



Filed by:

John Morrison Site Development Specialist - SBA Communications
134 Flanders Rd., Suite 125, Westborough, MA 01581
508.251.0720 x 3808 - JoMorrison@sbsite.com

November 20, 2023

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

RE **Notice of Exempt Modification**
8 Ferris Road, Newtown, CT
Latitude: 41.389747
Longitude: -73.338444
T-Mobile Site #: CT11805A_Anchor MW

Dear Ms. Bachman:

T-Mobile currently maintains fourteen (13) antennas at the 83-foot level of the existing 118-foot Monopole Tower at 8 Ferris Rd, Newtown, CT. The 118-foot tower is owned by SBA 2012 TC Assets, LLC. The property is owned by Erich and Patricia Gertsch. T-Mobile now intends to replace one (1) new Microwave 11000 MHZ. The new antennas would be installed at the 83-foot level of the tower.

Planned Modifications:

TOWER

Remove:

- (1) ½" coax
- (1) Commscope VHLP3-11W MW antenna

Install New:

- (2) 3/8" Coax
- Ericsson ANT3 A 0.9 11 HPX Microwave Dish
- (2) Ericsson Mini-Link 6365 Radios

Existing Equipment to Remain:

- (3) Commscope W-65A-R1 Antennas
- (3) Ericsson M-Mimo Air6419 B41 Antennas
- (3) RFS APXVA4LL24_43-U Antennas
- (3) Ericsson 4460 B25+B66 Radios
- (3) Ericsson 4480 B71+B55 Radios
- (3) 2" Fiber Lines
- (1) AVIAT OD6 600 - antenna
- (2) ½" GPS Coax
- Sitepro Modified Platform w/handrail kit

Entitlements:

- (6) TMAs
- (3) Bias Ts

GROUND

Install New:

- Equipment inside existing RBS6201 cabinet –(1/2" Coax cable)
- Equipment on existing concrete pad – (location of existing RBS6201 cabinet)

This facility was approved by the Town of Newtown's Zoning Board of Appeals on October 7, 1998 Docket Decision 98-24, with an effective date of November 13, 1998. A tower was approved with the condition that a 12' chain-link fence be erected and a landscape plan be submitted prior to installation. If the current use was to change or be abandoned, the installation was to be either removed within 60 days or have reapplied to the Board within 60 days. There were no post condition stipulations set. Please see attached.

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 the Town of Newtown's First Selectman, Daniel Rosenthal, and Land Use Enforcement Officer, Steve Hnatuk, as well as to the property owner. (Separate notice is not being sent to tower owner, as it belongs to SBA.)

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. §16.50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modification will not require the extension of the site boundary.
3. The proposed modifications 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 Communications Commission safety standard.



5. The proposed modification 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, T-Mobile respectfully submits that the proposed modifications to the above-referenced telecommunication facility constitute an exempt modifications under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

John Morrison
SDS Specialist I



SBA Communications Corporation
134 Flanders Road
Suite 125
Westborough, MA 01581

x3808 + **T**
508.768.7960 + **C**
JoMorrison@sbsite.com

Your Signal Starts Here.

Attachments:

cc: Daniel Rosenthal, First Selectman / with attachments
Town of Newtown, 3 Primrose Street, Newtown, CT 06470
Steve Hnatuk, Land Use Enforcement Officer / with attachments
Town of Newtown, 3 Primrose Street, Newtown, CT 06470
Patricial and Erich Gertsch / with attachments
8 Ferris Rd., Newtown, CT 06470 (zip code on property card appears to be incorrect)



EXHIBIT LIST

Exhibit 1	Copy of Check	X
Exhibit 2	Letter of Intent to Allow Shared Use of the Existing SBA Telecommunications Site	X
Exhibit 3	Notification Receipts	x
Exhibit 4	Property Card	x
Exhibit 5	Property Map	x
Exhibit 6	Original Zoning Approval	Town of Manchester 12/17/98
Exhibit 7	EME Report	Centerline 11/16/2023
Exhibit 8	Structural Analysis	TEP 10/13/2023
Exhibit 9	Mount Analysis	TEP 10/31/2023
Exhibit 10	Construction Drawings	Chappell 10/26/2023

EXHIBIT 1

EXHIBIT 2



November 20 2023

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

RE: **Notice of Intent to Allow Shared Use of the Existing SBA Telecommunications Site**
Location: 8 Ferris Road, Newtown, CT
T-Mobile Site No: CT11805A
SBA Site No: CT46132A

Dear Ms. Bachman:

Please let the following serve as Evidence of Intent to allow T-Mobile shared use of the existing SBA telecommunications site at **8 Ferris Road, Newtown, CT.**

SBA 2012 TC Assets LLC (“Owner”) T-Mobile (“Tenant”) are entering into a Site Lease Agreement. Tenant will be provided ground space within the existing site compound for its base station equipment and space at the height of 100’ for antennas and associated equipment.

Thank you,

John Morrison
SDS Specialist I



SBA Communications Corporation
134 Flanders Road
Suite 125
Westborough, MA 01581

x3808 + T
508.768.7960 + C
JoMorrison@sbsite.com

Your Signal Starts Here.

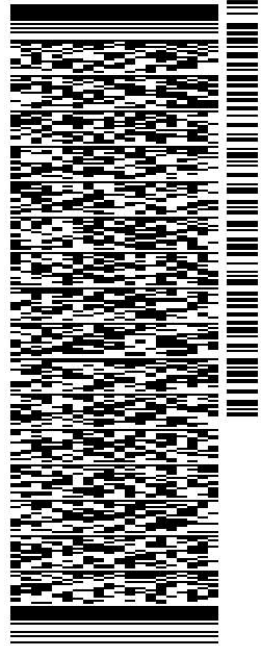
EXHIBIT 3

ORIGIN ID:BBFA (508) 768-7960
JOHN MORRISON
134 FLANDERS
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 20NOV23
ACTWGT: 4.00 LB
CAD: 255382542INET4660
BILL SENDER

TO MELANIE BACHMAN
CONNECTICUT SITING COUNCIL
10 FRANKLIN SQ

NEW BRITAIN CT 06051
(508) 768-7960 REF: 10-56-92009-6089
INV: DEPT:



583J5F0B29AE3

TRK# 7741 6818 7954
0201
TUE - 21 NOV 5:00P
STANDARD OVERNIGHT

EB BDLA 06051
CT-US BDL

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Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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

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JOHN MORRISON
134 FLANDERS
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

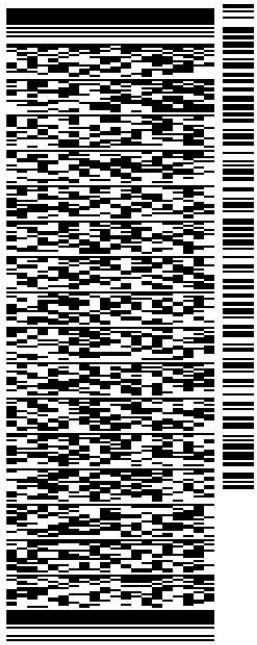
SHIP DATE: 20NOV23
ACTWGT: 1.00 LB
CAD: 255382542INET4660

BILL SENDER

TO DANIEL ROSENTHAL, FIRST SELECTMAN
TOWN OF NEWTOWN
3 PRIMROSE STREET

NEWTOWN CT 06470

(203) 270-4201 REF: 10-56-92009-6089
INV/ PO: DEPT:



J234023101501uv

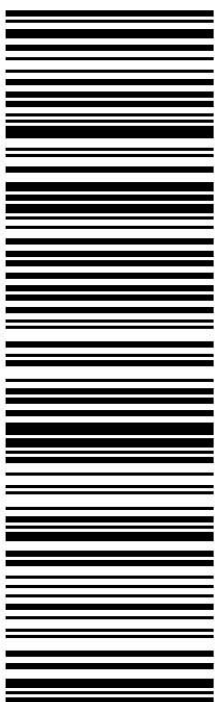
583J5/F0B2/9AE3

TRK# 7741 6846 1106
0201

FRI - 24 NOV 5:00P
EXPRESS SAVER

SP DXRA

06470
CT-US SWF



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134 FLANDERS
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

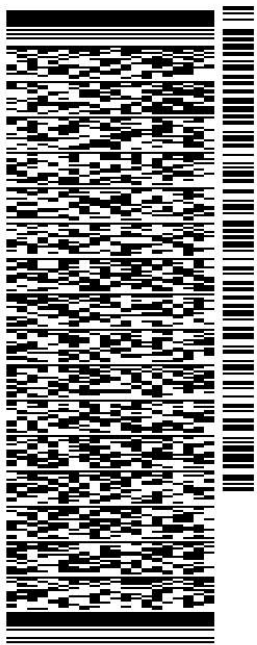
SHIP DATE: 20NOV23
ACTWGT: 1.00 LB
CAD: 255382542INET4660

BILL SENDER

TO **ROB SIBLEY, DIRECTOR OF LAND USE**
TOWN OF NEWTOWN
3 PRIMROSE STREET

NEWTOWN CT 06470

(203) 270-4260 REF: 10-56-92009-6089
INV/ PO: DEPT:



J234023101501uv

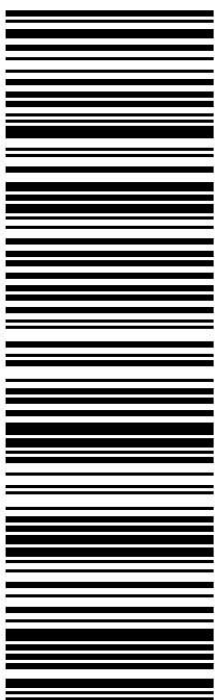
583J5/F0B2/9AE3

TRK# 7741 6853 0408
0201

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SP DXRA

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CT-US SWF



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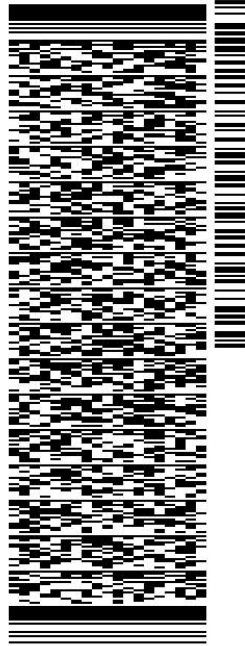
SHIP DATE: 20NOV23
ACTWGT: 1.00 LB
CAD: 255382542INET4660
BILL SENDER

TO PATRICIAL AND ERICH GERTSCH

8 FERRIS RD

NEWTOWN CT 06470

(508) 768-7960 REF: 10-56-92009-6089
INV/ PO: DEPT:



J234023101501uv

583J5F0B29AE3

TRK# 7741 6855 6110
0201

FRI - 24 NOV 8:00P

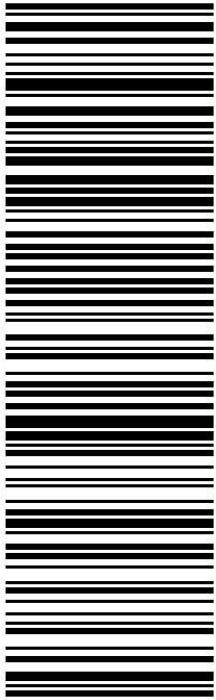
EXPRESS SAVER

RES

06470

CT-US BDL

4Z STRAG



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Transaction Record

11/20/2023 12:52 PM

Part #: 62923336
RRID: 11/20/23
11/20/23

Thank you for using FedEx.

At FedEx Office:

KEEP THIS FOR YOUR RECORDS
DO NOT ATTACH TO SHIPMENT

1 Oak St
Westborough, MA 01581
DeviceID: AYEK-ROSA898

The following shipment(s) were scanned:

774168556110
774168461106
774168530408
774169098738



Scan here to learn more about
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This receipt was created at a self-service kiosk at FedEx. See invoice for shipping charges. Visit us at [fedex.com](https://www.fedex.com) or call 1.800.GoFedEx. See FedEx Service Guide at [fedex.com](https://www.fedex.com) for terms and conditions governing your shipment.

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EXHIBIT 4

8 FERRIS ROAD

Location 8 FERRIS ROAD

M/B/L 7/ 7/ 11/C /

Acct# 00871500C

Owner GERTSCH ERICH & PATRICIA
A

Assessment \$319,200

Appraisal \$456,000

PID 15218

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2017	\$96,000	\$360,000	\$456,000

Assessment			
Valuation Year	Improvements	Land	Total
2017	\$67,200	\$252,000	\$319,200

Owner of Record

Owner GERTSCH ERICH & PATRICIA A
Co-Owner
Address 8 FERRIS RD
NEWTOWN, CT 06384

Sale Price \$0
Certificate
Book & Page 181/ 350
Sale Date 12/25/2009

Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
GERTSCH ERICH & PATRICIA A	\$0		181/ 350	12/25/2009

Building Information

Building 1 : Section 1

Year Built:

Living Area: 0

Building Attributes	
Field	Description
Style	Outbuildings
Model	
Grade:	

Stories	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Full Bthrms:	
Half Baths:	
Extra Fixtures	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Extra Kitchens	
Fireplace(s)	
Extra Opening(s)	
Gas Fireplace(s)	
Blocked FPL(s)	
Woodstove(s)	
SF Fin Bsmt	
Fin Bsmt Qual	
Bsmt Garage	
Int Millwork	
Foundation	
MH Park	

Building Photo



(<http://images.vgsi.com/photos/NewtownCTPhotos//default.jpg>)

Building Layout

Building Layout

(<http://images.vgsi.com/photos/NewtownCTPhotos//Sketches/15>)

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

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Land Line Valuation

Use Code	4310	Size (Acres)	0
Description	CELL SITE	Frontage	
Zone	R-1	Depth	
Neighborhood		Assessed Value	\$252,000
Alt Land Appr Category	No	Appraised Value	\$360,000

Outbuildings

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
CELL	Cell Tower			1 Units	\$96,000	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2017	\$96,000	\$360,000	\$456,000
2016	\$96,000	\$360,000	\$456,000
2015	\$96,000	\$360,000	\$456,000

Assessment			
Valuation Year	Improvements	Land	Total
2017	\$67,200	\$252,000	\$319,200
2016	\$67,200	\$252,000	\$319,200
2015	\$67,200	\$252,000	\$319,200

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EXHIBIT 5

EXHIBIT 6



TOWN OF NEWTOWN
ZONING BOARD OF APPEALS

DOCKET DECISION 98-24

Application of Nextel Communications of the Mid-Atlantic Inc. for a Special Permit under Section 4.18.511 to construct a tower over 30 feet in height and a variance of Section 4.05.100 of the Zoning Regulations. The property is located at 8 Ferris Road in the Town of Newtown in a R-1 Zone.

Having considered the documentation and testimony presented at a public hearing held on October 7, 1998, the Board voted to APPROVE the application as presented with the following stipulations:

1. A 12' chain-link fence be erected around the area of the installation.
2. A landscape plan must be submitted to the Board for approval before installation.
3. If the current use is changed or abandoned, the complete installation must be either removed within 60 days or have reapplied to the Board within 60 days.

The Board therefore APPROVES the application as presented with the above-stated stipulations.

The Board orders further that the effective date of this decision shall be November 13, 1998, and that a certified copy hereof shall be filed in the office of the Town Clerk of the Town of Newtown and that public notice of such filing shall be published in the November 13, 1998 issue of the Newtown Bee.

ZONING BOARD OF APPEALS OF THE TOWN OF NEWTOWN


Charles E. Annett, III, Chairman

I hereby certify that the adoption of the foregoing decision is recorded in the minutes of the Zoning Board of Appeals of the Town of Newtown in the form of a resolution, the vote of which was as follows:

Charles E. Annett....."Yes"
Alan Clavette....."Yes"
Timothy J. Cronin....."Yes"

Sally J. O'Neil....."Yes"
Michael Daubert....."Yes"


Sally J. O'Neil, Secretary Pro-tem

November 12, 1998

Newtown, Ct.

TOWN OF NEWTOWN, CONNECTICUT 06470
APPLICATION FOR ZONING PERMIT

8 FERRIS RD.

- 1. Owner FRANK A & PATRICIA A GIERECH
- 2. Applicant NEXTEL COMMUNICATION
- 3. Permit sought for:
 - a) New building or structure X Shed 10x20
 - b) Enlarged building or structure _____ 200 SPT-
 - c) Structural alterations (no increase in area) _____
 - d) Change in use _____
 - e) Temporary use _____
 - f) Landscape work (including 1/4 acre ponds) _____
 - g) Other use (specify) MOBILE Tower
- 4. Description of lot (name of streets bounding lot) 89 SPT- 7
B FERRIS ROAD

Total area _____

Does owner own any other land adjacent to the lot for which the permit is sought? Yes _____ No X

If "yes", describe:

- a) The adjacent land: _____
- b) The boundary separating the lot from the other land: _____

- 5. present use of lot (specify use, i.e. "Single Family Residence", "Paper Box Mfg.", etc.) SINGLE FAMILY RESIDENCE
- 6. If permit is for 3a), b), d) or e) above, specify proposed use: _____

Will it be accessory _____ or principal _____

- 7. Signs: _____
- Dimensions _____
- Lettering proposed _____

Source and color of illumination, if any _____
Location _____

8. Parking:
Where minimum parking requirements are established by Sec. 7.05 in relation to certain features of the use (i.e. square feet of usable gross floor area, employees, seats, etc.) state the size and number of such features _____

Minimum required parking space NONE REQUIRED

9. Will any topsoil or earth materials other than topsoil be removed from the lot or onto the lot? Yes _____ No X

If "yes" state:

- a) Area of excavation in addition to coverage of structure
- b) No. of cubic yards to be removed (for earth material other than topsoil) _____ (attach computation)
- c) Attach map showing area to be excavated, area reserved for stockpiling topsoil and contours (as required)
- d) Fair Market value (per cubic yd.) of the earth material other than topsoil to be removed

10. If a pond is to be constructed, state;
Area of pond _____
Area of watershed _____ (attach computation)
Flow from 10 or 25 flood _____ (attach computation)
(not applicable in residential zones) What area proposed construction will be covered by
a) all buildings _____
b) total of all buildings, storage, loading and parking areas _____

11. Is the property located in the Aquifer Protection District?
Yes _____ No X

12. (Industrial Zones Only)
After construction, what will be bulk in cubic feet of all buildings, structures and materials stored outdoors (where permitted) _____

13. Attach plot plan.
I declare under penalties of false statements that the statements of the foregoing application are complete and true.

Date: 07 07 99 [Signature]
Month Day Year Owner-Applicant

[Signature] 9-15-99

EXHIBIT 7

Radio Frequency Exposure Analysis Report

November 16, 2023

T-Mobile

Site Name: CT805/Nextel Newtown_MP

Site Number: CT11805A

Site Address: 8 Ferris Road, Newton, CT 06470



Michael Fischer, P.E.

Registered Professional Engineer (Electrical)

Connecticut License Number 33928

Expires January 31, 2024

Signed 16 November 2023

Site Compliance Summary

T-Mobile Compliance Status:	Compliant
Cumulative Calculated Power Density (Ground Level):	6.70809 $\mu\text{W}/\text{cm}^2$
Cumulative General Population % MPE (Ground Level):	0.78543%



November 16, 2023

Centerline
Attn: Peter Fales, Senior Program Manager
750 W Center St, Suite 301
West Bridgewater, MA 02379

RF Exposure Analysis for Site: **CT805/Nextel Newtown_MP**

Centerline Communications, LLC (“Centerline”) was contracted to analyze the proposed T-Mobile facility at **8 Ferris Road, Newton, CT 06470** for the purpose of determining whether the predictive exposure from the proposed facility is within specified federal limits.

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as Federal Communications Commission (FCC) OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm^2) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ($f_{\text{MHz}}/1500$). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of $1 \text{ mW}/\text{cm}^2$ ($1000 \mu\text{W}/\text{cm}^2$). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Wireless carriers use different frequency bands with varying MPE limits; therefore, it is useful to report results in terms of % MPE as opposed to power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the 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.

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, 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.



Calculation Methodology

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

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



Data & Results

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

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

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



Maximum Calculated Cumulative Power Density @ Ground Level (Location: approximately 500' SE of site)

Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density ($\mu\text{W}/\text{cm}^2$)	General Population MPE Limit ($\mu\text{W}/\text{cm}^2$)	General Population % MPE
Verizon A 1	JMA MX06FRO660-03	700	12.05	98.00	2.00	40.00	1282.60	0.09927	466.67	0.02127
Verizon A 1	JMA MX06FRO660-03	850	12.05	98.00	2.00	40.00	1282.60	0.11445	566.67	0.02020
Verizon A 1	JMA MX06FRO660-03	1900	15.75	98.00	4.00	40.00	6013.40	0.20847	1000.00	0.02085
Verizon A 2	JMA MX06FRO660-03	700	12.05	98.00	2.00	40.00	1282.60	0.09927	466.67	0.02127
Verizon A 2	JMA MX06FRO660-03	850	12.05	98.00	2.00	40.00	1282.60	0.11445	566.67	0.02020
Verizon A 2	JMA MX06FRO660-03	2100	15.95	98.00	4.00	40.00	6296.80	0.23255	1000.00	0.02326
Verizon A 3	Samsung SON_MT6407	3700	23.45	98.00	2.00	100.00	44261.89	2.52464	1000.00	0.25246
Verizon A 4	ANTEL BXA-70063-6CF	850	14.50	98.00	0.00	0.00	0.00 (Not in Use)	0.00000	566.67	0.00000
Verizon B 5	JMA MX06FRO660-03	700	12.05	98.00	2.00	40.00	1282.60	0.00013	466.67	0.00003
Verizon B 5	JMA MX06FRO660-03	850	12.05	98.00	2.00	40.00	1282.60	0.00056	566.67	0.00010
Verizon B 5	JMA MX06FRO660-03	1900	15.75	98.00	4.00	40.00	6013.40	0.00001	1000.00	0.00000
Verizon B 6	JMA MX06FRO660-03	700	12.05	98.00	2.00	40.00	1282.60	0.00013	466.67	0.00003
Verizon B 6	JMA MX06FRO660-03	850	12.05	98.00	2.00	40.00	1282.60	0.00056	566.67	0.00010
Verizon B 6	JMA MX06FRO660-03	2100	15.95	98.00	4.00	40.00	6296.80	0.00021	1000.00	0.00002
Verizon B 7	Samsung SON_MT6407	3700	23.45	98.00	2.00	100.00	44261.89	0.04701	1000.00	0.00470
Verizon B 8	ANTEL BXA-70063-6CF	850	14.50	98.00	0.00	0.00	0.00 (Not in Use)	0.00000	566.67	0.00000
Verizon C 9	JMA MX06FRO660-03	700	12.05	98.00	2.00	40.00	1282.60	0.00005	466.67	0.00001
Verizon C 9	JMA MX06FRO660-03	850	12.05	98.00	2.00	40.00	1282.60	0.00009	566.67	0.00002
Verizon C 9	JMA MX06FRO660-03	1900	15.75	98.00	4.00	40.00	6013.40	0.00030	1000.00	0.00003
Verizon C 10	JMA MX06FRO660-03	700	12.05	98.00	2.00	40.00	1282.60	0.00005	466.67	0.00001
Verizon C 10	JMA MX06FRO660-03	850	12.05	98.00	2.00	40.00	1282.60	0.00009	566.67	0.00002
Verizon C 10	JMA MX06FRO660-03	2100	15.95	98.00	4.00	160.00	6296.80	0.00032	1000.00	0.00003
Verizon C 11	Samsung SON_MT6407	3700	23.45	98.00	2.00	200.00	44261.89	0.06342	1000.00	0.00634
Verizon C 12	ANTEL BXA-70063-6CF	850	14.50	98.00	0.00	0.00	0.00 (Not in Use)	0.00000	566.67	0.00000
AT&T A 13	POWERWAVE 7770 00	850	11.35	91.00	0.00	0.00	0.00 (Not in Use)	0.00000	566.67	0.00000
AT&T A 14	POWERWAVE P65-16-XLH-RR	700	12.20	91.00	4.00	120.00	1991.50	0.07648	466.67	0.01639
AT&T A 14	POWERWAVE P65-16-XLH-RR	850	12.90	91.00	4.00	120.00	2339.81	0.06833	566.67	0.01206
AT&T A 15	QUINTEL QS66512-2	1900	14.15	91.00	4.00	120.00	3120.19	0.06326	1000.00	0.00633
AT&T A 15	QUINTEL QS66512-2	2100	14.75	91.00	4.00	120.00	3582.46	0.05428	1000.00	0.00543
AT&T A 15	QUINTEL QS66512-2	2300	14.55	91.00	4.00	75.00	2138.26	0.04194	1000.00	0.00419
AT&T B 16	POWERWAVE 7770 00	850	11.35	91.00	0.00	0.00	0.00 (Not in Use)	0.00000	566.67	0.00000
AT&T B 17	POWERWAVE P65-16-XLH-RR	700	12.20	91.00	4.00	120.00	1991.50	0.00411	466.67	0.00088
AT&T B 17	POWERWAVE P65-16-XLH-RR	850	12.90	91.00	4.00	120.00	2339.81	0.00168	566.67	0.00030
AT&T B 18	QUINTEL QS66512-2	1900	14.15	91.00	4.00	120.00	3120.19	0.00468	1000.00	0.00047
AT&T B 18	QUINTEL QS66512-2	2100	14.75	91.00	4.00	120.00	3582.46	0.00173	1000.00	0.00017



Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/ Channel (watts)	ERP (watts)	Calculated Power Density ($\mu\text{W}/\text{cm}^2$)	General Population MPE Limit ($\mu\text{W}/\text{cm}^2$)	General Population % MPE
AT&T B 18	QUINTEL QS66512-2	2300	14.55	91.00	4.00	75.00	2138.26	0.00238	1000.00	0.00024
AT&T C 19	POWERWAVE 7770 00	850	11.35	91.00	0.00	0.00	0.00 (Not in Use)	0.00000	566.67	0.00000
AT&T C 20	POWERWAVE P65-16-XLH-RR	700	12.20	91.00	4.00	120.00	1991.50	0.00004	466.67	0.00001
AT&T C 20	POWERWAVE P65-16-XLH-RR	850	12.90	91.00	4.00	120.00	2339.81	0.00009	566.67	0.00002
AT&T C 21	QUINTEL QS66512-2	1900	14.15	91.00	4.00	120.00	3120.19	0.00005	1000.00	0.00001
AT&T C 21	QUINTEL QS66512-2	2100	14.75	91.00	4.00	120.00	3582.46	0.00017	1000.00	0.00002
AT&T C 21	QUINTEL QS66512-2	2300	14.55	91.00	4.00	75.00	2138.26	0.00011	1000.00	0.00001
T-Mobile A 22	ANDREW VHLP3-11W 1	11000	36.25	83.00	1.00	0.10	421.70	0.00000	1000.00	0.00000
T-Mobile A 23	RFS APXVAALL24 43-U-NA20	700	13.65	83.00	4.00	80.00	1853.92	0.11079	466.67	0.02374
T-Mobile A 23	RFS APXVAALL24 43-U-NA20	600	12.95	83.00	4.00	240.00	4733.81	0.30970	400.00	0.07743
T-Mobile A 24	COMMSCOPE VV-65A-R1	1900	15.80	83.00	4.00	140.00	5322.65	0.25109	1000.00	0.02511
T-Mobile A 24	COMMSCOPE VV-65A-R1	1900	15.80	83.00	4.00	160.00	6083.03	0.28695	1000.00	0.02870
T-Mobile A 24	COMMSCOPE VV-65A-R1	1900	15.80	83.00	2.00	20.00	760.38	0.03582	1000.00	0.00358
T-Mobile A 24	COMMSCOPE VV-65A-R1	2100	16.43	83.00	4.00	240.00	10549.00	0.44430	1000.00	0.04443
T-Mobile A 25	ERICSSON SON_AIR6419	2500	15.55	83.00	2.00	60.00	2153.53	0.01995	1000.00	0.00200
T-Mobile A 25	ERICSSON SON_AIR6419	2500	22.05	83.00	2.00	180.00	28858.42	1.29531	1000.00	0.12953
T-Mobile B 26	RFS APXVAALL24 43-U-NA20	700	13.65	83.00	4.00	80.00	1853.92	0.00015	466.67	0.00003
T-Mobile B 26	RFS APXVAALL24 43-U-NA20	600	12.95	83.00	4.00	240.00	4733.81	0.00013	400.00	0.00003
T-Mobile B 27	COMMSCOPE VV-65A-R1	1900	15.80	83.00	4.00	140.00	5322.65	0.00023	1000.00	0.00002
T-Mobile B 27	COMMSCOPE VV-65A-R1	1900	15.80	83.00	4.00	160.00	6083.03	0.00027	1000.00	0.00003
T-Mobile B 27	COMMSCOPE VV-65A-R1	1900	15.80	83.00	2.00	20.00	760.38	0.00003	1000.00	0.00000
T-Mobile B 27	COMMSCOPE VV-65A-R1	2100	16.43	83.00	4.00	240.00	10549.00	0.00023	1000.00	0.00002
T-Mobile B 28	ERICSSON SON_AIR6419	2500	15.55	83.00	2.00	60.00	2153.53	0.00002	1000.00	0.00000
T-Mobile B 28	ERICSSON SON_AIR6419	2500	22.05	83.00	2.00	180.00	28858.42	0.00149	1000.00	0.00015
T-Mobile C 29	RFS APXVAALL24 43-U-NA20	700	13.65	83.00	4.00	80.00	1853.92	0.00105	466.67	0.00023
T-Mobile C 29	RFS APXVAALL24 43-U-NA20	600	12.95	83.00	4.00	240.00	4733.81	0.00263	400.00	0.00066
T-Mobile C 30	COMMSCOPE VV-65A-R1	1900	15.80	83.00	4.00	140.00	5322.65	0.00394	1000.00	0.00039
T-Mobile C 30	COMMSCOPE VV-65A-R1	1900	15.80	83.00	4.00	160.00	6083.03	0.00451	1000.00	0.00045
T-Mobile C 30	COMMSCOPE VV-65A-R1	1900	15.80	83.00	2.00	20.00	760.38	0.00056	1000.00	0.00006
T-Mobile C 30	COMMSCOPE VV-65A-R1	2100	16.43	83.00	4.00	240.00	10549.00	0.00480	1000.00	0.00048



Antenna ID	Make / Model	Frequency Band (MHz)	Antenna Gain (dBd)	Antenna Centerline (ft)	Channel Count	TX Power/Channel (watts)	ERP (watts)	Calculated Power Density ($\mu\text{W}/\text{cm}^2$)	General Population MPE Limit ($\mu\text{W}/\text{cm}^2$)	General Population % MPE
T-Mobile C 31	ERICSSON SON_AIR6419	2500	15.55	83.00	2.00	60.00	2153.53	0.00165	1000.00	0.00017
T-Mobile C 31	ERICSSON SON_AIR6419	2500	22.05	83.00	2.00	180.00	28858.42	0.10713	1000.00	0.01071
							Cumulative Power Density:	6.70809 $\mu\text{W}/\text{cm}^2$	Cumulative % MPE:	0.78543%



Summary

The theoretical calculations performed for this analysis yielded cumulative power density totals in all areas at ground level that are within the allowable federal limits for public exposure to RF energy. Therefore, the site is **compliant** with FCC rules and regulations.

