April 9, 2021

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

RE: **Notice of Exempt Modification for T-Mobile**
Crown Site ID# 876384; T-Mobile Site ID# CTHA633A
798 Toby Hill Road, Westbrook, CT 06498
Latitude: 41° 35′ 14.20″ / Longitude: -72° 29′ 19.60″

Dear Ms. Bachman:

T-Mobile currently maintains six (6) antennas at the 150-foot mount on the existing 150-foot Monopole Tower located at 798 Toby Hill Road in Westbrook. The property is owned by Toby Hill Farm LLC and the Tower is owned by Crown Castle. T-Mobile now intends to replace six (6) existing antennas and add three (3) new antennas. This modification/proposal includes hardware that is both 4G(LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

Planned Modifications:
Tower:

Remove and Replace:
(3) RFS – APXVTMI4-ALU-I20 Antennas **(REMOVE)** - (3) RFS – APX16DWV-16DWV-S-E-A20 Antennas **(REPLACE)**

(3) Commscope – NNW-65B-R4 Antennas **(REMOVE)** – (3) RFS – APXVAALL24_43-U-NA20 Antennas **(REPLACE)**

Install New:
(3) AIR6449 B41 Antennas
(3) Ericsson – Radio 4415 B66A
(3) Ericsson – Radio 4449 B71+B85A
(3) Ericsson – Radio 4424 B25
(4) 6x24 HCS 4AWG 100m feedlines

Remove:
(3) Alcatel Lucent 1900MHz 4x45W-65 MW radio
(3) Nokia – FZHN radio
(6) Alcatel Lucent – RRH2x50-800 radio

Ground:

Install New:
(1) Ericsson 6160 cabinet
(1) Ericsson B160 battery cabinet
(1) BB6648
(3) BB6630
(1) DUG20
(1) PSU 4813 voltage booster
(1) IXRe router

The facility was approved by the Town of Westbrook Planning and Zoning Department on October 11th, 2000. The approval was given with conditions which this exempt modification follows.

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 Noel Bishop, First Selectman for the Town of Westbrook, as well as David Maiden, Building Official for the Town of Westbrook. A copy of this application will also be sent to the property owner.

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

2. 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.

3. 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.

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

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

For the foregoing reasons, T-Mobile 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).

Sincerely,

Richard Zajac
Site Acquisition Specialist
4545 East River Road, Suite 320
West Henrietta, NY
(585) 445-5896
Richard.zajac@crowncastle.com

cc:

Town of Westbrook
Attn: Noel Bishop – First Selectman *(via email only to nbishop@westbrookct.us)*
866 Boston Post Road
Westbrook, CT 06498

Town of Westbrook
Attn: David Maiden – Building Official *(via email only to dmaiden@westbrookct.us)*
866 Boston Post Road
Westbrook, CT 06498

Toby Hill Farm LLC
439 Spencer Plains Rd
Westbrook, CT 06498

Zajac, Richard

From: Zajac, Richard
Sent: Friday, April 9, 2021 10:55 AM
To: nbishop@westbrookct.us
Subject: Connecticut Siting Council exempt modification application notification
Attachments: CSC Exempt Modification Application - 798 Toby Hill Road.pdf

Good morning,
Please see the attached application to the Connecticut Siting Council regarding antenna work on the existing cell tower located at 798 Toby Hill Road in Westbrook.

Should you have any questions/comments/concerns regarding this application, please do not hesitate to contact me.

Thank you,
RICH ZAJAC
Site Acquisition Specialist
T: (585) 445-5896 M: (607) 346-7212
F: (724) 416-4461
CROWN CASTLE
4545 East River Road, Suite 320
West Henrietta, NY 14586

Zajac, Richard

From: Zajac, Richard
Sent: Friday, April 9, 2021 10:58 AM
To: dmaiden@westbrookct.us
Subject: Connecticut Siting Council exempt modification application notification
Attachments: CSC Exempt Modification Application - 798 Toby Hill Road.pdf

Good morning,
Please see the attached application to the Connecticut Siting Council regarding antenna work on the existing cell tower located at 798 Toby Hill Road in Westbrook.

Should you have any questions/comments/concerns regarding this application, please do not hesitate to contact me.

Thank you,
RICH ZAJAC
Site Acquisition Specialist
T: (585) 445-5896 M: (607) 346-7212
F: (724) 416-4461
CROWN CASTLE
4545 East River Road, Suite 320
West Henrietta, NY 14586

ORIGIN ID:ONHA (585) 445-5896
RICHARD ZAJAC
CROWN CASTLE
629 KAYLEIGH DR
WEBSTER, NY 14580
UNITED STATES US

SHIP DATE: 09APR21
ACTWGT: 1.00 LB
CAD: 112911364/INET4340

BILL SENDER

TO **TOBY HILL FARM LLC**

439 SPENCER PLAINS RD

WESTBROOK CT 06498

(585) 445-5896

REF: 799001.7680

INV:

PO:

DEPT:

J211321033101uv

FedEx Express

56DJ2/5EF2/FE4A

MON - 12 APR 4:30P

STANDARD OVERNIGHT

TRK# 0201 **7734 0082 0878**

XE RSPA

06498

BDL

CT-US

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Exhibit A

Original Facility Approval

TOWN OF WESTBROOK
ZONING

P.O. BOX G
WESTBROOK, CONNECTICUT 06498-0676
(860) 399-3046 • FAX (860) 399-9568

May 25, 2000

Donald Duthaler, Jr.
O'Brien & Gere Engineers, Inc.
Raritan Plaza 1
Edison, NJ 08837

RE: Special Permit/Site Plan application from Sprint Spectrum LP for a telecommunications facility at Toby Hill Road

Dear Mr. Duthaler:

At its meeting of May 23, 2000 the Westbrook Zoning Commission took the following action on the above named application:

APPROVED: To approve the Special Permit application for a telecommunications facility at Toby Hill Road as shown in drawing entitled " Site Plans Sprint PCS Site #CT 33XC548 Orsina Property Toby Hill Road Westbrook, Connecticut" dated October 26, 1999, prepared by Vanasse Hangen Brustlin, Inc.

A mylar and three (3) copies of the Site Plan must be delivered to the Zoning Office. Please include an approval signature block on these plans.

Sincerely,

James R. Taylor

James R. Taylor
Zoning Enforcement Officer

Cc: Town Clerk
Assessor
Building Dept.

JRT:cgg

CERTIFIED MAIL # Z 033 664 069

TOWN OF WESTBROOK
INLAND WETLANDS AND WATERCOURSES

P.O. BOX G
WESTBROOK, CONNECTICUT 06498-0676
(203) 399-3046

April 17, 2000

Sprint Spectrum, L.P.
One International Blvd.
Suite 800
Mahwah, NJ 07495

Re: Toby Hill Rd, Map 67, Lot 70, Westbrook, CT –Construction of Telecommunication Facility, 150-foot monopole tower

Ladies and Gentlemen:

At the last regular meeting of the Westbrook Inland Wetlands & Watercourses Commission on Tuesday, April 4, 2000, it was voted to approve the above-referenced application with the following stipulations:

To approve this activity with the following 5 stipulations:

1. A reference point denoting the water elevation will be outside the construction area
2. Asphalt will be used on downhill section of road, starting where drainage swale is and continuing to drainage basin #4, with 2" stone on embankments
3. Soil and erosion control measures must be shown on the plans
4. Detailed sequence of wetland crossing dewatering plan must be on file in the Town Hall Wetland Office at least 5 days prior to the start of dewatering
5. Inland Wetland Enforcement Officer must be notified prior to the start of construction so she may monitor the process.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Heidi K. Wallace

Heidi K. Wallace
Inland Wetland Enforcement Officer
Town of Westbrook

Exhibit B

Property Card

798 TOBY HILL RD

Location	798 TOBY HILL RD	**Mblu**	134/ / 010/ /
Acct#	O0268700	**Owner**	TOBY HILL FARM LLC
Assessment	$3,690	**Appraisal**	$146,910
PID	2783	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$2,490	$144,420	$146,910

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2016	$1,740	$1,950	$3,690

Owner of Record

Owner	TOBY HILL FARM LLC	**Sale Price**	$0
Co-Owner		**Certificate**	
Address	PO BOX 700 WESTBROOK, CT 06498	**Book & Page**	337/439
		Sale Date	11/05/2015

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
TOBY HILL FARM LLC	$0		337/439	11/05/2015
TOBY HILL FARM LLC	$0		327/637	12/12/2013
ORSINA PAUL J TRUSTEE	$0		136/480	12/29/1989

Building Information

Building 1 : Section 1

Year Built:
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)	
Gas Fireplace(s)	
Stacks	
Bsmt Garage(s)	
Callback	
Fireplaces	
Fin Bsmnt	
Fin Bsmnt Qual	
Bsmt Heat	
Int Vs Ext	
Fndtn Cndtn	
Basement	

Building Photo

(http://images.vgsi.com/photos2/WestbrookCTPhotos//default.jpg)

Building Layout

Building Layout
(http://images.vgsi.com/photos2/WestbrookCTPhotos//Sketches/2783_278

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

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	610
Description	Forest
Zone	RR
Neighborhood	0050
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	11.59
Depth	
Assessed Value	$1,950
Appraised Value	$144,420

Special Land			
Land Use Code	**Land Use Description**	**Units**	**Unit Type**
610	Forest	2	AC
610	Forest	9	AC

Outbuildings

Outbuildings							Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**	**Comment**
TCM	Telecomm			75.00 S.F.&HGT	$2,490	1	
TCS	Telecomm Site			0.00 UNITS	$0	1	

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2019	$42,490	$144,420	$186,910
2018	$2,490	$144,400	$146,890
2017	$2,490	$144,400	$146,890

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2019	$29,740	$1,950	$31,690
2018	$1,740	$1,950	$3,690
2017	$1,740	$1,950	$3,690

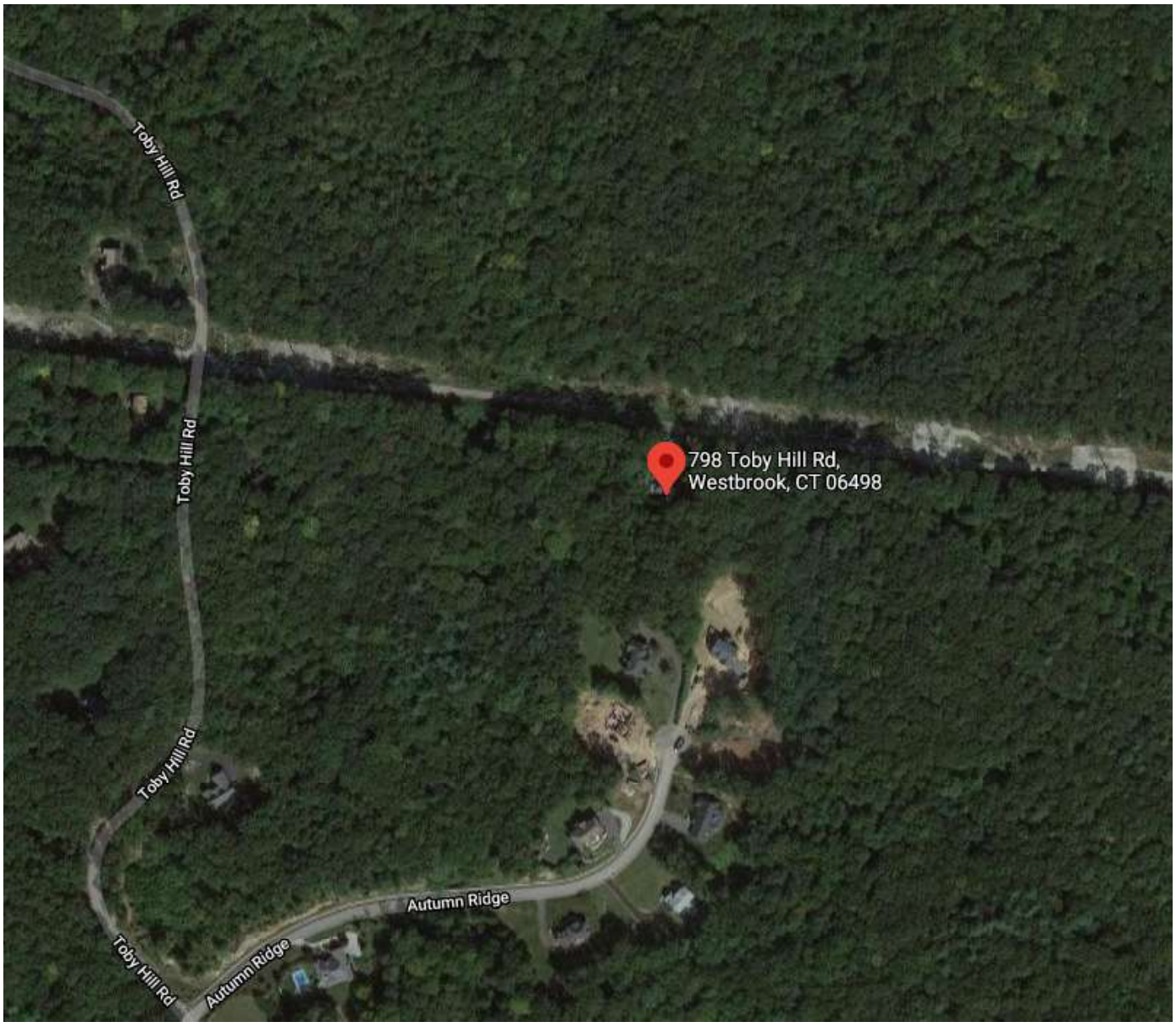

Toby Hill Rd
Toby Hill Rd
Toby Hill Rd
Toby Hill Rd
798 Toby Hill Rd,
Westbrook, CT 06498
Autumn Ridge
Autumn Ridge

Exhibit C

Construction Drawings

T-Mobile

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

T-MOBILE SITE NUMBER: CTHA633A
T-MOBILE SITE NAME: CTHA633A
SITE TYPE: MONOPOLE
TOWER HEIGHT: 150'-0"

BUSINESS UNIT #: 876384
SITE ADDRESS: 798 TOBY HILL ROAD WESTBROOK, CT 06498
COUNTY: MIDDLESEX
JURISDICTION: TOWN OF WESTBROOK

T-MOBILE SPRINT-RETAIN SITE CONFIGURATION: 67D5998C_1xAIR+1QP+1OP (GSM ONLY)

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	WESTBROOK/ORSINA
SITE ADDRESS:	798 TOBY HILL ROAD WESTBROOK, CT 06498
COUNTY:	MIDDLESEX
BLOCK/LOT #:	001040941
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41° 19' 12.60" (41.32021000)
LONGITUDE:	-72° 26' 30.00" (-72.44170000)
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	217 FT
CURRENT ZONING:	RR
JURISDICTION:	TOWN OF WESTBROOK
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	TOBY HILL FARM LLC. PO BOX 700 WESTBROOK, CT 06498
TOWER OWNER:	CROWN CASTLE USA, INC. 1200 MACARTHUR BLVD, SUITE 200 MAHWAH, NJ 07430
CARRIER/APPLICANT:	T-MOBILE 35 GRIFFIN ROAD BLOOMFIELD, CT 06002
ELECTRIC PROVIDER:	CONNECTICUT LIGHT & POWER CO. (800) 286-2000
TELCO PROVIDER:	VERIZON (800) 837-4966

PROJECT TEAM

A&E FIRM:	TOWER ENGINEERING PROFESSIONALS 326 TRYON ROAD RALEIGH, NC 27603
	JOSEPH T. CRESS - PROJECT MANAGER (919) 661-6351
	GRAHAM M. ANDRES - CIVIL ENGINEER (919) 661-6351
	GRAHAM M. ANDRES - ELECTRICAL ENGINEER (919) 661-6351
CROWN CASTLE USA INC. DISTRICT CONTACTS:	4511 N. HIMES AVE, SUITE 210 TAMPA, FL 33614
	NITSA CRENSHAW - A&E SPECIALIST (813) 342-3871

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

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	FINAL SITE PLAN
C-1.2	EXISTING & FINAL EQUIPMENT PLAN
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	ANTENNA & CABLE SCHEDULE
C-4	EQUIPMENT SPECS
C-5	CABINET SPECS
E-1	AC PANEL SCHEDULES & ONE LINE DIAGRAM
G-1	ANTENNA GROUNDING DIAGRAM
G-2	GROUNDING DETAILS
G-3	GROUNDING DETAILS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR 22x34. 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.

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 (6) ANTENNAS
- REMOVE (12) RRHs
- REMOVE (4) CABLES
- REUSE (1) CABLE
- REUSE (1) GPS
- REUSE (1) PLATFORM MOUNT
- INSTALL (9) ANTENNAS
- INSTALL (9) RRHs
- INSTALL (6) BACK-TO-BACK RRH MOUNTS
- INSTALL (4) HYBRID CABLES

GROUND SCOPE OF WORK:
- REMOVE LEGACY SPRINT CABINET(S) AS NEEDED
- REUSE EXISTING SPRINT/NEXTEL PAD, ICE BRIDGE, AND UTILITY EQUIPMENT
- INSTALL (2) CABINETS
- INSTALL (3) BB 6630, (1) BB 6648, (1) DUG20, (1) IXRE ROUTER
- INSTALL (1) PSU 4813 BOOSTER

LOCATION MAP

NO SCALE

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 CONNECTICUT BUILDING CODE
MECHANICAL	2018 CONNECTICUT MECHANICAL CODE
ELECTRICAL	2017 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS: TOWER ENGINEERING PROFESSIONALS
DATED: 02/19/2021
MOUNT ANALYSIS: INFINIGY ENGINEERING, PLLC
DATED: 02/04/2021

ORDER ID: 538766 RFDS VERSION: 1
REVISION: 1 DATED: 01/12/2021

ANALYSIS CRITERIA:
APPLICABLE CODES: TIA-222-H / ASCE 7-16
WIND SPEED: V = 135 MPH (ULTIMATE 3 SECOND GUST)
EXPOSURE CATEGORY: B
RISK CATEGORY: II
TOPOGRAPHIC CATEGORY: 1
SEISMIC Ss: 0.167
SEISMIC S1: 0.059
SERVICE WIND SPEED: 60 MPH

APPROVALS

APPROVAL	SIGNATURE	DATE
RF		
CONST.		
FAA		
OPS		
RE		
SR DEV MGR		
REG DIR		

THE PARTIES ABOVE HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

T-Mobile
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351

TEP JOB #: 25589.498739

T-MOBILE SITE NUMBER:
CTHA633A

BU #: **876384**
WESTBROOK/ORSINA

798 TOBY HILL ROAD
WESTBROOK, CT 06498

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	03/01/21	JW	PRELIMINARY	BSE
0	03/17/21	JW	CONSTRUCTION	BSE

SEAL:

03/17/21

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," CED–STD–10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," 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: T–MOBILE
   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 "T–MOBILE".
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

T-Mobile
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351
TEP JOB #: 25589.498739

T-MOBILE SITE NUMBER:
CTHA633A

BU #: **876384**
WESTBROOK/ORSINA

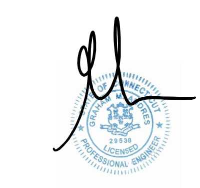
798 TOBY HILL ROAD
WESTBROOK, CT 06498

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	03/01/21	JW	PRELIMINARY	BSE
0	03/17/21	JW	CONSTRUCTION	BSE

SEAL:

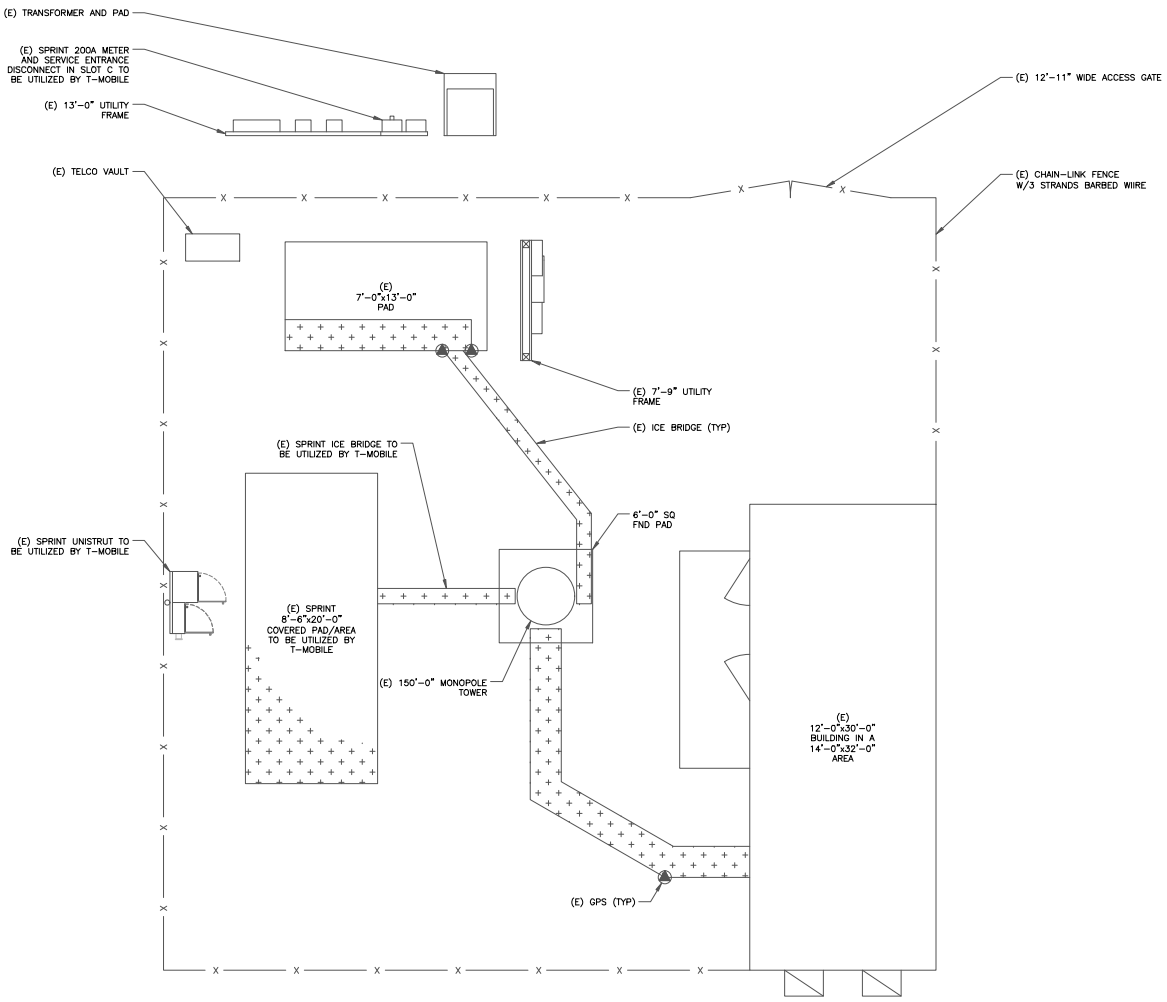


03/17/21

SHEET NUMBER: **T-2**
REVISION: **0**

NOTE:
SITE PLAN SHOWN BELOW WAS REPRODUCED FROM INFORMATION PROVIDED BY CROWN CASTLE AND SITE WALK CONDUCTED BY TEP. CONTRACTOR TO VERIFY ALL EXISTING INFORMATION IS AS INDICATED ON SITE PLAN. CONTRACTOR IS TO ESTABLISH THE EXISTENCE AND LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES. IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES.

FLOODPLAIN NOTE:
THE TOWER IS LOCATED IN ZONE "X" AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY PANEL #09007C0329G, DATED 08/28/2008.



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

N

T-Mobile
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351

TEP JOB #: 25589.498739

T-MOBILE SITE NUMBER:
CTHA633A

BU #: **876384**
WESTBROOK/ORSINA

798 TOBY HILL ROAD
WESTBROOK, CT 06498

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

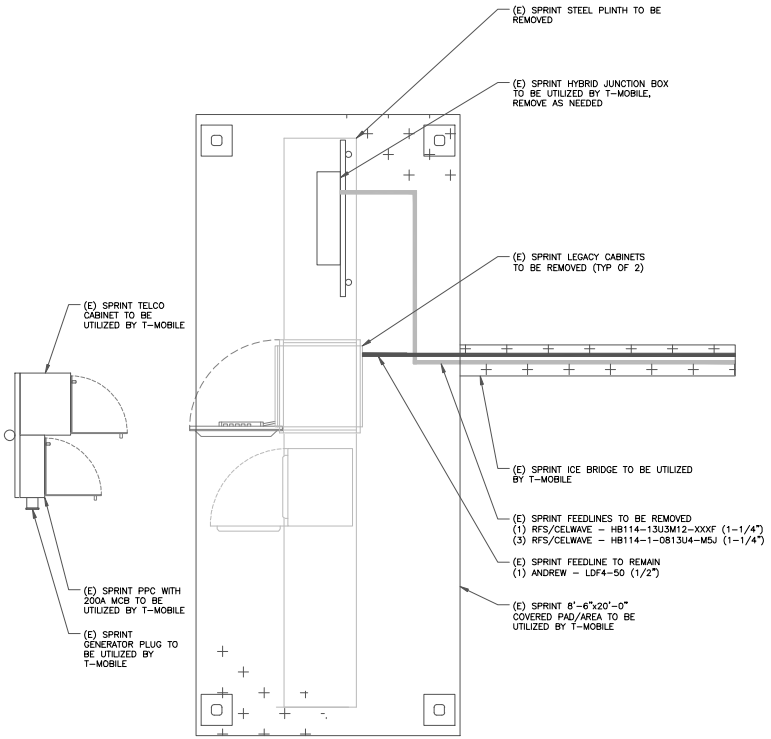
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	03/01/21	JW	PRELIMINARY	BSE
0	03/17/21	JW	CONSTRUCTION	BSE

SEAL:

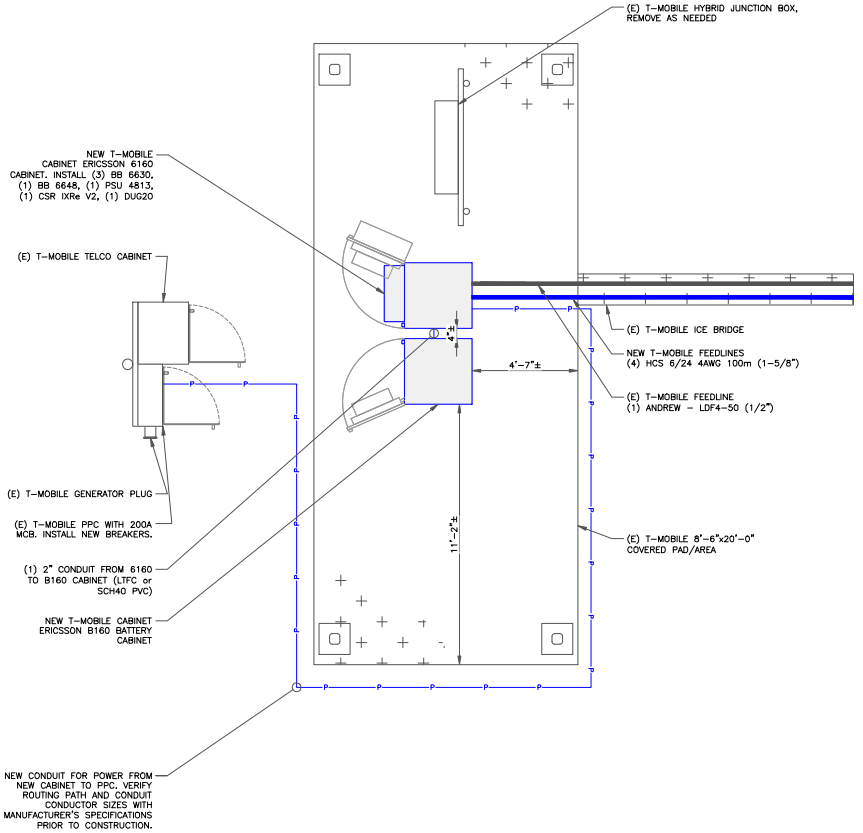
03/17/21

SHEET NUMBER:	REVISION:
C-1.1	0

FLOODPLAIN NOTE:
THE TOWER IS LOCATED IN ZONE "X" AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO FEMA COMMUNITY PANEL #09007C0329G, DATED 08/28/2008.



1 EXISTING EQUIPMENT PLAN
SCALE: 3/8"=1'-0" (FULL SIZE) 3/16"=1'-0" (11x17)



2 FINAL EQUIPMENT PLAN
SCALE: 3/8"=1'-0" (FULL SIZE) 3/16"=1'-0" (11x17)

T-Mobile
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351
TEP JOB #: 25589.498739

T-MOBILE SITE NUMBER:
CTHA633A

BU #: **876384**
WESTBROOK/ORSINA

798 TOBY HILL ROAD
WESTBROOK, CT 06498

EXISTING 150'-0"
MONOPOLE

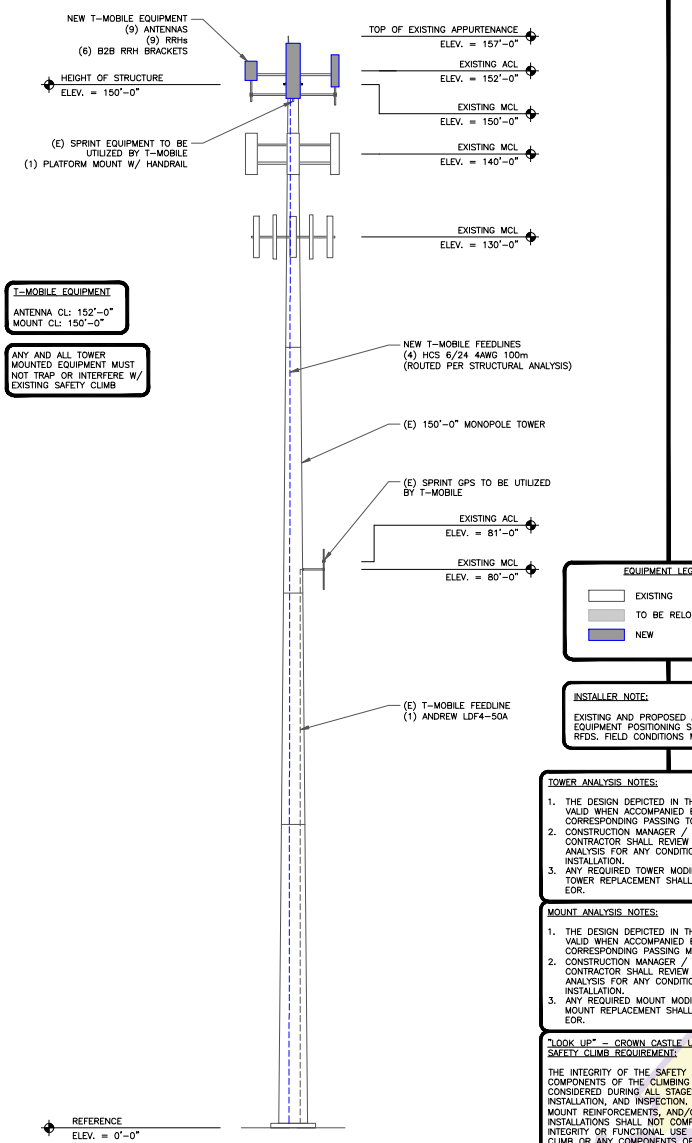
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	03/01/21	JW	PRELIMINARY	BSE
0	03/17/21	JW	CONSTRUCTION	BSE

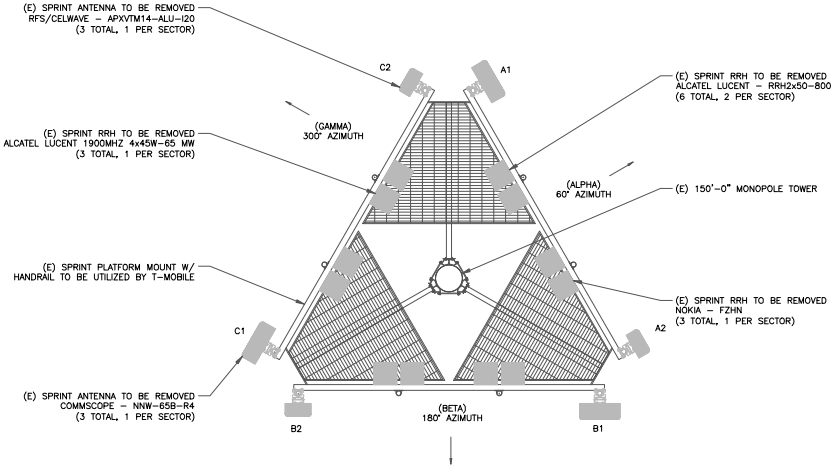
SEAL:

03/17/21

SHEET NUMBER:	REVISION:
C-1.2	0



1 FINAL ELEVATION
SCALE: NOT TO SCALE



2 EXISTING ANTENNA PLAN
SCALE: NOT TO SCALE

N

EQUIPMENT LEGEND:

- EXISTING
- TO BE RELOCATED/REMOVED
- NEW

INSTALLER NOTE:

EXISTING AND PROPOSED ANTENNA/ EQUIPMENT POSITIONING SHOWN PER RFDS. FIELD CONDITIONS MAY VARY.

TOWER ANALYSIS NOTES:

1. THE DESIGN DEPICTED IN THESE DRAWINGS IS VALID WHEN ACCOMPANIED BY A CORRESPONDING PASSING TOWER ANALYSIS.
2. CONSTRUCTION MANAGER / GENERAL CONTRACTOR SHALL REVIEW THE TOWER ANALYSIS FOR ANY CONDITIONS PRIOR TO INSTALLATION.
3. ANY REQUIRED TOWER MODIFICATION DESIGN OR TOWER REPLACEMENT SHALL BE APPROVED BY EOR.

MOUNT ANALYSIS NOTES:

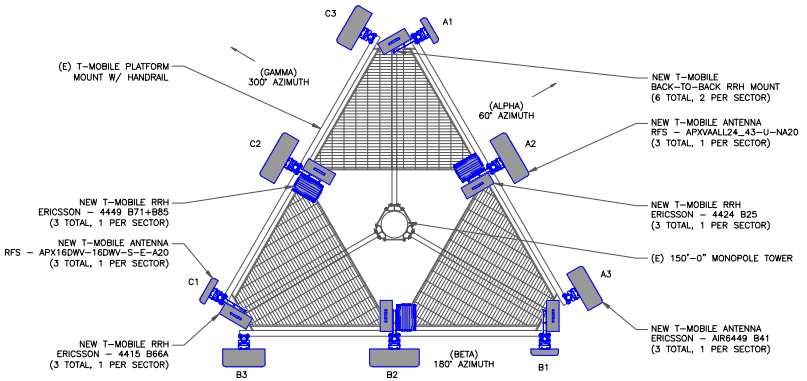
1. THE DESIGN DEPICTED IN THESE DRAWINGS IS VALID WHEN ACCOMPANIED BY A CORRESPONDING PASSING MOUNT ANALYSIS.
2. CONSTRUCTION MANAGER / GENERAL CONTRACTOR SHALL REVIEW THE MOUNT ANALYSIS FOR ANY CONDITIONS PRIOR TO INSTALLATION.
3. ANY REQUIRED MOUNT MODIFICATION DESIGN OR MOUNT REPLACEMENT SHALL BE APPROVED BY EOR.

"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.

RRH NOTE:

CONTRACTOR TO ENSURE RRHs ARE INSTALLED MIN 8" AWAY FROM ANTENNA



3 FINAL ANTENNA PLAN
SCALE: NOT TO SCALE

N

T-Mobile
35 GRIFFIN ROAD
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CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
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TOWER ENGINEERING PROFESSIONALS
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RALEIGH, NC 27603
(919) 661-6351
TEP JOB #: 25589.498739

T-MOBILE SITE NUMBER:
CTHA633A

BU #: **876384**
WESTBROOK/ORSINA

798 TOBY HILL ROAD
WESTBROOK, CT 06498

EXISTING 150'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	03/01/21	JW	PRELIMINARY	BSE
0	03/17/21	JW	CONSTRUCTION	BSE

SEAL:

03/17/21

SHEET NUMBER: C-2

REVISION: 0

FINAL ANTENNA SCHEDULE

SECTOR	POS.	TECHNOLOGY	RAD CENTER	AZIMUTH	ANTENNA MANUFACTURER	ANTENNA MODEL	MECH. TILT	ELECT. TILT	TOWER MOUNTED EQUIPMENT	FEEDLINE TYPE
ALPHA	A1	L2100	152'-0"	60°	RFS	APX16DWV-16DWV-S-E-A20 (QUAD)	0°	2°	(1) ERICSSON – RADIO 4415 B66A	(1) HCS 6/24 4AWG 100m
ALPHA	A2	L700, L600, N600, L1900, G1900	152'-0"	60°	RFS	APXVAALL24_43-U-NA20 (OCTO)	0°	5° 2°	(1) ERICSSON – RADIO 4449 B71+B85 (1) ERICSSON – RADIO 4424 B25	(1) HCS 6/24 4AWG 100m
ALPHA	A3	L2500, N2500	152'-0"	60°	ERICSSON	AIR6449 B41 (ACTIVE ANTENNA – MASSIVE MIMO)	0°	2°	–	HYBRID (SHARED)
BETA	B1	L2100	152'-0"	180°	RFS	APX16DWV-16DWV-S-E-A20 (QUAD)	0°	2°	(1) ERICSSON – RADIO 4415 B66A	HYBRID (SHARED)
BETA	B2	L700, L600, N600, L1900, G1900	152'-0"	180°	RFS	APXVAALL24_43-U-NA20 (OCTO)	0°	5° 2°	(1) ERICSSON – RADIO 4449 B71+B85 (1) ERICSSON – RADIO 4424 B25	(1) 6/24 4AWG 100m
BETA	B3	L2500, N2500	152'-0"	180°	ERICSSON	AIR6449 B41 (ACTIVE ANTENNA – MASSIVE MIMO)	0°	2°	–	HYBRID (SHARED)
GAMMA	C1	L2100	152'-0"	300°	RFS	APX16DWV-16DWV-S-E-A20 (QUAD)	0°	2°	(1) ERICSSON – RADIO 4415 B66A	HYBRID (SHARED)
GAMMA	C2	L700, L600, N600, L1900, G1900	152'-0"	300°	RFS	APXVAALL24_43-U-NA20 (OCTO)	0°	5° 2°	(1) ERICSSON – RADIO 4449 B71+B85 (1) ERICSSON – RADIO 4424 B25	(1) 6/24 4AWG 100m
GAMMA	C3	L2500, N2500	152'-0"	300°	ERICSSON	AIR6449 B41 (ACTIVE ANTENNA – MASSIVE MIMO)	0°	2°	–	HYBRID (SHARED)

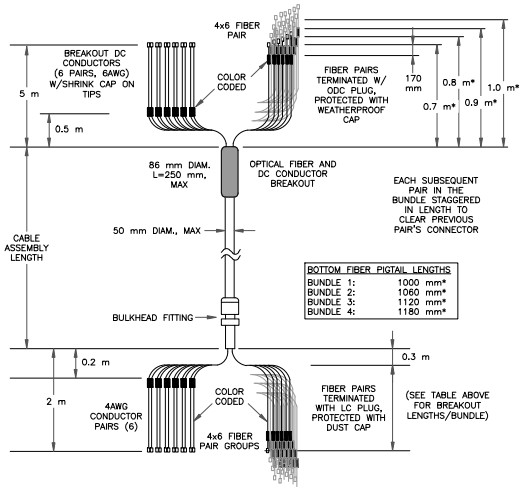
PROPOSED ANTENNA/EQUIPMENT SHOWN IN BOLD

FINAL CABLE SCHEDULE

STATUS	CABLE TYPE	SIZE	QUANTITY
NEW	HCS	6/24 4AWG 100m	4
CABLE QUANTITY			4

NOTE:
(3) HYBRID SHARED BETWEEN APX/4415/4449/4424 PER SECTOR
(1) HYBRID SHARED BETWEEN 6449 ANTENNAS PER SECTOR

1 PROPOSED ANTENNA AND CABLE SCHEDULE
SCALE: NOT TO SCALE



2 HCS DETAIL
SCALE: NOT TO SCALE

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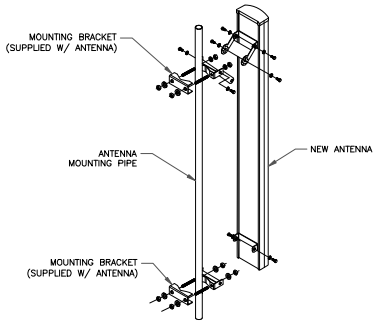
SEAL:

03/17/21

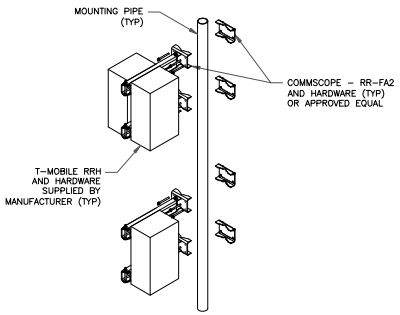
SHEET NUMBER: C-3
REVISION: 0



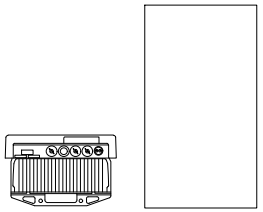
1 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTES:

1. COMPLY WITH MANUFACTURERS INSTRUCTIONS TO ENSURE THAT ALL RRHs RECEIVE ELECTRICAL POWER WITHIN 24 HOURS OF BEING REMOVED FROM THE MANUFACTURER'S PACKAGING.
2. DO NOT OPEN RRH PACKAGES IN THE RAIN.
3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.

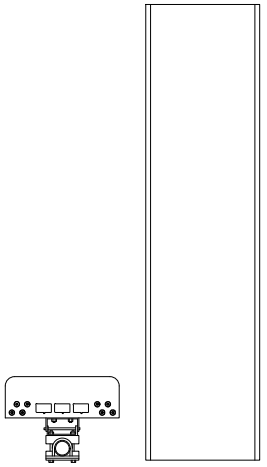


2 RRHs MOUNTING DETAIL
SCALE: NOT TO SCALE



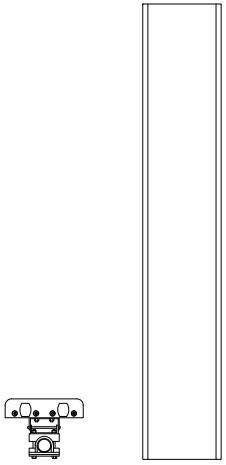
ERICSSON – AIR6449 B41
WEIGHT: 114.63 LBS
SIZE (HxWxD): 33.11x20.51x8.54 IN.

3 ERICSSON – AIR6449 B41
SCALE: NOT TO SCALE



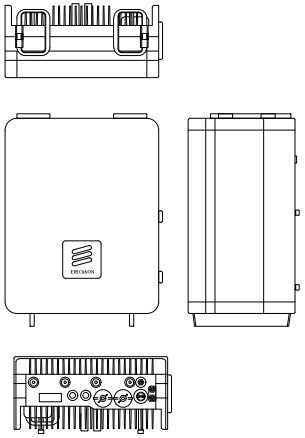
RFS/CELWAVE – APXVAALL24_43-U-NA20
WEIGHT (WITHOUT MOUNTING HARDWARE): 149.90 LBS
SIZE (HxWxD): 95.9x24.0x8.5 IN.

4 RFS/CELWAVE – APXVAALL24_43-U-NA20
SCALE: NOT TO SCALE



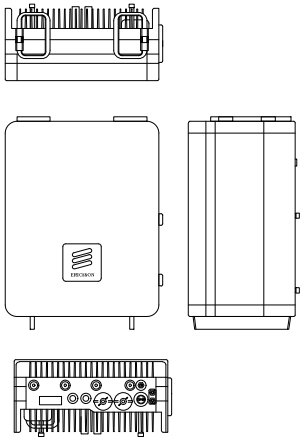
RFS – APX16DWV-16DWV-S-E-A20
WEIGHT (WITHOUT MOUNTING HARDWARE): 40.7 LBS
SIZE (HxWxD): 55.9x13.3x3.15 IN.

5 RFS – APX16DWV-16DWV-S-E-A20
SCALE: NOT TO SCALE



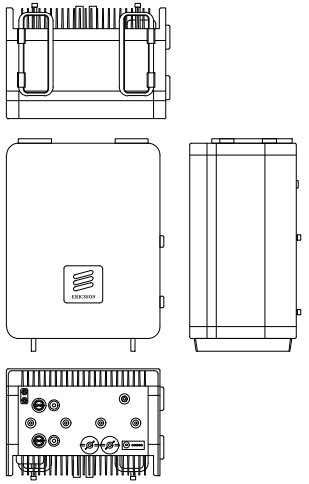
ERICSSON – RADIO 4424 B25
WEIGHT: 86.0 LBS
SIZE (HxWxD): 17.1x14.4x11.3 IN.

6 ERICSSON – RADIO 4424 B25
SCALE: NOT TO SCALE



ERICSSON – RADIO 4415 B66A
WEIGHT: 49.6 LBS
SIZE (HxWxD): 16.50x13.50x6.30 IN.

7 ERICSSON – RADIO 4415 B66A
SCALE: NOT TO SCALE



ERICSSON – RADIO 4449 B71/B85
WEIGHT: 73.21 LBS
SIZE (HxWxD): 17.91x13.20x10.63 IN.

8 ERICSSON – RADIO 4449 B71/B85
SCALE: NOT TO SCALE

T-Mobile
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TOWER
ENGINEERING
PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351

TEP JOB #: 25589.498739

T-MOBILE SITE NUMBER:
CTHA633A

BU #: **876384**
WESTBROOK/ORSINA

798 TOBY HILL ROAD
WESTBROOK, CT 06498

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

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0	03/17/21	JW	CONSTRUCTION	BSE

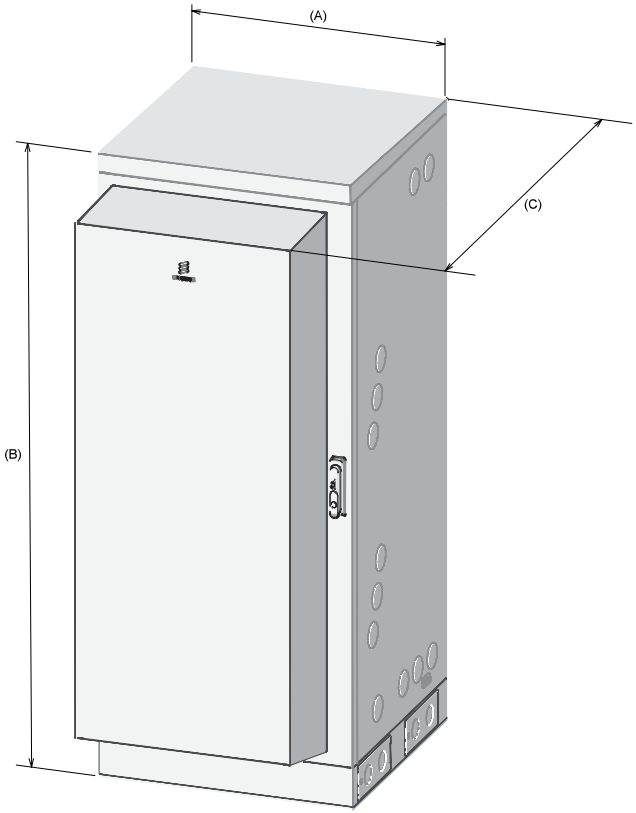
SEAL:

03/17/21

SHEET NUMBER:	REVISION:
C-4	0

INSTALLER NOTES:

1. INFORMATION SHOWN PROVIDED BY T-MOBILE. CONTRACTOR TO REFERENCE CABINET MANUFACTURER'S SPECIFICATIONS FOR FURTHER DETAILS.
2. CONTRACTOR TO FOLLOW THE LATEST VERSION OF T-MOBILE REGIONAL CONSTRUCTION STANDARDS. CONTACT T-MOBILE FOR DETAILS.



Dimensions	
Width (A)	650 mm / 25.5906 in
Height (B)	1450 mm / 57.08661 in (without base frame) 1600 mm / 62.99213 in (with base frame)
Depth (C)	850 mm / 33.4646 in
Weight	
Empty enclosure	176 kg / 388.014 lb

1 ERICSSON 6160 CABINET DETAILS
SCALE: NOT TO SCALE

2 ERICSSON B160 CABINET DETAILS
SCALE: NOT TO SCALE

T-Mobile
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EXISTING 150'-0"
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0	03/17/21	JW	CONSTRUCTION	BSE

SEAL:

03/17/21

SHEET NUMBER:	REVISION:
C-5	0

NOTE:
LOAD CALCULATIONS TAKEN FROM INFORMATION PROVIDED BY CROWN CASTLE & POWER ANALYSIS TOOL BASED ON THE RFDS DATED 01/12/2021 V1.0. CONTRACTOR TO VERIFY LOADS WITH MANUFACTURER'S SPECIFICATIONS PRIOR TO CONSTRUCTION.

EXISTING 200A M.C.B, 240/120 VAC, 1Ø, 3W PANEL SCHEDULE

LOAD SERVED	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	LOAD SERVED
**MMBTS	9600		100A	1	A	2	60A	100		SURGE SUPPRESSOR
		9600		3	B	4			100	
SPARE	–		–	5	A	6	–	–		SPARE
SPARE		–	–	7	B	8	–		–	SPARE
LIGHT	500		20A	9	A	10	15A	180		TELCO GFCI
*FAN (OFF)		–	10A	11	B	12	–		–	SPARE
VOLT AMPS	10100	9600						280	100	VOLT AMPS

L1 VOLT AMPERES	10380	9700 L2 VOLT AMPERES
	10380	MAX VOLT AMPERES
	86.5	MAX AMPS
	108.1	MAX AMPS x 125%

*NOTE – EXISTING BREAKER TO BE REMOVED. NOTIFY TEP IF BREAKER IS TO REMAIN
**NOTE – REUSE BREAKER FOR NEW CABINET INSTALL

PROPOSED 200A M.C.B, 240/120 VAC, 1Ø, 3W PANEL SCHEDULE

LOAD SERVED	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPERES (WATTS) L1	VOLT AMPERES (WATTS) L2	LOAD SERVED
6160 ENCLOSURE	**7405**		**100A	1	A	2	60A	100		SURGE SUPPRESSOR
		7405		3	B	4			100	
GFCI INTERNAL IN 6160	**180**		**20A**	5	A	6	–	–		SPARE
SPARE		–	–	7	B	8	–		–	SPARE
LIGHT	500		20A	9	A	10	15A	180		TELCO GFCI
SPARE		–	–	11	B	12	–		–	SPARE
VOLT AMPS	**8085**	**7405**						280	100	VOLT AMPS

L1 VOLT AMPERES	**8365**	**7505 L2 VOLT AMPERES**
	8365	**MAX VOLT AMPERES**
	69.7	**MAX AMPS**
	87.1	**MAX AMPS x 125%**

PROPOSED BREAKERS & LOADS IN BOLD

1 AC PANEL SCHEDULES
SCALE: NOT TO SCALE

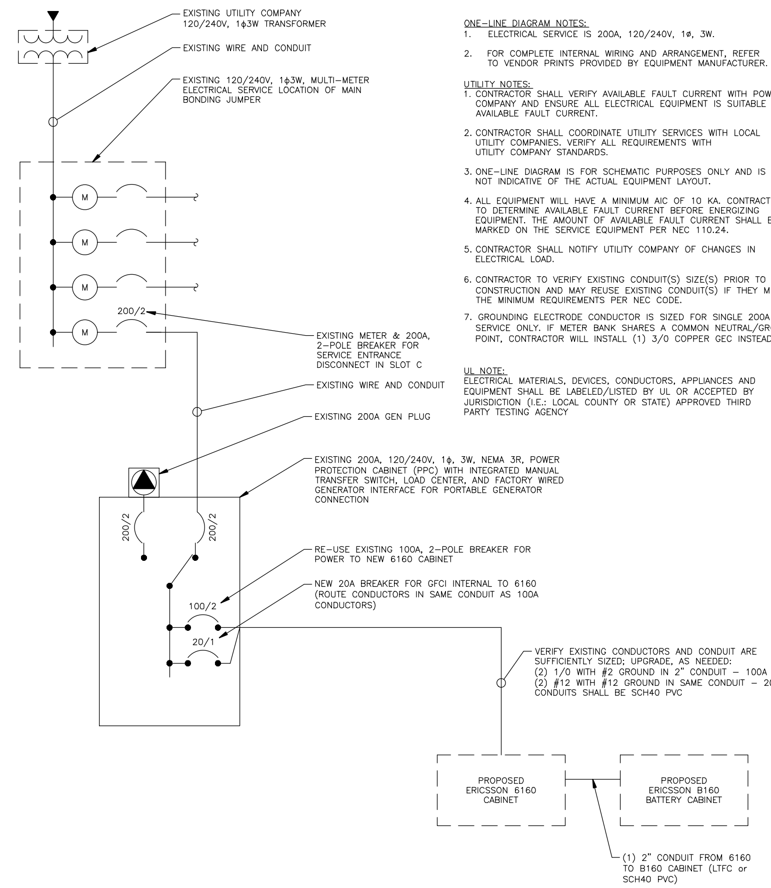
GENERAL NOTES:

1. ALL NEW CONDUCTORS TO BE INSTALLED SHALL BE COPPER. ALL CONDUCTORS SHALL BE THHW, THWN, THWN–2, XHHW, XHHW–2, THW, THW–2, RHW, OR RHW–2 UNLESS NOTED OTHERWISE.
2. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE–LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. ALL GROUNDING AND BONDING PER THE NEC.

ONE–LINE DIAGRAM NOTES:
1. ELECTRICAL SERVICE IS 200A, 120/240V, 1Ø, 3W.
2. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.

UTILITY NOTES:
1. CONTRACTOR SHALL VERIFY AVAILABLE FAULT CURRENT WITH POWER COMPANY AND ENSURE ALL ELECTRICAL EQUIPMENT IS SUITABLE FOR AVAILABLE FAULT CURRENT.
2. CONTRACTOR SHALL COORDINATE UTILITY SERVICES WITH LOCAL UTILITY COMPANIES. VERIFY ALL REQUIREMENTS WITH UTILITY COMPANY STANDARDS.
3. ONE–LINE DIAGRAM IS FOR SCHEMATIC PURPOSES ONLY AND IS NOT INDICATIVE OF THE ACTUAL EQUIPMENT LAYOUT.
4. ALL EQUIPMENT WILL HAVE A MINIMUM AIC OF 10 KA. CONTRACTOR TO DETERMINE AVAILABLE FAULT CURRENT BEFORE ENERGIZING EQUIPMENT. THE AMOUNT OF AVAILABLE FAULT CURRENT SHALL BE MARKED ON THE SERVICE EQUIPMENT PER NEC 110.24.
5. CONTRACTOR SHALL NOTIFY UTILITY COMPANY OF CHANGES IN ELECTRICAL LOAD.
6. CONTRACTOR TO VERIFY EXISTING CONDUIT(S) SIZE(S) PRIOR TO CONSTRUCTION AND MAY REUSE EXISTING CONDUIT(S) IF THEY MEET THE MINIMUM REQUIREMENTS PER NEC CODE.
7. GROUNDING ELECTRODE CONDUCTOR IS SIZED FOR SINGLE 200A SERVICE ONLY. IF METER BANK SHARES A COMMON NEUTRAL/GROUND POINT, CONTRACTOR WILL INSTALL (1) 3/0 COPPER GEC INSTEAD.

UL NOTE:
ELECTRICAL MATERIALS, DEVICES, CONDUCTORS, APPLIANCES AND EQUIPMENT SHALL BE LABELED/LISTED BY UL OR ACCEPTED BY JURISDICTION (I.E.: LOCAL COUNTY OR STATE) APPROVED THIRD PARTY TESTING AGENCY



2 ONE LINE DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
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SEAL:
STATE OF CONNECTICUT GRAHAM M. ANDRES 28538 LICENSED PROFESSIONAL ENGINEER
03/17/21

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: E-1
REVISION: 0

T-MOBILE GROUNDING NOTES:

ALL GROUNDS MUST ROUTE DOWNHILL FOR ENTIRE DURATION OF ROUTE

PROVIDE LABOR, MATERIALS, INSPECTION, AND TESTING TO PROVIDE CODE COMPLIANCE FOR ELECTRIC, TELEPHONE, AND GROUNDING/LIGHTNING SYSTEMS.

ICE BRIDGE/ EQUIPMENT POST:

#2 SOLID COPPER TINNED, EXOTHERMICALLY WELDED TO GROUND RING (BOTH ENDS). FINAL WELD COLD GALVANIZED, IN ½" NON-METALLIC SEAL TIGHT CONDUIT, SEALED WITH SILICONE, ANCHORED TO PAD/PLATFORM TO AVOID TRIP HAZARD USING HAMMER SET ANCHORS.

PEDESTALS, PLINTHS, SSC CABINET, FCOA CABINETS:

1. #2 SOLID COPPER TINNED, 2 HOLE LUG WITH FLAT AND LOCK WASHER AT EQUIPMENT; EXOTHERMICALLY WELDED TO GROUND RING, FINAL WELD COLD GALVANIZED, IN ½" NON-METALLIC SEAL TIGHT CONDUIT, SEALED WITH SILICONE, ANCHORED TO PAD TO AVOID TRIP HAZARD USING HAMMER SET ANCHORS. EACH PART REQUIRES A SEPARATE DOWNLEAD, NO DAISY CHAINS.
2. ALL COMPONENTS INSIDE FCOA CABINETS REQUIRE A DEDICATED GROUND.

#6 THHN STRANDED (GREEN JACKET), CONNECTED AT EQUIPMENT SIDE USING OVP TERMINAL BLOCK CONNECTION; MECHANICALLY CONNECTED TO GROUND REFERENCE AT MASTER BUSS BAR USING 2 HOLE LUG WITH FLAT AND LOCK WASHER, IN ½" NON-METALLIC SEAL TIGHT CONDUIT, SEALED WITH SILICONE, AND ANCHORED TO PAD/PLATFORM TO AVOID TRIP HAZARD.

ANTENNA/ COVP/ RRU MAST PIPES:

1. ALL VERTICAL MAST PIPES: #2 SOLID COPPER TINNED, EXOTHERMICALLY WELDED TO TOP OF PIPE (PIPE, DOWN MOLD), FINAL WELD COLD GALVANIZED, BONDED TO TOP BUSS BAR WITH 2 HOLE COPPER COMPRESSION LUG, FLAT AND LOCK WASHER.
2. EXISTING/REUSED PIPES: #2 SOLID COPPER TINNED, BONDED WITH COLD WATER CLAMP TO TOP OF PIPE, BONDED TO TOP BUSS WITH 2 HOLE COPPER COMPRESSION LUG, FLAT AND LOCK WASHER

AIR TERMINALS:

TO BE INSTALLED, ONLY IF REQUIRED

TMA's, DIPLEXERS AND TRIPLEXERS:

1. #6 THHN, WITH PROPER COPPER COMPRESSION LUG, FLATS AND LOCK WASHERS
2. ALL GROUND LUGS ON TMA MUST BE GROUNDED WITH SEPARATE DOWNLEAD TO BUSS BAR (NO DAISY CHAINS)

ELEVATED STEEL PLATFORMS WITH LUNAR FEET:

#2 SOLID COPPER TINNED, EXOTHERMICALLY WELDED (FLAT PLATE MOLD) TO OUTSIDE PERIMETER BEAMS IN FOUR (4) PLACES, FINAL WELD COLD GALVANIZED, BONDED DIRECTLY TO SUBGRADE GROUND RING.

