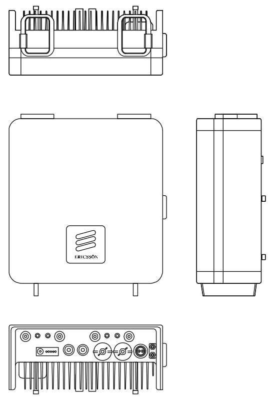
CCI ANTENNAS – OPA65R–BU6DA
WEIGHT (WITHOUT MOUNTING HARDWARE): 60.2 LBS
SIZE (HxWxD): 71.2x21.0x7.8 IN.
MOUNTING HARDWARE P/N: MBK–01
RATED WIND VELOCITY: 150.0 MPH

3 CCI ANTENNAS – OPA65R–BU6DA
SCALE: NOT TO SCALE



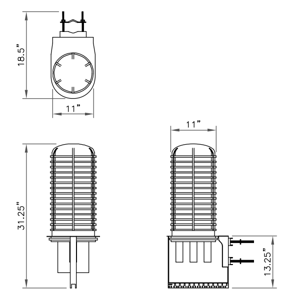
ERICSSON – 4449 B5/B12
WEIGHT: 70.0 LBS
SIZE (HxWxD): 18.0x13.2x9.4 IN.

4 ERICSSON – 4449 B5/B12
SCALE: NOT TO SCALE



ERICSSON – 4478 B14
WEIGHT: 60.0 LBS
SIZE (HxWxD): 15.0x13.0x8.0 IN.

5 ERICSSON – 4478 B14
SCALE: NOT TO SCALE



RAYCAP – DC6–48–60–18–8C–EV
WEIGHT (WITHOUT MOUNTING HARDWARE): 20.0 LBS
SIZE (HxWxD): 31.25x11.0x11.0 IN.

6 RAYCAP – DC6–48–60–18–8C–EV
SCALE: NOT TO SCALE

AT&T
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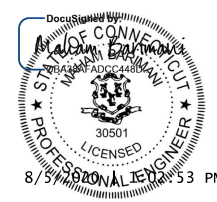

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SHEET NUMBER: C-4
REVISION: 0

Table 1: E. PA / S.NJ / DE --- COAX Color Code Definition

Sector	Alpha	Green		
	A - Split	GREEN	ORANGE	Blank
	Beta	Blue		
	B - Split	BLUE	BROWN	Blank
	Gamma	White		
	C - Split	*WHITE*	VIOLET	Blank
	D	ORANGE		
	E	BROWN		
	F	VIOLET		
DC Trunk / DC Jumper / First Fiber Jumper				
Frequency Band	700 (B/C)	VIOLET		
	850	YELLOW		
	850 - 2nd Block	YELLOW	YELLOW	Blank
	1900 (PCS)	RED		
	1900 (PCS) - 2nd Block	RED	RED	Blank
	2100 (AWS)	ORANGE		
	2100 (AWS) - 2nd Block	ORANGE	ORANGE	Blank
	2300 (WCS)	BROWN		
	2300 (WCS) - 2nd Block	BROWN	BROWN	Blank
	2300 (WCS) - SXM Repeater	BROWN	BROWN	BROWN
	700 (D/E)	SLATE		
	700 First Net	VIOLET	BLUE	Blank
	700 (B/C) / 700 First Net (Dual RRH)	VIOLET	VIOLET	BLUE
	1900 (PCS) / 2100 (AWS) (Dual RRH)	RED	ORANGE	Blank

The left color codes are also true for DC Trunks at the raycap, interior and exterior hatch plate, transition up a structure, and before entering the surge protection on the tower. Power and fiber jumpers are to have one band of sector designation when exiting surge protection on the tower and at the RRH. Second Fiber Jumpers (Airscale RRH's ONLY) are to have two bands of sector designation when exiting surge protection on the tower and at the RRH.

1 FIBER COLOR CODE
SCALE: NOT TO SCALE

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DocuSigned by:
5BA33FADCC448D...
STATE OF CONNECTICUT
30501
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SHEET NUMBER: C-5
REVISION: 0

Sector	Technology	Frequency Band	Color Code - Sector Designation for Sector Split	Color Code - Sector (Amount of Bands Based On Position)	Color Code - Frequency			45 + Coax	45 - Coax
A	LTE	700 B/C	Blank	GREEN	VIOLET		Blank	YELLOW	Blank
A	LTE	850	Blank	GREEN	YELLOW		Blank	YELLOW	Blank
A	LTE	850 - 2nd Block	Blank	GREEN	YELLOW	YELLOW	Blank	YELLOW	Blank
A	LTE	1900	Blank	GREEN	RED		Blank	YELLOW	Blank
A	LTE	1900 - 2nd Block	Blank	GREEN	RED	RED	Blank	YELLOW	Blank
A	LTE	2100	Blank	GREEN	ORANGE		Blank	YELLOW	Blank
A	LTE	2100 - 2nd Block	Blank	GREEN	ORANGE	ORANGE	Blank	YELLOW	Blank
A	LTE	700 D/E	Blank	GREEN	SLATE		Blank	YELLOW	Blank
A	LTE	2300	Blank	GREEN	BROWN		Blank	YELLOW	Blank
A	LTE	2300 - 2nd Block	Blank	GREEN	BROWN	BROWN	Blank	YELLOW	Blank
A	LTE	2300 - SXM Repeater	Blank	GREEN	BROWN	BROWN	BROWN	YELLOW	Blank
A	LTE	700 - FirstNet	Blank	GREEN	VIOLET	BLUE	Blank	YELLOW	Blank
A	LTE	700 (B/C) / 700 First Net (Dual RRH)	Blank	GREEN	VIOLET	VIOLET	BLUE	YELLOW	Blank
A	LTE	1900 (PCS) / 2100 (AWS) (Dual RRH)	Blank	GREEN	RED	ORANGE	Blank	YELLOW	Blank
A - Split	LTE	700 B/C	GREEN	ORANGE	VIOLET		Blank	YELLOW	Blank
A - Split	LTE	850	GREEN	ORANGE	YELLOW		Blank	YELLOW	Blank
A - Split	LTE	850 - 2nd Block	GREEN	ORANGE	YELLOW	YELLOW	Blank	YELLOW	Blank
A - Split	LTE	1900	GREEN	ORANGE	RED		Blank	YELLOW	Blank
A - Split	LTE	1900 - 2nd Block	GREEN	ORANGE	RED	RED	Blank	YELLOW	Blank
A - Split	LTE	2100	GREEN	ORANGE	ORANGE		Blank	YELLOW	Blank
A - Split	LTE	2100 - 2nd Block	GREEN	ORANGE	ORANGE	ORANGE	Blank	YELLOW	Blank
A - Split	LTE	700 D/E	GREEN	ORANGE	SLATE		Blank	YELLOW	Blank
A - Split	LTE	2300	GREEN	ORANGE	BROWN		Blank	YELLOW	Blank
A - Split	LTE	2300 - 2nd Block	GREEN	ORANGE	BROWN	BROWN	Blank	YELLOW	Blank
A - Split	LTE	2300 - SXM Repeater	GREEN	ORANGE	BROWN	BROWN	BROWN	YELLOW	Blank
A - Split	LTE	700 - FirstNet	GREEN	ORANGE	VIOLET	BLUE	Blank	YELLOW	Blank
A - Split	LTE	700 (B/C) / 700 First Net (Dual RRH)	GREEN	ORANGE	VIOLET	VIOLET	BLUE	YELLOW	Blank
A - Split	LTE	1900 (PCS) / 2100 (AWS) (Dual RRH)	GREEN	ORANGE	RED	ORANGE	Blank	YELLOW	Blank
B	LTE	700 B/C	Blank	BLUE	VIOLET		Blank	YELLOW	Blank
B	LTE	850	Blank	BLUE	YELLOW		Blank	YELLOW	Blank
B	LTE	850 - 2nd Block	Blank	BLUE	YELLOW	YELLOW	Blank	YELLOW	Blank
B	LTE	1900	Blank	BLUE	RED		Blank	YELLOW	Blank
B	LTE	1900 - 2nd Block	Blank	BLUE	RED	RED	Blank	YELLOW	Blank
B	LTE	2100	Blank	BLUE	ORANGE		Blank	YELLOW	Blank
B	LTE	2100 - 2nd Block	Blank	BLUE	ORANGE	ORANGE	Blank	YELLOW	Blank
B	LTE	700 D/E	Blank	BLUE	SLATE		Blank	YELLOW	Blank
B	LTE	2300	Blank	BLUE	BROWN		Blank	YELLOW	Blank
B	LTE	2300 - 2nd Block	Blank	BLUE	BROWN	BROWN	Blank	YELLOW	Blank
B	LTE	2300 - SXM Repeater	Blank	BLUE	BROWN	BROWN	BROWN	YELLOW	Blank
B	LTE	700 - FirstNet	Blank	BLUE	VIOLET	BLUE	Blank	YELLOW	Blank
B	LTE	700 (B/C) / 700 First Net (Dual RRH)	Blank	BLUE	VIOLET	VIOLET	BLUE	YELLOW	Blank
B	LTE	1900 (PCS) / 2100 (AWS) (Dual RRH)	Blank	BLUE	RED	ORANGE	Blank	YELLOW	Blank
B - Split	LTE	700 B/C	BLUE	BROWN	VIOLET		Blank	YELLOW	Blank
B - Split	LTE	850	BLUE	BROWN	YELLOW		Blank	YELLOW	Blank
B - Split	LTE	850 - 2nd Block	BLUE	BROWN	YELLOW	YELLOW	Blank	YELLOW	Blank
B - Split	LTE	1900	BLUE	BROWN	RED		Blank	YELLOW	Blank
B - Split	LTE	1900 - 2nd Block	BLUE	BROWN	RED	RED	Blank	YELLOW	Blank
B - Split	LTE	2100	BLUE	BROWN	ORANGE		Blank	YELLOW	Blank
B - Split	LTE	2100 - 2nd Block	BLUE	BROWN	ORANGE	ORANGE	Blank	YELLOW	Blank
B - Split	LTE	700 D/E	BLUE	BROWN	SLATE		Blank	YELLOW	Blank
B - Split	LTE	2300	BLUE	BROWN	BROWN		Blank	YELLOW	Blank
B - Split	LTE	2300 - 2nd Block	BLUE	BROWN	BROWN	BROWN	Blank	YELLOW	Blank
B - Split	LTE	2300 - SXM Repeater	BLUE	BROWN	BROWN	BROWN	BROWN	YELLOW	Blank
B - Split	LTE	700 - FirstNet	BLUE	BROWN	VIOLET	BLUE	Blank	YELLOW	Blank
B - Split	LTE	700 (B/C) / 700 First Net (Dual RRH)	BLUE	BROWN	VIOLET	VIOLET	BLUE	YELLOW	Blank
B - Split	LTE	1900 (PCS) / 2100 (AWS) (Dual RRH)	BLUE	BROWN	RED	ORANGE	Blank	YELLOW	Blank

1 COAX COLOR CODE – PART I
SCALE: NOT TO SCALE

AT&T
575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

AT&T SITE NUMBER: **59414**

BU #: **806478**
HRT 080 953381

539 PLAINS RD
HADDAM, CT 06438

EXISTING 190'-0" SELF SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/16/20	JMM	PRELIMINARY	XX
0	08/05/20	JMM	CONSTRUCTION	MB

DocuSigned by:
Maham Barimani
2BA35AFADCC448D...
STATE OF CONNECTICUT
MAHAM BARIMANI
30501
LICENSED
PROFESSIONAL ENGINEER
8/5/2020 | 1:02:53 PM EDT

Crown Castle USA Inc.
Certificate of Registration #PEC.0001101

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SHEET NUMBER: C-6.1
REVISION: 0

Sector	Technology	Frequency Band	Color Code - Sector Designation for Sector Split	Color Code - Sector (Amount of Bands Based On Position)	Color Code - Frequency			45 + Coax	45 - Coax
C	LTE	700 B/C	Blank	WHITE	VIOLET		Blank	YELLOW	Blank
C	LTE	850	Blank	WHITE	YELLOW		Blank	YELLOW	Blank
C	LTE	850 - 2nd Block	Blank	WHITE	YELLOW	YELLOW	Blank	YELLOW	Blank
C	LTE	1900	Blank	WHITE	RED		Blank	YELLOW	Blank
C	LTE	1900 - 2nd Block	Blank	WHITE	RED	RED	Blank	YELLOW	Blank
C	LTE	2100	Blank	WHITE	ORANGE		Blank	YELLOW	Blank
C	LTE	2100 - 2nd Block	Blank	WHITE	ORANGE	ORANGE	Blank	YELLOW	Blank
C	LTE	700 D/E	Blank	WHITE	SLATE		Blank	YELLOW	Blank
C	LTE	2300	Blank	WHITE	BROWN		Blank	YELLOW	Blank
C	LTE	2300 - 2nd Block	Blank	WHITE	BROWN	BROWN	Blank	YELLOW	Blank
C	LTE	2300 - SXM Repeater	Blank	WHITE	BROWN	BROWN	BROWN	YELLOW	Blank
C	LTE	700 - FirstNet	Blank	WHITE	VIOLET	BLUE	Blank	YELLOW	Blank
C	LTE	700 (B/C) / 700 First Net (Dual RRH)	Blank	WHITE	VIOLET	VIOLET	BLUE	YELLOW	Blank
C	LTE	1900 (PCS) / 2100 (AWS) (Dual RRH)	Blank	WHITE	RED	ORANGE	Blank	YELLOW	Blank
C - Split	LTE	700 B/C	WHITE	VIOLET	VIOLET		Blank	YELLOW	Blank
C - Split	LTE	850	WHITE	VIOLET	YELLOW		Blank	YELLOW	Blank
C - Split	LTE	850 - 2nd Block	WHITE	VIOLET	YELLOW	YELLOW	Blank	YELLOW	Blank
C - Split	LTE	1900	WHITE	VIOLET	RED		Blank	YELLOW	Blank
C - Split	LTE	1900 - 2nd Block	WHITE	VIOLET	RED	RED	Blank	YELLOW	Blank
C - Split	LTE	2100	WHITE	VIOLET	ORANGE		Blank	YELLOW	Blank
C - Split	LTE	2100 - 2nd Block	WHITE	VIOLET	ORANGE	ORANGE	Blank	YELLOW	Blank
C - Split	LTE	700 D/E	WHITE	VIOLET	SLATE		Blank	YELLOW	Blank
C - Split	LTE	2300	WHITE	VIOLET	BROWN		Blank	YELLOW	Blank
C - Split	LTE	2300 - 2nd Block	WHITE	VIOLET	BROWN	BROWN	Blank	YELLOW	Blank
C - Split	LTE	2300 - SXM Repeater	WHITE	VIOLET	BROWN	BROWN	BROWN	YELLOW	Blank
C - Split	LTE	700 - FirstNet	WHITE	VIOLET	VIOLET	BLUE	Blank	YELLOW	Blank
C - Split	LTE	700 (B/C) / 700 First Net (Dual RRH)	WHITE	VIOLET	VIOLET	VIOLET	BLUE	YELLOW	Blank
C - Split	LTE	1900 (PCS) / 2100 (AWS) (Dual RRH)	WHITE	VIOLET	RED	ORANGE	Blank	YELLOW	Blank
D	LTE	700 B/C	Blank	ORANGE	VIOLET		Blank	YELLOW	Blank
D	LTE	850	Blank	ORANGE	YELLOW		Blank	YELLOW	Blank
D	LTE	850 - 2nd Block	Blank	ORANGE	YELLOW	YELLOW	Blank	YELLOW	Blank
D	LTE	1900	Blank	ORANGE	RED		Blank	YELLOW	Blank
D	LTE	1900 - 2nd Block	Blank	ORANGE	RED	RED	Blank	YELLOW	Blank
D	LTE	2100	Blank	ORANGE	ORANGE		Blank	YELLOW	Blank
D	LTE	2100 - 2nd Block	Blank	ORANGE	ORANGE	ORANGE	Blank	YELLOW	Blank
D	LTE	700 D/E	Blank	ORANGE	SLATE		Blank	YELLOW	Blank
D	LTE	2300	Blank	ORANGE	BROWN		Blank	YELLOW	Blank
D	LTE	2300 - 2nd Block	Blank	ORANGE	BROWN	BROWN	Blank	YELLOW	Blank
D	LTE	2300 - SXM Repeater	Blank	ORANGE	BROWN	BROWN	BROWN	YELLOW	Blank
D	LTE	700 - FirstNet	Blank	ORANGE	VIOLET	BLUE	Blank	YELLOW	Blank
D	LTE	700 (B/C) / 700 First Net (Dual RRH)	Blank	ORANGE	VIOLET	VIOLET	BLUE	YELLOW	Blank
D	LTE	1900 (PCS) / 2100 (AWS) (Dual RRH)	Blank	ORANGE	RED	ORANGE	Blank	YELLOW	Blank
E	LTE	700 B/C	Blank	BROWN	VIOLET		Blank	YELLOW	Blank
E	LTE	850	Blank	BROWN	YELLOW		Blank	YELLOW	Blank
E	LTE	850 - 2nd Block	Blank	BROWN	YELLOW	YELLOW	Blank	YELLOW	Blank
E	LTE	1900	Blank	BROWN	RED		Blank	YELLOW	Blank
E	LTE	1900 - 2nd Block	Blank	BROWN	RED	RED	Blank	YELLOW	Blank
E	LTE	2100	Blank	BROWN	ORANGE		Blank	YELLOW	Blank
E	LTE	2100 - 2nd Block	Blank	BROWN	ORANGE	ORANGE	Blank	YELLOW	Blank
E	LTE	700 D/E	Blank	BROWN	SLATE		Blank	YELLOW	Blank
E	LTE	2300	Blank	BROWN	BROWN		Blank	YELLOW	Blank
E	LTE	2300 - 2nd Block	Blank	BROWN	BROWN	BROWN	Blank	YELLOW	Blank
E	LTE	2300 - SXM Repeater	Blank	BROWN	BROWN	BROWN	BROWN	YELLOW	Blank
E	LTE	700 - FirstNet	Blank	BROWN	VIOLET	BLUE	Blank	YELLOW	Blank
E	LTE	700 (B/C) / 700 First Net (Dual RRH)	Blank	BROWN	VIOLET	VIOLET	BLUE	YELLOW	Blank
E	LTE	1900 (PCS) / 2100 (AWS) (Dual RRH)	Blank	BROWN	RED	ORANGE	Blank	YELLOW	Blank
F	LTE	700 B/C	Blank	VIOLET	VIOLET		Blank	YELLOW	Blank
F	LTE	850	Blank	VIOLET	YELLOW		Blank	YELLOW	Blank
F	LTE	850 - 2nd Block	Blank	VIOLET	YELLOW	YELLOW	Blank	YELLOW	Blank
F	LTE	1900	Blank	VIOLET	RED		Blank	YELLOW	Blank
F	LTE	1900 - 2nd Block	Blank	VIOLET	RED	RED	Blank	YELLOW	Blank
F	LTE	2100	Blank	VIOLET	ORANGE		Blank	YELLOW	Blank
F	LTE	2100 - 2nd Block	Blank	VIOLET	ORANGE	ORANGE	Blank	YELLOW	Blank
F	LTE	700 D/E	Blank	VIOLET	SLATE		Blank	YELLOW	Blank
F	LTE	2300	Blank	VIOLET	BROWN		Blank	YELLOW	Blank
F	LTE	2300 - 2nd Block	Blank	VIOLET	BROWN	BROWN	Blank	YELLOW	Blank
F	LTE	2300 - SXM Repeater	Blank	VIOLET	BROWN	BROWN	BROWN	YELLOW	Blank
F	LTE	700 - FirstNet	Blank	VIOLET	VIOLET	BLUE	Blank	YELLOW	Blank
F	LTE	700 (B/C) / 700 First Net (Dual RRH)	Blank	VIOLET	VIOLET	VIOLET	BLUE	YELLOW	Blank
F	LTE	1900 (PCS) / 2100 (AWS) (Dual RRH)	Blank	VIOLET	RED	ORANGE	Blank	YELLOW	Blank

1 COAX COLOR CODE – PART II
SCALE: NOT TO SCALE

AT&T
575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

AT&T SITE NUMBER: **59414**

BU #: **806478**
HRT 080 953381

539 PLAINS RD
HADDAM, CT 06438

EXISTING 190'-0" SELF SUPPORT TOWER

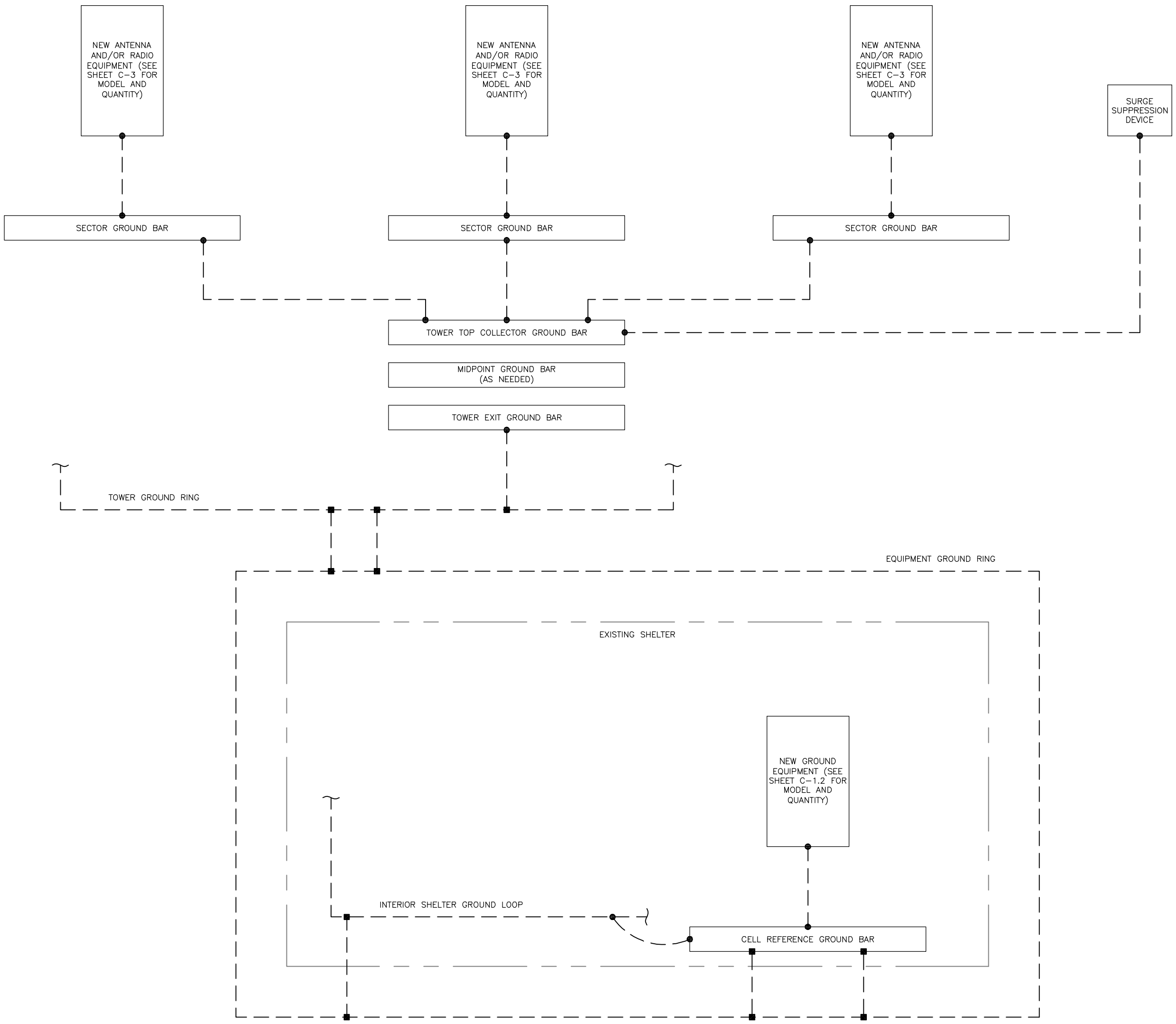
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/16/20	JMM	PRELIMINARY	XX
0	08/05/20	JMM	CONSTRUCTION	MB

DocuSigned by:
STATE OF CONNECTICUT
30501
LICENSED PROFESSIONAL ENGINEER
8/5/2020 | 1:02:53 PM EDT

Crown Castle USA Inc.
Certificate of Registration #PEC.0001101

SHEET NUMBER: C-6.2
REVISION: 0



1 GROUNDING SCHEMATIC
SCALE: NOT TO SCALE

GROUNDING PLAN LEGEND:

- GROUND WIRE
- EXOTHERMIC WELD
- MECHANICAL CONNECTION
- COPPER GROUND ROD
- GROUND ROD W/ TEST WELL

CELL REFERENCE GROUND BAR: POINT OF GROUND REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT FRAMES. ALL BONDS ARE MADE WITH #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. BOND TO GROUND RING WITH (2) #2 SOLID TINNED COPPER CONDUITS (ATT-TP-76416 7.6.7).

HATCH PLATE GROUND BAR: BOND TO THE INTERIOR GROUND RING WITH (2) #2 STRANDED GREEN INSULATED COPPER CONDUCTORS. WHEN A HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CELL SITE REFERENCE GROUND BAR MUST BE CONNECTED TO THE HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) #2 STRANDED GREEN INSULATED COPPER CONDUCTORS.

EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE BUILDING. BOND TO GROUND RING WITH A #2 SOLID TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC WELD AND INSPECTION SLEEVE (ATT-TP-76416 7.6.7.2).

DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICES CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE EQUIPPED WITH MASTER DC SYSTEM RETURN GROUND CONDUCTOR FROM THE DC POWER SYSTEM COMMON RETURN BUS DIRECTLY CONNECTED TO THE CELL SITE REFERENCE GROUND BAR PER TP76300 SECTION H 6 AND TP76416 FIGURE 7-11 REQUIREMENTS.

AT&T
575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

AT&T SITE NUMBER: **59414**

BU #: **806478**
HRT 080 953381

539 PLAINS RD
HADDAM, CT 06438

EXISTING 190'-0" SELF SUPPORT TOWER

ISSUED FOR:

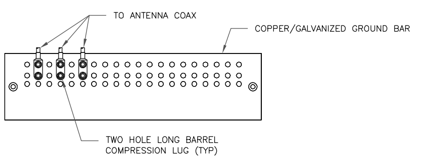
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/16/20	JMM	PRELIMINARY	XX
0	08/05/20	JMM	CONSTRUCTION	MB

DocuSigned by:
STATE OF CONNECTICUT
30501
LICENSED
PROFESSIONAL ENGINEER
8/5/2020 | 1:02:53 PM EDT

Crown Castle USA Inc.
Certificate of Registration #PEC.0001101

SHEET NUMBER: G-1

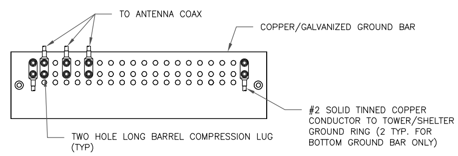
REVISION: 0



NOTES:

1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
2. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE

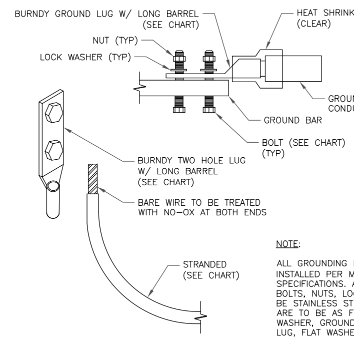


NOTES:

1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE

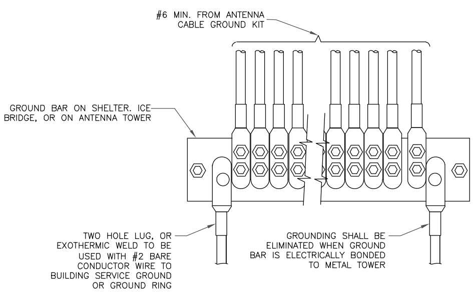
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



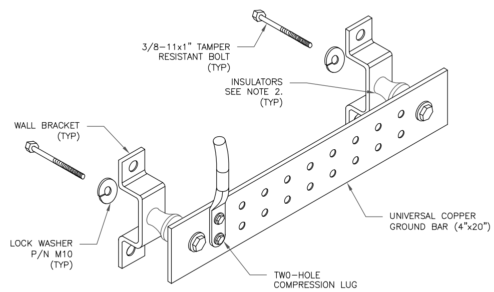
NOTE:

ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE

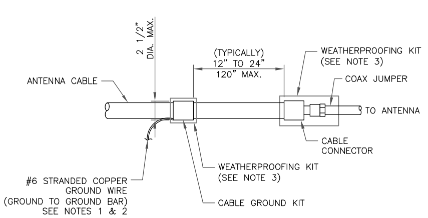


NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION. CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.

2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

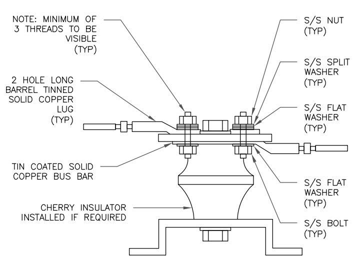
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



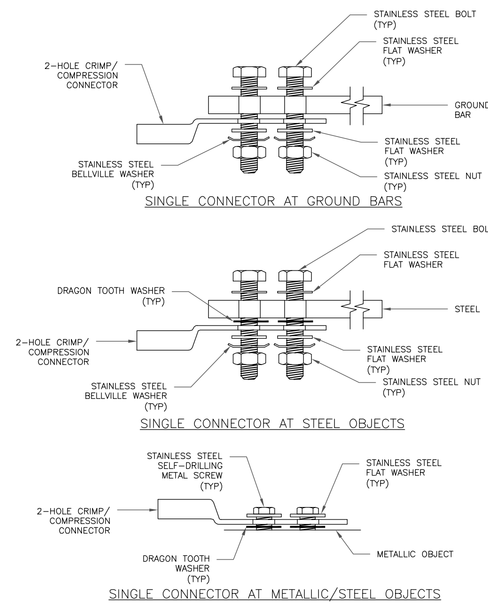
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

6 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE



8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE

AT&T
575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

CROWN CASTLE
3 CORPORATE PARK DRIVE, SUITE 101
CLIFTON PARK, NY 12065

AT&T SITE NUMBER: **59414**

BU #: **806478**
HRT 080 953381

539 PLAINS RD
HADDAM, CT 06438

EXISTING 190'-0" SELF SUPPORT TOWER

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	07/16/20	JMM	PRELIMINARY	XX
0	08/05/20	JMM	CONSTRUCTION	MB

DocuSigned by:
Malcolm Barhami
?BA2?AFADCC448D...

STATE OF CONNECTICUT
MALCOLM BARHAMI
30501
LICENSED
PROFESSIONAL ENGINEER

8/5/2020 | 12:02:53 PM EDT

Crown Castle USA Inc.
Certificate of Registration #PEC.0001101

SHEET NUMBER: G-2
REVISION: 0

Diagram - Sector	A	Diagram File Name - CT2165_A_B_C_LTE700BC_850_700B14__Rev2.vsd					
Atoll Site Name -	CTL02165	Location Name -	HADDAM-PLAINS RD	Market -	CONNECTICUT	Market Cluster -	NEW ENGLAND
Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson							

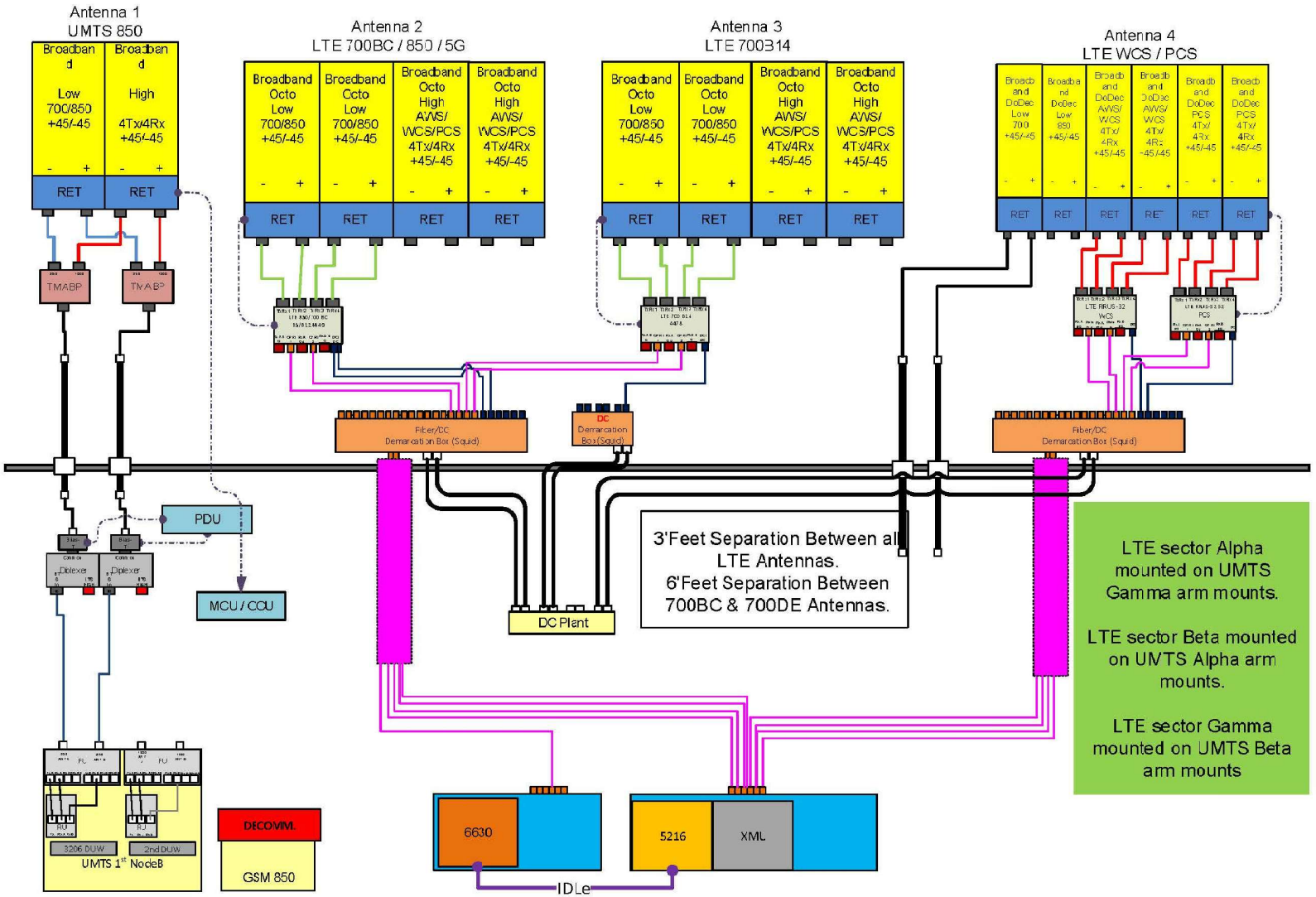


Diagram - Sector	B	Diagram File Name - CT2165_A_B_C_LTE700BC_850_700B14__Rev2.vsd					
Atoll Site Name -	CTL02165	Location Name -	HADDAM-PLAINS RD	Market -	CONNECTICUT	Market Cluster -	NEW ENGLAND
Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson							

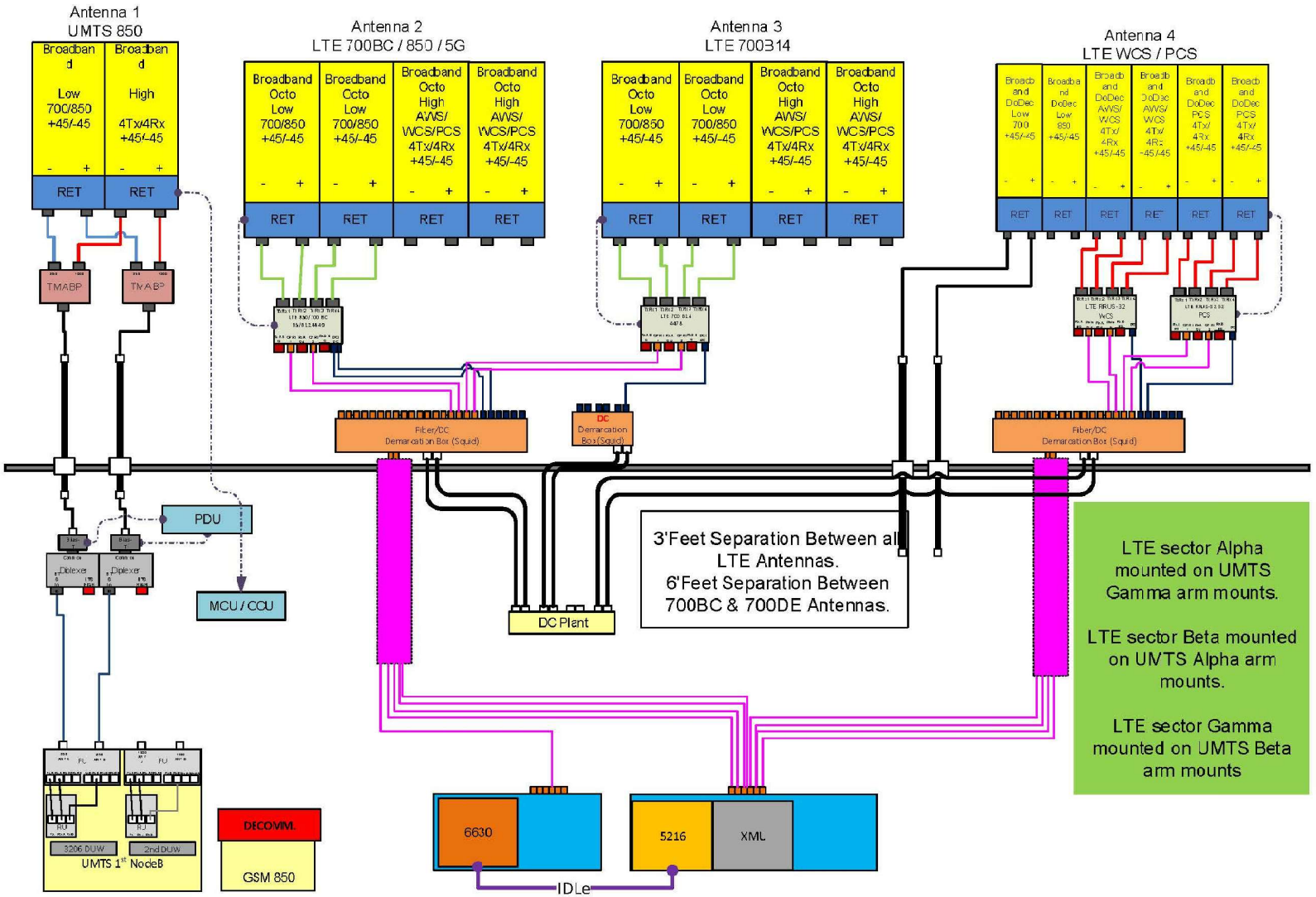
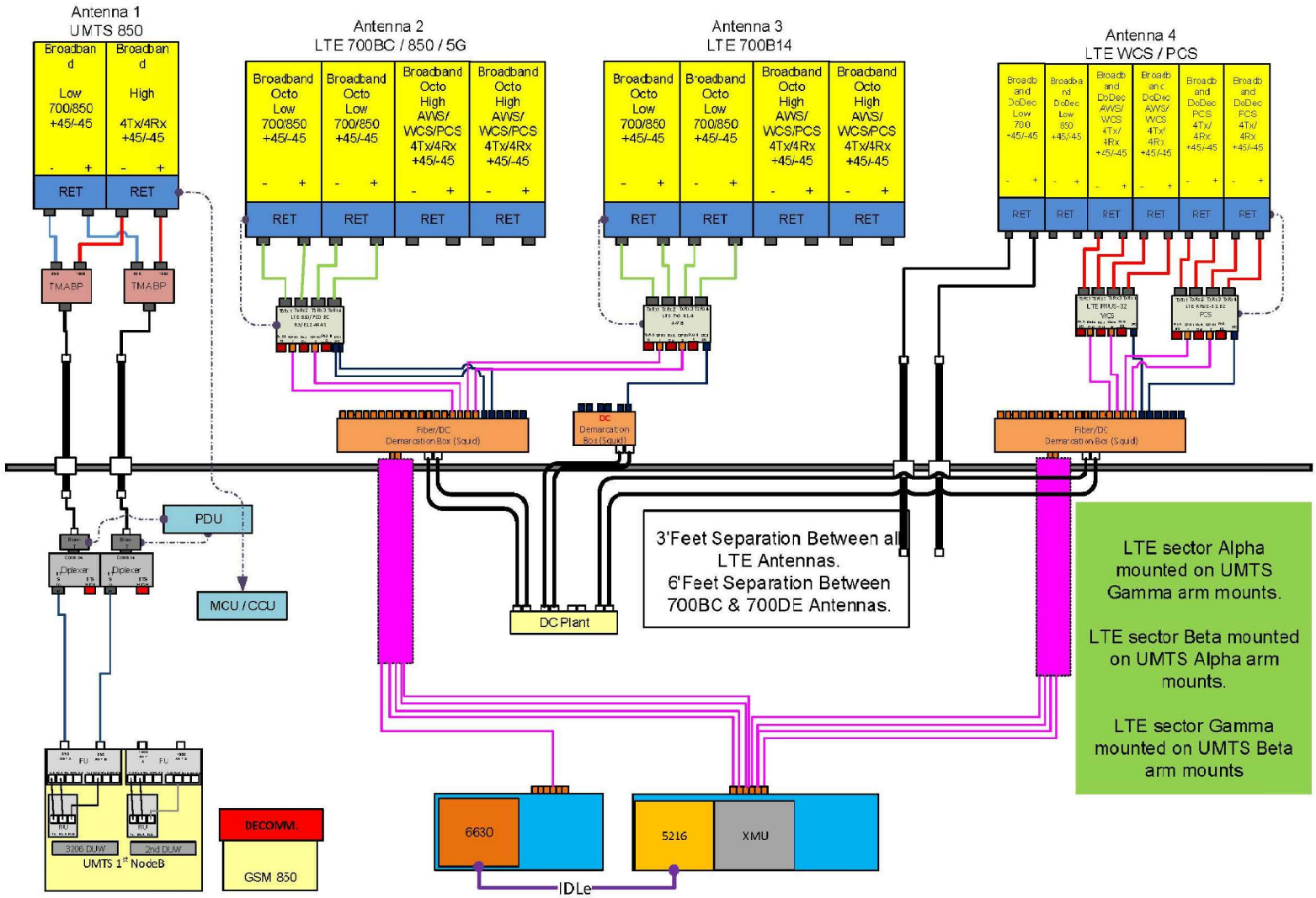


Diagram - Sector	C	Diagram File Name - CT2165_A_B_C_LTE700BC_850_700B14__Rev2.vsd					
Atoll Site Name -	CTL02165	Location Name -	HADDAM-PLAINS RD	Market -	CONNECTICUT	Market Cluster -	NEW ENGLAND
Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna_Radio Connection Drawings Playbook v6.0_Ericsson							



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To contact us by email, send messages to: esignature@CrownCastle.com
To contact us by paper mail, send correspondence to
Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317

To advise Crown Castle and DocuSign of your new e-mail address

To let us know of a change to the e-mail address where we should send documents for execution and other documents and records to you, you must send an email message to esignature@CrownCastle.com and state your previous e-mail address and your new e-mail address.

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Exhibit D

Structural Analysis Report

Date: **August 19, 2020**

Stephanie Lipscomb
Crown Castle
370 Mallory Station Rd
Franklin, TN 37067

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Subject:	**Structural Analysis Report**	
Carrier Designation:	***AT&T Mobility* Co-Locate**	
	Carrier Site Number:	59414
	Carrier Site Name:	CTL02165
Crown Castle Designation:	**Crown Castle BU Number:**	806478
	Crown Castle Site Name:	HRT 080 953381
	Crown Castle JDE Job Number:	605365
	Crown Castle Work Order Number:	1877524
	Crown Castle Order Number:	517059 Rev. 0
Engineering Firm Designation:	**B+T Group Project Number:**	100140.013.01
Site Data:	**539 Plains RD, HADDAM, Middlesex County, CT** **Latitude *41° 26' 35"*, Longitude *-72° 30' 22.4"*** **180 Foot - Self Support Tower**	

Dear Stephanie Lipscomb,

B+T Group is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above mentioned tower.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC5: Proposed Equipment Configuration **Sufficient Capacity – 84.2%**

This analysis utilizes an ultimate 3-second gust wind speed of 130 mph as required by the 2018 Connecticut State Building Code Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: John Landon

Respectfully submitted by: B+T Engineering, Inc.
COA: PEC.0001564; Expires: 02/10/2021

STATE OF CONNECTICUT SCOTT S. VANCE 31627 LICENSED PROFESSIONAL ENGINEER

8/19/20

Scott S. Vance, P.E.

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 180 ft. self-support tower designed by Rohn. The tower has been modified multiple times to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	130 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
165.0	167.0	3	CCI Antennas	DMP65R-BU8D	12 4 2 2	1-1/4 3/4 7/16 3/8
		3	CCI Antennas	OPA65R-BU6D		
		3	Ericsson	RRUS 32 B2		
		3	Ericsson	RRUS 32 B30		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 4478 B14		
		3	Powerwave Tech.	7770.00		
		6	Powerwave Tech.	LGP21401		
		3	Quintel Tech.	QS66512-2		
		3	Raycap	DC6-48-60-18-8F		
	165.0	1	--	Sector Mount [SM 510-3]		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
182.0	186.0	1	--	19" Accelerator	6	1-5/8
		3	Ems Wireless	RR90-17-02DP		
	182.0	1	--	15' x 4" Mount Pipe		
	179.0	3	Ericsson	KRY 112 489/1		
178.0	179.0	3	Alcatel Lucent	B13 RRH 4X30	8	1-5/8
		3	Alcatel Lucent	B25 RRH4X30		
		3	Alcatel Lucent	B66A RRH4X45		
		6	Andrew	SBNHH-1D65B		
		3	Antel	BXA-171085-12BF-2		
		6	Antel	LPA-80080/6CF		
		1	Rfs Celwave	DB-B1-6C-8AB-0Z		
		1	Rfs Celwave	DB-T1-6Z-8AB-0Z		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		6	Rfs Celwave	FD9R6004/2C-3L		
	178.0	1	--	Sector Mount [SM 510-3]		
150.0	150.0	3	Alcatel Lucent	PCS 1900MHZ 4X45W-65MHZ	4	1-1/4
		6	Alcatel Lucent	RRH2X50-800		
		3	Alcatel Lucent	TD-RRH8X20-25		
		3	Commscope	NNVV-65B-R4		
		3	Rfs Celwave	APXVTM14-ALU-I20		
		1	--	Sector Mount [SM 502-3]		
133.0	133.0	3	Kathrein	742 213	6	1-5/8
		1	--	Pipe Mount [PM 601-3]		
50.0	50.0	1	GPS	GPS_A	1	1/2
		1	--	Side Arm Mount [SO 305-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
Online Order Information	AT&T Mobility Co-Locate, Rev# 0	517059	CCI Sites
Tower Manufacturer Drawing	Rohn, File No. 22087JC	1067089	CCI Sites
Mount Analysis Report	POD, Report Designation. 20-64957	9123443	CCI Sites
Modification Details	All-Points Technology, Job No. CT105441	1004663	CCI Sites
Tower Modification Drawing	Vertical Structures, Job No. 2008-004-124	1274944	CCI Sites
	Vertical Structures, Job No. 2008-004-059	1274944	CCI Sites
Post Modification Inspection	Vertical Structures, Job No. 2009-004-004	2393878	CCI Sites
Tower Modification Drawing	B+T Group, Project No. 100140.002.01	5864073	CCI Sites
Post Modification Inspection	TEP, Project No. 63731	6011748	CCI Sites
Foundation Drawing	Rohn, Drawing No. C821532	300985	CCI Sites
Foundation Mapping	ETS, Job No. 202977	300985	CCI Sites
Geotech Report	ETS, Date: 07/27/2020	1240448	CCI Sites
Antenna Configuration	Crown CAD Package	Date: 06/26/2020	CCI Sites

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. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard. tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the reinforced leg sections. These calculations are presented in Appendix C.

3.2) Assumptions

1) The tower and structures were maintained in accordance with the - TIA-222 standard.
2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. B+T Group 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
T1	180 - 160	Leg	ROHN 2 STD	2	-26.987	38.684	69.8	Pass
T2	160 - 155	Leg	ROHN 2.5 EH	38	-36.257	78.151	46.4	Pass
T3	155 - 150	Leg	ROHN 2.5 EH	47	-44.892	78.148	57.4	Pass
T4	150 - 145	Leg	ROHN 2.5 EH	56	-54.988	78.149	70.4	Pass
T5	145 - 140	Leg	ROHN 2.5 EH	65	-65.168	98.081	66.4	Pass
T6	140 - 133.333	Leg	ROHN 3 EH	77	-75.539	99.059	76.3	Pass
T7	133.333 - 126.667	Leg	ROHN 3 EH	86	-87.787	129.274	67.9	Pass
T8	126.667 - 120	Leg	ROHN 3 EH	98	-99.184	139.089	71.3	Pass
T9	120 - 113.333	Leg	ROHN 3.5 EH	110	-111.268	161.556	68.9	Pass
T10	113.333 - 106.667	Leg	ROHN 3.5 EH	122	-122.402	161.594	75.7	Pass
T11	106.667 - 100	Leg	BT100140- Rohn 3.5EH w/ 2" SR	134	-134.466	244.582	55.0 65.1 (b)	Pass
T12	100 - 80	Leg	BT100140- Rohn 4EH w/ 2" SR	143	-167.819	286.747	58.5 62.0 (b)	Pass
T13	80 - 60	Leg	BT100140- Rohn 5EH w/ 2" SR (60-80)	164	-198.451	319.408	62.1 73.2 (b)	Pass
T14	60 - 40	Leg	BT100140- Rohn 5EH w/ 2" SR (40-60)	179	-229.577	400.743	57.3	Pass
T15	40 - 30	Leg	BT100140- Rohn 6EHS w/ 2" SR (30-40)	200	-247.276	373.300	66.2	Pass
T16	30 - 20	Leg	BT100140- Rohn 6EHS w/ 2" SR (20-30)	209	-261.986	439.396	59.6 63.7 (b)	Pass
T17	20 - 0	Leg	BT100140- Rohn 6EH w/ 2" SR	221	-295.184	437.361	67.5	Pass
T1	180 - 160	Diagonal	L2x2x1/4	9	-5.371	21.921	24.5 65.9 (b)	Pass
T2	160 - 155	Diagonal	L1 3/4x1 3/4x3/16	43	-4.632	8.960	51.7 69.1 (b)	Pass
T3	155 - 150	Diagonal	L1 3/4x1 3/4x3/16	52	-4.525	8.115	55.8 70.8 (b)	Pass
T4	150 - 145	Diagonal	L2x2x1/4	61	-5.666	14.435	39.3	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
							69.4 (b)	
T5	145 - 140	Diagonal	2L1 3/4x1 3/4x3/16x3/16	69	-5.533	10.763	51.4 70.8 (b)	Pass
T6	140 - 133.333	Diagonal	2L2x2x3/16x1/2	81	-6.178	34.333	18.0 26.1 (b)	Pass
T7	133.333 - 126.667	Diagonal	2L2x2x3/16x1/2	90	-6.418	31.258	20.5 27.4 (b)	Pass
T8	126.667 - 120	Diagonal	2L2x2x3/16x1/2	102	-6.805	29.165	23.3 28.2 (b)	Pass
T9	120 - 113.333	Diagonal	2L2 1/2x2 1/2x3/16x1/2	114	-6.977	43.852	15.9 24.8 (b)	Pass
T10	113.333 - 106.667	Diagonal	2L2 1/2x2 1/2x3/16x1/2	126	-7.376	41.968	17.6 25.5 (b)	Pass
T11	106.667 - 100	Diagonal	2L2 1/2x2 1/2x3/16x1/2	138	-6.869	41.098	16.7 25.2 (b)	Pass
T12	100 - 80	Diagonal	2L3x3x3/16x1/2	147	-7.847	48.925	16.0 26.8 (b)	Pass
T13	80 - 60	Diagonal	2L3x3x3/16x1/4	168	-9.570	36.097	26.5 65.4 (b)	Pass
T14	60 - 40	Diagonal	2L3x3x1/4x1/4	183	-11.063	41.581	26.6 71.0 (b)	Pass
T15	40 - 30	Diagonal	2L3 1/2x3 1/2x1/4x1/4	204	-10.577	60.389	17.5 71.7 (b)	Pass
T16	30 - 20	Diagonal	2L3 1/2x3 1/2x1/4x1/4	213	-12.543	54.955	22.8 78.0 (b)	Pass
T17	20 - 0	Diagonal	L4x4x1/4	225	-11.911	20.932	56.9	Pass
T5	145 - 140	Secondary Horizontal	L2x2x1/4	73	-1.130	18.245	6.2 15.0 (b)	Pass
T7	133.333 - 126.667	Secondary Horizontal	L2x2x1/4	94	-1.522	13.793	11.0 11.6 (b)	Pass
T8	126.667 - 120	Secondary Horizontal	L2 1/2x2 1/2x1/4	106	-1.720	23.886	7.2 15.7 (b)	Pass
T9	120 - 113.333	Secondary Horizontal	L2 1/2x2 1/2x1/4	118	-1.929	21.189	9.1 17.6 (b)	Pass
T10	113.333 - 106.667	Secondary Horizontal	L2 1/2x2 1/2x1/4	130	-2.122	18.713	11.3 19.4 (b)	Pass
T14	60 - 40	Secondary Horizontal	L3x3x1/4	187	-3.982	13.215	30.1 36.3 (b)	Pass
T16	30 - 20	Secondary Horizontal	L3 1/2x3 1/2x1/4	217	-4.543	17.337	26.2 41.4 (b)	Pass
T1	180 - 160	Top Girt	L2x2x1/8	6	-0.109	4.273	2.5 3.9 (b)	Pass
							Summary	
						Leg (T6)	76.3	Pass
						Diagonal (T16)	78.0	Pass
						Secondary Horizontal (T16)	41.4	Pass
						Top Girt (T1)	3.9	Pass
						Bolt Checks	78.0	Pass
						Rating =	78.0	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC5

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Redundant Connections	120-126.7	18.0	Pass
1,2	Anchor Rods	Base	55.0	Pass
1,2	Anchor Rod Brackets	Base	75.6	Pass
1,2	Base Foundation (Structure)	Base	30.0	Pass
1,2	Base Foundation (Soil Interaction)	Base	84.2	Pass

Structure Rating (max from all components) =	**84.2%**

Notes:
1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
2) Rating per TIA-222-H Section 15.5.

4.1) Recommendations

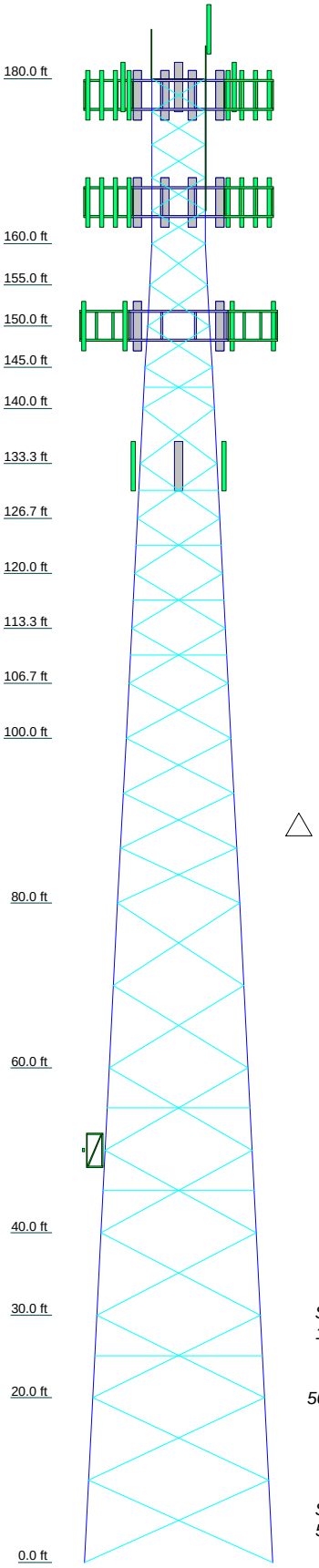
The tower and its foundations have sufficient capacity to carry the proposed load configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT

Section	T17	T16	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	G	F	E	D	C	B	A	ROHN 3.5 EH		ROHN 3 EH			ROHN 2.5 EH				ROHN 2 STD
Leg Grade	A572-50																
Diagonals	L4x4x1/4	2L3 1/2x3 1/2x1/4x1/4		2L3x3x1/4x1/4	2L3x3x3/16x1/4	2L3x3x3/16x1/2	2L2 1/2x2 1/2x3/16x1/2			2L2x2x3/16x1/2			J	I	H		L2x2x1/4
Diagonal Grade		A572-50				A36								K	A36		A572-50
Top Girts					N.A.												L2x2x1/8
Sec. Horizontals	N.A.	L	N.A.	L3x3x1/4	N.A.		L2 1/2x2 1/2x1/4				I	N.A.	I				N.A.
Face Width (ft)	22.8646	20.8646	19.8594	18.8542	16.7708	14.7708	12.6771	11.9974	11.3151	10.6354	9.95833	9.28125	8.60418	8.09115	7.58073	7.06771	6.5625
# Panels @ (ft)	29.9	3.1	2.6	5.1	3.7	3.8	1.0	0.9	0.9	0.8	0.7	0.6	0.5	0.3	0.2	0.2	0.2
Weight (K)	4.5																

8 @ 10 | 9 @ 6.66667 | 4 @ 5 | 5 @ 4 | 1.0



SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	BT100140- Rohn 3.5EH w/ 2" SR	G	BT100140- Rohn 6EH w/ 2" SR
B	BT100140- Rohn 4EH w/ 2" SR	H	L1 3/4x1 3/4x3/16
C	BT100140- Rohn 5EH w/ 2" SR (60-80)	I	L2x2x1/4
D	BT100140- Rohn 5EH w/ 2" SR (40-60)	J	2L1 3/4x1 3/4x3/16x3/16
E	BT100140- Rohn 6EHS w/ 2" SR (30-40)	K	A572-50
F	BT100140- Rohn 6EHS w/ 2" SR (20-30)	L	L3 1/2x3 1/2x1/4

MATERIAL STRENGTH

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

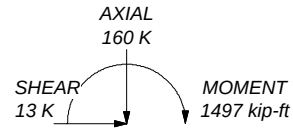
TOWER DESIGN NOTES

1. Tower is located in Middlesex County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 130 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0'
8. TIA-222-H Annex S
9. TOWER RATING: 78%

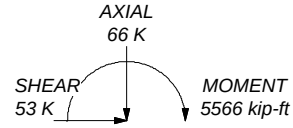
ALL REACTIONS ARE FACTORED

MAX. CORNER REACTIONS AT BASE:
DOWN: 303 K
SHEAR: 33 K

UPLIFT: -252 K
SHEAR: 28 K



TORQUE 21 kip-ft
50 mph WIND - 1.500 in ICE

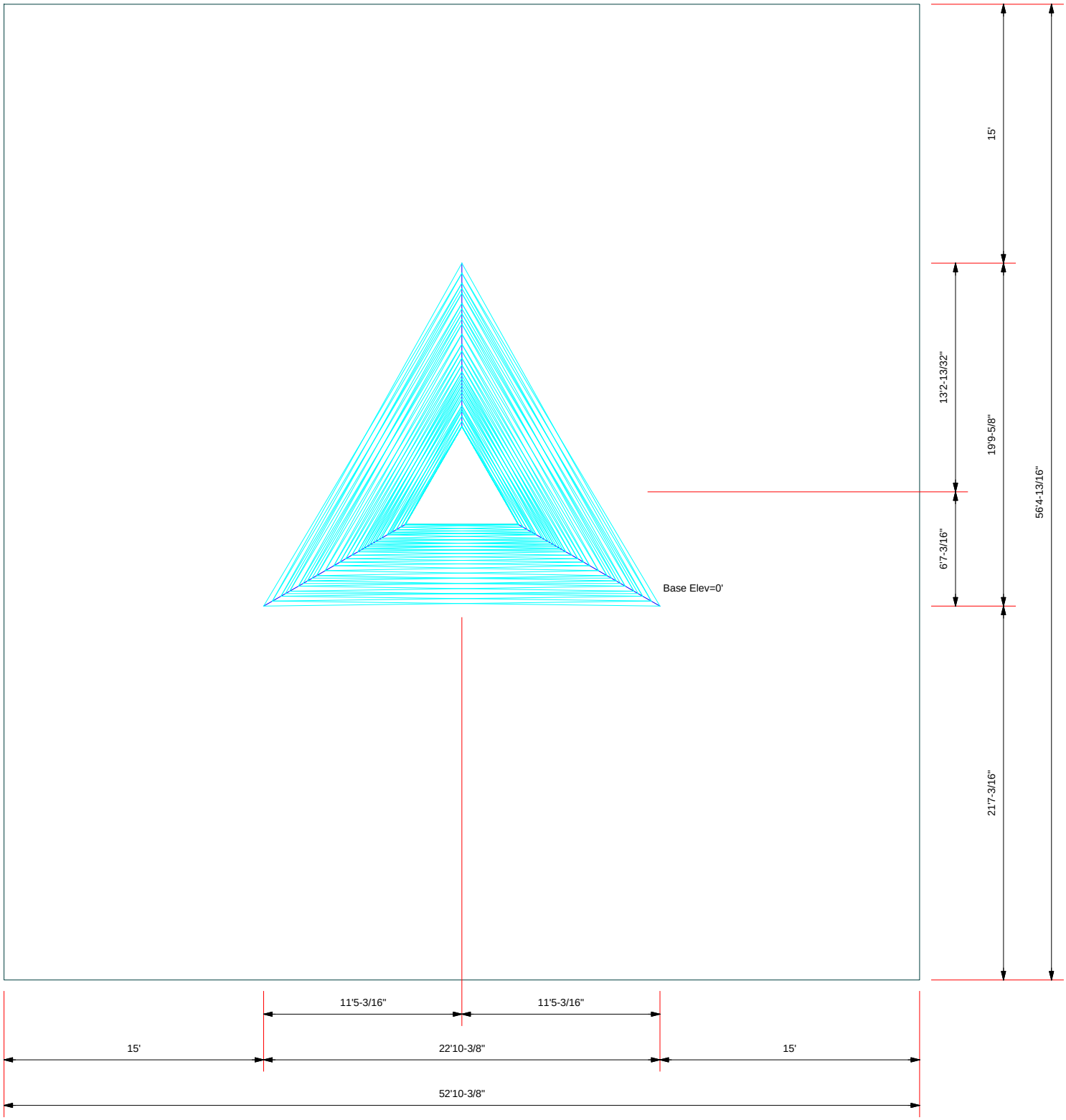


TORQUE 82 kip-ft
REACTIONS - 130 mph WIND

B+T Group
1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job:	***100140.013.01 - HRT 080 953381, CT (BU# 80647***		
Project:			
Client: Crown Castle		Drawn by: S. Bhat	App'd:
Code: TIA-222-H		Date: 08/18/20	Scale: NTS
Path: C:\Users\Sahana\Desktop\100140_806478_HRT 080 953381------Sahana------SunEdisTower\100140_013_01_HRT_080_953381_CT.eri			Dwg No. E-1

