



1 Cityplace Dr, Suite 490
Creve Coeur, MO 63141

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

February 8, 2022

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

RE: **Notice of Exempt Modification for AT&T**
Crown Site ID #881364; AT&T Site ID#CTL01108
123 Costelo Road., NEWINGTON, CT 06111
Latitude: 41° 39 18.72 / Longitude: -72° 43 17.19

Dear Ms. Bachman:

AT&T currently maintains (12) antennas at the 105-foot mounts on the existing 145-foot Monopole Tower located at 123 Costelo Road, NEWINGTON. The property is owned by Costello Industries Inc. and the Tower by Crown Castle. AT&T now intends to replace twelve (12) antennas. This modification/proposal includes hardware that is both 4G(LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

Planned Modifications:

Tower:

REMOVE AND REPLACE

(3) POWERWAVE - 7770 antennas (**REMOVE**), (3) QUNTEL – QD6616-7 antennas (**REPLACE**)

(3) CCI – OPA-65R-LCUU-H6 antennas (**REMOVE**), (3) ERICSSON – AIR6449 N77G antennas (**REPLACE**)

(3) KATHRIEN – 800-10965 antennas (**REMOVE**), (3) ERICSSON – AIR6449 N77D antennas (**REPLACE**) (antennas stacked in position 2)

(3) QUNTEL – QS66512-2 antennas (**REMOVE**), (3) CCI – DMP65R-BU6DA antennas (**REPLACE**)

REMOVE:

(6) LUCENT-LGP2190 diplexers

(18) CCI-TPX-070821 diplexers

(6) LUCENT-LGP21401 TMA

(6) Coax cables (1-5/8')

The Foundation for a Wireless World.

CrownCastle.com



1 Cityplace Dr, Suite 490
Creve Coeur, MO 63141

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

Ground:

REMOVE:

- (1) 5216
- (1) XMU
- (6) Diplexers
- (6) Triplexers

INSTALL:

- (1) 6673 FHG in shelter

The Facility was approved by the Town of Newington Zoning Commission on April 16th, 2001, Petition 10-01 by way of a Certificate of Action.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16-50j-72(b)(2). In accordance with R.C.S.A. §16-50j-73, a copy of this letter is being sent to Beth DelBuono, Town of Newington Mayor, Renata Bertotti, Town Planner for the Town of Newington and the property owner Costello Industries Inc.

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).



1 Cityplace Dr, Suite 490
Creve Coeur, MO 63141

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

Sincerely,

Colin Robinson

Colin Robinson
Project Manager
NETWORK BUILDING + CONSULTING
100 Apollo Drive Suite 303
Chelmsford, MA 01824
crobinson@nbllc.com
(360) 561-3311

cc:

Beth DelBuono, Mayor (*Via Fedex*)
200 Garfield Street
Newington, CT 06111
860-665-8510

Renata Bertotti, Town Planner (*Via Fedex*)
200 Garfield Street
Newington, CT 06111
(860) 665-8575

Costello Industries Inc., Property Owner (*Via Fedex*)
123 COSTELLO RD
Newington, CT 06111
(860) 250-2936

Colin Robinson

From: TrackingUpdates@fedex.com
Sent: Wednesday, February 9, 2022 9:20 AM
To: Colin Robinson
Subject: FedEx Shipment 775990885343: Your package has been delivered



Hi. Your package was
delivered Wed, 02/09/2022 at
9:18am.



Delivered to 198 GARFIELD ST, NEWINGTON, CT 06111
Received by J.AMES

[OBTAIN PROOF OF DELIVERY](#)

TRACKING NUMBER [775990885343](#)

FROM NB+C
100 Apollo Dr.
Suite 303
CHELMSFORD, MA, US, 01824

TO Beth DelBuono, Mayor
200 Garfield Street
NEWINGTON, CT, US, 06111

REFERENCE 100788 NB+C

SHIPPER REFERENCE 100788 NB+C

SHIP DATE Tue 2/08/2022 06:20 PM

DELIVERED TO Receptionist/Front Desk

PACKAGING TYPE FedEx Envelope

ORIGIN CHELMSFORD, MA, US, 01824

DESTINATION NEWINGTON, CT, US, 06111

SPECIAL HANDLING Deliver Weekday

NUMBER OF PIECES 1

TOTAL SHIPMENT WEIGHT 1.00 LB

SERVICE TYPE FedEx Priority Overnight



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Colin Robinson

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Sent: Wednesday, February 9, 2022 9:20 AM
To: Colin Robinson
Subject: FedEx Shipment 775990900510: Your package has been delivered



Hi. Your package was
delivered Wed, 02/09/2022 at
9:18am.



Delivered to 198 GARFIELD ST, NEWINGTON, CT 06111
Received by J.AMES

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER [775990900510](#)

FROM NB+C
100 Apollo Dr.
Suite 303
CHELMSFORD, MA, US, 01824

TO Renata Bertotti, Town Planner
200 Garfield Street
NEWINGTON, CT, US, 06111

REFERENCE 100788 NB+C

SHIPPER REFERENCE 100788 NB+C

SHIP DATE Tue 2/08/2022 06:20 PM

DELIVERED TO Receptionist/Front Desk

PACKAGING TYPE FedEx Envelope

ORIGIN CHELMSFORD, MA, US, 01824

DESTINATION NEWINGTON, CT, US, 06111

SPECIAL HANDLING Deliver Weekday

NUMBER OF PIECES 1

TOTAL SHIPMENT WEIGHT 0.50 LB

SERVICE TYPE FedEx Priority Overnight



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Colin Robinson

From: TrackingUpdates@fedex.com
Sent: Wednesday, February 9, 2022 9:24 AM
To: Colin Robinson
Subject: FedEx Shipment 775990934117: Your package has been delivered



Hi. Your package was
delivered Wed, 02/09/2022 at
9:21am.



Delivered to 123 COSTELLO RD, NEWINGTON, CT 06111
Received by L.LEWIS

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER [775990934117](#)

FROM NB+C
100 Apollo Dr.
Suite 303
CHELMSFORD, MA, US, 01824

TO Costello Industries Inc
123 COSTELLO RD
NEWINGTON, CT, US, 06111

REFERENCE 100788 NB+C

SHIPPER REFERENCE 100788 NB+C

SHIP DATE Tue 2/08/2022 06:20 PM

DELIVERED TO Receptionist/Front Desk

PACKAGING TYPE FedEx Envelope

ORIGIN CHELMSFORD, MA, US, 01824

DESTINATION NEWINGTON, CT, US, 06111

SPECIAL HANDLING Deliver Weekday

NUMBER OF PIECES 1

TOTAL SHIPMENT WEIGHT 1.00 LB

SERVICE TYPE FedEx Priority Overnight



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Exhibit A

Original Facility Approval

29196

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TOWN OF NEWINGTON



Town Hall • 131 Cedar Street, Newington, Connecticut 06111
Central Telephone (860) 665-8500
Department Telephone (860)
Department Fax No. (860) 665-8575
665-8577

Certified Mail No. 7106 4575 1292 0696 1614
OFFICE OF THE TOWN PLANNER

RECEIVED & RECORDED IN
NEWINGTON LAND RECORDS

CERTIFICATE OF ACTION

APR 20 10 55 AM '01
1408 97
BY *John A. Spangola*
TOWN CLERK

TO: Anthony B. Gioffre III
Cuddy, Feder & Worby LLC
90 Maple Avenue
White Plains, New York 10601

DATE: April 16, 2001

SUBJECT: PETITION 10-01 123 Costello Road, AT & T Wireless Services PCS LLC 12 Omega Drive, 2nd floor Stamford, CT 06902 applicant, represented by Anthony B. Gioffre III, Cuddy, Feder & Worby LLC 90 Maple Avenue, White Plains, New York 10601, Costello Industries, Inc. property owner, requests Special Exception Section 3.2.7 for co location of antennae on existing monopole. I Zone.

At a meeting held April 11, 2001, the Newington Town Plan and Zoning Commission voted to approve the above referenced PETITION subject to the following conditions:

1. Approval is granted for the placement of AT&T Wireless PCS antenna as a co-locator on the existing monopole and on the existing platform at approximately 145' elevation as shown on plans prepared by URS Corporation AES entitled "Existing Monopole Co-Locate Compound Plan and Tower Elevation" sheet Z01 site plan scale 1"=30' and sheet Z02 compound plan and tower elevation, scale 1"=10' dated 12/14/00.
2. All ground equipment shall be located within the existing 8' chain link fence.
3. The approval of this special exception shall be void and of no effect unless construction of the project commences within one year from the date of the Commission's approval. The term "construction" pertains to the installation of the antenna and support ground facilities by the applicant, AT&T Wireless Services PCS, LLC.
4. Prior to the installation of the AT&T Wireless antenna building permits shall be obtained.
5. Prior to the issuance of building permits a revised site plan mylar shall be submitted to the Town Planner for the Chairman's signature.

Certified by:

Edmund J. Meehan (EJM)

Edmund J. Meehan
Town Planner

This Special Exception will not become effective until this Certificate of Action is filed by the applicant on the Land Records of the Town of Newington.
CA411-3

4372

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TOWN OF NEWINGTON



Town Hall • 131 Cedar Street, Newington, Connecticut 06111
Central Telephone (860) 665-8500
Department Telephone (860) 665-8575
Department Fax No. (860) 665-8577

Certified Mail No. 7106 4575 1292 0696 5209
OFFICE OF THE TOWN PLANNER

CERTIFICATE OF ACTION

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

DATE: December 3, 2001

SUBJECT: PETITION 65-01 123 Costello Road, Costello Industries owner, Celco Partnership d/b/a Verizon Wireless applicant, represented by Kenneth C. Baldwin, Robinson & Cole LLP, 280 Trumbull Street Hartford, CT 06103-3597 requests Special Exception Section 3.2.7 PCS antenna co location and ground base equipment, PD Zone District.

At a meeting held November 28, 2001, the Newington Town Plan and Zoning Commission voted to approve the above referenced PETITION subject to the following conditions:

1. Approval is granted for the placement of Verizon Wireless PCS platform and antenna as a co-locator on the existing monopole at the elevation of 125' as shown on plans prepared by URS Corporation AES, 795 Brook Street Rocky Hill, CT, dated 10-11-01. Sheets T-1, Z-1 and Z-2, entitled "123 Costello Road", Newington, Connecticut."
2. All ground equipment shall be located within an 8' fence enclosure, no equipment shall be placed within 10' side setback area.
3. The approval of this special exception shall be void and of no effect unless construction of the project commences within one year from the date of the Commission's approval. The term "construction" pertains to the installation of the antenna and support ground facilities by the Verizon Wireless.
4. Prior to the installation of the Verizon Wireless antenna building permits shall be obtained.

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Certified by:

Edmund J. Meehan
Edmund J. Meehan
Town Planner

This Special Exception will not become effective until this Certificate of Action is filed by the applicant on the Land Records of the Town of Newington.

This Site Plan Modification will not become effective until 1) a transparency of the Certificate of Action is affixed to the original site plan mylar, 2) the modification is incorporated into the site plan and noted as a revision and 3) a mylar copy of the modified signed site plan original mylar is filed in the Town Plan and Zoning Office.

An Autocad DXF File shall be provided to the Town Planner for incorporation into the Town's GIS database at the time of submission of the plan mylar.

-2-

cs1128-2/3

RECEIVED & RECORDED IN
NEWINGTON LAND RECORDS

Dec. 10, 2001 at 11:00 A.M.

VOLUME *1478* PAGE *241*

BY *Jeri A. Hanson*
TOWN CLERK

VOL. 1394 PAGE 43



TOWN OF NEWINGTON

28148

Town Hall • 131 Cedar Street, Newington, Connecticut 06111
Central Telephone (860) 665-8500
Department Telephone (860)
Department Fax No (860) 665-8575
665-8577

Certified Mail No. P 972 914 104
OFFICE OF THE TOWN PLANNER

CERTIFICATE OF ACTION

TO: Attorney John W. Knuff
Hurwitz & Sagarin, LLC
147 Broad ST
Milford CT 06460

DATE: February 16, 2001

SUBJECT: PETITION 01-2001 123 Costello Road, Costello Industries owner, Nextel Communications of the Mid-Atlantic, Inc. 100 Corporate Place, Rocky Hill, applicant represented by John W. Knuff, Hurwitz & Sagarin, LLC 147 Broad Street Milford, CT 06460 request Special Exception Section 3.2.2 to add antenna to existing monopole, PD Zone.

At a meeting held February 14, 2001, the Newington Town Plan and Zoning Commission voted to approve the above referenced PETITION subject to the following conditions:

1. Approval is granted for the placement of Nextel PCS platform and antenna as a co-locator on the existing monopole at the elevation of 135' as shown on plans prepared by URS Corporation AES, 500 Enterprise Drive Rocky Hill, CT, dated 11-15-00, Sheets T-1, Z-1 and Z-2, entitled "Site No. CT-2517, 123 Costello Road, Newington, Connecticut."
2. All ground equipment shall be located within an 8' fence enclosure, no equipment shall be placed within 10' side yard setback area.
3. The approval of this special exception shall be void and of no effect unless construction of the project commences within one year from the date of the Commission's approval. The term "construction" pertains to the installation of the antenna and support ground facilities by the applicant, Nextel Communications.
4. Prior to the installation of the Nextel antenna building permits shall be obtained.

Certified by:

Edmund J. Meehan
Town Planner

This Special Exception will not become effective until this Certificate of Action is filed by the applicant on the Land Records of the Town of Newington.

Ca216-1

RECEIVED & RECORDED IN
NEWINGTON LAND RECORDS

FEB 21 2 03 PM '01

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BY
TOWN CLERK

Exhibit B

Property Card

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2020.

Town of Newington

ASSESSOR'S OFFICE



Information on the Property Records for the Municipality of Newington was last updated on 2/5/2022.



Parcel Information

Location:	123 COSTELLO RD	Property Use:	Industrial	Primary Use:	Warehouse
Unique ID:	C0685500	Map Block Lot:	32/018/00A	Acres:	2.84
490 Acres:	0.00	Zone:	PD	Volume / Page:	1304/ 147
Developers Map / Lot:	S/E 2020 & 2815	Census:			

Value Information

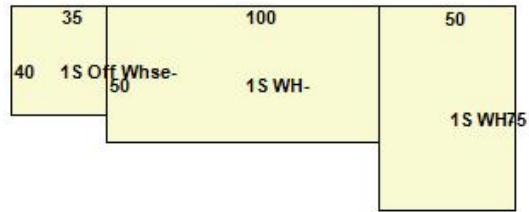
	Appraised Value	Assessed Value
Land	118,400	82,880
Buildings	1,013,080	709,160
Detached Outbuildings	25,000	17,500
Total	1,156,480	809,540

Owner's Information

Owner's Data

COSTELLO INDUSTRIES INC
PO BOX 370125
WEST HARTFORD, CT 06137-0125

Building 1

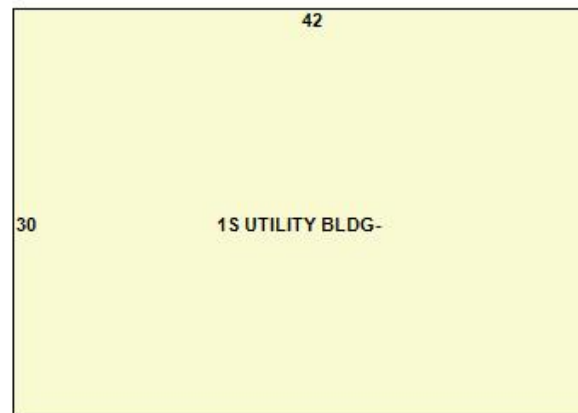


Category:	Industrial	Use:	Warehouse	GLA:	10,150
Stories:	1.00	Construction:	Masonry	Year Built:	1975
Heating:	Forced Hot Air	Fuel:	Natural Gas	Cooling Percent:	25
Siding:	Concrete Block/Metal	Roof Material:	Other	Beds/Units:	0

Special Features

Attached Components

Building 2



Category:	Industrial	Use:	Utility Building	GLA:	1,260
Stories:	1.00	Construction:	Steel	Year Built:	1981

Heating:	Unit Heater/AC	Fuel:	Natural Gas	Cooling Percent:	0
Siding:	Metal	Roof Material:	Other	Beds/Units:	0

Special Features

Overhead Doors	1
----------------	---

Attached Components

Detached Outbuildings

Type:	Year Built:	Length:	Width:	Area:
Paving	1975	1.00	25,000.00	25,000

Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Sale Price
COSTELLO INDUSTRIES INC	1304	0147	09/03/1999	Quit Claim	\$0
TAGATAC SANDRA	1304	0144	09/03/1999	Quit Claim	\$0
COSTELLO INDUSTRIES INC	0573	0098	03/31/1986		\$0
COSTELLO INDUSTRIES INC	0399	0332	08/18/1980		\$0
COSTELLO INDUSTRIES INC	0385	0280	12/18/1979		\$0
COSTELLO INDUSTRIES INC	0385	0278	12/18/1979		\$0
COSTELLO INDUSTRIES INC	0314	0129	06/06/1977		\$0
COSTELLO CONSTRUCTION CORP THE	0284	0147	02/19/1976		\$0
COSTELLO CONSTRUCTION CORP THE	0271	0180	06/17/1975		\$0

Building Permits

Permit Number	Permit Type	Date Opened	Reason
B-19-115	Comm Renovations	03/21/2019	AT&T proposes to modify their existing antenna configuration on the telecommunications tower by repl

Permit Number	Permit Type	Date Opened	Reason
B-19-15	Comm Renovations	01/10/2019	Verizon to replace six remote radio heads (non-antenna) to their existing antenna equipment on the t
B-18-695	Comm Renovations	11/27/2018	Adding (3) Antennas and its ancillary equipment/cables, replacing Remote Radio Heads (RRH) with New.
E-18-414	Electrical	11/16/2018	INSTALLATION OF DIESEL DC GENERATOR FOR T-MOBILE (REPLACEMENT)
B-18-676	Foundation	11/15/2018	T-Mobile to swap out (3) Antennas and (3) RRUs and swap out (1) coax for (1) hybrid fiber line
B-16-927	Foundation	12/12/2016	Verizon Wireless is looking to replace antenna panels and Remote Radio Heads to existing Cell Tower.
B-16-909	Other	12/05/2016	AT&T to replace three (3) antennas and replace six (6) Triplexors to their existing antennas equipme
E-16-425	Electrical	09/22/2016	INSTALL NEW OUTLETS & LIGHTING IN NEW ADDITION. INSTALL NEW 150A 3PH SUBPANEL IN ADDITION TO FEED N
B-16-527	Comm Renovations	05/30/2016	REPLACE (3) NEW AIR 32 ANTENNA
B-16-531	Comm Renovations	05/30/2016	BUILD NEW ADDITION ABUTTING EXISTING BUILDING
TB-16-150	Other	03/15/2016	AT&T (3) ANTENNAS AND (3) RRU'S
B-16-23	Addition	02/19/2016	T-MOBILE (3) NEW ANTENNAS
TB-14-114	Remodel	03/07/2014	ANTENNAS MODIFACATION
TB-13-447	Other	07/26/2013	6 ANTENNAS CELL TOWER
TB-13-173	Remodel	04/19/2013	REPLACE (3) ANTENNAS MONOPOLE
B-13-51	Remodel	03/07/2013	CONCRETE PAD TO 9'X10'
B-12-318	Addition	07/05/2012	
	Remodel	09/16/2010	REMOVE & REPLACE 12 EXISTING VERIZON
76610	Other	12/02/2008	100 AMP TELECOMMUNICATIONS EQUIP
61582	Building	03/27/2001	FOUND FOR PRE-F
60016	Building	05/16/2000	ANTENNA'S EXIST
58584	Building	08/23/1999	REPLACE TOWER

Exhibit C

Construction Drawings

THIS PAGE CONTAINS CONFIDENTIAL, PROPRIETARY OR TRADE SECRET INFORMATION EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW.

DISCLAIMER PROVIDED BY AT&T. THIS STATEMENT DOES NOT CONSTITUTE ENGINEERING ANALYSIS OR DESIGN.



THIS SUBMISSION CONTAINS CONFIDENTIAL, PROPRIETARY, OR TRADE SECRET INFORMATION THAT IS EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAWS. PLEASE MAKE SURE THESE PAGES ARE NOT DISCLOSED. IF ANY REQUEST IS MADE FOR THIS INFORMATION, PLEASE CONTACT THE SENDER IN ADDITION TO ANY LEGAL NOTICE REQUIREMENTS UNDER APPLICABLE LAW.

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AT&T SITE NUMBER: CTL01108
AT&T SITE NAME: NEWINGTON SOUTH
AT&T FA CODE: 10042331
AT&T PACE NUMBER: MRCTB051705, MRCTB051617, MRCTB052199
AT&T PROJECT: 5G NR RADIO, 5G NR 1 SR CBAND

BUSINESS UNIT #: 881364
SITE ADDRESS: 123 COSTELO ROAD NEWINGTON, CT 06111
COUNTY: HARTFORD
SITE TYPE: MONOPOLE
TOWER HEIGHT: 145'-0"



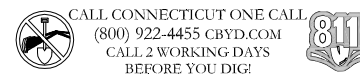
SITE INFORMATION

CROWN CASTLE USA INC. NEWINGTON
 SITE NAME:
 SITE ADDRESS: 123 COSTELO ROAD NEWINGTON, CT 06111
 COUNTY: HARTFORD
 MAP/PARCEL #: 32/018/00A
 AREA OF CONSTRUCTION: EXISTING
 LATITUDE: 41° 39' 18.72"
 LONGITUDE: -72° 43' 17.19"
 LAT/LONG TYPE: NAD83
 GROUND ELEVATION: 136
 CURRENT ZONING: PLANNED DEVELOPMENT
 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: COSTELLO INDUSTRIES INC. PO BOX 370125 WEST HARTFORD, CT 06137
 TOWER OWNER: CROWN CASTLE 2000 CORPORATE DRIVE CANONSBURG, PA 15317
 CARRIER/APPLICANT: AT&T TOWER ASSET GROUP 575 MOROSGO DRIVE ATLANTA, GA 30324-3300
 ELECTRIC PROVIDER: NORTHEAST UTILITIES
 TELCO PROVIDER: LIGHTOWER

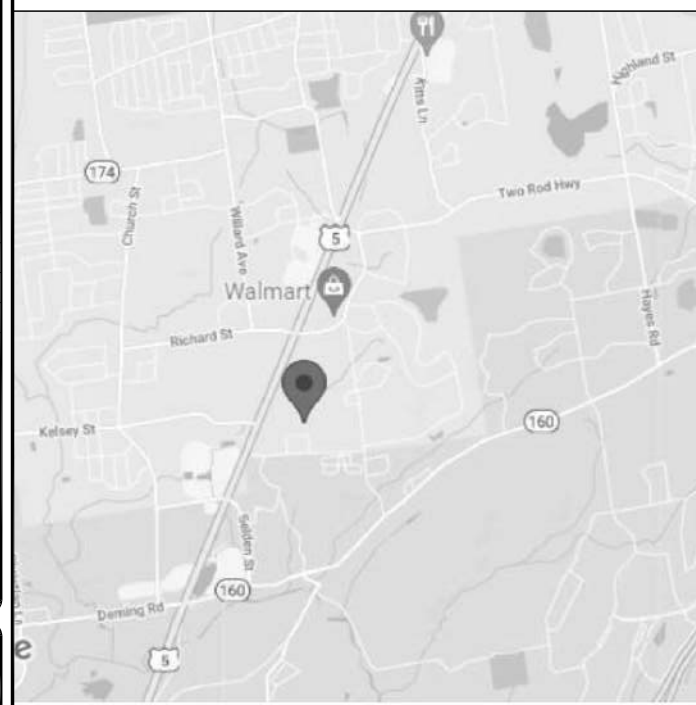
DRAWING INDEX

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
E-1	POWER ANALYSIS
G-1	GROUNDING SCHEMATIC
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM

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



LOCATION MAP



NO SCALE

SITE PHOTO



AT&T SITE NUMBER: CTL01108

BU #: 881364
 NEWINGTON

123 COSTELO ROAD
 NEWINGTON, CT 06111

EXISTING 145'-0" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES/QA
0	09/29/2021	VA	CONSTRUCTION	VA
1	10/06/2021	BL	CONSTRUCTION	VA
2	10/19/2021	VA	CONSTRUCTION	VA
3	12/08/2021	VA	CONSTRUCTION	VA
4	12/23/2021	VA	CONSTRUCTION	VA

PROJECT TEAM

A&E FIRM: ENGINEERED TOWER SOLUTIONS, PLLC 3227 WELLINGTON COURT RALEIGH, NC 27615 CROWNAESERVICES@ETS-PLLC.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
 JASON D'AMICO - CONSTRUCTION MANAGER JASON.D'AMICO@CROWNCastle.COM

PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.
 TOWER SCOPE OF WORK:
 • REMOVE (3) POWERWAVE - 7770 ANTENNAS
 • REMOVE (3) CCI - OPA-65R-LCUU-H6 ANTENNAS
 • REMOVE (3) QUINTEL - QS66512-2 ANTENNAS
 • REMOVE (3) KATHRIEN - 800-10965 ANTENNAS
 • REMOVE (6) LGP21401 TMAs
 • REMOVE (6) LGP21901 TRIPLEXERS
 • REMOVE (12) TPX-070821 TRIPLEXERS
 • REMOVE (6) COAX CABLES (1-5/8")
 • INSTALL (3) QUINTEL - QD6616-7 ANTENNAS
 • INSTALL (3) ERICSSON - AIR6449 N77D ANTENNAS
 • INSTALL (3) ERICSSON - AIR6419 N77G ANTENNAS
 • INSTALL (3) CCI - DMP65R-BU6DA ANTENNAS
 • INSTALL (6) Y CABLES
 GROUND SCOPE OF WORK:
 • INSTALL 6673 FHG IN SHELTER
 • REMOVE (1) 5216
 • REMOVE (1) XMU
 • REMOVE (6) DIPLEXERS
 • REMOVE (6) TRIPLEXERS

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
MECHANICAL	2015 IMC
ELECTRICAL	2017 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS: TOWER ENGINEERING PROFESSIONALS DATED: 04/23/2021
 MOUNT ANALYSIS: INFINIGY ENGINEERING, PLLC DATED: 09/07/2021
 RFDS REVISION: 2 DATED: 7/28/2021
 ORDER ID: 556505
 REVISION: 0



12/23/2021
 IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

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

SHEET NUMBER: **T-1** REVISION: **4**

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." 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.
6. 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.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
9. 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.
10. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS. LATEST APPROVED REVISION.
11. 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.
12. 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.
13. 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.
14. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
15. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
16. 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.
17. 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.
18. 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.
19. 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.
20. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
21. 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.

GREENFIELD GROUNDING NOTES:

- 1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GEG'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-OFF-POTENTIAL 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).

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 ACI MINIMUM. VERIFY 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 THW, 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 THW, 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 THW, 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/IEEC 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 NEW FITTINGS AS NOT ACCEPTABLE.
20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEC AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS (WIREFOLD SPECMATE WIREWAY).
22. SLOTTED WIRING CADD 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
120/208V, 3Ø	GROUND	GREEN
	A PHASE	BLACK
	B PHASE	RED
277/480V, 3Ø	C PHASE	BLUE
	NEUTRAL	WHITE
	GROUND	GREEN
DC VOLTAGE	A PHASE	BROWN
	B PHASE	ORANGE OR PURPLE
	C PHASE	YELLOW
	NEUTRAL	GREY
	GROUND	GREEN
	POS (+)	RED**
	NEG (-)	BLACK**

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

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
RETS REMOTE ELECTRIC TILT
RFDS RADIO FREQUENCY DATA SHEET
RRH REMOTE RADIO HEAD
RRJ REMOTE RADIO UNIT
SIAD SMART INTEGRATED DEVICE
TMA TOWER MOUNTED AMPLIFIER
TYP TYPICAL
UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
W.P. WORK POINT

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


1025 LENOX PARK BOULEVARD NE
3RD FLOOR, ATLANTA, GA 30319



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



3227 WAELLINGTON COURT
RALEIGH, NC 27615

AT&T SITE NUMBER: **CTL01108**

BU #: **881364**
NEWINGTON

123 COSTELO ROAD
NEWINGTON, CT 06111

EXISTING 145'-0" MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES/QA
0	09/29/2021	VA	CONSTRUCTION	VA
1	10/06/2021	BL	CONSTRUCTION	VA
2	10/19/2021	VA	CONSTRUCTION	VA
3	12/08/2021	VA	CONSTRUCTION	VA
4	12/23/2021	VA	CONSTRUCTION	VA



12/23/2021

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SHEET NUMBER: **T-2** REVISION: **4**



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3RD FLOOR, ATLANTA, GA 30319



3 CORPORATE PARK DRIVE, SUITE 101
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RALEIGH, NC 27615

AT&T SITE NUMBER: CTL01108

BU #: 881364
NEWINGTON

123 COSTELO ROAD
NEWINGTON, CT 06111

EXISTING 145'-0" MONOPOLE

ISSUED FOR:

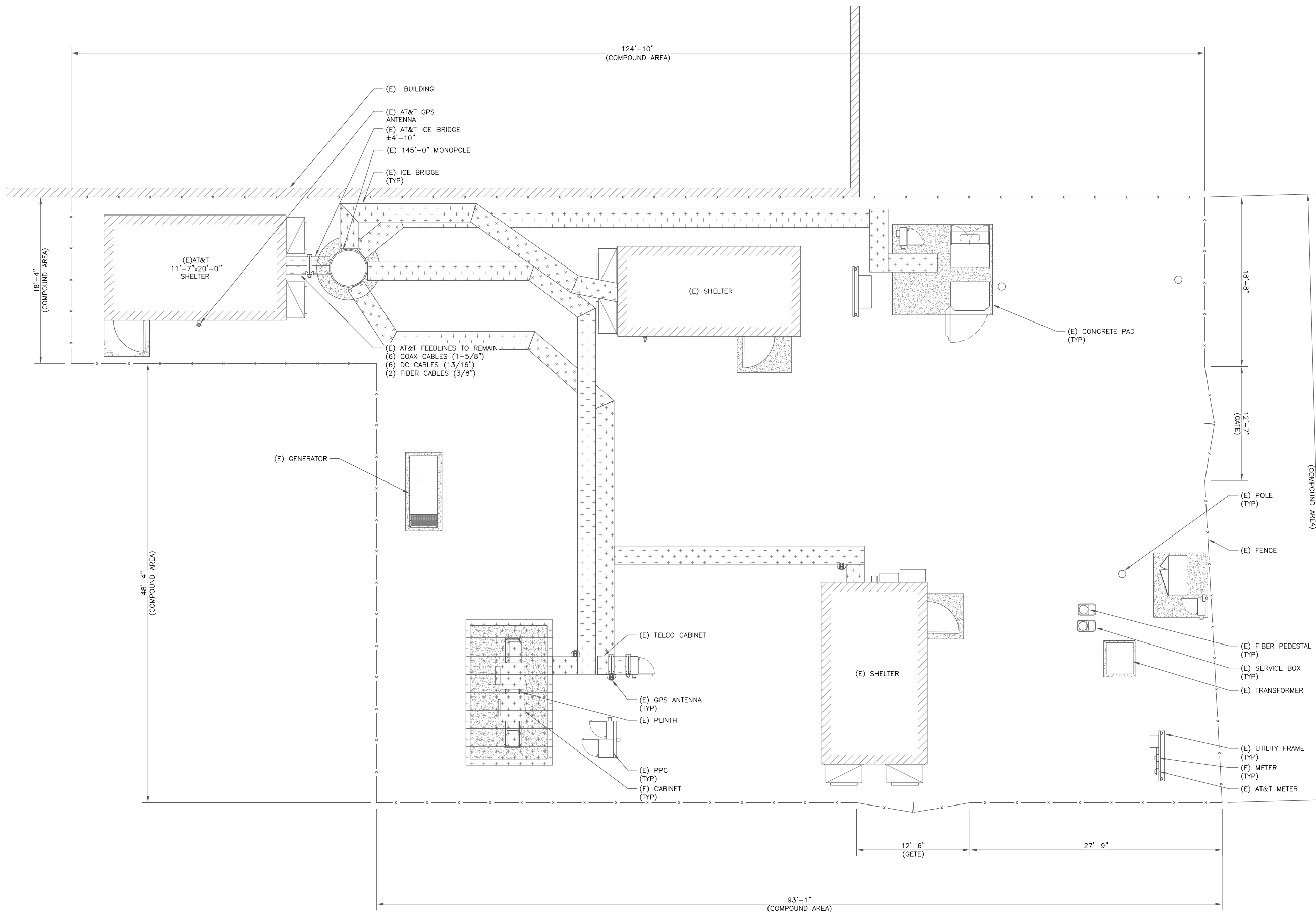
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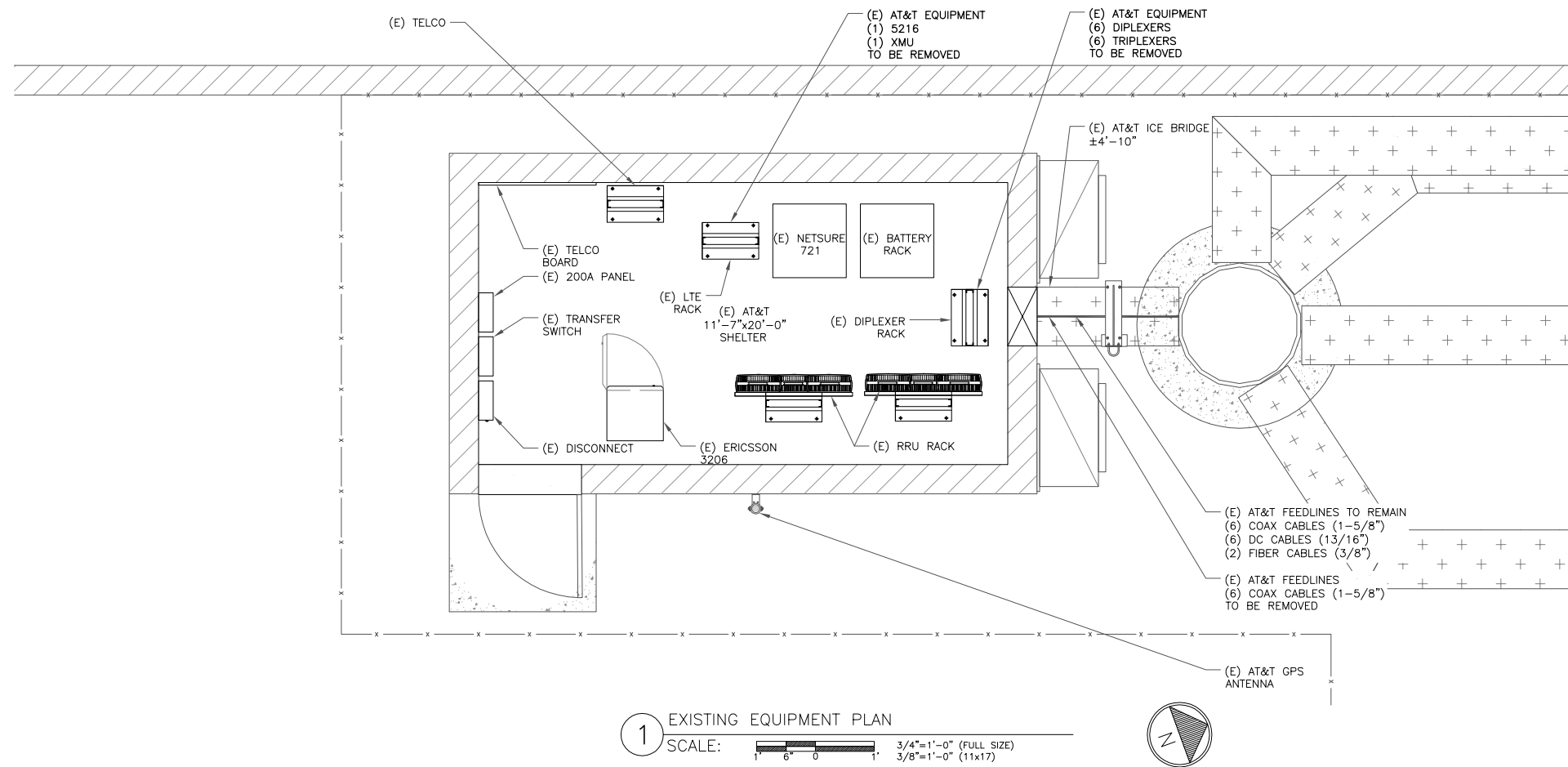
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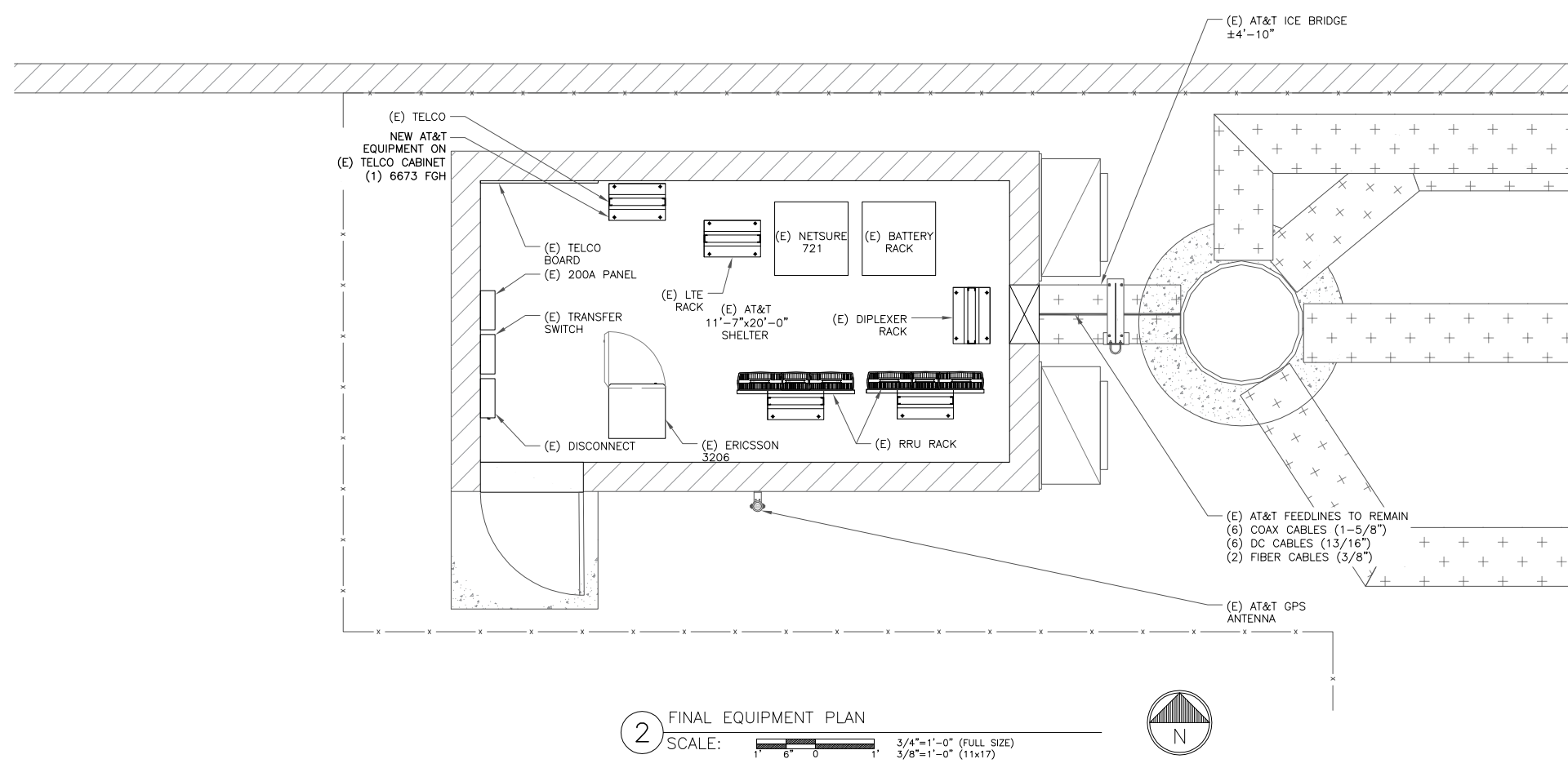


1 SITE PLAN
SCALE: 3/16"=1'-0" (FULL SIZE)
3/32"=1'-0" (11x17)





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



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

- GROUND SCOPE OF WORK:**
- INSTALL 6673 FGH IN SHELTER
 - REMOVE (1) 5216
 - REMOVE (1) XMU
 - REMOVE (6) DIPLEXERS
 - REMOVE (6) TRIPLEXERS

NOTE:
 THE POWER DESIGN FOR ANY AC ELECTRICAL POWER CHANGES IS TO BE PERFORMED BY OTHERS AND IS SHOWN HERE FOR REFERENCE PURPOSES ONLY. AT&T IS SOLELY RESPONSIBLE FOR THE ELECTRICAL POWER DESIGN.



AT&T SITE NUMBER: CTL01108

BU #: 881364
 NEWINGTON

123 COSTELO ROAD
 NEWINGTON, CT 06111

EXISTING 145'-0" MONOPOLE

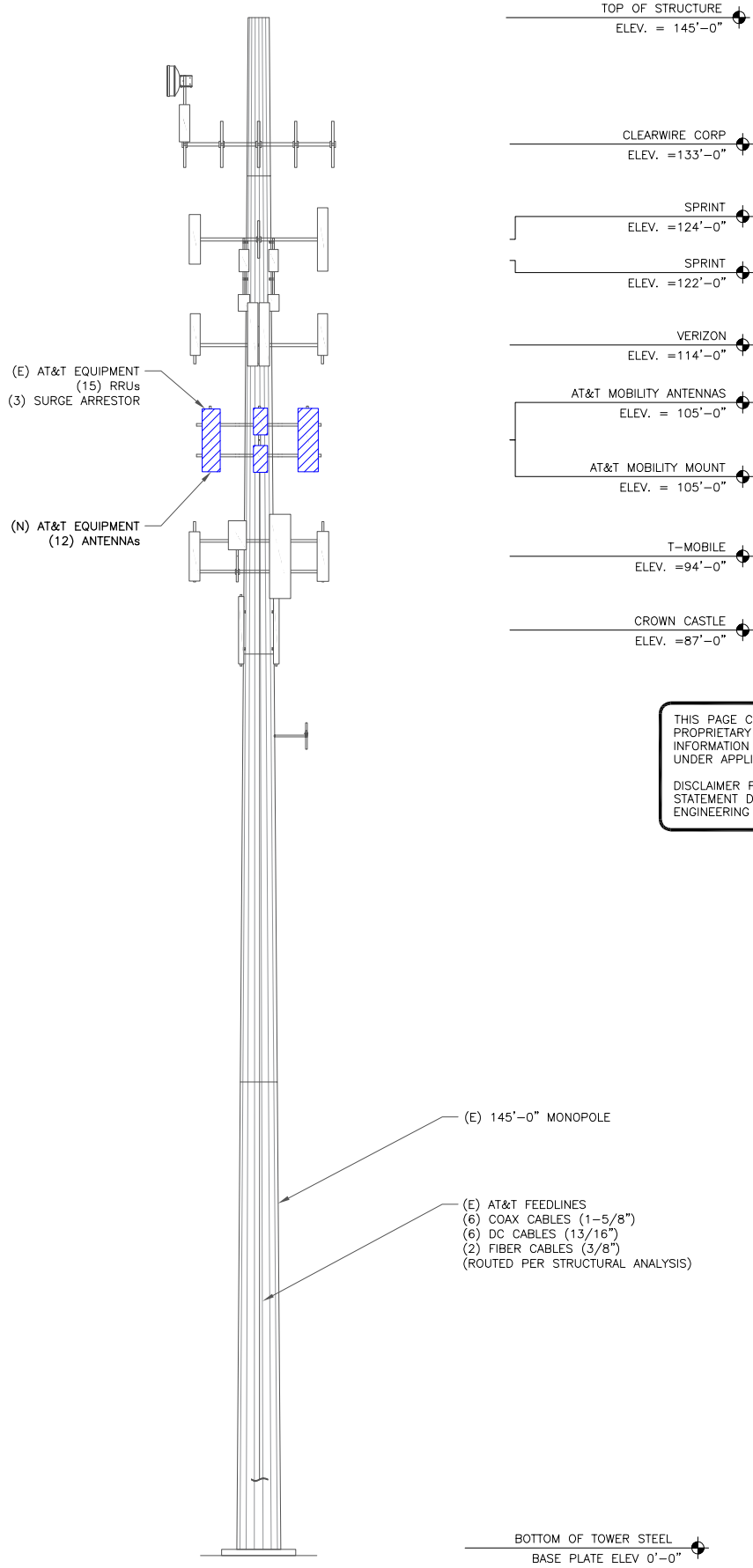
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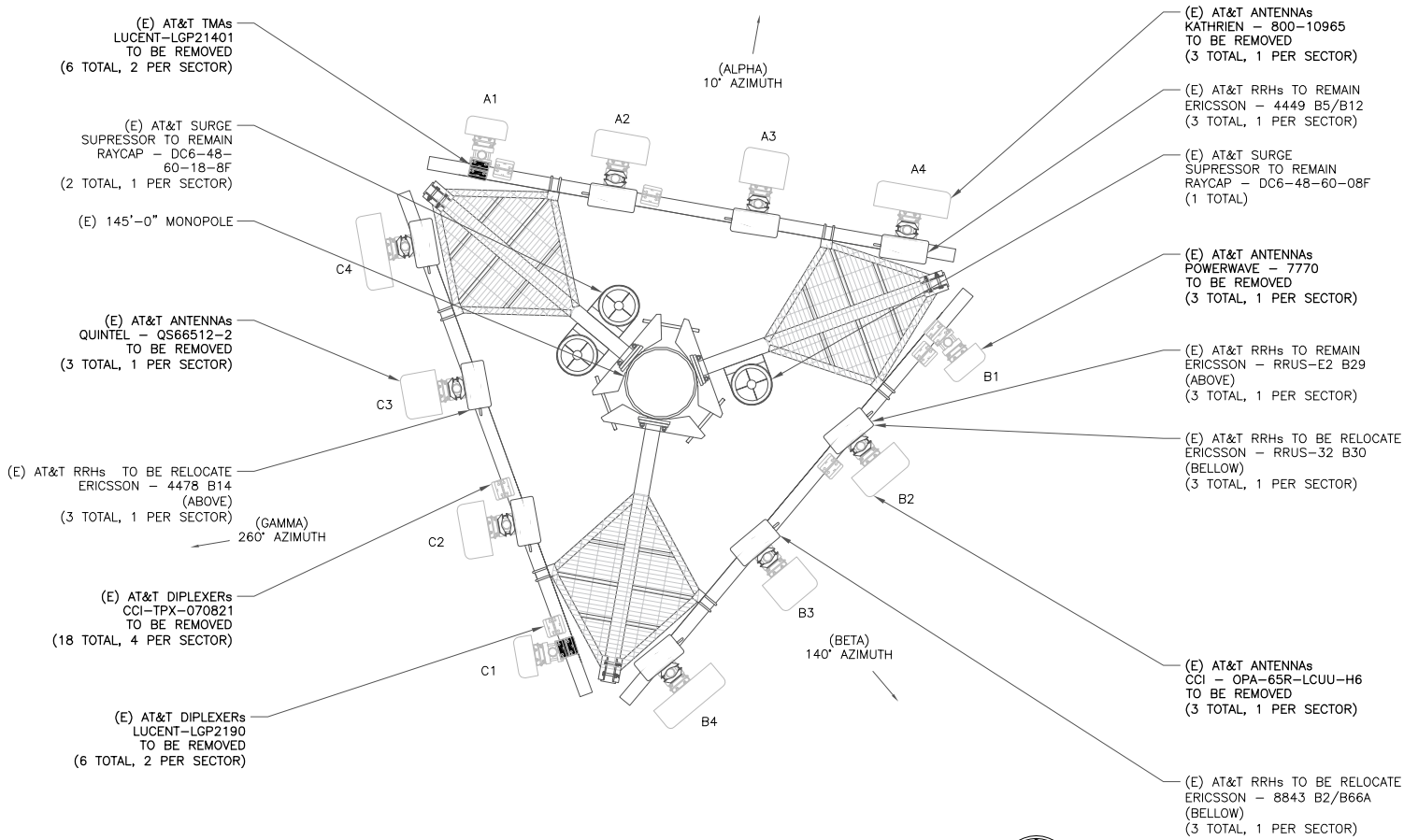
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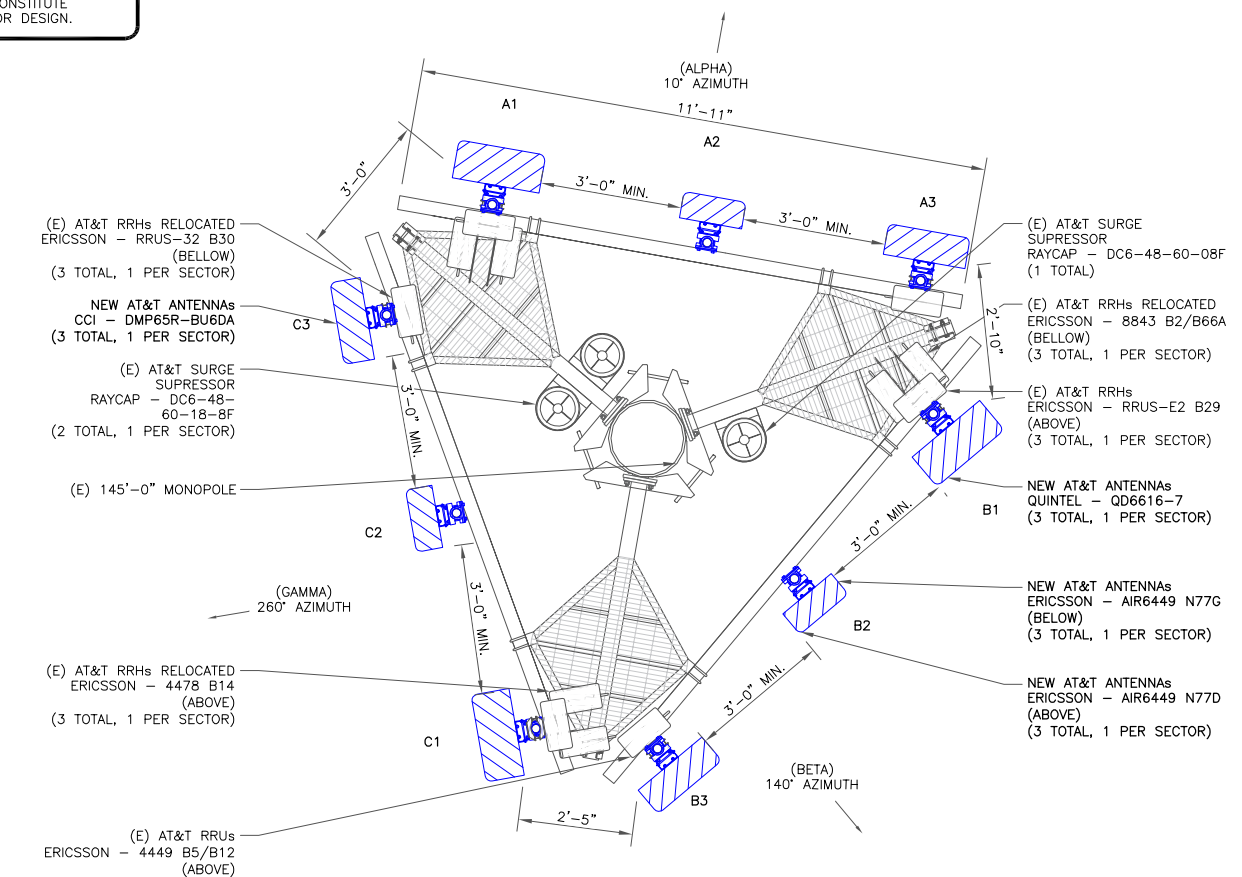
1 FINAL ELEVATION
SCALE: NOT TO SCALE

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2 EXISTING ANTENNA PLAN
SCALE:



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

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

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

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

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AT&T SITE NUMBER: CTL01108

BU #: 881364
NEWINGTON

123 COSTELO ROAD
NEWINGTON, CT 06111

EXISTING 145'-0" MONOPOLE

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SHEET NUMBER: **C-2** REVISION: **4**

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FINAL EQUIPMENT SCHEDULE (VERIFY WITH CURRENT RFDS)

ALPHA																		
POSITION	ANTENNA				RADIO			DIPLEXER			TMA		SURGE PROTECTION		CABLES			
	TECH.	STATUS/MANUFACTURER MODEL	AZIMUTH	RAD CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS/MANUFACTURER MODEL	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE	LENGTH
A1	LTE-700/ 1900/AWS 5G-1900/ AWS	(N) QUINTEL QD6616-7	10°	105'	1	(E) 8843 B2/B66A	TOWER	-	-	-	-	-	1	(E) DC6-48-60-18-8F	2	(E) COAX	1-5/8"	155'-0"
					1	(E) 4478 B14									2	(E) DC	13/16"	155'-0"
					1	(E) RRUS-E2 B29												
A2	-	(N) ERICSSON - AIR6449 N77D+AIR6419 N77G STACKED	10°	105'	-	-	-	-	-	-	-	-	-	-	-	-	-	-
A3	LTE-700/ WCS 5G-850	(N) CCI DMP65R-BU6DA	10°	105'	1	(E) 4449 B5/B12	TOWER	-	-	-	-	-	-	1	(E) FIBER	3/8"	155'-0"	
					1	(E) RRUS-32 B30	TOWER											
BETA																		
B1	LTE-700/ 1900/AWS 5G-1900/ AWS	(N) QUINTEL QD6616-7	140°	105'	1	(E) 8843 B2/B66A	TOWER	-	-	-	-	-	1	(E) DC6-48-60-18-8F	2	(E) COAX	1-5/8"	155'-0"
					1	(E) 4478 B14									2	(E) DC	13/16"	155'-0"
					1	(E) RRUS-E2 B29												
B2	-	(N) ERICSSON - AIR6449 N77D+AIR6419 N77G STACKED	140°	105'	-	-	-	-	-	-	-	-	-	-	-	-	-	-
B3	LTE-700/ WCS 5G-850	(N) CCI DMP65R-BU6DA	140°	105'	1	(E) 4449 B5/B12	TOWER	-	-	-	-	-	-	1	(E) FIBER	3/8"	155'-0"	
					1	(E) RRUS-32 B30	TOWER											
GAMMA																		
C1	LTE-700/ 1900/AWS 5G-1900/ AWS	(N) QUINTEL QD6616-7	260°	105'	1	(E) 8843 B2/B66A	TOWER	-	-	-	-	-	1	(E) DC6-48-60-08F	2	(E) COAX	1-5/8"	155'-0"
					1	(E) 4478 B14									2	(E) DC	13/16"	155'-0"
					1	(E) RRUS-E2 B29												
C2	-	(N) ERICSSON - AIR6449 N77D+AIR6419 N77G STACKED	260°	105'	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C3	LTE-700/ WCS 5G-850	(N) CCI DMP65R-BU6DA	260°	105'	1	(E) 4449 B5/B12	TOWER	-	-	-	-	-	-	-	-	-	-	
					1	(E) RRUS-32 B30	TOWER											

NOTE:
(E) - EXISTING
(N) - NEW



AT&T SITE NUMBER: CTL01108

BU #: 881364
NEWINGTON

123 COSTELO ROAD
NEWINGTON, CT 06111

EXISTING 145'-0" MONOPOLE

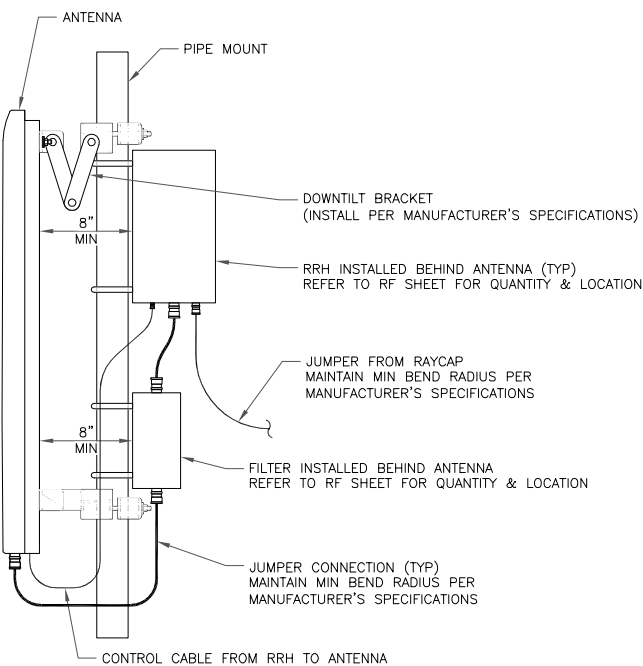
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4	12/23/2021	VA	CONSTRUCTION	VA



12/23/2021

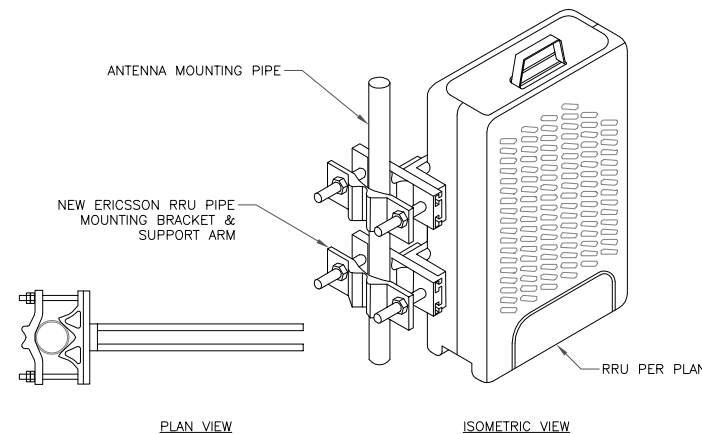
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SHEET NUMBER: **C-3** REVISION: **4**

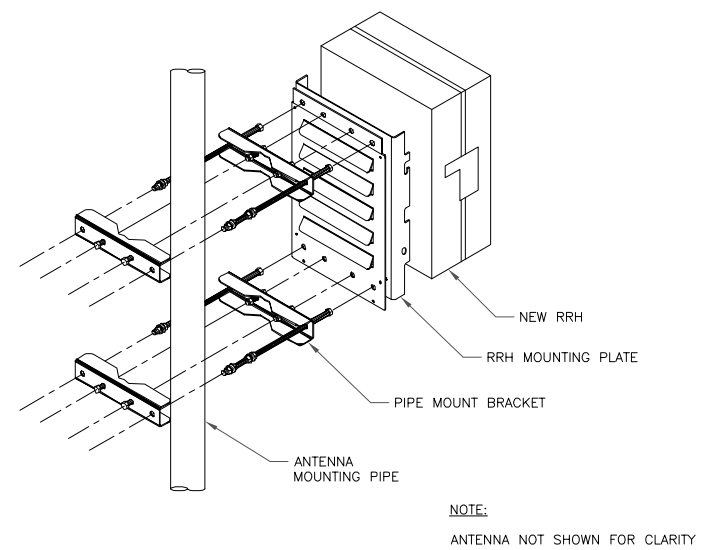


1 GENERIC ANTENNA MOUNTING ELEVATION
SCALE: NOT TO SCALE

ERICSSON RRU MOUNTING KIT:
 SXX 107 2839/1: SINGLE RRU SUPPORT KIT (PART # 5335) (OR ENGINEER APPROVED EQUIVALENT)
 SXX 107 2839/2: EXPANSION KIT (PART # 5336) (OR ENGINEER APPROVED EQUIVALENT)
MOUNTING NOTES:
 REFER TO PRODUCT SPECS FOR BOLT SIZE & PIPE DIAMETER TOLERANCES. THE PART NO. SXX107-2839/2 IS REQUIRED FOR (2) RRUS.

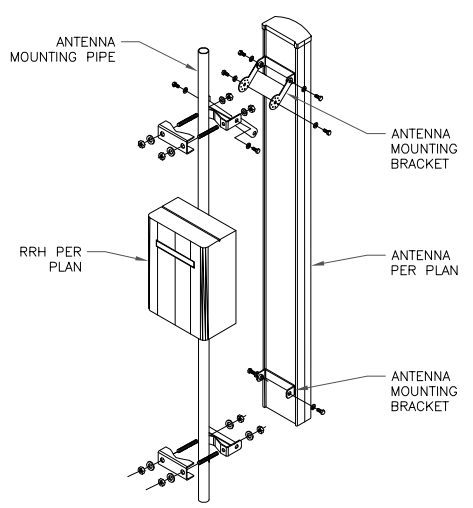


2 ERICSSON - SXX 107 2839
SCALE: NOT TO SCALE



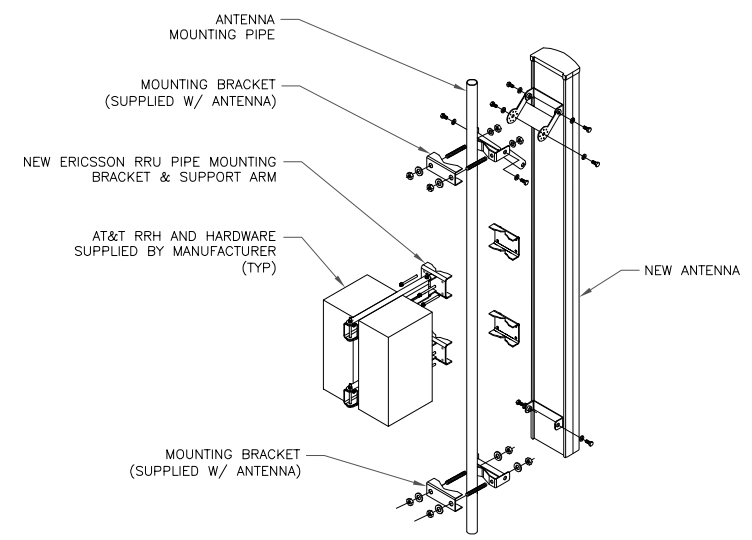
3 SINGLE RRH MOUNTING DETAIL
SCALE: NOT TO SCALE

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.

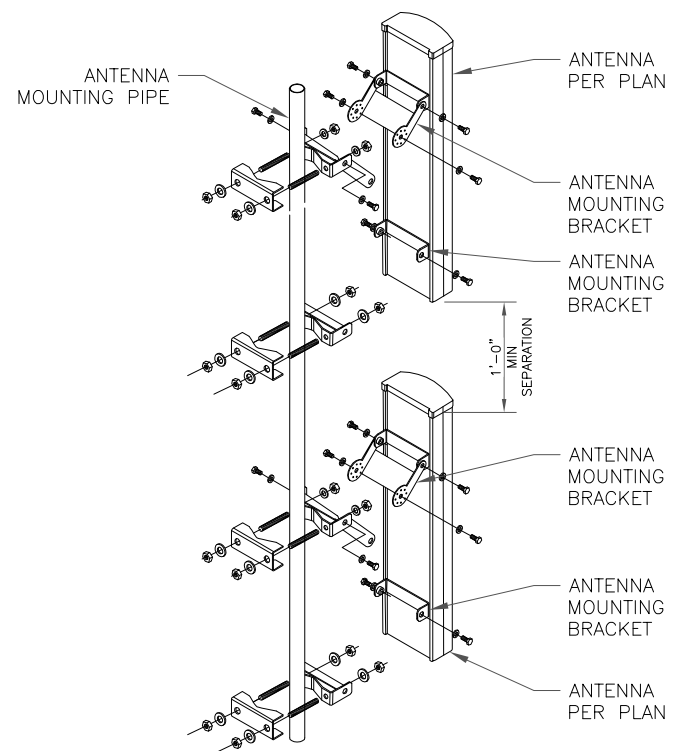


4 ANTENNA WITH RRH MOUNTING DETAIL
SCALE: NOT TO SCALE

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.



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



6 DUAL ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

AT&T
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CROWN CASTLE
 3 CORPORATE PARK DRIVE, SUITE 101
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ETS
 ENGINEERED TOWER SOLUTIONS, PLLC
 3227 WASHINGTON COURT
 RALEIGH, NC 27615

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BU #: 881364
 NEWINGTON

123 COSTELO ROAD
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EXISTING 145'-0" MONOPOLE

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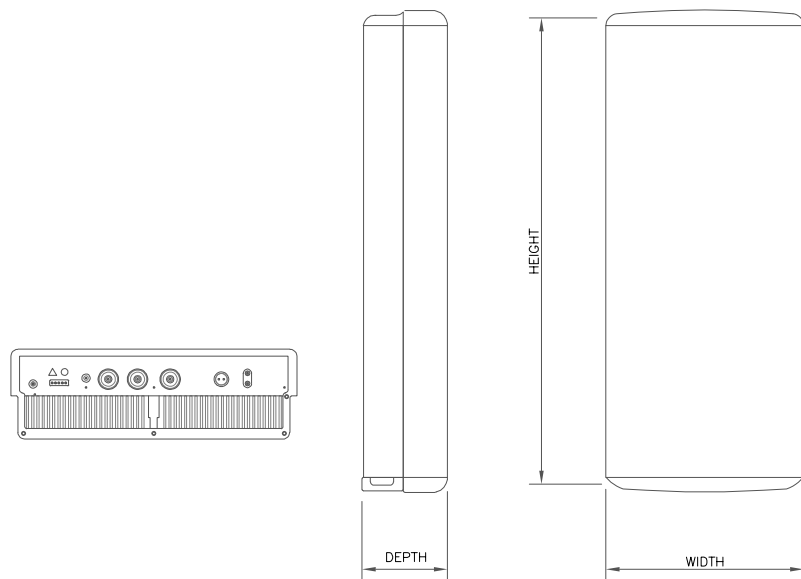
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STATE OF CONNECTICUT
 FREDERIC BOSTON
 P.E. 029529
 LICENSED PROFESSIONAL ENGINEER

12/23/2021
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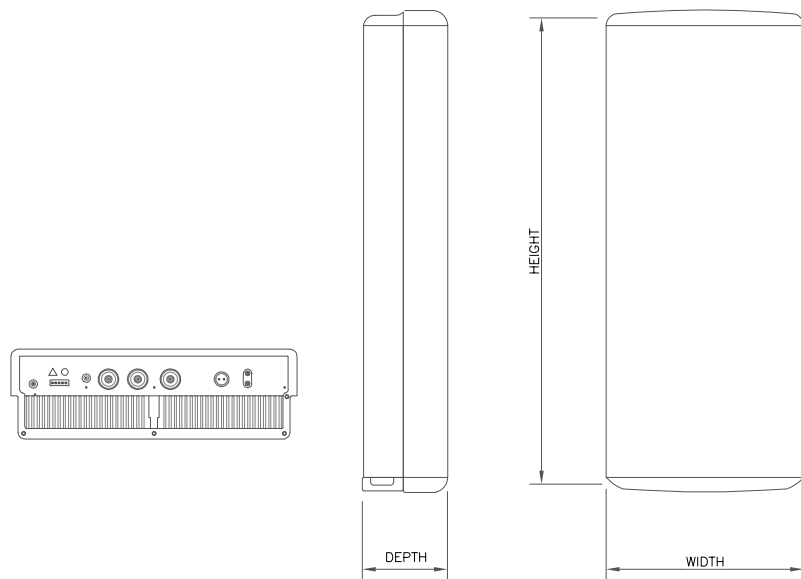
SHEET NUMBER: **C-4** REVISION: **4**

HEIGHT	WIDTH	DEPTH	WEIGHT
30.40"	15.90"	8.10"	81.60 LBS



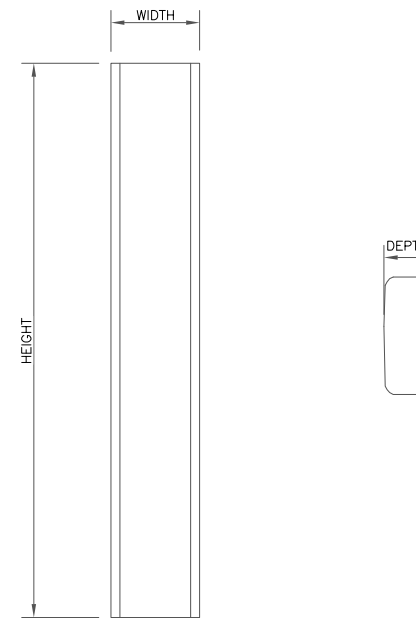
1 ERICSSON - AIR 6449 N77D
SCALE: NOT TO SCALE

HEIGHT	WIDTH	DEPTH	WEIGHT
30.40"	15.90"	8.10"	66.20 LBS



2 ERICSSON - AIR 6419 N77G
SCALE: NOT TO SCALE

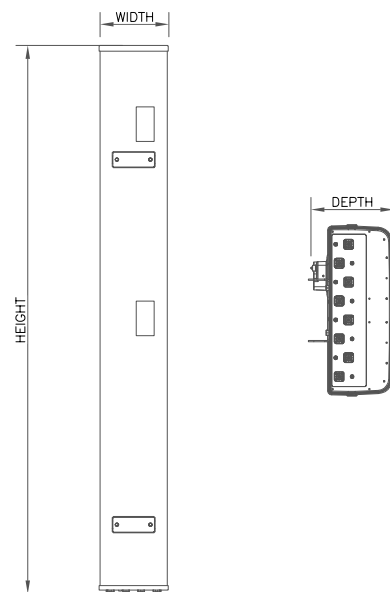
HEIGHT	WIDTH	DEPTH	WEIGHT
72.00"	22.00"	09.60"	150.00 LBS



3 QUINTEL - QD6616-7
SCALE: NOT TO SCALE

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HEIGHT	WIDTH	DEPTH	WEIGHT
71.00"	20.70"	7.70"	105.60 LBS



4 CCI - DMP65R-BU6DA
SCALE: NOT TO SCALE

5 NOT USED
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE



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123 COSTELO ROAD
NEWINGTON, CT 06111

EXISTING 145'-0" MONOPOLE

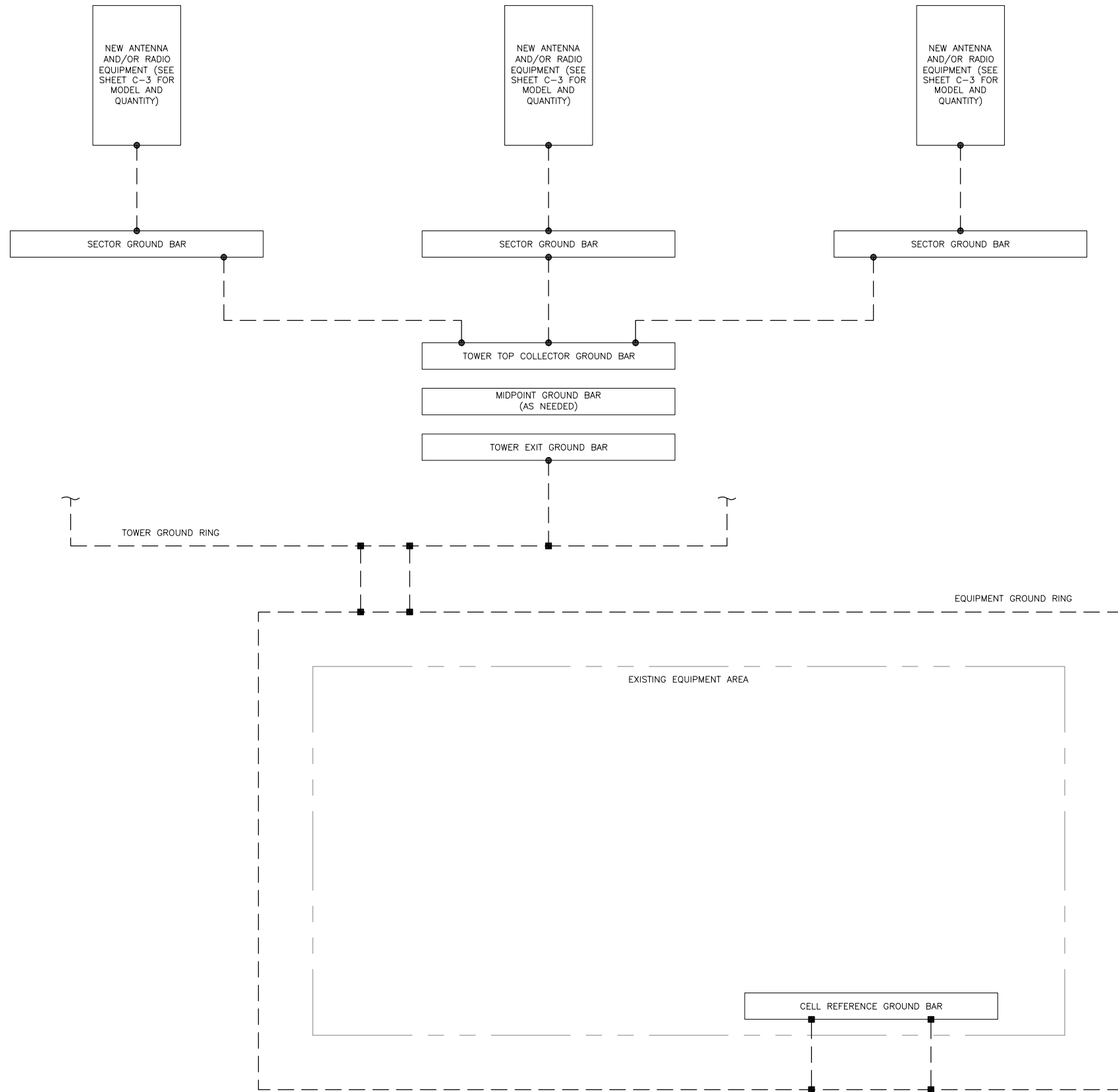
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SHEET NUMBER: C-5 REVISION: 4



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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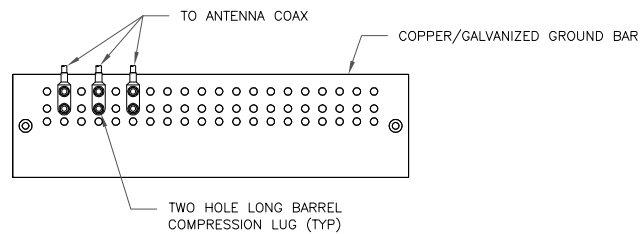
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3	12/08/2021	VA	CONSTRUCTION	VA
4	12/23/2021	VA	CONSTRUCTION	VA

12/23/2021

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1 GROUNDING SCHEMATIC
SCALE: NOT TO SCALE

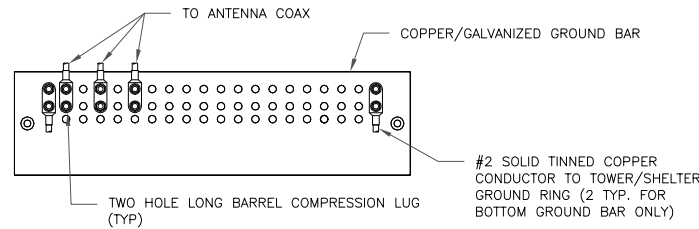
SHEET NUMBER: **G-1** REVISION: **4**



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

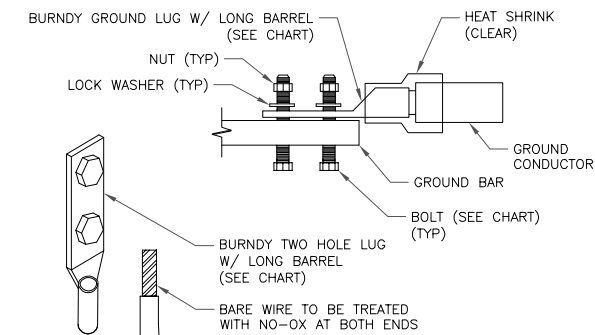


NOTES:

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

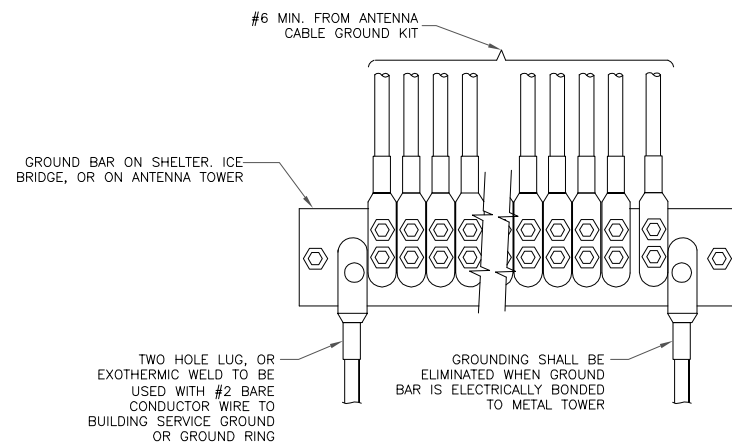
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



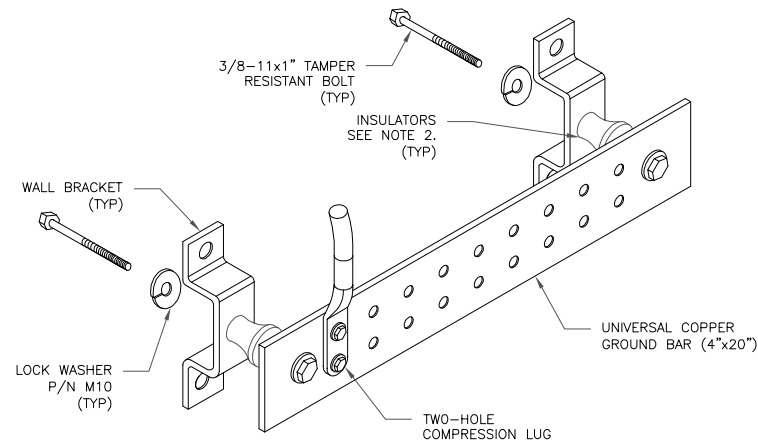
NOTE:

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



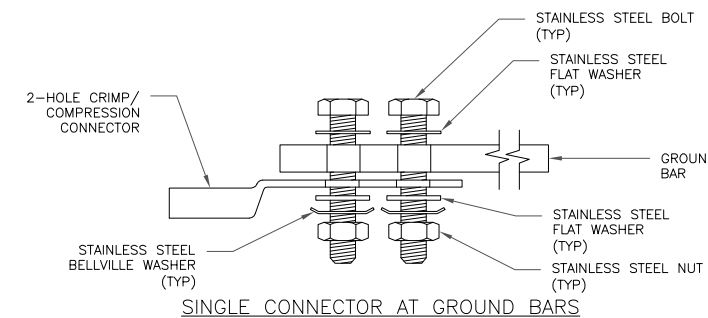
4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



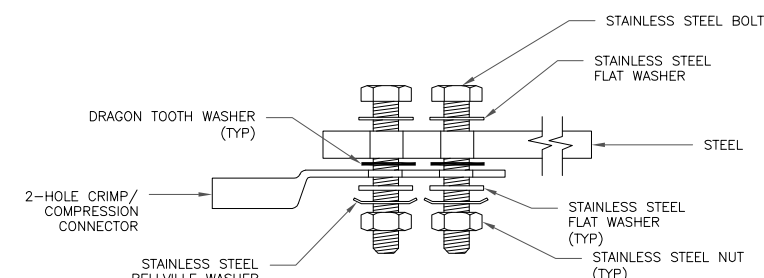
NOTES:

1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY GAS-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.

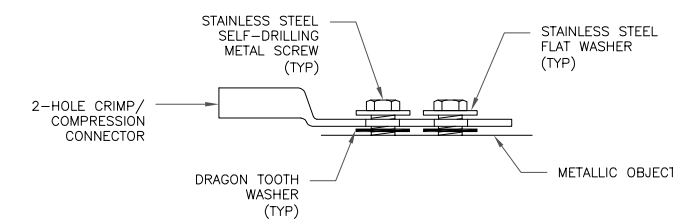
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



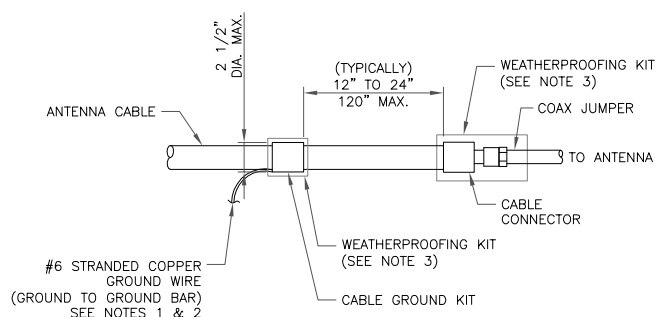
SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



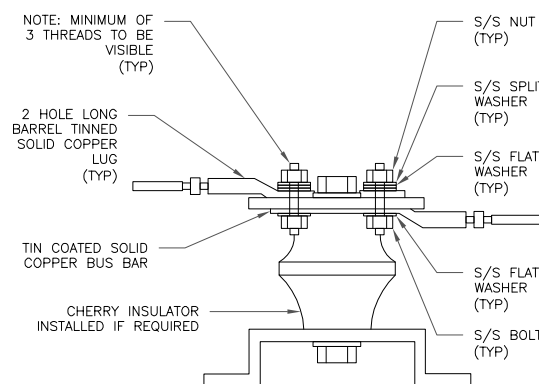
SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS



NOTES:

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

6 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE



AT&T SITE NUMBER: CTL01108

BU #: 881364
NEWINGTON

123 COSTELO ROAD
NEWINGTON, CT 06111

EXISTING 145'-0" MONOPOLE

ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES/QA
0	09/29/2021	VA	CONSTRUCTION	VA
1	10/06/2021	BL	CONSTRUCTION	VA
2	10/19/2021	VA	CONSTRUCTION	VA
3	12/08/2021	VA	CONSTRUCTION	VA
4	12/23/2021	VA	CONSTRUCTION	VA



12/23/2021
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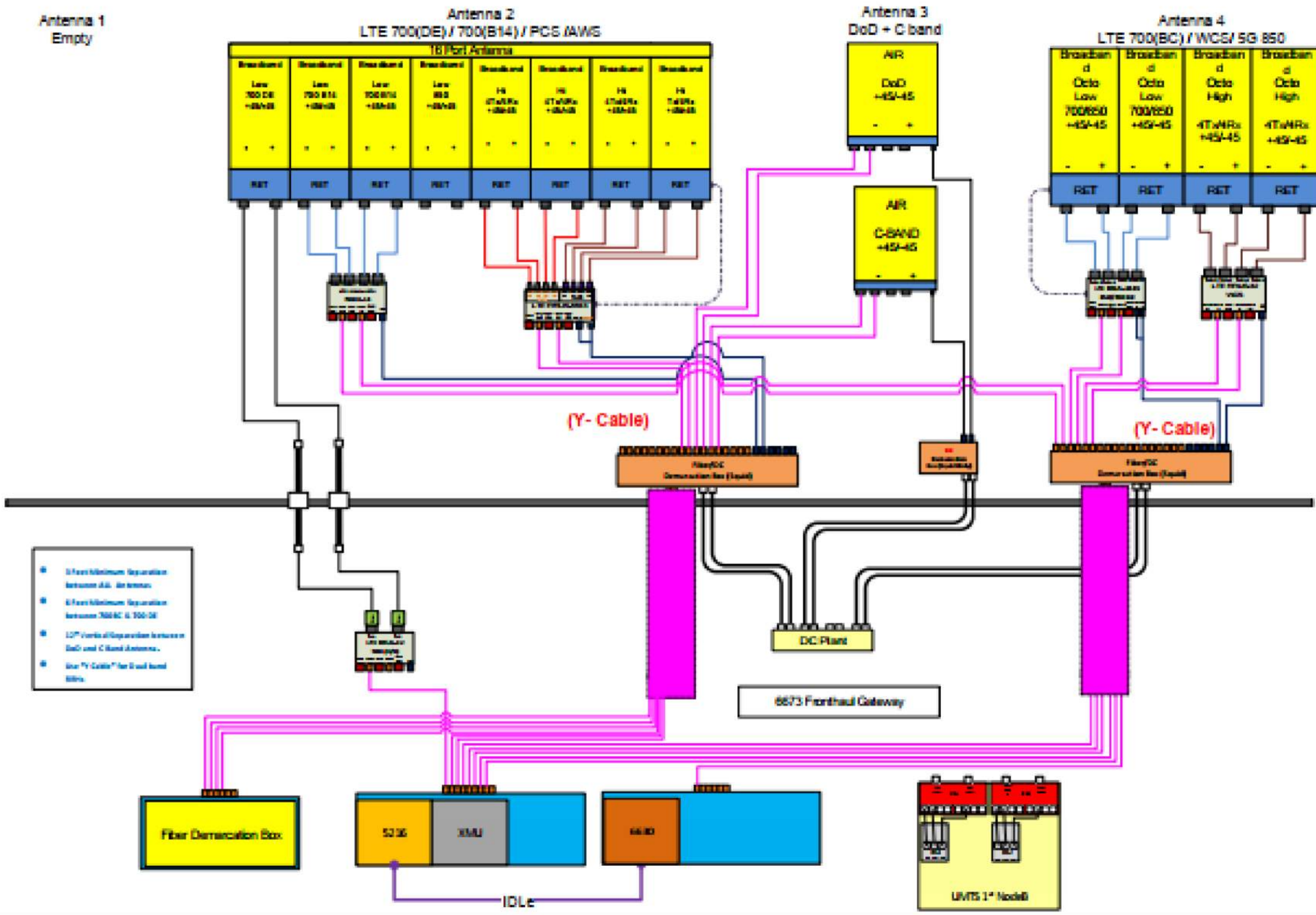


Exhibit D

Structural Analysis Report

Exhibit E

Mount Analysis

Exhibit F

Power Density/RF Emissions Report

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

AT&T Existing Facility

Site ID: CTL01108

881364

123 Costelo Road
Newington, Connecticut 06111

February 6, 2022

EBI Project Number: 6222000314

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	71.60%

February 6, 2022

AT&T

Emissions Analysis for Site: CTL01108 - 881364

EBI Consulting was directed to analyze the proposed AT&T facility located at **123 Costelo Road in Newington, Connecticut** for the purpose of determining whether the emissions from the Proposed AT&T Antenna Installation located on this property are within specified federal limits.