Michelle Stone

Michelle Stone
RF EME Technical Writer
Centerline Communications, LLC

EXHIBIT 8

SBA Communications Corporation
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sbsite.com



Structural Analysis Report

Client: T-Mobile

Client Site ID / Name: CT11805A / CT805/Nextel Newtown_MP
Application #: 239069, v1

SBA Site ID / Name: CT46132-A / Newtown-ferris Rd

119 ft Modified Monopole

8 Ferris Road
Newtown, Connecticut 06470
Lat: 41.389747, Long: -73.338444

Project number: CT46132-TMO-103123

Analysis Results

Tower	78.0%	Pass
Foundation	87.0%	Pass

Change in tower stress due to mount modification / replacement	N/A
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Prepared by:

Jaffar Alqazzaz

October 31, 2023

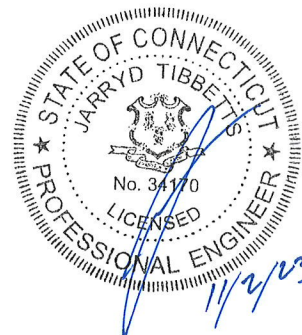


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Introduction

The purpose of this report is to summarize the analysis results on the 119 ft Monopole to support the proposed antennas and transmissions lines in addition to those currently installed.

Table 1 List of Documents Used

Item	Document
Tower design/drawings	EEl, Job No. 5189, dated 06/30/1999.
Foundation drawings	EEl, Job No. 5189, dated 06/30/1999.
Geotechnical report	New England Boring Contractors & Applied Earth Technologies Inc.; Job No. 4677, dated 06/14/1999.
Modification drawings	Vertical Solutions, Project No. 100188.08, dated 5/7/2010.
Mount Analysis	TES, Project No. 142876, dated 10/19/2023
Latest SA	SBA, Project No. CT46132-VZW-083023, dated 9/13/2023

Analysis Criteria

Table 2 Code Related Data

Jurisdiction (State/County/City)	Connecticut/Fairfield/Newtown
Governing Codes	ANSI/TIA/EIA 222-H, 2021 IBC, 2022 Connecticut Building Code
Ultimate Wind Speed (3-Sec gust)	116.0 mph
Wind Speed with Ice (3-Sec gust)	50 mph
Service Wind Speed (3-Sec gust)	60 mph
Ice Thickness	1.00"
Risk Category	II
Exposure Category	C
Topographic Category	1
Crest Height	0 ft
Ground Elevation	781.31 ft.
Seismic Parameter S_s	0.214
Seismic Parameter S_1	0.055

This structural analysis is based upon the tower being classified as a risk category II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Appurtenance Loading

Existing Loading:

Table 3 Existing Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	118.0	1	DS1F03F36D-N - Whip	Low Profile Platform	(2) 7/8"	Town of Newtown
2	108.0	3	APXVSPP18-C-A20 - Panel	Low Profile Platform	(3) 1-1/4"	T-Mobile Sprint
3		3	APXV9TM14-ALU-120 - Panel			
4		3	1900 MHz 4X45 RRH			
5		3	800 MHz RRU Filter			
6		3	TD-RRH8x20-25			
7		4	ACU-A20-N			
8		98.0	6			
9	3		Samsung MT6407-77A - Panel			
10	3		Amphenol BXA-70063-6CF - Panel			
11	3		Samsung RF4439d-25A			
12	3		Samsung RF4440d-13A			
13	1		Commscope FE-16148-OVP-B12			
14	6		Kaelus KA-6030 - Filter			
15	91.0	3	7770.00 - Panel	Low Profile Platform	(2) 3/8" Fiber (4) 5/8" DC (12) 7/8"	AT&T
16		3	P65-16-XLH-RR - Panel			
17		6	LGP21401			
18		3	RRUS-11			
19		2	DC6-48-60-18-8F - TMA/TTA			
20		3	QS66512-2 - Panel			
21		3	RRUS 32 B2			
22		3	RRUS 32 B30			
-	83.0	1	Andrew VHLP3-11W - Dish	Modified Low Profile Platform w/ Handrail Kit	(8) 1 1/4" (3) 1.9" Fiber (1) 1/2"	T-Mobile
-		1	Ceragon IP20C-11-40X-ACM			
-		3	TBD S20057A1			
-		3	RFS ATMAA1412D-1A20			
-		3	Kathrein 782 11054			
-		3	Commscope VV-65A-R1 - Panel			
-		3	RFS APXVAALL24_43-U-NA20 - Panel			
-		3	Ericsson AIR6419 B41 - Panel			
-		3	Ericsson 4460 B25 + B66			
-		3	Ericsson 4480 B71 + B85			
33	75.0	1	GPS	Direct Mount	(1) 1/2"	T-Mobile Sprint
34	69.0	3	Commscope FFVV-65B-R2 - Panel	Low Profile Platform w/ Handrails [Commscope MC-PK8-DSH]	(1) 1.75" Hybrid	Dish Wireless
35		3	TA08025-B604			
36		3	TA08025-B605			
37		1	RDIDC-9181-OF-48			

Note: AT&T loading includes FirstNET equipment

Proposed Loading:

Information pertaining to proposed antennas and transmission lines were based upon the Application #: 239069, v1 from T-Mobile and is listed in Table 4.

Table 4 Proposed Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
23	83.0	3	TBD S20057A1	Modified Low Profile Platform w/ Handrail Kit	(7) 1 1/4" (3) 1.9" Fiber (2) 3/8"	T-Mobile
24		3	RFS ATMAA1412D-1A20			
25		3	Kathrein 782 11054			
26		3	Commscope VV-65A-R1 - Panel			
27		3	RFS APXVAALL24_43-U-NA20 - Panel			
28		3	Ericsson AIR6419 B41 - Panel			
29		3	Ericsson 4460 B25 + B66			
30		3	Ericsson 4480 B71 + B85			
31		81.0	1			
32	2		Ericsson Mini-Link 6365			

Analysis Results

Tower

The results of the structural analysis are shown below in table 5. Additional information for the tower analysis is provided within the Appendix.

Table 5 Tower Analysis Summary

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	78.0%	75.9%	63.2%
Pass/Fail	Pass	Pass	Pass

Foundation

The results of the foundation analysis are shown below in table 6. Additional information for the foundation analysis is provided within the Appendix.

Table 6 Foundation Analysis Summary

Structural Component	Max Usage (%)	Analysis Result
Foundation	87.0%	Pass

Conclusions

Based on the analysis results, the existing tower and foundation were found to be **sufficient** to safely support the equipment listed in this analysis. No modification to the tower and foundation is needed at this time.

Installation Requirements

This analysis was performed under the assumption that the carrier will place the proposed equipment and feed lines at the installation height listed in Table 4 and in accordance with the coax layout shown. TMAs and RRUs are to be installed on existing mounts behind tenant's antennas unless otherwise noted. No equipment is to be installed directly in the climbing path. All equipment is to be installed per mount manufacturer specifications. In case site conditions do not allow for the required installation parameters to be met the carrier must notify SBA Communications Corporation engineers for approval of an alternative placement.

Assumptions and Limitations

Assumptions

This analysis was completed based on the following assumptions:

- Tower and foundation were built in accordance to manufacturer specifications.
- Tower and foundation has been properly maintained in accordance with the manufacturer's specifications
- All existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion
- Welds and bolts are assumed able to carry their intended original design loads.
- The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Table 3 and 4.
- This analysis may be affected if any assumptions are not valid or have been made in error. SBA should be notified to determine the effect on the structural integrity of the tower.

Limitations

The computer generated analysis performed by the tower software is limited to theoretical capacities of the towers structural members and does not account for any missing or damaged members or connections. The tower and foundation are assumed to have been properly designed, fabricated, installed and maintained, barring any conflicting findings from the most recent inspection.

SBA Communications Corporation has used its due diligence to verify the information provided to perform this analysis. It is unreasonable to perform a more detailed inspection of a tower and its components. This report is not a condition assessment of the tower or foundation.

Appendix

Usage Diagram - Max Ratio 77.96% at 0.0ft

Structure: CT46132-A
Site Name: Newtown-ferris Rd
Height: 118.00 (ft)
Base Elev: 1.000 (ft)

Code: EIA/TIA-222-H
Exposure: C
Gh: 1.1

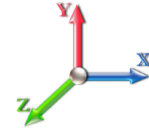
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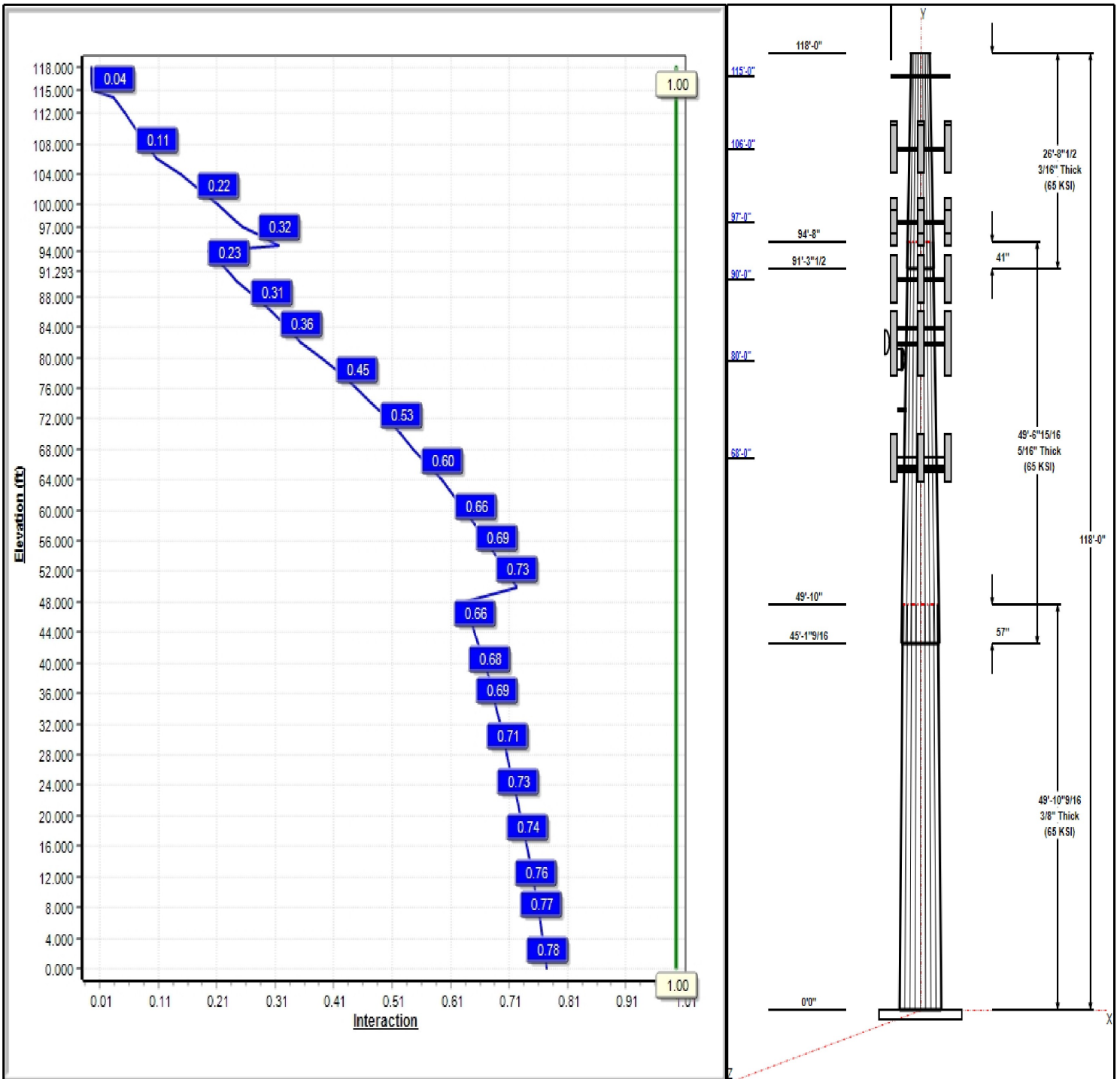
Dead Load Factor: 1.20
Wind Load Factor: 1.00

Load Case : 1.2D + 1.0W 116 mph Wind



Iterations: 26

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Structure: CT46132-A

Type: Tapered
Site Name: Newtown-ferris Rd
Height: 118.00 (ft)
Base Elev: 1.00 (ft)

Base Shape: 18 Sided
Taper: 0.23093

10/31/2023

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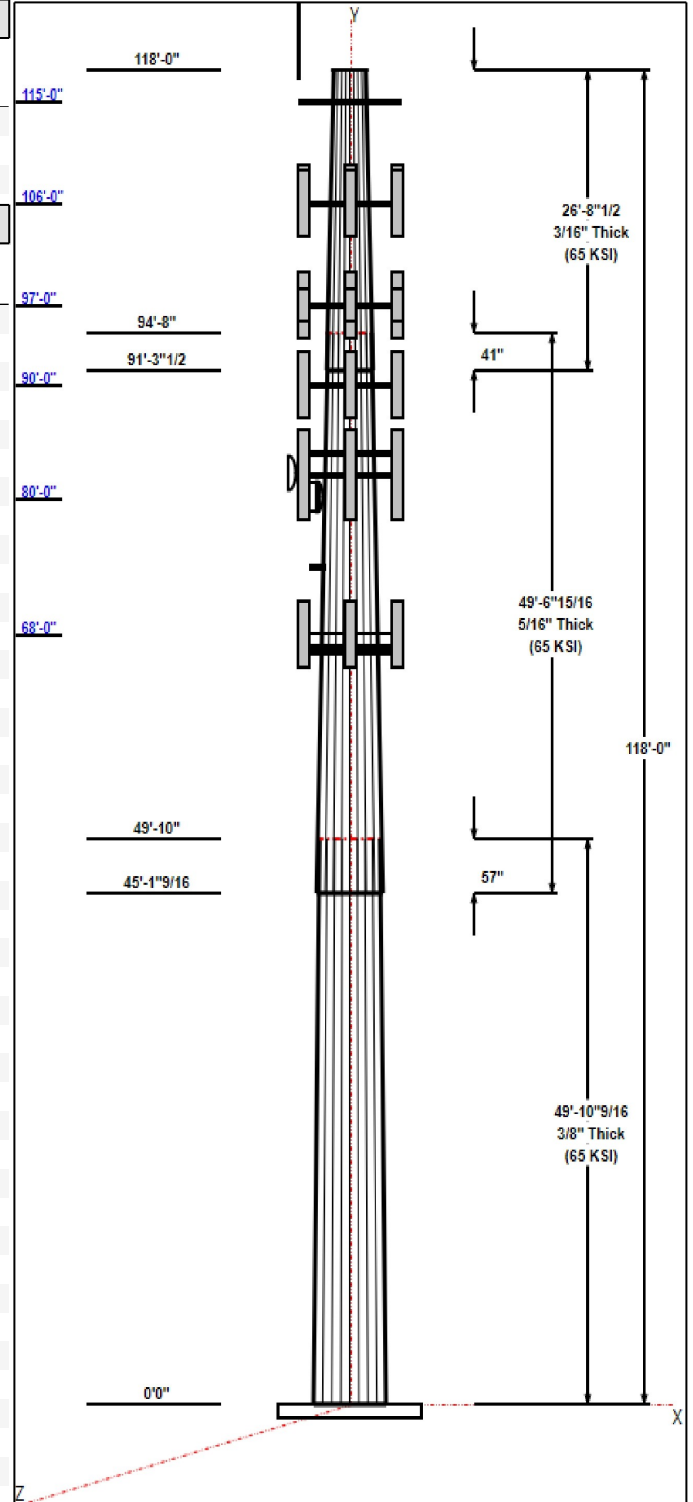


Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	49.88	31.73	43.25	0.375		0.23093	65
2	49.58	22.00	33.45	0.313	Slip	0.23093	65
3	26.71	17.00	23.17	0.188	Slip	0.23093	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
115.00	117.00	12	Mount Pipes	Town of Newton
115.00	115.00	1	Low Profile Platform	Town of Newtown
115.00	128.25	1	DS1F03F36D-N	Town of Newtown
106.00	106.00	1	Universal Ring Mount	Sprint
106.00	106.00	1	Low Profile Platform	Sprint
106.00	106.00	3	APXVSPP18-C-A20	Sprint
106.00	107.00	3	APXV9TM14-ALU-120	Sprint
106.00	106.00	3	1900 MHz 4X45 RRH	Sprint
106.00	106.00	3	800 MHz RRU Filter	Sprint
106.00	106.00	3	TD-RRH8x20-25	Sprint
106.00	106.00	4	ACU-A20-N	Sprint
97.00	97.00	6	JMA MX06FRO660-03	Verizon
97.00	97.00	3	Samsung MT6407-77A	Verizon
97.00	97.00	3	Amphenol BXA-70063-6CF	Verizon
97.00	97.00	3	Samsung RF4439d-25A	Verizon
97.00	97.00	3	Samsung RF4440d-13A	Verizon
97.00	97.00	1	Commscope	Verizon
97.00	97.00	1	Low Profile Platform w/	Verizon
97.00	97.00	6	Kaelus KA-6030	Verizon
90.00	90.00	1	Low Profile Platform	AT&T
90.00	90.00	3	7770.00	AT&T
90.00	90.00	3	P65-16-XLH-RR	AT&T
90.00	90.00	6	LGP21401	AT&T
90.00	90.00	3	RRUS-11	AT&T
90.00	90.00	2	DC6-48-60-18-8F	AT&T
90.00	90.00	3	QS66512-2	AT&T
90.00	90.00	3	RRUS 32 B2	AT&T
90.00	90.00	3	RRUS 32 B30	AT&T
84.00	84.00	1	12.5' - 2" Horizontal Pipe	T-Mobile
82.00	82.00	1	Platform w/ Handrail	T-Mobile
82.00	82.00	3	Kathrein 782 11054	T-Mobile
82.00	82.00	3	Commscope VV-65A-R1	T-Mobile
82.00	82.00	3	RFS	T-Mobile
82.00	82.00	3	Ericsson AIR6419 B41	T-Mobile
82.00	82.00	3	Ericsson 4460 B25 + B66	T-Mobile
82.00	82.00	3	Ericsson 4480 B71 + B85	T-Mobile
82.00	82.00	1	Andrew VHLP3-11W	T-Mobile
82.00	82.00	1	Ceragon	T-Mobile
82.00	82.00	3	TBD S20057A1	T-Mobile
82.00	82.00	1	MS-KI22-5 (Kickers w/o	T-Mobile
82.00	82.00	3	RFS ATMAA1412D-1A20	T-Mobile
80.00	80.00	1	Pipe Mount	T-Mobile
80.00	80.00	1	Ericsson ANT3 A 0.9 11	T-Mobile
80.00	80.00	2	Ericsson Mini-Link 6365	T-Mobile
74.00	74.00	1	Standoff Mount	Sprint
74.00	74.00	1	GPS	Sprint



Structure: CT46132-A

Type: Tapered	Base Shape: 18 Sided	10/31/2023
Site Name: Newtown-ferris Rd	Taper: 0.23093	
Height: 118.00 (ft)		
Base Elev: 1.00 (ft)		Page: 3



68.00	68.00	3	Commscope	Dish Wireless
68.00	68.00	3	TA08025-B604	Dish Wireless
68.00	68.00	3	TA08025-B605	Dish Wireless
68.00	68.00	1	RDIDC-9181-OF-48	Dish Wireless
68.00	68.00	1	MC-PK8-DSH	Dish Wireless

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	118.00	Outside	Safety Cable	
0.00	118.00	Outside	Step bolts (ladder)	
0.00	117.00	Inside	7/8" Coax	Town of Newtown
0.00	106.00	Inside	1-1/4"	Sprint
0.00	97.00	Inside	1 5/8" Hybrid 12 x 24	Verizon
0.00	97.00	Inside	1-5/8" Coax	Verizon
0.00	90.00	Inside	3/8" Fiber	AT&T
0.00	90.00	Inside	5/8" DC	AT&T
0.00	90.00	Inside	7/8"	AT&T
0.00	82.00	Inside	1 1/4" Coax	T-Mobile
0.00	82.00	Inside	1.9" Fiber	T-Mobile
0.00	82.00	Inside	1/2" Coax	T-Mobile
0.00	80.00	Inside	3/8" Coax	T-Mobile
0.00	74.00	Outside	1/2"	Sprint
0.00	68.00	Outside	1.75" Hybrid	Dish Wireless

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
12	2.25" 18J	75.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
1.7500	58.0	60.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 116 mph Wind	2457.9	28.3	41.4
0.9D + 1.0W 116 mph Wind	2421.5	28.3	31.1
1.2D + 1.0Di + 1.0Wi 50 mph Wind	662.8	7.6	59.6
1.2D + 1.0Ev + 1.0Eh	57.9	0.6	43.1
0.9D + 1.0Ev + 1.0Eh	56.9	0.6	32.7
1.0D + 1.0W 60 mph Wind	583.4	6.8	34.6

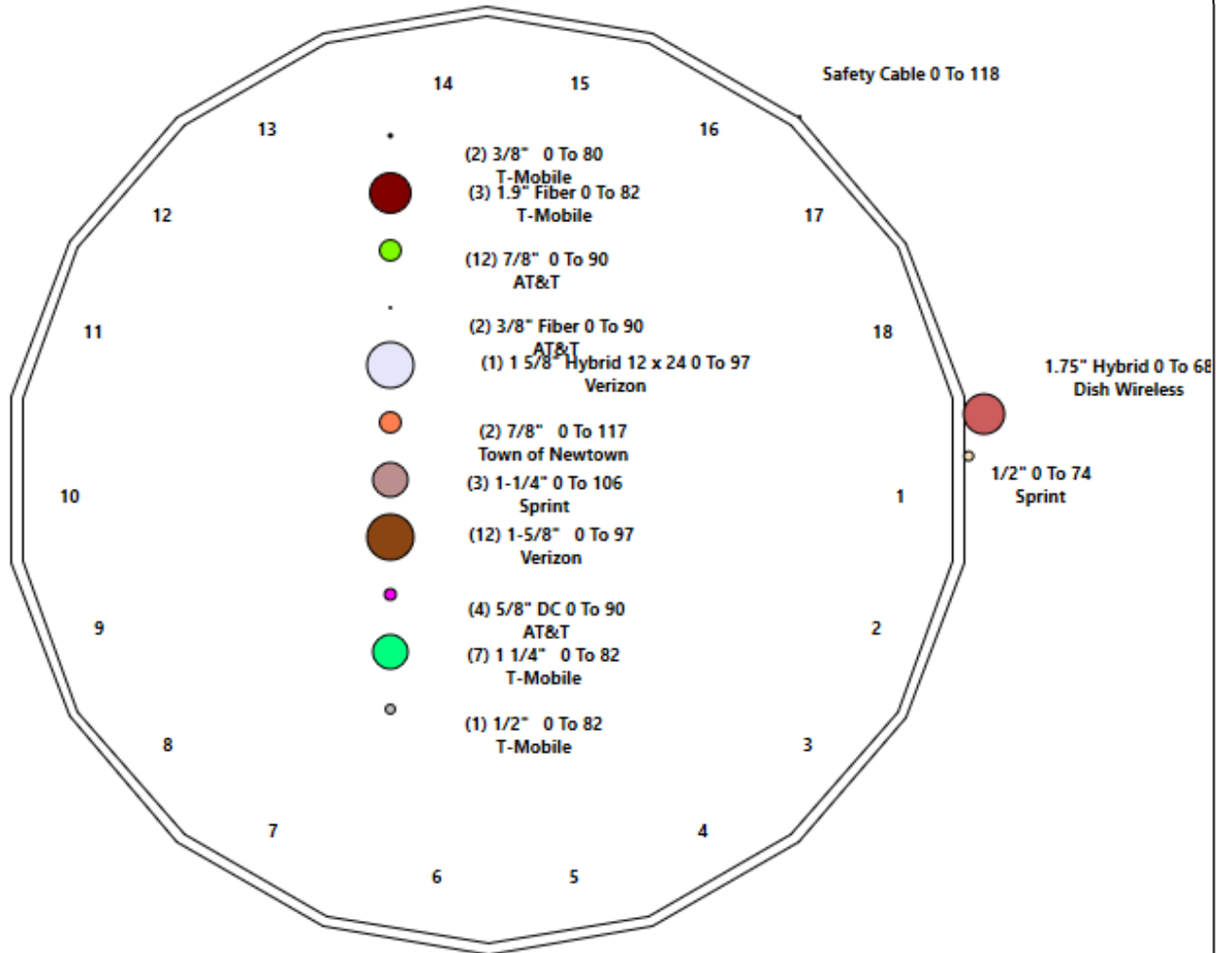
Structure: CT46132-A - Coax Line Placement

Type: Monopole
Site Name: Newtown-ferris Rd
Height: 118.00 (ft)

10/31/2023



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Shaft Properties

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	49.880	0.3750	65		0.00	7,498
2	18	49.580	0.3125	65	Slip	57.00	4,588
3	18	26.707	0.1875	65	Slip	41.00	1,076
Total Shaft Weight:							13,161

Bottom

Top

Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper
1	43.25	0.00	51.03	11851.90	18.93	115.33	31.73	49.88	37.32	4635.98	13.51	84.62	0.230932
2	33.45	45.13	32.87	4561.13	17.47	107.05	22.00	94.71	21.51	1278.87	11.00	70.41	0.230932
3	23.17	91.29	13.68	912.41	20.38	123.56	17.00	118.00	10.01	357.31	14.58	90.67	0.230932