Plot Plan
Total Area - 0.07 Acres



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Job:	100140.013.01 - HRT 080 953381, CT (BU# 80647		
Project:			
Client: Crown Castle		Drawn by: S. Bhat	App'd:
Code: TIA-222-H		Date: 08/18/20	Scale: NTS
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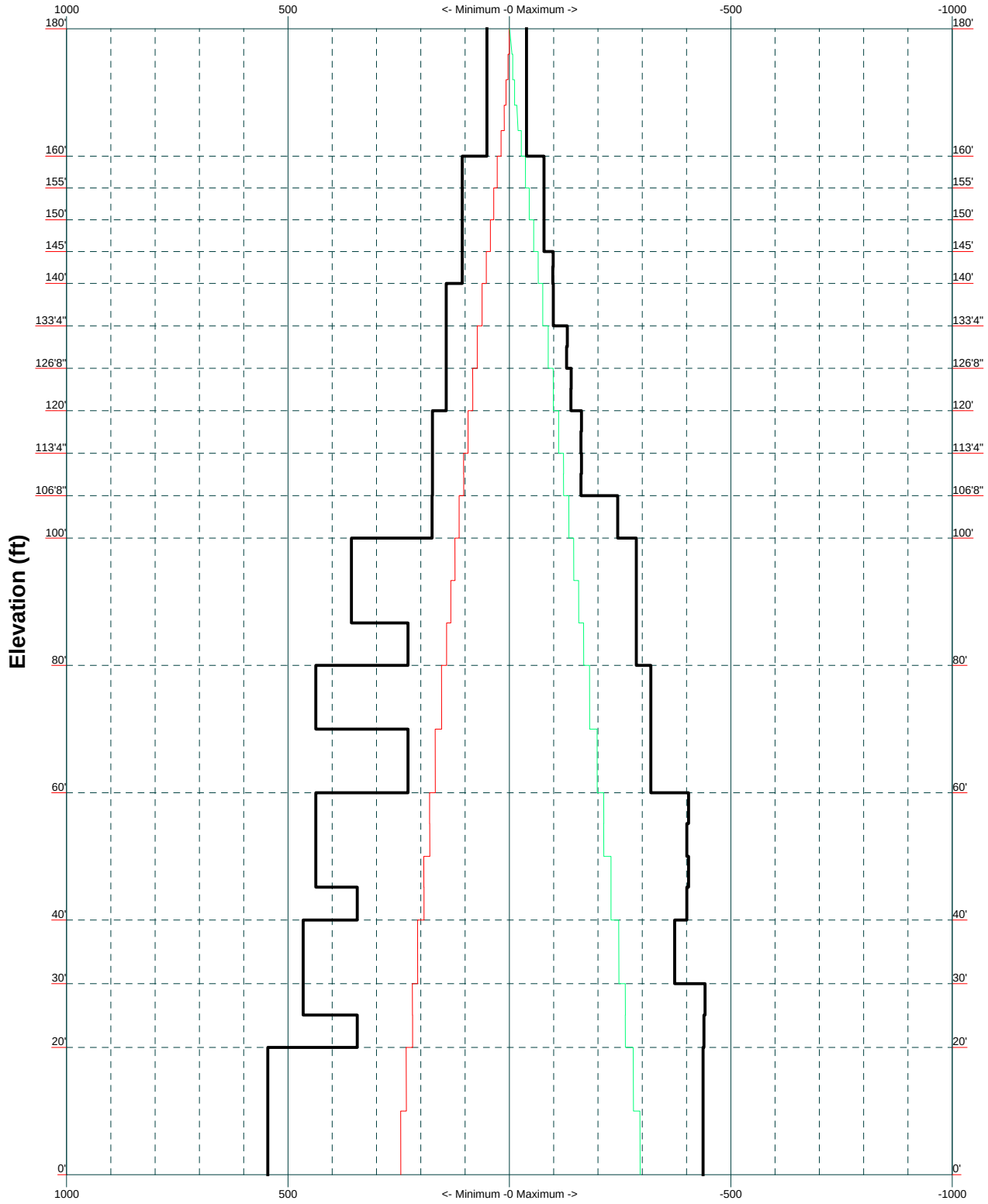
TIA-222-H - 130 mph/50 mph 1.500 in Ice Exposure B

Leg Capacity ——— Leg Compression (K)



B+T GRP

B+T Group
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Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

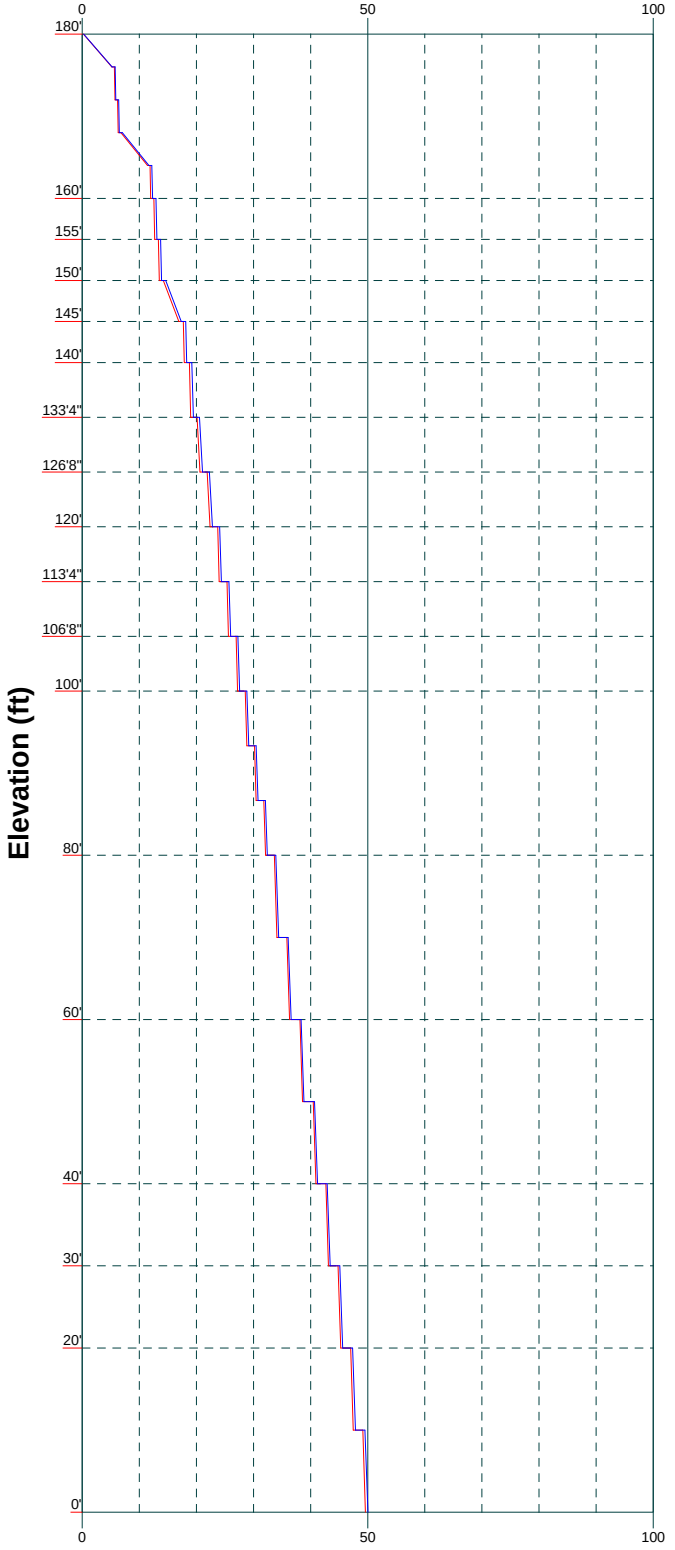
Job: ***100140.013.01 - HRT 080 953381, CT (BU# 80647***8			
Project:			
Client: Crown Castle	Drawn by: S. Bhat	App'd:	
Code: TIA-222-H	Date: 08/18/20	Scale: NTS	
Path: C:\Users\Sahana\Desktop\100140_806478_HRT 080 953381------Sahana------SunilTowerTower\100140_013_01_HRT_080_953381_CT.eri		Dwg No. E-3	

TIA-222-H - 130 mph/50 mph 1.500 in Ice Exposure B

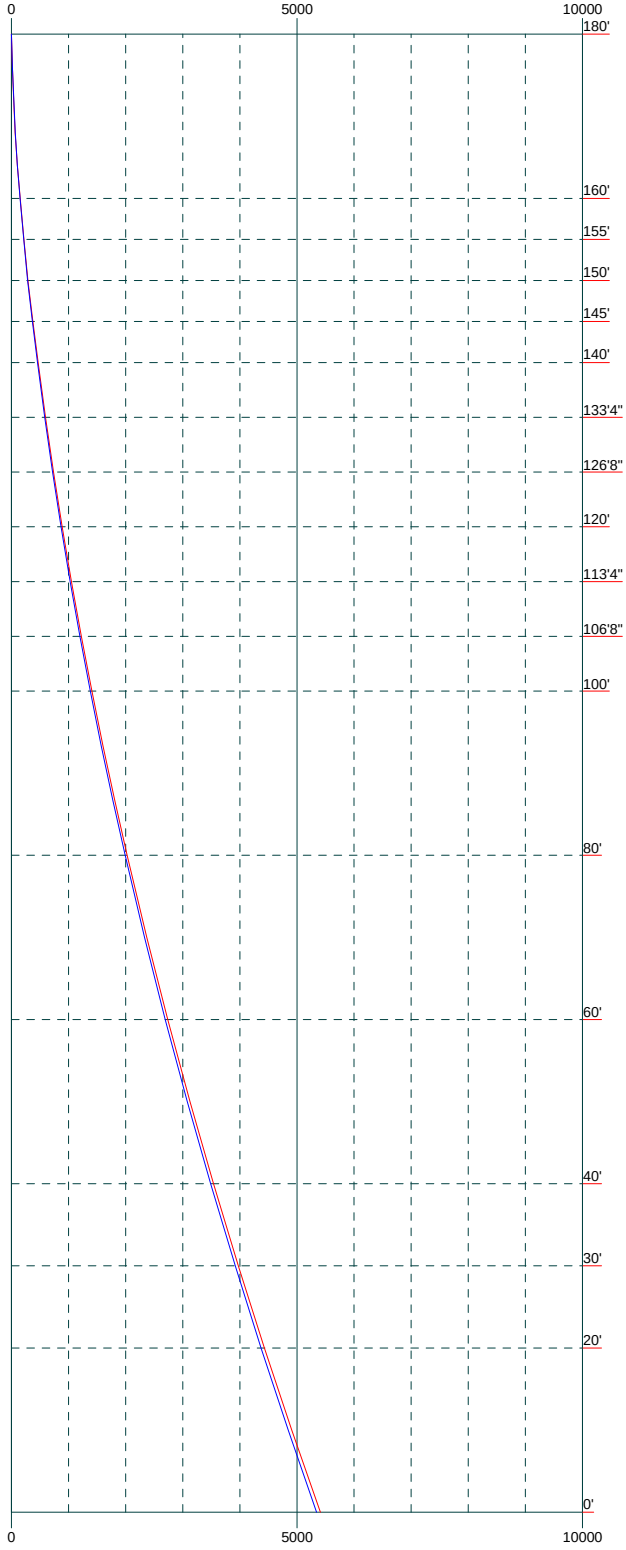
Maximum Values

Vx Vz Mx Mz

Global Mast Shear (K)



Global Mast Moment (kip-ft)



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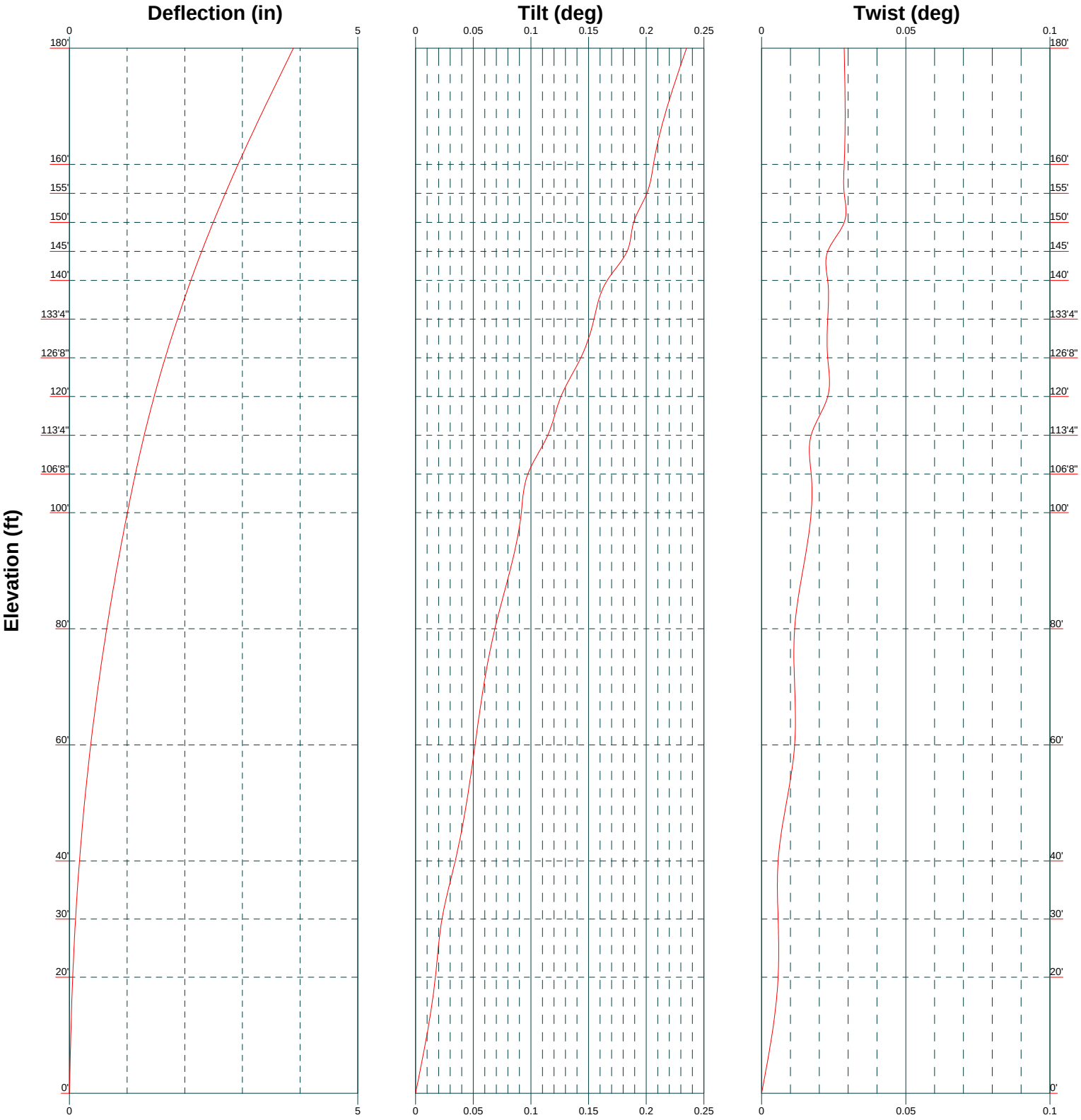
Job: 100140.013.01 - HRT 080 953381, CT (BU# 80647			
Project:			
Client: Crown Castle	Drawn by: S. Bhat	App'd:	
Code: TIA-222-H	Date: 08/18/20	Scale: NTS	
Path: C:\Users\Sahana\Desktop\100140_806478_HRT 080 953381-----Sahana-----SunilTowerTower\100140_013_01_HRT_080_953381_CT.eri		Dwg No. E-4	

TIA-222-H - Service - 60 mph

Maximum Values



B+T GRP

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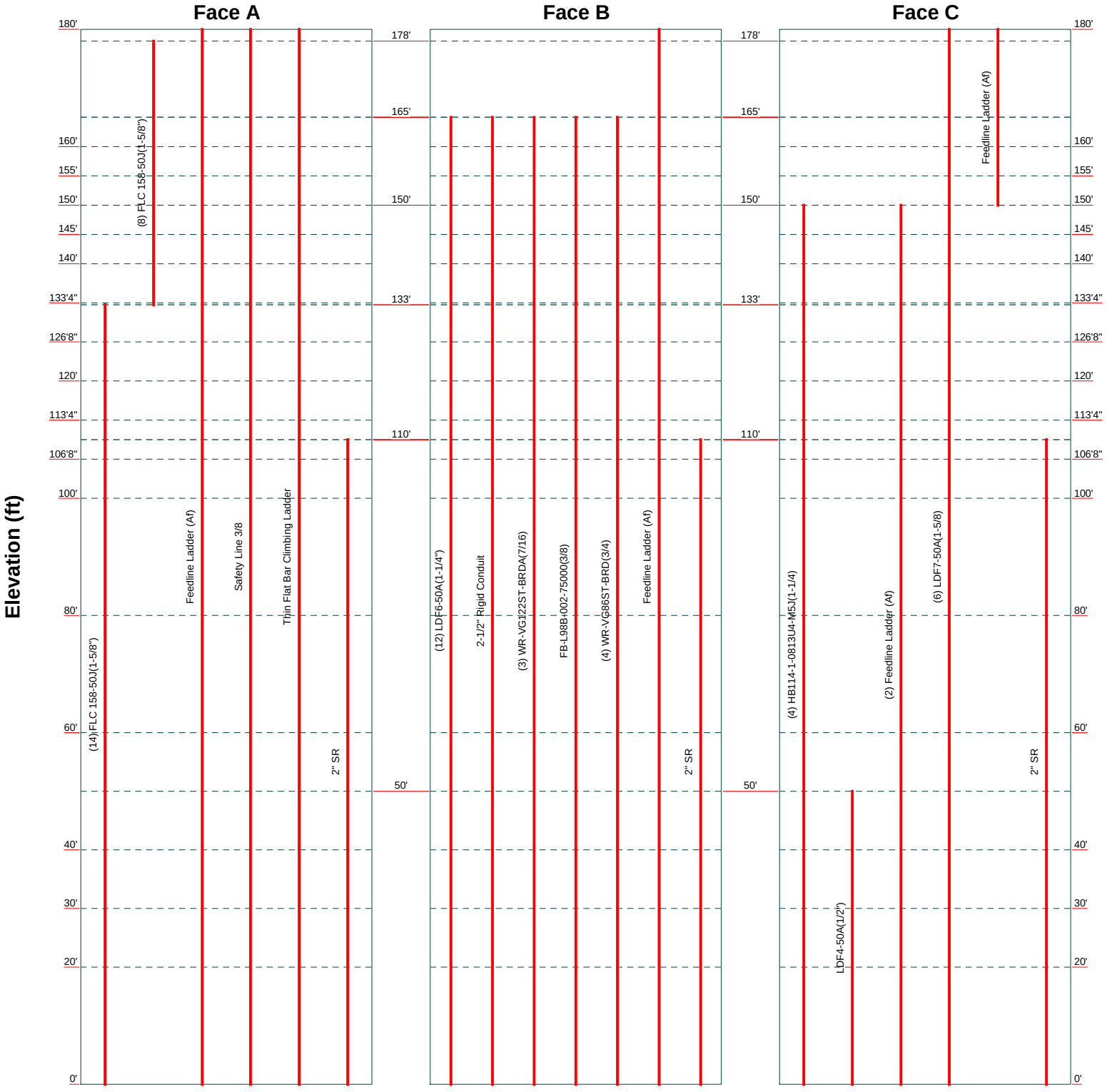
Job: ***100140.013.01 - HRT 080 953381, CT (BU# 80647***8			
Project:			
Client: Crown Castle	Drawn by: S. Bhat	App'd:	
Code: TIA-222-H	Date: 08/18/20	Scale: NTS	
Path: C:\Users\Sahana\Desktop\100140_806478_HRT 080 953381------Sahana------SunlitInxTower\100140_013_01_HRT_080_953381_CT.eri		Dwg No. E-5	

Feed Line Distribution Chart
0' - 180'

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



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Phone: (918) 587-4630
FAX: (918) 295-0265

Job: ***100140.013.01 - HRT 080 953381, CT (BU# 80647***		
Project:		
Client: Crown Castle	Drawn by: S. Bhat	App'd:
Code: TIA-222-H	Date: 08/18/20	Scale: NTS
Path: C:\Users\Sahana\Desktop\100140_806478_HRT 080 953381_-----Sahana-----SunilTmxTower\100140_013_01_HRT_080_953381_CT.eri		Dwg No. E-7

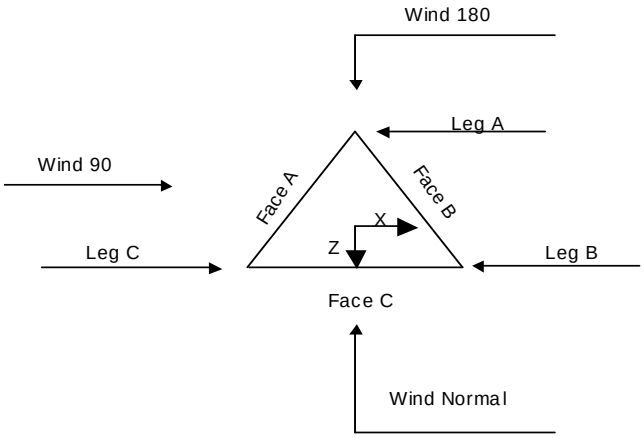
Tower Input Data

The main tower is a 3x free standing tower with an overall height of 180' above the ground line.
The base of the tower is set at an elevation of 0' above the ground line.
The face width of the tower is 6'6-1/4" at the top and 22'10-3/8" at the base.
This tower is designed using the TIA-222-H standard.
The following design criteria apply:

Tower is located in Middlesex County, Connecticut.
Tower base elevation above sea level: 504'.
Basic wind speed of 130 mph.
Risk Category II.
Exposure Category B.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0'.
Nominal ice thickness of 1.500 in.
Ice thickness is considered to increase with height.
Ice density of 56.000 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50.000 °F.
Deflections calculated using a wind speed of 60 mph.
TIA-222-H Annex S.
Pressures are calculated at each section.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
Stress ratio used in tower member design is 1.05.
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-H Bracing Resist. Exemption
√	Include Bolts In Member Capacity		Autocalc Torque Arm Areas		Use TIA-222-H 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

Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	180'-160'			6'6-1/4"	1	20'
T2	160'-155'			6'6-3/4"	1	5'
T3	155'-150'			7'13/16"	1	5'
T4	150'-145'			7'6-31/32"	1	5'
T5	145'-140'			8'1-3/32"	1	5'
T6	140'-133'4"			8'7-1/4"	1	6'8"
T7	133'4"-126'8"			9'3-3/8"	1	6'8"
T8	126'8"-120'			9'11-1/2"	1	6'8"
T9	120'-113'4"			10'7-5/8"	1	6'8"
T10	113'4"-106'8"			11'3-25/32"	1	6'8"
T11	106'8"-100'			11'11-31/32"	1	6'8"
T12	100'-80'			12'8-1/8"	1	20'
T13	80'-60'			14'9-1/4"	1	20'
T14	60'-40'			16'9-1/4"	1	20'
T15	40'-30'			18'10-1/4"	1	10'
T16	30'-20'			19'10-5/16"	1	10'
T17	20'-0'			20'10-3/8"	1	20'

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	180'-160'	4'	X Brace	No	No	0.000	0.000
T2	160'-155'	5'	X Brace	No	No	0.000	0.000
T3	155'-150'	5'	X Brace	No	No	0.000	0.000
T4	150'-145'	5'	X Brace	No	No	0.000	0.000
T5	145'-140'	5'	X Brace	No	Yes	0.000	0.000
T6	140'-133'4"	6'8"	X Brace	No	No	0.000	0.000
T7	133'4"-126'8"	6'8"	X Brace	No	Yes	0.000	0.000
T8	126'8"-120'	6'8"	X Brace	No	Yes	0.000	0.000
T9	120'-113'4"	6'8"	X Brace	No	Yes	0.000	0.000
T10	113'4"-106'8"	6'8"	X Brace	No	Yes	0.000	0.000
T11	106'8"-100'	6'8"	X Brace	No	No	0.000	0.000
T12	100'-80'	6'8"	X Brace	No	No	0.000	0.000
T13	80'-60'	10'	X Brace	No	No	0.000	0.000
T14	60'-40'	10'	X Brace	No	Yes	0.000	0.000
T15	40'-30'	10'	X Brace	No	No	0.000	0.000
T16	30'-20'	10'	X Brace	No	Yes	0.000	0.000
T17	20'-0'	10'	X Brace	No	No	0.000	0.000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 180'-160'	Pipe	ROHN 2 STD	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A572-50 (50 ksi)
T2 160'-155'	Pipe	ROHN 2.5 EH	A572-50 (50 ksi)	Single Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T3 155'-150'	Pipe	ROHN 2.5 EH	A572-50 (50 ksi)	Single Angle	L1 3/4x1 3/4x3/16	A36 (36 ksi)
T4 150'-145'	Pipe	ROHN 2.5 EH	A572-50 (50 ksi)	Equal Angle	L2x2x1/4	A572-50 (50 ksi)
T5 145'-140'	Pipe	ROHN 2.5 EH	A572-50 (50 ksi)	Double Equal Angle	2L1 3/4x1 3/4x3/16x3/16	A36 (36 ksi)
T6 140'-133'4"	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Double Equal Angle	2L2x2x3/16x1/2	A36 (36 ksi)
T7 133'4"-126'8"	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Double Equal Angle	2L2x2x3/16x1/2	A36 (36 ksi)
T8 126'8"-120'	Pipe	ROHN 3 EH	A572-50 (50 ksi)	Double Equal Angle	2L2x2x3/16x1/2	A36 (36 ksi)
T9 120'-113'4"	Pipe	ROHN 3.5 EH	A572-50 (50 ksi)	Double Equal Angle	2L2 1/2x2 1/2x3/16x1/2	A36 (36 ksi)
T10 113'4"-106'8"	Pipe	ROHN 3.5 EH	A572-50 (50 ksi)	Double Equal Angle	2L2 1/2x2 1/2x3/16x1/2	A36 (36 ksi)
T11 106'8"-100'	Arbitrary Shape	BT100140- Rohn 3.5EH w/ 2" SR	A572-50 (50 ksi)	Double Equal Angle	2L2 1/2x2 1/2x3/16x1/2	A36 (36 ksi)
T12 100'-80'	Arbitrary Shape	BT100140- Rohn 4EH w/ 2" SR	A572-50 (50 ksi)	Double Equal Angle	2L3x3x3/16x1/2	A36 (36 ksi)
T13 80'-60'	Arbitrary Shape	BT100140- Rohn 5EH w/ 2" SR (60-80)	A572-50 (50 ksi)	Double Equal Angle	2L3x3x3/16x1/4	A36 (36 ksi)
T14 60'-40'	Arbitrary Shape	BT100140- Rohn 5EH w/ 2" SR (40-60)	A572-50 (50 ksi)	Double Equal Angle	2L3x3x1/4x1/4	A572-50 (50 ksi)
T15 40'-30'	Arbitrary Shape	BT100140- Rohn 6EHS w/ 2" SR (30-40)	A572-50 (50 ksi)	Double Equal Angle	2L3 1/2x3 1/2x1/4x1/4	A572-50 (50 ksi)
T16 30'-20'	Arbitrary Shape	BT100140- Rohn 6EHS w/ 2" SR (20-30)	A572-50 (50 ksi)	Double Equal Angle	2L3 1/2x3 1/2x1/4x1/4	A572-50 (50 ksi)
T17 20'-0'	Arbitrary Shape	BT100140- Rohn 6EH w/ 2"	A572-50	Equal Angle	L4x4x1/4	A572-50

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
		SR	(50 ksi)			(50 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 180'-160'	Single Angle	L2x2x1/8	A36 (36 ksi)	Flat Bar		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
T5 145'-140'	Equal Angle	L2x2x1/4	A572-50 (50 ksi)	Solid Round		A36 (36 ksi)
T7 133'4"-126'8"	Equal Angle	L2x2x1/4	A572-50 (50 ksi)	Solid Round		A36 (36 ksi)
T8 126'8"-120'	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T9 120'-113'4"	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T10 113'4"-106'8"	Equal Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T14 60'-40'	Equal Angle	L3x3x1/4	A36 (36 ksi)	Solid Round		A36 (36 ksi)
T16 30'-20'	Equal Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)	Solid Round		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 180'-160'	0.000	0.188	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T2 160'-155'	0.000	0.188	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T3 155'-150'	0.000	0.188	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T4 150'-145'	0.000	0.188	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T5 145'-140'	0.000	0.188	A36	1.03	1	1.05	58.500	Mid-Pt	Mid-Pt

Tower Elevation ft	Gusset Area (per face) ft²	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
T6 140'-133'4"	0.000	0.500	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T7 133'4"-126'8"	0.000	0.500	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T8 126'8"-120'	0.000	0.500	A36 (36 ksi)	1.1	1	1.1	Mid-Pt	Mid-Pt	Mid-Pt
T9 120'-113'4"	0.000	0.500	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T10 113'4"-106'8"	0.000	0.500	A36 (36 ksi)	1.03	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T11 106'8"-100'	0.000	0.500	A36 (36 ksi)	1.1	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T12 100'-80'	0.000	0.500	A36 (36 ksi)	1.1	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T13 80'-60'	0.000	0.250	A36 (36 ksi)	1.1	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T14 60'-40'	0.000	0.250	A36 (36 ksi)	1.1	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T15 40'-30'	0.000	0.250	A36 (36 ksi)	1.1	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T16 30'-20'	0.000	0.250	A36 (36 ksi)	1.1	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt
T17 20'-0'	0.000	0.500	A36 (36 ksi)	1.1	1	1.05	Mid-Pt	Mid-Pt	Mid-Pt

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 180'-160'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T2 160'-155'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T3 155'-150'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T4 150'-145'	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T5 145'-140'	No	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	0.5	1
T6 140'-133'4"	Yes	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T7 133'4"-126'8"	No	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	0.5	1
T8 126'8"-120'	No	No	0.5	1	1	1	1	1	1	1
				1	1	1	1	1	0.5	1
T9 120'-113'4"	No	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	0.5	1
T10 113'4"-106'8"	No	No	1	1	1	1	1	1	1	1
				1	1	1	1	1	0.5	1
T11	Yes	No	0.78	1	1	1	1	1	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
106'8"-100'				1	1	1	1	1	1	1
T12 100'-80'	Yes	No	0.8	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T13 80'-60'	Yes	No	0.83	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T14 60'-40'	No	No	0.85	1	1	1	1	1	1	1
				1	1	1	1	1	0.5	1
T15 40'-30'	Yes	No	0.85	1	1	1	1	1	1	1
				1	1	1	1	1	1	1
T16 30'-20'	No	No	0.85	1	1	1	1	1	1	1
				1	1	1	1	1	0.5	1
T17 20'-0'	Yes	No	0.865	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		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 180'-160'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T2 160'-155'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T3 155'-150'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T4 150'-145'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T5 145'-140'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T6 140'-133'4"	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T7 133'4"-126'8"	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T8 126'8"-120'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T9 120'-113'4"	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T10 113'4"-106'8"	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T11 106'8"-100'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T12 100'-80'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T13 80'-60'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T14 60'-40'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T15 40'-30'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T16 30'-20'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T17 20'-0'	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Section Geometry *(cont'd)*

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.
T1 180'-160'	Flange	0.625 A325N	4	0.500 A325X	1	0.500 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T2 160'-155'	Flange	0.750 A325N	0	0.500 A325N	1	0.500 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T3 155'-150'	Flange	0.750 A325N	0	0.500 A325N	1	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T4 150'-145'	Flange	0.750 A325N	0	0.500 A325X	1	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T5 145'-140'	Flange	0.750 A325N	4	0.500 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325X	1
T6 140'-133'4"	Flange	0.875 A325N	0	0.500 A325N	2	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T7 133'4"-126'8"	Flange	0.875 A325N	0	0.500 A325N	2	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325X	1
T8 126'8"-120'	Flange	0.875 A325N	4	0.500 A325N	2	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	1
T9 120'-113'4"	Flange	0.875 A325N	0	0.500 A325N	2	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	1
T10 113'4"-106'8"	Flange	0.875 A325N	0	0.500 A325N	2	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	1
T11 106'8"-100'	Flange	0.875 A325N	4	0.500 A325N	2	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T12 100'-80'	Flange	1.000 A325N	4	0.500 A325N	2	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T13 80'-60'	Flange	1.000 A325N	4	0.625 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T14 60'-40'	Flange	1.000 A325N	6	0.625 A325N	1	0.625 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325N	1
T15 40'-30'	Flange	1.000 A325N	0	0.625 A325N	1	0.625 A325N	0	0.000 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0
T16 30'-20'	Flange	1.000 A325N	6	0.625 A325N	1	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	0	0.625 A325N	1
T17 20'-0'	Flange	1.000 A449	0	0.625 A325N	2	0.625 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 A325X	0	0.625 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 klf
FLC 158-50J(1-5/8")	A	No	No	Ar (CaAa)	133' - 0'	0.000	0.39	14	12	1.500 0.750	2.015		0.001
FLC 158-50J(1-5/8")	A	No	No	Ar (CaAa)	178' - 133'	0.000	0.39	8	4	1.500 0.750	2.015		0.001
Feedline Ladder (Af) *	A	No	No	Af (CaAa)	180' - 0'	0.000	0.385	1	1	3.000	3.000		0.008
LDF6-50A(1-1/4")	B	No	No	Ar (CaAa)	165' - 0'	0.000	-0.4	12	6	0.500	1.550		0.001
2-1/2" Rigid Conduit	B	No	No	Ar (CaAa)	165' - 0'	0.000	-0.36	1	1	0.850 0.750	2.500		0.003

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 klf
WR-VG122ST-BRDA(7/16)	B	No	No	Ar (CaAa)	165' - 0'	0.000	-0.37	3	2	0.500	0.460		0.000
FB-L98B-002-75000(3/8)	B	No	No	Ar (CaAa)	165' - 0'	4.500	-0.39	1	1	0.394	0.394		0.000
WR-VG86ST-BRD(3/4)	B	No	No	Ar (CaAa)	165' - 0'	4.500	-0.41	4	4	0.850 0.750	0.795		0.001
Feedline Ladder (Af) *	B	No	No	Af (CaAa)	180' - 0'	0.000	-0.39	1	1	3.000	3.000		0.008
HB114-1-0813U4-M5J(1-1/4)	C	No	No	Ar (CaAa)	150' - 0'	0.000	-0.37	4	4	0.850 0.750	1.540		0.001
LDF4-50A(1/2")	C	No	No	Ar (CaAa)	50' - 0'	0.000	-0.35	1	1	0.630	0.630		0.000
Feedline Ladder (Af) *	C	No	No	Af (CaAa)	150' - 0'	-0.750	-0.42	2	1	3.000	3.000		0.008
LDF7-50A(1-5/8)	C	No	No	Ar (CaAa)	180' - 0'	-1.500	-0.37	6	6	0.850 0.750	1.980		0.001
Feedline Ladder (Af) *	C	No	No	Af (CaAa)	180' - 150'	-0.750	-0.41	1	1	3.000	3.000		0.008
Safety Line 3/8	A	No	No	Ar (CaAa)	180' - 0'	0.000	0.02	1	1	0.375	0.375		0.000
Thin Flat Bar Climbing Ladder *	A	No	No	Af (CaAa)	180' - 0'	0.000	0	1	1	2.000	2.000		0.004
2" SR	A	No	No	Ar (CaAa)	110' - 0'	0.000	0.5	1	1	2.000	2.000		0.000
2" SR	B	No	No	Ar (CaAa)	110' - 0'	0.000	0.5	1	1	2.000	2.000		0.000
2" SR *	C	No	No	Ar (CaAa)	110' - 0'	0.000	0.5	1	1	2.000	2.000		0.000

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	C_AA_A ft^2/ft	Weight klf
*								

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
T1	180'-160'	A	0.000	0.000	46.433	0.000	0.385
		B	0.000	0.000	23.027	0.000	0.237
		C	0.000	0.000	33.760	0.000	0.266

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
T2	160'-155'	A	0.000	0.000	12.414	0.000	0.100
		B	0.000	0.000	15.527	0.000	0.111
		C	0.000	0.000	8.440	0.000	0.067
T3	155'-150'	A	0.000	0.000	12.414	0.000	0.100
		B	0.000	0.000	15.527	0.000	0.111
		C	0.000	0.000	8.440	0.000	0.067
T4	150'-145'	A	0.000	0.000	12.414	0.000	0.100
		B	0.000	0.000	15.527	0.000	0.111
		C	0.000	0.000	14.020	0.000	0.133
T5	145'-140'	A	0.000	0.000	12.414	0.000	0.100
		B	0.000	0.000	15.527	0.000	0.111
		C	0.000	0.000	14.020	0.000	0.133
T6	140'-133'4"	A	0.000	0.000	16.552	0.000	0.133
		B	0.000	0.000	20.702	0.000	0.148
		C	0.000	0.000	18.693	0.000	0.177
T7	133'4"-126'8"	A	0.000	0.000	24.209	0.000	0.168
		B	0.000	0.000	20.702	0.000	0.148
		C	0.000	0.000	18.693	0.000	0.177
T8	126'8"-120'	A	0.000	0.000	24.612	0.000	0.170
		B	0.000	0.000	20.702	0.000	0.148
		C	0.000	0.000	18.693	0.000	0.177
T9	120'-113'4"	A	0.000	0.000	24.612	0.000	0.170
		B	0.000	0.000	20.702	0.000	0.148
		C	0.000	0.000	18.693	0.000	0.177
T10	113'4"-106'8"	A	0.000	0.000	25.279	0.000	0.170
		B	0.000	0.000	21.369	0.000	0.148
		C	0.000	0.000	19.360	0.000	0.177
T11	106'8"-100'	A	0.000	0.000	25.946	0.000	0.170
		B	0.000	0.000	22.036	0.000	0.148
		C	0.000	0.000	20.027	0.000	0.177
T12	100'-80'	A	0.000	0.000	77.837	0.000	0.510
		B	0.000	0.000	66.107	0.000	0.443
		C	0.000	0.000	60.080	0.000	0.530
T13	80'-60'	A	0.000	0.000	77.837	0.000	0.510
		B	0.000	0.000	66.107	0.000	0.443
		C	0.000	0.000	60.080	0.000	0.530
T14	60'-40'	A	0.000	0.000	77.837	0.000	0.510
		B	0.000	0.000	66.107	0.000	0.443
		C	0.000	0.000	60.710	0.000	0.532
T15	40'-30'	A	0.000	0.000	38.918	0.000	0.255
		B	0.000	0.000	33.054	0.000	0.221
		C	0.000	0.000	30.670	0.000	0.267
T16	30'-20'	A	0.000	0.000	38.918	0.000	0.255
		B	0.000	0.000	33.054	0.000	0.221
		C	0.000	0.000	30.670	0.000	0.267
T17	20'-0'	A	0.000	0.000	77.837	0.000	0.510
		B	0.000	0.000	66.107	0.000	0.443
		C	0.000	0.000	61.340	0.000	0.533

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
T1	180'-160'	A	1.502	0.000	0.000	74.597	0.000	1.452
		B		0.000	0.000	40.455	0.000	0.719
		C		0.000	0.000	65.440	0.000	1.030
T2	160'-155'	A	1.491	0.000	0.000	19.683	0.000	0.382

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	28.356	0.000	0.435
		C		0.000	0.000	16.331	0.000	0.256
T3	155'-150'	A	1.486	0.000	0.000	19.661	0.000	0.381
		B		0.000	0.000	28.317	0.000	0.434
		C		0.000	0.000	16.319	0.000	0.255
T4	150'-145'	A	1.481	0.000	0.000	19.638	0.000	0.380
		B		0.000	0.000	28.278	0.000	0.432
		C		0.000	0.000	28.106	0.000	0.451
T5	145'-140'	A	1.476	0.000	0.000	19.614	0.000	0.379
		B		0.000	0.000	28.236	0.000	0.431
		C		0.000	0.000	28.080	0.000	0.449
T6	140'-133'4"	A	1.470	0.000	0.000	26.114	0.000	0.504
		B		0.000	0.000	37.582	0.000	0.573
		C		0.000	0.000	37.398	0.000	0.597
T7	133'4"-126'8"	A	1.462	0.000	0.000	47.431	0.000	0.776
		B		0.000	0.000	37.504	0.000	0.571
		C		0.000	0.000	37.348	0.000	0.595
T8	126'8"-120'	A	1.455	0.000	0.000	48.510	0.000	0.788
		B		0.000	0.000	37.421	0.000	0.568
		C		0.000	0.000	37.295	0.000	0.593
T9	120'-113'4"	A	1.447	0.000	0.000	48.462	0.000	0.785
		B		0.000	0.000	37.335	0.000	0.566
		C		0.000	0.000	37.240	0.000	0.590
T10	113'4"-106'8"	A	1.438	0.000	0.000	50.037	0.000	0.801
		B		0.000	0.000	38.869	0.000	0.583
		C		0.000	0.000	38.807	0.000	0.608
T11	106'8"-100'	A	1.429	0.000	0.000	51.597	0.000	0.818
		B		0.000	0.000	40.386	0.000	0.600
		C		0.000	0.000	40.359	0.000	0.625
T12	100'-80'	A	1.410	0.000	0.000	154.364	0.000	2.428
		B		0.000	0.000	120.448	0.000	1.779
		C		0.000	0.000	120.597	0.000	1.854
T13	80'-60'	A	1.375	0.000	0.000	153.602	0.000	2.384
		B		0.000	0.000	119.181	0.000	1.741
		C		0.000	0.000	119.740	0.000	1.819
T14	60'-40'	A	1.329	0.000	0.000	152.612	0.000	2.327
		B		0.000	0.000	117.536	0.000	1.693
		C		0.000	0.000	121.914	0.000	1.806
T15	40'-30'	A	1.283	0.000	0.000	75.799	0.000	1.134
		B		0.000	0.000	57.926	0.000	0.823
		C		0.000	0.000	61.939	0.000	0.895
T16	30'-20'	A	1.240	0.000	0.000	75.337	0.000	1.108
		B		0.000	0.000	57.159	0.000	0.801
		C		0.000	0.000	61.335	0.000	0.872
T17	20'-0'	A	1.132	0.000	0.000	148.313	0.000	2.085
		B		0.000	0.000	110.399	0.000	1.494
		C		0.000	0.000	119.588	0.000	1.631

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
T1	180'-160'	4.822	-12.140	5.114	-11.094
T2	160'-155'	5.437	-18.869	5.690	-18.096
T3	155'-150'	5.736	-19.917	6.008	-19.102
T4	150'-145'	7.704	-16.040	8.575	-16.015

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
T5	145'-140'	7.469	-15.737	8.418	-15.721
T6	140'-133'4"	8.737	-18.079	9.755	-18.154
T7	133'4"-126'8"	7.189	-22.274	8.877	-22.566
T8	126'8"-120'	7.177	-22.813	9.109	-23.565
T9	120'-113'4"	7.227	-23.103	9.344	-24.253
T10	113'4"-106'8"	7.339	-23.508	9.423	-24.500
T11	106'8"-100'	8.178	-25.837	10.236	-26.448
T12	100'-80'	8.235	-26.334	10.683	-27.786
T13	80'-60'	9.884	-31.187	12.559	-32.423
T14	60'-40'	9.547	-30.241	12.914	-32.096
T15	40'-30'	10.897	-33.572	14.892	-35.188
T16	30'-20'	9.684	-30.517	13.837	-33.165
T17	20'-0'	11.119	-34.681	15.753	-37.574

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T1	3	FLC 158-50J(1-5/8")	160.00 - 178.00	0.6000	0.6000
T1	4	Feedline Ladder (Af)	160.00 - 180.00	0.6000	0.6000
T1	6	LDF6-50A(1-1/4")	160.00 - 165.00	0.6000	0.6000
T1	7	2-1/2" Rigid Conduit	160.00 - 165.00	0.6000	0.6000
T1	8	WR-VG122ST-BRDA(7/16)	160.00 - 165.00	0.6000	0.6000
T1	9	FB-L98B-002-75000(3/8)	160.00 - 165.00	0.6000	0.6000
T1	10	WR-VG86ST-BRD(3/4)	160.00 - 165.00	0.6000	0.6000
T1	11	Feedline Ladder (Af)	160.00 - 180.00	0.6000	0.6000
T1	18	LDF7-50A(1-5/8)	160.00 - 180.00	0.6000	0.6000
T1	20	Feedline Ladder (Af)	160.00 - 180.00	0.6000	0.6000
T1	22	Safety Line 3/8	160.00 - 180.00	0.6000	0.6000
T1	23	Thin Flat Bar Climbing Ladder	160.00 - 180.00	0.6000	0.6000
T2	3	FLC 158-50J(1-5/8")	155.00 - 160.00	0.6000	0.6000
T2	4	Feedline Ladder (Af)	155.00 - 160.00	0.6000	0.6000
T2	6	LDF6-50A(1-1/4")	155.00 - 160.00	0.6000	0.6000
T2	7	2-1/2" Rigid Conduit	155.00 - 160.00	0.6000	0.6000
T2	8	WR-VG122ST-BRDA(7/16)	155.00 - 160.00	0.6000	0.6000
T2	9	FB-L98B-002-75000(3/8)	155.00 - 160.00	0.6000	0.6000
T2	10	WR-VG86ST-BRD(3/4)	155.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T2	11	Feedline Ladder (Af)	160.00 155.00 - 160.00	0.6000	0.6000
T2	18	LDF7-50A(1-5/8)	155.00 - 160.00	0.6000	0.6000
T2	20	Feedline Ladder (Af)	155.00 - 160.00	0.6000	0.6000
T2	22	Safety Line 3/8	155.00 - 160.00	0.6000	0.6000
T2	23	Thin Flat Bar Climbing Ladder	155.00 - 160.00	0.6000	0.6000
T3	3	FLC 158-50J(1-5/8")	150.00 - 155.00	0.6000	0.6000
T3	4	Feedline Ladder (Af)	150.00 - 155.00	0.6000	0.6000
T3	6	LDF6-50A(1-1/4")	150.00 - 155.00	0.6000	0.6000
T3	7	2-1/2" Rigid Conduit	150.00 - 155.00	0.6000	0.6000
T3	8	WR-VG122ST-BRDA(7/16)	150.00 - 155.00	0.6000	0.6000
T3	9	FB-L98B-002-75000(3/8)	150.00 - 155.00	0.6000	0.6000
T3	10	WR-VG86ST-BRD(3/4)	150.00 - 155.00	0.6000	0.6000
T3	11	Feedline Ladder (Af)	150.00 - 155.00	0.6000	0.6000
T3	18	LDF7-50A(1-5/8)	150.00 - 155.00	0.6000	0.6000
T3	20	Feedline Ladder (Af)	150.00 - 155.00	0.6000	0.6000
T3	22	Safety Line 3/8	150.00 - 155.00	0.6000	0.6000
T3	23	Thin Flat Bar Climbing Ladder	150.00 - 155.00	0.6000	0.6000
T4	3	FLC 158-50J(1-5/8")	145.00 - 150.00	0.6000	0.6000
T4	4	Feedline Ladder (Af)	145.00 - 150.00	0.6000	0.6000
T4	6	LDF6-50A(1-1/4")	145.00 - 150.00	0.6000	0.6000
T4	7	2-1/2" Rigid Conduit	145.00 - 150.00	0.6000	0.6000
T4	8	WR-VG122ST-BRDA(7/16)	145.00 - 150.00	0.6000	0.6000
T4	9	FB-L98B-002-75000(3/8)	145.00 - 150.00	0.6000	0.6000
T4	10	WR-VG86ST-BRD(3/4)	145.00 - 150.00	0.6000	0.6000
T4	11	Feedline Ladder (Af)	145.00 - 150.00	0.6000	0.6000
T4	13	HB114-1-0813U4-M5J(1-1/4)	145.00 - 150.00	0.6000	0.6000
T4	15	Feedline Ladder (Af)	145.00 - 150.00	0.6000	0.6000
T4	18	LDF7-50A(1-5/8)	145.00 - 150.00	0.6000	0.6000
T4	22	Safety Line 3/8	145.00 - 150.00	0.6000	0.6000
T4	23	Thin Flat Bar Climbing Ladder	145.00 - 150.00	0.6000	0.6000
T5	3	FLC 158-50J(1-5/8")	140.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			145.00		
T5	4	Feedline Ladder (Af)	140.00 - 145.00	0.6000	0.6000
T5	6	LDF6-50A(1-1/4")	140.00 - 145.00	0.6000	0.6000
T5	7	2-1/2" Rigid Conduit	140.00 - 145.00	0.6000	0.6000
T5	8	WR-VG122ST-BRDA(7/16)	140.00 - 145.00	0.6000	0.6000
T5	9	FB-L98B-002-75000(3/8)	140.00 - 145.00	0.6000	0.6000
T5	10	WR-VG86ST-BRD(3/4)	140.00 - 145.00	0.6000	0.6000
T5	11	Feedline Ladder (Af)	140.00 - 145.00	0.6000	0.6000
T5	13	HB114-1-0813U4-M5J(1-1/4)	140.00 - 145.00	0.6000	0.6000
T5	15	Feedline Ladder (Af)	140.00 - 145.00	0.6000	0.6000
T5	18	LDF7-50A(1-5/8)	140.00 - 145.00	0.6000	0.6000
T5	22	Safety Line 3/8	140.00 - 145.00	0.6000	0.6000
T5	23	Thin Flat Bar Climbing Ladder	140.00 - 145.00	0.6000	0.6000
T6	3	FLC 158-50J(1-5/8")	133.33 - 140.00	0.6000	0.6000
T6	4	Feedline Ladder (Af)	133.33 - 140.00	0.6000	0.6000
T6	6	LDF6-50A(1-1/4")	133.33 - 140.00	0.6000	0.6000
T6	7	2-1/2" Rigid Conduit	133.33 - 140.00	0.6000	0.6000
T6	8	WR-VG122ST-BRDA(7/16)	133.33 - 140.00	0.6000	0.6000
T6	9	FB-L98B-002-75000(3/8)	133.33 - 140.00	0.6000	0.6000
T6	10	WR-VG86ST-BRD(3/4)	133.33 - 140.00	0.6000	0.6000
T6	11	Feedline Ladder (Af)	133.33 - 140.00	0.6000	0.6000
T6	13	HB114-1-0813U4-M5J(1-1/4)	133.33 - 140.00	0.6000	0.6000
T6	15	Feedline Ladder (Af)	133.33 - 140.00	0.6000	0.6000
T6	18	LDF7-50A(1-5/8)	133.33 - 140.00	0.6000	0.6000
T6	22	Safety Line 3/8	133.33 - 140.00	0.6000	0.6000
T6	23	Thin Flat Bar Climbing Ladder	133.33 - 140.00	0.6000	0.6000
T7	2	FLC 158-50J(1-5/8")	126.67 - 133.00	0.6000	0.6000
T7	3	FLC 158-50J(1-5/8")	133.00 - 133.33	0.6000	0.6000
T7	4	Feedline Ladder (Af)	126.67 - 133.33	0.6000	0.6000
T7	6	LDF6-50A(1-1/4")	126.67 - 133.33	0.6000	0.6000
T7	7	2-1/2" Rigid Conduit	126.67 - 133.33	0.6000	0.6000
T7	8	WR-VG122ST-BRDA(7/16)	126.67 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T7	9	FB-L98B-002-75000(3/8)	126.67 - 133.33	0.6000	0.6000
T7	10	WR-VG86ST-BRD(3/4)	126.67 - 133.33	0.6000	0.6000
T7	11	Feedline Ladder (Af)	126.67 - 133.33	0.6000	0.6000
T7	13	HB114-1-0813U4-M5J(1-1/4)	126.67 - 133.33	0.6000	0.6000
T7	15	Feedline Ladder (Af)	126.67 - 133.33	0.6000	0.6000
T7	18	LDF7-50A(1-5/8)	126.67 - 133.33	0.6000	0.6000
T7	22	Safety Line 3/8	126.67 - 133.33	0.6000	0.6000
T7	23	Thin Flat Bar Climbing Ladder	126.67 - 133.33	0.6000	0.6000
T8	2	FLC 158-50J(1-5/8")	120.00 - 126.67	0.6000	0.6000
T8	4	Feedline Ladder (Af)	120.00 - 126.67	0.6000	0.6000
T8	6	LDF6-50A(1-1/4")	120.00 - 126.67	0.6000	0.6000
T8	7	2-1/2" Rigid Conduit	120.00 - 126.67	0.6000	0.6000
T8	8	WR-VG122ST-BRDA(7/16)	120.00 - 126.67	0.6000	0.6000
T8	9	FB-L98B-002-75000(3/8)	120.00 - 126.67	0.6000	0.6000
T8	10	WR-VG86ST-BRD(3/4)	120.00 - 126.67	0.6000	0.6000
T8	11	Feedline Ladder (Af)	120.00 - 126.67	0.6000	0.6000
T8	13	HB114-1-0813U4-M5J(1-1/4)	120.00 - 126.67	0.6000	0.6000
T8	15	Feedline Ladder (Af)	120.00 - 126.67	0.6000	0.6000
T8	18	LDF7-50A(1-5/8)	120.00 - 126.67	0.6000	0.6000
T8	22	Safety Line 3/8	120.00 - 126.67	0.6000	0.6000
T8	23	Thin Flat Bar Climbing Ladder	120.00 - 126.67	0.6000	0.6000
T9	2	FLC 158-50J(1-5/8")	113.33 - 120.00	0.6000	0.6000
T9	4	Feedline Ladder (Af)	113.33 - 120.00	0.6000	0.6000
T9	6	LDF6-50A(1-1/4")	113.33 - 120.00	0.6000	0.6000
T9	7	2-1/2" Rigid Conduit	113.33 - 120.00	0.6000	0.6000
T9	8	WR-VG122ST-BRDA(7/16)	113.33 - 120.00	0.6000	0.6000
T9	9	FB-L98B-002-75000(3/8)	113.33 - 120.00	0.6000	0.6000
T9	10	WR-VG86ST-BRD(3/4)	113.33 - 120.00	0.6000	0.6000
T9	11	Feedline Ladder (Af)	113.33 - 120.00	0.6000	0.6000
T9	13	HB114-1-0813U4-M5J(1-1/4)	113.33 - 120.00	0.6000	0.6000
T9	15	Feedline Ladder (Af)	113.33 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T9	18	LDF7-50A(1-5/8)	120.00 113.33 - 120.00	0.6000	0.6000
T9	22	Safety Line 3/8	113.33 - 120.00	0.6000	0.6000
T9	23	Thin Flat Bar Climbing Ladder	113.33 - 120.00	0.6000	0.6000
T10	2	FLC 158-50J(1-5/8")	106.67 - 113.33	0.6000	0.6000
T10	4	Feedline Ladder (Af)	106.67 - 113.33	0.6000	0.6000
T10	6	LDF6-50A(1-1/4")	106.67 - 113.33	0.6000	0.6000
T10	7	2-1/2" Rigid Conduit	106.67 - 113.33	0.6000	0.6000
T10	8	WR-VG122ST-BRDA(7/16)	106.67 - 113.33	0.6000	0.6000
T10	9	FB-L98B-002-75000(3/8)	106.67 - 113.33	0.6000	0.6000
T10	10	WR-VG86ST-BRD(3/4)	106.67 - 113.33	0.6000	0.6000
T10	11	Feedline Ladder (Af)	106.67 - 113.33	0.6000	0.6000
T10	13	HB114-1-0813U4-M5J(1-1/4)	106.67 - 113.33	0.6000	0.6000
T10	15	Feedline Ladder (Af)	106.67 - 113.33	0.6000	0.6000
T10	18	LDF7-50A(1-5/8)	106.67 - 113.33	0.6000	0.6000
T10	22	Safety Line 3/8	106.67 - 113.33	0.6000	0.6000
T10	23	Thin Flat Bar Climbing Ladder	106.67 - 113.33	0.6000	0.6000
T10	25	2" SR	106.67 - 110.00	0.6000	0.6000
T10	26	2" SR	106.67 - 110.00	0.6000	0.6000
T10	27	2" SR	106.67 - 110.00	0.6000	0.6000
T11	2	FLC 158-50J(1-5/8")	100.00 - 106.67	0.6000	0.6000
T11	4	Feedline Ladder (Af)	100.00 - 106.67	0.6000	0.6000
T11	6	LDF6-50A(1-1/4")	100.00 - 106.67	0.6000	0.6000
T11	7	2-1/2" Rigid Conduit	100.00 - 106.67	0.6000	0.6000
T11	8	WR-VG122ST-BRDA(7/16)	100.00 - 106.67	0.6000	0.6000
T11	9	FB-L98B-002-75000(3/8)	100.00 - 106.67	0.6000	0.6000
T11	10	WR-VG86ST-BRD(3/4)	100.00 - 106.67	0.6000	0.6000
T11	11	Feedline Ladder (Af)	100.00 - 106.67	0.6000	0.6000
T11	13	HB114-1-0813U4-M5J(1-1/4)	100.00 - 106.67	0.6000	0.6000
T11	15	Feedline Ladder (Af)	100.00 - 106.67	0.6000	0.6000
T11	18	LDF7-50A(1-5/8)	100.00 - 106.67	0.6000	0.6000
T11	22	Safety Line 3/8	100.00 -	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			106.67		
T11	23	Thin Flat Bar Climbing Ladder	100.00 - 106.67	0.6000	0.6000
T11	25	2" SR	100.00 - 106.67	0.6000	0.6000
T11	26	2" SR	100.00 - 106.67	0.6000	0.6000
T11	27	2" SR	100.00 - 106.67	0.6000	0.6000
T12	2	FLC 158-50J(1-5/8")	80.00 - 100.00	0.6000	0.6000
T12	4	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T12	6	LDF6-50A(1-1/4")	80.00 - 100.00	0.6000	0.6000
T12	7	2-1/2" Rigid Conduit	80.00 - 100.00	0.6000	0.6000
T12	8	WR-VG122ST-BRDA(7/16)	80.00 - 100.00	0.6000	0.6000
T12	9	FB-L98B-002-75000(3/8)	80.00 - 100.00	0.6000	0.6000
T12	10	WR-VG86ST-BRD(3/4)	80.00 - 100.00	0.6000	0.6000
T12	11	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T12	13	HB114-1-0813U4-M5J(1-1/4)	80.00 - 100.00	0.6000	0.6000
T12	15	Feedline Ladder (Af)	80.00 - 100.00	0.6000	0.6000
T12	18	LDF7-50A(1-5/8)	80.00 - 100.00	0.6000	0.6000
T12	22	Safety Line 3/8	80.00 - 100.00	0.6000	0.6000
T12	23	Thin Flat Bar Climbing Ladder	80.00 - 100.00	0.6000	0.6000
T12	25	2" SR	80.00 - 100.00	0.6000	0.6000
T12	26	2" SR	80.00 - 100.00	0.6000	0.6000
T12	27	2" SR	80.00 - 100.00	0.6000	0.6000
T13	2	FLC 158-50J(1-5/8")	60.00 - 80.00	0.6000	0.6000
T13	4	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T13	6	LDF6-50A(1-1/4")	60.00 - 80.00	0.6000	0.6000
T13	7	2-1/2" Rigid Conduit	60.00 - 80.00	0.6000	0.6000
T13	8	WR-VG122ST-BRDA(7/16)	60.00 - 80.00	0.6000	0.6000
T13	9	FB-L98B-002-75000(3/8)	60.00 - 80.00	0.6000	0.6000
T13	10	WR-VG86ST-BRD(3/4)	60.00 - 80.00	0.6000	0.6000
T13	11	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T13	13	HB114-1-0813U4-M5J(1-1/4)	60.00 - 80.00	0.6000	0.6000
T13	15	Feedline Ladder (Af)	60.00 - 80.00	0.6000	0.6000
T13	18	LDF7-50A(1-5/8)	60.00 - 80.00	0.6000	0.6000
T13	22	Safety Line 3/8	60.00 - 80.00	0.6000	0.6000
T13	23	Thin Flat Bar Climbing Ladder	60.00 - 80.00	0.6000	0.6000
T13	25	2" SR	60.00 - 80.00	0.6000	0.6000
T13	26	2" SR	60.00 - 80.00	0.6000	0.6000
T13	27	2" SR	60.00 - 80.00	0.6000	0.6000
T14	2	FLC 158-50J(1-5/8")	40.00 - 60.00	0.6000	0.6000
T14	4	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T14	6	LDF6-50A(1-1/4")	40.00 - 60.00	0.6000	0.6000
T14	7	2-1/2" Rigid Conduit	40.00 - 60.00	0.6000	0.6000
T14	8	WR-VG122ST-BRDA(7/16)	40.00 - 60.00	0.6000	0.6000
T14	9	FB-L98B-002-75000(3/8)	40.00 - 60.00	0.6000	0.6000
T14	10	WR-VG86ST-BRD(3/4)	40.00 - 60.00	0.6000	0.6000
T14	11	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T14	13	HB114-1-0813U4-M5J(1-1/4)	40.00 - 60.00	0.6000	0.6000
T14	14	LDF4-50A(1/2")	40.00 - 50.00	0.6000	0.6000
T14	15	Feedline Ladder (Af)	40.00 - 60.00	0.6000	0.6000
T14	18	LDF7-50A(1-5/8)	40.00 - 60.00	0.6000	0.6000
T14	22	Safety Line 3/8	40.00 - 60.00	0.6000	0.6000
T14	23	Thin Flat Bar Climbing Ladder	40.00 - 60.00	0.6000	0.6000
T14	25	2" SR	40.00 - 60.00	0.6000	0.6000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
T14	26	2" SR	40.00 - 60.00	0.6000	0.6000
T14	27	2" SR	40.00 - 60.00	0.6000	0.6000
T15	2	FLC 158-50J(1-5/8")	30.00 - 40.00	0.6000	0.6000
T15	4	Feedline Ladder (Af)	30.00 - 40.00	0.6000	0.6000
T15	6	LDF6-50A(1-1/4")	30.00 - 40.00	0.6000	0.6000
T15	7	2-1/2" Rigid Conduit	30.00 - 40.00	0.6000	0.6000
T15	8	WR-VG122ST-BRDA(7/16)	30.00 - 40.00	0.6000	0.6000
T15	9	FB-L98B-002-75000(3/8)	30.00 - 40.00	0.6000	0.6000
T15	10	WR-VG86ST-BRD(3/4)	30.00 - 40.00	0.6000	0.6000
T15	11	Feedline Ladder (Af)	30.00 - 40.00	0.6000	0.6000
T15	13	HB114-1-0813U4-M5J(1-1/4)	30.00 - 40.00	0.6000	0.6000
T15	14	LDF4-50A(1/2")	30.00 - 40.00	0.6000	0.6000
T15	15	Feedline Ladder (Af)	30.00 - 40.00	0.6000	0.6000
T15	18	LDF7-50A(1-5/8)	30.00 - 40.00	0.6000	0.6000
T15	22	Safety Line 3/8	30.00 - 40.00	0.6000	0.6000
T15	23	Thin Flat Bar Climbing Ladder	30.00 - 40.00	0.6000	0.6000
T15	25	2" SR	30.00 - 40.00	0.6000	0.6000
T15	26	2" SR	30.00 - 40.00	0.6000	0.6000
T15	27	2" SR	30.00 - 40.00	0.6000	0.6000
T16	2	FLC 158-50J(1-5/8")	20.00 - 30.00	0.6000	0.6000
T16	4	Feedline Ladder (Af)	20.00 - 30.00	0.6000	0.6000
T16	6	LDF6-50A(1-1/4")	20.00 - 30.00	0.6000	0.6000
T16	7	2-1/2" Rigid Conduit	20.00 - 30.00	0.6000	0.6000
T16	8	WR-VG122ST-BRDA(7/16)	20.00 - 30.00	0.6000	0.6000
T16	9	FB-L98B-002-75000(3/8)	20.00 - 30.00	0.6000	0.6000
T16	10	WR-VG86ST-BRD(3/4)	20.00 - 30.00	0.6000	0.6000
T16	11	Feedline Ladder (Af)	20.00 - 30.00	0.6000	0.6000
T16	13	HB114-1-0813U4-M5J(1-1/4)	20.00 - 30.00	0.6000	0.6000
T16	14	LDF4-50A(1/2")	20.00 - 30.00	0.6000	0.6000
T16	15	Feedline Ladder (Af)	20.00 - 30.00	0.6000	0.6000
T16	18	LDF7-50A(1-5/8)	20.00 - 30.00	0.6000	0.6000
T16	22	Safety Line 3/8	20.00 - 30.00	0.6000	0.6000
T16	23	Thin Flat Bar Climbing Ladder	20.00 - 30.00	0.6000	0.6000
T16	25	2" SR	20.00 - 30.00	0.6000	0.6000
T16	26	2" SR	20.00 - 30.00	0.6000	0.6000
T16	27	2" SR	20.00 - 30.00	0.6000	0.6000
T17	2	FLC 158-50J(1-5/8")	0.00 - 20.00	0.6000	0.6000
T17	4	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T17	6	LDF6-50A(1-1/4")	0.00 - 20.00	0.6000	0.6000
T17	7	2-1/2" Rigid Conduit	0.00 - 20.00	0.6000	0.6000
T17	8	WR-VG122ST-BRDA(7/16)	0.00 - 20.00	0.6000	0.6000
T17	9	FB-L98B-002-75000(3/8)	0.00 - 20.00	0.6000	0.6000
T17	10	WR-VG86ST-BRD(3/4)	0.00 - 20.00	0.6000	0.6000
T17	11	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T17	13	HB114-1-0813U4-M5J(1-1/4)	0.00 - 20.00	0.6000	0.6000
T17	14	LDF4-50A(1/2")	0.00 - 20.00	0.6000	0.6000
T17	15	Feedline Ladder (Af)	0.00 - 20.00	0.6000	0.6000
T17	18	LDF7-50A(1-5/8)	0.00 - 20.00	0.6000	0.6000
T17	22	Safety Line 3/8	0.00 - 20.00	0.6000	0.6000
T17	23	Thin Flat Bar Climbing Ladder	0.00 - 20.00	0.6000	0.6000
T17	25	2" SR	0.00 - 20.00	0.6000	0.6000
T17	26	2" SR	0.00 - 20.00	0.6000	0.6000
T17	27	2" SR	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
Lightning Rod 5/8" x 6'	C	From Leg	0.000 0' 3'	0.000	180'	No Ice 1/2" Ice 1" Ice 2" Ice	0.375 0.989 1.619 2.464	0.375 0.989 1.619 2.464	0.006 0.010 0.019 0.047
*									
19" Accelerator	B	From Leg	0.000 0' 4'	0.000	182'	No Ice 1/2" Ice 1" Ice 2" Ice	7.600 8.110 8.620 9.640	7.600 8.110 8.620 9.640	0.250 0.331 0.412 0.574
(3) RR90-17-02DP w/ Mount Pipe	B	From Leg	0.500 0' 4'	0.000	182'	No Ice 1/2" Ice 1" Ice 2" Ice	4.470 5.080 5.700 7.010	2.920 3.500 4.100 5.350	0.034 0.067 0.108 0.216
(3) KRY 112 489/1	B	From Leg	0.500 0' -3'	0.000	182'	No Ice 1/2" Ice 1" Ice 2" Ice	0.560 0.659 0.765 1.000	0.366 0.449 0.543 0.754	0.015 0.021 0.027 0.046
15' x 4" Mount Pipe	B	From Leg	0.000 0' -8'	0.000	182'	No Ice 1/2" Ice 1" Ice 2" Ice	5.032 8.296 9.858 12.224	5.032 8.296 9.858 12.224	0.180 0.227 0.283 0.426
*									
(2) LPA-80080/6CF w/ Mount Pipe	A	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.564 5.105 5.612 6.651	10.259 11.427 12.312 14.129	0.046 0.113 0.187 0.363
(2) LPA-80080/6CF w/ Mount Pipe	B	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.564 5.105 5.612 6.651	10.259 11.427 12.312 14.129	0.046 0.113 0.187 0.363
(2) LPA-80080/6CF w/ Mount Pipe	C	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.564 5.105 5.612 6.651	10.259 11.427 12.312 14.129	0.046 0.113 0.187 0.363
SBNHH-1D65B w/ Mount Pipe	A	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.490 4.890 5.720	3.300 3.680 4.070 4.870	0.066 0.130 0.204 0.386
SBNHH-1D65B w/ Mount Pipe	B	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.490 4.890 5.720	3.300 3.680 4.070 4.870	0.066 0.130 0.204 0.386
SBNHH-1D65B w/ Mount Pipe	C	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.490 4.890 5.720	3.300 3.680 4.070 4.870	0.066 0.130 0.204 0.386
SBNHH-1D65B	A	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.160 4.570 4.990 5.850	2.490 2.880 3.270 4.090	0.041 0.091 0.148 0.281

