



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

December 19, 2024

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

**RE: Notice of Exempt Modification for Verizon
Crown #803843; Verizon Site ID 5000384966
200 Stanley Street, New Britain, CT 06053
Latitude: 41° 39' 08.35" / Longitude: -72° 46' 02.35"**

Dear Ms. Bachman:

Verizon currently maintains twelve (12) antennas at the 105-foot level of the existing 195-foot monopole tower at 200 Stanley Street, New Britain, CT. The tower is owned by Crown Castle USA Inc. and the property is owned by Downes Investments LLC. Verizon now intends to replace three (3) antennas, and install four (4), new antennas and ancillary equipment at the 105-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:

- (4) CBNG – 39GHZ VECTASTAR NR GNB ANTENNAS
- (1) HUBER SUHNER CUBE OPTICS AG – 85205108 HYBRID CABLE
- (1) RAYCAP RC3DC-6627-PF-48 OVP
- INSTALL MOUNT MODIFICATIONS PER MOUNT ANALYSIS DATED 10/04/24

Remove:

- (3) ANTEL – BXA – 80080/4CF ANTENNAS
- (1) COMMScope 1-5/8" COAX CABLE

Ground: N/A

The facility was approved by the City of New Britain on October 10, 2017. Said approval given with conditions. Verizon's proposed exempt modification complies with the conditions of approval.

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 Erin Stewart, Mayor for the City of New Britain, as the municipality, Jeff Cormier, City Planner, and Crown Castle is the tower owner.

[The Foundation for a Wireless World.](https://www.foundationforawirelessworld.org/)

[CrownCastle.com](https://www.CrownCastle.com)

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, Verizon 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: Keenan /Brinn.

Sincerely,



Keenan Brinn
Permitting Specialist
1800 W. Park Drive
Westborough, MA 01581
(617) 680-5464/Keenan.Brinn.Contractor@crowncastle.com

Attachments

Melanie A. Bachman

Page 3

cc:

Erin Stewart, Mayor
New Britain City Hall
27 West Main St.
New Britain, CT 06051
860-826-3300

Jeff Cormier, City Planner
New Britain City Hall
27 West Main St.
New Britain, CT 06051
860-826-3430

Downes Investments LLC, Owner
200 Stanley St.
New Britain, CT 06051
860-229-3755

Crown Castle, Tower Owner

Date: 10/12/01

A request has been made for a Certificate of Occupancy:

Project location: 200 STANLEY STREET (TOWER/PLATFORM)

The final inspection by the Building Department is scheduled on 10/17/01 at 10:00.
Please adjust your inspections accordingly.

Any comments regarding corrections please forward directly to the applicant.

Applicant: CROWN CASTLE INTERNATIONAL, LLC **Tel:** 1 860 558-3178

Applicant address: 703 HERRON AVENUE, GLASTONBURY, CT

Acceptance of this form with your recommendation is greatly appreciated.
Thank you for your attention and consideration in this matter.

Recommended		CO. TCO Denied
☐	James Bellonno: Acting Fire Marshal	☐ ☐ ☐
☒	Joseph F. Carilli: Director of Public Works (PT)	☐ ☐ ☐
☒	Kenneth A. Malinowski: Director of Department of Municipal Development (SS)	☐ ☐ ☐
☐	Hubert Birken, Jr., Director of Health Department	☐ ☐ ☐

TO: Frank M. Wiatr, Director, LP&I
FROM: Clarence Corbin, City Engineer *CC*
DATE: 7 Jun 01
RE: Site Plan Review - 200 Stanley Street - Tower

This site plan is approved as submitted.

cc: S. Schiller



City of New Britain, CT

Property Listing Report

Map Block Lot

B10B 11

Building #

1

PID

1486

Account

81300200

Property Information

Property Location	200 STANLEY ST
Owner	DOWNES INVESTMENTS LLC
Co-Owner	
Mailing Address	200 STANLEY ST NEW BRITAIN CT 06051
Land Use	3400 Office Bld MDL-94
Land Class	C
Zoning Code	I2
Census Tract	415500

Neighborhood	107H
Acreage	2.18
Utilities	All Public
Lot Setting/Desc	Level
Fire District	
Book / Page	

Primary Construction Details

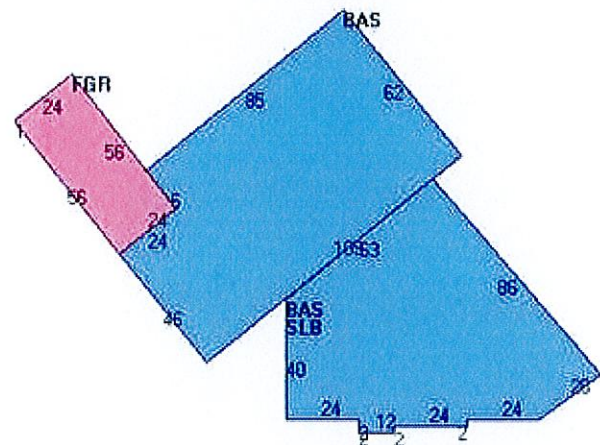
Year Built	1954
Building Desc.	Office Bld MDL-94
Building Style	Office
Building Grade	C
Stories	1
Occupancy	1.00
Exterior Walls	Block/Concrete
Exterior Walls 2	NA
Roof Style	Flat
Roof Cover	T&G/Rubber
Interior Walls	Drywall
Interior Walls 2	NA
Interior Floors 1	Carpet
Interior Floors 2	NA

Heating Fuel	Yes
Heating Type	
AC Type	Central
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	NA
Rec Rm Area	0
Rec Rm Quality	NA
Bsmt Gar	0
Fireplaces	0

Photo



Sketch



(*Industrial / Commercial Details)

Building Use	Comm/Ind
Building Condition	A
Sprinkler %	NA
Heat / AC	Heat/AC Pkgs
Frame Type	Masonry
Baths / Plumbing	Average
Ceiling / Wall	Sus-Ceil & WL
Rooms / Prtns	Average
Wall Height	12.00
First Floor Use	3400
Foundation	

Report Created On

12/17/2024



City of New Britain, CT

Property Listing Report

Map Block Lot

B10B 11

Building # 1

P

PID

1486

Account

81300200

Valuation Summary (Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed	Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Buildings	722300	505610	First Floor	11913	11913
Extras	0	0	Slab	5539	0
Improvements			Garage	1371	0
Outbuildings	103500	72450			
Land	177200	124040			
Total	1003000	702100			

Outbuilding and Extra Features

[illegible]

Sub Areas		
Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
First Floor	11913	11913
Slab	5539	0
Garage	1371	0
Total Area	18823	11913

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
DOWNES INVESTMENTS LLC	1827/0193	2011-10-17	327818
DOWNES INVESTMENTS LLC	1386/0135	2001-10-16	0
DOWNES INVESTMENTS LLC	1351/0908	2000-11-03	0
JOHN E DOWNES TRUSTEE	1104/0267	1991-07-03	0
DOWNES JOHN E	1105/0413	1991-06-24	0
	1096/0023	1991-02-20	0
FRANK E DOWNES	0363/0493	1953-01-13	0
LANDERS FRARY + CLARK	0168/0438	1900-01-01	0

II Tr

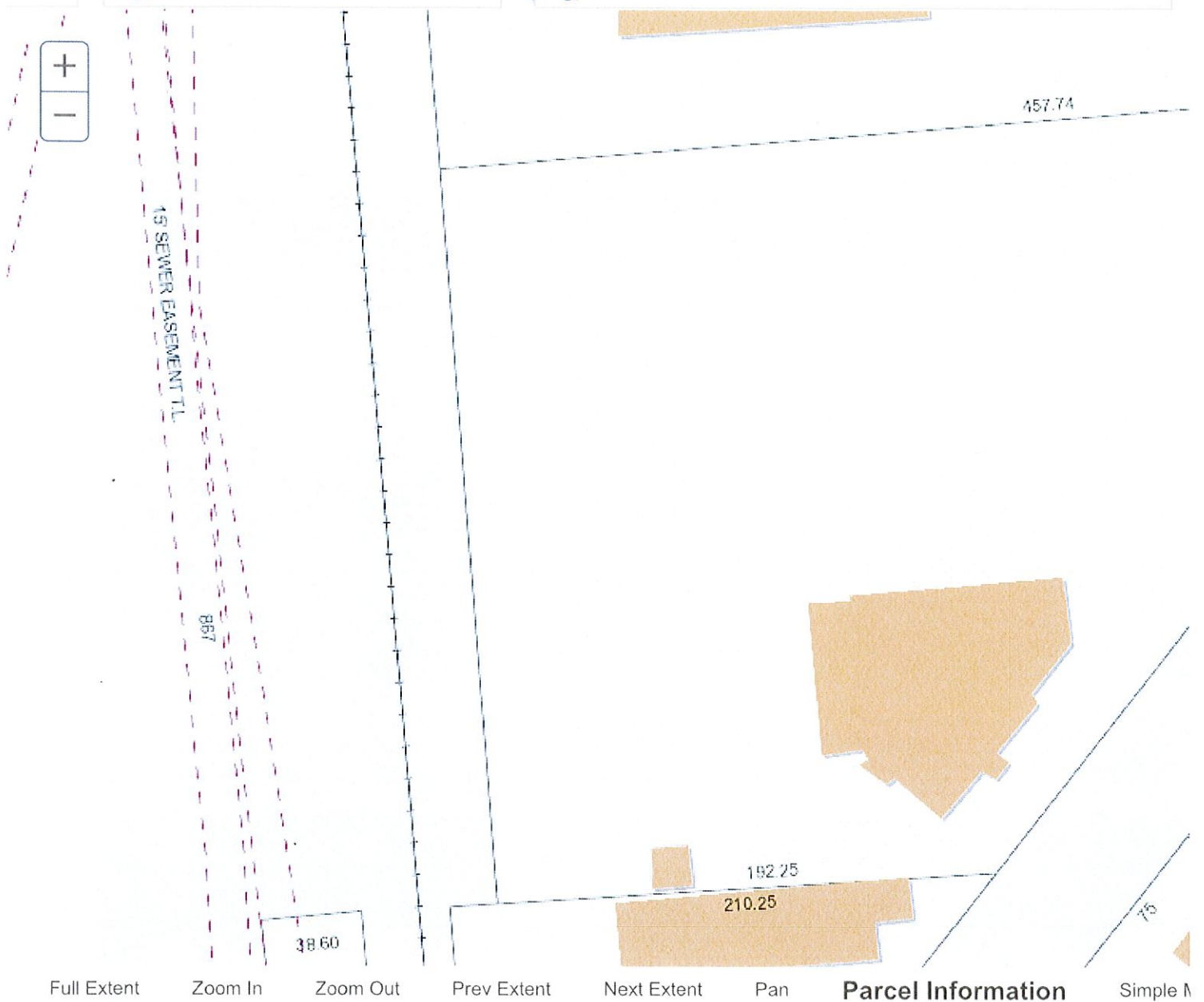


Base Maps / Air Photos

t



Map Layers



[MapXpress v1.2](#)

Scale: 1 in =

From: [Brinn, Keenan \(Contractor\)](#)
To: [Barbadora, Jeff](#)
Subject: Fw: Your shipment was delivered 770909719314 - New Britain 2 of 2
Date: Friday, December 20, 2024 12:12:55 PM

Here is the 2nd New Britain delivery.

From: FedEx Tracking <TrackingUpdates@fedex.com>
Sent: Friday, December 20, 2024 12:10 PM
To: Brinn, Keenan (Contractor) <keenan.brinn.contractor@crowncastle.com>
Subject: Your shipment was delivered 770909719314

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.



Your shipment was delivered.

Delivery Date
Fri, 12/20/2024
12:03pm

Delivered to
27 W MAIN ST, NEW BRITAIN, CT 06051

Received by
M.MS SAVILLA

[Report missing package](#)

How was your delivery?



Tracking details

Tracking ID	770909719314
From	Crown Castle 1800 West Park Drive Suite 200 WESTBOROUGH, MA, US 01581
To	New Britain City Hall 27 West Main St. NEW BRITAIN, CT, US 06051
Ship date	Thu 12/19/2024 06:49 PM
Number of pieces	1
Total shipment weight	0.50 LB
Service	FedEx Priority Overnight
Reference	799001.7680
Shipper reference	799001.7680

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Thank you for your business.

ID 1026

From: [Brinn, Keenan \(Contractor\)](#)
To: [Barbadora, Jeff](#)
Subject: Your shipment was delivered 770909664222 New Britain - 1 of 2
Date: Friday, December 20, 2024 12:11:59 PM

Jeff -

Here is New Britain delivery confirmation.

From: FedEx Tracking <TrackingUpdates@fedex.com>
Sent: Friday, December 20, 2024 12:08 PM
To: Brinn, Keenan (Contractor) <keenan.brinn.contractor@crowncastle.com>
Subject: Your shipment was delivered 770909664222

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Your shipment was delivered.

Delivery Date

Fri, 12/20/2024
11:58am

Delivered to

27 WEST MAIN STREET, NEW BRITAIN, CT 06051

Received by

D.DORSEY

[Report missing package](#)

How was your delivery?



Tracking details

Tracking ID	770909664222
From	Crown Castle 1800 West Park Drive Suite 200 WESTBOROUGH, MA, US 01581
To	New Britain City Hall 27 West Main St. NEW BRITAIN, CT, US 06051
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Fri, 12/20/2024
11:58am

Delivered to

27 WEST MAIN STREET, NEW BRITAIN, CT 06051

Received by

D.DORSEY

[Report missing package](#)

How was your delivery?



Tracking details

Tracking ID	770909664222
From	Crown Castle 1800 West Park Drive Suite 200 WESTBOROUGH, MA, US 01581
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SHOP NOW

DELIVERED

Friday

12/20/24 at 11:47 AM

Signed for by: Signature release on file

Obtain proof of delivery

How was your delivery?



DELIVERY STATUS

Delivered



GPS delivery location

Report missing package

ADD YOUR EMAIL TO STAY UPDATED ON THIS SHIPMENT

DTatascioreCC

Your email is invalid.

GET UPDATES

MORE OPTIONS

TRACKING ID

770910194280



FROM
Crown Castle
Keenan Brinn
1800 West Park Drive Suite 200
WESTBOROUGH, MA US 01581
6176805464

Label Created
12/19/24 10:44 AM

WE HAVE YOUR PACKAGE
FRAMINGHAM, MA
12/19/24 6:49 PM

ON THE WAY
WINDSOR LOCKS, CT
12/20/24 8:47 AM

OUT FOR DELIVERY
WINDSOR LOCKS, CT
12/20/24 9:01 AM

DELIVERED
Downes Investments LLC
200 STANLEY ST
NEW BRITAIN, CT US 06051
8602293755

Delivered
12/20/24 at 11:47 AM

View travel history



Shipment overview

TRACKING NUMBER 770910194280

SHIPPER REFERENCE 799001.7680

SHIP DATE ⓘ 12/19/24

STANDARD TRANSIT ⓘ 12/20/24 before 12:00 PM

DELIVERED 12/20/24 at 11:47 AM



Services

SERVICE FedEx Priority Overnight

TERMS Shipper

SPECIAL HANDLING SECTION Deliver Weekday



Package details

WEIGHT 0.5 lbs / 0.23 kgs

TOTAL PIECES 1

TOTAL SHIPMENT WEIGHT 0.5 lbs / 0.23 kgs

PACKAGING FedEx Envelope

[↑ Back to top](#)

Travel history



SORT BY DATE/TIME

Ascending

Time zone

Local Scan Time

Thursday, 12/19/24

- 10:44 AM
Shipment information sent to FedEx
- 6:49 PM
Shipment arriving On-Time
FRAMINGHAM, MA
- 6:49 PM
Picked up
FRAMINGHAM, MA
- 8:35 PM
Left FedEx origin facility
FRAMINGHAM, MA
- 11:35 PM
Arrived at FedEx hub
NEWARK, NJ

Date: **October 28, 2024**

 **CT COA# PEC.0002212**
326 Tryon Road
Raleigh, NC 27603
(919) 661-6351

Subject: Structural Analysis Report

Carrier Designation:	Verizon Wireless Co-Locate
	Site Number: 5000384966
	Site Name: New Britain 4 CT
Crown Castle Designation:	BU Number: 803843
	Site Name: CT New Britain 4 CAC 803843
	JDE Job Number: 2126713
	Work Order Number: 2336384
	Order Number: 681946 Rev. 0
Engineering Firm Designation:	TEP Project Number: 217212.1013381
Site Data:	200 Stanley Street, New Britain, Hartford County, CT 06053
	Latitude 41° 39' 16.40", Longitude -72° 46' 9.59"
	192 Foot - Monopole Tower

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

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

LC7: Proposed Equipment Configuration

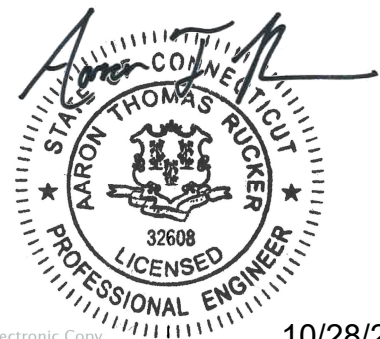
Sufficient Capacity – 38.5%

This analysis utilizes an ultimate 3-second gust wind speed of 118 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: Zachary A. Kohnen / SM

Respectfully submitted by:

Aaron T. Rucker, P.E.



Electronic Copy

10/28/2024

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Base Level Drawing

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Additional Calculations

1) INTRODUCTION

This is a 192-ft monopole tower designed by Summit.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	118 mph
Exposure Category:	B
Topographic Factor:	1.0
Ice Thickness:	1.50 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)
101.0	105.0	4	Cambridge Broadband Networks Group	39GHz VectaStar w/ Mount Pipe	5 2 1	1-5/8 1-1/4 1-1/2
	104.0	3	Samsung Telecom.	MT6407-77A w/ Mount Pipe		
		2	Raycap	RCMDC-6627-PF-48		
	103.0	3	Andrew	SBNHH-1D65B w/ Mount Pipe		
		3	Andrew	SBNHH-1D65B w/ Mount Pipe		
	101.0	3	Samsung Telecom.	XXDWMM-12.5-65-8T-CBRS w/ Mount Pipe		
		3	Samsung Telecom.	RFV01U-D1A		
		3	Samsung Telecom.	RFV01U-D2A		
		1	Tower Mounts	Platform Mount [LP 303-1_KCKR-HR-1]		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
195.0	195.0	3	Ericsson	AIR 6419 B77G	3 6 3 6	3/8 13/16 1-1/8 1-5/8
		3	Ericsson	AIR 6449 N77 w/ Mount Pipe		
		3	Quintel Technology	QD8616-7 w/ Mount Pipe		
		2	CCI Antennas	DMP65R-BU8D w/ Mount Pipe		
		1	CCI Antennas	DMP65R-BU6D w/ Mount Pipe		
		3	Ericsson	RRUS 32 B30		
		3	Raycap	DC9-48-60-24-8C-EV		
		3	Ericsson	RRUS 8843 B2/B66A		
		3	Ericsson	RRUS 4478 B14		
		3	Ericsson	RRUS 4449 B5/B12		
		1	Tower Mounts	Platform Mount [LP 303-1_KCKR-HR-1]		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
185.0	186.0	3	RFS Celwave	APXV18-206517S-C w/ Mount Pipe	6	1-5/8
	185.0	1	Tower Mounts	Platform Mount [LP 1201-1]		
175.0	179.0	2	Andrew	VHLP2-23	3 1 3 3	1/2 5/16 5/8 1/4
		1	Andrew	PX2F-52		
		2	Dragonwave	HORIZON COMPACT		
	178.0	3	Argus Technologies	LLPX310R w/ Mount Pipe		
		3	Samsung Telecom.	RRH-2WB		
	175.0	1	Motorola	TIMING 2000		
		1	Tower Mounts	Side Arm Mount [SO 101-3]		
161.0	164.0	1	Sigfox	CXL 900-3LW	1	1/2
	161.0	1	Sigfox	LNA		
		1	Sigfox	CAVITY FILTER		
		1	Tower Mounts	Side Arm Mount [SO 102-3]		
		1	Tower Mounts	Side Arm Mount [SO 302-1]		
153.0	155.0	3	JMA Wireless	MX08FRO665-21 w/ Mount Pipe	1	1-3/4
		3	Fujitsu	TA08025-B604		
		3	Fujitsu	TA08025-B605		
		1	Raycap	RDIDC-9181-PF-48		
	153.0	1	Tower Mounts	Sabre C10801018-32788		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
Geotechnical Report	2384583	CCISites
Tower Foundation Drawings	1118798	CCISites
Tower Manufacturer Drawings	925033	CCISites

3.1) Analysis Method

tnxTower (version 8.2.4.3), 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.

3.2) Assumptions

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

This analysis may be affected if any assumptions are not valid or have been made in error. TEP 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)	ΦP_{allow} (k)	% Capacity	Pass / Fail
L1	192 - 151.25	Pole	TP39.245x26x0.3125	1	-13.81	2272.99	18.1	Pass
L2	151.25 - 111.25	Pole	TP51.621x36.9948x0.4375	2	-27.85	4185.56	19.8	Pass
L3	111.25 - 72.75	Pole	TP63.259x48.6333x0.5	3	-47.90	5864.38	21.5	Pass
L4	72.75 - 35.75	Pole	TP74.285x59.6589x0.5625	4	-69.38	7755.19	21.6	Pass
L5	35.75 - 0	Pole	TP84.78x70.1535x0.5625	5	-101.29	9235.85	24.6	Pass
							Summary	
						Pole (L5)	24.6	Pass
						RATING =	24.6	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1,2	Anchor Rods	-	33.0	Pass
1,2	Base Plate	-	27.1	Pass
1,2,3	Base Foundation Structural (Drilled Pier Foundation)	-	35.4	Pass
1,2,3	Base Foundation Soil Interaction (Drilled Pier Foundation)	-	29.1	Pass
1,2,3	Base Foundation Structural (Pad and Pier Foundation)	-	18.2	Pass
1,2,3	Base Foundation Soil Interaction (Pad and Pier Foundation)	-	38.5	Pass

Structure Rating (max from all components) =	38.5 %
---	---------------

Notes:

- 1) See additional documentation in "Appendix C - Additional Calculations" for calculations supporting the % capacity listed.
- 2) Rating per TIA-222-H Section 15.5
- 3) It is unknown whether the foundation is a drilled shaft or pier and pad. Both designs were analyzed and determined to be sufficient.

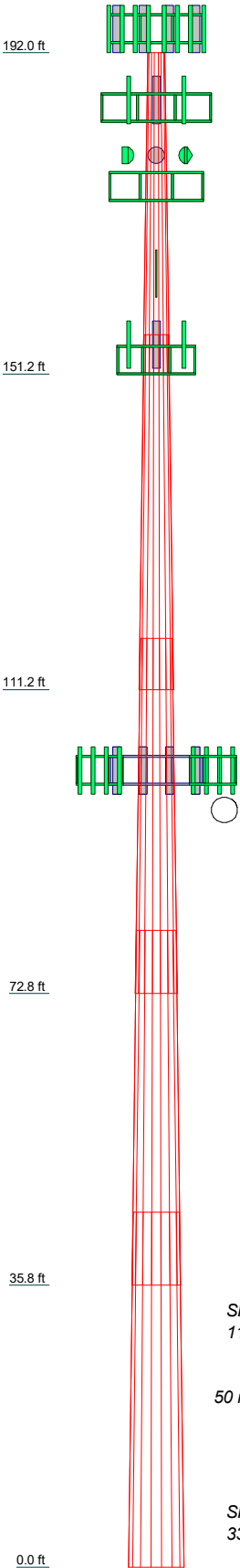
4.1) Recommendations

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

APPENDIX A

TNXTOWER OUTPUT

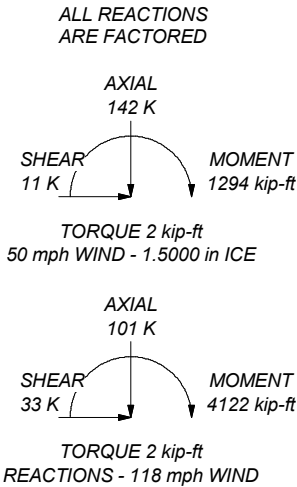
Section	1	2	3	4	5	
Length (ft)	40.75	45.00	45.00	45.00	45.00	
Number of Sides	18	18	18	18	18	
Thickness (in)	0.3125	0.4375	0.5000	0.5625	0.5625	
Socket Length (ft)	5.00	6.50	8.00	9.25		
Top Dia (in)	26.0000	36.9948	48.6333	59.6589	70.1535	
Bot Dia (in)	39.2450	51.6210	63.2590	74.2850	84.7800	
Grade			A607-65			
Weight (K)	4.4	9.3	13.5	18.2	21.0	66.4



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

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for Exposure B to the TIA-222-H Standard.
3. Tower designed for a 118 mph basic wind in accordance with the TIA-222-H Standard.
4. Tower is also designed for a 50 mph basic wind with 1.50 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60 mph wind.
6. Tower Risk Category II.
7. Topographic Category 1 with Crest Height of 0.00 ft
8. TOWER RATING: 24.6%





TEP
 326 Tryon Road
 Raleigh, NC 27603
 Phone: (919) 661-6351
 FAX: (919) 661-6350

Job: **CT New Britain 4 CAC 803843 (BU 803843)**
 Project: **TEP No. 217212.1013381**
 Client: Crown Castle
 Code: TIA-222-H
 Path:

Drawn by: adare
 Date: 10/28/24
 Scale: NTS
 Dwg No. E-1

<i>tnxTower</i> TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job CT New Britain 4 CAC 803843 (BU 803843)	Page 1 of 14
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	Client Crown Castle	Designed by adare

Tower Input Data

The tower is a monopole.

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

The following design criteria apply:

Tower is located in Hartford County, Connecticut.

Tower base elevation above sea level: 111.00 ft.

Basic wind speed of 118 mph.

Risk Category II.

Exposure Category B.

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

Topographic Category: 1.

Crest Height: 0.00 ft.

Nominal ice thickness of 1.5000 in.

Ice thickness is considered to increase with height.

Ice density of 56 pcf.

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

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 60 mph.

TIA-222-H Annex S.

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: $K_{cs}(F_w) = 0.95$, $K_{cs}(t_i) = 0.85$.

Maximum demand-capacity ratio is: 1.05.

Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Assume Legs Pinned	Calculate Redundant Bracing Forces
Consider Moments - Horizontals	✓ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Consider Moments - Diagonals	✓ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
Use Moment Magnification	Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
✓ Use Code Stress Ratios	Retension Guys To Initial Tension	Offset Girt At Foundation
✓ Use Code Safety Factors - Guys	✓ Bypass Mast Stability Checks	✓ Consider Feed Line Torque
Escalate Ice	✓ Use Azimuth Dish Coefficients	Include Angle Block Shear Check
Always Use Max Kz	✓ Project Wind Area of Appurtenances	Use TIA-222-H Bracing Resist. Exemption
Use Special Wind Profile	✓ Alternative Appurt. EPA Calculation	Use TIA-222-H Tension Splice Exemption
Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Poles
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	✓ Include Shear-Torsion Interaction
Secondary Horizontal Braces Leg	✓ Sort Capacity Reports By Component	Always Use Sub-Critical Flow
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Use Top Mounted Sockets
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	✓ Pole Without Linear Attachments
SR Members Are Concentric	Ignore KL/ry For 60 Deg. Angle Legs	Pole With Shroud Or No Appurtenances
Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules	Outside and Inside Corner Radii Are Known

Tapered Pole Section Geometry

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Raleigh, NC 27603
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Section	Elevation	Section Length	Splice Length	Number of Sides	Top Diameter	Bottom Diameter	Wall Thickness	Bend Radius	Pole Grade
	ft	ft	ft		in	in	in	in	
L1	192.00-151.25	40.75	5.00	18	26.0000	39.2450	0.3125	1.2500	A607-65 (65 ksi)
L2	151.25-111.25	45.00	6.50	18	36.9948	51.6210	0.4375	1.7500	A607-65 (65 ksi)
L3	111.25-72.75	45.00	8.00	18	48.6333	63.2590	0.5000	2.0000	A607-65 (65 ksi)
L4	72.75-35.75	45.00	9.25	18	59.6589	74.2850	0.5625	2.2500	A607-65 (65 ksi)
L5	35.75-0.00	45.00		18	70.1535	84.7800	0.5625	2.2500	A607-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	<i>I</i> in ⁴	<i>r</i> in	<i>C</i> in	<i>I/C</i> in ³	<i>J</i> in ⁴	<i>Iu/Q</i> in ²	<i>w</i> in	w/t
L1	26.3529	25.4788	2124.0264	9.1191	13.2080	160.8136	4250.8477	12.7418	4.0260	12.883
	39.8022	38.6162	7394.8824	13.8210	19.9365	370.9225	14799.4952	19.3118	6.3571	20.343
	39.1483	50.7644	8571.2947	12.9779	18.7934	456.0805	17153.8678	25.3870	5.7411	13.122
L2	52.3498	71.0747	23524.0650	18.1701	26.2235	897.0616	47079.0836	35.5441	8.3153	19.006
	51.4516	76.3876	22358.9907	17.0873	24.7057	905.0122	44747.4018	38.2011	7.6795	15.359
	64.1577	99.5985	49561.2695	22.2794	32.1356	1542.2557	99187.7529	49.8087	10.2536	20.507
L4	63.1328	105.5092	46553.2031	20.9792	30.3067	1536.0691	93167.6621	52.7646	9.5100	16.907
	75.3442	131.6223	90378.9022	26.1715	37.7368	2394.9818	180876.727	65.8237	12.0842	21.483
							3			
L5	74.2019	124.2461	76019.7623	24.7048	35.6380	2133.1104	152139.553	62.1348	11.3570	20.19
							3			
	86.0011	150.3598	134732.986	29.8972	43.0682	3128.3606	269643.257	75.1942	13.9313	24.767
			1				3			

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 <i>in</i>	Double Angle Stitch Bolt Spacing Horizontals <i>in</i>	Double Angle Stitch Bolt Spacing Redundants <i>in</i>
L1 192.00-151.25				1	1	1			
L2 151.25-111.25				1	1	1			
L3 111.25-72.75				1	1	1			
L4 72.75-35.75				1	1	1			
L5 35.75-0.00				1	1	1			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

[illegible]

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	Project	TEP No. 217212.1013381	Date	15:07:02 10/28/24
	Client	Crown Castle	Designed by	adare

Feed Line/Linear Appurtenances - Entered As Area

<i>Description</i>	<i>Face or Leg</i>	<i>Allow Shield</i>	<i>Exclude From Torque Calculation</i>	<i>Component Type</i>	<i>Placement ft</i>	<i>Total Number</i>		<i>C_AA_A ft²/ft</i>	<i>Weight plf</i>
Safety Line 3/8	A	No	No	CaAa (Out Of Face)	192.00 - 0.00	1	No Ice	0.04	0.22
							1/2" Ice	0.14	0.75
							1" Ice	0.24	1.28
							2" Ice	0.44	2.34
Step Pegs (5/8" SR) 7-in. w/24" step	A	No	No	CaAa (Out Of Face)	192.00 - 0.00	1	No Ice	0.04	0.62
							1/2" Ice	0.14	1.17
							1" Ice	0.24	2.32
							2" Ice	0.44	6.47
192 LDF7-50A(1-5/8)	C	No	No	Inside Pole	192.00 - 0.00	6	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82
PWRT-604-S(1-1/8)	C	No	No	Inside Pole	192.00 - 0.00	3	No Ice	0.00	1.25
							1/2" Ice	0.00	1.25
							1" Ice	0.00	1.25
							2" Ice	0.00	1.25
PWRT-608-S(13/16)	C	No	No	Inside Pole	192.00 - 0.00	6	No Ice	0.00	0.62
							1/2" Ice	0.00	0.62
							1" Ice	0.00	0.62
							2" Ice	0.00	0.62
FB-L98B-235-XXX(3/8)	C	No	No	Inside Pole	192.00 - 0.00	3	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
							2" Ice	0.00	0.06
185 LCF158-50JL(1-5/8)	C	No	No	Inside Pole	185.00 - 0.00	6	No Ice	0.00	0.52
							1/2" Ice	0.00	0.52
							1" Ice	0.00	0.52
							2" Ice	0.00	0.52
175 FSJ1-50A(1/4)	B	No	No	Inside Pole	175.00 - 0.00	3	No Ice	0.00	0.04
							1/2" Ice	0.00	0.04
							1" Ice	0.00	0.04
							2" Ice	0.00	0.04
FSJ4-50B(1/2)	B	No	No	Inside Pole	175.00 - 0.00	3	No Ice	0.00	0.14
							1/2" Ice	0.00	0.14
							1" Ice	0.00	0.14
							2" Ice	0.00	0.14
9207(5/16)	B	No	No	Inside Pole	175.00 - 0.00	1	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06
							2" Ice	0.00	0.06
HJ4.5-50(5/8)	B	No	No	Inside Pole	175.00 - 0.00	3	No Ice	0.00	0.40
							1/2" Ice	0.00	0.40
							1" Ice	0.00	0.40
							2" Ice	0.00	0.40
2" Flexible Conduit	B	No	No	Inside Pole	175.00 - 0.00	2	No Ice	0.00	0.34
							1/2" Ice	0.00	0.34
							1" Ice	0.00	0.34
							2" Ice	0.00	0.34
161 EC4-50(1/2)	B	No	No	Inside Pole	161.00 - 0.00	1	No Ice	0.00	0.16
							1/2" Ice	0.00	0.16

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	Client	Crown Castle	Designed by	adare

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		$C_A A_A$ ft ² /ft	Weight plf
							1" Ice	0.00	0.16
							2" Ice	0.00	0.16
153									
CU12PSM6P4XXX(1-3/4)	B	No	No	Inside Pole	153.00 - 0.00	1	No Ice	0.00	2.72
							1/2" Ice	0.00	2.72
							1" Ice	0.00	2.72
							2" Ice	0.00	2.72
101									
LDF7-50A(1-5/8)	C	No	No	Inside Pole	101.00 - 0.00	5	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
							2" Ice	0.00	0.82
HB114-U6S12-XXX-LI(1-1/4)	C	No	No	Inside Pole	101.00 - 0.00	2	No Ice	0.00	1.70
							1/2" Ice	0.00	1.70
							1" Ice	0.00	1.70
							2" Ice	0.00	1.70
MLC HYBRID 6X12	C	No	No	Inside Pole	101.00 - 0.00	1	No Ice	0.00	0.59
6AWGX6(1-1/2)							1/2" Ice	0.00	0.59
							1" Ice	0.00	0.59
							2" Ice	0.00	0.59

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft ²	A_F ft ²	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
L1	192.00-151.25	A	0.000	0.000	0.000	3.121	0.03
		B	0.000	0.000	0.000	0.000	0.07
		C	0.000	0.000	0.000	0.000	0.62
L2	151.25-111.25	A	0.000	0.000	0.000	3.064	0.03
		B	0.000	0.000	0.000	0.000	0.22
		C	0.000	0.000	0.000	0.000	0.63
L3	111.25-72.75	A	0.000	0.000	0.000	2.949	0.03
		B	0.000	0.000	0.000	0.000	0.21
		C	0.000	0.000	0.000	0.000	0.83
L4	72.75-35.75	A	0.000	0.000	0.000	2.834	0.03
		B	0.000	0.000	0.000	0.000	0.20
		C	0.000	0.000	0.000	0.000	0.88
L5	35.75-0.00	A	0.000	0.000	0.000	2.738	0.03
		B	0.000	0.000	0.000	0.000	0.19
		C	0.000	0.000	0.000	0.000	0.85

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	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
L1	192.00-151.25	A	1.502	0.000	0.000	0.000	27.612	0.25
		B		0.000	0.000	0.000	0.000	0.07
		C		0.000	0.000	0.000	0.000	0.62
L2	151.25-111.25	A	1.463	0.000	0.000	0.000	27.104	0.25

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Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft ²	A_F ft ²	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²	Weight K
L3	111.25-72.75	B	1.412	0.000	0.000	0.000	0.000	0.22
		C		0.000	0.000	0.000	0.000	0.63
		A		0.000	0.000	0.000	25.478	0.23
		B		0.000	0.000	0.000	0.000	0.21
L4	72.75-35.75	C	1.340	0.000	0.000	0.000	0.000	0.83
		A		0.000	0.000	0.000	23.732	0.21
		B		0.000	0.000	0.000	0.000	0.20
		C		0.000	0.000	0.000	0.000	0.88
L5	35.75-0.00	A	1.196	0.000	0.000	0.000	21.897	0.19
		B		0.000	0.000	0.000	0.000	0.19
		C		0.000	0.000	0.000	0.000	0.85

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	192.00-151.25	0.0000	-0.6891	0.0000	-2.7734
L2	151.25-111.25	0.0000	-0.6973	0.0000	-2.9744
L3	111.25-72.75	0.0000	-0.7017	0.0000	-3.0327
L4	72.75-35.75	0.0000	-0.7045	0.0000	-3.0267
L5	35.75-0.00	0.0000	-0.7064	0.0000	-2.9586

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

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	$C_A A_A$ Front ft ²	$C_A A_A$ Side ft ²	Weight K
195								
AIR 6419 B77G	A	From Centroid-LEG	4.00	0.0000	195.00	No Ice	4.64	0.07
			0.00			1/2" Ice	5.11	0.09
			0.00			1" Ice	5.59	0.12
			0.00			2" Ice	6.62	0.19
AIR 6419 B77G	B	From Centroid-LEG	4.00	0.0000	195.00	No Ice	4.64	0.07
			0.00			1/2" Ice	5.11	0.09
			0.00			1" Ice	5.59	0.12
			0.00			2" Ice	6.62	0.19
AIR 6419 B77G	C	From Centroid-LEG	4.00	0.0000	195.00	No Ice	4.64	0.07
			0.00			1/2" Ice	5.11	0.09
			0.00			1" Ice	5.59	0.12
			0.00			2" Ice	6.62	0.19
AIR 6449 N77 w/ Mount Pipe	A	From Centroid-LEG	4.00	0.0000	195.00	No Ice	3.65	0.11
			0.00			1/2" Ice	3.99	0.15
			0.00			1" Ice	4.35	0.20
			0.00			2" Ice	5.11	0.31

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	Client	Crown Castle	Designed by	adare

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
AIR 6449 N77 w/ Mount Pipe	B	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.65 3.99 4.35 5.11	2.72 3.03 3.36 4.05	0.11 0.15 0.20 0.31
AIR 6449 N77 w/ Mount Pipe	C	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	3.65 3.99 4.35 5.11	2.72 3.03 3.36 4.05	0.11 0.15 0.20 0.31
QD8616-7 w/ Mount Pipe	A	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	16.93 17.87 18.83 20.79	9.31 10.17 11.05 12.86	0.18 0.31 0.45 0.77
QD8616-7 w/ Mount Pipe	B	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	16.93 17.87 18.83 20.79	9.31 10.17 11.05 12.86	0.18 0.31 0.45 0.77
QD8616-7 w/ Mount Pipe	C	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	16.93 17.87 18.83 20.79	9.31 10.17 11.05 12.86	0.18 0.31 0.45 0.77
DMP65R-BU8D w/ Mount Pipe	A	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	15.89 16.81 17.76 19.70	7.89 8.74 9.60 11.37	0.14 0.25 0.38 0.68
DMP65R-BU8D w/ Mount Pipe	B	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	15.89 16.81 17.76 19.70	7.89 8.74 9.60 11.37	0.14 0.25 0.38 0.68
DMP65R-BU6D w/ Mount Pipe	C	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	11.96 12.70 13.46 15.02	5.97 6.63 7.30 8.69	0.11 0.20 0.30 0.53
RRUS 32 B30	A	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.73 2.95 3.18 3.66	1.67 1.86 2.05 2.46	0.05 0.07 0.10 0.16
RRUS 32 B30	B	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.73 2.95 3.18 3.66	1.67 1.86 2.05 2.46	0.05 0.07 0.10 0.16
RRUS 32 B30	C	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.73 2.95 3.18 3.66	1.67 1.86 2.05 2.46	0.05 0.07 0.10 0.16
DC9-48-60-24-8C-EV	A	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.14 1.79 2.00 2.45	1.14 1.79 2.00 2.45	0.03 0.05 0.07 0.13
DC9-48-60-24-8C-EV	B	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.14 1.79 2.00 2.45	1.14 1.79 2.00 2.45	0.03 0.05 0.07 0.13
DC9-48-60-24-8C-EV	C	From Centroid-Le g	4.00 0.00 0.00	0.0000	195.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.14 1.79 2.00 2.45	1.14 1.79 2.00 2.45	0.03 0.05 0.07 0.13
RRUS 8843 B2/B66A	A	From	4.00	0.0000	195.00	No Ice	1.64	1.35	0.07

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	Client	Crown Castle	Designed by	adare

<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>		<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
		Centroid-Le g	0.00 0.00			1/2" Ice	1.93	1.93	0.03
						1" Ice	2.30	2.30	0.05
						2" Ice	3.06	3.06	0.09
(3) 2.4" Dia x 6-ft Pipe	C	From Centroid-Le g	4.00 0.00 0.00	0.0000	185.00	No Ice	1.43	1.43	0.02
						1/2" Ice	1.93	1.93	0.03
						1" Ice	2.30	2.30	0.05
						2" Ice	3.06	3.06	0.09
Platform Mount [LP 1201-1]	C	None		0.0000	185.00	No Ice	18.38	18.38	2.10
						1/2" Ice	22.11	22.11	2.65
						1" Ice	25.87	25.87	3.26
						2" Ice	33.47	33.47	4.66
175									
LLPX310R w/ Mount Pipe	A	From Leg	2.00 0.00 3.00	0.0000	175.00	No Ice	3.88	2.36	0.06
						1/2" Ice	4.29	2.73	0.09
						1" Ice	4.72	3.12	0.13
						2" Ice	5.61	3.94	0.24
LLPX310R w/ Mount Pipe	B	From Leg	2.00 0.00 3.00	0.0000	175.00	No Ice	3.88	2.36	0.06
						1/2" Ice	4.29	2.73	0.09
						1" Ice	4.72	3.12	0.13
						2" Ice	5.61	3.94	0.24
LLPX310R w/ Mount Pipe	C	From Leg	2.00 0.00 3.00	0.0000	175.00	No Ice	3.88	2.36	0.06
						1/2" Ice	4.29	2.73	0.09
						1" Ice	4.72	3.12	0.13
						2" Ice	5.61	3.94	0.24
HORIZON COMPACT	A	From Leg	2.00 0.00 4.00	0.0000	175.00	No Ice	0.72	0.37	0.01
						1/2" Ice	0.83	0.45	0.02
						1" Ice	0.94	0.54	0.03
						2" Ice	1.19	0.74	0.05
HORIZON COMPACT	C	From Leg	2.00 0.00 4.00	0.0000	175.00	No Ice	0.72	0.37	0.01
						1/2" Ice	0.83	0.45	0.02
						1" Ice	0.94	0.54	0.03
						2" Ice	1.19	0.74	0.05
TIMING 2000	B	From Leg	2.00 0.00 0.00	0.0000	175.00	No Ice	0.13	0.11	0.00
						1/2" Ice	0.18	0.15	0.00
						1" Ice	0.24	0.20	0.01
						2" Ice	0.37	0.33	0.01
RRH-2WB	A	From Leg	2.00 0.00 3.00	0.0000	175.00	No Ice	2.30	0.78	0.04
						1/2" Ice	2.50	0.92	0.06
						1" Ice	2.69	1.06	0.08
						2" Ice	3.11	1.36	0.12
RRH-2WB	B	From Leg	2.00 0.00 3.00	0.0000	175.00	No Ice	2.30	0.78	0.04
						1/2" Ice	2.50	0.92	0.06
						1" Ice	2.69	1.06	0.08
						2" Ice	3.11	1.36	0.12
RRH-2WB	C	From Leg	2.00 0.00 3.00	0.0000	175.00	No Ice	2.30	0.78	0.04
						1/2" Ice	2.50	0.92	0.06
						1" Ice	2.69	1.06	0.08
						2" Ice	3.11	1.36	0.12
2.4" Dia x 6-ft Pipe	A	From Leg	2.00 0.00 0.00	0.0000	175.00	No Ice	1.43	1.43	0.02
						1/2" Ice	1.93	1.93	0.03
						1" Ice	2.30	2.30	0.05
						2" Ice	3.06	3.06	0.09
2.4" Dia x 6-ft Pipe	B	From Leg	2.00 0.00 0.00	0.0000	175.00	No Ice	1.43	1.43	0.02
						1/2" Ice	1.93	1.93	0.03
						1" Ice	2.30	2.30	0.05
						2" Ice	3.06	3.06	0.09
2.4" Dia x 6-ft Pipe	C	From Leg	2.00	0.0000	175.00	No Ice	1.43	1.43	0.02

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<i>Description</i>	<i>Face or Leg</i>	<i>Offset Type</i>	<i>Offsets: Horz Lateral Vert ft ft ft</i>	<i>Azimuth Adjustment °</i>	<i>Placement ft</i>	<i>C_{AA} Front ft²</i>	<i>C_{AA} Side ft²</i>	<i>Weight K</i>
			0.00			1/2" Ice	1.93	0.03
			0.00			1" Ice	2.30	0.05
						2" Ice	3.06	0.09
Side Arm Mount [SO 101-3]	C	None		0.0000	175.00	No Ice	5.81	0.25
						1/2" Ice	6.95	0.34
						1" Ice	8.28	0.46
						2" Ice	11.54	0.78
161 CXL 900-3LW	C	From Face	4.00	0.0000	161.00	No Ice	0.14	0.00
			0.00			1/2" Ice	0.33	0.00
			3.00			1" Ice	0.48	0.01
						2" Ice	0.81	0.02
LNA	C	From Face	4.00	0.0000	161.00	No Ice	0.14	0.00
			0.00			1/2" Ice	0.19	0.00
			0.00			1" Ice	0.25	0.00
						2" Ice	0.39	0.01
CAVITY FILTER	C	From Face	4.00	0.0000	161.00	No Ice	0.19	0.00
			0.00			1/2" Ice	0.25	0.00
			0.00			1" Ice	0.32	0.01
						2" Ice	0.47	0.02
Side Arm Mount [SO 102-3]	C	None		0.0000	161.00	No Ice	3.60	0.07
						1/2" Ice	4.18	0.10
						1" Ice	4.75	0.14
						2" Ice	5.90	0.20
Side Arm Mount [SO 302-1]	C	From Face	2.00	0.0000	161.00	No Ice	0.81	0.06
			0.00			1/2" Ice	1.30	0.08
			0.00			1" Ice	1.81	0.12
						2" Ice	2.91	0.23
153 MX08FRO665-21 w/ Mount Pipe	A	From Centroid-Le g	4.00	0.0000	153.00	No Ice	8.01	0.11
			0.00			1/2" Ice	8.52	0.19
			2.00			1" Ice	9.04	0.29
						2" Ice	10.11	0.52
MX08FRO665-21 w/ Mount Pipe	B	From Centroid-Le g	4.00	0.0000	153.00	No Ice	8.01	0.11
			0.00			1/2" Ice	8.52	0.19
			2.00			1" Ice	9.04	0.29
						2" Ice	10.11	0.52
MX08FRO665-21 w/ Mount Pipe	C	From Centroid-Le g	4.00	0.0000	153.00	No Ice	8.01	0.11
			0.00			1/2" Ice	8.52	0.19
			2.00			1" Ice	9.04	0.29
						2" Ice	10.11	0.52
TA08025-B604	A	From Centroid-Le g	4.00	0.0000	153.00	No Ice	1.96	0.06
			0.00			1/2" Ice	2.14	0.08
			2.00			1" Ice	2.32	0.10
						2" Ice	2.71	0.15
TA08025-B604	B	From Centroid-Le g	4.00	0.0000	153.00	No Ice	1.96	0.06
			0.00			1/2" Ice	2.14	0.08
			2.00			1" Ice	2.32	0.10
						2" Ice	2.71	0.15
TA08025-B604	C	From Centroid-Le g	4.00	0.0000	153.00	No Ice	1.96	0.06
			0.00			1/2" Ice	2.14	0.08
			2.00			1" Ice	2.32	0.10
						2" Ice	2.71	0.15
TA08025-B605	A	From Centroid-Le g	4.00	0.0000	153.00	No Ice	1.96	0.08
			0.00			1/2" Ice	2.14	0.09
			2.00			1" Ice	2.32	0.11
						2" Ice	2.71	0.16

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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
TA08025-B605	B	From Centroid-Le g	4.00 0.00 2.00	0.0000	153.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	1.13 1.27 1.41 1.72	0.08 0.09 0.11 0.16
TA08025-B605	C	From Centroid-Le g	4.00 0.00 2.00	0.0000	153.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.96 2.14 2.32 2.71	1.13 1.27 1.41 1.72	0.08 0.09 0.11 0.16
RDIDC-9181-PF-48	A	From Centroid-Le g	4.00 0.00 2.00	0.0000	153.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.01 2.19 2.37 2.76	1.17 1.31 1.46 1.78	0.02 0.04 0.06 0.11
(2) 2.4" Dia x 8-ft Mount Pipe	A	From Centroid-Le g	4.00 0.00 0.00	0.0000	153.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
(2) 2.4" Dia x 8-ft Mount Pipe	B	From Centroid-Le g	4.00 0.00 0.00	0.0000	153.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
(2) 2.4" Dia x 8-ft Mount Pipe	C	From Centroid-Le g	4.00 0.00 0.00	0.0000	153.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.90 2.73 3.40 4.40	1.90 2.73 3.40 4.40	0.03 0.04 0.06 0.12
Sabre C10801018-32788	C	None		0.0000	153.00	No Ice 1/2" Ice 1" Ice 2" Ice	26.80 32.20 37.60 48.40	26.80 32.20 37.60 48.40	1.51 1.81 2.11 2.72
101									
SBNHH-1D65B w/ Mount Pipe	A	From Centroid-Le g	4.00 0.00 2.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.09 4.49 4.89 5.72	3.30 3.68 4.07 4.87	0.07 0.13 0.20 0.39
SBNHH-1D65B	A	From Centroid-Le g	4.00 0.00 2.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.16 4.57 4.99 5.85	2.49 2.88 3.27 4.09	0.04 0.09 0.15 0.28
SBNHH-1D65B w/ Mount Pipe	B	From Centroid-Le g	4.00 0.00 2.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.09 4.49 4.89 5.72	3.30 3.68 4.07 4.87	0.07 0.13 0.20 0.39
SBNHH-1D65B	B	From Centroid-Le g	4.00 0.00 2.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.16 4.57 4.99 5.85	2.49 2.88 3.27 4.09	0.04 0.09 0.15 0.28
SBNHH-1D65B w/ Mount Pipe	C	From Centroid-Le g	4.00 0.00 2.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.09 4.49 4.89 5.72	3.30 3.68 4.07 4.87	0.07 0.13 0.20 0.39
SBNHH-1D65B	C	From Centroid-Le g	4.00 0.00 2.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.16 4.57 4.99 5.85	2.49 2.88 3.27 4.09	0.04 0.09 0.15 0.28
39GHz VectaStar w/ Mount Pipe	A	From Centroid-Le g	4.00 0.00 4.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.28 2.54 2.81 3.41	1.60 1.82 2.06 2.58	0.06 0.09 0.12 0.19

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	Project	TEP No. 217212.1013381	Date	15:07:02 10/28/24
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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
39GHz VectaStar w/ Mount Pipe	B	From Centroid-Le g	4.00 0.00 4.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.28 2.54 2.81 3.41	1.60 1.82 2.06 2.58	0.06 0.09 0.12 0.19
(2) 39GHz VectaStar w/ Mount Pipe	C	From Centroid-Le g	4.00 0.00 4.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	2.28 2.54 2.81 3.41	1.60 1.82 2.06 2.58	0.06 0.09 0.12 0.19
MT6407-77A w/ Mount Pipe	A	From Centroid-Le g	4.00 0.00 3.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.94 6.47 7.02 8.17	3.10 3.55 4.02 5.01	0.10 0.13 0.18 0.28
MT6407-77A w/ Mount Pipe	B	From Centroid-Le g	4.00 0.00 3.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.94 6.47 7.02 8.17	3.10 3.55 4.02 5.01	0.10 0.13 0.18 0.28
MT6407-77A w/ Mount Pipe	C	From Centroid-Le g	4.00 0.00 3.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	5.94 6.47 7.02 8.17	3.10 3.55 4.02 5.01	0.10 0.13 0.18 0.28
XXDWMM-12.5-65-8T-CBR S w/ Mount Pipe	A	From Centroid-Le g	4.00 0.00 0.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.18 1.38 1.58 2.03	1.03 1.28 1.55 2.13	0.03 0.05 0.06 0.11
XXDWMM-12.5-65-8T-CBR S w/ Mount Pipe	B	From Centroid-Le g	4.00 0.00 0.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.18 1.38 1.58 2.03	1.03 1.28 1.55 2.13	0.03 0.05 0.06 0.11
XXDWMM-12.5-65-8T-CBR S w/ Mount Pipe	C	From Centroid-Le g	4.00 0.00 0.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.18 1.38 1.58 2.03	1.03 1.28 1.55 2.13	0.03 0.05 0.06 0.11
RCMDC-6627-PF-48	A	From Centroid-Le g	4.00 0.00 3.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.06 4.32 4.58 5.14	3.10 3.34 3.58 4.09	0.03 0.07 0.11 0.20
RCMDC-6627-PF-48	A	From Centroid-Le g	4.00 0.00 3.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	4.06 4.32 4.58 5.14	3.10 3.34 3.58 4.09	0.03 0.07 0.11 0.20
RFV01U-D1A	A	From Centroid-Le g	4.00 0.00 0.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.25 1.39 1.54 1.86	0.08 0.10 0.12 0.18
RFV01U-D1A	B	From Centroid-Le g	4.00 0.00 0.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.25 1.39 1.54 1.86	0.08 0.10 0.12 0.18
RFV01U-D1A	C	From Centroid-Le g	4.00 0.00 0.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.25 1.39 1.54 1.86	0.08 0.10 0.12 0.18
RFV01U-D2A	A	From Centroid-Le g	4.00 0.00 0.00	0.0000	101.00	No Ice 1/2" Ice 1" Ice 2" Ice	1.88 2.05 2.22 2.60	1.01 1.14 1.28 1.59	0.07 0.09 0.11 0.15
RFV01U-D2A	B	From	4.00	0.0000	101.00	No Ice	1.88	1.01	0.07

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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	
RFV01U-D2A	C	Centroid-Le g	0.00 0.00	0.0000	101.00	1/2" Ice	2.05	0.09	
			1" Ice			2.22	0.11		
			2" Ice			2.60	0.15		
		From	No Ice			1.88	1.01	0.07	
		Centroid-Le g	0.00 0.00			1/2" Ice	2.05	1.14	0.09
			1" Ice			2.22	1.28	0.11	
2.4" Dia x 6-ft Pipe	A		2.00 0.00 0.00	0.0000	101.00	2" Ice	2.60	0.15	
		From	No Ice			1.43	1.43	0.02	
		Centroid-Le g	0.00 0.00			1/2" Ice	1.93	1.93	0.03
			1" Ice			2.30	2.30	0.05	
			2" Ice			3.06	3.06	0.09	
			No Ice			1.43	1.43	0.02	
2.4" Dia x 6-ft Pipe	C		2.00 0.00 0.00	0.0000	101.00	1/2" Ice	1.93	0.03	
		From	No Ice			1.43	1.43	0.02	
		Centroid-Le g	0.00 0.00			1/2" Ice	1.93	1.93	0.03
			1" Ice			2.30	2.30	0.05	
			2" Ice			3.06	3.06	0.09	
			No Ice			1.90	1.90	0.03	
2.4" Dia x 8-ft Mount Pipe	A		4.00 0.00 0.00	0.0000	101.00	1/2" Ice	2.73	0.04	
		From	No Ice			1.90	1.90	0.03	
		Centroid-Le g	0.00 0.00			1" Ice	3.40	3.40	0.06
			2" Ice			4.40	4.40	0.12	
			No Ice			1.90	1.90	0.03	
			1/2" Ice			2.73	2.73	0.04	
2.4" Dia x 8-ft Mount Pipe	B		4.00 0.00 0.00	0.0000	101.00	1" Ice	3.40	0.06	
		From	No Ice			1.90	1.90	0.03	
		Centroid-Le g	0.00 0.00			1/2" Ice	2.73	2.73	0.04
			1" Ice			3.40	3.40	0.06	
			2" Ice			4.40	4.40	0.12	
			No Ice			1.90	1.90	0.03	
Platform Mount [LP 303-1_KCKR-HR-1]	C	None		0.0000	101.00	1/2" Ice	35.69	2.30	
			No Ice			28.31	28.31	1.77	
			1" Ice			43.11	43.11	2.94	
			2" Ice			58.21	58.21	4.60	
			No Ice			28.31	28.31	1.77	
			1/2" Ice			35.69	35.69	2.30	
*									
*									
*									