STEEL CANOPY (STEEL PLATFORM OR CONCRETE PAD):

1. #2 SOLID COPPER TINNED, EXOTHERMICALLY WELDED (PIPE, DOWN MOLD) TO BOTTOM OF ALL VERTICAL SUPPORT POSTS, TYPICALLY FOUR (4) PIPES, FINAL WELD COLD GALVANIZED, BONDED DIRECTLY TO SUBGRADE GROUND RING.
2. #2 SOLID COPPER TINNED, EXOTHERMICALLY WELDED (PIPE, UP MOLD) TO TOP OF ALL VERTICAL SUPPORT POSTS, TYPICALLY FOUR (4) PIPES, FINAL WELD COLD GALVANIZED, BONDED UP TO CANOPY GRIP-STRUT USING 2 HOLE COPPER COMPRESSION LUG, FLAT AND LOCK WASHER.

#6 THHN, WITH PROPER COPPER COMPRESSION LUG, ANTI-OXIDANT TO SECTOR BUSS BAR

FSBE ALARM BOX:

#6 THHN WITH ONE HOLE LUG BONDED TO PREVIOUSLY GROUNDED FCOA, PLINTH OR BUSS BAR.

SURGE SUPPRESSORS:

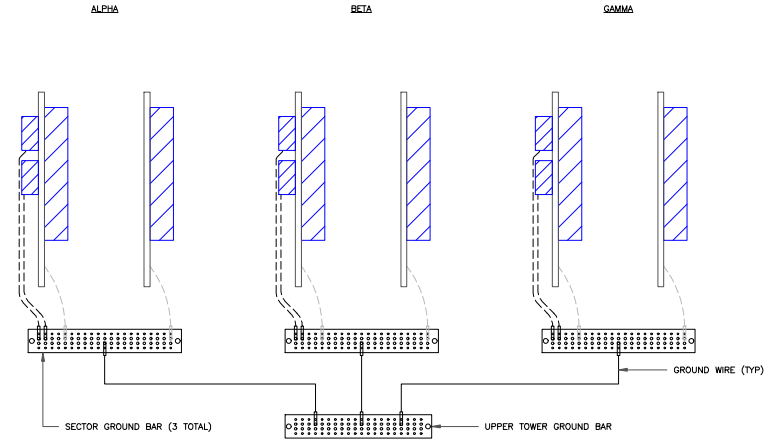
#6 THHN TO PREVIOUSLY GROUNDED BUSS BAR USING PROPER LUGS

FYGA/FYGB BRACKET:

1. #6 THHN TO PREVIOUSLY GROUNDED BUSS BAR USING PROPER LUGS
2. THROUGH BOLTS WITH FLAT, LOCK ON BRACKET

1. PLATFORM / PAD BUSS BAR SHOULD BE MINIMUM 12" TINNED COPPER WITH INSULATORS, AND SHOULD HAVE TWO (2) EXOTHERMICALLY WELDED DOWN LEADS DIRECTLY TO GROUND RING USING #2 SOLID COPPER TINNED WIRE.
2. SECTOR BUSS BAR SHOULD BE PROPERLY SIZED TO ACCOMMODATE NECESSARY GROUNDING FOR EQUIPMENT ON EACH MOUNT, AND MAY BE SOLID COPPER (TINNED NOT REQUIRED). DO NOT USE INSULATORS ON SECTOR BUSS BARS ATTACH DIRECTLY TO TOWER MOUNT STEEL.

- NO GROUND KITS ON HYBRID TRUNKS (TOP OR BOTTOM)
- NO GROUND KITS ON MICROWAVE IF CABLES (TOP OR BOTTOM)
- MICROWAVE SURGE SUPPRESSORS ARE NOT TO BE INSTALLED UPSTAIRS ON TOWER, DOWNSTAIRS ONLY (BULKHEAD PREFERRED)
- MICROWAVE ODU MUST BE GROUNDED TO TOWER TOP SECTOR OR COLLECTOR BUSS BAR
- ALL TMA'S AND DIPLEXERS MUST BE GROUNDED TO BUSS BAR. NO DAISY CHAIN ON TWIN/DUAL TMA
- ALL LUGS SHOULD BE PROPERLY SIZED FOR CONDUCTOR, BURNDY TINNED COPPER COMPRESSION STYLE
  1. INDOOR (OR INSIDE CABINET) SHOULD HAVE WINDOW
  2. OUTDOOR SHOULD NOT HAVE WINDOW
- CONTRACTOR TO VERIFY EXISTENCE AND LOCATION OF EXISTING SITE GROUND SYSTEM.
- CONTRACTOR SHALL VERIFY THAT GROUNDING ELECTRODES SHALL BE CONNECTED IN A RING USING #2 AWG BARE TINNED COPPER WIRE. THE TOP OF THE GROUND RODS AND THE RING CONDUCTOR SHALL BE 30" BELOW FINISHED GRADE, OR TO FROST DEPTH, WHICHEVER IS GREATER. GROUNDING ELECTRODES SHALL BE DRIVEN ON 10'-0" CENTERS (PROVIDE AND INSTALL AS REQUIRED. REQUIRED PER PLAN BELOW).
- GROUNDING CONDUCTORS SHALL BE OF EQUAL LENGTH, MATERIAL, AND BONDING TECHNIQUE.
- CONTRACTOR SHALL ENSURE GROUND RING IS WITHIN 12 TO 36 INCHES OF THE EQUIPMENT PAD. PROVIDE AND INSTALL GROUNDING CONNECTIONS SHOWN BELOW AS NEEDED PER EXISTING SITE GROUNDING SYSTEM. CONTRACTOR SHALL VERIFY ALL EXISTING SITE GROUNDING CONDITIONS BEFORE STARTING WORK OR PURCHASING EQUIPMENT.
- ALL DOWN CONDUCTORS MUST GO DOWN.



NOTE:

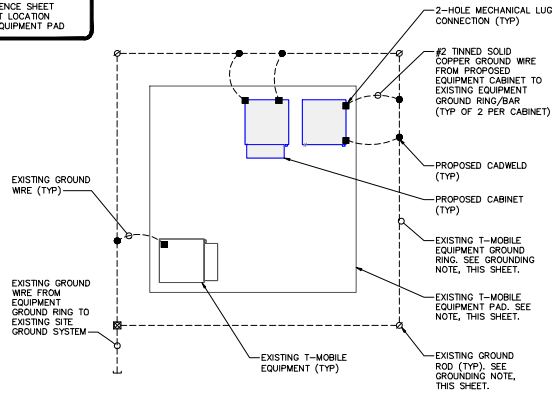
ALL NEW GROUNDS TO BE #6 STRANDED COPPER WITH GREEN INSULATION UNLESS NOTED OTHERWISE.

GROUNDING SHOWN TYPICAL PER SECTOR.

1 TYPICAL ANTENNA GROUNDING DIAGRAM
SCALE: NOT TO SCALE

NOTE:

CONTRACTOR TO REFERENCE SHEET C-1.1 & 1.2 FOR EXACT LOCATION AND ORIENTATION OF EQUIPMENT PAD



2 TYPICAL CABINET GROUNDING DIAGRAM
SCALE: NOT TO SCALE

T-Mobile
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351
TEP JOB #: 25589.498739

T-MOBILE SITE NUMBER:
CTHA633A

BU #: **876384**
WESTBROOK/ORSINA

798 TOBY HILL ROAD
WESTBROOK, CT 06498

EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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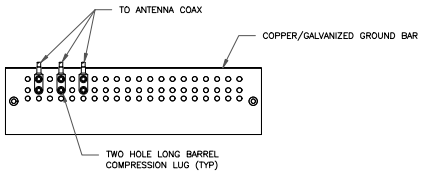
0	03/17/21	JW	CONSTRUCTION	BSE

SEAL:

03/17/21

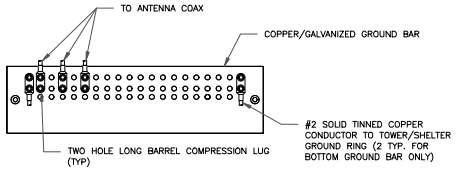
SHEET NUMBER:	REVISION:
G-1	0



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.

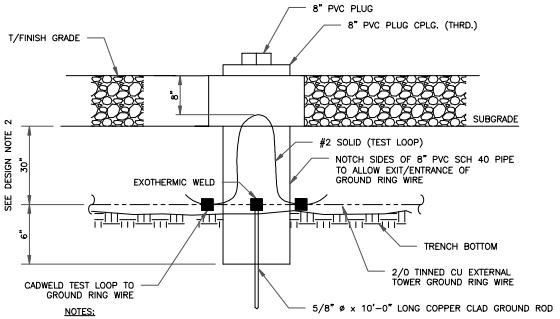
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



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.

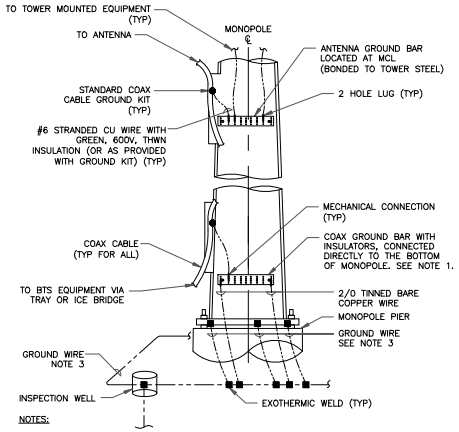
2 TOWER/SHELTER GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

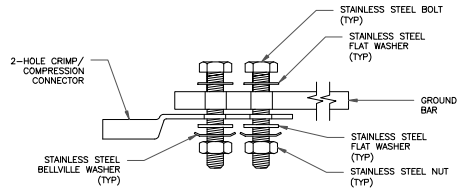
3 INSPECTION WELL DETAIL
SCALE: NOT TO SCALE



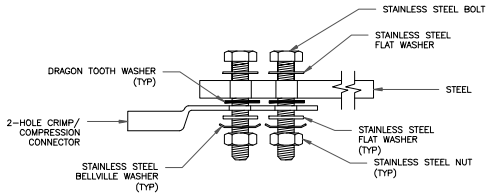
NOTES:

1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.

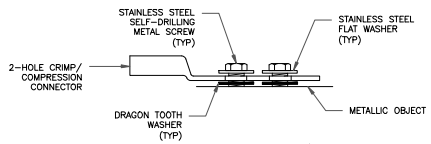
4 TYPICAL ANTENNA CABLE GROUNDING
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

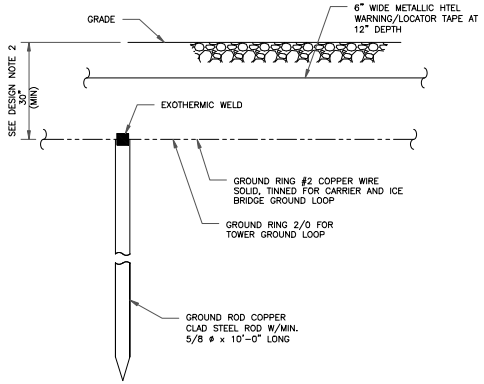


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

5 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE VERTICAL
2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)

6 GROUND ROD DETAIL
SCALE: NOT TO SCALE

T-Mobile
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

TOWER ENGINEERING PROFESSIONALS
326 TRYON RD
RALEIGH, NC 27603
(919) 661-6351
TEP JOB #: 25589.498739

T-MOBILE SITE NUMBER:
CTHA633A

BU #: **876384**
WESTBROOK/ORSINA

798 TOBY HILL ROAD
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EXISTING 150'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
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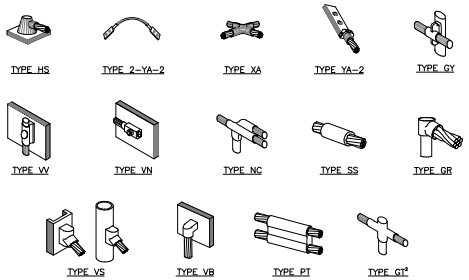
0	03/17/21	JW	CONSTRUCTION	BSE

SEAL:

03/17/21

SHEET NUMBER: G-2
REVISION: 0

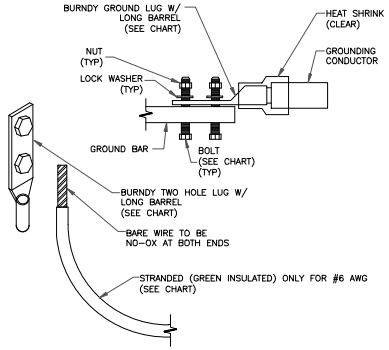


NOTE:

1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.
2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

1 CADWELD GROUNDING CONNECTIONS
SCALE: NOT TO SCALE

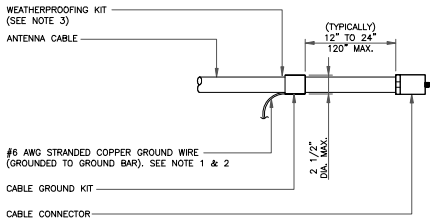
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT



NOTES:

1. 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.

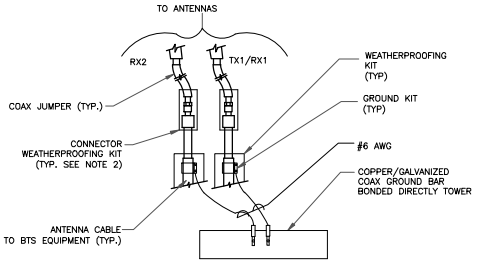
2 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



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.

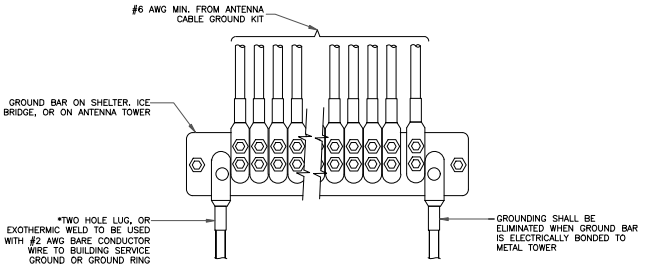
3 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



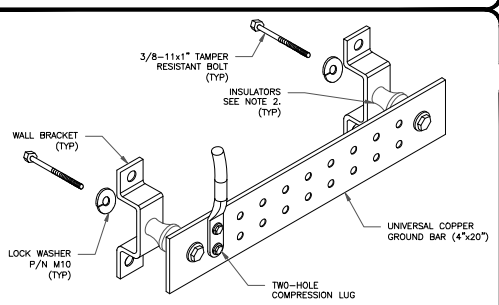
NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.

4 GROUND CABLE CONNECTION
SCALE: NOT TO SCALE



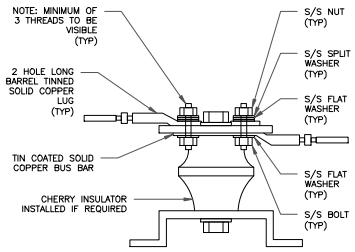
5 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



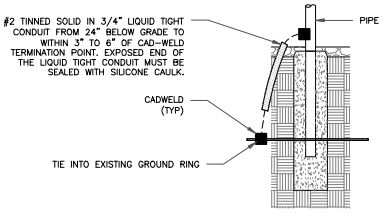
NOTES:

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.

6 GROUND BAR DETAIL
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE



8 TRANSITIONING GROUND DETAIL
SCALE: NOT TO SCALE

T-Mobile
35 GRIFFIN ROAD
BLOOMFIELD, CT 06002

CROWN CASTLE
1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

TOWER ENGINEERING PROFESSIONALS
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RALEIGH, NC 27603
(919) 661-6351
TEP JOB #: 25589.498739

T-MOBILE SITE NUMBER:
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WESTBROOK/ORSINA

798 TOBY HILL ROAD
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EXISTING 150'-0"
MONOPOLE

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0	03/17/21	JW	CONSTRUCTION	BSE

SEAL:

03/17/21

SHEET NUMBER: G-3
REVISION: 0

Exhibit D

Structural Analysis Report

Date: **February 19, 2021**

Tower Engineering Professionals
326 Tryon Road
Raleigh, NC 27603
(919) 661-6351

Subject: Structural Analysis Report

Carrier Designation:	***Sprint PCS* Co-Locate**	
	Site Number:	CTHA633A
	Site Name:	N/A
Crown Castle Designation:	**BU Number:**	876384
	Site Name:	Westbrook / Orsina
	JDE Job Number:	628857
	Work Order Number:	1919215
	Order Number:	538766 Rev. 1
Engineering Firm Designation:	**TEP Project Number:**	25589.500443
Site Data:	**798 Toby Hill Road, Westbrook, Middlesex County, CT 06498** **Latitude *41° 19' 12.60"*, Longitude *-72° 26' 30.00"*** **150 Foot - Monopole Tower**	

Tower Engineering Professionals 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:

LC7: Proposed Equipment Configuration **Sufficient Capacity – 93.5%**

This analysis utilizes an ultimate 3-second gust wind speed of 135 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: Gautam Sopal, E.I. / ADB

Respectfully submitted by:

Aaron T. Rucker, P.E.

02/19/2021

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 150-ft monopole tower designed by Engineered Endeavors, Inc. The tower has been modified multiple times in the past to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	135 mph
Exposure Category:	B
Topographic Factor:	1.0
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)
150.0	152.0	3	RFS Celwave	APX16DWV-16DWV-S-E-A20	4	1-5/8
		3	RFS Celwave	APXVAALL24_43-U-NA20_TMO		
		3	Ericsson	AIR6449 B41_T-Mobile		
		3	Ericsson	RADIO 4415 B66A		
		3	Ericsson	RADIO 4449 B71 B85A_T-Mobile		
		3	Ericsson	RADIO 4424 B25_TMO		
	150.0	1	Tower Mounts	Site Pro 1 HRK12		
		1	Tower Mounts	Site Pro 1 RMQP-496		
80.0	81.0	1	Lucent	KS24019-L112A	1	1/2
	80.0	1	Tower Mounts	Side Arm Mount [SO 701-1]		

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)
140.0	140.0	4	Decibel	DB846H80E-SX w/ Mount Pipe	6 2	1-5/8 1-1/4
		2	Decibel	DB846F65ZAXY w/ Mount Pipe		
		6	Commscope	JAHH-65B-R3B w/ Mount Pipe		
		3	Samsung Telecom.	RFV01U-D2A		
		3	Samsung Telecom.	RFV01U-D1A		
		3	RFS Celwave	FDJ85020Q7-S1		
		2	Raycap	RVZDC-6627-PF-48		
		1	Tower Mounts	Platform Mount [LP 304-1]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
130.0	130.0	3	CCI Antennas	OPA65R-BU6D w/ Mount Pipe	6 2 2 2	1-5/8 7/8 7/16 3/8
		3	CCI Antennas	DMP65R-BU6D w/ Mount Pipe		
		3	Powerwave Tech.	7770.00 w/ Mount Pipe		
		3	Ericsson	RRUS 4478 B14		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 8843 B2/B66A		
		3	Powerwave Tech.	1001940		
		2	Raycap	DC6-48-60-18-8F		
		1	Tower Mounts	Side Arm Mount [SO 102-3]		
		1	Tower Mounts	Side Arm Mount [SO 701-3]		
		1	Tower Mounts	Platform Mount [LP 304-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Geotechnical Report	1615342	CCISites
Tower Foundation Drawings	1615435	CCISites
Tower Manufacturer Drawings	1615370	CCISites
Tower Reinforcement Drawings	2154747	CCISites
Tower Reinforcement Drawings	5650397	CCISites
Post-Modification Inspection	5840467	CCISites

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 pole and in the reinforcing elements. 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. Tower Engineering Professionals should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)[1,2]

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
150 - 145	Pole	TP14.12x13x0.1875	Pole	19.0%	Pass
145 - 140	Pole	TP15.241x14.12x0.1875	Pole	30.1%	Pass
140 - 136.29	Pole	TP16.65x15.241x0.1875	Pole	43.2%	Pass
136.29 - 131.29	Pole	TP16.804x15.696x0.3125	Pole	36.8%	Pass
131.29 - 126.29	Pole	TP17.912x16.804x0.3125	Pole	47.8%	Pass
126.29 - 121.29	Pole	TP19.02x17.912x0.3125	Pole	57.2%	Pass
121.29 - 116.29	Pole	TP20.128x19.02x0.3125	Pole	64.4%	Pass
116.29 - 111.29	Pole	TP21.236x20.128x0.3125	Pole	70.0%	Pass
111.29 - 108.25	Pole	TP21.911x21.236x0.3125	Pole	72.8%	Pass
108.25 - 108	Pole + Reinf.	TP21.966x21.911x0.6375	Reinf. 9 Tension Rupture	60.1%	Pass
108 - 103	Pole + Reinf.	TP23.074x21.966x0.6125	Reinf. 9 Tension Rupture	64.9%	Pass
103 - 98	Pole + Reinf.	TP24.182x23.074x0.6	Reinf. 9 Tension Rupture	69.2%	Pass
98 - 93	Pole + Reinf.	TP25.29x24.182x0.5875	Reinf. 9 Tension Rupture	73.0%	Pass
93 - 91.92	Pole + Reinf.	TP26.38x25.29x0.5875	Reinf. 9 Tension Rupture	73.8%	Pass
91.92 - 86.92	Pole + Reinf.	TP26.012x24.905x0.6375	Reinf. 9 Tension Rupture	72.3%	Pass
86.92 - 85.17	Pole + Reinf.	TP26.399x26.012x0.6375	Reinf. 9 Tension Rupture	73.3%	Pass
85.17 - 84.92	Pole + Reinf.	TP26.454x26.399x0.6375	Reinf. 5 Tension Rupture	73.4%	Pass
84.92 - 79.92	Pole + Reinf.	TP27.561x26.454x0.625	Reinf. 5 Tension Rupture	76.0%	Pass
79.92 - 77	Pole + Reinf.	TP28.206x27.561x0.6125	Reinf. 5 Tension Rupture	77.3%	Pass
77 - 76.75	Pole + Reinf.	TP28.262x28.206x0.5375	Reinf. 5 Tension Rupture	78.9%	Pass
76.75 - 75	Pole + Reinf.	TP28.649x28.262x0.5313	Reinf. 5 Tension Rupture	79.7%	Pass
75 - 74.75	Pole + Reinf.	TP28.704x28.649x0.6125	Reinf. 5 Tension Rupture	78.3%	Pass
74.75 - 69.75	Pole + Reinf.	TP29.811x28.704x0.6	Reinf. 5 Tension Rupture	80.3%	Pass
69.75 - 65.08	Pole + Reinf.	TP30.843x29.811x0.5875	Reinf. 5 Tension Rupture	82.0%	Pass
65.08 - 64.83	Pole + Reinf.	TP30.899x30.843x0.5875	Reinf. 3 Tension Rupture	82.1%	Pass
64.83 - 59.83	Pole + Reinf.	TP32.005x30.899x0.5875	Reinf. 3 Tension Rupture	83.8%	Pass
59.83 - 54.83	Pole + Reinf.	TP33.111x32.005x0.575	Reinf. 3 Tension Rupture	85.2%	Pass
54.83 - 49.83	Pole + Reinf.	TP34.218x33.111x0.5625	Reinf. 3 Tension Rupture	86.6%	Pass
49.83 - 48.5	Pole + Reinf.	TP35.62x34.218x0.5625	Reinf. 3 Tension Rupture	86.9%	Pass
48.5 - 42.5	Pole + Reinf.	TP35.092x33.764x0.5625	Reinf. 3 Tension Rupture	91.6%	Pass
42.5 - 37.5	Pole + Reinf.	TP36.199x35.092x0.55	Reinf. 3 Tension Rupture	92.7%	Pass
37.5 - 33	Pole + Reinf.	TP37.194x36.199x0.55	Reinf. 3 Tension Rupture	93.5%	Pass
33 - 32.75	Pole + Reinf.	TP37.25x37.194x0.6625	Reinf. 4 Tension Rupture	80.1%	Pass
32.75 - 32	Pole + Reinf.	TP37.416x37.25x0.6625	Reinf. 4 Tension Rupture	80.2%	Pass
32 - 31.75	Pole + Reinf.	TP37.471x37.416x0.5875	Reinf. 4 Tension Rupture	82.6%	Pass
31.75 - 30	Pole + Reinf.	TP37.858x37.471x0.5875	Reinf. 4 Tension Rupture	82.9%	Pass
30 - 29.75	Pole + Reinf.	TP37.914x37.858x0.5875	Reinf. 2 Tension Rupture	82.9%	Pass
29.75 - 24.75	Pole + Reinf.	TP39.021x37.914x0.575	Reinf. 2 Tension Rupture	83.7%	Pass
24.75 - 19.75	Pole + Reinf.	TP40.128x39.021x0.5688	Reinf. 1 Tension Rupture	84.5%	Pass
19.75 - 14.75	Pole + Reinf.	TP41.235x40.128x0.5625	Reinf. 2 Tension Rupture	85.1%	Pass
14.75 - 9.75	Pole + Reinf.	TP42.342x41.235x0.5625	Reinf. 1 Tension Rupture	85.7%	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
9.75 - 4.75	Pole + Reinf.	TP43.448x42.342x0.55	Reinf. 2 Tension Rupture	86.3%	Pass
4.75 - 0	Pole + Reinf.	TP44.5x43.448x0.55	Reinf. 2 Tension Rupture	86.7%	Pass
				Summary	
			Pole	72.8%	Pass
			Reinforcement	93.5%	Pass
			Overall	**93.5%**	**Pass**

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	-	85.2	Pass
1,2	Base Plate	-	86.1	Pass
1,2	Base Foundation Soil Interaction	-	65.3	Pass
1,2	Base Foundation Structural	-	93.0	Pass

Structure Rating (max from all components) =	**93.5%**

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

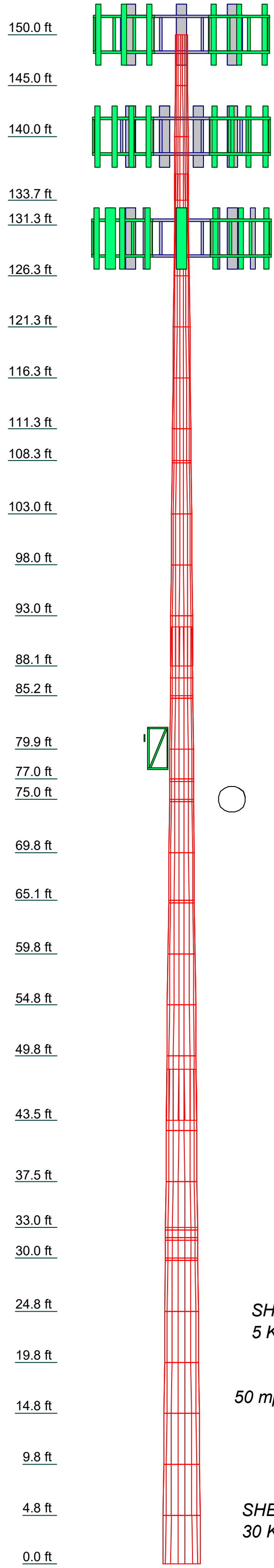
4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.00	18	0.188		13.000	14.120		0.1
2	5.00	18	0.188		14.120	15.241		0.1
3	6.29	18	0.188	2.58	15.241	16.650		0.2
4	5.00	18	0.313		15.696	16.804		0.3
5	5.00	18	0.313		16.804	17.912		0.3
6	5.00	18	0.313		17.912	19.020		0.3
7	5.00	18	0.313		19.020	20.128		0.3
8	5.00	18	0.313		20.128	21.236		0.3
9	[illegible]	18	[illegible]		[illegible]	[illegible]		0.2
10	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
11	5.00	18	0.613		21.966	23.074		0.7
12	5.00	18	0.600		23.074	24.182		0.7
13	5.00	18	0.588		24.182	25.290		0.7
14	[illegible]	18	0.588	3.83	25.290	26.380		0.7
15	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
16	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
17	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
18	5.00	18	0.625		26.424	27.532		0.8
19	[illegible]	18	0.613		[illegible]	[illegible]		0.5
20	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
21	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
22	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
23	5.00	18	0.600		28.704	29.812	A572-65	0.9
24	4.67	18	0.588		29.811	30.843		0.8
25	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
26	5.00	18	0.588		30.899	32.005		0.9
27	5.00	18	0.575		32.005	33.111		1.0
28	5.00	18	0.563		33.111	34.218		1.0
29	6.34	18	0.563	5.00	34.218	35.620		1.3
30	[illegible]	18	0.563		[illegible]	[illegible]		1.2
31	5.00	18	0.550		35.093	36.199		1.0
32	4.50	18	0.550		36.199	37.194		0.9
33	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
34	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
35	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
36	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
37	[illegible]	18	[illegible]		[illegible]	[illegible]		[illegible]
38	5.00	18	0.576		37.913	39.021		1.2
39	5.00	18	0.569		39.021	40.128		1.2
40	5.00	18	0.563		40.128	41.235		1.2
41	5.00	18	0.563		41.235	42.342		1.2
42	5.00	18	0.550		42.342	43.448		1.3
43	4.75	18	0.550		43.448	44.500		1.2
								25.0



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 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 135 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 0.00 ft
8. Equivalent Thickness Model
9. TOWER CAPACITY: 93.5%

ALL REACTIONS ARE FACTORED

AXIAL 72 K
SHEAR 5 K
MOMENT 623 kip-ft
TORQUE 0 kip-ft
50 mph WIND - 1.500 in ICE

AXIAL 46 K
SHEAR 30 K
MOMENT 3108 kip-ft
TORQUE 1 kip-ft
REACTIONS - 135 mph WIND

Tower Engineering Professionals, Inc. 326 Tryon Road, Raleigh, NC 27603, Phone: (919) 661-6351, FAX: (919) 661-6360	Job: Westbrook / Orsina (BU 876384)		
	Project: TEP No. 25589.500443		
	Client: Crown Castle	Drawn by: abramhall	App'd:
	Code: TIA-222-H	Date: 02/19/21	Scale: NTS
	Path:		Dwg No. E-1

Tower Input Data

The tower is a monopole.
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: 160.00 ft.
Basic wind speed of 135 mph.
Risk Category II.
Exposure Category B.
Simplified Topographic Factor Procedure for wind speed-up calculations is used.
Topographic Category: 1.
Crest Height: 0.00 ft.
Nominal ice thickness of 1.500 in.
Ice thickness is considered to increase with height.
Ice density of 56 pcf.
A wind speed of 50 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 60 mph.
Equivalent Thickness Model.
A non-linear (P-delta) analysis was used.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.05.
Tower analysis based on target reliabilities in accordance with Annex S.
Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
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

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	150.00-145.00	5.00	0.000	18	13.000	14.120	0.188	0.750	A572-65 (65 ksi)
L2	145.00-140.00	5.00	0.000	18	14.120	15.241	0.188	0.750	A572-65 (65 ksi)
L3	140.00-133.71	6.29	2.583	18	15.241	16.650	0.188	0.750	A572-65 (65 ksi)
L4	133.71-131.29	5.00	0.000	18	15.696	16.804	0.313	1.250	A572-65 (65 ksi)
L5	131.29-126.29	5.00	0.000	18	16.804	17.912	0.313	1.250	A572-65 (65 ksi)
L6	126.29-121.29	5.00	0.000	18	17.912	19.020	0.313	1.250	A572-65 (65 ksi)
L7	121.29-116.29	5.00	0.000	18	19.020	20.128	0.313	1.250	A572-65 (65 ksi)
L8	116.29-111.29	5.00	0.000	18	20.128	21.236	0.313	1.250	A572-65 (65 ksi)
L9	111.29-108.25	3.04	0.000	18	21.236	21.911	0.313	1.250	A572-65 (65 ksi)
L10	108.25-108.00	0.25	0.000	18	21.911	21.966	0.637	2.550	A572-65 (65 ksi)
L11	108.00-103.00	5.00	0.000	18	21.966	23.074	0.613	2.450	A572-65 (65 ksi)
L12	103.00-98.00	5.00	0.000	18	23.074	24.182	0.600	2.400	A572-65 (65 ksi)
L13	98.00-93.00	5.00	0.000	18	24.182	25.290	0.588	2.350	A572-65 (65 ksi)
L14	93.00-88.08	4.92	3.833	18	25.290	26.380	0.588	2.350	A572-65 (65 ksi)
L15	88.08-86.92	5.00	0.000	18	24.905	26.012	0.637	2.550	A572-65 (65 ksi)
L16	86.92-85.17	1.75	0.000	18	26.012	26.399	0.637	2.550	A572-65 (65 ksi)
L17	85.17-84.92	0.25	0.000	18	26.399	26.454	0.637	2.550	A572-65 (65 ksi)
L18	84.92-79.92	5.00	0.000	18	26.454	27.561	0.625	2.500	A572-65 (65 ksi)
L19	79.92-77.00	2.92	0.000	18	27.561	28.206	0.613	2.450	A572-65 (65 ksi)
L20	77.00-76.75	0.25	0.000	18	28.206	28.262	0.537	2.150	A572-65 (65 ksi)
L21	76.75-75.00	1.75	0.000	18	28.262	28.649	0.531	2.125	A572-65 (65 ksi)
L22	75.00-74.75	0.25	0.000	18	28.649	28.704	0.613	2.450	A572-65 (65 ksi)
L23	74.75-69.75	5.00	0.000	18	28.704	29.811	0.600	2.400	A572-65 (65 ksi)
L24	69.75-65.08	4.67	0.000	18	29.811	30.843	0.588	2.350	A572-65 (65 ksi)
L25	65.08-64.83	0.25	0.000	18	30.843	30.899	0.588	2.350	A572-65 (65 ksi)
L26	64.83-59.83	5.00	0.000	18	30.899	32.005	0.588	2.350	A572-65 (65 ksi)
L27	59.83-54.83	5.00	0.000	18	32.005	33.111	0.575	2.300	A572-65 (65 ksi)
L28	54.83-49.83	5.00	0.000	18	33.111	34.218	0.563	2.250	A572-65 (65 ksi)
L29	49.83-43.50	6.34	5.000	18	34.218	35.620	0.563	2.250	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L30	43.50-42.50	6.00	0.000	18	33.764	35.092	0.563	2.250	A572-65 (65 ksi)
L31	42.50-37.50	5.00	0.000	18	35.092	36.199	0.550	2.200	A572-65 (65 ksi)
L32	37.50-33.00	4.50	0.000	18	36.199	37.194	0.550	2.200	A572-65 (65 ksi)
L33	33.00-32.75	0.25	0.000	18	37.194	37.250	0.662	2.650	A572-65 (65 ksi)
L34	32.75-32.00	0.75	0.000	18	37.250	37.416	0.662	2.650	A572-65 (65 ksi)
L35	32.00-31.75	0.25	0.000	18	37.416	37.471	0.588	2.350	A572-65 (65 ksi)
L36	31.75-30.00	1.75	0.000	18	37.471	37.858	0.588	2.350	A572-65 (65 ksi)
L37	30.00-29.75	0.25	0.000	18	37.858	37.914	0.588	2.350	A572-65 (65 ksi)
L38	29.75-24.75	5.00	0.000	18	37.914	39.021	0.575	2.300	A572-65 (65 ksi)
L39	24.75-19.75	5.00	0.000	18	39.021	40.128	0.569	2.275	A572-65 (65 ksi)
L40	19.75-14.75	5.00	0.000	18	40.128	41.235	0.563	2.250	A572-65 (65 ksi)
L41	14.75-9.75	5.00	0.000	18	41.235	42.342	0.563	2.250	A572-65 (65 ksi)
L42	9.75-4.75	5.00	0.000	18	42.342	43.448	0.550	2.200	A572-65 (65 ksi)
L43	4.75-0.00	4.75		18	43.448	44.500	0.550	2.200	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
L1	13.172	7.625	158.142	4.548	6.604	23.946	316.492	3.813	1.958	10.443
	14.309	8.292	203.359	4.946	7.173	28.350	406.985	4.147	2.155	11.494
L2	14.309	8.292	203.359	4.946	7.173	28.350	406.985	4.147	2.155	11.494
	15.447	8.958	256.464	5.344	7.742	33.125	513.266	4.480	2.352	12.546
L3	15.447	8.958	256.464	5.344	7.742	33.125	513.266	4.480	2.352	12.546
	16.878	9.797	335.454	5.844	8.458	39.660	671.349	4.900	2.600	13.869
L4	16.471	15.259	456.220	5.461	7.974	57.216	913.040	7.631	2.213	7.08
	17.015	16.358	562.072	5.855	8.537	65.843	1124.884	8.180	2.408	7.704
L5	17.015	16.358	562.072	5.855	8.537	65.843	1124.884	8.180	2.408	7.704
	18.140	17.457	683.149	6.248	9.099	75.076	1367.197	8.730	2.603	8.328
L6	18.140	17.457	683.149	6.248	9.099	75.076	1367.197	8.730	2.603	8.328
	19.266	18.556	820.473	6.641	9.662	84.915	1642.025	9.280	2.798	8.952
L7	19.266	18.556	820.473	6.641	9.662	84.915	1642.025	9.280	2.798	8.952
	20.391	19.655	975.066	7.035	10.225	95.359	1951.415	9.829	2.993	9.576
L8	20.391	19.655	975.066	7.035	10.225	95.359	1951.415	9.829	2.993	9.576
	21.516	20.754	1147.952	7.428	10.788	106.409	2297.415	10.379	3.188	10.2
L9	21.516	20.754	1147.952	7.428	10.788	106.409	2297.415	10.379	3.188	10.2
	22.201	21.423	1262.573	7.667	11.131	113.431	2526.808	10.713	3.306	10.58
L10	22.151	43.045	2461.120	7.552	11.131	221.111	4925.478	21.527	2.734	4.289
	22.207	43.157	2480.399	7.572	11.159	222.281	4964.061	21.583	2.744	4.304
L11	22.211	41.513	2391.518	7.581	11.159	214.316	4786.183	20.761	2.788	4.552
	23.336	43.667	2783.459	7.974	11.722	237.461	5570.581	21.838	2.983	4.87
L12	23.338	42.800	2731.209	7.978	11.722	233.003	5466.011	21.404	3.005	5.008

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
	24.463	44.910	3155.423	8.372	12.285	256.859	6314.999	22.459	3.200	5.333
L13	24.465	43.998	3094.601	8.376	12.285	251.908	6193.274	22.003	3.222	5.484
	25.590	46.064	3551.378	8.770	12.848	276.425	7107.429	23.036	3.417	5.816
L14	25.590	46.064	3551.378	8.770	12.848	276.425	7107.429	23.036	3.417	5.816
	26.696	48.096	4042.337	9.156	13.401	301.644	8089.994	24.053	3.609	6.143
L15	26.053	49.104	3653.644	8.615	12.652	288.780	7312.096	24.557	3.261	5.116
	26.315	51.343	4176.498	9.008	13.214	316.065	8358.492	25.676	3.456	5.421
L16	26.315	51.343	4176.498	9.008	13.214	316.065	8358.492	25.676	3.456	5.421
	26.708	52.127	4370.609	9.145	13.411	325.904	8746.968	26.068	3.524	5.528
L17	26.708	52.127	4370.609	9.145	13.411	325.904	8746.968	26.068	3.524	5.528
	26.764	52.239	4398.826	9.165	13.439	327.322	8803.439	26.124	3.534	5.543
L18	26.766	51.239	4318.841	9.169	13.439	321.370	8643.365	25.624	3.556	5.69
	27.890	53.434	4897.952	9.562	14.001	349.831	9802.350	26.722	3.751	6.001
L19	27.891	52.390	4806.679	9.567	14.001	343.312	9619.683	26.200	3.773	6.16
	28.547	53.644	5160.415	9.796	14.329	360.143	10327.621	26.827	3.886	6.345
L20	28.559	47.204	4565.554	9.822	14.329	318.628	9137.115	23.606	4.018	7.476
	28.615	47.298	4592.994	9.842	14.357	319.915	9192.031	23.654	4.028	7.494
L21	28.616	46.759	4542.657	9.844	14.357	316.409	9091.292	23.384	4.039	7.603
	29.009	47.412	4735.637	9.982	14.554	325.392	9477.506	23.710	4.107	7.731
L22	28.996	54.505	5412.716	9.953	14.554	371.915	10832.554	27.258	3.964	6.472
	29.052	54.612	5444.820	9.973	14.582	373.400	10896.805	27.311	3.974	6.488
L23	29.054	53.522	5340.825	9.977	14.582	366.268	10688.677	26.766	3.996	6.66
	30.178	55.629	5996.760	10.370	15.144	395.988	12001.411	27.820	4.191	6.984
L24	30.180	54.493	5879.369	10.374	15.144	388.237	11766.474	27.252	4.213	7.17
	31.228	56.419	6524.976	10.741	15.668	416.442	13058.538	28.215	4.394	7.48
L25	31.228	56.419	6524.976	10.741	15.668	416.442	13058.538	28.215	4.394	7.48
	31.285	56.522	6560.833	10.760	15.697	417.980	13130.299	28.266	4.404	7.496
L26	31.285	56.522	6560.833	10.760	15.697	417.980	13130.299	28.266	4.404	7.496
	32.408	58.585	7305.825	11.153	16.259	449.352	14621.263	29.298	4.599	7.828
L27	32.410	57.361	7158.920	11.158	16.259	440.317	14327.260	28.686	4.621	8.036
	33.534	59.381	7941.880	11.550	16.821	472.151	15894.210	29.696	4.816	8.375
L28	33.535	58.112	7778.188	11.555	16.821	462.420	15566.611	29.062	4.838	8.6
	34.659	60.087	8598.651	11.948	17.383	494.668	17208.616	30.049	5.032	8.946
L29	34.659	60.087	8598.651	11.948	17.383	494.668	17208.616	30.049	5.032	8.946
	36.083	62.591	9718.735	12.445	18.095	537.096	19450.258	31.301	5.279	9.385
L30	35.322	59.276	8255.128	11.786	17.152	481.295	16521.118	29.644	4.952	8.804
	35.546	61.648	9286.109	12.258	17.827	520.911	18584.437	30.830	5.186	9.22
L31	35.548	60.300	9089.616	12.262	17.827	509.888	18191.192	30.156	5.208	9.469
	36.672	62.232	9991.770	12.655	18.389	543.356	19996.688	31.122	5.403	9.824
L32	36.672	62.232	9991.770	12.655	18.389	543.356	19996.688	31.122	5.403	9.824
	37.683	63.970	10852.422	13.009	18.895	574.363	21719.123	31.991	5.578	10.142
L33	37.666	76.818	12952.207	12.969	18.895	685.494	25921.457	38.416	5.380	8.121
	37.722	76.935	13011.164	12.988	18.923	687.591	26039.449	38.475	5.390	8.136
L34	37.722	76.935	13011.164	12.988	18.923	687.591	26039.449	38.475	5.390	8.136
	37.891	77.284	13189.110	13.047	19.007	693.902	26395.574	38.649	5.419	8.18
L35	37.902	68.674	11767.751	13.074	19.007	619.122	23550.987	34.344	5.551	9.449
	37.958	68.778	11820.885	13.094	19.035	620.999	23657.325	34.395	5.561	9.465
L36	37.958	68.778	11820.885	13.094	19.035	620.999	23657.325	34.395	5.561	9.465
	38.352	69.500	12197.310	13.231	19.232	634.216	24410.670	34.757	5.629	9.581
L37	38.352	69.500	12197.310	13.231	19.232	634.216	24410.670	34.757	5.629	9.581
	38.408	69.603	12251.729	13.251	19.260	636.116	24519.578	34.808	5.639	9.598
L38	38.410	68.145	12003.104	13.255	19.260	623.207	24022.003	34.079	5.661	9.845
	39.534	70.165	13102.573	13.648	19.823	660.994	26222.387	35.089	5.856	10.184
L39	39.535	69.414	12966.476	13.650	19.823	654.128	25950.013	34.714	5.867	10.315
	40.659	71.412	14118.825	14.043	20.385	692.614	28256.227	35.713	6.061	10.658
L40	40.660	70.639	13970.292	14.046	20.385	685.327	27958.967	35.326	6.072	10.795
	41.784	72.615	15175.953	14.439	20.947	724.487	30371.874	36.314	6.267	11.142
L41	41.784	72.615	15175.953	14.439	20.947	724.487	30371.874	36.314	6.267	11.142
	42.908	74.591	16449.058	14.832	21.509	764.735	32919.760	37.303	6.462	11.488
L42	42.910	72.955	16097.964	14.836	21.509	748.412	32217.110	36.485	6.484	11.789
	44.034	74.888	17411.294	15.229	22.072	788.848	34845.498	37.451	6.679	12.143
L43	44.034	74.888	17411.294	15.229	22.072	788.848	34845.498	37.451	6.679	12.143

Section	Tip Dia. in	Area in^2	I in^4	r in	C in	I/C in^3	J in^4	It/Q in^2	w in	w/t
	45.102	76.724	18723.356	15.602	22.606	828.247	37471.349	38.369	6.864	12.48

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 150.00-145.00				1	1	1			
L2 145.00-140.00				1	1	1			
L3 140.00-133.71				1	1	1			
L4 133.71-131.29				1	1	1			
L5 131.29-126.29				1	1	1			
L6 126.29-121.29				1	1	1			
L7 121.29-116.29				1	1	1			
L8 116.29-111.29				1	1	1			
L9 111.29-108.25				1	1	1			
L10 108.25-108.00				1	1	0.914761			
L11 108.00-103.00				1	1	0.92924			
L12 103.00-98.00				1	1	0.927997			
L13 98.00-93.00				1	1	0.92861			
L14 93.00-88.08				1	1	0.924792			
L15 88.08-86.92				1	1	0.944915			
L16 86.92-85.17				1	1	0.939555			
L17 85.17-84.92				1	1	0.938802			
L18 84.92-79.92				1	1	0.942446			
L19 79.92-77.00				1	1	0.95307			
L20 77.00-76.75				1	1	0.955483			
L21 76.75-75.00				1	1	0.962917			
L22 75.00-74.75				1	1	0.947029			
L23 74.75-69.75				1	1	0.9534			
L24 69.75-65.08				1	1	0.961835			
L25 65.08-64.83				1	1	0.961245			
L26 64.83-59.83				1	1	0.949872			
L27 59.83-54.83				1	1	0.959323			

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
L28 54.83-49.83				1	1	0.969955			
L29 49.83-43.50				1	1	0.967313			
L30 43.50-42.50				1	1	0.962278			
L31 42.50-37.50				1	1	0.974415			
L32 37.50-33.00				1	1	0.966466			
L33 33.00-32.75				1	1	0.960441			
L34 32.75-32.00				1	1	0.95866			
L35 32.00-31.75				1	1	0.990938			
L36 31.75-30.00				1	1	0.987273			
L37 30.00-29.75				1	1	0.986755			
L38 29.75-24.75				1	1	0.997628			
L39 24.75-19.75				1	1	0.998659			
L40 19.75-14.75				1	1	1.00026			
L41 14.75-9.75				1	1	0.991424			
L42 9.75-4.75				1	1	1.00509			
L43 4.75-0.00				1	1	0.997356			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
Misc										
Safety Line 3/8	A	No	Surface Ar (CaAa)	150.00 - 0.00	1	1	0.500 0.500	0.000		0.220
2" Rigid Conduit	B	No	Surface Ar (CaAa)	130.00 - 0.00	1	1	0.500 0.500	2.000		2.800
Mods										
CCI-65FP-060100	A	No	Surface Af (CaAa)	35.00 - 0.00	1	1	0.500 0.500	6.000	14.000	0.000
CCI-65FP-060100	A	No	Surface Af (CaAa)	35.00 - 0.00	1	1	-0.250 -0.250	6.000	14.000	0.000
CCI-65FP-060100	B	No	Surface Af (CaAa)	30.00 - 0.00	1	1	0.250 0.250	6.000	14.000	0.000
CCI-65FP-060100	C	No	Surface Af (CaAa)	30.00 - 0.00	1	1	0.000 0.000	6.000	14.000	0.000
***										
CCI-65FP-060100	A	No	Surface Af (CaAa)	65.08 - 35.00	1	1	0.500 0.500	6.000	14.000	0.000
CCI-65FP-060100	A	No	Surface Af (CaAa)	65.08 - 35.00	1	1	-0.250 -0.250	6.000	14.000	0.000

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
CCI-65FP-060100	B	No	Surface Af (CaAa)	65.08 - 30.00	1	1	0.250 0.250	6.000	14.000	0.000
***										
CCI-65FP-060100	A	No	Surface Af (CaAa)	85.17 - 65.08	1	1	0.500 0.500	6.000	14.000	0.000
CCI-65FP-060100	A	No	Surface Af (CaAa)	85.17 - 65.08	1	1	-0.250 -0.250	6.000	14.000	0.000
CCI-65FP-060100	B	No	Surface Af (CaAa)	85.17 - 65.08	1	1	0.250 0.250	6.000	14.000	0.000
***										
CCI-65FP-060100	A	No	Surface Af (CaAa)	110.25 - 85.17	1	1	0.500 0.500	6.000	14.000	0.000
CCI-65FP-060100	A	No	Surface Af (CaAa)	110.25 - 85.17	1	1	-0.250 -0.250	6.000	14.000	0.000
CCI-65FP-060100	B	No	Surface Af (CaAa)	110.25 - 85.17	1	1	0.250 0.250	6.000	14.000	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 plf
150									
HB158-21U6S24-xx M_TMO(1-5/8)	A	No	No	Inside Pole	150.00 - 0.00	4	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	2.500 2.500 2.500 2.500
140									
LCF158-50JA-A7(1 5/8)	C	No	No	Inside Pole	140.00 - 0.00	6	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.720 0.720 0.720 0.720
HB114-U6S12-xxx-LI(1-1/4)	C	No	No	Inside Pole	140.00 - 0.00	2	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	1.700 1.700 1.700 1.700
130									
LDF7-50A(1-5/8")	B	No	No	Inside Pole	130.00 - 0.00	6	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.820 0.820 0.820 0.820
WR-VG66ST-BRD(7/8)	B	No	No	Inside Pole	130.00 - 0.00	2	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.912 0.912 0.912 0.912
FB-L98B-002-75000 (3/8)	B	No	No	Inside Pole	130.00 - 0.00	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.059 0.059 0.059 0.059
FB-L98B-002-75000 (3/8)	B	No	No	Inside Pole	130.00 - 0.00	1	No Ice 1/2" Ice 1" Ice 2" Ice	0.00 0.00 0.00 0.00	0.059 0.059 0.059 0.059
WR-VG122ST-BRD A(7/16)	B	No	No	Inside Pole	130.00 - 0.00	2	No Ice 1/2" Ice	0.00 0.00	0.141 0.141

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C_AA_A ft^2/ft	Weight plf
							1" Ice	0.00	0.141
							2" Ice	0.00	0.141
80									
LDF4-50A(1/2)	A	No	No	Inside Pole	80.00 - 0.00	1	No Ice	0.00	0.150
							1/2" Ice	0.00	0.150
							1" Ice	0.00	0.150
							2" Ice	0.00	0.150
***									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	150.00-145.00	A	0.000	0.000	0.000	0.000	0.05
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L2	145.00-140.00	A	0.000	0.000	0.000	0.000	0.05
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L3	140.00-133.71	A	0.000	0.000	0.000	0.000	0.06
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.05
L4	133.71-131.29	A	0.000	0.000	0.000	0.000	0.02
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.02
L5	131.29-126.29	A	0.000	0.000	0.000	0.000	0.05
		B	0.000	0.000	0.741	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.04
L6	126.29-121.29	A	0.000	0.000	0.000	0.000	0.05
		B	0.000	0.000	1.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L7	121.29-116.29	A	0.000	0.000	0.000	0.000	0.05
		B	0.000	0.000	1.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L8	116.29-111.29	A	0.000	0.000	0.000	0.000	0.05
		B	0.000	0.000	1.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L9	111.29-108.25	A	0.000	0.000	4.000	0.000	0.03
		B	0.000	0.000	2.609	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.02
L10	108.25-108.00	A	0.000	0.000	0.500	0.000	0.00
		B	0.000	0.000	0.300	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L11	108.00-103.00	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L12	103.00-98.00	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L13	98.00-93.00	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L14	93.00-88.08	A	0.000	0.000	9.833	0.000	0.05

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B	0.000	0.000	5.900	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L15	88.08-86.92	A	0.000	0.000	2.333	0.000	0.01
		B	0.000	0.000	1.400	0.000	0.01
		C	0.000	0.000	0.000	0.000	0.01
L16	86.92-85.17	A	0.000	0.000	3.499	0.000	0.02
		B	0.000	0.000	2.100	0.000	0.02
		C	0.000	0.000	0.000	0.000	0.01
L17	85.17-84.92	A	0.000	0.000	0.500	0.000	0.00
		B	0.000	0.000	0.300	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L18	84.92-79.92	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L19	79.92-77.00	A	0.000	0.000	5.834	0.000	0.03
		B	0.000	0.000	3.500	0.000	0.03
		C	0.000	0.000	0.000	0.000	0.02
L20	77.00-76.75	A	0.000	0.000	0.500	0.000	0.00
		B	0.000	0.000	0.300	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L21	76.75-75.00	A	0.000	0.000	3.500	0.000	0.02
		B	0.000	0.000	2.100	0.000	0.02
		C	0.000	0.000	0.000	0.000	0.01
L22	75.00-74.75	A	0.000	0.000	0.500	0.000	0.00
		B	0.000	0.000	0.300	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L23	74.75-69.75	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L24	69.75-65.08	A	0.000	0.000	9.334	0.000	0.05
		B	0.000	0.000	5.600	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L25	65.08-64.83	A	0.000	0.000	0.500	0.000	0.00
		B	0.000	0.000	0.300	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L26	64.83-59.83	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L27	59.83-54.83	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L28	54.83-49.83	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L29	49.83-43.50	A	0.000	0.000	12.673	0.000	0.07
		B	0.000	0.000	7.604	0.000	0.06
		C	0.000	0.000	0.000	0.000	0.05
L30	43.50-42.50	A	0.000	0.000	2.000	0.000	0.01
		B	0.000	0.000	1.200	0.000	0.01
		C	0.000	0.000	0.000	0.000	0.01
L31	42.50-37.50	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.04
L32	37.50-33.00	A	0.000	0.000	8.993	0.000	0.05
		B	0.000	0.000	5.396	0.000	0.04
		C	0.000	0.000	0.000	0.000	0.03
L33	33.00-32.75	A	0.000	0.000	0.500	0.000	0.00
		B	0.000	0.000	0.300	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L34	32.75-32.00	A	0.000	0.000	1.500	0.000	0.01
		B	0.000	0.000	0.900	0.000	0.01

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
		C	0.000	0.000	0.000	0.000	0.01
L35	32.00-31.75	A	0.000	0.000	0.500	0.000	0.00
		B	0.000	0.000	0.300	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L36	31.75-30.00	A	0.000	0.000	3.500	0.000	0.02
		B	0.000	0.000	2.100	0.000	0.02
		C	0.000	0.000	0.000	0.000	0.01
L37	30.00-29.75	A	0.000	0.000	0.500	0.000	0.00
		B	0.000	0.000	0.300	0.000	0.00
		C	0.000	0.000	0.250	0.000	0.00
L38	29.75-24.75	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	5.000	0.000	0.04
L39	24.75-19.75	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	5.000	0.000	0.04
L40	19.75-14.75	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	5.000	0.000	0.04
L41	14.75-9.75	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	5.000	0.000	0.04
L42	9.75-4.75	A	0.000	0.000	10.000	0.000	0.05
		B	0.000	0.000	6.000	0.000	0.05
		C	0.000	0.000	5.000	0.000	0.04
L43	4.75-0.00	A	0.000	0.000	9.500	0.000	0.05
		B	0.000	0.000	5.700	0.000	0.05
		C	0.000	0.000	4.750	0.000	0.04

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	150.00-145.00	A	1.481	0.000	0.000	1.481	0.000	0.06
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
L2	145.00-140.00	A	1.476	0.000	0.000	1.476	0.000	0.06
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
L3	140.00-133.71	A	1.470	0.000	0.000	1.849	0.000	0.08
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.05
L4	133.71-131.29	A	1.465	0.000	0.000	0.710	0.000	0.03
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.02
L5	131.29-126.29	A	1.461	0.000	0.000	1.461	0.000	0.06
		B		0.000	0.000	1.824	0.000	0.06
		C		0.000	0.000	0.000	0.000	0.04
L6	126.29-121.29	A	1.455	0.000	0.000	1.455	0.000	0.06
		B		0.000	0.000	2.455	0.000	0.08
		C		0.000	0.000	0.000	0.000	0.04
L7	121.29-116.29	A	1.449	0.000	0.000	1.449	0.000	0.06
		B		0.000	0.000	2.449	0.000	0.08
		C		0.000	0.000	0.000	0.000	0.04
L8	116.29-111.29	A	1.443	0.000	0.000	1.443	0.000	0.06
		B		0.000	0.000	2.443	0.000	0.08
		C		0.000	0.000	0.000	0.000	0.04

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
L9	111.29-108.25	A	1.438	0.000	0.000	6.025	0.000	0.08
		B		0.000	0.000	4.059	0.000	0.07
		C		0.000	0.000	0.000	0.000	0.02
L10	108.25-108.00	A	1.436	0.000	0.000	0.715	0.000	0.01
		B		0.000	0.000	0.444	0.000	0.01
		C		0.000	0.000	0.000	0.000	0.00
L11	108.00-103.00	A	1.432	0.000	0.000	14.296	0.000	0.17
		B		0.000	0.000	8.864	0.000	0.13
		C		0.000	0.000	0.000	0.000	0.04
L12	103.00-98.00	A	1.425	0.000	0.000	14.276	0.000	0.17
		B		0.000	0.000	8.850	0.000	0.13
		C		0.000	0.000	0.000	0.000	0.04
L13	98.00-93.00	A	1.418	0.000	0.000	14.254	0.000	0.17
		B		0.000	0.000	8.836	0.000	0.13
		C		0.000	0.000	0.000	0.000	0.04
L14	93.00-88.08	A	1.410	0.000	0.000	13.994	0.000	0.17
		B		0.000	0.000	8.674	0.000	0.13
		C		0.000	0.000	0.000	0.000	0.04
L15	88.08-86.92	A	1.406	0.000	0.000	3.321	0.000	0.04
		B		0.000	0.000	2.058	0.000	0.03
		C		0.000	0.000	0.000	0.000	0.01
L16	86.92-85.17	A	1.403	0.000	0.000	4.972	0.000	0.06
		B		0.000	0.000	3.082	0.000	0.05
		C		0.000	0.000	0.000	0.000	0.01
L17	85.17-84.92	A	1.402	0.000	0.000	0.710	0.000	0.01
		B		0.000	0.000	0.440	0.000	0.01
		C		0.000	0.000	0.000	0.000	0.00
L18	84.92-79.92	A	1.397	0.000	0.000	14.192	0.000	0.17
		B		0.000	0.000	8.794	0.000	0.13
		C		0.000	0.000	0.000	0.000	0.04
L19	79.92-77.00	A	1.390	0.000	0.000	8.267	0.000	0.10
		B		0.000	0.000	5.123	0.000	0.08
		C		0.000	0.000	0.000	0.000	0.02
L20	77.00-76.75	A	1.388	0.000	0.000	0.708	0.000	0.01
		B		0.000	0.000	0.439	0.000	0.01
		C		0.000	0.000	0.000	0.000	0.00
L21	76.75-75.00	A	1.386	0.000	0.000	4.955	0.000	0.06
		B		0.000	0.000	3.070	0.000	0.05
		C		0.000	0.000	0.000	0.000	0.01
L22	75.00-74.75	A	1.384	0.000	0.000	0.708	0.000	0.01
		B		0.000	0.000	0.438	0.000	0.01
		C		0.000	0.000	0.000	0.000	0.00
L23	74.75-69.75	A	1.379	0.000	0.000	14.137	0.000	0.17
		B		0.000	0.000	8.758	0.000	0.13
		C		0.000	0.000	0.000	0.000	0.04
L24	69.75-65.08	A	1.369	0.000	0.000	13.169	0.000	0.15
		B		0.000	0.000	8.157	0.000	0.12
		C		0.000	0.000	0.000	0.000	0.04
L25	65.08-64.83	A	1.364	0.000	0.000	0.705	0.000	0.01
		B		0.000	0.000	0.436	0.000	0.01
		C		0.000	0.000	0.000	0.000	0.00
L26	64.83-59.83	A	1.359	0.000	0.000	14.076	0.000	0.16
		B		0.000	0.000	8.717	0.000	0.13
		C		0.000	0.000	0.000	0.000	0.04
L27	59.83-54.83	A	1.347	0.000	0.000	14.042	0.000	0.16
		B		0.000	0.000	8.695	0.000	0.13
		C		0.000	0.000	0.000	0.000	0.04
L28	54.83-49.83	A	1.335	0.000	0.000	14.005	0.000	0.16
		B		0.000	0.000	8.670	0.000	0.13
		C		0.000	0.000	0.000	0.000	0.04
L29	49.83-43.50	A	1.320	0.000	0.000	17.691	0.000	0.20