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
SBNHH-1D65B	B	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.160 4.570 4.990 5.850	2.490 2.880 3.270 4.090	0.041 0.091 0.148 0.281
SBNHH-1D65B	C	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.160 4.570 4.990 5.850	2.490 2.880 3.270 4.090	0.041 0.091 0.148 0.281
BXA-171085-12BF-2 w/ Mount Pipe	A	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.971 5.521 6.036 7.091	5.228 6.389 7.261 9.046	0.040 0.086 0.139 0.271
BXA-171085-12BF-2 w/ Mount Pipe	B	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.971 5.521 6.036 7.091	5.228 6.389 7.261 9.046	0.040 0.086 0.139 0.271
BXA-171085-12BF-2 w/ Mount Pipe	C	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	4.971 5.521 6.036 7.091	5.228 6.389 7.261 9.046	0.040 0.086 0.139 0.271
B25 RRH4X30	A	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	2.200 2.393 2.593 3.015	1.742 1.920 2.106 2.501	0.055 0.075 0.099 0.156
B25 RRH4X30	B	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	2.200 2.393 2.593 3.015	1.742 1.920 2.106 2.501	0.055 0.075 0.099 0.156
B25 RRH4X30	C	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	2.200 2.393 2.593 3.015	1.742 1.920 2.106 2.501	0.055 0.075 0.099 0.156
B66A RRH4X45	A	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	2.580 2.794 3.015 3.479	1.630 1.811 1.999 2.396	0.057 0.077 0.101 0.158
B66A RRH4X45	B	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	2.580 2.794 3.015 3.479	1.630 1.811 1.999 2.396	0.057 0.077 0.101 0.158
B66A RRH4X45	C	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	2.580 2.794 3.015 3.479	1.630 1.811 1.999 2.396	0.057 0.077 0.101 0.158
B13 RRH 4X30	A	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	2.055 2.241 2.433 2.841	1.320 1.475 1.638 1.997	0.056 0.073 0.093 0.142
B13 RRH 4X30	B	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	2.055 2.241 2.433 2.841	1.320 1.475 1.638 1.997	0.056 0.073 0.093 0.142
B13 RRH 4X30	C	From Leg	4.000 0' 1'	0.000	178'	No Ice 1/2" Ice 1" Ice 2" Ice	2.055 2.241 2.433 2.841	1.320 1.475 1.638 1.997	0.056 0.073 0.093 0.142
DB-B1-6C-8AB-0Z	A	From Leg	4.000	0.000	178'	No Ice	4.800	2.000	0.044

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0'			1/2" Ice	5.070	2.193	0.080
			1'			1" Ice	5.348	2.393	0.120
						2" Ice	5.926	2.815	0.213
DB-T1-6Z-8AB-0Z	B	From Leg	4.000	0.000	178'	No Ice	4.800	2.000	0.044
			0'			1/2" Ice	5.070	2.193	0.080
			1'			1" Ice	5.348	2.393	0.120
						2" Ice	5.926	2.815	0.213
(2) FD9R6004/2C-3L	A	From Leg	4.000	0.000	178'	No Ice	0.314	0.076	0.003
			0'			1/2" Ice	0.386	0.119	0.005
			1'			1" Ice	0.466	0.169	0.009
						2" Ice	0.647	0.294	0.020
(2) FD9R6004/2C-3L	B	From Leg	4.000	0.000	178'	No Ice	0.314	0.076	0.003
			0'			1/2" Ice	0.386	0.119	0.005
			1'			1" Ice	0.466	0.169	0.009
						2" Ice	0.647	0.294	0.020
(2) FD9R6004/2C-3L	C	From Leg	4.000	0.000	178'	No Ice	0.314	0.076	0.003
			0'			1/2" Ice	0.386	0.119	0.005
			1'			1" Ice	0.466	0.169	0.009
						2" Ice	0.647	0.294	0.020
Sector Mount [SM 510-3]	C	None		0.000	178'	No Ice	39.970	39.970	2.396
						1/2" Ice	56.450	56.450	3.077
						1" Ice	72.590	72.590	3.960
						2" Ice	104.060	104.060	6.296
Side Arm Mount [SO 102-3]	C	None		0.000	178'	No Ice	3.600	3.600	0.075
						1/2" Ice	4.180	4.180	0.105
						1" Ice	4.750	4.750	0.135
						2" Ice	5.900	5.900	0.195
*									
7770.00 w/ Mount Pipe	A	From Leg	4.000	0.000	165'	No Ice	5.746	4.254	0.055
			0'			1/2" Ice	6.179	5.014	0.103
			2'			1" Ice	6.607	5.711	0.157
						2" Ice	7.488	7.155	0.287
7770.00 w/ Mount Pipe	B	From Leg	4.000	0.000	165'	No Ice	5.746	4.254	0.055
			0'			1/2" Ice	6.179	5.014	0.103
			2'			1" Ice	6.607	5.711	0.157
						2" Ice	7.488	7.155	0.287
7770.00 w/ Mount Pipe	C	From Leg	4.000	0.000	165'	No Ice	5.746	4.254	0.055
			0'			1/2" Ice	6.179	5.014	0.103
			2'			1" Ice	6.607	5.711	0.157
						2" Ice	7.488	7.155	0.287
QS66512-2 w/ Mount Pipe	A	From Leg	4.000	0.000	165'	No Ice	4.040	4.180	0.137
			0'			1/2" Ice	4.420	4.570	0.206
			2'			1" Ice	4.820	4.970	0.287
						2" Ice	5.630	5.790	0.482
QS66512-2 w/ Mount Pipe	B	From Leg	4.000	0.000	165'	No Ice	4.040	4.180	0.137
			0'			1/2" Ice	4.420	4.570	0.206
			2'			1" Ice	4.820	4.970	0.287
						2" Ice	5.630	5.790	0.482
QS66512-2 w/ Mount Pipe	C	From Leg	4.000	0.000	165'	No Ice	4.040	4.180	0.137
			0'			1/2" Ice	4.420	4.570	0.206
			2'			1" Ice	4.820	4.970	0.287
						2" Ice	5.630	5.790	0.482
(2) LGP21401	A	From Leg	4.000	0.000	165'	No Ice	1.104	0.207	0.014
			0'			1/2" Ice	1.239	0.274	0.021
			2'			1" Ice	1.381	0.348	0.030
						2" Ice	1.688	0.521	0.055
(2) LGP21401	B	From Leg	4.000	0.000	165'	No Ice	1.104	0.207	0.014

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0'			1/2" Ice	1.239	0.274	0.021
			2'			1" Ice	1.381	0.348	0.030
						2" Ice	1.688	0.521	0.055
(2) LGP21401	C	From Leg	4.000	0.000	165'	No Ice	1.104	0.207	0.014
			0'			1/2" Ice	1.239	0.274	0.021
			2'			1" Ice	1.381	0.348	0.030
						2" Ice	1.688	0.521	0.055
DC6-48-60-18-8F	A	From Leg	4.000	0.000	165'	No Ice	1.212	1.212	0.033
			0'			1/2" Ice	1.892	1.892	0.055
			2'			1" Ice	2.105	2.105	0.080
						2" Ice	2.570	2.570	0.138
DC6-48-60-18-8F	B	From Leg	4.000	0.000	165'	No Ice	1.212	1.212	0.033
			0'			1/2" Ice	1.892	1.892	0.055
			2'			1" Ice	2.105	2.105	0.080
						2" Ice	2.570	2.570	0.138
RRUS 32 B30	A	From Leg	4.000	0.000	165'	No Ice	2.692	1.573	0.060
			0'			1/2" Ice	2.912	1.756	0.080
			2'			1" Ice	3.138	1.945	0.104
						2" Ice	3.614	2.346	0.161
RRUS 32 B30	B	From Leg	4.000	0.000	165'	No Ice	2.692	1.573	0.060
			0'			1/2" Ice	2.912	1.756	0.080
			2'			1" Ice	3.138	1.945	0.104
						2" Ice	3.614	2.346	0.161
RRUS 32 B30	C	From Leg	4.000	0.000	165'	No Ice	2.692	1.573	0.060
			0'			1/2" Ice	2.912	1.756	0.080
			2'			1" Ice	3.138	1.945	0.104
						2" Ice	3.614	2.346	0.161
RRUS 32 B2	A	From Leg	4.000	0.000	165'	No Ice	2.731	1.668	0.053
			0'			1/2" Ice	2.953	1.855	0.074
			2'			1" Ice	3.182	2.049	0.098
						2" Ice	3.663	2.458	0.157
RRUS 32 B2	B	From Leg	4.000	0.000	165'	No Ice	2.731	1.668	0.053
			0'			1/2" Ice	2.953	1.855	0.074
			2'			1" Ice	3.182	2.049	0.098
						2" Ice	3.663	2.458	0.157
RRUS 32 B2	C	From Leg	4.000	0.000	165'	No Ice	2.731	1.668	0.053
			0'			1/2" Ice	2.953	1.855	0.074
			2'			1" Ice	3.182	2.049	0.098
						2" Ice	3.663	2.458	0.157
DMP65R-BU8D w/ Mount Pipe	A	From Leg	4.000	0.000	165'	No Ice	15.890	7.890	0.139
			0'			1/2" Ice	16.810	8.740	0.252
			2'			1" Ice	17.760	9.600	0.380
						2" Ice	19.700	11.370	0.679
DMP65R-BU8D w/ Mount Pipe	B	From Leg	4.000	0.000	165'	No Ice	15.890	7.890	0.139
			0'			1/2" Ice	16.810	8.740	0.252
			2'			1" Ice	17.760	9.600	0.380
						2" Ice	19.700	11.370	0.679
DMP65R-BU8D w/ Mount Pipe	C	From Leg	4.000	0.000	165'	No Ice	15.890	7.890	0.139
			0'			1/2" Ice	16.810	8.740	0.252
			2'			1" Ice	17.760	9.600	0.380
						2" Ice	19.700	11.370	0.679
OPA65R-BU6D w/ Mount Pipe	A	From Leg	4.000	0.000	165'	No Ice	12.250	6.050	0.089
			0'			1/2" Ice	13.000	6.710	0.176
			2'			1" Ice	13.760	7.390	0.275
						2" Ice	15.340	8.790	0.508
OPA65R-BU6D w/ Mount Pipe	B	From Leg	4.000	0.000	165'	No Ice	12.250	6.050	0.089
			0'			1/2" Ice	13.000	6.710	0.176

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
			2'			1" Ice	13.760	7.390	0.275
						2" Ice	15.340	8.790	0.508
OPA65R-BU6D w/ Mount Pipe	C	From Leg	4.000 0' 2'	0.000	165'	No Ice 1/2" Ice 1" Ice 2" Ice	12.250 13.000 13.760 15.340	6.050 6.710 7.390 8.790	0.089 0.176 0.275 0.508
RRUS 4449 B5/B12	A	From Leg	4.000 0' 2'	0.000	165'	No Ice 1/2" Ice 1" Ice 2" Ice	1.968 2.144 2.328 2.718	1.408 1.564 1.727 2.075	0.071 0.090 0.111 0.163
RRUS 4449 B5/B12	B	From Leg	4.000 0' 2'	0.000	165'	No Ice 1/2" Ice 1" Ice 2" Ice	1.968 2.144 2.328 2.718	1.408 1.564 1.727 2.075	0.071 0.090 0.111 0.163
RRUS 4449 B5/B12	C	From Leg	4.000 0' 2'	0.000	165'	No Ice 1/2" Ice 1" Ice 2" Ice	1.968 2.144 2.328 2.718	1.408 1.564 1.727 2.075	0.071 0.090 0.111 0.163
RRUS 4478 B14	A	From Leg	4.000 0' 2'	0.000	165'	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	1.059 1.197 1.342 1.656	0.060 0.076 0.094 0.140
RRUS 4478 B14	B	From Leg	4.000 0' 2'	0.000	165'	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	1.059 1.197 1.342 1.656	0.060 0.076 0.094 0.140
RRUS 4478 B14	C	From Leg	4.000 0' 2'	0.000	165'	No Ice 1/2" Ice 1" Ice 2" Ice	1.843 2.012 2.190 2.566	1.059 1.197 1.342 1.656	0.060 0.076 0.094 0.140
DC6-48-60-18-8F	C	From Leg	4.000 0' 2'	0.000	165'	No Ice 1/2" Ice 1" Ice 2" Ice	1.212 1.892 2.105 2.570	1.212 1.892 2.105 2.570	0.033 0.055 0.080 0.138
Sector Mount [SM 510-3]	C	None		0.000	165'	No Ice 1/2" Ice 1" Ice 2" Ice	39.970 56.450 72.590 104.060	39.970 56.450 72.590 104.060	2.396 3.077 3.960 6.296
*									
APXVTM14-ALU-I20 w/ Mount Pipe	A	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.480 4.880 5.710	2.860 3.230 3.610 4.400	0.077 0.127 0.185 0.331
APXVTM14-ALU-I20 w/ Mount Pipe	B	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.480 4.880 5.710	2.860 3.230 3.610 4.400	0.077 0.127 0.185 0.331
APXVTM14-ALU-I20 w/ Mount Pipe	C	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice 2" Ice	4.090 4.480 4.880 5.710	2.860 3.230 3.610 4.400	0.077 0.127 0.185 0.331
NNVV-65B-R4 w/ Mount Pipe	A	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice 2" Ice	7.550 8.040 8.530 9.560	4.230 4.670 5.120 6.050	0.110 0.197 0.296 0.529
NNVV-65B-R4 w/ Mount Pipe	B	From Leg	4.000 0'	0.000	150'	No Ice 1/2" Ice	7.550 8.040	4.230 4.670	0.110 0.197

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
			0'			1" Ice	8.530	5.120	0.296
						2" Ice	9.560	6.050	0.529
NNVV-65B-R4 w/ Mount Pipe	C	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	7.550 8.040 8.530	4.230 4.670 5.120	0.110 0.197 0.296
						2" Ice	9.560	6.050	0.529
TD-RRH8X20-25	A	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	4.045 4.298 4.557	1.535 1.714 1.901	0.070 0.097 0.128
						2" Ice	5.098	2.295	0.201
TD-RRH8X20-25	B	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	4.045 4.298 4.557	1.535 1.714 1.901	0.070 0.097 0.128
						2" Ice	5.098	2.295	0.201
TD-RRH8X20-25	C	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	4.045 4.298 4.557	1.535 1.714 1.901	0.070 0.097 0.128
						2" Ice	5.098	2.295	0.201
(2) RRH2X50-800	A	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	1.701 1.864 2.035	1.282 1.428 1.580	0.053 0.070 0.090
						2" Ice	2.398	1.908	0.138
(2) RRH2X50-800	B	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	1.701 1.864 2.035	1.282 1.428 1.580	0.053 0.070 0.090
						2" Ice	2.398	1.908	0.138
(2) RRH2X50-800	C	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	1.701 1.864 2.035	1.282 1.428 1.580	0.053 0.070 0.090
						2" Ice	2.398	1.908	0.138
PCS 1900MHZ 4X45W-65MHZ	A	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	2.313 2.517 2.728	2.229 2.431 2.641	0.060 0.083 0.109
						2" Ice	3.174	3.082	0.172
PCS 1900MHZ 4X45W-65MHZ	B	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	2.313 2.517 2.728	2.229 2.431 2.641	0.060 0.083 0.109
						2" Ice	3.174	3.082	0.172
PCS 1900MHZ 4X45W-65MHZ	C	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	2.313 2.517 2.728	2.229 2.431 2.641	0.060 0.083 0.109
						2" Ice	3.174	3.082	0.172
12.5' x 2.375" Horizontal Mount Pipe	A	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	2.980 4.250 5.550	0.010 0.050 0.100	0.046 0.068 0.981
						2" Ice	8.060	0.240	0.183
12.5' x 2.375" Horizontal Mount Pipe	B	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	2.980 4.250 5.550	0.010 0.050 0.100	0.046 0.068 0.981
						2" Ice	8.060	0.240	0.183
12.5' x 2.375" Horizontal Mount Pipe	C	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	2.980 4.250 5.550	0.010 0.050 0.100	0.046 0.068 0.981
						2" Ice	8.060	0.240	0.183
6' x 2" Mount Pipe	A	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice	1.425 1.925 2.294	1.425 1.925 2.294	0.022 0.033 0.048

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
						2" Ice	3.060	3.060	0.090
6' x 2" Mount Pipe	B	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
6' x 2" Mount Pipe	C	From Leg	4.000 0' 0'	0.000	150'	No Ice 1/2" Ice 1" Ice 2" Ice	1.425 1.925 2.294 3.060	1.425 1.925 2.294 3.060	0.022 0.033 0.048 0.090
Sector Mount [SM 502-3]	C	None		0.000	150'	No Ice 1/2" Ice 1" Ice 2" Ice	29.820 42.210 54.430 78.490	29.820 42.210 54.430 78.490	1.673 2.266 3.052 5.180
*									
742 213 w/ Mount Pipe	A	From Leg	1.000 0' 0'	0.000	133'	No Ice 1/2" Ice 1" Ice 2" Ice	3.540 4.130 4.740 6.010	2.980 3.570 4.170 5.420	0.049 0.087 0.136 0.267
742 213 w/ Mount Pipe	B	From Leg	1.000 0' 0'	0.000	133'	No Ice 1/2" Ice 1" Ice 2" Ice	3.540 4.130 4.740 6.010	2.980 3.570 4.170 5.420	0.049 0.087 0.136 0.267
742 213 w/ Mount Pipe	C	From Leg	1.000 0' 0'	0.000	133'	No Ice 1/2" Ice 1" Ice 2" Ice	3.540 4.130 4.740 6.010	2.980 3.570 4.170 5.420	0.049 0.087 0.136 0.267
*									
GPS_A	C	From Leg	3.000 0' 0'	0.000	50'	No Ice 1/2" Ice 1" Ice 2" Ice	0.255 0.320 0.393 0.561	0.255 0.320 0.393 0.561	0.001 0.005 0.010 0.025
Side Arm Mount [SO 305-1]	C	From Leg	1.500 0' 0'	0.000	50'	No Ice 1/2" Ice 1" Ice 2" Ice	0.530 0.780 1.060 1.730	1.520 2.070 2.660 3.910	0.030 0.044 0.064 0.125
*									
(4) L2x2x1/4 (RD)	A	From Leg	0.500 0' 0'	0.000	126'8" - 120'	No Ice 1/2" Ice 1" Ice 2" Ice	0.944 1.273 1.610 2.305	0.005 0.021 0.044 0.113	0.016 0.022 0.032 0.065
(4) L2x2x1/4 (RD)	B	From Leg	0.500 0' 0'	0.000	126'8" - 120'	No Ice 1/2" Ice 1" Ice 2" Ice	0.944 1.273 1.610 2.305	0.005 0.021 0.044 0.113	0.016 0.022 0.032 0.065
(4) L2x2x1/4 (RD)	C	From Leg	0.500 0' 0'	0.000	126'8" - 120'	No Ice 1/2" Ice 1" Ice 2" Ice	0.944 1.273 1.610 2.305	0.005 0.021 0.044 0.113	0.016 0.022 0.032 0.065
(4) L2x2x1/4 (RH)	A	From Leg	0.500 0' 0'	0.000	126'8" - 120'	No Ice 1/2" Ice 1" Ice 2" Ice	0.825 1.115 1.412 2.029	0.005 0.021 0.044 0.113	0.014 0.019 0.028 0.057
(4) L2x2x1/4 (RH)	B	From Leg	0.500 0' 0'	0.000	126'8" - 120'	No Ice 1/2" Ice 1" Ice 2" Ice	0.825 1.115 1.412 2.029	0.005 0.021 0.044 0.113	0.014 0.019 0.028 0.057
(4) L2x2x1/4 (RH)	C	From Leg	0.500	0.000	126'8" - 120'	No Ice	0.825	0.005	0.014

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0'			1/2" Ice	1.115	0.021	0.019
			0'			1" Ice	1.412	0.044	0.028
						2" Ice	2.029	0.113	0.057
*									

Load Combinations

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

Comb. No.	Description
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 Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	180 - 160	Leg	Max Tension	7	18.786	0.127	0.017
			Max. Compression	10	-26.987	-0.105	0.027
			Max. Mx	22	-1.159	1.170	-0.036
			Max. My	20	-1.648	0.006	1.207
			Max. Vy	6	1.198	-0.495	0.005
			Max. Vx	8	-1.230	-0.011	0.515
		Diagonal	Max Tension	25	5.192	0.000	0.000
			Max. Compression	12	-5.371	0.000	0.000
			Max. Mx	31	0.835	0.043	0.000
			Max. My	24	-2.624	0.004	-0.005
			Max. Vy	31	-0.031	0.043	0.000
			Max. Vx	24	0.001	0.000	0.000
		Top Girt	Max Tension	14	0.171	0.000	0.000
			Max. Compression	11	-0.109	0.000	0.000
			Max. Mx	26	0.097	-0.053	0.000
			Max. My	26	0.089	0.000	0.000
			Max. Vy	26	0.033	0.000	0.000
			Max. Vx	26	-0.000	0.000	0.000
T2	160 - 155	Leg	Max Tension	7	27.432	-0.110	0.030
			Max. Compression	10	-36.257	0.101	0.035
			Max. Mx	22	26.112	0.130	-0.027
			Max. My	8	-4.444	-0.013	0.176
			Max. Vy	14	0.079	-0.117	0.013
			Max. Vx	8	-0.133	-0.013	0.176
		Diagonal	Max Tension	25	4.495	0.000	0.000
			Max. Compression	24	-4.632	0.000	0.000
			Max. Mx	31	0.583	0.021	0.003
			Max. My	38	-1.284	0.017	-0.003
			Max. Vy	29	0.021	0.018	0.002
			Max. Vx	38	0.001	0.000	0.000
T3	155 - 150	Leg	Max Tension	23	35.242	-0.111	-0.037
			Max. Compression	10	-44.892	0.116	0.038
			Max. Mx	14	33.935	-0.117	0.013
			Max. My	8	-4.702	-0.013	0.176
			Max. Vy	14	-0.034	-0.117	0.013
			Max. Vx	8	0.097	-0.013	0.176
		Diagonal	Max Tension	24	4.610	0.000	0.000
			Max. Compression	25	-4.525	0.000	0.000
			Max. Mx	27	1.111	0.025	0.003
			Max. My	31	0.847	0.025	0.003
			Max. Vy	29	0.023	0.021	0.003
			Max. Vx	31	-0.001	0.000	0.000
T4	150 - 145	Leg	Max Tension	23	42.848	-0.097	-0.039
			Max. Compression	10	-54.988	-0.020	0.028
			Max. Mx	10	-54.917	0.116	0.038

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	8	-6.235	-0.022	0.192
			Max. Vy	18	0.057	0.115	-0.023
			Max. Vx	8	-0.092	-0.022	0.192
		Diagonal	Max Tension	25	5.471	0.000	0.000
			Max. Compression	24	-5.666	0.000	0.000
			Max. Mx	27	0.897	0.037	0.003
			Max. My	31	-1.620	0.017	0.004
			Max. Vy	27	-0.031	0.037	0.003
			Max. Vx	31	-0.002	0.000	0.000
T5	145 - 140	Leg	Max Tension	23	52.036	-0.015	-0.029
			Max. Compression	10	-65.168	0.037	0.041
			Max. Mx	10	-65.131	0.318	-0.006
			Max. My	8	-6.728	-0.023	0.238
			Max. Vy	10	-0.152	0.318	-0.006
			Max. Vx	8	-0.163	-0.023	0.238
		Diagonal	Max Tension	12	5.580	0.000	0.000
			Max. Compression	12	-5.533	0.000	0.000
			Max. Mx	27	1.151	-0.047	0.007
			Max. My	10	-4.960	0.012	-0.012
			Max. Vy	27	0.040	-0.047	0.007
			Max. Vx	38	0.003	0.000	0.000
		Secondary Horizontal	Max Tension	10	1.130	0.005	-0.007
			Max. Compression	10	-1.130	0.000	0.000
			Max. Mx	37	-0.106	0.025	0.002
			Max. My	6	-0.231	0.012	0.007
			Max. Vy	37	-0.031	0.025	0.002
			Max. Vx	6	-0.002	0.000	0.000
T6	140 - 133.333	Leg	Max Tension	23	61.681	-0.070	-0.044
			Max. Compression	10	-75.539	-0.008	0.052
			Max. Mx	14	59.298	-0.077	0.026
			Max. My	8	-7.051	-0.027	0.309
			Max. Vy	18	0.053	0.041	-0.021
			Max. Vx	8	-0.111	-0.027	0.309
		Diagonal	Max Tension	13	6.043	0.000	0.000
			Max. Compression	12	-6.178	0.000	0.000
			Max. Mx	27	1.152	-0.067	-0.006
			Max. My	22	-5.264	-0.001	0.011
			Max. Vy	29	-0.049	-0.057	0.006
			Max. Vx	31	0.003	0.000	0.000
T7	133.333 - 126.667	Leg	Max Tension	23	72.671	-0.030	-0.055
			Max. Compression	10	-87.787	-0.528	0.025
			Max. Mx	10	-87.734	0.702	0.002
			Max. My	8	-7.708	-0.091	0.509
			Max. Vy	10	0.378	0.702	0.002
			Max. Vx	8	0.273	-0.027	0.309
		Diagonal	Max Tension	13	6.333	-0.043	-0.009
			Max. Compression	12	-6.418	0.000	0.000
			Max. Mx	27	1.418	-0.073	-0.010
			Max. My	10	-5.975	0.014	-0.018
			Max. Vy	29	-0.052	-0.064	-0.009
			Max. Vx	31	-0.004	0.000	0.000
		Secondary Horizontal	Max Tension	10	1.522	0.008	-0.009
			Max. Compression	10	-1.522	0.000	0.000
			Max. Mx	32	-0.107	0.034	0.002
			Max. My	22	-0.222	0.015	0.009
			Max. Vy	32	-0.035	0.034	0.002
			Max. Vx	22	0.002	0.000	0.000
T8	126.667 - 120	Leg	Max Tension	23	82.905	0.363	-0.034

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	10	-99.184	-0.559	0.035
			Max. Mx	10	-99.086	0.851	0.006
			Max. My	8	-8.309	-0.092	0.521
			Max. Vy	10	-0.467	0.851	0.006
			Max. Vx	8	0.281	-0.091	0.509
		Diagonal	Max Tension	13	6.513	-0.046	-0.006
			Max. Compression	12	-6.805	0.000	0.000
			Max. Mx	27	1.094	-0.083	-0.013
			Max. My	10	3.716	-0.066	-0.020
			Max. Vy	29	-0.057	-0.074	-0.010
			Max. Vx	31	0.004	0.000	0.000
		Secondary Horizontal	Max Tension	10	1.720	0.017	-0.013
			Max. Compression	10	-1.720	0.000	0.000
			Max. Mx	30	0.001	0.051	0.002
			Max. My	22	-0.371	0.020	0.015
			Max. Vy	30	-0.046	0.051	0.002
			Max. Vx	22	0.003	0.000	0.000
T9	120 - 113.333	Leg	Max Tension	23	93.424	0.392	-0.042
			Max. Compression	10	-111.268	-0.770	0.026
			Max. Mx	10	-111.205	1.122	0.002
			Max. My	8	-9.012	-0.123	0.705
			Max. Vy	10	0.574	1.122	0.002
			Max. Vx	8	-0.333	-0.123	0.705
		Diagonal	Max Tension	13	6.809	-0.071	-0.015
			Max. Compression	12	-6.977	0.000	0.000
			Max. Mx	27	1.450	-0.111	-0.014
			Max. My	10	-6.641	0.027	-0.028
			Max. Vy	27	0.071	-0.111	-0.014
			Max. Vx	31	-0.005	0.000	0.000
		Secondary Horizontal	Max Tension	10	1.929	0.014	-0.012
			Max. Compression	10	-1.929	0.000	0.000
			Max. Mx	32	-0.105	0.052	0.004
			Max. My	22	-0.451	0.023	0.013
			Max. Vy	32	-0.048	0.052	0.004
			Max. Vx	22	0.003	0.000	0.000
T10	113.333 - 106.667	Leg	Max Tension	23	103.300	0.544	-0.037
			Max. Compression	10	-122.402	-0.509	0.050
			Max. Mx	10	-122.382	1.107	-0.002
			Max. My	8	-9.321	-0.123	0.705
			Max. Vy	10	-0.602	1.107	-0.002
			Max. Vx	8	0.317	-0.123	0.705
		Diagonal	Max Tension	13	6.977	-0.075	-0.003
			Max. Compression	10	-7.376	0.000	0.000
			Max. Mx	27	1.182	-0.124	-0.017
			Max. My	10	3.820	-0.105	-0.026
			Max. Vy	27	0.075	-0.124	-0.017
			Max. Vx	31	0.005	0.000	0.000
		Secondary Horizontal	Max Tension	10	2.122	0.021	-0.010
			Max. Compression	10	-2.122	0.000	0.000
			Max. Mx	30	0.028	0.062	0.001
			Max. My	22	-0.422	0.023	0.012
			Max. Vy	30	-0.051	0.062	0.001
			Max. Vx	22	0.002	0.000	0.000
T11	106.667 - 100	Leg	Max Tension	23	113.579	0.320	-0.055
			Max. Compression	10	-134.466	4.007	0.080
			Max. Mx	10	-134.466	4.007	0.080
			Max. My	8	-10.075	-0.105	0.367

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	10	-0.720	4.007	0.080
			Max. Vx	8	0.147	-0.105	0.367
		Diagonal	Max Tension	12	6.916	0.000	0.000
			Max. Compression	12	-6.869	0.000	0.000
			Max. Mx	27	1.626	-0.119	-0.013
			Max. My	8	4.664	-0.069	-0.018
			Max. Vy	29	-0.079	-0.116	0.013
			Max. Vx	30	0.005	0.000	0.000
T12	100 - 80	Leg	Max Tension	23	141.858	-2.938	-0.058
			Max. Compression	10	-167.819	2.974	0.101
			Max. Mx	10	-145.157	4.007	0.080
			Max. My	8	-12.683	-0.026	0.460
			Max. Vy	10	0.329	4.007	0.080
			Max. Vx	8	-0.165	-0.026	0.460
		Diagonal	Max Tension	12	7.925	0.000	0.000
			Max. Compression	12	-7.847	0.000	0.000
			Max. Mx	27	1.494	-0.175	0.022
			Max. My	10	-7.235	-0.040	-0.029
			Max. Vy	29	-0.106	-0.173	-0.022
			Max. Vx	37	-0.006	0.000	0.000
T13	80 - 60	Leg	Max Tension	23	167.674	-3.268	-0.153
			Max. Compression	10	-198.451	1.440	0.132
			Max. Mx	11	-194.608	3.319	0.147
			Max. My	8	-14.885	-0.227	0.773
			Max. Vy	18	0.264	3.239	-0.087
			Max. Vx	8	-0.202	-0.045	0.644
		Diagonal	Max Tension	12	9.566	0.000	0.000
			Max. Compression	12	-9.570	0.000	0.000
			Max. Mx	29	1.650	-0.232	0.028
			Max. My	30	1.751	-0.223	-0.033
			Max. Vy	29	-0.116	-0.232	0.028
			Max. Vx	30	0.007	0.000	0.000
T14	60 - 40	Leg	Max Tension	23	193.297	2.579	-0.069
			Max. Compression	10	-229.584	9.806	-0.012
			Max. Mx	10	-229.584	9.806	-0.012
			Max. My	8	-15.893	-0.683	0.939
			Max. Vy	10	-2.842	9.806	-0.012
			Max. Vx	8	0.321	-0.683	0.939
		Diagonal	Max Tension	13	10.373	-0.152	0.002
			Max. Compression	10	-11.431	0.000	0.000
			Max. Mx	29	1.084	-0.311	-0.045
			Max. My	31	-3.462	-0.280	-0.050
			Max. Vy	29	-0.145	-0.311	-0.045
			Max. Vx	31	-0.009	0.000	0.000
		Secondary Horizontal	Max Tension	10	3.982	0.059	-0.001
			Max. Compression	10	-3.982	0.000	0.000
			Max. Mx	32	-0.146	0.157	0.012
			Max. My	28	0.238	0.157	0.014
			Max. Vy	32	-0.087	0.157	0.012
			Max. Vx	28	0.004	0.000	0.000
T15	40 - 30	Leg	Max Tension	23	207.293	-2.214	-0.115
			Max. Compression	10	-247.276	1.172	0.087
			Max. Mx	37	12.590	-2.540	-0.051
			Max. My	8	-18.977	-0.157	1.049
			Max. Vy	33	-0.392	-2.522	0.022
			Max. Vx	8	-0.187	-0.157	1.049
		Diagonal	Max Tension	12	10.476	0.000	0.000
			Max. Compression	12	-10.577	0.000	0.000
			Max. Mx	29	0.592	-0.402	-0.049
			Max. My	37	-3.191	-0.364	0.054

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	29	-0.174	-0.402	-0.049
			Max. Vx	37	-0.009	0.000	0.000
T16	30 - 20	Leg	Max Tension	23	219.038	-1.385	-0.101
			Max. Compression	10	-261.986	-0.686	-0.041
			Max. Mx	10	-261.946	10.745	-0.004
			Max. My	8	-19.761	-0.157	1.049
			Max. Vy	27	2.458	-7.081	0.013
			Max. Vx	8	0.295	-0.157	1.049
		Diagonal	Max Tension	13	11.400	-0.228	0.014
			Max. Compression	10	-12.543	0.000	0.000
			Max. Mx	27	2.336	-0.403	-0.058
			Max. My	30	2.125	-0.394	-0.064
			Max. Vy	29	-0.177	-0.402	0.055
			Max. Vx	30	0.010	0.000	0.000
		Secondary Horizontal	Max Tension	10	4.543	0.092	-0.001
			Max. Compression	10	-4.543	0.000	0.000
			Max. Mx	30	0.751	0.208	0.014
			Max. My	28	0.839	0.204	0.017
			Max. Vy	30	-0.105	0.208	0.014
			Max. Vx	28	0.004	0.000	0.000
T17	20 - 0	Leg	Max Tension	23	245.544	-3.915	-0.162
			Max. Compression	10	-295.184	0.000	-0.000
			Max. Mx	27	-118.634	9.556	-0.003
			Max. My	8	-22.506	-0.186	1.508
			Max. Vy	27	-1.686	-7.081	0.013
			Max. Vx	8	-0.312	-0.186	1.508
		Diagonal	Max Tension	12	11.477	0.000	0.000
			Max. Compression	10	-11.911	0.000	0.000
			Max. Mx	29	-1.087	0.329	0.036
			Max. My	30	5.563	0.239	0.043
			Max. Vy	29	0.124	0.329	0.036
			Max. Vx	30	-0.007	0.000	0.000

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	18	296.661	27.515	-17.045
	Max. H_x	18	296.661	27.515	-17.045
	Max. H_z	7	-249.897	-23.415	14.645
	Min. Vert	7	-249.897	-23.415	14.645
	Min. H_x	7	-249.897	-23.415	14.645
	Min. H_z	18	296.661	27.515	-17.045
Leg B	Max. Vert	10	303.056	-27.532	-17.976
	Max. H_x	23	-251.739	23.389	15.502
	Max. H_z	23	-251.739	23.389	15.502
	Min. Vert	23	-251.739	23.389	15.502
	Min. H_x	10	303.056	-27.532	-17.976
	Min. H_z	10	303.056	-27.532	-17.976
Leg A	Max. Vert	2	295.269	0.753	31.576
	Max. H_x	20	24.384	6.218	1.842
	Max. H_z	2	295.269	0.753	31.576
	Min. Vert	15	-240.955	-0.710	-26.701
	Min. H_x	9	17.612	-6.175	1.327
	Min. H_z	15	-240.955	-0.710	-26.701

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K

Tower Mast Reaction Summary

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
Dead Only	54.973	0.000	-0.000	-33.148	-24.785	0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	65.968	-0.050	-50.861	-5411.292	-22.097	28.776
0.9 Dead+1.0 Wind 0 deg - No Ice	49.476	-0.050	-50.861	-5401.347	-14.661	28.776
1.2 Dead+1.0 Wind 30 deg - No Ice	65.968	23.976	-41.613	-4509.364	-2602.852	12.515
0.9 Dead+1.0 Wind 30 deg - No Ice	49.476	23.976	-41.613	-4499.420	-2595.417	12.515
1.2 Dead+1.0 Wind 60 deg - No Ice	65.968	42.747	-24.672	-2659.018	-4568.862	-39.125
0.9 Dead+1.0 Wind 60 deg - No Ice	49.476	42.747	-24.672	-2649.074	-4561.426	-39.125
1.2 Dead+1.0 Wind 90 deg - No Ice	65.968	50.442	0.050	-32.132	-5343.380	-82.090
0.9 Dead+1.0 Wind 90 deg - No Ice	49.476	50.442	0.050	-22.187	-5335.944	-82.090
1.2 Dead+1.0 Wind 120 deg - No Ice	65.968	45.989	26.602	2745.593	-4841.315	-69.672
0.9 Dead+1.0 Wind 120 deg - No Ice	49.476	45.989	26.602	2755.537	-4833.880	-69.672
1.2 Dead+1.0 Wind 150 deg - No Ice	65.968	25.328	43.855	4600.730	-2710.361	-51.502
0.9 Dead+1.0 Wind 150 deg - No Ice	49.476	25.328	43.855	4610.674	-2702.926	-51.502
1.2 Dead+1.0 Wind 180 deg - No Ice	65.968	0.050	47.844	5087.839	-37.388	-28.776
0.9 Dead+1.0 Wind 180 deg - No Ice	49.476	0.050	47.844	5097.783	-29.952	-28.776
1.2 Dead+1.0 Wind 210 deg - No Ice	65.968	-23.976	41.613	4429.810	2543.367	-12.515
0.9 Dead+1.0 Wind 210 deg - No Ice	49.476	-23.976	41.613	4439.754	2550.803	-12.515
1.2 Dead+1.0 Wind 240 deg - No Ice	65.968	-45.360	26.181	2701.413	4720.599	39.125
0.9 Dead+1.0 Wind 240 deg - No Ice	49.476	-45.360	26.181	2711.357	4728.035	39.125
1.2 Dead+1.0 Wind 270 deg - No Ice	65.968	-50.442	-0.050	-47.423	5283.895	82.090
0.9 Dead+1.0 Wind 270 deg - No Ice	49.476	-50.442	-0.050	-37.478	5291.330	82.090
1.2 Dead+1.0 Wind 300 deg - No Ice	65.968	-43.377	-25.094	-2703.198	4570.608	69.672
0.9 Dead+1.0 Wind 300 deg - No Ice	49.476	-43.377	-25.094	-2693.254	4578.044	69.672
1.2 Dead+1.0 Wind 330 deg - No Ice	65.968	-25.328	-43.855	-4680.284	2650.876	51.502
0.9 Dead+1.0 Wind 330 deg - No Ice	49.476	-25.328	-43.855	-4670.340	2658.312	51.502
1.2 Dead+1.0 Ice+1.0 Temp	160.105	0.000	-0.000	-155.847	-77.777	0.000
1.2 Dead+1.0 Wind 0 deg+1.0	160.105	-0.009	-12.446	-1494.585	-76.474	8.845

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
Ice+1.0 Temp						
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	160.105	5.940	-10.304	-1277.418	-724.066	2.065
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	160.105	10.315	-5.954	-800.640	-1195.031	-10.564
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	160.105	12.382	0.009	-154.544	-1399.952	-20.869
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	160.105	11.197	6.474	528.321	-1260.623	-20.287
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	160.105	6.266	10.851	1005.033	-748.265	-13.762
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	160.105	0.009	12.058	1152.541	-79.079	-8.845
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	160.105	-5.940	10.304	965.725	568.513	-2.065
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	160.105	-10.651	6.148	504.122	1065.762	10.564
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	160.105	-12.382	-0.009	-157.149	1244.399	20.869
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	160.105	-10.861	-6.280	-824.839	1078.786	20.287
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	160.105	-6.266	-10.851	-1316.727	592.711	13.762
Dead+Wind 0 deg - Service	54.973	-0.011	-11.404	-1237.598	-23.071	6.453
Dead+Wind 30 deg - Service	54.973	5.376	-9.331	-1035.360	-601.752	2.806
Dead+Wind 60 deg - Service	54.973	9.585	-5.532	-620.458	-1042.589	-8.773
Dead+Wind 90 deg - Service	54.973	11.311	0.011	-31.433	-1216.258	-18.407
Dead+Wind 120 deg - Service	54.973	10.312	5.965	591.414	-1103.681	-15.622
Dead+Wind 150 deg - Service	54.973	5.679	9.834	1007.390	-625.858	-11.548
Dead+Wind 180 deg - Service	54.973	0.011	10.728	1116.614	-26.500	-6.453
Dead+Wind 210 deg - Service	54.973	-5.376	9.331	969.064	552.181	-2.806
Dead+Wind 240 deg - Service	54.973	-10.171	5.870	581.507	1040.380	8.773
Dead+Wind 270 deg - Service	54.973	-11.311	-0.011	-34.862	1166.687	18.407
Dead+Wind 300 deg - Service	54.973	-9.726	-5.627	-630.364	1006.748	15.622
Dead+Wind 330 deg - Service	54.973	-5.679	-9.834	-1073.685	576.288	11.548

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.000	-54.973	0.000	-0.000	54.973	0.000	0.000%
2	-0.050	-65.968	-50.861	0.050	65.968	50.861	0.000%
3	-0.050	-49.476	-50.861	0.050	49.476	50.861	0.000%
4	23.976	-65.968	-41.613	-23.976	65.968	41.613	0.000%
5	23.976	-49.476	-41.613	-23.976	49.476	41.613	0.000%
6	42.747	-65.968	-24.672	-42.747	65.968	24.672	0.000%
7	42.747	-49.476	-24.672	-42.747	49.476	24.672	0.000%
8	50.442	-65.968	0.050	-50.442	65.968	-0.050	0.000%
9	50.442	-49.476	0.050	-50.442	49.476	-0.050	0.000%
10	45.989	-65.968	26.602	-45.989	65.968	-26.602	0.000%
11	45.989	-49.476	26.602	-45.989	49.476	-26.602	0.000%
12	25.328	-65.968	43.855	-25.328	65.968	-43.855	0.000%
13	25.328	-49.476	43.855	-25.328	49.476	-43.855	0.000%
14	0.050	-65.968	47.844	-0.050	65.968	-47.844	0.000%
15	0.050	-49.476	47.844	-0.050	49.476	-47.844	0.000%
16	-23.976	-65.968	41.613	23.976	65.968	-41.613	0.000%
17	-23.976	-49.476	41.613	23.976	49.476	-41.613	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
18	-45.360	-65.968	26.181	45.360	65.968	-26.181	0.000%
19	-45.360	-49.476	26.181	45.360	49.476	-26.181	0.000%
20	-50.442	-65.968	-0.050	50.442	65.968	0.050	0.000%
21	-50.442	-49.476	-0.050	50.442	49.476	0.050	0.000%
22	-43.377	-65.968	-25.094	43.377	65.968	25.094	0.000%
23	-43.377	-49.476	-25.094	43.377	49.476	25.094	0.000%
24	-25.328	-65.968	-43.855	25.328	65.968	43.855	0.000%
25	-25.328	-49.476	-43.855	25.328	49.476	43.855	0.000%
26	0.000	-160.105	0.000	-0.000	160.105	0.000	0.000%
27	-0.009	-160.105	-12.446	0.009	160.105	12.446	0.000%
28	5.940	-160.105	-10.304	-5.940	160.105	10.304	0.000%
29	10.315	-160.105	-5.954	-10.315	160.105	5.954	0.000%
30	12.382	-160.105	0.009	-12.382	160.105	-0.009	0.000%
31	11.197	-160.105	6.474	-11.197	160.105	-6.474	0.000%
32	6.266	-160.105	10.851	-6.266	160.105	-10.851	0.000%
33	0.009	-160.105	12.058	-0.009	160.105	-12.058	0.000%
34	-5.940	-160.105	10.304	5.940	160.105	-10.304	0.000%
35	-10.651	-160.105	6.148	10.651	160.105	-6.148	0.000%
36	-12.382	-160.105	-0.009	12.382	160.105	0.009	0.000%
37	-10.861	-160.105	-6.280	10.861	160.105	6.280	0.000%
38	-6.266	-160.105	-10.851	6.266	160.105	10.851	0.000%
39	-0.011	-54.973	-11.404	0.011	54.973	11.404	0.000%
40	5.376	-54.973	-9.331	-5.376	54.973	9.331	0.000%
41	9.585	-54.973	-5.532	-9.585	54.973	5.532	0.000%
42	11.311	-54.973	0.011	-11.311	54.973	-0.011	0.000%
43	10.312	-54.973	5.965	-10.312	54.973	-5.965	0.000%
44	5.679	-54.973	9.834	-5.679	54.973	-9.834	0.000%
45	0.011	-54.973	10.728	-0.011	54.973	-10.728	0.000%
46	-5.376	-54.973	9.331	5.376	54.973	-9.331	0.000%
47	-10.171	-54.973	5.870	10.171	54.973	-5.870	0.000%
48	-11.311	-54.973	-0.011	11.311	54.973	0.011	0.000%
49	-9.726	-54.973	-5.627	9.726	54.973	5.627	0.000%
50	-5.679	-54.973	-9.834	5.679	54.973	9.834	0.000%

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	180 - 160	3.884	43	0.234	0.029
T2	160 - 155	2.925	43	0.208	0.028
T3	155 - 150	2.704	43	0.200	0.027
T4	150 - 145	2.493	43	0.191	0.026
T5	145 - 140	2.293	43	0.181	0.025
T6	140 - 133.333	2.105	43	0.169	0.024
T7	133.333 - 126.667	1.874	43	0.156	0.023
T8	126.667 - 120	1.661	43	0.141	0.022
T9	120 - 113.333	1.469	43	0.126	0.020
T10	113.333 - 106.667	1.297	43	0.113	0.019
T11	106.667 - 100	1.144	43	0.100	0.018
T12	100 - 80	1.005	43	0.093	0.016
T13	80 - 60	0.646	43	0.071	0.013
T14	60 - 40	0.369	43	0.053	0.009
T15	40 - 30	0.174	43	0.034	0.007
T16	30 - 20	0.106	43	0.025	0.005
T17	20 - 0	0.057	43	0.016	0.004

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
182'	19" Accelerator	43	3.884	0.234	0.029	111783
180'	Lightning Rod 5/8" x 6'	43	3.884	0.234	0.029	111783
178'	(2) LPA-80080/6CF w/ Mount Pipe	43	3.785	0.232	0.029	111783
165'	7770.00 w/ Mount Pipe	43	3.155	0.215	0.029	37261
150'	APXVTM14-ALU-I20 w/ Mount Pipe	43	2.493	0.191	0.026	27027
133'	742 213 w/ Mount Pipe	43	1.863	0.155	0.023	29123
126'8"	(4) L2x2x1/4 (RD)	43	1.661	0.141	0.022	25225
123'4"	(4) L2x2x1/4 (RD)	43	1.563	0.134	0.021	26112
120'	(4) L2x2x1/4 (RD)	43	1.469	0.126	0.020	27582
50'	GPS_A	43	0.262	0.044	0.008	60334

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	180 - 160	17.180	10	1.022	0.130
T2	160 - 155	12.971	10	0.918	0.127
T3	155 - 150	11.997	10	0.885	0.122
T4	150 - 145	11.062	10	0.845	0.115
T5	145 - 140	10.176	10	0.799	0.110
T6	140 - 133.333	9.346	10	0.746	0.107
T7	133.333 - 126.667	8.321	10	0.689	0.102
T8	126.667 - 120	7.379	10	0.627	0.096
T9	120 - 113.333	6.527	10	0.561	0.090
T10	113.333 - 106.667	5.762	10	0.503	0.085
T11	106.667 - 100	5.082	10	0.444	0.079
T12	100 - 80	4.465	10	0.411	0.073
T13	80 - 60	2.872	10	0.317	0.057
T14	60 - 40	1.643	10	0.236	0.042
T15	40 - 30	0.774	10	0.151	0.029
T16	30 - 20	0.471	10	0.111	0.024
T17	20 - 0	0.256	10	0.070	0.019

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
182'	19" Accelerator	10	17.180	1.022	0.130	27708
180'	Lightning Rod 5/8" x 6'	10	17.180	1.022	0.130	27708
178'	(2) LPA-80080/6CF w/ Mount Pipe	10	16.748	1.013	0.130	27708

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
165'	7770.00 w/ Mount Pipe	10	13.986	0.948	0.129	9236
150'	APXVTM14-ALU-I20 w/ Mount Pipe	10	11.062	0.845	0.115	6182
133'	742 213 w/ Mount Pipe	10	8.272	0.686	0.101	6620
126'8"	(4) L2x2x1/4 (RD)	10	7.379	0.627	0.096	5735
123'4"	(4) L2x2x1/4 (RD)	10	6.942	0.593	0.093	5924
120'	(4) L2x2x1/4 (RD)	10	6.527	0.561	0.090	6244
50'	GPS_A	10	1.164	0.194	0.035	13584

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	180	Leg	A325N	0.625	4	4.696	20.340	0.231 ✔	1.05	Bolt Tension
		Diagonal	A325X	0.500	1	5.192	7.504	0.692 ✔	1.05	Gusset Bearing
		Top Girt	A325N	0.500	1	0.171	4.133	0.041 ✔	1.05	Member Bearing
T2	160	Diagonal	A325N	0.500	1	4.495	6.199	0.725 ✔	1.05	Member Bearing
T3	155	Diagonal	A325N	0.500	1	4.610	6.199	0.744 ✔	1.05	Member Bearing
T4	150	Diagonal	A325X	0.500	1	5.471	7.504	0.729 ✔	1.05	Gusset Bearing
T5	145	Leg	A325N	0.750	4	12.999	30.101	0.432 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.500	1	5.580	7.504	0.744 ✔	1.05	Gusset Bearing
		Secondary Horizontal	A325X	0.625	1	1.130	7.178	0.157 ✔	1.05	Gusset Bearing
T6	140	Diagonal	A325N	0.500	2	3.022	11.011	0.274 ✔	1.05	Member Block Shear
T7	133.333	Diagonal	A325N	0.500	2	3.166	11.011	0.288 ✔	1.05	Member Block Shear
		Secondary Horizontal	A325X	0.625	1	1.522	12.492	0.122 ✔	1.05	Member Block Shear
T8	126.667	Leg	A325N	0.875	4	20.691	41.556	0.498 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.500	2	3.256	11.011	0.296 ✔	1.05	Member Block Shear
		Secondary Horizontal	A325N	0.625	1	1.720	10.440	0.165 ✔	1.05	Member Bearing
T9	120	Diagonal	A325N	0.500	2	3.404	13.050	0.261 ✔	1.05	Member Block Shear
		Secondary Horizontal	A325N	0.625	1	1.929	10.440	0.185 ✔	1.05	Member Bearing
T10	113.333	Diagonal	A325N	0.500	2	3.488	13.050	0.267 ✔	1.05	Member Block Shear
		Secondary Horizontal	A325N	0.625	1	2.122	10.440	0.203 ✔	1.05	Member Bearing
T11	106.667	Leg	A325N	0.875	4	28.395	41.556	0.683 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.500	2	3.458	13.050	0.265 ✔	1.05	Member Block Shear
T12	100	Leg	A325N	1.000	4	35.464	54.517	0.651 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.500	2	3.962	14.070	0.282 ✔	1.05	Member Block Shear

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
T13	80	Leg	A325N	1.000	4	41.918	54.517	0.769 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	9.566	13.920	0.687 ✔	1.05	Gusset Bearing
T14	60	Leg	A325N	1.000	6	32.152	54.517	0.590 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	10.373	13.920	0.745 ✔	1.05	Gusset Bearing
		Secondary Horizontal	A325N	0.625	1	3.982	10.440	0.381 ✔	1.05	Member Bearing
T15	40	Diagonal	A325N	0.625	1	10.476	13.920	0.753 ✔	1.05	Gusset Bearing
T16	30	Leg	A325N	1.000	6	36.440	54.517	0.668 ✔	1.05	Bolt Tension
		Diagonal	A325N	0.625	1	11.400	13.920	0.819 ✔	1.05	Gusset Bearing
		Secondary Horizontal	A325N	0.625	1	4.543	10.440	0.435 ✔	1.05	Member Bearing
T17	20	Diagonal	A325N	0.625	2	5.739	13.025	0.441 ✔	1.05	Member Block Shear

Compression Checks

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 $P_u / \phi P_n$
T1	180 - 160	ROHN 2 STD	20'	4'	61.0 K=1.00	1.075	-26.987	36.842	0.733 [1] ✔
T2	160 - 155	ROHN 2.5 EH	5'3/32"	5'3/32"	65.0 K=1.00	2.254	-36.257	74.429	0.487 [1] ✔
T3	155 - 150	ROHN 2.5 EH	5'3/32"	5'3/32"	65.0 K=1.00	2.254	-44.892	74.427	0.603 [1] ✔
T4	150 - 145	ROHN 2.5 EH	5'3/32"	5'3/32"	65.0 K=1.00	2.254	-54.988	74.427	0.739 [1] ✔
T5	145 - 140	ROHN 2.5 EH	5'3/32"	2'6-31/32"	33.5 K=1.00	2.254	-65.168	93.410	0.698 [1] ✔
T6	140 - 133.333	ROHN 3 EH	6'8-1/8"	6'8-1/8"	70.5 K=1.00	3.016	-75.539	94.342	0.801 [1] ✔
T7	133.333 - 126.667	ROHN 3 EH	6'8-1/8"	3'5-15/32"	36.5 K=1.00	3.016	-87.787	123.118	0.713 [1] ✔
T8	126.667 - 120	ROHN 3 EH	6'8-1/8"	3'5-3/8"	18.2 K=0.50	3.016	-99.184	132.466	0.749 [1] ✔
T9	120 - 113.333	ROHN 3.5 EH	6'8-1/8"	3'5-5/16"	31.6 K=1.00	3.678	-111.268	153.863	0.723 [1] ✔
T10	113.333 - 106.667	ROHN 3.5 EH	6'8-1/8"	3'5-1/4"	31.6 K=1.00	3.678	-122.402	153.899	0.795 [1] ✔
T11	106.667 - 100	BT100140- Rohn 3.5EH w/ 2" SR	6'8-1/8"	6'8-1/8"	61.4 K=0.78	6.820	-134.466	232.935	0.577 [1] ✔
T12	100 - 80	BT100140- Rohn 4EH w/ 2" SR	20'7/16"	6'8-5/32"	54.6 K=0.80	7.549	-167.819	273.092	0.615 [1] ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
T13	80 - 60	BT100140- Rohn 5EH w/ 2" SR (60-80)	20'13/32"	10'7/32"	65.5 K=0.83	9.253	-198.451	304.198	0.652 [1] ✔
T14	60 - 40	BT100140- Rohn 5EH w/ 2" SR (40-60)	20'7/16"	5'1-13/16"	34.5 K=0.85	9.253	-229.577	381.660	0.602 [1] ✔
T15	40 - 30	BT100140- Rohn 6EHS w/ 2" SR (30-40)	10'7/32"	10'7/32"	55.0 K=0.85	9.855	-247.276	355.524	0.696 [1] ✔
T16	30 - 20	BT100140- Rohn 6EHS w/ 2" SR (20-30)	10'7/32"	5'1-19/32"	28.2 K=0.85	9.855	-261.986	418.472	0.626 [1] ✔
T17	20 - 0	BT100140- Rohn 6EH w/ 2" SR	20'13/32"	10'7/32"	55.0 K=0.87	11.547	-295.184	416.534	0.709 [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	180 - 160	L2x2x1/4	7'8-3/16"	3'7-15/32"	113.4 K=1.02	0.938	-5.371	20.877	0.257 [1] ✔
T2	160 - 155	L1 3/4x1 3/4x3/16	8'5-7/16"	4'1-9/16"	144.3 K=1.00	0.621	-4.632	8.534	0.543 [1] ✔
T3	155 - 150	L1 3/4x1 3/4x3/16	8'10-7/16"	4'4-3/32"	151.7 K=1.00	0.621	-4.525	7.728	0.586 [1] ✔
T4	150 - 145	L2x2x1/4	9'3-9/16"	4'6-5/8"	139.7 K=1.00	0.938	-5.666	13.748	0.412 [1] ✔
T5	145 - 140	2L1 3/4x1 3/4x3/16x3/16	9'8-25/32"	4'10-1/2"	185.2 K=1.00	1.242	-5.533	10.250	0.540 [1] ✔
T6	140 - 133.333	2L 'a' > 28.068 in - 69 2L2x2x3/16x1/2	11'1-7/8"	5'5-9/32"	105.8 K=1.00	1.430	-6.178	32.698	0.189 [1] ✔
T7	133.333 - 126.667	2L 'a' > 31.235 in - 81 2L2x2x3/16x1/2	11'8-15/32"	5'10-9/16"	114.3 K=1.00	1.430	-6.418	29.769	0.216 [1] ✔
T8	126.667 - 120	2L 'a' > 33.766 in - 90 2L2x2x3/16x1/2	12'3-7/32"	6'1-15/16"	119.8 K=1.00	1.430	-6.805	27.776	0.245 [1] ✔
T9	120 - 113.333	2L 'a' > 35.377 in - 102 2L2 1/2x2 1/2x3/16x1/2	12'10-1/8"	6'5-3/32"	100.2 K=1.00	1.805	-6.977	41.764	0.167 [1] ✔
T10	113.333 - 106.667	2L 'a' > 36.772 in - 114 2L2 1/2x2 1/2x3/16x1/2	13'5-5/32"	6'8-5/8"	104.8 K=1.00	1.805	-7.376	39.969	0.185 [1] ✔
T11	106.667 - 100	2L 'a' > 38.454 in - 126 2L2 1/2x2 1/2x3/16x1/2	14'5/16"	6'10-3/16"	106.8 K=1.00	1.805	-6.869	39.141	0.175 [1] ✔
T12	100 - 80	2L 'a' > 39.199 in - 138 2L3x3x3/16x1/2	15'10-21/32"	7'9-5/32"	101.9 K=1.00	2.180	-7.847	46.595	0.168 [1] ✔
T13	80 - 60	2L 'a' > 44.357 in - 147 2L3x3x3/16x1/4	19'1-3/1	9'5-7/16'	127.6	2.180	-9.570	34.378	0.278 [1]

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
			6"	'	K=1.00				✔
T14	60 - 40	2L 'a' > 54.001 in - 168 2L3x3x1/4x1/4	20'10-5/8"	10'5-11/16"	141.5 K=1.00	2.875	-11.063	39.600	0.279 [1] ✔
T15	40 - 30	2L 'a' > 60.029 in - 183 2L3 1/2x3 1/2x1/4x1/4	21'9-15/32"	10'8-31/32"	125.0 K=1.00	3.375	-10.577	57.513	0.184 [1] ✔
T16	30 - 20	2L 'a' > 61.473 in - 204 2L3 1/2x3 1/2x1/4x1/4	22'8-1/4"	11'3-25/32"	131.6 K=1.00	3.375	-12.543	52.338	0.240 [1] ✔
T17	20 - 0	2L 'a' > 64.727 in - 213 L4x4x1/4	24'6"	12'9/32"	166.9 K=0.92	1.940	-11.911	19.935	0.598 [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 $\frac{P_u}{\phi P_n}$
T5	145 - 140	L2x2x1/4	8'4-3/32"	4'19/32"	124.3 K=1.00	0.938	-1.130	17.377	0.065 [1] ✔
T7	133.333 - 126.667	L2x2x1/4	9'7-9/32"	4'7-29/32"	143.0 K=1.00	0.938	-1.522	13.136	0.116 [1] ✔
T8	126.667 - 120	L2 1/2x2 1/2x1/4	10'3-7/16"	4'11-31/32"	122.1 K=1.00	1.190	-1.720	22.748	0.076 [1] ✔
T9	120 - 113.333	L2 1/2x2 1/2x1/4	10'11-19/32"	5'3-25/32"	129.9 K=1.00	1.190	-1.929	20.180	0.096 [1] ✔
T10	113.333 - 106.667	L2 1/2x2 1/2x1/4	11'7-3/4"	5'7-7/8"	138.2 K=1.00	1.190	-2.122	17.822	0.119 [1] ✔
T14	60 - 40	L3x3x1/4	18'3-13/16"	8'11-1/8"	181.0 K=1.00	1.440	-3.982	12.586	0.316 [1] ✔
T16	30 - 20	L3 1/2x3 1/2x1/4	20'4-3/16"	9'10-25/32"	171.2 K=1.00	1.690	-4.543	16.511	0.275 [1] ✔