Load Summary

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	115.00	Mount Pipes	12	60.00	1.90	1.00	108.99	2.977	1.00	0.00	2.00
2	115.00	Low Profile Platform	1	1800.00	28.50	1.00	3075.70	32.978	1.00	0.00	0.00
3	115.00	DS1F03F36D-N	1	71.00	6.75	1.00	181.01	11.927	1.00	0.00	13.25
4	106.00	Universal Ring Mount	1	350.00	5.00	1.00	538.97	7.250	1.00	0.00	0.00
5	106.00	Low Profile Platform	1	2000.00	28.00	1.00	3406.04	32.364	1.00	0.00	0.00
6	106.00	APXVSP18-C-A20	3	57.00	8.02	0.83	168.41	9.821	0.85	0.00	0.00
7	106.00	APXV9TM14-ALU-120	3	56.00	6.34	0.79	152.07	7.041	0.81	0.00	1.00
8	106.00	1900 MHz 4X45 RRH	3	60.00	2.71	0.50	112.05	3.525	0.69	0.00	0.00
9	106.00	800 MHz RRU Filter	3	64.00	2.40	0.50	113.76	3.121	0.69	0.00	0.00
10	106.00	TD-RRH8x20-25	3	70.00	4.05	0.50	136.03	4.559	0.69	0.00	0.00
11	106.00	ACU-A20-N	4	1.00	0.14	0.50	3.77	0.331	0.69	0.00	0.00
12	97.00	JMA MX06FRO660-03	6	87.10	9.87	0.87	249.55	10.732	0.87	0.00	0.00
13	97.00	Samsung MT6407-77A	3	79.40	4.69	0.70	150.09	5.288	0.70	0.00	0.00
14	97.00	Amphenol BXA-70063-6CF	3	17.00	7.57	0.73	119.80	8.352	0.73	0.00	0.00
15	97.00	Samsung RF4439d-25A	3	74.70	1.86	0.50	108.12	2.220	0.84	0.00	0.00
16	97.00	Samsung RF4440d-13A	3	70.33	1.86	0.67	102.83	2.220	0.83	0.00	0.00
17	97.00	Commscope FE-16148-OVP-B12	1	15.21	1.87	1.00	47.53	2.232	1.00	0.00	0.00
18	97.00	Low Profile Platform w/ Handrails +	1	2100.00	35.03	1.00	3563.43	40.442	1.00	0.00	0.00
19	97.00	Kaelus KA-6030	6	17.60	0.96	0.65	32.46	1.214	0.68	0.00	0.00
20	90.00	Low Profile Platform	1	1349.00	25.00	1.00	2095.51	37.728	1.00	0.00	0.00
21	90.00	7770.00	3	35.00	5.50	0.73	113.70	6.160	0.75	0.00	0.00
22	90.00	P65-16-XLH-RR	3	53.00	8.16	0.75	157.67	9.937	0.75	0.00	0.00
23	90.00	LGP21401	6	14.10	1.29	0.50	29.95	1.820	0.69	0.00	0.00
24	90.00	RRUS-11	3	55.00	4.42	0.50	112.05	5.371	0.69	0.00	0.00
25	90.00	DC6-48-60-18-8F	2	31.80	0.92	1.00	71.01	1.198	1.00	0.00	0.00
26	90.00	QS66512-2	3	77.00	8.13	0.90	208.33	8.934	0.90	0.00	0.00
27	90.00	RRUS 32 B2	3	53.00	2.74	0.50	104.05	3.189	0.81	0.00	0.00
28	90.00	RRUS 32 B30	3	60.00	2.74	0.50	111.05	3.189	0.81	0.00	0.00
29	84.00	12.5' - 2" Horizontal Pipe	1	45.75	2.97	1.00	73.91	5.319	1.00	0.00	0.00
30	82.00	Platform w/ Handrail	1	1868.20	23.81	1.00	2892.55	35.821	1.00	0.00	0.00
31	82.00	Kathrein 782 11054	3	1.80	0.15	0.50	6.02	0.321	0.67	0.00	0.00
32	82.00	Commscope VV-65A-R1	3	29.50	7.90	0.74	130.26	8.684	0.75	0.00	0.00
33	82.00	RFS APXVAALL24_43-U-NA20	3	122.80	20.24	0.72	379.19	21.418	0.73	0.00	0.00
34	82.00	Ericsson AIR6419 B41	3	66.10	3.80	0.76	126.55	4.300	0.77	0.00	0.00
35	82.00	Ericsson 4460 B25 + B66	3	109.00	2.85	0.50	154.18	3.274	0.50	0.00	0.00
36	82.00	Ericsson 4480 B71 + B85	3	93.00	2.85	0.50	138.20	3.274	0.50	0.00	0.00
37	82.00	Andrew VHLP3-11W	1	53.00	10.68	1.00	189.68	11.884	1.00	0.00	0.00
38	82.00	Ceragon IP20C-11-40X-ACM	1	11.50	1.05	0.50	27.78	1.519	0.67	0.00	0.00
39	82.00	TBD S20057A1	3	11.00	0.01	0.50	11.00	0.010	0.67	0.00	0.00
40	82.00	MS-KI22-5 (Kickers w/o Collar)	1	146.00	6.33	1.00	274.09	10.495	1.00	0.00	0.00
41	82.00	RFS ATMAA1412D-1A20	3	13.00	1.17	0.50	29.70	1.662	0.67	0.00	0.00
42	80.00	Pipe Mount	1	60.00	2.50	1.00	107.26	3.867	1.00	0.00	0.00
43	80.00	Ericsson ANT3 A 0.9 11 HPX	1	41.80	10.63	1.00	74.72	16.444	1.00	0.00	0.00
44	80.00	Ericsson Mini-Link 6365	2	5.50	0.46	0.72	13.02	0.641	0.76	0.00	0.00
45	74.00	Standoff Mount	1	40.00	2.63	1.00	89.94	6.343	1.00	0.00	0.00
46	74.00	GPS	1	10.00	1.00	1.00	28.24	1.443	1.00	0.00	0.00
47	68.00	Commscope FVVV-65B-R2	3	70.80	11.84	0.74	471.59	13.568	0.74	0.00	0.00
48	68.00	TA08025-B604	3	63.90	1.96	0.50	95.13	2.306	0.67	0.00	0.00
49	68.00	TA08025-B605	3	75.00	1.96	0.50	107.26	2.306	0.67	0.00	0.00
50	68.00	RDIDC-9181-OF-48	1	21.90	2.01	1.00	54.75	2.361	1.00	0.00	0.00

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
51	68.00	MC-PK8-DSH	1	1727.00	34.24	1.00	2768.15	60.780	1.00	0.00	0.00
Totals:			134	17,833.75			33,709.20				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	118.00	(1) Safety Cable	0.38	Outside
0.00	118.00	(1) Step bolts (ladder)	0.63	Outside
0.00	117.00	(2) 7/8" Coax	0.00	Inside
0.00	106.00	(3) 1-1/4"	0.00	Inside
0.00	97.00	(1) 1 5/8" Hybrid 12 x 24	0.00	Inside
0.00	97.00	(12) 1-5/8" Coax	0.00	Inside
0.00	90.00	(2) 3/8" Fiber	0.00	Inside
0.00	90.00	(4) 5/8" DC	0.00	Inside
0.00	90.00	(12) 7/8"	0.00	Inside
0.00	82.00	(7) 1 1/4" Coax	0.00	Inside
0.00	82.00	(3) 1.9" Fiber	0.00	Inside
0.00	82.00	(1) 1/2" Coax	0.00	Inside
0.00	80.00	(2) 3/8" Coax	0.00	Inside
0.00	74.00	(1) 1/2"	0.00	Outside
0.00	68.00	(1) 1.75" Hybrid	1.75	Outside

Shaft Section Properties

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in ³)	Weight (lb)
0.00		0.3750	43.250	51.030	11851.9	18.93	115.33	79.1	539.7	0.0
2.00		0.3750	42.788	50.480	11473.0	18.71	114.10	79.4	528.1	345.4
4.00		0.3750	42.326	49.931	11102.3	18.49	112.87	79.7	516.6	341.7
6.00		0.3750	41.864	49.381	10739.6	18.27	111.64	79.9	505.3	337.9
8.00		0.3750	41.403	48.831	10384.9	18.06	110.41	80.2	494.0	334.2
10.00		0.3750	40.941	48.282	10038.1	17.84	109.18	80.4	482.9	330.5
12.00		0.3750	40.479	47.732	9699.1	17.62	107.94	80.7	471.9	326.7
14.00		0.3750	40.017	47.182	9367.9	17.41	106.71	80.9	461.1	323.0
16.00		0.3750	39.555	46.632	9044.2	17.19	105.48	81.2	450.4	319.2
18.00		0.3750	39.093	46.083	8728.1	16.97	104.25	81.4	439.7	315.5
20.00		0.3750	38.631	45.533	8419.5	16.75	103.02	81.7	429.3	311.7
22.00		0.3750	38.169	44.983	8118.2	16.54	101.79	82.0	418.9	308.0
24.00		0.3750	37.708	44.434	7824.2	16.32	100.55	82.2	408.7	304.3
26.00		0.3750	37.246	43.884	7537.4	16.10	99.32	82.5	398.6	300.5
28.00		0.3750	36.784	43.334	7257.7	15.89	98.09	82.5	388.6	296.8
30.00		0.3750	36.322	42.784	6985.0	15.67	96.86	82.5	378.8	293.0
32.00		0.3750	35.860	42.235	6719.2	15.45	95.63	82.5	369.1	289.3
34.00		0.3750	35.398	41.685	6460.2	15.23	94.40	82.5	359.5	285.6
36.00		0.3750	34.936	41.135	6208.0	15.02	93.16	82.5	350.0	281.8
38.00		0.3750	34.475	40.586	5962.4	14.80	91.93	82.5	340.6	278.1
40.00		0.3750	34.013	40.036	5723.4	14.58	90.70	82.5	331.4	274.3
42.00		0.3750	33.551	39.486	5490.9	14.37	89.47	82.5	322.3	270.6
44.00		0.3750	33.089	38.936	5264.7	14.15	88.24	82.5	313.4	266.9
45.13	Bot - Section 2	0.3750	32.828	38.626	5139.7	14.03	87.54	82.5	308.4	149.1
46.00		0.3750	32.627	38.387	5044.9	13.93	87.01	82.5	304.5	211.0
48.00		0.3750	32.165	37.837	4831.2	13.71	85.77	82.5	295.8	480.2
49.88	Top - Section 1	0.3125	32.356	31.782	4123.0	16.85	103.54	0.0	0.0	445.1
50.00		0.3125	32.328	31.755	4112.4	16.83	103.45	81.6	250.5	13.0
52.00		0.3125	31.867	31.297	3936.9	16.57	101.97	81.9	243.3	214.5
54.00		0.3125	31.405	30.838	3766.6	16.31	100.49	82.2	236.2	211.4
56.00		0.3125	30.943	30.380	3601.2	16.05	99.02	82.5	229.2	208.3
58.00		0.3125	30.481	29.922	3440.7	15.79	97.54	82.5	222.3	205.2
60.00		0.3125	30.019	29.464	3285.1	15.53	96.06	82.5	215.5	202.1
62.00		0.3125	29.557	29.006	3134.3	15.27	94.58	82.5	208.9	199.0
64.00		0.3125	29.095	28.548	2988.1	15.01	93.11	82.5	202.3	195.8
66.00		0.3125	28.633	28.090	2846.6	14.75	91.63	82.5	195.8	192.7
68.00		0.3125	28.172	27.632	2709.5	14.49	90.15	82.5	189.4	189.6
70.00		0.3125	27.710	27.174	2577.0	14.22	88.67	82.5	183.2	186.5
72.00		0.3125	27.248	26.716	2448.9	13.96	87.19	82.5	177.0	183.4
74.00		0.3125	26.786	26.257	2325.0	13.70	85.72	82.5	171.0	180.3
76.00		0.3125	26.324	25.799	2205.5	13.44	84.24	82.5	165.0	177.1
78.00		0.3125	25.862	25.341	2090.0	13.18	82.76	82.5	159.2	174.0
80.00		0.3125	25.400	24.883	1978.7	12.92	81.28	82.5	153.4	170.9
82.00		0.3125	24.939	24.425	1871.5	12.66	79.80	82.5	147.8	167.8
84.00		0.3125	24.477	23.967	1768.1	12.40	78.33	82.5	142.3	164.7
86.00		0.3125	24.015	23.509	1668.7	12.14	76.85	82.5	136.9	161.5
88.00		0.3125	23.553	23.051	1573.0	11.88	75.37	82.5	131.5	158.4
90.00		0.3125	23.091	22.593	1481.1	11.62	73.89	82.5	126.3	155.3
91.29	Bot - Section 3	0.3125	22.792	22.296	1423.6	11.45	72.94	82.5	123.0	98.8
92.00		0.3125	22.629	22.135	1392.8	11.36	72.41	82.5	121.2	86.2

Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
94.00		0.3125	22.167	21.677	1308.1	11.10	70.94	82.5	116.2	240.6
94.71	Top - Section 2	0.1875	22.378	13.206	821.6	19.63	119.35	0.0	0.0	84.2
96.00		0.1875	22.081	13.029	789.0	19.35	117.76	78.6	70.4	57.6
97.00		0.1875	21.850	12.891	764.3	19.14	116.53	78.9	68.9	44.1
98.00		0.1875	21.619	12.754	740.1	18.92	115.30	79.1	67.4	43.6
100.00		0.1875	21.157	12.479	693.3	18.49	112.84	79.7	64.5	85.9
102.00		0.1875	20.695	12.204	648.5	18.05	110.37	80.2	61.7	84.0
104.00		0.1875	20.233	11.929	605.6	17.62	107.91	80.7	59.0	82.1
106.00		0.1875	19.771	11.654	564.7	17.18	105.45	81.2	56.3	80.2
108.00		0.1875	19.309	11.379	525.7	16.75	102.98	81.7	53.6	78.4
110.00		0.1875	18.847	11.105	488.5	16.31	100.52	82.2	51.1	76.5
112.00		0.1875	18.386	10.830	453.1	15.88	98.06	82.5	48.5	74.6
114.00		0.1875	17.924	10.555	419.5	15.45	95.59	82.5	46.1	72.8
115.00		0.1875	17.693	10.417	403.3	15.23	94.36	82.5	44.9	35.7
116.00		0.1875	17.462	10.280	387.6	15.01	93.13	82.5	43.7	35.2
118.00		0.1875	17.000	10.005	357.3	14.58	90.67	82.5	41.4	69.0
										13161.4

Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 10



Load Case: 1.2D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	27.041	29.74	385.91	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	27.041	29.74	381.79	0.730	0.000	2.00	7.280	5.31	158.1	0.0	414.5
4.00		1.00	0.85	27.041	29.74	377.66	0.730	0.000	2.00	7.202	5.26	156.4	0.0	410.0
6.00		1.00	0.85	27.041	29.74	373.54	0.730	0.000	2.00	7.124	5.20	154.7	0.0	405.5
8.00		1.00	0.85	27.041	29.74	369.42	0.730	0.000	2.00	7.046	5.14	153.0	0.0	401.0
10.00		1.00	0.85	27.041	29.74	365.30	0.730	0.000	2.00	6.968	5.09	151.3	0.0	396.5
12.00		1.00	0.85	27.041	29.74	361.18	0.730	0.000	2.00	6.890	5.03	149.6	0.0	392.1
14.00		1.00	0.85	27.041	29.74	357.06	0.730	0.000	2.00	6.811	4.97	147.9	0.0	387.6
16.00		1.00	0.87	27.726	30.50	357.38	0.730	0.000	2.00	6.733	4.92	149.9	0.0	383.1
18.00		1.00	0.89	28.383	31.22	357.37	0.730	0.000	2.00	6.655	4.86	151.7	0.0	378.6
20.00		1.00	0.91	28.988	31.89	356.89	0.730	0.000	2.00	6.577	4.80	153.1	0.0	374.1
22.00		1.00	0.93	29.548	32.50	356.01	0.730	0.000	2.00	6.499	4.74	154.2	0.0	369.6
24.00		1.00	0.95	30.072	33.08	354.81	0.730	0.000	2.00	6.421	4.69	155.0	0.0	365.1
26.00		1.00	0.96	30.563	33.62	353.31	0.730	0.000	2.00	6.342	4.63	155.7	0.0	360.6
28.00		1.00	0.98	31.026	34.13	351.57	0.730	0.000	2.00	6.264	4.57	156.1	0.0	356.1
30.00		1.00	0.99	31.465	34.61	349.60	0.730	0.000	2.00	6.186	4.52	156.3	0.0	351.7
32.00		1.00	1.00	31.882	35.07	347.43	0.730	0.000	2.00	6.108	4.46	156.4	0.0	347.2
34.00		1.00	1.01	32.279	35.51	345.09	0.730	0.000	2.00	6.030	4.40	156.3	0.0	342.7
36.00		1.00	1.03	32.659	35.92	342.58	0.730	0.000	2.00	5.952	4.34	156.1	0.0	338.2
38.00		1.00	1.04	33.023	36.33	339.93	0.730	0.000	2.00	5.873	4.29	155.7	0.0	333.7
40.00		1.00	1.05	33.372	36.71	337.15	0.730	0.000	2.00	5.795	4.23	155.3	0.0	329.2
42.00		1.00	1.06	33.709	37.08	334.24	0.730	0.000	2.00	5.717	4.17	154.8	0.0	324.7
44.00		1.00	1.07	34.033	37.44	331.22	0.730	0.000	2.00	5.639	4.12	154.1	0.0	320.2
45.13	Bot - Section 2	1.00	1.08	34.211	37.63	329.47	0.730	0.000	1.13	3.151	2.30	86.6	0.0	178.9
46.00		1.00	1.08	34.346	37.78	328.10	0.730	0.000	0.87	2.455	1.79	67.7	0.0	253.2
48.00		1.00	1.09	34.648	38.11	324.87	0.730	0.000	2.00	5.588	4.08	155.5	0.0	576.2
49.88	Top - Section 1	1.00	1.10	34.924	38.42	321.76	0.730	0.000	1.88	5.182	3.78	145.3	0.0	534.1
50.00		1.00	1.10	34.941	38.44	327.90	0.730	0.000	0.12	0.328	0.24	9.2	0.0	15.6
52.00		1.00	1.11	35.226	38.75	324.53	0.730	0.000	2.00	5.432	3.97	153.7	0.0	257.5
54.00		1.00	1.12	35.501	39.05	321.07	0.730	0.000	2.00	5.354	3.91	152.6	0.0	253.7
56.00		1.00	1.12	35.769	39.35	317.54	0.730	0.000	2.00	5.276	3.85	151.5	0.0	250.0
58.00		1.00	1.13	36.030	39.63	313.94	0.730	0.000	2.00	5.198	3.79	150.4	0.0	246.2
60.00		1.00	1.14	36.284	39.91	310.27	0.730	0.000	2.00	5.119	3.74	149.2	0.0	242.5
62.00		1.00	1.15	36.531	40.18	306.53	0.730	0.000	2.00	5.041	3.68	147.9	0.0	238.8
64.00		1.00	1.16	36.772	40.45	302.74	0.730	0.000	2.00	4.963	3.62	146.6	0.0	235.0
66.00		1.00	1.16	37.007	40.71	298.89	0.730	0.000	2.00	4.885	3.57	145.2	0.0	231.3
68.00	Appurtenance(s)	1.00	1.17	37.237	40.96	294.98	0.730	0.000	2.00	4.807	3.51	143.7	0.0	227.5
70.00		1.00	1.18	37.462	41.21	291.01	0.730	0.000	2.00	4.729	3.45	142.2	0.0	223.8
72.00		1.00	1.18	37.682	41.45	287.00	0.730	0.000	2.00	4.650	3.39	140.7	0.0	220.0
74.00	Appurtenance(s)	1.00	1.19	37.897	41.69	282.94	0.730	0.000	2.00	4.572	3.34	139.1	0.0	216.3
76.00		1.00	1.20	38.107	41.92	278.83	0.730	0.000	2.00	4.494	3.28	137.5	0.0	212.6
78.00		1.00	1.20	38.314	42.14	274.68	0.730	0.000	2.00	4.416	3.22	135.9	0.0	208.8
80.00	Appurtenance(s)	1.00	1.21	38.516	42.37	270.49	0.730	0.000	2.00	4.338	3.17	134.2	0.0	205.1
82.00	Appurtenance(s)	1.00	1.22	38.714	42.59	266.25	0.730	0.000	2.00	4.260	3.11	132.4	0.0	201.3
84.00	Appurtenance(s)	1.00	1.22	38.909	42.80	261.98	0.730	0.000	2.00	4.181	3.05	130.6	0.0	197.6
86.00		1.00	1.23	39.100	43.01	257.66	0.730	0.000	2.00	4.103	3.00	128.8	0.0	193.9
88.00		1.00	1.23	39.287	43.22	253.31	0.730	0.000	2.00	4.025	2.94	127.0	0.0	190.1

Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 11



90.00 Appurtenance(s)	1.00	1.24	39.471	43.42	248.93	0.730	0.000	2.00	3.947	2.88	125.1	0.0	186.4
91.29 Bot - Section 3	1.00	1.24	39.589	43.55	246.07	0.730	0.000	1.29	2.511	1.83	79.8	0.0	118.5
92.00	1.00	1.25	39.652	43.62	244.51	0.730	0.000	0.71	1.380	1.01	44.0	0.0	103.4
94.00	1.00	1.25	39.830	43.81	240.05	0.730	0.000	2.00	3.854	2.81	123.3	0.0	288.7
94.71 Top - Section 2	1.00	1.25	39.893	43.88	238.46	0.730	0.000	0.71	1.349	0.99	43.2	0.0	101.0
96.00	1.00	1.26	40.006	44.01	239.64	0.730	0.000	1.29	2.427	1.77	78.0	0.0	69.1
97.00 Appurtenance(s)	1.00	1.26	40.092	44.10	237.39	0.730	0.000	1.00	1.859	1.36	59.8	0.0	52.9
98.00	1.00	1.26	40.178	44.20	235.13	0.730	0.000	1.00	1.839	1.34	59.3	0.0	52.4
100.00	1.00	1.27	40.347	44.38	230.59	0.730	0.000	2.00	3.620	2.64	117.3	0.0	103.0
102.00	1.00	1.27	40.514	44.57	226.02	0.730	0.000	2.00	3.541	2.59	115.2	0.0	100.8
104.00	1.00	1.28	40.679	44.75	221.43	0.730	0.000	2.00	3.463	2.53	113.1	0.0	98.5
106.00 Appurtenance(s)	1.00	1.28	40.841	44.92	216.80	0.730	0.000	2.00	3.385	2.47	111.0	0.0	96.3
108.00	1.00	1.29	41.000	45.10	212.15	0.730	0.000	2.00	3.307	2.41	108.9	0.0	94.1
110.00	1.00	1.29	41.157	45.27	207.47	0.730	0.000	2.00	3.229	2.36	106.7	0.0	91.8
112.00	1.00	1.30	41.312	45.44	202.77	0.730	0.000	2.00	3.151	2.30	104.5	0.0	89.6
114.00	1.00	1.30	41.465	45.61	198.04	0.730	0.000	2.00	3.072	2.24	102.3	0.0	87.3
115.00 Appurtenance(s)	1.00	1.31	41.541	45.69	195.67	0.730	0.000	1.00	1.507	1.10	50.3	0.0	42.8
116.00	1.00	1.31	41.616	45.78	193.29	0.730	0.000	1.00	1.487	1.09	49.7	0.0	42.3
118.00	1.00	1.31	41.765	45.94	188.51	0.730	0.000	2.00	2.916	2.13	97.8	0.0	82.8
Totals:								118.00			8,234.4		15,793.7

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0W 116 mph Wind	Iterations 26
Dead Load Factor 1.20	
Wind Load Factor 1.00	

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	115.00	Low Profile Platform	1	41.541	45.695	1.00	1.00	28.50	2160.00	0.000	0.000	1302.31	0.00	0.00
2	115.00	Mount Pipes	12	41.691	45.860	0.90	0.90	20.52	864.00	0.000	2.000	941.04	0.00	1882.08
3	115.00	DS1F03F36D-N	1	42.498	46.747	1.00	1.00	6.75	85.20	0.000	13.250	315.54	0.00	4180.97
4	106.00	APXV9TM14-ALU-120	3	40.921	45.013	0.63	0.80	12.02	201.60	0.000	1.000	541.08	0.00	541.08
5	106.00	Universal Ring Mount	1	40.841	44.925	1.00	1.00	5.00	420.00	0.000	0.000	224.62	0.00	0.00
6	106.00	Low Profile Platform	1	40.841	44.925	0.75	0.75	21.00	2400.00	0.000	0.000	943.42	0.00	0.00
7	106.00	APXVSP18-C-A20	3	40.841	44.925	0.66	0.80	15.98	205.20	0.000	0.000	717.71	0.00	0.00
8	106.00	1900 MHz 4X45 RRH	3	40.841	44.925	0.40	0.80	3.25	216.00	0.000	0.000	146.09	0.00	0.00
9	106.00	800 MHz RRU Filter	3	40.841	44.925	0.40	0.80	2.88	230.40	0.000	0.000	129.38	0.00	0.00
10	106.00	TD-RRH8x20-25	3	40.841	44.925	0.40	0.80	4.86	252.00	0.000	0.000	218.33	0.00	0.00
11	106.00	ACU-A20-N	4	40.841	44.925	0.40	0.80	0.22	4.80	0.000	0.000	10.06	0.00	0.00
12	97.00	Amphenol	3	40.092	44.101	0.55	0.75	12.43	61.20	0.000	0.000	548.34	0.00	0.00
13	97.00	Samsung MT6407-77A	3	40.092	44.101	0.52	0.75	7.39	285.84	0.000	0.000	325.76	0.00	0.00
14	97.00	Samsung RF4439d-25A	3	40.092	44.101	0.38	0.75	2.09	268.92	0.000	0.000	92.28	0.00	0.00
15	97.00	JMA MX06FRO660-03	6	40.092	44.101	0.65	0.75	38.64	627.12	0.000	0.000	1704.12	0.00	0.00
16	97.00	Low Profile Platform w/	1	40.092	44.101	0.75	0.75	26.27	2520.00	0.000	0.000	1158.65	0.00	0.00
17	97.00	Samsung RF4440d-13A	3	40.092	44.101	0.50	0.75	2.80	253.19	0.000	0.000	123.66	0.00	0.00
18	97.00	Commscope	1	40.092	44.101	0.75	0.75	1.40	18.25	0.000	0.000	61.85	0.00	0.00
19	97.00	Kaelus KA-6030	6	40.092	44.101	0.49	0.75	2.81	126.72	0.000	0.000	123.84	0.00	0.00
20	90.00	RRUS 32 B30	3	39.471	43.419	0.40	0.80	3.29	216.00	0.000	0.000	142.76	0.00	0.00
21	90.00	RRUS 32 B2	3	39.471	43.419	0.40	0.80	3.29	190.80	0.000	0.000	142.76	0.00	0.00
22	90.00	QS66512-2	3	39.471	43.419	0.72	0.80	17.56	277.20	0.000	0.000	762.46	0.00	0.00
23	90.00	DC6-48-60-18-8F	2	39.471	43.419	1.00	1.00	1.84	76.32	0.000	0.000	79.89	0.00	0.00
24	90.00	RRUS-11	3	39.471	43.419	0.40	0.80	5.30	198.00	0.000	0.000	230.29	0.00	0.00
25	90.00	LGP21401	6	39.471	43.419	0.40	0.80	3.10	101.52	0.000	0.000	134.42	0.00	0.00
26	90.00	P65-16-XLH-RR	3	39.471	43.419	0.60	0.80	14.69	190.80	0.000	0.000	637.73	0.00	0.00
27	90.00	Low Profile Platform	1	39.471	43.419	0.75	0.75	18.75	1618.80	0.000	0.000	814.10	0.00	0.00
28	90.00	7770.00	3	39.471	43.419	0.58	0.80	9.64	126.00	0.000	0.000	418.38	0.00	0.00
29	84.00	12.5' - 2" Horizontal Pipe	1	38.909	42.800	1.00	1.00	2.97	54.90	0.000	0.000	127.06	0.00	0.00
30	82.00	Ericsson 4460 B25 + B66	3	38.714	42.586	0.38	0.75	3.21	392.40	0.000	0.000	136.54	0.00	0.00
31	82.00	Platform w/ Handrail	1	38.714	42.586	0.75	0.75	17.86	2241.84	0.000	0.000	760.47	0.00	0.00
32	82.00	Kathrein 782 11054	3	38.714	42.586	0.38	0.75	0.17	6.48	0.000	0.000	7.19	0.00	0.00
33	82.00	RFS	3	38.714	42.586	0.54	0.75	32.79	442.08	0.000	0.000	1396.33	0.00	0.00
34	82.00	Ericsson AIR6419 B41	3	38.714	42.586	0.57	0.75	6.50	237.96	0.000	0.000	276.72	0.00	0.00
35	82.00	Commscope VV-65A-R1	3	38.714	42.586	0.55	0.75	13.15	106.20	0.000	0.000	560.15	0.00	0.00
36	82.00	Ericsson 4480 B71 + B85	3	38.714	42.586	0.38	0.75	3.21	334.80	0.000	0.000	136.54	0.00	0.00
37	82.00	Andrew VHLP3-11W	1	38.714	42.586	1.00	1.00	10.68	63.60	0.000	0.000	454.81	0.00	0.00
38	82.00	Ceragon	1	38.714	42.586	0.38	0.75	0.39	13.80	0.000	0.000	16.77	0.00	0.00
39	82.00	TBD S20057A1	3	38.714	42.586	0.38	0.75	0.01	39.60	0.000	0.000	0.48	0.00	0.00
40	82.00	MS-KI22-5 (Kickers w/o	1	38.714	42.586	1.00	1.00	6.33	175.20	0.000	0.000	269.57	0.00	0.00
41	82.00	RFS ATMAA1412D-1A20	3	38.714	42.586	0.38	0.75	1.32	46.80	0.000	0.000	56.05	0.00	0.00
42	80.00	Pipe Mount	1	38.516	42.367	1.00	1.00	2.50	72.00	0.000	0.000	105.92	0.00	0.00
43	80.00	Ericsson ANT3 A 0.9 11	1	38.516	42.367	1.00	1.00	10.63	50.16	0.000	0.000	450.37	0.00	0.00
44	80.00	Ericsson Mini-Link 6365	2	38.516	42.367	0.72	1.00	0.66	13.20	0.000	0.000	28.06	0.00	0.00
45	74.00	GPS	1	37.897	41.686	1.00	1.00	1.00	12.00	0.000	0.000	41.69	0.00	0.00
46	74.00	Standoff Mount	1	37.897	41.686	1.00	1.00	2.63	48.00	0.000	0.000	109.64	0.00	0.00
47	68.00	MC-PK8-DSH	1	37.237	40.961	0.75	0.75	25.68	2072.40	0.000	0.000	1051.88	0.00	0.00