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	10.949	0.000	0.16
		C		0.000	0.000	0.000	0.000	0.05
L30	43.50-42.50	A	1.309	0.000	0.000	2.792	0.000	0.03
		B		0.000	0.000	1.728	0.000	0.03
		C		0.000	0.000	0.000	0.000	0.01
L31	42.50-37.50	A	1.300	0.000	0.000	13.899	0.000	0.16
		B		0.000	0.000	8.599	0.000	0.12
		C		0.000	0.000	0.000	0.000	0.04
L32	37.50-33.00	A	1.283	0.000	0.000	12.456	0.000	0.14
		B		0.000	0.000	7.704	0.000	0.11
		C		0.000	0.000	0.000	0.000	0.03
L33	33.00-32.75	A	1.275	0.000	0.000	0.691	0.000	0.01
		B		0.000	0.000	0.427	0.000	0.01
		C		0.000	0.000	0.000	0.000	0.00
L34	32.75-32.00	A	1.273	0.000	0.000	2.073	0.000	0.02
		B		0.000	0.000	1.282	0.000	0.02
		C		0.000	0.000	0.000	0.000	0.01
L35	32.00-31.75	A	1.271	0.000	0.000	0.691	0.000	0.01
		B		0.000	0.000	0.427	0.000	0.01
		C		0.000	0.000	0.000	0.000	0.00
L36	31.75-30.00	A	1.267	0.000	0.000	4.830	0.000	0.05
		B		0.000	0.000	2.987	0.000	0.04
		C		0.000	0.000	0.000	0.000	0.01
L37	30.00-29.75	A	1.262	0.000	0.000	0.689	0.000	0.01
		B		0.000	0.000	0.426	0.000	0.01
		C		0.000	0.000	0.313	0.000	0.00
L38	29.75-24.75	A	1.251	0.000	0.000	13.752	0.000	0.15
		B		0.000	0.000	8.502	0.000	0.12
		C		0.000	0.000	6.251	0.000	0.08
L39	24.75-19.75	A	1.226	0.000	0.000	13.677	0.000	0.15
		B		0.000	0.000	8.451	0.000	0.12
		C		0.000	0.000	6.226	0.000	0.08
L40	19.75-14.75	A	1.195	0.000	0.000	13.585	0.000	0.15
		B		0.000	0.000	8.390	0.000	0.12
		C		0.000	0.000	6.195	0.000	0.08
L41	14.75-9.75	A	1.155	0.000	0.000	13.464	0.000	0.14
		B		0.000	0.000	8.309	0.000	0.11
		C		0.000	0.000	6.155	0.000	0.08
L42	9.75-4.75	A	1.096	0.000	0.000	13.287	0.000	0.14
		B		0.000	0.000	8.191	0.000	0.11
		C		0.000	0.000	6.096	0.000	0.08
L43	4.75-0.00	A	0.980	0.000	0.000	12.292	0.000	0.12
		B		0.000	0.000	7.561	0.000	0.10
		C		0.000	0.000	5.681	0.000	0.07

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	150.00-145.00	0.000	0.000	0.000	-1.021
L2	145.00-140.00	0.000	0.000	0.000	-1.043
L3	140.00-133.71	0.000	0.000	0.000	-1.063
L4	133.71-131.29	0.000	0.000	0.000	-1.075
L5	131.29-126.29	1.028	0.594	1.138	-0.280
L6	126.29-121.29	1.325	0.765	1.478	-0.059
L7	121.29-116.29	1.329	0.767	1.499	-0.064

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L8	116.29-111.29	1.332	0.769	1.518	-0.068
L9	111.29-108.25	2.619	0.243	2.446	-0.113
L10	108.25-108.00	2.867	0.153	2.684	-0.123
L11	108.00-103.00	2.919	0.158	2.731	-0.123
L12	103.00-98.00	3.015	0.168	2.817	-0.124
L13	98.00-93.00	3.109	0.177	2.900	-0.124
L14	93.00-88.08	3.200	0.186	2.980	-0.124
L15	88.08-86.92	3.204	0.187	2.984	-0.124
L16	86.92-85.17	3.230	0.189	3.006	-0.123
L17	85.17-84.92	3.248	0.191	3.022	-0.123
L18	84.92-79.92	3.294	0.195	3.062	-0.123
L19	79.92-77.00	3.362	0.202	3.121	-0.123
L20	77.00-76.75	3.388	0.205	3.144	-0.123
L21	76.75-75.00	3.405	0.207	3.159	-0.123
L22	75.00-74.75	3.422	0.208	3.174	-0.122
L23	74.75-69.75	3.466	0.213	3.212	-0.122
L24	69.75-65.08	3.545	0.220	3.279	-0.121
L25	65.08-64.83	3.584	0.224	3.313	-0.121
L26	64.83-59.83	3.625	0.228	3.348	-0.120
L27	59.83-54.83	3.702	0.236	3.413	-0.119
L28	54.83-49.83	3.777	0.243	3.475	-0.117
L29	49.83-43.50	3.860	0.251	3.544	-0.115
L30	43.50-42.50	3.864	0.252	3.548	-0.115
L31	42.50-37.50	3.907	0.256	3.578	-0.112
L32	37.50-33.00	3.973	0.263	3.631	-0.109
L33	33.00-32.75	4.006	0.266	3.657	-0.107
L34	32.75-32.00	4.013	0.267	3.662	-0.107
L35	32.00-31.75	4.020	0.267	3.667	-0.106
L36	31.75-30.00	4.033	0.269	3.677	-0.106
L37	30.00-29.75	3.427	3.204	3.217	2.392
L38	29.75-24.75	3.460	3.235	3.242	2.415
L39	24.75-19.75	3.523	3.293	3.290	2.460
L40	19.75-14.75	3.583	3.351	3.333	2.504
L41	14.75-9.75	3.643	3.407	3.372	2.548
L42	9.75-4.75	3.702	3.461	3.402	2.594
L43	4.75-0.00	3.757	3.514	3.408	2.646

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

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L1	2	Safety Line 3/8	145.00 - 150.00	1.0000	1.0000
L2	2	Safety Line 3/8	140.00 - 145.00	1.0000	1.0000
L3	2	Safety Line 3/8	133.71 - 140.00	1.0000	1.0000
L4	2	Safety Line 3/8	131.29 - 133.71	1.0000	1.0000
L5	2	Safety Line 3/8	126.29 - 131.29	1.0000	1.0000
L5	18	2" Rigid Conduit	126.29 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			130.00		
L6	2	Safety Line 3/8	121.29 - 126.29	1.0000	1.0000
L6	18	2" Rigid Conduit	121.29 - 126.29	1.0000	1.0000
L7	2	Safety Line 3/8	116.29 - 121.29	1.0000	1.0000
L7	18	2" Rigid Conduit	116.29 - 121.29	1.0000	1.0000
L8	2	Safety Line 3/8	111.29 - 116.29	1.0000	1.0000
L8	18	2" Rigid Conduit	111.29 - 116.29	1.0000	1.0000
L9	2	Safety Line 3/8	108.25 - 111.29	1.0000	1.0000
L9	18	2" Rigid Conduit	108.25 - 111.29	1.0000	1.0000
L9	35	CCI-65FP-060100	108.25 - 110.25	1.0000	1.0000
L9	36	CCI-65FP-060100	108.25 - 110.25	1.0000	1.0000
L9	37	CCI-65FP-060100	108.25 - 110.25	1.0000	1.0000
L10	2	Safety Line 3/8	108.00 - 108.25	1.0000	1.0000
L10	18	2" Rigid Conduit	108.00 - 108.25	1.0000	1.0000
L10	35	CCI-65FP-060100	108.00 - 108.25	1.0000	1.0000
L10	36	CCI-65FP-060100	108.00 - 108.25	1.0000	1.0000
L10	37	CCI-65FP-060100	108.00 - 108.25	1.0000	1.0000
L11	2	Safety Line 3/8	103.00 - 108.00	1.0000	1.0000
L11	18	2" Rigid Conduit	103.00 - 108.00	1.0000	1.0000
L11	35	CCI-65FP-060100	103.00 - 108.00	1.0000	1.0000
L11	36	CCI-65FP-060100	103.00 - 108.00	1.0000	1.0000
L11	37	CCI-65FP-060100	103.00 - 108.00	1.0000	1.0000
L12	2	Safety Line 3/8	98.00 - 103.00	1.0000	1.0000
L12	18	2" Rigid Conduit	98.00 - 103.00	1.0000	1.0000
L12	35	CCI-65FP-060100	98.00 - 103.00	1.0000	1.0000
L12	36	CCI-65FP-060100	98.00 - 103.00	1.0000	1.0000
L12	37	CCI-65FP-060100	98.00 - 103.00	1.0000	1.0000
L13	2	Safety Line 3/8	93.00 - 98.00	1.0000	1.0000
L13	18	2" Rigid Conduit	93.00 - 98.00	1.0000	1.0000
L13	35	CCI-65FP-060100	93.00 - 98.00	1.0000	1.0000
L13	36	CCI-65FP-060100	93.00 - 98.00	1.0000	1.0000
L13	37	CCI-65FP-060100	93.00 - 98.00	1.0000	1.0000
L14	2	Safety Line 3/8	88.08 - 93.00	1.0000	1.0000
L14	18	2" Rigid Conduit	88.08 - 93.00	1.0000	1.0000
L14	35	CCI-65FP-060100	88.08 - 93.00	1.0000	1.0000
L14	36	CCI-65FP-060100	88.08 - 93.00	1.0000	1.0000
L14	37	CCI-65FP-060100	88.08 - 93.00	1.0000	1.0000
L15	2	Safety Line 3/8	86.92 - 88.08	1.0000	1.0000
L15	18	2" Rigid Conduit	86.92 - 88.08	1.0000	1.0000
L15	35	CCI-65FP-060100	86.92 - 88.08	1.0000	1.0000
L15	36	CCI-65FP-060100	86.92 - 88.08	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L15	37	CCI-65FP-060100	86.92 - 88.08	1.0000	1.0000
L16	2	Safety Line 3/8	85.17 - 86.92	1.0000	1.0000
L16	18	2" Rigid Conduit	85.17 - 86.92	1.0000	1.0000
L16	35	CCI-65FP-060100	85.17 - 86.92	1.0000	1.0000
L16	36	CCI-65FP-060100	85.17 - 86.92	1.0000	1.0000
L16	37	CCI-65FP-060100	85.17 - 86.92	1.0000	1.0000
L17	2	Safety Line 3/8	84.92 - 85.17	1.0000	1.0000
L17	18	2" Rigid Conduit	84.92 - 85.17	1.0000	1.0000
L17	31	CCI-65FP-060100	84.92 - 85.17	1.0000	1.0000
L17	32	CCI-65FP-060100	84.92 - 85.17	1.0000	1.0000
L17	33	CCI-65FP-060100	84.92 - 85.17	1.0000	1.0000
L18	2	Safety Line 3/8	79.92 - 84.92	1.0000	1.0000
L18	18	2" Rigid Conduit	79.92 - 84.92	1.0000	1.0000
L18	31	CCI-65FP-060100	79.92 - 84.92	1.0000	1.0000
L18	32	CCI-65FP-060100	79.92 - 84.92	1.0000	1.0000
L18	33	CCI-65FP-060100	79.92 - 84.92	1.0000	1.0000
L19	2	Safety Line 3/8	77.00 - 79.92	1.0000	1.0000
L19	18	2" Rigid Conduit	77.00 - 79.92	1.0000	1.0000
L19	31	CCI-65FP-060100	77.00 - 79.92	1.0000	1.0000
L19	32	CCI-65FP-060100	77.00 - 79.92	1.0000	1.0000
L19	33	CCI-65FP-060100	77.00 - 79.92	1.0000	1.0000
L20	2	Safety Line 3/8	76.75 - 77.00	1.0000	1.0000
L20	18	2" Rigid Conduit	76.75 - 77.00	1.0000	1.0000
L20	31	CCI-65FP-060100	76.75 - 77.00	1.0000	1.0000
L20	32	CCI-65FP-060100	76.75 - 77.00	1.0000	1.0000
L20	33	CCI-65FP-060100	76.75 - 77.00	1.0000	1.0000
L21	2	Safety Line 3/8	75.00 - 76.75	1.0000	1.0000
L21	18	2" Rigid Conduit	75.00 - 76.75	1.0000	1.0000
L21	31	CCI-65FP-060100	75.00 - 76.75	1.0000	1.0000
L21	32	CCI-65FP-060100	75.00 - 76.75	1.0000	1.0000
L21	33	CCI-65FP-060100	75.00 - 76.75	1.0000	1.0000
L22	2	Safety Line 3/8	74.75 - 75.00	1.0000	1.0000
L22	18	2" Rigid Conduit	74.75 - 75.00	1.0000	1.0000
L22	31	CCI-65FP-060100	74.75 - 75.00	1.0000	1.0000
L22	32	CCI-65FP-060100	74.75 - 75.00	1.0000	1.0000
L22	33	CCI-65FP-060100	74.75 - 75.00	1.0000	1.0000
L23	2	Safety Line 3/8	69.75 - 74.75	1.0000	1.0000
L23	18	2" Rigid Conduit	69.75 - 74.75	1.0000	1.0000
L23	31	CCI-65FP-060100	69.75 - 74.75	1.0000	1.0000
L23	32	CCI-65FP-060100	69.75 - 74.75	1.0000	1.0000
L23	33	CCI-65FP-060100	69.75 - 74.75	1.0000	1.0000
L24	2	Safety Line 3/8	65.08 - 69.75	1.0000	1.0000
L24	18	2" Rigid Conduit	65.08 - 69.75	1.0000	1.0000
L24	31	CCI-65FP-060100	65.08 - 69.75	1.0000	1.0000
L24	32	CCI-65FP-060100	65.08 - 69.75	1.0000	1.0000
L24	33	CCI-65FP-060100	65.08 - 69.75	1.0000	1.0000
L25	2	Safety Line 3/8	64.83 - 65.08	1.0000	1.0000
L25	18	2" Rigid Conduit	64.83 - 65.08	1.0000	1.0000
L25	27	CCI-65FP-060100	64.83 - 65.08	1.0000	1.0000
L25	28	CCI-65FP-060100	64.83 - 65.08	1.0000	1.0000
L25	29	CCI-65FP-060100	64.83 - 65.08	1.0000	1.0000
L26	2	Safety Line 3/8	59.83 - 64.83	1.0000	1.0000
L26	18	2" Rigid Conduit	59.83 - 64.83	1.0000	1.0000
L26	27	CCI-65FP-060100	59.83 - 64.83	1.0000	1.0000
L26	28	CCI-65FP-060100	59.83 - 64.83	1.0000	1.0000
L26	29	CCI-65FP-060100	59.83 - 64.83	1.0000	1.0000
L27	2	Safety Line 3/8	54.83 - 59.83	1.0000	1.0000
L27	18	2" Rigid Conduit	54.83 - 59.83	1.0000	1.0000
L27	27	CCI-65FP-060100	54.83 - 59.83	1.0000	1.0000
L27	28	CCI-65FP-060100	54.83 - 59.83	1.0000	1.0000
L27	29	CCI-65FP-060100	54.83 - 59.83	1.0000	1.0000
L28	2	Safety Line 3/8	49.83 - 54.83	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L28	18	2" Rigid Conduit	49.83 - 54.83	1.0000	1.0000
L28	27	CCI-65FP-060100	49.83 - 54.83	1.0000	1.0000
L28	28	CCI-65FP-060100	49.83 - 54.83	1.0000	1.0000
L28	29	CCI-65FP-060100	49.83 - 54.83	1.0000	1.0000
L29	2	Safety Line 3/8	43.50 - 49.83	1.0000	1.0000
L29	18	2" Rigid Conduit	43.50 - 49.83	1.0000	1.0000
L29	27	CCI-65FP-060100	43.50 - 49.83	1.0000	1.0000
L29	28	CCI-65FP-060100	43.50 - 49.83	1.0000	1.0000
L29	29	CCI-65FP-060100	43.50 - 49.83	1.0000	1.0000
L30	2	Safety Line 3/8	42.50 - 43.50	1.0000	1.0000
L30	18	2" Rigid Conduit	42.50 - 43.50	1.0000	1.0000
L30	27	CCI-65FP-060100	42.50 - 43.50	1.0000	1.0000
L30	28	CCI-65FP-060100	42.50 - 43.50	1.0000	1.0000
L30	29	CCI-65FP-060100	42.50 - 43.50	1.0000	1.0000
L31	2	Safety Line 3/8	37.50 - 42.50	1.0000	1.0000
L31	18	2" Rigid Conduit	37.50 - 42.50	1.0000	1.0000
L31	27	CCI-65FP-060100	37.50 - 42.50	1.0000	1.0000
L31	28	CCI-65FP-060100	37.50 - 42.50	1.0000	1.0000
L31	29	CCI-65FP-060100	37.50 - 42.50	1.0000	1.0000
L32	2	Safety Line 3/8	33.00 - 37.50	1.0000	1.0000
L32	18	2" Rigid Conduit	33.00 - 37.50	1.0000	1.0000
L32	22	CCI-65FP-060100	33.00 - 35.00	1.0000	1.0000
L32	23	CCI-65FP-060100	33.00 - 35.00	1.0000	1.0000
L32	27	CCI-65FP-060100	35.00 - 37.50	1.0000	1.0000
L32	28	CCI-65FP-060100	35.00 - 37.50	1.0000	1.0000
L32	29	CCI-65FP-060100	33.00 - 37.50	1.0000	1.0000
L33	2	Safety Line 3/8	32.75 - 33.00	1.0000	1.0000
L33	18	2" Rigid Conduit	32.75 - 33.00	1.0000	1.0000
L33	22	CCI-65FP-060100	32.75 - 33.00	1.0000	1.0000
L33	23	CCI-65FP-060100	32.75 - 33.00	1.0000	1.0000
L33	29	CCI-65FP-060100	32.75 - 33.00	1.0000	1.0000
L34	2	Safety Line 3/8	32.00 - 32.75	1.0000	1.0000
L34	18	2" Rigid Conduit	32.00 - 32.75	1.0000	1.0000
L34	22	CCI-65FP-060100	32.00 - 32.75	1.0000	1.0000
L34	23	CCI-65FP-060100	32.00 - 32.75	1.0000	1.0000
L34	29	CCI-65FP-060100	32.00 - 32.75	1.0000	1.0000
L35	2	Safety Line 3/8	31.75 - 32.00	1.0000	1.0000
L35	18	2" Rigid Conduit	31.75 - 32.00	1.0000	1.0000
L35	22	CCI-65FP-060100	31.75 - 32.00	1.0000	1.0000
L35	23	CCI-65FP-060100	31.75 - 32.00	1.0000	1.0000
L35	29	CCI-65FP-060100	31.75 - 32.00	1.0000	1.0000
L36	2	Safety Line 3/8	30.00 - 31.75	1.0000	1.0000
L36	18	2" Rigid Conduit	30.00 - 31.75	1.0000	1.0000
L36	22	CCI-65FP-060100	30.00 - 31.75	1.0000	1.0000
L36	23	CCI-65FP-060100	30.00 - 31.75	1.0000	1.0000
L36	29	CCI-65FP-060100	30.00 - 31.75	1.0000	1.0000
L37	2	Safety Line 3/8	29.75 - 30.00	1.0000	1.0000
L37	18	2" Rigid Conduit	29.75 - 30.00	1.0000	1.0000
L37	22	CCI-65FP-060100	29.75 - 30.00	1.0000	1.0000
L37	23	CCI-65FP-060100	29.75 - 30.00	1.0000	1.0000
L37	24	CCI-65FP-060100	29.75 - 30.00	1.0000	1.0000
L37	25	CCI-65FP-060100	29.75 - 30.00	1.0000	1.0000
L38	2	Safety Line 3/8	24.75 - 29.75	1.0000	1.0000
L38	18	2" Rigid Conduit	24.75 - 29.75	1.0000	1.0000
L38	22	CCI-65FP-060100	24.75 - 29.75	1.0000	1.0000
L38	23	CCI-65FP-060100	24.75 - 29.75	1.0000	1.0000
L38	24	CCI-65FP-060100	24.75 - 29.75	1.0000	1.0000
L38	25	CCI-65FP-060100	24.75 - 29.75	1.0000	1.0000
L39	2	Safety Line 3/8	19.75 - 24.75	1.0000	1.0000
L39	18	2" Rigid Conduit	19.75 - 24.75	1.0000	1.0000
L39	22	CCI-65FP-060100	19.75 - 24.75	1.0000	1.0000
L39	23	CCI-65FP-060100	19.75 - 24.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L39	24	CCI-65FP-060100	19.75 - 24.75	1.0000	1.0000
L39	25	CCI-65FP-060100	19.75 - 24.75	1.0000	1.0000
L40	2	Safety Line 3/8	14.75 - 19.75	1.0000	1.0000
L40	18	2" Rigid Conduit	14.75 - 19.75	1.0000	1.0000
L40	22	CCI-65FP-060100	14.75 - 19.75	1.0000	1.0000
L40	23	CCI-65FP-060100	14.75 - 19.75	1.0000	1.0000
L40	24	CCI-65FP-060100	14.75 - 19.75	1.0000	1.0000
L40	25	CCI-65FP-060100	14.75 - 19.75	1.0000	1.0000
L41	2	Safety Line 3/8	9.75 - 14.75	1.0000	1.0000
L41	18	2" Rigid Conduit	9.75 - 14.75	1.0000	1.0000
L41	22	CCI-65FP-060100	9.75 - 14.75	1.0000	1.0000
L41	23	CCI-65FP-060100	9.75 - 14.75	1.0000	1.0000
L41	24	CCI-65FP-060100	9.75 - 14.75	1.0000	1.0000
L41	25	CCI-65FP-060100	9.75 - 14.75	1.0000	1.0000
L42	2	Safety Line 3/8	4.75 - 9.75	1.0000	1.0000
L42	18	2" Rigid Conduit	4.75 - 9.75	1.0000	1.0000
L42	22	CCI-65FP-060100	4.75 - 9.75	1.0000	1.0000
L42	23	CCI-65FP-060100	4.75 - 9.75	1.0000	1.0000
L42	24	CCI-65FP-060100	4.75 - 9.75	1.0000	1.0000
L42	25	CCI-65FP-060100	4.75 - 9.75	1.0000	1.0000
L43	2	Safety Line 3/8	0.00 - 4.75	1.0000	1.0000
L43	18	2" Rigid Conduit	0.00 - 4.75	1.0000	1.0000
L43	22	CCI-65FP-060100	0.00 - 4.75	1.0000	1.0000
L43	23	CCI-65FP-060100	0.00 - 4.75	1.0000	1.0000
L43	24	CCI-65FP-060100	0.00 - 4.75	1.0000	1.0000
L43	25	CCI-65FP-060100	0.00 - 4.75	1.0000	1.0000

Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L9	35	CCI-65FP-060100	108.25 - 110.25	Manual	1.0000
L9	36	CCI-65FP-060100	108.25 - 110.25	Manual	1.0000
L9	37	CCI-65FP-060100	108.25 - 110.25	Manual	1.0000
L10	35	CCI-65FP-060100	108.00 - 108.25	Manual	1.0000
L10	36	CCI-65FP-060100	108.00 - 108.25	Manual	1.0000
L10	37	CCI-65FP-060100	108.00 - 108.25	Manual	1.0000
L11	35	CCI-65FP-060100	103.00 - 108.00	Manual	1.0000
L11	36	CCI-65FP-060100	103.00 - 108.00	Manual	1.0000
L11	37	CCI-65FP-060100	103.00 - 108.00	Manual	1.0000
L12	35	CCI-65FP-060100	98.00 - 103.00	Manual	1.0000
L12	36	CCI-65FP-060100	98.00 - 103.00	Manual	1.0000
L12	37	CCI-65FP-060100	98.00 - 103.00	Manual	1.0000
L13	35	CCI-65FP-060100	93.00 - 98.00	Manual	1.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L13	36	CCI-65FP-060100	93.00 - 98.00	Manual	1.0000
L13	37	CCI-65FP-060100	93.00 - 98.00	Manual	1.0000
L14	35	CCI-65FP-060100	88.08 - 93.00	Manual	1.0000
L14	36	CCI-65FP-060100	88.08 - 93.00	Manual	1.0000
L14	37	CCI-65FP-060100	88.08 - 93.00	Manual	1.0000
L15	35	CCI-65FP-060100	86.92 - 88.08	Manual	1.0000
L15	36	CCI-65FP-060100	86.92 - 88.08	Manual	1.0000
L15	37	CCI-65FP-060100	86.92 - 88.08	Manual	1.0000
L16	35	CCI-65FP-060100	85.17 - 86.92	Manual	1.0000
L16	36	CCI-65FP-060100	85.17 - 86.92	Manual	1.0000
L16	37	CCI-65FP-060100	85.17 - 86.92	Manual	1.0000
L17	31	CCI-65FP-060100	84.92 - 85.17	Manual	1.0000
L17	32	CCI-65FP-060100	84.92 - 85.17	Manual	1.0000
L17	33	CCI-65FP-060100	84.92 - 85.17	Manual	1.0000
L18	31	CCI-65FP-060100	79.92 - 84.92	Manual	1.0000
L18	32	CCI-65FP-060100	79.92 - 84.92	Manual	1.0000
L18	33	CCI-65FP-060100	79.92 - 84.92	Manual	1.0000
L19	31	CCI-65FP-060100	77.00 - 79.92	Manual	1.0000
L19	32	CCI-65FP-060100	77.00 - 79.92	Manual	1.0000
L19	33	CCI-65FP-060100	77.00 - 79.92	Manual	1.0000
L20	31	CCI-65FP-060100	76.75 - 77.00	Manual	1.0000
L20	32	CCI-65FP-060100	76.75 - 77.00	Manual	1.0000
L20	33	CCI-65FP-060100	76.75 - 77.00	Manual	1.0000
L21	31	CCI-65FP-060100	75.00 - 76.75	Manual	1.0000
L21	32	CCI-65FP-060100	75.00 - 76.75	Manual	1.0000
L21	33	CCI-65FP-060100	75.00 - 76.75	Manual	1.0000
L22	31	CCI-65FP-060100	74.75 - 75.00	Manual	1.0000
L22	32	CCI-65FP-060100	74.75 - 75.00	Manual	1.0000
L22	33	CCI-65FP-060100	74.75 - 75.00	Manual	1.0000
L23	31	CCI-65FP-060100	69.75 - 74.75	Manual	1.0000
L23	32	CCI-65FP-060100	69.75 - 74.75	Manual	1.0000
L23	33	CCI-65FP-060100	69.75 - 74.75	Manual	1.0000
L24	31	CCI-65FP-060100	65.08 - 69.75	Manual	1.0000
L24	32	CCI-65FP-060100	65.08 - 69.75	Manual	1.0000
L24	33	CCI-65FP-060100	65.08 - 69.75	Manual	1.0000
L25	27	CCI-65FP-060100	64.83 - 65.08	Manual	1.0000
L25	28	CCI-65FP-060100	64.83 - 65.08	Manual	1.0000
L25	29	CCI-65FP-060100	64.83 - 65.08	Manual	1.0000
L26	27	CCI-65FP-060100	59.83 - 64.83	Manual	1.0000
L26	28	CCI-65FP-060100	59.83 - 64.83	Manual	1.0000
L26	29	CCI-65FP-060100	59.83 - 64.83	Manual	1.0000
L27	27	CCI-65FP-060100	54.83 - 59.83	Manual	1.0000
L27	28	CCI-65FP-060100	54.83 - 59.83	Manual	1.0000
L27	29	CCI-65FP-060100	54.83 - 59.83	Manual	1.0000
L28	27	CCI-65FP-060100	49.83 - 54.83	Manual	1.0000
L28	28	CCI-65FP-060100	49.83 - 54.83	Manual	1.0000
L28	29	CCI-65FP-060100	49.83 - 54.83	Manual	1.0000
L29	27	CCI-65FP-060100	43.50 - 49.83	Manual	1.0000
L29	28	CCI-65FP-060100	43.50 - 49.83	Manual	1.0000
L29	29	CCI-65FP-060100	43.50 - 49.83	Manual	1.0000
L30	27	CCI-65FP-060100	42.50 - 43.50	Manual	1.0000
L30	28	CCI-65FP-060100	42.50 - 43.50	Manual	1.0000
L30	29	CCI-65FP-060100	42.50 - 43.50	Manual	1.0000
L31	27	CCI-65FP-060100	37.50 - 42.50	Manual	1.0000
L31	28	CCI-65FP-060100	37.50 - 42.50	Manual	1.0000
L31	29	CCI-65FP-060100	37.50 - 42.50	Manual	1.0000
L32	22	CCI-65FP-060100	33.00 - 35.00	Manual	1.0000
L32	23	CCI-65FP-060100	33.00 - 35.00	Manual	1.0000
L32	27	CCI-65FP-060100	35.00 - 37.50	Manual	1.0000
L32	28	CCI-65FP-060100	35.00 - 37.50	Manual	1.0000
L32	29	CCI-65FP-060100	33.00 - 37.50	Manual	1.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L33	22	CCI-65FP-060100	32.75 - 33.00	Manual	1.0000
L33	23	CCI-65FP-060100	32.75 - 33.00	Manual	1.0000
L33	29	CCI-65FP-060100	32.75 - 33.00	Manual	1.0000
L34	22	CCI-65FP-060100	32.00 - 32.75	Manual	1.0000
L34	23	CCI-65FP-060100	32.00 - 32.75	Manual	1.0000
L34	29	CCI-65FP-060100	32.00 - 32.75	Manual	1.0000
L35	22	CCI-65FP-060100	31.75 - 32.00	Manual	1.0000
L35	23	CCI-65FP-060100	31.75 - 32.00	Manual	1.0000
L35	29	CCI-65FP-060100	31.75 - 32.00	Manual	1.0000
L36	22	CCI-65FP-060100	30.00 - 31.75	Manual	1.0000
L36	23	CCI-65FP-060100	30.00 - 31.75	Manual	1.0000
L36	29	CCI-65FP-060100	30.00 - 31.75	Manual	1.0000
L37	22	CCI-65FP-060100	29.75 - 30.00	Manual	1.0000
L37	23	CCI-65FP-060100	29.75 - 30.00	Manual	1.0000
L37	24	CCI-65FP-060100	29.75 - 30.00	Manual	1.0000
L37	25	CCI-65FP-060100	29.75 - 30.00	Manual	1.0000
L38	22	CCI-65FP-060100	24.75 - 29.75	Manual	1.0000
L38	23	CCI-65FP-060100	24.75 - 29.75	Manual	1.0000
L38	24	CCI-65FP-060100	24.75 - 29.75	Manual	1.0000
L38	25	CCI-65FP-060100	24.75 - 29.75	Manual	1.0000
L39	22	CCI-65FP-060100	19.75 - 24.75	Manual	1.0000
L39	23	CCI-65FP-060100	19.75 - 24.75	Manual	1.0000
L39	24	CCI-65FP-060100	19.75 - 24.75	Manual	1.0000
L39	25	CCI-65FP-060100	19.75 - 24.75	Manual	1.0000
L40	22	CCI-65FP-060100	14.75 - 19.75	Manual	1.0000
L40	23	CCI-65FP-060100	14.75 - 19.75	Manual	1.0000
L40	24	CCI-65FP-060100	14.75 - 19.75	Manual	1.0000
L40	25	CCI-65FP-060100	14.75 - 19.75	Manual	1.0000
L41	22	CCI-65FP-060100	9.75 - 14.75	Manual	1.0000
L41	23	CCI-65FP-060100	9.75 - 14.75	Manual	1.0000
L41	24	CCI-65FP-060100	9.75 - 14.75	Manual	1.0000
L41	25	CCI-65FP-060100	9.75 - 14.75	Manual	1.0000
L42	22	CCI-65FP-060100	4.75 - 9.75	Manual	1.0000
L42	23	CCI-65FP-060100	4.75 - 9.75	Manual	1.0000
L42	24	CCI-65FP-060100	4.75 - 9.75	Manual	1.0000
L42	25	CCI-65FP-060100	4.75 - 9.75	Manual	1.0000
L43	22	CCI-65FP-060100	0.00 - 4.75	Manual	1.0000
L43	23	CCI-65FP-060100	0.00 - 4.75	Manual	1.0000
L43	24	CCI-65FP-060100	0.00 - 4.75	Manual	1.0000
L43	25	CCI-65FP-060100	0.00 - 4.75	Manual	1.0000

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
150									
AIR6449 B41_T-MOBILE	A	From Centroid-Face	4.00 6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice	5.66 5.96 6.27	2.48 2.70 2.94	0.11 0.15 0.20

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
						2" Ice	6.91	3.43	0.30
AIR6449 B41_T-MOBILE	B	From Centroid-Face	4.00 6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.66 5.96 6.27 6.91	2.48 2.70 2.94 3.43	0.11 0.15 0.20 0.30
AIR6449 B41_T-MOBILE	C	From Centroid-Face	4.00 6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.66 5.96 6.27 6.91	2.48 2.70 2.94 3.43	0.11 0.15 0.20 0.30
APX16DWV-16DWV-S-E-A20	A	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.26 6.85 7.46 8.72	1.50 2.00 2.52 3.62	0.04 0.07 0.11 0.20
APX16DWV-16DWV-S-E-A20	B	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.26 6.85 7.46 8.72	1.50 2.00 2.52 3.62	0.04 0.07 0.11 0.20
APX16DWV-16DWV-S-E-A20	C	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.26 6.85 7.46 8.72	1.50 2.00 2.52 3.62	0.04 0.07 0.11 0.20
APXVAALL24_43-U-NA20_TMO	A	From Centroid-Face	4.00 -2.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.67 15.43 16.21 17.81	5.32 5.99 6.68 8.08	0.15 0.26 0.38 0.65
APXVAALL24_43-U-NA20_TMO	B	From Centroid-Face	4.00 -2.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.67 15.43 16.21 17.81	5.32 5.99 6.68 8.08	0.15 0.26 0.38 0.65
APXVAALL24_43-U-NA20_TMO	C	From Centroid-Face	4.00 -2.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	14.67 15.43 16.21 17.81	5.32 5.99 6.68 8.08	0.15 0.26 0.38 0.65
RADIO 4415 B66A	A	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.86 2.03 2.20 2.58	0.87 1.00 1.13 1.43	0.05 0.06 0.08 0.12
RADIO 4415 B66A	B	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.86 2.03 2.20 2.58	0.87 1.00 1.13 1.43	0.05 0.06 0.08 0.12
RADIO 4415 B66A	C	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.86 2.03 2.20 2.58	0.87 1.00 1.13 1.43	0.05 0.06 0.08 0.12
RADIO 4424 B25_TMO	A	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.05 2.23 2.42 2.81	1.61 1.77 1.94 2.30	0.09 0.11 0.13 0.19
RADIO 4424 B25_TMO	B	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.05 2.23 2.42 2.81	1.61 1.77 1.94 2.30	0.09 0.11 0.13 0.19
RADIO 4424 B25_TMO	C	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.05 2.23 2.42 2.81	1.61 1.77 1.94 2.30	0.09 0.11 0.13 0.19

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
RADIO 4449 B71 B85A_T-MOBILE	A	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
RADIO 4449 B71 B85A_T-MOBILE	B	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
RADIO 4449 B71 B85A_T-MOBILE	C	From Centroid-Face	4.00 -6.000 2.000	0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.15 2.33 2.72	1.59 1.75 1.92 2.28	0.07 0.09 0.12 0.17
Platform Mount [LP 301-1]	C	None		0.000	150.00	No Ice 1/2" Ice 1" Ice 2" Ice	23.81 30.24 36.33 48.05	23.81 30.24 36.33 48.05	1.59 2.10 2.73 4.34
140									
(2) JAHH-65B-R3B w/ Mount Pipe	A	From Centroid-Leg	4.00 4.750 0.000	40.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.50 5.97 6.45 7.44	4.38 4.84 5.30 6.26	0.10 0.17 0.25 0.46
(2) JAHH-65B-R3B w/ Mount Pipe	B	From Centroid-Leg	4.00 4.750 0.000	45.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.50 5.97 6.45 7.44	4.38 4.84 5.30 6.26	0.10 0.17 0.25 0.46
(2) JAHH-65B-R3B w/ Mount Pipe	C	From Centroid-Leg	4.00 4.750 0.000	50.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.50 5.97 6.45 7.44	4.38 4.84 5.30 6.26	0.10 0.17 0.25 0.46
(2) DB846H80E-SX w/ Mount Pipe	A	From Centroid-Leg	4.00 -4.750 0.000	10.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.12 4.76 5.42 6.78	6.38 7.05 7.74 9.17	0.05 0.10 0.17 0.32
(2) DB846F65ZAXY w/ Mount Pipe	B	From Centroid-Leg	4.00 -4.750 0.000	0.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	6.10 6.80 7.51 8.98	6.81 7.52 8.24 9.73	0.06 0.12 0.19 0.37
(2) DB846H80E-SX w/ Mount Pipe	C	From Centroid-Leg	4.00 -4.750 0.000	30.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.12 4.76 5.42 6.78	6.38 7.05 7.74 9.17	0.05 0.10 0.17 0.32
RVZDC-6627-PF-48	A	From Centroid-Leg	4.00 -7.000 0.000	10.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.79 4.04 4.30 4.84	2.51 2.73 2.95 3.42	0.03 0.06 0.10 0.18
RVZDC-6627-PF-48	B	From Centroid-Leg	4.00 -7.000 0.000	0.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.79 4.04 4.30 4.84	2.51 2.73 2.95 3.42	0.03 0.06 0.10 0.18
FDJ85020Q7-S1	A	From Centroid-Leg	4.00 -7.000 0.000	10.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.96 1.09 1.24 1.54	0.36 0.43 0.52 0.71	0.02 0.03 0.04 0.08
FDJ85020Q7-S1	B	From Centroid-Leg	4.00 -7.000 0.000	0.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.96 1.09 1.24 1.54	0.36 0.43 0.52 0.71	0.02 0.03 0.04 0.08

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
FDJ85020Q7-S1	C	From Centroid-Leg	4.00 -7.000 0.000	30.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.96 1.09 1.24 1.54	0.36 0.43 0.52 0.71	0.02 0.03 0.04 0.08
RFV01U-D1A	B	From Centroid-Leg	4.00 -7.000 0.000	0.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.25 1.39 1.54 1.86	0.08 0.10 0.12 0.18
(2) RFV01U-D1A	C	From Centroid-Leg	4.00 -7.000 0.000	30.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.25 1.39 1.54 1.86	0.08 0.10 0.12 0.18
(2) RFV01U-D2A	A	From Centroid-Leg	4.00 -7.000 0.000	10.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.01 1.14 1.28 1.59	0.07 0.09 0.11 0.15
RFV01U-D2A	B	From Centroid-Leg	4.00 -7.000 0.000	0.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.01 1.14 1.28 1.59	0.07 0.09 0.11 0.15
Platform Mount [LP 304-1]	C	None		0.000	140.00	No Ice 1/2" Ice 1" Ice 2" Ice	17.49 21.37 25.28 33.17	17.49 21.37 25.28 33.17	1.35 1.71 2.13 3.16
130									
DMP65R-BU6D w/ Mount Pipe	A	From Centroid-Face	4.00 -7.000 0.000	-20.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	11.96 12.70 13.46 15.02	5.97 6.63 7.30 8.69	0.11 0.20 0.30 0.53
DMP65R-BU6D w/ Mount Pipe	B	From Centroid-Face	4.00 7.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	11.96 12.70 13.46 15.02	5.97 6.63 7.30 8.69	0.11 0.20 0.30 0.53
DMP65R-BU6D w/ Mount Pipe	C	From Centroid-Face	4.00 7.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	11.96 12.70 13.46 15.02	5.97 6.63 7.30 8.69	0.11 0.20 0.30 0.53
OPA65R-BU6D w/ Mount Pipe	A	From Centroid-Face	4.00 0.000 0.000	-20.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	12.25 13.00 13.76 15.34	6.05 6.71 7.39 8.79	0.09 0.18 0.27 0.51
OPA65R-BU6D w/ Mount Pipe	B	From Centroid-Face	4.00 0.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	12.25 13.00 13.76 15.34	6.05 6.71 7.39 8.79	0.09 0.18 0.27 0.51
OPA65R-BU6D w/ Mount Pipe	C	From Centroid-Face	4.00 0.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	12.25 13.00 13.76 15.34	6.05 6.71 7.39 8.79	0.09 0.18 0.27 0.51
7770.00 w/ Mount Pipe	A	From Centroid-Face	4.00 7.000 0.000	-20.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.75 6.18 6.61 7.49	4.25 5.01 5.71 7.16	0.06 0.10 0.16 0.29
7770.00 w/ Mount Pipe	B	From Centroid-Face	4.00 -7.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.75 6.18 6.61 7.49	4.25 5.01 5.71 7.16	0.06 0.10 0.16 0.29

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
7770.00 w/ Mount Pipe	C	From Centroid-Face	4.00 -7.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.75 6.18 6.61 7.49	4.25 5.01 5.71 7.16	0.06 0.10 0.16 0.29
RRUS 4449 B5/B12	A	From Centroid-Face	4.00 7.000 0.000	-20.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.14 2.33 2.72	1.41 1.56 1.73 2.07	0.07 0.09 0.11 0.16
RRUS 4449 B5/B12	B	From Centroid-Face	4.00 0.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.14 2.33 2.72	1.41 1.56 1.73 2.07	0.07 0.09 0.11 0.16
RRUS 4449 B5/B12	C	From Centroid-Face	4.00 7.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.97 2.14 2.33 2.72	1.41 1.56 1.73 2.07	0.07 0.09 0.11 0.16
RRUS 4478 B14	A	From Centroid-Face	4.00 0.000 0.000	-20.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.84 2.01 2.19 2.57	1.06 1.20 1.34 1.66	0.06 0.08 0.09 0.14
RRUS 4478 B14	B	From Centroid-Face	4.00 -7.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.84 2.01 2.19 2.57	1.06 1.20 1.34 1.66	0.06 0.08 0.09 0.14
RRUS 4478 B14	C	From Centroid-Face	4.00 0.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.84 2.01 2.19 2.57	1.06 1.20 1.34 1.66	0.06 0.08 0.09 0.14
RRUS 8843 B2/B66A	A	From Centroid-Face	4.00 -7.000 0.000	-20.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.64 1.80 1.97 2.32	1.35 1.50 1.65 1.99	0.07 0.09 0.11 0.16
RRUS 8843 B2/B66A	B	From Centroid-Face	4.00 7.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.64 1.80 1.97 2.32	1.35 1.50 1.65 1.99	0.07 0.09 0.11 0.16
RRUS 8843 B2/B66A	C	From Centroid-Face	4.00 -7.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.64 1.80 1.97 2.32	1.35 1.50 1.65 1.99	0.07 0.09 0.11 0.16
1001940	A	From Centroid-Face	4.00 -7.000 0.000	-20.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.18 0.23 0.30 0.44	0.08 0.13 0.18 0.30	0.00 0.00 0.01 0.01
1001940	B	From Centroid-Face	4.00 7.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.18 0.23 0.30 0.44	0.08 0.13 0.18 0.30	0.00 0.00 0.01 0.01
1001940	C	From Centroid-Face	4.00 -7.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.18 0.23 0.30 0.44	0.08 0.13 0.18 0.30	0.00 0.00 0.01 0.01
DC6-48-60-18-8F	B	From Centroid-Face	4.00 -7.000 0.000	-10.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.21 1.89 2.11 2.57	1.21 1.89 2.11 2.57	0.03 0.05 0.08 0.14
DC6-48-60-18-8F	C	From	4.00	-10.000	130.00	No Ice	1.21	1.21	0.03

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
		Centroid-Face	0.000 0.000			1/2" Ice 1" Ice 2" Ice	1.89 2.11 2.57	1.89 2.11 2.57	0.05 0.08 0.14
2.4" Dia x 4-ft Mount Pipe	A	From Centroid-Face	4.00 0.000 0.000	0.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.87 1.12 1.37 1.91	0.87 1.12 1.37 1.91	0.01 0.02 0.03 0.06
2.4" Dia x 4-ft Mount Pipe	B	From Centroid-Face	4.00 0.000 0.000	0.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.87 1.12 1.37 1.91	0.87 1.12 1.37 1.91	0.01 0.02 0.03 0.06
2.4" Dia x 4-ft Mount Pipe	C	From Centroid-Face	4.00 0.000 0.000	0.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.87 1.12 1.37 1.91	0.87 1.12 1.37 1.91	0.01 0.02 0.03 0.06
Side Arm Mount [SO 102-3]	C	None		0.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.60 4.18 4.75 5.90	3.60 4.18 4.75 5.90	0.07 0.11 0.14 0.20
Side Arm Mount [SO 701-3]	C	None		0.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.02 4.18 5.33 7.63	3.02 4.18 5.33 7.63	0.20 0.24 0.28 0.36
Platform Mount [LP 304-1]	C	None		0.000	130.00	No Ice 1/2" Ice 1" Ice 2" Ice	17.49 21.37 25.28 33.17	17.49 21.37 25.28 33.17	1.35 1.71 2.13 3.16
80 KS24019-L112A	C	From Leg	3.00 0.000 1.000	30.000	80.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.08 0.13 0.19 0.35	0.08 0.13 0.19 0.35	0.01 0.01 0.01 0.02
Side Arm Mount [SO 701-1] ***	C	From Leg	1.50 0.000 0.000	30.000	80.00	No Ice 1/2" Ice 1" Ice 2" Ice	0.85 1.14 1.43 2.01	1.67 2.34 3.01 4.35	0.07 0.08 0.09 0.12

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

Comb. No.	Description
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
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
L1	150 - 145	Pole	Max Tension	26	0.00	-0.00	0.00
			Max. Compression	26	-8.46	0.01	0.00
			Max. Mx	20	-3.12	34.10	-0.00
			Max. My	14	-3.12	0.01	-34.10
			Max. Vy	20	-5.53	34.10	-0.00
			Max. Vx	14	5.53	0.01	-34.10
			Max. Torque	20			-0.00
L2	145 - 140	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-8.85	0.02	0.01
			Max. Mx	20	-3.34	62.35	-0.00
			Max. My	14	-3.34	0.01	-62.35
			Max. Vy	20	-5.78	62.35	-0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	14	5.78	0.01	-62.35
			Max. Torque	20			-0.00
L3	140 - 133.71	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-17.28	-0.52	1.04
			Max. Mx	8	-6.29	-101.17	-0.27
			Max. My	2	-6.32	0.09	101.19
			Max. Vy	20	-10.52	100.84	0.06
			Max. Vx	14	10.58	-0.24	-101.04
			Max. Torque	22			-1.84
L4	133.71 - 131.293	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-18.07	-0.50	1.04
			Max. Mx	8	-6.83	-154.51	-0.51
			Max. My	2	-6.86	0.33	154.70
			Max. Vy	20	-10.82	154.19	0.27
			Max. Vx	14	10.87	-0.45	-154.67
			Max. Torque	22			-1.84
L5	131.293 - 126.293	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-27.03	0.76	-1.15
			Max. Mx	20	-10.40	228.56	-0.25
			Max. My	14	-10.41	-0.10	-229.29
			Max. Vy	20	-16.28	228.56	-0.25
			Max. Vx	14	16.23	-0.10	-229.29
			Max. Torque	22			-1.84
L6	126.293 - 121.293	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-27.78	0.76	-1.14
			Max. Mx	20	-11.04	310.52	-0.48
			Max. My	14	-11.05	0.13	-311.02
			Max. Vy	20	-16.53	310.52	-0.48
			Max. Vx	14	16.48	0.13	-311.02
			Max. Torque	11			-0.83
L7	121.293 - 116.293	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-28.57	0.74	-1.12
			Max. Mx	20	-11.72	393.71	-0.71
			Max. My	14	-11.73	0.35	-393.97
			Max. Vy	20	-16.77	393.71	-0.71
			Max. Vx	14	16.73	0.35	-393.97
			Max. Torque	11			-0.83
L8	116.293 - 111.293	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-29.39	0.72	-1.09
			Max. Mx	20	-12.43	478.12	-0.94
			Max. My	14	-12.44	0.58	-478.14
			Max. Vy	20	-17.02	478.12	-0.94
			Max. Vx	14	16.97	0.58	-478.14
			Max. Torque	11			-0.83
L9	111.293 - 108.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-29.97	0.71	-1.05
			Max. Mx	20	-12.88	530.08	-1.08
			Max. My	14	-12.89	0.71	-529.96
			Max. Vy	20	-17.16	530.08	-1.08
			Max. Vx	14	17.12	0.71	-529.96
			Max. Torque	11			-0.83
L10	108.25 - 108	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-30.04	0.71	-1.04
			Max. Mx	20	-12.95	534.37	-1.10
			Max. My	14	-12.95	0.72	-534.24

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	8	17.18	-533.99	0.03
			Max. Vx	14	17.13	0.72	-534.24
			Max. Torque	11			-0.83
L11	108 - 103	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-31.43	0.70	-0.93
			Max. Mx	20	-13.95	621.64	-1.32
			Max. My	14	-13.96	0.95	-621.27
			Max. Vy	20	-17.74	621.64	-1.32
			Max. Vx	14	17.70	0.95	-621.27
			Max. Torque	11			-0.83
L12	103 - 98	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-32.85	0.69	-0.82
			Max. Mx	20	-14.99	711.70	-1.55
			Max. My	14	-15.00	1.17	-711.10
			Max. Vy	20	-18.31	711.70	-1.55
			Max. Vx	14	18.26	1.17	-711.10
			Max. Torque	11			-0.83
L13	98 - 93	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-34.31	0.68	-0.70
			Max. Mx	20	-16.07	804.60	-1.78
			Max. My	14	-16.07	1.39	-803.77
			Max. Vy	20	-18.88	804.60	-1.78
			Max. Vx	14	18.83	1.39	-803.77
			Max. Torque	11			-0.83
L14	93 - 88.0833	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-34.63	0.67	-0.67
			Max. Mx	20	-16.30	825.11	-1.83
			Max. My	14	-16.31	1.44	-824.22
			Max. Vy	20	-19.00	825.11	-1.83
			Max. Vx	14	18.95	1.44	-824.22
			Max. Torque	11			-0.83
L15	88.0833 - 86.9167	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-37.07	0.66	-0.55
			Max. Mx	20	-18.13	921.80	-2.06
			Max. My	14	-18.14	1.66	-920.68
			Max. Vy	20	-19.68	921.80	-2.06
			Max. Vx	14	19.63	1.66	-920.68
			Max. Torque	11			-0.83
L16	86.9167 - 85.167	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-37.63	0.66	-0.50
			Max. Mx	20	-18.55	956.38	-2.14
			Max. My	14	-18.56	1.74	-955.18
			Max. Vy	20	-19.89	956.38	-2.14
			Max. Vx	14	19.84	1.74	-955.18
			Max. Torque	11			-0.83
L17	85.167 - 84.917	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-37.71	0.66	-0.50
			Max. Mx	20	-18.63	961.35	-2.15
			Max. My	14	-18.64	1.75	-960.13
			Max. Vy	8	19.90	-961.10	1.12
			Max. Vx	14	19.85	1.75	-960.13
			Max. Torque	11			-0.83
L18	84.917 - 79.917	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-39.45	0.96	-0.55
			Max. Mx	20	-19.94	1062.46	-2.49
			Max. My	14	-19.94	2.16	-1060.93
			Max. Vy	20	-20.53	1062.46	-2.49

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	14	20.52	2.16	-1060.93
			Max. Torque	25			1.01
L19	79.917 - 77	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-40.41	0.95	-0.48
			Max. Mx	20	-20.67	1122.80	-2.62
			Max. My	14	-20.67	2.28	-1121.22
			Max. Vy	20	-20.87	1122.80	-2.62
			Max. Vx	14	20.86	2.28	-1121.22
			Max. Torque	25			1.01
L20	77 - 76.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-40.49	0.95	-0.47
			Max. Mx	20	-20.74	1128.01	-2.63
			Max. My	14	-20.75	2.29	-1126.44
			Max. Vy	8	20.89	-1127.41	1.40
			Max. Vx	14	20.87	2.29	-1126.44
			Max. Torque	25			1.01
L21	76.75 - 75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-41.03	0.95	-0.42
			Max. Mx	20	-21.13	1164.72	-2.71
			Max. My	14	-21.14	2.37	-1163.13
			Max. Vy	20	-21.10	1164.72	-2.71
			Max. Vx	14	21.09	2.37	-1163.13
			Max. Torque	25			1.01
L22	75 - 74.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-41.12	0.95	-0.42
			Max. Mx	20	-21.22	1170.00	-2.72
			Max. My	14	-21.22	2.38	-1168.39
			Max. Vy	8	21.11	-1169.41	1.49
			Max. Vx	14	21.10	2.38	-1168.39
			Max. Torque	25			1.01
L23	74.75 - 69.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-42.80	0.93	-0.28
			Max. Mx	20	-22.51	1276.94	-2.95
			Max. My	14	-22.51	2.60	-1275.28
			Max. Vy	8	21.69	-1276.39	1.73
			Max. Vx	14	21.68	2.60	-1275.28
			Max. Torque	25			1.01
L24	69.75 - 65.083	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.41	0.92	-0.15
			Max. Mx	20	-23.77	1378.84	-3.15
			Max. My	14	-23.77	2.80	-1377.12
			Max. Vy	20	-22.01	1378.84	-3.15
			Max. Vx	14	21.99	2.80	-1377.12
			Max. Torque	25			1.01
L25	65.083 - 64.833	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.49	0.92	-0.15
			Max. Mx	20	-23.85	1384.34	-3.17
			Max. My	14	-23.85	2.81	-1382.62
			Max. Vy	8	22.02	-1383.82	1.97
			Max. Vx	14	22.00	2.81	-1382.62
			Max. Torque	25			1.01
L26	64.833 - 59.833	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-46.24	0.91	-0.00
			Max. Mx	20	-25.22	1495.19	-3.39
			Max. My	14	-25.22	3.03	-1493.40
			Max. Vy	8	22.35	-1494.70	2.21
			Max. Vx	14	22.34	3.03	-1493.40
			Max. Torque	25			1.01
L27	59.833 -	Pole	Max Tension	1	0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
	54.833						
			Max. Compression	26	-48.03	0.89	0.14
			Max. Mx	20	-26.62	1607.65	-3.61
			Max. My	14	-26.62	3.24	-1605.81
			Max. Vy	8	22.67	-1607.21	2.45
			Max. Vx	14	22.66	3.24	-1605.81
			Max. Torque	25			1.01
L28	54.833 - 49.833	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-49.84	0.88	0.29
			Max. Mx	20	-28.06	1721.71	-3.83
			Max. My	14	-28.06	3.45	-1719.81
			Max. Vy	8	22.99	-1721.30	2.70
			Max. Vx	14	22.97	3.45	-1719.81
			Max. Torque	25			1.01
L29	49.833 - 43.4967	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-50.33	0.87	0.33
			Max. Mx	20	-28.44	1752.46	-3.89
			Max. My	14	-28.44	3.51	-1750.54
			Max. Vy	8	23.07	-1752.06	2.76
			Max. Vx	14	23.06	3.51	-1750.54
			Max. Torque	25			1.01
L30	43.4967 - 42.4967	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-54.04	0.86	0.51
			Max. Mx	20	-31.35	1892.27	-4.15
			Max. My	14	-31.35	3.76	-1890.28
			Max. Vy	8	23.55	-1891.92	3.05
			Max. Vx	14	23.53	3.76	-1890.28
			Max. Torque	25			1.01
L31	42.4967 - 37.4967	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-55.91	0.84	0.67
			Max. Mx	20	-32.84	2010.58	-4.37
			Max. My	14	-32.84	3.97	-2008.54
			Max. Vy	8	23.82	-2010.27	3.29
			Max. Vx	14	23.81	3.97	-2008.54
			Max. Torque	25			1.01
L32	37.4967 - 33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-57.61	0.83	0.80
			Max. Mx	20	-34.21	2118.11	-4.56
			Max. My	14	-34.21	4.16	-2116.02
			Max. Vy	8	24.05	-2117.84	3.51
			Max. Vx	14	24.04	4.16	-2116.02
			Max. Torque	25			1.01
L33	33 - 32.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-57.71	0.83	0.81
			Max. Mx	20	-34.31	2124.12	-4.57
			Max. My	14	-34.31	4.17	-2122.02
			Max. Vy	8	24.06	-2123.85	3.52
			Max. Vx	14	24.04	4.17	-2122.02
			Max. Torque	25			1.00
L34	32.75 - 32	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-58.04	0.82	0.83
			Max. Mx	20	-34.57	2142.17	-4.60
			Max. My	14	-34.57	4.20	-2140.06
			Max. Vy	8	24.10	-2141.91	3.56
			Max. Vx	14	24.09	4.20	-2140.06
			Max. Torque	25			1.00
L35	32 - 31.75	Pole	Max Tension	1	0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	26	-58.14	0.82	0.84
			Max. Mx	20	-34.65	2148.19	-4.61
			Max. My	14	-34.65	4.21	-2146.08
			Max. Vy	8	24.11	-2147.93	3.57
			Max. Vx	14	24.10	4.21	-2146.08
			Max. Torque	25			1.00
L36	31.75 - 30	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-58.85	0.82	0.90
			Max. Mx	20	-35.22	2190.45	-4.69
			Max. My	14	-35.22	4.28	-2188.32
			Max. Vy	8	24.22	-2190.21	3.65
			Max. Vx	14	24.21	4.28	-2188.32
			Max. Torque	25			1.00
L37	30 - 29.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-58.96	0.82	0.90
			Max. Mx	20	-35.32	2196.50	-4.70
			Max. My	14	-35.32	4.29	-2194.37
			Max. Vy	8	24.22	-2196.26	3.67
			Max. Vx	14	24.20	4.29	-2194.37
			Max. Torque	25			1.00
L38	29.75 - 24.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.06	0.80	0.98
			Max. Mx	20	-36.99	2318.17	-4.91
			Max. My	14	-36.99	4.49	-2315.98
			Max. Vy	8	24.48	-2317.97	3.91
			Max. Vx	14	24.47	4.49	-2315.98
			Max. Torque	25			1.00
L39	24.75 - 19.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-63.18	0.78	1.06
			Max. Mx	20	-38.69	2441.13	-5.12
			Max. My	14	-38.69	4.70	-2438.88
			Max. Vy	8	24.74	-2440.98	4.15
			Max. Vx	14	24.73	4.70	-2438.88
			Max. Torque	25			1.00
L40	19.75 - 14.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-65.32	0.76	1.15
			Max. Mx	20	-40.42	2565.37	-5.33
			Max. My	14	-40.42	4.90	-2563.07
			Max. Vy	8	25.00	-2565.27	4.39
			Max. Vx	14	24.99	4.90	-2563.07
			Max. Torque	25			1.00
L41	14.75 - 9.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-67.48	0.74	1.23
			Max. Mx	20	-42.18	2690.91	-5.53
			Max. My	14	-42.18	5.09	-2688.56
			Max. Vy	8	25.26	-2690.86	4.63
			Max. Vx	14	25.25	5.09	-2688.56
			Max. Torque	25			1.00
L42	9.75 - 4.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-69.65	0.72	1.30
			Max. Mx	20	-43.96	2817.75	-5.74
			Max. My	14	-43.96	5.29	-2815.35
			Max. Vy	8	25.52	-2817.75	4.87
			Max. Vx	14	25.51	5.29	-2815.35
			Max. Torque	25			1.00
L43	4.75 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-71.68	0.70	1.37
			Max. Mx	8	-45.68	-2939.51	5.09
			Max. My	14	-45.68	5.47	-2937.02
			Max. Vy	18	-25.84	2690.58	-1555.57
			Max. Vx	16	25.84	1556.99	-2689.24