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft	Aperture Area ft²	Weight K	
*											
PX2F-52	B	Paraboloid w/Radome	From Leg	2.00	60.0000		175.00	2.09	No Ice	3.44	0.02
				0.00					1/2" Ice	3.72	0.04
				4.00					1" Ice	3.99	0.06
									2" Ice	4.55	0.09
VHLP2-23	A	Paraboloid w/Shroud (HP)	From Leg	2.00	30.0000		175.00	2.18	No Ice	3.73	0.03
				0.00					1/2" Ice	4.02	0.05
				4.00					1" Ice	4.31	0.07
									2" Ice	4.90	0.11
VHLP2-23	C	Paraboloid w/Shroud (HP)	From Leg	2.00	30.0000		175.00	2.18	No Ice	3.73	0.03
				0.00					1/2" Ice	4.02	0.05
				4.00					1" Ice	4.31	0.07
									2" Ice	4.90	0.11

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job CT New Britain 4 CAC 803843 (BU 803843)	Page 13 of 14
	Project TEP No. 217212.1013381	Date 15:07:02 10/28/24
	Client Crown Castle	Designed by adare

Compression Checks

Pole Design Data

Section No.	Elevation <i>ft</i>	Size	L <i>ft</i>	L_u <i>ft</i>	Kl/r	A <i>in²</i>	P_u <i>K</i>	ϕP_n <i>K</i>	Ratio $\frac{P_u}{\phi P_n}$
L1	192 - 151.25 (1)	TP39.245x26x0.3125	40.75	0.00	0.0	37.0042	-13.81	2164.75	0.006
L2	151.25 - 111.25 (2)	TP51.621x36.9948x0.4375	45.00	0.00	0.0	68.1410	-27.85	3986.25	0.007
L3	111.25 - 72.75 (3)	TP63.259x48.6333x0.5	45.00	0.00	0.0	95.4721	-47.90	5585.12	0.009
L4	72.75 - 35.75 (4)	TP74.285x59.6589x0.5625	45.00	0.00	0.0	126.255 0	-69.38	7385.90	0.009
L5	35.75 - 0 (5)	TP84.78x70.1535x0.5625	45.00	0.00	0.0	150.360 0	-101.29	8796.05	0.012

Pole Bending Design Data

Section No.	Elevation <i>ft</i>	Size	M_{ux} <i>kip-ft</i>	ϕM_{nx} <i>kip-ft</i>	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} <i>kip-ft</i>	ϕM_{ny} <i>kip-ft</i>	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	192 - 151.25 (1)	TP39.245x26x0.3125	362.40	1979.46	0.183	0.00	1979.46	0.000
L2	151.25 - 111.25 (2)	TP51.621x36.9948x0.4375	980.15	4884.23	0.201	0.00	4884.23	0.000
L3	111.25 - 72.75 (3)	TP63.259x48.6333x0.5	1782.11	8215.23	0.217	0.00	8215.23	0.000
L4	72.75 - 35.75 (4)	TP74.285x59.6589x0.5625	2737.74	12590.33	0.217	0.00	12590.33	0.000
L5	35.75 - 0 (5)	TP84.78x70.1535x0.5625	4121.53	16713.83	0.247	0.00	16713.83	0.000

Pole Shear Design Data

Section No.	Elevation <i>ft</i>	Size	Actual V_u <i>K</i>	ϕV_n <i>K</i>	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u <i>kip-ft</i>	ϕT_n <i>kip-ft</i>	Ratio $\frac{T_u}{\phi T_n}$
L1	192 - 151.25 (1)	TP39.245x26x0.3125	12.04	649.42	0.019	0.01	2121.79	0.000
L2	151.25 - 111.25 (2)	TP51.621x36.9948x0.4375	18.02	1195.87	0.015	0.19	5139.12	0.000
L3	111.25 - 72.75 (3)	TP63.259x48.6333x0.5	24.82	1675.54	0.015	0.64	8827.42	0.000
L4	72.75 - 35.75 (4)	TP74.285x59.6589x0.5625	28.56	2215.77	0.013	0.75	13722.17	0.000
L5	35.75 - 0 (5)	TP84.78x70.1535x0.5625	32.89	2638.81	0.012	0.89	19462.17	0.000

tnxTower TEP 326 Tryon Road Raleigh, NC 27603 Phone: (919) 661-6351 FAX: (919) 661-6350	Job	CT New Britain 4 CAC 803843 (BU 803843)	Page	14 of 14
	Project	TEP No. 217212.1013381	Date	15:07:02 10/28/24
	Client	Crown Castle	Designed by	adare

Pole Interaction Design Data

Section No.	Elevation <i>ft</i>	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	192 - 151.25 (1)	0.006	0.183	0.000	0.019	0.000	0.190	1.050	
L2	151.25 - 111.25 (2)	0.007	0.201	0.000	0.015	0.000	0.208	1.050	
L3	111.25 - 72.75 (3)	0.009	0.217	0.000	0.015	0.000	0.226	1.050	
L4	72.75 - 35.75 (4)	0.009	0.217	0.000	0.013	0.000	0.227	1.050	
L5	35.75 - 0 (5)	0.012	0.247	0.000	0.012	0.000	0.258	1.050	

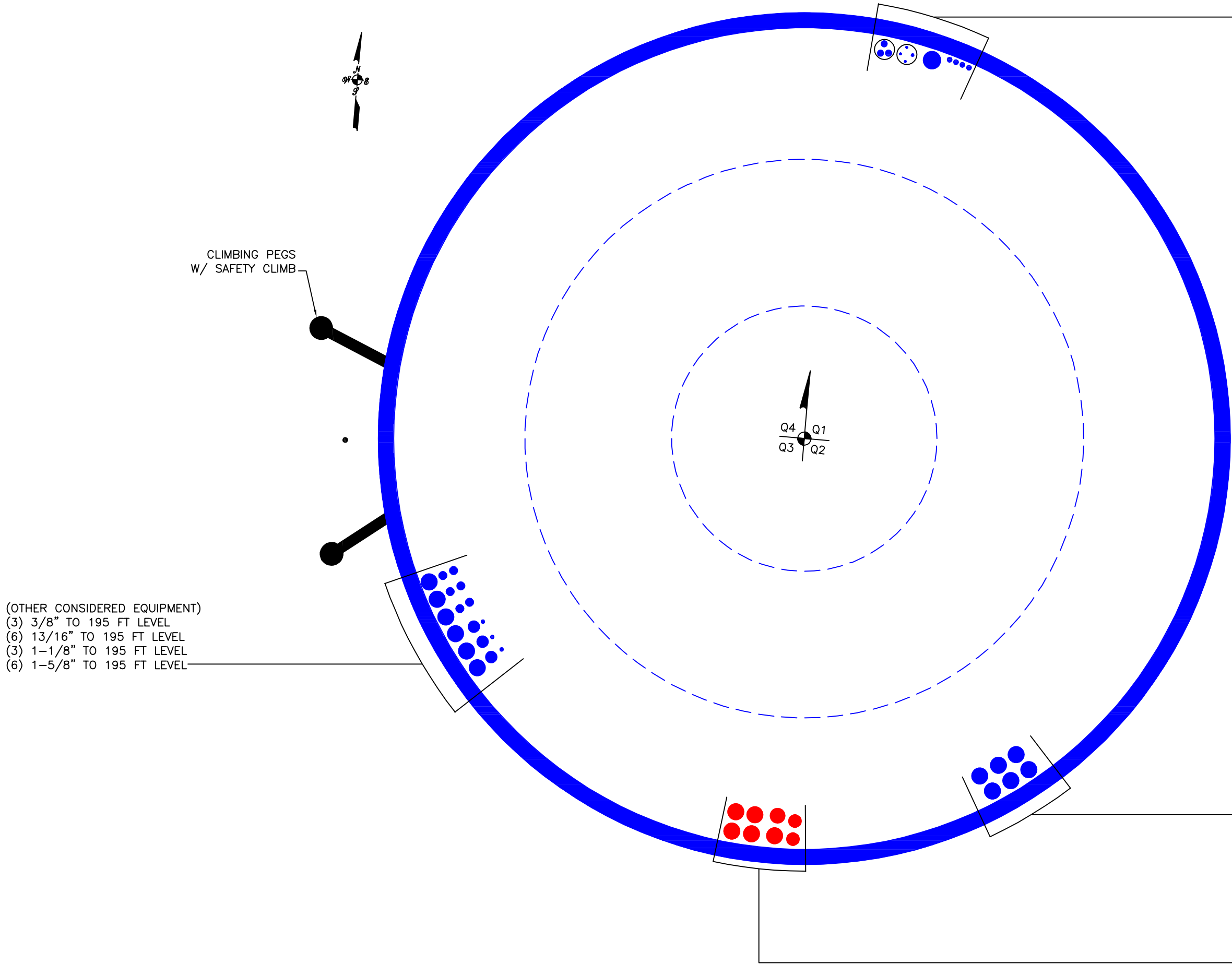
Section Capacity Table

Section No.	Elevation <i>ft</i>	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	192 - 151.25	Pole	TP39.245x26x0.3125	1	-13.81	2272.99	18.1	Pass
L2	151.25 - 111.25	Pole	TP51.621x36.9948x0.4375	2	-27.85	4185.56	19.8	Pass
L3	111.25 - 72.75	Pole	TP63.259x48.6333x0.5	3	-47.90	5864.38	21.5	Pass
L4	72.75 - 35.75	Pole	TP74.285x59.6589x0.5625	4	-69.38	7755.19	21.6	Pass
L5	35.75 - 0	Pole	TP84.78x70.1535x0.5625	5	-101.29	9235.85	24.6	Pass
							Summary	
							Pole (L5)	24.6 Pass
							RATING =	24.6 Pass

APPENDIX B

BASE LEVEL DRAWING

(OTHER CONSIDERED EQUIPMENT)
(1) 1-3/4" TO 153 FT LEVEL
(3) 1/2" TO 175 FT LEVEL
(1) 1/2" TO 161 FT LEVEL
(OTHER CONSIDERED EQUIPMENT-IN CONDUIT)
(3) 1/4" TO 175 FT LEVEL
(1) 5/16" TO 175 FT LEVEL
(3) 5/8" TO 175 FT LEVEL



(OTHER CONSIDERED EQUIPMENT)
(3) 3/8" TO 195 FT LEVEL
(6) 13/16" TO 195 FT LEVEL
(3) 1-1/8" TO 195 FT LEVEL
(6) 1-5/8" TO 195 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(6) 1-5/8" TO 185 FT LEVEL

(PROPOSED EQUIPMENT CONFIGURATION)
(2) 1-1/4" TO 101 FT LEVEL
(1) 1-1/2" TO 101 FT LEVEL
(5) 1-5/8" TO 101 FT LEVEL

APPENDIX C

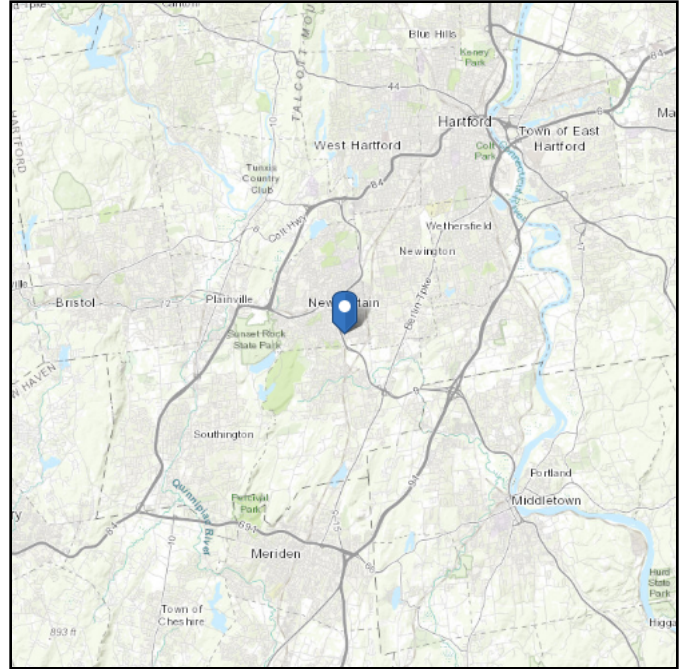
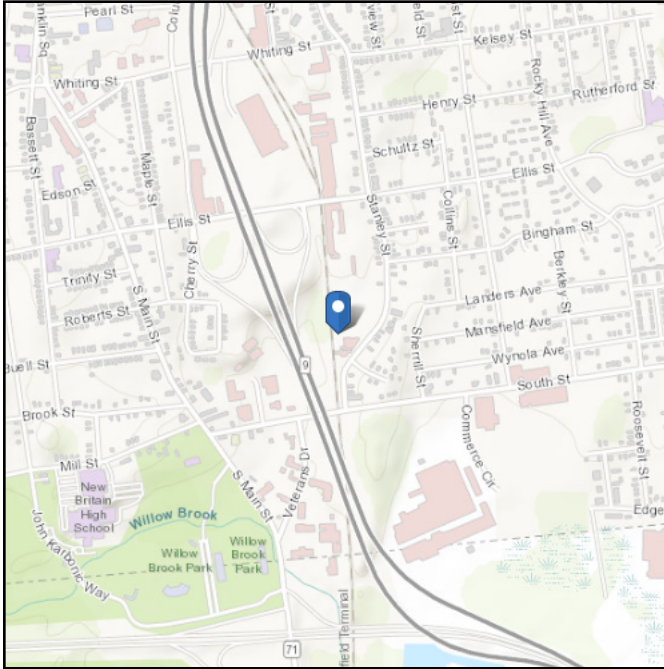
ADDITIONAL CALCULATIONS

ASCE 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: 41.654556
Longitude: -72.769331
Elevation: 110.7092014199909 ft
(NAVD 88)



Wind

Results:

Wind Speed	118 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	97 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Fri Oct 25 2024

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).

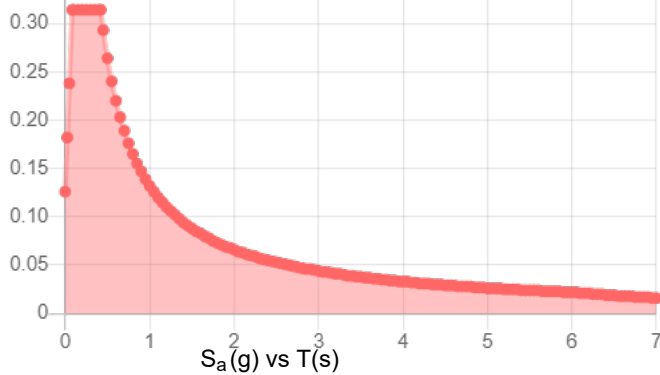
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

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

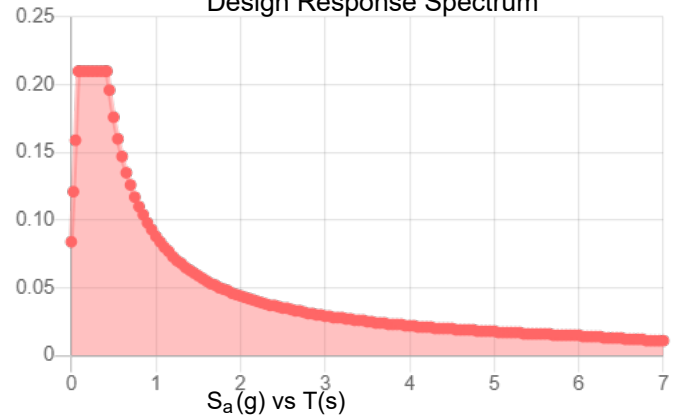
Results:

S_S :	0.196	S_{D1} :	0.088
S_1 :	0.055	T_L :	6
F_a :	1.6	PGA :	0.107
F_v :	2.4	PGA _M :	0.17
S_{MS} :	0.314	F_{PGA} :	1.585
S_{M1} :	0.132	I_e :	1
S_{DS} :	0.21	C_v :	0.7

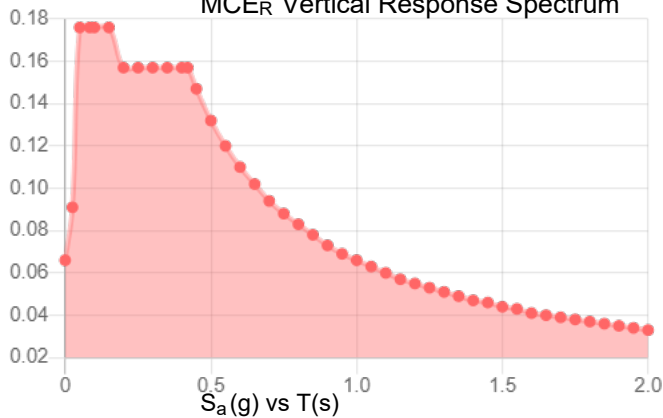
Seismic Design Category: B **MCE_R Response Spectrum**



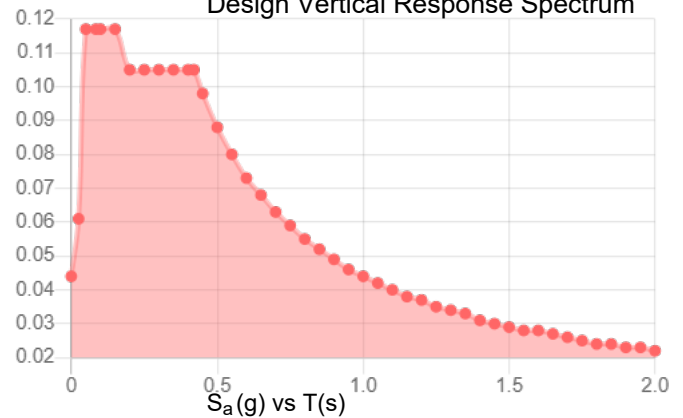
Design Response Spectrum



MCE_R Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: Fri Oct 25 2024

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.

Results:

Ice Thickness: 1.50 in.
Concurrent Temperature: 15 F
Gust Speed 50 mph

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

Date Accessed: Fri Oct 25 2024

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 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 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 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 Hazard Tool.

Monopole Base Plate Connection

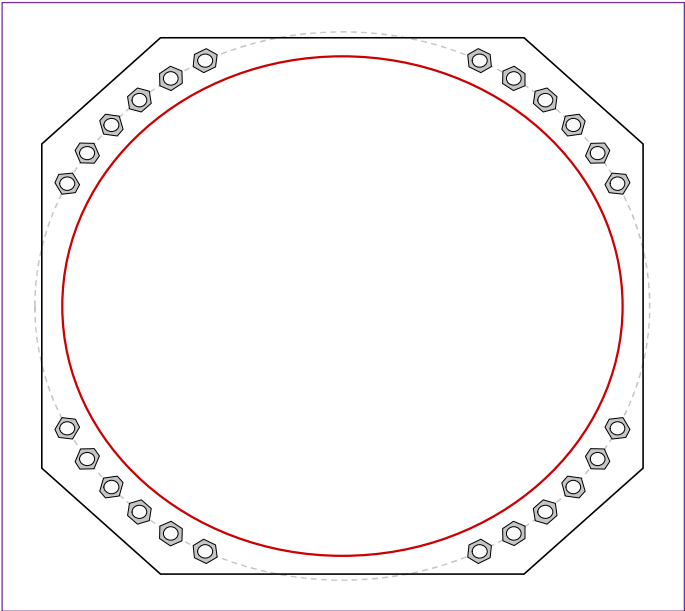


Site Info	
BU #	803843
Site Name	New Britain 4 CAC 8038
Order #	681946 Rev.0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	No
I_{ar} (in)	1.875

Applied Loads	
Moment (kip-ft)	4122.00
Axial Force (kips)	101.00
Shear Force (kips)	33.00

*TIA-222-H Section 15.5 Applied



Connection Properties		Analysis Results	
Anchor Rod Data		Anchor Rod Summary (units of kips, kip-in)	
(24) 2-1/4" ϕ bolts (A615-75 N; $F_y=75$ ksi, $F_u=100$ ksi) on 93" BC		$Pu_t = 84.42$	$\phi Pn_t = 243.75$
Anchor Spacing: 6 in		$Vu = 1.38$	$\phi Vn = 149.1$
		$Mu = n/a$	$\phi Mn = n/a$
			Stress Rating
			33.0%
			Pass
Base Plate Data		Base Plate Summary	
91" W x 3.25" Plate (A572-55; $F_y=55$ ksi, $F_u=70$ ksi); Clip: 18 in		Max Stress (ksi):	14.11 (Flexural)
Stiffener Data		Allowable Stress (ksi):	49.5
N/A		Stress Rating:	27.1%
			Pass
Pole Data			
84.78" x 0.5625" 18-sided pole (A607-65; $F_y=65$ ksi, $F_u=80$ ksi)			

Drilled Pier Foundation

BU # : 803843
Site Name: CT New Britain 4 CAC 8038
Order Number: 681946 Rev.0
TIA-222 Revision: H
Tower Type: Monopole

Report File: C:\Users\zkohnen\Desktop\IL-1013381\tnxTower\803843_2336384_LC7.eri.XMLOUT.xml



Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	4122	
Axial Force (kips)	101	
Shear Force (kips)	33	

Material Properties		
Concrete Strength, f _c :	3	ksi
Rebar Strength, F _y :	60	ksi
Tie Yield Strength, F _y :	40	ksi

Pier Design Data		
Depth	28.5	ft
Ext. Above Grade	0.5	ft
Pier Section 1		
<i>From 0.5' above grade to 28.5' below grade</i>		
Pier Diameter	10	ft
Rebar Quantity	40	
Rebar Size	11	
Clear Cover to Ties	4	in
Tie Size	5	
Tie Spacing	18	in

[Rebar & Pier Options](#)

[Embedded Pole Inputs](#)

[Belled Pier Inputs](#)

Analysis Results		
Soil Lateral Check		
	Compression	Uplift
D _{v=0} (ft from TOC)	7.76	-
Soil Safety Factor	4.35	-
Max Moment (kip-ft)	4449.87	-
Rating*	29.1%	-
Soil Vertical Check		
	Compression	Uplift
Skin Friction (kips)	553.71	-
End Bearing (kips)	1413.72	-
Weight of Concrete (kips)	330.50	-
Total Capacity (kips)	1967.42	-
Axial (kips)	431.50	-
Rating*	20.9%	-
Reinforced Concrete Flexure		
	Compression	Uplift
Critical Depth (ft from TOC)	7.44	-
Critical Moment (kip-ft)	4449.00	-
Critical Moment Capacity	14640.18	-
Rating*	28.9%	-
Reinforced Concrete Shear		
	Compression	Uplift
Critical Depth (ft from TOC)	20.40	-
Critical Shear (kip)	431.68	-
Critical Shear Capacity	1160.01	-
Rating*	35.4%	-

Structural Foundation Rating*	35.4%
Soil Interaction Rating*	29.1%

*Rating per TIA-222-H Section 15.5

Soil Profile													
Groundwater Depth	15	# of Layers	3										

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	Y _{soil} (pcf)	Y _{concrete} (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	5	5	115	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	5	15	10	115	150	0	30	0.000	0.000	1.00	1.00			Cohesionless
3	15	28.5	13.5	70	87.6	0	34	0.000	0.000	1.00	1.00	24		Cohesionless

Check Limitation	
Apply TIA-222-H Section 15.5:	☒
N/A	☐
Design Options	
Input Effective Depths (else Actual):	☐
Consider non-tapered moment capacity:	☐
Check Shear along Depth of Pier:	☒
Utilize Shear-Friction Methodology:	☐
Override Critical Depth:	☐

[Go to Soil Calculations](#)

Pier and Pad Foundation



BU #: 803843
 Site Name: CT New Britain 4 C
 App. Number: 681946 Rev. 0

TIA-222 Revision: H
 Tower Type: Monopole

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

Superstructure Analysis Reactions		
Compression, P_{comp} :	101	kips
Base Shear, V_{u_comp} :	33	kips
Moment, M_u :	4122	ft-kips
Tower Height, H :	192	ft
BP Dist. Above Fdn, bp_{dist} :	4.125	in

Pier Properties		
Pier Shape:	Circular	
Pier Diameter, $dpier$:	10	ft
Ext. Above Grade, E :	0.5	ft
Pier Rebar Size, Sc :	11	
Pier Rebar Quantity, mc :	64	
Pier Tie/Spiral Size, St :	4	
Pier Tie/Spiral Quantity, mt :	10	
Pier Reinforcement Type:	Tie	
Pier Clear Cover, cc_{pier} :	3	in

Pad Properties		
Depth, D :	7	ft
Pad Width, W_1 :	32.5	ft
Pad Thickness, T :	4	ft
Pad Rebar Size (Bottom dir. 2), Sp_2 :	11	
Pad Rebar Quantity (Bottom dir. 2), mp_2 :	60	
Pad Clear Cover, cc_{pad} :	3	in

Material Properties		
Rebar Grade, F_y :	60	ksi
Concrete Compressive Strength, F'_c :	3	ksi
Dry Concrete Density, δc :	150	pcf

Soil Properties		
Total Soil Unit Weight, γ :	125	pcf
Ultimate Gross Bearing, Q_{ult} :	6.000	ksf
Cohesion, C_u :		ksf
Friction Angle, ϕ :	32	degrees
SPT Blow Count, N_{blows} :		
Base Friction, μ :	0.5	
Neglected Depth, N :	5.00	ft
Foundation Bearing on Rock?	No	
Groundwater Depth, gw :	15	ft

Foundation Analysis Checks				
	Capacity	Demand	Rating*	Check
Lateral (Sliding) (kips)	498.95	33.00	6.3%	Pass
Bearing Pressure (ksf)	4.50	1.82	38.5%	Pass
Overturing (kip*ft)	12927.49	4380.84	33.9%	Pass
Pier Flexure (Comp.) (kip*ft)	22122.86	4237.50	18.2%	Pass
Pier Compression (kip)	37491.77	150.48	0.4%	Pass
Pad Flexure (kip*ft)	16873.89	1435.55	8.1%	Pass
Pad Shear - 1-way (kips)	1374.11	173.10	12.0%	Pass
Pad Shear - 2-way (Comp) (ksi)	0.164	0.020	11.3%	Pass
Flexural 2-way (Comp) (kip*ft)	22895.15	2542.50	10.6%	Pass

*Rating per TIA-222-H Section 15.5

Structural Rating*:	18.2%
Soil Rating*:	38.5%

<--Toggle between Gross and Net



Colliers Engineering & Design
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2000 Midlantic Drive, Suite 100
Mt. Laurel, NJ 08054
856.797.0412
sean.osullivan@collierseng.com

Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10253016
Colliers Engineering & Design Project #: 24777336

October 4, 2024

Site Information

Site ID: 5000384966-VZW / New Britain 4 CT
Site Name: New Britain 4 CT
Carrier Name: Verizon Wireless
Address: 200 Stanley St
New Britain, Connecticut 06051,
Hartford County
Latitude: 41.652319°
Longitude: -72.767319°

Structure Information

Tower Type: Monopole
Mount Type: 14.50-Ft Platform

FUZE ID # 17289551

Analysis Results

Platform: 60.0% **Pass w/ Hardware Upgrades***

*** Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.**

***Contractor PMI Requirements:

Included at the end of this MA report
Available & Submitted via portal at <https://pmi.vzwsmart.com>
For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: David Bogart



Digitally signed by Dejian Xu
Date: 2024.10.04 13:24:59-04'00'

Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon RFDS Site ID: 324447, dated September 3, 2024
Previous Mount Analysis Report	Maser Consulting Connecticut Project #: 21777013A, dated March 31, 2021
Post-Modification Inspection Report	Maser Consulting Connecticut Project #: 21777013A, dated November 18, 2022

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H Connecticut State Building Code. Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 120 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.50 in Risk Category: II Exposure Category: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.995
Seismic Parameters:	S_s : 0.195 g S_1 : 0.055 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Load, L_v : 250 lbs. Maintenance Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V22)

Final Loading Configuration:

The following equipment has been considered for the analysis of the mount:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
99.75	105.00	4	CBNG	39GHz VectaStar NR gNB	Added
		1	Raycap	RC3DC-6627-PF-48	
	104.50	3	Samsung	MT6407-77A	Retained
	103.00	6	Andrew	SBNHH-1D65B	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		1	Raycap	RCMDC-6627-PF-48	
	101.00	3	Samsung	XXDWMM-12.5-65-8T-CBRS	

It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Colliers Engineering & Design and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.
4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - HSS (Rectangular) ASTM 500 (Gr. B-46)
 - Pipe ASTM A53 (Gr. B-35)
 - Threaded Rod F1554 (Gr. 36)
 - Bolts ASTM A325

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Colliers Engineering & Design.

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Arm	21.5 %	Pass
Standoff Horizontal	21.6 %	Pass
Platform Support Plates	44.3 %	Pass
Platform Angle	15.1 %	Pass
Face Horizontal	16.2 %	Pass
Support Rail	55.7 %	Pass
Antenna pipe	60.0 %	Pass
Corner Angle	10.3 %	Pass
Handrail plate	37.2 %	Pass
Kickers	7.1 %	Pass
Threaded Rod	28.9 %	Pass
Mount Connection	7.3 %	Pass

Structure Rating – (Controlling Utilization of all Components)	60.0%*
---	---------------

* Results valid after hardware upgrades noted in the PMI Requirements are installed.

Mount Connection Envelope Reactions:

Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector C Standoff	99.75	N67	843	3349	1.336	1.775	1363	1323	1.711	0.579
Sector B Standoff	99.75	N146A	696	3134	1.447	1.664	1164	1364	1.637	0.553
Sector A Standoff	99.75	N179B	900	3407	1.346	1.811	1472	1356	1.775	0.615
Sector C Reinforcement	94	N197B	2198	1555	0.000	0.000	2541	1827	0.000	0.000
Sector B Reinforcement	94	N201A	2111	1490	0.000	0.000	2590	1864	0.000	0.000
Sector A Reinforcement	94	N205A	2201	1557	0.000	0.000	2496	1793	0.000	0.000

Notes:

- Axial loads act along the axis of the tower
- Lateral reactions act perpendicular to the tower
- Moment loads introduce bending moment to the tower
- Torsion loads introduce twisting moment to the tower
- Batch solutions by individual load cases are included at the end of this document

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	48.2	48.1	65.1	65.0
0.5	64.2	64.3	88.3	88.2
1	78.0	78.1	109.4	109.1

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 3 sector(s).
- Ka factors included in (EPA)a calculations

Requirements:

The existing mount will be **SUFFICIENT** for the final loading configuration shown in attachment 2 **upon the completion of the requirements listed below.**

Contractor shall install a new 72" long PIPE 2 SCH 40 OVP pipe between Alpha and Gamma sector standoff horizontals.

Contractor shall install new 96" long PIPE 2 SCH40 mount pipe at position 4 of alpha and beta sectors. Attach to existing mount pipe with (2) pipe to pipe clamps (Site Pro 1, Part #: DCP18K). Install pipe-to-pipe clamps 12" from top of proposed pipe and 12" from top of existing pipe. Install the 2nd set of pipe-to-pipe clamps at 36" from the 1st set.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Photos
4. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – **Passing Mount Analysis**

Passing Mount Analysis requires a PMI due to a modification in loading.

Electronic pdf version of this can be downloaded at <https://pmi.vzwsmart.com>.

For additional questions and support, please reach out to pmisupport@colliersengineering.com

MDG #: 5000384966

SMART Project #: 10253016

Fuze Project ID: 17289551

Purpose – to provide SMART Tool structural vendor the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

- If installation will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide “as built mount drawings” showing contractor’s name, contact information, preparer’s signature, and date. Any deviations from the drawings (Proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: <https://pmi.vzwsmart.com>

Photo Requirements:

- *Photos taken at ground level*
 - Photo of Gate Signs showing the tower owner, site name, and number.
 - Overall tower structure after installation.
 - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- *Photos taken at Mount Elevation*
 - Photos showing the safety climb wire rope above and below the mount prior to installation.
 - Photos showing the climbing facility and safety climb if present.
 - Photos showing each individual sector after installation. Each entire sector shall be in one photo to show the interconnection of members.

- These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.

Antenna & equipment placement and Geometry Confirmation:

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.
- ☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.
- OR
- ☐ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:

Issue:

Contractor shall install a new 72" long PIPE 2 SCH 40 OVP pipe between Alpha and Gamma sector standoff horizontals.

Contractor shall install new 96" long PIPE 2 SCH40 mount pipe at position 4 of alpha and beta sectors. Attach to existing mount pipe with (2) pipe to pipe clamps (Site Pro 1, Part #: DCP18K). Install pipe-to-pipe clamps 12" from top of proposed pipe and 12" from top of existing pipe. Install the 2nd set of pipe-to-pipe clamps at 36" from the 1st set.

Response:

Special Instruction Confirmation:

- ☐ The contractor has read and acknowledges the above special instructions.
- ☐ All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.
- ☐ The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) and included in the material certification folder is a packing list or invoice for these materials.

OR

☐ The material utilized was approved by a SMART Tool engineering vendor as an “equivalent” and this approval is included as part of the contractor submission.

Comments:

--

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

☐ Yes ☐ No

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Contractor to provide measurement from top of the highest equipment/steel to the bottom of the lowest equipment/steel by documenting it using the most appropriate illustration below along with supporting photos:

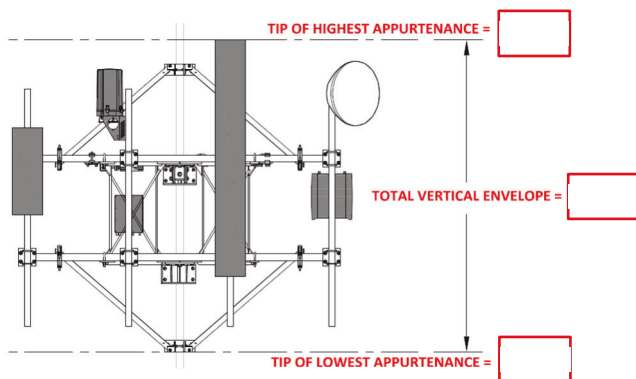


Illustration #1

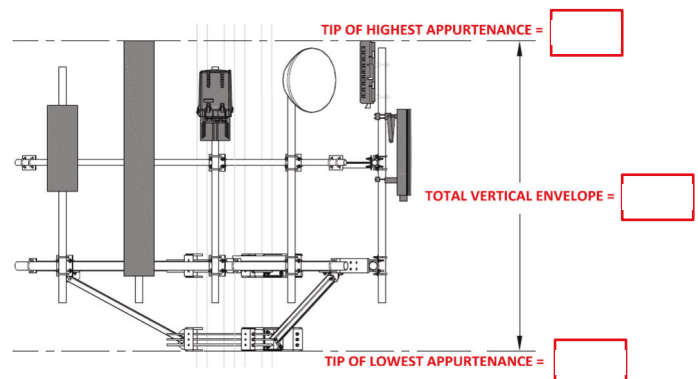


Illustration #2

Certifying Individual:

Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	

Sector: A

10/3/2024

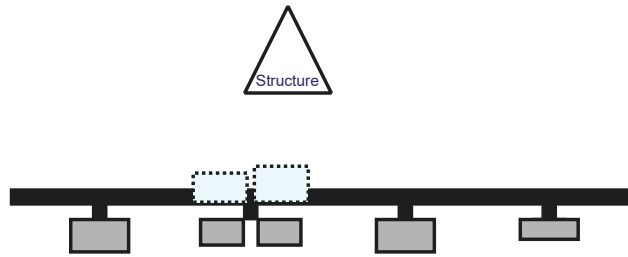
Structure Type: Monopole

10253016

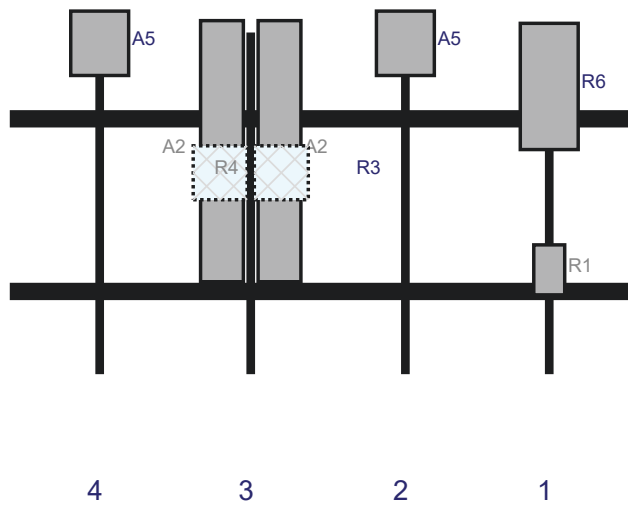
Mount Elev: 99.75

Page: 1

Plan View



Front View - Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R1	XXDWMM-12.5-65-8T-CBRS	13.9	8.6	150	1	a	Front	66	0	Retained	11/18/2022
R6	MT6407-77A	35.1	16.1	150	1	a	Front	15	0	Retained	11/18/2022
A5	39GHz VectaStar NR gNB	17.9	16.1	110	2	a	Front	3	0	Added	
A2	SBNHH-1D65B	72.6	11.9	67	3	a	Front	33	8	Retained	11/18/2022
A2	SBNHH-1D65B	72.6	11.9	67	3	b	Front	33	-8	Retained	11/18/2022
R3	B2/B66A RRH-BR049	15	15	67	3	a	Behind	39	8.5	Retained	11/18/2022
R4	B5/B13 RRH-BR04C	15	15	67	3	a	Behind	39	-8.5	Retained	11/18/2022
A5	39GHz VectaStar NR gNB	17.9	16.1	25	4	a	Front	3	0	Added	
OVP1	RxxDC-6627-PF-48	29.5	16.5		Member					Retained	11/18/2022
OVP2	RC3DC-6627-PF-48	29.5	16.5		Member					Added	

Sector: **B**

10/3/2024

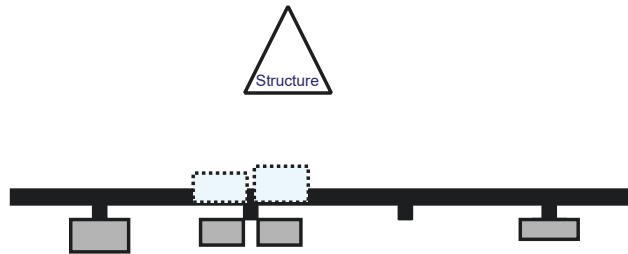
Structure Type: Monopole

10253016

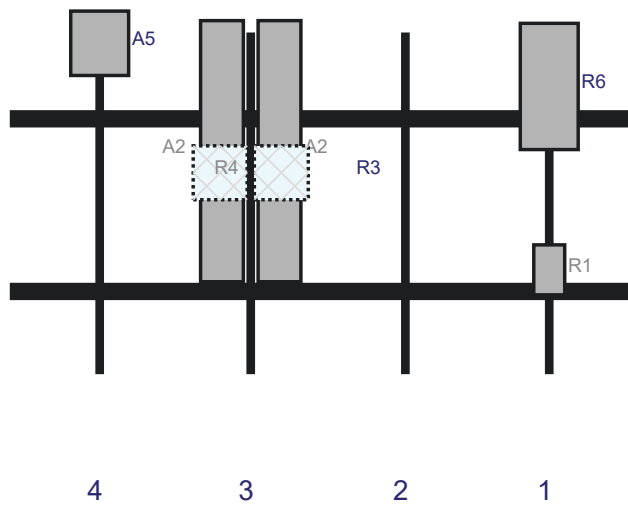
Mount Elev: 99.75

Page: 2

Plan View



Front View - Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R1	XXDWMM-12.5-65-8T-CBRS	13.9	8.6	150	1	a	Front	66	0	Retained	11/18/2022
R6	MT6407-77A	35.1	16.1	150	1	a	Front	15	0	Retained	11/18/2022
A2	SBNHH-1D65B	72.6	11.9	67	3	a	Front	33	8	Retained	11/18/2022
A2	SBNHH-1D65B	72.6	11.9	67	3	b	Front	33	-8	Retained	11/18/2022
R3	B2/B66A RRH-BR049	15	15	67	3	a	Behind	39	8.5	Retained	11/18/2022
R4	B5/B13 RRH-BR04C	15	15	67	3	a	Behind	39	-8.5	Retained	11/18/2022
A5	39GHz VectaStar NR gNB	17.9	16.1	25	4	b	Front	3	0	Added	

Sector: C

10/3/2024

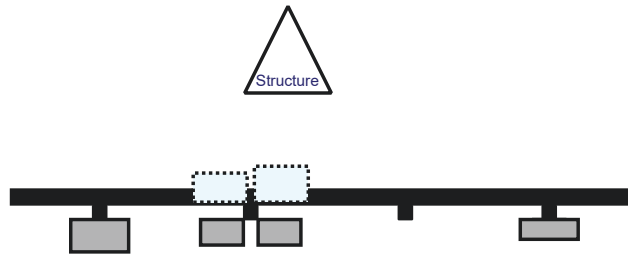
Structure Type: Monopole

10253016

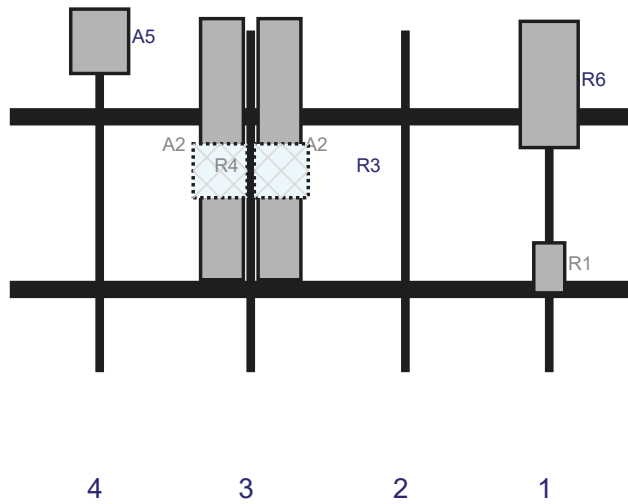
Mount Elev: 99.75

Page: 3

Plan View



Front View - Looking at Structure

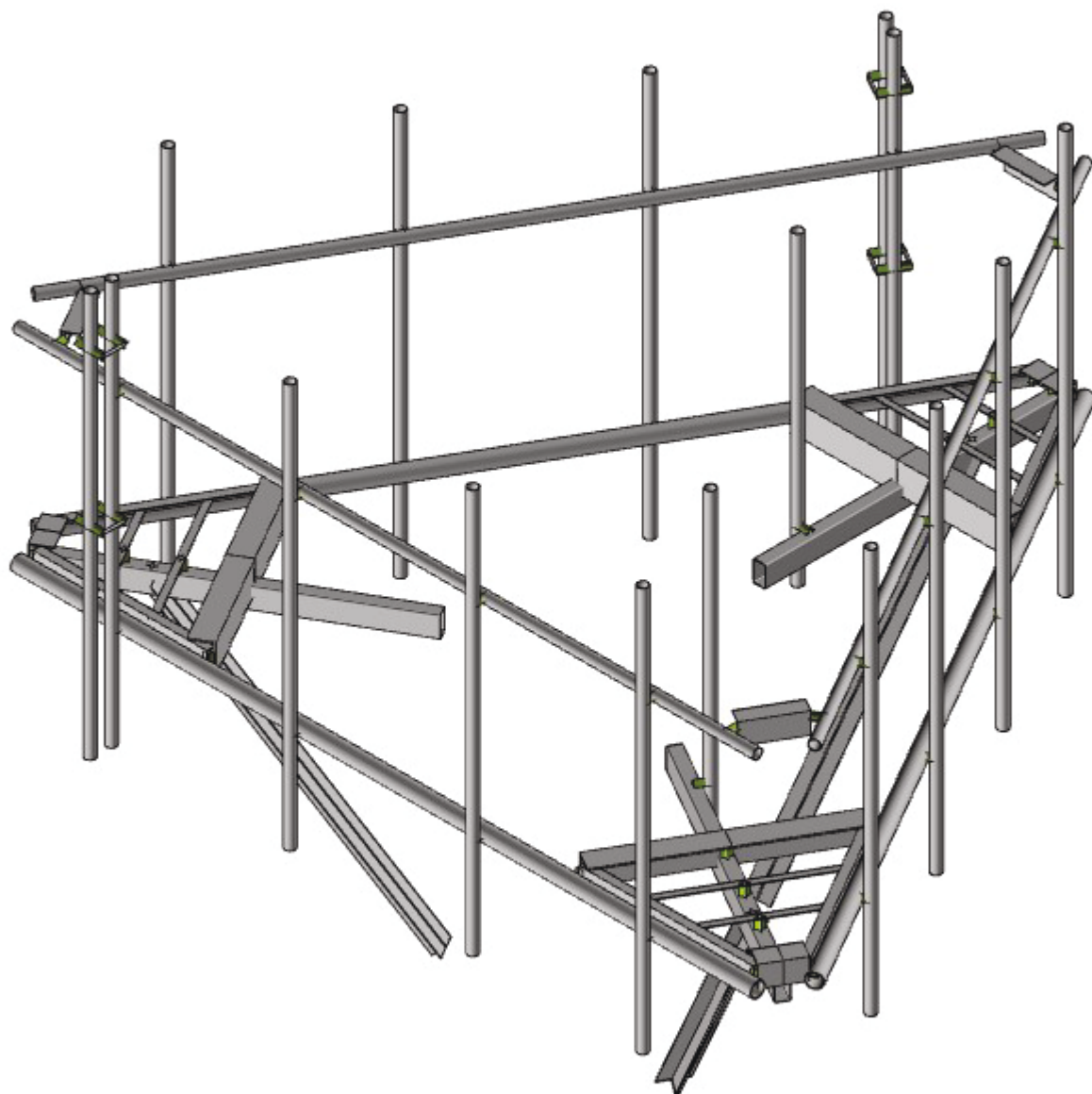


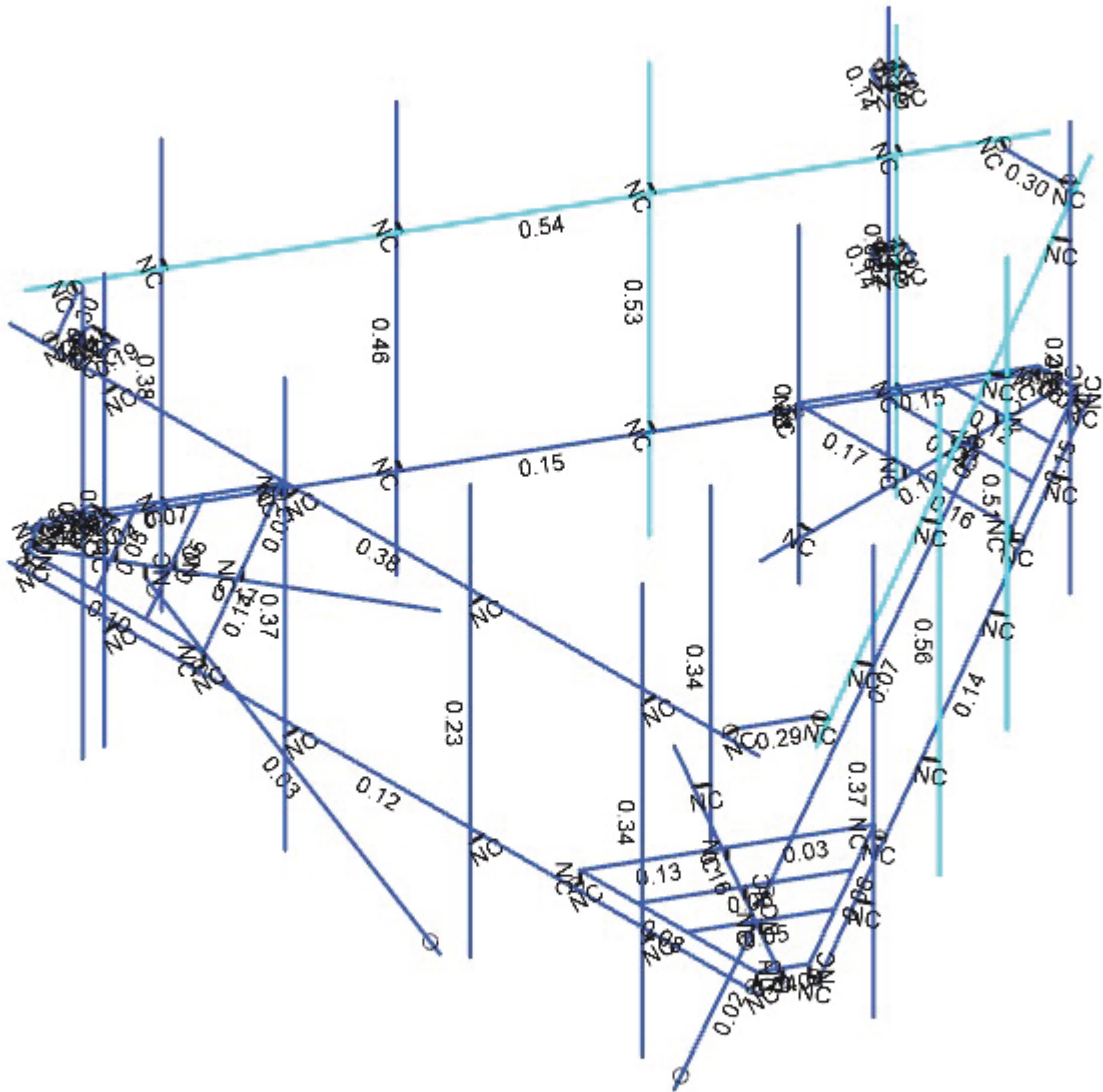
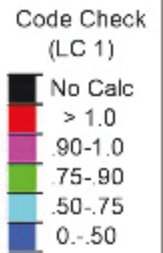
Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
R1	XXDWMM-12.5-65-8T-CBRS	13.9	8.6	150	1	a	Front	66	0	Retained	11/18/2022
R6	MT6407-77A	35.1	16.1	150	1	a	Front	15	0	Retained	11/18/2022
A2	SBNHH-1D65B	72.6	11.9	67	3	a	Front	33	8	Retained	11/18/2022
A2	SBNHH-1D65B	72.6	11.9	67	3	b	Front	33	-8	Retained	11/18/2022
R3	B2/B66A RRH-BR049	15	15	67	3	a	Behind	39	8.5	Retained	11/18/2022
R4	B5/B13 RRH-BR04C	15	15	67	3	a	Behind	39	-8.5	Retained	11/18/2022
A5	39GHz VectaStar NR gNB	17.9	16.1	25	4	b	Front	3	0	Added	



200 Stanley St
New Britain CT 06051
United States
41° 39' 16.602" N, 72° 46' 9.420" W
Nov 4, 2022 at 3:02:36 PM







Member Code Checks Displayed
Results for LC 1, 1.2D+1.0Wo (0 Deg)



Colliers Engineering & D...
AE
Project No. 10253016

5000384966-VZW_MT_LO_H

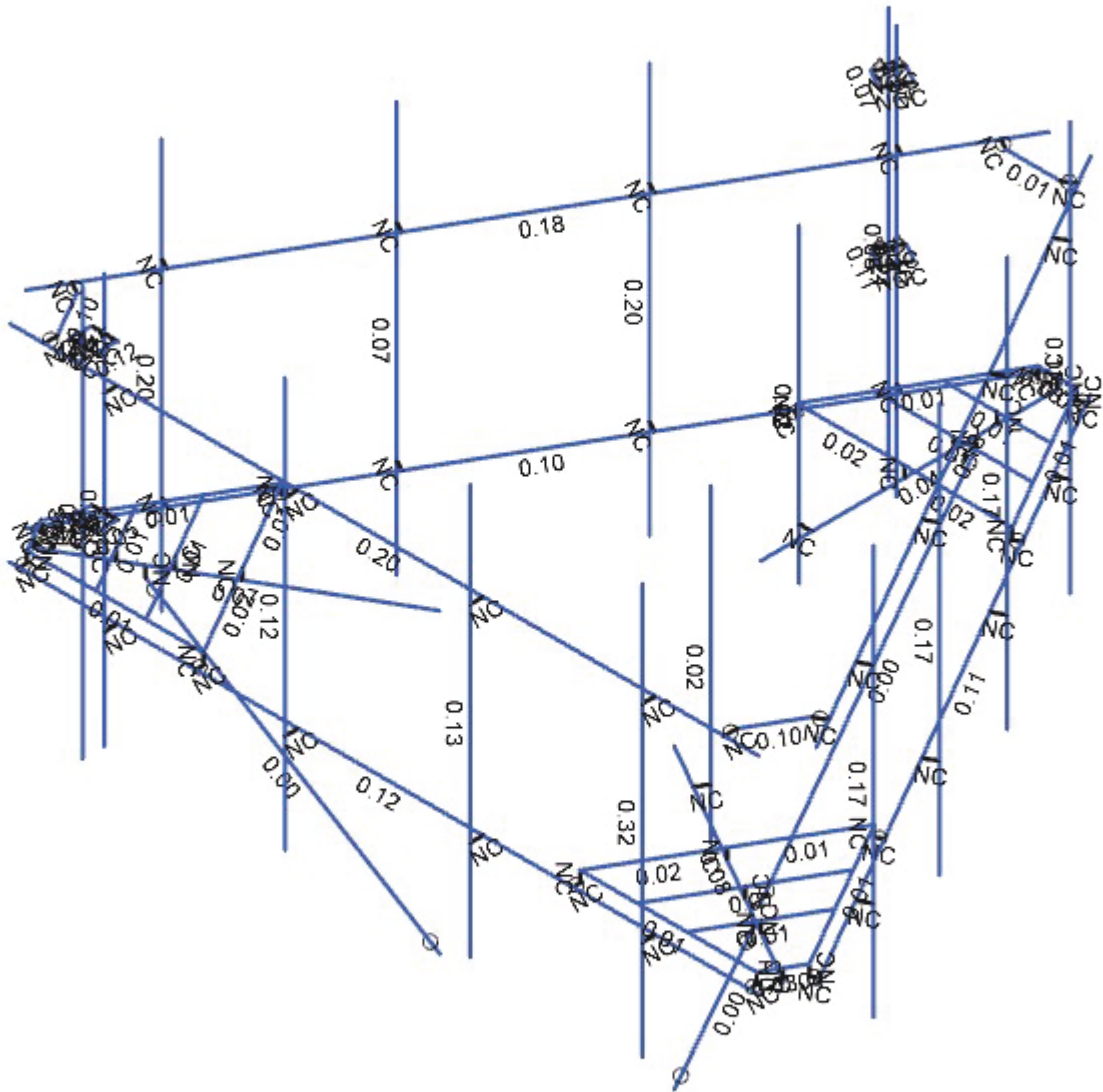
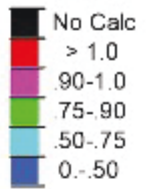
SK-3

Oct 03, 2024 at 03:23 PM

5000384966-VZW_MT_LO...



Shear Check
(LC 1)



Member Shear Checks Displayed
Results for LC 1, 1.2D+1.0Wo (0 Deg)



Colliers Engineering & D...
AE
Project No. 10253016

5000384966-VZW_MT_LO_H

SK-4

Oct 03, 2024 at 03:23 PM

5000384966-VZW_MT_LO...

