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.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

CROWN CASTLE

1 Cityplace Dr, Suite 490

Creve Coeur, MO 63141

Phone: (314) 513-0147

www.crowncastle.com

October 14th, 2022

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

RE: **Notice of Exempt Modification for AT&T Wireless**
Crown Site ID#876331; AT&T Site ID CTL01024
115 North Mountain Rd. New Britain, CT 06053
Latitude: 41.676589 / Longitude: -72.821414

Dear Ms. Bachman:

AT&T currently maintains (12) antennas at the 100-foot mounts on the existing 118-foot Monopole Tower located at **115 North Mountain Rd. New Britain.** The property is owned March 17 LLC and the Tower by Crown Castle. AT&T now intends to replace six (9) 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

(2) CCI HPA-65R-BUU-H6 Antennas (**REMOVE**), (1) Andrew SBNH-1D6565C Antennas (**REMOVE**), (2) CCI TPA-65R-BU6DA-K antennas (**REPLACE**) (1) CCI TPA-65R-BU8DA-K Antennas (**REPLACE**)
(2) KMW AM-X-CD-16-65-00T Antennas (**REMOVE**), (1) CCI HPA-65R-BUU-H8 Antennas (**REMOVE**), (2) CCI DMP65R-BU6DA-K antennas (**REPLACE**) (1) CCI DMP65R-BU8DA-K Antennas (**REPLACE**)
(3) Powerwave 7770 Antennas (**REMOVE**), (3) Ericsson – AIR6449 N77D (**REPLACE**), (3) Ericsson – AIR6419 N77G (antennas stacked) (**REPLACE)**
(3) Powerwave TT19-08BP111-001 TMAs (**REMOVE**)
(3) CCI DTMABP7819VG12A TMAs (**REMOVE**)
(3) Ericsson – RRUS-32-B2 (**REMOVE**) (3) Ericsson 8843 B2/B66A Radios (**REPLACE**)
(3) Ericsson RRUS 11 B12 Radios (**REMOVE**), (3) Ericsson 4449 B5/B12 Radios (**REPLACE**)
(6) Powerwave 7020 RET Motors (**REMOVE**)
(1) RFS/Celwave DB-B1-6C-12AB-0Z OVP (**REMOVE**)
(6) 7/8" Coax cables (**REMOVE**), (3) 7/8" 6AWG DC Cables (**REPLACE**) (1) 3/8" 24 Pair Fiber Cables (**REPLACE)**

INSTALL

(3) Ericsson 8843 B14 Radios
(6) Y Cables to dual band radios

CROWN CASTLE
1 Cityplace Dr, Suite 490
Creve Coeur, MO 63141
Phone: (314) 513-0147
www.crowncastle.com

(1) Raycap DC9-48-60-24-8C – EV Junction Cylinder
(6) Dual Radio Mounts
(3) 2 ½" SCH 40 x 6' long pipe mounts with crossover hardware

Ground:

Remove:
(6) Powerwave LGP13519
(6) Powerwave CM1007-DBPXBC-003

Install:
(1) 6648 W/ XCEDE Cable
(1) 6630 Module
(1) DC12-48-60RM Rack-Mount Tray
(1) IDLe Cable
(9) Vertical Up-Converters
(3) Rectifiers in Existing PowerPlant

This facility was approved by the City of New Britain Planning and Zoning on November 22, 1996. Please see attached Exhibit A.

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 The Honorable Erin E. Stewart, Mayor David D. Zajac, Zoning Enforcement Officer, and property owner, March 17 LLC.

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

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

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

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.

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

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

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

CROWN CASTLE

1 Cityplace Dr, Suite 490
Creve Coeur, MO 63141

Phone: (314) 513-0147
www.crowncastle.com

Sincerely,

Katie Adams
Crown Castle, Agent for AT&T
kadams@nbcllc.com
781-392-7547

cc:

The Honorable Erin E. Stewart, Mayor
City of New Britain
27 West Main Street
New Britain, CT 06051
(Via Fedex)

David D. Zajac, Zoning Enforcement Officer
City of New Britain
27 West Main Street, Room 404
New Britain, CT 06051
(Via Fedex)

March 17 LLC
PO Box 3040
One Liberty Square,
New Britain CT 06050
(Via Fedex)

Katie Adams

From: TrackingUpdates@fedex.com
Sent: Wednesday, October 19, 2022 11:04 AM
To: Katie Adams
Subject: FedEx Shipment 770205821481: Your package has been delivered

Hi. Your package was delivered Wed, 10/19/2022 at 10:50am.

Delivered to 27 W MAIN ST, NEW BRITAIN, CT 06051
Received by S.STRUMSKAS

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER	770205821481
FROM	NB+C 100 Apollo Drive Suite 303 CHELMSFORD, MA, US, 01824
TO	City of New Britain The Honorable Erin E. Stewart 27 West Main Street NEW BRITAIN, CT, US, 06051
REFERENCE	100788

SHIPPER REFERENCE	100788
SHIP DATE	Tue 10/18/2022 06:12 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Pak
ORIGIN	CHELMSFORD, MA, US, 01824
DESTINATION	NEW BRITAIN, CT, US, 06051
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Standard Overnight

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 10:04 AM CDT 10/19/2022.

All weights are estimated.

To track the latest status of your shipment, click on the tracking number above.

Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

Thank you for your business.

Katie Adams

From: TrackingUpdates@fedex.com
Sent: Wednesday, October 19, 2022 11:06 AM
To: Katie Adams
Subject: FedEx Shipment 770205913486: Your package has been delivered

Hi. Your package was delivered Wed, 10/19/2022 at 10:50am.

Delivered to 27 W MAIN ST, NEW BRITAIN, CT 06051
Received by S.STRUMSKAS

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER	770205913486
FROM	NB+C 100 Apollo Drive Suite 303 CHELMSFORD, MA, US, 01824
TO	City of New Britain David D. Zajac, Zoning Enforcement 27 West Main Street NEW BRITAIN, CT, US, 06051
REFERENCE	100788

SHIPPER REFERENCE	100788
SHIP DATE	Tue 10/18/2022 06:12 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Pak
ORIGIN	CHELMSFORD, MA, US, 01824
DESTINATION	NEW BRITAIN, CT, US, 06051
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	3.00 LB
SERVICE TYPE	FedEx Standard Overnight

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 10:06 AM CDT 10/19/2022.

All weights are estimated.

To track the latest status of your shipment, click on the tracking number above.

Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

Thank you for your business.

Katie Adams

From: TrackingUpdates@fedex.com
Sent: Wednesday, October 19, 2022 12:48 PM
To: Katie Adams
Subject: FedEx Shipment 770205810808: Your package has been delivered

Hi. Your package was delivered Wed, 10/19/2022 at 12:33pm.

Delivered to 1 LIBERTY SQ, NEW BRITAIN, CT 06050
Received by T.TPMASSO

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER	770205810808
FROM	NB+C 100 Apollo Drive Suite 303 CHELMSFORD, MA, US, 01824
TO	The Tomasso Group d/b/a March 17 LL 1 Liberty Square NEW BRITAIN, CT, US, 06050
REFERENCE	100788

SHIPPER REFERENCE	100788
SHIP DATE	Tue 10/18/2022 06:12 PM
DELIVERED TO	Receptionist/Front Desk
PACKAGING TYPE	FedEx Pak
ORIGIN	CHELMSFORD, MA, US, 01824
DESTINATION	NEW BRITAIN, CT, US, 06050
SPECIAL HANDLING	Deliver Weekday
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Standard Overnight

FOLLOW FEDEX

Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 11:47 AM CDT 10/19/2022.

All weights are estimated.

To track the latest status of your shipment, click on the tracking number above.

Standard transit is the date and time the package is scheduled to be delivered by, based on the selected service, destination and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

Thank you for your business.

Exhibit A

Original Facility Approval

10:AM (ELECT) WAYNE GLEIFERT

083

B 85

CITY OF NEW BRITAIN
DEPARTMENT OF LICENSES, PERMITS
AND INSPECTIONS
TELEPHONE: 826-3383

BUILDING/ZONING PERMIT

DATE 11/22/96

COST 112,000.

FEE 1,780.

APPLICANT Sprint PCS TEL. NO. 294-5609

ADDRESS 9 Barnes Indusrial Rd, Wallingford, CT 06492

PERMIT FOR: Construct 120' Monopole Tower, per engineered drawings/specifications.

LOCATION North Mountain Rd, Lot C

BUILDING DIMENSIONS ____ FT. WIDE BY ____ FT. LONG AND ____ FT. IN HEIGHT

BUILDING TYPE ____ USE GROUP ____ LOT SIZE ____ ZONE ____

OWNER October 24 Corporation

ADDRESS

CERT. OF OCCUPANCY REQUIRED YES___ NO✓

AS-BUILT SURVEY REQUIRED YES___ NO✓

THE MATCHING APPLICATION IS PART AND PARCEL OF THIS BUILDING PERMIT.

12-5-96

BUILDING OFFICIAL

WNUK

WHERE APPLICABLE SEPARATE PERMITS ARE REQUIRED FOR ELECTRICAL, PLUMBING AND MECHANICAL INSTALLATIONS.

APPLICANT'S COPY

MANDATORY INSPECTIONS REQUIRED

POST PERMIT FOR DURATION OF WORK

Exhibit B

Property Card

115 NORTH MOUNTAIN RD

Location	115 NORTH MOUNTAIN RD	**Mblu**	F2D/ 102/ / /
Acct#	66600115	**Owner**	MARCH 17 LLC
Assessment	$233,310	**Appraisal**	$333,300
PID	1134	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$234,100	$99,200	$333,300
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2017	$163,870	$69,440	$233,310

Owner of Record

Owner	MARCH 17 LLC	**Sale Price**	$900,000
Co-Owner		**Certificate**	
Address	PO BOX 3040 ONE LIBERTY SQUARE NEW BRITAIN , CT 06050	**Book & Page**	2021/980
		Sale Date	06/12/2019
		Instrument	17

Ownership History

Ownership History					
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Instrument**	**Sale Date**
MARCH 17 LLC	$900,000		2021/980	17	06/12/2019
OCTOBER TWENTY FOUR INC	$550,000	1	1826/0309	19	09/29/2011
OCTOBER TWENTY FOUR INC	$0		0733/0284		02/02/1978
GIUSEPPE CACCAMO SALVATORE	$0		0431/0424		01/01/1900
	$0		0224/0239		01/01/1900

Building Information

Building 1 : Section 1

Year Built:

Building Photo

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

Building Attributes	
Field	**Description**
Style	Outbuildings
Model	
Grade	
Stories	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Central Heat Sys	
Heat Type	
AC Type	
Total Bedrooms	
Total Full Baths	
Total Half Baths	
Total Xtra Fixtrs	
Total Rooms	
Bath Style	
Kitchen Style	
Num Kitchens	
Whirlpool Tub	
Fireplaces_2	
Rec Room Finish	
Rec Room Qual	
Bsmt Garages	
Fireplaces	
Bldg Nbhd	
Fndtn Cndtn	
Basement	

(https://images.vgsi.com/photos/NewBritainCTPhotos//default.jpg)

Building Layout

Building Layout (ParcelSketch.ashx?pid=1134&bid=1593)

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	4400
Description	Ind Ld De
Zone	TP
Neighborhood	101G
Alt Land Appr	No
Category	

Land Line Valuation

Size (Acres)	0.82
Depth	
Assessed Value	$69,440
Appraised Value	$99,200

Outbuildings

Outbuildings						Legend
Code	**Description**	**Sub Code**	**Sub Description**	**Size**	**Value**	**Bldg #**
PAV5	Conc Pad			256.00 S.F.	$3,100	1
FN3	Fence-6' Chain			150.00 L.F.	$1,500	1
CB3	PreCastConcCel			286.00 S.F.	$89,200	1
CB3	PreCastConcCel			360.00 S.F.	$140,300	1

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$234,100	$99,200	$333,300
2020	$234,100	$99,200	$333,300
2019	$234,100	$99,200	$333,300

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2021	$163,870	$69,440	$233,310
2020	$163,870	$69,440	$233,310
2019	$163,870	$69,440	$233,310

Exhibit C

Construction Drawings

AT&T

AT&T SITE NUMBER:	**CTL01024**
AT&T SITE NAME:	**NEW BRITAIN LOON LAKE**
AT&T FA CODE:	**10035310**
AT&T PACE NUMBER:	**MRCTB052078,MRCTB051326,MRCTB051254,MRCTB051358, MRCTB051163, MRCTB051483,MRCTB051414,MRCTB051046**
AT&T PROJECT:	**5G NR 1SR CBAND, BBU ADD, 5G NR 1DR-1, LTE 4C, 5G NR 1SR, 4TX4RX, LTE 3C**

BUSINESS UNIT #:	**876331**
SITE ADDRESS:	**115 NORTH MOUNTAIN RD NEW BRITAIN, CT 06053**
COUNTY:	**HARTFORD**
SITE TYPE:	**MONOPOLE**
TOWER HEIGHT:	**118'-0"**

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	NEW BRITAIN GRAVEL PIT
SITE ADDRESS:	115 NORTH MOUNTAIN RD NEW BRITAIN, CT 06053
COUNTY:	HARTFORD
MAP/PARCEL #:	F2D 102
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41.6765750°
LONGITUDE:	-72.8214161°
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	351'
CURRENT ZONING:	TP (TECHNOLOGY PARK)
JURISDICTION:	CONNECTICUT SITING COUNCIL
OCCUPANCY CLASSIFICATION:	U
TYPE OF CONSTRUCTION:	IIB
A.D.A. COMPLIANCE:	FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION
PROPERTY OWNER:	MARCH 17 LLC PO BOX 3040 ONE LIBERTY SQUARE NEW BRITAIN, CT 06050
TOWER OWNER:	CROWN CASTLE USA INC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	AT&T TOWER ASSET GROUP 575 MOROSGO DRIVE ATLANTA, GA 30324-3300
ELECTRIC PROVIDER:	CONNECTICUT LIGHT & POWER CO
TELCO PROVIDER:	LIGHTTOWER

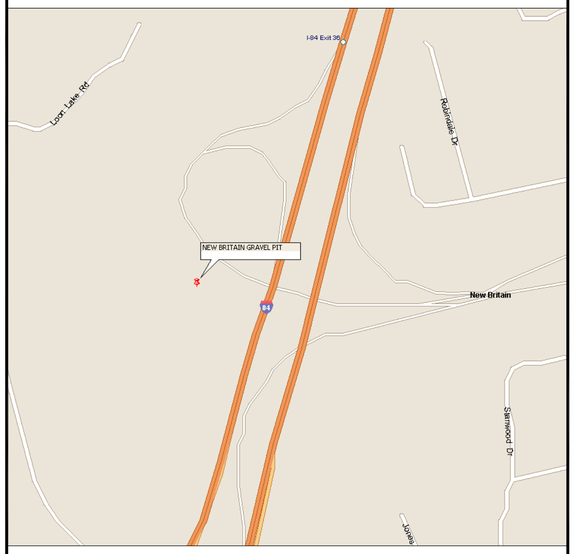
DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	SITE PLAN
C-1.2	EXISTING & FINAL EQUIPMENT PLANS
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	FINAL EQUIPMENT SCHEDULE
C-4	EQUIPMENT MOUNTING DETAILS
C-5	EQUIPMENT SPECS
C-5.1	EQUIPMENT SPECS
G-1	GROUNDING SCHEMATIC
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM
ATTACHED	MOUNT MODIFICATION SPECS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR FULL SIZE. 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.

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

LOCATION MAP



NO SCALE

SITE PHOTO

PROJECT TEAM

A&E FIRM:	B+T GROUP 1717 S BOULDER AVE, SUITE 300 TULSA, OK 74119 MARVIN PHILLIPS mphillips@btgrp.com
CROWN CASTLE USA INC. DISTRICT CONTACTS:	3 CORPORATE PARK DRIVE, SUITE 101 CLIFTON PARK, NY 12065 PAUL PEDICONE - PROJECT MANAGER PAUL.PEDICONE@CROWNCASTLE.COM BILL WOLFF - CONSTRUCTION MANAGER BILL.WOLFF@CROWNCASTLE.COM

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

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 (2) CCI ANTENNAS - HPA-65R-BUU-H6 ANTENNAS
- REMOVE (3) POWERWAVE - 7770 ANTENNAS
- REMOVE (1) ANDREW - SBNH-1D6565C ANTENNAS
- REMOVE (1) CCI ANTENNAS - HPA-65R-BUU-H8 ANTENNAS
- REMOVE (2) KMW - AM-X-CD-16-65-00T-RET ANTENNAS
- REMOVE (3) POWERWAVE - TT19-08BP111-001 TMAs
- REMOVE (3) CCI - DTMABP7819VG12A TMAs
- REMOVE (3) ERICSSON - RRUS-11 B12 RADIOs
- REMOVE (3) ERICSSON - RRUS-32 B2 RADIOs
- REMOVE (6) POWERWAVE - 7020 RET MOTORS
- REMOVE (6) COAX CABLES (7/8")
- INSTALL MOUNT MODIFICATIONS PER MOUNT ANALYSIS BY INFINIGY ENGINEERING, PLLC DATED 3/23/22
- INSTALL (2) CCI - TPA-65R-BU6DA-K ANTENNAS
- INSTALL (3) ERICSSON - AIR6449 N77D + AIR6419 N77G STACKED ANTENAS
- INSTALL (1) CCI - TPA-65R-BU8DA-K ANTENNAS
- INSTALL (2) CCI - DMP65R-BU6DA ANTENNAS
- INSTALL (1) CCI - DMP65R-BU8DA ANTENNAS
- INSTALL (3) ERICSSON - 4478 B14 RADIOs
- INSTALL (3) ERICSSON - 8843 B2/B66A RADIOs
- INSTALL (6) Y-CABLE TO NEW DUAL BAND RRU
- INSTALL (3) ERICSSON - 4449 B5/B12 RADIOs
- INSTALL (1) RAYCAP - DC9-48-60-24-8C-EV JUNCTION CYLINDER
- INSTALL (3) 7/8" 6AWG DC
- INSTALL (1) 3/8" 24-PAIR FIBER
- INSTALL (6) DUAL RADIO MOUNTS
- INSTALL (3) 2-1/2" SCH 40 x 6'-0" LONG MOUNT PIPES W/ CROSSOVER HARDWARE

GROUND SCOPE OF WORK:
- REMOVE (6) POWERWAVE - LGP13519
- REMOVE (6) POWERWAVE - CM1007-DBPXBC-003
- INSTALL (1) 6648 W/ XCEDE CABLE
- INSTALL (1) 6630 MODULE
- INSTALL (1) DC12-48-60-RM RACK-MOUNT TRAY
- INSTALL (1) IDLE CABLE
- INSTALL (9) VERTIV UP-CONVERTERS
- INSTALL (3) RECTIFIERS IN EXISTING POWERPLANT

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	2015 IBC PORTION OF 2018 CT SBC WITH AMENDMENTS
MECHANICAL	2015 IMC PORTION OF 2018 CT SBC WITH AMENDMENTS
ELECTRICAL	2017 NEC PORTION OF 2018 CT SBC WITH AMENDMENTS

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	B+T GROUP
DATED:	11/12/21
MOUNT ANALYSIS:	INFINIGY ENGINEERING, PLLC
DATED:	3/23/22
RFDS REVISION:	FINAL
DATED:	4/28/22
ORDER ID:	556502
REVISION:	0

575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

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

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

AT&T SITE NUMBER:
CTL01024

BU #: **876331**
NEW BRITAIN GRAVEL PIT

115 NORTH MOUNTAIN RD
NEW BRITAIN, CT 06053

EXISTING
118'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/8/21	BMK	PRELIMINARY REVIEW	STH
B	01/9/22	KT	PRELIMINARY REVIEW	KT
C	4/7/22	JHW	PRELIMINARY REVIEW	KT
D	5/4/22	MEH	PRELIMINARY REVIEW	KT
0	6/24/22	MEH	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
No. 23924
LICENSED
PROFESSIONAL ENGINEER
6/24/22

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: T-1

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

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

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

   CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
   - SLAB AND WALLS........3/4"
   - BEAMS AND COLUMNS........1–1/2"
7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

ELECTRICAL INSTALLATION NOTES:

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

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

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

APWA UNIFORM COLOR CODE:

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

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).

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

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SUITE 300
TULSA, OK 74119
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AT&T SITE NUMBER:
CTL01024

BU #: **876331**
NEW BRITAIN GRAVEL PIT

115 NORTH MOUNTAIN RD
NEW BRITAIN, CT 06053

EXISTING
118'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/8/21	BMK	PRELIMINARY REVIEW	STH
B	01/9/22	KT	PRELIMINARY REVIEW	KT
C	4/7/22	JHW	PRELIMINARY REVIEW	KT
D	5/4/22	MEH	PRELIMINARY REVIEW	KT
0	6/24/22	MEH	CONSTRUCTION	MTJ

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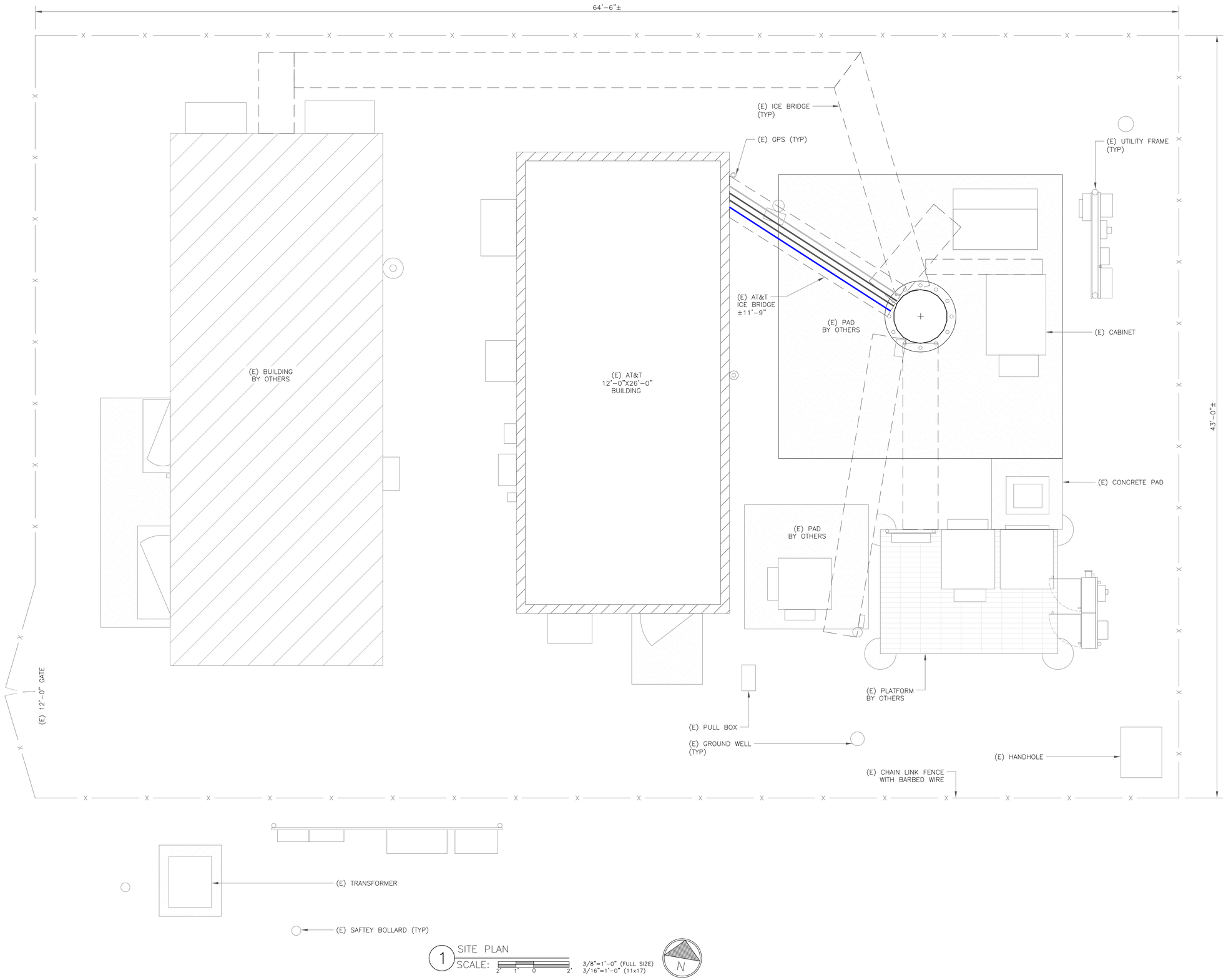
Expires 2/10/23

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



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

N

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0	6/24/22	MEH	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
CHRISTOPHER S. CUT
No. 23924
LICENSED PROFESSIONAL ENGINEER
6/24/22

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REVISION: 0

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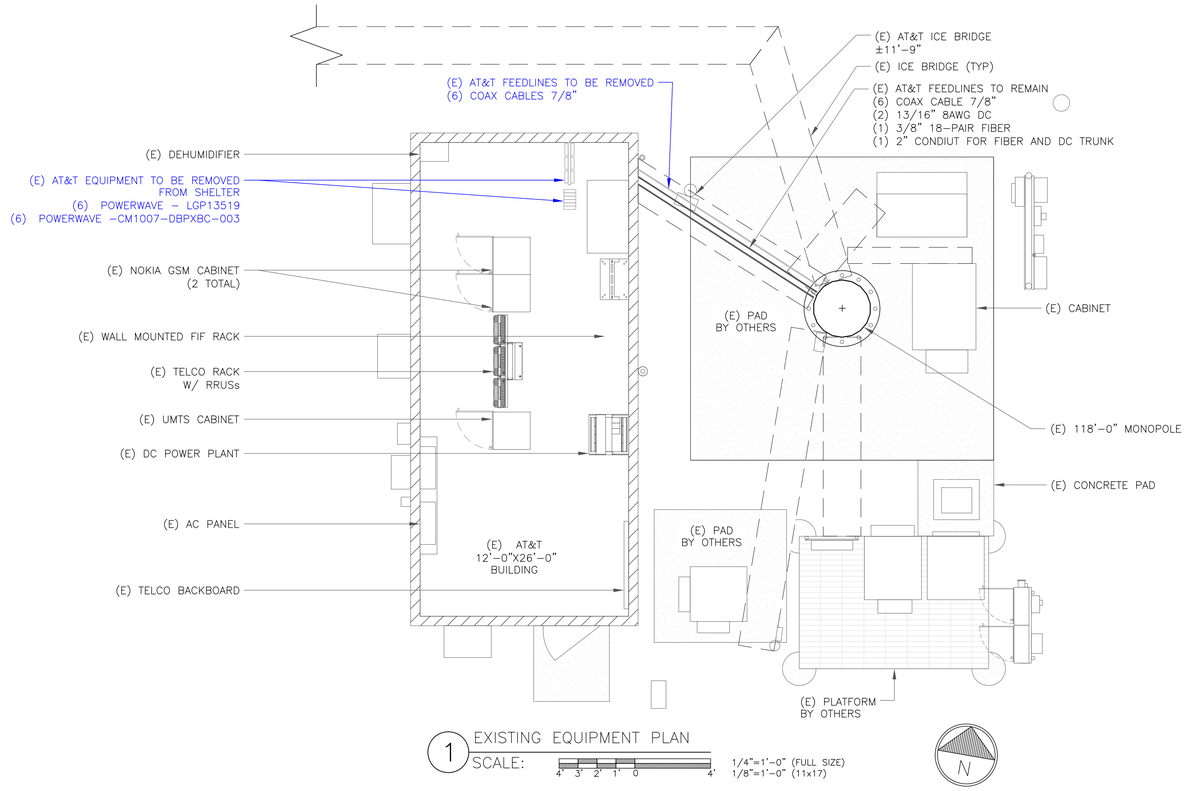
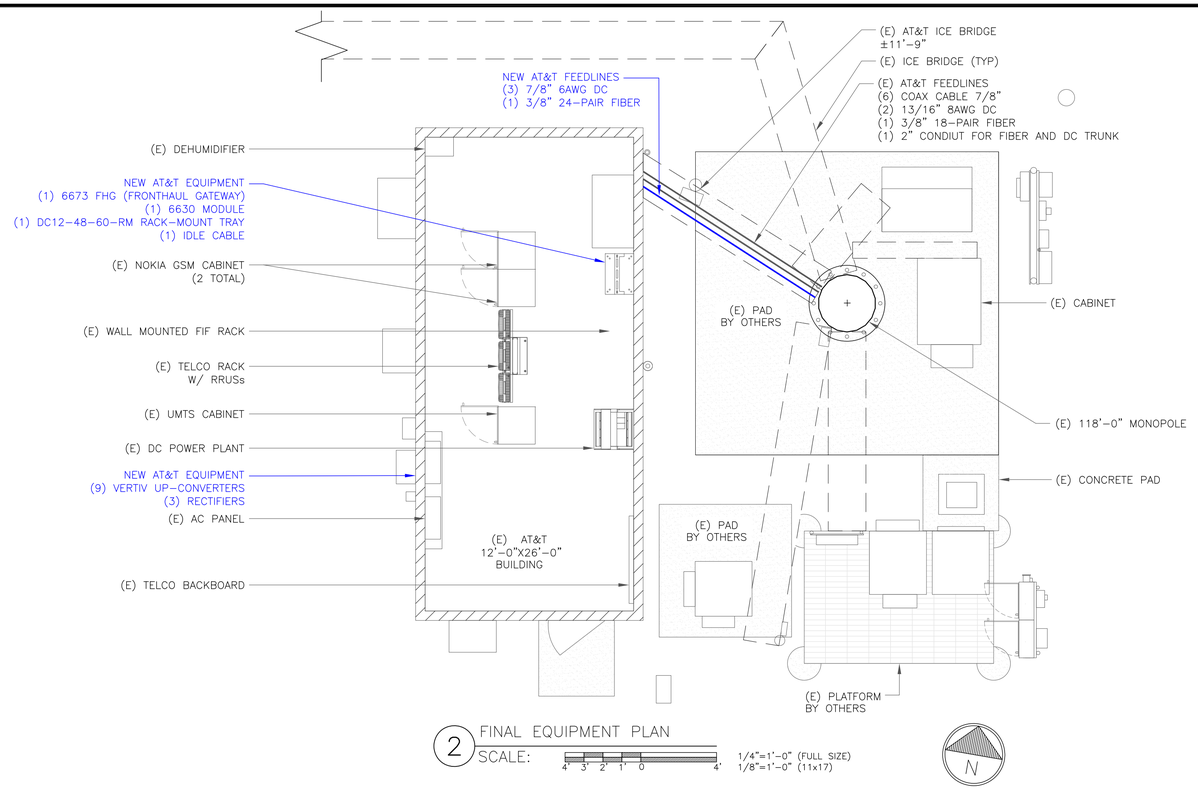


1 EXISTING EQUIPMENT PLAN

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



2 FINAL EQUIPMENT PLAN

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

GROUND SCOPE OF WORK:

- REMOVE (6) POWERWAVE - LGP13519
- REMOVE (6) POWERWAVE - CM1007-DBPXBC-003
- INSTALL (1) 6673 FHG (FRONTHAUL GATEWAY)
- INSTALL (1) 6630 MODULE
- INSTALL (1) DC12-48-60-RM RACK-MOUNT TRAY
- INSTALL (1) IDLE CABLE
- INSTALL (9) VERTIV UP-CONVERTERS
- INSTALL (3) RECTIFIERS IN EXISTING POWERPLANT

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0	6/24/22	MEH	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
CHAD TUTTLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER
6/24/22

B&T ENGINEERING, INC.
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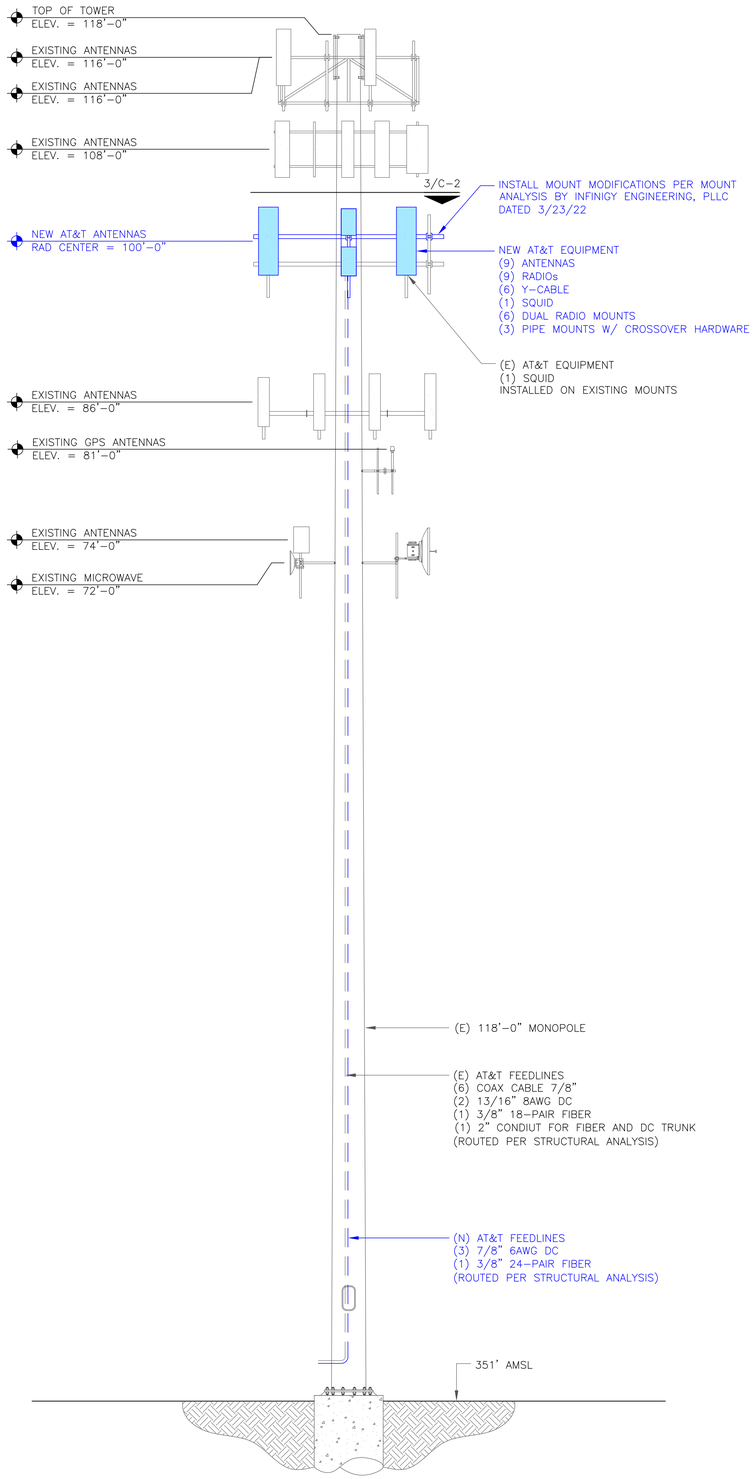
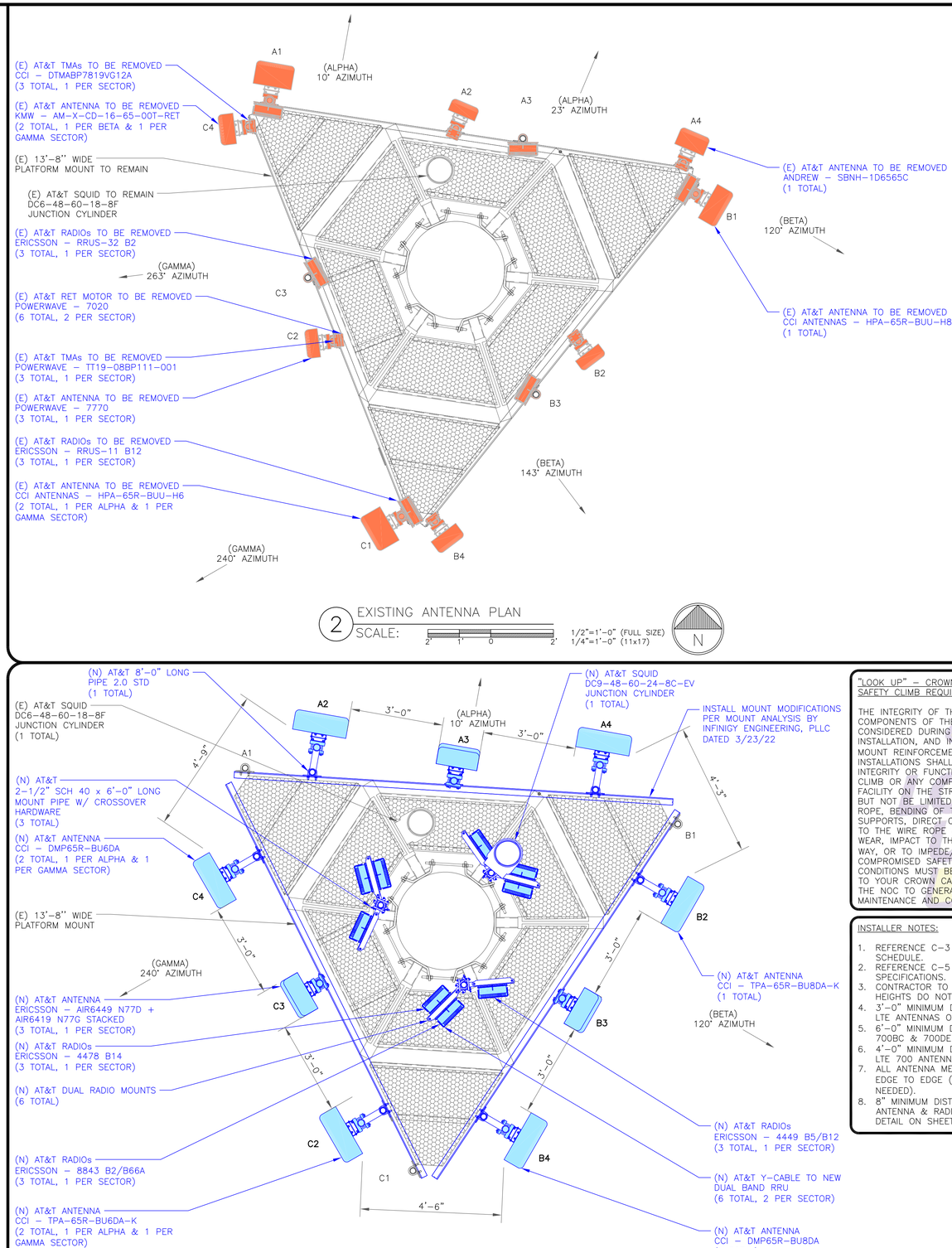
Expires 2/10/23

SHEET NUMBER: C-1.2

REVISION: 0



1 FINAL ELEVATION
SCALE: NOT TO SCALE



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

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

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

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

INSTALLER NOTES:

1. REFERENCE C-3 FOR FINAL EQUIPMENT SCHEDULE.
2. REFERENCE C-5 & C-5.1 FOR NEW EQUIPMENT SPECIFICATIONS.
3. CONTRACTOR TO VERIFY ALL ANTENNA TIP HEIGHTS DO NOT EXCEED BEACON BASE HEIGHT.
4. 3'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE ANTENNAS ON SAME SECTOR.
5. 6'-0" MINIMUM DISTANCE REQUIRED BETWEEN 700BC & 700DE ANTENNAS ON SAME SECTOR.
6. 4'-0" MINIMUM DISTANCE REQUIRED BETWEEN LTE 700 ANTENNAS ON OPPOSING SECTORS.
7. ALL ANTENNA MEASUREMENT DISTANCES MUST BE EDGE TO EDGE (RELOCATE ANTENNAS AS NEEDED).
8. 8" MINIMUM DISTANCE REQUIRED BETWEEN ANTENNA & RADIO. SEE GENERIC EXAMPLE DETAIL ON SHEET C-4.

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BU #: **876331**
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STATE OF CONNECTICUT
CHAD TUTTLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER
6/24/22

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: C-2
REVISION: 0

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FINAL ANTENNA AND FEEDLINE SCHEDULE

POS.	TECH	STATUS	AZIMUTH	ANTENNA TYPE	ANTENNA RAD CENTER	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	MAIN COAX SIZE	MAIN COAX LENGTH	COAX QTY	TMA QTY AND MODEL	SURGE PROTECTION	DC/FIBER CABLES	RRHs QTY & MODEL ON TOWER	LOCATION	DIPLEXER ON TOWER	DIPLEXER ON GROUND	RET CABLE
ALPHA SECTOR																		
A1	–	–	–	EMPTY MOUNT PIPE	–	–	–	–	–	–	–	(1) DC6-48-60-18-8F	(1) 3/8" 18-PAIR FIBER (2) 13/16" 8AWG DC	–	–	–	–	–
A2	LTE 700 / LTE 1900 / LTE AWS / 5G 1900 / 5G AWS	NEW	10°	CCI – TPA-65R-BU6DA-K	100'-0"	0°	5° / 3° / 3° / 3° / 3° / 3°	7/8"	150'-0"	2	–			(1) ERICSSON – 4478 B14 (1) ERICSSON – 8843 B2/B66A (1) Y-CABLE TO NEW DUAL BAND RRU	TOWER	N	N	N
A3	5G CBAND / 5G DOD	NEW	10°	ERICSSON – AIR6449 N77D + AIR6419 N77G STACKED	100'-0"	–	0° / 0°	–	–	–	–			INTEGRATED WITHIN ANTENNA	TOWER	N	N	N
A4	LTE 700 / 5G 850	NEW	10°	CCI – DMP65R-BU6DA	100'-0"	0°	5° / 5°	–	–	–	–			(1) ERICSSON – 4449 B5/B12 (1) Y-CABLE TO NEW DUAL BAND RRU	TOWER	N	N	N
BETA SECTOR																		
B1	–	–	–	EMPTY MOUNT PIPE	–	–	–	–	–	–	–	(1) DC9-48-60-24-8C-EV	(3) 7/8" 6AWG DC (1) 3/8" 24-PAIR FIBER	–	–	–	–	–
B2	LTE 700 / LTE 1900 / LTE AWS / 5G 1900 / 5G AWS	NEW	120°	CCI – TPA-65R-BU8DA-K	100'-0"	0°	9° / 8° / 8° / 8° / 8° / 8°	7/8"	150'-0"	2	–			(1) ERICSSON – 4478 B14 (1) ERICSSON – 8843 B2/B66A (1) Y-CABLE TO NEW DUAL BAND RRU	TOWER	N	N	N
B3	5G CBAND / 5G DOD	NEW	120°	ERICSSON – AIR6449 N77D + AIR6419 N77G STACKED	100'-0"	–	0° / 0°	–	–	–	–			INTEGRATED WITHIN ANTENNA	TOWER	N	N	N
B4	LTE 700 / 5G 850	NEW	120°	CCI – DMP65R-BU8DA	100'-0"	0°	9° / 9°	–	–	–	–			(1) ERICSSON – 4449 B5/B12 (1) Y-CABLE TO NEW DUAL BAND RRU	TOWER	N	N	N
GAMMA SECTOR																		
C1	–	–	–	EMPTY MOUNT PIPE	–	–	–	–	–	–	–	–	–					
C2	LTE 700 / LTE 1900 / LTE AWS / 5G 1900 / 5G AWS	NEW	240°	CCI – TPA-65R-BU6DA-K	100'-0"	0°	4° / 2° / 2° / 2° / 2° / 2°	7/8"	150'-0"	2	–			(1) ERICSSON – 4478 B14 (1) ERICSSON – 8843 B2/B66A (1) Y-CABLE TO NEW DUAL BAND RRU	TOWER	N	N	N
C3	5G CBAND / 5G DOD	NEW	240°	ERICSSON – AIR6449 N77D + AIR6419 N77G STACKED	100'-0"	–	0° / 0°	–	–	–	–			INTEGRATED WITHIN ANTENNA	TOWER	N	N	N
C4	LTE 700 / 5G 850	NEW	240°	CCI – DMP65R-BU6DA	100'-0"	0°	4° / 4°	–	–	–	–			(1) ERICSSON – 4449 B5/B12 (1) Y-CABLE TO NEW DUAL BAND RRU	TOWER	N	N	N

NOTE: BOLD DENOTES NEW EQUIPMENT

1 FINAL ANTENNA AND FEEDLINE SCHEDULE
SCALE: NOT TO SCALE

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NEW BRITAIN, CT 06053

EXISTING
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0	6/24/22	MEH	CONSTRUCTION	MTJ

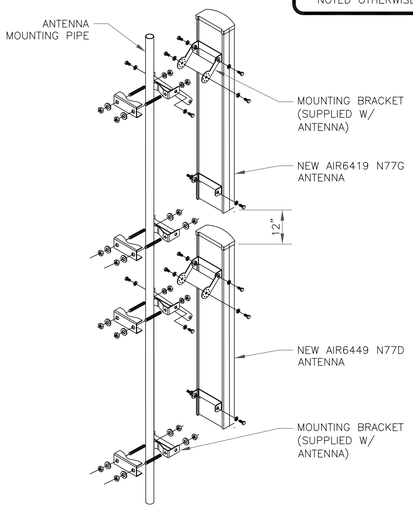
STATE OF CONNECTICUT — CHRISTOPHER M. CLOUT — No. 23924 LICENSED — PROFESSIONAL ENGINEER
6/24/22

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

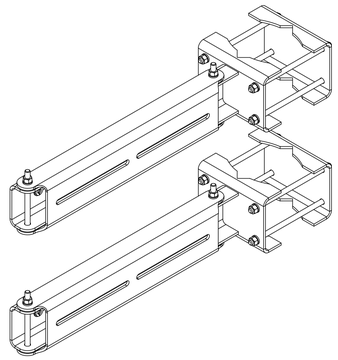
SHEET NUMBER: C-3
REVISION: 0

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.