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Torque	25			1.00

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	26	71.68	0.00	-0.00
	Max. H_x	19	34.27	25.82	-14.93
	Max. H_z	3	34.27	-0.04	23.97
	Max. M_x	2	2772.87	-0.04	23.97
	Max. M_z	8	2939.51	-25.75	0.04
	Max. Torsion	25	1.00	12.76	22.14
	Min. Vert	25	34.27	12.76	22.14
	Min. H_x	10	45.70	-25.78	-14.85
	Min. H_z	16	45.70	14.94	-25.82
	Min. M_x	14	-2937.02	0.04	-25.74
	Min. M_z	20	-2939.47	25.75	-0.04
	Min. Torsion	13	-1.00	-14.86	-25.77

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	38.08	0.00	0.00	0.31	-0.03	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	45.70	0.04	-23.97	-2772.87	-5.55	-0.77
0.9 Dead+1.0 Wind 0 deg - No Ice	34.27	0.04	-23.97	-2727.99	-5.46	-0.78
1.2 Dead+1.0 Wind 30 deg - No Ice	45.70	12.84	-22.19	-2425.51	-1405.29	-0.34
0.9 Dead+1.0 Wind 30 deg - No Ice	34.27	12.84	-22.19	-2386.56	-1382.65	-0.34
1.2 Dead+1.0 Wind 60 deg - No Ice	45.70	23.41	-13.54	-1470.75	-2545.19	0.18
0.9 Dead+1.0 Wind 60 deg - No Ice	34.27	23.41	-13.54	-1447.49	-2504.73	0.19
1.2 Dead+1.0 Wind 90 deg - No Ice	45.70	25.75	-0.04	-5.09	-2939.51	0.65
0.9 Dead+1.0 Wind 90 deg - No Ice	34.27	25.75	-0.04	-5.13	-2892.65	0.67
1.2 Dead+1.0 Wind 120 deg - No Ice	45.70	25.78	14.85	1546.04	-2685.17	0.95
0.9 Dead+1.0 Wind 120 deg - No Ice	34.27	25.78	14.85	1522.00	-2643.60	0.96
1.2 Dead+1.0 Wind 150 deg - No Ice	45.70	14.86	25.77	2683.04	-1547.12	0.99
0.9 Dead+1.0 Wind 150 deg - No Ice	34.27	14.86	25.77	2641.40	-1523.17	1.00
1.2 Dead+1.0 Wind 180 deg - No Ice	45.70	-0.04	25.74	2937.02	5.47	0.76
0.9 Dead+1.0 Wind 180 deg -	34.27	-0.04	25.74	2890.08	5.40	0.77

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*
No Ice						
1.2 Dead+1.0 Wind 210 deg - No Ice	45.70	-14.94	25.82	2689.24	1556.99	0.34
0.9 Dead+1.0 Wind 210 deg - No Ice	34.27	-14.94	25.82	2647.52	1532.90	0.34
1.2 Dead+1.0 Wind 240 deg - No Ice	45.70	-25.82	14.93	1555.57	2690.58	-0.18
0.9 Dead+1.0 Wind 240 deg - No Ice	34.27	-25.82	14.93	1531.39	2648.94	-0.19
1.2 Dead+1.0 Wind 270 deg - No Ice	45.70	-25.75	0.04	5.93	2939.47	-0.65
0.9 Dead+1.0 Wind 270 deg - No Ice	34.27	-25.75	0.04	5.73	2892.60	-0.66
1.2 Dead+1.0 Wind 300 deg - No Ice	45.70	-23.37	-13.46	-1461.24	2539.66	-0.94
0.9 Dead+1.0 Wind 300 deg - No Ice	34.27	-23.37	-13.46	-1438.12	2499.28	-0.96
1.2 Dead+1.0 Wind 330 deg - No Ice	45.70	-12.76	-22.14	-2419.32	1395.27	-0.99
0.9 Dead+1.0 Wind 330 deg - No Ice	34.27	-12.76	-22.14	-2380.45	1372.79	-1.00
1.2 Dead+1.0 Ice+1.0 Temp	71.68	-0.00	0.00	-1.37	0.70	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	71.68	0.01	-5.19	-618.74	0.16	-0.12
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	71.68	2.60	-4.50	-536.45	-308.41	-0.07
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	71.68	4.50	-2.60	-310.93	-534.50	-0.00
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	71.68	5.19	-0.01	-2.09	-617.06	0.07
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	71.68	4.54	2.62	309.03	-537.48	0.12
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	71.68	2.62	4.54	536.97	-309.58	0.14
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	71.68	-0.01	5.19	616.56	1.50	0.12
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	71.68	-2.63	4.55	537.64	312.39	0.07
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	71.68	-4.54	2.63	310.19	539.80	0.00
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	71.68	-5.19	0.01	-0.75	618.72	-0.07
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	71.68	-4.49	-2.59	-309.77	535.50	-0.12
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	71.68	-2.59	-4.49	-535.78	308.91	-0.14
Dead+Wind 0 deg - Service	38.08	0.01	-4.46	-511.71	-1.04	-0.15
Dead+Wind 30 deg - Service	38.08	2.39	-4.13	-447.60	-259.50	-0.06
Dead+Wind 60 deg - Service	38.08	4.36	-2.52	-271.35	-470.08	0.03
Dead+Wind 90 deg - Service	38.08	4.79	-0.01	-0.66	-542.90	0.12
Dead+Wind 120 deg - Service	38.08	4.80	2.76	285.88	-496.05	0.18
Dead+Wind 150 deg - Service	38.08	2.77	4.80	495.92	-285.82	0.19
Dead+Wind 180 deg - Service	38.08	-0.01	4.79	542.70	1.00	0.15
Dead+Wind 210 deg - Service	38.08	-2.78	4.81	497.08	287.62	0.06
Dead+Wind 240 deg - Service	38.08	-4.81	2.78	287.65	497.03	-0.03
Dead+Wind 270 deg - Service	38.08	-4.79	0.01	1.37	542.87	-0.12
Dead+Wind 300 deg - Service	38.08	-4.35	-2.51	-269.59	469.03	-0.18
Dead+Wind 330 deg - Service	38.08	-2.38	-4.12	-446.45	257.63	-0.19

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
1	0.00	-38.08	0.00	0.00	38.08	0.00	0.000%
2	0.04	-45.70	-23.97	-0.04	45.70	23.97	0.000%
3	0.04	-34.27	-23.97	-0.04	34.27	23.97	0.000%
4	12.84	-45.70	-22.19	-12.84	45.70	22.19	0.000%
5	12.84	-34.27	-22.19	-12.84	34.27	22.19	0.000%
6	23.41	-45.70	-13.54	-23.41	45.70	13.54	0.000%
7	23.41	-34.27	-13.54	-23.41	34.27	13.54	0.000%
8	25.75	-45.70	-0.04	-25.75	45.70	0.04	0.000%
9	25.75	-34.27	-0.04	-25.75	34.27	0.04	0.000%
10	25.78	-45.70	14.85	-25.78	45.70	-14.85	0.000%
11	25.78	-34.27	14.85	-25.78	34.27	-14.85	0.000%
12	14.86	-45.70	25.77	-14.86	45.70	-25.77	0.000%
13	14.86	-34.27	25.77	-14.86	34.27	-25.77	0.000%
14	-0.04	-45.70	25.74	0.04	45.70	-25.74	0.000%
15	-0.04	-34.27	25.74	0.04	34.27	-25.74	0.000%
16	-14.94	-45.70	25.82	14.94	45.70	-25.82	0.000%
17	-14.94	-34.27	25.82	14.94	34.27	-25.82	0.000%
18	-25.82	-45.70	14.93	25.82	45.70	-14.93	0.000%
19	-25.82	-34.27	14.93	25.82	34.27	-14.93	0.000%
20	-25.75	-45.70	0.04	25.75	45.70	-0.04	0.000%
21	-25.75	-34.27	0.04	25.75	34.27	-0.04	0.000%
22	-23.37	-45.70	-13.46	23.37	45.70	13.46	0.000%
23	-23.37	-34.27	-13.46	23.37	34.27	13.46	0.000%
24	-12.76	-45.70	-22.14	12.76	45.70	22.14	0.000%
25	-12.76	-34.27	-22.14	12.76	34.27	22.14	0.000%
26	0.00	-71.68	0.00	0.00	71.68	-0.00	0.000%
27	0.01	-71.68	-5.19	-0.01	71.68	5.19	0.000%
28	2.60	-71.68	-4.50	-2.60	71.68	4.50	0.000%
29	4.50	-71.68	-2.60	-4.50	71.68	2.60	0.000%
30	5.19	-71.68	-0.01	-5.19	71.68	0.01	0.000%
31	4.54	-71.68	2.62	-4.54	71.68	-2.62	0.000%
32	2.62	-71.68	4.54	-2.62	71.68	-4.54	0.000%
33	-0.01	-71.68	5.19	0.01	71.68	-5.19	0.000%
34	-2.63	-71.68	4.55	2.63	71.68	-4.55	0.000%
35	-4.54	-71.68	2.63	4.54	71.68	-2.63	0.000%
36	-5.19	-71.68	0.01	5.19	71.68	-0.01	0.000%
37	-4.49	-71.68	-2.59	4.49	71.68	2.59	0.000%
38	-2.59	-71.68	-4.49	2.59	71.68	4.49	0.000%
39	0.01	-38.08	-4.46	-0.01	38.08	4.46	0.000%
40	2.39	-38.08	-4.13	-2.39	38.08	4.13	0.000%
41	4.36	-38.08	-2.52	-4.36	38.08	2.52	0.000%
42	4.79	-38.08	-0.01	-4.79	38.08	0.01	0.000%
43	4.80	-38.08	2.76	-4.80	38.08	-2.76	0.000%
44	2.77	-38.08	4.80	-2.77	38.08	-4.80	0.000%
45	-0.01	-38.08	4.79	0.01	38.08	-4.79	0.000%
46	-2.78	-38.08	4.81	2.78	38.08	-4.81	0.000%
47	-4.81	-38.08	2.78	4.81	38.08	-2.78	0.000%
48	-4.79	-38.08	0.01	4.79	38.08	-0.01	0.000%
49	-4.35	-38.08	-2.51	4.35	38.08	2.51	0.000%
50	-2.38	-38.08	-4.12	2.38	38.08	4.12	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	6	0.00000001	0.00007681
3	Yes	5	0.00000001	0.00048210
4	Yes	7	0.00000001	0.00029827
5	Yes	7	0.00000001	0.00006612
6	Yes	7	0.00000001	0.00031456
7	Yes	7	0.00000001	0.00006866
8	Yes	5	0.00000001	0.00092835
9	Yes	5	0.00000001	0.00041961
10	Yes	7	0.00000001	0.00032829
11	Yes	7	0.00000001	0.00007094
12	Yes	7	0.00000001	0.00031776
13	Yes	7	0.00000001	0.00006815
14	Yes	6	0.00000001	0.00011696
15	Yes	5	0.00000001	0.00073348
16	Yes	7	0.00000001	0.00032650
17	Yes	7	0.00000001	0.00007024
18	Yes	7	0.00000001	0.00032573
19	Yes	7	0.00000001	0.00007003
20	Yes	6	0.00000001	0.00010894
21	Yes	5	0.00000001	0.00067959
22	Yes	7	0.00000001	0.00030856
23	Yes	7	0.00000001	0.00006726
24	Yes	7	0.00000001	0.00030329
25	Yes	7	0.00000001	0.00006771
26	Yes	4	0.00000001	0.00017627
27	Yes	7	0.00000001	0.00043072
28	Yes	7	0.00000001	0.00052741
29	Yes	7	0.00000001	0.00052842
30	Yes	7	0.00000001	0.00043021
31	Yes	7	0.00000001	0.00053144
32	Yes	7	0.00000001	0.00052966
33	Yes	7	0.00000001	0.00043201
34	Yes	7	0.00000001	0.00053571
35	Yes	7	0.00000001	0.00053517
36	Yes	7	0.00000001	0.00043297
37	Yes	7	0.00000001	0.00052958
38	Yes	7	0.00000001	0.00053086
39	Yes	5	0.00000001	0.00009091
40	Yes	5	0.00000001	0.00049328
41	Yes	5	0.00000001	0.00054280
42	Yes	5	0.00000001	0.00009185
43	Yes	5	0.00000001	0.00061553
44	Yes	5	0.00000001	0.00055967
45	Yes	5	0.00000001	0.00009639
46	Yes	5	0.00000001	0.00060273
47	Yes	5	0.00000001	0.00059887
48	Yes	5	0.00000001	0.00009398
49	Yes	5	0.00000001	0.00051963
50	Yes	5	0.00000001	0.00052635

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 145	25.185	46	1.763	0.002

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L2	145 - 140	23.352	46	1.734	0.002
L3	140 - 133.71	21.564	46	1.679	0.002
L4	136.293 - 131.293	20.281	46	1.623	0.002
L5	131.293 - 126.293	18.605	46	1.570	0.002
L6	126.293 - 121.293	17.002	46	1.490	0.002
L7	121.293 - 116.293	15.491	46	1.395	0.002
L8	116.293 - 111.293	14.084	46	1.291	0.001
L9	111.293 - 108.25	12.789	46	1.182	0.001
L10	108.25 - 108	12.057	46	1.115	0.001
L11	108 - 103	11.999	46	1.112	0.001
L12	103 - 98	10.866	46	1.053	0.001
L13	98 - 93	9.795	46	0.993	0.001
L14	93 - 88.0833	8.786	46	0.933	0.001
L15	91.9167 - 86.9167	8.576	46	0.920	0.001
L16	86.9167 - 85.167	7.629	46	0.883	0.001
L17	85.167 - 84.917	7.309	46	0.864	0.001
L18	84.917 - 79.917	7.264	46	0.861	0.001
L19	79.917 - 77	6.393	46	0.802	0.001
L20	77 - 76.75	5.914	46	0.769	0.001
L21	76.75 - 75	5.873	46	0.765	0.001
L22	75 - 74.75	5.597	46	0.743	0.001
L23	74.75 - 69.75	5.558	46	0.740	0.001
L24	69.75 - 65.083	4.813	46	0.683	0.000
L25	65.083 - 64.833	4.172	46	0.630	0.000
L26	64.833 - 59.833	4.139	46	0.627	0.000
L27	59.833 - 54.833	3.511	46	0.572	0.000
L28	54.833 - 49.833	2.941	46	0.517	0.000
L29	49.833 - 43.4967	2.428	46	0.463	0.000
L30	48.4967 - 42.4967	2.301	46	0.449	0.000
L31	42.4967 - 37.4967	1.758	46	0.411	0.000
L32	37.4967 - 33	1.357	46	0.356	0.000
L33	33 - 32.75	1.045	46	0.307	0.000
L34	32.75 - 32	1.029	46	0.305	0.000
L35	32 - 31.75	0.981	46	0.299	0.000
L36	31.75 - 30	0.966	46	0.296	0.000
L37	30 - 29.75	0.860	46	0.279	0.000
L38	29.75 - 24.75	0.846	46	0.277	0.000
L39	24.75 - 19.75	0.581	46	0.228	0.000
L40	19.75 - 14.75	0.368	46	0.180	0.000
L41	14.75 - 9.75	0.204	46	0.133	0.000
L42	9.75 - 4.75	0.088	46	0.087	0.000
L43	4.75 - 0	0.021	46	0.042	0.000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
150.00	AIR6449 B41_T-MOBILE	46	25.185	1.763	0.002	6654
140.00	(2) JAHH-65B-R3B w/ Mount Pipe	46	21.564	1.679	0.002	4475
130.00	DMP65R-BU6D w/ Mount Pipe	46	18.183	1.553	0.002	3859
80.00	KS24019-L112A	46	6.407	0.803	0.001	4900

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 145	135.827	18	9.538	0.008
L2	145 - 140	125.985	18	9.380	0.008
L3	140 - 133.71	116.381	18	9.083	0.008
L4	136.293 - 131.293	109.492	18	8.776	0.008
L5	131.293 - 126.293	100.488	18	8.489	0.012
L6	126.293 - 121.293	91.869	18	8.058	0.011
L7	121.293 - 116.293	83.737	18	7.547	0.009
L8	116.293 - 111.293	76.159	18	6.988	0.008
L9	111.293 - 108.25	69.174	18	6.402	0.006
L10	108.25 - 108	65.223	18	6.038	0.006
L11	108 - 103	64.908	18	6.023	0.005
L12	103 - 98	58.786	18	5.704	0.005
L13	98 - 93	52.999	18	5.380	0.004
L14	93 - 88.0833	47.549	18	5.053	0.004
L15	91.9167 - 86.9167	46.413	18	4.983	0.004
L16	86.9167 - 85.167	41.293	18	4.786	0.004
L17	85.167 - 84.917	39.562	18	4.679	0.003
L18	84.917 - 79.917	39.318	18	4.663	0.003
L19	79.917 - 77	34.609	18	4.348	0.003
L20	77 - 76.75	32.013	18	4.165	0.003
L21	76.75 - 75	31.796	18	4.147	0.003
L22	75 - 74.75	30.300	18	4.025	0.003
L23	74.75 - 69.75	30.090	18	4.010	0.003
L24	69.75 - 65.083	26.059	18	3.700	0.002
L25	65.083 - 64.833	22.588	18	3.412	0.002
L26	64.833 - 59.833	22.410	18	3.397	0.002
L27	59.833 - 54.833	19.013	18	3.098	0.002
L28	54.833 - 49.833	15.927	18	2.802	0.002
L29	49.833 - 43.4967	13.149	18	2.507	0.001
L30	48.4967 - 42.4967	12.459	18	2.430	0.001
L31	42.4967 - 37.4967	9.519	18	2.224	0.001
L32	37.4967 - 33	7.348	18	1.926	0.001
L33	33 - 32.75	5.657	18	1.665	0.001
L34	32.75 - 32	5.571	18	1.653	0.001
L35	32 - 31.75	5.314	18	1.618	0.001
L36	31.75 - 30	5.229	18	1.605	0.001
L37	30 - 29.75	4.658	18	1.513	0.001
L38	29.75 - 24.75	4.579	18	1.500	0.001
L39	24.75 - 19.75	3.148	18	1.235	0.001
L40	19.75 - 14.75	1.991	18	0.976	0.000
L41	14.75 - 9.75	1.103	18	0.721	0.000
L42	9.75 - 4.75	0.479	18	0.473	0.000
L43	4.75 - 0	0.113	18	0.227	0.000

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
150.00	AIR6449 B41_T-MOBILE	18	135.827	9.538	0.008	1294
140.00	(2) JAHH-65B-R3B w/ Mount Pipe	18	116.381	9.083	0.008	870
130.00	DMP65R-BU6D w/ Mount Pipe	18	98.218	8.395	0.012	745
80.00	KS24019-L112A	18	34.685	4.353	0.003	916

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	150 - 145 (1)	TP14.12x13x0.188	5.00	0.00	0.0	8.292	-3.11	485.07	0.006
L2	145 - 140 (2)	TP15.241x14.12x0.188	5.00	0.00	0.0	8.958	-3.33	524.07	0.006
L3	140 - 133.71 (3)	TP16.65x15.241x0.188	6.29	0.00	0.0	9.453	-6.26	552.99	0.011
L4	133.71 - 131.293 (4)	TP16.804x15.696x0.313	5.00	0.00	0.0	16.358	-6.80	956.93	0.007
L5	131.293 - 126.293 (5)	TP17.912x16.804x0.313	5.00	0.00	0.0	17.457	-10.38	1021.22	0.010
L6	126.293 - 121.293 (6)	TP19.02x17.912x0.313	5.00	0.00	0.0	18.556	-11.00	1085.52	0.010
L7	121.293 - 116.293 (7)	TP20.128x19.02x0.313	5.00	0.00	0.0	19.655	-11.68	1149.81	0.010
L8	116.293 - 111.293 (8)	TP21.236x20.128x0.313	5.00	0.00	0.0	20.754	-12.39	1214.10	0.010
L9	111.293 - 108.25 (9)	TP21.911x21.236x0.313	3.04	0.00	0.0	21.423	-12.83	1253.24	0.010
L10	108.25 - 108 (10)	TP21.966x21.911x0.638	0.25	0.00	0.0	43.157	-12.89	2524.69	0.005
L11	108 - 103 (11)	TP23.074x21.966x0.613	5.00	0.00	0.0	43.667	-13.90	2554.55	0.005
L12	103 - 98 (12)	TP24.182x23.074x0.6	5.00	0.00	0.0	44.910	-14.94	2627.25	0.006
L13	98 - 93 (13)	TP25.29x24.182x0.588	5.00	0.00	0.0	46.064	-16.01	2694.75	0.006
L14	93 - 88.0833 (14)	TP26.38x25.29x0.588	4.92	0.00	0.0	46.512	-16.24	2720.94	0.006
L15	88.0833 - 86.9167 (15)	TP26.012x24.905x0.638	5.00	0.00	0.0	51.343	-18.07	3003.58	0.006
L16	86.9167 - 85.167 (16)	TP26.399x26.012x0.638	1.75	0.00	0.0	52.127	-18.49	3049.41	0.006
L17	85.167 - 84.917 (17)	TP26.454x26.399x0.638	0.25	0.00	0.0	52.239	-18.57	3055.96	0.006
L18	84.917 - 79.917 (18)	TP27.561x26.454x0.625	5.00	0.00	0.0	53.434	-19.87	3125.88	0.006
L19	79.917 - 77 (19)	TP28.206x27.561x0.613	2.92	0.00	0.0	53.644	-20.61	3138.20	0.007
L20	77 - 76.75 (20)	TP28.262x28.206x0.538	0.25	0.00	0.0	47.298	-20.68	2766.93	0.007
L21	76.75 - 75 (21)	TP28.649x28.262x0.531	1.75	0.00	0.0	47.412	-21.07	2773.58	0.008
L22	75 - 74.75 (22)	TP28.704x28.649x0.613	0.25	0.00	0.0	54.612	-21.16	3194.82	0.007
L23	74.75 - 69.75 (23)	TP29.811x28.704x0.6	5.00	0.00	0.0	55.629	-22.45	3254.28	0.007
L24	69.75 - 65.083 (24)	TP30.843x29.811x0.588	4.67	0.00	0.0	56.419	-23.69	3300.50	0.007
L25	65.083 - 64.833 (25)	TP30.899x30.843x0.588	0.25	0.00	0.0	56.522	-23.77	3306.53	0.007
L26	64.833 - 59.833 (26)	TP32.005x30.899x0.588	5.00	0.00	0.0	58.585	-25.13	3427.23	0.007
L27	59.833 - 54.833 (27)	TP33.111x32.005x0.575	5.00	0.00	0.0	59.381	-26.53	3473.77	0.008
L28	54.833 - 49.833 (28)	TP34.218x33.111x0.563	5.00	0.00	0.0	60.088	-27.96	3515.12	0.008
L29	49.833 - 43.4967 (29)	TP35.62x34.218x0.563	6.34	0.00	0.0	60.615	-28.34	3546.00	0.008
L30	43.4967 - 42.4967 (30)	TP35.092x33.764x0.563	6.00	0.00	0.0	61.648	-31.24	3606.40	0.009
L31	42.4967 - 37.4967 (31)	TP36.199x35.092x0.55	5.00	0.00	0.0	62.232	-32.74	3640.58	0.009
L32	37.4967 - 33 (32)	TP37.194x36.199x0.55	4.50	0.00	0.0	63.535	-33.79	3716.83	0.009
L33	33 - 32.75 (33)	TP37.25x37.194x0.663	0.25	0.00	0.0	76.818	-34.13	4493.86	0.008
L34	32.75 - 32 (34)	TP37.416x37.25x0.663	0.75	0.00	0.0	76.935	-34.22	4500.67	0.008
L35	32 - 31.75 (35)	TP37.471x37.416x0.588	0.25	0.00	0.0	68.674	-34.48	4017.46	0.009
L36	31.75 - 30 (36)	TP37.858x37.471x0.588	1.75	0.00	0.0	68.778	-34.58	4023.49	0.009
L37	30 - 29.75 (37)	TP37.914x37.858x0.588	0.25	0.00	0.0	69.500	-35.15	4065.76	0.009
L38	29.75 - 24.75 (38)	TP39.021x37.914x0.575	5.00	0.00	0.0	68.145	-35.24	3986.49	0.009
L39	24.75 - 19.75 (39)	TP40.128x39.021x0.569	5.00	0.00	0.0	69.414	-36.93	4060.72	0.009
L40	19.75 - 14.75 (40)	TP41.235x40.128x0.563	5.00	0.00	0.0	70.639	-38.64	4132.36	0.009
L41	14.75 - 9.75 (41)	TP42.342x41.235x0.563	5.00	0.00	0.0	72.615	-40.39	4247.97	0.010
L42	9.75 - 4.75 (42)	TP43.448x42.342x0.55	5.00	0.00	0.0	72.955	-42.16	4267.89	0.010
L43	4.75 - 0 (43)	TP44.5x43.448x0.55	4.75	0.00	0.0	74.888	-43.97	4380.94	0.010

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	150 - 145 (1)	TP14.12x13x0.188	34.13	175.52	0.194	0.00	175.52	0.000
L2	145 - 140 (2)	TP15.241x14.12x0.188	62.42	205.09	0.304	0.00	205.09	0.000
L3	140 - 133.71 (3)	TP16.65x15.241x0.188	101.36	228.49	0.444	0.00	228.49	0.000
L4	133.71 - 131.293 (4)	TP16.804x15.696x0.313	155.16	407.65	0.381	0.00	407.65	0.000
L5	131.293 - 126.293 (5)	TP17.912x16.804x0.313	229.51	464.81	0.494	0.00	464.81	0.000
L6	126.293 - 121.293 (6)	TP19.02x17.912x0.313	311.36	525.73	0.592	0.00	525.73	0.000
L7	121.293 - 116.293 (7)	TP20.128x19.02x0.313	394.71	590.39	0.669	0.00	590.39	0.000
L8	116.293 - 111.293 (8)	TP21.236x20.128x0.313	479.29	658.80	0.728	0.00	658.80	0.000
L9	111.293 - 108.25 (9)	TP21.911x21.236x0.313	531.55	702.28	0.757	0.00	702.28	0.000
L10	108.25 - 108 (10)	TP21.966x21.911x0.638	535.89	1376.19	0.389	0.00	1376.19	0.000
L11	108 - 103 (11)	TP23.074x21.966x0.613	624.14	1470.18	0.425	0.00	1470.18	0.000
L12	103 - 98 (12)	TP24.182x23.074x0.6	715.33	1590.28	0.450	0.00	1590.28	0.000
L13	98 - 93 (13)	TP25.29x24.182x0.588	809.48	1711.42	0.473	0.00	1711.42	0.000
L14	93 - 88.0833 (14)	TP26.38x25.29x0.588	830.28	1745.23	0.476	0.00	1745.23	0.000
L15	88.0833 - 86.9167 (15)	TP26.012x24.905x0.638	928.39	1956.83	0.474	0.00	1956.83	0.000
L16	86.9167 - 85.167 (16)	TP26.399x26.012x0.638	963.50	2017.75	0.478	0.00	2017.75	0.000
L17	85.167 - 84.917 (17)	TP26.454x26.399x0.638	968.55	2026.53	0.478	0.00	2026.53	0.000
L18	84.917 - 79.917 (18)	TP27.561x26.454x0.625	1071.30	2165.89	0.495	0.00	2165.89	0.000
L19	79.917 - 77 (19)	TP28.206x27.561x0.613	1132.65	2229.73	0.508	0.00	2229.73	0.000
L20	77 - 76.75 (20)	TP28.262x28.206x0.538	1137.96	1980.68	0.575	0.00	1980.68	0.000
L21	76.75 - 75 (21)	TP28.649x28.262x0.531	1175.30	2014.58	0.583	0.00	2014.58	0.000
L22	75 - 74.75 (22)	TP28.704x28.649x0.613	1180.67	2311.82	0.511	0.00	2311.82	0.000
L23	74.75 - 69.75 (23)	TP29.811x28.704x0.6	1289.52	2451.67	0.526	0.00	2451.67	0.000
L24	69.75 - 65.083 (24)	TP30.843x29.811x0.588	1393.83	2578.29	0.541	0.00	2578.29	0.000
L25	65.083 - 64.833 (25)	TP30.899x30.843x0.588	1399.49	2587.82	0.541	0.00	2587.82	0.000
L26	64.833 - 59.833 (26)	TP32.005x30.899x0.588	1514.28	2782.05	0.544	0.00	2782.05	0.000
L27	59.833 - 54.833 (27)	TP33.111x32.005x0.575	1632.03	2923.21	0.558	0.00	2923.21	0.000
L28	54.833 - 49.833 (28)	TP34.218x33.111x0.563	1752.72	3062.61	0.572	0.00	3062.61	0.000
L29	49.833 - 43.4967 (29)	TP35.62x34.218x0.563	1785.47	3117.11	0.573	0.00	3117.11	0.000
L30	43.4967 - 42.4967 (30)	TP35.092x33.764x0.563	1935.44	3225.09	0.600	0.00	3225.09	0.000
L31	42.4967 - 37.4967 (31)	TP36.199x35.092x0.55	2063.68	3364.05	0.613	0.00	3364.05	0.000
L32	37.4967 - 33 (32)	TP37.194x36.199x0.55	2151.64	3507.53	0.613	0.00	3507.53	0.000
L33	33 - 32.75 (33)	TP37.25x37.194x0.663	2181.22	4244.07	0.514	0.00	4244.07	0.000
L34	32.75 - 32 (34)	TP37.416x37.25x0.663	2187.82	4257.05	0.514	0.00	4257.05	0.000
L35	32 - 31.75 (35)	TP37.471x37.416x0.588	2207.66	3833.13	0.576	0.00	3833.13	0.000
L36	31.75 - 30 (36)	TP37.858x37.471x0.588	2214.28	3844.76	0.576	0.00	3844.76	0.000
L37	30 - 29.75 (37)	TP37.914x37.858x0.588	2260.82	3926.59	0.576	0.00	3926.59	0.000
L38	29.75 - 24.75 (38)	TP39.021x37.914x0.575	2267.50	3858.43	0.588	0.00	3858.43	0.000
L39	24.75 - 19.75 (39)	TP40.128x39.021x0.569	2402.32	4049.88	0.593	0.00	4049.88	0.000
L40	19.75 - 14.75 (40)	TP41.235x40.128x0.563	2539.70	4243.03	0.599	0.00	4243.03	0.000
L41	14.75 - 9.75 (41)	TP42.342x41.235x0.563	2679.67	4485.48	0.597	0.00	4485.48	0.000
L42	9.75 - 4.75 (42)	TP43.448x42.342x0.55	2822.24	4633.61	0.609	0.00	4633.61	0.000
L43	4.75 - 0 (43)	TP44.5x43.448x0.55	2967.47	4883.96	0.608	0.00	4883.96	0.000

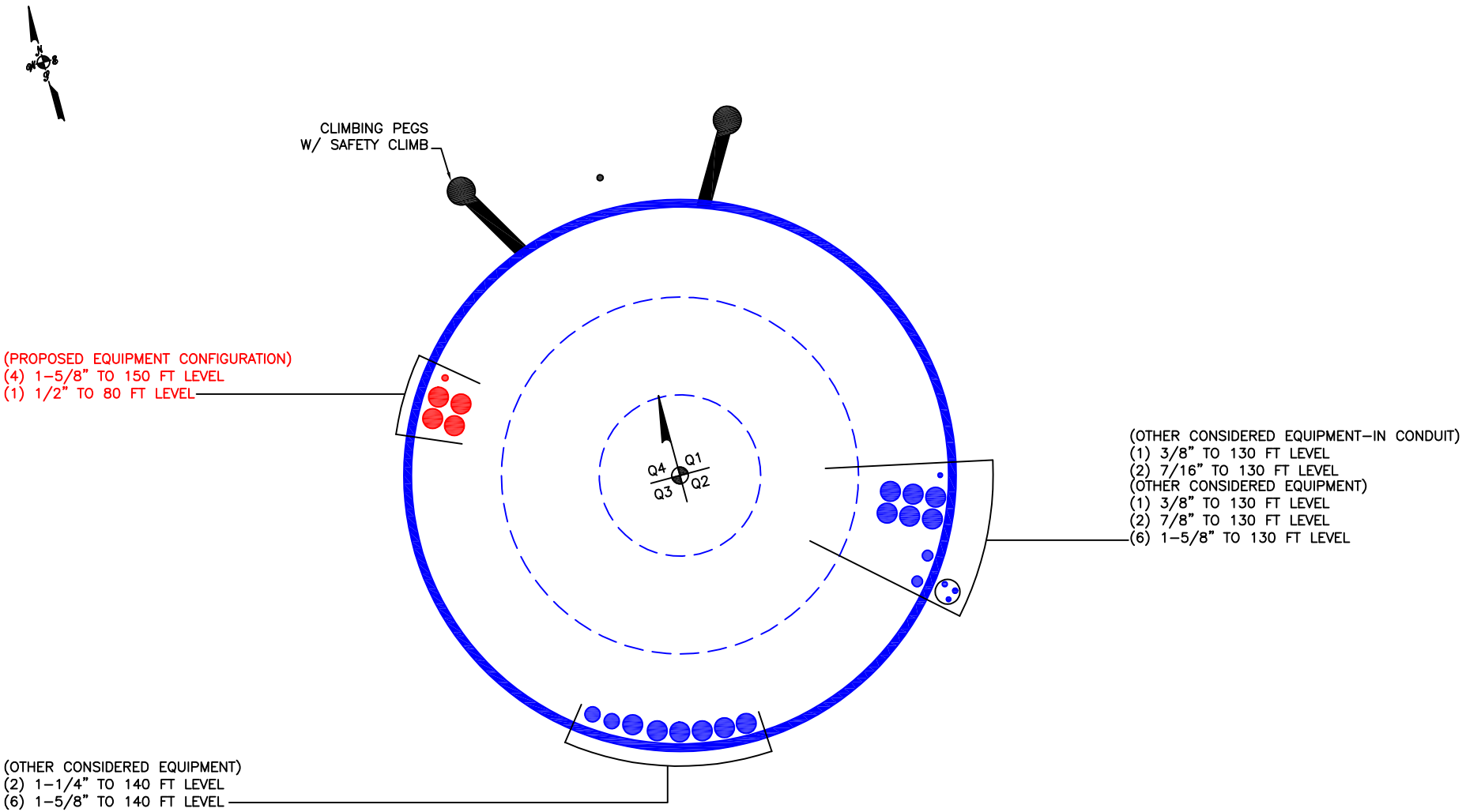
Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	150 - 145 (1)	TP14.12x13x0.188	5.54	145.52	0.038	0.00	177.56	0.000
L2	145 - 140 (2)	TP15.241x14.12x0.188	5.78	157.22	0.037	0.00	207.26	0.000
L3	140 - 133.71 (3)	TP16.65x15.241x0.188	10.59	165.90	0.064	1.83	230.76	0.008
L4	133.71 - 131.293 (4)	TP16.804x15.696x0.313	10.91	287.08	0.038	1.36	414.62	0.003
L5	131.293 - 126.293 (5)	TP17.912x16.804x0.313	16.22	306.37	0.053	0.81	472.20	0.002
L6	126.293 - 121.293 (6)	TP19.02x17.912x0.313	16.56	325.65	0.051	0.21	533.53	0.000
L7	121.293 - 116.293 (7)	TP20.128x19.02x0.313	16.81	344.94	0.049	0.21	598.61	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L8	116.293 - 111.293 (8)	TP21.236x20.128x0.313	17.05	364.23	0.047	0.21	667.42	0.000
L9	111.293 - 108.25 (9)	TP21.911x21.236x0.313	17.35	375.97	0.046	0.22	711.14	0.000
L10	108.25 - 108 (10)	TP21.966x21.911x0.638	17.37	757.41	0.023	0.22	1414.73	0.000
L11	108 - 103 (11)	TP23.074x21.966x0.613	17.96	766.36	0.023	0.22	1507.51	0.000
L12	103 - 98 (12)	TP24.182x23.074x0.6	18.55	788.17	0.024	0.22	1627.76	0.000
L13	98 - 93 (13)	TP25.29x24.182x0.588	19.14	808.43	0.024	0.22	1748.92	0.000
L14	93 - 88.0833 (14)	TP26.38x25.29x0.588	19.27	816.28	0.024	0.22	1783.08	0.000
L15	88.0833 - 86.9167 (15)	TP26.012x24.905x0.638	19.98	901.07	0.022	0.22	2002.33	0.000
L16	86.9167 - 85.167 (16)	TP26.399x26.012x0.638	20.19	914.82	0.022	0.22	2063.90	0.000
L17	85.167 - 84.917 (17)	TP26.454x26.399x0.638	20.21	916.79	0.022	0.22	2072.78	0.000
L18	84.917 - 79.917 (18)	TP27.561x26.454x0.625	20.87	937.76	0.022	0.22	2212.10	0.000
L19	79.917 - 77 (19)	TP28.206x27.561x0.613	21.23	941.46	0.023	0.18	2275.06	0.000
L20	77 - 76.75 (20)	TP28.262x28.206x0.538	21.25	830.08	0.026	0.18	2015.38	0.000
L21	76.75 - 75 (21)	TP28.649x28.262x0.531	21.47	832.07	0.026	0.18	2048.89	0.000
L22	75 - 74.75 (22)	TP28.704x28.649x0.613	21.48	958.45	0.022	0.18	2357.90	0.000
L23	74.75 - 69.75 (23)	TP29.811x28.704x0.6	22.09	976.28	0.023	0.18	2497.44	0.000
L24	69.75 - 65.083 (24)	TP30.843x29.811x0.588	22.65	990.15	0.023	0.18	2623.55	0.000
L25	65.083 - 64.833 (25)	TP30.899x30.843x0.588	22.67	991.96	0.023	0.18	2633.16	0.000
L26	64.833 - 59.833 (26)	TP32.005x30.899x0.588	23.27	1028.17	0.023	0.18	2828.89	0.000
L27	59.833 - 54.833 (27)	TP33.111x32.005x0.575	23.87	1042.13	0.023	0.18	2969.43	0.000
L28	54.833 - 49.833 (28)	TP34.218x33.111x0.563	24.45	1054.54	0.023	0.18	3108.10	0.000
L29	49.833 - 43.4967 (29)	TP35.62x34.218x0.563	24.61	1063.80	0.023	0.18	3162.96	0.000
L30	43.4967 - 42.4967 (30)	TP35.092x33.764x0.563	25.40	1081.92	0.023	0.18	3271.63	0.000
L31	42.4967 - 37.4967 (31)	TP36.199x35.092x0.55	25.93	1092.17	0.024	0.18	3409.71	0.000
L32	37.4967 - 33 (32)	TP37.194x36.199x0.55	26.40	1122.67	0.024	0.18	3554.03	0.000
L33	33 - 32.75 (33)	TP37.25x37.194x0.663	26.41	1350.20	0.020	0.18	4313.13	0.000
L34	32.75 - 32 (34)	TP37.416x37.25x0.663	26.50	1356.33	0.020	0.18	4326.21	0.000
L35	32 - 31.75 (35)	TP37.471x37.416x0.588	26.52	1207.05	0.022	0.18	3887.17	0.000
L36	31.75 - 30 (36)	TP37.858x37.471x0.588	26.72	1219.73	0.022	0.18	3898.86	0.000
L37	30 - 29.75 (37)	TP37.914x37.858x0.588	26.72	1221.54	0.022	0.18	3981.19	0.000
L38	29.75 - 24.75 (38)	TP39.021x37.914x0.575	26.84	1203.04	0.022	0.18	3910.68	0.000
L39	24.75 - 19.75 (39)	TP40.128x39.021x0.569	27.34	1225.23	0.022	0.18	4102.26	0.000
L40	19.75 - 14.75 (40)	TP41.235x40.128x0.563	27.86	1246.64	0.022	0.18	4295.48	0.000
L41	14.75 - 9.75 (41)	TP42.342x41.235x0.563	28.38	1281.33	0.022	0.18	4539.20	0.000
L42	9.75 - 4.75 (42)	TP43.448x42.342x0.55	28.91	1287.15	0.022	0.18	4686.00	0.000
L43	4.75 - 0 (43)	TP44.5x43.448x0.55	29.47	1322.33	0.022	0.18	4937.52	0.000

APPENDIX B

BASE LEVEL DRAWING


CLIMBING PEGS
W/ SAFETY CLIMB
(PROPOSED EQUIPMENT CONFIGURATION)
(4) 1-5/8" TO 150 FT LEVEL
(1) 1/2" TO 80 FT LEVEL
Q4
Q1
Q3
Q2
(OTHER CONSIDERED EQUIPMENT-IN CONDUIT)
(1) 3/8" TO 130 FT LEVEL
(2) 7/16" TO 130 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(1) 3/8" TO 130 FT LEVEL
(2) 7/8" TO 130 FT LEVEL
(6) 1-5/8" TO 130 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(2) 1-1/4" TO 140 FT LEVEL
(6) 1-5/8" TO 140 FT LEVEL

APPENDIX C

ADDITIONAL CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 159.59 ft (NAVD 88)
Latitude: 41.320167
Longitude: -72.441667

Wind

Results:

Wind Speed:	131 Vmph	135 mph as per WSEL Requirements
10-year MRI	79 Vmph	
25-year MRI	89 Vmph	
50-year MRI	97 Vmph	
100-year MRI	107 Vmph	

Data Accessed: Thu Feb 18 2021

Date Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, and Section 26.5.2, incorporating errata of March 12, 2014

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

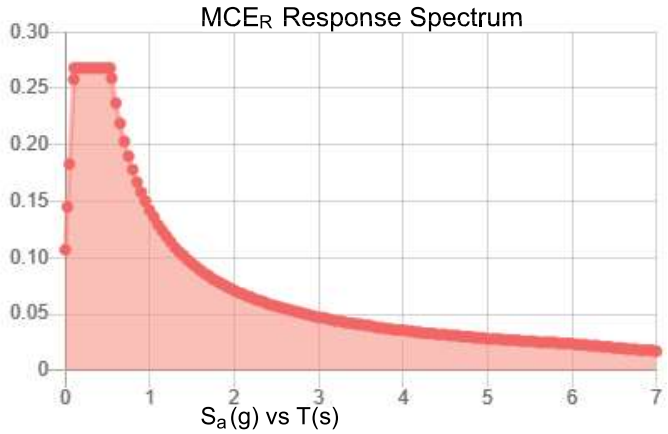
Seismic

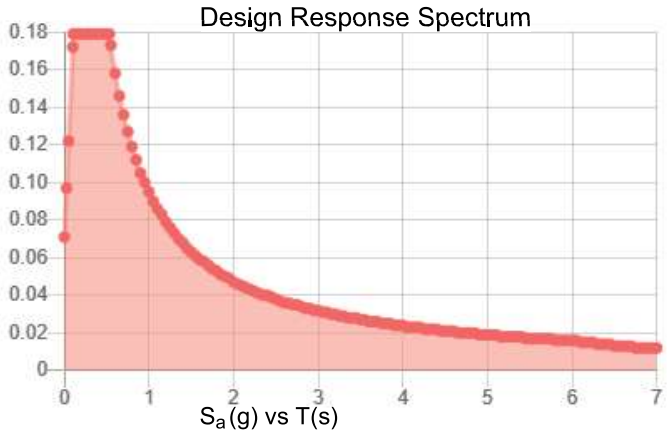
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.167	S_{DS} :	0.179
S_1 :	0.059	S_{D1} :	0.095
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.084
S_{MS} :	0.268	PGA_M :	0.135
S_{M1} :	0.142	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B





Data Accessed: Thu Feb 18 2021

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:	Thu Feb 18 2021

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.

CCIpole

per TIA-222- H

Site BU: 876384

Work Order: 1919215

Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	150	16.29	2.58333	18	13	16.65	0.1875	Auto	A572-65
2	136.29333	48.21	3.83333	18	15.70	26.38	0.3125	Auto	A572-65
3	91.91666	48.42	5	18	24.91	35.62	0.375	Auto	A572-65
4	48.49666	48.49666	0	18	33.76	44.5	0.375	Auto	A572-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	0	33	plate	CCI-WSFP-060100	2										x						x		
2	0	30	plate	CCI-WSFP-060100	2	x						x											
3	32	65.083	plate	CCI-SFP-060100	1													x					
4	30	65.083	plate	CCI-SFP-060100	2	x						x											
5	65.083	85.167	plate	CCI-SFP-060100	2	x												x					
6	65.083	75	plate	CCI-SFP-060100	1							x											
7	75	77	plate	PL 1"x5" (65 ksi)	1							-0.5											
8	77	85.167	plate	CCI-SFP-060100	1							x											
9	85.167	108.25	plate	CCI-SFP-060100	3	x						x						x					
10																							

Reinforcement Details

	B (in)	H (in)	Gross Area (in^2)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in2)	Bolt Hole Size (in)	Reinforcement Material
1	6	1	6	0.5	Welded	n/a	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
2	6	1	6	0.5	Welded	n/a	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
3	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
4	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
5	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
6	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
7	5	1	5	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	8.000	3.750	1.1875	A572-65
8	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65
9	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.000	4.750	1.1875	A572-65

Connection Details for Custom Reinforcements

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
PL 1"x5" (65 ksi)	Top	8	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	8	N	3	3	-	-	-	-	-	-	-	-	-

TNX Geometry Input

Increment (ft): 5 Export to TNX

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	150 - 145	5		18	13.000	14.120	0.1875	A572-65	1.000
2	145 - 140	5		18	14.120	15.241	0.1875	A572-65	1.000
3	140 - 136.2933	6.29	2.58333	18	15.241	16.650	0.1875	A572-65	1.000
4	136.2933 - 131.2933	5		18	15.696	16.804	0.3125	A572-65	1.000
5	131.2933 - 126.2933	5		18	16.804	17.912	0.3125	A572-65	1.000
6	126.2933 - 121.2933	5		18	17.912	19.020	0.3125	A572-65	1.000
7	121.2933 - 116.2933	5		18	19.020	20.128	0.3125	A572-65	1.000
8	116.2933 - 111.2933	5		18	20.128	21.236	0.3125	A572-65	1.000
9	111.2933 - 108.25	3.04333		18	21.236	21.911	0.3125	A572-65	1.000
10	108.25 - 108	0.25		18	21.911	21.966	0.6375	A572-65	0.915
11	108 - 103	5		18	21.966	23.074	0.6125	A572-65	0.929
12	103 - 98	5		18	23.074	24.182	0.6	A572-65	0.928
13	98 - 93	5		18	24.182	25.290	0.5875	A572-65	0.929
14	93 - 91.91666	4.91667	3.83333	18	25.290	26.380	0.5875	A572-65	0.925
15	91.91666 - 86.91666	5		18	24.905	26.012	0.6375	A572-65	0.945
16	86.91666 - 85.167	1.74966		18	26.012	26.399	0.6375	A572-65	0.940
17	85.167 - 84.917	0.25		18	26.399	26.454	0.6375	A572-65	0.939
18	84.917 - 79.917	5		18	26.454	27.561	0.625	A572-65	0.942
19	79.917 - 77	2.917		18	27.561	28.206	0.6125	A572-65	0.953
20	77 - 76.75	0.25		18	28.206	28.262	0.5375	A572-65	0.955
21	76.75 - 75	1.75		18	28.262	28.649	0.53125	A572-65	0.963
22	75 - 74.75	0.25		18	28.649	28.704	0.6125	A572-65	0.947
23	74.75 - 69.75	5		18	28.704	29.811	0.6	A572-65	0.953
24	69.75 - 65.083	4.667		18	29.811	30.843	0.5875	A572-65	0.962
25	65.083 - 64.833	0.25		18	30.843	30.899	0.5875	A572-65	0.961
26	64.833 - 59.833	5		18	30.899	32.005	0.5875	A572-65	0.950
27	59.833 - 54.833	5		18	32.005	33.111	0.575	A572-65	0.959
28	54.833 - 49.833	5		18	33.111	34.218	0.5625	A572-65	0.970
29	49.833 - 48.49666	6.33634	5	18	34.218	35.620	0.5625	A572-65	0.967
30	48.49666 - 42.49666	6		18	33.764	35.092	0.5625	A572-65	0.962
31	42.49666 - 37.49666	5		18	35.092	36.199	0.55	A572-65	0.974
32	37.49666 - 33	4.49666		18	36.199	37.194	0.55	A572-65	0.966
33	33 - 32.75	0.25		18	37.194	37.250	0.6625	A572-65	0.960
34	32.75 - 32	0.75		18	37.250	37.416	0.6625	A572-65	0.959
35	32 - 31.75	0.25		18	37.416	37.471	0.5875	A572-65	0.991
36	31.75 - 30	1.75		18	37.471	37.858	0.5875	A572-65	0.987
37	30 - 29.75	0.25		18	37.858	37.914	0.5875	A572-65	0.987
38	29.75 - 24.75	5		18	37.914	39.021	0.575	A572-65	0.998
39	24.75 - 19.75	5		18	39.021	40.128	0.56875	A572-65	0.999
40	19.75 - 14.75	5		18	40.128	41.235	0.5625	A572-65	1.000
41	14.75 - 9.75	5		18	41.235	42.342	0.5625	A572-65	0.991
42	9.75 - 4.75	5		18	42.342	43.448	0.55	A572-65	1.005
43	4.75 - 0	4.75		18	43.448	44.500	0.55	A572-65	0.997

TNX Section Forces

Increment (ft):	5	TNX Output		
	Section Height (ft)	P_u (K)	M_{ux} (kip-ft)	V_u (K)
1	150 - 145	3.11	34.13	5.54
2	145 - 140	6.74	62.57	9.83
3	140 - 136.2933	6.26	101.36	10.59
4	136.2933 - 131.2933	6.80	155.16	10.91
5	131.2933 - 126.2933	10.38	229.51	16.22
6	126.2933 - 121.2933	11.00	311.36	16.56
7	121.2933 - 116.2933	11.68	394.71	16.81
8	116.2933 - 111.2933	12.39	479.29	17.05
9	111.2933 - 108.25	12.83	531.55	17.35
10	108.25 - 108	12.89	535.89	17.37
11	108 - 103	13.90	624.14	17.96
12	103 - 98	14.94	715.33	18.55
13	98 - 93	16.01	809.48	19.14
14	93 - 91.91666	16.24	830.28	19.27
15	91.91666 - 86.91666	18.07	928.39	19.98
16	86.91666 - 85.167	18.49	963.50	20.19
17	85.167 - 84.917	18.57	968.55	20.21
18	84.917 - 79.917	19.87	1071.30	20.87
19	79.917 - 77	20.61	1132.65	21.23
20	77 - 76.75	20.68	1137.96	21.25
21	76.75 - 75	21.07	1175.30	21.47
22	75 - 74.75	21.16	1180.67	21.48
23	74.75 - 69.75	22.45	1289.52	22.09
24	69.75 - 65.083	23.69	1393.83	22.65
25	65.083 - 64.833	23.77	1399.49	22.67
26	64.833 - 59.833	25.13	1514.28	23.28
27	59.833 - 54.833	26.53	1632.04	23.87
28	54.833 - 49.833	27.96	1752.73	24.45
29	49.833 - 48.49666	28.34	1785.47	24.61
30	48.49666 - 42.49666	31.24	1935.45	25.40
31	42.49666 - 37.49666	32.74	2063.68	25.93
32	37.49666 - 33	34.11	2181.23	26.40
33	33 - 32.75	34.21	2187.82	26.41
34	32.75 - 32	34.47	2207.65	26.50
35	32 - 31.75	34.56	2214.28	26.52
36	31.75 - 30	35.12	2260.82	26.72
37	30 - 29.75	35.22	2267.50	26.72
38	29.75 - 24.75	36.90	2402.32	27.24
39	24.75 - 19.75	38.62	2539.70	27.76
40	19.75 - 14.75	40.36	2679.67	28.28
41	14.75 - 9.75	42.14	2822.24	28.80
42	9.75 - 4.75	43.94	2967.46	29.33
43	4.75 - 0	45.68	3107.89	29.85

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
150 - 145	Pole	TP14.12x13x0.1875	Pole	19.0%	Pass
145 - 140	Pole	TP15.241x14.12x0.1875	Pole	30.1%	Pass
140 - 136.29	Pole	TP16.65x15.241x0.1875	Pole	43.2%	Pass
136.29 - 131.29	Pole	TP16.804x15.696x0.3125	Pole	36.8%	Pass
131.29 - 126.29	Pole	TP17.912x16.804x0.3125	Pole	47.8%	Pass
126.29 - 121.29	Pole	TP19.02x17.912x0.3125	Pole	57.2%	Pass
121.29 - 116.29	Pole	TP20.128x19.02x0.3125	Pole	64.4%	Pass
116.29 - 111.29	Pole	TP21.236x20.128x0.3125	Pole	70.0%	Pass
111.29 - 108.25	Pole	TP21.911x21.236x0.3125	Pole	72.8%	Pass
108.25 - 108	Pole + Reinf.	TP21.966x21.911x0.6375	Reinf. 9 Tension Rupture	60.1%	Pass
108 - 103	Pole + Reinf.	TP23.074x21.966x0.6125	Reinf. 9 Tension Rupture	64.9%	Pass
103 - 98	Pole + Reinf.	TP24.182x23.074x0.6	Reinf. 9 Tension Rupture	69.2%	Pass
98 - 93	Pole + Reinf.	TP25.29x24.182x0.5875	Reinf. 9 Tension Rupture	73.0%	Pass
93 - 91.92	Pole + Reinf.	TP26.38x25.29x0.5875	Reinf. 9 Tension Rupture	73.8%	Pass
91.92 - 86.92	Pole + Reinf.	TP26.012x24.905x0.6375	Reinf. 9 Tension Rupture	72.3%	Pass
86.92 - 85.17	Pole + Reinf.	TP26.399x26.012x0.6375	Reinf. 9 Tension Rupture	73.3%	Pass
85.17 - 84.92	Pole + Reinf.	TP26.454x26.399x0.6375	Reinf. 5 Tension Rupture	73.4%	Pass
84.92 - 79.92	Pole + Reinf.	TP27.561x26.454x0.625	Reinf. 5 Tension Rupture	76.0%	Pass
79.92 - 77	Pole + Reinf.	TP28.206x27.561x0.6125	Reinf. 5 Tension Rupture	77.3%	Pass
77 - 76.75	Pole + Reinf.	TP28.262x28.206x0.5375	Reinf. 5 Tension Rupture	78.9%	Pass
76.75 - 75	Pole + Reinf.	TP28.649x28.262x0.5313	Reinf. 5 Tension Rupture	79.7%	Pass
75 - 74.75	Pole + Reinf.	TP28.704x28.649x0.6125	Reinf. 5 Tension Rupture	78.3%	Pass
74.75 - 69.75	Pole + Reinf.	TP29.811x28.704x0.6	Reinf. 5 Tension Rupture	80.3%	Pass
69.75 - 65.08	Pole + Reinf.	TP30.843x29.811x0.5875	Reinf. 5 Tension Rupture	82.0%	Pass
65.08 - 64.83	Pole + Reinf.	TP30.899x30.843x0.5875	Reinf. 3 Tension Rupture	82.1%	Pass
64.83 - 59.83	Pole + Reinf.	TP32.005x30.899x0.5875	Reinf. 3 Tension Rupture	83.8%	Pass
59.83 - 54.83	Pole + Reinf.	TP33.111x32.005x0.575	Reinf. 3 Tension Rupture	85.2%	Pass
54.83 - 49.83	Pole + Reinf.	TP34.218x33.111x0.5625	Reinf. 3 Tension Rupture	86.6%	Pass
49.83 - 48.5	Pole + Reinf.	TP35.62x34.218x0.5625	Reinf. 3 Tension Rupture	86.9%	Pass
48.5 - 42.5	Pole + Reinf.	TP35.092x33.764x0.5625	Reinf. 3 Tension Rupture	91.6%	Pass
42.5 - 37.5	Pole + Reinf.	TP36.199x35.092x0.55	Reinf. 3 Tension Rupture	92.7%	Pass
37.5 - 33	Pole + Reinf.	TP37.194x36.199x0.55	Reinf. 3 Tension Rupture	93.5%	Pass
33 - 32.75	Pole + Reinf.	TP37.25x37.194x0.6625	Reinf. 4 Tension Rupture	80.1%	Pass
32.75 - 32	Pole + Reinf.	TP37.416x37.25x0.6625	Reinf. 4 Tension Rupture	80.2%	Pass
32 - 31.75	Pole + Reinf.	TP37.471x37.416x0.5875	Reinf. 4 Tension Rupture	82.6%	Pass
31.75 - 30	Pole + Reinf.	TP37.858x37.471x0.5875	Reinf. 4 Tension Rupture	82.9%	Pass
30 - 29.75	Pole + Reinf.	TP37.914x37.858x0.5875	Reinf. 2 Tension Rupture	82.9%	Pass
29.75 - 24.75	Pole + Reinf.	TP39.021x37.914x0.575	Reinf. 2 Tension Rupture	83.7%	Pass
24.75 - 19.75	Pole + Reinf.	TP40.128x39.021x0.5688	Reinf. 1 Tension Rupture	84.5%	Pass
19.75 - 14.75	Pole + Reinf.	TP41.235x40.128x0.5625	Reinf. 2 Tension Rupture	85.1%	Pass
14.75 - 9.75	Pole + Reinf.	TP42.342x41.235x0.5625	Reinf. 1 Tension Rupture	85.7%	Pass
9.75 - 4.75	Pole + Reinf.	TP43.448x42.342x0.55	Reinf. 2 Tension Rupture	86.3%	Pass
4.75 - 0	Pole + Reinf.	TP44.5x43.448x0.55	Reinf. 2 Tension Rupture	86.7%	Pass
				Summary	
			Pole	72.8%	Pass
			Reinforcement	93.5%	Pass
			Overall	93.5%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in^4)			Area (in^2)			% Capacity*									
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4	R5	R6	R7	R8	R9
150 - 145	203	n/a	203	8.29	n/a	8.29	19.0%									
145 - 140	256	n/a	256	8.96	n/a	8.96	30.1%									
140 - 136.29	301	n/a	301	9.45	n/a	9.45	43.2%									
136.29 - 131.29	562	n/a	562	16.36	n/a	16.36	36.8%									
131.29 - 126.29	683	n/a	683	17.46	n/a	17.46	47.8%									
126.29 - 121.29	820	n/a	820	18.56	n/a	18.56	57.2%									
121.29 - 116.29	975	n/a	975	19.65	n/a	19.65	64.4%									
116.29 - 111.29	1148	n/a	1148	20.75	n/a	20.75	70.1%									
111.29 - 108.25	1262	n/a	1262	21.42	n/a	21.42	72.8%									
108.25 - 108	1272	1215	2486	21.48	18.00	39.48	36.9%									60.1%
108 - 103	1477	1332	2809	22.58	18.00	40.58	40.0%									64.9%
103 - 98	1704	1455	3158	23.68	18.00	41.68	42.7%									69.2%
98 - 93	1952	1583	3535	24.77	18.00	42.77	45.1%									73.0%
93 - 91.92	2009	1611	3620	25.01	18.00	43.01	45.6%									73.8%
91.92 - 86.92	2533	1669	4202	30.51	18.00	48.51	44.8%									72.3%
86.92 - 85.17	2650	1717	4366	30.97	18.00	48.97	45.4%									73.3%
85.17 - 84.92	2666	1724	4390	31.04	18.00	49.04	45.5%					73.4%			73.4%	
84.92 - 79.92	3020	1863	4884	32.36	18.00	50.36	47.1%					76.0%			76.0%	
79.92 - 77	3241	1947	5188	33.13	18.00	51.13	48.0%					77.3%			77.3%	
77 - 76.75	3312	1291	4602	33.19	12.00	45.19	60.0%					79.0%				
76.75 - 75	3451	1326	4776	33.65	12.00	45.65	60.4%					79.7%				
75 - 74.75	3418	2013	5431	33.72	18.00	51.72	48.6%					78.3%	78.3%			
74.75 - 69.75	3834	2164	5998	35.03	18.00	53.03	49.9%					80.3%	80.3%			
69.75 - 65.08	4252	2309	6561	36.26	18.00	54.26	51.0%					82.0%	82.0%			
65.08 - 64.83	4275	2317	6592	36.33	18.00	54.33	51.1%			82.1%	82.1%					
64.83 - 59.83	4757	2479	7236	37.65	18.00	55.65	52.2%			83.8%	83.8%					
59.83 - 54.83	5274	2646	7920	38.96	18.00	56.96	53.2%			85.2%	85.2%					
54.83 - 49.83	5827	2818	8645	40.28	18.00	58.28	54.1%			86.6%	86.6%					
49.83 - 48.5	5981	2865	8846	40.63	18.00	58.63	54.3%			86.9%	86.9%					
48.5 - 42.5	6290	2959	9249	41.32	18.00	59.32	57.3%			91.6%	91.6%					
42.5 - 37.5	6911	3141	10052	42.64	18.00	60.64	58.0%			92.7%	92.7%					
37.5 - 33	7503	3310	10813	43.82	18.00	61.82	59.0%			93.5%	93.5%					
33 - 32.75	7590	5391	12981	43.89	30.00	73.89	52.8%	72.1%		79.1%	80.1%					
32.75 - 32	7693	5437	13130	44.09	30.00	74.09	53.0%	72.3%		79.2%	80.2%					
32 - 31.75	7674	4095	11768	44.15	24.00	68.15	55.5%	82.6%			82.6%					
31.75 - 30	7917	4177	12093	44.61	24.00	68.61	55.9%	82.9%			82.9%					
30 - 29.75	7952	4188	12140	44.68	24.00	68.68	56.0%	82.9%	82.9%							
29.75 - 24.75	8676	4428	13104	46.00	24.00	70.00	57.0%	83.7%	83.7%							
24.75 - 19.75	9443	4674	14117	47.31	24.00	71.31	57.9%	84.5%	84.5%							
19.75 - 14.75	10254	4927	15181	48.63	24.00	72.63	58.9%	85.1%	85.1%							
14.75 - 9.75	11110	5186	16297	49.95	24.00	73.95	59.8%	85.7%	85.7%							
9.75 - 4.75	12013	5452	17465	51.27	24.00	75.27	60.7%	86.3%	86.3%							
4.75 - 0	12914	5712	18626	52.52	24.00	76.52	61.5%	86.7%	86.7%							

Note: Section capacity checked using 5 degree increments.
Rating per TIA-222-H Section 15.5.