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
1	Antenna D	None				99		
2	Antenna Di	None				99		
3	Antenna Wo (0 Deg)	None				99		
4	Antenna Wo (30 Deg)	None				99		
5	Antenna Wo (60 Deg)	None				99		
6	Antenna Wo (90 Deg)	None				99		
7	Antenna Wo (120 Deg)	None				99		
8	Antenna Wo (150 Deg)	None				99		
9	Antenna Wo (180 Deg)	None				99		
10	Antenna Wo (210 Deg)	None				99		
11	Antenna Wo (240 Deg)	None				99		
12	Antenna Wo (270 Deg)	None				99		
13	Antenna Wo (300 Deg)	None				99		
14	Antenna Wo (330 Deg)	None				99		
15	Antenna Wi (0 Deg)	None				99		
16	Antenna Wi (30 Deg)	None				99		
17	Antenna Wi (60 Deg)	None				99		
18	Antenna Wi (90 Deg)	None				99		
19	Antenna Wi (120 Deg)	None				99		
20	Antenna Wi (150 Deg)	None				99		
21	Antenna Wi (180 Deg)	None				99		
22	Antenna Wi (210 Deg)	None				99		
23	Antenna Wi (240 Deg)	None				99		
24	Antenna Wi (270 Deg)	None				99		
25	Antenna Wi (300 Deg)	None				99		
26	Antenna Wi (330 Deg)	None				99		
27	Antenna Wm (0 Deg)	None				99		
28	Antenna Wm (30 Deg)	None				99		
29	Antenna Wm (60 Deg)	None				99		
30	Antenna Wm (90 Deg)	None				99		
31	Antenna Wm (120 Deg)	None				99		
32	Antenna Wm (150 Deg)	None				99		
33	Antenna Wm (180 Deg)	None				99		
34	Antenna Wm (210 Deg)	None				99		
35	Antenna Wm (240 Deg)	None				99		
36	Antenna Wm (270 Deg)	None				99		
37	Antenna Wm (300 Deg)	None				99		
38	Antenna Wm (330 Deg)	None				99		
39	Structure D	None		-1				3
40	Structure Di	None					66	4
41	Structure Wo (0 Deg)	None					132	
42	Structure Wo (30 Deg)	None					132	
43	Structure Wo (60 Deg)	None					132	
44	Structure Wo (90 Deg)	None					132	
45	Structure Wo (120 Deg)	None					132	
46	Structure Wo (150 Deg)	None					132	
47	Structure Wo (180 Deg)	None					132	
48	Structure Wo (210 Deg)	None					132	
49	Structure Wo (240 Deg)	None					132	
50	Structure Wo (270 Deg)	None					132	
51	Structure Wo (300 Deg)	None					132	
52	Structure Wo (330 Deg)	None					132	
53	Structure Wi (0 Deg)	None					132	
54	Structure Wi (30 Deg)	None					132	
55	Structure Wi (60 Deg)	None					132	

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
56	Structure Wi (90 Deg)	None					132	
57	Structure Wi (120 Deg)	None					132	
58	Structure Wi (150 Deg)	None					132	
59	Structure Wi (180 Deg)	None					132	
60	Structure Wi (210 Deg)	None					132	
61	Structure Wi (240 Deg)	None					132	
62	Structure Wi (270 Deg)	None					132	
63	Structure Wi (300 Deg)	None					132	
64	Structure Wi (330 Deg)	None					132	
65	Structure Wm (0 Deg)	None					132	
66	Structure Wm (30 Deg)	None					132	
67	Structure Wm (60 Deg)	None					132	
68	Structure Wm (90 Deg)	None					132	
69	Structure Wm (120 Deg)	None					132	
70	Structure Wm (150 Deg)	None					132	
71	Structure Wm (180 Deg)	None					132	
72	Structure Wm (210 Deg)	None					132	
73	Structure Wm (240 Deg)	None					132	
74	Structure Wm (270 Deg)	None					132	
75	Structure Wm (300 Deg)	None					132	
76	Structure Wm (330 Deg)	None					132	
77	Lm1	None				1		
78	Lm2	None				1		
79	Lv1	None				1		
80	Lv2	None				1		
81	Antenna Ev	None				99		
82	Antenna Eh (0 Deg)	None				66		
83	Antenna Eh (90 Deg)	None				66		
84	Structure Ev	ELY		-0.042				3
85	Structure Eh (0 Deg)	ELZ			-0.104			3
86	Structure Eh (90 Deg)	ELX	0.104					3
87	BLC 39 Transient Area Loads	None					72	
88	BLC 40 Transient Area Loads	None					72	
89	BLC 84 Transient Area Loads	None					72	
90	BLC 85 Transient Area Loads	None					72	
91	BLC 86 Transient Area Loads	None					72	

Load Combinations

	Description	Solve	P-Delta	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor	BLC Factor
1	1.2D+1.0Wo (0 Deg)	Yes	Y	1	1.2	39	1.2	3	1	41	1							
2	1.2D+1.0Wo (30 Deg)	Yes	Y	1	1.2	39	1.2	4	1	42	1							
3	1.2D+1.0Wo (60 Deg)	Yes	Y	1	1.2	39	1.2	5	1	43	1							
4	1.2D+1.0Wo (90 Deg)	Yes	Y	1	1.2	39	1.2	6	1	44	1							
5	1.2D+1.0Wo (120 Deg)	Yes	Y	1	1.2	39	1.2	7	1	45	1							
6	1.2D+1.0Wo (150 Deg)	Yes	Y	1	1.2	39	1.2	8	1	46	1							
7	1.2D+1.0Wo (180 Deg)	Yes	Y	1	1.2	39	1.2	9	1	47	1							
8	1.2D+1.0Wo (210 Deg)	Yes	Y	1	1.2	39	1.2	10	1	48	1							
9	1.2D+1.0Wo (240 Deg)	Yes	Y	1	1.2	39	1.2	11	1	49	1							
10	1.2D+1.0Wo (270 Deg)	Yes	Y	1	1.2	39	1.2	12	1	50	1							
11	1.2D+1.0Wo (300 Deg)	Yes	Y	1	1.2	39	1.2	13	1	51	1							
12	1.2D+1.0Wo (330 Deg)	Yes	Y	1	1.2	39	1.2	14	1	52	1							
13	1.2D + 1.0Di + 1.0Wi (0 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	15	1	53	1			
14	1.2D + 1.0Di + 1.0Wi (30 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	16	1	54	1			
15	1.2D + 1.0Di + 1.0Wi (60 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	17	1	55	1			
16	1.2D + 1.0Di + 1.0Wi (90 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	18	1	56	1			

Load Combinations (Continued)

Description	Solve	P-Delta	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor	BLC	Factor
72 0.9D - 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866
73 0.9D - 1.0Ev + 1.0Eh (270 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	-1	ELZ		ELX	-1
74 0.9D - 1.0Ev + 1.0Eh (300 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866
75 0.9D - 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5

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 Standoff Arm	HSS5X3X3	Beam	Tube	A500 Gr.B Rect	Typical	2.58	3.85	8.53	8.64
2 TES SA	HSS5X5X3	Beam	Tube	A500 Gr.B Rect	Typical	3.28	12.6	12.6	19.9
3 Platform Support Plates	PL1/4X1.5	Beam	RECT	A36 Gr.36	Typical	0.375	0.002	0.07	0.007
4 TES PSP	PL1/4x2	Beam	RECT	A36 Gr.36	Typical	0.5	0.003	0.167	0.01
5 Platform Angle	L2X2X4	Beam	Single Angle	A36 Gr.36	Typical	0.944	0.346	0.346	0.021
6 Kickers	LL3X3X3X3	Beam	Single Angle	A36 Gr.36	Typical	2.18	4.09	1.9	0.027
7 Standoff Horizontal	L5X7X6	Beam	Single Angle	A36 Gr.36	Typical	4.359	9.65	22.198	0.196
8 TES SH	L5X5X5	Beam	Single Angle	A36 Gr.36	Typical	3.07	7.44	7.44	0.108
9 Face Horizontal	PIPE 3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
10 Handrail plate	L5X3.5X4	Beam	Single Angle	A36 Gr.36	Typical	2.07	2.2	5.36	0.046
11 Support Rail	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
12 Antenna pipe	PIPE 2.0	Column	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
13 Corner Angle	L5x4.5x4	Beam	RECT	A36 Gr.36	Typical	2.312	4.513	5.849	0.047
14 TES CA	L5X5X5	Beam	RECT	A36 Gr.36	Typical	3.07	7.44	7.44	0.108
15 Threaded Rod	SR_0.625	Beam	BAR	A36 Gr.36	Typical	0.307	0.007	0.007	0.015

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 A36 Gr.36	29000	11154	0.3	0.65	0.49	36	1.5	58	1.2
2 A572 Gr.50	29000	11154	0.3	0.65	0.49	50	1.1	65	1.1
3 A992	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	0.49	42	1.4	58	1.3
5 A500 Gr.B Rect	29000	11154	0.3	0.65	0.49	46	1.4	58	1.3
6 A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.6	60	1.2

Member Primary Data

Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1 M46	N68	N69		RIGID	None	None	RIGID	Typical
2 M47	N70	N180		RIGID	None	None	RIGID	Typical
3 M48	N67	N63		Standoff Arm	Beam	Tube	A500 Gr.B Rect	Typical
4 M49	N72	N74		RIGID	None	None	RIGID	Typical
5 M51	N73	N75		RIGID	None	None	RIGID	Typical
6 M53	N78	N76	180	Standoff Horizontal	Beam	Single Angle	A36 Gr.36	Typical
7 M54	N77	N78	180	Standoff Horizontal	Beam	Single Angle	A36 Gr.36	Typical
8 M55	N77	N70		RIGID	None	None	RIGID	Typical
9 M56	N76	N68		RIGID	None	None	RIGID	Typical
10 M57	N78	N71		RIGID	None	None	RIGID	Typical
11 M58	N73	N80		RIGID	None	None	RIGID	Typical
12 M59	N72	N79		RIGID	None	None	RIGID	Typical
13 M60	N81	N83		RIGID	None	None	RIGID	Typical
14 M61	N82	N84		RIGID	None	None	RIGID	Typical
15 M62	N87	N85	90	Platform Support Plates	Beam	RECT	A36 Gr.36	Typical
16 M63	N88	N86	90	Platform Support Plates	Beam	RECT	A36 Gr.36	Typical
17 M66	N77	N80	90	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical
18 M67	N79	N76	90	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
19	LV	N275A	N276A		Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
20	LM1	N280A	N284A		RIGID	None	None	RIGID	Typical
21	M183A	N279A	N283A		RIGID	None	None	RIGID	Typical
22	LM2	N278A	N282A		RIGID	None	None	RIGID	Typical
23	M185A	N277A	N281A		RIGID	None	None	RIGID	Typical
24	M186A	N285A	N286A		Support Rail	Beam	Pipe	A53 Gr.B	Typical
25	M187A	N290A	N294A		RIGID	None	None	RIGID	Typical
26	M188A	N289A	N293A		RIGID	None	None	RIGID	Typical
27	M189A	N288A	N292A		RIGID	None	None	RIGID	Typical
28	M190A	N287A	N291A		RIGID	None	None	RIGID	Typical
29	r	N295A	N299A		Antenna pipe	Column	Pipe	A53 Gr.B	Typical
30	MP3A	N296A	N300A		Antenna pipe	Column	Pipe	A53 Gr.B	Typical
31	MP2A	N297A	N301A		Antenna pipe	Column	Pipe	A53 Gr.B	Typical
32	MP1A	N298A	N302A		Antenna pipe	Column	Pipe	A53 Gr.B	Typical
33	M36	N66	N64		RIGID	None	None	RIGID	Typical
34	M37	N64	N80	180	Corner Angle	Beam	RECT	A36 Gr.36	Typical
35	M38	N79	N64	180	Corner Angle	Beam	RECT	A36 Gr.36	Typical
36	M39	N65	N66A		RIGID	None	None	RIGID	Typical
37	OVP2	N68A	N67A		Antenna pipe	Column	Pipe	A53 Gr.B	Typical
38	M95	N141	N142		Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
39	M96	N146	N150		RIGID	None	None	RIGID	Typical
40	M97	N145	N149		RIGID	None	None	RIGID	Typical
41	M98	N144	N148		RIGID	None	None	RIGID	Typical
42	M99	N143A	N147		RIGID	None	None	RIGID	Typical
43	M100	N151	N152		Support Rail	Beam	Pipe	A53 Gr.B	Typical
44	M101	N156	N160		RIGID	None	None	RIGID	Typical
45	M102	N155	N159		RIGID	None	None	RIGID	Typical
46	M103	N154	N158		RIGID	None	None	RIGID	Typical
47	M104	N153	N157		RIGID	None	None	RIGID	Typical
48	MP4C	N161	N165	240	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
49	MP3C	N162	N166	240	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
50	MP2C	N163	N167	240	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
51	MP1C	N164	N168	240	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
52	M109	N181	N182		Face Horizontal	Beam	Pipe	A53 Gr.B	Typical
53	M110	N186	N190		RIGID	None	None	RIGID	Typical
54	M111A	N185	N189		RIGID	None	None	RIGID	Typical
55	M112	N184	N188		RIGID	None	None	RIGID	Typical
56	M113	N183	N187		RIGID	None	None	RIGID	Typical
57	M114	N191	N192		Support Rail	Beam	Pipe	A53 Gr.B	Typical
58	M115	N196	N200		RIGID	None	None	RIGID	Typical
59	M116	N195	N199		RIGID	None	None	RIGID	Typical
60	M117	N194	N198		RIGID	None	None	RIGID	Typical
61	M118	N193	N197		RIGID	None	None	RIGID	Typical
62	P	N201	N205	120	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
63	MP3B	N202	N206	120	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
64	MP2B	N203	N207	120	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
65	MP1B	N204	N208	120	Antenna pipe	Column	Pipe	A53 Gr.B	Typical
66	M69	N147A	N148A		RIGID	None	None	RIGID	Typical
67	M70	N149A	N170A		RIGID	None	None	RIGID	Typical
68	M71	N146A	N144A		Standoff Arm	Beam	Tube	A500 Gr.B Rect	Typical
69	M72	N151A	N153A		RIGID	None	None	RIGID	Typical
70	M74	N152A	N82A		RIGID	None	None	RIGID	Typical
71	M76	N157A	N155A	180	Standoff Horizontal	Beam	Single Angle	A36 Gr.36	Typical
72	M77	N156A	N157A	180	Standoff Horizontal	Beam	Single Angle	A36 Gr.36	Typical
73	M78	N156A	N149A	240	RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
74	M79	N155A	N147A	240	RIGID	None	None	RIGID	Typical
75	M80	N157A	N150A	240	RIGID	None	None	RIGID	Typical
76	M81	N152A	N159A	120	RIGID	None	None	RIGID	Typical
77	M82	N151A	N158A	120	RIGID	None	None	RIGID	Typical
78	M83	N160A	N162A	120	RIGID	None	None	RIGID	Typical
79	M84	N161A	N163A	120	RIGID	None	None	RIGID	Typical
80	M85	N166A	N164A	90	Platform Support Plates	Beam	RECT	A36 Gr.36	Typical
81	M86	N167A	N165A	90	Platform Support Plates	Beam	RECT	A36 Gr.36	Typical
82	M87	N156A	N159A	90	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical
83	M88	N158A	N155A	90	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical
84	M90	N145A	N171	120	RIGID	None	None	RIGID	Typical
85	M91	N171	N159A	180	Corner Angle	Beam	RECT	A36 Gr.36	Typical
86	M92	N158A	N171	180	Corner Angle	Beam	RECT	A36 Gr.36	Typical
87	M95A	N180B	N181A		RIGID	None	None	RIGID	Typical
88	M96A	N182A	N203A		RIGID	None	None	RIGID	Typical
89	M97A	N179B	N177A		Standoff Arm	Beam	Tube	A500 Gr.B Rect	Typical
90	M98A	N184A	N114		RIGID	None	None	RIGID	Typical
91	M100A	N185A	N187A		RIGID	None	None	RIGID	Typical
92	M102A	N190A	N188A	180	Standoff Horizontal	Beam	Single Angle	A36 Gr.36	Typical
93	M103A	N189A	N190A	180	Standoff Horizontal	Beam	Single Angle	A36 Gr.36	Typical
94	M104A	N189A	N182A	120	RIGID	None	None	RIGID	Typical
95	M105A	N188A	N180B	120	RIGID	None	None	RIGID	Typical
96	M106A	N190A	N183A	120	RIGID	None	None	RIGID	Typical
97	M107A	N185A	N192A	240	RIGID	None	None	RIGID	Typical
98	M108A	N184A	N191A	240	RIGID	None	None	RIGID	Typical
99	M109A	N193A	N195A	240	RIGID	None	None	RIGID	Typical
100	M110A	N194A	N196A	240	RIGID	None	None	RIGID	Typical
101	M111B	N199A	N197A	90	Platform Support Plates	Beam	RECT	A36 Gr.36	Typical
102	M112A	N200A	N198A	90	Platform Support Plates	Beam	RECT	A36 Gr.36	Typical
103	M113A	N189A	N192A	90	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical
104	M114A	N191A	N188A	90	Platform Angle	Beam	Single Angle	A36 Gr.36	Typical
105	M116A	N178B	N204A	240	RIGID	None	None	RIGID	Typical
106	M117A	N204A	N192A	180	Corner Angle	Beam	RECT	A36 Gr.36	Typical
107	M118A	N191A	N204A	180	Corner Angle	Beam	RECT	A36 Gr.36	Typical
108	M114B	N68B	N189B		RIGID	None	None	RIGID	Typical
109	M115A	N67B	N191B		RIGID	None	None	RIGID	Typical
110	M116B	N170	N194B		RIGID	None	None	RIGID	Typical
111	M117B	N169	N195B		RIGID	None	None	RIGID	Typical
112	M118B	N210	N199B		RIGID	None	None	RIGID	Typical
113	M119A	N209	N200B		RIGID	None	None	RIGID	Typical
114	M120A	N199B	N191B	180	Handrail plate	Beam	Single Angle	A36 Gr.36	Typical
115	M121A	N189B	N195B	180	Handrail plate	Beam	Single Angle	A36 Gr.36	Typical
116	M122A	N194B	N200B	180	Handrail plate	Beam	Single Angle	A36 Gr.36	Typical
117	M123	N195C	N196B		RIGID	None	None	RIGID	Typical
118	M124	N196B	N197B		Kickers	Beam	Single Angle	A36 Gr.36	Typical
119	M125	N199C	N200C	240	RIGID	None	None	RIGID	Typical
120	M126	N200C	N201A		Kickers	Beam	Single Angle	A36 Gr.36	Typical
121	M127	N203B	N204B	120	RIGID	None	None	RIGID	Typical
122	M128	N204B	N205A		Kickers	Beam	Single Angle	A36 Gr.36	Typical
123	OV1	N230	N227		Antenna pipe	Column	Pipe	A53 Gr.B	Typical
124	M132	N229	N228		RIGID	None	None	RIGID	Typical
125	M129	N233	N231		RIGID	None	None	RIGID	Typical
126	M130	N235	N231		RIGID	None	None	RIGID	Typical
127	M133	N234	N207A		RIGID	None	None	RIGID	Typical
128	M134	N232	N207A		RIGID	None	None	RIGID	Typical

Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
129	M137	N239	N237		RIGID	None	None	RIGID	Typical
130	M138	N241	N237		RIGID	None	None	RIGID	Typical
131	M139	N240	N236		RIGID	None	None	RIGID	Typical
132	M140	N238	N236		RIGID	None	None	RIGID	Typical
133	MP4A	N242	N243		Antenna pipe	Column	Pipe	A53 Gr.B	Typical
134	M142	N239	N233		Threaded Rod	Beam	BAR	A36 Gr.36	Typical
135	M143	N241	N235		Threaded Rod	Beam	BAR	A36 Gr.36	Typical
136	M144	N238	N232		Threaded Rod	Beam	BAR	A36 Gr.36	Typical
137	M145	N240	N234		Threaded Rod	Beam	BAR	A36 Gr.36	Typical
138	MP4B	N275	N264		Antenna pipe	Column	Pipe	A53 Gr.B	Typical
139	M165	N273	N271		RIGID	None	None	RIGID	Typical
140	M167	N261	N265		Threaded Rod	Beam	BAR	A36 Gr.36	Typical
141	M168	N269	N260		RIGID	None	None	RIGID	Typical
142	M169	N270	N260		RIGID	None	None	RIGID	Typical
143	M170	N265	N266		RIGID	None	None	RIGID	Typical
144	M171	N268	N266		RIGID	None	None	RIGID	Typical
145	M172	N274	N269		Threaded Rod	Beam	BAR	A36 Gr.36	Typical
146	M173	N267	N270		Threaded Rod	Beam	BAR	A36 Gr.36	Typical
147	M174	N273	N268		Threaded Rod	Beam	BAR	A36 Gr.36	Typical
148	M175	N267	N272		RIGID	None	None	RIGID	Typical
149	M176	N261	N271		RIGID	None	None	RIGID	Typical
150	M177	N274	N272		RIGID	None	None	RIGID	Typical

Member Advanced Data

	Label	I Release	J Release	Col-Wall	Vert Release	Physical	Deflection	Ratio Options	Analysis Offset [in]	Seismic DR
1	M46		BenPIN			Yes	** NA **			None
2	M47		BenPIN			Yes	** NA **			None
3	M48					Yes	Default		Vertical	None
4	M49		BenPIN			Yes	** NA **			None
5	M51		BenPIN			Yes	** NA **			None
6	M53					Yes	Default			None
7	M54					Yes	Default			None
8	M55					Yes	** NA **			None
9	M56					Yes	** NA **			None
10	M57					Yes	** NA **			None
11	M58					Yes	** NA **			None
12	M59					Yes	** NA **			None
13	M60					Yes	** NA **			None
14	M61					Yes	** NA **			None
15	M62					Yes	Default			None
16	M63					Yes	Default			None
17	M66					Yes	N/A			None
18	M67					Yes	N/A			None
19	LV					Yes	Default			None
20	LM1					Yes	** NA **			None
21	M183A					Yes	** NA **			None
22	LM2					Yes	** NA **			None
23	M185A					Yes	** NA **			None
24	M186A					Yes	N/A			None
25	M187A					Yes	** NA **			None
26	M188A					Yes	** NA **			None
27	M189A					Yes	** NA **			None
28	M190A					Yes	** NA **			None
29	r					Yes	** NA **			None
30	MP3A					Yes	** NA **			None

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall	Vert Release	Physical	Deflection	Ratio	Options	Analysis	Offset [in]	Seismic	DR
31	MP2A					Yes	** NA **					None	
32	MP1A					Yes	** NA **					None	
33	M36					Yes	** NA **					None	
34	M37					Yes	Default					None	
35	M38					Yes	Default					None	
36	M39					Yes	** NA **					None	
37	OVP2					Yes	** NA **					None	
38	M95					Yes	N/A					None	
39	M96					Yes	** NA **					None	
40	M97					Yes	** NA **					None	
41	M98					Yes	** NA **					None	
42	M99					Yes	** NA **					None	
43	M100					Yes	N/A					None	
44	M101					Yes	** NA **					None	
45	M102					Yes	** NA **					None	
46	M103					Yes	** NA **					None	
47	M104					Yes	** NA **					None	
48	MP4C					Yes	** NA **					None	
49	MP3C					Yes	** NA **					None	
50	MP2C					Yes	** NA **					None	
51	MP1C					Yes	** NA **					None	
52	M109					Yes	N/A					None	
53	M110					Yes	** NA **					None	
54	M111A					Yes	** NA **					None	
55	M112					Yes	** NA **					None	
56	M113					Yes	** NA **					None	
57	M114					Yes	N/A					None	
58	M115					Yes	** NA **					None	
59	M116					Yes	** NA **					None	
60	M117					Yes	** NA **					None	
61	M118					Yes	** NA **					None	
62	P					Yes	** NA **					None	
63	MP3B					Yes	** NA **					None	
64	MP2B					Yes	** NA **					None	
65	MP1B					Yes	** NA **					None	
66	M69		BenPIN			Yes	** NA **					None	
67	M70		BenPIN			Yes	** NA **					None	
68	M71					Yes	Default			Vertical		None	
69	M72		BenPIN			Yes	** NA **					None	
70	M74		BenPIN			Yes	** NA **					None	
71	M76					Yes	Default					None	
72	M77					Yes	Default					None	
73	M78					Yes	** NA **					None	
74	M79					Yes	** NA **					None	
75	M80					Yes	** NA **					None	
76	M81					Yes	** NA **					None	
77	M82					Yes	** NA **					None	
78	M83					Yes	** NA **					None	
79	M84					Yes	** NA **					None	
80	M85					Yes	Default					None	
81	M86					Yes	Default					None	
82	M87					Yes	N/A					None	
83	M88					Yes	N/A					None	
84	M90					Yes	** NA **					None	
85	M91					Yes	Default					None	

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall	Vert Release	Physical	Deflection Ratio	Options	Analysis Offset [in]	Seismic DR
86	M92					Yes	Default			None
87	M95A		BenPIN			Yes	** NA **			None
88	M96A		BenPIN			Yes	** NA **			None
89	M97A					Yes	Default	Vertical		None
90	M98A		BenPIN			Yes	** NA **			None
91	M100A		BenPIN			Yes	** NA **			None
92	M102A					Yes	Default			None
93	M103A					Yes	Default			None
94	M104A					Yes	** NA **			None
95	M105A					Yes	** NA **			None
96	M106A					Yes	** NA **			None
97	M107A					Yes	** NA **			None
98	M108A					Yes	** NA **			None
99	M109A					Yes	** NA **			None
100	M110A					Yes	** NA **			None
101	M111B					Yes	Default			None
102	M112A					Yes	Default			None
103	M113A					Yes	N/A			None
104	M114A					Yes	N/A			None
105	M116A					Yes	** NA **			None
106	M117A					Yes	Default			None
107	M118A					Yes	Default			None
108	M114B	OOOOOX				Yes	** NA **			None
109	M115A	OOOOOX				Yes	** NA **			None
110	M116B	OOOOOX				Yes	** NA **			None
111	M117B	OOOOOX				Yes	** NA **			None
112	M118B	OOOOOX				Yes	** NA **			None
113	M119A	OOOOOX				Yes	** NA **			None
114	M120A					Yes	Default			None
115	M121A					Yes	Default			None
116	M122A					Yes	Default			None
117	M123					Yes	** NA **			None
118	M124	BenPIN	BenPIN			Yes	Default			None
119	M125					Yes	** NA **			None
120	M126	BenPIN	BenPIN			Yes	Default			None
121	M127					Yes	** NA **			None
122	M128	BenPIN	BenPIN			Yes	Default			None
123	OVP1					Yes	** NA **			None
124	M132					Yes	** NA **			None
125	M129					Yes	** NA **			None
126	M130					Yes	** NA **			None
127	M133					Yes	** NA **			None
128	M134					Yes	** NA **			None
129	M137		OOOXOX			Yes	** NA **			None
130	M138		OOOXOX			Yes	** NA **			None
131	M139		OOOXOX			Yes	** NA **			None
132	M140		OOOXOX			Yes	** NA **			None
133	MP4A					Yes	** NA **			None
134	M142					Yes	Default			None
135	M143					Yes	Default			None
136	M144					Yes	Default			None
137	M145					Yes	Default			None
138	MP4B					Yes	** NA **			None
139	M165		OOOXOX			Yes	** NA **			None
140	M167					Yes	Default			None

Member Advanced Data (Continued)

	Label	I Release	J Release	Col-Wall	Vert Release	Physical	Deflection Ratio	Options Analysis	Offset [in]	Seismic DR
141	M168					Yes	** NA **			None
142	M169					Yes	** NA **			None
143	M170					Yes	** NA **			None
144	M171					Yes	** NA **			None
145	M172					Yes	Default			None
146	M173					Yes	Default			None
147	M174					Yes	Default			None
148	M175		OOOXOX			Yes	** NA **			None
149	M176		OOOXOX			Yes	** NA **			None
150	M177		OOOXOX			Yes	** NA **			None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-18.7	5.5
2	MP1A	My	-0.008	5.5
3	MP1A	Mz	0	5.5
4	MP1B	Y	-18.7	5.5
5	MP1B	My	0.004	5.5
6	MP1B	Mz	-0.007	5.5
7	MP1C	Y	-18.7	5.5
8	MP1C	My	0.004	5.5
9	MP1C	Mz	0.007	5.5
10	MP3A	Y	-20	1
11	MP3A	My	-0.018	1
12	MP3A	Mz	0.013	1
13	MP3A	Y	-20	4.5
14	MP3A	My	-0.018	4.5
15	MP3A	Mz	0.013	4.5
16	MP3B	Y	-20	1
17	MP3B	My	-0.002	1
18	MP3B	Mz	-0.023	1
19	MP3B	Y	-20	4.5
20	MP3B	My	-0.002	4.5
21	MP3B	Mz	-0.023	4.5
22	MP3C	Y	-20	1
23	MP3C	My	0.021	1
24	MP3C	Mz	0.009	1
25	MP3C	Y	-20	4.5
26	MP3C	My	0.021	4.5
27	MP3C	Mz	0.009	4.5
28	MP3A	Y	-20	1
29	MP3A	My	-0.018	1
30	MP3A	Mz	-0.013	1
31	MP3A	Y	-20	4.5
32	MP3A	My	-0.018	4.5
33	MP3A	Mz	-0.013	4.5
34	MP3B	Y	-20	1
35	MP3B	My	0.021	1
36	MP3B	Mz	-0.009	1
37	MP3B	Y	-20	4.5
38	MP3B	My	0.021	4.5
39	MP3B	Mz	-0.009	4.5
40	MP3C	Y	-20	1
41	MP3C	My	-0.002	1
42	MP3C	Mz	0.023	1

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
43	MP3C	Y	-20	4.5
44	MP3C	My	-0.002	4.5
45	MP3C	Mz	0.023	4.5
46	MP3A	Y	-84.4	3.25
47	MP3A	My	0.042	3.25
48	MP3A	Mz	0.06	3.25
49	MP3B	Y	-84.4	3.25
50	MP3B	My	-0.073	3.25
51	MP3B	Mz	0.007	3.25
52	MP3C	Y	-84.4	3.25
53	MP3C	My	0.031	3.25
54	MP3C	Mz	-0.066	3.25
55	MP3A	Y	-70.3	3.25
56	MP3A	My	0.035	3.25
57	MP3A	Mz	-0.05	3.25
58	MP3B	Y	-70.3	3.25
59	MP3B	My	0.026	3.25
60	MP3B	Mz	0.055	3.25
61	MP3C	Y	-70.3	3.25
62	MP3C	My	-0.061	3.25
63	MP3C	Mz	-0.006	3.25
64	MP2A	Y	-52.5	0.25
65	MP2A	My	-0.026	0.25
66	MP2A	Mz	0	0.25
67	MP4A	Y	-52.5	0.25
68	MP4A	My	0	0.25
69	MP4A	Mz	-0.026	0.25
70	MP4B	Y	-52.5	0.25
71	MP4B	My	0.026	0.25
72	MP4B	Mz	0	0.25
73	MP4C	Y	-52.5	0.25
74	MP4C	My	0	0.25
75	MP4C	Mz	0.026	0.25
76	MP1A	Y	-43.55	0.25
77	MP1A	My	-0.022	0.25
78	MP1A	Mz	0	0.25
79	MP1A	Y	-43.55	2.25
80	MP1A	My	-0.022	2.25
81	MP1A	Mz	0	2.25
82	MP1B	Y	-43.55	0.25
83	MP1B	My	0.011	0.25
84	MP1B	Mz	-0.019	0.25
85	MP1B	Y	-43.55	2.25
86	MP1B	My	0.011	2.25
87	MP1B	Mz	-0.019	2.25
88	MP1C	Y	-43.55	0.25
89	MP1C	My	0.011	0.25
90	MP1C	Mz	0.019	0.25
91	MP1C	Y	-43.55	2.25
92	MP1C	My	0.011	2.25
93	MP1C	Mz	0.019	2.25
94	OVP1	Y	-32	1.5
95	OVP1	My	0	1.5
96	OVP1	Mz	0	1.5
97	OVP2	Y	-32	1.5

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
98	OVP2	My	0	1.5
99	OVP2	Mz	0	1.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-31.513	5.5
2	MP1A	My	-0.013	5.5
3	MP1A	Mz	0	5.5
4	MP1B	Y	-31.513	5.5
5	MP1B	My	0.007	5.5
6	MP1B	Mz	-0.011	5.5
7	MP1C	Y	-31.513	5.5
8	MP1C	My	0.007	5.5
9	MP1C	Mz	0.011	5.5
10	MP3A	Y	-92.893	1
11	MP3A	My	-0.085	1
12	MP3A	Mz	0.062	1
13	MP3A	Y	-92.893	4.5
14	MP3A	My	-0.085	4.5
15	MP3A	Mz	0.062	4.5
16	MP3B	Y	-92.893	1
17	MP3B	My	-0.011	1
18	MP3B	Mz	-0.105	1
19	MP3B	Y	-92.893	4.5
20	MP3B	My	-0.011	4.5
21	MP3B	Mz	-0.105	4.5
22	MP3C	Y	-92.893	1
23	MP3C	My	0.096	1
24	MP3C	Mz	0.043	1
25	MP3C	Y	-92.893	4.5
26	MP3C	My	0.096	4.5
27	MP3C	Mz	0.043	4.5
28	MP3A	Y	-92.893	1
29	MP3A	My	-0.085	1
30	MP3A	Mz	-0.062	1
31	MP3A	Y	-92.893	4.5
32	MP3A	My	-0.085	4.5
33	MP3A	Mz	-0.062	4.5
34	MP3B	Y	-92.893	1
35	MP3B	My	0.096	1
36	MP3B	Mz	-0.043	1
37	MP3B	Y	-92.893	4.5
38	MP3B	My	0.096	4.5
39	MP3B	Mz	-0.043	4.5
40	MP3C	Y	-92.893	1
41	MP3C	My	-0.011	1
42	MP3C	Mz	0.105	1
43	MP3C	Y	-92.893	4.5
44	MP3C	My	-0.011	4.5
45	MP3C	Mz	0.105	4.5
46	MP3A	Y	-69.082	3.25
47	MP3A	My	0.035	3.25
48	MP3A	Mz	0.049	3.25
49	MP3B	Y	-69.082	3.25
50	MP3B	My	-0.06	3.25

Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
51	MP3B	Mz	0.005	3.25
52	MP3C	Y	-69.082	3.25
53	MP3C	My	0.025	3.25
54	MP3C	Mz	-0.054	3.25
55	MP3A	Y	-62.349	3.25
56	MP3A	My	0.031	3.25
57	MP3A	Mz	-0.044	3.25
58	MP3B	Y	-62.349	3.25
59	MP3B	My	0.023	3.25
60	MP3B	Mz	0.049	3.25
61	MP3C	Y	-62.349	3.25
62	MP3C	My	-0.054	3.25
63	MP3C	Mz	-0.005	3.25
64	MP2A	Y	-77.453	0.25
65	MP2A	My	-0.039	0.25
66	MP2A	Mz	0	0.25
67	MP4A	Y	-77.453	0.25
68	MP4A	My	0	0.25
69	MP4A	Mz	-0.039	0.25
70	MP4B	Y	-77.453	0.25
71	MP4B	My	0.039	0.25
72	MP4B	Mz	0	0.25
73	MP4C	Y	-77.453	0.25
74	MP4C	My	0	0.25
75	MP4C	Mz	0.039	0.25
76	MP1A	Y	-54.395	0.25
77	MP1A	My	-0.027	0.25
78	MP1A	Mz	0	0.25
79	MP1A	Y	-54.395	2.25
80	MP1A	My	-0.027	2.25
81	MP1A	Mz	0	2.25
82	MP1B	Y	-54.395	0.25
83	MP1B	My	0.014	0.25
84	MP1B	Mz	-0.024	0.25
85	MP1B	Y	-54.395	2.25
86	MP1B	My	0.014	2.25
87	MP1B	Mz	-0.024	2.25
88	MP1C	Y	-54.395	0.25
89	MP1C	My	0.014	0.25
90	MP1C	Mz	0.024	0.25
91	MP1C	Y	-54.395	2.25
92	MP1C	My	0.014	2.25
93	MP1C	Mz	0.024	2.25
94	OVP1	Y	-133.185	1.5
95	OVP1	My	0	1.5
96	OVP1	Mz	0	1.5
97	OVP2	Y	-133.185	1.5
98	OVP2	My	0	1.5
99	OVP2	Mz	0	1.5

Member Point Loads (BLC 3 : Antenna Wo (0 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	5.5
2	MP1A	Z	-28.571	5.5
3	MP1A	Mx	0	5.5

Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP1B	X	0	5.5
5	MP1B	Z	-17.261	5.5
6	MP1B	Mx	0.006	5.5
7	MP1C	X	0	5.5
8	MP1C	Z	-17.261	5.5
9	MP1C	Mx	-0.006	5.5
10	MP3A	X	0	1
11	MP3A	Z	-109.323	1
12	MP3A	Mx	-0.073	1
13	MP3A	X	0	4.5
14	MP3A	Z	-109.323	4.5
15	MP3A	Mx	-0.073	4.5
16	MP3B	X	0	1
17	MP3B	Z	-62.598	1
18	MP3B	Mx	0.071	1
19	MP3B	X	0	4.5
20	MP3B	Z	-62.598	4.5
21	MP3B	Mx	0.071	4.5
22	MP3C	X	0	1
23	MP3C	Z	-62.598	1
24	MP3C	Mx	-0.029	1
25	MP3C	X	0	4.5
26	MP3C	Z	-62.598	4.5
27	MP3C	Mx	-0.029	4.5
28	MP3A	X	0	1
29	MP3A	Z	-109.323	1
30	MP3A	Mx	0.073	1
31	MP3A	X	0	4.5
32	MP3A	Z	-109.323	4.5
33	MP3A	Mx	0.073	4.5
34	MP3B	X	0	1
35	MP3B	Z	-62.598	1
36	MP3B	Mx	0.029	1
37	MP3B	X	0	4.5
38	MP3B	Z	-62.598	4.5
39	MP3B	Mx	0.029	4.5
40	MP3C	X	0	1
41	MP3C	Z	-62.598	1
42	MP3C	Mx	-0.071	1
43	MP3C	X	0	4.5
44	MP3C	Z	-62.598	4.5
45	MP3C	Mx	-0.071	4.5
46	MP3A	X	0	3.25
47	MP3A	Z	-61.506	3.25
48	MP3A	Mx	-0.044	3.25
49	MP3B	X	0	3.25
50	MP3B	Z	-46.328	3.25
51	MP3B	Mx	-0.004	3.25
52	MP3C	X	0	3.25
53	MP3C	Z	-46.328	3.25
54	MP3C	Mx	0.036	3.25
55	MP3A	X	0	3.25
56	MP3A	Z	-61.506	3.25
57	MP3A	Mx	0.044	3.25
58	MP3B	X	0	3.25

Member Point Loads (BLC 3 : Antenna Wo (0 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
59	MP3B	Z	-40.674	3.25
60	MP3B	Mx	-0.032	3.25
61	MP3C	X	0	3.25
62	MP3C	Z	-40.674	3.25
63	MP3C	Mx	0.003	3.25
64	MP2A	X	0	0.25
65	MP2A	Z	-95.236	0.25
66	MP2A	Mx	0	0.25
67	MP4A	X	0	0.25
68	MP4A	Z	-53.273	0.25
69	MP4A	Mx	0.027	0.25
70	MP4B	X	0	0.25
71	MP4B	Z	-95.236	0.25
72	MP4B	Mx	0	0.25
73	MP4C	X	0	0.25
74	MP4C	Z	-53.273	0.25
75	MP4C	Mx	-0.027	0.25
76	MP1A	X	0	0.25
77	MP1A	Z	-77.776	0.25
78	MP1A	Mx	0	0.25
79	MP1A	X	0	2.25
80	MP1A	Z	-77.776	2.25
81	MP1A	Mx	0	2.25
82	MP1B	X	0	0.25
83	MP1B	Z	-39.533	0.25
84	MP1B	Mx	0.017	0.25
85	MP1B	X	0	2.25
86	MP1B	Z	-39.533	2.25
87	MP1B	Mx	0.017	2.25
88	MP1C	X	0	0.25
89	MP1C	Z	-39.533	0.25
90	MP1C	Mx	-0.017	0.25
91	MP1C	X	0	2.25
92	MP1C	Z	-39.533	2.25
93	MP1C	Mx	-0.017	2.25
94	OVP1	X	0	1.5
95	OVP1	Z	-118.251	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	0	1.5
98	OVP2	Z	-118.251	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 4 : Antenna Wo (30 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	12.4	5.5
2	MP1A	Z	-21.478	5.5
3	MP1A	Mx	-0.005	5.5
4	MP1B	X	6.746	5.5
5	MP1B	Z	-11.684	5.5
6	MP1B	Mx	0.006	5.5
7	MP1C	X	12.4	5.5
8	MP1C	Z	-21.478	5.5
9	MP1C	Mx	-0.005	5.5
10	MP3A	X	46.874	1
11	MP3A	Z	-81.188	1

Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
12	MP3A	Mx	-0.097	1
13	MP3A	X	46.874	4.5
14	MP3A	Z	-81.188	4.5
15	MP3A	Mx	-0.097	4.5
16	MP3B	X	23.511	1
17	MP3B	Z	-40.723	1
18	MP3B	Mx	0.043	1
19	MP3B	X	23.511	4.5
20	MP3B	Z	-40.723	4.5
21	MP3B	Mx	0.043	4.5
22	MP3C	X	46.874	1
23	MP3C	Z	-81.188	1
24	MP3C	Mx	0.011	1
25	MP3C	X	46.874	4.5
26	MP3C	Z	-81.188	4.5
27	MP3C	Mx	0.011	4.5
28	MP3A	X	46.874	1
29	MP3A	Z	-81.188	1
30	MP3A	Mx	0.011	1
31	MP3A	X	46.874	4.5
32	MP3A	Z	-81.188	4.5
33	MP3A	Mx	0.011	4.5
34	MP3B	X	23.511	1
35	MP3B	Z	-40.723	1
36	MP3B	Mx	0.043	1
37	MP3B	X	23.511	4.5
38	MP3B	Z	-40.723	4.5
39	MP3B	Mx	0.043	4.5
40	MP3C	X	46.874	1
41	MP3C	Z	-81.188	1
42	MP3C	Mx	-0.097	1
43	MP3C	X	46.874	4.5
44	MP3C	Z	-81.188	4.5
45	MP3C	Mx	-0.097	4.5
46	MP3A	X	28.224	3.25
47	MP3A	Z	-48.885	3.25
48	MP3A	Mx	-0.021	3.25
49	MP3B	X	20.634	3.25
50	MP3B	Z	-35.74	3.25
51	MP3B	Mx	-0.021	3.25
52	MP3C	X	28.224	3.25
53	MP3C	Z	-48.885	3.25
54	MP3C	Mx	0.049	3.25
55	MP3A	X	27.281	3.25
56	MP3A	Z	-47.252	3.25
57	MP3A	Mx	0.047	3.25
58	MP3B	X	16.865	3.25
59	MP3B	Z	-29.21	3.25
60	MP3B	Mx	-0.017	3.25
61	MP3C	X	27.281	3.25
62	MP3C	Z	-47.252	3.25
63	MP3C	Mx	-0.02	3.25
64	MP2A	X	42.372	0.25
65	MP2A	Z	-73.391	0.25
66	MP2A	Mx	-0.021	0.25

Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
67	MP4A	X	31.882	0.25
68	MP4A	Z	-55.221	0.25
69	MP4A	Mx	0.028	0.25
70	MP4B	X	42.372	0.25
71	MP4B	Z	-73.391	0.25
72	MP4B	Mx	0.021	0.25
73	MP4C	X	31.882	0.25
74	MP4C	Z	-55.221	0.25
75	MP4C	Mx	-0.028	0.25
76	MP1A	X	32.514	0.25
77	MP1A	Z	-56.316	0.25
78	MP1A	Mx	-0.016	0.25
79	MP1A	X	32.514	2.25
80	MP1A	Z	-56.316	2.25
81	MP1A	Mx	-0.016	2.25
82	MP1B	X	13.393	0.25
83	MP1B	Z	-23.197	0.25
84	MP1B	Mx	0.013	0.25
85	MP1B	X	13.393	2.25
86	MP1B	Z	-23.197	2.25
87	MP1B	Mx	0.013	2.25
88	MP1C	X	32.514	0.25
89	MP1C	Z	-56.316	0.25
90	MP1C	Mx	-0.016	0.25
91	MP1C	X	32.514	2.25
92	MP1C	Z	-56.316	2.25
93	MP1C	Mx	-0.016	2.25
94	OVP1	X	51.586	1.5
95	OVP1	Z	-89.35	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	51.586	1.5
98	OVP2	Z	-89.35	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	14.949	5.5
2	MP1A	Z	-8.631	5.5
3	MP1A	Mx	-0.006	5.5
4	MP1B	X	14.949	5.5
5	MP1B	Z	-8.631	5.5
6	MP1B	Mx	0.006	5.5
7	MP1C	X	24.743	5.5
8	MP1C	Z	-14.285	5.5
9	MP1C	Mx	0	5.5
10	MP3A	X	54.211	1
11	MP3A	Z	-31.299	1
12	MP3A	Mx	-0.071	1
13	MP3A	X	54.211	4.5
14	MP3A	Z	-31.299	4.5
15	MP3A	Mx	-0.071	4.5
16	MP3B	X	54.211	1
17	MP3B	Z	-31.299	1
18	MP3B	Mx	0.029	1
19	MP3B	X	54.211	4.5

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
20	MP3B	Z	-31.299	4.5
21	MP3B	Mx	0.029	4.5
22	MP3C	X	94.676	1
23	MP3C	Z	-54.661	1
24	MP3C	Mx	0.073	1
25	MP3C	X	94.676	4.5
26	MP3C	Z	-54.661	4.5
27	MP3C	Mx	0.073	4.5
28	MP3A	X	54.211	1
29	MP3A	Z	-31.299	1
30	MP3A	Mx	-0.029	1
31	MP3A	X	54.211	4.5
32	MP3A	Z	-31.299	4.5
33	MP3A	Mx	-0.029	4.5
34	MP3B	X	54.211	1
35	MP3B	Z	-31.299	1
36	MP3B	Mx	0.071	1
37	MP3B	X	54.211	4.5
38	MP3B	Z	-31.299	4.5
39	MP3B	Mx	0.071	4.5
40	MP3C	X	94.676	1
41	MP3C	Z	-54.661	1
42	MP3C	Mx	-0.073	1
43	MP3C	X	94.676	4.5
44	MP3C	Z	-54.661	4.5
45	MP3C	Mx	-0.073	4.5
46	MP3A	X	40.121	3.25
47	MP3A	Z	-23.164	3.25
48	MP3A	Mx	0.004	3.25
49	MP3B	X	40.121	3.25
50	MP3B	Z	-23.164	3.25
51	MP3B	Mx	-0.036	3.25
52	MP3C	X	53.266	3.25
53	MP3C	Z	-30.753	3.25
54	MP3C	Mx	0.044	3.25
55	MP3A	X	35.224	3.25
56	MP3A	Z	-20.337	3.25
57	MP3A	Mx	0.032	3.25
58	MP3B	X	35.224	3.25
59	MP3B	Z	-20.337	3.25
60	MP3B	Mx	-0.003	3.25
61	MP3C	X	53.266	3.25
62	MP3C	Z	-30.753	3.25
63	MP3C	Mx	-0.044	3.25
64	MP2A	X	55.221	0.25
65	MP2A	Z	-31.882	0.25
66	MP2A	Mx	-0.028	0.25
67	MP4A	X	73.391	0.25
68	MP4A	Z	-42.372	0.25
69	MP4A	Mx	0.021	0.25
70	MP4B	X	55.221	0.25
71	MP4B	Z	-31.882	0.25
72	MP4B	Mx	0.028	0.25
73	MP4C	X	73.391	0.25
74	MP4C	Z	-42.372	0.25

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
75	MP4C	Mx	-0.021	0.25
76	MP1A	X	34.236	0.25
77	MP1A	Z	-19.766	0.25
78	MP1A	Mx	-0.017	0.25
79	MP1A	X	34.236	2.25
80	MP1A	Z	-19.766	2.25
81	MP1A	Mx	-0.017	2.25
82	MP1B	X	34.236	0.25
83	MP1B	Z	-19.766	0.25
84	MP1B	Mx	0.017	0.25
85	MP1B	X	34.236	2.25
86	MP1B	Z	-19.766	2.25
87	MP1B	Mx	0.017	2.25
88	MP1C	X	67.356	0.25
89	MP1C	Z	-38.888	0.25
90	MP1C	Mx	0	0.25
91	MP1C	X	67.356	2.25
92	MP1C	Z	-38.888	2.25
93	MP1C	Mx	0	2.25
94	OVP1	X	82.82	1.5
95	OVP1	Z	-47.816	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	82.82	1.5
98	OVP2	Z	-47.816	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	13.492	5.5
2	MP1A	Z	0	5.5
3	MP1A	Mx	-0.006	5.5
4	MP1B	X	24.801	5.5
5	MP1B	Z	0	5.5
6	MP1B	Mx	0.005	5.5
7	MP1C	X	24.801	5.5
8	MP1C	Z	0	5.5
9	MP1C	Mx	0.005	5.5
10	MP3A	X	47.023	1
11	MP3A	Z	0	1
12	MP3A	Mx	-0.043	1
13	MP3A	X	47.023	4.5
14	MP3A	Z	0	4.5
15	MP3A	Mx	-0.043	4.5
16	MP3B	X	93.748	1
17	MP3B	Z	0	1
18	MP3B	Mx	-0.011	1
19	MP3B	X	93.748	4.5
20	MP3B	Z	0	4.5
21	MP3B	Mx	-0.011	4.5
22	MP3C	X	93.748	1
23	MP3C	Z	0	1
24	MP3C	Mx	0.097	1
25	MP3C	X	93.748	4.5
26	MP3C	Z	0	4.5
27	MP3C	Mx	0.097	4.5

Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
28	MP3A	X	47.023	1
29	MP3A	Z	0	1
30	MP3A	Mx	-0.043	1
31	MP3A	X	47.023	4.5
32	MP3A	Z	0	4.5
33	MP3A	Mx	-0.043	4.5
34	MP3B	X	93.748	1
35	MP3B	Z	0	1
36	MP3B	Mx	0.097	1
37	MP3B	X	93.748	4.5
38	MP3B	Z	0	4.5
39	MP3B	Mx	0.097	4.5
40	MP3C	X	93.748	1
41	MP3C	Z	0	1
42	MP3C	Mx	-0.011	1
43	MP3C	X	93.748	4.5
44	MP3C	Z	0	4.5
45	MP3C	Mx	-0.011	4.5
46	MP3A	X	41.269	3.25
47	MP3A	Z	0	3.25
48	MP3A	Mx	0.021	3.25
49	MP3B	X	56.447	3.25
50	MP3B	Z	0	3.25
51	MP3B	Mx	-0.049	3.25
52	MP3C	X	56.447	3.25
53	MP3C	Z	0	3.25
54	MP3C	Mx	0.021	3.25
55	MP3A	X	33.729	3.25
56	MP3A	Z	0	3.25
57	MP3A	Mx	0.017	3.25
58	MP3B	X	54.562	3.25
59	MP3B	Z	0	3.25
60	MP3B	Mx	0.02	3.25
61	MP3C	X	54.562	3.25
62	MP3C	Z	0	3.25
63	MP3C	Mx	-0.047	3.25
64	MP2A	X	53.273	0.25
65	MP2A	Z	0	0.25
66	MP2A	Mx	-0.027	0.25
67	MP4A	X	95.236	0.25
68	MP4A	Z	0	0.25
69	MP4A	Mx	0	0.25
70	MP4B	X	53.273	0.25
71	MP4B	Z	0	0.25
72	MP4B	Mx	0.027	0.25
73	MP4C	X	95.236	0.25
74	MP4C	Z	0	0.25
75	MP4C	Mx	0	0.25
76	MP1A	X	26.785	0.25
77	MP1A	Z	0	0.25
78	MP1A	Mx	-0.013	0.25
79	MP1A	X	26.785	2.25
80	MP1A	Z	0	2.25
81	MP1A	Mx	-0.013	2.25
82	MP1B	X	65.028	0.25

Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
83	MP1B	Z	0	0.25
84	MP1B	Mx	0.016	0.25
85	MP1B	X	65.028	2.25
86	MP1B	Z	0	2.25
87	MP1B	Mx	0.016	2.25
88	MP1C	X	65.028	0.25
89	MP1C	Z	0	0.25
90	MP1C	Mx	0.016	0.25
91	MP1C	X	65.028	2.25
92	MP1C	Z	0	2.25
93	MP1C	Mx	0.016	2.25
94	OVP1	X	103.172	1.5
95	OVP1	Z	0	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	103.172	1.5
98	OVP2	Z	0	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	14.949	5.5
2	MP1A	Z	8.631	5.5
3	MP1A	Mx	-0.006	5.5
4	MP1B	X	24.743	5.5
5	MP1B	Z	14.285	5.5
6	MP1B	Mx	0	5.5
7	MP1C	X	14.949	5.5
8	MP1C	Z	8.631	5.5
9	MP1C	Mx	0.006	5.5
10	MP3A	X	54.211	1
11	MP3A	Z	31.299	1
12	MP3A	Mx	-0.029	1
13	MP3A	X	54.211	4.5
14	MP3A	Z	31.299	4.5
15	MP3A	Mx	-0.029	4.5
16	MP3B	X	94.676	1
17	MP3B	Z	54.661	1
18	MP3B	Mx	-0.073	1
19	MP3B	X	94.676	4.5
20	MP3B	Z	54.661	4.5
21	MP3B	Mx	-0.073	4.5
22	MP3C	X	54.211	1
23	MP3C	Z	31.299	1
24	MP3C	Mx	0.071	1
25	MP3C	X	54.211	4.5
26	MP3C	Z	31.299	4.5
27	MP3C	Mx	0.071	4.5
28	MP3A	X	54.211	1
29	MP3A	Z	31.299	1
30	MP3A	Mx	-0.071	1
31	MP3A	X	54.211	4.5
32	MP3A	Z	31.299	4.5
33	MP3A	Mx	-0.071	4.5
34	MP3B	X	94.676	1
35	MP3B	Z	54.661	1

Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
36	MP3B	Mx	0.073	1
37	MP3B	X	94.676	4.5
38	MP3B	Z	54.661	4.5
39	MP3B	Mx	0.073	4.5
40	MP3C	X	54.211	1
41	MP3C	Z	31.299	1
42	MP3C	Mx	0.029	1
43	MP3C	X	54.211	4.5
44	MP3C	Z	31.299	4.5
45	MP3C	Mx	0.029	4.5
46	MP3A	X	40.121	3.25
47	MP3A	Z	23.164	3.25
48	MP3A	Mx	0.036	3.25
49	MP3B	X	53.266	3.25
50	MP3B	Z	30.753	3.25
51	MP3B	Mx	-0.044	3.25
52	MP3C	X	40.121	3.25
53	MP3C	Z	23.164	3.25
54	MP3C	Mx	-0.004	3.25
55	MP3A	X	35.224	3.25
56	MP3A	Z	20.337	3.25
57	MP3A	Mx	0.003	3.25
58	MP3B	X	53.266	3.25
59	MP3B	Z	30.753	3.25
60	MP3B	Mx	0.044	3.25
61	MP3C	X	35.224	3.25
62	MP3C	Z	20.337	3.25
63	MP3C	Mx	-0.032	3.25
64	MP2A	X	55.221	0.25
65	MP2A	Z	31.882	0.25
66	MP2A	Mx	-0.028	0.25
67	MP4A	X	73.391	0.25
68	MP4A	Z	42.372	0.25
69	MP4A	Mx	-0.021	0.25
70	MP4B	X	55.221	0.25
71	MP4B	Z	31.882	0.25
72	MP4B	Mx	0.028	0.25
73	MP4C	X	73.391	0.25
74	MP4C	Z	42.372	0.25
75	MP4C	Mx	0.021	0.25
76	MP1A	X	34.236	0.25
77	MP1A	Z	19.766	0.25
78	MP1A	Mx	-0.017	0.25
79	MP1A	X	34.236	2.25
80	MP1A	Z	19.766	2.25
81	MP1A	Mx	-0.017	2.25
82	MP1B	X	67.356	0.25
83	MP1B	Z	38.888	0.25
84	MP1B	Mx	0	0.25
85	MP1B	X	67.356	2.25
86	MP1B	Z	38.888	2.25
87	MP1B	Mx	0	2.25
88	MP1C	X	34.236	0.25
89	MP1C	Z	19.766	0.25
90	MP1C	Mx	0.017	0.25