[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	180 - 160	L2x2x1/8	6'6-1/4"	6'1-3/8"	184.6 K=1.00	0.484	-0.109	4.070	0.027 [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	180 - 160	ROHN 2 STD	20'	4'	61.0	1.075	18.786	48.354	0.389 [1] ✔
T2	160 - 155	ROHN 2.5 EH	5'3/32"	5'3/32"	65.0	2.254	27.433	101.409	0.271 [1] ✔
T3	155 - 150	ROHN 2.5 EH	5'3/32"	5'3/32"	65.0	2.254	35.242	101.409	0.348 [1] ✔
T4	150 - 145	ROHN 2.5 EH	5'3/32"	5'3/32"	65.0	2.254	42.848	101.409	0.423 [1] ✔
T5	145 - 140	ROHN 2.5 EH	5'3/32"	2'5-1/8"	31.5	2.254	52.036	101.409	0.513 [1] ✔
T6	140 - 133.333	ROHN 3 EH	6'8-1/8"	6'8-1/8"	70.5	3.016	61.681	135.717	0.454 [1] ✔
T7	133.333 - 126.667	ROHN 3 EH	6'8-1/8"	3'2-21/32"	34.0	3.016	72.671	135.717	0.535 [1] ✔
T8	126.667 - 120	ROHN 3 EH	6'8-1/8"	3'2-3/4"	34.1	3.016	82.905	135.717	0.611 [1] ✔
T9	120 - 113.333	ROHN 3.5 EH	6'8-1/8"	3'2-27/32"	29.7	3.678	93.424	165.529	0.564 [1] ✔
T10	113.333 - 106.667	ROHN 3.5 EH	6'8-1/8"	3'2-29/32"	29.8	3.678	103.300	165.529	0.624 [1] ✔
T11	106.667 - 100	BT100140- Rohn 3.5EH w/ 2" SR	6'8-1/8"	6'8-1/8"	78.7	6.820	113.579	306.900	0.370 [1] ✔
T12	100 - 80	BT100140- Rohn 4EH w/ 2" SR	20'7/16"	6'8-5/32"	68.3	7.549	141.858	339.705	0.418 [1] ✔
T13	80 - 60	BT100140- Rohn 5EH w/ 2" SR (60-80)	20'13/32"	10'7/32"	78.9	9.253	167.674	416.385	0.403 [1] ✔
T14	60 - 40	BT100140- Rohn 5EH w/ 2" SR (40-60)	20'7/16"	4'10-13/32"	38.4	9.253	193.299	416.385	0.464 [1] ✔
T15	40 - 30	BT100140- Rohn 6EHS w/ 2" SR (30-40)	10'7/32"	10'7/32"	64.7	9.855	207.293	443.471	0.467 [1] ✔
T16	30 - 20	BT100140- Rohn 6EHS w/ 2" SR (20-30)	10'7/32"	4'10-5/8"	31.5	9.855	219.038	443.471	0.494 [1] ✔
T17	20 - 0	BT100140- Rohn 6EH w/ 2" SR	20'13/32"	10'7/32"	63.6	11.547	245.544	519.615	0.473 [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	180 - 160	L2x2x1/4	7'8-3/16"	3'7-15/32"	73.4	0.586	5.192	28.583	0.182 [1] ✔
T2	160 - 155	L1 3/4x1 3/4x3/16	8'5-7/16"	4'1-9/16"	94.6	0.378	4.495	16.440	0.273 [1] ✔
T3	155 - 150	L1 3/4x1 3/4x3/16	8'10-7/16"	4'4-3/32"	99.3	0.378	4.610	16.440	0.280 [1] ✔
T4	150 - 145	L2x2x1/4	9'3-9/16"	4'6-5/8"	91.8	0.586	5.471	28.583	0.191 [1] ✔
T5	145 - 140	2L1 3/4x1 3/4x3/16x3/16	9'8-25/32"	4'10-1/2"	109.0	0.756	5.580	32.880	0.170 [1] ✔
T6	140 - 133.333	2L 'a' > 28.068 in - 70 2L2x2x3/16x1/2	11'1-7/8"	5'5-9/32"	109.0	0.896	6.043	38.997	0.155 [1] ✔
T7	133.333 - 126.667	2L 'a' > 31.235 in - 82 2L2x2x3/16x1/2	11'8-15/32"	5'10-9/16"	114.3	0.896	6.333	38.997	0.162 [1] ✔
T8	126.667 - 120	2L 'a' > 33.766 in - 91 2L2x2x3/16x1/2	12'3-7/32"	6'1-15/16"	119.8	0.896	6.513	38.997	0.167 [1] ✔
T9	120 - 113.333	2L 'a' > 35.377 in - 103 2L2 1/2x2 1/2x3/16x1/2	12'10-1/8"	6'5-3/32"	99.1	1.178	6.809	51.231	0.133 [1] ✔
T10	113.333 - 106.667	2L 'a' > 36.772 in - 115 2L2 1/2x2 1/2x3/16x1/2	13'5-5/32"	6'8-5/8"	103.6	1.178	6.977	51.231	0.136 [1] ✔
T11	106.667 - 100	2L 'a' > 38.454 in - 127 2L2 1/2x2 1/2x3/16x1/2	14'5/16"	6'10-3/16"	108.2	1.178	6.916	51.231	0.135 [1] ✔
T12	100 - 80	2L 'a' > 39.199 in - 139 2L3x3x3/16x1/2	15'10-21/32"	7'9-5/32"	101.3	1.459	7.925	63.466	0.125 [1] ✔
T13	80 - 60	2L 'a' > 44.357 in - 148 2L3x3x3/16x1/4	19'1-3/16"	9'5-7/16"	122.3	1.424	9.566	61.937	0.154 [1] ✔
T14	60 - 40	2L 'a' > 54.001 in - 169 2L3x3x1/4x1/4	19'11-23/32"	10'5/16"	129.3	1.875	10.373	91.406	0.113 [1] ✔
T15	40 - 30	2L 'a' > 57.451 in - 193 2L3 1/2x3 1/2x1/4x1/4	21'9-15/32"	10'8-31/32"	119.5	2.250	10.476	109.688	0.096 [1] ✔
T16	30 - 20	2L 'a' > 61.473 in - 205 2L3 1/2x3 1/2x1/4x1/4	22'8-1/4"	11'3-25/32"	124.4	2.250	11.400	109.688	0.104 [1] ✔
T17	20 - 0	2L 'a' > 64.727 in - 214 L4x4x1/4	24'6"	12'9/32"	117.3	1.314	11.477	64.076	0.179 [1] ✔

[1] P_u / ϕP_n controls

Secondary Horizontal 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 $\frac{P_u}{\phi P_n}$
T5	145 - 140	L2x2x1/4	8'4-3/32''	4'19/32"	159.6	0.563	1.130	27.440	0.041 [1] ✔
T7	133.333 - 126.667	L2x2x1/4	9'7-9/32''	4'7-29/32"	183.6	0.563	1.522	27.440	0.055 [1] ✔
T8	126.667 - 120	L2 1/2x2 1/2x1/4	10'3-7/16"	4'11-31/32"	156.0	0.752	1.720	32.707	0.053 [1] ✔
T9	120 - 113.333	L2 1/2x2 1/2x1/4	10'11-19/32"	5'3-25/32"	165.9	0.752	1.929	32.707	0.059 [1] ✔
T10	113.333 - 106.667	L2 1/2x2 1/2x1/4	11'7-3/4''	5'7-7/8"	176.5	0.752	2.122	32.707	0.065 [1] ✔
T14	60 - 40	L3x3x1/4	18'3-13/16"	8'11-1/8''	230.4	0.939	3.982	40.863	0.097 [1] ✔
T16	30 - 20	L3 1/2x3 1/2x1/4	20'4-3/16"	9'10-25/32"	218.0	1.127	4.543	49.019	0.093 [1] ✔

[1] P_u / ϕP_n controls

Top Girt 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	180 - 160	L2x2x1/8	6'6-1/4"	6'1-3/8"	121.2	0.305	0.171	13.254	0.013 [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
T1	180 - 160	Leg	ROHN 2 STD	2	-26.987	38.684	69.8	Pass
T2	160 - 155	Leg	ROHN 2.5 EH	38	-36.257	78.151	46.4	Pass
T3	155 - 150	Leg	ROHN 2.5 EH	47	-44.892	78.148	57.4	Pass
T4	150 - 145	Leg	ROHN 2.5 EH	56	-54.988	78.149	70.4	Pass
T5	145 - 140	Leg	ROHN 2.5 EH	65	-65.168	98.081	66.4	Pass
T6	140 - 133.333	Leg	ROHN 3 EH	77	-75.539	99.059	76.3	Pass
T7	133.333 - 126.667	Leg	ROHN 3 EH	86	-87.787	129.274	67.9	Pass
T8	126.667 - 120	Leg	ROHN 3 EH	98	-99.184	139.089	71.3	Pass
T9	120 - 113.333	Leg	ROHN 3.5 EH	110	-111.268	161.556	68.9	Pass
T10	113.333 - 106.667	Leg	ROHN 3.5 EH	122	-122.402	161.594	75.7	Pass
T11	106.667 - 100	Leg	BT100140- Rohn 3.5EH w/ 2" SR	134	-134.466	244.582	55.0 65.1 (b)	Pass
T12	100 - 80	Leg	BT100140- Rohn 4EH w/ 2" SR	143	-167.819	286.747	58.5 62.0 (b)	Pass
T13	80 - 60	Leg	BT100140- Rohn 5EH w/ 2" SR (60-80)	164	-198.451	319.408	62.1 73.2 (b)	Pass

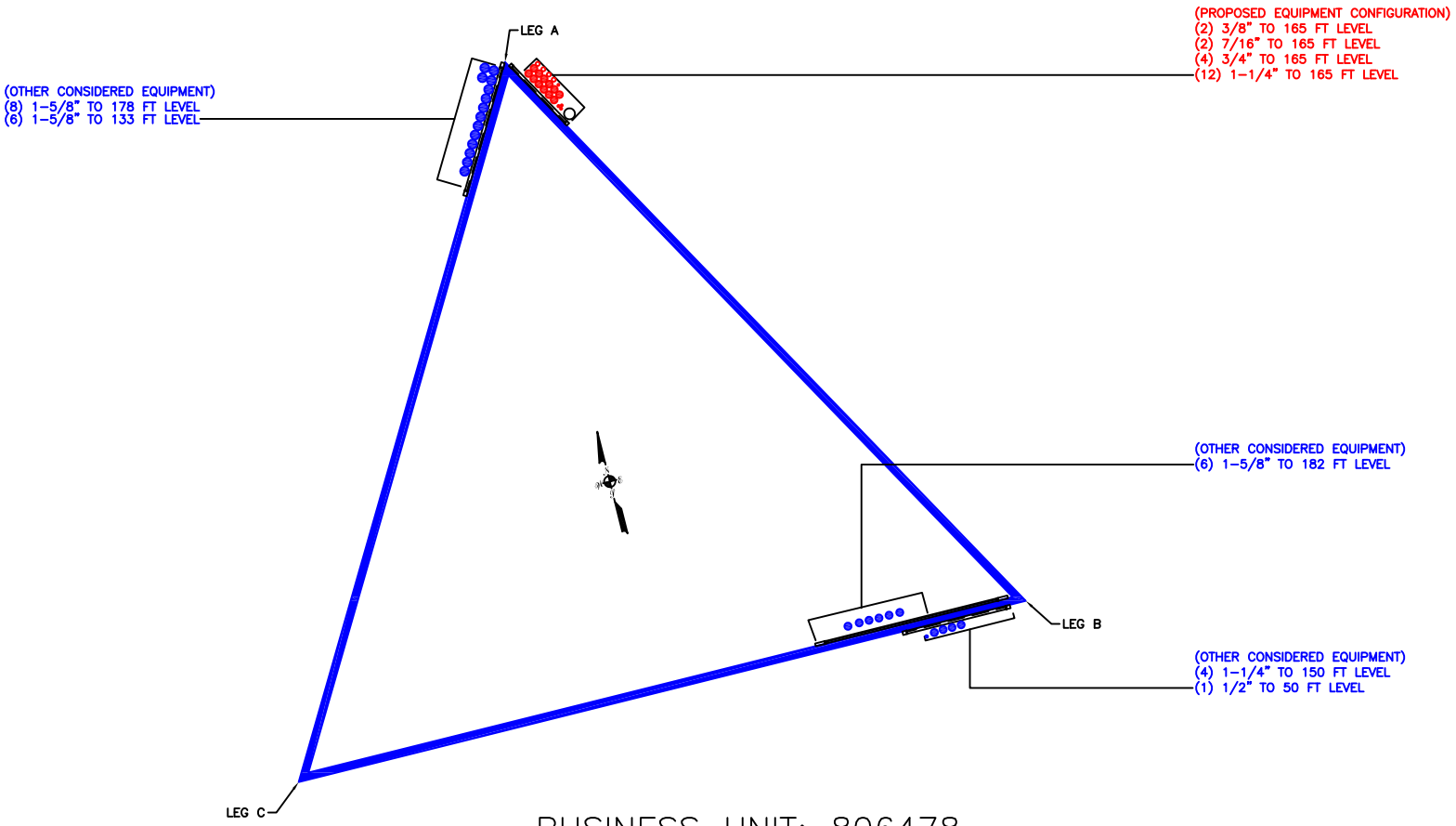
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
T14	60 - 40	Leg	BT100140- Rohn 5EH w/ 2" SR (40-60)	179	-229.577	400.743	57.3	Pass
T15	40 - 30	Leg	BT100140- Rohn 6EHS w/ 2" SR (30-40)	200	-247.276	373.300	66.2	Pass
T16	30 - 20	Leg	BT100140- Rohn 6EHS w/ 2" SR (20-30)	209	-261.986	439.396	59.6 63.7 (b)	Pass
T17	20 - 0	Leg	BT100140- Rohn 6EH w/ 2" SR	221	-295.184	437.361	67.5	Pass
T1	180 - 160	Diagonal	L2x2x1/4	9	-5.371	21.921	24.5 65.9 (b)	Pass
T2	160 - 155	Diagonal	L1 3/4x1 3/4x3/16	43	-4.632	8.960	51.7 69.1 (b)	Pass
T3	155 - 150	Diagonal	L1 3/4x1 3/4x3/16	52	-4.525	8.115	55.8 70.8 (b)	Pass
T4	150 - 145	Diagonal	L2x2x1/4	61	-5.666	14.435	39.3 69.4 (b)	Pass
T5	145 - 140	Diagonal	2L1 3/4x1 3/4x3/16x3/16	69	-5.533	10.763	51.4 70.8 (b)	Pass
T6	140 - 133.333	Diagonal	2L2x2x3/16x1/2	81	-6.178	34.333	18.0 26.1 (b)	Pass
T7	133.333 - 126.667	Diagonal	2L2x2x3/16x1/2	90	-6.418	31.258	20.5 27.4 (b)	Pass
T8	126.667 - 120	Diagonal	2L2x2x3/16x1/2	102	-6.805	29.165	23.3 28.2 (b)	Pass
T9	120 - 113.333	Diagonal	2L2 1/2x2 1/2x3/16x1/2	114	-6.977	43.852	15.9 24.8 (b)	Pass
T10	113.333 - 106.667	Diagonal	2L2 1/2x2 1/2x3/16x1/2	126	-7.376	41.968	17.6 25.5 (b)	Pass
T11	106.667 - 100	Diagonal	2L2 1/2x2 1/2x3/16x1/2	138	-6.869	41.098	16.7 25.2 (b)	Pass
T12	100 - 80	Diagonal	2L3x3x3/16x1/2	147	-7.847	48.925	16.0 26.8 (b)	Pass
T13	80 - 60	Diagonal	2L3x3x3/16x1/4	168	-9.570	36.097	26.5 65.4 (b)	Pass
T14	60 - 40	Diagonal	2L3x3x1/4x1/4	183	-11.063	41.581	26.6 71.0 (b)	Pass
T15	40 - 30	Diagonal	2L3 1/2x3 1/2x1/4x1/4	204	-10.577	60.389	17.5 71.7 (b)	Pass
T16	30 - 20	Diagonal	2L3 1/2x3 1/2x1/4x1/4	213	-12.543	54.955	22.8 78.0 (b)	Pass
T17	20 - 0	Diagonal	L4x4x1/4	225	-11.911	20.932	56.9	Pass
T5	145 - 140	Secondary Horizontal	L2x2x1/4	73	-1.130	18.245	6.2 15.0 (b)	Pass
T7	133.333 - 126.667	Secondary Horizontal	L2x2x1/4	94	-1.522	13.793	11.0 11.6 (b)	Pass
T8	126.667 - 120	Secondary Horizontal	L2 1/2x2 1/2x1/4	106	-1.720	23.886	7.2 15.7 (b)	Pass
T9	120 - 113.333	Secondary Horizontal	L2 1/2x2 1/2x1/4	118	-1.929	21.189	9.1 17.6 (b)	Pass
T10	113.333 - 106.667	Secondary Horizontal	L2 1/2x2 1/2x1/4	130	-2.122	18.713	11.3 19.4 (b)	Pass
T14	60 - 40	Secondary Horizontal	L3x3x1/4	187	-3.982	13.215	30.1 36.3 (b)	Pass
T16	30 - 20	Secondary Horizontal	L3 1/2x3 1/2x1/4	217	-4.543	17.337	26.2 41.4 (b)	Pass
T1	180 - 160	Top Girt	L2x2x1/8	6	-0.109	4.273	2.5 3.9 (b)	Pass
							Summary	
						Leg (T6)	76.3	Pass
						Diagonal (T16)	78.0	Pass
						Secondary	41.4	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
						Horizontal (T16)		
						Top Girt (T1)	3.9	Pass
						Bolt Checks	78.0	Pass
						RATING =	**78.0**	**Pass**

***NOTE: Above stress ratios for reinforced sections are approximate. More exact calculations are presented in Appendix C.**

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT: 806478

APPENDIX C

ADDITIONAL CALCULATIONS

PROJECT	**100140.013.01 - HRT 080 953381, CT**
SUBJECT	**Bolted Angle Connection Analysis**
DATE	**08-18-20** PAGE 1 OF 1

v2.5.0

B+T GRP
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

TIA-222 Rev.	H
Apply TIA-222-H Section 15.5?	Yes

Max Rating	**18.0%**

	Elevation (ft)	Component	Angle			Bolt						Coping Dimensions (in)						Tens. Load (k)	Comp. Load (k)	Tens. Capacity (k)	Comp. Capacity (k)	Rating	Limit State
			Qty	Size	Grade	Qty	Size	Grade	Edge Dist. (in)	Gage (in)	Pitch (in)	Coping	A	B	C	D	E						
1	120 - 126.7	Redundant Horizontal	1	L2X2X1/4	A36	1	5/8	A325N	Auto Calc	Auto Calc		Allowable						1.72	1.71	9.11	13.81	18.0%	Tension - Mbr. Block Shear
2	120 - 126.7	Redundant Diagonal	1	L2X2X1/4	A36	1	5/8	A325N	Auto Calc	Auto Calc		Allowable						1.07	1.14	9.11	13.81	11.2%	Tension - Mbr. Block Shear

PROJECT	**100140.013.01 - HRT 080 953381, CT**
SUBJECT	**Reinforced Tower Legs**
DATE	**08-18-20**

v3.3.5

B+T GRP
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Tower Information	
TIA-222 Rev.	H
Apply TIA-222-H Section 15.5	Yes

Calculation Type	Original Membe		Modification				BP & Angle?	Section Geometry																		Leg Capacity									Results
								Custom Area Input			Custom MOIxx Input			Custom MOIyy Input																					
	Elevation (ft)	Leg Type	Type	Analysis Method	Intermediate Connection	Leg Crushing?		Area $_{LEG}$ (in^2)	Area $_{MOD}$ (in^2)	Area $_{Gross}$ (in^2)	I $_{LEG}$ (in^4)	I $_{MOD}$ (in^4)	I $_{Gross}$ (in^4)	I $_{LEG}$ (in^4)	I $_{MOD}$ (in^4)	I $_{Gross}$ (in^4)	Leg Comp. Load Pu (k)	Leg Fy (ksi)	Reinf. Fy (ksi)	L (in)	a (in)	Gap (in)	K Leg	K Mod	K Comp.	Custom h (in)	Fe (ksi)	Fcr (ksi)	Φ	Leg Crushing Capacity (k)	Reinf. Leg Tension Yield Capacity (k)	Reinf. Leg Comp. Capacity (k)	Original leg Capacity (k)	Spacing Req.	Leg Load Final Rating	
Analysis	100'-110.7'	Custom	Custom	Parallel	Pinned	No	No	3.69	3.14	6.82	6.3	0.8	144.3	6.3	0.8	10.4	134.47	50	105	80.1	36.0	0.0	1.0	1.00	1.0		11.1456	9.8	0.90		462.8	233.0	126.0	Exceeded @ 4.13	55.0%	Passing
Analysis	80'-100'	Custom	Custom	Parallel	Pinned	No	No	4.41	3.14	7.55	9.6	0.8	167.3	9.6	0.8	10.4	167.82	50	105	80.2	36.0	0.0	1.0	1.00	1.0		11.1369	9.8	0.90		495.2	273.9	159.9	Exceeded @ 4.23	58.4%	Passing
Analysis	60'-80'	Custom	Custom	Parallel	Pinned	No	No	6.11	3.14	9.25	20.7	0.8	220.0	20.7	0.8	21.5	198.45	50	105	120.2	36.0	0.0	1.0	1.00	1.0		4.951	4.3	0.90		571.8	304.6	201.2	Exceeded @ 2.92	62.0%	Passing
Analysis	40'-60'	Custom	Custom	Parallel	Pinned	No	No	6.11	3.14	9.25	20.7	0.8	220.0	20.7	0.8	21.5	229.58	50	105	61.8	36.0	0.0	1.0	1.00	1.0		18.7277	16.4	0.90		571.8	383.4	253.2	Exceeded @ 5.68	57.0%	Passing
Analysis	30'-40'	Custom	Custom	Parallel	Pinned	No	No	6.71	3.14	9.85	33.2	0.8	261.6	33.2	0.8	34.0	247.28	50	105	120.2	36.0	0.0	1.0	1.00	1.0		4.951	4.3	0.90		599.0	358.3	244.0	Exceeded @ 3.09	65.7%	Passing
Analysis	20'-30'	Custom	Custom	Parallel	Pinned	No	No	6.71	3.14	9.85	33.2	0.8	261.6	33.2	0.8	34.0	261.99	50	105	61.6	36.0	0.0	1.0	1.00	1.0		18.8614	16.5	0.90		599.0	419.3	285.6	Exceeded @ 6.02	59.5%	Passing
Analysis	0'-20'	Custom	Custom	Parallel	Pinned	No	No	8.40	3.14	11.55	40.5	0.8	284.5	40.5	0.8	41.3	295.18	50	105	120.2	36.0	0.0	1.0	1.00	1.0		4.951	4.3	0.90		674.9	417.3	303.6	Exceeded @ 2.97	67.4%	Passing

Anchor Rod Check for Self Supporting Towers

v8.4.4

B+T GRP
1717 S. Boulder, Suite 300
Tulsa, OK 74119

Site Data	
BU#:	806478
Site Name:	HRT 080 953381, CT
Order #:	517059 Rev. 0
TIA Rev.	H
Apply TIA-222-H Section 15.5	Yes
Seismic Design Category:	B
No. of Mods:	1
Grout Present:	No

Leg Base Reactions			
		Wind/Ice	
Download, Pu:		0.0	kips
Download Shear, Vu:		0.0	kips
Uplift, Pu:		252.0	kips
Uplift Shear, Vu:		28.0	kips

Anchor Rod Data				
	Existing	New 1		
Qty:	6	2		
Diam:	1	1		in
Rod Material:	A449 (1/4 to 1 Incl.)	A193 Gr B7		
$l_{ar:}$	0.00	3.50		in
Do Mods Resist Shear?		No		
Strength (Fu):	120	125		ksi
Yield (Fy):	92	105		ksi
Gross Area (Ag):	4.71	1.57		in^2
Net Area (An):	3.64	1.21		in^2

Anchor Rod Calculations			
	Existing	New 1	
Put (k):	31.50	31.5	
ϕRnt (k):	54.54	56.8	
Puc (k):	0.00	0.0	
ϕRnc (k):	65.03	74.2	
ϕRnb (k):	65.02	71.1	
Uplift Vu (k):	4.67	0.0	
Download Vu (k):	0.00	0.0	
ϕRnv (k):	35.34	36.8	
ϕRnvc (k):	29.26	33.4	
Uplift Mu (k-in):	0.00	0.0	
Download Mu (k-in):	0.00	0.0	
ϕMn (k-in):	13.01	14.8	
Anchor Rod Stress Ratio:	**0.578**	**0.554**	

Anchor Rod Rating: **55.0%** **Pass**

Eccentric Load Calculations		
e=	0	in

PROJECT	**100140.013.01 - HRT 080 953381, CT**
SUBJECT	**Anchor Rod Bracket Analysis**
DATE	**08-18-20**
v4.6.0	

TIA-222 Rev. **H**
Apply TIA-222-H Section 15.5? Yes

B+T GRP
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Analysis Criteria		
Design/Analysis	Analysis	
Load Type	Current Load	
Current load	31.5	kips
AR Capacity	74.2	kips

Tower Type	Self Support	

Manufacturers Tower Prop.		
Leg Thickness	0.432	in
Leg Grade	A572-50	
Fy	50	ksi
Fu	65	ksi
Base Plate Gr.	A36	
Fy	36	ksi
Fu	58	ksi

Post-Installed Adhesive AR Mod.		
ARB Type	Welded	
Size	1	in
Grade	A193 Gr B7	
Fy	105	ksi
Fu	125	ksi

Anchor Rod Bracket Analysis Checks		
Tube Bearing	50.4%	-
Tube Compression	75.6%	-
Gusset Shear	11.4%	-
Gusset Flexure	14.9%	-
Welds: Gusset to Tower and BP	12.0%	-
Welds: Gusset to Tube	10.0%	-
Welds: Geometry	N/A	
Tower Punching	13.2%	-
Tube Punching	4.3%	-
Utilization	**75.6%**	

Bracket Properties

Gusset			Pipe/Tube			Weld - Gusset to Pipe/Tube		
Thickness	0.5	in	Size	L.25 SCh 80 Pipe		FEXX	70	ksi
Width at Tube	5.1875	in	Total Length	18	in	Weld Type	Double Fillet	
Height at Leg	18	in	Length above Gusset	0	in	Fillet Size	3/8	in
Height at Tube	18	in	Length below Gusset	0	in			
Grade	A572-50		Grade	A500 Grade C (Square)				
Fy	50	ksi	Fy	50	ksi			
Fu	65	ksi	Fu	62	ksi			

Weld - Gusset to Tower			Weld - Gusset to Base Plate	
FEXX	70	ksi		
Weld Type	CJP - Single Bevel		Weld Type	Floating
Fillet Size	7/16	in		
Bevel Depth	7/16	in		

Pier and Pad Foundation

BU # :	806478
Site Name:	HRT 080 953381, C
Order Number:	517059 Rev. 0

TIA-222 Revision:	H
Tower Type:	Self Support

Top & Bot. Pad Rein. Different?:	☐
Block Foundation?:	☐

Superstructure Analysis Reactions

Compression, P_{comp}:	303	kips
Compression Shear, Vu_comp:	33	kips
Uplift, P_{uplift}:	252	kips
Uplift Shear, V_{u_uplift}:	28	kips
Tower Height, **H**:	180	ft
Base Face Width, **BW**:	22.8646	ft
BP Dist. Above Fdn, bp_{dist}:	2.5	in

Foundation Analysis Checks

	Capacity	Demand	Rating*	Check
Uplift (kips)	284.92	252.00	**84.2%**	**Pass**
Lateral (Sliding) (kips)	73.30	28.00	**36.4%**	**Pass**
Bearing Pressure (ksf)	23.38	7.26	**29.6%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	2056.99	264.00	**12.2%**	**Pass**
*Pier Flexure (Tension) (kip*ft)*	1156.77	224.00	**18.4%**	**Pass**
Pier Compression (kip)	8751.60	339.00	**3.7%**	**Pass**
*Pad Flexure (kip*ft)*	337.92	28.86	**8.1%**	**Pass**
Pad Shear - 1-way (kips)	139.60	0.00	**0.0%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.164	0.017	**9.9%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	675.84	158.40	**22.3%**	**Pass**
Pad Shear - 2-way (Uplift) (ksi)	0.164	0.052	**30.0%**	**Pass**
*Flexural 2-way (Tension) (kip*ft)*	675.84	134.40	**18.9%**	**Pass**

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

0.5% min steel assumed

Soil Rating*:	**84.2%**
Structural Rating*:	**30.0%**

Pier Properties

Pier Shape:	Square	
Pier Diameter, **dpier**:	5	ft
Ext. Above Grade, **E**:	0.3333333	ft
Pier Rebar Size, **Sc**:	8	
Pier Rebar Quantity, **mc**:	18	
Pier Tie/Spiral Size, **St**:	3	
Pier Tie/Spiral Quantity, **mt**:	7	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	3	in

Pad Properties

Depth, **D**:	9.6666667	ft
Pad Width, **W**:	7.3333333	ft
Pad Thickness, **T**:	2	ft
Pad Rebar Size (Bottom), **Sp**:	9	
Pad Rebar Quantity (Bottom), **mp**:	4	
Pad Clear Cover, cc_{pad}:	3	in

0.18% min steel assumed

Material Properties

Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	3	ksi
Dry Concrete Density, δ**c**:	150	pcf

Soil Properties

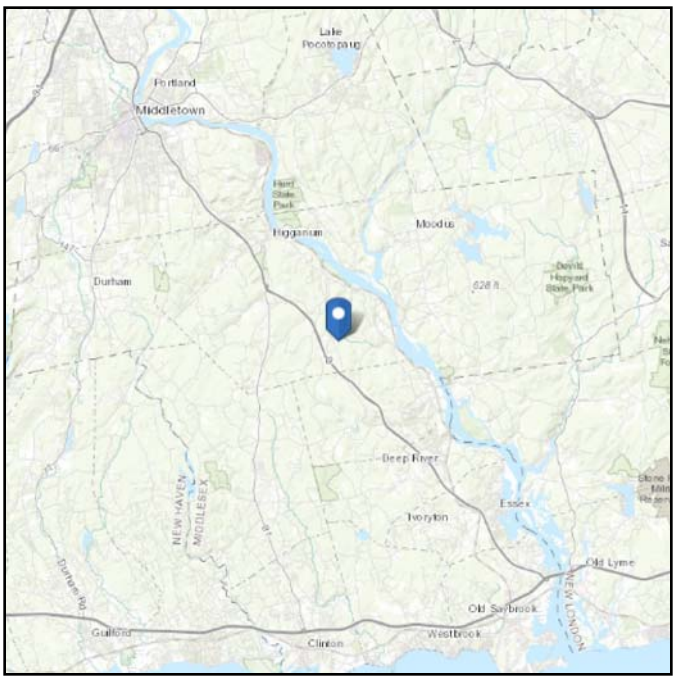
Total Soil Unit Weight, γ:	122	pcf
Ultimate Net Bearing, Qnet:	30.000	ksf
Cohesion, **Cu**:	0.000	ksf
Friction Angle, φ:	32	degrees
SPT Blow Count, N_{blows}:		
Base Friction, μ:	0.4	
Neglected Depth, **N**:	3.33	ft
Foundation Bearing on Rock?	Yes	
Groundwater Depth, **gw**:	N/A	ft

<--Toggle between Gross and Net

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard:	ASCE/SEI 7-10	**Elevation:**	504.12 ft (NAVD 88)
Risk Category:	II	**Latitude:**	41.443056
Soil Class:	D - Stiff Soil	**Longitude:**	-72.506222



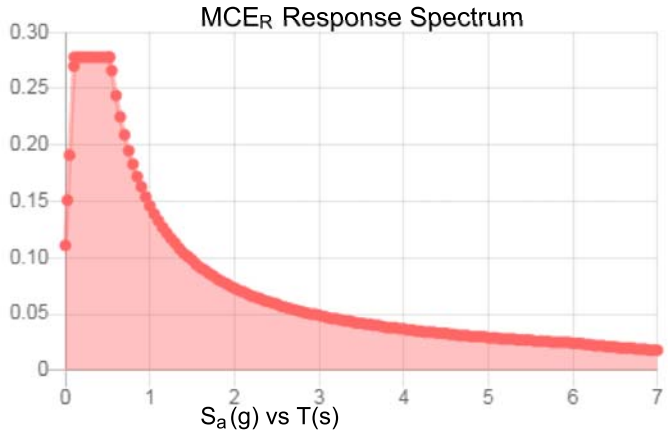
Seismic

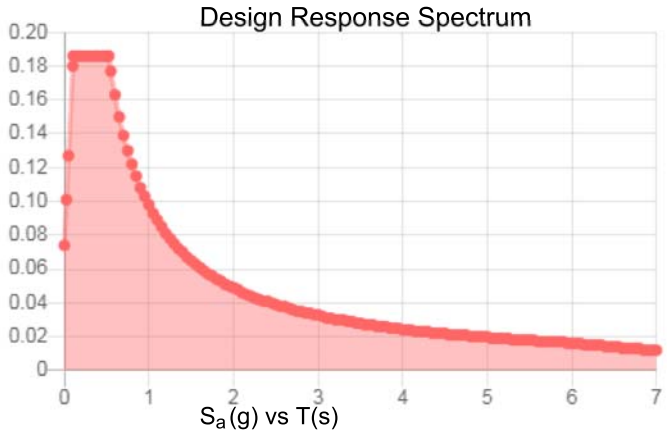
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.174	S_{DS} :	0.186
S_1 :	0.061	S_{D1} :	0.098
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.088
S_{MS} :	0.278	PGA_M :	0.141
S_{M1} :	0.146	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B





Data Accessed: Tue Aug 18 2020

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-10, incorporating Supplement 1 and errata of March 31, 2013, and ASCE/SEI 7-10 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-10 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	0.75 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8
Date Accessed:	Tue Aug 18 2020

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

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 50-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Exhibit E

Mount Analysis

Date: **June 8, 2020**

Darcy Tarr
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277
704-405-6589

POD Group
1033 E Turkeyfoot Lake Rd. Suite 206
Akron, OH 44312
(330) 961.7432
mhoudeshell@podgrp.com

Subject:	**Mount Analysis Report**	
Carrier Designation:	**AT&T**	
	PACE Number:	**MRCTB047278**
	Carrier Site Number:	**59414**
	Carrier Site Name:	**CTL02165**
	FA Number:	**10035057**
Crown Castle Designation:	**Crown Castle BU Number:**	**806478**
	Crown Castle Site Name:	**HRT 080 953381**
	Crown Castle JDE Job Number:	**605365**
	Crown Castle Order Number:	**517059 Rev. 0**
Engineering Firm Designation:	**POD Report Designation:**	**20-64957**
Site Data:	**539 Plains Rd., Haddam, Middlesex County, CT 06438**	
	Latitude 41° 26' 35.00" Longitude -72° 30' 22.40"	
Structure Information:	**Tower Height & Type:**	**190 ft Self-Support**
	Mount Elevation:	**165 ft**
	Mount Type:	**15 ft Sector Frame**

Dear Darcy Tarr,

POD Group is pleased to submit this "Mount Analysis Report" to determine the structural integrity of AT&T's antenna mounting system with the proposed appurtenance and equipment addition on the abovementioned supporting tower structure. Analysis of the existing supporting tower structure is to be completed by others and therefore is not part of this analysis. Analysis of the antenna mounting system as a tie-off point for fall protection or rigging is not part of this document.

The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

15 ft Sector Frame (Alpha Sector)	**Sufficient**
15 ft Sector Frame (Beta & Gamma)	**Sufficient**

This analysis has been performed in accordance with the TIA-222-H Standard based upon an ultimate 3-second gust wind speed of 122 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Dario Pelemis

Respectfully submitted by:

6/8/20

Jason Cheronis, P.E.
Connecticut PE #: 0032793

TABLE OF CONTENTS

1) INTRODUCTION

This mount is a existing 15 ft Sector Frame. This mount is installed at the 165 ft elevation on 3 sectors of the 190 ft Self-Support Tower.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	122 mph
Exposure Category:	B
Topographic Factor at Base:	1.000
Topographic Factor at Mount:	1.000
Ice Thickness:	1 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.214
Seismic S_1:	0.055
Live Loading Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lb
Man Live Load at Mount Pipes:	500 lb

Table 1 - Final Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details	Note
165	167	3	Powerwave Technologies	7770.00	15 ft Sector Frame	-
		3	Quintel Technology	QS66512-2		
		3	CCI Antennas	DMP65R-BU8D		
		3	CCI Antennas	OPA65R-BU6D		
		3	Ericsson	RRUS 32 B2		
		3	Ericsson	RRUS 32 B30		
		6	Powerwave Technologies	LGP21401		
		3	Raycap	DC6-48-60-18-8F		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 4478 B14		

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Application	-	Crown Castle Order ID: 517059 Rev. 0 Dated: 06/05/2020	Crown Castle
Elevation Levels	-	Crown Castle Sheet#: A1-165 Dated: 09/19/2020	Crown Castle
Structural Analysis	-	B+T Group Project #: 100140.007.01 Dated: 07/29/2019	Crown Castle
RFDS	-	AT&T FA #: 10035057 Dated: 03/18/2020	Crown Castle
Topographic Factor and Category Exposure Determination	-	Crown Castle BU #: 806478 Dated: 11/10/2015	Crown Castle

3.1) Analysis Method

RISA-3D (Version 17.0.4), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases. Selected output from the analysis are included in the Appendices.

A tool internally developed, using Microsoft Excel, by POD Group, was used to calculate wind loading on all appurtenances, dishes, and mount members for various load cases. Selected output from the calculations is included in Appendices B.

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 Tower Mount Analysis (Revision B). In addition, this analysis is in accordance with AT&T's mount technical directive.

3.2) Assumptions

1) The antenna mounting system was properly fabricated, installed, and maintained in good condition in accordance with its original design, TIA Standards, and/or manufacturer's specifications.
2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
3) 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.
4) The weight of the mount was increased 10% in the analysis to account for connections, coax, and jumpers.
5) Member sizes have been assumed from photos of the site and experience with similar mounting systems. If the sizes assumed in this report differ from the actual member sizes, POD Group shall be contacted immediately, and the results of the analysis shall be considered null and void.
6) The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
7) Steel grades have been assumed as follows, unless noted otherwise:
    a. Pipe ASTM A53 (GR 35)
    b. Connection Bolts ASTM A325

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

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (15 ft Sector Frame, Alpha Sector)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
-	Face	FACE TOP	165	26.8	Pass
	Support Pipe	SUPPORT PIPE1	165	60.5	Pass
	Kicker	KICKER2	165	15.9	Pass
	Diagonal	DIAG1	165	6.1	Pass
	Vertical	VERT2	165	9.0	Pass
1	Tieback	Tie-Back	165	79.5	Pass
-	Mount Pipe	MP ALPHA2	165	49.7	Pass

Structure Rating (max from all components) =	79.5%

Notes:
1) Capacity based on "Table 4 – Tieback Connection Data Table (Alpha Sector)

Table 4 - Tieback Connection Data Table (Alpha Sector)

Tower Connection Node No.	Existing / Proposed	Resultant End Reaction (lb)	Connected Member Type	Connected Member Size	Member Compressive Capacity (lb)[3]	Notes
N71	Existing	2959	Pipe	ROHN 2.5 EH	3721.45	1

Notes:
1) Tieback connection point is within 25% of either end of the connected tower member
2) Reduced member compressive capacity according to CED-STD-10294 *Standard for Installation of Mounts and Appurtenances*

4.1) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. No modifications are required at this time.

Table 5 - Mount Component Stresses vs. Capacity (15 ft Sector Frame, Beta & Gamma Sector)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
-	Face	FACE TOP	165	24.4	Pass
	Support Pipe	SUPPORT PIPE1	165	53.0	Pass
	Kicker	KICKER2	165	14.2	Pass
	Diagonal	DIAG1	165	5.6	Pass
	Vertical	VERT2	165	7.7	Pass
1	Tieback	Tie-Back	165	71.5	Pass
-	Mount Pipe	MP ALPHA2	165	49.5	Pass

Structure Rating (max from all components) =	71.5%

Notes:
1) Capacity based on "Table 6 – Tieback Connection Data Table (Beta & Gamma Sector)"

Table 6 - Tieback Connection Data Table (Beta & Gamma Sector)

Tower Connection Node No.	Existing / Proposed	Resultant End Reaction (lb)	Connected Member Type	Connected Member Size	Member Compressive Capacity (lb)[3]	Notes
N71	Existing	2659	Pipe	ROHN 2.5 EH	3721.45	1

Notes:
1) Tieback connection point is within 25% of either end of the connected tower member
2) Reduced member compressive capacity according to CED-STD-10294 *Standard for Installation of Mounts and Appurtenances*

4.2) Recommendations

The mount has sufficient capacity to carry the proposed loading configuration. No modifications are required at this time.

Table 7 – AT&T Specification

Wind Speed (mph)	Ice Thickness (in)	Height (ft)	Exposure	Class	Topo	# of Pipes	Allowable EPA per Pipe (ft sq.)	Allowable Weight per Sector (lbs)
122	1	165	B	II	1	4	13.65	4860

5) DISCLAIMER OF WARRANTIES

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

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

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

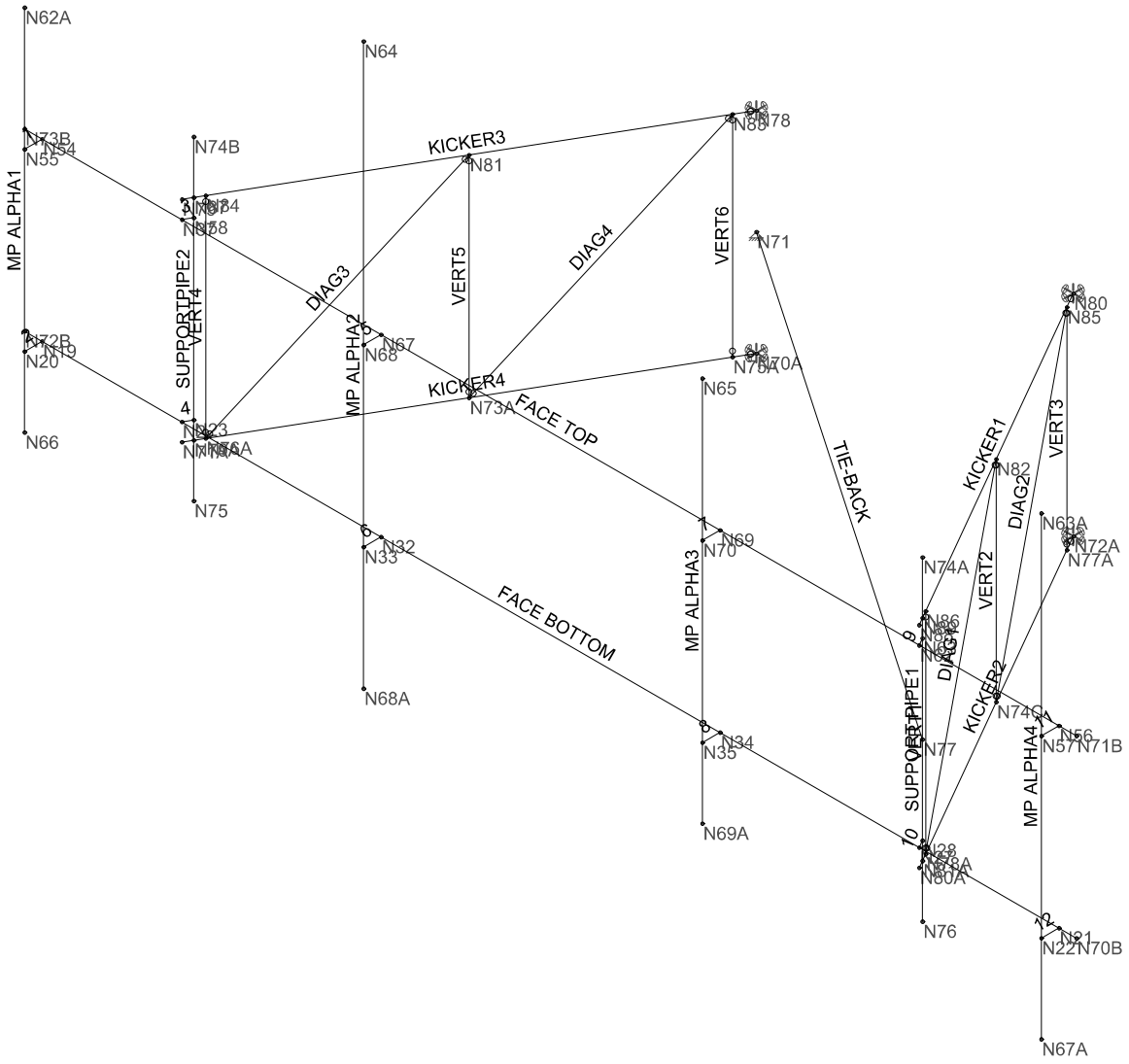
It is the owner's responsibility to determine the amount of ice accumulation in excess of the code specified amount, if any, that should be considered in the structural analysis.

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

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

APPENDIX A

Wire Frame and Rendered Models (All Sectors)



POD Group		
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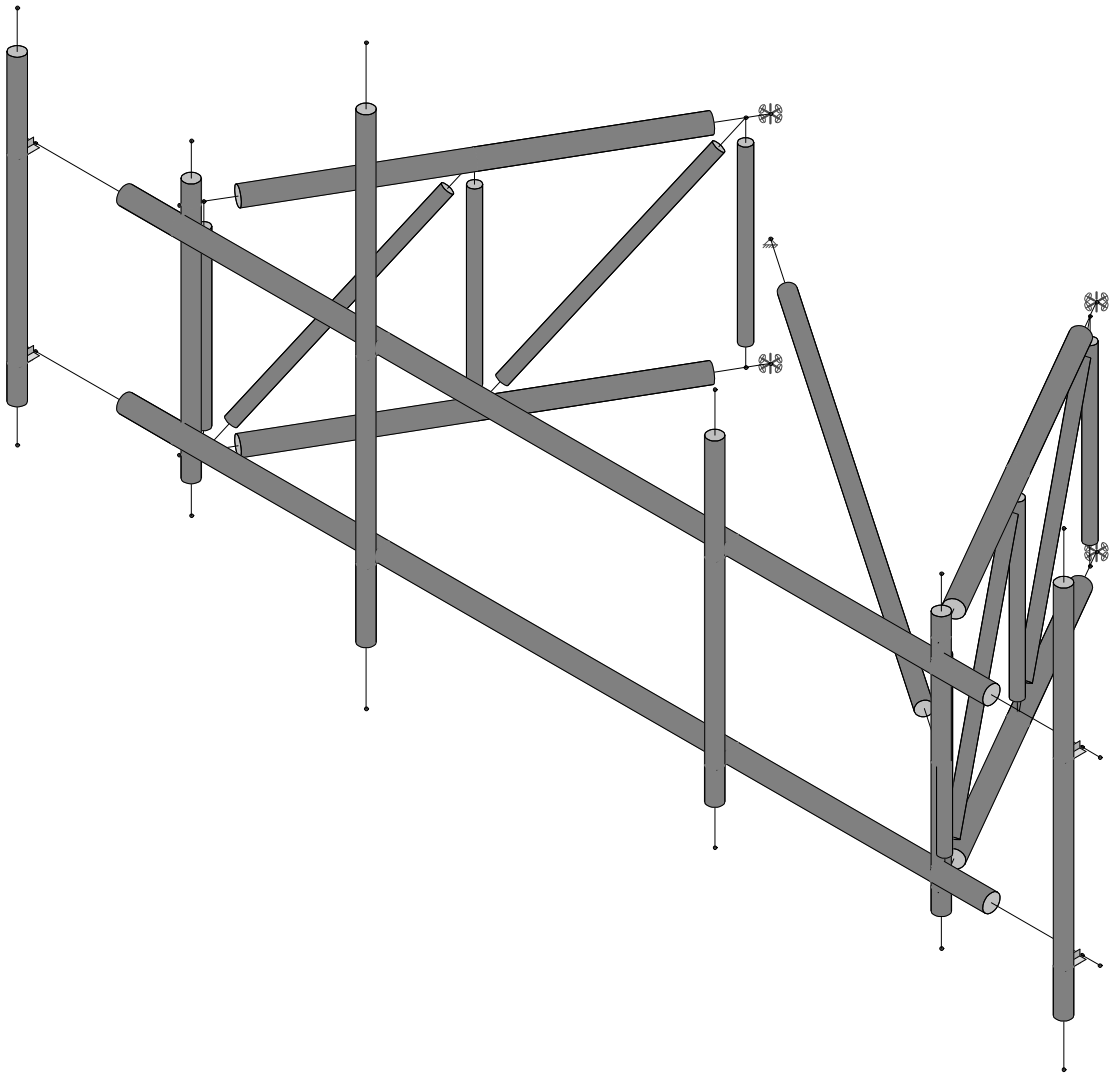
20-64957		806478 ALPHA.R3D



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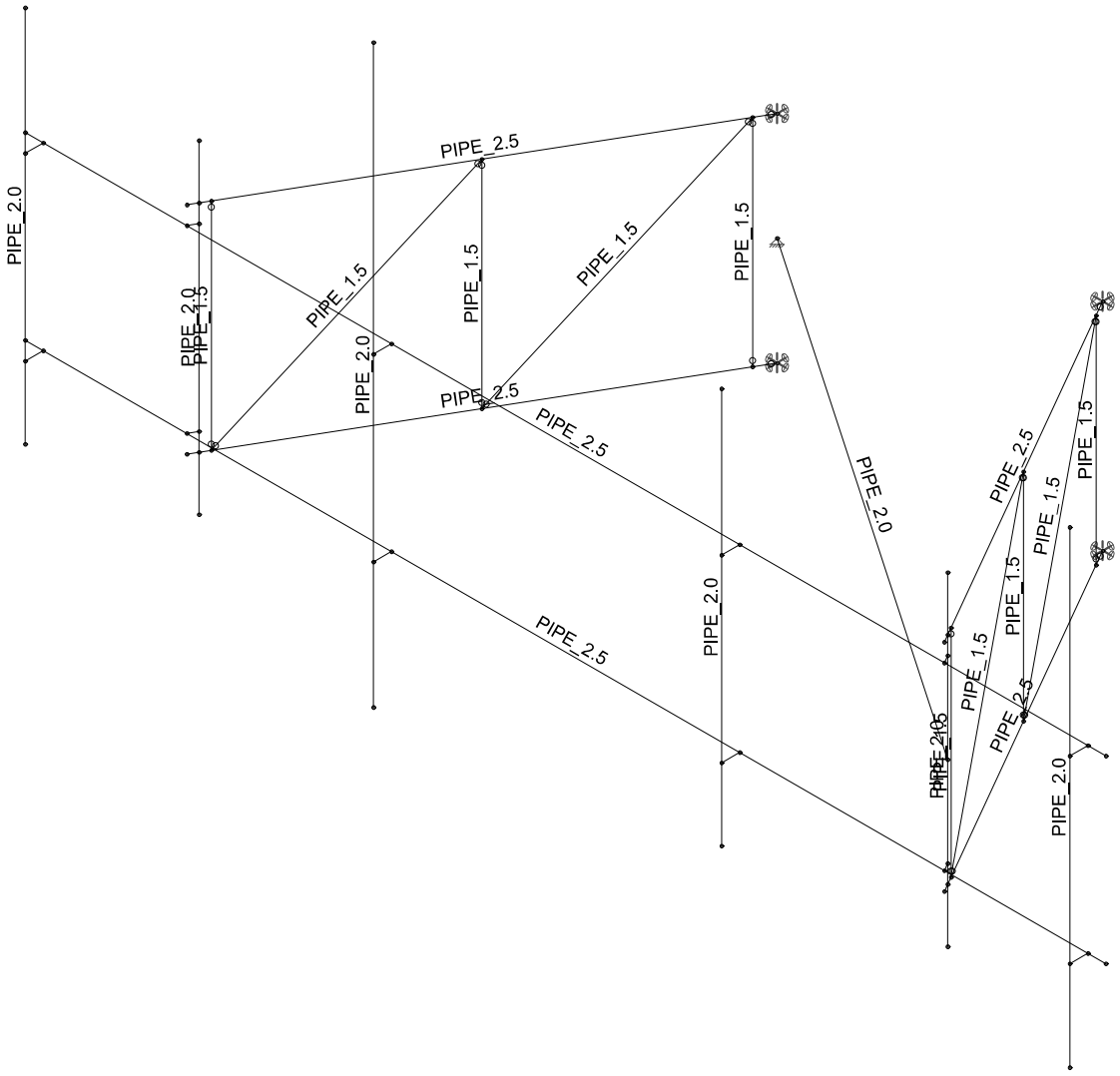
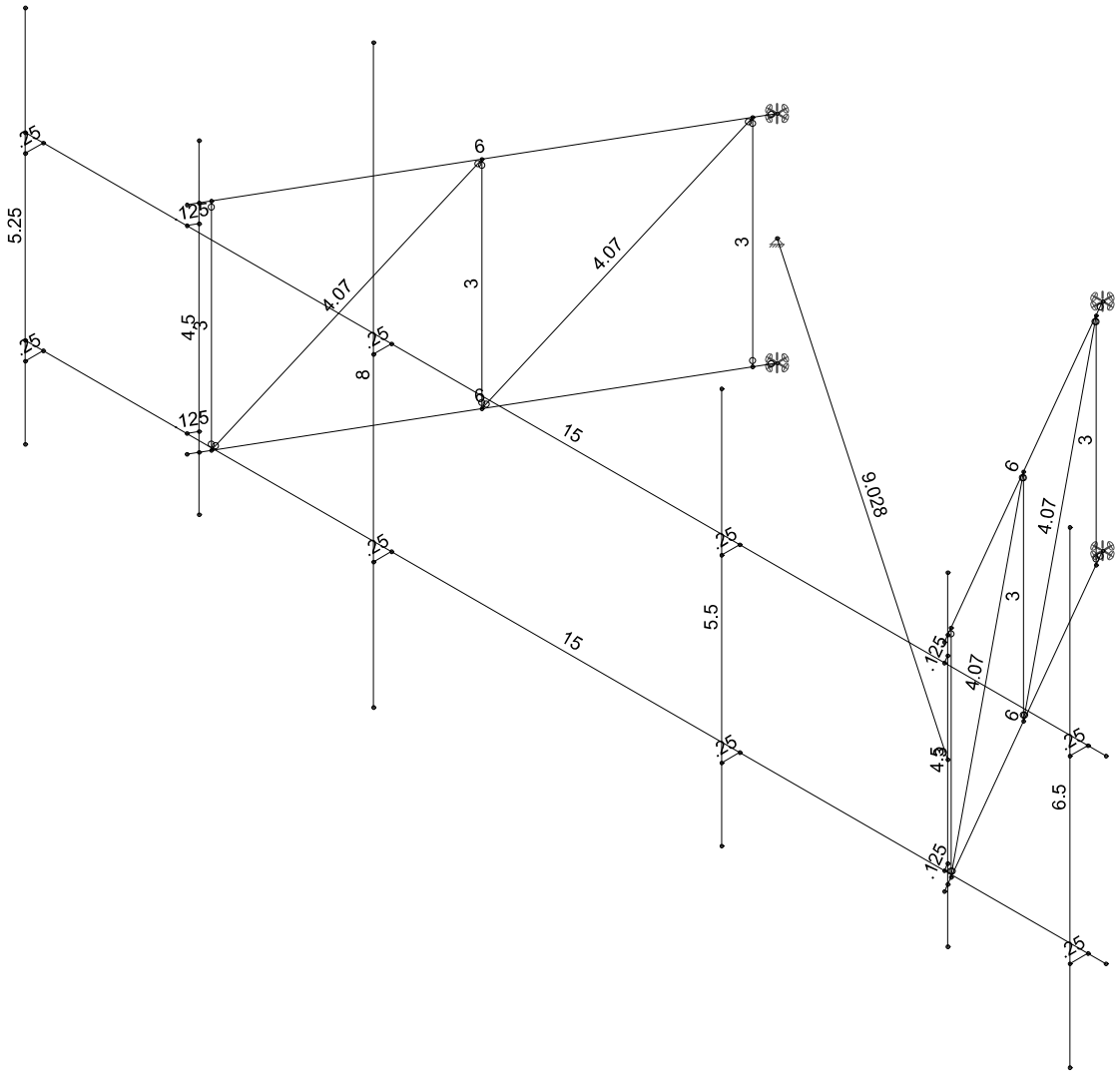
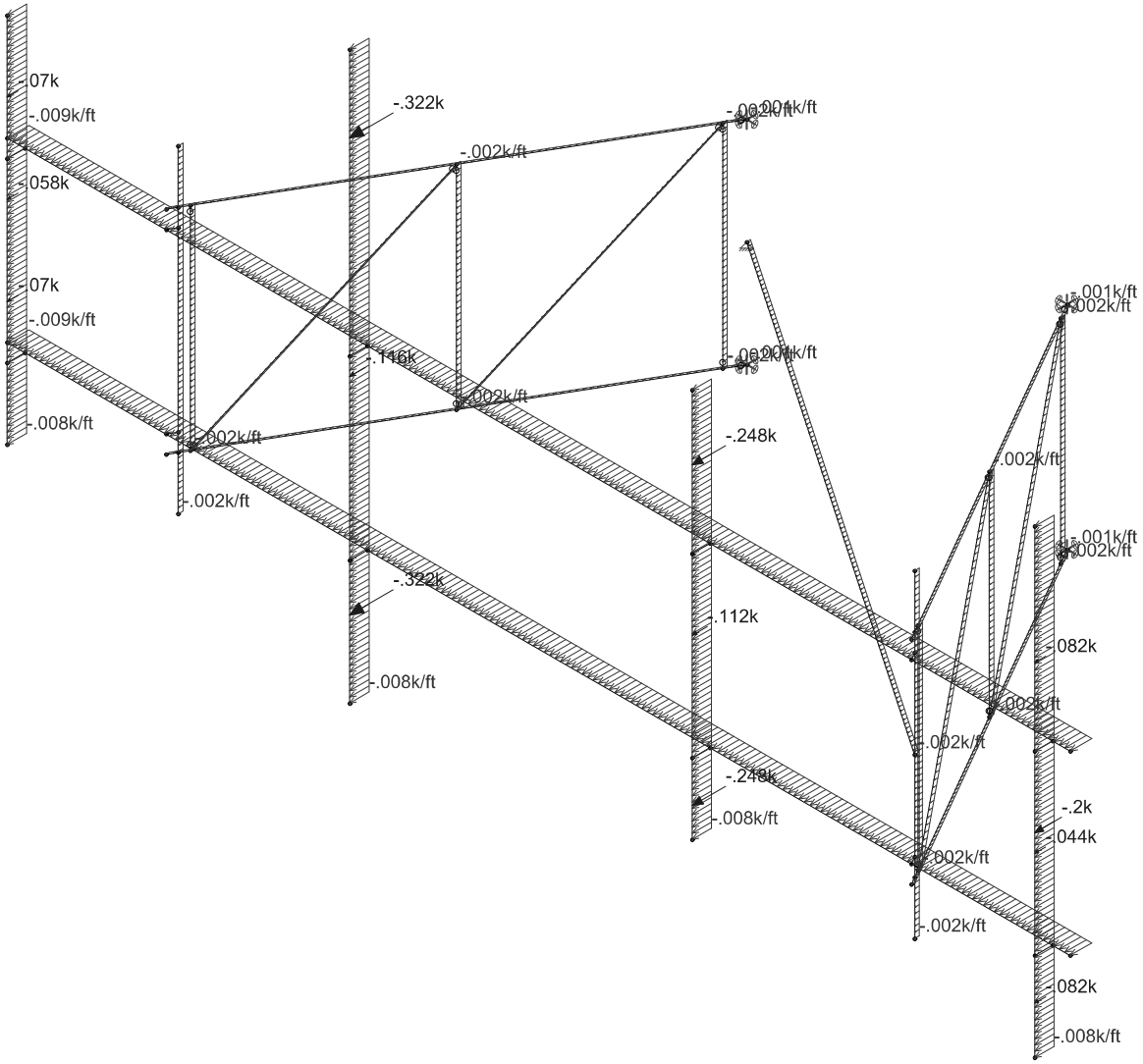


POD Group	806478	
DP		June 5, 2020 at 3:41 PM
20-64957		806478 ALPHA.R3D



Member Length (ft) Displayed

POD Group	806478	
DP		June 5, 2020 at 3:42 PM
20-64957		806478 ALPHA.R3D



Loads: BLC 2, Wind Load (0)

POD Group	806478	
DP		June 5, 2020 at 3:42 PM
20-64957		806478 ALPHA.R3D

APPENDIX B

Software Input Calculations (Alpha Sector)

POWER OF DESIGN

POD Job #	**8064478**
Site Number	**20-64957**
Site Name	**HRT 080 953381**

General Site Information

Mount Type	MF	Risk Category	II	I (seismic)	1	
V (Wind Speed)	122	I(ice)	1	Sms	0.342	
Zs	514			Sm1	0.132	
ti	1	Ss	0.214	Sds	0.228	
Vi	50	S1	0.055	Sd1	0.088	
Kzt	1	Soil Site Class	D (assumed)	Seismic Design Category	B	
Exposure	B	Fa	1.600			
zg	1200	Fv	2.400	Seismic Analysis Not Required		
α	7			R	2	TIA-222-H 16.7
Kmin	0.7	Tower Type	Self Support	As	1	TIA-222-H 16.7
G_H	1	Tower Height	190	Cs, Min	0.03	TIA-222-H 2.7.7.1.1
Ke	0.98			Cs	0.114133333	TIA-222-H 2.7.7.1.1
K_D	0.95					
K_a	0.9					

Appurtenance Information

Model	Shielded	% Shielded	Centerline	Centerline on MP	Spacing (in)	Azimuth	Sector	Quantity		MP #
7770	No		167	3	30		A	1	1	
QS66512-2	No		167	2.75	50		A	1	4	
DMP65R-BU8D	No		167	4	70		A	1	2	
OPA65R-BU6D	No		167	2.5	50		A	1	3	
RRUS 32 B2	No		167	2.75			A	1	4	
RRUS 32 B30	No		167	2.75			A	1	4	
LGP21401	No		167	3			A	2	1	
DC6-48-60-18-8F	No		167	2.5			A	1	3	4
RRUS 4449 B5/B12	No		167	4			A	1	2	
RRUS 4478 B14	No		167	2.5			A	1	3	
DC6-48-60-18-8F	No		167	4			A	1	2	

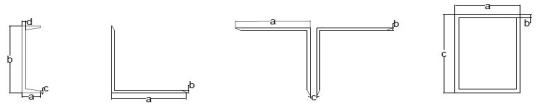
Mount Information

Elevation (ft)	165	Grating Thickness (in)	0
K_z	1.14	Grating Ice Weight (k/ft²)	0.011
Kiz	1.17		
tiz	1.17		

	Length (ft)	Width (in)	Centerline
Mount Pipes	8	2.375	165

Round Members

Member	Length (ft)	Width (in)	Frame Member	# of Members
Face	15	2.875	Yes	2
Support Pipe	4.5	2.375	No	2
Kicker	6	2.875	No	4
Diagonal	4.07	1.875	No	4
Vertical	3	1.875	No	6
Tieback	9.03	2.375	No	1



Version 3.12

Appurtenance Wind Calculations

Model	Height	Width	Depth	Weight (lbs)	Kz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Wind Force (Kips) Front	Side	Alpha	Beta	Gamma
7770	55.0	11.0	5.0	35.0	1.14	40.65	3.42	1.56	0.139	0.063	0.120	0.120	0.063
QS66512-2	72.0	12.0	9.6	111.0	1.14	40.65	4.01	3.37	0.163	0.137	0.157	0.157	0.137
DMP65R-BU8D	96.0	20.7	7.7	105.6	1.14	40.65	15.86	5.95	0.645	0.242	0.544	0.544	0.242
OPA65R-BU6D	71.2	21.0	7.8	63.5	1.14	40.65	12.22	4.54	0.497	0.185	0.419	0.419	0.185
RRUS 32 B2	27.2	12.1	7.0	52.9	1.14	40.65	2.46	1.50	0.100	0.061	0.090	0.090	0.061
RRUS 32 B30	27.2	12.1	7.0	53.0	1.14	40.65	2.47	1.50	0.100	0.061	0.091	0.091	0.061
LGP21401	14.2	6.7	5.4	22.0	1.14	40.65	0.71	0.58	0.029	0.023	0.028	0.028	0.023
DC6-48-60-18-8F	31.3	11.0	11.0	32.8	1.14	40.65	1.09	1.21	0.044	0.049	0.046	0.046	0.049
RRUS 4449 B5/B12	17.9	13.2	9.4	71.0	1.14	40.65	1.77	1.27	0.072	0.052	0.067	0.067	0.052
RRUS 4478 B14	16.5	13.4	7.7	59.9	1.14	40.65	1.66	0.95	0.067	0.039	0.060	0.060	0.039

Appurtenance Ice Calculations

Model	tiz (in)	Height	Width	Depth	Weight (lbs)	Kiz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Wind Force (Kips) Front	Side	Alpha	Beta	Gamma
7770	1.18	57.35	13.35	7.35	84.42	1.18	6.83	3.90	2.15	0.027	0.015	0.024	0.024	0.015
QS66512-2	1.18	74.35	14.35	11.95	144.53	1.18	6.83	4.46	3.86	0.030	0.026	0.029	0.029	0.026
DMP65R-BU8D	1.18	98.35	23.05	10.05	242.69	1.18	6.83	16.29	7.15	0.111	0.049	0.096	0.096	0.049
OPA65R-BU6D	1.18	73.55	23.35	10.15	187.14	1.18	6.83	12.63	5.49	0.086	0.038	0.074	0.074	0.038
RRUS 32 B2	1.18	29.55	14.40	9.35	54.64	1.18	6.83	1.86	1.24	0.013	0.008	0.012	0.012	0.008
RRUS 32 B30	1.18	29.55	14.45	9.35	54.78	1.18	6.83	1.87	1.24	0.013	0.008	0.012	0.012	0.008
LGP21401	1.18	16.55	9.05	7.75	20.99	1.18	6.83	0.66	0.56	0.004	0.004	0.004	0.004	0.004
DC6-48-60-18-8F	1.18	33.60	13.35	13.35	71.60	1.18	6.83	1.96	1.96	0.013	0.013	0.013	0.013	0.013
RRUS 4449 B5/B12	1.18	20.25	15.54	11.79	48.06	1.18	6.83	1.38	1.05	0.009	0.007	0.009	0.009	0.007
RRUS 4478 B14	1.18	18.85	15.75	10.05	41.57	1.18	6.83	1.30	0.83	0.009	0.006	0.008	0.008	0.006
DC6-48-60-18-8F	1.18	33.60	13.35	13.35	71.60	1.18	6.83	1.96	1.96	0.013	0.013	0.013	0.013	0.013