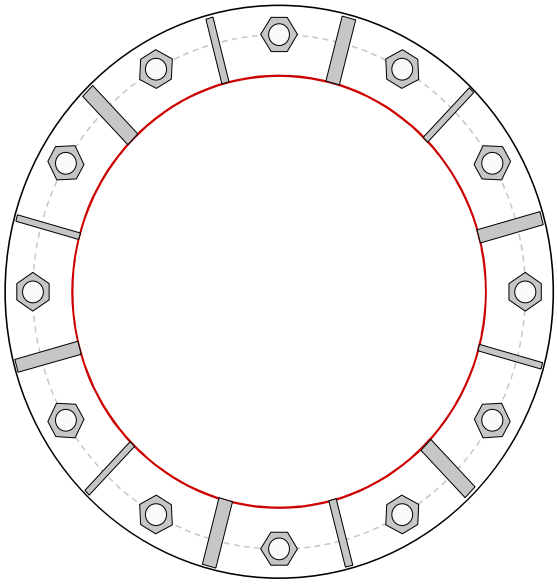
Monopole Base Plate Connection

Site Info	
BU #	876384
Site Name	Westbrook / Orsina
Order #	538766 Rev. 1

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	0.75

Applied Loads	
Moment (kip-ft)	3108
Axial Force (kips)	46
Shear Force (kips)	30

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

(12) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 53" BC

Base Plate Data

59" OD x 1.75" Plate (A871 Gr. 60; Fy=60 ksi, Fu=75 ksi)

Stiffener Data

(12) 18"H x 7"W x 1.5"T, Notch: 0.75"
plate: Fy= 50 ksi ; weld: Fy= 70 ksi
horiz. weld: 0.75" groove, 45° dbl bevelFALSE
vert. weld: 0.375" fillet

Pole Data

44.5" x 0.375" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary		*(units of kips, kip-in)*
Pu_t = 230.56	ϕPn_t = 243.75	**Stress Rating**
Vu = 2.5	ϕVn = 149.1	**85.2%**
Mu = n/a	ϕMn = n/a	**Pass**

Base Plate Summary		
Max Stress (ksi):	47.06	(Roark's Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**83.0%**	**Pass**

Stiffener Summary		
Horizontal Weld:	**55.5%**	**Pass**
Vertical Weld:	**86.1%**	**Pass**
Plate Flexure+Shear:	**19.0%**	**Pass**
Plate Tension+Shear:	**56.1%**	**Pass**
Plate Compression:	**62.7%**	**Pass**
Pole Summary		
Punching Shear:	**25.9%**	**Pass**

Pier and Pad Foundation

BU # :	876384
Site Name:	Westbrook / Orsina
App. Number:	538766 Rev. 1

TIA-222 Revision:	H
Tower Type:	Monopole

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

Superstructure Analysis Reactions		
Compression, P_{comp}:	46	kips
Base Shear, Vu_comp:	30	kips
Moment, M_u:	3108	ft-kips
Tower Height, **H**:	150	ft
BP Dist. Above Fdn, bp_{dist}:	3	in

Pier Properties		
Pier Shape:	Square	
Pier Diameter, **dpier**:	6	ft
Ext. Above Grade, **E**:	1	ft
Pier Rebar Size, **Sc**:	8	
Pier Rebar Quantity, **mc**:	30	
Pier Tie/Spiral Size, **St**:	4	
Pier Tie/Spiral Quantity, **mt**:	7	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier}:	4.5	in

Pad Properties		
Depth, **D**:	5	ft
Pad Width, W_1:	28	ft
Pad Thickness, **T**:	3	ft
Pad Rebar Size (Bottom dir. 2), Sp_2:	8	
Pad Rebar Quantity (Bottom dir. 2), mp_2:	28	
Pad Clear Cover, cc_{pad}:	3	in

Material Properties		
Rebar Grade, **Fy**:	60	ksi
Concrete Compressive Strength, **F'c**:	4	ksi
Dry Concrete Density, δ**c**:	150	pcf

Soil Properties		
Total Soil Unit Weight, γ:	100	pcf
Ultimate Net Bearing, Qnet:	8.000	ksf
Cohesion, **Cu**:		ksf
Friction Angle, φ:	0	degrees
SPT Blow Count, N_{blows}:	13	
Base Friction, μ:	0.3	
Neglected Depth, **N**:	3.33	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, **gw**:	2.5	ft

<--Toggle between Gross and Net

Foundation Analysis Checks				
	Capacity	**Demand**	**Rating***	**Check**
Lateral (Sliding) (kips)	98.98	30.00	**28.9%**	**Pass**
Bearing Pressure (ksf)	6.26	1.50	**24.0%**	**Pass**
*Overturning (kip*ft)*	5048.56	3295.50	**65.3%**	**Pass**
*Pier Flexure (Comp.) (kip*ft)*	3274.93	3198.00	**93.0%**	**Pass**
Pier Compression (kip)	22913.28	65.44	**0.3%**	**Pass**
*Pad Flexure (kip*ft)*	3077.69	1456.33	**45.1%**	**Pass**
Pad Shear - 1-way (kips)	1004.09	189.40	**18.0%**	**Pass**
Pad Shear - 2-way (Comp) (ksi)	0.190	0.037	**18.8%**	**Pass**
*Flexural 2-way (Comp) (kip*ft)*	3248.34	1918.80	**56.3%**	**Pass**

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

Soil Rating*:	**65.3%**
Structural Rating*:	**93.0%**

Version 4.0.1

Exhibit E

Mount Analysis

Date: **February 4, 2021**

Michael McWilliams
Crown Castle
8000 Avalon Blvd, Suite 700
Alpharetta, GA 30009
(770) 375-4936

Infinigy Engineering, PLLC
1033 Watervliet Shaker Road
Albany, NY 12205
518-690-0790
structural@infinigy.com

Subject:	**Mount Analysis Report**	
Carrier Designation:	**Sprint PCS Keep**	
	Carrier Site Number:	CTHA633A
	Carrier Site Name:	--
Crown Castle Designation:	**Crown Castle BU Number:**	876384
	Crown Castle Site Name:	WESTBROOK / ORSINA
	Crown Castle JDE Job Number:	628857
	Crown Castle Order Number:	538766 Rev 0
Engineering Firm Designation:	**Infinigy Engineering, PLLC Report Designation:** 1039-Z0001-B	
Site Data:	**798 Toby Hill Road, Westbrook, Middlesex County, CT, 06498** **Latitude 41°19'12.60" Longitude -72°26'30.00"**	
Structure Information:	**Tower Height & Type:**	**150.0 ft Monopole**
	Mount Elevation:	**150.0 ft**
	Mount Type:	**12.5 ft Platform**

Dear Michael McWilliams,

Infinigy Engineering, PLLC is pleased to submit this **"Mount Analysis Report"** to determine the structural integrity of Sprint PCS'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:

Platform	**Sufficient**

This analysis utilizes an ultimate 3-second gust wind speed of 135 mph as required by the 2018 Connecticut State Building Code and Appendix N. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Hector Rodriguez

Respectfully Submitted by:
Emmanuel Poulin, P.E.
518-690-0790
structural@infinigy.com
CT PE License No. 22947

2/4/21

TABLE OF CONTENTS

1) INTRODUCTION

This is an existing 3 sector 12.5 ft Platform designed by Site Pro 1.

2) ANALYSIS CRITERIA

Building Code:	2015 IBC / 2018 Connecticut State Building Code
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	135 mph
Exposure Category:	B
Topographic Factor at Base:	1.0
Topographic Factor at Mount:	1.0
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.167
Seismic S_1:	0.059
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 - Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
150.0	152.0	3	ERICSSON	AIR6449 B41_T-MOBILE	12.5 ft Platform [SitePro1 RMQP-496]
		3	RFS/CELWAVE	APX16DWV-16DWV-S-E-A20	
		3	RFS/CELWAVE	APXVAALL24_43-U-NA20_TMO	
		3	ERICSSON	RADIO 4415	
		3	ERICSSON	RADIO 4424 B25_TMO	
		3	ERICSSON	RADIO 4449 B71 B85A_T-MOBILE	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Crown Application	Sprint PCS Application	538766 Rev 0	CCI Sites
Mount Manufacturer Drawings	Site Pro 1	Part No. RMQP-496	Infinigy
Loading Documents	Sprint PCS	RFDS Version 1	TSA

3.1) Analysis Method

RISA-3D (Version 19.0.1), 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.

Infinigy Mount Analysis Tool V2.1.4, a tool internally developed by Infinigy, was used to calculate wind loading on all appurtenances, dishes and mount members for various loading cases. Selected output from the analysis is included in Appendix B “Software Input Calculations”.

This analysis was performed in accordance with Crown Castle’s ENG-SOW-10208 *Tower Mount Analysis* (Revision B).

3.2) Assumptions

1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and 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 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.
5) Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
6) Steel grades have been assumed as follows, unless noted otherwise:

Channel, Solid Round, Angle, Plate	Q345 (GR 36)
HSS (Rectangular)	Q235-GB (GR 35)
Pipe	Q235-GB (GR 35)
Connection Bolts	ASTM A325

This analysis may be affected if any assumptions are not valid or have been made in error. Infinigy Engineering, PLLC should be notified to determine the effect on the structural integrity of the antenna mounting system.

4) ANALYSIS RESULTS

Table 3 - Mount Component Stresses vs. Capacity (Platform, All Sectors)

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
1,2,3	Mount Pipe(s)	MP6	150.0	56.3	Pass
	Horizontal(s)	M80		33.6	Pass
	Standoff(s)	M21		35.0	Pass
	Handrail(s)	M71		48.7	Pass
	Bracing(s)	M32		17.2	Pass
	Mount Connection(s)	--		32.4	Pass

Structure Rating (max from all components) =	56.3%

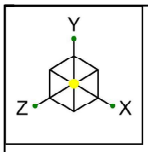
Notes:
1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
2) See additional documentation in “Appendix D – Additional Calculations” for detailed mount connection calculations.
3) All sectors are typical

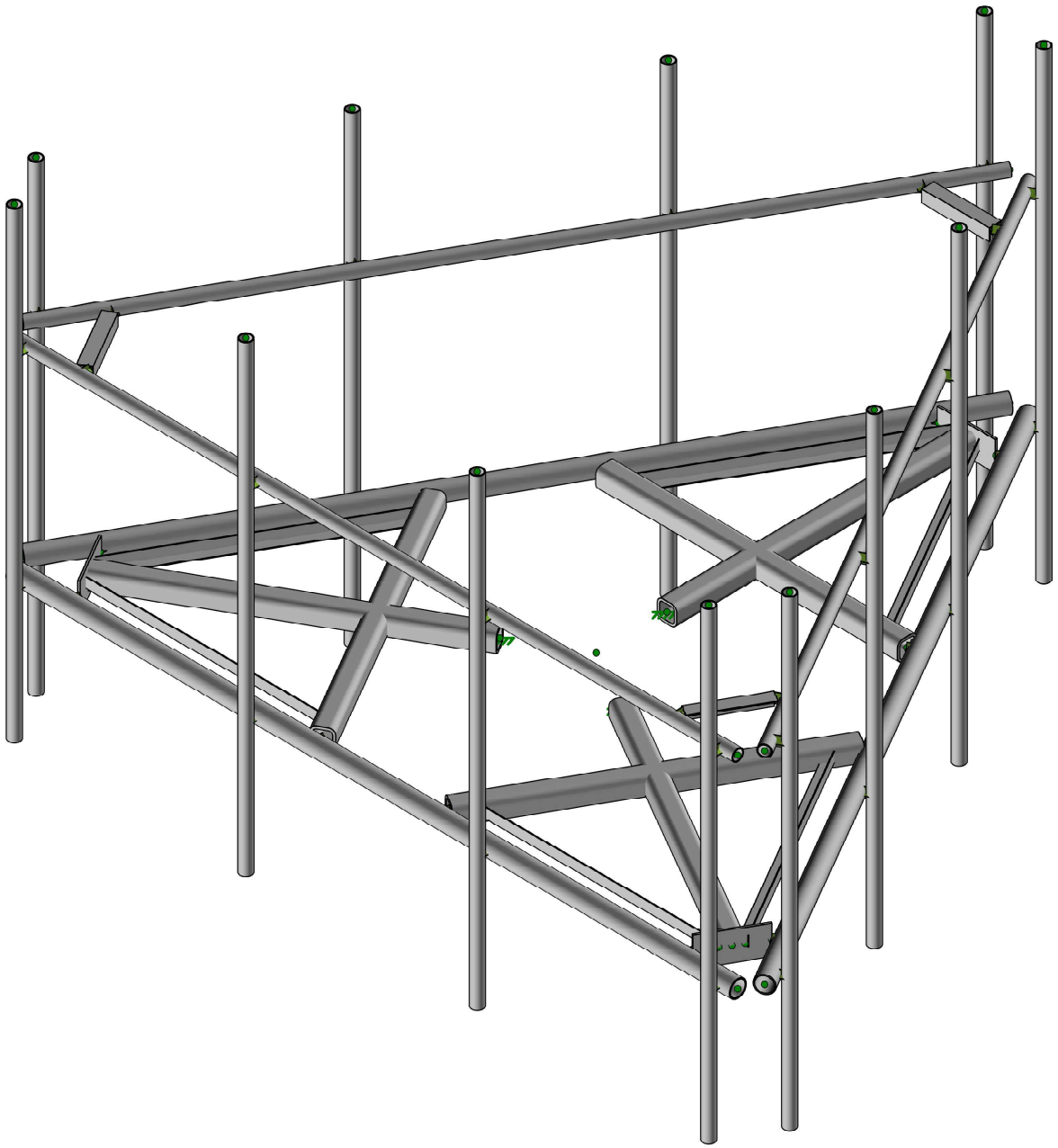
4.1) Recommendations

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

APPENDIX A

WIRE FRAME AND RENDERED MODELS





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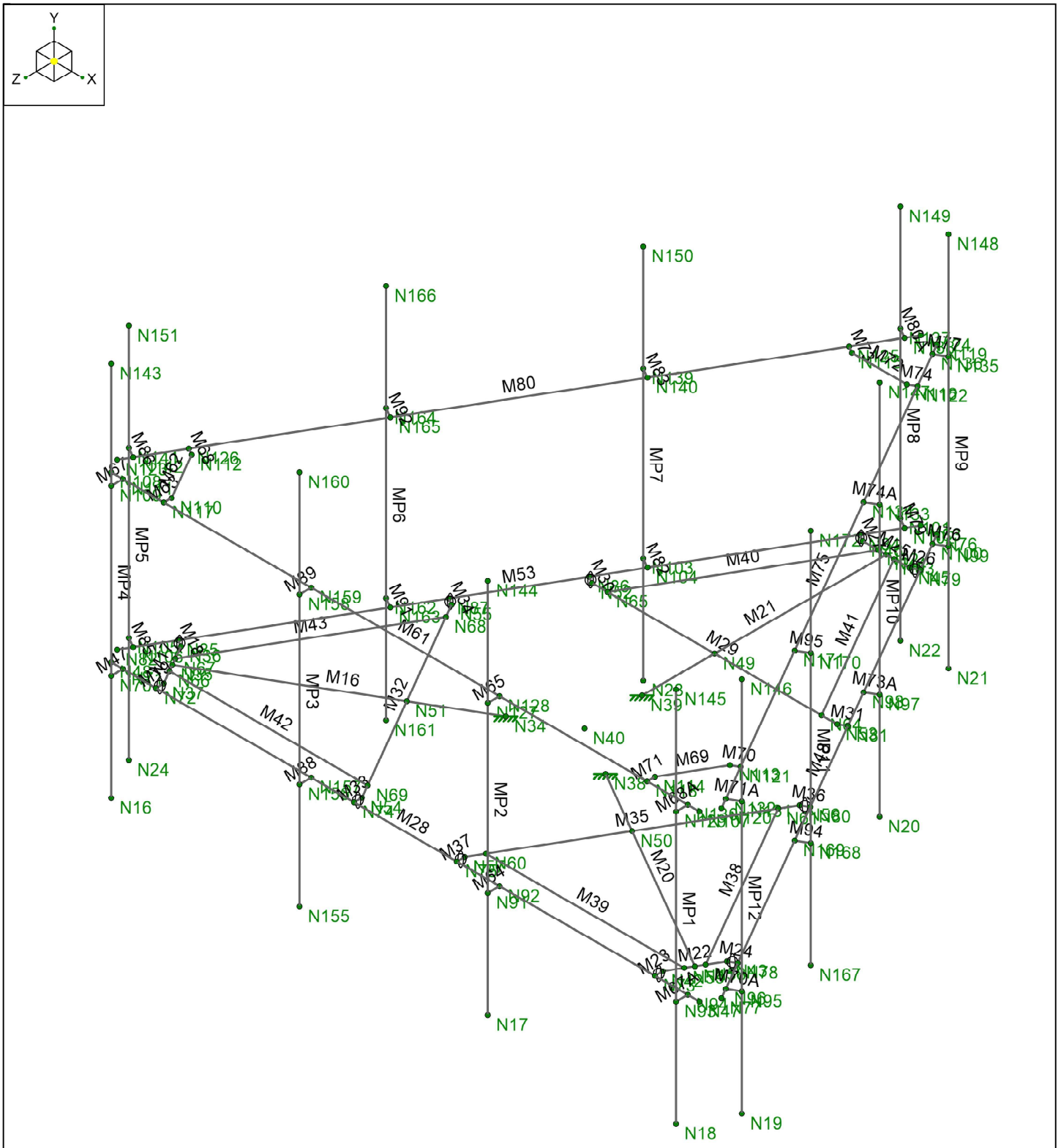

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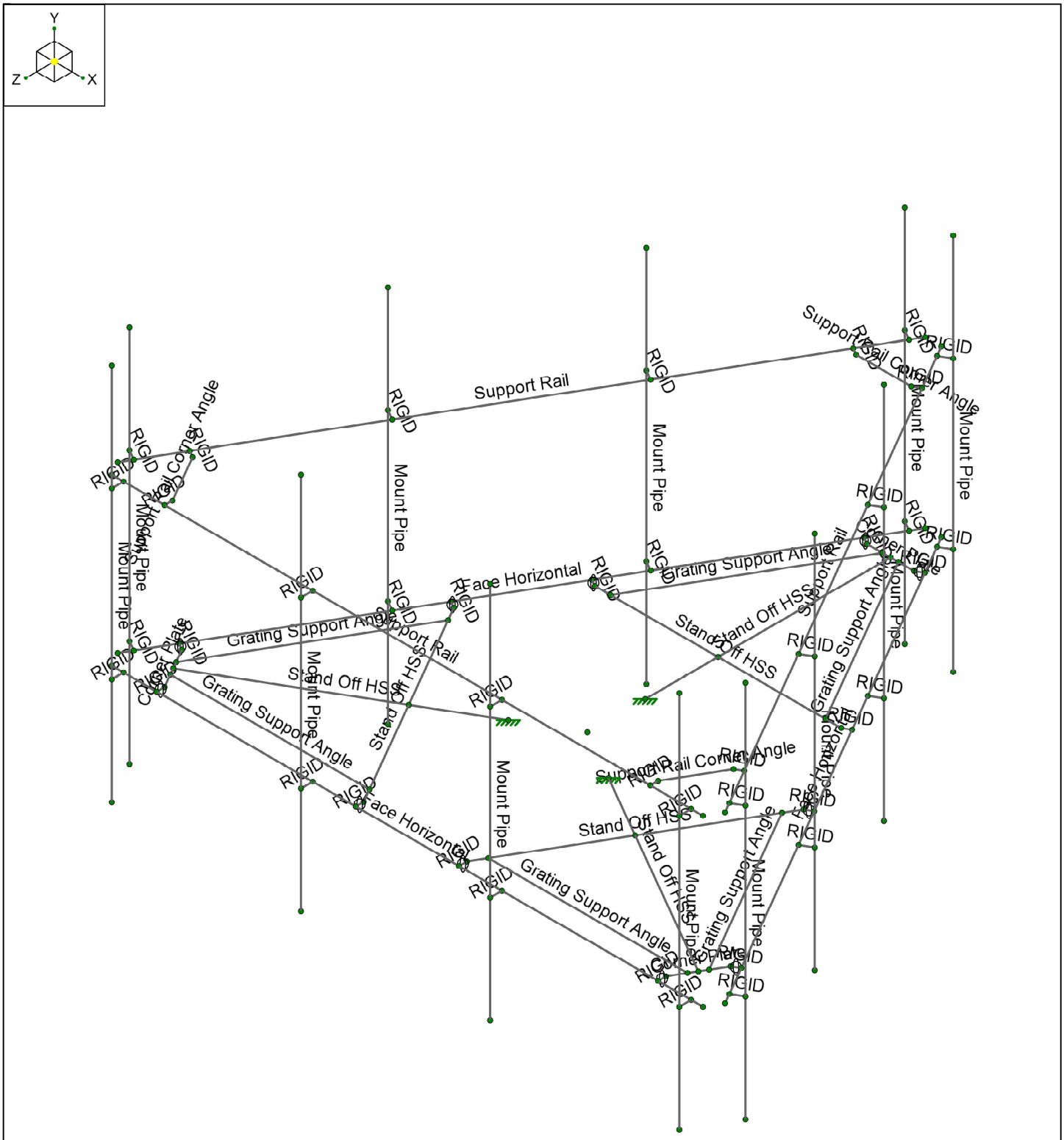

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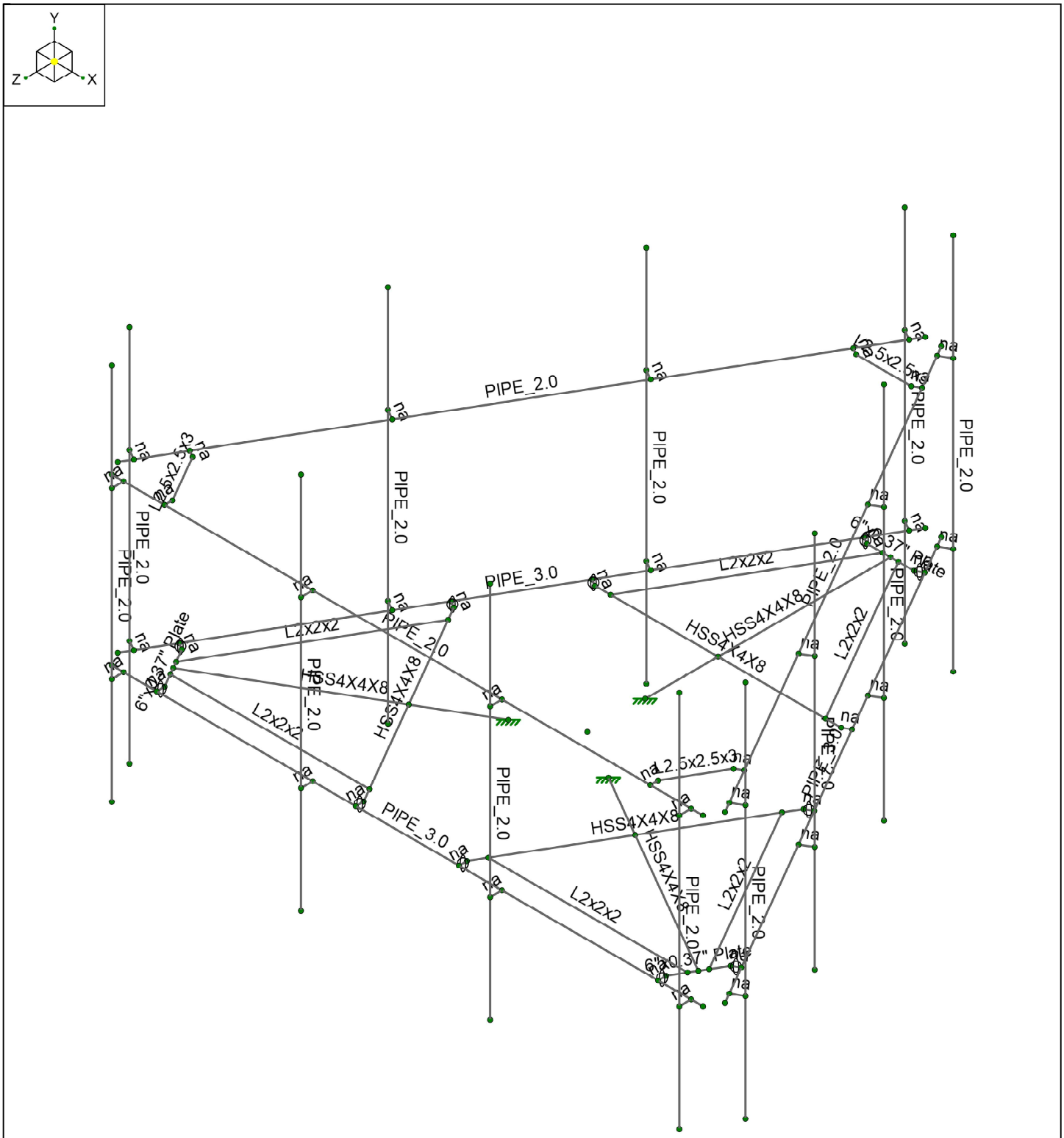

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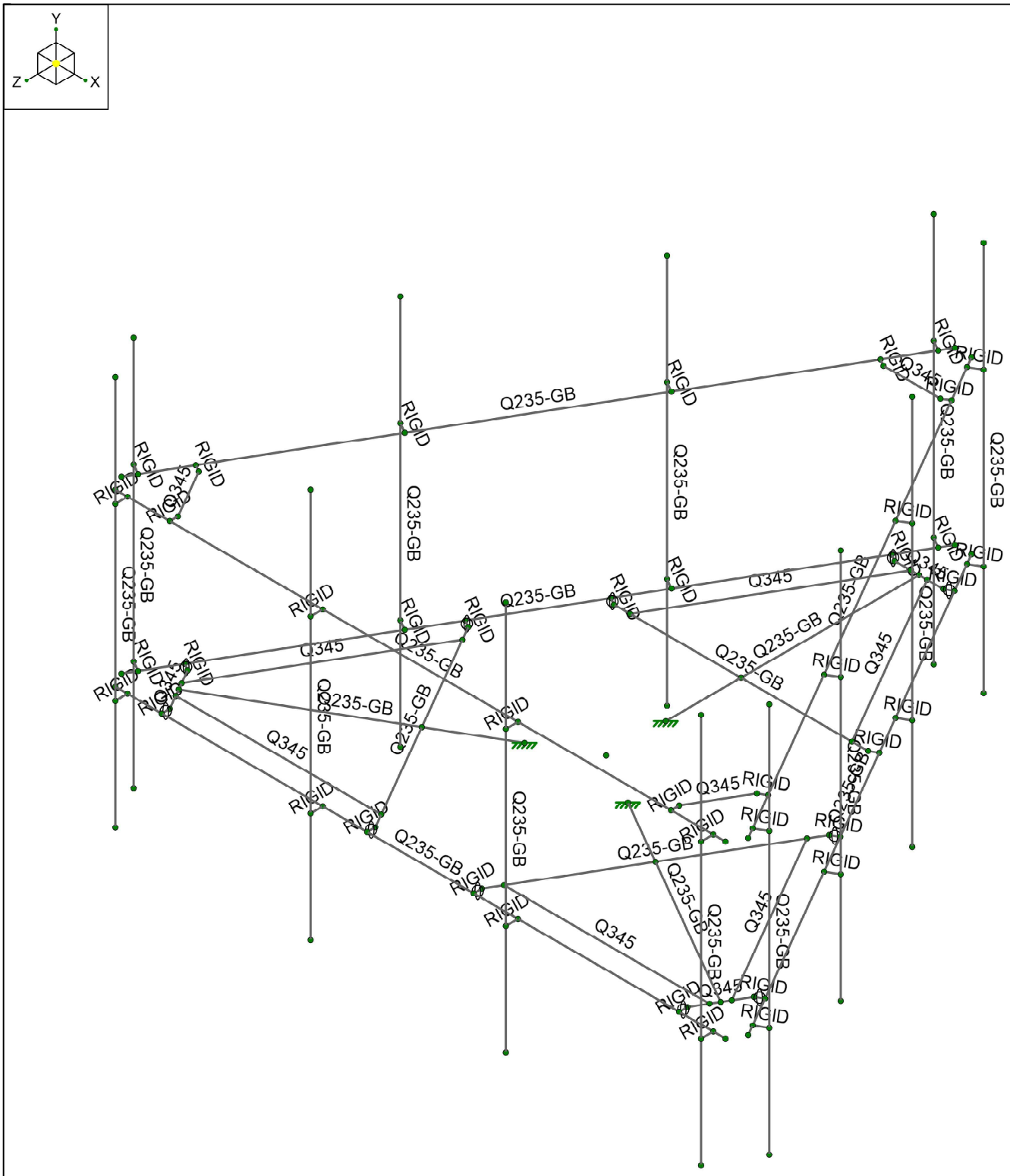

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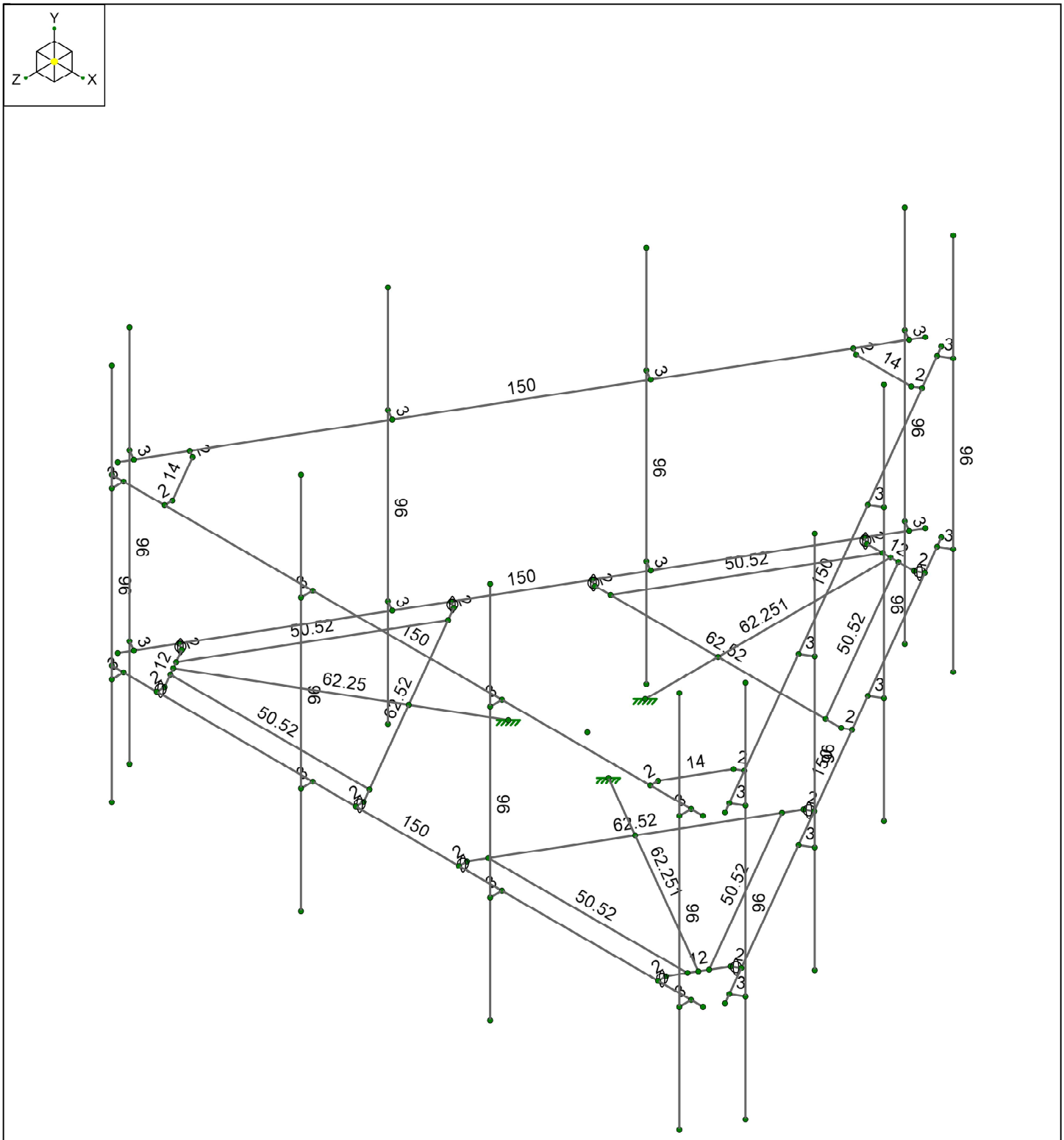

Member Length (in) Displayed

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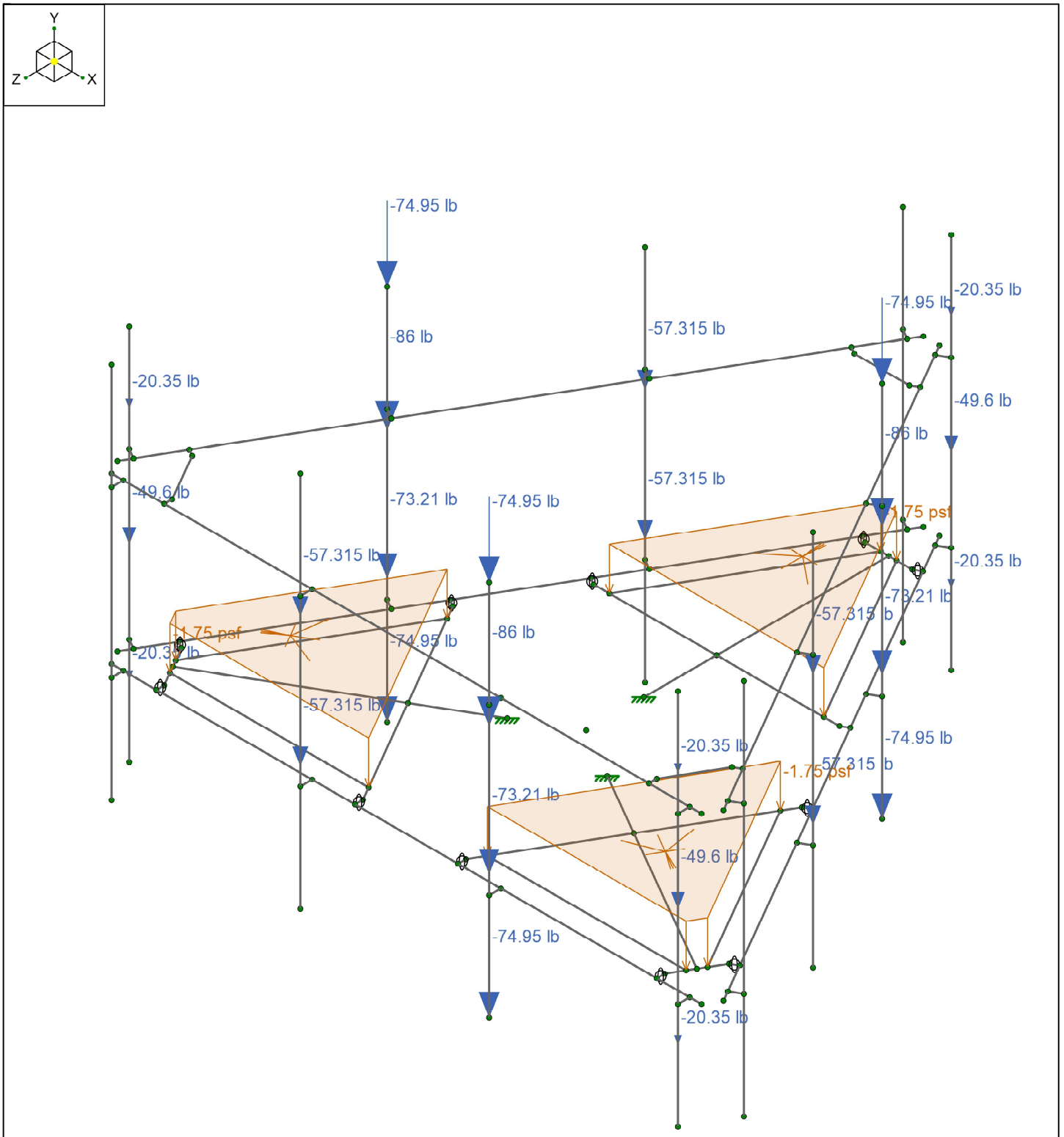

Loads: BLC 1, Self Weight

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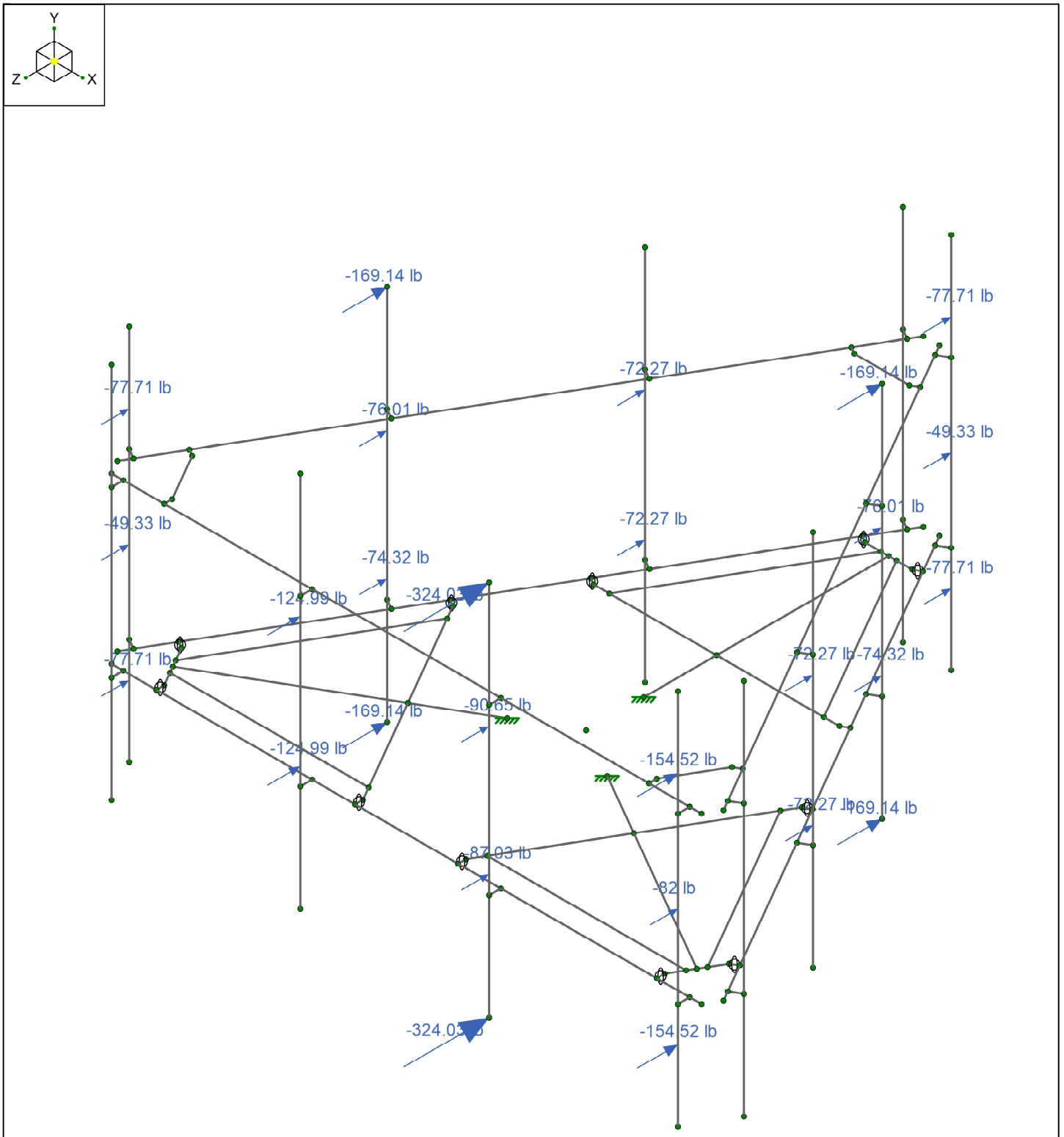

Loads: BLC 2, Wind Load AZI 0

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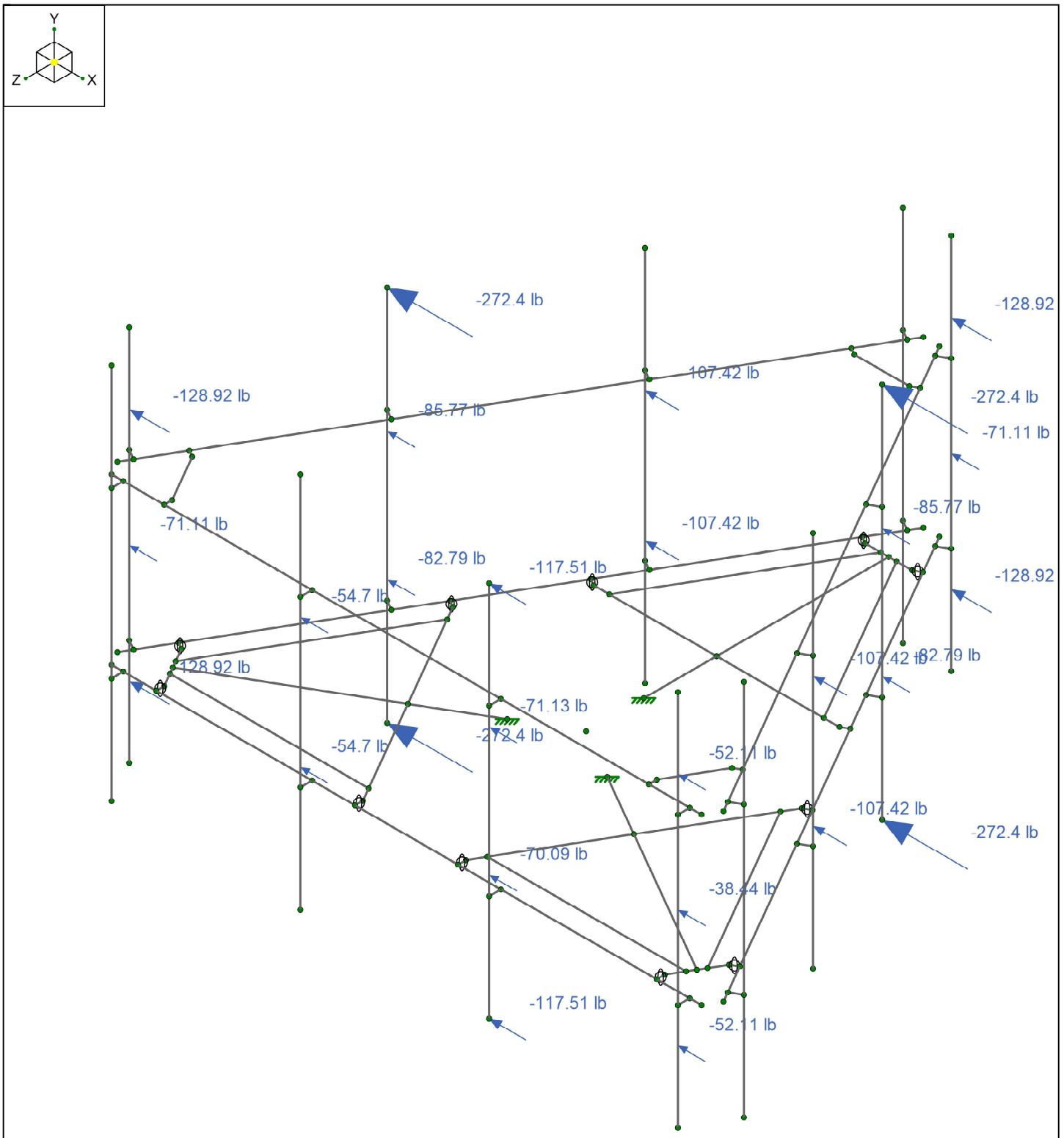

Loads: BLC 5, Wind Load AZI 90

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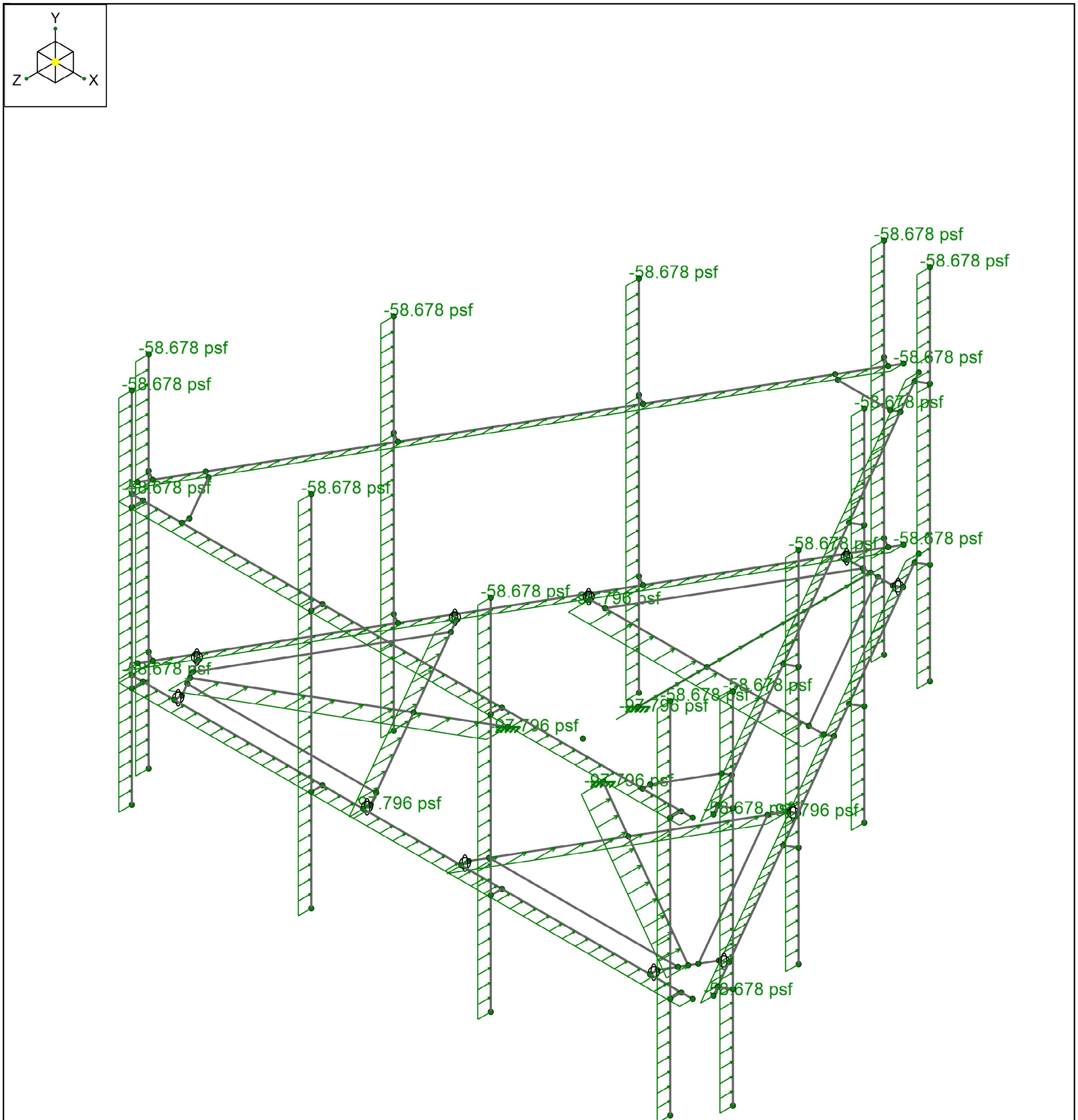

Loads: BLC 14, Distr. Wind Load Z

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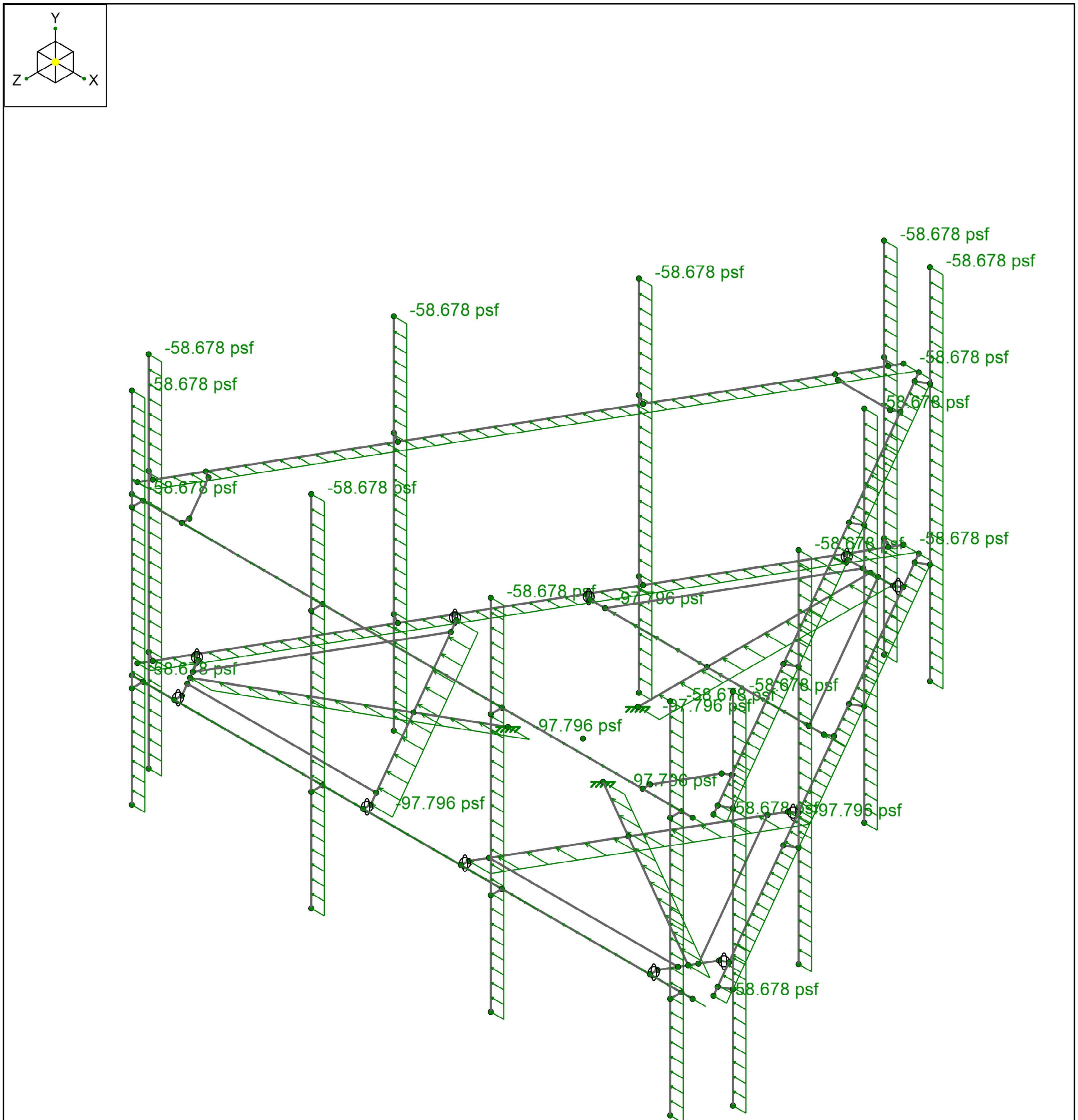

Loads: BLC 15, Distr. Wind Load X

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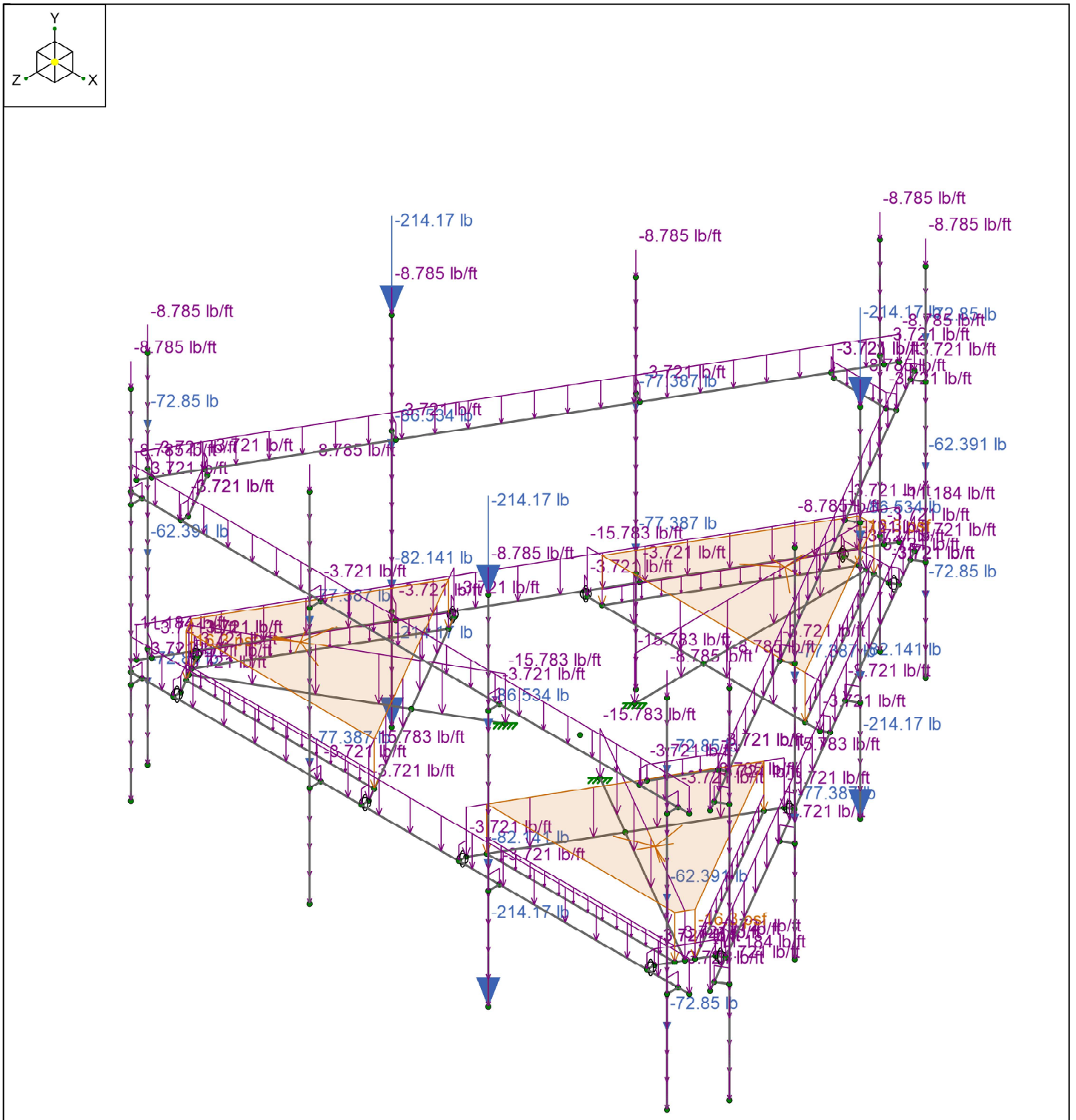