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

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

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

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately $400 \mu\text{W}/\text{cm}^2$ and $467 \mu\text{W}/\text{cm}^2$, respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully

aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed AT&T Wireless antenna facility located at 123 Costello Road in Newington, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower. For power density calculations, the broadcast footprint of the AIR6449 antenna has been considered. Due to the beamforming nature of this antenna, the actual beam locations vary depending on demand and are narrow in nature. Using the broadcast footprint accounts for the potential location of beams at any given time.

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

- 1) 4 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 2) 2 LTE DE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 3) 4 LTE FN channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 4) 4 5G channels (850 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 5) 4 LTE / 5G channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.

- 6) 4 LTE / 5G channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 7) 4 LTE channels (WCS Band – 2300 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 25 Watts per Channel.
- 8) 2 C-Band Channels (3700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 144.58 Watts per Channel.
- 9) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 10) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 11) The antennas used in this modeling are the Quintel QD6616-7 for the 700 MHz / 700 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6419 for the 3700 MHz channel(s), the Ericsson AIR 6449 for the 3700 MHz channel(s), the CCI DMP65R-BU6DA for the 700 MHz / 850 MHz / 2300 MHz channel(s) in Sector A, the Quintel QD6616-7 for the 700 MHz / 700 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6419 for the 3700 MHz channel(s), the Ericsson AIR 6449 for the 3700 MHz channel(s), the CCI DMP65R-BU6DA for the 700 MHz / 850 MHz / 2300 MHz channel(s) in Sector B, the Quintel QD6616-7 for the 700 MHz / 700 MHz / 1900 MHz / 2100 MHz channel(s), the Ericsson AIR 6419 for the 3700 MHz channel(s), the Ericsson AIR 6449 for the 3700 MHz channel(s), the CCI DMP65R-BU6DA for the 700 MHz / 850 MHz / 2300 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

- 12) The antenna mounting height centerline of the proposed antennas is 105 feet above ground level (AGL).
- 13) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 14) All calculations were done with respect to uncontrolled / general population threshold limits.

AT&T Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Quintel QD6616-7	Make / Model:	Quintel QD6616-7	Make / Model:	Quintel QD6616-7
Frequency Bands:	700 MHz / 700 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	700 MHz / 700 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	700 MHz / 700 MHz / 1900 MHz / 2100 MHz
Gain:	11.97 dBd / 11.97 dBd / 15.11 dBd / 15.33 dBd	Gain:	11.97 dBd / 11.97 dBd / 15.11 dBd / 15.33 dBd	Gain:	11.97 dBd / 11.97 dBd / 15.11 dBd / 15.33 dBd
Height (AGL):	105 feet	Height (AGL):	105 feet	Height (AGL):	105 feet
Channel Count:	14	Channel Count:	14	Channel Count:	14
Total TX Power (W):	560 Watts	Total TX Power (W):	560 Watts	Total TX Power (W):	560 Watts
ERP (W):	14,426.08	ERP (W):	14,426.08	ERP (W):	14,426.08
Antenna A1 MPE %:	6.87%	Antenna B1 MPE %:	6.87%	Antenna C1 MPE %:	6.87%
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Ericsson AIR 6419	Make / Model:	Ericsson AIR 6419	Make / Model:	Ericsson AIR 6419
Frequency Bands:	3700 MHz	Frequency Bands:	3700 MHz	Frequency Bands:	3700 MHz
Gain:	23.45 dBd	Gain:	23.45 dBd	Gain:	23.45 dBd
Height (AGL):	105 feet	Height (AGL):	105 feet	Height (AGL):	105 feet
Channel Count:	1	Channel Count:	1	Channel Count:	1
Total TX Power (W):	144.58	Total TX Power (W):	144.58	Total TX Power (W):	144.58
ERP (W):	31,996.92	ERP (W):	31,996.92	ERP (W):	31,996.92
Antenna A2 MPE %:	11.74%	Antenna B2 MPE %:	11.74%	Antenna C2 MPE %:	11.74%
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	3700 MHz	Frequency Bands:	3700 MHz	Frequency Bands:	3700 MHz
Gain:	23.45 dBd	Gain:	23.45 dBd	Gain:	23.45 dBd
Height (AGL):	105 feet	Height (AGL):	105 feet	Height (AGL):	105 feet
Channel Count:	1	Channel Count:	1	Channel Count:	1
Total TX Power (W):	144.58	Total TX Power (W):	144.58	Total TX Power (W):	144.58
ERP (W):	31,996.92	ERP (W):	31,996.92	ERP (W):	31,996.92
Antenna A3 MPE %:	11.74%	Antenna B3 MPE %:	11.74%	Antenna C3 MPE %:	11.74%
Antenna #:	4	Antenna #:	4	Antenna #:	4
Make / Model:	CCI DMP65R-BU6DA	Make / Model:	CCI DMP65R-BU6DA	Make / Model:	CCI DMP65R-BU6DA
Frequency Bands:	700 MHz / 850 MHz / 2300 MHz	Frequency Bands:	700 MHz / 850 MHz / 2300 MHz	Frequency Bands:	700 MHz / 850 MHz / 2300 MHz
Gain:	11.85 dBd / 12.45 dBd / 16.25 dBd	Gain:	11.85 dBd / 12.45 dBd / 16.25 dBd	Gain:	11.85 dBd / 12.45 dBd / 16.25 dBd
Height (AGL):	105 feet	Height (AGL):	105 feet	Height (AGL):	105 feet
Channel Count:	12	Channel Count:	12	Channel Count:	12
Total TX Power (W):	420 Watts	Total TX Power (W):	420 Watts	Total TX Power (W):	420 Watts
ERP (W):	9,479.38	ERP (W):	9,479.38	ERP (W):	9,479.38
Antenna A4 MPE %:	5.29%	Antenna B4 MPE %:	5.29%	Antenna C4 MPE %:	5.29%

- An adjusted power reduction factor of 0.32 was applied to the AIR 6449 antennas per guidance from AT&T.

- Specifications were not available for the Ericsson AIR 6419 antenna. Per AT&T, specifications for the AIR 6449 antenna were used to model the 6419 due to its similarity.

Site Composite MPE %	
Carrier	MPE %
AT&T (Max at Sector A):	35.64%
Verizon	8.7%
Metro PCS	1.85%
Clearwire	0.12%
Sprint	0.14%
Nextel	0.34%
T-Mobile	24.81%
Site Total MPE % :	71.60%

AT&T MPE % Per Sector	
AT&T Sector A Total:	35.64%
AT&T Sector B Total:	35.64%
AT&T Sector C Total:	35.64%
Site Total MPE % :	71.60%

AT&T Maximum MPE Power Values (Sector A)							
AT&T Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
AT&T 700 MHz LTE FN	4	629.59	105.0	9.24	700 MHz LTE FN	467	1.98%
AT&T 700 MHz LTE DE	2	629.59	105.0	4.62	700 MHz LTE DE	467	0.99%
AT&T 1900 MHz LTE/5G	4	1297.36	105.0	19.04	1900 MHz LTE/5G	1000	1.90%
AT&T 2100 MHz LTE/5G	4	1364.77	105.0	20.02	2100 MHz LTE/5G	1000	2.00%
AT&T 3700 MHz C-Band	1	31996.92	105.0	117.37	3700 MHz C-Band	1000	11.74%
AT&T 3700 MHz C-Band	1	31996.92	105.0	117.37	3700 MHz C-Band	1000	11.74%
AT&T 700 MHz LTE	4	612.43	105.0	8.99	700 MHz LTE	467	1.92%
AT&T 850 MHz 5G	4	703.17	105.0	10.32	850 MHz 5G	567	1.82%
AT&T 2300 MHz LTE	4	1054.24	105.0	15.47	2300 MHz LTE	1000	1.55%
						Total:	35.64%

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

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the AT&T facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

AT&T Sector	Power Density Value (%)
Sector A:	35.64%
Sector B:	35.64%
Sector C:	35.64%
AT&T Maximum MPE % (Sector A):	35.64%
Site Total:	71.60%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **71.60%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.

Date: **September 7, 2021**

INFINIGY
FROM ZERO TO INFINIGY
the solutions are endless
Infinigy Engineering, PLLC
1033 Watervliet Shaker Road
Albany, NY 12205
518-690-0790
structural@infinigy.com

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

Subject: **Mount Analysis Report**

Carrier Designation: **AT&T Mobility Direct**
Carrier Site Number: CTL01108
Carrier Site Name: NEWINGTON SOUTH
Carrier FA Number: 10042331

Crown Castle Designation: **Crown Castle BU Number:** 881364
Crown Castle Site Name: Newington
Crown Castle JDE Job Number: 649414
Crown Castle Order Number: 556505 Rev. 0

Engineering Firm Designation: **Infinigy Engineering, PLLC Report Designation:** 1039-Z0001-B

Site Data: **123 Costelo Road, Newington, Hartford County, CT, 06111**
Latitude 41°39'18.72" Longitude -72°43'17.19"

Structure Information: **Tower Height & Type:** **145.0 ft Monopole**
Mount Elevation: **105.0 ft**
Mount Type: **12.5 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

This analysis has been performed in accordance with the 2018 Connecticut State Building Code and Appendix N based upon an ultimate 3-second gust wind speed of 125 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount analysis prepared by: Farhad Ahmadyar

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



09/07/20

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1) INTRODUCTION

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

2) ANALYSIS CRITERIA

Building Code: 2015 IBC/2018 Connecticut State Building Code and Appendix N
TIA-222 Revision: TIA-222-H
Risk Category: II
Ultimate Wind Speed: 125 mph
Exposure Category: C
Topographic Factor at Base: 1.0
Topographic Factor at Mount: 1.0
Ice Thickness: 2.0 in
Wind Speed with Ice: 50 mph
Seismic S_s: 0.182
Seismic S₁: 0.064
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
105.0	105.0	3	CCI ANTENNAS	DMP65R-BU6D	12.5 ft Platform
		3	ERICSSON	AIR 6419 B77G	
		3	ERICSSON	AIR 6449 B77D	
		3	QUINTEL TECHNOLOGY	QD6616-7	
		3	ERICSSON	RRUS 32 B30	
		3	ERICSSON	RRUS 4449 B5/B12	
		3	ERICSSON	RRUS 4478 B14	
		3	ERICSSON	RRUS 8843 B2/B66A	
		2	RAYCAP	DC6-48-60-18-8F	
		1	RAYCAP	DC6-48-60-0-8F	

3) ANALYSIS PROCEDURE

Table 2 - Documents Provided

Document	Remarks	Reference	Source
Crown Application	AT&T Mobility Application	556505 Rev. 0	CCI Sites
Mount Manufacturer Drawings	Site Pro 1	F3P-12, F3P-HRK12	Infinigy
Loading Document	AT&T Mobility	RFDS ID: 4392787	TSA

3.1) Analysis Method

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

Infinigy Mount Analysis Tool V2.1.7, a tool internally developed by Infinigy, was used to calculate wind loading on all appurtenances, dishes and mount members for various loading cases. Selected output from the analysis is included in Appendix B "Software Input Calculations".

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

3.2) Assumptions

- 1) The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design and manufacturer's specifications.
- 2) The configuration of antennas, mounts, and other appurtenances are as specified in Table 1 and the referenced drawings.
- 3) All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
- 4) The analysis will be required to be revised if the existing conditions in the field differ from those shown in the above-referenced documents or assumed in this analysis. No allowance was made for any damaged, missing, or rusted members.
- 5) Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
- 6) Steel grades have been assumed as follows, unless noted otherwise:

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

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

4) ANALYSIS RESULTS

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

Notes	Component	Critical Member	Centerline (ft)	% Capacity	Pass / Fail
1,2	Mount Pipe(s)	MP6	105.0	70.3	Pass
	Horizontal(s)	M177		34.8	Pass
	Standoff(s)	S3		19.3	Pass
	Handrail(s)	M371		44.3	Pass
	Standoff Plate(s)	M248		74.4	Pass
	Mount Connection(s)	--		35.1	Pass

Structure Rating (max from all components) =	74.4%
-----------------------------------------------------	--------------

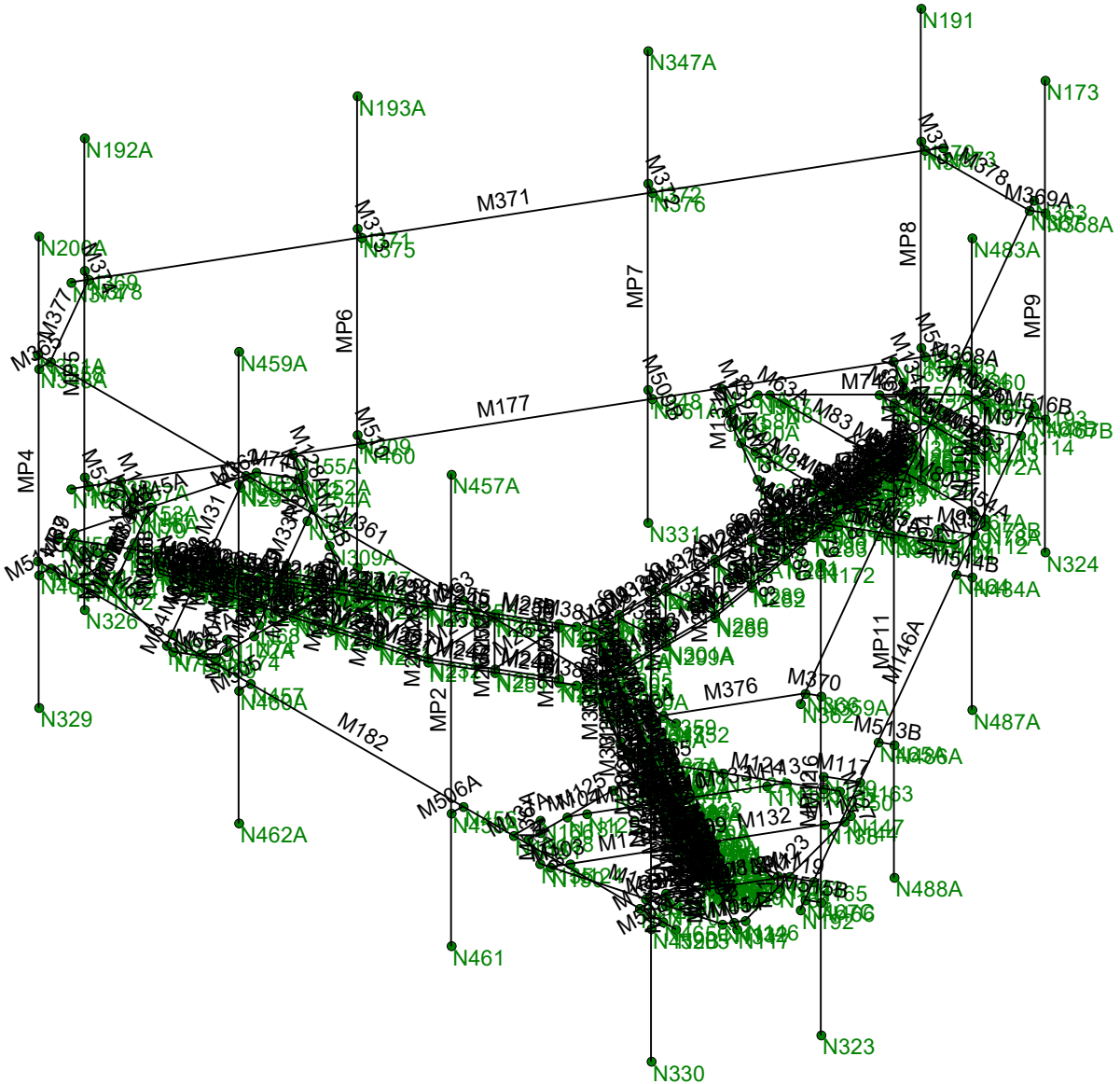
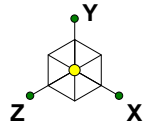
Notes:

- 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.

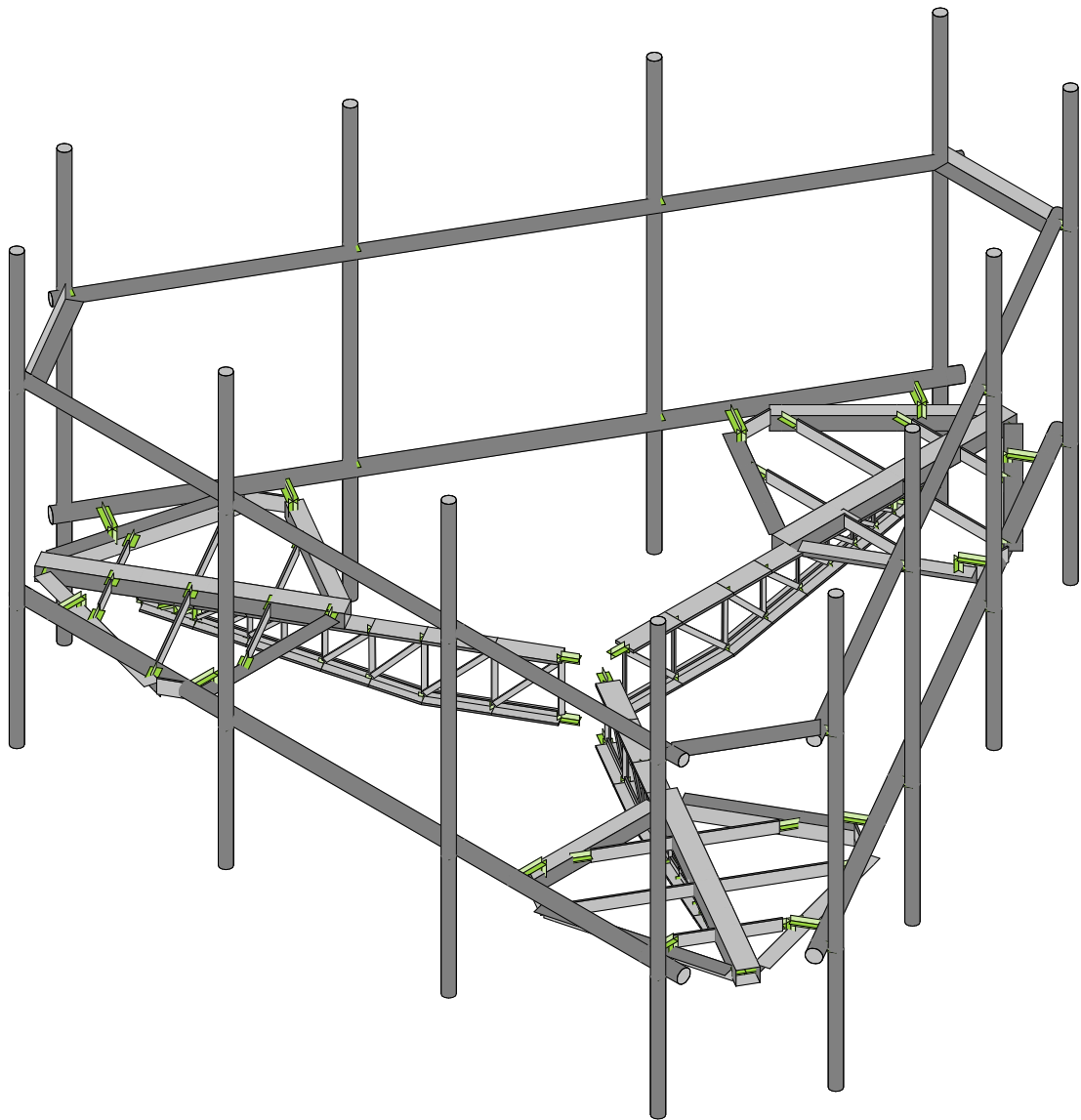
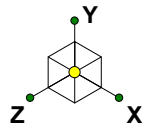
4.1) Recommendations

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

APPENDIX A
WIRE FRAME AND RENDERED MODELS



Infinigy Engineering	881364	Wireframe
FA		Sept 2, 2021 at 3:58 PM
1039-Z0001-B		881364_loaded.r3d



Infinigy Engineering

FA

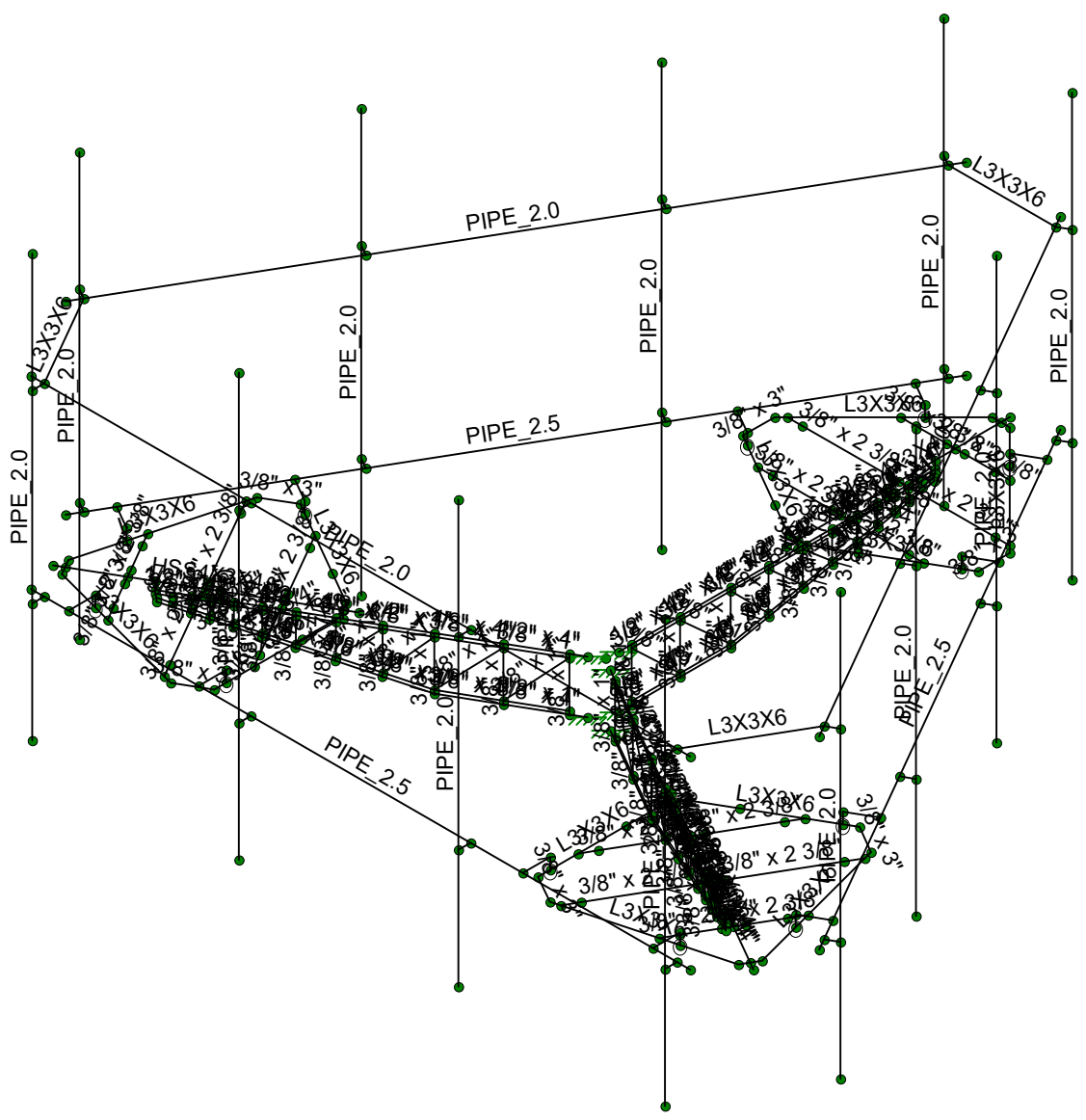
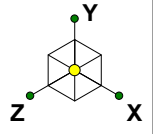
1039-Z0001-B

881364

Render

Sept 2, 2021 at 3:58 PM

881364_loaded.r3d



Infinigy Engineering

FA

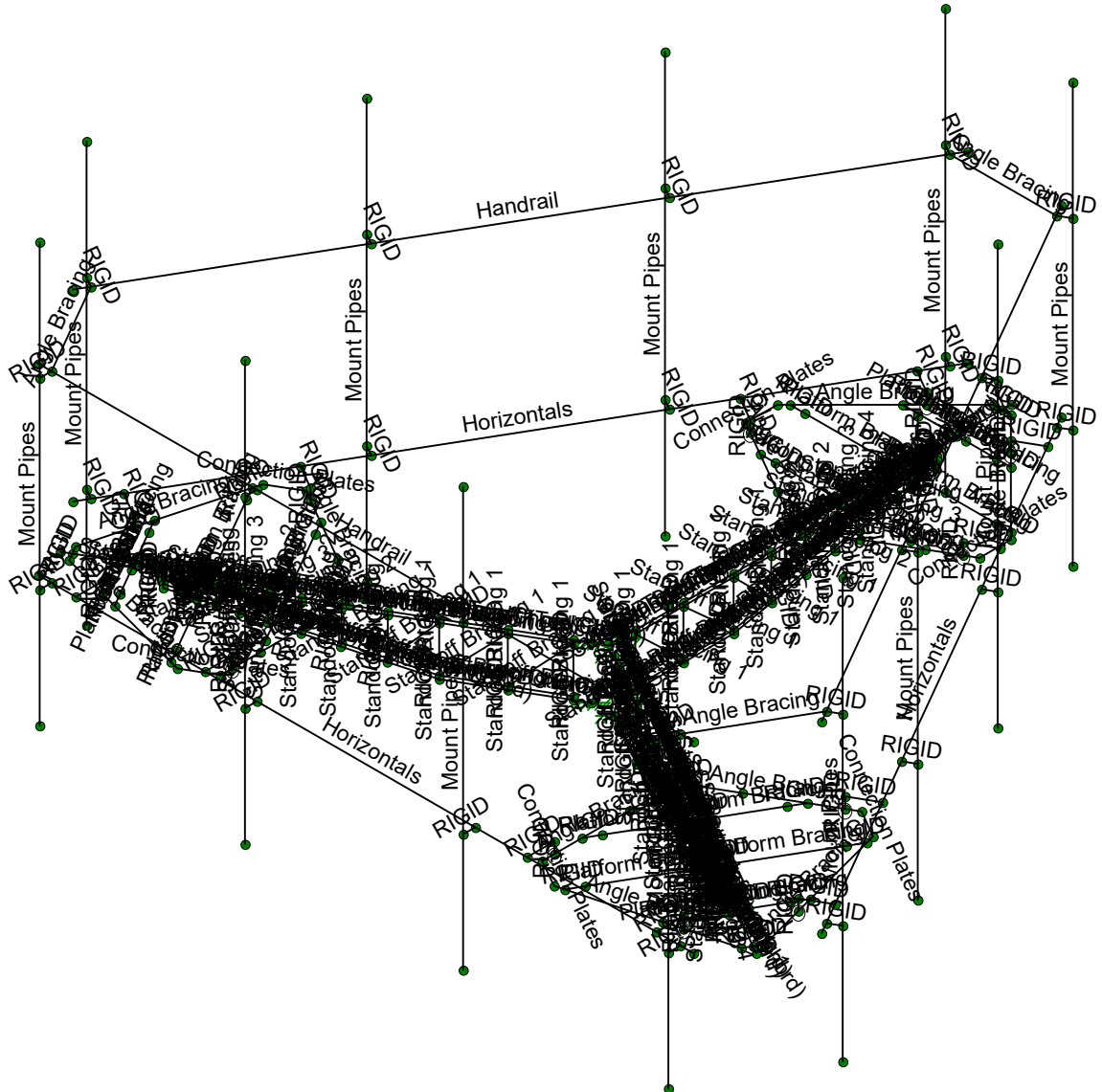
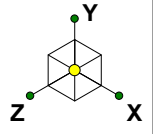
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881364

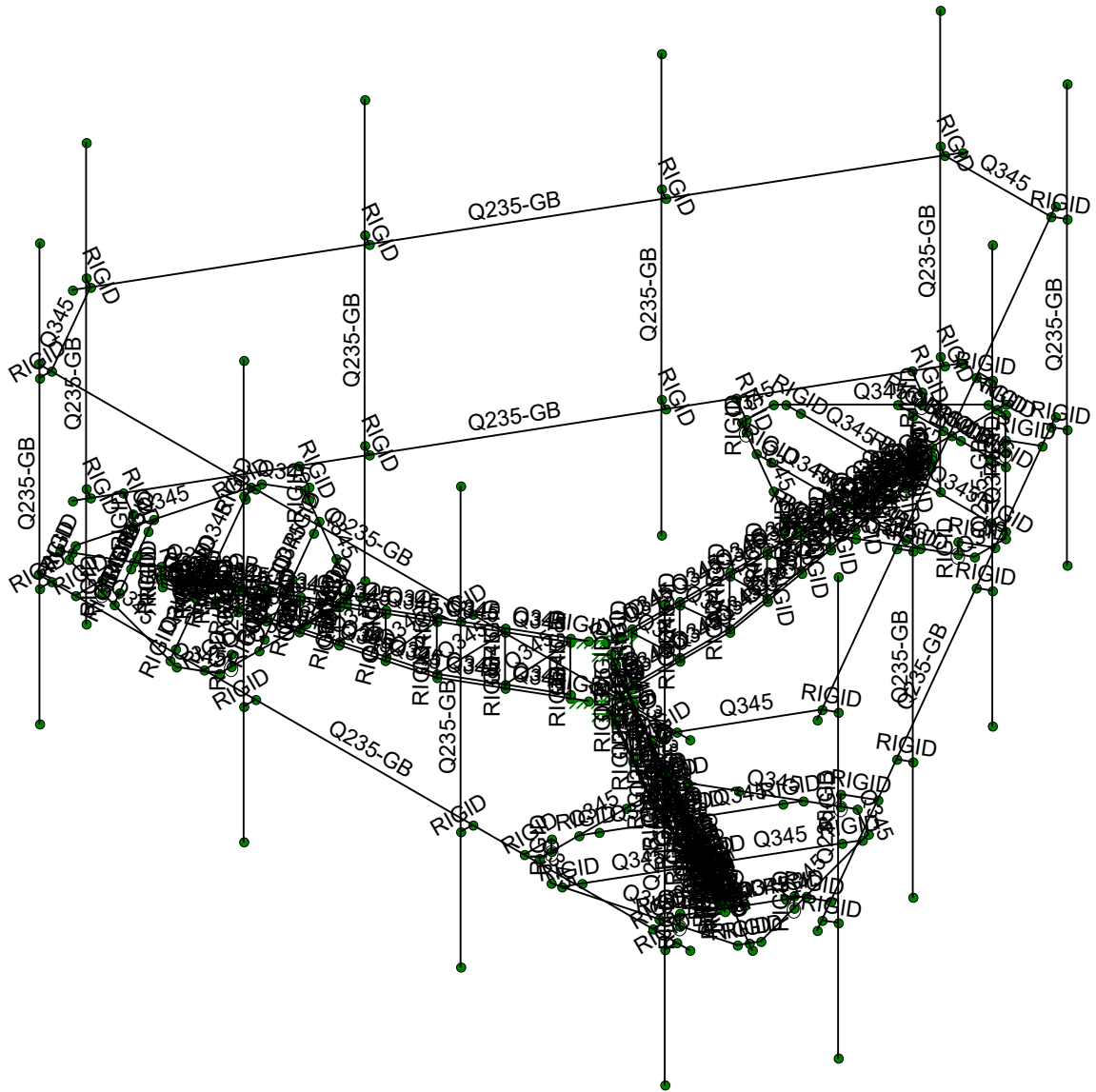
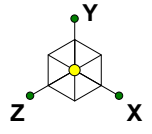
Shape

Sept 2, 2021 at 3:58 PM

881364_loaded.r3d



Infinigy Engineering	881364	Section Sets
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1039-Z0001-B		881364_loaded.r3d



Infinigy Engineering

FA

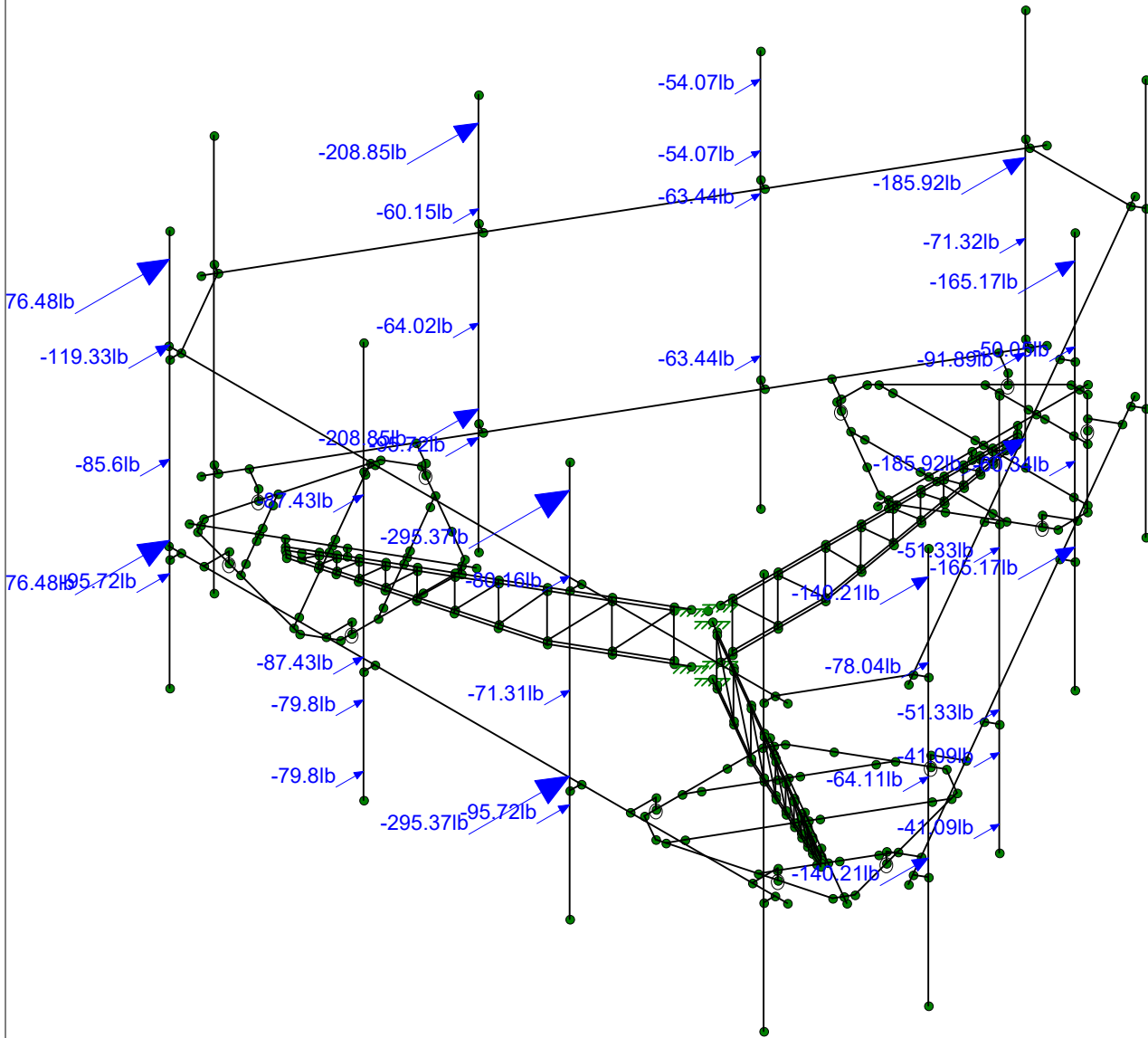
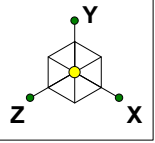
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881364

Grade

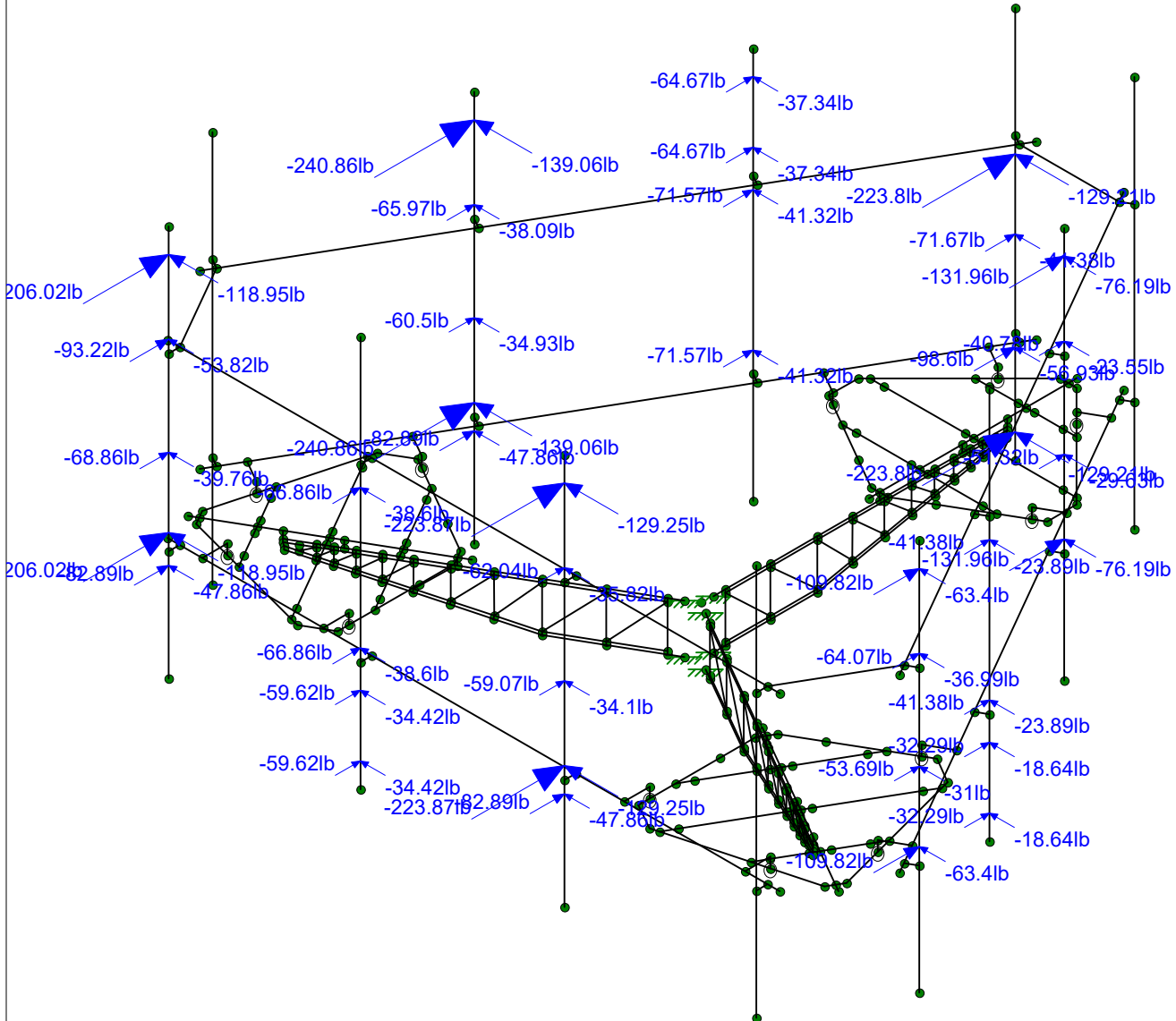
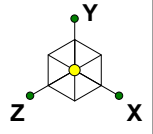
Sept 2, 2021 at 3:58 PM

881364_loaded.r3d



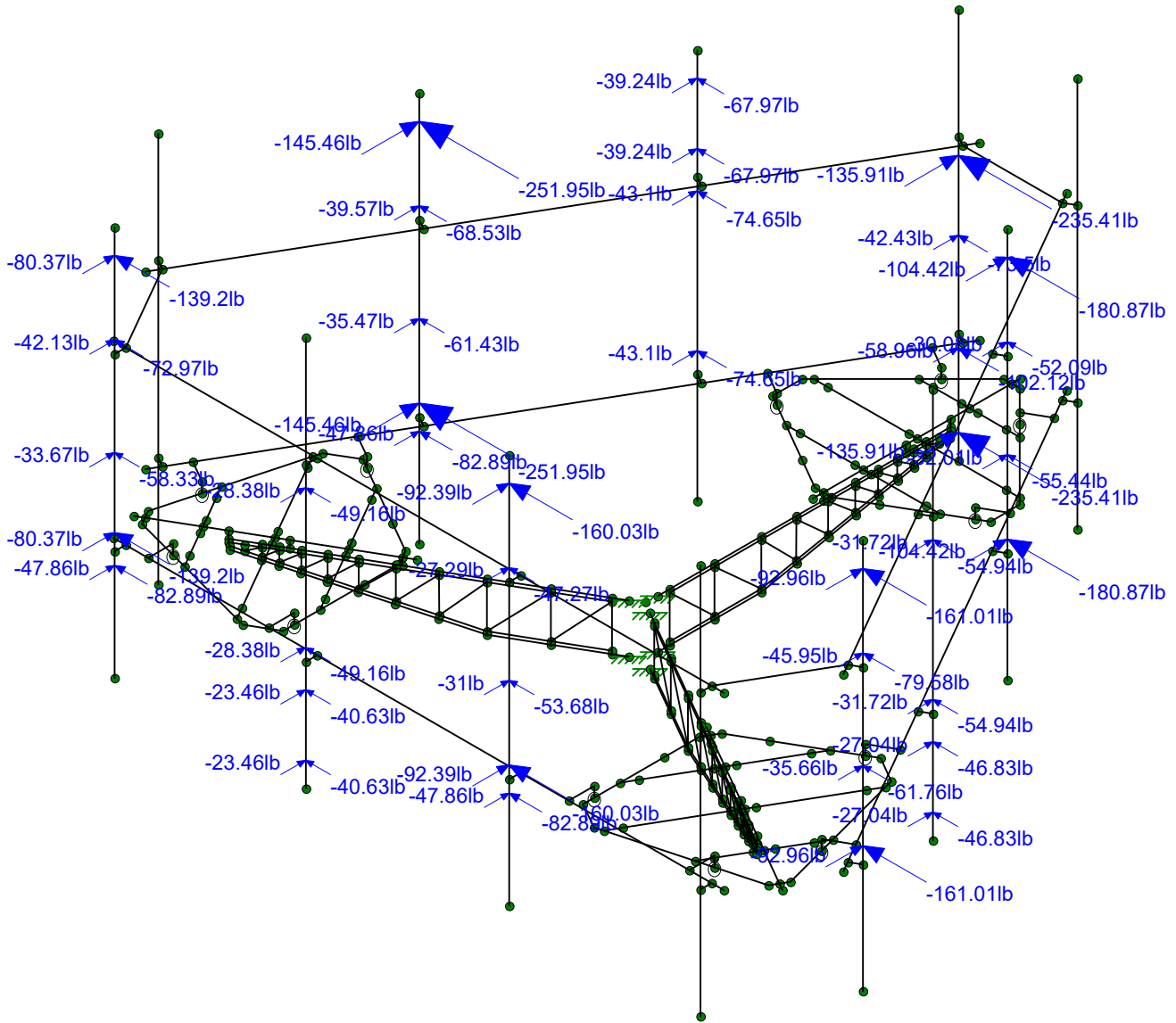
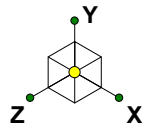
Loads: BLC 2, Wind Load AZI 0

Infinigy Engineering	881364	Wind Loading 0
FA		Sept 2, 2021 at 3:59 PM
1039-Z0001-B		881364_loaded.r3d



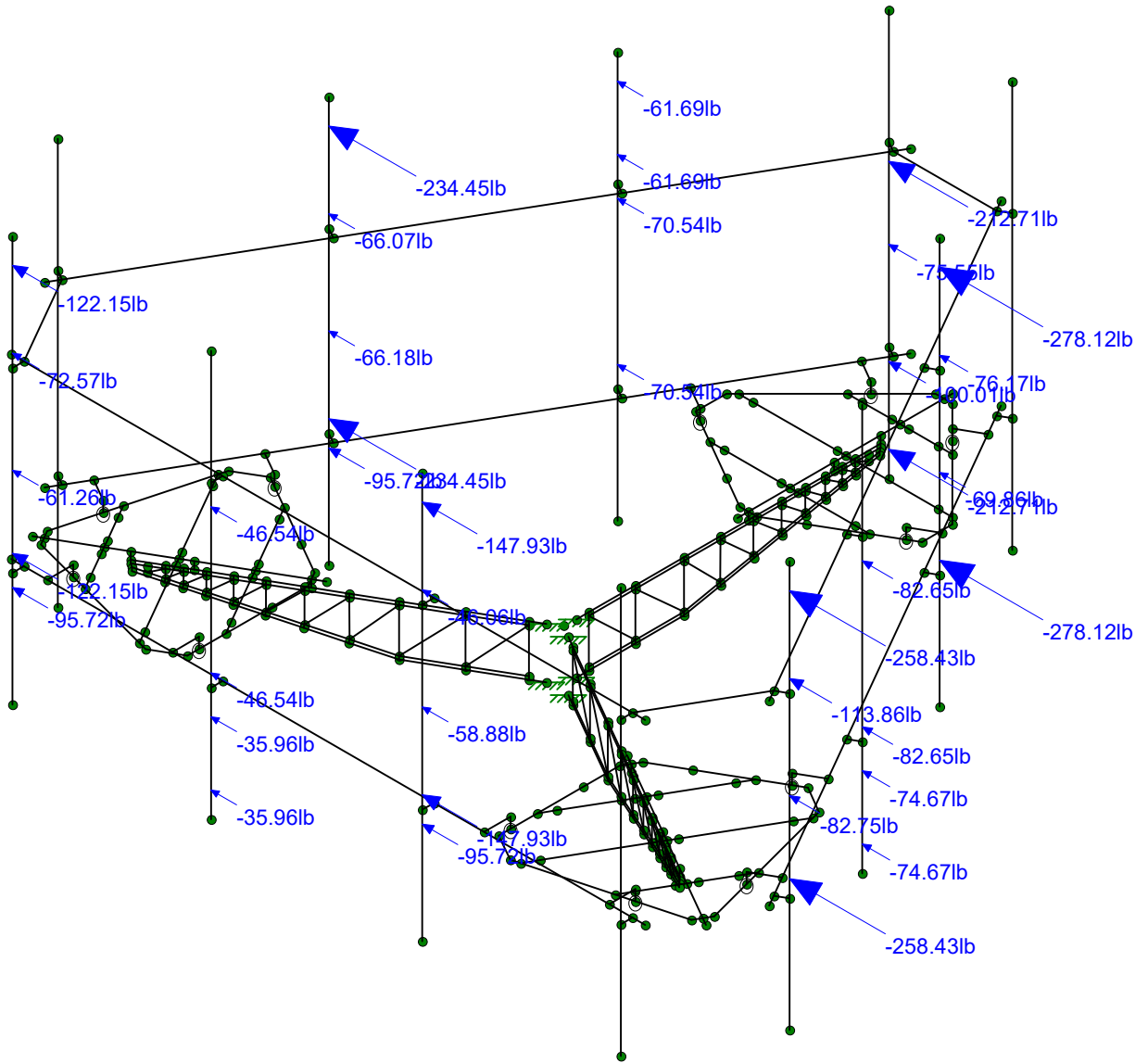
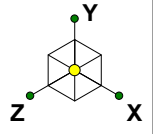
Loads: BLC 3, Wind Load AZI 30

Infinigy Engineering	881364	Wind Loading 30
FA		Sept 2, 2021 at 3:59 PM
1039-Z0001-B		881364_loaded.r3d



Loads: BLC 4, Wind Load AZI 60

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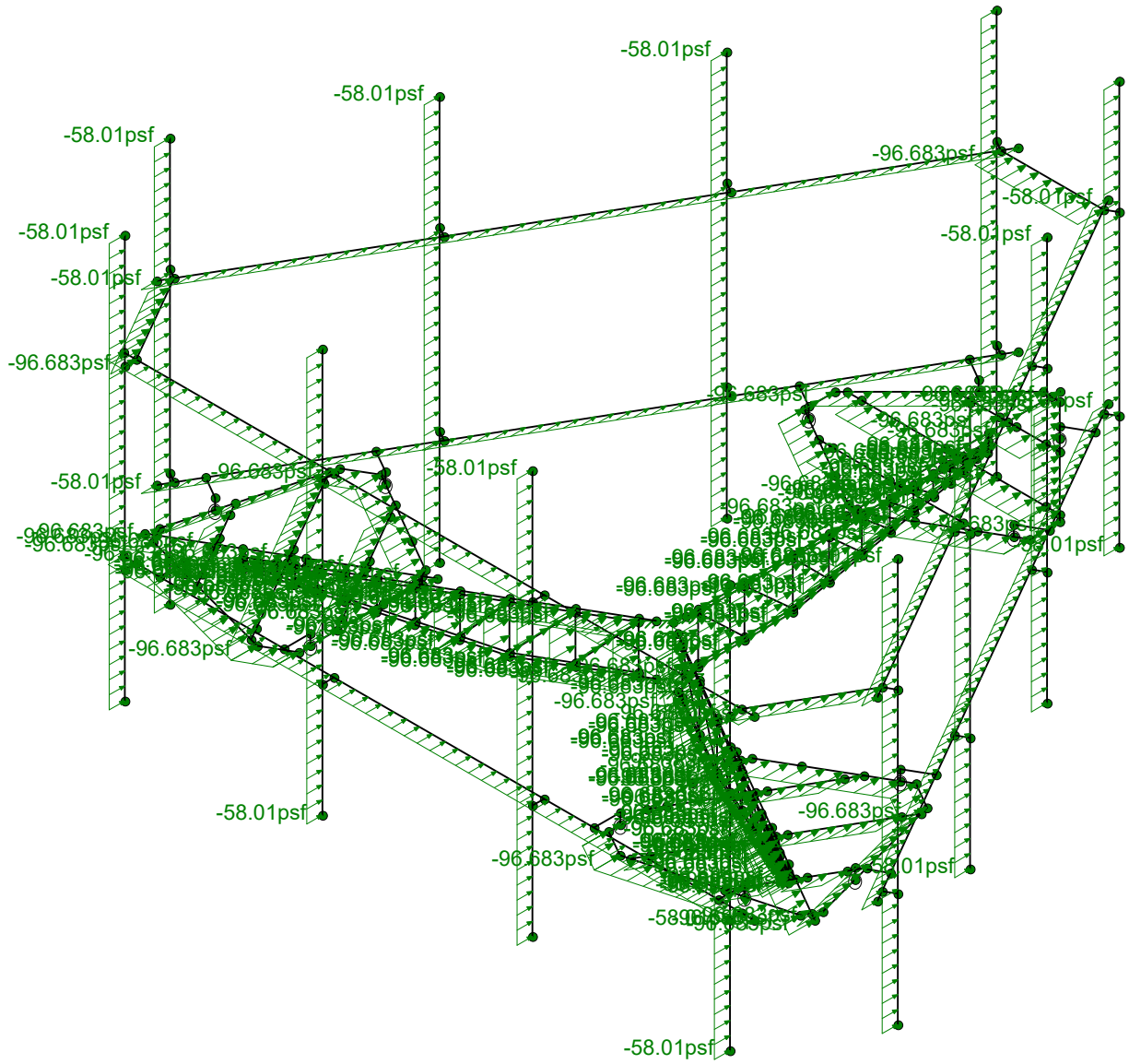
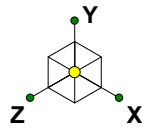


Loads: BLC 5, Wind Load AZI 90

Infinigy Engineering
FA
1039-Z0001-B

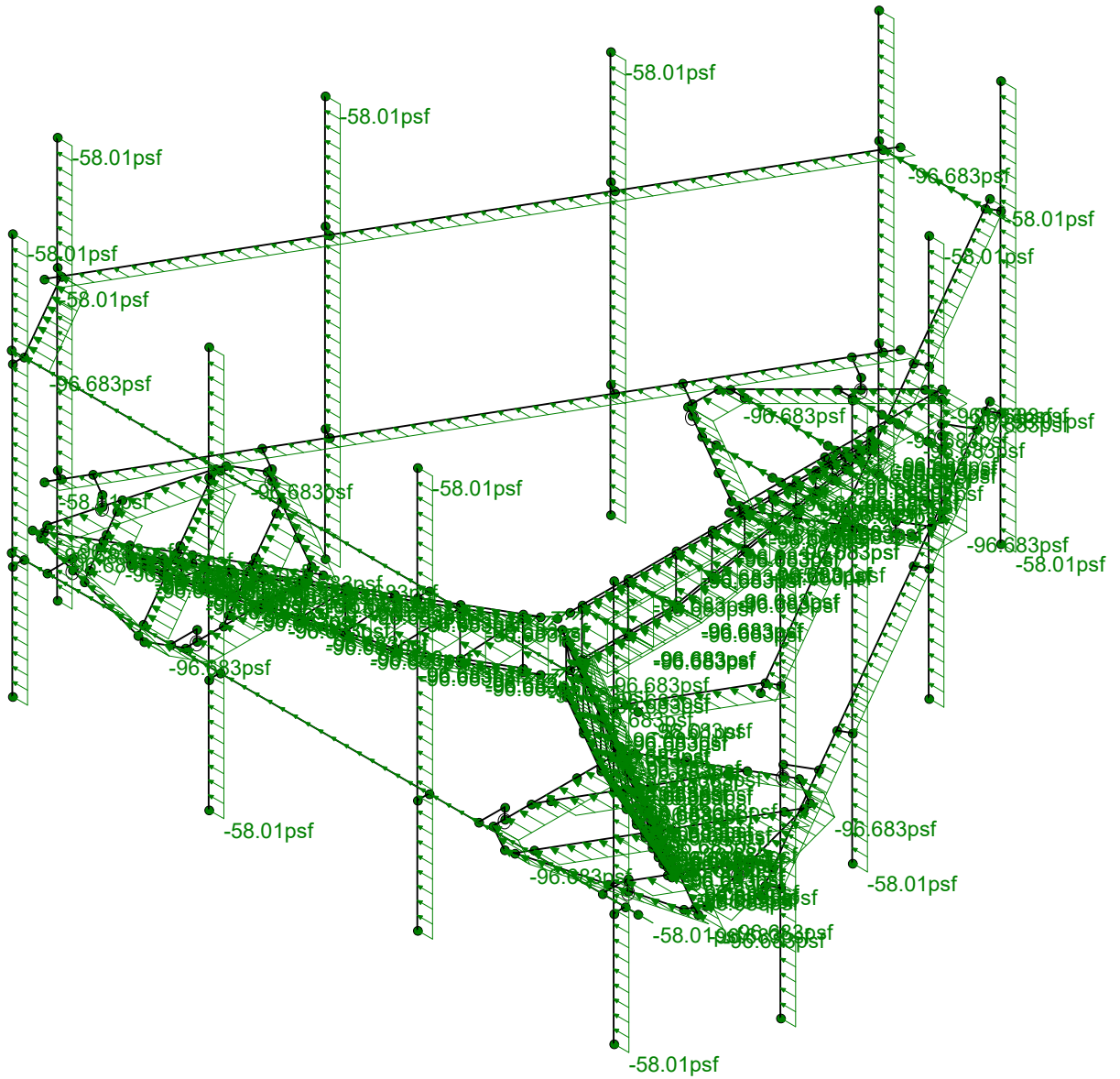
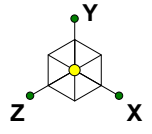
881364

Wind Loading 90
Sept 2, 2021 at 3:59 PM
881364_loaded.r3d



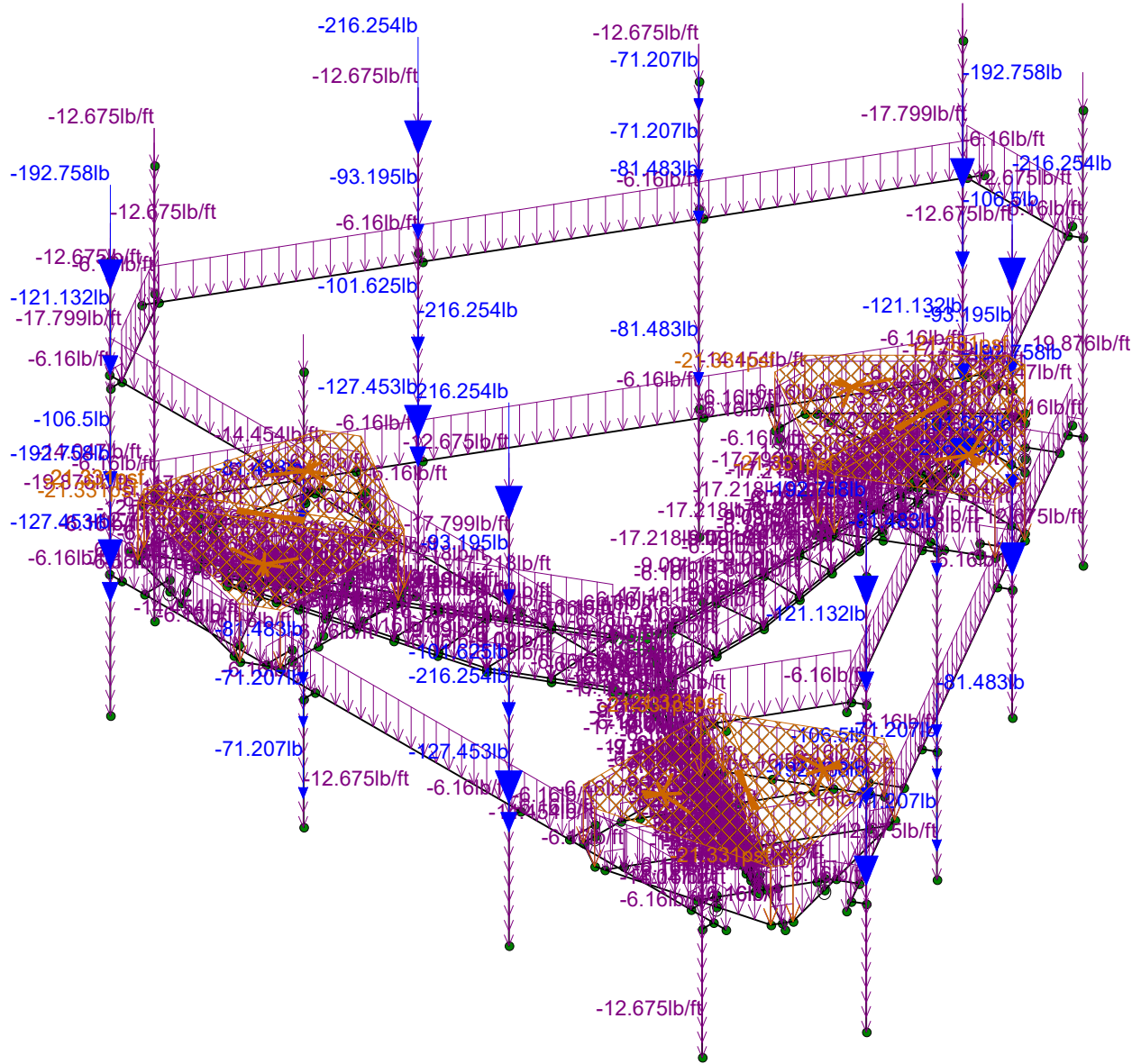
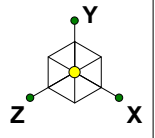
Loads: BLC 14, Distr. Wind Load Z

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1039-Z0001-B		881364_loaded.r3d



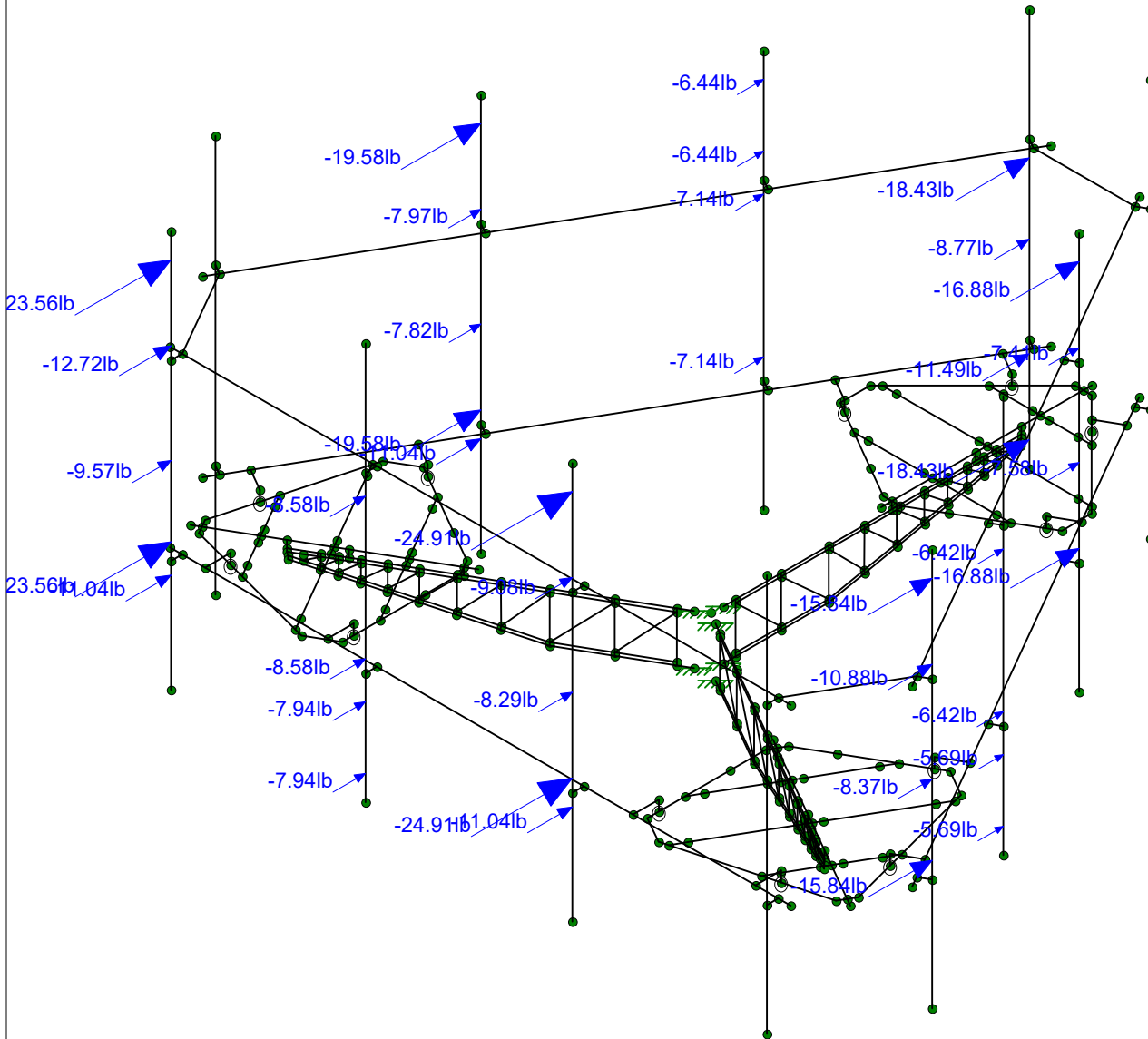
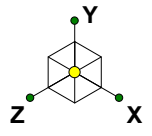
Loads: BLC 15, Distr. Wind Load X

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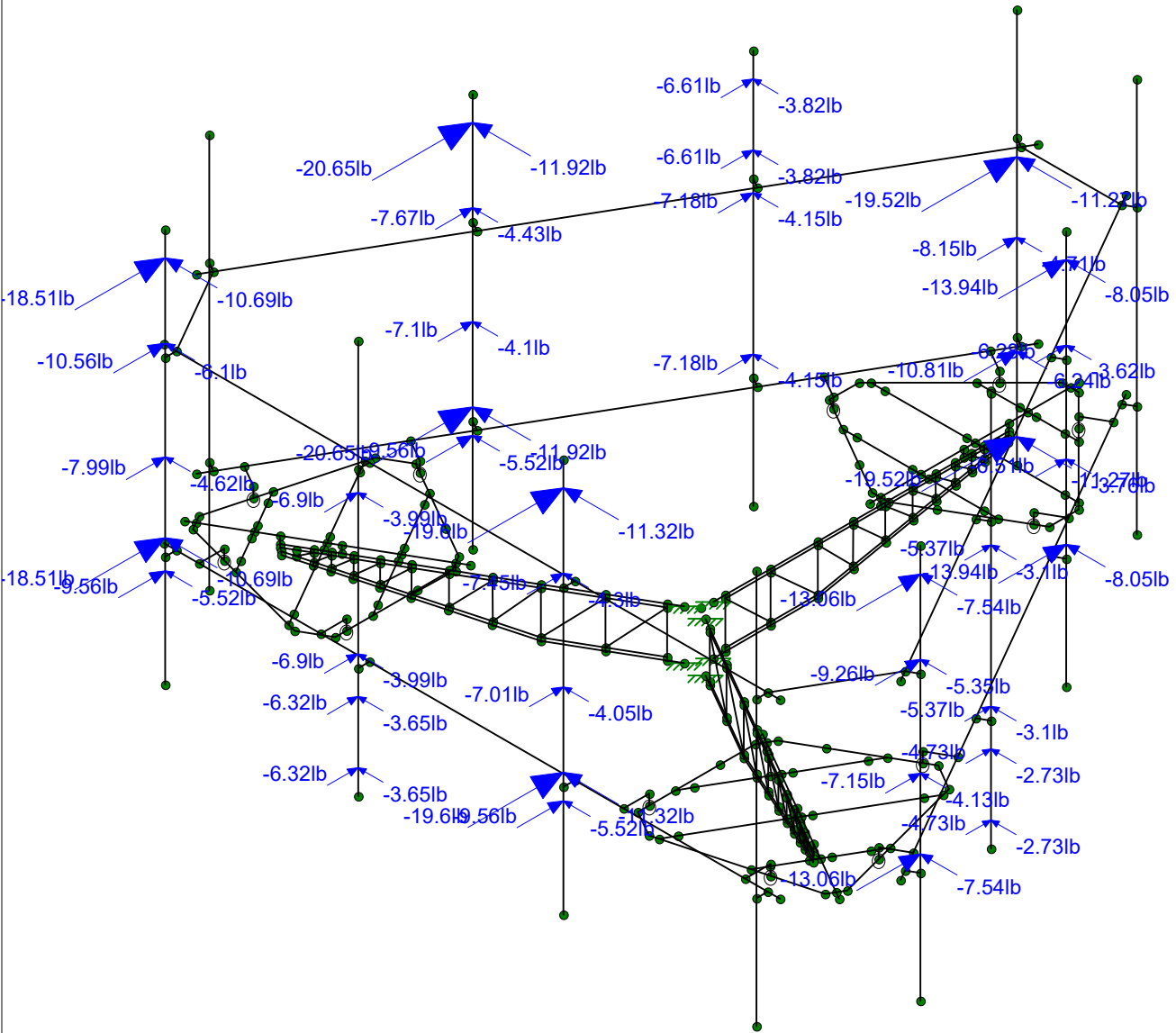
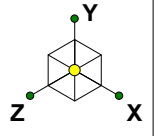
Loads: BLC 16, Ice Weight

Infinigy Engineering	881364	Ice Weight
FA		Sept 2, 2021 at 3:59 PM
1039-Z0001-B		881364_loaded.r3d



Loads: BLC 17, Ice Wind Load AZI 0

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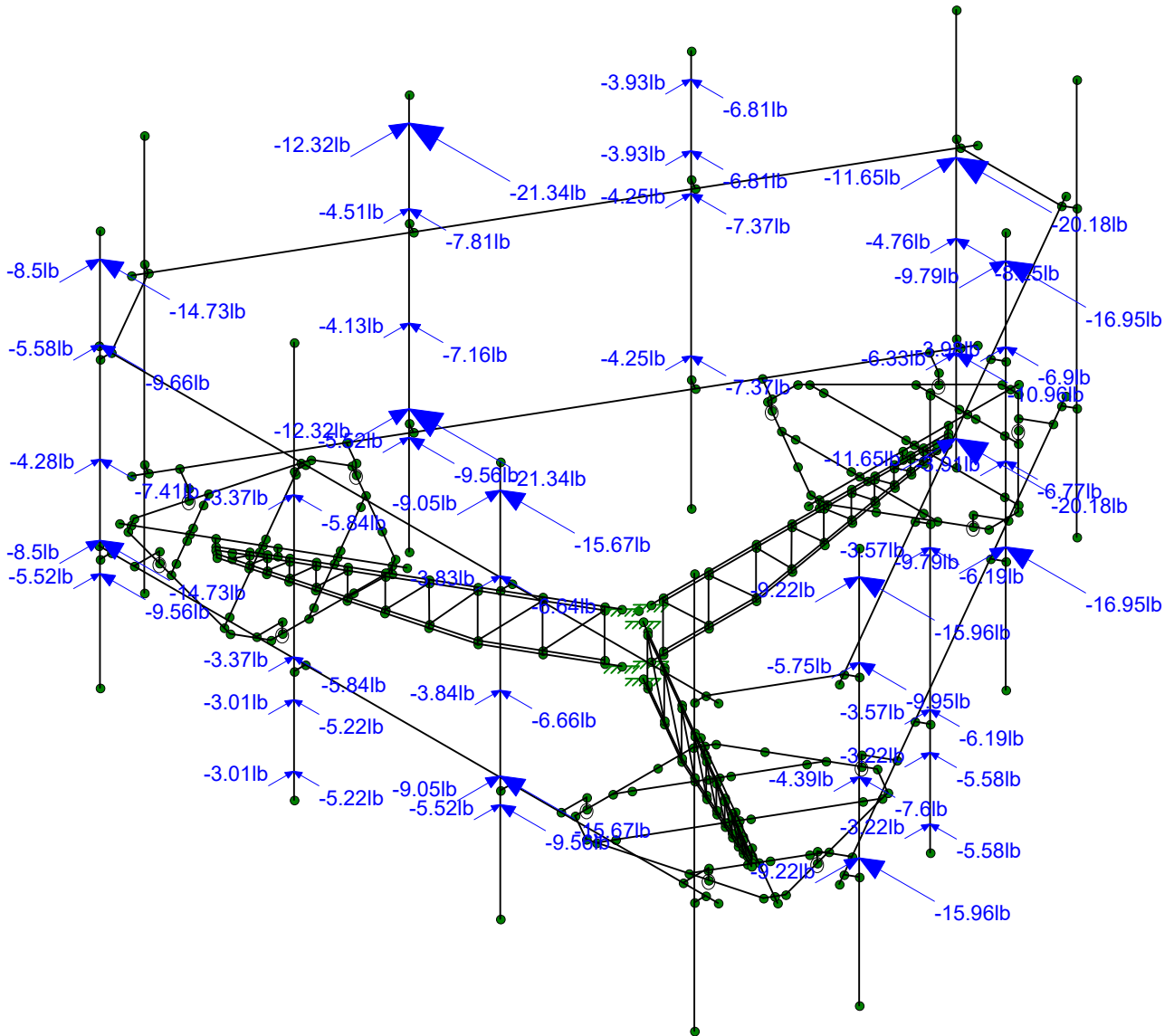
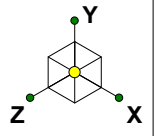


Loads: BLC 18, Ice Wind Load AZI 30

Infinigy Engineering
FA
1039-Z0001-B

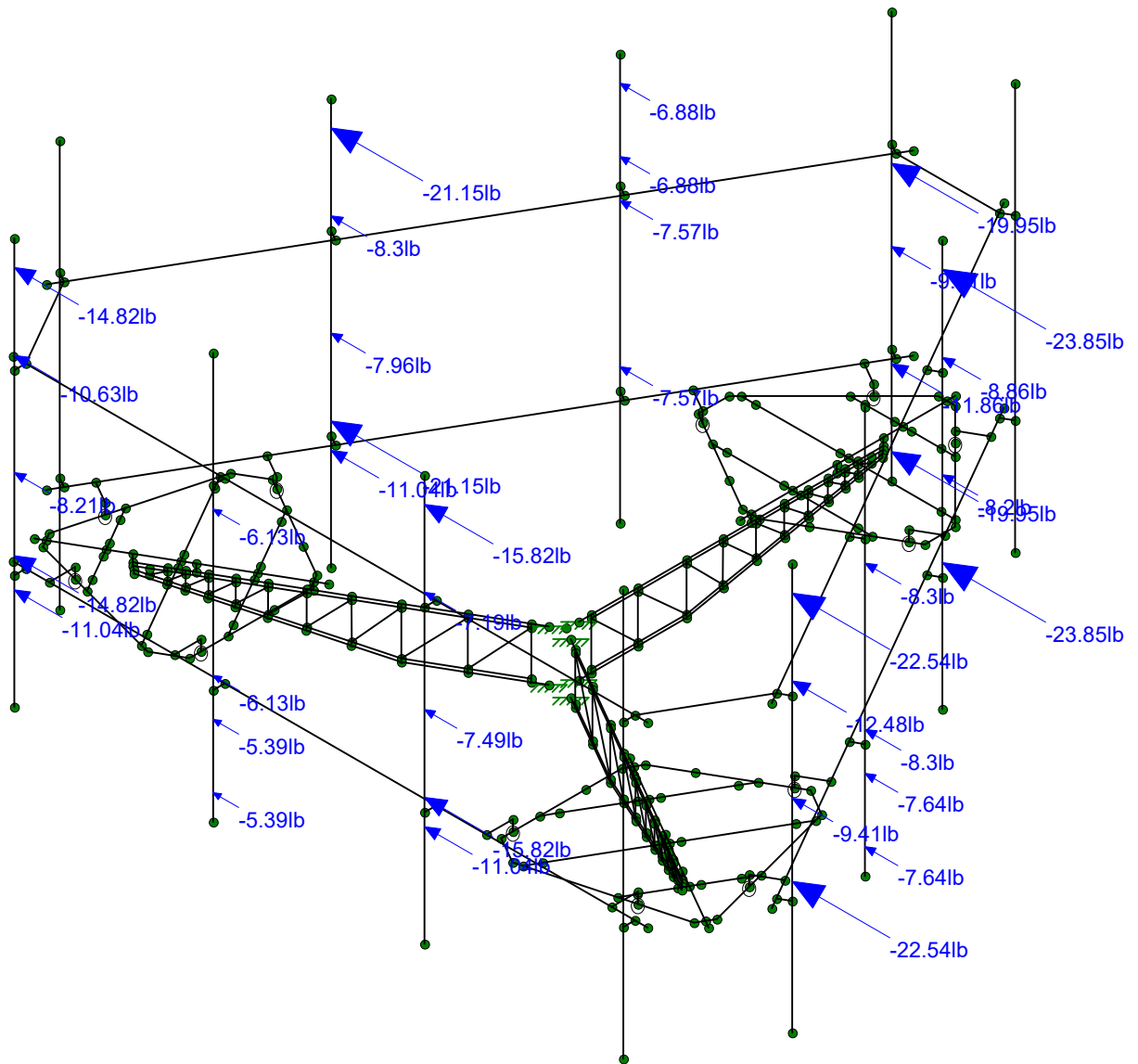
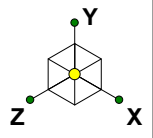
881364

Ice Wind Loading 30
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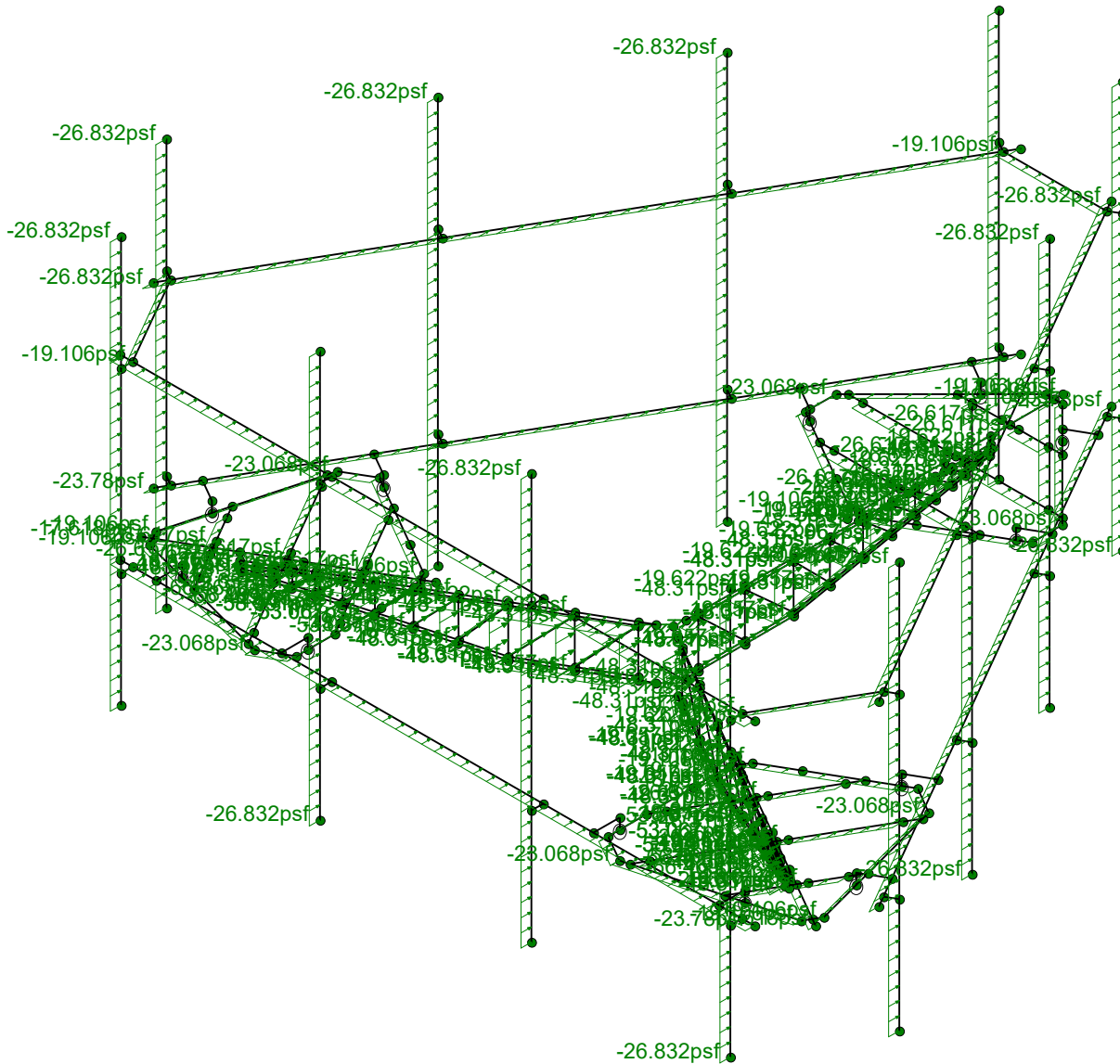
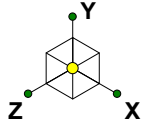
Loads: BLC 19, Ice Wind Load AZI 60

Infinigy Engineering	881364	Ice Wind Loading 60
FA		Sept 2, 2021 at 4:00 PM
1039-Z0001-B		881364_loaded.r3d



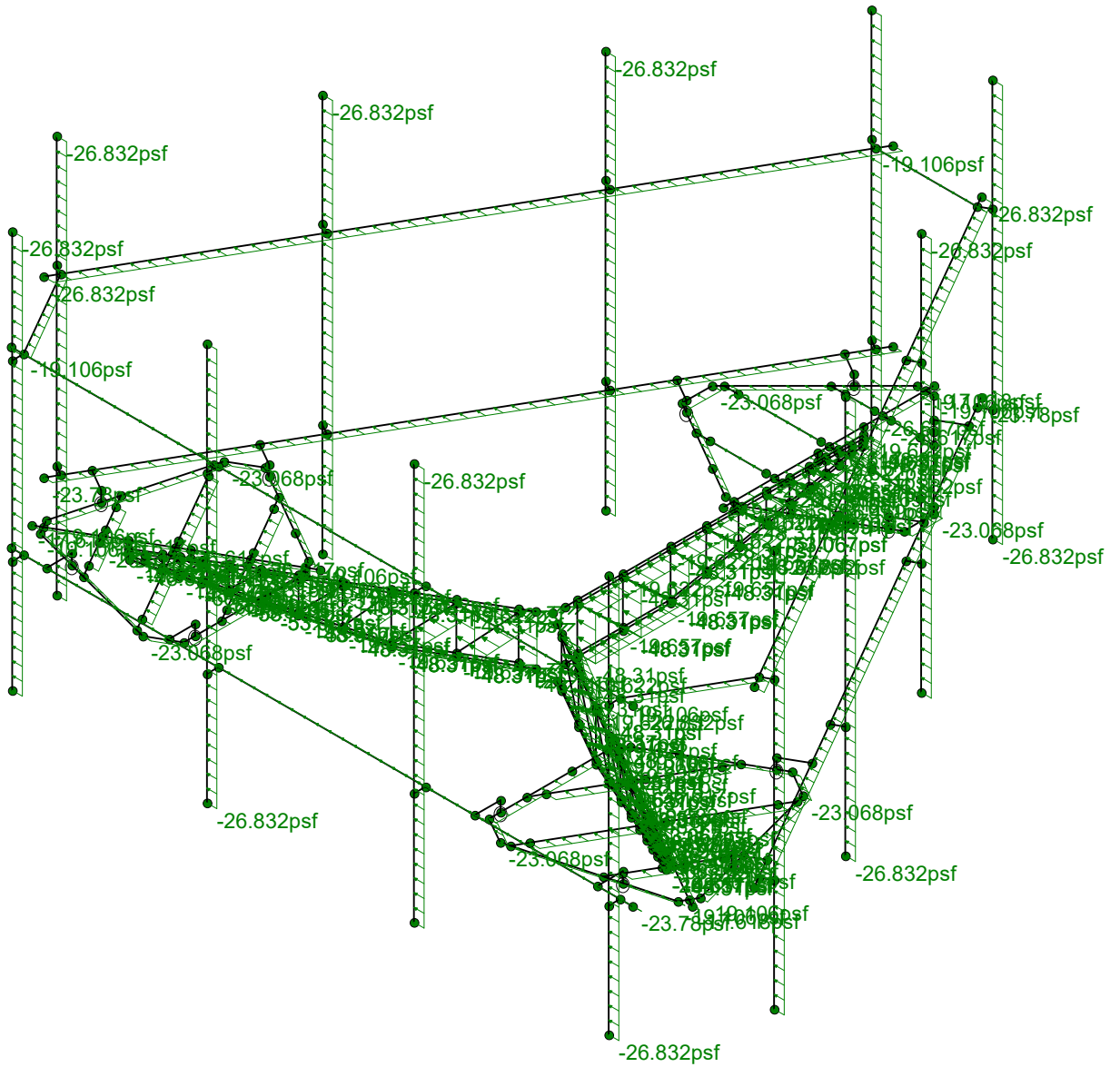
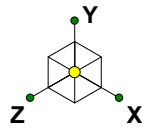
Loads: BLC 20, Ice Wind Load AZI 90