Round Members

Member	q_L (lb/ft^2)	Ar	C	Rrf	Cas	EPA (ft^2)	Load (k/ft)	Ice Calculations Width (in)	Weight (k/ft)	q_L (lb/ft^2)	Arice	Rrfice	Cas	EPA (ft^2)	Load (k/ft)
Face	40.51	7.19	30.92	0.61	1.79	3.56	0.010	5.22	0.01	6.80	13.06	0.64	1.79	6.74	0.003
Support Pipe	40.51	1.78	25.54	0.61	1.20	0.59	0.003	4.72	0.01	6.80	3.54	0.64	1.20	1.23	0.001
Kicker	40.51	5.75	30.92	0.61	1.20	0.95	0.003	5.22	0.01	6.80	10.45	0.64	1.20	1.81	0.001
Diagonal	40.51	2.54	20.17	0.61	1.20	0.42	0.002	4.22	0.00	6.80	5.73	0.64	1.20	0.99	0.001
Vertical	40.51	2.81	20.17	0.61	1.20	0.31	0.002	4.22	0.00	6.80	6.34	0.64	1.20	0.73	0.001
Tieback	40.51	1.79	25.54	0.61	1.20	1.19	0.003	4.72	0.01	6.80	3.55	0.64	1.20	2.46	0.001

Appurtenance Seismic Calculations

Model	Weight	Sds	ρ	Cs	As	Ev	Eh
7770	35.0	0.228	1.000	0.114	1.000	0.002	0.004
QS66512-2	111.0	0.228	1.000	0.114	1.000	0.005	0.013
DMP65R-BU8D	105.6	0.228	1.000	0.114	1.000	0.005	0.012
OPA65R-BU6D	63.5	0.228	1.000	0.114	1.000	0.003	0.007
RRUS 32 B2	52.9	0.228	1.000	0.114	1.000	0.002	0.006
RRUS 32 B30	53.0	0.228	1.000	0.114	1.000	0.002	0.006
LGP21401	22.0	0.228	1.000	0.114	1.000	0.001	0.003
DC6-48-60-18-8F	32.8	0.228	1.000	0.114	1.000	0.001	0.004
RRUS 4449 B5/B12	71.0	0.228	1.000	0.114	1.000	0.003	0.008
RRUS 4478 B14	59.9	0.228	1.000	0.114	1.000	0.003	0.007
DC6-48-60-18-8F	32.8	0.228	1.000	0.114	1.000	0.001	0.004

Version 3.12

APPENDIX C

Software Analysis Output (Alpha Sector)

Hot Rolled Steel Design Parameters

	Label	Shape	Length[...	Lbyy[ft]	Lbzz[ft]	Lcomp top...	Lcomp bot...	L-torq...	Kyy	Kzz	Cb	Functi...
1	FACE BO...	PIPE_2.5	15			Lbyy						Lateral
2	FACE TOP	PIPE_2.5	15			Lbyy						Lateral
3	SUPPORT...	PIPE_2.0	4.5			Lbyy						Lateral
4	SUPPORT...	PIPE_2.0	4.5			Lbyy						Lateral
5	KICKER3	PIPE_2.5	6		2.75	Lbyy						Lateral
6	KICKER1	PIPE_2.5	6		2.75	Lbyy						Lateral
7	KICKER4	PIPE_2.5	6		2.75	Lbyy						Lateral
8	KICKER2	PIPE_2.5	6		2.75	Lbyy						Lateral
9	DIAG1	PIPE_1.5	4.07			Lbyy						Lateral
10	DIAG2	PIPE_1.5	4.07			Lbyy						Lateral
11	DIAG3	PIPE_1.5	4.07			Lbyy						Lateral
12	DIAG4	PIPE_1.5	4.07			Lbyy						Lateral
13	VERT3	PIPE_1.5	3			Lbyy						Lateral
14	VERT2	PIPE_1.5	3			Lbyy						Lateral
15	VERT1	PIPE_1.5	3			Lbyy						Lateral
16	VERT4	PIPE_1.5	3			Lbyy						Lateral
17	VERT5	PIPE_1.5	3			Lbyy						Lateral
18	VERT6	PIPE_1.5	3			Lbyy						Lateral
19	TIE-BACK	PIPE_2.0	9.028			Lbyy						Lateral
20	MP ALPH...	PIPE_2.0	5.25									Lateral
21	MP ALPH...	PIPE_2.0	8									Lateral
22	MP ALPH...	PIPE_2.0	5.5									Lateral
23	MP ALPH...	PIPE_2.0	6.5									Lateral

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	FACE BOTT...	N72B	N70B			PIPE_2.5	Beam	None	A53 Gr.B	Typical
2	FACE TOP	N73B	N71B			PIPE_2.5	Beam	None	A53 Gr.B	Typical
3	SUPPORTPI...	N75	N74B			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
4	SUPPORT PI...	N76	N74A			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
5	KICKER3	N78	N79			PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
6	KICKER1	N80	N88			PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
7	KICKER4	N70A	N71A			PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
8	KICKER2	N72A	N80A			PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
9	DIAG1	N82	N78A			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
10	DIAG2	N85	N74C			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
11	DIAG3	N81	N76A			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
12	DIAG4	N83	N73A			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
13	VERT3	N77A	N85			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
14	VERT2	N74C	N82			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
15	VERT1	N78A	N86			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
16	VERT4	N76A	N84			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
17	VERT5	N73A	N81			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
18	VERT6	N75A	N83			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
19	TIE-BACK	N77	N71			PIPE_2.0	Beam	None	A53 Gr.B	Typical
20	MP ALPHA1	N66	N62A			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
21	MP ALPHA2	N68A	N64			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
22	MP ALPHA3	N69A	N65			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
23	MP ALPHA4	N67A	N63A			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
24	1	N54	N55			RIGID	None	None	RIGID	Typical
25	2	N19	N20			RIGID	None	None	RIGID	Typical
26	3	N37	N58			RIGID	None	None	RIGID	Typical
27	4	N2	N23			RIGID	None	None	RIGID	Typical
28	5	N67	N68			RIGID	None	None	RIGID	Typical
29	6	N32	N33			RIGID	None	None	RIGID	Typical
30	7	N69	N70			RIGID	None	None	RIGID	Typical
31	8	N34	N35			RIGID	None	None	RIGID	Typical
32	9	N62	N63			RIGID	None	None	RIGID	Typical
33	10	N27	N28			RIGID	None	None	RIGID	Typical
34	11	N56	N57			RIGID	None	None	RIGID	Typical
35	12	N21	N22			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physi...	Defl ...	Analysi...	Inactive	Seis...
1	FACE BOTTOM						Yes				None
2	FACE TOP						Yes				None
3	SUPPORTPIPE2						Yes				None
4	SUPPORT PIPE1						Yes				None
5	KICKER3	OOOOOX					Yes	Default			None
6	KICKER1	OOOOOX					Yes	Default			None
7	KICKER4	OOOOOX					Yes	Default			None
8	KICKER2	OOOOOX					Yes	Default			None
9	DIAG1	BenPIN	BenPIN				Yes				None
10	DIAG2	BenPIN	BenPIN				Yes	Default			None
11	DIAG3	BenPIN	BenPIN				Yes				None
12	DIAG4	BenPIN	BenPIN				Yes				None
13	VERT3	BenPIN	BenPIN				Yes				None
14	VERT2	BenPIN	BenPIN				Yes				None
15	VERT1	BenPIN	BenPIN				Yes				None
16	VERT4	BenPIN	BenPIN				Yes				None
17	VERT5	BenPIN	BenPIN				Yes				None
18	VERT6	BenPIN	BenPIN				Yes				None
19	TIE-BACK						Yes				None
20	MP ALPHA1						Yes				None
21	MP ALPHA2						Yes				None
22	MP ALPHA3						Yes				None
23	MP ALPHA4						Yes				None
24	1						Yes	** NA...			None
25	2						Yes	** NA...			None
26	3						Yes	** NA...			None
27	4						Yes	** NA...			None
28	5						Yes	** NA...			None
29	6						Yes	** NA...			None
30	7						Yes	** NA...			None
31	8						Yes	** NA...			None
32	9						Yes	** NA...			None
33	10						Yes	** NA...			None
34	11						Yes	** NA...			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physi...	Defl ...	Analysi...	Inactive	Seis...
35	12						Yes	** NA...			None

Member Point Loads (BLC 1 : Live Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	FACE BOTTOM	Z	-.5	0

Member Point Loads (BLC 2 : Wind Load (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.07	4.25
2	MP ALPHA1	Y	-.07	1.75
3	MP ALPHA4	Y	-.082	4.833
4	MP ALPHA4	Y	-.082	.667
5	MP ALPHA2	Y	-.322	6.917
6	MP ALPHA2	Y	-.322	1.083
7	MP ALPHA3	Y	-.248	4.583
8	MP ALPHA3	Y	-.248	.417
9	MP ALPHA4	Y	-.1	2.75
10	MP ALPHA4	Y	-.1	2.75
11	MP ALPHA1	Y	-.058	3
12	MP ALPHA3	Y	-.044	2.5
13	MP ALPHA4	Y	-.044	2.5
14	MP ALPHA2	Y	-.072	4
15	MP ALPHA3	Y	-.067	2.5
16	MP ALPHA2	Y	-.044	4

Member Point Loads (BLC 3 : Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.018	4.25
2	MP ALPHA1	Z	-.018	1.75
3	MP ALPHA4	Z	-.056	4.833
4	MP ALPHA4	Z	-.056	.667
5	MP ALPHA2	Z	-.053	6.917
6	MP ALPHA2	Z	-.053	1.083
7	MP ALPHA3	Z	-.032	4.583
8	MP ALPHA3	Z	-.032	.417
9	MP ALPHA4	Z	-.053	2.75
10	MP ALPHA4	Z	-.053	2.75
11	MP ALPHA1	Z	-.044	3
12	MP ALPHA3	Z	-.033	2.5
13	MP ALPHA4	Z	-.033	2.5
14	MP ALPHA2	Z	-.071	4
15	MP ALPHA3	Z	-.06	2.5
16	MP ALPHA2	Z	-.033	4

Member Point Loads (BLC 4 : Wind Load (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.052	4.25
2	MP ALPHA1	Y	-.052	1.75
3	MP ALPHA1	X	-.03	4.25
4	MP ALPHA1	X	-.03	1.75
5	MP ALPHA4	Y	-.068	4.833
6	MP ALPHA4	Y	-.068	.667
7	MP ALPHA4	X	-.039	4.833
8	MP ALPHA4	X	-.039	.667

Member Point Loads (BLC 4 : Wind Load (30)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
9	MP ALPHA2	Y	-.236	6.917
10	MP ALPHA2	Y	-.236	1.083
11	MP ALPHA2	X	-.136	6.917
12	MP ALPHA2	X	-.136	1.083
13	MP ALPHA3	Y	-.181	4.583
14	MP ALPHA3	Y	-.181	.417
15	MP ALPHA3	X	-.105	4.583
16	MP ALPHA3	X	-.105	.417
17	MP ALPHA4	Y	-.078	2.75
18	MP ALPHA4	X	-.045	2.75
19	MP ALPHA4	Y	-.078	2.75
20	MP ALPHA4	X	-.045	2.75
21	MP ALPHA1	Y	-.048	3
22	MP ALPHA1	X	-.028	3
23	MP ALPHA3	Y	-.039	2.5
24	MP ALPHA3	X	-.023	2.5
25	MP ALPHA4	Y	-.039	2.5
26	MP ALPHA4	X	-.023	2.5
27	MP ALPHA2	Y	-.058	4
28	MP ALPHA2	X	-.033	4
29	MP ALPHA3	Y	-.052	2.5
30	MP ALPHA3	X	-.03	2.5
31	MP ALPHA2	Y	-.039	4
32	MP ALPHA2	X	-.023	4

Member Point Loads (BLC 5 : Wind Load (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.021	4.25
2	MP ALPHA1	Y	-.021	1.75
3	MP ALPHA1	X	-.036	4.25
4	MP ALPHA1	X	-.036	1.75
5	MP ALPHA4	Y	-.036	4.833
6	MP ALPHA4	Y	-.036	.667
7	MP ALPHA4	X	-.062	4.833
8	MP ALPHA4	X	-.062	.667
9	MP ALPHA2	Y	-.086	6.917
10	MP ALPHA2	Y	-.086	1.083
11	MP ALPHA2	X	-.148	6.917
12	MP ALPHA2	X	-.148	1.083
13	MP ALPHA3	Y	-.066	4.583
14	MP ALPHA3	Y	-.066	.417
15	MP ALPHA3	X	-.114	4.583
16	MP ALPHA3	X	-.114	.417
17	MP ALPHA4	Y	-.035	2.75
18	MP ALPHA4	X	-.061	2.75
19	MP ALPHA4	Y	-.035	2.75
20	MP ALPHA4	X	-.061	2.75
21	MP ALPHA1	Y	-.025	3
22	MP ALPHA1	X	-.043	3
23	MP ALPHA3	Y	-.024	2.5
24	MP ALPHA3	X	-.042	2.5
25	MP ALPHA4	Y	-.024	2.5
26	MP ALPHA4	X	-.042	2.5
27	MP ALPHA2	Y	-.028	4
28	MP ALPHA2	X	-.049	4
29	MP ALPHA3	Y	-.023	2.5

Member Point Loads (BLC 5 : Wind Load (60)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
30	MP ALPHA3	X	-.04	2.5
31	MP ALPHA2	Y	-.024	4
32	MP ALPHA2	X	-.042	4

Member Point Loads (BLC 6 : Wind Load (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.032	4.25
2	MP ALPHA1	X	-.032	1.75
3	MP ALPHA4	X	-.068	4.833
4	MP ALPHA4	X	-.068	.667
5	MP ALPHA2	X	-.121	6.917
6	MP ALPHA2	X	-.121	1.083
7	MP ALPHA3	X	-.092	4.583
8	MP ALPHA3	X	-.092	.417
9	MP ALPHA4	X	-.061	2.75
10	MP ALPHA4	X	-.061	2.75
11	MP ALPHA1	X	-.047	3
12	MP ALPHA3	X	-.049	2.5
13	MP ALPHA4	X	-.049	2.5
14	MP ALPHA2	X	-.052	4
15	MP ALPHA3	X	-.039	2.5
16	MP ALPHA2	X	-.049	4

Member Point Loads (BLC 7 : Wind Load (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.021	4.25
2	MP ALPHA1	Y	.021	1.75
3	MP ALPHA1	X	-.036	4.25
4	MP ALPHA1	X	-.036	1.75
5	MP ALPHA4	Y	.036	4.833
6	MP ALPHA4	Y	.036	.667
7	MP ALPHA4	X	-.062	4.833
8	MP ALPHA4	X	-.062	.667
9	MP ALPHA2	Y	.086	6.917
10	MP ALPHA2	Y	.086	1.083
11	MP ALPHA2	X	-.148	6.917
12	MP ALPHA2	X	-.148	1.083
13	MP ALPHA3	Y	.066	4.583
14	MP ALPHA3	Y	.066	.417
15	MP ALPHA3	X	-.114	4.583
16	MP ALPHA3	X	-.114	.417
17	MP ALPHA4	Y	.035	2.75
18	MP ALPHA4	X	-.061	2.75
19	MP ALPHA4	Y	.035	2.75
20	MP ALPHA4	X	-.061	2.75
21	MP ALPHA1	Y	.025	3
22	MP ALPHA1	X	-.043	3
23	MP ALPHA3	Y	.024	2.5
24	MP ALPHA3	X	-.042	2.5
25	MP ALPHA4	Y	.024	2.5
26	MP ALPHA4	X	-.042	2.5
27	MP ALPHA2	Y	.028	4
28	MP ALPHA2	X	-.049	4
29	MP ALPHA3	Y	.023	2.5
30	MP ALPHA3	X	-.04	2.5
31	MP ALPHA2	Y	.024	4

Member Point Loads (BLC 7 : Wind Load (120)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
32	MP ALPHA2	X	-.042	4

Member Point Loads (BLC 8 : Wind Load (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.052	4.25
2	MP ALPHA1	Y	.052	1.75
3	MP ALPHA1	X	-.03	4.25
4	MP ALPHA1	X	-.03	1.75
5	MP ALPHA4	Y	.068	4.833
6	MP ALPHA4	Y	.068	.667
7	MP ALPHA4	X	-.039	4.833
8	MP ALPHA4	X	-.039	.667
9	MP ALPHA2	Y	.236	6.917
10	MP ALPHA2	Y	.236	1.083
11	MP ALPHA2	X	-.136	6.917
12	MP ALPHA2	X	-.136	1.083
13	MP ALPHA3	Y	.181	4.583
14	MP ALPHA3	Y	.181	.417
15	MP ALPHA3	X	-.105	4.583
16	MP ALPHA3	X	-.105	.417
17	MP ALPHA4	Y	.078	2.75
18	MP ALPHA4	X	-.045	2.75
19	MP ALPHA4	Y	.078	2.75
20	MP ALPHA4	X	-.045	2.75
21	MP ALPHA1	Y	.048	3
22	MP ALPHA1	X	-.028	3
23	MP ALPHA3	Y	.039	2.5
24	MP ALPHA3	X	-.023	2.5
25	MP ALPHA4	Y	.039	2.5
26	MP ALPHA4	X	-.023	2.5
27	MP ALPHA2	Y	.058	4
28	MP ALPHA2	X	-.033	4
29	MP ALPHA3	Y	.052	2.5
30	MP ALPHA3	X	-.03	2.5
31	MP ALPHA2	Y	.039	4
32	MP ALPHA2	X	-.023	4

Member Point Loads (BLC 9 : Wind Load (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.07	4.25
2	MP ALPHA1	Y	.07	1.75
3	MP ALPHA4	Y	.082	4.833
4	MP ALPHA4	Y	.082	.667
5	MP ALPHA2	Y	.322	6.917
6	MP ALPHA2	Y	.322	1.083
7	MP ALPHA3	Y	.248	4.583
8	MP ALPHA3	Y	.248	.417
9	MP ALPHA4	Y	.1	2.75
10	MP ALPHA4	Y	.1	2.75
11	MP ALPHA1	Y	.058	3
12	MP ALPHA3	Y	.044	2.5
13	MP ALPHA4	Y	.044	2.5
14	MP ALPHA2	Y	.072	4
15	MP ALPHA3	Y	.067	2.5
16	MP ALPHA2	Y	.044	4

Member Point Loads (BLC 10 : Wind Load (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.052	4.25
2	MP ALPHA1	Y	.052	1.75
3	MP ALPHA1	X	.03	4.25
4	MP ALPHA1	X	.03	1.75
5	MP ALPHA4	Y	.068	4.833
6	MP ALPHA4	Y	.068	.667
7	MP ALPHA4	X	.039	4.833
8	MP ALPHA4	X	.039	.667
9	MP ALPHA2	Y	.236	6.917
10	MP ALPHA2	Y	.236	1.083
11	MP ALPHA2	X	.136	6.917
12	MP ALPHA2	X	.136	1.083
13	MP ALPHA3	Y	.181	4.583
14	MP ALPHA3	Y	.181	.417
15	MP ALPHA3	X	.105	4.583
16	MP ALPHA3	X	.105	.417
17	MP ALPHA4	Y	.078	2.75
18	MP ALPHA4	X	.045	2.75
19	MP ALPHA4	Y	.078	2.75
20	MP ALPHA4	X	.045	2.75
21	MP ALPHA1	Y	.048	3
22	MP ALPHA1	X	.028	3
23	MP ALPHA3	Y	.039	2.5
24	MP ALPHA3	X	.023	2.5
25	MP ALPHA4	Y	.039	2.5
26	MP ALPHA4	X	.023	2.5
27	MP ALPHA2	Y	.058	4
28	MP ALPHA2	X	.033	4
29	MP ALPHA3	Y	.052	2.5
30	MP ALPHA3	X	.03	2.5
31	MP ALPHA2	Y	.039	4
32	MP ALPHA2	X	.023	4

Member Point Loads (BLC 11 : Wind Load (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.021	4.25
2	MP ALPHA1	Y	.021	1.75
3	MP ALPHA1	X	.036	4.25
4	MP ALPHA1	X	.036	1.75
5	MP ALPHA4	Y	.036	4.833
6	MP ALPHA4	Y	.036	.667
7	MP ALPHA4	X	.062	4.833
8	MP ALPHA4	X	.062	.667
9	MP ALPHA2	Y	.086	6.917
10	MP ALPHA2	Y	.086	1.083
11	MP ALPHA2	X	.148	6.917
12	MP ALPHA2	X	.148	1.083
13	MP ALPHA3	Y	.066	4.583
14	MP ALPHA3	Y	.066	.417
15	MP ALPHA3	X	.114	4.583
16	MP ALPHA3	X	.114	.417
17	MP ALPHA4	Y	.035	2.75
18	MP ALPHA4	X	.061	2.75
19	MP ALPHA4	Y	.035	2.75
20	MP ALPHA4	X	.061	2.75
21	MP ALPHA1	Y	.025	3

Member Point Loads (BLC 11 : Wind Load (240)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
22	MP ALPHA1	X	.043	3
23	MP ALPHA3	Y	.024	2.5
24	MP ALPHA3	X	.042	2.5
25	MP ALPHA4	Y	.024	2.5
26	MP ALPHA4	X	.042	2.5
27	MP ALPHA2	Y	.028	4
28	MP ALPHA2	X	.049	4
29	MP ALPHA3	Y	.023	2.5
30	MP ALPHA3	X	.04	2.5
31	MP ALPHA2	Y	.024	4
32	MP ALPHA2	X	.042	4

Member Point Loads (BLC 12 : Wind Load (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.032	4.25
2	MP ALPHA1	X	.032	1.75
3	MP ALPHA4	X	.068	4.833
4	MP ALPHA4	X	.068	.667
5	MP ALPHA2	X	.121	6.917
6	MP ALPHA2	X	.121	1.083
7	MP ALPHA3	X	.092	4.583
8	MP ALPHA3	X	.092	.417
9	MP ALPHA4	X	.061	2.75
10	MP ALPHA4	X	.061	2.75
11	MP ALPHA1	X	.047	3
12	MP ALPHA3	X	.049	2.5
13	MP ALPHA4	X	.049	2.5
14	MP ALPHA2	X	.052	4
15	MP ALPHA3	X	.039	2.5
16	MP ALPHA2	X	.049	4

Member Point Loads (BLC 13 : Wind Load (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.021	4.25
2	MP ALPHA1	Y	-.021	1.75
3	MP ALPHA1	X	.036	4.25
4	MP ALPHA1	X	.036	1.75
5	MP ALPHA4	Y	-.036	4.833
6	MP ALPHA4	Y	-.036	.667
7	MP ALPHA4	X	.062	4.833
8	MP ALPHA4	X	.062	.667
9	MP ALPHA2	Y	-.086	6.917
10	MP ALPHA2	Y	-.086	1.083
11	MP ALPHA2	X	.148	6.917
12	MP ALPHA2	X	.148	1.083
13	MP ALPHA3	Y	-.066	4.583
14	MP ALPHA3	Y	-.066	.417
15	MP ALPHA3	X	.114	4.583
16	MP ALPHA3	X	.114	.417
17	MP ALPHA4	Y	-.035	2.75
18	MP ALPHA4	X	.061	2.75
19	MP ALPHA4	Y	-.035	2.75
20	MP ALPHA4	X	.061	2.75
21	MP ALPHA1	Y	-.025	3
22	MP ALPHA1	X	.043	3
23	MP ALPHA3	Y	-.024	2.5

Member Point Loads (BLC 13 : Wind Load (300)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
24	MP ALPHA3	X	.042	2.5
25	MP ALPHA4	Y	-.024	2.5
26	MP ALPHA4	X	.042	2.5
27	MP ALPHA2	Y	-.028	4
28	MP ALPHA2	X	.049	4
29	MP ALPHA3	Y	-.023	2.5
30	MP ALPHA3	X	.04	2.5
31	MP ALPHA2	Y	-.024	4
32	MP ALPHA2	X	.042	4

Member Point Loads (BLC 14 : Wind Load (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.052	4.25
2	MP ALPHA1	Y	-.052	1.75
3	MP ALPHA1	X	.03	4.25
4	MP ALPHA1	X	.03	1.75
5	MP ALPHA4	Y	-.068	4.833
6	MP ALPHA4	Y	-.068	.667
7	MP ALPHA4	X	.039	4.833
8	MP ALPHA4	X	.039	.667
9	MP ALPHA2	Y	-.236	6.917
10	MP ALPHA2	Y	-.236	1.083
11	MP ALPHA2	X	.136	6.917
12	MP ALPHA2	X	.136	1.083
13	MP ALPHA3	Y	-.181	4.583
14	MP ALPHA3	Y	-.181	.417
15	MP ALPHA3	X	.105	4.583
16	MP ALPHA3	X	.105	.417
17	MP ALPHA4	Y	-.078	2.75
18	MP ALPHA4	X	.045	2.75
19	MP ALPHA4	Y	-.078	2.75
20	MP ALPHA4	X	.045	2.75
21	MP ALPHA1	Y	-.048	3
22	MP ALPHA1	X	.028	3
23	MP ALPHA3	Y	-.039	2.5
24	MP ALPHA3	X	.023	2.5
25	MP ALPHA4	Y	-.039	2.5
26	MP ALPHA4	X	.023	2.5
27	MP ALPHA2	Y	-.058	4
28	MP ALPHA2	X	.033	4
29	MP ALPHA3	Y	-.052	2.5
30	MP ALPHA3	X	.03	2.5
31	MP ALPHA2	Y	-.039	4
32	MP ALPHA2	X	.023	4

Member Point Loads (BLC 15 : Maintanence (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.004	4.25
2	MP ALPHA1	Y	-.004	1.75
3	MP ALPHA4	Y	-.005	4.833
4	MP ALPHA4	Y	-.005	.667
5	MP ALPHA2	Y	-.019	6.917
6	MP ALPHA2	Y	-.019	1.083
7	MP ALPHA3	Y	-.015	4.583
8	MP ALPHA3	Y	-.015	.417
9	MP ALPHA4	Y	-.006	2.75

Member Point Loads (BLC 15 : Maintanence (0)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
10	MP ALPHA4	Y	-.006	2.75
11	MP ALPHA1	Y	-.004	3
12	MP ALPHA3	Y	-.003	2.5
13	MP ALPHA4	Y	-.003	2.5
14	MP ALPHA2	Y	-.004	4
15	MP ALPHA3	Y	-.004	2.5
16	MP ALPHA2	Y	-.003	4

Member Point Loads (BLC 16 : Maintanence (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.003	4.25
2	MP ALPHA1	Y	-.003	1.75
3	MP ALPHA1	X	-.002	4.25
4	MP ALPHA1	X	-.002	1.75
5	MP ALPHA4	Y	-.004	4.833
6	MP ALPHA4	Y	-.004	.667
7	MP ALPHA4	X	-.002	4.833
8	MP ALPHA4	X	-.002	.667
9	MP ALPHA2	Y	-.014	6.917
10	MP ALPHA2	Y	-.014	1.083
11	MP ALPHA2	X	-.008	6.917
12	MP ALPHA2	X	-.008	1.083
13	MP ALPHA3	Y	-.011	4.583
14	MP ALPHA3	Y	-.011	.417
15	MP ALPHA3	X	-.006	4.583
16	MP ALPHA3	X	-.006	.417
17	MP ALPHA4	Y	-.005	2.75
18	MP ALPHA4	X	-.003	2.75
19	MP ALPHA4	Y	-.005	2.75
20	MP ALPHA4	X	-.003	2.75
21	MP ALPHA1	Y	-.003	3
22	MP ALPHA1	X	-.002	3
23	MP ALPHA3	Y	-.002	2.5
24	MP ALPHA3	X	-.001	2.5
25	MP ALPHA4	Y	-.002	2.5
26	MP ALPHA4	X	-.001	2.5
27	MP ALPHA2	Y	-.004	4
28	MP ALPHA2	X	-.002	4
29	MP ALPHA3	Y	-.003	2.5
30	MP ALPHA3	X	-.002	2.5
31	MP ALPHA2	Y	-.002	4
32	MP ALPHA2	X	-.001	4

Member Point Loads (BLC 17 : Maintanence (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.001	4.25
2	MP ALPHA1	Y	-.001	1.75
3	MP ALPHA1	X	-.002	4.25
4	MP ALPHA1	X	-.002	1.75
5	MP ALPHA4	Y	-.002	4.833
6	MP ALPHA4	Y	-.002	.667
7	MP ALPHA4	X	-.004	4.833
8	MP ALPHA4	X	-.004	.667
9	MP ALPHA2	Y	-.005	6.917
10	MP ALPHA2	Y	-.005	1.083
11	MP ALPHA2	X	-.009	6.917

Member Point Loads (BLC 17 : Maintanence (60)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
12	MP ALPHA2	X	-.009	1.083
13	MP ALPHA3	Y	-.004	4.583
14	MP ALPHA3	Y	-.004	.417
15	MP ALPHA3	X	-.007	4.583
16	MP ALPHA3	X	-.007	.417
17	MP ALPHA4	Y	-.002	2.75
18	MP ALPHA4	X	-.004	2.75
19	MP ALPHA4	Y	-.002	2.75
20	MP ALPHA4	X	-.004	2.75
21	MP ALPHA1	Y	-.002	3
22	MP ALPHA1	X	-.003	3
23	MP ALPHA3	Y	-.001	2.5
24	MP ALPHA3	X	-.003	2.5
25	MP ALPHA4	Y	-.001	2.5
26	MP ALPHA4	X	-.003	2.5
27	MP ALPHA2	Y	-.002	4
28	MP ALPHA2	X	-.003	4
29	MP ALPHA3	Y	-.001	2.5
30	MP ALPHA3	X	-.002	2.5
31	MP ALPHA2	Y	-.001	4
32	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 18 : Maintanence (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.002	4.25
2	MP ALPHA1	X	-.002	1.75
3	MP ALPHA4	X	-.004	4.833
4	MP ALPHA4	X	-.004	.667
5	MP ALPHA2	X	-.007	6.917
6	MP ALPHA2	X	-.007	1.083
7	MP ALPHA3	X	-.006	4.583
8	MP ALPHA3	X	-.006	.417
9	MP ALPHA4	X	-.004	2.75
10	MP ALPHA4	X	-.004	2.75
11	MP ALPHA1	X	-.003	3
12	MP ALPHA3	X	-.003	2.5
13	MP ALPHA4	X	-.003	2.5
14	MP ALPHA2	X	-.003	4
15	MP ALPHA3	X	-.002	2.5
16	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 19 : Maintanence (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.001	4.25
2	MP ALPHA1	Y	.001	1.75
3	MP ALPHA1	X	-.002	4.25
4	MP ALPHA1	X	-.002	1.75
5	MP ALPHA4	Y	.002	4.833
6	MP ALPHA4	Y	.002	.667
7	MP ALPHA4	X	-.004	4.833
8	MP ALPHA4	X	-.004	.667
9	MP ALPHA2	Y	.005	6.917
10	MP ALPHA2	Y	.005	1.083
11	MP ALPHA2	X	-.009	6.917
12	MP ALPHA2	X	-.009	1.083
13	MP ALPHA3	Y	.004	4.583

Member Point Loads (BLC 19 : Maintanence (120)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
14	MP ALPHA3	Y	.004	.417
15	MP ALPHA3	X	-.007	4.583
16	MP ALPHA3	X	-.007	.417
17	MP ALPHA4	Y	.002	2.75
18	MP ALPHA4	X	-.004	2.75
19	MP ALPHA4	Y	.002	2.75
20	MP ALPHA4	X	-.004	2.75
21	MP ALPHA1	Y	.002	3
22	MP ALPHA1	X	-.003	3
23	MP ALPHA3	Y	.001	2.5
24	MP ALPHA3	X	-.003	2.5
25	MP ALPHA4	Y	.001	2.5
26	MP ALPHA4	X	-.003	2.5
27	MP ALPHA2	Y	.002	4
28	MP ALPHA2	X	-.003	4
29	MP ALPHA3	Y	.001	2.5
30	MP ALPHA3	X	-.002	2.5
31	MP ALPHA2	Y	.001	4
32	MP ALPHA2	X	-.003	4

Member Point Loads (BLC 20 : Maintanence (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.003	4.25
2	MP ALPHA1	Y	.003	1.75
3	MP ALPHA1	X	-.002	4.25
4	MP ALPHA1	X	-.002	1.75
5	MP ALPHA4	Y	.004	4.833
6	MP ALPHA4	Y	.004	.667
7	MP ALPHA4	X	-.002	4.833
8	MP ALPHA4	X	-.002	.667
9	MP ALPHA2	Y	.014	6.917
10	MP ALPHA2	Y	.014	1.083
11	MP ALPHA2	X	-.008	6.917
12	MP ALPHA2	X	-.008	1.083
13	MP ALPHA3	Y	.011	4.583
14	MP ALPHA3	Y	.011	.417
15	MP ALPHA3	X	-.006	4.583
16	MP ALPHA3	X	-.006	.417
17	MP ALPHA4	Y	.005	2.75
18	MP ALPHA4	X	-.003	2.75
19	MP ALPHA4	Y	.005	2.75
20	MP ALPHA4	X	-.003	2.75
21	MP ALPHA1	Y	.003	3
22	MP ALPHA1	X	-.002	3
23	MP ALPHA3	Y	.002	2.5
24	MP ALPHA3	X	-.001	2.5
25	MP ALPHA4	Y	.002	2.5
26	MP ALPHA4	X	-.001	2.5
27	MP ALPHA2	Y	.004	4
28	MP ALPHA2	X	-.002	4
29	MP ALPHA3	Y	.003	2.5
30	MP ALPHA3	X	-.002	2.5
31	MP ALPHA2	Y	.002	4
32	MP ALPHA2	X	-.001	4

Member Point Loads (BLC 21 : Maintanence (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.004	4.25
2	MP ALPHA1	Y	.004	1.75
3	MP ALPHA4	Y	.005	4.833
4	MP ALPHA4	Y	.005	.667
5	MP ALPHA2	Y	.019	6.917
6	MP ALPHA2	Y	.019	1.083
7	MP ALPHA3	Y	.015	4.583
8	MP ALPHA3	Y	.015	.417
9	MP ALPHA4	Y	.006	2.75
10	MP ALPHA4	Y	.006	2.75
11	MP ALPHA1	Y	.004	3
12	MP ALPHA3	Y	.003	2.5
13	MP ALPHA4	Y	.003	2.5
14	MP ALPHA2	Y	.004	4
15	MP ALPHA3	Y	.004	2.5
16	MP ALPHA2	Y	.003	4

Member Point Loads (BLC 22 : Maintanence (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.003	4.25
2	MP ALPHA1	Y	.003	1.75
3	MP ALPHA1	X	.002	4.25
4	MP ALPHA1	X	.002	1.75
5	MP ALPHA4	Y	.004	4.833
6	MP ALPHA4	Y	.004	.667
7	MP ALPHA4	X	.002	4.833
8	MP ALPHA4	X	.002	.667
9	MP ALPHA2	Y	.014	6.917
10	MP ALPHA2	Y	.014	1.083
11	MP ALPHA2	X	.008	6.917
12	MP ALPHA2	X	.008	1.083
13	MP ALPHA3	Y	.011	4.583
14	MP ALPHA3	Y	.011	.417
15	MP ALPHA3	X	.006	4.583
16	MP ALPHA3	X	.006	.417
17	MP ALPHA4	Y	.005	2.75
18	MP ALPHA4	X	.003	2.75
19	MP ALPHA4	Y	.005	2.75
20	MP ALPHA4	X	.003	2.75
21	MP ALPHA1	Y	.003	3
22	MP ALPHA1	X	.002	3
23	MP ALPHA3	Y	.002	2.5
24	MP ALPHA3	X	.001	2.5
25	MP ALPHA4	Y	.002	2.5
26	MP ALPHA4	X	.001	2.5
27	MP ALPHA2	Y	.004	4
28	MP ALPHA2	X	.002	4
29	MP ALPHA3	Y	.003	2.5
30	MP ALPHA3	X	.002	2.5
31	MP ALPHA2	Y	.002	4
32	MP ALPHA2	X	.001	4

Member Point Loads (BLC 23 : Maintanence (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.001	4.25
2	MP ALPHA1	Y	.001	1.75

Member Point Loads (BLC 23 : Maintanence (240)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
3	MP ALPHA1	X	.002	4.25
4	MP ALPHA1	X	.002	1.75
5	MP ALPHA4	Y	.002	4.833
6	MP ALPHA4	Y	.002	.667
7	MP ALPHA4	X	.004	4.833
8	MP ALPHA4	X	.004	.667
9	MP ALPHA2	Y	.005	6.917
10	MP ALPHA2	Y	.005	1.083
11	MP ALPHA2	X	.009	6.917
12	MP ALPHA2	X	.009	1.083
13	MP ALPHA3	Y	.004	4.583
14	MP ALPHA3	Y	.004	.417
15	MP ALPHA3	X	.007	4.583
16	MP ALPHA3	X	.007	.417
17	MP ALPHA4	Y	.002	2.75
18	MP ALPHA4	X	.004	2.75
19	MP ALPHA4	Y	.002	2.75
20	MP ALPHA4	X	.004	2.75
21	MP ALPHA1	Y	.002	3
22	MP ALPHA1	X	.003	3
23	MP ALPHA3	Y	.001	2.5
24	MP ALPHA3	X	.003	2.5
25	MP ALPHA4	Y	.001	2.5
26	MP ALPHA4	X	.003	2.5
27	MP ALPHA2	Y	.002	4
28	MP ALPHA2	X	.003	4
29	MP ALPHA3	Y	.001	2.5
30	MP ALPHA3	X	.002	2.5
31	MP ALPHA2	Y	.001	4
32	MP ALPHA2	X	.003	4

Member Point Loads (BLC 24 : Maintanence (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.002	4.25
2	MP ALPHA1	X	.002	1.75
3	MP ALPHA4	X	.004	4.833
4	MP ALPHA4	X	.004	.667
5	MP ALPHA2	X	.007	6.917
6	MP ALPHA2	X	.007	1.083
7	MP ALPHA3	X	.006	4.583
8	MP ALPHA3	X	.006	.417
9	MP ALPHA4	X	.004	2.75
10	MP ALPHA4	X	.004	2.75
11	MP ALPHA1	X	.003	3
12	MP ALPHA3	X	.003	2.5
13	MP ALPHA4	X	.003	2.5
14	MP ALPHA2	X	.003	4
15	MP ALPHA3	X	.002	2.5
16	MP ALPHA2	X	.003	4

Member Point Loads (BLC 25 : Maintanence (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.001	4.25
2	MP ALPHA1	Y	-.001	1.75
3	MP ALPHA1	X	.002	4.25
4	MP ALPHA1	X	.002	1.75

Member Point Loads (BLC 25 : Maintanence (300)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
5	MP ALPHA4	Y	-.002	4.833
6	MP ALPHA4	Y	-.002	.667
7	MP ALPHA4	X	.004	4.833
8	MP ALPHA4	X	.004	.667
9	MP ALPHA2	Y	-.005	6.917
10	MP ALPHA2	Y	-.005	1.083
11	MP ALPHA2	X	.009	6.917
12	MP ALPHA2	X	.009	1.083
13	MP ALPHA3	Y	-.004	4.583
14	MP ALPHA3	Y	-.004	.417
15	MP ALPHA3	X	.007	4.583
16	MP ALPHA3	X	.007	.417
17	MP ALPHA4	Y	-.002	2.75
18	MP ALPHA4	X	.004	2.75
19	MP ALPHA4	Y	-.002	2.75
20	MP ALPHA4	X	.004	2.75
21	MP ALPHA1	Y	-.002	3
22	MP ALPHA1	X	.003	3
23	MP ALPHA3	Y	-.001	2.5
24	MP ALPHA3	X	.003	2.5
25	MP ALPHA4	Y	-.001	2.5
26	MP ALPHA4	X	.003	2.5
27	MP ALPHA2	Y	-.002	4
28	MP ALPHA2	X	.003	4
29	MP ALPHA3	Y	-.001	2.5
30	MP ALPHA3	X	.002	2.5
31	MP ALPHA2	Y	-.001	4
32	MP ALPHA2	X	.003	4

Member Point Loads (BLC 26 : Maintanence (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.003	4.25
2	MP ALPHA1	Y	-.003	1.75
3	MP ALPHA1	X	.002	4.25
4	MP ALPHA1	X	.002	1.75
5	MP ALPHA4	Y	-.004	4.833
6	MP ALPHA4	Y	-.004	.667
7	MP ALPHA4	X	.002	4.833
8	MP ALPHA4	X	.002	.667
9	MP ALPHA2	Y	-.014	6.917
10	MP ALPHA2	Y	-.014	1.083
11	MP ALPHA2	X	.008	6.917
12	MP ALPHA2	X	.008	1.083
13	MP ALPHA3	Y	-.011	4.583
14	MP ALPHA3	Y	-.011	.417
15	MP ALPHA3	X	.006	4.583
16	MP ALPHA3	X	.006	.417
17	MP ALPHA4	Y	-.005	2.75
18	MP ALPHA4	X	.003	2.75
19	MP ALPHA4	Y	-.005	2.75
20	MP ALPHA4	X	.003	2.75
21	MP ALPHA1	Y	-.003	3
22	MP ALPHA1	X	.002	3
23	MP ALPHA3	Y	-.002	2.5
24	MP ALPHA3	X	.001	2.5
25	MP ALPHA4	Y	-.002	2.5

Member Point Loads (BLC 26 : Maintanence (330)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
26	MP ALPHA4	X	.001	2.5
27	MP ALPHA2	Y	-.004	4
28	MP ALPHA2	X	.002	4
29	MP ALPHA3	Y	-.003	2.5
30	MP ALPHA3	X	.002	2.5
31	MP ALPHA2	Y	-.002	4
32	MP ALPHA2	X	.001	4

Member Point Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.042	4.25
2	MP ALPHA1	Z	-.042	1.75
3	MP ALPHA4	Z	-.072	4.833
4	MP ALPHA4	Z	-.072	.667
5	MP ALPHA2	Z	-.121	6.917
6	MP ALPHA2	Z	-.121	1.083
7	MP ALPHA3	Z	-.094	4.583
8	MP ALPHA3	Z	-.094	.417
9	MP ALPHA4	Z	-.055	2.75
10	MP ALPHA4	Z	-.055	2.75
11	MP ALPHA1	Z	-.042	3
12	MP ALPHA3	Z	-.072	2.5
13	MP ALPHA4	Z	-.072	2.5
14	MP ALPHA2	Z	-.048	4
15	MP ALPHA3	Z	-.042	2.5
16	MP ALPHA2	Z	-.072	4

Member Point Loads (BLC 28 : Ice Wind Load (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.013	4.25
2	MP ALPHA1	Y	-.013	1.75
3	MP ALPHA4	Y	-.015	4.833
4	MP ALPHA4	Y	-.015	.667
5	MP ALPHA2	Y	-.056	6.917
6	MP ALPHA2	Y	-.056	1.083
7	MP ALPHA3	Y	-.043	4.583
8	MP ALPHA3	Y	-.043	.417
9	MP ALPHA4	Y	-.013	2.75
10	MP ALPHA4	Y	-.013	2.75
11	MP ALPHA1	Y	-.009	3
12	MP ALPHA3	Y	-.013	2.5
13	MP ALPHA4	Y	-.013	2.5
14	MP ALPHA2	Y	-.009	4
15	MP ALPHA3	Y	-.009	2.5
16	MP ALPHA2	Y	-.013	4

Member Point Loads (BLC 29 : Ice Wind Load (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.01	4.25
2	MP ALPHA1	Y	-.01	1.75
3	MP ALPHA1	X	-.006	4.25
4	MP ALPHA1	X	-.006	1.75
5	MP ALPHA4	Y	-.013	4.833
6	MP ALPHA4	Y	-.013	.667
7	MP ALPHA4	X	-.007	4.833

Member Point Loads (BLC 29 : Ice Wind Load (30)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
8	MP ALPHA4	X	-.007	.667
9	MP ALPHA2	Y	-.041	6.917
10	MP ALPHA2	Y	-.041	1.083
11	MP ALPHA2	X	-.024	6.917
12	MP ALPHA2	X	-.024	1.083
13	MP ALPHA3	Y	-.032	4.583
14	MP ALPHA3	Y	-.032	.417
15	MP ALPHA3	X	-.019	4.583
16	MP ALPHA3	X	-.019	.417
17	MP ALPHA4	Y	-.01	2.75
18	MP ALPHA4	X	-.006	2.75
19	MP ALPHA4	Y	-.01	2.75
20	MP ALPHA4	X	-.006	2.75
21	MP ALPHA1	Y	-.008	3
22	MP ALPHA1	X	-.004	3
23	MP ALPHA3	Y	-.012	2.5
24	MP ALPHA3	X	-.007	2.5
25	MP ALPHA4	Y	-.012	2.5
26	MP ALPHA4	X	-.007	2.5
27	MP ALPHA2	Y	-.008	4
28	MP ALPHA2	X	-.004	4
29	MP ALPHA3	Y	-.007	2.5
30	MP ALPHA3	X	-.004	2.5
31	MP ALPHA2	Y	-.012	4
32	MP ALPHA2	X	-.007	4

Member Point Loads (BLC 30 : Ice Wind Load (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.004	4.25
2	MP ALPHA1	Y	-.004	1.75
3	MP ALPHA1	X	-.008	4.25
4	MP ALPHA1	X	-.008	1.75
5	MP ALPHA4	Y	-.007	4.833
6	MP ALPHA4	Y	-.007	.667
7	MP ALPHA4	X	-.012	4.833
8	MP ALPHA4	X	-.012	.667
9	MP ALPHA2	Y	-.016	6.917
10	MP ALPHA2	Y	-.016	1.083
11	MP ALPHA2	X	-.028	6.917
12	MP ALPHA2	X	-.028	1.083
13	MP ALPHA3	Y	-.012	4.583
14	MP ALPHA3	Y	-.012	.417
15	MP ALPHA3	X	-.022	4.583
16	MP ALPHA3	X	-.022	.417
17	MP ALPHA4	Y	-.005	2.75
18	MP ALPHA4	X	-.008	2.75
19	MP ALPHA4	Y	-.005	2.75
20	MP ALPHA4	X	-.008	2.75
21	MP ALPHA1	Y	-.004	3
22	MP ALPHA1	X	-.007	3
23	MP ALPHA3	Y	-.007	2.5
24	MP ALPHA3	X	-.012	2.5
25	MP ALPHA4	Y	-.007	2.5
26	MP ALPHA4	X	-.012	2.5
27	MP ALPHA2	Y	-.004	4
28	MP ALPHA2	X	-.007	4

Member Point Loads (BLC 30 : Ice Wind Load (60)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
29	MP ALPHA3	Y	-.003	2.5
30	MP ALPHA3	X	-.006	2.5
31	MP ALPHA2	Y	-.007	4
32	MP ALPHA2	X	-.012	4

Member Point Loads (BLC 31 : Ice Wind Load (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.007	4.25
2	MP ALPHA1	X	-.007	1.75
3	MP ALPHA4	X	-.013	4.833
4	MP ALPHA4	X	-.013	.667
5	MP ALPHA2	X	-.024	6.917
6	MP ALPHA2	X	-.024	1.083
7	MP ALPHA3	X	-.019	4.583
8	MP ALPHA3	X	-.019	.417
9	MP ALPHA4	X	-.008	2.75
10	MP ALPHA4	X	-.008	2.75
11	MP ALPHA1	X	-.008	3
12	MP ALPHA3	X	-.013	2.5
13	MP ALPHA4	X	-.013	2.5
14	MP ALPHA2	X	-.007	4
15	MP ALPHA3	X	-.006	2.5
16	MP ALPHA2	X	-.013	4

Member Point Loads (BLC 32 : Ice Wind Load (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.004	4.25
2	MP ALPHA1	Y	.004	1.75
3	MP ALPHA1	X	-.008	4.25
4	MP ALPHA1	X	-.008	1.75
5	MP ALPHA4	Y	.007	4.833
6	MP ALPHA4	Y	.007	.667
7	MP ALPHA4	X	-.012	4.833
8	MP ALPHA4	X	-.012	.667
9	MP ALPHA2	Y	.016	6.917
10	MP ALPHA2	Y	.016	1.083
11	MP ALPHA2	X	-.028	6.917
12	MP ALPHA2	X	-.028	1.083
13	MP ALPHA3	Y	.012	4.583
14	MP ALPHA3	Y	.012	.417
15	MP ALPHA3	X	-.022	4.583
16	MP ALPHA3	X	-.022	.417
17	MP ALPHA4	Y	.005	2.75
18	MP ALPHA4	X	-.008	2.75
19	MP ALPHA4	Y	.005	2.75
20	MP ALPHA4	X	-.008	2.75
21	MP ALPHA1	Y	.004	3
22	MP ALPHA1	X	-.007	3
23	MP ALPHA3	Y	.007	2.5
24	MP ALPHA3	X	-.012	2.5
25	MP ALPHA4	Y	.007	2.5
26	MP ALPHA4	X	-.012	2.5
27	MP ALPHA2	Y	.004	4
28	MP ALPHA2	X	-.007	4
29	MP ALPHA3	Y	.003	2.5
30	MP ALPHA3	X	-.006	2.5

Member Point Loads (BLC 32 : Ice Wind Load (120)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
31	MP ALPHA2	Y	.007	4
32	MP ALPHA2	X	-.012	4

Member Point Loads (BLC 33 : Ice Wind Load (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.01	4.25
2	MP ALPHA1	Y	.01	1.75
3	MP ALPHA1	X	-.006	4.25
4	MP ALPHA1	X	-.006	1.75
5	MP ALPHA4	Y	.013	4.833
6	MP ALPHA4	Y	.013	.667
7	MP ALPHA4	X	-.007	4.833
8	MP ALPHA4	X	-.007	.667
9	MP ALPHA2	Y	.041	6.917
10	MP ALPHA2	Y	.041	1.083
11	MP ALPHA2	X	-.024	6.917
12	MP ALPHA2	X	-.024	1.083
13	MP ALPHA3	Y	.032	4.583
14	MP ALPHA3	Y	.032	.417
15	MP ALPHA3	X	-.019	4.583
16	MP ALPHA3	X	-.019	.417
17	MP ALPHA4	Y	.01	2.75
18	MP ALPHA4	X	-.006	2.75
19	MP ALPHA4	Y	.01	2.75
20	MP ALPHA4	X	-.006	2.75
21	MP ALPHA1	Y	.008	3
22	MP ALPHA1	X	-.004	3
23	MP ALPHA3	Y	.012	2.5
24	MP ALPHA3	X	-.007	2.5
25	MP ALPHA4	Y	.012	2.5
26	MP ALPHA4	X	-.007	2.5
27	MP ALPHA2	Y	.008	4
28	MP ALPHA2	X	-.004	4
29	MP ALPHA3	Y	.007	2.5
30	MP ALPHA3	X	-.004	2.5
31	MP ALPHA2	Y	.012	4
32	MP ALPHA2	X	-.007	4

Member Point Loads (BLC 34 : Ice Wind Load (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.013	4.25
2	MP ALPHA1	Y	.013	1.75
3	MP ALPHA4	Y	.015	4.833
4	MP ALPHA4	Y	.015	.667
5	MP ALPHA2	Y	.056	6.917
6	MP ALPHA2	Y	.056	1.083
7	MP ALPHA3	Y	.043	4.583
8	MP ALPHA3	Y	.043	.417
9	MP ALPHA4	Y	.013	2.75
10	MP ALPHA4	Y	.013	2.75
11	MP ALPHA1	Y	.009	3
12	MP ALPHA3	Y	.013	2.5
13	MP ALPHA4	Y	.013	2.5
14	MP ALPHA2	Y	.009	4
15	MP ALPHA3	Y	.009	2.5
16	MP ALPHA2	Y	.013	4

Member Point Loads (BLC 35 : Ice Wind Load (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.01	4.25
2	MP ALPHA1	Y	.01	1.75
3	MP ALPHA1	X	.006	4.25
4	MP ALPHA1	X	.006	1.75
5	MP ALPHA4	Y	.013	4.833
6	MP ALPHA4	Y	.013	.667
7	MP ALPHA4	X	.007	4.833
8	MP ALPHA4	X	.007	.667
9	MP ALPHA2	Y	.041	6.917
10	MP ALPHA2	Y	.041	1.083
11	MP ALPHA2	X	.024	6.917
12	MP ALPHA2	X	.024	1.083
13	MP ALPHA3	Y	.032	4.583
14	MP ALPHA3	Y	.032	.417
15	MP ALPHA3	X	.019	4.583
16	MP ALPHA3	X	.019	.417
17	MP ALPHA4	Y	.01	2.75
18	MP ALPHA4	X	.006	2.75
19	MP ALPHA4	Y	.01	2.75
20	MP ALPHA4	X	.006	2.75
21	MP ALPHA1	Y	.008	3
22	MP ALPHA1	X	.004	3
23	MP ALPHA3	Y	.012	2.5
24	MP ALPHA3	X	.007	2.5
25	MP ALPHA4	Y	.012	2.5
26	MP ALPHA4	X	.007	2.5
27	MP ALPHA2	Y	.008	4
28	MP ALPHA2	X	.004	4
29	MP ALPHA3	Y	.007	2.5
30	MP ALPHA3	X	.004	2.5
31	MP ALPHA2	Y	.012	4
32	MP ALPHA2	X	.007	4

Member Point Loads (BLC 36 : Ice Wind Load (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.004	4.25
2	MP ALPHA1	Y	.004	1.75
3	MP ALPHA1	X	.008	4.25
4	MP ALPHA1	X	.008	1.75
5	MP ALPHA4	Y	.007	4.833
6	MP ALPHA4	Y	.007	.667
7	MP ALPHA4	X	.012	4.833
8	MP ALPHA4	X	.012	.667
9	MP ALPHA2	Y	.016	6.917
10	MP ALPHA2	Y	.016	1.083
11	MP ALPHA2	X	.028	6.917
12	MP ALPHA2	X	.028	1.083
13	MP ALPHA3	Y	.012	4.583
14	MP ALPHA3	Y	.012	.417
15	MP ALPHA3	X	.022	4.583
16	MP ALPHA3	X	.022	.417
17	MP ALPHA4	Y	.005	2.75
18	MP ALPHA4	X	.008	2.75
19	MP ALPHA4	Y	.005	2.75
20	MP ALPHA4	X	.008	2.75
21	MP ALPHA1	Y	.004	3

Member Point Loads (BLC 36 : Ice Wind Load (240)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
22	MP ALPHA1	X	.007	3
23	MP ALPHA3	Y	.007	2.5
24	MP ALPHA3	X	.012	2.5
25	MP ALPHA4	Y	.007	2.5
26	MP ALPHA4	X	.012	2.5
27	MP ALPHA2	Y	.004	4
28	MP ALPHA2	X	.007	4
29	MP ALPHA3	Y	.003	2.5
30	MP ALPHA3	X	.006	2.5
31	MP ALPHA2	Y	.007	4
32	MP ALPHA2	X	.012	4

Member Point Loads (BLC 37 : Ice Wind Load (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.007	4.25
2	MP ALPHA1	X	.007	1.75
3	MP ALPHA4	X	.013	4.833
4	MP ALPHA4	X	.013	.667
5	MP ALPHA2	X	.024	6.917
6	MP ALPHA2	X	.024	1.083
7	MP ALPHA3	X	.019	4.583
8	MP ALPHA3	X	.019	.417
9	MP ALPHA4	X	.008	2.75
10	MP ALPHA4	X	.008	2.75
11	MP ALPHA1	X	.008	3
12	MP ALPHA3	X	.013	2.5
13	MP ALPHA4	X	.013	2.5
14	MP ALPHA2	X	.007	4
15	MP ALPHA3	X	.006	2.5
16	MP ALPHA2	X	.013	4

Member Point Loads (BLC 38 : Ice Wind Load (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.004	4.25
2	MP ALPHA1	Y	-.004	1.75
3	MP ALPHA1	X	.008	4.25
4	MP ALPHA1	X	.008	1.75
5	MP ALPHA4	Y	-.007	4.833
6	MP ALPHA4	Y	-.007	.667
7	MP ALPHA4	X	.012	4.833
8	MP ALPHA4	X	.012	.667
9	MP ALPHA2	Y	-.016	6.917
10	MP ALPHA2	Y	-.016	1.083
11	MP ALPHA2	X	.028	6.917
12	MP ALPHA2	X	.028	1.083
13	MP ALPHA3	Y	-.012	4.583
14	MP ALPHA3	Y	-.012	.417
15	MP ALPHA3	X	.022	4.583
16	MP ALPHA3	X	.022	.417
17	MP ALPHA4	Y	-.005	2.75
18	MP ALPHA4	X	.008	2.75
19	MP ALPHA4	Y	-.005	2.75
20	MP ALPHA4	X	.008	2.75
21	MP ALPHA1	Y	-.004	3
22	MP ALPHA1	X	.007	3
23	MP ALPHA3	Y	-.007	2.5

Member Point Loads (BLC 38 : Ice Wind Load (300)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
24	MP ALPHA3	X	.012	2.5
25	MP ALPHA4	Y	-.007	2.5
26	MP ALPHA4	X	.012	2.5
27	MP ALPHA2	Y	-.004	4
28	MP ALPHA2	X	.007	4
29	MP ALPHA3	Y	-.003	2.5
30	MP ALPHA3	X	.006	2.5
31	MP ALPHA2	Y	-.007	4
32	MP ALPHA2	X	.012	4

Member Point Loads (BLC 39 : Ice Wind Load (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.01	4.25
2	MP ALPHA1	Y	-.01	1.75
3	MP ALPHA1	X	.006	4.25
4	MP ALPHA1	X	.006	1.75
5	MP ALPHA4	Y	-.013	4.833
6	MP ALPHA4	Y	-.013	.667
7	MP ALPHA4	X	.007	4.833
8	MP ALPHA4	X	.007	.667
9	MP ALPHA2	Y	-.041	6.917
10	MP ALPHA2	Y	-.041	1.083
11	MP ALPHA2	X	.024	6.917
12	MP ALPHA2	X	.024	1.083
13	MP ALPHA3	Y	-.032	4.583
14	MP ALPHA3	Y	-.032	.417
15	MP ALPHA3	X	.019	4.583
16	MP ALPHA3	X	.019	.417
17	MP ALPHA4	Y	-.01	2.75
18	MP ALPHA4	X	.006	2.75
19	MP ALPHA4	Y	-.01	2.75
20	MP ALPHA4	X	.006	2.75
21	MP ALPHA1	Y	-.008	3
22	MP ALPHA1	X	.004	3
23	MP ALPHA3	Y	-.012	2.5
24	MP ALPHA3	X	.007	2.5
25	MP ALPHA4	Y	-.012	2.5
26	MP ALPHA4	X	.007	2.5
27	MP ALPHA2	Y	-.008	4
28	MP ALPHA2	X	.004	4
29	MP ALPHA3	Y	-.007	2.5
30	MP ALPHA3	X	.004	2.5
31	MP ALPHA2	Y	-.012	4
32	MP ALPHA2	X	.007	4

Member Point Loads (BLC 40 : Earthquake (x-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.002	4.25
2	MP ALPHA1	X	-.002	1.75
3	MP ALPHA4	X	-.006	4.833
4	MP ALPHA4	X	-.006	.667
5	MP ALPHA2	X	-.006	6.917
6	MP ALPHA2	X	-.006	1.083
7	MP ALPHA3	X	-.004	4.583
8	MP ALPHA3	X	-.004	.417
9	MP ALPHA4	X	-.006	2.75

Member Point Loads (BLC 40 : Earthquake (x-direction)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
10	MP ALPHA4	X	-.006	2.75
11	MP ALPHA1	X	-.005	3
12	MP ALPHA3	X	-.004	2.5
13	MP ALPHA4	X	-.004	2.5
14	MP ALPHA2	X	-.008	4
15	MP ALPHA3	X	-.007	2.5
16	MP ALPHA2	X	-.004	4

Member Point Loads (BLC 41 : Earthquake (y-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.002	4.25
2	MP ALPHA1	Y	-.002	1.75
3	MP ALPHA4	Y	-.006	4.833
4	MP ALPHA4	Y	-.006	.667
5	MP ALPHA2	Y	-.006	6.917
6	MP ALPHA2	Y	-.006	1.083
7	MP ALPHA3	Y	-.004	4.583
8	MP ALPHA3	Y	-.004	.417
9	MP ALPHA4	Y	-.006	2.75
10	MP ALPHA4	Y	-.006	2.75
11	MP ALPHA1	Y	-.005	3
12	MP ALPHA3	Y	-.004	2.5
13	MP ALPHA4	Y	-.004	2.5
14	MP ALPHA2	Y	-.008	4
15	MP ALPHA3	Y	-.007	2.5
16	MP ALPHA2	Y	-.004	4

Member Point Loads (BLC 42 : Earthquake (z-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.000799	4.25
2	MP ALPHA1	Z	-.000799	1.75
3	MP ALPHA4	Z	-.003	4.833
4	MP ALPHA4	Z	-.003	.667
5	MP ALPHA2	Z	-.002	6.917
6	MP ALPHA2	Z	-.002	1.083
7	MP ALPHA3	Z	-.001	4.583
8	MP ALPHA3	Z	-.001	.417
9	MP ALPHA4	Z	-.002	2.75
10	MP ALPHA4	Z	-.002	2.75
11	MP ALPHA1	Z	-.002	3
12	MP ALPHA3	Z	-.001	2.5
13	MP ALPHA4	Z	-.001	2.5
14	MP ALPHA2	Z	-.003	4
15	MP ALPHA3	Z	-.003	2.5
16	MP ALPHA2	Z	-.001	4

Member Distributed Loads (BLC 2 : Wind Load (0))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.009	-.009	0	0
2	FACE TOP	PY	-.009	-.009	0	0
3	SUPPORTPIPE2	PY	-.002	-.002	0	0
4	SUPPORT PIPE1	PY	-.002	-.002	0	0
5	KICKER3	PY	-.003	-.003	0	0
6	KICKER1	PY	-.003	-.003	0	0

Member Distributed Loads (BLC 2 : Wind Load (0)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
7	KICKER4	PY	-.003	-.003	0	0
8	KICKER2	PY	-.003	-.003	0	0
9	DIAG1	PY	-.002	-.002	0	0
10	DIAG2	PY	-.002	-.002	0	0
11	DIAG3	PY	-.002	-.002	0	0
12	DIAG4	PY	-.002	-.002	0	0
13	VERT3	PY	-.002	-.002	0	0
14	VERT2	PY	-.002	-.002	0	0
15	VERT1	PY	-.002	-.002	0	0
16	VERT4	PY	-.002	-.002	0	0
17	VERT5	PY	-.002	-.002	0	0
18	VERT6	PY	-.002	-.002	0	0
19	TIE-BACK	PY	-.002	-.002	0	0
20	MP ALPHA1	PY	-.008	-.008	0	0
21	MP ALPHA2	PY	-.008	-.008	0	0
22	MP ALPHA3	PY	-.008	-.008	0	0
23	MP ALPHA4	PY	-.008	-.008	0	0

Member Distributed Loads (BLC 4 : Wind Load (30))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.008	-.008	0	0
2	FACE TOP	PY	-.008	-.008	0	0
3	SUPPORTPIPE2	PY	-.002	-.002	0	0
4	SUPPORT PIPE1	PY	-.002	-.002	0	0
5	KICKER3	PY	-.003	-.003	0	0
6	KICKER1	PY	-.003	-.003	0	0
7	KICKER4	PY	-.003	-.003	0	0
8	KICKER2	PY	-.003	-.003	0	0
9	DIAG1	PY	-.002	-.002	0	0
10	DIAG2	PY	-.002	-.002	0	0
11	DIAG3	PY	-.002	-.002	0	0
12	DIAG4	PY	-.002	-.002	0	0
13	VERT3	PY	-.002	-.002	0	0
14	VERT2	PY	-.002	-.002	0	0
15	VERT1	PY	-.002	-.002	0	0
16	VERT4	PY	-.002	-.002	0	0
17	VERT5	PY	-.002	-.002	0	0
18	VERT6	PY	-.002	-.002	0	0
19	TIE-BACK	PY	-.002	-.002	0	0
20	MP ALPHA1	PY	-.007	-.007	0	0
21	MP ALPHA2	PY	-.007	-.007	0	0
22	MP ALPHA3	PY	-.007	-.007	0	0
23	MP ALPHA4	PY	-.007	-.007	0	0
24	FACE BOTTOM	PX	-.004	-.004	0	0
25	FACE TOP	PX	-.004	-.004	0	0
26	SUPPORTPIPE2	PX	-.001	-.001	0	0
27	SUPPORT PIPE1	PX	-.001	-.001	0	0
28	KICKER3	PX	-.002	-.002	0	0
29	KICKER1	PX	-.002	-.002	0	0
30	KICKER4	PX	-.002	-.002	0	0
31	KICKER2	PX	-.002	-.002	0	0
32	DIAG1	PX	-.001	-.001	0	0
33	DIAG2	PX	-.001	-.001	0	0
34	DIAG3	PX	-.001	-.001	0	0
35	DIAG4	PX	-.001	-.001	0	0
36	VERT3	PX	-.001	-.001	0	0