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 13
	Struct Class: II	



48	68.00	RDIDC-9181-OF-48	1	37.237	40.961	1.00	1.00	2.01	26.28	0.000	0.000	82.33	0.00	0.00
49	68.00	TA08025-B605	3	37.237	40.961	0.38	0.75	2.21	270.00	0.000	0.000	90.32	0.00	0.00
50	68.00	TA08025-B604	3	37.237	40.961	0.38	0.75	2.21	230.04	0.000	0.000	90.32	0.00	0.00
51	68.00	Commscope	3	37.237	40.961	0.55	0.75	19.71	254.88	0.000	0.000	807.49	0.00	0.00
Totals:												21,400.50		20,047.58

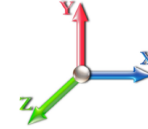
Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 14



Load Case: 1.2D + 1.0W 116 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		158.09	507.95	0.00	0.00
4.00		156.39	503.46	0.00	0.00
6.00		154.69	498.97	0.00	0.00
8.00		152.99	494.48	0.00	0.00
10.00		151.30	489.99	0.00	0.00
12.00		149.60	485.50	0.00	0.00
14.00		147.90	481.01	0.00	0.00
16.00		149.91	476.52	0.00	0.00
18.00		151.68	472.04	0.00	0.00
20.00		153.09	467.55	0.00	0.00
22.00		154.20	463.06	0.00	0.00
24.00		155.04	458.57	0.00	0.00
26.00		155.66	454.08	0.00	0.00
28.00		156.07	449.59	0.00	0.00
30.00		156.30	445.10	0.00	0.00
32.00		156.37	440.61	0.00	0.00
34.00		156.29	436.12	0.00	0.00
36.00		156.08	431.63	0.00	0.00
38.00		155.75	427.14	0.00	0.00
40.00		155.30	422.65	0.00	0.00
42.00		154.75	418.16	0.00	0.00
44.00		154.10	413.67	0.00	0.00
45.13		86.58	231.74	0.00	0.00
46.00		67.72	293.86	0.00	0.00
48.00		155.49	669.64	0.00	0.00
49.88		145.32	621.95	0.00	0.00
50.00		9.21	21.17	0.00	0.00
52.00		153.65	350.91	0.00	0.00
54.00		152.63	347.17	0.00	0.00
56.00		151.53	343.43	0.00	0.00
58.00		150.38	339.68	0.00	0.00
60.00		149.16	335.94	0.00	0.00
62.00		147.88	332.20	0.00	0.00
64.00		146.55	328.46	0.00	0.00
66.00		145.17	324.72	0.00	0.00
68.00	(11) attachments	2266.07	3174.58	0.00	0.00
70.00		142.25	312.46	0.00	0.00
72.00		140.72	308.72	0.00	0.00
74.00	(2) attachments	290.46	364.98	0.00	0.00
76.00		137.52	300.85	0.00	0.00
78.00		135.86	297.11	0.00	0.00
80.00	(4) attachments	718.51	428.73	0.00	0.00
82.00	(28) attachments	4204.03	4390.00	0.00	0.00
84.00	(1) attachments	257.71	314.60	0.00	0.00
86.00		128.83	255.96	0.00	0.00
88.00		126.98	252.21	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 15
Struct Class: II		



90.00	(27) attachments	3487.90	3243.91	0.00	0.00
91.29		79.82	146.33	0.00	0.00
92.00		43.96	118.62	0.00	0.00
94.00		123.27	331.65	0.00	0.00
94.71		43.23	116.30	0.00	0.00
96.00		77.95	96.82	0.00	0.00
97.00	(26) attachments	4198.34	4235.66	0.00	0.00
98.00		59.34	57.56	0.00	0.00
100.00		117.27	113.43	0.00	0.00
102.00		115.21	111.19	0.00	0.00
104.00		113.13	108.94	0.00	0.00
106.00	(21) attachments	3041.72	4036.70	0.00	541.08
108.00		108.87	99.70	0.00	0.00
110.00		106.71	97.46	0.00	0.00
112.00		104.52	95.21	0.00	0.00
114.00		102.30	92.97	0.00	0.00
115.00	(14) attachments	2609.16	3154.84	0.00	6063.05
116.00		49.70	45.08	0.00	0.00
118.00		97.80	87.23	0.00	0.00
Totals:		28,281.96	41,468.54	0.00	6,604.13

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0W 116 mph Wind	Iterations 26
Dead Load Factor 1.20	
Wind Load Factor 1.00	

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.063	0.000	27.041	0.00	0.66
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.063	0.000	27.041	0.00	2.50
2.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.063	0.000	27.041	0.00	0.38
2.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.063	0.000	27.041	0.00	4.78
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.064	0.000	27.041	0.00	0.66
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.064	0.000	27.041	0.00	2.50
4.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	27.041	0.00	0.38
4.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.064	0.000	27.041	0.00	4.78
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	27.041	0.00	0.66
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	27.041	0.00	2.50
6.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.041	0.00	0.38
6.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	27.041	0.00	4.78
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	27.041	0.00	0.66
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	27.041	0.00	2.50
8.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.041	0.00	0.38
8.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	27.041	0.00	4.78
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.066	0.000	27.041	0.00	0.66
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.066	0.000	27.041	0.00	2.50
10.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	27.041	0.00	0.38
10.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.066	0.000	27.041	0.00	4.78
12.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.067	0.000	27.041	0.00	0.66
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.067	0.000	27.041	0.00	2.50
12.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.041	0.00	0.38
12.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.067	0.000	27.041	0.00	4.78
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	27.041	0.00	0.66
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	27.041	0.00	2.50
14.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.041	0.00	0.38
14.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	27.041	0.00	4.78
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	27.726	0.00	0.66
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	27.726	0.00	2.50
16.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.726	0.00	0.38
16.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	27.726	0.00	4.78
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.069	0.000	28.383	0.00	0.66
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.069	0.000	28.383	0.00	2.50
18.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	28.383	0.00	0.38
18.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.069	0.000	28.383	0.00	4.78
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.070	0.000	28.988	0.00	0.66
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.070	0.000	28.988	0.00	2.50
20.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	28.988	0.00	0.38
20.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.070	0.000	28.988	0.00	4.78
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.071	0.000	29.548	0.00	0.66
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.071	0.000	29.548	0.00	2.50
22.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	29.548	0.00	0.38
22.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.071	0.000	29.548	0.00	4.78
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.072	0.000	30.072	0.00	0.66
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.072	0.000	30.072	0.00	2.50
24.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	30.072	0.00	0.38

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

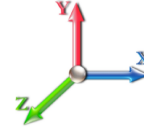


Load Case: 1.2D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
24.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.072	0.000	30.072	0.00	4.78
26.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.073	0.000	30.563	0.00	0.66
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.073	0.000	30.563	0.00	2.50
26.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	30.563	0.00	0.38
26.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.073	0.000	30.563	0.00	4.78
28.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.073	0.000	31.026	0.00	0.66
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.073	0.000	31.026	0.00	2.50
28.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	31.026	0.00	0.38
28.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.073	0.000	31.026	0.00	4.78
30.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.074	0.000	31.465	0.00	0.66
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.074	0.000	31.465	0.00	2.50
30.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	31.465	0.00	0.38
30.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.074	0.000	31.465	0.00	4.78
32.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.075	0.000	31.882	0.00	0.66
32.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.075	0.000	31.882	0.00	2.50
32.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	31.882	0.00	0.38
32.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.075	0.000	31.882	0.00	4.78
34.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.076	0.000	32.279	0.00	0.66
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.076	0.000	32.279	0.00	2.50
34.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	32.279	0.00	0.38
34.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.076	0.000	32.279	0.00	4.78
36.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.077	0.000	32.659	0.00	0.66
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.077	0.000	32.659	0.00	2.50
36.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	32.659	0.00	0.38
36.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.077	0.000	32.659	0.00	4.78
38.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.078	0.000	33.023	0.00	0.66
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.078	0.000	33.023	0.00	2.50
38.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	33.023	0.00	0.38
38.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.078	0.000	33.023	0.00	4.78
40.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.079	0.000	33.372	0.00	0.66
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.079	0.000	33.372	0.00	2.50
40.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	33.372	0.00	0.38
40.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.079	0.000	33.372	0.00	4.78
42.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.080	0.000	33.709	0.00	0.66
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.080	0.000	33.709	0.00	2.50
42.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	33.709	0.00	0.38
42.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.080	0.000	33.709	0.00	4.78
44.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.082	0.000	34.033	0.00	0.66
44.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.082	0.000	34.033	0.00	2.50
44.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	34.033	0.00	0.38
44.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.082	0.000	34.033	0.00	4.78
45.13	Safety Cable	Yes	1.13	0.000	0.38	0.04	0.00	0.082	0.000	34.211	0.00	0.37
45.13	Step bolts (ladder)	Yes	1.13	0.000	0.63	0.06	0.00	0.082	0.000	34.211	0.00	1.41
45.13	1/2"	Yes	1.13	0.000	0.00	0.00	0.00	0.082	0.000	34.211	0.00	0.22
45.13	1.75" Hybrid	Yes	1.13	0.000	1.75	0.16	0.00	0.082	0.000	34.211	0.00	2.70
46.00	Safety Cable	Yes	0.87	0.000	0.38	0.03	0.00	0.083	0.000	34.346	0.00	0.29
46.00	Step bolts (ladder)	Yes	0.87	0.000	0.63	0.05	0.00	0.083	0.000	34.346	0.00	1.09

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



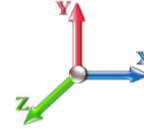
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Load Case: 1.2D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	1/2"	Yes	0.87	0.000	0.00	0.00	0.00	0.083	0.000	34.346	0.00	0.17
46.00	1.75" Hybrid	Yes	0.87	0.000	1.75	0.13	0.00	0.083	0.000	34.346	0.00	2.08
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.084	0.000	34.648	0.00	0.66
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.084	0.000	34.648	0.00	2.50
48.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	34.648	0.00	0.38
48.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.084	0.000	34.648	0.00	4.78
49.88	Safety Cable	Yes	1.88	0.000	0.38	0.06	0.00	0.085	0.000	34.924	0.00	0.62
49.88	Step bolts (ladder)	Yes	1.88	0.000	0.63	0.10	0.00	0.085	0.000	34.924	0.00	2.35
49.88	1/2"	Yes	1.88	0.000	0.00	0.00	0.00	0.085	0.000	34.924	0.00	0.36
49.88	1.75" Hybrid	Yes	1.88	0.000	1.75	0.27	0.00	0.085	0.000	34.924	0.00	4.49
50.00	Safety Cable	Yes	0.12	0.000	0.38	0.00	0.00	0.084	0.000	34.941	0.00	0.04
50.00	Step bolts (ladder)	Yes	0.12	0.000	0.63	0.01	0.00	0.084	0.000	34.941	0.00	0.15
50.00	1/2"	Yes	0.12	0.000	0.00	0.00	0.00	0.084	0.000	34.941	0.00	0.02
50.00	1.75" Hybrid	Yes	0.12	0.000	1.75	0.02	0.00	0.084	0.000	34.941	0.00	0.29
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.085	0.000	35.226	0.00	0.66
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.085	0.000	35.226	0.00	2.50
52.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	35.226	0.00	0.38
52.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.085	0.000	35.226	0.00	4.78
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.086	0.000	35.501	0.00	0.66
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.086	0.000	35.501	0.00	2.50
54.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	35.501	0.00	0.38
54.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.086	0.000	35.501	0.00	4.78
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.087	0.000	35.769	0.00	0.66
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.087	0.000	35.769	0.00	2.50
56.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.087	0.000	35.769	0.00	0.38
56.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.087	0.000	35.769	0.00	4.78
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.089	0.000	36.030	0.00	0.66
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.089	0.000	36.030	0.00	2.50
58.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	36.030	0.00	0.38
58.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.089	0.000	36.030	0.00	4.78
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.090	0.000	36.284	0.00	0.66
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.090	0.000	36.284	0.00	2.50
60.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	36.284	0.00	0.38
60.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.090	0.000	36.284	0.00	4.78
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.091	0.000	36.531	0.00	0.66
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.091	0.000	36.531	0.00	2.50
62.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	36.531	0.00	0.38
62.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.091	0.000	36.531	0.00	4.78
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.093	0.000	36.772	0.00	0.66
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.093	0.000	36.772	0.00	2.50
64.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.093	0.000	36.772	0.00	0.38
64.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.093	0.000	36.772	0.00	4.78
66.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.094	0.000	37.007	0.00	0.66
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.094	0.000	37.007	0.00	2.50
66.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	37.007	0.00	0.38
66.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.094	0.000	37.007	0.00	4.78
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.096	0.000	37.237	0.00	0.66

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

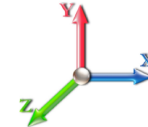


Load Case: 1.2D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.096	0.000	37.237	0.00	2.50
68.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.096	0.000	37.237	0.00	0.38
68.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.096	0.000	37.237	0.00	4.78
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	37.462	0.00	0.66
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	37.462	0.00	2.50
70.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	37.462	0.00	0.38
72.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	37.682	0.00	0.66
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	37.682	0.00	2.50
72.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	37.682	0.00	0.38
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	37.897	0.00	0.66
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	37.897	0.00	2.50
74.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.037	0.000	37.897	0.00	0.38
76.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	38.107	0.00	0.66
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	38.107	0.00	2.50
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	38.314	0.00	0.66
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	38.314	0.00	2.50
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	38.516	0.00	0.66
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	38.516	0.00	2.50
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	38.714	0.00	0.66
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	38.714	0.00	2.50
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	38.909	0.00	0.66
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	38.909	0.00	2.50
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	39.100	0.00	0.66
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	39.100	0.00	2.50
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.042	0.000	39.287	0.00	0.66
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.042	0.000	39.287	0.00	2.50
90.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.043	0.000	39.471	0.00	0.66
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.043	0.000	39.471	0.00	2.50
91.29	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.043	0.000	39.589	0.00	0.42
91.29	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.043	0.000	39.589	0.00	1.61
92.00	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.044	0.000	39.652	0.00	0.23
92.00	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.044	0.000	39.652	0.00	0.88
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.044	0.000	39.830	0.00	0.66
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.044	0.000	39.830	0.00	2.50
94.71	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.045	0.000	39.893	0.00	0.23
94.71	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.045	0.000	39.893	0.00	0.89
96.00	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.045	0.000	40.006	0.00	0.42
96.00	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.045	0.000	40.006	0.00	1.61
97.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.045	0.000	40.092	0.00	0.33
97.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.045	0.000	40.092	0.00	1.25
98.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.046	0.000	40.178	0.00	0.33
98.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.046	0.000	40.178	0.00	1.25
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	40.347	0.00	0.66
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	40.347	0.00	2.50
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	40.514	0.00	0.66
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	40.514	0.00	2.50
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	40.679	0.00	0.66

Linear Appurtenance Segment Forces (Factored)

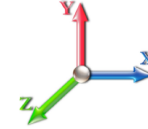
Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 116 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	40.679	0.00	2.50
106.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	40.841	0.00	0.66
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	40.841	0.00	2.50
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	41.000	0.00	0.66
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	41.000	0.00	2.50
110.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	41.157	0.00	0.66
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	41.157	0.00	2.50
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	41.312	0.00	0.66
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	41.312	0.00	2.50
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.055	0.000	41.465	0.00	0.66
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.055	0.000	41.465	0.00	2.50
115.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.056	0.000	41.541	0.00	0.33
115.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.056	0.000	41.541	0.00	1.25
116.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.057	0.000	41.616	0.00	0.33
116.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.057	0.000	41.616	0.00	1.25
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.058	0.000	41.765	0.00	0.66
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.058	0.000	41.765	0.00	2.50
Totals:											0.0	362.6

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

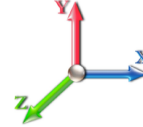


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Load Case: 1.2D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 1.20
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-41.44	-28.32	0.00	-2457.9	0.00	2457.93	3634.70	895.58	3185.83	3203.64	0.00	0.000	0.000	0.780
2.00	-40.87	-28.25	0.00	-2401.2	0.00	2401.29	3607.15	885.93	3117.56	3144.81	0.03	-0.117	0.000	0.776
4.00	-40.31	-28.17	0.00	-2344.7	0.00	2344.79	3579.34	876.28	3050.03	3086.29	0.10	-0.234	0.000	0.772
6.00	-39.76	-28.10	0.00	-2288.4	0.00	2288.44	3551.29	866.64	2983.24	3028.09	0.22	-0.353	0.000	0.768
8.00	-39.20	-28.03	0.00	-2232.2	0.00	2232.24	3522.98	856.99	2917.19	2970.21	0.40	-0.473	0.000	0.764
10.00	-38.66	-27.95	0.00	-2176.1	0.00	2176.19	3494.42	847.34	2851.88	2912.67	0.62	-0.594	0.000	0.759
12.00	-38.11	-27.88	0.00	-2120.2	0.00	2120.29	3465.61	837.69	2787.31	2855.46	0.90	-0.715	0.000	0.755
14.00	-37.57	-27.80	0.00	-2064.5	0.00	2064.54	3436.54	828.05	2723.48	2798.60	1.22	-0.838	0.000	0.750
16.00	-37.04	-27.73	0.00	-2008.9	0.00	2008.93	3407.22	818.40	2660.39	2742.09	1.60	-0.962	0.000	0.745
18.00	-36.51	-27.65	0.00	-1953.4	0.00	1953.48	3377.65	808.75	2598.04	2685.95	2.03	-1.086	0.000	0.739
20.00	-35.99	-27.56	0.00	-1898.1	0.00	1898.18	3347.83	799.10	2536.42	2630.17	2.51	-1.212	0.000	0.734
22.00	-35.46	-27.48	0.00	-1843.0	0.00	1843.06	3317.75	789.46	2475.55	2574.76	3.05	-1.338	0.000	0.728
24.00	-34.95	-27.39	0.00	-1788.1	0.00	1788.10	3287.42	779.81	2415.41	2519.74	3.64	-1.466	0.000	0.722
26.00	-34.44	-27.30	0.00	-1733.3	0.00	1733.33	3256.84	770.16	2356.02	2465.11	4.28	-1.594	0.000	0.715
28.00	-33.93	-27.21	0.00	-1678.7	0.00	1678.73	3219.51	760.51	2297.36	2406.03	4.98	-1.723	0.000	0.710
30.00	-33.43	-27.11	0.00	-1624.3	0.00	1624.32	3178.67	750.87	2239.44	2345.06	5.73	-1.852	0.000	0.704
32.00	-32.93	-27.02	0.00	-1570.0	0.00	1570.09	3137.83	741.22	2182.27	2284.88	6.53	-1.982	0.000	0.699
34.00	-32.44	-26.92	0.00	-1516.0	0.00	1516.06	3096.99	731.57	2125.83	2225.48	7.39	-2.113	0.000	0.693
36.00	-31.96	-26.82	0.00	-1462.2	0.00	1462.22	3056.15	721.92	2070.13	2166.87	8.30	-2.244	0.000	0.687
38.00	-31.47	-26.72	0.00	-1408.5	0.00	1408.59	3015.30	712.28	2015.17	2109.03	9.27	-2.376	0.000	0.680
40.00	-31.00	-26.62	0.00	-1355.1	0.00	1355.15	2974.46	702.63	1960.95	2051.98	10.29	-2.507	0.000	0.672
42.00	-30.53	-26.52	0.00	-1301.9	0.00	1301.91	2933.62	692.98	1907.47	1995.71	11.37	-2.639	0.000	0.664
44.00	-30.07	-26.40	0.00	-1248.8	0.00	1248.89	2892.78	683.33	1854.73	1940.23	12.51	-2.772	0.000	0.656
45.13	-29.81	-26.33	0.00	-1219.0	0.00	1219.06	2869.71	677.88	1825.26	1909.22	13.17	-2.847	0.000	0.650
46.00	-29.48	-26.30	0.00	-1196.1	0.00	1196.15	2851.94	673.69	1802.73	1885.52	13.70	-2.905	0.000	0.646
48.00	-28.76	-26.17	0.00	-1143.5	0.00	1143.55	2811.10	664.04	1751.47	1831.60	14.94	-3.037	0.000	0.636
49.88	-28.12	-26.03	0.00	-1094.3	0.00	1094.35	2333.69	557.78	1482.91	1535.76	16.16	-3.161	0.000	0.727
50.00	-28.06	-26.06	0.00	-1091.2	0.00	1091.22	2332.20	557.29	1480.35	1533.44	16.24	-3.169	0.000	0.726
52.00	-27.65	-25.95	0.00	-1039.1	0.00	1039.12	2307.18	549.25	1437.95	1494.89	17.60	-3.316	0.000	0.709
54.00	-27.25	-25.85	0.00	-987.21	0.00	987.21	2281.92	541.21	1396.16	1456.67	19.02	-3.463	0.000	0.692
56.00	-26.85	-25.75	0.00	-935.51	0.00	935.51	2256.40	533.17	1354.99	1418.77	20.50	-3.608	0.000	0.674
58.00	-26.46	-25.64	0.00	-884.02	0.00	884.02	2223.07	525.14	1314.43	1376.53	22.05	-3.752	0.000	0.656
60.00	-26.07	-25.53	0.00	-832.75	0.00	832.75	2189.04	517.10	1274.49	1334.49	23.65	-3.894	0.000	0.638
62.00	-25.69	-25.42	0.00	-781.68	0.00	781.68	2155.00	509.06	1235.17	1293.10	25.31	-4.034	0.000	0.619
64.00	-25.31	-25.31	0.00	-730.84	0.00	730.84	2120.97	501.02	1196.47	1252.37	27.03	-4.171	0.000	0.598
66.00	-24.94	-25.20	0.00	-680.21	0.00	680.21	2086.94	492.98	1158.38	1212.28	28.80	-4.305	0.000	0.576
68.00	-21.90	-22.75	0.00	-629.80	0.00	629.80	2052.90	484.94	1120.90	1172.85	30.63	-4.436	0.000	0.550
70.00	-21.55	-22.63	0.00	-584.30	0.00	584.30	2018.87	476.90	1084.04	1134.08	32.52	-4.564	0.000	0.528
72.00	-21.20	-22.51	0.00	-539.04	0.00	539.04	1984.83	468.86	1047.80	1095.95	34.45	-4.688	0.000	0.505
74.00	-20.82	-22.24	0.00	-494.02	0.00	494.02	1950.80	460.82	1012.18	1058.48	36.44	-4.808	0.000	0.480
76.00	-20.49	-22.11	0.00	-449.55	0.00	449.55	1916.76	452.78	977.17	1021.65	38.48	-4.923	0.000	0.453
78.00	-20.16	-21.99	0.00	-405.32	0.00	405.32	1882.73	444.74	942.77	985.48	40.56	-5.033	0.000	0.424
80.00	-19.76	-21.27	0.00	-361.34	0.00	361.34	1848.70	436.70	909.00	949.96	42.69	-5.138	0.000	0.393
82.00	-15.74	-16.71	0.00	-318.80	0.00	318.80	1814.66	428.66	875.84	915.10	44.86	-5.236	0.000	0.359
84.00	-15.42	-16.45	0.00	-285.37	0.00	285.37	1780.63	420.62	843.29	880.88	47.08	-5.327	0.000	0.334
86.00	-15.16	-16.32	0.00	-252.47	0.00	252.47	1746.59	412.58	811.36	847.32	49.32	-5.414	0.000	0.308
88.00	-14.90	-16.19	0.00	-219.83	0.00	219.83	1712.56	404.54	780.05	814.41	51.61	-5.494	0.000	0.280
90.00	-11.99	-12.42	0.00	-187.45	0.00	187.45	1678.53	396.50	749.35	782.15	53.92	-5.568	0.000	0.248

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 22



91.29	-11.85	-12.33	0.00	-171.38	0.00	171.38	1656.52	391.30	729.83	761.64	55.43	-5.613	0.000	0.233
92.00	-11.72	-12.29	0.00	-162.67	0.00	162.67	1644.49	388.46	719.27	750.54	56.26	-5.636	0.000	0.225
94.00	-11.40	-12.14	0.00	-138.10	0.00	138.10	1610.46	380.42	689.81	719.59	58.64	-5.698	0.000	0.200
94.71	-11.28	-12.09	0.00	-129.48	0.00	129.48	930.70	231.76	426.71	424.70	59.48	-5.718	0.000	0.320
96.00	-11.18	-12.01	0.00	-113.88	0.00	113.88	922.07	228.65	415.33	415.07	61.03	-5.753	0.000	0.289
97.00	-7.39	-7.41	0.00	-101.87	0.00	101.87	915.31	226.24	406.62	407.64	62.24	-5.792	0.000	0.259
98.00	-7.33	-7.35	0.00	-94.46	0.00	94.46	908.49	223.83	397.99	400.25	63.45	-5.829	0.000	0.245
100.00	-7.22	-7.23	0.00	-79.76	0.00	79.76	894.64	219.00	381.02	385.59	65.91	-5.896	0.000	0.216
102.00	-7.12	-7.11	0.00	-65.29	0.00	65.29	880.55	214.18	364.42	371.08	68.39	-5.955	0.000	0.185
104.00	-7.01	-7.00	0.00	-51.06	0.00	51.06	866.20	209.36	348.19	356.74	70.89	-6.006	0.000	0.152
106.00	-3.32	-3.55	0.00	-36.53	0.00	36.53	851.60	204.53	332.33	342.57	73.41	-6.048	0.000	0.111
108.00	-3.23	-3.43	0.00	-29.43	0.00	29.43	836.75	199.71	316.84	328.58	75.95	-6.081	0.000	0.094
110.00	-3.14	-3.32	0.00	-22.57	0.00	22.57	821.65	194.89	301.72	314.78	78.49	-6.109	0.000	0.076
112.00	-3.05	-3.20	0.00	-15.94	0.00	15.94	804.60	190.06	286.97	300.54	81.05	-6.132	0.000	0.057
114.00	-2.97	-3.09	0.00	-9.53	0.00	9.53	784.18	185.24	272.59	285.40	83.62	-6.148	0.000	0.037
115.00	-0.12	-0.16	0.00	-0.37	0.00	0.37	773.97	182.83	265.54	277.98	84.91	-6.153	0.000	0.001
116.00	-0.08	-0.11	0.00	-0.21	0.00	0.21	763.76	180.41	258.58	270.66	86.19	-6.153	0.000	0.001
118.00	0.00	-0.10	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	88.77	-6.153	0.000	0.000

Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

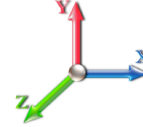


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Load Case: 0.9D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 0.90
Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	27.041	29.74	385.91	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	27.041	29.74	381.79	0.730	0.000	2.00	7.280	5.31	158.1	0.0	310.9
4.00		1.00	0.85	27.041	29.74	377.66	0.730	0.000	2.00	7.202	5.26	156.4	0.0	307.5
6.00		1.00	0.85	27.041	29.74	373.54	0.730	0.000	2.00	7.124	5.20	154.7	0.0	304.1
8.00		1.00	0.85	27.041	29.74	369.42	0.730	0.000	2.00	7.046	5.14	153.0	0.0	300.8
10.00		1.00	0.85	27.041	29.74	365.30	0.730	0.000	2.00	6.968	5.09	151.3	0.0	297.4
12.00		1.00	0.85	27.041	29.74	361.18	0.730	0.000	2.00	6.890	5.03	149.6	0.0	294.0
14.00		1.00	0.85	27.041	29.74	357.06	0.730	0.000	2.00	6.811	4.97	147.9	0.0	290.7
16.00		1.00	0.87	27.726	30.50	357.38	0.730	0.000	2.00	6.733	4.92	149.9	0.0	287.3
18.00		1.00	0.89	28.383	31.22	357.37	0.730	0.000	2.00	6.655	4.86	151.7	0.0	283.9
20.00		1.00	0.91	28.988	31.89	356.89	0.730	0.000	2.00	6.577	4.80	153.1	0.0	280.6
22.00		1.00	0.93	29.548	32.50	356.01	0.730	0.000	2.00	6.499	4.74	154.2	0.0	277.2
24.00		1.00	0.95	30.072	33.08	354.81	0.730	0.000	2.00	6.421	4.69	155.0	0.0	273.8
26.00		1.00	0.96	30.563	33.62	353.31	0.730	0.000	2.00	6.342	4.63	155.7	0.0	270.5
28.00		1.00	0.98	31.026	34.13	351.57	0.730	0.000	2.00	6.264	4.57	156.1	0.0	267.1
30.00		1.00	0.99	31.465	34.61	349.60	0.730	0.000	2.00	6.186	4.52	156.3	0.0	263.7
32.00		1.00	1.00	31.882	35.07	347.43	0.730	0.000	2.00	6.108	4.46	156.4	0.0	260.4
34.00		1.00	1.01	32.279	35.51	345.09	0.730	0.000	2.00	6.030	4.40	156.3	0.0	257.0
36.00		1.00	1.03	32.659	35.92	342.58	0.730	0.000	2.00	5.952	4.34	156.1	0.0	253.6
38.00		1.00	1.04	33.023	36.33	339.93	0.730	0.000	2.00	5.873	4.29	155.7	0.0	250.3
40.00		1.00	1.05	33.372	36.71	337.15	0.730	0.000	2.00	5.795	4.23	155.3	0.0	246.9
42.00		1.00	1.06	33.709	37.08	334.24	0.730	0.000	2.00	5.717	4.17	154.8	0.0	243.5
44.00		1.00	1.07	34.033	37.44	331.22	0.730	0.000	2.00	5.639	4.12	154.1	0.0	240.2
45.13	Bot - Section 2	1.00	1.08	34.211	37.63	329.47	0.730	0.000	1.13	3.151	2.30	86.6	0.0	134.2
46.00		1.00	1.08	34.346	37.78	328.10	0.730	0.000	0.87	2.455	1.79	67.7	0.0	189.9
48.00		1.00	1.09	34.648	38.11	324.87	0.730	0.000	2.00	5.588	4.08	155.5	0.0	432.1
49.88	Top - Section 1	1.00	1.10	34.924	38.42	321.76	0.730	0.000	1.88	5.182	3.78	145.3	0.0	400.6
50.00		1.00	1.10	34.941	38.44	327.90	0.730	0.000	0.12	0.328	0.24	9.2	0.0	11.7
52.00		1.00	1.11	35.226	38.75	324.53	0.730	0.000	2.00	5.432	3.97	153.7	0.0	193.1
54.00		1.00	1.12	35.501	39.05	321.07	0.730	0.000	2.00	5.354	3.91	152.6	0.0	190.3
56.00		1.00	1.12	35.769	39.35	317.54	0.730	0.000	2.00	5.276	3.85	151.5	0.0	187.5
58.00		1.00	1.13	36.030	39.63	313.94	0.730	0.000	2.00	5.198	3.79	150.4	0.0	184.7
60.00		1.00	1.14	36.284	39.91	310.27	0.730	0.000	2.00	5.119	3.74	149.2	0.0	181.9
62.00		1.00	1.15	36.531	40.18	306.53	0.730	0.000	2.00	5.041	3.68	147.9	0.0	179.1
64.00		1.00	1.16	36.772	40.45	302.74	0.730	0.000	2.00	4.963	3.62	146.6	0.0	176.3
66.00		1.00	1.16	37.007	40.71	298.89	0.730	0.000	2.00	4.885	3.57	145.2	0.0	173.5
68.00	Appurtenance(s)	1.00	1.17	37.237	40.96	294.98	0.730	0.000	2.00	4.807	3.51	143.7	0.0	170.6
70.00		1.00	1.18	37.462	41.21	291.01	0.730	0.000	2.00	4.729	3.45	142.2	0.0	167.8
72.00		1.00	1.18	37.682	41.45	287.00	0.730	0.000	2.00	4.650	3.39	140.7	0.0	165.0
74.00	Appurtenance(s)	1.00	1.19	37.897	41.69	282.94	0.730	0.000	2.00	4.572	3.34	139.1	0.0	162.2
76.00		1.00	1.20	38.107	41.92	278.83	0.730	0.000	2.00	4.494	3.28	137.5	0.0	159.4
78.00		1.00	1.20	38.314	42.14	274.68	0.730	0.000	2.00	4.416	3.22	135.9	0.0	156.6
80.00	Appurtenance(s)	1.00	1.21	38.516	42.37	270.49	0.730	0.000	2.00	4.338	3.17	134.2	0.0	153.8
82.00	Appurtenance(s)	1.00	1.22	38.714	42.59	266.25	0.730	0.000	2.00	4.260	3.11	132.4	0.0	151.0
84.00	Appurtenance(s)	1.00	1.22	38.909	42.80	261.98	0.730	0.000	2.00	4.181	3.05	130.6	0.0	148.2
86.00		1.00	1.23	39.100	43.01	257.66	0.730	0.000	2.00	4.103	3.00	128.8	0.0	145.4
88.00		1.00	1.23	39.287	43.22	253.31	0.730	0.000	2.00	4.025	2.94	127.0	0.0	142.6

Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 24



90.00 Appurtenance(s)	1.00	1.24	39.471	43.42	248.93	0.730	0.000	2.00	3.947	2.88	125.1	0.0	139.8	
91.29 Bot - Section 3	1.00	1.24	39.589	43.55	246.07	0.730	0.000	1.29	2.511	1.83	79.8	0.0	88.9	
92.00	1.00	1.25	39.652	43.62	244.51	0.730	0.000	0.71	1.380	1.01	44.0	0.0	77.6	
94.00	1.00	1.25	39.830	43.81	240.05	0.730	0.000	2.00	3.854	2.81	123.3	0.0	216.5	
94.71 Top - Section 2	1.00	1.25	39.893	43.88	238.46	0.730	0.000	0.71	1.349	0.99	43.2	0.0	75.8	
96.00	1.00	1.26	40.006	44.01	239.64	0.730	0.000	1.29	2.427	1.77	78.0	0.0	51.8	
97.00 Appurtenance(s)	1.00	1.26	40.092	44.10	237.39	0.730	0.000	1.00	1.859	1.36	59.8	0.0	39.7	
98.00	1.00	1.26	40.178	44.20	235.13	0.730	0.000	1.00	1.839	1.34	59.3	0.0	39.3	
100.00	1.00	1.27	40.347	44.38	230.59	0.730	0.000	2.00	3.620	2.64	117.3	0.0	77.3	
102.00	1.00	1.27	40.514	44.57	226.02	0.730	0.000	2.00	3.541	2.59	115.2	0.0	75.6	
104.00	1.00	1.28	40.679	44.75	221.43	0.730	0.000	2.00	3.463	2.53	113.1	0.0	73.9	
106.00 Appurtenance(s)	1.00	1.28	40.841	44.92	216.80	0.730	0.000	2.00	3.385	2.47	111.0	0.0	72.2	
108.00	1.00	1.29	41.000	45.10	212.15	0.730	0.000	2.00	3.307	2.41	108.9	0.0	70.5	
110.00	1.00	1.29	41.157	45.27	207.47	0.730	0.000	2.00	3.229	2.36	106.7	0.0	68.9	
112.00	1.00	1.30	41.312	45.44	202.77	0.730	0.000	2.00	3.151	2.30	104.5	0.0	67.2	
114.00	1.00	1.30	41.465	45.61	198.04	0.730	0.000	2.00	3.072	2.24	102.3	0.0	65.5	
115.00 Appurtenance(s)	1.00	1.31	41.541	45.69	195.67	0.730	0.000	1.00	1.507	1.10	50.3	0.0	32.1	
116.00	1.00	1.31	41.616	45.78	193.29	0.730	0.000	1.00	1.487	1.09	49.7	0.0	31.7	
118.00	1.00	1.31	41.765	45.94	188.51	0.730	0.000	2.00	2.916	2.13	97.8	0.0	62.1	
Totals:								118.00			8,234.4			11,845.3

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 0.90

Wind Load Factor 1.00



No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor	x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	115.00	Low Profile Platform	1	41.541	45.695	1.00	1.00	1.00	28.50	1620.00	0.000	0.000	1302.31	0.00	0.00
2	115.00	Mount Pipes	12	41.691	45.860	0.90	0.90	0.90	20.52	648.00	0.000	2.000	941.04	0.00	1882.08
3	115.00	DS1F03F36D-N	1	42.498	46.747	1.00	1.00	1.00	6.75	63.90	0.000	13.250	315.54	0.00	4180.97
4	106.00	APXV9TM14-ALU-120	3	40.921	45.013	0.63	0.80	12.02	151.20	0.000	1.000	541.08	0.00	541.08	
5	106.00	Universal Ring Mount	1	40.841	44.925	1.00	1.00	5.00	315.00	0.000	0.000	224.62	0.00	0.00	
6	106.00	Low Profile Platform	1	40.841	44.925	0.75	0.75	21.00	1800.00	0.000	0.000	943.42	0.00	0.00	
7	106.00	APXVSP18-C-A20	3	40.841	44.925	0.66	0.80	15.98	153.90	0.000	0.000	717.71	0.00	0.00	
8	106.00	1900 MHz 4X45 RRH	3	40.841	44.925	0.40	0.80	3.25	162.00	0.000	0.000	146.09	0.00	0.00	
9	106.00	800 MHz RRU Filter	3	40.841	44.925	0.40	0.80	2.88	172.80	0.000	0.000	129.38	0.00	0.00	
10	106.00	TD-RRH8x20-25	3	40.841	44.925	0.40	0.80	4.86	189.00	0.000	0.000	218.33	0.00	0.00	
11	106.00	ACU-A20-N	4	40.841	44.925	0.40	0.80	0.22	3.60	0.000	0.000	10.06	0.00	0.00	
12	97.00	Amphenol	3	40.092	44.101	0.55	0.75	12.43	45.90	0.000	0.000	548.34	0.00	0.00	
13	97.00	Samsung MT6407-77A	3	40.092	44.101	0.52	0.75	7.39	214.38	0.000	0.000	325.76	0.00	0.00	
14	97.00	Samsung RF4439d-25A	3	40.092	44.101	0.38	0.75	2.09	201.69	0.000	0.000	92.28	0.00	0.00	
15	97.00	JMA MX06FRO660-03	6	40.092	44.101	0.65	0.75	38.64	470.34	0.000	0.000	1704.12	0.00	0.00	
16	97.00	Low Profile Platform w/	1	40.092	44.101	0.75	0.75	26.27	1890.00	0.000	0.000	1158.65	0.00	0.00	
17	97.00	Samsung RF4440d-13A	3	40.092	44.101	0.50	0.75	2.80	189.89	0.000	0.000	123.66	0.00	0.00	
18	97.00	Commscope	1	40.092	44.101	0.75	0.75	1.40	13.69	0.000	0.000	61.85	0.00	0.00	
19	97.00	Kaelus KA-6030	6	40.092	44.101	0.49	0.75	2.81	95.04	0.000	0.000	123.84	0.00	0.00	
20	90.00	RRUS 32 B30	3	39.471	43.419	0.40	0.80	3.29	162.00	0.000	0.000	142.76	0.00	0.00	
21	90.00	RRUS 32 B2	3	39.471	43.419	0.40	0.80	3.29	143.10	0.000	0.000	142.76	0.00	0.00	
22	90.00	QS66512-2	3	39.471	43.419	0.72	0.80	17.56	207.90	0.000	0.000	762.46	0.00	0.00	
23	90.00	DC6-48-60-18-8F	2	39.471	43.419	1.00	1.00	1.84	57.24	0.000	0.000	79.89	0.00	0.00	
24	90.00	RRUS-11	3	39.471	43.419	0.40	0.80	5.30	148.50	0.000	0.000	230.29	0.00	0.00	
25	90.00	LGP21401	6	39.471	43.419	0.40	0.80	3.10	76.14	0.000	0.000	134.42	0.00	0.00	
26	90.00	P65-16-XLH-RR	3	39.471	43.419	0.60	0.80	14.69	143.10	0.000	0.000	637.73	0.00	0.00	
27	90.00	Low Profile Platform	1	39.471	43.419	0.75	0.75	18.75	1214.10	0.000	0.000	814.10	0.00	0.00	
28	90.00	7770.00	3	39.471	43.419	0.58	0.80	9.64	94.50	0.000	0.000	418.38	0.00	0.00	
29	84.00	12.5' - 2" Horizontal Pipe	1	38.909	42.800	1.00	1.00	2.97	41.18	0.000	0.000	127.06	0.00	0.00	
30	82.00	Ericsson 4460 B25 + B66	3	38.714	42.586	0.38	0.75	3.21	294.30	0.000	0.000	136.54	0.00	0.00	
31	82.00	Platform w/ Handrail	1	38.714	42.586	0.75	0.75	17.86	1681.38	0.000	0.000	760.47	0.00	0.00	
32	82.00	Kathrein 782 11054	3	38.714	42.586	0.38	0.75	0.17	4.86	0.000	0.000	7.19	0.00	0.00	
33	82.00	RFS	3	38.714	42.586	0.54	0.75	32.79	331.56	0.000	0.000	1396.33	0.00	0.00	
34	82.00	Ericsson AIR6419 B41	3	38.714	42.586	0.57	0.75	6.50	178.47	0.000	0.000	276.72	0.00	0.00	
35	82.00	Commscope VV-65A-R1	3	38.714	42.586	0.55	0.75	13.15	79.65	0.000	0.000	560.15	0.00	0.00	
36	82.00	Ericsson 4480 B71 + B85	3	38.714	42.586	0.38	0.75	3.21	251.10	0.000	0.000	136.54	0.00	0.00	
37	82.00	Andrew VHLP3-11W	1	38.714	42.586	1.00	1.00	10.68	47.70	0.000	0.000	454.81	0.00	0.00	
38	82.00	Ceragon	1	38.714	42.586	0.38	0.75	0.39	10.35	0.000	0.000	16.77	0.00	0.00	
39	82.00	TBD S20057A1	3	38.714	42.586	0.38	0.75	0.01	29.70	0.000	0.000	0.48	0.00	0.00	
40	82.00	MS-KI22-5 (Kickers w/o	1	38.714	42.586	1.00	1.00	6.33	131.40	0.000	0.000	269.57	0.00	0.00	
41	82.00	RFS ATMAA1412D-1A20	3	38.714	42.586	0.38	0.75	1.32	35.10	0.000	0.000	56.05	0.00	0.00	
42	80.00	Pipe Mount	1	38.516	42.367	1.00	1.00	2.50	54.00	0.000	0.000	105.92	0.00	0.00	
43	80.00	Ericsson ANT3 A 0.9 11	1	38.516	42.367	1.00	1.00	10.63	37.62	0.000	0.000	450.37	0.00	0.00	
44	80.00	Ericsson Mini-Link 6365	2	38.516	42.367	0.72	1.00	0.66	9.90	0.000	0.000	28.06	0.00	0.00	
45	74.00	GPS	1	37.897	41.686	1.00	1.00	1.00	9.00	0.000	0.000	41.69	0.00	0.00	
46	74.00	Standoff Mount	1	37.897	41.686	1.00	1.00	2.63	36.00	0.000	0.000	109.64	0.00	0.00	
47	68.00	MC-PK8-DSH	1	37.237	40.961	0.75	0.75	25.68	1554.30	0.000	0.000	1051.88	0.00	0.00	

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 26
	Struct Class: II	



48	68.00	RDIDC-9181-OF-48	1	37.237	40.961	1.00	1.00	2.01	19.71	0.000	0.000	82.33	0.00	0.00
49	68.00	TA08025-B605	3	37.237	40.961	0.38	0.75	2.21	202.50	0.000	0.000	90.32	0.00	0.00
50	68.00	TA08025-B604	3	37.237	40.961	0.38	0.75	2.21	172.53	0.000	0.000	90.32	0.00	0.00
51	68.00	Commscope	3	37.237	40.961	0.55	0.75	19.71	191.16	0.000	0.000	807.49	0.00	0.00
Totals:												16,050.38		20,047.58

Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 27



Load Case: 0.9D + 1.0W 116 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 26

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		158.09	380.96	0.00	0.00
4.00		156.39	377.60	0.00	0.00
6.00		154.69	374.23	0.00	0.00
8.00		152.99	370.86	0.00	0.00
10.00		151.30	367.49	0.00	0.00
12.00		149.60	364.13	0.00	0.00
14.00		147.90	360.76	0.00	0.00
16.00		149.91	357.39	0.00	0.00
18.00		151.68	354.03	0.00	0.00
20.00		153.09	350.66	0.00	0.00
22.00		154.20	347.29	0.00	0.00
24.00		155.04	343.93	0.00	0.00
26.00		155.66	340.56	0.00	0.00
28.00		156.07	337.19	0.00	0.00
30.00		156.30	333.82	0.00	0.00
32.00		156.37	330.46	0.00	0.00
34.00		156.29	327.09	0.00	0.00
36.00		156.08	323.72	0.00	0.00
38.00		155.75	320.36	0.00	0.00
40.00		155.30	316.99	0.00	0.00
42.00		154.75	313.62	0.00	0.00
44.00		154.10	310.26	0.00	0.00
45.13		86.58	173.81	0.00	0.00
46.00		67.72	220.40	0.00	0.00
48.00		155.49	502.23	0.00	0.00
49.88		145.32	466.47	0.00	0.00
50.00		9.21	15.88	0.00	0.00
52.00		153.65	263.18	0.00	0.00
54.00		152.63	260.37	0.00	0.00
56.00		151.53	257.57	0.00	0.00
58.00		150.38	254.76	0.00	0.00
60.00		149.16	251.96	0.00	0.00
62.00		147.88	249.15	0.00	0.00
64.00		146.55	246.35	0.00	0.00
66.00		145.17	243.54	0.00	0.00
68.00	(11) attachments	2266.07	2380.93	0.00	0.00
70.00		142.25	234.34	0.00	0.00
72.00		140.72	231.54	0.00	0.00
74.00	(2) attachments	290.46	273.73	0.00	0.00
76.00		137.52	225.64	0.00	0.00
78.00		135.86	222.83	0.00	0.00
80.00	(4) attachments	718.51	321.55	0.00	0.00
82.00	(28) attachments	4204.03	3292.50	0.00	0.00
84.00	(1) attachments	257.71	235.95	0.00	0.00
86.00		128.83	191.97	0.00	0.00
88.00		126.98	189.16	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 28
	Struct Class: II	



90.00	(27) attachments	3487.90	2432.93	0.00	0.00
91.29		79.82	109.75	0.00	0.00
92.00		43.96	88.96	0.00	0.00
94.00		123.27	248.74	0.00	0.00
94.71		43.23	87.22	0.00	0.00
96.00		77.95	72.62	0.00	0.00
97.00	(26) attachments	4198.34	3176.74	0.00	0.00
98.00		59.34	43.17	0.00	0.00
100.00		117.27	85.07	0.00	0.00
102.00		115.21	83.39	0.00	0.00
104.00		113.13	81.71	0.00	0.00
106.00	(21) attachments	3041.72	3027.52	0.00	541.08
108.00		108.87	74.78	0.00	0.00
110.00		106.71	73.09	0.00	0.00
112.00		104.52	71.41	0.00	0.00
114.00		102.30	69.73	0.00	0.00
115.00	(14) attachments	2609.16	2366.13	0.00	6063.05
116.00		49.70	33.81	0.00	0.00
118.00		97.80	65.42	0.00	0.00
	Totals:	28,281.96	31,101.41	0.00	6,604.13

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



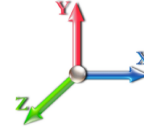
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Load Case: 0.9D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 0.90

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.063	0.000	27.041	0.00	0.49
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.063	0.000	27.041	0.00	1.87
2.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.063	0.000	27.041	0.00	0.29
2.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.063	0.000	27.041	0.00	3.58
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.064	0.000	27.041	0.00	0.49
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.064	0.000	27.041	0.00	1.87
4.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	27.041	0.00	0.29
4.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.064	0.000	27.041	0.00	3.58
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	27.041	0.00	0.49
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	27.041	0.00	1.87
6.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.041	0.00	0.29
6.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	27.041	0.00	3.58
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	27.041	0.00	0.49
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	27.041	0.00	1.87
8.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.041	0.00	0.29
8.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	27.041	0.00	3.58
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.066	0.000	27.041	0.00	0.49
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.066	0.000	27.041	0.00	1.87
10.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	27.041	0.00	0.29
10.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.066	0.000	27.041	0.00	3.58
12.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.067	0.000	27.041	0.00	0.49
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.067	0.000	27.041	0.00	1.87
12.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.041	0.00	0.29
12.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.067	0.000	27.041	0.00	3.58
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	27.041	0.00	0.49
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	27.041	0.00	1.87
14.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.041	0.00	0.29
14.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	27.041	0.00	3.58
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	27.726	0.00	0.49
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	27.726	0.00	1.87
16.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.726	0.00	0.29
16.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	27.726	0.00	3.58
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.069	0.000	28.383	0.00	0.49
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.069	0.000	28.383	0.00	1.87
18.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	28.383	0.00	0.29
18.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.069	0.000	28.383	0.00	3.58
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.070	0.000	28.988	0.00	0.49
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.070	0.000	28.988	0.00	1.87
20.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	28.988	0.00	0.29
20.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.070	0.000	28.988	0.00	3.58
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.071	0.000	29.548	0.00	0.49
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.071	0.000	29.548	0.00	1.87
22.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	29.548	0.00	0.29
22.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.071	0.000	29.548	0.00	3.58
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.072	0.000	30.072	0.00	0.49
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.072	0.000	30.072	0.00	1.87
24.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	30.072	0.00	0.29

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

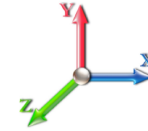


Load Case: 0.9D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 0.90

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
24.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.072	0.000	30.072	0.00	3.58
26.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.073	0.000	30.563	0.00	0.49
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.073	0.000	30.563	0.00	1.87
26.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	30.563	0.00	0.29
26.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.073	0.000	30.563	0.00	3.58
28.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.073	0.000	31.026	0.00	0.49
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.073	0.000	31.026	0.00	1.87
28.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	31.026	0.00	0.29
28.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.073	0.000	31.026	0.00	3.58
30.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.074	0.000	31.465	0.00	0.49
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.074	0.000	31.465	0.00	1.87
30.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	31.465	0.00	0.29
30.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.074	0.000	31.465	0.00	3.58
32.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.075	0.000	31.882	0.00	0.49
32.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.075	0.000	31.882	0.00	1.87
32.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	31.882	0.00	0.29
32.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.075	0.000	31.882	0.00	3.58
34.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.076	0.000	32.279	0.00	0.49
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.076	0.000	32.279	0.00	1.87
34.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	32.279	0.00	0.29
34.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.076	0.000	32.279	0.00	3.58
36.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.077	0.000	32.659	0.00	0.49
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.077	0.000	32.659	0.00	1.87
36.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	32.659	0.00	0.29
36.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.077	0.000	32.659	0.00	3.58
38.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.078	0.000	33.023	0.00	0.49
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.078	0.000	33.023	0.00	1.87
38.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	33.023	0.00	0.29
38.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.078	0.000	33.023	0.00	3.58
40.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.079	0.000	33.372	0.00	0.49
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.079	0.000	33.372	0.00	1.87
40.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	33.372	0.00	0.29
40.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.079	0.000	33.372	0.00	3.58
42.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.080	0.000	33.709	0.00	0.49
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.080	0.000	33.709	0.00	1.87
42.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	33.709	0.00	0.29
42.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.080	0.000	33.709	0.00	3.58
44.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.082	0.000	34.033	0.00	0.49
44.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.082	0.000	34.033	0.00	1.87
44.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	34.033	0.00	0.29
44.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.082	0.000	34.033	0.00	3.58
45.13	Safety Cable	Yes	1.13	0.000	0.38	0.04	0.00	0.082	0.000	34.211	0.00	0.28
45.13	Step bolts (ladder)	Yes	1.13	0.000	0.63	0.06	0.00	0.082	0.000	34.211	0.00	1.06
45.13	1/2"	Yes	1.13	0.000	0.00	0.00	0.00	0.082	0.000	34.211	0.00	0.16
45.13	1.75" Hybrid	Yes	1.13	0.000	1.75	0.16	0.00	0.082	0.000	34.211	0.00	2.02
46.00	Safety Cable	Yes	0.87	0.000	0.38	0.03	0.00	0.083	0.000	34.346	0.00	0.21
46.00	Step bolts (ladder)	Yes	0.87	0.000	0.63	0.05	0.00	0.083	0.000	34.346	0.00	0.81

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

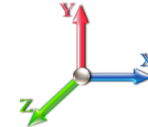


Load Case: 0.9D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 0.90

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	1/2"	Yes	0.87	0.000	0.00	0.00	0.00	0.083	0.000	34.346	0.00	0.13
46.00	1.75" Hybrid	Yes	0.87	0.000	1.75	0.13	0.00	0.083	0.000	34.346	0.00	1.56
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.084	0.000	34.648	0.00	0.49
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.084	0.000	34.648	0.00	1.87
48.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	34.648	0.00	0.29
48.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.084	0.000	34.648	0.00	3.58
49.88	Safety Cable	Yes	1.88	0.000	0.38	0.06	0.00	0.085	0.000	34.924	0.00	0.46
49.88	Step bolts (ladder)	Yes	1.88	0.000	0.63	0.10	0.00	0.085	0.000	34.924	0.00	1.76
49.88	1/2"	Yes	1.88	0.000	0.00	0.00	0.00	0.085	0.000	34.924	0.00	0.27
49.88	1.75" Hybrid	Yes	1.88	0.000	1.75	0.27	0.00	0.085	0.000	34.924	0.00	3.37
50.00	Safety Cable	Yes	0.12	0.000	0.38	0.00	0.00	0.084	0.000	34.941	0.00	0.03
50.00	Step bolts (ladder)	Yes	0.12	0.000	0.63	0.01	0.00	0.084	0.000	34.941	0.00	0.11
50.00	1/2"	Yes	0.12	0.000	0.00	0.00	0.00	0.084	0.000	34.941	0.00	0.02
50.00	1.75" Hybrid	Yes	0.12	0.000	1.75	0.02	0.00	0.084	0.000	34.941	0.00	0.22
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.085	0.000	35.226	0.00	0.49
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.085	0.000	35.226	0.00	1.87
52.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	35.226	0.00	0.29
52.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.085	0.000	35.226	0.00	3.58
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.086	0.000	35.501	0.00	0.49
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.086	0.000	35.501	0.00	1.87
54.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	35.501	0.00	0.29
54.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.086	0.000	35.501	0.00	3.58
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.087	0.000	35.769	0.00	0.49
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.087	0.000	35.769	0.00	1.87
56.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.087	0.000	35.769	0.00	0.29
56.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.087	0.000	35.769	0.00	3.58
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.089	0.000	36.030	0.00	0.49
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.089	0.000	36.030	0.00	1.87
58.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	36.030	0.00	0.29
58.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.089	0.000	36.030	0.00	3.58
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.090	0.000	36.284	0.00	0.49
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.090	0.000	36.284	0.00	1.87
60.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	36.284	0.00	0.29
60.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.090	0.000	36.284	0.00	3.58
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.091	0.000	36.531	0.00	0.49
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.091	0.000	36.531	0.00	1.87
62.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	36.531	0.00	0.29
62.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.091	0.000	36.531	0.00	3.58
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.093	0.000	36.772	0.00	0.49
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.093	0.000	36.772	0.00	1.87
64.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.093	0.000	36.772	0.00	0.29
64.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.093	0.000	36.772	0.00	3.58
66.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.094	0.000	37.007	0.00	0.49
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.094	0.000	37.007	0.00	1.87
66.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	37.007	0.00	0.29
66.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.094	0.000	37.007	0.00	3.58
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.096	0.000	37.237	0.00	0.49