1 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE



DUAL RADIO MOUNT

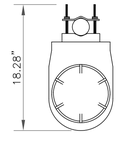
2 DUAL RADIO MOUNT
SCALE: NOT TO SCALE

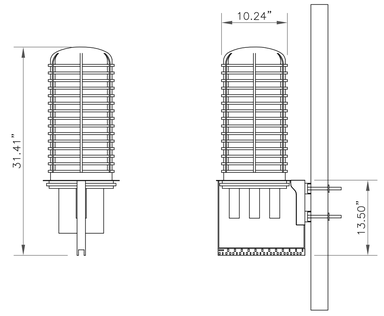
3 NOT USED
SCALE: NOT TO SCALE

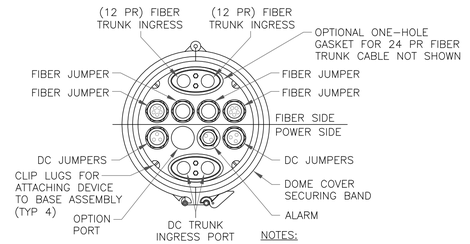
RAYCAP
DC9-48-60-24-8C-EV

RAYCAP - DC9-48-60-24-8C-EV
SIZE: 10.24x31.40 IN.
WEIGHT: 26.2 LBS
NOMINAL OPERATING VOLTAGE: 48 VDC
VOLTAGE PROTECTION RATING: 330 V
WIND LOADING: 150 MPH SUSTAINED (105.7 LBS)
WIND LOADING: 195 MPH GUST (213.6 LBS)

CONTRACTOR TO USE "THREAD LUBRICANT" ON MOUNTING BOLTS DURING INSTALLATION







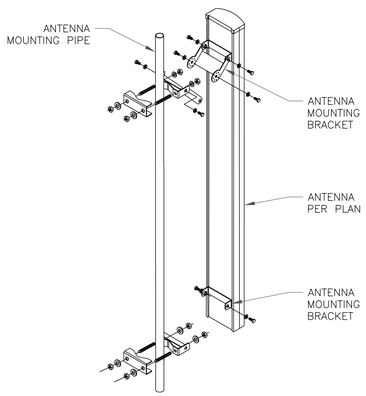
NOTES:

1. REMOVE CABLE SEALING GLAND AND INSTALL M32x1.5 METRIC-TO-1" NPT ADAPTER (COOPER CROUSE-HINES P/N CAP 740 994 OR EQUIVALENT MFR) WHEN CONNECTING CONDUIT TO OVP.

6 SQUID 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.



4 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.
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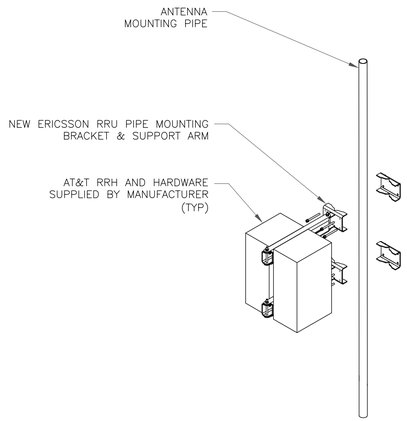

5 ANTENNA WITH DUAL RRH MOUNTING DETAIL
SCALE: NOT TO SCALE

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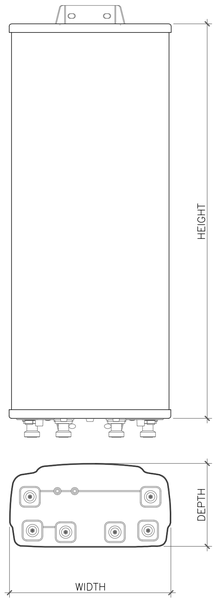
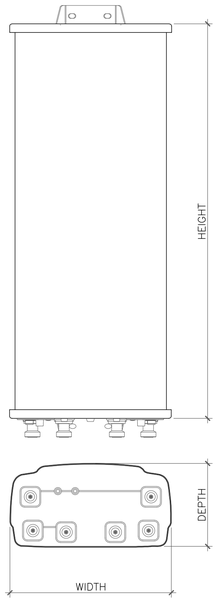
SHEET NUMBER: C-4

REVISION: 0



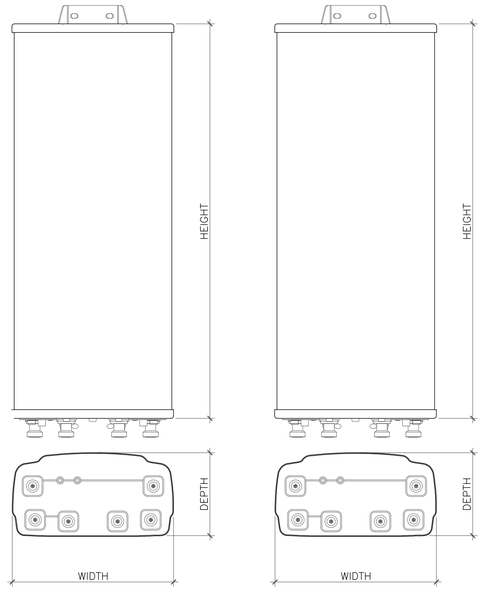
ANTENNA DIMENSIONS (INCHES)				
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
TPA-65R-BU6DA-K	71.20"	20.70"	7.70"	69.00lbs

1 ANTENNA DETAIL
SCALE: NOT TO SCALE



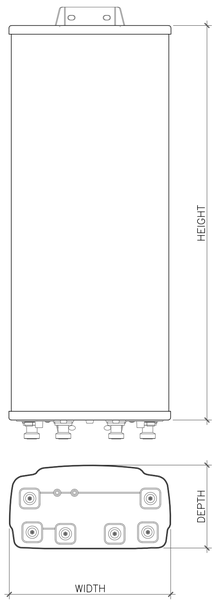
ANTENNA DIMENSIONS (INCHES)				
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
DMP65R-BU6DA	71.20"	20.70"	7.70"	89.30lbs

2 ANTENNA DETAIL
SCALE: NOT TO SCALE



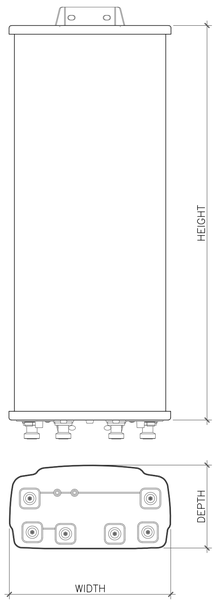
ANTENNA DIMENSIONS (INCHES)				
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
ERICSSON/ AIR6449 N77D	30.39"	15.87"	8.07"	81.60lbs
ERICSSON/ AIR6419 N77G	27.95"	15.75"	6.68"	66.20lbs

3 ANTENNA DETAIL
SCALE: NOT TO SCALE



ANTENNA DIMENSIONS (INCHES)				
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
DMP65R-BU8D	96.0"	20.70"	7.70"	105.6lbs

4 ANTENNA DETAIL
SCALE: NOT TO SCALE



ANTENNA DIMENSIONS (INCHES)				
MODEL	HEIGHT	WIDTH	DEPTH	WEIGHT
TPA65R-BU8D	96.0"	20.70"	7.70"	87.1lbs

5 ANTENNA DETAIL
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

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

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

B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

AT&T SITE NUMBER:
CTL01024

BU #: **876331**
NEW BRITAIN GRAVEL PIT

115 NORTH MOUNTAIN RD
NEW BRITAIN, CT 06053

EXISTING
118'-0" MONOPOLE

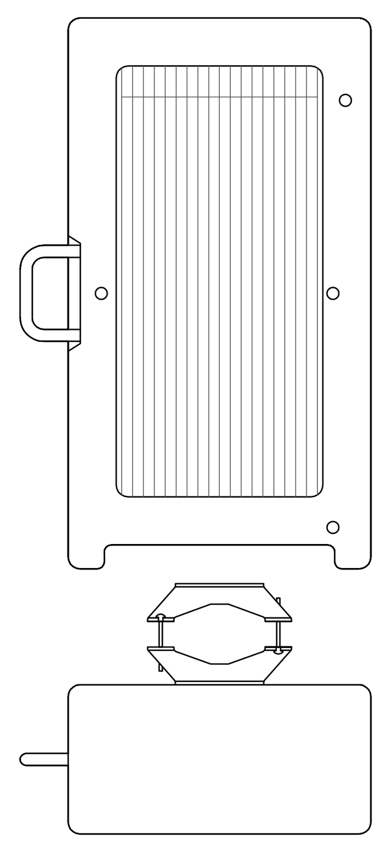
ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	10/8/21	BMK	PRELIMINARY REVIEW	STH
B	01/9/22	KT	PRELIMINARY REVIEW	KT
C	4/7/22	JHW	PRELIMINARY REVIEW	KT
D	5/4/22	MEH	PRELIMINARY REVIEW	KT
0	6/24/22	MEH	CONSTRUCTION	MTJ

STATE OF CONNECTICUT
SCOTT T. HESKETH
No. 23924
LICENSED PROFESSIONAL ENGINEER
6/24/22

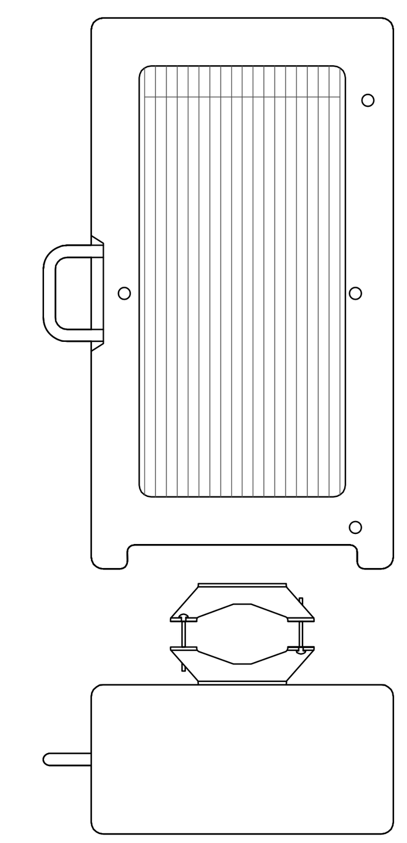
B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: C-5
REVISION: 0



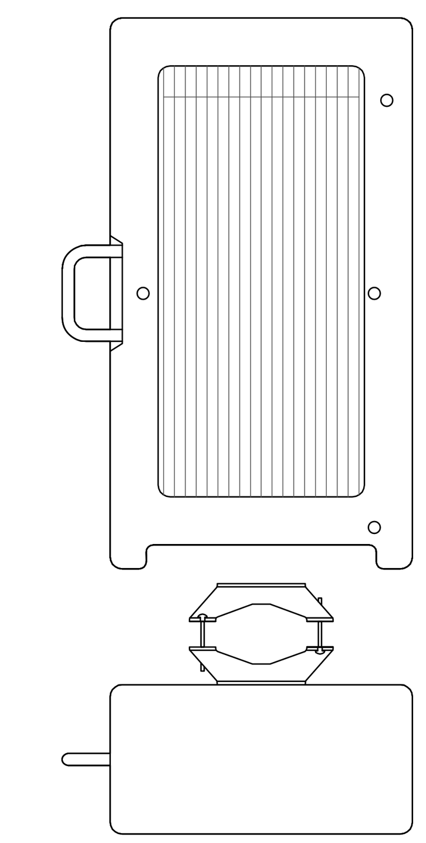
ERICSSON – 4478 B14
WEIGHT (FULLY EQUIPPED): 59.40 LBS
SIZE (HxWxD): 18.10x13.40x8.26 IN.
CONNECTOR TYPE: 4.3–10 FEMALE (4 TOTAL PORTS)

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



ERICSSON – 8843 B2/B66A
WEIGHT (FULLY EQUIPPED): 75.00 LBS
SIZE (HxWxD): 18.00x13.20x11.30 IN.
CONNECTOR TYPE: 4.3–10 FEMALE (4 TOTAL PORTS)

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



ERICSSON – 4449 B5/B12
WEIGHT (FULLY EQUIPPED): 71.00 LBS
SIZE (HxWxD): 17.90x13.19x9.44 IN.
CONNECTOR TYPE: 4.3–10 FEMALE (4 TOTAL PORTS)

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

4 NOT USED
SCALE: NOT TO SCALE

5 NOT USED
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

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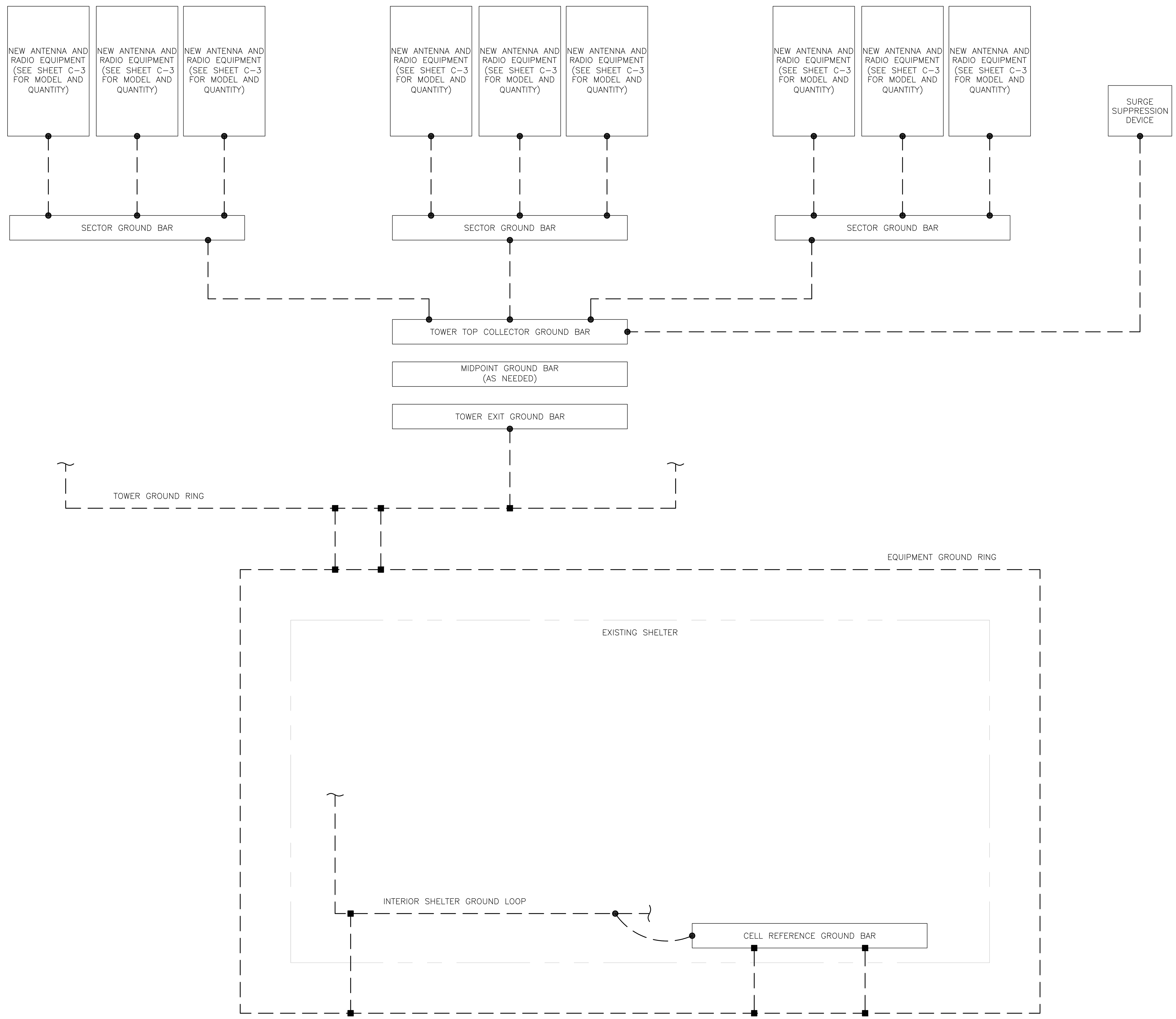
D	5/4/22	MEH	PRELIMINARY REVIEW	KT
0	6/24/22	MEH	CONSTRUCTION	MTJ

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: C-5.1

REVISION: 0



1 GROUNDING SCHEMATIC
SCALE: NOT TO SCALE

GROUNDING PLAN LEGEND:

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

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

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

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

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

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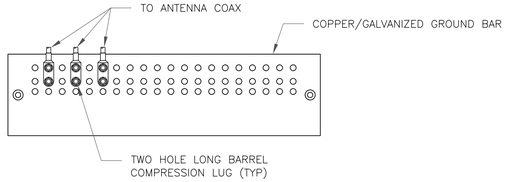
D	5/4/22	MEH	PRELIMINARY REVIEW	KT
0	6/24/22	MEH	CONSTRUCTION	MTJ

6/24/22

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: G-1
REVISION: 0

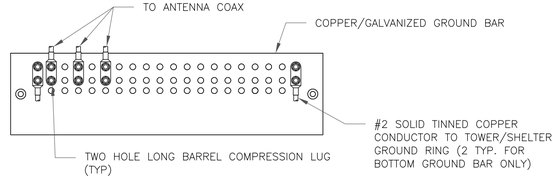
151136.004.01_NEW BRITAIN GRAVEL PIT.dwg - Sheet:G-1 - User: mjones - Jun 24, 2022 - 9:19am



NOTES:

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

1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE

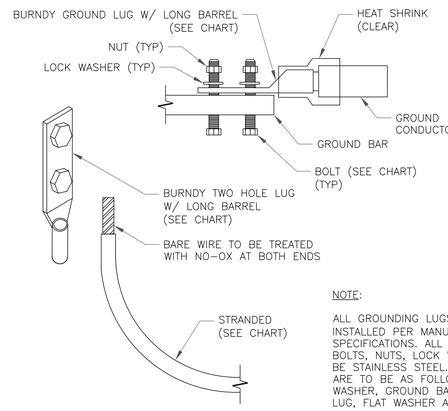


NOTES:

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

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

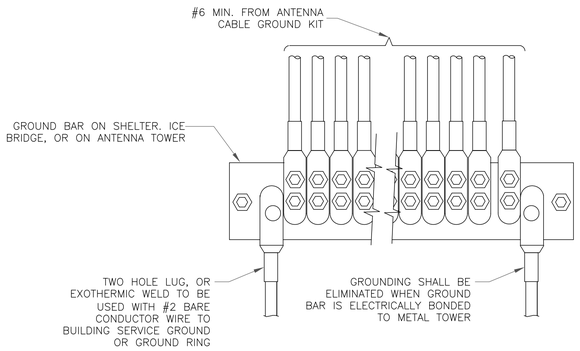
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



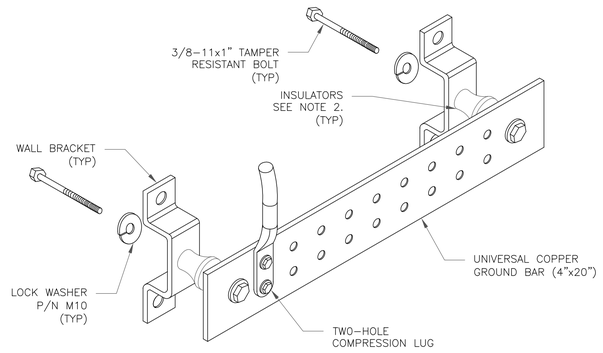
NOTE:

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

3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE

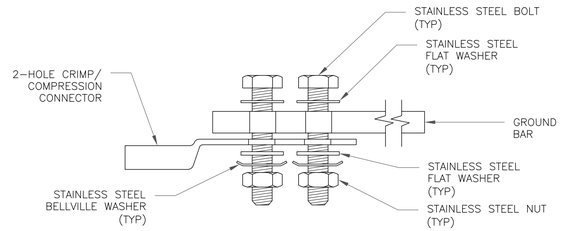


NOTES:

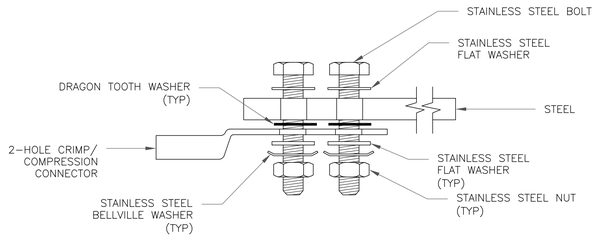
1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS-STD-10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.

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

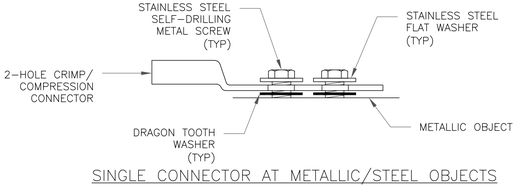
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS

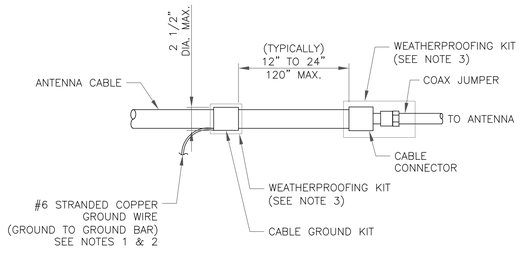


SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

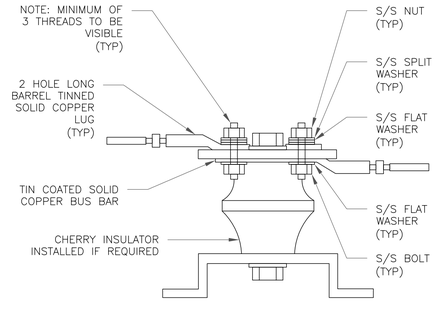
8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



NOTES:

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

6 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

AT&T
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CTL01024

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EXISTING
118'-0" MONOPOLE

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A	10/8/21	BMK	PRELIMINARY REVIEW	STH
B	01/9/22	KT	PRELIMINARY REVIEW	KT
C	4/7/22	JHW	PRELIMINARY REVIEW	KT
D	5/4/22	MEH	PRELIMINARY REVIEW	KT
0	6/24/22	MEH	CONSTRUCTION	MTJ

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/23

SHEET NUMBER: G-2
REVISION: 0

Antenna 1
Empty

Antenna 2
LTE 700 B14 / PCS /AWS

Broadband DoDec Low 700/850 +45/-45 - +
Broadband DoDec Low 700/850 +45/-45 - +
Broadband DoDec AWS/WCS/PCS 4Tx/4Rx +45/-45 - +
Broadband DoDec AWS/WCS/PCS 4Tx/4Rx +45/-45 - +
Broadband DoDec AWS/WCS/PCS 4Tx/4Rx +45/-45 - +
Broadband DoDec AWS/WCS/PCS 4Tx/4Rx +45/-45 - +
RET RET RET RET RET RET

Antenna 3
DoD + C band

AIR
DoD
+45/-45
- +

AIR
C-BAND
+45/-45
- +

Antenna 4
LTE 700 BC / 850

Broadband Octo Low 700/850 +45/-45 - +
Broadband Octo Low 700/850 +45/-45 - +
Broadband Octo High 4Tx/4Rx +45/-45 - +
Broadband Octo High 4Tx/4Rx +45/-45 - +
RET RET RET RET

LTE RRUS-8843

Fiber/DC-1
Demarcation Box (Squid)

24/9 -- Fiber/DC
Demarcation Box (Squid)

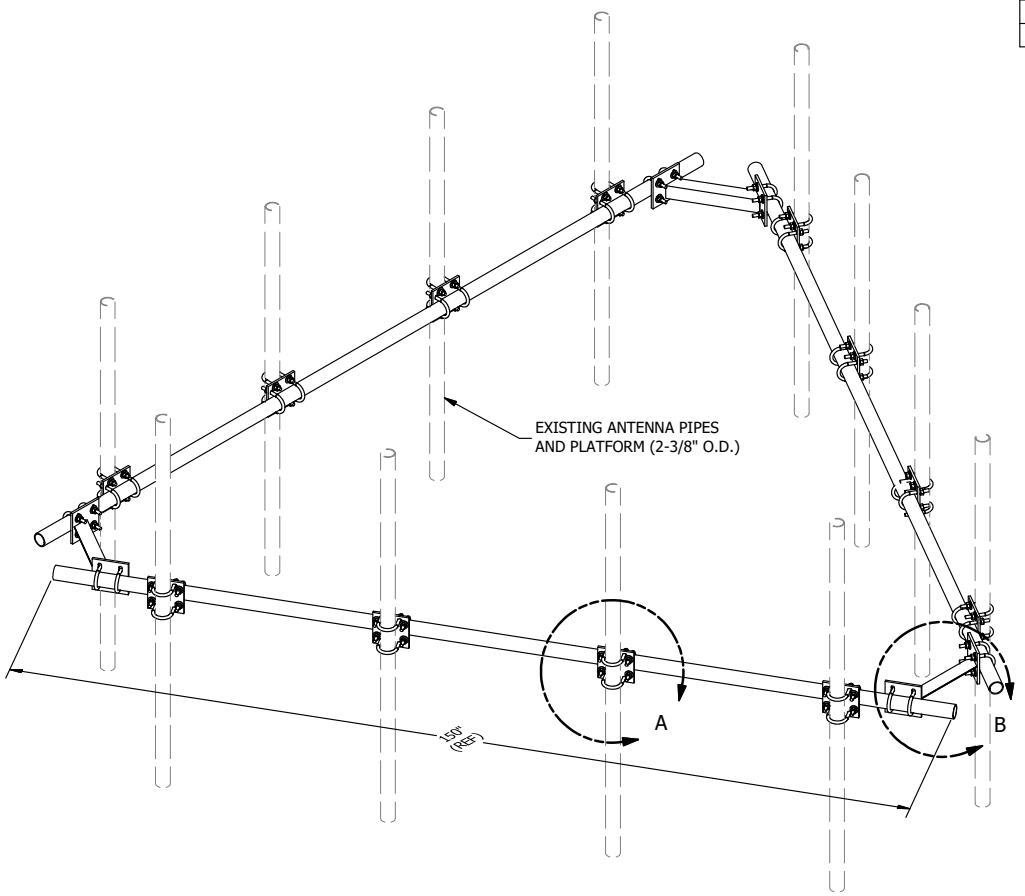
DC Plant

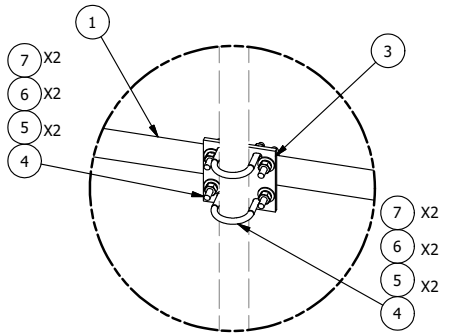
- 3 Feet Minimum Separation between ALL Antennas
- 6 Feet Minimum Separation between 700BC & 700 DE
- 12" Vertical Separation between DoD and C Band Antenna.
- Use "Y Cable" for Dual band RRHs

6630 XMU
6630
6648

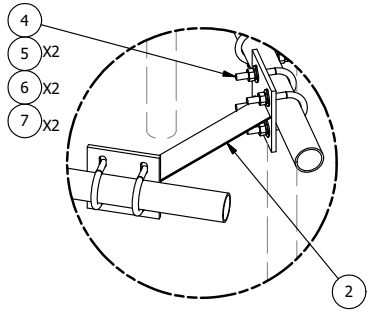
IDLe
Xcede

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	P2150	2-3/8" O.D. X 150" SCH 40 GALVANIZED PIPE	150 in	45.77	137.31
2	3	X-AHCP	ANGLE HANDRAIL CORNER PLATE		12.92	38.76
3	12	SCX1	CROSSOVER PLATE 2-3/8" X 2-3/8"	6 in	3.71	44.50
4	60	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.63	37.51
5	120	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	4.09
6	120	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	1.67
7	120	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	8.60
					TOTAL WT. #	272.43





DETAIL A



DETAIL B

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	REPLACED HCP WITH X-AHCP		CEK	7/10/2014

REVISION HISTORY

TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES *(± 0.030")*
DRILLED AND GAS CUT HOLES *(± 0.030")* - NO CONING OF HOLES
LASER CUT EDGES AND HOLES *(± 0.010")* - NO CONING OF HOLES
BENDS ARE ± 1/2 DEGREE
ALL OTHER MACHINING *(± 0.030")*
ALL OTHER ASSEMBLY *(± 0.060")*

DESCRIPTION: **HANDRAIL KIT FOR 12'-6" FACE**

SITE PRO 1
A valmont COMPANY
Engineering Support Team: 1-888-753-7446
Locations: New York, NY; Atlanta, GA; Los Angeles, CA; Plymouth, IN; Salem, OR; Dallas, TX

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.
	KC8 5/30/2012		HRK12

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	CUSTOMER	BMC 7/13/2014	HRK12

P-100

Panel Antenna Stand-Off Bracket, 12 in

Product Classification

Product Type	Stand-off mount

General Specifications

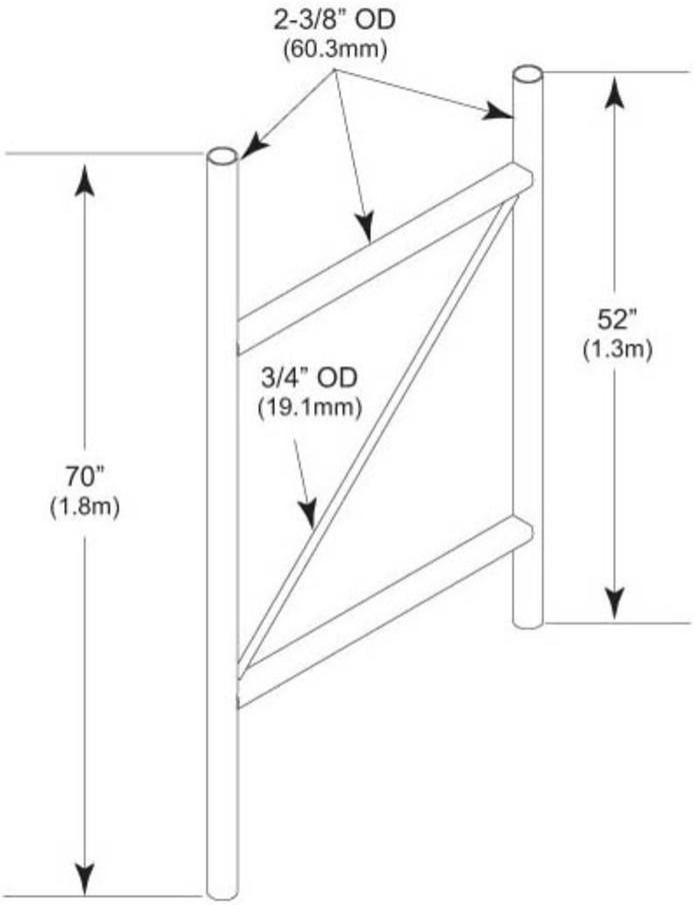
Note	One 72 in x 8 in panel antenna per sector

Dimensions

Height	1778 mm | 70 in
Width	76.2 mm | 3 in
Length	304.8 mm | 12 in
Stand-off Distance	304.8 mm | 12 in

P-100

Outline Drawing



Material Specifications

Material Type	Hot dip galvanized steel

Mechanical Specifications

Wind Rating	120 mph (BWS) at 150 ft AGL
Wind Rating Test Method	TIA/EIA-222

Packaging and Weights

Included	Stand-off
Packaging quantity	1

P-100

Weight, net	19 kg | 41.888 lb

Regulatory Compliance/Certifications

Agency	Classification
CHINA-ROHS	Below maximum concentration value
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
REACH-SVHC	Compliant as per SVHC revision on www.commscope.com/ProductCompliance
ROHS	Compliant

* Footnotes

Wind Rating	BWS—Base Wind Speed; FBC—Florida Building Code

Exhibit D

Structural Analysis Report

Date: **November 12, 2021**

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

Subject:	**Structural Analysis Report**	
Carrier Designation:	***AT&T Mobility* Co-Locate**	
	Site Number:	CTL01024
	Site Name:	New Britain Loon Lake
	FA Number:	10035310
Crown Castle Designation:	**BU Number:**	876331
	Site Name:	New Britain Gravel Pit
	JDE Job Number:	649411
	Work Order Number:	2018021
	Order Number:	556502 Rev. 0
Engineering Firm Designation:	**B+T Group Project Number:**	151136.005.01
Site Data:	**115 North Mountain Rd, New Britain, Hartford County, CT** **Latitude *41° 40' 35.72"*, Longitude *-72° 49' 17.09"*** **118 Foot - Monopole**	

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

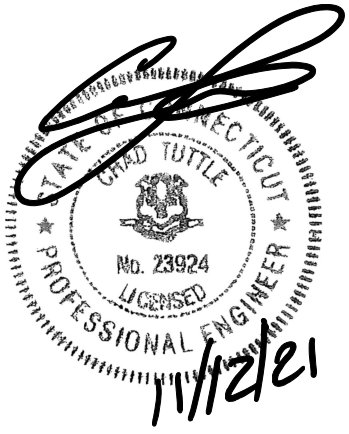
The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC7: Proposed Equipment Configuration **Sufficient Capacity – 99.7%**

This analysis utilizes an ultimate 3-second gust wind speed of 117 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: Jacob Johnson, E.I.T.

Respectfully submitted by: B+T Engineering, Inc.
COA: PEC.0001564; Expires: 02/10/2022



Chad E. Tuttle, P.E.

tnxTower Report - version 8.1.1.0

TABLE OF CONTENTS

1) INTRODUCTION

This is a 118 ft. Monopole designed by Rohn in October 1996.

The tower has been modified multiple times to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	117 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
98.0	100.0	2	CCI Antennas	DMP65R-BU6D	9 2 2	7/8 13/16 3/8
		1	CCI Antennas	DMP65R-BU8D		
		2	CCI Antennas	TPA65R-BU6D_CCIV2		
		1	CCI Antennas	TPA65R-BU8D_CCIV2		
		3	Ericsson	AIR 6419 B77G		
		3	Ericsson	AIR 6449 B77D		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 4478 B14_CCIV2		
		3	Ericsson	RRUS 8843 B2/B66A_CCIV2		
		1	Raycap	DC9-48-60-24-8C-EV		
	98.0	1	Raycap	DC6-48-60-18-8F		
		1	Site Pro 1	HRK12 Support Rail Kit		
		1	--	Platform Mount [LP 712-1]		

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)
116.0	117.0	3	Alcatel Lucent	800MHZ 2X50W RRH w/Filter	--	--
	116.0	1	--	Pipe Mount [PM 601-3]		
	113.0	3	Alcatel Lucent	PCS 1900MHZ 4X45W-65MHZ		
114.0	116.0	1	Andrew	VHLP1-23	4 1	1-1/4 1/2
		3	Alcatel Lucent	TD-RRH8X20-25		
		1	RFS Celwave	APXV9ERR18-C-A20		
		2	RFS Celwave	APXVSPP18-C-A20		
		3	RFS Celwave	APXVTM14-C-120		
		1	Samsung Telecom.	WIMAX DAP HEAD		
	114.0	1	--	Platform Mount [LP 502-1]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
108.0	108.0	3	Commscope	SDX1926Q-43	3 6	1-5/8 7/8
		3	Ericsson	AIR 32 B2A/B66AA		
		3	Ericsson	AIR6449 B41_T-MOBILE		
		3	Ericsson	KRY 112 144/1		
		3	Ericsson	Radio 4449 B71 B85A_T-Mobile		
		3	Ericsson	RRUS 4415 B25		
		3	RFS Celwave	APXVAARR24_43-U-NA20		
		1	Site Pro 1	RMQP-496-HK Platform Mount		
85.0	90.0	6	Commscope	NHH-65B-R2B	7 1	1-5/8 1-1/2
		1	Raycap	RVZDC-6627-PF-48		
		3	Samsung Telecom.	MT6407-77A		
		3	Samsung Telecom.	RFV01U-D1A		
		3	Samsung Telecom.	RFV01U-D2A		
		1	Antel	BXA-70040-6CF-EDIN-2		
		2	Antel	BXA-70063-6CF-2		
		1	RFS Celwave	DB-B1-6C-12AB-0Z		
	85.0	1	--	36'' Long P2STD Mount Pipe		
		3	--	72'' Long P2.5 STD Mount Pipe		
		1	VZWSMART	PLK5 Kicker Kit		
		1	VZWSMART	PLK1 Support Rail Kit		
		1	--	Platform Mount [LP 303-1]		
80.0	81.0	1	Lucent	KS24019-L112A	1	1/2
	80.0	1	--	Side Arm Mount [SO 701-1]		
62.0	62.0	1	Commscope	MC-PK8-DSH	1	1-1/2
		3	Fujitsu	TA08025-B604		
		3	Fujitsu	TA08025-B605		
		3	JMA Wireless	MX08FRO665-21		
		1	Raycap	RDIDC-9181-PF-48		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Tower Manufacturer Drawing	5875885	CCI Sites
Mount Modification Report	9970790	CCI Sites
Tower Modification Drawing	2268906	CCI Sites
Tower Modification Drawing	3259703	CCI Sites
Post Modification Inspection	3684848	CCI Sites
Tower Modification Drawing	4858411	CCI Sites
Post Modification Inspection	5407775	CCI Sites
Tower Modification Drawing	5371260	CCI Sites
Post Modification Inspection	5596857	CCI Sites

Document	Reference	Source
Tower Modification Drawing	5907683	CCI Sites
Post Modification Inspection	6131239	CCI Sites
Foundation Drawing	1947809	CCI Sites
Geotech Report	2192549	CCI Sites
Crown CAD Package	Date: 09/04/2021	CCI Sites

3.1) Analysis Method

tnxTower (version 8.1.1.0), 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. B+T Group should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	118 - 113	Pole	P24x0.25	1	-3.072	--	2.3	Pass
L2	113 - 108	Pole	P24x0.25	2	-3.462	--	6.7	Pass
L3	108 - 103	Pole	P24x0.25	3	-8.577	--	17.0	Pass
L4	103 - 98	Pole	P24x0.25	4	-9.303	--	27.1	Pass
L5	98 - 93	Pole	P24x0.25	5	-13.398	--	46.1	Pass
L6	93 - 90	Pole	P24x0.25	6	-13.722	--	56.0	Pass
L7	90 - 85	Pole	P24x0.375	7	-14.525	--	46.7	Pass
L8	85 - 80	Pole	P24x0.375	8	-19.007	--	63.2	Pass
L9	80 - 76.5	Pole	P24x0.375	9	-19.679	--	73.3	Pass
L10	76.5 - 76.25	Pole + Reinf.	P24x0.5875	10	-19.745	--	53.2	Pass
L11	76.25 - 74	Pole + Reinf.	P24x0.5875	11	-20.227	--	58.0	Pass
L12	74 - 73.75	Pole + Reinf.	P24x0.9	12	-20.308	--	58.1	Pass
L13	73.75 - 68.75	Pole + Reinf.	P24x0.9	13	-21.782	--	68.9	Pass
L14	68.75 - 68.5	Pole + Reinf.	P24x0.8	14	-21.855	--	53.3	Pass
L15	68.5 - 68.25	Pole + Reinf.	P24x0.575	15	-21.910	--	70.8	Pass
L16	68.25 - 64.5	Pole + Reinf.	P24x0.575	16	-22.740	--	79.2	Pass
L17	64.5 - 64.25	Pole + Reinf.	P24x1.05	17	-22.837	--	69.2	Pass
L18	64.25 - 63	Pole + Reinf.	P24x1.05	18	-23.250	--	71.7	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L19	63 - 62.75	Pole + Reinf.	P24x1	19	-23.339	--	74.5	Pass
L20	62.75 - 60	Pole + Reinf.	P24x1	20	-27.355	--	80.9	Pass
L21	60 - 59.75	Pole + Reinf.	P30x0.675	21	-27.610	--	50.8	Pass
L22	59.75 - 54.75	Pole + Reinf.	P30x0.675	22	-29.171	--	58.5	Pass
L23	54.75 - 49.75	Pole + Reinf.	P30x0.675	23	-30.774	--	66.4	Pass
L24	49.75 - 49.08	Pole + Reinf.	P30x0.675	24	-30.993	--	67.5	Pass
L25	49.08 - 48.83	Pole + Reinf.	P30x0.875	25	-31.083	--	62.3	Pass
L26	48.83 - 43.83	Pole + Reinf.	P30x0.875	26	-32.799	--	69.8	Pass
L27	43.83 - 42	Pole + Reinf.	P30x0.875	27	-33.425	--	72.6	Pass
L28	42 - 41.75	Pole + Reinf.	P30x1	28	-33.536	--	64.2	Pass
L29	41.75 - 36.75	Pole + Reinf.	P30x1	29	-35.444	--	70.9	Pass
L30	36.75 - 34.5	Pole + Reinf.	P30x1	30	-36.308	--	74.0	Pass
L31	34.5 - 34.25	Pole + Reinf.	P30x1.05	31	-36.422	--	66.0	Pass
L32	34.25 - 34	Pole + Reinf.	P30x1.05	32	-36.528	--	66.3	Pass
L33	34 - 33.75	Pole + Reinf.	P30x0.95	33	-36.624	--	74.7	Pass
L34	33.75 - 30	Pole + Reinf.	P30x0.95	34	-38.069	--	79.9	Pass
L35	30 - 29.75	Pole + Reinf.	P36x0.5875	35	-38.387	--	75.8	Pass
L36	29.75 - 28.5	Pole + Reinf.	P36x0.5875	36	-38.820	--	77.5	Pass
L37	28.5 - 28.25	Pole + Reinf.	P36x0.6125	37	-38.929	--	77.6	Pass
L38	28.25 - 27.94	Pole + Reinf.	P36x0.8375	38	-39.065	--	61.7	Pass
L39	27.94 - 27.69	Pole + Reinf.	P36x0.8375	39	-39.175	--	62.0	Pass
L40	27.69 - 23	Pole + Reinf.	P36x0.8375	40	-41.233	--	67.1	Pass
L41	23 - 22.75	Pole + Reinf.	P36x0.9625	41	-41.358	--	62.9	Pass
L42	22.75 - 21.5	Pole + Reinf.	P36x0.9625	42	-41.930	--	64.2	Pass
L43	21.5 - 21.25	Pole + Reinf.	P36x0.875	43	-42.045	--	69.4	Pass
L44	21.25 - 21	Pole + Reinf.	P36x0.875	44	-42.153	--	69.7	Pass
L45	21 - 20.75	Pole + Reinf.	P36x0.8	45	-42.255	--	77.7	Pass
L46	20.75 - 19	Pole + Reinf.	P36x0.8	46	-42.963	--	79.9	Pass
L47	19 - 18.75	Pole + Reinf.	P36x0.925	47	-43.096	--	70.7	Pass
L48	18.75 - 18.5	Pole + Reinf.	P36x0.925	48	-43.212	--	70.9	Pass
L49	18.5 - 18.25	Pole + Reinf.	P36x0.9	49	-43.326	--	72.9	Pass
L50	18.25 - 13.25	Pole + Reinf.	P36x0.9	50	-45.609	--	78.6	Pass
L51	13.25 - 12.7	Pole + Reinf.	P36x0.9	51	-45.866	--	79.2	Pass
L52	12.7 - 12.35	Pole + Reinf.	P36x0.8875	52	-46.041	--	72.3	Pass
L53	12.35 - 12.13	Pole + Reinf.	P36x0.8875	53	-46.154	--	72.5	Pass
L54	12.13 - 12	Pole + Reinf.	P36x0.8875	54	-46.217	--	72.6	Pass
L55	12 - 11.75	Pole + Reinf.	P36x1.075	55	-46.344	--	63.6	Pass
L56	11.75 - 8.38	Pole + Reinf.	P36x1.075	56	-48.054	--	66.7	Pass
L57	8.38 - 8.13	Pole + Reinf.	P36x1.175	57	-48.187	--	71.4	Pass
L58	8.13 - 7.75	Pole + Reinf.	P36x1.175	58	-48.373	--	71.8	Pass
L59	7.75 - 7.5	Pole + Reinf.	P36x1.075	59	-48.500	--	68.0	Pass
L60	7.5 - 7.25	Pole + Reinf.	P36x1.1	60	-48.630	--	67.6	Pass
L61	7.25 - 4	Pole + Reinf.	P36x1.1	61	-50.319	--	70.6	Pass
L62	4 - 3.73	Pole + Reinf.	P36x1.475	62	-50.473	--	54.5	Pass
L63	3.73 - 3.58	Pole + Reinf.	P36x1.475	63	-50.555	--	54.6	Pass
L64	3.58 - 3	Pole + Reinf.	P36x1.475	64	-50.869	--	55.0	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L65	3 - 2.75	Pole + Reinf.	P36x1.475	65	-51.008	--	55.2	Pass
L66	2.75 - 1.9	Pole + Reinf.	P36x1.1	66	-51.400	--	72.4	Pass
L67	1.9 - 1.65	Pole + Reinf.	P36x1.1	67	-51.524	--	72.7	Pass
L68	1.65 - 0	Pole + Reinf.	P36x1.1	68	-52.284	--	74.2	Pass
							Summary	
						Pole	77.6	Pass
						Reinforcement	80.9	Pass
						Overall	80.9	Pass

Table 5 - Tower Component Stresses vs. Capacity

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Flange Connection	90	10.1	Pass
1	Bridge Stiffeners		20.1	Pass
1	Flange Connection	60	36.0	Pass
1	Bridge Stiffeners		38.9	Pass
1	Flange Connection	30	52.8	Pass
1	Bridge Stiffeners		51.9	Pass
1	Anchor Rods	Base	87.8	Pass
1	Anchor Rod Bracket	Base	86.8	Pass
1	Base Plate	Base	57.6	Pass
1	Base Foundation (Structure)	Base	71.2	Pass
1	Base Foundation (Soil Interaction)	Base	99.7	Pass

Structure Rating (max from all components) =	99.7%

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

4.1) Recommendations

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

Exhibit E

Mount Analysis

Date: **September 10, 2021**

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

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

Subject:	**Mount Analysis Report**	
Carrier Designation:	**AT&T Mobility Direct**	
	Carrier Site Number:	CTL01024
	Carrier Site Name:	NEW BRITAIN LOON LAKE
	Carrier FA Number:	10035310
Crown Castle Designation:	**Crown Castle BU Number:**	876331
	Crown Castle Site Name:	NEW BRITAIN GRAVEL PIT
	Crown Castle JDE Job Number:	649411
	Crown Castle Order Number:	556502 Rev. 0
Engineering Firm Designation:	**Infinigy Engineering, PLLC Report Designation:** 1039-Z0001-B	
Site Data:	**115 North Mountain Road, New Britain, Hartford County, CT, 06053** **Latitude 41°40'35.72", Longitude -72°49'17.09"**	
Structure Information:	**Tower Height & Type:**	**118.0 ft Monopole**
	Mount Elevation:	**98.0 ft**
	Mount Type:	**13.0 ft Platform**

Dear Darcy Tarr,

Infinigy Engineering, PLLC is pleased to submit this **"Mount Analysis Report"** to determine the structural integrity of AT&T Mobility'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.

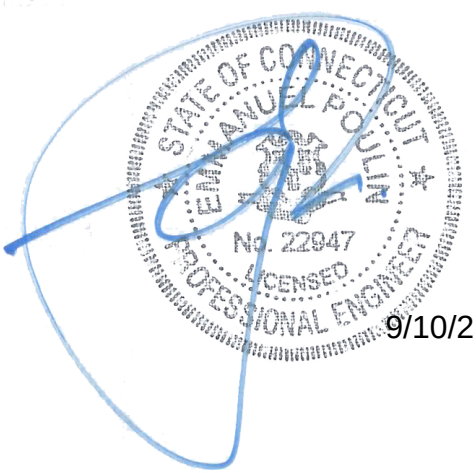
The purpose of the analysis is to determine acceptability of the mount stress level. Based on our analysis we have determined the mount stress level to be:

Platform **Sufficient - 74.2%**
***Sufficient upon completion of the changes listed in the 'Recommendations' section of this report.**

This analysis has been performed in accordance with the 2018 International Building Code based upon an ultimate 3-second gust wind speed of 117 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Andrew Gloriani, E.I.T.