Member Distributed Loads (BLC 4 : Wind Load (30)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
37	VERT2	PX	-.001	-.001	0	0
38	VERT1	PX	-.001	-.001	0	0
39	VERT4	PX	-.001	-.001	0	0
40	VERT5	PX	-.001	-.001	0	0
41	VERT6	PX	-.001	-.001	0	0
42	TIE-BACK	PX	-.001	-.001	0	0
43	MP ALPHA1	PX	-.004	-.004	0	0
44	MP ALPHA2	PX	-.004	-.004	0	0
45	MP ALPHA3	PX	-.004	-.004	0	0
46	MP ALPHA4	PX	-.004	-.004	0	0

Member Distributed Loads (BLC 5 : Wind Load (60))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.004	-.004	0	0
2	FACE TOP	PY	-.004	-.004	0	0
3	SUPPORTPIPE2	PY	-.001	-.001	0	0
4	SUPPORT PIPE1	PY	-.001	-.001	0	0
5	KICKER3	PY	-.002	-.002	0	0
6	KICKER1	PY	-.002	-.002	0	0
7	KICKER4	PY	-.002	-.002	0	0
8	KICKER2	PY	-.002	-.002	0	0
9	DIAG1	PY	-.001	-.001	0	0
10	DIAG2	PY	-.001	-.001	0	0
11	DIAG3	PY	-.001	-.001	0	0
12	DIAG4	PY	-.001	-.001	0	0
13	VERT3	PY	-.001	-.001	0	0
14	VERT2	PY	-.001	-.001	0	0
15	VERT1	PY	-.001	-.001	0	0
16	VERT4	PY	-.001	-.001	0	0
17	VERT5	PY	-.001	-.001	0	0
18	VERT6	PY	-.001	-.001	0	0
19	TIE-BACK	PY	-.001	-.001	0	0
20	MP ALPHA1	PY	-.004	-.004	0	0
21	MP ALPHA2	PY	-.004	-.004	0	0
22	MP ALPHA3	PY	-.004	-.004	0	0
23	MP ALPHA4	PY	-.004	-.004	0	0
24	FACE BOTTOM	PX	-.008	-.008	0	0
25	FACE TOP	PX	-.008	-.008	0	0
26	SUPPORTPIPE2	PX	-.002	-.002	0	0
27	SUPPORT PIPE1	PX	-.002	-.002	0	0
28	KICKER3	PX	-.003	-.003	0	0
29	KICKER1	PX	-.003	-.003	0	0
30	KICKER4	PX	-.003	-.003	0	0
31	KICKER2	PX	-.003	-.003	0	0
32	DIAG1	PX	-.002	-.002	0	0
33	DIAG2	PX	-.002	-.002	0	0
34	DIAG3	PX	-.002	-.002	0	0
35	DIAG4	PX	-.002	-.002	0	0
36	VERT3	PX	-.002	-.002	0	0
37	VERT2	PX	-.002	-.002	0	0
38	VERT1	PX	-.002	-.002	0	0
39	VERT4	PX	-.002	-.002	0	0
40	VERT5	PX	-.002	-.002	0	0
41	VERT6	PX	-.002	-.002	0	0
42	TIE-BACK	PX	-.002	-.002	0	0
43	MP ALPHA1	PX	-.007	-.007	0	0

Member Distributed Loads (BLC 5 : Wind Load (60)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
44	MP ALPHA2	PX	-.007	-.007	0	0
45	MP ALPHA3	PX	-.007	-.007	0	0
46	MP ALPHA4	PX	-.007	-.007	0	0

Member Distributed Loads (BLC 6 : Wind Load (90))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.003	-.003	0	0
2	FACE TOP	PY	-.003	-.003	0	0
3	SUPPORTPIPE2	PY	-.003	-.003	0	0
4	SUPPORT PIPE1	PY	-.003	-.003	0	0
5	KICKER3	PY	-.003	-.003	0	0
6	KICKER1	PY	-.009	-.009	0	0
7	KICKER4	PY	-.003	-.003	0	0
8	KICKER2	PY	-.009	-.009	0	0
9	DIAG1	PY	-.006	-.006	0	0
10	DIAG2	PY	-.006	-.006	0	0
11	DIAG3	PY	-.002	-.002	0	0
12	DIAG4	PY	-.002	-.002	0	0
13	VERT3	PY	-.006	-.006	0	0
14	VERT2	PY	-.006	-.006	0	0
15	VERT1	PY	-.006	-.006	0	0
16	VERT4	PY	-.002	-.002	0	0
17	VERT5	PY	-.002	-.002	0	0
18	VERT6	PY	-.002	-.002	0	0
19	TIE-BACK	PY	-.002	-.002	0	0
20	MP ALPHA1	PY	-.008	-.008	0	0
21	MP ALPHA2	PY	-.008	-.008	0	0
22	MP ALPHA3	PY	-.008	-.008	0	0
23	MP ALPHA4	PY	-.008	-.008	0	0

Member Distributed Loads (BLC 7 : Wind Load (120))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.004	.004	0	0
2	FACE TOP	PY	.004	.004	0	0
3	SUPPORTPIPE2	PY	.001	.001	0	0
4	SUPPORT PIPE1	PY	.001	.001	0	0
5	KICKER3	PY	.002	.002	0	0
6	KICKER1	PY	.002	.002	0	0
7	KICKER4	PY	.002	.002	0	0
8	KICKER2	PY	.002	.002	0	0
9	DIAG1	PY	.001	.001	0	0
10	DIAG2	PY	.001	.001	0	0
11	DIAG3	PY	.001	.001	0	0
12	DIAG4	PY	.001	.001	0	0
13	VERT3	PY	.001	.001	0	0
14	VERT2	PY	.001	.001	0	0
15	VERT1	PY	.001	.001	0	0
16	VERT4	PY	.001	.001	0	0
17	VERT5	PY	.001	.001	0	0
18	VERT6	PY	.001	.001	0	0
19	TIE-BACK	PY	.001	.001	0	0
20	MP ALPHA1	PY	.004	.004	0	0
21	MP ALPHA2	PY	.004	.004	0	0
22	MP ALPHA3	PY	.004	.004	0	0
23	MP ALPHA4	PY	.004	.004	0	0
24	FACE BOTTOM	PX	-.008	-.008	0	0

Member Distributed Loads (BLC 7 : Wind Load (120)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
25	FACE TOP	PX	-.008	-.008	0	0
26	SUPPORTPIPE2	PX	-.002	-.002	0	0
27	SUPPORT PIPE1	PX	-.002	-.002	0	0
28	KICKER3	PX	-.003	-.003	0	0
29	KICKER1	PX	-.003	-.003	0	0
30	KICKER4	PX	-.003	-.003	0	0
31	KICKER2	PX	-.003	-.003	0	0
32	DIAG1	PX	-.002	-.002	0	0
33	DIAG2	PX	-.002	-.002	0	0
34	DIAG3	PX	-.002	-.002	0	0
35	DIAG4	PX	-.002	-.002	0	0
36	VERT3	PX	-.002	-.002	0	0
37	VERT2	PX	-.002	-.002	0	0
38	VERT1	PX	-.002	-.002	0	0
39	VERT4	PX	-.002	-.002	0	0
40	VERT5	PX	-.002	-.002	0	0
41	VERT6	PX	-.002	-.002	0	0
42	TIE-BACK	PX	-.002	-.002	0	0
43	MP ALPHA1	PX	-.007	-.007	0	0
44	MP ALPHA2	PX	-.007	-.007	0	0
45	MP ALPHA3	PX	-.007	-.007	0	0
46	MP ALPHA4	PX	-.007	-.007	0	0

Member Distributed Loads (BLC 8 : Wind Load (150))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.008	.008	0	0
2	FACE TOP	PY	.008	.008	0	0
3	SUPPORTPIPE2	PY	.002	.002	0	0
4	SUPPORT PIPE1	PY	.002	.002	0	0
5	KICKER3	PY	.003	.003	0	0
6	KICKER1	PY	.003	.003	0	0
7	KICKER4	PY	.003	.003	0	0
8	KICKER2	PY	.003	.003	0	0
9	DIAG1	PY	.002	.002	0	0
10	DIAG2	PY	.002	.002	0	0
11	DIAG3	PY	.002	.002	0	0
12	DIAG4	PY	.002	.002	0	0
13	VERT3	PY	.002	.002	0	0
14	VERT2	PY	.002	.002	0	0
15	VERT1	PY	.002	.002	0	0
16	VERT4	PY	.002	.002	0	0
17	VERT5	PY	.002	.002	0	0
18	VERT6	PY	.002	.002	0	0
19	TIE-BACK	PY	.002	.002	0	0
20	MP ALPHA1	PY	.007	.007	0	0
21	MP ALPHA2	PY	.007	.007	0	0
22	MP ALPHA3	PY	.007	.007	0	0
23	MP ALPHA4	PY	.007	.007	0	0
24	FACE BOTTOM	PX	-.004	-.004	0	0
25	FACE TOP	PX	-.004	-.004	0	0
26	SUPPORTPIPE2	PX	-.001	-.001	0	0
27	SUPPORT PIPE1	PX	-.001	-.001	0	0
28	KICKER3	PX	-.002	-.002	0	0
29	KICKER1	PX	-.002	-.002	0	0
30	KICKER4	PX	-.002	-.002	0	0
31	KICKER2	PX	-.002	-.002	0	0

Member Distributed Loads (BLC 8 : Wind Load (150)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
32	DIAG1	PX	-.001	-.001	0	0
33	DIAG2	PX	-.001	-.001	0	0
34	DIAG3	PX	-.001	-.001	0	0
35	DIAG4	PX	-.001	-.001	0	0
36	VERT3	PX	-.001	-.001	0	0
37	VERT2	PX	-.001	-.001	0	0
38	VERT1	PX	-.001	-.001	0	0
39	VERT4	PX	-.001	-.001	0	0
40	VERT5	PX	-.001	-.001	0	0
41	VERT6	PX	-.001	-.001	0	0
42	TIE-BACK	PX	-.001	-.001	0	0
43	MP ALPHA1	PX	-.004	-.004	0	0
44	MP ALPHA2	PX	-.004	-.004	0	0
45	MP ALPHA3	PX	-.004	-.004	0	0
46	MP ALPHA4	PX	-.004	-.004	0	0

Member Distributed Loads (BLC 9 : Wind Load (180))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.009	.009	0	0
2	FACE TOP	PY	.009	.009	0	0
3	SUPPORTPIPE2	PY	.002	.002	0	0
4	SUPPORT PIPE1	PY	.002	.002	0	0
5	KICKER3	PY	.003	.003	0	0
6	KICKER1	PY	.003	.003	0	0
7	KICKER4	PY	.003	.003	0	0
8	KICKER2	PY	.003	.003	0	0
9	DIAG1	PY	.002	.002	0	0
10	DIAG2	PY	.002	.002	0	0
11	DIAG3	PY	.002	.002	0	0
12	DIAG4	PY	.002	.002	0	0
13	VERT3	PY	.002	.002	0	0
14	VERT2	PY	.002	.002	0	0
15	VERT1	PY	.002	.002	0	0
16	VERT4	PY	.002	.002	0	0
17	VERT5	PY	.002	.002	0	0
18	VERT6	PY	.002	.002	0	0
19	TIE-BACK	PY	.002	.002	0	0
20	MP ALPHA1	PY	.008	.008	0	0
21	MP ALPHA2	PY	.008	.008	0	0
22	MP ALPHA3	PY	.008	.008	0	0
23	MP ALPHA4	PY	.008	.008	0	0

Member Distributed Loads (BLC 10 : Wind Load (210))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.008	.008	0	0
2	FACE TOP	PY	.008	.008	0	0
3	SUPPORTPIPE2	PY	.002	.002	0	0
4	SUPPORT PIPE1	PY	.002	.002	0	0
5	KICKER3	PY	.003	.003	0	0
6	KICKER1	PY	.003	.003	0	0
7	KICKER4	PY	.003	.003	0	0
8	KICKER2	PY	.003	.003	0	0
9	DIAG1	PY	.002	.002	0	0
10	DIAG2	PY	.002	.002	0	0
11	DIAG3	PY	.002	.002	0	0
12	DIAG4	PY	.002	.002	0	0

Member Distributed Loads (BLC 10 : Wind Load (210)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
13	VERT3	PY	.002	.002	0	0
14	VERT2	PY	.002	.002	0	0
15	VERT1	PY	.002	.002	0	0
16	VERT4	PY	.002	.002	0	0
17	VERT5	PY	.002	.002	0	0
18	VERT6	PY	.002	.002	0	0
19	TIE-BACK	PY	.002	.002	0	0
20	MP ALPHA1	PY	.007	.007	0	0
21	MP ALPHA2	PY	.007	.007	0	0
22	MP ALPHA3	PY	.007	.007	0	0
23	MP ALPHA4	PY	.007	.007	0	0
24	FACE BOTTOM	PX	.004	.004	0	0
25	FACE TOP	PX	.004	.004	0	0
26	SUPPORTPIPE2	PX	.001	.001	0	0
27	SUPPORT PIPE1	PX	.001	.001	0	0
28	KICKER3	PX	.002	.002	0	0
29	KICKER1	PX	.002	.002	0	0
30	KICKER4	PX	.002	.002	0	0
31	KICKER2	PX	.002	.002	0	0
32	DIAG1	PX	.001	.001	0	0
33	DIAG2	PX	.001	.001	0	0
34	DIAG3	PX	.001	.001	0	0
35	DIAG4	PX	.001	.001	0	0
36	VERT3	PX	.001	.001	0	0
37	VERT2	PX	.001	.001	0	0
38	VERT1	PX	.001	.001	0	0
39	VERT4	PX	.001	.001	0	0
40	VERT5	PX	.001	.001	0	0
41	VERT6	PX	.001	.001	0	0
42	TIE-BACK	PX	.001	.001	0	0
43	MP ALPHA1	PX	.004	.004	0	0
44	MP ALPHA2	PX	.004	.004	0	0
45	MP ALPHA3	PX	.004	.004	0	0
46	MP ALPHA4	PX	.004	.004	0	0

Member Distributed Loads (BLC 11 : Wind Load (240))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.004	.004	0	0
2	FACE TOP	PY	.004	.004	0	0
3	SUPPORTPIPE2	PY	.001	.001	0	0
4	SUPPORT PIPE1	PY	.001	.001	0	0
5	KICKER3	PY	.002	.002	0	0
6	KICKER1	PY	.002	.002	0	0
7	KICKER4	PY	.002	.002	0	0
8	KICKER2	PY	.002	.002	0	0
9	DIAG1	PY	.001	.001	0	0
10	DIAG2	PY	.001	.001	0	0
11	DIAG3	PY	.001	.001	0	0
12	DIAG4	PY	.001	.001	0	0
13	VERT3	PY	.001	.001	0	0
14	VERT2	PY	.001	.001	0	0
15	VERT1	PY	.001	.001	0	0
16	VERT4	PY	.001	.001	0	0
17	VERT5	PY	.001	.001	0	0
18	VERT6	PY	.001	.001	0	0
19	TIE-BACK	PY	.001	.001	0	0

Member Distributed Loads (BLC 11 : Wind Load (240)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
20	MP ALPHA1	PY	.004	.004	0	0
21	MP ALPHA2	PY	.004	.004	0	0
22	MP ALPHA3	PY	.004	.004	0	0
23	MP ALPHA4	PY	.004	.004	0	0
24	FACE BOTTOM	PX	.008	.008	0	0
25	FACE TOP	PX	.008	.008	0	0
26	SUPPORTPIPE2	PX	.002	.002	0	0
27	SUPPORT PIPE1	PX	.002	.002	0	0
28	KICKER3	PX	.003	.003	0	0
29	KICKER1	PX	.003	.003	0	0
30	KICKER4	PX	.003	.003	0	0
31	KICKER2	PX	.003	.003	0	0
32	DIAG1	PX	.002	.002	0	0
33	DIAG2	PX	.002	.002	0	0
34	DIAG3	PX	.002	.002	0	0
35	DIAG4	PX	.002	.002	0	0
36	VERT3	PX	.002	.002	0	0
37	VERT2	PX	.002	.002	0	0
38	VERT1	PX	.002	.002	0	0
39	VERT4	PX	.002	.002	0	0
40	VERT5	PX	.002	.002	0	0
41	VERT6	PX	.002	.002	0	0
42	TIE-BACK	PX	.002	.002	0	0
43	MP ALPHA1	PX	.007	.007	0	0
44	MP ALPHA2	PX	.007	.007	0	0
45	MP ALPHA3	PX	.007	.007	0	0
46	MP ALPHA4	PX	.007	.007	0	0

Member Distributed Loads (BLC 12 : Wind Load (270))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PX	.003	.003	0	0
2	FACE TOP	PX	.003	.003	0	0
3	SUPPORTPIPE2	PX	.003	.003	0	0
4	SUPPORT PIPE1	PX	.003	.003	0	0
5	KICKER3	PX	.009	.009	0	0
6	KICKER1	PX	.003	.003	0	0
7	KICKER4	PX	.009	.009	0	0
8	KICKER2	PX	.003	.003	0	0
9	DIAG1	PX	.002	.002	0	0
10	DIAG2	PX	.002	.002	0	0
11	DIAG3	PX	.006	.006	0	0
12	DIAG4	PX	.006	.006	0	0
13	VERT3	PX	.002	.002	0	0
14	VERT2	PX	.002	.002	0	0
15	VERT1	PX	.002	.002	0	0
16	VERT4	PX	.006	.006	0	0
17	VERT5	PX	.006	.006	0	0
18	VERT6	PX	.006	.006	0	0
19	TIE-BACK	PX	.002	.002	0	0
20	MP ALPHA1	PX	.008	.008	0	0
21	MP ALPHA2	PX	.008	.008	0	0
22	MP ALPHA3	PX	.008	.008	0	0
23	MP ALPHA4	PX	.008	.008	0	0

Member Distributed Loads (BLC 13 : Wind Load (300))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...

Member Distributed Loads (BLC 13 : Wind Load (300)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.004	-.004	0	0
2	FACE TOP	PY	-.004	-.004	0	0
3	SUPPORTPIPE2	PY	-.001	-.001	0	0
4	SUPPORT PIPE1	PY	-.001	-.001	0	0
5	KICKER3	PY	-.002	-.002	0	0
6	KICKER1	PY	-.002	-.002	0	0
7	KICKER4	PY	-.002	-.002	0	0
8	KICKER2	PY	-.002	-.002	0	0
9	DIAG1	PY	-.001	-.001	0	0
10	DIAG2	PY	-.001	-.001	0	0
11	DIAG3	PY	-.001	-.001	0	0
12	DIAG4	PY	-.001	-.001	0	0
13	VERT3	PY	-.001	-.001	0	0
14	VERT2	PY	-.001	-.001	0	0
15	VERT1	PY	-.001	-.001	0	0
16	VERT4	PY	-.001	-.001	0	0
17	VERT5	PY	-.001	-.001	0	0
18	VERT6	PY	-.001	-.001	0	0
19	TIE-BACK	PY	-.001	-.001	0	0
20	MP ALPHA1	PY	-.004	-.004	0	0
21	MP ALPHA2	PY	-.004	-.004	0	0
22	MP ALPHA3	PY	-.004	-.004	0	0
23	MP ALPHA4	PY	-.004	-.004	0	0
24	FACE BOTTOM	PX	.008	.008	0	0
25	FACE TOP	PX	.008	.008	0	0
26	SUPPORTPIPE2	PX	.002	.002	0	0
27	SUPPORT PIPE1	PX	.002	.002	0	0
28	KICKER3	PX	.003	.003	0	0
29	KICKER1	PX	.003	.003	0	0
30	KICKER4	PX	.003	.003	0	0
31	KICKER2	PX	.003	.003	0	0
32	DIAG1	PX	.002	.002	0	0
33	DIAG2	PX	.002	.002	0	0
34	DIAG3	PX	.002	.002	0	0
35	DIAG4	PX	.002	.002	0	0
36	VERT3	PX	.002	.002	0	0
37	VERT2	PX	.002	.002	0	0
38	VERT1	PX	.002	.002	0	0
39	VERT4	PX	.002	.002	0	0
40	VERT5	PX	.002	.002	0	0
41	VERT6	PX	.002	.002	0	0
42	TIE-BACK	PX	.002	.002	0	0
43	MP ALPHA1	PX	.007	.007	0	0
44	MP ALPHA2	PX	.007	.007	0	0
45	MP ALPHA3	PX	.007	.007	0	0
46	MP ALPHA4	PX	.007	.007	0	0

Member Distributed Loads (BLC 14 : Wind Load (330))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.008	-.008	0	0
2	FACE TOP	PY	-.008	-.008	0	0
3	SUPPORTPIPE2	PY	-.002	-.002	0	0
4	SUPPORT PIPE1	PY	-.002	-.002	0	0
5	KICKER3	PY	-.003	-.003	0	0
6	KICKER1	PY	-.003	-.003	0	0
7	KICKER4	PY	-.003	-.003	0	0

Member Distributed Loads (BLC 14 : Wind Load (330)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
8	KICKER2	PY	-.003	-.003	0	0
9	DIAG1	PY	-.002	-.002	0	0
10	DIAG2	PY	-.002	-.002	0	0
11	DIAG3	PY	-.002	-.002	0	0
12	DIAG4	PY	-.002	-.002	0	0
13	VERT3	PY	-.002	-.002	0	0
14	VERT2	PY	-.002	-.002	0	0
15	VERT1	PY	-.002	-.002	0	0
16	VERT4	PY	-.002	-.002	0	0
17	VERT5	PY	-.002	-.002	0	0
18	VERT6	PY	-.002	-.002	0	0
19	TIE-BACK	PY	-.002	-.002	0	0
20	MP ALPHA1	PY	-.007	-.007	0	0
21	MP ALPHA2	PY	-.007	-.007	0	0
22	MP ALPHA3	PY	-.007	-.007	0	0
23	MP ALPHA4	PY	-.007	-.007	0	0
24	FACE BOTTOM	PX	.004	.004	0	0
25	FACE TOP	PX	.004	.004	0	0
26	SUPPORTPIPE2	PX	.001	.001	0	0
27	SUPPORT PIPE1	PX	.001	.001	0	0
28	KICKER3	PX	.002	.002	0	0
29	KICKER1	PX	.002	.002	0	0
30	KICKER4	PX	.002	.002	0	0
31	KICKER2	PX	.002	.002	0	0
32	DIAG1	PX	.001	.001	0	0
33	DIAG2	PX	.001	.001	0	0
34	DIAG3	PX	.001	.001	0	0
35	DIAG4	PX	.001	.001	0	0
36	VERT3	PX	.001	.001	0	0
37	VERT2	PX	.001	.001	0	0
38	VERT1	PX	.001	.001	0	0
39	VERT4	PX	.001	.001	0	0
40	VERT5	PX	.001	.001	0	0
41	VERT6	PX	.001	.001	0	0
42	TIE-BACK	PX	.001	.001	0	0
43	MP ALPHA1	PX	.004	.004	0	0
44	MP ALPHA2	PX	.004	.004	0	0
45	MP ALPHA3	PX	.004	.004	0	0
46	MP ALPHA4	PX	.004	.004	0	0

Member Distributed Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	Z	-.006	-.006	0	0
2	FACE TOP	Z	-.006	-.006	0	0
3	SUPPORTPIPE2	Z	-.005	-.005	0	0
4	SUPPORT PIPE1	Z	-.005	-.005	0	0
5	KICKER3	Z	-.006	-.006	0	0
6	KICKER1	Z	-.006	-.006	0	0
7	KICKER4	Z	-.006	-.006	0	0
8	KICKER2	Z	-.006	-.006	0	0
9	DIAG1	Z	-.004	-.004	0	0
10	DIAG2	Z	-.004	-.004	0	0
11	DIAG3	Z	-.004	-.004	0	0
12	DIAG4	Z	-.004	-.004	0	0
13	VERT3	Z	-.004	-.004	0	0
14	VERT2	Z	-.004	-.004	0	0

Member Distributed Loads (BLC 27 : Ice Dead Load) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
15	VERT1	Z	-.004	-.004	0	0
16	VERT4	Z	-.004	-.004	0	0
17	VERT5	Z	-.004	-.004	0	0
18	VERT6	Z	-.004	-.004	0	0
19	TIE-BACK	Z	-.005	-.005	0	0
20	MP ALPHA1	Z	-.005	-.005	0	0
21	MP ALPHA2	Z	-.005	-.005	0	0
22	MP ALPHA3	Z	-.005	-.005	0	0
23	MP ALPHA4	Z	-.005	-.005	0	0

Member Distributed Loads (BLC 28 : Ice Wind Load (0))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.003	-.003	0	0
2	FACE TOP	PY	-.003	-.003	0	0
3	SUPPORTPIPE2	PY	-.001	-.001	0	0
4	SUPPORT PIPE1	PY	-.001	-.001	0	0
5	KICKER3	PY	-.001	-.001	0	0
6	KICKER1	PY	-.001	-.001	0	0
7	KICKER4	PY	-.001	-.001	0	0
8	KICKER2	PY	-.001	-.001	0	0
9	DIAG1	PY	-.001	-.001	0	0
10	DIAG2	PY	-.001	-.001	0	0
11	DIAG3	PY	-.001	-.001	0	0
12	DIAG4	PY	-.001	-.001	0	0
13	VERT3	PY	-.001	-.001	0	0
14	VERT2	PY	-.001	-.001	0	0
15	VERT1	PY	-.001	-.001	0	0
16	VERT4	PY	-.001	-.001	0	0
17	VERT5	PY	-.001	-.001	0	0
18	VERT6	PY	-.001	-.001	0	0
19	TIE-BACK	PY	-.001	-.001	0	0
20	MP ALPHA1	PY	-.001	-.001	0	0
21	MP ALPHA2	PY	-.001	-.001	0	0
22	MP ALPHA3	PY	-.001	-.001	0	0
23	MP ALPHA4	PY	-.001	-.001	0	0

Member Distributed Loads (BLC 29 : Ice Wind Load (30))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.003	-.003	0	0
2	FACE TOP	PY	-.003	-.003	0	0
3	SUPPORTPIPE2	PY	-.000866	-.000866	0	0
4	SUPPORT PIPE1	PY	-.000866	-.000866	0	0
5	KICKER3	PY	-.000866	-.000866	0	0
6	KICKER1	PY	-.000866	-.000866	0	0
7	KICKER4	PY	-.000866	-.000866	0	0
8	KICKER2	PY	-.000866	-.000866	0	0
9	DIAG1	PY	-.000866	-.000866	0	0
10	DIAG2	PY	-.000866	-.000866	0	0
11	DIAG3	PY	-.000866	-.000866	0	0
12	DIAG4	PY	-.000866	-.000866	0	0
13	VERT3	PY	-.000866	-.000866	0	0
14	VERT2	PY	-.000866	-.000866	0	0
15	VERT1	PY	-.000866	-.000866	0	0
16	VERT4	PY	-.000866	-.000866	0	0
17	VERT5	PY	-.000866	-.000866	0	0
18	VERT6	PY	-.000866	-.000866	0	0

Member Distributed Loads (BLC 29 : Ice Wind Load (30)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
19	TIE-BACK	PY	-.000866	-.000866	0	0
20	MP ALPHA1	PY	-.000866	-.000866	0	0
21	MP ALPHA2	PY	-.000866	-.000866	0	0
22	MP ALPHA3	PY	-.000866	-.000866	0	0
23	MP ALPHA4	PY	-.000866	-.000866	0	0
24	FACE BOTTOM	PX	-.002	-.002	0	0
25	FACE TOP	PX	-.002	-.002	0	0
26	SUPPORTPIPE2	PX	-.0005	-.0005	0	0
27	SUPPORT PIPE1	PX	-.0005	-.0005	0	0
28	KICKER3	PX	-.0005	-.0005	0	0
29	KICKER1	PX	-.0005	-.0005	0	0
30	KICKER4	PX	-.0005	-.0005	0	0
31	KICKER2	PX	-.0005	-.0005	0	0
32	DIAG1	PX	-.0005	-.0005	0	0
33	DIAG2	PX	-.0005	-.0005	0	0
34	DIAG3	PX	-.0005	-.0005	0	0
35	DIAG4	PX	-.0005	-.0005	0	0
36	VERT3	PX	-.0005	-.0005	0	0
37	VERT2	PX	-.0005	-.0005	0	0
38	VERT1	PX	-.0005	-.0005	0	0
39	VERT4	PX	-.0005	-.0005	0	0
40	VERT5	PX	-.0005	-.0005	0	0
41	VERT6	PX	-.0005	-.0005	0	0
42	TIE-BACK	PX	-.0005	-.0005	0	0
43	MP ALPHA1	PX	-.0005	-.0005	0	0
44	MP ALPHA2	PX	-.0005	-.0005	0	0
45	MP ALPHA3	PX	-.0005	-.0005	0	0
46	MP ALPHA4	PX	-.0005	-.0005	0	0

Member Distributed Loads (BLC 30 : Ice Wind Load (60))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.002	-.002	0	0
2	FACE TOP	PY	-.002	-.002	0	0
3	SUPPORTPIPE2	PY	-.0005	-.0005	0	0
4	SUPPORT PIPE1	PY	-.0005	-.0005	0	0
5	KICKER3	PY	-.0005	-.0005	0	0
6	KICKER1	PY	-.0005	-.0005	0	0
7	KICKER4	PY	-.0005	-.0005	0	0
8	KICKER2	PY	-.0005	-.0005	0	0
9	DIAG1	PY	-.0005	-.0005	0	0
10	DIAG2	PY	-.0005	-.0005	0	0
11	DIAG3	PY	-.0005	-.0005	0	0
12	DIAG4	PY	-.0005	-.0005	0	0
13	VERT3	PY	-.0005	-.0005	0	0
14	VERT2	PY	-.0005	-.0005	0	0
15	VERT1	PY	-.0005	-.0005	0	0
16	VERT4	PY	-.0005	-.0005	0	0
17	VERT5	PY	-.0005	-.0005	0	0
18	VERT6	PY	-.0005	-.0005	0	0
19	TIE-BACK	PY	-.0005	-.0005	0	0
20	MP ALPHA1	PY	-.0005	-.0005	0	0
21	MP ALPHA2	PY	-.0005	-.0005	0	0
22	MP ALPHA3	PY	-.0005	-.0005	0	0
23	MP ALPHA4	PY	-.0005	-.0005	0	0
24	FACE BOTTOM	PX	-.003	-.003	0	0
25	FACE TOP	PX	-.003	-.003	0	0

Member Distributed Loads (BLC 30 : Ice Wind Load (60)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
26	SUPPORTPIPE2	PX	-.000866	-.000866	0	0
27	SUPPORT PIPE1	PX	-.000866	-.000866	0	0
28	KICKER3	PX	-.000866	-.000866	0	0
29	KICKER1	PX	-.000866	-.000866	0	0
30	KICKER4	PX	-.000866	-.000866	0	0
31	KICKER2	PX	-.000866	-.000866	0	0
32	DIAG1	PX	-.000866	-.000866	0	0
33	DIAG2	PX	-.000866	-.000866	0	0
34	DIAG3	PX	-.000866	-.000866	0	0
35	DIAG4	PX	-.000866	-.000866	0	0
36	VERT3	PX	-.000866	-.000866	0	0
37	VERT2	PX	-.000866	-.000866	0	0
38	VERT1	PX	-.000866	-.000866	0	0
39	VERT4	PX	-.000866	-.000866	0	0
40	VERT5	PX	-.000866	-.000866	0	0
41	VERT6	PX	-.000866	-.000866	0	0
42	TIE-BACK	PX	-.000866	-.000866	0	0
43	MP ALPHA1	PX	-.000866	-.000866	0	0
44	MP ALPHA2	PX	-.000866	-.000866	0	0
45	MP ALPHA3	PX	-.000866	-.000866	0	0
46	MP ALPHA4	PX	-.000866	-.000866	0	0

Member Distributed Loads (BLC 31 : Ice Wind Load (90))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PX	-.001	-.001	0	0
2	FACE TOP	PX	-.001	-.001	0	0
3	SUPPORTPIPE2	PX	-.001	-.001	0	0
4	SUPPORT PIPE1	PX	-.001	-.001	0	0
5	KICKER3	PX	-.001	-.001	0	0
6	KICKER1	PX	-.003	-.003	0	0
7	KICKER4	PX	-.001	-.001	0	0
8	KICKER2	PX	-.003	-.003	0	0
9	DIAG1	PX	-.003	-.003	0	0
10	DIAG2	PX	-.003	-.003	0	0
11	DIAG3	PX	-.001	-.001	0	0
12	DIAG4	PX	-.001	-.001	0	0
13	VERT3	PX	-.003	-.003	0	0
14	VERT2	PX	-.003	-.003	0	0
15	VERT1	PX	-.003	-.003	0	0
16	VERT4	PX	-.001	-.001	0	0
17	VERT5	PX	-.001	-.001	0	0
18	VERT6	PX	-.001	-.001	0	0
19	TIE-BACK	PX	-.001	-.001	0	0
20	MP ALPHA1	PX	-.001	-.001	0	0
21	MP ALPHA2	PX	-.001	-.001	0	0
22	MP ALPHA3	PX	-.001	-.001	0	0
23	MP ALPHA4	PX	-.001	-.001	0	0

Member Distributed Loads (BLC 32 : Ice Wind Load (120))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.002	.002	0	0
2	FACE TOP	PY	.002	.002	0	0
3	SUPPORTPIPE2	PY	.0005	.0005	0	0
4	SUPPORT PIPE1	PY	.0005	.0005	0	0
5	KICKER3	PY	.0005	.0005	0	0
6	KICKER1	PY	.0005	.0005	0	0

Member Distributed Loads (BLC 32 : Ice Wind Load (120)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
7	KICKER4	PY	.0005	.0005	0	0
8	KICKER2	PY	.0005	.0005	0	0
9	DIAG1	PY	.0005	.0005	0	0
10	DIAG2	PY	.0005	.0005	0	0
11	DIAG3	PY	.0005	.0005	0	0
12	DIAG4	PY	.0005	.0005	0	0
13	VERT3	PY	.0005	.0005	0	0
14	VERT2	PY	.0005	.0005	0	0
15	VERT1	PY	.0005	.0005	0	0
16	VERT4	PY	.0005	.0005	0	0
17	VERT5	PY	.0005	.0005	0	0
18	VERT6	PY	.0005	.0005	0	0
19	TIE-BACK	PY	.0005	.0005	0	0
20	MP ALPHA1	PY	.0005	.0005	0	0
21	MP ALPHA2	PY	.0005	.0005	0	0
22	MP ALPHA3	PY	.0005	.0005	0	0
23	MP ALPHA4	PY	.0005	.0005	0	0
24	FACE BOTTOM	PX	-.003	-.003	0	0
25	FACE TOP	PX	-.003	-.003	0	0
26	SUPPORTPIPE2	PX	-.000866	-.000866	0	0
27	SUPPORT PIPE1	PX	-.000866	-.000866	0	0
28	KICKER3	PX	-.000866	-.000866	0	0
29	KICKER1	PX	-.000866	-.000866	0	0
30	KICKER4	PX	-.000866	-.000866	0	0
31	KICKER2	PX	-.000866	-.000866	0	0
32	DIAG1	PX	-.000866	-.000866	0	0
33	DIAG2	PX	-.000866	-.000866	0	0
34	DIAG3	PX	-.000866	-.000866	0	0
35	DIAG4	PX	-.000866	-.000866	0	0
36	VERT3	PX	-.000866	-.000866	0	0
37	VERT2	PX	-.000866	-.000866	0	0
38	VERT1	PX	-.000866	-.000866	0	0
39	VERT4	PX	-.000866	-.000866	0	0
40	VERT5	PX	-.000866	-.000866	0	0
41	VERT6	PX	-.000866	-.000866	0	0
42	TIE-BACK	PX	-.000866	-.000866	0	0
43	MP ALPHA1	PX	-.000866	-.000866	0	0
44	MP ALPHA2	PX	-.000866	-.000866	0	0
45	MP ALPHA3	PX	-.000866	-.000866	0	0
46	MP ALPHA4	PX	-.000866	-.000866	0	0

Member Distributed Loads (BLC 33 : Ice Wind Load (150))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.003	.003	0	0
2	FACE TOP	PY	.003	.003	0	0
3	SUPPORTPIPE2	PY	.000866	.000866	0	0
4	SUPPORT PIPE1	PY	.000866	.000866	0	0
5	KICKER3	PY	.000866	.000866	0	0
6	KICKER1	PY	.000866	.000866	0	0
7	KICKER4	PY	.000866	.000866	0	0
8	KICKER2	PY	.000866	.000866	0	0
9	DIAG1	PY	.000866	.000866	0	0
10	DIAG2	PY	.000866	.000866	0	0
11	DIAG3	PY	.000866	.000866	0	0
12	DIAG4	PY	.000866	.000866	0	0
13	VERT3	PY	.000866	.000866	0	0

Member Distributed Loads (BLC 33 : Ice Wind Load (150)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
14	VERT2	PY	.000866	.000866	0	0
15	VERT1	PY	.000866	.000866	0	0
16	VERT4	PY	.000866	.000866	0	0
17	VERT5	PY	.000866	.000866	0	0
18	VERT6	PY	.000866	.000866	0	0
19	TIE-BACK	PY	.000866	.000866	0	0
20	MP ALPHA1	PY	.000866	.000866	0	0
21	MP ALPHA2	PY	.000866	.000866	0	0
22	MP ALPHA3	PY	.000866	.000866	0	0
23	MP ALPHA4	PY	.000866	.000866	0	0
24	FACE BOTTOM	PX	-.002	-.002	0	0
25	FACE TOP	PX	-.002	-.002	0	0
26	SUPPORTPIPE2	PX	-.0005	-.0005	0	0
27	SUPPORT PIPE1	PX	-.0005	-.0005	0	0
28	KICKER3	PX	-.0005	-.0005	0	0
29	KICKER1	PX	-.0005	-.0005	0	0
30	KICKER4	PX	-.0005	-.0005	0	0
31	KICKER2	PX	-.0005	-.0005	0	0
32	DIAG1	PX	-.0005	-.0005	0	0
33	DIAG2	PX	-.0005	-.0005	0	0
34	DIAG3	PX	-.0005	-.0005	0	0
35	DIAG4	PX	-.0005	-.0005	0	0
36	VERT3	PX	-.0005	-.0005	0	0
37	VERT2	PX	-.0005	-.0005	0	0
38	VERT1	PX	-.0005	-.0005	0	0
39	VERT4	PX	-.0005	-.0005	0	0
40	VERT5	PX	-.0005	-.0005	0	0
41	VERT6	PX	-.0005	-.0005	0	0
42	TIE-BACK	PX	-.0005	-.0005	0	0
43	MP ALPHA1	PX	-.0005	-.0005	0	0
44	MP ALPHA2	PX	-.0005	-.0005	0	0
45	MP ALPHA3	PX	-.0005	-.0005	0	0
46	MP ALPHA4	PX	-.0005	-.0005	0	0

Member Distributed Loads (BLC 34 : Ice Wind Load (180))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.003	.003	0	0
2	FACE TOP	PY	.003	.003	0	0
3	SUPPORTPIPE2	PY	.001	.001	0	0
4	SUPPORT PIPE1	PY	.001	.001	0	0
5	KICKER3	PY	.001	.001	0	0
6	KICKER1	PY	.001	.001	0	0
7	KICKER4	PY	.001	.001	0	0
8	KICKER2	PY	.001	.001	0	0
9	DIAG1	PY	.001	.001	0	0
10	DIAG2	PY	.001	.001	0	0
11	DIAG3	PY	.001	.001	0	0
12	DIAG4	PY	.001	.001	0	0
13	VERT3	PY	.001	.001	0	0
14	VERT2	PY	.001	.001	0	0
15	VERT1	PY	.001	.001	0	0
16	VERT4	PY	.001	.001	0	0
17	VERT5	PY	.001	.001	0	0
18	VERT6	PY	.001	.001	0	0
19	TIE-BACK	PY	.001	.001	0	0
20	MP ALPHA1	PY	.001	.001	0	0

Member Distributed Loads (BLC 34 : Ice Wind Load (180)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
21	MP ALPHA2	PY	.001	.001	0	0
22	MP ALPHA3	PY	.001	.001	0	0
23	MP ALPHA4	PY	.001	.001	0	0

Member Distributed Loads (BLC 35 : Ice Wind Load (210))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.003	.003	0	0
2	FACE TOP	PY	.003	.003	0	0
3	SUPPORTPIPE2	PY	.000866	.000866	0	0
4	SUPPORT PIPE1	PY	.000866	.000866	0	0
5	KICKER3	PY	.000866	.000866	0	0
6	KICKER1	PY	.000866	.000866	0	0
7	KICKER4	PY	.000866	.000866	0	0
8	KICKER2	PY	.000866	.000866	0	0
9	DIAG1	PY	.000866	.000866	0	0
10	DIAG2	PY	.000866	.000866	0	0
11	DIAG3	PY	.000866	.000866	0	0
12	DIAG4	PY	.000866	.000866	0	0
13	VERT3	PY	.000866	.000866	0	0
14	VERT2	PY	.000866	.000866	0	0
15	VERT1	PY	.000866	.000866	0	0
16	VERT4	PY	.000866	.000866	0	0
17	VERT5	PY	.000866	.000866	0	0
18	VERT6	PY	.000866	.000866	0	0
19	TIE-BACK	PY	.000866	.000866	0	0
20	MP ALPHA1	PY	.000866	.000866	0	0
21	MP ALPHA2	PY	.000866	.000866	0	0
22	MP ALPHA3	PY	.000866	.000866	0	0
23	MP ALPHA4	PY	.000866	.000866	0	0
24	FACE BOTTOM	PX	.002	.002	0	0
25	FACE TOP	PX	.002	.002	0	0
26	SUPPORTPIPE2	PX	.0005	.0005	0	0
27	SUPPORT PIPE1	PX	.0005	.0005	0	0
28	KICKER3	PX	.0005	.0005	0	0
29	KICKER1	PX	.0005	.0005	0	0
30	KICKER4	PX	.0005	.0005	0	0
31	KICKER2	PX	.0005	.0005	0	0
32	DIAG1	PX	.0005	.0005	0	0
33	DIAG2	PX	.0005	.0005	0	0
34	DIAG3	PX	.0005	.0005	0	0
35	DIAG4	PX	.0005	.0005	0	0
36	VERT3	PX	.0005	.0005	0	0
37	VERT2	PX	.0005	.0005	0	0
38	VERT1	PX	.0005	.0005	0	0
39	VERT4	PX	.0005	.0005	0	0
40	VERT5	PX	.0005	.0005	0	0
41	VERT6	PX	.0005	.0005	0	0
42	TIE-BACK	PX	.0005	.0005	0	0
43	MP ALPHA1	PX	.0005	.0005	0	0
44	MP ALPHA2	PX	.0005	.0005	0	0
45	MP ALPHA3	PX	.0005	.0005	0	0
46	MP ALPHA4	PX	.0005	.0005	0	0

Member Distributed Loads (BLC 36 : Ice Wind Load (240))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.002	.002	0	0

Member Distributed Loads (BLC 36 : Ice Wind Load (240)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
2	FACE TOP	PY	.002	.002	0	0
3	SUPPORTPIPE2	PY	.0005	.0005	0	0
4	SUPPORT PIPE1	PY	.0005	.0005	0	0
5	KICKER3	PY	.0005	.0005	0	0
6	KICKER1	PY	.0005	.0005	0	0
7	KICKER4	PY	.0005	.0005	0	0
8	KICKER2	PY	.0005	.0005	0	0
9	DIAG1	PY	.0005	.0005	0	0
10	DIAG2	PY	.0005	.0005	0	0
11	DIAG3	PY	.0005	.0005	0	0
12	DIAG4	PY	.0005	.0005	0	0
13	VERT3	PY	.0005	.0005	0	0
14	VERT2	PY	.0005	.0005	0	0
15	VERT1	PY	.0005	.0005	0	0
16	VERT4	PY	.0005	.0005	0	0
17	VERT5	PY	.0005	.0005	0	0
18	VERT6	PY	.0005	.0005	0	0
19	TIE-BACK	PY	.0005	.0005	0	0
20	MP ALPHA1	PY	.0005	.0005	0	0
21	MP ALPHA2	PY	.0005	.0005	0	0
22	MP ALPHA3	PY	.0005	.0005	0	0
23	MP ALPHA4	PY	.0005	.0005	0	0
24	FACE BOTTOM	PX	.003	.003	0	0
25	FACE TOP	PX	.003	.003	0	0
26	SUPPORTPIPE2	PX	.000866	.000866	0	0
27	SUPPORT PIPE1	PX	.000866	.000866	0	0
28	KICKER3	PX	.000866	.000866	0	0
29	KICKER1	PX	.000866	.000866	0	0
30	KICKER4	PX	.000866	.000866	0	0
31	KICKER2	PX	.000866	.000866	0	0
32	DIAG1	PX	.000866	.000866	0	0
33	DIAG2	PX	.000866	.000866	0	0
34	DIAG3	PX	.000866	.000866	0	0
35	DIAG4	PX	.000866	.000866	0	0
36	VERT3	PX	.000866	.000866	0	0
37	VERT2	PX	.000866	.000866	0	0
38	VERT1	PX	.000866	.000866	0	0
39	VERT4	PX	.000866	.000866	0	0
40	VERT5	PX	.000866	.000866	0	0
41	VERT6	PX	.000866	.000866	0	0
42	TIE-BACK	PX	.000866	.000866	0	0
43	MP ALPHA1	PX	.000866	.000866	0	0
44	MP ALPHA2	PX	.000866	.000866	0	0
45	MP ALPHA3	PX	.000866	.000866	0	0
46	MP ALPHA4	PX	.000866	.000866	0	0

Member Distributed Loads (BLC 37 : Ice Wind Load (270))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PX	.001	.001	0	0
2	FACE TOP	PX	.001	.001	0	0
3	SUPPORTPIPE2	PX	.001	.001	0	0
4	SUPPORT PIPE1	PX	.001	.001	0	0
5	KICKER3	PX	.003	.003	0	0
6	KICKER1	PX	.001	.001	0	0
7	KICKER4	PX	.003	.003	0	0
8	KICKER2	PX	.001	.001	0	0

Member Distributed Loads (BLC 37 : Ice Wind Load (270)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
9	DIAG1	PX	.001	.001	0	0
10	DIAG2	PX	.001	.001	0	0
11	DIAG3	PX	.003	.003	0	0
12	DIAG4	PX	.003	.003	0	0
13	VERT3	PX	.001	.001	0	0
14	VERT2	PX	.001	.001	0	0
15	VERT1	PX	.001	.001	0	0
16	VERT4	PX	.003	.003	0	0
17	VERT5	PX	.003	.003	0	0
18	VERT6	PX	.003	.003	0	0
19	TIE-BACK	PX	.001	.001	0	0
20	MP ALPHA1	PX	.001	.001	0	0
21	MP ALPHA2	PX	.001	.001	0	0
22	MP ALPHA3	PX	.001	.001	0	0
23	MP ALPHA4	PX	.001	.001	0	0

Member Distributed Loads (BLC 38 : Ice Wind Load (300))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.002	-.002	0	0
2	FACE TOP	PY	-.002	-.002	0	0
3	SUPPORTPIPE2	PY	-.0005	-.0005	0	0
4	SUPPORT PIPE1	PY	-.0005	-.0005	0	0
5	KICKER3	PY	-.0005	-.0005	0	0
6	KICKER1	PY	-.0005	-.0005	0	0
7	KICKER4	PY	-.0005	-.0005	0	0
8	KICKER2	PY	-.0005	-.0005	0	0
9	DIAG1	PY	-.0005	-.0005	0	0
10	DIAG2	PY	-.0005	-.0005	0	0
11	DIAG3	PY	-.0005	-.0005	0	0
12	DIAG4	PY	-.0005	-.0005	0	0
13	VERT3	PY	-.0005	-.0005	0	0
14	VERT2	PY	-.0005	-.0005	0	0
15	VERT1	PY	-.0005	-.0005	0	0
16	VERT4	PY	-.0005	-.0005	0	0
17	VERT5	PY	-.0005	-.0005	0	0
18	VERT6	PY	-.0005	-.0005	0	0
19	TIE-BACK	PY	-.0005	-.0005	0	0
20	MP ALPHA1	PY	-.0005	-.0005	0	0
21	MP ALPHA2	PY	-.0005	-.0005	0	0
22	MP ALPHA3	PY	-.0005	-.0005	0	0
23	MP ALPHA4	PY	-.0005	-.0005	0	0
24	FACE BOTTOM	PX	.003	.003	0	0
25	FACE TOP	PX	.003	.003	0	0
26	SUPPORTPIPE2	PX	.000866	.000866	0	0
27	SUPPORT PIPE1	PX	.000866	.000866	0	0
28	KICKER3	PX	.000866	.000866	0	0
29	KICKER1	PX	.000866	.000866	0	0
30	KICKER4	PX	.000866	.000866	0	0
31	KICKER2	PX	.000866	.000866	0	0
32	DIAG1	PX	.000866	.000866	0	0
33	DIAG2	PX	.000866	.000866	0	0
34	DIAG3	PX	.000866	.000866	0	0
35	DIAG4	PX	.000866	.000866	0	0
36	VERT3	PX	.000866	.000866	0	0
37	VERT2	PX	.000866	.000866	0	0
38	VERT1	PX	.000866	.000866	0	0

Member Distributed Loads (BLC 38 : Ice Wind Load (300)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
39	VERT4	PX	.000866	.000866	0	0
40	VERT5	PX	.000866	.000866	0	0
41	VERT6	PX	.000866	.000866	0	0
42	TIE-BACK	PX	.000866	.000866	0	0
43	MP ALPHA1	PX	.000866	.000866	0	0
44	MP ALPHA2	PX	.000866	.000866	0	0
45	MP ALPHA3	PX	.000866	.000866	0	0
46	MP ALPHA4	PX	.000866	.000866	0	0

Member Distributed Loads (BLC 39 : Ice Wind Load (330))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.003	-.003	0	0
2	FACE TOP	PY	-.003	-.003	0	0
3	SUPPORTPIPE2	PY	-.000866	-.000866	0	0
4	SUPPORT PIPE1	PY	-.000866	-.000866	0	0
5	KICKER3	PY	-.000866	-.000866	0	0
6	KICKER1	PY	-.000866	-.000866	0	0
7	KICKER4	PY	-.000866	-.000866	0	0
8	KICKER2	PY	-.000866	-.000866	0	0
9	DIAG1	PY	-.000866	-.000866	0	0
10	DIAG2	PY	-.000866	-.000866	0	0
11	DIAG3	PY	-.000866	-.000866	0	0
12	DIAG4	PY	-.000866	-.000866	0	0
13	VERT3	PY	-.000866	-.000866	0	0
14	VERT2	PY	-.000866	-.000866	0	0
15	VERT1	PY	-.000866	-.000866	0	0
16	VERT4	PY	-.000866	-.000866	0	0
17	VERT5	PY	-.000866	-.000866	0	0
18	VERT6	PY	-.000866	-.000866	0	0
19	TIE-BACK	PY	-.000866	-.000866	0	0
20	MP ALPHA1	PY	-.000866	-.000866	0	0
21	MP ALPHA2	PY	-.000866	-.000866	0	0
22	MP ALPHA3	PY	-.000866	-.000866	0	0
23	MP ALPHA4	PY	-.000866	-.000866	0	0
24	FACE BOTTOM	PX	.002	.002	0	0
25	FACE TOP	PX	.002	.002	0	0
26	SUPPORTPIPE2	PX	.0005	.0005	0	0
27	SUPPORT PIPE1	PX	.0005	.0005	0	0
28	KICKER3	PX	.0005	.0005	0	0
29	KICKER1	PX	.0005	.0005	0	0
30	KICKER4	PX	.0005	.0005	0	0
31	KICKER2	PX	.0005	.0005	0	0
32	DIAG1	PX	.0005	.0005	0	0
33	DIAG2	PX	.0005	.0005	0	0
34	DIAG3	PX	.0005	.0005	0	0
35	DIAG4	PX	.0005	.0005	0	0
36	VERT3	PX	.0005	.0005	0	0
37	VERT2	PX	.0005	.0005	0	0
38	VERT1	PX	.0005	.0005	0	0
39	VERT4	PX	.0005	.0005	0	0
40	VERT5	PX	.0005	.0005	0	0
41	VERT6	PX	.0005	.0005	0	0
42	TIE-BACK	PX	.0005	.0005	0	0
43	MP ALPHA1	PX	.0005	.0005	0	0
44	MP ALPHA2	PX	.0005	.0005	0	0
45	MP ALPHA3	PX	.0005	.0005	0	0

Member Distributed Loads (BLC 39 : Ice Wind Load (330)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
46	MP ALPHA4	PX	.0005	.0005	0	0

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N78	max	1.415	4	2.45	4	1.22	16	-.127	32	.217	16	0	41
2		min	.144	20	.091	20	.451	32	-.31	15	.044	32	0	1
3	N70A	max	-.376	35	-.553	35	.296	16	-.055	17	.107	19	0	41
4		min	-1.403	19	-2.425	19	.115	32	-.133	36	-.012	35	0	1
5	N80	max	-.101	23	3.21	6	1.537	33	-.137	8	-.072	10	0	41
6		min	-1.839	6	.077	23	.602	16	-.399	27	-.226	30	0	1
7	N72A	max	1.838	27	-.199	5	.377	33	-.045	26	-.017	4	0	41
8		min	.145	8	-3.191	27	.152	16	-.154	9	-.083	21	0	1
9	N71	max	2.433	8	1.661	26	.033	30	0	41	0	41	0	41
10		min	-2.449	26	-1.66	8	.016	35	0	1	0	1	0	1
11	Totals:	max	1.41	14	2.578	2	3.329	36						
12		min	-1.531	29	-2.578	20	1.537	14						

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Live Load	DL					1			
2	Wind Load (0)	DL					16	23		
3	Dead Load	DL			-1.1		16			
4	Wind Load (30)	DL					32	46		
5	Wind Load (60)	DL					32	46		
6	Wind Load (90)	DL					16	23		
7	Wind Load (120)	DL					32	46		
8	Wind Load (150)	DL					32	46		
9	Wind Load (180)	DL					16	23		
10	Wind Load (210)	DL					32	46		
11	Wind Load (240)	DL					32	46		
12	Wind Load (270)	DL					16	23		
13	Wind Load (300)	DL					32	46		
14	Wind Load (330)	DL					32	46		
15	Maintanence (0)	DL					16			
16	Maintanence (30)	DL					32			
17	Maintanence (60)	DL					32			
18	Maintanence (90)	DL					16			
19	Maintanence (120)	DL					32			
20	Maintanence (150)	DL					32			
21	Maintanence (180)	DL					16			
22	Maintanence (210)	DL					32			
23	Maintanence (240)	DL					32			
24	Maintanence (270)	DL					16			
25	Maintanence (300)	DL					32			
26	Maintanence (330)	DL					32			
27	Ice Dead Load	DL					16	23		
28	Ice Wind Load (0)	DL					16	23		
29	Ice Wind Load (30)	DL					32	46		
30	Ice Wind Load (60)	DL					32	46		
31	Ice Wind Load (90)	DL					16	23		
32	Ice Wind Load (120)	DL					32	46		
33	Ice Wind Load (150)	DL					32	46		
34	Ice Wind Load (180)	DL					16	23		
35	Ice Wind Load (210)	DL					32	46		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
36	Ice Wind Load (240)	DL					32	46		
37	Ice Wind Load (270)	DL					16	23		
38	Ice Wind Load (300)	DL					32	46		
39	Ice Wind Load (330)	DL					32	46		
40	Earthquake (x-directi...	DL	-.126				16			
41	Earthquake (y-directi...	DL		-.126			16			
42	Earthquake (z-directi...	DL			-.05		16			

Load Combinations

	Description	So...	P...	S...	BLC	Fact..	BLC	Fa..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..
1	1.4D	Yes	Y		3	1.4																				
2	1.2D + 1.0W(0)	Yes	Y		3	1.2	2	1																		
3	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	28	1																
4	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	15	1																
5	1.2D + 1.0W(30)	Yes	Y		3	1.2	4	1																		
6	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	29	1																
7	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	16	1																
8	1.2D + 1.0W(60)	Yes	Y		3	1.2	5	1																		
9	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	30	1																
10	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	17	1																
11	1.2D + 1.0W(90)	Yes	Y		3	1.2	6	1																		
12	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	31	1																
13	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	18	1																
14	1.2D + 1.0W(120)	Yes	Y		3	1.2	7	1																		
15	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	32	1																
16	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	19	1																
17	1.2D + 1.0W(150)	Yes	Y		3	1.2	8	1																		
18	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	33	1																
19	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	20	1																
20	1.2D + 1.0W(180)	Yes	Y		3	1.2	9	1																		
21	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	34	1																
22	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	21	1																
23	1.2D + 1.0W(210)	Yes	Y		3	1.2	10	1																		
24	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	35	1																
25	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	22	1																
26	1.2D + 1.0W(240)	Yes	Y		3	1.2	11	1																		
27	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	36	1																
28	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	23	1																
29	1.2D + 1.0W(270)	Yes	Y		3	1.2	12	1																		
30	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	37	1																
31	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	24	1																
32	1.2D + 1.0W(300)	Yes	Y		3	1.2	13	1																		
33	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	38	1																
34	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	25	1																
35	1.2D + 1.0W(330)	Yes	Y		3	1.2	14	1																		
36	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	39	1																
37	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	26	1																
38	1.2D + 1.0E(x) +...	Yes	Y		3	1.2	40	1	42	1	1	1														
39	1.2D + 1.0E(y) +...	Yes	Y		3	1.2	41	1	42	1	1	1														
40	1.2D - 1.0E(x) + ...	Yes	Y		3	1.2	40	-1	42	1	1	1														
41	1.2D - 1.0E(y) + ...	Yes	Y		3	1.2	41	-1	42	1	1	1														

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

	Member	Shape	Code ...	Loc[ft]	LC	She...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*M...	phi*M...	...	Eqn
1	FACE BOTTOM	PIPE_2.5	.194	12.813	26	.065	12....		26	10.11	50.715	3.596	3.596	...	H1-1b
2	FACE TOP	PIPE_2.5	.268	12.656	2	.162	2.344		2	10.11	50.715	3.596	3.596	...	H1-1b
3	SUPPORTPIPE2	PIPE_2.0	.255	3.516	2	.360	3.75		2	25.204	32.13	1.872	1.872	...	H3-6
4	SUPPORT PIPE1	PIPE_2.0	.605	2.25	26	.276	3.75		5	25.204	32.13	1.872	1.872	...	H1-1b
5	KICKER3	PIPE_2.5	.129	5.875	2	.093	0		19	37.774	50.715	3.596	3.596	...	H1-1b
6	KICKER1	PIPE_2.5	.161	0	36	.102	0		24	37.774	50.715	3.596	3.596	...	H1-1b
7	KICKER4	PIPE_2.5	.105	5.75	20	.083	5.75		7	37.774	50.715	3.596	3.596	...	H1-1b
8	KICKER2	PIPE_2.5	.159	5.875	26	.110	5.75		26	37.774	50.715	3.596	3.596	...	H1-1b
9	DIAG1	PIPE_1.5	.061	2.035	12	.017	0		20	17.269	23.593	1.105	1.105	...	H1-1b
10	DIAG2	PIPE_1.5	.063	2.035	12	.008	0		20	17.269	23.593	1.105	1.105	...	H1-1b
11	DIAG3	PIPE_1.5	.046	1.992	10	.027	0		20	17.269	23.593	1.105	1.105	...	H1-1b
12	DIAG4	PIPE_1.5	.049	2.035	30	.012	0		20	17.269	23.593	1.105	1.105	...	H1-1b
13	VERT3	PIPE_1.5	.017	0	30	.007	0		10	19.914	23.593	1.105	1.105	1	H1-1b*
14	VERT2	PIPE_1.5	.090	0	9	.007	0		16	19.914	23.593	1.105	1.105	...	H1-1b*
15	VERT1	PIPE_1.5	.056	0	8	.006	0		2	19.914	23.593	1.105	1.105	...	H1-1b*
16	VERT4	PIPE_1.5	.020	0	19	.008	0		20	19.914	23.593	1.105	1.105	1	H1-1b*
17	VERT5	PIPE_1.5	.072	0	19	.008	0		30	19.914	23.593	1.105	1.105	1	H1-1b*
18	VERT6	PIPE_1.5	.013	0	16	.010	0		35	19.914	23.593	1.105	1.105	1	H1-1b*
19	TIE-BACK	PIPE_2.0	.263	0	8	.006	0		27	12.069	32.13	1.872	1.872	...	H1-1a
20	MP ALPHA1	PIPE_2.0	.224	1.039	34	.047	3.008		19	23.088	32.13	1.872	1.872	...	H1-1b
21	MP ALPHA2	PIPE_2.0	.497	4.25	20	.065	4.25		20	14.916	32.13	1.872	1.872	...	H1-1b
22	MP ALPHA3	PIPE_2.0	.226	3.495	36	.052	3.495		2	22.356	32.13	1.872	1.872	...	H1-1b
23	MP ALPHA4	PIPE_2.0	.127	1.286	21	.033	3.724		2	19.36	32.13	1.872	1.872	...	H1-1b

APPENDIX D

Software Input Calculations (Beta & Gamma Sector)

POWER OF DESIGN

POD Job #	**8064478**
Site Number	**20-64957**
Site Name	**HRT 080 953381**

General Site Information

Mount Type	MF	Risk Category	II	I (seismic)	1	
V (Wind Speed)	122	I(ice)	1	Sms	0.342	
Zs	514			Sm1	0.132	
ti	1	Ss	0.214	Sds	0.228	
Vi	50	S1	0.055	Sd1	0.088	
Kzt	1	Soil Site Class	D (assumed)	Seismic Design Category	B	
Exposure	B	Fa	1.600			
zg	1200	Fv	2.400	Seismic Analysis Not Required		
α	7			R	2	TIA-222-H 16.7
Kmin	0.7	Tower Type	Self Support	As	1	TIA-222-H 16.7
G_H	1	Tower Height	190	Cs, Min	0.03	TIA-222-H 2.7.7.1.1
Ke	0.98			Cs	0.114133333	TIA-222-H 2.7.7.1.1
K_D	0.95					
K_a	0.9					

Appurtenance Information

Model	Shielded	% Shielded	Centerline	Centerline on MP	Spacing (in)	Azimuth	Sector	Quantity	MP #
7770	No		167	3	30		A	1	1
QS66512-2	No		167	2.75	50		A	1	4
DMP65R-BU8D	No		167	4	70		A	1	2
OPA65R-BU6D	No		167	2.5	50		A	1	3
RRUS 32 B2	No		167	2.75			A	1	4
RRUS 32 B30	No		167	2.75			A	1	4
LGP21401	No		167	3			A	2	1
RRUS 4449 B5/B12	No		167	4			A	1	2
RRUS 4478 B14	No		167	2.5			A	1	3

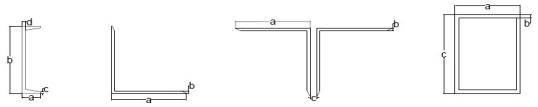
Mount Information

Elevation (ft)	165	Grating Thickness (in)	0
K_z	1.14	Grating Ice Weight (k/ft²)	0.011
Kiz	1.17		
tiz	1.17		

	Length (ft)	Width (in)	Centerline
Mount Pipes	8	2.375	165

Round Members

Member	Length (ft)	Width (in)	Frame Member	# of Members
Face	15	2.875	Yes	2
Support Pipe	4.5	2.375	No	2
Kicker	6	2.875	No	4
Diagonal	4.07	1.875	No	4
Vertical	3	1.875	No	6
Tieback	9.03	2.375	No	1



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Appurtenance Wind Calculations