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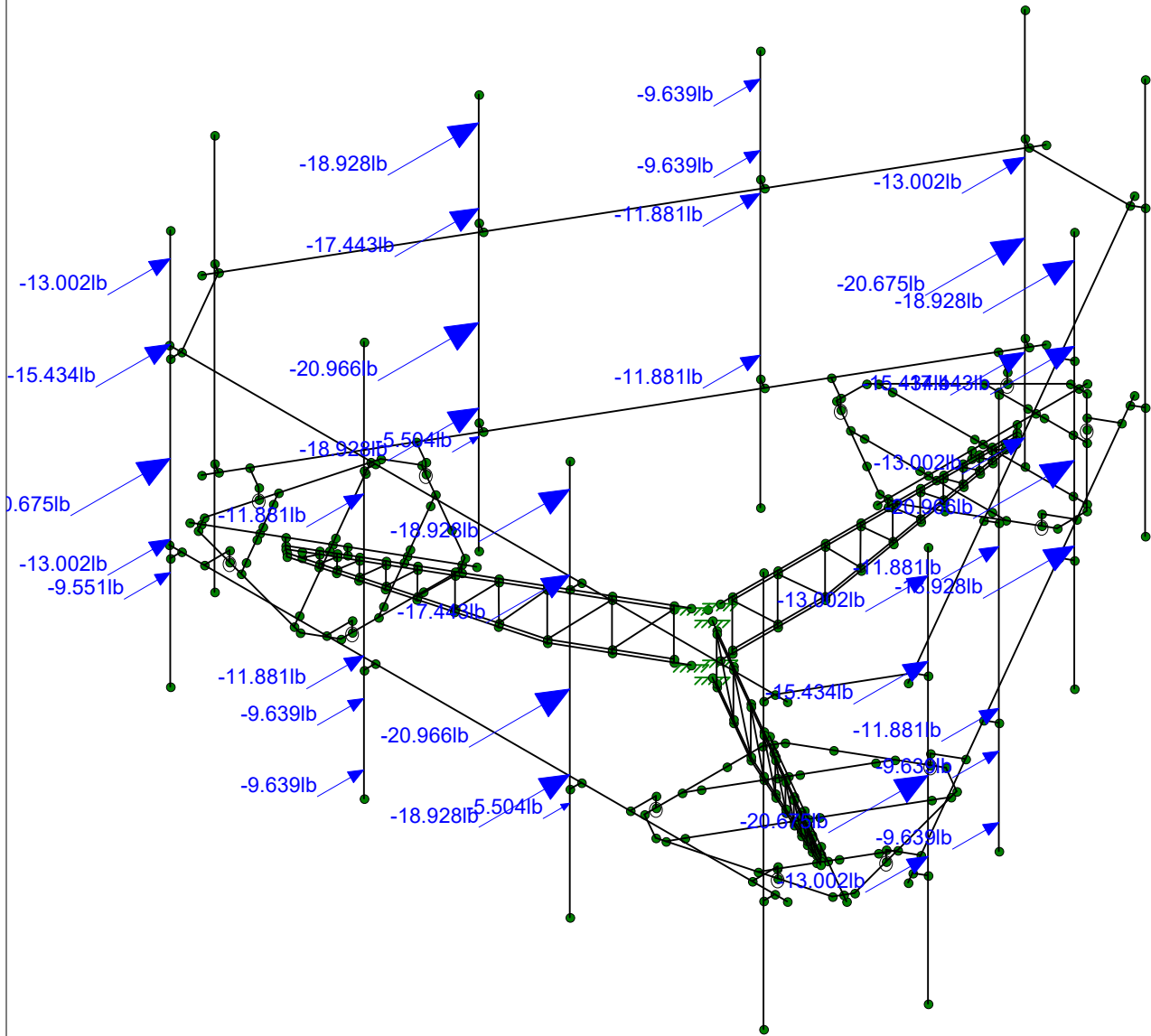
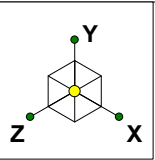
Loads: BLC 29, Distr. Ice Wind Load Z

Infinigy Engineering	881364	Dist. Ice Wind Loading 0
FA		Sept 2, 2021 at 4:00 PM
1039-Z0001-B		881364_loaded.r3d



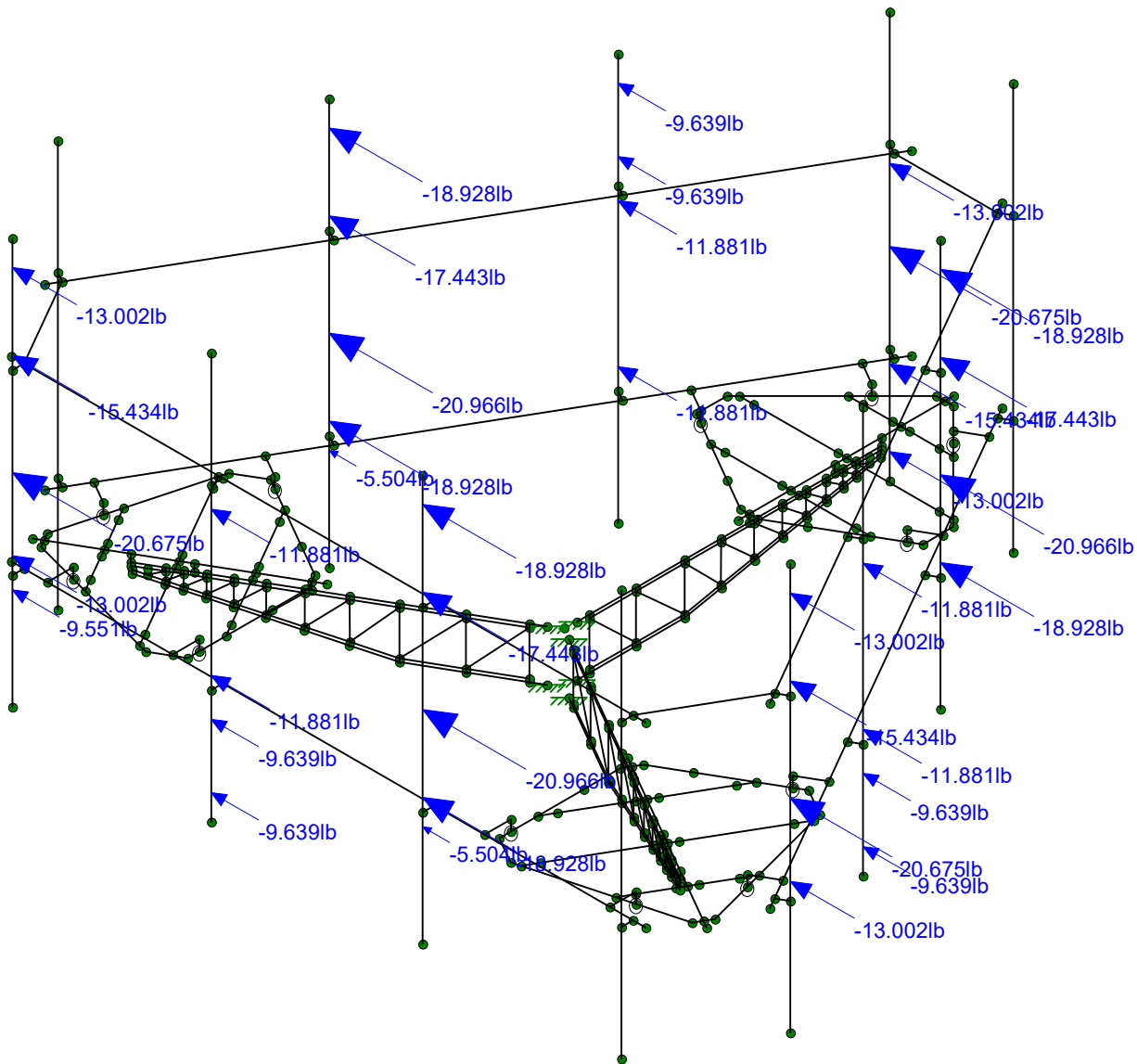
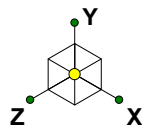
Loads: BLC 30, Distr. Ice Wind Load X

Infinigy Engineering	881364	Dist. Ice Wind Loading 90
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Loads: BLC 31, Seismic Load Z

Infinigy Engineering	881364	Seismic Loading 0
FA		Sept 2, 2021 at 4:00 PM
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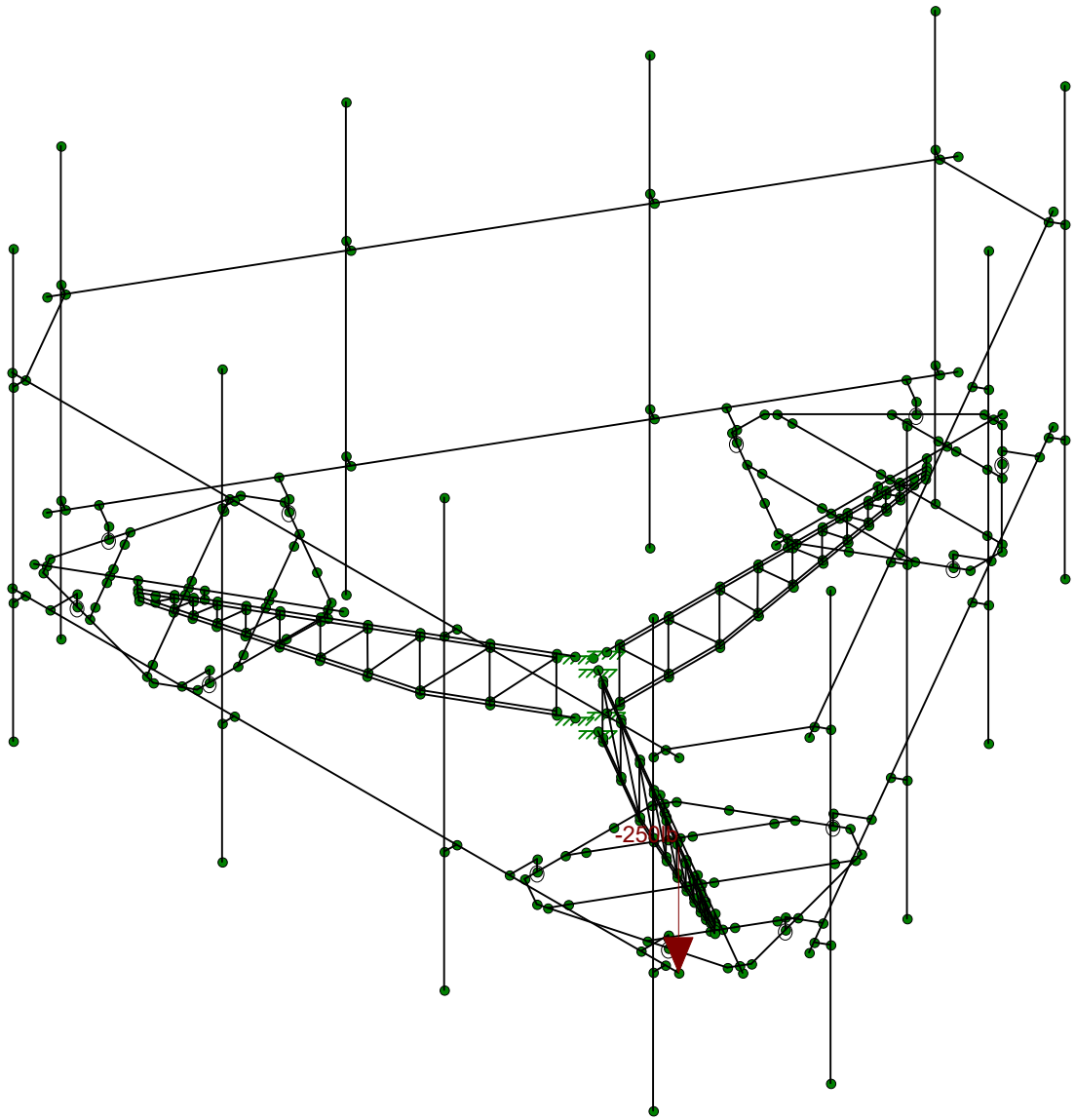
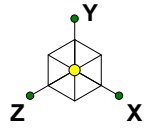


Loads: BLC 32, Seismic Load X

Infinigy Engineering
FA
1039-Z0001-B

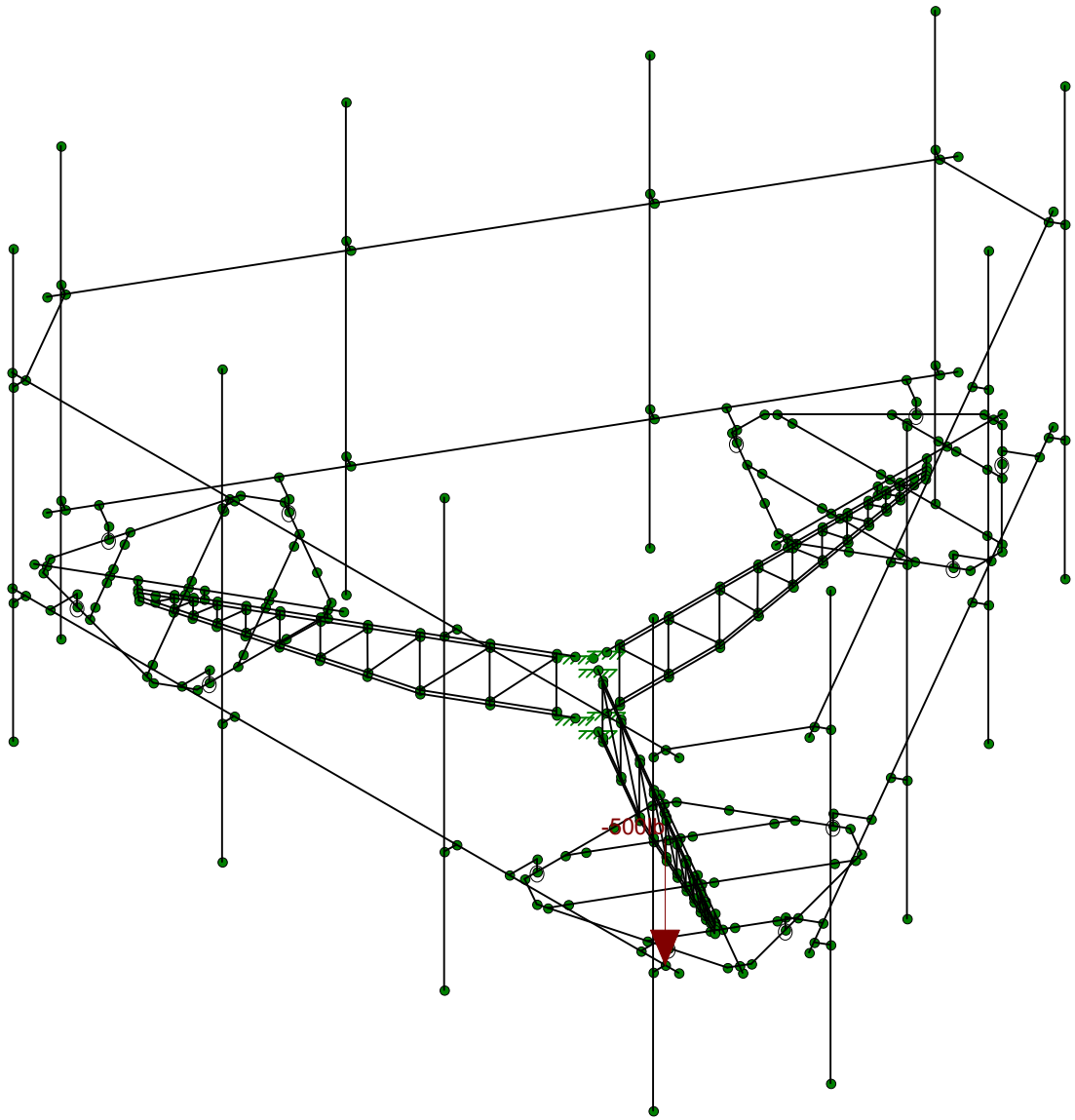
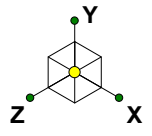
881364

Seismic Loading 90
Sept 2, 2021 at 4:00 PM
881364_loaded.r3d



Loads: BLC 33, Service Live Loads

Infinigy Engineering	881364	Service
FA		Sept 2, 2021 at 4:00 PM
1039-Z0001-B		881364_loaded.r3d



Loads: BLC 34, Maintenance Load 1

Infinigy Engineering

FA

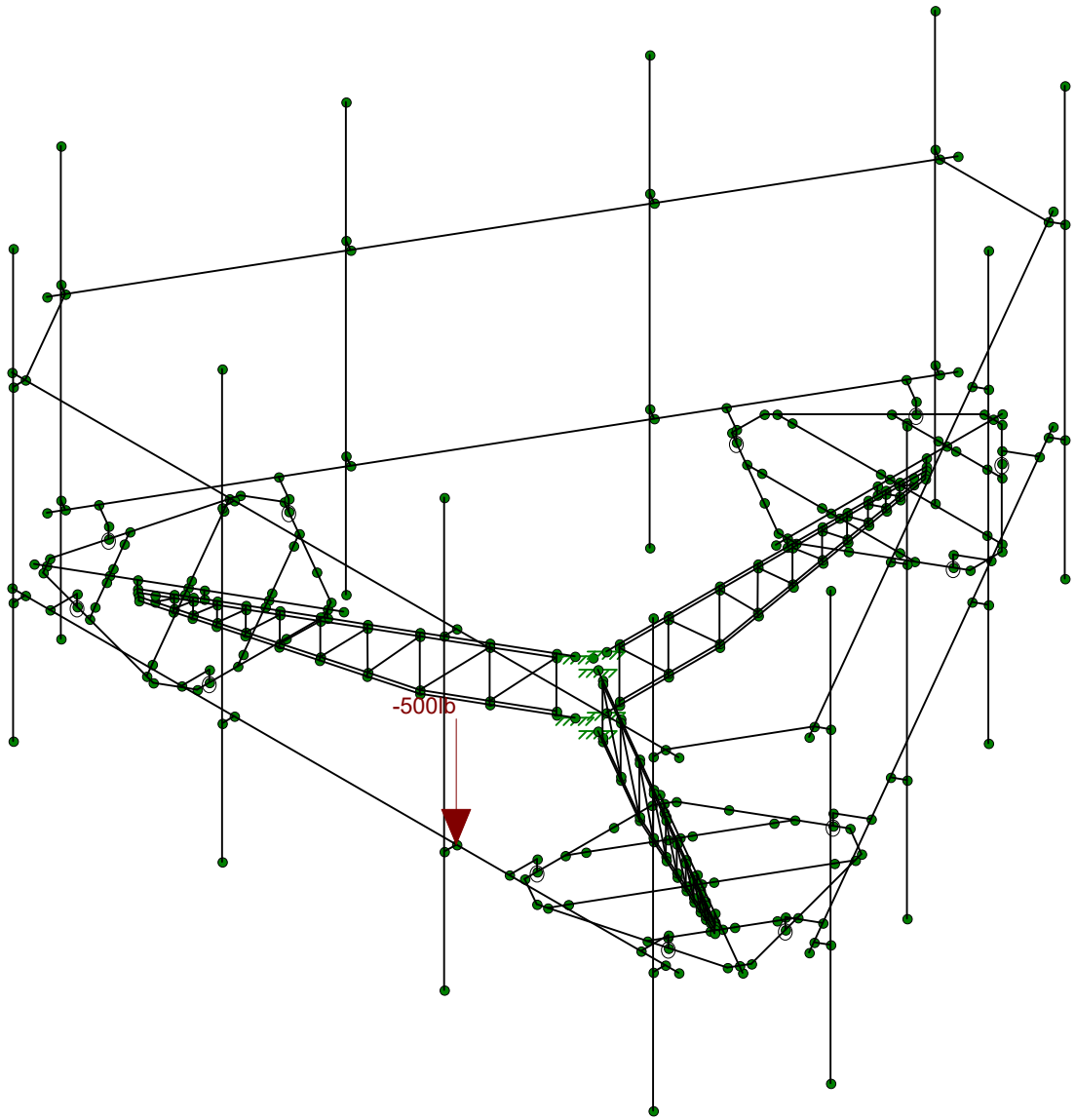
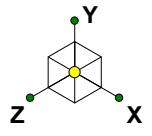
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881364

Maintenance Load 1

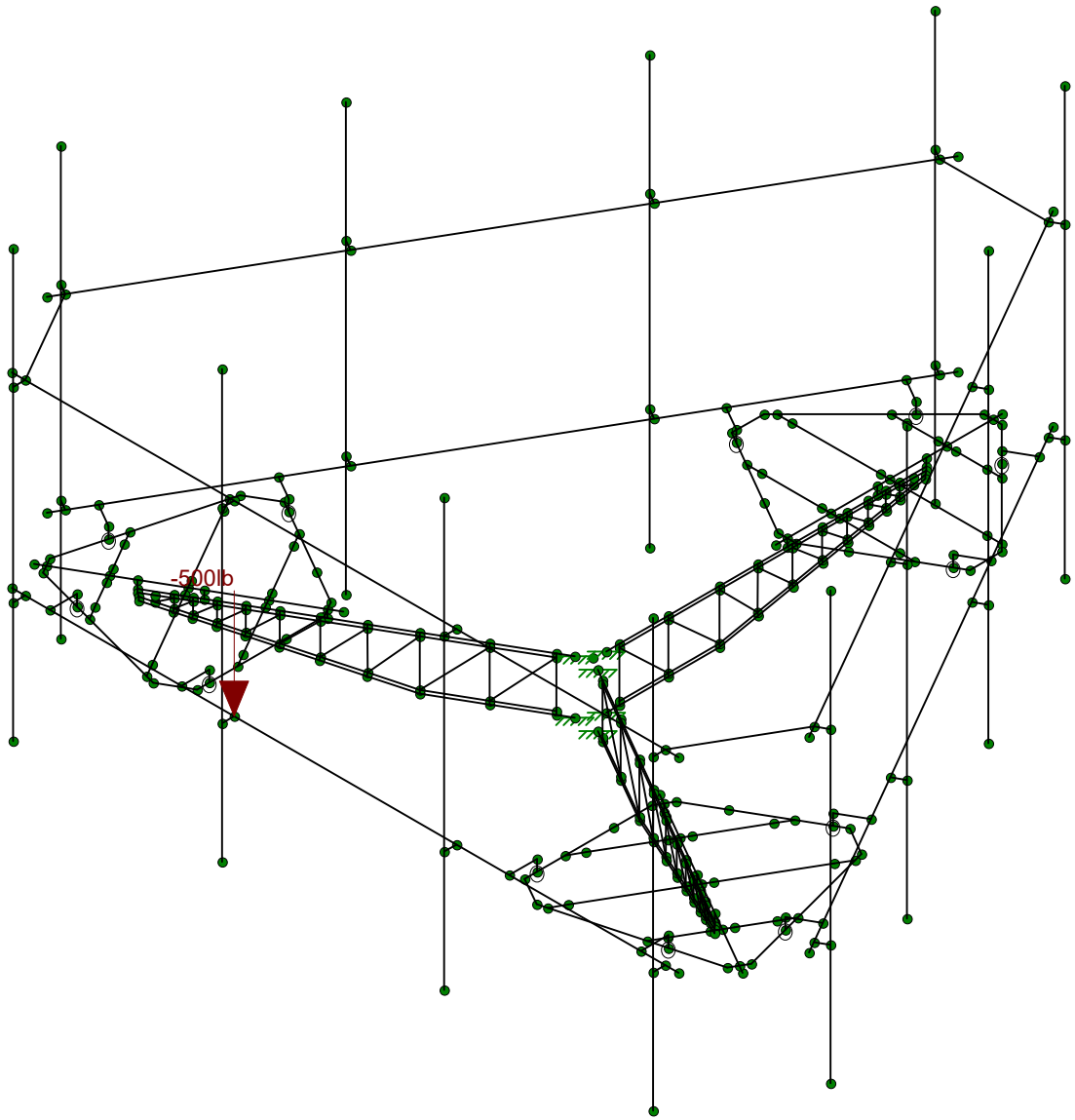
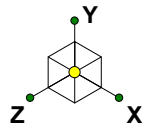
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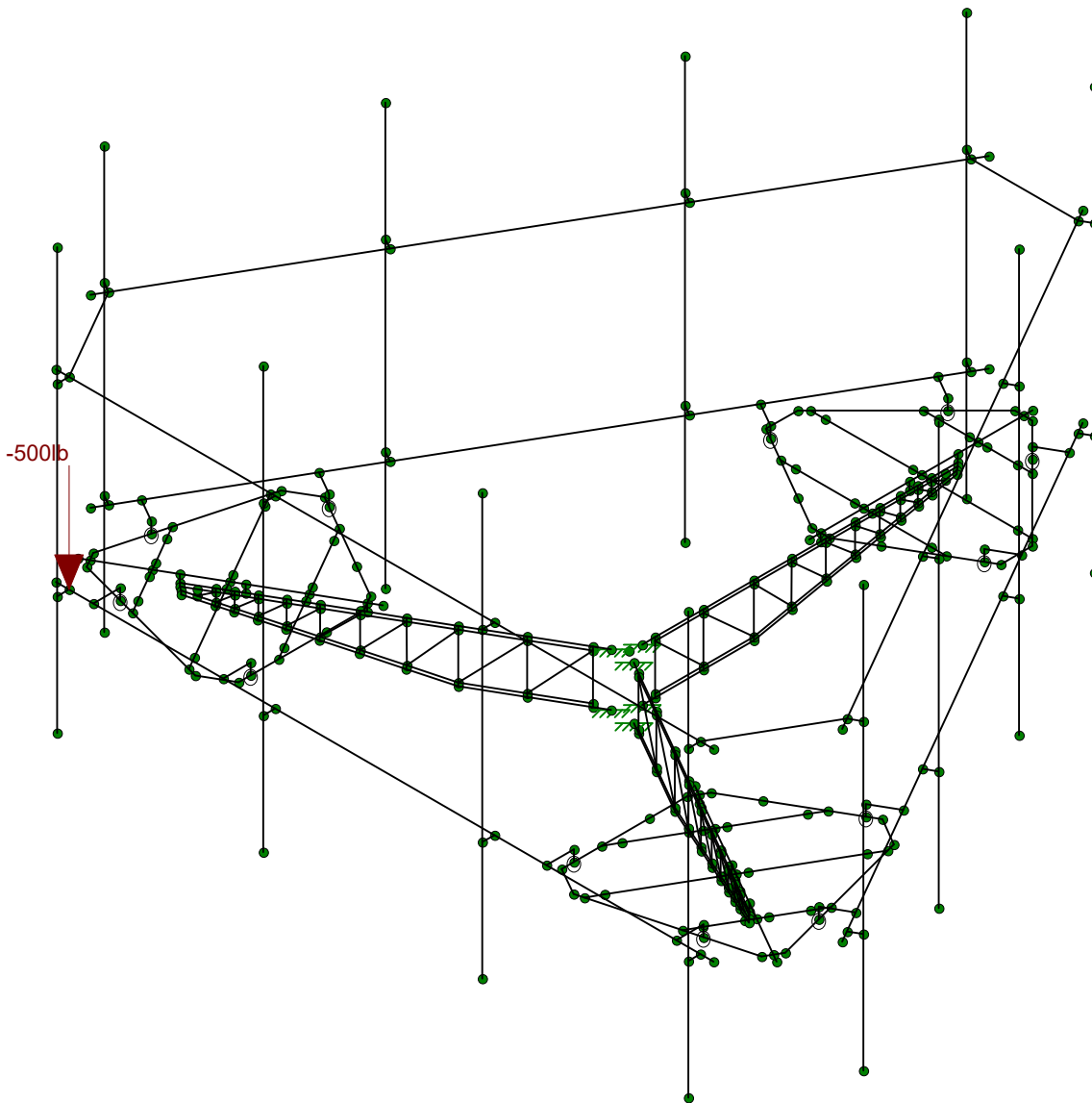
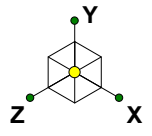
Loads: BLC 35, Maintenance Load 2

Infinigy Engineering	881364	Maintenance Load 2
FA		Sept 2, 2021 at 4:01 PM
1039-Z0001-B		881364_loaded.r3d



Loads: BLC 36, Maintenance Load 3

Infinigy Engineering	881364	Maintenance Load 3
FA		Sept 2, 2021 at 4:01 PM
1039-Z0001-B		881364_loaded.r3d



Loads: BLC 37, Maintenance Load 4

Infinigy Engineering	881364	Maintenance Load 4
FA		Sept 2, 2021 at 4:01 PM
1039-Z0001-B		881364_loaded.r3d

APPENDIX B
SOFTWARE INPUT CALCULATIONS

Program Inputs

PROJECT INFORMATION		
Client:	Crown Castle	
Carrier:	AT&T Mobility	
Engineer:	Farhad Ahmadyar	

SITE INFORMATION		
Risk Category:	II	
Exposure Category:	C	
Topo Factor Procedure:	Method 1, Category 1	
Site Class:	D - Stiff Soil (Assumed)	
Ground Elevation:	141.56	ft *Rev H

MOUNT INFORMATION		
Mount Type:	Platform	
Num Sectors:	3	
Centerline AGL:	105.00	ft
Tower Height AGL:	145.00	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):	0.995	*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:	2015 IBC	
TIA Standard:	TIA-222-H	
ASCE Standard:	ASCE 7-10	

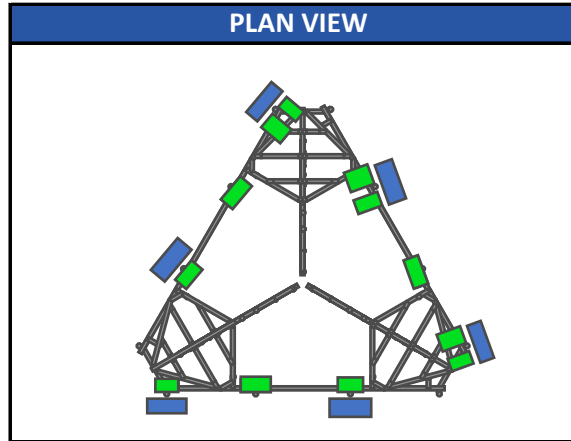
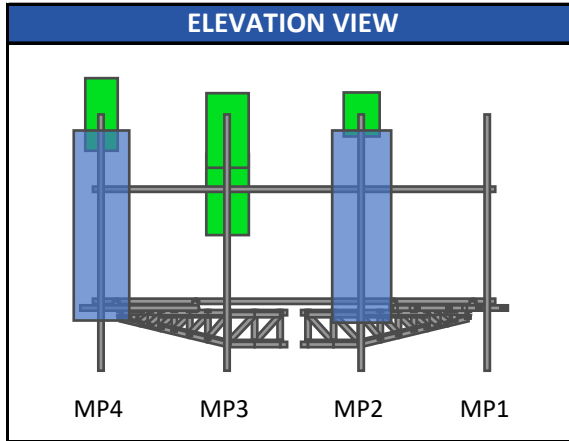
WIND AND ICE DATA		
Ultimate Wind (V_{ult}):	125	mph
Design Wind (V):	N/A	mph
Ice Wind (V_{ice}):	50	mph
Base Ice Thickness (t_i):	2	in
Flat Pressure:	96.683	psf
Round Pressure:	58.010	psf
Ice Wind Pressure:	9.282	psf

SEISMIC DATA		
Short-Period Accel. (S_s):	0.182	g
1-Second Accel. (S_1):	0.064	g
Short-Period Design (S_{DS}):	0.194	
1-Second Design (S_{D1}):	0.102	
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 Load Calculator V2.1.7

Program Inputs



Infinigy Load Calculator V2.1.7

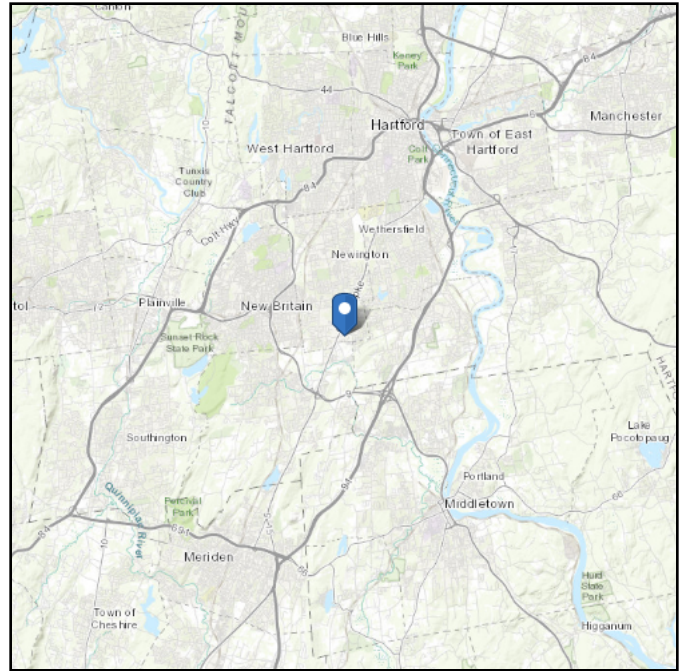
APPURTENANCE INFORMATION												
Appurtenance Name	Elevation	Qty.	K_a	q_z (psf)	EPA_N (ft ²)	EPA_T (ft ²)	Wind F_z (lbs)	Wind F_x (lbs)	Weight (lbs)	Seismic F (lbs)	Member (α sector)	
CCI ANTENNAS DMP65R-BU6D	105.0	3	0.90	48.34	12.71	5.62	552.96	244.31	89.30	26.00	MP4	
ERICSSON AIR 6419 B77G	105.0	3	0.90	48.34	3.67	1.65	159.60	71.91	66.20	19.28	MP3	
ERICSSON AIR 6449 B77D	105.0	3	0.90	48.34	4.02	2.14	174.86	93.09	81.60	23.76	MP3	
QUINTEL TECHNOLOGY QD6616-7	105.0	3	0.90	48.34	13.58	6.80	590.74	295.85	130.00	37.86	MP2	
ERICSSON TME-RRUS 32 B30	105.0	3	0.90	48.34	2.74	1.67	119.33	72.57	53.00	15.43	MP4	
ERICSSON RRUS 4449 B5/B12	105.0	3	0.90	48.34	1.97	1.41	85.60	61.26	71.00	20.68	MP4	
ERICSSON TME-RRUS 4478 B14	105.0	3	0.90	48.34	1.84	1.06	80.16	46.06	59.90	17.44	MP2	
ERICSSON RRUS 8843 B2/B66A	105.0	3	0.90	48.34	1.64	1.35	71.31	58.88	72.00	20.97	MP2	
RAYCAP TME-DC6-48-60-0-8F	105.0	1	0.90	48.34	2.20	2.20	95.72	95.72	32.80	9.55	MP4	
RAYCAP DC6-48-60-18-8F	105.0	2	0.90	48.34	2.20	2.20	95.72	95.72	18.90	5.50	MP2	

ASCE 7 Hazards Report

Address:
No Address at This
Location

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

Elevation: 141.56 ft (NAVD 88)
Latitude: 41.6552
Longitude: -72.721442



Wind

Results:

Wind Speed:	125 Vmph per 2018 Connecticut State Building Code and Appendix N
10-year MRI	77 Vmph
25-year MRI	87 Vmph
50-year MRI	93 Vmph
100-year MRI	100 Vmph

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

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

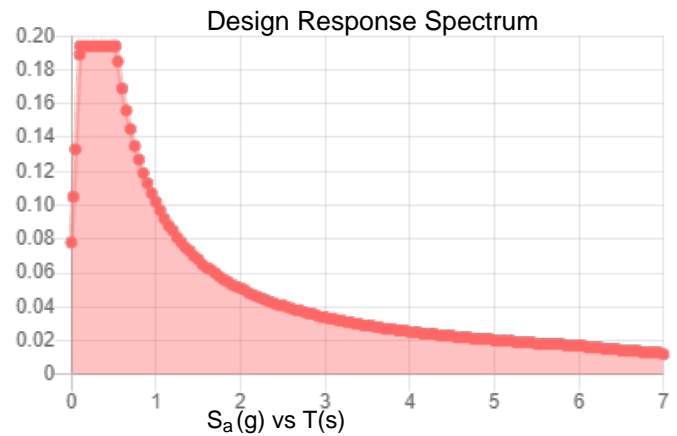
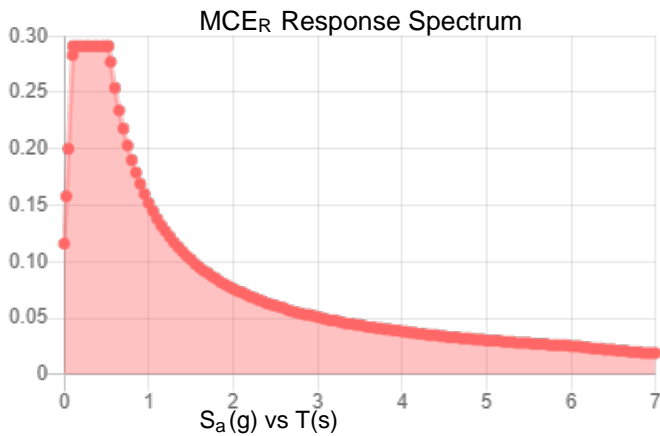
Site is in a hurricane-prone region as defined in ASCE/SEI 7-10 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Stiff Soil

Results:

S_S :	0.182	S_{DS} :	0.194
S_1 :	0.063	S_{D1} :	0.102
F_a :	1.6	T_L :	6
F_v :	2.4	PGA :	0.092
S_{MS} :	0.291	PGA _M :	0.148
S_{M1} :	0.152	F _{PGA} :	1.6
		I_e :	1

Seismic Design Category B



Data Accessed:

Thu Sep 02 2021

Date Source:

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

Ice

Results:

Ice Thickness: 1.00 in.

Concurrent Temperature: 5 F

Gust Speed: 50 mph

Data Source: Standard ASCE/SEI 7-10, Figs. 10-2 through 10-8

Date Accessed: Thu Sep 02 2021

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

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

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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APPENDIX C
SOFTWARE ANALYSIS OUTPUT

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M31	N38	N29			Platform Bracing	Beam	RECT	Q345	Typical
2	M33	N39	N31			Platform Bracing	Beam	RECT	Q345	Typical
3	M34A	N35	N79			Platform Bracing	Beam	RECT	Q345	Typical
4	M45A	N50	N52		180	Angle Bracing	Beam	Single Angle	Q345	Typical
5	M50	N63	N69A			RIGID	None	None	RIGID	Typical
6	M51	N65	N70A			RIGID	None	None	RIGID	Typical
7	M52	N66	N71A			RIGID	None	None	RIGID	Typical
8	M53	N64A	N72A			RIGID	None	None	RIGID	Typical
9	S2	N74A	N75A		90	Standoffs	Beam	Tube	Q235-GB	Typical
10	M54A	N67A	N73B			RIGID	None	None	RIGID	Typical
11	M55	N68A	N74B			RIGID	None	None	RIGID	Typical
12	M56	N75	N77A			RIGID	None	None	RIGID	Typical
13	M57	N77	N69			RIGID	None	None	RIGID	Typical
14	M57A	N76A	N79B			RIGID	None	None	RIGID	Typical
15	M58	N27	N70			RIGID	None	None	RIGID	Typical
16	M59	N28	N71			RIGID	None	None	RIGID	Typical
17	M59A	N63	N83			RIGID	None	None	RIGID	Typical
18	M60	N70	N67			Platform Bracing	Beam	RECT	Q345	Typical
19	M60A	N65	N84			RIGID	None	None	RIGID	Typical
20	M61	N71	N68			Platform Bracing	Beam	RECT	Q345	Typical
21	M61A	N66	N85			RIGID	None	None	RIGID	Typical
22	M62	N69	N64			Platform Bracing	Beam	RECT	Q345	Typical
23	M62A	N80A	N86			RIGID	None	None	RIGID	Typical
24	M63	N64	N72			RIGID	None	None	RIGID	Typical
25	M63A	N81	N87			RIGID	None	None	RIGID	Typical
26	M64	N67	N73			RIGID	None	None	RIGID	Typical
27	M64A	N82	N88			RIGID	None	None	RIGID	Typical
28	M65	N68	N74			RIGID	None	None	RIGID	Typical
29	M65A	N75	N89			RIGID	None	None	RIGID	Typical
30	M66	N79A	N60			Connection Pl...	Beam	RECT	Q345	Typical
31	M66A	N76A	N91			RIGID	None	None	RIGID	Typical
32	M67	N47	N78			RIGID	None	None	RIGID	Typical
33	M68	N78	N79A		90	Angle Bracing	Beam	Single Angle	Q345	Typical
34	M70	N49	N80			RIGID	None	None	RIGID	Typical
35	M73	N77A	N78A		180	Angle Bracing	Beam	Single Angle	Q345	Typical
36	M74	N89	N90		90	Angle Bracing	Beam	Single Angle	Q345	Typical
37	M74B	N80	N60		180	Angle Bracing	Beam	Single Angle	Q345	Typical
38	M74C	N52	N62			Connection Pl...	Beam	RECT	Q345	Typical
39	M75	N91	N93		180	Angle Bracing	Beam	Single Angle	Q345	Typical
40	M75B	N52A	N62		90	Angle Bracing	Beam	Single Angle	Q345	Typical
41	M76	N79B	N94		90	Angle Bracing	Beam	Single Angle	Q345	Typical
42	S3	N60A	N61		90	Standoffs	Beam	Tube	Q235-GB	Typical
43	M78	N90	N93			Connection Pl...	Beam	RECT	Q345	Typical
44	M79	N78A	N94			Connection Pl...	Beam	RECT	Q345	Typical
45	M80	N70A	N67A			Platform Bracing	Beam	RECT	Q345	Typical
46	M81	N71A	N68A			Platform Bracing	Beam	RECT	Q345	Typical
47	M82	N69A	N64A			Platform Bracing	Beam	RECT	Q345	Typical
48	M83	N84	N81			Platform Bracing	Beam	RECT	Q345	Typical
49	M84	N85	N82			Platform Bracing	Beam	RECT	Q345	Typical
50	M85	N83	N80A			Platform Bracing	Beam	RECT	Q345	Typical
51	M94	N111	N109			RIGID	None	None	RIGID	Typical
52	M95	N109	N112			RIGID	None	None	RIGID	Typical
53	M96	N113	N110			RIGID	None	None	RIGID	Typical
54	M97	N110	N114			RIGID	None	None	RIGID	Typical
55	M99	N120	N126			RIGID	None	None	RIGID	Typical
56	M100	N122	N127			RIGID	None	None	RIGID	Typical



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 881364

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Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
57	M101	N123	N128			RIGID	None	None	RIGID	Typical
58	M102	N121	N129			RIGID	None	None	RIGID	Typical
59	M103	N124	N130			RIGID	None	None	RIGID	Typical
60	M104	N125	N131			RIGID	None	None	RIGID	Typical
61	M105	N132	N134			RIGID	None	None	RIGID	Typical
62	M106	N133	N136			RIGID	None	None	RIGID	Typical
63	M108	N120	N140			RIGID	None	None	RIGID	Typical
64	M109	N122	N141			RIGID	None	None	RIGID	Typical
65	M110	N123	N142			RIGID	None	None	RIGID	Typical
66	M111	N137	N143			RIGID	None	None	RIGID	Typical
67	M112	N138	N144			RIGID	None	None	RIGID	Typical
68	M113	N139	N145			RIGID	None	None	RIGID	Typical
69	M114	N132	N146			RIGID	None	None	RIGID	Typical
70	M115	N133	N148			RIGID	None	None	RIGID	Typical
71	M116	N162	N149			RIGID	None	None	RIGID	Typical
72	M117	N149	N163			RIGID	None	None	RIGID	Typical
73	M118	N164	N152			RIGID	None	None	RIGID	Typical
74	M119	N152	N165			RIGID	None	None	RIGID	Typical
75	M122	N134	N135		180	Angle Bracing	Beam	Single Angle	Q345	Typical
76	M123	N146	N147		90	Angle Bracing	Beam	Single Angle	Q345	Typical
77	M124	N148	N150		180	Angle Bracing	Beam	Single Angle	Q345	Typical
78	M125	N136	N151		90	Angle Bracing	Beam	Single Angle	Q345	Typical
79	S1	N117	N118		90	Standoffs	Beam	Tube	Q235-GB	Typical
80	M127	N147	N150			Connection Pl...	Beam	RECT	Q345	Typical
81	M127A	N154A	N152A			RIGID	None	None	RIGID	Typical
82	M128	N135	N151			Connection Pl...	Beam	RECT	Q345	Typical
83	M128A	N152A	N155A			RIGID	None	None	RIGID	Typical
84	M129	N127	N124			Platform Bracing	Beam	RECT	Q345	Typical
85	M129A	N156A	N153A			RIGID	None	None	RIGID	Typical
86	M130	N128	N125			Platform Bracing	Beam	RECT	Q345	Typical
87	M130A	N153A	N157A			RIGID	None	None	RIGID	Typical
88	M131	N126	N121			Platform Bracing	Beam	RECT	Q345	Typical
89	M131A	N160A	N158A			RIGID	None	None	RIGID	Typical
90	M132	N141	N138			Platform Bracing	Beam	RECT	Q345	Typical
91	M132A	N158A	N161A			RIGID	None	None	RIGID	Typical
92	M133	N142	N139			Platform Bracing	Beam	RECT	Q345	Typical
93	M133A	N162A	N159A			RIGID	None	None	RIGID	Typical
94	M134	N140	N137			Platform Bracing	Beam	RECT	Q345	Typical
95	M134A	N159A	N163A			RIGID	None	None	RIGID	Typical
96	M136A	N168	N166			RIGID	None	None	RIGID	Typical
97	M137A	N166	N169			RIGID	None	None	RIGID	Typical
98	M138A	N170	N167			RIGID	None	None	RIGID	Typical
99	M139A	N167	N171			RIGID	None	None	RIGID	Typical
100	M140A	N174	N172A			RIGID	None	None	RIGID	Typical
101	M141A	N172A	N175			RIGID	None	None	RIGID	Typical
102	M142	N52C	N173A			RIGID	None	None	RIGID	Typical
103	M143	N173A	N177			RIGID	None	None	RIGID	Typical
104	M146A	N193	N192			Horizontals	Beam	Pipe	Q235-GB	Typical
105	M177	N196A	N195			Horizontals	Beam	Pipe	Q235-GB	Typical
106	M182	N205	N204			Horizontals	Beam	Pipe	Q235-GB	Typical
107	M198	N218	N213			RIGID	None	None	RIGID	Typical
108	M199	N225	N219			RIGID	None	None	RIGID	Typical
109	M200	N226	N220			RIGID	None	None	RIGID	Typical
110	M201	N227	N221			RIGID	None	None	RIGID	Typical
111	M202	N228	N222			RIGID	None	None	RIGID	Typical
112	M203	N229	N215			RIGID	None	None	RIGID	Typical
113	M204	N230	N223			RIGID	None	None	RIGID	Typical



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 881364

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Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
114	M205	N231	N224			RIGID	None	None	RIGID	Typical
115	M206	N247	N216			RIGID	None	None	RIGID	Typical
116	M207	N249	N248			RIGID	None	None	RIGID	Typical
117	M208	N240	N246			RIGID	None	None	RIGID	Typical
118	M209	N239	N245			RIGID	None	None	RIGID	Typical
119	M210	N238	N244			RIGID	None	None	RIGID	Typical
120	M211	N237	N243			RIGID	None	None	RIGID	Typical
121	M212	N235	N242			RIGID	None	None	RIGID	Typical
122	M213	N236	N233			RIGID	None	None	RIGID	Typical
123	M214	N234	N241			RIGID	None	None	RIGID	Typical
124	M215	N217	N232			RIGID	None	None	RIGID	Typical
125	M216	N222	N220		90	Standoff (Top ...	Beam	RECT	Q345	Typical
126	M217	N220	N219		90	Standoff (Top ...	Beam	RECT	Q345	Typical
127	M218	N219	N213		90	Standoff (Top ...	Beam	RECT	Q345	Typical
128	M219	N237	N236		90	Standoff (Botto...	Beam	RECT	Q345	Typical
129	M220	N236	N234		90	Standoff (Botto...	Beam	RECT	Q345	Typical
130	M221	N234	N217		90	Standoff (Botto...	Beam	RECT	Q345	Typical
131	M222	N228	N226			Standoff Braci...	Beam	RECT	Q345	Typical
132	M223	N226	N225			Standoff Braci...	Beam	RECT	Q345	Typical
133	M224	N225	N218			Standoff Braci...	Beam	RECT	Q345	Typical
134	M225	N243	N233			Standoff Braci...	Beam	RECT	Q345	Typical
135	M226	N233	N241			Standoff Braci...	Beam	RECT	Q345	Typical
136	M227	N241	N232			Standoff Braci...	Beam	RECT	Q345	Typical
137	M228	N232	N218			Standoff Braci...	Beam	RECT	Q345	Typical
138	M229	N248	N247			RIGID	None	None	RIGID	Typical
139	M230	N218	N241			Standoff Braci...	Beam	RECT	Q345	Typical
140	M231	N241	N225			Standoff Braci...	Beam	RECT	Q345	Typical
141	M232	N225	N233			Standoff Braci...	Beam	RECT	Q345	Typical
142	M233	N233	N226		60	Standoff Braci...	Beam	RECT	Q345	Typical
143	M234	N242	N226			Standoff Braci...	Beam	RECT	Q345	Typical
144	M235	N242	N227		60	Standoff Braci...	Beam	RECT	Q345	Typical
145	M236	N243	N227			Standoff Braci...	Beam	RECT	Q345	Typical
146	M237	N243	N228		60	Standoff Braci...	Beam	RECT	Q345	Typical
147	M238	N244	N228			Standoff Braci...	Beam	RECT	Q345	Typical
148	M239	N244	N229		60	Standoff Braci...	Beam	RECT	Q345	Typical
149	M240	N245	N229			Standoff Braci...	Beam	RECT	Q345	Typical
150	M241	N245	N230			RIGID	None	None	RIGID	Typical
151	M242	N246	N231			RIGID	None	None	RIGID	Typical
152	M243	N258	N212			RIGID	None	None	RIGID	Typical
153	M244	N214	N49			RIGID	None	None	RIGID	Typical
154	M245	N217	N251		90	Standoff (Botto...	Beam	RECT	Q345	Typical
155	M246	N251	N255		90	Standoff (Botto...	Beam	RECT	Q345	Typical
156	M247	N232	N253			Standoff Braci...	Beam	RECT	Q345	Typical
157	M248	N253	N257			Standoff Braci...	Beam	RECT	Q345	Typical
158	M249	N218	N252			Standoff Braci...	Beam	RECT	Q345	Typical
159	M250	N252	N256			Standoff Braci...	Beam	RECT	Q345	Typical
160	M251	N232	N252			Standoff Braci...	Beam	RECT	Q345	Typical
161	M252	N253	N252		60	Standoff Braci...	Beam	RECT	Q345	Typical
162	M253	N253	N256			Standoff Braci...	Beam	RECT	Q345	Typical
163	M254	N257	N256		60	Standoff Braci...	Beam	RECT	Q345	Typical
164	M255	N213	N250		90	Standoff (Top ...	Beam	RECT	Q345	Typical
165	M256	N250	N254		90	Standoff (Top ...	Beam	RECT	Q345	Typical
166	M257	N252	N250		90	RIGID	None	None	RIGID	Typical
167	M258	N256	N254		90	RIGID	None	None	RIGID	Typical
168	M259	N255	N257		90	RIGID	None	None	RIGID	Typical
169	M260	N251	N253		90	RIGID	None	None	RIGID	Typical
170	M261	N249	N239		90	Standoff (Botto...	Beam	RECT	Q345	Typical



Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
171	M262	N216	N223		90	Standoff (Top ...	Beam	RECT	Q345	Typical
172	M263	N247	N230			Standoff Braci...	Beam	RECT	Q345	Typical
173	M264	N248	N245			Standoff Braci...	Beam	RECT	Q345	Typical
174	M265	N266	N261A			RIGID	None	None	RIGID	Typical
175	M265A	N223	N222		90	Standoff (Top ...	Beam	RECT	Q345	Typical
176	M266	N273	N267			RIGID	None	None	RIGID	Typical
177	M266A	N230	N228			Standoff Braci...	Beam	RECT	Q345	Typical
178	M267	N274	N268			RIGID	None	None	RIGID	Typical
179	M267A	N245	N243			Standoff Braci...	Beam	RECT	Q345	Typical
180	M268	N275	N269			RIGID	None	None	RIGID	Typical
181	M268A	N239	N237		90	Standoff (Botto...	Beam	RECT	Q345	Typical
182	M269	N276	N270			RIGID	None	None	RIGID	Typical
183	M269A	N266A	N261			RIGID	None	None	RIGID	Typical
184	M270	N277	N263			RIGID	None	None	RIGID	Typical
185	M270A	N273A	N267A			RIGID	None	None	RIGID	Typical
186	M271	N278	N271			RIGID	None	None	RIGID	Typical
187	M271A	N274A	N268A			RIGID	None	None	RIGID	Typical
188	M272	N279	N272			RIGID	None	None	RIGID	Typical
189	M272A	N275A	N269A			RIGID	None	None	RIGID	Typical
190	M273	N295A	N264			RIGID	None	None	RIGID	Typical
191	M273A	N276A	N270A			RIGID	None	None	RIGID	Typical
192	M274	N297A	N296A			RIGID	None	None	RIGID	Typical
193	M274A	N277A	N263A			RIGID	None	None	RIGID	Typical
194	M275	N288	N294			RIGID	None	None	RIGID	Typical
195	M275A	N278A	N271A			RIGID	None	None	RIGID	Typical
196	M276	N287	N293			RIGID	None	None	RIGID	Typical
197	M276A	N279A	N272A			RIGID	None	None	RIGID	Typical
198	M277	N286	N292			RIGID	None	None	RIGID	Typical
199	M277A	N295	N264A			RIGID	None	None	RIGID	Typical
200	M278	N285	N291			RIGID	None	None	RIGID	Typical
201	M278A	N297	N296			RIGID	None	None	RIGID	Typical
202	M279	N283	N290			RIGID	None	None	RIGID	Typical
203	M279A	N288A	N294A			RIGID	None	None	RIGID	Typical
204	M280	N284	N281			RIGID	None	None	RIGID	Typical
205	M280A	N287A	N293A			RIGID	None	None	RIGID	Typical
206	M281	N282	N289			RIGID	None	None	RIGID	Typical
207	M281A	N286A	N292A			RIGID	None	None	RIGID	Typical
208	M282	N265	N280			RIGID	None	None	RIGID	Typical
209	M282A	N285A	N291A			RIGID	None	None	RIGID	Typical
210	M283	N270	N268		90	Standoff (Top ...	Beam	RECT	Q345	Typical
211	M283A	N283A	N290A			RIGID	None	None	RIGID	Typical
212	M284	N268	N267		90	Standoff (Top ...	Beam	RECT	Q345	Typical
213	M284A	N284A	N281A			RIGID	None	None	RIGID	Typical
214	M285	N267	N261A		90	Standoff (Top ...	Beam	RECT	Q345	Typical
215	M285A	N282A	N289A			RIGID	None	None	RIGID	Typical
216	M286	N285	N284		90	Standoff (Botto...	Beam	RECT	Q345	Typical
217	M286A	N265A	N280A			RIGID	None	None	RIGID	Typical
218	M287	N284	N282		90	Standoff (Botto...	Beam	RECT	Q345	Typical
219	M287A	N270A	N268A		90	Standoff (Top ...	Beam	RECT	Q345	Typical
220	M288	N282	N265		90	Standoff (Botto...	Beam	RECT	Q345	Typical
221	M288A	N268A	N267A		90	Standoff (Top ...	Beam	RECT	Q345	Typical
222	M289	N276	N274			Standoff Braci...	Beam	RECT	Q345	Typical
223	M289A	N267A	N261		90	Standoff (Top ...	Beam	RECT	Q345	Typical
224	M290	N274	N273			Standoff Braci...	Beam	RECT	Q345	Typical
225	M290A	N285A	N284A		90	Standoff (Botto...	Beam	RECT	Q345	Typical
226	M291	N273	N266			Standoff Braci...	Beam	RECT	Q345	Typical
227	M291A	N284A	N282A		90	Standoff (Botto...	Beam	RECT	Q345	Typical



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 881364

Sept 2, 2021
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Member Primary Data (Continued)

Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
228	M292	N291	N281		Standoff Braci...	Beam	RECT	Q345	Typical
229	M292A	N282A	N265A	90	Standoff (Botto...	Beam	RECT	Q345	Typical
230	M293	N281	N289		Standoff Braci...	Beam	RECT	Q345	Typical
231	M293A	N276A	N274A		Standoff Braci...	Beam	RECT	Q345	Typical
232	M294	N289	N280		Standoff Braci...	Beam	RECT	Q345	Typical
233	M294A	N274A	N273A		Standoff Braci...	Beam	RECT	Q345	Typical
234	M295	N280	N266		Standoff Braci...	Beam	RECT	Q345	Typical
235	M295A	N273A	N266A		Standoff Braci...	Beam	RECT	Q345	Typical
236	M296	N296A	N295A		RIGID	None	None	RIGID	Typical
237	M296A	N291A	N281A		Standoff Braci...	Beam	RECT	Q345	Typical
238	M297	N266	N289		Standoff Braci...	Beam	RECT	Q345	Typical
239	M297A	N281A	N289A		Standoff Braci...	Beam	RECT	Q345	Typical
240	M298	N289	N273		Standoff Braci...	Beam	RECT	Q345	Typical
241	M298A	N289A	N280A		Standoff Braci...	Beam	RECT	Q345	Typical
242	M299	N273	N281		Standoff Braci...	Beam	RECT	Q345	Typical
243	M299A	N280A	N266A		Standoff Braci...	Beam	RECT	Q345	Typical
244	M300	N281	N274	120	Standoff Braci...	Beam	RECT	Q345	Typical
245	M300A	N296	N295		RIGID	None	None	RIGID	Typical
246	M301	N290	N274		Standoff Braci...	Beam	RECT	Q345	Typical
247	M301A	N266A	N289A		Standoff Braci...	Beam	RECT	Q345	Typical
248	M302	N290	N275	120	Standoff Braci...	Beam	RECT	Q345	Typical
249	M302A	N289A	N273A		Standoff Braci...	Beam	RECT	Q345	Typical
250	M303	N291	N275		Standoff Braci...	Beam	RECT	Q345	Typical
251	M303A	N273A	N281A		Standoff Braci...	Beam	RECT	Q345	Typical
252	M304	N291	N276	120	Standoff Braci...	Beam	RECT	Q345	Typical
253	M304A	N281A	N274A	180	Standoff Braci...	Beam	RECT	Q345	Typical
254	M305	N292	N276		Standoff Braci...	Beam	RECT	Q345	Typical
255	M305A	N290A	N274A		Standoff Braci...	Beam	RECT	Q345	Typical
256	M306	N292	N277	120	Standoff Braci...	Beam	RECT	Q345	Typical
257	M306A	N290A	N275A	180	Standoff Braci...	Beam	RECT	Q345	Typical
258	M307	N291A	N275A		Standoff Braci...	Beam	RECT	Q345	Typical
259	M307A	N293	N277		Standoff Braci...	Beam	RECT	Q345	Typical
260	M308	N291A	N276A	180	Standoff Braci...	Beam	RECT	Q345	Typical
261	M308A	N293	N278	60	RIGID	None	None	RIGID	Typical
262	M309	N292A	N276A		Standoff Braci...	Beam	RECT	Q345	Typical
263	M310	N292A	N277A	180	Standoff Braci...	Beam	RECT	Q345	Typical
264	M310A	N294	N279		RIGID	None	None	RIGID	Typical
265	M311	N293A	N277A		Standoff Braci...	Beam	RECT	Q345	Typical
266	M311A	N306	N307		RIGID	None	None	RIGID	Typical
267	M312	N293A	N278A	120	RIGID	None	None	RIGID	Typical
268	M312A	N262	N76A		RIGID	None	None	RIGID	Typical
269	M313	N294A	N279A		RIGID	None	None	RIGID	Typical
270	M313A	N265	N299A	90	Standoff (Botto...	Beam	RECT	Q345	Typical
271	M314	N306A	N260		RIGID	None	None	RIGID	Typical
272	M314A	N299A	N303	90	Standoff (Botto...	Beam	RECT	Q345	Typical
273	M315	N262A	N133		RIGID	None	None	RIGID	Typical
274	M315A	N280	N301A		Standoff Braci...	Beam	RECT	Q345	Typical
275	M316	N265A	N299	90	Standoff (Botto...	Beam	RECT	Q345	Typical
276	M316A	N301A	N305		Standoff Braci...	Beam	RECT	Q345	Typical
277	M317	N299	N303A	90	Standoff (Botto...	Beam	RECT	Q345	Typical
278	M317A	N266	N300		Standoff Braci...	Beam	RECT	Q345	Typical
279	M318	N280A	N301		Standoff Braci...	Beam	RECT	Q345	Typical
280	M318A	N300	N304		Standoff Braci...	Beam	RECT	Q345	Typical
281	M319	N301	N305A		Standoff Braci...	Beam	RECT	Q345	Typical
282	M319A	N280	N300		Standoff Braci...	Beam	RECT	Q345	Typical
283	M320	N266A	N300A		Standoff Braci...	Beam	RECT	Q345	Typical
284	M320A	N301A	N300	120	Standoff Braci...	Beam	RECT	Q345	Typical



Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
285	M321	N300A	N304A			Standoff Braci...	Beam	RECT	Q345	Typical
286	M321A	N301A	N304			Standoff Braci...	Beam	RECT	Q345	Typical
287	M322	N280A	N300A			Standoff Braci...	Beam	RECT	Q345	Typical
288	M322A	N305	N304		120	Standoff Braci...	Beam	RECT	Q345	Typical
289	M323	N261A	N298A		90	Standoff (Top ...	Beam	RECT	Q345	Typical
290	M323A	N301	N300A		180	Standoff Braci...	Beam	RECT	Q345	Typical
291	M324	N298A	N302		90	Standoff (Top ...	Beam	RECT	Q345	Typical
292	M324A	N301	N304A			Standoff Braci...	Beam	RECT	Q345	Typical
293	M325	N300	N298A		90	RIGID	None	None	RIGID	Typical
294	M325A	N305A	N304A		180	Standoff Braci...	Beam	RECT	Q345	Typical
295	M326	N304	N302		90	RIGID	None	None	RIGID	Typical
296	M326A	N261	N298		90	Standoff (Top ...	Beam	RECT	Q345	Typical
297	M327	N303	N305		90	RIGID	None	None	RIGID	Typical
298	M327A	N298	N302A		90	Standoff (Top ...	Beam	RECT	Q345	Typical
299	M328	N299A	N301A		90	RIGID	None	None	RIGID	Typical
300	M328A	N300A	N298		90	RIGID	None	None	RIGID	Typical
301	M329	N297A	N287		90	Standoff (Botto...	Beam	RECT	Q345	Typical
302	M329A	N304A	N302A		90	RIGID	None	None	RIGID	Typical
303	M330	N264	N271		90	Standoff (Top ...	Beam	RECT	Q345	Typical
304	M330A	N303A	N305A		90	RIGID	None	None	RIGID	Typical
305	M331	N295A	N278			Standoff Braci...	Beam	RECT	Q345	Typical
306	M331A	N299	N301		90	RIGID	None	None	RIGID	Typical
307	M332	N296A	N293			Standoff Braci...	Beam	RECT	Q345	Typical
308	M332A	N271	N270		90	Standoff (Top ...	Beam	RECT	Q345	Typical
309	M332B	N297	N287A		90	Standoff (Botto...	Beam	RECT	Q345	Typical
310	M333	N278	N276			Standoff Braci...	Beam	RECT	Q345	Typical
311	M333A	N264A	N271A		90	Standoff (Top ...	Beam	RECT	Q345	Typical
312	M334	N293	N291			Standoff Braci...	Beam	RECT	Q345	Typical
313	M334A	N295	N278A			Standoff Braci...	Beam	RECT	Q345	Typical
314	M335	N287	N285		90	Standoff (Botto...	Beam	RECT	Q345	Typical
315	M335A	N296	N293A			Standoff Braci...	Beam	RECT	Q345	Typical
316	M336	N271A	N270A		90	Standoff (Top ...	Beam	RECT	Q345	Typical
317	M337	N278A	N276A			Standoff Braci...	Beam	RECT	Q345	Typical
318	M338	N293A	N291A			Standoff Braci...	Beam	RECT	Q345	Typical
319	M339	N287A	N285A		90	Standoff (Botto...	Beam	RECT	Q345	Typical
320	M340	N230	N246			RIGID	None	None	RIGID	Typical
321	M341	N231	N259			RIGID	None	None	RIGID	Typical
322	M342	N278	N294			RIGID	None	None	RIGID	Typical
323	M343	N279	N307B			RIGID	None	None	RIGID	Typical
324	M344	N278A	N294A			RIGID	None	None	RIGID	Typical
325	M345	N279A	N307C			RIGID	None	None	RIGID	Typical
326	M367	N264A	N346A			RIGID	None	None	RIGID	Typical
327	M368	N216	N345A			RIGID	None	None	RIGID	Typical
328	M369	N264	N344A			RIGID	None	None	RIGID	Typical
329	M505	N460A	N457			RIGID	None	None	RIGID	Typical
330	M506A	N458A	N456			RIGID	None	None	RIGID	Typical
331	M508B	N459B	N465C			RIGID	None	None	RIGID	Typical
332	M509B	N348	N461A			RIGID	None	None	RIGID	Typical
333	M510	N309	N460			RIGID	None	None	RIGID	Typical
334	M511A	N462	N470			RIGID	None	None	RIGID	Typical
335	M512	N463B	N471A			RIGID	None	None	RIGID	Typical
336	M513B	N486A	N465A			RIGID	None	None	RIGID	Typical
337	M514B	N484A	N464			RIGID	None	None	RIGID	Typical
338	M514C	N466B	N464C			RIGID	None	None	RIGID	Typical
339	M515B	N466	N467C			RIGID	None	None	RIGID	Typical
340	M516B	N467B	N468B			RIGID	None	None	RIGID	Typical
341	MP1	N330	N201			Mount Pipes	Column	Pipe	Q235-GB	Typical



Member Primary Data (Continued)

Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
342	MP2	N457A	N461		Mount Pipes	Column	Pipe	Q235-GB	Typical
343	MP3	N462A	N459A		Mount Pipes	Column	Pipe	Q235-GB	Typical
344	MP4	N200A	N329		Mount Pipes	Column	Pipe	Q235-GB	Typical
345	MP5	N192A	N326		Mount Pipes	Column	Pipe	Q235-GB	Typical
346	MP6	N193A	N327		Mount Pipes	Column	Pipe	Q235-GB	Typical
347	MP7	N347A	N331		Mount Pipes	Column	Pipe	Q235-GB	Typical
348	MP8	N325	N191		Mount Pipes	Column	Pipe	Q235-GB	Typical
349	MP9	N324	N173		Mount Pipes	Column	Pipe	Q235-GB	Typical
350	MP10	N483A	N487A		Mount Pipes	Column	Pipe	Q235-GB	Typical
351	MP11	N488A	N485		Mount Pipes	Column	Pipe	Q235-GB	Typical
352	MP12	N172	N323		Mount Pipes	Column	Pipe	Q235-GB	Typical
353	R3	N77	N35		RIGID	None	None	RIGID	Typical
354	R4	N27	N38		RIGID	None	None	RIGID	Typical
355	R5	N28	N39		RIGID	None	None	RIGID	Typical
356	R6	N79	N41		RIGID	None	None	RIGID	Typical
357	R7	N29	N41A		RIGID	None	None	RIGID	Typical
358	R8	N31	N42		RIGID	None	None	RIGID	Typical
359	R9	N47	N50		RIGID	None	None	RIGID	Typical
360	R10	N49	N52A		RIGID	None	None	RIGID	Typical
361	M361	N352	N351A		Handrail	Beam	Pipe	Q235-GB	Typical
362	M362	N351	N356		RIGID	None	None	RIGID	Typical
363	M363	N350	N355		RIGID	None	None	RIGID	Typical
364	M364	N347	N359		RIGID	None	None	RIGID	Typical
365	M365	N348A	N358		RIGID	None	None	RIGID	Typical
366	M366	N363	N362		Handrail	Beam	Pipe	Q235-GB	Typical
367	M367A	N361	N365		RIGID	None	None	RIGID	Typical
368	M368A	N360	N364		RIGID	None	None	RIGID	Typical
369	M369A	N358A	N367		RIGID	None	None	RIGID	Typical
370	M370	N359A	N366		RIGID	None	None	RIGID	Typical
371	M371	N374	N373		Handrail	Beam	Pipe	Q235-GB	Typical
372	M372	N372	N376		RIGID	None	None	RIGID	Typical
373	M373	N371	N375		RIGID	None	None	RIGID	Typical
374	M374	N369	N378		RIGID	None	None	RIGID	Typical
375	M375	N370	N377		RIGID	None	None	RIGID	Typical
376	M376	N359	N366	270	Angle Bracing	Beam	Single Angle	Q345	Typical
377	M377	N358	N378		Angle Bracing	Beam	Single Angle	Q345	Typical
378	M378	N377	N367		Angle Bracing	Beam	Single Angle	Q345	Typical
379	M379	N377A	N302		RIGID	None	None	RIGID	Typical
380	M380	N378A	N303		RIGID	None	None	RIGID	Typical
381	M381	N382	N254		RIGID	None	None	RIGID	Typical
382	M382	N383	N255		RIGID	None	None	RIGID	Typical
383	M383	N387	N302A		RIGID	None	None	RIGID	Typical
384	M384	N388	N303A		RIGID	None	None	RIGID	Typical

Hot Rolled Steel Properties

Label	E [psi]	G [psi]	Nu	Therm (/1... Density[k/f... Yield[ksi]	Ry	Fu[ksi]	Rt			
1	A992	2.9e+7	1.115e+7	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	2.9e+7	1.115e+7	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	2.9e+7	1.115e+7	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	2.9e+7	1.115e+7	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	2.9e+7	1.115e+7	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	2.9e+7	1.115e+7	.3	.65	.49	35	1.6	60	1.2
7	A1085	2.9e+7	1.115e+7	.3	.65	.49	50	1.4	65	1.3
8	Q235-GB	2.9e+7	1.115e+7	.3	.65	.49	35	1.5	58	1.2
9	Q345	2.9e+7	1.115e+7	.3	.65	.49	36	1.5	58	1.2



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 881364

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Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Mount Pipes	PIPE 2.0	Column	Pipe	Q235-GB	Typical	1.02	.627	.627	1.25
2	Horizontal	PIPE 2.5	Beam	Pipe	Q235-GB	Typical	1.61	1.45	1.45	2.89
3	Handrail	PIPE 2.0	Beam	Pipe	Q235-GB	Typical	1.02	.627	.627	1.25
4	Angle Bracing	L3X3X6	Beam	Single Angle	Q345	Typical	2.11	1.75	1.75	.101
5	Walking Platf...	L2x2x2	Beam	Single Angle	Q345	Typical	.491	.189	.189	.003
6	Standoffs	HSS4X3X4	Beam	Tube	Q235-GB	Typical	2.91	3.91	6.15	7.96
7	Standoff (Bot...	3/8" x 4"	Beam	RECT	Q345	Typical	1.5	.018	2	.066
8	Connection P...	3/8" x 3"	Beam	RECT	Q345	Typical	1.125	.013	.844	.049
9	Platform Brac...	3/8" x 2 3/4"	Beam	RECT	Q345	Typical	.891	.01	.419	.038
10	Standoff Brac...	3/8" x 1"	Beam	RECT	Q345	Typical	.375	.004	.031	.013
11	Standoff (Top...	1/2" x 4"	Beam	RECT	Q345	Typical	2	.042	2.667	.154
12	Standoff Brac...	3/8" x 7/8"	Beam	RECT	Q345	Typical	.328	.004	.021	.011
13	Standoff Brac...	3/8" x 3/4"	Beam	RECT	Q345	Typical	.281	.003	.013	.009
14	Standoff Brac...	3/8" x 5/8"	Beam	RECT	Q345	Typical	.234	.003	.008	.007

Joint Coordinates and Temperatures

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
1	N74A	-79.70638	1.5	46.0185	0	
2	N75A	-35.597974	1.5	20.5525	0	
3	N77	-68.935189	1.5	39.79975	0	
4	N79	-73.435189	1.5	32.005522	0	
5	N27	-57.763462	1.5	33.34975	0	
6	N28	-46.254752	1.5	26.705194	0	
7	N29	-68.716962	1.5	14.377732	0	
8	N31	-54.047214	1.5	13.322481	0	
9	N35	-69.935189	1.5	38.067699	0	
10	N38	-58.763462	1.5	31.617699	0	
11	N39	-47.304214	1.5	25.001699	0	
12	N41	-75.142289	1.5	29.048738	0	
13	N41A	-70.421962	1.5	11.424585	0	
14	N42	-55.754319	1.5	10.365688	0	
15	N47	-77.95416	1.5	45.006855	0	
16	N49	-37.85423	1.5	21.85515	0	
17	N50	-78.95416	1.5	43.274804	0	
18	N52	-69.90428	1.5	9.492815	0	
19	N52A	-38.85423	1.5	20.123099	0	
20	N64	-64.435189	1.5	47.593979	0	
21	N67	-46.809962	1.5	52.321769	0	
22	N68	-38.561214	1.5	40.14502	0	
23	N69	-67.935189	1.5	41.531801	0	
24	N70	-56.763462	1.5	35.081801	0	
25	N71	-45.304214	1.5	28.465801	0	
26	N72	-62.728089	1.5	50.550763	0	
27	N73	-45.104962	1.5	55.274915	0	
28	N74	-36.854109	1.5	43.101812	0	
29	N78	-76.95416	1.5	46.738906	0	
30	N79A	-43.173159	1.5	55.792475	0	
31	N80	-36.85423	1.5	23.587201	0	
32	N60	-36.854109	1.5	52.216811	0	
33	N62	-63.648139	1.5	5.808189	0	
34	N52C	-66.508887	1.5	49.53832	0	
35	N60A	-0.	1.5	-92.036907	0	
36	N61	-0.	1.5	-41.104907	0	
37	N63	-0.	1.5	-79.599407	0	



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
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Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
38	N64A	9.000058	1.5	-79.599407	0	
39	N65	-0.	1.5	-66.699407	0	
40	N66	-0.	1.5	-53.467407	0	
41	N67A	21.907058	1.5	-66.699407	0	
42	N68A	15.486058	1.5	-53.467407	0	
43	N69A	2.000058	1.5	-79.599407	0	
44	N70A	2.000058	1.5	-66.699407	0	
45	N71A	2.000058	1.5	-53.467407	0	
46	N72A	12.414258	1.5	-79.599407	0	
47	N73B	25.317058	1.5	-66.699407	0	
48	N74B	18.900268	1.5	-53.467407	0	
49	N75	-0.	1.5	-90.013617	0	
50	N76A	-0.	1.5	-43.710207	0	
51	N77A	2.000058	1.5	-90.013617	0	
52	N78A	26.731179	1.5	-65.285197	0	
53	N79B	2.000058	1.5	-43.710207	0	
54	N80A	-8.999942	1.5	-79.599407	0	
55	N81	-21.906942	1.5	-66.699407	0	
56	N82	-15.485942	1.5	-53.467407	0	
57	N83	-1.999942	1.5	-79.599407	0	
58	N84	-1.999942	1.5	-66.699407	0	
59	N85	-1.999942	1.5	-53.467407	0	
60	N86	-12.414142	1.5	-79.599407	0	
61	N87	-25.316942	1.5	-66.699407	0	
62	N88	-18.900152	1.5	-53.467407	0	
63	N89	-1.999942	1.5	-90.013617	0	
64	N90	-26.731063	1.5	-65.285197	0	
65	N91	-1.999942	1.5	-43.710207	0	
66	N93	-26.793972	1.5	-58.024907	0	
67	N94	26.794088	1.5	-58.024907	0	
68	N109	24.391199	3.999	-56.637613	0	
69	N110	9.647058	3.999	-82.367453	0	
70	N111	24.391199	1.5	-56.637613	0	
71	N112	29.804176	3.999	-59.762797	0	
72	N113	9.647057	1.5	-82.367452	0	
73	N114	14.976793	3.999	-85.444577	0	
74	N117	79.706094	1.5	46.018538	0	
75	N118	35.597689	1.5	20.552538	0	
76	N120	68.934904	1.5	39.799788	0	
77	N121	64.434904	1.5	47.594017	0	
78	N122	57.763176	1.5	33.349788	0	
79	N123	46.303928	1.5	26.733788	0	
80	N124	46.809676	1.5	52.321807	0	
81	N125	38.560928	1.5	40.145058	0	
82	N126	67.934904	1.5	41.531839	0	
83	N127	56.763176	1.5	35.081839	0	
84	N128	45.303928	1.5	28.465839	0	
85	N129	62.727804	1.5	50.550801	0	
86	N130	45.104676	1.5	55.274953	0	
87	N131	36.853823	1.5	43.10185	0	
88	N132	77.953874	1.5	45.006893	0	
89	N133	37.853945	1.5	21.855188	0	
90	N134	76.953874	1.5	46.738944	0	
91	N135	43.172874	1.5	55.792513	0	
92	N136	36.853945	1.5	23.587239	0	
93	N137	73.434904	1.5	32.00556	0	
94	N138	68.716676	1.5	14.37777	0	



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
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Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
95	N139	54.046928	1.5	13.322519	0	
96	N140	69.934904	1.5	38.067738	0	
97	N141	58.763176	1.5	31.617738	0	
98	N142	47.303928	1.5	25.001738	0	
99	N143	75.142004	1.5	29.048776	0	
100	N144	70.421676	1.5	11.424623	0	
101	N145	55.754033	1.5	10.365726	0	
102	N146	78.953874	1.5	43.274843	0	
103	N147	69.903995	1.5	9.492853	0	
104	N148	38.853945	1.5	20.123138	0	
105	N149	61.244977	3.999	7.195544	0	
106	N150	63.647853	1.5	5.808228	0	
107	N151	36.853823	1.5	52.216849	0	
108	N152	76.155602	3.999	32.829264	0	
109	N162	61.244977	1.5	7.195544	0	
110	N163	66.657954	3.999	4.07036	0	
111	N164	76.155601	1.5	32.829264	0	
112	N165	81.485337	3.999	29.75214	0	
113	N167	66.508602	3.999	49.538358	0	
114	N172	86.612572	72.999	33.132771	0	
115	N173	14.612699	72.999	-91.575208	0	
116	N152A	-61.245263	3.999	7.195505	0	
117	N153A	-76.155888	3.999	32.829226	0	
118	N154A	-61.245263	1.5	7.195505	0	
119	N155A	-66.65824	3.999	4.070321	0	
120	N156A	-76.155887	1.5	32.829226	0	
121	N157A	-81.485568	3.999	29.752007	0	
122	N158A	-24.391083	3.999	-56.637613	0	
123	N159A	-9.646942	3.999	-82.367453	0	
124	N160A	-24.391083	1.5	-56.637613	0	
125	N161A	-29.804061	3.999	-59.762797	0	
126	N162A	-9.646942	1.5	-82.367452	0	
127	N163A	-14.976707	3.999	-85.444527	0	
128	N166	36.853836	3.999	49.442239	0	
129	N168	36.853836	1.5	49.442239	0	
130	N169	36.853836	3.999	55.692607	0	
131	N170	66.508602	1.5	49.538358	0	
132	N171	66.508778	3.999	55.692607	0	
133	N172A	-36.854122	3.999	49.442201	0	
134	N173A	-66.508888	3.999	49.53832	0	
135	N174	-36.854122	1.5	49.442201	0	
136	N175	-36.854122	3.999	55.692569	0	
137	N177	-66.508778	3.999	55.692568	0	
138	N192	85.731002	3.999	37.105847	0	
139	N193	10.731129	3.999	-92.798284	0	
140	N191	-14.612583	72.999	-91.575208	0	
141	N192A	-86.612857	72.999	33.132732	0	
142	N193A	-63.112721	72.999	-7.570633	0	
143	N195	-10.731013	3.999	-92.798284	0	
144	N196A	-85.731288	3.999	37.105809	0	
145	N200A	-72.000216	72.999	58.442569	0	
146	N201	71.999931	72.999	58.442607	0	
147	N204	-75.000217	3.999	55.692568	0	
148	N205	74.999931	3.999	55.692607	0	
149	N212	-55.425626	1.5	32	0	
150	N260	55.425626	1.5	32	0	
151	N307	-0.	1.5	-64	0	



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
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Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
152	N309	-63.112721	3.999	-7.570633	0	
153	N261A	-0.	-25	-28.499622	0	
154	N262	-0.	-25	-43.7103	0	
155	N263	-0.	-25	-61.891492	0	
156	N264	-0.	-25	-75	0	
157	N265	-0.	-12.186	-28.499622	0	
158	N266	-0.	-1	-28.499622	0	
159	N267	-0.	-25	-37.118877	0	
160	N268	-0.	-25	-44.89476	0	
161	N269	-0.	-25	-51.573283	0	
162	N270	-0.	-25	-57.173135	0	
163	N271	-0.	-25	-65.872139	0	
164	N272	-0.	-25	-68.985478	0	
165	N273	-0.	-1	-37.118877	0	
166	N274	-0.	-1	-44.89476	0	
167	N275	-0.	-1	-51.573283	0	
168	N276	-0.	-1	-57.173135	0	
169	N277	-0.	-1	-61.891492	0	
170	N278	-0.	-1	-65.872139	0	
171	N279	-0.	-1	-68.985478	0	
172	N280	-0.	-11.448725	-28.483406	0	
173	N281	-0.	-7.999342	-44.89476	0	
174	N282	-0.	-10.366243	-37.217909	0	
175	N283	-0.	-7.33798	-51.726035	0	
176	N284	-0.	-8.731954	-45.047638	0	
177	N285	-0.	-6.169122	-57.325924	0	
178	N286	-0.	-5.184276	-62.044229	0	
179	N287	-0.	-4.35341	-66.024832	0	
180	N288	-0.	-3.703574	-69.138138	0	
181	N289	-0.	-9.632514	-37.064798	0	
182	N290	-0.	-6.605963	-51.573283	0	
183	N291	-0.	-5.436935	-57.173135	0	
184	N292	-0.	-4.452337	-61.891492	0	
185	N293	-0.	-3.621679	-65.872139	0	
186	N294	-0.	-2.972005	-68.985478	0	
187	N295A	-0.	-1	-75	0	
188	N296A	-0.	-1.753262	-74.781781	0	
189	N297A	-0.	-2.519851	-74.809241	0	
190	N298A	-0.	-25	-16.999622	0	
191	N299A	-0.	-12.186	-16.999622	0	
192	N300	-0.	-1	-16.999622	0	
193	N301A	-0.	-11.448547	-16.999622	0	
194	N302	-0.	-25	-6	0	
195	N303	-0.	-12.186	-6	0	
196	N304	-0.	-1	-6	0	
197	N305	-0.	-11.448547	-6	0	
198	N306	-0.	-25	-64	0	
199	N307B	-0.	-2.305813	-72.140485	0	
200	N308A	-0.	-1	-72.140485	0	
201	N213	-24.681397	-25	14.249811	0	
202	N214	-37.85423	-25	21.85515	0	
203	N215	-53.599604	-25	30.945746	0	
204	N216	-64.951905	-25	37.5	0	
205	N217	-24.681397	-12.186	14.249811	0	
206	N218	-24.681397	-1	14.249811	0	
207	N219	-32.14589	-25	18.559438	0	
208	N220	-38.880003	-25	22.44738	0	