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



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1) INTRODUCTION

This is an existing 3 sector 13.0 ft Platform, mapped by Infinigy Engineering.

2) ANALYSIS CRITERIA

Building Code:	2018 IBC
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	117 mph
Exposure Category:	C
Topographic Factor at Base:	1.00
Topographic Factor at Mount:	1.00
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.192
Seismic S_1:	0.055
Live Loading Wind Speed:	30 mph
Man Live Load at Mid/End-Points:	250 lb
Man Live Load at Mount Pipes:	500 lb

Table 1 - Proposed Equipment Configuration

Mount Centerline (ft)	Antenna Centerline (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Mount / Modification Details
98.0	100.0	2	CCI Antennas	DMP65R-BU6D	13.0 ft Platform
		1	CCI Antennas	DMP65R-BU8D	
		2	CCI Antennas	TPA65R-BU6D_CCIV2	
		1	CCI Antennas	TPA65R-BU8D_CCIV2	
		3	Ericsson	AIR 6419 B77G	
		3	Ericsson	AIR 6449 B77D	
		3	Ericsson	RRUS 4449 B5/B12	
		3	Ericsson	RRUS 4478 B14_CCIV2	
		3	Ericsson	RRUS 8843 B2/B66A_CCIV2	
		1	Raycap	DC9-48-60-24-8C-EV	
	98.0	1	Raycap	DC6-48-60-18-8F	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Crown Application	AT&T Mobility Application	556502 Rev. 0	CCI Sites
Loading Document	AT&T Mobility	RFDS ID: 4387635	TSA
Mount Mapping Documents	Infinigy Engineering	9732777	CCI Sites

3.1) Analysis Method

RISA-3D (Version 19.0.4), a commercially available analysis software package, was used to create a three-dimensional model of the antenna mounting system and calculate member stresses for various loading cases.

Infinigy Mount Analysis Tool V2.1.6, 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	ASTM A36 (GR 36)
HSS (Rectangular)	ASTM A500 (GR B-46)
Pipe	ASTM A53 (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	Mount Pipe(s)	MP11	98.0	64.9	Pass
	Horizontal(s)	MH2		68.9	Pass
	Standoff(s)	MS1		47.1	Pass
	Handrail(s)	M42		74.2	Pass
	Mount Connection(s)	-		67.6	Pass

Structure Rating (max from all components) =	74.2%

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.

4.1) Recommendations

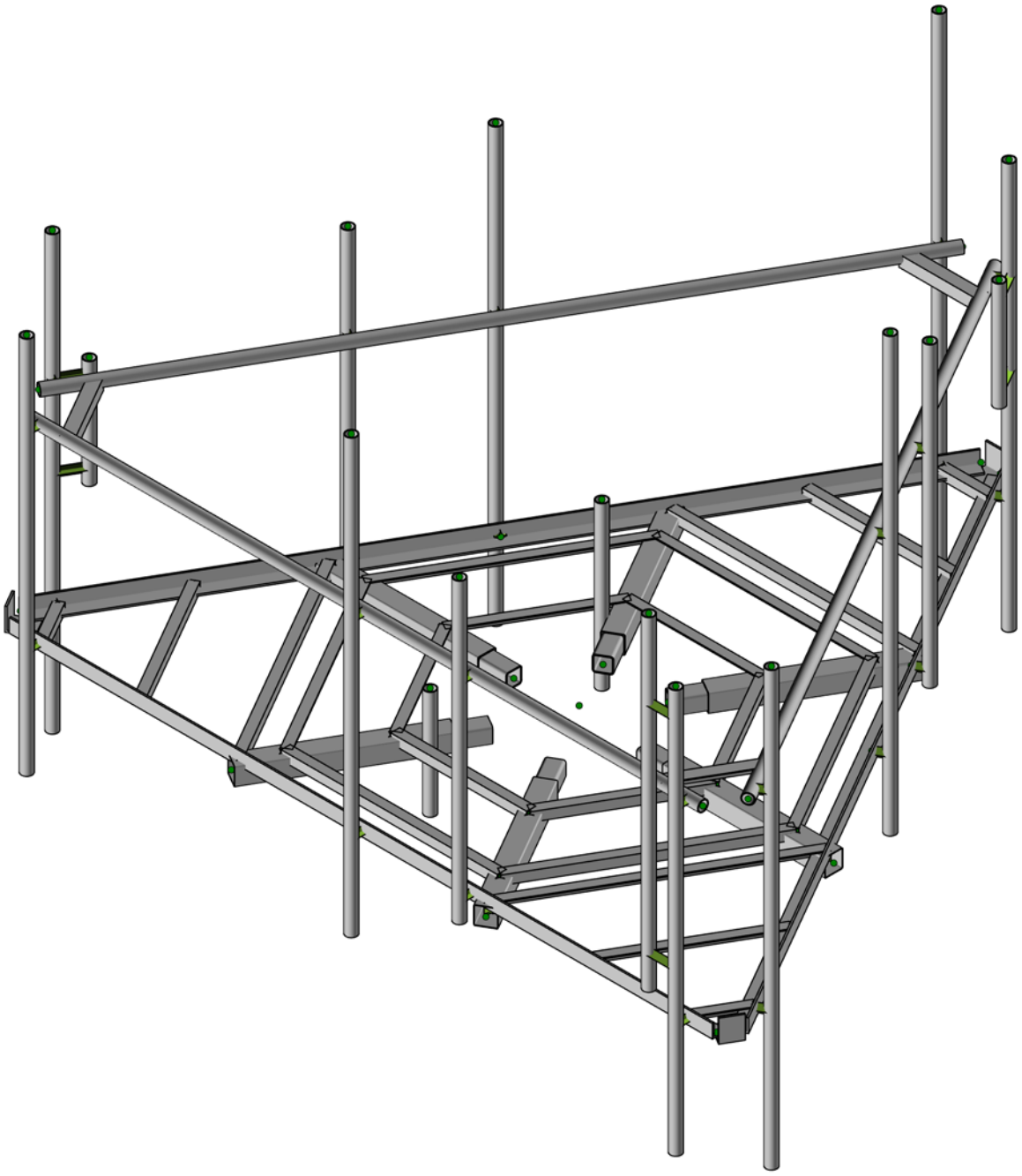
The mount has sufficient capacity to carry the proposed loading configuration. In order for the results of the analysis to be considered valid, the structural modifications listed below must be completed.

1. Installation of Site Pro 1 HRK12 handrail kit.
2. Installation of (1) 8’ long pipe 2.0 STD for Alpha sector.

No structural modifications are required at this time, provided that the above-listed changes are implemented.

APPENDIX A

WIRE FRAME AND RENDERED MODELS



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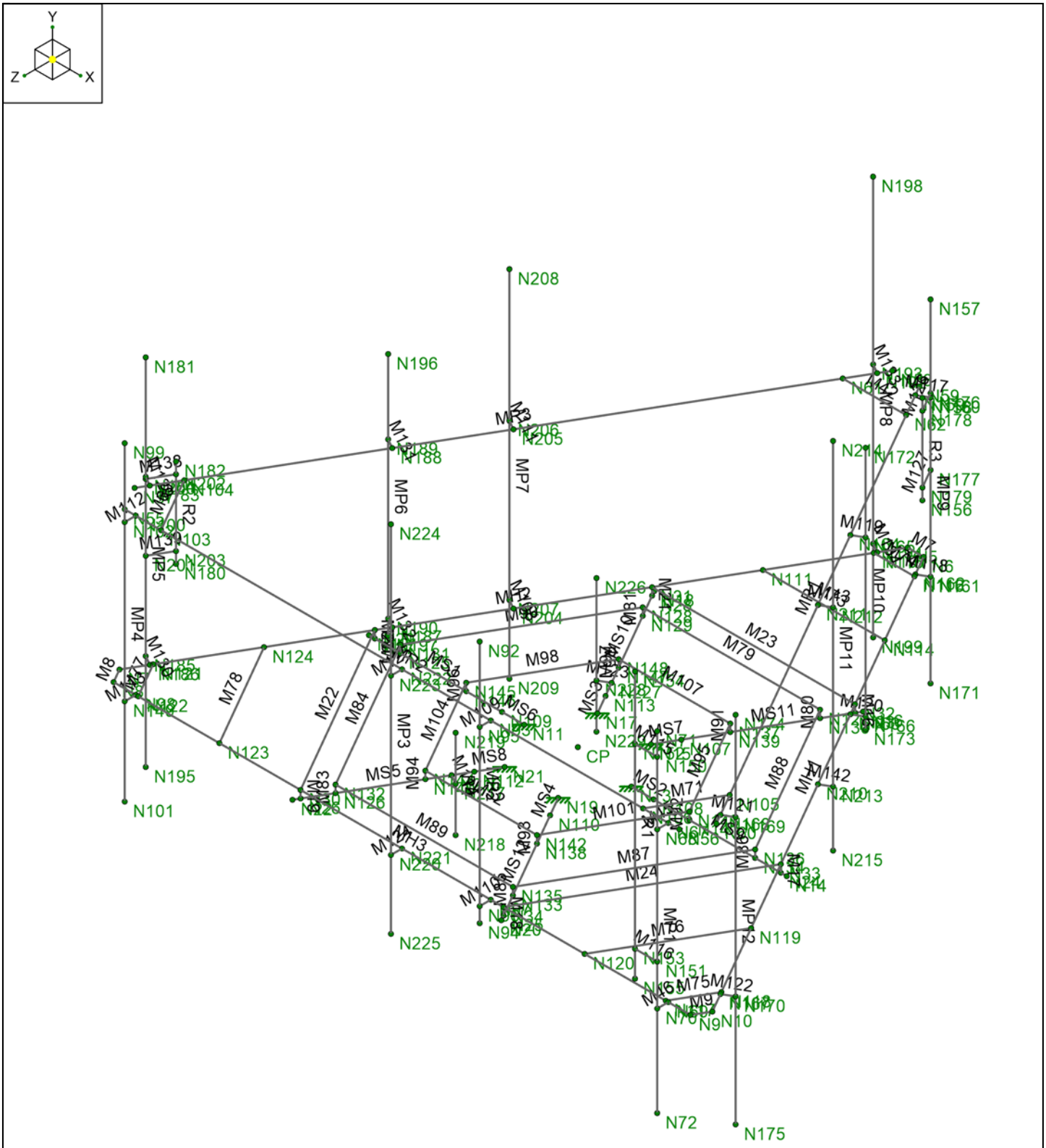

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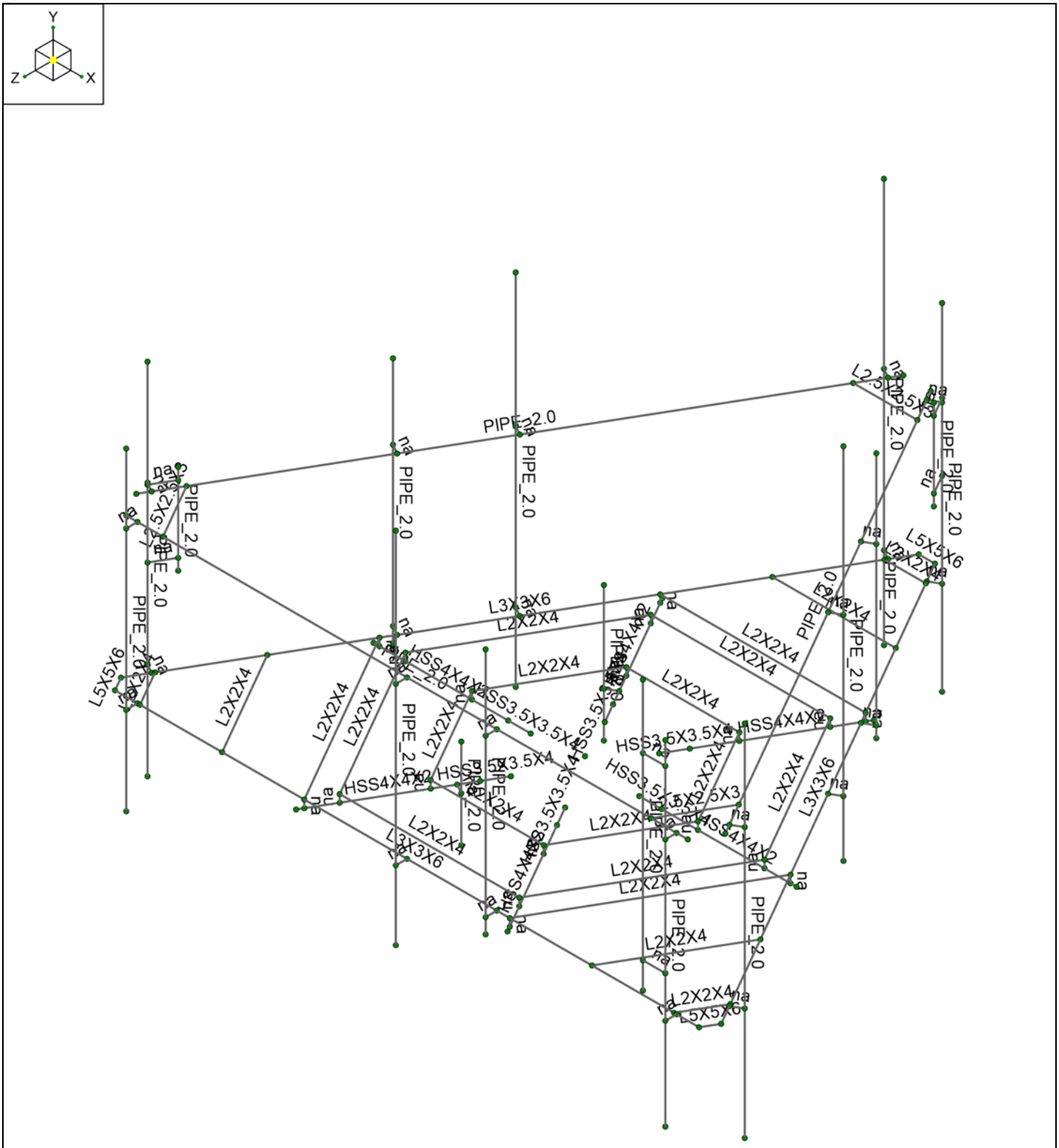

Infinigy Engineering, PLLC	876331	Shape
AG		Sep 10, 2021
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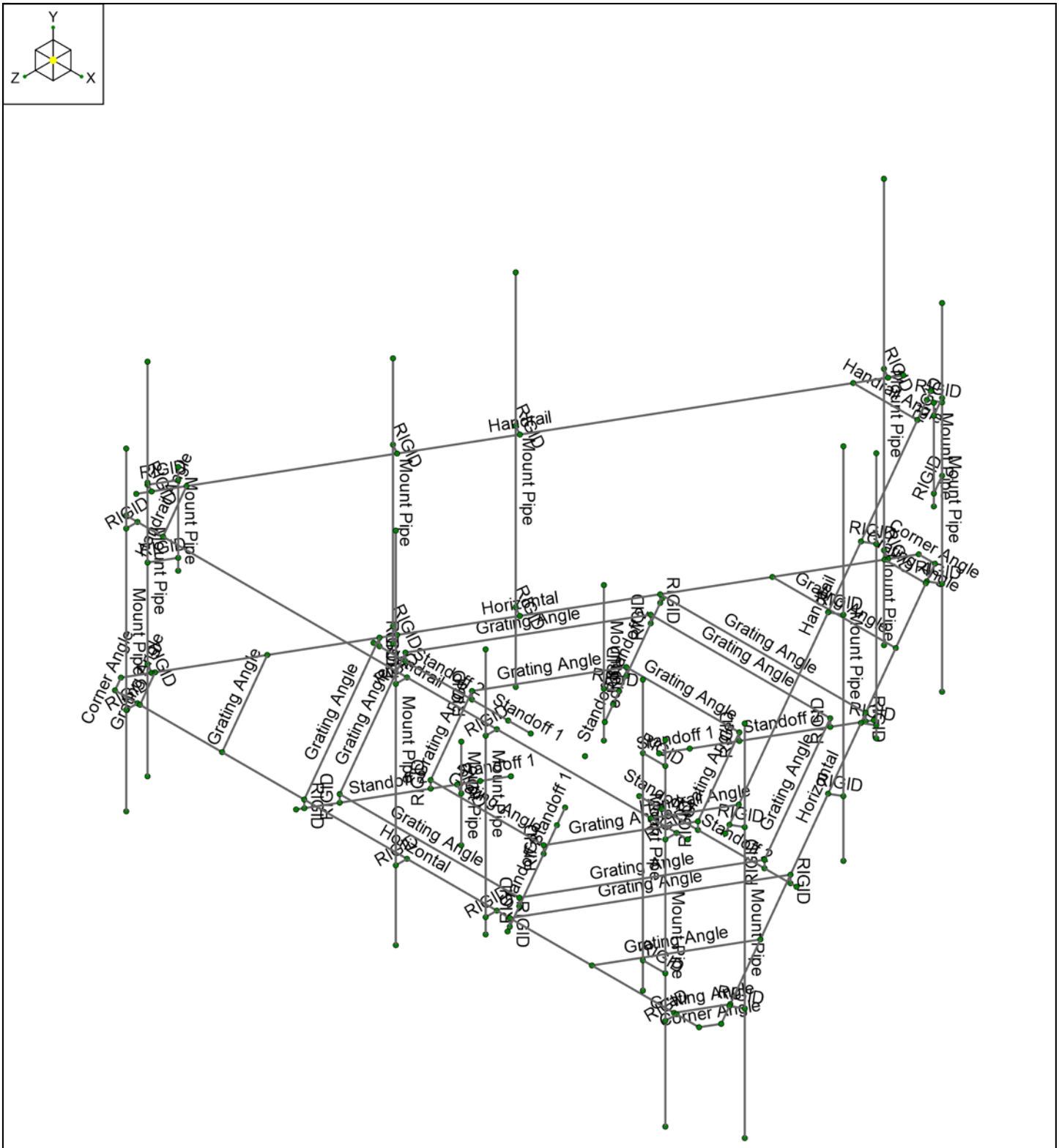

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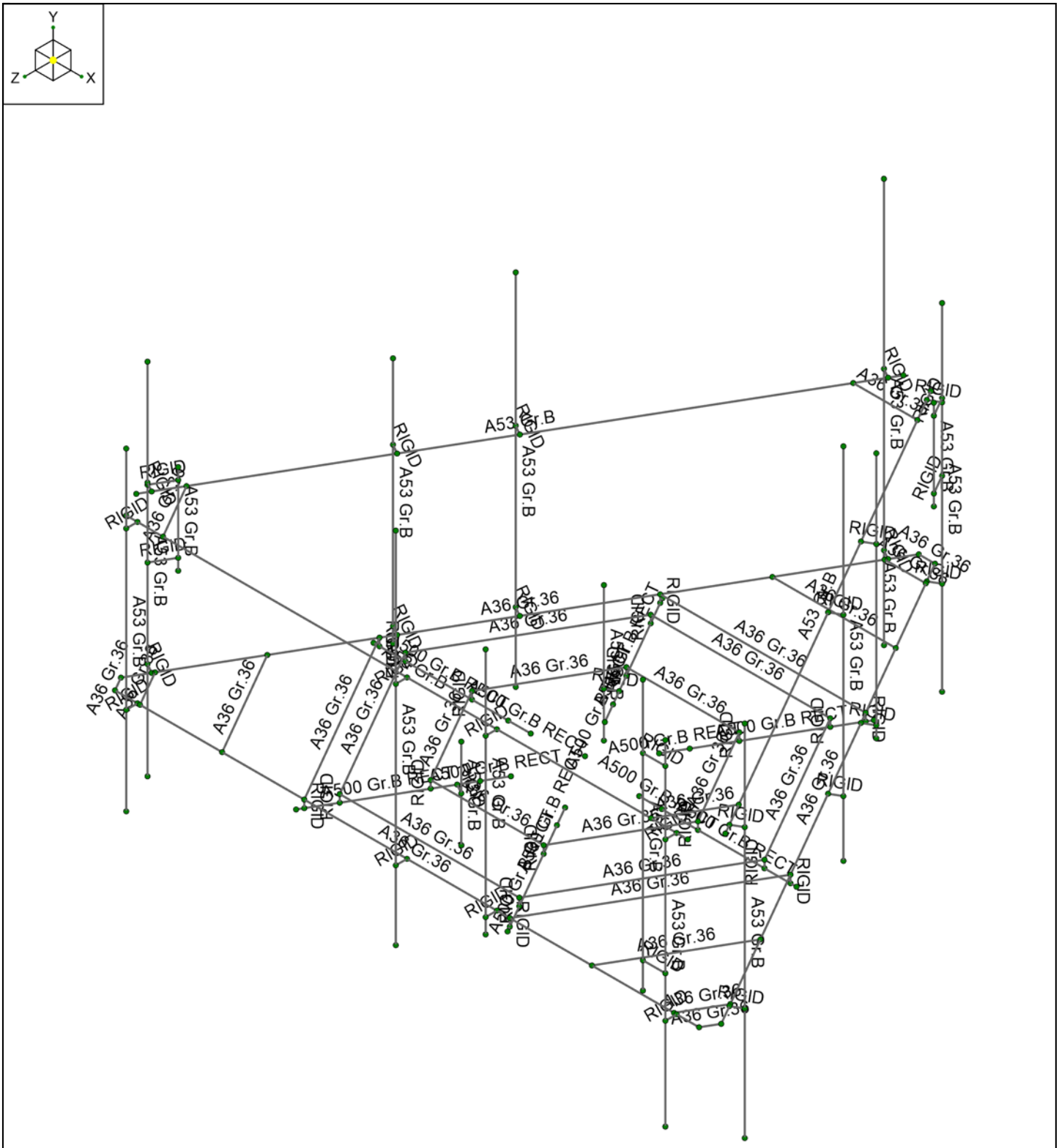

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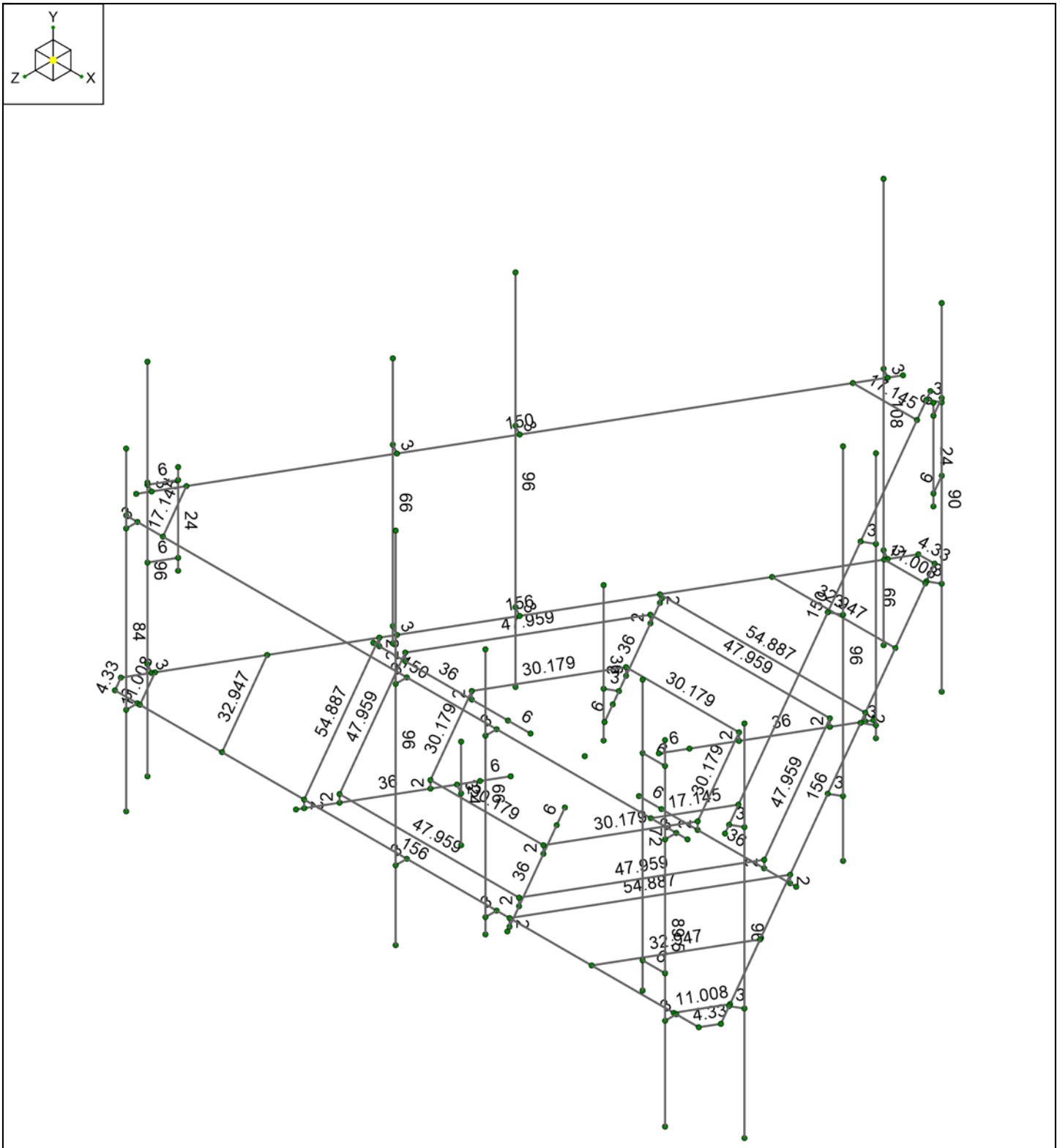

Member Length (in) Displayed

Infinigy Engineering, PLLC	876331	Length
AG		Sep 10, 2021
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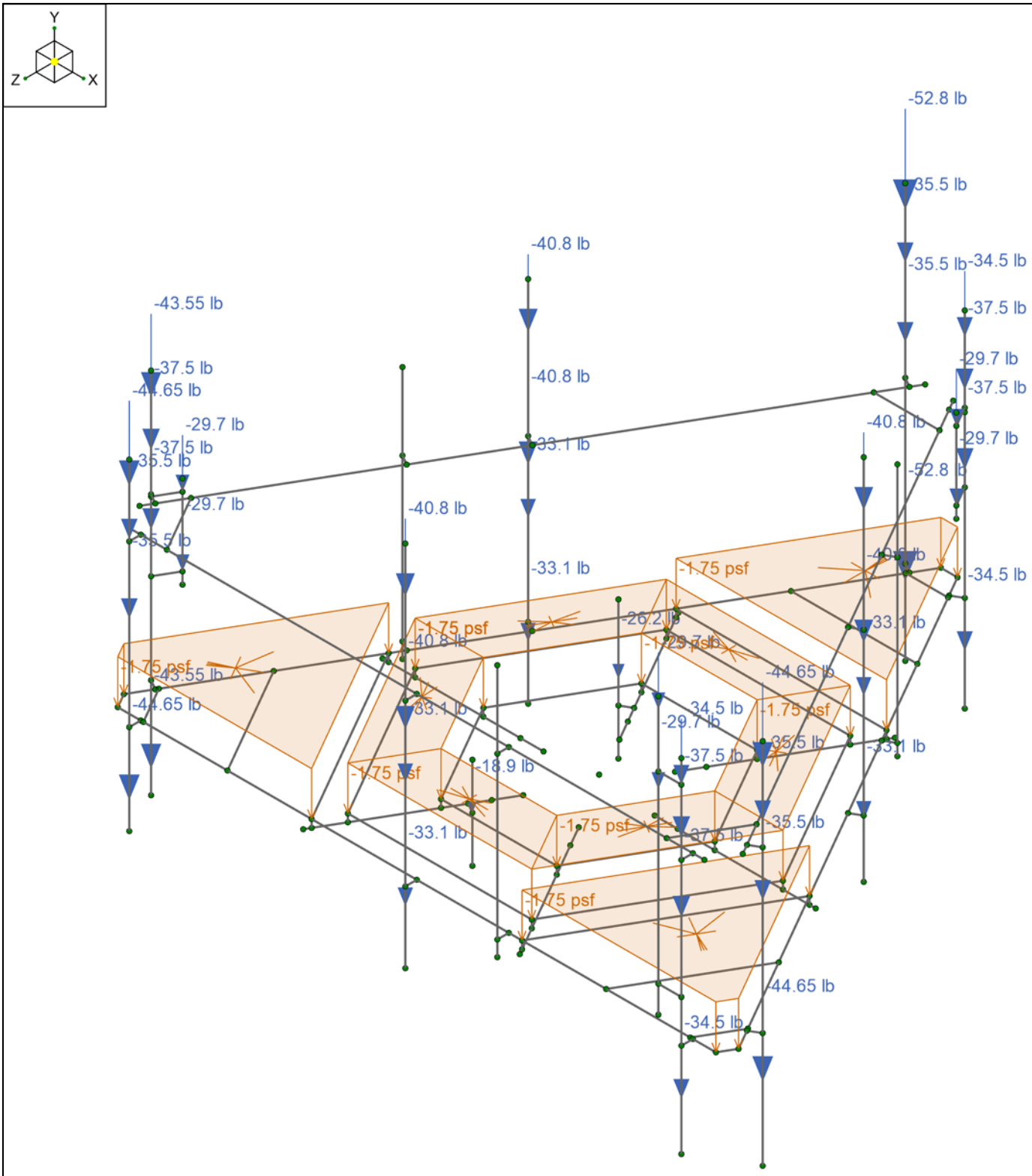

Loads: BLC 1, Self Weight

Infinigy Engineering, PLLC	876331	Self Weight
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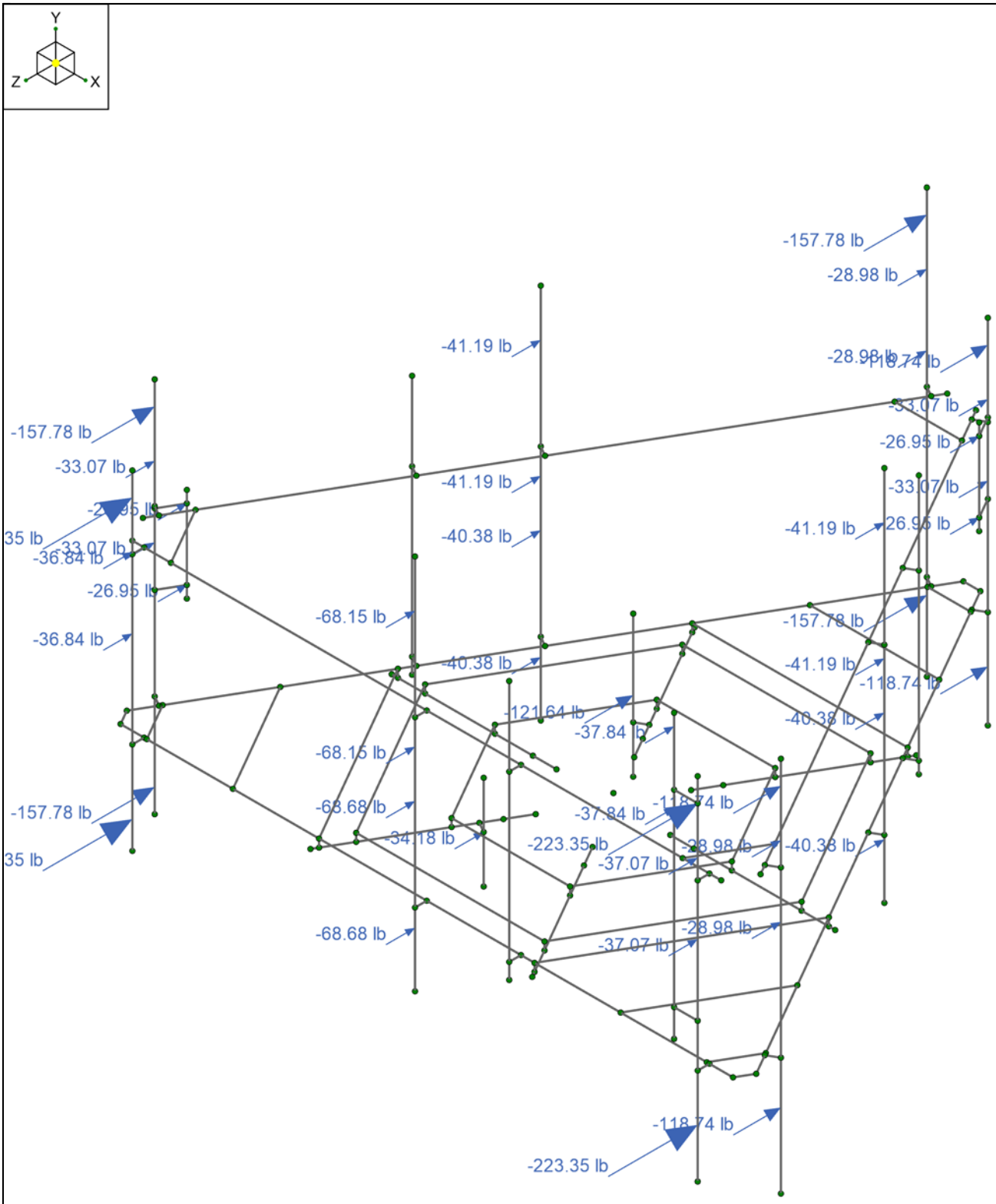

Loads: BLC 2, Wind Load AZI 0

Infinigy Engineering, PLLC	876331	Wind Loading 0
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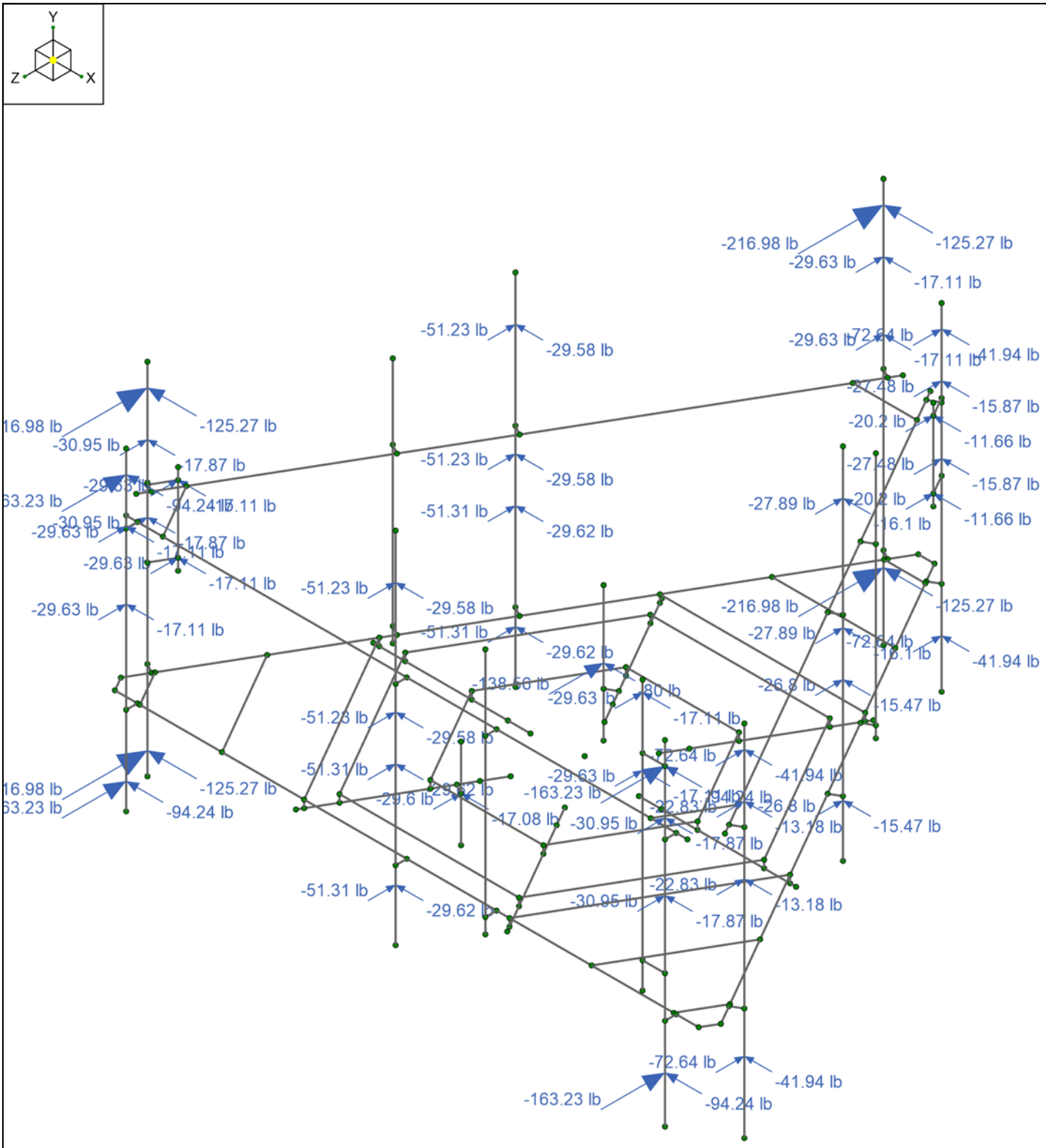

Loads: BLC 3, Wind Load AZI 30

Infinigy Engineering, PLLC	876331	Wind Loading 30
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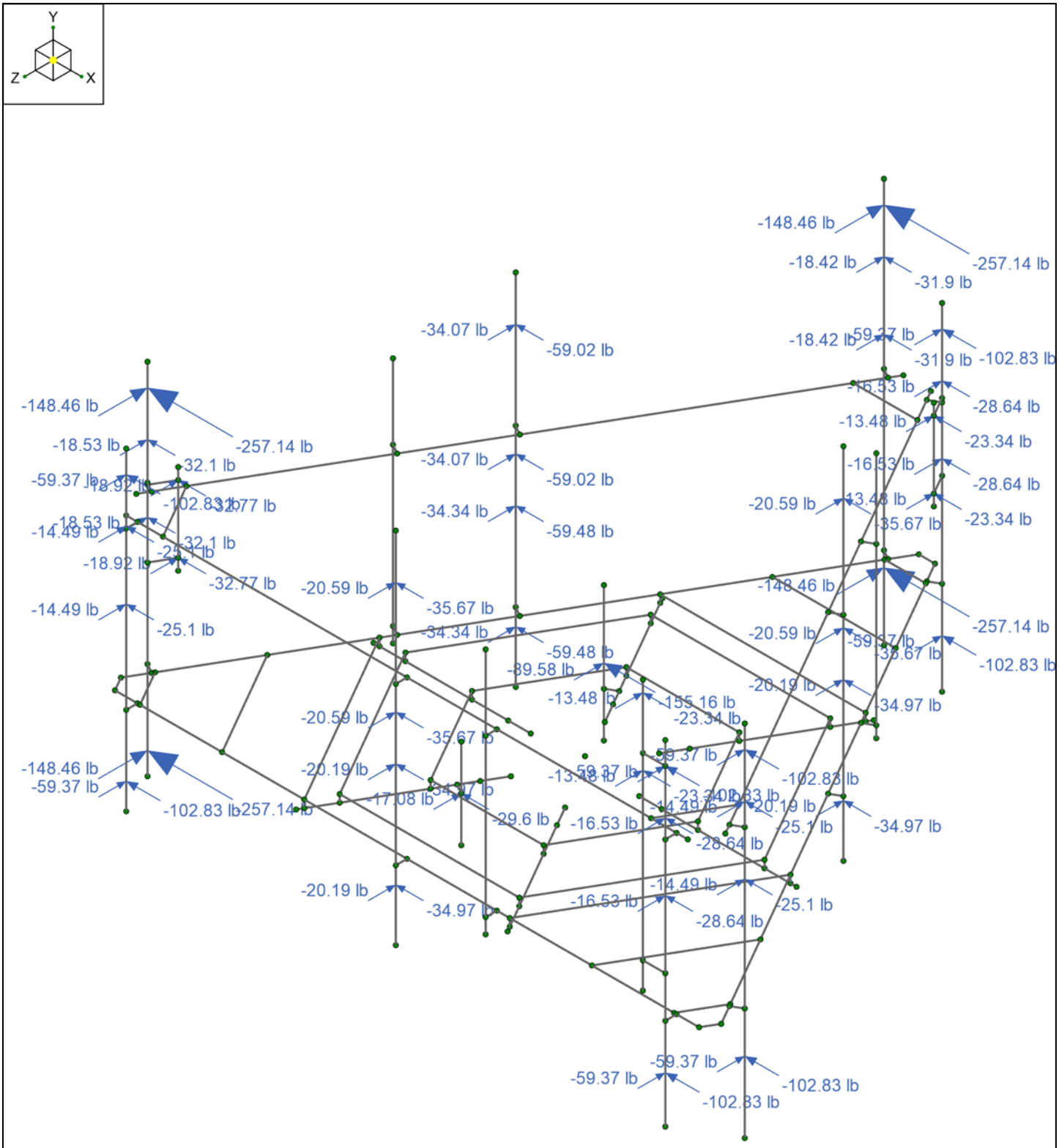

Loads: BLC 4, Wind Load AZI 60

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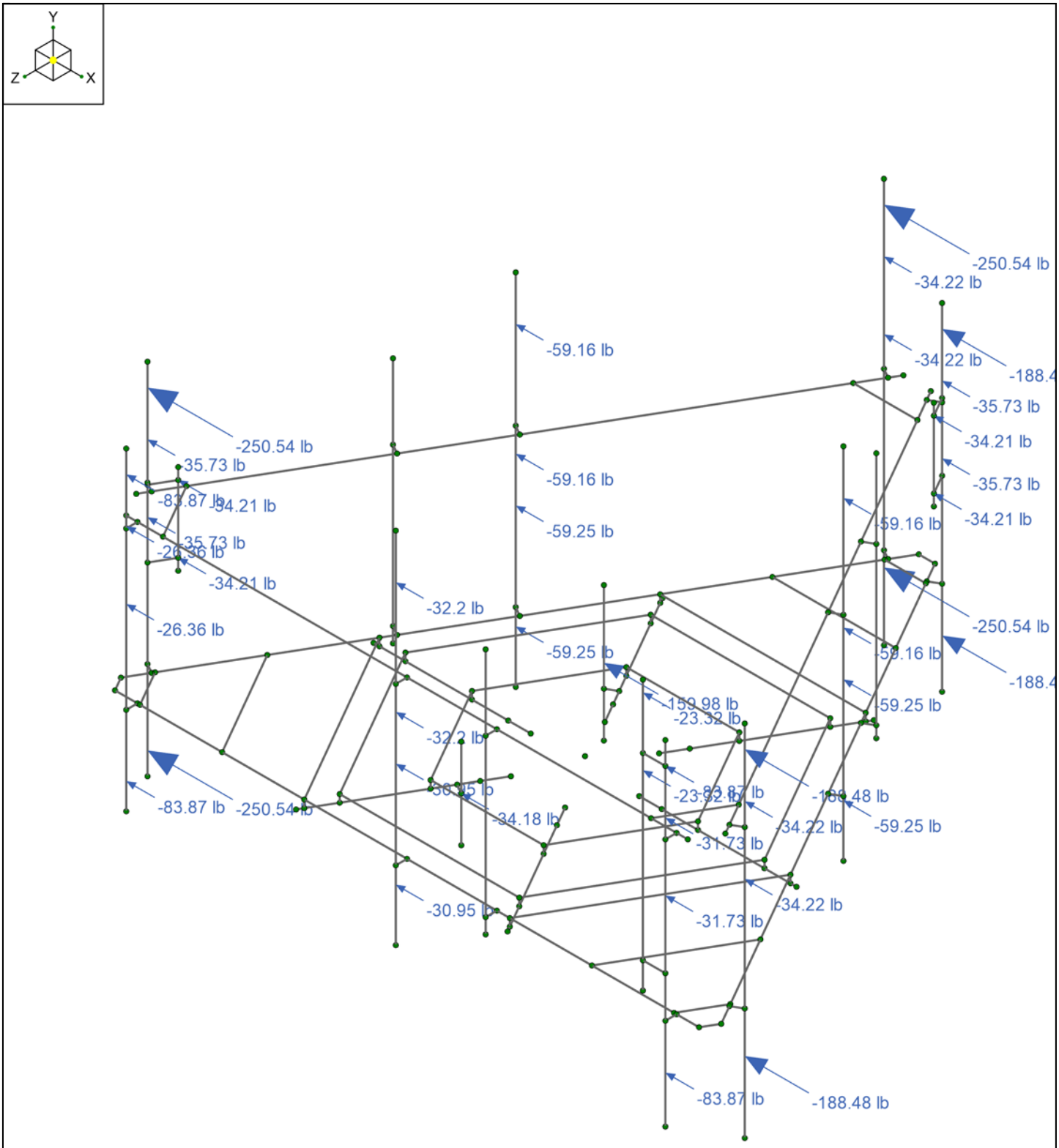

Loads: BLC 5, Wind Load AZI 90

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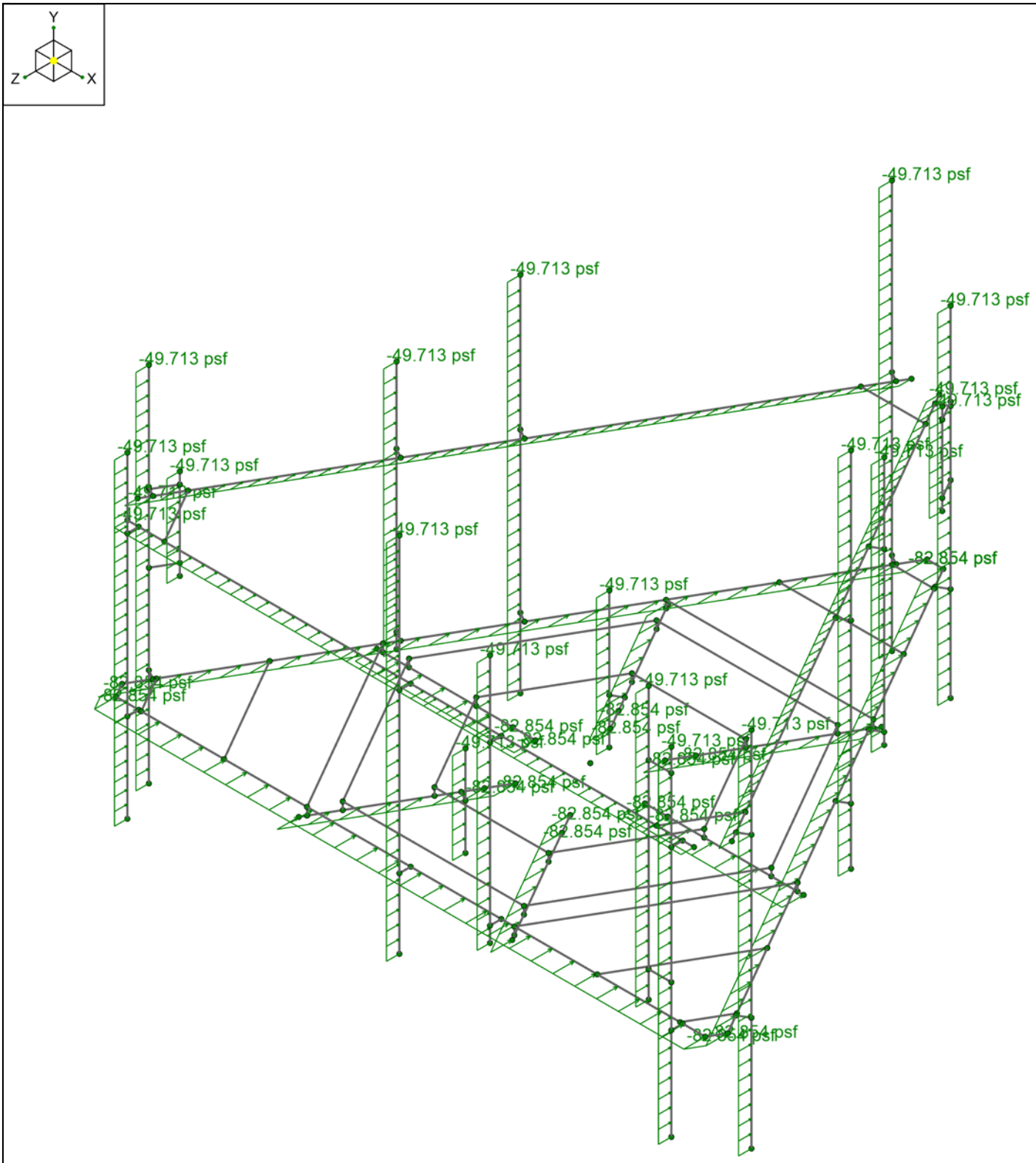

