



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

January 9, 2023

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

**RE: Notice of Exempt Modification for ATT
Crown #876375; ATT Site ID CTL05775
53 Westminster Road, Canterbury, CT 06331
Latitude: 41.701986° / Longitude: -71.980586°**

Dear Ms. Bachman:

AT&T currently maintains nine (9) antennas at the 161-foot level of the existing 180-foot monopole tower at 53 Westminster Road, Canterbury, CT. The tower is owned by Crown Castle USA Inc. and the property is owned by John R. Lemire. AT&T now intends to replace six (6) antennas with six (6) new antennas and ancillary equipment at the 161-foot level. This modification may include B2, B5, B17, B14, B29, B30, B66 & n77 hardware that is 4G(LTE) and/or 5GNR capable through remote software configuration and either or both services may be turned on or off at various times.

Panned Modification:

Tower:

Installed New:

- New Mount per Mount Replacement Analysis
- (3) CCI-TPA65R-BU6DA-K Antennas
- (3) CCI-OPA65R-BU6DA Antennas
- (3) Ericsson-4478 B14 RRHs
- (3) Ericsson-4426 B66 RRHs
- (1) Ericsson-4449 B5/B12 RRH on Gamma Sector
- (1) RAYCAP DC6-48-60-18-8F Squid
- (1) 18 Pair Fiber 3/8"
- (2) 6AWG DC 7/8"
- (3) Y CABLES

Remove:

- (6) POWERWAVE-7770.00.850.00 Antennas
- (6) POWERWAVE TECH-LGP21401 TMAs
- (6) POWERWAVE TECH-LPG21901 Diplexers
- (3) ERICSSON-RRUS-11 B12 RRHs

Melanie A. Bachman

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Ground:

Install New:

- (2) Rectifiers
- (3) Battery Strings

Remove:

- (1) Decommission UMTS Cabinet
- (3) Battery Strings
- (12) POWERWAVE-LGP 21901 Diplexers

The facility was approved by the Town of Canterbury Planning and Zoning Commission by way of Site Plan and Special Exception Application Number 99-8-SE on April 18, 2000.

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 First Selectman Christopher Lippke for the municipality, Building Official Robert Kerr, John R. Lemire as the property owner and Crown Castle is the tower owner.

1. The proposed modifications will not result in an increase in the height of the existing tower.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

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

Sincerely,



Domenica Tatasciore
Site Acquisition Specialist
1800 W. Park Drive
Westborough, MA 01581
(508) 621-9161/ Domenica.Tatasciore@crowncastle.com

Melanie A. Bachman

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Attachments

cc:

Christopher Lippke, First Selectman
Canterbury Town Hall
1 Municipal Drive
Canterbury, CT 06331
860-546-9693

Robert Kerr, Building Official
Canterbury Town Hall
1 Municipal Drive
Canterbury, CT 06331
860-230-7073

John R. Lemire, Property Owner
14 Debbie Court
Norwich, CT 06360

Crown Castle, Tower Owner

Town of Canterbury Notice of Action

Appeal: <input type="checkbox"/>	Site Plan: <input checked="" type="checkbox"/>	Special Exception: <input checked="" type="checkbox"/>	Special Use Permit: <input type="checkbox"/>
Subdivision: <input type="checkbox"/>	Variance: <input type="checkbox"/>	Wetlands: <input type="checkbox"/>	Zone Change: <input type="checkbox"/>
Zoning Regulation: _____		Section: _____	

Applicant: Sprint Spectrum
 Name of Record Owner (if different): _____
 Street Address of Property: 53 Westminster Road Map#: 416 Lot(s)#: 32
 Deed Reference: Volume: 85 Page: 331
 Description of Property: (Should be attached) _____
 Description of Action: Approved Application #99-8-SE
Special Exception with stipulations, submitted
by Sprint Spectrum for a Telecommunications
Tower on 53 Westminster Road, Map 416 Lot 32

Date Approved: _____
 Date of Action: _____
 Effective Date: 4/18/00

Conditions, if any: 1) An 8 foot fence shall be substituted for the
proposed 6 foot fence; 2) proper signage shall be posted as per plans
and shall include "No Trespassing" signs; 3) emergency access keys shall be
given to the Town Fire Company; and 4) a \$30,000 bond shall be posted
to ensure proper removal of the tower due to abandonment.

Patricia J. Grassi
 Town Clerk
 Date: 4/26/00
 Time: 4:00 pm

Lee Wingley
 Chairman
Planning-Zoning Commission
 Commission/Board
 Date: 4/18/00

This Notice of Action must be recorded with the Canterbury Town Clerk
 by the applicant within 90 days of the effective date.

RECEIVED FOR RECORD
 THIS 26th DAY OF April 2000 AT 4:00 P.M.
Patricia J. Grassi
 TOWN CLERK OF CANTERBURY

53 WESTMINSTER RD

Location 53 WESTMINSTER RD

Mblu 46/ 32/ 11

Acct# 00144000

Owner LEMIRE JOHN R

Assessment \$290,500

Appraisal \$467,700

PID 1715

Building Count 2

Dev Lot EASEMENT

Survey Map TCM910 & 642

Census Tract 9061 9061

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2020	\$106,400	\$361,300	\$467,700

Assessment			
Valuation Year	Improvements	Land	Total
2020	\$74,600	\$215,900	\$290,500

Owner of Record

Owner LEMIRE JOHN R
Co-Owner
Address 14 DEBBIE CT
NORWICH, CT 06360

Sale Price \$0
Certificate
Book & Page 0085/0331
Sale Date 07/27/1988

Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
LEMIRE JOHN R	\$0		0085/0331	07/27/1988

Building Information

Building 1 : Section 1

Year Built: 1971
Living Area: 544
Replacement Cost: \$45,088

Building Percent Good: 44

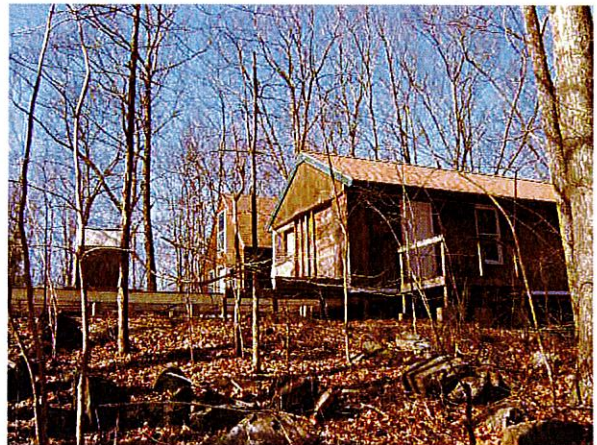
Replacement Cost

Less Depreciation: \$19,800

Building Attributes

Field	Description
Style	Manufactured Home
Model	Mobile Homes
Grade:	D
Stories	1 Story
Occupancy	1
Exterior Wall 1	Pre-Fab Wood
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Asphalt
Interior Wall 1	Drywall
Interior Wall 2	Panelling
Interior Flr 1	Carpet
Interior Flr 2	Linoleum
Heat Fuel	Oil
Heat Type:	Forced Hot Air
AC Type:	None
Total Bedrooms:	1 Bedroom
Total Bthrms:	1
Total Half Baths:	0
Extra Fixtures	
Total Rooms:	2 Rooms
Bath Style:	Average
Kitchen Style:	Average
Fireplaces	0
Xtra Openings	0
Gas Fireplaces	0
Woodstove	
SF Fin Bsmt	
Fin Bsmt Qual	
Bsmt Gar	
Num Park	
Fireplaces	
Blocked FPL	0
Fndtn Cndtn	
Basement	

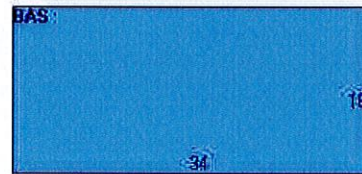
Building Photo



(<https://images.vgsi.com/photos/CanterburyCTPhotos/A00\00\42\67.jpg>)

Building Layout

SHP



(https://images.vgsi.com/photos/CanterburyCTPhotos/Sketches/1715_207)

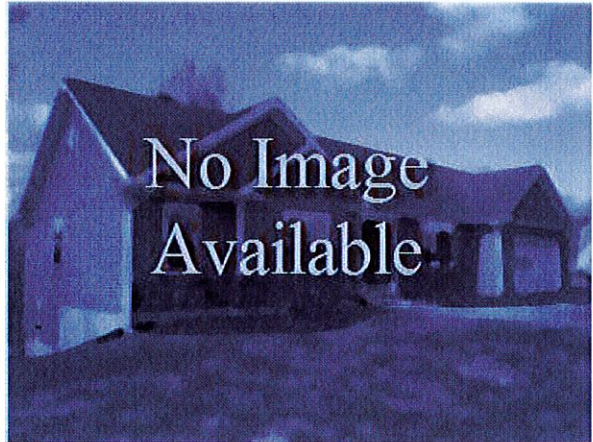
Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	544	544
		544	544

Building 2 : Section 1

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

Building Attributes : Bldg 2 of 2	
Field	Description
Style	Outbuildings
Model	
Grade:	
Stories	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Extra Fixtures	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Fireplaces	
Xtra Openings	
Gas Fireplaces	
Woodstove	
SF Fin Bsmt	
Fin Bsmt Qual	
Bsmt Gar	
Num Park	
Fireplaces	

Building Photo



(<https://images.vgsi.com/photos/CanterburyCTPhotos//default.jpg>)

Building Layout

Building Layout

(https://images.vgsi.com/photos/CanterburyCTPhotos//Sketches/1715_330)

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

Blocked FPL	
Fndtn Cndtn	
Basement	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 1030
Description Manufactured Home
Zone RD
Category

Land Line Valuation

Size (Acres) 35.43
Assessed Value \$215,900
Appraised Value \$361,300

Special Land			
Land Use Code	Land Use Description	Units	Unit Type
8100	Open Space	32	AC

Outbuildings

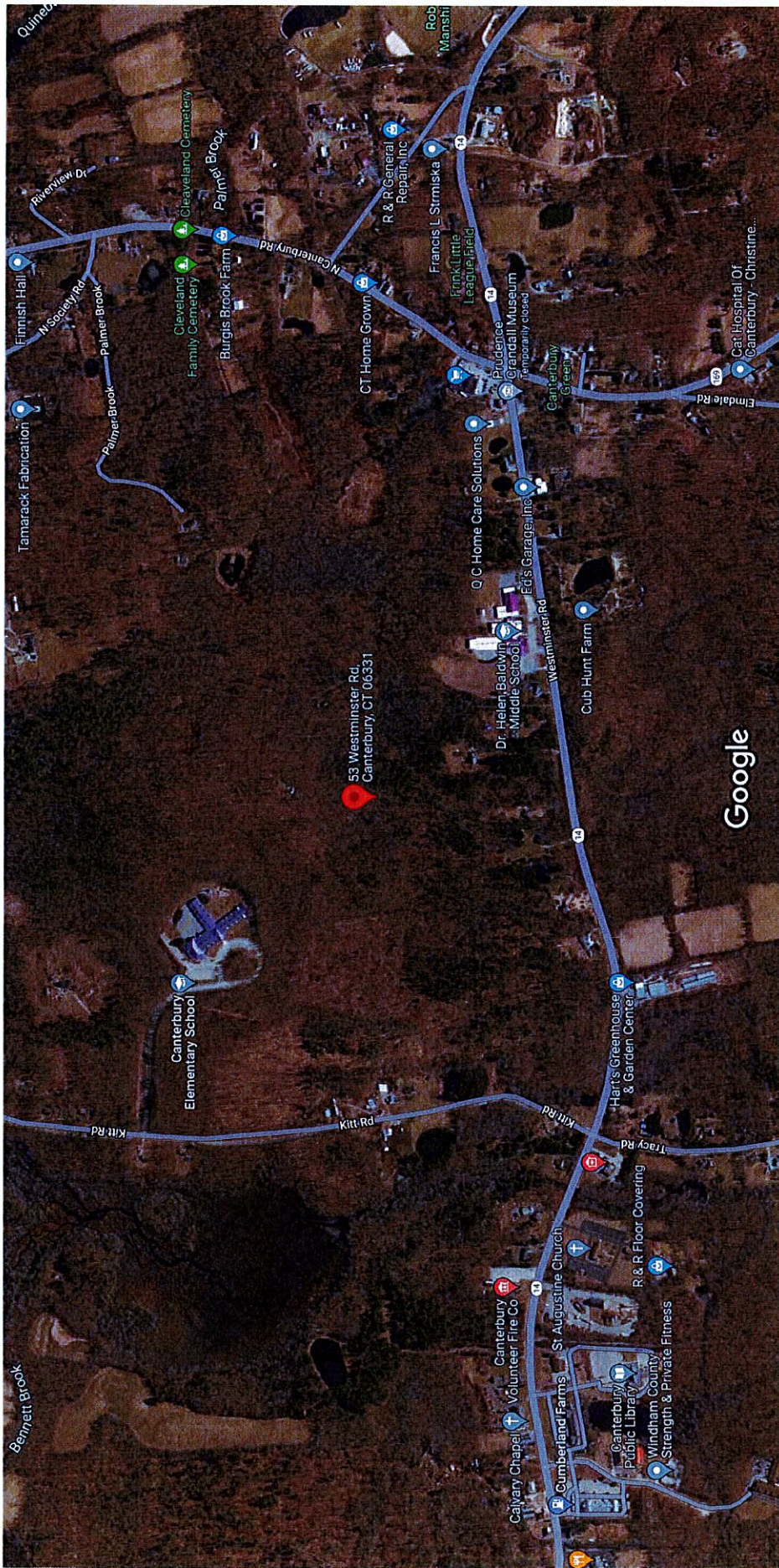
Outbuildings					Legend
Code	Description	Size	Value	Assessed Value	Bldg #
SHD6	Cell Equipment Bldg	320.00 S.F.	\$80,000	\$56,000	2
SHP2	Work Shop - Good	384.00 S.F.	\$5,800	\$4,100	1
FN4	FENCE-8' CHAIN	240.00 L.F.	\$800	\$600	2

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2020		\$106,400	\$361,250
2019		\$21,300	\$280,710
2018		\$21,300	\$280,710

Assessment			
Valuation Year	Improvements	Land	Total
2020	\$74,600	\$215,900	\$290,500
2019	\$15,000	\$162,900	\$177,900
2018	\$15,000	\$170,300	\$185,300

Google Maps 53 Westminster Rd



Google

From: TrackingUpdates@fedex.com
To: [Tatasciore, Domenica](#)
Subject: FedEx Shipment 770820061321: Your package has been delivered
Date: Thursday, January 12, 2023 3:42:32 PM

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Hi. Your package was
delivered Thu, 01/12/2023 at
3:35pm.



Delivered to 1 MUNICIPAL DR, CANTERBURY, CT 06331
Received by J.ENGEL

[OBTAIN PROOF OF DELIVERY](#)

TRACKING NUMBER [770820061321](#)

FROM Domenica Tatasciore
1800 West Park Drive

Suite 200
WESTBOROUGH, MA, US, 01581

TO Canterbury Town Hall
First Selectman Christopher Lippke
1 Municipal Drive
CANTERBURY, CT, US, 06331

REFERENCE 799001.7680

SHIPPER REFERENCE 799001.7680

SHIP DATE Wed 1/11/2023 05:26 PM

DELIVERED TO Receptionist/Front Desk

PACKAGING TYPE FedEx Envelope

ORIGIN WESTBOROUGH, MA, US, 01581

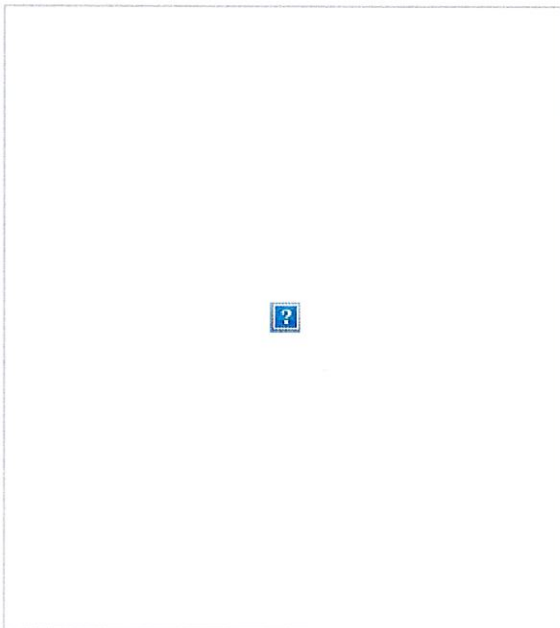
DESTINATION CANTERBURY, CT, US, 06331

SPECIAL HANDLING Deliver Weekday

NUMBER OF PIECES 1

TOTAL SHIPMENT WEIGHT 0.50 LB

SERVICE TYPE FedEx Priority Overnight



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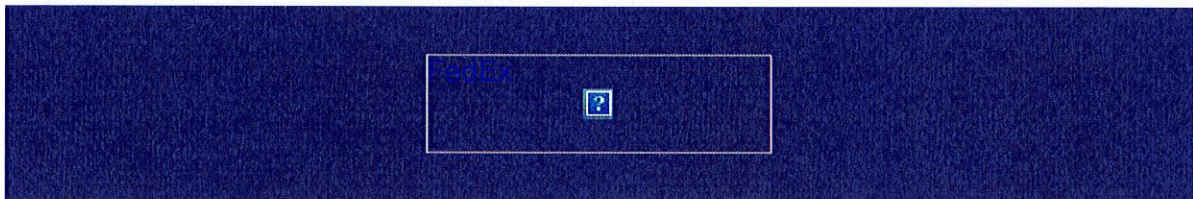
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Delivered to 1 MUNICIPAL DR, CANTERBURY, CT 06331
Received by J.ENGEL

OBTAIN PROOF OF DELIVERY

TRACKING NUMBER [770820074240](#)

FROM Domenica Tatasciore
1800 West Park Drive

Suite 200
WESTBOROUGH, MA, US, 01581

TO Canterbury Town Hall
Robert Kerr, Building Official
1 Municipal Drive
CANTERBURY, CT, US, 06331

REFERENCE 799001.7680

SHIPPER REFERENCE 799001.7680

SHIP DATE Wed 1/11/2023 05:26 PM

DELIVERED TO Receptionist/Front Desk

PACKAGING TYPE FedEx Envelope

ORIGIN WESTBOROUGH, MA, US, 01581

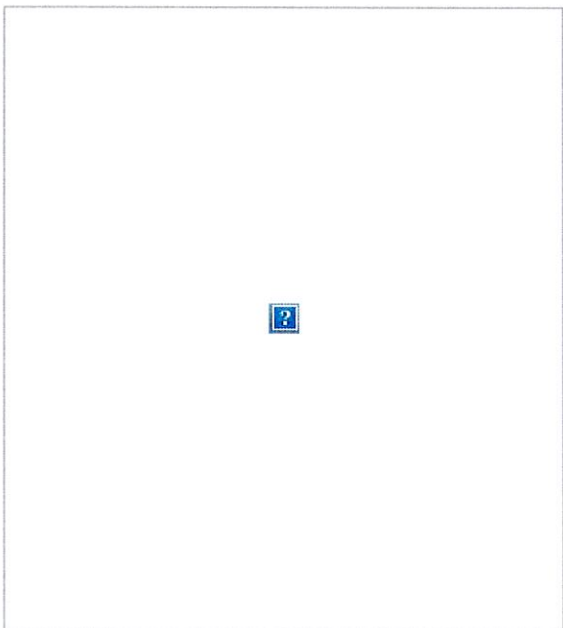
DESTINATION CANTERBURY, CT, US, 06331

SPECIAL HANDLING Deliver Weekday

NUMBER OF PIECES 1

TOTAL SHIPMENT WEIGHT 1.00 LB

SERVICE TYPE FedEx Priority Overnight



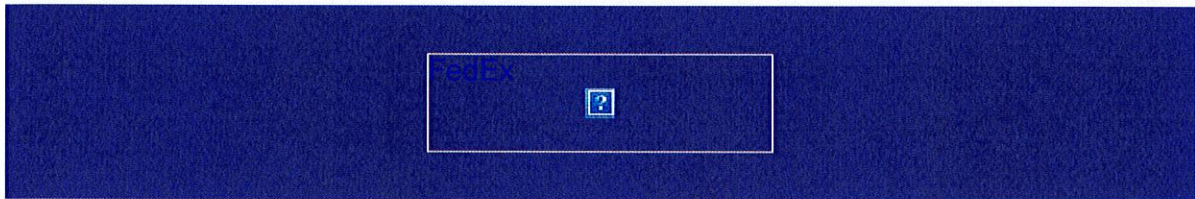
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Subject: FedEx Shipment 770820098156: Your package has been delivered
Date: Thursday, January 12, 2023 9:21:29 AM

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delivered Thu, 01/12/2023 at
9:15am.



Delivered to 14 DEBBIE CT, NORWICH, CT 06360

[OBTAIN PROOF OF DELIVERY](#)



Delivery picture not showing? [View](#) in browser.

TRACKING NUMBER	770820098156
FROM	Domenica Tatasciore 1800 West Park Drive Suite 200 WESTBOROUGH, MA, US, 01581
TO	John R. Lemire 14 Debbie Court NORWICH, CT, US, 06360
REFERENCE	799001.7680
SHIPPER REFERENCE	799001.7680
SHIP DATE	Wed 1/11/2023 05:26 PM
DELIVERED TO	Residence
PACKAGING TYPE	FedEx Envelope
ORIGIN	WESTBOROUGH, MA, US, 01581
DESTINATION	NORWICH, CT, US, 06360
SPECIAL HANDLING	Deliver Weekday Residential Delivery
NUMBER OF PIECES	1
TOTAL SHIPMENT WEIGHT	1.00 LB
SERVICE TYPE	FedEx Priority Overnight

December 08, 2022

Emissions Analysis for Site: **CTL05775– CANTERBURY EAST**

MobileComm Professionals, Inc was directed to analyze the proposed AT&T facility located at **53 WESTMINSTER ROAD, CANTERBURY, CT 06331**, 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 milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu W/cm^2$). The number of mW/cm^2 or $\mu W/cm^2$ calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

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

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

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter (mW/cm^2). The general population exposure limits for the 700 and 850 MHz Bands are approximately $0.467 mW/cm^2$ and $0.567 mW/cm^2$ respectively or $466.667 \mu W/cm^2$ and $566.667 \mu W/cm^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS), 2300 MHz (WCS), 3540 MHz (DoD Band) and 3840 MHz (C-Band) bands is $1 mW/cm^2$ or $1000 \mu W/cm^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

1. Theoretical Calculations: Methods and Procedures

MobileComm Professionals, Inc has performed theoretical modeling of the site using a software tool, RoofMaster® Version 35.5.26.2022, which incorporates calculation methodologies detailed in FCC OET 65. RoofMaster® uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations, the power decreases inversely with the square of the distance. The modeling is based on worst-case assumptions in terms of transmitter power and duty cycle. No losses were included in the power calculations unless they were specifically provided for the project.

In OET 65, a far field model is presented to calculate the spatial peak power density. The RoofMaster® implementation of this model incorporates antenna manufacturer's horizontal and vertical pattern data to determine the power density in all directions. This model yields the power density at a single point in space. In order to determine the spatial power density for comparison to the FCC limits, the average of several points calculated within the human profile (0-6') must be conducted. RoofMaster® calculates seven power density values between 0-6' above the specified study plane and performs a linear spatial average.

The following table details the antennas and operating parameters for the AT&T antenna system as well as any other antenna systems at the site. This is based on antenna information provided by the client and data compiled from other sources where necessary. The data below was input into Roofmaster® to perform the theoretical exposure calculations at the ground.

The theoretical calculations performed in Roofmaster® determine the cumulative exposure at all sample points at ground level (0-6' spatial average). The results from highest cumulative sample point at ground level surrounding the site are displayed in the table below. The contribution from directional antennas to the maximum cumulative totals varies greatly depending on location; therefore, the contribution from one antenna sector at the highest calculated exposure point may be greater or less than other sectors since sectorized directional antennas are pointed in different directions and there is not much overlapping exposure.

The contribution to the cumulative power density and % MPE for each antenna/frequency band is listed in the table. The cumulative power density and cumulative % MPE are displayed at the bottom of the table.

2. Antenna Inventory & Power Data

Sector	Ant ID	Operator	Antenna Mfg	Antenna Model	Antenna Type	FREQ. (MHz)	TECH.	AZ. (°)	H B W (°)	Antenna Gain (dBd)	Antenna Aperture (ft)	#of Channels	Transmitter Power Per Channel (Watts)	Total ERP (Watts)	Total EIRP (Watts)	Height (ft)	Calculated Power Density (μW/cm ²)	Allowable MPE (μW/cm ²)	Calculated MPE%
A	1	AT&T	CCI	TPA65R-BU6D	Panel	700	LTE(B14)	10	73	12.35	6	4	40.00	2449.74	4019.02	161.00	0.060957	466.67	0.013062
A	1	AT&T	CCI	TPA65R-BU6D	Panel	1900	LTE/5G	10	66	15.95	6	4	40.00	5612.03	9207.04	161.00	0.066480	1000.00	0.006648
A	1	AT&T	CCI	TPA65R-BU6D	Panel	2100	LTE/5G	10	66	16.25	6	4	60.00	9020.10	14798.28	161.00	0.104176	1000.00	0.010418
A	2	AT&T	CCI	OPA65R-BU6D	Panel	700	LTE(B12)	10	73	12.15	6	4	40.00	2339.48	3838.13	161.00	0.065822	466.67	0.014105
A	2	AT&T	CCI	OPA65R-BU6D	Panel	850	5G	10	64	13.05	6	4	40.00	2878.19	4721.93	161.00	0.063336	566.67	0.011177
B	3	AT&T	CCI	TPA65R-BU6D	Panel	700	LTE(B14)	140	73	12.35	6	4	40.00	2449.74	4019.02	161.00	0.000005	466.67	0.000001
B	3	AT&T	CCI	TPA65R-BU6D	Panel	1900	LTE/5G	140	66	15.95	6	4	40.00	5612.03	9207.04	161.00	0.000005	1000.00	0.000000
B	3	AT&T	CCI	TPA65R-BU6D	Panel	2100	LTE/5G	140	66	16.25	6	4	60.00	9020.10	14798.28	161.00	0.000021	1000.00	0.000002
B	4	AT&T	CCI	OPA65R-BU6D	Panel	700	LTE(B12)	140	73	12.15	6	4	40.00	2339.48	3838.13	161.00	0.000011	466.67	0.000002
B	4	AT&T	CCI	OPA65R-BU6D	Panel	850	5G	140	64	13.05	6	4	40.00	2878.19	4721.93	161.00	0.000008	566.67	0.000001
C	5	AT&T	CCI	TPA65R-BU6D	Panel	700	LTE(B14)	250	73	12.35	6	4	40.00	2449.74	4019.02	161.00	0.000033	466.67	0.000007
C	5	AT&T	CCI	TPA65R-BU6D	Panel	1900	LTE/5G	250	66	15.95	6	4	40.00	5612.03	9207.04	161.00	0.000027	1000.00	0.000003
C	5	AT&T	CCI	TPA65R-BU6D	Panel	2100	LTE/5G	250	66	16.25	6	4	60.00	9020.10	14798.28	161.00	0.000017	1000.00	0.000002
C	6	AT&T	CCI	OPA65R-BU6D	Panel	700	LTE(B12)	250	73	12.15	6	4	40.00	2339.48	3838.13	161.00	0.000039	466.67	0.000008
C	6	AT&T	CCI	OPA65R-BU6D	Panel	850	5G	250	64	13.05	6	4	40.00	2878.19	4721.93	161.00	0.000034	566.67	0.000006

Table 2.1: Antenna Inventory & Power Data

*NOTE: 75% Duty Cycle and adjusted power reduction factor of 0.32 was applied to the AIR6449 & AIR6419 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

Sector	Ant ID	Operator	Antenna Mfg	Antenna Model	Antenna Type	FREQ. (MHz)	TECH.	AZ. (°)	H B W (°)	Antenna Gain (dBd)	Antenna Aperture (ft)	#of Channels	Transmitter Power Per Channel (Watts)	Total ERP (Watts)	Total EIRP (Watts)	Height (ft)	Calculated Power Density (μW/cm ²)	Allowable MPE (μW/cm ²)	Calculated MPE%
A	7	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	600	LTE	0	64.3	12.95	8	2	30.00	1055.13	1730.42	183.00	0.009943	400.00	0.002486
A	7	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	600	5G	0	64.3	12.95	8	1	80.00	1406.84	2307.23	183.00	0.013251	400.00	0.003313
A	7	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	700	LTE	0	63.3	14.05	8	2	30.00	1359.28	2229.21	183.00	0.012798	466.67	0.002743
A	7	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	1900	GSM	0	64.8	15.25	8	4	30.00	3583.75	5877.35	183.00	0.027292	1000.00	0.002729
A	7	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	1900	LTE	0	64.8	15.25	8	2	60.00	3583.75	5877.35	183.00	0.026741	1000.00	0.002674
A	7	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	2100	LTE	0	59.4	16.45	8	2	60.00	4724.30	7747.85	183.00	0.024097	1000.00	0.002410
A	8	T-Mobile	Ericsson	AIR6449_LTE_B41	Panel	2500	LTE	0	12.5	22.65	2.75	1	40.67	7485.61	12280.81	183.00	0.017380	1000.00	0.001738
A	8	T-Mobile	Ericsson	AIR6449_NR_B41	Panel	2500	5G	0	12.5	22.65	2.75	1	67.78	12476.02	20468.02	183.00	0.028953	1000.00	0.002895
B	9	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	600	LTE	120	64.3	12.95	8	2	30.00	1055.13	1730.42	183.00	0.000028	400.00	0.000007
B	9	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	600	5G	120	64.3	12.95	8	1	80.00	1406.84	2307.23	183.00	0.000052	400.00	0.000013
B	9	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	700	LTE	120	63.3	14.05	8	2	30.00	1359.28	2229.21	183.00	0.000006	466.67	0.000001
B	9	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	1900	GSM	120	64.8	15.25	8	4	30.00	3583.75	5877.35	183.00	0.000031	1000.00	0.000003
B	9	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	1900	LTE	120	64.8	15.25	8	2	60.00	3583.75	5877.35	183.00	0.000052	1000.00	0.000005
B	9	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	2100	LTE	120	59.4	16.45	8	2	60.00	4724.30	7747.85	183.00	0.000097	1000.00	0.000010
B	10	T-Mobile	Ericsson	AIR6449_LTE_B41	Panel	2500	LTE	120	12.5	22.65	2.75	1	40.67	7485.61	12280.81	183.00	0.000011	1000.00	0.000001
B	10	T-Mobile	Ericsson	AIR6449_NR_B41	Panel	2500	5G	120	12.5	22.65	2.75	1	67.78	12476.02	20468.02	183.00	0.000019	1000.00	0.000002
C	11	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	600	LTE	240	64.3	12.95	8	2	30.00	1055.13	1730.42	183.00	0.000002	400.00	0.000001
C	11	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	600	5G	240	64.3	12.95	8	1	80.00	1406.84	2307.23	183.00	0.000002	400.00	0.000000
C	11	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	700	LTE	240	63.3	14.05	8	2	30.00	1359.28	2229.21	183.00	0.000021	466.67	0.000005
C	11	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	1900	GSM	240	64.8	15.25	8	4	30.00	3583.75	5877.35	183.00	0.000013	1000.00	0.000001
C	11	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	1900	LTE	240	64.8	15.25	8	2	60.00	3583.75	5877.35	183.00	0.000011	1000.00	0.000001
C	11	T-Mobile	RFS	APXVAALL24_43-U-NA20	Panel	2100	LTE	240	59.4	16.45	8	2	60.00	4724.30	7747.85	183.00	0.000007	1000.00	0.000001
C	12	T-Mobile	Ericsson	AIR6449_LTE_B41	Panel	2500	LTE	240	12.5	22.65	2.75	1	40.67	7485.61	12280.81	183.00	0.000009	1000.00	0.000001
C	12	T-Mobile	Ericsson	AIR6449_NR_B41	Panel	2500	5G	240	12.5	22.65	2.75	1	67.78	12476.02	20468.02	183.00	0.000015	1000.00	0.000002

Table 2.2: Antenna Inventory & Power Data

*NOTE: 75% Duty Cycle and adjusted power reduction factor of 0.32 was applied to the AIR6449 & AIR6419 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

Sector	Ant ID	Operator	Antenna Mfg	Antenna Model	Antenna Type	FREQ. (MHz)	TECH.	AZ. (°)	H B W (°)	Antenna Gain (dBd)	Antenna Aperture (ft)	#of Channels	Transmitter Power Per Channel (Watts)	Total ERP (Watts)	Total EIRP (Watts)	Height (ft)	Calculated Power Density (μW/cm ²)	Allowable MPE (μW/cm ²)	Calculated MPE%
A	13	Verizon	CommScope	NHH-65B-R2B	Panel	700	LTE	0	65	12.75	6	4	40.00	2686.09	4406.77	170.00	0.033552	466.67	0.007190
A	13	Verizon	CommScope	NHH-65B-R2B	Panel	850	LTE	0	60	12.85	6	4	40.00	2748.65	4509.41	170.00	0.033147	566.67	0.005849
A	14	Verizon	CommScope	NHH-65B-R2B	Panel	1900	LTE	0	69	15.75	6	4	40.00	5359.45	8792.65	170.00	0.050499	1000.00	0.005050
A	14	Verizon	CommScope	NHH-65B-R2B	Panel	2100	LTE	0	64	16.25	6	4	40.00	6013.40	9865.52	170.00	0.052001	1000.00	0.005200
A	15	Verizon	Samsung	MT6407-77A	Panel	3700	5G	0	110	22.85	2.92	4	35.00	24059.37	39457.36	170.00	0.402065	1000.00	0.040206
B	16	Verizon	CommScope	NHH-65B-R2B	Panel	700	LTE	120	65	12.75	6	4	40.00	2686.09	4406.77	170.00	0.000110	466.67	0.000024
B	16	Verizon	CommScope	NHH-65B-R2B	Panel	850	LTE	120	60	12.85	6	4	40.00	2748.65	4509.41	170.00	0.000010	566.67	0.000002
B	17	Verizon	CommScope	NHH-65B-R2B	Panel	1900	LTE	120	69	15.75	6	4	40.00	5359.45	8792.65	170.00	0.000012	1000.00	0.000001
B	17	Verizon	CommScope	NHH-65B-R2B	Panel	2100	LTE	120	64	16.25	6	4	40.00	6013.40	9865.52	170.00	0.000000	1000.00	0.000000
B	18	Verizon	Samsung	MT6407-77A	Panel	3700	5G	120	110	22.85	2.92	4	35.00	24059.37	39457.36	170.00	0.000850	1000.00	0.000085
C	19	Verizon	CommScope	NHH-65B-R2B	Panel	700	LTE	240	65	12.75	6	4	40.00	2686.09	4406.77	170.00	0.000067	466.67	0.000014
C	19	Verizon	CommScope	NHH-65B-R2B	Panel	850	LTE	240	60	12.85	6	4	40.00	2748.65	4509.41	170.00	0.000023	566.67	0.000004
C	20	Verizon	CommScope	NHH-65B-R2B	Panel	1900	LTE	240	69	15.75	6	4	40.00	5359.45	8792.65	170.00	0.000001	1000.00	0.000000
C	20	Verizon	CommScope	NHH-65B-R2B	Panel	2100	LTE	240	64	16.25	6	4	40.00	6013.40	9865.52	170.00	0.000040	1000.00	0.000004
C	21	Verizon	Samsung	MT6407-77A	Panel	3700	5G	240	110	22.85	2.92	4	35.00	24059.37	39457.36	170.00	0.000624	1000.00	0.000062
A	22	Dish	JMA	MX08FRO665-21	600	600	5G	0	68	11.45	6	4	30.00	1493.95	2450.09	141.00	0.053315	400.00	0.013329
A	22	Dish	JMA	MX08FRO665-21	1900	1900	5G	0	62	16.15	6	4	40.00	5878.63	9640.95	141.00	0.079904	1000.00	0.007990
B	23	Dish	JMA	MX08FRO665-21	600	600	5G	120	68	11.45	6	4	30.00	1493.95	2450.09	141.00	0.000027	400.00	0.000007
B	23	Dish	JMA	MX08FRO665-21	1900	1900	5G	120	62	16.15	6	4	40.00	5878.63	9640.95	141.00	0.000064	1000.00	0.000006
C	24	Dish	JMA	MX08FRO665-21	600	600	5G	240	68	11.45	6	4	30.00	1493.95	2450.09	141.00	0.000040	400.00	0.000010
C	24	Dish	JMA	MX08FRO665-21	1900	1900	5G	240	62	16.15	6	4	40.00	5878.63	9640.95	141.00	0.000019	1000.00	0.000002
																Calculated Power Density (μW/cm ²)	1.228172	Calculated MPE%	0.1615

Table 2.3: Antenna Inventory & Power Data

*NOTE: 75% Duty Cycle and adjusted power reduction factor of 0.32 was applied to the AIR6449 & AIR6419 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

3. Compliance Summary

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

The anticipated composite MPE value for this site assuming all carriers present is 0.1615% of the allowable FCC established general public limit sampled at the ground level.

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 within the allowable 100% threshold standard per the federal government.



Date: December 19, 2022

MTS Engineering, P.L.L.C.
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630
towersupport@btgrp.com

Subject: Mount Replacement Analysis Report- Rerun

Carrier Designation: AT&T Mobility Equipment Change-Out
Carrier Site Number: CT5775
Carrier Site Name: Canterbury East
Carrier Site FA: 10070963

Crown Castle Designation: BU Number: 876375
Site Name: Canterbury / Lemire
JDE Job Number: 715662
Order Number: 614871, Rev.0

Engineering Firm Designation: Report Designation: 147461.009.01.0003

Site Data: 53 Westminster Rd., Canterbury, CT, Windham County, 06331
Latitude 41° 42' 7.15" Longitude -71° 58' 50.11"

Structure Information: Tower Height & Type: 180.5 ft. Monopole
Mount Elevation: 155 ft.
Mount Type: 14.5 ft. Platform Mount

We are pleased to submit this “Mount Replacement Analysis Report- Rerun” to determine the structural integrity of AT&T Mobility’s antenna mounting system with the proposed appurtenance and equipment addition on the above mentioned 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’s stress level. Based on our analysis we have determined the stress level to be:

Platform Mount

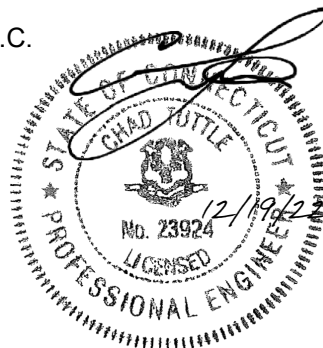
Sufficient

*Sufficient upon completion of the changes listed in the 'Recommendations' section of the report.

This analysis has been performed in accordance with the 2022 CSBC (2022 International Building Code)based upon an ultimate 3-second gust wind speed of 123 mph. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Mount structural analysis prepared by: Suman Rana, P.E.

Respectfully submitted by: MTS Engineering, P.L.L.C.
COA: BER: 2386985 Expires: 03/31/2023



Chad E. Tuttle, P.E.

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1) INTRODUCTION

This is a proposed 3 - sector 14.5' Platform Mount, designed by Perfect Vision (Part #PV-LPPGS-14M-HR2-H5H10).

2) ANALYSIS CRITERIA

Building Code:	2022 CSBS (2021 IBC)
TIA-222 Revision:	TIA-222-H
Risk Category:	II
Ultimate Wind Speed:	123 mph
Exposure Category:	B
Topographic Factor at Base:	1
Topographic Factor at Mount:	1
Ice Thickness:	1 in
Wind Speed with Ice:	50 mph
Seismic S_s:	0.187
Seismic S_1:	0.054
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	Manufacturer	Model / Type	Mount / Modification Details
155	161	3	CCI Antennas	OPA65R-BU6D	14.5 ft. Platform Mount
		3	CCI Antennas	TPA65R-BU6DA-K	
		3	KMW Communications	AM-X-CD-17-65-00T-RET	
		3	ERICSSON	RRUS 4415 B25_CCIV2	
		3	ERICSSON	RRUS 4426 B66	
		3	ERICSSON	RRUS 4449 B5/B12	
		3	ERICSSON	RRUS 4478 B14_CCIV2	
153	161	1	RAYCAP	DC6-48-60-18-8F	

Table 2 - Documents Provided

Document	Remarks	Reference	Source
CCI Order	Existing Loading Proposed Loading	Date: 07/27/2022	Crown Castle
RFDS		Date: 07/14/2022	
Failing MA	MTS Engineering, P.L.L.C.	Date: 08/02/2022	On File
Mount Manufacturer Drawing	Perfect Vision (Part# PV-LPPGS-14M-HR2-H5H10)	Date: 09/11/2020	Commscope

3) ANALYSIS PROCEDURE

3.1) Analysis Method

RISA-3D (Version 20.0.2), 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.

A tool internally developed by MTS Engineering, P.L.L.C., 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.

This analysis was performed in accordance with Crown Castle's ENG-SOW-10208 *Mount Analysis* (Revision E). In addition, this analysis is in accordance with AT&T's *Mount Technical Directive – R22.0*.

Manufacturers drawing were used to create the model.

3.2) Assumptions

1. The antenna mounting system was properly fabricated, installed and maintained in good condition in accordance with its original design, TIA Standards, and/or manufacturer's specifications.
2. The configuration of antennas, mounts, and other appurtenances are as specified in Table-1.
3. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected members unless otherwise specified in this report.
4. Mount areas and weights are determined from field measurements, standard material properties, and/or manufacturer product data.
5. Serviceability with respect to antenna twist, tilt, roll or lateral translation is not checked and is left to the carrier or tower owner to ensure conformance.
6. Prior structural modifications to the tower mounting system are assumed to be installed as shown per available data.
7. 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.
8. The following material grades were assumed (Unless Noted Otherwise):
 - (a) Connection Bolts : ASTM A325
 - (b) Steel Pipe : ASTM A53 (GR. 35)
 - (c) HSS (Round) : ASTM 500 (GR. B-42)
 - (d) HSS (Rectangular) : ASTM 500 (GR. B-46)
 - (e) Channel : ASTM A36 (GR. 36)
 - (f) Steel Solid Rod : ASTM A36 (GR. 36)
 - (g) Steel Plate : ASTM A36 (GR. 36)
 - (h) Steel Angle : ASTM A36 (GR. 36)
 - (i) UNISTRUT : ASTM A570 (GR. 33)

This analysis may be affected if any assumptions are not valid or have been made in error. MTS Engineering, P.L.L.C. 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 Mount)

Notes	Component	Centerline (ft.)	Critical Member	% Capacity	Pass / Fail
1,2	Support Tubes	155	1	36.9	Pass
	Support Pipes		15	21.3	Pass
	Support Angles		33	13.9	Pass
	Main Horizontals		75	17.4	Pass
	Support Rails		76	34.5	Pass
	Connection Pipes		50	35.6	Pass
	Mount Pipes		123	47.1	Pass
	I-Beam		51	18.7	Pass
3	Mount to Tower Connection		-	71.9	Pass

Structure Rating (max from all components) =	71.9%
---	--------------

Notes:

- 1) See additional documentation in "Appendix C - Software Analysis Output" for calculations supporting the % capacity consumed.
- 2) All sectors are typical
- 3) See additional documentation in "Appendix D - Additional Calculations" for calculations supporting the % capacity reported.

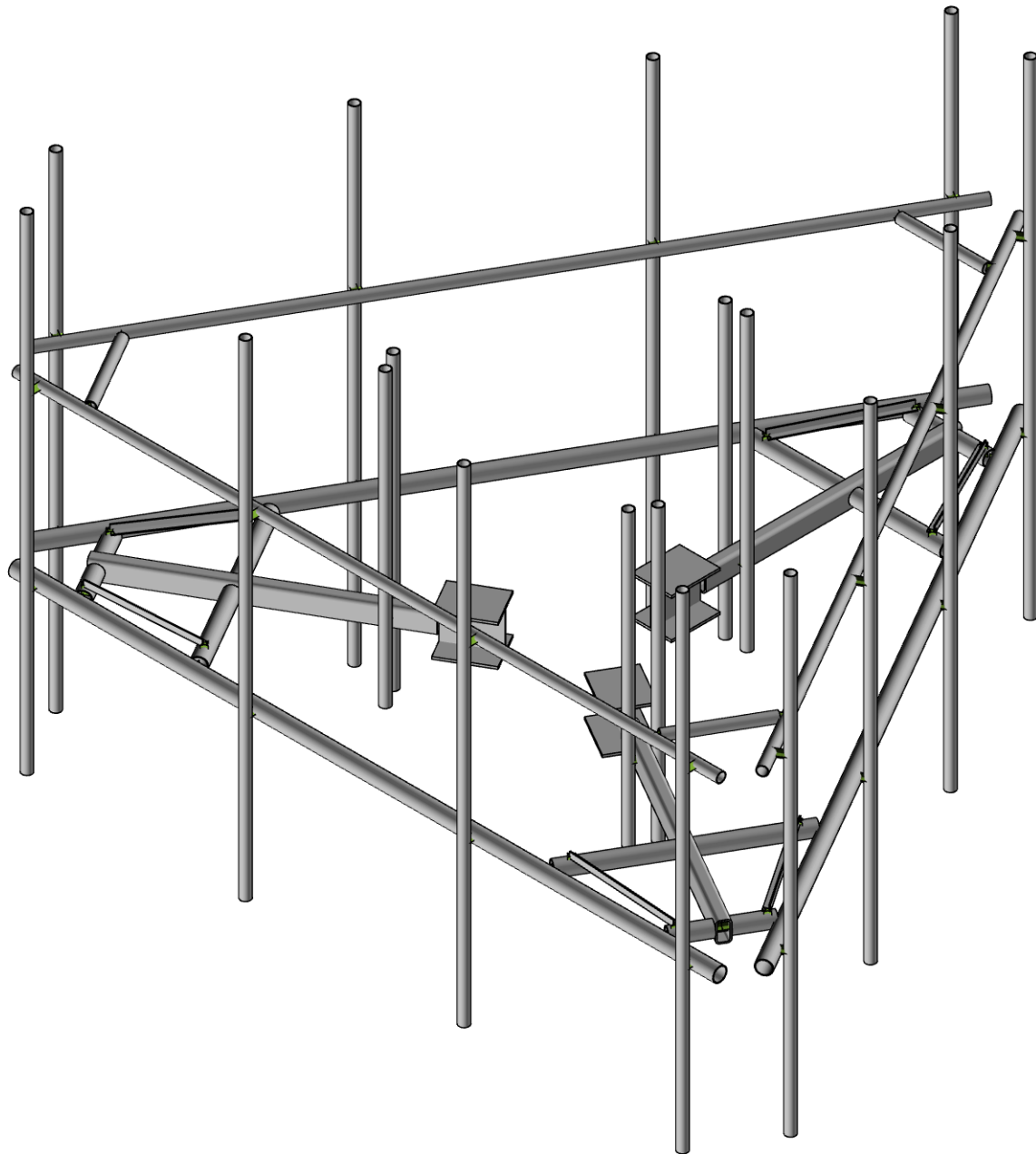
4.1) Recommendations

The proposed mount has sufficient capacity to support the proposed loading configuration. In order for the results of this analysis to be considered valid, the mount listed below shall be installed.

1. Mount replacement, Perfect Vision (Part# PV-LPPGS-14M-HR2-H5H10), P/N: CEQ.53355.
2. Install (6) new 2.0" STD x 6'-0" long mount pipe (P/N: or equivalent approved Conmat item) attached to support arm of the proposed mount using (6) Rosenberger #C10-902-997 (P/N: CEQ.18321) crossover plates to install the RRH.

Beyond the mount replacement, no structural modifications are required at this time, provided that the above-listed changes are implemented.

APPENDIX A
WIRE FRAME AND RENDERED MODELS



MTS Engineering, P.L.L.C.

SR

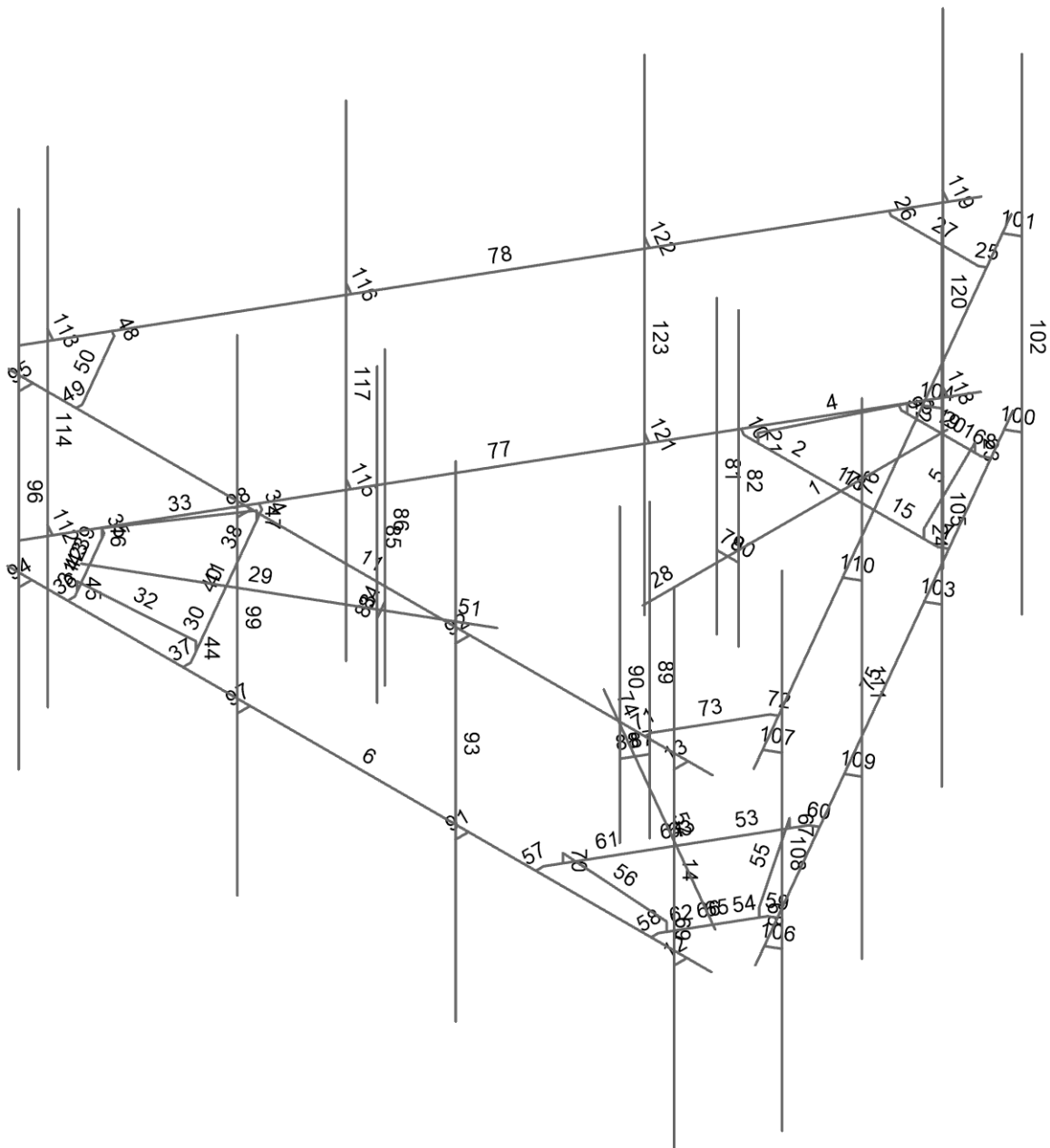
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MTS Engineering, P.L.L.C.

876375 - Canterbury / Lemire

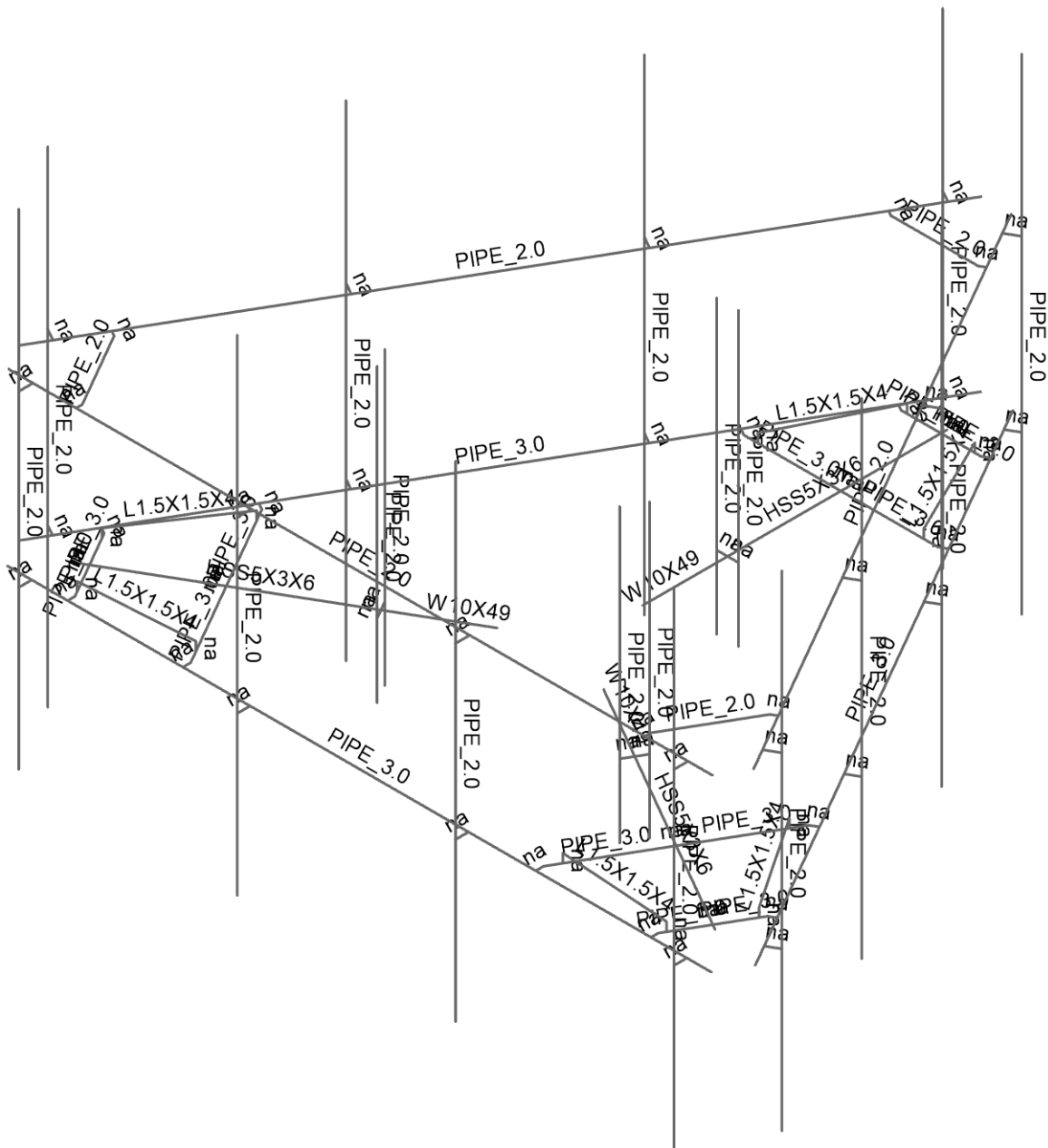
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MTS Engineering, P.L.L.C.

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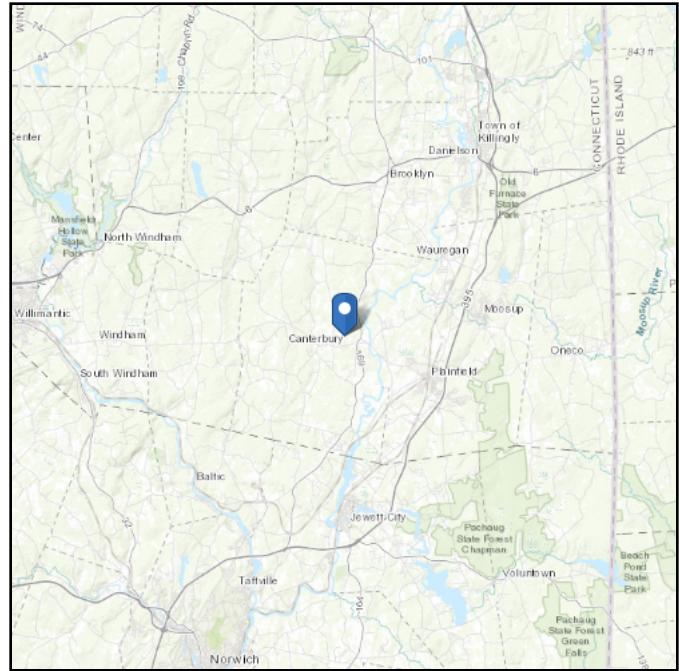
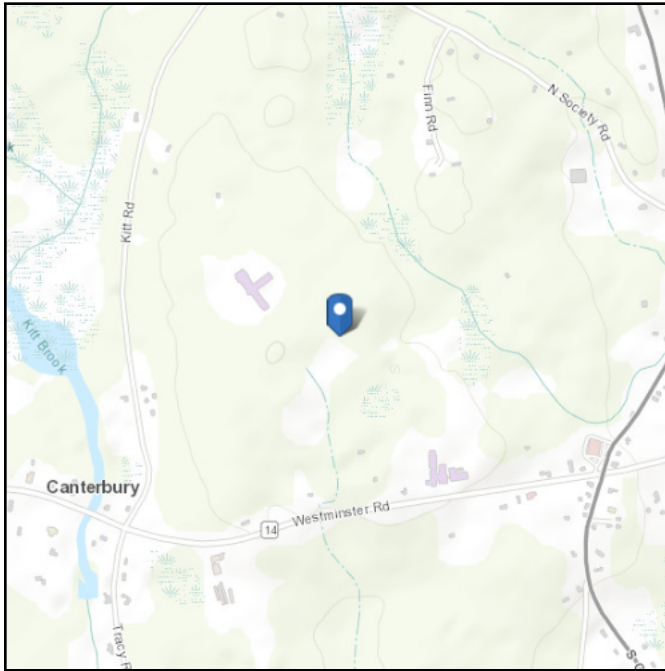
APPENDIX B
SOFTWARE INPUT CALCULATIONS

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: 338.74 ft (NAVD 88)
Latitude: 41.701986
Longitude: -71.980586



Wind

Results:

Wind Speed	123 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	95 Vmph
100-year MRI	100 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: Fri Aug 05 2022

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).

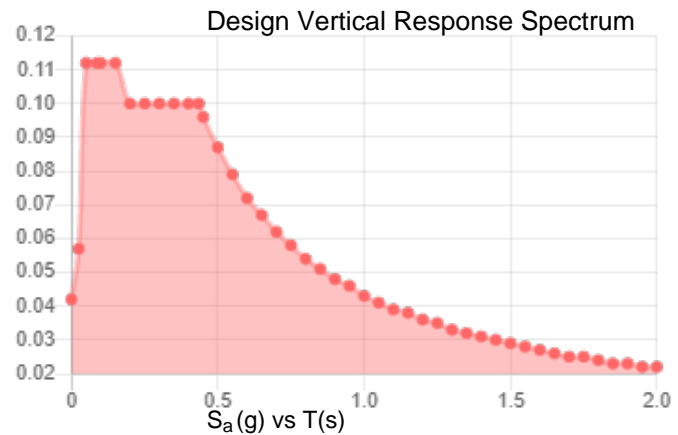
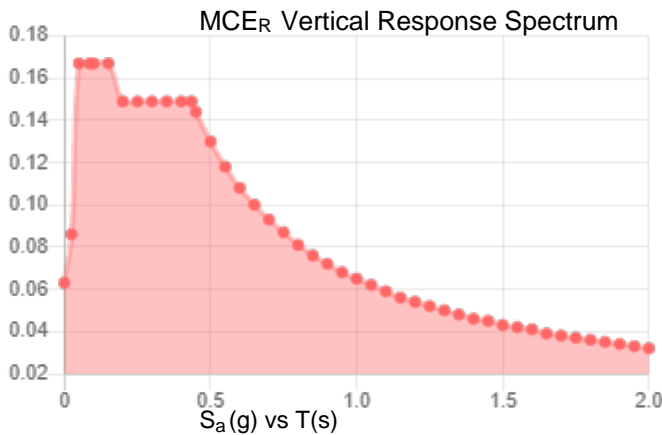
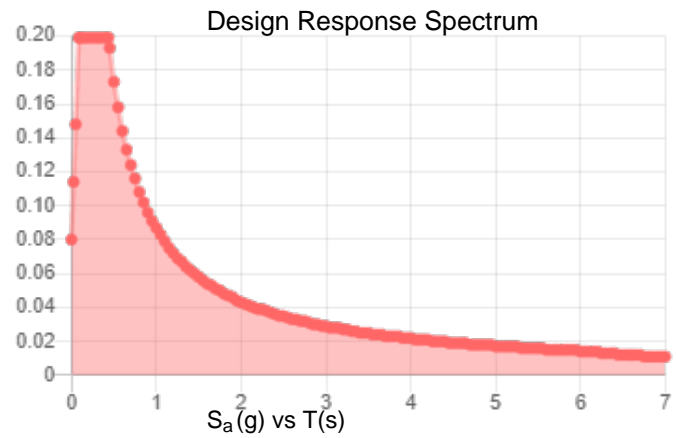
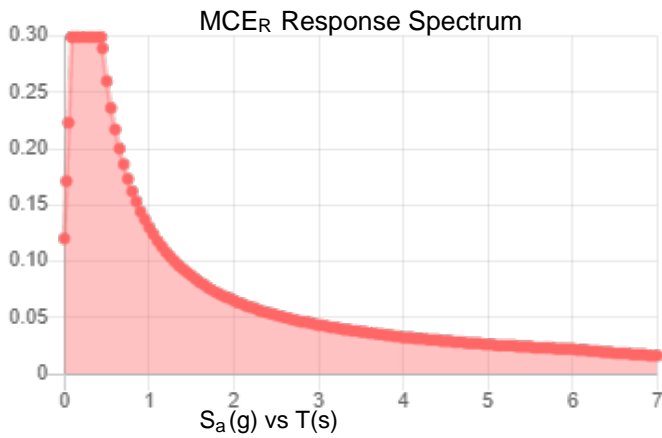
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

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

Results:

S_s :	0.187	S_{D1} :	0.087
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.101
F_v :	2.4	PGA _M :	0.162
S_{MS} :	0.299	F_{PGA} :	1.597
S_{M1} :	0.13	I_e :	1
S_{DS} :	0.199	C_v :	0.7

Seismic Design Category B



Data Accessed: Fri Aug 05 2022

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: 1.00 in.
Concurrent Temperature: 15 F
Gust Speed 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Fri Aug 05 2022

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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PROJECT	147461.009.01.0003 - CANTERBURY / SR		
SUBJECT	Platform Mount Analysis		
DATE	12/19/22		



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

Tower Type	:	Monopole	
Ground Elevation	z_s :	339 ft	[ASCE7 Hazard Tool]
Tower Height	:	180.50 ft	
Mount Elevation	:	155.00 ft	
Antenna Elevation	:	161.00 ft	
Crest Height	:	0 ft	
Risk Category	:	II	[Table 2-1]
Exposure Category	:	B	[Sec. 2.6.5.1.2]
Topography Category	:	1.00	[Sec. 2.6.6.2]
Wind Velocity	V :	123 mph	[ASCE7 Hazard Tool]
Ice wind Velocity	V_i :	50 mph	[ASCE7 Hazard Tool]
Service Velocity	V_s :	30 mph	[ASCE7 Hazard Tool]
Base Ice thickness	t_i :	1.00 in	[ASCE7 Hazard Tool]
Seismic Design Cat.	:	B	[ASCE7 Hazard Tool]
	S_S :	0.19	
	S_1 :	0.05	
	S_{DS} :	0.20	
	S_{D1} :	0.09	
Gust Factor	G_h :	1.00	[Sec. 16.6]
Pressure Coefficient	K_z :	1.13	[Sec. 2.6.5.2]
Topography Facto	K_{zt} :	1.00	[Sec. 2.6.6]
Elevation Factor	K_e :	0.99	[Sec. 2.6.8]
Directionality Factor	K_d :	0.95	[Sec. 16.6]
Shielding Factor	K_a :	0.90	[Sec. 16.6]
Design Ice Thickness	t_{iz} :	1.17 in	[Sec. 2.6.10]
Importance Factor	I_e :	1	[Table 2-3]
Response Coefficient	C_s :	0.100	[Sec. 2.7.7.1]
Amplification	A_s :	2.434903	[Sec. 16.7]
	q_z :	40.71 psf	

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B+T GRP

Manufacturer	Model	Qty	Height (in ²)	Width (in ²)	Depth (in ²)	Weight (lbs)	C _a A _a (N) (ft ²)	C _a A _a (T) (ft ²)	C _a A _a (N) Ice (ft ²)	C _a A _a (T) Ice (ft ²)	F _A (N) (k)	F _A (T) (k)	F _A (N) Ice (k)	F _A (T) Ice (k)
CCI ANTENNAS	TPA65R-BU6DA-K	0.5	71.2	20.7	7.7	68.3	6.35	2.81	7.30	3.78	0.24	0.09	0.04	0.01
CCI ANTENNAS	TPA65R-BU6DA-K	0.5					6.35	2.81	7.30	3.78	0.24	0.09	0.04	0.01
W COMMUNICATI	AM-X-CD-17-65-00T-RET	0.5	96.0	11.8	6.0	59.5	3.10	1.55	3.69	2.11	0.13	0.06	0.03	0.01
W COMMUNICATI	AM-X-CD-17-65-00T-RET	0.5					3.10	1.55	3.69	2.11	0.13	0.06	0.03	0.01
CCI ANTENNAS	OPA65R-BU6D	0.5	71.2	21.0	7.8	63.5	6.11	2.27	6.88	2.93	0.25	0.09	0.05	0.02
CCI ANTENNAS	OPA65R-BU6D	0.5					6.11	2.27	6.88	2.93	0.25	0.09	0.05	0.02
ERICSSON	RRUS 4415 B25_CCIV2	1	16.5	13.4	5.9	46.0	1.84	0.82	2.47	1.31	0.07	0.03	0.01	0.00
ERICSSON	RRUS 4426 B66	1	15.0	13.2	5.8	48.4	1.64	0.73	2.24	1.18	0.06	0.03	0.01	0.00
ERICSSON	RRUS 4449 B5/ B12	1	17.9	13.2	9.4	71.0	1.97	1.41	2.62	1.99	0.07	0.05	0.01	0.01
ERICSSON	RRUS 4478 B14_CCIV2	1	18.1	13.4	8.3	59.4	2.02	1.25	2.68	1.80	0.07	0.05	0.01	0.01
CCI ANTENNAS	TPA65R-BU6DA-K	0.5	71.2	20.7	7.7	68.3	6.35	2.81	7.30	3.78	0.24	0.09	0.04	0.01
CCI ANTENNAS	TPA65R-BU6DA-K	0.5					6.35	2.81	7.30	3.78	0.24	0.09	0.04	0.01
W COMMUNICATI	AM-X-CD-17-65-00T-RET	0.5	96.0	11.8	6.0	59.5	3.10	1.55	3.69	2.11	0.13	0.06	0.03	0.01
W COMMUNICATI	AM-X-CD-17-65-00T-RET	0.5					3.10	1.55	3.69	2.11	0.13	0.06	0.03	0.01
CCI ANTENNAS	OPA65R-BU6D	0.5	71.2	21.0	7.8	63.5	6.11	2.27	6.88	2.93	0.25	0.09	0.05	0.02
CCI ANTENNAS	OPA65R-BU6D	0.5					6.11	2.27	6.88	2.93	0.25	0.09	0.05	0.02

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

B+T GRP

Manufacturer	Model	Qty	Height (in ²)	Width (in ²)	Depth (in ²)	Weight (lbs)	C _a A _a (N) (ft ²)	C _a A _a (T) (ft ²)	C _a A _a (N) Ice (ft ²)	C _a A _a (T) Ice (ft ²)	F _A (N) (k)	F _A (T) (k)	F _A (N) Ice (k)	F _A (T) Ice (k)
ERICSSON	RRUS 4415 B25_CCIV2	1	16.5	13.4	5.9	46.0	1.84	0.82	2.47	1.31	0.07	0.03	0.01	0.00
ERICSSON	RRUS 4426 B66	1	15.0	13.2	5.8	48.4	1.64	0.73	2.24	1.18	0.06	0.03	0.01	0.00
ERICSSON	RRUS 4449 B5/ B12	1	17.9	13.2	9.4	71.0	1.97	1.41	2.62	1.99	0.07	0.05	0.01	0.01
ERICSSON	RRUS 4478 B14_CCIV2	1	18.1	13.4	8.3	59.4	2.02	1.25	2.68	1.80	0.07	0.05	0.01	0.01
CCI ANTENNAS	TPA65R-BU6DA-K	0.5	71.2	20.7	7.7	68.3	6.35	2.81	7.30	3.78	0.24	0.09	0.04	0.01
CCI ANTENNAS	TPA65R-BU6DA-K	0.5					6.35	2.81	7.30	3.78	0.24	0.09	0.04	0.01
W COMMUNICATI	AM-X-CD-17-65-00T-RET	0.5	96.0	11.8	6.0	59.5	3.10	1.55	3.69	2.11	0.13	0.06	0.03	0.01
W COMMUNICATI	AM-X-CD-17-65-00T-RET	0.5					3.10	1.55	3.69	2.11	0.13	0.06	0.03	0.01
CCI ANTENNAS	OPA65R-BU6D	0.5	71.2	21.0	7.8	63.5	6.11	2.27	6.88	2.93	0.25	0.09	0.05	0.02
CCI ANTENNAS	OPA65R-BU6D	0.5					6.11	2.27	6.88	2.93	0.25	0.09	0.05	0.02
ERICSSON	RRUS 4415 B25_CCIV2	1		13.4	5.9	46.0	1.84	0.82	2.47	1.31	0.07	0.03	0.01	0.00
ERICSSON	RRUS 4426 B66	1	15.0	13.2	5.8	48.4	1.64	0.73	2.24	1.18	0.06	0.03	0.01	0.00
ERICSSON	RRUS 4449 B5/ B12	1	17.9	13.2	9.4	71.0	1.97	1.41	2.62	1.99	0.07	0.05	0.01	0.01
ERICSSON	RRUS 4478 B14_CCIV2	1	18.1	13.4	8.3	59.4	2.02	1.25	2.68	1.80	0.07	0.05	0.01	0.01
RAYCAP	DC6-48-60-18-8F	1	22.3	11.0	11.0	18.9	0.85	0.85	1.14	1.14	0.03	0.03	0.01	0.01

PROJECT	147461.009.01.0003 - CANTERBURY / SR	
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B+T Group
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B+T GRP

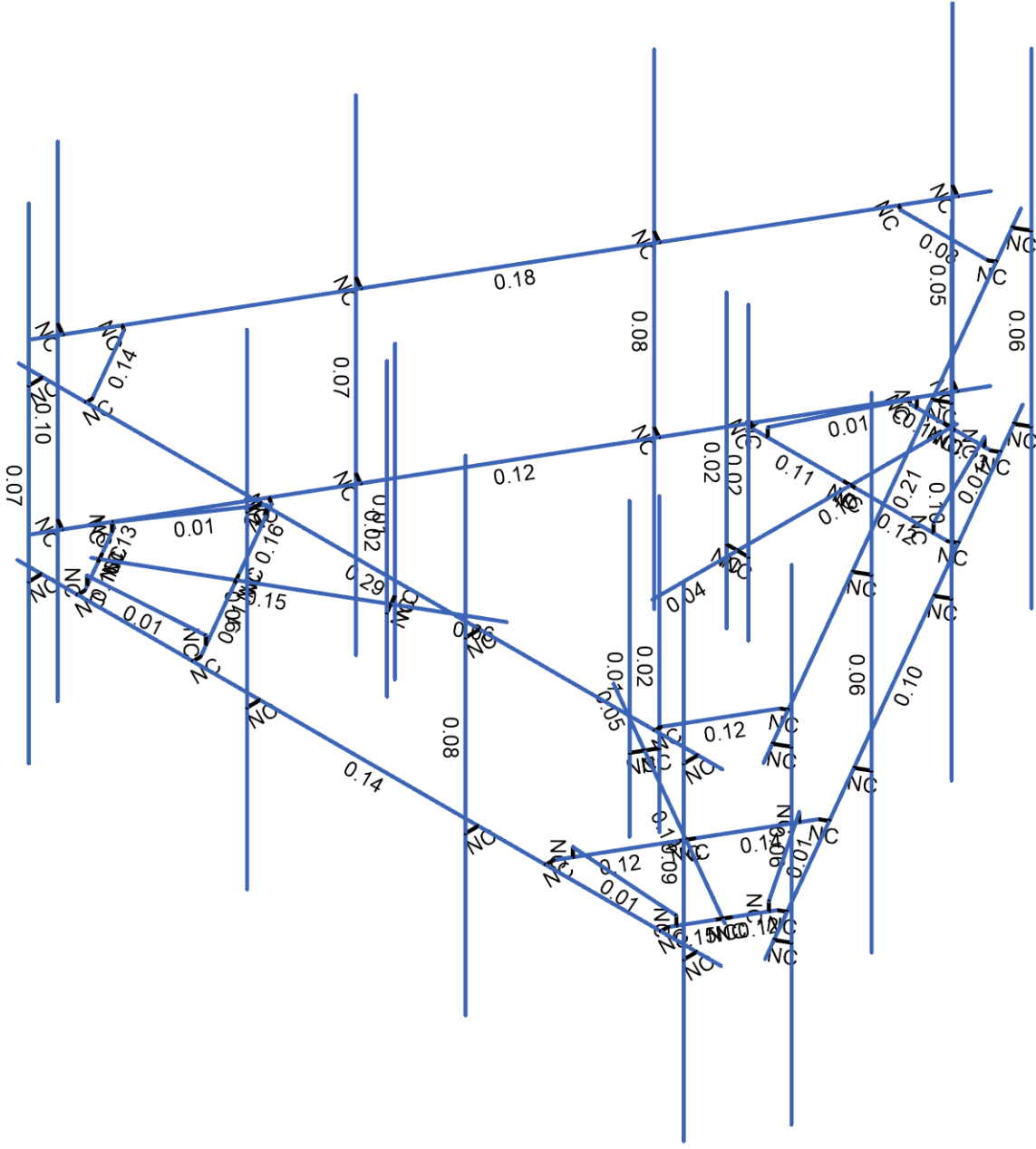
Manufacturer	Model	Qty	Height (in ²)	Width (in ²)	Depth (in ²)	Weight (lbs)	C _a A _a (N) (ft ²)	C _a A _a (T) (ft ²)	C _a A _a (N) Ice (ft ²)	C _a A _a (T) Ice (ft ²)	F _A (N) (k)	F _A (T) (k)	F _A (N) Ice (k)	F _A (T) Ice (k)
RAYCAP	DC6-48-60-18-8F	1	22.3	11.0	11.0	18.9	0.85	0.85	1.14	1.14	0.03	0.03	0.01	0.01

APPENDIX C
SOFTWARE ANALYSIS OUTPUT



Shear Check (Env)

- No Calc
- > 1.0
- .90-1.0
- .75-.90
- .50-.75
- 0-.50



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

MTS Engineering, P.L.L.C.
SR
147461.009.01.0003

876375 - Canterbury / Lemire

SK-5
Dec 19, 2022
147461_009_01_0003_Canterbur...



Node Coordinates

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1	1	0	0	0	
2	2	0	0	-2.269143	
3	3	0	0	-7.539976	
4	4	0	0	-5.352476	
5	5	-2	0	-5.352476	
6	6	2	0	-5.352476	
7	7	0	0	-7.414976	
8	8	0.822917	0	-7.414976	
9	9	-0.822917	0	-7.414976	
10	10	-0.697917	0.182	-7.414976	
11	11	-1.708333	0.182	-5.352476	
12	12	0.697917	0.182	-7.414976	
13	13	1.708333	0.182	-5.352476	
14	14	-7.250006	0	4.57015	
15	15	7.250006	0	4.57015	
16	16	0.952816	0	-7.489974	
17	17	-0.952816	0	-7.489974	
18	18	-7.250006	3.5	4.54515	
19	19	7.250006	3.5	4.54515	
20	20	6.750006	0	4.57015	
21	21	6.750006	0	4.836816	
22	22	6.750006	-3.25	4.836816	
23	23	6.750006	6.75	4.836816	
24	24	6.750006	3.5	4.54515	
25	25	6.750006	3.5	4.836816	
26	26	0.125	0	-5.352476	
27	27	-0.125	0	-5.352476	
28	28	-0.125	0	-7.414976	
29	29	0.125	0	-7.414976	
30	30	-1.708333	0	-5.352476	
31	31	-0.697917	0	-7.414976	
32	32	0.697917	0	-7.414976	
33	33	1.708333	0	-5.352476	
34	34	1.006438	3.5	-7.347098	
35	35	0.898189	3.5	-7.2846	
36	36	-1.006438	3.5	-7.347098	
37	37	-0.898189	3.5	-7.2846	
38	38	0	0	-1.269143	
39	39	2.140176	0	-5.433406	
40	40	-2.140176	0	-5.433406	
41	41	-1.965135	0	1.134571	
42	42	-6.529811	0	3.769988	
43	43	-4.63538	0	2.676238	
44	44	-3.63538	0	4.408289	
45	45	-5.63538	0	0.944187	
46	46	-6.421558	0	3.707488	
47	47	-6.833016	0	2.994821	
48	48	-6.010099	0	4.420155	
49	49	-6.072599	0.182	4.311902	
50	50	-3.781214	0.182	4.155698	
51	51	-6.770516	0.182	3.103075	
52	52	-5.489547	0.182	1.196778	
53	53	-6.962915	0	2.919824	
54	54	-6.010099	0	4.57015	
55	55	-4.69788	0	2.567985	



Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
56	56	-4.57288	0	2.784491	
57	57	-6.359058	0	3.815741	
58	58	-6.484058	0	3.599235	
59	59	-3.781214	0	4.155698	
60	60	-6.072599	0	4.311902	
61	61	-6.770516	0	3.103075	
62	62	-5.489547	0	1.196778	
63	63	-6.865992	3.5	2.801948	
64	64	-6.757744	3.5	2.864446	
65	65	-5.859554	3.5	4.54515	
66	66	-5.859554	3.5	4.420155	
67	67	-1.09911	0	0.634571	
68	68	-5.775556	0	0.863257	
69	69	-3.63538	0	4.57015	
70	70	1.965135	0	1.134571	
71	71	6.529811	0	3.769988	
72	72	4.63538	0	2.676238	
73	73	5.63538	0	0.944187	
74	74	3.63538	0	4.408289	
75	75	6.421558	0	3.707488	
76	76	6.010099	0	4.420155	
77	77	6.833016	0	2.994821	
78	78	6.770516	0.182	3.103075	
79	79	5.489547	0.182	1.196778	
80	80	6.072599	0.182	4.311902	
81	81	3.781214	0.182	4.155698	
82	82	6.010099	0	4.57015	
83	83	6.962915	0	2.919824	
84	84	4.57288	0	2.784491	
85	85	4.69788	0	2.567985	
86	86	6.484058	0	3.599235	
87	87	6.359058	0	3.815741	
88	88	5.489547	0	1.196778	
89	89	6.770516	0	3.103075	
90	90	6.072599	0	4.311902	
91	91	3.781214	0	4.155698	
92	92	5.859554	3.5	4.54515	
93	93	5.859554	3.5	4.420155	
94	94	6.865992	3.5	2.801948	
95	95	6.757744	3.5	2.864446	
96	96	1.09911	0	0.634571	
97	97	3.63538	0	4.57015	
98	98	5.775556	0	0.863257	
99	99	7.582869	0	3.993615	
100	100	0.332863	0	-8.563765	
101	101	7.561218	3.5	4.006115	
102	102	0.311212	3.5	-8.551265	
103	103	-0.332863	0	-8.563765	
104	104	-7.582869	0	3.993615	
105	105	-0.311212	3.5	-8.551265	
106	106	-7.561218	3.5	4.006115	
107	107	0	0	-3.019143	
108	108	0.224291	0	-3.019143	
109	109	-0.224291	0	-3.019143	
110	110	0.224291	-1.5	-3.019143	



Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
111	111	-0.224291	-1.5	-3.019143	
112	112	0.224291	4.5	-3.019143	
113	113	-0.224291	4.5	-3.019143	
114	114	-2.614654	0	1.509571	
115	115	-2.7268	0	1.31533	
116	116	-2.502509	0	1.703813	
117	117	-2.7268	-1.5	1.31533	
118	118	-2.502509	-1.5	1.703813	
119	119	-2.7268	4.5	1.31533	
120	120	-2.502509	4.5	1.703813	
121	121	2.614654	0	1.509571	
122	122	2.502509	0	1.703813	
123	123	2.7268	0	1.31533	
124	124	2.502509	-1.5	1.703813	
125	125	2.7268	-1.5	1.31533	
126	126	2.502509	4.5	1.703813	
127	127	2.7268	4.5	1.31533	
128	128	2.250006	0	4.57015	
129	129	2.250006	0	4.836816	
130	130	2.250006	-3.25	4.836816	
131	131	2.250006	6.75	4.836816	
132	132	2.250006	3.5	4.54515	
133	133	2.250006	3.5	4.836816	
134	134	-6.750006	0	4.57015	
135	135	-6.750006	0	4.836816	
136	136	-6.750006	-3.25	4.836816	
137	137	-6.750006	6.75	4.836816	
138	138	-6.750006	3.5	4.54515	
139	139	-6.750006	3.5	4.836816	
140	140	-2.250006	0	4.57015	
141	141	-2.250006	0	4.836816	
142	142	-2.250006	-3.25	4.836816	
143	143	-2.250006	6.75	4.836816	
144	144	-2.250006	3.5	4.54515	
145	145	-2.250006	3.5	4.836816	
146	146	0.582863	0	-8.130752	
147	147	0.813803	0	-8.264085	
148	148	0.813803	-3.25	-8.264085	
149	149	0.813803	6.75	-8.264085	
150	150	0.561212	3.5	-8.118252	
151	151	0.813803	3.5	-8.264085	
152	152	2.832863	0	-4.233637	
153	153	3.063803	0	-4.366971	
154	154	3.063803	-3.25	-4.366971	
155	155	3.063803	6.75	-4.366971	
156	156	2.811212	3.5	-4.221137	
157	157	3.063803	3.5	-4.366971	
158	158	7.332869	0	3.560602	
159	159	7.563809	0	3.427269	
160	160	7.563809	-3.25	3.427269	
161	161	7.563809	6.75	3.427269	
162	162	7.311218	3.5	3.573102	
163	163	7.563809	3.5	3.427269	
164	164	5.082869	0	-0.336512	
165	165	5.313809	0	-0.469846	

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
166	166	5.313809	-3.25	-0.469846	
167	167	5.313809	6.75	-0.469846	
168	168	5.061218	3.5	-0.324012	
169	169	5.313809	3.5	-0.469846	
170	170	-7.332869	0	3.560602	
171	171	-7.563809	0	3.427269	
172	172	-7.563809	-3.25	3.427269	
173	173	-7.563809	6.75	3.427269	
174	174	-7.311218	3.5	3.573102	
175	175	-7.563809	3.5	3.427269	
176	176	-5.082869	0	-0.336512	
177	177	-5.313809	0	-0.469846	
178	178	-5.313809	-3.25	-0.469846	
179	179	-5.313809	6.75	-0.469846	
180	180	-5.061218	3.5	-0.324012	
181	181	-5.313809	3.5	-0.469846	
182	182	-0.582863	0	-8.130752	
183	183	-0.813803	0	-8.264085	
184	184	-0.813803	-3.25	-8.264085	
185	185	-0.813803	6.75	-8.264085	
186	186	-0.561212	3.5	-8.118252	
187	187	-0.813803	3.5	-8.264085	
188	188	-2.832863	0	-4.233637	
189	189	-3.063803	0	-4.366971	
190	190	-3.063803	-3.25	-4.366971	
191	191	-3.063803	6.75	-4.366971	
192	192	-2.811212	3.5	-4.221137	
193	193	-3.063803	3.5	-4.366971	

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	2						
2	3						
3	4						
4	5						
5	6						
6	7						
7	8						
8	9						
9	10						
10	11						
11	12						
12	13						
13	14						
14	15						
15	16						
16	17						
17	18						
18	19						
19	20						
20	21						
21	22						
22	23						
23	24						
24	25						



Node Boundary Conditions (Continued)

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
25	26						
26	27						
27	28						
28	29						
29	30						
30	31						
31	32						
32	33						
33	34						
34	35						
35	36						
36	37						
37	38	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
38	39						
39	40						
40	41						
41	42						
42	43						
43	44						
44	45						
45	46						
46	47						
47	48						
48	49						
49	50						
50	51						
51	52						
52	53						
53	54						
54	55						
55	56						
56	57						
57	58						
58	59						
59	60						
60	61						
61	62						
62	63						
63	64						
64	65						
65	66						
66	67	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
67	68						
68	69						
69	70						
70	71						
71	72						
72	73						
73	74						
74	75						
75	76						
76	77						
77	78						
78	79						
79	80						



Node Boundary Conditions (Continued)

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
80	81						
81	82						
82	83						
83	84						
84	85						
85	86						
86	87						
87	88						
88	89						
89	90						
90	91						
91	92						
92	93						
93	94						
94	95						
95	96	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
96	97						
97	98						
98	99						
99	100						
100	101						
101	102						
102	103						
103	104						
104	105						
105	106						
106	107						
107	108						
108	109						
109	110						
110	111						
111	112						
112	113						
113	114						
114	115						
115	116						
116	117						
117	118						
118	119						
119	120						
120	121						
121	122						
122	123						
123	124						
124	125						
125	126						
126	127						
127	128						
128	129						
129	130						
130	131						
131	132						
132	133						
133	134						
134	135						



Node Boundary Conditions (Continued)

Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
135	136					
136	137					
137	138					
138	139					
139	140					
140	141					
141	142					
142	143					
143	144					
144	145					
145	146					
146	147					
147	148					
148	149					
149	150					
150	151					
151	152					
152	153					
153	154					
154	155					
155	156					
156	157					
157	158					
158	159					
159	160					
160	161					
161	162					
162	163					
163	164					
164	165					
165	166					
166	167					
167	168					
168	169					
169	170					
170	171					
171	172					
172	173					
173	174					
174	175					
175	176					
176	177					
177	178					
178	179					
179	180					
180	181					
181	182					
182	183					
183	184					
184	185					
185	186					
186	187					
187	188					
188	189					
189	190					

Node Boundary Conditions (Continued)

Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
190	191					
191	192					
192	193					

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e ⁵ F ⁻¹]	Density [k/ft ³]	Yield [ksi]	Ry	Fu [ksi]	Rt
1	A992	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	0.3	0.65	0.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	0.3	0.65	0.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2
7	A1085	29000	11154	0.3	0.65	0.49	50	1.4	65	1.3

Cold Formed Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e ⁵ F ⁻¹]	Density [k/ft ³]	Yield [ksi]	Fu [ksi]
1	A653 SS Gr33	29500	11346	0.3	0.65	0.49	33	45
2	A653 SS Gr50/1	29500	11346	0.3	0.65	0.49	50	65

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
1	MF-S1	HSS5X3X6	Beam	Tube	A500 Gr.B Rect	Typical	4.78	6.25	14.1	14.9
2	MF-S2	PIPE 3.0	Beam	Pipe	A500 Gr.B RND	Typical	2.07	2.85	2.85	5.69
3	MF-S3	L1.5x1.5x4	Beam	Single Angle	A36 Gr.36	Typical	0.688	0.139	0.139	0.013
4	MF-H1	PIPE 3.0	Beam	Pipe	A500 Gr.B RND	Typical	2.07	2.85	2.85	5.69
5	SR	PIPE 2.0	Beam	Pipe	A500 Gr.B RND	Typical	1.02	0.627	0.627	1.25
6	HR-S1	PIPE 2.0	Beam	Pipe	A500 Gr.B RND	Typical	1.02	0.627	0.627	1.25
7	MP1	PIPE 2.0	Column	Pipe	A500 Gr.B RND	Typical	1.02	0.627	0.627	1.25
8	Extension Beam	W10X49	Beam	Wide Flange	A992	Typical	14.4	93.4	272	1.39

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
1	CF1	8CU1.25X057	Beam	None	A653 SS Gr33	Typical	0.581	0.057	4.41	0.00063

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	1	2	3		MF-S1	Beam	Tube	A500 Gr.B Rect	Typical
2	2	5	27		MF-S2	Beam	Pipe	A500 Gr.B RND	Typical
3	3	9	28		MF-S2	Beam	Pipe	A500 Gr.B RND	Typical
4	4	10	11	270	MF-S3	Beam	Single Angle	A36 Gr.36	Typical
5	5	12	13		MF-S3	Beam	Single Angle	A36 Gr.36	Typical
6	6	14	15		MF-H1	Beam	Pipe	A500 Gr.B RND	Typical
7	7	6	39		RIGID	None	None	RIGID	Typical
8	8	8	16		RIGID	None	None	RIGID	Typical
9	9	9	17		RIGID	None	None	RIGID	Typical
10	10	5	40		RIGID	None	None	RIGID	Typical
11	11	18	19		SR	Beam	Pipe	A500 Gr.B RND	Typical
12	12	21	20		RIGID	None	None	RIGID	Typical
13	13	25	24		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule	
14	14	23	22	MP1	Column	Pipe	A500 Gr.B RND	Typical	
15	15	26	6	MF-S2	Beam	Pipe	A500 Gr.B RND	Typical	
16	16	29	8	MF-S2	Beam	Pipe	A500 Gr.B RND	Typical	
17	17	27	4	RIGID	None	None	RIGID	Typical	
18	18	4	26	RIGID	None	None	RIGID	Typical	
19	19	28	7	RIGID	None	None	RIGID	Typical	
20	20	7	29	RIGID	None	None	RIGID	Typical	
21	21	11	30	RIGID	None	None	RIGID	Typical	
22	22	10	31	RIGID	None	None	RIGID	Typical	
23	23	12	32	RIGID	None	None	RIGID	Typical	
24	24	13	33	RIGID	None	None	RIGID	Typical	
25	25	35	34	RIGID	None	None	RIGID	Typical	
26	26	37	36	RIGID	None	None	RIGID	Typical	
27	27	37	35	HR-S1	Beam	Pipe	A500 Gr.B RND	Typical	
28	28	38	2	Extension Beam	Beam	Wide Flange	A992	Typical	
29	29	41	42	MF-S1	Beam	Tube	A500 Gr.B Rect	Typical	
30	30	44	56	MF-S2	Beam	Pipe	A500 Gr.B RND	Typical	
31	31	48	57	MF-S2	Beam	Pipe	A500 Gr.B RND	Typical	
32	32	49	50	270	MF-S3	Beam	Single Angle	A36 Gr.36	Typical
33	33	51	52	MF-S3	Beam	Single Angle	A36 Gr.36	Typical	
34	34	45	68	RIGID	None	None	RIGID	Typical	
35	35	47	53	RIGID	None	None	RIGID	Typical	
36	36	48	54	RIGID	None	None	RIGID	Typical	
37	37	44	69	RIGID	None	None	RIGID	Typical	
38	38	55	45	MF-S2	Beam	Pipe	A500 Gr.B RND	Typical	
39	39	58	47	MF-S2	Beam	Pipe	A500 Gr.B RND	Typical	
40	40	56	43	RIGID	None	None	RIGID	Typical	
41	41	43	55	RIGID	None	None	RIGID	Typical	
42	42	57	46	RIGID	None	None	RIGID	Typical	
43	43	46	58	RIGID	None	None	RIGID	Typical	
44	44	50	59	RIGID	None	None	RIGID	Typical	
45	45	49	60	RIGID	None	None	RIGID	Typical	
46	46	51	61	RIGID	None	None	RIGID	Typical	
47	47	52	62	RIGID	None	None	RIGID	Typical	
48	48	64	63	RIGID	None	None	RIGID	Typical	
49	49	66	65	RIGID	None	None	RIGID	Typical	
50	50	66	64	HR-S1	Beam	Pipe	A500 Gr.B RND	Typical	
51	51	67	41	Extension Beam	Beam	Wide Flange	A992	Typical	
52	52	70	71	MF-S1	Beam	Tube	A500 Gr.B Rect	Typical	
53	53	73	85	MF-S2	Beam	Pipe	A500 Gr.B RND	Typical	
54	54	77	86	MF-S2	Beam	Pipe	A500 Gr.B RND	Typical	
55	55	78	79	270	MF-S3	Beam	Single Angle	A36 Gr.36	Typical
56	56	80	81	MF-S3	Beam	Single Angle	A36 Gr.36	Typical	
57	57	74	97	RIGID	None	None	RIGID	Typical	
58	58	76	82	RIGID	None	None	RIGID	Typical	
59	59	77	83	RIGID	None	None	RIGID	Typical	
60	60	73	98	RIGID	None	None	RIGID	Typical	
61	61	84	74	MF-S2	Beam	Pipe	A500 Gr.B RND	Typical	
62	62	87	76	MF-S2	Beam	Pipe	A500 Gr.B RND	Typical	
63	63	85	72	RIGID	None	None	RIGID	Typical	
64	64	72	84	RIGID	None	None	RIGID	Typical	
65	65	86	75	RIGID	None	None	RIGID	Typical	
66	66	75	87	RIGID	None	None	RIGID	Typical	
67	67	79	88	RIGID	None	None	RIGID	Typical	
68	68	78	89	RIGID	None	None	RIGID	Typical	

Member Primary Data (Continued)

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
69	69	80	90	RIGID	None	None	RIGID	Typical
70	70	81	91	RIGID	None	None	RIGID	Typical
71	71	93	92	RIGID	None	None	RIGID	Typical
72	72	95	94	RIGID	None	None	RIGID	Typical
73	73	95	93	HR-S1	Beam	Pipe	A500 Gr.B RND	Typical
74	74	96	70	Extension Beam	Beam	Wide Flange	A992	Typical
75	75	99	100	MF-H1	Beam	Pipe	A500 Gr.B RND	Typical
76	76	101	102	SR	Beam	Pipe	A500 Gr.B RND	Typical
77	77	103	104	MF-H1	Beam	Pipe	A500 Gr.B RND	Typical
78	78	105	106	SR	Beam	Pipe	A500 Gr.B RND	Typical
79	79	109	107	RIGID	None	None	RIGID	Typical
80	80	108	107	RIGID	None	None	RIGID	Typical
81	81	113	111	MP1	Column	Pipe	A500 Gr.B RND	Typical
82	82	112	110	MP1	Column	Pipe	A500 Gr.B RND	Typical
83	83	116	114	RIGID	None	None	RIGID	Typical
84	84	115	114	RIGID	None	None	RIGID	Typical
85	85	120	118	MP1	Column	Pipe	A500 Gr.B RND	Typical
86	86	119	117	MP1	Column	Pipe	A500 Gr.B RND	Typical
87	87	123	121	RIGID	None	None	RIGID	Typical
88	88	122	121	RIGID	None	None	RIGID	Typical
89	89	127	125	MP1	Column	Pipe	A500 Gr.B RND	Typical
90	90	126	124	MP1	Column	Pipe	A500 Gr.B RND	Typical
91	91	129	128	RIGID	None	None	RIGID	Typical
92	92	133	132	RIGID	None	None	RIGID	Typical
93	93	131	130	MP1	Column	Pipe	A500 Gr.B RND	Typical
94	94	135	134	RIGID	None	None	RIGID	Typical
95	95	139	138	RIGID	None	None	RIGID	Typical
96	96	137	136	MP1	Column	Pipe	A500 Gr.B RND	Typical
97	97	141	140	RIGID	None	None	RIGID	Typical
98	98	145	144	RIGID	None	None	RIGID	Typical
99	99	143	142	MP1	Column	Pipe	A500 Gr.B RND	Typical
100	100	147	146	RIGID	None	None	RIGID	Typical
101	101	151	150	RIGID	None	None	RIGID	Typical
102	102	149	148	MP1	Column	Pipe	A500 Gr.B RND	Typical
103	103	153	152	RIGID	None	None	RIGID	Typical
104	104	157	156	RIGID	None	None	RIGID	Typical
105	105	155	154	MP1	Column	Pipe	A500 Gr.B RND	Typical
106	106	159	158	RIGID	None	None	RIGID	Typical
107	107	163	162	RIGID	None	None	RIGID	Typical
108	108	161	160	MP1	Column	Pipe	A500 Gr.B RND	Typical
109	109	165	164	RIGID	None	None	RIGID	Typical
110	110	169	168	RIGID	None	None	RIGID	Typical
111	111	167	166	MP1	Column	Pipe	A500 Gr.B RND	Typical
112	112	171	170	RIGID	None	None	RIGID	Typical
113	113	175	174	RIGID	None	None	RIGID	Typical
114	114	173	172	MP1	Column	Pipe	A500 Gr.B RND	Typical
115	115	177	176	RIGID	None	None	RIGID	Typical
116	116	181	180	RIGID	None	None	RIGID	Typical
117	117	179	178	MP1	Column	Pipe	A500 Gr.B RND	Typical
118	118	183	182	RIGID	None	None	RIGID	Typical
119	119	187	186	RIGID	None	None	RIGID	Typical
120	120	185	184	MP1	Column	Pipe	A500 Gr.B RND	Typical
121	121	189	188	RIGID	None	None	RIGID	Typical
122	122	193	192	RIGID	None	None	RIGID	Typical
123	123	191	190	MP1	Column	Pipe	A500 Gr.B RND	Typical



Company : MTS Engineering, P.L.L.C.
Designer : SR
Job Number : 147461.009.01.0003
Model Name : 876375 - Canterbury / Lemire

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Checked By : _____

Member Primary Data (Continued)

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
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Company : MTS Engineering, P.L.L.C.
 Designer : SR
 Job Number : 147461.009.01.0003
 Model Name : 876375 - Canterbury / Lemire

12/19/2022
 2:25:01 PM
 Checked By : _____

Member Advanced Data

	Label	Physical	Deflection Ratio Options	Seismic DR
1	1	Yes	N/A	None
2	2	Yes	Default	None
3	3	Yes	Default	None
4	4	Yes	N/A	None
5	5	Yes	Default	None
6	6	Yes	Default	None
7	7	Yes	** NA **	None
8	8	Yes	** NA **	None
9	9	Yes	** NA **	None
10	10	Yes	** NA **	None
11	11	Yes	N/A	None
12	12	Yes	** NA **	None
13	13	Yes	** NA **	None
14	14	Yes	** NA **	None
15	15	Yes	Default	None
16	16	Yes	Default	None
17	17	Yes	** NA **	None
18	18	Yes	** NA **	None
19	19	Yes	** NA **	None
20	20	Yes	** NA **	None
21	21	Yes	** NA **	None
22	22	Yes	** NA **	None
23	23	Yes	** NA **	None
24	24	Yes	** NA **	None
25	25	Yes	** NA **	None
26	26	Yes	** NA **	None
27	27	Yes	N/A	None
28	28	Yes	N/A	None
29	29	Yes	N/A	None
30	30	Yes	Default	None
31	31	Yes	Default	None
32	32	Yes	N/A	None
33	33	Yes	Default	None
34	34	Yes	** NA **	None
35	35	Yes	** NA **	None
36	36	Yes	** NA **	None
37	37	Yes	** NA **	None
38	38	Yes	Default	None
39	39	Yes	Default	None
40	40	Yes	** NA **	None
41	41	Yes	** NA **	None
42	42	Yes	** NA **	None
43	43	Yes	** NA **	None
44	44	Yes	** NA **	None
45	45	Yes	** NA **	None
46	46	Yes	** NA **	None
47	47	Yes	** NA **	None
48	48	Yes	** NA **	None
49	49	Yes	** NA **	None
50	50	Yes	N/A	None
51	51	Yes	N/A	None
52	52	Yes	N/A	None
53	53	Yes	Default	None
54	54	Yes	Default	None
55	55	Yes	N/A	None



Member Advanced Data (Continued)

	Label	Physical	Deflection Ratio Options	Seismic DR
56	56	Yes	Default	None
57	57	Yes	** NA **	None
58	58	Yes	** NA **	None
59	59	Yes	** NA **	None
60	60	Yes	** NA **	None
61	61	Yes	Default	None
62	62	Yes	Default	None
63	63	Yes	** NA **	None
64	64	Yes	** NA **	None
65	65	Yes	** NA **	None
66	66	Yes	** NA **	None
67	67	Yes	** NA **	None
68	68	Yes	** NA **	None
69	69	Yes	** NA **	None
70	70	Yes	** NA **	None
71	71	Yes	** NA **	None
72	72	Yes	** NA **	None
73	73	Yes	N/A	None
74	74	Yes	N/A	None
75	75	Yes	Default	None
76	76	Yes	N/A	None
77	77	Yes	Default	None
78	78	Yes	N/A	None
79	79	Yes	** NA **	None
80	80	Yes	** NA **	None
81	81	Yes	** NA **	None
82	82	Yes	** NA **	None
83	83	Yes	** NA **	None
84	84	Yes	** NA **	None
85	85	Yes	** NA **	None
86	86	Yes	** NA **	None
87	87	Yes	** NA **	None
88	88	Yes	** NA **	None
89	89	Yes	** NA **	None
90	90	Yes	** NA **	None
91	91	Yes	** NA **	None
92	92	Yes	** NA **	None
93	93	Yes	** NA **	None
94	94	Yes	** NA **	None
95	95	Yes	** NA **	None
96	96	Yes	** NA **	None
97	97	Yes	** NA **	None
98	98	Yes	** NA **	None
99	99	Yes	** NA **	None
100	100	Yes	** NA **	None
101	101	Yes	** NA **	None
102	102	Yes	** NA **	None
103	103	Yes	** NA **	None
104	104	Yes	** NA **	None
105	105	Yes	** NA **	None
106	106	Yes	** NA **	None
107	107	Yes	** NA **	None
108	108	Yes	** NA **	None
109	109	Yes	** NA **	None
110	110	Yes	** NA **	None

Member Advanced Data (Continued)

	Label	Physical	Deflection Ratio Options	Seismic DR
111	111	Yes	** NA **	None
112	112	Yes	** NA **	None
113	113	Yes	** NA **	None
114	114	Yes	** NA **	None
115	115	Yes	** NA **	None
116	116	Yes	** NA **	None
117	117	Yes	** NA **	None
118	118	Yes	** NA **	None
119	119	Yes	** NA **	None
120	120	Yes	** NA **	None
121	121	Yes	** NA **	None
122	122	Yes	** NA **	None
123	123	Yes	** NA **	None

Hot Rolled Steel Design Parameters

	Label	Shape	Length [ft]	Lcomp top [ft]	Function
1	1	MF-S1	5.271	Lbyy	Lateral
2	2	MF-S2	1.875	Lbyy	Lateral
3	3	MF-S2	0.698	Lbyy	Lateral
4	4	MF-S3	2.297	Lbyy	Lateral
5	5	MF-S3	2.297	Lbyy	Lateral
6	6	MF-H1	14.5	Lbyy	Lateral
7	11	SR	14.5	Lbyy	Lateral
8	14	MP1	10	Lbyy	Lateral
9	15	MF-S2	1.875	Lbyy	Lateral
10	16	MF-S2	0.698	Lbyy	Lateral
11	27	HR-S1	1.796	Lbyy	Lateral
12	28	Extension Beam	1	Lbyy	Lateral
13	29	MF-S1	5.271	Lbyy	Lateral
14	30	MF-S2	1.875	Lbyy	Lateral
15	31	MF-S2	0.698	Lbyy	Lateral
16	32	MF-S3	2.297	Lbyy	Lateral
17	33	MF-S3	2.297	Lbyy	Lateral
18	38	MF-S2	1.875	Lbyy	Lateral
19	39	MF-S2	0.698	Lbyy	Lateral
20	50	HR-S1	1.796	Lbyy	Lateral
21	51	Extension Beam	1	Lbyy	Lateral
22	52	MF-S1	5.271	Lbyy	Lateral
23	53	MF-S2	1.875	Lbyy	Lateral
24	54	MF-S2	0.698	Lbyy	Lateral
25	55	MF-S3	2.297	Lbyy	Lateral
26	56	MF-S3	2.297	Lbyy	Lateral
27	61	MF-S2	1.875	Lbyy	Lateral
28	62	MF-S2	0.698	Lbyy	Lateral
29	73	HR-S1	1.796	Lbyy	Lateral
30	74	Extension Beam	1	Lbyy	Lateral
31	75	MF-H1	14.5	Lbyy	Lateral
32	76	SR	14.5	Lbyy	Lateral
33	77	MF-H1	14.5	Lbyy	Lateral
34	78	SR	14.5	Lbyy	Lateral
35	81	MP1	6	Lbyy	Lateral
36	82	MP1	6	Lbyy	Lateral
37	85	MP1	6	Lbyy	Lateral
38	86	MP1	6	Lbyy	Lateral
39	89	MP1	6	Lbyy	Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length [ft]	Lcomp top [ft]	Function
40	90	MP1	6	Lbyy	Lateral
41	93	MP1	10	Lbyy	Lateral
42	96	MP1	10	Lbyy	Lateral
43	99	MP1	10	Lbyy	Lateral
44	102	MP1	10	Lbyy	Lateral
45	105	MP1	10	Lbyy	Lateral
46	108	MP1	10	Lbyy	Lateral
47	111	MP1	10	Lbyy	Lateral
48	114	MP1	10	Lbyy	Lateral
49	117	MP1	10	Lbyy	Lateral
50	120	MP1	10	Lbyy	Lateral
51	123	MP1	10	Lbyy	Lateral

Cold Formed Steel Design Parameters

No Data to Print...