Loads: BLC 16, Ice Weight

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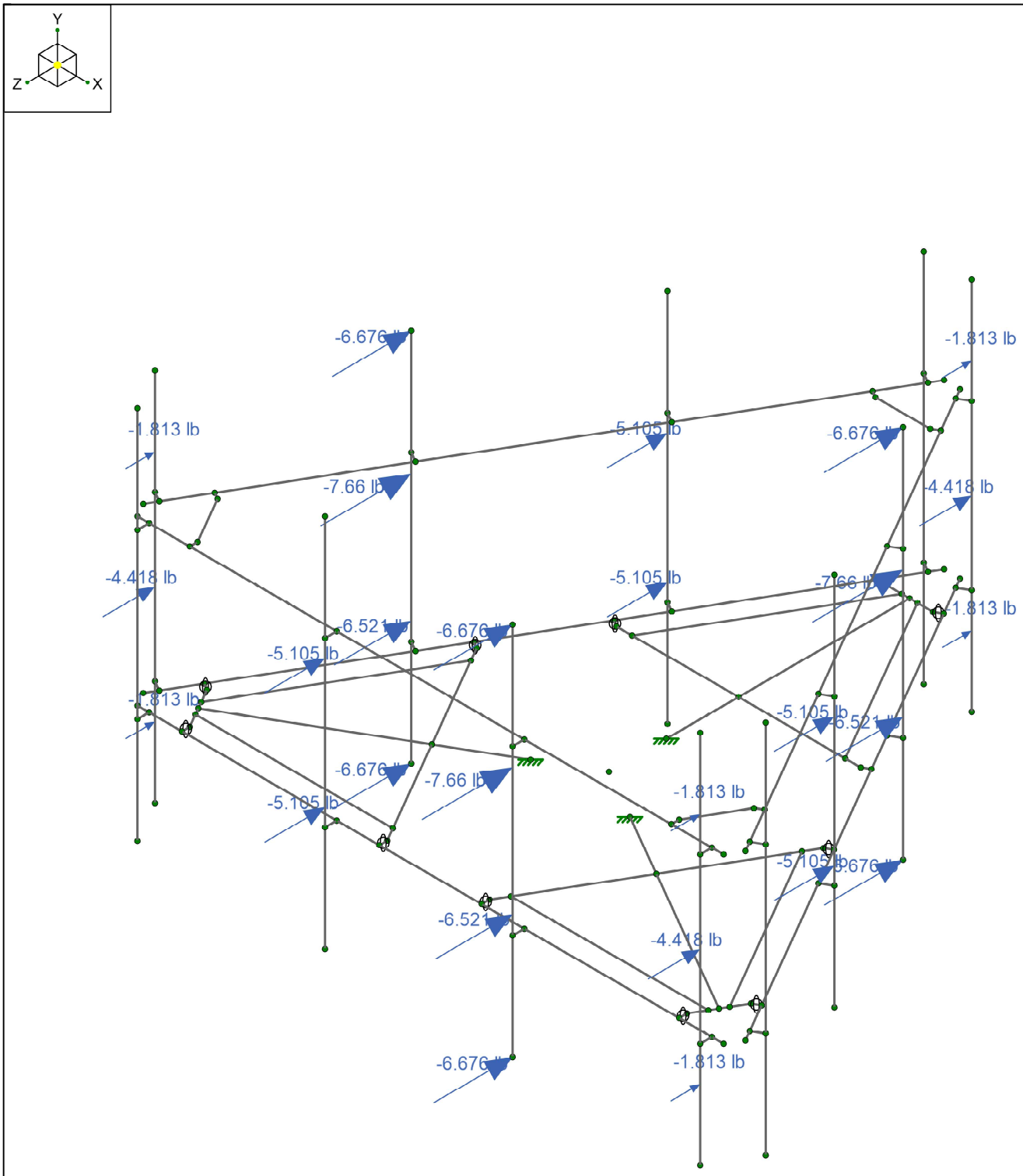

Loads: BLC 31, Seismic Load Z

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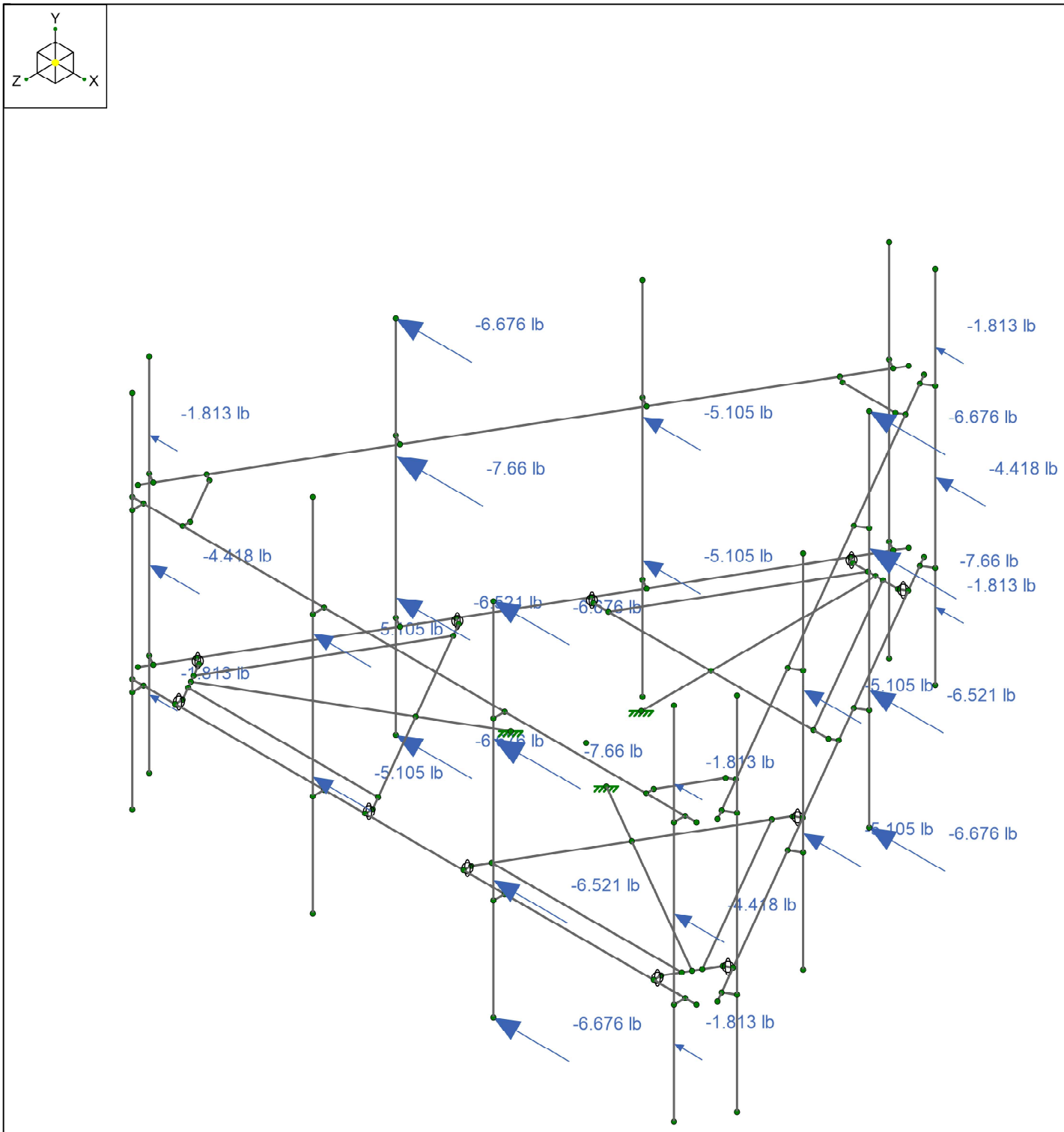

Loads: BLC 32, Seismic Load X

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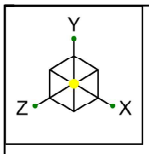

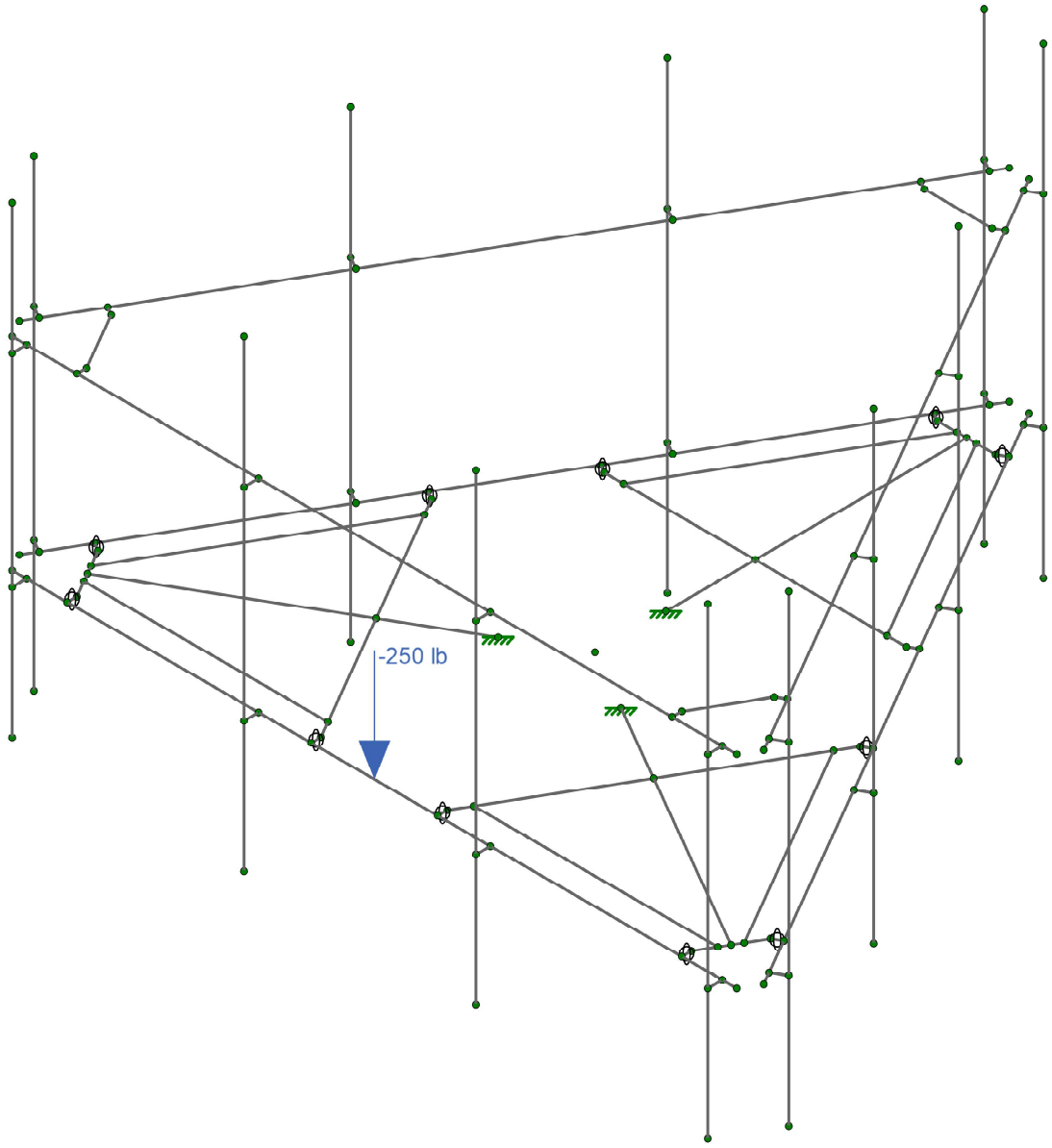

Loads: BLC 33, Service Live Loads

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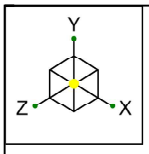

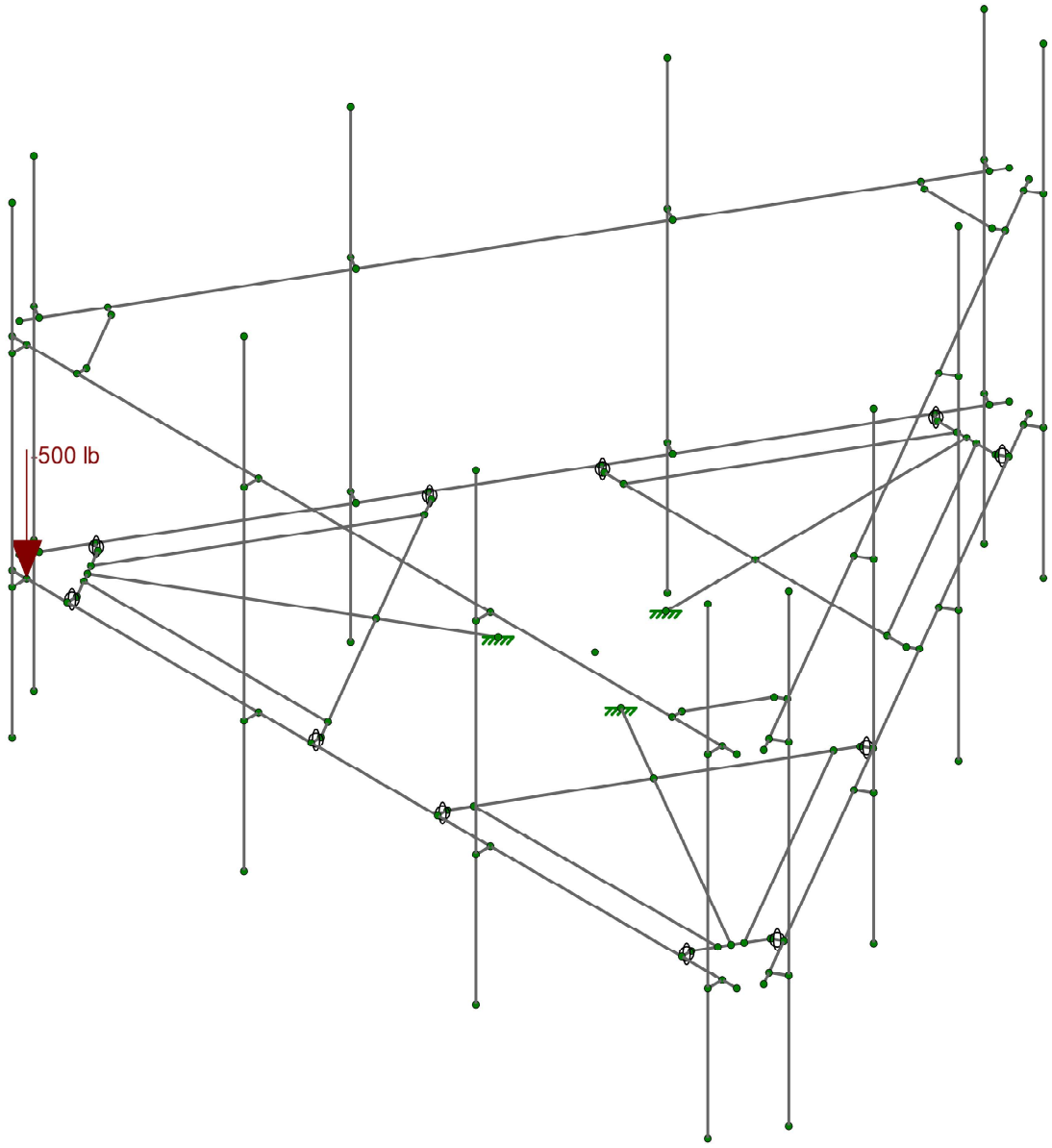

Loads: BLC 34, Maintenance Load 1

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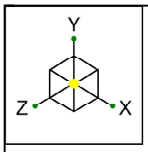

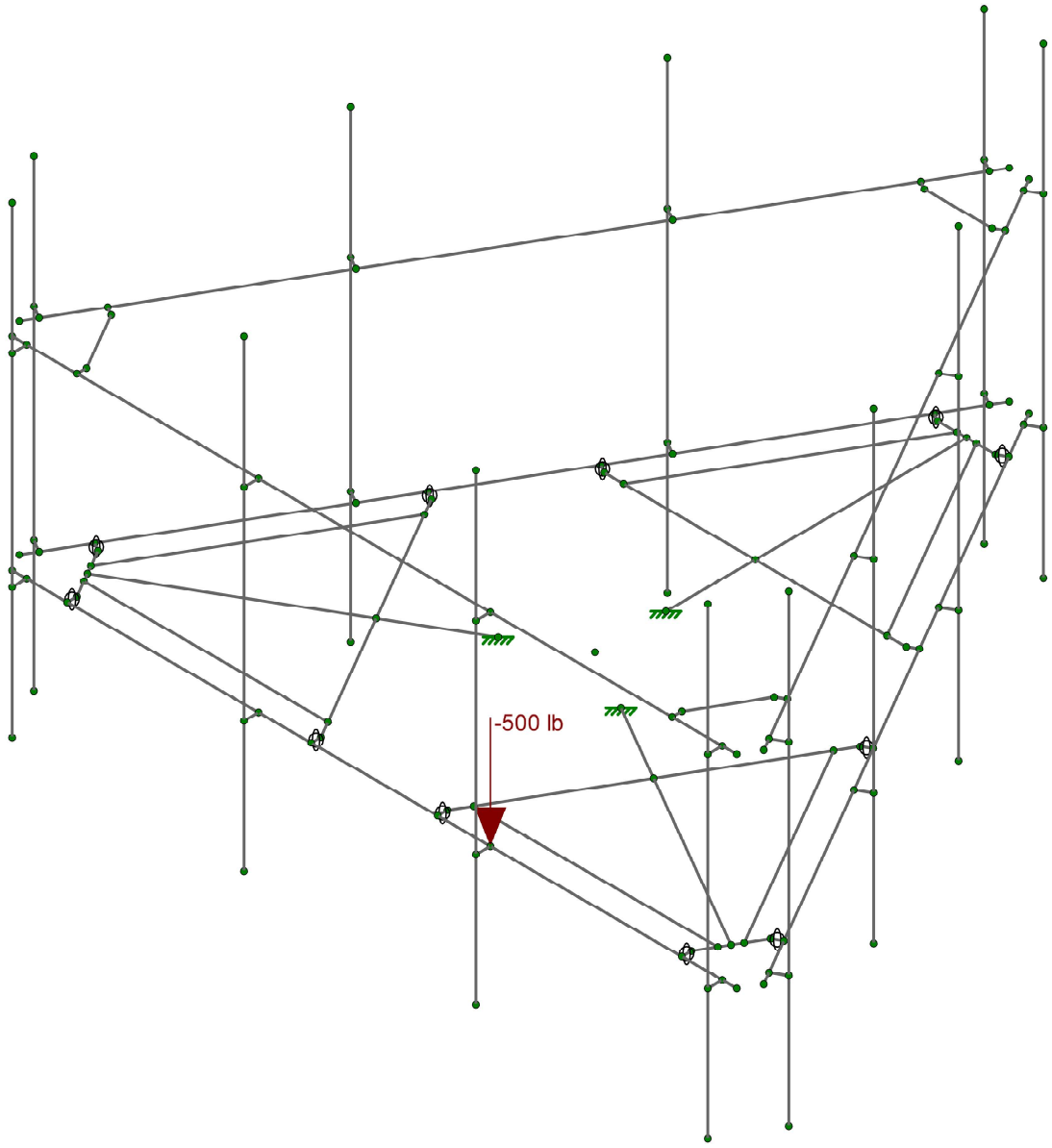

Loads: BLC 35, Maintenance Load 2

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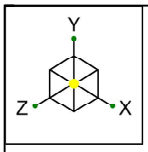

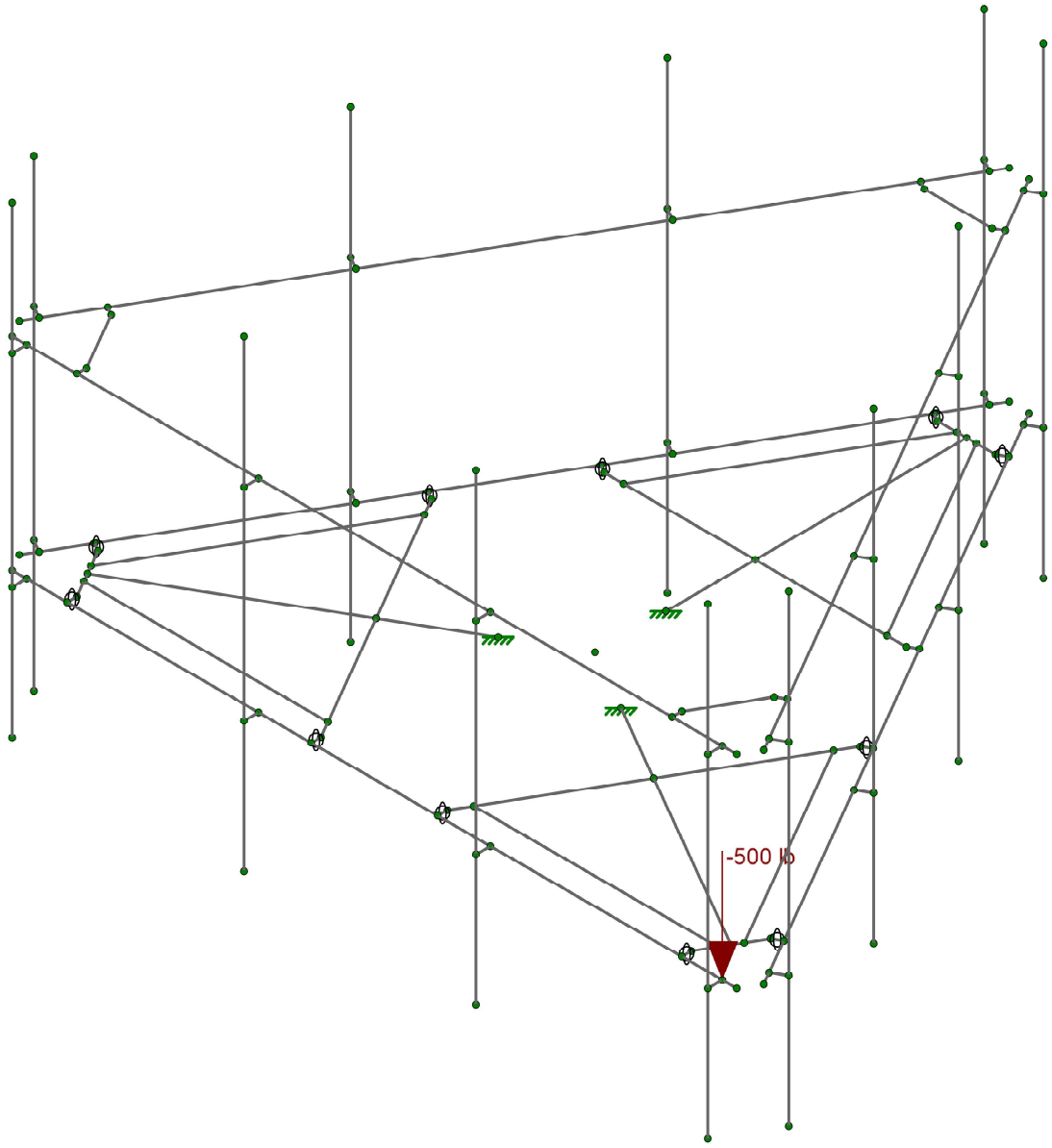

Loads: BLC 36, Maintenance Load 3

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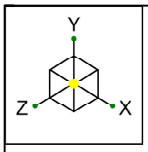

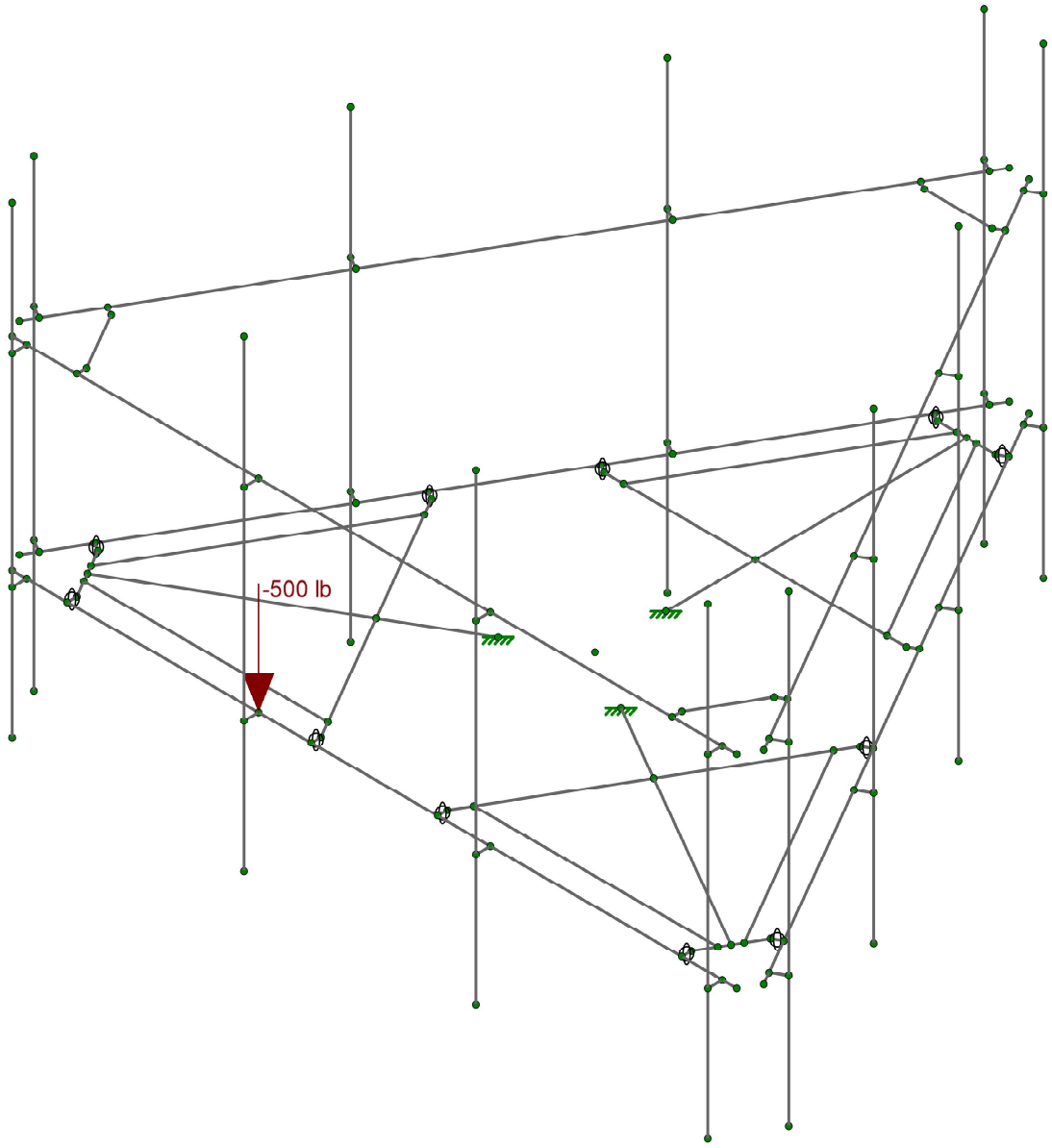

Loads: BLC 43, Maintenance Load 10

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APPENDIX B

SOFTWARE INPUT CALCULATIONS

Program Inputs

PROJECT INFORMATION	
Client:	Crown Castle
Carrier:	Sprint PCS
Engineer:	Hector Rodriguez

SITE INFORMATION		
Risk Category:	II	
Exposure Category:	B	
Topo Factor Procedure:	Method 1, Category 1	
Site Class:	D - Stiff Soil	
Ground Elevation:	159.59	ft *Rev H

MOUNT INFORMATION		
Mount Type:	Platform	
Num Sectors:	3	
Centerline AGL:	150.0	ft
Tower Height AGL:	150.0	ft

TOPOGRAPHIC DATA		
Topo Feature:	N/A	
Slope Distance:	N/A	ft
Crest Distance:	N/A	ft
Crest Height:	N/A	ft

FACTORS		
Directionality Fact. (K_d):	0.95	
Ground Ele. Factor (K_e):	0.99	*Rev H Only
Rooftop Speed-Up (K_s):	1.00	*Rev H Only
Topographic Factor (K_{zt}):	1.00	
Gust Effect Factor (G_h):	1.0	

CODE STANDARDS		
Building Code:	2015 IBC	
TIA Standard:	TIA-222-H	
ASCE Standard:	ASCE 7-10	

WIND AND ICE DATA		
Ultimate Wind (V_{ult}):	135	mph
Design Wind (V):	N/A	mph
Ice Wind (V_{ice}):	50	mph
Base Ice Thickness (t_i):	1.5	in
Flat Pressure:	97.80	psf
Round Pressure:	58.68	psf
Ice Wind Pressure:	8.05	psf

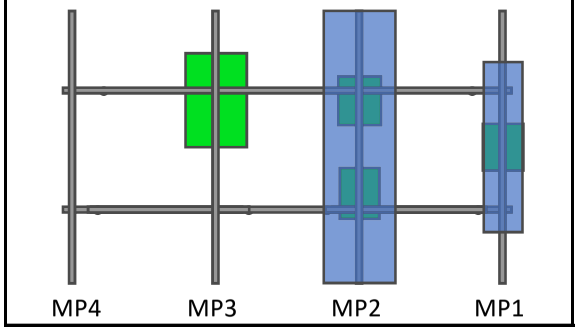
SEISMIC DATA		
Short-Period Accel. (S_s):	0.17	g
1-Second Accel. (S_1):	0.06	g
Short-Period Design (S_{DS}):	0.18	
1-Second Design (S_{D1}):	0.09	
Short-Period Coeff. (F_a):	1.60	
1-Second Coeff. (F_v):	2.40	
Amplification Factor (a_p):	1.00	
Response Mod. (R_p):	2.50	
Overstrength (Ω_o):	1.00	

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless

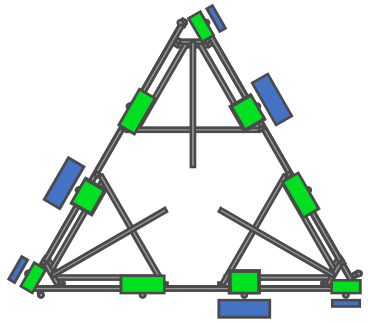
Infinigy Load Calculator V2.1.4

Program Inputs

ELEVATION VIEW



PLAN VIEW



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APPURTENANCE INFORMATION

Appurtenance Name	Elevation	Qty.	K_a	q_z (psf)	EPA_N (ft^2)	EPA_T (ft^2)	Wind F_z (lbs)	Wind F_x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (α sector)
ERICSSON AIR6449 B41_T-MOBILE	152.0	3	0.90	49.08	5.66	2.48	249.99	109.40	114.63	10.21	MP3
FS/CELWAVE APX16DWV-16DWVS-E-A2	152.0	3	0.90	49.08	7.00	2.36	309.04	104.22	40.70	3.63	MP1
/CELWAVE APXVAALL24_43-U-NA20_TI	152.0	3	0.90	49.08	14.67	5.32	648.05	235.01	149.90	13.35	MP2
ERICSSON RADIO 4415 B66A	152.0	3	0.90	49.08	1.86	0.87	82.00	38.44	49.60	4.42	MP1
ERICSSON RADIO 4424 B25_TMO	152.0	3	0.90	49.08	2.05	1.61	90.65	71.13	86.00	7.66	MP2
SSON TME-RADIO 4449 B71 B85A_T-MC	152.0	3	0.90	49.08	1.97	1.59	87.03	70.09	73.21	6.52	MP2

ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-10
Risk Category: II
Soil Class: D - Stiff Soil

Elevation: 159.59 ft (NAVD 88)
Latitude: 41.320167
Longitude: -72.441667

Wind

Results:

As required by the City of Westbrook Basic Design Data

Wind Speed:	135 Vmph
10-year MRI	79 Vmph
25-year MRI	89 Vmph
50-year MRI	97 Vmph
100-year MRI	107 Vmph

Data Source: ASCE/SEI 7-10, Fig. 26.5-1A and Figs. CC-1–CC-4, incorporating errata of March 12, 2014

Date Accessed: Tue Feb 02 2021

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-10 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

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

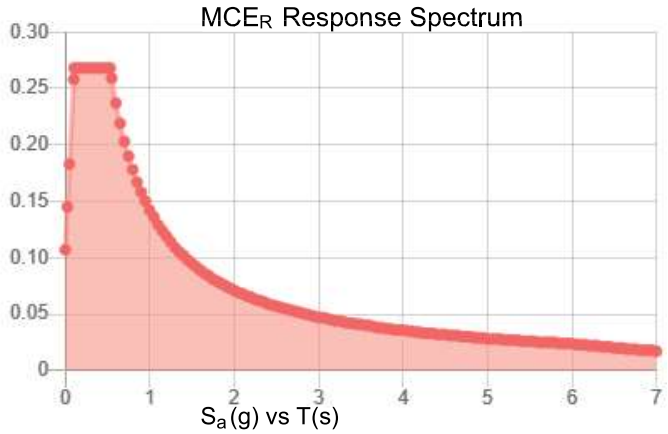
Seismic

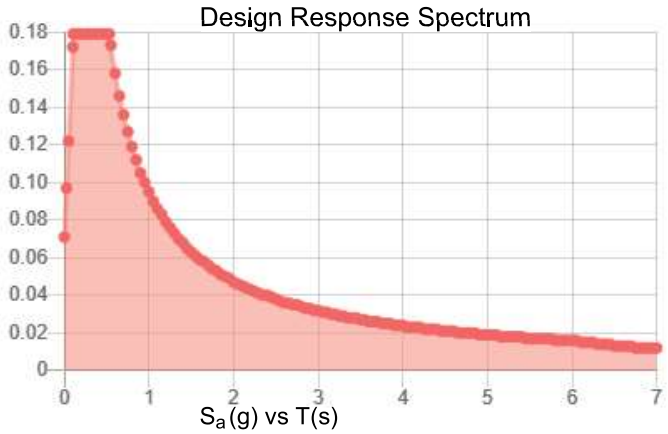
Site Soil Class: D - Stiff Soil

Results:

S_S :	0.167	S_{DS} :	0.179
S_1 :	0.059	S_{D1} :	0.095
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.084
S_{MS} :	0.268	PGA_M :	0.135
S_{M1} :	0.142	F_{PGA} :	1.6
		I_e :	1

Seismic Design Category B





Data Accessed: Tue Feb 02 2021

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 Feb 02 2021

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.

APPENDIX C

SOFTWARE ANALYSIS OUTPUT

Node Coordinates

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
1	N16	-72	-27	48.657819	
2	N17	24	-27	48.657819	
3	N18	72	-27	48.657819	
4	N19	78.138907	-27	38.02492	
5	N20	30.138907	-27	-45.113519	
6	N21	6.138907	-27	-86.682739	
7	N22	-6.138907	-27	-86.682739	
8	N23	-30.138907	-27	-45.113519	
9	N24	-78.138907	-27	38.02492	
10	N34	-12.707479	0	7.336667	
11	N35	-66.617561	0	38.461667	
12	N36	-69.617561	0	33.265514	
13	N37	-63.617561	0	43.657819	
14	N38	12.706625	0	7.335187	
15	N39	0.000854	0	-14.671854	
16	N40	0	0	0	
17	N41	66.617561	0	38.461666	
18	N42	63.617561	0	43.657819	
19	N43	69.617561	0	33.265514	
20	N44	0.000854	0	-76.923334	
21	N45	6	0	-76.923334	
22	N46	-6	0	-76.923334	
23	N47	75	0	45.657819	
24	N48	-75	0	45.657819	
25	N49	0.0006	0	-33.171854	
26	N50	28.727968	0	16.585407	
27	N51	-28.728949	0	16.586667	
28	N52	-31.259928	0	-33.171854	
29	N53	31.259928	0	-33.171854	
30	N54	-13.097704	0	43.657819	
31	N55	-44.357633	0	-10.485965	
32	N56	44.357633	0	-10.485965	
33	N57	13.097704	0	43.657819	
34	N58	67.617561	0	36.729616	
35	N59	65.617561	0	40.193717	
36	N60	15.097704	0	40.193717	
37	N61	42.357633	0	-7.021864	
38	N62	-2	0	-76.923334	
39	N63	2	0	-76.923334	
40	N64	27.259928	0	-33.171854	
41	N65	-27.259928	0	-33.171854	
42	N66	-65.617561	0	40.193717	
43	N67	-67.617561	0	36.729616	
44	N68	-42.357633	0	-7.021864	
45	N69	-15.097704	0	40.193717	
46	N70	-72	0	48.657819	
47	N71	-72	0	45.657819	
48	N72	-63.617561	0	45.657819	
49	N73	63.617561	0	45.657819	
50	N74	-13.097704	0	45.657819	
51	N75	13.097704	0	45.657819	
52	N76	2.040831	0	-87.780815	
53	N77	77.040831	0	42.122996	
54	N78	71.349612	0	32.265514	
55	N79	7.732051	0	-77.923333	
56	N80	46.089683	0	-11.485965	
57	N81	32.991979	0	-34.171854	
58	N82	-77.040831	0	42.122996	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
59	N83	-2.040831	0	-87.780815	
60	N84	-7.732051	0	-77.923333	
61	N85	-71.349612	0	32.265514	
62	N86	-32.991979	0	-34.171854	
63	N87	-46.089683	0	-11.485965	
64	N91	24	0	48.657819	
65	N92	24	0	45.657819	
66	N93	72	0	48.657819	
67	N94	72	0	45.657819	
68	N95	78.138907	0	38.02492	
69	N96	75.540831	0	39.52492	
70	N97	30.138907	0	-45.113519	
71	N98	27.540831	0	-43.613519	
72	N99	6.138907	0	-86.682739	
73	N100	3.540831	0	-85.182739	
74	N101	-6.138907	0	-86.682739	
75	N102	-3.540831	0	-85.182739	
76	N103	-30.138907	0	-45.113519	
77	N104	-27.540831	0	-43.613519	
78	N105	-78.138907	0	38.02492	
79	N106	-75.540831	0	39.52492	
80	N107	75	42	45.657819	
81	N108	-75	42	45.657819	
82	N109	-72	42	48.657819	
83	N110	-61.617561	42	43.657819	
84	N111	-72	42	45.657819	
85	N112	-68.617561	42	31.533464	
86	N113	68.617561	42	31.533464	
87	N114	61.617561	42	43.657819	
88	N115	-7.	42	-75.191282	
89	N116	7.	42	-75.191282	
90	N117	-61.617561	42	45.657819	
91	N118	61.617561	42	45.657819	
92	N119	2.040831	42	-87.780815	
93	N120	77.040831	42	42.122996	
94	N121	70.349612	42	30.533463	
95	N122	8.732051	42	-76.191282	
96	N123	-77.040831	42	42.122996	
97	N124	-2.040831	42	-87.780815	
98	N125	-8.732051	42	-76.191282	
99	N126	-70.349612	42	30.533463	
100	N127	24	42	48.657819	
101	N128	24	42	45.657819	
102	N129	72	42	48.657819	
103	N130	72	42	45.657819	
104	N131	78.138907	42	38.02492	
105	N132	75.540831	42	39.52492	
106	N133	30.138907	42	-45.113519	
107	N134	27.540831	42	-43.613519	
108	N135	6.138907	42	-86.682739	
109	N136	3.540831	42	-85.182739	
110	N137	-6.138907	42	-86.682739	
111	N138	-3.540831	42	-85.182739	
112	N139	-30.138907	42	-45.113519	
113	N140	-27.540831	42	-43.613519	
114	N141	-78.138907	42	38.02492	
115	N142	-75.540831	42	39.52492	
116	N143	-72	69	48.657819	

Node Coordinates (Continued)

	Label	X [in]	Y [in]	Z [in]	Detach From Diaphragm
117	N144	24	69	48.657819	
118	N145	72	69	48.657819	
119	N146	78.138907	69	38.02492	
120	N147	30.138907	69	-45.113519	
121	N148	6.138907	69	-86.682739	
122	N149	-6.138907	69	-86.682739	
123	N150	-30.138907	69	-45.113519	
124	N151	-78.138907	69	38.02492	
125	N155	-24	-27	48.657819	
126	N156	-24	0	48.657819	
127	N157	-24	0	45.657819	
128	N158	-24	42	48.657819	
129	N159	-24	42	45.657819	
130	N160	-24	69	48.657819	
131	N161	-54.138907	-27	-3.5443	
132	N162	-54.138907	0	-3.5443	
133	N163	-51.540831	0	-2.0443	
134	N164	-54.138907	42	-3.5443	
135	N165	-51.540831	42	-2.0443	
136	N166	-54.138907	69	-3.5443	
137	N167	54.138907	-27	-3.5443	
138	N168	54.138907	0	-3.5443	
139	N169	51.540831	0	-2.0443	
140	N170	54.138907	42	-3.5443	
141	N171	51.540831	42	-2.0443	
142	N172	54.138907	69	-3.5443	

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N39	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N38	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N34	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e^{5}°F^{-1}]	Density [k/ft^{3}]	Yield [psi]	Ry	Fu [psi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50000	1.1	65000	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36000	1.5	58000	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50000	1.1	65000	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42000	1.4	58000	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46000	1.4	58000	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35000	1.6	60000	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50000	1.4	65000	1.3
8	Q235-GB	29000	11154	0.3	0.65	0.49	35000	1.5	60000	1.2
9	Q345	29000	11154	0.3	0.65	0.49	36000	1.5	58000	1.2

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in^{2}]	Iyy [in^{4}]	Izz [in^{4}]	J [in^{4}]
1	Stand Off HSS	HSS4X4X8	Beam	Tube	Q235-GB	Typical	6.02	11.9	11.9	21
2	Face Horizontal	PIPE_3.0	Beam	Pipe	Q235-GB	Typical	2.07	2.85	2.85	5.69
3	Grating Support Angle	L2x2x2	Beam	Single Angle	Q345	Typical	0.491	0.189	0.189	0.003
4	Mount Pipe	PIPE_2.0	Column	Pipe	Q235-GB	Typical	1.02	0.627	0.627	1.25
5	Kicker Angle	L2.5x2.5x3	None	None	Q345	Typical	0.901	0.535	0.535	0.011
6	Support Rail Corner Angle	L2.5x2.5x3	None	None	Q345	Typical	0.901	0.535	0.535	0.011
7	Corner Plate	6"x0.37" Plate	Beam	RECT	Q345	Typical	2.22	0.025	6.66	0.097
8	Support Rail	PIPE_2.0	Beam	Single Angle	Q235-GB	Typical	1.02	0.627	0.627	1.25

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	M16	N34	N35		Stand Off HSS	Beam	Tube	Q235-GB	Typical
2	M17	N36	N37		Corner Plate	Beam	RECT	Q345	Typical
3	M18	N36	N85		RIGID	None	None	RIGID	Typical
4	M19	N37	N72		RIGID	None	None	RIGID	Typical
5	M20	N38	N41		Stand Off HSS	Beam	Tube	Q235-GB	Typical
6	M21	N39	N44		Stand Off HSS	Beam	Tube	Q235-GB	Typical
7	M22	N42	N43		Corner Plate	Beam	RECT	Q345	Typical
8	M23	N42	N73		RIGID	None	None	RIGID	Typical
9	M24	N43	N78		RIGID	None	None	RIGID	Typical
10	M25	N45	N46		Corner Plate	Beam	RECT	Q345	Typical
11	M26	N45	N79		RIGID	None	None	RIGID	Typical
12	M27	N46	N84		RIGID	None	None	RIGID	Typical
13	M28	N48	N47		Face Horizontal	Beam	Pipe	Q235-GB	Typical
14	M29	N52	N53		Stand Off HSS	Beam	Tube	Q235-GB	Typical
15	M30	N52	N86		RIGID	None	None	RIGID	Typical
16	M31	N53	N81		RIGID	None	None	RIGID	Typical
17	M32	N54	N55		Stand Off HSS	Beam	Tube	Q235-GB	Typical
18	M33	N54	N74		RIGID	None	None	RIGID	Typical
19	M34	N55	N87		RIGID	None	None	RIGID	Typical
20	M35	N56	N57		Stand Off HSS	Beam	Tube	Q235-GB	Typical
21	M36	N56	N80		RIGID	None	None	RIGID	Typical
22	M37	N57	N75		RIGID	None	None	RIGID	Typical
23	M38	N58	N61	270	Grating Support Angle	Beam	Single Angle	Q345	Typical
24	M39	N59	N60		Grating Support Angle	Beam	Single Angle	Q345	Typical
25	M40	N62	N65	270	Grating Support Angle	Beam	Single Angle	Q345	Typical
26	M41	N63	N64		Grating Support Angle	Beam	Single Angle	Q345	Typical
27	M42	N66	N69	270	Grating Support Angle	Beam	Single Angle	Q345	Typical
28	M43	N67	N68		Grating Support Angle	Beam	Single Angle	Q345	Typical
29	M47	N71	N70		RIGID	None	None	RIGID	Typical
30	M48	N77	N76		Face Horizontal	Beam	Pipe	Q235-GB	Typical
31	M53	N83	N82		Face Horizontal	Beam	Pipe	Q235-GB	Typical
32	M61	N108	N107		Support Rail	Beam	Single Angle	Q235-GB	Typical
33	M62	N110	N112	180	Support Rail Corner Angle	None	None	Q345	Typical
34	M63	N110	N117		RIGID	None	None	RIGID	Typical
35	M67	N111	N109		RIGID	None	None	RIGID	Typical
36	M68	N112	N126		RIGID	None	None	RIGID	Typical
37	M69	N113	N114	180	Support Rail Corner Angle	None	None	Q345	Typical
38	M70	N113	N121		RIGID	None	None	RIGID	Typical
39	M71	N114	N118		RIGID	None	None	RIGID	Typical
40	M72	N115	N116	180	Support Rail Corner Angle	None	None	Q345	Typical
41	M73	N115	N125		RIGID	None	None	RIGID	Typical
42	M74	N116	N122		RIGID	None	None	RIGID	Typical
43	M75	N120	N119		Support Rail	Beam	Single Angle	Q235-GB	Typical
44	M80	N124	N123		Support Rail	Beam	Single Angle	Q235-GB	Typical
45	MP4	N143	N16		Mount Pipe	Column	Pipe	Q235-GB	Typical
46	M64	N92	N91		RIGID	None	None	RIGID	Typical
47	M65	N128	N127		RIGID	None	None	RIGID	Typical
48	MP2	N144	N17		Mount Pipe	Column	Pipe	Q235-GB	Typical
49	M67A	N94	N93		RIGID	None	None	RIGID	Typical
50	M68A	N130	N129		RIGID	None	None	RIGID	Typical
51	MP1	N145	N18		Mount Pipe	Column	Pipe	Q235-GB	Typical
52	M70A	N96	N95		RIGID	None	None	RIGID	Typical
53	M71A	N132	N131		RIGID	None	None	RIGID	Typical
54	MP12	N146	N19		Mount Pipe	Column	Pipe	Q235-GB	Typical
55	M73A	N98	N97		RIGID	None	None	RIGID	Typical
56	M74A	N134	N133		RIGID	None	None	RIGID	Typical
57	MP10	N147	N20		Mount Pipe	Column	Pipe	Q235-GB	Typical
58	M76	N100	N99		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
59	M77	N136	N135		RIGID	None	None	RIGID	Typical
60	MP9	N148	N21		Mount Pipe	Column	Pipe	Q235-GB	Typical
61	M79	N102	N101		RIGID	None	None	RIGID	Typical
62	M80A	N138	N137		RIGID	None	None	RIGID	Typical
63	MP8	N149	N22	30	Mount Pipe	Column	Pipe	Q235-GB	Typical
64	M82	N104	N103		RIGID	None	None	RIGID	Typical
65	M83	N140	N139		RIGID	None	None	RIGID	Typical
66	MP7	N150	N23	30	Mount Pipe	Column	Pipe	Q235-GB	Typical
67	M85	N106	N105		RIGID	None	None	RIGID	Typical
68	M86	N142	N141		RIGID	None	None	RIGID	Typical
69	MP5	N151	N24	30	Mount Pipe	Column	Pipe	Q235-GB	Typical
70	M88	N157	N156		RIGID	None	None	RIGID	Typical
71	M89	N159	N158		RIGID	None	None	RIGID	Typical
72	MP3	N160	N155		Mount Pipe	Column	Pipe	Q235-GB	Typical
73	M91	N163	N162		RIGID	None	None	RIGID	Typical
74	M92	N165	N164		RIGID	None	None	RIGID	Typical
75	MP6	N166	N161	30	Mount Pipe	Column	Pipe	Q235-GB	Typical
76	M94	N169	N168		RIGID	None	None	RIGID	Typical
77	M95	N171	N170		RIGID	None	None	RIGID	Typical
78	MP11	N172	N167		Mount Pipe	Column	Pipe	Q235-GB	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	Lcomp bot [in]	L-Torque [in]	K y-y	K z-z	Function
1	M16	Stand Off HSS	62.25	31.75	31.75	31.75	31.75	31.75			Lateral
2	M17	Corner Plate	12								Lateral
3	M20	Stand Off HSS	62.251	31.75	31.75	31.75	31.75	31.75			Lateral
4	M21	Stand Off HSS	62.251	31.75	31.75	31.75	31.75	31.75			Lateral
5	M22	Corner Plate	12								Lateral
6	M25	Corner Plate	12								Lateral
7	M28	Face Horizontal	150	50.52	50.52	50.52	50.52	50.52			Lateral
8	M29	Stand Off HSS	62.52	27.26	27.26	27.26	27.26	27.26			Lateral
9	M32	Stand Off HSS	62.52	27.26	27.26	27.26	27.26	27.26			Lateral
10	M35	Stand Off HSS	62.52	27.26	27.26	27.26	27.26	27.26			Lateral
11	M38	Grating Support Angle	50.52			Lbyy			0.65	0.65	Lateral
12	M39	Grating Support Angle	50.52			Lbyy			0.65	0.65	Lateral
13	M40	Grating Support Angle	50.52			Lbyy			0.65	0.65	Lateral
14	M41	Grating Support Angle	50.52			Lbyy			0.65	0.65	Lateral
15	M42	Grating Support Angle	50.52			Lbyy			0.65	0.65	Lateral
16	M43	Grating Support Angle	50.52			Lbyy			0.65	0.65	Lateral
17	M48	Face Horizontal	150	50.52	50.52	50.52	50.52	50.52			Lateral
18	M53	Face Horizontal	150	50.52	50.52	50.52	50.52	50.52			Lateral
19	M61	Support Rail	150			Lbyy					Lateral
20	M62	Support Rail Corner Angle	14			Lbyy					Lateral
21	M69	Support Rail Corner Angle	14			Lbyy					Lateral
22	M72	Support Rail Corner Angle	14			Lbyy					Lateral
23	M75	Support Rail	150			Lbyy					Lateral
24	M80	Support Rail	150			Lbyy					Lateral
25	MP4	Mount Pipe	96			Lbyy					Lateral
26	MP2	Mount Pipe	96			Lbyy					Lateral
27	MP1	Mount Pipe	96			Lbyy					Lateral
28	MP12	Mount Pipe	96			Lbyy					Lateral
29	MP10	Mount Pipe	96			Lbyy					Lateral
30	MP9	Mount Pipe	96			Lbyy					Lateral
31	MP8	Mount Pipe	96	42		Lbyy					Lateral
32	MP7	Mount Pipe	96	42		Lbyy					Lateral
33	MP5	Mount Pipe	96	42		Lbyy					Lateral
34	MP3	Mount Pipe	96			Lbyy					Lateral
35	MP6	Mount Pipe	96	42		Lbyy					Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [in]	Lb y-y [in]	Lb z-z [in]	Lcomp top [in]	Lcomp bot [in]	L-Torque [in]	K y-y	K z-z	Function
36	MP11	Mount Pipe	96			Lbyy					Lateral

Member Point Loads (BLC 1 : Self Weight)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	Y	-57.315	31.45
2	MP3	Y	-57.315	64.56
3	MP1	Y	-20.35	18.05
4	MP1	Y	-20.35	77.95
5	MP2	Y	-74.95	0
6	MP2	Y	-74.95	%100
7	MP1	Y	-49.6	%50
8	MP2	Y	-86	%33
9	MP2	Y	-73.21	%67
10	MP7	Y	-57.315	31.45
11	MP7	Y	-57.315	64.56
12	MP5	Y	-20.35	18.05
13	MP5	Y	-20.35	77.95
14	MP6	Y	-74.95	0
15	MP6	Y	-74.95	%100
16	MP5	Y	-49.6	%50
17	MP6	Y	-86	%33
18	MP6	Y	-73.21	%67
19	MP11	Y	-57.315	31.45
20	MP11	Y	-57.315	64.56
21	MP9	Y	-20.35	18.05
22	MP9	Y	-20.35	77.95
23	MP10	Y	-74.95	0
24	MP10	Y	-74.95	%100
25	MP9	Y	-49.6	%50
26	MP10	Y	-86	%33
27	MP10	Y	-73.21	%67

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	0	31.45
2	MP3	Z	-124.99	31.45
3	MP3	X	0	64.56
4	MP3	Z	-124.99	64.56
5	MP1	X	0	18.05
6	MP1	Z	-154.52	18.05
7	MP1	X	0	77.95
8	MP1	Z	-154.52	77.95
9	MP2	X	0	0
10	MP2	Z	-324.03	0
11	MP2	X	0	%100
12	MP2	Z	-324.03	%100
13	MP1	X	0	%50
14	MP1	Z	-82	%50
15	MP2	X	0	%33
16	MP2	Z	-90.65	%33
17	MP2	X	0	%67
18	MP2	Z	-87.03	%67
19	MP7	X	0	31.45
20	MP7	Z	-72.27	31.45
21	MP7	X	0	64.56
22	MP7	Z	-72.27	64.56
23	MP5	X	0	18.05

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
24	MP5	Z	-77.71	18.05
25	MP5	X	0	77.95
26	MP5	Z	-77.71	77.95
27	MP6	X	0	0
28	MP6	Z	-169.14	0
29	MP6	X	0	%100
30	MP6	Z	-169.14	%100
31	MP5	X	0	%50
32	MP5	Z	-49.33	%50
33	MP6	X	0	%33
34	MP6	Z	-76.01	%33
35	MP6	X	0	%67
36	MP6	Z	-74.32	%67
37	MP11	X	0	31.45
38	MP11	Z	-72.27	31.45
39	MP11	X	0	64.56
40	MP11	Z	-72.27	64.56
41	MP9	X	0	18.05
42	MP9	Z	-77.71	18.05
43	MP9	X	0	77.95
44	MP9	Z	-77.71	77.95
45	MP10	X	0	0
46	MP10	Z	-169.14	0
47	MP10	X	0	%100
48	MP10	Z	-169.14	%100
49	MP9	X	0	%50
50	MP9	Z	-49.33	%50
51	MP10	X	0	%33
52	MP10	Z	-76.01	%33
53	MP10	X	0	%67
54	MP10	Z	-74.32	%67

Member Point Loads (BLC 3 : Wind Load AZI 30)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	-53.71	31.45
2	MP3	Z	-93.03	31.45
3	MP3	X	-53.71	64.56
4	MP3	Z	-93.03	64.56
5	MP1	X	-64.46	18.05
6	MP1	Z	-111.65	18.05
7	MP1	X	-64.46	77.95
8	MP1	Z	-111.65	77.95
9	MP2	X	-136.2	0
10	MP2	Z	-235.9	0
11	MP2	X	-136.2	%100
12	MP2	Z	-235.9	%100
13	MP1	X	-35.55	%50
14	MP1	Z	-61.58	%50
15	MP2	X	-42.88	%33
16	MP2	Z	-74.28	%33
17	MP2	X	-41.4	%67
18	MP2	Z	-71.7	%67
19	MP7	X	-53.71	31.45
20	MP7	Z	-93.03	31.45
21	MP7	X	-53.71	64.56
22	MP7	Z	-93.03	64.56
23	MP5	X	-64.46	18.05
24	MP5	Z	-111.65	18.05

Member Point Loads (BLC 3 : Wind Load AZI 30) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
25	MP5	X	-64.46	77.95
26	MP5	Z	-111.65	77.95
27	MP6	X	-136.2	0
28	MP6	Z	-235.9	0
29	MP6	X	-136.2	%100
30	MP6	Z	-235.9	%100
31	MP5	X	-35.55	%50
32	MP5	Z	-61.58	%50
33	MP6	X	-42.88	%33
34	MP6	Z	-74.28	%33
35	MP6	X	-41.4	%67
36	MP6	Z	-71.7	%67
37	MP11	X	-27.35	31.45
38	MP11	Z	-47.37	31.45
39	MP11	X	-27.35	64.56
40	MP11	Z	-47.37	64.56
41	MP9	X	-26.06	18.05
42	MP9	Z	-45.13	18.05
43	MP9	X	-26.06	77.95
44	MP9	Z	-45.13	77.95
45	MP10	X	-58.75	0
46	MP10	Z	-101.76	0
47	MP10	X	-58.75	%100
48	MP10	Z	-101.76	%100
49	MP9	X	-19.22	%50
50	MP9	Z	-33.29	%50
51	MP10	X	-35.57	%33
52	MP10	Z	-61.6	%33
53	MP10	X	-35.04	%67
54	MP10	Z	-60.7	%67

Member Point Loads (BLC 4 : Wind Load AZI 60)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	-62.59	31.45
2	MP3	Z	-36.14	31.45
3	MP3	X	-62.59	64.56
4	MP3	Z	-36.14	64.56
5	MP1	X	-67.3	18.05
6	MP1	Z	-38.86	18.05
7	MP1	X	-67.3	77.95
8	MP1	Z	-38.86	77.95
9	MP2	X	-146.48	0
10	MP2	Z	-84.57	0
11	MP2	X	-146.48	%100
12	MP2	Z	-84.57	%100
13	MP1	X	-42.72	%50
14	MP1	Z	-24.66	%50
15	MP2	X	-65.83	%33
16	MP2	Z	-38.01	%33
17	MP2	X	-64.36	%67
18	MP2	Z	-37.16	%67
19	MP7	X	-108.25	31.45
20	MP7	Z	-62.5	31.45
21	MP7	X	-108.25	64.56
22	MP7	Z	-62.5	64.56
23	MP5	X	-133.82	18.05
24	MP5	Z	-77.26	18.05
25	MP5	X	-133.82	77.95