Loads: BLC 14, Distr. Wind Load Z

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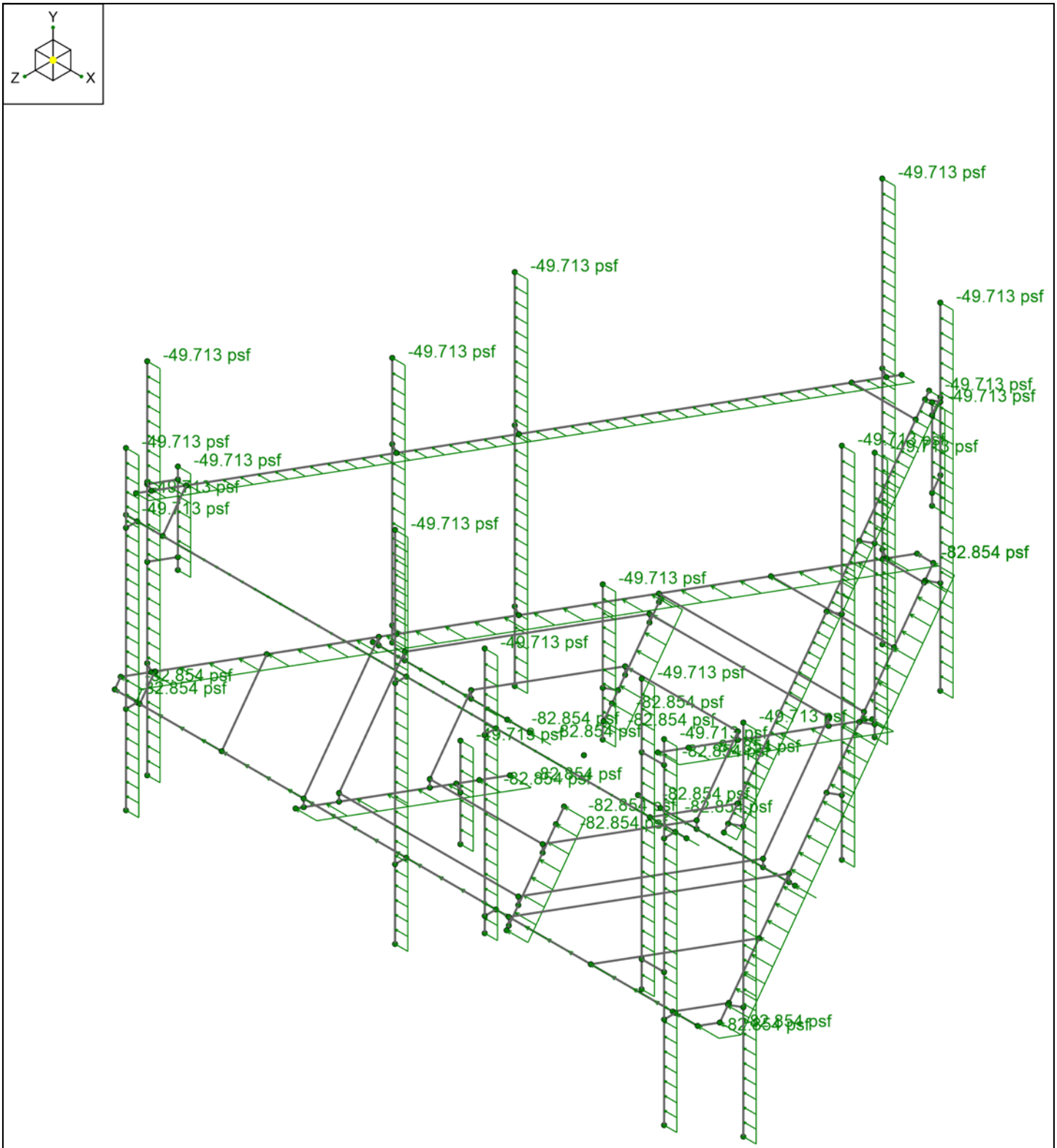

Loads: BLC 15, Distr. Wind Load X

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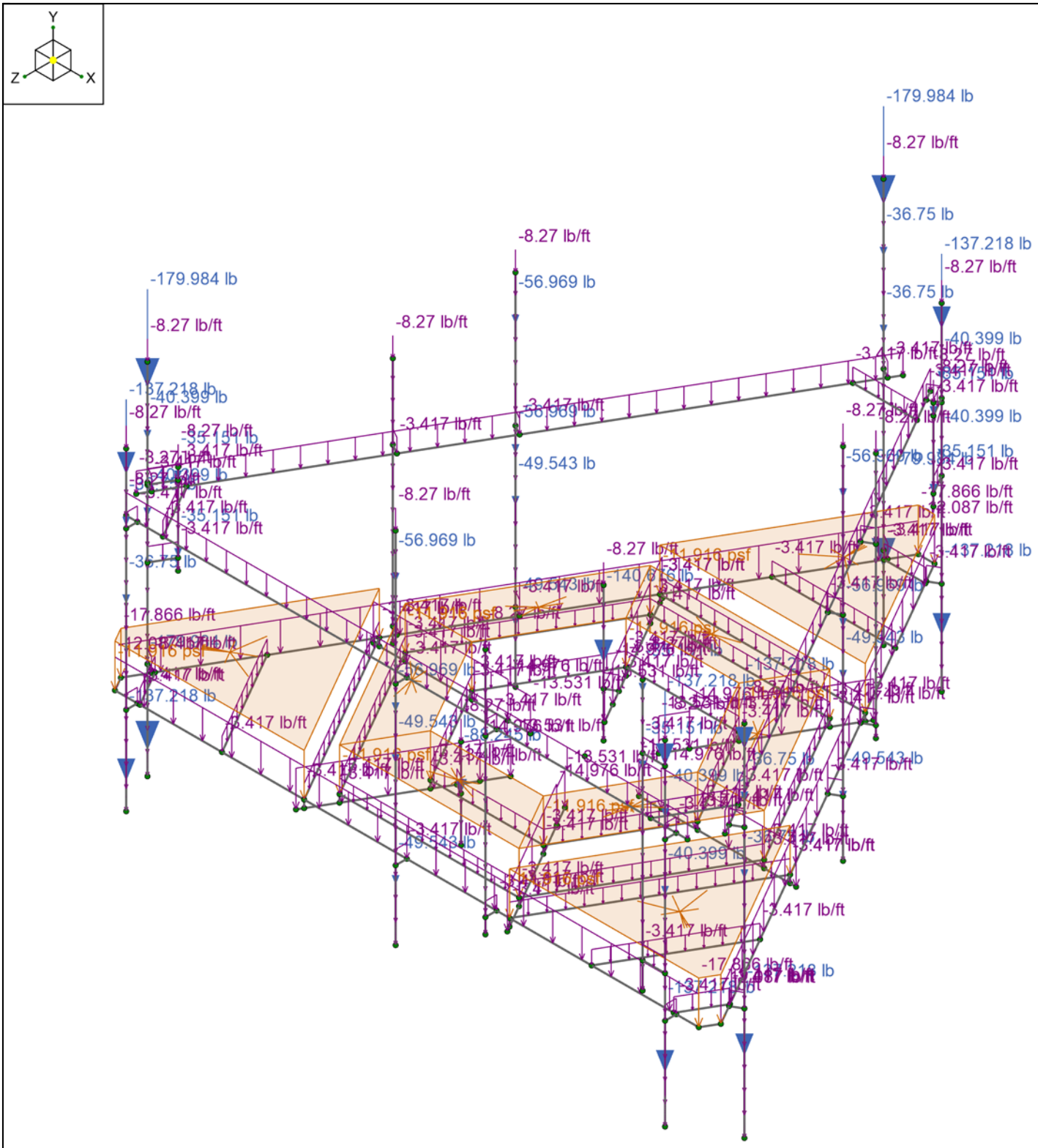
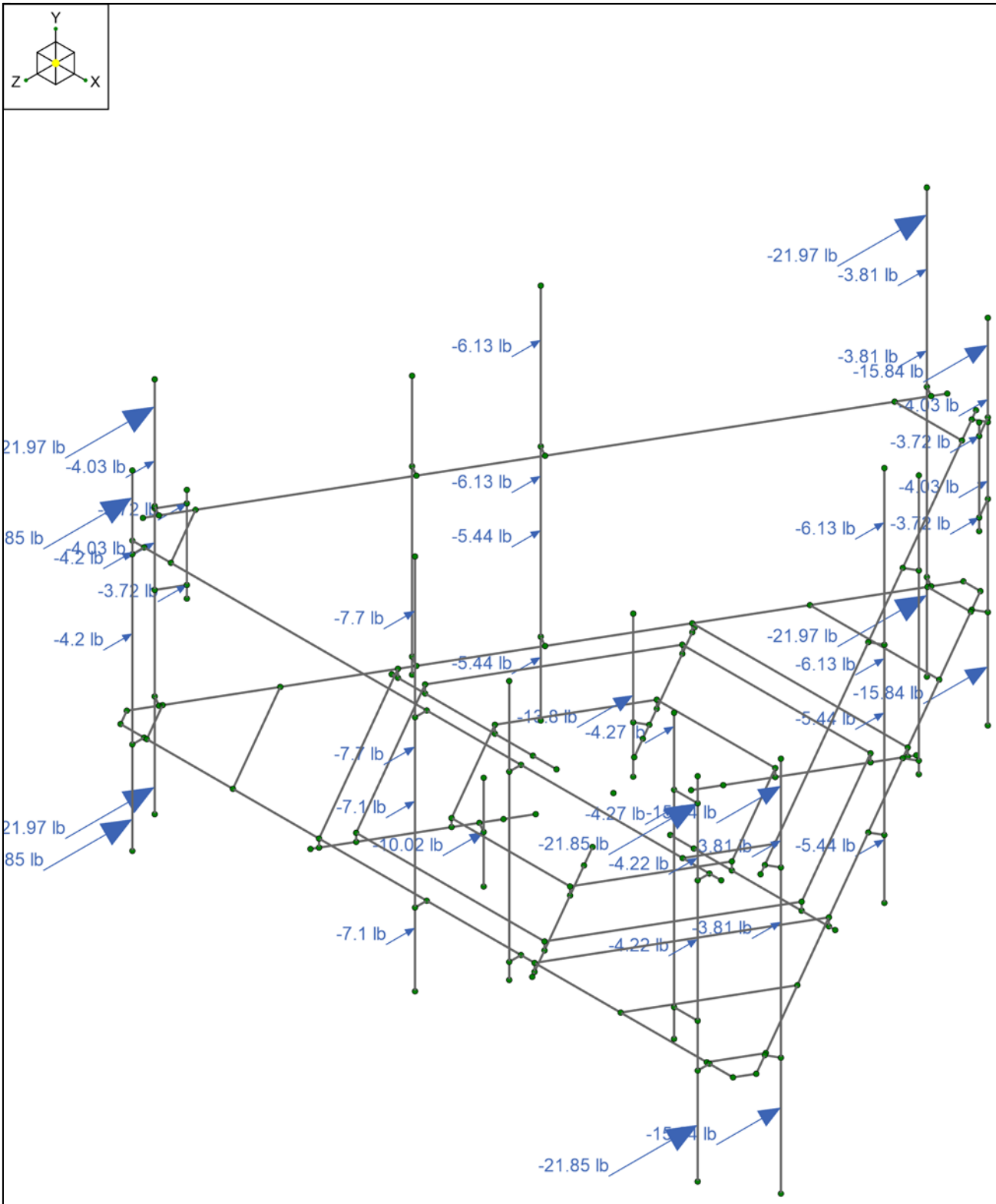


Loads: BLC 16, Ice Weight

Infinigy Engineering, PLLC	876331	Ice Weight
AG		Sep 10, 2021
1039-Z0001-B		876331_loaded.r3d



Loads: BLC 17, Ice Wind Load AZI 0

Infinigy Engineering, PLLC	876331	Ice Wind Loading 0
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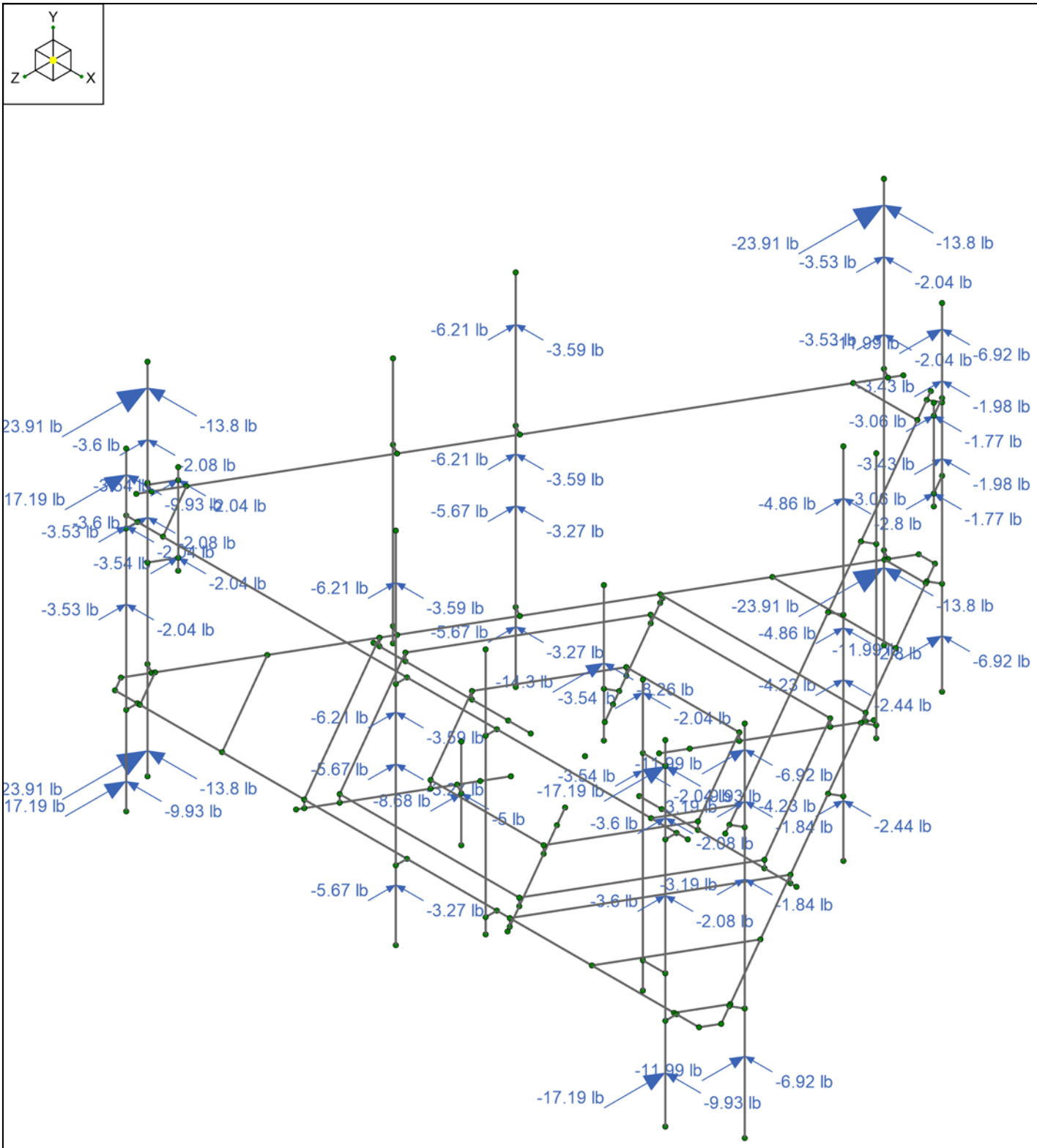
1039-Z0001-B		876331_loaded.r3d



Loads: BLC 18, Ice Wind Load AZI 30

Infinigy Engineering, PLLC	876331	Ice Wind Loading 30
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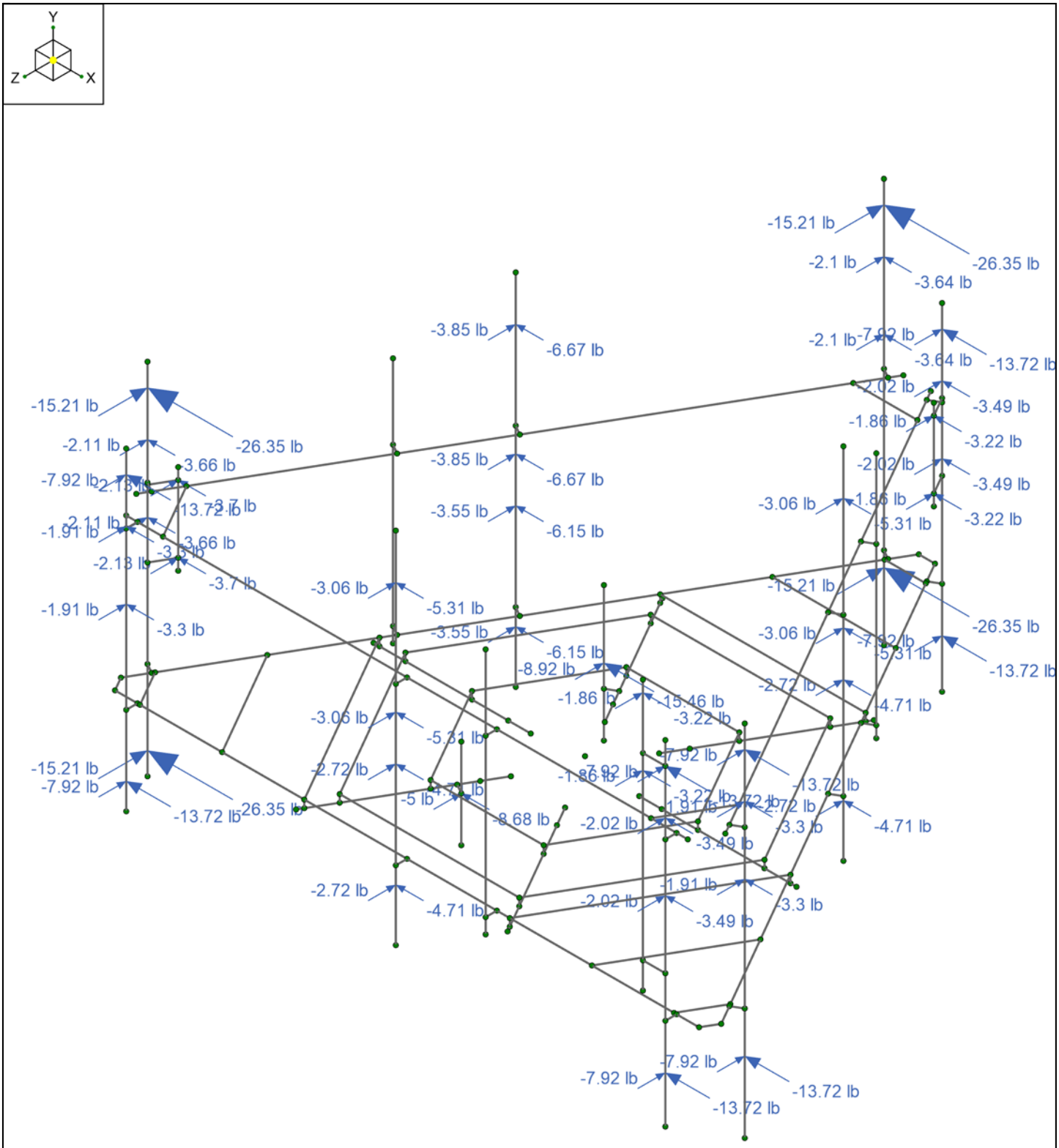

Loads: BLC 19, Ice Wind Load AZI 60

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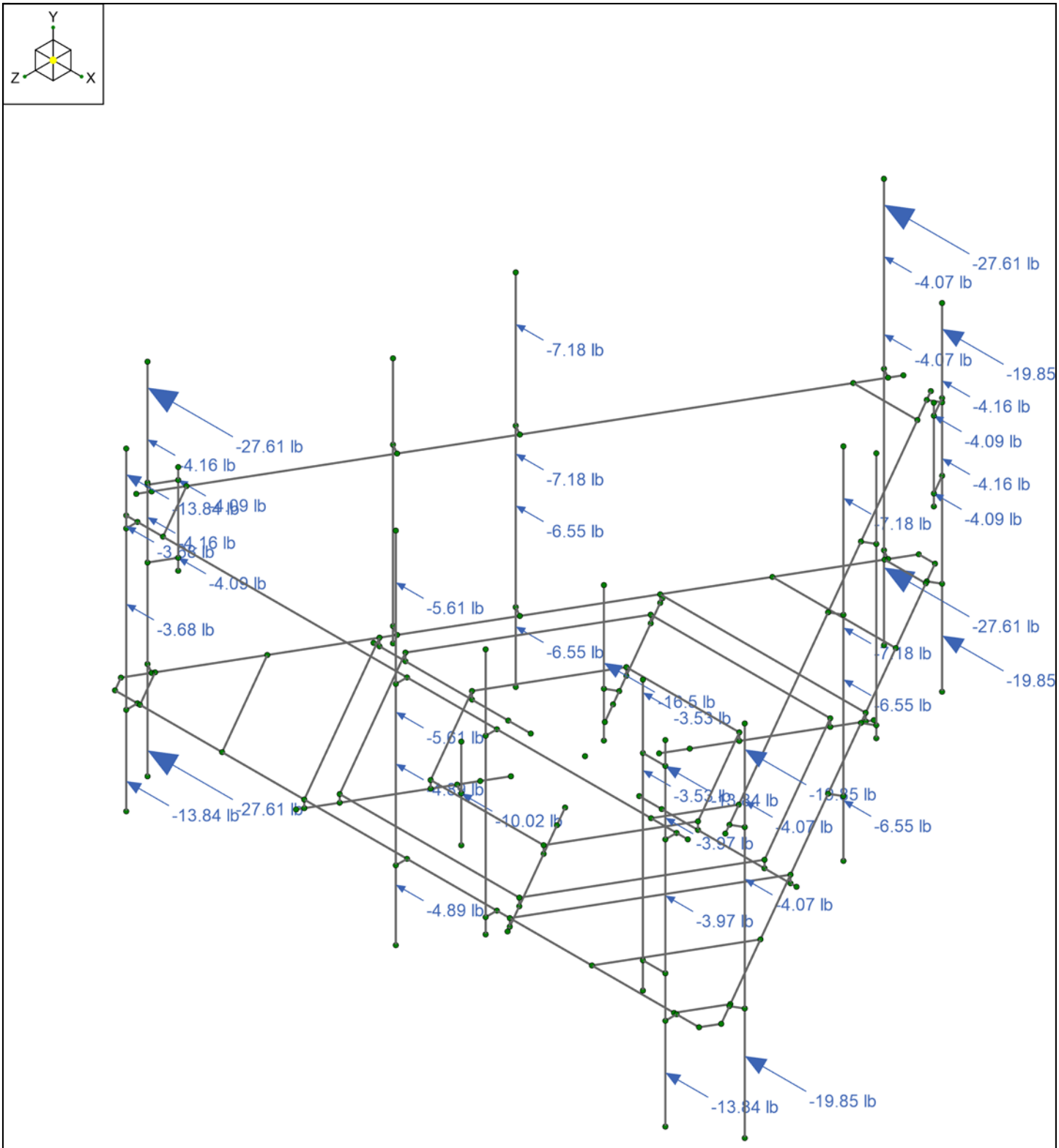

Loads: BLC 20, Ice Wind Load AZI 90

Infinigy Engineering, PLLC	876331	Ice Wind Loading 90
AG		Sep 10, 2021
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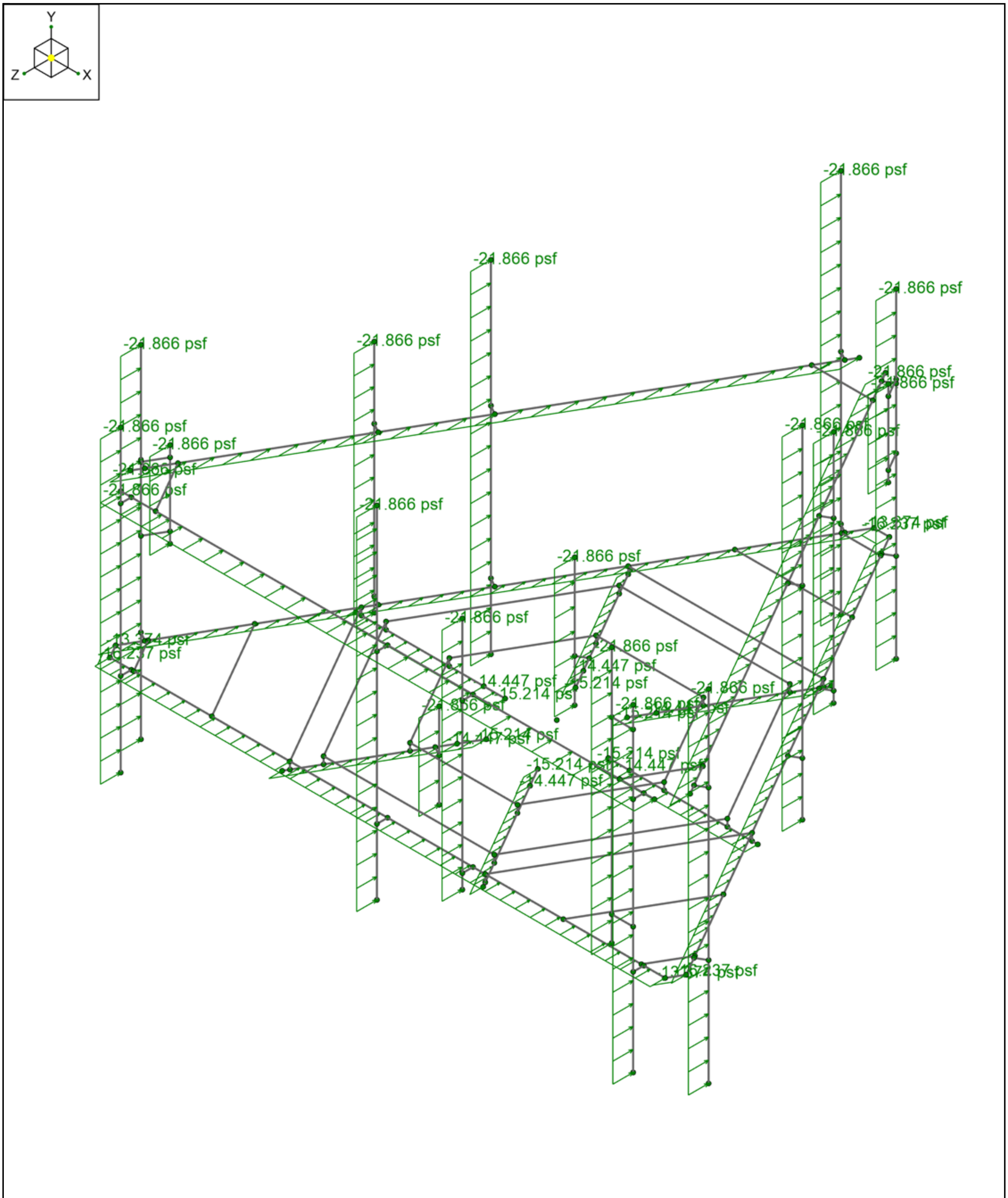

Loads: BLC 29, Distr. Ice Wind Load Z

Infinigy Engineering, PLLC	876331	Dist. Ice Wind Loading 0
AG		Sep 10, 2021
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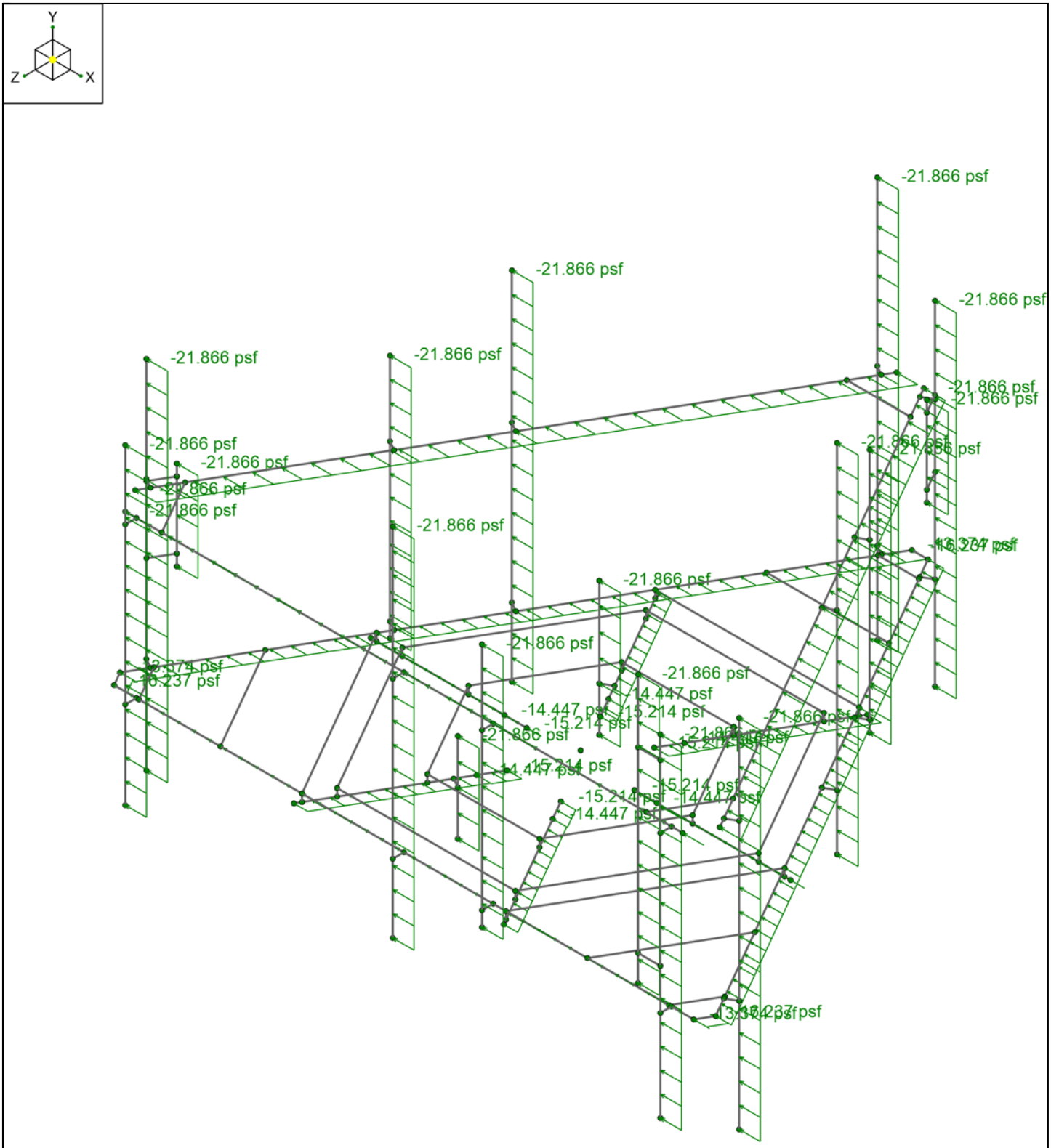

Loads: BLC 30, Distr. Ice Wind Load X

Infinigy Engineering, PLLC	876331	Dist. Ice Wind Loading 90
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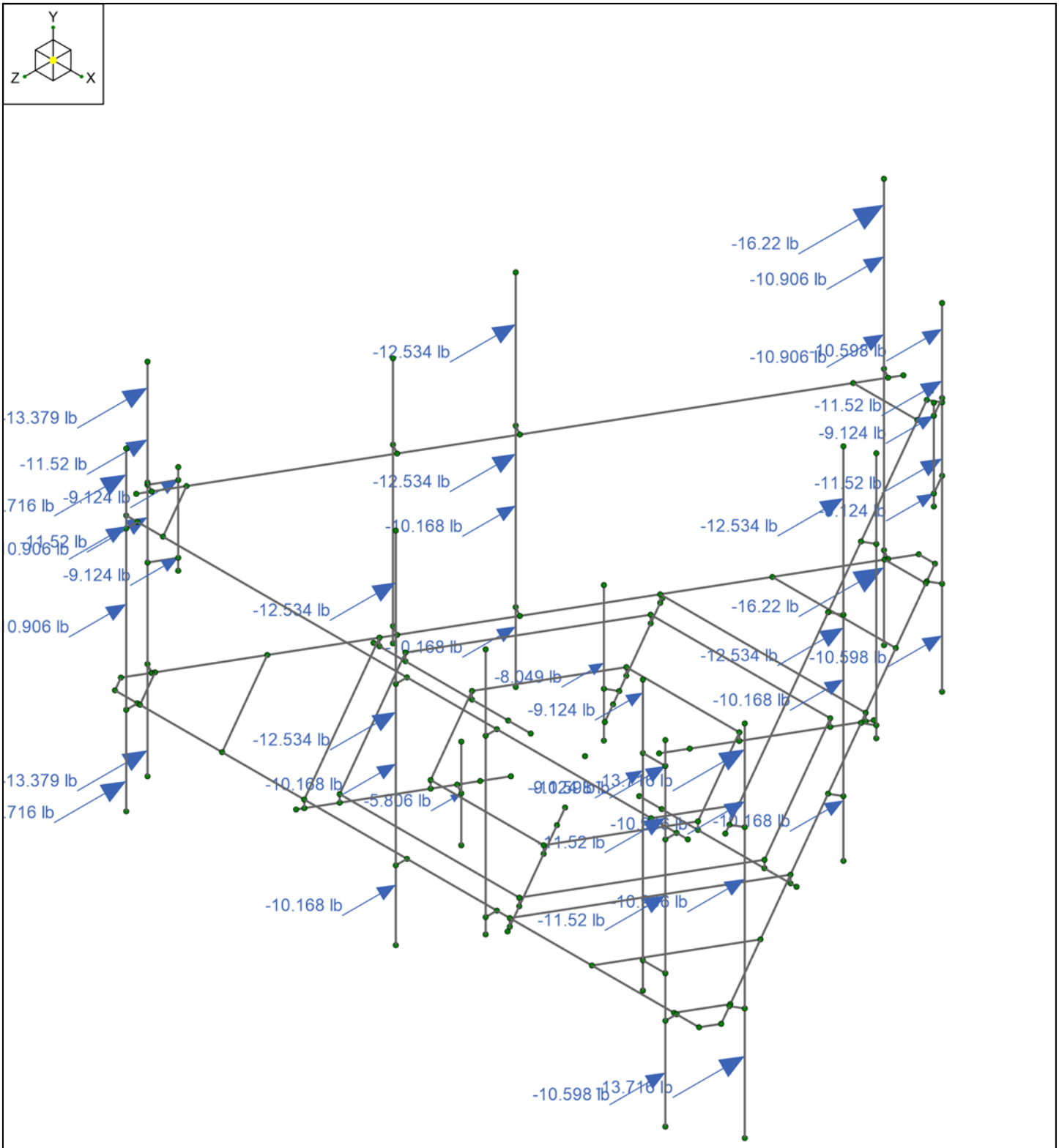
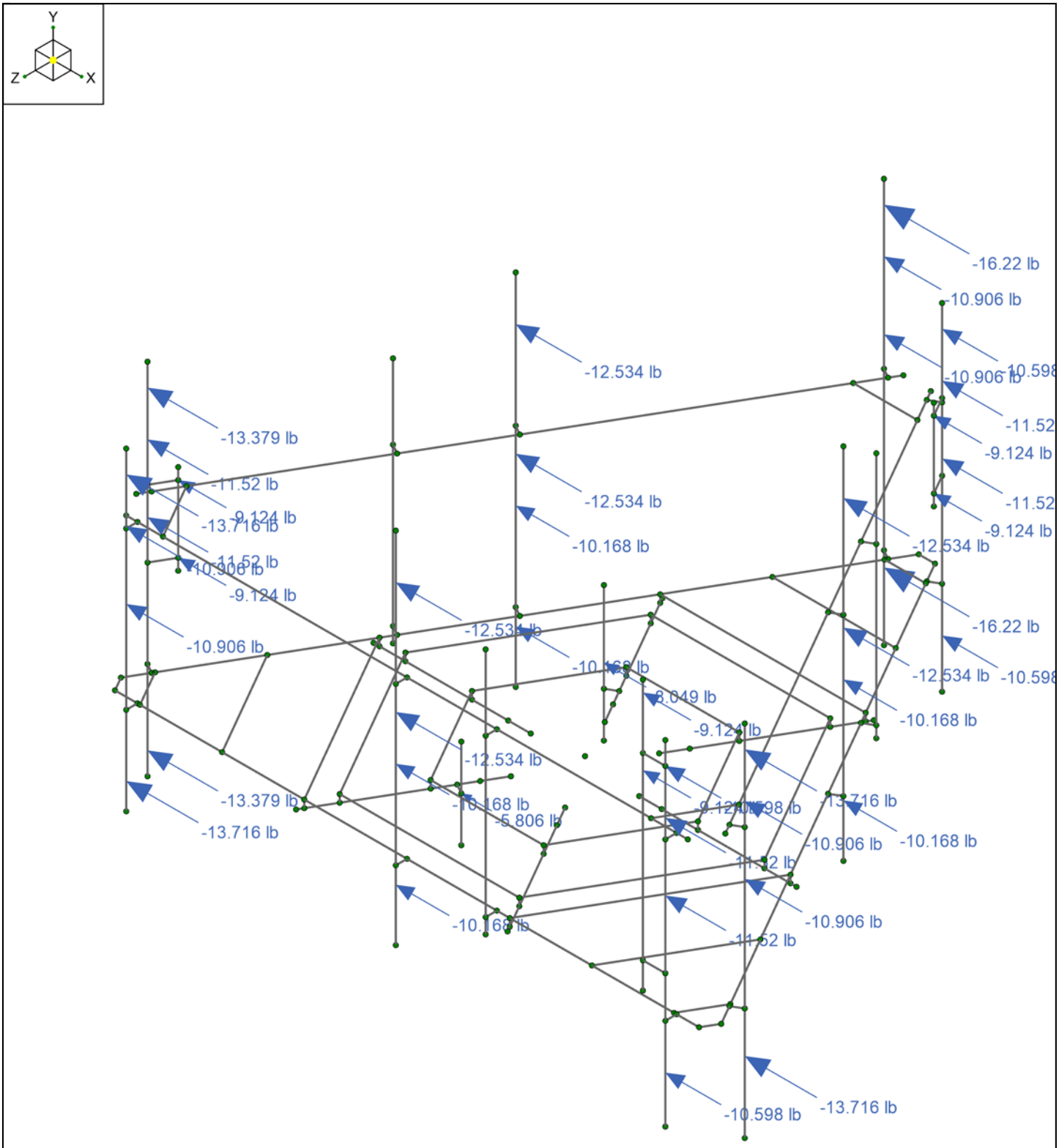


Loads: BLC 31, Seismic Load Z

Infinigy Engineering, PLLC	876331	Seismic Loading 0
AG		Sep 10, 2021
1039-Z0001-B		876331_loaded.r3d



Loads: BLC 32, Seismic Load X

Infinigy Engineering, PLLC	876331	Seismic Loading 90
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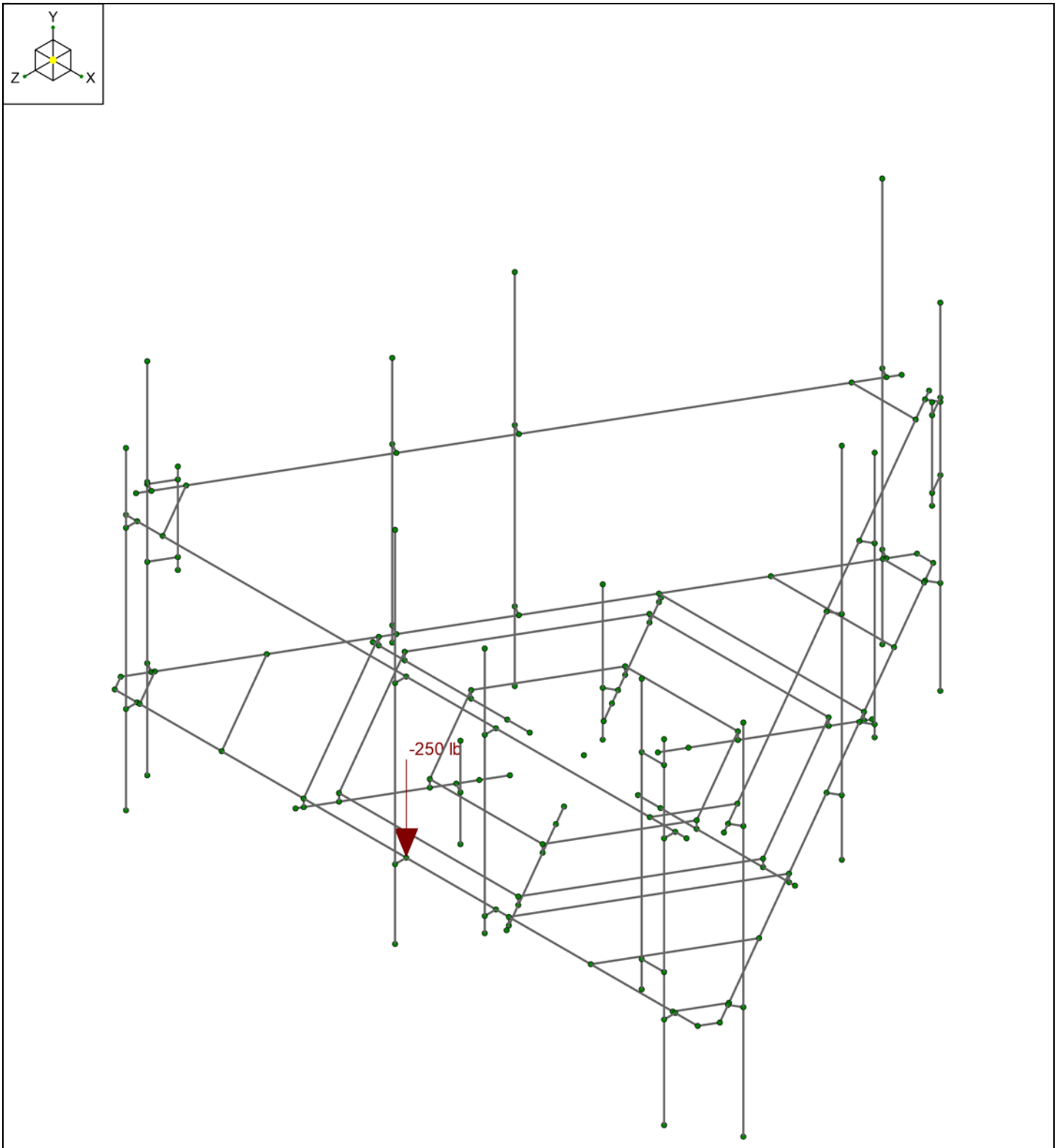
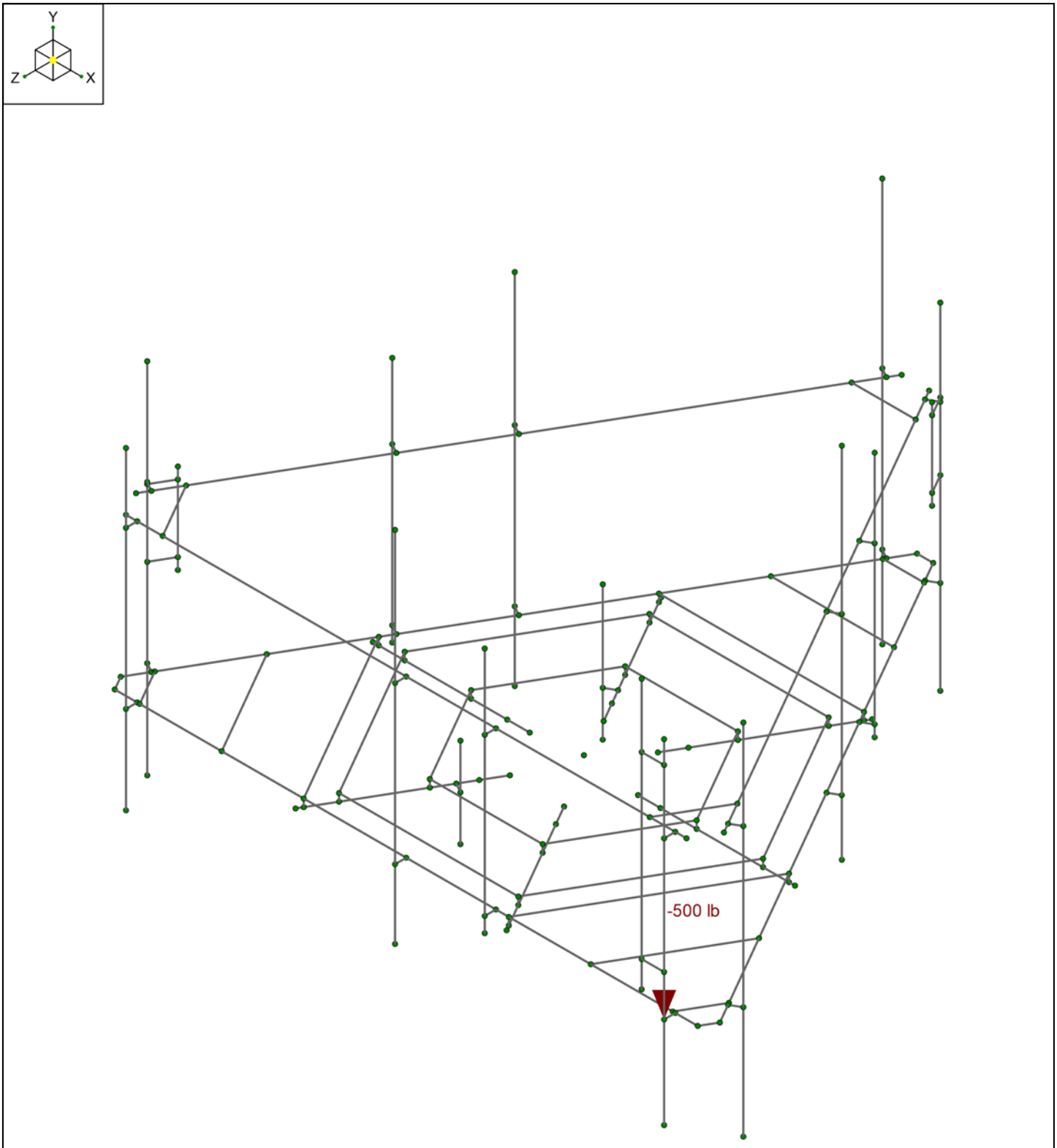