Company : Infinigy Engineering
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Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
209	N221	-44.663773	-25	25.786642	0	
210	N222	-49.513387	-25	28.586568	0	
211	N223	-57.046946	-25	32.93607	0	
212	N224	-59.743176	-25	34.492739	0	
213	N225	-32.14589	-1	18.559438	0	
214	N226	-38.880003	-1	22.44738	0	
215	N227	-44.663773	-1	25.786642	0	
216	N228	-49.513387	-1	28.586568	0	
217	N229	-53.599604	-1	30.945746	0	
218	N230	-57.046946	-1	32.93607	0	
219	N231	-59.743176	-1	34.492739	0	
220	N232	-24.667353	-11.448725	14.241703	0	
221	N233	-38.880003	-7.999342	22.44738	0	
222	N234	-32.231655	-10.366243	18.608954	0	
223	N235	-44.796061	-7.33798	25.863018	0	
224	N236	-39.012399	-8.731954	22.523819	0	
225	N237	-49.645706	-6.169122	28.662962	0	
226	N238	-53.731878	-5.184276	31.022114	0	
227	N239	-57.179182	-4.35341	33.012416	0	
228	N240	-59.875384	-3.703574	34.569069	0	
229	N241	-32.099057	-9.632514	18.532399	0	
230	N242	-44.663773	-6.605963	25.786641	0	
231	N243	-49.513388	-5.436935	28.586568	0	
232	N244	-53.599604	-4.452337	30.945746	0	
233	N245	-57.046946	-3.621679	32.93607	0	
234	N246	-59.743177	-2.972005	34.492739	0	
235	N247	-64.951905	-1	37.5	0	
236	N248	-64.762922	-1.753262	37.390891	0	
237	N249	-64.786703	-2.519851	37.404621	0	
238	N250	-14.722104	-25	8.499811	0	
239	N251	-14.722104	-12.186	8.499811	0	
240	N252	-14.722104	-1	8.499811	0	
241	N253	-14.722104	-11.448547	8.499811	0	
242	N254	-5.196152	-25	3	0	
243	N255	-5.196152	-12.186	3	0	
244	N256	-5.196152	-1	3	0	
245	N257	-5.196152	-11.448547	3	0	
246	N258	-55.425626	-25	32	0	
247	N259	-62.475492	-2.305813	36.070242	0	
248	N260A	-62.475493	-1	36.070242	0	
249	N261	24.681397	-25	14.249811	0	
250	N262A	37.85423	-25	21.85515	0	
251	N263A	53.599604	-25	30.945746	0	
252	N264A	64.951905	-25	37.5	0	
253	N265A	24.681397	-12.186	14.249811	0	
254	N266A	24.681397	-1	14.249811	0	
255	N267A	32.14589	-25	18.559438	0	
256	N268A	38.880003	-25	22.44738	0	
257	N269A	44.663773	-25	25.786641	0	
258	N270A	49.513387	-25	28.586568	0	
259	N271A	57.046946	-25	32.93607	0	
260	N272A	59.743176	-25	34.492739	0	
261	N273A	32.14589	-1	18.559438	0	
262	N274A	38.880003	-1	22.44738	0	
263	N275A	44.663773	-1	25.786641	0	
264	N276A	49.513387	-1	28.586568	0	
265	N277A	53.599604	-1	30.945746	0	



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 Designer : FA
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Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
266	N278A	57.046946	-1	32.93607	0	
267	N279A	59.743176	-1	34.492739	0	
268	N280A	24.667353	-11.448725	14.241703	0	
269	N281A	38.880003	-7.999342	22.44738	0	
270	N282A	32.231655	-10.366243	18.608954	0	
271	N283A	44.796061	-7.33798	25.863018	0	
272	N284A	39.012399	-8.731954	22.523819	0	
273	N285A	49.645706	-6.169122	28.662962	0	
274	N286A	53.731878	-5.184276	31.022114	0	
275	N287A	57.179182	-4.35341	33.012416	0	
276	N288A	59.875384	-3.703574	34.569069	0	
277	N289A	32.099057	-9.632514	18.532399	0	
278	N290A	44.663773	-6.605963	25.786641	0	
279	N291A	49.513388	-5.436935	28.586568	0	
280	N292A	53.599604	-4.452337	30.945746	0	
281	N293A	57.046946	-3.621679	32.93607	0	
282	N294A	59.743177	-2.972005	34.492739	0	
283	N295	64.951905	-1	37.5	0	
284	N296	64.762922	-1.753262	37.390891	0	
285	N297	64.786703	-2.519851	37.404621	0	
286	N298	14.722104	-25	8.499811	0	
287	N299	14.722104	-12.186	8.499811	0	
288	N300A	14.722104	-1	8.499811	0	
289	N301	14.722104	-11.448547	8.499811	0	
290	N302A	5.196152	-25	3	0	
291	N303A	5.196152	-12.186	3	0	
292	N304A	5.196152	-1	3	0	
293	N305A	5.196152	-11.448547	3	0	
294	N306A	55.425626	-25	32	0	
295	N307C	62.475492	-2.305813	36.070242	0	
296	N308B	62.475493	-1	36.070242	0	
297	CP	0	0	0	0	
298	N308C	-36.854194	1.5	32.217201	0	
299	N309A	-46.328011	1.5	15.808068	0	
300	N310A	-9.47376	1.5	-48.025175	0	
301	N311A	9.473875	1.5	-48.025175	0	
302	N312A	46.327726	1.5	15.808106	0	
303	N313	36.853908	1.5	32.217239	0	
304	N344A	-0.	1.5	-75	0	
305	N345A	-64.951905	1.5	37.5	0	
306	N346A	64.951905	1.5	37.5	0	
307	N347A	-38.112583	72.999	-50.872014	0	
308	N348	-38.112583	3.999	-50.872014	0	
309	N323	86.612572	-23.001	33.132771	0	
310	N324	14.612699	-23.001	-91.575208	0	
311	N325	-14.612583	-23.001	-91.575208	0	
312	N326	-86.612857	-23.001	33.132732	0	
313	N327	-63.112721	-23.001	-7.570633	0	
314	N329	-72.000216	-23.001	58.442569	0	
315	N330	71.999931	-23.001	58.442607	0	
316	N331	-38.112583	-23.001	-50.872014	0	
317	N457A	25	72.999	58.442536	0	
318	N458A	25	3.999	58.442536	0	
319	N459A	-25.000165	72.999	58.442472	0	
320	N460A	-25.000165	3.999	58.442472	0	
321	N461	25	-23.001	58.442536	0	
322	N462A	-25.000165	-23.001	58.442472	0	



Company : Infinigy Engineering
 Designer : FA
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Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
323	N483A	38.112721	72.999	-50.871903	0	
324	N484A	38.112721	3.999	-50.871903	0	
325	N485	63.112748	72.999	-7.570458	0	
326	N486A	63.112748	3.999	-7.570458	0	
327	N487A	38.112721	-23.001	-50.871903	0	
328	N488A	63.112748	-23.001	-7.570458	0	
329	N456	25	3.999	55.692536	0	
330	N457	-25.000165	3.999	55.692472	0	
331	N459B	71.999931	3.999	58.442607	0	
332	N460	-60.731151	3.999	-6.195633	0	
333	N461A	-35.731013	3.999	-49.497014	0	
334	N462	-14.612583	3.999	-91.575208	0	
335	N463B	-86.612857	3.999	33.132733	0	
336	N464	35.731151	3.999	-49.496903	0	
337	N465A	60.731178	3.999	-6.195458	0	
338	N466	86.612572	3.999	33.132771	0	
339	N467B	14.612698	3.999	-91.575208	0	
340	N464C	-72.000217	3.999	55.692568	0	
341	N465C	71.999931	3.999	55.692607	0	
342	N466B	-72.000217	3.999	58.442568	0	
343	N467C	84.231288	3.999	34.507733	0	
344	N468B	12.231247	3.999	-90.200073	0	
345	N470	-12.231071	3.999	-90.200301	0	
346	N471A	-84.231178	3.999	34.507466	0	
347	N347	71.999931	45.999	58.442607	0	
348	N348A	-72.000216	45.999	58.442569	0	
349	N350	25	45.999	58.442536	0	
350	N351	-25.000165	45.999	58.442472	0	
351	N351A	-75.000217	45.999	55.692568	0	
352	N352	74.999931	45.999	55.692607	0	
353	N355	25	45.999	55.692536	0	
354	N356	-25.000165	45.999	55.692472	0	
355	N358	-72.000217	45.999	55.692568	0	
356	N359	71.999931	45.999	55.692607	0	
357	N358A	14.612817	45.999	-91.575073	0	
358	N359A	86.612857	45.999	33.132732	0	
359	N360	38.112721	45.999	-50.871903	0	
360	N361	63.112748	45.999	-7.570458	0	
361	N362	85.731288	45.999	37.105809	0	
362	N363	10.731247	45.999	-92.798149	0	
363	N364	35.731151	45.999	-49.496903	0	
364	N365	60.731178	45.999	-6.195458	0	
365	N366	84.231288	45.999	34.507733	0	
366	N367	12.231247	45.999	-90.200073	0	
367	N369	-86.612748	45.999	33.132466	0	
368	N370	-14.612641	45.999	-91.575301	0	
369	N371	-63.112721	45.999	-7.570633	0	
370	N372	-38.112583	45.999	-50.872014	0	
371	N373	-10.731071	45.999	-92.798377	0	
372	N374	-85.731178	45.999	37.105542	0	
373	N375	-60.731151	45.999	-6.195633	0	
374	N376	-35.731013	45.999	-49.497014	0	
375	N377	-12.231071	45.999	-90.200301	0	
376	N378	-84.231178	45.999	34.507466	0	
377	N377A	-0.	-25	-3	0	
378	N378A	-0.	-12.186	-3	0	
379	N382	-2.598076	-25	1.5	0	



Company : Infinigy Engineering
 Designer : FA
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Joint Coordinates and Temperatures (Continued)

	Label	X [in]	Y [in]	Z [in]	Temp [F]	Detach From Diap...
380	N383	-2.598076	-12.186	1.5	0	
381	N387	2.598076	- .25	1.5	0	
382	N388	2.598076	-12.186	1.5	0	

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	Lbby[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
1	M31	Platform Br...	19.907	6	6	Lbyy			.65	.65		Lateral
2	M33	Platform Br...	13.486	6	6	Lbyy			.65	.65		Lateral
3	M34A	Platform Br...	7	6	6	Lbyy			.65	.65		Lateral
4	M45A	Angle Braci...	34.973	Segment	Segment	Lbyy			.65	.65		Lateral
5	S2	Standoffs	50.932			Lbyy			1	1		Lateral
6	M60	Platform Br...	19.907	6	6	Lbyy			.65	.65		Lateral
7	M61	Platform Br...	13.486	6	6	Lbyy			.65	.65		Lateral
8	M62	Platform Br...	7	6	6	Lbyy			.65	.65		Lateral
9	M66	Connection ...	7.261			Lbyy			.65	.65		Lateral
10	M68	Angle Braci...	34.973	Segment	Segment	Lbyy			.65	.65		Lateral
11	M73	Angle Braci...	34.973	Segment	Segment	Lbyy			.65	.65		Lateral
12	M74	Angle Braci...	34.973	Segment	Segment	Lbyy			.65	.65		Lateral
13	M74B	Angle Braci...	28.63	Segment	Segment	Lbyy			.65	.65		Lateral
14	M74C	Connection ...	7.261			Lbyy			.65	.65		Lateral
15	M75	Angle Braci...	28.63	Segment	Segment	Lbyy			.65	.65		Lateral
16	M75B	Angle Braci...	28.63	Segment	Segment	Lbyy			.65	.65		Lateral
17	M76	Angle Braci...	28.63	Segment	Segment	Lbyy			.65	.65		Lateral
18	S3	Standoffs	50.932			Lbyy			1	1		Lateral
19	M78	Connection ...	7.261			Lbyy			.65	.65		Lateral
20	M79	Connection ...	7.261			Lbyy			.65	.65		Lateral
21	M80	Platform Br...	19.907	6	6	Lbyy			.65	.65		Lateral
22	M81	Platform Br...	13.486	6	6	Lbyy			.65	.65		Lateral
23	M82	Platform Br...	7	6	6	Lbyy			.65	.65		Lateral
24	M83	Platform Br...	19.907	6	6	Lbyy			.65	.65		Lateral
25	M84	Platform Br...	13.486	6	6	Lbyy			.65	.65		Lateral
26	M85	Platform Br...	7	6	6	Lbyy			.65	.65		Lateral
27	M122	Angle Braci...	34.973	Segment	Segment	Lbyy			.65	.65		Lateral
28	M123	Angle Braci...	34.973	Segment	Segment	Lbyy			.65	.65		Lateral
29	M124	Angle Braci...	28.63	Segment	Segment	Lbyy			.65	.65		Lateral
30	M125	Angle Braci...	28.63	Segment	Segment	Lbyy			.65	.65		Lateral
31	S1	Standoffs	50.932			Lbyy			1	1		Lateral
32	M127	Connection ...	7.261			Lbyy			.65	.65		Lateral
33	M128	Connection ...	7.261			Lbyy			.65	.65		Lateral
34	M129	Platform Br...	19.907	6	6	Lbyy			.65	.65		Lateral
35	M130	Platform Br...	13.486	6	6	Lbyy			.65	.65		Lateral
36	M131	Platform Br...	7	6	6	Lbyy			.65	.65		Lateral
37	M132	Platform Br...	19.907	6	6	Lbyy			.65	.65		Lateral
38	M133	Platform Br...	13.486	6	6	Lbyy			.65	.65		Lateral
39	M134	Platform Br...	7	6	6	Lbyy			.65	.65		Lateral
40	M146A	Horizontals	150			Lbyy						Lateral
41	M177	Horizontals	150			Lbyy						Lateral
42	M182	Horizontals	150			Lbyy						Lateral
43	M216	Standoff (T...	12.278			Lbyy			.65	.65		Lateral
44	M217	Standoff (T...	7.776			Lbyy			.65	.65		Lateral
45	M218	Standoff (T...	8.619			Lbyy			.65	.65		Lateral
46	M219	Standoff (B...	12.543			Lbyy			.65	.65		Lateral
47	M220	Standoff (B...	7.998			Lbyy			.65	.65		Lateral
48	M221	Standoff (B...	8.906			Lbyy			.65	.65		Lateral
49	M222	Standoff Br...	12.278			Lbyy			.65	.65		Lateral



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Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
50	M223	Standoff Br...	7.776			Lbyy			.65	.65		Lateral
51	M224	Standoff Br...	8.619			Lbyy			.65	.65		Lateral
52	M225	Standoff Br...	12.543			Lbyy			.65	.65		Lateral
53	M226	Standoff Br...	7.998			Lbyy			.65	.65		Lateral
54	M227	Standoff Br...	8.771			Lbyy			.65	.65		Lateral
55	M228	Standoff Br...	10.449			Lbyy			.65	.65		Lateral
56	M230	Standoff Br...	12.161			Lbyy			.65	.65		Lateral
57	M231	Standoff Br...	8.633			Lbyy			.65	.65		Lateral
58	M232	Standoff Br...	10.462			Lbyy			.65	.65		Lateral
59	M233	Standoff Br...	6.999			Lbyy			.65	.65		Lateral
60	M234	Standoff Br...	8.719			Lbyy			.65	.65		Lateral
61	M235	Standoff Br...	5.606			Lbyy			.65	.65		Lateral
62	M236	Standoff Br...	7.145			Lbyy			.65	.65		Lateral
63	M237	Standoff Br...	4.437			Lbyy			.65	.65		Lateral
64	M238	Standoff Br...	5.846			Lbyy			.65	.65		Lateral
65	M239	Standoff Br...	3.452			Lbyy			.65	.65		Lateral
66	M240	Standoff Br...	4.766			Lbyy			.65	.65		Lateral
67	M245	Standoff (B...	11.5			Lbyy			.65	.65		Lateral
68	M246	Standoff (B...	11			Lbyy			.65	.65		Lateral
69	M247	Standoff Br...	11.484			Lbyy			.65	.65		Lateral
70	M248	Standoff Br...	11			Lbyy			.65	.65		Lateral
71	M249	Standoff Br...	11.5			Lbyy			.65	.65		Lateral
72	M250	Standoff Br...	11			Lbyy			.65	.65		Lateral
73	M251	Standoff Br...	15.526			Lbyy			.65	.65		Lateral
74	M252	Standoff Br...	10.449			Lbyy			.65	.65		Lateral
75	M253	Standoff Br...	15.171			Lbyy			.65	.65		Lateral
76	M254	Standoff Br...	10.449			Lbyy			.65	.65		Lateral
77	M255	Standoff (T...	11.5			Lbyy			.65	.65		Lateral
78	M256	Standoff (T...	11			Lbyy			.65	.65		Lateral
79	M261	Standoff (B...	8.974			Lbyy			.65	.65		Lateral
80	M262	Standoff (T...	9.128			Lbyy			.65	.65		Lateral
81	M263	Standoff Br...	9.128			Lbyy			.65	.65		Lateral
82	M264	Standoff Br...	9.103			Lbyy			.65	.65		Lateral
83	M265A	Standoff (T...	8.699			Lbyy			.65	.65		Lateral
84	M266A	Standoff Br...	8.699			Lbyy			.65	.65		Lateral
85	M267A	Standoff Br...	8.886			Lbyy			.65	.65		Lateral
86	M268A	Standoff (B...	8.886			Lbyy			.65	.65		Lateral
87	M283	Standoff (T...	12.278			Lbyy			.65	.65		Lateral
88	M284	Standoff (T...	7.776			Lbyy			.65	.65		Lateral
89	M285	Standoff (T...	8.619			Lbyy			.65	.65		Lateral
90	M286	Standoff (B...	12.543			Lbyy			.65	.65		Lateral
91	M287	Standoff (B...	7.998			Lbyy			.65	.65		Lateral
92	M287A	Standoff (T...	12.278			Lbyy			.65	.65		Lateral
93	M288	Standoff (B...	8.906			Lbyy			.65	.65		Lateral
94	M288A	Standoff (T...	7.776			Lbyy			.65	.65		Lateral
95	M289	Standoff Br...	12.278			Lbyy			.65	.65		Lateral
96	M289A	Standoff (T...	8.619			Lbyy			.65	.65		Lateral
97	M290	Standoff Br...	7.776			Lbyy			.65	.65		Lateral
98	M290A	Standoff (B...	12.543			Lbyy			.65	.65		Lateral
99	M291	Standoff Br...	8.619			Lbyy			.65	.65		Lateral
100	M291A	Standoff (B...	7.998			Lbyy			.65	.65		Lateral
101	M292	Standoff Br...	12.543			Lbyy			.65	.65		Lateral
102	M292A	Standoff (B...	8.906			Lbyy			.65	.65		Lateral
103	M293	Standoff Br...	7.998			Lbyy			.65	.65		Lateral
104	M293A	Standoff Br...	12.278			Lbyy			.65	.65		Lateral
105	M294	Standoff Br...	8.771			Lbyy			.65	.65		Lateral
106	M294A	Standoff Br...	7.776			Lbyy			.65	.65		Lateral



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	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
107	M295	Standoff Br...	10.449			Lbyy			.65	.65		Lateral
108	M295A	Standoff Br...	8.619			Lbyy			.65	.65		Lateral
109	M296A	Standoff Br...	12.543			Lbyy			.65	.65		Lateral
110	M297	Standoff Br...	12.161			Lbyy			.65	.65		Lateral
111	M297A	Standoff Br...	7.998			Lbyy			.65	.65		Lateral
112	M298	Standoff Br...	8.633			Lbyy			.65	.65		Lateral
113	M298A	Standoff Br...	8.771			Lbyy			.65	.65		Lateral
114	M299	Standoff Br...	10.462			Lbyy			.65	.65		Lateral
115	M299A	Standoff Br...	10.449			Lbyy			.65	.65		Lateral
116	M300	Standoff Br...	6.999			Lbyy			.65	.65		Lateral
117	M301	Standoff Br...	8.719			Lbyy			.65	.65		Lateral
118	M301A	Standoff Br...	12.161			Lbyy			.65	.65		Lateral
119	M302	Standoff Br...	5.606			Lbyy			.65	.65		Lateral
120	M302A	Standoff Br...	8.633			Lbyy			.65	.65		Lateral
121	M303	Standoff Br...	7.145			Lbyy			.65	.65		Lateral
122	M303A	Standoff Br...	10.462			Lbyy			.65	.65		Lateral
123	M304	Standoff Br...	4.437			Lbyy			.65	.65		Lateral
124	M304A	Standoff Br...	6.999			Lbyy			.65	.65		Lateral
125	M305	Standoff Br...	5.846			Lbyy			.65	.65		Lateral
126	M305A	Standoff Br...	8.719			Lbyy			.65	.65		Lateral
127	M306	Standoff Br...	3.452			Lbyy			.65	.65		Lateral
128	M306A	Standoff Br...	5.606			Lbyy			.65	.65		Lateral
129	M307	Standoff Br...	7.145			Lbyy			.65	.65		Lateral
130	M307A	Standoff Br...	4.766			Lbyy			.65	.65		Lateral
131	M308	Standoff Br...	4.437			Lbyy			.65	.65		Lateral
132	M309	Standoff Br...	5.846			Lbyy			.65	.65		Lateral
133	M310	Standoff Br...	3.452			Lbyy			.65	.65		Lateral
134	M311	Standoff Br...	4.766			Lbyy			.65	.65		Lateral
135	M313A	Standoff (B...	11.5			Lbyy			.65	.65		Lateral
136	M314A	Standoff (B...	11			Lbyy			.65	.65		Lateral
137	M315A	Standoff Br...	11.484			Lbyy			.65	.65		Lateral
138	M316	Standoff (B...	11.5			Lbyy			.65	.65		Lateral
139	M316A	Standoff Br...	11			Lbyy			.65	.65		Lateral
140	M317	Standoff (B...	11			Lbyy			.65	.65		Lateral
141	M317A	Standoff Br...	11.5			Lbyy			.65	.65		Lateral
142	M318	Standoff Br...	11.484			Lbyy			.65	.65		Lateral
143	M318A	Standoff Br...	11			Lbyy			.65	.65		Lateral
144	M319	Standoff Br...	11			Lbyy			.65	.65		Lateral
145	M319A	Standoff Br...	15.526			Lbyy			.65	.65		Lateral
146	M320	Standoff Br...	11.5			Lbyy			.65	.65		Lateral
147	M320A	Standoff Br...	10.449			Lbyy			.65	.65		Lateral
148	M321	Standoff Br...	11			Lbyy			.65	.65		Lateral
149	M321A	Standoff Br...	15.171			Lbyy			.65	.65		Lateral
150	M322	Standoff Br...	15.526			Lbyy			.65	.65		Lateral
151	M322A	Standoff Br...	10.449			Lbyy			.65	.65		Lateral
152	M323	Standoff (T...	11.5			Lbyy			.65	.65		Lateral
153	M323A	Standoff Br...	10.449			Lbyy			.65	.65		Lateral
154	M324	Standoff (T...	11			Lbyy			.65	.65		Lateral
155	M324A	Standoff Br...	15.171			Lbyy			.65	.65		Lateral
156	M325A	Standoff Br...	10.449			Lbyy			.65	.65		Lateral
157	M326A	Standoff (T...	11.5			Lbyy			.65	.65		Lateral
158	M327A	Standoff (T...	11			Lbyy			.65	.65		Lateral
159	M329	Standoff (B...	8.974			Lbyy			.65	.65		Lateral
160	M330	Standoff (T...	9.128			Lbyy			.65	.65		Lateral
161	M331	Standoff Br...	9.128			Lbyy			.65	.65		Lateral
162	M332	Standoff Br...	9.103			Lbyy			.65	.65		Lateral
163	M332A	Standoff (T...	8.699			Lbyy			.65	.65		Lateral



Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
164	M332B	Standoff (B...	8.974			Lbyy			.65	.65		Lateral
165	M333	Standoff Br...	8.699			Lbyy			.65	.65		Lateral
166	M333A	Standoff (T...	9.128			Lbyy			.65	.65		Lateral
167	M334	Standoff Br...	8.886			Lbyy			.65	.65		Lateral
168	M334A	Standoff Br...	9.128			Lbyy			.65	.65		Lateral
169	M335	Standoff (B...	8.886			Lbyy			.65	.65		Lateral
170	M335A	Standoff Br...	9.103			Lbyy			.65	.65		Lateral
171	M336	Standoff (T...	8.699			Lbyy			.65	.65		Lateral
172	M337	Standoff Br...	8.699			Lbyy			.65	.65		Lateral
173	M338	Standoff Br...	8.886			Lbyy			.65	.65		Lateral
174	M339	Standoff (B...	8.886			Lbyy			.65	.65		Lateral
175	MP1	Mount Pipes	96			Lbyy						Lateral
176	MP2	Mount Pipes	96			Lbyy						Lateral
177	MP3	Mount Pipes	96			Lbyy						Lateral
178	MP4	Mount Pipes	96			Lbyy						Lateral
179	MP5	Mount Pipes	96			Lbyy						Lateral
180	MP6	Mount Pipes	96			Lbyy						Lateral
181	MP7	Mount Pipes	96			Lbyy						Lateral
182	MP8	Mount Pipes	96			Lbyy						Lateral
183	MP9	Mount Pipes	96			Lbyy						Lateral
184	MP10	Mount Pipes	96			Lbyy						Lateral
185	MP11	Mount Pipes	96			Lbyy						Lateral
186	MP12	Mount Pipes	96			Lbyy						Lateral
187	M361	Handrail	150			Lbyy						Lateral
188	M366	Handrail	150			Lbyy						Lateral
189	M371	Handrail	150			Lbyy						Lateral
190	M376	Angle Braci...	24.462			Lbyy						Lateral
191	M377	Angle Braci...	24.462			Lbyy						Lateral
192	M378	Angle Braci...	24.462			Lbyy						Lateral

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
1	Self Weight	DL		-1			39	9	
2	Wind Load AZI 0	WLZ					78		
3	Wind Load AZI 30	None					78		
4	Wind Load AZI 60	None					78		
5	Wind Load AZI 90	WLX					78		
6	Wind Load AZI 120	None					78		
7	Wind Load AZI 150	None					78		
8	Wind Load AZI 180	None					78		
9	Wind Load AZI 210	None					78		
10	Wind Load AZI 240	None					78		
11	Wind Load AZI 270	None					78		
12	Wind Load AZI 300	None					78		
13	Wind Load AZI 330	None					78		
14	Distr. Wind Load Z	WLZ						384	
15	Distr. Wind Load X	WLX						384	
16	Ice Weight	OL1					39	384	9
17	Ice Wind Load AZI 0	OL2					78		
18	Ice Wind Load AZI 30	None					78		
19	Ice Wind Load AZI 60	None					78		
20	Ice Wind Load AZI 90	OL3					78		
21	Ice Wind Load AZI 120	None					78		
22	Ice Wind Load AZI 150	None					78		
23	Ice Wind Load AZI 180	None					78		



Basic Load Cases (Continued)

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
24 Ice Wind Load AZI 210	None					78		
25 Ice Wind Load AZI 240	None					78		
26 Ice Wind Load AZI 270	None					78		
27 Ice Wind Load AZI 300	None					78		
28 Ice Wind Load AZI 330	None					78		
29 Distr. Ice Wind Load Z	OL2						384	
30 Distr. Ice Wind Load X	OL3						384	
31 Seismic Load Z	ELZ			-291		39		
32 Seismic Load X	ELX	-291				39		
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...	None						282	
47 BLC 16 Transient Are...	None						282	

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

Joint Label	L,D,M	Direction	Magnitude{(lb,lb-ft), (in,rad), (lb*s^2...
1 N205	L	Y	-250

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

Joint Label	L,D,M	Direction	Magnitude{(lb,lb-ft), (in,rad), (lb*s^2...
1 N465C	L	Y	-500

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

Joint Label	L,D,M	Direction	Magnitude{(lb,lb-ft), (in,rad), (lb*s^2...
1 N456	L	Y	-500

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

Joint Label	L,D,M	Direction	Magnitude{(lb,lb-ft), (in,rad), (lb*s^2...
1 N457	L	Y	-500

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

Joint Label	L,D,M	Direction	Magnitude{(lb,lb-ft), (in,rad), (lb*s^2...
1 N464C	L	Y	-500

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

Joint Label	L,D,M	Direction	Magnitude{(lb,lb-ft), (in,rad), (lb*s^2...
1 N471A	L	Y	-500

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

Joint Label	L,D,M	Direction	Magnitude{(lb,lb-ft), (in,rad), (lb*s^2...
1 N460	L	Y	-500



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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N461A	L	Y	-500

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N470	L	Y	-500

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N468B	L	Y	-500

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N464	L	Y	-500

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N465A	L	Y	-500

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

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-ft), (in,rad), (lb*s^2...
1	N467C	L	Y	-500

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	65
3	MP3	Y	-33.1	6
4	MP3	Y	-33.1	21
5	MP3	Y	-40.8	30
6	MP3	Y	-40.8	64
7	MP2	Y	-65	6
8	MP2	Y	-65	66
9	MP4	Y	-53	24
10	MP4	Y	-71	48
11	MP2	Y	-59.9	24
12	MP2	Y	-72	48
13	MP4	Y	-32.8	72
14	MP2	Y	-18.9	72
15	MP8	Y	-44.65	6
16	MP8	Y	-44.65	65
17	MP7	Y	-33.1	6
18	MP7	Y	-33.1	21
19	MP7	Y	-40.8	30
20	MP7	Y	-40.8	64
21	MP6	Y	-65	6
22	MP6	Y	-65	66
23	MP8	Y	-53	24
24	MP8	Y	-71	48
25	MP6	Y	-59.9	24
26	MP6	Y	-72	48
27	MP6	Y	-18.9	72
28	MP12	Y	-44.65	6
29	MP12	Y	-44.65	65



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
30	MP11	Y	-33.1	6
31	MP11	Y	-33.1	21
32	MP11	Y	-40.8	30
33	MP11	Y	-40.8	64
34	MP10	Y	-65	6
35	MP10	Y	-65	66
36	MP12	Y	-53	24
37	MP12	Y	-71	48
38	MP10	Y	-59.9	24
39	MP10	Y	-72	48

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	-276.48	6
3	MP4	X	0	65
4	MP4	Z	-276.48	65
5	MP3	X	0	6
6	MP3	Z	-79.8	6
7	MP3	X	0	21
8	MP3	Z	-79.8	21
9	MP3	X	0	30
10	MP3	Z	-87.43	30
11	MP3	X	0	64
12	MP3	Z	-87.43	64
13	MP2	X	0	6
14	MP2	Z	-295.37	6
15	MP2	X	0	66
16	MP2	Z	-295.37	66
17	MP4	X	0	24
18	MP4	Z	-119.33	24
19	MP4	X	0	48
20	MP4	Z	-85.6	48
21	MP2	X	0	24
22	MP2	Z	-80.16	24
23	MP2	X	0	48
24	MP2	Z	-71.31	48
25	MP4	X	0	72
26	MP4	Z	-95.72	72
27	MP2	X	0	72
28	MP2	Z	-95.72	72
29	MP8	X	0	6
30	MP8	Z	-185.92	6
31	MP8	X	0	65
32	MP8	Z	-185.92	65
33	MP7	X	0	6
34	MP7	Z	-54.07	6
35	MP7	X	0	21
36	MP7	Z	-54.07	21
37	MP7	X	0	30
38	MP7	Z	-63.44	30
39	MP7	X	0	64
40	MP7	Z	-63.44	64
41	MP6	X	0	6
42	MP6	Z	-208.85	6
43	MP6	X	0	66



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
44	MP6	Z	-208.85	66
45	MP8	X	0	24
46	MP8	Z	-91.89	24
47	MP8	X	0	48
48	MP8	Z	-71.32	48
49	MP6	X	0	24
50	MP6	Z	-60.15	24
51	MP6	X	0	48
52	MP6	Z	-64.02	48
53	MP6	X	0	72
54	MP6	Z	-95.72	72
55	MP12	X	0	6
56	MP12	Z	-140.21	6
57	MP12	X	0	65
58	MP12	Z	-140.21	65
59	MP11	X	0	6
60	MP11	Z	-41.09	6
61	MP11	X	0	21
62	MP11	Z	-41.09	21
63	MP11	X	0	30
64	MP11	Z	-51.33	30
65	MP11	X	0	64
66	MP11	Z	-51.33	64
67	MP10	X	0	6
68	MP10	Z	-165.17	6
69	MP10	X	0	66
70	MP10	Z	-165.17	66
71	MP12	X	0	24
72	MP12	Z	-78.04	24
73	MP12	X	0	48
74	MP12	Z	-64.11	48
75	MP10	X	0	24
76	MP10	Z	-50.05	24
77	MP10	X	0	48
78	MP10	Z	-60.34	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	-118.95	6
2	MP4	Z	-206.02	6
3	MP4	X	-118.95	65
4	MP4	Z	-206.02	65
5	MP3	X	-34.42	6
6	MP3	Z	-59.62	6
7	MP3	X	-34.42	21
8	MP3	Z	-59.62	21
9	MP3	X	-38.6	30
10	MP3	Z	-66.86	30
11	MP3	X	-38.6	64
12	MP3	Z	-66.86	64
13	MP2	X	-129.25	6
14	MP2	Z	-223.87	6
15	MP2	X	-129.25	66
16	MP2	Z	-223.87	66
17	MP4	X	-53.82	24
18	MP4	Z	-93.22	24



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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in.-%]
19	MP4	X	-39.76	48
20	MP4	Z	-68.86	48
21	MP2	X	-35.82	24
22	MP2	Z	-62.04	24
23	MP2	X	-34.1	48
24	MP2	Z	-59.07	48
25	MP4	X	-47.86	72
26	MP4	Z	-82.89	72
27	MP2	X	-47.86	72
28	MP2	Z	-82.89	72
29	MP8	X	-129.21	6
30	MP8	Z	-223.8	6
31	MP8	X	-129.21	65
32	MP8	Z	-223.8	65
33	MP7	X	-37.34	6
34	MP7	Z	-64.67	6
35	MP7	X	-37.34	21
36	MP7	Z	-64.67	21
37	MP7	X	-41.32	30
38	MP7	Z	-71.57	30
39	MP7	X	-41.32	64
40	MP7	Z	-71.57	64
41	MP6	X	-139.06	6
42	MP6	Z	-240.86	6
43	MP6	X	-139.06	66
44	MP6	Z	-240.86	66
45	MP8	X	-56.93	24
46	MP8	Z	-98.6	24
47	MP8	X	-41.38	48
48	MP8	Z	-71.67	48
49	MP6	X	-38.09	24
50	MP6	Z	-65.97	24
51	MP6	X	-34.93	48
52	MP6	Z	-60.5	48
53	MP6	X	-47.86	72
54	MP6	Z	-82.89	72
55	MP12	X	-63.4	6
56	MP12	Z	-109.82	6
57	MP12	X	-63.4	65
58	MP12	Z	-109.82	65
59	MP11	X	-18.64	6
60	MP11	Z	-32.29	6
61	MP11	X	-18.64	21
62	MP11	Z	-32.29	21
63	MP11	X	-23.89	30
64	MP11	Z	-41.38	30
65	MP11	X	-23.89	64
66	MP11	Z	-41.38	64
67	MP10	X	-76.19	6
68	MP10	Z	-131.96	6
69	MP10	X	-76.19	66
70	MP10	Z	-131.96	66
71	MP12	X	-36.99	24
72	MP12	Z	-64.07	24
73	MP12	X	-31	48
74	MP12	Z	-53.69	48
75	MP10	X	-23.55	24



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
76	MP10	Z	-40.78	24
77	MP10	X	-29.63	48
78	MP10	Z	-51.32	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP4	X	-139.2	6
2	MP4	Z	-80.37	6
3	MP4	X	-139.2	65
4	MP4	Z	-80.37	65
5	MP3	X	-40.63	6
6	MP3	Z	-23.46	6
7	MP3	X	-40.63	21
8	MP3	Z	-23.46	21
9	MP3	X	-49.16	30
10	MP3	Z	-28.38	30
11	MP3	X	-49.16	64
12	MP3	Z	-28.38	64
13	MP2	X	-160.03	6
14	MP2	Z	-92.39	6
15	MP2	X	-160.03	66
16	MP2	Z	-92.39	66
17	MP4	X	-72.97	24
18	MP4	Z	-42.13	24
19	MP4	X	-58.33	48
20	MP4	Z	-33.67	48
21	MP2	X	-47.27	24
22	MP2	Z	-27.29	24
23	MP2	X	-53.68	48
24	MP2	Z	-31	48
25	MP4	X	-82.89	72
26	MP4	Z	-47.86	72
27	MP2	X	-82.89	72
28	MP2	Z	-47.86	72
29	MP8	X	-235.41	6
30	MP8	Z	-135.91	6
31	MP8	X	-235.41	65
32	MP8	Z	-135.91	65
33	MP7	X	-67.97	6
34	MP7	Z	-39.24	6
35	MP7	X	-67.97	21
36	MP7	Z	-39.24	21
37	MP7	X	-74.65	30
38	MP7	Z	-43.1	30
39	MP7	X	-74.65	64
40	MP7	Z	-43.1	64
41	MP6	X	-251.95	6
42	MP6	Z	-145.46	6
43	MP6	X	-251.95	66
44	MP6	Z	-145.46	66
45	MP8	X	-102.12	24
46	MP8	Z	-58.96	24
47	MP8	X	-73.5	48
48	MP8	Z	-42.43	48
49	MP6	X	-68.53	24
50	MP6	Z	-39.57	24



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
51	MP6	X	-61.43	48
52	MP6	Z	-35.47	48
53	MP6	X	-82.89	72
54	MP6	Z	-47.86	72
55	MP12	X	-161.01	6
56	MP12	Z	-92.96	6
57	MP12	X	-161.01	65
58	MP12	Z	-92.96	65
59	MP11	X	-46.83	6
60	MP11	Z	-27.04	6
61	MP11	X	-46.83	21
62	MP11	Z	-27.04	21
63	MP11	X	-54.94	30
64	MP11	Z	-31.72	30
65	MP11	X	-54.94	64
66	MP11	Z	-31.72	64
67	MP10	X	-180.87	6
68	MP10	Z	-104.42	6
69	MP10	X	-180.87	66
70	MP10	Z	-104.42	66
71	MP12	X	-79.58	24
72	MP12	Z	-45.95	24
73	MP12	X	-61.76	48
74	MP12	Z	-35.66	48
75	MP10	X	-52.09	24
76	MP10	Z	-30.08	24
77	MP10	X	-55.44	48
78	MP10	Z	-32.01	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP4	X	-122.15	6
2	MP4	Z	0	6
3	MP4	X	-122.15	65
4	MP4	Z	0	65
5	MP3	X	-35.96	6
6	MP3	Z	0	6
7	MP3	X	-35.96	21
8	MP3	Z	0	21
9	MP3	X	-46.54	30
10	MP3	Z	0	30
11	MP3	X	-46.54	64
12	MP3	Z	0	64
13	MP2	X	-147.93	6
14	MP2	Z	0	6
15	MP2	X	-147.93	66
16	MP2	Z	0	66
17	MP4	X	-72.57	24
18	MP4	Z	0	24
19	MP4	X	-61.26	48
20	MP4	Z	0	48
21	MP2	X	-46.06	24
22	MP2	Z	0	24
23	MP2	X	-58.88	48
24	MP2	Z	0	48
25	MP4	X	-95.72	72



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
26	MP4	Z	0	72
27	MP2	X	-95.72	72
28	MP2	Z	0	72
29	MP8	X	-212.71	6
30	MP8	Z	0	6
31	MP8	X	-212.71	65
32	MP8	Z	0	65
33	MP7	X	-61.69	6
34	MP7	Z	0	6
35	MP7	X	-61.69	21
36	MP7	Z	0	21
37	MP7	X	-70.54	30
38	MP7	Z	0	30
39	MP7	X	-70.54	64
40	MP7	Z	0	64
41	MP6	X	-234.45	6
42	MP6	Z	0	6
43	MP6	X	-234.45	66
44	MP6	Z	0	66
45	MP8	X	-100.01	24
46	MP8	Z	0	24
47	MP8	X	-75.55	48
48	MP8	Z	0	48
49	MP6	X	-66.07	24
50	MP6	Z	0	24
51	MP6	X	-66.18	48
52	MP6	Z	0	48
53	MP6	X	-95.72	72
54	MP6	Z	0	72
55	MP12	X	-258.43	6
56	MP12	Z	0	6
57	MP12	X	-258.43	65
58	MP12	Z	0	65
59	MP11	X	-74.67	6
60	MP11	Z	0	6
61	MP11	X	-74.67	21
62	MP11	Z	0	21
63	MP11	X	-82.65	30
64	MP11	Z	0	30
65	MP11	X	-82.65	64
66	MP11	Z	0	64
67	MP10	X	-278.12	6
68	MP10	Z	0	6
69	MP10	X	-278.12	66
70	MP10	Z	0	66
71	MP12	X	-113.86	24
72	MP12	Z	0	24
73	MP12	X	-82.75	48
74	MP12	Z	0	48
75	MP10	X	-76.17	24
76	MP10	Z	0	24
77	MP10	X	-69.86	48
78	MP10	Z	0	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
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Member Point Loads (BLC 6 : Wind Load AZI 120) (Continued)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	-139.2	6
2	MP4	Z	80.37	6
3	MP4	X	-139.2	65
4	MP4	Z	80.37	65
5	MP3	X	-40.63	6
6	MP3	Z	23.46	6
7	MP3	X	-40.63	21
8	MP3	Z	23.46	21
9	MP3	X	-49.16	30
10	MP3	Z	28.38	30
11	MP3	X	-49.16	64
12	MP3	Z	28.38	64
13	MP2	X	-160.03	6
14	MP2	Z	92.39	6
15	MP2	X	-160.03	66
16	MP2	Z	92.39	66
17	MP4	X	-72.97	24
18	MP4	Z	42.13	24
19	MP4	X	-58.33	48
20	MP4	Z	33.67	48
21	MP2	X	-47.27	24
22	MP2	Z	27.29	24
23	MP2	X	-53.68	48
24	MP2	Z	31	48
25	MP4	X	-82.89	72
26	MP4	Z	47.86	72
27	MP2	X	-82.89	72
28	MP2	Z	47.86	72
29	MP8	X	-121.42	6
30	MP8	Z	70.1	6
31	MP8	X	-121.42	65
32	MP8	Z	70.1	65
33	MP7	X	-35.58	6
34	MP7	Z	20.54	6
35	MP7	X	-35.58	21
36	MP7	Z	20.54	21
37	MP7	X	-44.45	30
38	MP7	Z	25.66	30
39	MP7	X	-44.45	64
40	MP7	Z	25.66	64
41	MP6	X	-143.04	6
42	MP6	Z	82.59	6
43	MP6	X	-143.04	66
44	MP6	Z	82.59	66
45	MP8	X	-67.59	24
46	MP8	Z	39.02	24
47	MP8	X	-55.52	48
48	MP8	Z	32.06	48
49	MP6	X	-43.35	24
50	MP6	Z	25.03	24
51	MP6	X	-52.25	48
52	MP6	Z	30.17	48
53	MP6	X	-82.89	72
54	MP6	Z	47.86	72
55	MP12	X	-235.41	6
56	MP12	Z	135.91	6
57	MP12	X	-235.41	65



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
58	MP12	Z	135.91	65
59	MP11	X	-67.97	6
60	MP11	Z	39.24	6
61	MP11	X	-67.97	21
62	MP11	Z	39.24	21
63	MP11	X	-74.65	30
64	MP11	Z	43.1	30
65	MP11	X	-74.65	64
66	MP11	Z	43.1	64
67	MP10	X	-251.95	6
68	MP10	Z	145.46	6
69	MP10	X	-251.95	66
70	MP10	Z	145.46	66
71	MP12	X	-102.12	24
72	MP12	Z	58.96	24
73	MP12	X	-73.5	48
74	MP12	Z	42.43	48
75	MP10	X	-68.53	24
76	MP10	Z	39.57	24
77	MP10	X	-61.43	48
78	MP10	Z	35.47	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	-118.95	6
2	MP4	Z	206.02	6
3	MP4	X	-118.95	65
4	MP4	Z	206.02	65
5	MP3	X	-34.42	6
6	MP3	Z	59.62	6
7	MP3	X	-34.42	21
8	MP3	Z	59.62	21
9	MP3	X	-38.6	30
10	MP3	Z	66.86	30
11	MP3	X	-38.6	64
12	MP3	Z	66.86	64
13	MP2	X	-129.25	6
14	MP2	Z	223.87	6
15	MP2	X	-129.25	66
16	MP2	Z	223.87	66
17	MP4	X	-53.82	24
18	MP4	Z	93.22	24
19	MP4	X	-39.76	48
20	MP4	Z	68.86	48
21	MP2	X	-35.82	24
22	MP2	Z	62.04	24
23	MP2	X	-34.1	48
24	MP2	Z	59.07	48
25	MP4	X	-47.86	72
26	MP4	Z	82.89	72
27	MP2	X	-47.86	72
28	MP2	Z	82.89	72
29	MP8	X	-63.4	6
30	MP8	Z	109.82	6
31	MP8	X	-63.4	65
32	MP8	Z	109.82	65



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
33	MP7	X	-18.64	6
34	MP7	Z	32.29	6
35	MP7	X	-18.64	21
36	MP7	Z	32.29	21
37	MP7	X	-23.89	30
38	MP7	Z	41.38	30
39	MP7	X	-23.89	64
40	MP7	Z	41.38	64
41	MP6	X	-76.19	6
42	MP6	Z	131.96	6
43	MP6	X	-76.19	66
44	MP6	Z	131.96	66
45	MP8	X	-36.99	24
46	MP8	Z	64.07	24
47	MP8	X	-31	48
48	MP8	Z	53.69	48
49	MP6	X	-23.55	24
50	MP6	Z	40.78	24
51	MP6	X	-29.63	48
52	MP6	Z	51.32	48
53	MP6	X	-47.86	72
54	MP6	Z	82.89	72
55	MP12	X	-106.36	6
56	MP12	Z	184.22	6
57	MP12	X	-106.36	65
58	MP12	Z	184.22	65
59	MP11	X	-30.84	6
60	MP11	Z	53.42	6
61	MP11	X	-30.84	21
62	MP11	Z	53.42	21
63	MP11	X	-35.27	30
64	MP11	Z	61.09	30
65	MP11	X	-35.27	64
66	MP11	Z	61.09	64
67	MP10	X	-117.22	6
68	MP10	Z	203.04	6
69	MP10	X	-117.22	66
70	MP10	Z	203.04	66
71	MP12	X	-50	24
72	MP12	Z	86.61	24
73	MP12	X	-37.77	48
74	MP12	Z	65.42	48
75	MP10	X	-33.04	24
76	MP10	Z	57.22	24
77	MP10	X	-33.09	48
78	MP10	Z	57.31	48

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	276.48	6
3	MP4	X	0	65
4	MP4	Z	276.48	65
5	MP3	X	0	6
6	MP3	Z	79.8	6
7	MP3	X	0	21



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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in,%]
8	MP3	Z	79.8	21
9	MP3	X	0	30
10	MP3	Z	87.43	30
11	MP3	X	0	64
12	MP3	Z	87.43	64
13	MP2	X	0	6
14	MP2	Z	295.37	6
15	MP2	X	0	66
16	MP2	Z	295.37	66
17	MP4	X	0	24
18	MP4	Z	119.33	24
19	MP4	X	0	48
20	MP4	Z	85.6	48
21	MP2	X	0	24
22	MP2	Z	80.16	24
23	MP2	X	0	48
24	MP2	Z	71.31	48
25	MP4	X	0	72
26	MP4	Z	95.72	72
27	MP2	X	0	72
28	MP2	Z	95.72	72
29	MP8	X	0	6
30	MP8	Z	185.92	6
31	MP8	X	0	65
32	MP8	Z	185.92	65
33	MP7	X	0	6
34	MP7	Z	54.07	6
35	MP7	X	0	21
36	MP7	Z	54.07	21
37	MP7	X	0	30
38	MP7	Z	63.44	30
39	MP7	X	0	64
40	MP7	Z	63.44	64
41	MP6	X	0	6
42	MP6	Z	208.85	6
43	MP6	X	0	66
44	MP6	Z	208.85	66
45	MP8	X	0	24
46	MP8	Z	91.89	24
47	MP8	X	0	48
48	MP8	Z	71.32	48
49	MP6	X	0	24
50	MP6	Z	60.15	24
51	MP6	X	0	48
52	MP6	Z	64.02	48
53	MP6	X	0	72
54	MP6	Z	95.72	72
55	MP12	X	0	6
56	MP12	Z	140.21	6
57	MP12	X	0	65
58	MP12	Z	140.21	65
59	MP11	X	0	6
60	MP11	Z	41.09	6
61	MP11	X	0	21
62	MP11	Z	41.09	21
63	MP11	X	0	30
64	MP11	Z	51.33	30



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
65	MP11	X	0	64
66	MP11	Z	51.33	64
67	MP10	X	0	6
68	MP10	Z	165.17	6
69	MP10	X	0	66
70	MP10	Z	165.17	66
71	MP12	X	0	24
72	MP12	Z	78.04	24
73	MP12	X	0	48
74	MP12	Z	64.11	48
75	MP10	X	0	24
76	MP10	Z	50.05	24
77	MP10	X	0	48
78	MP10	Z	60.34	48

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP4	X	118.95	6
2	MP4	Z	206.02	6
3	MP4	X	118.95	65
4	MP4	Z	206.02	65
5	MP3	X	34.42	6
6	MP3	Z	59.62	6
7	MP3	X	34.42	21
8	MP3	Z	59.62	21
9	MP3	X	38.6	30
10	MP3	Z	66.86	30
11	MP3	X	38.6	64
12	MP3	Z	66.86	64
13	MP2	X	129.25	6
14	MP2	Z	223.87	6
15	MP2	X	129.25	66
16	MP2	Z	223.87	66
17	MP4	X	53.82	24
18	MP4	Z	93.22	24
19	MP4	X	39.76	48
20	MP4	Z	68.86	48
21	MP2	X	35.82	24
22	MP2	Z	62.04	24
23	MP2	X	34.1	48
24	MP2	Z	59.07	48
25	MP4	X	47.86	72
26	MP4	Z	82.89	72
27	MP2	X	47.86	72
28	MP2	Z	82.89	72
29	MP8	X	129.21	6
30	MP8	Z	223.8	6
31	MP8	X	129.21	65
32	MP8	Z	223.8	65
33	MP7	X	37.34	6
34	MP7	Z	64.67	6
35	MP7	X	37.34	21
36	MP7	Z	64.67	21
37	MP7	X	41.32	30
38	MP7	Z	71.57	30
39	MP7	X	41.32	64



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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in, %]
40	MP7	Z	71.57	64
41	MP6	X	139.06	6
42	MP6	Z	240.86	6
43	MP6	X	139.06	66
44	MP6	Z	240.86	66
45	MP8	X	56.93	24
46	MP8	Z	98.6	24
47	MP8	X	41.38	48
48	MP8	Z	71.67	48
49	MP6	X	38.09	24
50	MP6	Z	65.97	24
51	MP6	X	34.93	48
52	MP6	Z	60.5	48
53	MP6	X	47.86	72
54	MP6	Z	82.89	72
55	MP12	X	63.4	6
56	MP12	Z	109.82	6
57	MP12	X	63.4	65
58	MP12	Z	109.82	65
59	MP11	X	18.64	6
60	MP11	Z	32.29	6
61	MP11	X	18.64	21
62	MP11	Z	32.29	21
63	MP11	X	23.89	30
64	MP11	Z	41.38	30
65	MP11	X	23.89	64
66	MP11	Z	41.38	64
67	MP10	X	76.19	6
68	MP10	Z	131.96	6
69	MP10	X	76.19	66
70	MP10	Z	131.96	66
71	MP12	X	36.99	24
72	MP12	Z	64.07	24
73	MP12	X	31	48
74	MP12	Z	53.69	48
75	MP10	X	23.55	24
76	MP10	Z	40.78	24
77	MP10	X	29.63	48
78	MP10	Z	51.32	48

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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in, %]
1	MP4	X	139.2	6
2	MP4	Z	80.37	6
3	MP4	X	139.2	65
4	MP4	Z	80.37	65
5	MP3	X	40.63	6
6	MP3	Z	23.46	6
7	MP3	X	40.63	21
8	MP3	Z	23.46	21
9	MP3	X	49.16	30
10	MP3	Z	28.38	30
11	MP3	X	49.16	64
12	MP3	Z	28.38	64
13	MP2	X	160.03	6
14	MP2	Z	92.39	6



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
15	MP2	X	160.03	66
16	MP2	Z	92.39	66
17	MP4	X	72.97	24
18	MP4	Z	42.13	24
19	MP4	X	58.33	48
20	MP4	Z	33.67	48
21	MP2	X	47.27	24
22	MP2	Z	27.29	24
23	MP2	X	53.68	48
24	MP2	Z	31	48
25	MP4	X	82.89	72
26	MP4	Z	47.86	72
27	MP2	X	82.89	72
28	MP2	Z	47.86	72
29	MP8	X	235.41	6
30	MP8	Z	135.91	6
31	MP8	X	235.41	65
32	MP8	Z	135.91	65
33	MP7	X	67.97	6
34	MP7	Z	39.24	6
35	MP7	X	67.97	21
36	MP7	Z	39.24	21
37	MP7	X	74.65	30
38	MP7	Z	43.1	30
39	MP7	X	74.65	64
40	MP7	Z	43.1	64
41	MP6	X	251.95	6
42	MP6	Z	145.46	6
43	MP6	X	251.95	66
44	MP6	Z	145.46	66
45	MP8	X	102.12	24
46	MP8	Z	58.96	24
47	MP8	X	73.5	48
48	MP8	Z	42.43	48
49	MP6	X	68.53	24
50	MP6	Z	39.57	24
51	MP6	X	61.43	48
52	MP6	Z	35.47	48
53	MP6	X	82.89	72
54	MP6	Z	47.86	72
55	MP12	X	161.01	6
56	MP12	Z	92.96	6
57	MP12	X	161.01	65
58	MP12	Z	92.96	65
59	MP11	X	46.83	6
60	MP11	Z	27.04	6
61	MP11	X	46.83	21
62	MP11	Z	27.04	21
63	MP11	X	54.94	30
64	MP11	Z	31.72	30
65	MP11	X	54.94	64
66	MP11	Z	31.72	64
67	MP10	X	180.87	6
68	MP10	Z	104.42	6
69	MP10	X	180.87	66
70	MP10	Z	104.42	66
71	MP12	X	79.58	24



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
72	MP12	Z	45.95	24
73	MP12	X	61.76	48
74	MP12	Z	35.66	48
75	MP10	X	52.09	24
76	MP10	Z	30.08	24
77	MP10	X	55.44	48
78	MP10	Z	32.01	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	122.15	6
2	MP4	Z	0	6
3	MP4	X	122.15	65
4	MP4	Z	0	65
5	MP3	X	35.96	6
6	MP3	Z	0	6
7	MP3	X	35.96	21
8	MP3	Z	0	21
9	MP3	X	46.54	30
10	MP3	Z	0	30
11	MP3	X	46.54	64
12	MP3	Z	0	64
13	MP2	X	147.93	6
14	MP2	Z	0	6
15	MP2	X	147.93	66
16	MP2	Z	0	66
17	MP4	X	72.57	24
18	MP4	Z	0	24
19	MP4	X	61.26	48
20	MP4	Z	0	48
21	MP2	X	46.06	24
22	MP2	Z	0	24
23	MP2	X	58.88	48
24	MP2	Z	0	48
25	MP4	X	95.72	72
26	MP4	Z	0	72
27	MP2	X	95.72	72
28	MP2	Z	0	72
29	MP8	X	212.71	6
30	MP8	Z	0	6
31	MP8	X	212.71	65
32	MP8	Z	0	65
33	MP7	X	61.69	6
34	MP7	Z	0	6
35	MP7	X	61.69	21
36	MP7	Z	0	21
37	MP7	X	70.54	30
38	MP7	Z	0	30
39	MP7	X	70.54	64
40	MP7	Z	0	64
41	MP6	X	234.45	6
42	MP6	Z	0	6
43	MP6	X	234.45	66
44	MP6	Z	0	66
45	MP8	X	100.01	24
46	MP8	Z	0	24



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
47	MP8	X	75.55	48
48	MP8	Z	0	48
49	MP6	X	66.07	24
50	MP6	Z	0	24
51	MP6	X	66.18	48
52	MP6	Z	0	48
53	MP6	X	95.72	72
54	MP6	Z	0	72
55	MP12	X	258.43	6
56	MP12	Z	0	6
57	MP12	X	258.43	65
58	MP12	Z	0	65
59	MP11	X	74.67	6
60	MP11	Z	0	6
61	MP11	X	74.67	21
62	MP11	Z	0	21
63	MP11	X	82.65	30
64	MP11	Z	0	30
65	MP11	X	82.65	64
66	MP11	Z	0	64
67	MP10	X	278.12	6
68	MP10	Z	0	6
69	MP10	X	278.12	66
70	MP10	Z	0	66
71	MP12	X	113.86	24
72	MP12	Z	0	24
73	MP12	X	82.75	48
74	MP12	Z	0	48
75	MP10	X	76.17	24
76	MP10	Z	0	24
77	MP10	X	69.86	48
78	MP10	Z	0	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	139.2	6
2	MP4	Z	-80.37	6
3	MP4	X	139.2	65
4	MP4	Z	-80.37	65
5	MP3	X	40.63	6
6	MP3	Z	-23.46	6
7	MP3	X	40.63	21
8	MP3	Z	-23.46	21
9	MP3	X	49.16	30
10	MP3	Z	-28.38	30
11	MP3	X	49.16	64
12	MP3	Z	-28.38	64
13	MP2	X	160.03	6
14	MP2	Z	-92.39	6
15	MP2	X	160.03	66
16	MP2	Z	-92.39	66
17	MP4	X	72.97	24
18	MP4	Z	-42.13	24
19	MP4	X	58.33	48
20	MP4	Z	-33.67	48
21	MP2	X	47.27	24



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
22	MP2	Z	-27.29	24
23	MP2	X	53.68	48
24	MP2	Z	-31	48
25	MP4	X	82.89	72
26	MP4	Z	-47.86	72
27	MP2	X	82.89	72
28	MP2	Z	-47.86	72
29	MP8	X	121.42	6
30	MP8	Z	-70.1	6
31	MP8	X	121.42	65
32	MP8	Z	-70.1	65
33	MP7	X	35.58	6
34	MP7	Z	-20.54	6
35	MP7	X	35.58	21
36	MP7	Z	-20.54	21
37	MP7	X	44.45	30
38	MP7	Z	-25.66	30
39	MP7	X	44.45	64
40	MP7	Z	-25.66	64
41	MP6	X	143.04	6
42	MP6	Z	-82.59	6
43	MP6	X	143.04	66
44	MP6	Z	-82.59	66
45	MP8	X	67.59	24
46	MP8	Z	-39.02	24
47	MP8	X	55.52	48
48	MP8	Z	-32.06	48
49	MP6	X	43.35	24
50	MP6	Z	-25.03	24
51	MP6	X	52.25	48
52	MP6	Z	-30.17	48
53	MP6	X	82.89	72
54	MP6	Z	-47.86	72
55	MP12	X	235.41	6
56	MP12	Z	-135.91	6
57	MP12	X	235.41	65
58	MP12	Z	-135.91	65
59	MP11	X	67.97	6
60	MP11	Z	-39.24	6
61	MP11	X	67.97	21
62	MP11	Z	-39.24	21
63	MP11	X	74.65	30
64	MP11	Z	-43.1	30
65	MP11	X	74.65	64
66	MP11	Z	-43.1	64
67	MP10	X	251.95	6
68	MP10	Z	-145.46	6
69	MP10	X	251.95	66
70	MP10	Z	-145.46	66
71	MP12	X	102.12	24
72	MP12	Z	-58.96	24
73	MP12	X	73.5	48
74	MP12	Z	-42.43	48
75	MP10	X	68.53	24
76	MP10	Z	-39.57	24
77	MP10	X	61.43	48
78	MP10	Z	-35.47	48



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	118.95	6
2	MP4	Z	-206.02	6
3	MP4	X	118.95	65
4	MP4	Z	-206.02	65
5	MP3	X	34.42	6
6	MP3	Z	-59.62	6
7	MP3	X	34.42	21
8	MP3	Z	-59.62	21
9	MP3	X	38.6	30
10	MP3	Z	-66.86	30
11	MP3	X	38.6	64
12	MP3	Z	-66.86	64
13	MP2	X	129.25	6
14	MP2	Z	-223.87	6
15	MP2	X	129.25	66
16	MP2	Z	-223.87	66
17	MP4	X	53.82	24
18	MP4	Z	-93.22	24
19	MP4	X	39.76	48
20	MP4	Z	-68.86	48
21	MP2	X	35.82	24
22	MP2	Z	-62.04	24
23	MP2	X	34.1	48
24	MP2	Z	-59.07	48
25	MP4	X	47.86	72
26	MP4	Z	-82.89	72
27	MP2	X	47.86	72
28	MP2	Z	-82.89	72
29	MP8	X	63.4	6
30	MP8	Z	-109.82	6
31	MP8	X	63.4	65
32	MP8	Z	-109.82	65
33	MP7	X	18.64	6
34	MP7	Z	-32.29	6
35	MP7	X	18.64	21
36	MP7	Z	-32.29	21
37	MP7	X	23.89	30
38	MP7	Z	-41.38	30
39	MP7	X	23.89	64
40	MP7	Z	-41.38	64
41	MP6	X	76.19	6
42	MP6	Z	-131.96	6
43	MP6	X	76.19	66
44	MP6	Z	-131.96	66
45	MP8	X	36.99	24
46	MP8	Z	-64.07	24
47	MP8	X	31	48
48	MP8	Z	-53.69	48
49	MP6	X	23.55	24
50	MP6	Z	-40.78	24
51	MP6	X	29.63	48
52	MP6	Z	-51.32	48
53	MP6	X	47.86	72
54	MP6	Z	-82.89	72
55	MP12	X	106.36	6
56	MP12	Z	-184.22	6
57	MP12	X	106.36	65



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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in.-%]
58	MP12	Z	-184.22	65
59	MP11	X	30.84	6
60	MP11	Z	-53.42	6
61	MP11	X	30.84	21
62	MP11	Z	-53.42	21
63	MP11	X	35.27	30
64	MP11	Z	-61.09	30
65	MP11	X	35.27	64
66	MP11	Z	-61.09	64
67	MP10	X	117.22	6
68	MP10	Z	-203.04	6
69	MP10	X	117.22	66
70	MP10	Z	-203.04	66
71	MP12	X	50	24
72	MP12	Z	-86.61	24
73	MP12	X	37.77	48
74	MP12	Z	-65.42	48
75	MP10	X	33.04	24
76	MP10	Z	-57.22	24
77	MP10	X	33.09	48
78	MP10	Z	-57.31	48

Member Point Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Magnitude[lb.-ft]	Location[in.-%]
1	MP4	Y	-192.758	6
2	MP4	Y	-192.758	65
3	MP3	Y	-71.207	6
4	MP3	Y	-71.207	21
5	MP3	Y	-81.483	30
6	MP3	Y	-81.483	64
7	MP2	Y	-216.254	6
8	MP2	Y	-216.254	66
9	MP4	Y	-121.132	24
10	MP4	Y	-106.5	48
11	MP2	Y	-93.195	24
12	MP2	Y	-101.625	48
13	MP4	Y	-127.453	72
14	MP2	Y	-127.453	72
15	MP8	Y	-192.758	6
16	MP8	Y	-192.758	65
17	MP7	Y	-71.207	6
18	MP7	Y	-71.207	21
19	MP7	Y	-81.483	30
20	MP7	Y	-81.483	64
21	MP6	Y	-216.254	6
22	MP6	Y	-216.254	66
23	MP8	Y	-121.132	24
24	MP8	Y	-106.5	48
25	MP6	Y	-93.195	24
26	MP6	Y	-101.625	48
27	MP6	Y	-127.453	72
28	MP12	Y	-192.758	6
29	MP12	Y	-192.758	65
30	MP11	Y	-71.207	6
31	MP11	Y	-71.207	21
32	MP11	Y	-81.483	30



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
33	MP11	Y	-81.483	64
34	MP10	Y	-216.254	6
35	MP10	Y	-216.254	66
36	MP12	Y	-121.132	24
37	MP12	Y	-106.5	48
38	MP10	Y	-93.195	24
39	MP10	Y	-101.625	48

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	-23.56	6
3	MP4	X	0	65
4	MP4	Z	-23.56	65
5	MP3	X	0	6
6	MP3	Z	-7.94	6
7	MP3	X	0	21
8	MP3	Z	-7.94	21
9	MP3	X	0	30
10	MP3	Z	-8.58	30
11	MP3	X	0	64
12	MP3	Z	-8.58	64
13	MP2	X	0	6
14	MP2	Z	-24.91	6
15	MP2	X	0	66
16	MP2	Z	-24.91	66
17	MP4	X	0	24
18	MP4	Z	-12.72	24
19	MP4	X	0	48
20	MP4	Z	-9.57	48
21	MP2	X	0	24
22	MP2	Z	-9.08	24
23	MP2	X	0	48
24	MP2	Z	-8.29	48
25	MP4	X	0	72
26	MP4	Z	-11.04	72
27	MP2	X	0	72
28	MP2	Z	-11.04	72
29	MP8	X	0	6
30	MP8	Z	-18.43	6
31	MP8	X	0	65
32	MP8	Z	-18.43	65
33	MP7	X	0	6
34	MP7	Z	-6.44	6
35	MP7	X	0	21
36	MP7	Z	-6.44	21
37	MP7	X	0	30
38	MP7	Z	-7.14	30
39	MP7	X	0	64
40	MP7	Z	-7.14	64
41	MP6	X	0	6
42	MP6	Z	-19.58	6
43	MP6	X	0	66
44	MP6	Z	-19.58	66
45	MP8	X	0	24
46	MP8	Z	-11.49	24



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
47	MP8	X	0	48
48	MP8	Z	-8.77	48
49	MP6	X	0	24
50	MP6	Z	-7.97	24
51	MP6	X	0	48
52	MP6	Z	-7.82	48
53	MP6	X	0	72
54	MP6	Z	-11.04	72
55	MP12	X	0	6
56	MP12	Z	-15.84	6
57	MP12	X	0	65
58	MP12	Z	-15.84	65
59	MP11	X	0	6
60	MP11	Z	-5.69	6
61	MP11	X	0	21
62	MP11	Z	-5.69	21
63	MP11	X	0	30
64	MP11	Z	-6.42	30
65	MP11	X	0	64
66	MP11	Z	-6.42	64
67	MP10	X	0	6
68	MP10	Z	-16.88	6
69	MP10	X	0	66
70	MP10	Z	-16.88	66
71	MP12	X	0	24
72	MP12	Z	-10.88	24
73	MP12	X	0	48
74	MP12	Z	-8.37	48
75	MP10	X	0	24
76	MP10	Z	-7.41	24
77	MP10	X	0	48
78	MP10	Z	-7.58	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	-10.69	6
2	MP4	Z	-18.51	6
3	MP4	X	-10.69	65
4	MP4	Z	-18.51	65
5	MP3	X	-3.65	6
6	MP3	Z	-6.32	6
7	MP3	X	-3.65	21
8	MP3	Z	-6.32	21
9	MP3	X	-3.99	30
10	MP3	Z	-6.9	30
11	MP3	X	-3.99	64
12	MP3	Z	-6.9	64
13	MP2	X	-11.32	6
14	MP2	Z	-19.6	6
15	MP2	X	-11.32	66
16	MP2	Z	-19.6	66
17	MP4	X	-6.1	24
18	MP4	Z	-10.56	24
19	MP4	X	-4.62	48
20	MP4	Z	-7.99	48
21	MP2	X	-4.3	24



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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in,%]
22	MP2	Z	-7.45	24
23	MP2	X	-4.05	48
24	MP2	Z	-7.01	48
25	MP4	X	-5.52	72
26	MP4	Z	-9.56	72
27	MP2	X	-5.52	72
28	MP2	Z	-9.56	72
29	MP8	X	-11.27	6
30	MP8	Z	-19.52	6
31	MP8	X	-11.27	65
32	MP8	Z	-19.52	65
33	MP7	X	-3.82	6
34	MP7	Z	-6.61	6
35	MP7	X	-3.82	21
36	MP7	Z	-6.61	21
37	MP7	X	-4.15	30
38	MP7	Z	-7.18	30
39	MP7	X	-4.15	64
40	MP7	Z	-7.18	64
41	MP6	X	-11.92	6
42	MP6	Z	-20.65	6
43	MP6	X	-11.92	66
44	MP6	Z	-20.65	66
45	MP8	X	-6.24	24
46	MP8	Z	-10.81	24
47	MP8	X	-4.71	48
48	MP8	Z	-8.15	48
49	MP6	X	-4.43	24
50	MP6	Z	-7.67	24
51	MP6	X	-4.1	48
52	MP6	Z	-7.1	48
53	MP6	X	-5.52	72
54	MP6	Z	-9.56	72
55	MP12	X	-7.54	6
56	MP12	Z	-13.06	6
57	MP12	X	-7.54	65
58	MP12	Z	-13.06	65
59	MP11	X	-2.73	6
60	MP11	Z	-4.73	6
61	MP11	X	-2.73	21
62	MP11	Z	-4.73	21
63	MP11	X	-3.1	30
64	MP11	Z	-5.37	30
65	MP11	X	-3.1	64
66	MP11	Z	-5.37	64
67	MP10	X	-8.05	6
68	MP10	Z	-13.94	6
69	MP10	X	-8.05	66
70	MP10	Z	-13.94	66
71	MP12	X	-5.35	24
72	MP12	Z	-9.26	24
73	MP12	X	-4.13	48
74	MP12	Z	-7.15	48
75	MP10	X	-3.62	24
76	MP10	Z	-6.28	24
77	MP10	X	-3.76	48
78	MP10	Z	-6.51	48



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	-14.73	6
2	MP4	Z	-8.5	6
3	MP4	X	-14.73	65
4	MP4	Z	-8.5	65
5	MP3	X	-5.22	6
6	MP3	Z	-3.01	6
7	MP3	X	-5.22	21
8	MP3	Z	-3.01	21
9	MP3	X	-5.84	30
10	MP3	Z	-3.37	30
11	MP3	X	-5.84	64
12	MP3	Z	-3.37	64
13	MP2	X	-15.67	6
14	MP2	Z	-9.05	6
15	MP2	X	-15.67	66
16	MP2	Z	-9.05	66
17	MP4	X	-9.66	24
18	MP4	Z	-5.58	24
19	MP4	X	-7.41	48
20	MP4	Z	-4.28	48
21	MP2	X	-6.64	24
22	MP2	Z	-3.83	24
23	MP2	X	-6.66	48
24	MP2	Z	-3.84	48
25	MP4	X	-9.56	72
26	MP4	Z	-5.52	72
27	MP2	X	-9.56	72
28	MP2	Z	-5.52	72
29	MP8	X	-20.18	6
30	MP8	Z	-11.65	6
31	MP8	X	-20.18	65
32	MP8	Z	-11.65	65
33	MP7	X	-6.81	6
34	MP7	Z	-3.93	6
35	MP7	X	-6.81	21
36	MP7	Z	-3.93	21
37	MP7	X	-7.37	30
38	MP7	Z	-4.25	30
39	MP7	X	-7.37	64
40	MP7	Z	-4.25	64
41	MP6	X	-21.34	6
42	MP6	Z	-12.32	6
43	MP6	X	-21.34	66
44	MP6	Z	-12.32	66
45	MP8	X	-10.96	24
46	MP8	Z	-6.33	24
47	MP8	X	-8.25	48
48	MP8	Z	-4.76	48
49	MP6	X	-7.81	24
50	MP6	Z	-4.51	24
51	MP6	X	-7.16	48
52	MP6	Z	-4.13	48
53	MP6	X	-9.56	72
54	MP6	Z	-5.52	72
55	MP12	X	-15.96	6
56	MP12	Z	-9.22	6
57	MP12	X	-15.96	65



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
58	MP12	Z	-9.22	65
59	MP11	X	-5.58	6
60	MP11	Z	-3.22	6
61	MP11	X	-5.58	21
62	MP11	Z	-3.22	21
63	MP11	X	-6.19	30
64	MP11	Z	-3.57	30
65	MP11	X	-6.19	64
66	MP11	Z	-3.57	64
67	MP10	X	-16.95	6
68	MP10	Z	-9.79	6
69	MP10	X	-16.95	66
70	MP10	Z	-9.79	66
71	MP12	X	-9.95	24
72	MP12	Z	-5.75	24
73	MP12	X	-7.6	48
74	MP12	Z	-4.39	48
75	MP10	X	-6.9	24
76	MP10	Z	-3.98	24
77	MP10	X	-6.77	48
78	MP10	Z	-3.91	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	-14.82	6
2	MP4	Z	0	6
3	MP4	X	-14.82	65
4	MP4	Z	0	65
5	MP3	X	-5.39	6
6	MP3	Z	0	6
7	MP3	X	-5.39	21
8	MP3	Z	0	21
9	MP3	X	-6.13	30
10	MP3	Z	0	30
11	MP3	X	-6.13	64
12	MP3	Z	0	64
13	MP2	X	-15.82	6
14	MP2	Z	0	6
15	MP2	X	-15.82	66
16	MP2	Z	0	66
17	MP4	X	-10.63	24
18	MP4	Z	0	24
19	MP4	X	-8.21	48
20	MP4	Z	0	48
21	MP2	X	-7.19	24
22	MP2	Z	0	24
23	MP2	X	-7.49	48
24	MP2	Z	0	48
25	MP4	X	-11.04	72
26	MP4	Z	0	72
27	MP2	X	-11.04	72
28	MP2	Z	0	72
29	MP8	X	-19.95	6
30	MP8	Z	0	6
31	MP8	X	-19.95	65
32	MP8	Z	0	65



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
33	MP7	X	-6.88	6
34	MP7	Z	0	6
35	MP7	X	-6.88	21
36	MP7	Z	0	21
37	MP7	X	-7.57	30
38	MP7	Z	0	30
39	MP7	X	-7.57	64
40	MP7	Z	0	64
41	MP6	X	-21.15	6
42	MP6	Z	0	6
43	MP6	X	-21.15	66
44	MP6	Z	0	66
45	MP8	X	-11.86	24
46	MP8	Z	0	24
47	MP8	X	-9.01	48
48	MP8	Z	0	48
49	MP6	X	-8.3	24
50	MP6	Z	0	24
51	MP6	X	-7.96	48
52	MP6	Z	0	48
53	MP6	X	-11.04	72
54	MP6	Z	0	72
55	MP12	X	-22.54	6
56	MP12	Z	0	6
57	MP12	X	-22.54	65
58	MP12	Z	0	65
59	MP11	X	-7.64	6
60	MP11	Z	0	6
61	MP11	X	-7.64	21
62	MP11	Z	0	21
63	MP11	X	-8.3	30
64	MP11	Z	0	30
65	MP11	X	-8.3	64
66	MP11	Z	0	64
67	MP10	X	-23.85	6
68	MP10	Z	0	6
69	MP10	X	-23.85	66
70	MP10	Z	0	66
71	MP12	X	-12.48	24
72	MP12	Z	0	24
73	MP12	X	-9.41	48
74	MP12	Z	0	48
75	MP10	X	-8.86	24
76	MP10	Z	0	24
77	MP10	X	-8.2	48
78	MP10	Z	0	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	-14.73	6
2	MP4	Z	8.5	6
3	MP4	X	-14.73	65
4	MP4	Z	8.5	65
5	MP3	X	-5.22	6
6	MP3	Z	3.01	6
7	MP3	X	-5.22	21



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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in,%]
8	MP3	Z	3.01	21
9	MP3	X	-5.84	30
10	MP3	Z	3.37	30
11	MP3	X	-5.84	64
12	MP3	Z	3.37	64
13	MP2	X	-15.67	6
14	MP2	Z	9.05	6
15	MP2	X	-15.67	66
16	MP2	Z	9.05	66
17	MP4	X	-9.66	24
18	MP4	Z	5.58	24
19	MP4	X	-7.41	48
20	MP4	Z	4.28	48
21	MP2	X	-6.64	24
22	MP2	Z	3.83	24
23	MP2	X	-6.66	48
24	MP2	Z	3.84	48
25	MP4	X	-9.56	72
26	MP4	Z	5.52	72
27	MP2	X	-9.56	72
28	MP2	Z	5.52	72
29	MP8	X	-13.72	6
30	MP8	Z	7.92	6
31	MP8	X	-13.72	65
32	MP8	Z	7.92	65
33	MP7	X	-4.93	6
34	MP7	Z	2.84	6
35	MP7	X	-4.93	21
36	MP7	Z	2.84	21
37	MP7	X	-5.56	30
38	MP7	Z	3.21	30
39	MP7	X	-5.56	64
40	MP7	Z	3.21	64
41	MP6	X	-14.62	6
42	MP6	Z	8.44	6
43	MP6	X	-14.62	66
44	MP6	Z	8.44	66
45	MP8	X	-9.42	24
46	MP8	Z	5.44	24
47	MP8	X	-7.25	48
48	MP8	Z	4.19	48
49	MP6	X	-6.42	24
50	MP6	Z	3.71	24
51	MP6	X	-6.57	48
52	MP6	Z	3.79	48
53	MP6	X	-9.56	72
54	MP6	Z	5.52	72
55	MP12	X	-20.18	6
56	MP12	Z	11.65	6
57	MP12	X	-20.18	65
58	MP12	Z	11.65	65
59	MP11	X	-6.81	6
60	MP11	Z	3.93	6
61	MP11	X	-6.81	21
62	MP11	Z	3.93	21
63	MP11	X	-7.37	30
64	MP11	Z	4.25	30



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
65	MP11	X	-7.37	64
66	MP11	Z	4.25	64
67	MP10	X	-21.34	6
68	MP10	Z	12.32	6
69	MP10	X	-21.34	66
70	MP10	Z	12.32	66
71	MP12	X	-10.96	24
72	MP12	Z	6.33	24
73	MP12	X	-8.25	48
74	MP12	Z	4.76	48
75	MP10	X	-7.81	24
76	MP10	Z	4.51	24
77	MP10	X	-7.16	48
78	MP10	Z	4.13	48

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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP4	X	-10.69	6
2	MP4	Z	18.51	6
3	MP4	X	-10.69	65
4	MP4	Z	18.51	65
5	MP3	X	-3.65	6
6	MP3	Z	6.32	6
7	MP3	X	-3.65	21
8	MP3	Z	6.32	21
9	MP3	X	-3.99	30
10	MP3	Z	6.9	30
11	MP3	X	-3.99	64
12	MP3	Z	6.9	64
13	MP2	X	-11.32	6
14	MP2	Z	19.6	6
15	MP2	X	-11.32	66
16	MP2	Z	19.6	66
17	MP4	X	-6.1	24
18	MP4	Z	10.56	24
19	MP4	X	-4.62	48
20	MP4	Z	7.99	48
21	MP2	X	-4.3	24
22	MP2	Z	7.45	24
23	MP2	X	-4.05	48
24	MP2	Z	7.01	48
25	MP4	X	-5.52	72
26	MP4	Z	9.56	72
27	MP2	X	-5.52	72
28	MP2	Z	9.56	72
29	MP8	X	-7.54	6
30	MP8	Z	13.06	6
31	MP8	X	-7.54	65
32	MP8	Z	13.06	65
33	MP7	X	-2.73	6
34	MP7	Z	4.73	6
35	MP7	X	-2.73	21
36	MP7	Z	4.73	21
37	MP7	X	-3.1	30
38	MP7	Z	5.37	30
39	MP7	X	-3.1	64



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
40	MP7	Z	5.37	64
41	MP6	X	-8.05	6
42	MP6	Z	13.94	6
43	MP6	X	-8.05	66
44	MP6	Z	13.94	66
45	MP8	X	-5.35	24
46	MP8	Z	9.26	24
47	MP8	X	-4.13	48
48	MP8	Z	7.15	48
49	MP6	X	-3.62	24
50	MP6	Z	6.28	24
51	MP6	X	-3.76	48
52	MP6	Z	6.51	48
53	MP6	X	-5.52	72
54	MP6	Z	9.56	72
55	MP12	X	-9.97	6
56	MP12	Z	17.28	6
57	MP12	X	-9.97	65
58	MP12	Z	17.28	65
59	MP11	X	-3.44	6
60	MP11	Z	5.96	6
61	MP11	X	-3.44	21
62	MP11	Z	5.96	21
63	MP11	X	-3.79	30
64	MP11	Z	6.56	30
65	MP11	X	-3.79	64
66	MP11	Z	6.56	64
67	MP10	X	-10.58	6
68	MP10	Z	18.32	6
69	MP10	X	-10.58	66
70	MP10	Z	18.32	66
71	MP12	X	-5.93	24
72	MP12	Z	10.27	24
73	MP12	X	-4.5	48
74	MP12	Z	7.8	48
75	MP10	X	-4.15	24
76	MP10	Z	7.19	24
77	MP10	X	-3.98	48
78	MP10	Z	6.89	48

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	23.56	6
3	MP4	X	0	65
4	MP4	Z	23.56	65
5	MP3	X	0	6
6	MP3	Z	7.94	6
7	MP3	X	0	21
8	MP3	Z	7.94	21
9	MP3	X	0	30
10	MP3	Z	8.58	30
11	MP3	X	0	64
12	MP3	Z	8.58	64
13	MP2	X	0	6
14	MP2	Z	24.91	6



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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in, %]
15	MP2	X	0	66
16	MP2	Z	24.91	66
17	MP4	X	0	24
18	MP4	Z	12.72	24
19	MP4	X	0	48
20	MP4	Z	9.57	48
21	MP2	X	0	24
22	MP2	Z	9.08	24
23	MP2	X	0	48
24	MP2	Z	8.29	48
25	MP4	X	0	72
26	MP4	Z	11.04	72
27	MP2	X	0	72
28	MP2	Z	11.04	72
29	MP8	X	0	6
30	MP8	Z	18.43	6
31	MP8	X	0	65
32	MP8	Z	18.43	65
33	MP7	X	0	6
34	MP7	Z	6.44	6
35	MP7	X	0	21
36	MP7	Z	6.44	21
37	MP7	X	0	30
38	MP7	Z	7.14	30
39	MP7	X	0	64
40	MP7	Z	7.14	64
41	MP6	X	0	6
42	MP6	Z	19.58	6
43	MP6	X	0	66
44	MP6	Z	19.58	66
45	MP8	X	0	24
46	MP8	Z	11.49	24
47	MP8	X	0	48
48	MP8	Z	8.77	48
49	MP6	X	0	24
50	MP6	Z	7.97	24
51	MP6	X	0	48
52	MP6	Z	7.82	48
53	MP6	X	0	72
54	MP6	Z	11.04	72
55	MP12	X	0	6
56	MP12	Z	15.84	6
57	MP12	X	0	65
58	MP12	Z	15.84	65
59	MP11	X	0	6
60	MP11	Z	5.69	6
61	MP11	X	0	21
62	MP11	Z	5.69	21
63	MP11	X	0	30
64	MP11	Z	6.42	30
65	MP11	X	0	64
66	MP11	Z	6.42	64
67	MP10	X	0	6
68	MP10	Z	16.88	6
69	MP10	X	0	66
70	MP10	Z	16.88	66
71	MP12	X	0	24



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
72	MP12	Z	10.88	24
73	MP12	X	0	48
74	MP12	Z	8.37	48
75	MP10	X	0	24
76	MP10	Z	7.41	24
77	MP10	X	0	48
78	MP10	Z	7.58	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP4	X	10.69	6
2	MP4	Z	18.51	6
3	MP4	X	10.69	65
4	MP4	Z	18.51	65
5	MP3	X	3.65	6
6	MP3	Z	6.32	6
7	MP3	X	3.65	21
8	MP3	Z	6.32	21
9	MP3	X	3.99	30
10	MP3	Z	6.9	30
11	MP3	X	3.99	64
12	MP3	Z	6.9	64
13	MP2	X	11.32	6
14	MP2	Z	19.6	6
15	MP2	X	11.32	66
16	MP2	Z	19.6	66
17	MP4	X	6.1	24
18	MP4	Z	10.56	24
19	MP4	X	4.62	48
20	MP4	Z	7.99	48
21	MP2	X	4.3	24
22	MP2	Z	7.45	24
23	MP2	X	4.05	48
24	MP2	Z	7.01	48
25	MP4	X	5.52	72
26	MP4	Z	9.56	72
27	MP2	X	5.52	72
28	MP2	Z	9.56	72
29	MP8	X	11.27	6
30	MP8	Z	19.52	6
31	MP8	X	11.27	65
32	MP8	Z	19.52	65
33	MP7	X	3.82	6
34	MP7	Z	6.61	6
35	MP7	X	3.82	21
36	MP7	Z	6.61	21
37	MP7	X	4.15	30
38	MP7	Z	7.18	30
39	MP7	X	4.15	64
40	MP7	Z	7.18	64
41	MP6	X	11.92	6
42	MP6	Z	20.65	6
43	MP6	X	11.92	66
44	MP6	Z	20.65	66
45	MP8	X	6.24	24
46	MP8	Z	10.81	24