Model	Height	Width	Depth	Weight (lbs)	Kz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Wind Force (Kips) Front	Side	Alpha	Beta	Gamma
7770	55.0	11.0	5.0	35.0	1.14	40.65	3.42	1.56	0.139	0.063	0.120	0.120	0.063
QS66512-2	72.0	12.0	9.6	111.0	1.14	40.65	4.01	3.37	0.163	0.137	0.157	0.157	0.137
DMP65R-BU8D	96.0	20.7	7.7	105.6	1.14	40.65	15.86	5.95	0.645	0.242	0.544	0.544	0.242
OPA65R-BU6D	71.2	21.0	7.8	63.5	1.14	40.65	12.22	4.54	0.497	0.185	0.419	0.419	0.185
RRUS 32 B2	27.2	12.1	7.0	52.9	1.14	40.65	2.46	1.50	0.100	0.061	0.090	0.090	0.061
RRUS 32 B30	27.2	12.1	7.0	53.0	1.14	40.65	2.47	1.50	0.100	0.061	0.091	0.091	0.061
LGP21401	14.2	6.7	5.4	22.0	1.14	40.65	0.71	0.58	0.029	0.023	0.028	0.028	0.023
RRUS 4449 B5/B12	17.9	13.2	9.4	71.0	1.14	40.65	1.77	1.27	0.072	0.052	0.067	0.067	0.052
RRUS 4478 B14	16.5	13.4	7.7	59.9	1.14	40.65	1.66	0.95	0.067	0.039	0.060	0.060	0.039

Appurtenance Ice Calculations

Model	tiz (in)	Height	Width	Depth	Weight (lbs)	Kiz	qz (lb/ft$_2$)	$(EPA)_N$ (ft^2)	$(EPA)_T$(ft^2)	Wind Force (Kips) Front	Side	Alpha	Beta	Gamma
7770	1.18	57.35	13.35	7.35	84.42	1.18	6.83	3.90	2.15	0.027	0.015	0.024	0.024	0.015
QS66512-2	1.18	74.35	14.35	11.95	144.53	1.18	6.83	4.46	3.86	0.030	0.026	0.029	0.029	0.026
DMP65R-BU8D	1.18	98.35	23.05	10.05	242.69	1.18	6.83	16.29	7.15	0.111	0.049	0.096	0.096	0.049
OPA65R-BU6D	1.18	73.55	23.35	10.15	187.14	1.18	6.83	12.63	5.49	0.086	0.038	0.074	0.074	0.038
RRUS 32 B2	1.18	29.55	14.40	9.35	54.64	1.18	6.83	1.86	1.24	0.013	0.008	0.012	0.012	0.008
RRUS 32 B30	1.18	29.55	14.45	9.35	54.78	1.18	6.83	1.87	1.24	0.013	0.008	0.012	0.012	0.008
LGP21401	1.18	16.55	9.05	7.75	20.99	1.18	6.83	0.66	0.56	0.004	0.004	0.004	0.004	0.004
RRUS 4449 B5/B12	1.18	20.25	15.54	11.79	48.06	1.18	6.83	1.38	1.05	0.009	0.007	0.009	0.009	0.007
RRUS 4478 B14	1.18	18.85	15.75	10.05	41.57	1.18	6.83	1.30	0.83	0.009	0.006	0.008	0.008	0.006

Round Members

Member	Wind Calculations q_z (lb/ft^2)	Ar	C	Rrf	Cas	EPA (ft^2)	Load (k/ft)	Ice Calculations Width (in)	Weight (k/ft)	q_z (lb/ft^2)	Arice	Rrfice	Cas	EPA (ft^2)	Load (k/ft)
Face	40.51	7.19	30.92	0.61	1.79	3.56	0.010	5.22	0.01	6.80	13.06	0.64	1.79	6.74	0.003
Support Pipe	40.51	1.78	25.54	0.61	1.20	0.59	0.003	4.72	0.01	6.80	3.54	0.64	1.20	1.23	0.001
Kicker	40.51	5.75	30.92	0.61	1.20	0.95	0.003	5.22	0.01	6.80	10.45	0.64	1.20	1.81	0.001
Diagonal	40.51	2.54	20.17	0.61	1.20	0.42	0.002	4.22	0.00	6.80	5.73	0.64	1.20	0.99	0.001
Vertical	40.51	2.81	20.17	0.61	1.20	0.31	0.002	4.22	0.00	6.80	6.34	0.64	1.20	0.73	0.001
Tieback	40.51	1.79	25.54	0.61	1.20	1.19	0.003	4.72	0.01	6.80	3.55	0.64	1.20	2.46	0.001

Appurtenance Seismic Calculations

Model	Weight	Sds	ρ	Cs	As	Ev	Eh
7770	35.0	0.228	1.000	0.114	1.000	0.002	0.004
QS66512-2	111.0	0.228	1.000	0.114	1.000	0.005	0.013
DMP65R-BU8D	105.6	0.228	1.000	0.114	1.000	0.005	0.012
OPA65R-BU6D	63.5	0.228	1.000	0.114	1.000	0.003	0.007
RRUS 32 B2	52.9	0.228	1.000	0.114	1.000	0.002	0.006
RRUS 32 B30	53.0	0.228	1.000	0.114	1.000	0.002	0.006
LGP21401	22.0	0.228	1.000	0.114	1.000	0.001	0.003
RRUS 4449 B5/B12	71.0	0.228	1.000	0.114	1.000	0.003	0.008
RRUS 4478 B14	59.9	0.228	1.000	0.114	1.000	0.003	0.007

Version 3.12

APPENDIX E

Software Analysis Output (Beta & Gamma Sector)

Hot Rolled Steel Design Parameters

	Label	Shape	Length[...	Lbyy[ft]	Lbzz[ft]	Lcomp top...	Lcomp bot...	L-torq...	Kyy	Kzz	Cb	Functi...
1	FACE BO...	PIPE_2.5	15			Lbyy						Lateral
2	FACE TOP	PIPE_2.5	15			Lbyy						Lateral
3	SUPPORT...	PIPE_2.0	4.5			Lbyy						Lateral
4	SUPPORT...	PIPE_2.0	4.5			Lbyy						Lateral
5	KICKER3	PIPE_2.5	6		2.75	Lbyy						Lateral
6	KICKER1	PIPE_2.5	6		2.75	Lbyy						Lateral
7	KICKER4	PIPE_2.5	6		2.75	Lbyy						Lateral
8	KICKER2	PIPE_2.5	6		2.75	Lbyy						Lateral
9	DIAG1	PIPE_1.5	4.07			Lbyy						Lateral
10	DIAG2	PIPE_1.5	4.07			Lbyy						Lateral
11	DIAG3	PIPE_1.5	4.07			Lbyy						Lateral
12	DIAG4	PIPE_1.5	4.07			Lbyy						Lateral
13	VERT3	PIPE_1.5	3			Lbyy						Lateral
14	VERT2	PIPE_1.5	3			Lbyy						Lateral
15	VERT1	PIPE_1.5	3			Lbyy						Lateral
16	VERT4	PIPE_1.5	3			Lbyy						Lateral
17	VERT5	PIPE_1.5	3			Lbyy						Lateral
18	VERT6	PIPE_1.5	3			Lbyy						Lateral
19	TIE-BACK	PIPE_2.0	9.028			Lbyy						Lateral
20	MP ALPH...	PIPE_2.0	5.25									Lateral
21	MP ALPH...	PIPE_2.0	8									Lateral
22	MP ALPH...	PIPE_2.0	5.5									Lateral
23	MP ALPH...	PIPE_2.0	6.5									Lateral

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	FACE BOTT...	N72B	N70B			PIPE_2.5	Beam	None	A53 Gr.B	Typical
2	FACE TOP	N73B	N71B			PIPE_2.5	Beam	None	A53 Gr.B	Typical
3	SUPPORTPI...	N75	N74B			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
4	SUPPORT PI...	N76	N74A			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
5	KICKER3	N78	N79			PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
6	KICKER1	N80	N88			PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
7	KICKER4	N70A	N71A			PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
8	KICKER2	N72A	N80A			PIPE_2.5	Beam	Pipe	A53 Gr.B	Typical
9	DIAG1	N82	N78A			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
10	DIAG2	N85	N74C			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
11	DIAG3	N81	N76A			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
12	DIAG4	N83	N73A			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
13	VERT3	N77A	N85			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
14	VERT2	N74C	N82			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
15	VERT1	N78A	N86			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
16	VERT4	N76A	N84			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
17	VERT5	N73A	N81			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
18	VERT6	N75A	N83			PIPE_1.5	Beam	Pipe	A53 Gr.B	Typical
19	TIE-BACK	N77	N71			PIPE_2.0	Beam	None	A53 Gr.B	Typical
20	MP ALPHA1	N66	N62A			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
21	MP ALPHA2	N68A	N64			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
22	MP ALPHA3	N69A	N65			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
23	MP ALPHA4	N67A	N63A			PIPE_2.0	Beam	Pipe	A53 Gr.B	Typical
24	1	N54	N55			RIGID	None	None	RIGID	Typical
25	2	N19	N20			RIGID	None	None	RIGID	Typical
26	3	N37	N58			RIGID	None	None	RIGID	Typical
27	4	N2	N23			RIGID	None	None	RIGID	Typical
28	5	N67	N68			RIGID	None	None	RIGID	Typical
29	6	N32	N33			RIGID	None	None	RIGID	Typical
30	7	N69	N70			RIGID	None	None	RIGID	Typical
31	8	N34	N35			RIGID	None	None	RIGID	Typical
32	9	N62	N63			RIGID	None	None	RIGID	Typical
33	10	N27	N28			RIGID	None	None	RIGID	Typical
34	11	N56	N57			RIGID	None	None	RIGID	Typical
35	12	N21	N22			RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physi...	Defl ...	Analysi...	Inactive	Seis...
1	FACE BOTTOM						Yes				None
2	FACE TOP						Yes				None
3	SUPPORTPIPE2						Yes				None
4	SUPPORT PIPE1						Yes				None
5	KICKER3	OOOOOX					Yes	Default			None
6	KICKER1	OOOOOX	OOOOOX				Yes	Default			None
7	KICKER4	OOOOOX					Yes	Default			None
8	KICKER2	OOOOOX					Yes	Default			None
9	DIAG1	BenPIN	BenPIN				Yes				None
10	DIAG2	BenPIN	BenPIN				Yes	Default			None
11	DIAG3	BenPIN	BenPIN				Yes				None
12	DIAG4	BenPIN	BenPIN				Yes				None
13	VERT3	BenPIN	BenPIN				Yes				None
14	VERT2	BenPIN	BenPIN				Yes				None
15	VERT1	BenPIN	BenPIN				Yes				None
16	VERT4	BenPIN	BenPIN				Yes				None
17	VERT5	BenPIN	BenPIN				Yes				None
18	VERT6	BenPIN	BenPIN				Yes				None
19	TIE-BACK						Yes				None
20	MP ALPHA1						Yes				None
21	MP ALPHA2						Yes				None
22	MP ALPHA3						Yes				None
23	MP ALPHA4						Yes				None
24	1						Yes	** NA...			None
25	2						Yes	** NA...			None
26	3						Yes	** NA...			None
27	4						Yes	** NA...			None
28	5						Yes	** NA...			None
29	6						Yes	** NA...			None
30	7						Yes	** NA...			None
31	8						Yes	** NA...			None
32	9						Yes	** NA...			None
33	10						Yes	** NA...			None
34	11						Yes	** NA...			None

Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physi...	Defl ...	Analysi...	Inactive	Seis...
35	12						Yes	** NA...			None

Member Point Loads (BLC 1 : Live Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	FACE BOTTOM	Z	-.5	0

Member Point Loads (BLC 2 : Wind Load (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.07	4.25
2	MP ALPHA1	Y	-.07	1.75
3	MP ALPHA4	Y	-.082	4.833
4	MP ALPHA4	Y	-.082	.667
5	MP ALPHA2	Y	-.322	6.917
6	MP ALPHA2	Y	-.322	1.083
7	MP ALPHA3	Y	-.248	4.583
8	MP ALPHA3	Y	-.248	.417
9	MP ALPHA4	Y	-.1	2.75
10	MP ALPHA4	Y	-.1	2.75
11	MP ALPHA1	Y	-.058	3
12	MP ALPHA2	Y	-.072	4
13	MP ALPHA3	Y	-.067	2.5

Member Point Loads (BLC 3 : Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.018	4.25
2	MP ALPHA1	Z	-.018	1.75
3	MP ALPHA4	Z	-.056	4.833
4	MP ALPHA4	Z	-.056	.667
5	MP ALPHA2	Z	-.053	6.917
6	MP ALPHA2	Z	-.053	1.083
7	MP ALPHA3	Z	-.032	4.583
8	MP ALPHA3	Z	-.032	.417
9	MP ALPHA4	Z	-.053	2.75
10	MP ALPHA4	Z	-.053	2.75
11	MP ALPHA1	Z	-.044	3
12	MP ALPHA2	Z	-.071	4
13	MP ALPHA3	Z	-.06	2.5

Member Point Loads (BLC 4 : Wind Load (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.052	4.25
2	MP ALPHA1	Y	-.052	1.75
3	MP ALPHA1	X	-.03	4.25
4	MP ALPHA1	X	-.03	1.75
5	MP ALPHA4	Y	-.068	4.833
6	MP ALPHA4	Y	-.068	.667
7	MP ALPHA4	X	-.039	4.833
8	MP ALPHA4	X	-.039	.667
9	MP ALPHA2	Y	-.236	6.917
10	MP ALPHA2	Y	-.236	1.083
11	MP ALPHA2	X	-.136	6.917
12	MP ALPHA2	X	-.136	1.083
13	MP ALPHA3	Y	-.181	4.583
14	MP ALPHA3	Y	-.181	.417

Member Point Loads (BLC 4 : Wind Load (30)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
15	MP ALPHA3	X	-.105	4.583
16	MP ALPHA3	X	-.105	.417
17	MP ALPHA4	Y	-.078	2.75
18	MP ALPHA4	X	-.045	2.75
19	MP ALPHA4	Y	-.078	2.75
20	MP ALPHA4	X	-.045	2.75
21	MP ALPHA1	Y	-.048	3
22	MP ALPHA1	X	-.028	3
23	MP ALPHA2	Y	-.058	4
24	MP ALPHA2	X	-.033	4
25	MP ALPHA3	Y	-.052	2.5
26	MP ALPHA3	X	-.03	2.5

Member Point Loads (BLC 5 : Wind Load (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.021	4.25
2	MP ALPHA1	Y	-.021	1.75
3	MP ALPHA1	X	-.036	4.25
4	MP ALPHA1	X	-.036	1.75
5	MP ALPHA4	Y	-.036	4.833
6	MP ALPHA4	Y	-.036	.667
7	MP ALPHA4	X	-.062	4.833
8	MP ALPHA4	X	-.062	.667
9	MP ALPHA2	Y	-.086	6.917
10	MP ALPHA2	Y	-.086	1.083
11	MP ALPHA2	X	-.148	6.917
12	MP ALPHA2	X	-.148	1.083
13	MP ALPHA3	Y	-.066	4.583
14	MP ALPHA3	Y	-.066	.417
15	MP ALPHA3	X	-.114	4.583
16	MP ALPHA3	X	-.114	.417
17	MP ALPHA4	Y	-.035	2.75
18	MP ALPHA4	X	-.061	2.75
19	MP ALPHA4	Y	-.035	2.75
20	MP ALPHA4	X	-.061	2.75
21	MP ALPHA1	Y	-.025	3
22	MP ALPHA1	X	-.043	3
23	MP ALPHA2	Y	-.028	4
24	MP ALPHA2	X	-.049	4
25	MP ALPHA3	Y	-.023	2.5
26	MP ALPHA3	X	-.04	2.5

Member Point Loads (BLC 6 : Wind Load (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.032	4.25
2	MP ALPHA1	X	-.032	1.75
3	MP ALPHA4	X	-.068	4.833
4	MP ALPHA4	X	-.068	.667
5	MP ALPHA2	X	-.121	6.917
6	MP ALPHA2	X	-.121	1.083
7	MP ALPHA3	X	-.092	4.583
8	MP ALPHA3	X	-.092	.417
9	MP ALPHA4	X	-.061	2.75
10	MP ALPHA4	X	-.061	2.75
11	MP ALPHA1	X	-.047	3
12	MP ALPHA2	X	-.052	4

Member Point Loads (BLC 6 : Wind Load (90)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
13	MP ALPHA3	X	-.039	2.5

Member Point Loads (BLC 7 : Wind Load (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.021	4.25
2	MP ALPHA1	Y	.021	1.75
3	MP ALPHA1	X	-.036	4.25
4	MP ALPHA1	X	-.036	1.75
5	MP ALPHA4	Y	.036	4.833
6	MP ALPHA4	Y	.036	.667
7	MP ALPHA4	X	-.062	4.833
8	MP ALPHA4	X	-.062	.667
9	MP ALPHA2	Y	.086	6.917
10	MP ALPHA2	Y	.086	1.083
11	MP ALPHA2	X	-.148	6.917
12	MP ALPHA2	X	-.148	1.083
13	MP ALPHA3	Y	.066	4.583
14	MP ALPHA3	Y	.066	.417
15	MP ALPHA3	X	-.114	4.583
16	MP ALPHA3	X	-.114	.417
17	MP ALPHA4	Y	.035	2.75
18	MP ALPHA4	X	-.061	2.75
19	MP ALPHA4	Y	.035	2.75
20	MP ALPHA4	X	-.061	2.75
21	MP ALPHA1	Y	.025	3
22	MP ALPHA1	X	-.043	3
23	MP ALPHA2	Y	.028	4
24	MP ALPHA2	X	-.049	4
25	MP ALPHA3	Y	.023	2.5
26	MP ALPHA3	X	-.04	2.5

Member Point Loads (BLC 8 : Wind Load (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.052	4.25
2	MP ALPHA1	Y	.052	1.75
3	MP ALPHA1	X	-.03	4.25
4	MP ALPHA1	X	-.03	1.75
5	MP ALPHA4	Y	.068	4.833
6	MP ALPHA4	Y	.068	.667
7	MP ALPHA4	X	-.039	4.833
8	MP ALPHA4	X	-.039	.667
9	MP ALPHA2	Y	.236	6.917
10	MP ALPHA2	Y	.236	1.083
11	MP ALPHA2	X	-.136	6.917
12	MP ALPHA2	X	-.136	1.083
13	MP ALPHA3	Y	.181	4.583
14	MP ALPHA3	Y	.181	.417
15	MP ALPHA3	X	-.105	4.583
16	MP ALPHA3	X	-.105	.417
17	MP ALPHA4	Y	.078	2.75
18	MP ALPHA4	X	-.045	2.75
19	MP ALPHA4	Y	.078	2.75
20	MP ALPHA4	X	-.045	2.75
21	MP ALPHA1	Y	.048	3
22	MP ALPHA1	X	-.028	3
23	MP ALPHA2	Y	.058	4

Member Point Loads (BLC 8 : Wind Load (150)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
24	MP ALPHA2	X	-.033	4
25	MP ALPHA3	Y	.052	2.5
26	MP ALPHA3	X	-.03	2.5

Member Point Loads (BLC 9 : Wind Load (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.07	4.25
2	MP ALPHA1	Y	.07	1.75
3	MP ALPHA4	Y	.082	4.833
4	MP ALPHA4	Y	.082	.667
5	MP ALPHA2	Y	.322	6.917
6	MP ALPHA2	Y	.322	1.083
7	MP ALPHA3	Y	.248	4.583
8	MP ALPHA3	Y	.248	.417
9	MP ALPHA4	Y	.1	2.75
10	MP ALPHA4	Y	.1	2.75
11	MP ALPHA1	Y	.058	3
12	MP ALPHA2	Y	.072	4
13	MP ALPHA3	Y	.067	2.5

Member Point Loads (BLC 10 : Wind Load (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.052	4.25
2	MP ALPHA1	Y	.052	1.75
3	MP ALPHA1	X	.03	4.25
4	MP ALPHA1	X	.03	1.75
5	MP ALPHA4	Y	.068	4.833
6	MP ALPHA4	Y	.068	.667
7	MP ALPHA4	X	.039	4.833
8	MP ALPHA4	X	.039	.667
9	MP ALPHA2	Y	.236	6.917
10	MP ALPHA2	Y	.236	1.083
11	MP ALPHA2	X	.136	6.917
12	MP ALPHA2	X	.136	1.083
13	MP ALPHA3	Y	.181	4.583
14	MP ALPHA3	Y	.181	.417
15	MP ALPHA3	X	.105	4.583
16	MP ALPHA3	X	.105	.417
17	MP ALPHA4	Y	.078	2.75
18	MP ALPHA4	X	.045	2.75
19	MP ALPHA4	Y	.078	2.75
20	MP ALPHA4	X	.045	2.75
21	MP ALPHA1	Y	.048	3
22	MP ALPHA1	X	.028	3
23	MP ALPHA2	Y	.058	4
24	MP ALPHA2	X	.033	4
25	MP ALPHA3	Y	.052	2.5
26	MP ALPHA3	X	.03	2.5

Member Point Loads (BLC 11 : Wind Load (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.021	4.25
2	MP ALPHA1	Y	.021	1.75
3	MP ALPHA1	X	.036	4.25
4	MP ALPHA1	X	.036	1.75

Member Point Loads (BLC 11 : Wind Load (240)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
5	MP ALPHA4	Y	.036	4.833
6	MP ALPHA4	Y	.036	.667
7	MP ALPHA4	X	.062	4.833
8	MP ALPHA4	X	.062	.667
9	MP ALPHA2	Y	.086	6.917
10	MP ALPHA2	Y	.086	1.083
11	MP ALPHA2	X	.148	6.917
12	MP ALPHA2	X	.148	1.083
13	MP ALPHA3	Y	.066	4.583
14	MP ALPHA3	Y	.066	.417
15	MP ALPHA3	X	.114	4.583
16	MP ALPHA3	X	.114	.417
17	MP ALPHA4	Y	.035	2.75
18	MP ALPHA4	X	.061	2.75
19	MP ALPHA4	Y	.035	2.75
20	MP ALPHA4	X	.061	2.75
21	MP ALPHA1	Y	.025	3
22	MP ALPHA1	X	.043	3
23	MP ALPHA2	Y	.028	4
24	MP ALPHA2	X	.049	4
25	MP ALPHA3	Y	.023	2.5
26	MP ALPHA3	X	.04	2.5

Member Point Loads (BLC 12 : Wind Load (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.032	4.25
2	MP ALPHA1	X	.032	1.75
3	MP ALPHA4	X	.068	4.833
4	MP ALPHA4	X	.068	.667
5	MP ALPHA2	X	.121	6.917
6	MP ALPHA2	X	.121	1.083
7	MP ALPHA3	X	.092	4.583
8	MP ALPHA3	X	.092	.417
9	MP ALPHA4	X	.061	2.75
10	MP ALPHA4	X	.061	2.75
11	MP ALPHA1	X	.047	3
12	MP ALPHA2	X	.052	4
13	MP ALPHA3	X	.039	2.5

Member Point Loads (BLC 13 : Wind Load (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.021	4.25
2	MP ALPHA1	Y	-.021	1.75
3	MP ALPHA1	X	.036	4.25
4	MP ALPHA1	X	.036	1.75
5	MP ALPHA4	Y	-.036	4.833
6	MP ALPHA4	Y	-.036	.667
7	MP ALPHA4	X	.062	4.833
8	MP ALPHA4	X	.062	.667
9	MP ALPHA2	Y	-.086	6.917
10	MP ALPHA2	Y	-.086	1.083
11	MP ALPHA2	X	.148	6.917
12	MP ALPHA2	X	.148	1.083
13	MP ALPHA3	Y	-.066	4.583
14	MP ALPHA3	Y	-.066	.417
15	MP ALPHA3	X	.114	4.583

Member Point Loads (BLC 13 : Wind Load (300)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
16	MP ALPHA3	X	.114	.417
17	MP ALPHA4	Y	-.035	2.75
18	MP ALPHA4	X	.061	2.75
19	MP ALPHA4	Y	-.035	2.75
20	MP ALPHA4	X	.061	2.75
21	MP ALPHA1	Y	-.025	3
22	MP ALPHA1	X	.043	3
23	MP ALPHA2	Y	-.028	4
24	MP ALPHA2	X	.049	4
25	MP ALPHA3	Y	-.023	2.5
26	MP ALPHA3	X	.04	2.5

Member Point Loads (BLC 14 : Wind Load (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.052	4.25
2	MP ALPHA1	Y	-.052	1.75
3	MP ALPHA1	X	.03	4.25
4	MP ALPHA1	X	.03	1.75
5	MP ALPHA4	Y	-.068	4.833
6	MP ALPHA4	Y	-.068	.667
7	MP ALPHA4	X	.039	4.833
8	MP ALPHA4	X	.039	.667
9	MP ALPHA2	Y	-.236	6.917
10	MP ALPHA2	Y	-.236	1.083
11	MP ALPHA2	X	.136	6.917
12	MP ALPHA2	X	.136	1.083
13	MP ALPHA3	Y	-.181	4.583
14	MP ALPHA3	Y	-.181	.417
15	MP ALPHA3	X	.105	4.583
16	MP ALPHA3	X	.105	.417
17	MP ALPHA4	Y	-.078	2.75
18	MP ALPHA4	X	.045	2.75
19	MP ALPHA4	Y	-.078	2.75
20	MP ALPHA4	X	.045	2.75
21	MP ALPHA1	Y	-.048	3
22	MP ALPHA1	X	.028	3
23	MP ALPHA2	Y	-.058	4
24	MP ALPHA2	X	.033	4
25	MP ALPHA3	Y	-.052	2.5
26	MP ALPHA3	X	.03	2.5

Member Point Loads (BLC 15 : Maintanence (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.004	4.25
2	MP ALPHA1	Y	-.004	1.75
3	MP ALPHA4	Y	-.005	4.833
4	MP ALPHA4	Y	-.005	.667
5	MP ALPHA2	Y	-.019	6.917
6	MP ALPHA2	Y	-.019	1.083
7	MP ALPHA3	Y	-.015	4.583
8	MP ALPHA3	Y	-.015	.417
9	MP ALPHA4	Y	-.006	2.75
10	MP ALPHA4	Y	-.006	2.75
11	MP ALPHA1	Y	-.004	3
12	MP ALPHA2	Y	-.004	4
13	MP ALPHA3	Y	-.004	2.5

Member Point Loads (BLC 16 : Maintanence (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.003	4.25
2	MP ALPHA1	Y	-.003	1.75
3	MP ALPHA1	X	-.002	4.25
4	MP ALPHA1	X	-.002	1.75
5	MP ALPHA4	Y	-.004	4.833
6	MP ALPHA4	Y	-.004	.667
7	MP ALPHA4	X	-.002	4.833
8	MP ALPHA4	X	-.002	.667
9	MP ALPHA2	Y	-.014	6.917
10	MP ALPHA2	Y	-.014	1.083
11	MP ALPHA2	X	-.008	6.917
12	MP ALPHA2	X	-.008	1.083
13	MP ALPHA3	Y	-.011	4.583
14	MP ALPHA3	Y	-.011	.417
15	MP ALPHA3	X	-.006	4.583
16	MP ALPHA3	X	-.006	.417
17	MP ALPHA4	Y	-.005	2.75
18	MP ALPHA4	X	-.003	2.75
19	MP ALPHA4	Y	-.005	2.75
20	MP ALPHA4	X	-.003	2.75
21	MP ALPHA1	Y	-.003	3
22	MP ALPHA1	X	-.002	3
23	MP ALPHA2	Y	-.004	4
24	MP ALPHA2	X	-.002	4
25	MP ALPHA3	Y	-.003	2.5
26	MP ALPHA3	X	-.002	2.5

Member Point Loads (BLC 17 : Maintanence (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.001	4.25
2	MP ALPHA1	Y	-.001	1.75
3	MP ALPHA1	X	-.002	4.25
4	MP ALPHA1	X	-.002	1.75
5	MP ALPHA4	Y	-.002	4.833
6	MP ALPHA4	Y	-.002	.667
7	MP ALPHA4	X	-.004	4.833
8	MP ALPHA4	X	-.004	.667
9	MP ALPHA2	Y	-.005	6.917
10	MP ALPHA2	Y	-.005	1.083
11	MP ALPHA2	X	-.009	6.917
12	MP ALPHA2	X	-.009	1.083
13	MP ALPHA3	Y	-.004	4.583
14	MP ALPHA3	Y	-.004	.417
15	MP ALPHA3	X	-.007	4.583
16	MP ALPHA3	X	-.007	.417
17	MP ALPHA4	Y	-.002	2.75
18	MP ALPHA4	X	-.004	2.75
19	MP ALPHA4	Y	-.002	2.75
20	MP ALPHA4	X	-.004	2.75
21	MP ALPHA1	Y	-.002	3
22	MP ALPHA1	X	-.003	3
23	MP ALPHA2	Y	-.002	4
24	MP ALPHA2	X	-.003	4
25	MP ALPHA3	Y	-.001	2.5
26	MP ALPHA3	X	-.002	2.5

Member Point Loads (BLC 18 : Maintanence (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.002	4.25
2	MP ALPHA1	X	-.002	1.75
3	MP ALPHA4	X	-.004	4.833
4	MP ALPHA4	X	-.004	.667
5	MP ALPHA2	X	-.007	6.917
6	MP ALPHA2	X	-.007	1.083
7	MP ALPHA3	X	-.006	4.583
8	MP ALPHA3	X	-.006	.417
9	MP ALPHA4	X	-.004	2.75
10	MP ALPHA4	X	-.004	2.75
11	MP ALPHA1	X	-.003	3
12	MP ALPHA2	X	-.003	4
13	MP ALPHA3	X	-.002	2.5

Member Point Loads (BLC 19 : Maintanence (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.001	4.25
2	MP ALPHA1	Y	.001	1.75
3	MP ALPHA1	X	-.002	4.25
4	MP ALPHA1	X	-.002	1.75
5	MP ALPHA4	Y	.002	4.833
6	MP ALPHA4	Y	.002	.667
7	MP ALPHA4	X	-.004	4.833
8	MP ALPHA4	X	-.004	.667
9	MP ALPHA2	Y	.005	6.917
10	MP ALPHA2	Y	.005	1.083
11	MP ALPHA2	X	-.009	6.917
12	MP ALPHA2	X	-.009	1.083
13	MP ALPHA3	Y	.004	4.583
14	MP ALPHA3	Y	.004	.417
15	MP ALPHA3	X	-.007	4.583
16	MP ALPHA3	X	-.007	.417
17	MP ALPHA4	Y	.002	2.75
18	MP ALPHA4	X	-.004	2.75
19	MP ALPHA4	Y	.002	2.75
20	MP ALPHA4	X	-.004	2.75
21	MP ALPHA1	Y	.002	3
22	MP ALPHA1	X	-.003	3
23	MP ALPHA2	Y	.002	4
24	MP ALPHA2	X	-.003	4
25	MP ALPHA3	Y	.001	2.5
26	MP ALPHA3	X	-.002	2.5

Member Point Loads (BLC 20 : Maintanence (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.003	4.25
2	MP ALPHA1	Y	.003	1.75
3	MP ALPHA1	X	-.002	4.25
4	MP ALPHA1	X	-.002	1.75
5	MP ALPHA4	Y	.004	4.833
6	MP ALPHA4	Y	.004	.667
7	MP ALPHA4	X	-.002	4.833
8	MP ALPHA4	X	-.002	.667
9	MP ALPHA2	Y	.014	6.917
10	MP ALPHA2	Y	.014	1.083
11	MP ALPHA2	X	-.008	6.917

Member Point Loads (BLC 20 : Maintanence (150)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
12	MP ALPHA2	X	-.008	1.083
13	MP ALPHA3	Y	.011	4.583
14	MP ALPHA3	Y	.011	.417
15	MP ALPHA3	X	-.006	4.583
16	MP ALPHA3	X	-.006	.417
17	MP ALPHA4	Y	.005	2.75
18	MP ALPHA4	X	-.003	2.75
19	MP ALPHA4	Y	.005	2.75
20	MP ALPHA4	X	-.003	2.75
21	MP ALPHA1	Y	.003	3
22	MP ALPHA1	X	-.002	3
23	MP ALPHA2	Y	.004	4
24	MP ALPHA2	X	-.002	4
25	MP ALPHA3	Y	.003	2.5
26	MP ALPHA3	X	-.002	2.5

Member Point Loads (BLC 21 : Maintanence (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.004	4.25
2	MP ALPHA1	Y	.004	1.75
3	MP ALPHA4	Y	.005	4.833
4	MP ALPHA4	Y	.005	.667
5	MP ALPHA2	Y	.019	6.917
6	MP ALPHA2	Y	.019	1.083
7	MP ALPHA3	Y	.015	4.583
8	MP ALPHA3	Y	.015	.417
9	MP ALPHA4	Y	.006	2.75
10	MP ALPHA4	Y	.006	2.75
11	MP ALPHA1	Y	.004	3
12	MP ALPHA2	Y	.004	4
13	MP ALPHA3	Y	.004	2.5

Member Point Loads (BLC 22 : Maintanence (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.003	4.25
2	MP ALPHA1	Y	.003	1.75
3	MP ALPHA1	X	.002	4.25
4	MP ALPHA1	X	.002	1.75
5	MP ALPHA4	Y	.004	4.833
6	MP ALPHA4	Y	.004	.667
7	MP ALPHA4	X	.002	4.833
8	MP ALPHA4	X	.002	.667
9	MP ALPHA2	Y	.014	6.917
10	MP ALPHA2	Y	.014	1.083
11	MP ALPHA2	X	.008	6.917
12	MP ALPHA2	X	.008	1.083
13	MP ALPHA3	Y	.011	4.583
14	MP ALPHA3	Y	.011	.417
15	MP ALPHA3	X	.006	4.583
16	MP ALPHA3	X	.006	.417
17	MP ALPHA4	Y	.005	2.75
18	MP ALPHA4	X	.003	2.75
19	MP ALPHA4	Y	.005	2.75
20	MP ALPHA4	X	.003	2.75
21	MP ALPHA1	Y	.003	3
22	MP ALPHA1	X	.002	3

Member Point Loads (BLC 22 : Maintanence (210)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
23	MP ALPHA2	Y	.004	4
24	MP ALPHA2	X	.002	4
25	MP ALPHA3	Y	.003	2.5
26	MP ALPHA3	X	.002	2.5

Member Point Loads (BLC 23 : Maintanence (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.001	4.25
2	MP ALPHA1	Y	.001	1.75
3	MP ALPHA1	X	.002	4.25
4	MP ALPHA1	X	.002	1.75
5	MP ALPHA4	Y	.002	4.833
6	MP ALPHA4	Y	.002	.667
7	MP ALPHA4	X	.004	4.833
8	MP ALPHA4	X	.004	.667
9	MP ALPHA2	Y	.005	6.917
10	MP ALPHA2	Y	.005	1.083
11	MP ALPHA2	X	.009	6.917
12	MP ALPHA2	X	.009	1.083
13	MP ALPHA3	Y	.004	4.583
14	MP ALPHA3	Y	.004	.417
15	MP ALPHA3	X	.007	4.583
16	MP ALPHA3	X	.007	.417
17	MP ALPHA4	Y	.002	2.75
18	MP ALPHA4	X	.004	2.75
19	MP ALPHA4	Y	.002	2.75
20	MP ALPHA4	X	.004	2.75
21	MP ALPHA1	Y	.002	3
22	MP ALPHA1	X	.003	3
23	MP ALPHA2	Y	.002	4
24	MP ALPHA2	X	.003	4
25	MP ALPHA3	Y	.001	2.5
26	MP ALPHA3	X	.002	2.5

Member Point Loads (BLC 24 : Maintanence (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.002	4.25
2	MP ALPHA1	X	.002	1.75
3	MP ALPHA4	X	.004	4.833
4	MP ALPHA4	X	.004	.667
5	MP ALPHA2	X	.007	6.917
6	MP ALPHA2	X	.007	1.083
7	MP ALPHA3	X	.006	4.583
8	MP ALPHA3	X	.006	.417
9	MP ALPHA4	X	.004	2.75
10	MP ALPHA4	X	.004	2.75
11	MP ALPHA1	X	.003	3
12	MP ALPHA2	X	.003	4
13	MP ALPHA3	X	.002	2.5

Member Point Loads (BLC 25 : Maintanence (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.001	4.25
2	MP ALPHA1	Y	-.001	1.75
3	MP ALPHA1	X	.002	4.25

Member Point Loads (BLC 25 : Maintanence (300)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
4	MP ALPHA1	X	.002	1.75
5	MP ALPHA4	Y	-.002	4.833
6	MP ALPHA4	Y	-.002	.667
7	MP ALPHA4	X	.004	4.833
8	MP ALPHA4	X	.004	.667
9	MP ALPHA2	Y	-.005	6.917
10	MP ALPHA2	Y	-.005	1.083
11	MP ALPHA2	X	.009	6.917
12	MP ALPHA2	X	.009	1.083
13	MP ALPHA3	Y	-.004	4.583
14	MP ALPHA3	Y	-.004	.417
15	MP ALPHA3	X	.007	4.583
16	MP ALPHA3	X	.007	.417
17	MP ALPHA4	Y	-.002	2.75
18	MP ALPHA4	X	.004	2.75
19	MP ALPHA4	Y	-.002	2.75
20	MP ALPHA4	X	.004	2.75
21	MP ALPHA1	Y	-.002	3
22	MP ALPHA1	X	.003	3
23	MP ALPHA2	Y	-.002	4
24	MP ALPHA2	X	.003	4
25	MP ALPHA3	Y	-.001	2.5
26	MP ALPHA3	X	.002	2.5

Member Point Loads (BLC 26 : Maintanence (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.003	4.25
2	MP ALPHA1	Y	-.003	1.75
3	MP ALPHA1	X	.002	4.25
4	MP ALPHA1	X	.002	1.75
5	MP ALPHA4	Y	-.004	4.833
6	MP ALPHA4	Y	-.004	.667
7	MP ALPHA4	X	.002	4.833
8	MP ALPHA4	X	.002	.667
9	MP ALPHA2	Y	-.014	6.917
10	MP ALPHA2	Y	-.014	1.083
11	MP ALPHA2	X	.008	6.917
12	MP ALPHA2	X	.008	1.083
13	MP ALPHA3	Y	-.011	4.583
14	MP ALPHA3	Y	-.011	.417
15	MP ALPHA3	X	.006	4.583
16	MP ALPHA3	X	.006	.417
17	MP ALPHA4	Y	-.005	2.75
18	MP ALPHA4	X	.003	2.75
19	MP ALPHA4	Y	-.005	2.75
20	MP ALPHA4	X	.003	2.75
21	MP ALPHA1	Y	-.003	3
22	MP ALPHA1	X	.002	3
23	MP ALPHA2	Y	-.004	4
24	MP ALPHA2	X	.002	4
25	MP ALPHA3	Y	-.003	2.5
26	MP ALPHA3	X	.002	2.5

Member Point Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.042	4.25

Member Point Loads (BLC 27 : Ice Dead Load) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
2	MP ALPHA1	Z	-.042	1.75
3	MP ALPHA4	Z	-.072	4.833
4	MP ALPHA4	Z	-.072	.667
5	MP ALPHA2	Z	-.121	6.917
6	MP ALPHA2	Z	-.121	1.083
7	MP ALPHA3	Z	-.094	4.583
8	MP ALPHA3	Z	-.094	.417
9	MP ALPHA4	Z	-.055	2.75
10	MP ALPHA4	Z	-.055	2.75
11	MP ALPHA1	Z	-.042	3
12	MP ALPHA2	Z	-.048	4
13	MP ALPHA3	Z	-.042	2.5

Member Point Loads (BLC 28 : Ice Wind Load (0))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.013	4.25
2	MP ALPHA1	Y	-.013	1.75
3	MP ALPHA4	Y	-.015	4.833
4	MP ALPHA4	Y	-.015	.667
5	MP ALPHA2	Y	-.056	6.917
6	MP ALPHA2	Y	-.056	1.083
7	MP ALPHA3	Y	-.043	4.583
8	MP ALPHA3	Y	-.043	.417
9	MP ALPHA4	Y	-.013	2.75
10	MP ALPHA4	Y	-.013	2.75
11	MP ALPHA1	Y	-.009	3
12	MP ALPHA2	Y	-.009	4
13	MP ALPHA3	Y	-.009	2.5

Member Point Loads (BLC 29 : Ice Wind Load (30))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.01	4.25
2	MP ALPHA1	Y	-.01	1.75
3	MP ALPHA1	X	-.006	4.25
4	MP ALPHA1	X	-.006	1.75
5	MP ALPHA4	Y	-.013	4.833
6	MP ALPHA4	Y	-.013	.667
7	MP ALPHA4	X	-.007	4.833
8	MP ALPHA4	X	-.007	.667
9	MP ALPHA2	Y	-.041	6.917
10	MP ALPHA2	Y	-.041	1.083
11	MP ALPHA2	X	-.024	6.917
12	MP ALPHA2	X	-.024	1.083
13	MP ALPHA3	Y	-.032	4.583
14	MP ALPHA3	Y	-.032	.417
15	MP ALPHA3	X	-.019	4.583
16	MP ALPHA3	X	-.019	.417
17	MP ALPHA4	Y	-.01	2.75
18	MP ALPHA4	X	-.006	2.75
19	MP ALPHA4	Y	-.01	2.75
20	MP ALPHA4	X	-.006	2.75
21	MP ALPHA1	Y	-.008	3
22	MP ALPHA1	X	-.004	3
23	MP ALPHA2	Y	-.008	4
24	MP ALPHA2	X	-.004	4
25	MP ALPHA3	Y	-.007	2.5

Member Point Loads (BLC 29 : Ice Wind Load (30)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
26	MP ALPHA3	X	-.004	2.5

Member Point Loads (BLC 30 : Ice Wind Load (60))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.004	4.25
2	MP ALPHA1	Y	-.004	1.75
3	MP ALPHA1	X	-.008	4.25
4	MP ALPHA1	X	-.008	1.75
5	MP ALPHA4	Y	-.007	4.833
6	MP ALPHA4	Y	-.007	.667
7	MP ALPHA4	X	-.012	4.833
8	MP ALPHA4	X	-.012	.667
9	MP ALPHA2	Y	-.016	6.917
10	MP ALPHA2	Y	-.016	1.083
11	MP ALPHA2	X	-.028	6.917
12	MP ALPHA2	X	-.028	1.083
13	MP ALPHA3	Y	-.012	4.583
14	MP ALPHA3	Y	-.012	.417
15	MP ALPHA3	X	-.022	4.583
16	MP ALPHA3	X	-.022	.417
17	MP ALPHA4	Y	-.005	2.75
18	MP ALPHA4	X	-.008	2.75
19	MP ALPHA4	Y	-.005	2.75
20	MP ALPHA4	X	-.008	2.75
21	MP ALPHA1	Y	-.004	3
22	MP ALPHA1	X	-.007	3
23	MP ALPHA2	Y	-.004	4
24	MP ALPHA2	X	-.007	4
25	MP ALPHA3	Y	-.003	2.5
26	MP ALPHA3	X	-.006	2.5

Member Point Loads (BLC 31 : Ice Wind Load (90))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.007	4.25
2	MP ALPHA1	X	-.007	1.75
3	MP ALPHA4	X	-.013	4.833
4	MP ALPHA4	X	-.013	.667
5	MP ALPHA2	X	-.024	6.917
6	MP ALPHA2	X	-.024	1.083
7	MP ALPHA3	X	-.019	4.583
8	MP ALPHA3	X	-.019	.417
9	MP ALPHA4	X	-.008	2.75
10	MP ALPHA4	X	-.008	2.75
11	MP ALPHA1	X	-.008	3
12	MP ALPHA2	X	-.007	4
13	MP ALPHA3	X	-.006	2.5

Member Point Loads (BLC 32 : Ice Wind Load (120))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.004	4.25
2	MP ALPHA1	Y	.004	1.75
3	MP ALPHA1	X	-.008	4.25
4	MP ALPHA1	X	-.008	1.75
5	MP ALPHA4	Y	.007	4.833
6	MP ALPHA4	Y	.007	.667

Member Point Loads (BLC 32 : Ice Wind Load (120)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
7	MP ALPHA4	X	-.012	4.833
8	MP ALPHA4	X	-.012	.667
9	MP ALPHA2	Y	.016	6.917
10	MP ALPHA2	Y	.016	1.083
11	MP ALPHA2	X	-.028	6.917
12	MP ALPHA2	X	-.028	1.083
13	MP ALPHA3	Y	.012	4.583
14	MP ALPHA3	Y	.012	.417
15	MP ALPHA3	X	-.022	4.583
16	MP ALPHA3	X	-.022	.417
17	MP ALPHA4	Y	.005	2.75
18	MP ALPHA4	X	-.008	2.75
19	MP ALPHA4	Y	.005	2.75
20	MP ALPHA4	X	-.008	2.75
21	MP ALPHA1	Y	.004	3
22	MP ALPHA1	X	-.007	3
23	MP ALPHA2	Y	.004	4
24	MP ALPHA2	X	-.007	4
25	MP ALPHA3	Y	.003	2.5
26	MP ALPHA3	X	-.006	2.5

Member Point Loads (BLC 33 : Ice Wind Load (150))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.01	4.25
2	MP ALPHA1	Y	.01	1.75
3	MP ALPHA1	X	-.006	4.25
4	MP ALPHA1	X	-.006	1.75
5	MP ALPHA4	Y	.013	4.833
6	MP ALPHA4	Y	.013	.667
7	MP ALPHA4	X	-.007	4.833
8	MP ALPHA4	X	-.007	.667
9	MP ALPHA2	Y	.041	6.917
10	MP ALPHA2	Y	.041	1.083
11	MP ALPHA2	X	-.024	6.917
12	MP ALPHA2	X	-.024	1.083
13	MP ALPHA3	Y	.032	4.583
14	MP ALPHA3	Y	.032	.417
15	MP ALPHA3	X	-.019	4.583
16	MP ALPHA3	X	-.019	.417
17	MP ALPHA4	Y	.01	2.75
18	MP ALPHA4	X	-.006	2.75
19	MP ALPHA4	Y	.01	2.75
20	MP ALPHA4	X	-.006	2.75
21	MP ALPHA1	Y	.008	3
22	MP ALPHA1	X	-.004	3
23	MP ALPHA2	Y	.008	4
24	MP ALPHA2	X	-.004	4
25	MP ALPHA3	Y	.007	2.5
26	MP ALPHA3	X	-.004	2.5

Member Point Loads (BLC 34 : Ice Wind Load (180))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.013	4.25
2	MP ALPHA1	Y	.013	1.75
3	MP ALPHA4	Y	.015	4.833
4	MP ALPHA4	Y	.015	.667

Member Point Loads (BLC 34 : Ice Wind Load (180)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
5	MP ALPHA2	Y	.056	6.917
6	MP ALPHA2	Y	.056	1.083
7	MP ALPHA3	Y	.043	4.583
8	MP ALPHA3	Y	.043	.417
9	MP ALPHA4	Y	.013	2.75
10	MP ALPHA4	Y	.013	2.75
11	MP ALPHA1	Y	.009	3
12	MP ALPHA2	Y	.009	4
13	MP ALPHA3	Y	.009	2.5

Member Point Loads (BLC 35 : Ice Wind Load (210))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.01	4.25
2	MP ALPHA1	Y	.01	1.75
3	MP ALPHA1	X	.006	4.25
4	MP ALPHA1	X	.006	1.75
5	MP ALPHA4	Y	.013	4.833
6	MP ALPHA4	Y	.013	.667
7	MP ALPHA4	X	.007	4.833
8	MP ALPHA4	X	.007	.667
9	MP ALPHA2	Y	.041	6.917
10	MP ALPHA2	Y	.041	1.083
11	MP ALPHA2	X	.024	6.917
12	MP ALPHA2	X	.024	1.083
13	MP ALPHA3	Y	.032	4.583
14	MP ALPHA3	Y	.032	.417
15	MP ALPHA3	X	.019	4.583
16	MP ALPHA3	X	.019	.417
17	MP ALPHA4	Y	.01	2.75
18	MP ALPHA4	X	.006	2.75
19	MP ALPHA4	Y	.01	2.75
20	MP ALPHA4	X	.006	2.75
21	MP ALPHA1	Y	.008	3
22	MP ALPHA1	X	.004	3
23	MP ALPHA2	Y	.008	4
24	MP ALPHA2	X	.004	4
25	MP ALPHA3	Y	.007	2.5
26	MP ALPHA3	X	.004	2.5

Member Point Loads (BLC 36 : Ice Wind Load (240))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	.004	4.25
2	MP ALPHA1	Y	.004	1.75
3	MP ALPHA1	X	.008	4.25
4	MP ALPHA1	X	.008	1.75
5	MP ALPHA4	Y	.007	4.833
6	MP ALPHA4	Y	.007	.667
7	MP ALPHA4	X	.012	4.833
8	MP ALPHA4	X	.012	.667
9	MP ALPHA2	Y	.016	6.917
10	MP ALPHA2	Y	.016	1.083
11	MP ALPHA2	X	.028	6.917
12	MP ALPHA2	X	.028	1.083
13	MP ALPHA3	Y	.012	4.583
14	MP ALPHA3	Y	.012	.417
15	MP ALPHA3	X	.022	4.583

Member Point Loads (BLC 36 : Ice Wind Load (240)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
16	MP ALPHA3	X	.022	.417
17	MP ALPHA4	Y	.005	2.75
18	MP ALPHA4	X	.008	2.75
19	MP ALPHA4	Y	.005	2.75
20	MP ALPHA4	X	.008	2.75
21	MP ALPHA1	Y	.004	3
22	MP ALPHA1	X	.007	3
23	MP ALPHA2	Y	.004	4
24	MP ALPHA2	X	.007	4
25	MP ALPHA3	Y	.003	2.5
26	MP ALPHA3	X	.006	2.5

Member Point Loads (BLC 37 : Ice Wind Load (270))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	.007	4.25
2	MP ALPHA1	X	.007	1.75
3	MP ALPHA4	X	.013	4.833
4	MP ALPHA4	X	.013	.667
5	MP ALPHA2	X	.024	6.917
6	MP ALPHA2	X	.024	1.083
7	MP ALPHA3	X	.019	4.583
8	MP ALPHA3	X	.019	.417
9	MP ALPHA4	X	.008	2.75
10	MP ALPHA4	X	.008	2.75
11	MP ALPHA1	X	.008	3
12	MP ALPHA2	X	.007	4
13	MP ALPHA3	X	.006	2.5

Member Point Loads (BLC 38 : Ice Wind Load (300))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.004	4.25
2	MP ALPHA1	Y	-.004	1.75
3	MP ALPHA1	X	.008	4.25
4	MP ALPHA1	X	.008	1.75
5	MP ALPHA4	Y	-.007	4.833
6	MP ALPHA4	Y	-.007	.667
7	MP ALPHA4	X	.012	4.833
8	MP ALPHA4	X	.012	.667
9	MP ALPHA2	Y	-.016	6.917
10	MP ALPHA2	Y	-.016	1.083
11	MP ALPHA2	X	.028	6.917
12	MP ALPHA2	X	.028	1.083
13	MP ALPHA3	Y	-.012	4.583
14	MP ALPHA3	Y	-.012	.417
15	MP ALPHA3	X	.022	4.583
16	MP ALPHA3	X	.022	.417
17	MP ALPHA4	Y	-.005	2.75
18	MP ALPHA4	X	.008	2.75
19	MP ALPHA4	Y	-.005	2.75
20	MP ALPHA4	X	.008	2.75
21	MP ALPHA1	Y	-.004	3
22	MP ALPHA1	X	.007	3
23	MP ALPHA2	Y	-.004	4
24	MP ALPHA2	X	.007	4
25	MP ALPHA3	Y	-.003	2.5
26	MP ALPHA3	X	.006	2.5

Member Point Loads (BLC 39 : Ice Wind Load (330))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.01	4.25
2	MP ALPHA1	Y	-.01	1.75
3	MP ALPHA1	X	.006	4.25
4	MP ALPHA1	X	.006	1.75
5	MP ALPHA4	Y	-.013	4.833
6	MP ALPHA4	Y	-.013	.667
7	MP ALPHA4	X	.007	4.833
8	MP ALPHA4	X	.007	.667
9	MP ALPHA2	Y	-.041	6.917
10	MP ALPHA2	Y	-.041	1.083
11	MP ALPHA2	X	.024	6.917
12	MP ALPHA2	X	.024	1.083
13	MP ALPHA3	Y	-.032	4.583
14	MP ALPHA3	Y	-.032	.417
15	MP ALPHA3	X	.019	4.583
16	MP ALPHA3	X	.019	.417
17	MP ALPHA4	Y	-.01	2.75
18	MP ALPHA4	X	.006	2.75
19	MP ALPHA4	Y	-.01	2.75
20	MP ALPHA4	X	.006	2.75
21	MP ALPHA1	Y	-.008	3
22	MP ALPHA1	X	.004	3
23	MP ALPHA2	Y	-.008	4
24	MP ALPHA2	X	.004	4
25	MP ALPHA3	Y	-.007	2.5
26	MP ALPHA3	X	.004	2.5

Member Point Loads (BLC 40 : Earthquake (x-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	X	-.002	4.25
2	MP ALPHA1	X	-.002	1.75
3	MP ALPHA4	X	-.006	4.833
4	MP ALPHA4	X	-.006	.667
5	MP ALPHA2	X	-.006	6.917
6	MP ALPHA2	X	-.006	1.083
7	MP ALPHA3	X	-.004	4.583
8	MP ALPHA3	X	-.004	.417
9	MP ALPHA4	X	-.006	2.75
10	MP ALPHA4	X	-.006	2.75
11	MP ALPHA1	X	-.005	3
12	MP ALPHA2	X	-.008	4
13	MP ALPHA3	X	-.007	2.5

Member Point Loads (BLC 41 : Earthquake (y-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Y	-.002	4.25
2	MP ALPHA1	Y	-.002	1.75
3	MP ALPHA4	Y	-.006	4.833
4	MP ALPHA4	Y	-.006	.667
5	MP ALPHA2	Y	-.006	6.917
6	MP ALPHA2	Y	-.006	1.083
7	MP ALPHA3	Y	-.004	4.583
8	MP ALPHA3	Y	-.004	.417
9	MP ALPHA4	Y	-.006	2.75
10	MP ALPHA4	Y	-.006	2.75
11	MP ALPHA1	Y	-.005	3

Member Point Loads (BLC 41 : Earthquake (y-direction)) (Continued)

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
12	MP ALPHA2	Y	-.008	4
13	MP ALPHA3	Y	-.007	2.5

Member Point Loads (BLC 42 : Earthquake (z-direction))

	Member Label	Direction	Magnitude[k,k-ft]	Location[ft,%]
1	MP ALPHA1	Z	-.000799	4.25
2	MP ALPHA1	Z	-.000799	1.75
3	MP ALPHA4	Z	-.003	4.833
4	MP ALPHA4	Z	-.003	.667
5	MP ALPHA2	Z	-.002	6.917
6	MP ALPHA2	Z	-.002	1.083
7	MP ALPHA3	Z	-.001	4.583
8	MP ALPHA3	Z	-.001	.417
9	MP ALPHA4	Z	-.002	2.75
10	MP ALPHA4	Z	-.002	2.75
11	MP ALPHA1	Z	-.002	3
12	MP ALPHA2	Z	-.003	4
13	MP ALPHA3	Z	-.003	2.5

Member Distributed Loads (BLC 2 : Wind Load (0))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.009	-.009	0	0
2	FACE TOP	PY	-.009	-.009	0	0
3	SUPPORTPIPE2	PY	-.002	-.002	0	0
4	SUPPORT PIPE1	PY	-.002	-.002	0	0
5	KICKER3	PY	-.003	-.003	0	0
6	KICKER1	PY	-.003	-.003	0	0
7	KICKER4	PY	-.003	-.003	0	0
8	KICKER2	PY	-.003	-.003	0	0
9	DIAG1	PY	-.002	-.002	0	0
10	DIAG2	PY	-.002	-.002	0	0
11	DIAG3	PY	-.002	-.002	0	0
12	DIAG4	PY	-.002	-.002	0	0
13	VERT3	PY	-.002	-.002	0	0
14	VERT2	PY	-.002	-.002	0	0
15	VERT1	PY	-.002	-.002	0	0
16	VERT4	PY	-.002	-.002	0	0
17	VERT5	PY	-.002	-.002	0	0
18	VERT6	PY	-.002	-.002	0	0
19	TIE-BACK	PY	-.002	-.002	0	0
20	MP ALPHA1	PY	-.008	-.008	0	0
21	MP ALPHA2	PY	-.008	-.008	0	0
22	MP ALPHA3	PY	-.008	-.008	0	0
23	MP ALPHA4	PY	-.008	-.008	0	0

Member Distributed Loads (BLC 4 : Wind Load (30))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.008	-.008	0	0
2	FACE TOP	PY	-.008	-.008	0	0
3	SUPPORTPIPE2	PY	-.002	-.002	0	0
4	SUPPORT PIPE1	PY	-.002	-.002	0	0
5	KICKER3	PY	-.003	-.003	0	0
6	KICKER1	PY	-.003	-.003	0	0
7	KICKER4	PY	-.003	-.003	0	0

Member Distributed Loads (BLC 4 : Wind Load (30)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
8	KICKER2	PY	-.003	-.003	0	0
9	DIAG1	PY	-.002	-.002	0	0
10	DIAG2	PY	-.002	-.002	0	0
11	DIAG3	PY	-.002	-.002	0	0
12	DIAG4	PY	-.002	-.002	0	0
13	VERT3	PY	-.002	-.002	0	0
14	VERT2	PY	-.002	-.002	0	0
15	VERT1	PY	-.002	-.002	0	0
16	VERT4	PY	-.002	-.002	0	0
17	VERT5	PY	-.002	-.002	0	0
18	VERT6	PY	-.002	-.002	0	0
19	TIE-BACK	PY	-.002	-.002	0	0
20	MP ALPHA1	PY	-.007	-.007	0	0
21	MP ALPHA2	PY	-.007	-.007	0	0
22	MP ALPHA3	PY	-.007	-.007	0	0
23	MP ALPHA4	PY	-.007	-.007	0	0
24	FACE BOTTOM	PX	-.004	-.004	0	0
25	FACE TOP	PX	-.004	-.004	0	0
26	SUPPORTPIPE2	PX	-.001	-.001	0	0
27	SUPPORT PIPE1	PX	-.001	-.001	0	0
28	KICKER3	PX	-.002	-.002	0	0
29	KICKER1	PX	-.002	-.002	0	0
30	KICKER4	PX	-.002	-.002	0	0
31	KICKER2	PX	-.002	-.002	0	0
32	DIAG1	PX	-.001	-.001	0	0
33	DIAG2	PX	-.001	-.001	0	0
34	DIAG3	PX	-.001	-.001	0	0
35	DIAG4	PX	-.001	-.001	0	0
36	VERT3	PX	-.001	-.001	0	0
37	VERT2	PX	-.001	-.001	0	0
38	VERT1	PX	-.001	-.001	0	0
39	VERT4	PX	-.001	-.001	0	0
40	VERT5	PX	-.001	-.001	0	0
41	VERT6	PX	-.001	-.001	0	0
42	TIE-BACK	PX	-.001	-.001	0	0
43	MP ALPHA1	PX	-.004	-.004	0	0
44	MP ALPHA2	PX	-.004	-.004	0	0
45	MP ALPHA3	PX	-.004	-.004	0	0
46	MP ALPHA4	PX	-.004	-.004	0	0

Member Distributed Loads (BLC 5 : Wind Load (60))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.004	-.004	0	0
2	FACE TOP	PY	-.004	-.004	0	0
3	SUPPORTPIPE2	PY	-.001	-.001	0	0
4	SUPPORT PIPE1	PY	-.001	-.001	0	0
5	KICKER3	PY	-.002	-.002	0	0
6	KICKER1	PY	-.002	-.002	0	0
7	KICKER4	PY	-.002	-.002	0	0
8	KICKER2	PY	-.002	-.002	0	0
9	DIAG1	PY	-.001	-.001	0	0
10	DIAG2	PY	-.001	-.001	0	0
11	DIAG3	PY	-.001	-.001	0	0
12	DIAG4	PY	-.001	-.001	0	0
13	VERT3	PY	-.001	-.001	0	0
14	VERT2	PY	-.001	-.001	0	0

Member Distributed Loads (BLC 5 : Wind Load (60)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
15	VERT1	PY	-.001	-.001	0	0
16	VERT4	PY	-.001	-.001	0	0
17	VERT5	PY	-.001	-.001	0	0
18	VERT6	PY	-.001	-.001	0	0
19	TIE-BACK	PY	-.001	-.001	0	0
20	MP ALPHA1	PY	-.004	-.004	0	0
21	MP ALPHA2	PY	-.004	-.004	0	0
22	MP ALPHA3	PY	-.004	-.004	0	0
23	MP ALPHA4	PY	-.004	-.004	0	0
24	FACE BOTTOM	PX	-.008	-.008	0	0
25	FACE TOP	PX	-.008	-.008	0	0
26	SUPPORTPIPE2	PX	-.002	-.002	0	0
27	SUPPORT PIPE1	PX	-.002	-.002	0	0
28	KICKER3	PX	-.003	-.003	0	0
29	KICKER1	PX	-.003	-.003	0	0
30	KICKER4	PX	-.003	-.003	0	0
31	KICKER2	PX	-.003	-.003	0	0
32	DIAG1	PX	-.002	-.002	0	0
33	DIAG2	PX	-.002	-.002	0	0
34	DIAG3	PX	-.002	-.002	0	0
35	DIAG4	PX	-.002	-.002	0	0
36	VERT3	PX	-.002	-.002	0	0
37	VERT2	PX	-.002	-.002	0	0
38	VERT1	PX	-.002	-.002	0	0
39	VERT4	PX	-.002	-.002	0	0
40	VERT5	PX	-.002	-.002	0	0
41	VERT6	PX	-.002	-.002	0	0
42	TIE-BACK	PX	-.002	-.002	0	0
43	MP ALPHA1	PX	-.007	-.007	0	0
44	MP ALPHA2	PX	-.007	-.007	0	0
45	MP ALPHA3	PX	-.007	-.007	0	0
46	MP ALPHA4	PX	-.007	-.007	0	0

Member Distributed Loads (BLC 6 : Wind Load (90))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.003	-.003	0	0
2	FACE TOP	PY	-.003	-.003	0	0
3	SUPPORTPIPE2	PY	-.003	-.003	0	0
4	SUPPORT PIPE1	PY	-.003	-.003	0	0
5	KICKER3	PY	-.003	-.003	0	0
6	KICKER1	PY	-.009	-.009	0	0
7	KICKER4	PY	-.003	-.003	0	0
8	KICKER2	PY	-.009	-.009	0	0
9	DIAG1	PY	-.006	-.006	0	0
10	DIAG2	PY	-.006	-.006	0	0
11	DIAG3	PY	-.002	-.002	0	0
12	DIAG4	PY	-.002	-.002	0	0
13	VERT3	PY	-.006	-.006	0	0
14	VERT2	PY	-.006	-.006	0	0
15	VERT1	PY	-.006	-.006	0	0
16	VERT4	PY	-.002	-.002	0	0
17	VERT5	PY	-.002	-.002	0	0
18	VERT6	PY	-.002	-.002	0	0
19	TIE-BACK	PY	-.002	-.002	0	0
20	MP ALPHA1	PY	-.008	-.008	0	0
21	MP ALPHA2	PY	-.008	-.008	0	0

Member Distributed Loads (BLC 6 : Wind Load (90)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
22	MP ALPHA3	PY	-.008	-.008	0	0
23	MP ALPHA4	PY	-.008	-.008	0	0

Member Distributed Loads (BLC 7 : Wind Load (120))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.004	.004	0	0
2	FACE TOP	PY	.004	.004	0	0
3	SUPPORTPIPE2	PY	.001	.001	0	0
4	SUPPORT PIPE1	PY	.001	.001	0	0
5	KICKER3	PY	.002	.002	0	0
6	KICKER1	PY	.002	.002	0	0
7	KICKER4	PY	.002	.002	0	0
8	KICKER2	PY	.002	.002	0	0
9	DIAG1	PY	.001	.001	0	0
10	DIAG2	PY	.001	.001	0	0
11	DIAG3	PY	.001	.001	0	0
12	DIAG4	PY	.001	.001	0	0
13	VERT3	PY	.001	.001	0	0
14	VERT2	PY	.001	.001	0	0
15	VERT1	PY	.001	.001	0	0
16	VERT4	PY	.001	.001	0	0
17	VERT5	PY	.001	.001	0	0
18	VERT6	PY	.001	.001	0	0
19	TIE-BACK	PY	.001	.001	0	0
20	MP ALPHA1	PY	.004	.004	0	0
21	MP ALPHA2	PY	.004	.004	0	0
22	MP ALPHA3	PY	.004	.004	0	0
23	MP ALPHA4	PY	.004	.004	0	0
24	FACE BOTTOM	PX	-.008	-.008	0	0
25	FACE TOP	PX	-.008	-.008	0	0
26	SUPPORTPIPE2	PX	-.002	-.002	0	0
27	SUPPORT PIPE1	PX	-.002	-.002	0	0
28	KICKER3	PX	-.003	-.003	0	0
29	KICKER1	PX	-.003	-.003	0	0
30	KICKER4	PX	-.003	-.003	0	0
31	KICKER2	PX	-.003	-.003	0	0
32	DIAG1	PX	-.002	-.002	0	0
33	DIAG2	PX	-.002	-.002	0	0
34	DIAG3	PX	-.002	-.002	0	0
35	DIAG4	PX	-.002	-.002	0	0
36	VERT3	PX	-.002	-.002	0	0
37	VERT2	PX	-.002	-.002	0	0
38	VERT1	PX	-.002	-.002	0	0
39	VERT4	PX	-.002	-.002	0	0
40	VERT5	PX	-.002	-.002	0	0
41	VERT6	PX	-.002	-.002	0	0
42	TIE-BACK	PX	-.002	-.002	0	0
43	MP ALPHA1	PX	-.007	-.007	0	0
44	MP ALPHA2	PX	-.007	-.007	0	0
45	MP ALPHA3	PX	-.007	-.007	0	0
46	MP ALPHA4	PX	-.007	-.007	0	0