Member Point Loads (BLC 1 : Dead)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	93	Y	-0.034	%5
2	93	Y	-0.034	%65
3	93	Y	0	0
4	93	Y	0	0
5	93	Y	0	0
6	99	Y	-0.03	%5
7	99	Y	-0.03	%85
8	99	Y	0	0
9	99	Y	0	0
10	99	Y	0	0
11	96	Y	-0.032	%5
12	96	Y	-0.032	%65
13	96	Y	0	0
14	96	Y	0	0
15	96	Y	0	0
16	90	Y	-0.046	%20
17	90	Y	-0.048	%50
18	90	Y	0	0
19	90	Y	0	0
20	90	Y	0	0
21	85	Y	-0.071	%20
22	85	Y	-0.059	%50
23	85	Y	0	0
24	85	Y	0	0
25	85	Y	0	0
26	117	Y	-0.034	%5
27	117	Y	-0.034	%65
28	117	Y	0	0
29	117	Y	0	0
30	117	Y	0	0
31	123	Y	-0.03	%5
32	123	Y	-0.03	%85
33	123	Y	0	0
34	123	Y	0	0
35	123	Y	0	0
36	120	Y	-0.032	%5



Member Point Loads (BLC 1 : Dead) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
37	120	Y	-0.032	%65
38	120	Y	0	0
39	120	Y	0	0
40	120	Y	0	0
41	86	Y	-0.046	%20
42	86	Y	-0.048	%50
43	86	Y	0	0
44	86	Y	0	0
45	86	Y	0	0
46	81	Y	-0.071	%20
47	81	Y	-0.059	%50
48	81	Y	0	0
49	81	Y	0	0
50	81	Y	0	0
51	105	Y	-0.034	%5
52	105	Y	-0.034	%65
53	105	Y	0	0
54	105	Y	0	0
55	105	Y	0	0
56	111	Y	-0.03	%5
57	111	Y	-0.03	%85
58	111	Y	0	0
59	111	Y	0	0
60	111	Y	0	0
61	108	Y	-0.032	%5
62	108	Y	-0.032	%65
63	108	Y	0	0
64	108	Y	0	0
65	108	Y	0	0
66	82	Y	-0.046	%20
67	82	Y	-0.048	%50
68	82	Y	0	0
69	82	Y	0	0
70	82	Y	0	0
71	89	Y	-0.071	%20
72	89	Y	-0.059	%50
73	89	Y	0	0
74	89	Y	0	0
75	89	Y	0	0
76	82	Y	-0.019	%5
77	82	Y	0	0
78	82	Y	0	0
79	82	Y	0	0
80	82	Y	0	0
81	85	Y	-0.019	%5
82	85	Y	0	0
83	85	Y	0	0
84	85	Y	0	0
85	85	Y	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	93	Z	-0.235	%5
2	93	Z	-0.235	%65
3	93	Z	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
4	93	Z	0	0
5	93	Z	0	0
6	99	Z	-0.127	%5
7	99	Z	-0.127	%85
8	99	Z	0	0
9	99	Z	0	0
10	99	Z	0	0
11	96	Z	-0.251	%5
12	96	Z	-0.251	%65
13	96	Z	0	0
14	96	Z	0	0
15	96	Z	0	0
16	90	Z	-0.068	%20
17	90	Z	-0.061	%50
18	90	Z	0	0
19	90	Z	0	0
20	90	Z	0	0
21	85	Z	-0.073	%20
22	85	Z	-0.075	%50
23	85	Z	0	0
24	85	Z	0	0
25	85	Z	0	0
26	117	Z	-0.235	%5
27	117	Z	-0.235	%65
28	117	Z	0	0
29	117	Z	0	0
30	117	Z	0	0
31	123	Z	-0.127	%5
32	123	Z	-0.127	%85
33	123	Z	0	0
34	123	Z	0	0
35	123	Z	0	0
36	120	Z	-0.251	%5
37	120	Z	-0.251	%65
38	120	Z	0	0
39	120	Z	0	0
40	120	Z	0	0
41	86	Z	-0.068	%20
42	86	Z	-0.061	%50
43	86	Z	0	0
44	86	Z	0	0
45	86	Z	0	0
46	81	Z	-0.073	%20
47	81	Z	-0.075	%50
48	81	Z	0	0
49	81	Z	0	0
50	81	Z	0	0
51	105	Z	-0.235	%5
52	105	Z	-0.235	%65
53	105	Z	0	0
54	105	Z	0	0
55	105	Z	0	0
56	111	Z	-0.127	%5
57	111	Z	-0.127	%85
58	111	Z	0	0

Member Point Loads (BLC 2 : 0 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
59	111	Z	0	0
60	111	Z	0	0
61	108	Z	-0.251	%5
62	108	Z	-0.251	%65
63	108	Z	0	0
64	108	Z	0	0
65	108	Z	0	0
66	82	Z	-0.068	%20
67	82	Z	-0.061	%50
68	82	Z	0	0
69	82	Z	0	0
70	82	Z	0	0
71	89	Z	-0.073	%20
72	89	Z	-0.075	%50
73	89	Z	0	0
74	89	Z	0	0
75	89	Z	0	0
76	82	Z	-0.032	%5
77	82	Z	0	0
78	82	Z	0	0
79	82	Z	0	0
80	82	Z	0	0
81	85	Z	-0.032	%5
82	85	Z	0	0
83	85	Z	0	0
84	85	Z	0	0
85	85	Z	0	0

Member Point Loads (BLC 3 : 90 Wind - No Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	93	X	-0.088	%5
2	93	X	-0.088	%65
3	93	X	0	0
4	93	X	0	0
5	93	X	0	0
6	99	X	-0.064	%5
7	99	X	-0.064	%85
8	99	X	0	0
9	99	X	0	0
10	99	X	0	0
11	96	X	-0.093	%5
12	96	X	-0.093	%65
13	96	X	0	0
14	96	X	0	0
15	96	X	0	0
16	90	X	-0.03	%20
17	90	X	-0.027	%50
18	90	X	0	0
19	90	X	0	0
20	90	X	0	0
21	85	X	-0.052	%20
22	85	X	-0.046	%50
23	85	X	0	0
24	85	X	0	0
25	85	X	0	0

Member Point Loads (BLC 3 : 90 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
26	117	X	-0.088	%5
27	117	X	-0.088	%65
28	117	X	0	0
29	117	X	0	0
30	117	X	0	0
31	123	X	-0.064	%5
32	123	X	-0.064	%85
33	123	X	0	0
34	123	X	0	0
35	123	X	0	0
36	120	X	-0.093	%5
37	120	X	-0.093	%65
38	120	X	0	0
39	120	X	0	0
40	120	X	0	0
41	86	X	-0.03	%20
42	86	X	-0.027	%50
43	86	X	0	0
44	86	X	0	0
45	86	X	0	0
46	81	X	-0.052	%20
47	81	X	-0.046	%50
48	81	X	0	0
49	81	X	0	0
50	81	X	0	0
51	105	X	-0.088	%5
52	105	X	-0.088	%65
53	105	X	0	0
54	105	X	0	0
55	105	X	0	0
56	111	X	-0.064	%5
57	111	X	-0.064	%85
58	111	X	0	0
59	111	X	0	0
60	111	X	0	0
61	108	X	-0.093	%5
62	108	X	-0.093	%65
63	108	X	0	0
64	108	X	0	0
65	108	X	0	0
66	82	X	-0.03	%20
67	82	X	-0.027	%50
68	82	X	0	0
69	82	X	0	0
70	82	X	0	0
71	89	X	-0.052	%20
72	89	X	-0.046	%50
73	89	X	0	0
74	89	X	0	0
75	89	X	0	0
76	82	X	-0.032	%5
77	82	X	0	0
78	82	X	0	0
79	82	X	0	0
80	82	X	0	0



Member Point Loads (BLC 3 : 90 Wind - No Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
81	85	X	-0.032	%5
82	85	X	0	0
83	85	X	0	0
84	85	X	0	0
85	85	X	0	0

Member Point Loads (BLC 4 : 0 Wind - Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	93	Z	-0.039	%5
2	93	Z	-0.039	%65
3	93	Z	0	0
4	93	Z	0	0
5	93	Z	0	0
6	99	Z	-0.025	%5
7	99	Z	-0.025	%85
8	99	Z	0	0
9	99	Z	0	0
10	99	Z	0	0
11	96	Z	-0.047	%5
12	96	Z	-0.047	%65
13	96	Z	0	0
14	96	Z	0	0
15	96	Z	0	0
16	90	Z	-0.011	%20
17	90	Z	-0.01	%50
18	90	Z	0	0
19	90	Z	0	0
20	90	Z	0	0
21	85	Z	-0.012	%20
22	85	Z	-0.012	%50
23	85	Z	0	0
24	85	Z	0	0
25	85	Z	0	0
26	117	Z	-0.039	%5
27	117	Z	-0.039	%65
28	117	Z	0	0
29	117	Z	0	0
30	117	Z	0	0
31	123	Z	-0.025	%5
32	123	Z	-0.025	%85
33	123	Z	0	0
34	123	Z	0	0
35	123	Z	0	0
36	120	Z	-0.047	%5
37	120	Z	-0.047	%65
38	120	Z	0	0
39	120	Z	0	0
40	120	Z	0	0
41	86	Z	-0.011	%20
42	86	Z	-0.01	%50
43	86	Z	0	0
44	86	Z	0	0
45	86	Z	0	0
46	81	Z	-0.012	%20
47	81	Z	-0.012	%50

Member Point Loads (BLC 4 : 0 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
48	81	Z	0	0
49	81	Z	0	0
50	81	Z	0	0
51	105	Z	-0.039	%5
52	105	Z	-0.039	%65
53	105	Z	0	0
54	105	Z	0	0
55	105	Z	0	0
56	111	Z	-0.025	%5
57	111	Z	-0.025	%85
58	111	Z	0	0
59	111	Z	0	0
60	111	Z	0	0
61	108	Z	-0.047	%5
62	108	Z	-0.047	%65
63	108	Z	0	0
64	108	Z	0	0
65	108	Z	0	0
66	82	Z	-0.011	%20
67	82	Z	-0.01	%50
68	82	Z	0	0
69	82	Z	0	0
70	82	Z	0	0
71	89	Z	-0.012	%20
72	89	Z	-0.012	%50
73	89	Z	0	0
74	89	Z	0	0
75	89	Z	0	0
76	82	Z	-0.005	%5
77	82	Z	0	0
78	82	Z	0	0
79	82	Z	0	0
80	82	Z	0	0
81	85	Z	-0.005	%5
82	85	Z	0	0
83	85	Z	0	0
84	85	Z	0	0
85	85	Z	0	0

Member Point Loads (BLC 5 : 90 Wind - Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	93	X	-0.015	%5
2	93	X	-0.015	%65
3	93	X	0	0
4	93	X	0	0
5	93	X	0	0
6	99	X	-0.014	%5
7	99	X	-0.014	%85
8	99	X	0	0
9	99	X	0	0
10	99	X	0	0
11	96	X	-0.02	%5
12	96	X	-0.02	%65
13	96	X	0	0
14	96	X	0	0

Member Point Loads (BLC 5 : 90 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
15	96	X	0	0
16	90	X	-0.005	%20
17	90	X	-0.004	%50
18	90	X	0	0
19	90	X	0	0
20	90	X	0	0
21	85	X	-0.009	%20
22	85	X	-0.008	%50
23	85	X	0	0
24	85	X	0	0
25	85	X	0	0
26	117	X	-0.015	%5
27	117	X	-0.015	%65
28	117	X	0	0
29	117	X	0	0
30	117	X	0	0
31	123	X	-0.014	%5
32	123	X	-0.014	%85
33	123	X	0	0
34	123	X	0	0
35	123	X	0	0
36	120	X	-0.02	%5
37	120	X	-0.02	%65
38	120	X	0	0
39	120	X	0	0
40	120	X	0	0
41	86	X	-0.005	%20
42	86	X	-0.004	%50
43	86	X	0	0
44	86	X	0	0
45	86	X	0	0
46	81	X	-0.009	%20
47	81	X	-0.008	%50
48	81	X	0	0
49	81	X	0	0
50	81	X	0	0
51	105	X	-0.015	%5
52	105	X	-0.015	%65
53	105	X	0	0
54	105	X	0	0
55	105	X	0	0
56	111	X	-0.014	%5
57	111	X	-0.014	%85
58	111	X	0	0
59	111	X	0	0
60	111	X	0	0
61	108	X	-0.02	%5
62	108	X	-0.02	%65
63	108	X	0	0
64	108	X	0	0
65	108	X	0	0
66	82	X	-0.005	%20
67	82	X	-0.004	%50
68	82	X	0	0
69	82	X	0	0

Member Point Loads (BLC 5 : 90 Wind - Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
70	82	X	0	0
71	89	X	-0.009	%20
72	89	X	-0.008	%50
73	89	X	0	0
74	89	X	0	0
75	89	X	0	0
76	82	X	-0.005	%5
77	82	X	0	0
78	82	X	0	0
79	82	X	0	0
80	82	X	0	0
81	85	X	-0.005	%5
82	85	X	0	0
83	85	X	0	0
84	85	X	0	0
85	85	X	0	0

Member Point Loads (BLC 6 : 0 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	93	Z	-0.014	%5
2	93	Z	-0.014	%65
3	93	Z	0	0
4	93	Z	0	0
5	93	Z	0	0
6	99	Z	-0.008	%5
7	99	Z	-0.008	%85
8	99	Z	0	0
9	99	Z	0	0
10	99	Z	0	0
11	96	Z	-0.015	%5
12	96	Z	-0.015	%65
13	96	Z	0	0
14	96	Z	0	0
15	96	Z	0	0
16	90	Z	-0.004	%20
17	90	Z	-0.004	%50
18	90	Z	0	0
19	90	Z	0	0
20	90	Z	0	0
21	85	Z	-0.004	%20
22	85	Z	-0.005	%50
23	85	Z	0	0
24	85	Z	0	0
25	85	Z	0	0
26	117	Z	-0.014	%5
27	117	Z	-0.014	%65
28	117	Z	0	0
29	117	Z	0	0
30	117	Z	0	0
31	123	Z	-0.008	%5
32	123	Z	-0.008	%85
33	123	Z	0	0
34	123	Z	0	0
35	123	Z	0	0
36	120	Z	-0.015	%5

Member Point Loads (BLC 6 : 0 Wind - Service) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
37	120	Z	-0.015	%65
38	120	Z	0	0
39	120	Z	0	0
40	120	Z	0	0
41	86	Z	-0.004	%20
42	86	Z	-0.004	%50
43	86	Z	0	0
44	86	Z	0	0
45	86	Z	0	0
46	81	Z	-0.004	%20
47	81	Z	-0.005	%50
48	81	Z	0	0
49	81	Z	0	0
50	81	Z	0	0
51	105	Z	-0.014	%5
52	105	Z	-0.014	%65
53	105	Z	0	0
54	105	Z	0	0
55	105	Z	0	0
56	111	Z	-0.008	%5
57	111	Z	-0.008	%85
58	111	Z	0	0
59	111	Z	0	0
60	111	Z	0	0
61	108	Z	-0.015	%5
62	108	Z	-0.015	%65
63	108	Z	0	0
64	108	Z	0	0
65	108	Z	0	0
66	82	Z	-0.004	%20
67	82	Z	-0.004	%50
68	82	Z	0	0
69	82	Z	0	0
70	82	Z	0	0
71	89	Z	-0.004	%20
72	89	Z	-0.005	%50
73	89	Z	0	0
74	89	Z	0	0
75	89	Z	0	0
76	82	Z	-0.002	%5
77	82	Z	0	0
78	82	Z	0	0
79	82	Z	0	0
80	82	Z	0	0
81	85	Z	-0.002	%5
82	85	Z	0	0
83	85	Z	0	0
84	85	Z	0	0
85	85	Z	0	0

Member Point Loads (BLC 7 : 90 Wind - Service)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	93	X	-0.005	%5
2	93	X	-0.005	%65
3	93	X	0	0

Member Point Loads (BLC 7 : 90 Wind - Service) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
4	93	X	0	0
5	93	X	0	0
6	99	X	-0.004	%5
7	99	X	-0.004	%85
8	99	X	0	0
9	99	X	0	0
10	99	X	0	0
11	96	X	-0.006	%5
12	96	X	-0.006	%65
13	96	X	0	0
14	96	X	0	0
15	96	X	0	0
16	90	X	-0.002	%20
17	90	X	-0.002	%50
18	90	X	0	0
19	90	X	0	0
20	90	X	0	0
21	85	X	-0.003	%20
22	85	X	-0.003	%50
23	85	X	0	0
24	85	X	0	0
25	85	X	0	0
26	117	X	-0.005	%5
27	117	X	-0.005	%65
28	117	X	0	0
29	117	X	0	0
30	117	X	0	0
31	123	X	-0.004	%5
32	123	X	-0.004	%85
33	123	X	0	0
34	123	X	0	0
35	123	X	0	0
36	120	X	-0.006	%5
37	120	X	-0.006	%65
38	120	X	0	0
39	120	X	0	0
40	120	X	0	0
41	86	X	-0.002	%20
42	86	X	-0.002	%50
43	86	X	0	0
44	86	X	0	0
45	86	X	0	0
46	81	X	-0.003	%20
47	81	X	-0.003	%50
48	81	X	0	0
49	81	X	0	0
50	81	X	0	0
51	105	X	-0.005	%5
52	105	X	-0.005	%65
53	105	X	0	0
54	105	X	0	0
55	105	X	0	0
56	111	X	-0.004	%5
57	111	X	-0.004	%85
58	111	X	0	0

Member Point Loads (BLC 7 : 90 Wind - Service) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
59	111	X	0	0
60	111	X	0	0
61	108	X	-0.006	%5
62	108	X	-0.006	%65
63	108	X	0	0
64	108	X	0	0
65	108	X	0	0
66	82	X	-0.002	%20
67	82	X	-0.002	%50
68	82	X	0	0
69	82	X	0	0
70	82	X	0	0
71	89	X	-0.003	%20
72	89	X	-0.003	%50
73	89	X	0	0
74	89	X	0	0
75	89	X	0	0
76	82	X	-0.002	%5
77	82	X	0	0
78	82	X	0	0
79	82	X	0	0
80	82	X	0	0
81	85	X	-0.002	%5
82	85	X	0	0
83	85	X	0	0
84	85	X	0	0
85	85	X	0	0

Member Point Loads (BLC 8 : Ice)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	93	Y	-0.099	%5
2	93	Y	-0.099	%65
3	93	Y	0	0
4	93	Y	0	0
5	93	Y	0	0
6	99	Y	-0.095	%5
7	99	Y	-0.095	%85
8	99	Y	0	0
9	99	Y	0	0
10	99	Y	0	0
11	96	Y	-0.11	%5
12	96	Y	-0.11	%65
13	96	Y	0	0
14	96	Y	0	0
15	96	Y	0	0
16	90	Y	-0.031	%20
17	90	Y	-0.028	%50
18	90	Y	0	0
19	90	Y	0	0
20	90	Y	0	0
21	85	Y	-0.037	%20
22	85	Y	-0.037	%50
23	85	Y	0	0
24	85	Y	0	0
25	85	Y	0	0

Member Point Loads (BLC 8 : Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
26	117	Y	-0.099	%5
27	117	Y	-0.099	%65
28	117	Y	0	0
29	117	Y	0	0
30	117	Y	0	0
31	123	Y	-0.095	%5
32	123	Y	-0.095	%85
33	123	Y	0	0
34	123	Y	0	0
35	123	Y	0	0
36	120	Y	-0.11	%5
37	120	Y	-0.11	%65
38	120	Y	0	0
39	120	Y	0	0
40	120	Y	0	0
41	86	Y	-0.031	%20
42	86	Y	-0.028	%50
43	86	Y	0	0
44	86	Y	0	0
45	86	Y	0	0
46	81	Y	-0.037	%20
47	81	Y	-0.037	%50
48	81	Y	0	0
49	81	Y	0	0
50	81	Y	0	0
51	105	Y	-0.099	%5
52	105	Y	-0.099	%65
53	105	Y	0	0
54	105	Y	0	0
55	105	Y	0	0
56	111	Y	-0.095	%5
57	111	Y	-0.095	%85
58	111	Y	0	0
59	111	Y	0	0
60	111	Y	0	0
61	108	Y	-0.11	%5
62	108	Y	-0.11	%65
63	108	Y	0	0
64	108	Y	0	0
65	108	Y	0	0
66	82	Y	-0.031	%20
67	82	Y	-0.028	%50
68	82	Y	0	0
69	82	Y	0	0
70	82	Y	0	0
71	89	Y	-0.037	%20
72	89	Y	-0.037	%50
73	89	Y	0	0
74	89	Y	0	0
75	89	Y	0	0
76	82	Y	-0.032	%5
77	82	Y	0	0
78	82	Y	0	0
79	82	Y	0	0
80	82	Y	0	0



Member Point Loads (BLC 8 : Ice) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
81	85	Y	-0.032	%5
82	85	Y	0	0
83	85	Y	0	0
84	85	Y	0	0
85	85	Y	0	0

Member Point Loads (BLC 9 : 0 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	93	Z	-0.017	%5
2	93	Z	-0.017	%65
3	93	Z	0	0
4	93	Z	0	0
5	93	Z	0	0
6	99	Z	-0.014	%5
7	99	Z	-0.014	%85
8	99	Z	0	0
9	99	Z	0	0
10	99	Z	0	0
11	96	Z	-0.015	%5
12	96	Z	-0.015	%65
13	96	Z	0	0
14	96	Z	0	0
15	96	Z	0	0
16	90	Z	-0.011	%20
17	90	Z	-0.012	%50
18	90	Z	0	0
19	90	Z	0	0
20	90	Z	0	0
21	85	Z	-0.017	%20
22	85	Z	-0.014	%50
23	85	Z	0	0
24	85	Z	0	0
25	85	Z	0	0
26	117	Z	-0.017	%5
27	117	Z	-0.017	%65
28	117	Z	0	0
29	117	Z	0	0
30	117	Z	0	0
31	123	Z	-0.014	%5
32	123	Z	-0.014	%85
33	123	Z	0	0
34	123	Z	0	0
35	123	Z	0	0
36	120	Z	-0.015	%5
37	120	Z	-0.015	%65
38	120	Z	0	0
39	120	Z	0	0
40	120	Z	0	0
41	86	Z	-0.011	%20
42	86	Z	-0.012	%50
43	86	Z	0	0
44	86	Z	0	0
45	86	Z	0	0
46	81	Z	-0.017	%20
47	81	Z	-0.014	%50

Member Point Loads (BLC 9 : 0 Seismic) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
48	81	Z	0	0
49	81	Z	0	0
50	81	Z	0	0
51	105	Z	-0.017	%5
52	105	Z	-0.017	%65
53	105	Z	0	0
54	105	Z	0	0
55	105	Z	0	0
56	111	Z	-0.014	%5
57	111	Z	-0.014	%85
58	111	Z	0	0
59	111	Z	0	0
60	111	Z	0	0
61	108	Z	-0.015	%5
62	108	Z	-0.015	%65
63	108	Z	0	0
64	108	Z	0	0
65	108	Z	0	0
66	82	Z	-0.011	%20
67	82	Z	-0.012	%50
68	82	Z	0	0
69	82	Z	0	0
70	82	Z	0	0
71	89	Z	-0.017	%20
72	89	Z	-0.014	%50
73	89	Z	0	0
74	89	Z	0	0
75	89	Z	0	0
76	82	Z	-0.005	%5
77	82	Z	0	0
78	82	Z	0	0
79	82	Z	0	0
80	82	Z	0	0
81	85	Z	-0.005	%5
82	85	Z	0	0
83	85	Z	0	0
84	85	Z	0	0
85	85	Z	0	0

Member Point Loads (BLC 10 : 90 Seismic)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	93	X	-0.017	%5
2	93	X	-0.017	%65
3	93	X	0	0
4	93	X	0	0
5	93	X	0	0
6	99	X	-0.014	%5
7	99	X	-0.014	%85
8	99	X	0	0
9	99	X	0	0
10	99	X	0	0
11	96	X	-0.015	%5
12	96	X	-0.015	%65
13	96	X	0	0
14	96	X	0	0

Member Point Loads (BLC 10 : 90 Seismic) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
15	96	X	0	0
16	90	X	-0.011	%20
17	90	X	-0.012	%50
18	90	X	0	0
19	90	X	0	0
20	90	X	0	0
21	85	X	-0.017	%20
22	85	X	-0.014	%50
23	85	X	0	0
24	85	X	0	0
25	85	X	0	0
26	117	X	-0.017	%5
27	117	X	-0.017	%65
28	117	X	0	0
29	117	X	0	0
30	117	X	0	0
31	123	X	-0.014	%5
32	123	X	-0.014	%85
33	123	X	0	0
34	123	X	0	0
35	123	X	0	0
36	120	X	-0.015	%5
37	120	X	-0.015	%65
38	120	X	0	0
39	120	X	0	0
40	120	X	0	0
41	86	X	-0.011	%20
42	86	X	-0.012	%50
43	86	X	0	0
44	86	X	0	0
45	86	X	0	0
46	81	X	-0.017	%20
47	81	X	-0.014	%50
48	81	X	0	0
49	81	X	0	0
50	81	X	0	0
51	105	X	-0.017	%5
52	105	X	-0.017	%65
53	105	X	0	0
54	105	X	0	0
55	105	X	0	0
56	111	X	-0.014	%5
57	111	X	-0.014	%85
58	111	X	0	0
59	111	X	0	0
60	111	X	0	0
61	108	X	-0.015	%5
62	108	X	-0.015	%65
63	108	X	0	0
64	108	X	0	0
65	108	X	0	0
66	82	X	-0.011	%20
67	82	X	-0.012	%50
68	82	X	0	0
69	82	X	0	0

Member Point Loads (BLC 10 : 90 Seismic) (Continued)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
70	82	X	0	0
71	89	X	-0.017	%20
72	89	X	-0.014	%50
73	89	X	0	0
74	89	X	0	0
75	89	X	0	0
76	82	X	-0.005	%5
77	82	X	0	0
78	82	X	0	0
79	82	X	0	0
80	82	X	0	0
81	85	X	-0.005	%5
82	85	X	0	0
83	85	X	0	0
84	85	X	0	0
85	85	X	0	0

Member Point Loads (BLC 15 : Maint LL 1)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	6	Y	-0.25	%5

Member Point Loads (BLC 16 : Maint LL 2)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	11	Y	-0.25	%5

Member Point Loads (BLC 17 : Maint LL 3)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	75	Y	-0.25	%5

Member Point Loads (BLC 18 : Maint LL 4)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	76	Y	-0.25	%5

Member Point Loads (BLC 19 : Maint LL 5)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	77	Y	-0.25	%5

Member Point Loads (BLC 20 : Maint LL 6)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	78	Y	-0.25	%5

Member Point Loads (BLC 21 : Maint LL 7)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	6	Y	-0.25	%95

Member Point Loads (BLC 22 : Maint LL 8)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	11	Y	-0.25	%95

Member Point Loads (BLC 23 : Maint LL 9)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	75	Y	-0.25	%95

Member Point Loads (BLC 24 : Maint LL 10)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	76	Y	-0.25	%95

Member Point Loads (BLC 25 : Maint LL 11)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	77	Y	-0.25	%95

Member Point Loads (BLC 26 : Maint LL 12)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	78	Y	-0.25	%95

Member Point Loads (BLC 27 : Maint LL 13)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	29	Y	-0.25	%95

Member Point Loads (BLC 28 : Maint LL 14)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	52	Y	-0.25	%95

Member Point Loads (BLC 29 : Maint LL 15)

	Member Label	Direction	Magnitude [k, k-ft]	Location [(ft, %)]
1	1	Y	-0.25	%95

Member Distributed Loads (BLC 2 : 0 Wind - No Ice)

	Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.024	-0.024	0	%100
2	2	Z	-0.01	-0.01	0	%100
3	3	Z	-0.008	-0.008	0	%100
4	4	Z	-0.008	-0.008	0	%100
5	5	Z	-0.008	-0.008	0	%100
6	6	Z	-0.013	-0.013	0	%100
7	11	Z	-0.009	-0.009	0	%100
8	14	Z	-0.009	-0.009	0	%100
9	15	Z	-0.01	-0.01	0	%100
10	16	Z	-0.008	-0.008	0	%100
11	27	Z	-0.006	-0.006	0	%100

Member Distributed Loads (BLC 2 : 0 Wind - No Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
12	28	Z	-0.037	-0.037	0	%100
13	29	Z	-0.024	-0.024	0	%100
14	30	Z	-0.01	-0.01	0	%100
15	31	Z	-0.008	-0.008	0	%100
16	32	Z	-0.008	-0.008	0	%100
17	33	Z	-0.008	-0.008	0	%100
18	38	Z	-0.01	-0.01	0	%100
19	39	Z	-0.008	-0.008	0	%100
20	50	Z	-0.006	-0.006	0	%100
21	51	Z	-0.037	-0.037	0	%100
22	52	Z	-0.024	-0.024	0	%100
23	53	Z	-0.01	-0.01	0	%100
24	54	Z	-0.008	-0.008	0	%100
25	55	Z	-0.008	-0.008	0	%100
26	56	Z	-0.008	-0.008	0	%100
27	61	Z	-0.01	-0.01	0	%100
28	62	Z	-0.008	-0.008	0	%100
29	73	Z	-0.006	-0.006	0	%100
30	74	Z	-0.037	-0.037	0	%100
31	75	Z	-0.013	-0.013	0	%100
32	76	Z	-0.009	-0.009	0	%100
33	77	Z	-0.013	-0.013	0	%100
34	78	Z	-0.009	-0.009	0	%100
35	81	Z	-0.009	-0.009	0	%100
36	82	Z	-0.009	-0.009	0	%100
37	85	Z	-0.009	-0.009	0	%100
38	86	Z	-0.009	-0.009	0	%100
39	89	Z	-0.009	-0.009	0	%100
40	90	Z	-0.009	-0.009	0	%100
41	93	Z	-0.009	-0.009	0	%100
42	96	Z	-0.009	-0.009	0	%100
43	99	Z	-0.009	-0.009	0	%100
44	102	Z	-0.009	-0.009	0	%100
45	105	Z	-0.009	-0.009	0	%100
46	108	Z	-0.009	-0.009	0	%100
47	111	Z	-0.009	-0.009	0	%100
48	114	Z	-0.009	-0.009	0	%100
49	117	Z	-0.009	-0.009	0	%100
50	120	Z	-0.009	-0.009	0	%100
51	123	Z	-0.009	-0.009	0	%100

Member Distributed Loads (BLC 3 : 90 Wind - No Ice)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.024	-0.024	0	%100
2	2	X	-0.01	-0.01	0	%100
3	3	X	-0.008	-0.008	0	%100
4	4	X	-0.008	-0.008	0	%100
5	5	X	-0.008	-0.008	0	%100
6	6	X	-0.013	-0.013	0	%100
7	11	X	-0.009	-0.009	0	%100
8	14	X	-0.009	-0.009	0	%100
9	15	X	-0.01	-0.01	0	%100
10	16	X	-0.008	-0.008	0	%100
11	27	X	-0.006	-0.006	0	%100
12	28	X	-0.037	-0.037	0	%100



Member Distributed Loads (BLC 3 : 90 Wind - No Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
13	29	X	-0.024	-0.024	0	%100
14	30	X	-0.01	-0.01	0	%100
15	31	X	-0.008	-0.008	0	%100
16	32	X	-0.008	-0.008	0	%100
17	33	X	-0.008	-0.008	0	%100
18	38	X	-0.01	-0.01	0	%100
19	39	X	-0.008	-0.008	0	%100
20	50	X	-0.006	-0.006	0	%100
21	51	X	-0.037	-0.037	0	%100
22	52	X	-0.024	-0.024	0	%100
23	53	X	-0.01	-0.01	0	%100
24	54	X	-0.008	-0.008	0	%100
25	55	X	-0.008	-0.008	0	%100
26	56	X	-0.008	-0.008	0	%100
27	61	X	-0.01	-0.01	0	%100
28	62	X	-0.008	-0.008	0	%100
29	73	X	-0.006	-0.006	0	%100
30	74	X	-0.037	-0.037	0	%100
31	75	X	-0.013	-0.013	0	%100
32	76	X	-0.009	-0.009	0	%100
33	77	X	-0.013	-0.013	0	%100
34	78	X	-0.009	-0.009	0	%100
35	81	X	-0.009	-0.009	0	%100
36	82	X	-0.009	-0.009	0	%100
37	85	X	-0.009	-0.009	0	%100
38	86	X	-0.009	-0.009	0	%100
39	89	X	-0.009	-0.009	0	%100
40	90	X	-0.009	-0.009	0	%100
41	93	X	-0.009	-0.009	0	%100
42	96	X	-0.009	-0.009	0	%100
43	99	X	-0.009	-0.009	0	%100
44	102	X	-0.009	-0.009	0	%100
45	105	X	-0.009	-0.009	0	%100
46	108	X	-0.009	-0.009	0	%100
47	111	X	-0.009	-0.009	0	%100
48	114	X	-0.009	-0.009	0	%100
49	117	X	-0.009	-0.009	0	%100
50	120	X	-0.009	-0.009	0	%100
51	123	X	-0.009	-0.009	0	%100

Member Distributed Loads (BLC 4 : 0 Wind - Ice)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.006	-0.006	0	%100
2	2	Z	-0.002	-0.002	0	%100
3	3	Z	-0.002	-0.002	0	%100
4	4	Z	-0.004	-0.004	0	%100
5	5	Z	-0.004	-0.004	0	%100
6	6	Z	-0.002	-0.002	0	%100
7	11	Z	-0.002	-0.002	0	%100
8	14	Z	-0.002	-0.002	0	%100
9	15	Z	-0.002	-0.002	0	%100
10	16	Z	-0.002	-0.002	0	%100
11	27	Z	-0.002	-0.002	0	%100
12	28	Z	-0.009	-0.009	0	%100
13	29	Z	-0.006	-0.006	0	%100



Member Distributed Loads (BLC 4 : 0 Wind - Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
14	30	Z	-0.002	-0.002	0	%100
15	31	Z	-0.002	-0.002	0	%100
16	32	Z	-0.004	-0.004	0	%100
17	33	Z	-0.004	-0.004	0	%100
18	38	Z	-0.002	-0.002	0	%100
19	39	Z	-0.002	-0.002	0	%100
20	50	Z	-0.002	-0.002	0	%100
21	51	Z	-0.009	-0.009	0	%100
22	52	Z	-0.006	-0.006	0	%100
23	53	Z	-0.002	-0.002	0	%100
24	54	Z	-0.002	-0.002	0	%100
25	55	Z	-0.004	-0.004	0	%100
26	56	Z	-0.004	-0.004	0	%100
27	61	Z	-0.002	-0.002	0	%100
28	62	Z	-0.002	-0.002	0	%100
29	73	Z	-0.002	-0.002	0	%100
30	74	Z	-0.009	-0.009	0	%100
31	75	Z	-0.002	-0.002	0	%100
32	76	Z	-0.002	-0.002	0	%100
33	77	Z	-0.002	-0.002	0	%100
34	78	Z	-0.002	-0.002	0	%100
35	81	Z	-0.002	-0.002	0	%100
36	82	Z	-0.002	-0.002	0	%100
37	85	Z	-0.002	-0.002	0	%100
38	86	Z	-0.002	-0.002	0	%100
39	89	Z	-0.002	-0.002	0	%100
40	90	Z	-0.002	-0.002	0	%100
41	93	Z	-0.002	-0.002	0	%100
42	96	Z	-0.002	-0.002	0	%100
43	99	Z	-0.002	-0.002	0	%100
44	102	Z	-0.002	-0.002	0	%100
45	105	Z	-0.002	-0.002	0	%100
46	108	Z	-0.002	-0.002	0	%100
47	111	Z	-0.002	-0.002	0	%100
48	114	Z	-0.002	-0.002	0	%100
49	117	Z	-0.002	-0.002	0	%100
50	120	Z	-0.002	-0.002	0	%100
51	123	Z	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 5 : 90 Wind - Ice)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.006	-0.006	0	%100
2	2	X	-0.002	-0.002	0	%100
3	3	X	-0.002	-0.002	0	%100
4	4	X	-0.004	-0.004	0	%100
5	5	X	-0.004	-0.004	0	%100
6	6	X	-0.002	-0.002	0	%100
7	11	X	-0.002	-0.002	0	%100
8	14	X	-0.002	-0.002	0	%100
9	15	X	-0.002	-0.002	0	%100
10	16	X	-0.002	-0.002	0	%100
11	27	X	-0.002	-0.002	0	%100
12	28	X	-0.009	-0.009	0	%100
13	29	X	-0.006	-0.006	0	%100
14	30	X	-0.002	-0.002	0	%100



Member Distributed Loads (BLC 5 : 90 Wind - Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
15	31	X	-0.002	-0.002	0	%100
16	32	X	-0.004	-0.004	0	%100
17	33	X	-0.004	-0.004	0	%100
18	38	X	-0.002	-0.002	0	%100
19	39	X	-0.002	-0.002	0	%100
20	50	X	-0.002	-0.002	0	%100
21	51	X	-0.009	-0.009	0	%100
22	52	X	-0.006	-0.006	0	%100
23	53	X	-0.002	-0.002	0	%100
24	54	X	-0.002	-0.002	0	%100
25	55	X	-0.004	-0.004	0	%100
26	56	X	-0.004	-0.004	0	%100
27	61	X	-0.002	-0.002	0	%100
28	62	X	-0.002	-0.002	0	%100
29	73	X	-0.002	-0.002	0	%100
30	74	X	-0.009	-0.009	0	%100
31	75	X	-0.002	-0.002	0	%100
32	76	X	-0.002	-0.002	0	%100
33	77	X	-0.002	-0.002	0	%100
34	78	X	-0.002	-0.002	0	%100
35	81	X	-0.002	-0.002	0	%100
36	82	X	-0.002	-0.002	0	%100
37	85	X	-0.002	-0.002	0	%100
38	86	X	-0.002	-0.002	0	%100
39	89	X	-0.002	-0.002	0	%100
40	90	X	-0.002	-0.002	0	%100
41	93	X	-0.002	-0.002	0	%100
42	96	X	-0.002	-0.002	0	%100
43	99	X	-0.002	-0.002	0	%100
44	102	X	-0.002	-0.002	0	%100
45	105	X	-0.002	-0.002	0	%100
46	108	X	-0.002	-0.002	0	%100
47	111	X	-0.002	-0.002	0	%100
48	114	X	-0.002	-0.002	0	%100
49	117	X	-0.002	-0.002	0	%100
50	120	X	-0.002	-0.002	0	%100
51	123	X	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 6 : 0 Wind - Service)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.001	-0.001	0	%100
2	2	Z	-0.0004	-0.0004	0	%100
3	3	Z	-0.0003	-0.0003	0	%100
4	4	Z	-0.0005	-0.0005	0	%100
5	5	Z	-0.0005	-0.0005	0	%100
6	6	Z	-0.0004	-0.0004	0	%100
7	11	Z	-0.0003	-0.0003	0	%100
8	14	Z	-0.0003	-0.0003	0	%100
9	15	Z	-0.0004	-0.0004	0	%100
10	16	Z	-0.0003	-0.0003	0	%100
11	27	Z	-0.0003	-0.0003	0	%100
12	28	Z	-0.002	-0.002	0	%100
13	29	Z	-0.001	-0.001	0	%100
14	30	Z	-0.0004	-0.0004	0	%100
15	31	Z	-0.0003	-0.0003	0	%100



Member Distributed Loads (BLC 6 : 0 Wind - Service) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
16	32	Z	-0.0005	-0.0005	0	%100
17	33	Z	-0.0005	-0.0005	0	%100
18	38	Z	-0.0004	-0.0004	0	%100
19	39	Z	-0.0003	-0.0003	0	%100
20	50	Z	-0.0003	-0.0003	0	%100
21	51	Z	-0.002	-0.002	0	%100
22	52	Z	-0.001	-0.001	0	%100
23	53	Z	-0.0004	-0.0004	0	%100
24	54	Z	-0.0003	-0.0003	0	%100
25	55	Z	-0.0005	-0.0005	0	%100
26	56	Z	-0.0005	-0.0005	0	%100
27	61	Z	-0.0004	-0.0004	0	%100
28	62	Z	-0.0003	-0.0003	0	%100
29	73	Z	-0.0003	-0.0003	0	%100
30	74	Z	-0.002	-0.002	0	%100
31	75	Z	-0.0004	-0.0004	0	%100
32	76	Z	-0.0003	-0.0003	0	%100
33	77	Z	-0.0004	-0.0004	0	%100
34	78	Z	-0.0003	-0.0003	0	%100
35	81	Z	-0.0003	-0.0003	0	%100
36	82	Z	-0.0003	-0.0003	0	%100
37	85	Z	-0.0003	-0.0003	0	%100
38	86	Z	-0.0003	-0.0003	0	%100
39	89	Z	-0.0003	-0.0003	0	%100
40	90	Z	-0.0003	-0.0003	0	%100
41	93	Z	-0.0003	-0.0003	0	%100
42	96	Z	-0.0003	-0.0003	0	%100
43	99	Z	-0.0003	-0.0003	0	%100
44	102	Z	-0.0003	-0.0003	0	%100
45	105	Z	-0.0003	-0.0003	0	%100
46	108	Z	-0.0003	-0.0003	0	%100
47	111	Z	-0.0003	-0.0003	0	%100
48	114	Z	-0.0003	-0.0003	0	%100
49	117	Z	-0.0003	-0.0003	0	%100
50	120	Z	-0.0003	-0.0003	0	%100
51	123	Z	-0.0003	-0.0003	0	%100

Member Distributed Loads (BLC 7 : 90 Wind - Service)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.001	-0.001	0	%100
2	2	X	-0.0004	-0.0004	0	%100
3	3	X	-0.0003	-0.0003	0	%100
4	4	X	-0.0005	-0.0005	0	%100
5	5	X	-0.0005	-0.0005	0	%100
6	6	X	-0.0004	-0.0004	0	%100
7	11	X	-0.0003	-0.0003	0	%100
8	14	X	-0.0003	-0.0003	0	%100
9	15	X	-0.0004	-0.0004	0	%100
10	16	X	-0.0003	-0.0003	0	%100
11	27	X	-0.0003	-0.0003	0	%100
12	28	X	-0.002	-0.002	0	%100
13	29	X	-0.001	-0.001	0	%100
14	30	X	-0.0004	-0.0004	0	%100
15	31	X	-0.0003	-0.0003	0	%100
16	32	X	-0.0005	-0.0005	0	%100



Member Distributed Loads (BLC 7 : 90 Wind - Service) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
17	33	X	-0.0005	-0.0005	0	%100
18	38	X	-0.0004	-0.0004	0	%100
19	39	X	-0.0003	-0.0003	0	%100
20	50	X	-0.0003	-0.0003	0	%100
21	51	X	-0.002	-0.002	0	%100
22	52	X	-0.001	-0.001	0	%100
23	53	X	-0.0004	-0.0004	0	%100
24	54	X	-0.0003	-0.0003	0	%100
25	55	X	-0.0005	-0.0005	0	%100
26	56	X	-0.0005	-0.0005	0	%100
27	61	X	-0.0004	-0.0004	0	%100
28	62	X	-0.0003	-0.0003	0	%100
29	73	X	-0.0003	-0.0003	0	%100
30	74	X	-0.002	-0.002	0	%100
31	75	X	-0.0004	-0.0004	0	%100
32	76	X	-0.0003	-0.0003	0	%100
33	77	X	-0.0004	-0.0004	0	%100
34	78	X	-0.0003	-0.0003	0	%100
35	81	X	-0.0003	-0.0003	0	%100
36	82	X	-0.0003	-0.0003	0	%100
37	85	X	-0.0003	-0.0003	0	%100
38	86	X	-0.0003	-0.0003	0	%100
39	89	X	-0.0003	-0.0003	0	%100
40	90	X	-0.0003	-0.0003	0	%100
41	93	X	-0.0003	-0.0003	0	%100
42	96	X	-0.0003	-0.0003	0	%100
43	99	X	-0.0003	-0.0003	0	%100
44	102	X	-0.0003	-0.0003	0	%100
45	105	X	-0.0003	-0.0003	0	%100
46	108	X	-0.0003	-0.0003	0	%100
47	111	X	-0.0003	-0.0003	0	%100
48	114	X	-0.0003	-0.0003	0	%100
49	117	X	-0.0003	-0.0003	0	%100
50	120	X	-0.0003	-0.0003	0	%100
51	123	X	-0.0003	-0.0003	0	%100

Member Distributed Loads (BLC 8 : Ice)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Y	-0.01	-0.01	0	%100
2	2	Y	-0.007	-0.007	0	%100
3	3	Y	-0.007	-0.007	0	%100
4	4	Y	-0.005	-0.005	0	%100
5	5	Y	-0.005	-0.005	0	%100
6	6	Y	-0.007	-0.007	0	%100
7	11	Y	-0.005	-0.005	0	%100
8	14	Y	-0.005	-0.005	0	%100
9	15	Y	-0.007	-0.007	0	%100
10	16	Y	-0.007	-0.007	0	%100
11	27	Y	-0.005	-0.005	0	%100
12	28	Y	-0.022	-0.022	0	%100
13	29	Y	-0.01	-0.01	0	%100
14	30	Y	-0.007	-0.007	0	%100
15	31	Y	-0.007	-0.007	0	%100
16	32	Y	-0.005	-0.005	0	%100
17	33	Y	-0.005	-0.005	0	%100



Member Distributed Loads (BLC 8 : Ice) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
18	38	Y	-0.007	-0.007	0	%100
19	39	Y	-0.007	-0.007	0	%100
20	50	Y	-0.005	-0.005	0	%100
21	51	Y	-0.022	-0.022	0	%100
22	52	Y	-0.01	-0.01	0	%100
23	53	Y	-0.007	-0.007	0	%100
24	54	Y	-0.007	-0.007	0	%100
25	55	Y	-0.005	-0.005	0	%100
26	56	Y	-0.005	-0.005	0	%100
27	61	Y	-0.007	-0.007	0	%100
28	62	Y	-0.007	-0.007	0	%100
29	73	Y	-0.005	-0.005	0	%100
30	74	Y	-0.022	-0.022	0	%100
31	75	Y	-0.007	-0.007	0	%100
32	76	Y	-0.005	-0.005	0	%100
33	77	Y	-0.007	-0.007	0	%100
34	78	Y	-0.005	-0.005	0	%100
35	81	Y	-0.005	-0.005	0	%100
36	82	Y	-0.005	-0.005	0	%100
37	85	Y	-0.005	-0.005	0	%100
38	86	Y	-0.005	-0.005	0	%100
39	89	Y	-0.005	-0.005	0	%100
40	90	Y	-0.005	-0.005	0	%100
41	93	Y	-0.005	-0.005	0	%100
42	96	Y	-0.005	-0.005	0	%100
43	99	Y	-0.005	-0.005	0	%100
44	102	Y	-0.005	-0.005	0	%100
45	105	Y	-0.005	-0.005	0	%100
46	108	Y	-0.005	-0.005	0	%100
47	111	Y	-0.005	-0.005	0	%100
48	114	Y	-0.005	-0.005	0	%100
49	117	Y	-0.005	-0.005	0	%100
50	120	Y	-0.005	-0.005	0	%100
51	123	Y	-0.005	-0.005	0	%100

Member Distributed Loads (BLC 9 : 0 Seismic)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	Z	-0.004	-0.004	0	%100
2	2	Z	-0.002	-0.002	0	%100
3	3	Z	-0.002	-0.002	0	%100
4	4	Z	-0.0006	-0.0006	0	%100
5	5	Z	-0.0006	-0.0006	0	%100
6	6	Z	-0.002	-0.002	0	%100
7	11	Z	-0.0009	-0.0009	0	%100
8	14	Z	-0.0009	-0.0009	0	%100
9	15	Z	-0.002	-0.002	0	%100
10	16	Z	-0.002	-0.002	0	%100
11	27	Z	-0.0009	-0.0009	0	%100
12	28	Z	-0.012	-0.012	0	%100
13	29	Z	-0.004	-0.004	0	%100
14	30	Z	-0.002	-0.002	0	%100
15	31	Z	-0.002	-0.002	0	%100
16	32	Z	-0.0006	-0.0006	0	%100
17	33	Z	-0.0006	-0.0006	0	%100
18	38	Z	-0.002	-0.002	0	%100



Member Distributed Loads (BLC 9 : 0 Seismic) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
19	39	Z	-0.002	-0.002	0	%100
20	50	Z	-0.0009	-0.0009	0	%100
21	51	Z	-0.012	-0.012	0	%100
22	52	Z	-0.004	-0.004	0	%100
23	53	Z	-0.002	-0.002	0	%100
24	54	Z	-0.002	-0.002	0	%100
25	55	Z	-0.0006	-0.0006	0	%100
26	56	Z	-0.0006	-0.0006	0	%100
27	61	Z	-0.002	-0.002	0	%100
28	62	Z	-0.002	-0.002	0	%100
29	73	Z	-0.0009	-0.0009	0	%100
30	74	Z	-0.012	-0.012	0	%100
31	75	Z	-0.002	-0.002	0	%100
32	76	Z	-0.0009	-0.0009	0	%100
33	77	Z	-0.002	-0.002	0	%100
34	78	Z	-0.0009	-0.0009	0	%100
35	81	Z	-0.0009	-0.0009	0	%100
36	82	Z	-0.0009	-0.0009	0	%100
37	85	Z	-0.0009	-0.0009	0	%100
38	86	Z	-0.0009	-0.0009	0	%100
39	89	Z	-0.0009	-0.0009	0	%100
40	90	Z	-0.0009	-0.0009	0	%100
41	93	Z	-0.0009	-0.0009	0	%100
42	96	Z	-0.0009	-0.0009	0	%100
43	99	Z	-0.0009	-0.0009	0	%100
44	102	Z	-0.0009	-0.0009	0	%100
45	105	Z	-0.0009	-0.0009	0	%100
46	108	Z	-0.0009	-0.0009	0	%100
47	111	Z	-0.0009	-0.0009	0	%100
48	114	Z	-0.0009	-0.0009	0	%100
49	117	Z	-0.0009	-0.0009	0	%100
50	120	Z	-0.0009	-0.0009	0	%100
51	123	Z	-0.0009	-0.0009	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	1	X	-0.004	-0.004	0	%100
2	2	X	-0.002	-0.002	0	%100
3	3	X	-0.002	-0.002	0	%100
4	4	X	-0.0006	-0.0006	0	%100
5	5	X	-0.0006	-0.0006	0	%100
6	6	X	-0.002	-0.002	0	%100
7	11	X	-0.0009	-0.0009	0	%100
8	14	X	-0.0009	-0.0009	0	%100
9	15	X	-0.002	-0.002	0	%100
10	16	X	-0.002	-0.002	0	%100
11	27	X	-0.0009	-0.0009	0	%100
12	28	X	-0.012	-0.012	0	%100
13	29	X	-0.004	-0.004	0	%100
14	30	X	-0.002	-0.002	0	%100
15	31	X	-0.002	-0.002	0	%100
16	32	X	-0.0006	-0.0006	0	%100
17	33	X	-0.0006	-0.0006	0	%100
18	38	X	-0.002	-0.002	0	%100
19	39	X	-0.002	-0.002	0	%100

Member Distributed Loads (BLC 10 : 90 Seismic) (Continued)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
20	50	X	-0.0009	-0.0009	0 %100
21	51	X	-0.012	-0.012	0 %100
22	52	X	-0.004	-0.004	0 %100
23	53	X	-0.002	-0.002	0 %100
24	54	X	-0.002	-0.002	0 %100
25	55	X	-0.0006	-0.0006	0 %100
26	56	X	-0.0006	-0.0006	0 %100
27	61	X	-0.002	-0.002	0 %100
28	62	X	-0.002	-0.002	0 %100
29	73	X	-0.0009	-0.0009	0 %100
30	74	X	-0.012	-0.012	0 %100
31	75	X	-0.002	-0.002	0 %100
32	76	X	-0.0009	-0.0009	0 %100
33	77	X	-0.002	-0.002	0 %100
34	78	X	-0.0009	-0.0009	0 %100
35	81	X	-0.0009	-0.0009	0 %100
36	82	X	-0.0009	-0.0009	0 %100
37	85	X	-0.0009	-0.0009	0 %100
38	86	X	-0.0009	-0.0009	0 %100
39	89	X	-0.0009	-0.0009	0 %100
40	90	X	-0.0009	-0.0009	0 %100
41	93	X	-0.0009	-0.0009	0 %100
42	96	X	-0.0009	-0.0009	0 %100
43	99	X	-0.0009	-0.0009	0 %100
44	102	X	-0.0009	-0.0009	0 %100
45	105	X	-0.0009	-0.0009	0 %100
46	108	X	-0.0009	-0.0009	0 %100
47	111	X	-0.0009	-0.0009	0 %100
48	114	X	-0.0009	-0.0009	0 %100
49	117	X	-0.0009	-0.0009	0 %100
50	120	X	-0.0009	-0.0009	0 %100
51	123	X	-0.0009	-0.0009	0 %100

Member Distributed Loads (BLC 39 : BLC 1 Transient Area Loads)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	55	Y	-0.015	-0.014	0 1.034
2	55	Y	-0.014	-0.012	1.034 2.067
3	56	Y	-0.007	-0.014	0 2.067
4	4	Y	-0.015	-0.014	0 1.034
5	4	Y	-0.014	-0.012	1.034 2.067
6	5	Y	-0.007	-0.014	0 2.067
7	32	Y	-0.015	-0.014	0 1.034
8	32	Y	-0.014	-0.012	1.034 2.067
9	33	Y	-0.007	-0.014	0 2.067

Member Distributed Loads (BLC 40 : BLC 8 Transient Area Loads)

Member Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
1	4	Y	-0.009	-0.008	0 1.034
2	4	Y	-0.008	-0.007	1.034 2.067
3	5	Y	-0.004	-0.008	0 2.067
4	32	Y	-0.009	-0.008	0 1.034
5	32	Y	-0.008	-0.007	1.034 2.067
6	33	Y	-0.004	-0.008	0 2.067



Member Distributed Loads (BLC 40 : BLC 8 Transient Area Loads) (Continued)

Member	Label	Direction	Start Magnitude [k/ft, F, ksf, k-ft/ft]	End Magnitude [k/ft, F, ksf, k-ft/ft]	Start Location [(ft, %)]	End Location [(ft, %)]
7	55	Y	-0.009	-0.008	0	1.034
8	55	Y	-0.008	-0.007	1.034	2.067
9	56	Y	-0.004	-0.008	0	2.067

Basic Load Cases

	BLC Description	Category	Y Gravity	Nodal	Point	Distributed	Area(Member)
1	Dead	DL	-1		85		3
2	0 Wind - No Ice	WLZ			85	51	
3	90 Wind - No Ice	WLX			85	51	
4	0 Wind - Ice	WLZ			85	51	
5	90 Wind - Ice	WLX			85	51	
6	0 Wind - Service	WLZ			85	51	
7	90 Wind - Service	WLX			85	51	
8	Ice	OL1			85	51	3
9	0 Seismic	ELZ			85	51	
10	90 Seismic	ELX			85	51	
11	Live Load a	LL		3			
12	Live Load b	LL		3			
13	Live Load c	LL		3			
14	Live Load d	LL		3			
15	Maint LL 1	LL			1		
16	Maint LL 2	LL			1		
17	Maint LL 3	LL			1		
18	Maint LL 4	LL			1		
19	Maint LL 5	LL			1		
20	Maint LL 6	LL			1		
21	Maint LL 7	LL			1		
22	Maint LL 8	LL			1		
23	Maint LL 9	LL			1		
24	Maint LL 10	LL			1		
25	Maint LL 11	LL			1		
26	Maint LL 12	LL			1		
27	Maint LL 13	LL			1		
28	Maint LL 14	LL			1		
29	Maint LL 15	LL			1		
30	Maint LL 16	LL					
31	Maint LL 17	LL					
32	Maint LL 18	LL					
33	Maint LL 19	LL					
34	Maint LL 20	LL					
35	Maint LL 21	LL					
36	Maint LL 22	LL					
37	Maint LL 23	LL					
38	Maint LL 24	LL					
39	BLC 1 Transient Area Loads	None				9	
40	BLC 8 Transient Area Loads	None				9	

Load Combinations

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
1	1.4 Dead	Yes	Y	1	1.4						
2	1.2 D + 1.0 - 0 W	Yes	Y	1	1.2	2	1				
3	1.2 D + 1.0 - 30 W	Yes	Y	1	1.2	2	0.866	3	0.5		
4	1.2 D + 1.0 - 60 W	Yes	Y	1	1.2	3	0.866	2	0.5		



Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
5	1.2 D + 1.0 - 90 W	Yes	Y	1	1.2	3	1				
6	1.2 D + 1.0 - 120 W	Yes	Y	1	1.2	3	0.866	2	-0.5		
7	1.2 D + 1.0 - 150 W	Yes	Y	1	1.2	2	-0.866	3	0.5		
8	1.2 D + 1.0 - 180 W	Yes	Y	1	1.2	2	-1				
9	1.2 D + 1.0 - 210 W	Yes	Y	1	1.2	2	-0.866	3	-0.5		
10	1.2 D + 1.0 - 240 W	Yes	Y	1	1.2	3	-0.866	2	-0.5		
11	1.2 D + 1.0 - 270 W	Yes	Y	1	1.2	3	-1				
12	1.2 D + 1.0 - 300 W	Yes	Y	1	1.2	3	-0.866	2	0.5		
13	1.2 D + 1.0 - 330 W	Yes	Y	1	1.2	2	0.866	3	-0.5		
14	1.2 D + 1.0 - 0 W/Ice	Yes	Y	1	1.2	4	1			8	1
15	1.2 D + 1.0 - 30 W/Ice	Yes	Y	1	1.2	4	0.866	5	0.5	8	1
16	1.2 D + 1.0 - 60 W/Ice	Yes	Y	1	1.2	5	0.866	4	0.5	8	1
17	1.2 D + 1.0 - 90 W/Ice	Yes	Y	1	1.2	5	1			8	1
18	1.2 D + 1.0 - 120 W/Ice	Yes	Y	1	1.2	5	0.866	4	-0.5	8	1
19	1.2 D + 1.0 - 150 W/Ice	Yes	Y	1	1.2	4	-0.866	5	0.5	8	1
20	1.2 D + 1.0 - 180 W/Ice	Yes	Y	1	1.2	4	-1			8	1
21	1.2 D + 1.0 - 210 W/Ice	Yes	Y	1	1.2	4	-0.866	5	-0.5	8	1
22	1.2 D + 1.0 - 240 W/Ice	Yes	Y	1	1.2	5	-0.866	4	-0.5	8	1
23	1.2 D + 1.0 - 270 W/Ice	Yes	Y	1	1.2	5	-1			8	1
24	1.2 D + 1.0 - 300 W/Ice	Yes	Y	1	1.2	5	-0.866	4	0.5	8	1
25	1.2 D + 1.0 - 330 W/Ice	Yes	Y	1	1.2	4	0.866	5	-0.5	8	1
26	1.2 D + 1.0 E - 0	Yes	Y	1	1.2	9	1				
27	1.2 D + 1.0 E - 30	Yes	Y	1	1.2	9	0.866	10	0.5		
28	1.2 D + 1.0 E - 60	Yes	Y	1	1.2	10	0.866	9	0.5		
29	1.2 D + 1.0 E - 90	Yes	Y	1	1.2	10	1				
30	1.2 D + 1.0 E - 120	Yes	Y	1	1.2	10	0.866	9	-0.5		
31	1.2 D + 1.0 E - 150	Yes	Y	1	1.2	9	-0.866	10	0.5		
32	1.2 D + 1.0 E - 180	Yes	Y	1	1.2	9	-1				
33	1.2 D + 1.0 E - 210	Yes	Y	1	1.2	9	-0.866	10	-0.5		
34	1.2 D + 1.0 E - 240	Yes	Y	1	1.2	10	-0.866	9	-0.5		
35	1.2 D + 1.0 E - 270	Yes	Y	1	1.2	10	-1				
36	1.2 D + 1.0 E - 300	Yes	Y	1	1.2	10	-0.866	9	0.5		
37	1.2 D + 1.0 E - 330	Yes	Y	1	1.2	9	0.866	10	-0.5		
38	1.2 D + 1.5 LL a + Service - 0 W	Yes	Y	1	1.2	6	1			11	1.5
39	1.2 D + 1.5 LL a + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	11	1.5
40	1.2 D + 1.5 LL a + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	11	1.5
41	1.2 D + 1.5 LL a + Service - 90 W	Yes	Y	1	1.2	7	1			11	1.5
42	1.2 D + 1.5 LL a + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	11	1.5
43	1.2 D + 1.5 LL a + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	11	1.5
44	1.2 D + 1.5 LL a + Service - 180 W	Yes	Y	1	1.2	6	-1			11	1.5
45	1.2 D + 1.5 LL a + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	11	1.5
46	1.2 D + 1.5 LL a + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	11	1.5
47	1.2 D + 1.5 LL a + Service - 270 W	Yes	Y	1	1.2	7	-1			11	1.5
48	1.2 D + 1.5 LL a + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	11	1.5
49	1.2 D + 1.5 LL a + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	11	1.5
50	1.2 D + 1.5 LL b + Service - 0 W	Yes	Y	1	1.2	6	1			12	1.5
51	1.2 D + 1.5 LL b + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	12	1.5
52	1.2 D + 1.5 LL b + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	12	1.5
53	1.2 D + 1.5 LL b + Service - 90 W	Yes	Y	1	1.2	7	1			12	1.5
54	1.2 D + 1.5 LL b + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	12	1.5
55	1.2 D + 1.5 LL b + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	12	1.5
56	1.2 D + 1.5 LL b + Service - 180 W	Yes	Y	1	1.2	6	-1			12	1.5
57	1.2 D + 1.5 LL b + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	12	1.5
58	1.2 D + 1.5 LL b + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	12	1.5
59	1.2 D + 1.5 LL b + Service - 270 W	Yes	Y	1	1.2	7	-1			12	1.5

Load Combinations (Continued)

	Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
60	1.2 D + 1.5 LL b + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	12	1.5
61	1.2 D + 1.5 LL b + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	12	1.5
62	1.2 D + 1.5 LL c + Service - 0 W	Yes	Y	1	1.2	6	1			13	1.5
63	1.2 D + 1.5 LL c + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	13	1.5
64	1.2 D + 1.5 LL c + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	13	1.5
65	1.2 D + 1.5 LL c + Service - 90 W	Yes	Y	1	1.2	7	1			13	1.5
66	1.2 D + 1.5 LL c + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	13	1.5
67	1.2 D + 1.5 LL c + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	13	1.5
68	1.2 D + 1.5 LL c + Service - 180 W	Yes	Y	1	1.2	6	-1			13	1.5
69	1.2 D + 1.5 LL c + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	13	1.5
70	1.2 D + 1.5 LL c + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	13	1.5
71	1.2 D + 1.5 LL c + Service - 270 W	Yes	Y	1	1.2	7	-1			13	1.5
72	1.2 D + 1.5 LL c + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	13	1.5
73	1.2 D + 1.5 LL c + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	13	1.5
74	1.2 D + 1.5 LL d + Service - 0 W	Yes	Y	1	1.2	6	1			14	1.5
75	1.2 D + 1.5 LL d + Service - 30 W	Yes	Y	1	1.2	6	0.866	7	0.5	14	1.5
76	1.2 D + 1.5 LL d + Service - 60 W	Yes	Y	1	1.2	7	0.866	6	0.5	14	1.5
77	1.2 D + 1.5 LL d + Service - 90 W	Yes	Y	1	1.2	7	1			14	1.5
78	1.2 D + 1.5 LL d + Service - 120 W	Yes	Y	1	1.2	7	0.866	6	-0.5	14	1.5
79	1.2 D + 1.5 LL d + Service - 150 W	Yes	Y	1	1.2	6	-0.866	7	0.5	14	1.5
80	1.2 D + 1.5 LL d + Service - 180 W	Yes	Y	1	1.2	6	-1			14	1.5
81	1.2 D + 1.5 LL d + Service - 210 W	Yes	Y	1	1.2	6	-0.866	7	-0.5	14	1.5
82	1.2 D + 1.5 LL d + Service - 240 W	Yes	Y	1	1.2	7	-0.866	6	-0.5	14	1.5
83	1.2 D + 1.5 LL d + Service - 270 W	Yes	Y	1	1.2	7	-1			14	1.5
84	1.2 D + 1.5 LL d + Service - 300 W	Yes	Y	1	1.2	7	-0.866	6	0.5	14	1.5
85	1.2 D + 1.5 LL d + Service - 330 W	Yes	Y	1	1.2	6	0.866	7	-0.5	14	1.5
86	1.2 D + 1.5 LL Maint (1)	Yes	Y	1	1.2					15	1.5
87	1.2 D + 1.5 LL Maint (2)	Yes	Y	1	1.2					16	1.5
88	1.2 D + 1.5 LL Maint (3)	Yes	Y	1	1.2					17	1.5
89	1.2 D + 1.5 LL Maint (4)	Yes	Y	1	1.2					18	1.5
90	1.2 D + 1.5 LL Maint (5)	Yes	Y	1	1.2					19	1.5
91	1.2 D + 1.5 LL Maint (6)	Yes	Y	1	1.2					20	1.5
92	1.2 D + 1.5 LL Maint (7)	Yes	Y	1	1.2					21	1.5
93	1.2 D + 1.5 LL Maint (8)	Yes	Y	1	1.2					22	1.5
94	1.2 D + 1.5 LL Maint (9)	Yes	Y	1	1.2					23	1.5
95	1.2 D + 1.5 LL Maint (10)	Yes	Y	1	1.2					24	1.5
96	1.2 D + 1.5 LL Maint (11)	Yes	Y	1	1.2					25	1.5
97	1.2 D + 1.5 LL Maint (12)	Yes	Y	1	1.2					26	1.5
98	1.2 D + 1.5 LL Maint (13)	Yes	Y	1	1.2					27	1.5
99	1.2 D + 1.5 LL Maint (14)	Yes	Y	1	1.2					28	1.5
100	1.2 D + 1.5 LL Maint (15)	Yes	Y	1	1.2					29	1.5
101	1.2 D + 1.5 LL Maint (16)	Yes	Y	1	1.2					30	1.5
102	1.2 D + 1.5 LL Maint (17)	Yes	Y	1	1.2					31	1.5
103	1.2 D + 1.5 LL Maint (18)	Yes	Y	1	1.2					32	1.5
104	1.2 D + 1.5 LL Maint (19)	Yes	Y	1	1.2					33	1.5
105	1.2 D + 1.5 LL Maint (20)	Yes	Y	1	1.2					34	1.5
106	1.2 D + 1.5 LL Maint (21)	Yes	Y	1	1.2					35	1.5
107	1.2 D + 1.5 LL Maint (22)	Yes	Y	1	1.2					36	1.5
108	1.2 D + 1.5 LL Maint (23)	Yes	Y	1	1.2					37	1.5
109	1.2 D + 1.5 LL Maint (24)	Yes	Y	1	1.2					38	1.5

Envelope Node Reactions

Node Label	X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
1 38	max	1.03	5	2.87	14	3.476	2	11.649	2	2.208	11	1.208	11
2	min	-1.03	11	-0.122	8	-3.805	8	-3.989	8	-2.21	5	-1.234	5

Envelope Node Reactions (Continued)

Node Label		X [k]	LC	Y [k]	LC	Z [k]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC	
3	67	max	2.089	6	2.795	19	2.159	13	1.806	13	3.02	3	0.995	12
4		min	-2.372	12	0.331	13	-1.995	7	-5.69	7	-3.022	9	-8.293	18
5	96	max	2.361	4	2.738	21	2.09	3	1.681	3	2.954	7	8.257	22
6		min	-2.077	10	0.319	3	-1.926	9	-5.46	9	-2.958	13	-0.927	4
7	Totals:	max	5.096	5	7.826	18	7.678	2						
8		min	-5.096	11	3.724	12	-7.678	8						

Envelope Member Section Forces

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
1	1	1	max	3.768	8	2.789	14	0.993	5	1.234	5	1.197	11	9.058	2
2			min	-3.439	2	-0.183	8	-0.993	11	-1.208	11	-1.199	5	-3.837	8
3		2	max	3.322	8	2.177	14	0.669	5	0.553	5	0.075	11	4.943	2
4			min	-2.993	2	-0.563	8	-0.669	11	-0.536	11	-0.077	5	-2.413	8
5		3	max	3.29	8	2.145	2	0.637	5	0.553	5	0.783	5	2.098	2
6			min	-2.961	2	-0.591	8	-0.637	11	-0.536	11	-0.786	11	-1.653	8
7		4	max	2.691	8	0.788	2	0.158	11	0.512	5	0.284	5	0.813	2
8			min	-2.123	2	-0.486	8	-0.164	5	-0.468	11	-0.283	11	-0.946	8
9		5	max	0	109	0	20	0	9	0	109	0	109	0	109
10			min	0	1	0	2	0	12	0	1	0	1	0	1
11	2	1	max	0.783	9	0.123	7	0.661	13	0.467	12	0.076	3	0.343	3
12			min	-0.929	3	-0.761	50	-0.29	7	-0.155	6	-0.063	9	-0.347	9
13		2	max	0.66	9	0.089	7	0.329	9	0.308	12	0.176	13	0.513	3
14			min	-0.555	3	-0.795	61	-0.442	3	-0.12	6	-0.091	7	-0.333	9
15		3	max	0.662	9	0.085	7	0.333	9	0.308	12	0.158	10	0.771	2
16			min	-0.557	3	-0.799	61	-0.446	3	-0.12	6	-0.127	4	-0.327	8
17		4	max	0.664	9	0.081	7	0.336	9	0.308	12	0.284	10	1.078	2
18			min	-0.559	3	-0.804	61	-0.449	3	-0.12	6	-0.306	4	-0.362	8
19		5	max	0.667	9	0.077	7	0.34	9	0.308	12	0.438	9	1.403	14
20			min	-0.562	3	-0.808	61	-0.453	3	-0.12	6	-0.512	3	-0.396	8
21	3	1	max	1.427	2	0.371	9	1.827	8	0.441	10	0.165	4	0.282	3
22			min	-1.27	8	-0.625	39	-2.024	2	-0.349	4	-0.239	10	-0.153	44
23		2	max	0.969	2	0.364	9	1.363	8	0.431	10	0.185	7	0.464	2
24			min	-1.062	8	-0.634	39	-1.075	2	-0.24	4	-0.274	13	-0.224	8
25		3	max	0.969	2	0.363	9	1.364	8	0.431	10	0.372	8	0.557	3
26			min	-1.062	8	-0.636	39	-1.076	2	-0.24	4	-0.411	2	-0.284	9
27		4	max	0.969	2	0.361	9	1.366	8	0.431	10	0.61	8	0.655	3
28			min	-1.062	8	-0.638	39	-1.078	2	-0.24	4	-0.599	2	-0.347	9
29		5	max	0.969	2	0.36	9	1.367	8	0.431	10	0.848	8	0.752	3
30			min	-1.062	8	-0.639	39	-1.079	2	-0.24	4	-0.787	2	-0.41	9
31	4	1	max	0.51	8	0.018	8	0.027	3	0	7	-0.004	4	0.039	8
32			min	-1.055	2	-0.007	2	0.006	9	-0.001	25	-0.012	17	-0.041	2
33		2	max	0.514	8	0.021	9	0.015	3	0	7	0.003	5	0.032	8
34			min	-1.059	2	-0.01	3	-0.006	9	-0.001	25	-0.003	11	-0.03	2
35		3	max	0.518	8	0.025	9	0.004	3	0	7	0.006	7	0.02	7
36			min	-1.063	2	-0.014	3	-0.018	21	-0.001	25	-0.002	13	-0.024	13
37		4	max	0.522	8	0.029	9	-0.007	3	0	7	0.006	8	0.008	6
38			min	-1.067	2	-0.018	3	-0.035	21	-0.001	25	-0.008	2	-0.027	24
39		5	max	0.527	8	0.033	9	-0.014	3	0	7	0.005	9	0.003	5
40			min	-1.072	2	-0.022	3	-0.047	21	-0.001	25	-0.02	3	-0.051	23
41	5	1	max	0.512	8	0.02	13	0.016	22	0.001	15	-0.002	11	0.038	2
42			min	-1.091	2	-0.001	7	-0.005	2	0	9	-0.01	14	-0.038	8
43		2	max	0.516	8	0.013	13	0.02	7	0.001	15	0.003	10	0.03	2
44			min	-1.095	2	-0.008	7	-0.008	13	0	9	-0.004	4	-0.03	8
45		3	max	0.52	8	0.004	13	0.024	7	0.001	15	0.005	9	0.025	3
46			min	-1.099	2	-0.017	19	-0.012	13	0	9	-0.003	3	-0.019	9

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
47		4	max	0.525	8	-0.005	13	0.028	7	0.001	15	0.006	8	0.029	16
48			min	-1.103	2	-0.033	19	-0.016	13	0	9	-0.007	2	-0.008	10
49		5	max	0.529	8	-0.012	13	0.032	6	0.001	15	0.005	7	0.052	17
50			min	-1.108	2	-0.046	19	-0.02	12	0	9	-0.018	13	-0.003	11
51	6	1	max	0	109	0	5	0	6	0	109	0	109	0	109
52			min	0	1	0	23	0	9	0	1	0	1	0	1
53		2	max	1.102	7	0.719	53	0.419	2	0.558	2	0.413	7	0.811	17
54			min	-1.154	13	-0.059	11	-0.391	8	-0.505	8	-0.423	13	-0.104	11
55		3	max	1.021	8	0.238	5	0.014	12	0.079	50	0.28	2	0.129	85
56			min	-1.039	2	-0.241	11	-0.016	6	-0.071	68	-0.266	8	-0.132	55
57		4	max	1.101	9	0.063	5	0.447	8	0.671	8	0.444	9	0.858	23
58			min	-1.143	3	-0.733	71	-0.477	2	-0.703	2	-0.457	3	-0.062	5
59		5	max	0	109	0	17	0	7	0	109	0	109	0	109
60			min	0	1	0	11	0	10	0	1	0	1	0	1
61	7	1	max	0.677	7	0.77	63	0.585	8	0.196	8	0.061	12	0.283	12
62			min	-0.615	13	-0.125	9	-0.999	2	-0.486	2	-0.043	6	-0.453	6
63		2	max	0.677	7	0.77	63	0.585	8	0.196	8	0.044	11	0.269	12
64			min	-0.615	13	-0.125	9	-0.999	2	-0.486	2	-0.042	5	-0.46	6
65		3	max	0.677	7	0.77	63	0.585	8	0.196	8	0.048	10	0.26	11
66			min	-0.615	13	-0.125	9	-0.999	2	-0.486	2	-0.061	4	-0.475	5
67		4	max	0.677	7	0.77	63	0.585	8	0.196	8	0.062	9	0.254	11
68			min	-0.615	13	-0.125	9	-0.999	2	-0.486	2	-0.092	3	-0.49	5
69		5	max	0.677	7	0.77	63	0.585	8	0.196	8	0.084	9	0.249	11
70			min	-0.615	13	-0.125	9	-0.999	2	-0.486	2	-0.13	3	-0.506	5
71	8	1	max	0.268	2	0.559	85	2.451	2	0.098	83	0.126	12	0.438	13
72			min	-0.242	8	-0.282	6	-2.164	8	-0.389	17	-0.195	6	-0.338	7
73		2	max	0.268	2	0.559	85	2.451	2	0.098	83	0.181	13	0.426	13
74			min	-0.242	8	-0.282	6	-2.164	8	-0.389	17	-0.239	7	-0.328	7
75		3	max	0.268	2	0.559	85	2.451	2	0.098	83	0.264	13	0.413	13
76			min	-0.242	8	-0.282	6	-2.164	8	-0.389	17	-0.311	7	-0.317	7
77		4	max	0.268	2	0.559	85	2.451	2	0.098	83	0.347	13	0.401	13
78			min	-0.242	8	-0.282	6	-2.164	8	-0.389	17	-0.383	7	-0.306	7
79		5	max	0.268	2	0.559	85	2.451	2	0.098	83	0.431	13	0.389	13
80			min	-0.242	8	-0.282	6	-2.164	8	-0.389	17	-0.456	7	-0.296	7
81	9	1	max	0.229	13	0.625	39	2.218	8	0.347	10	0.239	10	0.414	3
82			min	-0.194	7	-0.373	9	-2.466	2	-0.187	4	-0.165	4	-0.322	9
83		2	max	0.229	13	0.625	39	2.218	8	0.347	10	0.283	10	0.395	3
84			min	-0.194	7	-0.373	9	-2.466	2	-0.187	4	-0.218	4	-0.308	9
85		3	max	0.229	13	0.625	39	2.218	8	0.347	10	0.356	9	0.375	3
86			min	-0.194	7	-0.373	9	-2.466	2	-0.187	4	-0.301	3	-0.294	9
87		4	max	0.229	13	0.625	39	2.218	8	0.347	10	0.43	9	0.355	3
88			min	-0.194	7	-0.373	9	-2.466	2	-0.187	4	-0.384	3	-0.28	9
89		5	max	0.229	13	0.625	39	2.218	8	0.347	10	0.504	9	0.335	3
90			min	-0.194	7	-0.373	9	-2.466	2	-0.187	4	-0.468	3	-0.266	9
91	10	1	max	0.675	9	0.762	50	0.947	2	0.456	13	0.063	9	0.253	4
92			min	-0.615	3	-0.124	7	-0.554	8	-0.192	7	-0.076	3	-0.412	10
93		2	max	0.675	9	0.762	50	0.947	2	0.456	13	0.05	10	0.239	4
94			min	-0.615	3	-0.124	7	-0.554	8	-0.192	7	-0.048	4	-0.418	10
95		3	max	0.675	9	0.762	50	0.947	2	0.456	13	0.052	11	0.225	4
96			min	-0.615	3	-0.124	7	-0.554	8	-0.192	7	-0.035	5	-0.425	10
97		4	max	0.675	9	0.762	50	0.947	2	0.456	13	0.073	12	0.212	5
98			min	-0.615	3	-0.124	7	-0.554	8	-0.192	7	-0.041	6	-0.436	11
99		5	max	0.675	9	0.762	50	0.947	2	0.456	13	0.103	13	0.206	5
100			min	-0.615	3	-0.124	7	-0.554	8	-0.192	7	-0.055	7	-0.45	11
101	11	1	max	0	109	0	5	0	7	0	109	0	109	0	109

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
102		min	0	1	0	1	0	10	0	1	0	1	0	1	
103	2	max	0.155	10	0.134	5	0.059	13	0.336	2	0.081	3	0.081	11	
104		min	-0.295	4	-0.202	11	-0.09	7	-0.332	8	-0.084	9	-0.055	5	
105	3	max	0.072	8	0.184	5	0.045	13	0.051	13	0.172	2	0.048	81	
106		min	-0.305	74	-0.186	11	-0.044	7	-0.049	7	-0.206	8	-0.02	3	
107	4	max	0.139	7	0.195	6	0.156	9	0.425	8	0.16	13	0.095	5	
108		min	-0.288	13	-0.131	12	-0.122	3	-0.424	2	-0.161	7	-0.07	11	
109	5	max	0	109	0	109	0	6	0	109	0	109	0	109	
110		min	0	1	0	11	0	9	0	1	0	1	0	1	
111	12	1	max	0.232	2	0.384	2	0.12	10	0.112	10	0.154	7	0.24	8
112		min	-0.17	8	-0.46	8	-0.21	4	-0.374	76	-0.149	13	-0.384	2	
113	2	max	0.232	2	0.384	2	0.12	10	0.112	10	0.152	8	0.271	8	
114		min	-0.17	8	-0.46	8	-0.21	4	-0.374	76	-0.153	2	-0.41	2	
115	3	max	0.232	2	0.384	2	0.12	10	0.112	10	0.153	8	0.302	8	
116		min	-0.17	8	-0.46	8	-0.21	4	-0.374	76	-0.16	2	-0.435	2	
117	4	max	0.232	2	0.384	2	0.12	10	0.112	10	0.154	8	0.332	8	
118		min	-0.17	8	-0.46	8	-0.21	4	-0.374	76	-0.167	2	-0.461	2	
119	5	max	0.232	2	0.384	2	0.12	10	0.112	10	0.155	8	0.363	8	
120		min	-0.17	8	-0.46	8	-0.21	4	-0.374	76	-0.173	2	-0.487	2	
121	13	1	max	0.084	7	0.416	8	0.17	76	0.178	10	0.149	13	0.22	7
122		min	-0.144	13	-0.429	2	-0.044	10	-0.28	4	-0.154	7	-0.257	13	
123	2	max	0.084	7	0.416	8	0.17	76	0.178	10	0.154	13	0.193	7	
124		min	-0.144	13	-0.429	2	-0.044	10	-0.28	4	-0.152	8	-0.229	13	
125	3	max	0.084	7	0.416	8	0.17	76	0.178	10	0.161	2	0.165	7	
126		min	-0.144	13	-0.429	2	-0.044	10	-0.28	4	-0.153	8	-0.201	13	
127	4	max	0.084	7	0.416	8	0.17	76	0.178	10	0.169	2	0.138	7	
128		min	-0.144	13	-0.429	2	-0.044	10	-0.28	4	-0.154	8	-0.172	13	
129	5	max	0.084	7	0.416	8	0.17	76	0.178	10	0.176	2	0.11	7	
130		min	-0.144	13	-0.429	2	-0.044	10	-0.28	4	-0.155	8	-0.144	13	
131	14	1	max	0	109	0	5	0	2	0	109	0	109	0	109
132		min	0	1	0	11	0	8	0	1	0	1	0	1	
133	2	max	0.024	25	0.022	5	0.022	2	0	109	0.028	2	0.028	11	
134		min	0.011	8	-0.022	11	-0.022	8	0	1	-0.028	8	-0.028	5	
135	3	max	0.44	8	0.171	4	0.183	2	0.149	13	0.097	2	0.02	12	
136		min	-0.405	2	-0.083	10	-0.131	8	-0.154	7	-0.044	8	-0.077	78	
137	4	max	-0.011	84	0.022	11	0.022	8	0	109	0.028	2	0.028	11	
138		min	-0.024	14	-0.022	5	-0.022	2	0	1	-0.028	8	-0.028	5	
139	5	max	0	109	0	23	0	8	0	109	0	109	0	109	
140		min	0	1	0	5	0	2	0	1	0	1	0	1	
141	15	1	max	0.684	7	0.815	63	0.434	13	0.124	10	0.406	7	1.443	14
142		min	-0.573	13	-0.079	9	-0.31	7	-0.334	4	-0.488	13	-0.388	8	
143	2	max	0.682	7	0.81	63	0.43	13	0.124	10	0.276	6	1.09	2	
144		min	-0.571	13	-0.084	9	-0.307	7	-0.334	4	-0.3	12	-0.356	8	
145	3	max	0.679	7	0.806	63	0.426	13	0.124	10	0.16	5	0.794	13	
146		min	-0.568	13	-0.088	9	-0.303	7	-0.334	4	-0.126	11	-0.334	7	
147	4	max	0.677	7	0.802	63	0.423	13	0.124	10	0.175	3	0.539	13	
148		min	-0.566	13	-0.092	9	-0.299	7	-0.334	4	-0.082	9	-0.352	7	
149	5	max	0.797	7	0.769	63	0.33	9	0.161	10	0.061	12	0.371	13	
150		min	-0.952	13	-0.124	9	-0.721	3	-0.5	4	-0.043	6	-0.371	6	
151	16	1	max	0.982	2	0.567	85	1.013	2	0.171	11	0.824	8	0.72	13
152		min	-1.081	8	-0.276	7	-1.291	8	-0.451	5	-0.769	2	-0.406	7	
153	2	max	0.982	2	0.565	85	1.012	2	0.171	11	0.599	8	0.659	13	
154		min	-1.081	8	-0.278	7	-1.289	8	-0.451	5	-0.592	2	-0.358	7	
155	3	max	0.982	2	0.563	85	1.011	2	0.171	11	0.374	8	0.599	13	
156		min	-1.081	8	-0.279	7	-1.288	8	-0.451	5	-0.416	2	-0.309	7	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y	Shear[k]	LC	z	Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
157		4	max	0.982	2	0.562	85	1.009	2	0.171	11	0.185	9	0.538	13	
158			min	-1.081	8	-0.281	7	-1.287	8	-0.451	5	-0.274	3	-0.26	7	
159		5	max	1.457	2	0.559	85	1.99	2	0.24	12	0.126	12	0.395	13	
160			min	-1.292	8	-0.28	7	-1.752	8	-0.417	6	-0.195	6	-0.178	7	
161	17	1	max	0.667	9	0.077	7	0.34	9	0.308	12	0.438	9	1.403	14	
162			min	-0.562	3	-0.808	61	-0.454	3	-0.12	6	-0.512	3	-0.396	8	
163		2	max	0.667	9	0.077	7	0.34	9	0.308	12	0.448	9	1.428	14	
164			min	-0.562	3	-0.808	61	-0.454	3	-0.12	6	-0.527	3	-0.398	8	
165		3	max	0.667	9	0.077	7	0.34	9	0.308	12	0.459	9	1.452	14	
166			min	-0.562	3	-0.808	61	-0.454	3	-0.12	6	-0.541	3	-0.4	8	
167		4	max	0.667	9	0.077	7	0.34	9	0.308	12	0.469	9	1.477	14	
168			min	-0.562	3	-0.808	61	-0.454	3	-0.12	6	-0.555	3	-0.402	8	
169		5	max	0.667	9	0.077	7	0.34	9	0.308	12	0.48	9	1.502	14	
170			min	-0.562	3	-0.808	61	-0.454	3	-0.12	6	-0.569	3	-0.404	8	
171	18	1	max	0.684	7	0.814	63	0.434	13	0.124	10	0.445	7	1.544	14	
172			min	-0.573	13	-0.079	9	-0.31	7	-0.334	4	-0.543	13	-0.396	8	
173		2	max	0.684	7	0.814	63	0.434	13	0.124	10	0.435	7	1.519	14	
174			min	-0.573	13	-0.079	9	-0.31	7	-0.334	4	-0.529	13	-0.394	8	
175		3	max	0.684	7	0.814	63	0.434	13	0.124	10	0.426	7	1.493	14	
176			min	-0.573	13	-0.079	9	-0.31	7	-0.334	4	-0.516	13	-0.392	8	
177		4	max	0.684	7	0.814	63	0.434	13	0.124	10	0.416	7	1.468	14	
178			min	-0.573	13	-0.079	9	-0.31	7	-0.334	4	-0.502	13	-0.39	8	
179		5	max	0.684	7	0.814	63	0.434	13	0.124	10	0.406	7	1.443	14	
180			min	-0.573	13	-0.079	9	-0.31	7	-0.334	4	-0.488	13	-0.388	8	
181	19	1	max	0.969	2	0.36	9	1.368	8	0.431	10	0.848	8	0.752	3	
182			min	-1.062	8	-0.639	39	-1.078	2	-0.24	4	-0.787	2	-0.41	9	
183		2	max	0.969	2	0.36	9	1.368	8	0.431	10	0.891	8	0.77	3	
184			min	-1.062	8	-0.639	39	-1.078	2	-0.24	4	-0.821	2	-0.421	9	
185		3	max	0.969	2	0.36	9	1.368	8	0.431	10	0.934	8	0.787	3	
186			min	-1.062	8	-0.639	39	-1.078	2	-0.24	4	-0.855	2	-0.432	9	
187		4	max	0.969	2	0.36	9	1.368	8	0.431	10	0.977	8	0.805	3	
188			min	-1.062	8	-0.639	39	-1.078	2	-0.24	4	-0.888	2	-0.443	9	
189		5	max	0.969	2	0.36	9	1.368	8	0.431	10	1.019	8	0.822	3	
190			min	-1.062	8	-0.639	39	-1.078	2	-0.24	4	-0.922	2	-0.455	9	
191	20	1	max	0.982	2	0.567	85	1.013	2	0.171	11	0.986	8	0.764	13	
192			min	-1.081	8	-0.276	7	-1.291	8	-0.451	5	-0.896	2	-0.44	7	
193		2	max	0.982	2	0.567	85	1.013	2	0.171	11	0.946	8	0.753	13	
194			min	-1.081	8	-0.276	7	-1.291	8	-0.451	5	-0.864	2	-0.432	7	
195		3	max	0.982	2	0.567	85	1.013	2	0.171	11	0.905	8	0.742	13	
196			min	-1.081	8	-0.276	7	-1.291	8	-0.451	5	-0.832	2	-0.423	7	
197		4	max	0.982	2	0.567	85	1.013	2	0.171	11	0.865	8	0.731	13	
198			min	-1.081	8	-0.276	7	-1.291	8	-0.451	5	-0.801	2	-0.414	7	
199		5	max	0.982	2	0.567	85	1.013	2	0.171	11	0.824	8	0.72	13	
200			min	-1.081	8	-0.276	7	-1.291	8	-0.451	5	-0.769	2	-0.406	7	
201	21	1	max	0.049	22	0.208	8	0.969	2	0.031	10	0.04	24	0.02	24	
202			min	0.016	4	-0.458	2	-0.485	8	-0.012	4	0.004	6	0.002	6	
203		2	max	0.049	22	0.208	8	0.969	2	0.031	10	0.074	25	0.038	25	
204			min	0.016	4	-0.458	2	-0.485	8	-0.012	4	-0.015	7	-0.007	7	
205		3	max	0.049	22	0.208	8	0.969	2	0.031	10	0.114	13	0.056	13	
206			min	0.016	4	-0.458	2	-0.485	8	-0.012	4	-0.035	7	-0.016	7	
207		4	max	0.049	22	0.208	8	0.969	2	0.031	10	0.157	2	0.077	13	
208			min	0.016	4	-0.458	2	-0.485	8	-0.012	4	-0.056	8	-0.025	7	
209		5	max	0.049	22	0.208	8	0.969	2	0.031	10	0.201	2	0.097	13	
210			min	0.016	4	-0.458	2	-0.485	8	-0.012	4	-0.078	8	-0.034	7	
211	22	1	max	0.025	4	0.458	2	0.466	8	0.033	8	0.019	8	0.01	8	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
212		min	0.006	9	-0.208	8	-0.95	2	-0.026	2	-0.029	2	-0.015	2	
213	2	max	0.025	4	0.458	2	0.466	8	0.033	8	0.041	8	0.019	8	
214		min	0.006	9	-0.208	8	-0.95	2	-0.026	2	-0.072	2	-0.036	2	
215	3	max	0.025	4	0.458	2	0.466	8	0.033	8	0.062	8	0.029	8	
216		min	0.006	9	-0.208	8	-0.95	2	-0.026	2	-0.116	2	-0.057	2	
217	4	max	0.025	4	0.458	2	0.466	8	0.033	8	0.083	8	0.038	8	
218		min	0.006	9	-0.208	8	-0.95	2	-0.026	2	-0.159	2	-0.077	2	
219	5	max	0.025	4	0.458	2	0.466	8	0.033	8	0.104	8	0.047	8	
220		min	0.006	9	-0.208	8	-0.95	2	-0.026	2	-0.202	2	-0.098	2	
221	23	1	max	0.018	12	0.211	8	0.467	8	0.023	2	0.021	8	0.014	2
222		min	-0.002	7	-0.476	2	-0.981	2	-0.031	8	-0.027	2	-0.01	8	
223	2	max	0.018	12	0.211	8	0.467	8	0.023	2	0.042	8	0.036	2	
224		min	-0.002	7	-0.476	2	-0.981	2	-0.031	8	-0.072	2	-0.02	8	
225	3	max	0.018	12	0.211	8	0.467	8	0.023	2	0.063	8	0.058	2	
226		min	-0.002	7	-0.476	2	-0.981	2	-0.031	8	-0.117	2	-0.03	8	
227	4	max	0.018	12	0.211	8	0.467	8	0.023	2	0.085	8	0.079	2	
228		min	-0.002	7	-0.476	2	-0.981	2	-0.031	8	-0.161	2	-0.039	8	
229	5	max	0.018	12	0.211	8	0.467	8	0.023	2	0.106	8	0.101	2	
230		min	-0.002	7	-0.476	2	-0.981	2	-0.031	8	-0.206	2	-0.049	8	
231	24	1	max	0.047	18	0.476	2	1	2	0.011	12	0.04	16	-0.001	10
232		min	0.014	12	-0.211	8	-0.486	8	-0.031	6	0.003	10	-0.021	16	
233	2	max	0.047	18	0.476	2	1	2	0.011	12	0.077	15	0.007	9	
234		min	0.014	12	-0.211	8	-0.486	8	-0.031	6	-0.016	9	-0.039	15	
235	3	max	0.047	18	0.476	2	1	2	0.011	12	0.117	3	0.017	9	
236		min	0.014	12	-0.211	8	-0.486	8	-0.031	6	-0.036	9	-0.058	15	
237	4	max	0.047	18	0.476	2	1	2	0.011	12	0.161	3	0.026	9	
238		min	0.014	12	-0.211	8	-0.486	8	-0.031	6	-0.057	8	-0.079	3	
239	5	max	0.047	18	0.476	2	1	2	0.011	12	0.206	2	0.035	9	
240		min	0.014	12	-0.211	8	-0.486	8	-0.031	6	-0.079	8	-0.101	3	
241	25	1	max	0.124	8	0.302	5	0.244	9	0.124	7	0.258	8	0.27	12
242		min	-0.211	2	-0.323	11	-0.309	3	-0.111	13	-0.299	2	-0.307	6	
243	2	max	0.124	8	0.302	5	0.244	9	0.124	7	0.265	8	0.278	12	
244		min	-0.211	2	-0.323	11	-0.309	3	-0.111	13	-0.307	2	-0.314	6	
245	3	max	0.124	8	0.302	5	0.244	9	0.124	7	0.271	8	0.286	12	
246		min	-0.211	2	-0.323	11	-0.309	3	-0.111	13	-0.316	2	-0.321	6	
247	4	max	0.124	8	0.302	5	0.244	9	0.124	7	0.278	8	0.293	12	
248		min	-0.211	2	-0.323	11	-0.309	3	-0.111	13	-0.324	2	-0.327	6	
249	5	max	0.124	8	0.302	5	0.244	9	0.124	7	0.284	8	0.301	12	
250		min	-0.211	2	-0.323	11	-0.309	3	-0.111	13	-0.333	2	-0.334	6	
251	26	1	max	0.253	9	0.314	11	0.1	12	0.13	3	0.176	12	0.404	4
252		min	-0.354	3	-0.311	5	-0.052	6	-0.167	9	-0.15	6	-0.452	10	
253	2	max	0.253	9	0.314	11	0.1	12	0.13	3	0.179	12	0.414	4	
254		min	-0.354	3	-0.311	5	-0.052	6	-0.167	9	-0.151	6	-0.462	10	
255	3	max	0.253	9	0.314	11	0.1	12	0.13	3	0.182	12	0.423	4	
256		min	-0.354	3	-0.311	5	-0.052	6	-0.167	9	-0.153	6	-0.472	10	
257	4	max	0.253	9	0.314	11	0.1	12	0.13	3	0.186	12	0.433	4	
258		min	-0.354	3	-0.311	5	-0.052	6	-0.167	9	-0.154	6	-0.482	10	
259	5	max	0.253	9	0.314	11	0.1	12	0.13	3	0.189	12	0.443	4	
260		min	-0.354	3	-0.311	5	-0.052	6	-0.167	9	-0.156	6	-0.491	10	
261	27	1	max	0.212	8	0.31	5	0.15	10	0.099	10	0.15	6	0.405	4
262		min	-0.319	2	-0.314	11	-0.162	3	-0.107	4	-0.176	12	-0.465	10	
263	2	max	0.212	8	0.308	5	0.152	9	0.099	10	0.136	7	0.303	3	
264		min	-0.319	2	-0.316	11	-0.164	3	-0.107	4	-0.165	13	-0.361	9	
265	3	max	0.212	8	0.306	5	0.154	9	0.099	10	0.154	7	0.217	2	
266		min	-0.319	2	-0.318	11	-0.167	3	-0.107	4	-0.187	13	-0.27	8	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y	Shear[k]	LC	z	Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
267		4	max	0.212	8	0.304	5	0.157	9	0.099	10	0.205	8	0.206	13	
268			min	-0.319	2	-0.32	11	-0.169	3	-0.107	4	-0.241	2	-0.253	7	
269		5	max	0.212	9	0.302	5	0.159	9	0.099	10	0.258	8	0.275	12	
270			min	-0.32	3	-0.322	11	-0.171	3	-0.107	4	-0.299	2	-0.313	6	
271	28	1	max	3.805	8	2.87	14	1.03	5	1.234	5	2.208	11	11.649	2	
272			min	-3.476	2	-0.122	8	-1.03	11	-1.208	11	-2.21	5	-3.989	8	
273		2	max	3.795	8	2.85	14	1.02	5	1.234	5	1.952	11	10.996	2	
274			min	-3.467	2	-0.137	8	-1.021	11	-1.208	11	-1.953	5	-3.956	8	
275		3	max	3.786	8	2.83	14	1.011	5	1.234	5	1.698	11	10.346	2	
276			min	-3.457	2	-0.151	8	-1.011	11	-1.208	11	-1.699	5	-3.92	8	
277		4	max	3.777	8	2.81	14	1.002	5	1.234	5	1.446	11	9.7	2	
278			min	-3.448	2	-0.166	8	-1.002	11	-1.208	11	-1.448	5	-3.881	8	
279		5	max	3.768	8	2.79	14	0.993	5	1.234	5	1.197	11	9.058	2	
280			min	-3.439	2	-0.181	8	-0.993	11	-1.208	11	-1.199	5	-3.837	8	
281	29	1	max	2.83	12	2.714	19	1.347	9	1.887	9	1.655	3	6.994	7	
282			min	-2.503	6	0.271	13	-1.347	3	-1.845	3	-1.657	9	-1.742	13	
283		2	max	2.476	12	2.102	19	0.931	9	0.984	8	0.116	2	3.726	7	
284			min	-2.148	6	-0.105	13	-0.932	3	-0.97	2	-0.119	8	-1.174	13	
285		3	max	2.444	12	2.061	19	0.9	9	0.984	8	1.087	9	1.47	7	
286			min	-2.116	6	-0.132	13	-0.9	3	-0.97	2	-1.091	3	-1.018	13	
287		4	max	2.066	12	0.585	79	0.23	3	0.861	8	0.402	9	0.526	7	
288			min	-1.498	6	-0.264	13	-0.237	9	-0.816	2	-0.402	3	-0.659	13	
289		5	max	0	109	0	24	0	13	0	109	0	109	0	109	
290			min	0	1	0	6	0	4	0	1	0	1	0	1	
291	30	1	max	0.734	13	-0.026	11	0.56	4	0.498	3	0.065	8	0.486	8	
292			min	-0.882	7	-0.752	53	-0.187	10	-0.188	9	-0.052	2	-0.489	2	
293		2	max	0.756	2	-0.056	11	0.321	2	0.413	3	0.132	4	0.582	8	
294			min	-0.655	8	-0.786	53	-0.434	8	-0.226	9	-0.046	10	-0.401	2	
295		3	max	0.76	2	-0.061	11	0.323	2	0.413	3	0.229	2	0.749	7	
296			min	-0.659	8	-0.79	53	-0.436	8	-0.226	9	-0.198	8	-0.302	13	
297		4	max	0.764	2	-0.065	11	0.325	2	0.413	3	0.38	2	1.01	19	
298			min	-0.662	8	-0.794	53	-0.438	8	-0.226	9	-0.402	8	-0.224	13	
299		5	max	0.768	2	-0.069	11	0.328	2	0.413	3	0.534	2	1.359	19	
300			min	-0.666	8	-0.799	53	-0.44	8	-0.226	9	-0.608	8	-0.143	13	
301	31	1	max	0.995	6	0.473	2	1.361	13	0.677	2	0.271	8	0.279	7	
302			min	-0.837	12	-0.631	44	-1.553	7	-0.585	8	-0.348	2	-0.153	49	
303		2	max	0.701	7	0.466	2	1.271	13	0.684	2	0.162	10	0.443	7	
304			min	-0.789	13	-0.654	8	-0.977	7	-0.494	8	-0.253	4	-0.204	13	
305		3	max	0.7	7	0.465	2	1.272	13	0.684	2	0.234	11	0.551	7	
306			min	-0.788	13	-0.656	8	-0.978	7	-0.494	8	-0.274	5	-0.278	13	
307		4	max	0.699	7	0.463	2	1.273	13	0.684	2	0.411	12	0.658	7	
308			min	-0.787	13	-0.657	8	-0.979	7	-0.494	8	-0.401	6	-0.352	13	
309		5	max	0.699	7	0.462	2	1.274	13	0.684	2	0.604	12	0.766	7	
310			min	-0.787	13	-0.659	8	-0.98	7	-0.494	8	-0.543	6	-0.426	2	
311	32	1	max	0.178	12	0.019	13	0.028	8	0	10	-0.001	8	0.028	13	
312			min	-0.793	18	-0.007	7	0.005	2	-0.001	16	-0.012	2	-0.031	7	
313		2	max	0.182	12	0.023	2	0.017	8	0	10	0.005	9	0.021	12	
314			min	-0.795	18	-0.012	8	-0.007	2	-0.001	16	-0.005	3	-0.019	6	
315		3	max	0.187	12	0.028	2	0.005	8	0	10	0.005	10	0.012	11	
316			min	-0.797	18	-0.016	8	-0.019	2	-0.001	16	-0.001	4	-0.016	5	
317		4	max	0.191	12	0.032	2	-0.005	8	0	10	0.004	13	0.01	9	
318			min	-0.799	18	-0.021	8	-0.036	14	-0.001	16	-0.006	7	-0.028	3	
319		5	max	0.195	12	0.037	2	-0.012	8	0	10	0.004	13	0.012	9	
320			min	-0.801	18	-0.026	8	-0.048	14	-0.001	16	-0.019	7	-0.053	3	
321	33	1	max	0.423	13	0.018	4	0.016	16	0.001	19	0	3	0.025	6	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y	Shear[k]	LC	z	Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
322		min	-1.007	7	0.001	10	-0.001	4	0	13	-0.011	19	-0.025	12		
323	2	max	0.428	13	0.011	4	0.017	10	0.001	19	0.005	2	0.022	7		
324		min	-1.012	7	-0.006	10	-0.005	4	0	13	-0.006	8	-0.022	13		
325	3	max	0.432	13	0.003	4	0.022	10	0.001	19	0.006	2	0.025	7		
326		min	-1.016	7	-0.017	22	-0.01	4	0	13	-0.003	8	-0.019	13		
327	4	max	0.437	13	-0.007	4	0.026	10	0.001	19	0.004	12	0.037	8		
328		min	-1.021	7	-0.033	22	-0.015	4	0	13	-0.005	6	-0.017	2		
329	5	max	0.442	13	-0.014	4	0.031	10	0.001	19	0.002	11	0.056	9		
330		min	-1.026	7	-0.046	22	-0.019	4	0	13	-0.015	5	-0.015	3		
331	34	1	max	0.624	10	0.77	67	0.441	13	0.164	13	0.052	4	0.485	3	
332		min	-0.564	4	-0.115	13	-0.858	7	-0.456	7	-0.033	10	-0.657	9		
333	2	max	0.624	10	0.77	67	0.441	13	0.164	13	0.051	3	0.485	3		
334		min	-0.564	4	-0.115	13	-0.858	7	-0.456	7	-0.047	9	-0.678	9		
335	3	max	0.624	10	0.77	67	0.441	13	0.164	13	0.059	2	0.485	3		
336		min	-0.564	4	-0.115	13	-0.858	7	-0.456	7	-0.071	8	-0.699	9		
337	4	max	0.624	10	0.77	67	0.441	13	0.164	13	0.074	2	0.485	3		
338		min	-0.564	4	-0.115	13	-0.858	7	-0.456	7	-0.102	8	-0.72	9		
339	5	max	0.624	10	0.77	67	0.441	13	0.164	13	0.088	2	0.485	3		
340		min	-0.564	4	-0.115	13	-0.858	7	-0.456	7	-0.133	8	-0.741	9		
341	35	1	max	0.173	6	0.56	75	1.744	6	0.197	3	0.155	3	0.387	4	
342		min	-0.15	12	-0.302	9	-1.45	12	-0.461	9	-0.224	9	-0.286	10		
343	2	max	0.173	6	0.56	75	1.744	6	0.197	3	0.173	4	0.375	4		
344		min	-0.15	12	-0.302	9	-1.45	12	-0.461	9	-0.232	10	-0.275	10		
345	3	max	0.173	6	0.56	75	1.744	6	0.197	3	0.201	4	0.362	4		
346		min	-0.15	12	-0.302	9	-1.45	12	-0.461	9	-0.248	10	-0.264	10		
347	4	max	0.173	6	0.56	75	1.744	6	0.197	3	0.247	5	0.35	4		
348		min	-0.15	12	-0.302	9	-1.45	12	-0.461	9	-0.282	11	-0.253	10		
349	5	max	0.173	6	0.56	75	1.744	6	0.197	3	0.3	5	0.338	4		
350		min	-0.15	12	-0.302	9	-1.45	12	-0.461	9	-0.324	11	-0.242	10		
351	36	1	max	0.163	5	0.631	44	1.586	13	0.532	2	0.348	2	0.524	8	
352		min	-0.127	11	-0.477	2	-1.833	7	-0.373	8	-0.271	8	-0.432	2		
353	2	max	0.163	5	0.631	44	1.586	13	0.532	2	0.393	2	0.501	8		
354		min	-0.127	11	-0.477	2	-1.833	7	-0.373	8	-0.325	8	-0.415	2		
355	3	max	0.163	5	0.631	44	1.586	13	0.532	2	0.438	2	0.478	8		
356		min	-0.127	11	-0.477	2	-1.833	7	-0.373	8	-0.379	8	-0.397	2		
357	4	max	0.163	5	0.631	44	1.586	13	0.532	2	0.483	2	0.454	8		
358		min	-0.127	11	-0.477	2	-1.833	7	-0.373	8	-0.433	8	-0.379	2		
359	5	max	0.163	5	0.631	44	1.586	13	0.532	2	0.528	2	0.431	8		
360		min	-0.127	11	-0.477	2	-1.833	7	-0.373	8	-0.488	7	-0.361	2		
361	37	1	max	0.78	2	0.752	53	0.674	6	0.368	65	0.052	2	0.478	8	
362		min	-0.723	8	0.026	11	-0.278	12	-0.067	11	-0.065	8	-0.634	2		
363	2	max	0.78	2	0.752	53	0.674	6	0.368	65	0.052	2	0.467	8		
364		min	-0.723	8	0.026	11	-0.278	12	-0.067	11	-0.049	8	-0.644	2		
365	3	max	0.78	2	0.752	53	0.674	6	0.368	65	0.059	3	0.456	8		
366		min	-0.723	8	0.026	11	-0.278	12	-0.067	11	-0.041	9	-0.653	2		
367	4	max	0.78	2	0.752	53	0.674	6	0.368	65	0.071	4	0.445	8		
368		min	-0.723	8	0.026	11	-0.278	12	-0.067	11	-0.039	10	-0.663	2		
369	5	max	0.78	2	0.752	53	0.674	6	0.368	65	0.09	4	0.434	8		
370		min	-0.723	8	0.026	11	-0.278	12	-0.067	11	-0.042	10	-0.672	2		
371	38	1	max	0.644	10	0.815	67	0.315	5	0.276	2	0.355	10	1.388	18	
372		min	-0.534	4	-0.074	13	-0.19	11	-0.487	8	-0.439	4	-0.039	12		
373	2	max	0.64	10	0.811	67	0.312	5	0.276	2	0.272	10	1.016	18		
374		min	-0.53	4	-0.078	13	-0.186	11	-0.487	8	-0.297	4	-0.049	12		
375	3	max	0.636	10	0.806	67	0.308	5	0.276	2	0.222	9	0.659	17		
376		min	-0.526	4	-0.082	13	-0.182	11	-0.487	8	-0.188	3	-0.117	11		

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
377		4	max	0.632	10	0.802	67	0.304	5	0.276	2	0.205	8	0.455	4
378			min	-0.523	4	-0.087	13	-0.178	11	-0.487	8	-0.111	2	-0.265	10
379		5	max	0.506	11	0.769	67	0.464	2	0.342	2	0.052	4	0.399	3
380			min	-0.663	5	-0.114	13	-0.855	8	-0.682	8	-0.033	10	-0.401	9
381	39	1	max	0.638	6	0.568	75	0.651	6	0.38	3	0.593	12	0.54	4
382			min	-0.739	12	-0.295	9	-0.928	12	-0.66	9	-0.538	6	-0.228	10
383		2	max	0.638	6	0.566	75	0.649	6	0.38	3	0.442	13	0.478	4
384			min	-0.739	12	-0.297	9	-0.927	12	-0.66	9	-0.436	7	-0.178	10
385		3	max	0.638	6	0.565	75	0.648	6	0.38	3	0.316	13	0.433	17
386			min	-0.739	12	-0.299	9	-0.925	12	-0.66	9	-0.359	7	-0.137	11
387		4	max	0.638	6	0.563	75	0.647	6	0.38	3	0.21	2	0.418	17
388			min	-0.739	12	-0.3	9	-0.924	12	-0.66	9	-0.301	8	-0.103	11
389		5	max	1.022	6	0.56	75	1.424	6	0.356	3	0.155	3	0.332	17
390			min	-0.855	12	-0.303	9	-1.181	12	-0.535	9	-0.224	9	-0.121	83
391	40	1	max	0.768	2	-0.069	11	0.327	2	0.413	3	0.534	2	1.359	19
392			min	-0.666	8	-0.799	53	-0.441	8	-0.226	9	-0.608	8	-0.143	13
393		2	max	0.768	2	-0.069	11	0.327	2	0.413	3	0.544	2	1.382	19
394			min	-0.666	8	-0.799	53	-0.441	8	-0.226	9	-0.622	8	-0.138	13
395		3	max	0.768	2	-0.069	11	0.327	2	0.413	3	0.554	2	1.406	19
396			min	-0.666	8	-0.799	53	-0.441	8	-0.226	9	-0.636	8	-0.132	13
397		4	max	0.768	2	-0.069	11	0.327	2	0.413	3	0.564	2	1.429	19
398			min	-0.666	8	-0.799	53	-0.441	8	-0.226	9	-0.65	8	-0.127	13
399		5	max	0.768	2	-0.069	11	0.327	2	0.413	3	0.574	2	1.452	19
400			min	-0.666	8	-0.799	53	-0.441	8	-0.226	9	-0.663	8	-0.122	13
401	41	1	max	0.644	10	0.815	67	0.316	5	0.276	2	0.378	10	1.488	18
402			min	-0.534	4	-0.074	13	-0.19	11	-0.487	8	-0.478	4	-0.036	12
403		2	max	0.644	10	0.815	67	0.316	5	0.276	2	0.372	10	1.463	18
404			min	-0.534	4	-0.074	13	-0.19	11	-0.487	8	-0.468	4	-0.037	12
405		3	max	0.644	10	0.815	67	0.316	5	0.276	2	0.366	10	1.438	18
406			min	-0.534	4	-0.074	13	-0.19	11	-0.487	8	-0.458	4	-0.038	12
407		4	max	0.644	10	0.815	67	0.316	5	0.276	2	0.361	10	1.413	18
408			min	-0.534	4	-0.074	13	-0.19	11	-0.487	8	-0.449	4	-0.038	12
409		5	max	0.644	10	0.815	67	0.316	5	0.276	2	0.355	10	1.388	18
410			min	-0.534	4	-0.074	13	-0.19	11	-0.487	8	-0.439	4	-0.039	12
411	42	1	max	0.699	7	0.462	2	1.275	13	0.684	2	0.604	12	0.766	7
412			min	-0.787	13	-0.659	8	-0.98	7	-0.494	8	-0.543	6	-0.426	2
413		2	max	0.699	7	0.462	2	1.275	13	0.684	2	0.638	12	0.786	8
414			min	-0.787	13	-0.659	8	-0.98	7	-0.494	8	-0.568	6	-0.44	2
415		3	max	0.699	7	0.462	2	1.275	13	0.684	2	0.673	12	0.807	8
416			min	-0.787	13	-0.659	8	-0.98	7	-0.494	8	-0.594	6	-0.455	2
417		4	max	0.699	7	0.462	2	1.275	13	0.684	2	0.707	12	0.827	8
418			min	-0.787	13	-0.659	8	-0.98	7	-0.494	8	-0.619	6	-0.469	2
419		5	max	0.699	7	0.462	2	1.275	13	0.684	2	0.742	12	0.848	8
420			min	-0.787	13	-0.659	8	-0.98	7	-0.494	8	-0.645	6	-0.484	2
421	43	1	max	0.638	6	0.568	75	0.65	6	0.38	3	0.709	12	0.584	4
422			min	-0.739	12	-0.295	9	-0.928	12	-0.66	9	-0.619	6	-0.264	10
423		2	max	0.638	6	0.568	75	0.65	6	0.38	3	0.68	12	0.573	4
424			min	-0.739	12	-0.295	9	-0.928	12	-0.66	9	-0.599	6	-0.255	10
425		3	max	0.638	6	0.568	75	0.65	6	0.38	3	0.651	12	0.562	4
426			min	-0.739	12	-0.295	9	-0.928	12	-0.66	9	-0.579	6	-0.246	10
427		4	max	0.638	6	0.568	75	0.65	6	0.38	3	0.622	12	0.551	4
428			min	-0.739	12	-0.295	9	-0.928	12	-0.66	9	-0.558	6	-0.237	10
429		5	max	0.638	6	0.568	75	0.65	6	0.38	3	0.593	12	0.54	4
430			min	-0.739	12	-0.295	9	-0.928	12	-0.66	9	-0.538	6	-0.228	10
431	44	1	max	0.05	14	0.8	18	0.042	13	0.039	2	0	9	-0.002	9