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
47	MP8	X	4.71	48
48	MP8	Z	8.15	48
49	MP6	X	4.43	24
50	MP6	Z	7.67	24
51	MP6	X	4.1	48
52	MP6	Z	7.1	48
53	MP6	X	5.52	72
54	MP6	Z	9.56	72
55	MP12	X	7.54	6
56	MP12	Z	13.06	6
57	MP12	X	7.54	65
58	MP12	Z	13.06	65
59	MP11	X	2.73	6
60	MP11	Z	4.73	6
61	MP11	X	2.73	21
62	MP11	Z	4.73	21
63	MP11	X	3.1	30
64	MP11	Z	5.37	30
65	MP11	X	3.1	64
66	MP11	Z	5.37	64
67	MP10	X	8.05	6
68	MP10	Z	13.94	6
69	MP10	X	8.05	66
70	MP10	Z	13.94	66
71	MP12	X	5.35	24
72	MP12	Z	9.26	24
73	MP12	X	4.13	48
74	MP12	Z	7.15	48
75	MP10	X	3.62	24
76	MP10	Z	6.28	24
77	MP10	X	3.76	48
78	MP10	Z	6.51	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	14.73	6
2	MP4	Z	8.5	6
3	MP4	X	14.73	65
4	MP4	Z	8.5	65
5	MP3	X	5.22	6
6	MP3	Z	3.01	6
7	MP3	X	5.22	21
8	MP3	Z	3.01	21
9	MP3	X	5.84	30
10	MP3	Z	3.37	30
11	MP3	X	5.84	64
12	MP3	Z	3.37	64
13	MP2	X	15.67	6
14	MP2	Z	9.05	6
15	MP2	X	15.67	66
16	MP2	Z	9.05	66
17	MP4	X	9.66	24
18	MP4	Z	5.58	24
19	MP4	X	7.41	48
20	MP4	Z	4.28	48
21	MP2	X	6.64	24



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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in,%]
22	MP2	Z	3.83	24
23	MP2	X	6.66	48
24	MP2	Z	3.84	48
25	MP4	X	9.56	72
26	MP4	Z	5.52	72
27	MP2	X	9.56	72
28	MP2	Z	5.52	72
29	MP8	X	20.18	6
30	MP8	Z	11.65	6
31	MP8	X	20.18	65
32	MP8	Z	11.65	65
33	MP7	X	6.81	6
34	MP7	Z	3.93	6
35	MP7	X	6.81	21
36	MP7	Z	3.93	21
37	MP7	X	7.37	30
38	MP7	Z	4.25	30
39	MP7	X	7.37	64
40	MP7	Z	4.25	64
41	MP6	X	21.34	6
42	MP6	Z	12.32	6
43	MP6	X	21.34	66
44	MP6	Z	12.32	66
45	MP8	X	10.96	24
46	MP8	Z	6.33	24
47	MP8	X	8.25	48
48	MP8	Z	4.76	48
49	MP6	X	7.81	24
50	MP6	Z	4.51	24
51	MP6	X	7.16	48
52	MP6	Z	4.13	48
53	MP6	X	9.56	72
54	MP6	Z	5.52	72
55	MP12	X	15.96	6
56	MP12	Z	9.22	6
57	MP12	X	15.96	65
58	MP12	Z	9.22	65
59	MP11	X	5.58	6
60	MP11	Z	3.22	6
61	MP11	X	5.58	21
62	MP11	Z	3.22	21
63	MP11	X	6.19	30
64	MP11	Z	3.57	30
65	MP11	X	6.19	64
66	MP11	Z	3.57	64
67	MP10	X	16.95	6
68	MP10	Z	9.79	6
69	MP10	X	16.95	66
70	MP10	Z	9.79	66
71	MP12	X	9.95	24
72	MP12	Z	5.75	24
73	MP12	X	7.6	48
74	MP12	Z	4.39	48
75	MP10	X	6.9	24
76	MP10	Z	3.98	24
77	MP10	X	6.77	48
78	MP10	Z	3.91	48



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in,%]
1	MP4	X	14.82	6
2	MP4	Z	0	6
3	MP4	X	14.82	65
4	MP4	Z	0	65
5	MP3	X	5.39	6
6	MP3	Z	0	6
7	MP3	X	5.39	21
8	MP3	Z	0	21
9	MP3	X	6.13	30
10	MP3	Z	0	30
11	MP3	X	6.13	64
12	MP3	Z	0	64
13	MP2	X	15.82	6
14	MP2	Z	0	6
15	MP2	X	15.82	66
16	MP2	Z	0	66
17	MP4	X	10.63	24
18	MP4	Z	0	24
19	MP4	X	8.21	48
20	MP4	Z	0	48
21	MP2	X	7.19	24
22	MP2	Z	0	24
23	MP2	X	7.49	48
24	MP2	Z	0	48
25	MP4	X	11.04	72
26	MP4	Z	0	72
27	MP2	X	11.04	72
28	MP2	Z	0	72
29	MP8	X	19.95	6
30	MP8	Z	0	6
31	MP8	X	19.95	65
32	MP8	Z	0	65
33	MP7	X	6.88	6
34	MP7	Z	0	6
35	MP7	X	6.88	21
36	MP7	Z	0	21
37	MP7	X	7.57	30
38	MP7	Z	0	30
39	MP7	X	7.57	64
40	MP7	Z	0	64
41	MP6	X	21.15	6
42	MP6	Z	0	6
43	MP6	X	21.15	66
44	MP6	Z	0	66
45	MP8	X	11.86	24
46	MP8	Z	0	24
47	MP8	X	9.01	48
48	MP8	Z	0	48
49	MP6	X	8.3	24
50	MP6	Z	0	24
51	MP6	X	7.96	48
52	MP6	Z	0	48
53	MP6	X	11.04	72
54	MP6	Z	0	72
55	MP12	X	22.54	6
56	MP12	Z	0	6
57	MP12	X	22.54	65



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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in.-%]
58	MP12	Z	0	65
59	MP11	X	7.64	6
60	MP11	Z	0	6
61	MP11	X	7.64	21
62	MP11	Z	0	21
63	MP11	X	8.3	30
64	MP11	Z	0	30
65	MP11	X	8.3	64
66	MP11	Z	0	64
67	MP10	X	23.85	6
68	MP10	Z	0	6
69	MP10	X	23.85	66
70	MP10	Z	0	66
71	MP12	X	12.48	24
72	MP12	Z	0	24
73	MP12	X	9.41	48
74	MP12	Z	0	48
75	MP10	X	8.86	24
76	MP10	Z	0	24
77	MP10	X	8.2	48
78	MP10	Z	0	48

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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in.-%]
1	MP4	X	14.73	6
2	MP4	Z	-8.5	6
3	MP4	X	14.73	65
4	MP4	Z	-8.5	65
5	MP3	X	5.22	6
6	MP3	Z	-3.01	6
7	MP3	X	5.22	21
8	MP3	Z	-3.01	21
9	MP3	X	5.84	30
10	MP3	Z	-3.37	30
11	MP3	X	5.84	64
12	MP3	Z	-3.37	64
13	MP2	X	15.67	6
14	MP2	Z	-9.05	6
15	MP2	X	15.67	66
16	MP2	Z	-9.05	66
17	MP4	X	9.66	24
18	MP4	Z	-5.58	24
19	MP4	X	7.41	48
20	MP4	Z	-4.28	48
21	MP2	X	6.64	24
22	MP2	Z	-3.83	24
23	MP2	X	6.66	48
24	MP2	Z	-3.84	48
25	MP4	X	9.56	72
26	MP4	Z	-5.52	72
27	MP2	X	9.56	72
28	MP2	Z	-5.52	72
29	MP8	X	13.72	6
30	MP8	Z	-7.92	6
31	MP8	X	13.72	65
32	MP8	Z	-7.92	65



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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
33	MP7	X	4.93	6
34	MP7	Z	-2.84	6
35	MP7	X	4.93	21
36	MP7	Z	-2.84	21
37	MP7	X	5.56	30
38	MP7	Z	-3.21	30
39	MP7	X	5.56	64
40	MP7	Z	-3.21	64
41	MP6	X	14.62	6
42	MP6	Z	-8.44	6
43	MP6	X	14.62	66
44	MP6	Z	-8.44	66
45	MP8	X	9.42	24
46	MP8	Z	-5.44	24
47	MP8	X	7.25	48
48	MP8	Z	-4.19	48
49	MP6	X	6.42	24
50	MP6	Z	-3.71	24
51	MP6	X	6.57	48
52	MP6	Z	-3.79	48
53	MP6	X	9.56	72
54	MP6	Z	-5.52	72
55	MP12	X	20.18	6
56	MP12	Z	-11.65	6
57	MP12	X	20.18	65
58	MP12	Z	-11.65	65
59	MP11	X	6.81	6
60	MP11	Z	-3.93	6
61	MP11	X	6.81	21
62	MP11	Z	-3.93	21
63	MP11	X	7.37	30
64	MP11	Z	-4.25	30
65	MP11	X	7.37	64
66	MP11	Z	-4.25	64
67	MP10	X	21.34	6
68	MP10	Z	-12.32	6
69	MP10	X	21.34	66
70	MP10	Z	-12.32	66
71	MP12	X	10.96	24
72	MP12	Z	-6.33	24
73	MP12	X	8.25	48
74	MP12	Z	-4.76	48
75	MP10	X	7.81	24
76	MP10	Z	-4.51	24
77	MP10	X	7.16	48
78	MP10	Z	-4.13	48

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

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	10.69	6
2	MP4	Z	-18.51	6
3	MP4	X	10.69	65
4	MP4	Z	-18.51	65
5	MP3	X	3.65	6
6	MP3	Z	-6.32	6
7	MP3	X	3.65	21



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

	Member Label	Direction	Magnitude[lb.-ft]	Location[in,%]
8	MP3	Z	-6.32	21
9	MP3	X	3.99	30
10	MP3	Z	-6.9	30
11	MP3	X	3.99	64
12	MP3	Z	-6.9	64
13	MP2	X	11.32	6
14	MP2	Z	-19.6	6
15	MP2	X	11.32	66
16	MP2	Z	-19.6	66
17	MP4	X	6.1	24
18	MP4	Z	-10.56	24
19	MP4	X	4.62	48
20	MP4	Z	-7.99	48
21	MP2	X	4.3	24
22	MP2	Z	-7.45	24
23	MP2	X	4.05	48
24	MP2	Z	-7.01	48
25	MP4	X	5.52	72
26	MP4	Z	-9.56	72
27	MP2	X	5.52	72
28	MP2	Z	-9.56	72
29	MP8	X	7.54	6
30	MP8	Z	-13.06	6
31	MP8	X	7.54	65
32	MP8	Z	-13.06	65
33	MP7	X	2.73	6
34	MP7	Z	-4.73	6
35	MP7	X	2.73	21
36	MP7	Z	-4.73	21
37	MP7	X	3.1	30
38	MP7	Z	-5.37	30
39	MP7	X	3.1	64
40	MP7	Z	-5.37	64
41	MP6	X	8.05	6
42	MP6	Z	-13.94	6
43	MP6	X	8.05	66
44	MP6	Z	-13.94	66
45	MP8	X	5.35	24
46	MP8	Z	-9.26	24
47	MP8	X	4.13	48
48	MP8	Z	-7.15	48
49	MP6	X	3.62	24
50	MP6	Z	-6.28	24
51	MP6	X	3.76	48
52	MP6	Z	-6.51	48
53	MP6	X	5.52	72
54	MP6	Z	-9.56	72
55	MP12	X	9.97	6
56	MP12	Z	-17.28	6
57	MP12	X	9.97	65
58	MP12	Z	-17.28	65
59	MP11	X	3.44	6
60	MP11	Z	-5.96	6
61	MP11	X	3.44	21
62	MP11	Z	-5.96	21
63	MP11	X	3.79	30
64	MP11	Z	-6.56	30



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

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
65	MP11	X	3.79	64
66	MP11	Z	-6.56	64
67	MP10	X	10.58	6
68	MP10	Z	-18.32	6
69	MP10	X	10.58	66
70	MP10	Z	-18.32	66
71	MP12	X	5.93	24
72	MP12	Z	-10.27	24
73	MP12	X	4.5	48
74	MP12	Z	-7.8	48
75	MP10	X	4.15	24
76	MP10	Z	-7.19	24
77	MP10	X	3.98	48
78	MP10	Z	-6.89	48

Member Point Loads (BLC 31 : Seismic Load Z)

	Member Label	Direction	Magnitude[lb.lb-ft]	Location[in,%]
1	MP4	Z	-13.002	6
2	MP4	Z	-13.002	65
3	MP3	Z	-9.639	6
4	MP3	Z	-9.639	21
5	MP3	Z	-11.881	30
6	MP3	Z	-11.881	64
7	MP2	Z	-18.928	6
8	MP2	Z	-18.928	66
9	MP4	Z	-15.434	24
10	MP4	Z	-20.675	48
11	MP2	Z	-17.443	24
12	MP2	Z	-20.966	48
13	MP4	Z	-9.551	72
14	MP2	Z	-5.504	72
15	MP8	Z	-13.002	6
16	MP8	Z	-13.002	65
17	MP7	Z	-9.639	6
18	MP7	Z	-9.639	21
19	MP7	Z	-11.881	30
20	MP7	Z	-11.881	64
21	MP6	Z	-18.928	6
22	MP6	Z	-18.928	66
23	MP8	Z	-15.434	24
24	MP8	Z	-20.675	48
25	MP6	Z	-17.443	24
26	MP6	Z	-20.966	48
27	MP6	Z	-5.504	72
28	MP12	Z	-13.002	6
29	MP12	Z	-13.002	65
30	MP11	Z	-9.639	6
31	MP11	Z	-9.639	21
32	MP11	Z	-11.881	30
33	MP11	Z	-11.881	64
34	MP10	Z	-18.928	6
35	MP10	Z	-18.928	66
36	MP12	Z	-15.434	24
37	MP12	Z	-20.675	48
38	MP10	Z	-17.443	24
39	MP10	Z	-20.966	48



Member Point Loads (BLC 32 : Seismic Load X)

	Member Label	Direction	Magnitude[lb,lb-ft]	Location[in, %]
1	MP4	X	-13.002	6
2	MP4	X	-13.002	65
3	MP3	X	-9.639	6
4	MP3	X	-9.639	21
5	MP3	X	-11.881	30
6	MP3	X	-11.881	64
7	MP2	X	-18.928	6
8	MP2	X	-18.928	66
9	MP4	X	-15.434	24
10	MP4	X	-20.675	48
11	MP2	X	-17.443	24
12	MP2	X	-20.966	48
13	MP4	X	-9.551	72
14	MP2	X	-5.504	72
15	MP8	X	-13.002	6
16	MP8	X	-13.002	65
17	MP7	X	-9.639	6
18	MP7	X	-9.639	21
19	MP7	X	-11.881	30
20	MP7	X	-11.881	64
21	MP6	X	-18.928	6
22	MP6	X	-18.928	66
23	MP8	X	-15.434	24
24	MP8	X	-20.675	48
25	MP6	X	-17.443	24
26	MP6	X	-20.966	48
27	MP6	X	-5.504	72
28	MP12	X	-13.002	6
29	MP12	X	-13.002	65
30	MP11	X	-9.639	6
31	MP11	X	-9.639	21
32	MP11	X	-11.881	30
33	MP11	X	-11.881	64
34	MP10	X	-18.928	6
35	MP10	X	-18.928	66
36	MP12	X	-15.434	24
37	MP12	X	-20.675	48
38	MP10	X	-17.443	24
39	MP10	X	-20.966	48

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
1	M31	SZ	-96.683	-96.683	0	%100
2	M33	SZ	-96.683	-96.683	0	%100
3	M34A	SZ	-96.683	-96.683	0	%100
4	M45A	SZ	-96.683	-96.683	0	%100
5	M50	SZ	0	0	0	%100
6	M51	SZ	0	0	0	%100
7	M52	SZ	0	0	0	%100
8	M53	SZ	0	0	0	%100
9	S2	SZ	-96.683	-96.683	0	%100
10	M54A	SZ	0	0	0	%100
11	M55	SZ	0	0	0	%100
12	M56	SZ	0	0	0	%100
13	M57	SZ	0	0	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]	
14	M57A	SZ	0	0	0	%100
15	M58	SZ	0	0	0	%100
16	M59	SZ	0	0	0	%100
17	M59A	SZ	0	0	0	%100
18	M60	SZ	-96.683	-96.683	0	%100
19	M60A	SZ	0	0	0	%100
20	M61	SZ	-96.683	-96.683	0	%100
21	M61A	SZ	0	0	0	%100
22	M62	SZ	-96.683	-96.683	0	%100
23	M62A	SZ	0	0	0	%100
24	M63	SZ	0	0	0	%100
25	M63A	SZ	0	0	0	%100
26	M64	SZ	0	0	0	%100
27	M64A	SZ	0	0	0	%100
28	M65	SZ	0	0	0	%100
29	M65A	SZ	0	0	0	%100
30	M66	SZ	-96.683	-96.683	0	%100
31	M66A	SZ	0	0	0	%100
32	M67	SZ	0	0	0	%100
33	M68	SZ	-96.683	-96.683	0	%100
34	M70	SZ	0	0	0	%100
35	M73	SZ	-96.683	-96.683	0	%100
36	M74	SZ	-96.683	-96.683	0	%100
37	M74B	SZ	-96.683	-96.683	0	%100
38	M74C	SZ	-96.683	-96.683	0	%100
39	M75	SZ	-96.683	-96.683	0	%100
40	M75B	SZ	-96.683	-96.683	0	%100
41	M76	SZ	-96.683	-96.683	0	%100
42	S3	SZ	-96.683	-96.683	0	%100
43	M78	SZ	-96.683	-96.683	0	%100
44	M79	SZ	-96.683	-96.683	0	%100
45	M80	SZ	-96.683	-96.683	0	%100
46	M81	SZ	-96.683	-96.683	0	%100
47	M82	SZ	-96.683	-96.683	0	%100
48	M83	SZ	-96.683	-96.683	0	%100
49	M84	SZ	-96.683	-96.683	0	%100
50	M85	SZ	-96.683	-96.683	0	%100
51	M94	SZ	0	0	0	%100
52	M95	SZ	0	0	0	%100
53	M96	SZ	0	0	0	%100
54	M97	SZ	0	0	0	%100
55	M99	SZ	0	0	0	%100
56	M100	SZ	0	0	0	%100
57	M101	SZ	0	0	0	%100
58	M102	SZ	0	0	0	%100
59	M103	SZ	0	0	0	%100
60	M104	SZ	0	0	0	%100
61	M105	SZ	0	0	0	%100
62	M106	SZ	0	0	0	%100
63	M108	SZ	0	0	0	%100
64	M109	SZ	0	0	0	%100
65	M110	SZ	0	0	0	%100
66	M111	SZ	0	0	0	%100
67	M112	SZ	0	0	0	%100
68	M113	SZ	0	0	0	%100
69	M114	SZ	0	0	0	%100
70	M115	SZ	0	0	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
71	M116	SZ	0	0	%100
72	M117	SZ	0	0	%100
73	M118	SZ	0	0	%100
74	M119	SZ	0	0	%100
75	M122	SZ	-96.683	-96.683	%100
76	M123	SZ	-96.683	-96.683	%100
77	M124	SZ	-96.683	-96.683	%100
78	M125	SZ	-96.683	-96.683	%100
79	S1	SZ	-96.683	-96.683	%100
80	M127	SZ	-96.683	-96.683	%100
81	M127A	SZ	0	0	%100
82	M128	SZ	-96.683	-96.683	%100
83	M128A	SZ	0	0	%100
84	M129	SZ	-96.683	-96.683	%100
85	M129A	SZ	0	0	%100
86	M130	SZ	-96.683	-96.683	%100
87	M130A	SZ	0	0	%100
88	M131	SZ	-96.683	-96.683	%100
89	M131A	SZ	0	0	%100
90	M132	SZ	-96.683	-96.683	%100
91	M132A	SZ	0	0	%100
92	M133	SZ	-96.683	-96.683	%100
93	M133A	SZ	0	0	%100
94	M134	SZ	-96.683	-96.683	%100
95	M134A	SZ	0	0	%100
96	M136A	SZ	0	0	%100
97	M137A	SZ	0	0	%100
98	M138A	SZ	0	0	%100
99	M139A	SZ	0	0	%100
100	M140A	SZ	0	0	%100
101	M141A	SZ	0	0	%100
102	M142	SZ	0	0	%100
103	M143	SZ	0	0	%100
104	M146A	SZ	-58.01	-58.01	%100
105	M177	SZ	-58.01	-58.01	%100
106	M182	SZ	-58.01	-58.01	%100
107	M198	SZ	0	0	%100
108	M199	SZ	0	0	%100
109	M200	SZ	0	0	%100
110	M201	SZ	0	0	%100
111	M202	SZ	0	0	%100
112	M203	SZ	0	0	%100
113	M204	SZ	0	0	%100
114	M205	SZ	0	0	%100
115	M206	SZ	0	0	%100
116	M207	SZ	0	0	%100
117	M208	SZ	0	0	%100
118	M209	SZ	0	0	%100
119	M210	SZ	0	0	%100
120	M211	SZ	0	0	%100
121	M212	SZ	0	0	%100
122	M213	SZ	0	0	%100
123	M214	SZ	0	0	%100
124	M215	SZ	0	0	%100
125	M216	SZ	-96.683	-96.683	%100
126	M217	SZ	-96.683	-96.683	%100
127	M218	SZ	-96.683	-96.683	%100



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

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in, %]	End Location[in, %]
128	M219	SZ	-96.683	-96.683	0 %100
129	M220	SZ	-96.683	-96.683	0 %100
130	M221	SZ	-96.683	-96.683	0 %100
131	M222	SZ	-96.683	-96.683	0 %100
132	M223	SZ	-96.683	-96.683	0 %100
133	M224	SZ	-96.683	-96.683	0 %100
134	M225	SZ	-96.683	-96.683	0 %100
135	M226	SZ	-96.683	-96.683	0 %100
136	M227	SZ	-96.683	-96.683	0 %100
137	M228	SZ	-96.683	-96.683	0 %100
138	M229	SZ	0	0	0 %100
139	M230	SZ	-96.683	-96.683	0 %100
140	M231	SZ	-96.683	-96.683	0 %100
141	M232	SZ	-96.683	-96.683	0 %100
142	M233	SZ	-96.683	-96.683	0 %100
143	M234	SZ	-96.683	-96.683	0 %100
144	M235	SZ	-96.683	-96.683	0 %100
145	M236	SZ	-96.683	-96.683	0 %100
146	M237	SZ	-96.683	-96.683	0 %100
147	M238	SZ	-96.683	-96.683	0 %100
148	M239	SZ	-96.683	-96.683	0 %100
149	M240	SZ	-96.683	-96.683	0 %100
150	M241	SZ	0	0	0 %100
151	M242	SZ	0	0	0 %100
152	M243	SZ	0	0	0 %100
153	M244	SZ	0	0	0 %100
154	M245	SZ	-96.683	-96.683	0 %100
155	M246	SZ	-96.683	-96.683	0 %100
156	M247	SZ	-96.683	-96.683	0 %100
157	M248	SZ	-96.683	-96.683	0 %100
158	M249	SZ	-96.683	-96.683	0 %100
159	M250	SZ	-96.683	-96.683	0 %100
160	M251	SZ	-96.683	-96.683	0 %100
161	M252	SZ	-96.683	-96.683	0 %100
162	M253	SZ	-96.683	-96.683	0 %100
163	M254	SZ	-96.683	-96.683	0 %100
164	M255	SZ	-96.683	-96.683	0 %100
165	M256	SZ	-96.683	-96.683	0 %100
166	M257	SZ	0	0	0 %100
167	M258	SZ	0	0	0 %100
168	M259	SZ	0	0	0 %100
169	M260	SZ	0	0	0 %100
170	M261	SZ	-96.683	-96.683	0 %100
171	M262	SZ	-96.683	-96.683	0 %100
172	M263	SZ	-96.683	-96.683	0 %100
173	M264	SZ	-96.683	-96.683	0 %100
174	M265	SZ	0	0	0 %100
175	M265A	SZ	-96.683	-96.683	0 %100
176	M266	SZ	0	0	0 %100
177	M266A	SZ	-96.683	-96.683	0 %100
178	M267	SZ	0	0	0 %100
179	M267A	SZ	-96.683	-96.683	0 %100
180	M268	SZ	0	0	0 %100
181	M268A	SZ	-96.683	-96.683	0 %100
182	M269	SZ	0	0	0 %100
183	M269A	SZ	0	0	0 %100
184	M270	SZ	0	0	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
185	M270A	SZ	0	0	0 %100
186	M271	SZ	0	0	0 %100
187	M271A	SZ	0	0	0 %100
188	M272	SZ	0	0	0 %100
189	M272A	SZ	0	0	0 %100
190	M273	SZ	0	0	0 %100
191	M273A	SZ	0	0	0 %100
192	M274	SZ	0	0	0 %100
193	M274A	SZ	0	0	0 %100
194	M275	SZ	0	0	0 %100
195	M275A	SZ	0	0	0 %100
196	M276	SZ	0	0	0 %100
197	M276A	SZ	0	0	0 %100
198	M277	SZ	0	0	0 %100
199	M277A	SZ	0	0	0 %100
200	M278	SZ	0	0	0 %100
201	M278A	SZ	0	0	0 %100
202	M279	SZ	0	0	0 %100
203	M279A	SZ	0	0	0 %100
204	M280	SZ	0	0	0 %100
205	M280A	SZ	0	0	0 %100
206	M281	SZ	0	0	0 %100
207	M281A	SZ	0	0	0 %100
208	M282	SZ	0	0	0 %100
209	M282A	SZ	0	0	0 %100
210	M283	SZ	-96.683	-96.683	0 %100
211	M283A	SZ	0	0	0 %100
212	M284	SZ	-96.683	-96.683	0 %100
213	M284A	SZ	0	0	0 %100
214	M285	SZ	-96.683	-96.683	0 %100
215	M285A	SZ	0	0	0 %100
216	M286	SZ	-96.683	-96.683	0 %100
217	M286A	SZ	0	0	0 %100
218	M287	SZ	-96.683	-96.683	0 %100
219	M287A	SZ	-96.683	-96.683	0 %100
220	M288	SZ	-96.683	-96.683	0 %100
221	M288A	SZ	-96.683	-96.683	0 %100
222	M289	SZ	-96.683	-96.683	0 %100
223	M289A	SZ	-96.683	-96.683	0 %100
224	M290	SZ	-96.683	-96.683	0 %100
225	M290A	SZ	-96.683	-96.683	0 %100
226	M291	SZ	-96.683	-96.683	0 %100
227	M291A	SZ	-96.683	-96.683	0 %100
228	M292	SZ	-96.683	-96.683	0 %100
229	M292A	SZ	-96.683	-96.683	0 %100
230	M293	SZ	-96.683	-96.683	0 %100
231	M293A	SZ	-96.683	-96.683	0 %100
232	M294	SZ	-96.683	-96.683	0 %100
233	M294A	SZ	-96.683	-96.683	0 %100
234	M295	SZ	-96.683	-96.683	0 %100
235	M295A	SZ	-96.683	-96.683	0 %100
236	M296	SZ	0	0	0 %100
237	M296A	SZ	-96.683	-96.683	0 %100
238	M297	SZ	-96.683	-96.683	0 %100
239	M297A	SZ	-96.683	-96.683	0 %100
240	M298	SZ	-96.683	-96.683	0 %100
241	M298A	SZ	-96.683	-96.683	0 %100



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
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Member Distributed Loads (BLC 14 : Distr. Wind Load Z) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
242	M299	SZ	-96.683	-96.683	0 %100
243	M299A	SZ	-96.683	-96.683	0 %100
244	M300	SZ	-96.683	-96.683	0 %100
245	M300A	SZ	0	0	0 %100
246	M301	SZ	-96.683	-96.683	0 %100
247	M301A	SZ	-96.683	-96.683	0 %100
248	M302	SZ	-96.683	-96.683	0 %100
249	M302A	SZ	-96.683	-96.683	0 %100
250	M303	SZ	-96.683	-96.683	0 %100
251	M303A	SZ	-96.683	-96.683	0 %100
252	M304	SZ	-96.683	-96.683	0 %100
253	M304A	SZ	-96.683	-96.683	0 %100
254	M305	SZ	-96.683	-96.683	0 %100
255	M305A	SZ	-96.683	-96.683	0 %100
256	M306	SZ	-96.683	-96.683	0 %100
257	M306A	SZ	-96.683	-96.683	0 %100
258	M307	SZ	-96.683	-96.683	0 %100
259	M307A	SZ	-96.683	-96.683	0 %100
260	M308	SZ	-96.683	-96.683	0 %100
261	M308A	SZ	0	0	0 %100
262	M309	SZ	-96.683	-96.683	0 %100
263	M310	SZ	-96.683	-96.683	0 %100
264	M310A	SZ	0	0	0 %100
265	M311	SZ	-96.683	-96.683	0 %100
266	M311A	SZ	0	0	0 %100
267	M312	SZ	0	0	0 %100
268	M312A	SZ	0	0	0 %100
269	M313	SZ	0	0	0 %100
270	M313A	SZ	-96.683	-96.683	0 %100
271	M314	SZ	0	0	0 %100
272	M314A	SZ	-96.683	-96.683	0 %100
273	M315	SZ	0	0	0 %100
274	M315A	SZ	-96.683	-96.683	0 %100
275	M316	SZ	-96.683	-96.683	0 %100
276	M316A	SZ	-96.683	-96.683	0 %100
277	M317	SZ	-96.683	-96.683	0 %100
278	M317A	SZ	-96.683	-96.683	0 %100
279	M318	SZ	-96.683	-96.683	0 %100
280	M318A	SZ	-96.683	-96.683	0 %100
281	M319	SZ	-96.683	-96.683	0 %100
282	M319A	SZ	-96.683	-96.683	0 %100
283	M320	SZ	-96.683	-96.683	0 %100
284	M320A	SZ	-96.683	-96.683	0 %100
285	M321	SZ	-96.683	-96.683	0 %100
286	M321A	SZ	-96.683	-96.683	0 %100
287	M322	SZ	-96.683	-96.683	0 %100
288	M322A	SZ	-96.683	-96.683	0 %100
289	M323	SZ	-96.683	-96.683	0 %100
290	M323A	SZ	-96.683	-96.683	0 %100
291	M324	SZ	-96.683	-96.683	0 %100
292	M324A	SZ	-96.683	-96.683	0 %100
293	M325	SZ	0	0	0 %100
294	M325A	SZ	-96.683	-96.683	0 %100
295	M326	SZ	0	0	0 %100
296	M326A	SZ	-96.683	-96.683	0 %100
297	M327	SZ	0	0	0 %100
298	M327A	SZ	-96.683	-96.683	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]	
299	M328	SZ	0	0	0	%100
300	M328A	SZ	0	0	0	%100
301	M329	SZ	-96.683	-96.683	0	%100
302	M329A	SZ	0	0	0	%100
303	M330	SZ	-96.683	-96.683	0	%100
304	M330A	SZ	0	0	0	%100
305	M331	SZ	-96.683	-96.683	0	%100
306	M331A	SZ	0	0	0	%100
307	M332	SZ	-96.683	-96.683	0	%100
308	M332A	SZ	-96.683	-96.683	0	%100
309	M332B	SZ	-96.683	-96.683	0	%100
310	M333	SZ	-96.683	-96.683	0	%100
311	M333A	SZ	-96.683	-96.683	0	%100
312	M334	SZ	-96.683	-96.683	0	%100
313	M334A	SZ	-96.683	-96.683	0	%100
314	M335	SZ	-96.683	-96.683	0	%100
315	M335A	SZ	-96.683	-96.683	0	%100
316	M336	SZ	-96.683	-96.683	0	%100
317	M337	SZ	-96.683	-96.683	0	%100
318	M338	SZ	-96.683	-96.683	0	%100
319	M339	SZ	-96.683	-96.683	0	%100
320	M340	SZ	0	0	0	%100
321	M341	SZ	0	0	0	%100
322	M342	SZ	0	0	0	%100
323	M343	SZ	0	0	0	%100
324	M344	SZ	0	0	0	%100
325	M345	SZ	0	0	0	%100
326	M367	SZ	0	0	0	%100
327	M368	SZ	0	0	0	%100
328	M369	SZ	0	0	0	%100
329	M505	SZ	0	0	0	%100
330	M506A	SZ	0	0	0	%100
331	M508B	SZ	0	0	0	%100
332	M509B	SZ	0	0	0	%100
333	M510	SZ	0	0	0	%100
334	M511A	SZ	0	0	0	%100
335	M512	SZ	0	0	0	%100
336	M513B	SZ	0	0	0	%100
337	M514B	SZ	0	0	0	%100
338	M514C	SZ	0	0	0	%100
339	M515B	SZ	0	0	0	%100
340	M516B	SZ	0	0	0	%100
341	MP1	SZ	-58.01	-58.01	0	%100
342	MP2	SZ	-58.01	-58.01	0	%100
343	MP3	SZ	-58.01	-58.01	0	%100
344	MP4	SZ	-58.01	-58.01	0	%100
345	MP5	SZ	-58.01	-58.01	0	%100
346	MP6	SZ	-58.01	-58.01	0	%100
347	MP7	SZ	-58.01	-58.01	0	%100
348	MP8	SZ	-58.01	-58.01	0	%100
349	MP9	SZ	-58.01	-58.01	0	%100
350	MP10	SZ	-58.01	-58.01	0	%100
351	MP11	SZ	-58.01	-58.01	0	%100
352	MP12	SZ	-58.01	-58.01	0	%100
353	R3	SZ	0	0	0	%100
354	R4	SZ	0	0	0	%100
355	R5	SZ	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in, %]	End Location[in, %]
356	R6	SZ	0	0	0	%100
357	R7	SZ	0	0	0	%100
358	R8	SZ	0	0	0	%100
359	R9	SZ	0	0	0	%100
360	R10	SZ	0	0	0	%100
361	M361	SZ	-58.01	-58.01	0	%100
362	M362	SZ	0	0	0	%100
363	M363	SZ	0	0	0	%100
364	M364	SZ	0	0	0	%100
365	M365	SZ	0	0	0	%100
366	M366	SZ	-58.01	-58.01	0	%100
367	M367A	SZ	0	0	0	%100
368	M368A	SZ	0	0	0	%100
369	M369A	SZ	0	0	0	%100
370	M370	SZ	0	0	0	%100
371	M371	SZ	-58.01	-58.01	0	%100
372	M372	SZ	0	0	0	%100
373	M373	SZ	0	0	0	%100
374	M374	SZ	0	0	0	%100
375	M375	SZ	0	0	0	%100
376	M376	SZ	-96.683	-96.683	0	%100
377	M377	SZ	-96.683	-96.683	0	%100
378	M378	SZ	-96.683	-96.683	0	%100
379	M379	SZ	0	0	0	%100
380	M380	SZ	0	0	0	%100
381	M381	SZ	0	0	0	%100
382	M382	SZ	0	0	0	%100
383	M383	SZ	0	0	0	%100
384	M384	SZ	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[in, %]	End Location[in, %]
1	M31	SX	-96.683	-96.683	0	%100
2	M33	SX	-96.683	-96.683	0	%100
3	M34A	SX	-96.683	-96.683	0	%100
4	M45A	SX	-96.683	-96.683	0	%100
5	M50	SX	0	0	0	%100
6	M51	SX	0	0	0	%100
7	M52	SX	0	0	0	%100
8	M53	SX	0	0	0	%100
9	S2	SX	-96.683	-96.683	0	%100
10	M54A	SX	0	0	0	%100
11	M55	SX	0	0	0	%100
12	M56	SX	0	0	0	%100
13	M57	SX	0	0	0	%100
14	M57A	SX	0	0	0	%100
15	M58	SX	0	0	0	%100
16	M59	SX	0	0	0	%100
17	M59A	SX	0	0	0	%100
18	M60	SX	-96.683	-96.683	0	%100
19	M60A	SX	0	0	0	%100
20	M61	SX	-96.683	-96.683	0	%100
21	M61A	SX	0	0	0	%100
22	M62	SX	-96.683	-96.683	0	%100
23	M62A	SX	0	0	0	%100
24	M63	SX	0	0	0	%100



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 881364

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
25	M63A	SX	0	0	0 %100
26	M64	SX	0	0	0 %100
27	M64A	SX	0	0	0 %100
28	M65	SX	0	0	0 %100
29	M65A	SX	0	0	0 %100
30	M66	SX	-96.683	-96.683	0 %100
31	M66A	SX	0	0	0 %100
32	M67	SX	0	0	0 %100
33	M68	SX	-96.683	-96.683	0 %100
34	M70	SX	0	0	0 %100
35	M73	SX	-96.683	-96.683	0 %100
36	M74	SX	-96.683	-96.683	0 %100
37	M74B	SX	-96.683	-96.683	0 %100
38	M74C	SX	-96.683	-96.683	0 %100
39	M75	SX	-96.683	-96.683	0 %100
40	M75B	SX	-96.683	-96.683	0 %100
41	M76	SX	-96.683	-96.683	0 %100
42	S3	SX	-96.683	-96.683	0 %100
43	M78	SX	-96.683	-96.683	0 %100
44	M79	SX	-96.683	-96.683	0 %100
45	M80	SX	-96.683	-96.683	0 %100
46	M81	SX	-96.683	-96.683	0 %100
47	M82	SX	-96.683	-96.683	0 %100
48	M83	SX	-96.683	-96.683	0 %100
49	M84	SX	-96.683	-96.683	0 %100
50	M85	SX	-96.683	-96.683	0 %100
51	M94	SX	0	0	0 %100
52	M95	SX	0	0	0 %100
53	M96	SX	0	0	0 %100
54	M97	SX	0	0	0 %100
55	M99	SX	0	0	0 %100
56	M100	SX	0	0	0 %100
57	M101	SX	0	0	0 %100
58	M102	SX	0	0	0 %100
59	M103	SX	0	0	0 %100
60	M104	SX	0	0	0 %100
61	M105	SX	0	0	0 %100
62	M106	SX	0	0	0 %100
63	M108	SX	0	0	0 %100
64	M109	SX	0	0	0 %100
65	M110	SX	0	0	0 %100
66	M111	SX	0	0	0 %100
67	M112	SX	0	0	0 %100
68	M113	SX	0	0	0 %100
69	M114	SX	0	0	0 %100
70	M115	SX	0	0	0 %100
71	M116	SX	0	0	0 %100
72	M117	SX	0	0	0 %100
73	M118	SX	0	0	0 %100
74	M119	SX	0	0	0 %100
75	M122	SX	-96.683	-96.683	0 %100
76	M123	SX	-96.683	-96.683	0 %100
77	M124	SX	-96.683	-96.683	0 %100
78	M125	SX	-96.683	-96.683	0 %100
79	S1	SX	-96.683	-96.683	0 %100
80	M127	SX	-96.683	-96.683	0 %100
81	M127A	SX	0	0	0 %100



Company : Infinigy Engineering
 Designer : FA
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Member Distributed Loads (BLC 15 : Distr. Wind Load X) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
82	M128	SX	-96.683	-96.683	0 %100
83	M128A	SX	0	0	0 %100
84	M129	SX	-96.683	-96.683	0 %100
85	M129A	SX	0	0	0 %100
86	M130	SX	-96.683	-96.683	0 %100
87	M130A	SX	0	0	0 %100
88	M131	SX	-96.683	-96.683	0 %100
89	M131A	SX	0	0	0 %100
90	M132	SX	-96.683	-96.683	0 %100
91	M132A	SX	0	0	0 %100
92	M133	SX	-96.683	-96.683	0 %100
93	M133A	SX	0	0	0 %100
94	M134	SX	-96.683	-96.683	0 %100
95	M134A	SX	0	0	0 %100
96	M136A	SX	0	0	0 %100
97	M137A	SX	0	0	0 %100
98	M138A	SX	0	0	0 %100
99	M139A	SX	0	0	0 %100
100	M140A	SX	0	0	0 %100
101	M141A	SX	0	0	0 %100
102	M142	SX	0	0	0 %100
103	M143	SX	0	0	0 %100
104	M146A	SX	-58.01	-58.01	0 %100
105	M177	SX	-58.01	-58.01	0 %100
106	M182	SX	-58.01	-58.01	0 %100
107	M198	SX	0	0	0 %100
108	M199	SX	0	0	0 %100
109	M200	SX	0	0	0 %100
110	M201	SX	0	0	0 %100
111	M202	SX	0	0	0 %100
112	M203	SX	0	0	0 %100
113	M204	SX	0	0	0 %100
114	M205	SX	0	0	0 %100
115	M206	SX	0	0	0 %100
116	M207	SX	0	0	0 %100
117	M208	SX	0	0	0 %100
118	M209	SX	0	0	0 %100
119	M210	SX	0	0	0 %100
120	M211	SX	0	0	0 %100
121	M212	SX	0	0	0 %100
122	M213	SX	0	0	0 %100
123	M214	SX	0	0	0 %100
124	M215	SX	0	0	0 %100
125	M216	SX	-96.683	-96.683	0 %100
126	M217	SX	-96.683	-96.683	0 %100
127	M218	SX	-96.683	-96.683	0 %100
128	M219	SX	-96.683	-96.683	0 %100
129	M220	SX	-96.683	-96.683	0 %100
130	M221	SX	-96.683	-96.683	0 %100
131	M222	SX	-96.683	-96.683	0 %100
132	M223	SX	-96.683	-96.683	0 %100
133	M224	SX	-96.683	-96.683	0 %100
134	M225	SX	-96.683	-96.683	0 %100
135	M226	SX	-96.683	-96.683	0 %100
136	M227	SX	-96.683	-96.683	0 %100
137	M228	SX	-96.683	-96.683	0 %100
138	M229	SX	0	0	0 %100



Company : Infinigy Engineering
 Designer : FA
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Member Distributed Loads (BLC 15 : Distr. Wind Load X) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
139	M230	SX	-96.683	-96.683	0 %100
140	M231	SX	-96.683	-96.683	0 %100
141	M232	SX	-96.683	-96.683	0 %100
142	M233	SX	-96.683	-96.683	0 %100
143	M234	SX	-96.683	-96.683	0 %100
144	M235	SX	-96.683	-96.683	0 %100
145	M236	SX	-96.683	-96.683	0 %100
146	M237	SX	-96.683	-96.683	0 %100
147	M238	SX	-96.683	-96.683	0 %100
148	M239	SX	-96.683	-96.683	0 %100
149	M240	SX	-96.683	-96.683	0 %100
150	M241	SX	0	0	0 %100
151	M242	SX	0	0	0 %100
152	M243	SX	0	0	0 %100
153	M244	SX	0	0	0 %100
154	M245	SX	-96.683	-96.683	0 %100
155	M246	SX	-96.683	-96.683	0 %100
156	M247	SX	-96.683	-96.683	0 %100
157	M248	SX	-96.683	-96.683	0 %100
158	M249	SX	-96.683	-96.683	0 %100
159	M250	SX	-96.683	-96.683	0 %100
160	M251	SX	-96.683	-96.683	0 %100
161	M252	SX	-96.683	-96.683	0 %100
162	M253	SX	-96.683	-96.683	0 %100
163	M254	SX	-96.683	-96.683	0 %100
164	M255	SX	-96.683	-96.683	0 %100
165	M256	SX	-96.683	-96.683	0 %100
166	M257	SX	0	0	0 %100
167	M258	SX	0	0	0 %100
168	M259	SX	0	0	0 %100
169	M260	SX	0	0	0 %100
170	M261	SX	-96.683	-96.683	0 %100
171	M262	SX	-96.683	-96.683	0 %100
172	M263	SX	-96.683	-96.683	0 %100
173	M264	SX	-96.683	-96.683	0 %100
174	M265	SX	0	0	0 %100
175	M265A	SX	-96.683	-96.683	0 %100
176	M266	SX	0	0	0 %100
177	M266A	SX	-96.683	-96.683	0 %100
178	M267	SX	0	0	0 %100
179	M267A	SX	-96.683	-96.683	0 %100
180	M268	SX	0	0	0 %100
181	M268A	SX	-96.683	-96.683	0 %100
182	M269	SX	0	0	0 %100
183	M269A	SX	0	0	0 %100
184	M270	SX	0	0	0 %100
185	M270A	SX	0	0	0 %100
186	M271	SX	0	0	0 %100
187	M271A	SX	0	0	0 %100
188	M272	SX	0	0	0 %100
189	M272A	SX	0	0	0 %100
190	M273	SX	0	0	0 %100
191	M273A	SX	0	0	0 %100
192	M274	SX	0	0	0 %100
193	M274A	SX	0	0	0 %100
194	M275	SX	0	0	0 %100
195	M275A	SX	0	0	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]	
196	M276	SX	0	0	0	%100
197	M276A	SX	0	0	0	%100
198	M277	SX	0	0	0	%100
199	M277A	SX	0	0	0	%100
200	M278	SX	0	0	0	%100
201	M278A	SX	0	0	0	%100
202	M279	SX	0	0	0	%100
203	M279A	SX	0	0	0	%100
204	M280	SX	0	0	0	%100
205	M280A	SX	0	0	0	%100
206	M281	SX	0	0	0	%100
207	M281A	SX	0	0	0	%100
208	M282	SX	0	0	0	%100
209	M282A	SX	0	0	0	%100
210	M283	SX	-96.683	-96.683	0	%100
211	M283A	SX	0	0	0	%100
212	M284	SX	-96.683	-96.683	0	%100
213	M284A	SX	0	0	0	%100
214	M285	SX	-96.683	-96.683	0	%100
215	M285A	SX	0	0	0	%100
216	M286	SX	-96.683	-96.683	0	%100
217	M286A	SX	0	0	0	%100
218	M287	SX	-96.683	-96.683	0	%100
219	M287A	SX	-96.683	-96.683	0	%100
220	M288	SX	-96.683	-96.683	0	%100
221	M288A	SX	-96.683	-96.683	0	%100
222	M289	SX	-96.683	-96.683	0	%100
223	M289A	SX	-96.683	-96.683	0	%100
224	M290	SX	-96.683	-96.683	0	%100
225	M290A	SX	-96.683	-96.683	0	%100
226	M291	SX	-96.683	-96.683	0	%100
227	M291A	SX	-96.683	-96.683	0	%100
228	M292	SX	-96.683	-96.683	0	%100
229	M292A	SX	-96.683	-96.683	0	%100
230	M293	SX	-96.683	-96.683	0	%100
231	M293A	SX	-96.683	-96.683	0	%100
232	M294	SX	-96.683	-96.683	0	%100
233	M294A	SX	-96.683	-96.683	0	%100
234	M295	SX	-96.683	-96.683	0	%100
235	M295A	SX	-96.683	-96.683	0	%100
236	M296	SX	0	0	0	%100
237	M296A	SX	-96.683	-96.683	0	%100
238	M297	SX	-96.683	-96.683	0	%100
239	M297A	SX	-96.683	-96.683	0	%100
240	M298	SX	-96.683	-96.683	0	%100
241	M298A	SX	-96.683	-96.683	0	%100
242	M299	SX	-96.683	-96.683	0	%100
243	M299A	SX	-96.683	-96.683	0	%100
244	M300	SX	-96.683	-96.683	0	%100
245	M300A	SX	0	0	0	%100
246	M301	SX	-96.683	-96.683	0	%100
247	M301A	SX	-96.683	-96.683	0	%100
248	M302	SX	-96.683	-96.683	0	%100
249	M302A	SX	-96.683	-96.683	0	%100
250	M303	SX	-96.683	-96.683	0	%100
251	M303A	SX	-96.683	-96.683	0	%100
252	M304	SX	-96.683	-96.683	0	%100



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 881364

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
253	M304A	SX	-96.683	-96.683	0 %100
254	M305	SX	-96.683	-96.683	0 %100
255	M305A	SX	-96.683	-96.683	0 %100
256	M306	SX	-96.683	-96.683	0 %100
257	M306A	SX	-96.683	-96.683	0 %100
258	M307	SX	-96.683	-96.683	0 %100
259	M307A	SX	-96.683	-96.683	0 %100
260	M308	SX	-96.683	-96.683	0 %100
261	M308A	SX	0	0	0 %100
262	M309	SX	-96.683	-96.683	0 %100
263	M310	SX	-96.683	-96.683	0 %100
264	M310A	SX	0	0	0 %100
265	M311	SX	-96.683	-96.683	0 %100
266	M311A	SX	0	0	0 %100
267	M312	SX	0	0	0 %100
268	M312A	SX	0	0	0 %100
269	M313	SX	0	0	0 %100
270	M313A	SX	-96.683	-96.683	0 %100
271	M314	SX	0	0	0 %100
272	M314A	SX	-96.683	-96.683	0 %100
273	M315	SX	0	0	0 %100
274	M315A	SX	-96.683	-96.683	0 %100
275	M316	SX	-96.683	-96.683	0 %100
276	M316A	SX	-96.683	-96.683	0 %100
277	M317	SX	-96.683	-96.683	0 %100
278	M317A	SX	-96.683	-96.683	0 %100
279	M318	SX	-96.683	-96.683	0 %100
280	M318A	SX	-96.683	-96.683	0 %100
281	M319	SX	-96.683	-96.683	0 %100
282	M319A	SX	-96.683	-96.683	0 %100
283	M320	SX	-96.683	-96.683	0 %100
284	M320A	SX	-96.683	-96.683	0 %100
285	M321	SX	-96.683	-96.683	0 %100
286	M321A	SX	-96.683	-96.683	0 %100
287	M322	SX	-96.683	-96.683	0 %100
288	M322A	SX	-96.683	-96.683	0 %100
289	M323	SX	-96.683	-96.683	0 %100
290	M323A	SX	-96.683	-96.683	0 %100
291	M324	SX	-96.683	-96.683	0 %100
292	M324A	SX	-96.683	-96.683	0 %100
293	M325	SX	0	0	0 %100
294	M325A	SX	-96.683	-96.683	0 %100
295	M326	SX	0	0	0 %100
296	M326A	SX	-96.683	-96.683	0 %100
297	M327	SX	0	0	0 %100
298	M327A	SX	-96.683	-96.683	0 %100
299	M328	SX	0	0	0 %100
300	M328A	SX	0	0	0 %100
301	M329	SX	-96.683	-96.683	0 %100
302	M329A	SX	0	0	0 %100
303	M330	SX	-96.683	-96.683	0 %100
304	M330A	SX	0	0	0 %100
305	M331	SX	-96.683	-96.683	0 %100
306	M331A	SX	0	0	0 %100
307	M332	SX	-96.683	-96.683	0 %100
308	M332A	SX	-96.683	-96.683	0 %100
309	M332B	SX	-96.683	-96.683	0 %100



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 881364

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
310	M333	SX	-96.683	-96.683	0 %100
311	M333A	SX	-96.683	-96.683	0 %100
312	M334	SX	-96.683	-96.683	0 %100
313	M334A	SX	-96.683	-96.683	0 %100
314	M335	SX	-96.683	-96.683	0 %100
315	M335A	SX	-96.683	-96.683	0 %100
316	M336	SX	-96.683	-96.683	0 %100
317	M337	SX	-96.683	-96.683	0 %100
318	M338	SX	-96.683	-96.683	0 %100
319	M339	SX	-96.683	-96.683	0 %100
320	M340	SX	0	0	0 %100
321	M341	SX	0	0	0 %100
322	M342	SX	0	0	0 %100
323	M343	SX	0	0	0 %100
324	M344	SX	0	0	0 %100
325	M345	SX	0	0	0 %100
326	M367	SX	0	0	0 %100
327	M368	SX	0	0	0 %100
328	M369	SX	0	0	0 %100
329	M505	SX	0	0	0 %100
330	M506A	SX	0	0	0 %100
331	M508B	SX	0	0	0 %100
332	M509B	SX	0	0	0 %100
333	M510	SX	0	0	0 %100
334	M511A	SX	0	0	0 %100
335	M512	SX	0	0	0 %100
336	M513B	SX	0	0	0 %100
337	M514B	SX	0	0	0 %100
338	M514C	SX	0	0	0 %100
339	M515B	SX	0	0	0 %100
340	M516B	SX	0	0	0 %100
341	MP1	SX	-58.01	-58.01	0 %100
342	MP2	SX	-58.01	-58.01	0 %100
343	MP3	SX	-58.01	-58.01	0 %100
344	MP4	SX	-58.01	-58.01	0 %100
345	MP5	SX	-58.01	-58.01	0 %100
346	MP6	SX	-58.01	-58.01	0 %100
347	MP7	SX	-58.01	-58.01	0 %100
348	MP8	SX	-58.01	-58.01	0 %100
349	MP9	SX	-58.01	-58.01	0 %100
350	MP10	SX	-58.01	-58.01	0 %100
351	MP11	SX	-58.01	-58.01	0 %100
352	MP12	SX	-58.01	-58.01	0 %100
353	R3	SX	0	0	0 %100
354	R4	SX	0	0	0 %100
355	R5	SX	0	0	0 %100
356	R6	SX	0	0	0 %100
357	R7	SX	0	0	0 %100
358	R8	SX	0	0	0 %100
359	R9	SX	0	0	0 %100
360	R10	SX	0	0	0 %100
361	M361	SX	-58.01	-58.01	0 %100
362	M362	SX	0	0	0 %100
363	M363	SX	0	0	0 %100
364	M364	SX	0	0	0 %100
365	M365	SX	0	0	0 %100
366	M366	SX	-58.01	-58.01	0 %100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
367	M367A	SX	0	0	0	%100
368	M368A	SX	0	0	0	%100
369	M369A	SX	0	0	0	%100
370	M370	SX	0	0	0	%100
371	M371	SX	-58.01	-58.01	0	%100
372	M372	SX	0	0	0	%100
373	M373	SX	0	0	0	%100
374	M374	SX	0	0	0	%100
375	M375	SX	0	0	0	%100
376	M376	SX	-96.683	-96.683	0	%100
377	M377	SX	-96.683	-96.683	0	%100
378	M378	SX	-96.683	-96.683	0	%100
379	M379	SX	0	0	0	%100
380	M380	SX	0	0	0	%100
381	M381	SX	0	0	0	%100
382	M382	SX	0	0	0	%100
383	M383	SX	0	0	0	%100
384	M384	SX	0	0	0	%100

Member Distributed Loads (BLC 16 : Ice Weight)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
1	M31	Y	-12.756	-12.756	0	%100
2	M33	Y	-12.756	-12.756	0	%100
3	M34A	Y	-12.756	-12.756	0	%100
4	M45A	Y	-17.799	-17.799	0	%100
5	M50	Y	-6.16	-6.16	0	%100
6	M51	Y	-6.16	-6.16	0	%100
7	M52	Y	-6.16	-6.16	0	%100
8	M53	Y	-6.16	-6.16	0	%100
9	S2	Y	-19.876	-19.876	0	%100
10	M54A	Y	-6.16	-6.16	0	%100
11	M55	Y	-6.16	-6.16	0	%100
12	M56	Y	-6.16	-6.16	0	%100
13	M57	Y	-6.16	-6.16	0	%100
14	M57A	Y	-6.16	-6.16	0	%100
15	M58	Y	-6.16	-6.16	0	%100
16	M59	Y	-6.16	-6.16	0	%100
17	M59A	Y	-6.16	-6.16	0	%100
18	M60	Y	-12.756	-12.756	0	%100
19	M60A	Y	-6.16	-6.16	0	%100
20	M61	Y	-12.756	-12.756	0	%100
21	M61A	Y	-6.16	-6.16	0	%100
22	M62	Y	-12.756	-12.756	0	%100
23	M62A	Y	-6.16	-6.16	0	%100
24	M63	Y	-6.16	-6.16	0	%100
25	M63A	Y	-6.16	-6.16	0	%100
26	M64	Y	-6.16	-6.16	0	%100
27	M64A	Y	-6.16	-6.16	0	%100
28	M65	Y	-6.16	-6.16	0	%100
29	M65A	Y	-6.16	-6.16	0	%100
30	M66	Y	-14.454	-14.454	0	%100
31	M66A	Y	-6.16	-6.16	0	%100
32	M67	Y	-6.16	-6.16	0	%100
33	M68	Y	-17.799	-17.799	0	%100
34	M70	Y	-6.16	-6.16	0	%100
35	M73	Y	-17.799	-17.799	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
36	M74	-17.799	-17.799	0	%100
37	M74B	-17.799	-17.799	0	%100
38	M74C	-14.454	-14.454	0	%100
39	M75	-17.799	-17.799	0	%100
40	M75B	-17.799	-17.799	0	%100
41	M76	-17.799	-17.799	0	%100
42	S3	-19.876	-19.876	0	%100
43	M78	-14.454	-14.454	0	%100
44	M79	-14.454	-14.454	0	%100
45	M80	-12.756	-12.756	0	%100
46	M81	-12.756	-12.756	0	%100
47	M82	-12.756	-12.756	0	%100
48	M83	-12.756	-12.756	0	%100
49	M84	-12.756	-12.756	0	%100
50	M85	-12.756	-12.756	0	%100
51	M94	-6.16	-6.16	0	%100
52	M95	-6.16	-6.16	0	%100
53	M96	-6.16	-6.16	0	%100
54	M97	-6.16	-6.16	0	%100
55	M99	-6.16	-6.16	0	%100
56	M100	-6.16	-6.16	0	%100
57	M101	-6.16	-6.16	0	%100
58	M102	-6.16	-6.16	0	%100
59	M103	-6.16	-6.16	0	%100
60	M104	-6.16	-6.16	0	%100
61	M105	-6.16	-6.16	0	%100
62	M106	-6.16	-6.16	0	%100
63	M108	-6.16	-6.16	0	%100
64	M109	-6.16	-6.16	0	%100
65	M110	-6.16	-6.16	0	%100
66	M111	-6.16	-6.16	0	%100
67	M112	-6.16	-6.16	0	%100
68	M113	-6.16	-6.16	0	%100
69	M114	-6.16	-6.16	0	%100
70	M115	-6.16	-6.16	0	%100
71	M116	-6.16	-6.16	0	%100
72	M117	-6.16	-6.16	0	%100
73	M118	-6.16	-6.16	0	%100
74	M119	-6.16	-6.16	0	%100
75	M122	-17.799	-17.799	0	%100
76	M123	-17.799	-17.799	0	%100
77	M124	-17.799	-17.799	0	%100
78	M125	-17.799	-17.799	0	%100
79	S1	-19.876	-19.876	0	%100
80	M127	-14.454	-14.454	0	%100
81	M127A	-6.16	-6.16	0	%100
82	M128	-14.454	-14.454	0	%100
83	M128A	-6.16	-6.16	0	%100
84	M129	-12.756	-12.756	0	%100
85	M129A	-6.16	-6.16	0	%100
86	M130	-12.756	-12.756	0	%100
87	M130A	-6.16	-6.16	0	%100
88	M131	-12.756	-12.756	0	%100
89	M131A	-6.16	-6.16	0	%100
90	M132	-12.756	-12.756	0	%100
91	M132A	-6.16	-6.16	0	%100
92	M133	-12.756	-12.756	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
93	M133A	-6.16	-6.16	0	%100
94	M134	-12.756	-12.756	0	%100
95	M134A	-6.16	-6.16	0	%100
96	M136A	-6.16	-6.16	0	%100
97	M137A	-6.16	-6.16	0	%100
98	M138A	-6.16	-6.16	0	%100
99	M139A	-6.16	-6.16	0	%100
100	M140A	-6.16	-6.16	0	%100
101	M141A	-6.16	-6.16	0	%100
102	M142	-6.16	-6.16	0	%100
103	M143	-6.16	-6.16	0	%100
104	M146A	-14.047	-14.047	0	%100
105	M177	-14.047	-14.047	0	%100
106	M182	-14.047	-14.047	0	%100
107	M198	-6.16	-6.16	0	%100
108	M199	-6.16	-6.16	0	%100
109	M200	-6.16	-6.16	0	%100
110	M201	-6.16	-6.16	0	%100
111	M202	-6.16	-6.16	0	%100
112	M203	-6.16	-6.16	0	%100
113	M204	-6.16	-6.16	0	%100
114	M205	-6.16	-6.16	0	%100
115	M206	-6.16	-6.16	0	%100
116	M207	-6.16	-6.16	0	%100
117	M208	-6.16	-6.16	0	%100
118	M209	-6.16	-6.16	0	%100
119	M210	-6.16	-6.16	0	%100
120	M211	-6.16	-6.16	0	%100
121	M212	-6.16	-6.16	0	%100
122	M213	-6.16	-6.16	0	%100
123	M214	-6.16	-6.16	0	%100
124	M215	-6.16	-6.16	0	%100
125	M216	-17.218	-17.218	0	%100
126	M217	-17.218	-17.218	0	%100
127	M218	-17.218	-17.218	0	%100
128	M219	-17.181	-17.181	0	%100
129	M220	-17.181	-17.181	0	%100
130	M221	-17.181	-17.181	0	%100
131	M222	-9.09	-9.09	0	%100
132	M223	-9.09	-9.09	0	%100
133	M224	-9.09	-9.09	0	%100
134	M225	-9.09	-9.09	0	%100
135	M226	-9.09	-9.09	0	%100
136	M227	-9.09	-9.09	0	%100
137	M228	-9.09	-9.09	0	%100
138	M229	-6.16	-6.16	0	%100
139	M230	-9.09	-9.09	0	%100
140	M231	-9.09	-9.09	0	%100
141	M232	-9.09	-9.09	0	%100
142	M233	-8.771	-8.771	0	%100
143	M234	-8.771	-8.771	0	%100
144	M235	-8.771	-8.771	0	%100
145	M236	-8.46	-8.46	0	%100
146	M237	-8.46	-8.46	0	%100
147	M238	-8.46	-8.46	0	%100
148	M239	-8.159	-8.159	0	%100
149	M240	-8.159	-8.159	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
150	M241	Y	-6.16	-6.16	0 %100
151	M242	Y	-6.16	-6.16	0 %100
152	M243	Y	-6.16	-6.16	0 %100
153	M244	Y	-6.16	-6.16	0 %100
154	M245	Y	-17.181	-17.181	0 %100
155	M246	Y	-17.181	-17.181	0 %100
156	M247	Y	-9.09	-9.09	0 %100
157	M248	Y	-9.09	-9.09	0 %100
158	M249	Y	-9.09	-9.09	0 %100
159	M250	Y	-9.09	-9.09	0 %100
160	M251	Y	-9.09	-9.09	0 %100
161	M252	Y	-9.09	-9.09	0 %100
162	M253	Y	-9.09	-9.09	0 %100
163	M254	Y	-9.09	-9.09	0 %100
164	M255	Y	-17.218	-17.218	0 %100
165	M256	Y	-17.218	-17.218	0 %100
166	M257	Y	-6.16	-6.16	0 %100
167	M258	Y	-6.16	-6.16	0 %100
168	M259	Y	-6.16	-6.16	0 %100
169	M260	Y	-6.16	-6.16	0 %100
170	M261	Y	-17.181	-17.181	0 %100
171	M262	Y	-17.218	-17.218	0 %100
172	M263	Y	-9.09	-9.09	0 %100
173	M264	Y	-9.09	-9.09	0 %100
174	M265	Y	-6.16	-6.16	0 %100
175	M265A	Y	-17.218	-17.218	0 %100
176	M266	Y	-6.16	-6.16	0 %100
177	M266A	Y	-9.09	-9.09	0 %100
178	M267	Y	-6.16	-6.16	0 %100
179	M267A	Y	-9.09	-9.09	0 %100
180	M268	Y	-6.16	-6.16	0 %100
181	M268A	Y	-17.181	-17.181	0 %100
182	M269	Y	-6.16	-6.16	0 %100
183	M269A	Y	-6.16	-6.16	0 %100
184	M270	Y	-6.16	-6.16	0 %100
185	M270A	Y	-6.16	-6.16	0 %100
186	M271	Y	-6.16	-6.16	0 %100
187	M271A	Y	-6.16	-6.16	0 %100
188	M272	Y	-6.16	-6.16	0 %100
189	M272A	Y	-6.16	-6.16	0 %100
190	M273	Y	-6.16	-6.16	0 %100
191	M273A	Y	-6.16	-6.16	0 %100
192	M274	Y	-6.16	-6.16	0 %100
193	M274A	Y	-6.16	-6.16	0 %100
194	M275	Y	-6.16	-6.16	0 %100
195	M275A	Y	-6.16	-6.16	0 %100
196	M276	Y	-6.16	-6.16	0 %100
197	M276A	Y	-6.16	-6.16	0 %100
198	M277	Y	-6.16	-6.16	0 %100
199	M277A	Y	-6.16	-6.16	0 %100
200	M278	Y	-6.16	-6.16	0 %100
201	M278A	Y	-6.16	-6.16	0 %100
202	M279	Y	-6.16	-6.16	0 %100
203	M279A	Y	-6.16	-6.16	0 %100
204	M280	Y	-6.16	-6.16	0 %100
205	M280A	Y	-6.16	-6.16	0 %100
206	M281	Y	-6.16	-6.16	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
207	M281A	Y	-6.16	-6.16	0 %100
208	M282	Y	-6.16	-6.16	0 %100
209	M282A	Y	-6.16	-6.16	0 %100
210	M283	Y	-17.218	-17.218	0 %100
211	M283A	Y	-6.16	-6.16	0 %100
212	M284	Y	-17.218	-17.218	0 %100
213	M284A	Y	-6.16	-6.16	0 %100
214	M285	Y	-17.218	-17.218	0 %100
215	M285A	Y	-6.16	-6.16	0 %100
216	M286	Y	-17.181	-17.181	0 %100
217	M286A	Y	-6.16	-6.16	0 %100
218	M287	Y	-17.181	-17.181	0 %100
219	M287A	Y	-17.218	-17.218	0 %100
220	M288	Y	-17.181	-17.181	0 %100
221	M288A	Y	-17.218	-17.218	0 %100
222	M289	Y	-9.09	-9.09	0 %100
223	M289A	Y	-17.218	-17.218	0 %100
224	M290	Y	-9.09	-9.09	0 %100
225	M290A	Y	-17.181	-17.181	0 %100
226	M291	Y	-9.09	-9.09	0 %100
227	M291A	Y	-17.181	-17.181	0 %100
228	M292	Y	-9.09	-9.09	0 %100
229	M292A	Y	-17.181	-17.181	0 %100
230	M293	Y	-9.09	-9.09	0 %100
231	M293A	Y	-9.09	-9.09	0 %100
232	M294	Y	-9.09	-9.09	0 %100
233	M294A	Y	-9.09	-9.09	0 %100
234	M295	Y	-9.09	-9.09	0 %100
235	M295A	Y	-9.09	-9.09	0 %100
236	M296	Y	-6.16	-6.16	0 %100
237	M296A	Y	-9.09	-9.09	0 %100
238	M297	Y	-9.09	-9.09	0 %100
239	M297A	Y	-9.09	-9.09	0 %100
240	M298	Y	-9.09	-9.09	0 %100
241	M298A	Y	-9.09	-9.09	0 %100
242	M299	Y	-9.09	-9.09	0 %100
243	M299A	Y	-9.09	-9.09	0 %100
244	M300	Y	-8.771	-8.771	0 %100
245	M300A	Y	-6.16	-6.16	0 %100
246	M301	Y	-8.771	-8.771	0 %100
247	M301A	Y	-9.09	-9.09	0 %100
248	M302	Y	-8.771	-8.771	0 %100
249	M302A	Y	-9.09	-9.09	0 %100
250	M303	Y	-8.46	-8.46	0 %100
251	M303A	Y	-9.09	-9.09	0 %100
252	M304	Y	-8.46	-8.46	0 %100
253	M304A	Y	-8.771	-8.771	0 %100
254	M305	Y	-8.46	-8.46	0 %100
255	M305A	Y	-8.771	-8.771	0 %100
256	M306	Y	-8.159	-8.159	0 %100
257	M306A	Y	-8.771	-8.771	0 %100
258	M307	Y	-8.46	-8.46	0 %100
259	M307A	Y	-8.159	-8.159	0 %100
260	M308	Y	-8.46	-8.46	0 %100
261	M308A	Y	-6.16	-6.16	0 %100
262	M309	Y	-8.46	-8.46	0 %100
263	M310	Y	-8.159	-8.159	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
264	M310A	Y	-6.16	-6.16	0 %100
265	M311	Y	-8.159	-8.159	0 %100
266	M311A	Y	-6.16	-6.16	0 %100
267	M312	Y	-6.16	-6.16	0 %100
268	M312A	Y	-6.16	-6.16	0 %100
269	M313	Y	-6.16	-6.16	0 %100
270	M313A	Y	-17.181	-17.181	0 %100
271	M314	Y	-6.16	-6.16	0 %100
272	M314A	Y	-17.181	-17.181	0 %100
273	M315	Y	-6.16	-6.16	0 %100
274	M315A	Y	-9.09	-9.09	0 %100
275	M316	Y	-17.181	-17.181	0 %100
276	M316A	Y	-9.09	-9.09	0 %100
277	M317	Y	-17.181	-17.181	0 %100
278	M317A	Y	-9.09	-9.09	0 %100
279	M318	Y	-9.09	-9.09	0 %100
280	M318A	Y	-9.09	-9.09	0 %100
281	M319	Y	-9.09	-9.09	0 %100
282	M319A	Y	-9.09	-9.09	0 %100
283	M320	Y	-9.09	-9.09	0 %100
284	M320A	Y	-9.09	-9.09	0 %100
285	M321	Y	-9.09	-9.09	0 %100
286	M321A	Y	-9.09	-9.09	0 %100
287	M322	Y	-9.09	-9.09	0 %100
288	M322A	Y	-9.09	-9.09	0 %100
289	M323	Y	-17.218	-17.218	0 %100
290	M323A	Y	-9.09	-9.09	0 %100
291	M324	Y	-17.218	-17.218	0 %100
292	M324A	Y	-9.09	-9.09	0 %100
293	M325	Y	-6.16	-6.16	0 %100
294	M325A	Y	-9.09	-9.09	0 %100
295	M326	Y	-6.16	-6.16	0 %100
296	M326A	Y	-17.218	-17.218	0 %100
297	M327	Y	-6.16	-6.16	0 %100
298	M327A	Y	-17.218	-17.218	0 %100
299	M328	Y	-6.16	-6.16	0 %100
300	M328A	Y	-6.16	-6.16	0 %100
301	M329	Y	-17.181	-17.181	0 %100
302	M329A	Y	-6.16	-6.16	0 %100
303	M330	Y	-17.218	-17.218	0 %100
304	M330A	Y	-6.16	-6.16	0 %100
305	M331	Y	-9.09	-9.09	0 %100
306	M331A	Y	-6.16	-6.16	0 %100
307	M332	Y	-9.09	-9.09	0 %100
308	M332A	Y	-17.218	-17.218	0 %100
309	M332B	Y	-17.181	-17.181	0 %100
310	M333	Y	-9.09	-9.09	0 %100
311	M333A	Y	-17.218	-17.218	0 %100
312	M334	Y	-9.09	-9.09	0 %100
313	M334A	Y	-9.09	-9.09	0 %100
314	M335	Y	-17.181	-17.181	0 %100
315	M335A	Y	-9.09	-9.09	0 %100
316	M336	Y	-17.218	-17.218	0 %100
317	M337	Y	-9.09	-9.09	0 %100
318	M338	Y	-9.09	-9.09	0 %100
319	M339	Y	-17.181	-17.181	0 %100
320	M340	Y	-6.16	-6.16	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
321	M341	Y	-6.16	-6.16	0 %100
322	M342	Y	-6.16	-6.16	0 %100
323	M343	Y	-6.16	-6.16	0 %100
324	M344	Y	-6.16	-6.16	0 %100
325	M345	Y	-6.16	-6.16	0 %100
326	M367	Y	-6.16	-6.16	0 %100
327	M368	Y	-6.16	-6.16	0 %100
328	M369	Y	-6.16	-6.16	0 %100
329	M505	Y	-6.16	-6.16	0 %100
330	M506A	Y	-6.16	-6.16	0 %100
331	M508B	Y	-6.16	-6.16	0 %100
332	M509B	Y	-6.16	-6.16	0 %100
333	M510	Y	-6.16	-6.16	0 %100
334	M511A	Y	-6.16	-6.16	0 %100
335	M512	Y	-6.16	-6.16	0 %100
336	M513B	Y	-6.16	-6.16	0 %100
337	M514B	Y	-6.16	-6.16	0 %100
338	M514C	Y	-6.16	-6.16	0 %100
339	M515B	Y	-6.16	-6.16	0 %100
340	M516B	Y	-6.16	-6.16	0 %100
341	MP1	Y	-12.675	-12.675	0 %100
342	MP2	Y	-12.675	-12.675	0 %100
343	MP3	Y	-12.675	-12.675	0 %100
344	MP4	Y	-12.675	-12.675	0 %100
345	MP5	Y	-12.675	-12.675	0 %100
346	MP6	Y	-12.675	-12.675	0 %100
347	MP7	Y	-12.675	-12.675	0 %100
348	MP8	Y	-12.675	-12.675	0 %100
349	MP9	Y	-12.675	-12.675	0 %100
350	MP10	Y	-12.675	-12.675	0 %100
351	MP11	Y	-12.675	-12.675	0 %100
352	MP12	Y	-12.675	-12.675	0 %100
353	R3	Y	-6.16	-6.16	0 %100
354	R4	Y	-6.16	-6.16	0 %100
355	R5	Y	-6.16	-6.16	0 %100
356	R6	Y	-6.16	-6.16	0 %100
357	R7	Y	-6.16	-6.16	0 %100
358	R8	Y	-6.16	-6.16	0 %100
359	R9	Y	-6.16	-6.16	0 %100
360	R10	Y	-6.16	-6.16	0 %100
361	M361	Y	-12.675	-12.675	0 %100
362	M362	Y	-6.16	-6.16	0 %100
363	M363	Y	-6.16	-6.16	0 %100
364	M364	Y	-6.16	-6.16	0 %100
365	M365	Y	-6.16	-6.16	0 %100
366	M366	Y	-12.675	-12.675	0 %100
367	M367A	Y	-6.16	-6.16	0 %100
368	M368A	Y	-6.16	-6.16	0 %100
369	M369A	Y	-6.16	-6.16	0 %100
370	M370	Y	-6.16	-6.16	0 %100
371	M371	Y	-12.675	-12.675	0 %100
372	M372	Y	-6.16	-6.16	0 %100
373	M373	Y	-6.16	-6.16	0 %100
374	M374	Y	-6.16	-6.16	0 %100
375	M375	Y	-6.16	-6.16	0 %100
376	M376	Y	-17.799	-17.799	0 %100
377	M377	Y	-17.799	-17.799	0 %100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
378	M378	Y	-17.799	-17.799	0	%100
379	M379	Y	-6.16	-6.16	0	%100
380	M380	Y	-6.16	-6.16	0	%100
381	M381	Y	-6.16	-6.16	0	%100
382	M382	Y	-6.16	-6.16	0	%100
383	M383	Y	-6.16	-6.16	0	%100
384	M384	Y	-6.16	-6.16	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
1	M31	SZ	-26.617	-26.617	0	%100
2	M33	SZ	-26.617	-26.617	0	%100
3	M34A	SZ	-26.617	-26.617	0	%100
4	M45A	SZ	-19.106	-19.106	0	%100
5	M50	SZ	0	0	0	%100
6	M51	SZ	0	0	0	%100
7	M52	SZ	0	0	0	%100
8	M53	SZ	0	0	0	%100
9	S2	SZ	-17.618	-17.618	0	%100
10	M54A	SZ	0	0	0	%100
11	M55	SZ	0	0	0	%100
12	M56	SZ	0	0	0	%100
13	M57	SZ	0	0	0	%100
14	M57A	SZ	0	0	0	%100
15	M58	SZ	0	0	0	%100
16	M59	SZ	0	0	0	%100
17	M59A	SZ	0	0	0	%100
18	M60	SZ	-26.617	-26.617	0	%100
19	M60A	SZ	0	0	0	%100
20	M61	SZ	-26.617	-26.617	0	%100
21	M61A	SZ	0	0	0	%100
22	M62	SZ	-26.617	-26.617	0	%100
23	M62A	SZ	0	0	0	%100
24	M63	SZ	0	0	0	%100
25	M63A	SZ	0	0	0	%100
26	M64	SZ	0	0	0	%100
27	M64A	SZ	0	0	0	%100
28	M65	SZ	0	0	0	%100
29	M65A	SZ	0	0	0	%100
30	M66	SZ	-23.068	-23.068	0	%100
31	M66A	SZ	0	0	0	%100
32	M67	SZ	0	0	0	%100
33	M68	SZ	-19.106	-19.106	0	%100
34	M70	SZ	0	0	0	%100
35	M73	SZ	-19.106	-19.106	0	%100
36	M74	SZ	-19.106	-19.106	0	%100
37	M74B	SZ	-19.106	-19.106	0	%100
38	M74C	SZ	-23.068	-23.068	0	%100
39	M75	SZ	-19.106	-19.106	0	%100
40	M75B	SZ	-19.106	-19.106	0	%100
41	M76	SZ	-19.106	-19.106	0	%100
42	S3	SZ	-17.618	-17.618	0	%100
43	M78	SZ	-23.068	-23.068	0	%100
44	M79	SZ	-23.068	-23.068	0	%100
45	M80	SZ	-26.617	-26.617	0	%100
46	M81	SZ	-26.617	-26.617	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
47	M82	SZ	-26.617	-26.617	0 %100
48	M83	SZ	-26.617	-26.617	0 %100
49	M84	SZ	-26.617	-26.617	0 %100
50	M85	SZ	-26.617	-26.617	0 %100
51	M94	SZ	0	0	0 %100
52	M95	SZ	0	0	0 %100
53	M96	SZ	0	0	0 %100
54	M97	SZ	0	0	0 %100
55	M99	SZ	0	0	0 %100
56	M100	SZ	0	0	0 %100
57	M101	SZ	0	0	0 %100
58	M102	SZ	0	0	0 %100
59	M103	SZ	0	0	0 %100
60	M104	SZ	0	0	0 %100
61	M105	SZ	0	0	0 %100
62	M106	SZ	0	0	0 %100
63	M108	SZ	0	0	0 %100
64	M109	SZ	0	0	0 %100
65	M110	SZ	0	0	0 %100
66	M111	SZ	0	0	0 %100
67	M112	SZ	0	0	0 %100
68	M113	SZ	0	0	0 %100
69	M114	SZ	0	0	0 %100
70	M115	SZ	0	0	0 %100
71	M116	SZ	0	0	0 %100
72	M117	SZ	0	0	0 %100
73	M118	SZ	0	0	0 %100
74	M119	SZ	0	0	0 %100
75	M122	SZ	-19.106	-19.106	0 %100
76	M123	SZ	-19.106	-19.106	0 %100
77	M124	SZ	-19.106	-19.106	0 %100
78	M125	SZ	-19.106	-19.106	0 %100
79	S1	SZ	-17.618	-17.618	0 %100
80	M127	SZ	-23.068	-23.068	0 %100
81	M127A	SZ	0	0	0 %100
82	M128	SZ	-23.068	-23.068	0 %100
83	M128A	SZ	0	0	0 %100
84	M129	SZ	-26.617	-26.617	0 %100
85	M129A	SZ	0	0	0 %100
86	M130	SZ	-26.617	-26.617	0 %100
87	M130A	SZ	0	0	0 %100
88	M131	SZ	-26.617	-26.617	0 %100
89	M131A	SZ	0	0	0 %100
90	M132	SZ	-26.617	-26.617	0 %100
91	M132A	SZ	0	0	0 %100
92	M133	SZ	-26.617	-26.617	0 %100
93	M133A	SZ	0	0	0 %100
94	M134	SZ	-26.617	-26.617	0 %100
95	M134A	SZ	0	0	0 %100
96	M136A	SZ	0	0	0 %100
97	M137A	SZ	0	0	0 %100
98	M138A	SZ	0	0	0 %100
99	M139A	SZ	0	0	0 %100
100	M140A	SZ	0	0	0 %100
101	M141A	SZ	0	0	0 %100
102	M142	SZ	0	0	0 %100
103	M143	SZ	0	0	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
104	M146A	SZ	-23.78	-23.78	0 %100
105	M177	SZ	-23.78	-23.78	0 %100
106	M182	SZ	-23.78	-23.78	0 %100
107	M198	SZ	0	0	0 %100
108	M199	SZ	0	0	0 %100
109	M200	SZ	0	0	0 %100
110	M201	SZ	0	0	0 %100
111	M202	SZ	0	0	0 %100
112	M203	SZ	0	0	0 %100
113	M204	SZ	0	0	0 %100
114	M205	SZ	0	0	0 %100
115	M206	SZ	0	0	0 %100
116	M207	SZ	0	0	0 %100
117	M208	SZ	0	0	0 %100
118	M209	SZ	0	0	0 %100
119	M210	SZ	0	0	0 %100
120	M211	SZ	0	0	0 %100
121	M212	SZ	0	0	0 %100
122	M213	SZ	0	0	0 %100
123	M214	SZ	0	0	0 %100
124	M215	SZ	0	0	0 %100
125	M216	SZ	-19.622	-19.622	0 %100
126	M217	SZ	-19.622	-19.622	0 %100
127	M218	SZ	-19.622	-19.622	0 %100
128	M219	SZ	-19.657	-19.657	0 %100
129	M220	SZ	-19.657	-19.657	0 %100
130	M221	SZ	-19.657	-19.657	0 %100
131	M222	SZ	-48.31	-48.31	0 %100
132	M223	SZ	-48.31	-48.31	0 %100
133	M224	SZ	-48.31	-48.31	0 %100
134	M225	SZ	-48.31	-48.31	0 %100
135	M226	SZ	-48.31	-48.31	0 %100
136	M227	SZ	-48.31	-48.31	0 %100
137	M228	SZ	-48.31	-48.31	0 %100
138	M229	SZ	0	0	0 %100
139	M230	SZ	-48.31	-48.31	0 %100
140	M231	SZ	-48.31	-48.31	0 %100
141	M232	SZ	-48.31	-48.31	0 %100
142	M233	SZ	-53.067	-53.067	0 %100
143	M234	SZ	-53.067	-53.067	0 %100
144	M235	SZ	-53.067	-53.067	0 %100
145	M236	SZ	-58.991	-58.991	0 %100
146	M237	SZ	-58.991	-58.991	0 %100
147	M238	SZ	-58.991	-58.991	0 %100
148	M239	SZ	-66.469	-66.469	0 %100
149	M240	SZ	-66.469	-66.469	0 %100
150	M241	SZ	0	0	0 %100
151	M242	SZ	0	0	0 %100
152	M243	SZ	0	0	0 %100
153	M244	SZ	0	0	0 %100
154	M245	SZ	-19.657	-19.657	0 %100
155	M246	SZ	-19.657	-19.657	0 %100
156	M247	SZ	-48.31	-48.31	0 %100
157	M248	SZ	-48.31	-48.31	0 %100
158	M249	SZ	-48.31	-48.31	0 %100
159	M250	SZ	-48.31	-48.31	0 %100
160	M251	SZ	-48.31	-48.31	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
161	M252	SZ	-48.31	-48.31	0 %100
162	M253	SZ	-48.31	-48.31	0 %100
163	M254	SZ	-48.31	-48.31	0 %100
164	M255	SZ	-19.622	-19.622	0 %100
165	M256	SZ	-19.622	-19.622	0 %100
166	M257	SZ	0	0	0 %100
167	M258	SZ	0	0	0 %100
168	M259	SZ	0	0	0 %100
169	M260	SZ	0	0	0 %100
170	M261	SZ	-19.657	-19.657	0 %100
171	M262	SZ	-19.622	-19.622	0 %100
172	M263	SZ	-48.31	-48.31	0 %100
173	M264	SZ	-48.31	-48.31	0 %100
174	M265	SZ	0	0	0 %100
175	M265A	SZ	-19.622	-19.622	0 %100
176	M266	SZ	0	0	0 %100
177	M266A	SZ	-48.31	-48.31	0 %100
178	M267	SZ	0	0	0 %100
179	M267A	SZ	-48.31	-48.31	0 %100
180	M268	SZ	0	0	0 %100
181	M268A	SZ	-19.657	-19.657	0 %100
182	M269	SZ	0	0	0 %100
183	M269A	SZ	0	0	0 %100
184	M270	SZ	0	0	0 %100
185	M270A	SZ	0	0	0 %100
186	M271	SZ	0	0	0 %100
187	M271A	SZ	0	0	0 %100
188	M272	SZ	0	0	0 %100
189	M272A	SZ	0	0	0 %100
190	M273	SZ	0	0	0 %100
191	M273A	SZ	0	0	0 %100
192	M274	SZ	0	0	0 %100
193	M274A	SZ	0	0	0 %100
194	M275	SZ	0	0	0 %100
195	M275A	SZ	0	0	0 %100
196	M276	SZ	0	0	0 %100
197	M276A	SZ	0	0	0 %100
198	M277	SZ	0	0	0 %100
199	M277A	SZ	0	0	0 %100
200	M278	SZ	0	0	0 %100
201	M278A	SZ	0	0	0 %100
202	M279	SZ	0	0	0 %100
203	M279A	SZ	0	0	0 %100
204	M280	SZ	0	0	0 %100
205	M280A	SZ	0	0	0 %100
206	M281	SZ	0	0	0 %100
207	M281A	SZ	0	0	0 %100
208	M282	SZ	0	0	0 %100
209	M282A	SZ	0	0	0 %100
210	M283	SZ	-19.622	-19.622	0 %100
211	M283A	SZ	0	0	0 %100
212	M284	SZ	-19.622	-19.622	0 %100
213	M284A	SZ	0	0	0 %100
214	M285	SZ	-19.622	-19.622	0 %100
215	M285A	SZ	0	0	0 %100
216	M286	SZ	-19.657	-19.657	0 %100
217	M286A	SZ	0	0	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
218	M287	SZ	-19.657	-19.657	0 %100
219	M287A	SZ	-19.622	-19.622	0 %100
220	M288	SZ	-19.657	-19.657	0 %100
221	M288A	SZ	-19.622	-19.622	0 %100
222	M289	SZ	-48.31	-48.31	0 %100
223	M289A	SZ	-19.622	-19.622	0 %100
224	M290	SZ	-48.31	-48.31	0 %100
225	M290A	SZ	-19.657	-19.657	0 %100
226	M291	SZ	-48.31	-48.31	0 %100
227	M291A	SZ	-19.657	-19.657	0 %100
228	M292	SZ	-48.31	-48.31	0 %100
229	M292A	SZ	-19.657	-19.657	0 %100
230	M293	SZ	-48.31	-48.31	0 %100
231	M293A	SZ	-48.31	-48.31	0 %100
232	M294	SZ	-48.31	-48.31	0 %100
233	M294A	SZ	-48.31	-48.31	0 %100
234	M295	SZ	-48.31	-48.31	0 %100
235	M295A	SZ	-48.31	-48.31	0 %100
236	M296	SZ	0	0	0 %100
237	M296A	SZ	-48.31	-48.31	0 %100
238	M297	SZ	-48.31	-48.31	0 %100
239	M297A	SZ	-48.31	-48.31	0 %100
240	M298	SZ	-48.31	-48.31	0 %100
241	M298A	SZ	-48.31	-48.31	0 %100
242	M299	SZ	-48.31	-48.31	0 %100
243	M299A	SZ	-48.31	-48.31	0 %100
244	M300	SZ	-53.067	-53.067	0 %100
245	M300A	SZ	0	0	0 %100
246	M301	SZ	-53.067	-53.067	0 %100
247	M301A	SZ	-48.31	-48.31	0 %100
248	M302	SZ	-53.067	-53.067	0 %100
249	M302A	SZ	-48.31	-48.31	0 %100
250	M303	SZ	-58.991	-58.991	0 %100
251	M303A	SZ	-48.31	-48.31	0 %100
252	M304	SZ	-58.991	-58.991	0 %100
253	M304A	SZ	-53.067	-53.067	0 %100
254	M305	SZ	-58.991	-58.991	0 %100
255	M305A	SZ	-53.067	-53.067	0 %100
256	M306	SZ	-66.469	-66.469	0 %100
257	M306A	SZ	-53.067	-53.067	0 %100
258	M307	SZ	-58.991	-58.991	0 %100
259	M307A	SZ	-66.469	-66.469	0 %100
260	M308	SZ	-58.991	-58.991	0 %100
261	M308A	SZ	0	0	0 %100
262	M309	SZ	-58.991	-58.991	0 %100
263	M310	SZ	-66.469	-66.469	0 %100
264	M310A	SZ	0	0	0 %100
265	M311	SZ	-66.469	-66.469	0 %100
266	M311A	SZ	0	0	0 %100
267	M312	SZ	0	0	0 %100
268	M312A	SZ	0	0	0 %100
269	M313	SZ	0	0	0 %100
270	M313A	SZ	-19.657	-19.657	0 %100
271	M314	SZ	0	0	0 %100
272	M314A	SZ	-19.657	-19.657	0 %100
273	M315	SZ	0	0	0 %100
274	M315A	SZ	-48.31	-48.31	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
275	M316	SZ	-19.657	-19.657	0 %100
276	M316A	SZ	-48.31	-48.31	0 %100
277	M317	SZ	-19.657	-19.657	0 %100
278	M317A	SZ	-48.31	-48.31	0 %100
279	M318	SZ	-48.31	-48.31	0 %100
280	M318A	SZ	-48.31	-48.31	0 %100
281	M319	SZ	-48.31	-48.31	0 %100
282	M319A	SZ	-48.31	-48.31	0 %100
283	M320	SZ	-48.31	-48.31	0 %100
284	M320A	SZ	-48.31	-48.31	0 %100
285	M321	SZ	-48.31	-48.31	0 %100
286	M321A	SZ	-48.31	-48.31	0 %100
287	M322	SZ	-48.31	-48.31	0 %100
288	M322A	SZ	-48.31	-48.31	0 %100
289	M323	SZ	-19.622	-19.622	0 %100
290	M323A	SZ	-48.31	-48.31	0 %100
291	M324	SZ	-19.622	-19.622	0 %100
292	M324A	SZ	-48.31	-48.31	0 %100
293	M325	SZ	0	0	0 %100
294	M325A	SZ	-48.31	-48.31	0 %100
295	M326	SZ	0	0	0 %100
296	M326A	SZ	-19.622	-19.622	0 %100
297	M327	SZ	0	0	0 %100
298	M327A	SZ	-19.622	-19.622	0 %100
299	M328	SZ	0	0	0 %100
300	M328A	SZ	0	0	0 %100
301	M329	SZ	-19.657	-19.657	0 %100
302	M329A	SZ	0	0	0 %100
303	M330	SZ	-19.622	-19.622	0 %100
304	M330A	SZ	0	0	0 %100
305	M331	SZ	-48.31	-48.31	0 %100
306	M331A	SZ	0	0	0 %100
307	M332	SZ	-48.31	-48.31	0 %100
308	M332A	SZ	-19.622	-19.622	0 %100
309	M332B	SZ	-19.657	-19.657	0 %100
310	M333	SZ	-48.31	-48.31	0 %100
311	M333A	SZ	-19.622	-19.622	0 %100
312	M334	SZ	-48.31	-48.31	0 %100
313	M334A	SZ	-48.31	-48.31	0 %100
314	M335	SZ	-19.657	-19.657	0 %100
315	M335A	SZ	-48.31	-48.31	0 %100
316	M336	SZ	-19.622	-19.622	0 %100
317	M337	SZ	-48.31	-48.31	0 %100
318	M338	SZ	-48.31	-48.31	0 %100
319	M339	SZ	-19.657	-19.657	0 %100
320	M340	SZ	0	0	0 %100
321	M341	SZ	0	0	0 %100
322	M342	SZ	0	0	0 %100
323	M343	SZ	0	0	0 %100
324	M344	SZ	0	0	0 %100
325	M345	SZ	0	0	0 %100
326	M367	SZ	0	0	0 %100
327	M368	SZ	0	0	0 %100
328	M369	SZ	0	0	0 %100
329	M505	SZ	0	0	0 %100
330	M506A	SZ	0	0	0 %100
331	M508B	SZ	0	0	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]	
332	M509B	SZ	0	0	0	%100
333	M510	SZ	0	0	0	%100
334	M511A	SZ	0	0	0	%100
335	M512	SZ	0	0	0	%100
336	M513B	SZ	0	0	0	%100
337	M514B	SZ	0	0	0	%100
338	M514C	SZ	0	0	0	%100
339	M515B	SZ	0	0	0	%100
340	M516B	SZ	0	0	0	%100
341	MP1	SZ	-26.832	-26.832	0	%100
342	MP2	SZ	-26.832	-26.832	0	%100
343	MP3	SZ	-26.832	-26.832	0	%100
344	MP4	SZ	-26.832	-26.832	0	%100
345	MP5	SZ	-26.832	-26.832	0	%100
346	MP6	SZ	-26.832	-26.832	0	%100
347	MP7	SZ	-26.832	-26.832	0	%100
348	MP8	SZ	-26.832	-26.832	0	%100
349	MP9	SZ	-26.832	-26.832	0	%100
350	MP10	SZ	-26.832	-26.832	0	%100
351	MP11	SZ	-26.832	-26.832	0	%100
352	MP12	SZ	-26.832	-26.832	0	%100
353	R3	SZ	0	0	0	%100
354	R4	SZ	0	0	0	%100
355	R5	SZ	0	0	0	%100
356	R6	SZ	0	0	0	%100
357	R7	SZ	0	0	0	%100
358	R8	SZ	0	0	0	%100
359	R9	SZ	0	0	0	%100
360	R10	SZ	0	0	0	%100
361	M361	SZ	-26.832	-26.832	0	%100
362	M362	SZ	0	0	0	%100
363	M363	SZ	0	0	0	%100
364	M364	SZ	0	0	0	%100
365	M365	SZ	0	0	0	%100
366	M366	SZ	-26.832	-26.832	0	%100
367	M367A	SZ	0	0	0	%100
368	M368A	SZ	0	0	0	%100
369	M369A	SZ	0	0	0	%100
370	M370	SZ	0	0	0	%100
371	M371	SZ	-26.832	-26.832	0	%100
372	M372	SZ	0	0	0	%100
373	M373	SZ	0	0	0	%100
374	M374	SZ	0	0	0	%100
375	M375	SZ	0	0	0	%100
376	M376	SZ	-19.106	-19.106	0	%100
377	M377	SZ	-19.106	-19.106	0	%100
378	M378	SZ	-19.106	-19.106	0	%100
379	M379	SZ	0	0	0	%100
380	M380	SZ	0	0	0	%100
381	M381	SZ	0	0	0	%100
382	M382	SZ	0	0	0	%100
383	M383	SZ	0	0	0	%100
384	M384	SZ	0	0	0	%100