Member Point Loads (BLC 4 : Wind Load AZI 60) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
26	MP5	Z	-77.26	77.95
27	MP6	X	-280.61	0
28	MP6	Z	-162.01	0
29	MP6	X	-280.61	%100
30	MP6	Z	-162.01	%100
31	MP5	X	-71.01	%50
32	MP5	Z	-41	%50
33	MP6	X	-78.5	%33
34	MP6	Z	-45.32	%33
35	MP6	X	-75.37	%67
36	MP6	Z	-43.51	%67
37	MP11	X	-62.59	31.45
38	MP11	Z	-36.14	31.45
39	MP11	X	-62.59	64.56
40	MP11	Z	-36.14	64.56
41	MP9	X	-67.3	18.05
42	MP9	Z	-38.86	18.05
43	MP9	X	-67.3	77.95
44	MP9	Z	-38.86	77.95
45	MP10	X	-146.48	0
46	MP10	Z	-84.57	0
47	MP10	X	-146.48	%100
48	MP10	Z	-84.57	%100
49	MP9	X	-42.72	%50
50	MP9	Z	-24.66	%50
51	MP10	X	-65.83	%33
52	MP10	Z	-38.01	%33
53	MP10	X	-64.36	%67
54	MP10	Z	-37.16	%67

Member Point Loads (BLC 5 : Wind Load AZI 90)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	-54.7	31.45
2	MP3	Z	0	31.45
3	MP3	X	-54.7	64.56
4	MP3	Z	0	64.56
5	MP1	X	-52.11	18.05
6	MP1	Z	0	18.05
7	MP1	X	-52.11	77.95
8	MP1	Z	0	77.95
9	MP2	X	-117.51	0
10	MP2	Z	0	0
11	MP2	X	-117.51	%100
12	MP2	Z	0	%100
13	MP1	X	-38.44	%50
14	MP1	Z	0	%50
15	MP2	X	-71.13	%33
16	MP2	Z	0	%33
17	MP2	X	-70.09	%67
18	MP2	Z	0	%67
19	MP7	X	-107.42	31.45
20	MP7	Z	0	31.45
21	MP7	X	-107.42	64.56
22	MP7	Z	0	64.56
23	MP5	X	-128.92	18.05
24	MP5	Z	0	18.05
25	MP5	X	-128.92	77.95
26	MP5	Z	0	77.95

Member Point Loads (BLC 5 : Wind Load AZI 90) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
27	MP6	X	-272.4	0
28	MP6	Z	0	0
29	MP6	X	-272.4	%100
30	MP6	Z	0	%100
31	MP5	X	-71.11	%50
32	MP5	Z	0	%50
33	MP6	X	-85.77	%33
34	MP6	Z	0	%33
35	MP6	X	-82.79	%67
36	MP6	Z	0	%67
37	MP11	X	-107.42	31.45
38	MP11	Z	0	31.45
39	MP11	X	-107.42	64.56
40	MP11	Z	0	64.56
41	MP9	X	-128.92	18.05
42	MP9	Z	0	18.05
43	MP9	X	-128.92	77.95
44	MP9	Z	0	77.95
45	MP10	X	-272.4	0
46	MP10	Z	0	0
47	MP10	X	-272.4	%100
48	MP10	Z	0	%100
49	MP9	X	-71.11	%50
50	MP9	Z	0	%50
51	MP10	X	-85.77	%33
52	MP10	Z	0	%33
53	MP10	X	-82.79	%67
54	MP10	Z	0	%67

Member Point Loads (BLC 6 : Wind Load AZI 120)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	-62.59	31.45
2	MP3	Z	36.14	31.45
3	MP3	X	-62.59	64.56
4	MP3	Z	36.14	64.56
5	MP1	X	-67.3	18.05
6	MP1	Z	38.86	18.05
7	MP1	X	-67.3	77.95
8	MP1	Z	38.86	77.95
9	MP2	X	-146.48	0
10	MP2	Z	84.57	0
11	MP2	X	-146.48	%100
12	MP2	Z	84.57	%100
13	MP1	X	-42.72	%50
14	MP1	Z	24.66	%50
15	MP2	X	-65.83	%33
16	MP2	Z	38.01	%33
17	MP2	X	-64.36	%67
18	MP2	Z	37.16	%67
19	MP7	X	-62.59	31.45
20	MP7	Z	36.14	31.45
21	MP7	X	-62.59	64.56
22	MP7	Z	36.14	64.56
23	MP5	X	-67.3	18.05
24	MP5	Z	38.86	18.05
25	MP5	X	-67.3	77.95
26	MP5	Z	38.86	77.95
27	MP6	X	-146.48	0

Member Point Loads (BLC 6 : Wind Load AZI 120) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
28	MP6	Z	84.57	0
29	MP6	X	-146.48	%100
30	MP6	Z	84.57	%100
31	MP5	X	-42.72	%50
32	MP5	Z	24.66	%50
33	MP6	X	-65.83	%33
34	MP6	Z	38.01	%33
35	MP6	X	-64.36	%67
36	MP6	Z	37.16	%67
37	MP11	X	-108.25	31.45
38	MP11	Z	62.5	31.45
39	MP11	X	-108.25	64.56
40	MP11	Z	62.5	64.56
41	MP9	X	-133.82	18.05
42	MP9	Z	77.26	18.05
43	MP9	X	-133.82	77.95
44	MP9	Z	77.26	77.95
45	MP10	X	-280.61	0
46	MP10	Z	162.01	0
47	MP10	X	-280.61	%100
48	MP10	Z	162.01	%100
49	MP9	X	-71.01	%50
50	MP9	Z	41	%50
51	MP10	X	-78.5	%33
52	MP10	Z	45.32	%33
53	MP10	X	-75.37	%67
54	MP10	Z	43.51	%67

Member Point Loads (BLC 7 : Wind Load AZI 150)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	-53.71	31.45
2	MP3	Z	93.03	31.45
3	MP3	X	-53.71	64.56
4	MP3	Z	93.03	64.56
5	MP1	X	-64.46	18.05
6	MP1	Z	111.65	18.05
7	MP1	X	-64.46	77.95
8	MP1	Z	111.65	77.95
9	MP2	X	-136.2	0
10	MP2	Z	235.9	0
11	MP2	X	-136.2	%100
12	MP2	Z	235.9	%100
13	MP1	X	-35.55	%50
14	MP1	Z	61.58	%50
15	MP2	X	-42.88	%33
16	MP2	Z	74.28	%33
17	MP2	X	-41.4	%67
18	MP2	Z	71.7	%67
19	MP7	X	-27.35	31.45
20	MP7	Z	47.37	31.45
21	MP7	X	-27.35	64.56
22	MP7	Z	47.37	64.56
23	MP5	X	-26.06	18.05
24	MP5	Z	45.13	18.05
25	MP5	X	-26.06	77.95
26	MP5	Z	45.13	77.95
27	MP6	X	-58.75	0
28	MP6	Z	101.76	0

Member Point Loads (BLC 7 : Wind Load AZI 150) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
29	MP6	X	-58.75	%100
30	MP6	Z	101.76	%100
31	MP5	X	-19.22	%50
32	MP5	Z	33.29	%50
33	MP6	X	-35.57	%33
34	MP6	Z	61.6	%33
35	MP6	X	-35.04	%67
36	MP6	Z	60.7	%67
37	MP11	X	-53.71	31.45
38	MP11	Z	93.03	31.45
39	MP11	X	-53.71	64.56
40	MP11	Z	93.03	64.56
41	MP9	X	-64.46	18.05
42	MP9	Z	111.65	18.05
43	MP9	X	-64.46	77.95
44	MP9	Z	111.65	77.95
45	MP10	X	-136.2	0
46	MP10	Z	235.9	0
47	MP10	X	-136.2	%100
48	MP10	Z	235.9	%100
49	MP9	X	-35.55	%50
50	MP9	Z	61.58	%50
51	MP10	X	-42.88	%33
52	MP10	Z	74.28	%33
53	MP10	X	-41.4	%67
54	MP10	Z	71.7	%67

Member Point Loads (BLC 8 : Wind Load AZI 180)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	0	31.45
2	MP3	Z	124.99	31.45
3	MP3	X	0	64.56
4	MP3	Z	124.99	64.56
5	MP1	X	0	18.05
6	MP1	Z	154.52	18.05
7	MP1	X	0	77.95
8	MP1	Z	154.52	77.95
9	MP2	X	0	0
10	MP2	Z	324.03	0
11	MP2	X	0	%100
12	MP2	Z	324.03	%100
13	MP1	X	0	%50
14	MP1	Z	82	%50
15	MP2	X	0	%33
16	MP2	Z	90.65	%33
17	MP2	X	0	%67
18	MP2	Z	87.03	%67
19	MP7	X	0	31.45
20	MP7	Z	72.27	31.45
21	MP7	X	0	64.56
22	MP7	Z	72.27	64.56
23	MP5	X	0	18.05
24	MP5	Z	77.71	18.05
25	MP5	X	0	77.95
26	MP5	Z	77.71	77.95
27	MP6	X	0	0
28	MP6	Z	169.14	0
29	MP6	X	0	%100

Member Point Loads (BLC 8 : Wind Load AZI 180) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
30	MP6	Z	169.14	%100
31	MP5	X	0	%50
32	MP5	Z	49.33	%50
33	MP6	X	0	%33
34	MP6	Z	76.01	%33
35	MP6	X	0	%67
36	MP6	Z	74.32	%67
37	MP11	X	0	31.45
38	MP11	Z	72.27	31.45
39	MP11	X	0	64.56
40	MP11	Z	72.27	64.56
41	MP9	X	0	18.05
42	MP9	Z	77.71	18.05
43	MP9	X	0	77.95
44	MP9	Z	77.71	77.95
45	MP10	X	0	0
46	MP10	Z	169.14	0
47	MP10	X	0	%100
48	MP10	Z	169.14	%100
49	MP9	X	0	%50
50	MP9	Z	49.33	%50
51	MP10	X	0	%33
52	MP10	Z	76.01	%33
53	MP10	X	0	%67
54	MP10	Z	74.32	%67

Member Point Loads (BLC 9 : Wind Load AZI 210)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	53.71	31.45
2	MP3	Z	93.03	31.45
3	MP3	X	53.71	64.56
4	MP3	Z	93.03	64.56
5	MP1	X	64.46	18.05
6	MP1	Z	111.65	18.05
7	MP1	X	64.46	77.95
8	MP1	Z	111.65	77.95
9	MP2	X	136.2	0
10	MP2	Z	235.9	0
11	MP2	X	136.2	%100
12	MP2	Z	235.9	%100
13	MP1	X	35.55	%50
14	MP1	Z	61.58	%50
15	MP2	X	42.88	%33
16	MP2	Z	74.28	%33
17	MP2	X	41.4	%67
18	MP2	Z	71.7	%67
19	MP7	X	53.71	31.45
20	MP7	Z	93.03	31.45
21	MP7	X	53.71	64.56
22	MP7	Z	93.03	64.56
23	MP5	X	64.46	18.05
24	MP5	Z	111.65	18.05
25	MP5	X	64.46	77.95
26	MP5	Z	111.65	77.95
27	MP6	X	136.2	0
28	MP6	Z	235.9	0
29	MP6	X	136.2	%100
30	MP6	Z	235.9	%100

Member Point Loads (BLC 9 : Wind Load AZI 210) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
31	MP5	X	35.55	%50
32	MP5	Z	61.58	%50
33	MP6	X	42.88	%33
34	MP6	Z	74.28	%33
35	MP6	X	41.4	%67
36	MP6	Z	71.7	%67
37	MP11	X	27.35	31.45
38	MP11	Z	47.37	31.45
39	MP11	X	27.35	64.56
40	MP11	Z	47.37	64.56
41	MP9	X	26.06	18.05
42	MP9	Z	45.13	18.05
43	MP9	X	26.06	77.95
44	MP9	Z	45.13	77.95
45	MP10	X	58.75	0
46	MP10	Z	101.76	0
47	MP10	X	58.75	%100
48	MP10	Z	101.76	%100
49	MP9	X	19.22	%50
50	MP9	Z	33.29	%50
51	MP10	X	35.57	%33
52	MP10	Z	61.6	%33
53	MP10	X	35.04	%67
54	MP10	Z	60.7	%67

Member Point Loads (BLC 10 : Wind Load AZI 240)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	62.59	31.45
2	MP3	Z	36.14	31.45
3	MP3	X	62.59	64.56
4	MP3	Z	36.14	64.56
5	MP1	X	67.3	18.05
6	MP1	Z	38.86	18.05
7	MP1	X	67.3	77.95
8	MP1	Z	38.86	77.95
9	MP2	X	146.48	0
10	MP2	Z	84.57	0
11	MP2	X	146.48	%100
12	MP2	Z	84.57	%100
13	MP1	X	42.72	%50
14	MP1	Z	24.66	%50
15	MP2	X	65.83	%33
16	MP2	Z	38.01	%33
17	MP2	X	64.36	%67
18	MP2	Z	37.16	%67
19	MP7	X	108.25	31.45
20	MP7	Z	62.5	31.45
21	MP7	X	108.25	64.56
22	MP7	Z	62.5	64.56
23	MP5	X	133.82	18.05
24	MP5	Z	77.26	18.05
25	MP5	X	133.82	77.95
26	MP5	Z	77.26	77.95
27	MP6	X	280.61	0
28	MP6	Z	162.01	0
29	MP6	X	280.61	%100
30	MP6	Z	162.01	%100
31	MP5	X	71.01	%50

Member Point Loads (BLC 10 : Wind Load AZI 240) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
32	MP5	Z	41	%50
33	MP6	X	78.5	%33
34	MP6	Z	45.32	%33
35	MP6	X	75.37	%67
36	MP6	Z	43.51	%67
37	MP11	X	62.59	31.45
38	MP11	Z	36.14	31.45
39	MP11	X	62.59	64.56
40	MP11	Z	36.14	64.56
41	MP9	X	67.3	18.05
42	MP9	Z	38.86	18.05
43	MP9	X	67.3	77.95
44	MP9	Z	38.86	77.95
45	MP10	X	146.48	0
46	MP10	Z	84.57	0
47	MP10	X	146.48	%100
48	MP10	Z	84.57	%100
49	MP9	X	42.72	%50
50	MP9	Z	24.66	%50
51	MP10	X	65.83	%33
52	MP10	Z	38.01	%33
53	MP10	X	64.36	%67
54	MP10	Z	37.16	%67

Member Point Loads (BLC 11 : Wind Load AZI 270)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	54.7	31.45
2	MP3	Z	0	31.45
3	MP3	X	54.7	64.56
4	MP3	Z	0	64.56
5	MP1	X	52.11	18.05
6	MP1	Z	0	18.05
7	MP1	X	52.11	77.95
8	MP1	Z	0	77.95
9	MP2	X	117.51	0
10	MP2	Z	0	0
11	MP2	X	117.51	%100
12	MP2	Z	0	%100
13	MP1	X	38.44	%50
14	MP1	Z	0	%50
15	MP2	X	71.13	%33
16	MP2	Z	0	%33
17	MP2	X	70.09	%67
18	MP2	Z	0	%67
19	MP7	X	107.42	31.45
20	MP7	Z	0	31.45
21	MP7	X	107.42	64.56
22	MP7	Z	0	64.56
23	MP5	X	128.92	18.05
24	MP5	Z	0	18.05
25	MP5	X	128.92	77.95
26	MP5	Z	0	77.95
27	MP6	X	272.4	0
28	MP6	Z	0	0
29	MP6	X	272.4	%100
30	MP6	Z	0	%100
31	MP5	X	71.11	%50
32	MP5	Z	0	%50

Member Point Loads (BLC 11 : Wind Load AZI 270) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
33	MP6	X	85.77	%33
34	MP6	Z	0	%33
35	MP6	X	82.79	%67
36	MP6	Z	0	%67
37	MP11	X	107.42	31.45
38	MP11	Z	0	31.45
39	MP11	X	107.42	64.56
40	MP11	Z	0	64.56
41	MP9	X	128.92	18.05
42	MP9	Z	0	18.05
43	MP9	X	128.92	77.95
44	MP9	Z	0	77.95
45	MP10	X	272.4	0
46	MP10	Z	0	0
47	MP10	X	272.4	%100
48	MP10	Z	0	%100
49	MP9	X	71.11	%50
50	MP9	Z	0	%50
51	MP10	X	85.77	%33
52	MP10	Z	0	%33
53	MP10	X	82.79	%67
54	MP10	Z	0	%67

Member Point Loads (BLC 12 : Wind Load AZI 300)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	62.59	31.45
2	MP3	Z	-36.14	31.45
3	MP3	X	62.59	64.56
4	MP3	Z	-36.14	64.56
5	MP1	X	67.3	18.05
6	MP1	Z	-38.86	18.05
7	MP1	X	67.3	77.95
8	MP1	Z	-38.86	77.95
9	MP2	X	146.48	0
10	MP2	Z	-84.57	0
11	MP2	X	146.48	%100
12	MP2	Z	-84.57	%100
13	MP1	X	42.72	%50
14	MP1	Z	-24.66	%50
15	MP2	X	65.83	%33
16	MP2	Z	-38.01	%33
17	MP2	X	64.36	%67
18	MP2	Z	-37.16	%67
19	MP7	X	62.59	31.45
20	MP7	Z	-36.14	31.45
21	MP7	X	62.59	64.56
22	MP7	Z	-36.14	64.56
23	MP5	X	67.3	18.05
24	MP5	Z	-38.86	18.05
25	MP5	X	67.3	77.95
26	MP5	Z	-38.86	77.95
27	MP6	X	146.48	0
28	MP6	Z	-84.57	0
29	MP6	X	146.48	%100
30	MP6	Z	-84.57	%100
31	MP5	X	42.72	%50
32	MP5	Z	-24.66	%50
33	MP6	X	65.83	%33

Member Point Loads (BLC 12 : Wind Load AZI 300) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
34	MP6	Z	-38.01	%33
35	MP6	X	64.36	%67
36	MP6	Z	-37.16	%67
37	MP11	X	108.25	31.45
38	MP11	Z	-62.5	31.45
39	MP11	X	108.25	64.56
40	MP11	Z	-62.5	64.56
41	MP9	X	133.82	18.05
42	MP9	Z	-77.26	18.05
43	MP9	X	133.82	77.95
44	MP9	Z	-77.26	77.95
45	MP10	X	280.61	0
46	MP10	Z	-162.01	0
47	MP10	X	280.61	%100
48	MP10	Z	-162.01	%100
49	MP9	X	71.01	%50
50	MP9	Z	-41	%50
51	MP10	X	78.5	%33
52	MP10	Z	-45.32	%33
53	MP10	X	75.37	%67
54	MP10	Z	-43.51	%67

Member Point Loads (BLC 13 : Wind Load AZI 330)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	53.71	31.45
2	MP3	Z	-93.03	31.45
3	MP3	X	53.71	64.56
4	MP3	Z	-93.03	64.56
5	MP1	X	64.46	18.05
6	MP1	Z	-111.65	18.05
7	MP1	X	64.46	77.95
8	MP1	Z	-111.65	77.95
9	MP2	X	136.2	0
10	MP2	Z	-235.9	0
11	MP2	X	136.2	%100
12	MP2	Z	-235.9	%100
13	MP1	X	35.55	%50
14	MP1	Z	-61.58	%50
15	MP2	X	42.88	%33
16	MP2	Z	-74.28	%33
17	MP2	X	41.4	%67
18	MP2	Z	-71.7	%67
19	MP7	X	27.35	31.45
20	MP7	Z	-47.37	31.45
21	MP7	X	27.35	64.56
22	MP7	Z	-47.37	64.56
23	MP5	X	26.06	18.05
24	MP5	Z	-45.13	18.05
25	MP5	X	26.06	77.95
26	MP5	Z	-45.13	77.95
27	MP6	X	58.75	0
28	MP6	Z	-101.76	0
29	MP6	X	58.75	%100
30	MP6	Z	-101.76	%100
31	MP5	X	19.22	%50
32	MP5	Z	-33.29	%50
33	MP6	X	35.57	%33
34	MP6	Z	-61.6	%33

Member Point Loads (BLC 13 : Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
35	MP6	X	35.04	%67
36	MP6	Z	-60.7	%67
37	MP11	X	53.71	31.45
38	MP11	Z	-93.03	31.45
39	MP11	X	53.71	64.56
40	MP11	Z	-93.03	64.56
41	MP9	X	64.46	18.05
42	MP9	Z	-111.65	18.05
43	MP9	X	64.46	77.95
44	MP9	Z	-111.65	77.95
45	MP10	X	136.2	0
46	MP10	Z	-235.9	0
47	MP10	X	136.2	%100
48	MP10	Z	-235.9	%100
49	MP9	X	35.55	%50
50	MP9	Z	-61.58	%50
51	MP10	X	42.88	%33
52	MP10	Z	-74.28	%33
53	MP10	X	41.4	%67
54	MP10	Z	-71.7	%67

Member Point Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	Y	-77.387	31.45
2	MP3	Y	-77.387	64.56
3	MP1	Y	-72.85	18.05
4	MP1	Y	-72.85	77.95
5	MP2	Y	-214.17	0
6	MP2	Y	-214.17	%100
7	MP1	Y	-62.391	%50
8	MP2	Y	-86.534	%33
9	MP2	Y	-82.141	%67
10	MP7	Y	-77.387	31.45
11	MP7	Y	-77.387	64.56
12	MP5	Y	-72.85	18.05
13	MP5	Y	-72.85	77.95
14	MP6	Y	-214.17	0
15	MP6	Y	-214.17	%100
16	MP5	Y	-62.391	%50
17	MP6	Y	-86.534	%33
18	MP6	Y	-82.141	%67
19	MP11	Y	-77.387	31.45
20	MP11	Y	-77.387	64.56
21	MP9	Y	-72.85	18.05
22	MP9	Y	-72.85	77.95
23	MP10	Y	-214.17	0
24	MP10	Y	-214.17	%100
25	MP9	Y	-62.391	%50
26	MP10	Y	-86.534	%33
27	MP10	Y	-82.141	%67

Member Point Loads (BLC 17 : Ice Wind Load AZI 0)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	0	31.45
2	MP3	Z	-9.24	31.45
3	MP3	X	0	64.56
4	MP3	Z	-9.24	64.56

Member Point Loads (BLC 17 : Ice Wind Load AZI 0) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
5	MP1	X	0	18.05
6	MP1	Z	-12.08	18.05
7	MP1	X	0	77.95
8	MP1	Z	-12.08	77.95
9	MP2	X	0	0
10	MP2	Z	-30.18	0
11	MP2	X	0	%100
12	MP2	Z	-30.18	%100
13	MP1	X	0	%50
14	MP1	Z	-7.32	%50
15	MP2	X	0	%33
16	MP2	Z	-7.75	%33
17	MP2	X	0	%67
18	MP2	Z	-7.76	%67
19	MP7	X	0	31.45
20	MP7	Z	-6.6	31.45
21	MP7	X	0	64.56
22	MP7	Z	-6.6	64.56
23	MP5	X	0	18.05
24	MP5	Z	-8.71	18.05
25	MP5	X	0	77.95
26	MP5	Z	-8.71	77.95
27	MP6	X	0	0
28	MP6	Z	-21.09	0
29	MP6	X	0	%100
30	MP6	Z	-21.09	%100
31	MP5	X	0	%50
32	MP5	Z	-5.96	%50
33	MP6	X	0	%33
34	MP6	Z	-7.2	%33
35	MP6	X	0	%67
36	MP6	Z	-7.28	%67
37	MP11	X	0	31.45
38	MP11	Z	-6.6	31.45
39	MP11	X	0	64.56
40	MP11	Z	-6.6	64.56
41	MP9	X	0	18.05
42	MP9	Z	-8.71	18.05
43	MP9	X	0	77.95
44	MP9	Z	-8.71	77.95
45	MP10	X	0	0
46	MP10	Z	-21.09	0
47	MP10	X	0	%100
48	MP10	Z	-21.09	%100
49	MP9	X	0	%50
50	MP9	Z	-5.96	%50
51	MP10	X	0	%33
52	MP10	Z	-7.2	%33
53	MP10	X	0	%67
54	MP10	Z	-7.28	%67

Member Point Loads (BLC 18 : Ice Wind Load AZI 30)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	-4.18	31.45
2	MP3	Z	-7.24	31.45
3	MP3	X	-4.18	64.56
4	MP3	Z	-7.24	64.56
5	MP1	X	-5.48	18.05

Member Point Loads (BLC 18 : Ice Wind Load AZI 30) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
6	MP1	Z	-9.49	18.05
7	MP1	X	-5.48	77.95
8	MP1	Z	-9.49	77.95
9	MP2	X	-13.57	0
10	MP2	Z	-23.51	0
11	MP2	X	-13.57	%100
12	MP2	Z	-23.51	%100
13	MP1	X	-3.43	%50
14	MP1	Z	-5.94	%50
15	MP2	X	-3.79	%33
16	MP2	Z	-6.56	%33
17	MP2	X	-3.8	%67
18	MP2	Z	-6.58	%67
19	MP7	X	-4.18	31.45
20	MP7	Z	-7.24	31.45
21	MP7	X	-4.18	64.56
22	MP7	Z	-7.24	64.56
23	MP5	X	-5.48	18.05
24	MP5	Z	-9.49	18.05
25	MP5	X	-5.48	77.95
26	MP5	Z	-9.49	77.95
27	MP6	X	-13.57	0
28	MP6	Z	-23.51	0
29	MP6	X	-13.57	%100
30	MP6	Z	-23.51	%100
31	MP5	X	-3.43	%50
32	MP5	Z	-5.94	%50
33	MP6	X	-3.79	%33
34	MP6	Z	-6.56	%33
35	MP6	X	-3.8	%67
36	MP6	Z	-6.58	%67
37	MP11	X	-2.86	31.45
38	MP11	Z	-4.95	31.45
39	MP11	X	-2.86	64.56
40	MP11	Z	-4.95	64.56
41	MP9	X	-3.8	18.05
42	MP9	Z	-6.57	18.05
43	MP9	X	-3.8	77.95
44	MP9	Z	-6.57	77.95
45	MP10	X	-9.03	0
46	MP10	Z	-15.64	0
47	MP10	X	-9.03	%100
48	MP10	Z	-15.64	%100
49	MP9	X	-2.75	%50
50	MP9	Z	-4.77	%50
51	MP10	X	-3.51	%33
52	MP10	Z	-6.08	%33
53	MP10	X	-3.56	%67
54	MP10	Z	-6.17	%67

Member Point Loads (BLC 19 : Ice Wind Load AZI 60)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	-5.72	31.45
2	MP3	Z	-3.3	31.45
3	MP3	X	-5.72	64.56
4	MP3	Z	-3.3	64.56
5	MP1	X	-7.55	18.05
6	MP1	Z	-4.36	18.05

Member Point Loads (BLC 19 : Ice Wind Load AZI 60) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
7	MP1	X	-7.55	77.95
8	MP1	Z	-4.36	77.95
9	MP2	X	-18.26	0
10	MP2	Z	-10.54	0
11	MP2	X	-18.26	%100
12	MP2	Z	-10.54	%100
13	MP1	X	-5.16	%50
14	MP1	Z	-2.98	%50
15	MP2	X	-6.24	%33
16	MP2	Z	-3.6	%33
17	MP2	X	-6.31	%67
18	MP2	Z	-3.64	%67
19	MP7	X	-8.01	31.45
20	MP7	Z	-4.62	31.45
21	MP7	X	-8.01	64.56
22	MP7	Z	-4.62	64.56
23	MP5	X	-10.46	18.05
24	MP5	Z	-6.04	18.05
25	MP5	X	-10.46	77.95
26	MP5	Z	-6.04	77.95
27	MP6	X	-26.13	0
28	MP6	Z	-15.09	0
29	MP6	X	-26.13	%100
30	MP6	Z	-15.09	%100
31	MP5	X	-6.34	%50
32	MP5	Z	-3.66	%50
33	MP6	X	-6.72	%33
34	MP6	Z	-3.88	%33
35	MP6	X	-6.72	%67
36	MP6	Z	-3.88	%67
37	MP11	X	-5.72	31.45
38	MP11	Z	-3.3	31.45
39	MP11	X	-5.72	64.56
40	MP11	Z	-3.3	64.56
41	MP9	X	-7.55	18.05
42	MP9	Z	-4.36	18.05
43	MP9	X	-7.55	77.95
44	MP9	Z	-4.36	77.95
45	MP10	X	-18.26	0
46	MP10	Z	-10.54	0
47	MP10	X	-18.26	%100
48	MP10	Z	-10.54	%100
49	MP9	X	-5.16	%50
50	MP9	Z	-2.98	%50
51	MP10	X	-6.24	%33
52	MP10	Z	-3.6	%33
53	MP10	X	-6.31	%67
54	MP10	Z	-3.64	%67

Member Point Loads (BLC 20 : Ice Wind Load AZI 90)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	-5.72	31.45
2	MP3	Z	0	31.45
3	MP3	X	-5.72	64.56
4	MP3	Z	0	64.56
5	MP1	X	-7.59	18.05
6	MP1	Z	0	18.05
7	MP1	X	-7.59	77.95

Member Point Loads (BLC 20 : Ice Wind Load AZI 90) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
8	MP1	Z	0	77.95
9	MP2	X	-18.06	0
10	MP2	Z	0	0
11	MP2	X	-18.06	%100
12	MP2	Z	0	%100
13	MP1	X	-5.51	%50
14	MP1	Z	0	%50
15	MP2	X	-7.02	%33
16	MP2	Z	0	%33
17	MP2	X	-7.12	%67
18	MP2	Z	0	%67
19	MP7	X	-8.36	31.45
20	MP7	Z	0	31.45
21	MP7	X	-8.36	64.56
22	MP7	Z	0	64.56
23	MP5	X	-10.96	18.05
24	MP5	Z	0	18.05
25	MP5	X	-10.96	77.95
26	MP5	Z	0	77.95
27	MP6	X	-27.15	0
28	MP6	Z	0	0
29	MP6	X	-27.15	%100
30	MP6	Z	0	%100
31	MP5	X	-6.86	%50
32	MP5	Z	0	%50
33	MP6	X	-7.57	%33
34	MP6	Z	0	%33
35	MP6	X	-7.6	%67
36	MP6	Z	0	%67
37	MP11	X	-8.36	31.45
38	MP11	Z	0	31.45
39	MP11	X	-8.36	64.56
40	MP11	Z	0	64.56
41	MP9	X	-10.96	18.05
42	MP9	Z	0	18.05
43	MP9	X	-10.96	77.95
44	MP9	Z	0	77.95
45	MP10	X	-27.15	0
46	MP10	Z	0	0
47	MP10	X	-27.15	%100
48	MP10	Z	0	%100
49	MP9	X	-6.86	%50
50	MP9	Z	0	%50
51	MP10	X	-7.57	%33
52	MP10	Z	0	%33
53	MP10	X	-7.6	%67
54	MP10	Z	0	%67

Member Point Loads (BLC 21 : Ice Wind Load AZI 120)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	-5.72	31.45
2	MP3	Z	3.3	31.45
3	MP3	X	-5.72	64.56
4	MP3	Z	3.3	64.56
5	MP1	X	-7.55	18.05
6	MP1	Z	4.36	18.05
7	MP1	X	-7.55	77.95
8	MP1	Z	4.36	77.95

Member Point Loads (BLC 21 : Ice Wind Load AZI 120) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
9	MP2	X	-18.26	0
10	MP2	Z	10.54	0
11	MP2	X	-18.26	%100
12	MP2	Z	10.54	%100
13	MP1	X	-5.16	%50
14	MP1	Z	2.98	%50
15	MP2	X	-6.24	%33
16	MP2	Z	3.6	%33
17	MP2	X	-6.31	%67
18	MP2	Z	3.64	%67
19	MP7	X	-5.72	31.45
20	MP7	Z	3.3	31.45
21	MP7	X	-5.72	64.56
22	MP7	Z	3.3	64.56
23	MP5	X	-7.55	18.05
24	MP5	Z	4.36	18.05
25	MP5	X	-7.55	77.95
26	MP5	Z	4.36	77.95
27	MP6	X	-18.26	0
28	MP6	Z	10.54	0
29	MP6	X	-18.26	%100
30	MP6	Z	10.54	%100
31	MP5	X	-5.16	%50
32	MP5	Z	2.98	%50
33	MP6	X	-6.24	%33
34	MP6	Z	3.6	%33
35	MP6	X	-6.31	%67
36	MP6	Z	3.64	%67
37	MP11	X	-8.01	31.45
38	MP11	Z	4.62	31.45
39	MP11	X	-8.01	64.56
40	MP11	Z	4.62	64.56
41	MP9	X	-10.46	18.05
42	MP9	Z	6.04	18.05
43	MP9	X	-10.46	77.95
44	MP9	Z	6.04	77.95
45	MP10	X	-26.13	0
46	MP10	Z	15.09	0
47	MP10	X	-26.13	%100
48	MP10	Z	15.09	%100
49	MP9	X	-6.34	%50
50	MP9	Z	3.66	%50
51	MP10	X	-6.72	%33
52	MP10	Z	3.88	%33
53	MP10	X	-6.72	%67
54	MP10	Z	3.88	%67

Member Point Loads (BLC 22 : Ice Wind Load AZI 150)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	-4.18	31.45
2	MP3	Z	7.24	31.45
3	MP3	X	-4.18	64.56
4	MP3	Z	7.24	64.56
5	MP1	X	-5.48	18.05
6	MP1	Z	9.49	18.05
7	MP1	X	-5.48	77.95
8	MP1	Z	9.49	77.95
9	MP2	X	-13.57	0

Member Point Loads (BLC 22 : Ice Wind Load AZI 150) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
10	MP2	Z	23.51	0
11	MP2	X	-13.57	%100
12	MP2	Z	23.51	%100
13	MP1	X	-3.43	%50
14	MP1	Z	5.94	%50
15	MP2	X	-3.79	%33
16	MP2	Z	6.56	%33
17	MP2	X	-3.8	%67
18	MP2	Z	6.58	%67
19	MP7	X	-2.86	31.45
20	MP7	Z	4.95	31.45
21	MP7	X	-2.86	64.56
22	MP7	Z	4.95	64.56
23	MP5	X	-3.8	18.05
24	MP5	Z	6.57	18.05
25	MP5	X	-3.8	77.95
26	MP5	Z	6.57	77.95
27	MP6	X	-9.03	0
28	MP6	Z	15.64	0
29	MP6	X	-9.03	%100
30	MP6	Z	15.64	%100
31	MP5	X	-2.75	%50
32	MP5	Z	4.77	%50
33	MP6	X	-3.51	%33
34	MP6	Z	6.08	%33
35	MP6	X	-3.56	%67
36	MP6	Z	6.17	%67
37	MP11	X	-4.18	31.45
38	MP11	Z	7.24	31.45
39	MP11	X	-4.18	64.56
40	MP11	Z	7.24	64.56
41	MP9	X	-5.48	18.05
42	MP9	Z	9.49	18.05
43	MP9	X	-5.48	77.95
44	MP9	Z	9.49	77.95
45	MP10	X	-13.57	0
46	MP10	Z	23.51	0
47	MP10	X	-13.57	%100
48	MP10	Z	23.51	%100
49	MP9	X	-3.43	%50
50	MP9	Z	5.94	%50
51	MP10	X	-3.79	%33
52	MP10	Z	6.56	%33
53	MP10	X	-3.8	%67
54	MP10	Z	6.58	%67

Member Point Loads (BLC 23 : Ice Wind Load AZI 180)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	0	31.45
2	MP3	Z	9.24	31.45
3	MP3	X	0	64.56
4	MP3	Z	9.24	64.56
5	MP1	X	0	18.05
6	MP1	Z	12.08	18.05
7	MP1	X	0	77.95
8	MP1	Z	12.08	77.95
9	MP2	X	0	0
10	MP2	Z	30.18	0

Member Point Loads (BLC 23 : Ice Wind Load AZI 180) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
11	MP2	X	0	%100
12	MP2	Z	30.18	%100
13	MP1	X	0	%50
14	MP1	Z	7.32	%50
15	MP2	X	0	%33
16	MP2	Z	7.75	%33
17	MP2	X	0	%67
18	MP2	Z	7.76	%67
19	MP7	X	0	31.45
20	MP7	Z	6.6	31.45
21	MP7	X	0	64.56
22	MP7	Z	6.6	64.56
23	MP5	X	0	18.05
24	MP5	Z	8.71	18.05
25	MP5	X	0	77.95
26	MP5	Z	8.71	77.95
27	MP6	X	0	0
28	MP6	Z	21.09	0
29	MP6	X	0	%100
30	MP6	Z	21.09	%100
31	MP5	X	0	%50
32	MP5	Z	5.96	%50
33	MP6	X	0	%33
34	MP6	Z	7.2	%33
35	MP6	X	0	%67
36	MP6	Z	7.28	%67
37	MP11	X	0	31.45
38	MP11	Z	6.6	31.45
39	MP11	X	0	64.56
40	MP11	Z	6.6	64.56
41	MP9	X	0	18.05
42	MP9	Z	8.71	18.05
43	MP9	X	0	77.95
44	MP9	Z	8.71	77.95
45	MP10	X	0	0
46	MP10	Z	21.09	0
47	MP10	X	0	%100
48	MP10	Z	21.09	%100
49	MP9	X	0	%50
50	MP9	Z	5.96	%50
51	MP10	X	0	%33
52	MP10	Z	7.2	%33
53	MP10	X	0	%67
54	MP10	Z	7.28	%67

Member Point Loads (BLC 24 : Ice Wind Load AZI 210)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	4.18	31.45
2	MP3	Z	7.24	31.45
3	MP3	X	4.18	64.56
4	MP3	Z	7.24	64.56
5	MP1	X	5.48	18.05
6	MP1	Z	9.49	18.05
7	MP1	X	5.48	77.95
8	MP1	Z	9.49	77.95
9	MP2	X	13.57	0
10	MP2	Z	23.51	0
11	MP2	X	13.57	%100

Member Point Loads (BLC 24 : Ice Wind Load AZI 210) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
12	MP2	Z	23.51	%100
13	MP1	X	3.43	%50
14	MP1	Z	5.94	%50
15	MP2	X	3.79	%33
16	MP2	Z	6.56	%33
17	MP2	X	3.8	%67
18	MP2	Z	6.58	%67
19	MP7	X	4.18	31.45
20	MP7	Z	7.24	31.45
21	MP7	X	4.18	64.56
22	MP7	Z	7.24	64.56
23	MP5	X	5.48	18.05
24	MP5	Z	9.49	18.05
25	MP5	X	5.48	77.95
26	MP5	Z	9.49	77.95
27	MP6	X	13.57	0
28	MP6	Z	23.51	0
29	MP6	X	13.57	%100
30	MP6	Z	23.51	%100
31	MP5	X	3.43	%50
32	MP5	Z	5.94	%50
33	MP6	X	3.79	%33
34	MP6	Z	6.56	%33
35	MP6	X	3.8	%67
36	MP6	Z	6.58	%67
37	MP11	X	2.86	31.45
38	MP11	Z	4.95	31.45
39	MP11	X	2.86	64.56
40	MP11	Z	4.95	64.56
41	MP9	X	3.8	18.05
42	MP9	Z	6.57	18.05
43	MP9	X	3.8	77.95
44	MP9	Z	6.57	77.95
45	MP10	X	9.03	0
46	MP10	Z	15.64	0
47	MP10	X	9.03	%100
48	MP10	Z	15.64	%100
49	MP9	X	2.75	%50
50	MP9	Z	4.77	%50
51	MP10	X	3.51	%33
52	MP10	Z	6.08	%33
53	MP10	X	3.56	%67
54	MP10	Z	6.17	%67

Member Point Loads (BLC 25 : Ice Wind Load AZI 240)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	5.72	31.45
2	MP3	Z	3.3	31.45
3	MP3	X	5.72	64.56
4	MP3	Z	3.3	64.56
5	MP1	X	7.55	18.05
6	MP1	Z	4.36	18.05
7	MP1	X	7.55	77.95
8	MP1	Z	4.36	77.95
9	MP2	X	18.26	0
10	MP2	Z	10.54	0
11	MP2	X	18.26	%100
12	MP2	Z	10.54	%100

Member Point Loads (BLC 25 : Ice Wind Load AZI 240) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
13	MP1	X	5.16	%50
14	MP1	Z	2.98	%50
15	MP2	X	6.24	%33
16	MP2	Z	3.6	%33
17	MP2	X	6.31	%67
18	MP2	Z	3.64	%67
19	MP7	X	8.01	31.45
20	MP7	Z	4.62	31.45
21	MP7	X	8.01	64.56
22	MP7	Z	4.62	64.56
23	MP5	X	10.46	18.05
24	MP5	Z	6.04	18.05
25	MP5	X	10.46	77.95
26	MP5	Z	6.04	77.95
27	MP6	X	26.13	0
28	MP6	Z	15.09	0
29	MP6	X	26.13	%100
30	MP6	Z	15.09	%100
31	MP5	X	6.34	%50
32	MP5	Z	3.66	%50
33	MP6	X	6.72	%33
34	MP6	Z	3.88	%33
35	MP6	X	6.72	%67
36	MP6	Z	3.88	%67
37	MP11	X	5.72	31.45
38	MP11	Z	3.3	31.45
39	MP11	X	5.72	64.56
40	MP11	Z	3.3	64.56
41	MP9	X	7.55	18.05
42	MP9	Z	4.36	18.05
43	MP9	X	7.55	77.95
44	MP9	Z	4.36	77.95
45	MP10	X	18.26	0
46	MP10	Z	10.54	0
47	MP10	X	18.26	%100
48	MP10	Z	10.54	%100
49	MP9	X	5.16	%50
50	MP9	Z	2.98	%50
51	MP10	X	6.24	%33
52	MP10	Z	3.6	%33
53	MP10	X	6.31	%67
54	MP10	Z	3.64	%67

Member Point Loads (BLC 26 : Ice Wind Load AZI 270)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	5.72	31.45
2	MP3	Z	0	31.45
3	MP3	X	5.72	64.56
4	MP3	Z	0	64.56
5	MP1	X	7.59	18.05
6	MP1	Z	0	18.05
7	MP1	X	7.59	77.95
8	MP1	Z	0	77.95
9	MP2	X	18.06	0
10	MP2	Z	0	0
11	MP2	X	18.06	%100
12	MP2	Z	0	%100
13	MP1	X	5.51	%50

Member Point Loads (BLC 26 : Ice Wind Load AZI 270) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
14	MP1	Z	0	%50
15	MP2	X	7.02	%33
16	MP2	Z	0	%33
17	MP2	X	7.12	%67
18	MP2	Z	0	%67
19	MP7	X	8.36	31.45
20	MP7	Z	0	31.45
21	MP7	X	8.36	64.56
22	MP7	Z	0	64.56
23	MP5	X	10.96	18.05
24	MP5	Z	0	18.05
25	MP5	X	10.96	77.95
26	MP5	Z	0	77.95
27	MP6	X	27.15	0
28	MP6	Z	0	0
29	MP6	X	27.15	%100
30	MP6	Z	0	%100
31	MP5	X	6.86	%50
32	MP5	Z	0	%50
33	MP6	X	7.57	%33
34	MP6	Z	0	%33
35	MP6	X	7.6	%67
36	MP6	Z	0	%67
37	MP11	X	8.36	31.45
38	MP11	Z	0	31.45
39	MP11	X	8.36	64.56
40	MP11	Z	0	64.56
41	MP9	X	10.96	18.05
42	MP9	Z	0	18.05
43	MP9	X	10.96	77.95
44	MP9	Z	0	77.95
45	MP10	X	27.15	0
46	MP10	Z	0	0
47	MP10	X	27.15	%100
48	MP10	Z	0	%100
49	MP9	X	6.86	%50
50	MP9	Z	0	%50
51	MP10	X	7.57	%33
52	MP10	Z	0	%33
53	MP10	X	7.6	%67
54	MP10	Z	0	%67

Member Point Loads (BLC 27 : Ice Wind Load AZI 300)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	5.72	31.45
2	MP3	Z	-3.3	31.45
3	MP3	X	5.72	64.56
4	MP3	Z	-3.3	64.56
5	MP1	X	7.55	18.05
6	MP1	Z	-4.36	18.05
7	MP1	X	7.55	77.95
8	MP1	Z	-4.36	77.95
9	MP2	X	18.26	0
10	MP2	Z	-10.54	0
11	MP2	X	18.26	%100
12	MP2	Z	-10.54	%100
13	MP1	X	5.16	%50
14	MP1	Z	-2.98	%50

Member Point Loads (BLC 27 : Ice Wind Load AZI 300) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
15	MP2	X	6.24	%33
16	MP2	Z	-3.6	%33
17	MP2	X	6.31	%67
18	MP2	Z	-3.64	%67
19	MP7	X	5.72	31.45
20	MP7	Z	-3.3	31.45
21	MP7	X	5.72	64.56
22	MP7	Z	-3.3	64.56
23	MP5	X	7.55	18.05
24	MP5	Z	-4.36	18.05
25	MP5	X	7.55	77.95
26	MP5	Z	-4.36	77.95
27	MP6	X	18.26	0
28	MP6	Z	-10.54	0
29	MP6	X	18.26	%100
30	MP6	Z	-10.54	%100
31	MP5	X	5.16	%50
32	MP5	Z	-2.98	%50
33	MP6	X	6.24	%33
34	MP6	Z	-3.6	%33
35	MP6	X	6.31	%67
36	MP6	Z	-3.64	%67
37	MP11	X	8.01	31.45
38	MP11	Z	-4.62	31.45
39	MP11	X	8.01	64.56
40	MP11	Z	-4.62	64.56
41	MP9	X	10.46	18.05
42	MP9	Z	-6.04	18.05
43	MP9	X	10.46	77.95
44	MP9	Z	-6.04	77.95
45	MP10	X	26.13	0
46	MP10	Z	-15.09	0
47	MP10	X	26.13	%100
48	MP10	Z	-15.09	%100
49	MP9	X	6.34	%50
50	MP9	Z	-3.66	%50
51	MP10	X	6.72	%33
52	MP10	Z	-3.88	%33
53	MP10	X	6.72	%67
54	MP10	Z	-3.88	%67

Member Point Loads (BLC 28 : Ice Wind Load AZI 330)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	4.18	31.45
2	MP3	Z	-7.24	31.45
3	MP3	X	4.18	64.56
4	MP3	Z	-7.24	64.56
5	MP1	X	5.48	18.05
6	MP1	Z	-9.49	18.05
7	MP1	X	5.48	77.95
8	MP1	Z	-9.49	77.95
9	MP2	X	13.57	0
10	MP2	Z	-23.51	0
11	MP2	X	13.57	%100
12	MP2	Z	-23.51	%100
13	MP1	X	3.43	%50
14	MP1	Z	-5.94	%50
15	MP2	X	3.79	%33

Member Point Loads (BLC 28 : Ice Wind Load AZI 330) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
16	MP2	Z	-6.56	%33
17	MP2	X	3.8	%67
18	MP2	Z	-6.58	%67
19	MP7	X	2.86	31.45
20	MP7	Z	-4.95	31.45
21	MP7	X	2.86	64.56
22	MP7	Z	-4.95	64.56
23	MP5	X	3.8	18.05
24	MP5	Z	-6.57	18.05
25	MP5	X	3.8	77.95
26	MP5	Z	-6.57	77.95
27	MP6	X	9.03	0
28	MP6	Z	-15.64	0
29	MP6	X	9.03	%100
30	MP6	Z	-15.64	%100
31	MP5	X	2.75	%50
32	MP5	Z	-4.77	%50
33	MP6	X	3.51	%33
34	MP6	Z	-6.08	%33
35	MP6	X	3.56	%67
36	MP6	Z	-6.17	%67
37	MP11	X	4.18	31.45
38	MP11	Z	-7.24	31.45
39	MP11	X	4.18	64.56
40	MP11	Z	-7.24	64.56
41	MP9	X	5.48	18.05
42	MP9	Z	-9.49	18.05
43	MP9	X	5.48	77.95
44	MP9	Z	-9.49	77.95
45	MP10	X	13.57	0
46	MP10	Z	-23.51	0
47	MP10	X	13.57	%100
48	MP10	Z	-23.51	%100
49	MP9	X	3.43	%50
50	MP9	Z	-5.94	%50
51	MP10	X	3.79	%33
52	MP10	Z	-6.56	%33
53	MP10	X	3.8	%67
54	MP10	Z	-6.58	%67

Member Point Loads (BLC 31 : Seismic Load Z)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	Z	-5.105	31.45
2	MP3	Z	-5.105	64.56
3	MP1	Z	-1.813	18.05
4	MP1	Z	-1.813	77.95
5	MP2	Z	-6.676	0
6	MP2	Z	-6.676	%100
7	MP1	Z	-4.418	%50
8	MP2	Z	-7.66	%33
9	MP2	Z	-6.521	%67
10	MP7	Z	-5.105	31.45
11	MP7	Z	-5.105	64.56
12	MP5	Z	-1.813	18.05
13	MP5	Z	-1.813	77.95
14	MP6	Z	-6.676	0
15	MP6	Z	-6.676	%100
16	MP5	Z	-4.418	%50

Member Point Loads (BLC 31 : Seismic Load Z) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
17	MP6	Z	-7.66	%33
18	MP6	Z	-6.521	%67
19	MP11	Z	-5.105	31.45
20	MP11	Z	-5.105	64.56
21	MP9	Z	-1.813	18.05
22	MP9	Z	-1.813	77.95
23	MP10	Z	-6.676	0
24	MP10	Z	-6.676	%100
25	MP9	Z	-4.418	%50
26	MP10	Z	-7.66	%33
27	MP10	Z	-6.521	%67

Member Point Loads (BLC 32 : Seismic Load X)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP3	X	-5.105	31.45
2	MP3	X	-5.105	64.56
3	MP1	X	-1.813	18.05
4	MP1	X	-1.813	77.95
5	MP2	X	-6.676	0
6	MP2	X	-6.676	%100
7	MP1	X	-4.418	%50
8	MP2	X	-7.66	%33
9	MP2	X	-6.521	%67
10	MP7	X	-5.105	31.45
11	MP7	X	-5.105	64.56
12	MP5	X	-1.813	18.05
13	MP5	X	-1.813	77.95
14	MP6	X	-6.676	0
15	MP6	X	-6.676	%100
16	MP5	X	-4.418	%50
17	MP6	X	-7.66	%33
18	MP6	X	-6.521	%67
19	MP11	X	-5.105	31.45
20	MP11	X	-5.105	64.56
21	MP9	X	-1.813	18.05
22	MP9	X	-1.813	77.95
23	MP10	X	-6.676	0
24	MP10	X	-6.676	%100
25	MP9	X	-4.418	%50
26	MP10	X	-7.66	%33
27	MP10	X	-6.521	%67

Member Point Loads (BLC 33 : Service Live Loads)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	M28	Y	-250	%50

Member Distributed Loads (BLC 14 : Distr. Wind Load Z)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M16	SZ	-97.796	-97.796	0	%100
2	M17	SZ	0	0	0	%100
3	M18	SZ	0	0	0	%100
4	M19	SZ	0	0	0	%100
5	M20	SZ	-97.796	-97.796	0	%100
6	M21	SZ	-97.796	-97.796	0	%100
7	M22	SZ	0	0	0	%100
8	M23	SZ	0	0	0	%100
9	M24	SZ	0	0	0	%100

Member Distributed Loads (BLC 14 : Distr. Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
10	M25	SZ	0	0	0	%100
11	M26	SZ	0	0	0	%100
12	M27	SZ	0	0	0	%100
13	M28	SZ	-58.678	-58.678	0	%100
14	M29	SZ	-97.796	-97.796	0	%100
15	M30	SZ	0	0	0	%100
16	M31	SZ	0	0	0	%100
17	M32	SZ	-97.796	-97.796	0	%100
18	M33	SZ	0	0	0	%100
19	M34	SZ	0	0	0	%100
20	M35	SZ	-97.796	-97.796	0	%100
21	M36	SZ	0	0	0	%100
22	M37	SZ	0	0	0	%100
23	M38	SZ	0	0	0	%100
24	M39	SZ	0	0	0	%100
25	M40	SZ	0	0	0	%100
26	M41	SZ	0	0	0	%100
27	M42	SZ	0	0	0	%100
28	M43	SZ	0	0	0	%100
29	M47	SZ	0	0	0	%100
30	M48	SZ	-58.678	-58.678	0	%100
31	M53	SZ	-58.678	-58.678	0	%100
32	M61	SZ	-58.678	-58.678	0	%100
33	M62	SZ	0	0	0	%100
34	M63	SZ	0	0	0	%100
35	M67	SZ	0	0	0	%100
36	M68	SZ	0	0	0	%100
37	M69	SZ	0	0	0	%100
38	M70	SZ	0	0	0	%100
39	M71	SZ	0	0	0	%100
40	M72	SZ	0	0	0	%100
41	M73	SZ	0	0	0	%100
42	M74	SZ	0	0	0	%100
43	M75	SZ	-58.678	-58.678	0	%100
44	M80	SZ	-58.678	-58.678	0	%100
45	MP4	SZ	-58.678	-58.678	0	%100
46	M64	SZ	0	0	0	%100
47	M65	SZ	0	0	0	%100
48	MP2	SZ	-58.678	-58.678	0	%100
49	M67A	SZ	0	0	0	%100
50	M68A	SZ	0	0	0	%100
51	MP1	SZ	-58.678	-58.678	0	%100
52	M70A	SZ	0	0	0	%100
53	M71A	SZ	0	0	0	%100
54	MP12	SZ	-58.678	-58.678	0	%100
55	M73A	SZ	0	0	0	%100
56	M74A	SZ	0	0	0	%100
57	MP10	SZ	-58.678	-58.678	0	%100
58	M76	SZ	0	0	0	%100
59	M77	SZ	0	0	0	%100
60	MP9	SZ	-58.678	-58.678	0	%100
61	M79	SZ	0	0	0	%100
62	M80A	SZ	0	0	0	%100
63	MP8	SZ	-58.678	-58.678	0	%100
64	M82	SZ	0	0	0	%100
65	M83	SZ	0	0	0	%100
66	MP7	SZ	-58.678	-58.678	0	%100
67	M85	SZ	0	0	0	%100

Member Distributed Loads (BLC 14 : Distr. Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
68	M86	SZ	0	0	0	%100
69	MP5	SZ	-58.678	-58.678	0	%100
70	M88	SZ	0	0	0	%100
71	M89	SZ	0	0	0	%100
72	MP3	SZ	-58.678	-58.678	0	%100
73	M91	SZ	0	0	0	%100
74	M92	SZ	0	0	0	%100
75	MP6	SZ	-58.678	-58.678	0	%100
76	M94	SZ	0	0	0	%100
77	M95	SZ	0	0	0	%100
78	MP11	SZ	-58.678	-58.678	0	%100

Member Distributed Loads (BLC 15 : Distr. Wind Load X)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M16	SX	-97.796	-97.796	0	%100
2	M17	SX	0	0	0	%100
3	M18	SX	0	0	0	%100
4	M19	SX	0	0	0	%100
5	M20	SX	-97.796	-97.796	0	%100
6	M21	SX	-97.796	-97.796	0	%100
7	M22	SX	0	0	0	%100
8	M23	SX	0	0	0	%100
9	M24	SX	0	0	0	%100
10	M25	SX	0	0	0	%100
11	M26	SX	0	0	0	%100
12	M27	SX	0	0	0	%100
13	M28	SX	-58.678	-58.678	0	%100
14	M29	SX	-97.796	-97.796	0	%100
15	M30	SX	0	0	0	%100
16	M31	SX	0	0	0	%100
17	M32	SX	-97.796	-97.796	0	%100
18	M33	SX	0	0	0	%100
19	M34	SX	0	0	0	%100
20	M35	SX	-97.796	-97.796	0	%100
21	M36	SX	0	0	0	%100
22	M37	SX	0	0	0	%100
23	M38	SX	0	0	0	%100
24	M39	SX	0	0	0	%100
25	M40	SX	0	0	0	%100
26	M41	SX	0	0	0	%100
27	M42	SX	0	0	0	%100
28	M43	SX	0	0	0	%100
29	M47	SX	0	0	0	%100
30	M48	SX	-58.678	-58.678	0	%100
31	M53	SX	-58.678	-58.678	0	%100
32	M61	SX	-58.678	-58.678	0	%100
33	M62	SX	0	0	0	%100
34	M63	SX	0	0	0	%100
35	M67	SX	0	0	0	%100
36	M68	SX	0	0	0	%100
37	M69	SX	0	0	0	%100
38	M70	SX	0	0	0	%100
39	M71	SX	0	0	0	%100
40	M72	SX	0	0	0	%100
41	M73	SX	0	0	0	%100
42	M74	SX	0	0	0	%100
43	M75	SX	-58.678	-58.678	0	%100
44	M80	SX	-58.678	-58.678	0	%100

Member Distributed Loads (BLC 15 : Distr. Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
45	MP4	SX	-58.678	-58.678	0	%100
46	M64	SX	0	0	0	%100
47	M65	SX	0	0	0	%100
48	MP2	SX	-58.678	-58.678	0	%100
49	M67A	SX	0	0	0	%100
50	M68A	SX	0	0	0	%100
51	MP1	SX	-58.678	-58.678	0	%100
52	M70A	SX	0	0	0	%100
53	M71A	SX	0	0	0	%100
54	MP12	SX	-58.678	-58.678	0	%100
55	M73A	SX	0	0	0	%100
56	M74A	SX	0	0	0	%100
57	MP10	SX	-58.678	-58.678	0	%100
58	M76	SX	0	0	0	%100
59	M77	SX	0	0	0	%100
60	MP9	SX	-58.678	-58.678	0	%100
61	M79	SX	0	0	0	%100
62	M80A	SX	0	0	0	%100
63	MP8	SX	-58.678	-58.678	0	%100
64	M82	SX	0	0	0	%100
65	M83	SX	0	0	0	%100
66	MP7	SX	-58.678	-58.678	0	%100
67	M85	SX	0	0	0	%100
68	M86	SX	0	0	0	%100
69	MP5	SX	-58.678	-58.678	0	%100
70	M88	SX	0	0	0	%100
71	M89	SX	0	0	0	%100
72	MP3	SX	-58.678	-58.678	0	%100
73	M91	SX	0	0	0	%100
74	M92	SX	0	0	0	%100
75	MP6	SX	-58.678	-58.678	0	%100
76	M94	SX	0	0	0	%100
77	M95	SX	0	0	0	%100
78	MP11	SX	-58.678	-58.678	0	%100

Member Distributed Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M16	Y	-15.783	-15.783	0	%100
2	M17	Y	-3.721	-3.721	0	%100
3	M18	Y	-3.721	-3.721	0	%100
4	M19	Y	-3.721	-3.721	0	%100
5	M20	Y	-15.783	-15.783	0	%100
6	M21	Y	-15.783	-15.783	0	%100
7	M22	Y	-3.721	-3.721	0	%100
8	M23	Y	-3.721	-3.721	0	%100
9	M24	Y	-3.721	-3.721	0	%100
10	M25	Y	-3.721	-3.721	0	%100
11	M26	Y	-3.721	-3.721	0	%100
12	M27	Y	-3.721	-3.721	0	%100
13	M28	Y	-11.184	-11.184	0	%100
14	M29	Y	-15.783	-15.783	0	%100
15	M30	Y	-3.721	-3.721	0	%100
16	M31	Y	-3.721	-3.721	0	%100
17	M32	Y	-15.783	-15.783	0	%100
18	M33	Y	-3.721	-3.721	0	%100
19	M34	Y	-3.721	-3.721	0	%100
20	M35	Y	-15.783	-15.783	0	%100
21	M36	Y	-3.721	-3.721	0	%100