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
432		min	0.013	8	-0.193	12	-0.067	7	-0.021	8	-0.002	15	-0.045	15	
433	2	max	0.05	14	0.8	18	0.042	13	0.039	2	0.001	12	-0.003	11	
434		min	0.013	8	-0.193	12	-0.067	7	-0.021	8	-0.004	18	-0.08	17	
435	3	max	0.05	14	0.8	18	0.042	13	0.039	2	0.002	12	0.005	11	
436		min	0.013	8	-0.193	12	-0.067	7	-0.021	8	-0.007	6	-0.116	17	
437	4	max	0.05	14	0.8	18	0.042	13	0.039	2	0.004	13	0.012	11	
438		min	0.013	8	-0.193	12	-0.067	7	-0.021	8	-0.01	7	-0.153	17	
439	5	max	0.05	14	0.8	18	0.042	13	0.039	2	0.006	13	0.019	11	
440		min	0.013	8	-0.193	12	-0.067	7	-0.021	8	-0.013	7	-0.189	17	
441	45	1	max	0.028	8	0.177	12	0.054	6	0.028	13	0.001	7	0.023	6
442		min	0.004	2	-0.792	18	-0.028	12	-0.02	7	-0.001	13	-0.012	12	
443	2	max	0.028	8	0.177	12	0.054	6	0.028	13	0.004	6	0.056	6	
444		min	0.004	2	-0.792	18	-0.028	12	-0.02	7	-0.002	13	-0.02	12	
445	3	max	0.028	8	0.177	12	0.054	6	0.028	13	0.006	6	0.089	6	
446		min	0.004	2	-0.792	18	-0.028	12	-0.02	7	-0.003	12	-0.028	12	
447	4	max	0.028	8	0.177	12	0.054	6	0.028	13	0.009	6	0.122	6	
448		min	0.004	2	-0.792	18	-0.028	12	-0.02	7	-0.005	12	-0.036	12	
449	5	max	0.028	8	0.177	12	0.054	6	0.028	13	0.011	6	0.156	18	
450		min	0.004	2	-0.792	18	-0.028	12	-0.02	7	-0.006	12	-0.044	12	
451	46	1	max	0.018	4	0.241	13	0.839	7	0.013	6	0.019	6	0.012	6
452		min	-0.001	45	-0.557	7	-0.347	13	-0.021	12	-0.013	12	-0.008	12	
453	2	max	0.018	4	0.241	13	0.839	7	0.013	6	0.057	7	0.037	7	
454		min	-0.001	45	-0.557	7	-0.347	13	-0.021	12	-0.028	13	-0.019	13	
455	3	max	0.018	4	0.241	13	0.839	7	0.013	6	0.095	7	0.063	7	
456		min	-0.001	45	-0.557	7	-0.347	13	-0.021	12	-0.044	13	-0.03	13	
457	4	max	0.018	4	0.241	13	0.839	7	0.013	6	0.134	7	0.088	7	
458		min	-0.001	45	-0.557	7	-0.347	13	-0.021	12	-0.06	13	-0.041	13	
459	5	max	0.018	4	0.241	13	0.839	7	0.013	6	0.172	7	0.113	7	
460		min	-0.001	45	-0.557	7	-0.347	13	-0.021	12	-0.076	13	-0.052	13	
461	47	1	max	0.048	21	0.567	7	0.364	13	0.019	3	0.004	2	0.002	2
462		min	0.014	4	-0.25	13	-0.855	7	-0.038	9	-0.039	20	-0.025	20	
463	2	max	0.048	21	0.567	7	0.364	13	0.019	3	0.018	2	0.012	2	
464		min	0.014	4	-0.25	13	-0.855	7	-0.038	9	-0.073	20	-0.047	20	
465	3	max	0.048	21	0.567	7	0.364	13	0.019	3	0.033	2	0.022	13	
466		min	0.014	4	-0.25	13	-0.855	7	-0.038	9	-0.11	8	-0.072	7	
467	4	max	0.048	21	0.567	7	0.364	13	0.019	3	0.049	13	0.034	13	
468		min	0.014	4	-0.25	13	-0.855	7	-0.038	9	-0.148	7	-0.098	7	
469	5	max	0.048	21	0.567	7	0.364	13	0.019	3	0.066	13	0.045	13	
470		min	0.014	4	-0.25	13	-0.855	7	-0.038	9	-0.187	7	-0.123	7	
471	48	1	max	0.098	13	0.554	8	0.321	2	0.079	83	0.184	13	0.38	3
472		min	-0.185	7	-0.576	2	-0.39	8	-0.063	5	-0.227	7	-0.417	9	
473	2	max	0.098	13	0.554	8	0.321	2	0.079	83	0.193	13	0.398	3	
474		min	-0.185	7	-0.576	2	-0.39	8	-0.063	5	-0.238	7	-0.434	9	
475	3	max	0.098	13	0.554	8	0.321	2	0.079	83	0.202	13	0.415	3	
476		min	-0.185	7	-0.576	2	-0.39	8	-0.063	5	-0.25	7	-0.451	9	
477	4	max	0.098	13	0.554	8	0.321	2	0.079	83	0.211	13	0.433	3	
478		min	-0.185	7	-0.576	2	-0.39	8	-0.063	5	-0.261	7	-0.468	9	
479	5	max	0.098	13	0.554	8	0.321	2	0.079	83	0.22	13	0.451	3	
480		min	-0.185	7	-0.576	2	-0.39	8	-0.063	5	-0.272	7	-0.485	9	
481	49	1	max	0.302	2	0.565	2	0.123	3	0.186	8	0.297	3	0.687	8
482		min	-0.409	8	-0.566	8	-0.075	9	-0.223	2	-0.275	9	-0.734	2	
483	2	max	0.302	2	0.565	2	0.123	3	0.186	8	0.3	3	0.705	8	
484		min	-0.409	8	-0.566	8	-0.075	9	-0.223	2	-0.277	9	-0.752	2	
485	3	max	0.302	2	0.565	2	0.123	3	0.186	8	0.304	3	0.722	8	
486		min	-0.409	8	-0.566	8	-0.075	9	-0.223	2	-0.28	9	-0.77	2	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
487	4	max	0.302	2	0.565	2	0.123	3	0.186	8	0.308	3	0.74	8	
488		min	-0.409	8	-0.566	8	-0.075	9	-0.223	2	-0.282	9	-0.787	2	
489	5	max	0.302	2	0.565	2	0.123	3	0.186	8	0.312	3	0.758	8	
490		min	-0.409	8	-0.566	8	-0.075	9	-0.223	2	-0.284	9	-0.805	2	
491	50	1	max	0.224	13	0.564	8	0.237	2	0.174	2	0.275	9	0.688	8
492		min	-0.335	7	-0.567	2	-0.25	8	-0.182	8	-0.297	3	-0.748	2	
493	2	max	0.226	13	0.562	8	0.239	2	0.174	2	0.173	9	0.435	8	
494		min	-0.336	7	-0.569	2	-0.252	8	-0.182	8	-0.199	3	-0.493	2	
495	3	max	0.227	13	0.56	8	0.24	2	0.174	2	0.095	10	0.2	7	
496		min	-0.337	7	-0.571	2	-0.253	8	-0.182	8	-0.127	4	-0.254	13	
497	4	max	0.229	13	0.558	8	0.241	2	0.174	2	0.103	12	0.127	4	
498		min	-0.339	7	-0.573	2	-0.254	8	-0.182	8	-0.14	6	-0.173	10	
499	5	max	0.23	13	0.556	8	0.243	2	0.174	2	0.184	13	0.341	3	
500		min	-0.34	7	-0.575	2	-0.256	8	-0.182	8	-0.227	7	-0.38	9	
501	51	1	max	2.867	12	2.795	19	1.384	9	1.887	9	3.02	3	9.654	19
502		min	-2.54	6	0.331	13	-1.384	3	-1.845	3	-3.022	9	-1.441	13	
503	2	max	2.858	12	2.774	19	1.375	9	1.887	9	2.676	3	8.958	19	
504		min	-2.53	6	0.316	13	-1.375	3	-1.845	3	-2.678	9	-1.521	13	
505	3	max	2.849	12	2.754	19	1.365	9	1.887	9	2.333	3	8.267	19	
506		min	-2.521	6	0.302	13	-1.365	3	-1.845	3	-2.335	9	-1.599	13	
507	4	max	2.839	12	2.734	19	1.356	9	1.887	9	1.993	3	7.581	19	
508		min	-2.512	6	0.287	13	-1.356	3	-1.845	3	-1.995	9	-1.672	13	
509	5	max	2.83	12	2.714	19	1.347	9	1.887	9	1.655	3	6.994	7	
510		min	-2.503	6	0.272	13	-1.347	3	-1.845	3	-1.657	9	-1.742	13	
511	52	1	max	2.796	4	2.657	21	1.312	13	1.759	13	1.624	7	6.838	22
512		min	-2.468	10	0.259	3	-1.311	7	-1.728	7	-1.628	13	-1.62	3	
513	2	max	2.473	4	2.101	21	0.928	13	0.989	13	0.119	7	3.716	9	
514		min	-2.145	10	-0.094	3	-0.927	7	-0.977	7	-0.122	13	-1.164	3	
515	3	max	2.441	4	2.06	21	0.896	13	0.989	13	1.08	13	1.474	9	
516		min	-2.114	10	-0.121	3	-0.896	7	-0.977	7	-1.082	7	-1.023	3	
517	4	max	2.059	4	0.586	45	0.24	7	0.832	13	0.398	13	0.51	9	
518		min	-1.49	10	-0.276	3	-0.245	13	-0.792	7	-0.397	7	-0.643	3	
519	5	max	0	109	0	16	0	6	0	109	0	109	0	109	
520		min	0	1	0	10	0	9	0	1	0	1	0	1	
521	53	1	max	0.509	5	0.105	3	0.764	8	0.635	8	0.05	11	0.318	12
522		min	-0.656	11	-0.76	57	-0.393	2	-0.324	2	-0.035	5	-0.323	6	
523	2	max	0.561	6	0.076	3	0.196	5	0.455	8	0.198	8	0.393	12	
524		min	-0.457	12	-0.794	57	-0.311	11	-0.267	2	-0.112	2	-0.21	6	
525	3	max	0.565	6	0.071	3	0.2	5	0.455	8	0.211	7	0.634	23	
526		min	-0.461	12	-0.798	57	-0.315	11	-0.267	2	-0.18	13	-0.109	5	
527	4	max	0.569	6	0.067	3	0.204	5	0.455	8	0.269	6	0.988	22	
528		min	-0.465	12	-0.803	57	-0.319	11	-0.267	2	-0.292	12	-0.08	4	
529	5	max	0.573	6	0.063	3	0.207	5	0.455	8	0.355	6	1.349	22	
530		min	-0.468	12	-0.807	57	-0.323	11	-0.267	2	-0.432	12	-0.07	4	
531	54	1	max	1.052	9	0.242	6	1.215	4	0.496	7	0.224	13	0.256	71
532		min	-0.894	4	-0.617	48	-1.417	10	-0.399	13	-0.298	7	-0.148	41	
533	2	max	0.686	10	0.232	6	0.961	4	0.61	7	0.269	2	0.339	23	
534		min	-0.781	4	-0.626	48	-0.673	10	-0.414	13	-0.36	8	-0.09	5	
535	3	max	0.686	10	0.231	6	0.962	4	0.61	7	0.364	3	0.398	23	
536		min	-0.781	4	-0.628	48	-0.675	10	-0.414	13	-0.404	9	-0.124	5	
537	4	max	0.686	10	0.229	6	0.963	4	0.61	7	0.494	3	0.464	11	
538		min	-0.781	4	-0.629	48	-0.676	10	-0.414	13	-0.485	9	-0.157	5	
539	5	max	0.686	10	0.227	6	0.965	4	0.61	7	0.626	4	0.531	11	
540		min	-0.781	4	-0.631	48	-0.677	10	-0.414	13	-0.566	10	-0.19	5	
541	55	1	max	0.388	3	0.015	25	0.025	12	0	-0.002	13	0.026	4	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y	Shear[k]	LC	z	Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
542		min	-0.938	9	-0.001	11	0.008	6	-0.001	8	-0.012	21	-0.028	10		
543	2	max	0.393	3	0.016	6	0.013	12	0	2	0.005	13	0.024	3		
544		min	-0.942	9	-0.005	12	-0.004	6	-0.001	8	-0.005	7	-0.023	9		
545	3	max	0.398	3	0.021	6	0.002	12	0	2	0.006	2	0.02	3		
546		min	-0.947	9	-0.009	12	-0.017	18	-0.001	8	-0.003	8	-0.024	9		
547	4	max	0.402	3	0.025	6	-0.009	12	0	2	0.004	4	0.016	2		
548		min	-0.952	9	-0.014	12	-0.035	18	-0.001	8	-0.005	10	-0.035	8		
549	5	max	0.407	3	0.03	6	-0.016	12	0	2	0.001	5	0.013	13		
550		min	-0.956	9	-0.019	12	-0.047	18	-0.001	8	-0.016	11	-0.054	7		
551	56	1	max	0.144	4	0.022	8	0.019	2	0.001	23	0	0.03	9		
552		min	-0.849	22	-0.003	2	-0.007	8	0	5	-0.011	2	-0.03	3		
553	2	max	0.148	4	0.015	8	0.024	2	0.001	23	0.004	7	0.02	10		
554		min	-0.851	22	-0.01	2	-0.012	8	0	5	-0.005	13	-0.02	4		
555	3	max	0.153	4	0.006	8	0.028	2	0.001	23	0.004	6	0.017	11		
556		min	-0.853	22	-0.018	2	-0.017	8	0	5	-0.002	12	-0.01	5		
557	4	max	0.157	4	-0.003	8	0.033	2	0.001	23	0.004	3	0.029	25		
558		min	-0.855	22	-0.034	14	-0.021	8	0	5	-0.006	9	-0.009	7		
559	5	max	0.161	4	-0.01	8	0.038	2	0.001	23	0.004	3	0.054	25		
560		min	-0.857	22	-0.046	14	-0.026	8	0	5	-0.018	9	-0.012	7		
561	57	1	max	0.88	2	0.761	71	0.28	4	0.048	4	0.066	8	0.559	8	
562		min	-0.821	8	0.031	5	-0.7	10	-0.414	22	-0.048	2	-0.725	2		
563	2	max	0.88	2	0.761	71	0.28	4	0.048	4	0.051	7	0.548	8		
564		min	-0.821	8	0.031	5	-0.7	10	-0.414	22	-0.049	13	-0.735	2		
565	3	max	0.88	2	0.761	71	0.28	4	0.048	4	0.043	7	0.537	8		
566		min	-0.821	8	0.031	5	-0.7	10	-0.414	22	-0.058	13	-0.746	2		
567	4	max	0.88	2	0.761	71	0.28	4	0.048	4	0.045	6	0.526	8		
568		min	-0.821	8	0.031	5	-0.7	10	-0.414	22	-0.076	12	-0.756	2		
569	5	max	0.88	2	0.761	71	0.28	4	0.048	4	0.047	6	0.516	8		
570		min	-0.821	8	0.031	5	-0.7	10	-0.414	22	-0.094	12	-0.766	2		
571	58	1	max	0.202	9	0.569	80	1.835	9	0.195	7	0.182	8	0.592	8	
572		min	-0.171	3	-0.451	2	-1.549	3	-0.456	13	-0.254	2	-0.492	2		
573	2	max	0.202	9	0.569	80	1.835	9	0.195	7	0.236	8	0.573	8		
574		min	-0.171	3	-0.451	2	-1.549	3	-0.456	13	-0.297	2	-0.475	2		
575	3	max	0.202	9	0.569	80	1.835	9	0.195	7	0.291	8	0.555	8		
576		min	-0.171	3	-0.451	2	-1.549	3	-0.456	13	-0.341	2	-0.458	2		
577	4	max	0.202	9	0.569	80	1.835	9	0.195	7	0.348	9	0.537	8		
578		min	-0.171	3	-0.451	2	-1.549	3	-0.456	13	-0.386	3	-0.441	2		
579	5	max	0.202	9	0.569	80	1.835	9	0.195	7	0.417	9	0.519	8		
580		min	-0.171	3	-0.451	2	-1.549	3	-0.456	13	-0.444	3	-0.424	2		
581	59	1	max	0.261	9	0.617	48	1.5	4	0.441	7	0.298	7	0.349	12	
582		min	-0.225	3	-0.243	6	-1.753	10	-0.276	13	-0.224	13	-0.257	6		
583	2	max	0.261	9	0.617	48	1.5	4	0.441	7	0.291	6	0.334	12		
584		min	-0.225	3	-0.243	6	-1.753	10	-0.276	13	-0.225	12	-0.248	6		
585	3	max	0.261	9	0.617	48	1.5	4	0.441	7	0.309	6	0.32	12		
586		min	-0.225	3	-0.243	6	-1.753	10	-0.276	13	-0.253	12	-0.239	6		
587	4	max	0.261	9	0.617	48	1.5	4	0.441	7	0.327	6	0.305	12		
588		min	-0.225	3	-0.243	6	-1.753	10	-0.276	13	-0.281	12	-0.229	6		
589	5	max	0.261	9	0.617	48	1.5	4	0.441	7	0.358	5	0.291	12		
590		min	-0.225	3	-0.243	6	-1.753	10	-0.276	13	-0.322	11	-0.22	6		
591	60	1	max	0.562	6	0.761	57	0.826	9	0.451	9	0.035	5	0.401	13	
592		min	-0.503	12	-0.106	3	-0.431	3	-0.186	3	-0.05	11	-0.562	7		
593	2	max	0.562	6	0.761	57	0.826	9	0.451	9	0.036	6	0.401	13		
594		min	-0.503	12	-0.106	3	-0.431	3	-0.186	3	-0.035	12	-0.582	7		
595	3	max	0.562	6	0.761	57	0.826	9	0.451	9	0.053	7	0.4	13		
596		min	-0.503	12	-0.106	3	-0.431	3	-0.186	3	-0.036	13	-0.602	7		

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
597		4	max	0.562	6	0.761	57	0.826	9	0.451	9	0.079	8	0.399	13
598			min	-0.503	12	-0.106	3	-0.431	3	-0.186	3	-0.048	2	-0.622	7
599		5	max	0.562	6	0.761	57	0.826	9	0.451	9	0.109	8	0.398	13
600			min	-0.503	12	-0.106	3	-0.431	3	-0.186	3	-0.062	2	-0.642	7
601	61	1	max	0.887	2	0.806	71	0.439	8	0.217	7	0.528	2	1.414	21
602			min	-0.779	8	0.073	5	-0.315	2	-0.426	13	-0.61	8	-0.191	3
603		2	max	0.883	2	0.802	71	0.437	8	0.217	7	0.381	2	1.055	21
604			min	-0.775	8	0.069	5	-0.313	2	-0.426	13	-0.405	8	-0.278	3
605		3	max	0.879	2	0.798	71	0.434	8	0.217	7	0.234	2	0.825	9
606			min	-0.771	8	0.064	5	-0.311	2	-0.426	13	-0.201	8	-0.362	3
607		4	max	0.875	2	0.793	71	0.432	8	0.217	7	0.14	24	0.683	8
608			min	-0.767	8	0.06	5	-0.308	2	-0.426	13	-0.044	6	-0.492	2
609		5	max	0.801	3	0.76	71	0.204	6	0.181	7	0.066	8	0.585	8
610			min	-0.959	9	0.031	5	-0.598	12	-0.519	13	-0.048	2	-0.583	2
611	62	1	max	0.821	9	0.576	80	0.928	9	0.378	7	0.61	3	0.816	8
612			min	-0.917	3	-0.443	2	-1.211	3	-0.655	13	-0.554	9	-0.502	2
613		2	max	0.822	9	0.575	80	0.927	9	0.378	7	0.424	4	0.726	8
614			min	-0.918	3	-0.445	2	-1.21	3	-0.655	13	-0.418	10	-0.425	2
615		3	max	0.822	9	0.573	80	0.925	9	0.378	7	0.239	4	0.636	8
616			min	-0.918	3	-0.447	2	-1.209	3	-0.655	13	-0.282	10	-0.347	2
617		4	max	0.823	9	0.572	80	0.924	9	0.378	7	0.114	6	0.552	9
618			min	-0.919	3	-0.448	2	-1.208	3	-0.655	13	-0.207	12	-0.274	3
619		5	max	1.093	9	0.569	80	1.489	9	0.46	8	0.182	8	0.418	8
620			min	-0.922	3	-0.447	2	-1.255	3	-0.634	2	-0.254	2	-0.202	2
621	63	1	max	0.573	6	0.063	3	0.207	5	0.455	8	0.355	6	1.349	22
622			min	-0.468	12	-0.807	57	-0.323	11	-0.267	2	-0.432	12	-0.07	4
623		2	max	0.573	6	0.063	3	0.207	5	0.455	8	0.361	6	1.374	22
624			min	-0.468	12	-0.807	57	-0.323	11	-0.267	2	-0.442	12	-0.069	4
625		3	max	0.573	6	0.063	3	0.207	5	0.455	8	0.367	6	1.398	22
626			min	-0.468	12	-0.807	57	-0.323	11	-0.267	2	-0.451	12	-0.069	4
627		4	max	0.573	6	0.063	3	0.207	5	0.455	8	0.373	6	1.422	22
628			min	-0.468	12	-0.807	57	-0.323	11	-0.267	2	-0.46	12	-0.068	4
629		5	max	0.573	6	0.063	3	0.207	5	0.455	8	0.378	6	1.446	22
630			min	-0.468	12	-0.807	57	-0.323	11	-0.267	2	-0.47	12	-0.067	4
631	64	1	max	0.887	2	0.806	71	0.439	8	0.217	7	0.567	2	1.51	21
632			min	-0.779	8	0.073	5	-0.314	2	-0.426	13	-0.665	8	-0.168	3
633		2	max	0.887	2	0.806	71	0.439	8	0.217	7	0.557	2	1.486	21
634			min	-0.779	8	0.073	5	-0.314	2	-0.426	13	-0.651	8	-0.174	3
635		3	max	0.887	2	0.806	71	0.439	8	0.217	7	0.547	2	1.462	21
636			min	-0.779	8	0.073	5	-0.314	2	-0.426	13	-0.637	8	-0.18	3
637		4	max	0.887	2	0.806	71	0.439	8	0.217	7	0.537	2	1.438	21
638			min	-0.779	8	0.073	5	-0.314	2	-0.426	13	-0.624	8	-0.186	3
639		5	max	0.887	2	0.806	71	0.439	8	0.217	7	0.528	2	1.414	21
640			min	-0.779	8	0.073	5	-0.314	2	-0.426	13	-0.61	8	-0.191	3
641	65	1	max	0.686	10	0.228	6	0.965	4	0.61	7	0.626	4	0.531	11
642			min	-0.781	4	-0.631	48	-0.677	10	-0.414	13	-0.566	10	-0.19	5
643		2	max	0.686	10	0.228	6	0.965	4	0.61	7	0.657	4	0.543	11
644			min	-0.781	4	-0.631	48	-0.677	10	-0.414	13	-0.587	10	-0.196	5
645		3	max	0.686	10	0.228	6	0.965	4	0.61	7	0.687	4	0.555	11
646			min	-0.781	4	-0.631	48	-0.677	10	-0.414	13	-0.608	10	-0.202	5
647		4	max	0.686	10	0.228	6	0.965	4	0.61	7	0.717	4	0.567	11
648			min	-0.781	4	-0.631	48	-0.677	10	-0.414	13	-0.63	10	-0.208	5
649		5	max	0.686	10	0.228	6	0.965	4	0.61	7	0.747	4	0.579	11
650			min	-0.781	4	-0.631	48	-0.677	10	-0.414	13	-0.651	10	-0.214	5
651	66	1	max	0.821	9	0.576	80	0.927	9	0.378	7	0.761	3	0.88	8

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y	Shear[k]	LC	z	Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
652		min	-0.917	3	-0.444	2	-1.212	3	-0.655	13	-0.67	9	-0.558	2		
653	2	max	0.821	9	0.576	80	0.927	9	0.378	7	0.723	3	0.864	8		
654		min	-0.917	3	-0.444	2	-1.212	3	-0.655	13	-0.641	9	-0.544	2		
655	3	max	0.821	9	0.576	80	0.927	9	0.378	7	0.685	3	0.848	8		
656		min	-0.917	3	-0.444	2	-1.212	3	-0.655	13	-0.612	9	-0.53	2		
657	4	max	0.821	9	0.576	80	0.927	9	0.378	7	0.647	3	0.832	8		
658		min	-0.917	3	-0.444	2	-1.212	3	-0.655	13	-0.583	9	-0.516	2		
659	5	max	0.821	9	0.576	80	0.927	9	0.378	7	0.61	3	0.816	8		
660		min	-0.917	3	-0.444	2	-1.212	3	-0.655	13	-0.554	9	-0.502	2		
661	67	1	max	0.049	19	0.233	3	0.334	3	0.036	7	0.002	2	0.025	20	
662		min	0.016	12	-0.53	9	-0.796	9	-0.017	13	-0.039	20	-0.001	2		
663	2	max	0.049	19	0.233	3	0.334	3	0.036	7	0.015	2	0.046	20		
664		min	0.016	12	-0.53	9	-0.796	9	-0.017	13	-0.07	20	-0.01	2		
665	3	max	0.049	19	0.233	3	0.334	3	0.036	7	0.029	3	0.068	9		
666		min	0.016	12	-0.53	9	-0.796	9	-0.017	13	-0.104	9	-0.02	3		
667	4	max	0.049	19	0.233	3	0.334	3	0.036	7	0.044	3	0.092	9		
668		min	0.016	12	-0.53	9	-0.796	9	-0.017	13	-0.14	9	-0.031	3		
669	5	max	0.049	19	0.233	3	0.334	3	0.036	7	0.059	3	0.117	9		
670		min	0.016	12	-0.53	9	-0.796	9	-0.017	13	-0.176	9	-0.041	3		
671	68	1	max	0.025	12	0.521	9	0.779	9	0.023	4	0.021	9	0.008	3	
672		min	0.006	79	-0.224	3	-0.317	3	-0.015	10	-0.012	3	-0.014	9		
673	2	max	0.025	12	0.521	9	0.779	9	0.023	4	0.057	9	0.018	3		
674		min	0.006	79	-0.224	3	-0.317	3	-0.015	10	-0.026	3	-0.037	9		
675	3	max	0.025	12	0.521	9	0.779	9	0.023	4	0.092	9	0.028	3		
676		min	0.006	79	-0.224	3	-0.317	3	-0.015	10	-0.041	3	-0.061	9		
677	4	max	0.025	12	0.521	9	0.779	9	0.023	4	0.128	9	0.038	3		
678		min	0.006	79	-0.224	3	-0.317	3	-0.015	10	-0.055	3	-0.085	9		
679	5	max	0.025	12	0.521	9	0.779	9	0.023	4	0.163	9	0.048	3		
680		min	0.006	79	-0.224	3	-0.317	3	-0.015	10	-0.07	3	-0.108	9		
681	69	1	max	0.021	8	0.848	22	0.053	10	0.021	9	0.001	9	0.015	3	
682		min	-0.003	2	-0.143	4	-0.025	4	-0.028	3	-0.001	3	-0.022	9		
683	2	max	0.021	8	0.848	22	0.053	10	0.021	9	0.003	10	0.021	4		
684		min	-0.003	2	-0.143	4	-0.025	4	-0.028	3	-0.002	4	-0.055	10		
685	3	max	0.021	8	0.848	22	0.053	10	0.021	9	0.006	10	0.027	4		
686		min	-0.003	2	-0.143	4	-0.025	4	-0.028	3	-0.003	4	-0.088	10		
687	4	max	0.021	8	0.848	22	0.053	10	0.021	9	0.008	10	0.034	4		
688		min	-0.003	2	-0.143	4	-0.025	4	-0.028	3	-0.004	4	-0.125	22		
689	5	max	0.021	8	0.848	22	0.053	10	0.021	9	0.011	10	0.04	4		
690		min	-0.003	2	-0.143	4	-0.025	4	-0.028	3	-0.006	4	-0.163	22		
691	70	1	max	0.048	14	0.159	4	0.038	3	0.02	8	0	7	0.045	25	
692		min	0.011	8	-0.856	22	-0.066	9	-0.04	2	-0.002	25	0.001	7		
693	2	max	0.048	14	0.159	4	0.038	3	0.02	8	0	4	0.083	24		
694		min	0.011	8	-0.856	22	-0.066	9	-0.04	2	-0.004	22	0.003	6		
695	3	max	0.048	14	0.159	4	0.038	3	0.02	8	0.002	4	0.122	23		
696		min	0.011	8	-0.856	22	-0.066	9	-0.04	2	-0.007	21	-0.004	5		
697	4	max	0.048	14	0.159	4	0.038	3	0.02	8	0.004	3	0.161	23		
698		min	0.011	8	-0.856	22	-0.066	9	-0.04	2	-0.009	10	-0.01	5		
699	5	max	0.048	14	0.159	4	0.038	3	0.02	8	0.005	3	0.2	23		
700		min	0.011	8	-0.856	22	-0.066	9	-0.04	2	-0.012	9	-0.017	5		
701	71	1	max	0.056	4	0.503	13	0.169	6	0.12	3	0.153	4	0.461	8	
702		min	-0.143	10	-0.524	7	-0.233	12	-0.107	9	-0.193	10	-0.496	2		
703	2	max	0.056	4	0.503	13	0.169	6	0.12	3	0.155	4	0.476	8		
704		min	-0.143	10	-0.524	7	-0.233	12	-0.107	9	-0.197	10	-0.511	2		
705	3	max	0.056	4	0.503	13	0.169	6	0.12	3	0.157	4	0.492	8		
706		min	-0.143	10	-0.524	7	-0.233	12	-0.107	9	-0.201	10	-0.526	2		

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y	Shear[k]	LC	z	Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
707		4	max	0.056	4	0.503	13	0.169	6	0.12	3	0.158	4	0.507	8	
708			min	-0.143	10	-0.524	7	-0.233	12	-0.107	9	-0.204	10	-0.54	2	
709		5	max	0.056	4	0.503	13	0.169	6	0.12	3	0.16	4	0.523	8	
710			min	-0.143	10	-0.524	7	-0.233	12	-0.107	9	-0.208	10	-0.555	2	
711	72	1	max	0.138	6	0.515	7	0.135	8	0.104	12	0.336	8	0.483	13	
712			min	-0.238	12	-0.512	13	-0.083	2	-0.141	6	-0.307	2	-0.532	7	
713		2	max	0.138	6	0.515	7	0.135	8	0.104	12	0.34	8	0.499	13	
714			min	-0.238	12	-0.512	13	-0.083	2	-0.141	6	-0.31	2	-0.548	7	
715		3	max	0.138	6	0.515	7	0.135	8	0.104	12	0.344	8	0.515	13	
716			min	-0.238	12	-0.512	13	-0.083	2	-0.141	6	-0.312	2	-0.564	7	
717		4	max	0.138	6	0.515	7	0.135	8	0.104	12	0.348	8	0.531	13	
718			min	-0.238	12	-0.512	13	-0.083	2	-0.141	6	-0.315	2	-0.58	7	
719		5	max	0.138	6	0.515	7	0.135	8	0.104	12	0.353	8	0.547	13	
720			min	-0.238	12	-0.512	13	-0.083	2	-0.141	6	-0.317	2	-0.596	7	
721	73	1	max	0.099	5	0.511	13	0.154	7	0.15	7	0.307	2	0.467	13	
722			min	-0.206	11	-0.516	7	-0.16	13	-0.157	13	-0.336	8	-0.527	7	
723		2	max	0.101	5	0.509	13	0.154	7	0.15	7	0.249	2	0.248	12	
724			min	-0.207	11	-0.518	7	-0.16	13	-0.157	13	-0.279	8	-0.306	6	
725		3	max	0.102	5	0.507	13	0.154	7	0.15	7	0.191	3	0.103	11	
726			min	-0.209	11	-0.52	7	-0.16	13	-0.157	13	-0.224	9	-0.157	5	
727		4	max	0.104	5	0.505	13	0.154	7	0.15	7	0.163	3	0.229	8	
728			min	-0.21	11	-0.522	7	-0.16	13	-0.157	13	-0.198	9	-0.275	2	
729		5	max	0.105	5	0.503	13	0.154	7	0.15	7	0.153	4	0.452	8	
730			min	-0.211	11	-0.524	7	-0.16	13	-0.157	13	-0.193	10	-0.488	2	
731	74	1	max	2.833	4	2.738	21	1.348	13	1.759	13	2.954	7	9.536	22	
732			min	-2.505	10	0.319	3	-1.348	7	-1.728	7	-2.958	13	-1.331	3	
733		2	max	2.823	4	2.718	21	1.339	13	1.759	13	2.618	7	8.854	22	
734			min	-2.496	10	0.304	3	-1.339	7	-1.728	7	-2.622	13	-1.409	3	
735		3	max	2.814	4	2.698	21	1.33	13	1.759	13	2.284	7	8.177	22	
736			min	-2.487	10	0.29	3	-1.33	7	-1.728	7	-2.288	13	-1.483	3	
737		4	max	2.805	4	2.678	21	1.321	13	1.759	13	1.953	7	7.505	22	
738			min	-2.477	10	0.275	3	-1.321	7	-1.728	7	-1.957	13	-1.553	3	
739		5	max	2.796	4	2.657	21	1.311	13	1.759	13	1.624	7	6.838	22	
740			min	-2.468	10	0.26	3	-1.311	7	-1.728	7	-1.628	13	-1.62	3	
741	75	1	max	0	109	0	9	0	10	0	109	0	109	0	109	
742			min	0	1	0	15	0	13	0	1	0	1	0	1	
743		2	max	0.784	11	0.728	57	0.322	6	0.443	7	0.285	11	0.937	9	
744			min	-0.833	5	-0.208	3	-0.293	12	-0.387	13	-0.298	5	-0.342	3	
745		3	max	0.749	12	0.388	9	0.012	3	0.077	55	0.207	6	0.128	76	
746			min	-0.764	6	-0.391	3	-0.013	9	-0.07	73	-0.192	12	-0.131	58	
747		4	max	1.212	2	0.254	8	0.292	12	0.398	12	0.418	13	0.939	3	
748			min	-1.249	7	-0.744	62	-0.324	6	-0.433	6	-0.432	7	-0.318	9	
749		5	max	0	109	0	22	0	11	0	109	0	109	0	109	
750			min	0	1	0	3	0	2	0	1	0	1	0	1	
751	76	1	max	0	109	0	9	0	11	0	109	0	109	0	109	
752			min	0	1	0	1	0	2	0	1	0	1	0	1	
753		2	max	0.302	2	0.268	8	0.047	4	0.232	7	0.078	7	0.112	3	
754			min	-0.446	8	-0.336	2	-0.077	10	-0.226	13	-0.08	13	-0.086	9	
755		3	max	0.004	12	0.309	9	0.02	4	0.025	4	0.119	7	0.063	2	
756			min	-0.301	78	-0.311	3	-0.019	10	-0.023	10	-0.152	13	-0.036	8	
757		4	max	0.1	10	0.272	9	0.168	2	0.251	12	0.091	5	0.164	8	
758			min	-0.253	4	-0.209	3	-0.135	8	-0.251	6	-0.092	11	-0.14	2	
759		5	max	0	109	0	109	0	10	0	109	0	109	0	109	
760			min	0	1	0	3	0	13	0	1	0	1	0	1	
761	77	1	max	0	109	0	13	0	2	0	109	0	109	0	109	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
762		min	0	1	0	18	0	5	0	1	0	1	0	1	
763	2	max	1.191	3	0.729	50	0.307	10	0.367	10	0.406	3	0.945	13	
764		min	-1.24	9	-0.231	8	-0.278	4	-0.311	4	-0.418	9	-0.351	7	
765	3	max	0.747	4	0.394	13	0.016	7	0.077	57	0.208	10	0.129	80	
766		min	-0.76	10	-0.396	7	-0.017	13	-0.07	63	-0.193	4	-0.132	50	
767	4	max	0.791	5	0.223	13	0.338	3	0.52	3	0.287	5	0.928	7	
768		min	-0.83	11	-0.742	67	-0.37	9	-0.557	9	-0.302	11	-0.305	13	
769	5	max	0	109	0	24	0	2	0	109	0	109	0	109	
770		min	0	1	0	7	0	6	0	1	0	1	0	1	
771	78	1	max	0	109	0	13	0	2	0	109	0	109	0	109
772		min	0	1	0	1	0	5	0	1	0	1	0	1	
773	2	max	0.2	7	0.244	13	0.078	8	0.227	10	0.061	11	0.119	7	
774		min	-0.345	13	-0.313	7	-0.107	2	-0.221	4	-0.064	5	-0.093	13	
775	3	max	0.045	3	0.306	13	0.048	8	0.061	8	0.108	10	0.048	79	
776		min	-0.304	45	-0.308	7	-0.048	2	-0.059	2	-0.141	4	-0.011	12	
777	4	max	0.195	2	0.315	2	0.093	6	0.314	3	0.165	8	0.168	13	
778		min	-0.351	8	-0.251	8	-0.059	12	-0.314	9	-0.164	2	-0.143	7	
779	5	max	0	109	0	109	0	2	0	109	0	109	0	109	
780		min	0	1	0	7	0	5	0	1	0	1	0	1	
781	79	1	max	0.151	11	-0.183	5	0.201	8	0.435	8	0	109	0.323	5
782		min	-0.151	5	-0.287	14	-0.201	2	-0.435	2	0	12	-0.323	11	
783	2	max	0.151	11	-0.183	5	0.201	8	0.435	8	0.011	8	0.333	5	
784		min	-0.151	5	-0.287	14	-0.201	2	-0.435	2	-0.011	2	-0.313	11	
785	3	max	0.151	11	-0.183	5	0.201	8	0.435	8	0.022	8	0.343	5	
786		min	-0.151	5	-0.287	14	-0.201	2	-0.435	2	-0.022	2	-0.302	11	
787	4	max	0.151	11	-0.183	5	0.201	8	0.435	8	0.034	8	0.354	5	
788		min	-0.151	5	-0.287	14	-0.201	2	-0.435	2	-0.034	2	-0.292	11	
789	5	max	0.151	11	-0.183	5	0.201	8	0.435	8	0.045	8	0.364	5	
790		min	-0.151	5	-0.287	14	-0.201	2	-0.435	2	-0.045	2	-0.282	11	
791	80	1	max	0.141	5	-0.163	5	0.213	2	0.531	2	0	6	0.353	11
792		min	-0.141	11	-0.284	14	-0.213	8	-0.531	8	0	10	-0.353	5	
793	2	max	0.141	5	-0.163	5	0.213	2	0.531	2	0.012	2	0.362	11	
794		min	-0.141	11	-0.284	14	-0.213	8	-0.531	8	-0.012	8	-0.344	5	
795	3	max	0.141	5	-0.163	5	0.213	2	0.531	2	0.024	2	0.371	11	
796		min	-0.141	11	-0.284	14	-0.213	8	-0.531	8	-0.024	8	-0.335	5	
797	4	max	0.141	5	-0.163	5	0.213	2	0.531	2	0.036	2	0.38	11	
798		min	-0.141	11	-0.284	14	-0.213	8	-0.531	8	-0.036	8	-0.326	5	
799	5	max	0.141	5	-0.163	5	0.213	2	0.531	2	0.048	2	0.389	11	
800		min	-0.141	11	-0.284	14	-0.213	8	-0.531	8	-0.048	8	-0.316	5	
801	81	1	max	0	109	0	5	0.001	2	0	109	0	109	0	109
802		min	0	1	0	11	-0.001	8	0	1	0	1	0	1	
803	2	max	0.137	20	0.066	5	0.087	2	0	109	0.033	2	0.026	11	
804		min	0.092	2	-0.066	11	-0.087	8	0	1	-0.033	8	-0.026	5	
805	3	max	0.259	20	0.125	5	0.175	2	0	109	0.173	2	0.135	11	
806		min	0.17	2	-0.125	11	-0.175	8	0	1	-0.172	8	-0.135	5	
807	4	max	0.273	20	0.138	5	0.188	2	0	109	0.445	2	0.333	11	
808		min	0.177	2	-0.138	11	-0.188	8	0	1	-0.444	8	-0.333	5	
809	5	max	0	109	0	11	0	8	0	109	0	109	0	109	
810		min	0	1	0	5	0	14	0	1	0	1	0	1	
811	82	1	max	0	109	0.001	5	0.001	2	0	109	0	109	0	109
812		min	0	1	0	11	-0.001	8	0	1	0	1	0	1	
813	2	max	0.155	25	0.075	5	0.114	2	0	109	0.069	2	0.057	11	
814		min	0.085	2	-0.075	11	-0.113	8	0	1	-0.069	8	-0.057	5	
815	3	max	0.256	25	0.115	5	0.188	2	0	109	0.25	2	0.18	11	
816		min	0.149	2	-0.115	11	-0.188	8	0	1	-0.249	8	-0.18	5	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
817		4	max	0.27	25	0.128	5	0.201	2	0	109	0.541	2	0.363	11
818			min	0.156	2	-0.128	11	-0.201	8	0	1	-0.541	8	-0.363	5
819		5	max	0	109	0	11	0	8	0	109	0	109	0	109
820			min	0	1	0	5	0	14	0	1	0	1	0	1
821	83	1	max	0.22	3	-0.205	9	0.195	12	0.484	12	0	10	0.541	9
822			min	-0.22	9	-0.342	24	-0.195	6	-0.484	6	0	2	-0.541	3
823		2	max	0.22	3	-0.205	9	0.195	12	0.484	12	0.011	12	0.552	9
824			min	-0.22	9	-0.342	24	-0.195	6	-0.484	6	-0.011	6	-0.529	3
825		3	max	0.22	3	-0.205	9	0.195	12	0.484	12	0.022	12	0.564	9
826			min	-0.22	9	-0.342	24	-0.195	6	-0.484	6	-0.022	6	-0.518	3
827		4	max	0.22	3	-0.205	9	0.195	12	0.484	12	0.033	12	0.575	9
828			min	-0.22	9	-0.342	24	-0.195	6	-0.484	6	-0.033	6	-0.506	3
829		5	max	0.22	3	-0.205	9	0.195	12	0.484	12	0.044	12	0.587	9
830			min	-0.22	9	-0.342	24	-0.195	6	-0.484	6	-0.044	6	-0.495	3
831	84	1	max	0.164	9	-0.14	9	0.128	6	0.267	7	0	9	0.353	3
832			min	-0.164	3	-0.229	24	-0.128	12	-0.267	13	0	2	-0.353	9
833		2	max	0.164	9	-0.14	9	0.128	6	0.267	7	0.007	6	0.361	3
834			min	-0.164	3	-0.229	24	-0.128	12	-0.267	13	-0.007	12	-0.346	9
835		3	max	0.164	9	-0.14	9	0.128	6	0.267	7	0.014	6	0.369	3
836			min	-0.164	3	-0.229	24	-0.128	12	-0.267	13	-0.014	12	-0.338	9
837		4	max	0.164	9	-0.14	9	0.128	6	0.267	7	0.021	6	0.377	3
838			min	-0.164	3	-0.229	24	-0.128	12	-0.267	13	-0.021	12	-0.33	9
839		5	max	0.164	9	-0.14	9	0.128	6	0.267	7	0.029	6	0.385	3
840			min	-0.164	3	-0.229	24	-0.128	12	-0.267	13	-0.029	12	-0.322	9
841	85	1	max	0	109	0.001	5	0.001	2	0	109	0	109	0	109
842			min	0	1	-0.001	11	-0.001	8	0	1	0	1	0	1
843		2	max	0.191	20	0.098	5	0.119	2	0	109	0.071	2	0.064	11
844			min	0.115	7	-0.098	11	-0.119	8	0	1	-0.071	8	-0.064	5
845		3	max	0.313	20	0.157	5	0.207	2	0	109	0.259	2	0.22	11
846			min	0.193	7	-0.157	11	-0.207	8	0	1	-0.259	8	-0.221	5
847		4	max	0.328	20	0.17	5	0.22	2	0	109	0.579	2	0.466	11
848			min	0.199	7	-0.17	11	-0.22	8	0	1	-0.579	8	-0.466	5
849		5	max	0	109	0	10	0	8	0	109	0	109	0	109
850			min	0	1	0	16	0	2	0	1	0	1	0	1
851	86	1	max	0	109	0	5	0	2	0	109	0	109	0	109
852			min	0	1	0	11	-0.001	8	0	1	0	1	0	1
853		2	max	0.101	24	0.044	5	0.082	2	0	109	0.031	2	0.019	11
854			min	0.062	39	-0.043	11	-0.082	8	0	1	-0.031	8	-0.019	5
855		3	max	0.201	24	0.084	5	0.156	2	0	109	0.164	2	0.094	11
856			min	0.127	39	-0.083	11	-0.156	8	0	1	-0.164	8	-0.095	5
857		4	max	0.215	24	0.097	5	0.169	2	0	109	0.408	2	0.229	11
858			min	0.133	39	-0.097	11	-0.169	8	0	1	-0.408	8	-0.23	5
859		5	max	0	109	0	10	0	8	0	109	0	109	0	109
860			min	0	1	0	16	0	2	0	1	0	1	0	1
861	87	1	max	0.188	7	-0.183	13	0.163	4	0.35	4	0	2	0.407	13
862			min	-0.188	13	-0.287	22	-0.163	10	-0.351	10	0	7	-0.407	7
863		2	max	0.188	7	-0.183	13	0.163	4	0.35	4	0.009	4	0.417	13
864			min	-0.188	13	-0.287	22	-0.163	10	-0.351	10	-0.009	10	-0.397	7
865		3	max	0.188	7	-0.183	13	0.163	4	0.35	4	0.018	4	0.428	13
866			min	-0.188	13	-0.287	22	-0.163	10	-0.351	10	-0.018	10	-0.387	7
867		4	max	0.188	7	-0.183	13	0.163	4	0.35	4	0.027	4	0.438	13
868			min	-0.188	13	-0.287	22	-0.163	10	-0.351	10	-0.027	10	-0.376	7
869		5	max	0.188	7	-0.183	13	0.163	4	0.35	4	0.037	4	0.448	13
870			min	-0.188	13	-0.287	22	-0.163	10	-0.351	10	-0.037	10	-0.366	7
871	88	1	max	0.164	13	-0.14	13	0.128	10	0.267	9	0	12	0.353	7

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
872		min	-0.164	7	-0.229	22	-0.128	4	-0.267	3	0	3	-0.353	13	
873	2	max	0.164	13	-0.14	13	0.128	10	0.267	9	0.007	10	0.361	7	
874		min	-0.164	7	-0.229	22	-0.128	4	-0.267	3	-0.007	4	-0.346	13	
875	3	max	0.164	13	-0.14	13	0.128	10	0.267	9	0.014	10	0.369	7	
876		min	-0.164	7	-0.229	22	-0.128	4	-0.267	3	-0.014	4	-0.338	13	
877	4	max	0.164	13	-0.14	13	0.128	10	0.267	9	0.021	10	0.377	7	
878		min	-0.164	7	-0.229	22	-0.128	4	-0.267	3	-0.021	4	-0.33	13	
879	5	max	0.164	13	-0.14	13	0.128	10	0.267	9	0.029	10	0.385	7	
880		min	-0.164	7	-0.229	22	-0.128	4	-0.267	3	-0.029	4	-0.322	13	
881	89	1	max	0	109	0	5	0.001	2	0	109	0	109	0	109
882		min	0	1	-0.001	11	-0.001	8	0	1	0	1	0	1	
883	2	max	0.137	25	0.066	5	0.087	2	0	109	0.033	2	0.026	11	
884		min	0.092	89	-0.066	11	-0.087	8	0	1	-0.033	8	-0.026	5	
885	3	max	0.259	25	0.125	5	0.175	2	0	109	0.173	2	0.135	11	
886		min	0.17	89	-0.125	11	-0.175	8	0	1	-0.173	8	-0.135	5	
887	4	max	0.273	25	0.138	5	0.188	2	0	109	0.445	2	0.333	11	
888		min	0.177	89	-0.138	11	-0.188	8	0	1	-0.445	8	-0.332	5	
889	5	max	0	109	0	24	0	8	0	109	0	109	0	109	
890		min	0	1	0	6	0	2	0	1	0	1	0	1	
891	90	1	max	0	109	0	5	0	2	0	109	0	109	0	109
892		min	0	1	0	11	-0.001	8	0	1	0	1	0	1	
893	2	max	0.101	25	0.043	5	0.082	2	0	109	0.031	2	0.019	11	
894		min	0.062	10	-0.044	11	-0.082	8	0	1	-0.031	8	-0.019	5	
895	3	max	0.201	25	0.083	5	0.156	2	0	109	0.164	2	0.095	11	
896		min	0.127	10	-0.084	11	-0.156	8	0	1	-0.164	8	-0.094	5	
897	4	max	0.215	25	0.097	5	0.169	2	0	109	0.408	2	0.23	11	
898		min	0.133	10	-0.097	11	-0.169	8	0	1	-0.408	8	-0.229	5	
899	5	max	0	109	0	24	0	8	0	109	0	109	0	109	
900		min	0	1	0	6	0	2	0	1	0	1	0	1	
901	91	1	max	0.436	2	-0.098	3	0.406	11	0.547	11	0.086	8	0.658	8
902		min	-0.405	8	-0.499	21	-0.433	5	-0.57	5	-0.062	2	-0.789	2	
903	2	max	0.436	2	-0.098	3	0.406	11	0.547	11	0.098	9	0.674	8	
904		min	-0.405	8	-0.499	21	-0.433	5	-0.57	5	-0.076	3	-0.782	2	
905	3	max	0.436	2	-0.098	3	0.406	11	0.547	11	0.111	10	0.689	8	
906		min	-0.405	8	-0.499	21	-0.433	5	-0.57	5	-0.091	4	-0.775	2	
907	4	max	0.436	2	-0.098	3	0.406	11	0.547	11	0.134	10	0.705	8	
908		min	-0.405	8	-0.499	21	-0.433	5	-0.57	5	-0.115	4	-0.768	2	
909	5	max	0.436	2	-0.098	3	0.406	11	0.547	11	0.157	10	0.721	8	
910		min	-0.405	8	-0.499	21	-0.433	5	-0.57	5	-0.14	4	-0.761	2	
911	92	1	max	0.122	2	0.128	9	0.17	5	0.682	11	0.062	2	0.503	8
912		min	-0.154	8	-0.027	63	-0.143	11	-0.749	5	-0.086	8	-0.474	2	
913	2	max	0.122	2	0.128	9	0.17	5	0.682	11	0.067	3	0.495	8	
914		min	-0.154	8	-0.027	63	-0.143	11	-0.749	5	-0.09	9	-0.473	2	
915	3	max	0.122	2	0.128	9	0.17	5	0.682	11	0.073	3	0.486	8	
916		min	-0.154	8	-0.027	63	-0.143	11	-0.749	5	-0.094	9	-0.472	2	
917	4	max	0.122	2	0.128	9	0.17	5	0.682	11	0.079	3	0.477	8	
918		min	-0.154	8	-0.027	63	-0.143	11	-0.749	5	-0.098	9	-0.471	2	
919	5	max	0.122	2	0.128	9	0.17	5	0.682	11	0.085	3	0.468	8	
920		min	-0.154	8	-0.027	63	-0.143	11	-0.749	5	-0.102	9	-0.469	2	
921	93	1	max	0	109	0	5	0.001	2	0	109	0	109	0	109
922		min	0	1	0	11	-0.001	8	0	1	0	1	0	1	
923	2	max	0.164	25	0.11	5	0.258	2	0	109	0.501	2	0.203	11	
924		min	0.052	8	-0.11	11	-0.258	8	0	1	-0.501	8	-0.203	5	
925	3	max	0.312	21	0.302	5	0.158	2	0.062	2	0.486	2	0.08	10	
926		min	0.036	63	-0.276	11	-0.129	8	-0.086	8	-0.406	8	-0.058	4	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y	Shear[k]	LC	z	Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
927		4	max	-0.011	85	0.022	11	0.022	8		0	109	0.028	2	0.028	11
928			min	-0.024	14	-0.022	5	-0.022	2		0	1	-0.028	8	-0.028	5
929		5	max	0	109	0	12	0	8		0	109	0	109	0	109
930			min	0	1	0	6	0	2		0	1	0	1	0	1
931	94	1	max	0.368	2	0.43	2	0.259	12		0.38	48	0.083	2	0.194	8
932			min	-0.292	8	-0.624	8	-0.161	6		-0.09	6	-0.088	8	-0.361	2
933		2	max	0.368	2	0.43	2	0.259	12		0.38	48	0.091	2	0.235	8
934			min	-0.292	8	-0.624	8	-0.161	6		-0.09	6	-0.09	8	-0.389	2
935		3	max	0.368	2	0.43	2	0.259	12		0.38	48	0.1	2	0.277	8
936			min	-0.292	8	-0.624	8	-0.161	6		-0.09	6	-0.092	8	-0.418	2
937		4	max	0.368	2	0.43	2	0.259	12		0.38	48	0.108	2	0.318	8
938			min	-0.292	8	-0.624	8	-0.161	6		-0.09	6	-0.093	8	-0.447	2
939		5	max	0.368	2	0.43	2	0.259	12		0.38	48	0.119	13	0.36	8
940			min	-0.292	8	-0.624	8	-0.161	6		-0.09	6	-0.098	7	-0.475	2
941	95	1	max	0.223	2	0.51	8	0.056	9		0.418	12	0.088	8	0.574	8
942			min	-0.299	8	-0.545	2	-0.175	40		-0.306	6	-0.083	2	-0.627	2
943		2	max	0.223	2	0.51	8	0.056	9		0.418	12	0.09	8	0.537	8
944			min	-0.299	8	-0.545	2	-0.175	40		-0.306	6	-0.092	2	-0.588	2
945		3	max	0.223	2	0.51	8	0.056	9		0.418	12	0.094	9	0.5	8
946			min	-0.299	8	-0.545	2	-0.175	40		-0.306	6	-0.103	3	-0.548	2
947		4	max	0.223	2	0.51	8	0.056	9		0.418	12	0.098	9	0.463	8
948			min	-0.299	8	-0.545	2	-0.175	40		-0.306	6	-0.113	3	-0.508	2
949		5	max	0.223	2	0.51	8	0.056	9		0.418	12	0.102	9	0.425	8
950			min	-0.299	8	-0.545	2	-0.175	40		-0.306	6	-0.124	3	-0.469	2
951	96	1	max	0	109	0	5	0.001	2		0	109	0	109	0	109
952			min	0	1	0	11	-0.001	8		0	1	0	1	0	1
953		2	max	0.172	25	0.116	5	0.274	2		0	109	0.532	2	0.215	11
954			min	0.049	50	-0.116	11	-0.274	8		0	1	-0.532	8	-0.215	5
955		3	max	0.566	8	0.048	7	0.106	40		0.088	8	0.215	2	0.11	10
956			min	-0.487	2	-0.173	49	-0.012	9		-0.083	2	-0.158	8	-0.056	4
957		4	max	-0.011	81	0.022	11	0.022	8		0	109	0.028	2	0.028	11
958			min	-0.024	14	-0.022	5	-0.022	2		0	1	-0.028	8	-0.028	5
959		5	max	0	109	0	11	0	8		0	109	0	109	0	109
960			min	0	1	0	17	0	2		0	1	0	1	0	1
961	97	1	max	0.368	2	-0.091	61	0.443	11		0.491	11	0.068	2	0.402	8
962			min	-0.336	8	-0.472	19	-0.406	5		-0.448	5	-0.089	8	-0.534	2
963		2	max	0.368	2	-0.091	61	0.443	11		0.491	11	0.081	13	0.415	8
964			min	-0.336	8	-0.472	19	-0.406	5		-0.448	5	-0.099	7	-0.526	2
965		3	max	0.368	2	-0.091	61	0.443	11		0.491	11	0.096	13	0.428	8
966			min	-0.336	8	-0.472	19	-0.406	5		-0.448	5	-0.113	7	-0.517	2
967		4	max	0.368	2	-0.091	61	0.443	11		0.491	11	0.12	12	0.442	8
968			min	-0.336	8	-0.472	19	-0.406	5		-0.448	5	-0.133	6	-0.509	2
969		5	max	0.368	2	-0.091	61	0.443	11		0.491	11	0.146	12	0.455	8
970			min	-0.336	8	-0.472	19	-0.406	5		-0.448	5	-0.156	6	-0.5	2
971	98	1	max	0.007	10	0.125	79	0.191	5		0.748	11	0.089	8	0.314	8
972			min	-0.045	18	-0.025	61	-0.227	11		-0.664	5	-0.068	2	-0.287	2
973		2	max	0.007	10	0.125	79	0.191	5		0.748	11	0.093	7	0.308	8
974			min	-0.045	18	-0.025	61	-0.227	11		-0.664	5	-0.074	13	-0.288	2
975		3	max	0.007	10	0.125	79	0.191	5		0.748	11	0.099	7	0.302	8
976			min	-0.045	18	-0.025	61	-0.227	11		-0.664	5	-0.084	13	-0.289	2
977		4	max	0.007	10	0.125	79	0.191	5		0.748	11	0.106	7	0.295	8
978			min	-0.045	18	-0.025	61	-0.227	11		-0.664	5	-0.093	13	-0.29	2
979		5	max	0.007	10	0.125	79	0.191	5		0.748	11	0.113	7	0.289	8
980			min	-0.045	18	-0.025	61	-0.227	11		-0.664	5	-0.102	13	-0.291	2
981	99	1	max	0	109	0	17	0.001	2		0	109	0	109	0	109

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
982		min	0	1	0	11	-0.001	8	0	1	0	1	0	1	
983	2	max	0.154	25	0.086	5	0.15	2	0	109	0.284	2	0.155	11	
984		min	0.047	2	-0.086	11	-0.15	8	0	1	-0.284	8	-0.155	5	
985	3	max	0.294	19	0.299	5	0.198	2	0.089	8	0.445	2	0.054	12	
986		min	0.033	61	-0.336	11	-0.168	8	-0.068	2	-0.365	8	-0.075	6	
987	4	max	-0.047	9	0.086	11	0.15	8	0	109	0.155	2	0.091	11	
988		min	-0.154	16	-0.086	5	-0.15	2	0	1	-0.155	8	-0.091	5	
989	5	max	0	109	0	67	0	20	0	109	0	109	0	109	
990		min	0	1	0	49	0	2	0	1	0	1	0	1	
991	100	1	max	0.164	6	0.214	6	0.2	2	2	0.275	2	0.091	11	
992		min	-0.108	12	-0.316	95	-0.29	8	-0.481	8	-0.086	5	-0.254	6	
993	2	max	0.164	6	0.214	6	0.2	2	0.275	2	0.085	11	0.128	12	
994		min	-0.108	12	-0.316	95	-0.29	8	-0.481	8	-0.086	5	-0.268	6	
995	3	max	0.164	6	0.214	6	0.2	2	0.275	2	0.082	12	0.148	12	
996		min	-0.108	12	-0.316	95	-0.29	8	-0.481	8	-0.088	6	-0.283	6	
997	4	max	0.164	6	0.214	6	0.2	2	0.275	2	0.084	12	0.167	12	
998		min	-0.108	12	-0.316	95	-0.29	8	-0.481	8	-0.097	6	-0.297	6	
999	5	max	0.164	6	0.214	6	0.2	2	0.275	2	0.087	12	0.187	12	
1000		min	-0.108	12	-0.316	95	-0.29	8	-0.481	8	-0.105	6	-0.311	6	
1001	101	1	max	0.027	11	0.271	95	0.214	8	2	0.295	2	0.086	5	
1002		min	-0.101	77	-0.258	6	-0.123	2	-0.396	8	-0.091	11	-0.18	5	
1003	2	max	0.027	11	0.271	95	0.214	8	0.295	2	0.089	5	0.127	11	
1004		min	-0.101	77	-0.258	6	-0.123	2	-0.396	8	-0.087	11	-0.164	5	
1005	3	max	0.027	11	0.271	95	0.214	8	0.295	2	0.092	5	0.112	11	
1006		min	-0.101	77	-0.258	6	-0.123	2	-0.396	8	-0.084	11	-0.148	5	
1007	4	max	0.027	11	0.271	95	0.214	8	0.295	2	0.099	6	0.097	11	
1008		min	-0.101	77	-0.258	6	-0.123	2	-0.396	8	-0.085	12	-0.132	5	
1009	5	max	0.027	11	0.271	95	0.214	8	0.295	2	0.108	6	0.088	10	
1010		min	-0.101	77	-0.258	6	-0.123	2	-0.396	8	-0.087	12	-0.123	4	
1011	102	1	max	0	109	0	5	0	2	0	109	0	109	0	
1012		min	0	1	0	11	0	8	0	1	0	1	0	1	
1013	2	max	0.024	25	0.022	5	0.022	2	0	109	0.028	2	0.028	11	
1014		min	0.011	2	-0.022	11	-0.022	8	0	1	-0.028	8	-0.028	5	
1015	3	max	0.294	95	0.124	4	0.139	2	0.086	5	0.03	2	0.039	12	
1016		min	-0.235	6	-0.123	10	-0.241	8	-0.091	11	-0.103	8	-0.059	6	
1017	4	max	-0.011	85	0.022	11	0.022	8	0	109	0.028	2	0.028	11	
1018		min	-0.024	14	-0.022	5	-0.022	2	0	1	-0.028	8	-0.028	5	
1019	5	max	0	109	0	11	0	8	0	109	0	109	0	109	
1020		min	0	1	0	5	0	14	0	1	0	1	0	1	
1021	103	1	max	0.279	6	-0.091	8	0.663	3	0.893	3	0.085	13	0.368	12
1022		min	-0.246	12	-0.501	14	-0.69	9	-0.915	9	-0.062	7	-0.504	6	
1023	2	max	0.279	6	-0.091	8	0.663	3	0.893	3	0.125	2	0.383	12	
1024		min	-0.246	12	-0.501	14	-0.69	9	-0.915	9	-0.104	8	-0.495	6	
1025	3	max	0.279	6	-0.091	8	0.663	3	0.893	3	0.168	2	0.398	12	
1026		min	-0.246	12	-0.501	14	-0.69	9	-0.915	9	-0.148	8	-0.487	6	
1027	4	max	0.279	6	-0.091	8	0.663	3	0.893	3	0.211	2	0.413	12	
1028		min	-0.246	12	-0.501	14	-0.69	9	-0.915	9	-0.193	8	-0.479	6	
1029	5	max	0.279	6	-0.091	8	0.663	3	0.893	3	0.254	2	0.428	12	
1030		min	-0.246	12	-0.501	14	-0.69	9	-0.915	9	-0.238	8	-0.47	6	
1031	104	1	max	0.111	8	0.136	2	0.205	9	1.183	3	0.062	7	0.288	12
1032		min	-0.145	2	-0.034	8	-0.179	3	-1.25	9	-0.085	13	-0.26	6	
1033	2	max	0.111	8	0.136	2	0.205	9	1.183	3	0.073	8	0.28	12	
1034		min	-0.145	2	-0.034	8	-0.179	3	-1.25	9	-0.094	2	-0.26	6	
1035	3	max	0.111	8	0.136	2	0.205	9	1.183	3	0.086	8	0.273	12	
1036		min	-0.145	2	-0.034	8	-0.179	3	-1.25	9	-0.106	2	-0.26	6	



Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y	Shear[k]	LC	z	Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1037	4	max	0.111	8	0.136	2	0.205	9	1.183	3	0.1	8	0.266	12		
1038		min	-0.145	2	-0.034	8	-0.179	3	-1.25	9	-0.118	2	-0.261	6		
1039	5	max	0.111	8	0.136	2	0.205	9	1.183	3	0.113	8	0.259	12		
1040		min	-0.145	2	-0.034	8	-0.179	3	-1.25	9	-0.129	2	-0.261	6		
1041	105	1	max	0	109	0	6	0.001	2	0	109	0	109	0	109	
1042		min	0	1	0	12	-0.001	8	0	1	0	1	0	1		
1043	2	max	0.164	24	0.11	5	0.258	2	0	109	0.5	2	0.204	11		
1044		min	0.052	13	-0.11	11	-0.258	8	0	1	-0.5	8	-0.204	5		
1045	3	max	0.314	14	0.261	3	0.348	2	0.062	7	0.215	13	0.169	12		
1046		min	0.028	8	-0.245	9	-0.386	8	-0.085	13	-0.236	7	-0.251	6		
1047	4	max	-0.011	81	0.022	11	0.022	8	0	109	0.028	2	0.028	11		
1048		min	-0.024	14	-0.022	5	-0.022	2	0	1	-0.028	8	-0.028	5		
1049	5	max	0	109	0	24	0	7	0	109	0	109	0	109		
1050		min	0	1	0	6	0	13	0	1	0	1	0	1		
1051	106	1	max	0.29	7	0.211	6	0.353	3	0.383	39	0.07	7	0.178	13	
1052		min	-0.221	13	-0.409	12	-0.259	9	-0.154	9	-0.075	13	-0.347	7		
1053	2	max	0.29	7	0.211	6	0.353	3	0.383	39	0.063	6	0.203	13		
1054		min	-0.221	13	-0.409	12	-0.259	9	-0.154	9	-0.062	12	-0.36	7		
1055	3	max	0.29	7	0.211	6	0.353	3	0.383	39	0.065	6	0.229	13		
1056		min	-0.221	13	-0.409	12	-0.259	9	-0.154	9	-0.058	12	-0.372	7		
1057	4	max	0.29	7	0.211	6	0.353	3	0.383	39	0.072	5	0.255	13		
1058		min	-0.221	13	-0.409	12	-0.259	9	-0.154	9	-0.059	11	-0.385	7		
1059	5	max	0.29	7	0.211	6	0.353	3	0.383	39	0.085	5	0.28	13		
1060		min	-0.221	13	-0.409	12	-0.259	9	-0.154	9	-0.064	11	-0.397	7		
1061	107	1	max	0.09	6	0.291	12	0.191	2	0.606	3	0.075	13	0.398	13	
1062		min	-0.159	12	-0.33	6	-0.283	8	-0.493	9	-0.07	7	-0.454	7		
1063	2	max	0.09	6	0.291	12	0.191	2	0.606	3	0.086	13	0.379	13		
1064		min	-0.159	12	-0.33	6	-0.283	8	-0.493	9	-0.089	7	-0.431	7		
1065	3	max	0.09	6	0.291	12	0.191	2	0.606	3	0.098	13	0.359	13		
1066		min	-0.159	12	-0.33	6	-0.283	8	-0.493	9	-0.107	7	-0.409	7		
1067	4	max	0.09	6	0.291	12	0.191	2	0.606	3	0.109	13	0.34	13		
1068		min	-0.159	12	-0.33	6	-0.283	8	-0.493	9	-0.125	7	-0.387	7		
1069	5	max	0.09	6	0.291	12	0.191	2	0.606	3	0.121	13	0.321	13		
1070		min	-0.159	12	-0.33	6	-0.283	8	-0.493	9	-0.143	7	-0.365	7		
1071	108	1	max	0	109	0	5	0.001	2	0	109	0	109	0	109	
1072		min	0	1	0	11	-0.001	8	0	1	0	1	0	1		
1073	2	max	0.172	22	0.116	5	0.274	2	0	109	0.532	2	0.215	11		
1074		min	0.049	9	-0.116	11	-0.274	8	0	1	-0.532	8	-0.215	5		
1075	3	max	0.35	12	0.178	43	0.097	76	0.075	13	0.21	2	0.034	11		
1076		min	-0.27	6	-0.018	12	-0.041	9	-0.07	7	-0.192	8	-0.111	17		
1077	4	max	-0.011	84	0.022	11	0.022	8	0	109	0.028	2	0.028	11		
1078		min	-0.024	14	-0.022	5	-0.022	2	0	1	-0.028	8	-0.028	5		
1079	5	max	0	109	0	24	0	8	0	109	0	109	0	109		
1080		min	0	1	0	6	0	2	0	1	0	1	0	1		
1081	109	1	max	0.287	7	-0.092	53	0.692	3	0.788	3	0.034	6	0.309	13	
1082		min	-0.255	13	-0.471	23	-0.656	9	-0.745	9	-0.055	12	-0.445	7		
1083	2	max	0.287	7	-0.092	53	0.692	3	0.788	3	0.052	4	0.32	13		
1084		min	-0.255	13	-0.471	23	-0.656	9	-0.745	9	-0.07	10	-0.435	7		
1085	3	max	0.287	7	-0.092	53	0.692	3	0.788	3	0.087	4	0.332	13		
1086		min	-0.255	13	-0.471	23	-0.656	9	-0.745	9	-0.103	10	-0.424	7		
1087	4	max	0.287	7	-0.092	53	0.692	3	0.788	3	0.133	3	0.344	13		
1088		min	-0.255	13	-0.471	23	-0.656	9	-0.745	9	-0.147	9	-0.414	7		
1089	5	max	0.287	7	-0.092	53	0.692	3	0.788	3	0.179	3	0.356	13		
1090		min	-0.255	13	-0.471	23	-0.656	9	-0.745	9	-0.19	9	-0.404	7		
1091	110	1	max	0.022	2	0.124	83	0.345	9	1.206	3	0.055	12	0.249	13	

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y	Shear[k]	LC	z	Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC
1092		min	-0.054	8	-0.024	53	-0.381	3	-1.121	9	-0.034	6	-0.224	7		
1093	2	max	0.022	2	0.124	83	0.345	9	1.206	3	0.058	11	0.245	13		
1094		min	-0.054	8	-0.024	53	-0.381	3	-1.121	9	-0.04	5	-0.226	7		
1095	3	max	0.022	2	0.124	83	0.345	9	1.206	3	0.074	10	0.24	13		
1096		min	-0.054	8	-0.024	53	-0.381	3	-1.121	9	-0.059	4	-0.229	7		
1097	4	max	0.022	2	0.124	83	0.345	9	1.206	3	0.093	10	0.236	13		
1098		min	-0.054	8	-0.024	53	-0.381	3	-1.121	9	-0.08	4	-0.232	7		
1099	5	max	0.022	2	0.124	83	0.345	9	1.206	3	0.116	9	0.231	13		
1100		min	-0.054	8	-0.024	53	-0.381	3	-1.121	9	-0.106	3	-0.235	7		
1101	111	1	max	0	109	0	6	0	13	0	109	0	109	0	109	
1102		min	0	1	0	12	0	7	0	1	0	1	0	1		
1103	2	max	0.154	23	0.086	5	0.15	2	0	109	0.283	2	0.156	11		
1104		min	0.047	2	-0.086	11	-0.15	8	0	1	-0.283	8	-0.156	5		
1105	3	max	0.293	23	0.231	4	0.507	2	0.055	12	0.152	13	0.204	12		
1106		min	0.034	53	-0.185	10	-0.492	8	-0.034	6	-0.21	7	-0.263	6		
1107	4	max	-0.047	55	0.086	11	0.149	8	0	109	0.155	2	0.092	11		
1108		min	-0.154	15	-0.086	5	-0.149	2	0	1	-0.155	8	-0.091	5		
1109	5	max	0	109	0	24	0	7	0	109	0	109	0	109		
1110		min	0	1	0	6	0	24	0	1	0	1	0	1		
1111	112	1	max	0.212	9	0.295	9	0.172	7	0.227	7	0.156	3	0.187	3	
1112		min	-0.155	3	-0.372	3	-0.258	13	-0.436	13	-0.152	9	-0.331	9		
1113	2	max	0.212	9	0.295	9	0.172	7	0.227	7	0.146	3	0.211	3		
1114		min	-0.155	3	-0.372	3	-0.258	13	-0.436	13	-0.148	9	-0.351	9		
1115	3	max	0.212	9	0.295	9	0.172	7	0.227	7	0.136	3	0.236	3		
1116		min	-0.155	3	-0.372	3	-0.258	13	-0.436	13	-0.143	9	-0.371	9		
1117	4	max	0.212	9	0.295	9	0.172	7	0.227	7	0.126	3	0.261	3		
1118		min	-0.155	3	-0.372	3	-0.258	13	-0.436	13	-0.139	9	-0.39	9		
1119	5	max	0.212	9	0.295	9	0.172	7	0.227	7	0.116	3	0.286	3		
1120		min	-0.155	3	-0.372	3	-0.258	13	-0.436	13	-0.135	9	-0.41	9		
1121	113	1	max	0.083	2	0.328	3	0.173	85	0.218	7	0.152	9	0.232	3	
1122		min	-0.139	8	-0.339	9	-0.084	7	-0.32	13	-0.156	3	-0.27	9		
1123	2	max	0.083	2	0.328	3	0.173	85	0.218	7	0.151	9	0.208	3		
1124		min	-0.139	8	-0.339	9	-0.084	7	-0.32	13	-0.148	3	-0.245	9		
1125	3	max	0.083	2	0.328	3	0.173	85	0.218	7	0.149	9	0.185	3		
1126		min	-0.139	8	-0.339	9	-0.084	7	-0.32	13	-0.14	3	-0.22	9		
1127	4	max	0.083	2	0.328	3	0.173	85	0.218	7	0.148	9	0.161	3		
1128		min	-0.139	8	-0.339	9	-0.084	7	-0.32	13	-0.132	3	-0.196	9		
1129	5	max	0.083	2	0.328	3	0.173	85	0.218	7	0.146	9	0.137	3		
1130		min	-0.139	8	-0.339	9	-0.084	7	-0.32	13	-0.125	3	-0.171	9		
1131	114	1	max	0	109	0	5	0	2	0	109	0	109	0	109	
1132		min	0	1	0	11	0	8	0	1	0	1	0	1		
1133	2	max	0.024	25	0.022	5	0.022	2	0	109	0.028	2	0.028	11		
1134		min	0.011	3	-0.022	11	-0.022	8	0	1	-0.028	8	-0.028	5		
1135	3	max	0.351	3	0.058	4	0.221	2	0.152	9	0.077	2	0.098	24		
1136		min	-0.316	9	-0.172	82	-0.17	8	-0.156	3	-0.058	8	-0.007	6		
1137	4	max	-0.011	85	0.022	11	0.022	8	0	109	0.028	2	0.028	11		
1138		min	-0.024	14	-0.022	5	-0.022	2	0	1	-0.028	8	-0.028	5		
1139	5	max	0	109	0	10	0	8	0	109	0	109	0	109		
1140		min	0	1	0	16	0	2	0	1	0	1	0	1		
1141	115	1	max	0.339	9	-0.101	72	0.671	7	0.895	7	0.056	5	0.504	3	
1142		min	-0.307	3	-0.495	18	-0.698	13	-0.918	13	-0.032	11	-0.641	9		
1143	2	max	0.339	9	-0.101	72	0.671	7	0.895	7	0.081	6	0.515	3		
1144		min	-0.307	3	-0.495	18	-0.698	13	-0.918	13	-0.059	12	-0.63	9		
1145	3	max	0.339	9	-0.101	72	0.671	7	0.895	7	0.12	7	0.527	3		
1146		min	-0.307	3	-0.495	18	-0.698	13	-0.918	13	-0.1	13	-0.618	9		

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
1147	4	max	0.339	9	-0.101	72	0.671	7	0.895	7	0.165	7	0.539	3	
1148		min	-0.307	3	-0.495	18	-0.698	13	-0.918	13	-0.146	13	-0.607	9	
1149	5	max	0.339	9	-0.101	72	0.671	7	0.895	7	0.21	7	0.551	3	
1150		min	-0.307	3	-0.495	18	-0.698	13	-0.918	13	-0.193	13	-0.596	9	
1151	116	1	max	0.03	11	0.125	42	0.213	13	1.208	7	0.032	11	0.378	3
1152		min	-0.063	5	-0.026	72	-0.187	7	-1.275	13	-0.056	5	-0.352	9	
1153	2	max	0.03	11	0.125	42	0.213	13	1.208	7	0.038	11	0.374	3	
1154		min	-0.063	5	-0.026	72	-0.187	7	-1.275	13	-0.06	5	-0.355	9	
1155	3	max	0.03	11	0.125	42	0.213	13	1.208	7	0.049	12	0.37	3	
1156		min	-0.063	5	-0.026	72	-0.187	7	-1.275	13	-0.069	6	-0.358	9	
1157	4	max	0.03	11	0.125	42	0.213	13	1.208	7	0.062	12	0.366	3	
1158		min	-0.063	5	-0.026	72	-0.187	7	-1.275	13	-0.08	6	-0.362	9	
1159	5	max	0.03	11	0.125	42	0.213	13	1.208	7	0.074	12	0.362	3	
1160		min	-0.063	5	-0.026	72	-0.187	7	-1.275	13	-0.09	6	-0.365	9	
1161	117	1	max	0	109	0	4	0.001	2	0	109	0	109	0	109
1162		min	0	1	0	10	-0.001	8	0	1	0	1	0	1	1
1163	2	max	0.164	25	0.11	5	0.258	2	0	109	0.5	2	0.204	11	
1164		min	0.052	6	-0.11	11	-0.258	8	0	1	-0.5	8	-0.204	5	
1165	3	max	0.308	18	0.143	6	0.442	2	0.032	11	0.188	2	0.267	10	
1166		min	0.038	72	-0.184	12	-0.436	8	-0.056	5	-0.248	8	-0.208	4	
1167	4	max	-0.011	84	0.022	11	0.022	8	0	109	0.028	2	0.028	11	
1168		min	-0.024	22	-0.022	5	-0.022	2	0	1	-0.028	8	-0.028	5	
1169	5	max	0	109	0	10	0	9	0	109	0	109	0	109	
1170		min	0	1	0	16	0	15	0	1	0	1	0	1	
1171	118	1	max	0.24	10	0.303	9	0.399	8	0.43	8	0.058	10	0.074	5
1172		min	-0.171	4	-0.502	3	-0.299	2	-0.211	2	-0.064	4	-0.253	47	
1173	2	max	0.24	10	0.303	9	0.399	8	0.43	8	0.069	10	0.1	4	
1174		min	-0.171	4	-0.502	3	-0.299	2	-0.211	2	-0.068	4	-0.256	46	
1175	3	max	0.24	10	0.303	9	0.399	8	0.43	8	0.089	9	0.13	4	
1176		min	-0.171	4	-0.502	3	-0.299	2	-0.211	2	-0.081	3	-0.272	10	
1177	4	max	0.24	10	0.303	9	0.399	8	0.43	8	0.11	9	0.161	4	
1178		min	-0.171	4	-0.502	3	-0.299	2	-0.211	2	-0.096	3	-0.289	10	
1179	5	max	0.24	10	0.303	9	0.399	8	0.43	8	0.132	9	0.191	4	
1180		min	-0.171	4	-0.502	3	-0.299	2	-0.211	2	-0.11	3	-0.306	10	
1181	119	1	max	0.154	9	0.384	3	0.128	7	0.717	8	0.064	4	0.319	4
1182		min	-0.223	3	-0.422	9	-0.226	13	-0.605	2	-0.058	10	-0.374	10	
1183	2	max	0.154	9	0.384	3	0.128	7	0.717	8	0.061	5	0.295	4	
1184		min	-0.223	3	-0.422	9	-0.226	13	-0.605	2	-0.063	11	-0.346	10	
1185	3	max	0.154	9	0.384	3	0.128	7	0.717	8	0.063	5	0.27	4	
1186		min	-0.223	3	-0.422	9	-0.226	13	-0.605	2	-0.071	11	-0.319	10	
1187	4	max	0.154	9	0.384	3	0.128	7	0.717	8	0.065	5	0.246	4	
1188		min	-0.223	3	-0.422	9	-0.226	13	-0.605	2	-0.08	11	-0.292	10	
1189	5	max	0.154	9	0.384	3	0.128	7	0.717	8	0.068	6	0.221	4	
1190		min	-0.223	3	-0.422	9	-0.226	13	-0.605	2	-0.09	12	-0.265	10	
1191	120	1	max	0	109	0	5	0.001	2	0	109	0	109	0	109
1192		min	0	1	0	11	-0.001	8	0	1	0	1	0	1	1
1193	2	max	0.172	25	0.116	5	0.274	2	0	109	0.532	2	0.215	11	
1194		min	0.049	4	-0.116	11	-0.274	8	0	1	-0.532	8	-0.215	5	
1195	3	max	0.443	3	0.08	7	0.015	3	0.064	4	0.112	2	0.105	11	
1196		min	-0.363	9	-0.088	13	-0.201	45	-0.058	10	-0.187	8	-0.083	5	
1197	4	max	-0.011	83	0.022	11	0.022	8	0	109	0.028	2	0.028	11	
1198		min	-0.024	14	-0.022	5	-0.022	2	0	1	-0.028	8	-0.028	5	
1199	5	max	0	109	0	11	0	8	0	109	0	109	0	109	
1200		min	0	1	0	5	0	14	0	1	0	1	0	1	1
1201	121	1	max	0.26	10	-0.092	56	0.695	7	0.805	7	0.056	9	0.232	4

Envelope Member Section Forces (Continued)

Member	Sec		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
1202		min	-0.228	4	-0.472	15	-0.658	13	-0.762	13	-0.076	3	-0.367	10	
1203	2	max	0.26	10	-0.092	56	0.695	7	0.805	7	0.096	8	0.244	4	
1204		min	-0.228	4	-0.472	15	-0.658	13	-0.762	13	-0.114	2	-0.358	10	
1205	3	max	0.26	10	-0.092	56	0.695	7	0.805	7	0.141	8	0.257	4	
1206		min	-0.228	4	-0.472	15	-0.658	13	-0.762	13	-0.157	2	-0.349	10	
1207	4	max	0.26	10	-0.092	56	0.695	7	0.805	7	0.187	8	0.27	4	
1208		min	-0.228	4	-0.472	15	-0.658	13	-0.762	13	-0.2	2	-0.339	10	
1209	5	max	0.26	10	-0.092	56	0.695	7	0.805	7	0.232	8	0.283	4	
1210		min	-0.228	4	-0.472	15	-0.658	13	-0.762	13	-0.242	2	-0.33	10	
1211	122	1	max	0.015	7	0.125	74	0.347	13	1.199	7	0.076	3	0.22	4
1212		min	-0.048	13	-0.025	56	-0.384	7	-1.115	13	-0.056	9	-0.194	10	
1213	2	max	0.015	7	0.125	74	0.347	13	1.199	7	0.096	2	0.214	4	
1214		min	-0.048	13	-0.025	56	-0.384	7	-1.115	13	-0.079	8	-0.195	10	
1215	3	max	0.015	7	0.125	74	0.347	13	1.199	7	0.121	2	0.209	4	
1216		min	-0.048	13	-0.025	56	-0.384	7	-1.115	13	-0.107	8	-0.197	10	
1217	4	max	0.015	7	0.125	74	0.347	13	1.199	7	0.147	2	0.203	4	
1218		min	-0.048	13	-0.025	56	-0.384	7	-1.115	13	-0.135	8	-0.198	10	
1219	5	max	0.015	7	0.125	74	0.347	13	1.199	7	0.172	2	0.197	4	
1220		min	-0.048	13	-0.025	56	-0.384	7	-1.115	13	-0.162	8	-0.2	10	
1221	123	1	max	0	109	0	4	0	3	0	109	0	109	0	109
1222		min	0	1	0	10	0	9	0	1	0	1	0	1	1
1223	2	max	0.154	25	0.086	5	0.15	2	0	109	0.283	2	0.156	11	11
1224		min	0.047	2	-0.086	11	-0.15	8	0	1	-0.283	8	-0.156	5	5
1225	3	max	0.294	15	0.259	7	0.45	2	0.076	3	0.185	3	0.247	10	10
1226		min	0.033	56	-0.269	13	-0.498	8	-0.056	9	-0.208	9	-0.166	4	4
1227	4	max	-0.047	50	0.086	11	0.149	8	0	109	0.155	2	0.091	11	11
1228		min	-0.154	14	-0.086	5	-0.149	2	0	1	-0.155	8	-0.092	5	5
1229	5	max	0	109	0	9	0	9	0	109	0	109	0	109	109
1230		min	0	1	0	15	0	15	0	1	0	1	0	1	1

Envelope Maximum Member Section Forces

Member		Axial[k]	Loc[ft]	LCy	Shear[k]	Loc[ft]	LCz	Shear[k]	Loc[ft]	LC	Torque[k-ft]	Loc[ft]	LC	y-y Moment[k-ft]	Loc[ft]	LCz-z	Moment[k-ft]	Loc[ft]	LC	
1	1	max	3.768	0	8	2.789	0	14	0.993	0	5	1.234	0.714	5	1.197	0	11	9.058	0	2
2		min	-3.439	0	2	-0.6	3.075	8	-0.993	0	11	-1.208	0	11	-1.199	0	5	-3.837	0	8
3	2	max	0.785	0.273	9	0.123	0	7	0.661	0	13	0.467	0.273	12	0.438	1.875	9	1.403	1.875	14
4		min	-0.931	0.273	3	-0.808	1.875	6	-0.453	1.875	3	-0.155	0	6	-0.512	1.875	3	-0.396	1.875	8
5	3	max	1.427	0.124	2	0.371	0	9	1.828	0.124	8	0.441	0.124	10	0.848	0.698	8	0.752	0.698	3
6		min	-1.27	0	8	-0.639	0.698	39	-2.025	0.124	2	-0.349	0	4	-0.787	0.698	2	-0.41	0.698	9
7	4	max	0.527	2.297	8	0.033	2.297	9	0.027	0	3	0	2.297	7	0.006	1.627	8	0.039	0	8
8		min	-1.072	2.297	2	-0.022	2.297	3	-0.047	2.297	21	-0.001	0	25	-0.02	2.297	3	-0.051	2.297	23
9	5	max	0.529	2.297	8	0.02	0	13	0.032	2.297	6	0.001	2.297	15	0.006	1.627	8	0.052	2.297	17
10		min	-1.108	2.297	2	-0.046	2.297	19	-0.02	2.297	12	0	0	9	-0.018	2.297	13	-0.038	0	8
11	6	max	1.742	13.141	9	0.719	3.625	53	0.447	10.875	8	0.671	10.875	8	0.444	10.875	9	0.858	10.875	23
12		min	-1.366	13.141	3	-0.767	1.208	44	-0.477	10.875	2	-0.703	9.516	2	-0.457	10.875	3	-0.541	1.208	13
13	7	max	0.677	0.162	7	0.77	0.162	63	0.585	0.162	8	0.196	0.162	8	0.084	0.162	9	0.283	0	12
14		min	-0.615	0	13	-0.125	0	9	-0.999	0	2	-0.486	0	2	-0.13	0.162	3	-0.506	0.162	5
15	8	max	0.268	0.15	2	0.559	0.15	85	2.451	0.15	2	0.098	0.15	83	0.431	0.15	13	0.438	0	13
16		min	-0.242	0	8	-0.282	0	6	-2.164	0	8	-0.389	0	17	-0.456	0.15	7	-0.338	0	7
17	9	max	0.229	0.15	13	0.625	0.15	39	2.218	0.15	8	0.347	0.15	10	0.504	0.15	9	0.414	0	3
18		min	-0.194	0	7	-0.373	0	9	-2.466	0	2	-0.187	0	4	-0.468	0.15	3	-0.322	0	9
19	10	max	0.675	0.162	9	0.762	0.162	50	0.947	0.162	2	0.456	0.162	13	0.103	0.162	13	0.253	0	4
20		min	-0.615	0	3	-0.124	0	7	-0.554	0	8	-0.192	0	7	-0.076	0	3	-0.45	0.162	11
21	11	max	0.165	4.984	10	0.503	0.604	8	0.311	1.359	8	0.425	1.359	8	0.361	1.359	8	0.426	9.365	11
22		min	-0.306	4.984	4	-0.554	1.359	2	-0.236	1.359	2	-0.469	0.604	2	-0.35	9.516	8	-0.429	1.359	10
23	12	max	0.232	0.267	2	0.384	0.267	2	0.12	0.267	10	0.112	0.267	10	0.155	0.267	8	0.363	0.267	8

Envelope Maximum Member Section Forces (Continued)

Member	Axial[k]	Loc[ft]	LCy Shear[k]	Loc[ft]	LCz Shear[k]	Loc[ft]	LC Torque[k-ft]	Loc[ft]	LC y-y Moment[k-ft]	Loc[ft]	LCz-z Moment[k-ft]	Loc[ft]	LC							
24	min	-0.17	0	8	-0.46	0	8	-0.21	0	4	-0.374	0	76	-0.173	0.267	2	-0.487	0.267	2	
25	13	max	0.084	0.292	7	0.416	0.292	8	0.17	0.292	76	0.178	0.292	10	0.176	0.292	2	0.22	0	7
26		min	-0.144	0	13	-0.429	0	2	-0.044	0	10	-0.28	0	4	-0.155	0.292	8	-0.257	0	13
27	14	max	0.447	6.667	8	0.184	6.667	4	0.198	6.667	2	0.149	6.667	13	0.414	6.667	2	0.226	3.333	4
28		min	-0.412	3.333	2	-0.096	6.667	10	-0.146	6.667	8	-0.154	3.333	7	-0.275	6.667	8	-0.361	6.667	76
29	15	max	0.798	1.602	7	0.815	0	63	0.434	0	13	0.161	1.875	10	0.406	0	7	1.443	0	14
30		min	-0.953	1.602	13	-0.124	1.875	9	-0.721	1.875	3	-0.5	1.602	4	-0.488	0	13	-0.388	0	8
31	16	max	1.457	0.698	2	0.567	0	85	1.991	0.574	2	0.24	0.698	12	0.824	0	8	0.72	0	13
32		min	-1.292	0.574	8	-0.281	0.567	7	-1.753	0.574	8	-0.451	0	5	-0.769	0	2	-0.406	0	7
33	17	max	0.667	0.125	9	0.077	0.125	7	0.34	0.125	9	0.308	0.125	12	0.48	0.125	9	1.502	0.125	14
34		min	-0.562	0	3	-0.808	0	61	-0.454	0	3	-0.12	0	6	-0.569	0.125	3	-0.404	0.125	8
35	18	max	0.684	0.125	7	0.814	0.125	63	0.434	0.125	13	0.124	0.125	10	0.445	0	7	1.544	0	14
36		min	-0.573	0	13	-0.079	0	9	-0.31	0	7	-0.334	0	4	-0.543	0	13	-0.396	0	8
37	19	max	0.969	0.125	2	0.36	0.125	9	1.368	0.125	8	0.431	0.125	10	1.019	0.125	8	0.822	0.125	3
38		min	-1.062	0	8	-0.639	0	39	-1.078	0	2	-0.24	0	4	-0.922	0.125	2	-0.455	0.125	9
39	20	max	0.982	0.125	2	0.567	0.125	85	1.013	0.125	2	0.171	0.125	11	0.986	0	8	0.764	0	13
40		min	-1.081	0	8	-0.276	0	7	-1.291	0	8	-0.451	0	5	-0.896	0	2	-0.44	0	7
41	21	max	0.049	0.182	22	0.208	0.182	8	0.969	0.182	2	0.031	0.182	10	0.201	0.182	2	0.097	0.182	13
42		min	0.016	0	4	-0.458	0	2	-0.485	0	8	-0.012	0	4	-0.078	0.182	8	-0.034	0.182	7
43	22	max	0.025	0.182	4	0.458	0.182	2	0.466	0.182	8	0.033	0.182	8	0.104	0.182	8	0.047	0.182	8
44		min	0.006	0	9	-0.208	0	8	-0.95	0	2	-0.026	0	2	-0.202	0.182	2	-0.098	0.182	2
45	23	max	0.018	0.182	12	0.211	0.182	8	0.467	0.182	8	0.023	0.182	2	0.106	0.182	8	0.101	0.182	2
46		min	-0.002	0	7	-0.476	0	2	-0.981	0	2	-0.031	0	8	-0.206	0.182	2	-0.049	0.182	8
47	24	max	0.047	0.182	18	0.476	0.182	2	1	0.182	2	0.011	0.182	12	0.206	0.182	2	0.035	0.182	9
48		min	0.014	0	12	-0.211	0	8	-0.486	0	8	-0.031	0	6	-0.079	0.182	8	-0.101	0.182	3
49	25	max	0.124	0.125	8	0.302	0.125	5	0.244	0.125	9	0.124	0.125	7	0.284	0.125	8	0.301	0.125	12
50		min	-0.211	0	2	-0.323	0	11	-0.309	0	3	-0.111	0	13	-0.333	0.125	2	-0.334	0.125	6
51	26	max	0.253	0.125	9	0.314	0.125	11	0.1	0.125	12	0.13	0.125	3	0.189	0.125	12	0.443	0.125	4
52		min	-0.354	0	3	-0.311	0	5	-0.052	0	6	-0.167	0	9	-0.156	0.125	6	-0.491	0.125	10
53	27	max	0.212	1.796	9	0.31	0	5	0.159	1.796	9	0.099	1.796	10	0.258	1.796	8	0.405	0	4
54		min	-0.32	1.796	3	-0.322	1.796	11	-0.171	1.796	3	-0.107	0	4	-0.299	1.796	2	-0.465	0	10
55	28	max	3.805	0	8	2.87	0	14	1.03	0	5	1.234	1	5	2.208	0	11	11.649	0	2
56		min	-3.476	0	2	-0.181	1	8	-1.03	0	11	-1.208	0	11	-2.21	0	5	-3.989	0	8
57	29	max	2.83	0	12	2.714	0	19	1.347	0	9	1.887	0.714	9	1.655	0	3	6.994	0	7
58		min	-2.503	0	6	-0.288	5.106	13	-1.347	0	3	-1.845	0	3	-1.657	0	9	-1.931	0.714	13
59	30	max	0.768	1.875	2	-0.026	0	11	0.56	0	4	0.498	0.273	3	0.534	1.875	2	1.359	1.875	19
60		min	-0.883	0.273	7	-0.799	1.875	53	-0.44	1.875	8	-0.226	0.293	9	-0.608	1.875	8	-0.489	0	2
61	31	max	0.995	0	6	0.473	0	2	1.362	0.124	13	0.684	0.698	2	0.604	0.698	12	0.766	0.698	7
62		min	-0.837	0	12	-0.659	0.698	8	-1.554	0.124	7	-0.585	0	8	-0.543	0.698	6	-0.426	0.698	2
63	32	max	0.195	2.297	12	0.037	2.297	2	0.028	0	8	0	2.297	10	0.005	0.813	9	0.028	0	13
64		min	-0.801	2.297	18	-0.026	2.297	8	-0.048	2.297	14	-0.001	0	16	-0.019	2.297	7	-0.053	2.297	3
65	33	max	0.442	2.297	13	0.018	0	4	0.031	2.297	10	0.001	2.297	19	0.006	0.957	2	0.056	2.297	9
66		min	-1.026	2.297	7	-0.046	2.297	22	-0.019	2.297	4	0	0	13	-0.015	2.297	5	-0.025	0	12
67	34	max	0.624	0.162	10	0.77	0.162	67	0.441	0.162	13	0.164	0.162	13	0.088	0.162	2	0.485	0	3
68		min	-0.564	0	4	-0.115	0	13	-0.858	0	7	-0.456	0	7	-0.133	0.162	8	-0.741	0.162	9
69	35	max	0.173	0.15	6	0.56	0.15	75	1.744	0.15	6	0.197	0.15	3	0.3	0.15	5	0.387	0	4
70		min	-0.15	0	12	-0.302	0	9	-1.45	0	12	-0.461	0	9	-0.324	0.15	11	-0.286	0	10
71	36	max	0.163	0.15	5	0.631	0.15	44	1.586	0.15	13	0.532	0.15	2	0.528	0.15	2	0.524	0	8
72		min	-0.127	0	11	-0.477	0	2	-1.833	0	7	-0.373	0	8	-0.488	0.15	7	-0.432	0	2
73	37	max	0.78	0.162	2	0.752	0.162	53	0.674	0.162	6	0.368	0.162	65	0.09	0.162	4	0.478	0	8
74		min	-0.723	0	8	0.026	0	11	-0.278	0	12	-0.067	0	11	-0.065	0	8	-0.672	0.162	2
75	38	max	0.644	0	10	0.815	0	67	0.464	1.875	2	0.342	1.875	2	0.355	0	10	1.388	0	18
76		min	-0.664	1.602	5	-0.114	1.875	13	-0.855	1.875	8	-0.682	1.602	8	-0.439	0	4	-0.401	1.875	9
77	39	max	1.022	0.574	6	0.568	0	75	1.425	0.574	6	0.38	0.567	3	0.593	0	12	0.54	0	4
78		min	-0.855	0.574	12	-0.303	0.698	9	-1.182	0.574	12	-0.66	0	9	-0.538	0	6	-0.228	0	10

Envelope Maximum Member Section Forces (Continued)

Member	Axial[k]	Loc[ft]	LCy Shear[k]	Loc[ft]	LCz Shear[k]	Loc[ft]	LC Torque[k-ft]	Loc[ft]	LC y-y Moment[k-ft]	Loc[ft]	LCz-z Moment[k-ft]	Loc[ft]	LC							
79	40	max	0.768	0.125	2	-0.069	0.125	11	0.327	0.125	2	0.413	0.125	3	0.574	0.125	2	1.452	0.125	19
80		min	-0.666	0	8	-0.799	0	53	-0.441	0	8	-0.226	0	9	-0.663	0.125	8	-0.143	0	13
81	41	max	0.644	0.125	10	0.815	0.125	67	0.316	0.125	5	0.276	0.125	2	0.378	0	10	1.488	0	18
82		min	-0.534	0	4	-0.074	0	13	-0.19	0	11	-0.487	0	8	-0.478	0	4	-0.039	0.125	12
83	42	max	0.699	0.125	7	0.462	0.125	2	1.275	0.125	13	0.684	0.125	2	0.742	0.125	12	0.848	0.125	8
84		min	-0.787	0	13	-0.659	0	8	-0.98	0	7	-0.494	0	8	-0.645	0.125	6	-0.484	0.125	2
85	43	max	0.638	0.125	6	0.568	0.125	75	0.65	0.125	6	0.38	0.125	3	0.709	0	12	0.584	0	4
86		min	-0.739	0	12	-0.295	0	9	-0.928	0	12	-0.66	0	9	-0.619	0	6	-0.264	0	10
87	44	max	0.05	0.182	14	0.8	0.182	18	0.042	0.182	13	0.039	0.182	2	0.006	0.182	13	0.019	0.182	11
88		min	0.013	0	8	-0.193	0	12	-0.067	0	7	-0.021	0	8	-0.013	0.182	7	-0.189	0.182	17
89	45	max	0.028	0.182	8	0.177	0.182	12	0.054	0.182	6	0.028	0.182	13	0.011	0.182	6	0.156	0.182	18
90		min	0.004	0	2	-0.792	0	18	-0.028	0	12	-0.02	0	7	-0.006	0.182	12	-0.044	0.182	12
91	46	max	0.018	0.182	4	0.241	0.182	13	0.839	0.182	7	0.013	0.182	6	0.172	0.182	7	0.113	0.182	7
92		min	-0.001	0	45	-0.557	0	7	-0.347	0	13	-0.021	0	12	-0.076	0.182	13	-0.052	0.182	13
93	47	max	0.048	0.182	21	0.567	0.182	7	0.364	0.182	13	0.019	0.182	3	0.066	0.182	13	0.045	0.182	13
94		min	0.014	0	4	-0.25	0	13	-0.855	0	7	-0.038	0	9	-0.187	0.182	7	-0.123	0.182	7
95	48	max	0.098	0.125	13	0.554	0.125	8	0.321	0.125	2	0.079	0.125	83	0.22	0.125	13	0.451	0.125	3
96		min	-0.185	0	7	-0.576	0	2	-0.39	0	8	-0.063	0	5	-0.272	0.125	7	-0.485	0.125	9
97	49	max	0.302	0.125	2	0.565	0.125	2	0.123	0.125	3	0.186	0.125	8	0.312	0.125	3	0.758	0.125	8
98		min	-0.409	0	8	-0.566	0	8	-0.075	0	9	-0.223	0	2	-0.284	0.125	9	-0.805	0.125	2
99	50	max	0.23	1.796	13	0.564	0	8	0.243	1.796	2	0.174	1.796	2	0.275	0	9	0.688	0	8
100		min	-0.34	1.796	7	-0.575	1.796	2	-0.256	1.796	8	-0.182	0	8	-0.297	0	3	-0.748	0	2
101	51	max	2.867	0	12	2.795	0	19	1.384	0	9	1.887	1	9	3.02	0	3	9.654	0	19
102		min	-2.54	0	6	0.272	1	13	-1.384	0	3	-1.845	0	3	-3.022	0	9	-1.742	1	13
103	52	max	2.796	0	4	2.657	0	21	1.312	0	13	1.759	0.714	13	1.624	0	7	6.838	0	22
104		min	-2.468	0	10	-0.3	5.106	3	-1.311	0	7	-1.728	0	7	-1.628	0	13	-1.8	0.714	3
105	53	max	0.573	1.875	6	0.105	0	3	0.764	0	8	0.635	0.273	8	0.355	1.875	6	1.349	1.875	22
106		min	-0.658	0.273	11	-0.807	1.875	57	-0.393	0	2	-0.324	0	2	-0.432	1.875	12	-0.323	0	6
107	54	max	1.053	0.124	9	0.242	0	6	1.216	0.124	4	0.61	0.698	7	0.626	0.698	4	0.531	0.698	11
108		min	-0.894	0.124	4	-0.631	0.698	48	-1.418	0.124	10	-0.414	0.131	13	-0.566	0.698	10	-0.19	0.698	5
109	55	max	0.407	2.297	3	0.03	2.297	6	0.025	0	12	0	2.297	2	0.006	1.005	2	0.026	0.024	4
110		min	-0.956	2.297	9	-0.019	2.297	12	-0.047	2.297	18	-0.001	0	8	-0.016	2.297	11	-0.054	2.297	7
111	56	max	0.161	2.297	4	0.022	0	8	0.038	2.297	2	0.001	2.297	23	0.005	0.766	7	0.054	2.297	25
112		min	-0.857	2.297	22	-0.046	2.297	14	-0.026	2.297	8	0	0	5	-0.018	2.297	9	-0.03	0	3
113	57	max	0.88	0.162	2	0.761	0.162	71	0.28	0.162	4	0.048	0.162	4	0.066	0	8	0.559	0	8
114		min	-0.821	0	8	0.031	0	5	-0.7	0	10	-0.414	0	22	-0.094	0.162	12	-0.766	0.162	2
115	58	max	0.202	0.15	9	0.569	0.15	80	1.835	0.15	9	0.195	0.15	7	0.417	0.15	9	0.592	0	8
116		min	-0.171	0	3	-0.451	0	2	-1.549	0	3	-0.456	0	13	-0.444	0.15	3	-0.492	0	2
117	59	max	0.261	0.15	9	0.617	0.15	48	1.5	0.15	4	0.441	0.15	7	0.358	0.15	5	0.349	0	12
118		min	-0.225	0	3	-0.243	0	6	-1.753	0	10	-0.276	0	13	-0.322	0.15	11	-0.257	0	6
119	60	max	0.562	0.162	6	0.761	0.162	57	0.826	0.162	9	0.451	0.162	9	0.109	0.162	8	0.401	0	13
120		min	-0.503	0	12	-0.106	0	3	-0.431	0	3	-0.186	0	3	-0.062	0.162	2	-0.642	0.162	7
121	61	max	0.887	0	2	0.806	0	71	0.439	0	8	0.217	1.582	7	0.528	0	2	1.414	0	21
122		min	-0.96	1.602	9	0.031	1.875	5	-0.598	1.875	12	-0.519	1.602	13	-0.61	0	8	-0.583	1.875	2
123	62	max	1.093	0.698	9	0.576	0	80	1.49	0.574	9	0.46	0.698	8	0.61	0	3	0.816	0	8
124		min	-0.922	0.698	3	-0.449	0.567	2	-1.256	0.574	3	-0.655	0	13	-0.554	0	9	-0.502	0	2
125	63	max	0.573	0.125	6	0.063	0.125	3	0.207	0.125	5	0.455	0.125	8	0.378	0.125	6	1.446	0.125	22
126		min	-0.468	0	12	-0.807	0	57	-0.323	0	11	-0.267	0	2	-0.47	0.125	12	-0.07	0	4
127	64	max	0.887	0.125	2	0.806	0.125	71	0.439	0.125	8	0.217	0.125	7	0.567	0	2	1.51	0	21
128		min	-0.779	0	8	0.073	0	5	-0.314	0	2	-0.426	0	13	-0.665	0	8	-0.191	0.125	3
129	65	max	0.686	0.125	10	0.228	0.125	6	0.965	0.125	4	0.61	0.125	7	0.747	0.125	4	0.579	0.125	11
130		min	-0.781	0	4	-0.631	0	48	-0.677	0	10	-0.414	0	13	-0.651	0.125	10	-0.214	0.125	5
131	66	max	0.821	0.125	9	0.576	0.125	80	0.927	0.125	9	0.378	0.125	7	0.761	0	3	0.88	0	8
132		min	-0.917	0	3	-0.444	0	2	-1.212	0	3	-0.655	0	13	-0.67	0	9	-0.558	0	2
133	67	max	0.049	0.182	19	0.233	0.182	3	0.334	0.182	3	0.036	0.182	7	0.059	0.182	3	0.117	0.182	9

Envelope Maximum Member Section Forces (Continued)

Member		Axial[k]	Loc[ft]	Lcy	Shear[k]	Loc[ft]	Lcz	Shear[k]	Loc[ft]	Lc	Torque[k-ft]	Loc[ft]	LC	y-y Moment[k-ft]	Loc[ft]	Lcz-z	Moment[k-ft]	Loc[ft]	LC	
134		min	0.016	0	12	-0.53	0	9	-0.796	0	9	-0.017	0	13	-0.176	0.182	9	-0.041	0.182	3
135	68	max	0.025	0.182	12	0.521	0.182	9	0.779	0.182	9	0.023	0.182	4	0.163	0.182	9	0.048	0.182	3
136		min	0.006	0	79	-0.224	0	3	-0.317	0	3	-0.015	0	10	-0.07	0.182	3	-0.108	0.182	9
137	69	max	0.021	0.182	8	0.848	0.182	22	0.053	0.182	10	0.021	0.182	9	0.011	0.182	10	0.04	0.182	4
138		min	-0.003	0	2	-0.143	0	4	-0.025	0	4	-0.028	0	3	-0.006	0.182	4	-0.163	0.182	22
139	70	max	0.048	0.182	14	0.159	0.182	4	0.038	0.182	3	0.02	0.182	8	0.005	0.182	3	0.2	0.182	23
140		min	0.011	0	8	-0.856	0	22	-0.066	0	9	-0.04	0	2	-0.012	0.182	9	-0.017	0.182	5
141	71	max	0.056	0.125	4	0.503	0.125	13	0.169	0.125	6	0.12	0.125	3	0.16	0.125	4	0.523	0.125	8
142		min	-0.143	0	10	-0.524	0	7	-0.233	0	12	-0.107	0	9	-0.208	0.125	10	-0.555	0.125	2
143	72	max	0.138	0.125	6	0.515	0.125	7	0.135	0.125	8	0.104	0.125	12	0.353	0.125	8	0.547	0.125	13
144		min	-0.238	0	12	-0.512	0	13	-0.083	0	2	-0.141	0	6	-0.317	0.125	2	-0.596	0.125	7
145	73	max	0.105	1.796	5	0.511	0	13	0.154	1.796	7	0.15	1.796	7	0.307	0	2	0.467	0	13
146		min	-0.211	1.796	11	-0.524	1.796	7	-0.16	1.796	13	-0.157	0	13	-0.336	0	8	-0.527	0	7
147	74	max	2.833	0	4	2.738	0	21	1.348	0	13	1.759	1	13	2.954	0	7	9.536	0	22
148		min	-2.505	0	10	0.26	1	3	-1.348	0	7	-1.728	0	7	-2.958	0	13	-1.62	1	3
149	75	max	2.236	13.141	2	0.728	3.625	57	0.373	11.026	7	0.443	4.984	7	0.418	10.875	13	0.939	10.875	3
150		min	-1.859	13.141	8	-0.754	1.208	48	-0.345	11.026	13	-0.433	9.516	6	-0.432	10.875	7	-0.831	9.365	9
151	76	max	0.312	4.984	2	0.318	5.135	9	0.178	12.99	2	0.321	1.359	13	0.373	12.99	2	0.718	9.365	3
152		min	-0.456	4.984	8	-0.342	4.984	2	-0.144	12.99	8	-0.365	0.604	7	-0.303	12.99	8	-0.69	1.359	2
153	77	max	2.152	1.359	2	0.729	3.625	50	0.355	3.474	3	0.52	10.875	3	0.432	1.359	8	0.945	3.625	13
154		min	-1.804	1.359	8	-0.76	1.208	39	-0.384	3.474	9	-0.557	9.516	9	-0.428	1.359	2	-0.857	9.365	13
155	78	max	0.212	4.984	7	0.38	0.604	3	0.234	1.359	3	0.314	12.99	3	0.278	12.99	7	0.699	9.365	7
156		min	-0.361	9.516	8	-0.429	1.359	9	-0.164	1.359	9	-0.314	9.516	9	-0.207	9.516	4	-0.678	0.604	8
157	79	max	0.151	0.224	11	-0.183	0.224	5	0.201	0.224	8	0.435	0.224	8	0.045	0.224	8	0.364	0.224	5
158		min	-0.151	0	5	-0.287	0	14	-0.201	0	2	-0.435	0	2	-0.045	0.224	2	-0.323	0	11
159	80	max	0.141	0.224	5	-0.163	0.224	5	0.213	0.224	2	0.531	0.224	2	0.048	0.224	2	0.389	0.224	11
160		min	-0.141	0	11	-0.284	0	14	-0.213	0	8	-0.531	0	8	-0.048	0.224	8	-0.353	0	5
161	81	max	0.273	4.5	20	0.138	4.5	5	0.188	4.5	2	0	6	109	0.445	4.5	2	0.333	4.5	11
162		min	-0.014	4.562	15	-0.138	4.5	11	-0.188	4.5	8	0	0	1	-0.444	4.5	8	-0.333	4.5	5
163	82	max	0.27	4.5	25	0.128	4.5	5	0.201	4.5	2	0	6	109	0.541	4.5	2	0.363	4.5	11
164		min	-0.014	4.562	14	-0.128	4.5	11	-0.201	4.5	8	0	0	1	-0.541	4.5	8	-0.363	4.5	5
165	83	max	0.22	0.224	3	-0.205	0.224	9	0.195	0.224	12	0.484	0.224	12	0.044	0.224	12	0.587	0.224	9
166		min	-0.22	0	9	-0.342	0	24	-0.195	0	6	-0.484	0	6	-0.044	0.224	6	-0.541	0	3
167	84	max	0.164	0.224	9	-0.14	0.224	9	0.128	0.224	6	0.267	0.224	7	0.029	0.224	6	0.385	0.224	3
168		min	-0.164	0	3	-0.229	0	24	-0.128	0	12	-0.267	0	13	-0.029	0.224	12	-0.353	0	9
169	85	max	0.328	4.5	20	0.17	4.5	5	0.22	4.5	2	0	6	109	0.579	4.5	2	0.466	4.5	11
170		min	-0.014	4.562	15	-0.17	4.5	11	-0.22	4.5	8	0	0	1	-0.579	4.5	8	-0.466	4.5	5
171	86	max	0.215	4.5	24	0.097	4.5	5	0.169	4.5	2	0	6	109	0.408	4.5	2	0.229	4.5	11
172		min	-0.014	4.562	14	-0.097	4.5	11	-0.169	4.5	8	0	0	1	-0.408	4.5	8	-0.23	4.5	5
173	87	max	0.188	0.224	7	-0.183	0.224	13	0.163	0.224	4	0.35	0.224	4	0.037	0.224	4	0.448	0.224	13
174		min	-0.188	0	13	-0.287	0	22	-0.163	0	10	-0.351	0	10	-0.037	0.224	10	-0.407	0	7
175	88	max	0.164	0.224	13	-0.14	0.224	13	0.128	0.224	10	0.267	0.224	9	0.029	0.224	10	0.385	0.224	7
176		min	-0.164	0	7	-0.229	0	22	-0.128	0	4	-0.267	0	3	-0.029	0.224	4	-0.353	0	13
177	89	max	0.273	4.5	25	0.138	4.5	5	0.188	4.5	2	0	6	109	0.445	4.5	2	0.333	4.5	11
178		min	-0.014	4.562	14	-0.138	4.5	11	-0.188	4.5	8	0	0	1	-0.445	4.5	8	-0.332	4.5	5
179	90	max	0.215	4.5	25	0.097	4.5	5	0.169	4.5	2	0	6	109	0.408	4.5	2	0.23	4.5	11
180		min	-0.014	4.562	15	-0.097	4.5	11	-0.169	4.5	8	0	0	1	-0.408	4.5	8	-0.229	4.5	5
181	91	max	0.436	0.267	2	-0.098	0.267	3	0.406	0.267	11	0.547	0.267	11	0.157	0.267	10	0.721	0.267	8
182		min	-0.405	0	8	-0.499	0	21	-0.433	0	5	-0.57	0	5	-0.14	0.267	4	-0.789	0	2
183	92	max	0.122	0.292	2	0.128	0.292	9	0.17	0.292	5	0.682	0.292	11	0.085	0.292	3	0.503	0	8
184		min	-0.154	0	8	-0.027	0	63	-0.143	0	11	-0.749	0	5	-0.102	0.292	9	-0.474	0	2
185	93	max	0.468	6.667	21	0.404	6.667	5	0.408	6.667	2	0.062	6.667	2	0.801	6.667	2	0.562	6.667	11
186		min	-0.031	6.771	14	-0.378	6.667	11	-0.379	6.667	8	-0.086	3.333	8	-0.691	3.229	8	-0.583	6.667	5
187	94	max	0.368	0.267	2	0.43	0.267	2	0.259	0.267	12	0.38	0.267	48	0.119	0.267	13	0.36	0.267	8
188		min	-0.292	0	8	-0.624	0	8	-0.161	0	6	-0.09	0	6	-0.098	0.267	7	-0.475	0.267	2

Envelope Maximum Member Section Forces (Continued)

Member		Axial[k]	Loc[ft]	LCy	Shear[k]	Loc[ft]	LCz	Shear[k]	Loc[ft]	LC	Torque[k-ft]	Loc[ft]	LC	y-y Moment[k-ft]	Loc[ft]	LCz-z	Moment[k-ft]	Loc[ft]	LC	
189	95	max	0.223	0.292	2	0.51	0.292	8	0.056	0.292	9	0.418	0.292	12	0.102	0.292	9	0.574	0	8
190		min	-0.299	0	8	-0.545	0	2	-0.175	0	40	-0.306	0	6	-0.124	0.292	3	-0.627	0	2
191	96	max	0.612	6.667	8	0.137	6.667	6	0.332	6.667	2	0.088	6.667	8	0.734	3.229	2	0.366	6.667	48
192		min	-0.495	3.333	2	-0.232	6.667	12	-0.28	3.229	8	-0.083	3.333	2	-0.734	3.229	8	-0.302	3.229	5
193	97	max	0.368	0.267	2	-0.091	0.267	61	0.443	0.267	11	0.491	0.267	11	0.146	0.267	12	0.455	0.267	8
194		min	-0.336	0	8	-0.472	0	19	-0.406	0	5	-0.448	0	5	-0.156	0.267	6	-0.534	0	2
195	98	max	0.007	0.292	10	0.125	0.292	79	0.191	0.292	5	0.748	0.292	11	0.113	0.292	7	0.314	0	8
196		min	-0.045	0	18	-0.025	0	61	-0.227	0	11	-0.664	0	5	-0.102	0.292	13	-0.291	0.292	2
197	99	max	0.31	6.667	19	0.314	6.667	5	0.212	6.667	2	0.089	6.667	8	0.786	6.667	2	0.62	6.667	11
198		min	-0.161	6.771	16	-0.35	6.667	11	-0.182	6.667	8	-0.068	3.333	2	-0.657	6.667	8	-0.58	6.667	5
199	100	max	0.164	0.267	6	0.214	0.267	6	0.2	0.267	2	0.275	0.267	2	0.091	0	11	0.187	0.267	12
200		min	-0.108	0	12	-0.316	0	95	-0.29	0	8	-0.481	0	8	-0.105	0.267	6	-0.311	0.267	6
201	101	max	0.027	0.292	11	0.271	0.292	95	0.214	0.292	8	0.295	0.292	2	0.108	0.292	6	0.142	0	11
202		min	-0.101	0	77	-0.258	0	6	-0.123	0	2	-0.396	0	8	-0.091	0	11	-0.18	0	5
203	102	max	0.301	6.667	95	0.136	6.667	4	0.154	6.667	2	0.086	6.667	5	0.287	3.333	8	0.229	6.667	10
204		min	-0.243	3.333	6	-0.136	6.667	10	-0.256	6.667	8	-0.091	3.333	11	-0.517	6.667	8	-0.251	6.667	4
205	103	max	0.279	0.267	6	-0.091	0.267	8	0.663	0.267	3	0.893	0.267	3	0.254	0.267	2	0.428	0.267	12
206		min	-0.246	0	12	-0.501	0	14	-0.69	0	9	-0.915	0	9	-0.238	0.267	8	-0.504	0	6
207	104	max	0.111	0.292	8	0.136	0.292	2	0.205	0.292	9	1.183	0.292	3	0.113	0.292	8	0.288	0	12
208		min	-0.145	0	2	-0.034	0	8	-0.179	0	3	-1.25	0	9	-0.129	0.292	2	-0.261	0.292	6
209	105	max	0.469	6.667	14	0.337	6.667	4	0.598	6.667	2	0.062	6.667	7	0.834	6.667	2	0.477	6.667	10
210		min	-0.031	6.771	14	-0.321	6.667	10	-0.636	6.667	8	-0.085	3.333	13	-0.919	6.667	8	-0.586	6.667	4
211	106	max	0.29	0.267	7	0.211	0.267	6	0.353	0.267	3	0.383	0.267	39	0.085	0.267	5	0.28	0.267	13
212		min	-0.221	0	13	-0.409	0	12	-0.259	0	9	-0.154	0	9	-0.075	0	13	-0.397	0.267	7
213	107	max	0.09	0.292	6	0.291	0.292	12	0.191	0.292	2	0.606	0.292	3	0.121	0.292	13	0.398	0	13
214		min	-0.159	0	12	-0.33	0	6	-0.283	0	8	-0.493	0	9	-0.143	0.292	7	-0.454	0	7
215	108	max	0.395	6.667	12	0.215	6.667	6	0.341	6.667	2	0.075	6.667	13	0.734	3.229	2	0.302	3.229	11
216		min	-0.278	3.333	6	-0.122	3.229	11	-0.291	6.667	8	-0.07	3.333	7	-0.734	3.229	8	-0.393	6.667	42
217	109	max	0.287	0.267	7	-0.092	0.267	53	0.692	0.267	3	0.788	0.267	3	0.179	0.267	3	0.356	0.267	13
218		min	-0.255	0	13	-0.471	0	23	-0.656	0	9	-0.745	0	9	-0.19	0.267	9	-0.445	0	7
219	110	max	0.022	0.292	2	0.124	0.292	83	0.345	0.292	9	1.206	0.292	3	0.116	0.292	9	0.249	0	13
220		min	-0.054	0	8	-0.024	0	53	-0.381	0	3	-1.121	0	9	-0.106	0.292	3	-0.235	0.292	7
221	111	max	0.308	6.667	23	0.243	6.667	4	0.522	6.667	2	0.055	6.667	12	1.006	6.667	2	0.406	3.333	2
222		min	-0.161	6.771	15	-0.197	6.667	10	-0.507	6.667	8	-0.034	3.333	6	-1.039	6.667	8	-0.52	6.667	5
223	112	max	0.212	0.267	9	0.295	0.267	9	0.172	0.267	7	0.227	0.267	7	0.156	0	3	0.286	0.267	3
224		min	-0.155	0	3	-0.372	0	3	-0.258	0	13	-0.436	0	13	-0.152	0	9	-0.41	0.267	9
225	113	max	0.083	0.292	2	0.328	0.292	3	0.173	0.292	85	0.218	0.292	7	0.152	0	9	0.232	0	3
226		min	-0.139	0	8	-0.339	0	9	-0.084	0	7	-0.32	0	13	-0.156	0	3	-0.27	0	9
227	114	max	0.358	6.667	3	0.071	6.667	4	0.236	6.667	2	0.152	6.667	9	0.458	6.667	2	0.379	6.667	83
228		min	-0.323	3.333	9	-0.173	6.667	82	-0.185	6.667	8	-0.156	3.333	3	-0.353	6.667	8	-0.196	3.333	82
229	115	max	0.339	0.267	9	-0.101	0.267	72	0.671	0.267	7	0.895	0.267	7	0.21	0.267	7	0.551	0.267	3
230		min	-0.307	0	3	-0.495	0	18	-0.698	0	13	-0.918	0	13	-0.193	0.267	13	-0.641	0	9
231	116	max	0.03	0.292	11	0.125	0.292	42	0.213	0.292	13	1.208	0.292	7	0.074	0.292	12	0.378	0	3
232		min	-0.063	0	5	-0.026	0	72	-0.187	0	7	-1.275	0	13	-0.09	0.292	6	-0.365	0.292	9
233	117	max	0.463	6.667	18	0.231	6.667	6	0.692	6.667	2	0.032	6.667	11	0.975	6.667	2	0.485	6.667	11
234		min	-0.031	6.771	22	-0.272	6.667	12	-0.686	6.667	8	-0.056	3.333	5	-1.026	6.667	8	-0.358	6.667	5
235	118	max	0.24	0.267	10	0.303	0.267	9	0.399	0.267	8	0.43	0.267	8	0.132	0.267	9	0.191	0.267	4
236		min	-0.171	0	4	-0.502	0	3	-0.299	0	2	-0.211	0	2	-0.11	0.267	3	-0.306	0.267	10
237	119	max	0.154	0.292	9	0.384	0.292	3	0.128	0.292	7	0.717	0.292	8	0.068	0.292	6	0.319	0	4
238		min	-0.223	0	3	-0.422	0	9	-0.226	0	13	-0.605	0	2	-0.09	0.292	12	-0.374	0	10
239	120	max	0.488	6.667	3	0.162	6.667	6	0.28	3.229	2	0.064	6.667	4	0.734	3.229	2	0.302	3.229	11
240		min	-0.37	3.333	9	-0.17	6.667	12	-0.389	6.667	8	-0.058	3.333	10	-0.734	3.229	8	-0.302	3.229	5
241	121	max	0.26	0.267	10	-0.092	0.267	56	0.695	0.267	7	0.805	0.267	7	0.232	0.267	8	0.283	0.267	4
242		min	-0.228	0	4	-0.472	0	15	-0.658	0	13	-0.762	0	13	-0.242	0.267	2	-0.367	0	10
243	122	max	0.015	0.292	7	0.125	0.292	74	0.347	0.292	13	1.199	0.292	7	0.172	0.292	2	0.22	0	4