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
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Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
1	M31	SX	-26.617	-26.617	0	%100
2	M33	SX	-26.617	-26.617	0	%100
3	M34A	SX	-26.617	-26.617	0	%100
4	M45A	SX	-19.106	-19.106	0	%100
5	M50	SX	0	0	0	%100
6	M51	SX	0	0	0	%100
7	M52	SX	0	0	0	%100
8	M53	SX	0	0	0	%100
9	S2	SX	-17.618	-17.618	0	%100
10	M54A	SX	0	0	0	%100
11	M55	SX	0	0	0	%100
12	M56	SX	0	0	0	%100
13	M57	SX	0	0	0	%100
14	M57A	SX	0	0	0	%100
15	M58	SX	0	0	0	%100
16	M59	SX	0	0	0	%100
17	M59A	SX	0	0	0	%100
18	M60	SX	-26.617	-26.617	0	%100
19	M60A	SX	0	0	0	%100
20	M61	SX	-26.617	-26.617	0	%100
21	M61A	SX	0	0	0	%100
22	M62	SX	-26.617	-26.617	0	%100
23	M62A	SX	0	0	0	%100
24	M63	SX	0	0	0	%100
25	M63A	SX	0	0	0	%100
26	M64	SX	0	0	0	%100
27	M64A	SX	0	0	0	%100
28	M65	SX	0	0	0	%100
29	M65A	SX	0	0	0	%100
30	M66	SX	-23.068	-23.068	0	%100
31	M66A	SX	0	0	0	%100
32	M67	SX	0	0	0	%100
33	M68	SX	-19.106	-19.106	0	%100
34	M70	SX	0	0	0	%100
35	M73	SX	-19.106	-19.106	0	%100
36	M74	SX	-19.106	-19.106	0	%100
37	M74B	SX	-19.106	-19.106	0	%100
38	M74C	SX	-23.068	-23.068	0	%100
39	M75	SX	-19.106	-19.106	0	%100
40	M75B	SX	-19.106	-19.106	0	%100
41	M76	SX	-19.106	-19.106	0	%100
42	S3	SX	-17.618	-17.618	0	%100
43	M78	SX	-23.068	-23.068	0	%100
44	M79	SX	-23.068	-23.068	0	%100
45	M80	SX	-26.617	-26.617	0	%100
46	M81	SX	-26.617	-26.617	0	%100
47	M82	SX	-26.617	-26.617	0	%100
48	M83	SX	-26.617	-26.617	0	%100
49	M84	SX	-26.617	-26.617	0	%100
50	M85	SX	-26.617	-26.617	0	%100
51	M94	SX	0	0	0	%100
52	M95	SX	0	0	0	%100
53	M96	SX	0	0	0	%100
54	M97	SX	0	0	0	%100
55	M99	SX	0	0	0	%100
56	M100	SX	0	0	0	%100
57	M101	SX	0	0	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
58	M102	SX	0	0	%100
59	M103	SX	0	0	%100
60	M104	SX	0	0	%100
61	M105	SX	0	0	%100
62	M106	SX	0	0	%100
63	M108	SX	0	0	%100
64	M109	SX	0	0	%100
65	M110	SX	0	0	%100
66	M111	SX	0	0	%100
67	M112	SX	0	0	%100
68	M113	SX	0	0	%100
69	M114	SX	0	0	%100
70	M115	SX	0	0	%100
71	M116	SX	0	0	%100
72	M117	SX	0	0	%100
73	M118	SX	0	0	%100
74	M119	SX	0	0	%100
75	M122	SX	-19.106	-19.106	%100
76	M123	SX	-19.106	-19.106	%100
77	M124	SX	-19.106	-19.106	%100
78	M125	SX	-19.106	-19.106	%100
79	S1	SX	-17.618	-17.618	%100
80	M127	SX	-23.068	-23.068	%100
81	M127A	SX	0	0	%100
82	M128	SX	-23.068	-23.068	%100
83	M128A	SX	0	0	%100
84	M129	SX	-26.617	-26.617	%100
85	M129A	SX	0	0	%100
86	M130	SX	-26.617	-26.617	%100
87	M130A	SX	0	0	%100
88	M131	SX	-26.617	-26.617	%100
89	M131A	SX	0	0	%100
90	M132	SX	-26.617	-26.617	%100
91	M132A	SX	0	0	%100
92	M133	SX	-26.617	-26.617	%100
93	M133A	SX	0	0	%100
94	M134	SX	-26.617	-26.617	%100
95	M134A	SX	0	0	%100
96	M136A	SX	0	0	%100
97	M137A	SX	0	0	%100
98	M138A	SX	0	0	%100
99	M139A	SX	0	0	%100
100	M140A	SX	0	0	%100
101	M141A	SX	0	0	%100
102	M142	SX	0	0	%100
103	M143	SX	0	0	%100
104	M146A	SX	-23.78	-23.78	%100
105	M177	SX	-23.78	-23.78	%100
106	M182	SX	-23.78	-23.78	%100
107	M198	SX	0	0	%100
108	M199	SX	0	0	%100
109	M200	SX	0	0	%100
110	M201	SX	0	0	%100
111	M202	SX	0	0	%100
112	M203	SX	0	0	%100
113	M204	SX	0	0	%100
114	M205	SX	0	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]	
115	M206	SX	0	0	0	%100
116	M207	SX	0	0	0	%100
117	M208	SX	0	0	0	%100
118	M209	SX	0	0	0	%100
119	M210	SX	0	0	0	%100
120	M211	SX	0	0	0	%100
121	M212	SX	0	0	0	%100
122	M213	SX	0	0	0	%100
123	M214	SX	0	0	0	%100
124	M215	SX	0	0	0	%100
125	M216	SX	-19.622	-19.622	0	%100
126	M217	SX	-19.622	-19.622	0	%100
127	M218	SX	-19.622	-19.622	0	%100
128	M219	SX	-19.657	-19.657	0	%100
129	M220	SX	-19.657	-19.657	0	%100
130	M221	SX	-19.657	-19.657	0	%100
131	M222	SX	-48.31	-48.31	0	%100
132	M223	SX	-48.31	-48.31	0	%100
133	M224	SX	-48.31	-48.31	0	%100
134	M225	SX	-48.31	-48.31	0	%100
135	M226	SX	-48.31	-48.31	0	%100
136	M227	SX	-48.31	-48.31	0	%100
137	M228	SX	-48.31	-48.31	0	%100
138	M229	SX	0	0	0	%100
139	M230	SX	-48.31	-48.31	0	%100
140	M231	SX	-48.31	-48.31	0	%100
141	M232	SX	-48.31	-48.31	0	%100
142	M233	SX	-53.067	-53.067	0	%100
143	M234	SX	-53.067	-53.067	0	%100
144	M235	SX	-53.067	-53.067	0	%100
145	M236	SX	-58.991	-58.991	0	%100
146	M237	SX	-58.991	-58.991	0	%100
147	M238	SX	-58.991	-58.991	0	%100
148	M239	SX	-66.469	-66.469	0	%100
149	M240	SX	-66.469	-66.469	0	%100
150	M241	SX	0	0	0	%100
151	M242	SX	0	0	0	%100
152	M243	SX	0	0	0	%100
153	M244	SX	0	0	0	%100
154	M245	SX	-19.657	-19.657	0	%100
155	M246	SX	-19.657	-19.657	0	%100
156	M247	SX	-48.31	-48.31	0	%100
157	M248	SX	-48.31	-48.31	0	%100
158	M249	SX	-48.31	-48.31	0	%100
159	M250	SX	-48.31	-48.31	0	%100
160	M251	SX	-48.31	-48.31	0	%100
161	M252	SX	-48.31	-48.31	0	%100
162	M253	SX	-48.31	-48.31	0	%100
163	M254	SX	-48.31	-48.31	0	%100
164	M255	SX	-19.622	-19.622	0	%100
165	M256	SX	-19.622	-19.622	0	%100
166	M257	SX	0	0	0	%100
167	M258	SX	0	0	0	%100
168	M259	SX	0	0	0	%100
169	M260	SX	0	0	0	%100
170	M261	SX	-19.657	-19.657	0	%100
171	M262	SX	-19.622	-19.622	0	%100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
172	M263	SX	-48.31	-48.31	0 %100
173	M264	SX	-48.31	-48.31	0 %100
174	M265	SX	0	0	0 %100
175	M265A	SX	-19.622	-19.622	0 %100
176	M266	SX	0	0	0 %100
177	M266A	SX	-48.31	-48.31	0 %100
178	M267	SX	0	0	0 %100
179	M267A	SX	-48.31	-48.31	0 %100
180	M268	SX	0	0	0 %100
181	M268A	SX	-19.657	-19.657	0 %100
182	M269	SX	0	0	0 %100
183	M269A	SX	0	0	0 %100
184	M270	SX	0	0	0 %100
185	M270A	SX	0	0	0 %100
186	M271	SX	0	0	0 %100
187	M271A	SX	0	0	0 %100
188	M272	SX	0	0	0 %100
189	M272A	SX	0	0	0 %100
190	M273	SX	0	0	0 %100
191	M273A	SX	0	0	0 %100
192	M274	SX	0	0	0 %100
193	M274A	SX	0	0	0 %100
194	M275	SX	0	0	0 %100
195	M275A	SX	0	0	0 %100
196	M276	SX	0	0	0 %100
197	M276A	SX	0	0	0 %100
198	M277	SX	0	0	0 %100
199	M277A	SX	0	0	0 %100
200	M278	SX	0	0	0 %100
201	M278A	SX	0	0	0 %100
202	M279	SX	0	0	0 %100
203	M279A	SX	0	0	0 %100
204	M280	SX	0	0	0 %100
205	M280A	SX	0	0	0 %100
206	M281	SX	0	0	0 %100
207	M281A	SX	0	0	0 %100
208	M282	SX	0	0	0 %100
209	M282A	SX	0	0	0 %100
210	M283	SX	-19.622	-19.622	0 %100
211	M283A	SX	0	0	0 %100
212	M284	SX	-19.622	-19.622	0 %100
213	M284A	SX	0	0	0 %100
214	M285	SX	-19.622	-19.622	0 %100
215	M285A	SX	0	0	0 %100
216	M286	SX	-19.657	-19.657	0 %100
217	M286A	SX	0	0	0 %100
218	M287	SX	-19.657	-19.657	0 %100
219	M287A	SX	-19.622	-19.622	0 %100
220	M288	SX	-19.657	-19.657	0 %100
221	M288A	SX	-19.622	-19.622	0 %100
222	M289	SX	-48.31	-48.31	0 %100
223	M289A	SX	-19.622	-19.622	0 %100
224	M290	SX	-48.31	-48.31	0 %100
225	M290A	SX	-19.657	-19.657	0 %100
226	M291	SX	-48.31	-48.31	0 %100
227	M291A	SX	-19.657	-19.657	0 %100
228	M292	SX	-48.31	-48.31	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
229	M292A	SX	-19.657	-19.657	0 %100
230	M293	SX	-48.31	-48.31	0 %100
231	M293A	SX	-48.31	-48.31	0 %100
232	M294	SX	-48.31	-48.31	0 %100
233	M294A	SX	-48.31	-48.31	0 %100
234	M295	SX	-48.31	-48.31	0 %100
235	M295A	SX	-48.31	-48.31	0 %100
236	M296	SX	0	0	0 %100
237	M296A	SX	-48.31	-48.31	0 %100
238	M297	SX	-48.31	-48.31	0 %100
239	M297A	SX	-48.31	-48.31	0 %100
240	M298	SX	-48.31	-48.31	0 %100
241	M298A	SX	-48.31	-48.31	0 %100
242	M299	SX	-48.31	-48.31	0 %100
243	M299A	SX	-48.31	-48.31	0 %100
244	M300	SX	-53.067	-53.067	0 %100
245	M300A	SX	0	0	0 %100
246	M301	SX	-53.067	-53.067	0 %100
247	M301A	SX	-48.31	-48.31	0 %100
248	M302	SX	-53.067	-53.067	0 %100
249	M302A	SX	-48.31	-48.31	0 %100
250	M303	SX	-58.991	-58.991	0 %100
251	M303A	SX	-48.31	-48.31	0 %100
252	M304	SX	-58.991	-58.991	0 %100
253	M304A	SX	-53.067	-53.067	0 %100
254	M305	SX	-58.991	-58.991	0 %100
255	M305A	SX	-53.067	-53.067	0 %100
256	M306	SX	-66.469	-66.469	0 %100
257	M306A	SX	-53.067	-53.067	0 %100
258	M307	SX	-58.991	-58.991	0 %100
259	M307A	SX	-66.469	-66.469	0 %100
260	M308	SX	-58.991	-58.991	0 %100
261	M308A	SX	0	0	0 %100
262	M309	SX	-58.991	-58.991	0 %100
263	M310	SX	-66.469	-66.469	0 %100
264	M310A	SX	0	0	0 %100
265	M311	SX	-66.469	-66.469	0 %100
266	M311A	SX	0	0	0 %100
267	M312	SX	0	0	0 %100
268	M312A	SX	0	0	0 %100
269	M313	SX	0	0	0 %100
270	M313A	SX	-19.657	-19.657	0 %100
271	M314	SX	0	0	0 %100
272	M314A	SX	-19.657	-19.657	0 %100
273	M315	SX	0	0	0 %100
274	M315A	SX	-48.31	-48.31	0 %100
275	M316	SX	-19.657	-19.657	0 %100
276	M316A	SX	-48.31	-48.31	0 %100
277	M317	SX	-19.657	-19.657	0 %100
278	M317A	SX	-48.31	-48.31	0 %100
279	M318	SX	-48.31	-48.31	0 %100
280	M318A	SX	-48.31	-48.31	0 %100
281	M319	SX	-48.31	-48.31	0 %100
282	M319A	SX	-48.31	-48.31	0 %100
283	M320	SX	-48.31	-48.31	0 %100
284	M320A	SX	-48.31	-48.31	0 %100
285	M321	SX	-48.31	-48.31	0 %100



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
286	M321A	SX	-48.31	-48.31	0 %100
287	M322	SX	-48.31	-48.31	0 %100
288	M322A	SX	-48.31	-48.31	0 %100
289	M323	SX	-19.622	-19.622	0 %100
290	M323A	SX	-48.31	-48.31	0 %100
291	M324	SX	-19.622	-19.622	0 %100
292	M324A	SX	-48.31	-48.31	0 %100
293	M325	SX	0	0	0 %100
294	M325A	SX	-48.31	-48.31	0 %100
295	M326	SX	0	0	0 %100
296	M326A	SX	-19.622	-19.622	0 %100
297	M327	SX	0	0	0 %100
298	M327A	SX	-19.622	-19.622	0 %100
299	M328	SX	0	0	0 %100
300	M328A	SX	0	0	0 %100
301	M329	SX	-19.657	-19.657	0 %100
302	M329A	SX	0	0	0 %100
303	M330	SX	-19.622	-19.622	0 %100
304	M330A	SX	0	0	0 %100
305	M331	SX	-48.31	-48.31	0 %100
306	M331A	SX	0	0	0 %100
307	M332	SX	-48.31	-48.31	0 %100
308	M332A	SX	-19.622	-19.622	0 %100
309	M332B	SX	-19.657	-19.657	0 %100
310	M333	SX	-48.31	-48.31	0 %100
311	M333A	SX	-19.622	-19.622	0 %100
312	M334	SX	-48.31	-48.31	0 %100
313	M334A	SX	-48.31	-48.31	0 %100
314	M335	SX	-19.657	-19.657	0 %100
315	M335A	SX	-48.31	-48.31	0 %100
316	M336	SX	-19.622	-19.622	0 %100
317	M337	SX	-48.31	-48.31	0 %100
318	M338	SX	-48.31	-48.31	0 %100
319	M339	SX	-19.657	-19.657	0 %100
320	M340	SX	0	0	0 %100
321	M341	SX	0	0	0 %100
322	M342	SX	0	0	0 %100
323	M343	SX	0	0	0 %100
324	M344	SX	0	0	0 %100
325	M345	SX	0	0	0 %100
326	M367	SX	0	0	0 %100
327	M368	SX	0	0	0 %100
328	M369	SX	0	0	0 %100
329	M505	SX	0	0	0 %100
330	M506A	SX	0	0	0 %100
331	M508B	SX	0	0	0 %100
332	M509B	SX	0	0	0 %100
333	M510	SX	0	0	0 %100
334	M511A	SX	0	0	0 %100
335	M512	SX	0	0	0 %100
336	M513B	SX	0	0	0 %100
337	M514B	SX	0	0	0 %100
338	M514C	SX	0	0	0 %100
339	M515B	SX	0	0	0 %100
340	M516B	SX	0	0	0 %100
341	MP1	SX	-26.832	-26.832	0 %100
342	MP2	SX	-26.832	-26.832	0 %100



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
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Member Distributed Loads (BLC 30 : Distr. Ice Wind Load X) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
343	MP3	SX	-26.832	-26.832	0 %100
344	MP4	SX	-26.832	-26.832	0 %100
345	MP5	SX	-26.832	-26.832	0 %100
346	MP6	SX	-26.832	-26.832	0 %100
347	MP7	SX	-26.832	-26.832	0 %100
348	MP8	SX	-26.832	-26.832	0 %100
349	MP9	SX	-26.832	-26.832	0 %100
350	MP10	SX	-26.832	-26.832	0 %100
351	MP11	SX	-26.832	-26.832	0 %100
352	MP12	SX	-26.832	-26.832	0 %100
353	R3	SX	0	0	0 %100
354	R4	SX	0	0	0 %100
355	R5	SX	0	0	0 %100
356	R6	SX	0	0	0 %100
357	R7	SX	0	0	0 %100
358	R8	SX	0	0	0 %100
359	R9	SX	0	0	0 %100
360	R10	SX	0	0	0 %100
361	M361	SX	-26.832	-26.832	0 %100
362	M362	SX	0	0	0 %100
363	M363	SX	0	0	0 %100
364	M364	SX	0	0	0 %100
365	M365	SX	0	0	0 %100
366	M366	SX	-26.832	-26.832	0 %100
367	M367A	SX	0	0	0 %100
368	M368A	SX	0	0	0 %100
369	M369A	SX	0	0	0 %100
370	M370	SX	0	0	0 %100
371	M371	SX	-26.832	-26.832	0 %100
372	M372	SX	0	0	0 %100
373	M373	SX	0	0	0 %100
374	M374	SX	0	0	0 %100
375	M375	SX	0	0	0 %100
376	M376	SX	-19.106	-19.106	0 %100
377	M377	SX	-19.106	-19.106	0 %100
378	M378	SX	-19.106	-19.106	0 %100
379	M379	SX	0	0	0 %100
380	M380	SX	0	0	0 %100
381	M381	SX	0	0	0 %100
382	M382	SX	0	0	0 %100
383	M383	SX	0	0	0 %100
384	M384	SX	0	0	0 %100

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
1	M31	Y	-.348	-1.573	0 3.981
2	M31	Y	-1.573	-2.026	3.981 7.963
3	M31	Y	-2.026	-1.604	7.963 11.944
4	M31	Y	-1.604	-1.331	11.944 15.926
5	M31	Y	-1.331	-1.312	15.926 19.907
6	M33	Y	-1.001	-1.191	0 2.697
7	M33	Y	-1.191	-1.143	2.697 5.394
8	M33	Y	-1.143	-1.291	5.394 8.092
9	M33	Y	-1.291	-1.523	8.092 10.789
10	M33	Y	-1.523	-1.406	10.789 13.486
11	M34A	Y	-1.459	-.443	0 1.4



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 881364

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
12	M34A	Y	-.443	-.421	1.4	2.8
13	M34A	Y	-.421	-1.139	2.8	4.2
14	M34A	Y	-1.139	-1.507	4.2	5.6
15	M34A	Y	-1.507	-1.781	5.6	7
16	M45A	Y	-.433	-.327	0	6.995
17	M45A	Y	-.327	-.481	6.995	13.989
18	M45A	Y	-.481	-.581	13.989	20.984
19	M45A	Y	-.581	-.324	20.984	27.979
20	M45A	Y	-.324	-.025	27.979	34.973
21	S2	Y	-.036	-.397	0	13.582
22	S2	Y	-.397	-.544	13.582	27.164
23	S2	Y	-.544	-.357	27.164	40.746
24	M74C	Y	-.181	-.569	0	2.42
25	M74C	Y	-.569	-.559	2.42	4.84
26	M74C	Y	-.559	-.153	4.84	7.261
27	M75B	Y	-.248	-.435	0	5.726
28	M75B	Y	-.435	-.37	5.726	11.452
29	M75B	Y	-.37	-.332	11.452	17.178
30	M75B	Y	-.332	-.509	17.178	22.904
31	M75B	Y	-.509	-.623	22.904	28.63
32	R6	Y	-.943	-.594	0	1.707
33	R6	Y	-.594	-.246	1.707	3.414
34	R7	Y	-1.119	-.679	0	1.137
35	R7	Y	-.679	-.392	1.137	2.273
36	R7	Y	-.392	-.259	2.273	3.41
37	R8	Y	-.044	-1.035	0	.854
38	R8	Y	-1.035	-.935	.854	1.707
39	R8	Y	-.935	-.592	1.707	2.561
40	R8	Y	-.592	-1.096	2.561	3.414
41	M60	Y	-.348	-1.573	0	3.981
42	M60	Y	-1.573	-2.026	3.981	7.963
43	M60	Y	-2.026	-1.604	7.963	11.944
44	M60	Y	-1.604	-1.331	11.944	15.926
45	M60	Y	-1.331	-1.312	15.926	19.907
46	M61	Y	-1.001	-1.191	0	2.697
47	M61	Y	-1.191	-1.143	2.697	5.394
48	M61	Y	-1.143	-1.291	5.394	8.092
49	M61	Y	-1.291	-1.523	8.092	10.789
50	M61	Y	-1.523	-1.406	10.789	13.486
51	M62	Y	-1.459	-.443	0	1.4
52	M62	Y	-.443	-.421	1.4	2.8
53	M62	Y	-.421	-1.137	2.8	4.2
54	M62	Y	-1.137	-1.506	4.2	5.6
55	M62	Y	-1.506	-1.784	5.6	7
56	M63	Y	-.934	-.589	0	1.707
57	M63	Y	-.589	-.245	1.707	3.414
58	M64	Y	-1.113	-.678	0	1.137
59	M64	Y	-.678	-.393	1.137	2.273
60	M64	Y	-.393	-.256	2.273	3.41
61	M65	Y	-.046	-1.034	0	.854
62	M65	Y	-1.034	-.934	.854	1.707
63	M65	Y	-.934	-.592	1.707	2.561
64	M65	Y	-.592	-1.096	2.561	3.414
65	M66	Y	-.183	-.569	0	2.42
66	M66	Y	-.569	-.559	2.42	4.84
67	M66	Y	-.559	-.153	4.84	7.261
68	M68	Y	-.433	-.327	0	6.995



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
69	M68	Y	-.327	-.483	6.995	13.989
70	M68	Y	-.483	-.583	13.989	20.984
71	M68	Y	-.583	-.324	20.984	27.979
72	M68	Y	-.324	-.025	27.979	34.973
73	M74B	Y	-.248	-.435	0	5.726
74	M74B	Y	-.435	-.37	5.726	11.452
75	M74B	Y	-.37	-.332	11.452	17.178
76	M74B	Y	-.332	-.509	17.178	22.904
77	M74B	Y	-.509	-.623	22.904	28.63
78	M45A	Y	-.022	-.022	0	6.751
79	S2	Y	-.386	-.458	0	10.186
80	S2	Y	-.458	-.51	10.186	20.373
81	S2	Y	-.51	-.455	20.373	30.559
82	S2	Y	-.455	-.376	30.559	40.746
83	S2	Y	-.376	-.357	40.746	50.932
84	M57	Y	-.154	-.154	0	2
85	M58	Y	-.286	-.286	1.903e-12	2
86	M59	Y	-.42	-.42	0	2.001
87	M67	Y	-.076	-.076	0	2
88	M68	Y	-.022	-.022	0	6.751
89	M70	Y	-.213	-.213	0	2
90	R3	Y	-.154	-.154	0	2
91	R4	Y	-.286	-.286	1.744e-13	2
92	R5	Y	-.432	-.432	6.114e-5	1.945
93	R9	Y	-.076	-.076	0	2
94	R10	Y	-.213	-.213	0	2
95	M62A	Y	-.931	-.588	0	1.707
96	M62A	Y	-.588	-.244	1.707	3.414
97	M63A	Y	-1.139	-.683	0	1.137
98	M63A	Y	-.683	-.39	1.137	2.273
99	M63A	Y	-.39	-.263	2.273	3.41
100	M64A	Y	-.033	-1.04	0	.854
101	M64A	Y	-1.04	-.941	.854	1.707
102	M64A	Y	-.941	-.591	1.707	2.561
103	M64A	Y	-.591	-1.095	2.561	3.414
104	M74	Y	-.432	-.327	0	6.995
105	M74	Y	-.327	-.485	6.995	13.989
106	M74	Y	-.485	-.584	13.989	20.984
107	M74	Y	-.584	-.324	20.984	27.979
108	M74	Y	-.324	-.028	27.979	34.973
109	M75	Y	-.248	-.435	0	5.726
110	M75	Y	-.435	-.37	5.726	11.452
111	M75	Y	-.37	-.331	11.452	17.178
112	M75	Y	-.331	-.507	17.178	22.904
113	M75	Y	-.507	-.621	22.904	28.63
114	S3	Y	-.035	-.395	0	13.582
115	S3	Y	-.395	-.543	13.582	27.164
116	S3	Y	-.543	-.358	27.164	40.746
117	M78	Y	-.183	-.572	0	2.42
118	M78	Y	-.572	-.561	2.42	4.84
119	M78	Y	-.561	-.152	4.84	7.261
120	M83	Y	-.347	-1.571	0	3.981
121	M83	Y	-1.571	-2.027	3.981	7.963
122	M83	Y	-2.027	-1.603	7.963	11.944
123	M83	Y	-1.603	-1.326	11.944	15.926
124	M83	Y	-1.326	-1.305	15.926	19.907
125	M84	Y	-1	-1.191	0	2.697



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
126	M84	-1.191	-1.145	2.697	5.394
127	M84	-1.145	-1.294	5.394	8.092
128	M84	-1.294	-1.525	8.092	10.789
129	M84	-1.525	-1.406	10.789	13.486
130	M85	-1.463	-.444	0	1.4
131	M85	-.444	-.423	1.4	2.8
132	M85	-.423	-1.138	2.8	4.2
133	M85	-1.138	-1.505	4.2	5.6
134	M85	-1.505	-1.784	5.6	7
135	M53	-.934	-.59	0	1.707
136	M53	-.59	-.247	1.707	3.414
137	M54A	-1.119	-.676	0	1.137
138	M54A	-.676	-.39	1.137	2.273
139	M54A	-.39	-.263	2.273	3.41
140	M55	-.034	-1.035	0	.854
141	M55	-1.035	-.936	.854	1.707
142	M55	-.936	-.592	1.707	2.561
143	M55	-.592	-1.106	2.561	3.414
144	M73	-.432	-.327	0	6.995
145	M73	-.327	-.484	6.995	13.989
146	M73	-.484	-.582	13.989	20.984
147	M73	-.582	-.323	20.984	27.979
148	M73	-.323	-.027	27.979	34.973
149	M76	-.248	-.435	0	5.726
150	M76	-.435	-.37	5.726	11.452
151	M76	-.37	-.331	11.452	17.178
152	M76	-.331	-.507	17.178	22.904
153	M76	-.507	-.621	22.904	28.63
154	M79	-.183	-.572	0	2.42
155	M79	-.572	-.562	2.42	4.84
156	M79	-.562	-.152	4.84	7.261
157	M80	-.347	-1.571	0	3.981
158	M80	-1.571	-2.027	3.981	7.963
159	M80	-2.027	-1.603	7.963	11.944
160	M80	-1.603	-1.329	11.944	15.926
161	M80	-1.329	-1.314	15.926	19.907
162	M81	-1	-1.191	0	2.697
163	M81	-1.191	-1.145	2.697	5.394
164	M81	-1.145	-1.294	5.394	8.092
165	M81	-1.294	-1.525	8.092	10.789
166	M81	-1.525	-1.406	10.789	13.486
167	M82	-1.463	-.444	0	1.4
168	M82	-.444	-.423	1.4	2.8
169	M82	-.423	-1.138	2.8	4.2
170	M82	-1.138	-1.507	4.2	5.6
171	M82	-1.507	-1.789	5.6	7
172	M50	-.154	-.154	0	2
173	M51	-.285	-.285	0	2
174	M52	-.42	-.42	0	2
175	M56	-.076	-.076	0	2
176	M57A	-.213	-.213	0	2
177	M59A	-.154	-.154	0	2
178	M60A	-.285	-.285	2.062e-13	2
179	M61A	-.42	-.42	0	2
180	M65A	-.076	-.076	0	2
181	M66A	-.213	-.213	2.784e-13	2
182	M73	-.022	-.022	0	6.751



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 881364

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
183	M74	-0.22	-0.22	0	6.751
184	S3	-0.386	-0.458	0	10.186
185	S3	-0.458	-0.51	10.186	20.373
186	S3	-0.51	-0.455	20.373	30.559
187	S3	-0.455	-0.376	30.559	40.746
188	S3	-0.376	-0.359	40.746	50.932
189	M111	-0.931	-0.59	0	1.707
190	M111	-0.59	-0.249	1.707	3.414
191	M112	-1.136	-0.683	0	1.137
192	M112	-0.683	-0.391	1.137	2.273
193	M112	-0.391	-0.26	2.273	3.41
194	M113	-0.046	-1.034	0	0.854
195	M113	-1.034	-0.934	0.854	1.707
196	M113	-0.934	-0.592	1.707	2.561
197	M113	-0.592	-1.096	2.561	3.414
198	M123	-0.433	-0.327	0	6.995
199	M123	-0.327	-0.482	6.995	13.989
200	M123	-0.482	-0.583	13.989	20.984
201	M123	-0.583	-0.324	20.984	27.979
202	M123	-0.324	-0.025	27.979	34.973
203	M124	-0.248	-0.435	0	5.726
204	M124	-0.435	-0.37	5.726	11.452
205	M124	-0.37	-0.332	11.452	17.178
206	M124	-0.332	-0.509	17.178	22.904
207	M124	-0.509	-0.623	22.904	28.63
208	S1	-0.036	-0.396	0	13.582
209	S1	-0.396	-0.543	13.582	27.164
210	S1	-0.543	-0.357	27.164	40.746
211	M127	-0.181	-0.569	0	2.42
212	M127	-0.569	-0.559	2.42	4.84
213	M127	-0.559	-0.153	4.84	7.261
214	M132	-0.347	-1.572	0	3.981
215	M132	-1.572	-2.027	3.981	7.963
216	M132	-2.027	-1.605	7.963	11.944
217	M132	-1.605	-1.33	11.944	15.926
218	M132	-1.33	-1.308	15.926	19.907
219	M133	-1.001	-1.191	0	2.697
220	M133	-1.191	-1.143	2.697	5.394
221	M133	-1.143	-1.291	5.394	8.092
222	M133	-1.291	-1.523	8.092	10.789
223	M133	-1.523	-1.406	10.789	13.486
224	M134	-1.459	-0.444	0	1.4
225	M134	-0.444	-0.422	1.4	2.8
226	M134	-0.422	-1.14	2.8	4.2
227	M134	-1.14	-1.507	4.2	5.6
228	M134	-1.507	-1.775	5.6	7
229	M102	-0.928	-0.587	0	1.707
230	M102	-0.587	-0.246	1.707	3.414
231	M103	-1.118	-0.676	0	1.137
232	M103	-0.676	-0.39	1.137	2.273
233	M103	-0.39	-0.263	2.273	3.41
234	M104	-0.035	-1.038	0	0.854
235	M104	-1.038	-0.938	0.854	1.707
236	M104	-0.938	-0.591	1.707	2.561
237	M104	-0.591	-1.101	2.561	3.414
238	M122	-0.432	-0.327	0	6.995
239	M122	-0.327	-0.485	6.995	13.989



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
240	M122	Y	-485	-584	13.989	20.984
241	M122	Y	-584	-323	20.984	27.979
242	M122	Y	-323	-027	27.979	34.973
243	M125	Y	-248	-435	0	5.726
244	M125	Y	-435	-37	5.726	11.452
245	M125	Y	-37	-331	11.452	17.178
246	M125	Y	-331	-507	17.178	22.904
247	M125	Y	-507	-621	22.904	28.63
248	M128	Y	-184	-572	0	2.42
249	M128	Y	-572	-561	2.42	4.84
250	M128	Y	-561	-152	4.84	7.261
251	M129	Y	-347	-1.571	0	3.981
252	M129	Y	-1.571	-2.027	3.981	7.963
253	M129	Y	-2.027	-1.603	7.963	11.944
254	M129	Y	-1.603	-1.328	11.944	15.926
255	M129	Y	-1.328	-1.314	15.926	19.907
256	M130	Y	-1	-1.191	0	2.697
257	M130	Y	-1.191	-1.145	2.697	5.394
258	M130	Y	-1.145	-1.294	5.394	8.092
259	M130	Y	-1.294	-1.525	8.092	10.789
260	M130	Y	-1.525	-1.406	10.789	13.486
261	M131	Y	-1.463	-444	0	1.4
262	M131	Y	-444	-423	1.4	2.8
263	M131	Y	-423	-1.137	2.8	4.2
264	M131	Y	-1.137	-1.504	4.2	5.6
265	M131	Y	-1.504	-1.785	5.6	7
266	M99	Y	-154	-154	0	2
267	M100	Y	-285	-285	1.382e-10	2
268	M101	Y	-42	-42	0	2
269	M105	Y	-076	-076	0	2
270	M106	Y	-213	-213	0	2
271	M108	Y	-154	-154	0	2
272	M109	Y	-285	-285	0	2
273	M110	Y	-42	-42	1.546e-10	2
274	M114	Y	-076	-076	0	2
275	M115	Y	-213	-213	6.071e-10	2
276	M122	Y	-022	-022	0	6.751
277	M123	Y	-022	-022	0	6.751
278	S1	Y	-386	-458	0	10.186
279	S1	Y	-458	-51	10.186	20.373
280	S1	Y	-51	-455	20.373	30.559
281	S1	Y	-455	-376	30.559	40.746
282	S1	Y	-376	-359	40.746	50.932

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
1	M31	Y	-4.245	-19.169	0	3.981
2	M31	Y	-19.169	-24.699	3.981	7.963
3	M31	Y	-24.699	-19.552	7.963	11.944
4	M31	Y	-19.552	-16.222	11.944	15.926
5	M31	Y	-16.222	-15.991	15.926	19.907
6	M33	Y	-12.206	-14.514	0	2.697
7	M33	Y	-14.514	-13.934	2.697	5.394
8	M33	Y	-13.934	-15.742	5.394	8.092
9	M33	Y	-15.742	-18.566	8.092	10.789
10	M33	Y	-18.566	-17.132	10.789	13.486



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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
11	M34A	-17.784	-5.404	0	1.4
12	M34A	-5.404	-5.138	1.4	2.8
13	M34A	-5.138	-13.884	2.8	4.2
14	M34A	-13.884	-18.374	4.2	5.6
15	M34A	-18.374	-21.705	5.6	7
16	M45A	-5.283	-3.98	0	6.995
17	M45A	-3.98	-5.865	6.995	13.989
18	M45A	-5.865	-7.087	13.989	20.984
19	M45A	-7.087	-3.95	20.984	27.979
20	M45A	-3.95	-.304	27.979	34.973
21	S2	-.434	-4.834	0	13.582
22	S2	-4.834	-6.629	13.582	27.164
23	S2	-6.629	-4.348	27.164	40.746
24	M74C	-2.205	-6.933	0	2.42
25	M74C	-6.933	-6.818	2.42	4.84
26	M74C	-6.818	-1.86	4.84	7.261
27	M75B	-3.021	-5.304	0	5.726
28	M75B	-5.304	-4.512	5.726	11.452
29	M75B	-4.512	-4.041	11.452	17.178
30	M75B	-4.041	-6.201	17.178	22.904
31	M75B	-6.201	-7.597	22.904	28.63
32	R6	-11.494	-7.246	0	1.707
33	R6	-7.246	-2.997	1.707	3.414
34	R7	-13.644	-8.275	0	1.137
35	R7	-8.275	-4.778	1.137	2.273
36	R7	-4.778	-3.156	2.273	3.41
37	R8	-.534	-12.618	0	.854
38	R8	-12.618	-11.402	.854	1.707
39	R8	-11.402	-7.214	1.707	2.561
40	R8	-7.214	-13.357	2.561	3.414
41	M60	-4.245	-19.169	0	3.981
42	M60	-19.169	-24.699	3.981	7.963
43	M60	-24.699	-19.552	7.963	11.944
44	M60	-19.552	-16.222	11.944	15.926
45	M60	-16.222	-15.991	15.926	19.907
46	M61	-12.206	-14.514	0	2.697
47	M61	-14.514	-13.934	2.697	5.394
48	M61	-13.934	-15.742	5.394	8.092
49	M61	-15.742	-18.566	8.092	10.789
50	M61	-18.566	-17.132	10.789	13.486
51	M62	-17.781	-5.402	0	1.4
52	M62	-5.402	-5.135	1.4	2.8
53	M62	-5.135	-13.863	2.8	4.2
54	M62	-13.863	-18.358	4.2	5.6
55	M62	-18.358	-21.741	5.6	7
56	M63	-11.383	-7.182	0	1.707
57	M63	-7.182	-2.981	1.707	3.414
58	M64	-13.567	-8.267	0	1.137
59	M64	-8.267	-4.786	1.137	2.273
60	M64	-4.786	-3.123	2.273	3.41
61	M65	-.555	-12.609	0	.854
62	M65	-12.609	-11.388	.854	1.707
63	M65	-11.388	-7.212	1.707	2.561
64	M65	-7.212	-13.356	2.561	3.414
65	M66	-2.23	-6.94	0	2.42
66	M66	-6.94	-6.817	2.42	4.84
67	M66	-6.817	-1.859	4.84	7.261



Company : Infinigy Engineering
 Designer : FA
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Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
68	M68	Y	-5.283	-3.98	0	6.995
69	M68	Y	-3.98	-5.882	6.995	13.989
70	M68	Y	-5.882	-7.104	13.989	20.984
71	M68	Y	-7.104	-3.951	20.984	27.979
72	M68	Y	-3.951	-.308	27.979	34.973
73	M74B	Y	-3.021	-5.304	0	5.726
74	M74B	Y	-5.304	-4.512	5.726	11.452
75	M74B	Y	-4.512	-4.043	11.452	17.178
76	M74B	Y	-4.043	-6.203	17.178	22.904
77	M74B	Y	-6.203	-7.596	22.904	28.63
78	M45A	Y	-.274	-.274	0	6.751
79	S2	Y	-4.704	-5.583	0	10.186
80	S2	Y	-5.583	-6.215	10.186	20.373
81	S2	Y	-6.215	-5.55	20.373	30.559
82	S2	Y	-5.55	-4.58	30.559	40.746
83	S2	Y	-4.58	-4.357	40.746	50.932
84	M57	Y	-1.881	-1.881	0	2
85	M58	Y	-3.48	-3.48	1.903e-12	2
86	M59	Y	-5.118	-5.118	0	2.001
87	M67	Y	-.926	-.926	0	2
88	M68	Y	-.274	-.274	0	6.751
89	M70	Y	-2.595	-2.595	0	2
90	R3	Y	-1.881	-1.881	0	2
91	R4	Y	-3.48	-3.48	1.744e-13	2
92	R5	Y	-5.265	-5.265	6.114e-5	1.945
93	R9	Y	-.926	-.926	0	2
94	R10	Y	-2.595	-2.595	0	2
95	M62A	Y	-11.346	-7.162	0	1.707
96	M62A	Y	-7.162	-2.979	1.707	3.414
97	M63A	Y	-13.883	-8.32	0	1.137
98	M63A	Y	-8.32	-4.759	1.137	2.273
99	M63A	Y	-4.759	-3.202	2.273	3.41
100	M64A	Y	-.405	-12.68	0	.854
101	M64A	Y	-12.68	-11.476	.854	1.707
102	M64A	Y	-11.476	-7.204	1.707	2.561
103	M64A	Y	-7.204	-13.344	2.561	3.414
104	M74	Y	-5.267	-3.981	0	6.995
105	M74	Y	-3.981	-5.91	6.995	13.989
106	M74	Y	-5.91	-7.114	13.989	20.984
107	M74	Y	-7.114	-3.943	20.984	27.979
108	M74	Y	-3.943	-.34	27.979	34.973
109	M75	Y	-3.022	-5.305	0	5.726
110	M75	Y	-5.305	-4.513	5.726	11.452
111	M75	Y	-4.513	-4.033	11.452	17.178
112	M75	Y	-4.033	-6.18	17.178	22.904
113	M75	Y	-6.18	-7.567	22.904	28.63
114	S3	Y	-.432	-4.819	0	13.582
115	S3	Y	-4.819	-6.615	13.582	27.164
116	S3	Y	-6.615	-4.366	27.164	40.746
117	M78	Y	-2.235	-6.97	0	2.42
118	M78	Y	-6.97	-6.844	2.42	4.84
119	M78	Y	-6.844	-1.858	4.84	7.261
120	M83	Y	-4.235	-19.152	0	3.981
121	M83	Y	-19.152	-24.706	3.981	7.963
122	M83	Y	-24.706	-19.543	7.963	11.944
123	M83	Y	-19.543	-16.158	11.944	15.926
124	M83	Y	-16.158	-15.905	15.926	19.907



Company : Infinigy Engineering
 Designer : FA
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Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]	
125	M84	Y	-12.19	-14.523	0	2.697
126	M84	Y	-14.523	-13.959	2.697	5.394
127	M84	Y	-13.959	-15.767	5.394	8.092
128	M84	Y	-15.767	-18.584	8.092	10.789
129	M84	Y	-18.584	-17.137	10.789	13.486
130	M85	Y	-17.835	-5.418	0	1.4
131	M85	Y	-5.418	-5.153	1.4	2.8
132	M85	Y	-5.153	-13.872	2.8	4.2
133	M85	Y	-13.872	-18.347	4.2	5.6
134	M85	Y	-18.347	-21.742	5.6	7
135	M53	Y	-11.383	-7.197	0	1.707
136	M53	Y	-7.197	-3.011	1.707	3.414
137	M54A	Y	-13.643	-8.236	0	1.137
138	M54A	Y	-8.236	-4.756	1.137	2.273
139	M54A	Y	-4.756	-3.204	2.273	3.41
140	M55	Y	-.42	-12.618	0	.854
141	M55	Y	-12.618	-11.405	.854	1.707
142	M55	Y	-11.405	-7.222	1.707	2.561
143	M55	Y	-7.222	-13.48	2.561	3.414
144	M73	Y	-5.268	-3.981	0	6.995
145	M73	Y	-3.981	-5.896	6.995	13.989
146	M73	Y	-5.896	-7.1	13.989	20.984
147	M73	Y	-7.1	-3.939	20.984	27.979
148	M73	Y	-3.939	-.327	27.979	34.973
149	M76	Y	-3.023	-5.305	0	5.726
150	M76	Y	-5.305	-4.513	5.726	11.452
151	M76	Y	-4.513	-4.036	11.452	17.178
152	M76	Y	-4.036	-6.183	17.178	22.904
153	M76	Y	-6.183	-7.565	22.904	28.63
154	M79	Y	-2.226	-6.967	0	2.42
155	M79	Y	-6.967	-6.845	2.42	4.84
156	M79	Y	-6.845	-1.858	4.84	7.261
157	M80	Y	-4.231	-19.148	0	3.981
158	M80	Y	-19.148	-24.702	3.981	7.963
159	M80	Y	-24.702	-19.539	7.963	11.944
160	M80	Y	-19.539	-16.194	11.944	15.926
161	M80	Y	-16.194	-16.019	15.926	19.907
162	M81	Y	-12.19	-14.523	0	2.697
163	M81	Y	-14.523	-13.959	2.697	5.394
164	M81	Y	-13.959	-15.767	5.394	8.092
165	M81	Y	-15.767	-18.584	8.092	10.789
166	M81	Y	-18.584	-17.137	10.789	13.486
167	M82	Y	-17.833	-5.416	0	1.4
168	M82	Y	-5.416	-5.151	1.4	2.8
169	M82	Y	-5.151	-13.876	2.8	4.2
170	M82	Y	-13.876	-18.373	4.2	5.6
171	M82	Y	-18.373	-21.806	5.6	7
172	M50	Y	-1.881	-1.881	0	2
173	M51	Y	-3.476	-3.476	0	2
174	M52	Y	-5.122	-5.122	0	2
175	M56	Y	-.926	-.926	0	2
176	M57A	Y	-2.602	-2.602	0	2
177	M59A	Y	-1.881	-1.881	0	2
178	M60A	Y	-3.476	-3.476	2.062e-13	2
179	M61A	Y	-5.122	-5.122	0	2
180	M65A	Y	-.926	-.926	0	2
181	M66A	Y	-2.602	-2.602	2.784e-13	2



Company : Infinigy Engineering
 Designer : FA
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Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads) (Continued)

Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
182	M73	Y	- .274	- .274	0 6.751
183	M74	Y	- .274	- .274	0 6.751
184	S3	Y	-4.703	-5.582	0 10.186
185	S3	Y	-5.582	-6.211	10.186 20.373
186	S3	Y	-6.211	-5.541	20.373 30.559
187	S3	Y	-5.541	-4.582	30.559 40.746
188	S3	Y	-4.582	-4.38	40.746 50.932
189	M111	Y	-11.348	-7.191	0 1.707
190	M111	Y	-7.191	-3.035	1.707 3.414
191	M112	Y	-13.849	-8.32	0 1.137
192	M112	Y	-8.32	-4.761	1.137 2.273
193	M112	Y	-4.761	-3.174	2.273 3.41
194	M113	Y	- .555	-12.609	0 .854
195	M113	Y	-12.609	-11.388	.854 1.707
196	M113	Y	-11.388	-7.212	1.707 2.561
197	M113	Y	-7.212	-13.356	2.561 3.414
198	M123	Y	-5.283	-3.98	0 6.995
199	M123	Y	-3.98	-5.88	6.995 13.989
200	M123	Y	-5.88	-7.103	13.989 20.984
201	M123	Y	-7.103	-3.95	20.984 27.979
202	M123	Y	-3.95	- .3	27.979 34.973
203	M124	Y	-3.021	-5.304	0 5.726
204	M124	Y	-5.304	-4.512	5.726 11.452
205	M124	Y	-4.512	-4.043	11.452 17.178
206	M124	Y	-4.043	-6.203	17.178 22.904
207	M124	Y	-6.203	-7.596	22.904 28.63
208	S1	Y	- .433	-4.826	0 13.582
209	S1	Y	-4.826	-6.621	13.582 27.164
210	S1	Y	-6.621	-4.358	27.164 40.746
211	M127	Y	-2.207	-6.934	0 2.42
212	M127	Y	-6.934	-6.818	2.42 4.84
213	M127	Y	-6.818	-1.86	4.84 7.261
214	M132	Y	-4.234	-19.163	0 3.981
215	M132	Y	-19.163	-24.704	3.981 7.963
216	M132	Y	-24.704	-19.563	7.963 11.944
217	M132	Y	-19.563	-16.209	11.944 15.926
218	M132	Y	-16.209	-15.938	15.926 19.907
219	M133	Y	-12.206	-14.514	0 2.697
220	M133	Y	-14.514	-13.934	2.697 5.394
221	M133	Y	-13.934	-15.742	5.394 8.092
222	M133	Y	-15.742	-18.566	8.092 10.789
223	M133	Y	-18.566	-17.132	10.789 13.486
224	M134	Y	-17.783	-5.406	0 1.4
225	M134	Y	-5.406	-5.14	1.4 2.8
226	M134	Y	-5.14	-13.901	2.8 4.2
227	M134	Y	-13.901	-18.371	4.2 5.6
228	M134	Y	-18.371	-21.636	5.6 7
229	M102	Y	-11.31	-7.155	0 1.707
230	M102	Y	-7.155	-3.001	1.707 3.414
231	M103	Y	-13.628	-8.234	0 1.137
232	M103	Y	-8.234	-4.758	1.137 2.273
233	M103	Y	-4.758	-3.201	2.273 3.41
234	M104	Y	- .432	-12.65	0 .854
235	M104	Y	-12.65	-11.43	.854 1.707
236	M104	Y	-11.43	-7.208	1.707 2.561
237	M104	Y	-7.208	-13.421	2.561 3.414
238	M122	Y	-5.268	-3.981	0 6.995



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
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Member Distributed Loads (BLC 47 : BLC 16 Transient Area Loads) (Continued)

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[in, %]	End Location[in, %]
239	M122	Y	-3.981	-5.915	6.995 13.989
240	M122	Y	-5.915	-7.119	13.989 20.984
241	M122	Y	-7.119	-3.939	20.984 27.979
242	M122	Y	-3.939	-.324	27.979 34.973
243	M125	Y	-3.022	-5.305	0 5.726
244	M125	Y	-5.305	-4.513	5.726 11.452
245	M125	Y	-4.513	-4.035	11.452 17.178
246	M125	Y	-4.035	-6.181	17.178 22.904
247	M125	Y	-6.181	-7.566	22.904 28.63
248	M128	Y	-2.244	-6.972	0 2.42
249	M128	Y	-6.972	-6.843	2.42 4.84
250	M128	Y	-6.843	-1.857	4.84 7.261
251	M129	Y	-4.231	-19.148	0 3.981
252	M129	Y	-19.148	-24.702	3.981 7.963
253	M129	Y	-24.702	-19.539	7.963 11.944
254	M129	Y	-19.539	-16.192	11.944 15.926
255	M129	Y	-16.192	-16.015	15.926 19.907
256	M130	Y	-12.19	-14.523	0 2.697
257	M130	Y	-14.523	-13.959	2.697 5.394
258	M130	Y	-13.959	-15.767	5.394 8.092
259	M130	Y	-15.767	-18.584	8.092 10.789
260	M130	Y	-18.584	-17.137	10.789 13.486
261	M131	Y	-17.833	-5.416	0 1.4
262	M131	Y	-5.416	-5.151	1.4 2.8
263	M131	Y	-5.151	-13.854	2.8 4.2
264	M131	Y	-13.854	-18.33	4.2 5.6
265	M131	Y	-18.33	-21.764	5.6 7
266	M99	Y	-1.881	-1.881	0 2
267	M100	Y	-3.476	-3.476	1.382e-10 2
268	M101	Y	-5.122	-5.122	0 2
269	M105	Y	-.926	-.926	0 2
270	M106	Y	-2.602	-2.602	0 2
271	M108	Y	-1.881	-1.881	0 2
272	M109	Y	-3.476	-3.476	0 2
273	M110	Y	-5.122	-5.122	1.546e-10 2
274	M114	Y	-.926	-.926	0 2
275	M115	Y	-2.602	-2.602	6.071e-10 2
276	M122	Y	-.274	-.274	0 6.751
277	M123	Y	-.274	-.274	0 6.751
278	S1	Y	-4.703	-5.582	0 10.186
279	S1	Y	-5.582	-6.211	10.186 20.373
280	S1	Y	-6.211	-5.541	20.373 30.559
281	S1	Y	-5.541	-4.582	30.559 40.746
282	S1	Y	-4.582	-4.38	40.746 50.932

Load Combinations

Description	S...	P...	SRSS	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	
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	.866	15	.5										
4	1.2DL + 1WL AZI 60	Yes	Y		1	1.2	4	1	14	.5	15	.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	-.5	15	.866										
7	1.2DL + 1WL AZI 150	Yes	Y		1	1.2	7	1	14	-.8...	15	.5										
8	1.2DL + 1WL AZI 180	Yes	Y		1	1.2	8	1	14	-1	15											



Load Combinations (Continued)

	Description	S...	P...	SRSS	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	
66	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	5	.23	14			15	.23	33	1.5								
67	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	6	.23	14	-1...		15	.2	33	1.5								
68	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	7	.23	14	-.2		15	.115	33	1.5								
69	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	8	.23	14	-.23		15		33	1.5								
70	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	9	.23	14	-.2		15	-1...	33	1.5								
71	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	10	.23	14	-1...		15	-.2	33	1.5								
72	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	11	.23	14			15	-.23	33	1.5								
73	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	12	.23	14	.115		15	-.2	33	1.5								
74	1.0DL + 1.5LL + 1.0SWL...	Yes	Y		1	1	13	.23	14	.2		15	-1...	33	1.5								
75	1.2DL + 1.5LL	Yes	Y		1	1.2	33	1.5															
76	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	2	.058	14	.058	15										
77	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	3	.058	14	.05	15	.029									
78	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	4	.058	14	.029	15	.05									
79	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	5	.058	14		15	.058									
80	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	6	.058	14	-0...	15	.05									
81	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	7	.058	14	-0.05	15	.029									
82	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	8	.058	14	-0...	15										
83	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	9	.058	14	-0.05	15	-0...									
84	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	10	.058	14	-0...	15	-.05									
85	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	11	.058	14		15	-0...									
86	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	12	.058	14	.029	15	-.05									
87	1.2DL + 1.5LM-MP1 + 1...	Yes	Y		1	1.2	34	1.5	13	.058	14	.05	15	-0...									
88	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	2	.058	14	.058	15										
89	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	3	.058	14	.05	15	.029									
90	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	4	.058	14	.029	15	.05									
91	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	5	.058	14		15	.058									
92	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	6	.058	14	-0...	15	.05									
93	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	7	.058	14	-0.05	15	.029									
94	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	8	.058	14	-0...	15										
95	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	9	.058	14	-0.05	15	-0...									
96	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	10	.058	14	-0...	15	-.05									
97	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	11	.058	14		15	-0...									
98	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	12	.058	14	.029	15	-.05									
99	1.2DL + 1.5LM-MP2 + 1...	Yes	Y		1	1.2	35	1.5	13	.058	14	.05	15	-0...									
100	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	2	.058	14	.058	15										
101	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	3	.058	14	.05	15	.029									
102	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	4	.058	14	.029	15	.05									
103	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	5	.058	14		15	.058									
104	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	6	.058	14	-0...	15	.05									
105	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	7	.058	14	-0.05	15	.029									
106	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	8	.058	14	-0...	15										
107	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	9	.058	14	-0.05	15	-0...									
108	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	10	.058	14	-0...	15	-.05									
109	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	11	.058	14		15	-0...									
110	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	12	.058	14	.029	15	-.05									
111	1.2DL + 1.5LM-MP3 + 1...	Yes	Y		1	1.2	36	1.5	13	.058	14	.05	15	-0...									
112	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	2	.058	14	.058	15										
113	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	3	.058	14	.05	15	.029									
114	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	4	.058	14	.029	15	.05									
115	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	5	.058	14		15	.058									
116	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	6	.058	14	-0...	15	.05									
117	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	7	.058	14	-0.05	15	.029									
118	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	8	.058	14	-0...	15										
119	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	9	.058	14	-0.05	15	-0...									
120	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	10	.058	14	-0...	15	-.05									
121	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	11	.058	14		15	-0...									
122	1.2DL + 1.5LM-MP4 + 1...	Yes	Y		1	1.2	37	1.5	12	.058	14	.029	15	-.05									



Company : Infinigy Engineering
 Designer : FA
 Job Number : 1039-Z0001-B
 Model Name : 881364

Sept 2, 2021
 3:39 PM
 Checked By: _____

Envelope Joint Reactions (Continued)

Joint	X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-ft]	LC	MY [lb-ft]	LC	MZ [lb-ft]	LC
14	min	-7692.333	23	2953.195	54	-7776.209	8					

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

Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc.....	LC	phi*Pn...	phi*Pn...	phi*M...	phi*M...	Eqn
1	M248	3/8" x 1"	.744	11	31	.053	11 y	9	9657.2...	12150	94.921	253.125 2...H1-1a
2	M247	3/8" x 1"	.738	11.484	31	.092	11....	y 9	9459.8...	12150	94.921	253.125 2...H1-1a
3	MP6	PIPE_2.0	.703	68.211	8	.138	68....		14916...	32130	1871.6...	1871.6...2...H1-1b
4	M319	3/8" x 1"	.701	11	35	.040	11 y	13	9657.2...	12150	94.921	253.125 2...H1-1a
5	M318	3/8" x 1"	.696	11.484	35	.064	11....	y 13	9459.8...	12150	94.921	253.125 2...H1-1a
6	M316A	3/8" x 1"	.688	11	27	.046	11 y	5	9657.2...	12150	94.921	253.125 2...H1-1a
7	M315A	3/8" x 1"	.682	11.484	27	.077	11....	y 5	9459.8...	12150	94.921	253.125 2...H1-1a
8	M251	3/8" x 1"	.672	0	31	.036	0 y	5	7689.5...	12150	94.921	253.125 2...H1-1a
9	M253	3/8" x 1"	.671	15.171	31	.033	15....	y 9	7850.0...	12150	94.921	253.125 2...H1-1a
10	MP2	PIPE_2.0	.670	68.211	12	.141	68....		14916...	32130	1871.6...	1871.6...3...H1-1b
11	MP3	PIPE_2.0	.656	27.789	5	.124	27....		14916...	32130	1871.6...	1871.6...4...H1-1b
12	MP10	PIPE_2.0	.649	68.211	4	.127	68....		14916...	32130	1871.6...	1871.6...2...H1-1b
13	MP7	PIPE_2.0	.646	68.211	2	.145	68....		14916...	32130	1871.6...	1871.6...4...H1-1b
14	M246	3/8" x 4"	.644	11	31	.050	11 y	21	38628...	48600	379.688	4050 1...H1-1a
15	M322	3/8" x 1"	.641	0	35	.046	0 y	9	7689.5...	12150	94.921	253.125 2...H1-1a
16	M324A	3/8" x 1"	.638	15.171	35	.022	15....	y 13	7850.0...	12150	94.921	253.125 2...H1-1a
17	MP11	PIPE_2.0	.637	27.789	9	.119	27....		14916...	32130	1871.6...	1871.6...4...H1-1b
18	M319A	3/8" x 1"	.628	15.526	27	.046	0 y	3	7689.5...	12150	94.921	253.125 2...H1-1a
19	M321A	3/8" x 1"	.625	15.171	27	.027	15....	y 5	7850.0...	12150	94.921	253.125 2...H1-1a
20	M317	3/8" x 4"	.609	11	35	.036	11 y	25	38628...	48600	379.688	4050 1...H1-1a
21	M314A	3/8" x 4"	.607	11	27	.042	11 y	17	38628...	48600	379.688	4050 1...H1-1a
22	M256	1/2" x 4"	.597	11	9	.109	11 y	3	56947...	64800	675	5400 1...H1-1b
23	M245	3/8" x 4"	.578	11.5	31	.088	11.5 y	3	37811...	48600	379.688	3976.2...1...H1-1a
24	M316	3/8" x 4"	.546	11.5	35	.058	11.5 y	7	37811...	48600	379.688	4050 1...H1-1a
25	M313A	3/8" x 4"	.540	11.5	27	.072	11.5 y	11	37811...	48600	379.688	4050 1...H1-1a
26	M324	1/2" x 4"	.518	11	5	.096	11 y	5	56947...	64800	675	5400 1...H1-1b
27	M75B	L3X3X6	.497	0	33	.152	19....	z 32	68029...	68364	2307.3...	5322.3...1...H2-1
28	M327A	1/2" x 4"	.493	11	12	.100	11 y	7	56947...	64800	675	5400 1...H1-1b
29	M252	3/8" x 1"	.491	10.449	31	.064	10....	y 9	9876.3...	12150	94.921	253.125 1...H1-1a
30	M217	1/2" x 4"	.483	1.228	4	.113	7.776 y	3	60749...	64800	675	5400 1...H1-1b
31	M125	L3X3X6	.479	0	37	.154	28.63 z	9	68029...	68364	2307.3...	5322.3...1...H2-1
32	M288A	1/2" x 4"	.474	1.228	8	.102	7.776 y	7	60749...	64800	675	5400 1...H1-1b
33	M74B	L3X3X6	.469	0	29	.145	28.63 y	7	68029...	68364	2307.3...	5322.3...1...H2-1
34	M323A	3/8" x 1"	.466	10.449	35	.054	10....	y 13	9876.3...	12150	94.921	253.125 1...H1-1a
35	M76	L3X3X6	.466	0	29	.149	28.63 z	13	68029...	68364	2307.3...	5322.3...1...H2-1
36	M320A	3/8" x 1"	.458	10.449	27	.055	10....	y 5	9876.3...	12150	94.921	253.125 1...H1-1a
37	M124	L3X3X6	.456	0	33	.143	28.63 y	11	68029...	68364	2307.3...	5322.3...1...H2-1
38	M284	1/2" x 4"	.454	1.228	4	.098	7.776 y	5	60749...	64800	675	5400 1...H1-1b
39	M75	L3X3X6	.453	25.616	4	.146	28.63 y	3	68183...	68364	2307.3...	5322.3...1...H2-1
40	M371	PIPE_2.0	.443	51.316	2	.257	3.947		6295.41	32130	1871.6...	1871.6...3...H1-1b
41	M239	3/8" x 5/8"	.437	3.452	31	.023	3.452 y	30	7423.9...	7593.75	59.327	98.877 2...H1-1a
42	M361	PIPE_2.0	.431	47.368	8	.246	3.947		6295.41	32130	1871.6...	1871.6...2...H3-6
43	M62	3/8" x 2 3...	.423	0	31	.053	0 y	33	26950...	28856...	225.439	1427.7...1...H1-1b
44	M34A	3/8" x 2 3...	.421	0	31	.083	0 y	33	26950...	28856...	225.439	1427.7...1...H1-1b
45	M33	3/8" x 2 3...	.416	0	32	.051	0 y	30	26950...	28856...	225.439	1427.7...1...H1-1b
46	M227	3/8" x 1"	.416	8.771	31	.068	8.771 y	4	10499...	12150	94.921	253.125 2...H1-1a
47	M310	3/8" x 5/8"	.411	3.452	35	.024	3.452 y	34	7423.9...	7593.75	59.327	98.877 2...H1-1a
48	M264	3/8" x 1"	.409	0	31	.159	2.635 y	31	10381...	12150	94.921	253.125 2...H1-1b
49	MP4	PIPE_2.0	.406	68.211	30	.187	68....		14916...	32130	1871.6...	1871.6...2...H1-1b
50	MP8	PIPE_2.0	.404	27.789	2	.186	68....		14916...	32130	1871.6...	1871.6...4...H1-1b
51	M366	PIPE_2.0	.404	51.316	10	.240	3.947		6295.41	32130	1871.6...	1871.6...3...H1-1b



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

Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc.....	LC	phi*Pn...	phi*Pn...	phi*M...	phi*M...	Eqn			
52	M131	3/8" x 2 3/4"	.402	0	34	.079	0	y	37	26950...	28856...	225.439	1427.7...	1...	H1-1b
53	M306	3/8" x 5/8"	.401	3.452	27	.022	3.452	y	3	7423.9...	7593.75	59.327	98.877	2...	H1-1a
54	M130	3/8" x 2 3/4"	.401	0	36	.049	0	y	34	26950...	28856...	225.439	1427.7...	1...	H1-1b
55	M134	3/8" x 2 3/4"	.398	0	35	.053	0	y	32	26950...	28856...	225.439	1427.7...	1...	H1-1b
56	M61	3/8" x 2 3/4"	.393	0	30	.057	0	y	32	26950...	28856...	225.439	1427.7...	1...	H1-1b
57	M298A	3/8" x 1"	.392	8.771	35	.086	8.771	y	8	10499...	12150	94.921	253.125	2...	H1-1a
58	M221	3/8" x 4"	.392	8.906	30	.067	0	y	16	41807...	48600	379.688	4050	1...	H1-1a
59	M85	3/8" x 2 3/4"	.391	0	27	.052	0	y	36	26950...	28856...	225.439	1427.7...	1...	H1-1b
60	M250	3/8" x 1"	.391	11	32	.042	11	y	4	9657.2...	12150	94.921	253.125	2...	H1-1b
61	M81	3/8" x 2 3/4"	.389	0	28	.047	0	y	38	26950...	28856...	225.439	1427.7...	1...	H1-1b
62	M82	3/8" x 2 3/4"	.387	0	27	.077	0	y	29	26950...	28856...	225.439	1427.7...	1...	H1-1b
63	M294	3/8" x 1"	.386	8.771	27	.075	8.771	y	3	10499...	12150	94.921	253.125	2...	H1-1a
64	M226	3/8" x 1"	.381	7.998	31	.048	7.998	y	4	10760...	12150	94.921	253.125	2...	H1-1a
65	M31	3/8" x 2 3/4"	.380	0	31	.049	0	y	32	26950...	28856...	225.439	1427.7...	1...	H1-1b
66	M335A	3/8" x 1"	.380	0	35	.149	2.635	y	34	10381...	12150	94.921	253.125	2...	H1-1b
67	M133	3/8" x 2 3/4"	.380	0	34	.054	0	y	36	26950...	28856...	225.439	1427.7...	1...	H1-1b
68	M225	3/8" x 1"	.374	12.543	31	.029	5.611	y	30	9013.8...	12150	94.921	253.125	2...	H1-1a
69	M332	3/8" x 1"	.371	0	27	.146	2.635	y	27	10381...	12150	94.921	253.125	2...	H1-1b
70	M292A	3/8" x 4"	.371	8.906	35	.087	0	y	8	41807...	48600	379.688	3886.25	1...	H1-1a
71	M84	3/8" x 2 3/4"	.370	0	38	.053	0	y	28	26950...	28856...	225.439	1427.7...	1...	H1-1b
72	M60	3/8" x 2 3/4"	.369	0	31	.038	0	y	30	26950...	28856...	225.439	1427.7...	1...	H1-1b
73	MP12	PIPE_2.0	.369	68.211	34	.173	27....		12	14916...	32130	1871.6...	1871.6...	2...	H1-1b
74	M321	3/8" x 1"	.367	11	35	.043	11	y	8	9657.2...	12150	94.921	253.125	2...	H1-1b
75	M129	3/8" x 2 3/4"	.366	0	34	.047	0	y	36	26950...	28856...	225.439	1427.7...	1...	H1-1b
76	M288	3/8" x 4"	.363	8.906	27	.076	0	y	3	41807...	48600	379.688	4050	1...	H1-1a
77	M297A	3/8" x 1"	.360	7.998	35	.056	7.998	y	8	10760...	12150	94.921	253.125	2...	H1-1a
78	M318A	3/8" x 1"	.360	11	28	.039	11	y	4	9657.2...	12150	94.921	253.125	2...	H1-1b
79	M293	3/8" x 1"	.353	7.998	27	.043	7.998	y	3	10760...	12150	94.921	253.125	2...	H1-1a
80	M80	3/8" x 2 3/4"	.352	0	27	.045	0	y	28	26950...	28856...	225.439	1427.7...	1...	H1-1b
81	M132	3/8" x 2 3/4"	.352	0	35	.037	0	y	34	26950...	28856...	225.439	1427.7...	1...	H1-1b
82	M296A	3/8" x 1"	.349	12.543	35	.033	12....	y	8	9013.8...	12150	94.921	253.125	2...	H1-1a
83	M219	3/8" x 4"	.348	12.543	31	.025	5.941	y	4	36054...	48600	379.688	4050	1...	H1-1a
84	M83	3/8" x 2 3/4"	.343	0	27	.036	0	y	38	26950...	28856...	225.439	1427.7...	1...	H1-1b
85	M292	3/8" x 1"	.341	12.543	27	.032	12....	y	3	9013.8...	12150	94.921	253.125	2...	H1-1a
86	M220	3/8" x 4"	.339	7.998	30	.048	0	y	16	43042...	48600	379.688	4050	1...	H1-1a
87	M290A	3/8" x 4"	.325	12.543	35	.033	5.941	y	8	36054...	48600	379.688	4050	1...	H1-1a
88	M177	PIPE_2.5	.325	39.474	9	.348	39....		10	14558...	50715	3596.25	3596.25	1...	H3-6
89	MP1	PIPE_2.0	.322	27.789	10	.157	68....		8	14916...	32130	1871.6...	1871.6...	4...	H1-1b
90	M68	L3X3X6	.321	0	32	.237	14....	y	8	67839...	68364	2307.3...	5322.3...	2...	H2-1
91	M291A	3/8" x 4"	.320	7.998	35	.059	0	y	8	43042...	48600	379.688	4035.2...	1...	H1-1a
92	M238	3/8" x 3/4"	.318	0	31	.015	5.846	y	9	8540.0...	9112.5	71.191	142.382	1...	H1-1a
93	M286	3/8" x 4"	.316	12.543	27	.030	5.941	y	3	36054...	48600	379.688	4050	1...	H1-1a
94	M255	1/2" x 4"	.315	11.5	8	.124	11.5	y	9	56267...	64800	675	5400	1...	H1-1b
95	M182	PIPE_2.5	.315	110.526	2	.323	39....		2	14558...	50715	3596.25	3596.25	1...	H3-6
96	M287	3/8" x 4"	.309	7.998	27	.047	0	y	3	43042...	48600	379.688	4050	2...	H1-1a
97	M45A	L3X3X6	.307	10.124	34	.199	33....	y	32	67839...	68364	2307.3...	5322.3...	1...	H2-1
98	M289A	1/2" x 4"	.306	0	8	.112	8.619	y	7	59858...	64800	675	5400	1...	H1-1b
99	M376	L3X3X6	.302	0	11	.088	0	y	12	62272...	68364	2307.3...	5322.3...	2...	H2-1
100	M309	3/8" x 3/4"	.300	0	35	.016	5.846	y	14	8540.0...	9112.5	71.191	142.382	1...	H1-1a
101	M377	L3X3X6	.299	24.462	7	.092	24....	z	8	62272...	68364	2307.3...	5322.3...	2...	H2-1
102	M233	3/8" x 7/8"	.298	6.999	31	.023	0	y	3	9687.2...	10631...	83.057	193.798	2...	H1-1a
103	M218	1/2" x 4"	.297	0	4	.126	8.619	y	9	59858...	64800	675	5400	1...	H1-1b
104	M123	L3X3X6	.296	0	36	.225	14....	z	12	67839...	68364	2307.3...	5322.3...	2...	H2-1
105	MP5	PIPE_2.0	.294	68.211	6	.172	68....		9	14916...	32130	1871.6...	1871.6...	2...	H1-1b
106	M305	3/8" x 3/4"	.292	0	27	.015	0	y	9	8540.0...	9112.5	71.191	142.382	1...	H1-1a
107	M74	L3X3X6	.291	0	28	.172	14....	y	4	67839...	68364	2307.3...	5322.3...	2...	H2-1
108	M122	L3X3X6	.289	10.124	38	.187	34....	z	36	67839...	68364	2307.3...	5322.3...	1...	H2-1



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

Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc.....	LC	phi*Pn...	phi*Pn...	phi*M...	phi*M...	Eqn
109	MP9	PIPE_2.0	.289	27.789	2	.155	27....	5	14916...	32130	1871.6...	1871.6...3..H1-1b
110	M73	L3X3X6	.287	10.124	31	.182	34....	z 28	67839...	68364	2307.3...	5322.3...1..H2-1
111	M146A	PIPE_2.5	.285	39.474	5	.319	39....		14558...	50715	3596.25	3596.25 1..H3-6
112	M304A	3/8" x 7/8"	.284	6.999	35	.020	0	y 7	9687.2...	10631...	83.057	193.798 2..H1-1a
113	M300	3/8" x 7/8"	.281	6.999	27	.019	0	y 11	9687.2...	10631...	83.057	193.798 2..H1-1a
114	M236	3/8" x 3/4"	.279	7.145	31	.014	7.145	y 143	8271.0...	9112.5	71.191	142.382 1..H1-1a
115	M232	3/8" x 1"	.278	0	33	.025	0	y 10	9871.0...	12150	94.921	253.125 2..H1-1a
116	M378	L3X3X6	.271	24.462	3	.076	0	z 5	62272...	68364	2307.3...	5322.3...1..H2-1
117	M303A	3/8" x 1"	.269	0	37	.033	0	y 2	9871.0...	12150	94.921	253.125 2..H1-1a
118	M249	3/8" x 1"	.269	11.5	31	.052	11.5	y 9	9453.1...	12150	94.921	253.125 2..H1-1b
119	M285	1/2" x 4"	.268	0	12	.110	8.619	y 5	59858...	64800	675	5400 1..H1-1b
120	M267A	3/8" x 1"	.266	0	31	.058	3.975	y 31	10459...	12150	94.921	253.125 2..H1-1b
121	M307	3/8" x 3/4"	.263	7.145	35	.015	7.145	y 14	8271.0...	9112.5	71.191	142.382 2..H1-1a
122	M299	3/8" x 1"	.262	0	29	.032	0	y 9	9871.0...	12150	94.921	253.125 2..H1-1a
123	M323	1/2" x 4"	.256	11.5	5	.109	11.5	y 5	56267...	64800	675	5400 1..H1-1b
124	M303	3/8" x 3/4"	.255	7.145	27	.016	0	y 9	8271.0...	9112.5	71.191	142.382 2..H1-1a
125	M320	3/8" x 1"	.253	11.5	35	.048	11.5	y 7	9453.1...	12150	94.921	253.125 2..H1-1b
126	M326A	1/2" x 4"	.252	11.5	12	.112	11.5	y 7	56267...	64800	675	5400 2..H1-1b
127	M338	3/8" x 1"	.250	0	35	.054	3.975	y 35	10459...	12150	94.921	253.125 2..H1-1b
128	M240	3/8" x 5/8"	.248	4.766	31	.016	0	y 23	7273.3...	7593.75	59.327	98.877 1..H1-1a
129	M317A	3/8" x 1"	.247	11.5	27	.046	11.5	y 5	9453.1...	12150	94.921	253.125 2..H1-1b
130	M334	3/8" x 1"	.244	0	27	.056	3.975	y 27	10459...	12150	94.921	253.125 2..H1-1b
131	M336	1/2" x 4"	.243	1.831	16	.135	1.831	y 14	59770...	64800	675	5400 3..H1-1b
132	M332A	1/2" x 4"	.241	1.831	20	.116	1.831	y 9	59770...	64800	675	5400 3..H1-1b
133	M234	3/8" x 7/8"	.231	8.719	31	.025	0	y 143	9202.5...	10631...	83.057	193.798 2..H1-1a
134	M265A	1/2" x 4"	.226	1.831	24	.102	1.831	y 10	59770...	64800	675	5400 4..H1-1b
135	M237	3/8" x 3/4"	.225	4.437	31	.017	4.437	y 139	8778.3...	9112.5	71.191	142.382 2..H1-1b
136	M308	3/8" x 3/4"	.212	4.437	35	.018	0	y 8	8778.3...	9112.5	71.191	142.382 2..H1-1b
137	M304	3/8" x 3/4"	.208	4.437	27	.017	4.437	y 3	8778.3...	9112.5	71.191	142.382 2..H1-1b
138	S3	HSS4X3X4	.193	48.251	3	.114	16....	z 28	83040...	91665	8190	10001...2..H1-1b
139	S1	HSS4X3X4	.188	48.251	11	.115	16....	z 36	83040...	91665	8190	10001...3..H1-1b
140	S2	HSS4X3X4	.188	48.251	4	.128	16....	z 32	83040...	91665	8190	10001...3..H1-1b
141	M311	3/8" x 5/8"	.188	4.766	16	.019	0	y 15	7273.3...	7593.75	59.327	98.877 1..H1-1b*
142	M307A	3/8" x 5/8"	.183	4.766	20	.017	0	y 9	7273.3...	7593.75	59.327	98.877 1..H1-1b*
143	M268A	3/8" x 4"	.182	8.886	31	.016	4.209	y 108	41835...	48600	379.688	4004.11 1..H1-1b*
144	M231	3/8" x 1"	.175	0	37	.059	8.633	y 9	10547...	12150	94.921	253.125 2..H1-1b*
145	M302A	3/8" x 1"	.172	0	29	.051	0	y 13	10547...	12150	94.921	253.125 2..H1-1b*
146	M223	3/8" x 1"	.171	7.776	30	.042	7.776	y 3	10832...	12150	94.921	253.125 2..H1-1b
147	M298	3/8" x 1"	.168	0	33	.051	8.633	y 5	10547...	12150	94.921	253.125 2..H1-1b*
148	M339	3/8" x 4"	.166	8.886	35	.019	4.209	y 8	41835...	48600	379.688	4050 1..H1-1b*
149	M235	3/8" x 7/8"	.165	0	31	.017	5.606	y 105	10015...	10631...	83.057	193.798 2..H1-1b*
150	M294A	3/8" x 1"	.164	7.776	34	.039	7.776	y 7	10832...	12150	94.921	253.125 2..H1-1b
151	M335	3/8" x 4"	.162	8.886	27	.020	0	y 21	41835...	48600	379.688	4050 1..H1-1b*
152	M290	3/8" x 1"	.160	7.776	28	.037	7.776	y 11	10832...	12150	94.921	253.125 2..H1-1b
153	M295	3/8" x 1"	.159	0	3	.060	0	y 5	9876.2...	12150	94.921	253.125 1..H1-1b
154	M299A	3/8" x 1"	.158	0	9	.059	0	y 7	9876.2...	12150	94.921	253.125 1..H1-1b
155	M306A	3/8" x 7/8"	.156	0	35	.016	0	y 196	10015...	10631...	83.057	193.798 2..H1-1b*
156	M302	3/8" x 7/8"	.152	0	27	.017	5.606	y 149	10015...	10631...	83.057	193.798 2..H1-1b*
157	M228	3/8" x 1"	.150	0	37	.070	0	y 9	9876.2...	12150	94.921	253.125 1..H1-1b*
158	M222	3/8" x 1"	.139	5.493	31	.024	5.493	y 32	9126.8...	12150	94.921	253.125 2..H1-1b
159	M266A	3/8" x 1"	.137	8.699	31	.041	0	y 23	10524...	12150	94.921	253.125 1..H1-1b
160	M333	3/8" x 1"	.133	0	20	.045	0	y 21	10524...	12150	94.921	253.125 2..H1-1b
161	M224	3/8" x 1"	.132	0	32	.050	8.619	y 9	10552...	12150	94.921	253.125 2..H1-1b
162	M305A	3/8" x 7/8"	.132	8.719	16	.026	0	y 95	9202.5...	10631...	83.057	193.798 2..H1-1b*
163	M74C	3/8" x 3"	.132	0	8	.173	0	y 31	32932...	36450	283.5	2278.8 1..H1-1b
164	M337	3/8" x 1"	.131	0	16	.047	0	y 15	10524...	12150	94.921	253.125 2..H1-1b
165	M301	3/8" x 7/8"	.131	8.719	20	.024	0	y 191	9202.5...	10631...	83.057	193.798 2..H1-1b*



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

Member	Shape	Code Check	Loc[in]	LC	Shear Check	Loc.....	LC	phi*Pn...	phi*Pn...	phi*M...	phi*M...	Eqn			
166	M293A	3/8" x 1"	.130	5.493	35	.022	5.493	y	36	9126.8...	12150	94.921	253.125	2...	H1-1b
167	M289	3/8" x 1"	.128	5.493	27	.023	5.493	y	28	9126.8...	12150	94.921	253.125	2...	H1-1b
168	M295A	3/8" x 1"	.128	0	35	.046	8.619	y	7	10552...	12150	94.921	253.125	2...	H1-1b
169	M291	3/8" x 1"	.123	0	27	.044	8.619	y	5	10552...	12150	94.921	253.125	2...	H1-1b
170	M128	3/8" x 3"	.114	0	12	.163	0	y	35	32932...	36450	283.5	2278.8	1...	H1-1b
171	M66	3/8" x 3"	.113	0	3	.140	0	y	31	32932...	36450	283.5	2278.8	1...	H1-1b
172	M216	1/2" x 4"	.112	12.278	8	.040	5.816	y	9	55166...	64800	675	5400	1...	H1-1b
173	M230	3/8" x 1"	.108	1.6	34	.033	0	y	10	9176.7...	12150	94.921	253.125	1...	H1-1b
174	M79	3/8" x 3"	.106	0	4	.158	0	y	27	32932...	36450	283.5	2278.8	1...	H1-1b
175	M287A	1/2" x 4"	.106	12.278	12	.033	5.816	y	13	55166...	64800	675	5400	1...	H1-1b
176	M301A	3/8" x 1"	.105	1.92	38	.043	0	y	8	9176.7...	12150	94.921	253.125	1...	H1-1b
177	M297	3/8" x 1"	.103	3.2	30	.040	0	y	3	9176.7...	12150	94.921	253.125	1...	H1-1b
178	M283	1/2" x 4"	.100	12.278	4	.034	5.816	y	5	55166...	64800	675	5400	1...	H1-1b
179	M263	3/8" x 1"	.099	6.005	31	.020	6.005	y	32	10373...	12150	94.921	253.125	2...	H1-1b
180	M78	3/8" x 3"	.099	0	2	.130	0	y	27	32932...	36450	283.5	2278.8	2...	H1-1b
181	M334A	3/8" x 1"	.092	6.005	35	.019	6.005	y	34	10373...	12150	94.921	253.125	2...	H1-1b
182	M331	3/8" x 1"	.090	6.005	27	.019	6.005	y	28	10373...	12150	94.921	253.125	2...	H1-1b
183	M127	3/8" x 3"	.090	0	7	.136	0	y	9	32932...	36450	283.5	2278.8	1...	H1-1b
184	M329	3/8" x 4"	.082	0	3	.027	0	y	3	41711...	48600	379.688	4050	2...	H1-1b
185	M332B	3/8" x 4"	.082	0	9	.030	0	y	20	41711...	48600	379.688	4050	2...	H1-1b
186	M261	3/8" x 4"	.079	0	32	.024	0	y	16	41711...	48600	379.688	4050	2...	H1-1b
187	M262	1/2" x 4"	.062	0	30	.016	6.005	y	4	59284...	64800	675	5400	2...	H1-1b
188	M330	1/2" x 4"	.061	6.005	3	.022	6.005	y	3	59284...	64800	675	5400	2...	H1-1b
189	M333A	1/2" x 4"	.060	6.005	9	.022	6.005	y	8	59284...	64800	675	5400	2...	H1-1b
190	M322A	3/8" x 1"	.006	0	11	.001	0	y	21	9876.3...	12150	94.921	253.125	2...	H1-1b
191	M254	3/8" x 1"	.006	0	11	.001	0	y	25	9876.3...	12150	94.921	253.125	2...	H1-1b
192	M325A	3/8" x 1"	.005	0	8	.000	0	z	20	9876.3...	12150	94.921	252.235	1	H1-1b

Material Takeoff

	Material	Size	Pieces	Length[in]	Weight[K]
1	General				
2	RIGID		192	412.4	0
3	Total General		192	412.4	0
4					
5	Hot Rolled Steel				
6	Q235-GB	HSS4X3X4	3	152.8	.126
7	Q235-GB	PIPE 2.5	3	450	.205
8	Q235-GB	PIPE 2.0	15	1602	.463
9	Q345	1/2" x 4"	21	207	.117
10	Q345	3/8" x 1"	66	696.3	.074
11	Q345	3/8" x 2 3/8"	18	242.4	.061
12	Q345	3/8" x 3"	6	43.6	.014
13	Q345	3/8" x 3/4"	9	52.3	.004
14	Q345	3/8" x 4"	21	209.4	.089
15	Q345	3/8" x 5/8"	6	24.7	.002
16	Q345	3/8" x 7/8"	9	64	.006
17	Q345	L3X3X6	15	455	.272
18	Total HR Steel		192	4199.3	1.434

APPENDIX D
ADDITIONAL CALCUATIONS

Bolt Calculation Tool, V1.5.1

PROJECT DATA	
Site Name:	Newington
Site Number:	881364
Connection Description:	Mount to Tower

MAXIMUM BOLT LOADS		
Bolt Tension:	7137.57	lbs
Bolt Shear:	1292.31	lbs

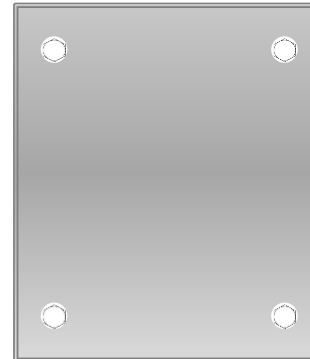
WORST CASE BOLT LOADS ¹		
Bolt Tension:	7137.57	lbs
Bolt Shear:	1284.80	lbs

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

¹ Worst case bolt loads correspond to Load combination #32 on member M381 in RISA-3D, which causes the maximum demand on the bolts.