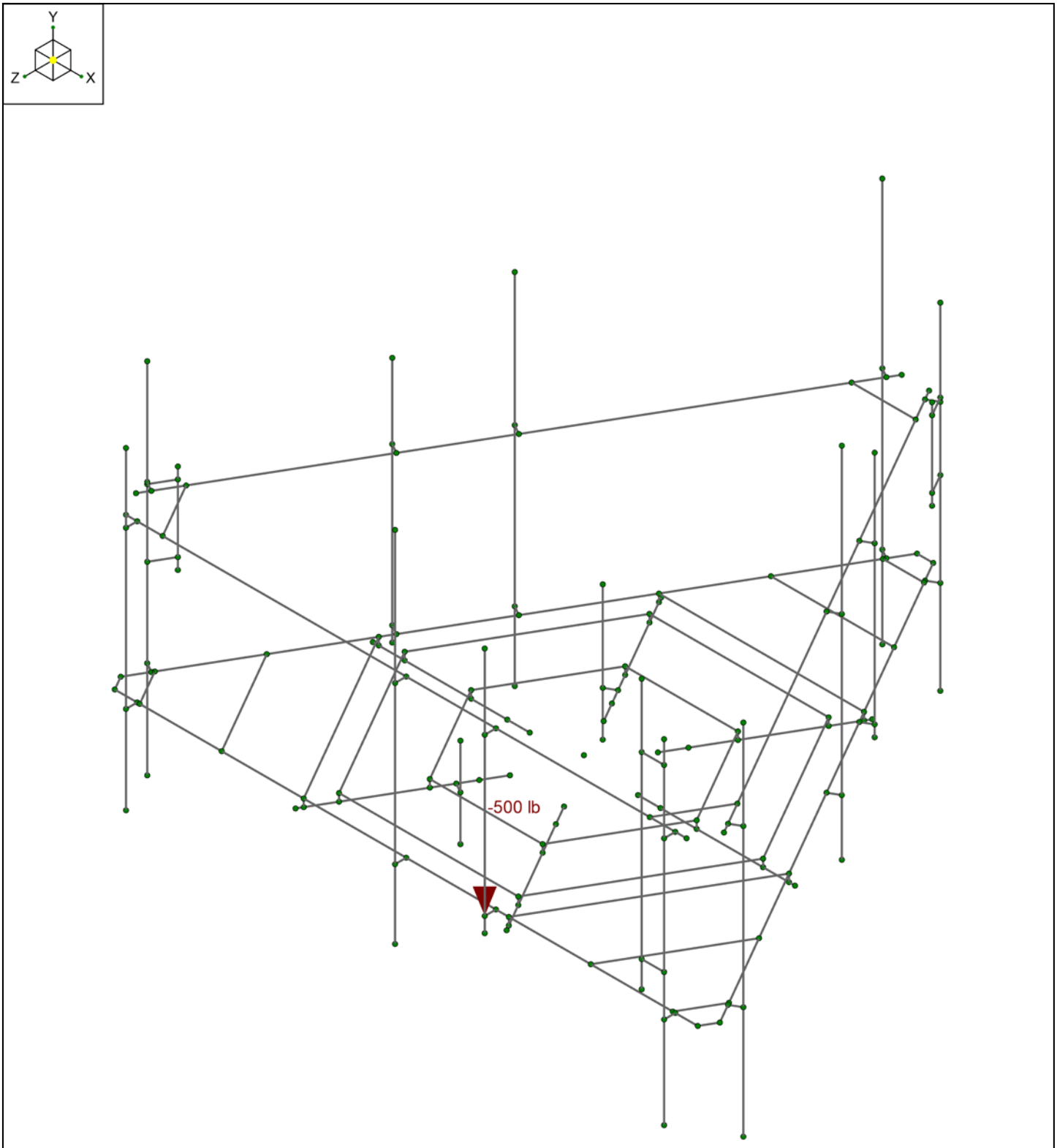
Loads: BLC 33, Service Live Loads

Infinigy Engineering, PLLC	876331	Service Load
AG		Sep 10, 2021
1039-Z0001-B		876331_loaded.r3d



Loads: BLC 34, Maintenance Load 1

Infinigy Engineering, PLLC	876331	Maintenance Load 1
AG		Sep 10, 2021
1039-Z0001-B		876331_loaded.r3d



Loads: BLC 35, Maintenance Load 2

Infinigy Engineering, PLLC	876331	Maintenance Load 2
AG		Sep 10, 2021
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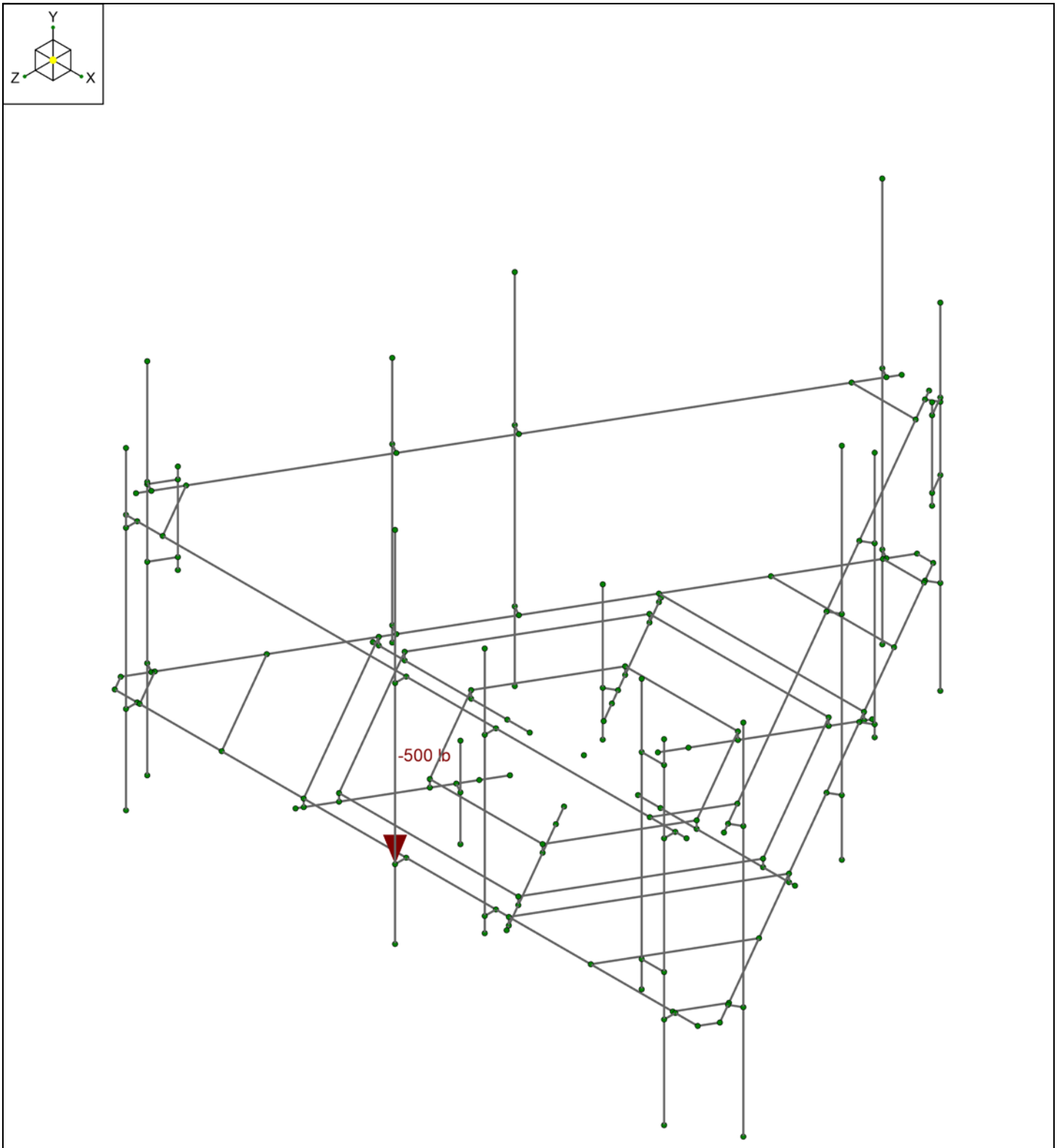
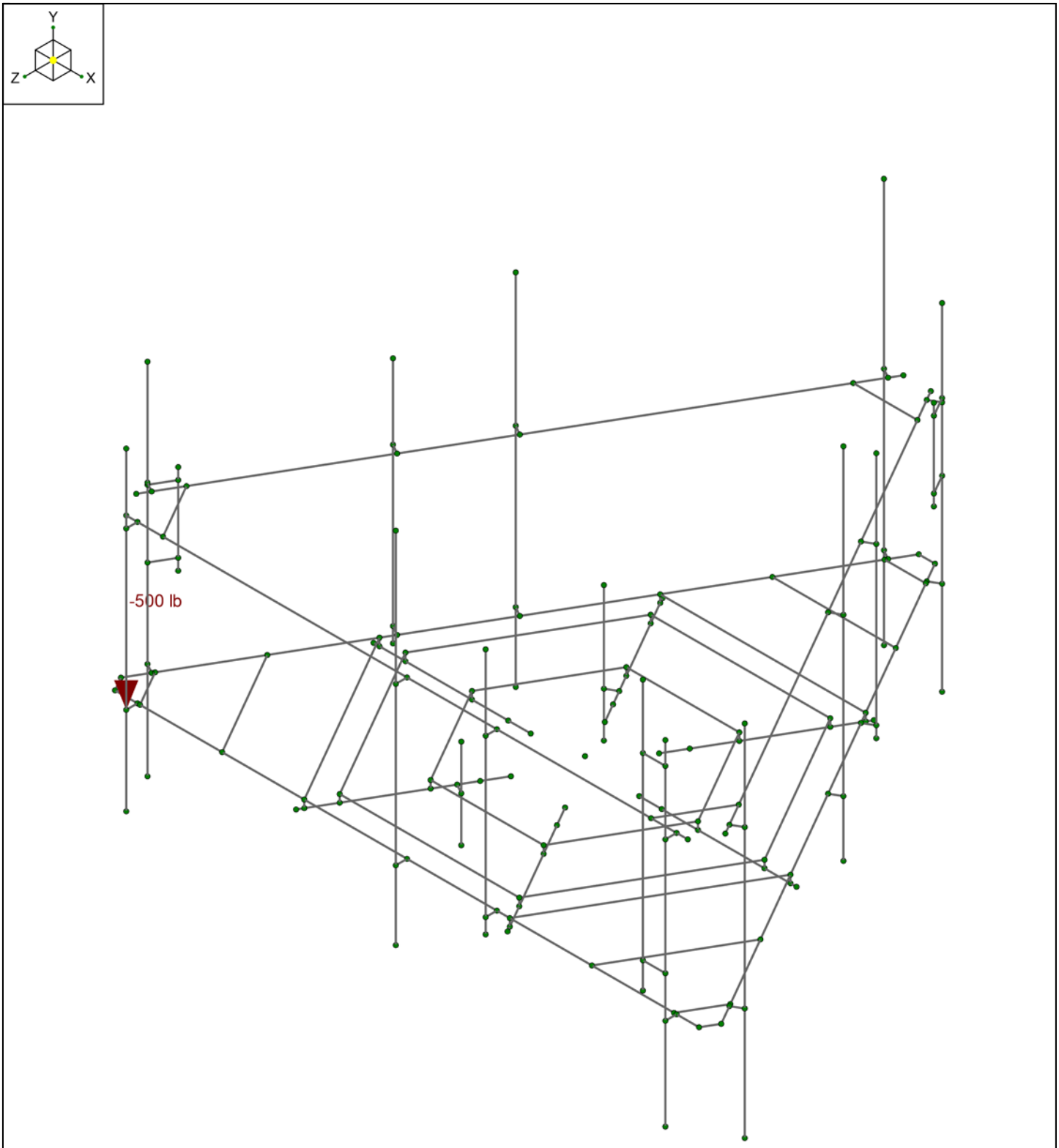


Loads: BLC 45, Maintenance Load 12

Infinigy Engineering, PLLC	876331	Maintenance Load 3
AG		Sep 10, 2021
1039-Z0001-B		876331_loaded.r3d



Loads: BLC 36, Maintenance Load 3

Infinigy Engineering, PLLC	876331	Maintenance Load 4
AG		Sep 10, 2021
1039-Z0001-B		876331_loaded.r3d

APPENDIX B

SOFTWARE INPUT CALCULATIONS

Program Inputs

PROJECT INFORMATION	
Client:	Crown Castle
Carrier:	AT&T Mobility
Engineer:	Andrew Gloriani

SITE INFORMATION		
Risk Category:	II	
Exposure Category:	C	
Topo Factor Procedure:	Method 1, Category 1	
Site Class:	D - Stiff Soil (Assumed)	
Ground Elevation:	350.25	ft *Rev H

MOUNT INFORMATION		
Mount Type:	Platform	
Num Sectors:	3	
Centerline AGL:	98.00	ft
Tower Height AGL:	118.00	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):	0.950	
Ground Ele. Factor (K_e):	0.987	*Rev H Only
Rooftop Speed-Up (K_s):	1.000	*Rev H Only
Topographic Factor (K_{zt}):	1.000	
Gust Effect Factor (G_h):	1.000	

CODE STANDARDS		
Building Code:	2018 IBC	
TIA Standard:	TIA-222-H	
ASCE Standard:	ASCE 7-16	

WIND AND ICE DATA		
Ultimate Wind (V_{ult}):	117	mph
Design Wind (V):	N/A	mph
Ice Wind (V_{ice}):	50	mph
Base Ice Thickness (t_i):	1.5	in
Flat Pressure:	82.854	psf
Round Pressure:	49.713	psf
Ice Wind Pressure:	9.079	psf

SEISMIC DATA		
Short-Period Accel. (S_s):	0.192	g
1-Second Accel. (S_1):	0.055	g
Short-Period Design (S_{DS}):	0.205	
1-Second Design (S_{D1}):	0.088	
Short-Period Coeff. (F_a):	1.600	
1-Second Coeff. (F_v):	2.400	
Amplification Factor (A_s):	3.000	
Response Mod. Coeff. (R):	2.000	

INFINIGY

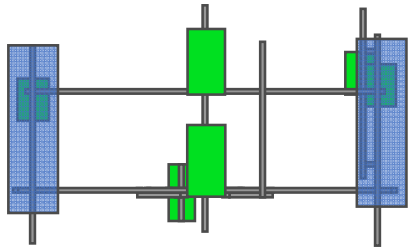
FROM ZERO TO INFINIGY

the solutions are endless

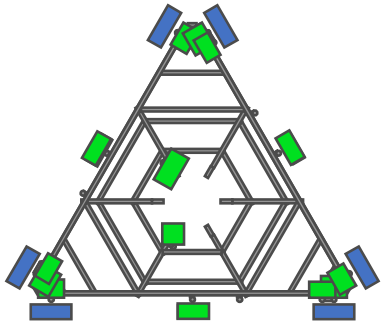
Infinigy Load Calculator V2.1.6

Program Inputs

ELEVATION VIEW



PLAN VIEW



INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless

Infinigy Load Calculator V2.1.6

APPURTENANCE INFORMATION

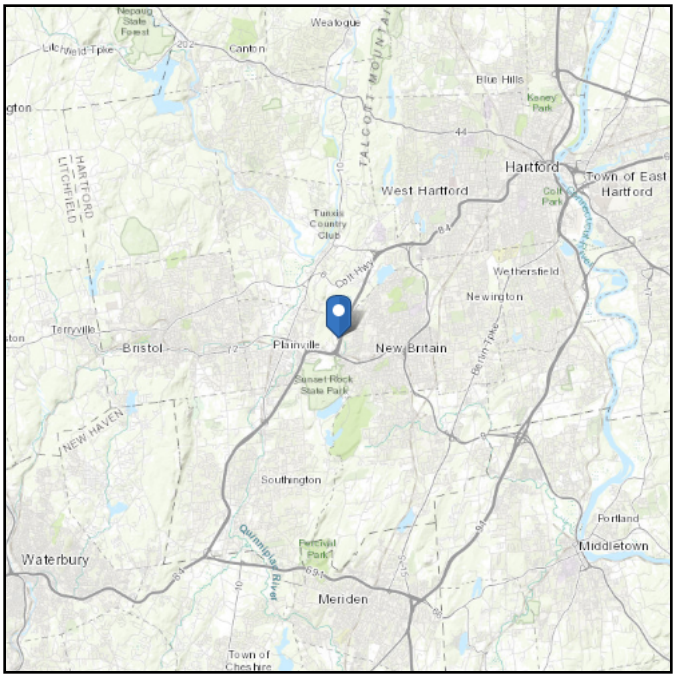
Appurtenance Name	Elevation	Qty.	K_a	q_z (psf)	EPA_N (ft^2)	EPA_T (ft^2)	Wind F_z (lbs)	Wind F_x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (α sector)
CCI ANTENNAS DMP65R-BU6D	100.0	2	0.90	41.60	11.93	4.48	446.70	167.75	89.30	27.43	MP4
CCI ANTENNAS DMP65R-BU8D	100.0	1	0.90	41.60	15.86	5.95	593.85	222.79	105.60	32.44	Leg/Flush
CCI ANTENNAS TPA65R-BU6D_CCIV2	100.0	2	0.90	41.60	11.93	4.48	446.70	167.75	69.00	21.20	MP1
CCI ANTENNAS TPA65R-BU8D_CCIV2	100.0	1	0.90	41.60	15.86	5.95	593.85	222.79	87.10	26.76	Leg/Flush
ERICSSON AIR 6419 B77G	100.0	3	0.90	41.60	3.67	1.65	137.36	61.89	66.20	20.34	MP3
ERICSSON AIR 6449 B77D	100.0	3	0.90	41.60	3.64	1.72	136.29	64.40	81.60	25.07	MP3
ERICSSON RRUS 4449 B5/B12	100.0	3	0.90	41.60	1.97	1.41	73.67	52.73	71.00	21.81	MP4
ERICSSON RRUS 4478 B14_CCIV2	100.0	3	0.90	41.60	2.02	1.25	75.68	46.65	59.40	18.25	R1
ERICSSON RRUS 8843 B2/B66A_CCIV2	100.0	3	0.90	41.60	1.98	1.70	74.14	63.47	75.00	23.04	MP1
RAYCAP DC6-48-60-18-8F	98.0	1	0.90	41.43	0.92	0.92	34.18	34.18	18.90	5.81	R4
RAYCAP TME-DC9-48-60-24-8C-EV	100.0	1	0.90	41.60	4.78	2.74	179.16	102.47	26.20	8.05	Leg/Flush

ASCE 7 Hazards Report

Address:
No Address at This Location

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

Elevation: 350.25 ft (NAVD 88)
Latitude: 41.676589
Longitude: -72.821414



Wind

Results:

Wind Speed:	117 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source:	ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2
Date Accessed:	Thu Sep 09 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 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

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

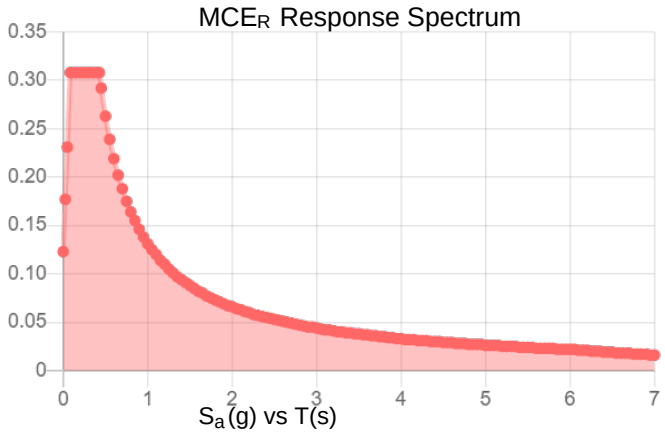
Seismic

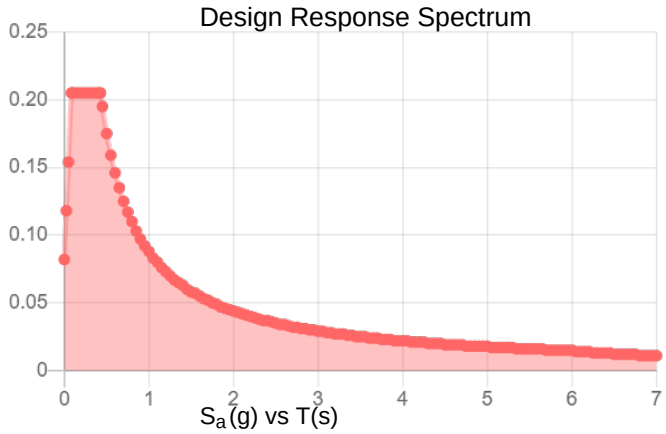
Site Soil Class: D - Stiff Soil

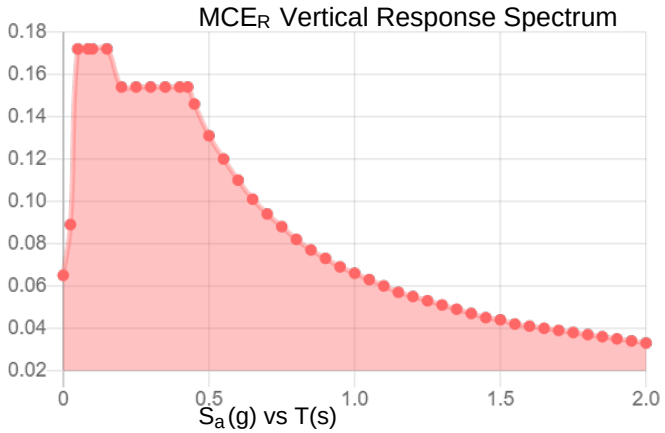
Results:

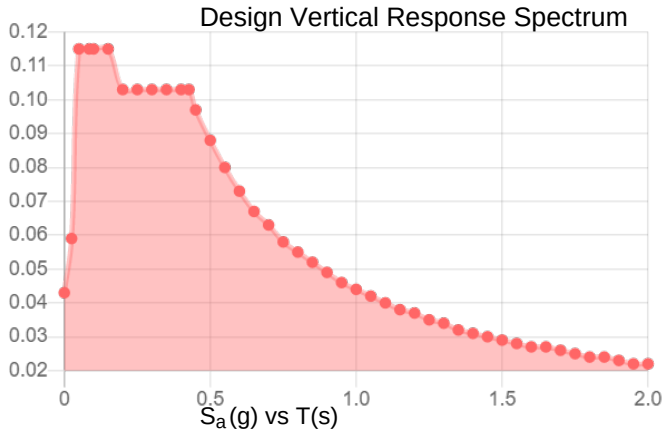
S_S :	0.192	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.105
F_v :	2.4	PGA_M :	0.166
S_{MS} :	0.308	F_{PGA} :	1.591
S_{M1} :	0.131	I_e :	1
S_{DS} :	0.205	C_v :	0.7

Seismic Design Category B









Data Accessed: Thu Sep 09 2021

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

Ice

Results:

Ice Thickness:	1.50 in.
Concurrent Temperature:	15 F
Gust Speed:	50 mph
Data Source:	Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8
Date Accessed:	Thu Sep 09 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 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

APPENDIX C

SOFTWARE ANALYSIS OUTPUT

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	MH2	N5	N7	270	Horizontal	Beam	Single Angle	A36 Gr.36	Typical
2	MH1	N10	N6	270	Horizontal	Beam	Single Angle	A36 Gr.36	Typical
3	MH3	N8	N9	270	Horizontal	Beam	Single Angle	A36 Gr.36	Typical
4	M7	N5	N6		Corner Angle	Beam	Single Angle	A36 Gr.36	Typical
5	M8	N7	N8	270	Corner Angle	Beam	Single Angle	A36 Gr.36	Typical
6	M9	N9	N10	270	Corner Angle	Beam	Single Angle	A36 Gr.36	Typical
7	MS6	N11	N109		Standoff 1	Beam	Tube	A500 Gr.B RECT	Typical
8	MS2	N13	N108		Standoff 1	Beam	Tube	A500 Gr.B RECT	Typical
9	MS7	N15	N107		Standoff 1	Beam	Tube	A500 Gr.B RECT	Typical
10	MS3	N17	N113		Standoff 1	Beam	Tube	A500 Gr.B RECT	Typical
11	MS4	N19	N110		Standoff 1	Beam	Tube	A500 Gr.B RECT	Typical
12	MS8	N21	N112		Standoff 1	Beam	Tube	A500 Gr.B RECT	Typical
13	M16	N32	N23		RIGID	None	None	RIGID	Typical
14	M17	N33	N24		RIGID	None	None	RIGID	Typical
15	M18	N34	N25		RIGID	None	None	RIGID	Typical
16	M19	N30	N26		RIGID	None	None	RIGID	Typical
17	M20	N29	N27		RIGID	None	None	RIGID	Typical
18	M21	N31	N28		RIGID	None	None	RIGID	Typical
19	M22	N29	N30	90	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
20	M23	N31	N32	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
21	M24	N33	N34	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
22	MR2	N55	N56		Handrail	Beam	Pipe	A53 Gr.B	Typical
23	MR3	N57	N58		Handrail	Beam	Pipe	A53 Gr.B	Typical
24	MR1	N59	N60		Handrail	Beam	Pipe	A53 Gr.B	Typical
25	M42	N61	N62	180	Handrail Angle	Beam	Single Angle	A36 Gr.36	Typical
26	M45	N67	N68		RIGID	None	None	RIGID	Typical
27	M46	N69	N70		RIGID	None	None	RIGID	Typical
28	MP1	N71	N72		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
29	M52	N144	N142	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
30	MS9	N108	N14		Standoff 2	Beam	Tube	A500 Gr.B RECT	Typical
31	MS10	N113	N18		Standoff 2	Beam	Tube	A500 Gr.B RECT	Typical
32	MS12	N110	N20		Standoff 2	Beam	Tube	A500 Gr.B RECT	Typical
33	MS11	N107	N16		Standoff 2	Beam	Tube	A500 Gr.B RECT	Typical
34	MS1	N109	N12		Standoff 2	Beam	Tube	A500 Gr.B RECT	Typical
35	MS5	N112	N22		Standoff 2	Beam	Tube	A500 Gr.B RECT	Typical
36	M69	N103	N104	180	Handrail Angle	Beam	Single Angle	A36 Gr.36	Typical
37	M71	N105	N106	180	Handrail Angle	Beam	Single Angle	A36 Gr.36	Typical
38	M73	N111	N114	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
39	M74	N115	N116	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
40	M75	N118	N117	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
41	M76	N119	N120	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
42	M77	N122	N121	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
43	M78	N123	N124	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
44	M79	N128	N127	90	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
45	M80	N130	N127		RIGID	None	None	RIGID	Typical
46	M81	N129	N128		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
47	M82	N125	N131		RIGID	None	None	RIGID	Typical
48	M83	N126	N132		RIGID	None	None	RIGID	Typical
49	M84	N132	N131	90	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
50	M85	N133	N135		RIGID	None	None	RIGID	Typical
51	M86	N134	N136		RIGID	None	None	RIGID	Typical
52	M87	N136	N135	90	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
53	M88	N127	N136	90	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
54	M89	N135	N132	90	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
55	M90	N131	N128	90	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
56	M93	N138	N142		RIGID	None	None	RIGID	Typical
57	M94	N140	N144		RIGID	None	None	RIGID	Typical
58	M91	N139	N137		RIGID	None	None	RIGID	Typical
59	M92	N141	N143		RIGID	None	None	RIGID	Typical
60	M95	N143	N137	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
61	M96	N146	N145		RIGID	None	None	RIGID	Typical
62	M97	N147	N148		RIGID	None	None	RIGID	Typical
63	M98	N148	N145	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
64	M101	N142	N143	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
65	M104	N145	N144	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
66	M107	N137	N148	180	Grating Angle	Beam	Single Angle	A36 Gr.36	Typical
67	MP2	N92	N94		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
68	M109	N93	N95		RIGID	None	None	RIGID	Typical
69	M110	N97	N96		RIGID	None	None	RIGID	Typical
70	MP4	N99	N101		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
71	M112	N100	N102		RIGID	None	None	RIGID	Typical
72	M113	N98	N149		RIGID	None	None	RIGID	Typical
73	R1	N154	N155		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
74	M115	N152	N150		RIGID	None	None	RIGID	Typical
75	M116	N153	N151		RIGID	None	None	RIGID	Typical
76	M117	N159	N160		RIGID	None	None	RIGID	Typical
77	M118	N162	N161		RIGID	None	None	RIGID	Typical
78	M119	N164	N165		RIGID	None	None	RIGID	Typical
79	M120	N163	N166		RIGID	None	None	RIGID	Typical
80	M121	N168	N169		RIGID	None	None	RIGID	Typical
81	M122	N167	N170		RIGID	None	None	RIGID	Typical
82	MP10	N172	N173		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
83	MP12	N174	N175		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
84	MP9	N157	N171		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
85	M126	N178	N176		RIGID	None	None	RIGID	Typical
86	M127	N179	N177		RIGID	None	None	RIGID	Typical
87	R3	N158	N156		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
88	M129	N183	N184		RIGID	None	None	RIGID	Typical
89	M130	N186	N185		RIGID	None	None	RIGID	Typical
90	M131	N188	N189		RIGID	None	None	RIGID	Typical
91	M132	N187	N190		RIGID	None	None	RIGID	Typical
92	M133	N192	N193		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
93	M134	N191	N194		RIGID	None	None	RIGID	Typical
94	MP6	N196	N197		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
95	MP8	N198	N199		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
96	MP5	N181	N195		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
97	M138	N202	N200		RIGID	None	None	RIGID	Typical
98	M139	N203	N201		RIGID	None	None	RIGID	Typical
99	R2	N182	N180		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
100	M108	N204	N207		RIGID	None	None	RIGID	Typical
101	M111	N205	N206		RIGID	None	None	RIGID	Typical
102	MP7	N208	N209		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
103	MP11	N214	N215		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
104	M142	N210	N213		RIGID	None	None	RIGID	Typical
105	M143	N211	N212		RIGID	None	None	RIGID	Typical
106	M114	N216	N217		RIGID	None	None	RIGID	Typical
107	R4	N219	N218		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
108	M124	N221	N220		RIGID	None	None	RIGID	Typical
109	M125	N222	N223		RIGID	None	None	RIGID	Typical
110	MP3	N224	N225		Mount Pipe	Column	Pipe	A53 Gr.B	Typical
111	M123	N227	N228		RIGID	None	None	RIGID	Typical
112	R5	N226	N229		Mount Pipe	Column	Pipe	A53 Gr.B	Typical

Member Advanced Data

	Label	Physical	Deflection Ratio Options	Seismic DR
1	MH2	Yes	Default	None
2	MH1	Yes	Default	None
3	MH3	Yes	Default	None
4	M7	Yes	Default	None
5	M8	Yes	Default	None
6	M9	Yes	Default	None
7	MS6	Yes	Default	None
8	MS2	Yes	Default	None
9	MS7	Yes	Default	None
10	MS3	Yes	Default	None
11	MS4	Yes	Default	None
12	MS8	Yes	Default	None
13	M16	Yes	** NA **	None
14	M17	Yes	** NA **	None
15	M18	Yes	** NA **	None
16	M19	Yes	** NA **	None
17	M20	Yes	** NA **	None
18	M21	Yes	** NA **	None
19	M22	Yes	Default	None
20	M23	Yes	Default	None
21	M24	Yes	Default	None
22	MR2	Yes	Default	None
23	MR3	Yes	Default	None

Member Advanced Data (Continued)

	Label	Physical	Deflection Ratio Options	Seismic DR
24	MR1	Yes	Default	None
25	M42	Yes	Default	None
26	M45	Yes	** NA **	None
27	M46	Yes	** NA **	None
28	MP1	Yes	** NA **	None
29	M52	Yes	Default	None
30	MS9	Yes	Default	None
31	MS10	Yes	Default	None
32	MS12	Yes	Default	None
33	MS11	Yes	Default	None
34	MS1	Yes	Default	None
35	MS5	Yes	Default	None
36	M69	Yes	Default	None
37	M71	Yes	Default	None
38	M73	Yes	Default	None
39	M74	Yes	Default	None
40	M75	Yes	Default	None
41	M76	Yes	Default	None
42	M77	Yes	Default	None
43	M78	Yes	Default	None
44	M79	Yes	Default	None
45	M80	Yes	** NA **	None
46	M81	Yes	** NA **	None
47	M82	Yes	** NA **	None
48	M83	Yes	** NA **	None
49	M84	Yes	Default	None
50	M85	Yes	** NA **	None
51	M86	Yes	** NA **	None
52	M87	Yes	Default	None
53	M88	Yes	Default	None
54	M89	Yes	Default	None
55	M90	Yes	Default	None
56	M93	Yes	** NA **	None
57	M94	Yes	** NA **	None
58	M91	Yes	** NA **	None
59	M92	Yes	** NA **	None
60	M95	Yes	Default	None
61	M96	Yes	** NA **	None
62	M97	Yes	** NA **	None
63	M98	Yes	Default	None
64	M101	Yes	Default	None
65	M104	Yes	Default	None
66	M107	Yes	Default	None
67	MP2	Yes	** NA **	None
68	M109	Yes	** NA **	None
69	M110	Yes	** NA **	None

Member Advanced Data (Continued)

	Label	Physical	Deflection Ratio Options	Seismic DR
70	MP4	Yes	** NA **	None
71	M112	Yes	** NA **	None
72	M113	Yes	** NA **	None
73	R1	Yes	** NA **	None
74	M115	Yes	** NA **	None
75	M116	Yes	** NA **	None
76	M117	Yes	** NA **	None
77	M118	Yes	** NA **	None
78	M119	Yes	** NA **	None
79	M120	Yes	** NA **	None
80	M121	Yes	** NA **	None
81	M122	Yes	** NA **	None
82	MP10	Yes	** NA **	None
83	MP12	Yes	** NA **	None
84	MP9	Yes	** NA **	None
85	M126	Yes	** NA **	None
86	M127	Yes	** NA **	None
87	R3	Yes	** NA **	None
88	M129	Yes	** NA **	None
89	M130	Yes	** NA **	None
90	M131	Yes	** NA **	None
91	M132	Yes	** NA **	None
92	M133	Yes	** NA **	None
93	M134	Yes	** NA **	None
94	MP6	Yes	** NA **	None
95	MP8	Yes	** NA **	None
96	MP5	Yes	** NA **	None
97	M138	Yes	** NA **	None
98	M139	Yes	** NA **	None
99	R2	Yes	** NA **	None
100	M108	Yes	** NA **	None
101	M111	Yes	** NA **	None
102	MP7	Yes	** NA **	None
103	MP11	Yes	** NA **	None
104	M142	Yes	** NA **	None
105	M143	Yes	** NA **	None
106	M114	Yes	** NA **	None
107	R4	Yes	** NA **	None
108	M124	Yes	** NA **	None
109	M125	Yes	** NA **	None
110	MP3	Yes	** NA **	None
111	M123	Yes	** NA **	None
112	R5	Yes	** NA **	None

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	N17	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N21	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N15	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N11	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	N19	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	N13	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Material Take-Off

	Material	Size	Pieces	Length[in]	Weight[LB]
1	General Members				
2	RIGID		50	150	0
3	Total General		50	150	0
4					
5	Hot Rolled Steel				
6	A36 Gr.36	L2.5x2.5x3	3	51.4	13.141
7	A36 Gr.36	L2x2x4	21	765.4	204.874
8	A36 Gr.36	L3X3X6	3	468	280.015
9	A36 Gr.36	L5X5X6	3	13	13.445
10	A500 Gr.B RECT	HSS3.5X3.5X4	6	36	31.949
11	A500 Gr.B RECT	HSS4X4X2	6	216	116.599
12	A53 Gr.B	PIPE_2.0	20	1679.5	485.772
13	Total HR Steel		62	3229.3	1145.796

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Nodal	Point	Distributed	Area(Member)
1	Self Weight	DL		-1			46		9
2	Wind Load AZI 0	WLZ					92		
3	Wind Load AZI 30	None					92		
4	Wind Load AZI 60	None					92		
5	Wind Load AZI 90	WLX					92		
6	Wind Load AZI 120	None					92		
7	Wind Load AZI 150	None					92		
8	Wind Load AZI 180	None					92		
9	Wind Load AZI 210	None					92		
10	Wind Load AZI 240	None					92		
11	Wind Load AZI 270	None					92		
12	Wind Load AZI 300	None					92		
13	Wind Load AZI 330	None					92		
14	Distr. Wind Load Z	WLZ						112	
15	Distr. Wind Load X	WLX						112	
16	Ice Weight	OL1					46	112	9
17	Ice Wind Load AZI 0	OL2					92		
18	Ice Wind Load AZI 30	None					92		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Nodal	Point	Distributed	Area(Member)
19	Ice Wind Load AZI 60	None					92		
20	Ice Wind Load AZI 90	OL3					92		
21	Ice Wind Load AZI 120	None					92		
22	Ice Wind Load AZI 150	None					92		
23	Ice Wind Load AZI 180	None					92		
24	Ice Wind Load AZI 210	None					92		
25	Ice Wind Load AZI 240	None					92		
26	Ice Wind Load AZI 270	None					92		
27	Ice Wind Load AZI 300	None					92		
28	Ice Wind Load AZI 330	None					92		
29	Distr. Ice Wind Load Z	OL2						112	
30	Distr. Ice Wind Load X	OL3						112	
31	Seismic Load Z	ELZ			-0.307		46		
32	Seismic Load X	ELX	-0.307				46		
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						86	
47	BLC 16 Transient Area Loads	None						86	

Load Combinations

	Description	Solve	P-Delta	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		
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			

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
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	1.241	31	1	32					
40	(1.2 + 0.2Sds)DL + 1.0E AZI 30	Yes	Y	1	1.241	31	0.866	32	0.5				
41	(1.2 + 0.2Sds)DL + 1.0E AZI 60	Yes	Y	1	1.241	31	0.5	32	0.866				
42	(1.2 + 0.2Sds)DL + 1.0E AZI 90	Yes	Y	1	1.241	31		32	1				
43	(1.2 + 0.2Sds)DL + 1.0E AZI 120	Yes	Y	1	1.241	31	-0.5	32	0.866				
44	(1.2 + 0.2Sds)DL + 1.0E AZI 150	Yes	Y	1	1.241	31	-0.866	32	0.5				
45	(1.2 + 0.2Sds)DL + 1.0E AZI 180	Yes	Y	1	1.241	31	-1	32					
46	(1.2 + 0.2Sds)DL + 1.0E AZI 210	Yes	Y	1	1.241	31	-0.866	32	-0.5				
47	(1.2 + 0.2Sds)DL + 1.0E AZI 240	Yes	Y	1	1.241	31	-0.5	32	-0.866				
48	(1.2 + 0.2Sds)DL + 1.0E AZI 270	Yes	Y	1	1.241	31		32	-1				
49	(1.2 + 0.2Sds)DL + 1.0E AZI 300	Yes	Y	1	1.241	31	0.5	32	-0.866				
50	(1.2 + 0.2Sds)DL + 1.0E AZI 330	Yes	Y	1	1.241	31	0.866	32	-0.5				
51	(0.9 - 0.2Sds)DL + 1.0E AZI 0	Yes	Y	1	0.859	31	1	32					
52	(0.9 - 0.2Sds)DL + 1.0E AZI 30	Yes	Y	1	0.859	31	0.866	32	0.5				
53	(0.9 - 0.2Sds)DL + 1.0E AZI 60	Yes	Y	1	0.859	31	0.5	32	0.866				
54	(0.9 - 0.2Sds)DL + 1.0E AZI 90	Yes	Y	1	0.859	31		32	1				
55	(0.9 - 0.2Sds)DL + 1.0E AZI 120	Yes	Y	1	0.859	31	-0.5	32	0.866				
56	(0.9 - 0.2Sds)DL + 1.0E AZI 150	Yes	Y	1	0.859	31	-0.866	32	0.5				
57	(0.9 - 0.2Sds)DL + 1.0E AZI 180	Yes	Y	1	0.859	31	-1	32					
58	(0.9 - 0.2Sds)DL + 1.0E AZI 210	Yes	Y	1	0.859	31	-0.866	32	-0.5				
59	(0.9 - 0.2Sds)DL + 1.0E AZI 240	Yes	Y	1	0.859	31	-0.5	32	-0.866				
60	(0.9 - 0.2Sds)DL + 1.0E AZI 270	Yes	Y	1	0.859	31		32	-1				

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
61	(0.9 - 0.2Sds)DL + 1.0E AZI 300	Yes	Y	1	0.859	31	0.5	32	-0.866				
62	(0.9 - 0.2Sds)DL + 1.0E AZI 330	Yes	Y	1	0.859	31	0.866	32	-0.5				
63	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 0	Yes	Y	1	1	2	0.263	14	0.263	15		33	1.5
64	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 30	Yes	Y	1	1	3	0.263	14	0.228	15	0.131	33	1.5
65	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 60	Yes	Y	1	1	4	0.263	14	0.131	15	0.228	33	1.5
66	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 90	Yes	Y	1	1	5	0.263	14		15	0.263	33	1.5
67	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 120	Yes	Y	1	1	6	0.263	14	-0.131	15	0.228	33	1.5
68	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 150	Yes	Y	1	1	7	0.263	14	-0.228	15	0.131	33	1.5
69	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 180	Yes	Y	1	1	8	0.263	14	-0.263	15		33	1.5
70	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 210	Yes	Y	1	1	9	0.263	14	-0.228	15	-0.131	33	1.5
71	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 240	Yes	Y	1	1	10	0.263	14	-0.131	15	-0.228	33	1.5
72	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 270	Yes	Y	1	1	11	0.263	14		15	-0.263	33	1.5
73	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 300	Yes	Y	1	1	12	0.263	14	0.131	15	-0.228	33	1.5
74	1.0DL + 1.5LL + 1.0SWL (60 mph) AZI 330	Yes	Y	1	1	13	0.263	14	0.228	15	-0.131	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	0.066	14	0.066	15	
77	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	34	1.5	3	0.066	14	0.057	15	0.033
78	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	34	1.5	4	0.066	14	0.033	15	0.057
79	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	34	1.5	5	0.066	14		15	0.066
80	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	34	1.5	6	0.066	14	-0.033	15	0.057
81	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	34	1.5	7	0.066	14	-0.057	15	0.033
82	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	34	1.5	8	0.066	14	-0.066	15	
83	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	34	1.5	9	0.066	14	-0.057	15	-0.033
84	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	34	1.5	10	0.066	14	-0.033	15	-0.057
85	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	34	1.5	11	0.066	14		15	-0.066
86	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	34	1.5	12	0.066	14	0.033	15	-0.057
87	1.2DL + 1.5LM-MP1 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	34	1.5	13	0.066	14	0.057	15	-0.033
88	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	35	1.5	2	0.066	14	0.066	15	
89	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	35	1.5	3	0.066	14	0.057	15	0.033
90	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	35	1.5	4	0.066	14	0.033	15	0.057
91	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	35	1.5	5	0.066	14		15	0.066
92	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	35	1.5	6	0.066	14	-0.033	15	0.057
93	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	35	1.5	7	0.066	14	-0.057	15	0.033
94	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	35	1.5	8	0.066	14	-0.066	15	
95	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	35	1.5	9	0.066	14	-0.057	15	-0.033
96	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	35	1.5	10	0.066	14	-0.033	15	-0.057
97	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	35	1.5	11	0.066	14		15	-0.066
98	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	35	1.5	12	0.066	14	0.033	15	-0.057
99	1.2DL + 1.5LM-MP2 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	35	1.5	13	0.066	14	0.057	15	-0.033
100	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	36	1.5	2	0.066	14	0.066	15	
101	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	36	1.5	3	0.066	14	0.057	15	0.033
102	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	36	1.5	4	0.066	14	0.033	15	0.057
103	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	36	1.5	5	0.066	14		15	0.066
104	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	36	1.5	6	0.066	14	-0.033	15	0.057
105	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	36	1.5	7	0.066	14	-0.057	15	0.033
106	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	36	1.5	8	0.066	14	-0.066	15	

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
107	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	36	1.5	9	0.066	14	-0.057	15	-0.033
108	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	36	1.5	10	0.066	14	-0.033	15	-0.057
109	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	36	1.5	11	0.066	14		15	-0.066
110	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	36	1.5	12	0.066	14	0.033	15	-0.057
111	1.2DL + 1.5LM-MP3 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	36	1.5	13	0.066	14	0.057	15	-0.033
112	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	37	1.5	2	0.066	14	0.066	15	
113	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	37	1.5	3	0.066	14	0.057	15	0.033
114	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	37	1.5	4	0.066	14	0.033	15	0.057
115	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	37	1.5	5	0.066	14		15	0.066
116	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	37	1.5	6	0.066	14	-0.033	15	0.057
117	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	37	1.5	7	0.066	14	-0.057	15	0.033
118	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	37	1.5	8	0.066	14	-0.066	15	
119	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	37	1.5	9	0.066	14	-0.057	15	-0.033
120	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	37	1.5	10	0.066	14	-0.033	15	-0.057
121	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	37	1.5	11	0.066	14		15	-0.066
122	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	37	1.5	12	0.066	14	0.033	15	-0.057
123	1.2DL + 1.5LM-MP4 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	37	1.5	13	0.066	14	0.057	15	-0.033
124	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	38	1.5	2	0.066	14	0.066	15	
125	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	38	1.5	3	0.066	14	0.057	15	0.033
126	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	38	1.5	4	0.066	14	0.033	15	0.057
127	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	38	1.5	5	0.066	14		15	0.066
128	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	38	1.5	6	0.066	14	-0.033	15	0.057
129	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	38	1.5	7	0.066	14	-0.057	15	0.033
130	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	38	1.5	8	0.066	14	-0.066	15	
131	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	38	1.5	9	0.066	14	-0.057	15	-0.033
132	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	38	1.5	10	0.066	14	-0.033	15	-0.057
133	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	38	1.5	11	0.066	14		15	-0.066
134	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	38	1.5	12	0.066	14	0.033	15	-0.057
135	1.2DL + 1.5LM-MP5 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	38	1.5	13	0.066	14	0.057	15	-0.033
136	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	39	1.5	2	0.066	14	0.066	15	
137	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	39	1.5	3	0.066	14	0.057	15	0.033
138	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	39	1.5	4	0.066	14	0.033	15	0.057
139	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	39	1.5	5	0.066	14		15	0.066
140	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	39	1.5	6	0.066	14	-0.033	15	0.057
141	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	39	1.5	7	0.066	14	-0.057	15	0.033
142	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	39	1.5	8	0.066	14	-0.066	15	
143	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	39	1.5	9	0.066	14	-0.057	15	-0.033
144	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	39	1.5	10	0.066	14	-0.033	15	-0.057
145	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	39	1.5	11	0.066	14		15	-0.066
146	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	39	1.5	12	0.066	14	0.033	15	-0.057
147	1.2DL + 1.5LM-MP6 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	39	1.5	13	0.066	14	0.057	15	-0.033
148	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	40	1.5	2	0.066	14	0.066	15	
149	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	40	1.5	3	0.066	14	0.057	15	0.033
150	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	40	1.5	4	0.066	14	0.033	15	0.057
151	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	40	1.5	5	0.066	14		15	0.066
152	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	40	1.5	6	0.066	14	-0.033	15	0.057