Envelope Maximum Member Section Forces (Continued)

Member	Axial[k]	Loc[ft]	LCy	Shear[k]	Loc[ft]	LCz	Shear[k]	Loc[ft]	LC	Torque[k-ft]	Loc[ft]	LC	y-y Moment[k-ft]	Loc[ft]	LCz-z	Moment[k-ft]	Loc[ft]	LC		
244	min	-0.048	0	13	-0.025	0	56	-0.384	0	7	-1.115	0	13	-0.162	0.292	8	-0.2	0.292	10	
245	123	max	0.31	6.667	15	0.267	6.667	7	0.465	6.667	2	0.076	6.667	3	0.93	6.667	2	0.579	6.667	12
246		min	-0.161	6.771	14	-0.276	6.667	13	-0.512	6.667	8	-0.056	3.333	9	-1.032	6.667	8	-0.481	6.667	6

Envelope Member End Reactions

Member	Member End	Axial[k]	LC	y	Shear[k]	LC	z	Shear[k]	LC	Torque[k-ft]	LC	y-y	Moment[k-ft]	LC	z-z	Moment[k-ft]	LC
1	1	I	max	3.768	8	2.789	14	0.993	5	1.234	5	1.197	11	9.058	2		
2			min	-3.439	2	-0.183	8	-0.993	11	-1.208	11	-1.199	5	-3.837	8		
3		J	max	0	109	0	20	0	9	0	109	0	109	0	109		
4			min	0	1	0	2	0	12	0	1	0	1	0	1		
5	2	I	max	0.783	9	0.123	7	0.661	13	0.467	12	0.076	3	0.343	3		
6			min	-0.929	3	-0.761	50	-0.29	7	-0.155	6	-0.063	9	-0.347	9		
7		J	max	0.667	9	0.077	7	0.34	9	0.308	12	0.438	9	1.403	14		
8			min	-0.562	3	-0.808	61	-0.453	3	-0.12	6	-0.512	3	-0.396	8		
9	3	I	max	1.427	2	0.371	9	1.827	8	0.441	10	0.165	4	0.282	3		
10			min	-1.27	8	-0.625	39	-2.024	2	-0.349	4	-0.239	10	-0.153	44		
11		J	max	0.969	2	0.36	9	1.367	8	0.431	10	0.848	8	0.752	3		
12			min	-1.062	8	-0.639	39	-1.079	2	-0.24	4	-0.787	2	-0.41	9		
13	4	I	max	0.51	8	0.018	8	0.027	3	0	7	-0.004	4	0.039	8		
14			min	-1.055	2	-0.007	2	0.006	9	-0.001	25	-0.012	17	-0.041	2		
15		J	max	0.527	8	0.033	9	-0.014	3	0	7	0.005	9	0.003	5		
16			min	-1.072	2	-0.022	3	-0.047	21	-0.001	25	-0.02	3	-0.051	23		
17	5	I	max	0.512	8	0.02	13	0.016	22	0.001	15	-0.002	11	0.038	2		
18			min	-1.091	2	-0.001	7	-0.005	2	0	9	-0.01	14	-0.038	8		
19		J	max	0.529	8	-0.012	13	0.032	6	0.001	15	0.005	7	0.052	17		
20			min	-1.108	2	-0.046	19	-0.02	12	0	9	-0.018	13	-0.003	11		
21	6	I	max	0	109	0	5	0	6	0	109	0	109	0	109		
22			min	0	1	0	23	0	9	0	1	0	1	0	1		
23		J	max	0	109	0	17	0	7	0	109	0	109	0	109		
24			min	0	1	0	11	0	10	0	1	0	1	0	1		
25	7	I	max	0.677	7	0.77	63	0.585	8	0.196	8	0.061	12	0.283	12		
26			min	-0.615	13	-0.125	9	-0.999	2	-0.486	2	-0.043	6	-0.453	6		
27		J	max	0.677	7	0.77	63	0.585	8	0.196	8	0.084	9	0.249	11		
28			min	-0.615	13	-0.125	9	-0.999	2	-0.486	2	-0.13	3	-0.506	5		
29	8	I	max	0.268	2	0.559	85	2.451	2	0.098	83	0.126	12	0.438	13		
30			min	-0.242	8	-0.282	6	-2.164	8	-0.389	17	-0.195	6	-0.338	7		
31		J	max	0.268	2	0.559	85	2.451	2	0.098	83	0.431	13	0.389	13		
32			min	-0.242	8	-0.282	6	-2.164	8	-0.389	17	-0.456	7	-0.296	7		
33	9	I	max	0.229	13	0.625	39	2.218	8	0.347	10	0.239	10	0.414	3		
34			min	-0.194	7	-0.373	9	-2.466	2	-0.187	4	-0.165	4	-0.322	9		
35		J	max	0.229	13	0.625	39	2.218	8	0.347	10	0.504	9	0.335	3		
36			min	-0.194	7	-0.373	9	-2.466	2	-0.187	4	-0.468	3	-0.266	9		
37	10	I	max	0.675	9	0.762	50	0.947	2	0.456	13	0.063	9	0.253	4		
38			min	-0.615	3	-0.124	7	-0.554	8	-0.192	7	-0.076	3	-0.412	10		
39		J	max	0.675	9	0.762	50	0.947	2	0.456	13	0.103	13	0.206	5		
40			min	-0.615	3	-0.124	7	-0.554	8	-0.192	7	-0.055	7	-0.45	11		
41	11	I	max	0	109	0	5	0	7	0	109	0	109	0	109		
42			min	0	1	0	1	0	10	0	1	0	1	0	1		
43		J	max	0	109	0	109	0	6	0	109	0	109	0	109		
44			min	0	1	0	11	0	9	0	1	0	1	0	1		
45	12	I	max	0.232	2	0.384	2	0.12	10	0.112	10	0.154	7	0.24	8		
46			min	-0.17	8	-0.46	8	-0.21	4	-0.374	76	-0.149	13	-0.384	2		
47		J	max	0.232	2	0.384	2	0.12	10	0.112	10	0.155	8	0.363	8		
48			min	-0.17	8	-0.46	8	-0.21	4	-0.374	76	-0.173	2	-0.487	2		
49	13	I	max	0.084	7	0.416	8	0.17	76	0.178	10	0.149	13	0.22	7		

Envelope Member End Reactions (Continued)

Member	Member End		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
50		min	-0.144	13	-0.429	2	-0.044	10	-0.28	4	-0.154	7	-0.257	13	
51	J	max	0.084	7	0.416	8	0.17	76	0.178	10	0.176	2	0.11	7	
52		min	-0.144	13	-0.429	2	-0.044	10	-0.28	4	-0.155	8	-0.144	13	
53	14	I	max	0	109	0	5	0	2	0	109	0	109	109	
54		min	0	1	0	11	0	8	0	1	0	1	0	1	
55	J	max	0	109	0	23	0	8	0	109	0	109	0	109	
56		min	0	1	0	5	0	2	0	1	0	1	0	1	
57	15	I	max	0.684	7	0.815	63	0.434	13	0.124	10	0.406	7	1.443	14
58		min	-0.573	13	-0.079	9	-0.31	7	-0.334	4	-0.488	13	-0.388	8	
59	J	max	0.797	7	0.769	63	0.33	9	0.161	10	0.061	12	0.371	13	
60		min	-0.952	13	-0.124	9	-0.721	3	-0.5	4	-0.043	6	-0.371	6	
61	16	I	max	0.982	2	0.567	85	1.013	2	0.171	11	0.824	8	0.72	13
62		min	-1.081	8	-0.276	7	-1.291	8	-0.451	5	-0.769	2	-0.406	7	
63	J	max	1.457	2	0.559	85	1.99	2	0.24	12	0.126	12	0.395	13	
64		min	-1.292	8	-0.28	7	-1.752	8	-0.417	6	-0.195	6	-0.178	7	
65	17	I	max	0.667	9	0.077	7	0.34	9	0.308	12	0.438	9	1.403	14
66		min	-0.562	3	-0.808	61	-0.454	3	-0.12	6	-0.512	3	-0.396	8	
67	J	max	0.667	9	0.077	7	0.34	9	0.308	12	0.48	9	1.502	14	
68		min	-0.562	3	-0.808	61	-0.454	3	-0.12	6	-0.569	3	-0.404	8	
69	18	I	max	0.684	7	0.814	63	0.434	13	0.124	10	0.445	7	1.544	14
70		min	-0.573	13	-0.079	9	-0.31	7	-0.334	4	-0.543	13	-0.396	8	
71	J	max	0.684	7	0.814	63	0.434	13	0.124	10	0.406	7	1.443	14	
72		min	-0.573	13	-0.079	9	-0.31	7	-0.334	4	-0.488	13	-0.388	8	
73	19	I	max	0.969	2	0.36	9	1.368	8	0.431	10	0.848	8	0.752	3
74		min	-1.062	8	-0.639	39	-1.078	2	-0.24	4	-0.787	2	-0.41	9	
75	J	max	0.969	2	0.36	9	1.368	8	0.431	10	1.019	8	0.822	3	
76		min	-1.062	8	-0.639	39	-1.078	2	-0.24	4	-0.922	2	-0.455	9	
77	20	I	max	0.982	2	0.567	85	1.013	2	0.171	11	0.986	8	0.764	13
78		min	-1.081	8	-0.276	7	-1.291	8	-0.451	5	-0.896	2	-0.44	7	
79	J	max	0.982	2	0.567	85	1.013	2	0.171	11	0.824	8	0.72	13	
80		min	-1.081	8	-0.276	7	-1.291	8	-0.451	5	-0.769	2	-0.406	7	
81	21	I	max	0.049	22	0.208	8	0.969	2	0.031	10	0.04	24	0.02	24
82		min	0.016	4	-0.458	2	-0.485	8	-0.012	4	0.004	6	0.002	6	
83	J	max	0.049	22	0.208	8	0.969	2	0.031	10	0.201	2	0.097	13	
84		min	0.016	4	-0.458	2	-0.485	8	-0.012	4	-0.078	8	-0.034	7	
85	22	I	max	0.025	4	0.458	2	0.466	8	0.033	8	0.019	8	0.01	8
86		min	0.006	9	-0.208	8	-0.95	2	-0.026	2	-0.029	2	-0.015	2	
87	J	max	0.025	4	0.458	2	0.466	8	0.033	8	0.104	8	0.047	8	
88		min	0.006	9	-0.208	8	-0.95	2	-0.026	2	-0.202	2	-0.098	2	
89	23	I	max	0.018	12	0.211	8	0.467	8	0.023	2	0.021	8	0.014	2
90		min	-0.002	7	-0.476	2	-0.981	2	-0.031	8	-0.027	2	-0.01	8	
91	J	max	0.018	12	0.211	8	0.467	8	0.023	2	0.106	8	0.101	2	
92		min	-0.002	7	-0.476	2	-0.981	2	-0.031	8	-0.206	2	-0.049	8	
93	24	I	max	0.047	18	0.476	2	1	2	0.011	12	0.04	16	-0.001	10
94		min	0.014	12	-0.211	8	-0.486	8	-0.031	6	0.003	10	-0.021	16	
95	J	max	0.047	18	0.476	2	1	2	0.011	12	0.206	2	0.035	9	
96		min	0.014	12	-0.211	8	-0.486	8	-0.031	6	-0.079	8	-0.101	3	
97	25	I	max	0.124	8	0.302	5	0.244	9	0.124	7	0.258	8	0.27	12
98		min	-0.211	2	-0.323	11	-0.309	3	-0.111	13	-0.299	2	-0.307	6	
99	J	max	0.124	8	0.302	5	0.244	9	0.124	7	0.284	8	0.301	12	
100		min	-0.211	2	-0.323	11	-0.309	3	-0.111	13	-0.333	2	-0.334	6	
101	26	I	max	0.253	9	0.314	11	0.1	12	0.13	3	0.176	12	0.404	4
102		min	-0.354	3	-0.311	5	-0.052	6	-0.167	9	-0.15	6	-0.452	10	
103	J	max	0.253	9	0.314	11	0.1	12	0.13	3	0.189	12	0.443	4	
104		min	-0.354	3	-0.311	5	-0.052	6	-0.167	9	-0.156	6	-0.491	10	

Envelope Member End Reactions (Continued)

Member	Member End		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
105	27	I	max	0.212	8	0.31	5	0.15	10	0.099	10	0.15	6	0.405	4
106			min	-0.319	2	-0.314	11	-0.162	3	-0.107	4	-0.176	12	-0.465	10
107		J	max	0.212	9	0.302	5	0.159	9	0.099	10	0.258	8	0.275	12
108			min	-0.32	3	-0.322	11	-0.171	3	-0.107	4	-0.299	2	-0.313	6
109	28	I	max	3.805	8	2.87	14	1.03	5	1.234	5	2.208	11	11.649	2
110			min	-3.476	2	-0.122	8	-1.03	11	-1.208	11	-2.21	5	-3.989	8
111		J	max	3.768	8	2.79	14	0.993	5	1.234	5	1.197	11	9.058	2
112			min	-3.439	2	-0.181	8	-0.993	11	-1.208	11	-1.199	5	-3.837	8
113	29	I	max	2.83	12	2.714	19	1.347	9	1.887	9	1.655	3	6.994	7
114			min	-2.503	6	0.271	13	-1.347	3	-1.845	3	-1.657	9	-1.742	13
115		J	max	0	109	0	24	0	13	0	109	0	109	0	109
116			min	0	1	0	6	0	4	0	1	0	1	0	1
117	30	I	max	0.734	13	-0.026	11	0.56	4	0.498	3	0.065	8	0.486	8
118			min	-0.882	7	-0.752	53	-0.187	10	-0.188	9	-0.052	2	-0.489	2
119		J	max	0.768	2	-0.069	11	0.328	2	0.413	3	0.534	2	1.359	19
120			min	-0.666	8	-0.799	53	-0.44	8	-0.226	9	-0.608	8	-0.143	13
121	31	I	max	0.995	6	0.473	2	1.361	13	0.677	2	0.271	8	0.279	7
122			min	-0.837	12	-0.631	44	-1.553	7	-0.585	8	-0.348	2	-0.153	49
123		J	max	0.699	7	0.462	2	1.274	13	0.684	2	0.604	12	0.766	7
124			min	-0.787	13	-0.659	8	-0.98	7	-0.494	8	-0.543	6	-0.426	2
125	32	I	max	0.178	12	0.019	13	0.028	8	0	10	-0.001	8	0.028	13
126			min	-0.793	18	-0.007	7	0.005	2	-0.001	16	-0.012	2	-0.031	7
127		J	max	0.195	12	0.037	2	-0.012	8	0	10	0.004	13	0.012	9
128			min	-0.801	18	-0.026	8	-0.048	14	-0.001	16	-0.019	7	-0.053	3
129	33	I	max	0.423	13	0.018	4	0.016	16	0.001	19	0	3	0.025	6
130			min	-1.007	7	0.001	10	-0.001	4	0	13	-0.011	19	-0.025	12
131		J	max	0.442	13	-0.014	4	0.031	10	0.001	19	0.002	11	0.056	9
132			min	-1.026	7	-0.046	22	-0.019	4	0	13	-0.015	5	-0.015	3
133	34	I	max	0.624	10	0.77	67	0.441	13	0.164	13	0.052	4	0.485	3
134			min	-0.564	4	-0.115	13	-0.858	7	-0.456	7	-0.033	10	-0.657	9
135		J	max	0.624	10	0.77	67	0.441	13	0.164	13	0.088	2	0.485	3
136			min	-0.564	4	-0.115	13	-0.858	7	-0.456	7	-0.133	8	-0.741	9
137	35	I	max	0.173	6	0.56	75	1.744	6	0.197	3	0.155	3	0.387	4
138			min	-0.15	12	-0.302	9	-1.45	12	-0.461	9	-0.224	9	-0.286	10
139		J	max	0.173	6	0.56	75	1.744	6	0.197	3	0.3	5	0.338	4
140			min	-0.15	12	-0.302	9	-1.45	12	-0.461	9	-0.324	11	-0.242	10
141	36	I	max	0.163	5	0.631	44	1.586	13	0.532	2	0.348	2	0.524	8
142			min	-0.127	11	-0.477	2	-1.833	7	-0.373	8	-0.271	8	-0.432	2
143		J	max	0.163	5	0.631	44	1.586	13	0.532	2	0.528	2	0.431	8
144			min	-0.127	11	-0.477	2	-1.833	7	-0.373	8	-0.488	7	-0.361	2
145	37	I	max	0.78	2	0.752	53	0.674	6	0.368	65	0.052	2	0.478	8
146			min	-0.723	8	0.026	11	-0.278	12	-0.067	11	-0.065	8	-0.634	2
147		J	max	0.78	2	0.752	53	0.674	6	0.368	65	0.09	4	0.434	8
148			min	-0.723	8	0.026	11	-0.278	12	-0.067	11	-0.042	10	-0.672	2
149	38	I	max	0.644	10	0.815	67	0.315	5	0.276	2	0.355	10	1.388	18
150			min	-0.534	4	-0.074	13	-0.19	11	-0.487	8	-0.439	4	-0.039	12
151		J	max	0.506	11	0.769	67	0.464	2	0.342	2	0.052	4	0.399	3
152			min	-0.663	5	-0.114	13	-0.855	8	-0.682	8	-0.033	10	-0.401	9
153	39	I	max	0.638	6	0.568	75	0.651	6	0.38	3	0.593	12	0.54	4
154			min	-0.739	12	-0.295	9	-0.928	12	-0.66	9	-0.538	6	-0.228	10
155		J	max	1.022	6	0.56	75	1.424	6	0.356	3	0.155	3	0.332	17
156			min	-0.855	12	-0.303	9	-1.181	12	-0.535	9	-0.224	9	-0.121	83
157	40	I	max	0.768	2	-0.069	11	0.327	2	0.413	3	0.534	2	1.359	19
158			min	-0.666	8	-0.799	53	-0.441	8	-0.226	9	-0.608	8	-0.143	13
159		J	max	0.768	2	-0.069	11	0.327	2	0.413	3	0.574	2	1.452	19

Envelope Member End Reactions (Continued)

Member	Member End		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
160		min	-0.666	8	-0.799	53	-0.441	8	-0.226	9	-0.663	8	-0.122	13	
161	41	I	max	0.644	10	0.815	67	0.316	5	0.276	2	0.378	10	1.488	18
162		min	-0.534	4	-0.074	13	-0.19	11	-0.487	8	-0.478	4	-0.036	12	
163		J	max	0.644	10	0.815	67	0.316	5	0.276	2	0.355	10	1.388	18
164		min	-0.534	4	-0.074	13	-0.19	11	-0.487	8	-0.439	4	-0.039	12	
165	42	I	max	0.699	7	0.462	2	1.275	13	0.684	2	0.604	12	0.766	7
166		min	-0.787	13	-0.659	8	-0.98	7	-0.494	8	-0.543	6	-0.426	2	
167		J	max	0.699	7	0.462	2	1.275	13	0.684	2	0.742	12	0.848	8
168		min	-0.787	13	-0.659	8	-0.98	7	-0.494	8	-0.645	6	-0.484	2	
169	43	I	max	0.638	6	0.568	75	0.65	6	0.38	3	0.709	12	0.584	4
170		min	-0.739	12	-0.295	9	-0.928	12	-0.66	9	-0.619	6	-0.264	10	
171		J	max	0.638	6	0.568	75	0.65	6	0.38	3	0.593	12	0.54	4
172		min	-0.739	12	-0.295	9	-0.928	12	-0.66	9	-0.538	6	-0.228	10	
173	44	I	max	0.05	14	0.8	18	0.042	13	0.039	2	0	9	-0.002	9
174		min	0.013	8	-0.193	12	-0.067	7	-0.021	8	-0.002	15	-0.045	15	
175		J	max	0.05	14	0.8	18	0.042	13	0.039	2	0.006	13	0.019	11
176		min	0.013	8	-0.193	12	-0.067	7	-0.021	8	-0.013	7	-0.189	17	
177	45	I	max	0.028	8	0.177	12	0.054	6	0.028	13	0.001	7	0.023	6
178		min	0.004	2	-0.792	18	-0.028	12	-0.02	7	-0.001	13	-0.012	12	
179		J	max	0.028	8	0.177	12	0.054	6	0.028	13	0.011	6	0.156	18
180		min	0.004	2	-0.792	18	-0.028	12	-0.02	7	-0.006	12	-0.044	12	
181	46	I	max	0.018	4	0.241	13	0.839	7	0.013	6	0.019	6	0.012	6
182		min	-0.001	45	-0.557	7	-0.347	13	-0.021	12	-0.013	12	-0.008	12	
183		J	max	0.018	4	0.241	13	0.839	7	0.013	6	0.172	7	0.113	7
184		min	-0.001	45	-0.557	7	-0.347	13	-0.021	12	-0.076	13	-0.052	13	
185	47	I	max	0.048	21	0.567	7	0.364	13	0.019	3	0.004	2	0.002	2
186		min	0.014	4	-0.25	13	-0.855	7	-0.038	9	-0.039	20	-0.025	20	
187		J	max	0.048	21	0.567	7	0.364	13	0.019	3	0.066	13	0.045	13
188		min	0.014	4	-0.25	13	-0.855	7	-0.038	9	-0.187	7	-0.123	7	
189	48	I	max	0.098	13	0.554	8	0.321	2	0.079	83	0.184	13	0.38	3
190		min	-0.185	7	-0.576	2	-0.39	8	-0.063	5	-0.227	7	-0.417	9	
191		J	max	0.098	13	0.554	8	0.321	2	0.079	83	0.22	13	0.451	3
192		min	-0.185	7	-0.576	2	-0.39	8	-0.063	5	-0.272	7	-0.485	9	
193	49	I	max	0.302	2	0.565	2	0.123	3	0.186	8	0.297	3	0.687	8
194		min	-0.409	8	-0.566	8	-0.075	9	-0.223	2	-0.275	9	-0.734	2	
195		J	max	0.302	2	0.565	2	0.123	3	0.186	8	0.312	3	0.758	8
196		min	-0.409	8	-0.566	8	-0.075	9	-0.223	2	-0.284	9	-0.805	2	
197	50	I	max	0.224	13	0.564	8	0.237	2	0.174	2	0.275	9	0.688	8
198		min	-0.335	7	-0.567	2	-0.25	8	-0.182	8	-0.297	3	-0.748	2	
199		J	max	0.23	13	0.556	8	0.243	2	0.174	2	0.184	13	0.341	3
200		min	-0.34	7	-0.575	2	-0.256	8	-0.182	8	-0.227	7	-0.38	9	
201	51	I	max	2.867	12	2.795	19	1.384	9	1.887	9	3.02	3	9.654	19
202		min	-2.54	6	0.331	13	-1.384	3	-1.845	3	-3.022	9	-1.441	13	
203		J	max	2.83	12	2.714	19	1.347	9	1.887	9	1.655	3	6.994	7
204		min	-2.503	6	0.272	13	-1.347	3	-1.845	3	-1.657	9	-1.742	13	
205	52	I	max	2.796	4	2.657	21	1.312	13	1.759	13	1.624	7	6.838	22
206		min	-2.468	10	0.259	3	-1.311	7	-1.728	7	-1.628	13	-1.62	3	
207		J	max	0	109	0	16	0	6	0	109	0	109	0	109
208		min	0	1	0	10	0	9	0	1	0	1	0	1	1
209	53	I	max	0.509	5	0.105	3	0.764	8	0.635	8	0.05	11	0.318	12
210		min	-0.656	11	-0.76	57	-0.393	2	-0.324	2	-0.035	5	-0.323	6	
211		J	max	0.573	6	0.063	3	0.207	5	0.455	8	0.355	6	1.349	22
212		min	-0.468	12	-0.807	57	-0.323	11	-0.267	2	-0.432	12	-0.07	4	
213	54	I	max	1.052	9	0.242	6	1.215	4	0.496	7	0.224	13	0.256	71
214		min	-0.894	4	-0.617	48	-1.417	10	-0.399	13	-0.298	7	-0.148	41	

Envelope Member End Reactions (Continued)

Member	Member End		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
215	J	max	0.686	10	0.227	6	0.965	4	0.61	7	0.626	4	0.531	11	
216		min	-0.781	4	-0.631	48	-0.677	10	-0.414	13	-0.566	10	-0.19	5	
217	55	I	max	0.388	3	0.015	25	0.025	12	0	-0.002	13	0.026	4	
218		min	-0.938	9	-0.001	11	0.008	6	-0.001	8	-0.012	21	-0.028	10	
219	J	max	0.407	3	0.03	6	-0.016	12	0	2	0.001	5	0.013	13	
220		min	-0.956	9	-0.019	12	-0.047	18	-0.001	8	-0.016	11	-0.054	7	
221	56	I	max	0.144	4	0.022	8	0.019	2	0.001	23	0	0.03	9	
222		min	-0.849	22	-0.003	2	-0.007	8	0	5	-0.011	2	-0.03	3	
223	J	max	0.161	4	-0.01	8	0.038	2	0.001	23	0.004	3	0.054	25	
224		min	-0.857	22	-0.046	14	-0.026	8	0	5	-0.018	9	-0.012	7	
225	57	I	max	0.88	2	0.761	71	0.28	4	0.048	4	0.066	8	0.559	8
226		min	-0.821	8	0.031	5	-0.7	10	-0.414	22	-0.048	2	-0.725	2	
227	J	max	0.88	2	0.761	71	0.28	4	0.048	4	0.047	6	0.516	8	
228		min	-0.821	8	0.031	5	-0.7	10	-0.414	22	-0.094	12	-0.766	2	
229	58	I	max	0.202	9	0.569	80	1.835	9	0.195	7	0.182	8	0.592	8
230		min	-0.171	3	-0.451	2	-1.549	3	-0.456	13	-0.254	2	-0.492	2	
231	J	max	0.202	9	0.569	80	1.835	9	0.195	7	0.417	9	0.519	8	
232		min	-0.171	3	-0.451	2	-1.549	3	-0.456	13	-0.444	3	-0.424	2	
233	59	I	max	0.261	9	0.617	48	1.5	4	0.441	7	0.298	7	0.349	12
234		min	-0.225	3	-0.243	6	-1.753	10	-0.276	13	-0.224	13	-0.257	6	
235	J	max	0.261	9	0.617	48	1.5	4	0.441	7	0.358	5	0.291	12	
236		min	-0.225	3	-0.243	6	-1.753	10	-0.276	13	-0.322	11	-0.22	6	
237	60	I	max	0.562	6	0.761	57	0.826	9	0.451	9	0.035	5	0.401	13
238		min	-0.503	12	-0.106	3	-0.431	3	-0.186	3	-0.05	11	-0.562	7	
239	J	max	0.562	6	0.761	57	0.826	9	0.451	9	0.109	8	0.398	13	
240		min	-0.503	12	-0.106	3	-0.431	3	-0.186	3	-0.062	2	-0.642	7	
241	61	I	max	0.887	2	0.806	71	0.439	8	0.217	7	0.528	2	1.414	21
242		min	-0.779	8	0.073	5	-0.315	2	-0.426	13	-0.61	8	-0.191	3	
243	J	max	0.801	3	0.76	71	0.204	6	0.181	7	0.066	8	0.585	8	
244		min	-0.959	9	0.031	5	-0.598	12	-0.519	13	-0.048	2	-0.583	2	
245	62	I	max	0.821	9	0.576	80	0.928	9	0.378	7	0.61	3	0.816	8
246		min	-0.917	3	-0.443	2	-1.211	3	-0.655	13	-0.554	9	-0.502	2	
247	J	max	1.093	9	0.569	80	1.489	9	0.46	8	0.182	8	0.418	8	
248		min	-0.922	3	-0.447	2	-1.255	3	-0.634	2	-0.254	2	-0.202	2	
249	63	I	max	0.573	6	0.063	3	0.207	5	0.455	8	0.355	6	1.349	22
250		min	-0.468	12	-0.807	57	-0.323	11	-0.267	2	-0.432	12	-0.07	4	
251	J	max	0.573	6	0.063	3	0.207	5	0.455	8	0.378	6	1.446	22	
252		min	-0.468	12	-0.807	57	-0.323	11	-0.267	2	-0.47	12	-0.067	4	
253	64	I	max	0.887	2	0.806	71	0.439	8	0.217	7	0.567	2	1.51	21
254		min	-0.779	8	0.073	5	-0.314	2	-0.426	13	-0.665	8	-0.168	3	
255	J	max	0.887	2	0.806	71	0.439	8	0.217	7	0.528	2	1.414	21	
256		min	-0.779	8	0.073	5	-0.314	2	-0.426	13	-0.61	8	-0.191	3	
257	65	I	max	0.686	10	0.228	6	0.965	4	0.61	7	0.626	4	0.531	11
258		min	-0.781	4	-0.631	48	-0.677	10	-0.414	13	-0.566	10	-0.19	5	
259	J	max	0.686	10	0.228	6	0.965	4	0.61	7	0.747	4	0.579	11	
260		min	-0.781	4	-0.631	48	-0.677	10	-0.414	13	-0.651	10	-0.214	5	
261	66	I	max	0.821	9	0.576	80	0.927	9	0.378	7	0.761	3	0.88	8
262		min	-0.917	3	-0.444	2	-1.212	3	-0.655	13	-0.67	9	-0.558	2	
263	J	max	0.821	9	0.576	80	0.927	9	0.378	7	0.61	3	0.816	8	
264		min	-0.917	3	-0.444	2	-1.212	3	-0.655	13	-0.554	9	-0.502	2	
265	67	I	max	0.049	19	0.233	3	0.334	3	0.036	7	0.002	2	0.025	20
266		min	0.016	12	-0.53	9	-0.796	9	-0.017	13	-0.039	20	-0.001	2	
267	J	max	0.049	19	0.233	3	0.334	3	0.036	7	0.059	3	0.117	9	
268		min	0.016	12	-0.53	9	-0.796	9	-0.017	13	-0.176	9	-0.041	3	
269	68	I	max	0.025	12	0.521	9	0.779	9	0.023	4	0.021	9	0.008	3

Envelope Member End Reactions (Continued)

Member	Member End		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
270		min	0.006	79	-0.224	3	-0.317	3	-0.015	10	-0.012	3	-0.014	9	
271	J	max	0.025	12	0.521	9	0.779	9	0.023	4	0.163	9	0.048	3	
272		min	0.006	79	-0.224	3	-0.317	3	-0.015	10	-0.07	3	-0.108	9	
273	69	I	max	0.021	8	0.848	22	0.053	10	0.021	9	0.001	9	0.015	3
274		min	-0.003	2	-0.143	4	-0.025	4	-0.028	3	-0.001	3	-0.022	9	
275	J	max	0.021	8	0.848	22	0.053	10	0.021	9	0.011	10	0.04	4	
276		min	-0.003	2	-0.143	4	-0.025	4	-0.028	3	-0.006	4	-0.163	22	
277	70	I	max	0.048	14	0.159	4	0.038	3	0.02	8	0	7	0.045	25
278		min	0.011	8	-0.856	22	-0.066	9	-0.04	2	-0.002	25	0.001	7	
279	J	max	0.048	14	0.159	4	0.038	3	0.02	8	0.005	3	0.2	23	
280		min	0.011	8	-0.856	22	-0.066	9	-0.04	2	-0.012	9	-0.017	5	
281	71	I	max	0.056	4	0.503	13	0.169	6	0.12	3	0.153	4	0.461	8
282		min	-0.143	10	-0.524	7	-0.233	12	-0.107	9	-0.193	10	-0.496	2	
283	J	max	0.056	4	0.503	13	0.169	6	0.12	3	0.16	4	0.523	8	
284		min	-0.143	10	-0.524	7	-0.233	12	-0.107	9	-0.208	10	-0.555	2	
285	72	I	max	0.138	6	0.515	7	0.135	8	0.104	12	0.336	8	0.483	13
286		min	-0.238	12	-0.512	13	-0.083	2	-0.141	6	-0.307	2	-0.532	7	
287	J	max	0.138	6	0.515	7	0.135	8	0.104	12	0.353	8	0.547	13	
288		min	-0.238	12	-0.512	13	-0.083	2	-0.141	6	-0.317	2	-0.596	7	
289	73	I	max	0.099	5	0.511	13	0.154	7	0.15	7	0.307	2	0.467	13
290		min	-0.206	11	-0.516	7	-0.16	13	-0.157	13	-0.336	8	-0.527	7	
291	J	max	0.105	5	0.503	13	0.154	7	0.15	7	0.153	4	0.452	8	
292		min	-0.211	11	-0.524	7	-0.16	13	-0.157	13	-0.193	10	-0.488	2	
293	74	I	max	2.833	4	2.738	21	1.348	13	1.759	13	2.954	7	9.536	22
294		min	-2.505	10	0.319	3	-1.348	7	-1.728	7	-2.958	13	-1.331	3	
295	J	max	2.796	4	2.657	21	1.311	13	1.759	13	1.624	7	6.838	22	
296		min	-2.468	10	0.26	3	-1.311	7	-1.728	7	-1.628	13	-1.62	3	
297	75	I	max	0	109	0	9	0	10	0	109	0	109	0	109
298		min	0	1	0	15	0	13	0	1	0	1	0	1	
299	J	max	0	109	0	22	0	11	0	109	0	109	0	109	
300		min	0	1	0	3	0	2	0	1	0	1	0	1	
301	76	I	max	0	109	0	9	0	11	0	109	0	109	0	109
302		min	0	1	0	1	0	2	0	1	0	1	0	1	
303	J	max	0	109	0	109	0	10	0	109	0	109	0	109	
304		min	0	1	0	3	0	13	0	1	0	1	0	1	
305	77	I	max	0	109	0	13	0	2	0	109	0	109	0	109
306		min	0	1	0	18	0	5	0	1	0	1	0	1	
307	J	max	0	109	0	24	0	2	0	109	0	109	0	109	
308		min	0	1	0	7	0	6	0	1	0	1	0	1	
309	78	I	max	0	109	0	13	0	2	0	109	0	109	0	109
310		min	0	1	0	1	0	5	0	1	0	1	0	1	
311	J	max	0	109	0	109	0	2	0	109	0	109	0	109	
312		min	0	1	0	7	0	5	0	1	0	1	0	1	
313	79	I	max	0.151	11	-0.183	5	0.201	8	0.435	8	0	109	0.323	5
314		min	-0.151	5	-0.287	14	-0.201	2	-0.435	2	0	12	-0.323	11	
315	J	max	0.151	11	-0.183	5	0.201	8	0.435	8	0.045	8	0.364	5	
316		min	-0.151	5	-0.287	14	-0.201	2	-0.435	2	-0.045	2	-0.282	11	
317	80	I	max	0.141	5	-0.163	5	0.213	2	0.531	2	0	6	0.353	11
318		min	-0.141	11	-0.284	14	-0.213	8	-0.531	8	0	10	-0.353	5	
319	J	max	0.141	5	-0.163	5	0.213	2	0.531	2	0.048	2	0.389	11	
320		min	-0.141	11	-0.284	14	-0.213	8	-0.531	8	-0.048	8	-0.316	5	
321	81	I	max	0	109	0	5	0.001	2	0	109	0	109	0	109
322		min	0	1	0	11	-0.001	8	0	1	0	1	0	1	
323	J	max	0	109	0	11	0	8	0	109	0	109	0	109	
324		min	0	1	0	5	0	14	0	1	0	1	0	1	

Envelope Member End Reactions (Continued)

Member	Member End		Axial[k]	LC y	Shear[k]	LC z	Shear[k]	LC Torque[k-ft]	LC y-y Moment[k-ft]	LC z-z Moment[k-ft]	LC				
325	82	I	max	0	109	0.001	5	0.001	2	0	109	0	109	0	109
326			min	0	1	0	11	-0.001	8	0	1	0	1	0	1
327		J	max	0	109	0	11	0	8	0	109	0	109	0	109
328			min	0	1	0	5	0	14	0	1	0	1	0	1
329	83	I	max	0.22	3	-0.205	9	0.195	12	0.484	12	0	10	0.541	9
330			min	-0.22	9	-0.342	24	-0.195	6	-0.484	6	0	2	-0.541	3
331		J	max	0.22	3	-0.205	9	0.195	12	0.484	12	0.044	12	0.587	9
332			min	-0.22	9	-0.342	24	-0.195	6	-0.484	6	-0.044	6	-0.495	3
333	84	I	max	0.164	9	-0.14	9	0.128	6	0.267	7	0	9	0.353	3
334			min	-0.164	3	-0.229	24	-0.128	12	-0.267	13	0	2	-0.353	9
335		J	max	0.164	9	-0.14	9	0.128	6	0.267	7	0.029	6	0.385	3
336			min	-0.164	3	-0.229	24	-0.128	12	-0.267	13	-0.029	12	-0.322	9
337	85	I	max	0	109	0.001	5	0.001	2	0	109	0	109	0	109
338			min	0	1	-0.001	11	-0.001	8	0	1	0	1	0	1
339		J	max	0	109	0	10	0	8	0	109	0	109	0	109
340			min	0	1	0	16	0	2	0	1	0	1	0	1
341	86	I	max	0	109	0	5	0	2	0	109	0	109	0	109
342			min	0	1	0	11	-0.001	8	0	1	0	1	0	1
343		J	max	0	109	0	10	0	8	0	109	0	109	0	109
344			min	0	1	0	16	0	2	0	1	0	1	0	1
345	87	I	max	0.188	7	-0.183	13	0.163	4	0.35	4	0	2	0.407	13
346			min	-0.188	13	-0.287	22	-0.163	10	-0.351	10	0	7	-0.407	7
347		J	max	0.188	7	-0.183	13	0.163	4	0.35	4	0.037	4	0.448	13
348			min	-0.188	13	-0.287	22	-0.163	10	-0.351	10	-0.037	10	-0.366	7
349	88	I	max	0.164	13	-0.14	13	0.128	10	0.267	9	0	12	0.353	7
350			min	-0.164	7	-0.229	22	-0.128	4	-0.267	3	0	3	-0.353	13
351		J	max	0.164	13	-0.14	13	0.128	10	0.267	9	0.029	10	0.385	7
352			min	-0.164	7	-0.229	22	-0.128	4	-0.267	3	-0.029	4	-0.322	13
353	89	I	max	0	109	0	5	0.001	2	0	109	0	109	0	109
354			min	0	1	-0.001	11	-0.001	8	0	1	0	1	0	1
355		J	max	0	109	0	24	0	8	0	109	0	109	0	109
356			min	0	1	0	6	0	2	0	1	0	1	0	1
357	90	I	max	0	109	0	5	0	2	0	109	0	109	0	109
358			min	0	1	0	11	-0.001	8	0	1	0	1	0	1
359		J	max	0	109	0	24	0	8	0	109	0	109	0	109
360			min	0	1	0	6	0	2	0	1	0	1	0	1
361	91	I	max	0.436	2	-0.098	3	0.406	11	0.547	11	0.086	8	0.658	8
362			min	-0.405	8	-0.499	21	-0.433	5	-0.57	5	-0.062	2	-0.789	2
363		J	max	0.436	2	-0.098	3	0.406	11	0.547	11	0.157	10	0.721	8
364			min	-0.405	8	-0.499	21	-0.433	5	-0.57	5	-0.14	4	-0.761	2
365	92	I	max	0.122	2	0.128	9	0.17	5	0.682	11	0.062	2	0.503	8
366			min	-0.154	8	-0.027	63	-0.143	11	-0.749	5	-0.086	8	-0.474	2
367		J	max	0.122	2	0.128	9	0.17	5	0.682	11	0.085	3	0.468	8
368			min	-0.154	8	-0.027	63	-0.143	11	-0.749	5	-0.102	9	-0.469	2
369	93	I	max	0	109	0	5	0.001	2	0	109	0	109	0	109
370			min	0	1	0	11	-0.001	8	0	1	0	1	0	1
371		J	max	0	109	0	12	0	8	0	109	0	109	0	109
372			min	0	1	0	6	0	2	0	1	0	1	0	1
373	94	I	max	0.368	2	0.43	2	0.259	12	0.38	48	0.083	2	0.194	8
374			min	-0.292	8	-0.624	8	-0.161	6	-0.09	6	-0.088	8	-0.361	2
375		J	max	0.368	2	0.43	2	0.259	12	0.38	48	0.119	13	0.36	8
376			min	-0.292	8	-0.624	8	-0.161	6	-0.09	6	-0.098	7	-0.475	2
377	95	I	max	0.223	2	0.51	8	0.056	9	0.418	12	0.088	8	0.574	8
378			min	-0.299	8	-0.545	2	-0.175	40	-0.306	6	-0.083	2	-0.627	2
379		J	max	0.223	2	0.51	8	0.056	9	0.418	12	0.102	9	0.425	8

Envelope Member End Reactions (Continued)

Member	Member End		Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
380		min	-0.299	8	-0.545	2	-0.175	40	-0.306	6	-0.124	3	-0.469	2	
381	96	I	max	0	109	0	5	0.001	2	0	109	0	0	109	
382		min	0	1	0	11	-0.001	8	0	1	0	1	0	1	
383		J	max	0	109	0	11	0	8	0	109	0	0	109	
384		min	0	1	0	17	0	2	0	1	0	1	0	1	
385	97	I	max	0.368	2	-0.091	61	0.443	11	0.491	11	0.068	2	0.402	8
386		min	-0.336	8	-0.472	19	-0.406	5	-0.448	5	-0.089	8	-0.534	2	
387		J	max	0.368	2	-0.091	61	0.443	11	0.491	11	0.146	12	0.455	8
388		min	-0.336	8	-0.472	19	-0.406	5	-0.448	5	-0.156	6	-0.5	2	
389	98	I	max	0.007	10	0.125	79	0.191	5	0.748	11	0.089	8	0.314	8
390		min	-0.045	18	-0.025	61	-0.227	11	-0.664	5	-0.068	2	-0.287	2	
391		J	max	0.007	10	0.125	79	0.191	5	0.748	11	0.113	7	0.289	8
392		min	-0.045	18	-0.025	61	-0.227	11	-0.664	5	-0.102	13	-0.291	2	
393	99	I	max	0	109	0	17	0.001	2	0	109	0	0	109	
394		min	0	1	0	11	-0.001	8	0	1	0	1	0	1	
395		J	max	0	109	0	67	0	20	0	109	0	0	109	
396		min	0	1	0	49	0	2	0	1	0	1	0	1	
397	100	I	max	0.164	6	0.214	6	0.2	2	0.275	2	0.091	11	0.109	12
398		min	-0.108	12	-0.316	95	-0.29	8	-0.481	8	-0.086	5	-0.254	6	
399		J	max	0.164	6	0.214	6	0.2	2	0.275	2	0.087	12	0.187	12
400		min	-0.108	12	-0.316	95	-0.29	8	-0.481	8	-0.105	6	-0.311	6	
401	101	I	max	0.027	11	0.271	95	0.214	8	0.295	2	0.086	5	0.142	11
402		min	-0.101	77	-0.258	6	-0.123	2	-0.396	8	-0.091	11	-0.18	5	
403		J	max	0.027	11	0.271	95	0.214	8	0.295	2	0.108	6	0.088	10
404		min	-0.101	77	-0.258	6	-0.123	2	-0.396	8	-0.087	12	-0.123	4	
405	102	I	max	0	109	0	5	0	2	0	109	0	0	109	
406		min	0	1	0	11	0	8	0	1	0	1	0	1	
407		J	max	0	109	0	11	0	8	0	109	0	0	109	
408		min	0	1	0	5	0	14	0	1	0	1	0	1	
409	103	I	max	0.279	6	-0.091	8	0.663	3	0.893	3	0.085	13	0.368	12
410		min	-0.246	12	-0.501	14	-0.69	9	-0.915	9	-0.062	7	-0.504	6	
411		J	max	0.279	6	-0.091	8	0.663	3	0.893	3	0.254	2	0.428	12
412		min	-0.246	12	-0.501	14	-0.69	9	-0.915	9	-0.238	8	-0.47	6	
413	104	I	max	0.111	8	0.136	2	0.205	9	1.183	3	0.062	7	0.288	12
414		min	-0.145	2	-0.034	8	-0.179	3	-1.25	9	-0.085	13	-0.26	6	
415		J	max	0.111	8	0.136	2	0.205	9	1.183	3	0.113	8	0.259	12
416		min	-0.145	2	-0.034	8	-0.179	3	-1.25	9	-0.129	2	-0.261	6	
417	105	I	max	0	109	0	6	0.001	2	0	109	0	0	109	
418		min	0	1	0	12	-0.001	8	0	1	0	1	0	1	
419		J	max	0	109	0	24	0	7	0	109	0	0	109	
420		min	0	1	0	6	0	13	0	1	0	1	0	1	
421	106	I	max	0.29	7	0.211	6	0.353	3	0.383	39	0.07	7	0.178	13
422		min	-0.221	13	-0.409	12	-0.259	9	-0.154	9	-0.075	13	-0.347	7	
423		J	max	0.29	7	0.211	6	0.353	3	0.383	39	0.085	5	0.28	13
424		min	-0.221	13	-0.409	12	-0.259	9	-0.154	9	-0.064	11	-0.397	7	
425	107	I	max	0.09	6	0.291	12	0.191	2	0.606	3	0.075	13	0.398	13
426		min	-0.159	12	-0.33	6	-0.283	8	-0.493	9	-0.07	7	-0.454	7	
427		J	max	0.09	6	0.291	12	0.191	2	0.606	3	0.121	13	0.321	13
428		min	-0.159	12	-0.33	6	-0.283	8	-0.493	9	-0.143	7	-0.365	7	
429	108	I	max	0	109	0	5	0.001	2	0	109	0	0	109	
430		min	0	1	0	11	-0.001	8	0	1	0	1	0	1	
431		J	max	0	109	0	24	0	8	0	109	0	0	109	
432		min	0	1	0	6	0	2	0	1	0	1	0	1	
433	109	I	max	0.287	7	-0.092	53	0.692	3	0.788	3	0.034	6	0.309	13
434		min	-0.255	13	-0.471	23	-0.656	9	-0.745	9	-0.055	12	-0.445	7	

Envelope Member End Reactions (Continued)

Member	Member End		Axial[k]	LC y	Shear[k]	LC z	Shear[k]	LC Torque[k-ft]	LC y-y Moment[k-ft]	LC z-z Moment[k-ft]	LC				
435	J	max	0.287	7	-0.092	53	0.692	3	0.788	3	0.179	3	0.356	13	
436		min	-0.255	13	-0.471	23	-0.656	9	-0.745	9	-0.19	9	-0.404	7	
437	110	I	max	0.022	2	0.124	83	0.345	9	1.206	3	0.055	12	0.249	13
438		min	-0.054	8	-0.024	53	-0.381	3	-1.121	9	-0.034	6	-0.224	7	
439	J	max	0.022	2	0.124	83	0.345	9	1.206	3	0.116	9	0.231	13	
440		min	-0.054	8	-0.024	53	-0.381	3	-1.121	9	-0.106	3	-0.235	7	
441	111	I	max	0	109	0	6	0	13	0	109	0	109	0	109
442		min	0	1	0	12	0	7	0	1	0	1	0	1	
443	J	max	0	109	0	24	0	7	0	109	0	109	0	109	
444		min	0	1	0	6	0	24	0	1	0	1	0	1	
445	112	I	max	0.212	9	0.295	9	0.172	7	0.227	7	0.156	3	0.187	3
446		min	-0.155	3	-0.372	3	-0.258	13	-0.436	13	-0.152	9	-0.331	9	
447	J	max	0.212	9	0.295	9	0.172	7	0.227	7	0.116	3	0.286	3	
448		min	-0.155	3	-0.372	3	-0.258	13	-0.436	13	-0.135	9	-0.41	9	
449	113	I	max	0.083	2	0.328	3	0.173	85	0.218	7	0.152	9	0.232	3
450		min	-0.139	8	-0.339	9	-0.084	7	-0.32	13	-0.156	3	-0.27	9	
451	J	max	0.083	2	0.328	3	0.173	85	0.218	7	0.146	9	0.137	3	
452		min	-0.139	8	-0.339	9	-0.084	7	-0.32	13	-0.125	3	-0.171	9	
453	114	I	max	0	109	0	5	0	2	0	109	0	109	0	109
454		min	0	1	0	11	0	8	0	1	0	1	0	1	
455	J	max	0	109	0	10	0	8	0	109	0	109	0	109	
456		min	0	1	0	16	0	2	0	1	0	1	0	1	
457	115	I	max	0.339	9	-0.101	72	0.671	7	0.895	7	0.056	5	0.504	3
458		min	-0.307	3	-0.495	18	-0.698	13	-0.918	13	-0.032	11	-0.641	9	
459	J	max	0.339	9	-0.101	72	0.671	7	0.895	7	0.21	7	0.551	3	
460		min	-0.307	3	-0.495	18	-0.698	13	-0.918	13	-0.193	13	-0.596	9	
461	116	I	max	0.03	11	0.125	42	0.213	13	1.208	7	0.032	11	0.378	3
462		min	-0.063	5	-0.026	72	-0.187	7	-1.275	13	-0.056	5	-0.352	9	
463	J	max	0.03	11	0.125	42	0.213	13	1.208	7	0.074	12	0.362	3	
464		min	-0.063	5	-0.026	72	-0.187	7	-1.275	13	-0.09	6	-0.365	9	
465	117	I	max	0	109	0	4	0.001	2	0	109	0	109	0	109
466		min	0	1	0	10	-0.001	8	0	1	0	1	0	1	
467	J	max	0	109	0	10	0	9	0	109	0	109	0	109	
468		min	0	1	0	16	0	15	0	1	0	1	0	1	
469	118	I	max	0.24	10	0.303	9	0.399	8	0.43	8	0.058	10	0.074	5
470		min	-0.171	4	-0.502	3	-0.299	2	-0.211	2	-0.064	4	-0.253	47	
471	J	max	0.24	10	0.303	9	0.399	8	0.43	8	0.132	9	0.191	4	
472		min	-0.171	4	-0.502	3	-0.299	2	-0.211	2	-0.11	3	-0.306	10	
473	119	I	max	0.154	9	0.384	3	0.128	7	0.717	8	0.064	4	0.319	4
474		min	-0.223	3	-0.422	9	-0.226	13	-0.605	2	-0.058	10	-0.374	10	
475	J	max	0.154	9	0.384	3	0.128	7	0.717	8	0.068	6	0.221	4	
476		min	-0.223	3	-0.422	9	-0.226	13	-0.605	2	-0.09	12	-0.265	10	
477	120	I	max	0	109	0	5	0.001	2	0	109	0	109	0	109
478		min	0	1	0	11	-0.001	8	0	1	0	1	0	1	
479	J	max	0	109	0	11	0	8	0	109	0	109	0	109	
480		min	0	1	0	5	0	14	0	1	0	1	0	1	
481	121	I	max	0.26	10	-0.092	56	0.695	7	0.805	7	0.056	9	0.232	4
482		min	-0.228	4	-0.472	15	-0.658	13	-0.762	13	-0.076	3	-0.367	10	
483	J	max	0.26	10	-0.092	56	0.695	7	0.805	7	0.232	8	0.283	4	
484		min	-0.228	4	-0.472	15	-0.658	13	-0.762	13	-0.242	2	-0.33	10	
485	122	I	max	0.015	7	0.125	74	0.347	13	1.199	7	0.076	3	0.22	4
486		min	-0.048	13	-0.025	56	-0.384	7	-1.115	13	-0.056	9	-0.194	10	
487	J	max	0.015	7	0.125	74	0.347	13	1.199	7	0.172	2	0.197	4	
488		min	-0.048	13	-0.025	56	-0.384	7	-1.115	13	-0.162	8	-0.2	10	
489	123	I	max	0	109	0	4	0	3	0	109	0	109	0	109

Envelope Member End Reactions (Continued)

Member	Member End	Axial[k]	LC	y Shear[k]	LC	z Shear[k]	LC	Torque[k-ft]	LC	y-y Moment[k-ft]	LC	z-z Moment[k-ft]	LC	
490		min	0	1	0	10	0	9	0	1	0	1	0	1
491	J	max	0	109	0	9	0	9	0	109	0	109	0	109
492		min	0	1	0	15	0	15	0	1	0	1	0	1

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

Member	Shape	Code Check	Loc[ft]	LC	Shear	Check	Loc[ft]	Dir	LC	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	1	HSS5X3X6	0.369	0	2	0.099	0	z	5	161.081	197.892	17.595	25.323	2.344	H1-1b
2	2	PIPE 3.0	0.212	1.875	2	0.113	0.273	13	76.499	78.246	6.899	6.899	1.549	H1-1b	
3	3	PIPE 3.0	0.162	0.698	2	0.142	0.124	9	78.002	78.246	6.899	6.899	1.24	H1-1b	
4	4	L1.5x1.5x4	0.137	2.297	14	0.013	2.297	z	24	13.937	22.275	0.36	0.834	1.5	H2-1
5	5	L1.5x1.5x4	0.138	2.297	14	0.014	2.297	y	15	13.937	22.275	0.36	0.834	1.5	H2-1
6	6	PIPE 3.0	0.127	10.875	10	0.136	10.875	2	21.266	78.246	6.899	6.899	2.156	H1-1b	
7	11	PIPE 2.0	0.285	1.359	8	0.287	1.359	2	4.679	38.556	2.246	2.246	3	H3-6	
8	14	PIPE 2.0	0.205	6.667	2	0.092	6.667	2	9.837	38.556	2.246	2.246	3	H1-1b	
9	15	PIPE 3.0	0.213	0	2	0.122	1.875	3	76.499	78.246	6.899	6.899	1.55	H1-1b	
10	16	PIPE 3.0	0.154	0	2	0.128	0.574	7	78.002	78.246	6.899	6.899	1.126	H1-1b	
11	27	PIPE 2.0	0.215	0	10	0.084	0	4	36.807	38.556	2.246	2.246	1.948	H1-1b	
12	28	W10X49	0.128	0	4	0.037	1	z	5	646.949	648	106.125	226.5	1.11	H1-1b
13	29	HSS5X3X6	0.343	0	7	0.146	0	z	9	161.081	197.892	17.595	25.323	2.42	H1-1b
14	30	PIPE 3.0	0.199	1.875	19	0.109	0.273	4	76.499	78.246	6.899	6.899	1.688	H1-1b	
15	31	PIPE 3.0	0.139	0.698	7	0.164	0.698	2	78.002	78.246	6.899	6.899	1.29	H1-1b	
16	32	L1.5x1.5x4	0.133	2.297	17	0.013	2.297	z	15	13.937	22.275	0.36	0.834	1.5	H2-1
17	33	L1.5x1.5x4	0.139	2.297	19	0.014	2.297	y	20	13.937	22.275	0.36	0.834	1.5	H2-1
18	38	PIPE 3.0	0.203	0	18	0.156	1.602	8	76.499	78.246	6.899	6.899	1.743	H1-1b	
19	39	PIPE 3.0	0.101	0	6	0.127	0.567	9	78.002	78.246	6.899	6.899	1.079	H1-1b	
20	50	PIPE 2.0	0.356	0	2	0.145	0	8	36.807	38.556	2.246	2.246	2.146	H1-1b	
21	51	W10X49	0.187	0	8	0.055	1	z	9	646.949	648	106.125	226.5	1.11	H1-1b
22	52	HSS5X3X6	0.334	0	9	0.137	0	z	13	161.081	197.892	17.595	25.323	2.396	H1-1b
23	53	PIPE 3.0	0.197	1.875	22	0.145	0.273	8	76.499	78.246	6.899	6.899	1.742	H1-1b	
24	54	PIPE 3.0	0.11	0.698	10	0.116	0.698	6	78.002	78.246	6.899	6.899	1.193	H1-1b	
25	55	L1.5x1.5x4	0.138	2.297	21	0.013	2.297	z	20	13.937	22.275	0.36	0.834	1.5	H2-1
26	56	L1.5x1.5x4	0.134	2.297	23	0.014	2.297	y	24	13.937	22.275	0.36	0.834	1.5	H2-1
27	61	PIPE 3.0	0.207	0	21	0.119	1.602	24	76.499	78.246	6.899	6.899	1.675	H1-1b	
28	62	PIPE 3.0	0.145	0	9	0.155	0	2	78.002	78.246	6.899	6.899	1.192	H1-1b	
29	73	PIPE 2.0	0.272	0	7	0.125	0	13	36.807	38.556	2.246	2.246	2.221	H1-1b	
30	74	W10X49	0.173	0	8	0.052	1	z	13	646.949	648	106.125	226.5	1.11	H1-1b
31	75	PIPE 3.0	0.174	10.875	2	0.096	3.625	7	21.266	78.246	6.899	6.899	1.898	H1-1b	
32	76	PIPE 2.0	0.345	1.359	2	0.211	1.359	7	4.679	38.556	2.246	2.246	3	H1-1b	
33	77	PIPE 3.0	0.173	3.625	2	0.117	10.875	9	21.266	78.246	6.899	6.899	1.869	H1-1b	
34	78	PIPE 2.0	0.316	9.365	7	0.18	9.516	3	4.679	38.556	2.246	2.246	3	H1-1b	
35	81	PIPE 2.0	0.202	4.5	2	0.016	4.5	2	22.969	38.556	2.246	2.246	1.364	H1-1b	
36	82	PIPE 2.0	0.244	4.5	2	0.017	4.5	2	22.969	38.556	2.246	2.246	1.364	H1-1b	
37	85	PIPE 2.0	0.262	4.5	8	0.019	4.5	8	22.969	38.556	2.246	2.246	1.364	H1-1b	
38	86	PIPE 2.0	0.185	4.5	8	0.015	4.5	8	22.969	38.556	2.246	2.246	1.364	H1-1b	
39	89	PIPE 2.0	0.202	4.5	8	0.016	4.5	8	22.969	38.556	2.246	2.246	1.364	H1-1b	
40	90	PIPE 2.0	0.184	4.5	8	0.015	4.5	8	22.969	38.556	2.246	2.246	1.364	H1-1b	
41	93	PIPE 2.0	0.362	6.667	2	0.076	6.667	8	9.837	38.556	2.246	2.246	1.926	H1-1b	
42	96	PIPE 2.0	0.329	3.229	2	0.072	6.667	2	9.837	38.556	2.246	2.246	3	H1-1b	
43	99	PIPE 2.0	0.355	6.667	2	0.061	6.667	7	9.837	38.556	2.246	2.246	3	H1-1b	
44	102	PIPE 2.0	0.236	6.667	8	0.057	6.667	10	9.837	38.556	2.246	2.246	3	H1-1b	
45	105	PIPE 2.0	0.42	6.667	8	0.096	6.667	2	9.837	38.556	2.246	2.246	3	H1-1b	
46	108	PIPE 2.0	0.329	3.229	8	0.062	6.667	13	9.837	38.556	2.246	2.246	3	H1-1b	
47	111	PIPE 2.0	0.469	6.667	8	0.062	6.667	2	9.837	38.556	2.246	2.246	2.821	H1-1b	
48	114	PIPE 2.0	0.221	6.667	2	0.098	6.667	2	9.837	38.556	2.246	2.246	2.035	H1-1b	
49	117	PIPE 2.0	0.467	6.667	8	0.073	6.667	7	9.837	38.556	2.246	2.246	2.575	H1-1b	



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

Member	Shape	Code Check	Loc[ft]	Lc	Shear Check	Loc[ft]	Dir	Lc	phi*Pnc [k]	phi*Pnt [k]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
50	120	PIPE 2.0	0.329	3.229	8	0.054	6.667	9	9.837	38.556	2.246	2.246	3	H1-1b
51	123	PIPE 2.0	0.471	6.667	8	0.08	6.667	2	9.837	38.556	2.246	2.246	3	H1-1b

Envelope NONE Member Cold Formed Steel Code Checks

No Data to Print...														
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APPENDIX D
ADDITIONAL CALCULATIONS

PROJECT	147461.009.01.0003 - CANTERBURY / SR		
SUBJECT	Platform Mount Analysis		
DATE	12/19/22	PAGE	1 OF 1



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

[REF: AISC 360-05]

Reactions at Bolted Connection

Tension	:	3.805	k
Vertical Shear	:	2.87	k
Horizontal Shear	:	1.03	k
Torsion	:	1.234	k.ft
Moment from Horizontal Forces	:	2.21	k.ft
Moment from Vertical Forces	:	11.649	k.ft

Bolt Parameters

Bolt Grade	:	A325	
Bolt Diameter	:	0.625	in
Nominal Bolt Area	:	0.307	in ²
Bolt spacing, Horizontal	:	6	in
Bolt spacing, Vertical	:	6	in
Bolt edge distance, plate height	:	1.5	in
Bolt edge distance, plate width	:	1.5	in
Total Number of Bolts	:	4	bolts

Summary of Forces

Shear Resultant Force	:	3.05	k
Force from Horz. Moment	:	4.00	k
Force from Vert. Moment	:	21.10	k
Shear Load / Bolt	:	0.76	k
Tension Load / Bolt	:	0.95	k
Resultant from Moments / Bolt	:	10.74	k

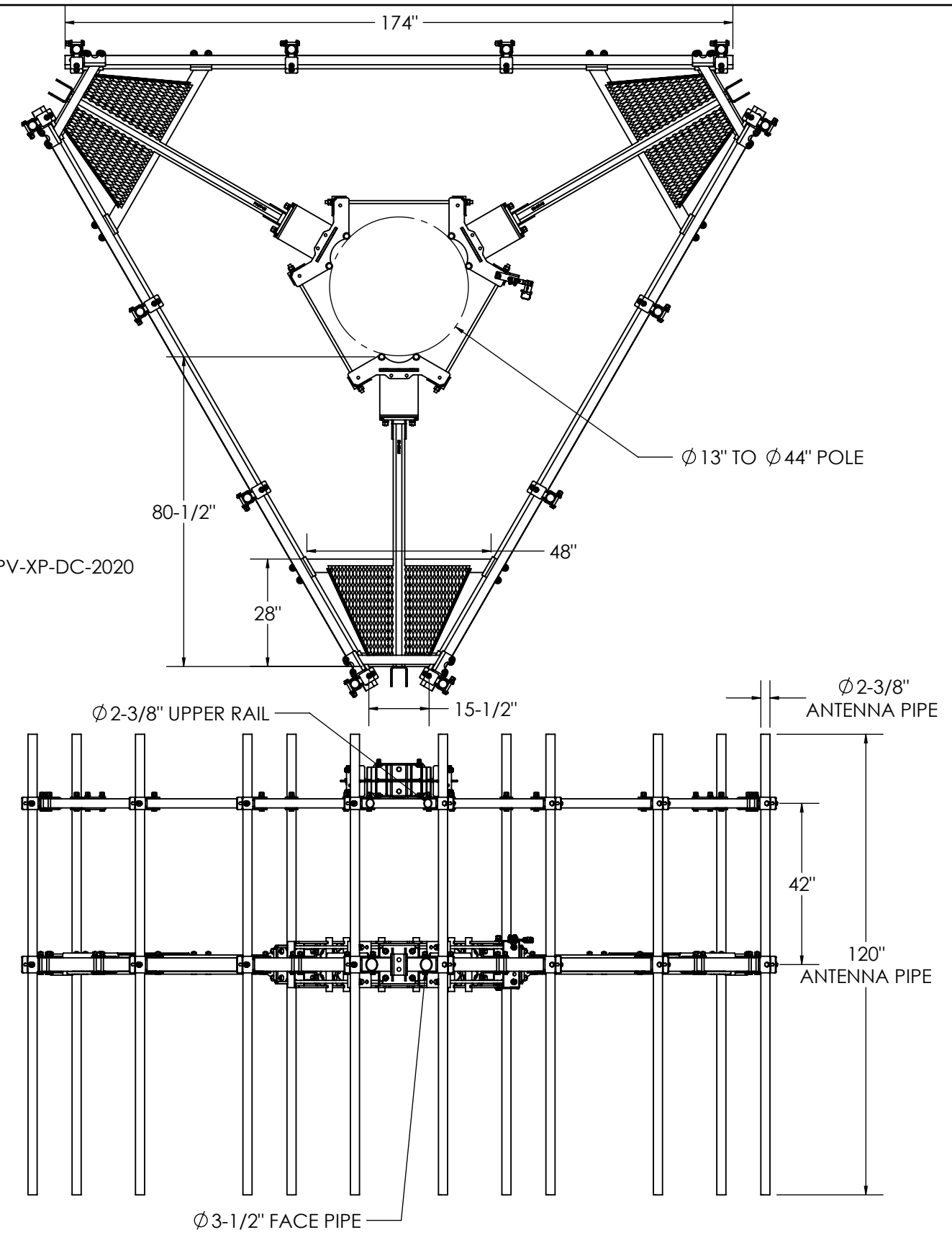
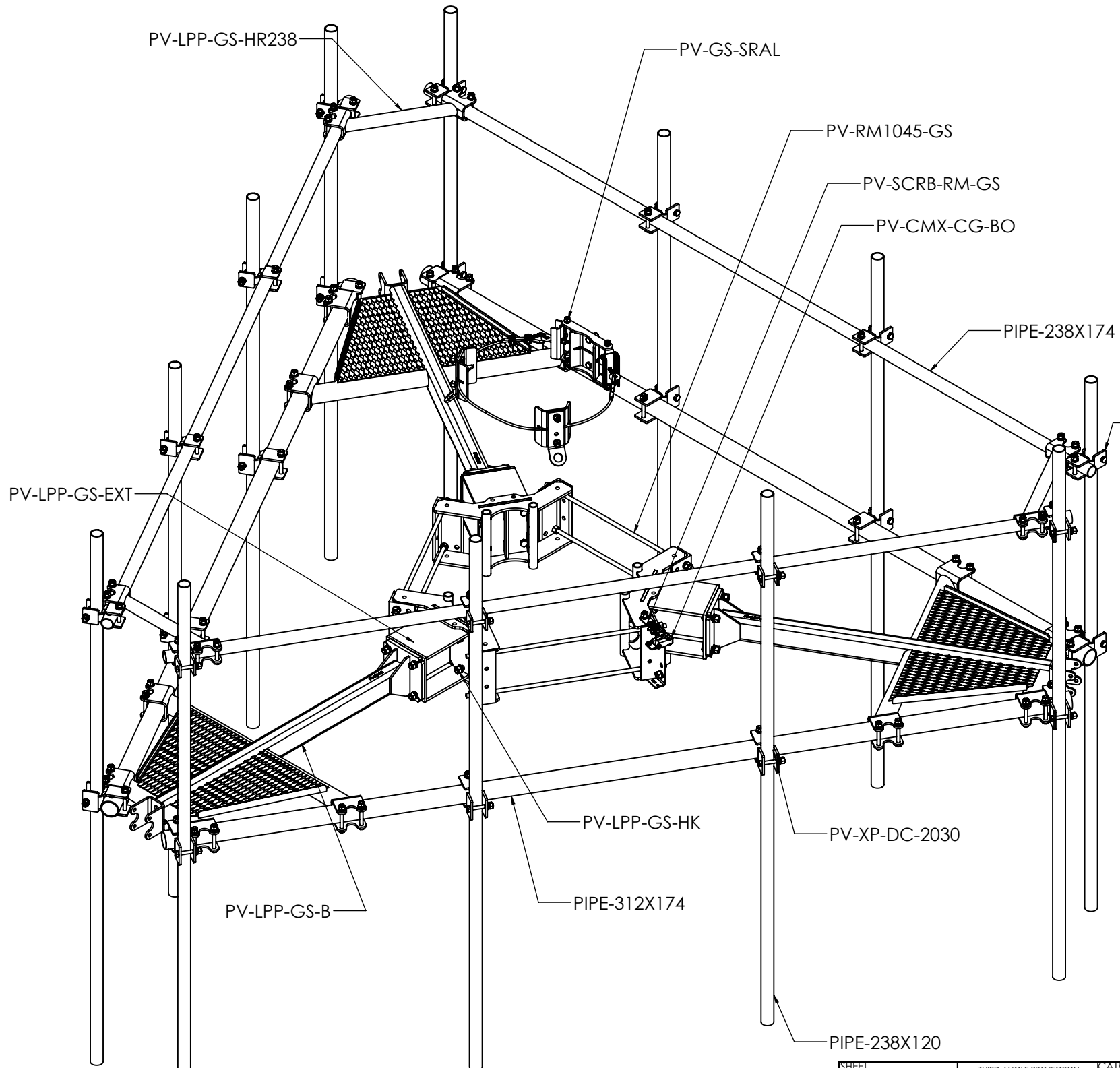
Bolt Checks

Nominal Tensile Stress, F_{nt}	:	90.00	ksi	[AISC Table J3.2]
Available Tensile Stress, ΦR_{nt}	:	20.72	k/bolt	[Eq. J3-1]
Unity Check, Bolt Tension	:	56.41%		OKAY
Nominal Shear Stress, F_{nv}	:	48.00	ksi	[AISC Table J3.2]
Available Shear Stress, ΦR_{nv}	:	11.05	k/bolt	[Eq. J3-1]
Unity Check, Bolt Shear	:	15.50%		OKAY
Unity Check, Combined	:	71.91%		OKAY
Available Bearing Strength, ΦR_n	:	34.66	k/bolt	
Unity Check, Bolt Bearing	:	2.20%		OKAY

APPENDIX E
SUPPLEMENTAL DRAWINGS

PV-LPPGS-14M-HR2-H5H10 - CEQ.53355

MONOPOLE GUARDIAN MOUNT



SHEET	THIRD ANGLE PROJECTION	CATEGORY	4		
1 OF 5		02_Monopole			
	SCALE	SERIES	3		
8/10/2021	1:36	01_Triangular			
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		TYPE	2	PART NUMBER CHANGE - SWAP TO H5H10	11/18/20
		BY	1	PART NUMBER CHANGE - UPDATED AP#	9/25/20
		CHECKED	0	INITIAL RELEASE	9/11/20
		STATUS	APPROVED	REV	DESCRIPTION
					MONOPOLE GUARDIAN MOUNT - ATT DOCUMENT NUMBER LPPGS-ENG-08-R2
					REV 2

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INCLUDED PARTS, WEIGHTS, EPA, & MOUNT CLASSIFICATION

Table 1: Included Parts, EPA, Weight

Part Number	Description	Weight (lbs)	(EPA)A (ft2)*	(EPA)A 1/2" Radial Ice (ft2)	Included Parts												
					PV-RM1045-GS	PV-LPP-GS-B	PV-LPP-GS-HK	PV-LPP-GS-EXT	PV-LPP-GS-HR238	PV-XP-DC-2020	PV-XP-DC-2030	PIPE-238X120	PIPE-238X174	PIPE-312X174	PV-GS-SRAL	PV-SCRB-RM-GS	PV-CMX-CG-BO
PV-LPPGS-14M-HR2-H5H10	14'6" Face, 13"-44" OD Pole, 2-3/8" OD Upper Rail, (12) 2-3/8" x 120" Pipe	2400	22.0	29.2	1	1	1	1	1	12	12	12	3	3	1	1	1

Table 2: Antenna Pipe Additional EPA (Each)

Size	(EPA)A (ft2)	(EPA)A 1/2" Radial Ice (ft2)
2-3/8" x 120"	1.9	2.8

* (EPA)A INCLUDES ALL STRUCTURAL MEMBERS INCLUDING CROSSOVER CONNECTIONS. IF DESIRED, ADD ANTENNA PIPE PER TABLE 2

MOUNT CLASSIFICATION INFORMATION:

- STANDARDS: TIA-222-G, TIA-222-H, TIA-5053
- MAX STRUCTURE HEIGHT: 400ft
- STRUCTURE CLASS: I OR II
- TOPOGRAPHIC CATEGORY: 1
- DESIGN WIND PRESSURE: 135psf
- DESIGN WIND PRESSURE (ICED): 15psf
- DESIGN ICE THICKNESS (RADIAL) 2.75"

APPROVED MOUNT CLASSIFICATIONS:

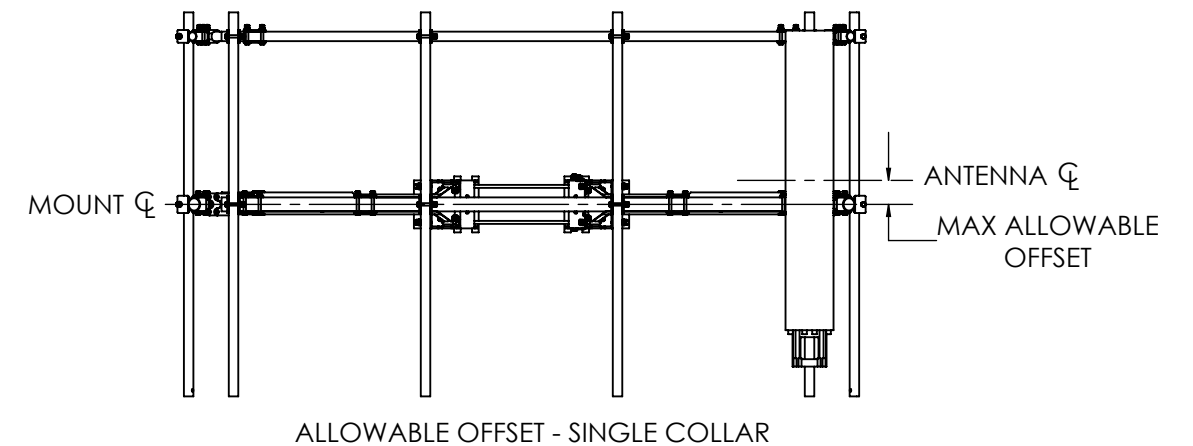
Table 2: Approve Mount Classifications

Part Number	Maximum Antenna Centerline Offset			
	0in	6in	12in	24in
PV-LPPGS-14M-HR2-H5H10	M1300R(1250)-4[0]	M1300R(1200)-4[6]	M1100R(1150)-4[12]	M700R(1000)-4[24]

MOUNT EXCEEDS THE FOLLOWING REQUIREMENTS:

- HEAVY 5
- HEAVY 10

NOTE: ON POLES WITH THICKNESS 3/16" OR LESS, A KICKER AND SECONDARY COLLAR OR FURTHER POLE ANALYSIS SHALL BE REQUIRED.

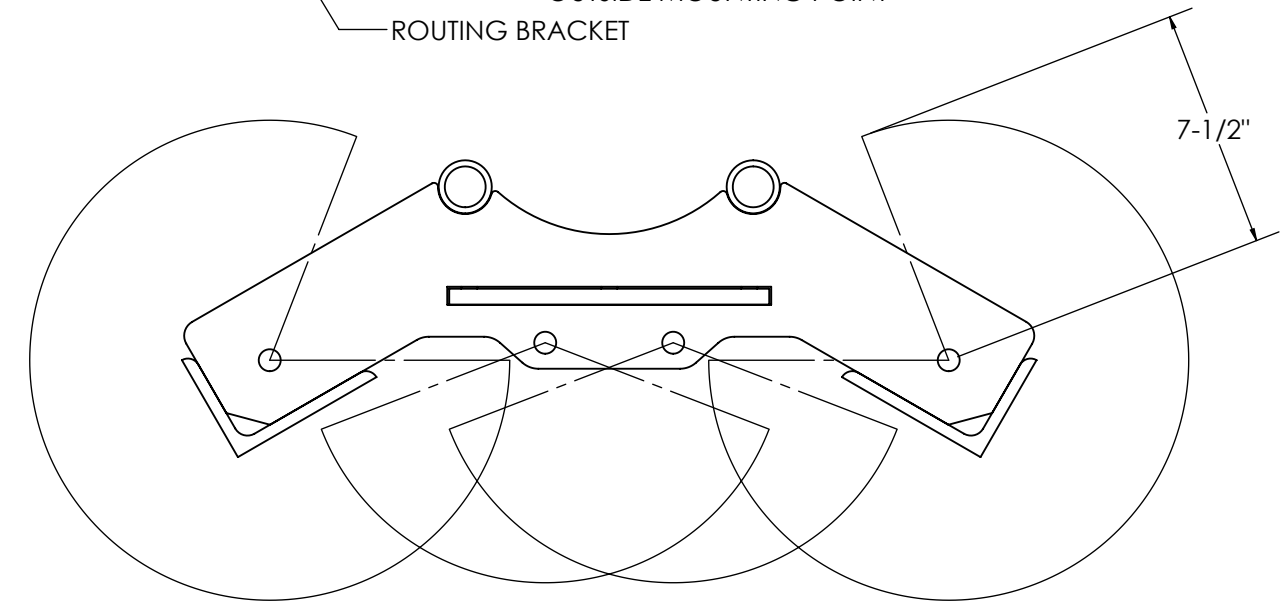
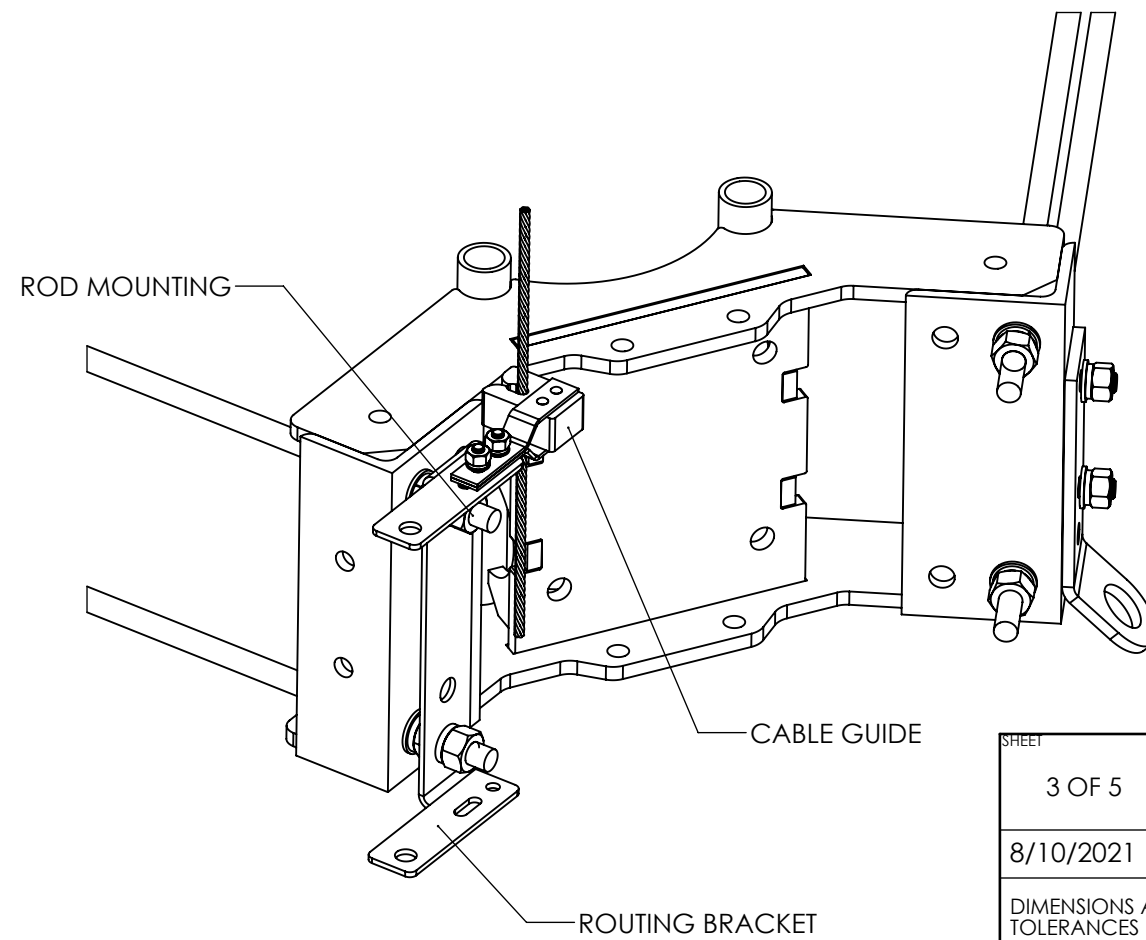
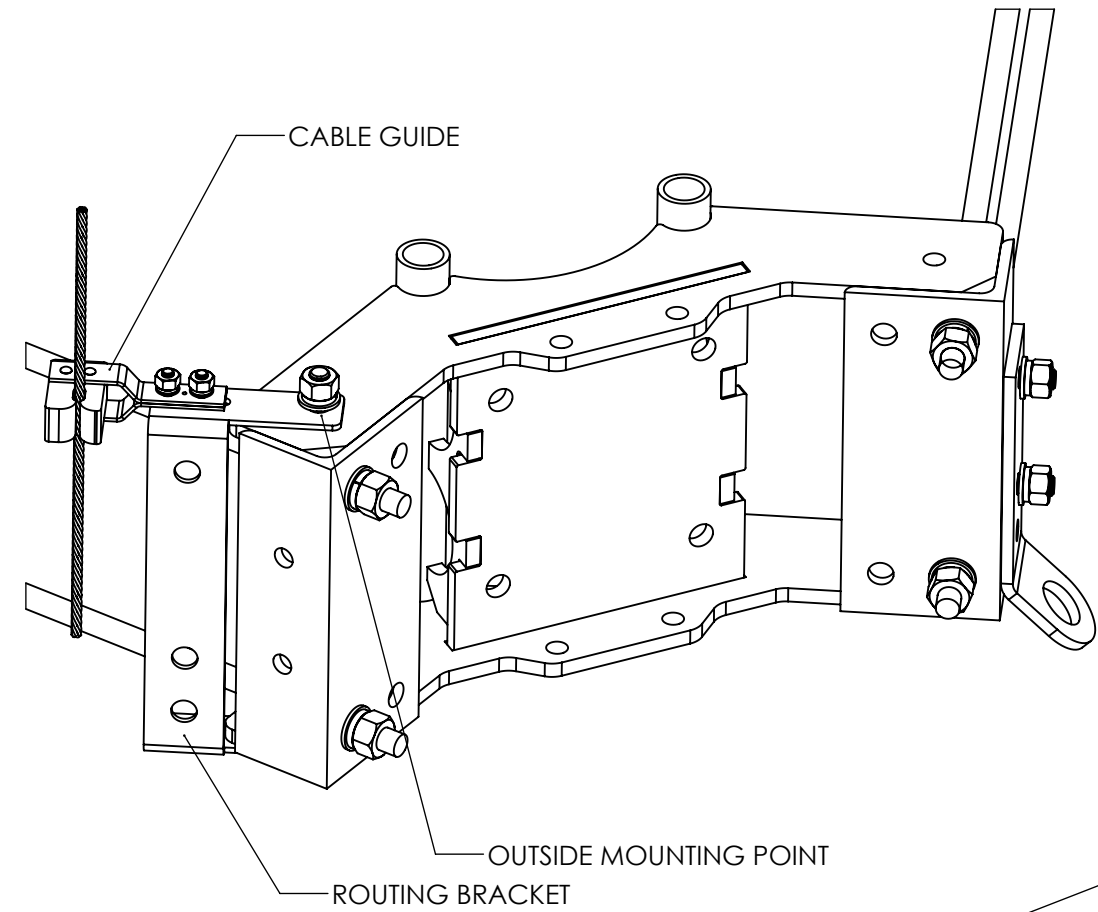
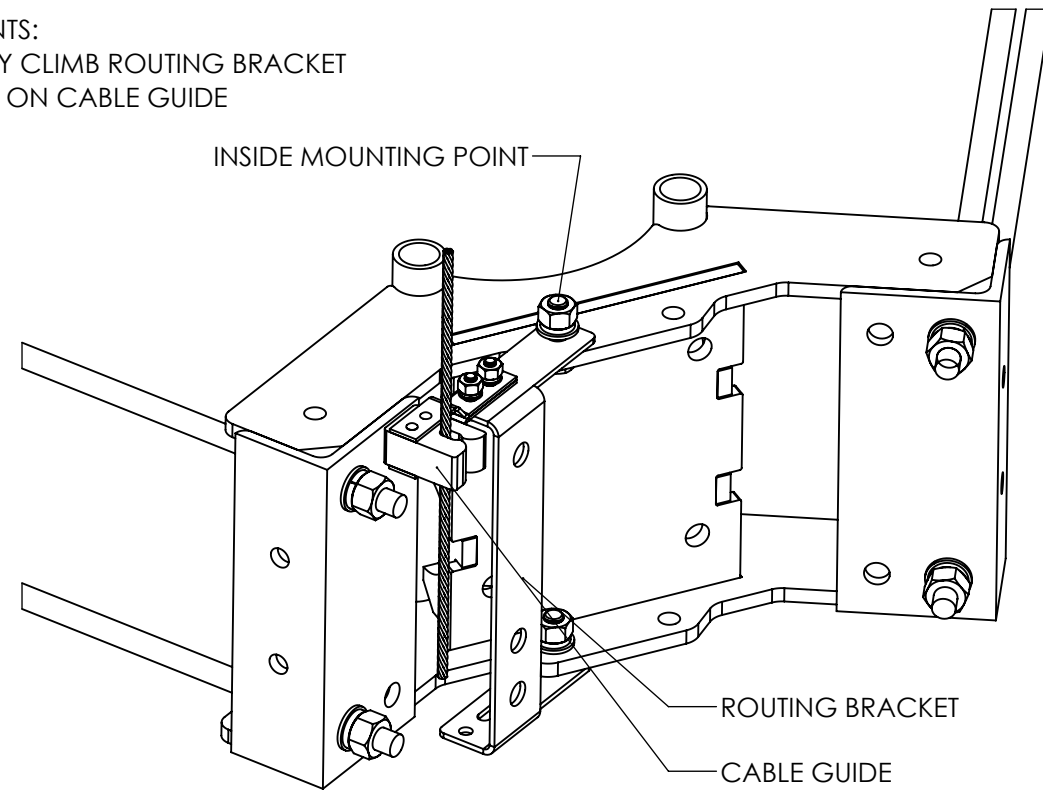


SHEET 2 OF 5	THIRD ANGLE PROJECTION 	CATEGORY 02_Monopole	4		PERFECT VISION
8/10/2021	SCALE 1:36	SERIES 01_Triangular	3		
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		TYPE PV-LPPGS_GUARDIAN	2	PART NUMBER CHANGE - SWAP TO H5H10	11/18/20
		BY DJN	1	PART NUMBER CHANGE - UPDATED AP#	9/25/20
		CHECKED SJS	0	INITIAL RELEASE	9/11/20
		STATUS APPROVED	REV	DESCRIPTION	DATE
MONOPOLE GUARDIAN MOUNT - ATT					DOCUMENT NUMBER
LPPGS-ENG-08-R2					REV 2

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SAFETY CLIMB ROUTING

INCLUDED COMPONENTS:
 PV-SCRB-RMGS - SAFETY CLIMB ROUTING BRACKET
 PV-CMX-CG-BO - BOLT ON CABLE GUIDE



CABLE GUIDE RANGE

SHEET 3 OF 5	THIRD ANGLE PROJECTION 	CATEGORY 02_Monopole	4		
8/10/2021	SCALE 1:6	SERIES 01_Triangular	3		
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		TYPE PV-LPPGS_GUARDIAN	2	PART NUMBER CHANGE - SWAP TO H5H10	11/18/20
		BY DJN	1	PART NUMBER CHANGE - UPDATED AP#	9/25/20
		CHECKED SJS	0	INITIAL RELEASE	9/11/20
		STATUS APPROVED	REV	DESCRIPTION	DATE
					MONOPOLE GUARDIAN MOUNT - ATT DOCUMENT NUMBER LPPGS-ENG-08-R2
					REV 2

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PV-XP-DC

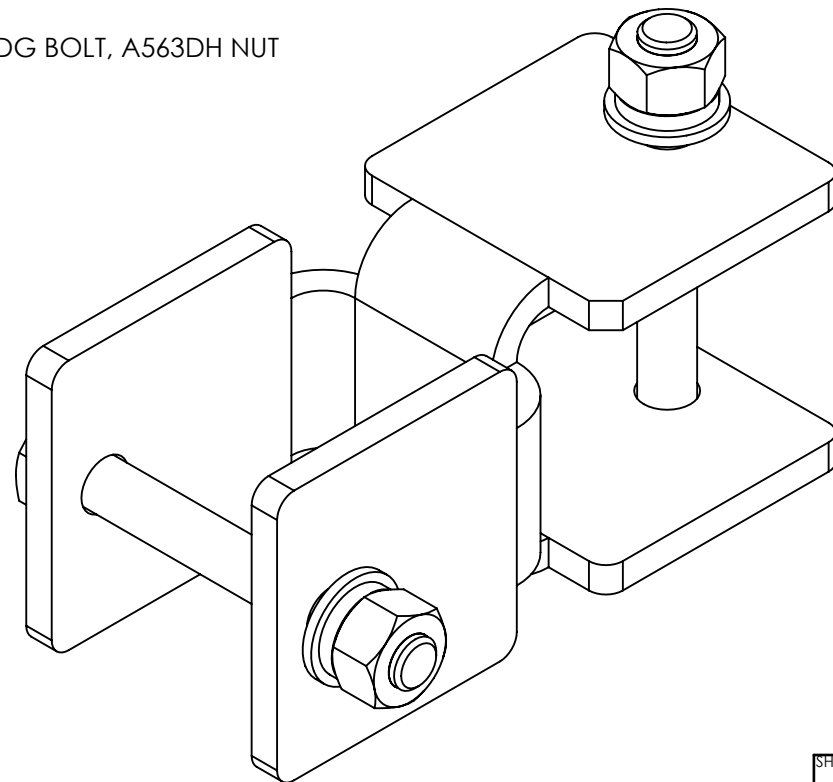
DUALCROSS 90° CROSSOVER BRACKET

Table 7: Crossover Configurations and Capacities

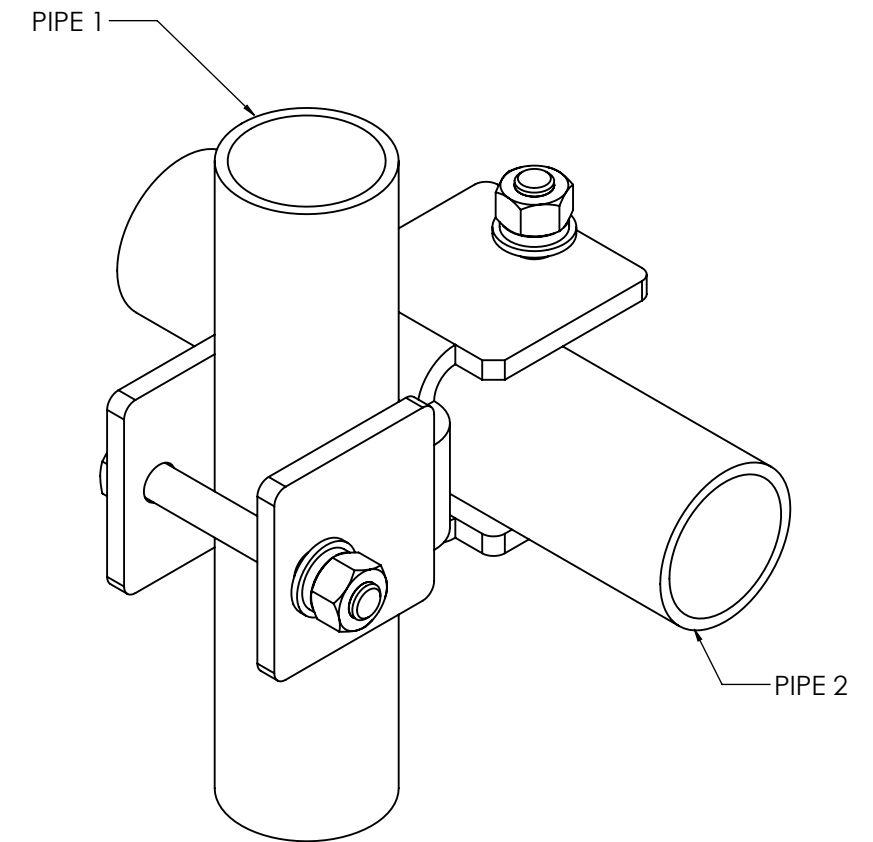
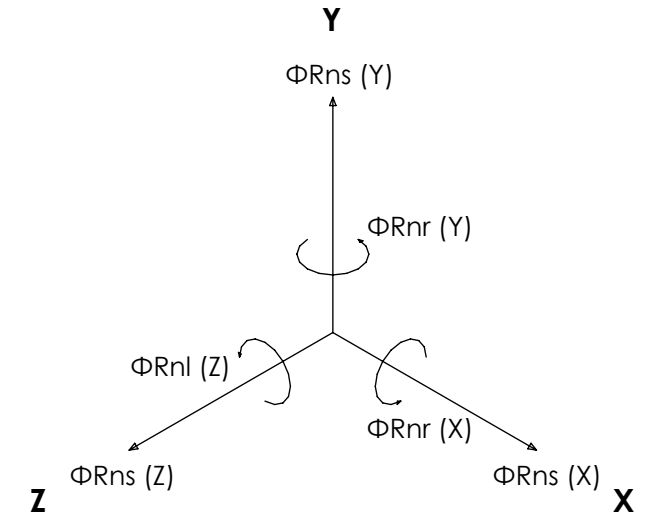
Part Number	Weight <i>lbs</i>	Pipe 1 Size (Vertical) <i>in</i>	Pipe 2 Size (Horizontal) <i>in</i>	Pipe 1 Bolt Size <i>in</i>	Pipe 2 Bolt Size <i>in</i>	Available Sliding Strength ($\Phi=0.7$)			Available Torsional Strength ($\Phi=0.7$)		Available Lateral Twist Strength ($\Phi=0.9$)
						ΦRns (X) <i>kjp</i>	ΦRns (Y) <i>kjp</i>	ΦRns (Z) <i>kjp</i>	ΦRnr (X) <i>kjp-in</i>	ΦRnr (Y) <i>kjp-in</i>	ΦRnl (Z) <i>kjp-in</i>
PV-XP-DC-2020	6.1	$\Phi 2.375$	$\Phi 2.375$	$\Phi 5/8 \times 4-1/2$	$\Phi 5/8 \times 4-1/2$	3.85	3.85	Fixed	6.0	6.0	14.0
PV-XP-DC-2025	7.0	$\Phi 2.375$	$\Phi 2.875$	$\Phi 5/8 \times 4-1/2$	$\Phi 5/8 \times 5$	3.85	3.85	Fixed	6.0	6.0	14.0
PV-XP-DC-2030	8.1	$\Phi 2.375$	$\Phi 3.5$	$\Phi 5/8 \times 4-1/2$	$\Phi 5/8 \times 5-1/2$	3.85	3.85	Fixed	6.8	6.0	14.0
PV-XP-DC-2525	8.0	$\Phi 2.875$	$\Phi 2.875$	$\Phi 5/8 \times 5$	$\Phi 5/8 \times 5$	3.85	3.85	Fixed	6.0	6.0	20.0
PV-XP-DC-2530	9.3	$\Phi 2.875$	$\Phi 3.5$	$\Phi 5/8 \times 5$	$\Phi 5/8 \times 5-1/2$	3.85	3.85	Fixed	6.8	6.0	20.0
PV-XP-DC-3030	10.7	$\Phi 3.5$	$\Phi 3.5$	$\Phi 5/8 \times 5-1/2$	$\Phi 5/8 \times 5-1/2$	3.85	3.85	Fixed	6.8	6.8	27.0
PV-XP-DC-3040	13.1	$\Phi 3.5$	$\Phi 4.5$	$\Phi 5/8 \times 5-1/2$	$\Phi 5/8 \times 6-1/2$	3.85	3.85	Fixed	6.8	6.8	27.0

NOTES:

- CAPACITY VALUES EXPERIMENTALLY DETERMINED
- INSTALLATION REQUIREMENTS:
 - MINIMUM BOLT TORQUE: 100 FT-LBS
 - CLEAN, DRY ASSEMBLY
 - GALVANIZED BRACKET AND HARDWARE
 - COLORED WAX COATING ON NUTS
- MATERIALS
 - BRACKET: A36 HDG
 - HARDWARE: A325 HDG BOLT, A563DH NUT



PV-XP-DC
DUALCROSS 90° CROSSOVER



SHEET	THIRD ANGLE PROJECTION	CATEGORY	4		
4 OF 5		02_Monopole			
8/10/2021	SCALE 1:2	SERIES	3		
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		TYPE	2	PART NUMBER CHANGE - SWAP TO H5H10	11/18/20
		BY	1	PART NUMBER CHANGE - UPDATED AP#	9/25/20
		CHECKED	0	INITIAL RELEASE	9/11/20
		STATUS	REV	DESCRIPTION	DATE
		APPROVED			

PERFECT VISION

MONOPOLE GUARDIAN MOUNT - ATT

DOCUMENT NUMBER: LPPGS-ENG-08-R2

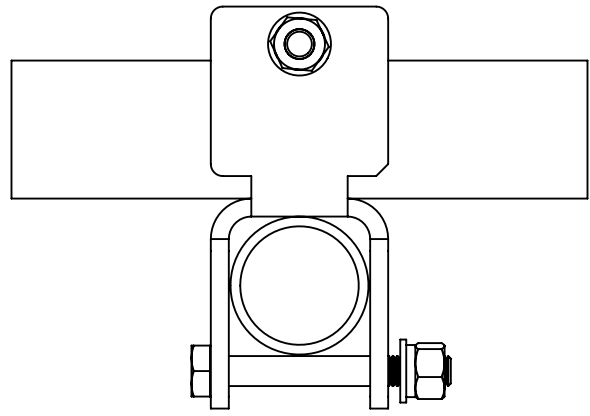
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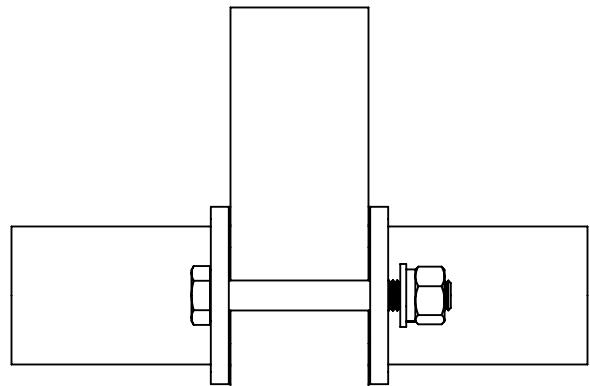
PV-XP-DC

DUALCROSS 90° CROSSOVER BRACKET

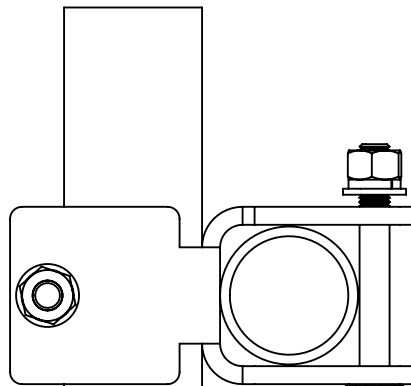
PRE-INSTALL ASSEMBLY:



TOP

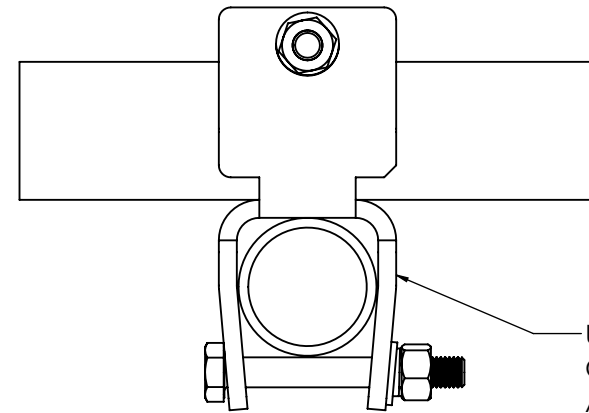


FRONT



SIDE

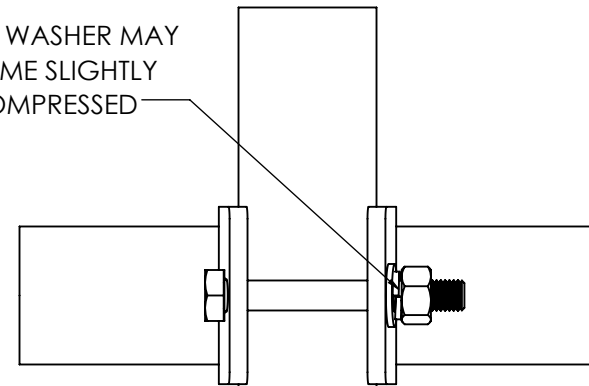
POST-INSTALL ASSEMBLY:



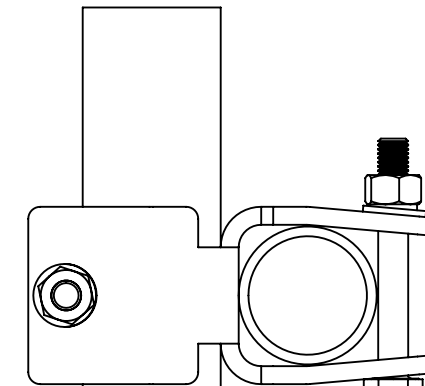
TOP

UNDER SPECIFIED BOLT TORQUE CONDITIONS, PLATES WILL FLEX AROUND PIPES

LOCK WASHER MAY BECOME SLIGHTLY UNCOMPRESSED



FRONT



SIDE

SHEET	THIRD ANGLE PROJECTION	CATEGORY			
5 OF 5		02_Monopole	4		
		SERIES	01_Triangular	3	
8/10/2021	SCALE 1:4	TYPE	PV-LPPGS_GUARDIAN	2	PART NUMBER CHANGE - SWAP TO H5H10 11/18/20
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		BY	DJN	1	PART NUMBER CHANGE - UPDATED AP# 9/25/20
		CHECKED	SJS	0	INITIAL RELEASE 9/11/20
		STATUS	APPROVED	REV	DESCRIPTION
					MONOPOLE GUARDIAN MOUNT - ATT DOCUMENT NUMBER LPPGS-ENG-08-R2
					REV 2

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Date: January 04, 2023

MTS Engineering, P.L.L.C.
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630

Subject: Structural Analysis Report

Carrier Designation: AT&T Mobility Co-Locate
Site Number: CT5775
Site Name: Canterbury East
FA Number: 10070963

Crown Castle Designation: BU Number: 876375
Site Name: Canterbury / Lemire
JDE Job Number: 715662
Work Order Number: 2190006
Order Number: 614871 Rev. 0

Engineering Firm Designation: Project Number: 147461.010.01.0002

Site Data: 53 Westminster Rd., Canterbury, Windham County, CT
Latitude 41° 42' 7.15", Longitude -71° 58' 50.11"
180.5 Foot - Monopole

We are pleased to submit this "Structural Analysis Report" to determine the structural integrity of the above-mentioned tower.

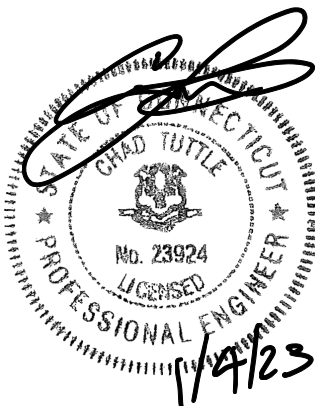
The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

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

This analysis utilizes an ultimate 3-second gust wind speed of 123 mph as required by the 2022 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Clint Coody

Respectfully submitted by: MTS Engineering, P.L.L.C.
BER: 2386985; Expires: 03/31/2023



Chad E. Tuttle, P.E.

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3.2) Assumptions

4) ANALYSIS RESULTS

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Table 5 - Tower Component Stresses vs. Capacity - LC7

4.1) Recommendations

5) APPENDIX A

tnxTower Output

6) APPENDIX B

Base Level Drawing

7) APPENDIX C

Additional Calculations

1) INTRODUCTION

This tower is a 180.5 ft. Monopole mapped by FDH Engineering, Inc.

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

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	123 mph
Exposure Category:	B
Topographic Factor:	1
Ice Thickness:	1 in
Wind Speed with Ice:	50 mph
Service Wind Speed:	60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
155.0	161.0	3	CCI Antennas	OPA65R-BU6D	12	1-1/4
		3	CCI Antennas	TPA65R-BU6DA-K		
		3	Ericsson	RRUS 4415 B25_CCIV2		
		3	Ericsson	RRUS 4426 B66		
		3	Ericsson	RRUS 4449 B5/B12		
		3	Ericsson	RRUS 4478 B14_CCIV2		
		3	KMW Comm.	AM-X-CD-17-65-00T-RET		
	1	Raycap	DC6-48-60-18-8F			
155.0	155.0	6	--	2.0" STD x 6'-0" Mount Pipe		
		1	Perfect Vision	PV-LPPGS-14M-HR2-H5H10 Platform Mount		
153.0	161.0	1	Raycap	DC6-48-60-18-8F	2	7/8
	153.0	1	--	Side Arm Mount [SO 104-3]	2	13/16 3/8

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)	
180.0	183.0	3	Ericsson	AIR6449 B41_T-MOBILE	3	1-5/8	
		3	Ericsson	Radio 4460 B2/B25 B66_TMO			
		3	Ericsson	Radio 4480_TMOV2			
		3	RFS Celwave	APXVAALL24_43-U-NA20_TMO			
	180.0	180.0	1	--			Platform Mount [LP 602-1]
			1	Site Pro 1			HRK12 Handrail Kit
			1	Site Pro 1			SFS-V Stabilizer Kit
170.0	170.0	1	RFS Celwave	TMA-DB-T1-6Z-8AB-0Z	--	--	
		1	--	Side Arm Mount [SO 102-3]			
168.0	170.0	3	Antel	BXA-171063-12CF-EDIN-X	1	1-5/8	

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		6	Commscope	NHH-65B-R2B	1	1-1/2
		1	Raycap	RVZDC-6627-PF-48_CCIV2		
		3	Samsung Telecom.	MT6407-77A		
		3	Samsung Telecom.	RF4439D-25A		
		3	Samsung Telecom.	RF4440D-13A		
	168.0	3	--	84" Long, P2.5 STD Pipe		
		1	--	36" Long, P2 STD Pipe		
		1	VZSMART	PLK 1 Support Rail Kit		
		1	--	Platform Mount [LP 303-1]		
		141.0	141.0	3		
3	Fujitsu			TA08025-B605		
3	JMA Wireless			MX08FRO665-21		
1	Raycap			RDIDC-9181-PF-48		
1	--			Commscope MC-PK8-DSH		
78.0	79.0	1	Spectracom	8225	1	1/2
	78.0	1	--	Side Arm Mount [SO 701-1]		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Tower Mapping	2428368	CCI Sites
Tower Modification Drawing	2435769	CCI Sites
Post Modification Inspection	2464622	CCI Sites
Tower Modification Drawing	3364133	CCI Sites
Post Modification Inspection	3841077	CCI Sites
Tower Modification Drawing	7738171	CCI Sites
Post Modification Inspection	8246170	CCI Sites
Foundation Mapping	1615348	CCI Sites
Geotech Report	1615348	CCI Sites
Crown CAD Package	Date: 08/02/2022	CCI Sites

3.1) Analysis Method

tnxTower (version 8.1.1.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the pole and in the reinforcing elements. These calculations are presented in Appendix C.