Member Information
I nodes of M379, M380, M381, M382, M383, M384

BOLT CHECK		
Tensile Strength	20340.15	
Shear Strength	13805.83	
Max Tensile Usage	35.1%	
Max Shear Usage	9.4%	
Interaction Check (Worst Case)	0.13	≤1.05
Result	Pass	



Date: **September 13, 2021**



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

Subject: Structural Analysis Report

Carrier Designation: **AT&T Mobility Co-Locate**
Site Number: CTL01108
Site Name: NEWINGTON SOUTH
FA Number: 10042331

Crown Castle Designation: **BU Number:** 881364
Site Name: Newington
JDE Job Number: 649414
Work Order Number: 2016769
Order Number: 556505 Rev. 0

Engineering Firm Designation: **TEP Project Number:** 65292.599860

Site Data: **123 Costelo Road, Newington, Hartford County, CT 06111**
Latitude 41° 39' 18.72", Longitude -72° 43' 17.19"
145 Foot - Monopole Tower

Tower Engineering Professionals is pleased to submit this “**Structural Analysis Report**” to determine the structural integrity of the above-mentioned tower.

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

LC7: Proposed Equipment Configuration

Sufficient Capacity – 71.6%

This analysis utilizes an ultimate 3-second gust wind speed of 118 mph as required by the 2015 International Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Cameron G. Allen / RAL

Respectfully submitted by:

Aaron T. Rucker, P.E.



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09/14/2021

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1) INTRODUCTION

This tower is a 145-ft monopole tower designed by Summit. The tower has been modified per reinforcement drawings prepared by Paul J. Ford and Company in November of 2015.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	118 mph
Exposure Category:	C
Topographic Factor:	1.0
Ice Thickness:	1.5 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
105.0	105.0	3	Ericsson	AIR 6419 B77G w/ Mount Pipe	6 6 2	1-5/8 13/16 3/8
		3	CCI Antennas	DMP65R-BU6D w/ Mount Pipe		
		3	Quintel Technology	QD6616-7 w/ Mount Pipe		
		3	Ericsson	AIR 6449 B77D w/ Mount Pipe		
		2	Raycap	DC6-48-60-18-8F		
		3	Ericsson	RRUS 8843 B2/B66A		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 4478 B14		
		3	Ericsson	RRUS 32 B30		
		1	Raycap	DC6-48-60-0-8F		
		1	Tower Mounts	Site Pro 1 F3P-HRK12		
		1	Tower Mounts	Site Pro 1 F3P-12[W]		

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)
133.0	139.0	2	Andrew	VHLP2.5-11	6 2	5/16 1/2
		2	Dragonwave	HORIZON COMPACT		
	135.0	3	Argus Technologies	LLPX310R-V1 w/ Mount Pipe		
		1	Motorola	TIMING 2000		
		3	Samsung Telecom.	WIMAX DAP HEAD		
	133.0	1	Tower Mounts	Platform Mount [LP 1201-1]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
124.0	124.0	3	RFS Celwave	APXVSPP18-C-A20 w/ Mount Pipe	4	1-1/4
		3	RFS Celwave	APXVTM14-C-120 w/ Mount Pipe		
		3	Alcatel Lucent	TD-RRH8x20-25		
		3	RFS Celwave	IBC1900HG-2A		
		3	RFS Celwave	IBC1900BB-1		
		1	Tower Mounts	Platform Mount [LP 1201-1]		
122.0	122.0	3	Alcatel Lucent	PCS 1900MHz 4x45W-65MHz	-	-
		1	Tower Mounts	Pipe Mount [PM 601-3]		
	118.0	3	Alcatel Lucent	800MHz 2X50W RRH W/FILTER		
114.0	117.0	3	Samsung Telecom.	MT6407-77A w/ Mount Pipe	1 8	1/2 1-5/8
	116.0	1	Lucent	KS24019-L112A		
	115.0	3	Antel	BXA-80063/4CFx5 w/ Mount Pipe		
		6	Andrew	SBNHH-1D65B w/ Mount Pipe		
		1	RFS Celwave	DB-T1-6Z-8AB-0Z		
		3	Samsung Telecom.	RFV01U-D2A		
		3	Samsung Telecom.	RFV01U-D1A		
	114.0	1	Tower Mounts	Platform Mount [LP 1201-1_KCKR-HR-1]		
113.0	3	Samsung Telecom.	CBRS w/ Mount Pipe			
94.0	95.0	3	Ericsson	AIR -32 B2A/B66AA	13	1-5/8
		3	RFS Celwave	APXVAARR24_43-U-NA20		
		3	Ericsson	AIR 3246 B66		
		3	Ericsson	RADIO 4449 B12/B71		
	94.0	3	Ericsson	KRY 112 144/1		
		1	Tower Mounts	Platform Mount [LP 302-1]		
80.0	80.0	2	Tower Mounts	Side Arm Mount [SO 701-1]	-	-
77.0	77.0	1	Symmetricom	58532A	1	1/2
		1	Tower Mounts	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Geotechnical Report	1425352	CCISites
Tower Foundation Drawings	1425473	CCISites
Tower Manufacturer Drawings	1425417	CCISites
Previous Structural Analysis	2700302	CCISites
Tower Reinforcement Drawings	5976614	CCISites
Post-Modification Inspection	6120832	CCISites

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.
- 3) The flange bolt diameter and grade were assumed per the previous analysis by Crown Castle dated August 11, 2010 (CCI Doc ID#2700302).

This analysis may be affected if any assumptions are not valid or have been made in error. Tower Engineering Professionals should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
145 - 140	Pole	TP24.923x24x0.1875	Pole	0.2%	Pass
140 - 135	Pole	TP25.847x24.923x0.1875	Pole	1.3%	Pass
135 - 130	Pole	TP26.77x25.847x0.1875	Pole	4.3%	Pass
130 - 125	Pole	TP27.825x26.9x0.25	Pole	5.1%	Pass
125 - 120	Pole	TP28.75x27.825x0.25	Pole	8.7%	Pass
120 - 115	Pole	TP29.675x28.75x0.25	Pole	12.3%	Pass
115 - 110	Pole	TP30.599x29.675x0.25	Pole	17.9%	Pass
110 - 105	Pole	TP31.524x30.599x0.25	Pole	23.0%	Pass
105 - 100	Pole	TP32.449x31.524x0.25	Pole	30.5%	Pass
100 - 95	Pole	TP33.374x32.449x0.25	Pole	37.1%	Pass
95 - 90	Pole	TP34.299x33.374x0.25	Pole	44.9%	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
90 - 89.25	Pole	TP35.27x34.299x0.25	Pole	46.0%	Pass
89.25 - 84.25	Pole	TP34.847x33.92x0.3125	Pole	40.5%	Pass
84.25 - 79.25	Pole	TP35.773x34.847x0.3125	Pole	45.4%	Pass
79.25 - 74.25	Pole	TP36.7x35.773x0.3125	Pole	50.0%	Pass
74.25 - 69.25	Pole	TP37.627x36.7x0.3125	Pole	54.2%	Pass
69.25 - 64.25	Pole	TP38.553x37.627x0.3125	Pole	58.2%	Pass
64.25 - 59.25	Pole	TP39.48x38.553x0.3125	Pole	62.0%	Pass
59.25 - 54.25	Pole	TP40.407x39.48x0.3125	Pole	65.5%	Pass
54.25 - 50.08	Pole	TP41.179x40.407x0.3125	Pole	68.3%	Pass
50.08 - 49.83	Pole + Reinf.	TP41.225x41.179x0.4375	Reinf. 2 Tension Rupture	67.8%	Pass
49.83 - 49.5	Pole + Reinf.	TP42.26x41.225x0.4375	Reinf. 2 Tension Rupture	68.0%	Pass
49.5 - 43.25	Pole + Reinf.	TP41.693x40.662x0.5	Reinf. 2 Tension Rupture	65.2%	Pass
43.25 - 38.25	Pole + Reinf.	TP42.518x41.693x0.5	Reinf. 2 Tension Rupture	68.0%	Pass
38.25 - 33.25	Pole + Reinf.	TP43.343x42.518x0.4938	Reinf. 2 Tension Rupture	70.6%	Pass
33.25 - 31.25	Pole + Reinf.	TP43.673x43.343x0.4875	Reinf. 2 Tension Rupture	71.6%	Pass
31.25 - 31	Pole + Reinf.	TP43.715x43.673x0.5875	Reinf. 1 Compression	55.8%	Pass
31 - 26	Pole + Reinf.	TP44.54x43.715x0.5875	Reinf. 1 Compression	57.8%	Pass
26 - 21	Pole + Reinf.	TP45.365x44.54x0.575	Reinf. 1 Compression	59.7%	Pass
21 - 16	Pole + Reinf.	TP46.19x45.365x0.575	Reinf. 1 Compression	61.5%	Pass
16 - 11	Pole + Reinf.	TP47.015x46.19x0.575	Reinf. 1 Compression	63.3%	Pass
11 - 6	Pole + Reinf.	TP47.84x47.015x0.5625	Reinf. 1 Compression	64.9%	Pass
6 - 1	Pole + Reinf.	TP48.665x47.84x0.5625	Reinf. 1 Compression	66.5%	Pass
1 - 0	Pole + Reinf.	TP48.83x48.665x0.5625	Reinf. 1 Compression	66.8%	Pass
				Summary	
			Pole	68.3%	Pass
			Reinforcement	71.6%	Pass
			Overall	71.6%	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Flange Connection	130.0	5.9	Pass
1,2	Anchor Rods	-	62.4	Pass
1,2	Base Plate	-	66.6	Pass
1,2	Base Foundation Structural	-	59.1	Pass
1,2	Base Foundation Soil Interaction	-	44.9	Pass

Structure Rating (max from all components) =	71.6%
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Notes:

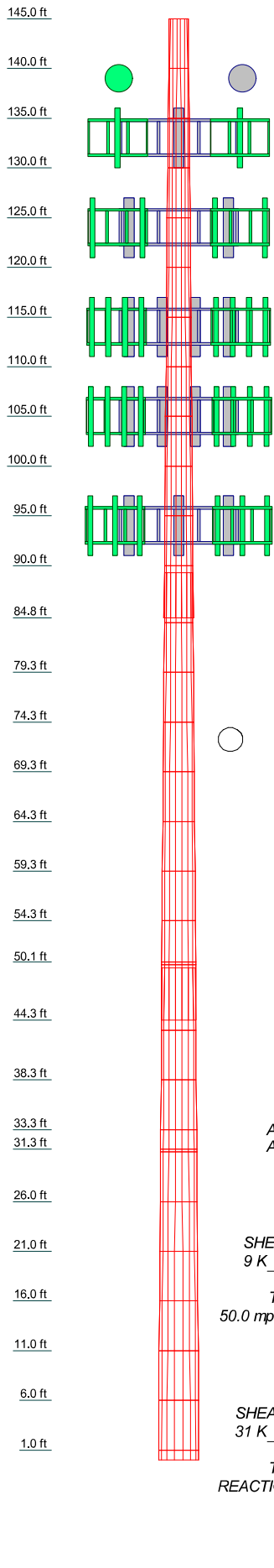
- 1) See additional documentation in "Appendix C - Additional Calculations" for calculations supporting the % capacity listed.
- 2) Rating per TIA-222-H Section 15.5

4.1) Recommendations

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

APPENDIX A
TNXTOWER OUTPUT

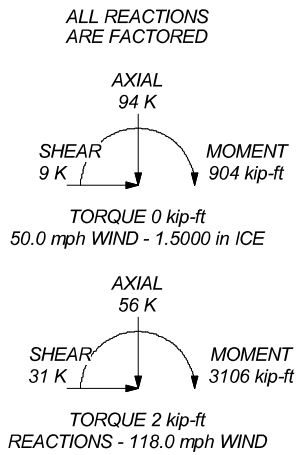
Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.0000	18	0.1875	4.5000	30.5994	31.5243	0.4	0.2
2	5.0000	18	0.1875	4.5000	28.7497	29.6746	0.3	0.3
3	5.0000	18	0.1875	4.5000	26.9000	27.8249	0.3	0.3
4	5.0000	18	0.2500	4.5000	25.0503	25.9994	0.4	0.4
5	5.0000	18	0.2500	4.5000	23.2006	24.1497	0.4	0.4
6	5.0000	18	0.2500	4.5000	21.3509	22.2999	0.4	0.4
7	5.0000	18	0.2500	4.5000	19.5012	20.4502	0.4	0.4
8	5.0000	18	0.2500	4.5000	17.6515	18.6005	0.4	0.4
9	5.0000	18	0.2500	4.5000	15.8018	16.7508	0.4	0.4
10	5.0000	18	0.2500	4.5000	13.9521	14.9011	0.4	0.4
11	5.0000	18	0.2500	4.5000	12.1024	13.0514	0.4	0.4
12	5.0000	18	0.2500	4.5000	10.2527	11.2017	0.4	0.4
13	5.0000	18	0.2500	4.5000	8.4030	9.3520	0.4	0.4
14	5.0000	18	0.3125	4.5000	6.5533	7.5023	0.5	0.5
15	5.0000	18	0.3125	4.5000	4.7036	5.6526	0.6	0.6
16	5.0000	18	0.3125	4.5000	2.8539	3.8029	0.6	0.6
17	5.0000	18	0.3125	4.5000	1.0042	1.9532	0.6	0.6
18	5.0000	18	0.3125	4.5000	-0.8455	0.1035	0.7	0.7
19	5.0000	18	0.3125	4.5000	-2.6952	-1.7462	0.7	0.7
20	5.0000	18	0.3125	4.5000	-4.5449	-3.5959	0.7	0.7
21	5.0000	18	0.3125	4.5000	-6.3946	-5.4456	0.6	0.6
22	5.0000	18	0.3125	4.5000	-8.2443	-7.2953	1.1	1.1
23	5.0000	18	0.3125	4.5000	-10.0940	-9.1450	1.4	1.4
24	5.0000	18	0.5000	5.2500	-11.9437	-10.9947	1.1	1.1
25	5.0000	18	0.5000	5.2500	-13.7934	-12.8444	1.2	1.2
26	5.0000	18	0.5000	5.2500	-15.6431	-14.6941	1.4	1.4
27	5.0000	18	0.5750	5.2500	-17.4928	-16.5438	1.4	1.4
28	5.0000	18	0.5750	5.2500	-19.3425	-18.3935	1.5	1.5
29	5.0000	18	0.5750	5.2500	-21.1922	-20.2432	1.5	1.5
30	5.0000	18	0.5750	5.2500	-23.0419	-22.0929	1.5	1.5
31	5.0000	18	0.5750	5.2500	-24.8916	-23.9426	1.5	1.5
32	5.0000	18	0.5625	5.2500	-26.7413	-25.7923	1.5	1.5
33	1.0000	18	0.5625	5.2500	-28.5910	-27.6420	1.5	1.5
34	24.0000	18	0.5625	5.2500	-30.4407	-29.4917	1.5	1.5



MATERIAL STRENGTH					
GRADE	Fy	Fu	GRADE	Fy	Fu
A607-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-H Standard.
3. Tower designed for a 118.0 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50.0 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60.0 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.0000 ft
8. TOWER RATING: 71.6%



 <p>Tower Engineering Professionals</p>	<p>Tower Engineering Professionals</p> <p>326 Tryon Road</p> <p>Raleigh, North Carolina, 27603</p> <p>Phone: (919) 661-6351</p> <p>FAX: (919) 661-6350</p>		<p>Job: 145 ft Monopole / Newington</p>	
	<p>Project: 37520-1104 / BU 881364</p>		<p>Client: Crown Castle</p>	
	<p>Code: TIA-222-H</p>		<p>Drawn by: Cameron G. Allen</p>	
	<p>Path:</p>		<p>Date: 09/13/21</p>	
	<p>G:\Shared\Drawings\881364-0370252021-20255_1-00000_881364-Newington-Structural_Analysis\Tower\881364_2018109_1.CAD</p>		<p>App'd: _____</p> <p>Scale: NTS</p> <p>Dwg No. E-1</p>	

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	<p>Project</p> <p>37520-1104 / BU 881364</p>	<p>Date</p> <p>15:41:50 09/13/21</p>
	<p>Client</p> <p>Crown Castle</p>	<p>Designed by</p> <p>Cameron G. Allen</p>

Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

- Tower is located in Hartford County, Connecticut.
- Tower base elevation above sea level: 142.0000 ft.
- Basic wind speed of 118.0 mph.
- Risk Category II.
- Exposure Category C.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.0000 ft.
- Nominal ice thickness of 1.5000 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 50.0 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60.0 mph.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- Maximum demand-capacity ratio is: 1.05.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

- | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification √ Use Code Stress Ratios √ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric | <ul style="list-style-type: none"> Distribute Leg Loads As Uniform Assume Legs Pinned √ Assume Rigid Index Plate √ Use Clear Spans For Wind Area Use Clear Spans For KL/r Retension Guys To Initial Tension √ Bypass Mast Stability Checks √ Use Azimuth Dish Coefficients √ Project Wind Area of Appurt. Autocalc Torque Arm Areas Add IBC .6D+W Combination Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs | <ul style="list-style-type: none"> Use ASCE 10 X-Brace Ly Rules Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation √ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <li style="background-color: #e0e0e0;">Poles √ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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	<p>Project</p> <p>37520-1104 / BU 881364</p>	<p>Date</p> <p>15:41:50 09/13/21</p>
	<p>Client</p> <p>Crown Castle</p>	<p>Designed by</p> <p>Cameron G. Allen</p>

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	145.0000-140.000	5.0000	0.00	18	24.0000	24.9233	0.1875	0.7500	A607-65 (65 ksi)
L2	140.0000-135.000	5.0000	0.00	18	24.9233	25.8467	0.1875	0.7500	A607-65 (65 ksi)
L3	135.0000-130.000	5.0000	0.00	18	25.8467	26.7700	0.1875	0.7500	A607-65 (65 ksi)
L4	130.0000-125.000	5.0000	0.00	18	26.9000	27.8249	0.2500	1.0000	A607-65 (65 ksi)
L5	125.0000-120.000	5.0000	0.00	18	27.8249	28.7497	0.2500	1.0000	A607-65 (65 ksi)
L6	120.0000-115.000	5.0000	0.00	18	28.7497	29.6746	0.2500	1.0000	A607-65 (65 ksi)
L7	115.0000-110.000	5.0000	0.00	18	29.6746	30.5994	0.2500	1.0000	A607-65 (65 ksi)
L8	110.0000-105.000	5.0000	0.00	18	30.5994	31.5243	0.2500	1.0000	A607-65 (65 ksi)
L9	105.0000-100.000	5.0000	0.00	18	31.5243	32.4492	0.2500	1.0000	A607-65 (65 ksi)
L10	100.0000-95.000	5.0000	0.00	18	32.4492	33.3740	0.2500	1.0000	A607-65 (65 ksi)
L11	95.0000-90.000	5.0000	0.00	18	33.3740	34.2989	0.2500	1.0000	A607-65 (65 ksi)
L12	90.0000-84.750	5.2500	4.50	18	34.2989	35.2700	0.2500	1.0000	A607-65 (65 ksi)
L13	84.7500-84.250	5.0000	0.00	18	33.9200	34.8467	0.3125	1.2500	A607-65 (65 ksi)
L14	84.2500-79.250	5.0000	0.00	18	34.8467	35.7733	0.3125	1.2500	A607-65 (65 ksi)
L15	79.2500-74.250	5.0000	0.00	18	35.7733	36.7000	0.3125	1.2500	A607-65 (65 ksi)
L16	74.2500-69.250	5.0000	0.00	18	36.7000	37.6267	0.3125	1.2500	A607-65 (65 ksi)
L17	69.2500-64.250	5.0000	0.00	18	37.6267	38.5533	0.3125	1.2500	A607-65 (65 ksi)
L18	64.2500-59.250	5.0000	0.00	18	38.5533	39.4800	0.3125	1.2500	A607-65 (65 ksi)
L19	59.2500-54.250	5.0000	0.00	18	39.4800	40.4067	0.3125	1.2500	A607-65 (65 ksi)
L20	54.2500-50.083	4.1670	0.00	18	40.4067	41.1790	0.3125	1.2500	A607-65 (65 ksi)
L21	50.0830-49.833	0.2500	0.00	18	41.1790	41.2253	0.4375	1.7500	A607-65 (65 ksi)
L22	49.8330-44.250	5.5830	5.25	18	41.2253	42.2600	0.4375	1.7500	A607-65 (65 ksi)
L23	44.2500-43.250	6.2500	0.00	18	40.6620	41.6933	0.5000	2.0000	A607-65 (65 ksi)
L24	43.2500-38.250	5.0000	0.00	18	41.6933	42.5184	0.5000	2.0000	A607-65 (65 ksi)
L25	38.2500-33.250	5.0000	0.00	18	42.5184	43.3434	0.4938	1.9750	A607-65 (65 ksi)
L26	33.2500-31.250	2.0000	0.00	18	43.3434	43.6734	0.4875	1.9500	A607-65 (65 ksi)
L27	31.2500-31.000	0.2500	0.00	18	43.6734	43.7147	0.5875	2.3500	A607-65 (65 ksi)
L28	31.0000-26.000	5.0000	0.00	18	43.7147	44.5397	0.5875	2.3500	A607-65 (65 ksi)
L29	26.0000-21.000	5.0000	0.00	18	44.5397	45.3648	0.5750	2.3000	A607-65 (65 ksi)

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	145 ft Monopole / Newington	Page	3 of 31
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	Client	Crown Castle	Designed by	Cameron G. Allen

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L30	21.0000-16.0000 0	5.0000	0.00	18	45.3648	46.1898	0.5750	2.3000	A607-65 (65 ksi)
L31	16.0000-11.0000 0	5.0000	0.00	18	46.1898	47.0149	0.5750	2.3000	A607-65 (65 ksi)
L32	11.0000-6.0000	5.0000	0.00	18	47.0149	47.8399	0.5625	2.2500	A607-65 (65 ksi)
L33	6.0000-1.0000	5.0000	0.00	18	47.8399	48.6650	0.5625	2.2500	A607-65 (65 ksi)
L34	1.0000-0.0000	1.0000		18	48.6650	48.8300	0.5625	2.2500	A607-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L1	24.3413	14.1714	1015.2211	8.4534	12.1920	83.2694	2031.7780	7.0871	3.8940	20.768
	25.2789	14.7209	1137.9555	8.7812	12.6611	89.8784	2277.4083	7.3619	4.0565	21.635
L2	25.2789	14.7209	1137.9555	8.7812	12.6611	89.8784	2277.4083	7.3619	4.0565	21.635
	26.2165	15.2704	1270.2035	9.1090	13.1301	96.7398	2542.0784	7.6367	4.2190	22.501
L3	26.2165	15.2704	1270.2035	9.1090	13.1301	96.7398	2542.0784	7.6367	4.2190	22.501
	27.1540	15.8199	1412.3200	9.4368	13.5992	103.8535	2826.4984	7.9115	4.3815	23.368
L4	27.2764	21.1468	1897.4748	9.4608	13.6652	138.8545	3797.4464	10.5754	4.2944	17.178
	28.2155	21.8807	2101.9599	9.7891	14.1350	148.7057	4206.6856	10.9424	4.4572	17.829
L5	28.2155	21.8807	2101.9599	9.7891	14.1350	148.7057	4206.6856	10.9424	4.4572	17.829
	29.1547	22.6145	2320.6324	10.1174	14.6049	158.8945	4644.3183	11.3094	4.6200	18.48
L6	29.1547	22.6145	2320.6324	10.1174	14.6049	158.8945	4644.3183	11.3094	4.6200	18.48
	30.0938	23.3484	2553.9681	10.4457	15.0747	169.4209	5111.2967	11.6764	4.7827	19.131
L7	30.0938	23.3484	2553.9681	10.4457	15.0747	169.4209	5111.2967	11.6764	4.7827	19.131
	31.0329	24.0823	2802.4429	10.7741	15.5445	180.2849	5608.5733	12.0434	4.9455	19.782
L8	31.0329	24.0823	2802.4429	10.7741	15.5445	180.2849	5608.5733	12.0434	4.9455	19.782
	31.9721	24.8162	3066.5323	11.1024	16.0143	191.4865	6137.0997	12.4104	5.1083	20.433
L9	31.9721	24.8162	3066.5323	11.1024	16.0143	191.4865	6137.0997	12.4104	5.1083	20.433
	32.9112	25.5500	3346.7129	11.4307	16.4842	203.0258	6697.8294	12.7774	5.2711	21.084
L10	32.9112	25.5500	3346.7129	11.4307	16.4842	203.0258	6697.8294	12.7774	5.2711	21.084
	33.8503	26.2839	3643.4600	11.7590	16.9540	214.9026	7291.7142	13.1445	5.4338	21.735
L11	33.8503	26.2839	3643.4600	11.7590	16.9540	214.9026	7291.7142	13.1445	5.4338	21.735
	34.7894	27.0178	3957.2496	12.0874	17.4238	227.1170	7919.7063	13.5115	5.5966	22.386
L12	34.7894	27.0178	3957.2496	12.0874	17.4238	227.1170	7919.7063	13.5115	5.5966	22.386
	35.7755	27.7884	4305.5913	12.4321	17.9172	240.3055	8616.8481	13.8968	5.7675	23.07
L13	35.2419	33.3344	4756.6699	11.9307	17.2314	276.0473	9519.5988	16.6704	5.4199	17.344
	35.3360	34.2536	5161.0890	12.2596	17.7021	291.5522	10328.9691	17.1300	5.5830	17.866
L14	35.3360	34.2536	5161.0890	12.2596	17.7021	291.5522	10328.9691	17.1300	5.5830	17.866
	36.2770	35.1727	5587.8044	12.5886	18.1729	307.4809	11182.9613	17.5897	5.7461	18.388
L15	36.2770	35.1727	5587.8044	12.5886	18.1729	307.4809	11182.9613	17.5897	5.7461	18.388
	37.2179	36.0919	6037.4153	12.9176	18.6436	323.8331	12082.7747	18.0494	5.9092	18.909
L16	37.2179	36.0919	6037.4153	12.9176	18.6436	323.8331	12082.7747	18.0494	5.9092	18.909
	38.1589	37.0110	6510.5195	13.2465	19.1143	340.6091	13029.6058	18.5090	6.0723	19.431
L17	38.1589	37.0110	6510.5195	13.2465	19.1143	340.6091	13029.6058	18.5090	6.0723	19.431
	39.0999	37.9301	7007.7149	13.5755	19.5851	357.8086	14024.6508	18.9687	6.2354	19.953
L18	39.0999	37.9301	7007.7149	13.5755	19.5851	357.8086	14024.6508	18.9687	6.2354	19.953
	40.0408	38.8493	7529.6008	13.9045	20.0558	375.4318	15069.1092	19.4283	6.3985	20.475
L19	40.0408	38.8493	7529.6008	13.9045	20.0558	375.4318	15069.1092	19.4283	6.3985	20.475
	40.9818	39.7684	8076.7749	14.2334	20.5266	393.4787	16164.1774	19.8880	6.5616	20.997
L20	40.9818	39.7684	8076.7749	14.2334	20.5266	393.4787	16164.1774	19.8880	6.5616	20.997
	41.7660	40.5344	8552.5410	14.5076	20.9189	408.8426	17116.3357	20.2711	6.6975	21.432
L21	41.7667	56.5746	11864.0210	14.4632	20.9189	567.1434	23743.6530	28.2927	6.4775	14.806

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">Tower Engineering Professionals</p> <p style="text-align: center;">326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350</p>	<p>Job</p> <p style="text-align: center;">145 ft Monopole / Newington</p>	<p>Page</p> <p style="text-align: center;">4 of 31</p>
	<p>Project</p> <p style="text-align: center;">37520-1104 / BU 881364</p>	<p>Date</p> <p style="text-align: center;">15:41:50 09/13/21</p>
	<p>Client</p> <p style="text-align: center;">Crown Castle</p>	<p>Designed by</p> <p style="text-align: center;">Cameron G. Allen</p>

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I/Q in ²	w in	w/t
L22	41.7938	56.6389	11904.5439	14.4797	20.9424	568.4410	23824.7522	28.3249	6.4856	14.824
	41.7938	56.6389	11904.5439	14.4797	20.9424	568.4410	23824.7522	28.3249	6.4856	14.824
	42.8444	58.0758	12833.7153	14.8470	21.4681	597.8045	25684.3175	29.0434	6.6678	15.241
L23	42.0918	63.7371	12988.5411	14.2575	20.6563	628.7933	25994.1728	31.8746	6.2765	12.553
	42.2594	65.3738	14015.0465	14.6236	21.1802	661.7050	28048.5343	32.6931	6.4580	12.916
L24	42.2594	65.3738	14015.0465	14.6236	21.1802	661.7050	28048.5343	32.6931	6.4580	12.916
	43.0971	66.6831	14874.1376	14.9165	21.5993	688.6389	29767.8469	33.3479	6.6032	13.206
L25	43.0981	65.8594	14694.7662	14.9187	21.5993	680.3344	29408.8681	32.9360	6.6142	13.396
	43.9359	67.1524	15577.3559	15.2116	22.0185	707.4682	31175.2090	33.5826	6.7594	13.69
L26	43.9369	66.3120	15386.9052	15.2138	22.0185	698.8186	30794.0569	33.1623	6.7704	13.888
	44.2720	66.8227	15745.1188	15.3310	22.1861	709.6838	31510.9555	33.4177	6.8285	14.007
L27	44.2565	80.3434	18843.3788	15.2955	22.1861	849.3325	37711.5522	40.1793	6.6525	11.323
	44.2984	80.4203	18897.5559	15.3102	22.2071	850.9706	37819.9777	40.2178	6.6598	11.336
L28	44.2984	80.4203	18897.5559	15.3102	22.2071	850.9706	37819.9777	40.2178	6.6598	11.336
	45.1362	81.9588	20003.0028	15.6030	22.6262	884.0643	40032.3260	40.9872	6.8050	11.583
L29	45.1381	80.2378	19594.1151	15.6075	22.6262	865.9928	39214.0127	40.1265	6.8270	11.873
	45.9759	81.7436	20718.0672	15.9004	23.0453	899.0144	41463.3958	40.8796	6.9722	12.126
L30	45.9759	81.7436	20718.0672	15.9004	23.0453	899.0144	41463.3958	40.8796	6.9722	12.126
	46.8137	83.2494	21884.1976	16.1933	23.4644	932.6538	43797.1910	41.6326	7.1174	12.378
L31	46.8137	83.2494	21884.1976	16.1933	23.4644	932.6538	43797.1910	41.6326	7.1174	12.378
	47.6515	84.7551	23093.2861	16.4862	23.8836	966.9112	46216.9590	42.3856	7.2626	12.631
L32	47.6534	82.9349	22609.5054	16.4906	23.8836	946.6554	45248.7610	41.4753	7.2846	12.95
	48.4912	84.4080	23835.7449	16.7835	24.3027	980.7863	47702.8534	42.2120	7.4298	13.209
L33	48.4912	84.4080	23835.7449	16.7835	24.3027	980.7863	47702.8534	42.2120	7.4298	13.209
	49.3290	85.8810	25105.5404	17.0764	24.7218	1015.5217	50244.1152	42.9487	7.5750	13.467
L34	49.3290	85.8810	25105.5404	17.0764	24.7218	1015.5217	50244.1152	42.9487	7.5750	13.467
	49.4965	86.1756	25364.7926	17.1350	24.8056	1022.5413	50762.9608	43.0960	7.6041	13.518

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A _f	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
L1				1	1	1			
145.0000-140.0000									
L2				1	1	1			
140.0000-135.0000									
L3				1	1	1			
135.0000-130.0000									
L4				1	1	1			
130.0000-125.0000									
L5				1	1	1			
125.0000-120.0000									
L6				1	1	1			
120.0000-115.0000									
L7				1	1	1			
115.0000-110.0000									
L8				1	1	1			
110.0000-105.0000									
L9				1	1	1			
105.0000-100.0000									
L10				1	1	1			

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Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
L30 21.0000-16.0000				1	1	1.03793			
L31 16.0000-11.0000				1	1	1.03108			
L32 11.0000-6.0000				1	1	1.04696			
L33 6.0000-1.0000				1	1	1.04043			
L34 1.0000-0.0000				1	1	1.03915			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement	Total Number	Number Per Row	Start/End Position	Width or Diameter	Perimeter	Weight
				ft				in	in	plf
*** HJ7-50A(1-5/8)	A	No	Surface Ar (CaAa)	94.0000 - 0.0000	10	7	-0.250 -0.250	1.9800		1.04
*** LDF4-50A(1/2)	A	No	Surface Ar (CaAa)	77.0000 - 0.0000	1	1	0.250 0.250	0.6250		0.15
*** Safety Line 3/8	A	No	Surface Ar (CaAa)	145.0000 - 0.0000	1	1	0.500 0.500	0.3750		0.22
*** (Area) CCI-65FP-085125 (H)	A	No	Surface Af (CaAa)	35.5000 - 0.5000	1	1	0.167 0.167	8.5000	19.5000	0.00
(Area) CCI-65FP-085125 (H)	B	No	Surface Af (CaAa)	35.5000 - 0.5000	1	1	0.330 0.330	8.5000	19.5000	0.00
(Area) CCI-65FP-085125 (H)	C	No	Surface Af (CaAa)	35.5000 - 0.5000	1	1	0.167 0.167	8.5000	19.5000	0.00
(Area) CCI-65FP-060100 (H)	A	No	Surface Af (CaAa)	60.5830 - 35.5000	1	1	0.167 0.167	6.0000	14.0000	0.00
(Area) CCI-65FP-060100 (H)	B	No	Surface Af (CaAa)	60.5830 - 35.5000	1	1	0.330 0.330	6.0000	14.0000	0.00
(Area) CCI-65FP-060100 (H)	C	No	Surface Af (CaAa)	60.5830 - 35.5000	1	1	0.167 0.167	6.0000	14.0000	0.00

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement	Total Number	C_{AA}	Weight
					ft		ft ² /ft	plf
ATCB-B01-005(5/1)	C	No	No	Inside Pole	133.0000 -	6	No Ice	0.0000 0.07

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Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _{AA} ft ² /ft	Weight plf
6")					0.0000		1/2" Ice	0.0000	0.07
							1" Ice	0.0000	0.07
							2" Ice	0.0000	0.07
FSJ4-50B(1/2)	C	No	No	Inside Pole	133.0000 - 0.0000	2	No Ice	0.0000	0.14
							1/2" Ice	0.0000	0.14
							1" Ice	0.0000	0.14
							2" Ice	0.0000	0.14
2" Flexible Conduit	C	No	No	Inside Pole	133.0000 - 0.0000	2	No Ice	0.0000	0.34
							1/2" Ice	0.0000	0.34
							1" Ice	0.0000	0.34
							2" Ice	0.0000	0.34

HB114-1-08U4-M5J (1 1/4")	C	No	No	Inside Pole	124.0000 - 0.0000	4	No Ice	0.0000	1.08
							1/2" Ice	0.0000	1.08
							1" Ice	0.0000	1.08
							2" Ice	0.0000	1.08

LDF4-50A(1/2)	C	No	No	Inside Pole	114.0000 - 0.0000	1	No Ice	0.0000	0.15
							1/2" Ice	0.0000	0.15
							1" Ice	0.0000	0.15
							2" Ice	0.0000	0.15
LDF7-50A(1-5/8)	C	No	No	Inside Pole	114.0000 - 0.0000	8	No Ice	0.0000	0.82
							1/2" Ice	0.0000	0.82
							1" Ice	0.0000	0.82
							2" Ice	0.0000	0.82

LCF158-50A(1-5/8)	C	No	No	Inside Pole	105.0000 - 0.0000	12	No Ice	0.0000	0.80
							1/2" Ice	0.0000	0.80
							1" Ice	0.0000	0.80
							2" Ice	0.0000	0.80
WR-VG86ST-BRD(3/4)	C	No	No	Inside Pole	105.0000 - 0.0000	6	No Ice	0.0000	0.58
							1/2" Ice	0.0000	0.58
							1" Ice	0.0000	0.58
							2" Ice	0.0000	0.58
FB-L98B-002-75000 (3/8)	C	No	No	Inside Pole	105.0000 - 0.0000	2	No Ice	0.0000	0.06
							1/2" Ice	0.0000	0.06
							1" Ice	0.0000	0.06
							2" Ice	0.0000	0.06
2" Flexible Conduit	C	No	No	Inside Pole	105.0000 - 0.0000	2	No Ice	0.0000	0.34
							1/2" Ice	0.0000	0.34
							1" Ice	0.0000	0.34
							2" Ice	0.0000	0.34
HJ7-50A(1-5/8")	A	No	No	Inside Pole	94.0000 - 0.0000	3	No Ice	0.0000	1.04
							1/2" Ice	0.0000	1.04
							1" Ice	0.0000	1.04
							2" Ice	0.0000	1.04

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _{AA} In Face ft ²	C _{AA} Out Face ft ²	Weight K
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<p>tnxTower</p> <p>Tower Engineering Professionals</p> <p>326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350</p>	Job	145 ft Monopole / Newington	Page	8 of 31
	Project	37520-1104 / BU 881364	Date	15:41:50 09/13/21
	Client	Crown Castle	Designed by	Cameron G. Allen

Tower Section	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
L1	145.0000-140.0000	A	0.000	0.000	0.188	0.000	0.00
	0	B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L2	140.0000-135.0000	A	0.000	0.000	0.188	0.000	0.00
	0	B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L3	135.0000-130.0000	A	0.000	0.000	0.188	0.000	0.00
	0	B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L4	130.0000-125.0000	A	0.000	0.000	0.188	0.000	0.00
	0	B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.01
L5	125.0000-120.0000	A	0.000	0.000	0.188	0.000	0.00
	0	B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.02
L6	120.0000-115.0000	A	0.000	0.000	0.188	0.000	0.00
	0	B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.03
L7	115.0000-110.0000	A	0.000	0.000	0.188	0.000	0.00
	0	B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.06
L8	110.0000-105.0000	A	0.000	0.000	0.188	0.000	0.00
	0	B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.06
L9	105.0000-100.0000	A	0.000	0.000	0.188	0.000	0.00
	0	B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.13
L10	100.0000-95.0000	A	0.000	0.000	0.188	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.13
L11	95.0000-90.0000	A	0.000	0.000	5.731	0.000	0.06
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.13
L12	90.0000-84.7500	A	0.000	0.000	7.473	0.000	0.07
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.14
L13	84.7500-84.2500	A	0.000	0.000	0.712	0.000	0.01
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.01
L14	84.2500-79.2500	A	0.000	0.000	7.117	0.000	0.07
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.13
L15	79.2500-74.2500	A	0.000	0.000	7.289	0.000	0.07
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.13
L16	74.2500-69.2500	A	0.000	0.000	7.430	0.000	0.07
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.13
L17	69.2500-64.2500	A	0.000	0.000	7.430	0.000	0.07
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.13
L18	64.2500-59.2500	A	0.000	0.000	8.763	0.000	0.07
		B	0.000	0.000	1.333	0.000	0.00
		C	0.000	0.000	1.333	0.000	0.13
L19	59.2500-54.2500	A	0.000	0.000	12.430	0.000	0.07
		B	0.000	0.000	5.000	0.000	0.00
		C	0.000	0.000	5.000	0.000	0.13
L20	54.2500-50.0830	A	0.000	0.000	10.359	0.000	0.06
		B	0.000	0.000	4.167	0.000	0.00
		C	0.000	0.000	4.167	0.000	0.11
L21	50.0830-49.8330	A	0.000	0.000	0.622	0.000	0.00

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	145 ft Monopole / Newington	Page	9 of 31
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Tower Section	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
		B	0.000	0.000	0.250	0.000	0.00
		C	0.000	0.000	0.250	0.000	0.01
L22	49.8330-44.2500	A	0.000	0.000	13.879	0.000	0.08
		B	0.000	0.000	5.583	0.000	0.00
		C	0.000	0.000	5.583	0.000	0.15
L23	44.2500-43.2500	A	0.000	0.000	2.486	0.000	0.01
		B	0.000	0.000	1.000	0.000	0.00
		C	0.000	0.000	1.000	0.000	0.03
L24	43.2500-38.2500	A	0.000	0.000	12.430	0.000	0.07
		B	0.000	0.000	5.000	0.000	0.00
		C	0.000	0.000	5.000	0.000	0.13
L25	38.2500-33.2500	A	0.000	0.000	13.368	0.000	0.07
		B	0.000	0.000	5.938	0.000	0.00
		C	0.000	0.000	5.938	0.000	0.13
L26	33.2500-31.2500	A	0.000	0.000	5.805	0.000	0.03
		B	0.000	0.000	2.833	0.000	0.00
		C	0.000	0.000	2.833	0.000	0.05
L27	31.2500-31.0000	A	0.000	0.000	0.726	0.000	0.00
		B	0.000	0.000	0.354	0.000	0.00
		C	0.000	0.000	0.354	0.000	0.01
L28	31.0000-26.0000	A	0.000	0.000	14.513	0.000	0.07
		B	0.000	0.000	7.083	0.000	0.00
		C	0.000	0.000	7.083	0.000	0.13
L29	26.0000-21.0000	A	0.000	0.000	14.513	0.000	0.07
		B	0.000	0.000	7.083	0.000	0.00
		C	0.000	0.000	7.083	0.000	0.13
L30	21.0000-16.0000	A	0.000	0.000	14.513	0.000	0.07
		B	0.000	0.000	7.083	0.000	0.00
		C	0.000	0.000	7.083	0.000	0.13
L31	16.0000-11.0000	A	0.000	0.000	14.513	0.000	0.07
		B	0.000	0.000	7.083	0.000	0.00
		C	0.000	0.000	7.083	0.000	0.13
L32	11.0000-6.0000	A	0.000	0.000	14.513	0.000	0.07
		B	0.000	0.000	7.083	0.000	0.00
		C	0.000	0.000	7.083	0.000	0.13
L33	6.0000-1.0000	A	0.000	0.000	14.513	0.000	0.07
		B	0.000	0.000	7.083	0.000	0.00
		C	0.000	0.000	7.083	0.000	0.13
L34	1.0000-0.0000	A	0.000	0.000	2.194	0.000	0.01
		B	0.000	0.000	0.708	0.000	0.00
		C	0.000	0.000	0.708	0.000	0.03

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
L1	145.0000-140.0000	A	1.476	0.000	0.000	1.663	0.000	0.02
	0	B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
L2	140.0000-135.0000	A	1.471	0.000	0.000	1.658	0.000	0.02
	0	B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
L3	135.0000-130.0000	A	1.465	0.000	0.000	1.653	0.000	0.02
	0	B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
L4	130.0000-125.0000	A	1.460	0.000	0.000	1.647	0.000	0.02
	0	B		0.000	0.000	0.000	0.000	0.00

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Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
L5	125.0000-120.0000	C		0.000	0.000	0.000	0.000	0.01
	0	A	1.454	0.000	0.000	1.641	0.000	0.02
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.02
L6	120.0000-115.0000	A	1.448	0.000	0.000	1.635	0.000	0.02
	0	B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.03
L7	115.0000-110.0000	A	1.441	0.000	0.000	1.629	0.000	0.02
	0	B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.06
L8	110.0000-105.0000	A	1.435	0.000	0.000	1.622	0.000	0.02
	0	B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.06
L9	105.0000-100.0000	A	1.428	0.000	0.000	1.615	0.000	0.02
	0	B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.13
L10	100.0000-95.0000	A	1.421	0.000	0.000	1.608	0.000	0.02
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.13
L11	95.0000-90.0000	A	1.413	0.000	0.000	9.944	0.000	0.16
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.13
L12	90.0000-84.7500	A	1.405	0.000	0.000	12.613	0.000	0.21
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.14
L13	84.7500-84.2500	A	1.401	0.000	0.000	1.201	0.000	0.02
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.01
L14	84.2500-79.2500	A	1.396	0.000	0.000	11.991	0.000	0.20
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.13
L15	79.2500-74.2500	A	1.387	0.000	0.000	12.906	0.000	0.21
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.13
L16	74.2500-69.2500	A	1.378	0.000	0.000	13.641	0.000	0.22
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.13
L17	69.2500-64.2500	A	1.368	0.000	0.000	13.609	0.000	0.21
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.13
L18	64.2500-59.2500	A	1.357	0.000	0.000	15.269	0.000	0.23
		B		0.000	0.000	1.695	0.000	0.01
		C		0.000	0.000	1.695	0.000	0.15
L19	59.2500-54.2500	A	1.346	0.000	0.000	19.883	0.000	0.26
		B		0.000	0.000	6.346	0.000	0.05
		C		0.000	0.000	6.346	0.000	0.18
L20	54.2500-50.0830	A	1.335	0.000	0.000	16.531	0.000	0.22
		B		0.000	0.000	5.279	0.000	0.04
		C		0.000	0.000	5.279	0.000	0.15
L21	50.0830-49.8330	A	1.329	0.000	0.000	0.991	0.000	0.01
		B		0.000	0.000	0.316	0.000	0.00
		C		0.000	0.000	0.316	0.000	0.01
L22	49.8330-44.2500	A	1.321	0.000	0.000	22.083	0.000	0.29
		B		0.000	0.000	7.058	0.000	0.05
		C		0.000	0.000	7.058	0.000	0.20
L23	44.2500-43.2500	A	1.311	0.000	0.000	3.955	0.000	0.05
		B		0.000	0.000	1.264	0.000	0.01
		C		0.000	0.000	1.264	0.000	0.04
L24	43.2500-38.2500	A	1.302	0.000	0.000	19.697	0.000	0.25
		B		0.000	0.000	6.302	0.000	0.05
		C		0.000	0.000	6.302	0.000	0.18

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	<p>Client</p> <p>Crown Castle</p>	<p>Designed by</p> <p>Cameron G. Allen</p>

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	C_{AA} In Face ft ²	C_{AA} Out Face ft ²	Weight K
L25	38.2500-33.2500	A	1.285	0.000	0.000	20.562	0.000	0.26
		B		0.000	0.000	7.223	0.000	0.05
		C		0.000	0.000	7.223	0.000	0.19
L26	33.2500-31.2500	A	1.272	0.000	0.000	8.661	0.000	0.11
		B		0.000	0.000	3.342	0.000	0.02
		C		0.000	0.000	3.342	0.000	0.08
L27	31.2500-31.0000	A	1.268	0.000	0.000	1.082	0.000	0.01
		B		0.000	0.000	0.418	0.000	0.00
		C		0.000	0.000	0.418	0.000	0.01
L28	31.0000-26.0000	A	1.256	0.000	0.000	21.586	0.000	0.26
		B		0.000	0.000	8.340	0.000	0.06
		C		0.000	0.000	8.340	0.000	0.19
L29	26.0000-21.0000	A	1.232	0.000	0.000	21.484	0.000	0.26
		B		0.000	0.000	8.316	0.000	0.06
		C		0.000	0.000	8.316	0.000	0.19
L30	21.0000-16.0000	A	1.203	0.000	0.000	21.360	0.000	0.25
		B		0.000	0.000	8.287	0.000	0.06
		C		0.000	0.000	8.287	0.000	0.19
L31	16.0000-11.0000	A	1.166	0.000	0.000	21.201	0.000	0.25
		B		0.000	0.000	8.249	0.000	0.05
		C		0.000	0.000	8.249	0.000	0.19
L32	11.0000-6.0000	A	1.113	0.000	0.000	20.977	0.000	0.24
		B		0.000	0.000	8.197	0.000	0.05
		C		0.000	0.000	8.197	0.000	0.18
L33	6.0000-1.0000	A	1.019	0.000	0.000	20.575	0.000	0.22
		B		0.000	0.000	8.102	0.000	0.05
		C		0.000	0.000	8.102	0.000	0.18
L34	1.0000-0.0000	A	0.839	0.000	0.000	3.170	0.000	0.03
		B		0.000	0.000	0.792	0.000	0.00
		C		0.000	0.000	0.792	0.000	0.03

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	145.0000-140.0000	0.0000	-0.3011	0.0000	-1.3288
L2	140.0000-135.0000	0.0000	-0.3012	0.0000	-1.3345
L3	135.0000-130.0000	0.0000	-0.3012	0.0000	-1.3395
L4	130.0000-125.0000	0.0000	-0.3014	0.0000	-1.3453
L5	125.0000-120.0000	0.0000	-0.3015	0.0000	-1.3488
L6	120.0000-115.0000	0.0000	-0.3016	0.0000	-1.3518
L7	115.0000-110.0000	0.0000	-0.3016	0.0000	-1.3541
L8	110.0000-105.0000	0.0000	-0.3017	0.0000	-1.3558
L9	105.0000-100.0000	0.0000	-0.3017	0.0000	-1.3569
L10	100.0000-95.0000	0.0000	-0.3018	0.0000	-1.3575
L11	95.0000-90.0000	-6.4951	-0.1983	-5.1118	-0.8856
L12	90.0000-84.7500	-7.3589	-0.1807	-5.9273	-0.8223
L13	84.7500-84.2500	-7.3613	-0.1807	-5.9300	-0.8227
L14	84.2500-79.2500	-7.4133	-0.1823	-5.9625	-0.8244
L15	79.2500-74.2500	-7.5225	-0.3306	-6.1062	-1.2299
L16	74.2500-69.2500	-7.6277	-0.4527	-6.2326	-1.5491
L17	69.2500-64.2500	-7.7188	-0.4590	-6.2931	-1.5599
L18	64.2500-59.2500	-6.6162	0.3605	-5.7262	-0.8598
L19	59.2500-54.2500	-4.8705	1.6327	-4.6420	0.4356
L20	54.2500-50.0830	-4.9401	1.6583	-4.6972	0.4470
L21	50.0830-49.8330	-4.9740	1.6708	-4.7242	0.4528

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Section	Elevation	CP _X	CP _Z	CP _X Ice	CP _Z Ice
	ft	in	in	in	in
L22	49.8330-44.2500	-5.0176	1.6869	-4.7585	0.4605
L23	44.2500-43.2500	-5.0073	1.6831	-4.7513	0.4597
L24	43.2500-38.2500	-5.0471	1.6977	-4.7811	0.4727
L25	38.2500-33.2500	-4.8179	1.9455	-4.6642	0.6897
L26	33.2500-31.2500	-4.5541	2.1957	-4.5126	0.9255
L27	31.2500-31.0000	-4.5682	2.2031	-4.5240	0.9305
L28	31.0000-26.0000	-4.6001	2.2197	-4.5491	0.9424
L29	26.0000-21.0000	-4.6605	2.2511	-4.5959	0.9666
L30	21.0000-16.0000	-4.7205	2.2824	-4.6414	0.9939
L31	16.0000-11.0000	-4.7800	2.3133	-4.6849	1.0262
L32	11.0000-6.0000	-4.8389	2.3440	-4.7255	1.0678
L33	6.0000-1.0000	-4.8954	2.3735	-4.7595	1.1354
L34	1.0000-0.0000	-6.0714	1.4062	-5.5465	0.2876

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

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L1	23	Safety Line 3/8	140.00 - 145.00	1.0000	1.0000
L2	23	Safety Line 3/8	135.00 - 140.00	1.0000	1.0000
L3	23	Safety Line 3/8	130.00 - 135.00	1.0000	1.0000
L4	23	Safety Line 3/8	125.00 - 130.00	1.0000	1.0000
L5	23	Safety Line 3/8	120.00 - 125.00	1.0000	1.0000
L6	23	Safety Line 3/8	115.00 - 120.00	1.0000	1.0000
L7	23	Safety Line 3/8	110.00 - 115.00	1.0000	1.0000
L8	23	Safety Line 3/8	105.00 - 110.00	1.0000	1.0000
L9	23	Safety Line 3/8	100.00 - 105.00	1.0000	1.0000
L10	23	Safety Line 3/8	95.00 - 100.00	1.0000	1.0000
L11	18	HJ7-50A(1-5/8)	90.00 - 94.00	1.0000	1.0000
L11	23	Safety Line 3/8	90.00 - 95.00	1.0000	1.0000
L12	18	HJ7-50A(1-5/8)	84.75 - 90.00	1.0000	1.0000
L12	23	Safety Line 3/8	84.75 - 90.00	1.0000	1.0000
L13	18	HJ7-50A(1-5/8)	84.25 - 84.75	1.0000	1.0000
L13	23	Safety Line 3/8	84.25 - 84.75	1.0000	1.0000
L14	18	HJ7-50A(1-5/8)	79.25 - 84.25	1.0000	1.0000
L14	23	Safety Line 3/8	79.25 - 84.25	1.0000	1.0000
L15	18	HJ7-50A(1-5/8)	74.25 - 79.25	1.0000	1.0000
L15	21	LDF4-50A(1/2)	74.25 - 77.00	1.0000	1.0000
L15	23	Safety Line 3/8	74.25 - 79.25	1.0000	1.0000
L16	18	HJ7-50A(1-5/8)	69.25 - 74.25	1.0000	1.0000
L16	21	LDF4-50A(1/2)	69.25 - 74.25	1.0000	1.0000
L16	23	Safety Line 3/8	69.25 - 74.25	1.0000	1.0000
L17	18	HJ7-50A(1-5/8)	64.25 - 69.25	1.0000	1.0000

<p>tnxTower</p> <p>Tower Engineering Professionals</p> <p>326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350</p>	<p>Job</p> <p>145 ft Monopole / Newington</p>	<p>Page</p> <p>13 of 31</p>
	<p>Project</p> <p>37520-1104 / BU 881364</p>	<p>Date</p> <p>15:41:50 09/13/21</p>
	<p>Client</p> <p>Crown Castle</p>	<p>Designed by</p> <p>Cameron G. Allen</p>

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L17	21	LDF4-50A(1/2)	64.25 - 69.25	1.0000	1.0000
L17	23	Safety Line 3/8	64.25 - 69.25	1.0000	1.0000
L18	18	HJ7-50A(1-5/8)	59.25 - 64.25	1.0000	1.0000
L18	21	LDF4-50A(1/2)	59.25 - 64.25	1.0000	1.0000
L18	23	Safety Line 3/8	59.25 - 64.25	1.0000	1.0000
L18	28	(Area) CCI-65FP-060100 (H)	59.25 - 60.58	1.0000	1.0000
L18	29	(Area) CCI-65FP-060100 (H)	59.25 - 60.58	1.0000	1.0000
L18	30	(Area) CCI-65FP-060100 (H)	59.25 - 60.58	1.0000	1.0000
L19	18	HJ7-50A(1-5/8)	54.25 - 59.25	1.0000	1.0000
L19	21	LDF4-50A(1/2)	54.25 - 59.25	1.0000	1.0000
L19	23	Safety Line 3/8	54.25 - 59.25	1.0000	1.0000
L19	28	(Area) CCI-65FP-060100 (H)	54.25 - 59.25	1.0000	1.0000
L19	29	(Area) CCI-65FP-060100 (H)	54.25 - 59.25	1.0000	1.0000
L19	30	(Area) CCI-65FP-060100 (H)	54.25 - 59.25	1.0000	1.0000
L20	18	HJ7-50A(1-5/8)	50.08 - 54.25	1.0000	1.0000
L20	21	LDF4-50A(1/2)	50.08 - 54.25	1.0000	1.0000
L20	23	Safety Line 3/8	50.08 - 54.25	1.0000	1.0000
L20	28	(Area) CCI-65FP-060100 (H)	50.08 - 54.25	1.0000	1.0000
L20	29	(Area) CCI-65FP-060100 (H)	50.08 - 54.25	1.0000	1.0000
L20	30	(Area) CCI-65FP-060100 (H)	50.08 - 54.25	1.0000	1.0000
L21	18	HJ7-50A(1-5/8)	49.83 - 50.08	1.0000	1.0000
L21	21	LDF4-50A(1/2)	49.83 - 50.08	1.0000	1.0000
L21	23	Safety Line 3/8	49.83 - 50.08	1.0000	1.0000
L21	28	(Area) CCI-65FP-060100 (H)	49.83 - 50.08	1.0000	1.0000
L21	29	(Area) CCI-65FP-060100 (H)	49.83 - 50.08	1.0000	1.0000
L21	30	(Area) CCI-65FP-060100 (H)	49.83 - 50.08	1.0000	1.0000
L22	18	HJ7-50A(1-5/8)	44.25 - 49.83	1.0000	1.0000
L22	21	LDF4-50A(1/2)	44.25 - 49.83	1.0000	1.0000
L22	23	Safety Line 3/8	44.25 - 49.83	1.0000	1.0000
L22	28	(Area) CCI-65FP-060100 (H)	44.25 - 49.83	1.0000	1.0000
L22	29	(Area) CCI-65FP-060100 (H)	44.25 - 49.83	1.0000	1.0000
L22	30	(Area) CCI-65FP-060100 (H)	44.25 - 49.83	1.0000	1.0000
L23	18	HJ7-50A(1-5/8)	43.25 - 44.25	1.0000	1.0000
L23	21	LDF4-50A(1/2)	43.25 - 44.25	1.0000	1.0000
L23	23	Safety Line 3/8	43.25 - 44.25	1.0000	1.0000
L23	28	(Area) CCI-65FP-060100 (H)	43.25 - 44.25	1.0000	1.0000
L23	29	(Area) CCI-65FP-060100 (H)	43.25 - 44.25	1.0000	1.0000
L23	30	(Area) CCI-65FP-060100 (H)	43.25 - 44.25	1.0000	1.0000
L24	18	HJ7-50A(1-5/8)	38.25 - 43.25	1.0000	1.0000
L24	21	LDF4-50A(1/2)	38.25 - 43.25	1.0000	1.0000
L24	23	Safety Line 3/8	38.25 - 43.25	1.0000	1.0000
L24	28	(Area) CCI-65FP-060100 (H)	38.25 - 43.25	1.0000	1.0000
L24	29	(Area) CCI-65FP-060100 (H)	38.25 - 43.25	1.0000	1.0000
L24	30	(Area) CCI-65FP-060100 (H)	38.25 - 43.25	1.0000	1.0000
L25	18	HJ7-50A(1-5/8)	33.25 - 38.25	1.0000	1.0000
L25	21	LDF4-50A(1/2)	33.25 - 38.25	1.0000	1.0000
L25	23	Safety Line 3/8	33.25 - 38.25	1.0000	1.0000
L25	25	(Area) CCI-65FP-085125 (H)	33.25 - 35.50	1.0000	1.0000
L25	26	(Area) CCI-65FP-085125 (H)	33.25 - 35.50	1.0000	1.0000
L25	27	(Area) CCI-65FP-085125 (H)	33.25 - 35.50	1.0000	1.0000
L25	28	(Area) CCI-65FP-060100 (H)	35.50 - 38.25	1.0000	1.0000
L25	29	(Area) CCI-65FP-060100 (H)	35.50 - 38.25	1.0000	1.0000
L25	30	(Area) CCI-65FP-060100 (H)	35.50 - 38.25	1.0000	1.0000
L26	18	HJ7-50A(1-5/8)	31.25 - 33.25	1.0000	1.0000
L26	21	LDF4-50A(1/2)	31.25 - 33.25	1.0000	1.0000
L26	23	Safety Line 3/8	31.25 - 33.25	1.0000	1.0000
L26	25	(Area) CCI-65FP-085125 (H)	31.25 - 33.25	1.0000	1.0000
L26	26	(Area) CCI-65FP-085125 (H)	31.25 - 33.25	1.0000	1.0000
L26	27	(Area) CCI-65FP-085125 (H)	31.25 - 33.25	1.0000	1.0000
L27	18	HJ7-50A(1-5/8)	31.00 - 31.25	1.0000	1.0000
L27	21	LDF4-50A(1/2)	31.00 - 31.25	1.0000	1.0000
L27	23	Safety Line 3/8	31.00 - 31.25	1.0000	1.0000

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	<p>Project</p> <p>37520-1104 / BU 881364</p>	<p>Date</p> <p>15:41:50 09/13/21</p>
	<p>Client</p> <p>Crown Castle</p>	<p>Designed by</p> <p>Cameron G. Allen</p>

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L27	25	(Area) CCI-65FP-085125 (H)	31.00 - 31.25	1.0000	1.0000
L27	26	(Area) CCI-65FP-085125 (H)	31.00 - 31.25	1.0000	1.0000
L27	27	(Area) CCI-65FP-085125 (H)	31.00 - 31.25	1.0000	1.0000
L28	18	HJ7-50A(1-5/8)	26.00 - 31.00	1.0000	1.0000
L28	21	LDF4-50A(1/2)	26.00 - 31.00	1.0000	1.0000
L28	23	Safety Line 3/8	26.00 - 31.00	1.0000	1.0000
L28	25	(Area) CCI-65FP-085125 (H)	26.00 - 31.00	1.0000	1.0000
L28	26	(Area) CCI-65FP-085125 (H)	26.00 - 31.00	1.0000	1.0000
L28	27	(Area) CCI-65FP-085125 (H)	26.00 - 31.00	1.0000	1.0000
L29	18	HJ7-50A(1-5/8)	21.00 - 26.00	1.0000	1.0000
L29	21	LDF4-50A(1/2)	21.00 - 26.00	1.0000	1.0000
L29	23	Safety Line 3/8	21.00 - 26.00	1.0000	1.0000
L29	25	(Area) CCI-65FP-085125 (H)	21.00 - 26.00	1.0000	1.0000
L29	26	(Area) CCI-65FP-085125 (H)	21.00 - 26.00	1.0000	1.0000
L29	27	(Area) CCI-65FP-085125 (H)	21.00 - 26.00	1.0000	1.0000
L30	18	HJ7-50A(1-5/8)	16.00 - 21.00	1.0000	1.0000
L30	21	LDF4-50A(1/2)	16.00 - 21.00	1.0000	1.0000
L30	23	Safety Line 3/8	16.00 - 21.00	1.0000	1.0000
L30	25	(Area) CCI-65FP-085125 (H)	16.00 - 21.00	1.0000	1.0000
L30	26	(Area) CCI-65FP-085125 (H)	16.00 - 21.00	1.0000	1.0000
L30	27	(Area) CCI-65FP-085125 (H)	16.00 - 21.00	1.0000	1.0000
L31	18	HJ7-50A(1-5/8)	11.00 - 16.00	1.0000	1.0000
L31	21	LDF4-50A(1/2)	11.00 - 16.00	1.0000	1.0000
L31	23	Safety Line 3/8	11.00 - 16.00	1.0000	1.0000
L31	25	(Area) CCI-65FP-085125 (H)	11.00 - 16.00	1.0000	1.0000
L31	26	(Area) CCI-65FP-085125 (H)	11.00 - 16.00	1.0000	1.0000
L31	27	(Area) CCI-65FP-085125 (H)	11.00 - 16.00	1.0000	1.0000
L32	18	HJ7-50A(1-5/8)	6.00 - 11.00	1.0000	1.0000
L32	21	LDF4-50A(1/2)	6.00 - 11.00	1.0000	1.0000
L32	23	Safety Line 3/8	6.00 - 11.00	1.0000	1.0000
L32	25	(Area) CCI-65FP-085125 (H)	6.00 - 11.00	1.0000	1.0000
L32	26	(Area) CCI-65FP-085125 (H)	6.00 - 11.00	1.0000	1.0000
L32	27	(Area) CCI-65FP-085125 (H)	6.00 - 11.00	1.0000	1.0000
L33	18	HJ7-50A(1-5/8)	1.00 - 6.00	1.0000	1.0000
L33	21	LDF4-50A(1/2)	1.00 - 6.00	1.0000	1.0000
L33	23	Safety Line 3/8	1.00 - 6.00	1.0000	1.0000
L33	25	(Area) CCI-65FP-085125 (H)	1.00 - 6.00	1.0000	1.0000
L33	26	(Area) CCI-65FP-085125 (H)	1.00 - 6.00	1.0000	1.0000
L33	27	(Area) CCI-65FP-085125 (H)	1.00 - 6.00	1.0000	1.0000
L34	18	HJ7-50A(1-5/8)	0.00 - 1.00	1.0000	1.0000
L34	21	LDF4-50A(1/2)	0.00 - 1.00	1.0000	1.0000
L34	23	Safety Line 3/8	0.00 - 1.00	1.0000	1.0000
L34	25	(Area) CCI-65FP-085125 (H)	0.50 - 1.00	1.0000	1.0000
L34	26	(Area) CCI-65FP-085125 (H)	0.50 - 1.00	1.0000	1.0000
L34	27	(Area) CCI-65FP-085125 (H)	0.50 - 1.00	1.0000	1.0000

Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L18	28	(Area) CCI-65FP-060100 (H)	59.25 - 60.58	Auto	0.0000
L18	29	(Area) CCI-65FP-060100 (H)	59.25 - 60.58	Auto	0.0000
L18	30	(Area) CCI-65FP-060100 (H)	59.25 - 60.58	Auto	0.0000

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	Client Crown Castle	Designed by Cameron G. Allen

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L19	28	(Area) CCI-65FP-060100 (H)	54.25 - 59.25	Auto	0.0000
L19	29	(Area) CCI-65FP-060100 (H)	54.25 - 59.25	Auto	0.0000
L19	30	(Area) CCI-65FP-060100 (H)	54.25 - 59.25	Auto	0.0000
L20	28	(Area) CCI-65FP-060100 (H)	50.08 - 54.25	Auto	0.0000
L20	29	(Area) CCI-65FP-060100 (H)	50.08 - 54.25	Auto	0.0000
L20	30	(Area) CCI-65FP-060100 (H)	50.08 - 54.25	Auto	0.0000
L21	28	(Area) CCI-65FP-060100 (H)	49.83 - 50.08	Auto	0.0000
L21	29	(Area) CCI-65FP-060100 (H)	49.83 - 50.08	Auto	0.0000
L21	30	(Area) CCI-65FP-060100 (H)	49.83 - 50.08	Auto	0.0000
L22	28	(Area) CCI-65FP-060100 (H)	44.25 - 49.83	Auto	0.0000
L22	29	(Area) CCI-65FP-060100 (H)	44.25 - 49.83	Auto	0.0000
L22	30	(Area) CCI-65FP-060100 (H)	44.25 - 49.83	Auto	0.0000
L23	28	(Area) CCI-65FP-060100 (H)	43.25 - 44.25	Auto	0.0000
L23	29	(Area) CCI-65FP-060100 (H)	43.25 - 44.25	Auto	0.0000
L23	30	(Area) CCI-65FP-060100 (H)	43.25 - 44.25	Auto	0.0000
L24	28	(Area) CCI-65FP-060100 (H)	38.25 - 43.25	Auto	0.0000
L24	29	(Area) CCI-65FP-060100 (H)	38.25 - 43.25	Auto	0.0000
L24	30	(Area) CCI-65FP-060100 (H)	38.25 - 43.25	Auto	0.0000
L25	25	(Area) CCI-65FP-085125 (H)	33.25 - 35.50	Auto	0.2086
L25	26	(Area) CCI-65FP-085125 (H)	33.25 - 35.50	Auto	0.2086
L25	27	(Area) CCI-65FP-085125 (H)	33.25 - 35.50	Auto	0.2086
L25	28	(Area) CCI-65FP-060100 (H)	35.50 - 38.25	Auto	0.0000
L25	29	(Area) CCI-65FP-060100 (H)	35.50 - 38.25	Auto	0.0000
L25	30	(Area) CCI-65FP-060100 (H)	35.50 - 38.25	Auto	0.0000
L26	25	(Area) CCI-65FP-085125 (H)	31.25 - 33.25	Auto	0.2001
L26	26	(Area) CCI-65FP-085125 (H)	31.25 - 33.25	Auto	0.2001
L26	27	(Area) CCI-65FP-085125 (H)	31.25 - 33.25	Auto	0.2001
L27	25	(Area) CCI-65FP-085125 (H)	31.00 - 31.25	Auto	0.2169
L27	26	(Area) CCI-65FP-085125 (H)	31.00 - 31.25	Auto	0.2169
L27	27	(Area) CCI-65FP-085125 (H)	31.00 - 31.25	Auto	0.2169
L28	25	(Area) CCI-65FP-085125 (H)	26.00 - 31.00	Auto	0.2080
L28	26	(Area) CCI-65FP-085125 (H)	26.00 - 31.00	Auto	0.2080
L28	27	(Area) CCI-65FP-085125 (H)	26.00 - 31.00	Auto	0.2080
L29	25	(Area) CCI-65FP-085125 (H)	21.00 - 26.00	Auto	0.1883
L29	26	(Area) CCI-65FP-085125 (H)	21.00 - 26.00	Auto	0.1883
L29	27	(Area) CCI-65FP-085125 (H)	21.00 - 26.00	Auto	0.1883
L30	25	(Area) CCI-65FP-085125 (H)	16.00 - 21.00	Auto	0.1712
L30	26	(Area) CCI-65FP-085125 (H)	16.00 - 21.00	Auto	0.1712
L30	27	(Area) CCI-65FP-085125 (H)	16.00 - 21.00	Auto	0.1712
L31	25	(Area) CCI-65FP-085125 (H)	11.00 - 16.00	Auto	0.1541
L31	26	(Area) CCI-65FP-085125 (H)	11.00 - 16.00	Auto	0.1541
L31	27	(Area) CCI-65FP-085125 (H)	11.00 - 16.00	Auto	0.1541
L32	25	(Area) CCI-65FP-085125 (H)	6.00 - 11.00	Auto	0.1344
L32	26	(Area) CCI-65FP-085125 (H)	6.00 - 11.00	Auto	0.1344
L32	27	(Area) CCI-65FP-085125 (H)	6.00 - 11.00	Auto	0.1344
L33	25	(Area) CCI-65FP-085125 (H)	1.00 - 6.00	Auto	0.1174
L33	26	(Area) CCI-65FP-085125 (H)	1.00 - 6.00	Auto	0.1174
L33	27	(Area) CCI-65FP-085125 (H)	1.00 - 6.00	Auto	0.1174
L34	25	(Area) CCI-65FP-085125 (H)	0.50 - 1.00	Auto	0.1080
L34	26	(Area) CCI-65FP-085125 (H)	0.50 - 1.00	Auto	0.1080
L34	27	(Area) CCI-65FP-085125 (H)	0.50 - 1.00	Auto	0.1080

Discrete Tower Loads

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	145 ft Monopole / Newington	Page	16 of 31
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	Client	Crown Castle	Designed by	Cameron G. Allen

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						
			ft	ft	°	ft	ft ²	ft ²	K	
LLPX310R-V1 w/ Mount Pipe	A	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	3.8800	2.3600	0.06
			0.00	0.00			1/2" Ice	4.2900	2.7300	0.09
			2.00	2.00			1" Ice	4.7200	3.1200	0.13
							2" Ice	5.6100	3.9400	0.24
LLPX310R-V1 w/ Mount Pipe	B	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	3.8800	2.3600	0.06
			0.00	0.00			1/2" Ice	4.2900	2.7300	0.09
			2.00	2.00			1" Ice	4.7200	3.1200	0.13
							2" Ice	5.6100	3.9400	0.24
LLPX310R-V1 w/ Mount Pipe	C	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	3.8800	2.3600	0.06
			0.00	0.00			1/2" Ice	4.2900	2.7300	0.09
			2.00	2.00			1" Ice	4.7200	3.1200	0.13
							2" Ice	5.6100	3.9400	0.24
TIMING 2000	B	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	0.1347	0.1079	0.00
			0.00	0.00			1/2" Ice	0.1830	0.1518	0.00
			2.00	2.00			1" Ice	0.2388	0.2031	0.01
							2" Ice	0.3726	0.3280	0.01
WIMAX DAP HEAD	A	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	1.5467	0.6840	0.03
			0.00	0.00			1/2" Ice	1.7037	0.7999	0.04
			2.00	2.00			1" Ice	1.8681	0.9228	0.06
							2" Ice	2.2193	1.1926	0.09
WIMAX DAP HEAD	B	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	1.5467	0.6840	0.03
			0.00	0.00			1/2" Ice	1.7037	0.7999	0.04
			2.00	2.00			1" Ice	1.8681	0.9228	0.06
							2" Ice	2.2193	1.1926	0.09
WIMAX DAP HEAD	C	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	1.5467	0.6840	0.03
			0.00	0.00			1/2" Ice	1.7037	0.7999	0.04
			2.00	2.00			1" Ice	1.8681	0.9228	0.06
							2" Ice	2.2193	1.1926	0.09
HORIZON COMPACT	B	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	0.7208	0.3720	0.01
			0.00	0.00			1/2" Ice	0.8278	0.4540	0.02
			6.00	6.00			1" Ice	0.9422	0.5435	0.03
							2" Ice	1.1933	0.7446	0.05
HORIZON COMPACT	C	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	0.7208	0.3720	0.01
			0.00	0.00			1/2" Ice	0.8278	0.4540	0.02
			6.00	6.00			1" Ice	0.9422	0.5435	0.03
							2" Ice	1.1933	0.7446	0.05
(3) 2.375" OD x 6' Mount Pipe	A	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	1.4250	1.4250	0.03
			0.00	0.00			1/2" Ice	1.9250	1.9250	0.04
			0.00	0.00			1" Ice	2.2939	2.2939	0.05
							2" Ice	3.0596	3.0596	0.09
(3) 2.375" OD x 6' Mount Pipe	B	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	1.4250	1.4250	0.03
			0.00	0.00			1/2" Ice	1.9250	1.9250	0.04
			0.00	0.00			1" Ice	2.2939	2.2939	0.05
							2" Ice	3.0596	3.0596	0.09
(3) 2.375" OD x 6' Mount Pipe	C	From Centroid-Fa ce	4.0000	0.000	0.000	133.0000	No Ice	1.4250	1.4250	0.03
			0.00	0.00			1/2" Ice	1.9250	1.9250	0.04
			0.00	0.00			1" Ice	2.2939	2.2939	0.05
							2" Ice	3.0596	3.0596	0.09
Platform Mount [LP 1201-1]	C	None		0.000	0.000	133.0000	No Ice	18.3800	18.3800	2.10
							1/2" Ice	22.1100	22.1100	2.65
							1" Ice	25.8700	25.8700	3.26
							2" Ice	33.4700	33.4700	4.66

APXVSPPI8-C-A20 w/ Mount Pipe	A	From Centroid-Le g	4.0000	0.000	0.000	124.0000	No Ice	4.6000	4.0100	0.10
			0.00	0.00			1/2" Ice	5.0500	4.4500	0.16
			0.00	0.00			1" Ice	5.5000	4.8900	0.23
							2" Ice	6.4400	5.8200	0.42

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	145 ft Monopole / Newington	Page	17 of 31
	Project	37520-1104 / BU 881364	Date	15:41:50 09/13/21
	Client	Crown Castle	Designed by	Cameron G. Allen