Member Point Loads (BLC 7 : Antenna Wo (120 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
91	MP1C	X	34.236	2.25
92	MP1C	Z	19.766	2.25
93	MP1C	Mx	0.017	2.25
94	OVP1	X	102.408	1.5
95	OVP1	Z	59.126	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	102.408	1.5
98	OVP2	Z	59.126	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	12.4	5.5
2	MP1A	Z	21.478	5.5
3	MP1A	Mx	-0.005	5.5
4	MP1B	X	12.4	5.5
5	MP1B	Z	21.478	5.5
6	MP1B	Mx	-0.005	5.5
7	MP1C	X	6.746	5.5
8	MP1C	Z	11.684	5.5
9	MP1C	Mx	0.006	5.5
10	MP3A	X	46.874	1
11	MP3A	Z	81.188	1
12	MP3A	Mx	0.011	1
13	MP3A	X	46.874	4.5
14	MP3A	Z	81.188	4.5
15	MP3A	Mx	0.011	4.5
16	MP3B	X	46.874	1
17	MP3B	Z	81.188	1
18	MP3B	Mx	-0.097	1
19	MP3B	X	46.874	4.5
20	MP3B	Z	81.188	4.5
21	MP3B	Mx	-0.097	4.5
22	MP3C	X	23.511	1
23	MP3C	Z	40.723	1
24	MP3C	Mx	0.043	1
25	MP3C	X	23.511	4.5
26	MP3C	Z	40.723	4.5
27	MP3C	Mx	0.043	4.5
28	MP3A	X	46.874	1
29	MP3A	Z	81.188	1
30	MP3A	Mx	-0.097	1
31	MP3A	X	46.874	4.5
32	MP3A	Z	81.188	4.5
33	MP3A	Mx	-0.097	4.5
34	MP3B	X	46.874	1
35	MP3B	Z	81.188	1
36	MP3B	Mx	0.011	1
37	MP3B	X	46.874	4.5
38	MP3B	Z	81.188	4.5
39	MP3B	Mx	0.011	4.5
40	MP3C	X	23.511	1
41	MP3C	Z	40.723	1
42	MP3C	Mx	0.043	1
43	MP3C	X	23.511	4.5

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
44	MP3C	Z	40.723	4.5
45	MP3C	Mx	0.043	4.5
46	MP3A	X	28.224	3.25
47	MP3A	Z	48.885	3.25
48	MP3A	Mx	0.049	3.25
49	MP3B	X	28.224	3.25
50	MP3B	Z	48.885	3.25
51	MP3B	Mx	-0.021	3.25
52	MP3C	X	20.634	3.25
53	MP3C	Z	35.74	3.25
54	MP3C	Mx	-0.021	3.25
55	MP3A	X	27.281	3.25
56	MP3A	Z	47.252	3.25
57	MP3A	Mx	-0.02	3.25
58	MP3B	X	27.281	3.25
59	MP3B	Z	47.252	3.25
60	MP3B	Mx	0.047	3.25
61	MP3C	X	16.865	3.25
62	MP3C	Z	29.21	3.25
63	MP3C	Mx	-0.017	3.25
64	MP2A	X	42.372	0.25
65	MP2A	Z	73.391	0.25
66	MP2A	Mx	-0.021	0.25
67	MP4A	X	31.882	0.25
68	MP4A	Z	55.221	0.25
69	MP4A	Mx	-0.028	0.25
70	MP4B	X	42.372	0.25
71	MP4B	Z	73.391	0.25
72	MP4B	Mx	0.021	0.25
73	MP4C	X	31.882	0.25
74	MP4C	Z	55.221	0.25
75	MP4C	Mx	0.028	0.25
76	MP1A	X	32.514	0.25
77	MP1A	Z	56.316	0.25
78	MP1A	Mx	-0.016	0.25
79	MP1A	X	32.514	2.25
80	MP1A	Z	56.316	2.25
81	MP1A	Mx	-0.016	2.25
82	MP1B	X	32.514	0.25
83	MP1B	Z	56.316	0.25
84	MP1B	Mx	-0.016	0.25
85	MP1B	X	32.514	2.25
86	MP1B	Z	56.316	2.25
87	MP1B	Mx	-0.016	2.25
88	MP1C	X	13.393	0.25
89	MP1C	Z	23.197	0.25
90	MP1C	Mx	0.013	0.25
91	MP1C	X	13.393	2.25
92	MP1C	Z	23.197	2.25
93	MP1C	Mx	0.013	2.25
94	OVP1	X	62.895	1.5
95	OVP1	Z	108.938	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	62.895	1.5
98	OVP2	Z	108.938	1.5

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	5.5
2	MP1A	Z	28.571	5.5
3	MP1A	Mx	0	5.5
4	MP1B	X	0	5.5
5	MP1B	Z	17.261	5.5
6	MP1B	Mx	-0.006	5.5
7	MP1C	X	0	5.5
8	MP1C	Z	17.261	5.5
9	MP1C	Mx	0.006	5.5
10	MP3A	X	0	1
11	MP3A	Z	109.323	1
12	MP3A	Mx	0.073	1
13	MP3A	X	0	4.5
14	MP3A	Z	109.323	4.5
15	MP3A	Mx	0.073	4.5
16	MP3B	X	0	1
17	MP3B	Z	62.598	1
18	MP3B	Mx	-0.071	1
19	MP3B	X	0	4.5
20	MP3B	Z	62.598	4.5
21	MP3B	Mx	-0.071	4.5
22	MP3C	X	0	1
23	MP3C	Z	62.598	1
24	MP3C	Mx	0.029	1
25	MP3C	X	0	4.5
26	MP3C	Z	62.598	4.5
27	MP3C	Mx	0.029	4.5
28	MP3A	X	0	1
29	MP3A	Z	109.323	1
30	MP3A	Mx	-0.073	1
31	MP3A	X	0	4.5
32	MP3A	Z	109.323	4.5
33	MP3A	Mx	-0.073	4.5
34	MP3B	X	0	1
35	MP3B	Z	62.598	1
36	MP3B	Mx	-0.029	1
37	MP3B	X	0	4.5
38	MP3B	Z	62.598	4.5
39	MP3B	Mx	-0.029	4.5
40	MP3C	X	0	1
41	MP3C	Z	62.598	1
42	MP3C	Mx	0.071	1
43	MP3C	X	0	4.5
44	MP3C	Z	62.598	4.5
45	MP3C	Mx	0.071	4.5
46	MP3A	X	0	3.25
47	MP3A	Z	61.506	3.25
48	MP3A	Mx	0.044	3.25
49	MP3B	X	0	3.25
50	MP3B	Z	46.328	3.25
51	MP3B	Mx	0.004	3.25

Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
52	MP3C	X	0	3.25
53	MP3C	Z	46.328	3.25
54	MP3C	Mx	-0.036	3.25
55	MP3A	X	0	3.25
56	MP3A	Z	61.506	3.25
57	MP3A	Mx	-0.044	3.25
58	MP3B	X	0	3.25
59	MP3B	Z	40.674	3.25
60	MP3B	Mx	0.032	3.25
61	MP3C	X	0	3.25
62	MP3C	Z	40.674	3.25
63	MP3C	Mx	-0.003	3.25
64	MP2A	X	0	0.25
65	MP2A	Z	95.236	0.25
66	MP2A	Mx	0	0.25
67	MP4A	X	0	0.25
68	MP4A	Z	53.273	0.25
69	MP4A	Mx	-0.027	0.25
70	MP4B	X	0	0.25
71	MP4B	Z	95.236	0.25
72	MP4B	Mx	0	0.25
73	MP4C	X	0	0.25
74	MP4C	Z	53.273	0.25
75	MP4C	Mx	0.027	0.25
76	MP1A	X	0	0.25
77	MP1A	Z	77.776	0.25
78	MP1A	Mx	0	0.25
79	MP1A	X	0	2.25
80	MP1A	Z	77.776	2.25
81	MP1A	Mx	0	2.25
82	MP1B	X	0	0.25
83	MP1B	Z	39.533	0.25
84	MP1B	Mx	-0.017	0.25
85	MP1B	X	0	2.25
86	MP1B	Z	39.533	2.25
87	MP1B	Mx	-0.017	2.25
88	MP1C	X	0	0.25
89	MP1C	Z	39.533	0.25
90	MP1C	Mx	0.017	0.25
91	MP1C	X	0	2.25
92	MP1C	Z	39.533	2.25
93	MP1C	Mx	0.017	2.25
94	OVP1	X	0	1.5
95	OVP1	Z	118.251	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	0	1.5
98	OVP2	Z	118.251	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 10 : Antenna Wo (210 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-12.4	5.5
2	MP1A	Z	21.478	5.5
3	MP1A	Mx	0.005	5.5
4	MP1B	X	-6.746	5.5

Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
5	MP1B	Z	11.684	5.5
6	MP1B	Mx	-0.006	5.5
7	MP1C	X	-12.4	5.5
8	MP1C	Z	21.478	5.5
9	MP1C	Mx	0.005	5.5
10	MP3A	X	-46.874	1
11	MP3A	Z	81.188	1
12	MP3A	Mx	0.097	1
13	MP3A	X	-46.874	4.5
14	MP3A	Z	81.188	4.5
15	MP3A	Mx	0.097	4.5
16	MP3B	X	-23.511	1
17	MP3B	Z	40.723	1
18	MP3B	Mx	-0.043	1
19	MP3B	X	-23.511	4.5
20	MP3B	Z	40.723	4.5
21	MP3B	Mx	-0.043	4.5
22	MP3C	X	-46.874	1
23	MP3C	Z	81.188	1
24	MP3C	Mx	-0.011	1
25	MP3C	X	-46.874	4.5
26	MP3C	Z	81.188	4.5
27	MP3C	Mx	-0.011	4.5
28	MP3A	X	-46.874	1
29	MP3A	Z	81.188	1
30	MP3A	Mx	-0.011	1
31	MP3A	X	-46.874	4.5
32	MP3A	Z	81.188	4.5
33	MP3A	Mx	-0.011	4.5
34	MP3B	X	-23.511	1
35	MP3B	Z	40.723	1
36	MP3B	Mx	-0.043	1
37	MP3B	X	-23.511	4.5
38	MP3B	Z	40.723	4.5
39	MP3B	Mx	-0.043	4.5
40	MP3C	X	-46.874	1
41	MP3C	Z	81.188	1
42	MP3C	Mx	0.097	1
43	MP3C	X	-46.874	4.5
44	MP3C	Z	81.188	4.5
45	MP3C	Mx	0.097	4.5
46	MP3A	X	-28.224	3.25
47	MP3A	Z	48.885	3.25
48	MP3A	Mx	0.021	3.25
49	MP3B	X	-20.634	3.25
50	MP3B	Z	35.74	3.25
51	MP3B	Mx	0.021	3.25
52	MP3C	X	-28.224	3.25
53	MP3C	Z	48.885	3.25
54	MP3C	Mx	-0.049	3.25
55	MP3A	X	-27.281	3.25
56	MP3A	Z	47.252	3.25
57	MP3A	Mx	-0.047	3.25
58	MP3B	X	-16.865	3.25
59	MP3B	Z	29.21	3.25

Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
60	MP3B	Mx	0.017	3.25
61	MP3C	X	-27.281	3.25
62	MP3C	Z	47.252	3.25
63	MP3C	Mx	0.02	3.25
64	MP2A	X	-42.372	0.25
65	MP2A	Z	73.391	0.25
66	MP2A	Mx	0.021	0.25
67	MP4A	X	-31.882	0.25
68	MP4A	Z	55.221	0.25
69	MP4A	Mx	-0.028	0.25
70	MP4B	X	-42.372	0.25
71	MP4B	Z	73.391	0.25
72	MP4B	Mx	-0.021	0.25
73	MP4C	X	-31.882	0.25
74	MP4C	Z	55.221	0.25
75	MP4C	Mx	0.028	0.25
76	MP1A	X	-32.514	0.25
77	MP1A	Z	56.316	0.25
78	MP1A	Mx	0.016	0.25
79	MP1A	X	-32.514	2.25
80	MP1A	Z	56.316	2.25
81	MP1A	Mx	0.016	2.25
82	MP1B	X	-13.393	0.25
83	MP1B	Z	23.197	0.25
84	MP1B	Mx	-0.013	0.25
85	MP1B	X	-13.393	2.25
86	MP1B	Z	23.197	2.25
87	MP1B	Mx	-0.013	2.25
88	MP1C	X	-32.514	0.25
89	MP1C	Z	56.316	0.25
90	MP1C	Mx	0.016	0.25
91	MP1C	X	-32.514	2.25
92	MP1C	Z	56.316	2.25
93	MP1C	Mx	0.016	2.25
94	OVP1	X	-51.586	1.5
95	OVP1	Z	89.35	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-51.586	1.5
98	OVP2	Z	89.35	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 11 : Antenna Wo (240 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-14.949	5.5
2	MP1A	Z	8.631	5.5
3	MP1A	Mx	0.006	5.5
4	MP1B	X	-14.949	5.5
5	MP1B	Z	8.631	5.5
6	MP1B	Mx	-0.006	5.5
7	MP1C	X	-24.743	5.5
8	MP1C	Z	14.285	5.5
9	MP1C	Mx	0	5.5
10	MP3A	X	-54.211	1
11	MP3A	Z	31.299	1
12	MP3A	Mx	0.071	1

Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
13	MP3A	X	-54.211	4.5
14	MP3A	Z	31.299	4.5
15	MP3A	Mx	0.071	4.5
16	MP3B	X	-54.211	1
17	MP3B	Z	31.299	1
18	MP3B	Mx	-0.029	1
19	MP3B	X	-54.211	4.5
20	MP3B	Z	31.299	4.5
21	MP3B	Mx	-0.029	4.5
22	MP3C	X	-94.676	1
23	MP3C	Z	54.661	1
24	MP3C	Mx	-0.073	1
25	MP3C	X	-94.676	4.5
26	MP3C	Z	54.661	4.5
27	MP3C	Mx	-0.073	4.5
28	MP3A	X	-54.211	1
29	MP3A	Z	31.299	1
30	MP3A	Mx	0.029	1
31	MP3A	X	-54.211	4.5
32	MP3A	Z	31.299	4.5
33	MP3A	Mx	0.029	4.5
34	MP3B	X	-54.211	1
35	MP3B	Z	31.299	1
36	MP3B	Mx	-0.071	1
37	MP3B	X	-54.211	4.5
38	MP3B	Z	31.299	4.5
39	MP3B	Mx	-0.071	4.5
40	MP3C	X	-94.676	1
41	MP3C	Z	54.661	1
42	MP3C	Mx	0.073	1
43	MP3C	X	-94.676	4.5
44	MP3C	Z	54.661	4.5
45	MP3C	Mx	0.073	4.5
46	MP3A	X	-40.121	3.25
47	MP3A	Z	23.164	3.25
48	MP3A	Mx	-0.004	3.25
49	MP3B	X	-40.121	3.25
50	MP3B	Z	23.164	3.25
51	MP3B	Mx	0.036	3.25
52	MP3C	X	-53.266	3.25
53	MP3C	Z	30.753	3.25
54	MP3C	Mx	-0.044	3.25
55	MP3A	X	-35.224	3.25
56	MP3A	Z	20.337	3.25
57	MP3A	Mx	-0.032	3.25
58	MP3B	X	-35.224	3.25
59	MP3B	Z	20.337	3.25
60	MP3B	Mx	0.003	3.25
61	MP3C	X	-53.266	3.25
62	MP3C	Z	30.753	3.25
63	MP3C	Mx	0.044	3.25
64	MP2A	X	-55.221	0.25
65	MP2A	Z	31.882	0.25
66	MP2A	Mx	0.028	0.25
67	MP4A	X	-73.391	0.25

Member Point Loads (BLC 11 : Antenna Wo (240 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
68	MP4A	Z	42.372	0.25
69	MP4A	Mx	-0.021	0.25
70	MP4B	X	-55.221	0.25
71	MP4B	Z	31.882	0.25
72	MP4B	Mx	-0.028	0.25
73	MP4C	X	-73.391	0.25
74	MP4C	Z	42.372	0.25
75	MP4C	Mx	0.021	0.25
76	MP1A	X	-34.236	0.25
77	MP1A	Z	19.766	0.25
78	MP1A	Mx	0.017	0.25
79	MP1A	X	-34.236	2.25
80	MP1A	Z	19.766	2.25
81	MP1A	Mx	0.017	2.25
82	MP1B	X	-34.236	0.25
83	MP1B	Z	19.766	0.25
84	MP1B	Mx	-0.017	0.25
85	MP1B	X	-34.236	2.25
86	MP1B	Z	19.766	2.25
87	MP1B	Mx	-0.017	2.25
88	MP1C	X	-67.356	0.25
89	MP1C	Z	38.888	0.25
90	MP1C	Mx	0	0.25
91	MP1C	X	-67.356	2.25
92	MP1C	Z	38.888	2.25
93	MP1C	Mx	0	2.25
94	OVP1	X	-82.82	1.5
95	OVP1	Z	47.816	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-82.82	1.5
98	OVP2	Z	47.816	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 12 : Antenna Wo (270 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-13.492	5.5
2	MP1A	Z	0	5.5
3	MP1A	Mx	0.006	5.5
4	MP1B	X	-24.801	5.5
5	MP1B	Z	0	5.5
6	MP1B	Mx	-0.005	5.5
7	MP1C	X	-24.801	5.5
8	MP1C	Z	0	5.5
9	MP1C	Mx	-0.005	5.5
10	MP3A	X	-47.023	1
11	MP3A	Z	0	1
12	MP3A	Mx	0.043	1
13	MP3A	X	-47.023	4.5
14	MP3A	Z	0	4.5
15	MP3A	Mx	0.043	4.5
16	MP3B	X	-93.748	1
17	MP3B	Z	0	1
18	MP3B	Mx	0.011	1
19	MP3B	X	-93.748	4.5
20	MP3B	Z	0	4.5

Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
21	MP3B	Mx	0.011	4.5
22	MP3C	X	-93.748	1
23	MP3C	Z	0	1
24	MP3C	Mx	-0.097	1
25	MP3C	X	-93.748	4.5
26	MP3C	Z	0	4.5
27	MP3C	Mx	-0.097	4.5
28	MP3A	X	-47.023	1
29	MP3A	Z	0	1
30	MP3A	Mx	0.043	1
31	MP3A	X	-47.023	4.5
32	MP3A	Z	0	4.5
33	MP3A	Mx	0.043	4.5
34	MP3B	X	-93.748	1
35	MP3B	Z	0	1
36	MP3B	Mx	-0.097	1
37	MP3B	X	-93.748	4.5
38	MP3B	Z	0	4.5
39	MP3B	Mx	-0.097	4.5
40	MP3C	X	-93.748	1
41	MP3C	Z	0	1
42	MP3C	Mx	0.011	1
43	MP3C	X	-93.748	4.5
44	MP3C	Z	0	4.5
45	MP3C	Mx	0.011	4.5
46	MP3A	X	-41.269	3.25
47	MP3A	Z	0	3.25
48	MP3A	Mx	-0.021	3.25
49	MP3B	X	-56.447	3.25
50	MP3B	Z	0	3.25
51	MP3B	Mx	0.049	3.25
52	MP3C	X	-56.447	3.25
53	MP3C	Z	0	3.25
54	MP3C	Mx	-0.021	3.25
55	MP3A	X	-33.729	3.25
56	MP3A	Z	0	3.25
57	MP3A	Mx	-0.017	3.25
58	MP3B	X	-54.562	3.25
59	MP3B	Z	0	3.25
60	MP3B	Mx	-0.02	3.25
61	MP3C	X	-54.562	3.25
62	MP3C	Z	0	3.25
63	MP3C	Mx	0.047	3.25
64	MP2A	X	-53.273	0.25
65	MP2A	Z	0	0.25
66	MP2A	Mx	0.027	0.25
67	MP4A	X	-95.236	0.25
68	MP4A	Z	0	0.25
69	MP4A	Mx	0	0.25
70	MP4B	X	-53.273	0.25
71	MP4B	Z	0	0.25
72	MP4B	Mx	-0.027	0.25
73	MP4C	X	-95.236	0.25
74	MP4C	Z	0	0.25
75	MP4C	Mx	0	0.25

Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
76	MP1A	X	-26.785	0.25
77	MP1A	Z	0	0.25
78	MP1A	Mx	0.013	0.25
79	MP1A	X	-26.785	2.25
80	MP1A	Z	0	2.25
81	MP1A	Mx	0.013	2.25
82	MP1B	X	-65.028	0.25
83	MP1B	Z	0	0.25
84	MP1B	Mx	-0.016	0.25
85	MP1B	X	-65.028	2.25
86	MP1B	Z	0	2.25
87	MP1B	Mx	-0.016	2.25
88	MP1C	X	-65.028	0.25
89	MP1C	Z	0	0.25
90	MP1C	Mx	-0.016	0.25
91	MP1C	X	-65.028	2.25
92	MP1C	Z	0	2.25
93	MP1C	Mx	-0.016	2.25
94	OVP1	X	-103.172	1.5
95	OVP1	Z	0	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-103.172	1.5
98	OVP2	Z	0	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 13 : Antenna Wo (300 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-14.949	5.5
2	MP1A	Z	-8.631	5.5
3	MP1A	Mx	0.006	5.5
4	MP1B	X	-24.743	5.5
5	MP1B	Z	-14.285	5.5
6	MP1B	Mx	0	5.5
7	MP1C	X	-14.949	5.5
8	MP1C	Z	-8.631	5.5
9	MP1C	Mx	-0.006	5.5
10	MP3A	X	-54.211	1
11	MP3A	Z	-31.299	1
12	MP3A	Mx	0.029	1
13	MP3A	X	-54.211	4.5
14	MP3A	Z	-31.299	4.5
15	MP3A	Mx	0.029	4.5
16	MP3B	X	-94.676	1
17	MP3B	Z	-54.661	1
18	MP3B	Mx	0.073	1
19	MP3B	X	-94.676	4.5
20	MP3B	Z	-54.661	4.5
21	MP3B	Mx	0.073	4.5
22	MP3C	X	-54.211	1
23	MP3C	Z	-31.299	1
24	MP3C	Mx	-0.071	1
25	MP3C	X	-54.211	4.5
26	MP3C	Z	-31.299	4.5
27	MP3C	Mx	-0.071	4.5
28	MP3A	X	-54.211	1

Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
29	MP3A	Z	-31.299	1
30	MP3A	Mx	0.071	1
31	MP3A	X	-54.211	4.5
32	MP3A	Z	-31.299	4.5
33	MP3A	Mx	0.071	4.5
34	MP3B	X	-94.676	1
35	MP3B	Z	-54.661	1
36	MP3B	Mx	-0.073	1
37	MP3B	X	-94.676	4.5
38	MP3B	Z	-54.661	4.5
39	MP3B	Mx	-0.073	4.5
40	MP3C	X	-54.211	1
41	MP3C	Z	-31.299	1
42	MP3C	Mx	-0.029	1
43	MP3C	X	-54.211	4.5
44	MP3C	Z	-31.299	4.5
45	MP3C	Mx	-0.029	4.5
46	MP3A	X	-40.121	3.25
47	MP3A	Z	-23.164	3.25
48	MP3A	Mx	-0.036	3.25
49	MP3B	X	-53.266	3.25
50	MP3B	Z	-30.753	3.25
51	MP3B	Mx	0.044	3.25
52	MP3C	X	-40.121	3.25
53	MP3C	Z	-23.164	3.25
54	MP3C	Mx	0.004	3.25
55	MP3A	X	-35.224	3.25
56	MP3A	Z	-20.337	3.25
57	MP3A	Mx	-0.003	3.25
58	MP3B	X	-53.266	3.25
59	MP3B	Z	-30.753	3.25
60	MP3B	Mx	-0.044	3.25
61	MP3C	X	-35.224	3.25
62	MP3C	Z	-20.337	3.25
63	MP3C	Mx	0.032	3.25
64	MP2A	X	-55.221	0.25
65	MP2A	Z	-31.882	0.25
66	MP2A	Mx	0.028	0.25
67	MP4A	X	-73.391	0.25
68	MP4A	Z	-42.372	0.25
69	MP4A	Mx	0.021	0.25
70	MP4B	X	-55.221	0.25
71	MP4B	Z	-31.882	0.25
72	MP4B	Mx	-0.028	0.25
73	MP4C	X	-73.391	0.25
74	MP4C	Z	-42.372	0.25
75	MP4C	Mx	-0.021	0.25
76	MP1A	X	-34.236	0.25
77	MP1A	Z	-19.766	0.25
78	MP1A	Mx	0.017	0.25
79	MP1A	X	-34.236	2.25
80	MP1A	Z	-19.766	2.25
81	MP1A	Mx	0.017	2.25
82	MP1B	X	-67.356	0.25
83	MP1B	Z	-38.888	0.25

Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
84	MP1B	Mx	0	0.25
85	MP1B	X	-67.356	2.25
86	MP1B	Z	-38.888	2.25
87	MP1B	Mx	0	2.25
88	MP1C	X	-34.236	0.25
89	MP1C	Z	-19.766	0.25
90	MP1C	Mx	-0.017	0.25
91	MP1C	X	-34.236	2.25
92	MP1C	Z	-19.766	2.25
93	MP1C	Mx	-0.017	2.25
94	OVP1	X	-102.408	1.5
95	OVP1	Z	-59.126	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-102.408	1.5
98	OVP2	Z	-59.126	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-12.4	5.5
2	MP1A	Z	-21.478	5.5
3	MP1A	Mx	0.005	5.5
4	MP1B	X	-12.4	5.5
5	MP1B	Z	-21.478	5.5
6	MP1B	Mx	0.005	5.5
7	MP1C	X	-6.746	5.5
8	MP1C	Z	-11.684	5.5
9	MP1C	Mx	-0.006	5.5
10	MP3A	X	-46.874	1
11	MP3A	Z	-81.188	1
12	MP3A	Mx	-0.011	1
13	MP3A	X	-46.874	4.5
14	MP3A	Z	-81.188	4.5
15	MP3A	Mx	-0.011	4.5
16	MP3B	X	-46.874	1
17	MP3B	Z	-81.188	1
18	MP3B	Mx	0.097	1
19	MP3B	X	-46.874	4.5
20	MP3B	Z	-81.188	4.5
21	MP3B	Mx	0.097	4.5
22	MP3C	X	-23.511	1
23	MP3C	Z	-40.723	1
24	MP3C	Mx	-0.043	1
25	MP3C	X	-23.511	4.5
26	MP3C	Z	-40.723	4.5
27	MP3C	Mx	-0.043	4.5
28	MP3A	X	-46.874	1
29	MP3A	Z	-81.188	1
30	MP3A	Mx	0.097	1
31	MP3A	X	-46.874	4.5
32	MP3A	Z	-81.188	4.5
33	MP3A	Mx	0.097	4.5
34	MP3B	X	-46.874	1
35	MP3B	Z	-81.188	1
36	MP3B	Mx	-0.011	1

Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
37	MP3B	X	-46.874	4.5
38	MP3B	Z	-81.188	4.5
39	MP3B	Mx	-0.011	4.5
40	MP3C	X	-23.511	1
41	MP3C	Z	-40.723	1
42	MP3C	Mx	-0.043	1
43	MP3C	X	-23.511	4.5
44	MP3C	Z	-40.723	4.5
45	MP3C	Mx	-0.043	4.5
46	MP3A	X	-28.224	3.25
47	MP3A	Z	-48.885	3.25
48	MP3A	Mx	-0.049	3.25
49	MP3B	X	-28.224	3.25
50	MP3B	Z	-48.885	3.25
51	MP3B	Mx	0.021	3.25
52	MP3C	X	-20.634	3.25
53	MP3C	Z	-35.74	3.25
54	MP3C	Mx	0.021	3.25
55	MP3A	X	-27.281	3.25
56	MP3A	Z	-47.252	3.25
57	MP3A	Mx	0.02	3.25
58	MP3B	X	-27.281	3.25
59	MP3B	Z	-47.252	3.25
60	MP3B	Mx	-0.047	3.25
61	MP3C	X	-16.865	3.25
62	MP3C	Z	-29.21	3.25
63	MP3C	Mx	0.017	3.25
64	MP2A	X	-42.372	0.25
65	MP2A	Z	-73.391	0.25
66	MP2A	Mx	0.021	0.25
67	MP4A	X	-31.882	0.25
68	MP4A	Z	-55.221	0.25
69	MP4A	Mx	0.028	0.25
70	MP4B	X	-42.372	0.25
71	MP4B	Z	-73.391	0.25
72	MP4B	Mx	-0.021	0.25
73	MP4C	X	-31.882	0.25
74	MP4C	Z	-55.221	0.25
75	MP4C	Mx	-0.028	0.25
76	MP1A	X	-32.514	0.25
77	MP1A	Z	-56.316	0.25
78	MP1A	Mx	0.016	0.25
79	MP1A	X	-32.514	2.25
80	MP1A	Z	-56.316	2.25
81	MP1A	Mx	0.016	2.25
82	MP1B	X	-32.514	0.25
83	MP1B	Z	-56.316	0.25
84	MP1B	Mx	0.016	0.25
85	MP1B	X	-32.514	2.25
86	MP1B	Z	-56.316	2.25
87	MP1B	Mx	0.016	2.25
88	MP1C	X	-13.393	0.25
89	MP1C	Z	-23.197	0.25
90	MP1C	Mx	-0.013	0.25
91	MP1C	X	-13.393	2.25

Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
92	MP1C	Z	-23.197	2.25
93	MP1C	Mx	-0.013	2.25
94	OVP1	X	-62.895	1.5
95	OVP1	Z	-108.938	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-62.895	1.5
98	OVP2	Z	-108.938	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 15 : Antenna Wi (0 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	5.5
2	MP1A	Z	-9.764	5.5
3	MP1A	Mx	0	5.5
4	MP1B	X	0	5.5
5	MP1B	Z	-6.76	5.5
6	MP1B	Mx	0.002	5.5
7	MP1C	X	0	5.5
8	MP1C	Z	-6.76	5.5
9	MP1C	Mx	-0.002	5.5
10	MP3A	X	0	1
11	MP3A	Z	-32.395	1
12	MP3A	Mx	-0.022	1
13	MP3A	X	0	4.5
14	MP3A	Z	-32.395	4.5
15	MP3A	Mx	-0.022	4.5
16	MP3B	X	0	1
17	MP3B	Z	-25.152	1
18	MP3B	Mx	0.028	1
19	MP3B	X	0	4.5
20	MP3B	Z	-25.152	4.5
21	MP3B	Mx	0.028	4.5
22	MP3C	X	0	1
23	MP3C	Z	-25.152	1
24	MP3C	Mx	-0.012	1
25	MP3C	X	0	4.5
26	MP3C	Z	-25.152	4.5
27	MP3C	Mx	-0.012	4.5
28	MP3A	X	0	1
29	MP3A	Z	-32.395	1
30	MP3A	Mx	0.022	1
31	MP3A	X	0	4.5
32	MP3A	Z	-32.395	4.5
33	MP3A	Mx	0.022	4.5
34	MP3B	X	0	1
35	MP3B	Z	-25.152	1
36	MP3B	Mx	0.012	1
37	MP3B	X	0	4.5
38	MP3B	Z	-25.152	4.5
39	MP3B	Mx	0.012	4.5
40	MP3C	X	0	1
41	MP3C	Z	-25.152	1
42	MP3C	Mx	-0.028	1
43	MP3C	X	0	4.5
44	MP3C	Z	-25.152	4.5

Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
45	MP3C	Mx	-0.028	4.5
46	MP3A	X	0	3.25
47	MP3A	Z	-16.66	3.25
48	MP3A	Mx	-0.012	3.25
49	MP3B	X	0	3.25
50	MP3B	Z	-13.01	3.25
51	MP3B	Mx	-0.001	3.25
52	MP3C	X	0	3.25
53	MP3C	Z	-13.01	3.25
54	MP3C	Mx	0.01	3.25
55	MP3A	X	0	3.25
56	MP3A	Z	-16.66	3.25
57	MP3A	Mx	0.012	3.25
58	MP3B	X	0	3.25
59	MP3B	Z	-11.623	3.25
60	MP3B	Mx	-0.009	3.25
61	MP3C	X	0	3.25
62	MP3C	Z	-11.623	3.25
63	MP3C	Mx	0.000916	3.25
64	MP2A	X	0	0.25
65	MP2A	Z	-20.736	0.25
66	MP2A	Mx	0	0.25
67	MP4A	X	0	0.25
68	MP4A	Z	-12.643	0.25
69	MP4A	Mx	0.006	0.25
70	MP4B	X	0	0.25
71	MP4B	Z	-20.736	0.25
72	MP4B	Mx	0	0.25
73	MP4C	X	0	0.25
74	MP4C	Z	-12.643	0.25
75	MP4C	Mx	-0.006	0.25
76	MP1A	X	0	0.25
77	MP1A	Z	-19.282	0.25
78	MP1A	Mx	0	0.25
79	MP1A	X	0	2.25
80	MP1A	Z	-19.282	2.25
81	MP1A	Mx	0	2.25
82	MP1B	X	0	0.25
83	MP1B	Z	-11.218	0.25
84	MP1B	Mx	0.005	0.25
85	MP1B	X	0	2.25
86	MP1B	Z	-11.218	2.25
87	MP1B	Mx	0.005	2.25
88	MP1C	X	0	0.25
89	MP1C	Z	-11.218	0.25
90	MP1C	Mx	-0.005	0.25
91	MP1C	X	0	2.25
92	MP1C	Z	-11.218	2.25
93	MP1C	Mx	-0.005	2.25
94	OVP1	X	0	1.5
95	OVP1	Z	-31.722	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	0	1.5
98	OVP2	Z	-31.722	1.5
99	OVP2	Mx	0	1.5



Company : Colliers Engineering & Design
Designer : AE
Job Number : Project No. 10253016
Model Name : 5000384966-VZW_MT_LO_H

10/3/2024
3:23:55 PM
Checked By : DX

Member Point Loads (BLC 15 : Antenna Wi (0 Deg)) (Continued)

Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
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Member Point Loads (BLC 16 : Antenna Wi (30 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	4.381	5.5
2	MP1A	Z	-7.589	5.5
3	MP1A	Mx	-0.002	5.5
4	MP1B	X	2.879	5.5
5	MP1B	Z	-4.987	5.5
6	MP1B	Mx	0.002	5.5
7	MP1C	X	4.381	5.5
8	MP1C	Z	-7.589	5.5
9	MP1C	Mx	-0.002	5.5
10	MP3A	X	14.99	1
11	MP3A	Z	-25.964	1
12	MP3A	Mx	-0.031	1
13	MP3A	X	14.99	4.5
14	MP3A	Z	-25.964	4.5
15	MP3A	Mx	-0.031	4.5
16	MP3B	X	11.369	1
17	MP3B	Z	-19.691	1
18	MP3B	Mx	0.021	1
19	MP3B	X	11.369	4.5
20	MP3B	Z	-19.691	4.5
21	MP3B	Mx	0.021	4.5
22	MP3C	X	14.99	1
23	MP3C	Z	-25.964	1
24	MP3C	Mx	0.004	1
25	MP3C	X	14.99	4.5
26	MP3C	Z	-25.964	4.5
27	MP3C	Mx	0.004	4.5
28	MP3A	X	14.99	1
29	MP3A	Z	-25.964	1
30	MP3A	Mx	0.004	1
31	MP3A	X	14.99	4.5
32	MP3A	Z	-25.964	4.5
33	MP3A	Mx	0.004	4.5
34	MP3B	X	11.369	1
35	MP3B	Z	-19.691	1
36	MP3B	Mx	0.021	1
37	MP3B	X	11.369	4.5
38	MP3B	Z	-19.691	4.5
39	MP3B	Mx	0.021	4.5
40	MP3C	X	14.99	1
41	MP3C	Z	-25.964	1
42	MP3C	Mx	-0.031	1
43	MP3C	X	14.99	4.5
44	MP3C	Z	-25.964	4.5
45	MP3C	Mx	-0.031	4.5
46	MP3A	X	7.722	3.25
47	MP3A	Z	-13.374	3.25
48	MP3A	Mx	-0.006	3.25
49	MP3B	X	5.896	3.25
50	MP3B	Z	-10.213	3.25
51	MP3B	Mx	-0.006	3.25
52	MP3C	X	7.722	3.25
53	MP3C	Z	-13.374	3.25
54	MP3C	Mx	0.013	3.25
55	MP3A	X	7.49	3.25

Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	MP3A	Z	-12.974	3.25
57	MP3A	Mx	0.013	3.25
58	MP3B	X	4.972	3.25
59	MP3B	Z	-8.611	3.25
60	MP3B	Mx	-0.005	3.25
61	MP3C	X	7.49	3.25
62	MP3C	Z	-12.974	3.25
63	MP3C	Mx	-0.005	3.25
64	MP2A	X	9.357	0.25
65	MP2A	Z	-16.206	0.25
66	MP2A	Mx	-0.005	0.25
67	MP4A	X	7.333	0.25
68	MP4A	Z	-12.702	0.25
69	MP4A	Mx	0.006	0.25
70	MP4B	X	9.357	0.25
71	MP4B	Z	-16.206	0.25
72	MP4B	Mx	0.005	0.25
73	MP4C	X	7.333	0.25
74	MP4C	Z	-12.702	0.25
75	MP4C	Mx	-0.006	0.25
76	MP1A	X	8.297	0.25
77	MP1A	Z	-14.371	0.25
78	MP1A	Mx	-0.004	0.25
79	MP1A	X	8.297	2.25
80	MP1A	Z	-14.371	2.25
81	MP1A	Mx	-0.004	2.25
82	MP1B	X	4.265	0.25
83	MP1B	Z	-7.388	0.25
84	MP1B	Mx	0.004	0.25
85	MP1B	X	4.265	2.25
86	MP1B	Z	-7.388	2.25
87	MP1B	Mx	0.004	2.25
88	MP1C	X	8.297	0.25
89	MP1C	Z	-14.371	0.25
90	MP1C	Mx	-0.004	0.25
91	MP1C	X	8.297	2.25
92	MP1C	Z	-14.371	2.25
93	MP1C	Mx	-0.004	2.25
94	OVP1	X	14.1	1.5
95	OVP1	Z	-24.422	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	14.1	1.5
98	OVP2	Z	-24.422	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	5.854	5.5
2	MP1A	Z	-3.38	5.5
3	MP1A	Mx	-0.002	5.5
4	MP1B	X	5.854	5.5
5	MP1B	Z	-3.38	5.5
6	MP1B	Mx	0.002	5.5
7	MP1C	X	8.456	5.5
8	MP1C	Z	-4.882	5.5

Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
9	MP1C	Mx	0	5.5
10	MP3A	X	21.782	1
11	MP3A	Z	-12.576	1
12	MP3A	Mx	-0.028	1
13	MP3A	X	21.782	4.5
14	MP3A	Z	-12.576	4.5
15	MP3A	Mx	-0.028	4.5
16	MP3B	X	21.782	1
17	MP3B	Z	-12.576	1
18	MP3B	Mx	0.012	1
19	MP3B	X	21.782	4.5
20	MP3B	Z	-12.576	4.5
21	MP3B	Mx	0.012	4.5
22	MP3C	X	28.054	1
23	MP3C	Z	-16.197	1
24	MP3C	Mx	0.022	1
25	MP3C	X	28.054	4.5
26	MP3C	Z	-16.197	4.5
27	MP3C	Mx	0.022	4.5
28	MP3A	X	21.782	1
29	MP3A	Z	-12.576	1
30	MP3A	Mx	-0.012	1
31	MP3A	X	21.782	4.5
32	MP3A	Z	-12.576	4.5
33	MP3A	Mx	-0.012	4.5
34	MP3B	X	21.782	1
35	MP3B	Z	-12.576	1
36	MP3B	Mx	0.028	1
37	MP3B	X	21.782	4.5
38	MP3B	Z	-12.576	4.5
39	MP3B	Mx	0.028	4.5
40	MP3C	X	28.054	1
41	MP3C	Z	-16.197	1
42	MP3C	Mx	-0.022	1
43	MP3C	X	28.054	4.5
44	MP3C	Z	-16.197	4.5
45	MP3C	Mx	-0.022	4.5
46	MP3A	X	11.267	3.25
47	MP3A	Z	-6.505	3.25
48	MP3A	Mx	0.001	3.25
49	MP3B	X	11.267	3.25
50	MP3B	Z	-6.505	3.25
51	MP3B	Mx	-0.01	3.25
52	MP3C	X	14.428	3.25
53	MP3C	Z	-8.33	3.25
54	MP3C	Mx	0.012	3.25
55	MP3A	X	10.065	3.25
56	MP3A	Z	-5.811	3.25
57	MP3A	Mx	0.009	3.25
58	MP3B	X	10.065	3.25
59	MP3B	Z	-5.811	3.25
60	MP3B	Mx	-0.000916	3.25
61	MP3C	X	14.428	3.25
62	MP3C	Z	-8.33	3.25
63	MP3C	Mx	-0.012	3.25

Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
64	MP2A	X	12.702	0.25
65	MP2A	Z	-7.333	0.25
66	MP2A	Mx	-0.006	0.25
67	MP4A	X	16.206	0.25
68	MP4A	Z	-9.357	0.25
69	MP4A	Mx	0.005	0.25
70	MP4B	X	12.702	0.25
71	MP4B	Z	-7.333	0.25
72	MP4B	Mx	0.006	0.25
73	MP4C	X	16.206	0.25
74	MP4C	Z	-9.357	0.25
75	MP4C	Mx	-0.005	0.25
76	MP1A	X	9.715	0.25
77	MP1A	Z	-5.609	0.25
78	MP1A	Mx	-0.005	0.25
79	MP1A	X	9.715	2.25
80	MP1A	Z	-5.609	2.25
81	MP1A	Mx	-0.005	2.25
82	MP1B	X	9.715	0.25
83	MP1B	Z	-5.609	0.25
84	MP1B	Mx	0.005	0.25
85	MP1B	X	9.715	2.25
86	MP1B	Z	-5.609	2.25
87	MP1B	Mx	0.005	2.25
88	MP1C	X	16.699	0.25
89	MP1C	Z	-9.641	0.25
90	MP1C	Mx	0	0.25
91	MP1C	X	16.699	2.25
92	MP1C	Z	-9.641	2.25
93	MP1C	Mx	0	2.25
94	OVP1	X	22.897	1.5
95	OVP1	Z	-13.22	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	22.897	1.5
98	OVP2	Z	-13.22	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	5.759	5.5
2	MP1A	Z	0	5.5
3	MP1A	Mx	-0.002	5.5
4	MP1B	X	8.762	5.5
5	MP1B	Z	0	5.5
6	MP1B	Mx	0.002	5.5
7	MP1C	X	8.762	5.5
8	MP1C	Z	0	5.5
9	MP1C	Mx	0.002	5.5
10	MP3A	X	22.737	1
11	MP3A	Z	0	1
12	MP3A	Mx	-0.021	1
13	MP3A	X	22.737	4.5
14	MP3A	Z	0	4.5
15	MP3A	Mx	-0.021	4.5
16	MP3B	X	29.98	1

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
17	MP3B	Z	0	1
18	MP3B	Mx	-0.004	1
19	MP3B	X	29.98	4.5
20	MP3B	Z	0	4.5
21	MP3B	Mx	-0.004	4.5
22	MP3C	X	29.98	1
23	MP3C	Z	0	1
24	MP3C	Mx	0.031	1
25	MP3C	X	29.98	4.5
26	MP3C	Z	0	4.5
27	MP3C	Mx	0.031	4.5
28	MP3A	X	22.737	1
29	MP3A	Z	0	1
30	MP3A	Mx	-0.021	1
31	MP3A	X	22.737	4.5
32	MP3A	Z	0	4.5
33	MP3A	Mx	-0.021	4.5
34	MP3B	X	29.98	1
35	MP3B	Z	0	1
36	MP3B	Mx	0.031	1
37	MP3B	X	29.98	4.5
38	MP3B	Z	0	4.5
39	MP3B	Mx	0.031	4.5
40	MP3C	X	29.98	1
41	MP3C	Z	0	1
42	MP3C	Mx	-0.004	1
43	MP3C	X	29.98	4.5
44	MP3C	Z	0	4.5
45	MP3C	Mx	-0.004	4.5
46	MP3A	X	11.793	3.25
47	MP3A	Z	0	3.25
48	MP3A	Mx	0.006	3.25
49	MP3B	X	15.443	3.25
50	MP3B	Z	0	3.25
51	MP3B	Mx	-0.013	3.25
52	MP3C	X	15.443	3.25
53	MP3C	Z	0	3.25
54	MP3C	Mx	0.006	3.25
55	MP3A	X	9.944	3.25
56	MP3A	Z	0	3.25
57	MP3A	Mx	0.005	3.25
58	MP3B	X	14.981	3.25
59	MP3B	Z	0	3.25
60	MP3B	Mx	0.005	3.25
61	MP3C	X	14.981	3.25
62	MP3C	Z	0	3.25
63	MP3C	Mx	-0.013	3.25
64	MP2A	X	12.643	0.25
65	MP2A	Z	0	0.25
66	MP2A	Mx	-0.006	0.25
67	MP4A	X	20.736	0.25
68	MP4A	Z	0	0.25
69	MP4A	Mx	0	0.25
70	MP4B	X	12.643	0.25
71	MP4B	Z	0	0.25

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
72	MP4B	Mx	0.006	0.25
73	MP4C	X	20.736	0.25
74	MP4C	Z	0	0.25
75	MP4C	Mx	0	0.25
76	MP1A	X	8.53	0.25
77	MP1A	Z	0	0.25
78	MP1A	Mx	-0.004	0.25
79	MP1A	X	8.53	2.25
80	MP1A	Z	0	2.25
81	MP1A	Mx	-0.004	2.25
82	MP1B	X	16.594	0.25
83	MP1B	Z	0	0.25
84	MP1B	Mx	0.004	0.25
85	MP1B	X	16.594	2.25
86	MP1B	Z	0	2.25
87	MP1B	Mx	0.004	2.25
88	MP1C	X	16.594	0.25
89	MP1C	Z	0	0.25
90	MP1C	Mx	0.004	0.25
91	MP1C	X	16.594	2.25
92	MP1C	Z	0	2.25
93	MP1C	Mx	0.004	2.25
94	OVP1	X	28.2	1.5
95	OVP1	Z	0	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	28.2	1.5
98	OVP2	Z	0	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 19 : Antenna Wi (120 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	5.854	5.5
2	MP1A	Z	3.38	5.5
3	MP1A	Mx	-0.002	5.5
4	MP1B	X	8.456	5.5
5	MP1B	Z	4.882	5.5
6	MP1B	Mx	0	5.5
7	MP1C	X	5.854	5.5
8	MP1C	Z	3.38	5.5
9	MP1C	Mx	0.002	5.5
10	MP3A	X	21.782	1
11	MP3A	Z	12.576	1
12	MP3A	Mx	-0.012	1
13	MP3A	X	21.782	4.5
14	MP3A	Z	12.576	4.5
15	MP3A	Mx	-0.012	4.5
16	MP3B	X	28.054	1
17	MP3B	Z	16.197	1
18	MP3B	Mx	-0.022	1
19	MP3B	X	28.054	4.5
20	MP3B	Z	16.197	4.5
21	MP3B	Mx	-0.022	4.5
22	MP3C	X	21.782	1
23	MP3C	Z	12.576	1
24	MP3C	Mx	0.028	1

Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
25	MP3C	X	21.782	4.5
26	MP3C	Z	12.576	4.5
27	MP3C	Mx	0.028	4.5
28	MP3A	X	21.782	1
29	MP3A	Z	12.576	1
30	MP3A	Mx	-0.028	1
31	MP3A	X	21.782	4.5
32	MP3A	Z	12.576	4.5
33	MP3A	Mx	-0.028	4.5
34	MP3B	X	28.054	1
35	MP3B	Z	16.197	1
36	MP3B	Mx	0.022	1
37	MP3B	X	28.054	4.5
38	MP3B	Z	16.197	4.5
39	MP3B	Mx	0.022	4.5
40	MP3C	X	21.782	1
41	MP3C	Z	12.576	1
42	MP3C	Mx	0.012	1
43	MP3C	X	21.782	4.5
44	MP3C	Z	12.576	4.5
45	MP3C	Mx	0.012	4.5
46	MP3A	X	11.267	3.25
47	MP3A	Z	6.505	3.25
48	MP3A	Mx	0.01	3.25
49	MP3B	X	14.428	3.25
50	MP3B	Z	8.33	3.25
51	MP3B	Mx	-0.012	3.25
52	MP3C	X	11.267	3.25
53	MP3C	Z	6.505	3.25
54	MP3C	Mx	-0.001	3.25
55	MP3A	X	10.065	3.25
56	MP3A	Z	5.811	3.25
57	MP3A	Mx	0.000916	3.25
58	MP3B	X	14.428	3.25
59	MP3B	Z	8.33	3.25
60	MP3B	Mx	0.012	3.25
61	MP3C	X	10.065	3.25
62	MP3C	Z	5.811	3.25
63	MP3C	Mx	-0.009	3.25
64	MP2A	X	12.702	0.25
65	MP2A	Z	7.333	0.25
66	MP2A	Mx	-0.006	0.25
67	MP4A	X	16.206	0.25
68	MP4A	Z	9.357	0.25
69	MP4A	Mx	-0.005	0.25
70	MP4B	X	12.702	0.25
71	MP4B	Z	7.333	0.25
72	MP4B	Mx	0.006	0.25
73	MP4C	X	16.206	0.25
74	MP4C	Z	9.357	0.25
75	MP4C	Mx	0.005	0.25
76	MP1A	X	9.715	0.25
77	MP1A	Z	5.609	0.25
78	MP1A	Mx	-0.005	0.25
79	MP1A	X	9.715	2.25

Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
80	MP1A	Z	5.609	2.25
81	MP1A	Mx	-0.005	2.25
82	MP1B	X	16.699	0.25
83	MP1B	Z	9.641	0.25
84	MP1B	Mx	0	0.25
85	MP1B	X	16.699	2.25
86	MP1B	Z	9.641	2.25
87	MP1B	Mx	0	2.25
88	MP1C	X	9.715	0.25
89	MP1C	Z	5.609	0.25
90	MP1C	Mx	0.005	0.25
91	MP1C	X	9.715	2.25
92	MP1C	Z	5.609	2.25
93	MP1C	Mx	0.005	2.25
94	OVP1	X	27.472	1.5
95	OVP1	Z	15.861	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	27.472	1.5
98	OVP2	Z	15.861	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 20 : Antenna Wi (150 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	4.381	5.5
2	MP1A	Z	7.589	5.5
3	MP1A	Mx	-0.002	5.5
4	MP1B	X	4.381	5.5
5	MP1B	Z	7.589	5.5
6	MP1B	Mx	-0.002	5.5
7	MP1C	X	2.879	5.5
8	MP1C	Z	4.987	5.5
9	MP1C	Mx	0.002	5.5
10	MP3A	X	14.99	1
11	MP3A	Z	25.964	1
12	MP3A	Mx	0.004	1
13	MP3A	X	14.99	4.5
14	MP3A	Z	25.964	4.5
15	MP3A	Mx	0.004	4.5
16	MP3B	X	14.99	1
17	MP3B	Z	25.964	1
18	MP3B	Mx	-0.031	1
19	MP3B	X	14.99	4.5
20	MP3B	Z	25.964	4.5
21	MP3B	Mx	-0.031	4.5
22	MP3C	X	11.369	1
23	MP3C	Z	19.691	1
24	MP3C	Mx	0.021	1
25	MP3C	X	11.369	4.5
26	MP3C	Z	19.691	4.5
27	MP3C	Mx	0.021	4.5
28	MP3A	X	14.99	1
29	MP3A	Z	25.964	1
30	MP3A	Mx	-0.031	1
31	MP3A	X	14.99	4.5
32	MP3A	Z	25.964	4.5

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
33	MP3A	Mx	-0.031	4.5
34	MP3B	X	14.99	1
35	MP3B	Z	25.964	1
36	MP3B	Mx	0.004	1
37	MP3B	X	14.99	4.5
38	MP3B	Z	25.964	4.5
39	MP3B	Mx	0.004	4.5
40	MP3C	X	11.369	1
41	MP3C	Z	19.691	1
42	MP3C	Mx	0.021	1
43	MP3C	X	11.369	4.5
44	MP3C	Z	19.691	4.5
45	MP3C	Mx	0.021	4.5
46	MP3A	X	7.722	3.25
47	MP3A	Z	13.374	3.25
48	MP3A	Mx	0.013	3.25
49	MP3B	X	7.722	3.25
50	MP3B	Z	13.374	3.25
51	MP3B	Mx	-0.006	3.25
52	MP3C	X	5.896	3.25
53	MP3C	Z	10.213	3.25
54	MP3C	Mx	-0.006	3.25
55	MP3A	X	7.49	3.25
56	MP3A	Z	12.974	3.25
57	MP3A	Mx	-0.005	3.25
58	MP3B	X	7.49	3.25
59	MP3B	Z	12.974	3.25
60	MP3B	Mx	0.013	3.25
61	MP3C	X	4.972	3.25
62	MP3C	Z	8.611	3.25
63	MP3C	Mx	-0.005	3.25
64	MP2A	X	9.357	0.25
65	MP2A	Z	16.206	0.25
66	MP2A	Mx	-0.005	0.25
67	MP4A	X	7.333	0.25
68	MP4A	Z	12.702	0.25
69	MP4A	Mx	-0.006	0.25
70	MP4B	X	9.357	0.25
71	MP4B	Z	16.206	0.25
72	MP4B	Mx	0.005	0.25
73	MP4C	X	7.333	0.25
74	MP4C	Z	12.702	0.25
75	MP4C	Mx	0.006	0.25
76	MP1A	X	8.297	0.25
77	MP1A	Z	14.371	0.25
78	MP1A	Mx	-0.004	0.25
79	MP1A	X	8.297	2.25
80	MP1A	Z	14.371	2.25
81	MP1A	Mx	-0.004	2.25
82	MP1B	X	8.297	0.25
83	MP1B	Z	14.371	0.25
84	MP1B	Mx	-0.004	0.25
85	MP1B	X	8.297	2.25
86	MP1B	Z	14.371	2.25
87	MP1B	Mx	-0.004	2.25

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
88	MP1C	X	4.265	0.25
89	MP1C	Z	7.388	0.25
90	MP1C	Mx	0.004	0.25
91	MP1C	X	4.265	2.25
92	MP1C	Z	7.388	2.25
93	MP1C	Mx	0.004	2.25
94	OVP1	X	16.741	1.5
95	OVP1	Z	28.996	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	16.741	1.5
98	OVP2	Z	28.996	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	5.5
2	MP1A	Z	9.764	5.5
3	MP1A	Mx	0	5.5
4	MP1B	X	0	5.5
5	MP1B	Z	6.76	5.5
6	MP1B	Mx	-0.002	5.5
7	MP1C	X	0	5.5
8	MP1C	Z	6.76	5.5
9	MP1C	Mx	0.002	5.5
10	MP3A	X	0	1
11	MP3A	Z	32.395	1
12	MP3A	Mx	0.022	1
13	MP3A	X	0	4.5
14	MP3A	Z	32.395	4.5
15	MP3A	Mx	0.022	4.5
16	MP3B	X	0	1
17	MP3B	Z	25.152	1
18	MP3B	Mx	-0.028	1
19	MP3B	X	0	4.5
20	MP3B	Z	25.152	4.5
21	MP3B	Mx	-0.028	4.5
22	MP3C	X	0	1
23	MP3C	Z	25.152	1
24	MP3C	Mx	0.012	1
25	MP3C	X	0	4.5
26	MP3C	Z	25.152	4.5
27	MP3C	Mx	0.012	4.5
28	MP3A	X	0	1
29	MP3A	Z	32.395	1
30	MP3A	Mx	-0.022	1
31	MP3A	X	0	4.5
32	MP3A	Z	32.395	4.5
33	MP3A	Mx	-0.022	4.5
34	MP3B	X	0	1
35	MP3B	Z	25.152	1
36	MP3B	Mx	-0.012	1
37	MP3B	X	0	4.5
38	MP3B	Z	25.152	4.5
39	MP3B	Mx	-0.012	4.5
40	MP3C	X	0	1