3.2) Assumptions

- 1) The tower and structures were maintained in accordance with the TIA-222 Standard.
- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
- 3) Following Material grades were assumed:
 - a) Tower Shaft: A572-65
 - b) Anchor Rods: A615-75
 - c) Base Plate: A572-50

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L1	180.5 - 175.5	Pole	TP18.569x17.62x0.25	1	-4.116	--	9.1	Pass
L2	175.5 - 170.5	Pole	TP19.518x18.569x0.25	2	-4.426	--	15.6	Pass
L3	170.5 - 165.5	Pole	TP20.467x19.518x0.25	3	-7.725	--	24.3	Pass
L4	165.5 - 160.5	Pole	TP21.416x20.467x0.25	4	-8.107	--	32.3	Pass
L5	160.5 - 155.5	Pole	TP22.365x21.416x0.25	5	-8.524	--	39.1	Pass
L6	155.5 - 150.5	Pole	TP23.313x22.365x0.25	6	-12.739	--	51.8	Pass
L7	150.5 - 145.5	Pole	TP24.262x23.313x0.25	7	-13.336	--	60.4	Pass
L8	145.5 - 140.5	Pole	TP25.211x24.262x0.25	8	-16.729	--	68.7	Pass
L9	140.5 - 137.79	Pole	TP26.35x25.211x0.25	9	-17.099	--	73.5	Pass
L10	137.79 - 132.79	Pole	TP26.174x25.225x0.3125	10	-18.103	--	66.6	Pass
L11	132.79 - 127.79	Pole	TP27.123x26.174x0.3125	11	-18.934	--	71.8	Pass
L12	127.79 - 122.79	Pole	TP28.072x27.123x0.3125	12	-19.782	--	76.3	Pass
L13	122.79 - 120.58	Pole	TP28.491x28.072x0.3125	13	-20.165	--	78.1	Pass
L14	120.58 - 120.33	Pole	TP28.539x28.491x0.3125	14	-20.225	--	78.2	Pass
L15	120.33 - 115.33	Pole	TP29.488x28.539x0.3125	15	-21.101	--	81.8	Pass
L16	115.33 - 112.5	Pole	TP30.025x29.488x0.3125	16	-21.609	--	83.6	Pass
L17	112.5 - 112.25	Pole + Reinf.	TP30.073x30.025x0.6375	17	-21.703	--	66.6	Pass
L18	112.25 - 107.82	Pole + Reinf.	TP30.914x30.073x0.675	18	-22.965	--	65.1	Pass
L19	107.82 - 107.57	Pole + Reinf.	TP30.961x30.914x0.675	19	-23.046	--	65.3	Pass
L20	107.57 - 102.57	Pole + Reinf.	TP31.91x30.961x0.6625	20	-24.494	--	68.3	Pass
L21	102.57 - 97.57	Pole + Reinf.	TP32.859x31.91x0.65	21	-25.974	--	71.1	Pass
L22	97.57 - 93.31	Pole + Reinf.	TP34.485x32.859x0.6375	22	-27.254	--	73.3	Pass
L23	93.31 - 88.31	Pole + Reinf.	TP33.991x33.042x0.7	23	-29.979	--	71.0	Pass
L24	88.31 - 87.5	Pole + Reinf.	TP34.145x33.991x0.7	24	-30.247	--	71.3	Pass
L25	87.5 - 87.25	Pole	TP34.192x34.145x0.375	25	-30.307	--	82.4	Pass
L26	87.25 - 82.25	Pole	TP35.141x34.192x0.375	26	-31.439	--	83.6	Pass
L27	82.25 - 80.83	Pole	TP35.41x35.141x0.375	27	-31.761	--	83.8	Pass
L28	80.83 - 80.58	Pole	TP35.457x35.41x0.375	28	-31.841	--	83.9	Pass
L29	80.58 - 75.58	Pole	TP36.406x35.457x0.375	29	-33.081	--	85.1	Pass
L30	75.58 - 70.58	Pole	TP37.355x36.406x0.375	30	-34.287	--	86.4	Pass
L31	70.58 - 65.58	Pole	TP38.304x37.355x0.375	31	-35.518	--	87.6	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
L32	65.58 - 60.58	Pole	TP39.253x38.304x0.375	32	-36.774	--	88.7	Pass
L33	60.58 - 55.58	Pole	TP40.202x39.253x0.375	33	-38.053	--	89.6	Pass
L34	55.58 - 53.57	Pole	TP40.584x40.202x0.375	34	-38.575	--	90.0	Pass
L35	53.57 - 53.32	Pole	TP40.632x40.584x0.375	35	-38.654	--	90.0	Pass
L36	53.32 - 49.11	Pole	TP42.438x40.632x0.375	36	-39.745	--	90.8	Pass
L37	49.11 - 42.8	Pole + Reinf.	TP41.878x40.681x0.7	37	-43.399	--	75.2	Pass
L38	42.8 - 38.42	Pole + Reinf.	TP42.71x41.878x0.6875	38	-45.243	--	76.0	Pass
L39	38.42 - 38.07	Pole + Reinf.	TP42.776x42.71x0.6875	39	-45.400	--	76.1	Pass
L40	38.07 - 37.83	Pole + Reinf.	TP42.82x42.776x0.6875	40	-45.501	--	76.1	Pass
L41	37.83 - 32.83	Pole + Reinf.	TP43.769x42.82x0.675	41	-46.138	--	76.9	Pass
L42	32.83 - 27.83	Pole + Reinf.	TP44.718x43.769x0.675	42	-47.847	--	77.7	Pass
L43	27.83 - 23.5	Pole + Reinf.	TP45.54x44.718x0.6625	43	-50.022	--	78.3	Pass
L44	23.5 - 23.25	Pole + Reinf.	TP45.588x45.54x0.6625	44	-51.679	--	78.3	Pass
L45	23.25 - 18.25	Pole + Reinf.	TP46.537x45.588x0.6625	45	-51.796	--	78.9	Pass
L46	18.25 - 13.25	Pole + Reinf.	TP47.486x46.537x0.65	46	-53.996	--	79.5	Pass
L47	13.25 - 8.25	Pole + Reinf.	TP48.434x47.486x0.65	47	-56.221	--	80.0	Pass
L48	8.25 - 7.92	Pole + Reinf.	TP48.498x48.434x0.65	48	-58.462	--	80.1	Pass
L49	7.92 - 7.67	Pole + Reinf.	TP48.545x48.498x0.7	49	-58.612	--	75.6	Pass
L50	7.67 - 5.5	Pole + Reinf.	TP48.956x48.545x0.7	50	-58.739	--	75.8	Pass
L51	5.5 - 5.25	Pole + Reinf.	TP49.004x48.956x0.4125	51	-59.844	--	93.3	Pass
L52	5.25 - 3	Pole + Reinf.	TP49.431x49.004x0.425	52	-60.608	--	93.5	Pass
L53	3 - 2.75	Pole + Reinf.	TP49.478x49.431x0.625	53	-60.627	--	76.8	Pass
L54	2.75 - 0	Pole + Reinf.	TP50x49.478x0.625	54	-60.748	--	77.0	Pass
							Summary	
						Pole (L36)	93.5	Pass
						Reinforcement	86.0	Pass
						Rating =	93.5	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	Base	79.8	Pass
1,2	Base Plate	Base	76.1	Pass
1,2	Base Foundation (Structure)	Base	86.7	Pass
1,2	Base Foundation (Soil Interaction)	Base	85.0	Pass

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

Notes:

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

4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

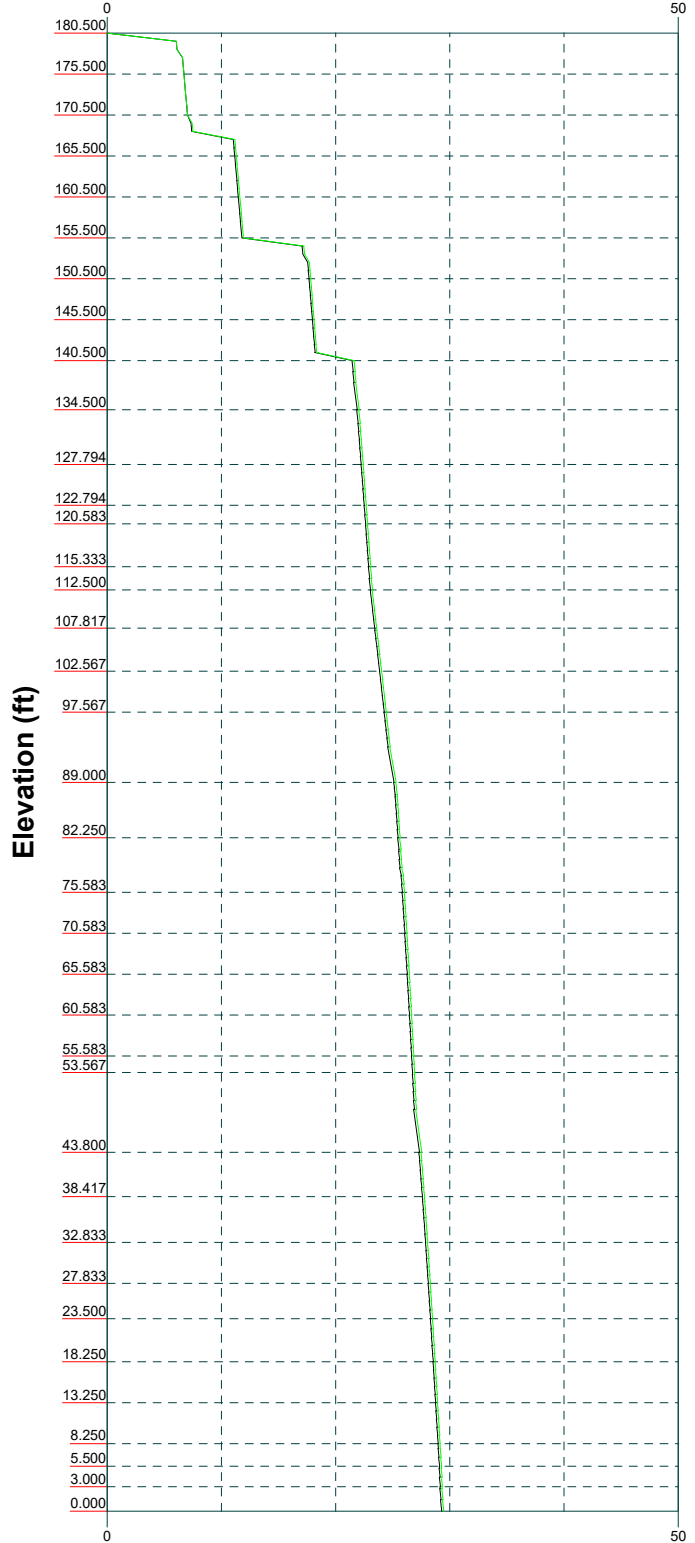
Vx

Vz

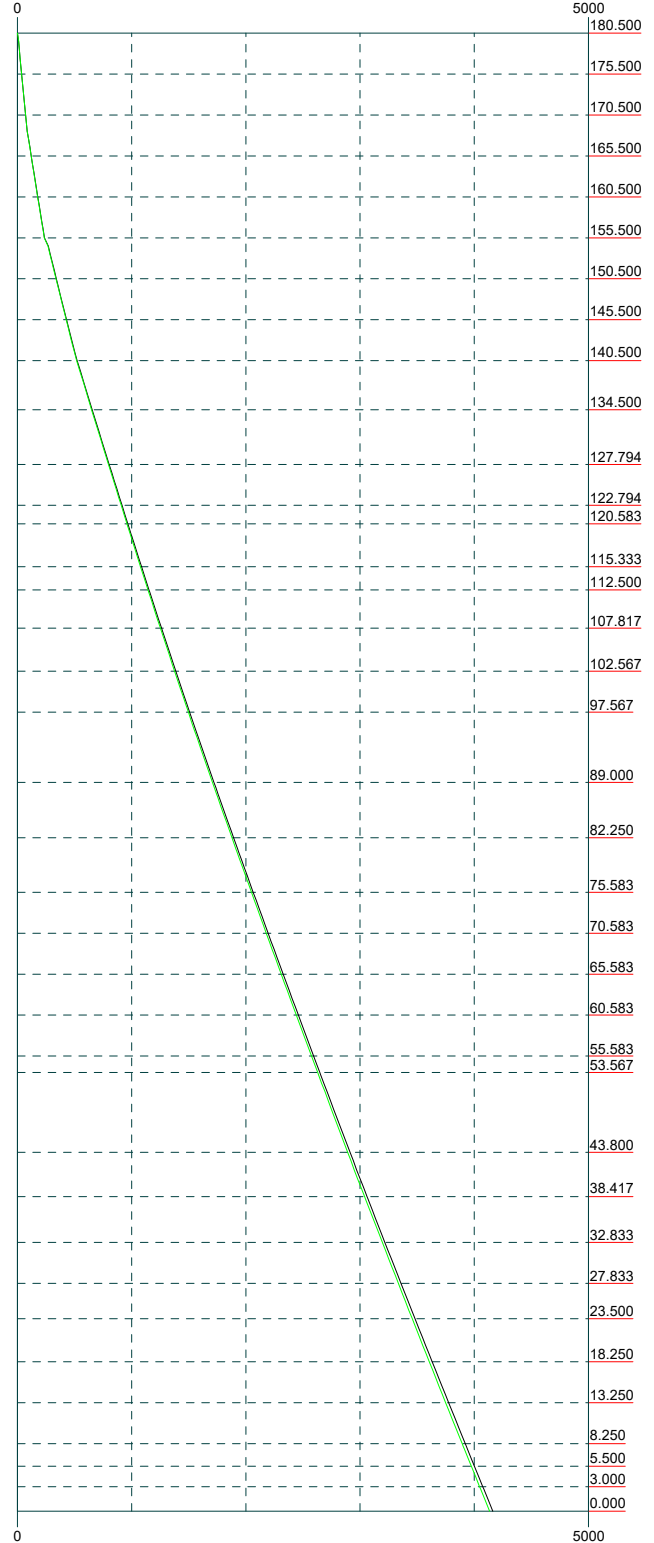
Mx

Mz

Global Mast Shear (K)

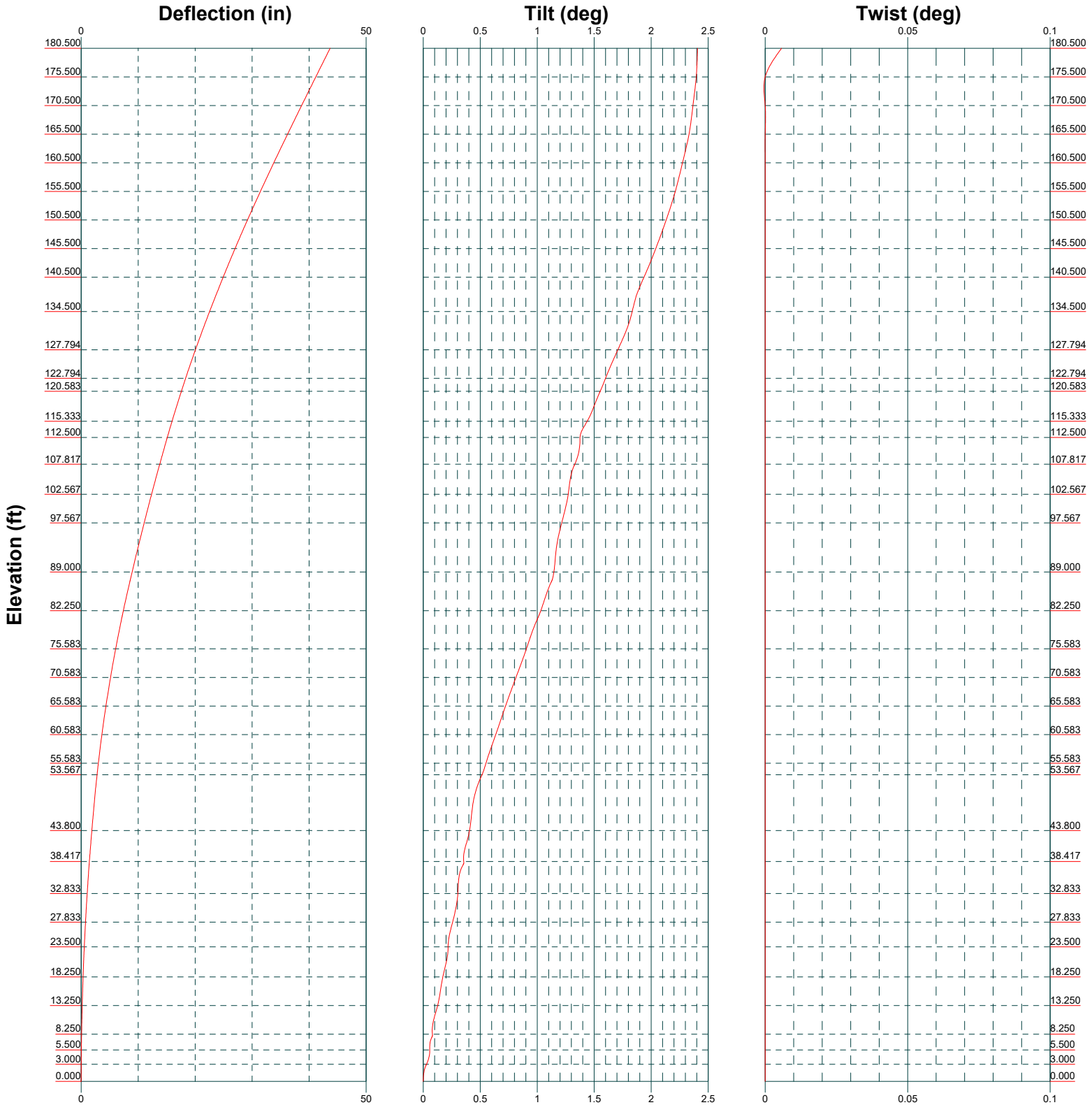


Global Mast Moment (kip-ft)



MTS Engineering, P.L.L.C.
 1717 S. Boulder, Suite 300
 Tulsa, OK 74119
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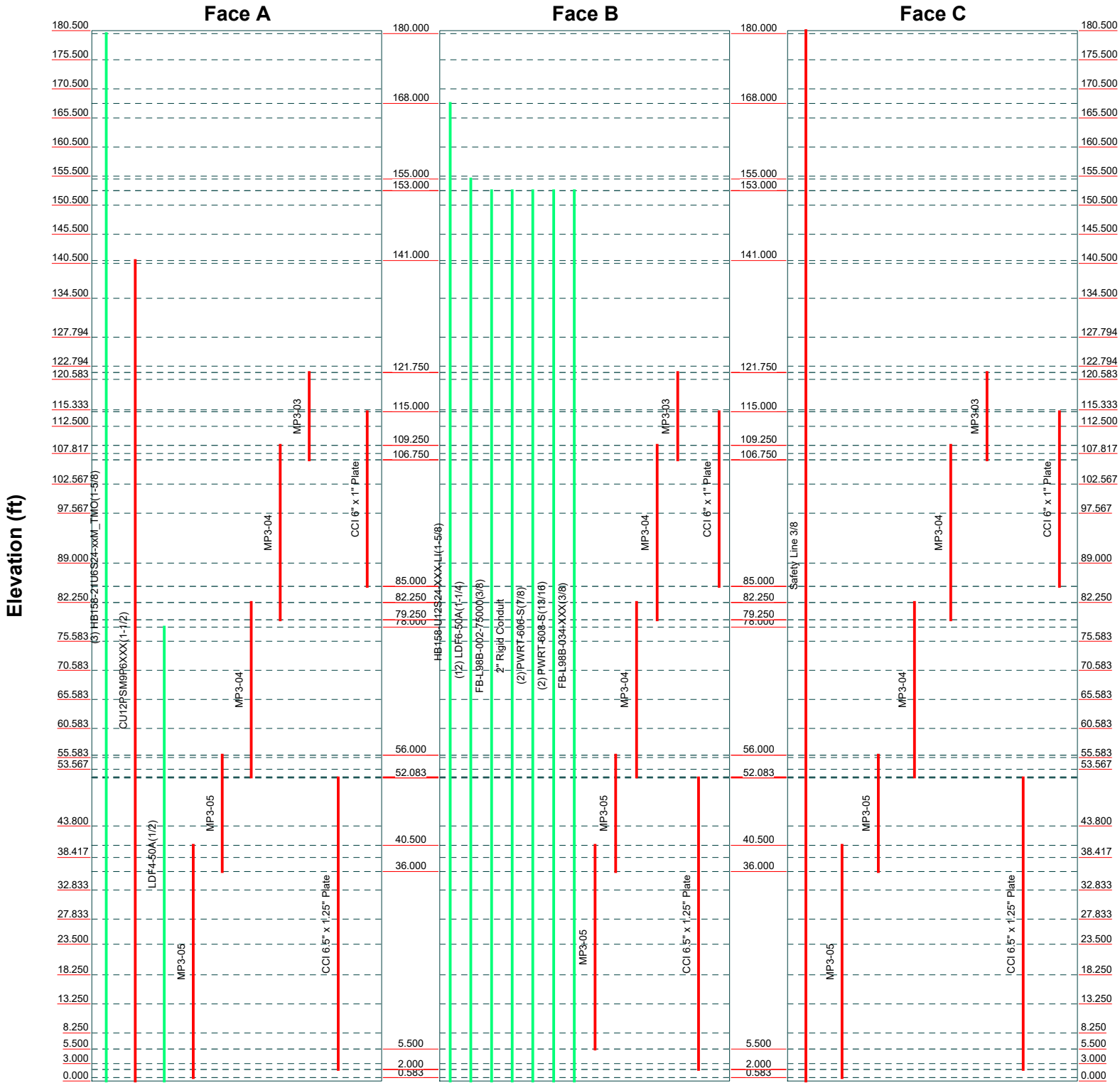
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Project:		
Client: Crown Castle	Drawn by: JD Prabhu	App'd:
Code: TIA-222-H	Date: 01/04/23	Scale: NTS
Path:	Dwg No. E-4	




Feed Line Distribution Chart

0' - 180'6"

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



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	Project:		
	Client: Crown Castle	Drawn by: JD Prabhu	App'd:
	Code: TIA-222-H	Date: 01/04/23	Scale: NTS
Path:	Dwg No. E-7		

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<p>tnxTower</p> <p>MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 1 of 57
	Project	Date 13:44:56 01/04/23
	Client Crown Castle	Designed by JD Prabhu

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 Windham County, Connecticut.

Tower base elevation above sea level: 339.000 ft.

Basic wind speed of 123 mph.

Risk Category II.

Exposure Category B.

Simplified Topographic Factor Procedure for wind speed-up calculations is used.

Topographic Category: 1.

Crest Height: 0.000 ft.

Nominal ice thickness of 1.000 in.

Ice thickness is considered to increase with height.

Ice density of 56.000 pcf.

A wind speed of 50 mph is used in combination with ice.

Temperature drop of 50.000 °F.

Deflections calculated using a wind speed of 60 mph.

TIA-222-H Annex S.

TOWER RATING: 93.5%.

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>tnxTower</p> <p>MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p>Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)</p>	<p>Page 2 of 57</p>
	<p>Project</p>	<p>Date 13:44:56 01/04/23</p>
	<p>Client Crown Castle</p>	<p>Designed by JD Prabhu</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	180.500-175.500	5.000	0.000	18	17.620	18.569	0.250	1.000	A572-65 (65 ksi)
L2	175.500-170.500	5.000	0.000	18	18.569	19.518	0.250	1.000	A572-65 (65 ksi)
L3	170.500-165.500	5.000	0.000	18	19.518	20.467	0.250	1.000	A572-65 (65 ksi)
L4	165.500-160.500	5.000	0.000	18	20.467	21.416	0.250	1.000	A572-65 (65 ksi)
L5	160.500-155.500	5.000	0.000	18	21.416	22.365	0.250	1.000	A572-65 (65 ksi)
L6	155.500-150.500	5.000	0.000	18	22.365	23.313	0.250	1.000	A572-65 (65 ksi)
L7	150.500-145.500	5.000	0.000	18	23.313	24.262	0.250	1.000	A572-65 (65 ksi)
L8	145.500-140.500	5.000	0.000	18	24.262	25.211	0.250	1.000	A572-65 (65 ksi)
L9	140.500-134.500	6.000	3.294	18	25.211	26.350	0.250	1.000	A572-65 (65 ksi)
L10	134.500-132.794	5.000	0.000	18	25.225	26.174	0.313	1.250	A572-65 (65 ksi)
L11	132.794-127.794	5.000	0.000	18	26.174	27.123	0.313	1.250	A572-65 (65 ksi)
L12	127.794-122.794	5.000	0.000	18	27.123	28.072	0.313	1.250	A572-65 (65 ksi)
L13	122.794-120.583	2.211	0.000	18	28.072	28.491	0.313	1.250	A572-65 (65 ksi)
L14	120.583-120.333	0.250	0.000	18	28.491	28.539	0.313	1.250	A572-65 (65 ksi)
L15	120.333-115.333	5.000	0.000	18	28.539	29.488	0.313	1.250	A572-65 (65 ksi)
L16	115.333-112.500	2.833	0.000	18	29.488	30.025	0.313	1.250	A572-65 (65 ksi)
L17	112.500-112.250	0.250	0.000	18	30.025	30.073	0.637	2.550	A572-65 (65 ksi)
L18	112.250-107.817	4.433	0.000	18	30.073	30.914	0.675	2.700	A572-65 (65 ksi)
L19	107.817-107.567	0.250	0.000	18	30.914	30.961	0.675	2.700	A572-65 (65 ksi)
L20	107.567-102.567	5.000	0.000	18	30.961	31.910	0.662	2.650	A572-65 (65 ksi)
L21	102.567-97.567	5.000	0.000	18	31.910	32.859	0.650	2.600	A572-65 (65 ksi)
L22	97.567-89.000	8.567	4.311	18	32.859	34.485	0.637	2.550	A572-65 (65 ksi)
L23	89.000-88.311	5.000	0.000	18	33.042	33.991	0.700	2.800	A572-65 (65 ksi)
L24	88.311-87.500	0.811	0.000	18	33.991	34.145	0.700	2.800	A572-65 (65 ksi)
L25	87.500-87.250	0.250	0.000	18	34.145	34.192	0.375	1.500	A572-65 (65 ksi)
L26	87.250-82.250	5.000	0.000	18	34.192	35.141	0.375	1.500	A572-65 (65 ksi)
L27	82.250-80.833	1.417	0.000	18	35.141	35.410	0.375	1.500	A572-65 (65 ksi)
L28	80.833-80.583	0.250	0.000	18	35.410	35.457	0.375	1.500	A572-65 (65 ksi)

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	<p>Project</p>	<p>Date 13:44:56 01/04/23</p>
	<p>Client Crown Castle</p>	<p>Designed by JD Prabhu</p>

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
L29	80.583-75.583	5.000	0.000	18	35.457	36.406	0.375	1.500	A572-65 (65 ksi)
L30	75.583-70.583	5.000	0.000	18	36.406	37.355	0.375	1.500	A572-65 (65 ksi)
L31	70.583-65.583	5.000	0.000	18	37.355	38.304	0.375	1.500	A572-65 (65 ksi)
L32	65.583-60.583	5.000	0.000	18	38.304	39.253	0.375	1.500	A572-65 (65 ksi)
L33	60.583-55.583	5.000	0.000	18	39.253	40.202	0.375	1.500	A572-65 (65 ksi)
L34	55.583-53.567	2.016	0.000	18	40.202	40.584	0.375	1.500	A572-65 (65 ksi)
L35	53.567-53.317	0.250	0.000	18	40.584	40.632	0.375	1.500	A572-65 (65 ksi)
L36	53.317-43.800	9.517	5.305	18	40.632	42.438	0.375	1.500	A572-65 (65 ksi)
L37	43.800-42.800	6.305	0.000	18	40.681	41.878	0.700	2.800	A572-65 (65 ksi)
L38	42.800-38.417	4.383	0.000	18	41.878	42.710	0.688	2.750	A572-65 (65 ksi)
L39	38.417-38.067	0.350	0.000	18	42.710	42.776	0.688	2.750	A572-65 (65 ksi)
L40	38.067-37.833	0.234	0.000	18	42.776	42.820	0.688	2.750	A572-65 (65 ksi)
L41	37.833-32.833	5.000	0.000	18	42.820	43.769	0.675	2.700	A572-65 (65 ksi)
L42	32.833-27.833	5.000	0.000	18	43.769	44.718	0.675	2.700	A572-65 (65 ksi)
L43	27.833-23.500	4.333	0.000	18	44.718	45.540	0.662	2.650	A572-65 (65 ksi)
L44	23.500-23.250	0.250	0.000	18	45.540	45.588	0.662	2.650	A572-65 (65 ksi)
L45	23.250-18.250	5.000	0.000	18	45.588	46.537	0.662	2.650	A572-65 (65 ksi)
L46	18.250-13.250	5.000	0.000	18	46.537	47.486	0.650	2.600	A572-65 (65 ksi)
L47	13.250-8.250	5.000	0.000	18	47.486	48.434	0.650	2.600	A572-65 (65 ksi)
L48	8.250-7.917	0.333	0.000	18	48.434	48.498	0.650	2.600	A572-65 (65 ksi)
L49	7.917-7.667	0.250	0.000	18	48.498	48.545	0.700	2.800	A572-65 (65 ksi)
L50	7.667-5.500	2.167	0.000	18	48.545	48.956	0.700	2.800	A572-65 (65 ksi)
L51	5.500-5.250	0.250	0.000	18	48.956	49.004	0.412	1.650	A572-65 (65 ksi)
L52	5.250-3.000	2.250	0.000	18	49.004	49.431	0.425	1.700	A572-65 (65 ksi)
L53	3.000-2.750	0.250	0.000	18	49.431	49.478	0.625	2.500	A572-65 (65 ksi)
L54	2.750-0.000	2.750		18	49.478	50.000	0.625	2.500	A572-65 (65 ksi)

Tapered Pole Properties

<i>tnxTower</i> MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 4 of 57
	Project	Date 13:44:56 01/04/23
	Client Crown Castle	Designed by JD Prabhu

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	17.853	13.783	525.392	6.166	8.951	58.697	1051.476	6.893	2.661	10.644
	18.817	14.536	616.288	6.503	9.433	65.333	1233.386	7.269	2.828	11.313
L2	18.817	14.536	616.288	6.503	9.433	65.333	1233.386	7.269	2.828	11.313
	19.780	15.289	717.105	6.840	9.915	72.325	1435.153	7.646	2.995	11.981
L3	19.780	15.289	717.105	6.840	9.915	72.325	1435.153	7.646	2.995	11.981
	20.744	16.042	828.357	7.177	10.397	79.672	1657.805	8.023	3.162	12.649
L4	20.744	16.042	828.357	7.177	10.397	79.672	1657.805	8.023	3.162	12.649
	21.707	16.795	950.560	7.514	10.879	87.374	1902.370	8.399	3.329	13.317
L5	21.707	16.795	950.560	7.514	10.879	87.374	1902.370	8.399	3.329	13.317
	22.671	17.548	1084.225	7.851	11.361	95.432	2169.878	8.776	3.496	13.985
L6	22.671	17.548	1084.225	7.851	11.361	95.432	2169.878	8.776	3.496	13.985
	23.635	18.301	1229.869	8.188	11.843	103.846	2461.356	9.152	3.663	14.653
L7	23.635	18.301	1229.869	8.188	11.843	103.846	2461.356	9.152	3.663	14.653
	24.598	19.054	1388.004	8.524	12.325	112.614	2777.834	9.529	3.830	15.321
L8	24.598	19.054	1388.004	8.524	12.325	112.614	2777.834	9.529	3.830	15.321
	25.562	19.807	1559.144	8.861	12.807	121.738	3120.339	9.905	3.997	15.989
L9	25.562	19.807	1559.144	8.861	12.807	121.738	3120.339	9.905	3.997	15.989
	26.718	20.710	1782.403	9.265	13.386	133.156	3567.151	10.357	4.198	16.79
L10	26.201	24.710	1937.487	8.844	12.814	151.198	3877.523	12.357	3.890	12.447
	26.529	25.651	2167.421	9.181	13.296	163.010	4337.695	12.828	4.057	12.981
L11	26.529	25.651	2167.421	9.181	13.296	163.010	4337.695	12.828	4.057	12.981
	27.493	26.592	2414.864	9.518	13.778	175.266	4832.905	13.299	4.224	13.515
L12	27.493	26.592	2414.864	9.518	13.778	175.266	4832.905	13.299	4.224	13.515
	28.456	27.534	2680.456	9.854	14.260	187.966	5364.440	13.769	4.391	14.05
L13	28.456	27.534	2680.456	9.854	14.260	187.966	5364.440	13.769	4.391	14.05
	28.882	27.950	2803.856	10.003	14.474	193.723	5611.401	13.978	4.464	14.286
L14	28.882	27.950	2803.856	10.003	14.474	193.723	5611.401	13.978	4.464	14.286
	28.931	27.997	2818.043	10.020	14.498	194.380	5639.793	14.001	4.473	14.313
L15	28.931	27.997	2818.043	10.020	14.498	194.380	5639.793	14.001	4.473	14.313
	29.894	28.938	3111.914	10.357	14.980	207.743	6227.923	14.472	4.640	14.847
L16	29.894	28.938	3111.914	10.357	14.980	207.743	6227.923	14.472	4.640	14.847
	30.440	29.471	3287.146	10.548	15.253	215.511	6578.618	14.738	4.734	15.15
L17	30.390	59.464	6488.131	10.433	15.253	425.374	12984.800	29.738	4.162	6.529
	30.438	59.560	6519.606	10.449	15.277	426.763	13047.792	29.786	4.171	6.542
L18	30.432	62.983	6876.763	10.436	15.277	450.142	13762.574	31.497	4.105	6.081
	31.287	64.785	7484.214	10.735	15.704	476.572	14978.277	32.399	4.253	6.301
L19	31.287	64.785	7484.214	10.735	15.704	476.572	14978.277	32.399	4.253	6.301
	31.335	64.887	7519.498	10.752	15.728	478.085	15048.891	32.450	4.261	6.313
L20	31.337	63.712	7389.390	10.756	15.728	469.813	14788.503	31.862	4.283	6.465
	32.300	65.707	8105.625	11.093	16.210	500.026	16221.915	32.860	4.450	6.717
L21	32.302	64.493	7962.236	11.097	16.210	491.181	15934.949	32.253	4.472	6.88
	33.266	66.451	8709.547	11.434	16.692	521.766	17430.555	33.232	4.639	7.137
L22	33.268	65.198	8552.005	11.439	16.692	512.328	17115.263	32.605	4.661	7.312
	34.919	68.488	9912.983	12.016	17.518	565.862	19839.009	34.250	4.947	7.761
L23	34.274	71.857	9495.925	11.481	16.785	565.730	19004.344	35.935	4.583	6.548
	34.407	73.965	10356.505	11.818	17.267	599.776	20726.636	36.990	4.750	6.786
L24	34.407	73.965	10356.505	11.818	17.267	599.776	20726.636	36.990	4.750	6.786
	34.563	74.307	10500.811	11.873	17.345	605.391	21015.439	37.161	4.777	6.825
L25	34.614	40.194	5791.030	11.988	17.345	333.864	11589.679	20.101	5.349	14.265
	34.662	40.251	5815.472	12.005	17.370	334.808	11638.597	20.129	5.358	14.287
L26	34.662	40.251	5815.472	12.005	17.370	334.808	11638.597	20.129	5.358	14.287
	35.625	41.380	6318.876	12.342	17.852	353.966	12646.067	20.694	5.525	14.733
L27	35.625	41.380	6318.876	12.342	17.852	353.966	12646.067	20.694	5.525	14.733
	35.898	41.700	6466.644	12.437	17.988	359.493	12941.797	20.854	5.572	14.859
L28	35.898	41.700	6466.644	12.437	17.988	359.493	12941.797	20.854	5.572	14.859
	35.946	41.757	6492.951	12.454	18.012	360.472	12994.446	20.882	5.580	14.881
L29	35.946	41.757	6492.951	12.454	18.012	360.472	12994.446	20.882	5.580	14.881
	36.910	42.886	7034.187	12.791	18.494	380.342	14077.629	21.447	5.748	15.327
L30	36.910	42.886	7034.187	12.791	18.494	380.342	14077.629	21.447	5.748	15.327
	37.874	44.016	7604.693	13.128	18.976	400.744	15219.393	22.012	5.915	15.772
L31	37.874	44.016	7604.693	13.128	18.976	400.744	15219.393	22.012	5.915	15.772
	38.837	45.145	8205.242	13.465	19.458	421.680	16421.281	22.577	6.082	16.217

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p>Job</p> <p style="text-align: center;">147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)</p>	<p>Page</p> <p style="text-align: center;">5 of 57</p>
	<p>Project</p>	<p>Date</p> <p style="text-align: center;">13:44:56 01/04/23</p>
	<p>Client</p> <p style="text-align: center;">Crown Castle</p>	<p>Designed by</p> <p style="text-align: center;">JD Prabhu</p>

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L32	38.837	45.145	8205.242	13.465	19.458	421.680	16421.281	22.577	6.082	16.217
	39.801	46.274	8836.604	13.802	19.940	443.149	17684.836	23.142	6.249	16.663
L33	39.801	46.274	8836.604	13.802	19.940	443.149	17684.836	23.142	6.249	16.663
	40.764	47.404	9499.550	14.139	20.423	465.150	19011.600	23.706	6.416	17.108
L34	40.764	47.404	9499.550	14.139	20.423	465.150	19011.600	23.706	6.416	17.108
	41.153	47.859	9775.959	14.274	20.617	474.172	19564.782	23.934	6.483	17.288
L35	41.153	47.859	9775.959	14.274	20.617	474.172	19564.782	23.934	6.483	17.288
	41.201	47.916	9810.605	14.291	20.641	475.297	19634.119	23.962	6.491	17.31
L36	41.201	47.916	9810.605	14.291	20.641	475.297	19634.119	23.962	6.491	17.31
	43.035	50.065	11191.193	14.932	21.559	519.108	22397.111	25.038	6.809	18.158
L37	42.223	88.830	17939.512	14.193	20.666	868.066	35902.630	44.424	5.928	8.468
	42.416	91.489	19598.818	14.618	21.274	921.262	39223.425	45.753	6.138	8.769
L38	42.418	89.882	19266.374	14.623	21.274	905.635	38558.099	44.950	6.160	8.961
	43.262	91.697	20457.265	14.918	21.696	942.886	40941.448	45.857	6.307	9.174
L39	43.262	91.697	20457.265	14.918	21.696	942.886	40941.448	45.857	6.307	9.174
	43.330	91.842	20554.423	14.941	21.730	945.893	41135.893	45.930	6.319	9.191
L40	43.330	91.842	20554.423	14.941	21.730	945.893	41135.893	45.930	6.319	9.191
	43.375	91.939	20619.552	14.957	21.753	947.906	41266.235	45.978	6.326	9.202
L41	43.377	90.294	20262.675	14.962	21.753	931.500	40552.012	45.156	6.348	9.405
	44.340	92.327	21662.303	15.298	22.235	974.254	43353.110	46.172	6.515	9.652
L42	44.340	92.327	21662.303	15.298	22.235	974.254	43353.110	46.172	6.515	9.652
	45.304	94.360	23124.944	15.635	22.717	1017.968	46280.316	47.189	6.682	9.9
L43	45.306	92.639	22716.034	15.640	22.717	999.967	45461.959	46.328	6.704	10.12
	46.141	94.368	24011.887	15.932	23.134	1037.926	48055.370	47.193	6.849	10.338
L44	46.141	94.368	24011.887	15.932	23.134	1037.926	48055.370	47.193	6.849	10.338
	46.189	94.468	24088.121	15.948	23.159	1040.137	48207.938	47.243	6.857	10.351
L45	46.189	94.468	24088.121	15.948	23.159	1040.137	48207.938	47.243	6.857	10.351
	47.152	96.463	25646.873	16.285	23.641	1054.865	51327.492	48.241	7.024	10.603
L46	47.154	94.669	25183.545	16.290	23.641	1065.266	50400.226	47.343	7.046	10.841
	48.118	96.626	26778.338	16.627	24.123	1110.091	53591.912	48.322	7.213	11.098
L47	48.118	96.626	26778.338	16.627	24.123	1110.091	53591.912	48.322	7.213	11.098
	49.081	98.584	28439.078	16.963	24.605	1155.841	56915.578	49.301	7.380	11.355
L48	49.081	98.584	28439.078	16.963	24.605	1155.841	56915.578	49.301	7.380	11.355
	49.145	98.714	28552.059	16.986	24.637	1158.921	57141.687	49.367	7.392	11.372
L49	49.138	106.197	30652.077	16.968	24.637	1244.160	61344.486	53.108	7.304	10.434
	49.186	106.302	30743.442	16.985	24.661	1246.649	61527.336	53.161	7.312	10.446
L50	49.186	106.302	30743.442	16.985	24.661	1246.649	61527.336	53.161	7.312	10.446
	49.603	107.216	31543.012	17.131	24.870	1268.327	63127.529	53.618	7.384	10.549
L51	49.648	63.557	18922.056	17.233	24.870	760.845	37869.011	31.785	7.890	19.128
	49.696	63.619	18977.590	17.250	24.894	762.340	37980.151	31.816	7.899	19.148
L52	49.694	65.530	19537.582	17.245	24.894	784.835	39100.873	32.771	7.877	18.533
	50.128	66.106	20057.307	17.397	25.111	798.753	40141.007	33.059	7.952	18.71
L53	50.097	96.818	29136.378	17.326	25.111	1160.313	58311.094	48.418	7.600	12.16
	50.145	96.912	29221.430	17.343	25.135	1162.584	58481.309	48.465	7.608	12.173
L54	50.145	96.912	29221.430	17.343	25.135	1162.584	58481.309	48.465	7.608	12.173
	50.675	97.948	30167.944	17.528	25.400	1187.714	60375.584	48.983	7.700	12.32

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 180.500-175.500				1	1	1			
L2 175.500-170.500				1	1	1			
L3 170.500-165.500				1	1	1			

<p style="text-align: center;"><i>tnxTower</i></p> <p style="text-align: center;">MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 6 of 57
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	Client Crown Castle	Designed by JD Prabhu

<i>Tower Elevation</i>	<i>Gusset Area (per face)</i>	<i>Gusset Thickness</i>	<i>Gusset Grade</i>	<i>Adjust. Factor A_f</i>	<i>Adjust. Factor A_r</i>	<i>Weight Mult.</i>	<i>Double Angle Stitch Bolt Spacing Diagonals in</i>	<i>Double Angle Stitch Bolt Spacing Horizontals in</i>	<i>Double Angle Stitch Bolt Spacing Redundants in</i>
<i>ft</i>	<i>ft²</i>	<i>in</i>							
L4				1	1	1			
165.500-160.500									
L5				1	1	1			
160.500-155.500									
L6				1	1	1			
155.500-150.500									
L7				1	1	1			
150.500-145.500									
L8				1	1	1			
145.500-140.500									
L9				1	1	1			
140.500-134.500									
L10				1	1	1			
134.500-132.794									
L11				1	1	1			
132.794-127.794									
L12				1	1	1			
127.794-122.794									
L13				1	1	1			
122.794-120.583									
L14				1	1	1			
120.583-120.333									
L15				1	1	1			
120.333-115.333									
L16				1	1	1			
115.333-112.500									
L17				1	1	0.944922			
112.500-112.250									
L18				1	1	0.937617			
112.250-107.817									
L19				1	1	0.936874			
107.817-107.567									
L20				1	1	0.939506			
107.567-102.567									
L21				1	1	0.943155			
102.567-97.567									
L22				1	1	0.949755			
97.567-89.000									
L23				1	1	0.951827			
89.000-88.311									
L24				1	1	0.949912			

tnxTower MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 8 of 57
	Project	Date 13:44:56 01/04/23
	Client Crown Castle	Designed by JD Prabhu

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 in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft ²	in							
L54 2.750-0.000				1	1	0.974742			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
* CU12PSM9P6XXX(1-1/2) *	A	No	Surface Ar (CaAa)	141.000 - 0.000	1	1	0.000 0.030	1.600		0.002
Safety Line 3/8 *	C	No	Surface Ar (CaAa)	180.500 - 0.000	1	1	0.200 0.210	0.375		0.000
MP3-05 *	A	No	Surface Af (CaAa)	40.500 - 0.583	1	1	0.100 0.150	5.330	14.840	0.000
MP3-05	B	No	Surface Af (CaAa)	40.500 - 5.500	1	1	0.100 0.150	5.330	14.840	0.000
MP3-05 *	C	No	Surface Af (CaAa)	40.500 - 0.583	1	1	0.100 0.150	5.330	14.840	0.000
MP3-05 *	A	No	Surface Af (CaAa)	56.000 - 36.000	1	1	-0.150 -0.100	5.330	14.840	0.000
MP3-05	B	No	Surface Af (CaAa)	56.000 - 36.000	1	1	-0.150 -0.100	5.330	14.840	0.000
MP3-05 *	C	No	Surface Af (CaAa)	56.000 - 36.000	1	1	-0.150 -0.100	5.330	14.840	0.000
MP3-04 *	A	No	Surface Af (CaAa)	82.250 - 52.250	1	1	0.100 0.150	4.780	12.780	0.000
MP3-04	B	No	Surface Af (CaAa)	82.250 - 52.250	1	1	0.100 0.150	4.780	12.780	0.000
MP3-04 *	C	No	Surface Af (CaAa)	82.250 - 52.250	1	1	0.100 0.150	4.780	12.780	0.000
MP3-04 *	A	No	Surface Af (CaAa)	109.250 - 79.250	1	1	-0.150 -0.100	4.780	12.780	0.000
MP3-04	B	No	Surface Af (CaAa)	109.250 - 79.250	1	1	-0.150 -0.100	4.780	12.780	0.000
MP3-04 *	C	No	Surface Af (CaAa)	109.250 - 79.250	1	1	-0.150 -0.100	4.780	12.780	0.000
MP3-03 *	A	No	Surface Af (CaAa)	121.750 - 106.750	1	1	0.100 0.150	4.060	11.260	0.000
MP3-03	B	No	Surface Af (CaAa)	121.750 - 106.750	1	1	0.100 0.150	4.060	11.260	0.000
MP3-03 *	C	No	Surface Af (CaAa)	121.750 - 106.750	1	1	0.100 0.150	4.060	11.260	0.000
CCI 6.5" x 1.25" Plate *	A	No	Surface Af (CaAa)	52.083 - 2.000	1	1	0.450 0.500	6.500	15.500	0.000
CCI 6.5" x 1.25" Plate	B	No	Surface Af (CaAa)	52.083 - 2.000	1	1	0.450 0.500	6.500	15.500	0.000

tnxTower MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 9 of 57
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Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight klf
CCI 6.5" x 1.25" Plate	C	No	Surface Af (CaAa)	52.083 - 2.000	1	1	0.450 0.500	6.500	15.500	0.000
*										
CCI 6" x 1" Plate	A	No	Surface Af (CaAa)	115.000 - 85.000	1	1	0.350 0.400	6.000	14.000	0.000
CCI 6" x 1" Plate	B	No	Surface Af (CaAa)	115.000 - 85.000	1	1	0.350 0.400	6.000	14.000	0.000
CCI 6" x 1" Plate	C	No	Surface Af (CaAa)	115.000 - 85.000	1	1	0.350 0.400	6.000	14.000	0.000
*										

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight klf
HB158-21U6S24-xx M_TMO(1-5/8)	A	No	No	Inside Pole	180.000 - 0.000	3	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.003 0.003 0.003
*									
HB158-U12S24-XX X-LI(1-5/8)	B	No	No	Inside Pole	168.000 - 0.000	1	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.003 0.003 0.003
*									
LDF6-50A(1-1/4)	B	No	No	Inside Pole	155.000 - 0.000	12	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.001 0.001 0.001
*									
FB-L98B-002-75000 (3/8)	B	No	No	Inside Pole	153.000 - 0.000	1	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.000 0.000 0.000
2" Rigid Conduit	B	No	No	Inside Pole	153.000 - 0.000	1	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.003 0.003 0.003
PWRT-606-S(7/8)	B	No	No	Inside Pole	153.000 - 0.000	2	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.001 0.001 0.001
PWRT-608-S(13/16)	B	No	No	Inside Pole	153.000 - 0.000	2	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.001 0.001 0.001
FB-L98B-034-XXX(3/8)	B	No	No	Inside Pole	153.000 - 0.000	1	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.000 0.000 0.000
*									
LDF4-50A(1/2)	A	No	No	Inside Pole	78.000 - 0.000	1	No Ice 1/2" Ice 1" Ice	0.000 0.000 0.000	0.000 0.000 0.000
*									

Feed Line/Linear Appurtenances Section Areas

<p style="text-align: center;"><i>tnxTower</i></p> <p style="text-align: center;">MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 10 of 57
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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
L1	180.500-175.500	A	0.000	0.000	0.000	0.000	0.034
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.188	0.000	0.001
L2	175.500-170.500	A	0.000	0.000	0.000	0.000	0.037
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.188	0.000	0.001
L3	170.500-165.500	A	0.000	0.000	0.000	0.000	0.037
		B	0.000	0.000	0.000	0.000	0.008
		C	0.000	0.000	0.188	0.000	0.001
L4	165.500-160.500	A	0.000	0.000	0.000	0.000	0.037
		B	0.000	0.000	0.000	0.000	0.016
		C	0.000	0.000	0.188	0.000	0.001
L5	160.500-155.500	A	0.000	0.000	0.000	0.000	0.037
		B	0.000	0.000	0.000	0.000	0.016
		C	0.000	0.000	0.188	0.000	0.001
L6	155.500-150.500	A	0.000	0.000	0.000	0.000	0.037
		B	0.000	0.000	0.000	0.000	0.063
		C	0.000	0.000	0.188	0.000	0.001
L7	150.500-145.500	A	0.000	0.000	0.000	0.000	0.037
		B	0.000	0.000	0.000	0.000	0.082
		C	0.000	0.000	0.188	0.000	0.001
L8	145.500-140.500	A	0.000	0.000	0.080	0.000	0.039
		B	0.000	0.000	0.000	0.000	0.082
		C	0.000	0.000	0.188	0.000	0.001
L9	140.500-134.500	A	0.000	0.000	0.960	0.000	0.059
		B	0.000	0.000	0.000	0.000	0.098
		C	0.000	0.000	0.225	0.000	0.001
L10	134.500-132.794	A	0.000	0.000	0.273	0.000	0.017
		B	0.000	0.000	0.000	0.000	0.028
		C	0.000	0.000	0.064	0.000	0.000
L11	132.794-127.794	A	0.000	0.000	0.800	0.000	0.049
		B	0.000	0.000	0.000	0.000	0.082
		C	0.000	0.000	0.188	0.000	0.001
L12	127.794-122.794	A	0.000	0.000	0.800	0.000	0.049
		B	0.000	0.000	0.000	0.000	0.082
		C	0.000	0.000	0.188	0.000	0.001
L13	122.794-120.583	A	0.000	0.000	1.143	0.000	0.022
		B	0.000	0.000	0.790	0.000	0.036
		C	0.000	0.000	0.873	0.000	0.000
L14	120.583-120.333	A	0.000	0.000	0.209	0.000	0.002
		B	0.000	0.000	0.169	0.000	0.004
		C	0.000	0.000	0.179	0.000	0.000
L15	120.333-115.333	A	0.000	0.000	4.183	0.000	0.049
		B	0.000	0.000	3.383	0.000	0.082
		C	0.000	0.000	3.571	0.000	0.001
L16	115.333-112.500	A	0.000	0.000	4.870	0.000	0.028
		B	0.000	0.000	4.417	0.000	0.046
		C	0.000	0.000	4.523	0.000	0.001
L17	112.500-112.250	A	0.000	0.000	0.459	0.000	0.002
		B	0.000	0.000	0.419	0.000	0.004
		C	0.000	0.000	0.429	0.000	0.000
L18	112.250-107.817	A	0.000	0.000	9.284	0.000	0.044
		B	0.000	0.000	8.574	0.000	0.072
		C	0.000	0.000	8.741	0.000	0.001
L19	107.817-107.567	A	0.000	0.000	0.658	0.000	0.002
		B	0.000	0.000	0.618	0.000	0.004
		C	0.000	0.000	0.628	0.000	0.000
L20	107.567-102.567	A	0.000	0.000	10.336	0.000	0.049
		B	0.000	0.000	9.536	0.000	0.082
		C	0.000	0.000	9.724	0.000	0.001

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	<p>Project</p>	<p>Date</p> <p style="text-align: center;">13:44:56 01/04/23</p>
	<p>Client</p> <p style="text-align: center;">Crown Castle</p>	<p>Designed by</p> <p style="text-align: center;">JD Prabhu</p>

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
L21	102.567-97.567	A	0.000	0.000	9.783	0.000	0.049
		B	0.000	0.000	8.983	0.000	0.082
		C	0.000	0.000	9.171	0.000	0.001
L22	97.567-89.000	A	0.000	0.000	16.763	0.000	0.084
		B	0.000	0.000	15.392	0.000	0.140
		C	0.000	0.000	15.713	0.000	0.002
L23	89.000-88.311	A	0.000	0.000	1.348	0.000	0.007
		B	0.000	0.000	1.238	0.000	0.011
		C	0.000	0.000	1.264	0.000	0.000
L24	88.311-87.500	A	0.000	0.000	1.587	0.000	0.008
		B	0.000	0.000	1.457	0.000	0.013
		C	0.000	0.000	1.488	0.000	0.000
L25	87.500-87.250	A	0.000	0.000	0.489	0.000	0.002
		B	0.000	0.000	0.449	0.000	0.004
		C	0.000	0.000	0.459	0.000	0.000
L26	87.250-82.250	A	0.000	0.000	7.033	0.000	0.049
		B	0.000	0.000	6.233	0.000	0.082
		C	0.000	0.000	6.421	0.000	0.001
L27	82.250-80.833	A	0.000	0.000	2.484	0.000	0.014
		B	0.000	0.000	2.258	0.000	0.023
		C	0.000	0.000	2.311	0.000	0.000
L28	80.833-80.583	A	0.000	0.000	0.438	0.000	0.002
		B	0.000	0.000	0.398	0.000	0.004
		C	0.000	0.000	0.408	0.000	0.000
L29	80.583-75.583	A	0.000	0.000	5.845	0.000	0.050
		B	0.000	0.000	5.045	0.000	0.082
		C	0.000	0.000	5.233	0.000	0.001
L30	75.583-70.583	A	0.000	0.000	4.783	0.000	0.050
		B	0.000	0.000	3.983	0.000	0.082
		C	0.000	0.000	4.171	0.000	0.001
L31	70.583-65.583	A	0.000	0.000	4.783	0.000	0.050
		B	0.000	0.000	3.983	0.000	0.082
		C	0.000	0.000	4.171	0.000	0.001
L32	65.583-60.583	A	0.000	0.000	4.783	0.000	0.050
		B	0.000	0.000	3.983	0.000	0.082
		C	0.000	0.000	4.171	0.000	0.001
L33	60.583-55.583	A	0.000	0.000	5.154	0.000	0.050
		B	0.000	0.000	4.354	0.000	0.082
		C	0.000	0.000	4.541	0.000	0.001
L34	55.583-53.567	A	0.000	0.000	3.720	0.000	0.020
		B	0.000	0.000	3.397	0.000	0.033
		C	0.000	0.000	3.473	0.000	0.000
L35	53.567-53.317	A	0.000	0.000	0.461	0.000	0.003
		B	0.000	0.000	0.421	0.000	0.004
		C	0.000	0.000	0.431	0.000	0.000
L36	53.317-43.800	A	0.000	0.000	19.800	0.000	0.095
		B	0.000	0.000	18.278	0.000	0.155
		C	0.000	0.000	18.634	0.000	0.002
L37	43.800-42.800	A	0.000	0.000	2.132	0.000	0.010
		B	0.000	0.000	1.972	0.000	0.016
		C	0.000	0.000	2.009	0.000	0.000
L38	42.800-38.417	A	0.000	0.000	11.193	0.000	0.044
		B	0.000	0.000	10.492	0.000	0.072
		C	0.000	0.000	10.657	0.000	0.001
L39	38.417-38.067	A	0.000	0.000	1.057	0.000	0.004
		B	0.000	0.000	1.001	0.000	0.006
		C	0.000	0.000	1.014	0.000	0.000
L40	38.067-37.833	A	0.000	0.000	0.707	0.000	0.002
		B	0.000	0.000	0.669	0.000	0.004
		C	0.000	0.000	0.678	0.000	0.000
L41	37.833-32.833	A	0.000	0.000	12.287	0.000	0.050

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 12 of 57
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	Client Crown Castle	Designed by JD Prabhu

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
L42	32.833-27.833	B	0.000	0.000	11.487	0.000	0.082
		C	0.000	0.000	11.674	0.000	0.001
		A	0.000	0.000	10.658	0.000	0.050
L43	27.833-23.500	B	0.000	0.000	9.858	0.000	0.082
		C	0.000	0.000	10.046	0.000	0.001
		A	0.000	0.000	9.237	0.000	0.043
L44	23.500-23.250	B	0.000	0.000	8.543	0.000	0.071
		C	0.000	0.000	8.706	0.000	0.001
		A	0.000	0.000	0.533	0.000	0.003
L45	23.250-18.250	B	0.000	0.000	0.493	0.000	0.004
		C	0.000	0.000	0.502	0.000	0.000
		A	0.000	0.000	10.658	0.000	0.050
L46	18.250-13.250	B	0.000	0.000	9.858	0.000	0.082
		C	0.000	0.000	10.046	0.000	0.001
		A	0.000	0.000	10.658	0.000	0.050
L47	13.250-8.250	B	0.000	0.000	9.858	0.000	0.082
		C	0.000	0.000	10.046	0.000	0.001
		A	0.000	0.000	10.658	0.000	0.050
L48	8.250-7.917	B	0.000	0.000	9.858	0.000	0.082
		C	0.000	0.000	10.046	0.000	0.001
		A	0.000	0.000	0.710	0.000	0.003
L49	7.917-7.667	B	0.000	0.000	0.657	0.000	0.005
		C	0.000	0.000	0.669	0.000	0.000
		A	0.000	0.000	0.533	0.000	0.003
L50	7.667-5.500	B	0.000	0.000	0.493	0.000	0.004
		C	0.000	0.000	0.502	0.000	0.000
		A	0.000	0.000	4.619	0.000	0.022
L51	5.500-5.250	B	0.000	0.000	4.273	0.000	0.035
		C	0.000	0.000	4.354	0.000	0.000
		A	0.000	0.000	0.533	0.000	0.003
L52	5.250-3.000	B	0.000	0.000	0.271	0.000	0.004
		C	0.000	0.000	0.502	0.000	0.000
		A	0.000	0.000	4.796	0.000	0.022
L53	3.000-2.750	B	0.000	0.000	2.438	0.000	0.037
		C	0.000	0.000	4.521	0.000	0.000
		A	0.000	0.000	0.533	0.000	0.003
L54	2.750-0.000	B	0.000	0.000	0.271	0.000	0.004
		C	0.000	0.000	0.502	0.000	0.000
		A	0.000	0.000	3.178	0.000	0.028
		B	0.000	0.000	0.813	0.000	0.045
		C	0.000	0.000	2.841	0.000	0.001

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	180.500-175.500	A	1.006	0.000	0.000	0.000	0.000	0.034
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	1.194	0.000
L2	175.500-170.500	A	1.003	0.000	0.000	0.000	0.000	0.037
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	1.191	0.000
L3	170.500-165.500	A	1.000	0.000	0.000	0.000	0.000	0.037
		B		0.000	0.000	0.000	0.000	0.008
		C		0.000	0.000	0.000	1.188	0.000
L4	165.500-160.500	A	0.997	0.000	0.000	0.000	0.000	0.037
		B		0.000	0.000	0.000	0.000	0.016

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	<p>Project</p>	<p>Date</p> <p style="text-align: center;">13:44:56 01/04/23</p>
	<p>Client</p> <p style="text-align: center;">Crown Castle</p>	<p>Designed by</p> <p style="text-align: center;">JD Prabhu</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
L5	160.500-155.500	C	0.994	0.000	0.000	1.185	0.000	0.009
		A		0.000	0.000	0.000	0.000	0.037
		B		0.000	0.000	0.000	0.000	0.016
L6	155.500-150.500	C	0.991	0.000	0.000	1.182	0.000	0.009
		A		0.000	0.000	0.000	0.000	0.037
		B		0.000	0.000	0.000	0.000	0.063
L7	150.500-145.500	C	0.988	0.000	0.000	1.178	0.000	0.009
		A		0.000	0.000	0.000	0.000	0.037
		B		0.000	0.000	0.000	0.000	0.082
L8	145.500-140.500	C	0.984	0.000	0.000	1.175	0.000	0.009
		A		0.000	0.000	0.178	0.000	0.040
		B		0.000	0.000	0.000	0.000	0.082
L9	140.500-134.500	C	0.980	0.000	0.000	1.172	0.000	0.009
		A		0.000	0.000	2.136	0.000	0.078
		B		0.000	0.000	0.000	0.000	0.098
L10	134.500-132.794	C	0.978	0.000	0.000	1.401	0.000	0.011
		A		0.000	0.000	0.607	0.000	0.022
		B		0.000	0.000	0.000	0.000	0.028
L11	132.794-127.794	C	0.975	0.000	0.000	0.398	0.000	0.003
		A		0.000	0.000	1.775	0.000	0.065
		B		0.000	0.000	0.000	0.000	0.082
L12	127.794-122.794	C	0.971	0.000	0.000	1.163	0.000	0.009
		A		0.000	0.000	1.771	0.000	0.065
		B		0.000	0.000	0.000	0.000	0.082
L13	122.794-120.583	C	0.968	0.000	0.000	1.159	0.000	0.009
		A		0.000	0.000	1.798	0.000	0.035
		B		0.000	0.000	1.016	0.000	0.043
L14	120.583-120.333	C	0.968	0.000	0.000	1.527	0.000	0.011
		A		0.000	0.000	0.306	0.000	0.005
		B		0.000	0.000	0.218	0.000	0.005
L15	120.333-115.333	C	0.965	0.000	0.000	0.275	0.000	0.002
		A		0.000	0.000	6.114	0.000	0.092
		B		0.000	0.000	4.349	0.000	0.110
L16	115.333-112.500	C	0.962	0.000	0.000	5.502	0.000	0.037
		A		0.000	0.000	6.442	0.000	0.069
		B		0.000	0.000	5.443	0.000	0.079
L17	112.500-112.250	C	0.961	0.000	0.000	6.095	0.000	0.037
		A		0.000	0.000	0.603	0.000	0.006
		B		0.000	0.000	0.515	0.000	0.007
L18	112.250-107.817	C	0.959	0.000	0.000	0.573	0.000	0.003
		A		0.000	0.000	12.108	0.000	0.119
		B		0.000	0.000	10.549	0.000	0.135
L19	107.817-107.567	C	0.957	0.000	0.000	11.565	0.000	0.070
		A		0.000	0.000	0.850	0.000	0.008
		B		0.000	0.000	0.762	0.000	0.009
L20	107.567-102.567	C	0.954	0.000	0.000	0.819	0.000	0.005
		A		0.000	0.000	13.355	0.000	0.132
		B		0.000	0.000	11.601	0.000	0.149
L21	102.567-97.567	C	0.950	0.000	0.000	12.743	0.000	0.076
		A		0.000	0.000	12.632	0.000	0.127
		B		0.000	0.000	10.883	0.000	0.144
L22	97.567-89.000	C	0.943	0.000	0.000	12.020	0.000	0.072
		A		0.000	0.000	21.610	0.000	0.216
		B		0.000	0.000	18.624	0.000	0.247
L23	89.000-88.311	C	0.938	0.000	0.000	20.561	0.000	0.121
		A		0.000	0.000	1.738	0.000	0.017
		B		0.000	0.000	1.498	0.000	0.020
L24	88.311-87.500	C	0.937	0.000	0.000	1.654	0.000	0.010
		A		0.000	0.000	2.043	0.000	0.020
		B		0.000	0.000	1.761	0.000	0.023
		C		0.000	0.000	1.944	0.000	0.011

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	<p>Client Crown Castle</p>	<p>Designed by JD Prabhu</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	87.500-87.250	A	0.937	0.000	0.000	0.630	0.000	0.006
		B		0.000	0.000	0.543	0.000	0.007
		C		0.000	0.000	0.599	0.000	0.004
L26	87.250-82.250	A	0.934	0.000	0.000	9.322	0.000	0.108
		B		0.000	0.000	7.588	0.000	0.126
		C		0.000	0.000	8.709	0.000	0.053
L27	82.250-80.833	A	0.930	0.000	0.000	3.276	0.000	0.035
		B		0.000	0.000	2.785	0.000	0.040
		C		0.000	0.000	3.102	0.000	0.019
L28	80.833-80.583	A	0.930	0.000	0.000	0.578	0.000	0.006
		B		0.000	0.000	0.491	0.000	0.007
		C		0.000	0.000	0.547	0.000	0.003
L29	80.583-75.583	A	0.926	0.000	0.000	7.945	0.000	0.101
		B		0.000	0.000	6.219	0.000	0.119
		C		0.000	0.000	7.333	0.000	0.046
L30	75.583-70.583	A	0.920	0.000	0.000	6.624	0.000	0.093
		B		0.000	0.000	4.904	0.000	0.111
		C		0.000	0.000	6.011	0.000	0.037
L31	70.583-65.583	A	0.914	0.000	0.000	6.611	0.000	0.093
		B		0.000	0.000	4.897	0.000	0.111
		C		0.000	0.000	5.998	0.000	0.037
L32	65.583-60.583	A	0.907	0.000	0.000	6.597	0.000	0.092
		B		0.000	0.000	4.890	0.000	0.110
		C		0.000	0.000	5.985	0.000	0.037
L33	60.583-55.583	A	0.899	0.000	0.000	7.028	0.000	0.095
		B		0.000	0.000	5.328	0.000	0.113
		C		0.000	0.000	6.415	0.000	0.039
L34	55.583-53.567	A	0.894	0.000	0.000	4.801	0.000	0.050
		B		0.000	0.000	4.118	0.000	0.057
		C		0.000	0.000	4.554	0.000	0.027
L35	53.567-53.317	A	0.892	0.000	0.000	0.595	0.000	0.006
		B		0.000	0.000	0.510	0.000	0.007
		C		0.000	0.000	0.564	0.000	0.003
L36	53.317-43.800	A	0.883	0.000	0.000	24.815	0.000	0.240
		B		0.000	0.000	21.611	0.000	0.274
		C		0.000	0.000	23.649	0.000	0.134
L37	43.800-42.800	A	0.873	0.000	0.000	2.662	0.000	0.025
		B		0.000	0.000	2.325	0.000	0.029
		C		0.000	0.000	2.539	0.000	0.014
L38	42.800-38.417	A	0.868	0.000	0.000	13.837	0.000	0.123
		B		0.000	0.000	12.375	0.000	0.139
		C		0.000	0.000	13.300	0.000	0.074
L39	38.417-38.067	A	0.863	0.000	0.000	1.299	0.000	0.011
		B		0.000	0.000	1.182	0.000	0.012
		C		0.000	0.000	1.256	0.000	0.007
L40	38.067-37.833	A	0.862	0.000	0.000	0.868	0.000	0.007
		B		0.000	0.000	0.790	0.000	0.008
		C		0.000	0.000	0.839	0.000	0.005
L41	37.833-32.833	A	0.856	0.000	0.000	15.168	0.000	0.135
		B		0.000	0.000	13.512	0.000	0.154
		C		0.000	0.000	14.555	0.000	0.080
L42	32.833-27.833	A	0.843	0.000	0.000	13.187	0.000	0.123
		B		0.000	0.000	11.544	0.000	0.142
		C		0.000	0.000	12.574	0.000	0.068
L43	27.833-23.500	A	0.829	0.000	0.000	11.391	0.000	0.105
		B		0.000	0.000	9.980	0.000	0.122
		C		0.000	0.000	10.861	0.000	0.057
L44	23.500-23.250	A	0.821	0.000	0.000	0.656	0.000	0.006
		B		0.000	0.000	0.575	0.000	0.007
		C		0.000	0.000	0.625	0.000	0.003
L45	23.250-18.250	A	0.811	0.000	0.000	13.093	0.000	0.120

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	<p>Client Crown Castle</p>	<p>Designed by JD Prabhu</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
		B		0.000	0.000	11.481	0.000	0.139
		C		0.000	0.000	12.480	0.000	0.065
L46	18.250-13.250	A	0.789	0.000	0.000	13.026	0.000	0.117
		B		0.000	0.000	11.437	0.000	0.137
		C		0.000	0.000	12.414	0.000	0.062
L47	13.250-8.250	A	0.760	0.000	0.000	12.938	0.000	0.114
		B		0.000	0.000	11.378	0.000	0.135
		C		0.000	0.000	12.325	0.000	0.060
L48	8.250-7.917	A	0.738	0.000	0.000	0.857	0.000	0.007
		B		0.000	0.000	0.755	0.000	0.009
		C		0.000	0.000	0.817	0.000	0.004
L49	7.917-7.667	A	0.736	0.000	0.000	0.643	0.000	0.006
		B		0.000	0.000	0.566	0.000	0.007
		C		0.000	0.000	0.613	0.000	0.003
L50	7.667-5.500	A	0.723	0.000	0.000	5.560	0.000	0.048
		B		0.000	0.000	4.900	0.000	0.057
		C		0.000	0.000	5.294	0.000	0.024
L51	5.500-5.250	A	0.709	0.000	0.000	0.639	0.000	0.005
		B		0.000	0.000	0.306	0.000	0.005
		C		0.000	0.000	0.609	0.000	0.003
L52	5.250-3.000	A	0.690	0.000	0.000	5.728	0.000	0.048
		B		0.000	0.000	2.748	0.000	0.048
		C		0.000	0.000	5.453	0.000	0.024
L53	3.000-2.750	A	0.666	0.000	0.000	0.633	0.000	0.005
		B		0.000	0.000	0.304	0.000	0.005
		C		0.000	0.000	0.602	0.000	0.003
L54	2.750-0.000	A	0.618	0.000	0.000	3.878	0.000	0.044
		B		0.000	0.000	0.905	0.000	0.048
		C		0.000	0.000	3.542	0.000	0.015

Feed Line Center of Pressure

Section	Elevation ft	CP _X in	CP _Z in	CP _X Ice in	CP _Z Ice in
L1	180.500-175.500	-0.125	0.273	-0.404	0.882
L2	175.500-170.500	-0.125	0.273	-0.406	0.888
L3	170.500-165.500	-0.125	0.273	-0.409	0.893
L4	165.500-160.500	-0.125	0.273	-0.411	0.897
L5	160.500-155.500	-0.125	0.274	-0.413	0.901
L6	155.500-150.500	-0.125	0.274	-0.414	0.905
L7	150.500-145.500	-0.125	0.274	-0.416	0.908
L8	145.500-140.500	-0.239	0.200	-0.548	0.815
L9	140.500-134.500	-1.156	-0.396	-1.593	0.061
L10	134.500-132.794	-1.157	-0.396	-1.596	0.062
L11	132.794-127.794	-1.158	-0.397	-1.599	0.061
L12	127.794-122.794	-1.160	-0.397	-1.606	0.062
L13	122.794-120.583	-0.749	-0.256	-1.169	0.045
L14	120.583-120.333	-0.570	-0.195	-0.942	0.036
L15	120.333-115.333	-0.575	-0.197	-0.949	0.037
L16	115.333-112.500	-0.353	-0.120	-0.642	0.025
L17	112.500-112.250	-0.338	-0.115	-0.619	0.024
L18	112.250-107.817	-0.308	-0.105	-0.570	0.022
L19	107.817-107.567	-0.258	-0.088	-0.487	0.019
L20	107.567-102.567	-0.318	-0.108	-0.590	0.023
L21	102.567-97.567	-0.338	-0.115	-0.625	0.024
L22	97.567-89.000	-0.348	-0.118	-0.638	0.024

tnxTower MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 16 of 57
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Section	Elevation	CP _x	CP _z	CP _x	CP _z
	ft	in	in	Ice in	Ice in
L23	89.000-88.311	-0.350	-0.119	-0.642	0.025
L24	88.311-87.500	-0.351	-0.119	-0.642	0.024
L25	87.500-87.250	-0.351	-0.119	-0.642	0.024
L26	87.250-82.250	-0.451	-0.153	-0.791	0.029
L27	82.250-80.833	-0.389	-0.132	-0.692	0.026
L28	80.833-80.583	-0.391	-0.133	-0.694	0.026
L29	80.583-75.583	-0.521	-0.177	-0.885	0.032
L30	75.583-70.583	-0.598	-0.203	-0.988	0.036
L31	70.583-65.583	-0.605	-0.205	-0.997	0.035
L32	65.583-60.583	-0.613	-0.208	-1.004	0.035
L33	60.583-55.583	-0.594	-0.201	-0.978	0.033
L34	55.583-53.567	-0.410	-0.139	-0.719	0.024
L35	53.567-53.317	-0.411	-0.139	-0.721	0.024
L36	53.317-43.800	-0.383	-0.130	-0.684	0.022
L37	43.800-42.800	-0.377	-0.128	-0.678	0.021
L38	42.800-38.417	-0.332	-0.112	-0.601	0.018
L39	38.417-38.067	-0.294	-0.099	-0.537	0.015
L40	38.067-37.833	-0.294	-0.099	-0.537	0.015
L41	37.833-32.833	-0.348	-0.118	-0.622	0.017
L42	32.833-27.833	-0.392	-0.133	-0.686	0.017
L43	27.833-23.500	-0.397	-0.134	-0.689	0.016
L44	23.500-23.250	-0.400	-0.135	-0.690	0.015
L45	23.250-18.250	-0.403	-0.136	-0.691	0.014
L46	18.250-13.250	-0.408	-0.138	-0.691	0.011
L47	13.250-8.250	-0.413	-0.140	-0.687	0.007
L48	8.250-7.917	-0.416	-0.140	-0.682	0.004
L49	7.917-7.667	-0.416	-0.141	-0.682	0.004
L50	7.667-5.500	-0.418	-0.141	-0.678	0.002
L51	5.500-5.250	-3.292	-0.082	-3.123	0.063
L52	5.250-3.000	-3.301	-0.082	-3.120	0.060
L53	3.000-2.750	-3.311	-0.082	-3.114	0.056
L54	2.750-0.000	-4.056	-0.148	-3.551	0.048

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	22	Safety Line 3/8	175.50 - 180.50	1.0000	1.0000
L2	22	Safety Line 3/8	170.50 - 175.50	1.0000	1.0000
L3	22	Safety Line 3/8	165.50 - 170.50	1.0000	1.0000
L4	22	Safety Line 3/8	160.50 - 165.50	1.0000	1.0000
L5	22	Safety Line 3/8	155.50 - 160.50	1.0000	1.0000
L6	22	Safety Line 3/8	150.50 - 155.50	1.0000	1.0000
L7	22	Safety Line 3/8	145.50 - 150.50	1.0000	1.0000
L8	18	CU12PSM9P6XXX(1-1/2)	140.50 -	1.0000	1.0000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			141.00		
L8	22	Safety Line 3/8	140.50 - 145.50	1.0000	1.0000
L9	18	CU12PSM9P6XXX(1-1/2)	134.50 - 140.50	1.0000	1.0000
L9	22	Safety Line 3/8	134.50 - 140.50	1.0000	1.0000
L10	18	CU12PSM9P6XXX(1-1/2)	132.79 - 134.50	1.0000	1.0000
L10	22	Safety Line 3/8	132.79 - 134.50	1.0000	1.0000
L11	18	CU12PSM9P6XXX(1-1/2)	127.79 - 132.79	1.0000	1.0000
L11	22	Safety Line 3/8	127.79 - 132.79	1.0000	1.0000
L12	18	CU12PSM9P6XXX(1-1/2)	122.79 - 127.79	1.0000	1.0000
L12	22	Safety Line 3/8	122.79 - 127.79	1.0000	1.0000
L13	18	CU12PSM9P6XXX(1-1/2)	120.58 - 122.79	1.0000	1.0000
L13	22	Safety Line 3/8	120.58 - 122.79	1.0000	1.0000
L13	40	MP3-03	120.58 - 121.75	1.0000	1.0000
L13	41	MP3-03	120.58 - 121.75	1.0000	1.0000
L13	42	MP3-03	120.58 - 121.75	1.0000	1.0000
L14	18	CU12PSM9P6XXX(1-1/2)	120.33 - 120.58	1.0000	1.0000
L14	22	Safety Line 3/8	120.33 - 120.58	1.0000	1.0000
L14	40	MP3-03	120.33 - 120.58	1.0000	1.0000
L14	41	MP3-03	120.33 - 120.58	1.0000	1.0000
L14	42	MP3-03	120.33 - 120.58	1.0000	1.0000
L15	18	CU12PSM9P6XXX(1-1/2)	115.33 - 120.33	1.0000	1.0000
L15	22	Safety Line 3/8	115.33 - 120.33	1.0000	1.0000
L15	40	MP3-03	115.33 - 120.33	1.0000	1.0000
L15	41	MP3-03	115.33 - 120.33	1.0000	1.0000
L15	42	MP3-03	115.33 - 120.33	1.0000	1.0000
L16	18	CU12PSM9P6XXX(1-1/2)	112.50 - 115.33	1.0000	1.0000
L16	22	Safety Line 3/8	112.50 - 115.33	1.0000	1.0000
L16	40	MP3-03	112.50 - 115.33	1.0000	1.0000
L16	41	MP3-03	112.50 - 115.33	1.0000	1.0000
L16	42	MP3-03	112.50 - 115.33	1.0000	1.0000
L16	48	CCI 6" x 1" Plate	112.50 - 115.00	1.0000	1.0000
L16	49	CCI 6" x 1" Plate	112.50 -	1.0000	1.0000

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Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
			115.00		
L16	50	CCI 6" x 1" Plate	112.50 - 115.00	1.0000	1.0000
L17	18	CU12PSM9P6XXX(1-1/2)	112.25 - 112.50	1.0000	1.0000
L17	22	Safety Line 3/8	112.25 - 112.50	1.0000	1.0000
L17	40	MP3-03	112.25 - 112.50	1.0000	1.0000
L17	41	MP3-03	112.25 - 112.50	1.0000	1.0000
L17	42	MP3-03	112.25 - 112.50	1.0000	1.0000
L17	48	CCI 6" x 1" Plate	112.25 - 112.50	1.0000	1.0000
L17	49	CCI 6" x 1" Plate	112.25 - 112.50	1.0000	1.0000
L17	50	CCI 6" x 1" Plate	112.25 - 112.50	1.0000	1.0000
L18	18	CU12PSM9P6XXX(1-1/2)	107.82 - 112.25	1.0000	1.0000
L18	22	Safety Line 3/8	107.82 - 112.25	1.0000	1.0000
L18	36	MP3-04	107.82 - 109.25	1.0000	1.0000
L18	37	MP3-04	107.82 - 109.25	1.0000	1.0000
L18	38	MP3-04	107.82 - 109.25	1.0000	1.0000
L18	40	MP3-03	107.82 - 112.25	1.0000	1.0000
L18	41	MP3-03	107.82 - 112.25	1.0000	1.0000
L18	42	MP3-03	107.82 - 112.25	1.0000	1.0000
L18	48	CCI 6" x 1" Plate	107.82 - 112.25	1.0000	1.0000
L18	49	CCI 6" x 1" Plate	107.82 - 112.25	1.0000	1.0000
L18	50	CCI 6" x 1" Plate	107.82 - 112.25	1.0000	1.0000
L19	18	CU12PSM9P6XXX(1-1/2)	107.57 - 107.82	1.0000	1.0000
L19	22	Safety Line 3/8	107.57 - 107.82	1.0000	1.0000
L19	36	MP3-04	107.57 - 107.82	1.0000	1.0000
L19	37	MP3-04	107.57 - 107.82	1.0000	1.0000
L19	38	MP3-04	107.57 - 107.82	1.0000	1.0000
L19	40	MP3-03	107.57 - 107.82	1.0000	1.0000
L19	41	MP3-03	107.57 - 107.82	1.0000	1.0000
L19	42	MP3-03	107.57 - 107.82	1.0000	1.0000
L19	48	CCI 6" x 1" Plate	107.57 - 107.82	1.0000	1.0000
L19	49	CCI 6" x 1" Plate	107.57 - 107.82	1.0000	1.0000
L19	50	CCI 6" x 1" Plate	107.57 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			107.82		
L20	18	CU12PSM9P6XXX(1-1/2)	102.57 - 107.57	1.0000	1.0000
L20	22	Safety Line 3/8	102.57 - 107.57	1.0000	1.0000
L20	36	MP3-04	102.57 - 107.57	1.0000	1.0000
L20	37	MP3-04	102.57 - 107.57	1.0000	1.0000
L20	38	MP3-04	102.57 - 107.57	1.0000	1.0000
L20	40	MP3-03	106.75 - 107.57	1.0000	1.0000
L20	41	MP3-03	106.75 - 107.57	1.0000	1.0000
L20	42	MP3-03	106.75 - 107.57	1.0000	1.0000
L20	48	CCI 6" x 1" Plate	102.57 - 107.57	1.0000	1.0000
L20	49	CCI 6" x 1" Plate	102.57 - 107.57	1.0000	1.0000
L20	50	CCI 6" x 1" Plate	102.57 - 107.57	1.0000	1.0000
L21	18	CU12PSM9P6XXX(1-1/2)	97.57 - 102.57	1.0000	1.0000
L21	22	Safety Line 3/8	97.57 - 102.57	1.0000	1.0000
L21	36	MP3-04	97.57 - 102.57	1.0000	1.0000
L21	37	MP3-04	97.57 - 102.57	1.0000	1.0000
L21	38	MP3-04	97.57 - 102.57	1.0000	1.0000
L21	48	CCI 6" x 1" Plate	97.57 - 102.57	1.0000	1.0000
L21	49	CCI 6" x 1" Plate	97.57 - 102.57	1.0000	1.0000
L21	50	CCI 6" x 1" Plate	97.57 - 102.57	1.0000	1.0000
L22	18	CU12PSM9P6XXX(1-1/2)	89.00 - 97.57	1.0000	1.0000
L22	22	Safety Line 3/8	89.00 - 97.57	1.0000	1.0000
L22	36	MP3-04	89.00 - 97.57	1.0000	1.0000
L22	37	MP3-04	89.00 - 97.57	1.0000	1.0000
L22	38	MP3-04	89.00 - 97.57	1.0000	1.0000
L22	48	CCI 6" x 1" Plate	89.00 - 97.57	1.0000	1.0000
L22	49	CCI 6" x 1" Plate	89.00 - 97.57	1.0000	1.0000
L22	50	CCI 6" x 1" Plate	89.00 - 97.57	1.0000	1.0000
L23	18	CU12PSM9P6XXX(1-1/2)	88.31 - 89.00	1.0000	1.0000
L23	22	Safety Line 3/8	88.31 - 89.00	1.0000	1.0000
L23	36	MP3-04	88.31 - 89.00	1.0000	1.0000
L23	37	MP3-04	88.31 - 89.00	1.0000	1.0000
L23	38	MP3-04	88.31 - 89.00	1.0000	1.0000
L23	48	CCI 6" x 1" Plate	88.31 - 89.00	1.0000	1.0000
L23	49	CCI 6" x 1" Plate	88.31 - 89.00	1.0000	1.0000
L23	50	CCI 6" x 1" Plate	88.31 - 89.00	1.0000	1.0000
L24	18	CU12PSM9P6XXX(1-1/2)	87.50 - 88.31	1.0000	1.0000
L24	22	Safety Line 3/8	87.50 - 88.31	1.0000	1.0000
L24	36	MP3-04	87.50 - 88.31	1.0000	1.0000
L24	37	MP3-04	87.50 - 88.31	1.0000	1.0000
L24	38	MP3-04	87.50 - 88.31	1.0000	1.0000
L24	48	CCI 6" x 1" Plate	87.50 - 88.31	1.0000	1.0000
L24	49	CCI 6" x 1" Plate	87.50 - 88.31	1.0000	1.0000
L24	50	CCI 6" x 1" Plate	87.50 - 88.31	1.0000	1.0000
L25	18	CU12PSM9P6XXX(1-1/2)	87.25 - 87.50	1.0000	1.0000
L25	22	Safety Line 3/8	87.25 - 87.50	1.0000	1.0000
L25	36	MP3-04	87.25 - 87.50	1.0000	1.0000
L25	37	MP3-04	87.25 - 87.50	1.0000	1.0000
L25	38	MP3-04	87.25 - 87.50	1.0000	1.0000
L25	48	CCI 6" x 1" Plate	87.25 - 87.50	1.0000	1.0000
L25	49	CCI 6" x 1" Plate	87.25 - 87.50	1.0000	1.0000

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Client	Crown Castle	Designed by	JD Prabhu

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L25	50	CCI 6" x 1" Plate	87.25 - 87.50	1.0000	1.0000
L26	18	CU12PSM9P6XXX(1-1/2)	82.25 - 87.25	1.0000	1.0000
L26	22	Safety Line 3/8	82.25 - 87.25	1.0000	1.0000
L26	36	MP3-04	82.25 - 87.25	1.0000	1.0000
L26	37	MP3-04	82.25 - 87.25	1.0000	1.0000
L26	38	MP3-04	82.25 - 87.25	1.0000	1.0000
L26	48	CCI 6" x 1" Plate	85.00 - 87.25	1.0000	1.0000
L26	49	CCI 6" x 1" Plate	85.00 - 87.25	1.0000	1.0000
L26	50	CCI 6" x 1" Plate	85.00 - 87.25	1.0000	1.0000
L27	18	CU12PSM9P6XXX(1-1/2)	80.83 - 82.25	1.0000	1.0000
L27	22	Safety Line 3/8	80.83 - 82.25	1.0000	1.0000
L27	32	MP3-04	80.83 - 82.25	1.0000	1.0000
L27	33	MP3-04	80.83 - 82.25	1.0000	1.0000
L27	34	MP3-04	80.83 - 82.25	1.0000	1.0000
L27	36	MP3-04	80.83 - 82.25	1.0000	1.0000
L27	37	MP3-04	80.83 - 82.25	1.0000	1.0000
L27	38	MP3-04	80.83 - 82.25	1.0000	1.0000
L28	18	CU12PSM9P6XXX(1-1/2)	80.58 - 80.83	1.0000	1.0000
L28	22	Safety Line 3/8	80.58 - 80.83	1.0000	1.0000
L28	32	MP3-04	80.58 - 80.83	1.0000	1.0000
L28	33	MP3-04	80.58 - 80.83	1.0000	1.0000
L28	34	MP3-04	80.58 - 80.83	1.0000	1.0000
L28	36	MP3-04	80.58 - 80.83	1.0000	1.0000
L28	37	MP3-04	80.58 - 80.83	1.0000	1.0000
L28	38	MP3-04	80.58 - 80.83	1.0000	1.0000
L29	18	CU12PSM9P6XXX(1-1/2)	75.58 - 80.58	1.0000	1.0000
L29	22	Safety Line 3/8	75.58 - 80.58	1.0000	1.0000
L29	32	MP3-04	75.58 - 80.58	1.0000	1.0000
L29	33	MP3-04	75.58 - 80.58	1.0000	1.0000
L29	34	MP3-04	75.58 - 80.58	1.0000	1.0000
L29	36	MP3-04	79.25 - 80.58	1.0000	1.0000
L29	37	MP3-04	79.25 - 80.58	1.0000	1.0000
L29	38	MP3-04	79.25 - 80.58	1.0000	1.0000
L30	18	CU12PSM9P6XXX(1-1/2)	70.58 - 75.58	1.0000	1.0000
L30	22	Safety Line 3/8	70.58 - 75.58	1.0000	1.0000
L30	32	MP3-04	70.58 - 75.58	1.0000	1.0000
L30	33	MP3-04	70.58 - 75.58	1.0000	1.0000
L30	34	MP3-04	70.58 - 75.58	1.0000	1.0000
L31	18	CU12PSM9P6XXX(1-1/2)	65.58 - 70.58	1.0000	1.0000
L31	22	Safety Line 3/8	65.58 - 70.58	1.0000	1.0000
L31	32	MP3-04	65.58 - 70.58	1.0000	1.0000
L31	33	MP3-04	65.58 - 70.58	1.0000	1.0000
L31	34	MP3-04	65.58 - 70.58	1.0000	1.0000
L32	18	CU12PSM9P6XXX(1-1/2)	60.58 - 65.58	1.0000	1.0000
L32	22	Safety Line 3/8	60.58 - 65.58	1.0000	1.0000
L32	32	MP3-04	60.58 - 65.58	1.0000	1.0000
L32	33	MP3-04	60.58 - 65.58	1.0000	1.0000
L32	34	MP3-04	60.58 - 65.58	1.0000	1.0000
L33	18	CU12PSM9P6XXX(1-1/2)	55.58 - 60.58	1.0000	1.0000
L33	22	Safety Line 3/8	55.58 - 60.58	1.0000	1.0000
L33	28	MP3-05	55.58 - 56.00	1.0000	1.0000
L33	29	MP3-05	55.58 - 56.00	1.0000	1.0000
L33	30	MP3-05	55.58 - 56.00	1.0000	1.0000
L33	32	MP3-04	55.58 - 60.58	1.0000	1.0000
L33	33	MP3-04	55.58 - 60.58	1.0000	1.0000
L33	34	MP3-04	55.58 - 60.58	1.0000	1.0000
L34	18	CU12PSM9P6XXX(1-1/2)	53.57 - 55.58	1.0000	1.0000
L34	22	Safety Line 3/8	53.57 - 55.58	1.0000	1.0000
L34	28	MP3-05	53.57 - 55.58	1.0000	1.0000
L34	29	MP3-05	53.57 - 55.58	1.0000	1.0000
L34	30	MP3-05	53.57 - 55.58	1.0000	1.0000
L34	32	MP3-04	53.57 - 55.58	1.0000	1.0000

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Project	Date 13:44:56 01/04/23
Client Crown Castle	Designed by JD Prabhu

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L34	33	MP3-04	53.57 - 55.58	1.0000	1.0000
L34	34	MP3-04	53.57 - 55.58	1.0000	1.0000
L35	18	CU12PSM9P6XXX(1-1/2)	53.32 - 53.57	1.0000	1.0000
L35	22	Safety Line 3/8	53.32 - 53.57	1.0000	1.0000
L35	28	MP3-05	53.32 - 53.57	1.0000	1.0000
L35	29	MP3-05	53.32 - 53.57	1.0000	1.0000
L35	30	MP3-05	53.32 - 53.57	1.0000	1.0000
L35	32	MP3-04	53.32 - 53.57	1.0000	1.0000
L35	33	MP3-04	53.32 - 53.57	1.0000	1.0000
L35	34	MP3-04	53.32 - 53.57	1.0000	1.0000
L36	18	CU12PSM9P6XXX(1-1/2)	43.80 - 53.32	1.0000	1.0000
L36	22	Safety Line 3/8	43.80 - 53.32	1.0000	1.0000
L36	28	MP3-05	43.80 - 53.32	1.0000	1.0000
L36	29	MP3-05	43.80 - 53.32	1.0000	1.0000
L36	30	MP3-05	43.80 - 53.32	1.0000	1.0000
L36	32	MP3-04	52.25 - 53.32	1.0000	1.0000
L36	33	MP3-04	52.25 - 53.32	1.0000	1.0000
L36	34	MP3-04	52.25 - 53.32	1.0000	1.0000
L36	44	CCI 6.5" x 1.25" Plate	43.80 - 52.08	1.0000	1.0000
L36	45	CCI 6.5" x 1.25" Plate	43.80 - 52.08	1.0000	1.0000
L36	46	CCI 6.5" x 1.25" Plate	43.80 - 52.08	1.0000	1.0000
L37	18	CU12PSM9P6XXX(1-1/2)	42.80 - 43.80	1.0000	1.0000
L37	22	Safety Line 3/8	42.80 - 43.80	1.0000	1.0000
L37	28	MP3-05	42.80 - 43.80	1.0000	1.0000
L37	29	MP3-05	42.80 - 43.80	1.0000	1.0000
L37	30	MP3-05	42.80 - 43.80	1.0000	1.0000
L37	44	CCI 6.5" x 1.25" Plate	42.80 - 43.80	1.0000	1.0000
L37	45	CCI 6.5" x 1.25" Plate	42.80 - 43.80	1.0000	1.0000
L37	46	CCI 6.5" x 1.25" Plate	42.80 - 43.80	1.0000	1.0000
L38	18	CU12PSM9P6XXX(1-1/2)	38.42 - 42.80	1.0000	1.0000
L38	22	Safety Line 3/8	38.42 - 42.80	1.0000	1.0000
L38	24	MP3-05	38.42 - 40.50	1.0000	1.0000
L38	25	MP3-05	38.42 - 40.50	1.0000	1.0000
L38	26	MP3-05	38.42 - 40.50	1.0000	1.0000
L38	28	MP3-05	38.42 - 42.80	1.0000	1.0000
L38	29	MP3-05	38.42 - 42.80	1.0000	1.0000
L38	30	MP3-05	38.42 - 42.80	1.0000	1.0000
L38	44	CCI 6.5" x 1.25" Plate	38.42 - 42.80	1.0000	1.0000
L38	45	CCI 6.5" x 1.25" Plate	38.42 - 42.80	1.0000	1.0000
L38	46	CCI 6.5" x 1.25" Plate	38.42 - 42.80	1.0000	1.0000
L39	18	CU12PSM9P6XXX(1-1/2)	38.07 - 38.42	1.0000	1.0000
L39	22	Safety Line 3/8	38.07 - 38.42	1.0000	1.0000
L39	24	MP3-05	38.07 - 38.42	1.0000	1.0000
L39	25	MP3-05	38.07 - 38.42	1.0000	1.0000
L39	26	MP3-05	38.07 - 38.42	1.0000	1.0000
L39	28	MP3-05	38.07 - 38.42	1.0000	1.0000
L39	29	MP3-05	38.07 - 38.42	1.0000	1.0000
L39	30	MP3-05	38.07 - 38.42	1.0000	1.0000
L39	44	CCI 6.5" x 1.25" Plate	38.07 - 38.42	1.0000	1.0000
L39	45	CCI 6.5" x 1.25" Plate	38.07 - 38.42	1.0000	1.0000
L39	46	CCI 6.5" x 1.25" Plate	38.07 - 38.42	1.0000	1.0000
L40	18	CU12PSM9P6XXX(1-1/2)	37.83 - 38.07	1.0000	1.0000
L40	22	Safety Line 3/8	37.83 - 38.07	1.0000	1.0000
L40	24	MP3-05	37.83 - 38.07	1.0000	1.0000
L40	25	MP3-05	37.83 - 38.07	1.0000	1.0000
L40	26	MP3-05	37.83 - 38.07	1.0000	1.0000
L40	28	MP3-05	37.83 - 38.07	1.0000	1.0000
L40	29	MP3-05	37.83 - 38.07	1.0000	1.0000
L40	30	MP3-05	37.83 - 38.07	1.0000	1.0000
L40	44	CCI 6.5" x 1.25" Plate	37.83 - 38.07	1.0000	1.0000
L40	45	CCI 6.5" x 1.25" Plate	37.83 - 38.07	1.0000	1.0000
L40	46	CCI 6.5" x 1.25" Plate	37.83 - 38.07	1.0000	1.0000

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p>Job</p> <p style="text-align: center;">147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)</p>	<p>Page</p> <p style="text-align: center;">22 of 57</p>
	<p>Project</p>	<p>Date</p> <p style="text-align: center;">13:44:56 01/04/23</p>
	<p>Client</p> <p style="text-align: center;">Crown Castle</p>	<p>Designed by</p> <p style="text-align: center;">JD Prabhu</p>

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L41	18	CU12PSM9P6XXX(1-1/2)	32.83 - 37.83	1.0000	1.0000
L41	22	Safety Line 3/8	32.83 - 37.83	1.0000	1.0000
L41	24	MP3-05	32.83 - 37.83	1.0000	1.0000
L41	25	MP3-05	32.83 - 37.83	1.0000	1.0000
L41	26	MP3-05	32.83 - 37.83	1.0000	1.0000
L41	28	MP3-05	36.00 - 37.83	1.0000	1.0000
L41	29	MP3-05	36.00 - 37.83	1.0000	1.0000
L41	30	MP3-05	36.00 - 37.83	1.0000	1.0000
L41	44	CCI 6.5" x 1.25" Plate	32.83 - 37.83	1.0000	1.0000
L41	45	CCI 6.5" x 1.25" Plate	32.83 - 37.83	1.0000	1.0000
L41	46	CCI 6.5" x 1.25" Plate	32.83 - 37.83	1.0000	1.0000
L42	18	CU12PSM9P6XXX(1-1/2)	27.83 - 32.83	1.0000	1.0000
L42	22	Safety Line 3/8	27.83 - 32.83	1.0000	1.0000
L42	24	MP3-05	27.83 - 32.83	1.0000	1.0000
L42	25	MP3-05	27.83 - 32.83	1.0000	1.0000
L42	26	MP3-05	27.83 - 32.83	1.0000	1.0000
L42	44	CCI 6.5" x 1.25" Plate	27.83 - 32.83	1.0000	1.0000
L42	45	CCI 6.5" x 1.25" Plate	27.83 - 32.83	1.0000	1.0000
L42	46	CCI 6.5" x 1.25" Plate	27.83 - 32.83	1.0000	1.0000
L43	18	CU12PSM9P6XXX(1-1/2)	23.50 - 27.83	1.0000	1.0000
L43	22	Safety Line 3/8	23.50 - 27.83	1.0000	1.0000
L43	24	MP3-05	23.50 - 27.83	1.0000	1.0000
L43	25	MP3-05	23.50 - 27.83	1.0000	1.0000
L43	26	MP3-05	23.50 - 27.83	1.0000	1.0000
L43	44	CCI 6.5" x 1.25" Plate	23.50 - 27.83	1.0000	1.0000
L43	45	CCI 6.5" x 1.25" Plate	23.50 - 27.83	1.0000	1.0000
L43	46	CCI 6.5" x 1.25" Plate	23.50 - 27.83	1.0000	1.0000
L44	18	CU12PSM9P6XXX(1-1/2)	23.25 - 23.50	1.0000	1.0000
L44	22	Safety Line 3/8	23.25 - 23.50	1.0000	1.0000
L44	24	MP3-05	23.25 - 23.50	1.0000	1.0000
L44	25	MP3-05	23.25 - 23.50	1.0000	1.0000
L44	26	MP3-05	23.25 - 23.50	1.0000	1.0000
L44	44	CCI 6.5" x 1.25" Plate	23.25 - 23.50	1.0000	1.0000
L44	45	CCI 6.5" x 1.25" Plate	23.25 - 23.50	1.0000	1.0000
L44	46	CCI 6.5" x 1.25" Plate	23.25 - 23.50	1.0000	1.0000
L45	18	CU12PSM9P6XXX(1-1/2)	18.25 - 23.25	1.0000	1.0000
L45	22	Safety Line 3/8	18.25 - 23.25	1.0000	1.0000
L45	24	MP3-05	18.25 - 23.25	1.0000	1.0000
L45	25	MP3-05	18.25 - 23.25	1.0000	1.0000
L45	26	MP3-05	18.25 - 23.25	1.0000	1.0000
L45	44	CCI 6.5" x 1.25" Plate	18.25 - 23.25	1.0000	1.0000
L45	45	CCI 6.5" x 1.25" Plate	18.25 - 23.25	1.0000	1.0000
L45	46	CCI 6.5" x 1.25" Plate	18.25 - 23.25	1.0000	1.0000
L46	18	CU12PSM9P6XXX(1-1/2)	13.25 - 18.25	1.0000	1.0000
L46	22	Safety Line 3/8	13.25 - 18.25	1.0000	1.0000
L46	24	MP3-05	13.25 - 18.25	1.0000	1.0000
L46	25	MP3-05	13.25 - 18.25	1.0000	1.0000
L46	26	MP3-05	13.25 - 18.25	1.0000	1.0000
L46	44	CCI 6.5" x 1.25" Plate	13.25 - 18.25	1.0000	1.0000
L46	45	CCI 6.5" x 1.25" Plate	13.25 - 18.25	1.0000	1.0000
L46	46	CCI 6.5" x 1.25" Plate	13.25 - 18.25	1.0000	1.0000
L47	18	CU12PSM9P6XXX(1-1/2)	8.25 - 13.25	1.0000	1.0000
L47	22	Safety Line 3/8	8.25 - 13.25	1.0000	1.0000
L47	24	MP3-05	8.25 - 13.25	1.0000	1.0000
L47	25	MP3-05	8.25 - 13.25	1.0000	1.0000
L47	26	MP3-05	8.25 - 13.25	1.0000	1.0000
L47	44	CCI 6.5" x 1.25" Plate	8.25 - 13.25	1.0000	1.0000
L47	45	CCI 6.5" x 1.25" Plate	8.25 - 13.25	1.0000	1.0000
L47	46	CCI 6.5" x 1.25" Plate	8.25 - 13.25	1.0000	1.0000
L48	18	CU12PSM9P6XXX(1-1/2)	7.92 - 8.25	1.0000	1.0000
L48	22	Safety Line 3/8	7.92 - 8.25	1.0000	1.0000
L48	24	MP3-05	7.92 - 8.25	1.0000	1.0000

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p>Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)</p>	<p>Page 23 of 57</p>
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	<p>Client Crown Castle</p>	<p>Designed by JD Prabhu</p>

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L48	25	MP3-05	7.92 - 8.25	1.0000	1.0000
L48	26	MP3-05	7.92 - 8.25	1.0000	1.0000
L48	44	CCI 6.5" x 1.25" Plate	7.92 - 8.25	1.0000	1.0000
L48	45	CCI 6.5" x 1.25" Plate	7.92 - 8.25	1.0000	1.0000
L48	46	CCI 6.5" x 1.25" Plate	7.92 - 8.25	1.0000	1.0000
L49	18	CU12PSM9P6XXX(1-1/2)	7.67 - 7.92	1.0000	1.0000
L49	22	Safety Line 3/8	7.67 - 7.92	1.0000	1.0000
L49	24	MP3-05	7.67 - 7.92	1.0000	1.0000
L49	25	MP3-05	7.67 - 7.92	1.0000	1.0000
L49	26	MP3-05	7.67 - 7.92	1.0000	1.0000
L49	44	CCI 6.5" x 1.25" Plate	7.67 - 7.92	1.0000	1.0000
L49	45	CCI 6.5" x 1.25" Plate	7.67 - 7.92	1.0000	1.0000
L49	46	CCI 6.5" x 1.25" Plate	7.67 - 7.92	1.0000	1.0000
L50	18	CU12PSM9P6XXX(1-1/2)	5.50 - 7.67	1.0000	1.0000
L50	22	Safety Line 3/8	5.50 - 7.67	1.0000	1.0000
L50	24	MP3-05	5.50 - 7.67	1.0000	1.0000
L50	25	MP3-05	5.50 - 7.67	1.0000	1.0000
L50	26	MP3-05	5.50 - 7.67	1.0000	1.0000
L50	44	CCI 6.5" x 1.25" Plate	5.50 - 7.67	1.0000	1.0000
L50	45	CCI 6.5" x 1.25" Plate	5.50 - 7.67	1.0000	1.0000
L50	46	CCI 6.5" x 1.25" Plate	5.50 - 7.67	1.0000	1.0000
L51	18	CU12PSM9P6XXX(1-1/2)	5.25 - 5.50	1.0000	1.0000
L51	22	Safety Line 3/8	5.25 - 5.50	1.0000	1.0000
L51	24	MP3-05	5.25 - 5.50	1.0000	1.0000
L51	26	MP3-05	5.25 - 5.50	1.0000	1.0000
L51	44	CCI 6.5" x 1.25" Plate	5.25 - 5.50	1.0000	1.0000
L51	45	CCI 6.5" x 1.25" Plate	5.25 - 5.50	1.0000	1.0000
L51	46	CCI 6.5" x 1.25" Plate	5.25 - 5.50	1.0000	1.0000
L52	18	CU12PSM9P6XXX(1-1/2)	3.00 - 5.25	1.0000	1.0000
L52	22	Safety Line 3/8	3.00 - 5.25	1.0000	1.0000
L52	24	MP3-05	3.00 - 5.25	1.0000	1.0000
L52	26	MP3-05	3.00 - 5.25	1.0000	1.0000
L52	44	CCI 6.5" x 1.25" Plate	3.00 - 5.25	1.0000	1.0000
L52	45	CCI 6.5" x 1.25" Plate	3.00 - 5.25	1.0000	1.0000
L52	46	CCI 6.5" x 1.25" Plate	3.00 - 5.25	1.0000	1.0000
L53	18	CU12PSM9P6XXX(1-1/2)	2.75 - 3.00	1.0000	1.0000
L53	22	Safety Line 3/8	2.75 - 3.00	1.0000	1.0000
L53	24	MP3-05	2.75 - 3.00	1.0000	1.0000
L53	26	MP3-05	2.75 - 3.00	1.0000	1.0000
L53	44	CCI 6.5" x 1.25" Plate	2.75 - 3.00	1.0000	1.0000
L53	45	CCI 6.5" x 1.25" Plate	2.75 - 3.00	1.0000	1.0000
L53	46	CCI 6.5" x 1.25" Plate	2.75 - 3.00	1.0000	1.0000
L54	18	CU12PSM9P6XXX(1-1/2)	0.00 - 2.75	1.0000	1.0000
L54	22	Safety Line 3/8	0.00 - 2.75	1.0000	1.0000
L54	24	MP3-05	0.58 - 2.75	1.0000	1.0000
L54	26	MP3-05	0.58 - 2.75	1.0000	1.0000
L54	44	CCI 6.5" x 1.25" Plate	2.00 - 2.75	1.0000	1.0000
L54	45	CCI 6.5" x 1.25" Plate	2.00 - 2.75	1.0000	1.0000
L54	46	CCI 6.5" x 1.25" Plate	2.00 - 2.75	1.0000	1.0000

Effective Width of Flat Linear Attachments / Feed Lines

<p style="text-align: center;"><i>tnxTower</i></p> <p>MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 24 of 57
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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L13	40	MP3-03	120.58 - 121.75	Auto	0.0000
L13	41	MP3-03	120.58 - 121.75	Auto	0.0000
L13	42	MP3-03	120.58 - 121.75	Auto	0.0000
L14	40	MP3-03	120.33 - 120.58	Auto	0.0000
L14	41	MP3-03	120.33 - 120.58	Auto	0.0000
L14	42	MP3-03	120.33 - 120.58	Auto	0.0000
L15	40	MP3-03	115.33 - 120.33	Auto	0.0000
L15	41	MP3-03	115.33 - 120.33	Auto	0.0000
L15	42	MP3-03	115.33 - 120.33	Auto	0.0000
L16	40	MP3-03	112.50 - 115.33	Auto	0.0000
L16	41	MP3-03	112.50 - 115.33	Auto	0.0000
L16	42	MP3-03	112.50 - 115.33	Auto	0.0000
L16	48	CCI 6" x 1" Plate	112.50 - 115.00	Auto	0.2179
L16	49	CCI 6" x 1" Plate	112.50 - 115.00	Auto	0.2179
L16	50	CCI 6" x 1" Plate	112.50 - 115.00	Auto	0.2179
L17	40	MP3-03	112.25 - 112.50	Auto	0.0000
L17	41	MP3-03	112.25 - 112.50	Auto	0.0000
L17	42	MP3-03	112.25 - 112.50	Auto	0.0000
L17	48	CCI 6" x 1" Plate	112.25 - 112.50	Auto	0.3056
L17	49	CCI 6" x 1" Plate	112.25 - 112.50	Auto	0.3056
L17	50	CCI 6" x 1" Plate	112.25 - 112.50	Auto	0.3056
L18	36	MP3-04	107.82 - 109.25	Auto	0.1153
L18	37	MP3-04	107.82 - 109.25	Auto	0.1153
L18	38	MP3-04	107.82 - 109.25	Auto	0.1153
L18	40	MP3-03	107.82 - 112.25	Auto	0.0000
L18	41	MP3-03	107.82 - 112.25	Auto	0.0000
L18	42	MP3-03	107.82 - 112.25	Auto	0.0000
L18	48	CCI 6" x 1" Plate	107.82 - 112.25	Auto	0.3035
L18	49	CCI 6" x 1" Plate	107.82 - 112.25	Auto	0.3035
L18	50	CCI 6" x 1" Plate	107.82 - 112.25	Auto	0.3035
L19	36	MP3-04	107.57 -	Auto	0.1094

<i>tnxTower</i> MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 25 of 57
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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L19	37	MP3-04	107.82 107.57 - 107.82	Auto	0.1094
L19	38	MP3-04	107.57 - 107.82	Auto	0.1094
L19	40	MP3-03	107.57 - 107.82	Auto	0.0000
L19	41	MP3-03	107.57 - 107.82	Auto	0.0000
L19	42	MP3-03	107.57 - 107.82	Auto	0.0000
L19	48	CCI 6" x 1" Plate	107.57 - 107.82	Auto	0.2905
L19	49	CCI 6" x 1" Plate	107.57 - 107.82	Auto	0.2905
L19	50	CCI 6" x 1" Plate	107.57 - 107.82	Auto	0.2905
L20	36	MP3-04	102.57 - 107.57	Auto	0.0865
L20	37	MP3-04	102.57 - 107.57	Auto	0.0865
L20	38	MP3-04	102.57 - 107.57	Auto	0.0865
L20	40	MP3-03	106.75 - 107.57	Auto	0.0000
L20	41	MP3-03	106.75 - 107.57	Auto	0.0000
L20	42	MP3-03	106.75 - 107.57	Auto	0.0000
L20	48	CCI 6" x 1" Plate	102.57 - 107.57	Auto	0.2722
L20	49	CCI 6" x 1" Plate	102.57 - 107.57	Auto	0.2722
L20	50	CCI 6" x 1" Plate	102.57 - 107.57	Auto	0.2722
L21	36	MP3-04	97.57 - 102.57	Auto	0.0469
L21	37	MP3-04	97.57 - 102.57	Auto	0.0469
L21	38	MP3-04	97.57 - 102.57	Auto	0.0469
L21	48	CCI 6" x 1" Plate	97.57 - 102.57	Auto	0.2407
L21	49	CCI 6" x 1" Plate	97.57 - 102.57	Auto	0.2407
L21	50	CCI 6" x 1" Plate	97.57 - 102.57	Auto	0.2407
L22	36	MP3-04	89.00 - 97.57	Auto	0.0052
L22	37	MP3-04	89.00 - 97.57	Auto	0.0052
L22	38	MP3-04	89.00 - 97.57	Auto	0.0052
L22	48	CCI 6" x 1" Plate	89.00 - 97.57	Auto	0.1993
L22	49	CCI 6" x 1" Plate	89.00 - 97.57	Auto	0.1993
L22	50	CCI 6" x 1" Plate	89.00 - 97.57	Auto	0.1993
L23	36	MP3-04	88.31 - 89.00	Auto	0.0086
L23	37	MP3-04	88.31 - 89.00	Auto	0.0086
L23	38	MP3-04	88.31 - 89.00	Auto	0.0086
L23	48	CCI 6" x 1" Plate	88.31 - 89.00	Auto	0.2102
L23	49	CCI 6" x 1" Plate	88.31 - 89.00	Auto	0.2102
L23	50	CCI 6" x 1" Plate	88.31 - 89.00	Auto	0.2102
L24	36	MP3-04	87.50 - 88.31	Auto	0.0034
L24	37	MP3-04	87.50 - 88.31	Auto	0.0034
L24	38	MP3-04	87.50 - 88.31	Auto	0.0034
L24	48	CCI 6" x 1" Plate	87.50 - 88.31	Auto	0.2060
L24	49	CCI 6" x 1" Plate	87.50 - 88.31	Auto	0.2060
L24	50	CCI 6" x 1" Plate	87.50 - 88.31	Auto	0.2060
L25	36	MP3-04	87.25 - 87.50	Auto	0.0000
L25	37	MP3-04	87.25 - 87.50	Auto	0.0000