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						ft
			Lateral		°	ft	ft ²	ft ²	K	
APXVSP18-C-A20 w/ Mount Pipe	B	From Centroid-Le g	4.0000	0.00	0.000	124.0000	No Ice	4.6000	4.0100	0.10
							1/2" Ice	5.0500	4.4500	0.16
							1" Ice	5.5000	4.8900	0.23
							2" Ice	6.4400	5.8200	0.42
							No Ice	4.6000	4.0100	0.10
APXVSP18-C-A20 w/ Mount Pipe	C	From Centroid-Le g	4.0000	0.00	0.000	124.0000	1/2" Ice	5.0500	4.4500	0.16
							1" Ice	5.5000	4.8900	0.23
							2" Ice	6.4400	5.8200	0.42
							No Ice	4.0900	2.8600	0.08
							1/2" Ice	4.4800	3.2300	0.13
APXVTM14-C-120 w/ Mount Pipe	A	From Centroid-Le g	4.0000	0.00	0.000	124.0000	1" Ice	4.8800	3.6100	0.19
							2" Ice	5.7100	4.4000	0.33
							No Ice	4.0900	2.8600	0.08
							1/2" Ice	4.4800	3.2300	0.13
							1" Ice	4.8800	3.6100	0.19
APXVTM14-C-120 w/ Mount Pipe	B	From Centroid-Le g	4.0000	0.00	0.000	124.0000	2" Ice	5.7100	4.4000	0.33
							No Ice	4.0900	2.8600	0.08
							1/2" Ice	4.4800	3.2300	0.13
							1" Ice	4.8800	3.6100	0.19
							2" Ice	5.7100	4.4000	0.33
APXVTM14-C-120 w/ Mount Pipe	C	From Centroid-Le g	4.0000	0.00	0.000	124.0000	No Ice	4.0900	2.8600	0.08
							1/2" Ice	4.4800	3.2300	0.13
							1" Ice	4.8800	3.6100	0.19
							2" Ice	5.7100	4.4000	0.33
							No Ice	3.7042	1.2939	0.07
TD-RRH8x20-25	A	From Centroid-Le g	4.0000	0.00	0.000	124.0000	1/2" Ice	3.9462	1.4646	0.09
							1" Ice	4.1956	1.6424	0.12
							2" Ice	4.7168	2.0188	0.18
							No Ice	3.7042	1.2939	0.07
							1/2" Ice	3.9462	1.4646	0.09
TD-RRH8x20-25	B	From Centroid-Le g	4.0000	0.00	0.000	124.0000	1" Ice	4.1956	1.6424	0.12
							2" Ice	4.7168	2.0188	0.18
							No Ice	3.7042	1.2939	0.07
							1/2" Ice	3.9462	1.4646	0.09
							1" Ice	4.1956	1.6424	0.12
TD-RRH8x20-25	C	From Centroid-Le g	4.0000	0.00	0.000	124.0000	2" Ice	4.7168	2.0188	0.18
							No Ice	3.7042	1.2939	0.07
							1/2" Ice	3.9462	1.4646	0.09
							1" Ice	4.1956	1.6424	0.12
							2" Ice	4.7168	2.0188	0.18
IBC1900HG-2A	A	From Centroid-Le g	4.0000	0.00	0.000	124.0000	No Ice	0.9660	0.4635	0.02
							1/2" Ice	1.0908	0.5576	0.03
							1" Ice	1.2230	0.6599	0.04
							2" Ice	1.5097	0.8927	0.06
							No Ice	0.9660	0.4635	0.02
IBC1900HG-2A	B	From Centroid-Le g	4.0000	0.00	0.000	124.0000	1/2" Ice	1.0908	0.5576	0.03
							1" Ice	1.2230	0.6599	0.04
							2" Ice	1.5097	0.8927	0.06
							No Ice	0.9660	0.4635	0.02
							1/2" Ice	1.0908	0.5576	0.03
IBC1900HG-2A	C	From Centroid-Le g	4.0000	0.00	0.000	124.0000	1" Ice	1.2230	0.6599	0.04
							2" Ice	1.5097	0.8927	0.06
							No Ice	0.9660	0.4635	0.02
							1/2" Ice	1.0908	0.5576	0.03
							1" Ice	1.2230	0.6599	0.04
IBC1900BB-1	A	From Centroid-Le g	4.0000	0.00	0.000	124.0000	2" Ice	1.5097	0.8927	0.06
							No Ice	0.9660	0.4635	0.02
							1/2" Ice	1.0908	0.5576	0.03
							1" Ice	1.2230	0.6599	0.04
							2" Ice	1.5097	0.8927	0.06
IBC1900BB-1	B	From Centroid-Le g	4.0000	0.00	0.000	124.0000	No Ice	0.9660	0.4635	0.02
							1/2" Ice	1.0908	0.5576	0.03
							1" Ice	1.2230	0.6599	0.04
							2" Ice	1.5097	0.8927	0.06
							No Ice	0.9660	0.4635	0.02
IBC1900BB-1	C	From Centroid-Le g	4.0000	0.00	0.000	124.0000	1/2" Ice	1.0908	0.5576	0.03
							1" Ice	1.2230	0.6599	0.04
							2" Ice	1.5097	0.8927	0.06
							No Ice	0.9660	0.4635	0.02
							1/2" Ice	1.0908	0.5576	0.03
2.375" OD x 6' Mount Pipe	A	From	4.0000	0.00	0.000	124.0000	No Ice	1.4250	1.4250	0.03

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	145 ft Monopole / Newington	Page	18 of 31
	Project	37520-1104 / BU 881364	Date	15:41:50 09/13/21
	Client	Crown Castle	Designed by	Cameron G. Allen

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A ₁ Front	C _A A ₁ Side	Weight	
			Horz Lateral	Vert						°
2.375" OD x 6' Mount Pipe	B	Centroid- Leg	0.00	0.00	0.000	124.0000	No Ice	1/2" Ice	1.9250	0.04
								1" Ice	2.2939	0.05
								2" Ice	3.0596	0.09
2.375" OD x 6' Mount Pipe	C	From Centroid- Leg	4.0000	0.00	0.000	124.0000	No Ice	1/2" Ice	1.4250	0.03
								1" Ice	1.9250	0.04
								2" Ice	2.2939	0.05
Platform Mount [LP 1201-1]	C	None	0.00	0.000	124.0000	No Ice	1/2" Ice	1.9250	0.04	
							1" Ice	2.2939	0.05	
							2" Ice	3.0596	0.09	
*** 800MHz 2X50W RRH W/FILTER	A	From Leg	1.0000	0.00	122.0000	No Ice	1/2" Ice	18.3800	2.10	
							1" Ice	22.1100	2.65	
							2" Ice	25.8700	3.26	
800MHz 2X50W RRH W/FILTER	B	From Leg	1.0000	0.00	122.0000	No Ice	1/2" Ice	33.4700	4.66	
							1" Ice	2.0583	0.06	
							2" Ice	2.2398	0.09	
800MHz 2X50W RRH W/FILTER	C	From Leg	1.0000	0.00	122.0000	No Ice	1" Ice	2.1087	0.05	
							2" Ice	2.2931	0.11	
							2" Ice	2.8287	0.17	
PCS 1900MHz 4x45W-65MHz	A	From Leg	1.0000	0.00	122.0000	No Ice	1" Ice	2.0583	0.06	
							2" Ice	2.2398	0.09	
							2" Ice	2.8287	0.17	
PCS 1900MHz 4x45W-65MHz	B	From Leg	1.0000	0.00	122.0000	No Ice	1" Ice	1.9317	0.06	
							2" Ice	2.1087	0.09	
							2" Ice	2.8287	0.17	
PCS 1900MHz 4x45W-65MHz	C	From Leg	1.0000	0.00	122.0000	No Ice	1" Ice	2.0583	0.06	
							2" Ice	2.2398	0.09	
							2" Ice	2.8287	0.17	
Pipe Mount [PM 601-3]	C	None	0.00	0.000	122.0000	No Ice	1" Ice	2.2381	0.11	
							2" Ice	2.4407	0.17	
							2" Ice	3.0929	0.23	
*** BXA-80063/4CFx5 w/ Mount Pipe	A	From Centroid- Leg	4.0000	0.00	114.0000	No Ice	1" Ice	3.1700	0.20	
							2" Ice	3.7900	0.23	
							2" Ice	4.4200	0.28	
BXA-80063/4CFx5 w/ Mount Pipe	B	From Centroid- Leg	4.0000	0.00	114.0000	No Ice	1" Ice	5.7600	0.40	
							2" Ice	4.9453	0.03	
							2" Ice	5.3243	0.07	
BXA-80063/4CFx5 w/ Mount Pipe	C	From Centroid- Leg	4.0000	0.00	114.0000	No Ice	1" Ice	5.7120	0.12	
							2" Ice	6.1053	0.23	
							2" Ice	6.5142	0.23	

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	145 ft Monopole / Newington	Page	19 of 31
	Project	37520-1104 / BU 881364	Date	15:41:50 09/13/21
	Client	Crown Castle	Designed by	Cameron G. Allen

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						
			ft	ft	°	ft	ft ²	ft ²	K	
(2) SBNHH-1D65B w/ Mount Pipe	A	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	4.0900	3.3000	0.07
			0.00	1.00			1/2" Ice	4.4900	3.6800	0.13
							1" Ice	4.8900	4.0700	0.20
							2" Ice	5.7200	4.8700	0.39
(2) SBNHH-1D65B w/ Mount Pipe	B	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	4.0900	3.3000	0.07
			0.00	1.00			1/2" Ice	4.4900	3.6800	0.13
							1" Ice	4.8900	4.0700	0.20
							2" Ice	5.7200	4.8700	0.39
(2) SBNHH-1D65B w/ Mount Pipe	C	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	4.0900	3.3000	0.07
			0.00	1.00			1/2" Ice	4.4900	3.6800	0.13
							1" Ice	4.8900	4.0700	0.20
							2" Ice	5.7200	4.8700	0.39
CBRS w/ Mount Pipe	A	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	1.4500	0.9900	0.03
			0.00	-1.00			1/2" Ice	1.6700	1.1800	0.05
							1" Ice	1.9000	1.3900	0.07
							2" Ice	2.4200	1.8500	0.12
CBRS w/ Mount Pipe	B	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	1.4500	0.9900	0.03
			0.00	-1.00			1/2" Ice	1.6700	1.1800	0.05
							1" Ice	1.9000	1.3900	0.07
							2" Ice	2.4200	1.8500	0.12
CBRS w/ Mount Pipe	C	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	1.4500	0.9900	0.03
			0.00	-1.00			1/2" Ice	1.6700	1.1800	0.05
							1" Ice	1.9000	1.3900	0.07
							2" Ice	2.4200	1.8500	0.12
MT6407-77A w/ Mount Pipe	A	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	4.9069	2.6821	0.10
			0.00	3.00			1/2" Ice	5.2559	3.1450	0.14
							1" Ice	5.6147	3.6241	0.18
							2" Ice	6.3615	4.6310	0.29
MT6407-77A w/ Mount Pipe	B	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	4.9069	2.6821	0.10
			0.00	3.00			1/2" Ice	5.2559	3.1450	0.14
							1" Ice	5.6147	3.6241	0.18
							2" Ice	6.3615	4.6310	0.29
MT6407-77A w/ Mount Pipe	C	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	4.9069	2.6821	0.10
			0.00	3.00			1/2" Ice	5.2559	3.1450	0.14
							1" Ice	5.6147	3.6241	0.18
							2" Ice	6.3615	4.6310	0.29
KS24019-L112A	B	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	0.0815	0.0815	0.01
			0.00	2.00			1/2" Ice	0.1333	0.1333	0.01
							1" Ice	0.1944	0.1944	0.01
							2" Ice	0.3500	0.3500	0.02
DB-T1-6Z-8AB-0Z	B	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	4.8000	2.0000	0.04
			0.00	1.00			1/2" Ice	5.0704	2.1926	0.08
							1" Ice	5.3481	2.3926	0.12
							2" Ice	5.9259	2.8148	0.21
(2) RFV01U-D2A	B	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	1.8750	1.0125	0.07
			0.00	1.00			1/2" Ice	2.0454	1.1445	0.09
							1" Ice	2.2231	1.2840	0.11
							2" Ice	2.6009	1.5851	0.15
RFV01U-D2A	C	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	1.8750	1.0125	0.07
			0.00	1.00			1/2" Ice	2.0454	1.1445	0.09
							1" Ice	2.2231	1.2840	0.11
							2" Ice	2.6009	1.5851	0.15
RFV01U-D1A	C	From Centroid-Le g	4.0000	0.00	0.000	114.0000	No Ice	1.8750	1.2500	0.08
			0.00	1.00			1/2" Ice	2.0454	1.3926	0.10
							1" Ice	2.2231	1.5426	0.12
							2" Ice	2.6009	1.8648	0.18
(2) RFV01U-D1A	A	From	4.0000	0.00	0.000	114.0000	No Ice	1.8750	1.2500	0.08

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	Client	Crown Castle	Designed by	Cameron G. Allen

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight
			Horz Lateral	Vert					
			ft	ft	°	ft	ft ²	ft ²	K
		Centroid-Le	0.00			1/2" Ice	2.0454	1.3926	0.10
		g	1.00			1" Ice	2.2231	1.5426	0.12
						2" Ice	2.6009	1.8648	0.18
Platform Mount [LP 1201-1_KCKR-HR-1]	C	None			0.000	No Ice	37.6100	37.6100	2.63
						1/2" Ice	45.6200	45.6200	3.48
						1" Ice	53.5900	53.5900	4.46
						2" Ice	69.6500	69.6500	6.85

7770.00 w/ Mount Pipe	A	From	4.0000		0.000	No Ice	5.7460	4.2543	0.06
		Centroid-Le	0.00			1/2" Ice	6.1791	5.0137	0.10
		g	0.00			1" Ice	6.6067	5.7109	0.16
						2" Ice	7.4880	7.1553	0.29
7770.00 w/ Mount Pipe	B	From	4.0000		0.000	No Ice	5.7460	4.2543	0.06
		Centroid-Le	0.00			1/2" Ice	6.1791	5.0137	0.10
		g	0.00			1" Ice	6.6067	5.7109	0.16
						2" Ice	7.4880	7.1553	0.29
7770.00 w/ Mount Pipe	C	From	4.0000		0.000	No Ice	5.7460	4.2543	0.06
		Centroid-Le	0.00			1/2" Ice	6.1791	5.0137	0.10
		g	0.00			1" Ice	6.6067	5.7109	0.16
						2" Ice	7.4880	7.1553	0.29
OPA-65R-LCUU-H6 w/ Mount Pipe	A	From	4.0000		0.000	No Ice	9.1900	6.2100	0.11
		Centroid-Le	0.00			1/2" Ice	9.9400	6.9300	0.18
		g	0.00			1" Ice	10.7100	7.6600	0.26
						2" Ice	12.3000	9.1700	0.45
OPA-65R-LCUU-H6 w/ Mount Pipe	B	From	4.0000		0.000	No Ice	9.1900	6.2100	0.11
		Centroid-Le	0.00			1/2" Ice	9.9400	6.9300	0.18
		g	0.00			1" Ice	10.7100	7.6600	0.26
						2" Ice	12.3000	9.1700	0.45
OPA-65R-LCUU-H6 w/ Mount Pipe	C	From	4.0000		0.000	No Ice	9.1900	6.2100	0.11
		Centroid-Le	0.00			1/2" Ice	9.9400	6.9300	0.18
		g	0.00			1" Ice	10.7100	7.6600	0.26
						2" Ice	12.3000	9.1700	0.45
80010965 w/ Mount Pipe	A	From	4.0000		0.000	No Ice	12.2600	5.7900	0.14
		Centroid-Le	0.00			1/2" Ice	13.0300	6.4700	0.23
		g	0.00			1" Ice	13.8000	7.1700	0.33
						2" Ice	15.4100	8.6000	0.57
80010965 w/ Mount Pipe	B	From	4.0000		0.000	No Ice	12.2600	5.7900	0.14
		Centroid-Le	0.00			1/2" Ice	13.0300	6.4700	0.23
		g	0.00			1" Ice	13.8000	7.1700	0.33
						2" Ice	15.4100	8.6000	0.57
80010965 w/ Mount Pipe	C	From	4.0000		0.000	No Ice	12.2600	5.7900	0.14
		Centroid-Le	0.00			1/2" Ice	13.0300	6.4700	0.23
		g	0.00			1" Ice	13.8000	7.1700	0.33
						2" Ice	15.4100	8.6000	0.57
QS66512-2 w/ Mount Pipe	A	From	4.0000		0.000	No Ice	4.0400	4.1800	0.14
		Centroid-Le	0.00			1/2" Ice	4.4200	4.5700	0.21
		g	0.00			1" Ice	4.8200	4.9700	0.29
						2" Ice	5.6300	5.7900	0.48
QS66512-2 w/ Mount Pipe	B	From	4.0000		0.000	No Ice	4.0400	4.1800	0.14
		Centroid-Le	0.00			1/2" Ice	4.4200	4.5700	0.21
		g	0.00			1" Ice	4.8200	4.9700	0.29
						2" Ice	5.6300	5.7900	0.48
QS66512-2 w/ Mount Pipe	C	From	4.0000		0.000	No Ice	4.0400	4.1800	0.14
		Centroid-Le	0.00			1/2" Ice	4.4200	4.5700	0.21
		g	0.00			1" Ice	4.8200	4.9700	0.29
						2" Ice	5.6300	5.7900	0.48

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	Project	37520-1104 / BU 881364	Date	15:41:50 09/13/21
	Client	Crown Castle	Designed by	Cameron G. Allen

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						
			ft	ft	°	ft	ft ²	ft ²	K	
RRUS 4478 B14	A	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	1.8425	1.0588	0.06
			0.00	0.00			1/2" Ice	2.0123	1.1969	0.08
			0.00	0.00			1" Ice	2.1895	1.3425	0.09
			0.00	0.00			2" Ice	2.5662	1.6558	0.14
RRUS 4478 B14	B	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	1.8425	1.0588	0.06
			0.00	0.00			1/2" Ice	2.0123	1.1969	0.08
			0.00	0.00			1" Ice	2.1895	1.3425	0.09
			0.00	0.00			2" Ice	2.5662	1.6558	0.14
RRUS 4478 B14	C	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	1.8425	1.0588	0.06
			0.00	0.00			1/2" Ice	2.0123	1.1969	0.08
			0.00	0.00			1" Ice	2.1895	1.3425	0.09
			0.00	0.00			2" Ice	2.5662	1.6558	0.14
(3) DC6-48-60-18-8F	A	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	1.2117	1.2117	0.03
			0.00	0.00			1/2" Ice	1.8924	1.8924	0.05
			0.00	0.00			1" Ice	2.1051	2.1051	0.08
			0.00	0.00			2" Ice	2.5703	2.5703	0.14
(2) LGP21401	A	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	1.1040	0.2070	0.01
			0.00	0.00			1/2" Ice	1.2388	0.2738	0.02
			0.00	0.00			1" Ice	1.3810	0.3475	0.03
			0.00	0.00			2" Ice	1.6877	0.5208	0.05
(2) LGP21401	B	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	1.1040	0.2070	0.01
			0.00	0.00			1/2" Ice	1.2388	0.2738	0.02
			0.00	0.00			1" Ice	1.3810	0.3475	0.03
			0.00	0.00			2" Ice	1.6877	0.5208	0.05
(2) LGP21401	C	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	1.1040	0.2070	0.01
			0.00	0.00			1/2" Ice	1.2388	0.2738	0.02
			0.00	0.00			1" Ice	1.3810	0.3475	0.03
			0.00	0.00			2" Ice	1.6877	0.5208	0.05
(2) TPX-070821	A	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	0.4688	0.1009	0.01
			0.00	0.00			1/2" Ice	0.5585	0.1471	0.01
			0.00	0.00			1" Ice	0.6556	0.2020	0.02
			0.00	0.00			2" Ice	0.8721	0.3340	0.03
(2) TPX-070821	B	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	0.4688	0.1009	0.01
			0.00	0.00			1/2" Ice	0.5585	0.1471	0.01
			0.00	0.00			1" Ice	0.6556	0.2020	0.02
			0.00	0.00			2" Ice	0.8721	0.3340	0.03
(2) TPX-070821	C	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	0.4688	0.1009	0.01
			0.00	0.00			1/2" Ice	0.5585	0.1471	0.01
			0.00	0.00			1" Ice	0.6556	0.2020	0.02
			0.00	0.00			2" Ice	0.8721	0.3340	0.03
RRUS 32	A	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	2.8571	1.7766	0.06
			0.00	0.00			1/2" Ice	3.0830	1.9677	0.08
			0.00	0.00			1" Ice	3.3163	2.1658	0.10
			0.00	0.00			2" Ice	3.8052	2.5829	0.16
RRUS 32	B	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	2.8571	1.7766	0.06
			0.00	0.00			1/2" Ice	3.0830	1.9677	0.08
			0.00	0.00			1" Ice	3.3163	2.1658	0.10
			0.00	0.00			2" Ice	3.8052	2.5829	0.16
RRUS 32	C	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	2.8571	1.7766	0.06
			0.00	0.00			1/2" Ice	3.0830	1.9677	0.08
			0.00	0.00			1" Ice	3.3163	2.1658	0.10
			0.00	0.00			2" Ice	3.8052	2.5829	0.16
RRUS 4449 B5/B12	A	From Centroid-Le g	4.0000	0.0000	0.000	105.0000	No Ice	1.9675	1.4081	0.07
			0.00	0.00			1/2" Ice	2.1439	1.5637	0.09
			0.00	0.00			1" Ice	2.3278	1.7267	0.11
			0.00	0.00			2" Ice	2.7177	2.0749	0.16
RRUS 4449 B5/B12	B	From	4.0000	0.0000	0.000	105.0000	No Ice	1.9675	1.4081	0.07

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Vert						
			ft	ft	°	ft	ft ²	ft ²	K	
		Centroid-Left	0.00			1/2" Ice	2.1439	1.5637	0.09	
			0.00			1" Ice	2.3278	1.7267	0.11	
						2" Ice	2.7177	2.0749	0.16	
RRUS 4449 B5/B12	C	From Centroid-Left	4.0000		0.000	105.0000	No Ice	1.9675	1.4081	0.07
			0.00				1/2" Ice	2.1439	1.5637	0.09
							1" Ice	2.3278	1.7267	0.11
							2" Ice	2.7177	2.0749	0.16
RRUS 8843 B2/B66A	A	From Centroid-Left	4.0000		0.000	105.0000	No Ice	1.6390	1.3534	0.07
			0.00				1/2" Ice	1.7988	1.5005	0.09
							1" Ice	1.9660	1.6549	0.11
							2" Ice	2.3227	1.9860	0.16
RRUS 8843 B2/B66A	B	From Centroid-Left	4.0000		0.000	105.0000	No Ice	1.6390	1.3534	0.07
			0.00				1/2" Ice	1.7988	1.5005	0.09
							1" Ice	1.9660	1.6549	0.11
							2" Ice	2.3227	1.9860	0.16
RRUS 8843 B2/B66A	C	From Centroid-Left	4.0000		0.000	105.0000	No Ice	1.6390	1.3534	0.07
			0.00				1/2" Ice	1.7988	1.5005	0.09
							1" Ice	1.9660	1.6549	0.11
							2" Ice	2.3227	1.9860	0.16
Site Pro 1 F3P-HRK12	C	None			0.000	105.0000	No Ice	5.3800	4.6400	0.41
							1/2" Ice	7.2200	6.3500	0.50
							1" Ice	8.8800	8.1300	0.59
							2" Ice	12.2000	11.6900	0.77
Site Pro 1 F3P-12[W]	C	None			0.000	105.0000	No Ice	25.5200	25.4100	2.00
							1/2" Ice	31.7400	32.2700	2.60
							1" Ice	40.1000	39.6800	3.41
							2" Ice	50.4175	52.8533	4.40

AIR -32 B2A/B66AA	A	From Centroid-Face	4.0000		0.000	94.0000	No Ice	3.8600	2.5100	0.17
			0.00				1/2" Ice	4.2300	2.8600	0.22
			1.00				1" Ice	4.6100	3.2200	0.27
							2" Ice	5.4100	3.9700	0.40
AIR -32 B2A/B66AA	B	From Centroid-Face	4.0000		0.000	94.0000	No Ice	3.8600	2.5100	0.17
			0.00				1/2" Ice	4.2300	2.8600	0.22
			1.00				1" Ice	4.6100	3.2200	0.27
							2" Ice	5.4100	3.9700	0.40
AIR -32 B2A/B66AA	C	From Centroid-Face	4.0000		0.000	94.0000	No Ice	3.8600	2.5100	0.17
			0.00				1/2" Ice	4.2300	2.8600	0.22
			1.00				1" Ice	4.6100	3.2200	0.27
							2" Ice	5.4100	3.9700	0.40
APXVAARR24_43-U-NA20	A	From Centroid-Face	4.0000		0.000	94.0000	No Ice	14.6700	5.3200	0.15
			0.00				1/2" Ice	15.4300	5.9900	0.27
			1.00				1" Ice	16.2100	6.6800	0.39
							2" Ice	17.8100	8.0800	0.66
APXVAARR24_43-U-NA20	B	From Centroid-Face	4.0000		0.000	94.0000	No Ice	14.6700	5.3200	0.15
			0.00				1/2" Ice	15.4300	5.9900	0.27
			1.00				1" Ice	16.2100	6.6800	0.39
							2" Ice	17.8100	8.0800	0.66
APXVAARR24_43-U-NA20	C	From Centroid-Face	4.0000		0.000	94.0000	No Ice	14.6700	5.3200	0.15
			0.00				1/2" Ice	15.4300	5.9900	0.27
			1.00				1" Ice	16.2100	6.6800	0.39
							2" Ice	17.8100	8.0800	0.66
AIR 3246 B66	A	From Centroid-Face	4.0000		0.000	94.0000	No Ice	7.3100	4.3000	0.18
			0.00				1/2" Ice	7.9000	4.8400	0.23
			1.00				1" Ice	8.5100	5.4000	0.30
							2" Ice	9.7700	6.5600	0.43
AIR 3246 B66	B	From	4.0000		0.000	94.0000	No Ice	7.3100	4.3000	0.18

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Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets:		Azimuth Adjustment	3 dB Beam Width	Elevation	Outside Diameter	Aperture Area	Weight
				Horz	Vert						
				ft	°	°	ft	ft	ft ²	K	
VHLP2.5-11	B	Paraboloid w/Shroud (HP)	From Centroid -Face	4.0000	-47.000	°	133.0000	2.9167	No Ice	6.6800	0.05
				6.00					1/2" Ice	7.0700	0.08
				6.00					1" Ice	7.4600	0.12
									2" Ice	8.2300	0.19
VHLP2.5-11	C	Paraboloid w/Shroud (HP)	From Centroid -Face	4.0000	23.000	°	133.0000	2.9167	No Ice	6.6800	0.05
				6.00					1/2" Ice	7.0700	0.08
				6.00					1" Ice	7.4600	0.12
									2" Ice	8.2300	0.19

Load Combinations

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

<p>tnxTower</p> <p>Tower Engineering Professionals</p> <p>326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350</p>	<p>Job</p> <p>145 ft Monopole / Newington</p>	<p>Page</p> <p>25 of 31</p>
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	<p>Client</p> <p>Crown Castle</p>	<p>Designed by</p> <p>Cameron G. Allen</p>

Comb. No.	Description
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	145 - 140	18.82	39	1.029	0.003
L2	140 - 135	17.75	39	1.028	0.003
L3	135 - 130	16.67	39	1.027	0.002
L4	130 - 125	15.60	39	1.023	0.002
L5	125 - 120	14.53	39	1.018	0.002
L6	120 - 115	13.47	39	1.009	0.001
L7	115 - 110	12.42	39	0.995	0.001
L8	110 - 105	11.38	39	0.976	0.001
L9	105 - 100	10.37	39	0.951	0.001
L10	100 - 95	9.39	39	0.919	0.001
L11	95 - 90	8.45	39	0.880	0.001
L12	90 - 84.75	7.55	39	0.834	0.001
L13	89.25 - 84.25	7.42	39	0.827	0.001
L14	84.25 - 79.25	6.57	39	0.800	0.000
L15	79.25 - 74.25	5.76	39	0.751	0.000
L16	74.25 - 69.25	5.00	39	0.698	0.000
L17	69.25 - 64.25	4.30	39	0.641	0.000
L18	64.25 - 59.25	3.66	39	0.582	0.000
L19	59.25 - 54.25	3.08	39	0.521	0.000
L20	54.25 - 50.083	2.57	39	0.458	0.000
L21	50.083 - 49.833	2.19	39	0.405	0.000
L22	49.833 - 44.25	2.17	39	0.402	0.000
L23	49.5 - 43.25	2.14	39	0.399	0.000
L24	43.25 - 38.25	1.64	39	0.366	0.000
L25	38.25 - 33.25	1.28	39	0.322	0.000
L26	33.25 - 31.25	0.96	39	0.276	0.000
L27	31.25 - 31	0.85	39	0.257	0.000
L28	31 - 26	0.84	39	0.255	0.000
L29	26 - 21	0.59	39	0.216	0.000
L30	21 - 16	0.39	39	0.175	0.000
L31	16 - 11	0.23	39	0.134	0.000
L32	11 - 6	0.11	39	0.093	0.000
L33	6 - 1	0.03	39	0.051	0.000
L34	1 - 0	0.00	39	0.008	0.000

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Critical Deflections and Radius of Curvature - Service Wind

Elevation	Appurtenance	Gov. Load	Deflection	Tilt	Twist	Radius of Curvature
ft		Comb.	in	°	°	ft
139.0000	VHLP2.5-11	39	17.53	1.028	0.005	355405
133.0000	LLPX310R-V1 w/ Mount Pipe	39	16.24	1.026	0.004	84318
124.0000	APXVSPP18-C-A20 w/ Mount Pipe	39	14.32	1.017	0.003	34630
122.0000	800MHz 2X50W RRR W/FILTER	39	13.89	1.013	0.003	28869
114.0000	BXA-80063/4CFx5 w/ Mount Pipe	39	12.21	0.992	0.003	16186
105.0000	7770.00 w/ Mount Pipe	39	10.37	0.951	0.002	10007
94.0000	AIR -32 B2A/B66AA	39	8.27	0.872	0.001	6541
80.0000	Side Arm Mount [SO 701-1]	39	5.88	0.759	0.001	5722
77.0000	Side Arm Mount [SO 701-1]	39	5.41	0.727	0.001	5354

Maximum Tower Deflections - Design Wind

Section No.	Elevation	Horz. Deflection	Gov. Load	Tilt	Twist
	ft	in	Comb.	°	°
L1	145 - 140	77.88	2	4.261	0.012
L2	140 - 135	73.42	2	4.261	0.012
L3	135 - 130	68.97	2	4.257	0.011
L4	130 - 125	64.52	2	4.242	0.010
L5	125 - 120	60.10	2	4.219	0.008
L6	120 - 115	55.70	2	4.181	0.007
L7	115 - 110	51.35	2	4.124	0.006
L8	110 - 105	47.08	2	4.044	0.005
L9	105 - 100	42.90	2	3.939	0.004
L10	100 - 95	38.85	2	3.806	0.004
L11	95 - 90	34.95	2	3.643	0.003
L12	90 - 84.75	31.23	2	3.453	0.002
L13	89.25 - 84.25	30.69	2	3.422	0.002
L14	84.25 - 79.25	27.16	2	3.312	0.002
L15	79.25 - 74.25	23.80	2	3.107	0.002
L16	74.25 - 69.25	20.66	2	2.887	0.002
L17	69.25 - 64.25	17.76	2	2.653	0.001
L18	64.25 - 59.25	15.11	2	2.409	0.001
L19	59.25 - 54.25	12.72	2	2.155	0.001
L20	54.25 - 50.083	10.60	2	1.894	0.001
L21	50.083 - 49.833	9.04	2	1.672	0.001
L22	49.833 - 44.25	8.96	2	1.663	0.001
L23	49.5 - 43.25	8.84	2	1.650	0.001
L24	43.25 - 38.25	6.76	2	1.515	0.001
L25	38.25 - 33.25	5.27	2	1.330	0.000
L26	33.25 - 31.25	3.98	2	1.140	0.000
L27	31.25 - 31	3.52	2	1.062	0.000
L28	31 - 26	3.46	2	1.054	0.000
L29	26 - 21	2.44	2	0.890	0.000
L30	21 - 16	1.60	2	0.722	0.000
L31	16 - 11	0.93	2	0.553	0.000
L32	11 - 6	0.44	2	0.383	0.000
L33	6 - 1	0.13	2	0.209	0.000
L34	1 - 0	0.00	2	0.035	0.000

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Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
139.0000	VHLP2.5-11	2	72.53	4.261	0.020	104564
133.0000	LLPX310R-V1 w/ Mount Pipe	2	67.19	4.252	0.017	22510
124.0000	APXVSPP18-C-A20 w/ Mount Pipe	2	59.21	4.213	0.013	8610
122.0000	800MHz 2X50W RRH W/FILTER	2	57.45	4.198	0.013	7143
114.0000	BXA-80063/4CFx5 w/ Mount Pipe	2	50.49	4.110	0.010	3969
105.0000	7770.00 w/ Mount Pipe	2	42.90	3.939	0.008	2437
94.0000	AIR -32 B2A/B66AA	2	34.19	3.608	0.006	1588
80.0000	Side Arm Mount [SO 701-1]	2	24.29	3.142	0.004	1387
77.0000	Side Arm Mount [SO 701-1]	2	22.36	3.007	0.004	1298

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u /φP _n
L1	145 - 140 (1)	TP24.9233x24x0.1875	5.0000	0.0000	0.0	14.7209	-0.27	861.17	0.000
L2	140 - 135 (2)	TP25.8467x24.9233x0.1875	5.0000	0.0000	0.0	15.2704	-0.61	893.32	0.001
L3	135 - 130 (3)	TP26.77x25.8467x0.1875	5.0000	0.0000	0.0	15.8199	-3.94	925.47	0.004
L4	130 - 125 (4)	TP27.8249x26.9x0.25	5.0000	0.0000	0.0	21.8807	-4.36	1280.02	0.003
L5	125 - 120 (5)	TP28.7497x27.8249x0.25	5.0000	0.0000	0.0	22.6145	-8.90	1322.95	0.007
L6	120 - 115 (6)	TP29.6746x28.7497x0.25	5.0000	0.0000	0.0	23.3484	-9.39	1365.88	0.007
L7	115 - 110 (7)	TP30.5994x29.6746x0.25	5.0000	0.0000	0.0	24.0823	-14.44	1408.81	0.010
L8	110 - 105 (8)	TP31.5243x30.5994x0.25	5.0000	0.0000	0.0	24.8162	-15.01	1451.75	0.010
L9	105 - 100 (9)	TP32.4492x31.5243x0.25	5.0000	0.0000	0.0	25.5500	-20.95	1494.68	0.014
L10	100 - 95 (10)	TP33.374x32.4492x0.25	5.0000	0.0000	0.0	26.2839	-21.66	1537.61	0.014
L11	95 - 90 (11)	TP34.2989x33.374x0.25	5.0000	0.0000	0.0	27.0178	-26.45	1580.54	0.017
L12	90 - 84.75 (12)	TP35.27x34.2989x0.25	5.2500	0.0000	0.0	27.1279	-26.58	1586.98	0.017
L13	84.75 - 84.25 (13)	TP34.8467x33.92x0.3125	5.0000	0.0000	0.0	34.2536	-28.03	2003.83	0.014
L14	84.25 - 79.25 (14)	TP35.7733x34.8467x0.3125	5.0000	0.0000	0.0	35.1727	-29.19	2057.60	0.014
L15	79.25 - 74.25 (15)	TP36.7x35.7733x0.3125	5.0000	0.0000	0.0	36.0919	-30.31	2111.37	0.014
L16	74.25 - 69.25 (16)	TP37.6267x36.7x0.3125	5.0000	0.0000	0.0	37.0110	-31.38	2165.14	0.014
L17	69.25 - 64.25 (17)	TP38.5533x37.6267x0.3125	5.0000	0.0000	0.0	37.9301	-32.47	2218.91	0.015
L18	64.25 - 59.25 (18)	TP39.48x38.5533x0.3125	5.0000	0.0000	0.0	38.8493	-33.59	2272.68	0.015
L19	59.25 - 54.25 (19)	TP40.4067x39.48x0.3125	5.0000	0.0000	0.0	39.7684	-34.74	2326.45	0.015
L20	54.25 - 50.083 (20)	TP41.179x40.4067x0.3125	4.1670	0.0000	0.0	40.5344	-35.72	2371.26	0.015
L21	50.083 - 49.833 (21)	TP41.2253x41.179x0.4375	0.2500	0.0000	0.0	56.6389	-35.81	3313.38	0.011
L22	49.833 - 44.25 (22)	TP42.26x41.2253x0.4375	5.5830	0.0000	0.0	56.7246	-35.91	3318.39	0.011
L23	44.25 - 43.25 (23)	TP41.6933x40.662x0.5	6.2500	0.0000	0.0	65.3738	-39.22	3824.37	0.010

tnxTower Tower Engineering Professionals 326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	145 ft Monopole / Newington	Page	28 of 31
	Project	37520-1104 / BU 881364	Date	15:41:50 09/13/21
	Client	Crown Castle	Designed by	Cameron G. Allen

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
L24	43.25 - 38.25 (24)	TP42.5184x41.6933x0.5	5.0000	0.0000	0.0	66.6831	-40.91	3900.96	0.010
L25	38.25 - 33.25 (25)	TP43.3434x42.5184x0.4938	5.0000	0.0000	0.0	67.1524	-42.64	3928.41	0.011
L26	33.25 - 31.25 (26)	TP43.6734x43.3434x0.4875	2.0000	0.0000	0.0	66.8227	-43.34	3909.13	0.011
L27	31.25 - 31 (27)	TP43.7147x43.6734x0.5875	0.2500	0.0000	0.0	80.4203	-43.45	4704.59	0.009
L28	31 - 26 (28)	TP44.5397x43.7147x0.5875	5.0000	0.0000	0.0	81.9588	-45.47	4794.59	0.009
L29	26 - 21 (29)	TP45.3648x44.5397x0.575	5.0000	0.0000	0.0	81.7436	-47.52	4782.00	0.010
L30	21 - 16 (30)	TP46.1898x45.3648x0.575	5.0000	0.0000	0.0	83.2494	-49.59	4870.09	0.010
L31	16 - 11 (31)	TP47.0149x46.1898x0.575	5.0000	0.0000	0.0	84.7551	-51.69	4958.17	0.010
L32	11 - 6 (32)	TP47.8399x47.0149x0.5625	5.0000	0.0000	0.0	84.4080	-53.81	4937.87	0.011
L33	6 - 1 (33)	TP48.665x47.8399x0.5625	5.0000	0.0000	0.0	85.8810	-55.95	5024.04	0.011
L34	1 - 0 (34)	TP48.83x48.665x0.5625	1.0000	0.0000	0.0	86.1756	-56.38	5041.27	0.011

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{ux} kip-ft	Ratio M _{ux} / φM _{ux}	M _{uy} kip-ft	φM _{uy} kip-ft	Ratio M _{uy} / φM _{uy}
L1	145 - 140 (1)	TP24.9233x24x0.1875	0.95	505.02	0.002	0.00	505.02	0.000
L2	140 - 135 (2)	TP25.8467x24.9233x0.1875	7.14	536.18	0.013	0.00	536.18	0.000
L3	135 - 130 (3)	TP26.77x25.8467x0.1875	23.27	567.67	0.041	0.00	567.67	0.000
L4	130 - 125 (4)	TP27.8249x26.9x0.25	44.47	885.50	0.050	0.00	885.50	0.000
L5	125 - 120 (5)	TP28.7497x27.8249x0.25	78.64	937.04	0.084	0.00	937.04	0.000
L6	120 - 115 (6)	TP29.6746x28.7497x0.25	120.47	989.38	0.122	0.00	989.38	0.000
L7	115 - 110 (7)	TP30.5994x29.6746x0.25	184.48	1042.47	0.177	0.00	1042.47	0.000
L8	110 - 105 (8)	TP31.5243x30.5994x0.25	252.24	1096.25	0.230	0.00	1096.25	0.000
L9	105 - 100 (9)	TP32.4492x31.5243x0.25	350.04	1150.65	0.304	0.00	1150.65	0.000
L10	100 - 95 (10)	TP33.374x32.4492x0.25	450.39	1205.62	0.374	0.00	1205.62	0.000
L11	95 - 90 (11)	TP34.2989x33.374x0.25	569.47	1261.10	0.452	0.00	1261.10	0.000
L12	90 - 84.75 (12)	TP35.27x34.2989x0.25	587.73	1269.46	0.463	0.00	1269.46	0.000
L13	84.75 - 84.25 (13)	TP34.8467x33.92x0.3125	710.99	1735.15	0.410	0.00	1735.15	0.000
L14	84.25 - 79.25 (14)	TP35.7733x34.8467x0.3125	836.70	1815.79	0.461	0.00	1815.79	0.000
L15	79.25 - 74.25 (15)	TP36.7x35.7733x0.3125	965.28	1897.45	0.509	0.00	1897.45	0.000
L16	74.25 - 69.25 (16)	TP37.6267x36.7x0.3125	1095.76	1980.07	0.553	0.00	1980.07	0.000
L17	69.25 - 64.25 (17)	TP38.5533x37.6267x0.3125	1228.22	2063.58	0.595	0.00	2063.58	0.000
L18	64.25 - 59.25 (18)	TP39.48x38.5533x0.3125	1362.64	2147.93	0.634	0.00	2147.93	0.000
L19	59.25 - 54.25 (19)	TP40.4067x39.48x0.3125	1498.99	2233.07	0.671	0.00	2233.07	0.000
L20	54.25 - 50.083 (20)	TP41.179x40.4067x0.3125	1614.10	2304.57	0.700	0.00	2304.57	0.000
L21	50.083 - 49.833 (21)	TP41.2253x41.179x0.4375	1621.04	3519.36	0.461	0.00	3519.36	0.000
L22	49.833 - 44.25 (22)	TP42.26x41.2253x0.4375	1630.31	3530.07	0.462	0.00	3530.07	0.000
L23	44.25 - 43.25 (23)	TP41.6933x40.662x0.5	1806.27	4096.78	0.441	0.00	4096.78	0.000
L24	43.25 - 38.25 (24)	TP42.5184x41.6933x0.5	1949.57	4263.53	0.457	0.00	4263.53	0.000

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	Client	Crown Castle	Designed by	Cameron G. Allen

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{ux} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{ux}}$	M_{uy} kip-ft	ϕM_{uy} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{uy}}$
L25	38.25 - 31.25 (25)	TP43.3434x42.5184x0.4938	2094.84	4380.11	0.478	0.00	4380.11	0.000
L26	33.25 - 31.25 (26)	TP43.6734x43.3434x0.4875	2153.48	4393.83	0.490	0.00	4393.83	0.000
L27	31.25 - 31 (27)	TP43.7147x43.6734x0.5875	2160.83	5268.57	0.410	0.00	5268.57	0.000
L28	31 - 26 (28)	TP44.5397x43.7147x0.5875	2308.88	5473.47	0.422	0.00	5473.47	0.000
L29	26 - 21 (29)	TP45.3648x44.5397x0.575	2458.76	5566.02	0.442	0.00	5566.02	0.000
L30	21 - 16 (30)	TP46.1898x45.3648x0.575	2610.36	5774.29	0.452	0.00	5774.29	0.000
L31	16 - 11 (31)	TP47.0149x46.1898x0.575	2763.52	5986.39	0.462	0.00	5986.39	0.000
L32	11 - 6 (32)	TP47.8399x47.0149x0.5625	2918.15	6072.29	0.481	0.00	6072.29	0.000
L33	6 - 1 (33)	TP48.665x47.8399x0.5625	3074.22	6287.35	0.489	0.00	6287.35	0.000
L34	1 - 0 (34)	TP48.83x48.665x0.5625	3105.60	6330.81	0.491	0.00	6330.81	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	145 - 140 (1)	TP24.9233x24x0.1875	0.38	258.35	0.001	0.00	559.65	0.000
L2	140 - 135 (2)	TP25.8467x24.9233x0.1875	1.49	268.00	0.006	1.15	602.21	0.002
L3	135 - 130 (3)	TP26.77x25.8467x0.1875	4.03	277.64	0.015	1.89	646.33	0.003
L4	130 - 125 (4)	TP27.8249x26.9x0.25	4.46	384.01	0.012	1.89	927.33	0.002
L5	125 - 120 (5)	TP28.7497x27.8249x0.25	8.15	396.88	0.021	1.89	990.57	0.002
L6	120 - 115 (6)	TP29.6746x28.7497x0.25	8.59	409.76	0.021	1.89	1055.91	0.002
L7	115 - 110 (7)	TP30.5994x29.6746x0.25	13.33	422.64	0.032	2.15	1123.33	0.002
L8	110 - 105 (8)	TP31.5243x30.5994x0.25	13.78	435.52	0.032	2.15	1192.83	0.002
L9	105 - 100 (9)	TP32.4492x31.5243x0.25	19.86	448.40	0.044	1.87	1264.43	0.001
L10	100 - 95 (10)	TP33.374x32.4492x0.25	20.29	461.28	0.044	1.87	1338.11	0.001
L11	95 - 90 (11)	TP34.2989x33.374x0.25	24.33	474.16	0.051	1.87	1413.88	0.001
L12	90 - 84.75 (12)	TP35.27x34.2989x0.25	24.39	476.09	0.051	1.87	1425.42	0.001
L13	84.75 - 84.25 (13)	TP34.8467x33.92x0.3125	24.91	601.15	0.041	0.60	1818.08	0.000
L14	84.25 - 79.25 (14)	TP35.7733x34.8467x0.3125	25.43	617.28	0.041	0.60	1916.96	0.000
L15	79.25 - 74.25 (15)	TP36.7x35.7733x0.3125	25.89	633.41	0.041	0.60	2018.45	0.000
L16	74.25 - 69.25 (16)	TP37.6267x36.7x0.3125	26.30	649.54	0.040	0.60	2122.57	0.000
L17	69.25 - 64.25 (17)	TP38.5533x37.6267x0.3125	26.69	665.67	0.040	0.60	2229.30	0.000
L18	64.25 - 59.25 (18)	TP39.48x38.5533x0.3125	27.08	681.80	0.040	0.60	2338.65	0.000
L19	59.25 - 54.25 (19)	TP40.4067x39.48x0.3125	27.47	697.93	0.039	0.60	2450.63	0.000
L20	54.25 - 50.083 (20)	TP41.179x40.4067x0.3125	27.79	711.38	0.039	0.60	2545.94	0.000
L21	50.083 - 49.833 (21)	TP41.2253x41.179x0.4375	27.79	994.01	0.028	0.60	3550.61	0.000
L22	49.833 - 44.25 (22)	TP42.26x41.2253x0.4375	27.82	995.52	0.028	0.60	3561.36	0.000
L23	44.25 - 43.25 (23)	TP41.6933x40.662x0.5	28.46	1147.31	0.025	0.60	4138.93	0.000
L24	43.25 - 38.25 (24)	TP42.5184x41.6933x0.5	28.86	1170.29	0.025	0.60	4306.38	0.000
L25	38.25 - 33.25 (25)	TP43.3434x42.5184x0.4938	29.25	1178.52	0.025	0.60	4422.48	0.000

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">Tower Engineering Professionals</p> <p style="text-align: center;">326 Tryon Road Raleigh, North Carolina, 27603 Phone: (919) 661-6351 FAX: (919) 661-6350</p>	<p>Job</p> <p style="text-align: center;">145 ft Monopole / Newington</p>	<p>Page</p> <p style="text-align: center;">30 of 31</p>
	<p>Project</p> <p style="text-align: center;">37520-1104 / BU 881364</p>	<p>Date</p> <p style="text-align: center;">15:41:50 09/13/21</p>
	<p>Client</p> <p style="text-align: center;">Crown Castle</p>	<p>Designed by</p> <p style="text-align: center;">Cameron G. Allen</p>

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L26	33.25 - 31.25 (26)	TP43.6734x43.3434x0.4875	29.40	1172.74	0.025	0.60	4435.30	0.000
L27	31.25 - 31 (27)	TP43.7147x43.6734x0.5875	29.41	1411.38	0.021	0.60	5330.57	0.000
L28	31 - 26 (28)	TP44.5397x43.7147x0.5875	29.80	1438.38	0.021	0.60	5536.48	0.000
L29	26 - 21 (29)	TP45.3648x44.5397x0.575	30.16	1434.60	0.021	0.60	5627.17	0.000
L30	21 - 16 (30)	TP46.1898x45.3648x0.575	30.48	1461.03	0.021	0.60	5836.39	0.000
L31	16 - 11 (31)	TP47.0149x46.1898x0.575	30.78	1487.45	0.021	0.60	6049.42	0.000
L32	11 - 6 (32)	TP47.8399x47.0149x0.5625	31.07	1481.36	0.021	0.60	6133.30	0.000
L33	6 - 1 (33)	TP48.665x47.8399x0.5625	31.36	1507.21	0.021	0.60	6349.24	0.000
L34	1 - 0 (34)	TP48.83x48.665x0.5625	31.41	1512.38	0.021	0.60	6392.87	0.000

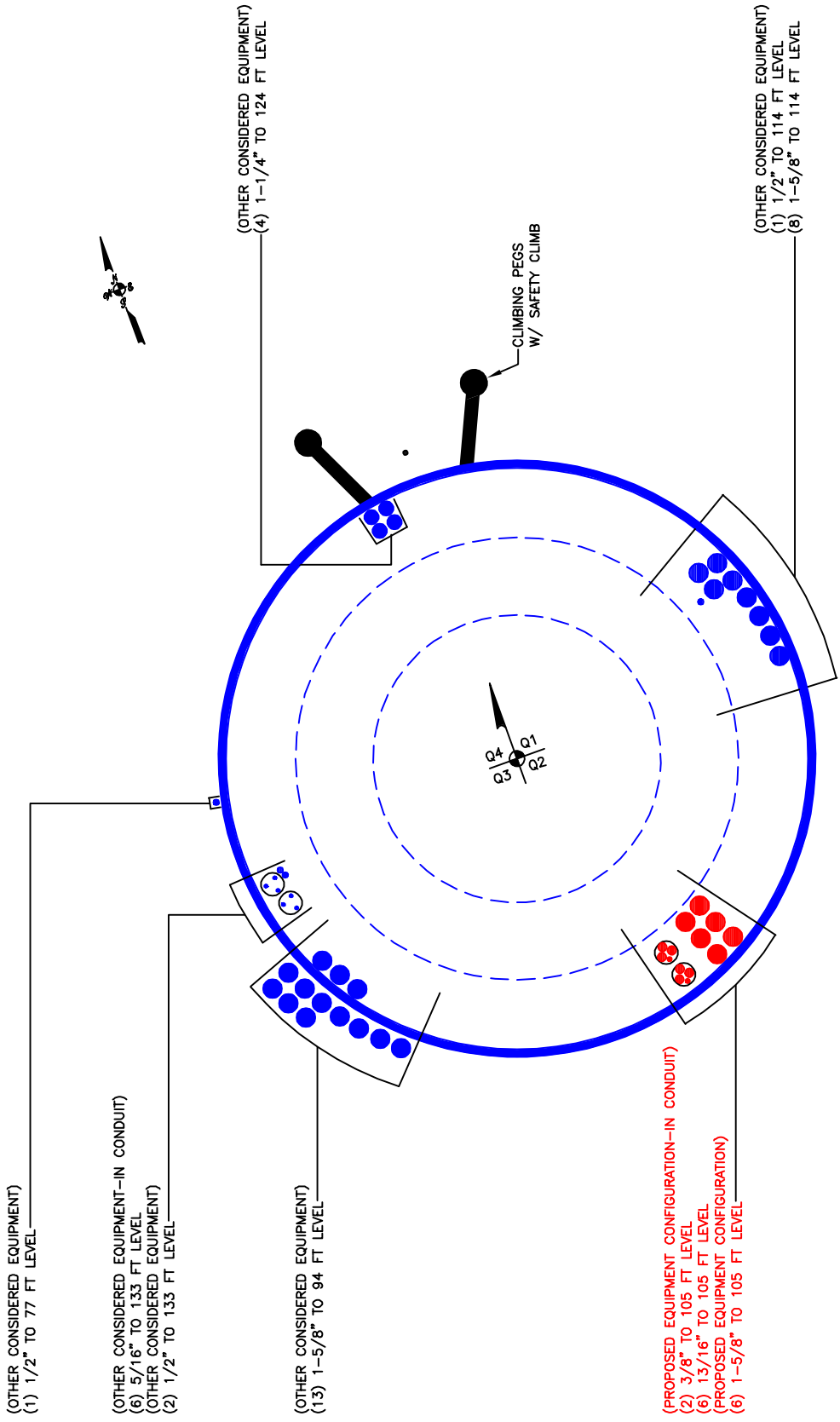
Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{M_{nx}}$	Ratio $\frac{M_{uy}}{M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	145 - 140 (1)	0.000	0.002	0.000	0.001	0.000	0.002	1.050	4.8.2
L2	140 - 135 (2)	0.001	0.013	0.000	0.006	0.002	0.014	1.050	4.8.2
L3	135 - 130 (3)	0.004	0.041	0.000	0.015	0.003	0.046	1.050	4.8.2
L4	130 - 125 (4)	0.003	0.050	0.000	0.012	0.002	0.054	1.050	4.8.2
L5	125 - 120 (5)	0.007	0.084	0.000	0.021	0.002	0.091	1.050	4.8.2
L6	120 - 115 (6)	0.007	0.122	0.000	0.021	0.002	0.129	1.050	4.8.2
L7	115 - 110 (7)	0.010	0.177	0.000	0.032	0.002	0.188	1.050	4.8.2
L8	110 - 105 (8)	0.010	0.230	0.000	0.032	0.002	0.242	1.050	4.8.2
L9	105 - 100 (9)	0.014	0.304	0.000	0.044	0.001	0.320	1.050	4.8.2
L10	100 - 95 (10)	0.014	0.374	0.000	0.044	0.001	0.390	1.050	4.8.2
L11	95 - 90 (11)	0.017	0.452	0.000	0.051	0.001	0.471	1.050	4.8.2
L12	90 - 84.75 (12)	0.017	0.463	0.000	0.051	0.001	0.482	1.050	4.8.2
L13	84.75 - 84.25 (13)	0.014	0.410	0.000	0.041	0.000	0.425	1.050	4.8.2
L14	84.25 - 79.25 (14)	0.014	0.461	0.000	0.041	0.000	0.477	1.050	4.8.2
L15	79.25 - 74.25 (15)	0.014	0.509	0.000	0.041	0.000	0.525	1.050	4.8.2
L16	74.25 - 69.25 (16)	0.014	0.553	0.000	0.040	0.000	0.570	1.050	4.8.2
L17	69.25 - 64.25 (17)	0.015	0.595	0.000	0.040	0.000	0.611	1.050	4.8.2
L18	64.25 - 59.25 (18)	0.015	0.634	0.000	0.040	0.000	0.651	1.050	4.8.2
L19	59.25 - 54.25 (19)	0.015	0.671	0.000	0.039	0.000	0.688	1.050	4.8.2
L20	54.25 - 50.083 (20)	0.015	0.700	0.000	0.039	0.000	0.717	1.050	4.8.2
L21	50.083 - 49.833 (21)	0.011	0.461	0.000	0.028	0.000	0.472	1.050	4.8.2
L22	49.833 - 44.25 (22)	0.011	0.462	0.000	0.028	0.000	0.473	1.050	4.8.2
L23	44.25 - 43.25 (23)	0.010	0.441	0.000	0.025	0.000	0.452	1.050	4.8.2
L24	43.25 - 38.25 (24)	0.010	0.457	0.000	0.025	0.000	0.468	1.050	4.8.2
L25	38.25 - 33.25 (25)	0.011	0.478	0.000	0.025	0.000	0.490	1.050	4.8.2
L26	33.25 - 31.25	0.011	0.490	0.000	0.025	0.000	0.502	1.050	4.8.2

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	Client	Crown Castle	Designed by	Cameron G. Allen

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
(26)									
L27	31.25 - 31 (27)	0.009	0.410	0.000	0.021	0.000	0.420	1.050	4.8.2
L28	31 - 26 (28)	0.009	0.422	0.000	0.021	0.000	0.432	1.050	4.8.2
L29	26 - 21 (29)	0.010	0.442	0.000	0.021	0.000	0.452	1.050	4.8.2
L30	21 - 16 (30)	0.010	0.452	0.000	0.021	0.000	0.463	1.050	4.8.2
L31	16 - 11 (31)	0.010	0.462	0.000	0.021	0.000	0.472	1.050	4.8.2
L32	11 - 6 (32)	0.011	0.481	0.000	0.021	0.000	0.492	1.050	4.8.2
L33	6 - 1 (33)	0.011	0.489	0.000	0.021	0.000	0.501	1.050	4.8.2
L34	1 - 0 (34)	0.011	0.491	0.000	0.021	0.000	0.502	1.050	4.8.2

APPENDIX B
BASE LEVEL DRAWING



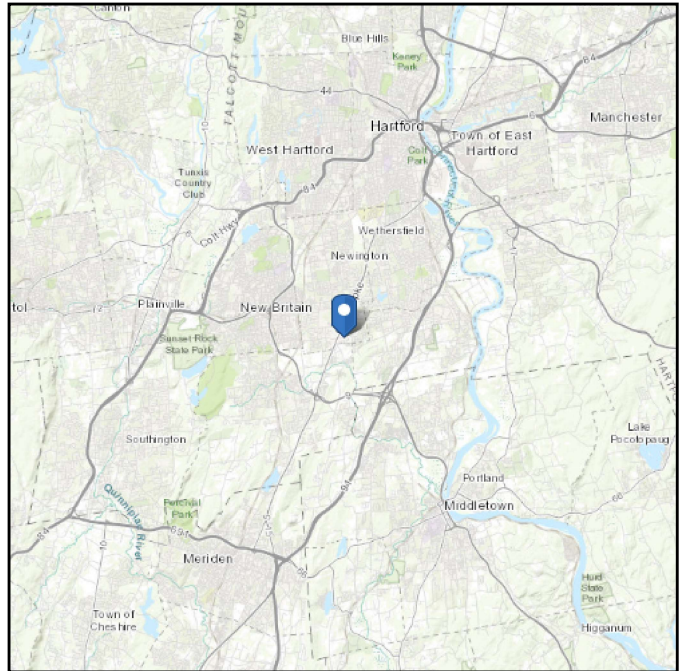
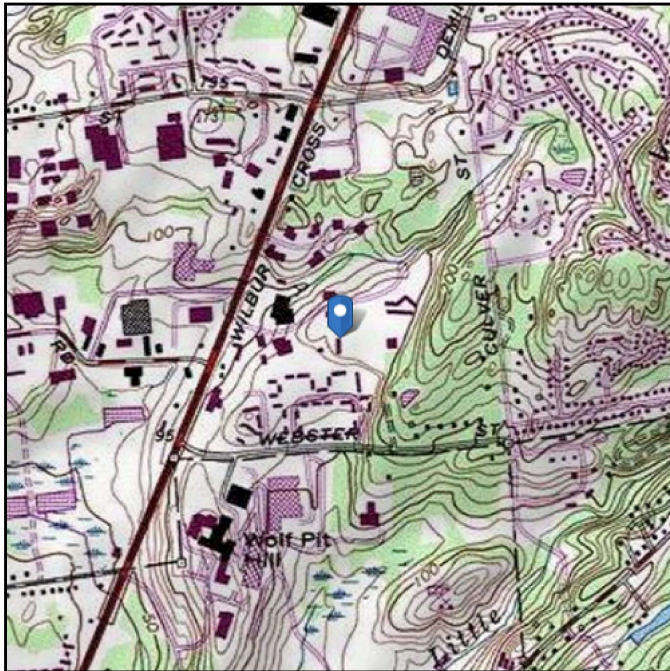
APPENDIX C
ADDITIONAL CALCULATIONS

ASCE 7 Hazards Report

Address:
No Address at This
Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see
Section 11.4.3)

Elevation: 141.56 ft (NAVD 88)
Latitude: 41.6552
Longitude: -72.721442



Wind

Results:

Wind Speed:	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	98 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: Mon Sep 13 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).

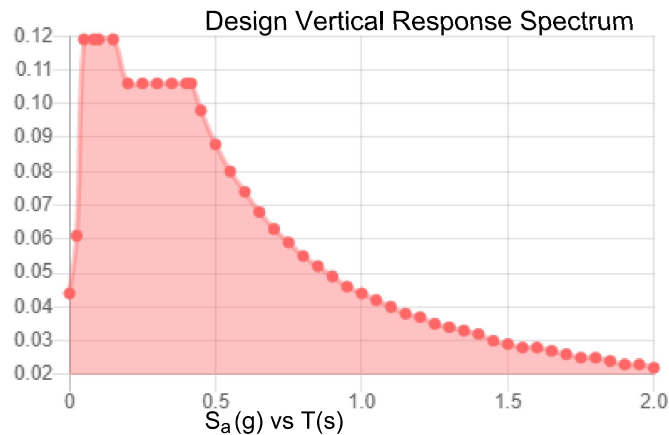
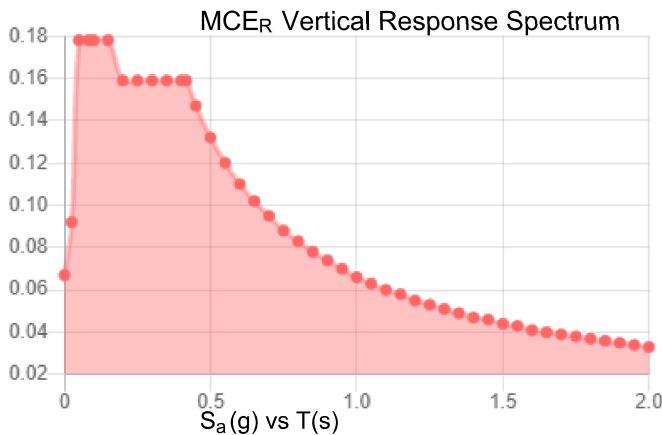
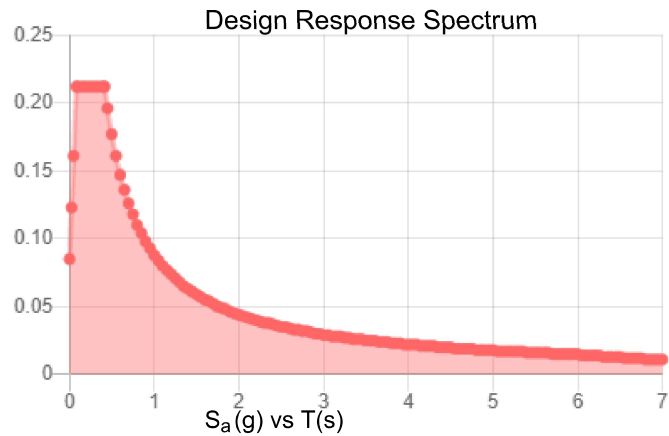
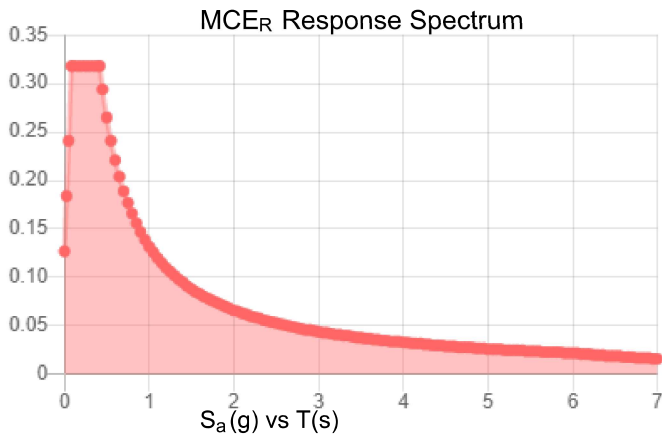
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_s :	0.198	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.109
F_v :	2.4	PGA _M :	0.172
S_{MS} :	0.318	F_{PGA} :	1.582
S_{M1} :	0.132	I_e :	1
S_{DS} :	0.212	C_v :	0.7

Seismic Design Category B



Data Accessed: Mon Sep 13 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: Mon Sep 13 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.

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Site BU: 881364
Work Order: 2016769



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Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	145	15	0	18	24	26.77	0.1875	Auto	A607-65
2	130	45.25	4.5	18	26.90	35.27	0.25	Auto	A607-65
3	89.25	45	5.25	18	33.92	42.26	0.3125	Auto	A607-65
4	49.5	49.5	0	18	40.66	48.83	0.375	Auto	A607-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	0	31.25	plate	CCI-AFP-085125	3			x						x					x				
2	31.25	50.083	plate	CCI-AFP-060100	3			x						x					x				
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							

Reinforcement Details

	B (in)	H (in)	Gross Area (in ²)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in ²)	Bolt Hole Size (in)	Reinforcement Material
1	8.5	1.25	10.625	0.625	PC 8.8 - M20 (100)	51	PC 8.8 - M20 (100)	51.000	17.000	9.063	1.1875	A572-65
2	6	1	6	0.5	PC 8.8 - M20 (100)	30	PC 8.8 - M20 (100)	30.000	16.000	4.750	1.1875	A572-65

TNX Geometry Input

Increment (ft): [Export to TNX](#)

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	145 - 140	5		18	24.000	24.923	0.1875	A607-65	1.000
2	140 - 135	5		18	24.923	25.847	0.1875	A607-65	1.000
3	135 - 130	5	0	18	25.847	26.770	0.1875	A607-65	1.000
4	130 - 125	5		18	26.900	27.825	0.25	A607-65	1.000
5	125 - 120	5		18	27.825	28.750	0.25	A607-65	1.000
6	120 - 115	5		18	28.750	29.675	0.25	A607-65	1.000
7	115 - 110	5		18	29.675	30.599	0.25	A607-65	1.000
8	110 - 105	5		18	30.599	31.524	0.25	A607-65	1.000
9	105 - 100	5		18	31.524	32.449	0.25	A607-65	1.000
10	100 - 95	5		18	32.449	33.374	0.25	A607-65	1.000
11	95 - 90	5		18	33.374	34.299	0.25	A607-65	1.000
12	90 - 89.25	5.25	4.5	18	34.299	35.270	0.25	A607-65	1.000
13	89.25 - 84.25	5		18	33.920	34.847	0.3125	A607-65	1.000
14	84.25 - 79.25	5		18	34.847	35.773	0.3125	A607-65	1.000
15	79.25 - 74.25	5		18	35.773	36.700	0.3125	A607-65	1.000
16	74.25 - 69.25	5		18	36.700	37.627	0.3125	A607-65	1.000
17	69.25 - 64.25	5		18	37.627	38.553	0.3125	A607-65	1.000
18	64.25 - 59.25	5		18	38.553	39.480	0.3125	A607-65	1.000
19	59.25 - 54.25	5		18	39.480	40.407	0.3125	A607-65	1.000
20	54.25 - 50.083	4.167		18	40.407	41.179	0.3125	A607-65	1.000
21	50.083 - 49.833	0.25		18	41.179	41.225	0.4375	A607-65	1.034
22	49.833 - 49.5	5.583	5.25	18	41.225	42.260	0.4375	A607-65	1.034
23	49.5 - 43.25	6.25		18	40.662	41.693	0.5	A607-65	1.028
24	43.25 - 38.25	5		18	41.693	42.518	0.5	A607-65	1.022
25	38.25 - 33.25	5		18	42.518	43.343	0.49375	A607-65	1.030
26	33.25 - 31.25	2		18	43.343	43.673	0.4875	A607-65	1.041
27	31.25 - 31	0.25		18	43.673	43.715	0.5875	A607-65	1.038
28	31 - 26	5		18	43.715	44.540	0.5875	A607-65	1.030
29	26 - 21	5		18	44.540	45.365	0.575	A607-65	1.045
30	21 - 16	5		18	45.365	46.190	0.575	A607-65	1.038
31	16 - 11	5		18	46.190	47.015	0.575	A607-65	1.031
32	11 - 6	5		18	47.015	47.840	0.5625	A607-65	1.047
33	6 - 1	5		18	47.840	48.665	0.5625	A607-65	1.040
34	1 - 0	1		18	48.665	48.830	0.5625	A607-65	1.039

TNX Section Forces

Increment (ft):		TNX Output			
	5	Section Height (ft)	P _u (K)	M _{ux} (kip-ft)	V _u (K)
1	145 - 140		0.27	0.95	0.38
2	140 - 135		0.61	7.14	1.49
3	135 - 130		3.94	23.27	4.03
4	130 - 125		4.36	44.47	4.46
5	125 - 120		8.90	78.64	8.15
6	120 - 115		9.39	120.47	8.59
7	115 - 110		14.44	184.48	13.33
8	110 - 105		15.01	252.24	13.78
9	105 - 100		20.95	350.04	19.86
10	100 - 95		21.66	450.39	20.29
11	95 - 90		26.45	569.47	24.33
12	90 - 89.25		26.58	587.73	24.39
13	89.25 - 84.25		28.03	710.99	24.91
14	84.25 - 79.25		29.19	836.70	25.43
15	79.25 - 74.25		30.31	965.28	25.89
16	74.25 - 69.25		31.37	1095.76	26.30
17	69.25 - 64.25		32.47	1228.23	26.69
18	64.25 - 59.25		33.59	1362.64	27.08
19	59.25 - 54.25		34.74	1498.99	27.47
20	54.25 - 50.083		35.72	1614.10	27.79
21	50.083 - 49.833		35.81	1621.05	27.79
22	49.833 - 49.5		35.91	1630.31	27.82
23	49.5 - 43.25		39.22	1806.27	28.46
24	43.25 - 38.25		40.92	1949.57	28.86
25	38.25 - 33.25		42.64	2094.84	29.25
26	33.25 - 31.25		43.34	2153.48	29.40
27	31.25 - 31		43.45	2160.84	29.41
28	31 - 26		45.47	2308.87	29.80
29	26 - 21		47.52	2458.76	30.16
30	21 - 16		49.59	2610.35	30.48
31	16 - 11		51.69	2763.51	30.78
32	11 - 6		53.81	2918.15	31.07
33	6 - 1		55.95	3074.22	31.36
34	1 - 0		56.38	3105.60	31.41

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
145 - 140	Pole	TP24.923x24x0.1875	Pole	0.2%	Pass
140 - 135	Pole	TP25.847x24.923x0.1875	Pole	1.3%	Pass
135 - 130	Pole	TP26.77x25.847x0.1875	Pole	4.3%	Pass
130 - 125	Pole	TP27.825x26.9x0.25	Pole	5.1%	Pass
125 - 120	Pole	TP28.75x27.825x0.25	Pole	8.7%	Pass
120 - 115	Pole	TP29.675x28.75x0.25	Pole	12.3%	Pass
115 - 110	Pole	TP30.599x29.675x0.25	Pole	17.9%	Pass
110 - 105	Pole	TP31.524x30.599x0.25	Pole	23.0%	Pass
105 - 100	Pole	TP32.449x31.524x0.25	Pole	30.5%	Pass
100 - 95	Pole	TP33.374x32.449x0.25	Pole	37.1%	Pass
95 - 90	Pole	TP34.299x33.374x0.25	Pole	44.9%	Pass
90 - 89.25	Pole	TP35.27x34.299x0.25	Pole	46.0%	Pass
89.25 - 84.25	Pole	TP34.847x33.92x0.3125	Pole	40.5%	Pass
84.25 - 79.25	Pole	TP35.773x34.847x0.3125	Pole	45.4%	Pass
79.25 - 74.25	Pole	TP36.7x35.773x0.3125	Pole	50.0%	Pass
74.25 - 69.25	Pole	TP37.627x36.7x0.3125	Pole	54.2%	Pass
69.25 - 64.25	Pole	TP38.553x37.627x0.3125	Pole	58.2%	Pass
64.25 - 59.25	Pole	TP39.48x38.553x0.3125	Pole	62.0%	Pass
59.25 - 54.25	Pole	TP40.407x39.48x0.3125	Pole	65.5%	Pass
54.25 - 50.08	Pole	TP41.179x40.407x0.3125	Pole	68.3%	Pass
50.08 - 49.83	Pole + Reinf.	TP41.225x41.179x0.4375	Reinf. 2 Tension Rupture	67.8%	Pass
49.83 - 49.5	Pole + Reinf.	TP42.26x41.225x0.4375	Reinf. 2 Tension Rupture	68.0%	Pass
49.5 - 43.25	Pole + Reinf.	TP41.693x40.662x0.5	Reinf. 2 Tension Rupture	65.2%	Pass
43.25 - 38.25	Pole + Reinf.	TP42.518x41.693x0.5	Reinf. 2 Tension Rupture	68.0%	Pass
38.25 - 33.25	Pole + Reinf.	TP43.343x42.518x0.4938	Reinf. 2 Tension Rupture	70.6%	Pass
33.25 - 31.25	Pole + Reinf.	TP43.673x43.343x0.4875	Reinf. 2 Tension Rupture	71.6%	Pass
31.25 - 31	Pole + Reinf.	TP43.715x43.673x0.5875	Reinf. 1 Compression	55.8%	Pass
31 - 26	Pole + Reinf.	TP44.54x43.715x0.5875	Reinf. 1 Compression	57.8%	Pass
26 - 21	Pole + Reinf.	TP45.365x44.54x0.575	Reinf. 1 Compression	59.7%	Pass
21 - 16	Pole + Reinf.	TP46.19x45.365x0.575	Reinf. 1 Compression	61.5%	Pass
16 - 11	Pole + Reinf.	TP47.015x46.19x0.575	Reinf. 1 Compression	63.3%	Pass
11 - 6	Pole + Reinf.	TP47.84x47.015x0.5625	Reinf. 1 Compression	64.9%	Pass
6 - 1	Pole + Reinf.	TP48.665x47.84x0.5625	Reinf. 1 Compression	66.5%	Pass
1 - 0	Pole + Reinf.	TP48.83x48.665x0.5625	Reinf. 1 Compression	66.8%	Pass
				Summary	
			Pole	68.3%	Pass
			Reinforcement	71.6%	Pass
			Overall	71.6%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in ⁴)			Area (in ²)			% Capacity*		
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2
145 - 140	1138	n/a	1138	14.72	n/a	14.72	0.2%		
140 - 135	1270	n/a	1270	15.27	n/a	15.27	1.3%		
135 - 130	1412	n/a	1412	15.82	n/a	15.82	4.3%		
130 - 125	2101	n/a	2101	21.88	n/a	21.88	5.1%		
125 - 120	2320	n/a	2320	22.61	n/a	22.61	8.7%		
120 - 115	2553	n/a	2553	23.35	n/a	23.35	12.3%		
115 - 110	2801	n/a	2801	24.08	n/a	24.08	17.9%		
110 - 105	3065	n/a	3065	24.82	n/a	24.82	23.0%		
105 - 100	3346	n/a	3346	25.55	n/a	25.55	30.5%		
100 - 95	3642	n/a	3642	26.28	n/a	26.28	37.1%		
95 - 90	3956	n/a	3956	27.02	n/a	27.02	44.9%		
90 - 89.25	4004	n/a	4004	27.13	n/a	27.13	46.0%		
89.25 - 84.25	5159	n/a	5159	34.25	n/a	34.25	40.5%		
84.25 - 79.25	5586	n/a	5586	35.17	n/a	35.17	45.4%		
79.25 - 74.25	6035	n/a	6035	36.09	n/a	36.09	50.0%		
74.25 - 69.25	6508	n/a	6508	37.01	n/a	37.01	54.2%		
69.25 - 64.25	7005	n/a	7005	37.93	n/a	37.93	58.2%		
64.25 - 59.25	7527	n/a	7527	38.85	n/a	38.85	62.0%		
59.25 - 54.25	8074	n/a	8074	39.77	n/a	39.77	65.5%		
54.25 - 50.08	8549	n/a	8549	40.53	n/a	40.53	68.3%		
50.08 - 49.83	8597	3297	11895	40.58	18.00	58.58	50.7%		67.8%
49.83 - 49.5	8636	3307	11943	40.64	18.00	58.64	50.9%		68.0%
49.5 - 43.25	10621	3375	13996	49.18	18.00	67.18	45.8%		65.2%
43.25 - 38.25	11270	3506	14776	50.16	18.00	68.16	48.0%		68.0%
38.25 - 33.25	11944	3640	15584	51.14	18.00	69.14	50.1%		70.6%
33.25 - 31.25	12221	3694	15915	51.53	18.00	69.53	50.9%		71.6%
31.25 - 31	12279	6653	18932	51.58	31.88	83.46	43.5%	55.8%	
31 - 26	12993	6897	19889	52.57	31.88	84.44	45.3%	57.8%	
26 - 21	13733	7144	20878	53.55	31.88	85.42	47.1%	59.7%	
21 - 16	14502	7396	21898	54.53	31.88	86.40	48.8%	61.5%	
16 - 11	15298	7653	22951	55.51	31.88	87.39	50.4%	63.3%	
11 - 6	16123	7914	24037	56.49	31.88	88.37	52.0%	64.9%	
6 - 1	16978	8179	25157	57.48	31.88	89.35	53.6%	66.5%	
1 - 0	17152	8233	25385	57.67	31.88	89.55	53.9%	66.8%	

Note: Section capacity checked assuming all reinforcements are effective and using 5 degree increments.
Rating per TIA-222-H Section 15.5.

Monopole Flange Plate Connection

Elevation = 130 ft.

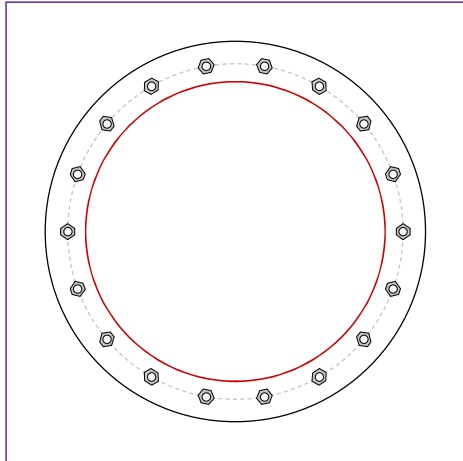


BU #	881364
Site Name	Newington
Order #	556505 Rev. 0
TIA-222 Revision	H

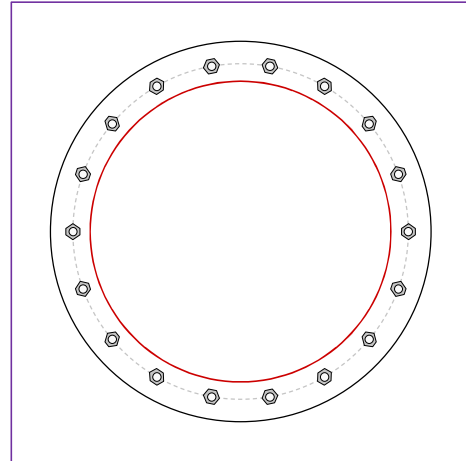
Applied Loads	
Moment (kip-ft)	23.27
Axial Force (kips)	3.94
Shear Force (kips)	4.03

*TIA-222-H Section 15.5 Applied

Top Plate - External



Bottom Plate - External



Connection Properties

Bolt Data

(18) 3/4" \varnothing bolts (A325 N; Fy=92 ksi, Fu=120 ksi) on 30" BC

Top Plate Data

34" OD x 1.5" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Top Stiffener Data

N/A

Top Pole Data

26.77" x 0.1875" 18-sided pole (A607-65; Fy=65 ksi, Fu=80 ksi)

Bottom Plate Data

34" OD x 1.5" Plate (A572-50; Fy=50 ksi, Fu=65 ksi)

Bottom Stiffener Data

N/A

Bottom Pole Data

26.9" x 0.25" 18-sided pole (A607-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Bolt Capacity

Max Load (kips)	1.85
Allowable (kips)	30.06
Stress Rating:	5.9% Pass

Top Plate Capacity

Max Stress (ksi):	0.89	(Flexural)
Allowable Stress (ksi):	45.00	
Stress Rating:	1.9%	Pass
Tension Side Stress Rating:	0.8%	Pass

Bottom Plate Capacity

Max Stress (ksi):	0.85	(Flexural)
Allowable Stress (ksi):	45.00	
Stress Rating:	1.8%	Pass
Tension Side Stress Rating:	0.7%	Pass

Monopole Base Plate Connection

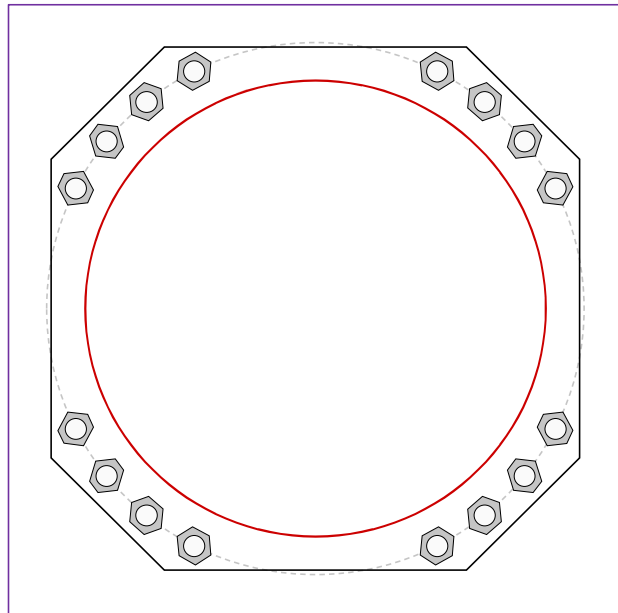


Site Info	
BU #	881364
Site Name	Newington
Order #	556505 Rev. 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
I_{ar} (in)	1.375

Applied Loads	
Moment (kip-ft)	3105.60
Axial Force (kips)	56.38
Shear Force (kips)	31.41

*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results
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Anchor Rod Data
 (16) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 57" BC
 Anchor Spacing: 6 in

Base Plate Data
 56" W x 3" Plate (A572-50; $F_y=50$ ksi, $F_u=65$ ksi); Clip: 12 in

Stiffener Data
 N/A

Pole Data
 48.83" x 0.375" 18-sided pole (A607-65; $F_y=65$ ksi, $F_u=80$ ksi)

Anchor Rod Summary (units of kips, kip-in)

$P_{u,t} = 159.82$	$\phi P_{n,t} = 243.75$	Stress Rating
$V_u = 1.96$	$\phi V_n = 149.1$	62.4%
$M_u = n/a$	$\phi M_n = n/a$	Pass

Base Plate Summary

Max Stress (ksi):	31.49	(Flexural)
Allowable Stress (ksi):	45	
Stress Rating:	66.6%	Pass

Drilled Pier Foundation

BU # :	881364
Site Name:	Newington
Order Number:	556505 Rev. 0
TIA-222 Revision:	H
Tower Type:	Monopole



Check Limitation	
Apply TIA-222-H Section 15.5:	<input checked="" type="checkbox"/>
N/A	<input type="checkbox"/>
Additional Longitudinal Rebar	
Input Effective Depths (else Actual):	<input type="checkbox"/>
Shear Design Options	
Check Shear along Depth of Pier:	<input checked="" type="checkbox"/>
Utilize Shear-Friction Methodology:	<input type="checkbox"/>
Override Critical Depth:	<input type="checkbox"/>

[Go to Soil Calculations](#)

Analysis Results

Soil Lateral Check	Compression	Uplift
D _{red} (ft from TOC)	6.09	-
Soil Safety Factor	2.82	-
Max Moment (kip-ft)	3313.35	-
Rating*	44.9%	-

Soil Vertical Check

Soil Vertical Check	Compression	Uplift
Skin Friction (kips)	349.66	-
End Bearing (kips)	346.36	-
Weight of Concrete (kips)	133.40	-
Total Capacity (kips)	696.02	-
Axial (kips)	189.78	-
Rating*	26.0%	-

Reinforced Concrete Flexure

Reinforced Concrete Flexure	Compression	Uplift
Critical Depth (ft from TOC)	6.01	-
Critical Moment (kip-ft)	3313.28	-
Critical Moment Capacity	6701.41	-
Rating*	47.1%	-

Reinforced Concrete Shear

Reinforced Concrete Shear	Compression	Uplift
Critical Depth (ft from TOC)	17.45	-
Critical Shear (kip)	352.84	-
Critical Shear Capacity	569.04	-
Rating*	59.1%	-

Structural Foundation Rating*

Structural Foundation Rating*	59.1%
Soil Interaction Rating*	44.9%

*Rating per TIA-222-H Section 15.5

Rebar 2: Fy Override (ksi)	Rebar 3: Fy Override (ksi)

Rebar & Pier Options

Embedded Pole Inputs

Belled Pier Inputs

Pier Design Data	
Depth	25 ft
Ext. Above Grade	0.5 ft
Pier Section 1	
<i>From 0.5 above grade to 25 below grade</i>	
Pier Diameter	7 ft
Rebar Quantity	28
Rebar Size	11
Clear Cover to Ties	4 in
Tie Size	5
Tie Spacing	18 in

Soil Profile

# of Layers	5
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Groundwater Depth	10
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Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ _{soil} (pcf)	γ _{concrete} (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	3.5	3.5	125	150	0		0.000	0.000	0.00	0.00			Cohesionless
2	3.5	10	6.5	125	150		34	0.000	0.000	0.80	0.80			Cohesionless
3	10	12	2	65	87.6		34	0.000	0.000	0.80	0.80			Cohesionless
4	12	15	3	65	87.6		30	0.000	0.000	0.80	0.80			Cohesionless
5	15	25	10	65	87.6		30	0.000	0.000	1.20	1.20	12		Cohesionless