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
41	MP3C	Z	25.152	1
42	MP3C	Mx	0.028	1
43	MP3C	X	0	4.5
44	MP3C	Z	25.152	4.5
45	MP3C	Mx	0.028	4.5
46	MP3A	X	0	3.25
47	MP3A	Z	16.66	3.25
48	MP3A	Mx	0.012	3.25
49	MP3B	X	0	3.25
50	MP3B	Z	13.01	3.25
51	MP3B	Mx	0.001	3.25
52	MP3C	X	0	3.25
53	MP3C	Z	13.01	3.25
54	MP3C	Mx	-0.01	3.25
55	MP3A	X	0	3.25
56	MP3A	Z	16.66	3.25
57	MP3A	Mx	-0.012	3.25
58	MP3B	X	0	3.25
59	MP3B	Z	11.623	3.25
60	MP3B	Mx	0.009	3.25
61	MP3C	X	0	3.25
62	MP3C	Z	11.623	3.25
63	MP3C	Mx	-0.000916	3.25
64	MP2A	X	0	0.25
65	MP2A	Z	20.736	0.25
66	MP2A	Mx	0	0.25
67	MP4A	X	0	0.25
68	MP4A	Z	12.643	0.25
69	MP4A	Mx	-0.006	0.25
70	MP4B	X	0	0.25
71	MP4B	Z	20.736	0.25
72	MP4B	Mx	0	0.25
73	MP4C	X	0	0.25
74	MP4C	Z	12.643	0.25
75	MP4C	Mx	0.006	0.25
76	MP1A	X	0	0.25
77	MP1A	Z	19.282	0.25
78	MP1A	Mx	0	0.25
79	MP1A	X	0	2.25
80	MP1A	Z	19.282	2.25
81	MP1A	Mx	0	2.25
82	MP1B	X	0	0.25
83	MP1B	Z	11.218	0.25
84	MP1B	Mx	-0.005	0.25
85	MP1B	X	0	2.25
86	MP1B	Z	11.218	2.25
87	MP1B	Mx	-0.005	2.25
88	MP1C	X	0	0.25
89	MP1C	Z	11.218	0.25
90	MP1C	Mx	0.005	0.25
91	MP1C	X	0	2.25
92	MP1C	Z	11.218	2.25
93	MP1C	Mx	0.005	2.25
94	OVP1	X	0	1.5
95	OVP1	Z	31.722	1.5

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
96	OVP1	Mx	0	1.5
97	OVP2	X	0	1.5
98	OVP2	Z	31.722	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-4.381	5.5
2	MP1A	Z	7.589	5.5
3	MP1A	Mx	0.002	5.5
4	MP1B	X	-2.879	5.5
5	MP1B	Z	4.987	5.5
6	MP1B	Mx	-0.002	5.5
7	MP1C	X	-4.381	5.5
8	MP1C	Z	7.589	5.5
9	MP1C	Mx	0.002	5.5
10	MP3A	X	-14.99	1
11	MP3A	Z	25.964	1
12	MP3A	Mx	0.031	1
13	MP3A	X	-14.99	4.5
14	MP3A	Z	25.964	4.5
15	MP3A	Mx	0.031	4.5
16	MP3B	X	-11.369	1
17	MP3B	Z	19.691	1
18	MP3B	Mx	-0.021	1
19	MP3B	X	-11.369	4.5
20	MP3B	Z	19.691	4.5
21	MP3B	Mx	-0.021	4.5
22	MP3C	X	-14.99	1
23	MP3C	Z	25.964	1
24	MP3C	Mx	-0.004	1
25	MP3C	X	-14.99	4.5
26	MP3C	Z	25.964	4.5
27	MP3C	Mx	-0.004	4.5
28	MP3A	X	-14.99	1
29	MP3A	Z	25.964	1
30	MP3A	Mx	-0.004	1
31	MP3A	X	-14.99	4.5
32	MP3A	Z	25.964	4.5
33	MP3A	Mx	-0.004	4.5
34	MP3B	X	-11.369	1
35	MP3B	Z	19.691	1
36	MP3B	Mx	-0.021	1
37	MP3B	X	-11.369	4.5
38	MP3B	Z	19.691	4.5
39	MP3B	Mx	-0.021	4.5
40	MP3C	X	-14.99	1
41	MP3C	Z	25.964	1
42	MP3C	Mx	0.031	1
43	MP3C	X	-14.99	4.5
44	MP3C	Z	25.964	4.5
45	MP3C	Mx	0.031	4.5
46	MP3A	X	-7.722	3.25
47	MP3A	Z	13.374	3.25
48	MP3A	Mx	0.006	3.25

Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
49	MP3B	X	-5.896	3.25
50	MP3B	Z	10.213	3.25
51	MP3B	Mx	0.006	3.25
52	MP3C	X	-7.722	3.25
53	MP3C	Z	13.374	3.25
54	MP3C	Mx	-0.013	3.25
55	MP3A	X	-7.49	3.25
56	MP3A	Z	12.974	3.25
57	MP3A	Mx	-0.013	3.25
58	MP3B	X	-4.972	3.25
59	MP3B	Z	8.611	3.25
60	MP3B	Mx	0.005	3.25
61	MP3C	X	-7.49	3.25
62	MP3C	Z	12.974	3.25
63	MP3C	Mx	0.005	3.25
64	MP2A	X	-9.357	0.25
65	MP2A	Z	16.206	0.25
66	MP2A	Mx	0.005	0.25
67	MP4A	X	-7.333	0.25
68	MP4A	Z	12.702	0.25
69	MP4A	Mx	-0.006	0.25
70	MP4B	X	-9.357	0.25
71	MP4B	Z	16.206	0.25
72	MP4B	Mx	-0.005	0.25
73	MP4C	X	-7.333	0.25
74	MP4C	Z	12.702	0.25
75	MP4C	Mx	0.006	0.25
76	MP1A	X	-8.297	0.25
77	MP1A	Z	14.371	0.25
78	MP1A	Mx	0.004	0.25
79	MP1A	X	-8.297	2.25
80	MP1A	Z	14.371	2.25
81	MP1A	Mx	0.004	2.25
82	MP1B	X	-4.265	0.25
83	MP1B	Z	7.388	0.25
84	MP1B	Mx	-0.004	0.25
85	MP1B	X	-4.265	2.25
86	MP1B	Z	7.388	2.25
87	MP1B	Mx	-0.004	2.25
88	MP1C	X	-8.297	0.25
89	MP1C	Z	14.371	0.25
90	MP1C	Mx	0.004	0.25
91	MP1C	X	-8.297	2.25
92	MP1C	Z	14.371	2.25
93	MP1C	Mx	0.004	2.25
94	OVP1	X	-14.1	1.5
95	OVP1	Z	24.422	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-14.1	1.5
98	OVP2	Z	24.422	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-5.854	5.5
2	MP1A	Z	3.38	5.5
3	MP1A	Mx	0.002	5.5
4	MP1B	X	-5.854	5.5
5	MP1B	Z	3.38	5.5
6	MP1B	Mx	-0.002	5.5
7	MP1C	X	-8.456	5.5
8	MP1C	Z	4.882	5.5
9	MP1C	Mx	0	5.5
10	MP3A	X	-21.782	1
11	MP3A	Z	12.576	1
12	MP3A	Mx	0.028	1
13	MP3A	X	-21.782	4.5
14	MP3A	Z	12.576	4.5
15	MP3A	Mx	0.028	4.5
16	MP3B	X	-21.782	1
17	MP3B	Z	12.576	1
18	MP3B	Mx	-0.012	1
19	MP3B	X	-21.782	4.5
20	MP3B	Z	12.576	4.5
21	MP3B	Mx	-0.012	4.5
22	MP3C	X	-28.054	1
23	MP3C	Z	16.197	1
24	MP3C	Mx	-0.022	1
25	MP3C	X	-28.054	4.5
26	MP3C	Z	16.197	4.5
27	MP3C	Mx	-0.022	4.5
28	MP3A	X	-21.782	1
29	MP3A	Z	12.576	1
30	MP3A	Mx	0.012	1
31	MP3A	X	-21.782	4.5
32	MP3A	Z	12.576	4.5
33	MP3A	Mx	0.012	4.5
34	MP3B	X	-21.782	1
35	MP3B	Z	12.576	1
36	MP3B	Mx	-0.028	1
37	MP3B	X	-21.782	4.5
38	MP3B	Z	12.576	4.5
39	MP3B	Mx	-0.028	4.5
40	MP3C	X	-28.054	1
41	MP3C	Z	16.197	1
42	MP3C	Mx	0.022	1
43	MP3C	X	-28.054	4.5
44	MP3C	Z	16.197	4.5
45	MP3C	Mx	0.022	4.5
46	MP3A	X	-11.267	3.25
47	MP3A	Z	6.505	3.25
48	MP3A	Mx	-0.001	3.25
49	MP3B	X	-11.267	3.25
50	MP3B	Z	6.505	3.25
51	MP3B	Mx	0.01	3.25
52	MP3C	X	-14.428	3.25
53	MP3C	Z	8.33	3.25
54	MP3C	Mx	-0.012	3.25
55	MP3A	X	-10.065	3.25

Member Point Loads (BLC 23 : Antenna Wi (240 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	MP3A	Z	5.811	3.25
57	MP3A	Mx	-0.009	3.25
58	MP3B	X	-10.065	3.25
59	MP3B	Z	5.811	3.25
60	MP3B	Mx	0.000916	3.25
61	MP3C	X	-14.428	3.25
62	MP3C	Z	8.33	3.25
63	MP3C	Mx	0.012	3.25
64	MP2A	X	-12.702	0.25
65	MP2A	Z	7.333	0.25
66	MP2A	Mx	0.006	0.25
67	MP4A	X	-16.206	0.25
68	MP4A	Z	9.357	0.25
69	MP4A	Mx	-0.005	0.25
70	MP4B	X	-12.702	0.25
71	MP4B	Z	7.333	0.25
72	MP4B	Mx	-0.006	0.25
73	MP4C	X	-16.206	0.25
74	MP4C	Z	9.357	0.25
75	MP4C	Mx	0.005	0.25
76	MP1A	X	-9.715	0.25
77	MP1A	Z	5.609	0.25
78	MP1A	Mx	0.005	0.25
79	MP1A	X	-9.715	2.25
80	MP1A	Z	5.609	2.25
81	MP1A	Mx	0.005	2.25
82	MP1B	X	-9.715	0.25
83	MP1B	Z	5.609	0.25
84	MP1B	Mx	-0.005	0.25
85	MP1B	X	-9.715	2.25
86	MP1B	Z	5.609	2.25
87	MP1B	Mx	-0.005	2.25
88	MP1C	X	-16.699	0.25
89	MP1C	Z	9.641	0.25
90	MP1C	Mx	0	0.25
91	MP1C	X	-16.699	2.25
92	MP1C	Z	9.641	2.25
93	MP1C	Mx	0	2.25
94	OVP1	X	-22.897	1.5
95	OVP1	Z	13.22	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-22.897	1.5
98	OVP2	Z	13.22	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 24 : Antenna Wi (270 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-5.759	5.5
2	MP1A	Z	0	5.5
3	MP1A	Mx	0.002	5.5
4	MP1B	X	-8.762	5.5
5	MP1B	Z	0	5.5
6	MP1B	Mx	-0.002	5.5
7	MP1C	X	-8.762	5.5
8	MP1C	Z	0	5.5

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
9	MP1C	Mx	-0.002	5.5
10	MP3A	X	-22.737	1
11	MP3A	Z	0	1
12	MP3A	Mx	0.021	1
13	MP3A	X	-22.737	4.5
14	MP3A	Z	0	4.5
15	MP3A	Mx	0.021	4.5
16	MP3B	X	-29.98	1
17	MP3B	Z	0	1
18	MP3B	Mx	0.004	1
19	MP3B	X	-29.98	4.5
20	MP3B	Z	0	4.5
21	MP3B	Mx	0.004	4.5
22	MP3C	X	-29.98	1
23	MP3C	Z	0	1
24	MP3C	Mx	-0.031	1
25	MP3C	X	-29.98	4.5
26	MP3C	Z	0	4.5
27	MP3C	Mx	-0.031	4.5
28	MP3A	X	-22.737	1
29	MP3A	Z	0	1
30	MP3A	Mx	0.021	1
31	MP3A	X	-22.737	4.5
32	MP3A	Z	0	4.5
33	MP3A	Mx	0.021	4.5
34	MP3B	X	-29.98	1
35	MP3B	Z	0	1
36	MP3B	Mx	-0.031	1
37	MP3B	X	-29.98	4.5
38	MP3B	Z	0	4.5
39	MP3B	Mx	-0.031	4.5
40	MP3C	X	-29.98	1
41	MP3C	Z	0	1
42	MP3C	Mx	0.004	1
43	MP3C	X	-29.98	4.5
44	MP3C	Z	0	4.5
45	MP3C	Mx	0.004	4.5
46	MP3A	X	-11.793	3.25
47	MP3A	Z	0	3.25
48	MP3A	Mx	-0.006	3.25
49	MP3B	X	-15.443	3.25
50	MP3B	Z	0	3.25
51	MP3B	Mx	0.013	3.25
52	MP3C	X	-15.443	3.25
53	MP3C	Z	0	3.25
54	MP3C	Mx	-0.006	3.25
55	MP3A	X	-9.944	3.25
56	MP3A	Z	0	3.25
57	MP3A	Mx	-0.005	3.25
58	MP3B	X	-14.981	3.25
59	MP3B	Z	0	3.25
60	MP3B	Mx	-0.005	3.25
61	MP3C	X	-14.981	3.25
62	MP3C	Z	0	3.25
63	MP3C	Mx	0.013	3.25

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
64	MP2A	X	-12.643	0.25
65	MP2A	Z	0	0.25
66	MP2A	Mx	0.006	0.25
67	MP4A	X	-20.736	0.25
68	MP4A	Z	0	0.25
69	MP4A	Mx	0	0.25
70	MP4B	X	-12.643	0.25
71	MP4B	Z	0	0.25
72	MP4B	Mx	-0.006	0.25
73	MP4C	X	-20.736	0.25
74	MP4C	Z	0	0.25
75	MP4C	Mx	0	0.25
76	MP1A	X	-8.53	0.25
77	MP1A	Z	0	0.25
78	MP1A	Mx	0.004	0.25
79	MP1A	X	-8.53	2.25
80	MP1A	Z	0	2.25
81	MP1A	Mx	0.004	2.25
82	MP1B	X	-16.594	0.25
83	MP1B	Z	0	0.25
84	MP1B	Mx	-0.004	0.25
85	MP1B	X	-16.594	2.25
86	MP1B	Z	0	2.25
87	MP1B	Mx	-0.004	2.25
88	MP1C	X	-16.594	0.25
89	MP1C	Z	0	0.25
90	MP1C	Mx	-0.004	0.25
91	MP1C	X	-16.594	2.25
92	MP1C	Z	0	2.25
93	MP1C	Mx	-0.004	2.25
94	OVP1	X	-28.2	1.5
95	OVP1	Z	0	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-28.2	1.5
98	OVP2	Z	0	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 25 : Antenna Wi (300 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-5.854	5.5
2	MP1A	Z	-3.38	5.5
3	MP1A	Mx	0.002	5.5
4	MP1B	X	-8.456	5.5
5	MP1B	Z	-4.882	5.5
6	MP1B	Mx	0	5.5
7	MP1C	X	-5.854	5.5
8	MP1C	Z	-3.38	5.5
9	MP1C	Mx	-0.002	5.5
10	MP3A	X	-21.782	1
11	MP3A	Z	-12.576	1
12	MP3A	Mx	0.012	1
13	MP3A	X	-21.782	4.5
14	MP3A	Z	-12.576	4.5
15	MP3A	Mx	0.012	4.5
16	MP3B	X	-28.054	1

Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
17	MP3B	Z	-16.197	1
18	MP3B	Mx	0.022	1
19	MP3B	X	-28.054	4.5
20	MP3B	Z	-16.197	4.5
21	MP3B	Mx	0.022	4.5
22	MP3C	X	-21.782	1
23	MP3C	Z	-12.576	1
24	MP3C	Mx	-0.028	1
25	MP3C	X	-21.782	4.5
26	MP3C	Z	-12.576	4.5
27	MP3C	Mx	-0.028	4.5
28	MP3A	X	-21.782	1
29	MP3A	Z	-12.576	1
30	MP3A	Mx	0.028	1
31	MP3A	X	-21.782	4.5
32	MP3A	Z	-12.576	4.5
33	MP3A	Mx	0.028	4.5
34	MP3B	X	-28.054	1
35	MP3B	Z	-16.197	1
36	MP3B	Mx	-0.022	1
37	MP3B	X	-28.054	4.5
38	MP3B	Z	-16.197	4.5
39	MP3B	Mx	-0.022	4.5
40	MP3C	X	-21.782	1
41	MP3C	Z	-12.576	1
42	MP3C	Mx	-0.012	1
43	MP3C	X	-21.782	4.5
44	MP3C	Z	-12.576	4.5
45	MP3C	Mx	-0.012	4.5
46	MP3A	X	-11.267	3.25
47	MP3A	Z	-6.505	3.25
48	MP3A	Mx	-0.01	3.25
49	MP3B	X	-14.428	3.25
50	MP3B	Z	-8.33	3.25
51	MP3B	Mx	0.012	3.25
52	MP3C	X	-11.267	3.25
53	MP3C	Z	-6.505	3.25
54	MP3C	Mx	0.001	3.25
55	MP3A	X	-10.065	3.25
56	MP3A	Z	-5.811	3.25
57	MP3A	Mx	-0.000916	3.25
58	MP3B	X	-14.428	3.25
59	MP3B	Z	-8.33	3.25
60	MP3B	Mx	-0.012	3.25
61	MP3C	X	-10.065	3.25
62	MP3C	Z	-5.811	3.25
63	MP3C	Mx	0.009	3.25
64	MP2A	X	-12.702	0.25
65	MP2A	Z	-7.333	0.25
66	MP2A	Mx	0.006	0.25
67	MP4A	X	-16.206	0.25
68	MP4A	Z	-9.357	0.25
69	MP4A	Mx	0.005	0.25
70	MP4B	X	-12.702	0.25
71	MP4B	Z	-7.333	0.25

Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
72	MP4B	Mx	-0.006	0.25
73	MP4C	X	-16.206	0.25
74	MP4C	Z	-9.357	0.25
75	MP4C	Mx	-0.005	0.25
76	MP1A	X	-9.715	0.25
77	MP1A	Z	-5.609	0.25
78	MP1A	Mx	0.005	0.25
79	MP1A	X	-9.715	2.25
80	MP1A	Z	-5.609	2.25
81	MP1A	Mx	0.005	2.25
82	MP1B	X	-16.699	0.25
83	MP1B	Z	-9.641	0.25
84	MP1B	Mx	0	0.25
85	MP1B	X	-16.699	2.25
86	MP1B	Z	-9.641	2.25
87	MP1B	Mx	0	2.25
88	MP1C	X	-9.715	0.25
89	MP1C	Z	-5.609	0.25
90	MP1C	Mx	-0.005	0.25
91	MP1C	X	-9.715	2.25
92	MP1C	Z	-5.609	2.25
93	MP1C	Mx	-0.005	2.25
94	OVP1	X	-27.472	1.5
95	OVP1	Z	-15.861	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-27.472	1.5
98	OVP2	Z	-15.861	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-4.381	5.5
2	MP1A	Z	-7.589	5.5
3	MP1A	Mx	0.002	5.5
4	MP1B	X	-4.381	5.5
5	MP1B	Z	-7.589	5.5
6	MP1B	Mx	0.002	5.5
7	MP1C	X	-2.879	5.5
8	MP1C	Z	-4.987	5.5
9	MP1C	Mx	-0.002	5.5
10	MP3A	X	-14.99	1
11	MP3A	Z	-25.964	1
12	MP3A	Mx	-0.004	1
13	MP3A	X	-14.99	4.5
14	MP3A	Z	-25.964	4.5
15	MP3A	Mx	-0.004	4.5
16	MP3B	X	-14.99	1
17	MP3B	Z	-25.964	1
18	MP3B	Mx	0.031	1
19	MP3B	X	-14.99	4.5
20	MP3B	Z	-25.964	4.5
21	MP3B	Mx	0.031	4.5
22	MP3C	X	-11.369	1
23	MP3C	Z	-19.691	1
24	MP3C	Mx	-0.021	1

Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
25	MP3C	X	-11.369	4.5
26	MP3C	Z	-19.691	4.5
27	MP3C	Mx	-0.021	4.5
28	MP3A	X	-14.99	1
29	MP3A	Z	-25.964	1
30	MP3A	Mx	0.031	1
31	MP3A	X	-14.99	4.5
32	MP3A	Z	-25.964	4.5
33	MP3A	Mx	0.031	4.5
34	MP3B	X	-14.99	1
35	MP3B	Z	-25.964	1
36	MP3B	Mx	-0.004	1
37	MP3B	X	-14.99	4.5
38	MP3B	Z	-25.964	4.5
39	MP3B	Mx	-0.004	4.5
40	MP3C	X	-11.369	1
41	MP3C	Z	-19.691	1
42	MP3C	Mx	-0.021	1
43	MP3C	X	-11.369	4.5
44	MP3C	Z	-19.691	4.5
45	MP3C	Mx	-0.021	4.5
46	MP3A	X	-7.722	3.25
47	MP3A	Z	-13.374	3.25
48	MP3A	Mx	-0.013	3.25
49	MP3B	X	-7.722	3.25
50	MP3B	Z	-13.374	3.25
51	MP3B	Mx	0.006	3.25
52	MP3C	X	-5.896	3.25
53	MP3C	Z	-10.213	3.25
54	MP3C	Mx	0.006	3.25
55	MP3A	X	-7.49	3.25
56	MP3A	Z	-12.974	3.25
57	MP3A	Mx	0.005	3.25
58	MP3B	X	-7.49	3.25
59	MP3B	Z	-12.974	3.25
60	MP3B	Mx	-0.013	3.25
61	MP3C	X	-4.972	3.25
62	MP3C	Z	-8.611	3.25
63	MP3C	Mx	0.005	3.25
64	MP2A	X	-9.357	0.25
65	MP2A	Z	-16.206	0.25
66	MP2A	Mx	0.005	0.25
67	MP4A	X	-7.333	0.25
68	MP4A	Z	-12.702	0.25
69	MP4A	Mx	0.006	0.25
70	MP4B	X	-9.357	0.25
71	MP4B	Z	-16.206	0.25
72	MP4B	Mx	-0.005	0.25
73	MP4C	X	-7.333	0.25
74	MP4C	Z	-12.702	0.25
75	MP4C	Mx	-0.006	0.25
76	MP1A	X	-8.297	0.25
77	MP1A	Z	-14.371	0.25
78	MP1A	Mx	0.004	0.25
79	MP1A	X	-8.297	2.25

Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
80	MP1A	Z	-14.371	2.25
81	MP1A	Mx	0.004	2.25
82	MP1B	X	-8.297	0.25
83	MP1B	Z	-14.371	0.25
84	MP1B	Mx	0.004	0.25
85	MP1B	X	-8.297	2.25
86	MP1B	Z	-14.371	2.25
87	MP1B	Mx	0.004	2.25
88	MP1C	X	-4.265	0.25
89	MP1C	Z	-7.388	0.25
90	MP1C	Mx	-0.004	0.25
91	MP1C	X	-4.265	2.25
92	MP1C	Z	-7.388	2.25
93	MP1C	Mx	-0.004	2.25
94	OVP1	X	-16.741	1.5
95	OVP1	Z	-28.996	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-16.741	1.5
98	OVP2	Z	-28.996	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 27 : Antenna Wm (0 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	5.5
2	MP1A	Z	-1.786	5.5
3	MP1A	Mx	0	5.5
4	MP1B	X	0	5.5
5	MP1B	Z	-1.079	5.5
6	MP1B	Mx	0.000389	5.5
7	MP1C	X	0	5.5
8	MP1C	Z	-1.079	5.5
9	MP1C	Mx	-0.000389	5.5
10	MP3A	X	0	1
11	MP3A	Z	-6.833	1
12	MP3A	Mx	-0.005	1
13	MP3A	X	0	4.5
14	MP3A	Z	-6.833	4.5
15	MP3A	Mx	-0.005	4.5
16	MP3B	X	0	1
17	MP3B	Z	-3.912	1
18	MP3B	Mx	0.004	1
19	MP3B	X	0	4.5
20	MP3B	Z	-3.912	4.5
21	MP3B	Mx	0.004	4.5
22	MP3C	X	0	1
23	MP3C	Z	-3.912	1
24	MP3C	Mx	-0.002	1
25	MP3C	X	0	4.5
26	MP3C	Z	-3.912	4.5
27	MP3C	Mx	-0.002	4.5
28	MP3A	X	0	1
29	MP3A	Z	-6.833	1
30	MP3A	Mx	0.005	1
31	MP3A	X	0	4.5
32	MP3A	Z	-6.833	4.5

Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
33	MP3A	Mx	0.005	4.5
34	MP3B	X	0	1
35	MP3B	Z	-3.912	1
36	MP3B	Mx	0.002	1
37	MP3B	X	0	4.5
38	MP3B	Z	-3.912	4.5
39	MP3B	Mx	0.002	4.5
40	MP3C	X	0	1
41	MP3C	Z	-3.912	1
42	MP3C	Mx	-0.004	1
43	MP3C	X	0	4.5
44	MP3C	Z	-3.912	4.5
45	MP3C	Mx	-0.004	4.5
46	MP3A	X	0	3.25
47	MP3A	Z	-3.844	3.25
48	MP3A	Mx	-0.003	3.25
49	MP3B	X	0	3.25
50	MP3B	Z	-2.896	3.25
51	MP3B	Mx	-0.000228	3.25
52	MP3C	X	0	3.25
53	MP3C	Z	-2.896	3.25
54	MP3C	Mx	0.002	3.25
55	MP3A	X	0	3.25
56	MP3A	Z	-3.844	3.25
57	MP3A	Mx	0.003	3.25
58	MP3B	X	0	3.25
59	MP3B	Z	-2.542	3.25
60	MP3B	Mx	-0.002	3.25
61	MP3C	X	0	3.25
62	MP3C	Z	-2.542	3.25
63	MP3C	Mx	0.0002	3.25
64	MP2A	X	0	0.25
65	MP2A	Z	-5.952	0.25
66	MP2A	Mx	0	0.25
67	MP4A	X	0	0.25
68	MP4A	Z	-3.33	0.25
69	MP4A	Mx	0.002	0.25
70	MP4B	X	0	0.25
71	MP4B	Z	-5.952	0.25
72	MP4B	Mx	0	0.25
73	MP4C	X	0	0.25
74	MP4C	Z	-3.33	0.25
75	MP4C	Mx	-0.002	0.25
76	MP1A	X	0	0.25
77	MP1A	Z	-4.861	0.25
78	MP1A	Mx	0	0.25
79	MP1A	X	0	2.25
80	MP1A	Z	-4.861	2.25
81	MP1A	Mx	0	2.25
82	MP1B	X	0	0.25
83	MP1B	Z	-2.471	0.25
84	MP1B	Mx	0.001	0.25
85	MP1B	X	0	2.25
86	MP1B	Z	-2.471	2.25
87	MP1B	Mx	0.001	2.25

Member Point Loads (BLC 27 : Antenna Wm (0 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
88	MP1C	X	0	0.25
89	MP1C	Z	-2.471	0.25
90	MP1C	Mx	-0.001	0.25
91	MP1C	X	0	2.25
92	MP1C	Z	-2.471	2.25
93	MP1C	Mx	-0.001	2.25
94	OVP1	X	0	1.5
95	OVP1	Z	-7.391	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	0	1.5
98	OVP2	Z	-7.391	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 28 : Antenna Wm (30 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0.775	5.5
2	MP1A	Z	-1.342	5.5
3	MP1A	Mx	-0.000323	5.5
4	MP1B	X	0.422	5.5
5	MP1B	Z	-0.73	5.5
6	MP1B	Mx	0.000351	5.5
7	MP1C	X	0.775	5.5
8	MP1C	Z	-1.342	5.5
9	MP1C	Mx	-0.000323	5.5
10	MP3A	X	2.93	1
11	MP3A	Z	-5.074	1
12	MP3A	Mx	-0.006	1
13	MP3A	X	2.93	4.5
14	MP3A	Z	-5.074	4.5
15	MP3A	Mx	-0.006	4.5
16	MP3B	X	1.469	1
17	MP3B	Z	-2.545	1
18	MP3B	Mx	0.003	1
19	MP3B	X	1.469	4.5
20	MP3B	Z	-2.545	4.5
21	MP3B	Mx	0.003	4.5
22	MP3C	X	2.93	1
23	MP3C	Z	-5.074	1
24	MP3C	Mx	0.000698	1
25	MP3C	X	2.93	4.5
26	MP3C	Z	-5.074	4.5
27	MP3C	Mx	0.000698	4.5
28	MP3A	X	2.93	1
29	MP3A	Z	-5.074	1
30	MP3A	Mx	0.000697	1
31	MP3A	X	2.93	4.5
32	MP3A	Z	-5.074	4.5
33	MP3A	Mx	0.000697	4.5
34	MP3B	X	1.469	1
35	MP3B	Z	-2.545	1
36	MP3B	Mx	0.003	1
37	MP3B	X	1.469	4.5
38	MP3B	Z	-2.545	4.5
39	MP3B	Mx	0.003	4.5
40	MP3C	X	2.93	1

Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
41	MP3C	Z	-5.074	1
42	MP3C	Mx	-0.006	1
43	MP3C	X	2.93	4.5
44	MP3C	Z	-5.074	4.5
45	MP3C	Mx	-0.006	4.5
46	MP3A	X	1.764	3.25
47	MP3A	Z	-3.055	3.25
48	MP3A	Mx	-0.001	3.25
49	MP3B	X	1.29	3.25
50	MP3B	Z	-2.234	3.25
51	MP3B	Mx	-0.001	3.25
52	MP3C	X	1.764	3.25
53	MP3C	Z	-3.055	3.25
54	MP3C	Mx	0.003	3.25
55	MP3A	X	1.705	3.25
56	MP3A	Z	-2.953	3.25
57	MP3A	Mx	0.003	3.25
58	MP3B	X	1.054	3.25
59	MP3B	Z	-1.826	3.25
60	MP3B	Mx	-0.001	3.25
61	MP3C	X	1.705	3.25
62	MP3C	Z	-2.953	3.25
63	MP3C	Mx	-0.001	3.25
64	MP2A	X	2.648	0.25
65	MP2A	Z	-4.587	0.25
66	MP2A	Mx	-0.001	0.25
67	MP4A	X	1.993	0.25
68	MP4A	Z	-3.451	0.25
69	MP4A	Mx	0.002	0.25
70	MP4B	X	2.648	0.25
71	MP4B	Z	-4.587	0.25
72	MP4B	Mx	0.001	0.25
73	MP4C	X	1.993	0.25
74	MP4C	Z	-3.451	0.25
75	MP4C	Mx	-0.002	0.25
76	MP1A	X	2.032	0.25
77	MP1A	Z	-3.52	0.25
78	MP1A	Mx	-0.001	0.25
79	MP1A	X	2.032	2.25
80	MP1A	Z	-3.52	2.25
81	MP1A	Mx	-0.001	2.25
82	MP1B	X	0.837	0.25
83	MP1B	Z	-1.45	0.25
84	MP1B	Mx	0.000837	0.25
85	MP1B	X	0.837	2.25
86	MP1B	Z	-1.45	2.25
87	MP1B	Mx	0.000837	2.25
88	MP1C	X	2.032	0.25
89	MP1C	Z	-3.52	0.25
90	MP1C	Mx	-0.001	0.25
91	MP1C	X	2.032	2.25
92	MP1C	Z	-3.52	2.25
93	MP1C	Mx	-0.001	2.25
94	OVP1	X	3.224	1.5
95	OVP1	Z	-5.584	1.5

Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
96	OVP1	Mx	0	1.5
97	OVP2	X	3.224	1.5
98	OVP2	Z	-5.584	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0.934	5.5
2	MP1A	Z	-0.539	5.5
3	MP1A	Mx	-0.000389	5.5
4	MP1B	X	0.934	5.5
5	MP1B	Z	-0.539	5.5
6	MP1B	Mx	0.000389	5.5
7	MP1C	X	1.546	5.5
8	MP1C	Z	-0.893	5.5
9	MP1C	Mx	0	5.5
10	MP3A	X	3.388	1
11	MP3A	Z	-1.956	1
12	MP3A	Mx	-0.004	1
13	MP3A	X	3.388	4.5
14	MP3A	Z	-1.956	4.5
15	MP3A	Mx	-0.004	4.5
16	MP3B	X	3.388	1
17	MP3B	Z	-1.956	1
18	MP3B	Mx	0.002	1
19	MP3B	X	3.388	4.5
20	MP3B	Z	-1.956	4.5
21	MP3B	Mx	0.002	4.5
22	MP3C	X	5.917	1
23	MP3C	Z	-3.416	1
24	MP3C	Mx	0.005	1
25	MP3C	X	5.917	4.5
26	MP3C	Z	-3.416	4.5
27	MP3C	Mx	0.005	4.5
28	MP3A	X	3.388	1
29	MP3A	Z	-1.956	1
30	MP3A	Mx	-0.002	1
31	MP3A	X	3.388	4.5
32	MP3A	Z	-1.956	4.5
33	MP3A	Mx	-0.002	4.5
34	MP3B	X	3.388	1
35	MP3B	Z	-1.956	1
36	MP3B	Mx	0.004	1
37	MP3B	X	3.388	4.5
38	MP3B	Z	-1.956	4.5
39	MP3B	Mx	0.004	4.5
40	MP3C	X	5.917	1
41	MP3C	Z	-3.416	1
42	MP3C	Mx	-0.005	1
43	MP3C	X	5.917	4.5
44	MP3C	Z	-3.416	4.5
45	MP3C	Mx	-0.005	4.5
46	MP3A	X	2.508	3.25
47	MP3A	Z	-1.448	3.25
48	MP3A	Mx	0.000228	3.25

Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
49	MP3B	X	2.508	3.25
50	MP3B	Z	-1.448	3.25
51	MP3B	Mx	-0.002	3.25
52	MP3C	X	3.329	3.25
53	MP3C	Z	-1.922	3.25
54	MP3C	Mx	0.003	3.25
55	MP3A	X	2.202	3.25
56	MP3A	Z	-1.271	3.25
57	MP3A	Mx	0.002	3.25
58	MP3B	X	2.202	3.25
59	MP3B	Z	-1.271	3.25
60	MP3B	Mx	-0.0002	3.25
61	MP3C	X	3.329	3.25
62	MP3C	Z	-1.922	3.25
63	MP3C	Mx	-0.003	3.25
64	MP2A	X	3.451	0.25
65	MP2A	Z	-1.993	0.25
66	MP2A	Mx	-0.002	0.25
67	MP4A	X	4.587	0.25
68	MP4A	Z	-2.648	0.25
69	MP4A	Mx	0.001	0.25
70	MP4B	X	3.451	0.25
71	MP4B	Z	-1.993	0.25
72	MP4B	Mx	0.002	0.25
73	MP4C	X	4.587	0.25
74	MP4C	Z	-2.648	0.25
75	MP4C	Mx	-0.001	0.25
76	MP1A	X	2.14	0.25
77	MP1A	Z	-1.235	0.25
78	MP1A	Mx	-0.001	0.25
79	MP1A	X	2.14	2.25
80	MP1A	Z	-1.235	2.25
81	MP1A	Mx	-0.001	2.25
82	MP1B	X	2.14	0.25
83	MP1B	Z	-1.235	0.25
84	MP1B	Mx	0.001	0.25
85	MP1B	X	2.14	2.25
86	MP1B	Z	-1.235	2.25
87	MP1B	Mx	0.001	2.25
88	MP1C	X	4.21	0.25
89	MP1C	Z	-2.43	0.25
90	MP1C	Mx	0	0.25
91	MP1C	X	4.21	2.25
92	MP1C	Z	-2.43	2.25
93	MP1C	Mx	0	2.25
94	OVP1	X	5.176	1.5
95	OVP1	Z	-2.989	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	5.176	1.5
98	OVP2	Z	-2.989	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 30 : Antenna Wm (90 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0.843	5.5
2	MP1A	Z	0	5.5
3	MP1A	Mx	-0.000351	5.5
4	MP1B	X	1.55	5.5
5	MP1B	Z	0	5.5
6	MP1B	Mx	0.000323	5.5
7	MP1C	X	1.55	5.5
8	MP1C	Z	0	5.5
9	MP1C	Mx	0.000323	5.5
10	MP3A	X	2.939	1
11	MP3A	Z	0	1
12	MP3A	Mx	-0.003	1
13	MP3A	X	2.939	4.5
14	MP3A	Z	0	4.5
15	MP3A	Mx	-0.003	4.5
16	MP3B	X	5.859	1
17	MP3B	Z	0	1
18	MP3B	Mx	-0.000697	1
19	MP3B	X	5.859	4.5
20	MP3B	Z	0	4.5
21	MP3B	Mx	-0.000697	4.5
22	MP3C	X	5.859	1
23	MP3C	Z	0	1
24	MP3C	Mx	0.006	1
25	MP3C	X	5.859	4.5
26	MP3C	Z	0	4.5
27	MP3C	Mx	0.006	4.5
28	MP3A	X	2.939	1
29	MP3A	Z	0	1
30	MP3A	Mx	-0.003	1
31	MP3A	X	2.939	4.5
32	MP3A	Z	0	4.5
33	MP3A	Mx	-0.003	4.5
34	MP3B	X	5.859	1
35	MP3B	Z	0	1
36	MP3B	Mx	0.006	1
37	MP3B	X	5.859	4.5
38	MP3B	Z	0	4.5
39	MP3B	Mx	0.006	4.5
40	MP3C	X	5.859	1
41	MP3C	Z	0	1
42	MP3C	Mx	-0.000697	1
43	MP3C	X	5.859	4.5
44	MP3C	Z	0	4.5
45	MP3C	Mx	-0.000697	4.5
46	MP3A	X	2.579	3.25
47	MP3A	Z	0	3.25
48	MP3A	Mx	0.001	3.25
49	MP3B	X	3.528	3.25
50	MP3B	Z	0	3.25
51	MP3B	Mx	-0.003	3.25
52	MP3C	X	3.528	3.25
53	MP3C	Z	0	3.25
54	MP3C	Mx	0.001	3.25
55	MP3A	X	2.108	3.25

Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	MP3A	Z	0	3.25
57	MP3A	Mx	0.001	3.25
58	MP3B	X	3.41	3.25
59	MP3B	Z	0	3.25
60	MP3B	Mx	0.001	3.25
61	MP3C	X	3.41	3.25
62	MP3C	Z	0	3.25
63	MP3C	Mx	-0.003	3.25
64	MP2A	X	3.33	0.25
65	MP2A	Z	0	0.25
66	MP2A	Mx	-0.002	0.25
67	MP4A	X	5.952	0.25
68	MP4A	Z	0	0.25
69	MP4A	Mx	0	0.25
70	MP4B	X	3.33	0.25
71	MP4B	Z	0	0.25
72	MP4B	Mx	0.002	0.25
73	MP4C	X	5.952	0.25
74	MP4C	Z	0	0.25
75	MP4C	Mx	0	0.25
76	MP1A	X	1.674	0.25
77	MP1A	Z	0	0.25
78	MP1A	Mx	-0.000837	0.25
79	MP1A	X	1.674	2.25
80	MP1A	Z	0	2.25
81	MP1A	Mx	-0.000837	2.25
82	MP1B	X	4.064	0.25
83	MP1B	Z	0	0.25
84	MP1B	Mx	0.001	0.25
85	MP1B	X	4.064	2.25
86	MP1B	Z	0	2.25
87	MP1B	Mx	0.001	2.25
88	MP1C	X	4.064	0.25
89	MP1C	Z	0	0.25
90	MP1C	Mx	0.001	0.25
91	MP1C	X	4.064	2.25
92	MP1C	Z	0	2.25
93	MP1C	Mx	0.001	2.25
94	OVP1	X	6.448	1.5
95	OVP1	Z	0	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	6.448	1.5
98	OVP2	Z	0	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 31 : Antenna Wm (120 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0.934	5.5
2	MP1A	Z	0.539	5.5
3	MP1A	Mx	-0.000389	5.5
4	MP1B	X	1.546	5.5
5	MP1B	Z	0.893	5.5
6	MP1B	Mx	0	5.5
7	MP1C	X	0.934	5.5
8	MP1C	Z	0.539	5.5

Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
9	MP1C	Mx	0.000389	5.5
10	MP3A	X	3.388	1
11	MP3A	Z	1.956	1
12	MP3A	Mx	-0.002	1
13	MP3A	X	3.388	4.5
14	MP3A	Z	1.956	4.5
15	MP3A	Mx	-0.002	4.5
16	MP3B	X	5.917	1
17	MP3B	Z	3.416	1
18	MP3B	Mx	-0.005	1
19	MP3B	X	5.917	4.5
20	MP3B	Z	3.416	4.5
21	MP3B	Mx	-0.005	4.5
22	MP3C	X	3.388	1
23	MP3C	Z	1.956	1
24	MP3C	Mx	0.004	1
25	MP3C	X	3.388	4.5
26	MP3C	Z	1.956	4.5
27	MP3C	Mx	0.004	4.5
28	MP3A	X	3.388	1
29	MP3A	Z	1.956	1
30	MP3A	Mx	-0.004	1
31	MP3A	X	3.388	4.5
32	MP3A	Z	1.956	4.5
33	MP3A	Mx	-0.004	4.5
34	MP3B	X	5.917	1
35	MP3B	Z	3.416	1
36	MP3B	Mx	0.005	1
37	MP3B	X	5.917	4.5
38	MP3B	Z	3.416	4.5
39	MP3B	Mx	0.005	4.5
40	MP3C	X	3.388	1
41	MP3C	Z	1.956	1
42	MP3C	Mx	0.002	1
43	MP3C	X	3.388	4.5
44	MP3C	Z	1.956	4.5
45	MP3C	Mx	0.002	4.5
46	MP3A	X	2.508	3.25
47	MP3A	Z	1.448	3.25
48	MP3A	Mx	0.002	3.25
49	MP3B	X	3.329	3.25
50	MP3B	Z	1.922	3.25
51	MP3B	Mx	-0.003	3.25
52	MP3C	X	2.508	3.25
53	MP3C	Z	1.448	3.25
54	MP3C	Mx	-0.000228	3.25
55	MP3A	X	2.202	3.25
56	MP3A	Z	1.271	3.25
57	MP3A	Mx	0.000201	3.25
58	MP3B	X	3.329	3.25
59	MP3B	Z	1.922	3.25
60	MP3B	Mx	0.003	3.25
61	MP3C	X	2.202	3.25
62	MP3C	Z	1.271	3.25
63	MP3C	Mx	-0.002	3.25

Member Point Loads (BLC 31 : Antenna Wm (120 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
64	MP2A	X	3.451	0.25
65	MP2A	Z	1.993	0.25
66	MP2A	Mx	-0.002	0.25
67	MP4A	X	4.587	0.25
68	MP4A	Z	2.648	0.25
69	MP4A	Mx	-0.001	0.25
70	MP4B	X	3.451	0.25
71	MP4B	Z	1.993	0.25
72	MP4B	Mx	0.002	0.25
73	MP4C	X	4.587	0.25
74	MP4C	Z	2.648	0.25
75	MP4C	Mx	0.001	0.25
76	MP1A	X	2.14	0.25
77	MP1A	Z	1.235	0.25
78	MP1A	Mx	-0.001	0.25
79	MP1A	X	2.14	2.25
80	MP1A	Z	1.235	2.25
81	MP1A	Mx	-0.001	2.25
82	MP1B	X	4.21	0.25
83	MP1B	Z	2.43	0.25
84	MP1B	Mx	0	0.25
85	MP1B	X	4.21	2.25
86	MP1B	Z	2.43	2.25
87	MP1B	Mx	0	2.25
88	MP1C	X	2.14	0.25
89	MP1C	Z	1.235	0.25
90	MP1C	Mx	0.001	0.25
91	MP1C	X	2.14	2.25
92	MP1C	Z	1.235	2.25
93	MP1C	Mx	0.001	2.25
94	OVP1	X	6.401	1.5
95	OVP1	Z	3.695	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	6.401	1.5
98	OVP2	Z	3.695	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0.775	5.5
2	MP1A	Z	1.342	5.5
3	MP1A	Mx	-0.000323	5.5
4	MP1B	X	0.775	5.5
5	MP1B	Z	1.342	5.5
6	MP1B	Mx	-0.000323	5.5
7	MP1C	X	0.422	5.5
8	MP1C	Z	0.73	5.5
9	MP1C	Mx	0.000351	5.5
10	MP3A	X	2.93	1
11	MP3A	Z	5.074	1
12	MP3A	Mx	0.000697	1
13	MP3A	X	2.93	4.5
14	MP3A	Z	5.074	4.5
15	MP3A	Mx	0.000697	4.5
16	MP3B	X	2.93	1

Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
17	MP3B	Z	5.074	1
18	MP3B	Mx	-0.006	1
19	MP3B	X	2.93	4.5
20	MP3B	Z	5.074	4.5
21	MP3B	Mx	-0.006	4.5
22	MP3C	X	1.469	1
23	MP3C	Z	2.545	1
24	MP3C	Mx	0.003	1
25	MP3C	X	1.469	4.5
26	MP3C	Z	2.545	4.5
27	MP3C	Mx	0.003	4.5
28	MP3A	X	2.93	1
29	MP3A	Z	5.074	1
30	MP3A	Mx	-0.006	1
31	MP3A	X	2.93	4.5
32	MP3A	Z	5.074	4.5
33	MP3A	Mx	-0.006	4.5
34	MP3B	X	2.93	1
35	MP3B	Z	5.074	1
36	MP3B	Mx	0.000698	1
37	MP3B	X	2.93	4.5
38	MP3B	Z	5.074	4.5
39	MP3B	Mx	0.000698	4.5
40	MP3C	X	1.469	1
41	MP3C	Z	2.545	1
42	MP3C	Mx	0.003	1
43	MP3C	X	1.469	4.5
44	MP3C	Z	2.545	4.5
45	MP3C	Mx	0.003	4.5
46	MP3A	X	1.764	3.25
47	MP3A	Z	3.055	3.25
48	MP3A	Mx	0.003	3.25
49	MP3B	X	1.764	3.25
50	MP3B	Z	3.055	3.25
51	MP3B	Mx	-0.001	3.25
52	MP3C	X	1.29	3.25
53	MP3C	Z	2.234	3.25
54	MP3C	Mx	-0.001	3.25
55	MP3A	X	1.705	3.25
56	MP3A	Z	2.953	3.25
57	MP3A	Mx	-0.001	3.25
58	MP3B	X	1.705	3.25
59	MP3B	Z	2.953	3.25
60	MP3B	Mx	0.003	3.25
61	MP3C	X	1.054	3.25
62	MP3C	Z	1.826	3.25
63	MP3C	Mx	-0.001	3.25
64	MP2A	X	2.648	0.25
65	MP2A	Z	4.587	0.25
66	MP2A	Mx	-0.001	0.25
67	MP4A	X	1.993	0.25
68	MP4A	Z	3.451	0.25
69	MP4A	Mx	-0.002	0.25
70	MP4B	X	2.648	0.25
71	MP4B	Z	4.587	0.25

Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
72	MP4B	Mx	0.001	0.25
73	MP4C	X	1.993	0.25
74	MP4C	Z	3.451	0.25
75	MP4C	Mx	0.002	0.25
76	MP1A	X	2.032	0.25
77	MP1A	Z	3.52	0.25
78	MP1A	Mx	-0.001	0.25
79	MP1A	X	2.032	2.25
80	MP1A	Z	3.52	2.25
81	MP1A	Mx	-0.001	2.25
82	MP1B	X	2.032	0.25
83	MP1B	Z	3.52	0.25
84	MP1B	Mx	-0.001	0.25
85	MP1B	X	2.032	2.25
86	MP1B	Z	3.52	2.25
87	MP1B	Mx	-0.001	2.25
88	MP1C	X	0.837	0.25
89	MP1C	Z	1.45	0.25
90	MP1C	Mx	0.000837	0.25
91	MP1C	X	0.837	2.25
92	MP1C	Z	1.45	2.25
93	MP1C	Mx	0.000837	2.25
94	OVP1	X	3.931	1.5
95	OVP1	Z	6.809	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	3.931	1.5
98	OVP2	Z	6.809	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	0	5.5
2	MP1A	Z	1.786	5.5
3	MP1A	Mx	0	5.5
4	MP1B	X	0	5.5
5	MP1B	Z	1.079	5.5
6	MP1B	Mx	-0.000389	5.5
7	MP1C	X	0	5.5
8	MP1C	Z	1.079	5.5
9	MP1C	Mx	0.000389	5.5
10	MP3A	X	0	1
11	MP3A	Z	6.833	1
12	MP3A	Mx	0.005	1
13	MP3A	X	0	4.5
14	MP3A	Z	6.833	4.5
15	MP3A	Mx	0.005	4.5
16	MP3B	X	0	1
17	MP3B	Z	3.912	1
18	MP3B	Mx	-0.004	1
19	MP3B	X	0	4.5
20	MP3B	Z	3.912	4.5
21	MP3B	Mx	-0.004	4.5
22	MP3C	X	0	1
23	MP3C	Z	3.912	1
24	MP3C	Mx	0.002	1

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
25	MP3C	X	0	4.5
26	MP3C	Z	3.912	4.5
27	MP3C	Mx	0.002	4.5
28	MP3A	X	0	1
29	MP3A	Z	6.833	1
30	MP3A	Mx	-0.005	1
31	MP3A	X	0	4.5
32	MP3A	Z	6.833	4.5
33	MP3A	Mx	-0.005	4.5
34	MP3B	X	0	1
35	MP3B	Z	3.912	1
36	MP3B	Mx	-0.002	1
37	MP3B	X	0	4.5
38	MP3B	Z	3.912	4.5
39	MP3B	Mx	-0.002	4.5
40	MP3C	X	0	1
41	MP3C	Z	3.912	1
42	MP3C	Mx	0.004	1
43	MP3C	X	0	4.5
44	MP3C	Z	3.912	4.5
45	MP3C	Mx	0.004	4.5
46	MP3A	X	0	3.25
47	MP3A	Z	3.844	3.25
48	MP3A	Mx	0.003	3.25
49	MP3B	X	0	3.25
50	MP3B	Z	2.896	3.25
51	MP3B	Mx	0.000228	3.25
52	MP3C	X	0	3.25
53	MP3C	Z	2.896	3.25
54	MP3C	Mx	-0.002	3.25
55	MP3A	X	0	3.25
56	MP3A	Z	3.844	3.25
57	MP3A	Mx	-0.003	3.25
58	MP3B	X	0	3.25
59	MP3B	Z	2.542	3.25
60	MP3B	Mx	0.002	3.25
61	MP3C	X	0	3.25
62	MP3C	Z	2.542	3.25
63	MP3C	Mx	-0.0002	3.25
64	MP2A	X	0	0.25
65	MP2A	Z	5.952	0.25
66	MP2A	Mx	0	0.25
67	MP4A	X	0	0.25
68	MP4A	Z	3.33	0.25
69	MP4A	Mx	-0.002	0.25
70	MP4B	X	0	0.25
71	MP4B	Z	5.952	0.25
72	MP4B	Mx	0	0.25
73	MP4C	X	0	0.25
74	MP4C	Z	3.33	0.25
75	MP4C	Mx	0.002	0.25
76	MP1A	X	0	0.25
77	MP1A	Z	4.861	0.25
78	MP1A	Mx	0	0.25
79	MP1A	X	0	2.25

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
80	MP1A	Z	4.861	2.25
81	MP1A	Mx	0	2.25
82	MP1B	X	0	0.25
83	MP1B	Z	2.471	0.25
84	MP1B	Mx	-0.001	0.25
85	MP1B	X	0	2.25
86	MP1B	Z	2.471	2.25
87	MP1B	Mx	-0.001	2.25
88	MP1C	X	0	0.25
89	MP1C	Z	2.471	0.25
90	MP1C	Mx	0.001	0.25
91	MP1C	X	0	2.25
92	MP1C	Z	2.471	2.25
93	MP1C	Mx	0.001	2.25
94	OVP1	X	0	1.5
95	OVP1	Z	7.391	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	0	1.5
98	OVP2	Z	7.391	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-0.775	5.5
2	MP1A	Z	1.342	5.5
3	MP1A	Mx	0.000323	5.5
4	MP1B	X	-0.422	5.5
5	MP1B	Z	0.73	5.5
6	MP1B	Mx	-0.000351	5.5
7	MP1C	X	-0.775	5.5
8	MP1C	Z	1.342	5.5
9	MP1C	Mx	0.000323	5.5
10	MP3A	X	-2.93	1
11	MP3A	Z	5.074	1
12	MP3A	Mx	0.006	1
13	MP3A	X	-2.93	4.5
14	MP3A	Z	5.074	4.5
15	MP3A	Mx	0.006	4.5
16	MP3B	X	-1.469	1
17	MP3B	Z	2.545	1
18	MP3B	Mx	-0.003	1
19	MP3B	X	-1.469	4.5
20	MP3B	Z	2.545	4.5
21	MP3B	Mx	-0.003	4.5
22	MP3C	X	-2.93	1
23	MP3C	Z	5.074	1
24	MP3C	Mx	-0.000698	1
25	MP3C	X	-2.93	4.5
26	MP3C	Z	5.074	4.5
27	MP3C	Mx	-0.000698	4.5
28	MP3A	X	-2.93	1
29	MP3A	Z	5.074	1
30	MP3A	Mx	-0.000697	1
31	MP3A	X	-2.93	4.5
32	MP3A	Z	5.074	4.5

Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
33	MP3A	Mx	-0.000697	4.5
34	MP3B	X	-1.469	1
35	MP3B	Z	2.545	1
36	MP3B	Mx	-0.003	1
37	MP3B	X	-1.469	4.5
38	MP3B	Z	2.545	4.5
39	MP3B	Mx	-0.003	4.5
40	MP3C	X	-2.93	1
41	MP3C	Z	5.074	1
42	MP3C	Mx	0.006	1
43	MP3C	X	-2.93	4.5
44	MP3C	Z	5.074	4.5
45	MP3C	Mx	0.006	4.5
46	MP3A	X	-1.764	3.25
47	MP3A	Z	3.055	3.25
48	MP3A	Mx	0.001	3.25
49	MP3B	X	-1.29	3.25
50	MP3B	Z	2.234	3.25
51	MP3B	Mx	0.001	3.25
52	MP3C	X	-1.764	3.25
53	MP3C	Z	3.055	3.25
54	MP3C	Mx	-0.003	3.25
55	MP3A	X	-1.705	3.25
56	MP3A	Z	2.953	3.25
57	MP3A	Mx	-0.003	3.25
58	MP3B	X	-1.054	3.25
59	MP3B	Z	1.826	3.25
60	MP3B	Mx	0.001	3.25
61	MP3C	X	-1.705	3.25
62	MP3C	Z	2.953	3.25
63	MP3C	Mx	0.001	3.25
64	MP2A	X	-2.648	0.25
65	MP2A	Z	4.587	0.25
66	MP2A	Mx	0.001	0.25
67	MP4A	X	-1.993	0.25
68	MP4A	Z	3.451	0.25
69	MP4A	Mx	-0.002	0.25
70	MP4B	X	-2.648	0.25
71	MP4B	Z	4.587	0.25
72	MP4B	Mx	-0.001	0.25
73	MP4C	X	-1.993	0.25
74	MP4C	Z	3.451	0.25
75	MP4C	Mx	0.002	0.25
76	MP1A	X	-2.032	0.25
77	MP1A	Z	3.52	0.25
78	MP1A	Mx	0.001	0.25
79	MP1A	X	-2.032	2.25
80	MP1A	Z	3.52	2.25
81	MP1A	Mx	0.001	2.25
82	MP1B	X	-0.837	0.25
83	MP1B	Z	1.45	0.25
84	MP1B	Mx	-0.000837	0.25
85	MP1B	X	-0.837	2.25
86	MP1B	Z	1.45	2.25
87	MP1B	Mx	-0.000837	2.25

Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
88	MP1C	X	-2.032	0.25
89	MP1C	Z	3.52	0.25
90	MP1C	Mx	0.001	0.25
91	MP1C	X	-2.032	2.25
92	MP1C	Z	3.52	2.25
93	MP1C	Mx	0.001	2.25
94	OVP1	X	-3.224	1.5
95	OVP1	Z	5.584	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-3.224	1.5
98	OVP2	Z	5.584	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-0.934	5.5
2	MP1A	Z	0.539	5.5
3	MP1A	Mx	0.000389	5.5
4	MP1B	X	-0.934	5.5
5	MP1B	Z	0.539	5.5
6	MP1B	Mx	-0.000389	5.5
7	MP1C	X	-1.546	5.5
8	MP1C	Z	0.893	5.5
9	MP1C	Mx	0	5.5
10	MP3A	X	-3.388	1
11	MP3A	Z	1.956	1
12	MP3A	Mx	0.004	1
13	MP3A	X	-3.388	4.5
14	MP3A	Z	1.956	4.5
15	MP3A	Mx	0.004	4.5
16	MP3B	X	-3.388	1
17	MP3B	Z	1.956	1
18	MP3B	Mx	-0.002	1
19	MP3B	X	-3.388	4.5
20	MP3B	Z	1.956	4.5
21	MP3B	Mx	-0.002	4.5
22	MP3C	X	-5.917	1
23	MP3C	Z	3.416	1
24	MP3C	Mx	-0.005	1
25	MP3C	X	-5.917	4.5
26	MP3C	Z	3.416	4.5
27	MP3C	Mx	-0.005	4.5
28	MP3A	X	-3.388	1
29	MP3A	Z	1.956	1
30	MP3A	Mx	0.002	1
31	MP3A	X	-3.388	4.5
32	MP3A	Z	1.956	4.5
33	MP3A	Mx	0.002	4.5
34	MP3B	X	-3.388	1
35	MP3B	Z	1.956	1
36	MP3B	Mx	-0.004	1
37	MP3B	X	-3.388	4.5
38	MP3B	Z	1.956	4.5
39	MP3B	Mx	-0.004	4.5
40	MP3C	X	-5.917	1

Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
41	MP3C	Z	3.416	1
42	MP3C	Mx	0.005	1
43	MP3C	X	-5.917	4.5
44	MP3C	Z	3.416	4.5
45	MP3C	Mx	0.005	4.5
46	MP3A	X	-2.508	3.25
47	MP3A	Z	1.448	3.25
48	MP3A	Mx	-0.000228	3.25
49	MP3B	X	-2.508	3.25
50	MP3B	Z	1.448	3.25
51	MP3B	Mx	0.002	3.25
52	MP3C	X	-3.329	3.25
53	MP3C	Z	1.922	3.25
54	MP3C	Mx	-0.003	3.25
55	MP3A	X	-2.202	3.25
56	MP3A	Z	1.271	3.25
57	MP3A	Mx	-0.002	3.25
58	MP3B	X	-2.202	3.25
59	MP3B	Z	1.271	3.25
60	MP3B	Mx	0.0002	3.25
61	MP3C	X	-3.329	3.25
62	MP3C	Z	1.922	3.25
63	MP3C	Mx	0.003	3.25
64	MP2A	X	-3.451	0.25
65	MP2A	Z	1.993	0.25
66	MP2A	Mx	0.002	0.25
67	MP4A	X	-4.587	0.25
68	MP4A	Z	2.648	0.25
69	MP4A	Mx	-0.001	0.25
70	MP4B	X	-3.451	0.25
71	MP4B	Z	1.993	0.25
72	MP4B	Mx	-0.002	0.25
73	MP4C	X	-4.587	0.25
74	MP4C	Z	2.648	0.25
75	MP4C	Mx	0.001	0.25
76	MP1A	X	-2.14	0.25
77	MP1A	Z	1.235	0.25
78	MP1A	Mx	0.001	0.25
79	MP1A	X	-2.14	2.25
80	MP1A	Z	1.235	2.25
81	MP1A	Mx	0.001	2.25
82	MP1B	X	-2.14	0.25
83	MP1B	Z	1.235	0.25
84	MP1B	Mx	-0.001	0.25
85	MP1B	X	-2.14	2.25
86	MP1B	Z	1.235	2.25
87	MP1B	Mx	-0.001	2.25
88	MP1C	X	-4.21	0.25
89	MP1C	Z	2.43	0.25
90	MP1C	Mx	0	0.25
91	MP1C	X	-4.21	2.25
92	MP1C	Z	2.43	2.25
93	MP1C	Mx	0	2.25
94	OVP1	X	-5.176	1.5
95	OVP1	Z	2.989	1.5

Member Point Loads (BLC 35 : Antenna Wm (240 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
96	OVP1	Mx	0	1.5
97	OVP2	X	-5.176	1.5
98	OVP2	Z	2.989	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-0.843	5.5
2	MP1A	Z	0	5.5
3	MP1A	Mx	0.000351	5.5
4	MP1B	X	-1.55	5.5
5	MP1B	Z	0	5.5
6	MP1B	Mx	-0.000323	5.5
7	MP1C	X	-1.55	5.5
8	MP1C	Z	0	5.5
9	MP1C	Mx	-0.000323	5.5
10	MP3A	X	-2.939	1
11	MP3A	Z	0	1
12	MP3A	Mx	0.003	1
13	MP3A	X	-2.939	4.5
14	MP3A	Z	0	4.5
15	MP3A	Mx	0.003	4.5
16	MP3B	X	-5.859	1
17	MP3B	Z	0	1
18	MP3B	Mx	0.000697	1
19	MP3B	X	-5.859	4.5
20	MP3B	Z	0	4.5
21	MP3B	Mx	0.000697	4.5
22	MP3C	X	-5.859	1
23	MP3C	Z	0	1
24	MP3C	Mx	-0.006	1
25	MP3C	X	-5.859	4.5
26	MP3C	Z	0	4.5
27	MP3C	Mx	-0.006	4.5
28	MP3A	X	-2.939	1
29	MP3A	Z	0	1
30	MP3A	Mx	0.003	1
31	MP3A	X	-2.939	4.5
32	MP3A	Z	0	4.5
33	MP3A	Mx	0.003	4.5
34	MP3B	X	-5.859	1
35	MP3B	Z	0	1
36	MP3B	Mx	-0.006	1
37	MP3B	X	-5.859	4.5
38	MP3B	Z	0	4.5
39	MP3B	Mx	-0.006	4.5
40	MP3C	X	-5.859	1
41	MP3C	Z	0	1
42	MP3C	Mx	0.000697	1
43	MP3C	X	-5.859	4.5
44	MP3C	Z	0	4.5
45	MP3C	Mx	0.000697	4.5
46	MP3A	X	-2.579	3.25
47	MP3A	Z	0	3.25
48	MP3A	Mx	-0.001	3.25

Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
49	MP3B	X	-3.528	3.25
50	MP3B	Z	0	3.25
51	MP3B	Mx	0.003	3.25
52	MP3C	X	-3.528	3.25
53	MP3C	Z	0	3.25
54	MP3C	Mx	-0.001	3.25
55	MP3A	X	-2.108	3.25
56	MP3A	Z	0	3.25
57	MP3A	Mx	-0.001	3.25
58	MP3B	X	-3.41	3.25
59	MP3B	Z	0	3.25
60	MP3B	Mx	-0.001	3.25
61	MP3C	X	-3.41	3.25
62	MP3C	Z	0	3.25
63	MP3C	Mx	0.003	3.25
64	MP2A	X	-3.33	0.25
65	MP2A	Z	0	0.25
66	MP2A	Mx	0.002	0.25
67	MP4A	X	-5.952	0.25
68	MP4A	Z	0	0.25
69	MP4A	Mx	0	0.25
70	MP4B	X	-3.33	0.25
71	MP4B	Z	0	0.25
72	MP4B	Mx	-0.002	0.25
73	MP4C	X	-5.952	0.25
74	MP4C	Z	0	0.25
75	MP4C	Mx	0	0.25
76	MP1A	X	-1.674	0.25
77	MP1A	Z	0	0.25
78	MP1A	Mx	0.000837	0.25
79	MP1A	X	-1.674	2.25
80	MP1A	Z	0	2.25
81	MP1A	Mx	0.000837	2.25
82	MP1B	X	-4.064	0.25
83	MP1B	Z	0	0.25
84	MP1B	Mx	-0.001	0.25
85	MP1B	X	-4.064	2.25
86	MP1B	Z	0	2.25
87	MP1B	Mx	-0.001	2.25
88	MP1C	X	-4.064	0.25
89	MP1C	Z	0	0.25
90	MP1C	Mx	-0.001	0.25
91	MP1C	X	-4.064	2.25
92	MP1C	Z	0	2.25
93	MP1C	Mx	-0.001	2.25
94	OVP1	X	-6.448	1.5
95	OVP1	Z	0	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-6.448	1.5
98	OVP2	Z	0	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 37 : Antenna Wm (300 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-0.934	5.5
2	MP1A	Z	-0.539	5.5
3	MP1A	Mx	0.000389	5.5
4	MP1B	X	-1.546	5.5
5	MP1B	Z	-0.893	5.5
6	MP1B	Mx	0	5.5
7	MP1C	X	-0.934	5.5
8	MP1C	Z	-0.539	5.5
9	MP1C	Mx	-0.000389	5.5
10	MP3A	X	-3.388	1
11	MP3A	Z	-1.956	1
12	MP3A	Mx	0.002	1
13	MP3A	X	-3.388	4.5
14	MP3A	Z	-1.956	4.5
15	MP3A	Mx	0.002	4.5
16	MP3B	X	-5.917	1
17	MP3B	Z	-3.416	1
18	MP3B	Mx	0.005	1
19	MP3B	X	-5.917	4.5
20	MP3B	Z	-3.416	4.5
21	MP3B	Mx	0.005	4.5
22	MP3C	X	-3.388	1
23	MP3C	Z	-1.956	1
24	MP3C	Mx	-0.004	1
25	MP3C	X	-3.388	4.5
26	MP3C	Z	-1.956	4.5
27	MP3C	Mx	-0.004	4.5
28	MP3A	X	-3.388	1
29	MP3A	Z	-1.956	1
30	MP3A	Mx	0.004	1
31	MP3A	X	-3.388	4.5
32	MP3A	Z	-1.956	4.5
33	MP3A	Mx	0.004	4.5
34	MP3B	X	-5.917	1
35	MP3B	Z	-3.416	1
36	MP3B	Mx	-0.005	1
37	MP3B	X	-5.917	4.5
38	MP3B	Z	-3.416	4.5
39	MP3B	Mx	-0.005	4.5
40	MP3C	X	-3.388	1
41	MP3C	Z	-1.956	1
42	MP3C	Mx	-0.002	1
43	MP3C	X	-3.388	4.5
44	MP3C	Z	-1.956	4.5
45	MP3C	Mx	-0.002	4.5
46	MP3A	X	-2.508	3.25
47	MP3A	Z	-1.448	3.25
48	MP3A	Mx	-0.002	3.25
49	MP3B	X	-3.329	3.25
50	MP3B	Z	-1.922	3.25
51	MP3B	Mx	0.003	3.25
52	MP3C	X	-2.508	3.25
53	MP3C	Z	-1.448	3.25
54	MP3C	Mx	0.000228	3.25
55	MP3A	X	-2.202	3.25

Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
56	MP3A	Z	-1.271	3.25
57	MP3A	Mx	-0.000201	3.25
58	MP3B	X	-3.329	3.25
59	MP3B	Z	-1.922	3.25
60	MP3B	Mx	-0.003	3.25
61	MP3C	X	-2.202	3.25
62	MP3C	Z	-1.271	3.25
63	MP3C	Mx	0.002	3.25
64	MP2A	X	-3.451	0.25
65	MP2A	Z	-1.993	0.25
66	MP2A	Mx	0.002	0.25
67	MP4A	X	-4.587	0.25
68	MP4A	Z	-2.648	0.25
69	MP4A	Mx	0.001	0.25
70	MP4B	X	-3.451	0.25
71	MP4B	Z	-1.993	0.25
72	MP4B	Mx	-0.002	0.25
73	MP4C	X	-4.587	0.25
74	MP4C	Z	-2.648	0.25
75	MP4C	Mx	-0.001	0.25
76	MP1A	X	-2.14	0.25
77	MP1A	Z	-1.235	0.25
78	MP1A	Mx	0.001	0.25
79	MP1A	X	-2.14	2.25
80	MP1A	Z	-1.235	2.25
81	MP1A	Mx	0.001	2.25
82	MP1B	X	-4.21	0.25
83	MP1B	Z	-2.43	0.25
84	MP1B	Mx	0	0.25
85	MP1B	X	-4.21	2.25
86	MP1B	Z	-2.43	2.25
87	MP1B	Mx	0	2.25
88	MP1C	X	-2.14	0.25
89	MP1C	Z	-1.235	0.25
90	MP1C	Mx	-0.001	0.25
91	MP1C	X	-2.14	2.25
92	MP1C	Z	-1.235	2.25
93	MP1C	Mx	-0.001	2.25
94	OVP1	X	-6.401	1.5
95	OVP1	Z	-3.695	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-6.401	1.5
98	OVP2	Z	-3.695	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 38 : Antenna Wm (330 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	-0.775	5.5
2	MP1A	Z	-1.342	5.5
3	MP1A	Mx	0.000323	5.5
4	MP1B	X	-0.775	5.5
5	MP1B	Z	-1.342	5.5
6	MP1B	Mx	0.000323	5.5
7	MP1C	X	-0.422	5.5
8	MP1C	Z	-0.73	5.5

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
9	MP1C	Mx	-0.000351	5.5
10	MP3A	X	-2.93	1
11	MP3A	Z	-5.074	1
12	MP3A	Mx	-0.000697	1
13	MP3A	X	-2.93	4.5
14	MP3A	Z	-5.074	4.5
15	MP3A	Mx	-0.000697	4.5
16	MP3B	X	-2.93	1
17	MP3B	Z	-5.074	1
18	MP3B	Mx	0.006	1
19	MP3B	X	-2.93	4.5
20	MP3B	Z	-5.074	4.5
21	MP3B	Mx	0.006	4.5
22	MP3C	X	-1.469	1
23	MP3C	Z	-2.545	1
24	MP3C	Mx	-0.003	1
25	MP3C	X	-1.469	4.5
26	MP3C	Z	-2.545	4.5
27	MP3C	Mx	-0.003	4.5
28	MP3A	X	-2.93	1
29	MP3A	Z	-5.074	1
30	MP3A	Mx	0.006	1
31	MP3A	X	-2.93	4.5
32	MP3A	Z	-5.074	4.5
33	MP3A	Mx	0.006	4.5
34	MP3B	X	-2.93	1
35	MP3B	Z	-5.074	1
36	MP3B	Mx	-0.000698	1
37	MP3B	X	-2.93	4.5
38	MP3B	Z	-5.074	4.5
39	MP3B	Mx	-0.000698	4.5
40	MP3C	X	-1.469	1
41	MP3C	Z	-2.545	1
42	MP3C	Mx	-0.003	1
43	MP3C	X	-1.469	4.5
44	MP3C	Z	-2.545	4.5
45	MP3C	Mx	-0.003	4.5
46	MP3A	X	-1.764	3.25
47	MP3A	Z	-3.055	3.25
48	MP3A	Mx	-0.003	3.25
49	MP3B	X	-1.764	3.25
50	MP3B	Z	-3.055	3.25
51	MP3B	Mx	0.001	3.25
52	MP3C	X	-1.29	3.25
53	MP3C	Z	-2.234	3.25
54	MP3C	Mx	0.001	3.25
55	MP3A	X	-1.705	3.25
56	MP3A	Z	-2.953	3.25
57	MP3A	Mx	0.001	3.25
58	MP3B	X	-1.705	3.25
59	MP3B	Z	-2.953	3.25
60	MP3B	Mx	-0.003	3.25
61	MP3C	X	-1.054	3.25
62	MP3C	Z	-1.826	3.25
63	MP3C	Mx	0.001	3.25

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
64	MP2A	X	-2.648	0.25
65	MP2A	Z	-4.587	0.25
66	MP2A	Mx	0.001	0.25
67	MP4A	X	-1.993	0.25
68	MP4A	Z	-3.451	0.25
69	MP4A	Mx	0.002	0.25
70	MP4B	X	-2.648	0.25
71	MP4B	Z	-4.587	0.25
72	MP4B	Mx	-0.001	0.25
73	MP4C	X	-1.993	0.25
74	MP4C	Z	-3.451	0.25
75	MP4C	Mx	-0.002	0.25
76	MP1A	X	-2.032	0.25
77	MP1A	Z	-3.52	0.25
78	MP1A	Mx	0.001	0.25
79	MP1A	X	-2.032	2.25
80	MP1A	Z	-3.52	2.25
81	MP1A	Mx	0.001	2.25
82	MP1B	X	-2.032	0.25
83	MP1B	Z	-3.52	0.25
84	MP1B	Mx	0.001	0.25
85	MP1B	X	-2.032	2.25
86	MP1B	Z	-3.52	2.25
87	MP1B	Mx	0.001	2.25
88	MP1C	X	-0.837	0.25
89	MP1C	Z	-1.45	0.25
90	MP1C	Mx	-0.000837	0.25
91	MP1C	X	-0.837	2.25
92	MP1C	Z	-1.45	2.25
93	MP1C	Mx	-0.000837	2.25
94	OVP1	X	-3.931	1.5
95	OVP1	Z	-6.809	1.5
96	OVP1	Mx	0	1.5
97	OVP2	X	-3.931	1.5
98	OVP2	Z	-6.809	1.5
99	OVP2	Mx	0	1.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	LM1	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	LM2	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

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

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	LV	Y	-250	%100

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Y	-0.778	5.5
2	MP1A	My	-0.000324	5.5
3	MP1A	Mz	0	5.5
4	MP1B	Y	-0.778	5.5
5	MP1B	My	0.000162	5.5
6	MP1B	Mz	-0.000281	5.5
7	MP1C	Y	-0.778	5.5
8	MP1C	My	0.000162	5.5
9	MP1C	Mz	0.000281	5.5
10	MP3A	Y	-0.832	1
11	MP3A	My	-0.000763	1
12	MP3A	Mz	0.000555	1
13	MP3A	Y	-0.832	4.5
14	MP3A	My	-0.000763	4.5
15	MP3A	Mz	0.000555	4.5
16	MP3B	Y	-0.832	1
17	MP3B	My	-9.9e-5	1
18	MP3B	Mz	-0.000938	1
19	MP3B	Y	-0.832	4.5
20	MP3B	My	-9.9e-5	4.5
21	MP3B	Mz	-0.000938	4.5
22	MP3C	Y	-0.832	1
23	MP3C	My	0.000862	1
24	MP3C	Mz	0.000383	1
25	MP3C	Y	-0.832	4.5
26	MP3C	My	0.000862	4.5
27	MP3C	Mz	0.000383	4.5
28	MP3A	Y	-0.832	1
29	MP3A	My	-0.000763	1
30	MP3A	Mz	-0.000555	1
31	MP3A	Y	-0.832	4.5
32	MP3A	My	-0.000763	4.5
33	MP3A	Mz	-0.000555	4.5
34	MP3B	Y	-0.832	1
35	MP3B	My	0.000862	1
36	MP3B	Mz	-0.000383	1
37	MP3B	Y	-0.832	4.5
38	MP3B	My	0.000862	4.5
39	MP3B	Mz	-0.000383	4.5
40	MP3C	Y	-0.832	1
41	MP3C	My	-9.9e-5	1
42	MP3C	Mz	0.000938	1
43	MP3C	Y	-0.832	4.5
44	MP3C	My	-9.9e-5	4.5
45	MP3C	Mz	0.000938	4.5
46	MP3A	Y	-3.511	3.25
47	MP3A	My	0.002	3.25
48	MP3A	Mz	0.002	3.25
49	MP3B	Y	-3.511	3.25
50	MP3B	My	-0.003	3.25

Member Point Loads (BLC 81 : Antenna Ev) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
51	MP3B	Mz	0.000277	3.25
52	MP3C	Y	-3.511	3.25
53	MP3C	My	0.001	3.25
54	MP3C	Mz	-0.003	3.25
55	MP3A	Y	-2.924	3.25
56	MP3A	My	0.001	3.25
57	MP3A	Mz	-0.002	3.25
58	MP3B	Y	-2.924	3.25
59	MP3B	My	0.001	3.25
60	MP3B	Mz	0.002	3.25
61	MP3C	Y	-2.924	3.25
62	MP3C	My	-0.003	3.25
63	MP3C	Mz	-0.000231	3.25
64	MP2A	Y	-2.184	0.25
65	MP2A	My	-0.001	0.25
66	MP2A	Mz	0	0.25
67	MP4A	Y	-2.184	0.25
68	MP4A	My	0	0.25
69	MP4A	Mz	-0.001	0.25
70	MP4B	Y	-2.184	0.25
71	MP4B	My	0.001	0.25
72	MP4B	Mz	0	0.25
73	MP4C	Y	-2.184	0.25
74	MP4C	My	0	0.25
75	MP4C	Mz	0.001	0.25
76	MP1A	Y	-1.812	0.25
77	MP1A	My	-0.000906	0.25
78	MP1A	Mz	0	0.25
79	MP1A	Y	-1.812	2.25
80	MP1A	My	-0.000906	2.25
81	MP1A	Mz	0	2.25
82	MP1B	Y	-1.812	0.25
83	MP1B	My	0.000453	0.25
84	MP1B	Mz	-0.000784	0.25
85	MP1B	Y	-1.812	2.25
86	MP1B	My	0.000453	2.25
87	MP1B	Mz	-0.000784	2.25
88	MP1C	Y	-1.812	0.25
89	MP1C	My	0.000453	0.25
90	MP1C	Mz	0.000784	0.25
91	MP1C	Y	-1.812	2.25
92	MP1C	My	0.000453	2.25
93	MP1C	Mz	0.000784	2.25
94	OVP1	Y	-1.331	1.5
95	OVP1	My	0	1.5
96	OVP1	Mz	0	1.5
97	OVP2	Y	-1.331	1.5
98	OVP2	My	0	1.5
99	OVP2	Mz	0	1.5

Member Point Loads (BLC 82 : Antenna Eh (0 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	Z	-1.945	5.5
2	MP1A	Mx	0	5.5
3	MP1B	Z	-1.945	5.5

Member Point Loads (BLC 82 : Antenna Eh (0 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
4	MP1B	Mx	0.000702	5.5
5	MP1C	Z	-1.945	5.5
6	MP1C	Mx	-0.000702	5.5
7	MP3A	Z	-2.08	1
8	MP3A	Mx	-0.001	1
9	MP3A	Z	-2.08	4.5
10	MP3A	Mx	-0.001	4.5
11	MP3B	Z	-2.08	1
12	MP3B	Mx	0.002	1
13	MP3B	Z	-2.08	4.5
14	MP3B	Mx	0.002	4.5
15	MP3C	Z	-2.08	1
16	MP3C	Mx	-0.000958	1
17	MP3C	Z	-2.08	4.5
18	MP3C	Mx	-0.000958	4.5
19	MP3A	Z	-2.08	1
20	MP3A	Mx	0.001	1
21	MP3A	Z	-2.08	4.5
22	MP3A	Mx	0.001	4.5
23	MP3B	Z	-2.08	1
24	MP3B	Mx	0.000958	1
25	MP3B	Z	-2.08	4.5
26	MP3B	Mx	0.000958	4.5
27	MP3C	Z	-2.08	1
28	MP3C	Mx	-0.002	1
29	MP3C	Z	-2.08	4.5
30	MP3C	Mx	-0.002	4.5
31	MP3A	Z	-8.778	3.25
32	MP3A	Mx	-0.006	3.25
33	MP3B	Z	-8.778	3.25
34	MP3B	Mx	-0.000692	3.25
35	MP3C	Z	-8.778	3.25
36	MP3C	Mx	0.007	3.25
37	MP3A	Z	-7.311	3.25
38	MP3A	Mx	0.005	3.25
39	MP3B	Z	-7.311	3.25
40	MP3B	Mx	-0.006	3.25
41	MP3C	Z	-7.311	3.25
42	MP3C	Mx	0.000576	3.25
43	MP2A	Z	-5.46	0.25
44	MP2A	Mx	0	0.25
45	MP4A	Z	-5.46	0.25
46	MP4A	Mx	0.003	0.25
47	MP4B	Z	-5.46	0.25
48	MP4B	Mx	0	0.25
49	MP4C	Z	-5.46	0.25
50	MP4C	Mx	-0.003	0.25
51	MP1A	Z	-4.529	0.25
52	MP1A	Mx	0	0.25
53	MP1A	Z	-4.529	2.25
54	MP1A	Mx	0	2.25
55	MP1B	Z	-4.529	0.25
56	MP1B	Mx	0.002	0.25
57	MP1B	Z	-4.529	2.25
58	MP1B	Mx	0.002	2.25

Member Point Loads (BLC 82 : Antenna Eh (0 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
59	MP1C	Z	-4.529	0.25
60	MP1C	Mx	-0.002	0.25
61	MP1C	Z	-4.529	2.25
62	MP1C	Mx	-0.002	2.25
63	OVP1	Z	-3.328	1.5
64	OVP1	Mx	0	1.5
65	OVP2	Z	-3.328	1.5
66	OVP2	Mx	0	1.5

Member Point Loads (BLC 83 : Antenna Eh (90 Deg))

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1A	X	1.945	5.5
2	MP1A	Mx	-0.00081	5.5
3	MP1B	X	1.945	5.5
4	MP1B	Mx	0.000405	5.5
5	MP1C	X	1.945	5.5
6	MP1C	Mx	0.000405	5.5
7	MP3A	X	2.08	1
8	MP3A	Mx	-0.002	1
9	MP3A	X	2.08	4.5
10	MP3A	Mx	-0.002	4.5
11	MP3B	X	2.08	1
12	MP3B	Mx	-0.000248	1
13	MP3B	X	2.08	4.5
14	MP3B	Mx	-0.000248	4.5
15	MP3C	X	2.08	1
16	MP3C	Mx	0.002	1
17	MP3C	X	2.08	4.5
18	MP3C	Mx	0.002	4.5
19	MP3A	X	2.08	1
20	MP3A	Mx	-0.002	1
21	MP3A	X	2.08	4.5
22	MP3A	Mx	-0.002	4.5
23	MP3B	X	2.08	1
24	MP3B	Mx	0.002	1
25	MP3B	X	2.08	4.5
26	MP3B	Mx	0.002	4.5
27	MP3C	X	2.08	1
28	MP3C	Mx	-0.000248	1
29	MP3C	X	2.08	4.5
30	MP3C	Mx	-0.000248	4.5
31	MP3A	X	8.778	3.25
32	MP3A	Mx	0.004	3.25
33	MP3B	X	8.778	3.25
34	MP3B	Mx	-0.008	3.25
35	MP3C	X	8.778	3.25
36	MP3C	Mx	0.003	3.25
37	MP3A	X	7.311	3.25
38	MP3A	Mx	0.004	3.25
39	MP3B	X	7.311	3.25
40	MP3B	Mx	0.003	3.25
41	MP3C	X	7.311	3.25
42	MP3C	Mx	-0.006	3.25
43	MP2A	X	5.46	0.25
44	MP2A	Mx	-0.003	0.25

Member Point Loads (BLC 83 : Antenna Eh (90 Deg)) (Continued)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
45	MP4A	X	5.46	0.25
46	MP4A	Mx	0	0.25
47	MP4B	X	5.46	0.25
48	MP4B	Mx	0.003	0.25
49	MP4C	X	5.46	0.25
50	MP4C	Mx	0	0.25
51	MP1A	X	4.529	0.25
52	MP1A	Mx	-0.002	0.25
53	MP1A	X	4.529	2.25
54	MP1A	Mx	-0.002	2.25
55	MP1B	X	4.529	0.25
56	MP1B	Mx	0.001	0.25
57	MP1B	X	4.529	2.25
58	MP1B	Mx	0.001	2.25
59	MP1C	X	4.529	0.25
60	MP1C	Mx	0.001	0.25
61	MP1C	X	4.529	2.25
62	MP1C	Mx	0.001	2.25
63	OVP1	X	3.328	1.5
64	OVP1	Mx	0	1.5
65	OVP2	X	3.328	1.5
66	OVP2	Mx	0	1.5

Member Area Loads (BLC 39 : Structure D)

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	D Magnitude [ksf]	Exclude Braces
1	N159A	N158A	N155A	N156A	Y	Two Way	-0.005	-0.005	-0.005	-0.005	Yes
2	N77	N80	N79	N76	Y	Two Way	-0.005	-0.005	-0.005	-0.005	Yes
3	N188A	N189A	N192A	N191A	Y	Two Way	-0.005	-0.005	-0.005	-0.005	Yes

Member Area Loads (BLC 40 : Structure Di)

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	D Magnitude [ksf]	Exclude Braces
1	N188A	N189A	N192A	N191A	Y	Two Way	-0.016	-0.016	-0.016	-0.016	Yes
2	N77	N80	N79	N76	Y	Two Way	-0.016	-0.016	-0.016	-0.016	Yes
3	N159A	N158A	N155A	N156A	Y	Two Way	-0.016	-0.016	-0.016	-0.016	Yes
4	N159A	N158A	N155A	N156A	Y	Two Way	-0.016	-0.016	-0.016	-0.016	Yes

Member Area Loads (BLC 84 : Structure Ev)

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	D Magnitude [ksf]	Exclude Braces
1	N159A	N158A	N155A	N156A	Y	Two Way	-0.000216	-0.000216	-0.000216	-0.000216	Yes
2	N77	N80	N79	N76	Y	Two Way	-0.000216	-0.000216	-0.000216	-0.000216	Yes
3	N188A	N189A	N192A	N191A	Y	Two Way	-0.000216	-0.000216	-0.000216	-0.000216	Yes

Member Area Loads (BLC 85 : Structure Eh (0 Deg))

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	D Magnitude [ksf]	Exclude Braces
1	N159A	N158A	N155A	N156A	Z	Two Way	-0.000541	-0.000541	-0.000541	-0.000541	Yes
2	N77	N80	N79	N76	Z	Two Way	-0.000541	-0.000541	-0.000541	-0.000541	Yes
3	N188A	N189A	N192A	N191A	Z	Two Way	-0.000541	-0.000541	-0.000541	-0.000541	Yes

Member Area Loads (BLC 86 : Structure Eh (90 Deg))

	Node A	Node B	Node C	Node D	Direction	Load Direction	A Magnitude [ksf]	B Magnitude [ksf]	C Magnitude [ksf]	D Magnitude [ksf]	Exclude Braces
1	N159A	N158A	N155A	N156A	X	Two Way	0.000541	0.000541	0.000541	0.000541	Yes
2	N77	N80	N79	N76	X	Two Way	0.000541	0.000541	0.000541	0.000541	Yes
3	N188A	N189A	N192A	N191A	X	Two Way	0.000541	0.000541	0.000541	0.000541	Yes

Node Reactions

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
1	1	N67	97.304	1.633	3348.074	-0.355	-0.115	-0.068
2	1	N146A	-928.821	564.559	1462.249	-0.962	1.079	-0.61
3	1	N179B	870.916	669.883	1552.333	-0.465	-1.164	0.788
4	1	N197B	-0.12	2198.189	-1555.292	0	0	0
5	1	N201A	-19.962	61.506	81.795	0	0	0
6	1	N205A	-19.447	1.009	59.07	0	0	0
7	1	Totals:	-0.129	3496.779	4948.228			
8	1	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
9	2	N67	-238.205	77.427	2870.505	-0.238	0.094	-0.093
10	2	N146A	-2084.749	664.896	1580.319	-0.928	0.229	-1.012
11	2	N179B	-790.658	440.712	1002.205	-0.323	-1.811	0.379
12	2	N197B	-37.364	1992.918	-1412.193	0	0	0
13	2	N201A	259.926	-424.677	-107.936	0	0	0
14	2	N205A	431.397	745.498	327.628	0	0	0
15	2	Totals:	-2459.653	3496.774	4260.529			
16	2	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
17	3	N67	-836.236	237.685	1661.092	0.084	1.091	-0.215
18	3	N146A	-2490.524	696.384	1546.308	-0.806	0.135	-1.202
19	3	N179B	-2086.07	225.869	-94.662	-0.077	-1.175	0.033
20	3	N197B	-60.266	1459.037	-1038.93	0	0	0
21	3	N201A	344.849	-598.136	-199.056	0	0	0
22	3	N205A	880.585	1475.926	578.056	0	0	0
23	3	Totals:	-4247.663	3496.765	2452.808			
24	3	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
25	4	N67	-1217.41	447.385	-6.806	0.535	1.775	-0.27
26	4	N146A	-2236.499	647.964	1103.538	-0.56	-0.022	-1.175
27	4	N179B	-2824.639	74.24	-1144.596	0.135	-0.274	-0.165
28	4	N197B	-68.058	733.722	-528.557	0	0	0
29	4	N201A	215.089	-411.845	-166.3	0	0	0
30	4	N205A	1212.42	2005.288	743.03	0	0	0
31	4	Totals:	-4919.097	3496.754	0.309			
32	4	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
33	5	N67	-951.814	658.178	-1670.6	0.963	1.173	-0.177
34	5	N146A	-1524.222	526.451	66.538	-0.177	-0.991	-0.967
35	5	N179B	-2996.6	15.868	-1621.146	0.155	-0.112	-0.232
36	5	N197B	-60.876	3.872	-14.847	0	0	0
37	5	N201A	-100.241	91.343	-12.379	0	0	0
38	5	N205A	1348.859	2201.031	778.57	0	0	0
39	5	Totals:	-4284.895	3496.743	-2473.864			
40	5	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
41	6	N67	-427.198	805.854	-2835.988	1.243	0.28	-0.092
42	6	N146A	-346.656	367.51	-1019.231	0.17	-1.661	-0.588
43	6	N179B	-2398.96	74.583	-1698.794	0.052	0.116	-0.144
44	6	N197B	-36.444	-529.515	357.897	0	0	0
45	6	N201A	-519.428	776.222	221.365	0	0	0
46	6	N205A	1247.677	2002.083	677.135	0	0	0
47	6	Totals:	-2481.01	3496.736	-4297.615			
48	6	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
49	7	N67	-109.746	843.093	-3204.922	1.332	0.123	-0.104
50	7	N146A	1115.172	220.073	-1557.143	0.311	-1.068	-0.113
51	7	N179B	-1005.627	244.619	-1602.593	-0.047	1.113	0.146
52	7	N197B	-0.032	-716.096	486.867	0	0	0
53	7	N201A	-925.488	1452.251	464.667	0	0	0
54	7	N205A	925.831	1452.796	464.886	0	0	0
55	7	Totals:	0.11	3496.736	-4948.237			
56	7	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
57	8	N67	229.639	767.207	-2726.377	1.214	-0.092	-0.079
58	8	N146A	2268.546	120.725	-1671.967	0.278	-0.221	0.285
59	8	N179B	655.267	472.733	-1055.595	-0.185	1.768	0.555
60	8	N197B	36.446	-511.192	344.121	0	0	0
61	8	N201A	-1205.993	1938.215	653.258	0	0	0
62	8	N205A	475.729	709.053	196.022	0	0	0
63	8	Totals:	2459.634	3496.741	-4260.538			
64	8	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
65	9	N67	826.377	605.77	-1512.523	0.89	-1.092	0.044
66	9	N146A	2670.082	89.852	-1640.873	0.157	-0.132	0.474
67	9	N179B	1953.167	688.123	39.55	-0.43	1.138	0.903
68	9	N197B	60.87	23.059	-29.275	0	0	0
69	9	N201A	-1289.987	2110.897	744.939	0	0	0
70	9	N205A	27.135	-20.951	-54.636	0	0	0
71	9	Totals:	4247.644	3496.75	-2452.818			
72	9	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
73	10	N67	1205.586	395.129	157.431	0.437	-1.769	0.096
74	10	N146A	2414.67	138.2	-1201.662	-0.089	0.021	0.447
75	10	N179B	2695.851	840.941	1089.806	-0.645	0.236	1.101
76	10	N197B	68.033	748.992	-540.042	0	0	0
77	10	N201A	-1159.541	1924.185	712.603	0	0	0
78	10	N205A	-305.521	-550.687	-218.454	0	0	0
79	10	Totals:	4919.079	3496.76	-0.318			
80	10	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
81	11	N67	937.117	184.78	1820.006	0.011	-1.16	0.001
82	11	N146A	1706.725	258.519	-165.552	-0.47	0.986	0.241
83	11	N179B	2867.607	900.056	1571.229	-0.667	0.069	1.169
84	11	N197B	60.329	1479.299	-1054.173	0	0	0
85	11	N201A	-845.023	1421.313	557.492	0	0	0
86	11	N205A	-441.878	-747.197	-255.147	0	0	0
87	11	Totals:	4284.877	3496.771	2473.856			
88	11	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
89	12	N67	410.402	38.179	2981.472	-0.268	-0.268	-0.082
90	12	N146A	532.334	416.604	921.097	-0.819	1.664	-0.135
91	12	N179B	2267.452	841.256	1652.018	-0.564	-0.164	1.081
92	12	N197B	37.306	2012.386	-1426.84	0	0	0
93	12	N201A	-425.864	737.019	324.455	0	0	0
94	12	N205A	-340.637	-548.666	-154.594	0	0	0
95	12	Totals:	2480.992	3496.778	4297.607			
96	12	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
97	13	N67	27.425	1082.642	1322.523	1.087	-0.039	-0.295
98	13	N146A	-64.243	1116.801	382.032	-1.093	0.395	-1.057
99	13	N179B	127.755	1395.448	452.819	-0.702	-0.435	1.465
100	13	N197B	-0.053	2541.152	-1826.909	0	0	0
101	13	N201A	-1174.627	1891.362	697.357	0	0	0
102	13	N205A	1083.685	1751.686	644.771	0	0	0
103	13	Totals:	-0.057	9779.091	1672.592			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
104	13	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
105	14	N67	-103.955	1106.607	1161.089	1.129	0.075	-0.315
106	14	N146A	-450.8	1152.171	442.099	-1.088	0.152	-1.192
107	14	N179B	-431.756	1319.658	249.783	-0.646	-0.615	1.327
108	14	N197B	-9.458	2472.986	-1777.654	0	0	0
109	14	N201A	-1075.111	1724.611	631.529	0	0	0
110	14	N205A	1237.642	2003.055	736.794	0	0	0
111	14	Totals:	-833.437	9779.089	1443.639			
112	14	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
113	15	N67	-295.094	1160.413	745.306	1.243	0.384	-0.356
114	15	N146A	-594.526	1163.879	423.413	-1.045	0.092	-1.26
115	15	N179B	-884.368	1247.744	-113.546	-0.563	-0.433	1.207
116	15	N197B	-16.522	2291.664	-1647.583	0	0	0
117	15	N201A	-1042.493	1664.614	601.82	0	0	0
118	15	N205A	1391.959	2250.772	822.715	0	0	0
119	15	Totals:	-1441.044	9779.086	832.126			
120	15	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
121	16	N67	-407.684	1230.738	173.151	1.4	0.579	-0.374
122	16	N146A	-511.611	1147.55	258.303	-0.958	0.003	-1.252
123	16	N179B	-1148.311	1196.583	-457.129	-0.492	-0.165	1.135
124	16	N197B	-19.3	2045.178	-1471.904	0	0	0
125	16	N201A	-1087.042	1728.499	616.713	0	0	0
126	16	N205A	1507.163	2430.534	880.97	0	0	0
127	16	Totals:	-1666.785	9779.082	0.105			
128	16	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
129	17	N67	-328.355	1300.088	-394.88	1.55	0.404	-0.348
130	17	N146A	-256.931	1106.109	-86.611	-0.83	-0.294	-1.178
131	17	N179B	-1202.351	1177.276	-627.093	-0.478	-0.083	1.113
132	17	N197B	-16.636	1798.62	-1296.18	0	0	0
133	17	N201A	-1197.213	1900.529	672.029	0	0	0
134	17	N205A	1553.106	2496.456	896.526	0	0	0
135	17	Totals:	-1448.381	9779.079	-836.209			
136	17	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
137	18	N67	-165.212	1348.817	-793.351	1.65	0.132	-0.318
138	18	N146A	155.895	1051.938	-446.067	-0.714	-0.492	-1.046
139	18	N179B	-992.496	1197.33	-660.818	-0.506	0.021	1.148
140	18	N197B	-9.394	1618.594	-1167.1	0	0	0
141	18	N201A	-1341.935	2133.578	752.497	0	0	0
142	18	N205A	1515.517	2428.819	863.918	0	0	0
143	18	Totals:	-837.625	9779.076	-1450.921			
144	18	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
145	19	N67	-44.975	1362.516	-922.54	1.683	0.04	-0.309
146	19	N146A	648.94	1001.042	-645.952	-0.66	-0.333	-0.885
147	19	N179B	-525.653	1253.915	-611.165	-0.542	0.317	1.248
148	19	N197B	-0.004	1554.302	-1120.769	0	0	0
149	19	N201A	-1482.107	2363.792	836.595	0	0	0
150	19	N205A	1403.822	2243.508	791.237	0	0	0
151	19	Totals:	0.025	9779.076	-1672.595			
152	19	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
153	20	N67	86.783	1338.52	-760.964	1.641	-0.075	-0.289
154	20	N146A	1035.188	965.809	-705.699	-0.665	-0.089	-0.75
155	20	N179B	33.759	1329.583	-408.478	-0.598	0.498	1.386
156	20	N197B	9.354	1622.45	-1170.001	0	0	0
157	20	N201A	-1581.641	2530.469	902.309	0	0	0
158	20	N205A	1249.962	1992.247	699.192	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
159	20	Totals:	833.405	9779.078	-1443.642			
160	20	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
161	21	N67	277.803	1284.56	-344.704	1.526	-0.384	-0.248
162	21	N146A	1178.45	954.189	-687.29	-0.707	-0.03	-0.683
163	21	N179B	486.656	1401.559	-45.32	-0.681	0.316	1.506
164	21	N197B	16.553	1803.845	-1300.111	0	0	0
165	21	N201A	-1614.154	2590.357	932.05	0	0	0
166	21	N205A	1095.704	1744.571	613.247	0	0	0
167	21	Totals:	1441.012	9779.081	-832.129			
168	21	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
169	22	N67	390.177	1214.124	227.688	1.369	-0.579	-0.231
170	22	N146A	1095.437	970.487	-522.555	-0.795	0.058	-0.691
171	22	N179B	751.055	1452.876	298.337	-0.752	0.048	1.578
172	22	N197B	19.251	2050.42	-1475.848	0	0	0
173	22	N201A	-1569.562	2526.453	917.187	0	0	0
174	22	N205A	980.395	1564.726	555.084	0	0	0
175	22	Totals:	1666.752	9779.084	-0.108			
176	22	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
177	23	N67	310.553	1144.83	795.57	1.219	-0.403	-0.257
178	23	N146A	841.241	1011.774	-177.756	-0.923	0.355	-0.764
179	23	N179B	805.111	1472.281	468.815	-0.766	-0.035	1.601
180	23	N197B	16.52	2297.015	-1651.609	0	0	0
181	23	N201A	-1459.5	2354.503	861.772	0	0	0
182	23	N205A	934.424	1498.685	539.414	0	0	0
183	23	Totals:	1448.348	9779.088	836.206			
184	23	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
185	24	N67	147.235	1096.246	1193.602	1.119	-0.131	-0.286
186	24	N146A	428.769	1065.842	181.794	-1.039	0.553	-0.896
187	24	N179B	594.961	1452.198	502.837	-0.738	-0.139	1.566
188	24	N197B	9.407	2476.969	-1780.651	0	0	0
189	24	N201A	-1314.799	2121.542	781.387	0	0	0
190	24	N205A	972.02	1566.293	571.949	0	0	0
191	24	Totals:	837.592	9779.09	1450.918			
192	24	COG (ft):	X: 0.002	Y: 1.994	Z: 0.017			
193	25	N67	-8.775	320.083	61.074	0.383	0.025	-0.171
194	25	N146A	-144.829	496.905	149.631	-0.501	0.078	-0.482
195	25	N179B	-302.411	530.426	-86.546	-0.65	-0.121	0.29
196	25	N197B	0.027	814.161	-584.377	0	0	0
197	25	N201A	-430.969	692.598	253.188	0	0	0
198	25	N205A	886.942	1392.588	516.293	0	0	0
199	25	Totals:	-0.016	4246.761	309.263			
200	25	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
201	26	N67	-29.844	324.83	31.197	0.39	0.038	-0.172
202	26	N146A	-217.013	503.139	156.916	-0.499	0.025	-0.507
203	26	N179B	-406.249	516.146	-120.817	-0.641	-0.162	0.264
204	26	N197B	-2.279	801.341	-575.442	0	0	0
205	26	N201A	-413.461	662.221	241.364	0	0	0
206	26	N205A	915.108	1439.084	533.058	0	0	0
207	26	Totals:	-153.738	4246.761	266.276			
208	26	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
209	27	N67	-67.158	334.891	-44.518	0.41	0.1	-0.18
210	27	N146A	-242.251	505.077	154.87	-0.491	0.019	-0.519
211	27	N179B	-487.289	502.713	-189.349	-0.625	-0.122	0.243
212	27	N197B	-3.757	767.955	-552.104	0	0	0
213	27	N201A	-408.181	651.405	235.654	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
214	27	N205A	943.151	1484.719	548.74	0	0	0
215	27	Totals:	-265.486	4246.76	153.293			
216	27	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
217	28	N67	-90.908	348.023	-148.821	0.438	0.143	-0.183
218	28	N146A	-226.325	502.053	127.301	-0.476	0.009	-0.517
219	28	N179B	-533.581	493.208	-255.003	-0.612	-0.066	0.23
220	28	N197B	-4.228	722.602	-520.193	0	0	0
221	28	N201A	-416.309	663.056	237.688	0	0	0
222	28	N205A	963.904	1517.817	559.044	0	0	0
223	28	Totals:	-307.448	4246.76	0.017			
224	28	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
225	29	N67	-74.227	361.18	-252.779	0.465	0.105	-0.178
226	29	N146A	-181.922	494.495	62.524	-0.452	-0.051	-0.504
227	29	N179B	-544.352	489.542	-284.91	-0.611	-0.056	0.226
228	29	N197B	-3.765	676.972	-488.073	0	0	0
229	29	N201A	-435.99	694.491	247.34	0	0	0
230	29	N205A	972.442	1530.078	561.285	0	0	0
231	29	Totals:	-267.814	4246.759	-154.613			
232	29	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
233	30	N67	-41.383	370.387	-325.513	0.483	0.049	-0.172
234	30	N146A	-108.4	484.579	-5.359	-0.43	-0.093	-0.48
235	30	N179B	-506.948	493.216	-289.845	-0.617	-0.041	0.232
236	30	N197B	-2.28	643.635	-464.772	0	0	0
237	30	N201A	-462.189	737.278	261.926	0	0	0
238	30	N205A	966.127	1517.663	554.962	0	0	0
239	30	Totals:	-155.073	4246.758	-268.601			
240	30	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
241	31	N67	-21.672	372.702	-348.508	0.488	0.04	-0.173
242	31	N146A	-17.039	475.343	-39.081	-0.421	-0.056	-0.451
243	31	N179B	-419.771	503.877	-283.762	-0.623	0.021	0.25
244	31	N197B	0.024	631.99	-456.721	0	0	0
245	31	N201A	-487.561	779.513	277.113	0	0	0
246	31	N205A	946.018	1483.334	541.691	0	0	0
247	31	Totals:	-0.001	4246.758	-309.269			
248	31	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
249	32	N67	-0.589	367.954	-318.628	0.481	0.027	-0.172
250	32	N146A	55.135	469.113	-46.354	-0.423	-0.003	-0.426
251	32	N179B	-315.936	518.153	-249.504	-0.632	0.062	0.275
252	32	N197B	2.327	644.808	-465.654	0	0	0
253	32	N201A	-505.072	809.889	288.933	0	0	0
254	32	N205A	917.855	1436.841	524.925	0	0	0
255	32	Totals:	153.72	4246.759	-266.282			
256	32	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
257	33	N67	36.72	357.889	-242.896	0.461	-0.036	-0.164
258	33	N146A	80.357	467.177	-44.32	-0.431	0.003	-0.414
259	33	N179B	-234.886	531.588	-180.978	-0.648	0.022	0.297
260	33	N197B	3.811	678.195	-488.992	0	0	0
261	33	N201A	-510.348	820.702	294.645	0	0	0
262	33	N205A	889.814	1391.208	509.242	0	0	0
263	33	Totals:	265.468	4246.759	-153.299			
264	33	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
265	34	N67	60.463	344.754	-138.585	0.432	-0.078	-0.161
266	34	N146A	64.426	470.201	-16.764	-0.446	0.012	-0.416
267	34	N179B	-188.578	541.098	-115.323	-0.661	-0.034	0.309
268	34	N197B	4.28	723.55	-520.906	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
269	34	N201A	-502.218	809.049	292.613	0	0	0
270	34	N205A	869.058	1358.108	498.942	0	0	0
271	34	Totals:	307.43	4246.76	-0.023			
272	34	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
273	35	N67	43.77	331.598	-34.632	0.406	-0.041	-0.166
274	35	N146A	20.039	477.754	48.01	-0.47	0.073	-0.429
275	35	N179B	-177.808	544.767	-85.397	-0.662	-0.044	0.314
276	35	N197B	3.815	769.182	-553.027	0	0	0
277	35	N201A	-482.54	777.615	282.957	0	0	0
278	35	N205A	860.52	1345.844	496.697	0	0	0
279	35	Totals:	267.797	4246.761	154.607			
280	35	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
281	36	N67	10.918	322.395	38.087	0.388	0.015	-0.172
282	36	N146A	-53.47	487.667	115.896	-0.492	0.115	-0.452
283	36	N179B	-215.222	541.092	-80.45	-0.656	-0.059	0.308
284	36	N197B	2.335	802.518	-576.328	0	0	0
285	36	N201A	-456.342	734.831	268.373	0	0	0
286	36	N205A	866.836	1358.257	503.016	0	0	0
287	36	Totals:	155.055	4246.761	268.595			
288	36	COG (ft):	X: 0.936	Y: 1.683	Z: 0.853			
289	37	N67	1.647	255.704	219.844	0.27	-0.012	-0.028
290	37	N146A	148.113	773.238	-7.974	-1.086	0.098	-0.474
291	37	N179B	-17.798	711.306	74.293	-0.679	-0.111	0.6
292	37	N197B	-0.019	826.88	-593.944	0	0	0
293	37	N201A	-592.859	941.132	346.611	0	0	0
294	37	N205A	460.897	738.521	270.428	0	0	0
295	37	Totals:	-0.019	4246.781	309.259			
296	37	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
297	38	N67	-19.42	260.452	189.982	0.277	0.002	-0.03
298	38	N146A	75.941	779.48	-0.728	-1.084	0.045	-0.499
299	38	N179B	-121.631	697.011	40.017	-0.67	-0.151	0.575
300	38	N197B	-2.324	814.063	-585.012	0	0	0
301	38	N201A	-575.349	910.763	334.8	0	0	0
302	38	N205A	489.044	785.012	287.213	0	0	0
303	38	Totals:	-153.74	4246.781	266.273			
304	38	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
305	39	N67	-56.753	270.506	114.303	0.297	0.064	-0.037
306	39	N146A	50.704	781.444	-2.79	-1.076	0.039	-0.511
307	39	N179B	-202.663	683.572	-28.483	-0.655	-0.112	0.553
308	39	N197B	-3.8	780.693	-561.686	0	0	0
309	39	N201A	-570.063	899.933	329.08	0	0	0
310	39	N205A	517.087	830.63	302.864	0	0	0
311	39	Totals:	-265.488	4246.78	153.29			
312	39	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
313	40	N67	-80.522	283.624	10.048	0.325	0.106	-0.041
314	40	N146A	66.628	778.45	-30.37	-1.061	0.029	-0.509
315	40	N179B	-248.942	674.081	-94.112	-0.642	-0.055	0.541
316	40	N197B	-4.268	735.359	-529.787	0	0	0
317	40	N201A	-578.18	911.565	331.102	0	0	0
318	40	N205A	537.833	863.701	313.133	0	0	0
319	40	Totals:	-307.45	4246.779	0.013			
320	40	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
321	41	N67	-63.856	296.771	-93.85	0.352	0.069	-0.035
322	41	N146A	111.026	770.916	-95.178	-1.037	-0.031	-0.496
323	41	N179B	-259.68	670.429	-124.043	-0.64	-0.045	0.536

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
324	41	N197B	-3.803	689.747	-497.681	0	0	0
325	41	N201A	-597.847	942.984	340.758	0	0	0
326	41	N205A	546.343	875.933	315.377	0	0	0
327	41	Totals:	-267.816	4246.779	-154.617			
328	41	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
329	42	N67	-31.032	305.974	-166.527	0.37	0.013	-0.029
330	42	N146A	184.531	761.018	-163.08	-1.015	-0.073	-0.472
331	42	N179B	-222.238	674.103	-129.006	-0.647	-0.031	0.542
332	42	N197B	-2.316	656.43	-474.396	0	0	0
333	42	N201A	-624.031	985.753	355.346	0	0	0
334	42	N205A	540.01	863.499	309.059	0	0	0
335	42	Totals:	-155.075	4246.778	-268.605			
336	42	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
337	43	N67	-11.342	308.286	-189.498	0.375	0.003	-0.03
338	43	N146A	275.873	751.794	-196.777	-1.006	-0.036	-0.443
339	43	N179B	-135.044	684.767	-122.915	-0.653	0.032	0.56
340	43	N197B	-0.011	644.799	-466.356	0	0	0
341	43	N201A	-649.397	1027.967	370.515	0	0	0
342	43	N205A	519.917	829.165	295.758	0	0	0
343	43	Totals:	-0.004	4246.778	-309.272			
344	43	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
345	44	N67	9.741	303.537	-159.632	0.368	-0.01	-0.029
346	44	N146A	348.036	745.556	-204.009	-1.008	0.017	-0.418
347	44	N179B	-31.214	699.059	-88.651	-0.662	0.073	0.586
348	44	N197B	2.291	657.615	-475.287	0	0	0
349	44	N201A	-666.909	1058.335	382.322	0	0	0
350	44	N205A	491.773	782.677	278.972	0	0	0
351	44	Totals:	153.718	4246.779	-266.286			
352	44	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
353	45	N67	47.068	293.479	-83.936	0.348	-0.072	-0.021
354	45	N146A	373.256	743.594	-201.959	-1.016	0.022	-0.406
355	45	N179B	49.828	712.5	-20.158	-0.677	0.033	0.607
356	45	N197B	3.773	690.986	-498.613	0	0	0
357	45	N201A	-672.192	1069.162	388.044	0	0	0
358	45	N205A	463.732	737.059	263.319	0	0	0
359	45	Totals:	265.466	4246.779	-153.303			
360	45	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
361	46	N67	70.83	280.357	20.328	0.319	-0.115	-0.018
362	46	N146A	357.326	746.588	-174.393	-1.031	0.032	-0.408
363	46	N179B	96.122	721.995	45.473	-0.69	-0.023	0.62
364	46	N197B	4.239	736.323	-530.513	0	0	0
365	46	N201A	-664.072	1057.529	386.024	0	0	0
366	46	N205A	442.983	703.988	253.055	0	0	0
367	46	Totals:	307.428	4246.78	-0.026			
368	46	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
369	47	N67	54.152	267.212	124.221	0.293	-0.077	-0.024
370	47	N146A	312.946	754.118	-109.589	-1.055	0.092	-0.421
371	47	N179B	106.86	725.65	75.423	-0.692	-0.034	0.624
372	47	N197B	3.771	781.937	-562.621	0	0	0
373	47	N201A	-644.408	1026.111	376.363	0	0	0
374	47	N205A	434.473	691.753	250.806	0	0	0
375	47	Totals:	267.794	4246.78	154.603			
376	47	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
377	48	N67	21.32	258.013	196.883	0.275	-0.021	-0.029
378	48	N146A	239.453	764.011	-41.683	-1.077	0.135	-0.444