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
153	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	40	1.5	7	0.066	14	-0.057	15	0.033
154	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	40	1.5	8	0.066	14	-0.066	15	
155	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	40	1.5	9	0.066	14	-0.057	15	-0.033
156	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	40	1.5	10	0.066	14	-0.033	15	-0.057
157	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	40	1.5	11	0.066	14		15	-0.066
158	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	40	1.5	12	0.066	14	0.033	15	-0.057
159	1.2DL + 1.5LM-MP7 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	40	1.5	13	0.066	14	0.057	15	-0.033
160	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	41	1.5	2	0.066	14	0.066	15	
161	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	41	1.5	3	0.066	14	0.057	15	0.033
162	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	41	1.5	4	0.066	14	0.033	15	0.057
163	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	41	1.5	5	0.066	14		15	0.066
164	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	41	1.5	6	0.066	14	-0.033	15	0.057
165	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	41	1.5	7	0.066	14	-0.057	15	0.033
166	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	41	1.5	8	0.066	14	-0.066	15	
167	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	41	1.5	9	0.066	14	-0.057	15	-0.033
168	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	41	1.5	10	0.066	14	-0.033	15	-0.057
169	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	41	1.5	11	0.066	14		15	-0.066
170	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	41	1.5	12	0.066	14	0.033	15	-0.057
171	1.2DL + 1.5LM-MP8 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	41	1.5	13	0.066	14	0.057	15	-0.033
172	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	42	1.5	2	0.066	14	0.066	15	
173	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	42	1.5	3	0.066	14	0.057	15	0.033
174	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	42	1.5	4	0.066	14	0.033	15	0.057
175	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	42	1.5	5	0.066	14		15	0.066
176	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	42	1.5	6	0.066	14	-0.033	15	0.057
177	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	42	1.5	7	0.066	14	-0.057	15	0.033
178	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	42	1.5	8	0.066	14	-0.066	15	
179	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	42	1.5	9	0.066	14	-0.057	15	-0.033
180	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	42	1.5	10	0.066	14	-0.033	15	-0.057
181	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	42	1.5	11	0.066	14		15	-0.066
182	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	42	1.5	12	0.066	14	0.033	15	-0.057
183	1.2DL + 1.5LM-MP9 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	42	1.5	13	0.066	14	0.057	15	-0.033
184	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	43	1.5	2	0.066	14	0.066	15	
185	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	43	1.5	3	0.066	14	0.057	15	0.033
186	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	43	1.5	4	0.066	14	0.033	15	0.057
187	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	43	1.5	5	0.066	14		15	0.066
188	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	43	1.5	6	0.066	14	-0.033	15	0.057
189	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	43	1.5	7	0.066	14	-0.057	15	0.033
190	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	43	1.5	8	0.066	14	-0.066	15	
191	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	43	1.5	9	0.066	14	-0.057	15	-0.033
192	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	43	1.5	10	0.066	14	-0.033	15	-0.057
193	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	43	1.5	11	0.066	14		15	-0.066
194	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	43	1.5	12	0.066	14	0.033	15	-0.057
195	1.2DL + 1.5LM-MP10 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	43	1.5	13	0.066	14	0.057	15	-0.033
196	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	44	1.5	2	0.066	14	0.066	15	
197	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	44	1.5	3	0.066	14	0.057	15	0.033
198	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	44	1.5	4	0.066	14	0.033	15	0.057

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
199	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	44	1.5	5	0.066	14		15	0.066
200	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	44	1.5	6	0.066	14	-0.033	15	0.057
201	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	44	1.5	7	0.066	14	-0.057	15	0.033
202	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	44	1.5	8	0.066	14	-0.066	15	
203	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	44	1.5	9	0.066	14	-0.057	15	-0.033
204	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	44	1.5	10	0.066	14	-0.033	15	-0.057
205	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	44	1.5	11	0.066	14		15	-0.066
206	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	44	1.5	12	0.066	14	0.033	15	-0.057
207	1.2DL + 1.5LM-MP11 + 1SWL (30 mph) AZI 330	Yes	Y	1	1.2	44	1.5	13	0.066	14	0.057	15	-0.033
208	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 0	Yes	Y	1	1.2	45	1.5	2	0.066	14	0.066	15	
209	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 30	Yes	Y	1	1.2	45	1.5	3	0.066	14	0.057	15	0.033
210	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 60	Yes	Y	1	1.2	45	1.5	4	0.066	14	0.033	15	0.057
211	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 90	Yes	Y	1	1.2	45	1.5	5	0.066	14		15	0.066
212	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 120	Yes	Y	1	1.2	45	1.5	6	0.066	14	-0.033	15	0.057
213	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 150	Yes	Y	1	1.2	45	1.5	7	0.066	14	-0.057	15	0.033
214	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 180	Yes	Y	1	1.2	45	1.5	8	0.066	14	-0.066	15	
215	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 210	Yes	Y	1	1.2	45	1.5	9	0.066	14	-0.057	15	-0.033
216	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 240	Yes	Y	1	1.2	45	1.5	10	0.066	14	-0.033	15	-0.057
217	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 270	Yes	Y	1	1.2	45	1.5	11	0.066	14		15	-0.066
218	1.2DL + 1.5LM-MP12 + 1SWL (30 mph) AZI 300	Yes	Y	1	1.2	45	1.5	12	0.066	14	0.033	15	-0.057

Member Point Loads (BLC 1 : Self Weight)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	Y	-44.65	6
2	MP4	Y	-44.65	77
3	MP1	Y	-34.5	6
4	MP1	Y	-34.5	77
5	MP3	Y	-33.1	54
6	MP3	Y	-33.1	82
7	MP3	Y	-40.8	12
8	MP3	Y	-40.8	42
9	MP4	Y	-35.5	18
10	MP4	Y	-35.5	36
11	R1	Y	-29.7	3
12	R1	Y	-29.7	21
13	MP1	Y	-37.5	18
14	MP1	Y	-37.5	36
15	R4	Y	-9.45	12
16	R4	Y	-9.45	12
17	MP8	Y	-52.8	6
18	MP8	Y	-52.8	90
19	MP5	Y	-43.55	6
20	MP5	Y	-43.55	90
21	MP7	Y	-33.1	54
22	MP7	Y	-33.1	82
23	MP7	Y	-40.8	12

Member Point Loads (BLC 1 : Self Weight) (Continued)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
24	MP7	Y	-40.8	42
25	MP8	Y	-35.5	18
26	MP8	Y	-35.5	36
27	R2	Y	-29.7	3
28	R2	Y	-29.7	21
29	MP5	Y	-37.5	18
30	MP5	Y	-37.5	36
31	R5	Y	-13.1	18
32	R5	Y	-13.1	18
33	MP12	Y	-44.65	6
34	MP12	Y	-44.65	77
35	MP9	Y	-34.5	6
36	MP9	Y	-34.5	77
37	MP11	Y	-33.1	54
38	MP11	Y	-33.1	82
39	MP11	Y	-40.8	12
40	MP11	Y	-40.8	42
41	MP12	Y	-35.5	18
42	MP12	Y	-35.5	36
43	R3	Y	-29.7	3
44	R3	Y	-29.7	21
45	MP9	Y	-37.5	18
46	MP9	Y	-37.5	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	0	6
2	MP4	Z	-223.35	6
3	MP4	X	0	77
4	MP4	Z	-223.35	77
5	MP1	X	0	6
6	MP1	Z	-223.35	6
7	MP1	X	0	77
8	MP1	Z	-223.35	77
9	MP3	X	0	54
10	MP3	Z	-68.68	54
11	MP3	X	0	82
12	MP3	Z	-68.68	82
13	MP3	X	0	12
14	MP3	Z	-68.15	12
15	MP3	X	0	42
16	MP3	Z	-68.15	42
17	MP4	X	0	18
18	MP4	Z	-36.84	18
19	MP4	X	0	36
20	MP4	Z	-36.84	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
21	R1	X	0	3
22	R1	Z	-37.84	3
23	R1	X	0	21
24	R1	Z	-37.84	21
25	MP1	X	0	18
26	MP1	Z	-37.07	18
27	MP1	X	0	36
28	MP1	Z	-37.07	36
29	R4	X	0	12
30	R4	Z	-17.09	12
31	R4	X	0	12
32	R4	Z	-17.09	12
33	MP8	X	0	6
34	MP8	Z	-157.78	6
35	MP8	X	0	90
36	MP8	Z	-157.78	90
37	MP5	X	0	6
38	MP5	Z	-157.78	6
39	MP5	X	0	90
40	MP5	Z	-157.78	90
41	MP7	X	0	54
42	MP7	Z	-40.38	54
43	MP7	X	0	82
44	MP7	Z	-40.38	82
45	MP7	X	0	12
46	MP7	Z	-41.19	12
47	MP7	X	0	42
48	MP7	Z	-41.19	42
49	MP8	X	0	18
50	MP8	Z	-28.98	18
51	MP8	X	0	36
52	MP8	Z	-28.98	36
53	R2	X	0	3
54	R2	Z	-26.95	3
55	R2	X	0	21
56	R2	Z	-26.95	21
57	MP5	X	0	18
58	MP5	Z	-33.07	18
59	MP5	X	0	36
60	MP5	Z	-33.07	36
61	R5	X	0	18
62	R5	Z	-60.82	18
63	R5	X	0	18
64	R5	Z	-60.82	18
65	MP12	X	0	6
66	MP12	Z	-118.74	6

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
67	MP12	X	0	77
68	MP12	Z	-118.74	77
69	MP9	X	0	6
70	MP9	Z	-118.74	6
71	MP9	X	0	77
72	MP9	Z	-118.74	77
73	MP11	X	0	54
74	MP11	Z	-40.38	54
75	MP11	X	0	82
76	MP11	Z	-40.38	82
77	MP11	X	0	12
78	MP11	Z	-41.19	12
79	MP11	X	0	42
80	MP11	Z	-41.19	42
81	MP12	X	0	18
82	MP12	Z	-28.98	18
83	MP12	X	0	36
84	MP12	Z	-28.98	36
85	R3	X	0	3
86	R3	Z	-26.95	3
87	R3	X	0	21
88	R3	Z	-26.95	21
89	MP9	X	0	18
90	MP9	Z	-33.07	18
91	MP9	X	0	36
92	MP9	Z	-33.07	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	-94.24	6
2	MP4	Z	-163.23	6
3	MP4	X	-94.24	77
4	MP4	Z	-163.23	77
5	MP1	X	-94.24	6
6	MP1	Z	-163.23	6
7	MP1	X	-94.24	77
8	MP1	Z	-163.23	77
9	MP3	X	-29.62	54
10	MP3	Z	-51.31	54
11	MP3	X	-29.62	82
12	MP3	Z	-51.31	82
13	MP3	X	-29.58	12
14	MP3	Z	-51.23	12
15	MP3	X	-29.58	42
16	MP3	Z	-51.23	42
17	MP4	X	-17.11	18

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
18	MP4	Z	-29.63	18
19	MP4	X	-17.11	36
20	MP4	Z	-29.63	36
21	R1	X	-17.11	3
22	R1	Z	-29.63	3
23	R1	X	-17.11	21
24	R1	Z	-29.63	21
25	MP1	X	-17.87	18
26	MP1	Z	-30.95	18
27	MP1	X	-17.87	36
28	MP1	Z	-30.95	36
29	R4	X	-8.54	12
30	R4	Z	-14.8	12
31	R4	X	-8.54	12
32	R4	Z	-14.8	12
33	MP8	X	-125.27	6
34	MP8	Z	-216.98	6
35	MP8	X	-125.27	90
36	MP8	Z	-216.98	90
37	MP5	X	-125.27	6
38	MP5	Z	-216.98	6
39	MP5	X	-125.27	90
40	MP5	Z	-216.98	90
41	MP7	X	-29.62	54
42	MP7	Z	-51.31	54
43	MP7	X	-29.62	82
44	MP7	Z	-51.31	82
45	MP7	X	-29.58	12
46	MP7	Z	-51.23	12
47	MP7	X	-29.58	42
48	MP7	Z	-51.23	42
49	MP8	X	-17.11	18
50	MP8	Z	-29.63	18
51	MP8	X	-17.11	36
52	MP8	Z	-29.63	36
53	R2	X	-17.11	3
54	R2	Z	-29.63	3
55	R2	X	-17.11	21
56	R2	Z	-29.63	21
57	MP5	X	-17.87	18
58	MP5	Z	-30.95	18
59	MP5	X	-17.87	36
60	MP5	Z	-30.95	36
61	R5	X	-40	18
62	R5	Z	-69.28	18
63	R5	X	-40	18

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
64	R5	Z	-69.28	18
65	MP12	X	-41.94	6
66	MP12	Z	-72.64	6
67	MP12	X	-41.94	77
68	MP12	Z	-72.64	77
69	MP9	X	-41.94	6
70	MP9	Z	-72.64	6
71	MP9	X	-41.94	77
72	MP9	Z	-72.64	77
73	MP11	X	-15.47	54
74	MP11	Z	-26.8	54
75	MP11	X	-15.47	82
76	MP11	Z	-26.8	82
77	MP11	X	-16.1	12
78	MP11	Z	-27.89	12
79	MP11	X	-16.1	42
80	MP11	Z	-27.89	42
81	MP12	X	-13.18	18
82	MP12	Z	-22.83	18
83	MP12	X	-13.18	36
84	MP12	Z	-22.83	36
85	R3	X	-11.66	3
86	R3	Z	-20.2	3
87	R3	X	-11.66	21
88	R3	Z	-20.2	21
89	MP9	X	-15.87	18
90	MP9	Z	-27.48	18
91	MP9	X	-15.87	36
92	MP9	Z	-27.48	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	-102.83	6
2	MP4	Z	-59.37	6
3	MP4	X	-102.83	77
4	MP4	Z	-59.37	77
5	MP1	X	-102.83	6
6	MP1	Z	-59.37	6
7	MP1	X	-102.83	77
8	MP1	Z	-59.37	77
9	MP3	X	-34.97	54
10	MP3	Z	-20.19	54
11	MP3	X	-34.97	82
12	MP3	Z	-20.19	82
13	MP3	X	-35.67	12
14	MP3	Z	-20.59	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
15	MP3	X	-35.67	42
16	MP3	Z	-20.59	42
17	MP4	X	-25.1	18
18	MP4	Z	-14.49	18
19	MP4	X	-25.1	36
20	MP4	Z	-14.49	36
21	R1	X	-23.34	3
22	R1	Z	-13.48	3
23	R1	X	-23.34	21
24	R1	Z	-13.48	21
25	MP1	X	-28.64	18
26	MP1	Z	-16.53	18
27	MP1	X	-28.64	36
28	MP1	Z	-16.53	36
29	R4	X	-14.8	12
30	R4	Z	-8.54	12
31	R4	X	-14.8	12
32	R4	Z	-8.54	12
33	MP8	X	-257.14	6
34	MP8	Z	-148.46	6
35	MP8	X	-257.14	90
36	MP8	Z	-148.46	90
37	MP5	X	-257.14	6
38	MP5	Z	-148.46	6
39	MP5	X	-257.14	90
40	MP5	Z	-148.46	90
41	MP7	X	-59.48	54
42	MP7	Z	-34.34	54
43	MP7	X	-59.48	82
44	MP7	Z	-34.34	82
45	MP7	X	-59.02	12
46	MP7	Z	-34.07	12
47	MP7	X	-59.02	42
48	MP7	Z	-34.07	42
49	MP8	X	-31.9	18
50	MP8	Z	-18.42	18
51	MP8	X	-31.9	36
52	MP8	Z	-18.42	36
53	R2	X	-32.77	3
54	R2	Z	-18.92	3
55	R2	X	-32.77	21
56	R2	Z	-18.92	21
57	MP5	X	-32.1	18
58	MP5	Z	-18.53	18
59	MP5	X	-32.1	36
60	MP5	Z	-18.53	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
61	R5	X	-77.58	18
62	R5	Z	-44.79	18
63	R5	X	-77.58	18
64	R5	Z	-44.79	18
65	MP12	X	-102.83	6
66	MP12	Z	-59.37	6
67	MP12	X	-102.83	77
68	MP12	Z	-59.37	77
69	MP9	X	-102.83	6
70	MP9	Z	-59.37	6
71	MP9	X	-102.83	77
72	MP9	Z	-59.37	77
73	MP11	X	-34.97	54
74	MP11	Z	-20.19	54
75	MP11	X	-34.97	82
76	MP11	Z	-20.19	82
77	MP11	X	-35.67	12
78	MP11	Z	-20.59	12
79	MP11	X	-35.67	42
80	MP11	Z	-20.59	42
81	MP12	X	-25.1	18
82	MP12	Z	-14.49	18
83	MP12	X	-25.1	36
84	MP12	Z	-14.49	36
85	R3	X	-23.34	3
86	R3	Z	-13.48	3
87	R3	X	-23.34	21
88	R3	Z	-13.48	21
89	MP9	X	-28.64	18
90	MP9	Z	-16.53	18
91	MP9	X	-28.64	36
92	MP9	Z	-16.53	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	-83.87	6
2	MP4	Z	0	6
3	MP4	X	-83.87	77
4	MP4	Z	0	77
5	MP1	X	-83.87	6
6	MP1	Z	0	6
7	MP1	X	-83.87	77
8	MP1	Z	0	77
9	MP3	X	-30.95	54
10	MP3	Z	0	54
11	MP3	X	-30.95	82

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
12	MP3	Z	0	82
13	MP3	X	-32.2	12
14	MP3	Z	0	12
15	MP3	X	-32.2	42
16	MP3	Z	0	42
17	MP4	X	-26.36	18
18	MP4	Z	0	18
19	MP4	X	-26.36	36
20	MP4	Z	0	36
21	R1	X	-23.32	3
22	R1	Z	0	3
23	R1	X	-23.32	21
24	R1	Z	0	21
25	MP1	X	-31.73	18
26	MP1	Z	0	18
27	MP1	X	-31.73	36
28	MP1	Z	0	36
29	R4	X	-17.09	12
30	R4	Z	0	12
31	R4	X	-17.09	12
32	R4	Z	0	12
33	MP8	X	-250.54	6
34	MP8	Z	0	6
35	MP8	X	-250.54	90
36	MP8	Z	0	90
37	MP5	X	-250.54	6
38	MP5	Z	0	6
39	MP5	X	-250.54	90
40	MP5	Z	0	90
41	MP7	X	-59.25	54
42	MP7	Z	0	54
43	MP7	X	-59.25	82
44	MP7	Z	0	82
45	MP7	X	-59.16	12
46	MP7	Z	0	12
47	MP7	X	-59.16	42
48	MP7	Z	0	42
49	MP8	X	-34.22	18
50	MP8	Z	0	18
51	MP8	X	-34.22	36
52	MP8	Z	0	36
53	R2	X	-34.21	3
54	R2	Z	0	3
55	R2	X	-34.21	21
56	R2	Z	0	21
57	MP5	X	-35.73	18

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
58	MP5	Z	0	18
59	MP5	X	-35.73	36
60	MP5	Z	0	36
61	R5	X	-79.99	18
62	R5	Z	0	18
63	R5	X	-79.99	18
64	R5	Z	0	18
65	MP12	X	-188.48	6
66	MP12	Z	0	6
67	MP12	X	-188.48	77
68	MP12	Z	0	77
69	MP9	X	-188.48	6
70	MP9	Z	0	6
71	MP9	X	-188.48	77
72	MP9	Z	0	77
73	MP11	X	-59.25	54
74	MP11	Z	0	54
75	MP11	X	-59.25	82
76	MP11	Z	0	82
77	MP11	X	-59.16	12
78	MP11	Z	0	12
79	MP11	X	-59.16	42
80	MP11	Z	0	42
81	MP12	X	-34.22	18
82	MP12	Z	0	18
83	MP12	X	-34.22	36
84	MP12	Z	0	36
85	R3	X	-34.21	3
86	R3	Z	0	3
87	R3	X	-34.21	21
88	R3	Z	0	21
89	MP9	X	-35.73	18
90	MP9	Z	0	18
91	MP9	X	-35.73	36
92	MP9	Z	0	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	-102.83	6
2	MP4	Z	59.37	6
3	MP4	X	-102.83	77
4	MP4	Z	59.37	77
5	MP1	X	-102.83	6
6	MP1	Z	59.37	6
7	MP1	X	-102.83	77
8	MP1	Z	59.37	77

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
9	MP3	X	-34.97	54
10	MP3	Z	20.19	54
11	MP3	X	-34.97	82
12	MP3	Z	20.19	82
13	MP3	X	-35.67	12
14	MP3	Z	20.59	12
15	MP3	X	-35.67	42
16	MP3	Z	20.59	42
17	MP4	X	-25.1	18
18	MP4	Z	14.49	18
19	MP4	X	-25.1	36
20	MP4	Z	14.49	36
21	R1	X	-23.34	3
22	R1	Z	13.48	3
23	R1	X	-23.34	21
24	R1	Z	13.48	21
25	MP1	X	-28.64	18
26	MP1	Z	16.53	18
27	MP1	X	-28.64	36
28	MP1	Z	16.53	36
29	R4	X	-14.8	12
30	R4	Z	8.54	12
31	R4	X	-14.8	12
32	R4	Z	8.54	12
33	MP8	X	-136.64	6
34	MP8	Z	78.89	6
35	MP8	X	-136.64	90
36	MP8	Z	78.89	90
37	MP5	X	-136.64	6
38	MP5	Z	78.89	6
39	MP5	X	-136.64	90
40	MP5	Z	78.89	90
41	MP7	X	-34.97	54
42	MP7	Z	20.19	54
43	MP7	X	-34.97	82
44	MP7	Z	20.19	82
45	MP7	X	-35.67	12
46	MP7	Z	20.59	12
47	MP7	X	-35.67	42
48	MP7	Z	20.59	42
49	MP8	X	-25.1	18
50	MP8	Z	14.49	18
51	MP8	X	-25.1	36
52	MP8	Z	14.49	36
53	R2	X	-23.34	3
54	R2	Z	13.48	3

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
55	R2	X	-23.34	21
56	R2	Z	13.48	21
57	MP5	X	-28.64	18
58	MP5	Z	16.53	18
59	MP5	X	-28.64	36
60	MP5	Z	16.53	36
61	R5	X	-52.67	18
62	R5	Z	30.41	18
63	R5	X	-52.67	18
64	R5	Z	30.41	18
65	MP12	X	-193.43	6
66	MP12	Z	111.67	6
67	MP12	X	-193.43	77
68	MP12	Z	111.67	77
69	MP9	X	-193.43	6
70	MP9	Z	111.67	6
71	MP9	X	-193.43	77
72	MP9	Z	111.67	77
73	MP11	X	-59.48	54
74	MP11	Z	34.34	54
75	MP11	X	-59.48	82
76	MP11	Z	34.34	82
77	MP11	X	-59.02	12
78	MP11	Z	34.07	12
79	MP11	X	-59.02	42
80	MP11	Z	34.07	42
81	MP12	X	-31.9	18
82	MP12	Z	18.42	18
83	MP12	X	-31.9	36
84	MP12	Z	18.42	36
85	R3	X	-32.77	3
86	R3	Z	18.92	3
87	R3	X	-32.77	21
88	R3	Z	18.92	21
89	MP9	X	-32.1	18
90	MP9	Z	18.53	18
91	MP9	X	-32.1	36
92	MP9	Z	18.53	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	-94.24	6
2	MP4	Z	163.23	6
3	MP4	X	-94.24	77
4	MP4	Z	163.23	77
5	MP1	X	-94.24	6

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
6	MP1	Z	163.23	6
7	MP1	X	-94.24	77
8	MP1	Z	163.23	77
9	MP3	X	-29.62	54
10	MP3	Z	51.31	54
11	MP3	X	-29.62	82
12	MP3	Z	51.31	82
13	MP3	X	-29.58	12
14	MP3	Z	51.23	12
15	MP3	X	-29.58	42
16	MP3	Z	51.23	42
17	MP4	X	-17.11	18
18	MP4	Z	29.63	18
19	MP4	X	-17.11	36
20	MP4	Z	29.63	36
21	R1	X	-17.11	3
22	R1	Z	29.63	3
23	R1	X	-17.11	21
24	R1	Z	29.63	21
25	MP1	X	-17.87	18
26	MP1	Z	30.95	18
27	MP1	X	-17.87	36
28	MP1	Z	30.95	36
29	R4	X	-8.54	12
30	R4	Z	14.8	12
31	R4	X	-8.54	12
32	R4	Z	14.8	12
33	MP8	X	-55.7	6
34	MP8	Z	96.47	6
35	MP8	X	-55.7	90
36	MP8	Z	96.47	90
37	MP5	X	-55.7	6
38	MP5	Z	96.47	6
39	MP5	X	-55.7	90
40	MP5	Z	96.47	90
41	MP7	X	-15.47	54
42	MP7	Z	26.8	54
43	MP7	X	-15.47	82
44	MP7	Z	26.8	82
45	MP7	X	-16.1	12
46	MP7	Z	27.89	12
47	MP7	X	-16.1	42
48	MP7	Z	27.89	42
49	MP8	X	-13.18	18
50	MP8	Z	22.83	18
51	MP8	X	-13.18	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
52	MP8	Z	22.83	36
53	R2	X	-11.66	3
54	R2	Z	20.2	3
55	R2	X	-11.66	21
56	R2	Z	20.2	21
57	MP5	X	-15.87	18
58	MP5	Z	27.48	18
59	MP5	X	-15.87	36
60	MP5	Z	27.48	36
61	R5	X	-25.62	18
62	R5	Z	44.37	18
63	R5	X	-25.62	18
64	R5	Z	44.37	18
65	MP12	X	-94.24	6
66	MP12	Z	163.23	6
67	MP12	X	-94.24	77
68	MP12	Z	163.23	77
69	MP9	X	-94.24	6
70	MP9	Z	163.23	6
71	MP9	X	-94.24	77
72	MP9	Z	163.23	77
73	MP11	X	-29.62	54
74	MP11	Z	51.31	54
75	MP11	X	-29.62	82
76	MP11	Z	51.31	82
77	MP11	X	-29.58	12
78	MP11	Z	51.23	12
79	MP11	X	-29.58	42
80	MP11	Z	51.23	42
81	MP12	X	-17.11	18
82	MP12	Z	29.63	18
83	MP12	X	-17.11	36
84	MP12	Z	29.63	36
85	R3	X	-17.11	3
86	R3	Z	29.63	3
87	R3	X	-17.11	21
88	R3	Z	29.63	21
89	MP9	X	-17.87	18
90	MP9	Z	30.95	18
91	MP9	X	-17.87	36
92	MP9	Z	30.95	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	0	6
2	MP4	Z	223.35	6

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
3	MP4	X	0	77
4	MP4	Z	223.35	77
5	MP1	X	0	6
6	MP1	Z	223.35	6
7	MP1	X	0	77
8	MP1	Z	223.35	77
9	MP3	X	0	54
10	MP3	Z	68.68	54
11	MP3	X	0	82
12	MP3	Z	68.68	82
13	MP3	X	0	12
14	MP3	Z	68.15	12
15	MP3	X	0	42
16	MP3	Z	68.15	42
17	MP4	X	0	18
18	MP4	Z	36.84	18
19	MP4	X	0	36
20	MP4	Z	36.84	36
21	R1	X	0	3
22	R1	Z	37.84	3
23	R1	X	0	21
24	R1	Z	37.84	21
25	MP1	X	0	18
26	MP1	Z	37.07	18
27	MP1	X	0	36
28	MP1	Z	37.07	36
29	R4	X	0	12
30	R4	Z	17.09	12
31	R4	X	0	12
32	R4	Z	17.09	12
33	MP8	X	0	6
34	MP8	Z	157.78	6
35	MP8	X	0	90
36	MP8	Z	157.78	90
37	MP5	X	0	6
38	MP5	Z	157.78	6
39	MP5	X	0	90
40	MP5	Z	157.78	90
41	MP7	X	0	54
42	MP7	Z	40.38	54
43	MP7	X	0	82
44	MP7	Z	40.38	82
45	MP7	X	0	12
46	MP7	Z	41.19	12
47	MP7	X	0	42
48	MP7	Z	41.19	42

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
49	MP8	X	0	18
50	MP8	Z	28.98	18
51	MP8	X	0	36
52	MP8	Z	28.98	36
53	R2	X	0	3
54	R2	Z	26.95	3
55	R2	X	0	21
56	R2	Z	26.95	21
57	MP5	X	0	18
58	MP5	Z	33.07	18
59	MP5	X	0	36
60	MP5	Z	33.07	36
61	R5	X	0	18
62	R5	Z	60.82	18
63	R5	X	0	18
64	R5	Z	60.82	18
65	MP12	X	0	6
66	MP12	Z	118.74	6
67	MP12	X	0	77
68	MP12	Z	118.74	77
69	MP9	X	0	6
70	MP9	Z	118.74	6
71	MP9	X	0	77
72	MP9	Z	118.74	77
73	MP11	X	0	54
74	MP11	Z	40.38	54
75	MP11	X	0	82
76	MP11	Z	40.38	82
77	MP11	X	0	12
78	MP11	Z	41.19	12
79	MP11	X	0	42
80	MP11	Z	41.19	42
81	MP12	X	0	18
82	MP12	Z	28.98	18
83	MP12	X	0	36
84	MP12	Z	28.98	36
85	R3	X	0	3
86	R3	Z	26.95	3
87	R3	X	0	21
88	R3	Z	26.95	21
89	MP9	X	0	18
90	MP9	Z	33.07	18
91	MP9	X	0	36
92	MP9	Z	33.07	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	94.24	6
2	MP4	Z	163.23	6
3	MP4	X	94.24	77
4	MP4	Z	163.23	77
5	MP1	X	94.24	6
6	MP1	Z	163.23	6
7	MP1	X	94.24	77
8	MP1	Z	163.23	77
9	MP3	X	29.62	54
10	MP3	Z	51.31	54
11	MP3	X	29.62	82
12	MP3	Z	51.31	82
13	MP3	X	29.58	12
14	MP3	Z	51.23	12
15	MP3	X	29.58	42
16	MP3	Z	51.23	42
17	MP4	X	17.11	18
18	MP4	Z	29.63	18
19	MP4	X	17.11	36
20	MP4	Z	29.63	36
21	R1	X	17.11	3
22	R1	Z	29.63	3
23	R1	X	17.11	21
24	R1	Z	29.63	21
25	MP1	X	17.87	18
26	MP1	Z	30.95	18
27	MP1	X	17.87	36
28	MP1	Z	30.95	36
29	R4	X	8.54	12
30	R4	Z	14.8	12
31	R4	X	8.54	12
32	R4	Z	14.8	12
33	MP8	X	125.27	6
34	MP8	Z	216.98	6
35	MP8	X	125.27	90
36	MP8	Z	216.98	90
37	MP5	X	125.27	6
38	MP5	Z	216.98	6
39	MP5	X	125.27	90
40	MP5	Z	216.98	90
41	MP7	X	29.62	54
42	MP7	Z	51.31	54
43	MP7	X	29.62	82
44	MP7	Z	51.31	82
45	MP7	X	29.58	12
46	MP7	Z	51.23	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	29.58	42
48	MP7	Z	51.23	42
49	MP8	X	17.11	18
50	MP8	Z	29.63	18
51	MP8	X	17.11	36
52	MP8	Z	29.63	36
53	R2	X	17.11	3
54	R2	Z	29.63	3
55	R2	X	17.11	21
56	R2	Z	29.63	21
57	MP5	X	17.87	18
58	MP5	Z	30.95	18
59	MP5	X	17.87	36
60	MP5	Z	30.95	36
61	R5	X	40	18
62	R5	Z	69.28	18
63	R5	X	40	18
64	R5	Z	69.28	18
65	MP12	X	41.94	6
66	MP12	Z	72.64	6
67	MP12	X	41.94	77
68	MP12	Z	72.64	77
69	MP9	X	41.94	6
70	MP9	Z	72.64	6
71	MP9	X	41.94	77
72	MP9	Z	72.64	77
73	MP11	X	15.47	54
74	MP11	Z	26.8	54
75	MP11	X	15.47	82
76	MP11	Z	26.8	82
77	MP11	X	16.1	12
78	MP11	Z	27.89	12
79	MP11	X	16.1	42
80	MP11	Z	27.89	42
81	MP12	X	13.18	18
82	MP12	Z	22.83	18
83	MP12	X	13.18	36
84	MP12	Z	22.83	36
85	R3	X	11.66	3
86	R3	Z	20.2	3
87	R3	X	11.66	21
88	R3	Z	20.2	21
89	MP9	X	15.87	18
90	MP9	Z	27.48	18
91	MP9	X	15.87	36
92	MP9	Z	27.48	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	102.83	6
2	MP4	Z	59.37	6
3	MP4	X	102.83	77
4	MP4	Z	59.37	77
5	MP1	X	102.83	6
6	MP1	Z	59.37	6
7	MP1	X	102.83	77
8	MP1	Z	59.37	77
9	MP3	X	34.97	54
10	MP3	Z	20.19	54
11	MP3	X	34.97	82
12	MP3	Z	20.19	82
13	MP3	X	35.67	12
14	MP3	Z	20.59	12
15	MP3	X	35.67	42
16	MP3	Z	20.59	42
17	MP4	X	25.1	18
18	MP4	Z	14.49	18
19	MP4	X	25.1	36
20	MP4	Z	14.49	36
21	R1	X	23.34	3
22	R1	Z	13.48	3
23	R1	X	23.34	21
24	R1	Z	13.48	21
25	MP1	X	28.64	18
26	MP1	Z	16.53	18
27	MP1	X	28.64	36
28	MP1	Z	16.53	36
29	R4	X	14.8	12
30	R4	Z	8.54	12
31	R4	X	14.8	12
32	R4	Z	8.54	12
33	MP8	X	257.14	6
34	MP8	Z	148.46	6
35	MP8	X	257.14	90
36	MP8	Z	148.46	90
37	MP5	X	257.14	6
38	MP5	Z	148.46	6
39	MP5	X	257.14	90
40	MP5	Z	148.46	90
41	MP7	X	59.48	54
42	MP7	Z	34.34	54
43	MP7	X	59.48	82
44	MP7	Z	34.34	82
45	MP7	X	59.02	12
46	MP7	Z	34.07	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	59.02	42
48	MP7	Z	34.07	42
49	MP8	X	31.9	18
50	MP8	Z	18.42	18
51	MP8	X	31.9	36
52	MP8	Z	18.42	36
53	R2	X	32.77	3
54	R2	Z	18.92	3
55	R2	X	32.77	21
56	R2	Z	18.92	21
57	MP5	X	32.1	18
58	MP5	Z	18.53	18
59	MP5	X	32.1	36
60	MP5	Z	18.53	36
61	R5	X	77.58	18
62	R5	Z	44.79	18
63	R5	X	77.58	18
64	R5	Z	44.79	18
65	MP12	X	102.83	6
66	MP12	Z	59.37	6
67	MP12	X	102.83	77
68	MP12	Z	59.37	77
69	MP9	X	102.83	6
70	MP9	Z	59.37	6
71	MP9	X	102.83	77
72	MP9	Z	59.37	77
73	MP11	X	34.97	54
74	MP11	Z	20.19	54
75	MP11	X	34.97	82
76	MP11	Z	20.19	82
77	MP11	X	35.67	12
78	MP11	Z	20.59	12
79	MP11	X	35.67	42
80	MP11	Z	20.59	42
81	MP12	X	25.1	18
82	MP12	Z	14.49	18
83	MP12	X	25.1	36
84	MP12	Z	14.49	36
85	R3	X	23.34	3
86	R3	Z	13.48	3
87	R3	X	23.34	21
88	R3	Z	13.48	21
89	MP9	X	28.64	18
90	MP9	Z	16.53	18
91	MP9	X	28.64	36
92	MP9	Z	16.53	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	83.87	6
2	MP4	Z	0	6
3	MP4	X	83.87	77
4	MP4	Z	0	77
5	MP1	X	83.87	6
6	MP1	Z	0	6
7	MP1	X	83.87	77
8	MP1	Z	0	77
9	MP3	X	30.95	54
10	MP3	Z	0	54
11	MP3	X	30.95	82
12	MP3	Z	0	82
13	MP3	X	32.2	12
14	MP3	Z	0	12
15	MP3	X	32.2	42
16	MP3	Z	0	42
17	MP4	X	26.36	18
18	MP4	Z	0	18
19	MP4	X	26.36	36
20	MP4	Z	0	36
21	R1	X	23.32	3
22	R1	Z	0	3
23	R1	X	23.32	21
24	R1	Z	0	21
25	MP1	X	31.73	18
26	MP1	Z	0	18
27	MP1	X	31.73	36
28	MP1	Z	0	36
29	R4	X	17.09	12
30	R4	Z	0	12
31	R4	X	17.09	12
32	R4	Z	0	12
33	MP8	X	250.54	6
34	MP8	Z	0	6
35	MP8	X	250.54	90
36	MP8	Z	0	90
37	MP5	X	250.54	6
38	MP5	Z	0	6
39	MP5	X	250.54	90
40	MP5	Z	0	90
41	MP7	X	59.25	54
42	MP7	Z	0	54
43	MP7	X	59.25	82
44	MP7	Z	0	82
45	MP7	X	59.16	12
46	MP7	Z	0	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	59.16	42
48	MP7	Z	0	42
49	MP8	X	34.22	18
50	MP8	Z	0	18
51	MP8	X	34.22	36
52	MP8	Z	0	36
53	R2	X	34.21	3
54	R2	Z	0	3
55	R2	X	34.21	21
56	R2	Z	0	21
57	MP5	X	35.73	18
58	MP5	Z	0	18
59	MP5	X	35.73	36
60	MP5	Z	0	36
61	R5	X	79.99	18
62	R5	Z	0	18
63	R5	X	79.99	18
64	R5	Z	0	18
65	MP12	X	188.48	6
66	MP12	Z	0	6
67	MP12	X	188.48	77
68	MP12	Z	0	77
69	MP9	X	188.48	6
70	MP9	Z	0	6
71	MP9	X	188.48	77
72	MP9	Z	0	77
73	MP11	X	59.25	54
74	MP11	Z	0	54
75	MP11	X	59.25	82
76	MP11	Z	0	82
77	MP11	X	59.16	12
78	MP11	Z	0	12
79	MP11	X	59.16	42
80	MP11	Z	0	42
81	MP12	X	34.22	18
82	MP12	Z	0	18
83	MP12	X	34.22	36
84	MP12	Z	0	36
85	R3	X	34.21	3
86	R3	Z	0	3
87	R3	X	34.21	21
88	R3	Z	0	21
89	MP9	X	35.73	18
90	MP9	Z	0	18
91	MP9	X	35.73	36
92	MP9	Z	0	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	102.83	6
2	MP4	Z	-59.37	6
3	MP4	X	102.83	77
4	MP4	Z	-59.37	77
5	MP1	X	102.83	6
6	MP1	Z	-59.37	6
7	MP1	X	102.83	77
8	MP1	Z	-59.37	77
9	MP3	X	34.97	54
10	MP3	Z	-20.19	54
11	MP3	X	34.97	82
12	MP3	Z	-20.19	82
13	MP3	X	35.67	12
14	MP3	Z	-20.59	12
15	MP3	X	35.67	42
16	MP3	Z	-20.59	42
17	MP4	X	25.1	18
18	MP4	Z	-14.49	18
19	MP4	X	25.1	36
20	MP4	Z	-14.49	36
21	R1	X	23.34	3
22	R1	Z	-13.48	3
23	R1	X	23.34	21
24	R1	Z	-13.48	21
25	MP1	X	28.64	18
26	MP1	Z	-16.53	18
27	MP1	X	28.64	36
28	MP1	Z	-16.53	36
29	R4	X	14.8	12
30	R4	Z	-8.54	12
31	R4	X	14.8	12
32	R4	Z	-8.54	12
33	MP8	X	136.64	6
34	MP8	Z	-78.89	6
35	MP8	X	136.64	90
36	MP8	Z	-78.89	90
37	MP5	X	136.64	6
38	MP5	Z	-78.89	6
39	MP5	X	136.64	90
40	MP5	Z	-78.89	90
41	MP7	X	34.97	54
42	MP7	Z	-20.19	54
43	MP7	X	34.97	82
44	MP7	Z	-20.19	82
45	MP7	X	35.67	12
46	MP7	Z	-20.59	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	35.67	42
48	MP7	Z	-20.59	42
49	MP8	X	25.1	18
50	MP8	Z	-14.49	18
51	MP8	X	25.1	36
52	MP8	Z	-14.49	36
53	R2	X	23.34	3
54	R2	Z	-13.48	3
55	R2	X	23.34	21
56	R2	Z	-13.48	21
57	MP5	X	28.64	18
58	MP5	Z	-16.53	18
59	MP5	X	28.64	36
60	MP5	Z	-16.53	36
61	R5	X	52.67	18
62	R5	Z	-30.41	18
63	R5	X	52.67	18
64	R5	Z	-30.41	18
65	MP12	X	193.43	6
66	MP12	Z	-111.67	6
67	MP12	X	193.43	77
68	MP12	Z	-111.67	77
69	MP9	X	193.43	6
70	MP9	Z	-111.67	6
71	MP9	X	193.43	77
72	MP9	Z	-111.67	77
73	MP11	X	59.48	54
74	MP11	Z	-34.34	54
75	MP11	X	59.48	82
76	MP11	Z	-34.34	82
77	MP11	X	59.02	12
78	MP11	Z	-34.07	12
79	MP11	X	59.02	42
80	MP11	Z	-34.07	42
81	MP12	X	31.9	18
82	MP12	Z	-18.42	18
83	MP12	X	31.9	36
84	MP12	Z	-18.42	36
85	R3	X	32.77	3
86	R3	Z	-18.92	3
87	R3	X	32.77	21
88	R3	Z	-18.92	21
89	MP9	X	32.1	18
90	MP9	Z	-18.53	18
91	MP9	X	32.1	36
92	MP9	Z	-18.53	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	94.24	6
2	MP4	Z	-163.23	6
3	MP4	X	94.24	77
4	MP4	Z	-163.23	77
5	MP1	X	94.24	6
6	MP1	Z	-163.23	6
7	MP1	X	94.24	77
8	MP1	Z	-163.23	77
9	MP3	X	29.62	54
10	MP3	Z	-51.31	54
11	MP3	X	29.62	82
12	MP3	Z	-51.31	82
13	MP3	X	29.58	12
14	MP3	Z	-51.23	12
15	MP3	X	29.58	42
16	MP3	Z	-51.23	42
17	MP4	X	17.11	18
18	MP4	Z	-29.63	18
19	MP4	X	17.11	36
20	MP4	Z	-29.63	36
21	R1	X	17.11	3
22	R1	Z	-29.63	3
23	R1	X	17.11	21
24	R1	Z	-29.63	21
25	MP1	X	17.87	18
26	MP1	Z	-30.95	18
27	MP1	X	17.87	36
28	MP1	Z	-30.95	36
29	R4	X	8.54	12
30	R4	Z	-14.8	12
31	R4	X	8.54	12
32	R4	Z	-14.8	12
33	MP8	X	55.7	6
34	MP8	Z	-96.47	6
35	MP8	X	55.7	90
36	MP8	Z	-96.47	90
37	MP5	X	55.7	6
38	MP5	Z	-96.47	6
39	MP5	X	55.7	90
40	MP5	Z	-96.47	90
41	MP7	X	15.47	54
42	MP7	Z	-26.8	54
43	MP7	X	15.47	82
44	MP7	Z	-26.8	82
45	MP7	X	16.1	12
46	MP7	Z	-27.89	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	16.1	42
48	MP7	Z	-27.89	42
49	MP8	X	13.18	18
50	MP8	Z	-22.83	18
51	MP8	X	13.18	36
52	MP8	Z	-22.83	36
53	R2	X	11.66	3
54	R2	Z	-20.2	3
55	R2	X	11.66	21
56	R2	Z	-20.2	21
57	MP5	X	15.87	18
58	MP5	Z	-27.48	18
59	MP5	X	15.87	36
60	MP5	Z	-27.48	36
61	R5	X	25.62	18
62	R5	Z	-44.37	18
63	R5	X	25.62	18
64	R5	Z	-44.37	18
65	MP12	X	94.24	6
66	MP12	Z	-163.23	6
67	MP12	X	94.24	77
68	MP12	Z	-163.23	77
69	MP9	X	94.24	6
70	MP9	Z	-163.23	6
71	MP9	X	94.24	77
72	MP9	Z	-163.23	77
73	MP11	X	29.62	54
74	MP11	Z	-51.31	54
75	MP11	X	29.62	82
76	MP11	Z	-51.31	82
77	MP11	X	29.58	12
78	MP11	Z	-51.23	12
79	MP11	X	29.58	42
80	MP11	Z	-51.23	42
81	MP12	X	17.11	18
82	MP12	Z	-29.63	18
83	MP12	X	17.11	36
84	MP12	Z	-29.63	36
85	R3	X	17.11	3
86	R3	Z	-29.63	3
87	R3	X	17.11	21
88	R3	Z	-29.63	21
89	MP9	X	17.87	18
90	MP9	Z	-30.95	18
91	MP9	X	17.87	36
92	MP9	Z	-30.95	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