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Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L25	38	MP3-04	87.25 - 87.50	Auto	0.0000
L25	48	CCI 6" x 1" Plate	87.25 - 87.50	Auto	0.1077
L25	49	CCI 6" x 1" Plate	87.25 - 87.50	Auto	0.1077
L25	50	CCI 6" x 1" Plate	87.25 - 87.50	Auto	0.1077
L26	36	MP3-04	82.25 - 87.25	Auto	0.0000
L26	37	MP3-04	82.25 - 87.25	Auto	0.0000
L26	38	MP3-04	82.25 - 87.25	Auto	0.0000
L26	48	CCI 6" x 1" Plate	85.00 - 87.25	Auto	0.1008
L26	49	CCI 6" x 1" Plate	85.00 - 87.25	Auto	0.1008
L26	50	CCI 6" x 1" Plate	85.00 - 87.25	Auto	0.1008
L27	32	MP3-04	80.83 - 82.25	Auto	0.0000
L27	33	MP3-04	80.83 - 82.25	Auto	0.0000
L27	34	MP3-04	80.83 - 82.25	Auto	0.0000
L27	36	MP3-04	80.83 - 82.25	Auto	0.0000
L27	37	MP3-04	80.83 - 82.25	Auto	0.0000
L27	38	MP3-04	80.83 - 82.25	Auto	0.0000
L28	32	MP3-04	80.58 - 80.83	Auto	0.0000
L28	33	MP3-04	80.58 - 80.83	Auto	0.0000
L28	34	MP3-04	80.58 - 80.83	Auto	0.0000
L28	36	MP3-04	80.58 - 80.83	Auto	0.0000
L28	37	MP3-04	80.58 - 80.83	Auto	0.0000
L28	38	MP3-04	80.58 - 80.83	Auto	0.0000
L29	32	MP3-04	75.58 - 80.58	Auto	0.0000
L29	33	MP3-04	75.58 - 80.58	Auto	0.0000
L29	34	MP3-04	75.58 - 80.58	Auto	0.0000
L29	36	MP3-04	79.25 - 80.58	Auto	0.0000
L29	37	MP3-04	79.25 - 80.58	Auto	0.0000
L29	38	MP3-04	79.25 - 80.58	Auto	0.0000
L30	32	MP3-04	70.58 - 75.58	Auto	0.0000
L30	33	MP3-04	70.58 - 75.58	Auto	0.0000
L30	34	MP3-04	70.58 - 75.58	Auto	0.0000
L31	32	MP3-04	65.58 - 70.58	Auto	0.0000
L31	33	MP3-04	65.58 - 70.58	Auto	0.0000
L31	34	MP3-04	65.58 - 70.58	Auto	0.0000
L32	32	MP3-04	60.58 - 65.58	Auto	0.0000
L32	33	MP3-04	60.58 - 65.58	Auto	0.0000
L32	34	MP3-04	60.58 - 65.58	Auto	0.0000
L33	28	MP3-05	55.58 - 56.00	Auto	0.0000
L33	29	MP3-05	55.58 - 56.00	Auto	0.0000
L33	30	MP3-05	55.58 - 56.00	Auto	0.0000
L33	32	MP3-04	55.58 - 60.58	Auto	0.0000
L33	33	MP3-04	55.58 - 60.58	Auto	0.0000
L33	34	MP3-04	55.58 - 60.58	Auto	0.0000
L34	28	MP3-05	53.57 - 55.58	Auto	0.0000
L34	29	MP3-05	53.57 - 55.58	Auto	0.0000
L34	30	MP3-05	53.57 - 55.58	Auto	0.0000
L34	32	MP3-04	53.57 - 55.58	Auto	0.0000
L34	33	MP3-04	53.57 - 55.58	Auto	0.0000
L34	34	MP3-04	53.57 - 55.58	Auto	0.0000
L35	28	MP3-05	53.32 - 53.57	Auto	0.0000
L35	29	MP3-05	53.32 - 53.57	Auto	0.0000
L35	30	MP3-05	53.32 - 53.57	Auto	0.0000
L35	32	MP3-04	53.32 - 53.57	Auto	0.0000
L35	33	MP3-04	53.32 - 53.57	Auto	0.0000
L35	34	MP3-04	53.32 - 53.57	Auto	0.0000
L36	28	MP3-05	43.80 - 53.32	Auto	0.0000
L36	29	MP3-05	43.80 - 53.32	Auto	0.0000
L36	30	MP3-05	43.80 - 53.32	Auto	0.0000
L36	32	MP3-04	52.25 - 53.32	Auto	0.0000
L36	33	MP3-04	52.25 - 53.32	Auto	0.0000
L36	34	MP3-04	52.25 - 53.32	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L36	44	CCI 6.5" x 1.25" Plate	43.80 - 52.08	Auto	0.0000
L36	45	CCI 6.5" x 1.25" Plate	43.80 - 52.08	Auto	0.0000
L36	46	CCI 6.5" x 1.25" Plate	43.80 - 52.08	Auto	0.0000
L37	28	MP3-05	42.80 - 43.80	Auto	0.0000
L37	29	MP3-05	42.80 - 43.80	Auto	0.0000
L37	30	MP3-05	42.80 - 43.80	Auto	0.0000
L37	44	CCI 6.5" x 1.25" Plate	42.80 - 43.80	Auto	0.0582
L37	45	CCI 6.5" x 1.25" Plate	42.80 - 43.80	Auto	0.0582
L37	46	CCI 6.5" x 1.25" Plate	42.80 - 43.80	Auto	0.0582
L38	24	MP3-05	38.42 - 40.50	Auto	0.0000
L38	25	MP3-05	38.42 - 40.50	Auto	0.0000
L38	26	MP3-05	38.42 - 40.50	Auto	0.0000
L38	28	MP3-05	38.42 - 42.80	Auto	0.0000
L38	29	MP3-05	38.42 - 42.80	Auto	0.0000
L38	30	MP3-05	38.42 - 42.80	Auto	0.0000
L38	44	CCI 6.5" x 1.25" Plate	38.42 - 42.80	Auto	0.0410
L38	45	CCI 6.5" x 1.25" Plate	38.42 - 42.80	Auto	0.0410
L38	46	CCI 6.5" x 1.25" Plate	38.42 - 42.80	Auto	0.0410
L39	24	MP3-05	38.07 - 38.42	Auto	0.0000
L39	25	MP3-05	38.07 - 38.42	Auto	0.0000
L39	26	MP3-05	38.07 - 38.42	Auto	0.0000
L39	28	MP3-05	38.07 - 38.42	Auto	0.0000
L39	29	MP3-05	38.07 - 38.42	Auto	0.0000
L39	30	MP3-05	38.07 - 38.42	Auto	0.0000
L39	44	CCI 6.5" x 1.25" Plate	38.07 - 38.42	Auto	0.0288
L39	45	CCI 6.5" x 1.25" Plate	38.07 - 38.42	Auto	0.0288
L39	46	CCI 6.5" x 1.25" Plate	38.07 - 38.42	Auto	0.0288
L40	24	MP3-05	37.83 - 38.07	Auto	0.0000
L40	25	MP3-05	37.83 - 38.07	Auto	0.0000
L40	26	MP3-05	37.83 - 38.07	Auto	0.0000
L40	28	MP3-05	37.83 - 38.07	Auto	0.0000
L40	29	MP3-05	37.83 - 38.07	Auto	0.0000
L40	30	MP3-05	37.83 - 38.07	Auto	0.0000
L40	44	CCI 6.5" x 1.25" Plate	37.83 - 38.07	Auto	0.0273
L40	45	CCI 6.5" x 1.25" Plate	37.83 - 38.07	Auto	0.0273
L40	46	CCI 6.5" x 1.25" Plate	37.83 - 38.07	Auto	0.0273
L41	24	MP3-05	32.83 - 37.83	Auto	0.0000
L41	25	MP3-05	32.83 - 37.83	Auto	0.0000
L41	26	MP3-05	32.83 - 37.83	Auto	0.0000
L41	28	MP3-05	36.00 - 37.83	Auto	0.0000
L41	29	MP3-05	36.00 - 37.83	Auto	0.0000
L41	30	MP3-05	36.00 - 37.83	Auto	0.0000
L41	44	CCI 6.5" x 1.25" Plate	32.83 - 37.83	Auto	0.0106
L41	45	CCI 6.5" x 1.25" Plate	32.83 - 37.83	Auto	0.0106
L41	46	CCI 6.5" x 1.25" Plate	32.83 - 37.83	Auto	0.0106
L42	24	MP3-05	27.83 - 32.83	Auto	0.0000
L42	25	MP3-05	27.83 - 32.83	Auto	0.0000
L42	26	MP3-05	27.83 - 32.83	Auto	0.0000
L42	44	CCI 6.5" x 1.25" Plate	27.83 - 32.83	Auto	0.0000
L42	45	CCI 6.5" x 1.25" Plate	27.83 - 32.83	Auto	0.0000
L42	46	CCI 6.5" x 1.25" Plate	27.83 - 32.83	Auto	0.0000
L43	24	MP3-05	23.50 - 27.83	Auto	0.0000
L43	25	MP3-05	23.50 - 27.83	Auto	0.0000
L43	26	MP3-05	23.50 - 27.83	Auto	0.0000
L43	44	CCI 6.5" x 1.25" Plate	23.50 - 27.83	Auto	0.0000
L43	45	CCI 6.5" x 1.25" Plate	23.50 - 27.83	Auto	0.0000
L43	46	CCI 6.5" x 1.25" Plate	23.50 - 27.83	Auto	0.0000
L44	24	MP3-05	23.25 - 23.50	Auto	0.0000
L44	25	MP3-05	23.25 - 23.50	Auto	0.0000
L44	26	MP3-05	23.25 - 23.50	Auto	0.0000
L44	44	CCI 6.5" x 1.25" Plate	23.25 - 23.50	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L44	45	CCI 6.5" x 1.25" Plate	23.25 - 23.50	Auto	0.0000
L44	46	CCI 6.5" x 1.25" Plate	23.25 - 23.50	Auto	0.0000
L45	24	MP3-05	18.25 - 23.25	Auto	0.0000
L45	25	MP3-05	18.25 - 23.25	Auto	0.0000
L45	26	MP3-05	18.25 - 23.25	Auto	0.0000
L45	44	CCI 6.5" x 1.25" Plate	18.25 - 23.25	Auto	0.0000
L45	45	CCI 6.5" x 1.25" Plate	18.25 - 23.25	Auto	0.0000
L45	46	CCI 6.5" x 1.25" Plate	18.25 - 23.25	Auto	0.0000
L46	24	MP3-05	13.25 - 18.25	Auto	0.0000
L46	25	MP3-05	13.25 - 18.25	Auto	0.0000
L46	26	MP3-05	13.25 - 18.25	Auto	0.0000
L46	44	CCI 6.5" x 1.25" Plate	13.25 - 18.25	Auto	0.0000
L46	45	CCI 6.5" x 1.25" Plate	13.25 - 18.25	Auto	0.0000
L46	46	CCI 6.5" x 1.25" Plate	13.25 - 18.25	Auto	0.0000
L47	24	MP3-05	8.25 - 13.25	Auto	0.0000
L47	25	MP3-05	8.25 - 13.25	Auto	0.0000
L47	26	MP3-05	8.25 - 13.25	Auto	0.0000
L47	44	CCI 6.5" x 1.25" Plate	8.25 - 13.25	Auto	0.0000
L47	45	CCI 6.5" x 1.25" Plate	8.25 - 13.25	Auto	0.0000
L47	46	CCI 6.5" x 1.25" Plate	8.25 - 13.25	Auto	0.0000
L48	24	MP3-05	7.92 - 8.25	Auto	0.0000
L48	25	MP3-05	7.92 - 8.25	Auto	0.0000
L48	26	MP3-05	7.92 - 8.25	Auto	0.0000
L48	44	CCI 6.5" x 1.25" Plate	7.92 - 8.25	Auto	0.0000
L48	45	CCI 6.5" x 1.25" Plate	7.92 - 8.25	Auto	0.0000
L48	46	CCI 6.5" x 1.25" Plate	7.92 - 8.25	Auto	0.0000
L49	24	MP3-05	7.67 - 7.92	Auto	0.0000
L49	25	MP3-05	7.67 - 7.92	Auto	0.0000
L49	26	MP3-05	7.67 - 7.92	Auto	0.0000
L49	44	CCI 6.5" x 1.25" Plate	7.67 - 7.92	Auto	0.0000
L49	45	CCI 6.5" x 1.25" Plate	7.67 - 7.92	Auto	0.0000
L49	46	CCI 6.5" x 1.25" Plate	7.67 - 7.92	Auto	0.0000
L50	24	MP3-05	5.50 - 7.67	Auto	0.0000
L50	25	MP3-05	5.50 - 7.67	Auto	0.0000
L50	26	MP3-05	5.50 - 7.67	Auto	0.0000
L50	44	CCI 6.5" x 1.25" Plate	5.50 - 7.67	Auto	0.0000
L50	45	CCI 6.5" x 1.25" Plate	5.50 - 7.67	Auto	0.0000
L50	46	CCI 6.5" x 1.25" Plate	5.50 - 7.67	Auto	0.0000
L51	24	MP3-05	5.25 - 5.50	Auto	0.0000
L51	26	MP3-05	5.25 - 5.50	Auto	0.0000
L51	44	CCI 6.5" x 1.25" Plate	5.25 - 5.50	Auto	0.0000
L51	45	CCI 6.5" x 1.25" Plate	5.25 - 5.50	Auto	0.0000
L51	46	CCI 6.5" x 1.25" Plate	5.25 - 5.50	Auto	0.0000
L52	24	MP3-05	3.00 - 5.25	Auto	0.0000
L52	26	MP3-05	3.00 - 5.25	Auto	0.0000
L52	44	CCI 6.5" x 1.25" Plate	3.00 - 5.25	Auto	0.0000
L52	45	CCI 6.5" x 1.25" Plate	3.00 - 5.25	Auto	0.0000
L52	46	CCI 6.5" x 1.25" Plate	3.00 - 5.25	Auto	0.0000
L53	24	MP3-05	2.75 - 3.00	Auto	0.0000
L53	26	MP3-05	2.75 - 3.00	Auto	0.0000
L53	44	CCI 6.5" x 1.25" Plate	2.75 - 3.00	Auto	0.0000
L53	45	CCI 6.5" x 1.25" Plate	2.75 - 3.00	Auto	0.0000
L53	46	CCI 6.5" x 1.25" Plate	2.75 - 3.00	Auto	0.0000
L54	24	MP3-05	0.58 - 2.75	Auto	0.0000
L54	26	MP3-05	0.58 - 2.75	Auto	0.0000
L54	44	CCI 6.5" x 1.25" Plate	2.00 - 2.75	Auto	0.0000
L54	45	CCI 6.5" x 1.25" Plate	2.00 - 2.75	Auto	0.0000
L54	46	CCI 6.5" x 1.25" Plate	2.00 - 2.75	Auto	0.0000

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Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _{Front}	C _A A _{Side}	Weight	
			Horz Lateral	Vert						
			ft	ft	°	ft	ft ²	ft ²	K	
APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	180.000	No Ice	14.694	6.873	0.183
			0.000				1/2" Ice	15.455	7.554	0.311
			3.000				1" Ice	16.230	8.247	0.453
APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	180.000	No Ice	14.694	6.873	0.183
			0.000				1/2" Ice	15.455	7.554	0.311
			3.000				1" Ice	16.230	8.247	0.453
APXVAALL24_43-U-NA20_TMO w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	180.000	No Ice	14.694	6.873	0.183
			0.000				1/2" Ice	15.455	7.554	0.311
			3.000				1" Ice	16.230	8.247	0.453
AIR6449 B41_T-MOBILE w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	180.000	No Ice	5.187	2.705	0.128
			0.000				1/2" Ice	5.594	3.038	0.174
			3.000				1" Ice	6.016	3.385	0.227
AIR6449 B41_T-MOBILE w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	180.000	No Ice	5.187	2.705	0.128
			0.000				1/2" Ice	5.594	3.038	0.174
			3.000				1" Ice	6.016	3.385	0.227
AIR6449 B41_T-MOBILE w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	180.000	No Ice	5.187	2.705	0.128
			0.000				1/2" Ice	5.594	3.038	0.174
			3.000				1" Ice	6.016	3.385	0.227
Radio 4480_TMOV2	A	From Leg	4.000	0.000	0.000	180.000	No Ice	2.878	1.397	0.081
			0.000				1/2" Ice	3.091	1.558	0.103
			3.000				1" Ice	3.312	1.727	0.128
Radio 4480_TMOV2	B	From Leg	4.000	0.000	0.000	180.000	No Ice	2.878	1.397	0.081
			0.000				1/2" Ice	3.091	1.558	0.103
			3.000				1" Ice	3.312	1.727	0.128
Radio 4480_TMOV2	C	From Leg	4.000	0.000	0.000	180.000	No Ice	2.878	1.397	0.081
			0.000				1/2" Ice	3.091	1.558	0.103
			3.000				1" Ice	3.312	1.727	0.128
RADIO 4460 B2/B25 B66_TMO	A	From Leg	4.000	0.000	0.000	180.000	No Ice	2.139	1.686	0.109
			0.000				1/2" Ice	2.321	1.850	0.131
			3.000				1" Ice	2.511	2.022	0.156
RADIO 4460 B2/B25 B66_TMO	B	From Leg	4.000	0.000	0.000	180.000	No Ice	2.139	1.686	0.109
			0.000				1/2" Ice	2.321	1.850	0.131
			3.000				1" Ice	2.511	2.022	0.156
RADIO 4460 B2/B25 B66_TMO	C	From Leg	4.000	0.000	0.000	180.000	No Ice	2.139	1.686	0.109
			0.000				1/2" Ice	2.321	1.850	0.131
			3.000				1" Ice	2.511	2.022	0.156
(3) 10' x 2" Mount Pipe	A	From Leg	4.000	0.000	0.000	180.000	No Ice	2.375	2.375	0.037
			0.000				1/2" Ice	3.403	3.403	0.054
			1.000				1" Ice	4.448	4.448	0.079
(3) 10' x 2" Mount Pipe	B	From Leg	4.000	0.000	0.000	180.000	No Ice	2.375	2.375	0.037
			0.000				1/2" Ice	3.403	3.403	0.054
			1.000				1" Ice	4.448	4.448	0.079
(3) 10' x 2" Mount Pipe	C	From Leg	4.000	0.000	0.000	180.000	No Ice	2.375	2.375	0.037
			0.000				1/2" Ice	3.403	3.403	0.054
			1.000				1" Ice	4.448	4.448	0.079
(2) L2.5x2.5x3/16x4.333'	A	From Leg	2.000	0.000	0.000	180.000	No Ice	1.094	0.005	0.080
			0.000				1/2" Ice	1.403	0.024	0.086
			-3.000				1" Ice	1.720	0.049	0.097
(2) L2.5x2.5x3/16x4.333'	B	From Leg	2.000	0.000	0.000	180.000	No Ice	1.094	0.005	0.080
			0.000				1/2" Ice	1.403	0.024	0.086

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	Client		Crown Castle		Designed by		JD Prabhu	

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
(2) L2.5x2.5x3/16x4.333'	C	From Leg	-3.000 2.000 0.000 -3.000	0.000	180.000	1" Ice 1.720 No Ice 1.094 1/2" Ice 1.403 1" Ice 1.720	0.049 0.005 0.024 0.049	0.097 0.080 0.086 0.097
Side Arm Mount [SO 102-3]	C	None		0.000	178.000	1" Ice 1.720 No Ice 3.600 1/2" Ice 4.180 1" Ice 4.750	0.049 3.600 4.180 4.750	0.075 0.075 0.105 0.135
Miscellaneous [NA 507-1]	C	None		0.000	178.000	No Ice 4.560 1/2" Ice 6.390 1" Ice 8.180	4.560 6.390 8.180	0.245 0.311 0.402
Platform Mount [LP 602-1]	C	None		0.000	180.000	No Ice 31.070 1/2" Ice 34.820 1" Ice 38.480	31.070 34.820 38.480	1.343 1.967 2.669
Transition Ladder	C	From Leg	2.000 0.000 -3.000	0.000	180.000	No Ice 6.000 1/2" Ice 8.000 1" Ice 10.000	6.000 8.000 10.000	0.160 0.240 0.320
*								
TMA-DB-T1-6Z-8AB-0Z	A	From Leg	1.000 0.000 0.000	0.000	170.000	No Ice 4.800 1/2" Ice 5.070 1" Ice 5.348	2.000 2.193 2.393	0.044 0.080 0.120
Side Arm Mount [SO 102-3]	C	None		0.000	170.000	No Ice 3.600 1/2" Ice 4.180 1" Ice 4.750	3.600 4.180 4.750	0.075 0.105 0.135
*								
BXA-171063-12CF-EDIN-X w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	168.000	No Ice 4.344 1/2" Ice 5.079 1" Ice 5.831	4.576 5.314 6.069	0.047 0.087 0.137
BXA-171063-12CF-EDIN-X w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	168.000	No Ice 4.344 1/2" Ice 5.079 1" Ice 5.831	4.576 5.314 6.069	0.047 0.087 0.137
BXA-171063-12CF-EDIN-X w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	168.000	No Ice 4.344 1/2" Ice 5.079 1" Ice 5.831	4.576 5.314 6.069	0.047 0.087 0.137
(2) NHH-65B-R2B w/ Mount Pipe	A	From Leg	4.000 0.000 2.000	0.000	168.000	No Ice 4.095 1/2" Ice 4.483 1" Ice 4.880	3.295 3.672 4.058	0.069 0.132 0.205
(2) NHH-65B-R2B w/ Mount Pipe	B	From Leg	4.000 0.000 2.000	0.000	168.000	No Ice 4.095 1/2" Ice 4.483 1" Ice 4.880	3.295 3.672 4.058	0.069 0.132 0.205
(2) NHH-65B-R2B w/ Mount Pipe	C	From Leg	4.000 0.000 2.000	0.000	168.000	No Ice 4.095 1/2" Ice 4.483 1" Ice 4.880	3.295 3.672 4.058	0.069 0.132 0.205
MT6407-77A	A	From Leg	4.000 0.000 2.000	0.000	168.000	No Ice 4.692 1/2" Ice 4.980 1" Ice 5.275	1.840 2.063 2.292	0.082 0.111 0.144
MT6407-77A	B	From Leg	4.000 0.000 2.000	0.000	168.000	No Ice 4.692 1/2" Ice 4.980 1" Ice 5.275	1.840 2.063 2.292	0.082 0.111 0.144
MT6407-77A	C	From Leg	4.000 0.000 2.000	0.000	168.000	No Ice 4.692 1/2" Ice 4.980 1" Ice 5.275	1.840 2.063 2.292	0.082 0.111 0.144
RF4440D-13A	A	From Leg	4.000 0.000 2.000	0.000	168.000	No Ice 1.865 1/2" Ice 2.035 1" Ice 2.212	1.129 1.267 1.411	0.073 0.090 0.110
RF4440D-13A	B	From Leg	4.000 0.000 2.000	0.000	168.000	No Ice 1.865 1/2" Ice 2.035 1" Ice 2.212	1.129 1.267 1.411	0.073 0.090 0.110

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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA} Front	C _{AA} Side	Weight	
			Horz	Lateral						Vert
RF4440D-13A	C	From Leg	4.000	0.000	0.000	168.000	No Ice	1.865	1.129	0.073
			0.000				1/2" Ice	2.035	1.267	0.090
			2.000				1" Ice	2.212	1.411	0.110
RF4439D-25A	A	From Leg	4.000	0.000	0.000	168.000	No Ice	1.865	1.252	0.075
			0.000				1/2" Ice	2.035	1.394	0.093
			2.000				1" Ice	2.212	1.544	0.114
RF4439D-25A	B	From Leg	4.000	0.000	0.000	168.000	No Ice	1.865	1.252	0.075
			0.000				1/2" Ice	2.035	1.394	0.093
			2.000				1" Ice	2.212	1.544	0.114
RF4439D-25A	C	From Leg	4.000	0.000	0.000	168.000	No Ice	1.865	1.252	0.075
			0.000				1/2" Ice	2.035	1.394	0.093
			2.000				1" Ice	2.212	1.544	0.114
RVZDC-6627-PF-48_CCIV2	A	From Leg	2.000	0.000	0.000	168.000	No Ice	4.056	3.098	0.032
			0.000				1/2" Ice	4.316	3.335	0.068
			2.000				1" Ice	4.582	3.580	0.109
3' x 2" Pipe Mount	A	From Leg	2.000	0.000	0.000	168.000	No Ice	0.583	0.583	0.011
			0.000				1/2" Ice	0.770	0.770	0.017
			0.000				1" Ice	0.967	0.967	0.024
7'x2 1/2" Pipe Mount	A	From Leg	4.000	0.000	0.000	168.000	No Ice	2.013	2.013	0.041
			0.000				1/2" Ice	2.589	2.589	0.055
			0.000				1" Ice	3.018	3.018	0.075
7'x2 1/2" Pipe Mount	B	From Leg	4.000	0.000	0.000	168.000	No Ice	2.013	2.013	0.041
			0.000				1/2" Ice	2.589	2.589	0.055
			0.000				1" Ice	3.018	3.018	0.075
7'x2 1/2" Pipe Mount	C	From Leg	4.000	0.000	0.000	168.000	No Ice	2.013	2.013	0.041
			0.000				1/2" Ice	2.589	2.589	0.055
			0.000				1" Ice	3.018	3.018	0.075
Platform Mount [LP 303-1_HR-1]	C	None		0.000	0.000	168.000	No Ice	17.090	17.090	1.495
							1/2" Ice	21.470	21.470	1.881
							1" Ice	25.720	25.720	2.346
*										
AM-X-CD-17-65-00T-RET w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	155.000	No Ice	6.090	4.310	0.092
			0.000				1/2" Ice	6.660	4.860	0.170
			6.000				1" Ice	7.240	5.420	0.261
AM-X-CD-17-65-00T-RET w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	155.000	No Ice	6.090	4.310	0.092
			0.000				1/2" Ice	6.660	4.860	0.170
			6.000				1" Ice	7.240	5.420	0.261
AM-X-CD-17-65-00T-RET w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	155.000	No Ice	6.090	4.310	0.092
			0.000				1/2" Ice	6.660	4.860	0.170
			6.000				1" Ice	7.240	5.420	0.261
OPA65R-BU6D w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	155.000	No Ice	12.248	6.047	0.089
			0.000				1/2" Ice	12.998	6.710	0.176
			6.000				1" Ice	13.764	7.388	0.275
OPA65R-BU6D w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	155.000	No Ice	12.248	6.047	0.089
			0.000				1/2" Ice	12.998	6.710	0.176
			6.000				1" Ice	13.764	7.388	0.275
OPA65R-BU6D w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	155.000	No Ice	12.248	6.047	0.089
			0.000				1/2" Ice	12.998	6.710	0.176
			6.000				1" Ice	13.764	7.388	0.275
TPA65R-BU6DA-K w/ Mount Pipe	A	From Leg	4.000	0.000	0.000	155.000	No Ice	12.870	6.390	0.094
			0.000				1/2" Ice	13.670	7.100	0.180
			6.000				1" Ice	14.490	7.820	0.277
TPA65R-BU6DA-K w/ Mount Pipe	B	From Leg	4.000	0.000	0.000	155.000	No Ice	12.870	6.390	0.094
			0.000				1/2" Ice	13.670	7.100	0.180
			6.000				1" Ice	14.490	7.820	0.277
TPA65R-BU6DA-K w/ Mount Pipe	C	From Leg	4.000	0.000	0.000	155.000	No Ice	12.870	6.390	0.094
			0.000				1/2" Ice	13.670	7.100	0.180

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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	
RRUS 4415 B25_CCIV2	A	From Leg	6.000		0.000	155.000	1" Ice	14.490	7.820	0.277
			4.000				No Ice	1.843	0.820	0.046
			0.000				1/2" Ice	2.012	0.943	0.060
RRUS 4415 B25_CCIV2	B	From Leg	6.000		0.000	155.000	1" Ice	2.190	1.075	0.077
			4.000				No Ice	1.843	0.820	0.046
			0.000				1/2" Ice	2.012	0.943	0.060
RRUS 4415 B25_CCIV2	C	From Leg	6.000		0.000	155.000	1" Ice	2.190	1.075	0.077
			4.000				No Ice	1.843	0.820	0.046
			0.000				1/2" Ice	2.012	0.943	0.060
RRUS 4426 B66	A	From Leg	6.000		0.000	155.000	1" Ice	2.190	1.075	0.077
			4.000				No Ice	1.644	0.725	0.048
			0.000				1/2" Ice	1.804	0.842	0.061
RRUS 4426 B66	B	From Leg	6.000		0.000	155.000	1" Ice	1.972	0.969	0.076
			4.000				No Ice	1.644	0.725	0.048
			0.000				1/2" Ice	1.804	0.842	0.061
RRUS 4426 B66	C	From Leg	6.000		0.000	155.000	1" Ice	1.972	0.969	0.076
			4.000				No Ice	1.644	0.725	0.048
			0.000				1/2" Ice	1.804	0.842	0.061
RRUS 4449 B5/B12	A	From Leg	6.000		0.000	155.000	1" Ice	1.972	0.969	0.076
			4.000				No Ice	1.968	1.408	0.071
			0.000				1/2" Ice	2.144	1.564	0.090
RRUS 4449 B5/B12	B	From Leg	6.000		0.000	155.000	1" Ice	2.328	1.727	0.111
			4.000				No Ice	1.968	1.408	0.071
			0.000				1/2" Ice	2.144	1.564	0.090
RRUS 4449 B5/B12	C	From Leg	6.000		0.000	155.000	1" Ice	2.328	1.727	0.111
			4.000				No Ice	1.968	1.408	0.071
			0.000				1/2" Ice	2.144	1.564	0.090
RRUS 4478 B14_CCIV2	A	From Leg	6.000		0.000	155.000	1" Ice	2.328	1.727	0.111
			4.000				No Ice	2.021	1.246	0.059
			0.000				1/2" Ice	2.200	1.396	0.077
RRUS 4478 B14_CCIV2	B	From Leg	6.000		0.000	155.000	1" Ice	2.386	1.554	0.097
			4.000				No Ice	2.021	1.246	0.059
			0.000				1/2" Ice	2.200	1.396	0.077
RRUS 4478 B14_CCIV2	C	From Leg	6.000		0.000	155.000	1" Ice	2.386	1.554	0.097
			4.000				No Ice	2.021	1.246	0.059
			0.000				1/2" Ice	2.200	1.396	0.077
DC6-48-60-18-8F	B	From Leg	6.000		0.000	155.000	1" Ice	2.386	1.554	0.097
			4.000				No Ice	0.850	0.850	0.019
			0.000				1/2" Ice	1.356	1.356	0.036
(2) 6' x 2" Mount Pipe	A	From Leg	6.000		0.000	155.000	1" Ice	1.532	1.532	0.055
			1.000				No Ice	1.425	1.425	0.022
			0.000				1/2" Ice	1.925	1.925	0.033
(2) 6' x 2" Mount Pipe	B	From Leg	6.000		0.000	155.000	1" Ice	2.294	2.294	0.048
			1.000				No Ice	1.425	1.425	0.022
			0.000				1/2" Ice	1.925	1.925	0.033
(2) 6' x 2" Mount Pipe	C	From Leg	6.000		0.000	155.000	1" Ice	2.294	2.294	0.048
			1.000				No Ice	1.425	1.425	0.022
			0.000				1/2" Ice	1.925	1.925	0.033
10' x 2" Mount Pipe	A	From Leg	6.000		0.000	155.000	1" Ice	2.294	2.294	0.048
			4.000				No Ice	2.375	2.375	0.037
			0.000				1/2" Ice	3.403	3.403	0.054
10' x 2" Mount Pipe	B	From Leg	6.000		0.000	155.000	1" Ice	4.448	4.448	0.079
			4.000				No Ice	2.375	2.375	0.037
			0.000				1/2" Ice	3.403	3.403	0.054
10' x 2" Mount Pipe	C	From Leg	6.000		0.000	155.000	1" Ice	4.448	4.448	0.079
			4.000				No Ice	2.375	2.375	0.037
			0.000				1/2" Ice	3.403	3.403	0.054

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Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
Perfect Vision PV-LPPGS-14M-HR2-H5H1 0 *	C	None	0.000	0.000	155.000	1" Ice	4.448	4.448	0.079
						No Ice	22.000	22.000	1.695
						1/2" Ice	29.200	29.200	2.171
DC6-48-60-18-8F	C	From Leg	2.000	0.000	153.000	No Ice	0.850	0.850	0.019
			0.000			1/2" Ice	1.356	1.356	0.036
			8.000			1" Ice	1.532	1.532	0.055
6' x 2" Mount Pipe	A	From Leg	2.000	0.000	153.000	No Ice	1.425	1.425	0.022
			0.000			1/2" Ice	1.925	1.925	0.033
			1.000			1" Ice	2.294	2.294	0.048
6' x 2" Mount Pipe	B	From Leg	2.000	0.000	153.000	No Ice	1.425	1.425	0.022
			0.000			1/2" Ice	1.925	1.925	0.033
			1.000			1" Ice	2.294	2.294	0.048
6' x 2" Mount Pipe	C	From Leg	2.000	0.000	153.000	No Ice	1.425	1.425	0.022
			0.000			1/2" Ice	1.925	1.925	0.033
			1.000			1" Ice	2.294	2.294	0.048
Side Arm Mount [SO 104-3]	C	None		0.000	153.000	No Ice	2.620	2.620	0.288
						1/2" Ice	3.300	3.300	0.408
						1" Ice	3.980	3.980	0.528
* MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.000	0.000	141.000	No Ice	8.009	4.233	0.108
			0.000			1/2" Ice	8.518	4.689	0.194
			0.000			1" Ice	9.038	5.156	0.292
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.000	0.000	141.000	No Ice	8.009	4.233	0.108
			0.000			1/2" Ice	8.518	4.689	0.194
			0.000			1" Ice	9.038	5.156	0.292
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.000	0.000	141.000	No Ice	8.009	4.233	0.108
			0.000			1/2" Ice	8.518	4.689	0.194
			0.000			1" Ice	9.038	5.156	0.292
TA08025-B604	A	From Leg	4.000	0.000	141.000	No Ice	1.964	0.981	0.064
			0.000			1/2" Ice	2.138	1.112	0.081
			0.000			1" Ice	2.320	1.250	0.100
TA08025-B604	B	From Leg	4.000	0.000	141.000	No Ice	1.964	0.981	0.064
			0.000			1/2" Ice	2.138	1.112	0.081
			0.000			1" Ice	2.320	1.250	0.100
TA08025-B604	C	From Leg	4.000	0.000	141.000	No Ice	1.964	0.981	0.064
			0.000			1/2" Ice	2.138	1.112	0.081
			0.000			1" Ice	2.320	1.250	0.100
TA08025-B605	A	From Leg	4.000	0.000	141.000	No Ice	1.964	1.129	0.075
			0.000			1/2" Ice	2.138	1.267	0.093
			0.000			1" Ice	2.320	1.411	0.114
TA08025-B605	B	From Leg	4.000	0.000	141.000	No Ice	1.964	1.129	0.075
			0.000			1/2" Ice	2.138	1.267	0.093
			0.000			1" Ice	2.320	1.411	0.114
TA08025-B605	C	From Leg	4.000	0.000	141.000	No Ice	1.964	1.129	0.075
			0.000			1/2" Ice	2.138	1.267	0.093
			0.000			1" Ice	2.320	1.411	0.114
RDIDC-9181-PF-48	A	From Leg	4.000	0.000	141.000	No Ice	2.012	1.168	0.022
			0.000			1/2" Ice	2.189	1.311	0.040
			0.000			1" Ice	2.373	1.461	0.060
(2) 8' x 2" Mount Pipe	A	From Leg	2.000	0.000	141.000	No Ice	1.900	1.900	0.029
			0.000			1/2" Ice	2.728	2.728	0.044
			0.000			1" Ice	3.401	3.401	0.063
(2) 8' x 2" Mount Pipe	B	From Leg	2.000	0.000	141.000	No Ice	1.900	1.900	0.029
			0.000			1/2" Ice	2.728	2.728	0.044
			0.000			1" Ice	3.401	3.401	0.063

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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
(2) 8' x 2" Mount Pipe	C	From Leg	2.000	0.000	0.000	141.000	No Ice 1.900	1.900	0.029
			0.000				1/2" Ice 2.728	2.728	0.044
			0.000				1" Ice 3.401	3.401	0.063
Commscope MC-PK8-DSH	C	None			0.000	141.000	No Ice 34.240	34.240	1.749
							1/2" Ice 62.950	62.950	2.099
							1" Ice 91.660	91.660	2.450
* 8225	C	From Leg	2.000	0.000	0.000	78.000	No Ice 0.894	0.894	0.001
			0.000				1/2" Ice 1.060	1.060	0.009
			1.000				1" Ice 1.230	1.230	0.018
Side Arm Mount [SO 701-1]	C	From Leg	1.000	0.000	0.000	78.000	No Ice 0.850	1.670	0.065
			0.000				1/2" Ice 1.140	2.340	0.079
			0.000				1" Ice 1.430	3.010	0.093
* *									

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

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Comb. No.	Description
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	180.5 - 175.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-9.026	0.849	-0.491
			Max. Mx	20	-4.119	36.363	-0.198
			Max. My	14	-4.110	0.350	-36.197
			Max. Vy	20	-6.718	36.363	-0.198
			Max. Vx	14	6.723	0.350	-36.197
			Max. Torque	13			-0.680
L2	175.5 - 170.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-9.509	0.861	-0.498
			Max. Mx	20	-4.429	70.720	-0.198
			Max. My	14	-4.419	0.358	-70.583
			Max. Vy	20	-7.028	70.720	-0.198
			Max. Vx	14	7.034	0.358	-70.583
			Max. Torque	13			-0.680
L3	170.5 - 165.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-16.335	0.876	0.132
			Max. Mx	20	-7.755	120.629	-0.043
			Max. My	14	-7.717	0.368	-120.876
			Max. Vy	20	-11.168	120.629	-0.043
			Max. Vx	14	11.308	0.368	-120.876
			Max. Torque	13			-0.680
L4	165.5 - 160.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-16.879	0.894	0.125
			Max. Mx	20	-8.145	177.238	-0.043
			Max. My	14	-8.107	0.378	-178.184
			Max. Vy	20	-11.482	177.238	-0.043
			Max. Vx	14	11.622	0.378	-178.184
			Max. Torque	3			0.587
L5	160.5 - 155.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-17.444	0.910	0.118
			Max. Mx	20	-8.562	235.417	-0.042
			Max. My	14	-8.524	0.387	-237.064
			Max. Vy	20	-11.798	235.417	-0.042
			Max. Vx	14	11.938	0.387	-237.064
			Max. Torque	3			0.587

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L6	155.5 - 150.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-26.302	0.831	-0.119
			Max. Mx	20	-12.782	338.085	-0.111
			Max. My	14	-12.739	0.370	-340.575
			Max. Vy	20	-17.681	338.085	-0.111
			Max. Vx	2	-17.826	0.376	340.345
			Max. Torque	3			0.586
L7	150.5 - 145.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-26.987	0.851	-0.126
			Max. Mx	20	-13.379	427.181	-0.110
			Max. My	14	-13.336	0.381	-430.399
			Max. Vy	20	-17.976	427.181	-0.110
			Max. Vx	2	-18.122	0.388	430.166
			Max. Torque	3			0.539
L8	145.5 - 140.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-32.608	0.873	0.190
			Max. Mx	20	-16.777	519.335	-0.003
			Max. My	2	-16.729	0.401	523.192
			Max. Vy	20	-21.466	519.335	-0.003
			Max. Vx	2	-21.643	0.401	523.192
			Max. Torque	5			0.574
L9	140.5 - 134.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-33.015	0.900	0.196
			Max. Mx	20	-17.146	577.584	0.002
			Max. My	2	-17.099	0.416	581.914
			Max. Vy	20	-21.613	577.584	0.002
			Max. Vx	2	-21.789	0.416	581.914
			Max. Torque	5			0.574
L10	134.5 - 132.794	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-34.256	0.950	0.206
			Max. Mx	20	-18.149	686.558	0.012
			Max. My	2	-18.103	0.442	691.763
			Max. Vy	20	-21.985	686.558	0.012
			Max. Vx	2	-22.162	0.442	691.763
			Max. Torque	5			0.573
L11	132.794 - 127.794	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-35.137	0.999	0.215
			Max. Mx	20	-18.977	797.064	0.021
			Max. My	2	-18.934	0.468	803.145
			Max. Vy	20	-22.251	797.064	0.021
			Max. Vx	2	-22.428	0.468	803.145
			Max. Torque	5			0.573
L12	127.794 - 122.794	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.043	1.041	0.224
			Max. Mx	20	-19.823	908.928	0.031
			Max. My	2	-19.782	0.493	915.883
			Max. Vy	20	-22.521	908.928	0.031
			Max. Vx	2	-22.697	0.493	915.883
			Max. Torque	5			0.572
L13	122.794 - 120.583	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-36.471	1.055	0.227
			Max. Mx	20	-20.205	958.820	0.035
			Max. My	2	-20.165	0.504	966.161
			Max. Vy	20	-22.639	958.820	0.035
			Max. Vx	2	-22.816	0.504	966.161
			Max. Torque	5			0.571
L14	120.583 -	Pole	Max Tension	1	0.000	0.000	0.000

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
	120.333		Max. Compression	26	-36.521	1.058	0.228
			Max. Mx	20	-20.265	964.478	0.036
			Max. My	2	-20.225	0.506	971.862
			Max. Vy	20	-22.641	964.478	0.036
			Max. Vx	2	-22.817	0.506	971.862
			Max. Torque	5			0.571
L15	120.333 - 115.333	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-37.547	1.089	0.235
			Max. Mx	20	-21.138	1078.307	0.045
			Max. My	2	-21.101	0.530	1086.563
			Max. Vy	20	-22.910	1078.307	0.045
			Max. Vx	2	-23.086	0.530	1086.563
			Max. Torque	5			0.571
L16	115.333 - 112.5	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-38.187	1.107	0.239
			Max. Mx	20	-21.644	1143.373	0.050
			Max. My	2	-21.609	0.544	1152.122
			Max. Vy	20	-23.062	1143.373	0.050
			Max. Vx	2	-23.238	0.544	1152.122
			Max. Torque	5			0.570
L17	112.5 - 112.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-38.272	1.113	0.240
			Max. Mx	20	-21.738	1149.136	0.051
			Max. My	2	-21.703	0.547	1157.928
			Max. Vy	20	-23.062	1149.136	0.051
			Max. Vx	2	-23.237	0.547	1157.928
			Max. Torque	5			0.570
L18	112.25 - 107.817	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-39.870	1.139	0.247
			Max. Mx	20	-23.000	1252.167	0.060
			Max. My	2	-22.965	0.568	1261.730
			Max. Vy	20	-23.433	1252.167	0.060
			Max. Vx	2	-23.609	0.568	1261.730
			Max. Torque	5			0.570
L19	107.817 - 107.567	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-39.964	1.145	0.248
			Max. Mx	20	-23.080	1258.026	0.060
			Max. My	2	-23.046	0.571	1267.633
			Max. Vy	20	-23.449	1258.026	0.060
			Max. Vx	2	-23.625	0.571	1267.633
			Max. Torque	5			0.569
L20	107.567 - 102.567	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-41.780	1.176	0.255
			Max. Mx	20	-24.528	1376.274	0.070
			Max. My	2	-24.494	0.596	1386.752
			Max. Vy	20	-23.861	1376.274	0.070
			Max. Vx	2	-24.037	0.596	1386.752
			Max. Torque	5			0.569
L21	102.567 - 97.567	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-43.605	1.211	0.263
			Max. Mx	20	-26.006	1496.549	0.081
			Max. My	2	-25.974	0.622	1507.900
			Max. Vy	20	-24.264	1496.549	0.081
			Max. Vx	2	-24.441	0.622	1507.900

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L22	97.567 - 89	Pole	Max. Torque	5			0.569
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-45.179	1.242	0.270
			Max. Mx	20	-27.285	1600.498	0.090
			Max. My	2	-27.254	0.645	1612.592
			Max. Vy	20	-24.601	1600.498	0.090
			Max. Vx	2	-24.778	0.645	1612.592
L23	89 - 88.311	Pole	Max. Torque	5			0.568
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-48.470	1.280	0.279
			Max. Mx	20	-30.009	1724.912	0.101
			Max. My	2	-29.979	0.672	1737.884
			Max. Vy	20	-25.157	1724.912	0.101
			Max. Vx	2	-25.335	0.672	1737.884
L24	88.311 - 87.5	Pole	Max. Torque	5			0.568
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-48.795	1.285	0.280
			Max. Mx	20	-30.277	1745.335	0.102
			Max. My	2	-30.247	0.677	1758.450
			Max. Vy	20	-25.222	1745.335	0.102
			Max. Vx	2	-25.400	0.677	1758.450
L25	87.5 - 87.25	Pole	Max. Torque	5			0.568
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-48.865	1.289	0.281
			Max. Mx	20	-30.337	1751.641	0.103
			Max. My	2	-30.307	0.679	1764.800
			Max. Vy	20	-25.234	1751.641	0.103
			Max. Vx	2	-25.412	0.679	1764.800
L26	87.25 - 82.25	Pole	Max. Torque	5			0.568
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-50.215	1.324	0.289
			Max. Mx	20	-31.467	1878.365	0.114
			Max. My	2	-31.439	0.705	1892.402
			Max. Vy	20	-25.482	1878.365	0.114
			Max. Vx	2	-25.660	0.705	1892.402
L27	82.25 - 80.833	Pole	Max. Torque	5			0.568
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-50.616	1.334	0.292
			Max. Mx	20	-31.788	1914.493	0.117
			Max. My	2	-31.761	0.713	1928.777
			Max. Vy	20	-25.558	1914.493	0.117
			Max. Vx	2	-25.735	0.713	1928.777
L28	80.833 - 80.583	Pole	Max. Torque	5			0.567
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-50.687	1.338	0.293
			Max. Mx	20	-31.868	1920.877	0.117
			Max. My	2	-31.841	0.715	1935.205
			Max. Vy	20	-25.547	1920.877	0.117
			Max. Vx	2	-25.724	0.715	1935.205
L29	80.583 - 75.583	Pole	Max. Torque	5			0.567
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-52.175	1.652	0.141
			Max. Mx	20	-33.106	2049.524	0.068
			Max. My	2	-33.081	0.927	2064.487
			Max. Vy	20	-25.860	2049.524	0.068
			Max. Vx	2	-26.051	0.927	2064.487
L30	75.583 - 70.583	Pole	Max. Torque	3			0.746
			Max Tension	1	0.000	0.000	0.000

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L31	70.583 - 65.583	Pole	Max. Compression	26	-53.545	1.691	0.151
			Max. Mx	20	-34.311	2179.269	0.142
			Max. My	2	-34.287	1.016	2195.170
			Max. Vy	20	-26.079	2179.269	0.142
			Max. Vx	2	-26.268	1.016	2195.170
			Max. Torque	3			0.745
			Max Tension	1	0.000	0.000	0.000
L32	65.583 - 60.583	Pole	Max. Compression	26	-54.941	1.731	0.160
			Max. Mx	20	-35.539	2310.084	0.215
			Max. My	2	-35.518	1.104	2326.915
			Max. Vy	20	-26.289	2310.084	0.215
			Max. Vx	2	-26.477	1.104	2326.915
			Max. Torque	3			0.744
			Max Tension	1	0.000	0.000	0.000
L33	60.583 - 55.583	Pole	Max. Compression	26	-56.362	1.772	0.170
			Max. Mx	20	-36.792	2441.924	0.289
			Max. My	2	-36.774	1.192	2459.680
			Max. Vy	20	-26.490	2441.924	0.289
			Max. Vx	2	-26.676	1.192	2459.680
			Max. Torque	3			0.744
			Max Tension	1	0.000	0.000	0.000
L34	55.583 - 53.567	Pole	Max. Compression	26	-57.817	1.813	0.180
			Max. Mx	20	-38.069	2574.742	0.363
			Max. My	2	-38.053	1.280	2593.416
			Max. Vy	20	-26.681	2574.742	0.363
			Max. Vx	2	-26.866	1.280	2593.416
			Max. Torque	3			0.743
			Max Tension	1	0.000	0.000	0.000
L35	53.567 - 53.317	Pole	Max. Compression	26	-58.446	1.830	0.184
			Max. Mx	20	-38.590	2628.561	0.393
			Max. My	2	-38.575	1.315	2647.603
			Max. Vy	20	-26.755	2628.561	0.393
			Max. Vx	2	-26.939	1.315	2647.603
			Max. Torque	3			0.743
			Max Tension	1	0.000	0.000	0.000
L36	53.317 - 43.8	Pole	Max. Compression	26	-58.524	1.833	0.185
			Max. Mx	20	-38.669	2635.246	0.397
			Max. My	2	-38.654	1.320	2654.334
			Max. Vy	20	-26.748	2635.246	0.397
			Max. Vx	2	-26.932	1.320	2654.334
			Max. Torque	3			0.743
			Max Tension	1	0.000	0.000	0.000
L37	43.8 - 42.8	Pole	Max. Compression	26	-59.860	1.868	0.194
			Max. Mx	20	-39.758	2748.184	0.459
			Max. My	2	-39.745	1.394	2768.036
			Max. Vy	20	-26.908	2748.184	0.459
			Max. Vx	2	-27.091	1.394	2768.036
			Max. Torque	3			0.743
			Max Tension	1	0.000	0.000	0.000
L38	42.8 - 38.417	Pole	Max. Compression	26	-64.232	1.922	0.207
			Max. Mx	20	-43.411	2919.258	0.552
			Max. My	2	-43.399	1.505	2940.251
			Max. Vy	20	-27.373	2919.258	0.552
			Max. Vx	2	-27.556	1.505	2940.251
			Max. Torque	3			0.742
			Max Tension	1	0.000	0.000	0.000

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L39	38.417 - 38.067	Pole	Max. Compression	26	-66.419	1.960	0.216
			Max. Mx	20	-45.254	3039.704	0.618
			Max. My	2	-45.244	1.582	3061.487
			Max. Vy	20	-27.613	3039.704	0.618
			Max. Vx	2	-27.796	1.582	3061.487
			Max. Torque	3			0.742
			Max Tension	1	0.000	0.000	0.000
L40	38.067 - 37.833	Pole	Max. Compression	26	-66.598	1.964	0.217
			Max. Mx	20	-45.410	3049.367	0.623
			Max. My	2	-45.400	1.588	3071.213
			Max. Vy	20	-27.621	3049.367	0.623
			Max. Vx	2	-27.803	1.588	3071.213
			Max. Torque	3			0.742
			Max Tension	1	0.000	0.000	0.000
L41	37.833 - 32.833	Pole	Max. Compression	26	-66.718	1.967	0.218
			Max. Mx	20	-45.511	3055.831	0.626
			Max. My	2	-45.501	1.593	3077.719
			Max. Vy	20	-27.633	3055.831	0.626
			Max. Vx	2	-27.815	1.593	3077.719
			Max. Torque	3			0.742
			Max Tension	1	0.000	0.000	0.000
L42	32.833 - 27.833	Pole	Max. Compression	26	-69.224	2.009	0.229
			Max. Mx	20	-47.632	3194.612	0.701
			Max. My	2	-47.623	1.681	3217.397
			Max. Vy	20	-27.895	3194.612	0.701
			Max. Vx	2	-28.076	1.681	3217.397
			Max. Torque	3			0.742
			Max Tension	1	0.000	0.000	0.000
L43	27.833 - 23.5	Pole	Max. Compression	26	-71.718	2.053	0.240
			Max. Mx	20	-49.785	3334.604	0.775
			Max. My	2	-49.778	1.769	3358.282
			Max. Vy	20	-28.128	3334.604	0.775
			Max. Vx	2	-28.308	1.769	3358.282
			Max. Torque	3			0.742
			Max Tension	1	0.000	0.000	0.000
L44	23.5 - 23.25	Pole	Max. Compression	26	-73.896	2.091	0.250
			Max. Mx	20	-51.671	3456.848	0.840
			Max. My	2	-51.665	1.845	3481.295
			Max. Vy	20	-28.325	3456.848	0.840
			Max. Vx	2	-28.505	1.845	3481.295
			Max. Torque	3			0.742
			Max Tension	1	0.000	0.000	0.000
L45	23.25 - 18.25	Pole	Max. Compression	26	-74.023	2.095	0.251
			Max. Mx	20	-51.789	3463.927	0.843
			Max. My	2	-51.783	1.850	3488.418
			Max. Vy	20	-28.323	3463.927	0.843
			Max. Vx	2	-28.503	1.850	3488.418
			Max. Torque	15			-0.742
			Max Tension	1	0.000	0.000	0.000
L46	18.25 - 13.25	Pole	Max. Compression	26	-76.553	2.138	0.263
			Max. Mx	20	-53.981	3606.089	0.918
			Max. My	2	-53.976	1.938	3631.462
			Max. Vy	20	-28.557	3606.089	0.918
			Max. Vx	2	-28.736	1.938	3631.462
			Max. Torque	3			0.742
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-79.098	2.183	0.275

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L47	13.25 - 8.25	Pole	Max. Mx	20	-56.205	3749.347	0.993
			Max. My	2	-56.201	2.026	3775.597
			Max. Vy	20	-28.774	3749.347	0.993
			Max. Vx	2	-28.952	2.026	3775.597
			Max. Torque	3			0.742
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-81.653	2.228	0.288
			Max. Mx	20	-58.452	3893.678	1.067
			Max. My	2	-58.449	2.114	3920.798
			Max. Vy	20	-28.988	3893.678	1.067
L48	8.25 - 7.917	Pole	Max. Vx	2	-29.164	2.114	3920.798
			Max. Torque	3			0.741
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-81.824	2.231	0.289
			Max. Mx	20	-58.610	3903.329	1.072
			Max. My	2	-58.607	2.120	3930.506
			Max. Vy	20	-28.989	3903.329	1.072
			Max. Vx	2	-29.165	2.120	3930.506
			Max. Torque	3			0.741
			Max Tension	1	0.000	0.000	0.000
L49	7.917 - 7.667	Pole	Max. Compression	26	-81.958	2.234	0.289
			Max. Mx	20	-58.730	3910.577	1.076
			Max. My	2	-58.727	2.125	3937.798
			Max. Vy	20	-28.999	3910.577	1.076
			Max. Vx	2	-29.175	2.125	3937.798
			Max. Torque	3			0.741
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-83.119	2.252	0.295
			Max. Mx	20	-59.754	3973.522	1.108
			Max. My	2	-59.752	2.163	4001.118
L50	7.667 - 5.5	Pole	Max. Vy	20	-29.111	3973.522	1.108
			Max. Vx	2	-29.287	2.163	4001.118
			Max. Torque	3			0.741
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-83.216	2.257	0.295
			Max. Mx	20	-59.846	3980.797	1.112
			Max. My	2	-59.844	2.167	4008.435
			Max. Vy	20	-29.104	3980.797	1.112
			Max. Vx	2	-29.279	2.167	4008.435
			Max. Torque	3			0.741
L51	5.5 - 5.25	Pole	Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-84.082	2.299	0.294
			Max. Mx	20	-60.609	4046.327	1.145
			Max. My	2	-60.608	2.207	4074.353
			Max. Vy	20	-29.177	4046.327	1.145
			Max. Vx	2	-29.352	2.207	4074.353
			Max. Torque	3			0.741
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-84.203	2.303	0.294
			Max. Mx	20	-60.733	4053.615	1.149
L52	5.25 - 3	Pole	Max. My	2	-60.732	2.211	4081.684
			Max. Vy	20	-29.159	4053.615	1.149
			Max. Vx	2	-29.333	2.211	4081.684
			Max. Torque	3			0.741
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-85.497	2.345	0.296
			Max. Mx	20	-61.930	4133.952	1.190
			Max. My	2	-61.930	2.259	4162.491
			Max. Vy	20	-29.292	4133.952	1.190
			Max. Vx	2	-29.466	2.259	4162.491
L53	3 - 2.75	Pole	Max. Torque	3			0.741
			Max Tension	1	0.000	0.000	0.000
			Max. Compression	26	-85.497	2.345	0.296
			Max. Mx	20	-61.930	4133.952	1.190
			Max. My	2	-61.930	2.259	4162.491
			Max. Vy	20	-29.292	4133.952	1.190
L54	2.75 - 0	Pole	Max. Vx	2	-29.466	2.259	4162.491
			Max. Torque	3			0.741

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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
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Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	27	85.497	0.004	7.683
	Max. H _x	21	46.458	29.263	0.012
	Max. H _z	2	61.944	0.012	29.436
	Max. M _x	2	4162.491	0.012	29.436
	Max. M _z	8	4131.431	-29.263	-0.012
	Max. Torsion	3	0.741	0.012	29.436
	Min. Vert	19	46.458	25.336	-14.707
	Min. H _x	9	46.458	-29.263	-0.012
	Min. H _z	14	61.944	-0.012	-29.436
	Min. M _x	14	-4162.117	-0.012	-29.436
	Min. M _z	20	-4133.952	29.263	0.012
	Min. Torsion	15	-0.741	-0.012	-29.436

Tower Mast Reaction Summary

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
Dead Only	51.620	0.000	0.000	-0.148	0.962	0.000
1.2 Dead+1.0 Wind 0 deg - No Ice	61.944	-0.012	-29.436	-4162.491	2.259	-0.728
0.9 Dead+1.0 Wind 0 deg - No Ice	46.458	-0.012	-29.436	-4068.770	1.907	-0.741
1.2 Dead+1.0 Wind 30 deg - No Ice	61.944	14.678	-25.586	-3612.194	-2068.601	-0.676
0.9 Dead+1.0 Wind 30 deg - No Ice	46.458	14.678	-25.586	-3530.921	-2022.412	-0.687
1.2 Dead+1.0 Wind 60 deg - No Ice	61.944	25.336	-14.707	-2080.577	-3577.191	-0.439
0.9 Dead+1.0 Wind 60 deg - No Ice	46.458	25.336	-14.707	-2033.689	-3497.013	-0.445
1.2 Dead+1.0 Wind 90 deg - No Ice	61.944	29.263	0.012	0.826	-4131.431	-0.078
0.9 Dead+1.0 Wind 90 deg - No Ice	46.458	29.263	0.012	0.863	-4038.781	-0.078
1.2 Dead+1.0 Wind 120 deg - No Ice	61.944	25.349	14.729	2081.977	-3578.228	0.303
0.9 Dead+1.0 Wind 120 deg - No Ice	46.458	25.349	14.729	2035.165	-3498.042	0.310
1.2 Dead+1.0 Wind 150 deg - No Ice	61.944	14.642	25.499	3605.048	-2065.849	0.598
0.9 Dead+1.0 Wind 150 deg - No Ice	46.458	14.642	25.499	3523.959	-2019.699	0.610
1.2 Dead+1.0 Wind 180 deg - No Ice	61.944	0.012	29.436	4162.117	0.243	0.728
0.9 Dead+1.0 Wind 180 deg - No Ice	46.458	0.012	29.436	4068.493	-0.087	0.741

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
1.2 Dead+1.0 Wind 210 deg - No Ice	61.944	-14.678	25.586	3611.831	2071.103	0.663
0.9 Dead+1.0 Wind 210 deg - No Ice	46.458	-14.678	25.586	3530.652	2024.233	0.674
1.2 Dead+1.0 Wind 240 deg - No Ice	61.944	-25.336	14.707	2080.219	3579.702	0.425
0.9 Dead+1.0 Wind 240 deg - No Ice	46.458	-25.336	14.707	2033.424	3498.842	0.431
1.2 Dead+1.0 Wind 270 deg - No Ice	61.944	-29.263	-0.012	-1.190	4133.952	0.078
0.9 Dead+1.0 Wind 270 deg - No Ice	46.458	-29.263	-0.012	-1.132	4040.617	0.078
1.2 Dead+1.0 Wind 300 deg - No Ice	61.944	-25.349	-14.729	-2082.351	3580.749	-0.290
0.9 Dead+1.0 Wind 300 deg - No Ice	46.458	-25.349	-14.729	-2035.443	3499.876	-0.297
1.2 Dead+1.0 Wind 330 deg - No Ice	61.944	-14.642	-25.499	-3605.427	2068.360	-0.585
0.9 Dead+1.0 Wind 330 deg - No Ice	46.458	-14.642	-25.499	-3524.240	2021.527	-0.597
1.2 Dead+1.0 Ice+1.0 Temp	85.497	-0.000	-0.000	-0.296	2.345	-0.000
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	85.497	-0.004	-7.683	-1115.112	2.927	-0.195
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	85.497	3.822	-6.651	-965.601	-551.638	-0.153
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	85.497	6.623	-3.838	-557.447	-957.694	-0.071
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	85.497	7.650	0.004	-0.012	-1106.438	0.031
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	85.497	6.627	3.845	557.338	-958.012	0.125
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	85.497	3.828	6.655	965.260	-552.189	0.185
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	85.497	0.004	7.683	1114.453	2.291	0.195
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	85.497	-3.822	6.651	964.943	556.857	0.153
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	85.497	-6.623	3.838	556.788	962.914	0.070
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	85.497	-7.650	-0.004	-0.648	1111.658	-0.031
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	85.497	-6.627	-3.845	-557.998	963.231	-0.124
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	85.497	-3.828	-6.655	-965.920	557.407	-0.184
Dead+Wind 0 deg - Service	51.620	-0.003	-6.599	-923.177	1.279	-0.169
Dead+Wind 30 deg - Service	51.620	3.291	-5.736	-801.146	-457.954	-0.154
Dead+Wind 60 deg - Service	51.620	5.680	-3.297	-461.475	-792.458	-0.097
Dead+Wind 90 deg - Service	51.620	6.560	0.003	0.070	-915.347	-0.014
Dead+Wind 120 deg - Service	51.620	5.683	3.302	461.559	-792.691	0.072
Dead+Wind 150 deg - Service	51.620	3.283	5.716	799.324	-457.339	0.140
Dead+Wind 180 deg - Service	51.620	0.003	6.599	922.867	0.830	0.169
Dead+Wind 210 deg - Service	51.620	-3.291	5.736	800.837	460.063	0.153
Dead+Wind 240 deg - Service	51.620	-5.680	3.297	461.166	794.569	0.097
Dead+Wind 270 deg - Service	51.620	-6.560	-0.003	-0.379	917.453	0.015
Dead+Wind 300 deg - Service	51.620	-5.683	-3.302	-461.869	794.802	-0.072
Dead+Wind 330 deg - Service	51.620	-3.283	-5.716	-799.634	459.449	-0.139

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Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.000	-51.620	0.000	0.000	51.620	0.000	0.000%
2	-0.012	-61.944	-29.436	0.012	61.944	29.436	0.000%
3	-0.012	-46.458	-29.436	0.012	46.458	29.436	0.000%
4	14.678	-61.944	-25.586	-14.678	61.944	25.586	0.000%
5	14.678	-46.458	-25.586	-14.678	46.458	25.586	0.000%
6	25.336	-61.944	-14.707	-25.336	61.944	14.707	0.000%
7	25.336	-46.458	-14.707	-25.336	46.458	14.707	0.000%
8	29.263	-61.944	0.012	-29.263	61.944	-0.012	0.000%
9	29.263	-46.458	0.012	-29.263	46.458	-0.012	0.000%
10	25.349	-61.944	14.729	-25.349	61.944	-14.729	0.000%
11	25.349	-46.458	14.729	-25.349	46.458	-14.729	0.000%
12	14.642	-61.944	25.499	-14.642	61.944	-25.499	0.000%
13	14.642	-46.458	25.499	-14.642	46.458	-25.499	0.000%
14	0.012	-61.944	29.436	-0.012	61.944	-29.436	0.000%
15	0.012	-46.458	29.436	-0.012	46.458	-29.436	0.000%
16	-14.678	-61.944	25.586	14.678	61.944	-25.586	0.000%
17	-14.678	-46.458	25.586	14.678	46.458	-25.586	0.000%
18	-25.336	-61.944	14.707	25.336	61.944	-14.707	0.000%
19	-25.336	-46.458	14.707	25.336	46.458	-14.707	0.000%
20	-29.263	-61.944	-0.012	29.263	61.944	0.012	0.000%
21	-29.263	-46.458	-0.012	29.263	46.458	0.012	0.000%
22	-25.349	-61.944	-14.729	25.349	61.944	14.729	0.000%
23	-25.349	-46.458	-14.729	25.349	46.458	14.729	0.000%
24	-14.642	-61.944	-25.499	14.642	61.944	25.499	0.000%
25	-14.642	-46.458	-25.499	14.642	46.458	25.499	0.000%
26	0.000	-85.497	0.000	0.000	85.497	0.000	0.000%
27	-0.004	-85.497	-7.683	0.004	85.497	7.683	0.000%
28	3.822	-85.497	-6.651	-3.822	85.497	6.651	0.000%
29	6.623	-85.497	-3.838	-6.623	85.497	3.838	0.000%
30	7.650	-85.497	0.004	-7.650	85.497	-0.004	0.000%
31	6.627	-85.497	3.845	-6.627	85.497	-3.845	0.000%
32	3.828	-85.497	6.655	-3.828	85.497	-6.655	0.000%
33	0.004	-85.497	7.683	-0.004	85.497	-7.683	0.000%
34	-3.822	-85.497	6.651	3.822	85.497	-6.651	0.000%
35	-6.623	-85.497	3.838	6.623	85.497	-3.838	0.000%
36	-7.650	-85.497	-0.004	7.650	85.497	0.004	0.000%
37	-6.627	-85.497	-3.845	6.627	85.497	3.845	0.000%
38	-3.828	-85.497	-6.655	3.828	85.497	6.655	0.000%
39	-0.003	-51.620	-6.599	0.003	51.620	6.599	0.000%
40	3.291	-51.620	-5.736	-3.291	51.620	5.736	0.000%
41	5.680	-51.620	-3.297	-5.680	51.620	3.297	0.000%
42	6.560	-51.620	0.003	-6.560	51.620	-0.003	0.000%
43	5.683	-51.620	3.302	-5.683	51.620	-3.302	0.000%
44	3.283	-51.620	5.716	-3.283	51.620	-5.716	0.000%
45	0.003	-51.620	6.599	-0.003	51.620	-6.599	0.000%
46	-3.291	-51.620	5.736	3.291	51.620	-5.736	0.000%
47	-5.680	-51.620	3.297	5.680	51.620	-3.297	0.000%
48	-6.560	-51.620	-0.003	6.560	51.620	0.003	0.000%
49	-5.683	-51.620	-3.302	5.683	51.620	3.302	0.000%
50	-3.283	-51.620	-5.716	3.283	51.620	5.716	0.000%

Non-Linear Convergence Results

<p>tnxTower</p> <p>MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 45 of 57
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Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	6	0.00000001	0.00041673
3	Yes	6	0.00000001	0.00013564
4	Yes	8	0.00000001	0.00031358
5	Yes	7	0.00000001	0.00071601
6	Yes	8	0.00000001	0.00031694
7	Yes	7	0.00000001	0.00072541
8	Yes	6	0.00000001	0.00019552
9	Yes	5	0.00000001	0.00071250
10	Yes	8	0.00000001	0.00031620
11	Yes	7	0.00000001	0.00072351
12	Yes	8	0.00000001	0.00031368
13	Yes	7	0.00000001	0.00071662
14	Yes	6	0.00000001	0.00039287
15	Yes	6	0.00000001	0.00021389
16	Yes	8	0.00000001	0.00031795
17	Yes	7	0.00000001	0.00072728
18	Yes	8	0.00000001	0.00031373
19	Yes	7	0.00000001	0.00071722
20	Yes	6	0.00000001	0.00020436
21	Yes	5	0.00000001	0.00076419
22	Yes	8	0.00000001	0.00031465
23	Yes	7	0.00000001	0.00071945
24	Yes	8	0.00000001	0.00031723
25	Yes	7	0.00000001	0.00072574
26	Yes	4	0.00000001	0.00040881
27	Yes	8	0.00000001	0.00022627
28	Yes	8	0.00000001	0.00038025
29	Yes	8	0.00000001	0.00038174
30	Yes	8	0.00000001	0.00022417
31	Yes	8	0.00000001	0.00038171
32	Yes	8	0.00000001	0.00037992
33	Yes	8	0.00000001	0.00022609
34	Yes	8	0.00000001	0.00038576
35	Yes	8	0.00000001	0.00038313
36	Yes	8	0.00000001	0.00022561
37	Yes	8	0.00000001	0.00038354
38	Yes	8	0.00000001	0.00038649
39	Yes	5	0.00000001	0.00044144
40	Yes	6	0.00000001	0.00046603
41	Yes	6	0.00000001	0.00047646
42	Yes	14	0.00000001	0.00000000
43	Yes	6	0.00000001	0.00047401
44	Yes	6	0.00000001	0.00046599
45	Yes	5	0.00000001	0.00043994
46	Yes	6	0.00000001	0.00048522
47	Yes	6	0.00000001	0.00046836
48	Yes	5	0.00000001	0.00039321
49	Yes	6	0.00000001	0.00047130
50	Yes	6	0.00000001	0.00048266

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	180.5 - 175.5	43.678	39	2.405	0.003

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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L2	175.5 - 170.5	41.167	39	2.394	0.003
L3	170.5 - 165.5	38.675	39	2.368	0.002
L4	165.5 - 160.5	36.215	39	2.330	0.002
L5	160.5 - 155.5	33.803	39	2.277	0.002
L6	155.5 - 150.5	31.453	39	2.212	0.001
L7	150.5 - 145.5	29.177	39	2.132	0.001
L8	145.5 - 140.5	26.993	39	2.039	0.001
L9	140.5 - 134.5	24.910	39	1.937	0.001
L10	137.794 - 132.794	23.829	39	1.879	0.001
L11	132.794 - 127.794	21.892	39	1.810	0.001
L12	127.794 - 122.794	20.049	39	1.708	0.001
L13	122.794 - 120.583	18.317	39	1.601	0.001
L14	120.583 - 120.333	17.586	39	1.554	0.001
L15	120.333 - 115.333	17.505	39	1.548	0.001
L16	115.333 - 112.5	15.941	39	1.439	0.001
L17	112.5 - 112.25	15.106	39	1.376	0.001
L18	112.25 - 107.817	15.034	39	1.374	0.001
L19	107.817 - 107.567	13.781	39	1.327	0.000
L20	107.567 - 102.567	13.711	39	1.324	0.000
L21	102.567 - 97.567	12.353	39	1.270	0.000
L22	97.567 - 89	11.052	39	1.215	0.000
L23	93.311 - 88.311	9.989	39	1.168	0.000
L24	88.311 - 87.5	8.780	46	1.138	0.000
L25	87.5 - 87.25	8.588	46	1.129	0.000
L26	87.25 - 82.25	8.529	46	1.125	0.000
L27	82.25 - 80.833	7.401	46	1.030	0.000
L28	80.833 - 80.583	7.099	46	1.003	0.000
L29	80.583 - 75.583	7.047	46	0.999	0.000
L30	75.583 - 70.583	6.050	46	0.906	0.000
L31	70.583 - 65.583	5.150	46	0.814	0.000
L32	65.583 - 60.583	4.344	46	0.724	0.000
L33	60.583 - 55.583	3.632	46	0.636	0.000
L34	55.583 - 53.567	3.011	46	0.549	0.000
L35	53.567 - 53.317	2.787	46	0.515	0.000
L36	53.317 - 43.8	2.760	46	0.511	0.000
L37	49.105 - 42.8	2.341	46	0.440	0.000
L38	42.8 - 38.417	1.786	46	0.398	0.000
L39	38.417 - 38.067	1.440	46	0.356	0.000
L40	38.067 - 37.833	1.414	46	0.353	0.000
L41	37.833 - 32.833	1.396	46	0.351	0.000
L42	32.833 - 27.833	1.054	46	0.303	0.000
L43	27.833 - 23.5	0.761	46	0.257	0.000
L44	23.5 - 23.25	0.545	46	0.217	0.000
L45	23.25 - 18.25	0.534	46	0.215	0.000
L46	18.25 - 13.25	0.333	46	0.170	0.000
L47	13.25 - 8.25	0.178	46	0.125	0.000
L48	8.25 - 7.917	0.071	46	0.081	0.000
L49	7.917 - 7.667	0.065	46	0.078	0.000
L50	7.667 - 5.5	0.061	46	0.076	0.000
L51	5.5 - 5.25	0.030	46	0.059	0.000
L52	5.25 - 3	0.027	46	0.055	0.000
L53	3 - 2.75	0.008	46	0.026	0.000
L54	2.75 - 0	0.007	46	0.024	0.000

Critical Deflections and Radius of Curvature - Service Wind

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p>Job</p> <p style="text-align: center;">147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)</p>	<p>Page</p> <p style="text-align: center;">47 of 57</p>
	<p>Project</p>	<p>Date</p> <p style="text-align: center;">13:44:56 01/04/23</p>
	<p>Client</p> <p style="text-align: center;">Crown Castle</p>	<p>Designed by</p> <p style="text-align: center;">JD Prabhu</p>

Elevation	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
180.000	APXVAALL24 43-U-NA20_TMO w/ Mount Pipe	39	43.427	2.404	0.003	14971
178.000	Side Arm Mount [SO 102-3]	39	42.422	2.401	0.003	14971
170.000	TMA-DB-T1-6Z-8AB-0Z	39	38.427	2.365	0.002	8626
168.000	BXA-171063-12CF-EDIN-X w/ Mount Pipe	39	37.440	2.350	0.002	7388
155.000	AM-X-CD-17-65-00T-RET w/ Mount Pipe	39	31.221	2.205	0.001	3915
153.000	DC6-48-60-18-8F	39	30.304	2.174	0.001	3598
141.000	MX08FRO665-21 w/ Mount Pipe	39	25.113	1.949	0.001	2873
78.000	8225	46	6.520	0.951	0.000	3086

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	180.5 - 175.5	196.774	2	10.856	0.013
L2	175.5 - 170.5	185.493	2	10.809	0.011
L3	170.5 - 165.5	174.296	2	10.696	0.010
L4	165.5 - 160.5	163.243	2	10.525	0.009
L5	160.5 - 155.5	152.401	2	10.286	0.008
L6	155.5 - 150.5	141.833	2	9.996	0.007
L7	150.5 - 145.5	131.599	2	9.635	0.006
L8	145.5 - 140.5	121.769	2	9.216	0.005
L9	140.5 - 134.5	112.394	2	8.757	0.005
L10	137.794 - 132.794	107.524	2	8.492	0.004
L11	132.794 - 127.794	98.797	2	8.184	0.004
L12	127.794 - 122.794	90.495	2	7.719	0.003
L13	122.794 - 120.583	82.684	2	7.239	0.003
L14	120.583 - 120.333	79.390	2	7.024	0.003
L15	120.333 - 115.333	79.024	2	6.999	0.003
L16	115.333 - 112.5	71.969	2	6.505	0.002
L17	112.5 - 112.25	68.200	2	6.223	0.002
L18	112.25 - 107.817	67.875	2	6.211	0.002
L19	107.817 - 107.567	62.219	2	5.998	0.002
L20	107.567 - 102.567	61.905	2	5.986	0.002
L21	102.567 - 97.567	55.775	2	5.742	0.002
L22	97.567 - 89	49.901	2	5.495	0.002
L23	93.311 - 88.311	45.105	2	5.282	0.002
L24	88.311 - 87.5	39.645	2	5.144	0.002
L25	87.5 - 87.25	38.776	2	5.106	0.002
L26	87.25 - 82.25	38.509	2	5.084	0.002
L27	82.25 - 80.833	33.416	2	4.655	0.002
L28	80.833 - 80.583	32.054	2	4.536	0.002
L29	80.583 - 75.583	31.817	2	4.515	0.002
L30	75.583 - 70.583	27.314	2	4.094	0.001
L31	70.583 - 65.583	23.247	2	3.680	0.001
L32	65.583 - 60.583	19.608	2	3.273	0.001
L33	60.583 - 55.583	16.392	2	2.874	0.001
L34	55.583 - 53.567	13.590	2	2.481	0.001
L35	53.567 - 53.317	12.575	2	2.326	0.001
L36	53.317 - 43.8	12.454	2	2.306	0.001
L37	49.105 - 42.8	10.562	2	1.985	0.001
L38	42.8 - 38.417	8.057	2	1.796	0.000
L39	38.417 - 38.067	6.495	16	1.608	0.000

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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L40	38.067 - 37.833	6.378	16	1.593	0.000
L41	37.833 - 32.833	6.300	16	1.583	0.000
L42	32.833 - 27.833	4.755	16	1.370	0.000
L43	27.833 - 23.5	3.430	16	1.161	0.000
L44	23.5 - 23.25	2.459	16	0.980	0.000
L45	23.25 - 18.25	2.408	16	0.970	0.000
L46	18.25 - 13.25	1.500	16	0.766	0.000
L47	13.25 - 8.25	0.804	16	0.563	0.000
L48	8.25 - 7.917	0.318	16	0.365	0.000
L49	7.917 - 7.667	0.293	16	0.352	0.000
L50	7.667 - 5.5	0.275	16	0.343	0.000
L51	5.5 - 5.25	0.137	16	0.264	0.000
L52	5.25 - 3	0.124	16	0.249	0.000
L53	3 - 2.75	0.037	16	0.119	0.000
L54	2.75 - 0	0.031	16	0.109	0.000

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
180.000	APXVAALL24 43-U-NA20_TMO w/ Mount Pipe	2	195.644	10.853	0.013	3719
178.000	Side Arm Mount [SO 102-3]	2	191.128	10.838	0.012	3719
170.000	TMA-DB-T1-6Z-8AB-0Z	2	173.183	10.681	0.010	2083
168.000	BXA-171063-12CF-EDIN-X w/ Mount Pipe	2	168.747	10.618	0.009	1773
155.000	AM-X-CD-17-65-00T-RET w/ Mount Pipe	2	140.794	9.963	0.007	920
153.000	DC6-48-60-18-8F	2	136.670	9.824	0.006	844
141.000	MX08FRO665-21 w/ Mount Pipe	2	113.309	8.807	0.005	666
78.000	8225	2	29.436	4.297	0.001	689

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L1	180.5 - 175.5 (1)	TP18.569x17.62x0.25	5.000	0.000	0.0	14.536	-4.116	850.359	0.005
L2	175.5 - 170.5 (2)	TP19.518x18.569x0.25	5.000	0.000	0.0	15.289	-4.426	894.408	0.005
L3	170.5 - 165.5 (3)	TP20.467x19.518x0.25	5.000	0.000	0.0	16.042	-7.725	938.456	0.008
L4	165.5 - 160.5 (4)	TP21.416x20.467x0.25	5.000	0.000	0.0	16.795	-8.107	982.504	0.008
L5	160.5 - 155.5 (5)	TP22.365x21.416x0.25	5.000	0.000	0.0	17.548	-8.524	1026.550	0.008

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p>Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)</p>	<p>Page 49 of 57</p>
	<p>Project</p>	<p>Date 13:44:56 01/04/23</p>
	<p>Client Crown Castle</p>	<p>Designed by JD Prabhu</p>

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L6	155.5 - 150.5 (6)	TP23.313x22.365x0.25	5.000	0.000	0.0	18.301	-12.739	1070.600	0.012
L7	150.5 - 145.5 (7)	TP24.262x23.313x0.25	5.000	0.000	0.0	19.054	-13.336	1114.650	0.012
L8	145.5 - 140.5 (8)	TP25.211x24.262x0.25	5.000	0.000	0.0	19.807	-16.729	1158.700	0.014
L9	140.5 - 134.5 (9)	TP26.35x25.211x0.25	6.000	0.000	0.0	20.214	-17.099	1182.540	0.014
L10	134.5 - 132.794 (10)	TP26.174x25.225x0.313	5.000	0.000	0.0	25.651	-18.103	1500.590	0.012
L11	132.794 - 127.794 (11)	TP27.123x26.174x0.313	5.000	0.000	0.0	26.592	-18.934	1555.650	0.012
L12	127.794 - 122.794 (12)	TP28.072x27.123x0.313	5.000	0.000	0.0	27.534	-19.782	1610.710	0.012
L13	122.794 - 120.583 (13)	TP28.491x28.072x0.313	2.211	0.000	0.0	27.950	-20.165	1635.060	0.012
L14	120.583 - 120.333 (14)	TP28.539x28.491x0.313	0.250	0.000	0.0	27.997	-20.225	1637.810	0.012
L15	120.333 - 115.333 (15)	TP29.488x28.539x0.313	5.000	0.000	0.0	28.938	-21.101	1692.870	0.012
L16	115.333 - 112.5 (16)	TP30.025x29.488x0.313	2.833	0.000	0.0	29.471	-21.609	1724.070	0.013
L17	112.5 - 112.25 (17)	TP30.073x30.025x0.638	0.250	0.000	0.0	59.560	-21.703	3484.240	0.006
L18	112.25 - 107.817 (18)	TP30.914x30.073x0.675	4.433	0.000	0.0	64.785	-22.965	3789.940	0.006
L19	107.817 - 107.567 (19)	TP30.961x30.914x0.675	0.250	0.000	0.0	64.887	-23.046	3795.890	0.006
L20	107.567 - 102.567 (20)	TP31.91x30.961x0.663	5.000	0.000	0.0	65.707	-24.494	3843.860	0.006
L21	102.567 - 97.567 (21)	TP32.859x31.91x0.65	5.000	0.000	0.0	66.451	-25.974	3887.370	0.007
L22	97.567 - 89 (22)	TP34.485x32.859x0.638	8.567	0.000	0.0	66.832	-27.254	3909.700	0.007
L23	89 - 88.311 (23)	TP33.991x33.042x0.7	5.000	0.000	0.0	73.965	-29.979	4326.980	0.007
L24	88.311 - 87.5 (24)	TP34.145x33.991x0.7	0.811	0.000	0.0	74.307	-30.247	4346.980	0.007
L25	87.5 - 87.25 (25)	TP34.192x34.145x0.375	0.250	0.000	0.0	40.251	-30.307	2354.670	0.013
L26	87.25 - 82.25 (26)	TP35.141x34.192x0.375	5.000	0.000	0.0	41.380	-31.439	2420.740	0.013
L27	82.25 - 80.833 (27)	TP35.41x35.141x0.375	1.417	0.000	0.0	41.700	-31.761	2439.470	0.013
L28	80.833 - 80.583 (28)	TP35.457x35.41x0.375	0.250	0.000	0.0	41.757	-31.841	2442.770	0.013
L29	80.583 - 75.583 (29)	TP36.406x35.457x0.375	5.000	0.000	0.0	42.886	-33.081	2508.840	0.013
L30	75.583 - 70.583 (30)	TP37.355x36.406x0.375	5.000	0.000	0.0	44.016	-34.287	2574.910	0.013
L31	70.583 - 65.583 (31)	TP38.304x37.355x0.375	5.000	0.000	0.0	45.145	-35.518	2640.990	0.013
L32	65.583 - 60.583 (32)	TP39.253x38.304x0.375	5.000	0.000	0.0	46.275	-36.774	2707.060	0.014
L33	60.583 - 55.583 (33)	TP40.202x39.253x0.375	5.000	0.000	0.0	47.404	-38.053	2773.130	0.014
L34	55.583 - 53.567 (34)	TP40.584x40.202x0.375	2.016	0.000	0.0	47.859	-38.575	2799.770	0.014
L35	53.567 - 53.317 (35)	TP40.632x40.584x0.375	0.250	0.000	0.0	47.916	-38.654	2803.070	0.014

tnxTower MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265	Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)	Page 50 of 57
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Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L36	53.317 - 43.8 (36)	TP42.438x40.632x0.375	9.517	0.000	0.0	48.867	-39.745	2858.730	0.014
L37	43.8 - 42.8 (37)	TP41.878x40.681x0.7	6.305	0.000	0.0	91.489	-43.399	5352.090	0.008
L38	42.8 - 38.417 (38)	TP42.71x41.878x0.688	4.383	0.000	0.0	91.697	-45.243	5364.290	0.008
L39	38.417 - 38.067 (39)	TP42.776x42.71x0.688	0.350	0.000	0.0	91.842	-45.400	5372.770	0.008
L40	38.067 - 37.833 (40)	TP42.82x42.776x0.688	0.234	0.000	0.0	91.939	-45.501	5378.440	0.008
L41	37.833 - 32.833 (41)	TP43.769x42.82x0.675	5.000	0.000	0.0	90.701	-46.138	5306.000	0.009
L42	32.833 - 27.833 (42)	TP44.718x43.769x0.675	5.000	0.000	0.0	92.327	-47.847	5401.140	0.009
L43	27.833 - 23.5 (43)	TP45.54x44.718x0.663	4.333	0.000	0.0	92.639	-50.022	5419.380	0.009
L44	23.5 - 23.25 (44)	TP45.588x45.54x0.663	0.250	0.000	0.0	94.368	-51.679	5520.530	0.009
L45	23.25 - 18.25 (45)	TP46.537x45.588x0.663	5.000	0.000	0.0	94.468	-51.796	5526.370	0.009
L46	18.25 - 13.25 (46)	TP47.486x46.537x0.65	5.000	0.000	0.0	94.669	-53.996	5538.120	0.010
L47	13.25 - 8.25 (47)	TP48.434x47.486x0.65	5.000	0.000	0.0	96.626	-56.221	5652.640	0.010
L48	8.25 - 7.917 (48)	TP48.498x48.434x0.65	0.333	0.000	0.0	98.584	-58.462	5767.160	0.010
L49	7.917 - 7.667 (49)	TP48.545x48.498x0.7	0.250	0.000	0.0	106.197	-58.612	6212.500	0.009
L50	7.667 - 5.5 (50)	TP48.956x48.545x0.7	2.167	0.000	0.0	106.302	-58.739	6218.670	0.009
L51	5.5 - 5.25 (51)	TP49.004x48.956x0.413	0.250	0.000	0.0	63.619	-59.844	3721.730	0.016
L52	5.25 - 3 (52)	TP49.431x49.004x0.425	2.250	0.000	0.0	66.106	-60.608	3867.210	0.016
L53	3 - 2.75 (53)	TP49.478x49.431x0.625	0.250	0.000	0.0	96.818	-60.627	5663.870	0.011
L54	2.75 - 0 (54)	TP50x49.478x0.625	2.750	0.000	0.0	96.912	-60.748	5669.370	0.011

Pole Bending Design Data

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 $\frac{M_{uy}}{\phi M_{uy}}$
L1	180.5 - 175.5 (1)	TP18.569x17.62x0.25	36.438	404.493	0.090	0.000	404.493	0.000
L2	175.5 - 170.5 (2)	TP19.518x18.569x0.25	70.802	447.781	0.158	0.000	447.781	0.000
L3	170.5 - 165.5 (3)	TP20.467x19.518x0.25	120.938	493.269	0.245	0.000	493.269	0.000
L4	165.5 - 160.5 (4)	TP21.416x20.467x0.25	178.185	540.957	0.329	0.000	540.957	0.000
L5	160.5 - 155.5 (5)	TP22.365x21.416x0.25	237.064	590.845	0.401	0.000	590.845	0.000
L6	155.5 - 150.5 (6)	TP23.313x22.365x0.25	340.575	642.934	0.530	0.000	642.934	0.000
L7	150.5 - 145.5 (7)	TP24.262x23.313x0.25	430.399	695.496	0.619	0.000	695.496	0.000
L8	145.5 - 140.5 (8)	TP25.211x24.262x0.25	523.193	744.672	0.703	0.000	744.672	0.000
L9	140.5 - 134.5 (9)	TP26.35x25.211x0.25	581.914	771.739	0.754	0.000	771.739	0.000

<p style="text-align: center;"><i>tnxTower</i></p> <p style="text-align: center;">MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p>Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)</p>	<p>Page 51 of 57</p>
	<p>Project</p>	<p>Date 13:44:56 01/04/23</p>
	<p>Client Crown Castle</p>	<p>Designed by JD Prabhu</p>

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 $\frac{M_{uy}}{\phi M_{uy}}$
L10	134.5 - 132.794 (10)	TP26.174x25.225x0.313	691.763	1009.233	0.685	0.000	1009.233	0.000
L11	132.794 - 127.794 (11)	TP27.123x26.174x0.313	803.145	1085.117	0.740	0.000	1085.117	0.000
L12	127.794 - 122.794 (12)	TP28.072x27.123x0.313	915.883	1163.742	0.787	0.000	1163.742	0.000
L13	122.794 - 120.583 (13)	TP28.491x28.072x0.313	966.158	1199.392	0.806	0.000	1199.392	0.000
L14	120.583 - 120.333 (14)	TP28.539x28.491x0.313	971.858	1203.450	0.808	0.000	1203.450	0.000
L15	120.333 - 115.333 (15)	TP29.488x28.539x0.313	1086.567	1286.183	0.845	0.000	1286.183	0.000
L16	115.333 - 112.5 (16)	TP30.025x29.488x0.313	1152.125	1334.283	0.863	0.000	1334.283	0.000
L17	112.5 - 112.25 (17)	TP30.073x30.025x0.638	1157.925	2642.192	0.438	0.000	2642.192	0.000
L18	112.25 - 107.817 (18)	TP30.914x30.073x0.675	1261.733	2950.575	0.428	0.000	2950.575	0.000
L19	107.817 - 107.567 (19)	TP30.961x30.914x0.675	1267.633	2959.942	0.428	0.000	2959.942	0.000
L20	107.567 - 102.567 (20)	TP31.91x30.961x0.663	1386.750	3095.783	0.448	0.000	3095.783	0.000
L21	102.567 - 97.567 (21)	TP32.859x31.91x0.65	1507.900	3230.383	0.467	0.000	3230.383	0.000
L22	97.567 - 89 (22)	TP34.485x32.859x0.638	1612.592	3334.550	0.484	0.000	3334.550	0.000
L23	89 - 88.311 (23)	TP33.991x33.042x0.7	1737.883	3713.358	0.468	0.000	3713.358	0.000
L24	88.311 - 87.5 (24)	TP34.145x33.991x0.7	1758.450	3748.133	0.469	0.000	3748.133	0.000
L25	87.5 - 87.25 (25)	TP34.192x34.145x0.375	1764.800	2072.875	0.851	0.000	2072.875	0.000
L26	87.25 - 82.25 (26)	TP35.141x34.192x0.375	1892.400	2191.492	0.864	0.000	2191.492	0.000
L27	82.25 - 80.833 (27)	TP35.41x35.141x0.375	1928.775	2225.708	0.867	0.000	2225.708	0.000
L28	80.833 - 80.583 (28)	TP35.457x35.41x0.375	1935.208	2231.775	0.867	0.000	2231.775	0.000
L29	80.583 - 75.583 (29)	TP36.406x35.457x0.375	2064.492	2348.758	0.879	0.000	2348.758	0.000
L30	75.583 - 70.583 (30)	TP37.355x36.406x0.375	2195.167	2459.008	0.893	0.000	2459.008	0.000
L31	70.583 - 65.583 (31)	TP38.304x37.355x0.375	2326.917	2570.908	0.905	0.000	2570.908	0.000
L32	65.583 - 60.583 (32)	TP39.253x38.304x0.375	2459.683	2684.392	0.916	0.000	2684.392	0.000
L33	60.583 - 55.583 (33)	TP40.202x39.253x0.375	2593.417	2799.392	0.926	0.000	2799.392	0.000
L34	55.583 - 53.567 (34)	TP40.584x40.202x0.375	2647.600	2846.175	0.930	0.000	2846.175	0.000
L35	53.567 - 53.317 (35)	TP40.632x40.584x0.375	2654.333	2852.000	0.931	0.000	2852.000	0.000
L36	53.317 - 43.8 (36)	TP42.438x40.632x0.375	2768.033	2950.550	0.938	0.000	2950.550	0.000
L37	43.8 - 42.8 (37)	TP41.878x40.681x0.7	2940.250	5703.758	0.515	0.000	5703.758	0.000
L38	42.8 - 38.417 (38)	TP42.71x41.878x0.688	3061.483	5837.641	0.524	0.000	5837.641	0.000
L39	38.417 - 38.067 (39)	TP42.776x42.71x0.688	3071.217	5856.258	0.524	0.000	5856.258	0.000
L40	38.067 -	TP42.82x42.776x0.688	3077.717	5868.725	0.524	0.000	5868.725	0.000

<p style="text-align: center;">tnxTower</p> <p style="text-align: center;">MTS Engineering, P.L.L.C. 1717 S. Boulder, Suite 300 Tulsa, OK 74119 Phone: (918) 587-4630 FAX: (918) 295-0265</p>	<p>Job 147461.010.01.0002 - CANTERBURY / LEMIRE, CT (BU# 876375)</p>	<p>Page 52 of 57</p>
	<p>Project</p>	<p>Date 13:44:56 01/04/23</p>
	<p>Client Crown Castle</p>	<p>Designed by JD Prabhu</p>

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{rx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{rx}}$	M_{uy} kip-ft	ϕM_{ry} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ry}}$
L41	37.833 (40)	TP43.769x42.82x0.675	3105.350	5819.617	0.534	0.000	5819.617	0.000
L42	37.833 - 32.833 (41)	TP44.718x43.769x0.675	3217.175	6031.850	0.533	0.000	6031.850	0.000
L43	32.833 - 27.833 (42)	TP45.54x44.718x0.663	3358.042	6191.050	0.542	0.000	6191.050	0.000
L44	27.833 - 23.5 (43)	TP45.588x45.54x0.663	3481.292	6426.058	0.542	0.000	6426.058	0.000
L45	23.5 - 23.25 (44)	TP46.537x45.588x0.663	3488.417	6439.750	0.542	0.000	6439.750	0.000
L46	23.25 - 18.25 (45)	TP47.486x46.537x0.65	3631.458	6595.325	0.551	0.000	6595.325	0.000
L47	18.25 - 13.25 (46)	TP48.434x47.486x0.65	3775.833	6872.850	0.549	0.000	6872.850	0.000
L48	13.25 - 8.25 (47)	TP48.498x48.434x0.65	3921.325	7156.100	0.548	0.000	7156.100	0.000
L49	8.25 - 7.917 (48)	TP48.545x48.498x0.7	3931.058	7702.908	0.510	0.000	7702.908	0.000
L50	7.917 - 7.667 (49)	TP48.956x48.545x0.7	3938.367	7718.317	0.510	0.000	7718.317	0.000
L51	7.667 - 5.5 (50)	TP49.004x48.956x0.413	4009.142	4450.758	0.901	0.000	4450.758	0.000
L52	5.5 - 5.25 (51)	TP49.431x49.004x0.425	4075.192	4694.217	0.868	0.000	4694.217	0.000
L53	5.25 - 3 (52)	TP49.478x49.431x0.625	4075.192	7183.791	0.567	0.000	7183.791	0.000
L54	3 - 2.75 (53)	TP50x49.478x0.625	4082.542	7197.850	0.567	0.000	7197.850	0.000
L54	2.75 - 0 (54)							

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	180.5 - 175.5 (1)	TP18.569x17.62x0.25	6.720	255.108	0.026	0.002	409.264	0.000
L2	175.5 - 170.5 (2)	TP19.518x18.569x0.25	7.030	268.322	0.026	0.002	452.762	0.000
L3	170.5 - 165.5 (3)	TP20.467x19.518x0.25	11.275	281.537	0.040	0.561	498.455	0.001
L4	165.5 - 160.5 (4)	TP21.416x20.467x0.25	11.622	294.751	0.039	0.574	546.346	0.001
L5	160.5 - 155.5 (5)	TP22.365x21.416x0.25	11.938	307.966	0.039	0.574	596.432	0.001
L6	155.5 - 150.5 (6)	TP23.313x22.365x0.25	17.826	321.180	0.056	0.528	648.715	0.001
L7	150.5 - 145.5 (7)	TP24.262x23.313x0.25	18.122	334.395	0.054	0.527	703.193	0.001
L8	145.5 - 140.5 (8)	TP25.211x24.262x0.25	21.643	347.609	0.062	0.526	759.869	0.001
L9	140.5 - 134.5 (9)	TP26.35x25.211x0.25	21.789	354.761	0.061	0.526	791.457	0.001
L10	134.5 - 132.794 (10)	TP26.174x25.225x0.313	22.162	450.177	0.049	0.525	1019.558	0.001
L11	132.794 - 127.794 (11)	TP27.123x26.174x0.313	22.428	466.695	0.048	0.524	1095.750	0.000
L12	127.794 - 122.794 (12)	TP28.072x27.123x0.313	22.697	483.213	0.047	0.523	1174.692	0.000
L13	122.794 - 120.583 (13)	TP28.491x28.072x0.313	22.816	490.518	0.047	0.523	1210.475	0.000

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	<p>Client Crown Castle</p>	<p>Designed by JD Prabhu</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 $\frac{T_u}{\phi T_n}$
L14	120.583 - 120.333 (14)	TP28.539x28.491x0.313	22.817	491.343	0.046	0.523	1214.550	0.000
L15	120.333 - 115.333 (15)	TP29.488x28.539x0.313	23.086	507.861	0.045	0.522	1297.583	0.000
L16	115.333 - 112.5 (16)	TP30.025x29.488x0.313	23.238	517.220	0.045	0.522	1345.850	0.000
L17	112.5 - 112.25 (17)	TP30.073x30.025x0.638	23.237	1045.270	0.022	0.521	2694.483	0.000
L18	112.25 - 107.817 (18)	TP30.914x30.073x0.675	23.609	1136.980	0.021	0.521	3010.925	0.000
L19	107.817 - 107.567 (19)	TP30.961x30.914x0.675	23.625	1138.770	0.021	0.521	3020.383	0.000
L20	107.567 - 102.567 (20)	TP31.91x30.961x0.663	24.037	1153.160	0.021	0.521	3155.642	0.000
L21	102.567 - 97.567 (21)	TP32.859x31.91x0.65	24.441	1166.210	0.021	0.520	3289.550	0.000
L22	97.567 - 89 (22)	TP34.485x32.859x0.638	24.778	1172.910	0.021	0.520	3392.692	0.000
L23	89 - 88.311 (23)	TP33.991x33.042x0.7	25.335	1298.090	0.020	0.519	3784.508	0.000
L24	88.311 - 87.5 (24)	TP34.145x33.991x0.7	25.400	1304.090	0.019	0.519	3819.583	0.000
L25	87.5 - 87.25 (25)	TP34.192x34.145x0.375	25.412	706.402	0.036	0.519	2092.033	0.000
L26	87.25 - 82.25 (26)	TP35.141x34.192x0.375	25.660	726.223	0.035	0.518	2211.083	0.000
L27	82.25 - 80.833 (27)	TP35.41x35.141x0.375	25.735	731.840	0.035	0.518	2245.417	0.000
L28	80.833 - 80.583 (28)	TP35.457x35.41x0.375	25.724	732.832	0.035	0.518	2251.508	0.000
L29	80.583 - 75.583 (29)	TP36.406x35.457x0.375	26.051	752.653	0.035	0.732	2374.950	0.000
L30	75.583 - 70.583 (30)	TP37.355x36.406x0.375	26.268	772.474	0.034	0.731	2501.683	0.000
L31	70.583 - 65.583 (31)	TP38.304x37.355x0.375	26.477	792.296	0.033	0.731	2631.717	0.000
L32	65.583 - 60.583 (32)	TP39.253x38.304x0.375	26.676	812.117	0.033	0.730	2765.042	0.000
L33	60.583 - 55.583 (33)	TP40.202x39.253x0.375	26.866	831.938	0.032	0.730	2901.667	0.000
L34	55.583 - 53.567 (34)	TP40.584x40.202x0.375	26.939	839.930	0.032	0.729	2957.683	0.000
L35	53.567 - 53.317 (35)	TP40.632x40.584x0.375	26.932	840.921	0.032	0.729	2964.667	0.000
L36	53.317 - 43.8 (36)	TP42.438x40.632x0.375	27.091	857.619	0.032	0.729	3083.567	0.000
L37	43.8 - 42.8 (37)	TP41.878x40.681x0.7	27.556	1605.630	0.017	0.729	5790.117	0.000
L38	42.8 - 38.417 (38)	TP42.71x41.878x0.688	27.796	1609.290	0.017	0.729	5922.300	0.000
L39	38.417 - 38.067 (39)	TP42.776x42.71x0.688	27.803	1611.830	0.017	0.729	5941.033	0.000
L40	38.067 - 37.833 (40)	TP42.82x42.776x0.688	27.816	1613.530	0.017	0.729	5953.583	0.000
L41	37.833 - 32.833 (41)	TP43.769x42.82x0.675	27.926	1591.800	0.018	0.729	5901.591	0.000
L42	32.833 - 27.833 (42)	TP44.718x43.769x0.675	28.123	1620.340	0.017	0.729	6115.125	0.000
L43	27.833 - 23.5 (43)	TP45.54x44.718x0.663	28.359	1625.810	0.017	0.728	6272.658	0.000
L44	23.5 - 23.25	TP45.588x45.54x0.663	28.503	1657.910	0.017	0.728	6508.991	0.000

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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 $\frac{T_u}{\phi T_n}$
L45	23.25 - 18.25 (44)	TP46.537x45.588x0.663	28.559	1664.910	0.017	0.728	6522.767	0.000
L46	18.25 - 13.25 (45)	TP47.486x46.537x0.65	28.780	1668.310	0.017	0.728	6676.517	0.000
L47	13.25 - 8.25 (46)	TP48.434x47.486x0.65	29.055	1702.660	0.017	0.663	6955.491	0.000
L48	8.25 - 7.917 (47)	TP48.498x48.434x0.65	29.225	1732.440	0.017	0.663	7240.175	0.000
L49	7.917 - 7.667 (48)	TP48.545x48.498x0.7	29.234	1865.600	0.016	0.663	7801.425	0.000
L50	7.667 - 5.5 (49)	TP48.956x48.545x0.7	29.299	1873.620	0.016	0.663	7816.917	0.000
L51	5.5 - 5.25 (50)	TP49.004x48.956x0.413	29.339	1116.520	0.026	0.663	4751.200	0.000
L52	5.25 - 3 (51)	TP49.431x49.004x0.425	29.413	1160.160	0.025	0.663	4979.042	0.000
L53	3 - 2.75 (52)	TP49.478x49.431x0.625	29.393	1700.810	0.017	0.663	7262.475	0.000
L54	2.75 - 0 (53)	TP50x49.478x0.625	29.472	1709.900	0.017	0.663	7276.608	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio P_u ϕP_n	Ratio M_{ux} ϕM_{nx}	Ratio M_{uy} ϕM_{ny}	Ratio V_u ϕV_n	Ratio T_u ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	180.5 - 175.5 (1)	0.005	0.090	0.000	0.026	0.000	0.096	1.050	4.8.2 ✓
L2	175.5 - 170.5 (2)	0.005	0.158	0.000	0.026	0.000	0.164	1.050	4.8.2 ✓
L3	170.5 - 165.5 (3)	0.008	0.245	0.000	0.040	0.001	0.255	1.050	4.8.2 ✓
L4	165.5 - 160.5 (4)	0.008	0.329	0.000	0.039	0.001	0.339	1.050	4.8.2 ✓
L5	160.5 - 155.5 (5)	0.008	0.401	0.000	0.039	0.001	0.411	1.050	4.8.2 ✓
L6	155.5 - 150.5 (6)	0.012	0.530	0.000	0.056	0.001	0.545	1.050	4.8.2 ✓
L7	150.5 - 145.5 (7)	0.012	0.619	0.000	0.054	0.001	0.634	1.050	4.8.2 ✓
L8	145.5 - 140.5 (8)	0.014	0.703	0.000	0.062	0.001	0.721	1.050	4.8.2 ✓
L9	140.5 - 134.5 (9)	0.014	0.754	0.000	0.061	0.001	0.772	1.050	4.8.2 ✓
L10	134.5 - 132.794 (10)	0.012	0.685	0.000	0.049	0.001	0.700	1.050	4.8.2 ✓
L11	132.794 - 127.794 (11)	0.012	0.740	0.000	0.048	0.000	0.755	1.050	4.8.2 ✓
L12	127.794 - 122.794 (12)	0.012	0.787	0.000	0.047	0.000	0.802	1.050	4.8.2 ✓
L13	122.794 - 120.583 (13)	0.012	0.806	0.000	0.047	0.000	0.820	1.050	4.8.2 ✓
L14	120.583 - 120.333 (14)	0.012	0.808	0.000	0.046	0.000	0.822	1.050	4.8.2 ✓

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Section No.	Elevation ft	Ratio P_u ϕP_n	Ratio M_{ux} ϕM_{nx}	Ratio M_{uy} ϕM_{ny}	Ratio V_u ϕV_n	Ratio T_u ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L15	120.333 - 115.333 (15)	0.012	0.845	0.000	0.045	0.000	0.859	1.050	4.8.2 ✓
L16	115.333 - 112.5 (16)	0.013	0.863	0.000	0.045	0.000	0.878	1.050	4.8.2 ✓
L17	112.5 - 112.25 (17)	0.006	0.438	0.000	0.022	0.000	0.445	1.050	4.8.2 ✓
L18	112.25 - 107.817 (18)	0.006	0.428	0.000	0.021	0.000	0.434	1.050	4.8.2 ✓
L19	107.817 - 107.567 (19)	0.006	0.428	0.000	0.021	0.000	0.435	1.050	4.8.2 ✓
L20	107.567 - 102.567 (20)	0.006	0.448	0.000	0.021	0.000	0.455	1.050	4.8.2 ✓
L21	102.567 - 97.567 (21)	0.007	0.467	0.000	0.021	0.000	0.474	1.050	4.8.2 ✓
L22	97.567 - 89 (22)	0.007	0.484	0.000	0.021	0.000	0.491	1.050	4.8.2 ✓
L23	89 - 88.311 (23)	0.007	0.468	0.000	0.020	0.000	0.475	1.050	4.8.2 ✓
L24	88.311 - 87.5 (24)	0.007	0.469	0.000	0.019	0.000	0.476	1.050	4.8.2 ✓
L25	87.5 - 87.25 (25)	0.013	0.851	0.000	0.036	0.000	0.866	1.050	4.8.2 ✓
L26	87.25 - 82.25 (26)	0.013	0.864	0.000	0.035	0.000	0.878	1.050	4.8.2 ✓
L27	82.25 - 80.833 (27)	0.013	0.867	0.000	0.035	0.000	0.881	1.050	4.8.2 ✓
L28	80.833 - 80.583 (28)	0.013	0.867	0.000	0.035	0.000	0.881	1.050	4.8.2 ✓
L29	80.583 - 75.583 (29)	0.013	0.879	0.000	0.035	0.000	0.893	1.050	4.8.2 ✓
L30	75.583 - 70.583 (30)	0.013	0.893	0.000	0.034	0.000	0.907	1.050	4.8.2 ✓
L31	70.583 - 65.583 (31)	0.013	0.905	0.000	0.033	0.000	0.920	1.050	4.8.2 ✓
L32	65.583 - 60.583 (32)	0.014	0.916	0.000	0.033	0.000	0.931	1.050	4.8.2 ✓
L33	60.583 - 55.583 (33)	0.014	0.926	0.000	0.032	0.000	0.941	1.050	4.8.2 ✓
L34	55.583 - 53.567 (34)	0.014	0.930	0.000	0.032	0.000	0.945	1.050	4.8.2 ✓
L35	53.567 - 53.317 (35)	0.014	0.931	0.000	0.032	0.000	0.946	1.050	4.8.2 ✓
L36	53.317 - 43.8 (36)	0.014	0.938	0.000	0.032	0.000	0.953	1.050	4.8.2 ✓
L37	43.8 - 42.8 (37)	0.008	0.515	0.000	0.017	0.000	0.524	1.050	4.8.2 ✓
L38	42.8 - 38.417 (38)	0.008	0.524	0.000	0.017	0.000	0.533	1.050	4.8.2 ✓
L39	38.417 - 38.067 (39)	0.008	0.524	0.000	0.017	0.000	0.533	1.050	4.8.2 ✓
L40	38.067 - 37.833 (40)	0.008	0.524	0.000	0.017	0.000	0.533	1.050	4.8.2 ✓

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Section No.	Elevation ft	Ratio P_u	Ratio M_{ux}	Ratio M_{uy}	Ratio V_u	Ratio T_u	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		ϕP_n	ϕM_{nx}	ϕM_{ny}	ϕV_n	ϕT_n			
L41	37.833 - 32.833 (41)	0.009	0.534	0.000	0.018	0.000	0.543	1.050	4.8.2 ✓
L42	32.833 - 27.833 (42)	0.009	0.533	0.000	0.017	0.000	0.543	1.050	4.8.2 ✓
L43	27.833 - 23.5 (43)	0.009	0.542	0.000	0.017	0.000	0.552	1.050	4.8.2 ✓
L44	23.5 - 23.25 (44)	0.009	0.542	0.000	0.017	0.000	0.551	1.050	4.8.2 ✓
L45	23.25 - 18.25 (45)	0.009	0.542	0.000	0.017	0.000	0.551	1.050	4.8.2 ✓
L46	18.25 - 13.25 (46)	0.010	0.551	0.000	0.017	0.000	0.561	1.050	4.8.2 ✓
L47	13.25 - 8.25 (47)	0.010	0.549	0.000	0.017	0.000	0.560	1.050	4.8.2 ✓
L48	8.25 - 7.917 (48)	0.010	0.548	0.000	0.017	0.000	0.558	1.050	4.8.2 ✓
L49	7.917 - 7.667 (49)	0.009	0.510	0.000	0.016	0.000	0.520	1.050	4.8.2 ✓
L50	7.667 - 5.5 (50)	0.009	0.510	0.000	0.016	0.000	0.520	1.050	4.8.2 ✓
L51	5.5 - 5.25 (51)	0.016	0.901	0.000	0.026	0.000	0.918	1.050	4.8.2 ✓
L52	5.25 - 3 (52)	0.016	0.868	0.000	0.025	0.000	0.884	1.050	4.8.2 ✓
L53	3 - 2.75 (53)	0.011	0.567	0.000	0.017	0.000	0.578	1.050	4.8.2 ✓
L54	2.75 - 0 (54)	0.011	0.567	0.000	0.017	0.000	0.578	1.050	4.8.2 ✓

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	180.5 - 175.5	Pole	TP18.569x17.62x0.25	1	-4.116	892.877	**	**
L2	175.5 - 170.5	Pole	TP19.518x18.569x0.25	2	-4.426	939.128	**	**
L3	170.5 - 165.5	Pole	TP20.467x19.518x0.25	3	-7.725	985.379	**	**
L4	165.5 - 160.5	Pole	TP21.416x20.467x0.25	4	-8.107	1031.629	**	**
L5	160.5 - 155.5	Pole	TP22.365x21.416x0.25	5	-8.524	1077.877	**	**
L6	155.5 - 150.5	Pole	TP23.313x22.365x0.25	6	-12.739	1124.130	**	**
L7	150.5 - 145.5	Pole	TP24.262x23.313x0.25	7	-13.336	1170.382	**	**
L8	145.5 - 140.5	Pole	TP25.211x24.262x0.25	8	-16.729	1216.635	**	**
L9	140.5 - 134.5	Pole	TP26.35x25.211x0.25	9	-17.099	1241.667	**	**
L10	134.5 - 132.794	Pole	TP26.174x25.225x0.313	10	-18.103	1575.619	**	**
L11	132.794 - 127.794	Pole	TP27.123x26.174x0.313	11	-18.934	1633.432	**	**
L12	127.794 - 122.794	Pole	TP28.072x27.123x0.313	12	-19.782	1691.245	**	**
L13	122.794 - 120.583	Pole	TP28.491x28.072x0.313	13	-20.165	1716.813	**	**
L14	120.583 - 120.333	Pole	TP28.539x28.491x0.313	14	-20.225	1719.700	**	**
L15	120.333 - 115.333	Pole	TP29.488x28.539x0.313	15	-21.101	1777.513	**	**
L16	115.333 - 112.5	Pole	TP30.025x29.488x0.313	16	-21.609	1810.273	**	**

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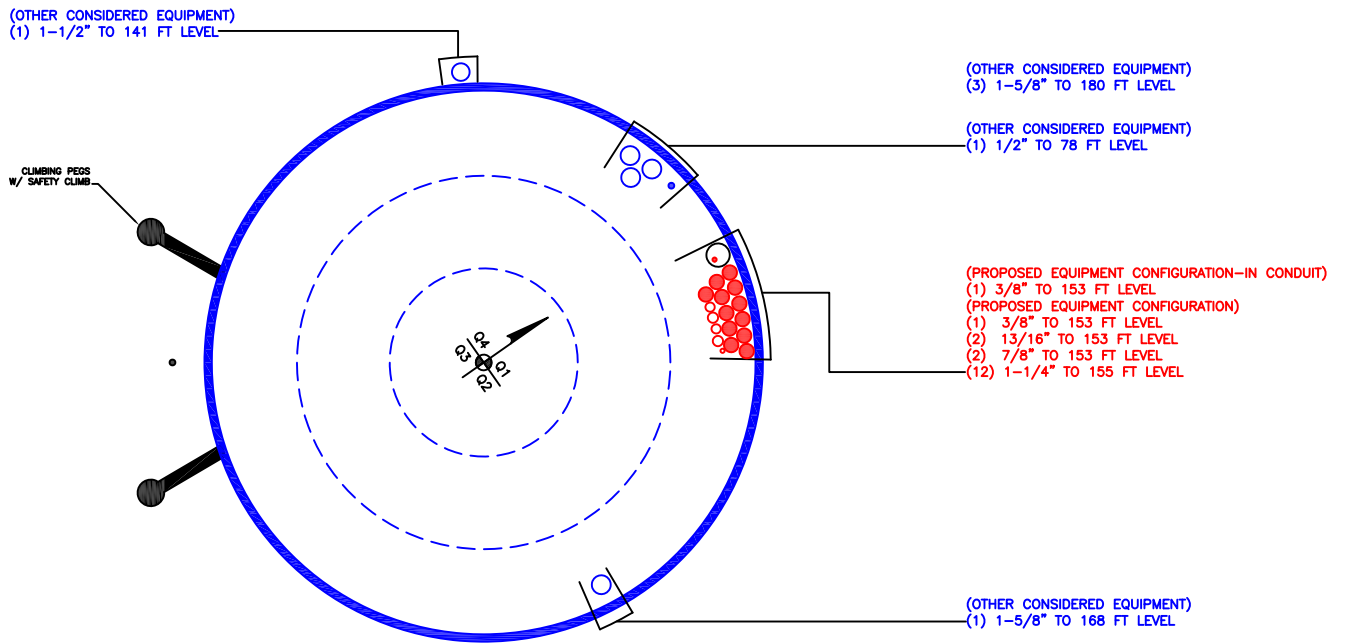
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L17	112.5 - 112.25	Pole	TP30.073x30.025x0.638	17	-21.703	3658.452	**	**
L18	112.25 - 107.817	Pole	TP30.914x30.073x0.675	18	-22.965	3979.437	**	**
L19	107.817 - 107.567	Pole	TP30.961x30.914x0.675	19	-23.046	3985.684	**	**
L20	107.567 - 102.567	Pole	TP31.91x30.961x0.663	20	-24.494	4036.053	**	**
L21	102.567 - 97.567	Pole	TP32.859x31.91x0.65	21	-25.974	4081.738	**	**
L22	97.567 - 89	Pole	TP34.485x32.859x0.638	22	-27.254	4105.185	**	**
L23	89 - 88.311	Pole	TP33.991x33.042x0.7	23	-29.979	4543.329	**	**
L24	88.311 - 87.5	Pole	TP34.145x33.991x0.7	24	-30.247	4564.329	**	**
L25	87.5 - 87.25	Pole	TP34.192x34.145x0.375	25	-30.307	2472.403	**	**
L26	87.25 - 82.25	Pole	TP35.141x34.192x0.375	26	-31.439	2541.777	**	**
L27	82.25 - 80.833	Pole	TP35.41x35.141x0.375	27	-31.761	2561.443	**	**
L28	80.833 - 80.583	Pole	TP35.457x35.41x0.375	28	-31.841	2564.908	**	**
L29	80.583 - 75.583	Pole	TP36.406x35.457x0.375	29	-33.081	2634.282	**	**
L30	75.583 - 70.583	Pole	TP37.355x36.406x0.375	30	-34.287	2703.655	**	**
L31	70.583 - 65.583	Pole	TP38.304x37.355x0.375	31	-35.518	2773.039	**	**
L32	65.583 - 60.583	Pole	TP39.253x38.304x0.375	32	-36.774	2842.413	**	**
L33	60.583 - 55.583	Pole	TP40.202x39.253x0.375	33	-38.053	2911.786	**	**
L34	55.583 - 53.567	Pole	TP40.584x40.202x0.375	34	-38.575	2939.758	**	**
L35	53.567 - 53.317	Pole	TP40.632x40.584x0.375	35	-38.654	2943.223	**	**
L36	53.317 - 43.8	Pole	TP42.438x40.632x0.375	36	-39.745	3001.666	**	**
L37	43.8 - 42.8	Pole	TP41.878x40.681x0.7	37	-43.399	5619.694	**	**
L38	42.8 - 38.417	Pole	TP42.71x41.878x0.688	38	-45.243	5632.504	**	**
L39	38.417 - 38.067	Pole	TP42.776x42.71x0.688	39	-45.400	5641.408	**	**
L40	38.067 - 37.833	Pole	TP42.82x42.776x0.688	40	-45.501	5647.362	**	**
L41	37.833 - 32.833	Pole	TP43.769x42.82x0.675	41	-46.138	5571.300	**	**
L42	32.833 - 27.833	Pole	TP44.718x43.769x0.675	42	-47.847	5671.197	**	**
L43	27.833 - 23.5	Pole	TP45.54x44.718x0.663	43	-50.022	5690.349	**	**
L44	23.5 - 23.25	Pole	TP45.588x45.54x0.663	44	-51.679	5796.556	**	**
L45	23.25 - 18.25	Pole	TP46.537x45.588x0.663	45	-51.796	5802.688	**	**
L46	18.25 - 13.25	Pole	TP47.486x46.537x0.65	46	-53.996	5815.026	**	**
L47	13.25 - 8.25	Pole	TP48.434x47.486x0.65	47	-56.221	5935.272	**	**
L48	8.25 - 7.917	Pole	TP48.498x48.434x0.65	48	-58.462	6055.518	**	**
L49	7.917 - 7.667	Pole	TP48.545x48.498x0.7	49	-58.612	6523.125	**	**
L50	7.667 - 5.5	Pole	TP48.956x48.545x0.7	50	-58.739	6529.603	**	**
L51	5.5 - 5.25	Pole	TP49.004x48.956x0.413	51	-59.844	3907.816	**	**
L52	5.25 - 3	Pole	TP49.431x49.004x0.425	52	-60.608	4060.570	**	**
L53	3 - 2.75	Pole	TP49.478x49.431x0.625	53	-60.627	5947.063	**	**
L54	2.75 - 0	Pole	TP50x49.478x0.625	54	-60.748	5952.838	**	**

Summary

Pole (L36) ** **
RATING = ** **

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

APPENDIX B
BASE LEVEL DRAWING



BUSINESS UNIT: 876375

APPENDIX C
ADDITIONAL CALCULATIONS

Site BU: 876375
Work Order: 2190006

Pole Geometry

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	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	180.5	46	3.294	18	17.62	26.35	0.25	Auto	A572-65
2	137.794	48.794	4.311	18	25.22	34.485	0.3125	Auto	A572-65
3	93.311	49.511	5.305	18	33.04	42.438	0.375	Auto	A572-65
4	49.105	49.105	0	18	40.68	50	0.375	Auto	A572-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number																		
						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	3	38.083	channel	MP3-05 (1.1875in)	2			E2											E2				
2	7.917	38.083	channel	MP3-05 (1.1875in)	1									E2									
3	38.417	53.583	channel	MP3-05 (1.1875in)	3					E2						E2						E2	
4	53.667	80.833	channel	MP3-04 (1.1875in)	3			E2						E2					E2				
5	80.833	107.833	channel	MP3-04 (1.1875in)	3					E2						E2						E2	
6	107.917	120.583	channel	MP3-03 (1.1875in)	3					E2						E2						E2	
7	5.5	23.5	plate	CCI-AFP-065125	3	E3					E3							E3					
8	23.5	48.583	plate	CCI-AFP-065125	3	E3					E3							E3					
9	87.5	112.5	plate	CCI-AFP-060100	3		E3					E3							E3				
10	0	3	plate	TS1-5x1.25	4		-4		4										-4		3		
11	0	7.917	plate	TS2-4.5625x1.25	2							-2			3								
12																							