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

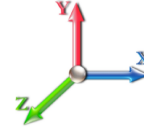


Load Case: 0.9D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 0.90

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.096	0.000	37.237	0.00	1.87
68.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.096	0.000	37.237	0.00	0.29
68.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.096	0.000	37.237	0.00	3.58
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	37.462	0.00	0.49
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	37.462	0.00	1.87
70.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	37.462	0.00	0.29
72.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	37.682	0.00	0.49
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	37.682	0.00	1.87
72.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	37.682	0.00	0.29
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	37.897	0.00	0.49
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	37.897	0.00	1.87
74.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.037	0.000	37.897	0.00	0.29
76.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	38.107	0.00	0.49
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	38.107	0.00	1.87
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	38.314	0.00	0.49
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	38.314	0.00	1.87
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	38.516	0.00	0.49
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	38.516	0.00	1.87
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	38.714	0.00	0.49
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	38.714	0.00	1.87
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	38.909	0.00	0.49
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	38.909	0.00	1.87
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	39.100	0.00	0.49
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	39.100	0.00	1.87
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.042	0.000	39.287	0.00	0.49
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.042	0.000	39.287	0.00	1.87
90.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.043	0.000	39.471	0.00	0.49
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.043	0.000	39.471	0.00	1.87
91.29	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.043	0.000	39.589	0.00	0.32
91.29	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.043	0.000	39.589	0.00	1.21
92.00	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.044	0.000	39.652	0.00	0.17
92.00	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.044	0.000	39.652	0.00	0.66
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.044	0.000	39.830	0.00	0.49
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.044	0.000	39.830	0.00	1.87
94.71	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.045	0.000	39.893	0.00	0.17
94.71	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.045	0.000	39.893	0.00	0.66
96.00	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.045	0.000	40.006	0.00	0.32
96.00	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.045	0.000	40.006	0.00	1.21
97.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.045	0.000	40.092	0.00	0.25
97.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.045	0.000	40.092	0.00	0.94
98.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.046	0.000	40.178	0.00	0.25
98.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.046	0.000	40.178	0.00	0.94
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	40.347	0.00	0.49
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	40.347	0.00	1.87
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	40.514	0.00	0.49
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	40.514	0.00	1.87
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	40.679	0.00	0.49

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 33

Load Case: 0.9D + 1.0W 116 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 26

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	40.679	0.00	1.87
106.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	40.841	0.00	0.49
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	40.841	0.00	1.87
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	41.000	0.00	0.49
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	41.000	0.00	1.87
110.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	41.157	0.00	0.49
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	41.157	0.00	1.87
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	41.312	0.00	0.49
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	41.312	0.00	1.87
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.055	0.000	41.465	0.00	0.49
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.055	0.000	41.465	0.00	1.87
115.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.056	0.000	41.541	0.00	0.25
115.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.056	0.000	41.541	0.00	0.94
116.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.057	0.000	41.616	0.00	0.25
116.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.057	0.000	41.616	0.00	0.94
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.058	0.000	41.765	0.00	0.49
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.058	0.000	41.765	0.00	1.87
Totals:											0.0	271.9

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

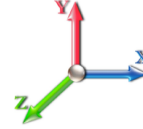


Load Case: 0.9D + 1.0W 116 mph Wind

Iterations 26

Dead Load Factor 0.90

Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-31.07	-28.31	0.00	-2421.5	0.00	2421.50	3634.70	895.58	3185.83	3203.64	0.00	0.000	0.000	0.765
2.00	-30.63	-28.22	0.00	-2364.8	0.00	2364.88	3607.15	885.93	3117.56	3144.81	0.03	-0.115	0.000	0.762
4.00	-30.20	-28.12	0.00	-2308.4	0.00	2308.45	3579.34	876.28	3050.03	3086.29	0.10	-0.231	0.000	0.757
6.00	-29.77	-28.02	0.00	-2252.2	0.00	2252.21	3551.29	866.64	2983.24	3028.09	0.22	-0.348	0.000	0.753
8.00	-29.34	-27.93	0.00	-2196.1	0.00	2196.16	3522.98	856.99	2917.19	2970.21	0.39	-0.465	0.000	0.749
10.00	-28.92	-27.84	0.00	-2140.3	0.00	2140.30	3494.42	847.34	2851.88	2912.67	0.61	-0.584	0.000	0.744
12.00	-28.50	-27.74	0.00	-2084.6	0.00	2084.63	3465.61	837.69	2787.31	2855.46	0.88	-0.704	0.000	0.739
14.00	-28.08	-27.65	0.00	-2029.1	0.00	2029.15	3436.54	828.05	2723.48	2798.60	1.21	-0.825	0.000	0.734
16.00	-27.67	-27.55	0.00	-1973.8	0.00	1973.86	3407.22	818.40	2660.39	2742.09	1.58	-0.946	0.000	0.729
18.00	-27.26	-27.45	0.00	-1918.7	0.00	1918.76	3377.65	808.75	2598.04	2685.95	2.00	-1.069	0.000	0.724
20.00	-26.85	-27.35	0.00	-1863.8	0.00	1863.85	3347.83	799.10	2536.42	2630.17	2.47	-1.192	0.000	0.718
22.00	-26.45	-27.25	0.00	-1809.1	0.00	1809.15	3317.75	789.46	2475.55	2574.76	3.00	-1.316	0.000	0.712
24.00	-26.05	-27.14	0.00	-1754.6	0.00	1754.66	3287.42	779.81	2415.41	2519.74	3.58	-1.441	0.000	0.706
26.00	-25.65	-27.03	0.00	-1700.3	0.00	1700.38	3256.84	770.16	2356.02	2465.11	4.21	-1.567	0.000	0.699
28.00	-25.26	-26.92	0.00	-1646.3	0.00	1646.32	3219.51	760.51	2297.36	2406.03	4.89	-1.693	0.000	0.693
30.00	-24.87	-26.81	0.00	-1592.4	0.00	1592.48	3178.67	750.87	2239.44	2345.06	5.63	-1.820	0.000	0.688
32.00	-24.49	-26.70	0.00	-1538.8	0.00	1538.86	3137.83	741.22	2182.27	2284.88	6.42	-1.947	0.000	0.683
34.00	-24.11	-26.58	0.00	-1485.4	0.00	1485.46	3096.99	731.57	2125.83	2225.48	7.26	-2.076	0.000	0.677
36.00	-23.73	-26.47	0.00	-1432.2	0.00	1432.29	3056.15	721.92	2070.13	2166.87	8.16	-2.204	0.000	0.670
38.00	-23.36	-26.35	0.00	-1379.3	0.00	1379.36	3015.30	712.28	2015.17	2109.03	9.11	-2.333	0.000	0.663
40.00	-22.99	-26.24	0.00	-1326.6	0.00	1326.65	2974.46	702.63	1960.95	2051.98	10.12	-2.462	0.000	0.656
42.00	-22.62	-26.12	0.00	-1274.1	0.00	1274.17	2933.62	692.98	1907.47	1995.71	11.18	-2.591	0.000	0.648
44.00	-22.27	-25.99	0.00	-1221.9	0.00	1221.93	2892.78	683.33	1854.73	1940.23	12.29	-2.721	0.000	0.639
45.13	-22.07	-25.92	0.00	-1192.5	0.00	1192.56	2869.71	677.88	1825.26	1909.22	12.94	-2.794	0.000	0.634
46.00	-21.81	-25.88	0.00	-1170.0	0.00	1170.01	2851.94	673.69	1802.73	1885.52	13.46	-2.851	0.000	0.630
48.00	-21.26	-25.74	0.00	-1118.2	0.00	1118.26	2811.10	664.04	1751.47	1831.60	14.68	-2.980	0.000	0.620
49.88	-20.78	-25.60	0.00	-1069.8	0.00	1069.86	2333.69	557.78	1482.91	1535.76	15.88	-3.101	0.000	0.708
50.00	-20.73	-25.62	0.00	-1066.7	0.00	1066.78	2332.20	557.29	1480.35	1533.44	15.96	-3.109	0.000	0.707
52.00	-20.41	-25.50	0.00	-1015.5	0.00	1015.55	2307.18	549.25	1437.95	1494.89	17.29	-3.253	0.000	0.690
54.00	-20.10	-25.38	0.00	-964.56	0.00	964.56	2281.92	541.21	1396.16	1456.67	18.68	-3.396	0.000	0.673
56.00	-19.79	-25.26	0.00	-913.79	0.00	913.79	2256.40	533.17	1354.99	1418.77	20.14	-3.538	0.000	0.655
58.00	-19.48	-25.15	0.00	-863.27	0.00	863.27	2223.07	525.14	1314.43	1376.53	21.65	-3.679	0.000	0.638
60.00	-19.18	-25.03	0.00	-812.98	0.00	812.98	2189.04	517.10	1274.49	1334.49	23.22	-3.817	0.000	0.620
62.00	-18.88	-24.91	0.00	-762.93	0.00	762.93	2155.00	509.06	1235.17	1293.10	24.85	-3.954	0.000	0.601
64.00	-18.59	-24.79	0.00	-713.12	0.00	713.12	2120.97	501.02	1196.47	1252.37	26.53	-4.088	0.000	0.581
66.00	-18.30	-24.66	0.00	-663.55	0.00	663.55	2086.94	492.98	1158.38	1212.28	28.27	-4.219	0.000	0.559
68.00	-16.05	-22.26	0.00	-614.22	0.00	614.22	2052.90	484.94	1120.90	1172.85	30.07	-4.347	0.000	0.534
70.00	-15.78	-22.14	0.00	-569.69	0.00	569.69	2018.87	476.90	1084.04	1134.08	31.91	-4.471	0.000	0.512
72.00	-15.51	-22.01	0.00	-525.42	0.00	525.42	1984.83	468.86	1047.80	1095.95	33.81	-4.592	0.000	0.489
74.00	-15.22	-21.73	0.00	-481.40	0.00	481.40	1950.80	460.82	1012.18	1058.48	35.76	-4.709	0.000	0.465
76.00	-14.96	-21.60	0.00	-437.95	0.00	437.95	1916.76	452.78	977.17	1021.65	37.75	-4.821	0.000	0.439
78.00	-14.71	-21.47	0.00	-394.74	0.00	394.74	1882.73	444.74	942.77	985.48	39.79	-4.929	0.000	0.411
80.00	-14.42	-20.76	0.00	-351.80	0.00	351.80	1848.70	436.70	909.00	949.96	41.88	-5.030	0.000	0.380
82.00	-11.49	-16.29	0.00	-310.29	0.00	310.29	1814.66	428.66	875.84	915.10	44.01	-5.125	0.000	0.347
84.00	-11.25	-16.03	0.00	-277.70	0.00	277.70	1780.63	420.62	843.29	880.88	46.17	-5.215	0.000	0.323
86.00	-11.05	-15.90	0.00	-245.63	0.00	245.63	1746.59	412.58	811.36	847.32	48.37	-5.299	0.000	0.298
88.00	-10.85	-15.77	0.00	-213.82	0.00	213.82	1712.56	404.54	780.05	814.41	50.60	-5.377	0.000	0.270
90.00	-8.75	-12.08	0.00	-182.27	0.00	182.27	1678.53	396.50	749.35	782.15	52.87	-5.449	0.000	0.239

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 35



91.29	-8.64	-12.00	0.00	-166.65	0.00	166.65	1656.52	391.30	729.83	761.64	54.35	-5.492	0.000	0.225
92.00	-8.55	-11.95	0.00	-158.17	0.00	158.17	1644.49	388.46	719.27	750.54	55.16	-5.515	0.000	0.217
94.00	-8.30	-11.81	0.00	-134.27	0.00	134.27	1610.46	380.42	689.81	719.59	57.48	-5.575	0.000	0.193
94.71	-8.21	-11.76	0.00	-125.89	0.00	125.89	930.70	231.76	426.71	424.70	58.31	-5.595	0.000	0.308
96.00	-8.14	-11.68	0.00	-110.72	0.00	110.72	922.07	228.65	415.33	415.07	59.83	-5.629	0.000	0.278
97.00	-5.39	-7.19	0.00	-99.04	0.00	99.04	915.31	226.24	406.62	407.64	61.01	-5.667	0.000	0.250
98.00	-5.35	-7.14	0.00	-91.84	0.00	91.84	908.49	223.83	397.99	400.25	62.20	-5.702	0.000	0.236
100.00	-5.26	-7.02	0.00	-77.57	0.00	77.57	894.64	219.00	381.02	385.59	64.60	-5.768	0.000	0.208
102.00	-5.19	-6.90	0.00	-63.54	0.00	63.54	880.55	214.18	364.42	371.08	67.02	-5.825	0.000	0.178
104.00	-5.11	-6.78	0.00	-49.74	0.00	49.74	866.20	209.36	348.19	356.74	69.47	-5.875	0.000	0.146
106.00	-2.41	-3.45	0.00	-35.64	0.00	35.64	851.60	204.53	332.33	342.57	71.94	-5.916	0.000	0.107
108.00	-2.35	-3.33	0.00	-28.75	0.00	28.75	836.75	199.71	316.84	328.58	74.42	-5.948	0.000	0.091
110.00	-2.28	-3.22	0.00	-22.08	0.00	22.08	821.65	194.89	301.72	314.78	76.91	-5.975	0.000	0.073
112.00	-2.22	-3.11	0.00	-15.64	0.00	15.64	804.60	190.06	286.97	300.54	79.42	-5.997	0.000	0.055
114.00	-2.16	-3.00	0.00	-9.43	0.00	9.43	784.18	185.24	272.59	285.40	81.93	-6.013	0.000	0.036
115.00	-0.08	-0.16	0.00	-0.37	0.00	0.37	773.97	182.83	265.54	277.98	83.19	-6.019	0.000	0.001
116.00	-0.05	-0.10	0.00	-0.21	0.00	0.21	763.76	180.41	258.58	270.66	84.44	-6.019	0.000	0.001
118.00	0.00	-0.10	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	86.96	-6.019	0.000	0.000

Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 36

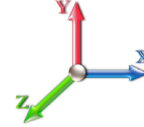


Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.024	5.53	0.00	1.200	0.705	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	5.024	5.53	0.00	1.200	0.787	2.00	7.543	9.05	50.0	85.9	500.4
4.00		1.00	0.85	5.024	5.53	0.00	1.200	0.828	2.00	7.478	8.97	49.6	89.5	499.6
6.00		1.00	0.85	5.024	5.53	0.00	1.200	0.856	2.00	7.410	8.89	49.1	91.7	497.2
8.00		1.00	0.85	5.024	5.53	0.00	1.200	0.878	2.00	7.339	8.81	48.7	93.0	494.1
10.00		1.00	0.85	5.024	5.53	0.00	1.200	0.896	2.00	7.266	8.72	48.2	93.9	490.5
12.00		1.00	0.85	5.024	5.53	0.00	1.200	0.911	2.00	7.193	8.63	47.7	94.5	486.5
14.00		1.00	0.85	5.024	5.53	0.00	1.200	0.924	2.00	7.120	8.54	47.2	94.8	482.4
16.00		1.00	0.87	5.151	5.67	0.00	1.200	0.936	2.00	7.045	8.45	47.9	94.9	478.0
18.00		1.00	0.89	5.273	5.80	0.00	1.200	0.946	2.00	6.971	8.36	48.5	94.9	473.5
20.00		1.00	0.91	5.386	5.92	0.00	1.200	0.956	2.00	6.896	8.27	49.0	94.8	468.9
22.00		1.00	0.93	5.490	6.04	0.00	1.200	0.965	2.00	6.820	8.18	49.4	94.6	464.2
24.00		1.00	0.95	5.587	6.15	0.00	1.200	0.973	2.00	6.745	8.09	49.7	94.3	459.4
26.00		1.00	0.96	5.678	6.25	0.00	1.200	0.980	2.00	6.669	8.00	50.0	93.9	454.5
28.00		1.00	0.98	5.764	6.34	0.00	1.200	0.987	2.00	6.593	7.91	50.2	93.4	449.6
30.00		1.00	0.99	5.846	6.43	0.00	1.200	0.994	2.00	6.517	7.82	50.3	92.9	444.6
32.00		1.00	1.00	5.923	6.52	0.00	1.200	1.000	2.00	6.441	7.73	50.4	92.4	439.5
34.00		1.00	1.01	5.997	6.60	0.00	1.200	1.006	2.00	6.365	7.64	50.4	91.8	434.4
36.00		1.00	1.03	6.068	6.67	0.00	1.200	1.012	2.00	6.289	7.55	50.4	91.1	429.3
38.00		1.00	1.04	6.135	6.75	0.00	1.200	1.017	2.00	6.212	7.45	50.3	90.4	424.1
40.00		1.00	1.05	6.200	6.82	0.00	1.200	1.022	2.00	6.136	7.36	50.2	89.7	418.9
42.00		1.00	1.06	6.263	6.89	0.00	1.200	1.027	2.00	6.059	7.27	50.1	89.0	413.7
44.00		1.00	1.07	6.323	6.96	0.00	1.200	1.032	2.00	5.983	7.18	49.9	88.2	408.4
45.13 Bot - Section 2		1.00	1.08	6.356	6.99	0.00	1.200	1.034	1.13	3.346	4.02	28.1	49.6	228.5
46.00		1.00	1.08	6.381	7.02	0.00	1.200	1.036	0.87	2.606	3.13	21.9	38.7	291.9
48.00		1.00	1.09	6.437	7.08	0.00	1.200	1.040	2.00	5.935	7.12	50.4	88.2	664.4
49.88 Top - Section 1		1.00	1.10	6.489	7.14	0.00	1.200	1.044	1.88	5.509	6.61	47.2	82.1	616.3
50.00		1.00	1.10	6.492	7.14	0.00	1.200	1.044	0.12	0.349	0.42	3.0	5.2	20.8
52.00		1.00	1.11	6.545	7.20	0.00	1.200	1.049	2.00	5.782	6.94	49.9	86.5	343.9
54.00		1.00	1.12	6.596	7.26	0.00	1.200	1.052	2.00	5.705	6.85	49.7	85.6	339.3
56.00		1.00	1.12	6.646	7.31	0.00	1.200	1.056	2.00	5.628	6.75	49.4	84.7	334.7
58.00		1.00	1.13	6.694	7.36	0.00	1.200	1.060	2.00	5.551	6.66	49.0	83.7	330.0
60.00		1.00	1.14	6.741	7.42	0.00	1.200	1.063	2.00	5.474	6.57	48.7	82.8	325.3
62.00		1.00	1.15	6.787	7.47	0.00	1.200	1.067	2.00	5.397	6.48	48.4	81.8	320.6
64.00		1.00	1.16	6.832	7.52	0.00	1.200	1.070	2.00	5.320	6.38	48.0	80.9	315.9
66.00		1.00	1.16	6.876	7.56	0.00	1.200	1.073	2.00	5.243	6.29	47.6	79.9	311.2
68.00 Appurtenance(s)		1.00	1.17	6.918	7.61	0.00	1.200	1.077	2.00	5.166	6.20	47.2	78.9	306.4
70.00		1.00	1.18	6.960	7.66	0.00	1.200	1.080	2.00	5.088	6.11	46.7	77.9	301.7
72.00		1.00	1.18	7.001	7.70	0.00	1.200	1.083	2.00	5.011	6.01	46.3	76.8	296.9
74.00 Appurtenance(s)		1.00	1.19	7.041	7.74	0.00	1.200	1.086	2.00	4.934	5.92	45.9	75.8	292.1
76.00		1.00	1.20	7.080	7.79	0.00	1.200	1.088	2.00	4.857	5.83	45.4	74.7	287.3
78.00		1.00	1.20	7.118	7.83	0.00	1.200	1.091	2.00	4.780	5.74	44.9	73.7	282.5
80.00 Appurtenance(s)		1.00	1.21	7.156	7.87	0.00	1.200	1.094	2.00	4.702	5.64	44.4	72.6	277.7
82.00 Appurtenance(s)		1.00	1.22	7.193	7.91	0.00	1.200	1.097	2.00	4.625	5.55	43.9	71.5	272.9
84.00 Appurtenance(s)		1.00	1.22	7.229	7.95	0.00	1.200	1.099	2.00	4.548	5.46	43.4	70.4	268.0
86.00		1.00	1.23	7.264	7.99	0.00	1.200	1.102	2.00	4.471	5.36	42.9	69.3	263.2
88.00		1.00	1.23	7.299	8.03	0.00	1.200	1.104	2.00	4.393	5.27	42.3	68.2	258.3

Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 37



90.00 Appurtenance(s)	1.00	1.24	7.333	8.07	0.00	1.200	1.107	2.00	4.316	5.18	41.8	67.1	253.5
91.29 Bot - Section 3	1.00	1.24	7.355	8.09	0.00	1.200	1.108	1.29	2.750	3.30	26.7	42.9	161.4
92.00	1.00	1.25	7.367	8.10	0.00	1.200	1.109	0.71	1.511	1.81	14.7	23.7	127.1
94.00	1.00	1.25	7.400	8.14	0.00	1.200	1.112	2.00	4.225	5.07	41.3	65.9	354.5
94.71 Top - Section 2	1.00	1.25	7.412	8.15	0.00	1.200	1.112	0.71	1.481	1.78	14.5	23.2	124.3
96.00	1.00	1.26	7.433	8.18	0.00	1.200	1.114	1.29	2.666	3.20	26.2	41.7	110.8
97.00 Appurtenance(s)	1.00	1.26	7.449	8.19	0.00	1.200	1.115	1.00	2.044	2.45	20.1	32.1	85.0
98.00	1.00	1.26	7.465	8.21	0.00	1.200	1.116	1.00	2.025	2.43	20.0	31.8	84.1
100.00	1.00	1.27	7.496	8.25	0.00	1.200	1.118	2.00	3.992	4.79	39.5	62.4	165.4
102.00	1.00	1.27	7.527	8.28	0.00	1.200	1.121	2.00	3.915	4.70	38.9	61.2	162.0
104.00	1.00	1.28	7.558	8.31	0.00	1.200	1.123	2.00	3.838	4.61	38.3	60.1	158.6
106.00 Appurtenance(s)	1.00	1.28	7.588	8.35	0.00	1.200	1.125	2.00	3.760	4.51	37.7	58.9	155.2
108.00	1.00	1.29	7.617	8.38	0.00	1.200	1.127	2.00	3.683	4.42	37.0	57.7	151.7
110.00	1.00	1.29	7.647	8.41	0.00	1.200	1.129	2.00	3.605	4.33	36.4	56.5	148.3
112.00	1.00	1.30	7.675	8.44	0.00	1.200	1.131	2.00	3.528	4.23	35.7	55.3	144.8
114.00	1.00	1.30	7.704	8.47	0.00	1.200	1.133	2.00	3.450	4.14	35.1	54.1	141.4
115.00 Appurtenance(s)	1.00	1.31	7.718	8.49	0.00	1.200	1.134	1.00	1.696	2.04	17.3	26.7	69.6
116.00	1.00	1.31	7.732	8.51	0.00	1.200	1.135	1.00	1.677	2.01	17.1	26.4	68.7
118.00	1.00	1.31	7.760	8.54	0.00	1.200	1.137	2.00	3.295	3.95	33.7	51.6	134.5
Totals:							118.00				2,693.7		20,462.2

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind	Iterations 26
Dead Load Factor 1.20	
Wind Load Factor 1.00	

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	115.00	Low Profile Platform	1	7.718	8.490	1.00	1.00	32.98	3135.70	0.000	0.000	279.97	0.00	0.00
2	115.00	Mount Pipes	12	7.746	8.520	0.90	0.90	32.15	864.00	0.000	2.000	273.96	0.00	547.93
3	115.00	DS1F03F36D-N	1	7.896	8.685	1.00	1.00	11.93	146.71	0.000	13.250	103.59	0.00	1372.58
4	106.00	APXV9TM14-ALU-120	3	7.603	8.363	0.65	0.80	13.69	489.80	0.000	1.000	114.47	0.00	114.47
5	106.00	Universal Ring Mount	1	7.588	8.347	1.00	1.00	7.25	508.97	0.000	0.000	60.51	0.00	0.00
6	106.00	Low Profile Platform	1	7.588	8.347	0.75	0.75	24.27	3706.04	0.000	0.000	202.59	0.00	0.00
7	106.00	APXVSP18-C-A20	3	7.588	8.347	0.68	0.80	20.03	390.92	0.000	0.000	167.22	0.00	0.00
8	106.00	1900 MHz 4X45 RRH	3	7.588	8.347	0.55	0.80	5.84	302.84	0.000	0.000	48.72	0.00	0.00
9	106.00	800 MHz RRU Filter	3	7.588	8.347	0.55	0.80	5.17	313.38	0.000	0.000	43.14	0.00	0.00
10	106.00	TD-RRH8x20-25	3	7.588	8.347	0.55	0.80	7.55	450.08	0.000	0.000	63.01	0.00	0.00
11	106.00	ACU-A20-N	4	7.588	8.347	0.55	0.80	0.73	10.68	0.000	0.000	6.10	0.00	0.00
12	97.00	Amphenol	3	7.449	8.194	0.55	0.75	13.72	369.61	0.000	0.000	112.41	0.00	0.00
13	97.00	Samsung MT6407-77A	3	7.449	8.194	0.52	0.75	8.33	497.90	0.000	0.000	68.25	0.00	0.00
14	97.00	Samsung RF4439d-25A	3	7.449	8.194	0.63	0.75	4.18	302.27	0.000	0.000	34.22	0.00	0.00
15	97.00	JMA MX06FRO660-03	6	7.449	8.194	0.65	0.75	42.01	1601.82	0.000	0.000	344.25	0.00	0.00
16	97.00	Low Profile Platform w/	1	7.449	8.194	0.75	0.75	30.33	3983.43	0.000	0.000	248.52	0.00	0.00
17	97.00	Samsung RF4440d-13A	3	7.449	8.194	0.62	0.75	4.13	270.67	0.000	0.000	33.85	0.00	0.00
18	97.00	Commscope	1	7.449	8.194	0.75	0.75	1.67	34.79	0.000	0.000	13.72	0.00	0.00
19	97.00	Kaelus KA-6030	6	7.449	8.194	0.51	0.75	3.71	135.96	0.000	0.000	30.44	0.00	0.00
20	90.00	RRUS 32 B30	3	7.333	8.067	0.65	0.80	6.20	369.14	0.000	0.000	50.01	0.00	0.00
21	90.00	RRUS 32 B2	3	7.333	8.067	0.65	0.80	6.20	343.94	0.000	0.000	50.01	0.00	0.00
22	90.00	QS66512-2	3	7.333	8.067	0.72	0.80	19.30	671.18	0.000	0.000	155.66	0.00	0.00
23	90.00	DC6-48-60-18-8F	2	7.333	8.067	1.00	1.00	2.40	119.33	0.000	0.000	19.32	0.00	0.00
24	90.00	RRUS-11	3	7.333	8.067	0.55	0.80	8.89	292.05	0.000	0.000	71.75	0.00	0.00
25	90.00	LGP21401	6	7.333	8.067	0.55	0.80	6.03	154.05	0.000	0.000	48.62	0.00	0.00
26	90.00	P65-16-XLH-RR	3	7.333	8.067	0.60	0.80	17.89	363.21	0.000	0.000	144.29	0.00	0.00
27	90.00	Low Profile Platform	1	7.333	8.067	0.75	0.75	28.30	1914.31	0.000	0.000	228.26	0.00	0.00
28	90.00	7770.00	3	7.333	8.067	0.60	0.80	11.09	362.09	0.000	0.000	89.44	0.00	0.00
29	84.00	12.5' - 2" Horizontal Pipe	1	7.229	7.952	1.00	1.00	5.32	68.81	0.000	0.000	42.29	0.00	0.00
30	82.00	Ericsson 4460 B25 + B66	3	7.193	7.912	0.38	0.75	3.68	476.95	0.000	0.000	29.14	0.00	0.00
31	82.00	Platform w/ Handrail	1	7.193	7.912	0.75	0.75	26.87	3334.39	0.000	0.000	212.56	0.00	0.00
32	82.00	Kathrein 782 11054	3	7.193	7.912	0.50	0.75	0.48	14.33	0.000	0.000	3.83	0.00	0.00
33	82.00	RFS	3	7.193	7.912	0.55	0.75	35.18	1211.24	0.000	0.000	278.33	0.00	0.00
34	82.00	Ericsson AIR6419 B41	3	7.193	7.912	0.58	0.75	7.45	351.22	0.000	0.000	58.94	0.00	0.00
35	82.00	Commscope VV-65A-R1	3	7.193	7.912	0.56	0.75	14.65	408.47	0.000	0.000	115.95	0.00	0.00
36	82.00	Ericsson 4480 B71 + B85	3	7.193	7.912	0.38	0.75	3.68	419.40	0.000	0.000	29.14	0.00	0.00
37	82.00	Andrew VHLP3-11W	1	7.193	7.912	1.00	1.00	11.88	137.98	0.000	0.000	94.03	0.00	0.00
38	82.00	Ceragon	1	7.193	7.912	0.50	0.75	0.76	22.68	0.000	0.000	6.04	0.00	0.00
39	82.00	TBD S20057A1	3	7.193	7.912	0.50	0.75	0.02	72.61	0.000	0.000	0.12	0.00	0.00
40	82.00	MS-KI22-5 (Kickers w/o	1	7.193	7.912	1.00	1.00	10.49	239.29	0.000	0.000	83.04	0.00	0.00
41	82.00	RFS ATMAA1412D-1A20	3	7.193	7.912	0.50	0.75	2.50	74.11	0.000	0.000	19.82	0.00	0.00
42	80.00	Pipe Mount	1	7.156	7.871	1.00	1.00	3.87	179.26	0.000	0.000	30.44	0.00	0.00
43	80.00	Ericsson ANT3 A 0.9 11	1	7.156	7.871	1.00	1.00	16.44	124.88	0.000	0.000	129.44	0.00	0.00
44	80.00	Ericsson Mini-Link 6365	2	7.156	7.871	0.76	1.00	0.97	14.50	0.000	0.000	7.66	0.00	0.00
45	74.00	GPS	1	7.041	7.745	1.00	1.00	1.44	22.24	0.000	0.000	11.18	0.00	0.00
46	74.00	Standoff Mount	1	7.041	7.745	1.00	1.00	6.34	74.94	0.000	0.000	49.12	0.00	0.00
47	68.00	MC-PK8-DSH	1	6.918	7.610	0.75	0.75	45.58	2740.55	0.000	0.000	346.91	0.00	0.00