Member Distributed Loads (BLC 16 : Ice Weight) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
22	M37	Y	-3.721	-3.721	0	%100
23	M38	Y	-3.721	-3.721	0	%100
24	M39	Y	-3.721	-3.721	0	%100
25	M40	Y	-3.721	-3.721	0	%100
26	M41	Y	-3.721	-3.721	0	%100
27	M42	Y	-3.721	-3.721	0	%100
28	M43	Y	-3.721	-3.721	0	%100
29	M47	Y	-3.721	-3.721	0	%100
30	M48	Y	-11.184	-11.184	0	%100
31	M53	Y	-11.184	-11.184	0	%100
32	M61	Y	-8.785	-8.785	0	%100
33	M62	Y	-3.721	-3.721	0	%100
34	M63	Y	-3.721	-3.721	0	%100
35	M67	Y	-3.721	-3.721	0	%100
36	M68	Y	-3.721	-3.721	0	%100
37	M69	Y	-3.721	-3.721	0	%100
38	M70	Y	-3.721	-3.721	0	%100
39	M71	Y	-3.721	-3.721	0	%100
40	M72	Y	-3.721	-3.721	0	%100
41	M73	Y	-3.721	-3.721	0	%100
42	M74	Y	-3.721	-3.721	0	%100
43	M75	Y	-8.785	-8.785	0	%100
44	M80	Y	-8.785	-8.785	0	%100
45	MP4	Y	-8.785	-8.785	0	%100
46	M64	Y	-3.721	-3.721	0	%100
47	M65	Y	-3.721	-3.721	0	%100
48	MP2	Y	-8.785	-8.785	0	%100
49	M67A	Y	-3.721	-3.721	0	%100
50	M68A	Y	-3.721	-3.721	0	%100
51	MP1	Y	-8.785	-8.785	0	%100
52	M70A	Y	-3.721	-3.721	0	%100
53	M71A	Y	-3.721	-3.721	0	%100
54	MP12	Y	-8.785	-8.785	0	%100
55	M73A	Y	-3.721	-3.721	0	%100
56	M74A	Y	-3.721	-3.721	0	%100
57	MP10	Y	-8.785	-8.785	0	%100
58	M76	Y	-3.721	-3.721	0	%100
59	M77	Y	-3.721	-3.721	0	%100
60	MP9	Y	-8.785	-8.785	0	%100
61	M79	Y	-3.721	-3.721	0	%100
62	M80A	Y	-3.721	-3.721	0	%100
63	MP8	Y	-8.785	-8.785	0	%100
64	M82	Y	-3.721	-3.721	0	%100
65	M83	Y	-3.721	-3.721	0	%100
66	MP7	Y	-8.785	-8.785	0	%100
67	M85	Y	-3.721	-3.721	0	%100
68	M86	Y	-3.721	-3.721	0	%100
69	MP5	Y	-8.785	-8.785	0	%100
70	M88	Y	-3.721	-3.721	0	%100
71	M89	Y	-3.721	-3.721	0	%100
72	MP3	Y	-8.785	-8.785	0	%100
73	M91	Y	-3.721	-3.721	0	%100
74	M92	Y	-3.721	-3.721	0	%100
75	MP6	Y	-8.785	-8.785	0	%100
76	M94	Y	-3.721	-3.721	0	%100
77	M95	Y	-3.721	-3.721	0	%100
78	MP11	Y	-8.785	-8.785	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M16	SZ	-13.016	-13.016	0	%100
2	M17	SZ	0	0	0	%100
3	M18	SZ	0	0	0	%100
4	M19	SZ	0	0	0	%100
5	M20	SZ	-13.016	-13.016	0	%100
6	M21	SZ	-13.016	-13.016	0	%100
7	M22	SZ	0	0	0	%100
8	M23	SZ	0	0	0	%100
9	M24	SZ	0	0	0	%100
10	M25	SZ	0	0	0	%100
11	M26	SZ	0	0	0	%100
12	M27	SZ	0	0	0	%100
13	M28	SZ	-16.076	-16.076	0	%100
14	M29	SZ	-13.016	-13.016	0	%100
15	M30	SZ	0	0	0	%100
16	M31	SZ	0	0	0	%100
17	M32	SZ	-13.016	-13.016	0	%100
18	M33	SZ	0	0	0	%100
19	M34	SZ	0	0	0	%100
20	M35	SZ	-13.016	-13.016	0	%100
21	M36	SZ	0	0	0	%100
22	M37	SZ	0	0	0	%100
23	M38	SZ	0	0	0	%100
24	M39	SZ	0	0	0	%100
25	M40	SZ	0	0	0	%100
26	M41	SZ	0	0	0	%100
27	M42	SZ	0	0	0	%100
28	M43	SZ	0	0	0	%100
29	M47	SZ	0	0	0	%100
30	M48	SZ	-16.076	-16.076	0	%100
31	M53	SZ	-16.076	-16.076	0	%100
32	M61	SZ	-19.878	-19.878	0	%100
33	M62	SZ	0	0	0	%100
34	M63	SZ	0	0	0	%100
35	M67	SZ	0	0	0	%100
36	M68	SZ	0	0	0	%100
37	M69	SZ	0	0	0	%100
38	M70	SZ	0	0	0	%100
39	M71	SZ	0	0	0	%100
40	M72	SZ	0	0	0	%100
41	M73	SZ	0	0	0	%100
42	M74	SZ	0	0	0	%100
43	M75	SZ	-19.878	-19.878	0	%100
44	M80	SZ	-19.878	-19.878	0	%100
45	MP4	SZ	-19.878	-19.878	0	%100
46	M64	SZ	0	0	0	%100
47	M65	SZ	0	0	0	%100
48	MP2	SZ	-19.878	-19.878	0	%100
49	M67A	SZ	0	0	0	%100
50	M68A	SZ	0	0	0	%100
51	MP1	SZ	-19.878	-19.878	0	%100
52	M70A	SZ	0	0	0	%100
53	M71A	SZ	0	0	0	%100
54	MP12	SZ	-19.878	-19.878	0	%100
55	M73A	SZ	0	0	0	%100
56	M74A	SZ	0	0	0	%100
57	MP10	SZ	-19.878	-19.878	0	%100
58	M76	SZ	0	0	0	%100

Member Distributed Loads (BLC 29 : Distr. Ice Wind Load Z) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
59	M77	SZ	0	0	0	%100
60	MP9	SZ	-19.878	-19.878	0	%100
61	M79	SZ	0	0	0	%100
62	M80A	SZ	0	0	0	%100
63	MP8	SZ	-19.878	-19.878	0	%100
64	M82	SZ	0	0	0	%100
65	M83	SZ	0	0	0	%100
66	MP7	SZ	-19.878	-19.878	0	%100
67	M85	SZ	0	0	0	%100
68	M86	SZ	0	0	0	%100
69	MP5	SZ	-19.878	-19.878	0	%100
70	M88	SZ	0	0	0	%100
71	M89	SZ	0	0	0	%100
72	MP3	SZ	-19.878	-19.878	0	%100
73	M91	SZ	0	0	0	%100
74	M92	SZ	0	0	0	%100
75	MP6	SZ	-19.878	-19.878	0	%100
76	M94	SZ	0	0	0	%100
77	M95	SZ	0	0	0	%100
78	MP11	SZ	-19.878	-19.878	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M16	SX	-13.016	-13.016	0	%100
2	M17	SX	0	0	0	%100
3	M18	SX	0	0	0	%100
4	M19	SX	0	0	0	%100
5	M20	SX	-13.016	-13.016	0	%100
6	M21	SX	-13.016	-13.016	0	%100
7	M22	SX	0	0	0	%100
8	M23	SX	0	0	0	%100
9	M24	SX	0	0	0	%100
10	M25	SX	0	0	0	%100
11	M26	SX	0	0	0	%100
12	M27	SX	0	0	0	%100
13	M28	SX	-16.076	-16.076	0	%100
14	M29	SX	-13.016	-13.016	0	%100
15	M30	SX	0	0	0	%100
16	M31	SX	0	0	0	%100
17	M32	SX	-13.016	-13.016	0	%100
18	M33	SX	0	0	0	%100
19	M34	SX	0	0	0	%100
20	M35	SX	-13.016	-13.016	0	%100
21	M36	SX	0	0	0	%100
22	M37	SX	0	0	0	%100
23	M38	SX	0	0	0	%100
24	M39	SX	0	0	0	%100
25	M40	SX	0	0	0	%100
26	M41	SX	0	0	0	%100
27	M42	SX	0	0	0	%100
28	M43	SX	0	0	0	%100
29	M47	SX	0	0	0	%100
30	M48	SX	-16.076	-16.076	0	%100
31	M53	SX	-16.076	-16.076	0	%100
32	M61	SX	-19.878	-19.878	0	%100
33	M62	SX	0	0	0	%100
34	M63	SX	0	0	0	%100
35	M67	SX	0	0	0	%100

Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
36	M68	SX	0	0	0	%100
37	M69	SX	0	0	0	%100
38	M70	SX	0	0	0	%100
39	M71	SX	0	0	0	%100
40	M72	SX	0	0	0	%100
41	M73	SX	0	0	0	%100
42	M74	SX	0	0	0	%100
43	M75	SX	-19.878	-19.878	0	%100
44	M80	SX	-19.878	-19.878	0	%100
45	MP4	SX	-19.878	-19.878	0	%100
46	M64	SX	0	0	0	%100
47	M65	SX	0	0	0	%100
48	MP2	SX	-19.878	-19.878	0	%100
49	M67A	SX	0	0	0	%100
50	M68A	SX	0	0	0	%100
51	MP1	SX	-19.878	-19.878	0	%100
52	M70A	SX	0	0	0	%100
53	M71A	SX	0	0	0	%100
54	MP12	SX	-19.878	-19.878	0	%100
55	M73A	SX	0	0	0	%100
56	M74A	SX	0	0	0	%100
57	MP10	SX	-19.878	-19.878	0	%100
58	M76	SX	0	0	0	%100
59	M77	SX	0	0	0	%100
60	MP9	SX	-19.878	-19.878	0	%100
61	M79	SX	0	0	0	%100
62	M80A	SX	0	0	0	%100
63	MP8	SX	-19.878	-19.878	0	%100
64	M82	SX	0	0	0	%100
65	M83	SX	0	0	0	%100
66	MP7	SX	-19.878	-19.878	0	%100
67	M85	SX	0	0	0	%100
68	M86	SX	0	0	0	%100
69	MP5	SX	-19.878	-19.878	0	%100
70	M88	SX	0	0	0	%100
71	M89	SX	0	0	0	%100
72	MP3	SX	-19.878	-19.878	0	%100
73	M91	SX	0	0	0	%100
74	M92	SX	0	0	0	%100
75	MP6	SX	-19.878	-19.878	0	%100
76	M94	SX	0	0	0	%100
77	M95	SX	0	0	0	%100
78	MP11	SX	-19.878	-19.878	0	%100

Member Distributed Loads (BLC 46 : BLC 1 Transient Area Loads)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M16	Y	-0.048	-1.066	18.675	27.39
2	M16	Y	-1.066	-2.243	27.39	36.105
3	M16	Y	-2.243	-1.953	36.105	44.82
4	M16	Y	-1.953	-1.023	44.82	53.535
5	M16	Y	-1.023	-0.064	53.535	62.25
6	M17	Y	-0.145	-0.161	3.734	4.867
7	M17	Y	-0.161	-0.169	4.867	6
8	M17	Y	-0.169	-0.161	6	7.133
9	M17	Y	-0.161	-0.145	7.133	8.266
10	M32	Y	-1.241	-1.241	6.589	55.932
11	M42	Y	-0.28	-0.441	0	9.094
12	M42	Y	-0.441	-0.841	9.094	18.187

Member Distributed Loads (BLC 46 : BLC 1 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
13	M42	Y	-0.841	-1.484	18.187	27.281
14	M42	Y	-1.484	-0.908	27.281	36.374
15	M42	Y	-0.908	-0.008	36.374	45.468
16	M43	Y	-0.28	-0.441	0	9.094
17	M43	Y	-0.441	-0.841	9.094	18.187
18	M43	Y	-0.841	-1.486	18.187	27.281
19	M43	Y	-1.486	-0.909	27.281	36.374
20	M43	Y	-0.909	-0.008	36.374	45.468
21	M20	Y	-0.048	-1.066	18.675	27.391
22	M20	Y	-1.066	-2.243	27.391	36.106
23	M20	Y	-2.243	-1.952	36.106	44.821
24	M20	Y	-1.952	-1.023	44.821	53.536
25	M20	Y	-1.023	-0.064	53.536	62.251
26	M22	Y	-0.145	-0.161	3.734	4.867
27	M22	Y	-0.161	-0.169	4.867	6
28	M22	Y	-0.169	-0.161	6	7.133
29	M22	Y	-0.161	-0.145	7.133	8.266
30	M35	Y	-1.241	-1.241	6.588	55.931
31	M38	Y	-0.28	-0.441	0	9.094
32	M38	Y	-0.441	-0.841	9.094	18.187
33	M38	Y	-0.841	-1.486	18.187	27.281
34	M38	Y	-1.486	-0.909	27.281	36.374
35	M38	Y	-0.909	-0.008	36.374	45.468
36	M39	Y	-0.28	-0.441	0	9.094
37	M39	Y	-0.441	-0.841	9.094	18.187
38	M39	Y	-0.841	-1.484	18.187	27.281
39	M39	Y	-1.484	-0.908	27.281	36.374
40	M39	Y	-0.908	-0.008	36.374	45.468
41	M21	Y	-0.048	-1.066	18.675	27.391
42	M21	Y	-1.066	-2.243	27.391	36.106
43	M21	Y	-2.243	-1.952	36.106	44.821
44	M21	Y	-1.952	-1.023	44.821	53.536
45	M21	Y	-1.023	-0.064	53.536	62.251
46	M25	Y	-0.145	-0.161	3.734	4.867
47	M25	Y	-0.161	-0.169	4.867	6
48	M25	Y	-0.169	-0.161	6	7.133
49	M25	Y	-0.161	-0.145	7.133	8.265
50	M29	Y	-1.241	-1.241	6.589	55.932
51	M40	Y	-0.28	-0.441	0	9.094
52	M40	Y	-0.441	-0.841	9.094	18.187
53	M40	Y	-0.841	-1.484	18.187	27.281
54	M40	Y	-1.484	-0.908	27.281	36.374
55	M40	Y	-0.908	-0.008	36.374	45.468
56	M41	Y	-0.28	-0.441	0	9.094
57	M41	Y	-0.441	-0.841	9.094	18.187
58	M41	Y	-0.841	-1.486	18.187	27.281
59	M41	Y	-1.486	-0.909	27.281	36.374
60	M41	Y	-0.909	-0.008	36.374	45.468

Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
1	M16	Y	-0.447	-9.93	18.675	27.39
2	M16	Y	-9.93	-20.892	27.39	36.105
3	M16	Y	-20.892	-18.187	36.105	44.82
4	M16	Y	-18.187	-9.531	44.82	53.535
5	M16	Y	-9.531	-0.592	53.535	62.25
6	M17	Y	-1.349	-1.5	3.734	4.867
7	M17	Y	-1.5	-1.575	4.867	6

Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude [lb/ft, F, psf, lb-ft/in]	End Magnitude [lb/ft, F, psf, lb-ft/in]	Start Location [(in, %)]	End Location [(in, %)]
8	M17	Y	-1.575	-1.5	6	7.133
9	M17	Y	-1.5	-1.349	7.133	8.266
10	M32	Y	-11.561	-11.561	6.589	55.932
11	M42	Y	-2.609	-4.104	0	9.094
12	M42	Y	-4.104	-7.829	9.094	18.187
13	M42	Y	-7.829	-13.827	18.187	27.281
14	M42	Y	-13.827	-8.46	27.281	36.374
15	M42	Y	-8.46	-0.075	36.374	45.468
16	M43	Y	-2.608	-4.105	0	9.094
17	M43	Y	-4.105	-7.834	9.094	18.187
18	M43	Y	-7.834	-13.839	18.187	27.281
19	M43	Y	-13.839	-8.469	27.281	36.374
20	M43	Y	-8.469	-0.075	36.374	45.468
21	M20	Y	-0.447	-9.929	18.675	27.391
22	M20	Y	-9.929	-20.892	27.391	36.106
23	M20	Y	-20.892	-18.186	36.106	44.821
24	M20	Y	-18.186	-9.531	44.821	53.536
25	M20	Y	-9.531	-0.592	53.536	62.251
26	M22	Y	-1.349	-1.5	3.734	4.867
27	M22	Y	-1.5	-1.575	4.867	6
28	M22	Y	-1.575	-1.5	6	7.133
29	M22	Y	-1.5	-1.349	7.133	8.266
30	M35	Y	-11.561	-11.561	6.589	55.932
31	M38	Y	-2.609	-4.104	0	9.094
32	M38	Y	-4.104	-7.829	9.094	18.187
33	M38	Y	-7.829	-13.826	18.187	27.281
34	M38	Y	-13.826	-8.46	27.281	36.374
35	M38	Y	-8.46	-0.075	36.374	45.468
36	M39	Y	-2.608	-4.105	0	9.094
37	M39	Y	-4.105	-7.834	9.094	18.187
38	M39	Y	-7.834	-13.839	18.187	27.281
39	M39	Y	-13.839	-8.469	27.281	36.374
40	M39	Y	-8.469	-0.075	36.374	45.468
41	M21	Y	-0.447	-9.93	18.675	27.391
42	M21	Y	-9.93	-20.892	27.391	36.106
43	M21	Y	-20.892	-18.186	36.106	44.821
44	M21	Y	-18.186	-9.53	44.821	53.536
45	M21	Y	-9.53	-0.592	53.536	62.251
46	M25	Y	-1.349	-1.499	3.734	4.867
47	M25	Y	-1.499	-1.575	4.867	6
48	M25	Y	-1.575	-1.501	6	7.133
49	M25	Y	-1.501	-1.351	7.133	8.265
50	M29	Y	-11.562	-11.562	6.589	55.932
51	M40	Y	-2.609	-4.105	0	9.094
52	M40	Y	-4.105	-7.83	9.094	18.187
53	M40	Y	-7.83	-13.827	18.187	27.281
54	M40	Y	-13.827	-8.46	27.281	36.374
55	M40	Y	-8.46	-0.075	36.374	45.468
56	M41	Y	-2.607	-4.104	0	9.094
57	M41	Y	-4.104	-7.833	9.094	18.187
58	M41	Y	-7.833	-13.838	18.187	27.281
59	M41	Y	-13.838	-8.469	27.281	36.374
60	M41	Y	-8.469	-0.075	36.374	45.468

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Nodal	Point	Distributed	Area(Member)
1	Self Weight	DL		-1			27		4
2	Wind Load AZI 0	WLZ					54		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Nodal	Point	Distributed	Area(Member)
3	Wind Load AZI 30	None					54		
4	Wind Load AZI 60	None					54		
5	Wind Load AZI 90	WLX					54		
6	Wind Load AZI 120	None					54		
7	Wind Load AZI 150	None					54		
8	Wind Load AZI 180	None					54		
9	Wind Load AZI 210	None					54		
10	Wind Load AZI 240	None					54		
11	Wind Load AZI 270	None					54		
12	Wind Load AZI 300	None					54		
13	Wind Load AZI 330	None					54		
14	Distr. Wind Load Z	WLZ						78	
15	Distr. Wind Load X	WLX						78	
16	Ice Weight	OL1					27	78	3
17	Ice Wind Load AZI 0	OL2					54		
18	Ice Wind Load AZI 30	None					54		
19	Ice Wind Load AZI 60	None					54		
20	Ice Wind Load AZI 90	OL3					54		
21	Ice Wind Load AZI 120	None					54		
22	Ice Wind Load AZI 150	None					54		
23	Ice Wind Load AZI 180	None					54		
24	Ice Wind Load AZI 210	None					54		
25	Ice Wind Load AZI 240	None					54		
26	Ice Wind Load AZI 270	None					54		
27	Ice Wind Load AZI 300	None					54		
28	Ice Wind Load AZI 330	None					54		
29	Distr. Ice Wind Load Z	OL2						78	
30	Distr. Ice Wind Load X	OL3						78	
31	Seismic Load Z	ELZ			-0.089		27		
32	Seismic Load X	ELX	-0.089				27		
33	Service Live Loads	LL					1		
34	Maintenance Load 1	LL				1			
35	Maintenance Load 2	LL				1			
36	Maintenance Load 3	LL				1			
37	Maintenance Load 4	LL				1			
38	Maintenance Load 5	LL				1			
39	Maintenance Load 6	LL				1			
40	Maintenance Load 7	LL				1			
41	Maintenance Load 8	LL				1			
42	Maintenance Load 9	LL				1			
43	Maintenance Load 10	LL				1			
44	Maintenance Load 11	LL				1			
45	Maintenance Load 12	LL				1			
46	BLC 1 Transient Area Loads	None						60	
47	BLC 16 Transient Area Loads	None						60	

Load Combinations

	Description	Solve	PDelta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4DL	Yes	Y	1	1.4								
2	1.2DL + 1WL AZI 0	Yes	Y	1	1.2	2	1	14	1	15			
3	1.2DL + 1WL AZI 30	Yes	Y	1	1.2	3	1	14	0.866	15	0.5		
4	1.2DL + 1WL AZI 60	Yes	Y	1	1.2	4	1	14	0.5	15	0.866		
5	1.2DL + 1WL AZI 90	Yes	Y	1	1.2	5	1	14		15	1		
6	1.2DL + 1WL AZI 120	Yes	Y	1	1.2	6	1	14	-0.5	15	0.866		
7	1.2DL + 1WL AZI 150	Yes	Y	1	1.2	7	1	14	-0.866	15	0.5		
8	1.2DL + 1WL AZI 180	Yes	Y	1	1.2	8	1	14	-1	15			
9	1.2DL + 1WL AZI 210	Yes	Y	1	1.2	9	1	14	-0.866	15	-0.5		
10	1.2DL + 1WL AZI 240	Yes	Y	1	1.2	10	1	14	-0.5	15	-0.866		

Load Combinations (Continued)

	Description	Solve PDelta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
11	1.2DL + 1WL AZI 270	Yes Y	1	1.2	11	1	14		15	-1		
12	1.2DL + 1WL AZI 300	Yes Y	1	1.2	12	1	14	0.5	15	-0.866		
13	1.2DL + 1WL AZI 330	Yes Y	1	1.2	13	1	14	0.866	15	-0.5		
14	0.9DL + 1WL AZI 0	Yes Y	1	0.9	2	1	14	1	15			
15	0.9DL + 1WL AZI 30	Yes Y	1	0.9	3	1	14	0.866	15	0.5		
16	0.9DL + 1WL AZI 60	Yes Y	1	0.9	4	1	14	0.5	15	0.866		
17	0.9DL + 1WL AZI 90	Yes Y	1	0.9	5	1	14		15	1		
18	0.9DL + 1WL AZI 120	Yes Y	1	0.9	6	1	14	-0.5	15	0.866		
19	0.9DL + 1WL AZI 150	Yes Y	1	0.9	7	1	14	-0.866	15	0.5		
20	0.9DL + 1WL AZI 180	Yes Y	1	0.9	8	1	14	-1	15			
21	0.9DL + 1WL AZI 210	Yes Y	1	0.9	9	1	14	-0.866	15	-0.5		
22	0.9DL + 1WL AZI 240	Yes Y	1	0.9	10	1	14	-0.5	15	-0.866		
23	0.9DL + 1WL AZI 270	Yes Y	1	0.9	11	1	14		15	-1		
24	0.9DL + 1WL AZI 300	Yes Y	1	0.9	12	1	14	0.5	15	-0.866		
25	0.9DL + 1WL AZI 330	Yes Y	1	0.9	13	1	14	0.866	15	-0.5		
26	1.2D + 1.0Di	Yes Y	1	1.2	16	1						
27	1.2D + 1.0Di +1.0Wi AZI 0	Yes Y	1	1.2	16	1	17	1	29	1	30	
28	1.2D + 1.0Di +1.0Wi AZI 30	Yes Y	1	1.2	16	1	18	1	29	0.866	30	0.5
29	1.2D + 1.0Di +1.0Wi AZI 60	Yes Y	1	1.2	16	1	19	1	29	0.5	30	0.866
30	1.2D + 1.0Di +1.0Wi AZI 90	Yes Y	1	1.2	16	1	20	1	29		30	1
31	1.2D + 1.0Di +1.0Wi AZI 120	Yes Y	1	1.2	16	1	21	1	29	-0.5	30	0.866
32	1.2D + 1.0Di +1.0Wi AZI 150	Yes Y	1	1.2	16	1	22	1	29	-0.866	30	0.5
33	1.2D + 1.0Di +1.0Wi AZI 180	Yes Y	1	1.2	16	1	23	1	29	-1	30	
34	1.2D + 1.0Di +1.0Wi AZI 210	Yes Y	1	1.2	16	1	24	1	29	-0.866	30	-0.5
35	1.2D + 1.0Di +1.0Wi AZI 240	Yes Y	1	1.2	16	1	25	1	29	-0.5	30	-0.866
36	1.2D + 1.0Di +1.0Wi AZI 270	Yes Y	1	1.2	16	1	26	1	29		30	-1
37	1.2D + 1.0Di +1.0Wi AZI 300	Yes Y	1	1.2	16	1	27	1	29	0.5	30	-0.866
38	1.2D + 1.0Di +1.0Wi AZI 330	Yes Y	1	1.2	16	1	28	1	29	0.866	30	-0.5
39	(1.2 + 0.2Sds)DL + 1.0E AZI 0	Yes Y	1	1.236	31	1	32					
40	(1.2 + 0.2Sds)DL + 1.0E AZI 30	Yes Y	1	1.236	31	0.866	32	0.5				
41	(1.2 + 0.2Sds)DL + 1.0E AZI 60	Yes Y	1	1.236	31	0.5	32	0.866				
42	(1.2 + 0.2Sds)DL + 1.0E AZI 90	Yes Y	1	1.236	31		32	1				
43	(1.2 + 0.2Sds)DL + 1.0E AZI 120	Yes Y	1	1.236	31	-0.5	32	0.866				
44	(1.2 + 0.2Sds)DL + 1.0E AZI 150	Yes Y	1	1.236	31	-0.866	32	0.5				
45	(1.2 + 0.2Sds)DL + 1.0E AZI 180	Yes Y	1	1.236	31	-1	32					
46	(1.2 + 0.2Sds)DL + 1.0E AZI 210	Yes Y	1	1.236	31	-0.866	32	-0.5				
47	(1.2 + 0.2Sds)DL + 1.0E AZI 240	Yes Y	1	1.236	31	-0.5	32	-0.866				
48	(1.2 + 0.2Sds)DL + 1.0E AZI 270	Yes Y	1	1.236	31		32	-1				
49	(1.2 + 0.2Sds)DL + 1.0E AZI 300	Yes Y	1	1.236	31	0.5	32	-0.866				
50	(1.2 + 0.2Sds)DL + 1.0E AZI 330	Yes Y	1	1.236	31	0.866	32	-0.5				
51	(0.9 - 0.2Sds)DL + 1.0E AZI 0	Yes Y	1	0.864	31	1	32					
52	(0.9 - 0.2Sds)DL + 1.0E AZI 30	Yes Y	1	0.864	31	0.866	32	0.5				
53	(0.9 - 0.2Sds)DL + 1.0E AZI 60	Yes Y	1	0.864	31	0.5	32	0.866				
54	(0.9 - 0.2Sds)DL + 1.0E AZI 90	Yes Y	1	0.864	31		32	1				
55	(0.9 - 0.2Sds)DL + 1.0E AZI 120	Yes Y	1	0.864	31	-0.5	32	0.866				
56	(0.9 - 0.2Sds)DL + 1.0E AZI 150	Yes Y	1	0.864	31	-0.866	32	0.5				
57	(0.9 - 0.2Sds)DL + 1.0E AZI 180	Yes Y	1	0.864	31	-1	32					
58	(0.9 - 0.2Sds)DL + 1.0E AZI 210	Yes Y	1	0.864	31	-0.866	32	-0.5				
59	(0.9 - 0.2Sds)DL + 1.0E AZI 240	Yes Y	1	0.864	31	-0.5	32	-0.866				
60	(0.9 - 0.2Sds)DL + 1.0E AZI 270	Yes Y	1	0.864	31		32	-1				
61	(0.9 - 0.2Sds)DL + 1.0E AZI 300	Yes Y	1	0.864	31	0.5	32	-0.866				
62	(0.9 - 0.2Sds)DL + 1.0E AZI 330	Yes Y	1	0.864	31	0.866	32	-0.5				
63	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 0	Yes Y	1	1	2	0.198	14	0.198	15		33	1.5
64	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 30	Yes Y	1	1	3	0.198	14	0.171	15	0.099	33	1.5
65	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 60	Yes Y	1	1	4	0.198	14	0.099	15	0.171	33	1.5
66	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 90	Yes Y	1	1	5	0.198	14		15	0.198	33	1.5
67	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 120	Yes Y	1	1	6	0.198	14	-0.099	15	0.171	33	1.5
68	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 150	Yes Y	1	1	7	0.198	14	-0.171	15	0.099	33	1.5

Load Combinations (Continued)

	Description	Solve	PDelta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
69	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 180	Yes	Y	1	1	8	0.198	14	-0.198	15		33	1.5
70	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 210	Yes	Y	1	1	9	0.198	14	-0.171	15	-0.099	33	1.5
71	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 240	Yes	Y	1	1	10	0.198	14	-0.099	15	-0.171	33	1.5
72	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 270	Yes	Y	1	1	11	0.198	14		15	-0.198	33	1.5
73	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 300	Yes	Y	1	1	12	0.198	14	0.099	15	-0.171	33	1.5
74	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 330	Yes	Y	1	1	13	0.198	14	0.171	15	-0.099	33	1.5
75	1.2DL + 1.5LL	Yes	Y	1	1.2	33	1.5						
76	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	34	1.5	2	0.049	14	0.049	15	
77	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	34	1.5	3	0.049	14	0.043	15	0.025
78	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	34	1.5	4	0.049	14	0.025	15	0.043
79	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	34	1.5	5	0.049	14		15	0.049
80	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	34	1.5	6	0.049	14	-0.025	15	0.043
81	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	34	1.5	7	0.049	14	-0.043	15	0.025
82	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	34	1.5	8	0.049	14	-0.049	15	
83	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	34	1.5	9	0.049	14	-0.043	15	-0.025
84	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	34	1.5	10	0.049	14	-0.025	15	-0.043
85	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	34	1.5	11	0.049	14		15	-0.049
86	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	34	1.5	12	0.049	14	0.025	15	-0.043
87	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	34	1.5	13	0.049	14	0.043	15	-0.025
88	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	35	1.5	2	0.049	14	0.049	15	
89	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	35	1.5	3	0.049	14	0.043	15	0.025
90	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	35	1.5	4	0.049	14	0.025	15	0.043
91	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	35	1.5	5	0.049	14		15	0.049
92	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	35	1.5	6	0.049	14	-0.025	15	0.043
93	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	35	1.5	7	0.049	14	-0.043	15	0.025
94	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	35	1.5	8	0.049	14	-0.049	15	
95	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	35	1.5	9	0.049	14	-0.043	15	-0.025
96	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	35	1.5	10	0.049	14	-0.025	15	-0.043
97	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	35	1.5	11	0.049	14		15	-0.049
98	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	35	1.5	12	0.049	14	0.025	15	-0.043
99	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	35	1.5	13	0.049	14	0.043	15	-0.025
100	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	36	1.5	2	0.049	14	0.049	15	
101	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	36	1.5	3	0.049	14	0.043	15	0.025
102	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	36	1.5	4	0.049	14	0.025	15	0.043
103	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	36	1.5	5	0.049	14		15	0.049
104	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	36	1.5	6	0.049	14	-0.025	15	0.043
105	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	36	1.5	7	0.049	14	-0.043	15	0.025
106	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	36	1.5	8	0.049	14	-0.049	15	
107	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	36	1.5	9	0.049	14	-0.043	15	-0.025
108	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	36	1.5	10	0.049	14	-0.025	15	-0.043
109	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	36	1.5	11	0.049	14		15	-0.049
110	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	36	1.5	12	0.049	14	0.025	15	-0.043
111	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	36	1.5	13	0.049	14	0.043	15	-0.025
112	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	37	1.5	2	0.049	14	0.049	15	
113	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	37	1.5	3	0.049	14	0.043	15	0.025
114	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	37	1.5	4	0.049	14	0.025	15	0.043
115	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	37	1.5	5	0.049	14		15	0.049
116	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	37	1.5	6	0.049	14	-0.025	15	0.043
117	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	37	1.5	7	0.049	14	-0.043	15	0.025
118	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	37	1.5	8	0.049	14	-0.049	15	
119	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	37	1.5	9	0.049	14	-0.043	15	-0.025
120	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	37	1.5	10	0.049	14	-0.025	15	-0.043
121	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	37	1.5	11	0.049	14		15	-0.049
122	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	37	1.5	12	0.049	14	0.025	15	-0.043
123	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	37	1.5	13	0.049	14	0.043	15	-0.025
124	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	38	1.5	2	0.049	14	0.049	15	
125	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	38	1.5	3	0.049	14	0.043	15	0.025
126	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	38	1.5	4	0.049	14	0.025	15	0.043

Load Combinations (Continued)

	Description	Solve	PDelta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
127	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	38	1.5	5	0.049	14		15	0.049
128	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	38	1.5	6	0.049	14	-0.025	15	0.043
129	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	38	1.5	7	0.049	14	-0.043	15	0.025
130	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	38	1.5	8	0.049	14	-0.049	15	
131	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	38	1.5	9	0.049	14	-0.043	15	-0.025
132	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	38	1.5	10	0.049	14	-0.025	15	-0.043
133	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	38	1.5	11	0.049	14		15	-0.049
134	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	38	1.5	12	0.049	14	0.025	15	-0.043
135	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	38	1.5	13	0.049	14	0.043	15	-0.025
136	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	39	1.5	2	0.049	14	0.049	15	
137	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	39	1.5	3	0.049	14	0.043	15	0.025
138	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	39	1.5	4	0.049	14	0.025	15	0.043
139	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	39	1.5	5	0.049	14		15	0.049
140	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	39	1.5	6	0.049	14	-0.025	15	0.043
141	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	39	1.5	7	0.049	14	-0.043	15	0.025
142	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	39	1.5	8	0.049	14	-0.049	15	
143	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	39	1.5	9	0.049	14	-0.043	15	-0.025
144	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	39	1.5	10	0.049	14	-0.025	15	-0.043
145	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	39	1.5	11	0.049	14		15	-0.049
146	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	39	1.5	12	0.049	14	0.025	15	-0.043
147	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	39	1.5	13	0.049	14	0.043	15	-0.025
148	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	40	1.5	2	0.049	14	0.049	15	
149	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	40	1.5	3	0.049	14	0.043	15	0.025
150	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	40	1.5	4	0.049	14	0.025	15	0.043
151	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	40	1.5	5	0.049	14		15	0.049
152	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	40	1.5	6	0.049	14	-0.025	15	0.043
153	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	40	1.5	7	0.049	14	-0.043	15	0.025
154	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	40	1.5	8	0.049	14	-0.049	15	
155	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	40	1.5	9	0.049	14	-0.043	15	-0.025
156	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	40	1.5	10	0.049	14	-0.025	15	-0.043
157	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	40	1.5	11	0.049	14		15	-0.049
158	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	40	1.5	12	0.049	14	0.025	15	-0.043
159	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	40	1.5	13	0.049	14	0.043	15	-0.025
160	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	41	1.5	2	0.049	14	0.049	15	
161	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	41	1.5	3	0.049	14	0.043	15	0.025
162	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	41	1.5	4	0.049	14	0.025	15	0.043
163	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	41	1.5	5	0.049	14		15	0.049
164	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	41	1.5	6	0.049	14	-0.025	15	0.043
165	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	41	1.5	7	0.049	14	-0.043	15	0.025
166	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	41	1.5	8	0.049	14	-0.049	15	
167	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	41	1.5	9	0.049	14	-0.043	15	-0.025
168	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	41	1.5	10	0.049	14	-0.025	15	-0.043
169	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	41	1.5	11	0.049	14		15	-0.049
170	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	41	1.5	12	0.049	14	0.025	15	-0.043
171	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	41	1.5	13	0.049	14	0.043	15	-0.025
172	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	42	1.5	2	0.049	14	0.049	15	
173	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	42	1.5	3	0.049	14	0.043	15	0.025
174	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	42	1.5	4	0.049	14	0.025	15	0.043
175	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	42	1.5	5	0.049	14		15	0.049
176	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	42	1.5	6	0.049	14	-0.025	15	0.043
177	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	42	1.5	7	0.049	14	-0.043	15	0.025
178	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	42	1.5	8	0.049	14	-0.049	15	
179	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	42	1.5	9	0.049	14	-0.043	15	-0.025
180	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	42	1.5	10	0.049	14	-0.025	15	-0.043
181	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	42	1.5	11	0.049	14		15	-0.049
182	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	42	1.5	12	0.049	14	0.025	15	-0.043
183	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	42	1.5	13	0.049	14	0.043	15	-0.025
184	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	43	1.5	2	0.049	14	0.049	15	

Load Combinations (Continued)

	Description	Solve	PDelta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
185	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	43	1.5	3	0.049	14	0.043	15	0.025
186	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	43	1.5	4	0.049	14	0.025	15	0.043
187	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	43	1.5	5	0.049	14		15	0.049
188	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	43	1.5	6	0.049	14	-0.025	15	0.043
189	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	43	1.5	7	0.049	14	-0.043	15	0.025
190	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	43	1.5	8	0.049	14	-0.049	15	
191	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	43	1.5	9	0.049	14	-0.043	15	-0.025
192	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	43	1.5	10	0.049	14	-0.025	15	-0.043
193	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	43	1.5	11	0.049	14		15	-0.049
194	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	43	1.5	12	0.049	14	0.025	15	-0.043
195	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	43	1.5	13	0.049	14	0.043	15	-0.025
196	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	44	1.5	2	0.049	14	0.049	15	
197	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	44	1.5	3	0.049	14	0.043	15	0.025
198	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	44	1.5	4	0.049	14	0.025	15	0.043
199	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	44	1.5	5	0.049	14		15	0.049
200	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	44	1.5	6	0.049	14	-0.025	15	0.043
201	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	44	1.5	7	0.049	14	-0.043	15	0.025
202	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	44	1.5	8	0.049	14	-0.049	15	
203	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	44	1.5	9	0.049	14	-0.043	15	-0.025
204	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	44	1.5	10	0.049	14	-0.025	15	-0.043
205	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	44	1.5	11	0.049	14		15	-0.049
206	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	44	1.5	12	0.049	14	0.025	15	-0.043
207	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	44	1.5	13	0.049	14	0.043	15	-0.025
208	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	45	1.5	2	0.049	14	0.049	15	
209	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	45	1.5	3	0.049	14	0.043	15	0.025
210	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	45	1.5	4	0.049	14	0.025	15	0.043
211	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	45	1.5	5	0.049	14		15	0.049
212	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	45	1.5	6	0.049	14	-0.025	15	0.043
213	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	45	1.5	7	0.049	14	-0.043	15	0.025
214	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	45	1.5	8	0.049	14	-0.049	15	
215	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	45	1.5	9	0.049	14	-0.043	15	-0.025
216	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	45	1.5	10	0.049	14	-0.025	15	-0.043
217	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	45	1.5	11	0.049	14		15	-0.049
218	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	45	1.5	12	0.049	14	0.025	15	-0.043

Load Combination Design

	Description	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
1	1.4DL		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2	1.2DL + 1WL AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
3	1.2DL + 1WL AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
4	1.2DL + 1WL AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
5	1.2DL + 1WL AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	1.2DL + 1WL AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	1.2DL + 1WL AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	1.2DL + 1WL AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	1.2DL + 1WL AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10	1.2DL + 1WL AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	1.2DL + 1WL AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12	1.2DL + 1WL AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13	1.2DL + 1WL AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14	0.9DL + 1WL AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
15	0.9DL + 1WL AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
16	0.9DL + 1WL AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
17	0.9DL + 1WL AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18	0.9DL + 1WL AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
19	0.9DL + 1WL AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
20	0.9DL + 1WL AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
21	0.9DL + 1WL AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Load Combination Design (Continued)

	Description	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
22	0.9DL + 1WL AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
23	0.9DL + 1WL AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24	0.9DL + 1WL AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
25	0.9DL + 1WL AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
26	1.2D + 1.0Di		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
27	1.2D + 1.0Di +1.0Wi AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
28	1.2D + 1.0Di +1.0Wi AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
29	1.2D + 1.0Di +1.0Wi AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
30	1.2D + 1.0Di +1.0Wi AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
31	1.2D + 1.0Di +1.0Wi AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
32	1.2D + 1.0Di +1.0Wi AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
33	1.2D + 1.0Di +1.0Wi AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
34	1.2D + 1.0Di +1.0Wi AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
35	1.2D + 1.0Di +1.0Wi AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
36	1.2D + 1.0Di +1.0Wi AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
37	1.2D + 1.0Di +1.0Wi AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
38	1.2D + 1.0Di +1.0Wi AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
39	(1.2 + 0.2Sds)DL + 1.0E AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
40	(1.2 + 0.2Sds)DL + 1.0E AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
41	(1.2 + 0.2Sds)DL + 1.0E AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
42	(1.2 + 0.2Sds)DL + 1.0E AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
43	(1.2 + 0.2Sds)DL + 1.0E AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
44	(1.2 + 0.2Sds)DL + 1.0E AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
45	(1.2 + 0.2Sds)DL + 1.0E AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
46	(1.2 + 0.2Sds)DL + 1.0E AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
47	(1.2 + 0.2Sds)DL + 1.0E AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
48	(1.2 + 0.2Sds)DL + 1.0E AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
49	(1.2 + 0.2Sds)DL + 1.0E AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
50	(1.2 + 0.2Sds)DL + 1.0E AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
51	(0.9 - 0.2Sds)DL + 1.0E AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
52	(0.9 - 0.2Sds)DL + 1.0E AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
53	(0.9 - 0.2Sds)DL + 1.0E AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
54	(0.9 - 0.2Sds)DL + 1.0E AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
55	(0.9 - 0.2Sds)DL + 1.0E AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
56	(0.9 - 0.2Sds)DL + 1.0E AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
57	(0.9 - 0.2Sds)DL + 1.0E AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
58	(0.9 - 0.2Sds)DL + 1.0E AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
59	(0.9 - 0.2Sds)DL + 1.0E AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
60	(0.9 - 0.2Sds)DL + 1.0E AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
61	(0.9 - 0.2Sds)DL + 1.0E AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
62	(0.9 - 0.2Sds)DL + 1.0E AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
63	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
64	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
65	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
66	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
67	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
68	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
69	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
70	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
71	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
72	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
73	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
74	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
75	1.2DL + 1.5LL		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
76	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
77	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
78	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
79	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Load Combination Design (Continued)

	Description	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
80	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
81	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
82	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
83	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
84	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
85	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
86	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
87	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
88	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
89	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
90	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
91	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
92	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
93	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
94	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
95	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
96	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
97	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
98	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
99	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
100	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
101	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
102	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
103	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
104	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
105	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
106	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
107	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
108	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
109	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
110	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
111	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
112	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
113	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
114	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
115	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
116	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
117	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
118	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
119	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
120	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
121	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
122	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
123	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
124	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
125	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
126	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
127	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
128	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
129	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
130	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
131	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
132	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
133	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
134	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
135	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
136	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
137	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Load Combination Design (Continued)

	Description	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
138	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
139	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
140	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
141	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
142	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
143	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
144	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
145	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
146	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
147	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
148	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
149	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
150	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
151	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
152	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
153	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
154	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
155	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
156	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
157	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
158	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
159	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
160	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
161	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
162	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
163	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
164	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
165	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
166	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
167	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
168	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
169	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
170	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
171	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
172	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
173	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
174	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
175	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
176	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
177	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
178	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
179	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
180	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
181	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
182	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
183	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
184	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
185	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
186	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
187	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
188	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
189	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
190	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
191	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
192	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
193	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
194	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
195	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Load Combination Design (Continued)

	Description	Service	Hot Rolled	Cold Formed	Wood	Concrete	Masonry	Aluminum	Stainless	Connection
196	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
197	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
198	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
199	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
200	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
201	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
202	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
203	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
204	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
205	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
206	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
207	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 330		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
208	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 0		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
209	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 30		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
210	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 60		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
211	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 90		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
212	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 120		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
213	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 150		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
214	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 180		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
215	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 210		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
216	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 240		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
217	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 270		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
218	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 300		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Envelope AISC 14TH (360-10): LRFD Member Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn
1	MP6	PIPE_2.0	0.563	69	10	0.097	27		4	14916.096	32130	1871.625	1871.625	1.459	H1-1b
2	MP10	PIPE_2.0	0.557	69	6	0.087	27		12	14916.096	32130	1871.625	1871.625	1.44	H1-1b
3	MP2	PIPE_2.0	0.55	69	2	0.095	27		8	14916.096	32130	1871.625	1871.625	2.888	H1-1b
4	MP7	PIPE_2.0	0.505	69	11	0.129	69		4	14916.096	32130	1871.625	1871.625	3	H1-1b
5	MP3	PIPE_2.0	0.489	69	3	0.126	69		8	14916.096	32130	1871.625	1871.625	3	H1-1b
6	M72	L2.5x2.5x3	0.487	14	6	0.092	0	y	5	27494.833	29192.4	872.574	1971.83	1.5	H2-1
7	M69	L2.5x2.5x3	0.483	14	2	0.089	0	y	13	27494.833	29192.4	872.574	1971.83	1.5	H2-1
8	M62	L2.5x2.5x3	0.481	14	10	0.091	0	y	9	27494.833	29192.4	872.574	1971.83	1.5	H2-1
9	MP11	PIPE_2.0	0.481	69	2	0.125	69		12	14916.096	32130	1871.625	1871.625	3	H1-1b
10	M21	HSS4X4X8	0.35	0	38	0.112	0	z	11	184744.527	189630	20212.5	20212.5	1	H1-1b
11	M16	HSS4X4X8	0.348	0	32	0.113	0	z	3	184744.527	189630	20212.5	20212.5	1	H1-1b
12	M20	HSS4X4X8	0.347	0	35	0.109	0	z	7	184744.527	189630	20212.5	20212.5	1	H1-1b
13	M80	PIPE_2.0	0.336	100	4	0.275	135.937		10	6295.422	32130	1871.625	1871.625	2.68	H3-6
14	M17	6"x0.37" Plate	0.331	6	5	0.224	8	y	9	33158.725	71928	553.5	8991	1.472	H1-1b
15	M61	PIPE_2.0	0.33	100	8	0.27	135.938		2	6295.422	32130	1871.625	1871.625	2.667	H3-6
16	M75	PIPE_2.0	0.324	100	12	0.269	135.937		6	6295.422	32130	1871.625	1871.625	2.718	H3-6
17	M22	6"x0.37" Plate	0.316	6	9	0.218	8	y	13	33158.725	71928	553.5	8991	1.468	H1-1b
18	M43	L2x2x2	0.292	0	17	0.009	50.52	y	35	10337.424	15908.4	402.563	732.775	1.5	H2-1
19	MP8	PIPE_2.0	0.284	69	6	0.093	69		5	14916.096	32130	1871.625	1871.625	1	H1-1b
20	M39	L2x2x2	0.279	0	21	0.009	50.52	y	27	10337.424	15908.4	402.563	732.775	1.5	H2-1
21	MP12	PIPE_2.0	0.276	69	2	0.089	69		13	14916.096	32130	1871.625	1871.625	2.795	H1-1b
22	M25	6"x0.37" Plate	0.273	6	15	0.224	8	y	5	33158.725	71928	553.5	8991	1.429	H1-1b
23	MP4	PIPE_2.0	0.268	69	10	0.092	69		9	14916.096	32130	1871.625	1871.625	3	H1-1b
24	MP9	PIPE_2.0	0.268	69	10	0.101	27		6	14916.096	32130	1871.625	1871.625	3	H1-1b
25	MP5	PIPE_2.0	0.265	69	2	0.102	27		10	14916.096	32130	1871.625	1871.625	1	H1-1b
26	M40	L2x2x2	0.254	0	15	0.009	50.52	z	35	10337.424	15908.4	396.008	732.775	1.5	H2-1
27	MP1	PIPE_2.0	0.248	69	6	0.098	27		2	14916.096	32130	1871.625	1871.625	3	H1-1b
28	M38	L2x2x2	0.247	0	23	0.009	50.52	z	31	10337.424	15908.4	396.008	732.775	1.5	H2-1
29	M42	L2x2x2	0.239	0	7	0.009	50.52	z	27	10337.424	15908.4	396.008	732.775	1.5	H2-1
30	M41	L2x2x2	0.231	0	25	0.008	50.52	y	31	10337.424	15908.4	402.563	732.775	1.5	H2-1
31	M28	PIPE_3.0	0.182	62.5	31	0.211	60.938		2	59302.836	65205	5748.75	5748.75	1	H1-1b
32	M53	PIPE_3.0	0.18	62.5	38	0.213	60.937		11	59302.836	65205	5748.75	5748.75	1	H1-1b

Envelope AISC 14TH (360-10): LRFD Member Steel Code Checks (Continued)

	Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc[in]	Dir	LC	phi*Pnc [lb]	phi*Pnt [lb]	phi*Mn y-y [lb-ft]	phi*Mn z-z [lb-ft]	Cb	Eqn
33	M48	PIPE_3.0	0.175	62.5	35	0.202	60.937		7	59302.836	65205	5748.75	5748.75	1	H1-1b
34	M32	HSS4X4X8	0.172	31.26	30	0.042	3.907	z	8	186016.276	189630	20212.5	20212.5	1	H1-1b
35	M35	HSS4X4X8	0.172	31.26	34	0.044	3.907	z	12	186016.276	189630	20212.5	20212.5	1	H1-1b
36	M29	HSS4X4X8	0.167	31.26	27	0.049	31.26	y	36	186016.276	189630	20212.5	20212.5	1	H1-1b

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
1	N39	max	1825.213	17	3233.83	27	2381.388	14	6942.184	27	2331.936	11	1328.03	11
2		min	-1827.559	23	-204.422	20	-2411.188	8	-1422.134	20	-2324.384	17	-1169.365	17
3	N38	max	1959.92	4	3293.456	35	1882.736	2	1031.705	15	1729.696	7	5852.161	35
4		min	-1926.94	22	-169.047	16	-1863.865	20	-3789.287	34	-1726.739	25	-1218.756	16
5	N34	max	2071.419	17	3270.387	31	1483.847	2	1012.468	25	2079.431	15	1228.136	24
6		min	-2101.483	11	-161.939	24	-1473.436	20	-3196.473	32	-2079.233	9	-6148.699	31
7	Totals:	max	5647.918	5	9187.602	35	5744.229	14						
8		min	-5647.916	23	2619.804	53	-5744.231	8						

Material Take-Off

	Material	Size	Pieces	Length[in]	Weight[K]
1	General Members				
2	RIGID		42	108	0
3	Total General		42	108	0
4					
5	Hot Rolled Steel				
6	Q235-GB	HSS4X4X8	6	374.3	0.639
7	Q235-GB	PIPE_3.0	3	450	0.264
8	Q235-GB	PIPE_2.0	15	1602	0.463
9	Q345	6"x0.37" Plate	3	36	0.023
10	Q345	L2.5x2.5x3	3	42	0.011
11	Q345	L2x2x2	6	303.1	0.042
12	Total HR Steel		36	2807.4	1.442

APPENDIX D

ADDITIONAL CALCUATIONS

INFINIGY

FROM ZERO TO INFINIGY

the solutions are endless

Bolt Calculation Tool, V1.4

PROJECT DATA	
Site Name:	WESTBROOK / ORSINA
Site Number:	876384
Job Code:	1039-Z0001
Connection Description:	Standoff to Collar

APPLIED LOADS		
Bolt Tension:	6593.98	lbs
Bolt Shear:	502.27	lbs

BOLT PROPERTIES		
Bolt Type:	Bolt	-
Bolt Diameter:	0.625	in
Bolt Grade:	A325	-
# of Bolts:	4	-
Threads Excluded?	No	-

BOLT CHECK		
Tensile Strength	20340.15	
Shear Strength	13805.83	
Tensile Usage	32.4%	
Shear Usage	3.6%	
Interaction Check	0.11	***≤1.05***
Result	Pass	

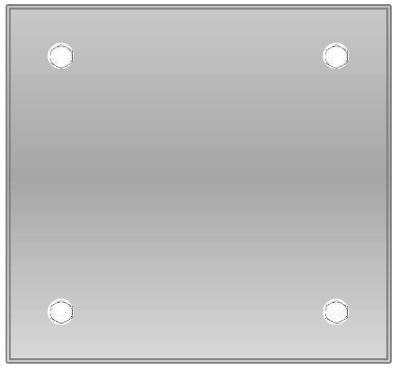


Exhibit F

Power Density/RF Emissions Report

EBI Consulting

environmental | engineering | due diligence

RADIO FREQUENCY EMISSIONS ANALYSIS REPORT
EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CTHA633A

798 Toby Hill Road
Westbrook, Connecticut 06498

March 23, 2021

EBI Project Number: 6221001354

Site Compliance Summary	
Compliance Status:	**COMPLIANT**
Site total MPE% of FCC general population allowable limit:	**14.09%**

21 B Street, Burlington, MA 01803 · Tel: (781) 273.2500 · Fax: (781) 273.3311

March 23, 2021

T-Mobile
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, Connecticut 06002

Emissions Analysis for Site: CTHA633A

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **798 Toby Hill Road** in **Westbrook, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile 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 ($\mu W/cm^2$). 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.

Public 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 600 MHz and 700 MHz frequency bands are approximately 400 $\mu W/cm^2$ and 467 $\mu W/cm^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency 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 done for the proposed T-Mobile Wireless antenna facility located at 798 Toby Hill Road in Westbrook, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile 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 manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, 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. For power density calculations, the broadcast footprint of the AIR6449 antenna has been considered. Due to the beamforming nature of this antenna, the actual beam locations vary depending on demand and are narrow in nature. Using the broadcast footprint accounts for the potential location of beams at any given time.

For all calculations, all equipment was calculated using the following assumptions:

1) 2 LTE channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

2) 1 NR channel (600 MHz Band) was considered for each sector of the proposed installation. This Channel has a transmit power of 80 Watts.

3) 2 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

4) 4 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.

5) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

6) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

7) 1 LTE channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.

8) 1 NR channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.

9) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. 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. This is rarely the case, and if so, is never continuous.

10) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

11) The antennas used in this modeling are the RFS APX16DWV-16DWV-S-E-A20 for the 2100 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector A, the RFS APX16DWV-16DWV-S-E-A20 for the 2100 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector B, the RFS APX16DWV-16DWV-S-E-A20 for the 2100 MHz channel(s), the RFS APXVAALL24_43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz channel(s), the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, 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.

12) The antenna mounting height centerline of the proposed antennas is 152 feet above ground level (AGL).

13) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.

14) All calculations were done with respect to uncontrolled / general population threshold limits.

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	RFS APX16DWV-16DWV-S-E-A20	Make / Model:	RFS APX16DWV-16DWV-S-E-A20	Make / Model:	RFS APX16DWV-16DWV-S-E-A20
Frequency Bands:	2100 MHz	Frequency Bands:	2100 MHz	Frequency Bands:	2100 MHz
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	152 feet	Height (AGL):	152 feet	Height (AGL):	152 feet
Channel Count:	2	Channel Count:	2	Channel Count:	2
Total TX Power (W):	120 Watts	Total TX Power (W):	120 Watts	Total TX Power (W):	120 Watts
ERP (W):	4,668.54	ERP (W):	4,668.54	ERP (W):	4,668.54
Antenna A1 MPE %:	**0.79%**	Antenna B1 MPE %:	**0.79%**	Antenna C1 MPE %:	**0.79%**
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	RFS APXVAALL24_43-U-NA20	Make / Model:	RFS APXVAALL24_43-U-NA20	Make / Model:	RFS APXVAALL24_43-U-NA20
Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz / 1900 MHz / 1900 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd / 15.45 dBd / 15.45 dBd
Height (AGL):	152 feet	Height (AGL):	152 feet	Height (AGL):	152 feet
Channel Count:	11	Channel Count:	11	Channel Count:	11
Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts	Total TX Power (W):	440 Watts
ERP (W):	12,569.87	ERP (W):	12,569.87	ERP (W):	12,569.87
Antenna A2 MPE %:	**3.09%**	Antenna B2 MPE %:	**3.09%**	Antenna C2 MPE %:	**3.09%**
Antenna #:	**3**	Antenna #:	**3**	Antenna #:	**3**
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz
Gain:	17.3 dBd / 17.3 dBd	Gain:	17.3 dBd / 17.3 dBd	Gain:	17.3 dBd / 17.3 dBd
Height (AGL):	152 feet	Height (AGL):	152 feet	Height (AGL):	152 feet
Channel Count:	2	Channel Count:	2	Channel Count:	2
Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts	Total TX Power (W):	240 Watts
ERP (W):	12,888.76	ERP (W):	12,888.76	ERP (W):	12,888.76
Antenna A3 MPE %:	**2.17%**	Antenna B3 MPE %:	**2.17%**	Antenna C3 MPE %:	**2.17%**

Site Composite MPE %	
Carrier	**MPE %**
T-Mobile (Max at Sector A):	6.05%
AT&T	2.09%
Verizon	3.36%
Sprint	2.59%
Site Total MPE % :	14.09%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	6.05%
T-Mobile Sector B Total:	6.05%
T-Mobile Sector C Total:	6.05%
Site Total MPE % :	14.09%

T-Mobile Maximum MPE Power Values (Sector A)

T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 2100 MHz LTE	2	2334.27	152.0	7.87	2100 MHz LTE	1000	0.79%
T-Mobile 600 MHz LTE	2	591.73	152.0	2.00	600 MHz LTE	400	0.50%
T-Mobile 600 MHz NR	1	1577.94	152.0	2.66	600 MHz NR	400	0.67%
T-Mobile 700 MHz LTE	2	695.22	152.0	2.35	700 MHz LTE	467	0.50%
T-Mobile 1900 MHz GSM	4	1052.26	152.0	7.10	1900 MHz GSM	1000	0.71%
T-Mobile 1900 MHz LTE	2	2104.51	152.0	7.10	1900 MHz LTE	1000	0.71%
T-Mobile 2500 MHz LTE	1	6444.38	152.0	10.87	2500 MHz LTE	1000	1.09%
T-Mobile 2500 MHz NR	1	6444.38	152.0	10.87	2500 MHz NR	1000	1.09%
						Total:	**6.05%**

• NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.

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 T-Mobile 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:

T-Mobile Sector	Power Density Value (%)
Sector A:	6.05%
Sector B:	6.05%
Sector C:	6.05%
T-Mobile Maximum MPE % (Sector A):	6.05%
Site Total:	14.09%
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **14.09%** 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.