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
379	48	N179B	69.408	721.976	80.398	-0.685	-0.048	0.619
380	48	N197B	2.29	815.252	-585.906	0	0	0
381	48	N201A	-618.225	983.344	361.778	0	0	0
382	48	N205A	440.806	704.185	257.122	0	0	0
383	48	Totals:	155.053	4246.781	268.591			
384	48	COG (ft):	X: -0.286	Y: 1.683	Z: 0.853			
385	49	N67	-7.392	349.68	47.98	0.401	0.006	-0.087
386	49	N146A	122.657	554.131	-58.895	-0.62	0.016	-0.421
387	49	N179B	-96.851	616.798	-39.428	-0.548	-0.031	0.524
388	49	N197B	-0.002	739.064	-532.575	0	0	0
389	49	N201A	-514.071	820.195	296.784	0	0	0
390	49	N205A	495.649	791.898	286.129	0	0	0
391	49	Totals:	-0.01	3871.767	-0.005			
392	49	COG (ft):	X: 0.01	Y: 1.846	Z: 0.485			
393	50	N67	-12.584	411.56	-89.984	0.507	0.022	-0.114
394	50	N146A	-46.519	408.078	31.578	-0.346	0.002	-0.409
395	50	N179B	-289.9	309.795	-151.61	-0.21	-0.032	0.23
396	50	N197B	0.013	727.898	-524.176	0	0	0
397	50	N201A	-461.392	739.326	266.388	0	0	0
398	50	N205A	810.372	1275.099	467.801	0	0	0
399	50	Totals:	-0.008	3871.756	-0.003			
400	50	COG (ft):	X: 0.712	Y: 1.846	Z: 0.485			
401	51	N67	-8.621	492.082	84.777	0.569	0.007	-0.101
402	51	N146A	106.532	457.925	-54.411	-0.379	0.005	-0.423
403	51	N179B	-75.444	533.549	-31.073	-0.297	-0.022	0.546
404	51	N197B	-0.003	864.696	-623.187	0	0	0
405	51	N201A	-551.558	882.91	318.444	0	0	0
406	51	N205A	529.084	848.388	305.445	0	0	0
407	51	Totals:	-0.011	4079.55	-0.005			
408	51	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
409	52	N67	-5.353	412.899	284.377	0.444	0.005	-0.091
410	52	N146A	27.274	417.902	43.486	-0.374	0.068	-0.393
411	52	N179B	-2.632	483.527	62.475	-0.29	-0.079	0.501
412	52	N197B	-0.002	852.339	-614.285	0	0	0
413	52	N201A	-461.455	740.476	269.076	0	0	0
414	52	N205A	442.152	710.83	257.919	0	0	0
415	52	Totals:	-0.015	3617.972	303.046			
416	52	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
417	53	N67	-32.081	417.045	254.877	0.454	0.039	-0.098
418	53	N146A	-45.081	424.248	64.277	-0.376	0.042	-0.418
419	53	N179B	-98.235	471.458	17.557	-0.276	-0.092	0.473
420	53	N197B	-1.33	840.367	-605.64	0	0	0
421	53	N201A	-443.616	711.041	257.656	0	0	0
422	53	N205A	468.813	753.814	273.718	0	0	0
423	53	Totals:	-151.53	3617.972	262.445			
424	53	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
425	54	N67	-52.258	426.378	177.254	0.477	0.064	-0.104
426	54	N146A	-80.053	425.742	54.919	-0.367	0.006	-0.431
427	54	N179B	-185.432	459.858	-39.446	-0.259	-0.085	0.449
428	54	N197B	-2.303	808.712	-582.812	0	0	0
429	54	N201A	-437.967	700.873	252.864	0	0	0
430	54	N205A	495.578	796.409	288.755	0	0	0
431	54	Totals:	-262.436	3617.972	151.534			
432	54	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
433	55	N67	-60.483	438.401	72.289	0.507	0.074	-0.105

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
434	55	N146A	-68.275	421.983	17.919	-0.349	-0.031	-0.429
435	55	N179B	-240.878	451.833	-93.27	-0.243	-0.06	0.434
436	55	N197B	-2.661	765.848	-551.913	0	0	0
437	55	N201A	-446.021	712.697	255.982	0	0	0
438	55	N205A	515.278	827.21	299.004	0	0	0
439	55	Totals:	-303.04	3617.971	0.011			
440	55	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
441	56	N67	-54.545	449.892	-31.89	0.537	0.065	-0.103
442	56	N146A	-12.888	413.977	-36.812	-0.328	-0.058	-0.413
443	56	N179B	-249.7	449.533	-129.485	-0.232	-0.025	0.432
444	56	N197B	-2.306	723.262	-521.223	0	0	0
445	56	N201A	-465.623	743.349	266.178	0	0	0
446	56	N205A	522.631	837.957	301.717	0	0	0
447	56	Totals:	-262.431	3617.97	-151.517			
448	56	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
449	57	N67	-36.038	457.772	-107.363	0.558	0.041	-0.097
450	57	N146A	71.246	403.873	-94.599	-0.309	-0.069	-0.387
451	57	N179B	-209.552	453.571	-138.396	-0.23	0.012	0.445
452	57	N197B	-1.333	692.366	-498.967	0	0	0
453	57	N201A	-491.514	784.609	280.717	0	0	0
454	57	N205A	515.672	825.779	296.169	0	0	0
455	57	Totals:	-151.52	3617.97	-262.439			
456	57	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
457	58	N67	-9.918	459.929	-133.917	0.565	0.007	-0.089
458	58	N146A	161.597	394.378	-139.968	-0.297	-0.06	-0.357
459	58	N179B	-131.18	462.867	-117.615	-0.237	0.04	0.468
460	58	N197B	-0.003	681.435	-491.105	0	0	0
461	58	N201A	-516.763	825.426	295.705	0	0	0
462	58	N205A	496.264	793.935	283.844	0	0	0
463	58	Totals:	-0.004	3617.97	-303.055			
464	58	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
465	59	N67	16.814	455.781	-104.415	0.555	-0.027	-0.081
466	59	N146A	233.945	388.036	-160.754	-0.296	-0.034	-0.332
467	59	N179B	-35.581	474.933	-72.703	-0.251	0.053	0.495
468	59	N197B	1.327	693.407	-499.75	0	0	0
469	59	N201A	-534.6	854.858	307.122	0	0	0
470	59	N205A	469.606	750.955	268.045	0	0	0
471	59	Totals:	151.51	3617.97	-262.454			
472	59	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
473	60	N67	36.992	446.443	-26.784	0.532	-0.052	-0.076
474	60	N146A	268.91	386.545	-151.396	-0.305	0.003	-0.319
475	60	N179B	51.621	486.535	-15.703	-0.268	0.046	0.52
476	60	N197B	2.3	725.065	-522.579	0	0	0
477	60	N201A	-540.249	865.023	311.912	0	0	0
478	60	N205A	442.843	708.36	253.006	0	0	0
479	60	Totals:	262.417	3617.971	-151.544			
480	60	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
481	61	N67	45.213	434.417	78.188	0.501	-0.062	-0.074
482	61	N146A	257.132	390.303	-114.401	-0.323	0.039	-0.321
483	61	N179B	107.075	494.565	38.125	-0.284	0.021	0.535
484	61	N197B	2.655	767.933	-553.481	0	0	0
485	61	N201A	-532.196	853.199	308.792	0	0	0
486	61	N205A	423.141	677.555	242.755	0	0	0
487	61	Totals:	303.02	3617.972	-0.02			
488	61	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
489	62	N67	39.271	422.927	182.365	0.471	-0.053	-0.077
490	62	N146A	201.752	398.304	-59.674	-0.344	0.066	-0.337
491	62	N179B	115.901	496.869	74.347	-0.295	-0.014	0.536
492	62	N197B	2.299	810.519	-584.171	0	0	0
493	62	N201A	-512.596	822.55	298.597	0	0	0
494	62	N205A	415.785	666.804	240.043	0	0	0
495	62	Totals:	262.411	3617.972	151.507			
496	62	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
497	63	N67	20.763	415.052	257.829	0.45	-0.029	-0.083
498	63	N146A	117.625	408.405	-1.888	-0.363	0.077	-0.364
499	63	N179B	75.747	492.828	83.259	-0.297	-0.051	0.524
500	63	N197B	1.326	841.411	-606.425	0	0	0
501	63	N201A	-486.705	781.294	284.061	0	0	0
502	63	N205A	422.743	678.983	245.593	0	0	0
503	63	Totals:	151.5	3617.972	262.43			
504	63	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
505	64	N67	-2.975	278.276	260.94	0.288	0.003	-0.063
506	64	N146A	-1.794	292.566	58.387	-0.271	0.067	-0.277
507	64	N179B	17.871	337.482	70.946	-0.209	-0.073	0.351
508	64	N197B	0	615.425	-443.529	0	0	0
509	64	N201A	-310.521	498.873	181.94	0	0	0
510	64	N205A	297.407	478.734	174.364	0	0	0
511	64	Totals:	-0.012	2501.355	303.048			
512	64	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
513	65	N67	-29.733	282.414	231.477	0.298	0.037	-0.07
514	65	N146A	-74.085	298.897	79.119	-0.272	0.041	-0.302
515	65	N179B	-77.632	325.438	26.096	-0.195	-0.086	0.324
516	65	N197B	-1.331	603.492	-434.913	0	0	0
517	65	N201A	-292.735	469.515	170.548	0	0	0
518	65	N205A	323.989	521.6	190.12	0	0	0
519	65	Totals:	-151.527	2501.355	262.447			
520	65	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
521	66	N67	-49.934	291.724	153.961	0.321	0.062	-0.076
522	66	N146A	-109.051	300.389	69.721	-0.263	0.004	-0.315
523	66	N179B	-164.714	313.864	-30.853	-0.177	-0.079	0.3
524	66	N197B	-2.306	571.939	-412.163	0	0	0
525	66	N201A	-287.1	459.366	165.759	0	0	0
526	66	N205A	350.673	564.072	205.11	0	0	0
527	66	Totals:	-262.433	2501.354	151.536			
528	66	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
529	67	N67	-58.17	303.716	49.143	0.352	0.072	-0.078
530	67	N146A	-97.328	296.641	32.711	-0.245	-0.032	-0.314
531	67	N179B	-220.06	305.859	-84.652	-0.161	-0.054	0.285
532	67	N197B	-2.664	529.214	-381.369	0	0	0
533	67	N201A	-295.126	471.144	168.857	0	0	0
534	67	N205A	370.312	594.779	215.322	0	0	0
535	67	Totals:	-303.037	2501.354	0.012			
536	67	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
537	68	N67	-52.227	315.177	-54.886	0.381	0.064	-0.075
538	68	N146A	-42.043	288.657	-21.996	-0.224	-0.06	-0.297
539	68	N179B	-228.825	303.567	-120.879	-0.151	-0.019	0.283
540	68	N197B	-2.309	486.766	-350.784	0	0	0
541	68	N201A	-314.665	501.699	179.014	0	0	0
542	68	N205A	377.64	605.486	218.017	0	0	0
543	68	Totals:	-262.428	2501.353	-151.515			

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
544	68	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
545	69	N67	-33.701	323.035	-130.247	0.402	0.039	-0.069
546	69	N146A	41.971	278.58	-79.733	-0.206	-0.07	-0.271
547	69	N179B	-188.676	307.6	-129.833	-0.149	0.018	0.295
548	69	N197B	-1.334	455.971	-328.604	0	0	0
549	69	N201A	-340.475	542.835	193.505	0	0	0
550	69	N205A	370.698	593.331	212.475	0	0	0
551	69	Totals:	-151.517	2501.353	-262.437			
552	69	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
553	70	N67	-7.552	325.184	-156.758	0.409	0.005	-0.061
554	70	N146A	132.216	269.109	-125.039	-0.194	-0.061	-0.241
555	70	N179B	-110.362	316.879	-109.117	-0.156	0.046	0.318
556	70	N197B	-0.002	445.076	-320.769	0	0	0
557	70	N201A	-365.647	583.536	208.45	0	0	0
558	70	N205A	351.346	561.569	200.179	0	0	0
559	70	Totals:	-0.001	2501.353	-303.054			
560	70	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
561	71	N67	19.209	321.045	-127.293	0.399	-0.029	-0.054
562	71	N146A	204.501	262.782	-145.766	-0.193	-0.035	-0.217
563	71	N179B	-14.863	328.92	-64.273	-0.17	0.059	0.346
564	71	N197B	1.331	457.009	-329.385	0	0	0
565	71	N201A	-383.431	612.89	219.84	0	0	0
566	71	N205A	324.766	518.707	184.423	0	0	0
567	71	Totals:	151.513	2501.353	-262.453			
568	71	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
569	72	N67	39.411	311.73	-49.767	0.376	-0.054	-0.048
570	72	N146A	239.46	261.293	-136.368	-0.202	0.001	-0.203
571	72	N179B	72.224	340.495	-7.326	-0.187	0.052	0.37
572	72	N197B	2.306	488.565	-352.137	0	0	0
573	72	N201A	-389.065	623.036	224.626	0	0	0
574	72	N205A	298.084	476.234	169.431	0	0	0
575	72	Totals:	262.42	2501.354	-151.542			
576	72	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
577	73	N67	47.643	299.734	55.056	0.346	-0.064	-0.047
578	73	N146A	227.737	265.039	-99.363	-0.219	0.038	-0.205
579	73	N179B	127.578	348.506	46.477	-0.203	0.027	0.385
580	73	N197B	2.662	531.294	-382.933	0	0	0
581	73	N201A	-381.04	611.258	221.526	0	0	0
582	73	N205A	278.443	445.524	159.217	0	0	0
583	73	Totals:	303.023	2501.354	-0.019			
584	73	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
585	74	N67	41.695	288.275	159.083	0.316	-0.055	-0.049
586	74	N146A	172.459	273.018	-44.66	-0.24	0.065	-0.221
587	74	N179B	136.346	350.801	82.71	-0.213	-0.008	0.387
588	74	N197B	2.305	573.742	-413.518	0	0	0
589	74	N201A	-361.503	580.706	211.371	0	0	0
590	74	N205A	271.112	434.813	156.523	0	0	0
591	74	Totals:	262.415	2501.355	151.509			
592	74	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			
593	75	N67	23.169	280.422	234.436	0.295	-0.031	-0.055
594	75	N146A	88.452	283.092	13.077	-0.259	0.076	-0.248
595	75	N179B	96.193	346.766	91.666	-0.215	-0.045	0.374
596	75	N197B	1.33	604.533	-435.696	0	0	0
597	75	N201A	-335.693	539.574	196.883	0	0	0
598	75	N205A	278.053	446.968	162.067	0	0	0

Node Reactions (Continued)

	LC	Node Label	X [lb]	Y [lb]	Z [lb]	MX [k-ft]	MY [k-ft]	MZ [k-ft]
599	75	Totals:	151.503	2501.355	262.431			
600	75	COG (ft):	X: 0.011	Y: 2.044	Z: 0.037			

Envelope Node Reactions

	Node Label		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N67	max	1205.586	10	1362.516	19	3348.074	1	1.683	19	1.775	4	0.096	10
2		min	-1217.41	4	1.633	1	-3204.922	7	-0.355	1	-1.769	10	-0.374	16
3	N146A	max	2670.082	9	1163.879	15	1580.319	2	0.311	7	1.664	12	0.474	9
4		min	-2490.524	3	89.852	9	-1671.967	8	-1.093	13	-1.661	6	-1.26	15
5	N179B	max	2867.607	11	1472.281	23	1652.018	12	0.155	5	1.768	8	1.601	23
6		min	-2996.6	5	15.868	5	-1698.794	6	-0.766	23	-1.811	2	-0.232	5
7	N197B	max	68.033	10	2541.152	13	486.867	7	0	75	0	4	0	10
8		min	-68.058	4	-716.096	7	-1826.909	13	0	1	0	10	0	4
9	N201A	max	344.849	3	2590.357	21	932.05	21	0	6	0	48	0	48
10		min	-1614.154	21	-598.136	3	-199.056	3	0	48	0	6	0	6
11	N205A	max	1553.106	17	2496.456	17	896.526	17	0	8	0	8	0	8
12		min	-441.878	11	-747.197	11	-255.147	11	0	26	0	26	0	26
13	Totals:	max	4919.079	10	9779.091	13	4948.228	1						
14		min	-4919.097	4	2501.353	70	-4948.237	7						

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 [lb]	phi*Pnt [lb]	phi*Mn y-y [k-ft]	phi*Mn z-z [k-ft]	Cb	Eqn
1	M48	HSS5X3X3	0.211	0	4	0.1	1.005	z	4	103797.699	106812	10.212	14.525	1.923	H1-1b
2	M53	L5X7X6	0.192	0	13	0.025	0	y	18	119825.95	141243.75	7.121	19.323	1.5	H2-1
3	M54	L5X7X6	0.203	2.083	13	0.026	2.083	y	14	119825.95	141243.75	7.121	19.323	1.5	H2-1
4	M62	PL1/4X1.5	0.126	1.049	13	0.013	1.049	y	18	696.683	12150	0.063	0.38	1.807	H1-1b
5	M63	PL1/4X1.5	0.443	1.53	1	0.012	1.53	y	6	327.358	12150	0.063	0.38	1.887	H1-1a
6	M66	L2X2X4	0.151	0	1	0.018	0	y	24	16939.555	30585.6	0.691	1.577	1.5	H2-1
7	M67	L2X2X4	0.146	3.417	1	0.019	3.417	z	14	16939.469	30585.6	0.691	1.577	1.5	H2-1
8	LV	PIPE 3.0	0.159	5.474	47	0.134	3.699		8	21266.015	65205	5.749	5.749	1	H1-1b
9	M186A	PIPE 2.0	0.55	12.577	9	0.248	2.219		8	4678.523	32130	1.872	1.872	1	H1-1b
10	r	PIPE 2.0	0.583	5.978	8	0.397	4.039		7	15155.205	32130	1.872	1.872	1	H3-6
11	MP3A	PIPE 2.0	0.6	5.978	10	0.215	5.978		9	15155.205	32130	1.872	1.872	1	H1-1b
12	MP2A	PIPE 2.0	0.562	5.978	4	0.176	5.978		6	15155.205	32130	1.872	1.872	1	H1-1b
13	MP1A	PIPE 2.0	0.532	5.978	6	0.351	2.02		7	15155.205	32130	1.872	1.872	1	H3-6
14	M37	L5x4.5x4	0.08	0	7	0.079	0	z	1	50922.257	74925	4.408	8.54	1.359	H2-1
15	M38	L5x4.5x4	0.081	0.375	7	0.084	0.375	z	1	50922.258	74925	4.408	8.54	1.395	H2-1
16	OVP2	PIPE 2.0	0.296	4.959	12	0.018	4.959		12	20866.733	32130	1.872	1.872	1	H1-1b
17	M95	PIPE 3.0	0.156	5.622	24	0.123	3.699		4	21266.015	65205	5.749	5.749	1	H1-1b
18	M100	PIPE 2.0	0.557	13.76	6	0.206	12.429		2	4678.523	32130	1.872	1.872	1	H1-1b
19	MP4C	PIPE 2.0	0.506	5.978	6	0.325	2.02		3	15155.205	32130	1.872	1.872	1	H1-1b
20	MP3C	PIPE 2.0	0.582	5.978	7	0.201	5.978		5	15155.205	32130	1.872	1.872	1	H1-1b
21	MP2C	PIPE 2.0	0.565	5.978	12	0.174	5.978		2	15155.205	32130	1.872	1.872	1	H1-1b
22	MP1C	PIPE 2.0	0.485	5.978	1	0.303	2.02		9	15155.205	32130	1.872	1.872	1	H1-1b
23	M109	PIPE 3.0	0.162	5.622	20	0.121	3.699		12	21266.015	65205	5.749	5.749	1	H1-1b
24	M114	PIPE 2.0	0.547	13.76	8	0.217	2.219		12	4678.523	32130	1.872	1.872	1	H1-1b
25	P	PIPE 2.0	0.548	5.978	12	0.37	4.039		11	15155.205	32130	1.872	1.872	1	H3-6
26	MP3B	PIPE 2.0	0.581	5.978	2	0.203	5.978		7	15155.205	32130	1.872	1.872	1	H1-1b
27	MP2B	PIPE 2.0	0.58	5.978	8	0.171	5.978		10	15155.205	32130	1.872	1.872	1	H1-1b
28	MP1B	PIPE 2.0	0.485	5.978	9	0.301	2.02		11	15155.205	32130	1.872	1.872	1	H1-1b
29	M71	HSS5X3X3	0.199	0	12	0.092	0	z	12	85454.001	106812	10.212	14.525	1.966	H1-1b
30	M76	L5X7X6	0.203	0	21	0.027	0	y	13	119825.95	141243.75	7.121	19.323	1.5	H2-1
31	M77	L5X7X6	0.216	2.083	20	0.026	2.083	y	22	119825.95	141243.75	7.121	19.323	1.5	H2-1

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 [lb]	phi*	Pnt [lb]	phi*	Mn y-y [k-ft]	phi*	Mn z-z [k-ft]	Cb	Eqn
32	M85	PL1/4X1.5	0.157	1.049	21	0.015	1.049	y	14	696.683	12150	0.063	0.38	1.826	H1-1b					
33	M86	PL1/4X1.5	0.432	1.498	9	0.012	1.53	y	3	327.358	12150	0.063	0.38	1.882	H1-1a					
34	M87	L2X2X4	0.147	0	9	0.025	0	z	20	16939.555	30585.6	0.691	1.577	1.5	H2-1					
35	M88	L2X2X4	0.143	3.417	9	0.026	3.417	z	22	16939.469	30585.6	0.691	1.577	1.5	H2-1					
36	M91	L5x4.5x4	0.078	0	3	0.079	0	z	9	50922.257	74925	4.408	8.54	1.354	H2-1					
37	M92	L5x4.5x4	0.082	0.375	3	0.086	0.375	z	9	50922.258	74925	4.408	8.54	1.407	H2-1					
38	M97A	HSS5X3X3	0.215	0	2	0.096	1.005	z	2	103797.699	106812	10.212	14.525	1.844	H1-1b					
39	M102A	L5X7X6	0.195	0	17	0.026	0	y	23	119825.95	141243.75	7.121	19.323	1.5	H2-1					
40	M103A	L5X7X6	0.205	2.083	17	0.025	2.083	y	23	119825.95	141243.75	7.121	19.323	1.5	H2-1					
41	M111B	PL1/4X1.5	0.116	1.049	17	0.011	1.049	y	23	696.683	12150	0.063	0.38	1.861	H1-1b					
42	M112A	PL1/4X1.5	0.42	1.498	5	0.012	1.53	y	11	327.358	12150	0.063	0.38	1.92	H1-1a					
43	M113A	L2X2X4	0.145	0	5	0.019	0	z	16	16939.555	30585.6	0.691	1.577	1.5	H2-1					
44	M114A	L2X2X4	0.145	3.417	5	0.019	3.417	z	18	16939.469	30585.6	0.691	1.577	1.5	H2-1					
45	M117A	L5x4.5x4	0.073	0	11	0.083	0	z	5	50922.257	74925	4.408	8.54	1.374	H2-1					
46	M118A	L5x4.5x4	0.103	0.375	28	0.08	0.375	z	5	50922.258	74925	3.579	7.767	1.5	H2-1					
47	M120A	L5X3.5X4	0.372	0	8	0.124	1.052	z	12	53799.255	67068	2.629	6.062	1.217	H2-1					
48	M121A	L5X3.5X4	0.362	1.052	6	0.115	1.052	z	2	53799.255	67068	2.629	6.062	1.196	H2-1					
49	M122A	L5X3.5X4	0.369	0	12	0.11	1.052	z	4	53799.255	67068	2.629	6.062	1.225	H2-1					
50	M124	LL3X3X3X3	0.071	3.467	12	0.005	6.934	z	4	46089.796	70632	5.543	3.718	1	H1-1b					
51	M126	LL3X3X3X3	0.07	3.467	8	0.005	6.934	z	12	46089.796	70632	5.543	3.718	1	H1-1b					
52	M128	LL3X3X3X3	0.071	3.467	4	0.005	6.934	z	2	46089.796	70632	5.543	3.718	1	H1-1b					
53	OVP1	PIPE 2.0	0.358	4.959	6	0.023	4.959	6	20866.733	32130	1.872	1.872	1	H1-1b						
54	MP4A	PIPE 2.0	0.058	0.969	10	0.124	3.958	7	15155.205	32130	1.872	1.872	1	H1-1b						
55	M142	SR 0.625	0.255	0.417	13	0.211	0.417	13	9418.514	9940.19	0.104	0.104	1	H1-1b						
56	M143	SR 0.625	0.255	0.417	13	0.21	0.417	13	9418.514	9940.19	0.104	0.104	1	H1-1b						
57	M144	SR 0.625	0.289	0.417	19	0.227	0.417	18	9418.514	9940.19	0.104	0.104	1	H1-1b						
58	M145	SR 0.625	0.279	0.417	18	0.234	0.417	19	9418.514	9940.19	0.104	0.104	1	H1-1b						
59	MP4B	PIPE 2.0	0.058	0.969	1	0.115	3.958	11	15155.205	32130	1.872	1.872	1	H1-1b						
60	M167	SR 0.625	0.265	0.417	23	0.222	0.417	23	9418.514	9940.19	0.104	0.104	1	H1-1b						
61	M172	SR 0.625	0.27	0.417	17	0.223	0.417	17	9418.514	9940.19	0.104	0.104	1	H1-1b						
62	M173	SR 0.625	0.273	0.417	17	0.221	0.417	17	9418.514	9940.19	0.104	0.104	1	H1-1b						
63	M174	SR 0.625	0.272	0.417	23	0.218	0.417	23	9418.514	9940.19	0.104	0.104	1	H1-1b						

I. Mount-to-Tower Connection Check

Custom Orientation Required

No

Tower Connection Bolt Checks

Yes

Bolt Orientation

Parallel

Bolt Quantity per Reaction:

4

d_x (in) (Delta X of typ. bolt config. sketch) :

6.5

d_y (in) (Delta Y of typ. bolt config. sketch) :

6.5

Bolt Type:

A325N

Bolt Diameter (in):

0.75

Required Tensile Strength / bolt (kips):

2.0

Required Shear Strength / bolt (kips):

0.7

Tensile Capacity / bolt (kips):

29.8

Shear Capacity / bolt (kips):

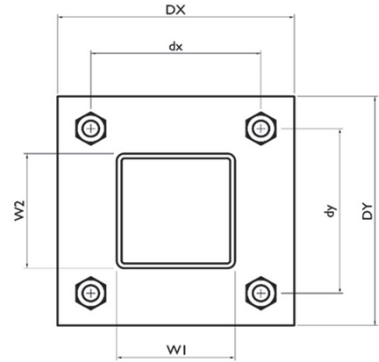
17.9

Bolt Overall Utilization:

7.3%

Tower Connection Baseplate Checks

No





FOX HILL TELECOM

Radio Frequency Emissions Analysis Report

Prepared for:



Crown Site ID: 803843_CT New Britain 4 CAC 803843

Verizon Wireless Site Name: New Britain 4 CT

Verizon Wireless FUZE ID: 17289551

Site Address:

200 Stanley Street

New Britain, CT 06053

December 13, 2024

Fox Hill Telecom Project Number: 240231

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	13.30 %



December 13, 2024

Crown Castle
1800 W. Park Drive
Westborough, MA 01581

Emissions Analysis for:

Crown Castle Site: 803843 – CT New Britain 4 CAC 803843

Verizon Wireless Site: New Britain 4 CT

Fox Hill Telecom, Inc (“Fox Hill”) was directed to analyze the proposed upgrades for Verizon Wireless to the Crown Castle facility located at **200 Stanley Street, New Britain, CT**, for the purpose of determining whether the emissions from the Proposed Verizon Wireless Antenna Installation, in addition to all existing radio systems located on this property, are within specified federal limits.

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

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

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



General population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 700 MHz band & the 850 MHz cellular band are approximately $497 \mu\text{W}/\text{cm}^2$ and $586 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS), 3500 MHz (CBRS), 3700 MHz (C band) and 39 GHz frequency bands is $1000 \mu\text{W}/\text{cm}^2$. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report the percentage of MPE rather than power density.

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

Additional details can be found in FCC OET 65.



CALCULATIONS

Calculations were performed for the proposed upgrades to the Crown Castle facility for Verizon Wireless located at **200 Stanley Street, New Britain, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65 for far field modeling calculations.

In OET-65, plane wave power densities in the far field of an antenna are calculated by considering antenna gain and reflective waves that would contribute to exposure.

Since the radiation pattern of an antenna has developed in the **far field** region the power gain in specific directions needs to be considered in exposure predictions to yield an Effective Radiated Power (ERP) in each specific direction from the antenna. Also, since the vertical radiation pattern of the antenna is considered, the exposure calculations would most likely be reduced significantly at ground level, resulting in a more realistic estimate of the actual exposure levels. To determine a worst-case scenario at each point along the calculation radials, each point was calculated using the antenna gain value at each angle of incident and compared against the result using an isotropic radiator at the antenna height with the greater of the two used to yield the more pessimistic far field value for each point along the calculation radial.

Additionally, to model a truly "worst case" prediction of exposure levels at or near a surface, such as at ground-level or on a rooftop, reflection off the surface of antenna radiation power can be assumed, resulting in a potential 1.6 times increase in power density in calculating far field power density values.

With these factors considered, the worst case **far field prediction model** utilized in this analysis is determined by the following equation:

Equation 9 per FCC OET65 for Far Field Modeling

$$S = \frac{33.4 \text{ ERP}}{R^2}$$

S = Power Density (in $\mu\text{W}/\text{cm}^2$)

ERP = Effective Radiated Power from antenna (watts)

R = Distance from the antenna (meters)

Predicted far field power density values for all carriers identified in this report were calculated 6 feet above the ground level and are displayed as a percentage of the applicable FCC standards. All emissions values for other carriers were calculated using the same Far Field model outlined above, using industry standard radio configurations and frequency band selection based upon available licenses in this geographic area for emissions contribution estimates.



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For each Verizon Wireless sector, the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*. Note that Sector D only has two (2) 39 GHz channels without the other radios / channels listed for sectors A, B&C.

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
LTE	700 MHz	4	40
LTE / 5G	850 MHz	4	40
LTE	1900 MHz (PCS)	4	40
LTE	2100 MHz (AWS)	4	40
LTE	3500 MHz (CBRS)	4	1.25
5G	3700 MHz (C Band)	2	120
5G	39 GHz	2	3.25

Table 1: Channel Data Table



The following **Verizon Wireless** antennas listed in *Table 2 – Antenna Data* were used in the modeling for transmission in the 700 MHz, 850 MHz, 1900 MHz (PCS), 2100 MHz (AWS), 3500 MHz (CBRS), 3700 MHz (C Band) and 39 GHz frequency bands. This is based on feedback from Verizon Wireless regarding anticipated antenna selection. Maximum gain values for all antennas are listed in *Table 3 – Verizon Wireless Inventory and Power Data* below.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Commscope SBNHH-1D65B	103
A	2	Commscope SBNHH-1D65B	103
A	3	Samsung XXDWMM-12.5-65-8T-CBRS	101
A	4	Samsung MT6407-77A	104
A	5	CBNG 39GHz VectaStar NR gNB	105
B	1	Commscope SBNHH-1D65B	103
B	2	Commscope SBNHH-1D65B	103
B	3	Samsung XXDWMM-12.5-65-8T-CBRS	101
B	4	Samsung MT6407-77A	104
B	5	CBNG 39GHz VectaStar NR gNB	105
C	1	Commscope SBNHH-1D65B	103
C	2	Commscope SBNHH-1D65B	103
C	3	Samsung XXDWMM-12.5-65-8T-CBRS	101
C	4	Samsung MT6407-77A	104
C	5	CBNG 39GHz VectaStar NR gNB	105
D	1	CBNG 39GHz VectaStar NR gNB	105

Table 2: Antenna Data

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



RESULTS

Per the calculations completed for the proposed Verizon Wireless configurations *Table 3* shows resulting emissions power levels and percentages of the FCC's allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Commscope SBNHH-1D65B	700 MHz / 850 MHz	12.15 / 12.45	8	320	5,437.62	2.39
Antenna A2	Commscope SBNHH-1D65B	1900 MHz (PCS) / 2100 MHz (AWS)	15.05 / 15.15	8	320	10,355.68	1.22
Antenna A3	Samsung XXDWMM-12.5-65-8T-CBRS	3700 MHz (C Band)	16.50	4	5	223.34	0.02
Antenna A4	Samsung MT6407-77A	39 GHz	23.15	2	240	49,569.12	3.78
Antenna A5	CBNG 39GHz VectaStar NR gNB	39 GHz	26.15	2	6.5	2,678.63	0.24
Sector A Composite MPE%							7.65
Antenna B1	Commscope SBNHH-1D65B	700 MHz / 850 MHz	12.15 / 12.45	8	320	5,437.62	2.39
Antenna B2	Commscope SBNHH-1D65B	1900 MHz (PCS) / 2100 MHz (AWS)	15.05 / 15.15	8	320	10,355.68	1.22
Antenna B3	Samsung XXDWMM-12.5-65-8T-CBRS	3700 MHz (C Band)	16.50	4	5	223.34	0.02
Antenna B4	Samsung MT6407-77A	39 GHz	23.15	2	240	49,569.12	3.78
Antenna B5	CBNG 39GHz VectaStar NR gNB	39 GHz	26.15	2	6.5	2,678.63	0.24
Sector B Composite MPE%							7.65
Antenna C1	Commscope SBNHH-1D65B	700 MHz / 850 MHz	12.15 / 12.45	8	320	5,437.62	2.39
Antenna C2	Commscope SBNHH-1D65B	1900 MHz (PCS) / 2100 MHz (AWS)	15.05 / 15.15	8	320	10,355.68	1.22
Antenna C3	Samsung XXDWMM-12.5-65-8T-CBRS	3700 MHz (C Band)	16.50	4	5	223.34	0.02
Antenna C4	Samsung MT6407-77A	39 GHz	23.15	2	240	49,569.12	3.78
Antenna C5	CBNG 39GHz VectaStar NR gNB	39 GHz	26.15	2	6.5	2,678.63	0.24
Sector C Composite MPE%							7.65
Antenna D1	CBNG 39GHz VectaStar NR gNB	39 GHz	26.15	2	6.5	2,678.63	0.24
Sector D Composite MPE%							0.24

Table 3: Verizon Wireless Inventory and Power Data table



Table 4: All Carrier MPE Contributions shows all additional identified carriers on site and their emissions contribution estimates, along with the newly calculated maximum Verizon Wireless far field emissions contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas the highest recorded sector value be used for composite site emissions values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, the Verizon Wireless sectors with the largest calculated MPE% are sectors A, B & C. *Table 5* below shows a summary for each Verizon Wireless Sector as well as the composite estimated emissions value for the site.

Site Composite MPE%	
Carrier	MPE%
Verizon Wireless – Max value Sectors A, B & C	7.65 %
AT&T	2.53 %
Sprint / T-Mobile	1.43 %
Dish Wireless	1.57 %
Sig Fox	0.05 %
Clearwire	0.07 %
Site Total MPE %:	13.30 %

Table 4: All Carrier MPE Contributions

Verizon Wireless Sector A Total:	7.65 %
Verizon Wireless Sector B Total:	7.65 %
Verizon Wireless Sector C Total:	7.65 %
Verizon Wireless Sector D Total:	0.24 %
Site Total:	13.30 %

Table 5: Site MPE Summary



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Table 6 below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated Verizon sector(s). For this site, the Verizon Wireless sectors with the largest calculated MPE% are Sectors A, B & C.

Verizon Wireless _ Frequency Band / Technology Max Power Values (Sectors A, B & C)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
Verizon Wireless 700 MHz LTE	4	656.24	103	6.51	700 MHz	497	1.31%
Verizon Wireless 850 MHz LTE / 5G	4	703.17	103	6.33	850 MHz	586	1.08%
Verizon Wireless 1900 MHz (PCS) LTE	4	1,279.56	103	6.10	1900 MHz (PCS)	1000	0.61%
Verizon Wireless 2100 MHz (AWS) LTE	4	1,309.36	103	6.10	2100 MHz (AWS)	1000	0.61%
Verizon Wireless 3500 MHz (CBRS) LTE	4	55.84	101	0.20	3500 MHz (CBRS)	1000	0.02%
Verizon Wireless 3700 MHz (C Band) 5G	2	24,784.56	104	37.80	3700 MHz (C Band)	1000	3.78%
Verizon Wireless 39 GHz 5G	2	1,339.32	105	2.40	39 GHz	1000	0.24%
						Total:	7.65 %

Table 6: Verizon Wireless Maximum Sector MPE Power Values



Summary

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

The anticipated maximum composite contributions from the Verizon Wireless facility as well as the site composite emissions estimates value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

Verizon Wireless Sector	Power Density Value (%)
Sector A:	7.65 %
Sector B:	7.65 %
Sector C:	7.65 %
Sector D:	0.24 %
Verizon Wireless Maximum Total (Sectors A, B & C):	7.65 %
Site Total:	13.30 %
Site Compliance Status:	COMPLIANT

The estimated composite emissions value for this site, assuming all carriers present, is **13.30 %** of the allowable FCC established general population limit sampled at the ground level. This is based upon the far field calculations performed for all carriers identified in this report.

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 estimated values calculated were well within the allowable 100% threshold standard per the federal government.

Scott Heffernan
Principal RF Engineer
Fox Hill Telecom, Inc
Worcester, MA 01609
(978)660-3998



VERIZON SITE NUMBER: 5000384966
VERIZON SITE NAME: NEW BRITAIN 4 CT
VERIZON PROJECT: 17289551
SITE TYPE: MONOPOLE
TOWER HEIGHT: 195'-0"

BUSINESS UNIT #: 803843
SITE ADDRESS: 200 STANLEY STREET
NEW BRITAIN, CT 06053
COUNTY: HARTFORD
JURISDICTION: CT - CITY OF NEW BRITAIN



VERIZON SITE NUMBER:
5000384966

BU #: 803843

CROWN CASTLE SITE NAME
CT NEW BRITAIN 4 CAC
803843

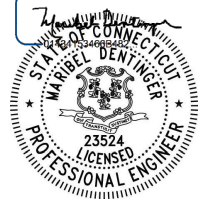
200 STANLEY STREET
NEW BRITAIN, CT 06053

EXISTING 195'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	DESIGN
0	11/25/24	RWA	CONSTRUCTION	MD

DocuSigned by:



11/25/2024 | 5:38:40 AM CST

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC0001101
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:

0

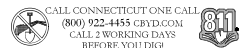
SITE INFORMATION

CROWN CASTLE USA INC.
SITE NAME: CT NEW BRITAIN 4 CAC 803843
BU NUMBER: 803843
TOWER OWNER: CROWN CASTLE
2000 CORPORATE DRIVE
CANONSBURG, PA 15317
CARRIER/APPLICANT: VERIZON WIRELESS
20 ALEXANDER DRIVE
WALLINGFORD, CT 06492
SITE ADDRESS: 200 STANLEY STREET
NEW BRITAIN, CT 06053
COUNTY: HARTFORD
LATITUDE: 41° 39' 08.35" / 41.652319°
LONGITUDE: -72° 46' 02.35" / -72.767319°
LAT/LONG TYPE: NAD83
GROUND ELEVATION: 112' ± SE
AREA OF CONSTRUCTION: EXISTING
CURRENT ZONING: NBRI-000813-000000-000200
MAP/PARCEL #: NBRI-000813-000000-000200
OCCUPANCY CLASSIFICATION: U
TYPE OF CONSTRUCTION: IIB
A.D.A. COMPLIANCE: FACILITY IS UNMANNED AND
NOT FOR HUMAN HABITATION
PROPERTY OWNER: GLOBAL SIGNAL ACQUISITION
PO BOX 277455
ATLANTA, GA 30384-7455
JURISDICTION: CT - CITY OF NEW BRITAIN
TEN FRANKLIN SQUARE
NEW BRITAIN, CT 06051
ELECTRIC PROVIDER: CONNECTICUT LIGHT & POWER CO
(800) 286-2000
TELCO PROVIDER: SBC COMMUNICATIONS
800-750-2355

DRAWING INDEX

SHEET #	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1	SITE PLAN
C-2	TOWER ELEVATIONS
C-3	ANTENNA PLANS
C-4	FINAL EQUIPMENT SCHEDULE
C-5	EQUIPMENT DETAILS & SPECIFICATIONS
C-6	COLOR CODE MATRIX
G-1	GROUNDING DETAILS
ATTACHED	MOUNT ANALYSIS (BY OTHERS)

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



CONTRACTOR PMI REQUIREMENTS

PMI ACCESSED AT	https://pmi.vzwsmart.com
SMART TOOL VENDOR	
PROJECT NUMBER	10253016
VzW LOCATION CODE (PSLC)	467499
*** PMI AND REQUIREMENTS ALSO EMBEDDED IN MOUNT ANALYSIS REPORT	

MOUNT MODIFICATION REQUIRED

Y

VzW APPROVED SMART KIT VENDORS

REFER TO MOUNT MODIFICATION DRAWINGS
PAGE FOR VzW SMART KIT APPROVED VENDORS

APPROVALS

VERIZON SIGNATURE BLOCK		
APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
CONSTRUCTION		
RADIO		
MICROWAVE		
TELCO		
EQUIPMENT		
PROJECT ADMINISTRATOR		
WO ADMINISTRATOR		

CROWN CASTLE USA INC. SIGNATURE BLOCK		
APPROVAL	SIGNATURE	DATE
SITE ACQUISITION		
PLANNER		
CONSTRUCTION		
PROJECT MANAGER		
UTILITY MANAGER		
LANDLORD		

LOCATION MAP



NO SCALE

PROJECT DESCRIPTION

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

TOWER SCOPE OF WORK:
• REMOVE (3) ANTEN - BXA-80080/4CP ANTENNAS
• REMOVE (1) COMMSCOPE - 1 5/8" COAXIAL CABLE

• INSTALL (9) CRBG - 39GHZ VECTASTAR NR GNB ANTENNAS
• INSTALL (1) HUBER SUHNER CLUBE OPTICS AG - 85205108 HYBRID CABLE
• INSTALL (1) RAYCAP RC3DC-6627-PF-48 OVP
• INSTALL MOUNT MODIFICATIONS PER MOUNT ANALYSIS BY COLLIER'S
ENGINEERING & DESIGN DATED 10/04/24

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/2021 IBC
MECHANICAL	2022 CONNECTICUT SBC/2021 IMC
ELECTRICAL	2022 CONNECTICUT SBC/2020 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS:	TEP
DATED:	10/28/2024
MOUNT ANALYSIS:	COLLIERS ENGINEERING & DESIGN
DATED:	10/04/2024
RFDS REVISION:	0
DATED:	09/03/2024
ORDER ID:	681946
REVISION:	0

INSTALLER NOTE:

NO PROPOSED LOADING TO BE ADDED
UNTIL MOUNT MODIFICATIONS ARE
INSTALLED PER MOUNT ANALYSIS BY
COLLIERS ENGINEERING & DESIGN DATED
10/04/2024.

CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

1. NOTICE TO PROCEED--NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
2. LOOK UP--CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT: THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL COMPROMISE THE INTEGRITY OF THE 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 RYRE, 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, ENVIRONMENTAL, AND ZONING, AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
3. PRIOR TO THE START OF CONSTRUCTION, THE FOLLOWING JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL REQUIREMENTS.
4. ALL CONSTRUCTION MEANS AND METHODS, INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR (RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANS/ASSE A10.48 (LATEST EDITION), FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATION TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANS/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CDD-S10-10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANS/114-322 (LATEST EDITION).
5. ALL SITE WORK TO COMPLY WITH QAS-S10-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CDD-S10-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANS/1174-0119-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS." IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
6. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LOCAL, STATE, FEDERAL, AND UTILITY COMPANY SPECIFICATIONS AND ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND REGULATIONS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
9. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY WARNING AND LIGHTING. THIS MAY INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E)
10. THE CONTRACTOR SHALL COMPLY WITH THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
11. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. NECESSARY RUBBISH REMOVAL, DEBRIS, STOKES, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
12. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE WORK, SHALL BE RELOCATED OR COVERED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY WARNING AND LIGHTING. THIS MAY INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E)
13. THE SITE SHALL BE GRADED TO CREATE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
14. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
15. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT, OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
16. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
17. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAYMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
18. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
19. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
20. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

GREENFIELD GROUNDING NOTES:

1. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GESS'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
2. THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND R1) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS TEST RESULTS INDICATE AT 5 OHMS OR LESS.
3. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE TESTING RESULTS.
4. METAL CONDUIT AND TRAY SHALL BE GROUNDING AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
5. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO ITS EQUIPMENT.
6. EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR ITS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR.
7. CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
8. ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED.
11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS.
13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
14. ICE BRIDGE BONDING CONNECTIONS SHALL BE EXOTHERMICALLY BONDED BRIDGE AND THE TOWER GROUND BAR.
15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
18. BOND ALL METALLIC OBJECTS WITHIN 6 FT. OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING LIGHTNING PROTECTION SYSTEM SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
20. METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS, WHEN IT IS REQUIRED TO BE INSTALLED TO COMPLY TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e. NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
21. GROUNDING THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" DIA. NON-FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (AFTER TRANSITIONING GROUND STANDARD TABLE AS WELL).
22. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM. THE GROUNDING CONDUCTORS SHALL BE ROUTED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

GENERAL NOTES:

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

CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

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

ELECTRICAL INSTALLATION NOTES:

1. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS. THE CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED AND TRIP HAZARDS ARE ELIMINATED.
2. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC.
4. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE.
- 4.1. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AC MINIMUM. MINIMUM SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT ADOPTED CODE PRE THE GOVERNING JURISDICTION.
5. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELLOR CONDUIT OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA.
6. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMINATED TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR IMPACT RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
7. PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS.
8. ALL THE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
9. WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED UNDERGROUND SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS OTHERWISE SPECIFIED.
12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TO CABLE (#14 OR LARGER), WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
13. ALL RIGID, NON-FLUOROPOLYMER CONDUITS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS & BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75° C (167° C IF AVAILABLE).
14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANS/IEEE.
15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
16. ELECTRICAL ALUMINUM TUBING (ALMT) OR METAL-CLAD CABLE (MCL) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
17. UNDERGROUND CONDUIT SHALL BE SCHEDULE 40 PVC ON STRAIGHTS AND SCHEDULE 80 PVC UNDER ALL TRAFFIC EASEMENTS AND ALL ELBOWS/90s. ABOVE GRADE CONDUIT TO BE SCH 80 PVC OR IMC/RMC CONDUIT. EMT IS ALLOWED AT STUB UP LOCATIONS AND INDOORS ONLY.
18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET SCREW FITTINGS ARE NOT ACCEPTABLE.
20. FUSES, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANS/IEEE AND THE NEC.
21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS.
22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, PARALLEL, AND PERPENDICULAR TO STRUCTURE WALLS AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR GROUT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE.
24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR BETTER) FOR EXTERIOR LOCATIONS.
25. METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED OR NON-CORRODING, SHALL MEET OR EXCEED UL 544 AND UL 514 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA 3S (2 NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY.
29. LOCATIONS LABELED AS THE METER CENTER SHALL BE IDENTIFIED BY A SIGN.
30. ALL EMPT/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CONDUIT INSTALLED.

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

** SEE NEC 210.6(C)(1) AND (2)
** POLITY MARKED AT TERMINATION

ABBREVIATIONS:

- ANT ANTENNA
- CEX EXISTING
- FACILITY FACILITY INTERFACE FRAME
- GEN GENERATOR
- GLOBAL GLOBAL POSITIONING SYSTEM
- OSM GLOBAL SYSTEM FOR MOBILE
- LSM LONG TERM EVOLUTION
- WIR WIRE
- MW MICROWAVE
- NEV NATIONAL ELECTRIC CODE
- PY PROPOSED
- POWER PLANT
- QTY QUANTITY
- REC RECTIFIER
- RBD RADIO BASE STATION
- RECE REMOTE ELECTRIC TLT
- RFS RADIO FREQUENCY DATA SHEET
- RECE REMOTE RADIO HEAD
- RRU REMOTE RADIO UNIT
- SMRT SMART INTEGRATED DEVICE
- TMA TOWER MOUNTED AMPLIFIER
- TYPA TYPICAL
- UNITS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
- W.P. WORK POINT

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000384966

BU #: 803843

CROWN CASTLE SITE NAME:
CT NEW BRITAIN 4 CAC
803843

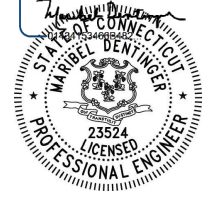
200 STANLEY STREET
NEW BRITAIN, CT 06053

EXISTING 195'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION	DRS/CS
0	11/23/24	RWA	CONSTRUCTION	MD

DocuSigned by:

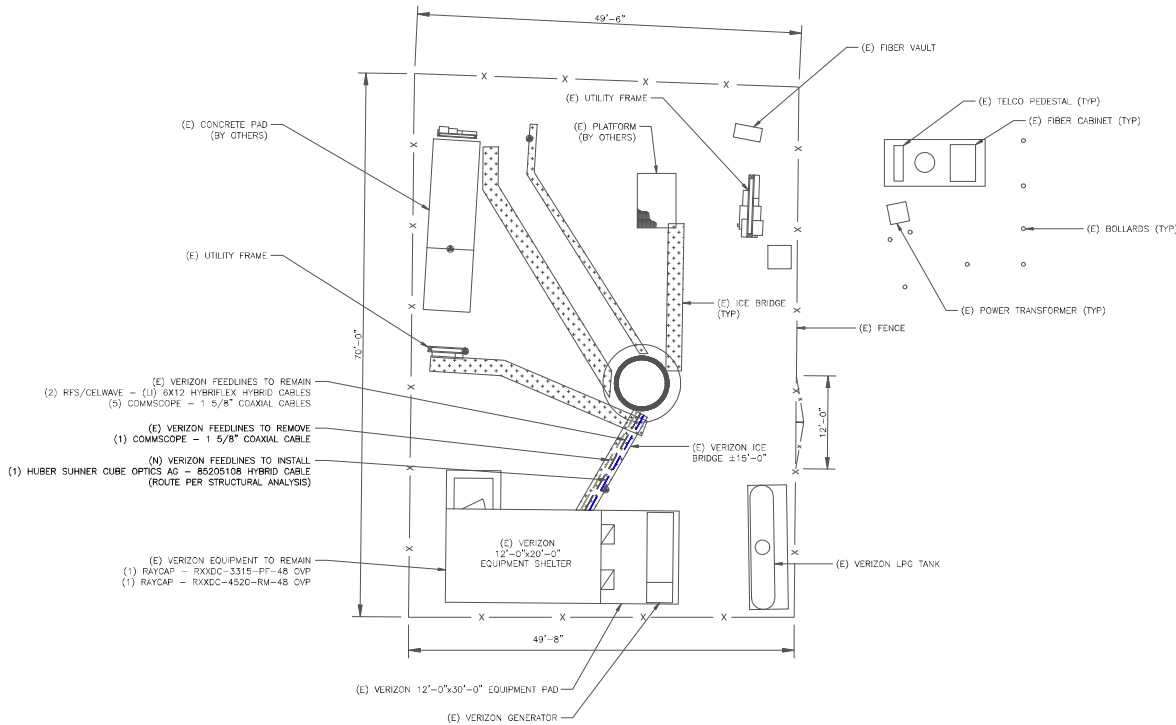


11/25/2024 | 5:38:40 AM CST

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PCC00010101
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TO ALTER THIS DOCUMENT.

SHEET NUMBER: REVISION:

T-2 0



1 SITE PLAN
SCALE: 1/8"=1'-0" (FULL SIZE)
1/16"=1'-0" (1/4"=1')



verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000384966

BU #: 803843

CROWN CASTLE SITE NAME
CT NEW BRITAIN 4 CAC
803843

200 STANLEY STREET
NEW BRITAIN, CT 06053

EXISTING 195'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	DESIGN
0	11/25/24	RWA	CONSTRUCTION	MD



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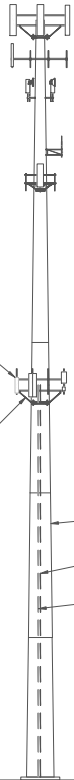
C-1

REVISION:

0

VERIZON EQUIPMENT
ANTENNA CL: 105'-0" & 104'-6"
& 103'-0" & 101'-0"
MOUNT CL: 101'-0"

TOP OF STRUCTURE WITH APPURTENANCE
ELEV. = 199'-0"
TOP OF TOWER
ELEV. = 195'-0"



EXISTING EQUIPMENT BY OTHERS
MCL = 195'-0"
EXISTING EQUIPMENT BY OTHERS
MCL = 185'-0"
EXISTING EQUIPMENT BY OTHERS
MCL = 175'-0"
EXISTING EQUIPMENT BY OTHERS
MCL = 161'-0"
EXISTING EQUIPMENT BY OTHERS
MCL = 153'-0"

(E) VERIZON EQUIPMENT TO REMOVE
(3) ANTEL - BXA-80080/4CF ANTENNAS

VERIZON ANTENNA CENTERLINE
ELEV. = 104'-6"
VERIZON ANTENNA CENTERLINE
ELEV. = 103'-0"
VERIZON MOUNT CENTERLINE
ELEV. = 101'-0"
VERIZON ANTENNA CENTERLINE
ELEV. = 101'-0"

(E) VERIZON EQUIPMENT TO REMAIN
(3) SAMSUNG - M76407-77A ANTENNAS
(6) COMMScope - SBNIH-1D65B ANTENNAS
(3) SAMSUNG - XXDMM-12.5-65 ANTENNAS
(3) SAMSUNG - RFV01U-D2A RADIOS
(3) SAMSUNG - RFV01U-D2A RADIOS
(3) MANUFACTURER - RT4401 OTHERS
(1) RAYCAP - RC3DC-6627-PF-48 OVP

(E) 195'-0" MONOPOLE

(E) VERIZON FEEDLINES TO REMAIN
(2) RFS/CELWAVE - (1) 6X12 HYBRIFLEX HYBRID CABLES
(5) COMMScope - 1 5/8" COAXIAL CABLES

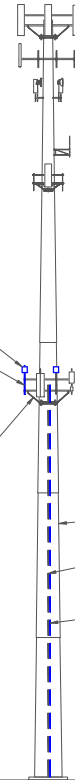
(E) VERIZON FEEDLINES TO REMOVE
(1) COMMScope - 1 5/8" COAXIAL CABLE

BOTTOM OF TOWER
ELEV. = 0"

1 EXISTING TOWER ELEVATION

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

TOP OF STRUCTURE WITH APPURTENANCE
ELEV. = 199'-0"
TOP OF TOWER
ELEV. = 195'-0"



EXISTING EQUIPMENT BY OTHERS
MCL = 195'-0"
EXISTING EQUIPMENT BY OTHERS
MCL = 185'-0"
EXISTING EQUIPMENT BY OTHERS
MCL = 175'-0"
EXISTING EQUIPMENT BY OTHERS
MCL = 161'-0"
EXISTING EQUIPMENT BY OTHERS
MCL = 153'-0"

(N) VERIZON EQUIPMENT TO INSTALL
(4) CBNG - 39CHZ VECTASTAR NR ONB ANTENNAS
(1) RAYCAP RC3DC-6627-PF-48 OVP
INSTALL MOUNT MODIFICATION BY COLLIER'S
ENGINEERING & DESIGN
DATED 10/04/2024

VERIZON ANTENNA CENTERLINE
ELEV. = 105'-0"
VERIZON ANTENNA CENTERLINE
ELEV. = 104'-6"
VERIZON ANTENNA CENTERLINE
ELEV. = 103'-0"
VERIZON MOUNT CENTERLINE
ELEV. = 101'-0"
VERIZON ANTENNA CENTERLINE
ELEV. = 101'-0"

(E) VERIZON EQUIPMENT TO REMAIN
(3) SAMSUNG - M76407-77A ANTENNAS
(6) COMMScope - SBNIH-1D65B ANTENNAS
(3) SAMSUNG - XXDMM-12.5-65 ANTENNAS
(3) SAMSUNG - RFV01U-D2A RADIOS
(3) SAMSUNG - RFV01U-D2A RADIOS
(3) MANUFACTURER - RT4401 OTHERS
(1) RAYCAP - RC3DC-6627-PF-48 OVP

(E) 195'-0" MONOPOLE

(E) VERIZON FEEDLINES TO REMAIN
(2) RFS/CELWAVE - (1) 6X12 HYBRIFLEX HYBRID CABLES
(5) COMMScope - 1 5/8" COAXIAL CABLES

(N) VERIZON FEEDLINES TO INSTALL
(1) HUBER SUHNER CUBE OPTICS AG
- 85205108 HYBRID CABLE
(ROUTE PER STRUCTURAL ANALYSIS)

BOTTOM OF TOWER
ELEV. = 0"

2 FINAL TOWER ELEVATION

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

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000384966

BU #: 803843

CROWN CASTLE SITE NAME
CT NEW BRITAIN 4 CAC
803843

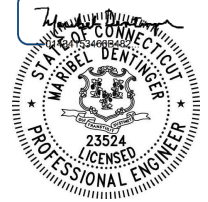
200 STANLEY STREET
NEW BRITAIN, CT 06053

EXISTING 195'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	DESIGN
0	11/23/24	RWA	CONSTRUCTION	MD

DocuSigned by:



11/25/2024 | 5:38:40 AM CST

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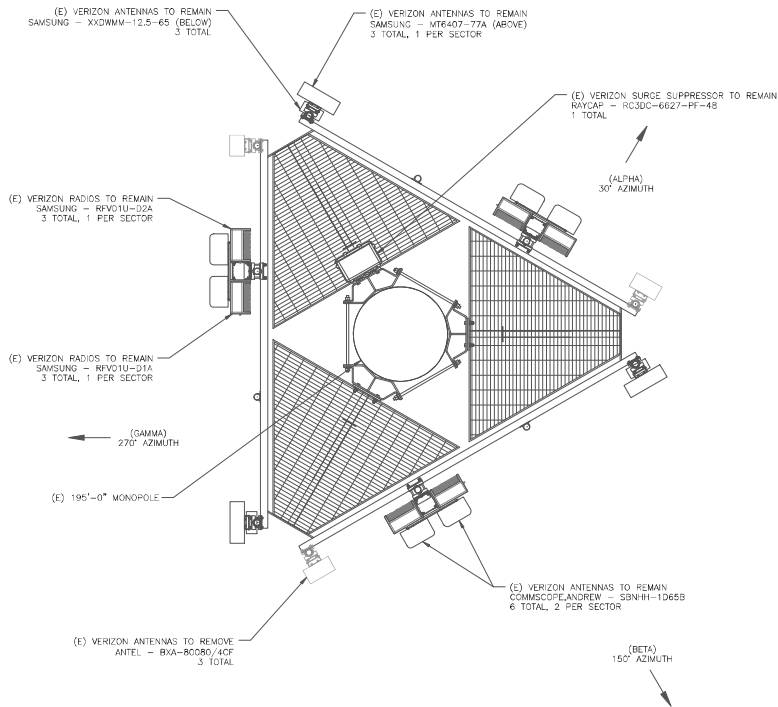
C-2

REVISION:

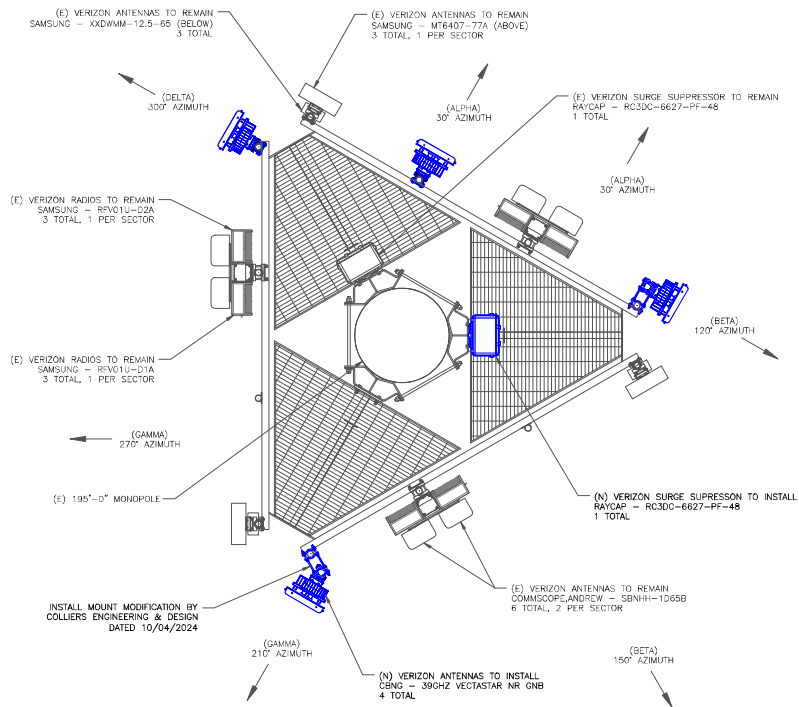
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INSTALLER NOTE:

NO PROPOSED LOADING TO BE ADDED
UNTIL MOUNT MODIFICATIONS ARE
INSTALLED PER MOUNT ANALYSIS BY
COLLIER'S ENGINEERING & DESIGN DATED
10/04/2024.