Member Distributed Loads (BLC 8 : Wind Load (150))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.008	.008	0	0
2	FACE TOP	PY	.008	.008	0	0

Member Distributed Loads (BLC 8 : Wind Load (150)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
3	SUPPORTPIPE2	PY	.002	.002	0	0
4	SUPPORT PIPE1	PY	.002	.002	0	0
5	KICKER3	PY	.003	.003	0	0
6	KICKER1	PY	.003	.003	0	0
7	KICKER4	PY	.003	.003	0	0
8	KICKER2	PY	.003	.003	0	0
9	DIAG1	PY	.002	.002	0	0
10	DIAG2	PY	.002	.002	0	0
11	DIAG3	PY	.002	.002	0	0
12	DIAG4	PY	.002	.002	0	0
13	VERT3	PY	.002	.002	0	0
14	VERT2	PY	.002	.002	0	0
15	VERT1	PY	.002	.002	0	0
16	VERT4	PY	.002	.002	0	0
17	VERT5	PY	.002	.002	0	0
18	VERT6	PY	.002	.002	0	0
19	TIE-BACK	PY	.002	.002	0	0
20	MP ALPHA1	PY	.007	.007	0	0
21	MP ALPHA2	PY	.007	.007	0	0
22	MP ALPHA3	PY	.007	.007	0	0
23	MP ALPHA4	PY	.007	.007	0	0
24	FACE BOTTOM	PX	-.004	-.004	0	0
25	FACE TOP	PX	-.004	-.004	0	0
26	SUPPORTPIPE2	PX	-.001	-.001	0	0
27	SUPPORT PIPE1	PX	-.001	-.001	0	0
28	KICKER3	PX	-.002	-.002	0	0
29	KICKER1	PX	-.002	-.002	0	0
30	KICKER4	PX	-.002	-.002	0	0
31	KICKER2	PX	-.002	-.002	0	0
32	DIAG1	PX	-.001	-.001	0	0
33	DIAG2	PX	-.001	-.001	0	0
34	DIAG3	PX	-.001	-.001	0	0
35	DIAG4	PX	-.001	-.001	0	0
36	VERT3	PX	-.001	-.001	0	0
37	VERT2	PX	-.001	-.001	0	0
38	VERT1	PX	-.001	-.001	0	0
39	VERT4	PX	-.001	-.001	0	0
40	VERT5	PX	-.001	-.001	0	0
41	VERT6	PX	-.001	-.001	0	0
42	TIE-BACK	PX	-.001	-.001	0	0
43	MP ALPHA1	PX	-.004	-.004	0	0
44	MP ALPHA2	PX	-.004	-.004	0	0
45	MP ALPHA3	PX	-.004	-.004	0	0
46	MP ALPHA4	PX	-.004	-.004	0	0

Member Distributed Loads (BLC 9 : Wind Load (180))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.009	.009	0	0
2	FACE TOP	PY	.009	.009	0	0
3	SUPPORTPIPE2	PY	.002	.002	0	0
4	SUPPORT PIPE1	PY	.002	.002	0	0
5	KICKER3	PY	.003	.003	0	0
6	KICKER1	PY	.003	.003	0	0
7	KICKER4	PY	.003	.003	0	0
8	KICKER2	PY	.003	.003	0	0
9	DIAG1	PY	.002	.002	0	0

Member Distributed Loads (BLC 9 : Wind Load (180)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
10	DIAG2	PY	.002	.002	0	0
11	DIAG3	PY	.002	.002	0	0
12	DIAG4	PY	.002	.002	0	0
13	VERT3	PY	.002	.002	0	0
14	VERT2	PY	.002	.002	0	0
15	VERT1	PY	.002	.002	0	0
16	VERT4	PY	.002	.002	0	0
17	VERT5	PY	.002	.002	0	0
18	VERT6	PY	.002	.002	0	0
19	TIE-BACK	PY	.002	.002	0	0
20	MP ALPHA1	PY	.008	.008	0	0
21	MP ALPHA2	PY	.008	.008	0	0
22	MP ALPHA3	PY	.008	.008	0	0
23	MP ALPHA4	PY	.008	.008	0	0

Member Distributed Loads (BLC 10 : Wind Load (210))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.008	.008	0	0
2	FACE TOP	PY	.008	.008	0	0
3	SUPPORTPIPE2	PY	.002	.002	0	0
4	SUPPORT PIPE1	PY	.002	.002	0	0
5	KICKER3	PY	.003	.003	0	0
6	KICKER1	PY	.003	.003	0	0
7	KICKER4	PY	.003	.003	0	0
8	KICKER2	PY	.003	.003	0	0
9	DIAG1	PY	.002	.002	0	0
10	DIAG2	PY	.002	.002	0	0
11	DIAG3	PY	.002	.002	0	0
12	DIAG4	PY	.002	.002	0	0
13	VERT3	PY	.002	.002	0	0
14	VERT2	PY	.002	.002	0	0
15	VERT1	PY	.002	.002	0	0
16	VERT4	PY	.002	.002	0	0
17	VERT5	PY	.002	.002	0	0
18	VERT6	PY	.002	.002	0	0
19	TIE-BACK	PY	.002	.002	0	0
20	MP ALPHA1	PY	.007	.007	0	0
21	MP ALPHA2	PY	.007	.007	0	0
22	MP ALPHA3	PY	.007	.007	0	0
23	MP ALPHA4	PY	.007	.007	0	0
24	FACE BOTTOM	PX	.004	.004	0	0
25	FACE TOP	PX	.004	.004	0	0
26	SUPPORTPIPE2	PX	.001	.001	0	0
27	SUPPORT PIPE1	PX	.001	.001	0	0
28	KICKER3	PX	.002	.002	0	0
29	KICKER1	PX	.002	.002	0	0
30	KICKER4	PX	.002	.002	0	0
31	KICKER2	PX	.002	.002	0	0
32	DIAG1	PX	.001	.001	0	0
33	DIAG2	PX	.001	.001	0	0
34	DIAG3	PX	.001	.001	0	0
35	DIAG4	PX	.001	.001	0	0
36	VERT3	PX	.001	.001	0	0
37	VERT2	PX	.001	.001	0	0
38	VERT1	PX	.001	.001	0	0
39	VERT4	PX	.001	.001	0	0

Member Distributed Loads (BLC 10 : Wind Load (210)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
40	VERT5	PX	.001	.001	0	0
41	VERT6	PX	.001	.001	0	0
42	TIE-BACK	PX	.001	.001	0	0
43	MP ALPHA1	PX	.004	.004	0	0
44	MP ALPHA2	PX	.004	.004	0	0
45	MP ALPHA3	PX	.004	.004	0	0
46	MP ALPHA4	PX	.004	.004	0	0

Member Distributed Loads (BLC 11 : Wind Load (240))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.004	.004	0	0
2	FACE TOP	PY	.004	.004	0	0
3	SUPPORTPIPE2	PY	.001	.001	0	0
4	SUPPORT PIPE1	PY	.001	.001	0	0
5	KICKER3	PY	.002	.002	0	0
6	KICKER1	PY	.002	.002	0	0
7	KICKER4	PY	.002	.002	0	0
8	KICKER2	PY	.002	.002	0	0
9	DIAG1	PY	.001	.001	0	0
10	DIAG2	PY	.001	.001	0	0
11	DIAG3	PY	.001	.001	0	0
12	DIAG4	PY	.001	.001	0	0
13	VERT3	PY	.001	.001	0	0
14	VERT2	PY	.001	.001	0	0
15	VERT1	PY	.001	.001	0	0
16	VERT4	PY	.001	.001	0	0
17	VERT5	PY	.001	.001	0	0
18	VERT6	PY	.001	.001	0	0
19	TIE-BACK	PY	.001	.001	0	0
20	MP ALPHA1	PY	.004	.004	0	0
21	MP ALPHA2	PY	.004	.004	0	0
22	MP ALPHA3	PY	.004	.004	0	0
23	MP ALPHA4	PY	.004	.004	0	0
24	FACE BOTTOM	PX	.008	.008	0	0
25	FACE TOP	PX	.008	.008	0	0
26	SUPPORTPIPE2	PX	.002	.002	0	0
27	SUPPORT PIPE1	PX	.002	.002	0	0
28	KICKER3	PX	.003	.003	0	0
29	KICKER1	PX	.003	.003	0	0
30	KICKER4	PX	.003	.003	0	0
31	KICKER2	PX	.003	.003	0	0
32	DIAG1	PX	.002	.002	0	0
33	DIAG2	PX	.002	.002	0	0
34	DIAG3	PX	.002	.002	0	0
35	DIAG4	PX	.002	.002	0	0
36	VERT3	PX	.002	.002	0	0
37	VERT2	PX	.002	.002	0	0
38	VERT1	PX	.002	.002	0	0
39	VERT4	PX	.002	.002	0	0
40	VERT5	PX	.002	.002	0	0
41	VERT6	PX	.002	.002	0	0
42	TIE-BACK	PX	.002	.002	0	0
43	MP ALPHA1	PX	.007	.007	0	0
44	MP ALPHA2	PX	.007	.007	0	0
45	MP ALPHA3	PX	.007	.007	0	0
46	MP ALPHA4	PX	.007	.007	0	0

Member Distributed Loads (BLC 12 : Wind Load (270))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PX	.003	.003	0	0
2	FACE TOP	PX	.003	.003	0	0
3	SUPPORTPIPE2	PX	.003	.003	0	0
4	SUPPORT PIPE1	PX	.003	.003	0	0
5	KICKER3	PX	.009	.009	0	0
6	KICKER1	PX	.003	.003	0	0
7	KICKER4	PX	.009	.009	0	0
8	KICKER2	PX	.003	.003	0	0
9	DIAG1	PX	.002	.002	0	0
10	DIAG2	PX	.002	.002	0	0
11	DIAG3	PX	.006	.006	0	0
12	DIAG4	PX	.006	.006	0	0
13	VERT3	PX	.002	.002	0	0
14	VERT2	PX	.002	.002	0	0
15	VERT1	PX	.002	.002	0	0
16	VERT4	PX	.006	.006	0	0
17	VERT5	PX	.006	.006	0	0
18	VERT6	PX	.006	.006	0	0
19	TIE-BACK	PX	.002	.002	0	0
20	MP ALPHA1	PX	.008	.008	0	0
21	MP ALPHA2	PX	.008	.008	0	0
22	MP ALPHA3	PX	.008	.008	0	0
23	MP ALPHA4	PX	.008	.008	0	0

Member Distributed Loads (BLC 13 : Wind Load (300))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.004	-.004	0	0
2	FACE TOP	PY	-.004	-.004	0	0
3	SUPPORTPIPE2	PY	-.001	-.001	0	0
4	SUPPORT PIPE1	PY	-.001	-.001	0	0
5	KICKER3	PY	-.002	-.002	0	0
6	KICKER1	PY	-.002	-.002	0	0
7	KICKER4	PY	-.002	-.002	0	0
8	KICKER2	PY	-.002	-.002	0	0
9	DIAG1	PY	-.001	-.001	0	0
10	DIAG2	PY	-.001	-.001	0	0
11	DIAG3	PY	-.001	-.001	0	0
12	DIAG4	PY	-.001	-.001	0	0
13	VERT3	PY	-.001	-.001	0	0
14	VERT2	PY	-.001	-.001	0	0
15	VERT1	PY	-.001	-.001	0	0
16	VERT4	PY	-.001	-.001	0	0
17	VERT5	PY	-.001	-.001	0	0
18	VERT6	PY	-.001	-.001	0	0
19	TIE-BACK	PY	-.001	-.001	0	0
20	MP ALPHA1	PY	-.004	-.004	0	0
21	MP ALPHA2	PY	-.004	-.004	0	0
22	MP ALPHA3	PY	-.004	-.004	0	0
23	MP ALPHA4	PY	-.004	-.004	0	0
24	FACE BOTTOM	PX	.008	.008	0	0
25	FACE TOP	PX	.008	.008	0	0
26	SUPPORTPIPE2	PX	.002	.002	0	0
27	SUPPORT PIPE1	PX	.002	.002	0	0
28	KICKER3	PX	.003	.003	0	0
29	KICKER1	PX	.003	.003	0	0
30	KICKER4	PX	.003	.003	0	0

Member Distributed Loads (BLC 13 : Wind Load (300)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
31	KICKER2	PX	.003	.003	0	0
32	DIAG1	PX	.002	.002	0	0
33	DIAG2	PX	.002	.002	0	0
34	DIAG3	PX	.002	.002	0	0
35	DIAG4	PX	.002	.002	0	0
36	VERT3	PX	.002	.002	0	0
37	VERT2	PX	.002	.002	0	0
38	VERT1	PX	.002	.002	0	0
39	VERT4	PX	.002	.002	0	0
40	VERT5	PX	.002	.002	0	0
41	VERT6	PX	.002	.002	0	0
42	TIE-BACK	PX	.002	.002	0	0
43	MP ALPHA1	PX	.007	.007	0	0
44	MP ALPHA2	PX	.007	.007	0	0
45	MP ALPHA3	PX	.007	.007	0	0
46	MP ALPHA4	PX	.007	.007	0	0

Member Distributed Loads (BLC 14 : Wind Load (330))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.008	-.008	0	0
2	FACE TOP	PY	-.008	-.008	0	0
3	SUPPORTPIPE2	PY	-.002	-.002	0	0
4	SUPPORT PIPE1	PY	-.002	-.002	0	0
5	KICKER3	PY	-.003	-.003	0	0
6	KICKER1	PY	-.003	-.003	0	0
7	KICKER4	PY	-.003	-.003	0	0
8	KICKER2	PY	-.003	-.003	0	0
9	DIAG1	PY	-.002	-.002	0	0
10	DIAG2	PY	-.002	-.002	0	0
11	DIAG3	PY	-.002	-.002	0	0
12	DIAG4	PY	-.002	-.002	0	0
13	VERT3	PY	-.002	-.002	0	0
14	VERT2	PY	-.002	-.002	0	0
15	VERT1	PY	-.002	-.002	0	0
16	VERT4	PY	-.002	-.002	0	0
17	VERT5	PY	-.002	-.002	0	0
18	VERT6	PY	-.002	-.002	0	0
19	TIE-BACK	PY	-.002	-.002	0	0
20	MP ALPHA1	PY	-.007	-.007	0	0
21	MP ALPHA2	PY	-.007	-.007	0	0
22	MP ALPHA3	PY	-.007	-.007	0	0
23	MP ALPHA4	PY	-.007	-.007	0	0
24	FACE BOTTOM	PX	.004	.004	0	0
25	FACE TOP	PX	.004	.004	0	0
26	SUPPORTPIPE2	PX	.001	.001	0	0
27	SUPPORT PIPE1	PX	.001	.001	0	0
28	KICKER3	PX	.002	.002	0	0
29	KICKER1	PX	.002	.002	0	0
30	KICKER4	PX	.002	.002	0	0
31	KICKER2	PX	.002	.002	0	0
32	DIAG1	PX	.001	.001	0	0
33	DIAG2	PX	.001	.001	0	0
34	DIAG3	PX	.001	.001	0	0
35	DIAG4	PX	.001	.001	0	0
36	VERT3	PX	.001	.001	0	0
37	VERT2	PX	.001	.001	0	0

Member Distributed Loads (BLC 14 : Wind Load (330)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
38	VERT1	PX	.001	.001	0	0
39	VERT4	PX	.001	.001	0	0
40	VERT5	PX	.001	.001	0	0
41	VERT6	PX	.001	.001	0	0
42	TIE-BACK	PX	.001	.001	0	0
43	MP ALPHA1	PX	.004	.004	0	0
44	MP ALPHA2	PX	.004	.004	0	0
45	MP ALPHA3	PX	.004	.004	0	0
46	MP ALPHA4	PX	.004	.004	0	0

Member Distributed Loads (BLC 27 : Ice Dead Load)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	Z	-.006	-.006	0	0
2	FACE TOP	Z	-.006	-.006	0	0
3	SUPPORTPIPE2	Z	-.005	-.005	0	0
4	SUPPORT PIPE1	Z	-.005	-.005	0	0
5	KICKER3	Z	-.006	-.006	0	0
6	KICKER1	Z	-.006	-.006	0	0
7	KICKER4	Z	-.006	-.006	0	0
8	KICKER2	Z	-.006	-.006	0	0
9	DIAG1	Z	-.004	-.004	0	0
10	DIAG2	Z	-.004	-.004	0	0
11	DIAG3	Z	-.004	-.004	0	0
12	DIAG4	Z	-.004	-.004	0	0
13	VERT3	Z	-.004	-.004	0	0
14	VERT2	Z	-.004	-.004	0	0
15	VERT1	Z	-.004	-.004	0	0
16	VERT4	Z	-.004	-.004	0	0
17	VERT5	Z	-.004	-.004	0	0
18	VERT6	Z	-.004	-.004	0	0
19	TIE-BACK	Z	-.005	-.005	0	0
20	MP ALPHA1	Z	-.005	-.005	0	0
21	MP ALPHA2	Z	-.005	-.005	0	0
22	MP ALPHA3	Z	-.005	-.005	0	0
23	MP ALPHA4	Z	-.005	-.005	0	0

Member Distributed Loads (BLC 28 : Ice Wind Load (0))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.003	-.003	0	0
2	FACE TOP	PY	-.003	-.003	0	0
3	SUPPORTPIPE2	PY	-.001	-.001	0	0
4	SUPPORT PIPE1	PY	-.001	-.001	0	0
5	KICKER3	PY	-.001	-.001	0	0
6	KICKER1	PY	-.001	-.001	0	0
7	KICKER4	PY	-.001	-.001	0	0
8	KICKER2	PY	-.001	-.001	0	0
9	DIAG1	PY	-.001	-.001	0	0
10	DIAG2	PY	-.001	-.001	0	0
11	DIAG3	PY	-.001	-.001	0	0
12	DIAG4	PY	-.001	-.001	0	0
13	VERT3	PY	-.001	-.001	0	0
14	VERT2	PY	-.001	-.001	0	0
15	VERT1	PY	-.001	-.001	0	0
16	VERT4	PY	-.001	-.001	0	0
17	VERT5	PY	-.001	-.001	0	0
18	VERT6	PY	-.001	-.001	0	0

Member Distributed Loads (BLC 28 : Ice Wind Load (0)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
19	TIE-BACK	PY	-.001	-.001	0	0
20	MP ALPHA1	PY	-.001	-.001	0	0
21	MP ALPHA2	PY	-.001	-.001	0	0
22	MP ALPHA3	PY	-.001	-.001	0	0
23	MP ALPHA4	PY	-.001	-.001	0	0

Member Distributed Loads (BLC 29 : Ice Wind Load (30))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.003	-.003	0	0
2	FACE TOP	PY	-.003	-.003	0	0
3	SUPPORTPIPE2	PY	-.000866	-.000866	0	0
4	SUPPORT PIPE1	PY	-.000866	-.000866	0	0
5	KICKER3	PY	-.000866	-.000866	0	0
6	KICKER1	PY	-.000866	-.000866	0	0
7	KICKER4	PY	-.000866	-.000866	0	0
8	KICKER2	PY	-.000866	-.000866	0	0
9	DIAG1	PY	-.000866	-.000866	0	0
10	DIAG2	PY	-.000866	-.000866	0	0
11	DIAG3	PY	-.000866	-.000866	0	0
12	DIAG4	PY	-.000866	-.000866	0	0
13	VERT3	PY	-.000866	-.000866	0	0
14	VERT2	PY	-.000866	-.000866	0	0
15	VERT1	PY	-.000866	-.000866	0	0
16	VERT4	PY	-.000866	-.000866	0	0
17	VERT5	PY	-.000866	-.000866	0	0
18	VERT6	PY	-.000866	-.000866	0	0
19	TIE-BACK	PY	-.000866	-.000866	0	0
20	MP ALPHA1	PY	-.000866	-.000866	0	0
21	MP ALPHA2	PY	-.000866	-.000866	0	0
22	MP ALPHA3	PY	-.000866	-.000866	0	0
23	MP ALPHA4	PY	-.000866	-.000866	0	0
24	FACE BOTTOM	PX	-.002	-.002	0	0
25	FACE TOP	PX	-.002	-.002	0	0
26	SUPPORTPIPE2	PX	-.0005	-.0005	0	0
27	SUPPORT PIPE1	PX	-.0005	-.0005	0	0
28	KICKER3	PX	-.0005	-.0005	0	0
29	KICKER1	PX	-.0005	-.0005	0	0
30	KICKER4	PX	-.0005	-.0005	0	0
31	KICKER2	PX	-.0005	-.0005	0	0
32	DIAG1	PX	-.0005	-.0005	0	0
33	DIAG2	PX	-.0005	-.0005	0	0
34	DIAG3	PX	-.0005	-.0005	0	0
35	DIAG4	PX	-.0005	-.0005	0	0
36	VERT3	PX	-.0005	-.0005	0	0
37	VERT2	PX	-.0005	-.0005	0	0
38	VERT1	PX	-.0005	-.0005	0	0
39	VERT4	PX	-.0005	-.0005	0	0
40	VERT5	PX	-.0005	-.0005	0	0
41	VERT6	PX	-.0005	-.0005	0	0
42	TIE-BACK	PX	-.0005	-.0005	0	0
43	MP ALPHA1	PX	-.0005	-.0005	0	0
44	MP ALPHA2	PX	-.0005	-.0005	0	0
45	MP ALPHA3	PX	-.0005	-.0005	0	0
46	MP ALPHA4	PX	-.0005	-.0005	0	0

Member Distributed Loads (BLC 30 : Ice Wind Load (60))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.002	-.002	0	0
2	FACE TOP	PY	-.002	-.002	0	0
3	SUPPORTPIPE2	PY	-.0005	-.0005	0	0
4	SUPPORT PIPE1	PY	-.0005	-.0005	0	0
5	KICKER3	PY	-.0005	-.0005	0	0
6	KICKER1	PY	-.0005	-.0005	0	0
7	KICKER4	PY	-.0005	-.0005	0	0
8	KICKER2	PY	-.0005	-.0005	0	0
9	DIAG1	PY	-.0005	-.0005	0	0
10	DIAG2	PY	-.0005	-.0005	0	0
11	DIAG3	PY	-.0005	-.0005	0	0
12	DIAG4	PY	-.0005	-.0005	0	0
13	VERT3	PY	-.0005	-.0005	0	0
14	VERT2	PY	-.0005	-.0005	0	0
15	VERT1	PY	-.0005	-.0005	0	0
16	VERT4	PY	-.0005	-.0005	0	0
17	VERT5	PY	-.0005	-.0005	0	0
18	VERT6	PY	-.0005	-.0005	0	0
19	TIE-BACK	PY	-.0005	-.0005	0	0
20	MP ALPHA1	PY	-.0005	-.0005	0	0
21	MP ALPHA2	PY	-.0005	-.0005	0	0
22	MP ALPHA3	PY	-.0005	-.0005	0	0
23	MP ALPHA4	PY	-.0005	-.0005	0	0
24	FACE BOTTOM	PX	-.003	-.003	0	0
25	FACE TOP	PX	-.003	-.003	0	0
26	SUPPORTPIPE2	PX	-.000866	-.000866	0	0
27	SUPPORT PIPE1	PX	-.000866	-.000866	0	0
28	KICKER3	PX	-.000866	-.000866	0	0
29	KICKER1	PX	-.000866	-.000866	0	0
30	KICKER4	PX	-.000866	-.000866	0	0
31	KICKER2	PX	-.000866	-.000866	0	0
32	DIAG1	PX	-.000866	-.000866	0	0
33	DIAG2	PX	-.000866	-.000866	0	0
34	DIAG3	PX	-.000866	-.000866	0	0
35	DIAG4	PX	-.000866	-.000866	0	0
36	VERT3	PX	-.000866	-.000866	0	0
37	VERT2	PX	-.000866	-.000866	0	0
38	VERT1	PX	-.000866	-.000866	0	0
39	VERT4	PX	-.000866	-.000866	0	0
40	VERT5	PX	-.000866	-.000866	0	0
41	VERT6	PX	-.000866	-.000866	0	0
42	TIE-BACK	PX	-.000866	-.000866	0	0
43	MP ALPHA1	PX	-.000866	-.000866	0	0
44	MP ALPHA2	PX	-.000866	-.000866	0	0
45	MP ALPHA3	PX	-.000866	-.000866	0	0
46	MP ALPHA4	PX	-.000866	-.000866	0	0

Member Distributed Loads (BLC 31 : Ice Wind Load (90))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PX	-.001	-.001	0	0
2	FACE TOP	PX	-.001	-.001	0	0
3	SUPPORTPIPE2	PX	-.001	-.001	0	0
4	SUPPORT PIPE1	PX	-.001	-.001	0	0
5	KICKER3	PX	-.001	-.001	0	0
6	KICKER1	PX	-.003	-.003	0	0
7	KICKER4	PX	-.001	-.001	0	0

Member Distributed Loads (BLC 31 : Ice Wind Load (90)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
8	KICKER2	PX	-.003	-.003	0	0
9	DIAG1	PX	-.003	-.003	0	0
10	DIAG2	PX	-.003	-.003	0	0
11	DIAG3	PX	-.001	-.001	0	0
12	DIAG4	PX	-.001	-.001	0	0
13	VERT3	PX	-.003	-.003	0	0
14	VERT2	PX	-.003	-.003	0	0
15	VERT1	PX	-.003	-.003	0	0
16	VERT4	PX	-.001	-.001	0	0
17	VERT5	PX	-.001	-.001	0	0
18	VERT6	PX	-.001	-.001	0	0
19	TIE-BACK	PX	-.001	-.001	0	0
20	MP ALPHA1	PX	-.001	-.001	0	0
21	MP ALPHA2	PX	-.001	-.001	0	0
22	MP ALPHA3	PX	-.001	-.001	0	0
23	MP ALPHA4	PX	-.001	-.001	0	0

Member Distributed Loads (BLC 32 : Ice Wind Load (120))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.002	.002	0	0
2	FACE TOP	PY	.002	.002	0	0
3	SUPPORTPIPE2	PY	.0005	.0005	0	0
4	SUPPORT PIPE1	PY	.0005	.0005	0	0
5	KICKER3	PY	.0005	.0005	0	0
6	KICKER1	PY	.0005	.0005	0	0
7	KICKER4	PY	.0005	.0005	0	0
8	KICKER2	PY	.0005	.0005	0	0
9	DIAG1	PY	.0005	.0005	0	0
10	DIAG2	PY	.0005	.0005	0	0
11	DIAG3	PY	.0005	.0005	0	0
12	DIAG4	PY	.0005	.0005	0	0
13	VERT3	PY	.0005	.0005	0	0
14	VERT2	PY	.0005	.0005	0	0
15	VERT1	PY	.0005	.0005	0	0
16	VERT4	PY	.0005	.0005	0	0
17	VERT5	PY	.0005	.0005	0	0
18	VERT6	PY	.0005	.0005	0	0
19	TIE-BACK	PY	.0005	.0005	0	0
20	MP ALPHA1	PY	.0005	.0005	0	0
21	MP ALPHA2	PY	.0005	.0005	0	0
22	MP ALPHA3	PY	.0005	.0005	0	0
23	MP ALPHA4	PY	.0005	.0005	0	0
24	FACE BOTTOM	PX	-.003	-.003	0	0
25	FACE TOP	PX	-.003	-.003	0	0
26	SUPPORTPIPE2	PX	-.000866	-.000866	0	0
27	SUPPORT PIPE1	PX	-.000866	-.000866	0	0
28	KICKER3	PX	-.000866	-.000866	0	0
29	KICKER1	PX	-.000866	-.000866	0	0
30	KICKER4	PX	-.000866	-.000866	0	0
31	KICKER2	PX	-.000866	-.000866	0	0
32	DIAG1	PX	-.000866	-.000866	0	0
33	DIAG2	PX	-.000866	-.000866	0	0
34	DIAG3	PX	-.000866	-.000866	0	0
35	DIAG4	PX	-.000866	-.000866	0	0
36	VERT3	PX	-.000866	-.000866	0	0
37	VERT2	PX	-.000866	-.000866	0	0

Member Distributed Loads (BLC 32 : Ice Wind Load (120)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
38	VERT1	PX	-.000866	-.000866	0	0
39	VERT4	PX	-.000866	-.000866	0	0
40	VERT5	PX	-.000866	-.000866	0	0
41	VERT6	PX	-.000866	-.000866	0	0
42	TIE-BACK	PX	-.000866	-.000866	0	0
43	MP ALPHA1	PX	-.000866	-.000866	0	0
44	MP ALPHA2	PX	-.000866	-.000866	0	0
45	MP ALPHA3	PX	-.000866	-.000866	0	0
46	MP ALPHA4	PX	-.000866	-.000866	0	0

Member Distributed Loads (BLC 33 : Ice Wind Load (150))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.003	.003	0	0
2	FACE TOP	PY	.003	.003	0	0
3	SUPPORTPIPE2	PY	.000866	.000866	0	0
4	SUPPORT PIPE1	PY	.000866	.000866	0	0
5	KICKER3	PY	.000866	.000866	0	0
6	KICKER1	PY	.000866	.000866	0	0
7	KICKER4	PY	.000866	.000866	0	0
8	KICKER2	PY	.000866	.000866	0	0
9	DIAG1	PY	.000866	.000866	0	0
10	DIAG2	PY	.000866	.000866	0	0
11	DIAG3	PY	.000866	.000866	0	0
12	DIAG4	PY	.000866	.000866	0	0
13	VERT3	PY	.000866	.000866	0	0
14	VERT2	PY	.000866	.000866	0	0
15	VERT1	PY	.000866	.000866	0	0
16	VERT4	PY	.000866	.000866	0	0
17	VERT5	PY	.000866	.000866	0	0
18	VERT6	PY	.000866	.000866	0	0
19	TIE-BACK	PY	.000866	.000866	0	0
20	MP ALPHA1	PY	.000866	.000866	0	0
21	MP ALPHA2	PY	.000866	.000866	0	0
22	MP ALPHA3	PY	.000866	.000866	0	0
23	MP ALPHA4	PY	.000866	.000866	0	0
24	FACE BOTTOM	PX	-.002	-.002	0	0
25	FACE TOP	PX	-.002	-.002	0	0
26	SUPPORTPIPE2	PX	-.0005	-.0005	0	0
27	SUPPORT PIPE1	PX	-.0005	-.0005	0	0
28	KICKER3	PX	-.0005	-.0005	0	0
29	KICKER1	PX	-.0005	-.0005	0	0
30	KICKER4	PX	-.0005	-.0005	0	0
31	KICKER2	PX	-.0005	-.0005	0	0
32	DIAG1	PX	-.0005	-.0005	0	0
33	DIAG2	PX	-.0005	-.0005	0	0
34	DIAG3	PX	-.0005	-.0005	0	0
35	DIAG4	PX	-.0005	-.0005	0	0
36	VERT3	PX	-.0005	-.0005	0	0
37	VERT2	PX	-.0005	-.0005	0	0
38	VERT1	PX	-.0005	-.0005	0	0
39	VERT4	PX	-.0005	-.0005	0	0
40	VERT5	PX	-.0005	-.0005	0	0
41	VERT6	PX	-.0005	-.0005	0	0
42	TIE-BACK	PX	-.0005	-.0005	0	0
43	MP ALPHA1	PX	-.0005	-.0005	0	0
44	MP ALPHA2	PX	-.0005	-.0005	0	0

Member Distributed Loads (BLC 33 : Ice Wind Load (150)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
45	MP ALPHA3	PX	-.0005	-.0005	0	0
46	MP ALPHA4	PX	-.0005	-.0005	0	0

Member Distributed Loads (BLC 34 : Ice Wind Load (180))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.003	.003	0	0
2	FACE TOP	PY	.003	.003	0	0
3	SUPPORTPIPE2	PY	.001	.001	0	0
4	SUPPORT PIPE1	PY	.001	.001	0	0
5	KICKER3	PY	.001	.001	0	0
6	KICKER1	PY	.001	.001	0	0
7	KICKER4	PY	.001	.001	0	0
8	KICKER2	PY	.001	.001	0	0
9	DIAG1	PY	.001	.001	0	0
10	DIAG2	PY	.001	.001	0	0
11	DIAG3	PY	.001	.001	0	0
12	DIAG4	PY	.001	.001	0	0
13	VERT3	PY	.001	.001	0	0
14	VERT2	PY	.001	.001	0	0
15	VERT1	PY	.001	.001	0	0
16	VERT4	PY	.001	.001	0	0
17	VERT5	PY	.001	.001	0	0
18	VERT6	PY	.001	.001	0	0
19	TIE-BACK	PY	.001	.001	0	0
20	MP ALPHA1	PY	.001	.001	0	0
21	MP ALPHA2	PY	.001	.001	0	0
22	MP ALPHA3	PY	.001	.001	0	0
23	MP ALPHA4	PY	.001	.001	0	0

Member Distributed Loads (BLC 35 : Ice Wind Load (210))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.003	.003	0	0
2	FACE TOP	PY	.003	.003	0	0
3	SUPPORTPIPE2	PY	.000866	.000866	0	0
4	SUPPORT PIPE1	PY	.000866	.000866	0	0
5	KICKER3	PY	.000866	.000866	0	0
6	KICKER1	PY	.000866	.000866	0	0
7	KICKER4	PY	.000866	.000866	0	0
8	KICKER2	PY	.000866	.000866	0	0
9	DIAG1	PY	.000866	.000866	0	0
10	DIAG2	PY	.000866	.000866	0	0
11	DIAG3	PY	.000866	.000866	0	0
12	DIAG4	PY	.000866	.000866	0	0
13	VERT3	PY	.000866	.000866	0	0
14	VERT2	PY	.000866	.000866	0	0
15	VERT1	PY	.000866	.000866	0	0
16	VERT4	PY	.000866	.000866	0	0
17	VERT5	PY	.000866	.000866	0	0
18	VERT6	PY	.000866	.000866	0	0
19	TIE-BACK	PY	.000866	.000866	0	0
20	MP ALPHA1	PY	.000866	.000866	0	0
21	MP ALPHA2	PY	.000866	.000866	0	0
22	MP ALPHA3	PY	.000866	.000866	0	0
23	MP ALPHA4	PY	.000866	.000866	0	0
24	FACE BOTTOM	PX	.002	.002	0	0
25	FACE TOP	PX	.002	.002	0	0

Member Distributed Loads (BLC 35 : Ice Wind Load (210)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
26	SUPPORTPIPE2	PX	.0005	.0005	0	0
27	SUPPORT PIPE1	PX	.0005	.0005	0	0
28	KICKER3	PX	.0005	.0005	0	0
29	KICKER1	PX	.0005	.0005	0	0
30	KICKER4	PX	.0005	.0005	0	0
31	KICKER2	PX	.0005	.0005	0	0
32	DIAG1	PX	.0005	.0005	0	0
33	DIAG2	PX	.0005	.0005	0	0
34	DIAG3	PX	.0005	.0005	0	0
35	DIAG4	PX	.0005	.0005	0	0
36	VERT3	PX	.0005	.0005	0	0
37	VERT2	PX	.0005	.0005	0	0
38	VERT1	PX	.0005	.0005	0	0
39	VERT4	PX	.0005	.0005	0	0
40	VERT5	PX	.0005	.0005	0	0
41	VERT6	PX	.0005	.0005	0	0
42	TIE-BACK	PX	.0005	.0005	0	0
43	MP ALPHA1	PX	.0005	.0005	0	0
44	MP ALPHA2	PX	.0005	.0005	0	0
45	MP ALPHA3	PX	.0005	.0005	0	0
46	MP ALPHA4	PX	.0005	.0005	0	0

Member Distributed Loads (BLC 36 : Ice Wind Load (240))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	.002	.002	0	0
2	FACE TOP	PY	.002	.002	0	0
3	SUPPORTPIPE2	PY	.0005	.0005	0	0
4	SUPPORT PIPE1	PY	.0005	.0005	0	0
5	KICKER3	PY	.0005	.0005	0	0
6	KICKER1	PY	.0005	.0005	0	0
7	KICKER4	PY	.0005	.0005	0	0
8	KICKER2	PY	.0005	.0005	0	0
9	DIAG1	PY	.0005	.0005	0	0
10	DIAG2	PY	.0005	.0005	0	0
11	DIAG3	PY	.0005	.0005	0	0
12	DIAG4	PY	.0005	.0005	0	0
13	VERT3	PY	.0005	.0005	0	0
14	VERT2	PY	.0005	.0005	0	0
15	VERT1	PY	.0005	.0005	0	0
16	VERT4	PY	.0005	.0005	0	0
17	VERT5	PY	.0005	.0005	0	0
18	VERT6	PY	.0005	.0005	0	0
19	TIE-BACK	PY	.0005	.0005	0	0
20	MP ALPHA1	PY	.0005	.0005	0	0
21	MP ALPHA2	PY	.0005	.0005	0	0
22	MP ALPHA3	PY	.0005	.0005	0	0
23	MP ALPHA4	PY	.0005	.0005	0	0
24	FACE BOTTOM	PX	.003	.003	0	0
25	FACE TOP	PX	.003	.003	0	0
26	SUPPORTPIPE2	PX	.000866	.000866	0	0
27	SUPPORT PIPE1	PX	.000866	.000866	0	0
28	KICKER3	PX	.000866	.000866	0	0
29	KICKER1	PX	.000866	.000866	0	0
30	KICKER4	PX	.000866	.000866	0	0
31	KICKER2	PX	.000866	.000866	0	0
32	DIAG1	PX	.000866	.000866	0	0

Member Distributed Loads (BLC 36 : Ice Wind Load (240)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
33	DIAG2	PX	.000866	.000866	0	0
34	DIAG3	PX	.000866	.000866	0	0
35	DIAG4	PX	.000866	.000866	0	0
36	VERT3	PX	.000866	.000866	0	0
37	VERT2	PX	.000866	.000866	0	0
38	VERT1	PX	.000866	.000866	0	0
39	VERT4	PX	.000866	.000866	0	0
40	VERT5	PX	.000866	.000866	0	0
41	VERT6	PX	.000866	.000866	0	0
42	TIE-BACK	PX	.000866	.000866	0	0
43	MP ALPHA1	PX	.000866	.000866	0	0
44	MP ALPHA2	PX	.000866	.000866	0	0
45	MP ALPHA3	PX	.000866	.000866	0	0
46	MP ALPHA4	PX	.000866	.000866	0	0

Member Distributed Loads (BLC 37 : Ice Wind Load (270))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PX	.001	.001	0	0
2	FACE TOP	PX	.001	.001	0	0
3	SUPPORTPIPE2	PX	.001	.001	0	0
4	SUPPORT PIPE1	PX	.001	.001	0	0
5	KICKER3	PX	.003	.003	0	0
6	KICKER1	PX	.001	.001	0	0
7	KICKER4	PX	.003	.003	0	0
8	KICKER2	PX	.001	.001	0	0
9	DIAG1	PX	.001	.001	0	0
10	DIAG2	PX	.001	.001	0	0
11	DIAG3	PX	.003	.003	0	0
12	DIAG4	PX	.003	.003	0	0
13	VERT3	PX	.001	.001	0	0
14	VERT2	PX	.001	.001	0	0
15	VERT1	PX	.001	.001	0	0
16	VERT4	PX	.003	.003	0	0
17	VERT5	PX	.003	.003	0	0
18	VERT6	PX	.003	.003	0	0
19	TIE-BACK	PX	.001	.001	0	0
20	MP ALPHA1	PX	.001	.001	0	0
21	MP ALPHA2	PX	.001	.001	0	0
22	MP ALPHA3	PX	.001	.001	0	0
23	MP ALPHA4	PX	.001	.001	0	0

Member Distributed Loads (BLC 38 : Ice Wind Load (300))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.002	-.002	0	0
2	FACE TOP	PY	-.002	-.002	0	0
3	SUPPORTPIPE2	PY	-.0005	-.0005	0	0
4	SUPPORT PIPE1	PY	-.0005	-.0005	0	0
5	KICKER3	PY	-.0005	-.0005	0	0
6	KICKER1	PY	-.0005	-.0005	0	0
7	KICKER4	PY	-.0005	-.0005	0	0
8	KICKER2	PY	-.0005	-.0005	0	0
9	DIAG1	PY	-.0005	-.0005	0	0
10	DIAG2	PY	-.0005	-.0005	0	0
11	DIAG3	PY	-.0005	-.0005	0	0
12	DIAG4	PY	-.0005	-.0005	0	0
13	VERT3	PY	-.0005	-.0005	0	0

Member Distributed Loads (BLC 38 : Ice Wind Load (300)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
14	VERT2	PY	-.0005	-.0005	0	0
15	VERT1	PY	-.0005	-.0005	0	0
16	VERT4	PY	-.0005	-.0005	0	0
17	VERT5	PY	-.0005	-.0005	0	0
18	VERT6	PY	-.0005	-.0005	0	0
19	TIE-BACK	PY	-.0005	-.0005	0	0
20	MP ALPHA1	PY	-.0005	-.0005	0	0
21	MP ALPHA2	PY	-.0005	-.0005	0	0
22	MP ALPHA3	PY	-.0005	-.0005	0	0
23	MP ALPHA4	PY	-.0005	-.0005	0	0
24	FACE BOTTOM	PX	.003	.003	0	0
25	FACE TOP	PX	.003	.003	0	0
26	SUPPORTPIPE2	PX	.000866	.000866	0	0
27	SUPPORT PIPE1	PX	.000866	.000866	0	0
28	KICKER3	PX	.000866	.000866	0	0
29	KICKER1	PX	.000866	.000866	0	0
30	KICKER4	PX	.000866	.000866	0	0
31	KICKER2	PX	.000866	.000866	0	0
32	DIAG1	PX	.000866	.000866	0	0
33	DIAG2	PX	.000866	.000866	0	0
34	DIAG3	PX	.000866	.000866	0	0
35	DIAG4	PX	.000866	.000866	0	0
36	VERT3	PX	.000866	.000866	0	0
37	VERT2	PX	.000866	.000866	0	0
38	VERT1	PX	.000866	.000866	0	0
39	VERT4	PX	.000866	.000866	0	0
40	VERT5	PX	.000866	.000866	0	0
41	VERT6	PX	.000866	.000866	0	0
42	TIE-BACK	PX	.000866	.000866	0	0
43	MP ALPHA1	PX	.000866	.000866	0	0
44	MP ALPHA2	PX	.000866	.000866	0	0
45	MP ALPHA3	PX	.000866	.000866	0	0
46	MP ALPHA4	PX	.000866	.000866	0	0

Member Distributed Loads (BLC 39 : Ice Wind Load (330))

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
1	FACE BOTTOM	PY	-.003	-.003	0	0
2	FACE TOP	PY	-.003	-.003	0	0
3	SUPPORTPIPE2	PY	-.000866	-.000866	0	0
4	SUPPORT PIPE1	PY	-.000866	-.000866	0	0
5	KICKER3	PY	-.000866	-.000866	0	0
6	KICKER1	PY	-.000866	-.000866	0	0
7	KICKER4	PY	-.000866	-.000866	0	0
8	KICKER2	PY	-.000866	-.000866	0	0
9	DIAG1	PY	-.000866	-.000866	0	0
10	DIAG2	PY	-.000866	-.000866	0	0
11	DIAG3	PY	-.000866	-.000866	0	0
12	DIAG4	PY	-.000866	-.000866	0	0
13	VERT3	PY	-.000866	-.000866	0	0
14	VERT2	PY	-.000866	-.000866	0	0
15	VERT1	PY	-.000866	-.000866	0	0
16	VERT4	PY	-.000866	-.000866	0	0
17	VERT5	PY	-.000866	-.000866	0	0
18	VERT6	PY	-.000866	-.000866	0	0
19	TIE-BACK	PY	-.000866	-.000866	0	0
20	MP ALPHA1	PY	-.000866	-.000866	0	0

Member Distributed Loads (BLC 39 : Ice Wind Load (330)) (Continued)

	Member Label	Direction	Start Magnitude...	End Magnitude[...	Start Location[ft...	End Location[ft,...
21	MP ALPHA2	PY	-.000866	-.000866	0	0
22	MP ALPHA3	PY	-.000866	-.000866	0	0
23	MP ALPHA4	PY	-.000866	-.000866	0	0
24	FACE BOTTOM	PX	.002	.002	0	0
25	FACE TOP	PX	.002	.002	0	0
26	SUPPORTPIPE2	PX	.0005	.0005	0	0
27	SUPPORT PIPE1	PX	.0005	.0005	0	0
28	KICKER3	PX	.0005	.0005	0	0
29	KICKER1	PX	.0005	.0005	0	0
30	KICKER4	PX	.0005	.0005	0	0
31	KICKER2	PX	.0005	.0005	0	0
32	DIAG1	PX	.0005	.0005	0	0
33	DIAG2	PX	.0005	.0005	0	0
34	DIAG3	PX	.0005	.0005	0	0
35	DIAG4	PX	.0005	.0005	0	0
36	VERT3	PX	.0005	.0005	0	0
37	VERT2	PX	.0005	.0005	0	0
38	VERT1	PX	.0005	.0005	0	0
39	VERT4	PX	.0005	.0005	0	0
40	VERT5	PX	.0005	.0005	0	0
41	VERT6	PX	.0005	.0005	0	0
42	TIE-BACK	PX	.0005	.0005	0	0
43	MP ALPHA1	PX	.0005	.0005	0	0
44	MP ALPHA2	PX	.0005	.0005	0	0
45	MP ALPHA3	PX	.0005	.0005	0	0
46	MP ALPHA4	PX	.0005	.0005	0	0

Envelope Joint Reactions

	Joint		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N78	max	1.382	4	2.392	4	1.192	19	-.119	32	.216	19	0	41
2		min	.124	20	.064	20	.427	32	-.286	10	.044	32	0	1
3	N70A	max	-.348	35	-.509	35	.29	16	-.052	17	.109	19	0	41
4		min	-1.37	19	-2.368	19	.11	32	-.121	36	-.009	35	0	1
5	N80	max	-.076	23	2.769	6	1.342	33	-.124	8	-.062	10	0	41
6		min	-1.584	6	.037	23	.533	19	-.349	27	-.197	30	0	1
7	N72A	max	1.582	27	-.152	5	.332	33	-.042	26	-.013	4	0	41
8		min	.127	8	-2.749	24	.136	16	-.136	12	-.073	21	0	1
9	N71	max	2.188	8	1.492	26	.033	30	0	41	0	41	0	41
10		min	-2.2	26	-1.491	8	.016	35	0	1	0	1	0	1
11	Totals:	max	1.285	14	2.445	2	2.996	6						
12		min	-1.383	29	-2.445	20	1.419	20						

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
1	Live Load	DL					1			
2	Wind Load (0)	DL					13	23		
3	Dead Load	DL			-1.1		13			
4	Wind Load (30)	DL					26	46		
5	Wind Load (60)	DL					26	46		
6	Wind Load (90)	DL					13	23		
7	Wind Load (120)	DL					26	46		
8	Wind Load (150)	DL					26	46		
9	Wind Load (180)	DL					13	23		
10	Wind Load (210)	DL					26	46		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(P...
11	Wind Load (240)	DL					26	46		
12	Wind Load (270)	DL					13	23		
13	Wind Load (300)	DL					26	46		
14	Wind Load (330)	DL					26	46		
15	Maintanence (0)	DL					13			
16	Maintanence (30)	DL					26			
17	Maintanence (60)	DL					26			
18	Maintanence (90)	DL					13			
19	Maintanence (120)	DL					26			
20	Maintanence (150)	DL					26			
21	Maintanence (180)	DL					13			
22	Maintanence (210)	DL					26			
23	Maintanence (240)	DL					26			
24	Maintanence (270)	DL					13			
25	Maintanence (300)	DL					26			
26	Maintanence (330)	DL					26			
27	Ice Dead Load	DL					13	23		
28	Ice Wind Load (0)	DL					13	23		
29	Ice Wind Load (30)	DL					26	46		
30	Ice Wind Load (60)	DL					26	46		
31	Ice Wind Load (90)	DL					13	23		
32	Ice Wind Load (120)	DL					26	46		
33	Ice Wind Load (150)	DL					26	46		
34	Ice Wind Load (180)	DL					13	23		
35	Ice Wind Load (210)	DL					26	46		
36	Ice Wind Load (240)	DL					26	46		
37	Ice Wind Load (270)	DL					13	23		
38	Ice Wind Load (300)	DL					26	46		
39	Ice Wind Load (330)	DL					26	46		
40	Earthquake (x-directi...	DL	-.126				13			
41	Earthquake (y-directi...	DL		-.126			13			
42	Earthquake (z-directi...	DL			-.05		13			

Load Combinations

	Description	So...	P...	S...	BLC	Fact..	BLC	Fa..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact...
1	1.4D	Yes	Y		3	1.4																				
2	1.2D + 1.0W(0)	Yes	Y		3	1.2	2	1																		
3	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	28	1																
4	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	15	1																
5	1.2D + 1.0W(30)	Yes	Y		3	1.2	4	1																		
6	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	29	1																
7	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	16	1																
8	1.2D + 1.0W(60)	Yes	Y		3	1.2	5	1																		
9	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	30	1																
10	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	17	1																
11	1.2D + 1.0W(90)	Yes	Y		3	1.2	6	1																		
12	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	31	1																
13	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	18	1																
14	1.2D + 1.0W(120)	Yes	Y		3	1.2	7	1																		
15	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	32	1																
16	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	19	1																
17	1.2D + 1.0W(150)	Yes	Y		3	1.2	8	1																		
18	1.2D + 1.0Di + 1...	Yes	Y		3	1.2	27	1	33	1																
19	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	20	1																
20	1.2D + 1.0W(180)	Yes	Y		3	1.2	9	1																		

Load Combinations (Continued)

	Description	So...	P...	S...	BLC	Fact..	BLC	Fa..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact..	BLC	Fact...
21	1.2D + 1.0Di + 1..	Yes	Y		3	1.2	27	1	34	1														
22	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	21	1														
23	1.2D + 1.0W(210)	Yes	Y		3	1.2	10	1																
24	1.2D + 1.0Di + 1..	Yes	Y		3	1.2	27	1	35	1														
25	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	22	1														
26	1.2D + 1.0W(240)	Yes	Y		3	1.2	11	1																
27	1.2D + 1.0Di + 1..	Yes	Y		3	1.2	27	1	36	1														
28	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	23	1														
29	1.2D + 1.0W(270)	Yes	Y		3	1.2	12	1																
30	1.2D + 1.0Di + 1..	Yes	Y		3	1.2	27	1	37	1														
31	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	24	1														
32	1.2D + 1.0W(300)	Yes	Y		3	1.2	13	1																
33	1.2D + 1.0Di + 1..	Yes	Y		3	1.2	27	1	38	1														
34	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	25	1														
35	1.2D + 1.0W(330)	Yes	Y		3	1.2	14	1																
36	1.2D + 1.0Di + 1..	Yes	Y		3	1.2	27	1	39	1														
37	1.2D + 1.5L + 1....	Yes	Y		3	1.2	1	1.5	26	1														
38	1.2D + 1.0E(x) +..	Yes	Y		3	1.2	40	1	42	1	1	1												
39	1.2D + 1.0E(y) +..	Yes	Y		3	1.2	41	1	42	1	1	1												
40	1.2D - 1.0E(x) + ..	Yes	Y		3	1.2	40	-1	42	1	1	1												
41	1.2D - 1.0E(y) + ..	Yes	Y		3	1.2	41	-1	42	1	1	1												

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

	Member	Shape	Code ...	Loc[ft]	LC	She...	Loc...	Dir	LC	phi*Pn...	phi*Pn...	phi*M...	phi*M...	...	Eqn
1	FACE BOTTOM	PIPE_2.5	.179	12.656	2	.060	12....		26	10.11	50.715	3.596	3.596	...	H1-1b
2	FACE TOP	PIPE_2.5	.248	12.656	2	.158	2.344		2	10.11	50.715	3.596	3.596	...	H1-1b
3	SUPPORTPIPE2	PIPE_2.0	.239	3.516	2	.338	3.75		2	25.204	32.13	1.872	1.872	...	H3-6
4	SUPPORT PIPE1	PIPE_2.0	.543	2.25	26	.258	3.75		5	25.204	32.13	1.872	1.872	...	H1-1b
5	KICKER3	PIPE_2.5	.126	0	7	.092	0		19	37.774	50.715	3.596	3.596	...	H1-1b
6	KICKER1	PIPE_2.5	.140	0	36	.089	0		24	37.774	50.715	3.596	3.596	...	H1-1b
7	KICKER4	PIPE_2.5	.099	5.75	20	.083	5.75		7	37.774	50.715	3.596	3.596	...	H1-1b
8	KICKER2	PIPE_2.5	.141	5.875	26	.098	5.75		26	37.774	50.715	3.596	3.596	...	H1-1b
9	DIAG1	PIPE_1.5	.054	2.035	12	.017	0		20	17.269	23.593	1.105	1.105	...	H1-1b
10	DIAG2	PIPE_1.5	.056	2.035	12	.008	4.07		20	17.269	23.593	1.105	1.105	...	H1-1b
11	DIAG3	PIPE_1.5	.045	1.992	10	.025	4.07		20	17.269	23.593	1.105	1.105	...	H1-1b
12	DIAG4	PIPE_1.5	.046	2.035	30	.012	4.07		20	17.269	23.593	1.105	1.105	...	H1-1b
13	VERT3	PIPE_1.5	.015	0	30	.007	0		7	19.914	23.593	1.105	1.105	1	H1-1b*
14	VERT2	PIPE_1.5	.078	0	12	.007	0		16	19.914	23.593	1.105	1.105	1	H1-1b*
15	VERT1	PIPE_1.5	.050	0	8	.005	0		2	19.914	23.593	1.105	1.105	...	H1-1b*
16	VERT4	PIPE_1.5	.019	0	19	.007	0		20	19.914	23.593	1.105	1.105	1	H1-1b*
17	VERT5	PIPE_1.5	.071	0	19	.008	0		19	19.914	23.593	1.105	1.105	1	H1-1b*
18	VERT6	PIPE_1.5	.013	0	16	.009	0		35	19.914	23.593	1.105	1.105	1	H1-1b*
19	TIE-BACK	PIPE_2.0	.238	0	8	.006	0		27	12.069	32.13	1.872	1.872	...	H1-1a
20	MP ALPHA1	PIPE_2.0	.226	1.039	34	.047	3.008		19	23.088	32.13	1.872	1.872	...	H1-1b
21	MP ALPHA2	PIPE_2.0	.496	4.25	20	.063	4.25		20	14.916	32.13	1.872	1.872	...	H1-1b
22	MP ALPHA3	PIPE_2.0	.187	3.495	36	.046	3.495		2	22.356	32.13	1.872	1.872	...	H1-1b
23	MP ALPHA4	PIPE_2.0	.108	1.286	24	.030	3.724		2	19.36	32.13	1.872	1.872	...	H1-1b

APPENDIX F

Wind Speed Documentation

Hazards by Location

Search Information

Coordinates: 41.443056, -72.506222

Elevation: 514 ft

Timestamp: 2020-06-05T17:46:44.115Z

Hazard Type: Wind

ASCE 7-16

MRI 10-Year ..... 75 mph

MRI 25-Year ..... 84 mph

MRI 50-Year ..... 94 mph

MRI 100-Year ..... 99 mph

Risk Category I ..... 112 mph

Risk Category II ..... 122 mph

Risk Category III ..... ⚠ 131 mph

If the structure under consideration is a healthcare facility and you are also within 1 mile of the coastal mean high water line, you are in a wind-borne debris region. If other occupancy, use the Risk Category II basic wind speed contours to determine if you are in a wind-borne debris region.

Risk Category IV ..... ⚠ 135 mph

You are in a wind-borne debris region if you are also within 1 mile of the coastal mean high water line.

ASCE 7-10

MRI 10-Year ..... 78 mph

MRI 25-Year ..... 88 mph

MRI 50-Year ..... 96 mph

MRI 100-Year ..... 104 mph

Risk Category I ..... 118 mph

Risk Category II ..... 129 mph

Risk Category III-IV ..... ⚠ 139 mph

If the structure under consideration is a healthcare facility and you are also within 1 mile of the coastal mean high water line, you are in a wind-borne debris region. If other occupancy, use the Risk Category II basic wind speed contours to determine if you are in a wind-borne debris region.

ASCE 7-05

ASCE 7-05 Wind Speed ..... ⚠ 112 mph

You are in a wind-borne debris region if you are also within 1 mile of the coastal mean high water line.

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Disclaimer

Hazard loads are interpolated from data provided in ASCE 7 and rounded up to the nearest whole integer. Per ASCE 7, islands and coastal areas outside the last contour should use the last wind speed contour of the coastal area – in some cases, this website will extrapolate past the last wind speed contour and therefore, provide a wind speed that is slightly higher. NOTE: For queries near wind-borne debris region boundaries, the resulting determination is sensitive to rounding which may affect whether or not it is considered to be within a wind-borne debris region.

Mountainous terrain, gorges, ocean promontories, and special wind regions shall be examined for unusual wind conditions.

Exhibit F

Power Density/RF Emissions Report

Radio Frequency Emissions Analysis Report

AT&T Existing Facility

Site ID: CTL02165

Project Type: AT&T LTE 5C

Haddam_Plains Road
539 Plains Road
Haddam, CT 06438

July 8, 2020

Fullerton Project Number: 2020.0182.0004

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**10.08 %**

July 8, 2020

Crown Castle on Behalf of AT&T
Attn: Anne Marie Zsamba, Site Acquisition Specialist
3 Corporate Park Drive, Suite 101
Clifton Park, NY 12065

Emissions Analysis for Site: **CTL02165 – Haddam_Plains Road**

Fullerton Engineering Consultants, LLC ("Fullerton") was directed to analyze the proposed upgrades to the AT&T facility located at **539 Plains Road, Haddam, CT**, for the purpose of determining whether the emissions from the proposed AT&T antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu W/cm^2$). The general population exposure limits for the 700 MHz & 850 MHz bands are approximately 467 $\mu W/cm^2$ and 567 $\mu W/cm^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) bands is 1000 $\mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were performed for the proposed upgrades to the AT&T antenna facility located at **539 Plains Road, Haddam, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

All emissions values for additional carriers were taken from the Connecticut Siting Council (CSC) active MPE database. Values in this database are provided by the individual carriers themselves.

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
UMTS	850 MHz	1	20
LTE	700 MHz	4	40
LTE / 5G NR	850 MHz	4	40
LTE	700 MHz (Band 14)	4	40
LTE	1900 MHz (PCS)	4	40
LTE	2300 MHz (WCS)	4	25

Table 1: Channel Data Table

The following antennas listed in *Table 2* were used in the modeling for transmission in the 700 MHz, 850 MHz, 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Powerwave 7770	167
A	2	CCI DMP65R-BU8D	167
A	3	CCI OPA65R-BU6D	167
A	4	Quintel QS66512-2	167
B	1	Powerwave 7770	167
B	2	CCI DMP65R-BU8D	167
B	3	CCI OPA65R-BU6D	167
B	4	Quintel QS66512-2	167
C	1	Powerwave 7770	167
C	2	CCI DMP65R-BU8D	167
C	3	CCI OPA65R-BU6D	167
C	4	Quintel QS66512-2	167

Table 2: Antenna Data

All calculations were done with respect to uncontrolled / general population threshold limits.

Cable losses were factored in the calculations for this site. For each **700 MHz** Remote Radio Unit (RRU) there was **0.18 dB** of cable loss calculated into the system gains / losses for this site. For each **850 MHz** Remote Radio Unit (RRU) there was **0.20 dB** of cable loss calculated into the system gains / losses for this site. For each **850 MHz** ground mounted UMTS radio path there was **1.14 dB** of cable loss calculated into the system gains / losses for this site For each **1900 MHz (PCS)** Remote Radio Unit (RRU) there was **0.32 dB** of cable loss calculated into the system gains / losses for this site. For each **2300 MHz (WCS)** Remote Radio Unit (RRU) there was **0.35 dB** of cable loss calculated into the system gains / losses for this site These values were calculated based upon the manufacturers specifications for **10 feet** of **1/2"** coax for each tower mounted Remote Radio Unit (RRU) and for **185 feet** of **1-5/8"** coax for each ground mounted radio.

RESULTS

Per the calculations completed for the proposed AT&T configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Powerwave 7770	850 MHz	11.4	1	20	212.34	0.05
Antenna A2	CCI DMP65R-BU8D	700 MHz / 850 MHz	12.95 / 13.85	8	320	6,735.58	1.81
Antenna A3	CCI OPA65R-BU6D	700 MHz (Band 14)	12.15	4	160	2,518.37	0.75
Antenna A4	Quintel QS66512-2	1900 MHz (PCS) / 2300 MHz (WCS)	13.85 / 14.85	8	260	6,425.17	0.89
						Sector A Composite MPE%	**3.50**
Antenna B1	Powerwave 7770	850 MHz	11.4	1	20	212.34	0.05
Antenna B2	CCI DMP65R-BU8D	700 MHz / 850 MHz	12.95 / 13.85	8	320	6,735.58	1.81
Antenna B3	CCI OPA65R-BU6D	700 MHz (Band 14)	12.15	4	160	2,518.37	0.75
Antenna B4	Quintel QS66512-2	1900 MHz (PCS) / 2300 MHz (WCS)	13.85 / 14.85	8	260	6,425.17	0.89
						Sector B Composite MPE%	**3.50**
Antenna C1	Powerwave 7770	850 MHz	11.4	1	20	212.34	0.05
Antenna C2	CCI DMP65R-BU8D	700 MHz / 850 MHz	12.95 / 13.85	8	320	6,735.58	1.81
Antenna C3	CCI OPA65R-BU6D	700 MHz (Band 14)	12.15	4	160	2,518.37	0.75
Antenna C4	Quintel QS66512-2	1900 MHz (PCS) / 2300 MHz (WCS)	13.85 / 14.85	8	260	6,425.17	0.89
						Sector C Composite MPE%	**3.50**

Table 3: AT&T *Emissions Levels*

The following table (*Table 4*) shows all additional carriers on site and their MPE% as recorded in the CSC active MPE database for this facility along with the newly calculated maximum AT&T MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, all three sectors have the same configuration yielding the same results on all three sectors. *Table 5* below shows a summary for each AT&T Sector as well as the composite MPE value for the site.

Site Composite MPE%	
Carrier	**MPE%**
AT&T – Max Per Sector Value	**3.50 %**
Voicestream / T-Mobile	0.05 %
MetroPCS	0.41 %
Verizon Wireless	3.16 %
Sprint	2.66 %
Nextel	0.30 %
Site Total MPE %:	**10.08 %**

Table 4: All Carrier MPE Contributions

AT&T Sector A Total:	3.50 %
AT&T Sector B Total:	3.50 %
AT&T Sector C Total:	3.50 %
Site Total:	10.08 %

Table 5: Site MPE Summary

FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated AT&T sector(s). For this site, all three sectors have the same configuration yielding the same results on all three sectors.

AT&T _ Frequency Band / Technology Max Power Values (Per Sector)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
AT&T 850 MHz UMTS	1	212.34	167	0.29	850 MHz	567	0.05%
AT&T 700 MHz LTE	4	756.94	167	4.20	700 MHz	467	0.90%
AT&T 850 MHz LTE / 5G NR	4	926.96	167	5.14	850 MHz	567	0.91%
AT&T 700 MHz LTE (Band 14)	4	629.59	167	3.49	700 MHz (Band 14)	467	0.75%
AT&T 1900 MHz (PCS) LTE	4	901.70	167	5.00	1900 MHz (PCS)	1000	0.50%
AT&T 2300 MHz (WCS) LTE	4	704.60	167	3.91	2300 MHz (WCS)	1000	0.39%
						Total:	**3.50%**

Table 6: AT&T *Maximum Sector MPE Power Values*

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the AT&T facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

AT&T Sector	Power Density Value (%)
Sector A:	3.50 %
Sector B:	3.50 %
Sector C:	3.50 %
AT&T Maximum Total (per sector):	3.50 %
Site Total:	10.08 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **10.08 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

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