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 39
	Struct Class: II	



48	68.00	RDIDC-9181-OF-48	1	6.918	7.610	1.00	1.00	2.36	46.43	0.000	0.000	17.96	0.00	0.00
49	68.00	TA08025-B605	3	6.918	7.610	0.50	0.75	3.48	328.99	0.000	0.000	26.46	0.00	0.00
50	68.00	TA08025-B604	3	6.918	7.610	0.50	0.75	3.48	287.43	0.000	0.000	26.46	0.00	0.00
51	68.00	Commscope	3	6.918	7.610	0.55	0.75	22.59	1364.86	0.000	0.000	171.92	0.00	0.00
Totals:									34,120.40	4,897.09				

Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 40

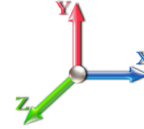


Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		50.02	604.75	0.00	0.00
4.00		49.59	604.76	0.00	0.00
6.00		49.14	603.02	0.00	0.00
8.00		48.67	600.38	0.00	0.00
10.00		48.19	597.18	0.00	0.00
12.00		47.70	593.60	0.00	0.00
14.00		47.21	589.73	0.00	0.00
16.00		47.91	585.65	0.00	0.00
18.00		48.52	581.40	0.00	0.00
20.00		49.02	577.01	0.00	0.00
22.00		49.42	572.50	0.00	0.00
24.00		49.74	567.90	0.00	0.00
26.00		49.99	563.20	0.00	0.00
28.00		50.17	558.43	0.00	0.00
30.00		50.29	553.60	0.00	0.00
32.00		50.36	548.70	0.00	0.00
34.00		50.39	543.75	0.00	0.00
36.00		50.37	538.76	0.00	0.00
38.00		50.31	533.72	0.00	0.00
40.00		50.22	528.64	0.00	0.00
42.00		50.09	523.53	0.00	0.00
44.00		49.93	518.38	0.00	0.00
45.13		28.07	290.68	0.00	0.00
46.00		21.95	339.81	0.00	0.00
48.00		50.43	774.57	0.00	0.00
49.88		47.18	719.94	0.00	0.00
50.00		2.99	27.42	0.00	0.00
52.00		49.95	454.34	0.00	0.00
54.00		49.67	449.81	0.00	0.00
56.00		49.37	445.26	0.00	0.00
58.00		49.05	440.69	0.00	0.00
60.00		48.71	436.10	0.00	0.00
62.00		48.35	431.49	0.00	0.00
64.00		47.97	426.86	0.00	0.00
66.00		47.58	422.21	0.00	0.00
68.00	(11) attachments	636.88	5185.82	0.00	0.00
70.00		46.75	401.80	0.00	0.00
72.00		46.31	397.09	0.00	0.00
74.00	(2) attachments	106.16	489.53	0.00	0.00
76.00		45.39	383.17	0.00	0.00
78.00		44.91	378.40	0.00	0.00
80.00	(4) attachments	211.97	692.25	0.00	0.00
82.00	(28) attachments	974.85	7131.11	0.00	0.00
84.00	(1) attachments	85.69	406.64	0.00	0.00
86.00		42.87	333.01	0.00	0.00
88.00		42.33	328.19	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 41
Struct Class: II		



90.00	(27) attachments	899.16	4912.66	0.00	0.00
91.29		26.70	194.30	0.00	0.00
92.00		14.69	145.05	0.00	0.00
94.00		41.27	405.37	0.00	0.00
94.71		14.49	142.33	0.00	0.00
96.00		26.16	143.65	0.00	0.00
97.00	(26) attachments	905.74	7306.86	0.00	0.00
98.00		19.95	93.29	0.00	0.00
100.00		39.50	183.77	0.00	0.00
102.00		38.90	180.38	0.00	0.00
104.00		38.28	176.99	0.00	0.00
106.00	(21) attachments	743.43	6346.30	0.00	114.47
108.00		37.03	165.43	0.00	0.00
110.00		36.39	162.01	0.00	0.00
112.00		35.74	158.59	0.00	0.00
114.00		35.08	155.16	0.00	0.00
115.00	(14) attachments	674.80	4222.85	0.00	1920.51
116.00		17.11	75.58	0.00	0.00
118.00		33.75	147.04	0.00	0.00
Totals:		7,590.82	59,592.37	0.00	2,034.98

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



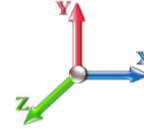
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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.33	0.00	0.063	0.000	5.024	0.00	2.65
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.37	0.00	0.063	0.000	5.024	0.00	4.84
2.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.063	0.000	5.024	0.00	2.76
2.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.55	0.00	0.063	0.000	5.024	0.00	8.94
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.34	0.00	0.064	0.000	5.024	0.00	2.84
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.38	0.00	0.064	0.000	5.024	0.00	5.04
4.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	5.024	0.00	2.97
4.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.57	0.00	0.064	0.000	5.024	0.00	9.22
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.35	0.00	0.065	0.000	5.024	0.00	2.97
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.39	0.00	0.065	0.000	5.024	0.00	5.19
6.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	5.024	0.00	3.11
6.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.58	0.00	0.065	0.000	5.024	0.00	9.41
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.36	0.00	0.065	0.000	5.024	0.00	3.08
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.40	0.00	0.065	0.000	5.024	0.00	5.30
8.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	5.024	0.00	3.23
8.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.58	0.00	0.065	0.000	5.024	0.00	9.56
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.36	0.00	0.066	0.000	5.024	0.00	3.16
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.40	0.00	0.066	0.000	5.024	0.00	5.39
10.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	5.024	0.00	3.32
10.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.59	0.00	0.066	0.000	5.024	0.00	9.69
12.00	Safety Cable	Yes	2.00	0.000	0.38	0.37	0.00	0.067	0.000	5.024	0.00	3.24
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.41	0.00	0.067	0.000	5.024	0.00	5.48
12.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	5.024	0.00	3.40
12.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.60	0.00	0.067	0.000	5.024	0.00	9.80
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.37	0.00	0.068	0.000	5.024	0.00	3.30
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.41	0.00	0.068	0.000	5.024	0.00	5.55
14.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	5.024	0.00	3.48
14.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.60	0.00	0.068	0.000	5.024	0.00	9.89
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.38	0.00	0.068	0.000	5.151	0.00	3.36
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.42	0.00	0.068	0.000	5.151	0.00	5.61
16.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	5.151	0.00	3.54
16.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.60	0.00	0.068	0.000	5.151	0.00	9.98
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.38	0.00	0.069	0.000	5.273	0.00	3.42
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.42	0.00	0.069	0.000	5.273	0.00	5.67
18.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	5.273	0.00	3.60
18.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.61	0.00	0.069	0.000	5.273	0.00	10.05
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.38	0.00	0.070	0.000	5.386	0.00	3.47
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.42	0.00	0.070	0.000	5.386	0.00	5.72
20.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	5.386	0.00	3.65
20.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.61	0.00	0.070	0.000	5.386	0.00	10.12
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.38	0.00	0.071	0.000	5.490	0.00	3.51
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.43	0.00	0.071	0.000	5.490	0.00	5.77
22.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	5.490	0.00	3.70
22.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.61	0.00	0.071	0.000	5.490	0.00	10.19
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.39	0.00	0.072	0.000	5.587	0.00	3.56
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.43	0.00	0.072	0.000	5.587	0.00	5.82
24.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	5.587	0.00	3.75

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

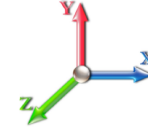


Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
24.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.62	0.00	0.072	0.000	5.587	0.00	10.25
26.00	Safety Cable	Yes	2.00	0.000	0.38	0.39	0.00	0.073	0.000	5.678	0.00	3.60
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.43	0.00	0.073	0.000	5.678	0.00	5.86
26.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	5.678	0.00	3.79
26.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.62	0.00	0.073	0.000	5.678	0.00	10.31
28.00	Safety Cable	Yes	2.00	0.000	0.38	0.39	0.00	0.073	0.000	5.764	0.00	3.64
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.43	0.00	0.073	0.000	5.764	0.00	5.90
28.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	5.764	0.00	3.83
28.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.62	0.00	0.073	0.000	5.764	0.00	10.36
30.00	Safety Cable	Yes	2.00	0.000	0.38	0.39	0.00	0.074	0.000	5.846	0.00	3.67
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.44	0.00	0.074	0.000	5.846	0.00	5.94
30.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	5.846	0.00	3.87
30.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.62	0.00	0.074	0.000	5.846	0.00	10.41
32.00	Safety Cable	Yes	2.00	0.000	0.38	0.40	0.00	0.075	0.000	5.923	0.00	3.71
32.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.44	0.00	0.075	0.000	5.923	0.00	5.98
32.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	5.923	0.00	3.91
32.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.075	0.000	5.923	0.00	10.46
34.00	Safety Cable	Yes	2.00	0.000	0.38	0.40	0.00	0.076	0.000	5.997	0.00	3.74
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.44	0.00	0.076	0.000	5.997	0.00	6.01
34.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	5.997	0.00	3.94
34.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.076	0.000	5.997	0.00	10.50
36.00	Safety Cable	Yes	2.00	0.000	0.38	0.40	0.00	0.077	0.000	6.068	0.00	3.77
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.44	0.00	0.077	0.000	6.068	0.00	6.04
36.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	6.068	0.00	3.98
36.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.077	0.000	6.068	0.00	10.54
38.00	Safety Cable	Yes	2.00	0.000	0.38	0.40	0.00	0.078	0.000	6.135	0.00	3.80
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.44	0.00	0.078	0.000	6.135	0.00	6.08
38.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	6.135	0.00	4.01
38.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.078	0.000	6.135	0.00	10.58
40.00	Safety Cable	Yes	2.00	0.000	0.38	0.40	0.00	0.079	0.000	6.200	0.00	3.83
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.45	0.00	0.079	0.000	6.200	0.00	6.11
40.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	6.200	0.00	4.04
40.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.079	0.000	6.200	0.00	10.62
42.00	Safety Cable	Yes	2.00	0.000	0.38	0.41	0.00	0.080	0.000	6.263	0.00	3.85
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.45	0.00	0.080	0.000	6.263	0.00	6.14
42.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	6.263	0.00	4.07
42.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.63	0.00	0.080	0.000	6.263	0.00	10.66
44.00	Safety Cable	Yes	2.00	0.000	0.38	0.41	0.00	0.082	0.000	6.323	0.00	3.88
44.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.45	0.00	0.082	0.000	6.323	0.00	6.16
44.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	6.323	0.00	4.10
44.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.082	0.000	6.323	0.00	10.70
45.13	Safety Cable	Yes	1.13	0.000	0.38	0.23	0.00	0.082	0.000	6.356	0.00	2.20
45.13	Step bolts (ladder)	Yes	1.13	0.000	0.63	0.25	0.00	0.082	0.000	6.356	0.00	3.49
45.13	1/2"	Yes	1.13	0.000	0.00	0.00	0.00	0.082	0.000	6.356	0.00	2.32
45.13	1.75" Hybrid	Yes	1.13	0.000	1.75	0.36	0.00	0.082	0.000	6.356	0.00	6.06
46.00	Safety Cable	Yes	0.87	0.000	0.38	0.18	0.00	0.083	0.000	6.381	0.00	1.70
46.00	Step bolts (ladder)	Yes	0.87	0.000	0.63	0.20	0.00	0.083	0.000	6.381	0.00	2.69

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

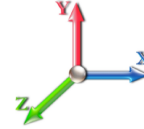


Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	1/2"	Yes	0.87	0.000	0.00	0.00	0.00	0.083	0.000	6.381	0.00	1.79
46.00	1.75" Hybrid	Yes	0.87	0.000	1.75	0.28	0.00	0.083	0.000	6.381	0.00	4.67
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.41	0.00	0.084	0.000	6.437	0.00	3.93
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.45	0.00	0.084	0.000	6.437	0.00	6.22
48.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	6.437	0.00	4.15
48.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.084	0.000	6.437	0.00	10.77
49.88	Safety Cable	Yes	1.88	0.000	0.38	0.39	0.00	0.085	0.000	6.489	0.00	3.72
49.88	Step bolts (ladder)	Yes	1.88	0.000	0.63	0.43	0.00	0.085	0.000	6.489	0.00	5.87
49.88	1/2"	Yes	1.88	0.000	0.00	0.00	0.00	0.085	0.000	6.489	0.00	3.92
49.88	1.75" Hybrid	Yes	1.88	0.000	1.75	0.60	0.00	0.085	0.000	6.489	0.00	10.15
50.00	Safety Cable	Yes	0.12	0.000	0.38	0.02	0.00	0.084	0.000	6.492	0.00	0.24
50.00	Step bolts (ladder)	Yes	0.12	0.000	0.63	0.03	0.00	0.084	0.000	6.492	0.00	0.37
50.00	1/2"	Yes	0.12	0.000	0.00	0.00	0.00	0.084	0.000	6.492	0.00	0.25
50.00	1.75" Hybrid	Yes	0.12	0.000	1.75	0.04	0.00	0.084	0.000	6.492	0.00	0.65
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.41	0.00	0.085	0.000	6.545	0.00	3.98
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.45	0.00	0.085	0.000	6.545	0.00	6.27
52.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	6.545	0.00	4.20
52.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.085	0.000	6.545	0.00	10.83
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.41	0.00	0.086	0.000	6.596	0.00	4.00
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.086	0.000	6.596	0.00	6.29
54.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	6.596	0.00	4.22
54.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.086	0.000	6.596	0.00	10.86
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.087	0.000	6.646	0.00	4.02
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.087	0.000	6.646	0.00	6.31
56.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.087	0.000	6.646	0.00	4.25
56.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.087	0.000	6.646	0.00	10.89
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.089	0.000	6.694	0.00	4.04
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.089	0.000	6.694	0.00	6.34
58.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	6.694	0.00	4.27
58.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.64	0.00	0.089	0.000	6.694	0.00	10.92
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.090	0.000	6.741	0.00	4.06
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.090	0.000	6.741	0.00	6.36
60.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	6.741	0.00	4.29
60.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.65	0.00	0.090	0.000	6.741	0.00	10.95
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.091	0.000	6.787	0.00	4.08
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.091	0.000	6.787	0.00	6.38
62.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	6.787	0.00	4.31
62.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.65	0.00	0.091	0.000	6.787	0.00	10.97
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.093	0.000	6.832	0.00	4.10
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.093	0.000	6.832	0.00	6.40
64.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.093	0.000	6.832	0.00	4.33
64.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.65	0.00	0.093	0.000	6.832	0.00	11.00
66.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.094	0.000	6.876	0.00	4.12
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.094	0.000	6.876	0.00	6.42
66.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	6.876	0.00	4.36
66.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.65	0.00	0.094	0.000	6.876	0.00	11.03
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.096	0.000	6.918	0.00	4.14

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

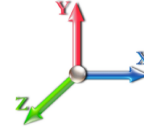


Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.096	0.000	6.918	0.00	6.44
68.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.096	0.000	6.918	0.00	4.37
68.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.65	0.00	0.096	0.000	6.918	0.00	11.05
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.036	0.000	6.960	0.00	4.16
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.46	0.00	0.036	0.000	6.960	0.00	6.46
70.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	6.960	0.00	4.39
72.00	Safety Cable	Yes	2.00	0.000	0.38	0.42	0.00	0.036	0.000	7.001	0.00	4.17
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.036	0.000	7.001	0.00	6.48
72.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	7.001	0.00	4.41
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.037	0.000	7.041	0.00	4.19
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.037	0.000	7.041	0.00	6.50
74.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.037	0.000	7.041	0.00	4.43
76.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.037	0.000	7.080	0.00	4.21
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.037	0.000	7.080	0.00	6.51
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.038	0.000	7.118	0.00	4.22
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.038	0.000	7.118	0.00	6.53
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.039	0.000	7.156	0.00	4.24
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.039	0.000	7.156	0.00	6.55
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.040	0.000	7.193	0.00	4.26
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.040	0.000	7.193	0.00	6.57
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.040	0.000	7.229	0.00	4.27
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.040	0.000	7.229	0.00	6.58
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.041	0.000	7.264	0.00	4.29
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.041	0.000	7.264	0.00	6.60
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.042	0.000	7.299	0.00	4.30
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.042	0.000	7.299	0.00	6.61
90.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.043	0.000	7.333	0.00	4.32
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.47	0.00	0.043	0.000	7.333	0.00	6.63
91.29	Safety Cable	Yes	1.29	0.000	0.38	0.28	0.00	0.043	0.000	7.355	0.00	2.80
91.29	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.31	0.00	0.043	0.000	7.355	0.00	4.29
92.00	Safety Cable	Yes	0.71	0.000	0.38	0.15	0.00	0.044	0.000	7.367	0.00	1.53
92.00	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.17	0.00	0.044	0.000	7.367	0.00	2.35
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.43	0.00	0.044	0.000	7.400	0.00	4.35
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.044	0.000	7.400	0.00	6.66
94.71	Safety Cable	Yes	0.71	0.000	0.38	0.15	0.00	0.045	0.000	7.412	0.00	1.54
94.71	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.17	0.00	0.045	0.000	7.412	0.00	2.37
96.00	Safety Cable	Yes	1.29	0.000	0.38	0.28	0.00	0.045	0.000	7.433	0.00	2.81
96.00	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.31	0.00	0.045	0.000	7.433	0.00	4.31
97.00	Safety Cable	Yes	1.00	0.000	0.38	0.22	0.00	0.045	0.000	7.449	0.00	2.18
97.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.24	0.00	0.045	0.000	7.449	0.00	3.34
98.00	Safety Cable	Yes	1.00	0.000	0.38	0.22	0.00	0.046	0.000	7.465	0.00	2.19
98.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.24	0.00	0.046	0.000	7.465	0.00	3.35
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.047	0.000	7.496	0.00	4.39
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.047	0.000	7.496	0.00	6.70
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.048	0.000	7.527	0.00	4.40
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.048	0.000	7.527	0.00	6.72
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.049	0.000	7.558	0.00	4.41

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 46

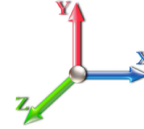


Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.049	0.000	7.558	0.00	6.73
106.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.050	0.000	7.588	0.00	4.43
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.050	0.000	7.588	0.00	6.75
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.051	0.000	7.617	0.00	4.44
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.051	0.000	7.617	0.00	6.76
110.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.052	0.000	7.647	0.00	4.45
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.052	0.000	7.647	0.00	6.77
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.053	0.000	7.675	0.00	4.46
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.053	0.000	7.675	0.00	6.79
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.055	0.000	7.704	0.00	4.48
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.055	0.000	7.704	0.00	6.80
115.00	Safety Cable	Yes	1.00	0.000	0.38	0.22	0.00	0.056	0.000	7.718	0.00	2.24
115.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.24	0.00	0.056	0.000	7.718	0.00	3.40
116.00	Safety Cable	Yes	1.00	0.000	0.38	0.22	0.00	0.057	0.000	7.732	0.00	2.24
116.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.24	0.00	0.057	0.000	7.732	0.00	3.41
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.44	0.00	0.058	0.000	7.760	0.00	4.50
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.48	0.00	0.058	0.000	7.760	0.00	6.82
Totals:											0.0	1,098.0

Calculated Forces

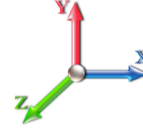
Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 47



Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 26

Dead Load Factor 1.20
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-59.59	-7.61	0.00	-662.76	0.00	662.76	3634.70	895.58	3185.83	3203.64	0.00	0.000	0.000	0.223
2.00	-58.98	-7.59	0.00	-647.54	0.00	647.54	3607.15	885.93	3117.56	3144.81	0.01	-0.031	0.000	0.222
4.00	-58.37	-7.57	0.00	-632.36	0.00	632.36	3579.34	876.28	3050.03	3086.29	0.03	-0.063	0.000	0.221
6.00	-57.77	-7.55	0.00	-617.22	0.00	617.22	3551.29	866.64	2983.24	3028.09	0.06	-0.095	0.000	0.220
8.00	-57.16	-7.54	0.00	-602.11	0.00	602.11	3522.98	856.99	2917.19	2970.21	0.11	-0.128	0.000	0.219
10.00	-56.56	-7.52	0.00	-587.04	0.00	587.04	3494.42	847.34	2851.88	2912.67	0.17	-0.160	0.000	0.218
12.00	-55.96	-7.50	0.00	-572.00	0.00	572.00	3465.61	837.69	2787.31	2855.46	0.24	-0.193	0.000	0.217
14.00	-55.37	-7.49	0.00	-557.00	0.00	557.00	3436.54	828.05	2723.48	2798.60	0.33	-0.226	0.000	0.215
16.00	-54.78	-7.47	0.00	-542.03	0.00	542.03	3407.22	818.40	2660.39	2742.09	0.43	-0.259	0.000	0.214
18.00	-54.19	-7.45	0.00	-527.09	0.00	527.09	3377.65	808.75	2598.04	2685.95	0.55	-0.293	0.000	0.212
20.00	-53.61	-7.43	0.00	-512.20	0.00	512.20	3347.83	799.10	2536.42	2630.17	0.68	-0.327	0.000	0.211
22.00	-53.03	-7.41	0.00	-497.35	0.00	497.35	3317.75	789.46	2475.55	2574.76	0.82	-0.361	0.000	0.209
24.00	-52.46	-7.38	0.00	-482.54	0.00	482.54	3287.42	779.81	2415.41	2519.74	0.98	-0.395	0.000	0.208
26.00	-51.90	-7.36	0.00	-467.77	0.00	467.77	3256.84	770.16	2356.02	2465.11	1.15	-0.430	0.000	0.206
28.00	-51.33	-7.34	0.00	-453.05	0.00	453.05	3219.51	760.51	2297.36	2406.03	1.34	-0.465	0.000	0.204
30.00	-50.78	-7.31	0.00	-438.37	0.00	438.37	3178.67	750.87	2239.44	2345.06	1.54	-0.500	0.000	0.203
32.00	-50.22	-7.29	0.00	-423.74	0.00	423.74	3137.83	741.22	2182.27	2284.88	1.76	-0.535	0.000	0.202
34.00	-49.67	-7.26	0.00	-409.17	0.00	409.17	3096.99	731.57	2125.83	2225.48	1.99	-0.570	0.000	0.200
36.00	-49.13	-7.24	0.00	-394.64	0.00	394.64	3056.15	721.92	2070.13	2166.87	2.24	-0.605	0.000	0.198
38.00	-48.59	-7.21	0.00	-380.16	0.00	380.16	3015.30	712.28	2015.17	2109.03	2.50	-0.641	0.000	0.196
40.00	-48.06	-7.19	0.00	-365.74	0.00	365.74	2974.46	702.63	1960.95	2051.98	2.78	-0.677	0.000	0.194
42.00	-47.53	-7.16	0.00	-351.36	0.00	351.36	2933.62	692.98	1907.47	1995.71	3.07	-0.712	0.000	0.192
44.00	-47.01	-7.13	0.00	-337.04	0.00	337.04	2892.78	683.33	1854.73	1940.23	3.37	-0.748	0.000	0.190
45.13	-46.72	-7.11	0.00	-328.99	0.00	328.99	2869.71	677.88	1825.26	1909.22	3.55	-0.768	0.000	0.189
46.00	-46.38	-7.10	0.00	-322.81	0.00	322.81	2851.94	673.69	1802.73	1885.52	3.70	-0.784	0.000	0.188
48.00	-45.60	-7.07	0.00	-308.60	0.00	308.60	2811.10	664.04	1751.47	1831.60	4.03	-0.819	0.000	0.185
49.88	-44.88	-7.03	0.00	-295.31	0.00	295.31	2333.69	557.78	1482.91	1535.76	4.36	-0.853	0.000	0.212
50.00	-44.85	-7.04	0.00	-294.47	0.00	294.47	2332.20	557.29	1480.35	1533.44	4.38	-0.855	0.000	0.211
52.00	-44.39	-7.01	0.00	-280.39	0.00	280.39	2307.18	549.25	1437.95	1494.89	4.75	-0.895	0.000	0.207
54.00	-43.94	-6.99	0.00	-266.37	0.00	266.37	2281.92	541.21	1396.16	1456.67	5.13	-0.934	0.000	0.202
56.00	-43.49	-6.96	0.00	-252.39	0.00	252.39	2256.40	533.17	1354.99	1418.77	5.53	-0.974	0.000	0.197
58.00	-43.04	-6.93	0.00	-238.48	0.00	238.48	2223.07	525.14	1314.43	1376.53	5.95	-1.012	0.000	0.193
60.00	-42.60	-6.90	0.00	-224.62	0.00	224.62	2189.04	517.10	1274.49	1334.49	6.38	-1.051	0.000	0.188
62.00	-42.17	-6.87	0.00	-210.81	0.00	210.81	2155.00	509.06	1235.17	1293.10	6.83	-1.088	0.000	0.183
64.00	-41.74	-6.84	0.00	-197.06	0.00	197.06	2120.97	501.02	1196.47	1252.37	7.29	-1.125	0.000	0.177
66.00	-41.31	-6.81	0.00	-183.37	0.00	183.37	2086.94	492.98	1158.38	1212.28	7.77	-1.162	0.000	0.171
68.00	-36.14	-6.09	0.00	-169.75	0.00	169.75	2052.90	484.94	1120.90	1172.85	8.27	-1.197	0.000	0.162
70.00	-35.73	-6.06	0.00	-157.56	0.00	157.56	2018.87	476.90	1084.04	1134.08	8.78	-1.231	0.000	0.157
72.00	-35.33	-6.02	0.00	-145.45	0.00	145.45	1984.83	468.86	1047.80	1095.95	9.30	-1.265	0.000	0.151
74.00	-34.84	-5.93	0.00	-133.40	0.00	133.40	1950.80	460.82	1012.18	1058.48	9.84	-1.297	0.000	0.144
76.00	-34.46	-5.89	0.00	-121.55	0.00	121.55	1916.76	452.78	977.17	1021.65	10.39	-1.328	0.000	0.137
78.00	-34.08	-5.85	0.00	-109.77	0.00	109.77	1882.73	444.74	942.77	985.48	10.95	-1.358	0.000	0.130
80.00	-33.39	-5.64	0.00	-98.06	0.00	98.06	1848.70	436.70	909.00	949.96	11.53	-1.386	0.000	0.121
82.00	-26.28	-4.50	0.00	-86.78	0.00	86.78	1814.66	428.66	875.84	915.10	12.11	-1.413	0.000	0.109
84.00	-25.88	-4.42	0.00	-77.77	0.00	77.77	1780.63	420.62	843.29	880.88	12.71	-1.438	0.000	0.103
86.00	-25.54	-4.38	0.00	-68.93	0.00	68.93	1746.59	412.58	811.36	847.32	13.32	-1.462	0.000	0.096
88.00	-25.21	-4.34	0.00	-60.17	0.00	60.17	1712.56	404.54	780.05	814.41	13.93	-1.484	0.000	0.089
90.00	-20.32	-3.32	0.00	-51.50	0.00	51.50	1678.53	396.50	749.35	782.15	14.56	-1.504	0.000	0.078