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



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



INSTALLER NOTE:
NO PROPOSED LOADING TO BE ADDED
UNTIL MOUNT MODIFICATIONS ARE
INSTALLED PER MOUNT ANALYSIS BY
COLLIERS ENGINEERING & DESIGN DATED
10/04/2024.



VERIZON SITE NUMBER:
5000384966

BU #: 803843

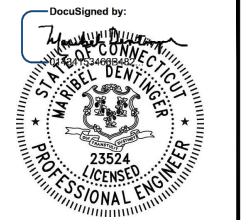
CROWN CASTLE SITE NAME
CT NEW BRITAIN 4 CAC
803843

200 STANLEY STREET
NEW BRITAIN, CT 06053

EXISTING 195'-0"
MONOPOLE

ISSUED FOR:

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SHEET NUMBER:

C-3

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FINAL EQUIPMENT SCHEDULE
(GC TO VERIFY WITH CURRENT RFDS)

POSITION	ANTENNA				RADIO			DIPLEXER			TMA		SURGE PROTECTION		CABLES			
	TECH	STATUS/MANUFACTURER MODEL	AZIMUTH	RAD CENTER	QTY.	STATUS/MODEL	LOCATION	QTY.	STATUS	LOCATION	QTY.	STATUS	QTY.	STATUS/MODEL	QTY.	STATUS/TYPE	SIZE	LENGTH
A1	—	(E) SAMSUNG — MT6407-77A	30°	104°-6"	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	(E) SAMSUNG — XXDWMM-12.5-65-8T-CBR	30°	101°-0"														
A2	5G	(N) CBNG — 39GHZ VECTASTAR NR GNB	30°	105°-0°	—	—	—	—	—	—	—	—	1	(E) RAYCAP — RC3DC-6627-PF-48	1	(E) 6X12 HYBRID CABLE	1-1/4"	—
A3	700 1900 850 AWS	(E) COMMSCOPE — SBNHH-1D65B	30°	103°-0°	1	(E) SAMSUNG — RRV01U-01A	TOWER	—	—	—	—	—	—	—	—	—	—	—
		(E) COMMSCOPE — SBNHH-1D65B	30°	103°-0°	1	(E) SAMSUNG — RRV01U-02A	TOWER											
A4	5G	(N) CBNG — 39GHZ VECTASTAR NR GNB	120°	105°-0°	—	—	—	—	—	—	—	—	—	—	—	—	—	—
B1	—	(E) SAMSUNG — MT6407-77A	150°	104°-6"	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	(E) SAMSUNG — XXDWMM-12.5-65-8T-CBR	150°	101°-0°														
B2	—	—	—	—	—	—	—	—	—	—	—	—	1	(N) RAYCAP — RC3DC-6627-PF-48	1	(N) 6X12 HYBRID CABLE	1-1/2"	± 156'-0"
B3	700 1900 850 AWS	(E) COMMSCOPE — SBNHH-1D65B	150°	103°-0°	1	(E) SAMSUNG — RRV01U-01A	TOWER	—	—	—	—	—	—	—	—	—	—	—
		(E) COMMSCOPE — SBNHH-1D65B	150°	103°-0°	1	(E) SAMSUNG — RRV01U-02A	TOWER											
B4	5G	(N) CBNG — 39GHZ VECTASTAR NR GNB	210°	105°-0°	—	—	—	—	—	—	—	—	—	—	—	—	—	—
G1	—	(E) SAMSUNG — MT6407-77A	270°	104°-6"	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	(E) SAMSUNG — XXDWMM-12.5-65-8T-CBR	270°	101°-0°														
G2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
G3	700 1900 850 AWS	(E) COMMSCOPE — SBNHH-1D65B	270°	103°-0°	1	(E) SAMSUNG — RRV01U-01A	TOWER	—	—	—	—	—	—	—	—	—	—	—
		(E) COMMSCOPE — SBNHH-1D65B	270°	103°-0°	1	(E) SAMSUNG — RRV01U-02A	TOWER											
D1	5G	(N) CBNG — 39GHZ VECTASTAR NR GNB	300°	105°-0°	—	—	—	—	—	—	—	—	—	—	—	—	—	—

UNUSED FEEDLINES

5	(E) COAX CABLE	1 5/8"	—
—	—	—	—

1 FINAL EQUIPMENT SCHEDULE
SCALE: NOT TO SCALE



VERIZON SITE NUMBER:
5000384966

BU #: 803843

CROWN CASTLE SITE NAME
CT NEW BRITAIN 4 CAC
803843

200 STANLEY STREET
NEW BRITAIN, CT 06053

EXISTING 195'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	DESIGN
0	11/25/24	RWA	CONSTRUCTION	MD

DocuSigned by:



11/25/2024 | 5:38:40 AM CST

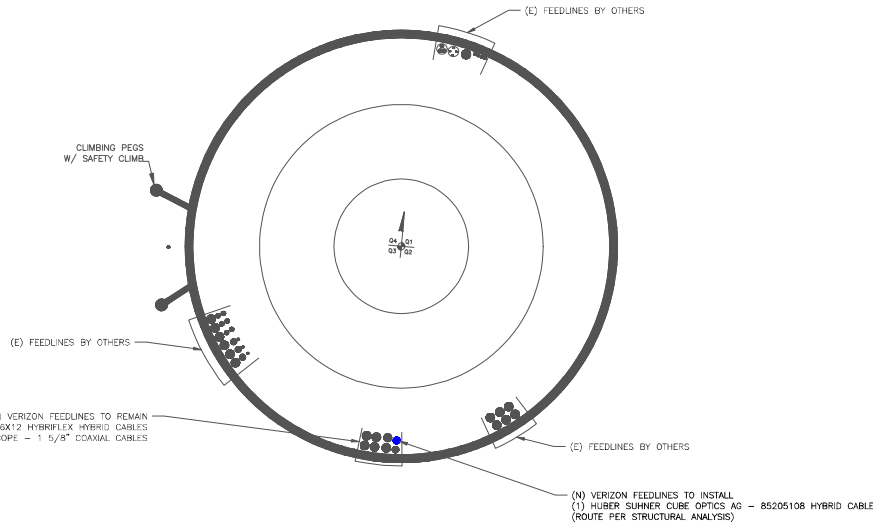
CROWN CASTLE USA INC.
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SHEET NUMBER:

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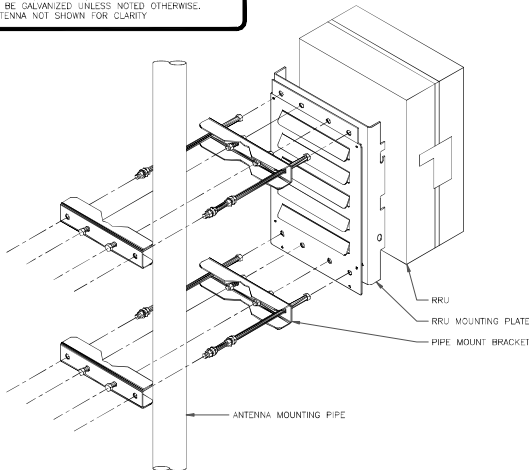


1 BASE LEVEL DETAIL
SCALE: NOT TO SCALE

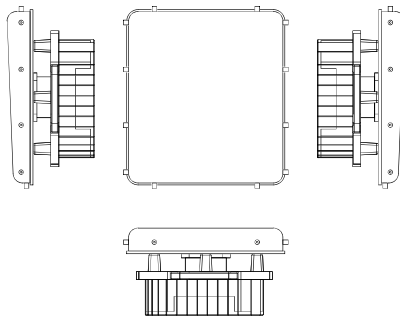


INSTALLER NOTES:

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



3 RRU MOUNTING DETAIL
SCALE: NOT TO SCALE

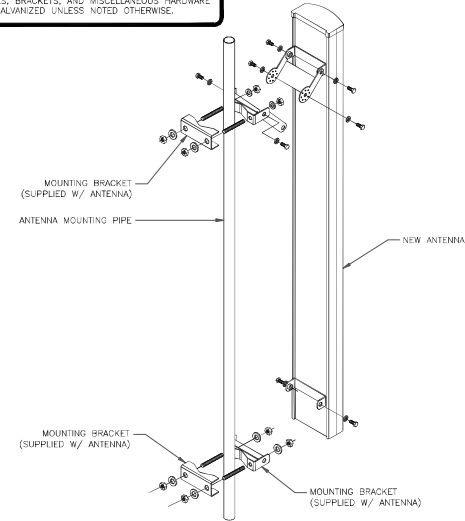


ANTENNA SPECS	
MANUFACTURER	CBNG
MODEL #	VECTASTAR 600 - 39GHZ
HxWxD	17.91" x 16.10" x 9.02"
WEIGHT	39.69 LBS

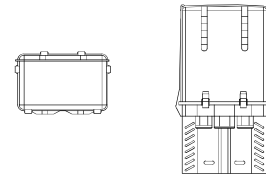
4 CBNG - VECTASTAR 600 - 39GHZ
SCALE: NOT TO SCALE

INSTALLER NOTE:

1. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.



2 ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE



OVP SPECS	
MANUFACTURER	RAYCAP
MODEL #	RCMDC-6627-PF-48
HxWxD	29.5" x 16.5" x 12.6"
WEIGHT	32 LBS

5 RAYCAP - RCMDC-6627-PF-48
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000384966

BU #: 803843

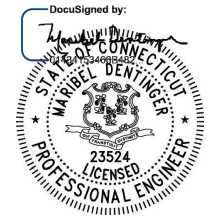
CROWN CASTLE SITE NAME
CT NEW BRITAIN 4 CAC
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200 STANLEY STREET
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SHEET NUMBER:

C-5

REVISION:

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Azimuth (1) Alpha					
Cell (850 CDMA)	Red				
PCS2 (1900 LTE)	Pink	Red	Pink		
700 LTE	Lt. Green	Red	Lt. Green		
850 LTE	Purple	Red	Purple		
2100 LTE	Orange	Red	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Red	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Red	Lt. Green	Purple
5G 28GHz	Brown	Red	Brown		
5G 39GHz	Blue	Red	Blue		
LAA	Gray	Red	Gray		
CBRS	White	Red	White		
L-Sub6 (C-Band)	Red	Red	Red		

Azimuth (2) Beta					
Cell (850 CDMA)	Blue				
PCS2 (1900 LTE)	Pink	Blue	Pink		
700 LTE	Lt. Green	Blue	Lt. Green		
850 LTE	Purple	Blue	Purple		
2100 LTE	Orange	Blue	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Blue	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Blue	Lt. Green	Purple
5G 28GHz	Brown	Blue	Brown		
5G 39GHz	Blue	Blue	Blue		
LAA	Gray	Blue	Gray		
CBRS	White	Blue	White		
L-Sub6 (C-Band)	Red	Blue	Red		

Azimuth (3) Gamma					
Cell (850 CDMA)	Yellow				
PCS2 (1900 LTE)	Pink	Yellow	Pink		
700 LTE	Lt. Green	Yellow	Lt. Green		
850 LTE	Purple	Yellow	Purple		
2100 LTE	Orange	Yellow	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Yellow	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Yellow	Lt. Green	Purple
5G 28GHz	Brown	Yellow	Brown		
5G 39GHz	Blue	Yellow	Blue		
LAA	Gray	Yellow	Gray		
CBRS	White	Yellow	White		
L-Sub6 (C-Band)	Red	Yellow	Red		

Azimuth (4) Delta					
Cell (850 CDMA)	Orange				
PCS2 (1900 LTE)	Pink	Orange	Pink		
700 LTE	Lt. Green	Orange	Lt. Green		
850 LTE	Purple	Orange	Purple		
2100 LTE	Orange	Orange	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Orange	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Orange	Lt. Green	Purple
5G 28GHz	Brown	Orange	Brown		
5G 39GHz	Blue	Orange	Blue		
LAA	Gray	Orange	Gray		
CBRS	White	Orange	White		
L-Sub6 (C-Band)	Red	Orange	Red		

Azimuth (5) Epsilon					
Cell (850 CDMA)	White				
PCS2 (1900 LTE)	Pink	White	Pink		
700 LTE	Lt. Green	White	Lt. Green		
850 LTE	Purple	White	Purple		
2100 LTE	Orange	White	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	White	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	White	Lt. Green	Purple
5G 28GHz	Brown	White	Brown		
5G 39GHz	Blue	White	Blue		
LAA	Gray	White	Gray		
CBRS	White	White	White		
L-Sub6 (C-Band)	Red	White	Red		

Azimuth (6) Zeta					
Cell (850 CDMA)	Gray				
PCS2 (1900 LTE)	Pink	Gray	Pink		
700 LTE	Lt. Green	Gray	Lt. Green		
850 LTE	Purple	Gray	Purple		
2100 LTE	Orange	Gray	Orange		
High Band Dual Band (Shared Lines)	Orange	Pink	Gray	Pink	Orange
Low Band Dual Band (Shared Lines)	Purple	Lt. Green	Gray	Lt. Green	Purple
5G 28GHz	Brown	Gray	Brown		
5G 39GHz	Blue	Gray	Blue		
LAA	Gray	Gray	Gray		
CBRS	White	Gray	White		
L-Sub6 (C-Band)	Red	Gray	Red		

verizon



VERIZON SITE NUMBER:
5000384966

BU #: 803843

CROWN CASTLE SITE NAME
CT NEW BRITAIN 4 CAC
803843

200 STANLEY STREET
NEW BRITAIN, CT 06053

EXISTING 195'-0"
MONOPOLE

ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	DESIGN
0	11/25/24	RWA	CONSTRUCTION	MD

DocuSigned by:



11/25/2024 | 5:38:40 AM CST

CROWN CASTLE USA INC.
CERTIFICATE OF REGISTRATION #PEC0001101
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UNLESS THEY ARE ACTING UNDER THE DIRECTION
OF A LICENSED PROFESSIONAL ENGINEER,
TO ALTER THIS DOCUMENT.

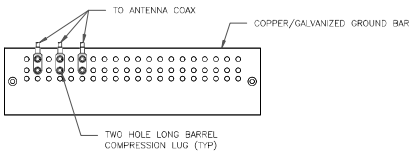
SHEET NUMBER:

C-6

REVISION:

0

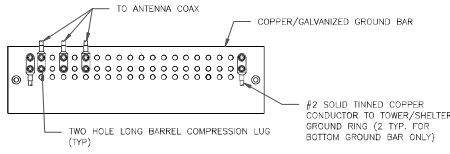
1 COLOR CODE MATRIX
SCALE: NOT TO SCALE



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.

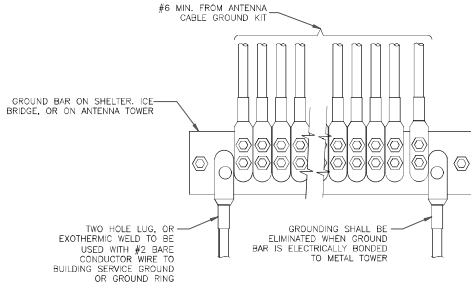
1 ANTENNA SECTOR GROUND BAR DETAIL
SCALE: NOT TO SCALE



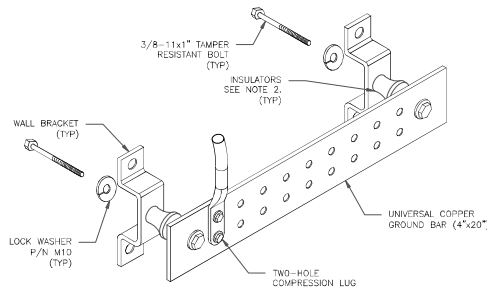
NOTES:

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



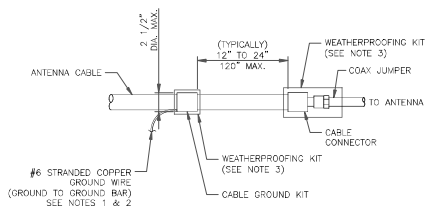
4 GROUNDWIRE INSTALLATION
SCALE: NOT TO SCALE



NOTES:

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

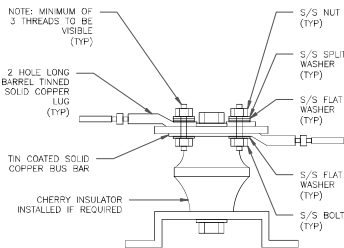
5 GROUND BAR DETAIL
SCALE: NOT TO SCALE



NOTES:

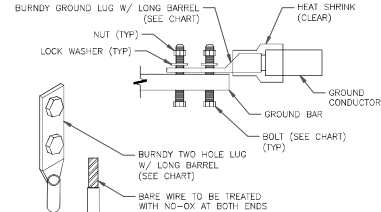
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

6 CABLE GROUND KIT CONNECTION
SCALE: NOT TO SCALE



7 LUG DETAIL
SCALE: NOT TO SCALE

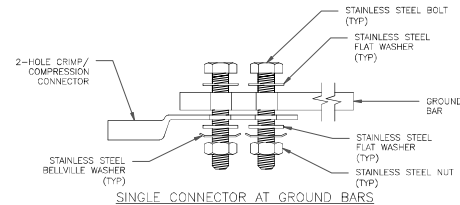
WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 SOLID TINNED	YA5C-2TC38	3/8" - 16 NC SS 2 BOLT
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT
#2/O STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT
	YA28-2N	1/2" - 16 NC SS 2 BOLT



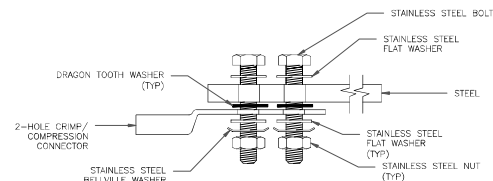
NOTE:

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.

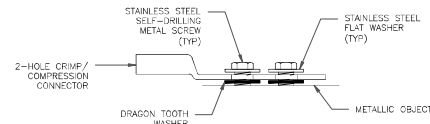
3 MECHANICAL LUG CONNECTION
SCALE: NOT TO SCALE



SINGLE CONNECTOR AT GROUND BARS



SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

8 HARDWARE DETAIL FOR EXTERIOR CONNECTIONS
SCALE: NOT TO SCALE

verizon

CROWN CASTLE

VERIZON SITE NUMBER:
5000384966

BU #: 803843

CROWN CASTLE SITE NAME
CT NEW BRITAIN 4 CAC
803843

200 STANLEY STREET
NEW BRITAIN, CT 06053

EXISTING 195'-0"
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ISSUED FOR:

REV	DATE	DRAWN	DESCRIPTION	DESIGN
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TO ALTER THIS DOCUMENT.

SHEET NUMBER:

G-1

REVISION:

0



NORTHEAST > North East > New England > Windsor-3 > NEW BRITAIN 4 CT
Dunn, Terry - terry.dunn@verizonwireless.com - 20240903_163112

Project Details		Location Information	
Carrier Aggregation	N	Site Id	324447
Ecip	N	Search Ring#	
Project Name	PMP DONOR	E-NodeB ID#	068793 0689552
Project Alt Name	NEW BRITAIN 4 CT - AAH CMA DONOR	PSLC#	467499
Project Id	17289551	Switch Name	Windsor-3
Designed Sector Carrier 4G	15	Tower Type	
Designed Sector Carrier 5G	10	Site Type	MACRO
Additional Sector Carrier 4G	0	Street Address	200 Stanley Street
Additional Sector Carrier 5G	0	City	New Britain
Suffix		State	CT
FP Solution Type & Tech Type	MODIFICATION;5G_Verizon Select Internet Donor	Zip Code	06051
		County	Hartford
		Latitude	41.652319/ 41° 39' 8.348"
		Longitude	-72.767319/ 72° 46' 2.348"

Project Scope
AAH Donor Site Mod 5G Remove 2ea. BAX-80080-4CF antennas from position A4 and C4 Remove 1ea. BAX-80090-4CF antennas from position B4 Install 3ea. CBGN antennas on positions A4, B4 and C4 Install 1ea. CBGN antennas on A2 Align antenna CBNG antenna tip with LTE antenna tip. Install 1ea. Tower OVP, and Hybrid cable Wire new hybrid cable to existing wall mount 3315 in shelter See plumbing diagram for antenna location details

Antenna Summary

Added Antenna

700	850	1900	AWS	CBRS	L-Sub6	39GHz	Make	Model	Center line	Tip Height	Azimuth	Install Type	Quantit
						5G	CBNG	39GHz VectaStar NR gNB	105	105.7	30(A),120(A),210(B),300(C)	PHYSICAL	4

Removed Antenna

700	850	1900	AWS	CBRS	L-Sub6	39GHz	Make	Model	Center line	Tip Height	Azimuth	Install Type	Quantit
							ANTEL	BXA-80080-4CF	103	105	30(A),150(B),270(C)	SPARE	3

Retained Antenna

700	850	1900	AWS	CBRS	L-Sub6	39GHz	Make	Model	Center line	Tip Height	Azimuth	Install Type	Quantit
					5G		Samsung	MT6407-77A	104.5	106	150(B),30(A),270(C)	PHYSICAL	3
LTE	5G,LTE	LTE	LTE				COMMSCOPE,ANDREW	SBNHH-1D65B	103	106	30(A),150(B),270(C)	PHYSICAL	6
				LTE			SAMSUNG	XXDWMM-12.5-65-8T-CBR	101	101.5	30(A),150(B),270(C)	PHYSICAL	3

Added: 4

Removed: 3

Retained: 12

Non Antenna Summary

Added Non Antenna

Equipment Type	Location	700	850	1900	AWS	CBRS	Make	Model	Install Type	Quantity
Hybrid Cable	Tower						HUBER SUHNER CUBE OPTICS AG	85205108	PHYSICAL	1
OVP	Tower						Raycap	RC3DC-6627-PF-48	PHYSICAL	1

Removed Non Antenna

Equipment Type	Location	700	850	1900	AWS	CBRS	Make	Model	Install Type	Quantity
Coaxial Cables	Tower						Commscope	1 5/8"	PHYSICAL	1

Retained Non Antenna

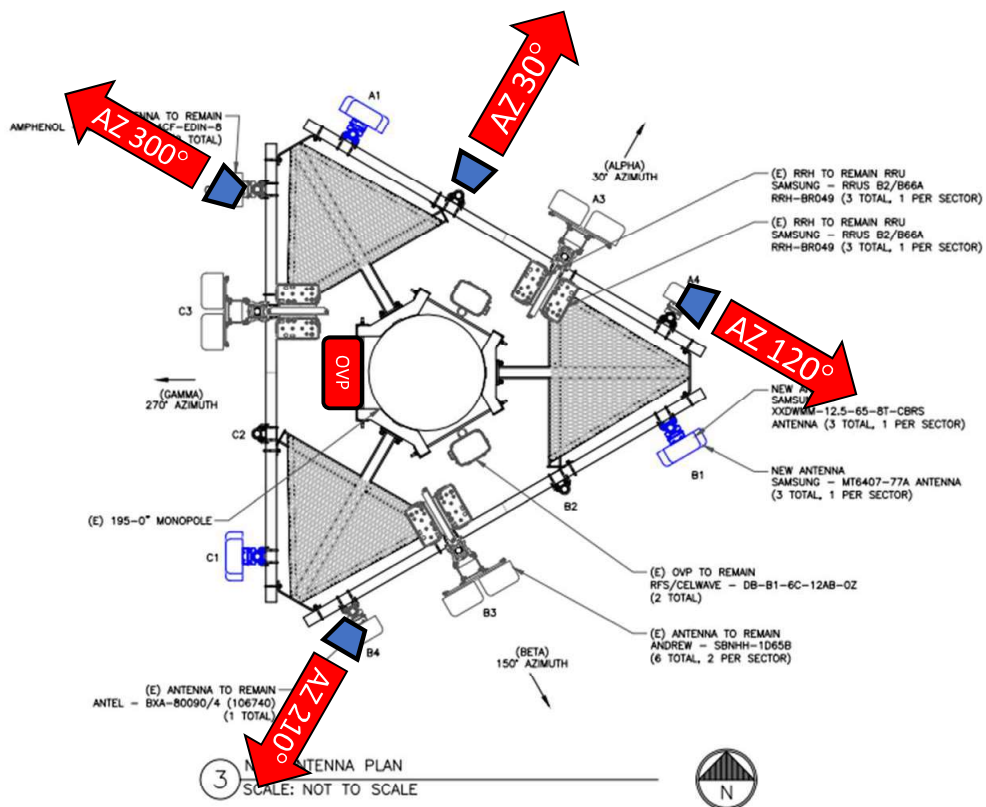
Equipment Type	Location	700	850	1900	AWS	CBRS	Make	Model	Install Type	Quantity
Hybrid Cable	Tower						N/A	(LI) 6x12 Hybriflex	PHYSICAL	2
Coaxial Cables	Tower						Commscope	1 5/8"	PHYSICAL	5
RRU	Tower			LTE	LTE		Samsung	B2/B66A RRH-BR049 (RFV01U-D1A)	PHYSICAL	3
RRU	Tower	LTE	5G,LTE				Samsung	B5/B13 RRH-BR04C (RFV01U-D2A)	PHYSICAL	3
RRU	Tower					LTE	Samsung	CBRS RRH - RT4401-48A	PHYSICAL	3
OVP	Tower						Raycap	RC3DC-6627-PF-48	PHYSICAL	1
OVP	Shelter							RXXDC-3315-PF- 48	PHYSICAL	1
OVP	Shelter						RAYCAP	RxxDC-4520-RM-48	PHYSICAL	1

Added: 2

Removed: 1

Retained: 19

New Britain 4 CT



AAH Donor Site Mod 5G

- Remove 2ea. BAX-80080-4CF antennas from position A4 and C4
- Remove 1ea. BAX-80090-4CF antennas from position B4
- Install 3ea. CBGN antennas on positions A4, B4 and C4
- Install 1ea. CBGN antennas on A2
- Align antenna CBGN antenna tip with LTE antenna tip.
- Install 1ea. Tower OVP, and Hybrid cable
- Wire new hybrid cable to existing wall mount 3315 in shelter
- See plumbing diagram for antenna location details



Colliers Engineering & Design
Architecture, Landscaping Architecture,
Surveying, CT, P.C.
2000 Midlantic Drive, Suite 100
Mt. Laurel, NJ 08054
856.797.0412
sean.osullivan@collierseng.com

Antenna Mount Analysis Report with Hardware Upgrades and PMI Requirements

Mount ReAnalysis

SMART Tool Project #: 10253016
Colliers Engineering & Design Project #: 24777336

October 4, 2024

Site Information

Site ID: 5000384966-VZW / New Britain 4 CT
Site Name: New Britain 4 CT
Carrier Name: Verizon Wireless
Address: 200 Stanley St
New Britain, Connecticut 06051,
Hartford County
Latitude: 41.652319°
Longitude: -72.767319°

Structure Information

Tower Type: Monopole
Mount Type: 14.50-Ft Platform

FUZE ID # 17289551

Analysis Results

Platform: 60.0% **Pass w/ Hardware Upgrades***

*** Antennas and equipment to be installed in compliance with PMI Requirements of this mount analysis.**

***Contractor PMI Requirements:

Included at the end of this MA report

Available & Submitted via portal at <https://pmi.vzwsmart.com>

For additional questions and support, please reach out to:
pmisupport@colliersengineering.com

Report Prepared By: David Bogart



Digitally signed by Dejian Xu
Date: 2024.10.04 13:24:59-04'00'

Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon RFDS Site ID: 324447, dated September 3, 2024
Previous Mount Analysis Report	Maser Consulting Connecticut Project #: 21777013A, dated March 31, 2021
Post-Modification Inspection Report	Maser Consulting Connecticut Project #: 21777013A, dated November 18, 2022

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H Connecticut State Building Code. Effective October 1, 2022
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 120 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.50 in Risk Category: II Exposure Category: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.995
Seismic Parameters:	S_s : 0.195 g S_1 : 0.055 g
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Load, L_v : 250 lbs. Maintenance Load, L_m : 500 lbs.
Analysis Software:	RISA-3D (V22)

Final Loading Configuration:

The following equipment has been considered for the analysis of the mount:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
99.75	105.00	4	CBNG	39GHz VectaStar NR gNB	Added
		1	Raycap	RC3DC-6627-PF-48	
	104.50	3	Samsung	MT6407-77A	Retained
	103.00	6	Andrew	SBNHH-1D65B	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		1	Raycap	RCMDC-6627-PF-48	
	101.00	3	Samsung	XXDWMM-12.5-65-8T-CBRS	

It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Colliers Engineering & Design and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Colliers Engineering & Design to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped in accordance with the NSTD-446 Standard, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.
4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

Mount Structural Analysis Report
(1) 14.50-Ft Platform

October 4, 2024
Site ID: 5000384966-VZW / New Britain 4 CT
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6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Colliers Engineering & Design is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
- Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - HSS (Rectangular) ASTM 500 (Gr. B-46)
 - Pipe ASTM A53 (Gr. B-35)
 - Threaded Rod F1554 (Gr. 36)
 - Bolts ASTM A325

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by Colliers Engineering & Design.

Analysis Results:

Component	Utilization %	Pass/Fail
Standoff Arm	21.5 %	Pass
Standoff Horizontal	21.6 %	Pass
Platform Support Plates	44.3 %	Pass
Platform Angle	15.1 %	Pass
Face Horizontal	16.2 %	Pass
Support Rail	55.7 %	Pass
Antenna pipe	60.0 %	Pass
Corner Angle	10.3 %	Pass
Handrail plate	37.2 %	Pass
Kickers	7.1 %	Pass
Threaded Rod	28.9 %	Pass
Mount Connection	7.3 %	Pass

Structure Rating – (Controlling Utilization of all Components)	60.0%*
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* Results valid after hardware upgrades noted in the PMI Requirements are installed.

Mount Connection Envelope Reactions:

Mount Structural Analysis Report
(1) 14.50-Ft Platform

October 4, 2024
Site ID: 5000384966-VZW / New Britain 4 CT
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Connection Description	Elev. AGL (Ft)	Node Label	Envelope Wind Reactions				Envelope Wind + Ice Reactions			
			Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)	Axial (Lbs)	Lateral (Lbs)	Moment (K-Ft)	Torsion (K-Ft)
Sector C Standoff	99.75	N67	843	3349	1.336	1.775	1363	1323	1.711	0.579
Sector B Standoff	99.75	N146A	696	3134	1.447	1.664	1164	1364	1.637	0.553
Sector A Standoff	99.75	N179B	900	3407	1.346	1.811	1472	1356	1.775	0.615
Sector C Reinforcement	94	N197B	2198	1555	0.000	0.000	2541	1827	0.000	0.000
Sector B Reinforcement	94	N201A	2111	1490	0.000	0.000	2590	1864	0.000	0.000
Sector A Reinforcement	94	N205A	2201	1557	0.000	0.000	2496	1793	0.000	0.000

Notes:

- Axial loads act along the axis of the tower
- Lateral reactions act perpendicular to the tower
- Moment loads introduce bending moment to the tower
- Torsion loads introduce twisting moment to the tower
- Batch solutions by individual load cases are included at the end of this document

Mount Steel (EPA)a per ANSI/TIA-222-H Section 2.6.11.2:

Ice Thickness (In)	Mount Pipes Excluded		Mount Pipes Included	
	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)	Front (EPA)a (Sq. Ft.)	Side (EPA)a (Sq. Ft.)
0	48.2	48.1	65.1	65.0
0.5	64.2	64.3	88.3	88.2
1	78.0	78.1	109.4	109.1

Notes:

- (EPA)a values listed above may be used in the absence of more precise information
- (EPA)a values in the table above include 3 sector(s).
- Ka factors included in (EPA)a calculations

Requirements:

The existing mount will be **SUFFICIENT** for the final loading configuration shown in attachment 2 **upon the completion of the requirements listed below.**

Contractor shall install a new 72" long PIPE 2 SCH 40 OVP pipe between Alpha and Gamma sector standoff horizontals.

Contractor shall install new 96" long PIPE 2 SCH40 mount pipe at position 4 of alpha and beta sectors. Attach to existing mount pipe with (2) pipe to pipe clamps (Site Pro 1, Part #: DCP18K). Install pipe-to-pipe clamps 12" from top of proposed pipe and 12" from top of existing pipe. Install the 2nd set of pipe-to-pipe clamps at 36" from the 1st set.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Mount Structural Analysis Report
(1) 14.50-Ft Platform

October 4, 2024
Site ID: 5000384966-VZW / New Britain 4 CT
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Attachments:

1. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
2. Antenna Placement Diagrams
3. Mount Photos
4. Analysis Calculations

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – **Passing Mount Analysis**

Passing Mount Analysis requires a PMI due to a modification in loading.

Electronic pdf version of this can be downloaded at <https://pmi.vzwsmart.com>.

For additional questions and support, please reach out to pmisupport@colliersengineering.com

MDG #: 5000384966

SMART Project #: 10253016

Fuze Project ID: 17289551

Purpose – to provide SMART Tool structural vendor the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.

Base Requirements:

- If installation will cause damage to the structure, the climbing facility, or safety climb if present or any installed system, SMART Tool vendor to be notified prior to install. Any special photos outside of the standard requirements will be indicated on the drawings.
- Provide “as built mount drawings” showing contractor’s name, contact information, preparer’s signature, and date. Any deviations from the drawings (Proposed modification) shall be shown. NOTE: If loading is different than what is conveyed in the passing mount analysis (MA) contact the SMART Tool vendor immediately.
- Each photo should be time and date stamped
- Photos should be high resolution.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope. If there is conflict, contact the SMART Tool engineer for recommendations.
- The PMI can be accessed at the following portal: <https://pmi.vzwsmart.com>

Photo Requirements:

- **Photos taken at ground level**
 - Photo of Gate Signs showing the tower owner, site name, and number.
 - Overall tower structure after installation.
 - Photos of the mount after installation; if the mounts are at different rad elevations, pictures must be provided for all elevations that equipment was installed.
- **Photos taken at Mount Elevation**
 - Photos showing the safety climb wire rope above and below the mount prior to installation.
 - Photos showing the climbing facility and safety climb if present.
 - Photos showing each individual sector after installation. Each entire sector shall be in one photo to show the interconnection of members.

- These photos shall also certify that the placement and geometry of the equipment on the mount is as depicted in the antenna placement diagram in this form.
- Photos that show the model number of each antenna and piece of equipment installed per sector.

Antenna & equipment placement and Geometry Confirmation:

- The contractor shall certify that the antenna & equipment placement and geometry is in accordance with the sketch and table as included in the mount analysis and noted below.
- ☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the sketch and table included in this form and with the mount analysis provided.

OR

- ☐ The contractor notes that the equipment on the mount is not in accordance with the sketch and has noted the differences below and provided photo documentation of any alterations.

Special Instructions / Validation as required from the MA or any other information the contractor deems necessary to share that was identified:

Issue:

Contractor shall install a new 72" long PIPE 2 SCH 40 OVP pipe between Alpha and Gamma sector standoff horizontals.

Contractor shall install new 96" long PIPE 2 SCH40 mount pipe at position 4 of alpha and beta sectors. Attach to existing mount pipe with (2) pipe to pipe clamps (Site Pro 1, Part #: DCP18K). Install pipe-to-pipe clamps 12" from top of proposed pipe and 12" from top of existing pipe. Install the 2nd set of pipe-to-pipe clamps at 36" from the 1st set.

Response:

Special Instruction Confirmation:

- ☐ The contractor has read and acknowledges the above special instructions.
- ☐ All hardware listed in the Special Instructions above (if applicable) has been properly installed, and the existing hardware was inspected.
- ☐ The material utilized was as specified in the SMART Tool engineering vendor Special Instructions above (if applicable) and included in the material certification folder is a packing list or invoice for these materials.

OR

- ☐ The material utilized was approved by a SMART Tool engineering vendor as an “equivalent” and this approval is included as part of the contractor submission.

Comments:

Contractor certifies that the climbing facility / safety climb was not damaged prior to starting work:

- ☐ Yes ☐ No

Contractor certifies no new damage created during the current installation:

- ☐ Yes ☐ No

Contractor to certify the condition of the safety climb and verify no damage when leaving the site:

- ☐ Safety Climb in Good Condition ☐ Safety Climb Damaged

Contractor to provide measurement from top of the highest equipment/steel to the bottom of the lowest equipment/steel by documenting it using the most appropriate illustration below along with supporting photos:

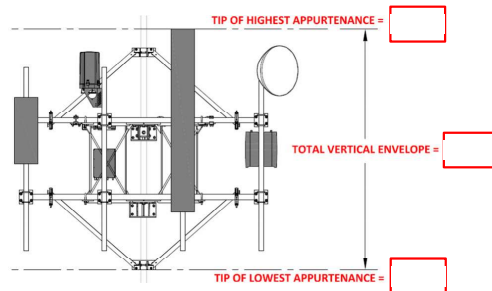


Illustration #1

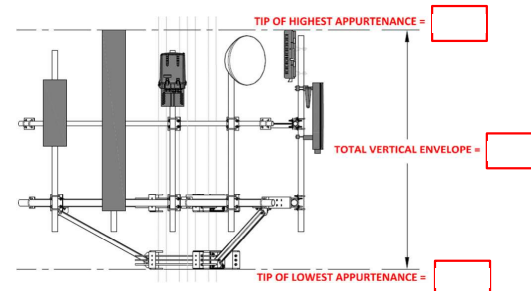
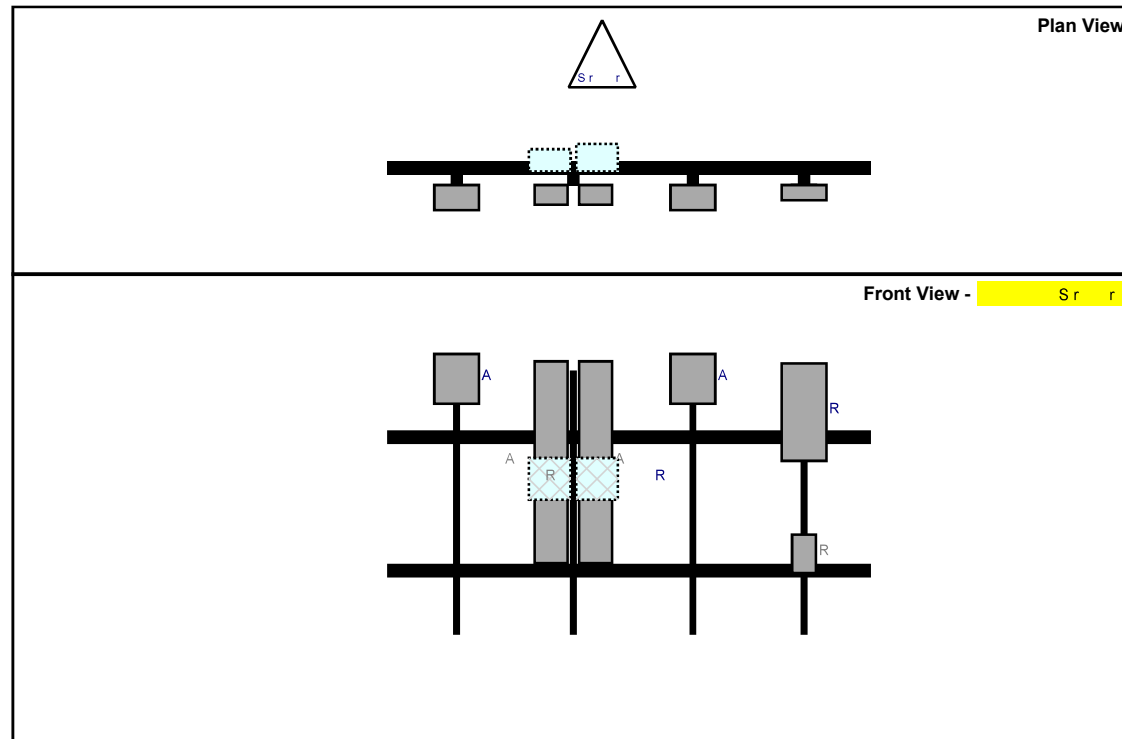


Illustration #2

Certifying Individual:

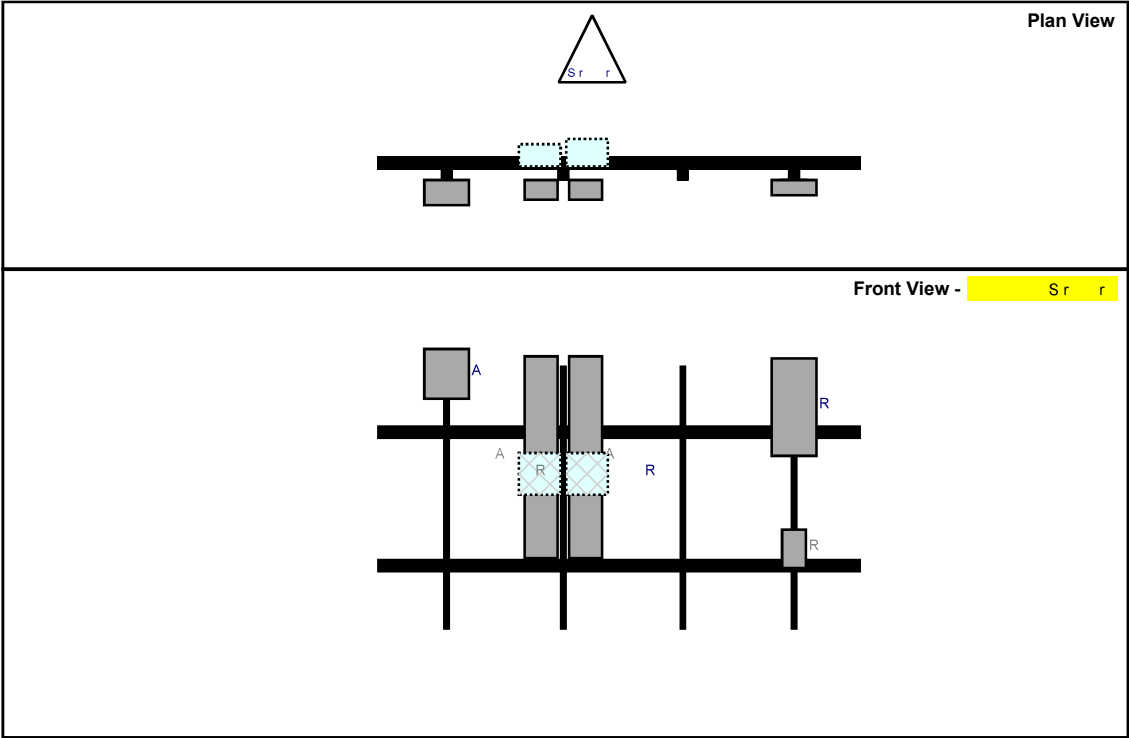
Company:	
Employee Name:	
Contact Phone:	
Email:	
Date:	



R	M	d	d	D	P	P	A	C	A	A	S	V	d
R	D	MM	T	C	RS		r				R	d	
R	MT	A					r				R	d	
A	V	S	r	NR	N		r				Add	d	
A	S	N	D				r				R	d	
A	S	N	D				r				R	d	
R	A	RR	R				d				R	d	
R	RR	R	C				d				R	d	
A	V	S	r	NR	N		r				Add	d	
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S r B
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M E

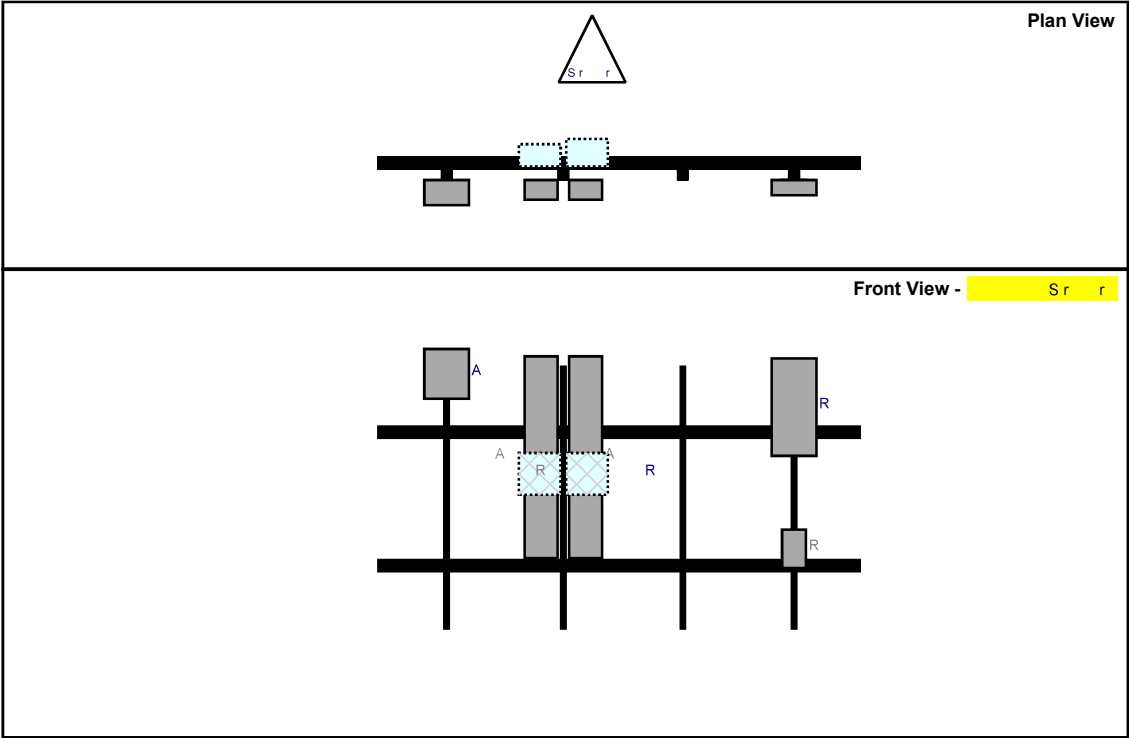
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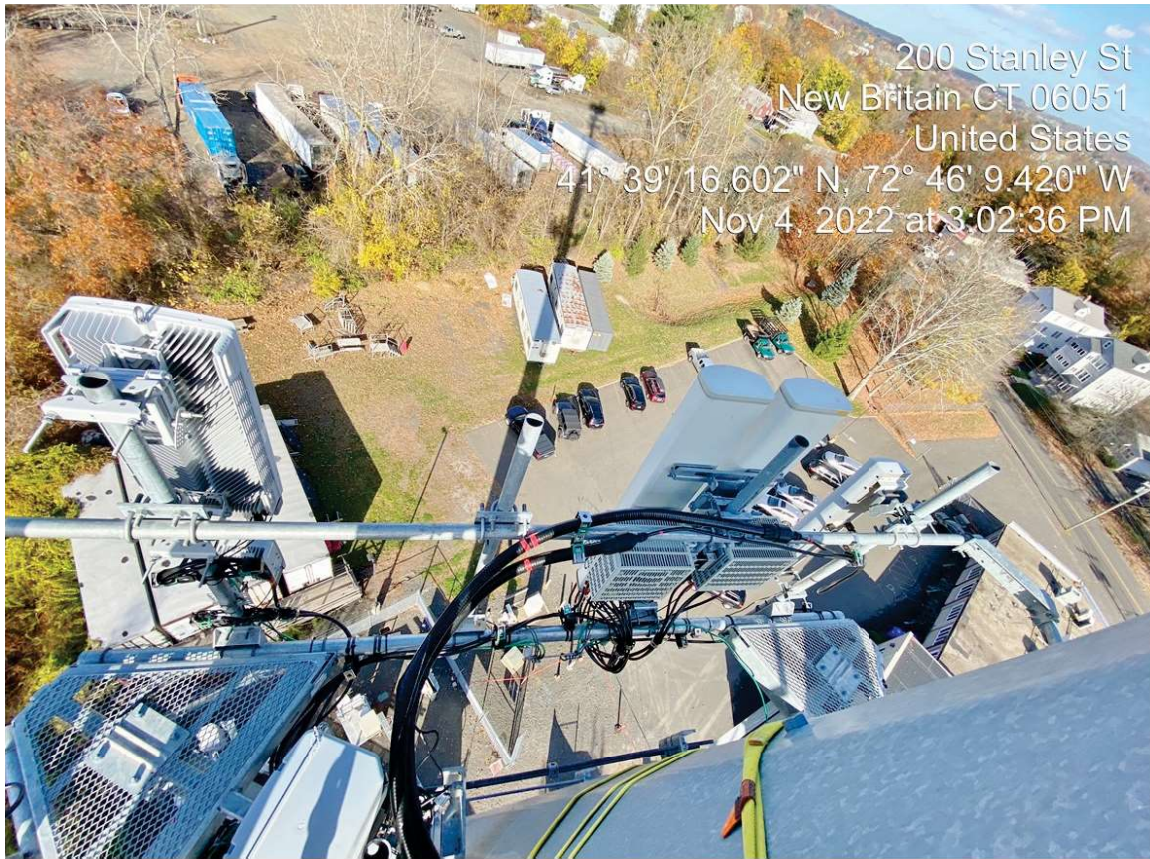
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A	S N	D					r		R	d		
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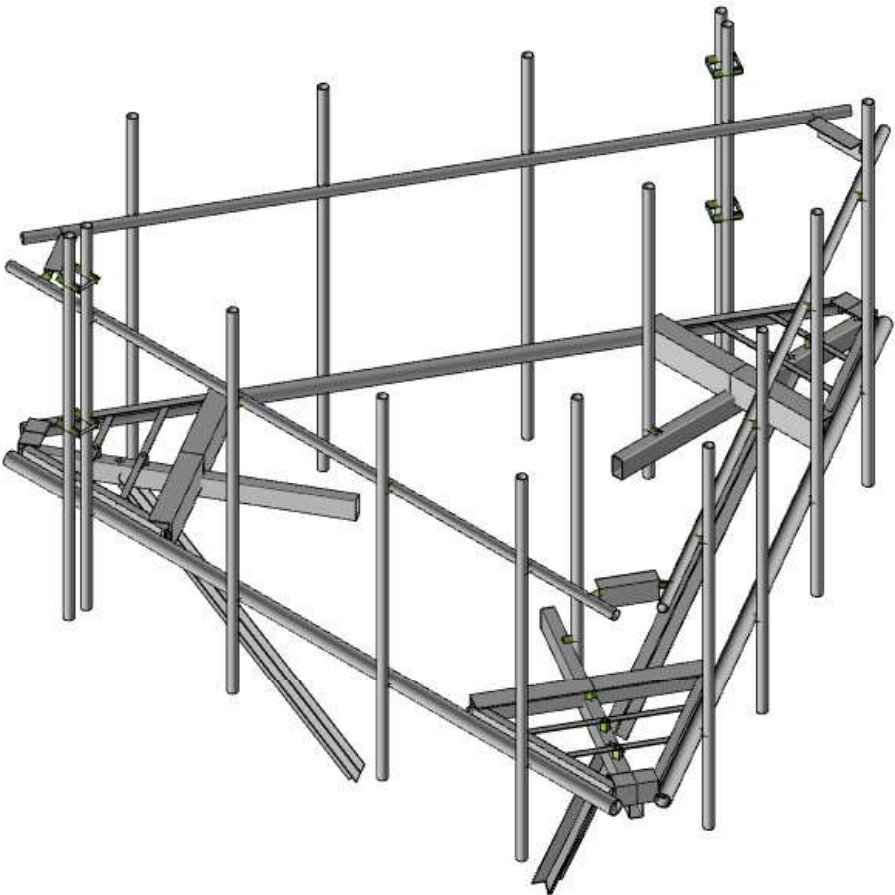
S r C
S r r T M
M E

P



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R	D MM						r		R	d		
R	MT	A					r		R	d		
A	S N	D					r		R	d		
A	S N	D					r		R	d		
R		A RR	R				d		R	d		
R		RR	R C				d		R	d		
A		V S r	NR N				r		Add	d		





Colliers Engineering & De...
AE
Project No. 10253016

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