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	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
2	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
3	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
4	4.78	1.61	4.13	0.61	PC 8.8 - M20 (100)	17	PC 8.8 - M20 (100)	17.000	18.000	3.593	1.1875	A572-65
5	4.78	1.61	4.13	0.61	PC 8.8 - M20 (100)	17	PC 8.8 - M20 (100)	17.000	18.000	3.593	1.1875	A572-65
6	4.06	1.57	2.92	0.59	PC 8.8 - M20 (100)	14	PC 8.8 - M20 (100)	14.000	18.000	2.545	1.1875	A572-65
7	6.5	1.25	8.125	0.625	PC 8.8 - M20 (100)	42	PC 8.8 - M20 (100)	42.000	19.000	6.563	1.1875	A572-65
8	6.5	1.25	8.125	0.625	PC 8.8 - M20 (100)	42	PC 8.8 - M20 (100)	42.000	19.000	6.563	1.1875	A572-65
9	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
10	1.25	5	6.25	2.5	Welded	n/a	Welded	n/a	0.750	6.250	0.0000	A572-65
11	1.25	4.5625	5.70313	2.28125	Welded	n/a	Welded	n/a	0.750	5.703	0.0000	A572-65

Connection Details for Custom Reinforcements

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
TS1-5x1.25	Top	-	-	-	-	70	None	-	-	-	-	44.25	0.375	-
	Bottom	-	-	-	-	70	CJP Groove	10	0.625	45	0.625	-	-	-
TS2-4.5625x1.25	Top	-	-	-	-	70	None	-	-	-	-	107.25	0.375	-
	Bottom	-	-	-	-	70	CJP Groove	9.125	0.625	45	0.625	-	-	-

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	180.5 - 175.5	5		18	17.620	18.569	0.25	A572-65	1.000
2	175.5 - 170.5	5		18	18.569	19.518	0.25	A572-65	1.000
3	170.5 - 165.5	5		18	19.518	20.467	0.25	A572-65	1.000
4	165.5 - 160.5	5		18	20.467	21.416	0.25	A572-65	1.000
5	160.5 - 155.5	5		18	21.416	22.365	0.25	A572-65	1.000
6	155.5 - 150.5	5		18	22.365	23.313	0.25	A572-65	1.000
7	150.5 - 145.5	5		18	23.313	24.262	0.25	A572-65	1.000
8	145.5 - 140.5	5		18	24.262	25.211	0.25	A572-65	1.000
9	140.5 - 137.794	6	3.294	18	25.211	26.350	0.25	A572-65	1.000
10	137.794 - 132.794	5		18	25.225	26.174	0.3125	A572-65	1.000
11	132.794 - 127.794	5		18	26.174	27.123	0.3125	A572-65	1.000
12	127.794 - 122.794	5		18	27.123	28.072	0.3125	A572-65	1.000
13	122.794 - 120.583	2.211		18	28.072	28.491	0.3125	A572-65	1.000
14	120.583 - 120.333	0.25		18	28.491	28.539	0.3125	A572-65	1.000
15	120.333 - 115.333	5		18	28.539	29.488	0.3125	A572-65	1.000
16	115.333 - 112.5	2.833		18	29.488	30.025	0.3125	A572-65	1.000
17	112.5 - 112.25	0.25		18	30.025	30.073	0.6375	A572-65	0.945
18	112.25 - 107.817	4.433		18	30.073	30.914	0.675	A572-65	0.938
19	107.817 - 107.567	0.25		18	30.914	30.961	0.675	A572-65	0.937
20	107.567 - 102.567	5		18	30.961	31.910	0.6625	A572-65	0.940
21	102.567 - 97.567	5		18	31.910	32.859	0.65	A572-65	0.943
22	97.567 - 93.311	8.567	4.311	18	32.859	34.485	0.6375	A572-65	0.950
23	93.311 - 88.311	5		18	33.042	33.991	0.7	A572-65	0.952
24	88.311 - 87.5	0.811		18	33.991	34.145	0.7	A572-65	0.950
25	87.5 - 87.25	0.25		18	34.145	34.192	0.375	A572-65	1.000
26	87.25 - 82.25	5		18	34.192	35.141	0.375	A572-65	1.000
27	82.25 - 80.833	1.417		18	35.141	35.410	0.375	A572-65	1.000
28	80.833 - 80.583	0.25		18	35.410	35.457	0.375	A572-65	1.000
29	80.583 - 75.583	5		18	35.457	36.406	0.375	A572-65	1.000
30	75.583 - 70.583	5		18	36.406	37.355	0.375	A572-65	1.000
31	70.583 - 65.583	5		18	37.355	38.304	0.375	A572-65	1.000
32	65.583 - 60.583	5		18	38.304	39.253	0.375	A572-65	1.000
33	60.583 - 55.583	5		18	39.253	40.202	0.375	A572-65	1.000
34	55.583 - 53.567	2.016		18	40.202	40.584	0.375	A572-65	1.000
35	53.567 - 53.317	0.25		18	40.584	40.632	0.375	A572-65	1.000
36	53.317 - 49.105	9.517	5.305	18	40.632	42.438	0.375	A572-65	1.000
37	49.105 - 42.8	6.305		18	40.681	41.878	0.7	A572-65	0.992
38	42.8 - 38.417	4.383		18	41.878	42.710	0.6875	A572-65	1.000
39	38.417 - 38.067	0.35		18	42.710	42.776	0.6875	A572-65	0.999
40	38.067 - 37.833	0.234		18	42.776	42.820	0.6875	A572-65	0.999
41	37.833 - 32.833	5		18	42.820	43.769	0.675	A572-65	1.007
42	32.833 - 27.833	5		18	43.769	44.718	0.675	A572-65	0.997
43	27.833 - 23.5	4.333		18	44.718	45.540	0.6625	A572-65	1.008
44	23.5 - 23.25	0.25		18	45.540	45.588	0.6625	A572-65	1.007
45	23.25 - 18.25	5		18	45.588	46.537	0.6625	A572-65	0.998
46	18.25 - 13.25	5		18	46.537	47.486	0.65	A572-65	1.008
47	13.25 - 8.25	5		18	47.486	48.434	0.65	A572-65	0.999
48	8.25 - 7.917	0.333		18	48.434	48.498	0.65	A572-65	0.999
49	7.917 - 7.667	0.25		18	48.498	48.545	0.7	A572-65	0.982
50	7.667 - 5.5	2.167		18	48.545	48.956	0.7	A572-65	0.978
51	5.5 - 5.25	0.25		18	48.956	49.004	0.4125	A572-65	1.089
52	5.25 - 3	2.25		18	49.004	49.431	0.425	A572-65	1.056
53	3 - 2.75	0.25		18	49.431	49.478	0.625	A572-65	0.979
54	2.75 - 0	2.75		18	49.478	50.000	0.625	A572-65	0.975

TNX Section Forces

Increment (ft):		TNX Output			
5					
	Section Height (ft)	P _u (K)	M _{ux} (kip-ft)	V _u (K)	
1	180.5 - 175.5	4.12	36.44	6.72	
2	175.5 - 170.5	4.43	70.80	7.03	
3	170.5 - 165.5	7.72	120.94	11.27	
4	165.5 - 160.5	8.11	178.18	11.62	
5	160.5 - 155.5	8.52	237.06	11.94	
6	155.5 - 150.5	12.74	340.58	17.83	
7	150.5 - 145.5	13.34	430.40	18.12	
8	145.5 - 140.5	16.73	523.19	21.64	
9	140.5 - 137.794	17.10	581.91	21.79	
10	137.794 - 132.794	18.10	691.76	22.16	
11	132.794 - 127.794	18.93	803.14	22.43	
12	127.794 - 122.794	19.78	915.88	22.70	
13	122.794 - 120.583	20.16	966.16	22.82	
14	120.583 - 120.333	20.23	971.86	22.82	
15	120.333 - 115.333	21.10	1086.56	23.09	
16	115.333 - 112.5	21.61	1152.12	23.24	
17	112.5 - 112.25	21.70	1157.93	23.24	
18	112.25 - 107.817	22.97	1261.73	23.61	
19	107.817 - 107.567	23.05	1267.63	23.62	
20	107.567 - 102.567	24.49	1386.75	24.04	
21	102.567 - 97.567	25.97	1507.90	24.44	
22	97.567 - 93.311	27.25	1612.59	24.78	
23	93.311 - 88.311	29.98	1737.88	25.33	
24	88.311 - 87.5	30.25	1758.45	25.40	
25	87.5 - 87.25	30.31	1764.80	25.41	
26	87.25 - 82.25	31.44	1892.40	25.66	
27	82.25 - 80.833	31.76	1928.78	25.73	
28	80.833 - 80.583	31.84	1935.21	25.72	
29	80.583 - 75.583	33.08	2064.49	26.05	
30	75.583 - 70.583	34.29	2195.17	26.27	
31	70.583 - 65.583	35.52	2326.92	26.48	
32	65.583 - 60.583	36.77	2459.68	26.68	
33	60.583 - 55.583	38.05	2593.42	26.87	
34	55.583 - 53.567	38.58	2647.60	26.94	
35	53.567 - 53.317	38.65	2654.33	26.93	
36	53.317 - 49.105	39.74	2768.04	27.09	
37	49.105 - 42.8	43.40	2940.25	27.56	
38	42.8 - 38.417	45.24	3061.49	27.80	
39	38.417 - 38.067	45.40	3071.21	27.80	
40	38.067 - 37.833	45.50	3077.72	27.82	
41	37.833 - 32.833	47.62	3217.40	28.08	
42	32.833 - 27.833	49.78	3358.28	28.31	
43	27.833 - 23.5	51.66	3481.30	28.50	
44	23.5 - 23.25	51.78	3488.42	28.50	
45	23.25 - 18.25	53.98	3631.46	28.74	
46	18.25 - 13.25	56.20	3775.83	29.01	
47	13.25 - 8.25	58.45	3921.33	29.22	
48	8.25 - 7.917	58.61	3931.06	29.23	
49	7.917 - 7.667	58.73	3938.36	29.23	
50	7.667 - 5.5	59.75	4001.81	29.35	
51	5.5 - 5.25	59.84	4009.14	29.34	
52	5.25 - 3	60.61	4075.19	29.41	
53	3 - 2.75	60.73	4082.54	29.39	
54	2.75 - 0	61.93	4163.51	29.53	

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
180.5 - 175.5	Pole	TP18.569x17.62x0.25	Pole	9.1%	Pass
175.5 - 170.5	Pole	TP19.518x18.569x0.25	Pole	15.6%	Pass
170.5 - 165.5	Pole	TP20.467x19.518x0.25	Pole	24.3%	Pass
165.5 - 160.5	Pole	TP21.416x20.467x0.25	Pole	32.3%	Pass
160.5 - 155.5	Pole	TP22.365x21.416x0.25	Pole	39.1%	Pass
155.5 - 150.5	Pole	TP23.313x22.365x0.25	Pole	51.8%	Pass
150.5 - 145.5	Pole	TP24.262x23.313x0.25	Pole	60.4%	Pass
145.5 - 140.5	Pole	TP25.211x24.262x0.25	Pole	68.7%	Pass
140.5 - 137.79	Pole	TP26.35x25.211x0.25	Pole	73.5%	Pass
137.79 - 132.79	Pole	TP26.174x25.225x0.3125	Pole	66.6%	Pass
132.79 - 127.79	Pole	TP27.123x26.174x0.3125	Pole	71.8%	Pass
127.79 - 122.79	Pole	TP28.072x27.123x0.3125	Pole	76.3%	Pass
122.79 - 120.58	Pole	TP28.491x28.072x0.3125	Pole	78.1%	Pass
120.58 - 120.33	Pole	TP28.539x28.491x0.3125	Pole	78.2%	Pass
120.33 - 115.33	Pole	TP29.488x28.539x0.3125	Pole	81.8%	Pass
115.33 - 112.5	Pole	TP30.025x29.488x0.3125	Pole	83.6%	Pass
112.5 - 112.25	Pole + Reinf.	TP30.073x30.025x0.6375	Reinf. 9 Tension Rupture	66.6%	Pass
112.25 - 107.82	Pole + Reinf.	TP30.914x30.073x0.675	Reinf. 9 Tension Rupture	65.1%	Pass
107.82 - 107.57	Pole + Reinf.	TP30.961x30.914x0.675	Reinf. 9 Tension Rupture	65.3%	Pass
107.57 - 102.57	Pole + Reinf.	TP31.91x30.961x0.6625	Reinf. 9 Tension Rupture	68.3%	Pass
102.57 - 97.57	Pole + Reinf.	TP32.859x31.91x0.65	Reinf. 9 Tension Rupture	71.1%	Pass
97.57 - 93.31	Pole + Reinf.	TP34.485x32.859x0.6375	Reinf. 9 Tension Rupture	73.3%	Pass
93.31 - 88.31	Pole + Reinf.	TP33.991x33.042x0.7	Reinf. 9 Tension Rupture	71.0%	Pass
88.31 - 87.5	Pole + Reinf.	TP34.145x33.991x0.7	Reinf. 9 Tension Rupture	71.3%	Pass
87.5 - 87.25	Pole	TP34.192x34.145x0.375	Pole	82.4%	Pass
87.25 - 82.25	Pole	TP35.141x34.192x0.375	Pole	83.6%	Pass
82.25 - 80.83	Pole	TP35.41x35.141x0.375	Pole	83.8%	Pass
80.83 - 80.58	Pole	TP35.457x35.41x0.375	Pole	83.9%	Pass
80.58 - 75.58	Pole	TP36.406x35.457x0.375	Pole	85.1%	Pass
75.58 - 70.58	Pole	TP37.355x36.406x0.375	Pole	86.4%	Pass
70.58 - 65.58	Pole	TP38.304x37.355x0.375	Pole	87.6%	Pass
65.58 - 60.58	Pole	TP39.253x38.304x0.375	Pole	88.7%	Pass
60.58 - 55.58	Pole	TP40.202x39.253x0.375	Pole	89.6%	Pass
55.58 - 53.57	Pole	TP40.584x40.202x0.375	Pole	90.0%	Pass
53.57 - 53.32	Pole	TP40.632x40.584x0.375	Pole	90.0%	Pass
53.32 - 49.11	Pole	TP42.438x40.632x0.375	Pole	90.8%	Pass
49.11 - 42.8	Pole + Reinf.	TP41.878x40.681x0.7	Reinf. 8 Tension Rupture	75.2%	Pass
42.8 - 38.42	Pole + Reinf.	TP42.71x41.878x0.6875	Reinf. 8 Tension Rupture	76.0%	Pass
38.42 - 38.07	Pole + Reinf.	TP42.776x42.71x0.6875	Reinf. 8 Tension Rupture	76.1%	Pass
38.07 - 37.83	Pole + Reinf.	TP42.82x42.776x0.6875	Reinf. 8 Tension Rupture	76.1%	Pass
37.83 - 32.83	Pole + Reinf.	TP43.769x42.82x0.675	Reinf. 8 Tension Rupture	76.9%	Pass
32.83 - 27.83	Pole + Reinf.	TP44.718x43.769x0.675	Reinf. 8 Tension Rupture	77.7%	Pass
27.83 - 23.5	Pole + Reinf.	TP45.54x44.718x0.6625	Reinf. 8 Tension Rupture	78.3%	Pass
23.5 - 23.25	Pole + Reinf.	TP45.588x45.54x0.6625	Reinf. 7 Tension Rupture	78.3%	Pass
23.25 - 18.25	Pole + Reinf.	TP46.537x45.588x0.6625	Reinf. 7 Tension Rupture	78.9%	Pass
18.25 - 13.25	Pole + Reinf.	TP47.486x46.537x0.65	Reinf. 7 Tension Rupture	79.5%	Pass
13.25 - 8.25	Pole + Reinf.	TP48.434x47.486x0.65	Reinf. 7 Tension Rupture	80.0%	Pass
8.25 - 7.92	Pole + Reinf.	TP48.498x48.434x0.65	Reinf. 7 Tension Rupture	80.1%	Pass
7.92 - 7.67	Pole + Reinf.	TP48.545x48.498x0.7	Reinf. 1 Tension Rupture	75.6%	Pass
7.67 - 5.5	Pole + Reinf.	TP48.956x48.545x0.7	Reinf. 1 Tension Rupture	75.8%	Pass
5.5 - 5.25	Pole + Reinf.	TP49.004x48.956x0.4125	Pole	93.3%	Pass
5.25 - 3	Pole + Reinf.	TP49.431x49.004x0.425	Pole	93.5%	Pass
3 - 2.75	Pole + Reinf.	TP49.478x49.431x0.625	Reinf. 11 Compression	76.8%	Pass
2.75 - 0	Pole + Reinf.	TP50x49.478x0.625	Reinf. 11 Compression	77.0%	Pass
				Summary	
			Pole	93.5%	Pass
			Reinforcement	86.0%	Pass
			Overall	93.5%	Pass

Additional Calculations

Section Elevation (ft)	Moment of Inertia (in ⁴)			Area (in ²)			% Capacity* (100% Max. Allowable)											
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11
180.5 - 175.5	616	n/a	616	14.54	n/a	14.54	9.1%											
175.5 - 170.5	717	n/a	717	15.29	n/a	15.29	15.6%											
170.5 - 165.5	828	n/a	828	16.04	n/a	16.04	24.3%											
165.5 - 160.5	950	n/a	950	16.79	n/a	16.79	32.3%											
160.5 - 155.5	1084	n/a	1084	17.55	n/a	17.55	39.1%											
155.5 - 150.5	1229	n/a	1229	18.30	n/a	18.30	51.8%											
150.5 - 145.5	1388	n/a	1388	19.05	n/a	19.05	60.4%											
145.5 - 140.5	1559	n/a	1559	19.81	n/a	19.81	68.7%											
140.5 - 137.79	1657	n/a	1657	20.21	n/a	20.21	73.5%											
137.79 - 132.79	2167	n/a	2167	25.65	n/a	25.65	66.6%											
132.79 - 127.79	2414	n/a	2414	26.59	n/a	26.59	71.8%											
127.79 - 122.79	2680	n/a	2680	27.53	n/a	27.53	76.3%											
122.79 - 120.58	2803	n/a	2803	27.95	n/a	27.95	78.1%											
120.58 - 120.33	2817	n/a	2817	28.00	n/a	28.00	78.2%											
120.33 - 115.33	3111	n/a	3111	28.94	n/a	28.94	81.8%											
115.33 - 112.5	3286	n/a	3286	29.47	n/a	29.47	83.6%											
112.5 - 112.25	3302	3272	6574	29.52	26.76	56.28	41.5%						64.0%			66.6%		
112.25 - 107.82	3590	3925	7515	30.35	30.39	60.74	40.9%					62.3%				65.1%		
107.82 - 107.57	3607	3937	7543	30.40	30.39	60.79	41.0%					62.4%				65.3%		
107.57 - 102.57	3952	4171	8123	31.34	30.39	61.73	43.3%					65.3%				68.3%		
102.57 - 97.57	4319	4413	8731	32.28	30.39	62.67	45.4%					67.9%				71.1%		
97.57 - 93.31	4648	4623	9272	33.08	30.39	63.47	47.2%					70.0%				73.3%		
93.31 - 88.31	5710	4709	10420	40.01	30.39	70.40	44.4%					67.8%				71.0%		
88.31 - 87.5	5789	4750	10540	40.19	30.39	70.58	44.6%					68.1%				71.3%		
87.5 - 87.25	5813	n/a	5813	40.25	n/a	40.25	82.4%											
87.25 - 82.25	6317	n/a	6317	41.38	n/a	41.38	83.6%											
82.25 - 80.83	6464	n/a	6464	41.70	n/a	41.70	83.8%											
80.83 - 80.58	6491	n/a	6491	41.76	n/a	41.76	83.9%											
80.58 - 75.58	7032	n/a	7032	42.88	n/a	42.88	85.1%											
75.58 - 70.58	7602	n/a	7602	44.01	n/a	44.01	86.4%											
70.58 - 65.58	8202	n/a	8202	45.14	n/a	45.14	87.6%											
65.58 - 60.58	8834	n/a	8834	46.27	n/a	46.27	88.7%											
60.58 - 55.58	9496	n/a	9496	47.40	n/a	47.40	89.6%											
55.58 - 53.57	9773	n/a	9773	47.86	n/a	47.86	90.0%											
53.57 - 53.32	9807	n/a	9807	47.91	n/a	47.91	90.0%											
53.32 - 49.11	10403	n/a	10403	48.87	n/a	48.87	90.8%											
49.11 - 42.8	10764	8689	19454	49.40	41.33	90.72	53.6%				75.1%				75.2%			
42.8 - 38.42	11424	9025	20449	50.39	41.33	91.71	54.4%				75.8%				76.0%			
38.42 - 38.07	11478	9052	20530	50.47	41.33	91.79	54.5%	75.8%	71.9%						76.1%			
38.07 - 37.83	11514	9070	20584	50.52	41.33	91.84	54.6%	75.8%	71.9%						76.1%			
37.83 - 32.83	12303	9461	21764	51.65	41.33	92.97	55.5%	76.6%	72.7%						76.9%			
32.83 - 27.83	13127	9860	22988	52.78	41.33	94.10	56.4%	77.3%	73.4%						77.7%			
27.83 - 23.5	13871	10213	24084	53.76	41.33	95.08	57.2%	77.8%	73.9%						78.3%			
23.5 - 23.25	13915	10234	24149	53.81	41.33	95.14	57.2%	77.8%	73.9%						78.3%			
23.25 - 18.25	14809	10649	25458	54.94	41.33	96.27	58.1%	78.4%	74.5%						78.9%			
18.25 - 13.25	15740	11073	26813	56.07	41.33	97.40	58.9%	78.9%	75.1%						79.5%			
13.25 - 8.25	16710	11505	28215	57.20	41.33	98.53	59.7%	79.4%	75.6%						80.0%			
8.25 - 7.92	16776	11534	28310	57.28	41.33	98.60	59.7%	79.4%	75.6%						80.1%			
7.92 - 7.67	16966	14172	31138	57.33	47.08	104.41	56.1%	75.6%							75.2%			62.4%
7.67 - 5.5	17402	14404	31806	57.82	47.08	104.90	56.5%	75.8%							75.4%			62.6%
5.5 - 5.25	17357	1694	19052	57.88	11.41	69.28	93.3%											85.9%
5.25 - 3	17968	2273	20241	58.39	11.41	69.79	93.5%											86.0%
3 - 2.75	17836	11654	29491	58.44	36.41	94.85	61.6%										70.8%	76.8%
2.75 - 0	18410	11877	30287	59.06	36.41	95.47	62.0%										71.0%	77.0%

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

Monopole Base Plate Connection

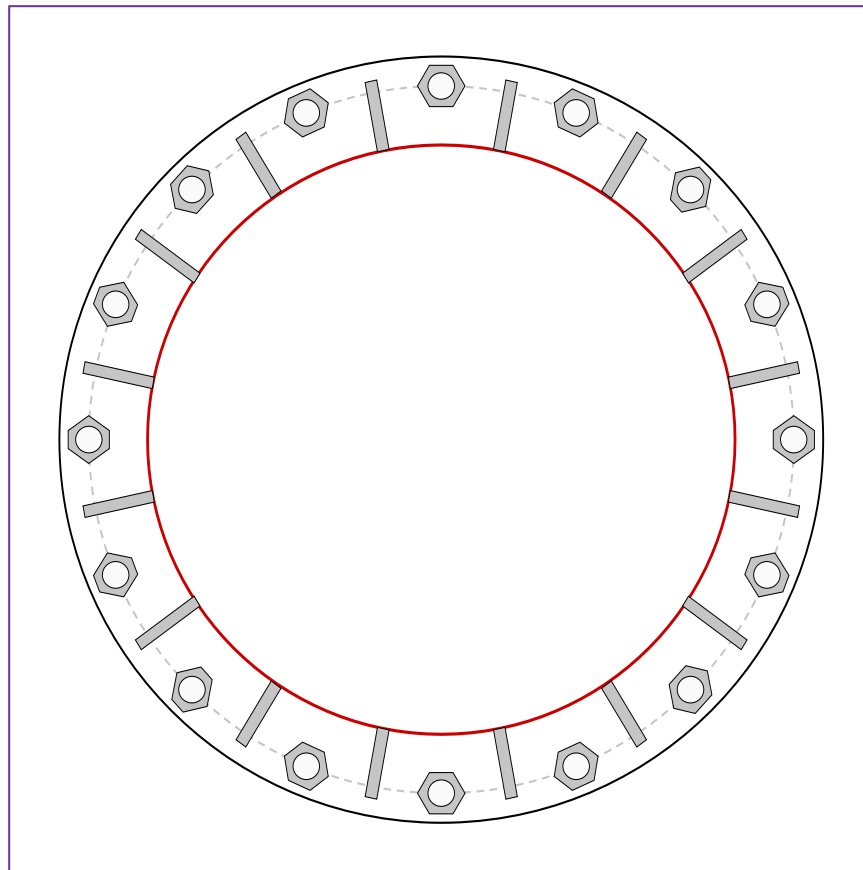


Site Info	
BU #	876375
Site Name	ANTERBURY / LEMIRE,
Order #	614871, Rev. 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
l_{ar} (in)	1.625

Applied Loads	
Moment (kip-ft)	4163.51
Axial Force (kips)	61.93
Shear Force (kips)	29.53

*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results
-----------------------	------------------

Anchor Rod Data
 (16) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 60" BC

Base Plate Data
 65" OD x 2" Plate (A572-50; $F_y=50$ ksi, $F_u=65$ ksi)

Stiffener Data
 (16) 18"H x 6"W x 1"T, Notch: 0.75"
 plate: $F_y=50$ ksi ; weld: $F_y=70$ ksi
 horiz. weld: 0.5" groove, 45° dbf bevel, 0.5" fillet
 vert. weld: 0.375" fillet

Pole Data
 50" x 0.375" 18-sided pole (A572-65; $F_y=65$ ksi, $F_u=80$ ksi)

Anchor Rod Summary			<i>(units of kips, kip-in)</i>
$P_{u,t}$ = 204.19	$\phi P_{n,t}$ = 243.75	Stress Rating	
V_u = 1.85	ϕV_n = 149.1	79.8%	
M_u = n/a	ϕM_n = n/a	Pass	

Base Plate Summary		
Max Stress (ksi):	35.94	(Roark's Flexural)
Allowable Stress (ksi):	45	
Stress Rating:	76.1%	Pass

Stiffener Summary		
Horizontal Weld:	64.0%	Pass
Vertical Weld:	54.3%	Pass
Plate Flexure+Shear:	17.0%	Pass
Plate Tension+Shear:	64.6%	Pass
Plate Compression:	64.7%	Pass

Pole Summary		
Punching Shear:	14.7%	Pass

Pier and Pad Foundation



BU #: 876375
 Site Name: CANTERBURY / LE
 App. Number: 614871, Rev. 0

TIA-222 Revision: H
 Tower Type: Monopole

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

Superstructure Analysis Reactions		
Compression, P_{comp} :	61.93	kips
Base Shear, Vu_{comp} :	29.53	kips
Moment, M_u :	4163.51	ft-kips
Tower Height, H :	180.5	ft
BP Dist. Above Fdn, bp_{dist} :	3.875	in

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
<i>Lateral (Sliding) (kips)</i>	186.92	29.53	15.0%	Pass
<i>Bearing Pressure (ksf)</i>	22.92	4.04	17.6%	Pass
<i>Overturning (kip*ft)</i>	5116.96	4350.23	85.0%	Pass
<i>Pier Flexure (Comp.) (kip*ft)</i>	4672.23	4252.10	86.7%	Pass
<i>Pier Compression (kip)</i>	26891.28	84.75	0.3%	Pass
<i>Pad Flexure (kip*ft)</i>	4554.58	2381.03	49.8%	Pass
<i>Pad Shear - 1-way (kips)</i>	878.58	325.13	35.2%	Pass
<i>Pad Shear - 2-way (Comp) (ksi)</i>	0.190	0.000	0.0%	Pass
<i>Flexural 2-way (Comp) (kip*ft)</i>	4800.18	2551.26	50.6%	Pass

Pier Properties		
Pier Shape:	Square	
Pier Diameter, $dpier$:	6.5	ft
Ext. Above Grade, E :	1	ft
Pier Rebar Size, Sc :	8	
Pier Rebar Quantity, mc :	39	
Pier Tie/Spiral Size, St :	4	
Pier Tie/Spiral Quantity, mt :	4	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

*Rating per TIA-222-H Section 15.5

Structural Rating*:	86.7%
Soil Rating*:	85.0%

Pad Properties		
Depth, D :	5	ft
Pad Width, W_1 :	24.5	ft
Pad Thickness, T :	3	ft
Pad Rebar Size (Top dir.2), Sp_{top2} :	8	
Pad Rebar Quantity (Top dir. 2), mp_{top2} :	28	
Pad Rebar Size (Bottom dir. 2), Sp_2 :	8	
Pad Rebar Quantity (Bottom dir. 2), mp_2 :	42	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, F_y :	60	ksi
Concrete Compressive Strength, F'_c :	4	ksi
Dry Concrete Density, δ_c :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	113	pcf
Ultimate Net Bearing, Q_{net} :	30.000	ksf
Cohesion, C_u :	0.000	ksf
Friction Angle, ϕ :	31	degrees
SPT Blow Count, N_{blows} :		
Base Friction, μ :	0.45	
Neglected Depth, N :	3.33	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	N/A	ft

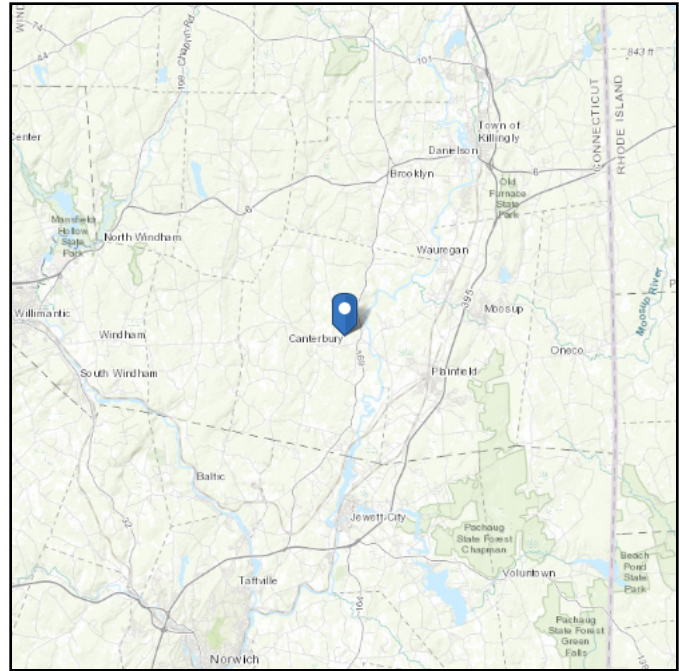
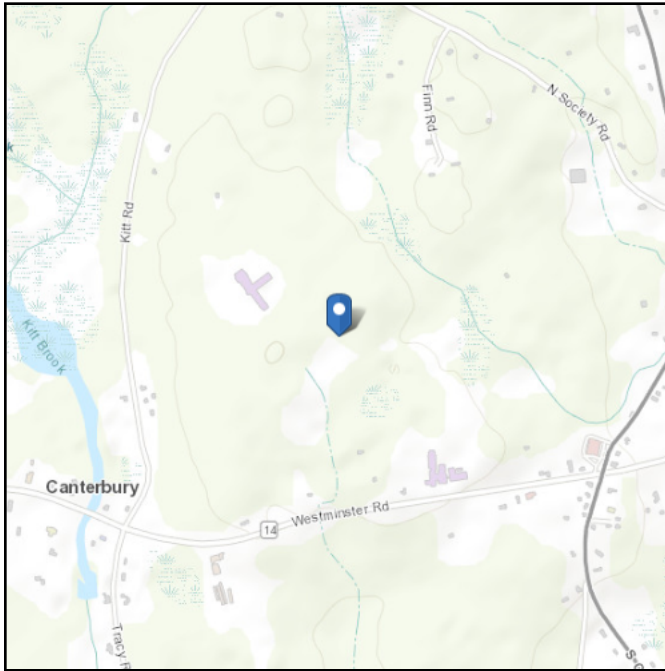
<--Toggle between Gross and Net

ASCE 7 Hazards Report

Address:
No Address at This Location

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

Latitude: 41.701986
Longitude: -71.980586
Elevation: 338.74 ft (NAVD 88)



Wind

Results:

Wind Speed	123 Vmph
10-year MRI	75 Vmph
25-year MRI	85 Vmph
50-year MRI	95 Vmph
100-year MRI	100 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: Tue Jan 03 2023

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).

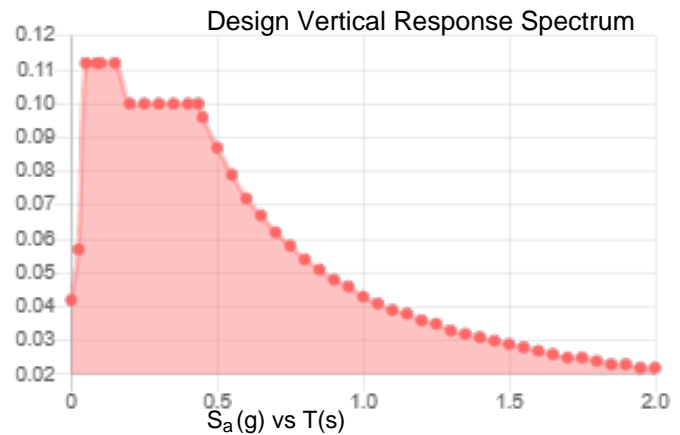
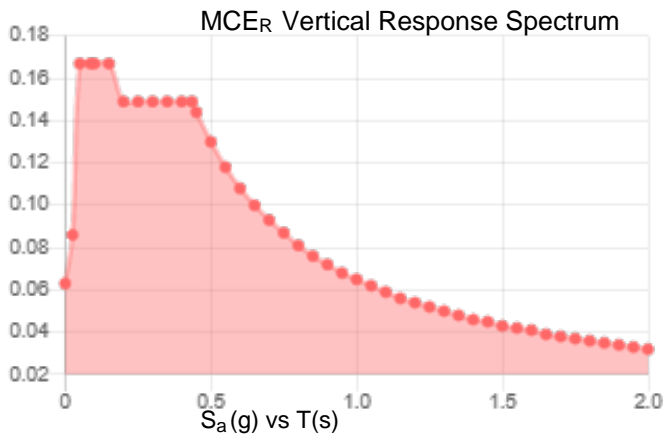
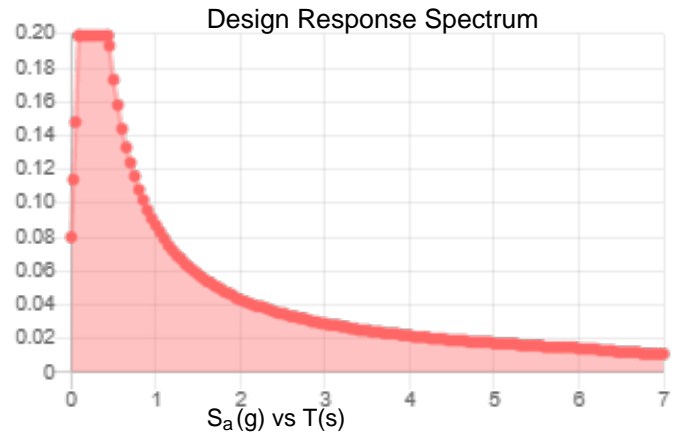
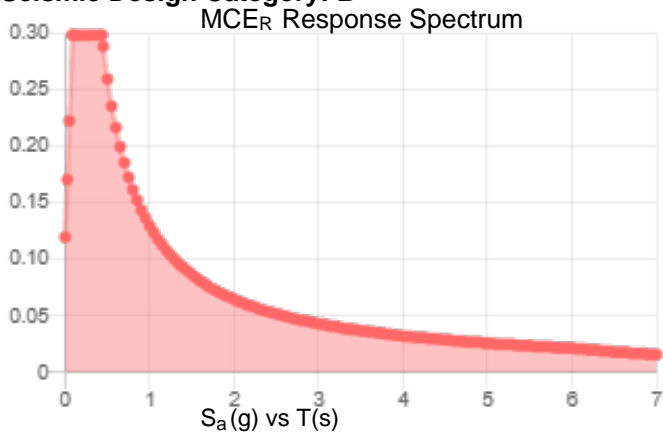
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class:

Results:

S_s :	0.187	S_{D1} :	0.087
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.101
F_v :	2.4	PGA _M :	0.162
S_{MS} :	0.299	F_{PGA} :	1.597
S_{M1} :	0.13	I_e :	1
S_{DS} :	0.199	C_v :	0.7

Seismic Design Category: B



Data Accessed:

Tue Jan 03 2023

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: 1.00 in.
Concurrent Temperature: 15 F
Gust Speed 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Tue Jan 03 2023

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.

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.

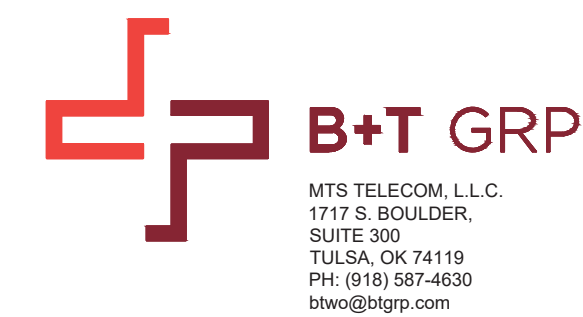
ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.



AT&T SITE NUMBER: CTL05775
AT&T SITE NAME: CANTERBURY EAST
AT&T FA CODE: 10070963
AT&T PACE NUMBER: MRCTB066228, MRCTB062161, MRCTB062187, MRCTB068150
AT&T PROJECT: BWE SOFTWARE CARRIER, LTE 4C, LTE 3C, 4TX4RX

BUSINESS UNIT #: 876375
SITE ADDRESS: 53 WESTMINSTER RD
 CANTERBURY, CT 06331
COUNTY: WINDHAM
SITE TYPE: MONOPOLE
TOWER HEIGHT: 180'-6"



AT&T SITE NUMBER:
CTL05775
BU #: 876375
CANTERBURY / LEMIRE
 53 WESTMINSTER RD
 CANTERBURY, CT 06331
 EXISTING
 180'-6" MONOPOLE

ISSUED FOR:

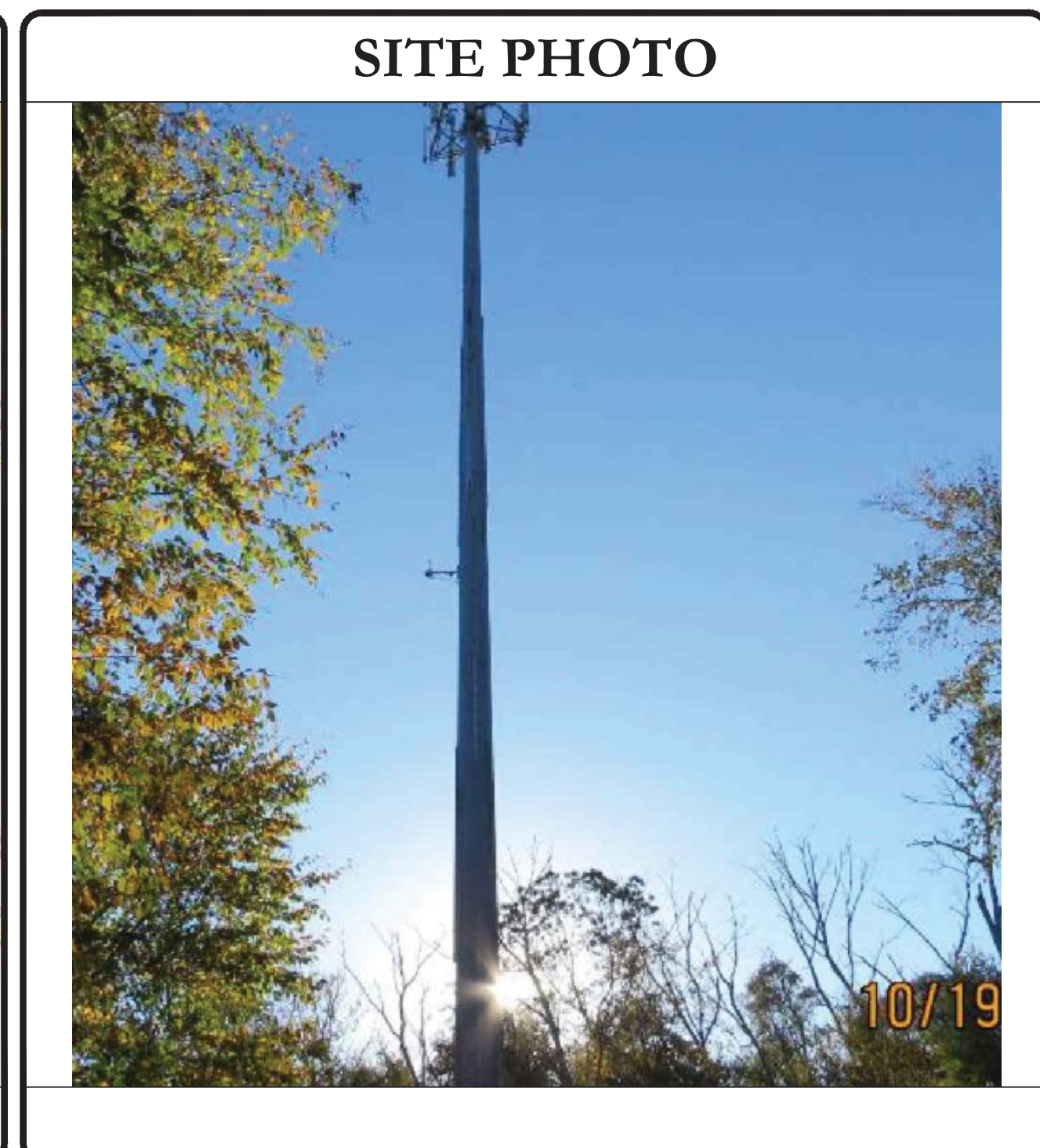
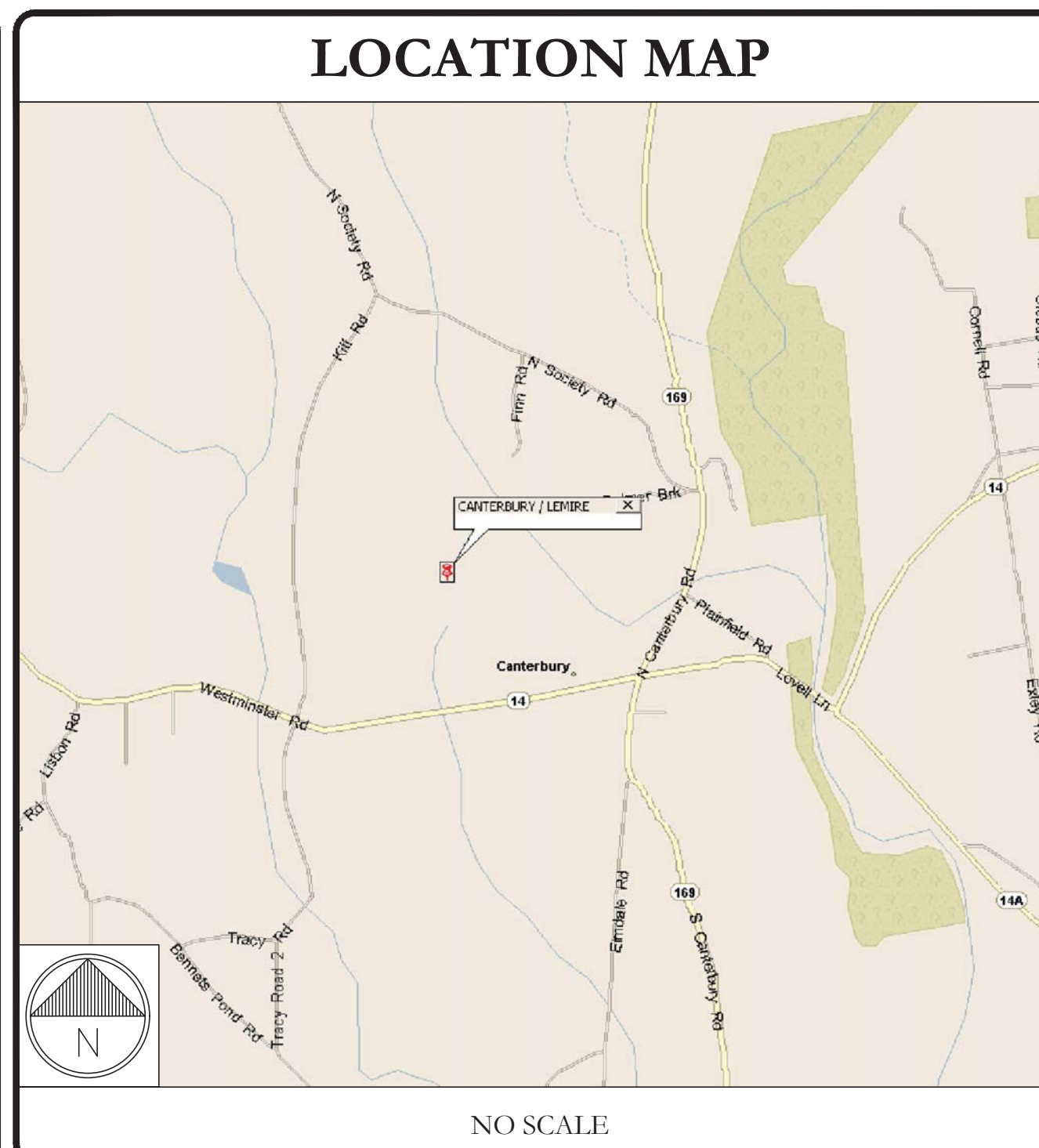
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	8/31/22	YX	PRELIMINARY REVIEW	ANP
B	9/9/22	YX	PRELIMINARY REVIEW	ANP
0	11/2/22	YX	CONSTRUCTION	LR
1	11/17/22	YX	CONSTRUCTION	ANP

SITE INFORMATION

CROWN CASTLE USA INC. SITE NAME:	CANTERBURY / LEMIRE
SITE ADDRESS:	53 WESTMINSTER RD CANTERBURY, CT 06331
COUNTY:	WINDHAM
MAP/PARCEL #:	46-32
AREA OF CONSTRUCTION:	EXISTING
LATITUDE:	41.701986°
LONGITUDE:	-71.980586°
LAT/LONG TYPE:	NAD83
GROUND ELEVATION:	357'
CURRENT ZONING:	RD (RURAL DISTRICT)
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:	LEMIRE JOHN R 14 DEBBIE CT NORWICH, CT 6360
TOWER OWNER:	CROWN CASTLE USA INC 2000 CORPORATE DRIVE CANONSBURG, PA 15317
CARRIER/APPLICANT:	AT&T TOWER ASSET GROUP 575 MOROSGO DRIVE ATLANTA, GA 30324-3300
ELECTRIC PROVIDER:	NORTHEAST UTILITIES (800) 286-2000
TELCO PROVIDER:	VERIZON (800) 483-2000

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	SITE PLAN
C-1.2	EQUIPMENT PLANS
C-2	TOWER ELEVATION & ANTENNA PLANS
C-3	ANTENNA SCHEDULE
C-4	EQUIPMENT DETAILS
C-5	EQUIPMENT SPECS.
G-1	GROUNDING DETAILS
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM
ATTACHED	MOUNT SPECIFICATIONS



PROJECT TEAM

A&E FIRM:	B+T GROUP 1717 S. BOULDER AVE. TULSA, OK 74119 MARVIN PHILLIPS MARVIN.PHILLIPS@BTGRP.COM
CROWN CASTLE USA INC. DISTRICT CONTACTS:	1200 MACARTHUR BLVD, SUITE 200 MAHWAH, NJ 07430 VERONICA CHAPMAN - PROJECT MANAGER VERONICA.CHAPMAN@CROWNCastle.COM JASON D'AMICO - CONSTRUCTION MANAGER JASON.DAMICO@CROWNCastle.COM HEATHER MILLER - AES HEATHER.MILLER@CROWNCastle.COM

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

PROJECT DESCRIPTION

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

TOWER SCOPE OF WORK:

- REMOVE (6) POWERWAVE - 7770.00.850.00 ANTENNAS
- REMOVE (6) POWERWAVE TECH - LGP21401 TMA's
- REMOVE (6) POWERWAVE TECH - LGP21901 DIPLEXERS
- REMOVE (3) ERICSSON - RRUS-11 B12 RRHs
- RELOCATE FROM SHELTER TO TOWER (3) ERICSSON - 4415 B25 RRHs
- RELOCATE FROM SHELTER TO TOWER (2) ERICSSON - 4449 B5/B12 RRHs
- RELOCATE (3) KMW - AM-X-CD-17-65-00T-RET ANTENNAS
- RELOCATE (1) RAYCAP - DC6-48-60-18-8F SQUID

GROUND SCOPE OF WORK:

- DECOMMISSION (1) UMTS CABINET
- REMOVE (3) BATTERY STRINGS
- REMOVE (12) POWERWAVE - LGP21901 DIPLEXERS
- INSTALL (2) RECTIFIERS

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.

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	2022 CONNECTICUT SBC
MECHANICAL	2022 CONNECTICUT SBC
ELECTRICAL	2022 CONNECTICUT SBC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS: B+T GROUP
 DATED: 8/12/22

MOUNT ANALYSIS: B+T GROUP
 DATED: 8/9/22

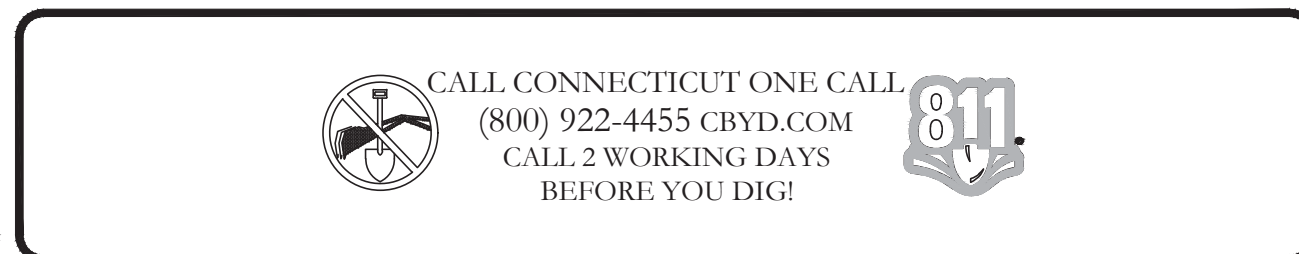
RFDS REVISION: FINAL
 DATED: 11/1/22

ORDER ID: 614871
 REVISION: 0

AC ELECTRICAL POWER DESIGN: BY OTHERS
 DATED:

INSTALLER NOTE:
 NO PROPOSED LOADING TO BE ADDED UNTIL MOUNT SWAP IS COMPLETE PER MOUNT REPLACEMENT ANALYSIS REPORT BY B+T GROUP DATED AUGUST 9, 2022.

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



MTS ENGINEERING P.L.L.C.
 BER:2386985
 Expires 3/31/23

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

SHEET NUMBER: T-1
REVISION: 1

147461.011.01.0001_876375_CANTERBURY_LEMIRE.dwg - Sheet: T-1 - User: ashley.pope - Nov 17, 2022 - 2:55pm



575 MOROSGO DRIVE
ATLANTA, GA 30324-3300



1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430



MTS TELECOM, L.L.C.
1717 S. BOULDER,
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
btw@bgrp.com

AT&T SITE NUMBER:
CTL05775

BU #: **876375**
CANTERBURY / LEMIRE

53 WESTMINSTER RD
CANTERBURY, CT 06331

EXISTING
180'-6" MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DES./QA
A	8/31/22	YX	PRELIMINARY REVIEW	ANP
B	9/9/22	YX	PRELIMINARY REVIEW	ANP
0	11/2/22	YX	CONSTRUCTION	LR
1	11/17/22	YX	CONSTRUCTION	ANP



MTS ENGINEERING P.L.L.C.
BER:2386985
Expires 3/31/23

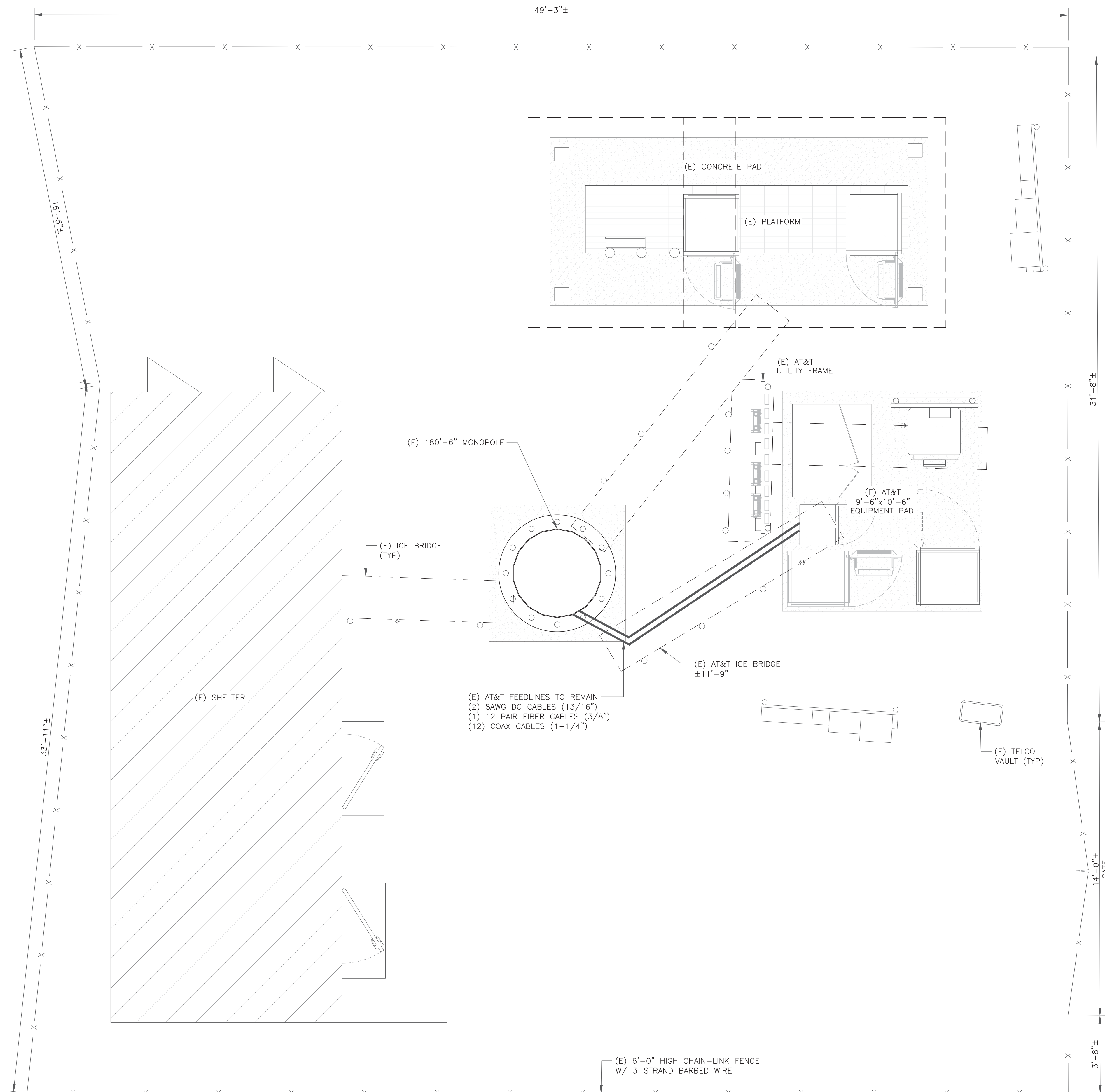
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SHEET NUMBER:

C-1.1

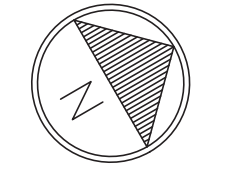
REVISION:

1



(E) AT&T FEEDLINES TO REMAIN
 (2) 8AWG DC CABLES (13/16")
 (1) 12 PAIR FIBER CABLES (3/8")
 (12) COAX CABLES (1-1/4")

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



147461.01.11.01.0001_876375_CANTERBURY_LEMIRE.dwg - Sheet-C-1.1 - User: ashley.pope - Nov 17, 2022 - 2:55pm



575 MOROSGO DRIVE
ATLANTA, GA 30324-3300



1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430



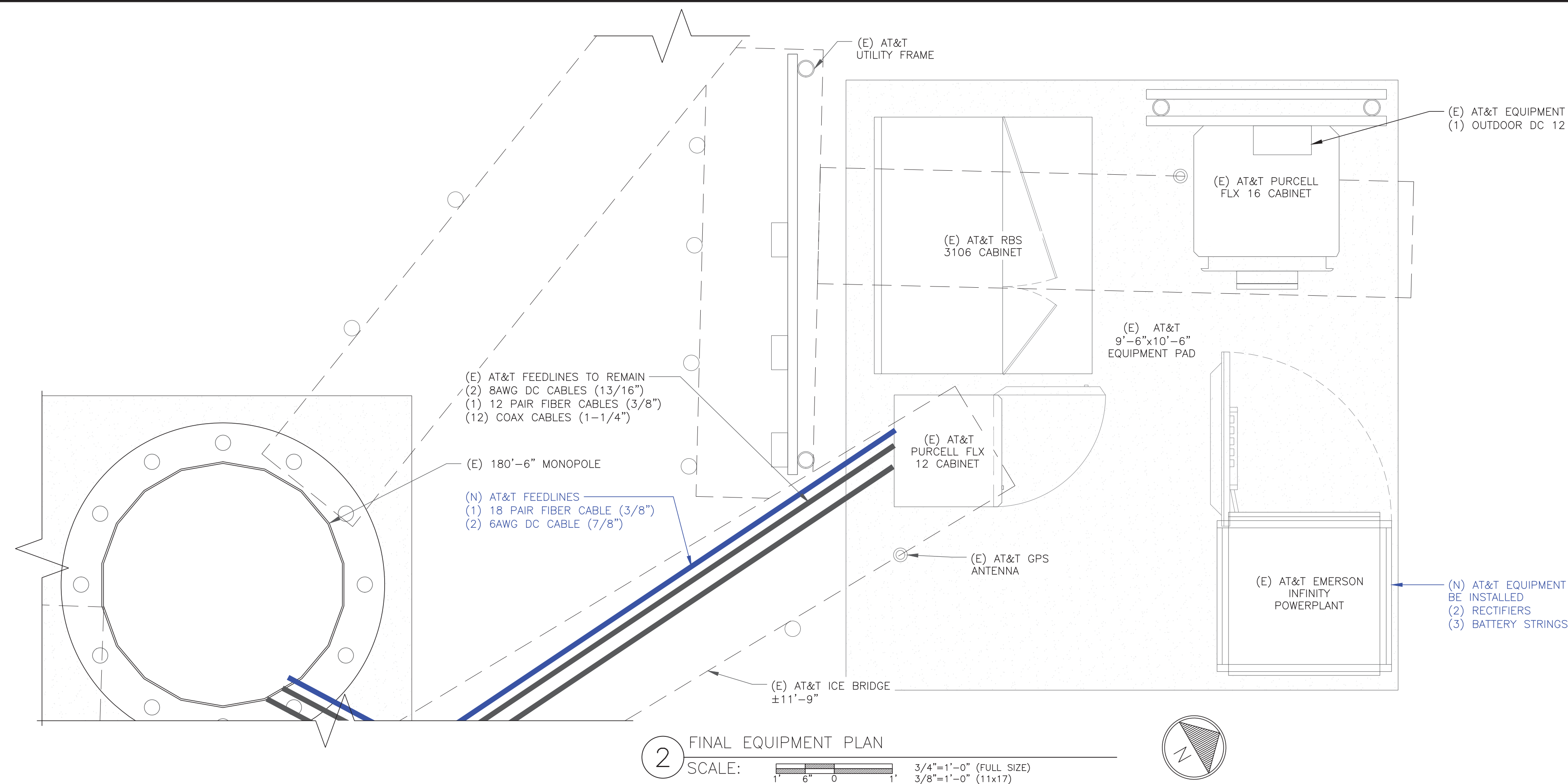
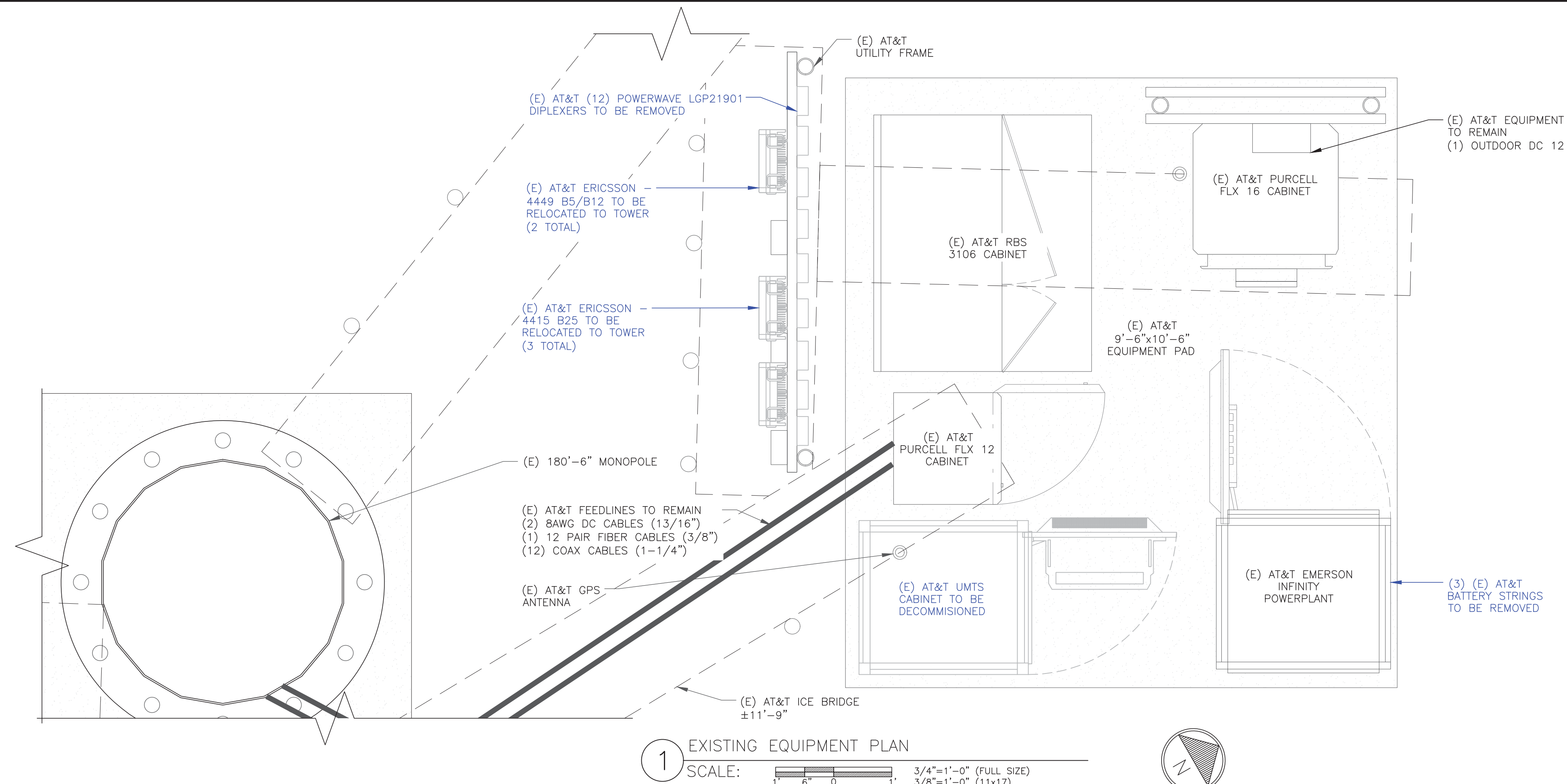
MTS TELECOM, L.L.C.
1717 S. BOULDER,
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
btw@bgrp.com

AT&T SITE NUMBER:
CTL05775

BU #: **876375**
CANTERBURY / LEMIRE

53 WESTMINSTER RD
CANTERBURY, CT 06331

EXISTING
180'-6" MONOPOLE



- GROUND SCOPE OF WORK:
- DECOMMISSION (1) UMS CABINET
 - REMOVE (3) BATTERY STRINGS
 - REMOVE (12) POWERWAVE - LGP21901 DIPLEXERS
 - INSTALL (2) RECTIFIERS
 - INSTALL (3) BATTERY STRINGS

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.

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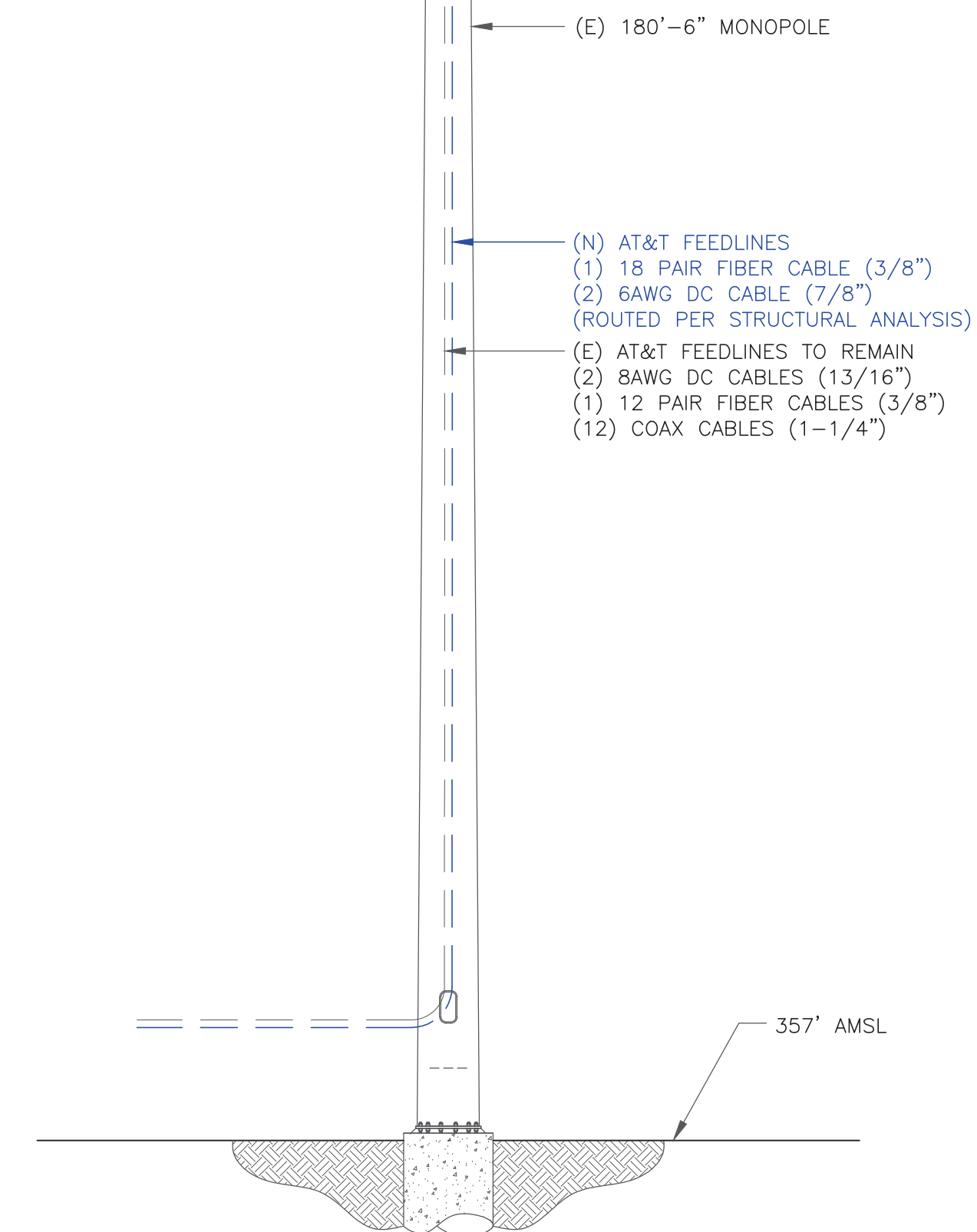
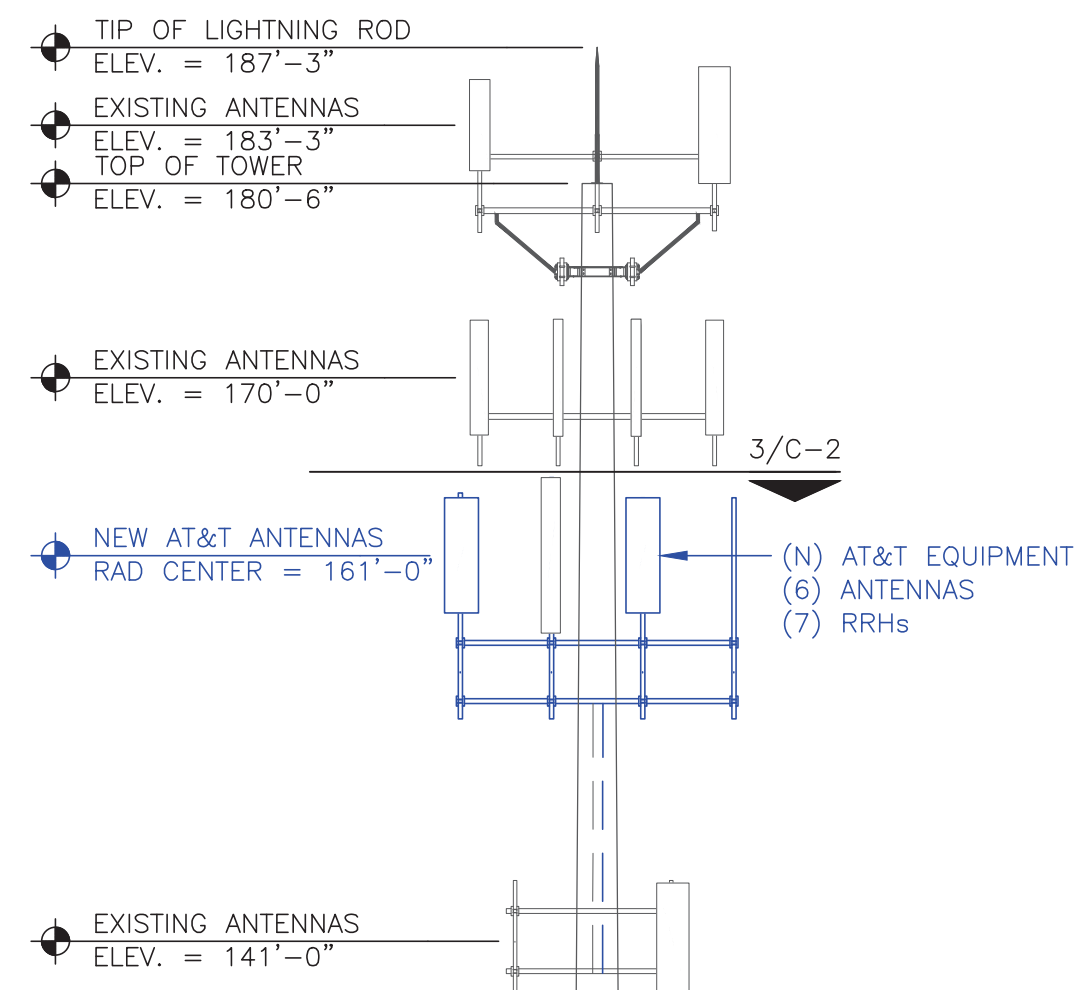


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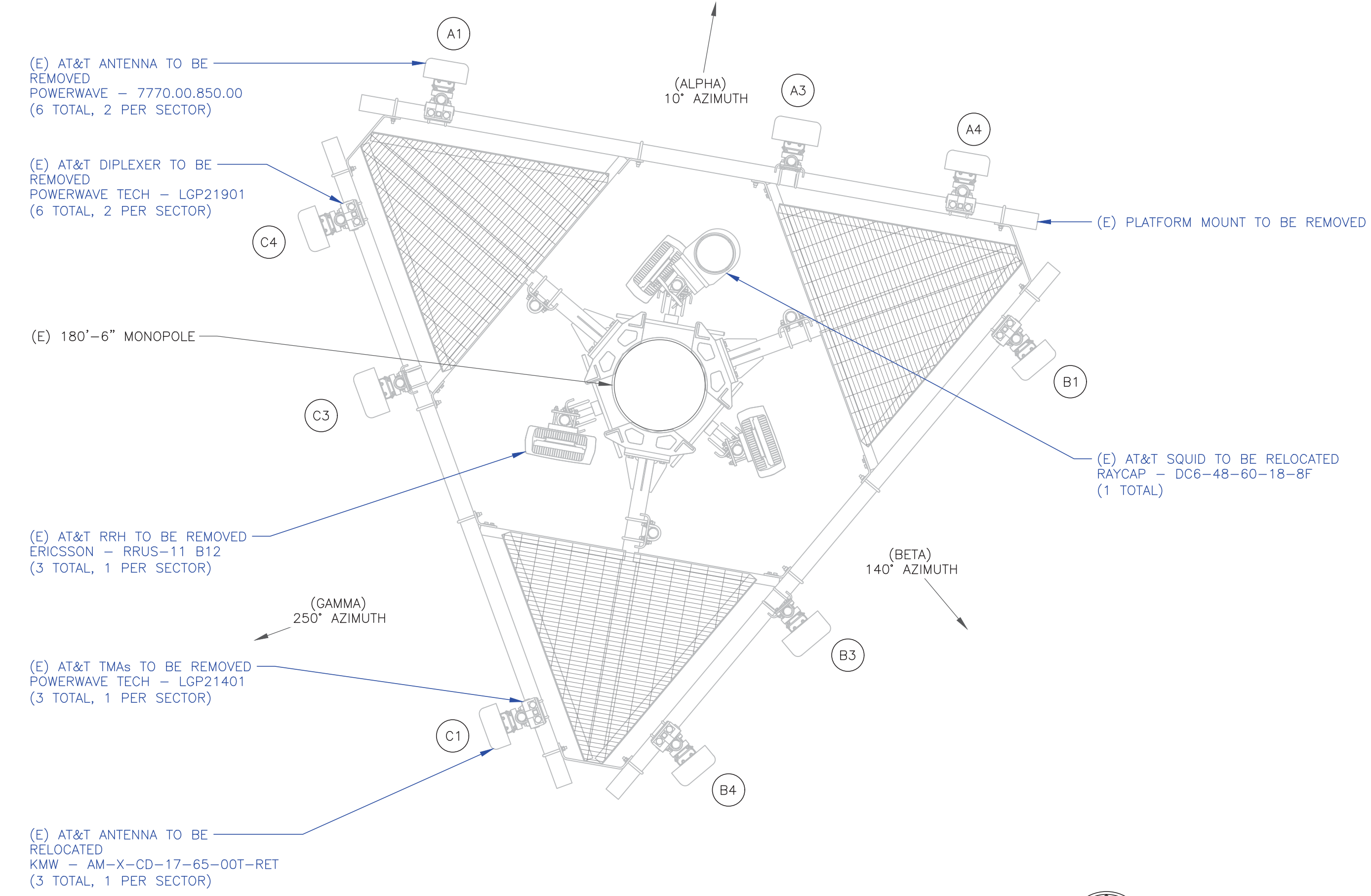
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SHEET NUMBER: **C-1.2** REVISION: **1**

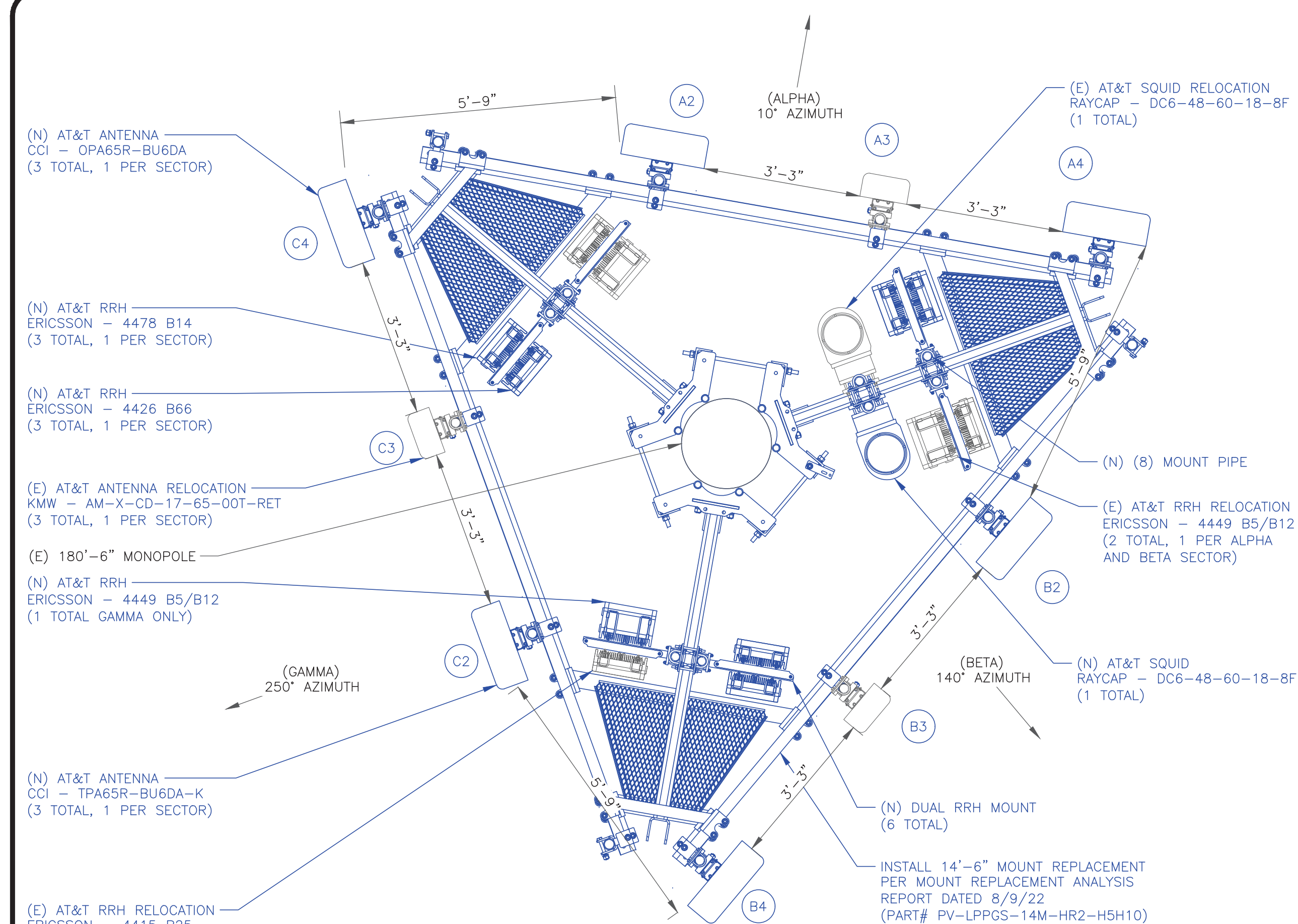
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1 FINAL ELEVATION
SCALE: NOT TO SCALE



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



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

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

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

INSTALLER NOTES:

- 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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FINAL EQUIPMENT SCHEDULE
(VERIFY WITH CURRENT RFDS)

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		
A2	LTE/5G	(N) CCI - TPA65R-BU6DA-K	10°	161'-0"	1	(N) ERICSSON - 4478 B14 (E) ERICSSON - 4415 B25 (N) ERICSSON - 4426 B66	TOWER	-	-	-	-	-	-	(E) RAYCAP - DC6-48-60-18-8F (N) RAYCAP - DC6-48-60-18-8F	1	1	(E) 12 PAIR FIBER	3/8"	211'-0"	
					2											(E) 8AWG DC	13/16"	211'-0"		
					1											(N) 18 PAIR FIBER	3/8"	211'-0"		
					2											(N) 6AWG DC	7/8"	211'-0"		
A3	LTE	(E) KMW - AM-X-CD-17-65-00T-RET	10°	161'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
A4	LTE/5G	(N) CCI - OPA65R-BU6DA	10°	161'-0"	1	(E) ERICSSON - 4449 B5/B12 (N) Y CABLE	TOWER	-	-	-	-	-	-	-	-	-	-	-		
BETA																				
B2	LTE/5G	(N) CCI - TPA65R-BU6DA-K	140°	161'-0"	1	(N) ERICSSON - 4478 B14 (E) ERICSSON - 4415 B25 (N) ERICSSON - 4426 B66	TOWER	-	-	-	-	-	-	-	-	-	-	-		
B3	LTE	(E) KMW - AM-X-CD-17-65-00T-RET	140°	161'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
B4	LTE/5G	(N) CCI - OPA65R-BU6DA	140°	161'-0"	1	(E) ERICSSON - 4449 B5/B12 (N) Y CABLE	TOWER	-	-	-	-	-	-	-	-	-	-	-		
GAMMA																				
C2	LTE/5G	(N) CCI - TPA65R-BU6DA-K	250°	161'-0"	1	(N) ERICSSON - 4478 B14 (E) ERICSSON - 4415 B25 (N) ERICSSON - 4426 B66	TOWER	-	-	-	-	-	-	-	-	-	-	-		
C3	LTE	(E) KMW - AM-X-CD-17-65-00T-RET	250°	161'-0"	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
C4	LTE/5G	(N) CCI - OPA65R-BU6DA	250°	161'-0"	1	(N) ERICSSON - 4449 B5/B12 (N) Y CABLE	TOWER	-	-	-	-	-	-	-	-	-	-	-		
															12	COAX	1-1/4"	211'-0"		
															UNUSED FEEDLINES:			-	-	-

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



575 MOROSGO DRIVE
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AT&T SITE NUMBER:
CTL05775

BU #: **876375**
CANTERBURY / LEMIRE

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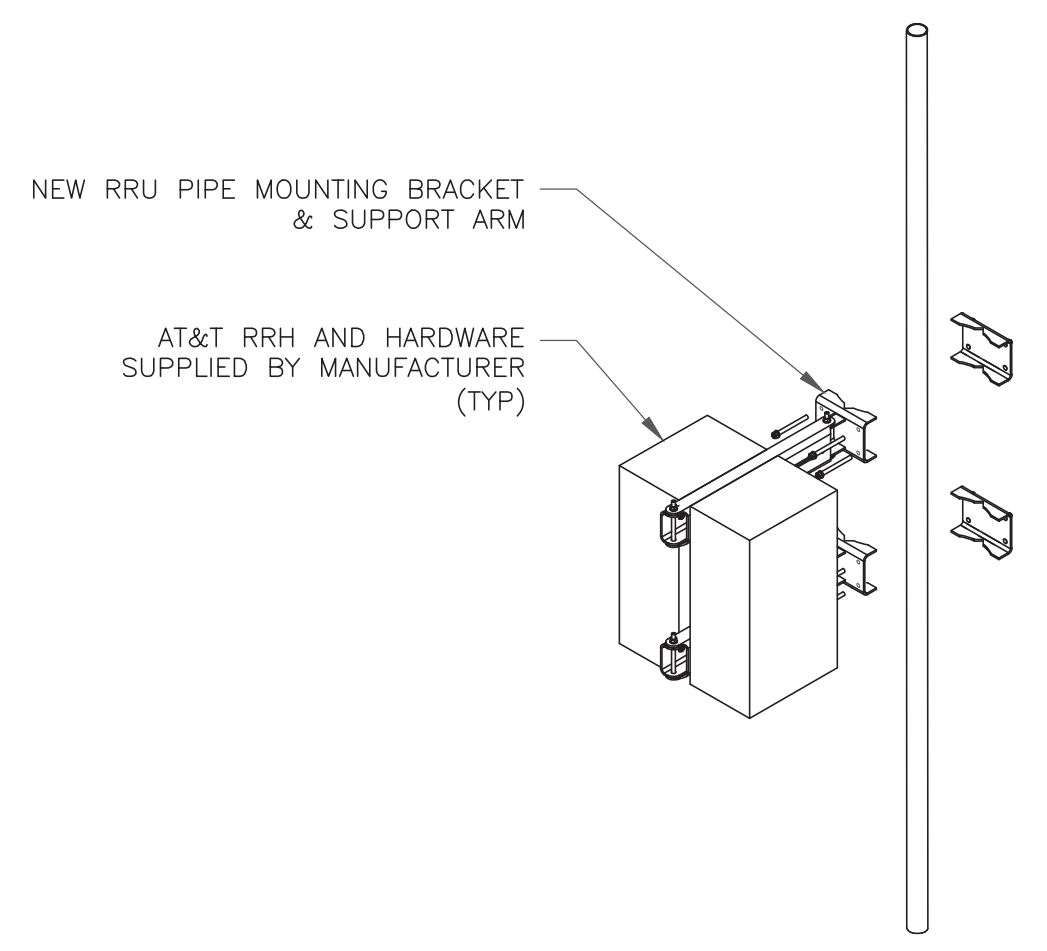
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SHEET NUMBER: **C-3** REVISION: **1**

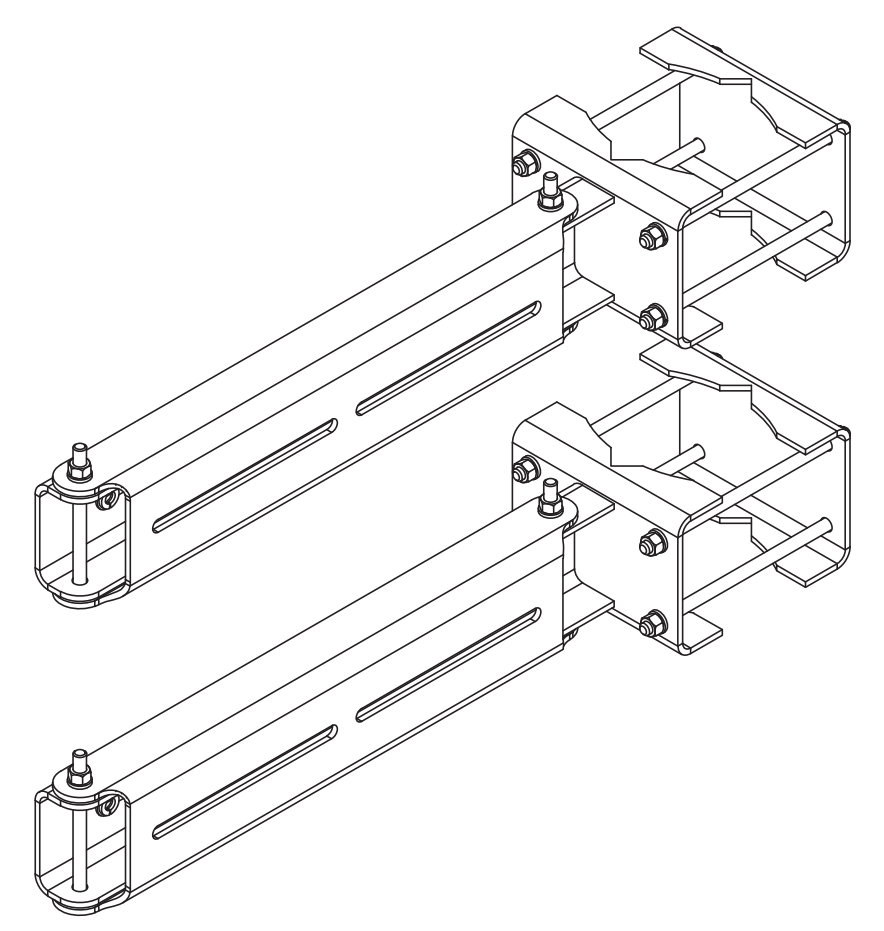
1 FINAL ANTENNA AND FEEDLINE SCHEDULE
SCALE: NOT TO SCALE

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.



1 DUAL RRH MOUNTING DETAIL
SCALE: NOT TO SCALE

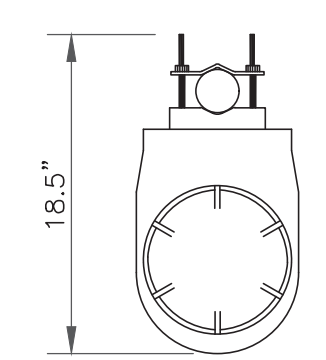


2 DUAL RADIO MOUNT
SCALE: NOT TO SCALE

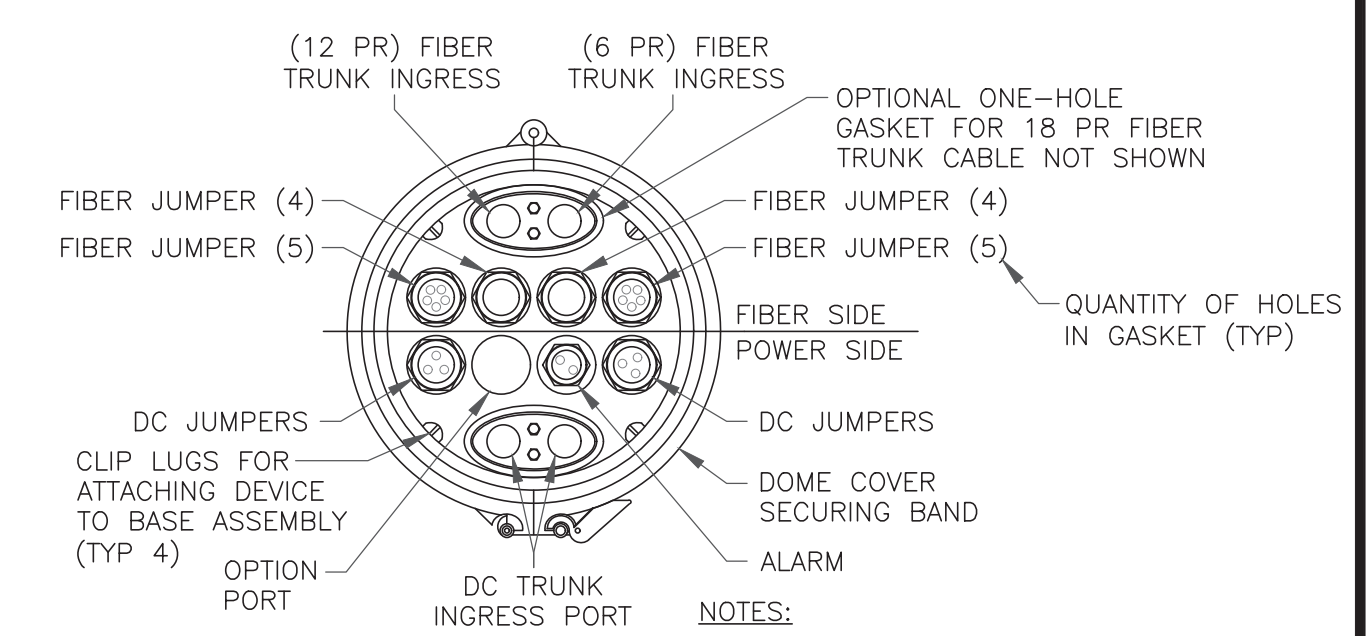
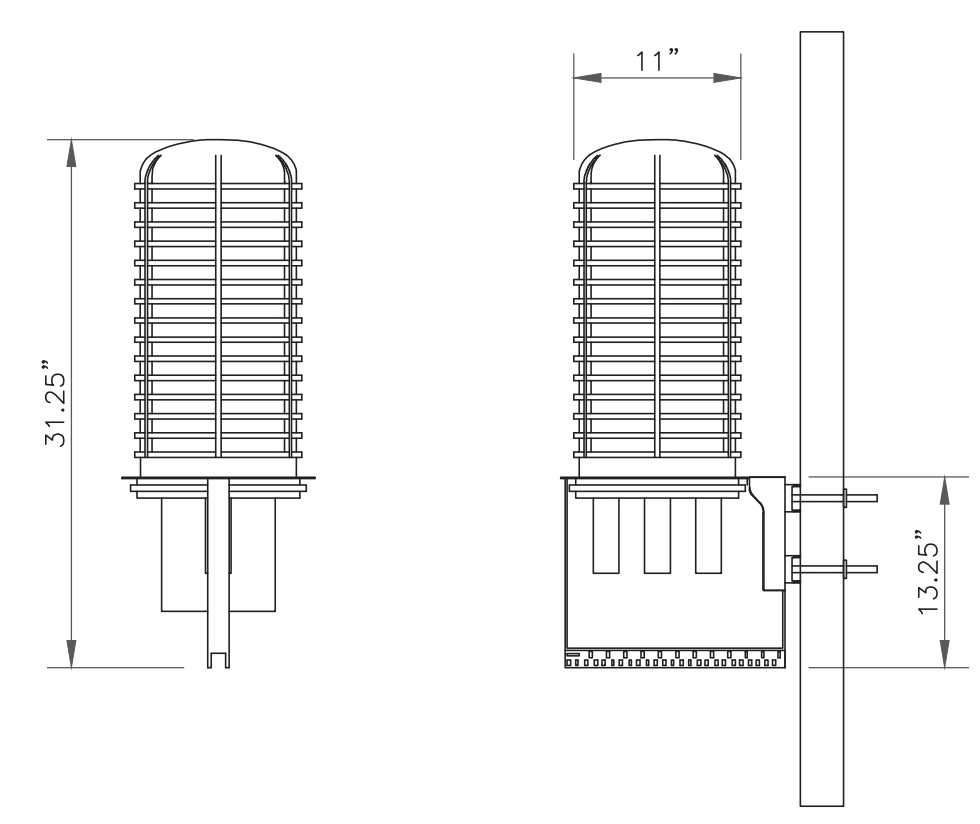
3 NOT USED
SCALE: NOT TO SCALE

RAYCAP
DC6-48-60-18-8F

RAYCAP - DC6-48-60-18-8F
SIZE: 11x31.25 IN.
WEIGHT: 32.8 LBS
NOMINAL OPERATING VOLTAGE: 48 VDC
VOLTAGE PROTECTION RATING: 400 V
WIND LOADING: 150 MPH SUSTAINED (105.7 LBS)
WIND LOADING: 195 MPH GUST (213.6 LBS)



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



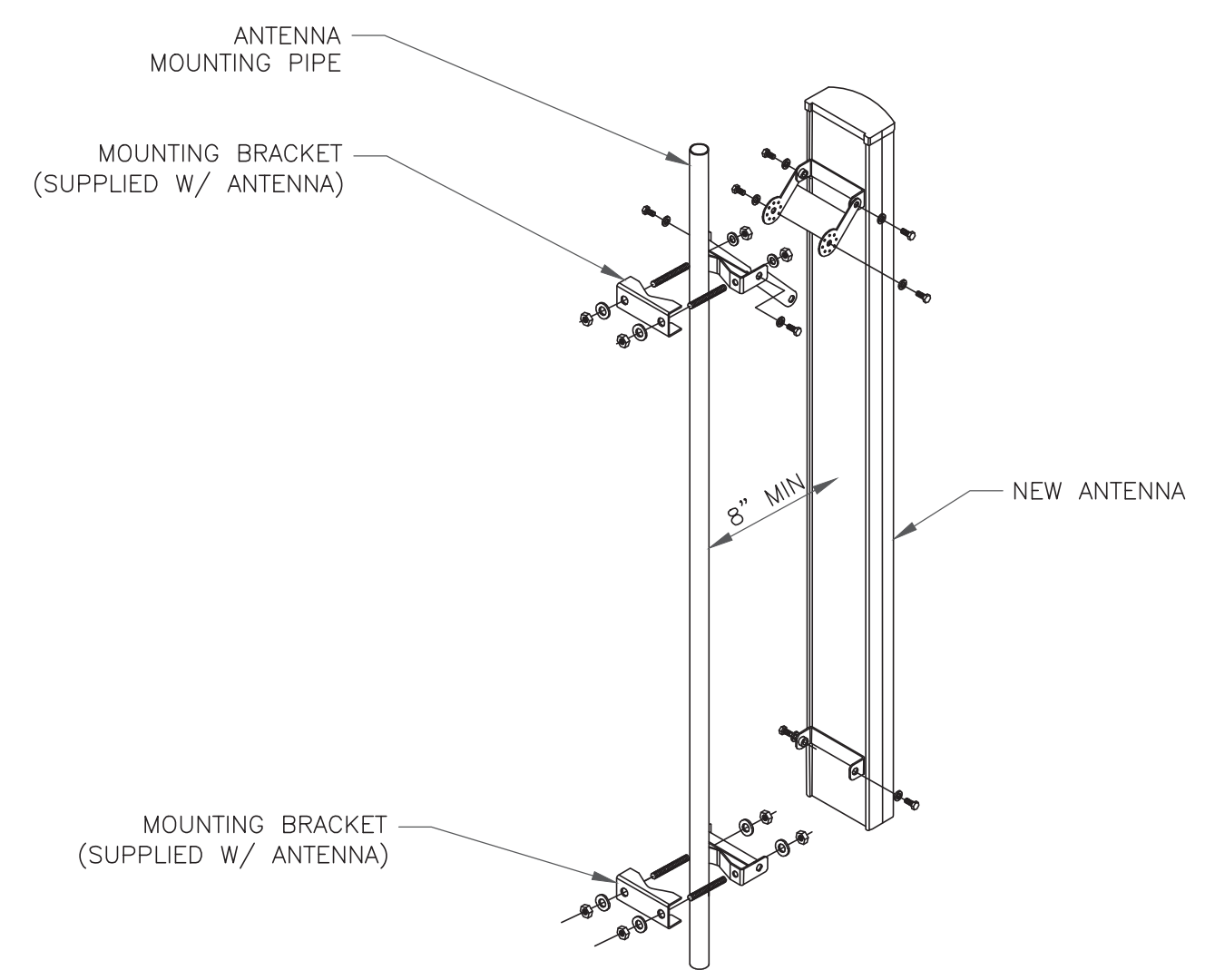
NOTES:

1. REMOVE CABLE SEALING GLAND AND INSTALL M32x1.5 METRIC-T0-1" NPT ADAPTER (COOPER CROUSE-HINES P/N CAP 740 994 OR EQUIVALENT MFR) WHEN CONNECTING CONDUIT TO OVP.

6 SQUID MOUNTING DETAIL
SCALE: NOT TO SCALE

INSTALLER NOTE:

1. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.
2. 8" MINIMUM DISTANCE REQUIRED BETWEEN ANTENNA & RADIO.



5 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE

4 NOT USED
SCALE: NOT TO SCALE

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REVISION: 1

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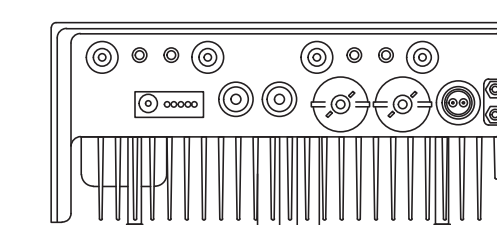
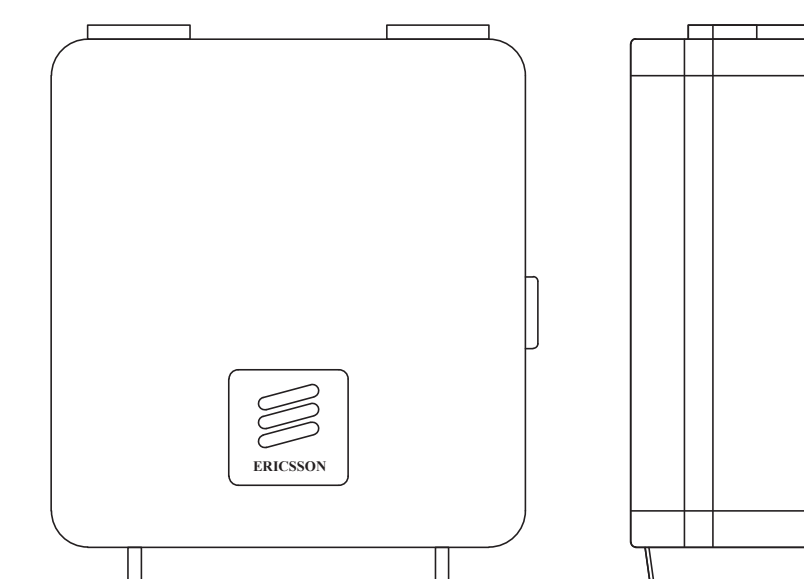
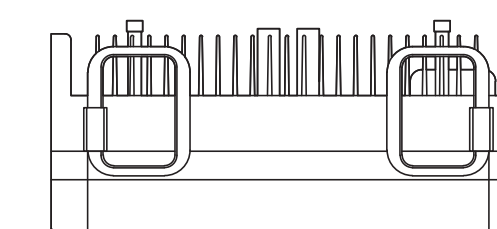
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SHEET NUMBER:

C-5

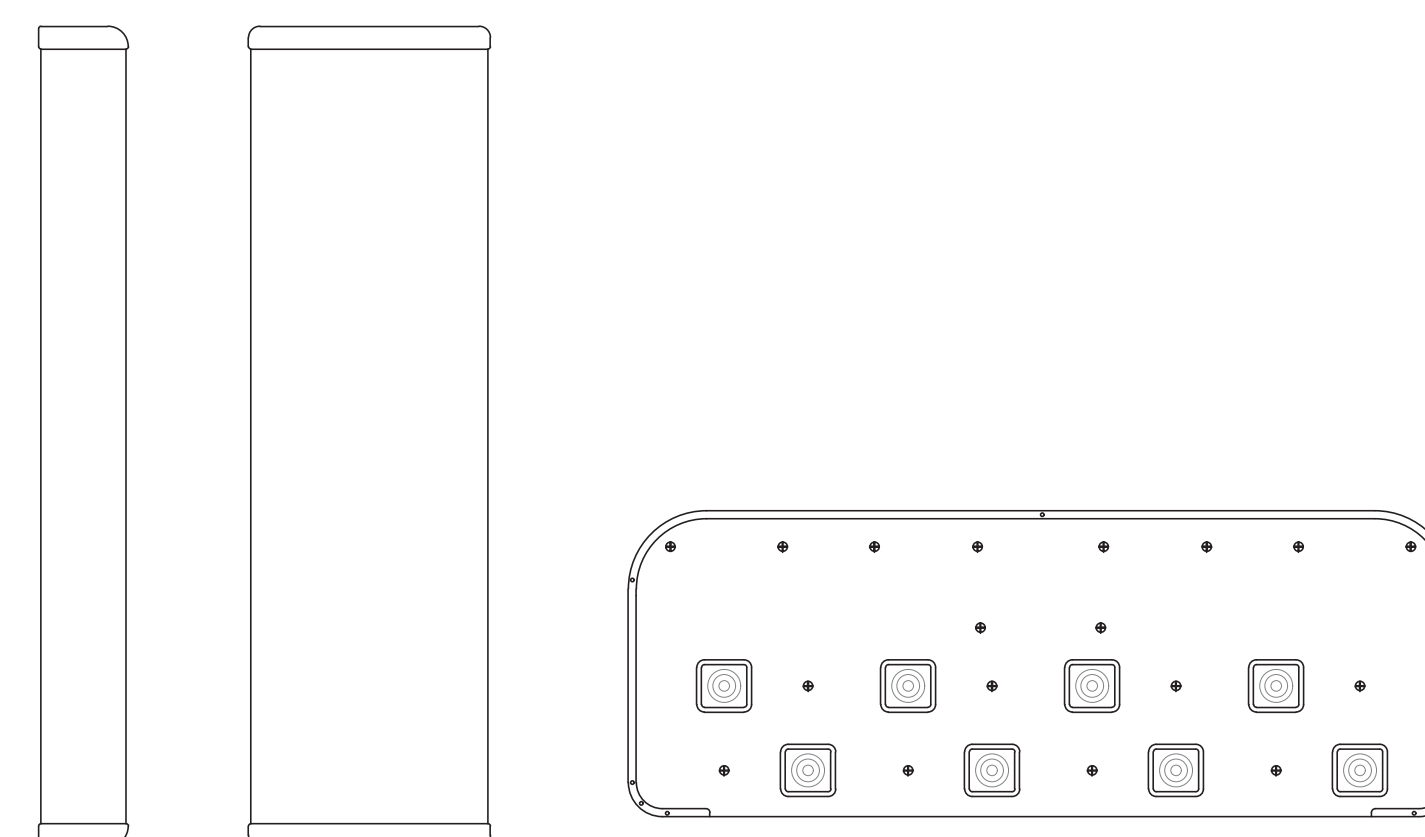
REVISION:

1



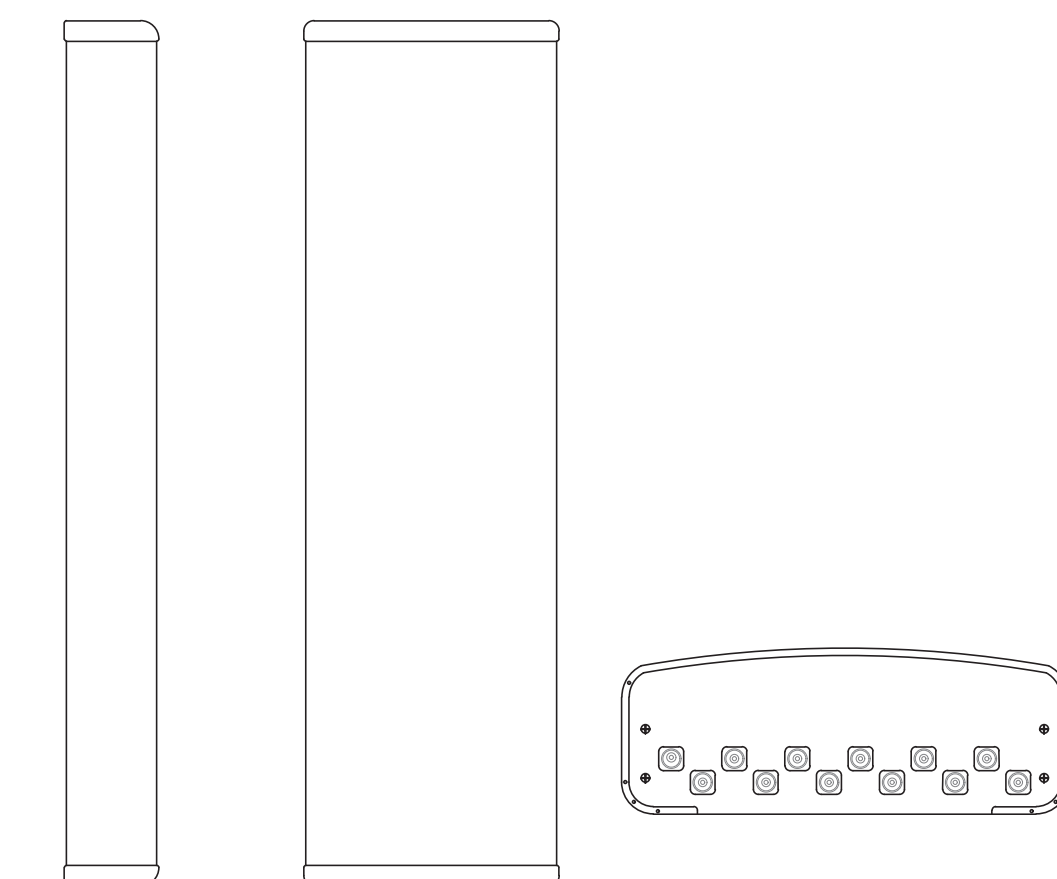
ERICSSON - RADIO 4478
WEIGHT: 60.0 LBS
SIZE (HxWxD): 15.0x13.0x8.0 IN.

3 ERICSSON - RADIO 4478
SCALE: NOT TO SCALE



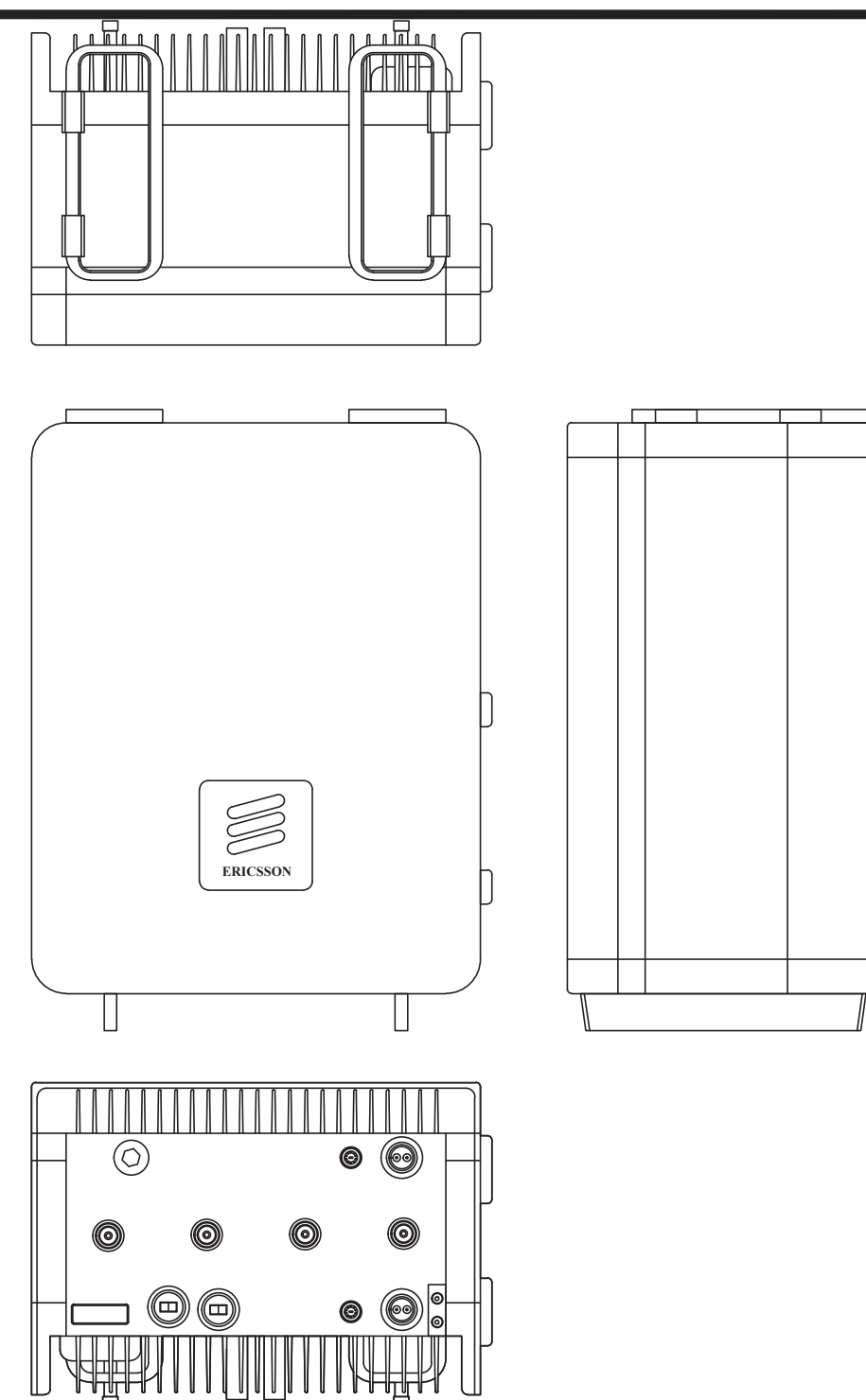
CCI ANTENNAS - OPA65R-BU6DA-K
WEIGHT (WITHOUT MOUNTING HARDWARE): 60.2 LBS
SIZE (HxWxD): 71.2x21.0x7.8 IN.
MOUNTING HARDWARE P/N: MBK-01
RATED WIND VELOCITY: 150.0 MPH

2 CCI ANTENNAS - OPA65R-BU6DA-K
SCALE: NOT TO SCALE



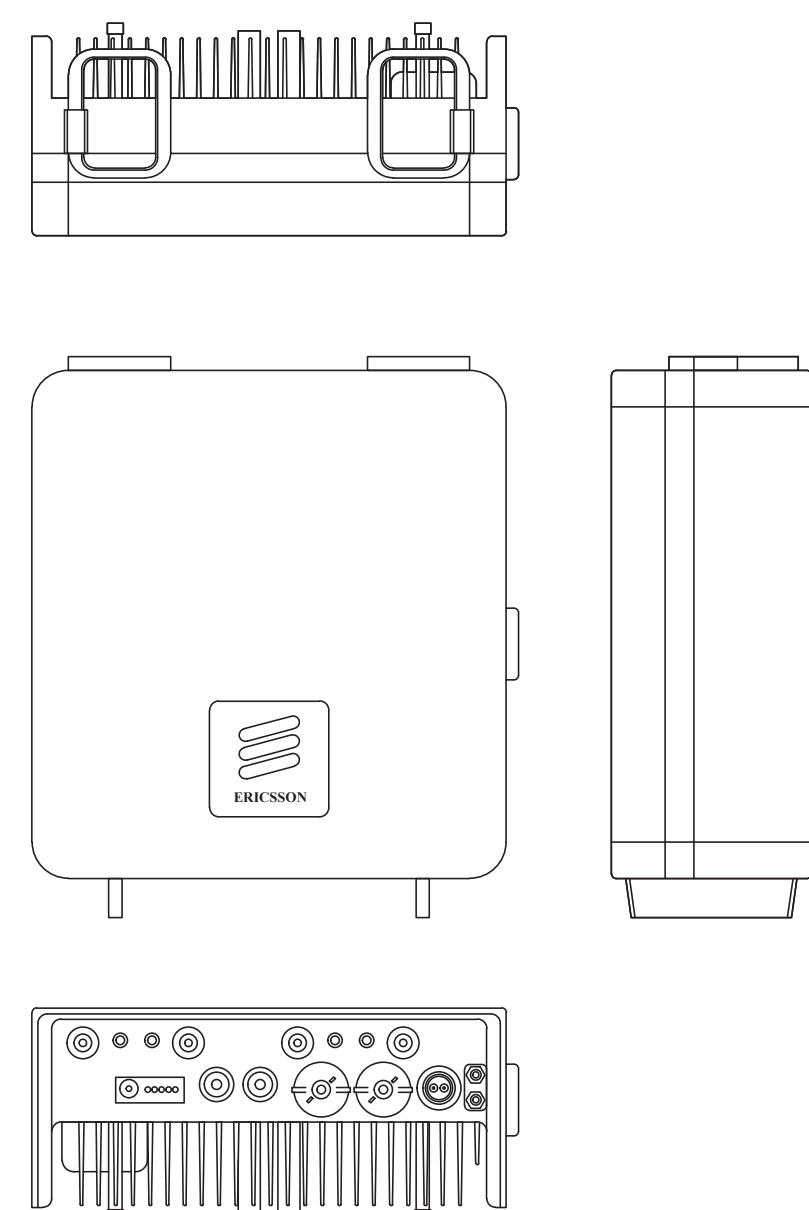
CCI ANTENNAS - TPA-65R-BU6DA-K
WEIGHT (WITHOUT MOUNTING HARDWARE): 72.5 LBS
SIZE (HxWxD): 71.2x21.0x7.8 IN.
MOUNTING HARDWARE P/N: BSA-MQ3
RATED WIND VELOCITY: 150.0 MPH

1 CCI ANTENNAS - TPA-65R-BU6DA-K
SCALE: NOT TO SCALE



ERICSSON - RADIO 4449
WEIGHT: 70.0 LBS
SIZE (HxWxD): 18.0x13.2x9.4 IN.