Member Point Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	Y	-137.218	6
2	MP4	Y	-137.218	77
3	MP1	Y	-137.218	6
4	MP1	Y	-137.218	77
5	MP3	Y	-49.543	54
6	MP3	Y	-49.543	82
7	MP3	Y	-56.969	12
8	MP3	Y	-56.969	42
9	MP4	Y	-36.75	18
10	MP4	Y	-36.75	36
11	R1	Y	-35.151	3
12	R1	Y	-35.151	21
13	MP1	Y	-40.399	18
14	MP1	Y	-40.399	36
15	R4	Y	-44.123	12
16	R4	Y	-44.123	12
17	MP8	Y	-179.984	6
18	MP8	Y	-179.984	90
19	MP5	Y	-179.984	6
20	MP5	Y	-179.984	90
21	MP7	Y	-49.543	54
22	MP7	Y	-49.543	82
23	MP7	Y	-56.969	12
24	MP7	Y	-56.969	42
25	MP8	Y	-36.75	18
26	MP8	Y	-36.75	36
27	R2	Y	-35.151	3
28	R2	Y	-35.151	21
29	MP5	Y	-40.399	18
30	MP5	Y	-40.399	36
31	R5	Y	-70.338	18
32	R5	Y	-70.338	18
33	MP12	Y	-137.218	6
34	MP12	Y	-137.218	77
35	MP9	Y	-137.218	6
36	MP9	Y	-137.218	77
37	MP11	Y	-49.543	54
38	MP11	Y	-49.543	82
39	MP11	Y	-56.969	12
40	MP11	Y	-56.969	42
41	MP12	Y	-36.75	18
42	MP12	Y	-36.75	36
43	R3	Y	-35.151	3
44	R3	Y	-35.151	21
45	MP9	Y	-40.399	18
46	MP9	Y	-40.399	36

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	0	6
2	MP4	Z	-21.85	6
3	MP4	X	0	77
4	MP4	Z	-21.85	77
5	MP1	X	0	6
6	MP1	Z	-21.85	6
7	MP1	X	0	77
8	MP1	Z	-21.85	77
9	MP3	X	0	54
10	MP3	Z	-7.1	54
11	MP3	X	0	82
12	MP3	Z	-7.1	82
13	MP3	X	0	12
14	MP3	Z	-7.7	12
15	MP3	X	0	42
16	MP3	Z	-7.7	42
17	MP4	X	0	18
18	MP4	Z	-4.2	18
19	MP4	X	0	36
20	MP4	Z	-4.2	36
21	R1	X	0	3
22	R1	Z	-4.27	3
23	R1	X	0	21
24	R1	Z	-4.27	21
25	MP1	X	0	18
26	MP1	Z	-4.22	18
27	MP1	X	0	36
28	MP1	Z	-4.22	36
29	R4	X	0	12
30	R4	Z	-5.01	12
31	R4	X	0	12
32	R4	Z	-5.01	12
33	MP8	X	0	6
34	MP8	Z	-21.97	6
35	MP8	X	0	90
36	MP8	Z	-21.97	90
37	MP5	X	0	6
38	MP5	Z	-21.97	6
39	MP5	X	0	90
40	MP5	Z	-21.97	90
41	MP7	X	0	54
42	MP7	Z	-5.44	54
43	MP7	X	0	82
44	MP7	Z	-5.44	82
45	MP7	X	0	12
46	MP7	Z	-6.13	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	0	42
48	MP7	Z	-6.13	42
49	MP8	X	0	18
50	MP8	Z	-3.81	18
51	MP8	X	0	36
52	MP8	Z	-3.81	36
53	R2	X	0	3
54	R2	Z	-3.72	3
55	R2	X	0	21
56	R2	Z	-3.72	21
57	MP5	X	0	18
58	MP5	Z	-4.03	18
59	MP5	X	0	36
60	MP5	Z	-4.03	36
61	R5	X	0	18
62	R5	Z	-6.9	18
63	R5	X	0	18
64	R5	Z	-6.9	18
65	MP12	X	0	6
66	MP12	Z	-15.84	6
67	MP12	X	0	77
68	MP12	Z	-15.84	77
69	MP9	X	0	6
70	MP9	Z	-15.84	6
71	MP9	X	0	77
72	MP9	Z	-15.84	77
73	MP11	X	0	54
74	MP11	Z	-5.44	54
75	MP11	X	0	82
76	MP11	Z	-5.44	82
77	MP11	X	0	12
78	MP11	Z	-6.13	12
79	MP11	X	0	42
80	MP11	Z	-6.13	42
81	MP12	X	0	18
82	MP12	Z	-3.81	18
83	MP12	X	0	36
84	MP12	Z	-3.81	36
85	R3	X	0	3
86	R3	Z	-3.72	3
87	R3	X	0	21
88	R3	Z	-3.72	21
89	MP9	X	0	18
90	MP9	Z	-4.03	18
91	MP9	X	0	36
92	MP9	Z	-4.03	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	-9.93	6
2	MP4	Z	-17.19	6
3	MP4	X	-9.93	77
4	MP4	Z	-17.19	77
5	MP1	X	-9.93	6
6	MP1	Z	-17.19	6
7	MP1	X	-9.93	77
8	MP1	Z	-17.19	77
9	MP3	X	-3.27	54
10	MP3	Z	-5.67	54
11	MP3	X	-3.27	82
12	MP3	Z	-5.67	82
13	MP3	X	-3.59	12
14	MP3	Z	-6.21	12
15	MP3	X	-3.59	42
16	MP3	Z	-6.21	42
17	MP4	X	-2.04	18
18	MP4	Z	-3.53	18
19	MP4	X	-2.04	36
20	MP4	Z	-3.53	36
21	R1	X	-2.04	3
22	R1	Z	-3.54	3
23	R1	X	-2.04	21
24	R1	Z	-3.54	21
25	MP1	X	-2.08	18
26	MP1	Z	-3.6	18
27	MP1	X	-2.08	36
28	MP1	Z	-3.6	36
29	R4	X	-2.5	12
30	R4	Z	-4.34	12
31	R4	X	-2.5	12
32	R4	Z	-4.34	12
33	MP8	X	-13.8	6
34	MP8	Z	-23.91	6
35	MP8	X	-13.8	90
36	MP8	Z	-23.91	90
37	MP5	X	-13.8	6
38	MP5	Z	-23.91	6
39	MP5	X	-13.8	90
40	MP5	Z	-23.91	90
41	MP7	X	-3.27	54
42	MP7	Z	-5.67	54
43	MP7	X	-3.27	82
44	MP7	Z	-5.67	82
45	MP7	X	-3.59	12
46	MP7	Z	-6.21	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	-3.59	42
48	MP7	Z	-6.21	42
49	MP8	X	-2.04	18
50	MP8	Z	-3.53	18
51	MP8	X	-2.04	36
52	MP8	Z	-3.53	36
53	R2	X	-2.04	3
54	R2	Z	-3.54	3
55	R2	X	-2.04	21
56	R2	Z	-3.54	21
57	MP5	X	-2.08	18
58	MP5	Z	-3.6	18
59	MP5	X	-2.08	36
60	MP5	Z	-3.6	36
61	R5	X	-4.13	18
62	R5	Z	-7.15	18
63	R5	X	-4.13	18
64	R5	Z	-7.15	18
65	MP12	X	-6.92	6
66	MP12	Z	-11.99	6
67	MP12	X	-6.92	77
68	MP12	Z	-11.99	77
69	MP9	X	-6.92	6
70	MP9	Z	-11.99	6
71	MP9	X	-6.92	77
72	MP9	Z	-11.99	77
73	MP11	X	-2.44	54
74	MP11	Z	-4.23	54
75	MP11	X	-2.44	82
76	MP11	Z	-4.23	82
77	MP11	X	-2.8	12
78	MP11	Z	-4.86	12
79	MP11	X	-2.8	42
80	MP11	Z	-4.86	42
81	MP12	X	-1.84	18
82	MP12	Z	-3.19	18
83	MP12	X	-1.84	36
84	MP12	Z	-3.19	36
85	R3	X	-1.77	3
86	R3	Z	-3.06	3
87	R3	X	-1.77	21
88	R3	Z	-3.06	21
89	MP9	X	-1.98	18
90	MP9	Z	-3.43	18
91	MP9	X	-1.98	36
92	MP9	Z	-3.43	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	-13.72	6
2	MP4	Z	-7.92	6
3	MP4	X	-13.72	77
4	MP4	Z	-7.92	77
5	MP1	X	-13.72	6
6	MP1	Z	-7.92	6
7	MP1	X	-13.72	77
8	MP1	Z	-7.92	77
9	MP3	X	-4.71	54
10	MP3	Z	-2.72	54
11	MP3	X	-4.71	82
12	MP3	Z	-2.72	82
13	MP3	X	-5.31	12
14	MP3	Z	-3.06	12
15	MP3	X	-5.31	42
16	MP3	Z	-3.06	42
17	MP4	X	-3.3	18
18	MP4	Z	-1.91	18
19	MP4	X	-3.3	36
20	MP4	Z	-1.91	36
21	R1	X	-3.22	3
22	R1	Z	-1.86	3
23	R1	X	-3.22	21
24	R1	Z	-1.86	21
25	MP1	X	-3.49	18
26	MP1	Z	-2.02	18
27	MP1	X	-3.49	36
28	MP1	Z	-2.02	36
29	R4	X	-4.34	12
30	R4	Z	-2.5	12
31	R4	X	-4.34	12
32	R4	Z	-2.5	12
33	MP8	X	-26.35	6
34	MP8	Z	-15.21	6
35	MP8	X	-26.35	90
36	MP8	Z	-15.21	90
37	MP5	X	-26.35	6
38	MP5	Z	-15.21	6
39	MP5	X	-26.35	90
40	MP5	Z	-15.21	90
41	MP7	X	-6.15	54
42	MP7	Z	-3.55	54
43	MP7	X	-6.15	82
44	MP7	Z	-3.55	82
45	MP7	X	-6.67	12
46	MP7	Z	-3.85	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	-6.67	42
48	MP7	Z	-3.85	42
49	MP8	X	-3.64	18
50	MP8	Z	-2.1	18
51	MP8	X	-3.64	36
52	MP8	Z	-2.1	36
53	R2	X	-3.7	3
54	R2	Z	-2.13	3
55	R2	X	-3.7	21
56	R2	Z	-2.13	21
57	MP5	X	-3.66	18
58	MP5	Z	-2.11	18
59	MP5	X	-3.66	36
60	MP5	Z	-2.11	36
61	R5	X	-7.73	18
62	R5	Z	-4.46	18
63	R5	X	-7.73	18
64	R5	Z	-4.46	18
65	MP12	X	-13.72	6
66	MP12	Z	-7.92	6
67	MP12	X	-13.72	77
68	MP12	Z	-7.92	77
69	MP9	X	-13.72	6
70	MP9	Z	-7.92	6
71	MP9	X	-13.72	77
72	MP9	Z	-7.92	77
73	MP11	X	-4.71	54
74	MP11	Z	-2.72	54
75	MP11	X	-4.71	82
76	MP11	Z	-2.72	82
77	MP11	X	-5.31	12
78	MP11	Z	-3.06	12
79	MP11	X	-5.31	42
80	MP11	Z	-3.06	42
81	MP12	X	-3.3	18
82	MP12	Z	-1.91	18
83	MP12	X	-3.3	36
84	MP12	Z	-1.91	36
85	R3	X	-3.22	3
86	R3	Z	-1.86	3
87	R3	X	-3.22	21
88	R3	Z	-1.86	21
89	MP9	X	-3.49	18
90	MP9	Z	-2.02	18
91	MP9	X	-3.49	36
92	MP9	Z	-2.02	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	-13.84	6
2	MP4	Z	0	6
3	MP4	X	-13.84	77
4	MP4	Z	0	77
5	MP1	X	-13.84	6
6	MP1	Z	0	6
7	MP1	X	-13.84	77
8	MP1	Z	0	77
9	MP3	X	-4.89	54
10	MP3	Z	0	54
11	MP3	X	-4.89	82
12	MP3	Z	0	82
13	MP3	X	-5.61	12
14	MP3	Z	0	12
15	MP3	X	-5.61	42
16	MP3	Z	0	42
17	MP4	X	-3.68	18
18	MP4	Z	0	18
19	MP4	X	-3.68	36
20	MP4	Z	0	36
21	R1	X	-3.53	3
22	R1	Z	0	3
23	R1	X	-3.53	21
24	R1	Z	0	21
25	MP1	X	-3.97	18
26	MP1	Z	0	18
27	MP1	X	-3.97	36
28	MP1	Z	0	36
29	R4	X	-5.01	12
30	R4	Z	0	12
31	R4	X	-5.01	12
32	R4	Z	0	12
33	MP8	X	-27.61	6
34	MP8	Z	0	6
35	MP8	X	-27.61	90
36	MP8	Z	0	90
37	MP5	X	-27.61	6
38	MP5	Z	0	6
39	MP5	X	-27.61	90
40	MP5	Z	0	90
41	MP7	X	-6.55	54
42	MP7	Z	0	54
43	MP7	X	-6.55	82
44	MP7	Z	0	82
45	MP7	X	-7.18	12
46	MP7	Z	0	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	-7.18	42
48	MP7	Z	0	42
49	MP8	X	-4.07	18
50	MP8	Z	0	18
51	MP8	X	-4.07	36
52	MP8	Z	0	36
53	R2	X	-4.09	3
54	R2	Z	0	3
55	R2	X	-4.09	21
56	R2	Z	0	21
57	MP5	X	-4.16	18
58	MP5	Z	0	18
59	MP5	X	-4.16	36
60	MP5	Z	0	36
61	R5	X	-8.25	18
62	R5	Z	0	18
63	R5	X	-8.25	18
64	R5	Z	0	18
65	MP12	X	-19.85	6
66	MP12	Z	0	6
67	MP12	X	-19.85	77
68	MP12	Z	0	77
69	MP9	X	-19.85	6
70	MP9	Z	0	6
71	MP9	X	-19.85	77
72	MP9	Z	0	77
73	MP11	X	-6.55	54
74	MP11	Z	0	54
75	MP11	X	-6.55	82
76	MP11	Z	0	82
77	MP11	X	-7.18	12
78	MP11	Z	0	12
79	MP11	X	-7.18	42
80	MP11	Z	0	42
81	MP12	X	-4.07	18
82	MP12	Z	0	18
83	MP12	X	-4.07	36
84	MP12	Z	0	36
85	R3	X	-4.09	3
86	R3	Z	0	3
87	R3	X	-4.09	21
88	R3	Z	0	21
89	MP9	X	-4.16	18
90	MP9	Z	0	18
91	MP9	X	-4.16	36
92	MP9	Z	0	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	-13.72	6
2	MP4	Z	7.92	6
3	MP4	X	-13.72	77
4	MP4	Z	7.92	77
5	MP1	X	-13.72	6
6	MP1	Z	7.92	6
7	MP1	X	-13.72	77
8	MP1	Z	7.92	77
9	MP3	X	-4.71	54
10	MP3	Z	2.72	54
11	MP3	X	-4.71	82
12	MP3	Z	2.72	82
13	MP3	X	-5.31	12
14	MP3	Z	3.06	12
15	MP3	X	-5.31	42
16	MP3	Z	3.06	42
17	MP4	X	-3.3	18
18	MP4	Z	1.91	18
19	MP4	X	-3.3	36
20	MP4	Z	1.91	36
21	R1	X	-3.22	3
22	R1	Z	1.86	3
23	R1	X	-3.22	21
24	R1	Z	1.86	21
25	MP1	X	-3.49	18
26	MP1	Z	2.02	18
27	MP1	X	-3.49	36
28	MP1	Z	2.02	36
29	R4	X	-4.34	12
30	R4	Z	2.5	12
31	R4	X	-4.34	12
32	R4	Z	2.5	12
33	MP8	X	-19.03	6
34	MP8	Z	10.99	6
35	MP8	X	-19.03	90
36	MP8	Z	10.99	90
37	MP5	X	-19.03	6
38	MP5	Z	10.99	6
39	MP5	X	-19.03	90
40	MP5	Z	10.99	90
41	MP7	X	-4.71	54
42	MP7	Z	2.72	54
43	MP7	X	-4.71	82
44	MP7	Z	2.72	82
45	MP7	X	-5.31	12
46	MP7	Z	3.06	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	-5.31	42
48	MP7	Z	3.06	42
49	MP8	X	-3.3	18
50	MP8	Z	1.91	18
51	MP8	X	-3.3	36
52	MP8	Z	1.91	36
53	R2	X	-3.22	3
54	R2	Z	1.86	3
55	R2	X	-3.22	21
56	R2	Z	1.86	21
57	MP5	X	-3.49	18
58	MP5	Z	2.02	18
59	MP5	X	-3.49	36
60	MP5	Z	2.02	36
61	R5	X	-5.98	18
62	R5	Z	3.45	18
63	R5	X	-5.98	18
64	R5	Z	3.45	18
65	MP12	X	-18.93	6
66	MP12	Z	10.93	6
67	MP12	X	-18.93	77
68	MP12	Z	10.93	77
69	MP9	X	-18.93	6
70	MP9	Z	10.93	6
71	MP9	X	-18.93	77
72	MP9	Z	10.93	77
73	MP11	X	-6.15	54
74	MP11	Z	3.55	54
75	MP11	X	-6.15	82
76	MP11	Z	3.55	82
77	MP11	X	-6.67	12
78	MP11	Z	3.85	12
79	MP11	X	-6.67	42
80	MP11	Z	3.85	42
81	MP12	X	-3.64	18
82	MP12	Z	2.1	18
83	MP12	X	-3.64	36
84	MP12	Z	2.1	36
85	R3	X	-3.7	3
86	R3	Z	2.13	3
87	R3	X	-3.7	21
88	R3	Z	2.13	21
89	MP9	X	-3.66	18
90	MP9	Z	2.11	18
91	MP9	X	-3.66	36
92	MP9	Z	2.11	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	-9.93	6
2	MP4	Z	17.19	6
3	MP4	X	-9.93	77
4	MP4	Z	17.19	77
5	MP1	X	-9.93	6
6	MP1	Z	17.19	6
7	MP1	X	-9.93	77
8	MP1	Z	17.19	77
9	MP3	X	-3.27	54
10	MP3	Z	5.67	54
11	MP3	X	-3.27	82
12	MP3	Z	5.67	82
13	MP3	X	-3.59	12
14	MP3	Z	6.21	12
15	MP3	X	-3.59	42
16	MP3	Z	6.21	42
17	MP4	X	-2.04	18
18	MP4	Z	3.53	18
19	MP4	X	-2.04	36
20	MP4	Z	3.53	36
21	R1	X	-2.04	3
22	R1	Z	3.54	3
23	R1	X	-2.04	21
24	R1	Z	3.54	21
25	MP1	X	-2.08	18
26	MP1	Z	3.6	18
27	MP1	X	-2.08	36
28	MP1	Z	3.6	36
29	R4	X	-2.5	12
30	R4	Z	4.34	12
31	R4	X	-2.5	12
32	R4	Z	4.34	12
33	MP8	X	-9.58	6
34	MP8	Z	16.59	6
35	MP8	X	-9.58	90
36	MP8	Z	16.59	90
37	MP5	X	-9.58	6
38	MP5	Z	16.59	6
39	MP5	X	-9.58	90
40	MP5	Z	16.59	90
41	MP7	X	-2.44	54
42	MP7	Z	4.23	54
43	MP7	X	-2.44	82
44	MP7	Z	4.23	82
45	MP7	X	-2.8	12
46	MP7	Z	4.86	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	-2.8	42
48	MP7	Z	4.86	42
49	MP8	X	-1.84	18
50	MP8	Z	3.19	18
51	MP8	X	-1.84	36
52	MP8	Z	3.19	36
53	R2	X	-1.77	3
54	R2	Z	3.06	3
55	R2	X	-1.77	21
56	R2	Z	3.06	21
57	MP5	X	-1.98	18
58	MP5	Z	3.43	18
59	MP5	X	-1.98	36
60	MP5	Z	3.43	36
61	R5	X	-3.11	18
62	R5	Z	5.39	18
63	R5	X	-3.11	18
64	R5	Z	5.39	18
65	MP12	X	-9.93	6
66	MP12	Z	17.19	6
67	MP12	X	-9.93	77
68	MP12	Z	17.19	77
69	MP9	X	-9.93	6
70	MP9	Z	17.19	6
71	MP9	X	-9.93	77
72	MP9	Z	17.19	77
73	MP11	X	-3.27	54
74	MP11	Z	5.67	54
75	MP11	X	-3.27	82
76	MP11	Z	5.67	82
77	MP11	X	-3.59	12
78	MP11	Z	6.21	12
79	MP11	X	-3.59	42
80	MP11	Z	6.21	42
81	MP12	X	-2.04	18
82	MP12	Z	3.53	18
83	MP12	X	-2.04	36
84	MP12	Z	3.53	36
85	R3	X	-2.04	3
86	R3	Z	3.54	3
87	R3	X	-2.04	21
88	R3	Z	3.54	21
89	MP9	X	-2.08	18
90	MP9	Z	3.6	18
91	MP9	X	-2.08	36
92	MP9	Z	3.6	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	0	6
2	MP4	Z	21.85	6
3	MP4	X	0	77
4	MP4	Z	21.85	77
5	MP1	X	0	6
6	MP1	Z	21.85	6
7	MP1	X	0	77
8	MP1	Z	21.85	77
9	MP3	X	0	54
10	MP3	Z	7.1	54
11	MP3	X	0	82
12	MP3	Z	7.1	82
13	MP3	X	0	12
14	MP3	Z	7.7	12
15	MP3	X	0	42
16	MP3	Z	7.7	42
17	MP4	X	0	18
18	MP4	Z	4.2	18
19	MP4	X	0	36
20	MP4	Z	4.2	36
21	R1	X	0	3
22	R1	Z	4.27	3
23	R1	X	0	21
24	R1	Z	4.27	21
25	MP1	X	0	18
26	MP1	Z	4.22	18
27	MP1	X	0	36
28	MP1	Z	4.22	36
29	R4	X	0	12
30	R4	Z	5.01	12
31	R4	X	0	12
32	R4	Z	5.01	12
33	MP8	X	0	6
34	MP8	Z	21.97	6
35	MP8	X	0	90
36	MP8	Z	21.97	90
37	MP5	X	0	6
38	MP5	Z	21.97	6
39	MP5	X	0	90
40	MP5	Z	21.97	90
41	MP7	X	0	54
42	MP7	Z	5.44	54
43	MP7	X	0	82
44	MP7	Z	5.44	82
45	MP7	X	0	12
46	MP7	Z	6.13	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	0	42
48	MP7	Z	6.13	42
49	MP8	X	0	18
50	MP8	Z	3.81	18
51	MP8	X	0	36
52	MP8	Z	3.81	36
53	R2	X	0	3
54	R2	Z	3.72	3
55	R2	X	0	21
56	R2	Z	3.72	21
57	MP5	X	0	18
58	MP5	Z	4.03	18
59	MP5	X	0	36
60	MP5	Z	4.03	36
61	R5	X	0	18
62	R5	Z	6.9	18
63	R5	X	0	18
64	R5	Z	6.9	18
65	MP12	X	0	6
66	MP12	Z	15.84	6
67	MP12	X	0	77
68	MP12	Z	15.84	77
69	MP9	X	0	6
70	MP9	Z	15.84	6
71	MP9	X	0	77
72	MP9	Z	15.84	77
73	MP11	X	0	54
74	MP11	Z	5.44	54
75	MP11	X	0	82
76	MP11	Z	5.44	82
77	MP11	X	0	12
78	MP11	Z	6.13	12
79	MP11	X	0	42
80	MP11	Z	6.13	42
81	MP12	X	0	18
82	MP12	Z	3.81	18
83	MP12	X	0	36
84	MP12	Z	3.81	36
85	R3	X	0	3
86	R3	Z	3.72	3
87	R3	X	0	21
88	R3	Z	3.72	21
89	MP9	X	0	18
90	MP9	Z	4.03	18
91	MP9	X	0	36
92	MP9	Z	4.03	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	9.93	6
2	MP4	Z	17.19	6
3	MP4	X	9.93	77
4	MP4	Z	17.19	77
5	MP1	X	9.93	6
6	MP1	Z	17.19	6
7	MP1	X	9.93	77
8	MP1	Z	17.19	77
9	MP3	X	3.27	54
10	MP3	Z	5.67	54
11	MP3	X	3.27	82
12	MP3	Z	5.67	82
13	MP3	X	3.59	12
14	MP3	Z	6.21	12
15	MP3	X	3.59	42
16	MP3	Z	6.21	42
17	MP4	X	2.04	18
18	MP4	Z	3.53	18
19	MP4	X	2.04	36
20	MP4	Z	3.53	36
21	R1	X	2.04	3
22	R1	Z	3.54	3
23	R1	X	2.04	21
24	R1	Z	3.54	21
25	MP1	X	2.08	18
26	MP1	Z	3.6	18
27	MP1	X	2.08	36
28	MP1	Z	3.6	36
29	R4	X	2.5	12
30	R4	Z	4.34	12
31	R4	X	2.5	12
32	R4	Z	4.34	12
33	MP8	X	13.8	6
34	MP8	Z	23.91	6
35	MP8	X	13.8	90
36	MP8	Z	23.91	90
37	MP5	X	13.8	6
38	MP5	Z	23.91	6
39	MP5	X	13.8	90
40	MP5	Z	23.91	90
41	MP7	X	3.27	54
42	MP7	Z	5.67	54
43	MP7	X	3.27	82
44	MP7	Z	5.67	82
45	MP7	X	3.59	12
46	MP7	Z	6.21	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	3.59	42
48	MP7	Z	6.21	42
49	MP8	X	2.04	18
50	MP8	Z	3.53	18
51	MP8	X	2.04	36
52	MP8	Z	3.53	36
53	R2	X	2.04	3
54	R2	Z	3.54	3
55	R2	X	2.04	21
56	R2	Z	3.54	21
57	MP5	X	2.08	18
58	MP5	Z	3.6	18
59	MP5	X	2.08	36
60	MP5	Z	3.6	36
61	R5	X	4.13	18
62	R5	Z	7.15	18
63	R5	X	4.13	18
64	R5	Z	7.15	18
65	MP12	X	6.92	6
66	MP12	Z	11.99	6
67	MP12	X	6.92	77
68	MP12	Z	11.99	77
69	MP9	X	6.92	6
70	MP9	Z	11.99	6
71	MP9	X	6.92	77
72	MP9	Z	11.99	77
73	MP11	X	2.44	54
74	MP11	Z	4.23	54
75	MP11	X	2.44	82
76	MP11	Z	4.23	82
77	MP11	X	2.8	12
78	MP11	Z	4.86	12
79	MP11	X	2.8	42
80	MP11	Z	4.86	42
81	MP12	X	1.84	18
82	MP12	Z	3.19	18
83	MP12	X	1.84	36
84	MP12	Z	3.19	36
85	R3	X	1.77	3
86	R3	Z	3.06	3
87	R3	X	1.77	21
88	R3	Z	3.06	21
89	MP9	X	1.98	18
90	MP9	Z	3.43	18
91	MP9	X	1.98	36
92	MP9	Z	3.43	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	13.72	6
2	MP4	Z	7.92	6
3	MP4	X	13.72	77
4	MP4	Z	7.92	77
5	MP1	X	13.72	6
6	MP1	Z	7.92	6
7	MP1	X	13.72	77
8	MP1	Z	7.92	77
9	MP3	X	4.71	54
10	MP3	Z	2.72	54
11	MP3	X	4.71	82
12	MP3	Z	2.72	82
13	MP3	X	5.31	12
14	MP3	Z	3.06	12
15	MP3	X	5.31	42
16	MP3	Z	3.06	42
17	MP4	X	3.3	18
18	MP4	Z	1.91	18
19	MP4	X	3.3	36
20	MP4	Z	1.91	36
21	R1	X	3.22	3
22	R1	Z	1.86	3
23	R1	X	3.22	21
24	R1	Z	1.86	21
25	MP1	X	3.49	18
26	MP1	Z	2.02	18
27	MP1	X	3.49	36
28	MP1	Z	2.02	36
29	R4	X	4.34	12
30	R4	Z	2.5	12
31	R4	X	4.34	12
32	R4	Z	2.5	12
33	MP8	X	26.35	6
34	MP8	Z	15.21	6
35	MP8	X	26.35	90
36	MP8	Z	15.21	90
37	MP5	X	26.35	6
38	MP5	Z	15.21	6
39	MP5	X	26.35	90
40	MP5	Z	15.21	90
41	MP7	X	6.15	54
42	MP7	Z	3.55	54
43	MP7	X	6.15	82
44	MP7	Z	3.55	82
45	MP7	X	6.67	12
46	MP7	Z	3.85	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	6.67	42
48	MP7	Z	3.85	42
49	MP8	X	3.64	18
50	MP8	Z	2.1	18
51	MP8	X	3.64	36
52	MP8	Z	2.1	36
53	R2	X	3.7	3
54	R2	Z	2.13	3
55	R2	X	3.7	21
56	R2	Z	2.13	21
57	MP5	X	3.66	18
58	MP5	Z	2.11	18
59	MP5	X	3.66	36
60	MP5	Z	2.11	36
61	R5	X	7.73	18
62	R5	Z	4.46	18
63	R5	X	7.73	18
64	R5	Z	4.46	18
65	MP12	X	13.72	6
66	MP12	Z	7.92	6
67	MP12	X	13.72	77
68	MP12	Z	7.92	77
69	MP9	X	13.72	6
70	MP9	Z	7.92	6
71	MP9	X	13.72	77
72	MP9	Z	7.92	77
73	MP11	X	4.71	54
74	MP11	Z	2.72	54
75	MP11	X	4.71	82
76	MP11	Z	2.72	82
77	MP11	X	5.31	12
78	MP11	Z	3.06	12
79	MP11	X	5.31	42
80	MP11	Z	3.06	42
81	MP12	X	3.3	18
82	MP12	Z	1.91	18
83	MP12	X	3.3	36
84	MP12	Z	1.91	36
85	R3	X	3.22	3
86	R3	Z	1.86	3
87	R3	X	3.22	21
88	R3	Z	1.86	21
89	MP9	X	3.49	18
90	MP9	Z	2.02	18
91	MP9	X	3.49	36
92	MP9	Z	2.02	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	13.84	6
2	MP4	Z	0	6
3	MP4	X	13.84	77
4	MP4	Z	0	77
5	MP1	X	13.84	6
6	MP1	Z	0	6
7	MP1	X	13.84	77
8	MP1	Z	0	77
9	MP3	X	4.89	54
10	MP3	Z	0	54
11	MP3	X	4.89	82
12	MP3	Z	0	82
13	MP3	X	5.61	12
14	MP3	Z	0	12
15	MP3	X	5.61	42
16	MP3	Z	0	42
17	MP4	X	3.68	18
18	MP4	Z	0	18
19	MP4	X	3.68	36
20	MP4	Z	0	36
21	R1	X	3.53	3
22	R1	Z	0	3
23	R1	X	3.53	21
24	R1	Z	0	21
25	MP1	X	3.97	18
26	MP1	Z	0	18
27	MP1	X	3.97	36
28	MP1	Z	0	36
29	R4	X	5.01	12
30	R4	Z	0	12
31	R4	X	5.01	12
32	R4	Z	0	12
33	MP8	X	27.61	6
34	MP8	Z	0	6
35	MP8	X	27.61	90
36	MP8	Z	0	90
37	MP5	X	27.61	6
38	MP5	Z	0	6
39	MP5	X	27.61	90
40	MP5	Z	0	90
41	MP7	X	6.55	54
42	MP7	Z	0	54
43	MP7	X	6.55	82
44	MP7	Z	0	82
45	MP7	X	7.18	12
46	MP7	Z	0	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	7.18	42
48	MP7	Z	0	42
49	MP8	X	4.07	18
50	MP8	Z	0	18
51	MP8	X	4.07	36
52	MP8	Z	0	36
53	R2	X	4.09	3
54	R2	Z	0	3
55	R2	X	4.09	21
56	R2	Z	0	21
57	MP5	X	4.16	18
58	MP5	Z	0	18
59	MP5	X	4.16	36
60	MP5	Z	0	36
61	R5	X	8.25	18
62	R5	Z	0	18
63	R5	X	8.25	18
64	R5	Z	0	18
65	MP12	X	19.85	6
66	MP12	Z	0	6
67	MP12	X	19.85	77
68	MP12	Z	0	77
69	MP9	X	19.85	6
70	MP9	Z	0	6
71	MP9	X	19.85	77
72	MP9	Z	0	77
73	MP11	X	6.55	54
74	MP11	Z	0	54
75	MP11	X	6.55	82
76	MP11	Z	0	82
77	MP11	X	7.18	12
78	MP11	Z	0	12
79	MP11	X	7.18	42
80	MP11	Z	0	42
81	MP12	X	4.07	18
82	MP12	Z	0	18
83	MP12	X	4.07	36
84	MP12	Z	0	36
85	R3	X	4.09	3
86	R3	Z	0	3
87	R3	X	4.09	21
88	R3	Z	0	21
89	MP9	X	4.16	18
90	MP9	Z	0	18
91	MP9	X	4.16	36
92	MP9	Z	0	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	13.72	6
2	MP4	Z	-7.92	6
3	MP4	X	13.72	77
4	MP4	Z	-7.92	77
5	MP1	X	13.72	6
6	MP1	Z	-7.92	6
7	MP1	X	13.72	77
8	MP1	Z	-7.92	77
9	MP3	X	4.71	54
10	MP3	Z	-2.72	54
11	MP3	X	4.71	82
12	MP3	Z	-2.72	82
13	MP3	X	5.31	12
14	MP3	Z	-3.06	12
15	MP3	X	5.31	42
16	MP3	Z	-3.06	42
17	MP4	X	3.3	18
18	MP4	Z	-1.91	18
19	MP4	X	3.3	36
20	MP4	Z	-1.91	36
21	R1	X	3.22	3
22	R1	Z	-1.86	3
23	R1	X	3.22	21
24	R1	Z	-1.86	21
25	MP1	X	3.49	18
26	MP1	Z	-2.02	18
27	MP1	X	3.49	36
28	MP1	Z	-2.02	36
29	R4	X	4.34	12
30	R4	Z	-2.5	12
31	R4	X	4.34	12
32	R4	Z	-2.5	12
33	MP8	X	19.03	6
34	MP8	Z	-10.99	6
35	MP8	X	19.03	90
36	MP8	Z	-10.99	90
37	MP5	X	19.03	6
38	MP5	Z	-10.99	6
39	MP5	X	19.03	90
40	MP5	Z	-10.99	90
41	MP7	X	4.71	54
42	MP7	Z	-2.72	54
43	MP7	X	4.71	82
44	MP7	Z	-2.72	82
45	MP7	X	5.31	12
46	MP7	Z	-3.06	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	5.31	42
48	MP7	Z	-3.06	42
49	MP8	X	3.3	18
50	MP8	Z	-1.91	18
51	MP8	X	3.3	36
52	MP8	Z	-1.91	36
53	R2	X	3.22	3
54	R2	Z	-1.86	3
55	R2	X	3.22	21
56	R2	Z	-1.86	21
57	MP5	X	3.49	18
58	MP5	Z	-2.02	18
59	MP5	X	3.49	36
60	MP5	Z	-2.02	36
61	R5	X	5.98	18
62	R5	Z	-3.45	18
63	R5	X	5.98	18
64	R5	Z	-3.45	18
65	MP12	X	18.93	6
66	MP12	Z	-10.93	6
67	MP12	X	18.93	77
68	MP12	Z	-10.93	77
69	MP9	X	18.93	6
70	MP9	Z	-10.93	6
71	MP9	X	18.93	77
72	MP9	Z	-10.93	77
73	MP11	X	6.15	54
74	MP11	Z	-3.55	54
75	MP11	X	6.15	82
76	MP11	Z	-3.55	82
77	MP11	X	6.67	12
78	MP11	Z	-3.85	12
79	MP11	X	6.67	42
80	MP11	Z	-3.85	42
81	MP12	X	3.64	18
82	MP12	Z	-2.1	18
83	MP12	X	3.64	36
84	MP12	Z	-2.1	36
85	R3	X	3.7	3
86	R3	Z	-2.13	3
87	R3	X	3.7	21
88	R3	Z	-2.13	21
89	MP9	X	3.66	18
90	MP9	Z	-2.11	18
91	MP9	X	3.66	36
92	MP9	Z	-2.11	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	9.93	6
2	MP4	Z	-17.19	6
3	MP4	X	9.93	77
4	MP4	Z	-17.19	77
5	MP1	X	9.93	6
6	MP1	Z	-17.19	6
7	MP1	X	9.93	77
8	MP1	Z	-17.19	77
9	MP3	X	3.27	54
10	MP3	Z	-5.67	54
11	MP3	X	3.27	82
12	MP3	Z	-5.67	82
13	MP3	X	3.59	12
14	MP3	Z	-6.21	12
15	MP3	X	3.59	42
16	MP3	Z	-6.21	42
17	MP4	X	2.04	18
18	MP4	Z	-3.53	18
19	MP4	X	2.04	36
20	MP4	Z	-3.53	36
21	R1	X	2.04	3
22	R1	Z	-3.54	3
23	R1	X	2.04	21
24	R1	Z	-3.54	21
25	MP1	X	2.08	18
26	MP1	Z	-3.6	18
27	MP1	X	2.08	36
28	MP1	Z	-3.6	36
29	R4	X	2.5	12
30	R4	Z	-4.34	12
31	R4	X	2.5	12
32	R4	Z	-4.34	12
33	MP8	X	9.58	6
34	MP8	Z	-16.59	6
35	MP8	X	9.58	90
36	MP8	Z	-16.59	90
37	MP5	X	9.58	6
38	MP5	Z	-16.59	6
39	MP5	X	9.58	90
40	MP5	Z	-16.59	90
41	MP7	X	2.44	54
42	MP7	Z	-4.23	54
43	MP7	X	2.44	82
44	MP7	Z	-4.23	82
45	MP7	X	2.8	12
46	MP7	Z	-4.86	12

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

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
47	MP7	X	2.8	42
48	MP7	Z	-4.86	42
49	MP8	X	1.84	18
50	MP8	Z	-3.19	18
51	MP8	X	1.84	36
52	MP8	Z	-3.19	36
53	R2	X	1.77	3
54	R2	Z	-3.06	3
55	R2	X	1.77	21
56	R2	Z	-3.06	21
57	MP5	X	1.98	18
58	MP5	Z	-3.43	18
59	MP5	X	1.98	36
60	MP5	Z	-3.43	36
61	R5	X	3.11	18
62	R5	Z	-5.39	18
63	R5	X	3.11	18
64	R5	Z	-5.39	18
65	MP12	X	9.93	6
66	MP12	Z	-17.19	6
67	MP12	X	9.93	77
68	MP12	Z	-17.19	77
69	MP9	X	9.93	6
70	MP9	Z	-17.19	6
71	MP9	X	9.93	77
72	MP9	Z	-17.19	77
73	MP11	X	3.27	54
74	MP11	Z	-5.67	54
75	MP11	X	3.27	82
76	MP11	Z	-5.67	82
77	MP11	X	3.59	12
78	MP11	Z	-6.21	12
79	MP11	X	3.59	42
80	MP11	Z	-6.21	42
81	MP12	X	2.04	18
82	MP12	Z	-3.53	18
83	MP12	X	2.04	36
84	MP12	Z	-3.53	36
85	R3	X	2.04	3
86	R3	Z	-3.54	3
87	R3	X	2.04	21
88	R3	Z	-3.54	21
89	MP9	X	2.08	18
90	MP9	Z	-3.6	18
91	MP9	X	2.08	36
92	MP9	Z	-3.6	36

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

Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]

Member Point Loads (BLC 31 : Seismic Load Z)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	Z	-13.716	6
2	MP4	Z	-13.716	77
3	MP1	Z	-10.598	6
4	MP1	Z	-10.598	77
5	MP3	Z	-10.168	54
6	MP3	Z	-10.168	82
7	MP3	Z	-12.534	12
8	MP3	Z	-12.534	42
9	MP4	Z	-10.906	18
10	MP4	Z	-10.906	36
11	R1	Z	-9.124	3
12	R1	Z	-9.124	21
13	MP1	Z	-11.52	18
14	MP1	Z	-11.52	36
15	R4	Z	-2.903	12
16	R4	Z	-2.903	12
17	MP8	Z	-16.22	6
18	MP8	Z	-16.22	90
19	MP5	Z	-13.379	6
20	MP5	Z	-13.379	90
21	MP7	Z	-10.168	54
22	MP7	Z	-10.168	82
23	MP7	Z	-12.534	12
24	MP7	Z	-12.534	42
25	MP8	Z	-10.906	18
26	MP8	Z	-10.906	36
27	R2	Z	-9.124	3
28	R2	Z	-9.124	21
29	MP5	Z	-11.52	18
30	MP5	Z	-11.52	36
31	R5	Z	-4.024	18
32	R5	Z	-4.024	18
33	MP12	Z	-13.716	6
34	MP12	Z	-13.716	77
35	MP9	Z	-10.598	6
36	MP9	Z	-10.598	77
37	MP11	Z	-10.168	54
38	MP11	Z	-10.168	82
39	MP11	Z	-12.534	12
40	MP11	Z	-12.534	42
41	MP12	Z	-10.906	18
42	MP12	Z	-10.906	36
43	R3	Z	-9.124	3
44	R3	Z	-9.124	21
45	MP9	Z	-11.52	18
46	MP9	Z	-11.52	36

Member Point Loads (BLC 32 : Seismic Load X)

	Member Label	Direction	Magnitude [lb, lb-ft]	Location [(in, %)]
1	MP4	X	-13.716	6
2	MP4	X	-13.716	77
3	MP1	X	-10.598	6
4	MP1	X	-10.598	77
5	MP3	X	-10.168	54
6	MP3	X	-10.168	82
7	MP3	X	-12.534	12
8	MP3	X	-12.534	42
9	MP4	X	-10.906	18
10	MP4	X	-10.906	36
11	R1	X	-9.124	3
12	R1	X	-9.124	21
13	MP1	X	-11.52	18
14	MP1	X	-11.52	36
15	R4	X	-2.903	12
16	R4	X	-2.903	12
17	MP8	X	-16.22	6
18	MP8	X	-16.22	90
19	MP5	X	-13.379	6
20	MP5	X	-13.379	90
21	MP7	X	-10.168	54
22	MP7	X	-10.168	82
23	MP7	X	-12.534	12
24	MP7	X	-12.534	42
25	MP8	X	-10.906	18
26	MP8	X	-10.906	36
27	R2	X	-9.124	3
28	R2	X	-9.124	21
29	MP5	X	-11.52	18
30	MP5	X	-11.52	36
31	R5	X	-4.024	18
32	R5	X	-4.024	18
33	MP12	X	-13.716	6
34	MP12	X	-13.716	77
35	MP9	X	-10.598	6
36	MP9	X	-10.598	77
37	MP11	X	-10.168	54
38	MP11	X	-10.168	82
39	MP11	X	-12.534	12
40	MP11	X	-12.534	42
41	MP12	X	-10.906	18
42	MP12	X	-10.906	36
43	R3	X	-9.124	3
44	R3	X	-9.124	21
45	MP9	X	-11.52	18
46	MP9	X	-11.52	36

Member Area Loads (BLC 1 : Self Weight)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [psf]
1	N8	N7	N29	N30	Y	Two Way	-1.75
2	N31	N5	N6	N32	Y	Two Way	-1.75
3	N34	N33	N10	N9	Y	Two Way	-1.75
4	N131	N128	N148	N145	Y	Two Way	-1.75
5	N148	N128	N127	N137	Y	Two Way	-1.75
6	N137	N127	N136	N143	Y	Two Way	-1.75
7	N142	N143	N136	N135	Y	Two Way	-1.75
8	N132	N144	N142	N135	Y	Two Way	-1.75
9	N131	N145	N144	N132	Y	Two Way	-1.75

Member Area Loads (BLC 16 : Ice Weight)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [psf]
1	N8	N7	N29	N30	Y	Two Way	-11.916
2	N31	N5	N6	N32	Y	Two Way	-11.916
3	N34	N33	N10	N9	Y	Two Way	-11.916
4	N131	N128	N148	N145	Y	Two Way	-11.916
5	N148	N128	N127	N137	Y	Two Way	-11.916
6	N137	N127	N136	N143	Y	Two Way	-11.916
7	N142	N143	N136	N135	Y	Two Way	-11.916
8	N132	N144	N142	N135	Y	Two Way	-11.916
9	N131	N145	N144	N132	Y	Two Way	-11.916

Node Loads and Enforced Displacements (BLC 33 : Service Live Loads)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N221	L	Y	-250

Node Loads and Enforced Displacements (BLC 34 : Maintenance Load 1)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N70	L	Y	-500

Node Loads and Enforced Displacements (BLC 35 : Maintenance Load 2)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N96	L	Y	-500

Node Loads and Enforced Displacements (BLC 36 : Maintenance Load 3)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N149	L	Y	-500

Node Loads and Enforced Displacements (BLC 37 : Maintenance Load 4)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N166	L	Y	-500

Node Loads and Enforced Displacements (BLC 38 : Maintenance Load 5)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N170	L	Y	-500

Node Loads and Enforced Displacements (BLC 39 : Maintenance Load 6)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N161	L	Y	-500

Node Loads and Enforced Displacements (BLC 40 : Maintenance Load 7)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N190	L	Y	-500

Node Loads and Enforced Displacements (BLC 41 : Maintenance Load 8)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N194	L	Y	-500

Node Loads and Enforced Displacements (BLC 42 : Maintenance Load 9)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N185	L	Y	-500

Node Loads and Enforced Displacements (BLC 43 : Maintenance Load 10)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N207	L	Y	-500

Node Loads and Enforced Displacements (BLC 44 : Maintenance Load 11)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N213	L	Y	-500

Node Loads and Enforced Displacements (BLC 45 : Maintenance Load 12)

	Node Label	L, D, M	Direction	Magnitude [(lb, lb-ft), (in, rad), (lb*s²/in, lb*s²*in)]
1	N220	L	Y	-500

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	N17	max	-410.534	16	1889.522	27	-829.211	14	3831.096	3	1014.705	23	1003.312	21
2		min	-4923.111	35	-470.748	21	-8638.917	33	-2075.702	21	-1067.105	5	-1905.911	3
3	N21	max	-436.947	18	1790.63	31	8532.146	38	1707.799	24	789.641	15	1180.376	24
4		min	-4990.849	37	-454.395	24	1060.78	19	-3332.254	6	-831.822	9	-2237.39	6
5	N15	max	4927.581	31	1765.304	27	-955.547	14	3701.014	27	887.178	11	1879.923	38
6		min	508.855	24	-178.473	20	-8574.815	33	-1630.676	20	-844.352	17	-619.85	19
7	N11	max	-1186.731	18	1793.458	31	548.857	3	463.155	14	707.285	3	1656.736	24
8		min	-9879.368	37	-171.337	24	-518.464	21	-535.894	8	-655.653	21	-4211.412	31
9	N19	max	5004.763	29	1703.315	35	8478.507	28	1337.498	16	588.746	7	2343.463	10
10		min	420.456	22	-193.267	16	1042.626	21	-3303.907	34	-533.077	25	-1200.977	16
11	N13	max	9832.963	29	1629.507	35	581.93	13	169.17	16	670.178	19	4146.86	10
12		min	1188.192	22	-539.867	16	-543.965	19	-320.851	132	-726.337	13	-2267.583	16
13	Totals:	max	5503.178	5	9634.685	38	5532.146	2						
14		min	-5503.177	11	2449.015	56	-5532.14	20						