5 ERICSSON - RADIO 4449
SCALE: NOT TO SCALE



ERICSSON - RADIO 4426
WEIGHT: 60.0 LBS
SIZE (HxWxD): 14.9x13.2x5.8 IN.

4 ERICSSON - RADIO 4426
SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE

GROUNDING PLAN LEGEND:

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

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

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

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

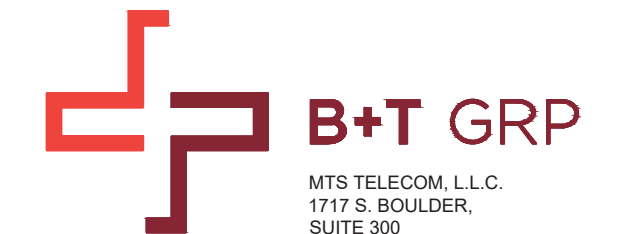
DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICES CONTRACTORS VERIFY ALL DC POWER SYSTEMS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



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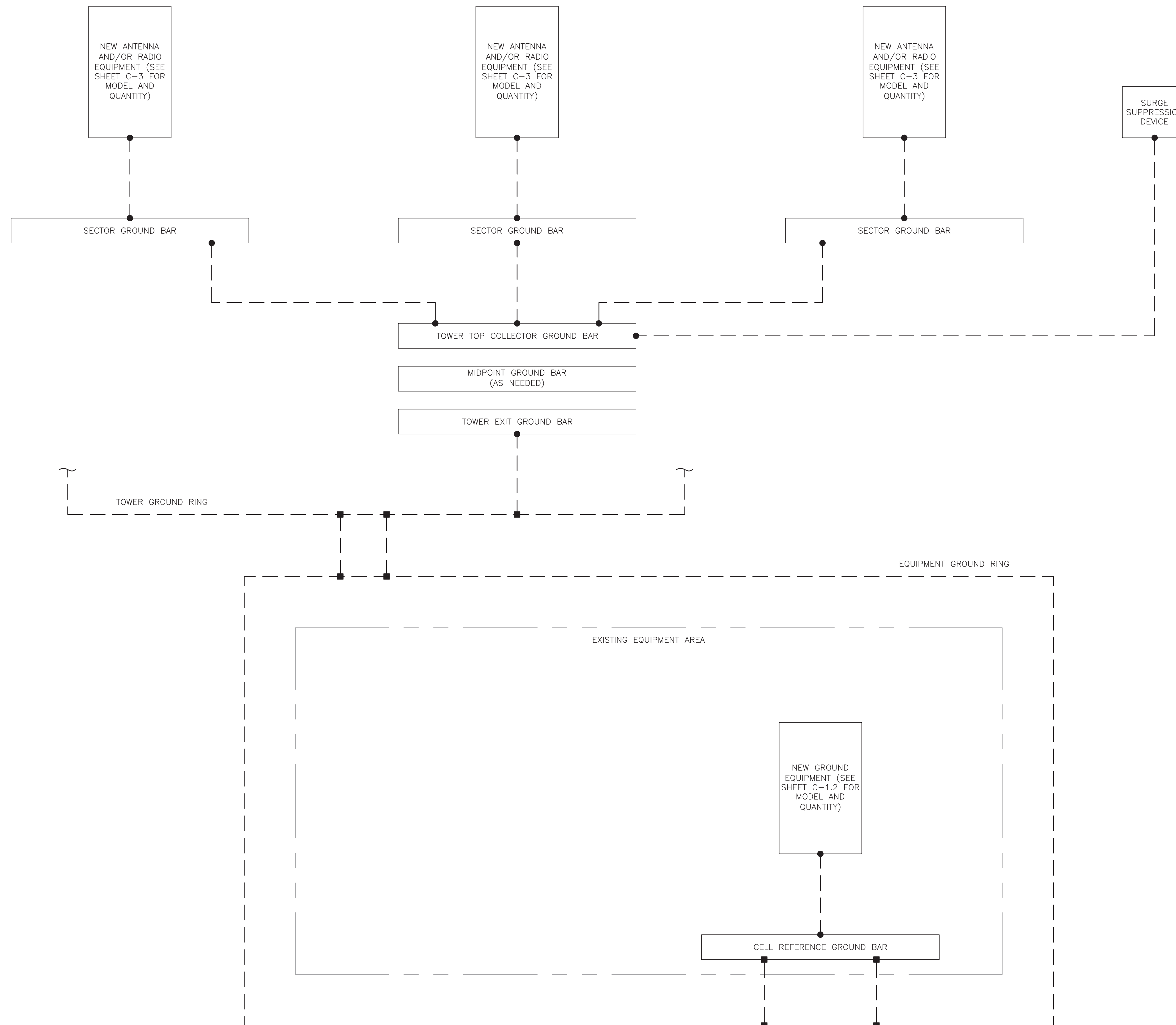
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BER:2386985
Expires 3/31/23

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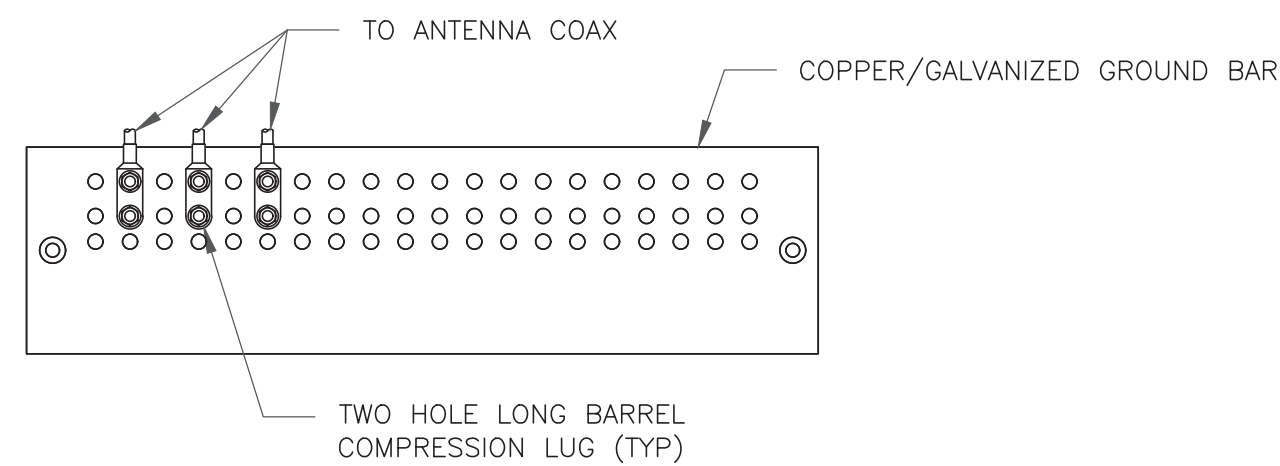
SHEET NUMBER: REVISION:

G-1

1



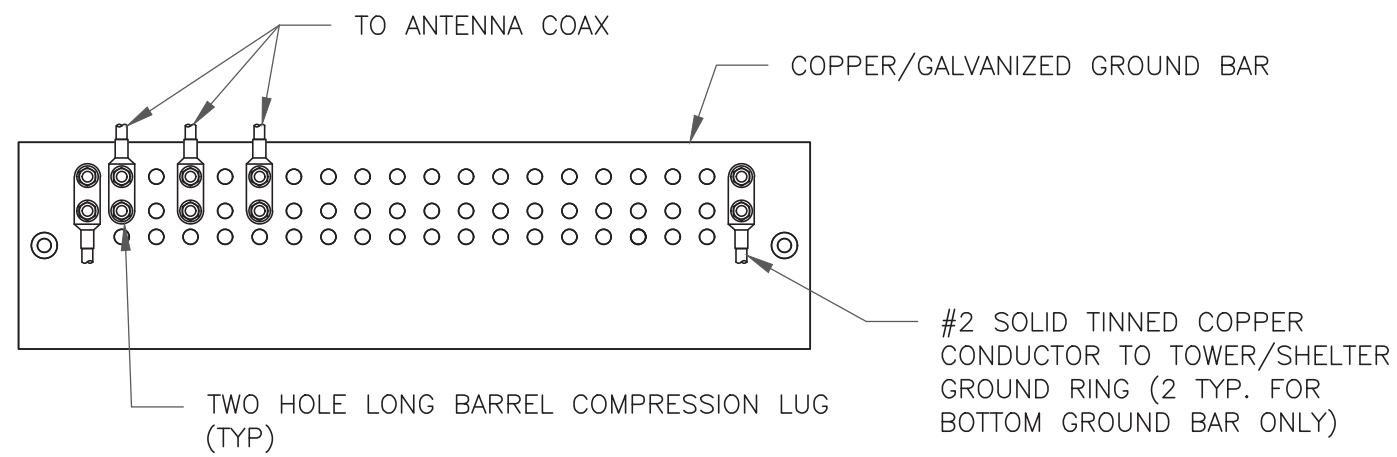
1 GROUNDING SCHEMATIC
SCALE: NOT TO SCALE



NOTES:

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

1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE

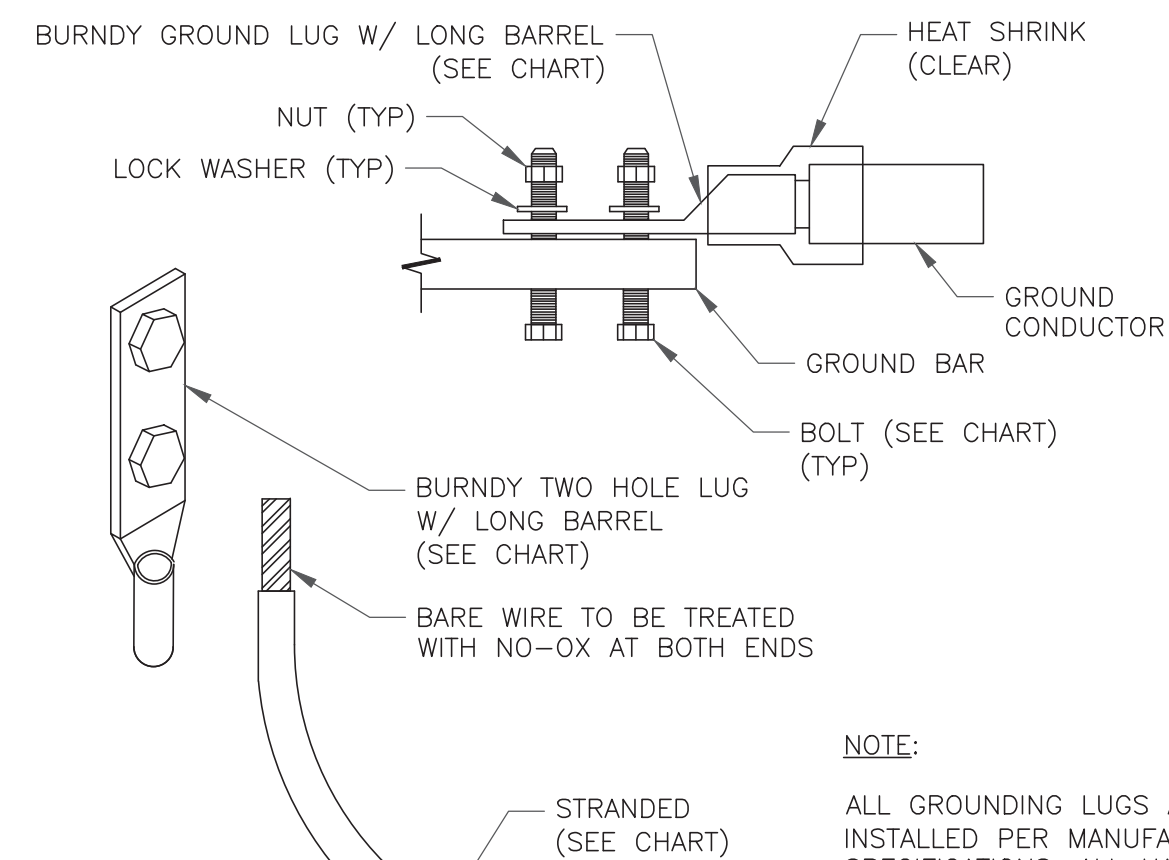


NOTES:

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

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

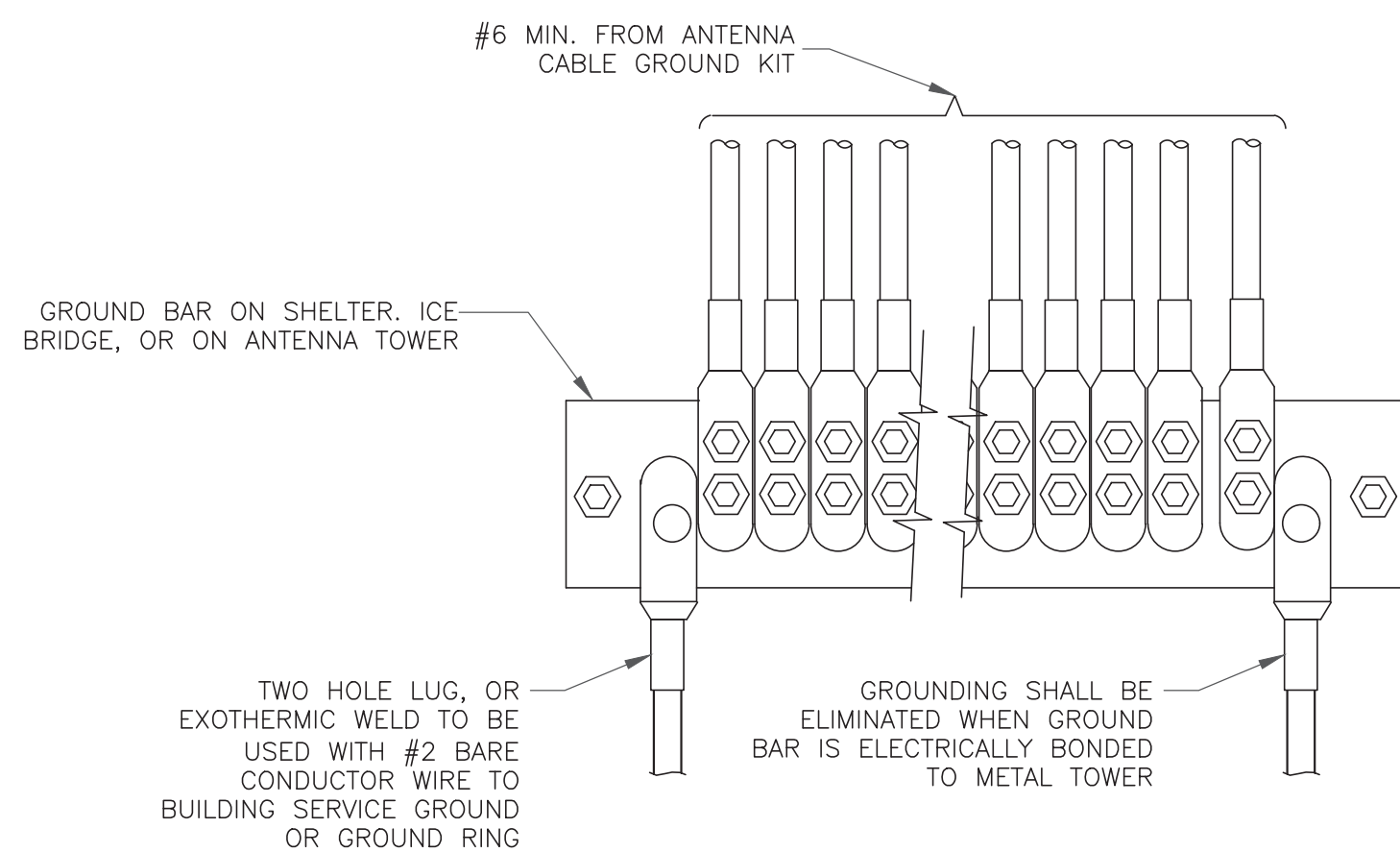
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT



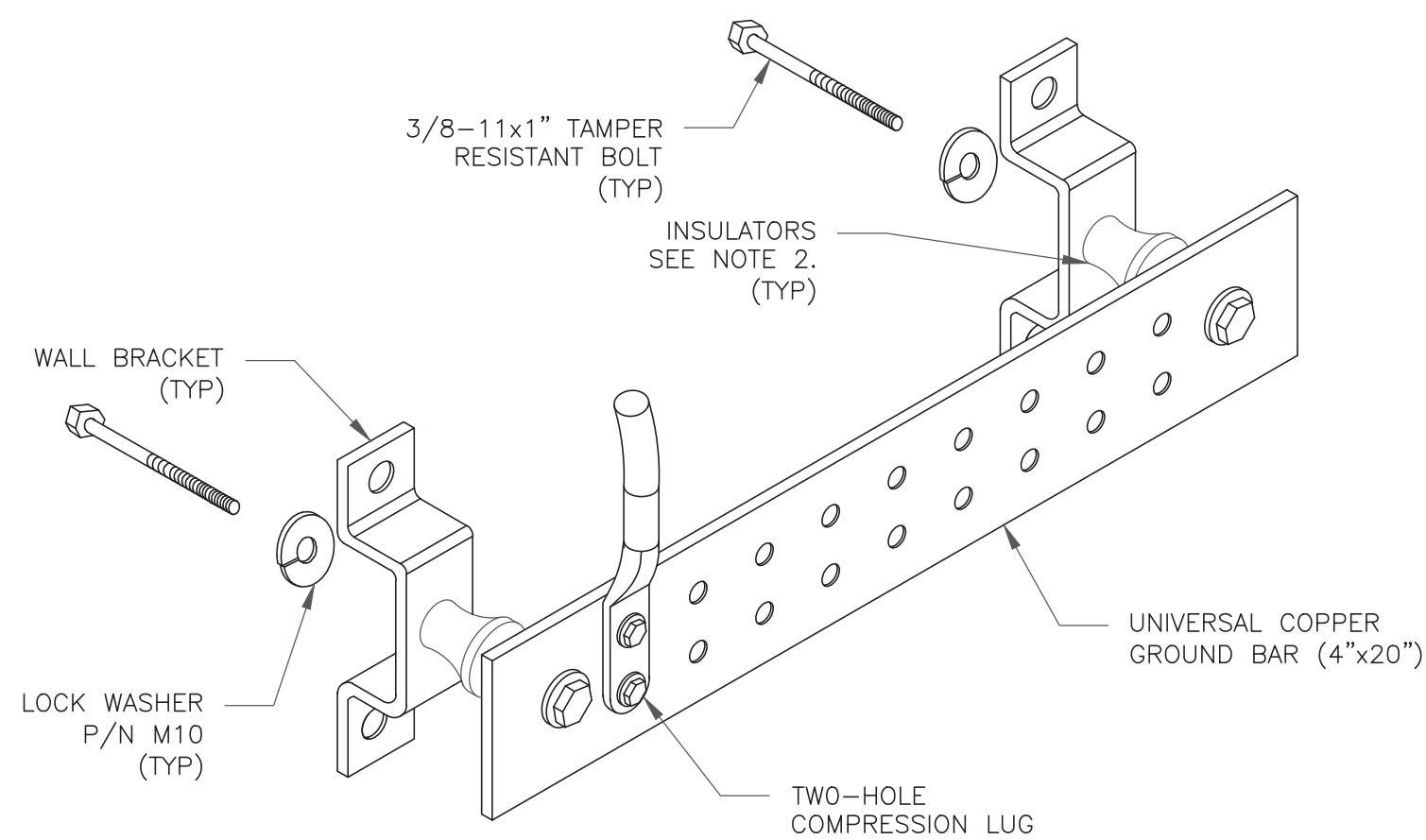
NOTE:

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

3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



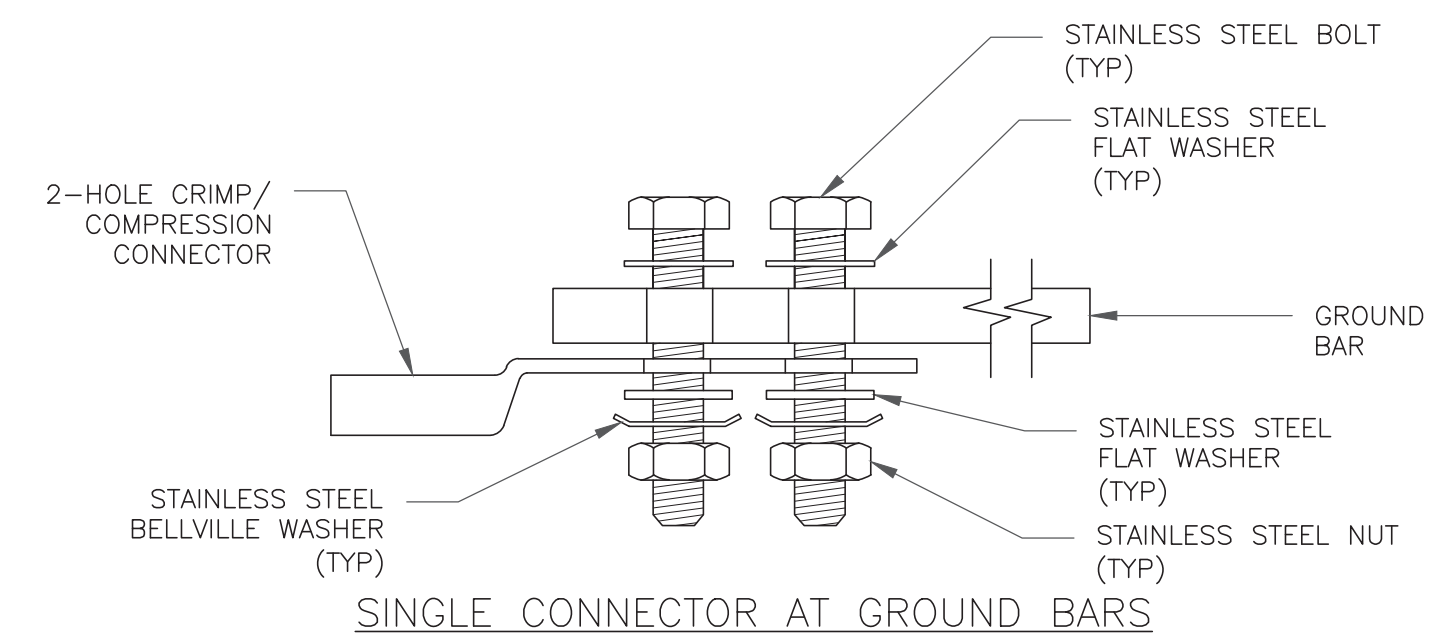
4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



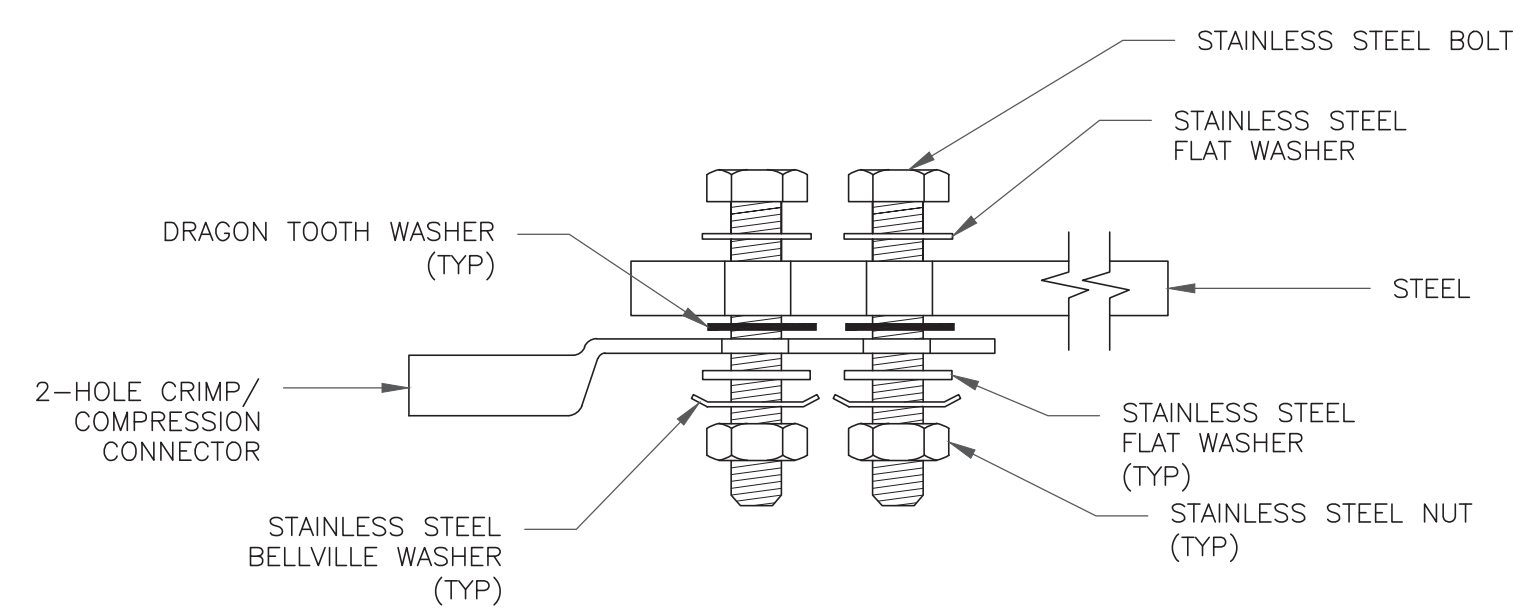
NOTES:

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

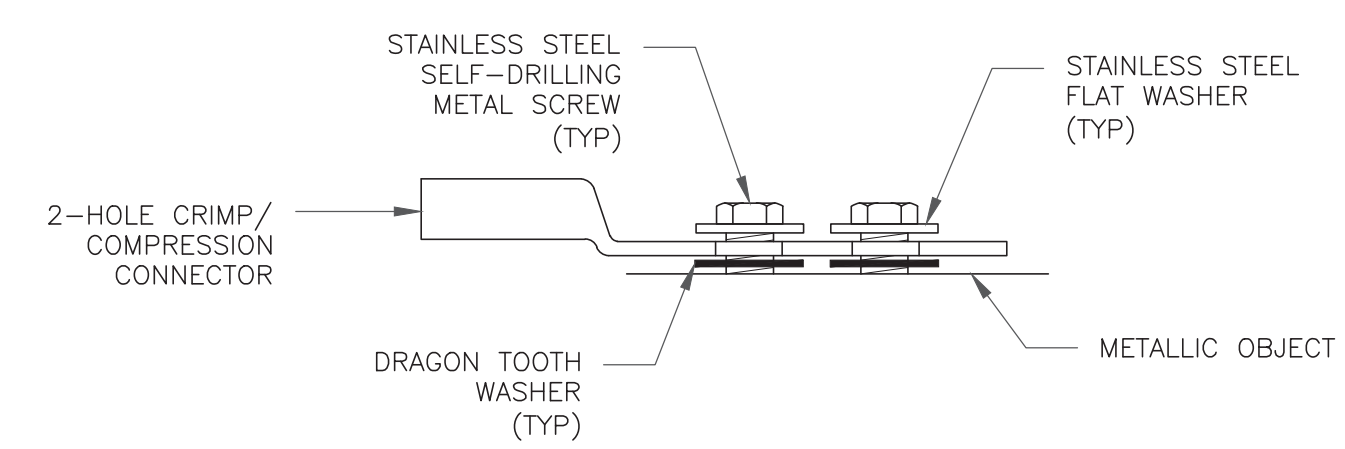
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



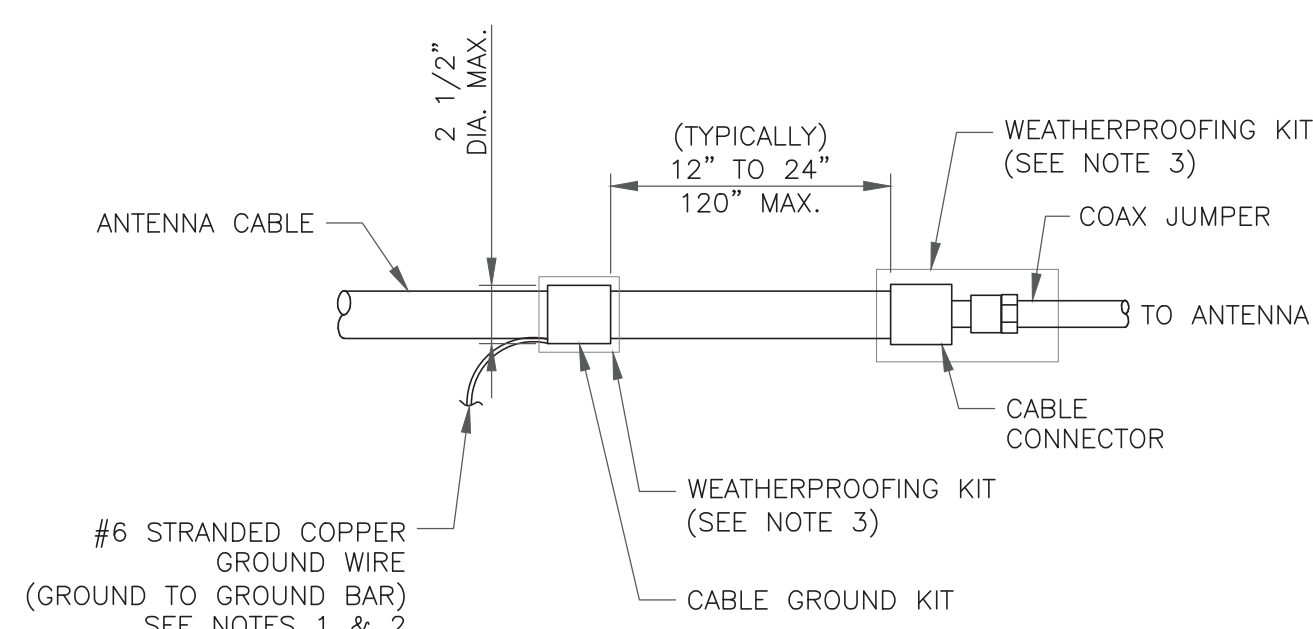
SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



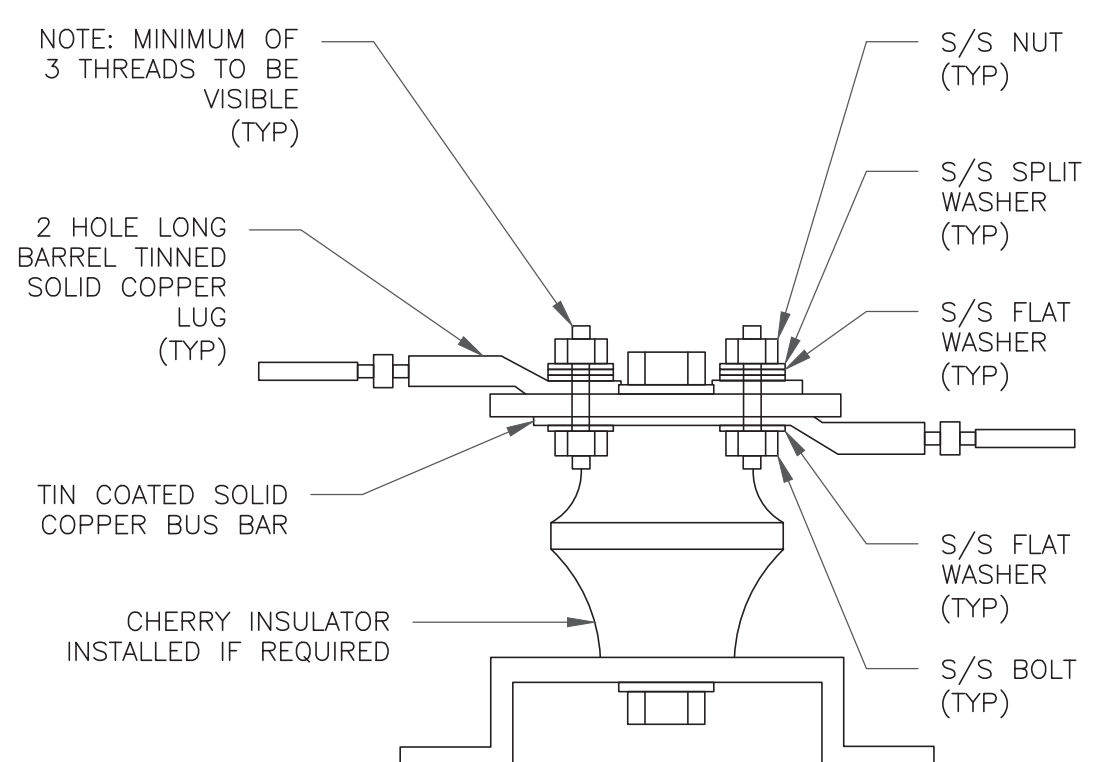
SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS



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

575 MOROSGO DRIVE
ATLANTA, GA 30324-3300

1200 MACARTHUR BLVD, SUITE 200
MAHWAH, NJ 07430

MTS TELECOM, L.L.C.
1717 S. BOULDER,
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
btw@bgrp.com

AT&T SITE NUMBER:
CTL05775

BU #: **876375**
CANTERBURY / LEMIRE

53 WESTMINSTER RD
CANTERBURY, CT 06331

EXISTING
180'-6" MONOPOLE

ISSUED FOR:

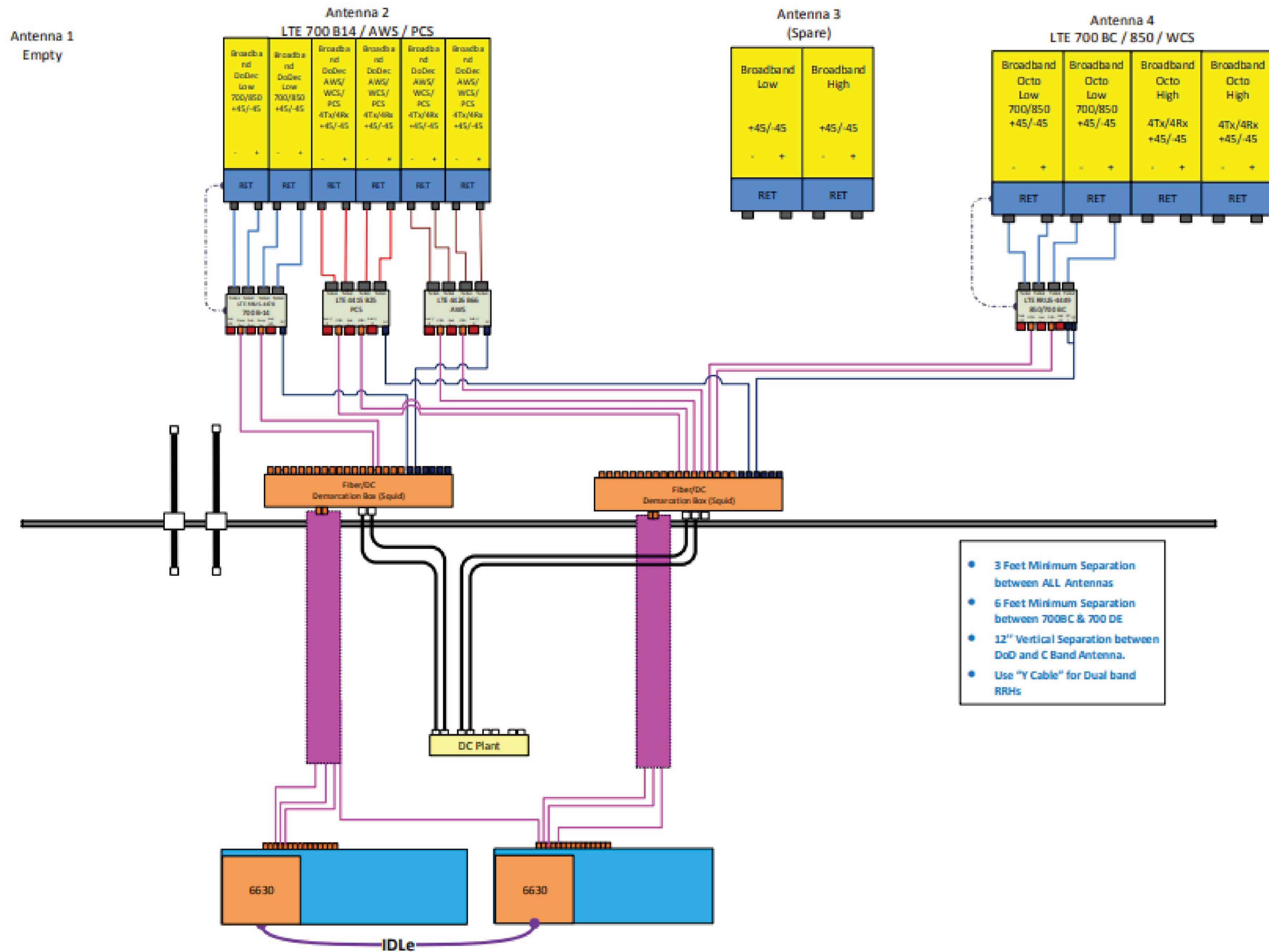
REV	DATE	DRWN	DESCRIPTION	DES./QA
A	8/31/22	YX	PRELIMINARY REVIEW	ANP
B	9/9/22	YX	PRELIMINARY REVIEW	ANP
0	11/2/22	YX	CONSTRUCTION	LR
1	11/17/22	YX	CONSTRUCTION	ANP

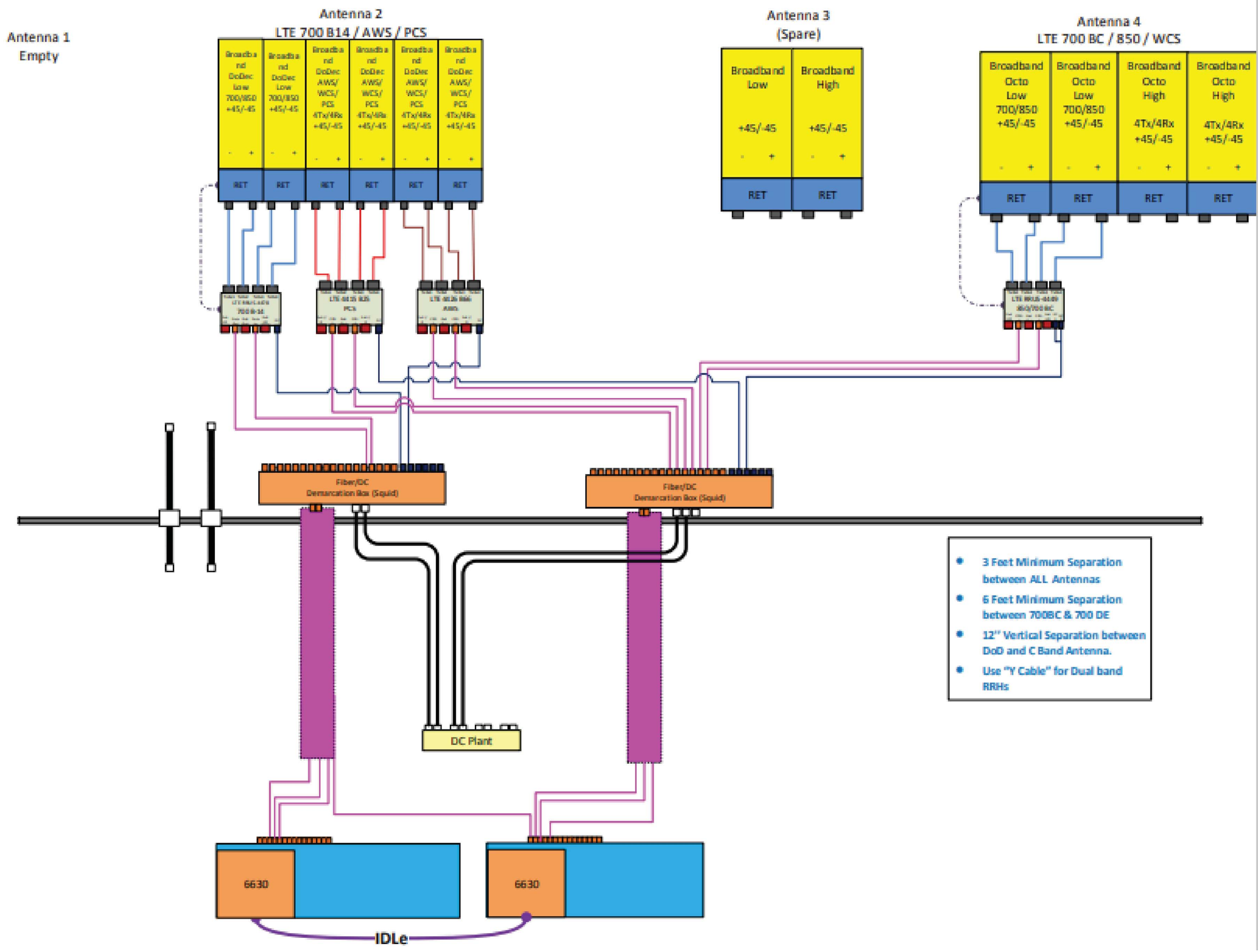


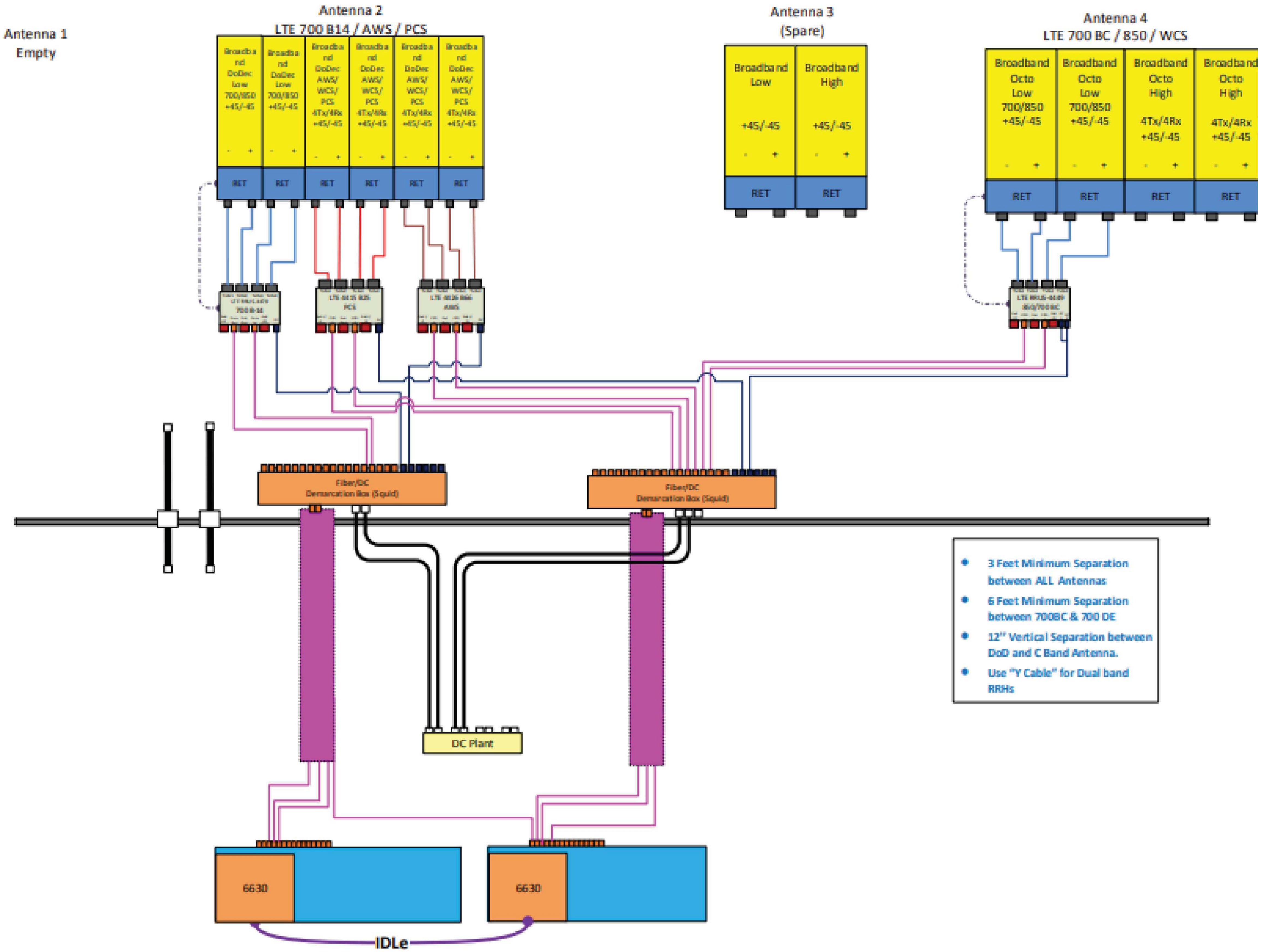
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Expires 3/31/23

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SHEET NUMBER: **G-2** REVISION: **1**

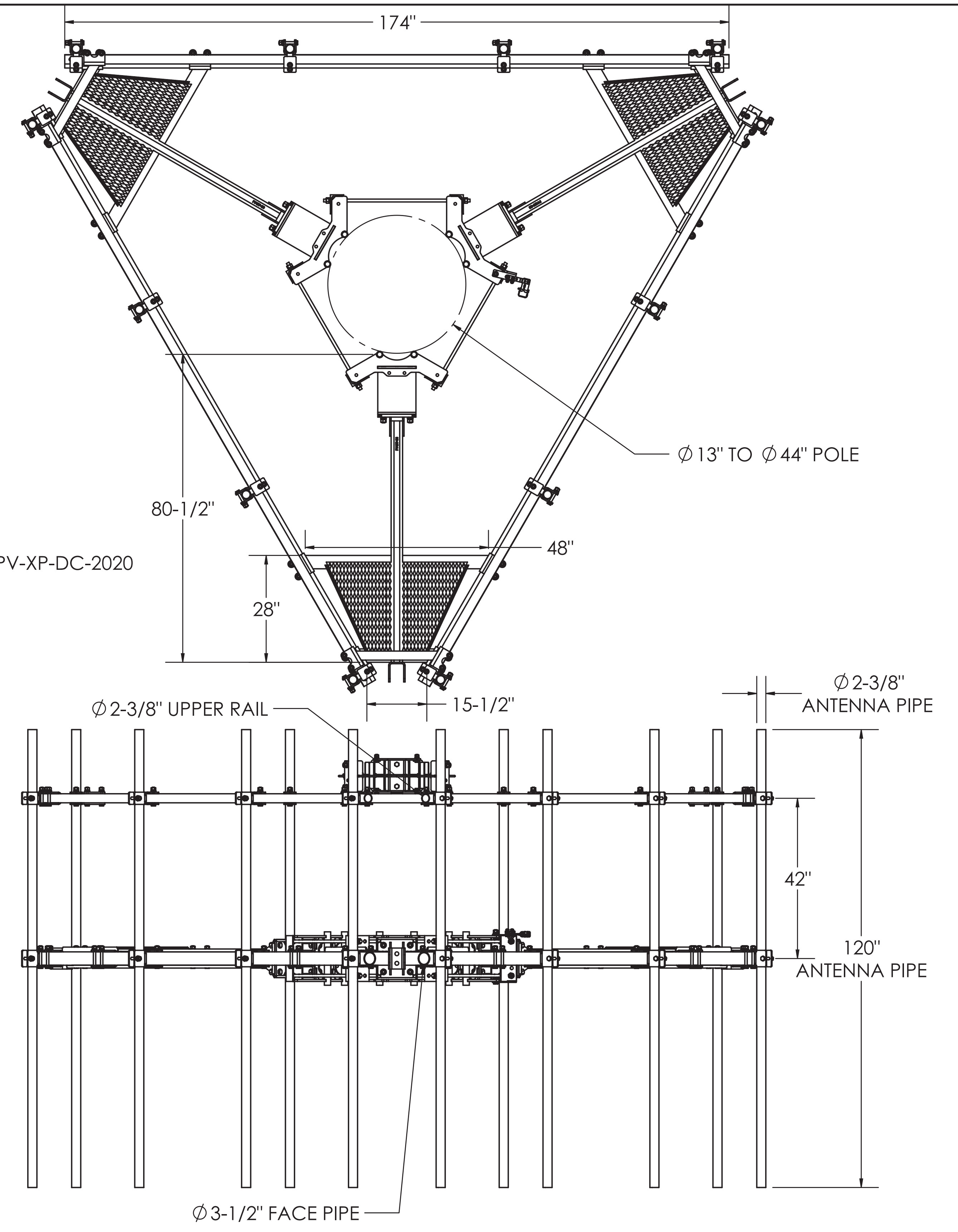
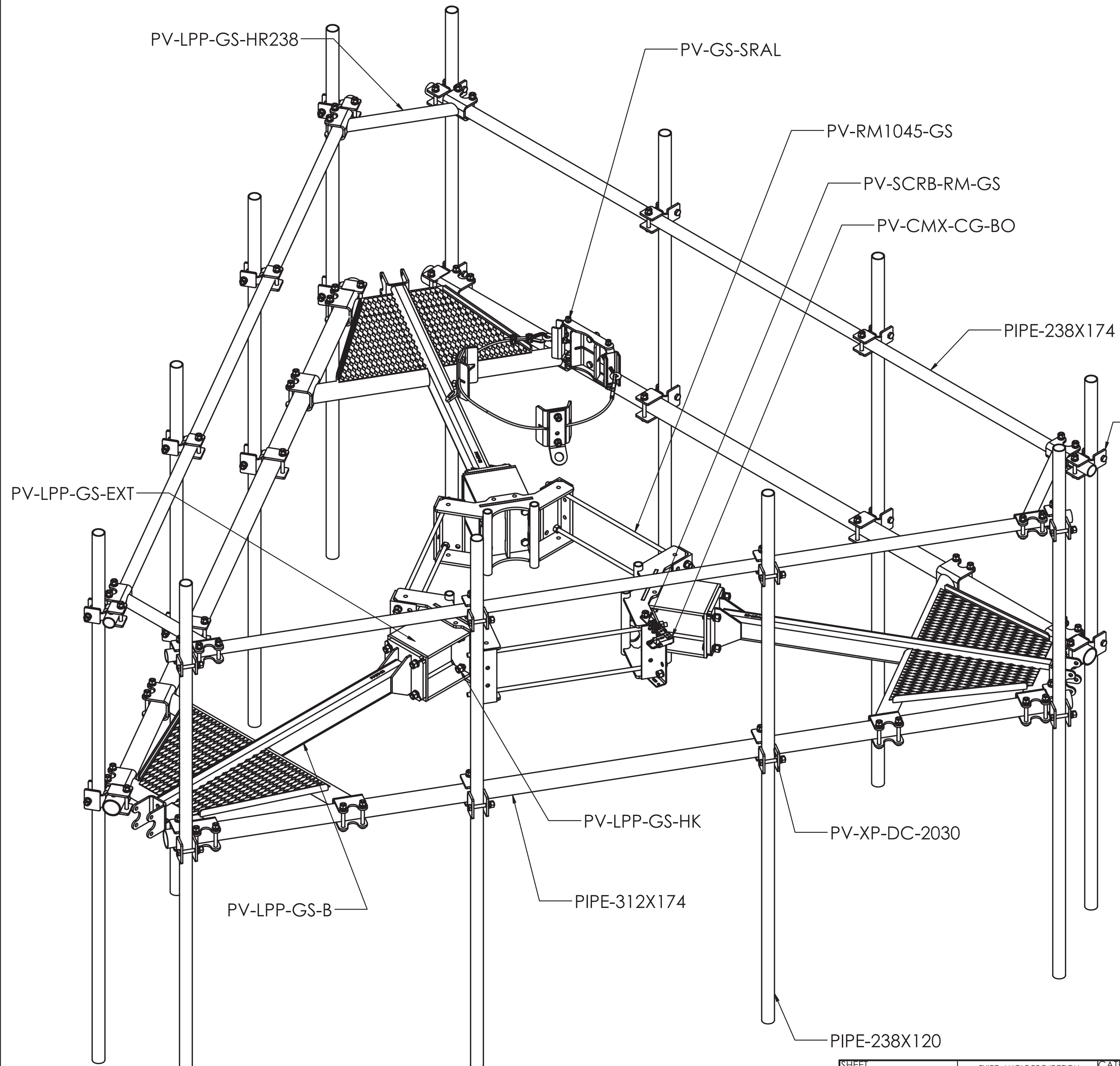






PV-LPPGS-14M-HR2-H5H10 - CEQ.53355

MONOPOLE GUARDIAN MOUNT



SHEET	THIRD ANGLE PROJECTION	CATEGORY	4		
1 OF 5		02_Monopole			
	SCALE	SERIES	3		
8/10/2021	1:36	01_Triangular			
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ± 1/4°, BEND ± 2° ALL OTHERS: ± 1/16"		TYPE	2	PART NUMBER CHANGE - SWAP TO H5H10	11/18/20
		BY	1	PART NUMBER CHANGE - UPDATED AP#	9/25/20
		CHECKED	0	INITIAL RELEASE	9/11/20
		STATUS	APPROVED	REV	DESCRIPTION
					MONOPOLE GUARDIAN MOUNT - ATT DOCUMENT NUMBER LPPGS-ENG-08-R2
					REV 2

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INCLUDED PARTS, WEIGHTS, EPA, & MOUNT CLASSIFICATION

Table 1: Included Parts, EPA, Weight

Part Number	Description	Weight (lbs)	(EPA)A (ft2)*	(EPA)A 1/2" Radial Ice (ft2)	Included Parts												
					PV-RM1045-GS	PV-LPP-GS-B	PV-LPP-GS-HK	PV-LPP-GS-EXT	PV-LPP-GS-HR238	PV-XP-DC-2020	PV-XP-DC-2030	PIPE-238X120	PIPE-238X174	PIPE-312X174	PV-GS-SRAL	PV-SCRB-RM-GS	PV-CMX-CG-BO
PV-LPPGS-14M-HR2-H5H10	14'6" Face, 13"-44" OD Pole, 2-3/8" OD Upper Rail, (12) 2-3/8" x 120" Pipe	2400	22.0	29.2	1	1	1	1	1	12	12	12	3	3	1	1	1

Table 2: Antenna Pipe Additional EPA (Each)

Size	(EPA)A (ft2)	(EPA)A 1/2" Radial Ice (ft2)
2-3/8" x 120"	1.9	2.8

* (EPA)A INCLUDES ALL STRUCTURAL MEMBERS INCLUDING CROSSOVER CONNECTIONS. IF DESIRED, ADD ANTENNA PIPE PER TABLE 2

MOUNT CLASSIFICATION INFORMATION:

- STANDARDS: TIA-222-G, TIA-222-H, TIA-5053
- MAX STRUCTURE HEIGHT: 400ft
- STRUCTURE CLASS: I OR II
- TOPOGRAPHIC CATEGORY: 1
- DESIGN WIND PRESSURE: 135psf
- DESIGN WIND PRESSURE (ICED): 15psf
- DESIGN ICE THICKNESS (RADIAL) 2.75"

APPROVED MOUNT CLASSIFICATIONS:

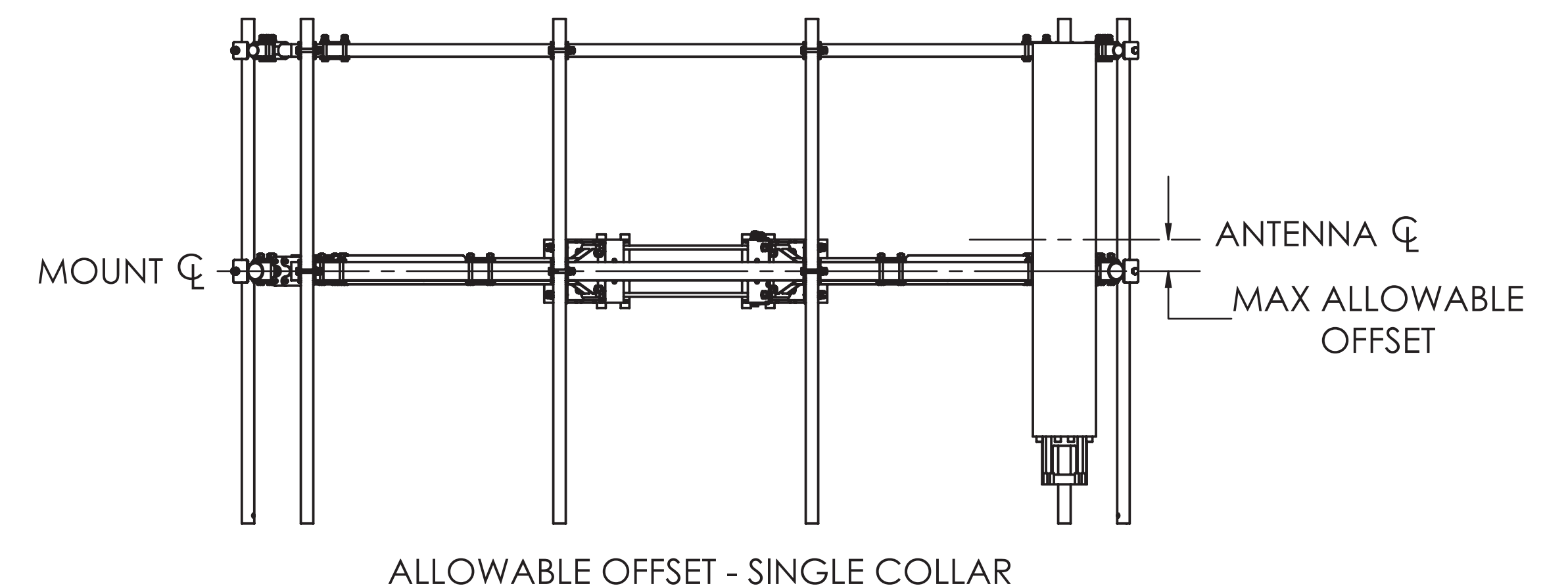
Table 2: Approve Mount Classifications

Part Number	Maximum Antenna Centerline Offset			
	0in	6in	12in	24in
PV-LPPGS-14M-HR2-H5H10	M1300R(1250)-4[0]	M1300R(1200)-4[6]	M1100R(1150)-4[12]	M700R(1000)-4[24]

MOUNT EXCEEDS THE FOLLOWING REQUIREMENTS:

- HEAVY 5
- HEAVY 10

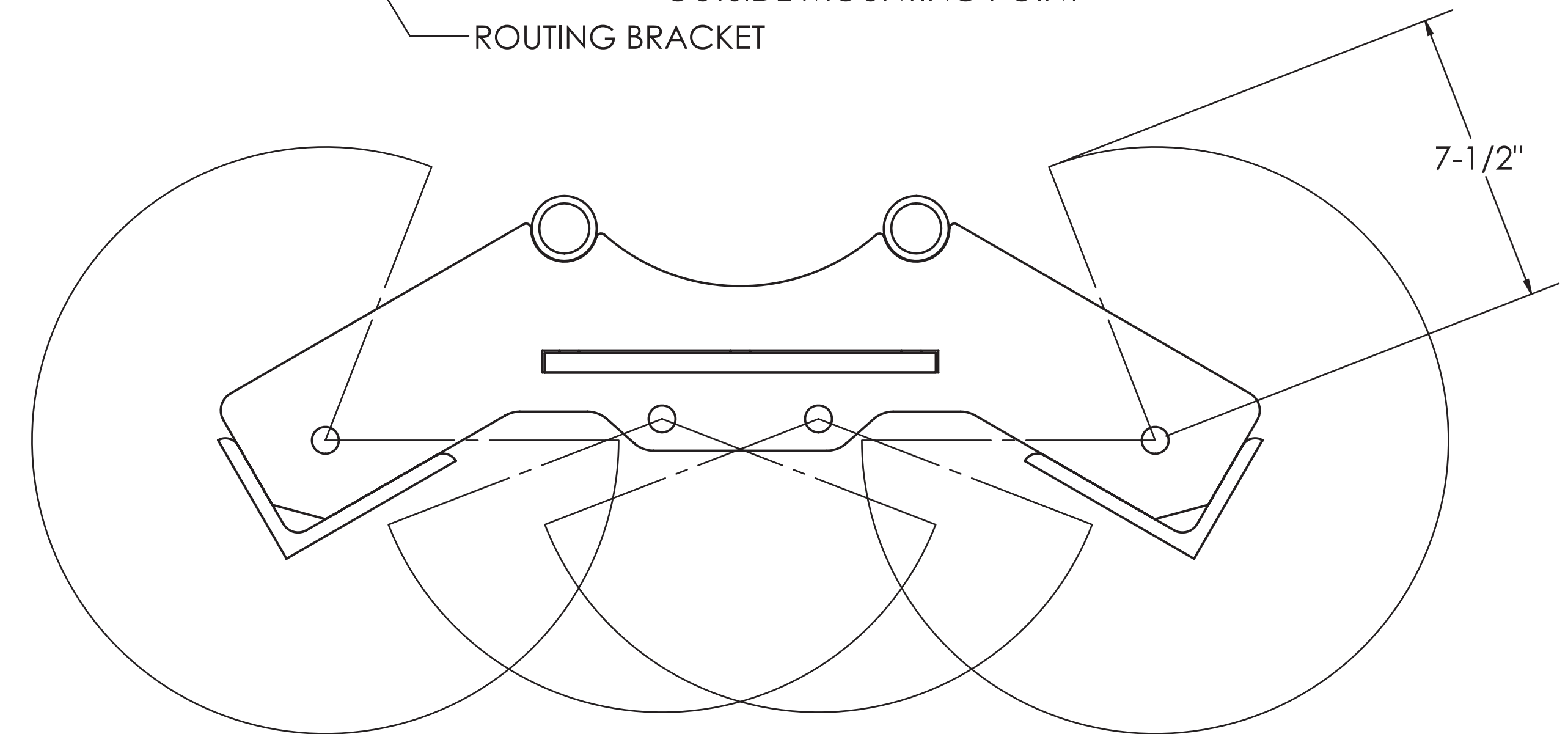
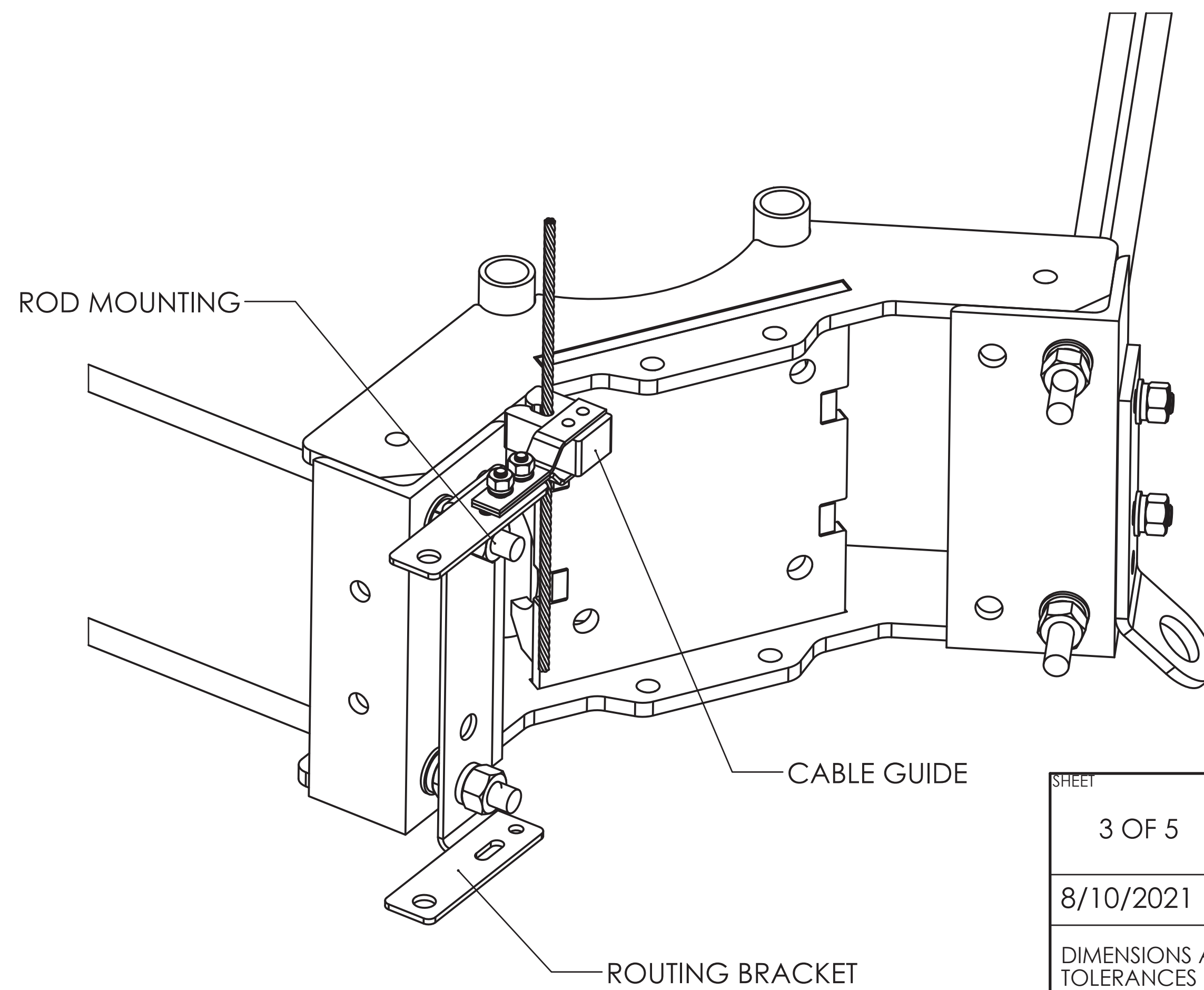
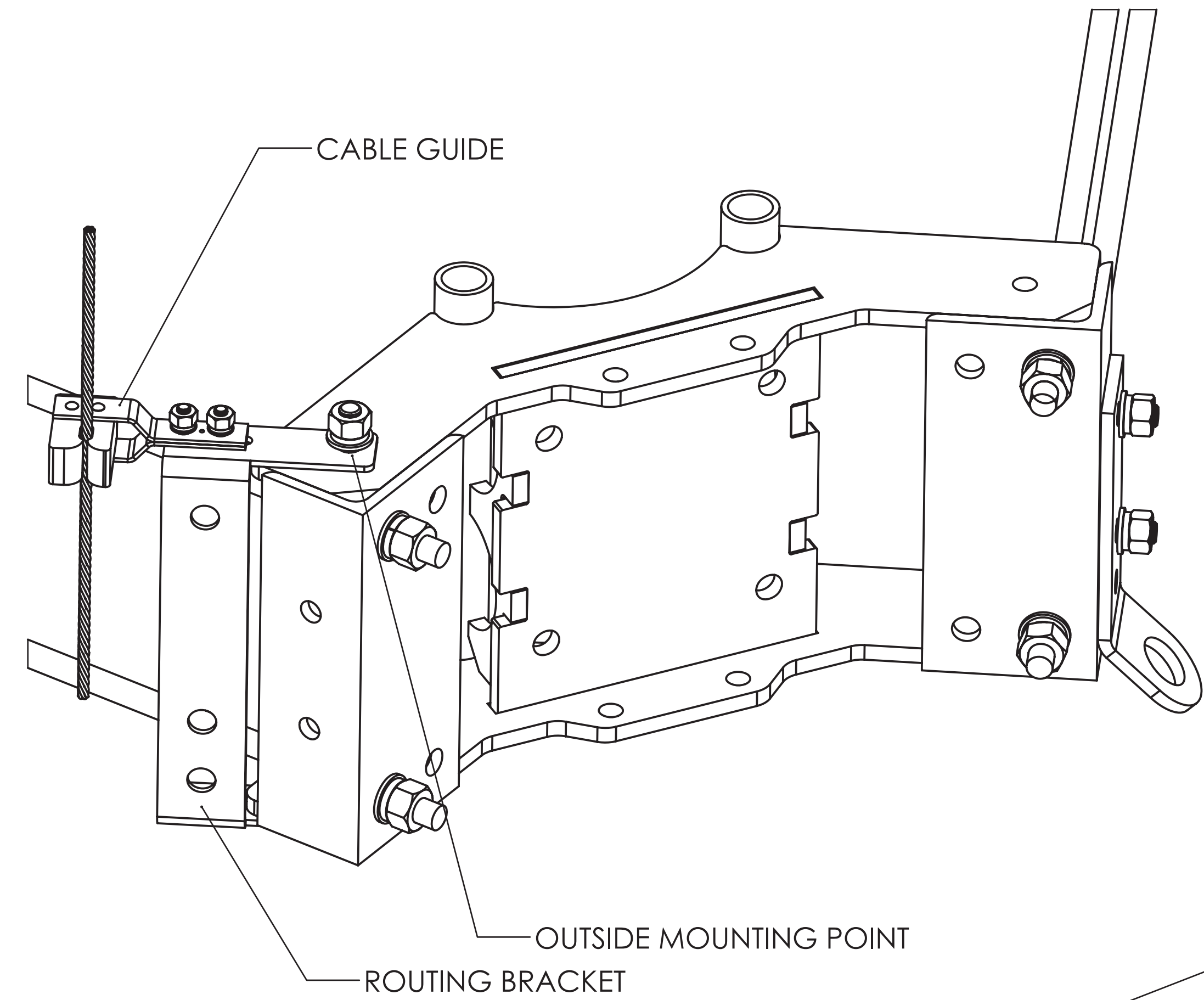
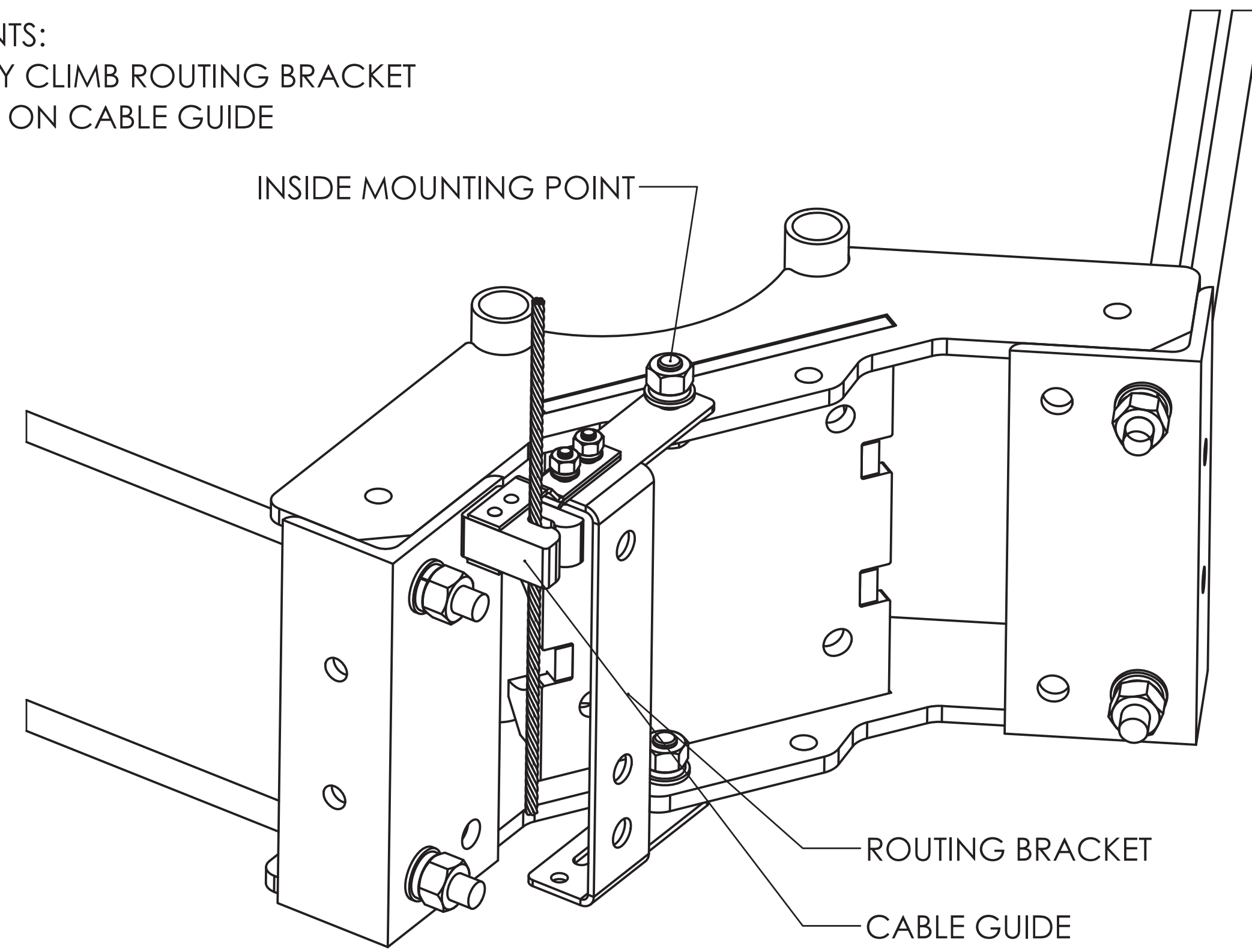
NOTE: ON POLES WITH THICKNESS 3/16" OR LESS, A KICKER AND SECONDARY COLLAR OR FURTHER POLE ANALYSIS SHALL BE REQUIRED.



SHEET 2 OF 5	THIRD ANGLE PROJECTION 	CATEGORY 02_Monopole	4		PERFECT VISION
8/10/2021	SCALE 1:36	SERIES 01_Triangular	3		
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		TYPE PV-LPPGS_GUARDIAN	2	PART NUMBER CHANGE - SWAP TO H5H10	11/18/20
		BY DJN	1	PART NUMBER CHANGE - UPDATED AP#	9/25/20
		CHECKED SJS	0	INITIAL RELEASE	9/11/20
		STATUS APPROVED	REV	DESCRIPTION	DATE
MONOPOLE GUARDIAN MOUNT - ATT					REV
DOCUMENT NUMBER LPPGS-ENG-08-R2					2

SAFETY CLIMB ROUTING

INCLUDED COMPONENTS:
 PV-SCRB-RMGS - SAFETY CLIMB ROUTING BRACKET
 PV-CMX-CG-BO - BOLT ON CABLE GUIDE



CABLE GUIDE RANGE

SHEET 3 OF 5	THIRD ANGLE PROJECTION 	CATEGORY 02_Monopole	4		
8/10/2021	SCALE 1:6	SERIES 01_Triangular	3		
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		TYPE PV-LPPGS_GUARDIAN	2	PART NUMBER CHANGE - SWAP TO H5H10	11/18/20
		BY DJN	1	PART NUMBER CHANGE - UPDATED AP#	9/25/20
		CHECKED SJS	0	INITIAL RELEASE	9/11/20
		STATUS APPROVED	REV	DESCRIPTION	DATE
					MONOPOLE GUARDIAN MOUNT - ATT DOCUMENT NUMBER LPPGS-ENG-08-R2
					REV 2

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PV-XP-DC

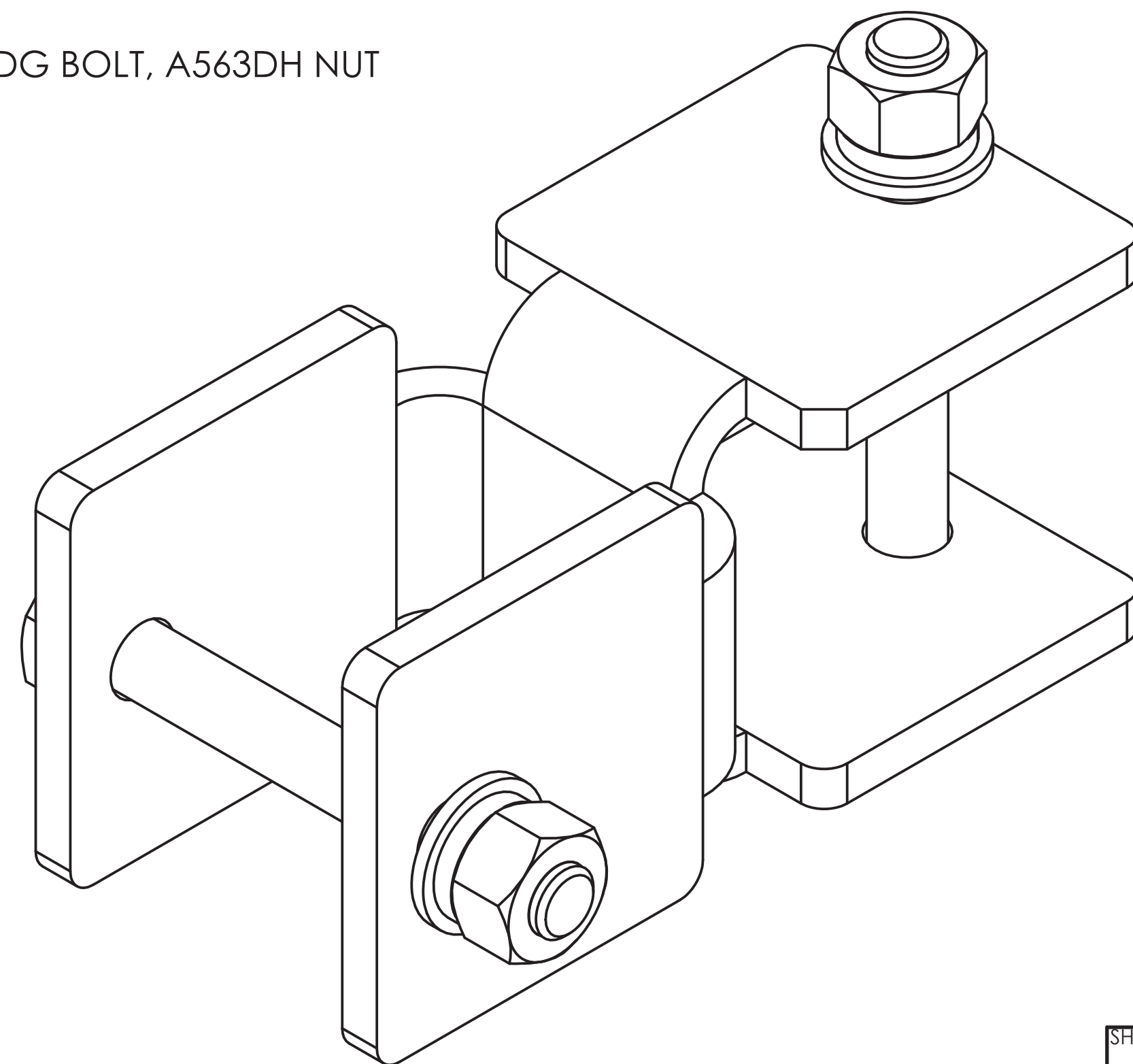
DUALCROSS 90° CROSSOVER BRACKET

Table 7: Crossover Configurations and Capacities

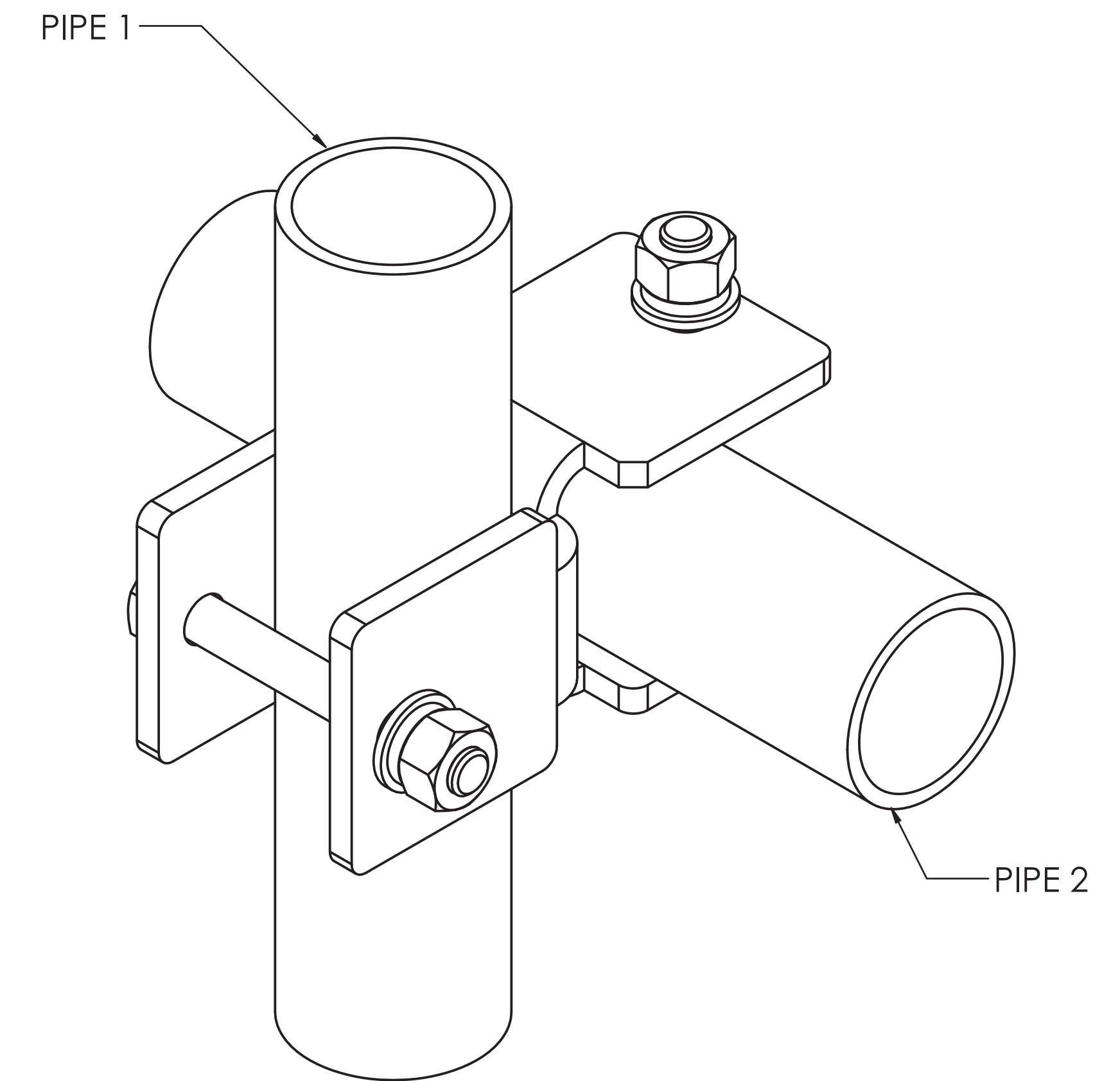
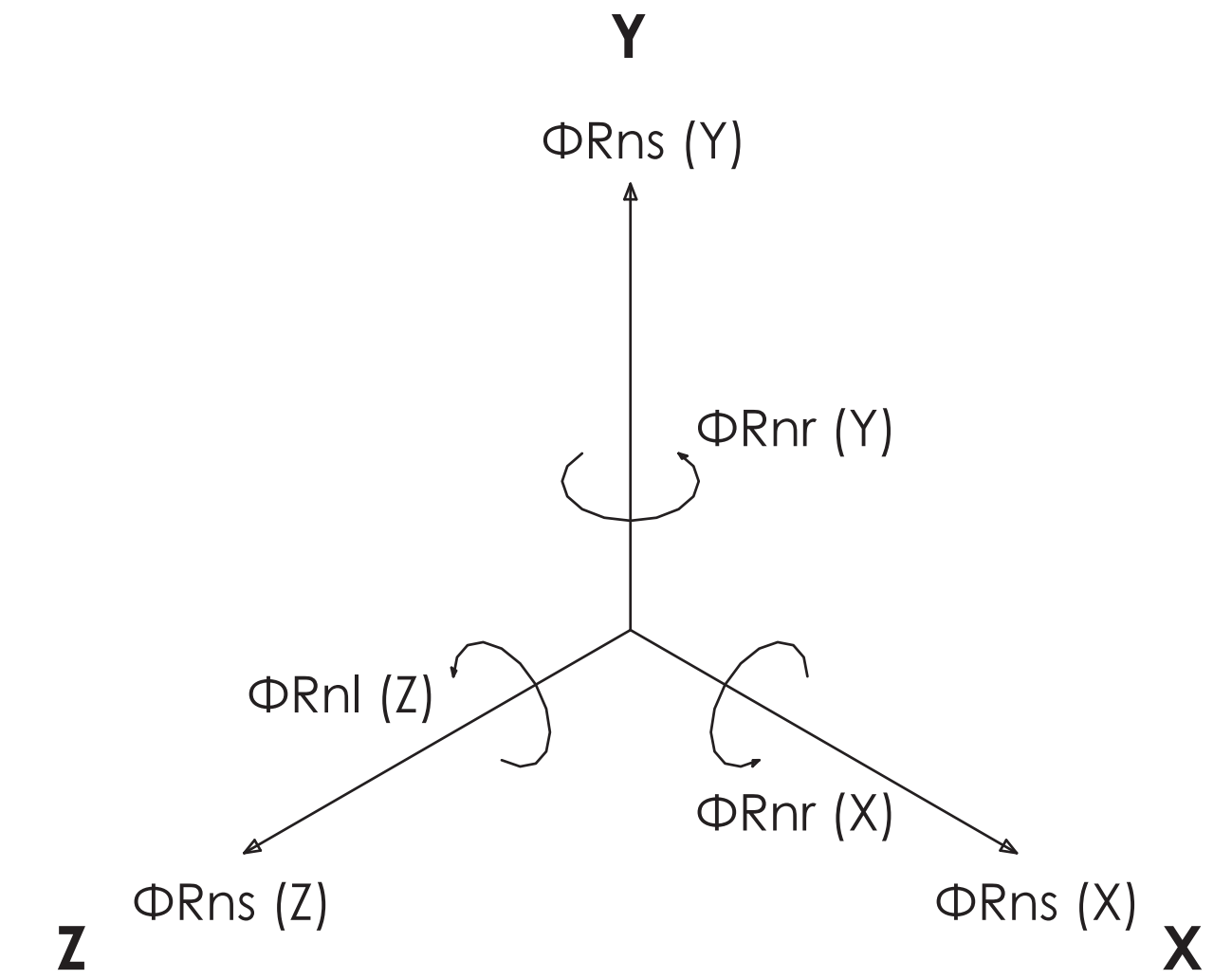
Part Number	Weight <i>lbs</i>	Pipe 1 Size (Vertical) <i>in</i>	Pipe 2 Size (Horizontal) <i>in</i>	Pipe 1 Bolt Size <i>in</i>	Pipe 2 Bolt Size <i>in</i>	Available Sliding Strength ($\Phi=0.7$)			Available Torsional Strength ($\Phi=0.7$)		Available Lateral Twist Strength ($\Phi=0.9$)
						$\Phi Rns (X)$ <i>kip</i>	$\Phi Rns (Y)$ <i>kip</i>	$\Phi Rns (Z)$ <i>kip</i>	$\Phi Rnr (X)$ <i>kip-in</i>	$\Phi Rnr (Y)$ <i>kip-in</i>	$\Phi Rnl (Z)$ <i>kip-in</i>
PV-XP-DC-2020	6.1	$\Phi 2.375$	$\Phi 2.375$	$\Phi 5/8 \times 4-1/2$	$\Phi 5/8 \times 4-1/2$	3.85	3.85	Fixed	6.0	6.0	14.0
PV-XP-DC-2025	7.0	$\Phi 2.375$	$\Phi 2.875$	$\Phi 5/8 \times 4-1/2$	$\Phi 5/8 \times 5$	3.85	3.85	Fixed	6.0	6.0	14.0
PV-XP-DC-2030	8.1	$\Phi 2.375$	$\Phi 3.5$	$\Phi 5/8 \times 4-1/2$	$\Phi 5/8 \times 5-1/2$	3.85	3.85	Fixed	6.8	6.0	14.0
PV-XP-DC-2525	8.0	$\Phi 2.875$	$\Phi 2.875$	$\Phi 5/8 \times 5$	$\Phi 5/8 \times 5$	3.85	3.85	Fixed	6.0	6.0	20.0
PV-XP-DC-2530	9.3	$\Phi 2.875$	$\Phi 3.5$	$\Phi 5/8 \times 5$	$\Phi 5/8 \times 5-1/2$	3.85	3.85	Fixed	6.8	6.0	20.0
PV-XP-DC-3030	10.7	$\Phi 3.5$	$\Phi 3.5$	$\Phi 5/8 \times 5-1/2$	$\Phi 5/8 \times 5-1/2$	3.85	3.85	Fixed	6.8	6.8	27.0
PV-XP-DC-3040	13.1	$\Phi 3.5$	$\Phi 4.5$	$\Phi 5/8 \times 5-1/2$	$\Phi 5/8 \times 6-1/2$	3.85	3.85	Fixed	6.8	6.8	27.0

NOTES:

- CAPACITY VALUES EXPERIMENTALLY DETERMINED
- INSTALLATION REQUIREMENTS:
 - MINIMUM BOLT TORQUE: 100 FT-LBS
 - CLEAN, DRY ASSEMBLY
 - GALVANIZED BRACKET AND HARDWARE
 - COLORED WAX COATING ON NUTS
- MATERIALS
 - BRACKET: A36 HDG
 - HARDWARE: A325 HDG BOLT, A563DH NUT



PV-XP-DC
DUALCROSS 90° CROSSOVER



SHEET 4 OF 5	THIRD ANGLE PROJECTION 	CATEGORY 02_Monopole	4		
8/10/2021	SCALE 1:2	SERIES 01_Triangular	3		
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		TYPE PV-LPPGS_GUARDIAN	2	PART NUMBER CHANGE - SWAP TO H5H10	11/18/20
		BY DJN	1	PART NUMBER CHANGE - UPDATED AP#	9/25/20
		CHECKED SJS	0	INITIAL RELEASE	9/11/20
		STATUS APPROVED	REV	DESCRIPTION	DATE

PERFECT VISION

MONOPOLE GUARDIAN MOUNT - ATT

DOCUMENT NUMBER
LPPGS-ENG-08-R2

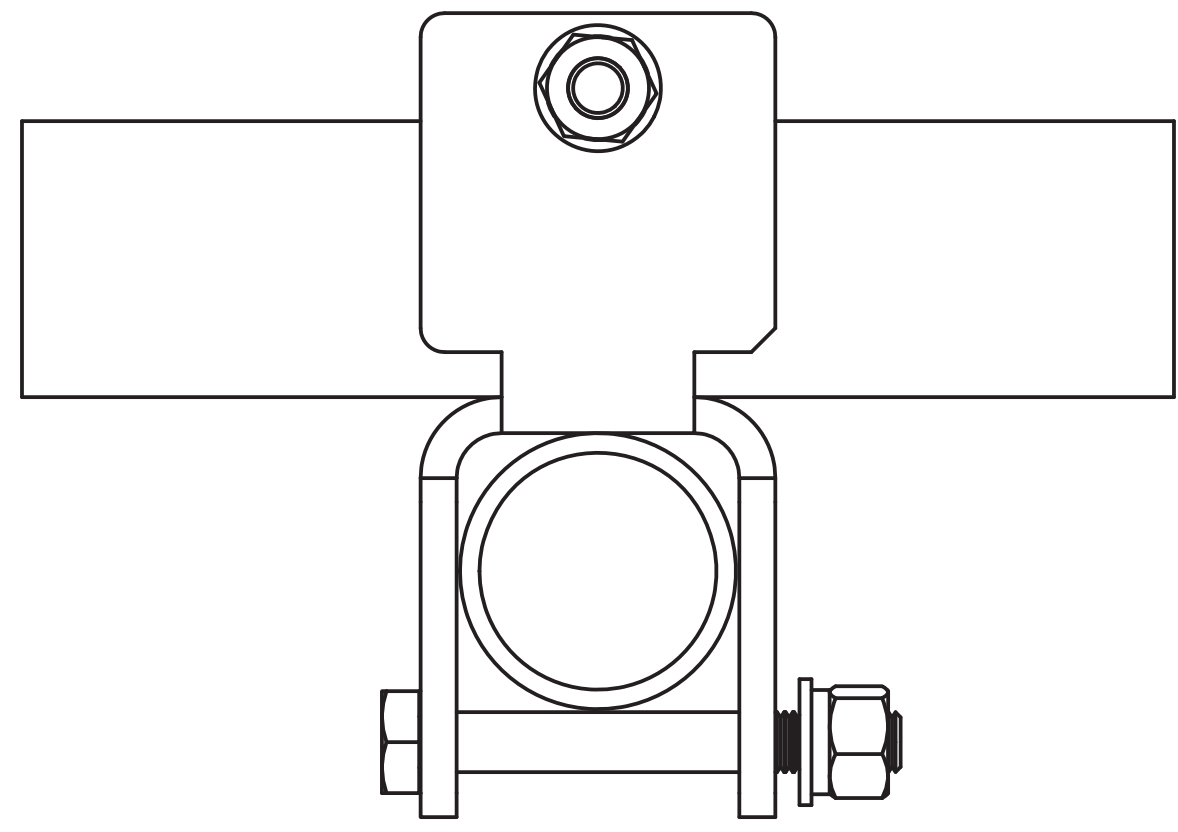
REV
2

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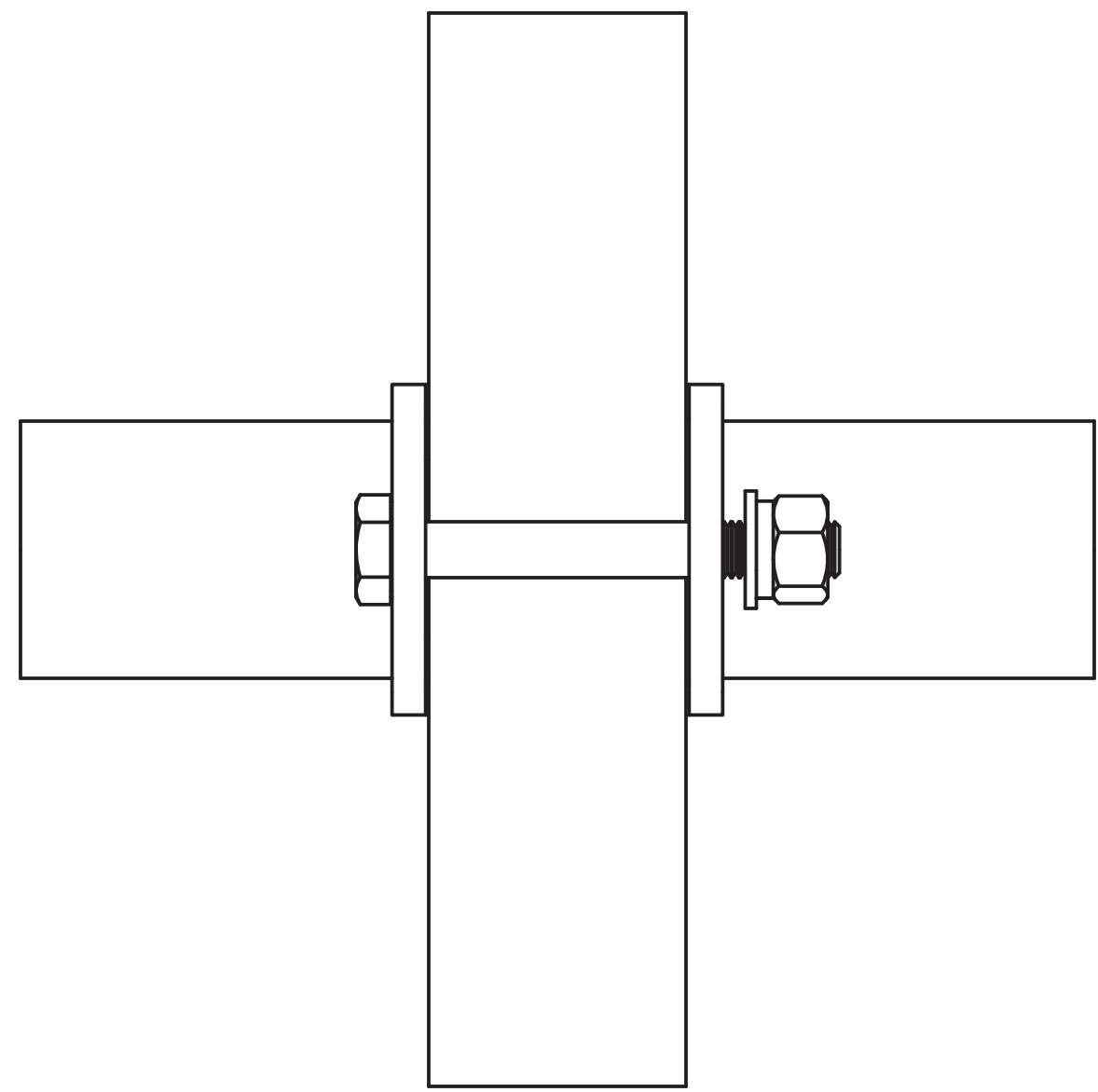
PV-XP-DC

DUALCROSS 90° CROSSOVER BRACKET

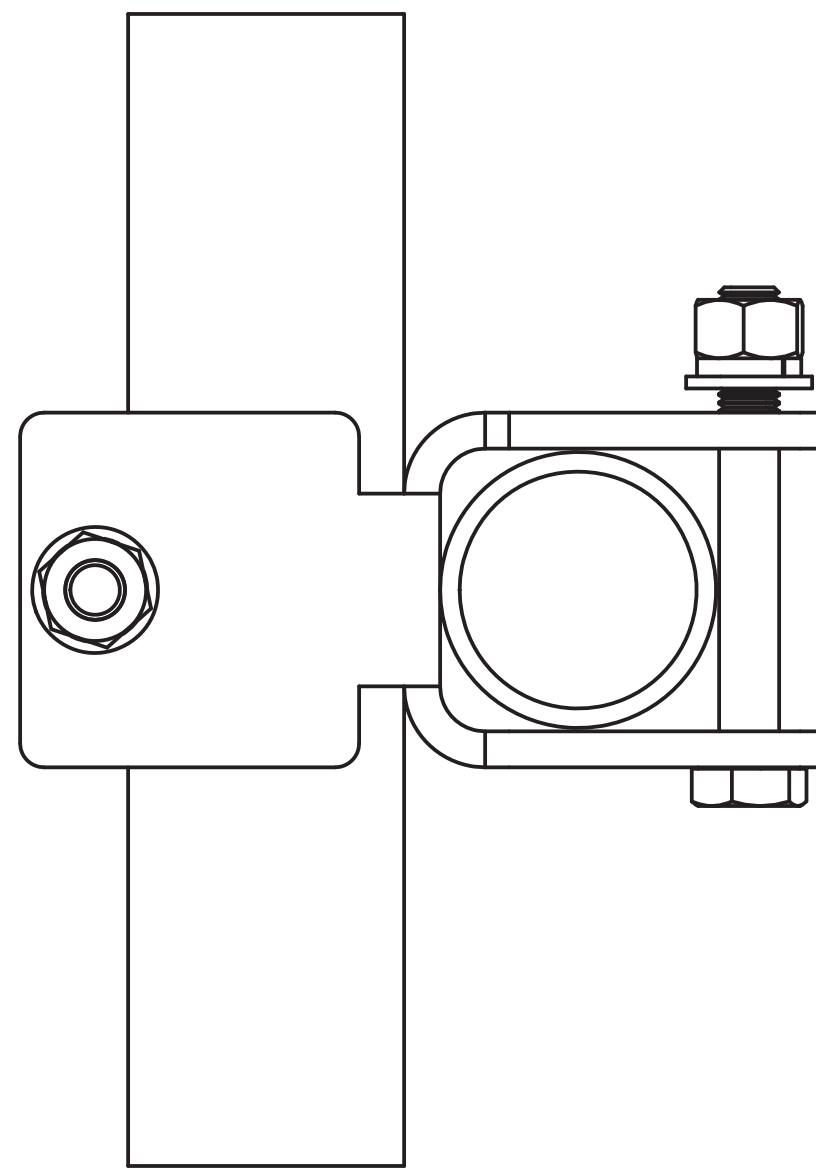
PRE-INSTALL ASSEMBLY:



TOP

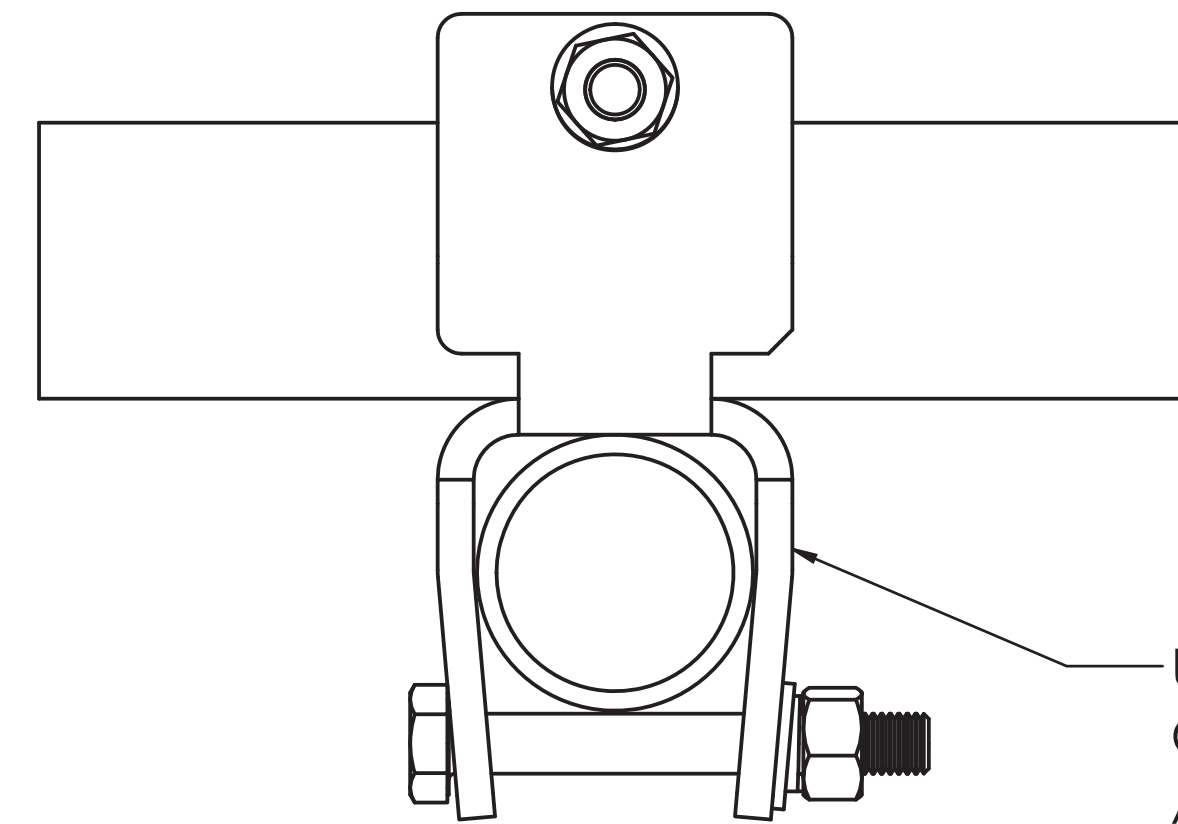


FRONT



SIDE

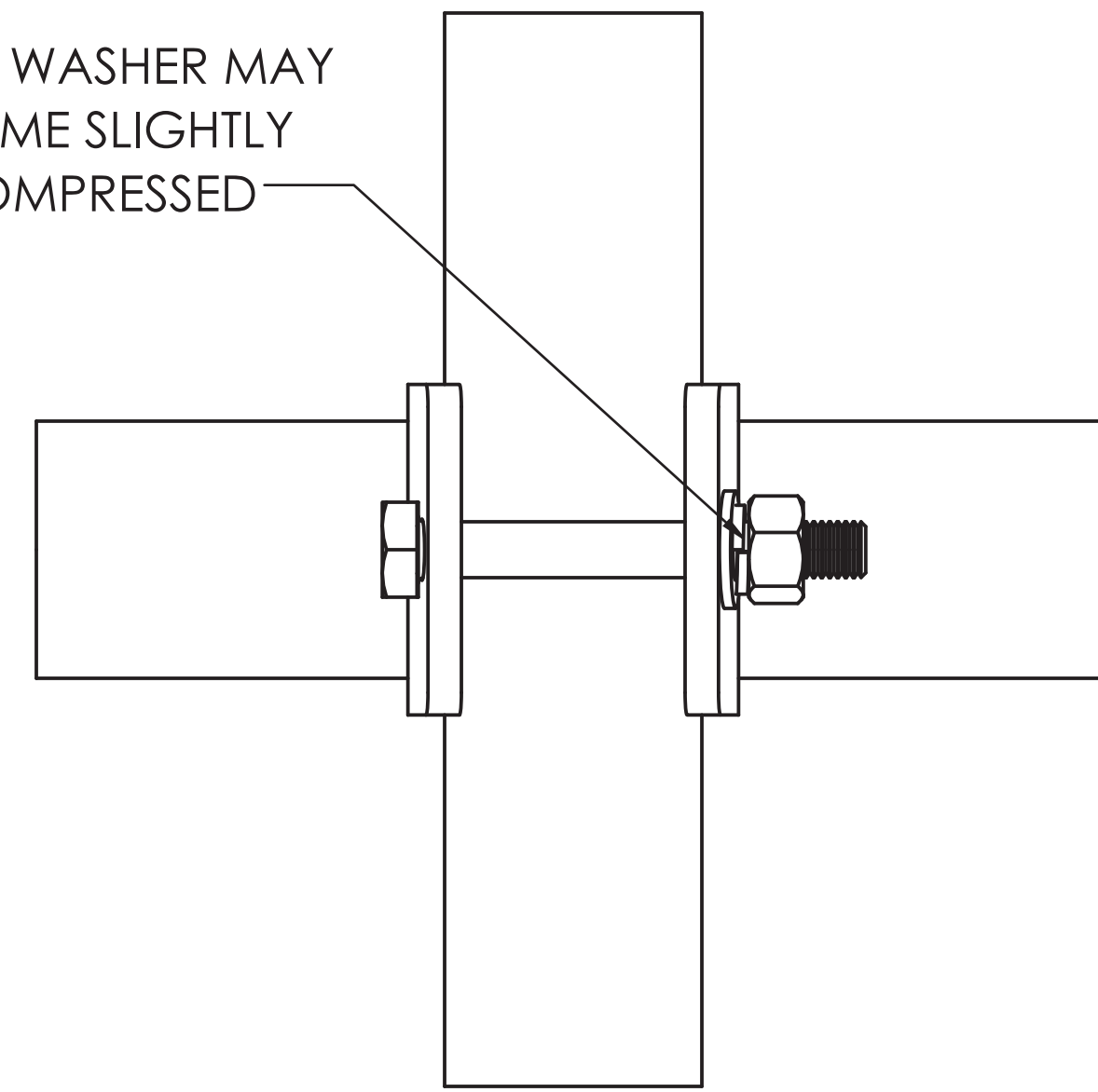
POST-INSTALL ASSEMBLY:



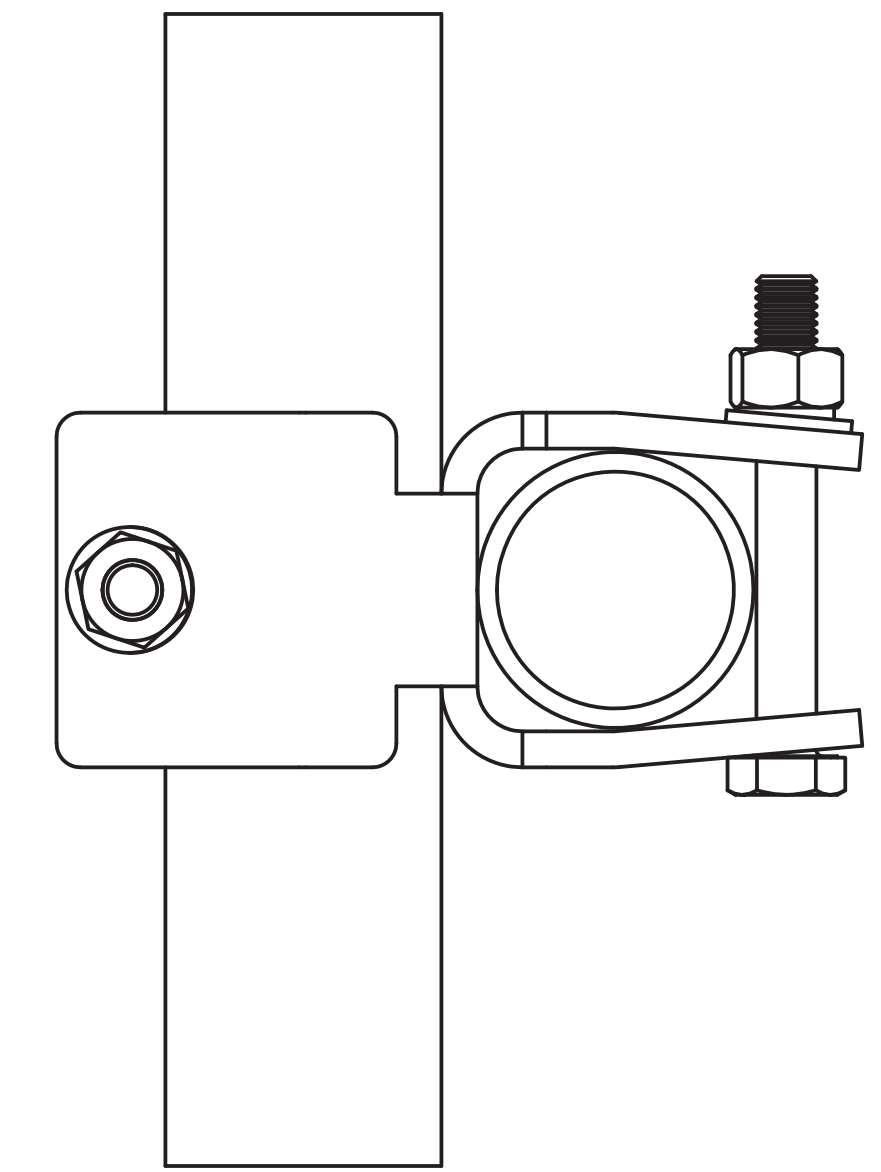
TOP

UNDER SPECIFIED BOLT TORQUE CONDITIONS, PLATES WILL FLEX AROUND PIPES

LOCK WASHER MAY BECOME SLIGHTLY UNCOMPRESSED



FRONT



SIDE

SHEET	THIRD ANGLE PROJECTION	CATEGORY				
5 OF 5		02_Monopole	4			
		SERIES	01_Triangular	3		
8/10/2021	SCALE 1:4	TYPE	PV-LPPGS_GUARDIAN	2	PART NUMBER CHANGE - SWAP TO H5H10 11/18/20	
DIMENSIONS ARE IN INCHES TOLERANCES U.N.O. HOLES: +1/16", -1/32" ANGULAR: PROFILE ±1/4°, BEND ±2° ALL OTHERS: ±1/16"		BY	DJN	1	PART NUMBER CHANGE - UPDATED AP# 9/25/20	
		CHECKED	SJS	0	INITIAL RELEASE 9/11/20	
		STATUS	APPROVED	REV	DESCRIPTION	DATE
					DOCUMENT NUMBER	REV
					LPPGS-ENG-08-R2	2

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