Envelope AISC 15TH (360-16): 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	M42	L2.5x2.5x3	0.742	0	10	0.126	17.145	y	11	27155.926	29192.4	872.574	1971.83	1.5	H2-1
2	MH2	L3X3X6	0.689	49.263	29	0.749	102.632	y	10	6611.886	68364	2307.398	4434.824	1.5	H2-1
3	MR3	PIPE_2.0	0.674	142.105	5	0.432	142.105		10	6295.422	32130	1871.625	1871.625	2.026	H3-6
4	MH3	L3X3X6	0.668	49.263	33	0.732	102.632	y	2	6611.886	68364	2307.398	4434.824	1.5	H2-1
5	M69	L2.5x2.5x3	0.658	17.145	10	0.111	17.145	y	3	27155.926	29192.4	872.574	1971.83	1.5	H2-1
6	MP11	PIPE_2.0	0.649	80.842	3	0.105	80.842		3	14916.096	32130	1871.625	1871.625	1.986	H1-1b
7	MH1	L3X3X6	0.648	49.263	37	0.75	102.632	y	6	6611.886	68364	2307.398	4434.824	1.5	H2-1
8	MP10	PIPE_2.0	0.644	62.526	10	0.102	62.526		11	22356.067	32130	1871.625	1871.625	2.455	H1-1b
9	MP8	PIPE_2.0	0.58	42.632	4	0.103	45.474		4	12143.947	32130	1871.625	1871.625	2.241	H1-1b
10	MP12	PIPE_2.0	0.555	65.684	27	0.104	65.684		13	14916.096	32130	1871.625	1871.625	3	H1-1b
11	MP6	PIPE_2.0	0.554	60.789	2	0.105	60.789		3	22356.067	32130	1871.625	1871.625	2.4	H1-1b
12	MP2	PIPE_2.0	0.554	60.789	6	0.095	60.789		7	22356.067	32130	1871.625	1871.625	2.418	H1-1b
13	MP7	PIPE_2.0	0.552	75.789	7	0.099	75.789		6	14916.096	32130	1871.625	1871.625	1.939	H1-1b
14	MP3	PIPE_2.0	0.541	75.789	11	0.089	75.789		11	14916.096	32130	1871.625	1871.625	1.957	H1-1b
15	M71	L2.5x2.5x3	0.54	17.145	2	0.111	17.145	y	7	27155.926	29192.4	872.574	1971.83	1.5	H2-1
16	MP4	PIPE_2.0	0.53	59.684	35	0.104	59.684		9	17855.085	32130	1871.625	1871.625	2.332	H1-1b
17	MR1	PIPE_2.0	0.529	7.895	10	0.264	7.895		5	6295.422	32130	1871.625	1871.625	2.076	H1-1b
18	MS1	HSS4X4X2	0.471	0	31	0.127	27.474	y	7	70752.694	73278	8240.413	8240.413	2.041	H1-1b
19	MP1	PIPE_2.0	0.469	63.592	31	0.13	63.592		8	16491.332	32130	1871.625	1871.625	3	H1-1b
20	MS11	HSS4X4X2	0.465	0	38	0.136	27.474	y	3	70752.694	73278	8240.413	8240.413	2.05	H1-1b
21	MS10	HSS4X4X2	0.461	0	3	0.121	0	y	27	70752.694	73278	8240.413	8240.413	1.733	H1-1b
22	MS9	HSS4X4X2	0.459	0	10	0.111	10.421	y	35	70752.694	73278	8240.413	8240.413	1.741	H1-1b
23	MP9	PIPE_2.0	0.453	63.947	35	0.135	63.947		11	16368.554	32130	1871.625	1871.625	3	H1-1b
24	MS12	HSS4X4X2	0.448	0	35	0.132	27.474	y	11	70752.694	73278	8240.413	8240.413	2.075	H1-1b
25	MP5	PIPE_2.0	0.44	68.211	38	0.14	68.211		4	14916.096	32130	1871.625	1871.625	3	H1-1b
26	MR2	PIPE_2.0	0.438	142.105	7	0.262	142.105		13	6295.422	32130	1871.625	1871.625	1.955	H1-1b
27	MS5	HSS4X4X2	0.423	0	32	0.118	0	y	31	70752.694	73278	8240.413	8240.413	2.145	H1-1b
28	MS6	HSS3.5X3.5X4	0.391	0	30	0.085	0	y	7	120305.67	120474	12075	12075	1.092	H1-1b

Envelope AISC 15TH (360-16): 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
29	MS2	HSS3.5X3.5X4	0.388	0	10	0.073	0	y	35	120305.67	120474	12075	12075	1.075	H1-1b
30	MS7	HSS3.5X3.5X4	0.385	0	38	0.09	0	y	3	120305.67	120474	12075	12075	1.092	H1-1b
31	MS3	HSS3.5X3.5X4	0.379	0	2	0.08	0	y	27	120305.67	120474	12075	12075	1.075	H1-1b
32	MS4	HSS3.5X3.5X4	0.372	0	34	0.084	0	y	11	120305.67	120474	12075	12075	1.094	H1-1b
33	MS8	HSS3.5X3.5X4	0.358	0	32	0.079	0	y	31	120305.67	120474	12075	12075	1.103	H1-1b
34	M90	L2x2x4	0.301	47.959	30	0.016	47.959	z	7	13627.118	30585.6	690.934	1522.23	1.386	H2-1
35	M98	L2x2x4	0.295	0	28	0.02	30.179	y	7	22206.361	30585.6	690.934	1576.849	1.181	H2-1
36	M88	L2x2x4	0.291	47.959	38	0.017	47.959	z	3	13627.118	30585.6	690.934	1520.706	1.378	H2-1
37	M89	L2x2x4	0.289	47.959	34	0.016	47.959	z	11	13627.118	30585.6	690.934	1517.897	1.363	H2-1
38	M52	L2x2x4	0.289	0	32	0.021	30.179	y	11	22206.361	30585.6	690.934	1576.849	1.19	H2-1
39	M95	L2x2x4	0.288	0	36	0.02	30.179	y	3	22206.361	30585.6	690.934	1576.849	1.172	H2-1
40	M74	L2x2x4	0.269	11.008	5	0.097	11.008	z	5	29310.165	30585.6	690.934	1576.849	1.5	H2-1
41	M73	L2x2x4	0.268	32.947	5	0.036	32.947	z	5	20883.504	30585.6	690.934	1576.849	1.5	H2-1
42	M78	L2x2x4	0.252	32.947	9	0.031	32.947	z	9	20883.504	30585.6	690.934	1576.849	1.5	H2-1
43	M76	L2x2x4	0.247	32.947	13	0.032	32.947	z	13	20883.504	30585.6	690.934	1576.849	1.5	H2-1
44	M75	L2x2x4	0.246	11.008	13	0.088	11.008	z	13	29310.165	30585.6	690.934	1576.849	1.5	H2-1
45	M104	L2x2x4	0.237	0	29	0.007	0	y	2	22206.361	30585.6	690.934	1576.849	1.147	H2-1
46	M77	L2x2x4	0.234	11.008	9	0.085	11.008	z	9	29310.165	30585.6	690.934	1576.849	1.5	H2-1
47	M107	L2x2x4	0.232	0	37	0.008	0	y	10	22206.361	30585.6	690.934	1571.866	1.077	H2-1
48	M101	L2x2x4	0.225	0	33	0.008	0	y	6	22206.361	30585.6	690.934	1576.849	1.112	H2-1
49	M24	L2x2x4	0.214	0	22	0.007	54.887	y	7	10602.267	30585.6	690.934	1508.091	1.5	H2-1
50	M84	L2x2x4	0.209	0	31	0.006	47.959	z	3	13627.118	30585.6	690.934	1499.443	1.267	H2-1
51	M79	L2x2x4	0.207	0	27	0.006	47.959	z	10	13627.118	30585.6	690.934	1501.126	1.276	H2-1
52	M87	L2x2x4	0.204	0	35	0.006	47.959	z	6	13627.118	30585.6	690.934	1512.356	1.333	H2-1
53	M22	L2x2x4	0.203	54.887	18	0.007	0	z	3	10602.267	30585.6	690.934	1508.091	1.5	H2-1
54	M23	L2x2x4	0.191	0	14	0.007	54.887	y	11	10602.267	30585.6	690.934	1508.091	1.5	H2-1
55	R2	PIPE_2.0	0.114	3.158	27	0.052	20.842		4	30625.434	32130	1871.625	1871.625	1.909	H1-1b
56	R3	PIPE_2.0	0.09	3.158	4	0.045	20.842		12	30625.434	32130	1871.625	1871.625	1.288	H1-1b
57	R1	PIPE_2.0	0.073	64.421	2	0.044	17.053		8	20866.733	32130	1871.625	1871.625	1.924	H1-1b
58	R5	PIPE_2.0	0.056	23.684	4	0.021	23.684		4	28843.414	32130	1871.625	1871.625	3	H1-1b
59	M7	L5X5X6	0.022	0	5	0.226	4.33	y	5	114088.677	118260	7417.647	16004.504	1.5	H2-1
60	M8	L5X5X6	0.019	4.33	9	0.185	0	z	9	114088.677	118260	7417.647	16004.504	1.5	H2-1
61	M9	L5X5X6	0.019	4.33	13	0.195	0	z	13	114088.677	118260	7417.647	16004.504	1.5	H2-1
62	R4	PIPE_2.0	0.003	12	7	0.001	12		7	30625.434	32130	1871.625	1871.625	1.561	H1-1b

APPENDIX D

ADDITIONAL CALCUATIONS

INFINIGY

FROM ZERO TO INFINIGY

the solutions are endless

Welded Calculation Tool, V1.0

PROJECT DATA	
Site Name:	NEW BRITAIN GRAVEL PIT
Site Number:	876331
Job Code:	1039-Z0001-B
Date:	9/10/2021

WELD INFORMATION		
Design:	LRFD	-
Weld Strength (F_EXX):	70	ksi
Weld Thickness:	0.25	in

MAIN SHAPE INFORMATION		
Main Shape:	Rectangle	-
Main Shape Material:	A 500 Gr. B Rect.	-
Main Shape Thickness:	0.250	in
Main Shape Size:	3.5X3.5	in

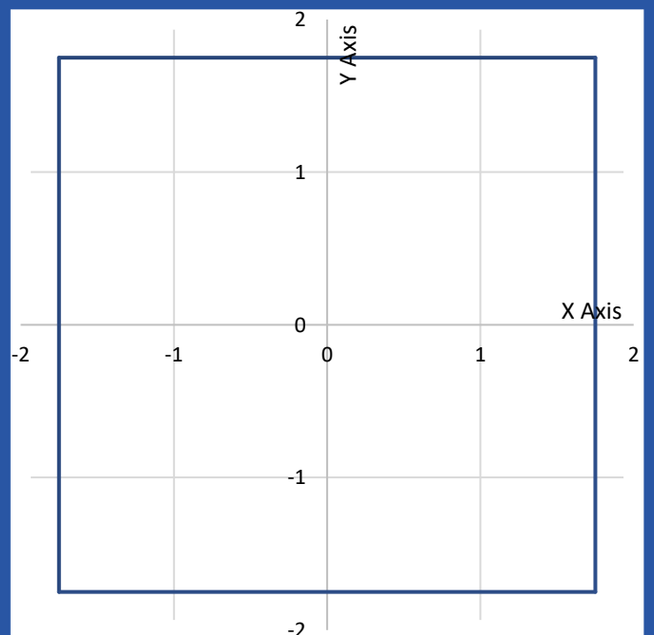
TOTAL SUM OF LINES PROPERTIES		
Polar Moment of Inertia:	57.167	in^3
Section Modulus X-X dir.:	16.333	in^2
Section Modulus Y-Y dir.:	16.333	in^2
Critical Usage Mode*:	Weld Critical	-
Critical Thickness Used:	0.250	in

SECONDARY SHAPE INFORMATION		
Secondary Shape:	N/A	-
Secondary Shape Material:	N/A	-
Secondary Shape Thickness:	N/A	in
Secondary Shape Size:	N/A	in

WELD DESCRIPTION
Standoff to Collar

RESULTS		
Critical Risa Combination:	LC 31	-
Critical Member Label:	MS6	-
Member End:	i	-
Weld Strength (Phi*Rn):	5568.466	lb/in
Weld Demand (Ru):	3763.642	lb/in
Usage ratio:	67.6%	OK

WELD DIAGRAM (NOT TO SCALE)



NOTES

*The strength of the weld governs the design compared to the effective strength of the welded object.

Exhibit F

Power Density/RF Emissions Report

Radio Frequency Safety Survey Report Predictive (RFSSRP) Prepared For AT&T

Site Name:	NEW BRITAIN LOON LAKE
FA#	10035310
USID:	59343
Site ID:	CTL01024
Address:	10 LOON LAKE ROAD NEW BRITAIN, CT 06053
County:	HARTFORD
Latitude:	41.6765750
Longitude:	-72.8214161
Structure Type:	MONOPOLE
Property Owner:	MARCH 17 LLC
Pace Job:	MRCTB052078
RFDS Technology:	5G NR 1SR CBAND

Report Information

Report Writer: Krishna Negi

Report Generated Date: 05-18-2022

Compliance Statement

AT&T Mobility Compliance Statement: Based on the information collected, AT&T Mobility will be Compliant when the remediation recommended in section 5 or appropriate remediation determined by AT&T is implemented

Table of Contents

1. Executive Summary

1.1 Site Summary

Max Predictive Spatial Average MPE% & Location on Site (General Public)	17157.20% on Antennas Centerline Level & at AT&T Sec-A antenna no. #A3-2
Max Predictive Spatial Average MPE% on Ground (General Public)	2.38%
AT&T Mobility Site Compliance	AT&T Mobility will be Compliant by implementing remediation recommended as per section 5 in this report.

TABLE 1: Site Summary

1.2 Signage Summary (Proposed)

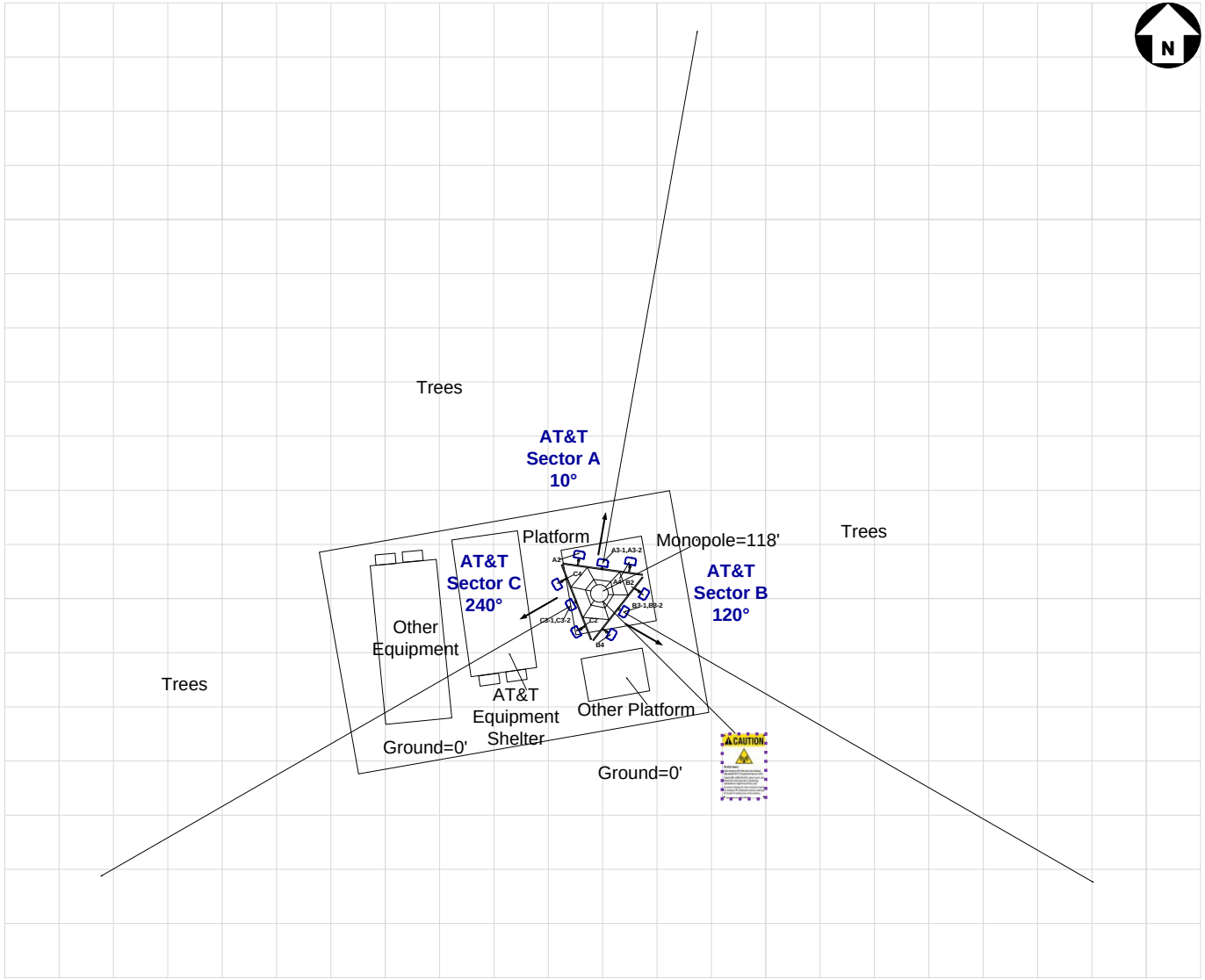
AT&T Signage Locations	Sign Type									
	Safety Instructions	Notice Sign 2	Caution Sign 2	Caution Sign 2B	Caution Sign 2C	Caution 7"x7"	Warning Sign 1B	RF Exposure Map	Lock	Barriers
Access Point(s)				1						
Alpha										
Beta										
Gamma										

TABLE 2: Signage Summary (Proposed)

1.3 List of Documents used to prepare this Report

- *876331_556502 PCD*
- *876331_556502 RFDS*

2. Site Scale Map



AT&T Antenna	Proposed	Proposed Signage									Map Scale = 10 ft
Panel	Barrier	Safety Instructions	Notice 2	Caution 2	Caution 2B	Caution 2C	Caution 7"x7"	Warning 1B	RF Exposure Map	Lock	
OMNI	Posts										

3. Antenna Inventory

Ant ID	Operator	Antenna Mfg	Antenna Model	Antenna Type	FREQ. (MHz)	TECH.	AZ. (^{0})	HBW (^{0})	Antenna Gain (dBd)	Antenna Aperture (ft)	Transmitter Power (Watts)	Total Loss (dB)	Total ERP (Watts)	Total EIRP (Watts)
A2	AT&T	CCI	TPA65R-BU6D	Panel	700	LTE	10	73	12.35	6	120.00	0.5	1837.30	3014.26
A2	AT&T	CCI	TPA65R-BU6D	Panel	1900	LTE/5G	10	66	15.95	6	120.00	0.5	4209.02	6905.28
A2	AT&T	CCI	TPA65R-BU6D	Panel	2100	LTE/5G	10	66	16.25	6	120.00	0.5	4510.05	7399.14
A3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	10	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
A3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	10	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
A4	AT&T	CCI	DMP65R-BU6D	Panel	700	LTE	10	74	11.85	6	120.00	0.5	1637.50	2686.47
A4	AT&T	CCI	DMP65R-BU6D	Panel	850	5G	10	63	12.45	6	120.00	0.5	1880.10	3084.47
B2	AT&T	CCI	TPA65R-BU6D	Panel	700	LTE	120	73	12.35	6	120.00	0.5	1837.30	3014.26
B2	AT&T	CCI	TPA65R-BU6D	Panel	1900	LTE/5G	120	66	15.95	6	120.00	0.5	4209.02	6905.28
B2	AT&T	CCI	TPA65R-BU6D	Panel	2100	LTE/5G	120	66	16.25	6	120.00	0.5	4510.05	7399.14
B3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	120	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
B3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	120	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
B4	AT&T	CCI	DMP65R-BU6D	Panel	700	LTE	120	74	11.85	6	120.00	0.5	1637.50	2686.47
B4	AT&T	CCI	DMP65R-BU6D	Panel	850	5G	120	63	12.45	6	120.00	0.5	1880.10	3084.47
C2	AT&T	CCI	TPA65R-BU6D	Panel	700	LTE	240	73	12.35	6	120.00	0.5	1837.30	3014.26
C2	AT&T	CCI	TPA65R-BU6D	Panel	1900	LTE/5G	240	66	15.95	6	120.00	0.5	4209.02	6905.28
C2	AT&T	CCI	TPA65R-BU6D	Panel	2100	LTE/5G	240	66	16.25	6	120.00	0.5	4510.05	7399.14
C3-1	AT&T	Ericsson	AIR 6419 B77G^	Panel	3450	5G	240	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
C3-2	AT&T	Ericsson	AIR 6449 B77D^	Panel	3840	5G	240	11	23.5	2.55	108.44*	0	24277.05*	39828.68*
C4	AT&T	CCI	DMP65R-BU6D	Panel	700	LTE	240	74	11.85	6	120.00	0.5	1637.50	2686.47
C4	AT&T	CCI	DMP65R-BU6D	Panel	850	5G	240	63	12.45	6	120.00	0.5	1880.10	3084.47

Table 3.1: Antenna Inventory Table

Note: **^ Mechanical Tilt value of "0°" MUST be retained for C-BAND and/or DoD AAS antenna(s) at all times to ensure that "EME (Predictive) Study" shall remain valid.**
* 75% TDD duty Cycle, 1.5dB Power Tolerance & 0.32 Power Reduction factor[1] are used to calculate Transmitter Power & ERP/EiRP

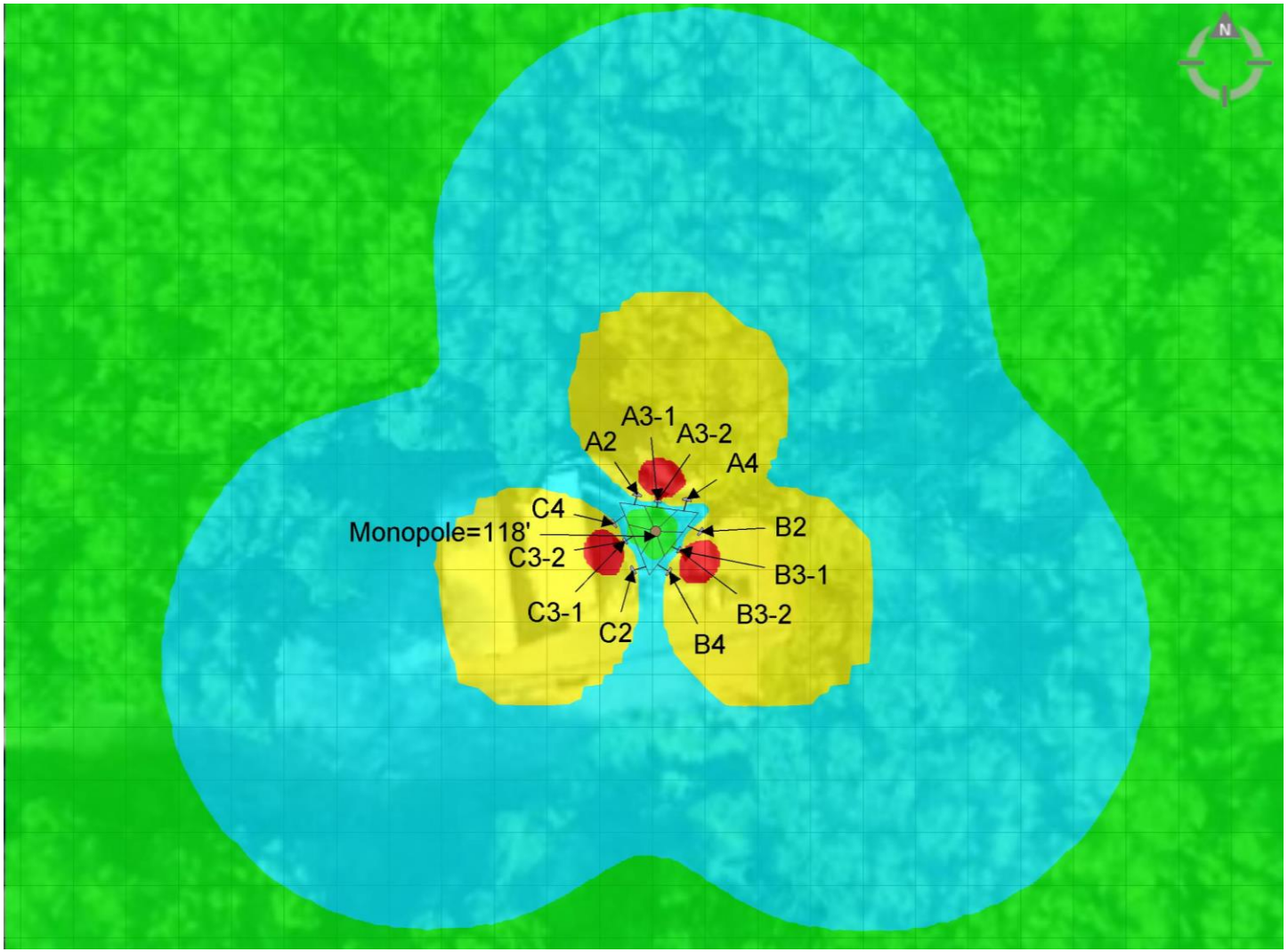
Antenna Heights (Z)

Ant ID	Operator	Antenna Radiation Centerline	Z-Height from Ground
A2	AT&T	100.00	97.00
A3-1	AT&T	101.78	100.51
A3-2	AT&T	98.23	96.96
A4	AT&T	100.00	97.00
B2	AT&T	100.00	97.00
B3-1	AT&T	101.78	100.51
B3-2	AT&T	98.23	96.96
B4	AT&T	100.00	97.00
C2	AT&T	100.00	97.00
C3-1	AT&T	101.78	100.51
C3-2	AT&T	98.23	96.96
C4	AT&T	100.00	97.00

Table 3.2: Antenna Height(s) Summary Table

4. Predicted Emission

4.1 Predictive Cumulative MPE Contribution from All Sources at Antennas Centerline Level (100 ft.)



Max. Predictive Spatial Average MPE% = **17157.20%**

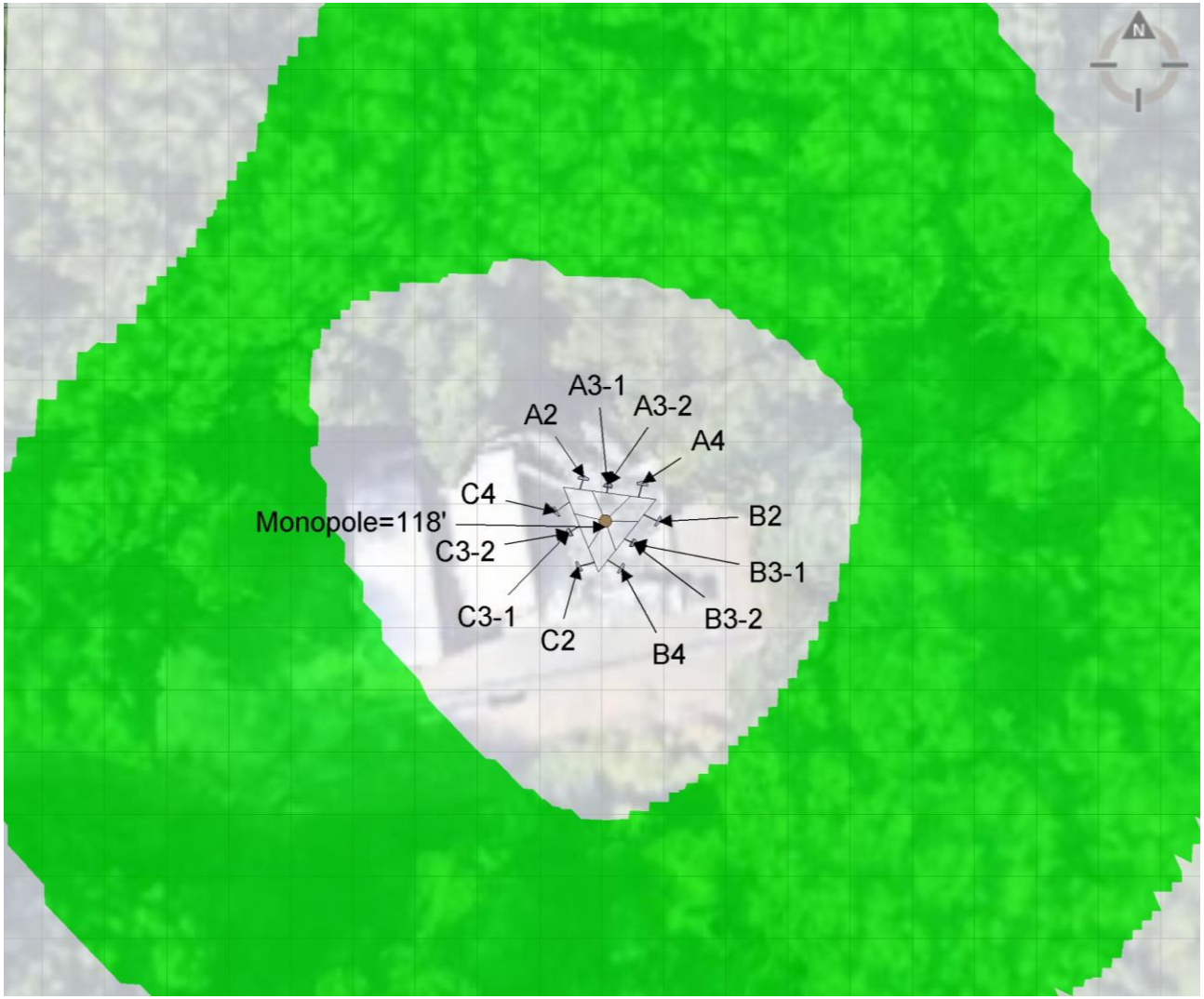
Proposed Barrier
Proposed Posts

% of FCC General Public Exposure Limit (Predictive Spatial Average)

Non-Simulated	0-1	1-100	100-500	500-5000	>5000

Map Scale = 10 ft

4.2 Predictive Cumulative MPE Contribution from All Sources at Ground Level (0 ft.)



Max. Predictive Spatial Average MPE% = **2.38%**

Proposed Barrier
Proposed Posts

% of FCC General Public Exposure Limit (Predictive Spatial Average)

Non-Simulated	0-1	1-100	100-500	500-5000	>5000

Map Scale = 10 ft

5. Statement of Compliance

5.1 Statement of AT&T Mobility Compliance

At the time of our Analysis, AT&T Mobility is required to take action to fulfill their Obligations to comply with the FCC's mandate as defined in OET-65

Recommendations

AT&T Alpha Sector:

- No Action Required

AT&T Beta Sector:

- No Action Required

AT&T Gamma Sector:

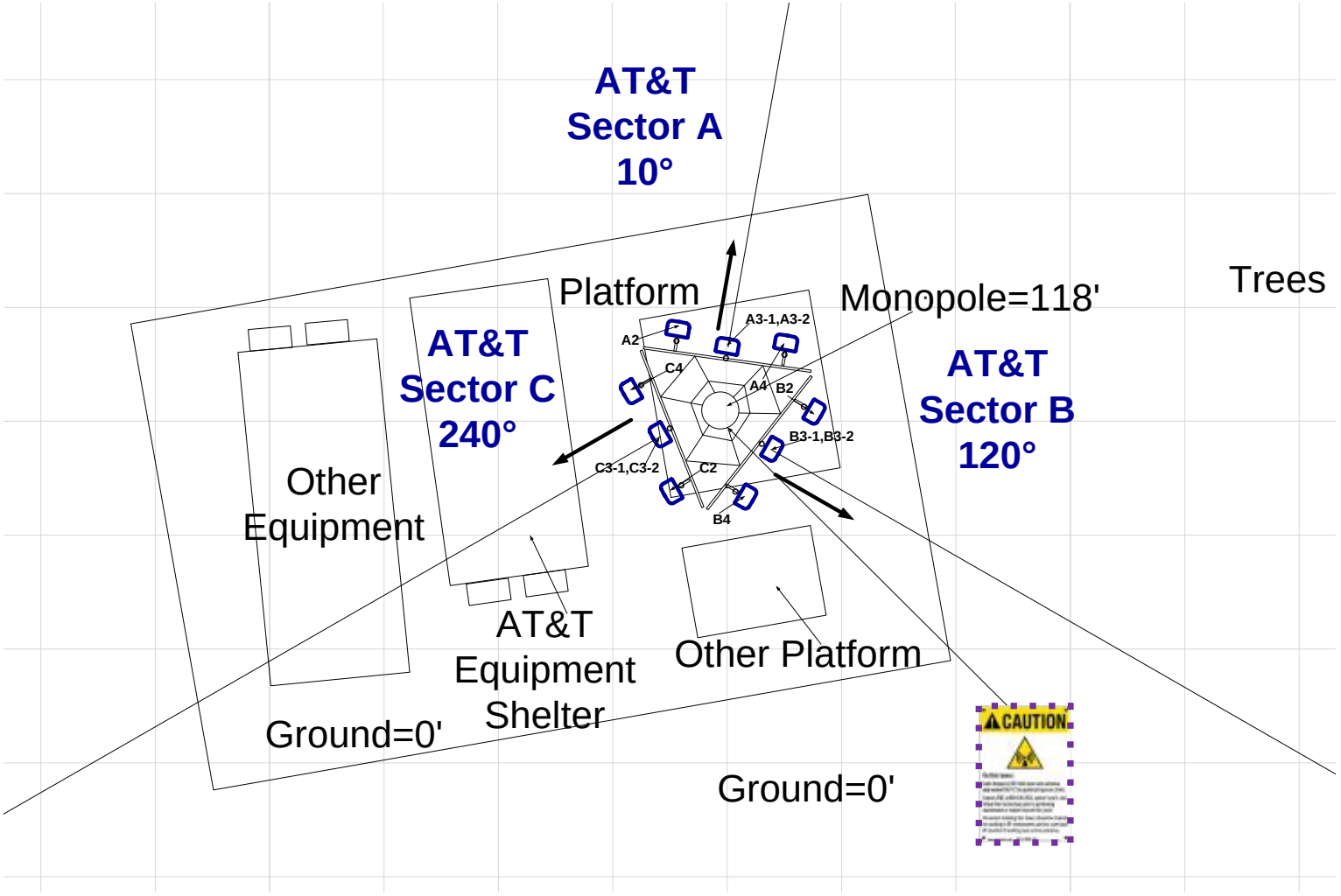
- No Action Required

Monopole:

- One Caution 2B Sign to be posted on the Monopole at climbing access, facing outwards so approaching people can see as shown in "Recommendations Map – Detailed View" on page 10. (1 Total Sign)

Recommendations Map – Detailed View

AT&T Alpha, Beta & Gamma Sectors



AT&T Antenna	Proposed	Proposed Signage									
Panel	Barrier	Safety Instructions	Notice 2	Caution 2	Caution 2B	Caution 2C	Caution 7"x7"	Warning 1B	RF Exposure Map	Lock	*Map Scale = 10 ft*
OMNI	Posts										

Appendix A – Statement of Limiting Conditions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at full power at all times. AT&T has further recommended to assume a 75% duty cycle of maximum radiated power for all LTE & 5G carriers (& consider 100% duty cycle for all UMTS carriers).

In this site compliance report, it is assumed that Mechanical Tilt value of "0°" MUST be retained for C-BAND and/or DoD AAS^ antenna(s) at all times to ensure that "EME (Predictive) Study" shall remain valid.

AT&T recommended to consider - For C-BAND and/or DoD AAS^ antenna(s) 75% TDD duty Cycle, 1.5dB Power Tolerance & 0.32 Power Reduction factor[1] are used to calculate Transmitter Power & ERP/EiRP.

AT&T recommended to use worst-case tilts for the simulations.

*[1] **Power Reduction Factor**: IEC Standard 62232: 2017 allows for a statistically conservative power density model to more realistically define the RF exposure area. AT&T recommends a "0.32" factor to calculate the "Actual Maximum" (time averaged) power value, which accounts for "Beam Scanning," "Scheduling," and "RBS Utilization" This recommended value is a conservative figure modelled and supported by other vendors and through measurements published in scientific articles and white papers by IEEE and others. Those publication are listed below:*

1. IEEE Access, Time-Averaged Realistic Maximum Power Levels for the Assessment of RF Exposure for 5G Radio Base Stations Using Massive MIMO (Published Sept. 18, 2017 / BJÖRN THORS, ANDERS FURUSKÄR, DAVIDE COLOMBI, AND CHRISTER TÖRNEVIK)
2. IEEE Explore, A Statistical Approach for RF Exposure Compliance Boundary Assessment in Massive MIMO Systems (Published Jan. 25, 2018 / Paolo Baracca, Andreas Weber, Thorsten Wild, Christophe Grangeat)
3. IEEE Access, In-situ Measurement Methodology for the Assessment of 5G NR Massive MIMO Base Station Exposure at Sub-6 GHz Frequencies (Published Dec. 20, 2019 / SAM AERTS, LEEN VERLOOCK, MATTHIAS VAN DEN BOSSCHE, DAVIDE COLOMBI, LUC MARTENS, CHRISTER TÖRNEVIK AND WOUT JOSEPH)
4. Applied Sciences, Analysis of the Actual Power and EMF Exposure from Base Stations in a Commercial 5G Network (Published July 30, 2020 / Davide Colombi, Paramananda Joshi, Bo Xu, Fatemeh Ghasemifard, Vignesh Narasaraju and Christer Törnevik)
5. Ofcom Technical Report, Electromagnetic Field (EMF) measurements near 5G mobile phone base stations (Published Feb. 21, 2020 / Davide Colombi, Paramananda Joshi, Bo Xu, Fatemeh Ghasemifard, Vignesh Narasaraju and Christer Törnevik)

MobileComm believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor). Thus, at any time, if power density measurements were made, we believe the real time measurements would indicate levels below those depicted in the RF emission diagram(s) in this report. By modelling in this way, MobileComm has conservatively shown exclusion areas – areas that should not be entered without the use of a personal monitor, carriers reducing power, or performing real-time measurements to indicate real-time exposure levels.

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Other Carrier" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, MobileComm will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, MobileComm uses the closest frequency in the antenna's range that corresponds to the highest Maximum Exposure Limit (MPE), resulting in a conservative analysis.

Appendix B – FCC Guidelines and Emissions Threshold Limits

All power density values used in this report were analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (µW/cm2).The number of µW/cm2 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 public 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 public 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 (µW/cm2). The general population exposure limit for the 700 and 800 MHz Bands is approximately 467 µW/cm2 and 567 µW/cm2 respectively, and the general population exposure limit for the 1900 MHz PCS and 2100 MHz AWS bands is 1000 µW/cm2. 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, have been properly trained in RF safety 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, have been trained in RF safety and can exercise control over his or her exposure by leaving the area or by some other appropriate means. The Occupational/Controlled exposure limits all utilized frequency bands is five (5) times the FCC's General Public / Uncontrolled exposure limit.

Additional details can be found in FCC OET 65.

Table 1: Limits for Maximum Permissible Exposure (MPE)				
(A) Limits for Occupational/Controlled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (A/m)**	**Power Density (S) (mW/cm^2)**	**Averaging Time $[E]^2$, $[H]^2$, or S (minutes)**
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-I,500	--	--	f/300	6
1,500-100,000	--	--	5	6
(B) Limits for General Public/Uncontrolled Exposure				
Frequency Range (MHz)	**Electric Field Strength (E) (V/m)**	**Magnetic Field Strength (H) (A/m)**	**Power Density (S) (mW/cm^2)**	**Averaging Time $[E]^2$, $[H]^2$, or S (minutes)**
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-I,500	--	--	f/1,500	30
1,500-100,000	--	--	1.0	30

Appendix C – Rules & Regulations

Explanation of Applicable Rules and Regulations

FCC has set forth guidelines in OET Bulletin 65 for human exposure to radio frequency electromagnetic fields. Currently, there are two different levels of MPE - General Public MPE and Occupational MPE. An individual classified as Occupational can be defined as an individual who has received appropriate RF training and meets the conditions outlined below. General Public is defined as anyone who does not meet the conditions of being Occupational. FCC Rules and Regulations define compliance in terms of total exposure to total RF energy, regardless of location of or proximity to the sources of energy.

It is the responsibility of all licensees to ensure these guidelines are maintained at all times. It is the ongoing responsibility of all licensees composing the site to maintain ongoing compliance with FCC rules and regulations.

A building owner or site manager can use this report as part of an overall RF Health and Safety Policy. It is important for building owners/site managers to identify areas in excess of the General Population MPE and ensure that only persons qualified as Occupational are granted access to those areas.

Occupational Environment Explained

The FCC definition of Occupational exposure limits apply to persons who:

- *are exposed to RF energy as a consequence of their employment;*
- *have been made aware of the possibility of exposure; and*
- *can exercise control over their exposure.*

FCC guidelines go further to state that persons must complete RF Safety Awareness training and must be trained in the use of appropriate personal protective equipment.

In order to consider this site an Occupational Environment, the site must be controlled to prevent access by any individuals classified as the General Public. Compliance is also maintained when any non-occupational individuals (the General Public) are prevented from accessing areas indicated as Red or Yellow in the attached RF Emissions diagram. In addition, a person must be aware of the RF environment into which they are entering. This can be accomplished by an RF Safety Awareness class, and by appropriate written documentation such as this Site Compliance Report.

Appendix D – General Safety Recommendations

The following are general recommendations appropriate for any site with accessible areas in excess of 100% General Public MPE. These recommendations are not specific to this site. These are safety recommendations appropriate for typical site management, building management, and other tenant operations.

1. All individuals needing access to the main site should be instructed to read and obey all posted placards and signs.

2. The site should be routinely inspected and this or similar report updated with the addition of any antennas or upon any changes to the RF environment including:

- *adding new antennas that may have been located on the site*
- *removing of any existing antennas*
- *changes in the radiating power or number of RF emitters*

3. Post the appropriate SAFETY INSTRUCTIONS, NOTICE, CAUTION & WARNING sign at the main site access point(s) and other locations as required. Note: Please refer to RF Exposure Diagrams in the report section above, to inform everyone who has access to this site that beyond posted signs there may be levels in excess of the limits prescribed by the FCC. The signs below are examples of signs meeting FCC guidelines.

4. Ensure that the site door remains locked (or appropriately controlled) to deny access to the general public if deemed as policy by the building/site owner.

5. For a General Public environment the five color levels identified in measured RF emission diagram can be interpreted in the following manner:

- *White represents areas predicted to be greater than or equal to 0% and less than 1% of the MPE general public limits*
- *Green represents areas predicted to be greater than or equal to 1% and less than 100% of the MPE general public limits*
- *Blue represents areas predicted to be greater than or equal to 100% and lesser than 500% of the MPE general public limits.*
- *Yellow represents areas predicted to be greater than or equal to 500% and lesser than 5000% of the MPE general public limits.*
- *Red areas indicates predicted levels greater than or equal to 5000% of the MPE general public limits.*

Appendix E – References

1 - FCC Definition

FCC defines an Occupational or Controlled environment as one where persons are exposed to RF fields as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Typical criteria for an Occupational or Controlled environment is restricted access (i.e. locked doors, gates, etc.) to areas where antennas are located coupled with proper RF warning signage.

FCC defines a site as a General Public or Uncontrolled environment when human exposure to RF fields occurs to the general public or in which persons who are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over the exposure. Typical criteria for a General Public or Uncontrolled environment are unrestricted access (i.e. unlocked or no restrictions) to areas where antennas are located without proper RF warning signage being posted.

2 - Physical Testing measurement procedure and Tools

The Narda Broadband Field Meter NBM-550 can make rapid conformance measurements with evaluation in the time domain when used in conjunction EA5091 probe. This probe is a so-called Shaped Probe, i.e. it is frequency weighted so that it automatically takes account of the FCC Occupational limit values. To collect data, the probe is pointed towards the potential source(s) of EME radiation and moved slowly from ground level up to slightly above head height (approx. 6 ft).

Spatial Average Measurement A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy an average sized human body will absorb while present in an electromagnetic field of energy.

3 - Site Safety Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: *Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.*

Training and Qualification Verification: *All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).*

Physical Access Control: *Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:*

- *Locked door or gate*
- *Alarmed door*
- *Locked ladder access*
- *Restrictive Barrier at antenna locations (e.g. Chain link with posted RF Sign)*

RF Signage: *Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.*

Assume all antennas are active: *Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.*

Maintain a 3 foot clearance from all antennas: *There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.*

Rooftop RF Emissions Diagram: *Section 4 of this report contains an RF Emissions Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas on the rooftop. This analysis is all theoretical and assumes a duty cycle of 75% for each transmitting antenna at full power. This analysis is a worst case scenario. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.*

4 - Definitions

Compliance- *The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.*

Decibel (dB) – *A unit for measuring power or strength of a signal.*

Duty Cycle – *The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 75% corresponds to continuous operation.*

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – *The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna, this product is divided by the cable losses*

Effective Radiated Power (ERP) – *In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.*

Gain (of an antenna in dbd) – *The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from a reference dipole. Gain is a measure of the relative efficiency of a directional antennas as compared to a reference dipole.*

General Population/Uncontrolled Environment – *Defined by the FCC, as an area where RFR exposure may occur to persons who are unaware of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.*

Generic Antenna – *For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, MobileComm will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.*

Isotropic Antenna – *An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.*

Maximum Measurement – *This measurement represents the single largest measurement recorded when performing a spatial average measurement.*

Maximum Exposure Limit (MPE) – *The RMS and peak electric and magnetic field strength, their squares, or the plane-wave equivalent power densities associated with these fields to which a person may be exposed without harmful effect and with acceptable safety factor.*

Occupational/Controlled Environment – *Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are aware of the potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.*

Radio Frequency Radiation – *Electromagnetic waves that are propagated from antennas through space.*

Spatial Average Measurement – *A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average energy an average sized human body will absorb while present in an electromagnetic field of energy.*

Transmitter Power Output (TPO) – *The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.*

Appendix F – Proprietary Statement

This report was prepared for the use of AT&T Mobility, LLC to meet requirements specified in AT&T's corporate RF safety guidelines. It was performed in accordance with generally accepted practices of other consultants undertaking similar studies at the same time and in the same locale under like circumstances. The conclusions provided by MobileComm are based solely on the information provided by AT&T Mobility and all observations in this report are valid on the date of the investigation. Any additional information that becomes available concerning the site should be provided to MobileComm so that our conclusions may be revised and modified, if necessary. This report has been prepared in accordance with Standard Conditions for Engagement and authorized proposal, both of which are integral parts of this report. No other warranty, expressed or implied, is made.