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 48



91.29	-20.13	-3.29	0.00	-47.21	0.00	47.21	1656.52	391.30	729.83	761.64	14.97	-1.516	0.000	0.074
92.00	-19.99	-3.27	0.00	-44.89	0.00	44.89	1644.49	388.46	719.27	750.54	15.19	-1.523	0.000	0.072
94.00	-19.58	-3.22	0.00	-38.34	0.00	38.34	1610.46	380.42	689.81	719.59	15.84	-1.540	0.000	0.066
94.71	-19.44	-3.21	0.00	-36.05	0.00	36.05	930.70	231.76	426.71	424.70	16.07	-1.545	0.000	0.106
96.00	-19.29	-3.18	0.00	-31.92	0.00	31.92	922.07	228.65	415.33	415.07	16.48	-1.555	0.000	0.098
97.00	-12.01	-2.08	0.00	-28.73	0.00	28.73	915.31	226.24	406.62	407.64	16.81	-1.566	0.000	0.084
98.00	-11.92	-2.06	0.00	-26.65	0.00	26.65	908.49	223.83	397.99	400.25	17.14	-1.576	0.000	0.080
100.00	-11.74	-2.02	0.00	-22.53	0.00	22.53	894.64	219.00	381.02	385.59	17.81	-1.595	0.000	0.072
102.00	-11.56	-1.98	0.00	-18.49	0.00	18.49	880.55	214.18	364.42	371.08	18.48	-1.612	0.000	0.063
104.00	-11.38	-1.94	0.00	-14.53	0.00	14.53	866.20	209.36	348.19	356.74	19.16	-1.627	0.000	0.054
106.00	-5.06	-1.02	0.00	-10.54	0.00	10.54	851.60	204.53	332.33	342.57	19.84	-1.638	0.000	0.037
108.00	-4.90	-0.97	0.00	-8.51	0.00	8.51	836.75	199.71	316.84	328.58	20.53	-1.648	0.000	0.032
110.00	-4.73	-0.93	0.00	-6.56	0.00	6.56	821.65	194.89	301.72	314.78	21.22	-1.656	0.000	0.027
112.00	-4.58	-0.89	0.00	-4.70	0.00	4.70	804.60	190.06	286.97	300.54	21.92	-1.663	0.000	0.021
114.00	-4.42	-0.85	0.00	-2.91	0.00	2.91	784.18	185.24	272.59	285.40	22.61	-1.667	0.000	0.016
115.00	-0.22	-0.06	0.00	-0.13	0.00	0.13	773.97	182.83	265.54	277.98	22.96	-1.669	0.000	0.001
116.00	-0.15	-0.04	0.00	-0.08	0.00	0.08	763.76	180.41	258.58	270.66	23.31	-1.669	0.000	0.000
118.00	0.00	-0.03	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	24.01	-1.669	0.000	0.000

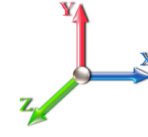
Seismic Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0Ev + 1.0Eh						Iterations 23
Gust Response Factor	1.10			Sds	0.23	Ss 0.21
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1	0.09	S1 0.06
Wind Load Factor	0.00	Structure Frequency (f1)	0.31	SA	0.03	Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
2.00		438.87	1.00	20.04	0.00	
4.00		435.13	3.00	19.86	0.00	
6.00		431.38	5.00	19.69	0.01	
8.00		427.64	7.00	19.52	0.01	
10.00		423.90	9.00	19.35	0.02	
12.00		420.16	11.00	19.18	0.02	
14.00		416.42	13.00	19.01	0.03	
16.00		412.68	15.00	18.84	0.04	
18.00		408.94	17.00	18.67	0.05	
20.00		405.20	19.00	18.50	0.06	
22.00		401.46	21.00	18.33	0.08	
24.00		397.71	23.00	18.16	0.09	
26.00		393.97	25.00	17.99	0.10	
28.00		390.23	27.00	17.82	0.12	
30.00		386.49	29.00	17.64	0.14	
32.00		382.75	31.00	17.47	0.15	
34.00		379.01	33.00	17.30	0.17	
36.00		375.27	35.00	17.13	0.19	
38.00		371.53	37.00	16.96	0.20	
40.00		367.79	39.00	16.79	0.22	
42.00		364.04	41.00	16.62	0.24	
44.00		360.30	43.00	16.45	0.26	
45.13	Bot - Section 2	201.92	44.56	9.22	0.09	
46.00		251.66	45.56	11.49	0.14	
48.00		573.61	47.00	26.19	0.78	
49.88	Top - Section 1	532.94	48.94	24.33	0.73	
50.00		18.58	49.94	0.85	0.00	
52.00		308.00	51.00	14.06	0.27	
54.00		304.88	53.00	13.92	0.28	
56.00		301.76	55.00	13.78	0.30	
58.00		298.65	57.00	13.63	0.31	
60.00		295.53	59.00	13.49	0.33	
62.00		292.41	61.00	13.35	0.34	
64.00		289.29	63.00	13.21	0.36	
66.00		286.17	65.00	13.06	0.37	
68.00	Appurtenance(s)	2661.0	67.00	121.49	34.26	
70.00		275.16	69.00	12.56	0.39	
72.00		272.04	71.00	12.42	0.40	
74.00	Appurtenance(s)	318.93	73.00	14.56	0.58	
76.00		265.42	75.00	12.12	0.43	
78.00		262.31	77.00	11.98	0.44	
80.00	Appurtenance(s)	371.99	79.00	16.98	0.93	
82.00	Appurtenance(s)	3672.9	81.00	167.68	95.39	
84.00	Appurtenance(s)	272.51	83.00	12.44	0.55	
86.00		223.65	85.00	10.21	0.39	

Seismic Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 50



88.00		220.53	87.00	10.07	0.40
90.00	Appurtenance(s)	2713.6	89.00	123.89	62.86
91.29	Bot - Section 3	126.58	90.65	5.78	0.14
92.00		101.38	91.65	4.63	0.09
94.00		283.54	93.00	12.94	0.75
94.71	Top - Section 2	99.46	94.35	4.54	0.09
96.00		85.31	95.35	3.89	0.07
97.00	Appurtenance(s)	3533.3	96.50	161.31	125.28
98.00		48.83	97.50	2.23	0.02
100.00		96.26	99.00	4.39	0.10
102.00		94.39	101.00	4.31	0.10
104.00		92.52	103.00	4.22	0.10
106.00	Appurtenance(s)	3365.6	105.00	153.65	134.59
108.00		84.03	107.00	3.84	0.09
110.00		82.16	109.00	3.75	0.09
112.00		80.28	111.00	3.67	0.09
114.00		78.41	113.00	3.58	0.08
115.00	Appurtenance(s)	2629.5	114.50	120.05	97.69
116.00		38.04	115.50	1.74	0.02
118.00		73.43	117.00	3.35	0.08
	Totals:	35,269.5		1,610.2	563.0
					Total Wind: 28,282.0

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0Ev + 1.0Eh										Iterations 23
Gust Response Factor 1.10					Sds 0.23					Ss 0.21
Dead Load Factor 1.20			Seismic Load Factor 1.00			Sd1 0.09			S1 0.06	
Wind Load Factor 0.00		Structure Frequency (f1) 0.31		SA 0.03		Seismic Importance Factor 1.00				



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-43.08	-0.56	0.00	-57.86	0.00	57.86	3634.70	895.58	3185.83	3203.64	0.00	0.00	0.00	0.030
2.00	-42.55	-0.57	0.00	-56.73	0.00	56.73	3607.15	885.93	3117.56	3144.81	0.00	0.00	0.00	0.030
4.00	-42.03	-0.57	0.00	-55.60	0.00	55.60	3579.34	876.28	3050.03	3086.29	0.00	-0.01	0.00	0.030
6.00	-41.51	-0.57	0.00	-54.47	0.00	54.47	3551.29	866.64	2983.24	3028.09	0.01	-0.01	0.00	0.030
8.00	-40.99	-0.57	0.00	-53.33	0.00	53.33	3522.98	856.99	2917.19	2970.21	0.01	-0.01	0.00	0.030
10.00	-40.49	-0.57	0.00	-52.19	0.00	52.19	3494.42	847.34	2851.88	2912.67	0.01	-0.01	0.00	0.030
12.00	-39.98	-0.57	0.00	-51.04	0.00	51.04	3465.61	837.69	2787.31	2855.46	0.02	-0.02	0.00	0.029
14.00	-39.48	-0.58	0.00	-49.89	0.00	49.89	3436.54	828.05	2723.48	2798.60	0.03	-0.02	0.00	0.029
16.00	-38.99	-0.58	0.00	-48.74	0.00	48.74	3407.22	818.40	2660.39	2742.09	0.04	-0.02	0.00	0.029
18.00	-38.49	-0.58	0.00	-47.58	0.00	47.58	3377.65	808.75	2598.04	2685.95	0.05	-0.03	0.00	0.029
20.00	-38.01	-0.58	0.00	-46.42	0.00	46.42	3347.83	799.10	2536.42	2630.17	0.06	-0.03	0.00	0.029
22.00	-37.53	-0.58	0.00	-45.26	0.00	45.26	3317.75	789.46	2475.55	2574.76	0.07	-0.03	0.00	0.029
24.00	-37.05	-0.59	0.00	-44.09	0.00	44.09	3287.42	779.81	2415.41	2519.74	0.09	-0.04	0.00	0.029
26.00	-36.58	-0.59	0.00	-42.92	0.00	42.92	3256.84	770.16	2356.02	2465.11	0.10	-0.04	0.00	0.029
28.00	-36.11	-0.59	0.00	-41.74	0.00	41.74	3219.51	760.51	2297.36	2406.03	0.12	-0.04	0.00	0.029
30.00	-35.65	-0.59	0.00	-40.57	0.00	40.57	3178.67	750.87	2239.44	2345.06	0.14	-0.04	0.00	0.029
32.00	-35.19	-0.59	0.00	-39.39	0.00	39.39	3137.83	741.22	2182.27	2284.88	0.16	-0.05	0.00	0.028
34.00	-34.74	-0.59	0.00	-38.20	0.00	38.20	3096.99	731.57	2125.83	2225.48	0.18	-0.05	0.00	0.028
36.00	-34.29	-0.59	0.00	-37.02	0.00	37.02	3056.15	721.92	2070.13	2166.87	0.20	-0.05	0.00	0.028
38.00	-33.84	-0.60	0.00	-35.83	0.00	35.83	3015.30	712.28	2015.17	2109.03	0.22	-0.06	0.00	0.028
40.00	-33.40	-0.60	0.00	-34.64	0.00	34.64	2974.46	702.63	1960.95	2051.98	0.25	-0.06	0.00	0.028
42.00	-32.97	-0.60	0.00	-33.44	0.00	33.44	2933.62	692.98	1907.47	1995.71	0.28	-0.06	0.00	0.028
44.00	-32.54	-0.60	0.00	-32.25	0.00	32.25	2892.78	683.33	1854.73	1940.23	0.30	-0.07	0.00	0.028
45.13	-32.30	-0.60	0.00	-31.57	0.00	31.57	2869.71	677.88	1825.26	1909.22	0.32	-0.07	0.00	0.028
46.00	-31.99	-0.60	0.00	-31.05	0.00	31.05	2851.94	673.69	1802.73	1885.52	0.33	-0.07	0.00	0.028
48.00	-31.30	-0.60	0.00	-29.85	0.00	29.85	2811.10	664.04	1751.47	1831.60	0.36	-0.08	0.00	0.027
49.88	-30.65	-0.60	0.00	-28.72	0.00	28.72	2333.69	557.78	1482.91	1535.76	0.39	-0.08	0.00	0.032
50.00	-30.63	-0.60	0.00	-28.64	0.00	28.64	2332.20	557.29	1480.35	1533.44	0.40	-0.08	0.00	0.032
52.00	-30.26	-0.60	0.00	-27.44	0.00	27.44	2307.18	549.25	1437.95	1494.89	0.43	-0.08	0.00	0.031
54.00	-29.90	-0.60	0.00	-26.24	0.00	26.24	2281.92	541.21	1396.16	1456.67	0.46	-0.09	0.00	0.031
56.00	-29.54	-0.60	0.00	-25.03	0.00	25.03	2256.40	533.17	1354.99	1418.77	0.50	-0.09	0.00	0.031
58.00	-29.19	-0.61	0.00	-23.82	0.00	23.82	2223.07	525.14	1314.43	1376.53	0.54	-0.09	0.00	0.030
60.00	-28.84	-0.61	0.00	-22.61	0.00	22.61	2189.04	517.10	1274.49	1334.49	0.58	-0.10	0.00	0.030
62.00	-28.50	-0.61	0.00	-21.39	0.00	21.39	2155.00	509.06	1235.17	1293.10	0.62	-0.10	0.00	0.030
64.00	-28.15	-0.61	0.00	-20.18	0.00	20.18	2120.97	501.02	1196.47	1252.37	0.67	-0.11	0.00	0.029
66.00	-27.82	-0.61	0.00	-18.96	0.00	18.96	2086.94	492.98	1158.38	1212.28	0.71	-0.11	0.00	0.029
68.00	-24.52	-0.57	0.00	-17.74	0.00	17.74	2052.90	484.94	1120.90	1172.85	0.76	-0.11	0.00	0.027
70.00	-24.20	-0.57	0.00	-16.60	0.00	16.60	2018.87	476.90	1084.04	1134.08	0.81	-0.12	0.00	0.027
72.00	-23.87	-0.57	0.00	-15.46	0.00	15.46	1984.83	468.86	1047.80	1095.95	0.86	-0.12	0.00	0.026
74.00	-23.50	-0.57	0.00	-14.32	0.00	14.32	1950.80	460.82	1012.18	1058.48	0.91	-0.12	0.00	0.026
76.00	-23.18	-0.57	0.00	-13.17	0.00	13.17	1916.76	452.78	977.17	1021.65	0.96	-0.13	0.00	0.025
78.00	-22.87	-0.57	0.00	-12.03	0.00	12.03	1882.73	444.74	942.77	985.48	1.01	-0.13	0.00	0.024
80.00	-22.43	-0.57	0.00	-10.89	0.00	10.89	1848.70	436.70	909.00	949.96	1.07	-0.13	0.00	0.024
82.00	-17.87	-0.47	0.00	-9.74	0.00	9.74	1814.66	428.66	875.84	915.10	1.12	-0.14	0.00	0.020
84.00	-17.54	-0.47	0.00	-8.81	0.00	8.81	1780.63	420.62	843.29	880.88	1.18	-0.14	0.00	0.020
86.00	-17.28	-0.47	0.00	-7.88	0.00	7.88	1746.59	412.58	811.36	847.32	1.24	-0.14	0.00	0.019
88.00	-17.01	-0.46	0.00	-6.95	0.00	6.95	1712.56	404.54	780.05	814.41	1.30	-0.14	0.00	0.018

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 52



90.00	-13.65	-0.39	0.00	-6.02	0.00	6.02	1678.53	396.50	749.35	782.15	1.36	-0.15	0.016
91.29	-13.49	-0.39	0.00	-5.51	0.00	5.51	1656.52	391.30	729.83	761.64	1.40	-0.15	0.015
92.00	-13.37	-0.39	0.00	-5.23	0.00	5.23	1644.49	388.46	719.27	750.54	1.42	-0.15	0.015
94.00	-13.03	-0.39	0.00	-4.45	0.00	4.45	1610.46	380.42	689.81	719.59	1.49	-0.15	0.014
94.71	-12.91	-0.39	0.00	-4.17	0.00	4.17	930.70	231.76	426.71	424.70	1.51	-0.15	0.024
96.00	-12.81	-0.39	0.00	-3.66	0.00	3.66	922.07	228.65	415.33	415.07	1.55	-0.15	0.023
97.00	-8.41	-0.26	0.00	-3.27	0.00	3.27	915.31	226.24	406.62	407.64	1.58	-0.15	0.017
98.00	-8.35	-0.26	0.00	-3.02	0.00	3.02	908.49	223.83	397.99	400.25	1.61	-0.15	0.017
100.00	-8.23	-0.26	0.00	-2.50	0.00	2.50	894.64	219.00	381.02	385.59	1.68	-0.16	0.016
102.00	-8.12	-0.26	0.00	-1.99	0.00	1.99	880.55	214.18	364.42	371.08	1.75	-0.16	0.015
104.00	-8.00	-0.25	0.00	-1.48	0.00	1.48	866.20	209.36	348.19	356.74	1.81	-0.16	0.013
106.00	-3.81	-0.11	0.00	-0.97	0.00	0.97	851.60	204.53	332.33	342.57	1.88	-0.16	0.007
108.00	-3.71	-0.11	0.00	-0.76	0.00	0.76	836.75	199.71	316.84	328.58	1.95	-0.16	0.007
110.00	-3.61	-0.11	0.00	-0.54	0.00	0.54	821.65	194.89	301.72	314.78	2.02	-0.16	0.006
112.00	-3.51	-0.11	0.00	-0.32	0.00	0.32	804.60	190.06	286.97	300.54	2.08	-0.16	0.005
114.00	-3.41	-0.11	0.00	-0.11	0.00	0.11	784.18	185.24	272.59	285.40	2.15	-0.16	0.005
115.00	-0.14	0.00	0.00	0.00	0.00	0.00	773.97	182.83	265.54	277.98	2.19	-0.16	0.000
116.00	-0.09	0.00	0.00	0.00	0.00	0.00	763.76	180.41	258.58	270.66	2.22	-0.16	0.000
118.00	0.00	0.00	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	2.29	-0.16	0.000

Seismic Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0Ev + 1.0Eh						Iterations 22
Gust Response Factor	1.10			Sds	0.23	Ss 0.21
Dead Load Factor	0.90	Seismic Load Factor	1.00	Sd1	0.09	S1 0.06
Wind Load Factor	0.00	Structure Frequency (f1)	0.31	SA	0.03	Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
2.00		415.50	1.00	18.97	0.00	
4.00		411.76	3.00	18.80	0.00	
6.00		408.02	5.00	18.63	0.00	
8.00		404.28	7.00	18.46	0.01	
10.00		400.54	9.00	18.29	0.01	
12.00		396.80	11.00	18.12	0.02	
14.00		393.06	13.00	17.94	0.03	
16.00		389.32	15.00	17.77	0.04	
18.00		385.58	17.00	17.60	0.05	
20.00		381.83	19.00	17.43	0.06	
22.00		378.09	21.00	17.26	0.07	
24.00		374.35	23.00	17.09	0.08	
26.00		370.61	25.00	16.92	0.09	
28.00		366.87	27.00	16.75	0.11	
30.00		363.13	29.00	16.58	0.12	
32.00		359.39	31.00	16.41	0.13	
34.00		355.65	33.00	16.24	0.15	
36.00		351.91	35.00	16.07	0.16	
38.00		348.16	37.00	15.89	0.18	
40.00		344.42	39.00	15.72	0.20	
42.00		340.68	41.00	15.55	0.21	
44.00		336.94	43.00	15.38	0.23	
45.13	Bot - Section 2	188.72	44.56	8.62	0.08	
46.00		241.50	45.56	11.03	0.13	
48.00		550.24	47.00	25.12	0.73	
49.88	Top - Section 1	510.97	48.94	23.33	0.68	
50.00		17.18	49.94	0.78	0.00	
52.00		284.64	51.00	12.99	0.23	
54.00		281.52	53.00	12.85	0.24	
56.00		278.40	55.00	12.71	0.25	
58.00		275.28	57.00	12.57	0.27	
60.00		272.17	59.00	12.43	0.28	
62.00		269.05	61.00	12.28	0.29	
64.00		265.93	63.00	12.14	0.30	
66.00		262.81	65.00	12.00	0.32	
68.00	Appurtenance(s)	2637.6	67.00	120.42	33.94	
70.00		252.99	69.00	11.55	0.33	
72.00		249.88	71.00	11.41	0.34	
74.00	Appurtenance(s)	296.76	73.00	13.55	0.51	
76.00		243.35	75.00	11.11	0.36	
78.00		240.24	77.00	10.97	0.37	
80.00	Appurtenance(s)	349.92	79.00	15.97	0.83	
82.00	Appurtenance(s)	3651.0	81.00	166.68	95.03	
84.00	Appurtenance(s)	256.99	83.00	11.73	0.49	
86.00		208.12	85.00	9.50	0.34	

Seismic Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 54
Struct Class: II		



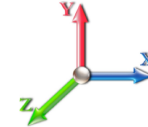
88.00		205.00	87.00	9.36	0.35
90.00	Appurtenance(s)	2698.0	89.00	123.18	62.66
91.29	Bot - Section 3	119.63	90.65	5.46	0.13
92.00		97.58	91.65	4.45	0.09
94.00		272.80	93.00	12.45	0.70
94.71	Top - Section 2	95.64	94.35	4.37	0.09
96.00		78.38	95.35	3.58	0.06
97.00	Appurtenance(s)	3527.9	96.50	161.06	125.94
98.00		47.53	97.50	2.17	0.02
100.00		93.66	99.00	4.28	0.09
102.00		91.79	101.00	4.19	0.09
104.00		89.92	103.00	4.11	0.09
106.00	Appurtenance(s)	3363.0	105.00	153.53	135.49
108.00		82.61	107.00	3.77	0.08
110.00		80.74	109.00	3.69	0.08
112.00		78.87	111.00	3.60	0.08
114.00		77.00	113.00	3.52	0.08
115.00	Appurtenance(s)	2628.8	114.50	120.01	98.45
116.00		37.33	115.50	1.70	0.02
118.00		72.33	117.00	3.30	0.08
Totals:		34,200.9	1,561.4	563.0	
					Total Wind: 28,282.0

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0Ev + 1.0Eh										Iterations 22
Gust Response Factor 1.10					Sds 0.23					Ss 0.21
Dead Load Factor 0.90			Seismic Load Factor 1.00			Sd1 0.09			S1 0.06	
Wind Load Factor 0.00		Structure Frequency (f1) 0.31		SA 0.03		Seismic Importance Factor 1.00				



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-32.66	-0.56	0.00	-56.89	0.00	56.89	3634.70	895.58	3185.83	3203.64	0.00	0.00	0.00	0.027
2.00	-32.26	-0.56	0.00	-55.77	0.00	55.77	3607.15	885.93	3117.56	3144.81	0.00	0.00	0.00	0.027
4.00	-31.87	-0.56	0.00	-54.64	0.00	54.64	3579.34	876.28	3050.03	3086.29	0.00	-0.01	-0.01	0.027
6.00	-31.47	-0.57	0.00	-53.51	0.00	53.51	3551.29	866.64	2983.24	3028.09	0.01	-0.01	-0.01	0.027
8.00	-31.08	-0.57	0.00	-52.38	0.00	52.38	3522.98	856.99	2917.19	2970.21	0.01	-0.01	-0.01	0.026
10.00	-30.70	-0.57	0.00	-51.25	0.00	51.25	3494.42	847.34	2851.88	2912.67	0.01	-0.01	-0.01	0.026
12.00	-30.32	-0.57	0.00	-50.11	0.00	50.11	3465.61	837.69	2787.31	2855.46	0.02	-0.02	-0.02	0.026
14.00	-29.94	-0.57	0.00	-48.97	0.00	48.97	3436.54	828.05	2723.48	2798.60	0.03	-0.02	-0.02	0.026
16.00	-29.56	-0.57	0.00	-47.82	0.00	47.82	3407.22	818.40	2660.39	2742.09	0.04	-0.02	-0.02	0.026
18.00	-29.19	-0.57	0.00	-46.68	0.00	46.68	3377.65	808.75	2598.04	2685.95	0.05	-0.03	-0.03	0.026
20.00	-28.82	-0.58	0.00	-45.53	0.00	45.53	3347.83	799.10	2536.42	2630.17	0.06	-0.03	-0.03	0.026
22.00	-28.46	-0.58	0.00	-44.38	0.00	44.38	3317.75	789.46	2475.55	2574.76	0.07	-0.03	-0.03	0.026
24.00	-28.10	-0.58	0.00	-43.23	0.00	43.23	3287.42	779.81	2415.41	2519.74	0.09	-0.03	-0.03	0.026
26.00	-27.74	-0.58	0.00	-42.07	0.00	42.07	3256.84	770.16	2356.02	2465.11	0.10	-0.04	-0.04	0.026
28.00	-27.39	-0.58	0.00	-40.91	0.00	40.91	3219.51	760.51	2297.36	2406.03	0.12	-0.04	-0.04	0.026
30.00	-27.03	-0.58	0.00	-39.75	0.00	39.75	3178.67	750.87	2239.44	2345.06	0.13	-0.04	-0.04	0.025
32.00	-26.69	-0.58	0.00	-38.59	0.00	38.59	3137.83	741.22	2182.27	2284.88	0.15	-0.05	-0.05	0.025
34.00	-26.34	-0.58	0.00	-37.42	0.00	37.42	3096.99	731.57	2125.83	2225.48	0.17	-0.05	-0.05	0.025
36.00	-26.00	-0.58	0.00	-36.25	0.00	36.25	3056.15	721.92	2070.13	2166.87	0.20	-0.05	-0.05	0.025
38.00	-25.67	-0.59	0.00	-35.08	0.00	35.08	3015.30	712.28	2015.17	2109.03	0.22	-0.06	-0.06	0.025
40.00	-25.34	-0.59	0.00	-33.91	0.00	33.91	2974.46	702.63	1960.95	2051.98	0.24	-0.06	-0.06	0.025
42.00	-25.01	-0.59	0.00	-32.74	0.00	32.74	2933.62	692.98	1907.47	1995.71	0.27	-0.06	-0.06	0.025
44.00	-24.68	-0.59	0.00	-31.57	0.00	31.57	2892.78	683.33	1854.73	1940.23	0.30	-0.07	-0.07	0.025
45.13	-24.50	-0.59	0.00	-30.90	0.00	30.90	2869.71	677.88	1825.26	1909.22	0.31	-0.07	-0.07	0.025
46.00	-24.27	-0.59	0.00	-30.39	0.00	30.39	2851.94	673.69	1802.73	1885.52	0.33	-0.07	-0.07	0.025
48.00	-23.74	-0.59	0.00	-29.21	0.00	29.21	2811.10	664.04	1751.47	1831.60	0.36	-0.07	-0.07	0.024
49.88	-23.25	-0.59	0.00	-28.10	0.00	28.10	2333.69	557.78	1482.91	1535.76	0.39	-0.08	-0.08	0.028
50.00	-23.23	-0.59	0.00	-28.03	0.00	28.03	2332.20	557.29	1480.35	1533.44	0.39	-0.08	-0.08	0.028
52.00	-22.96	-0.59	0.00	-26.85	0.00	26.85	2307.18	549.25	1437.95	1494.89	0.42	-0.08	-0.08	0.028
54.00	-22.68	-0.59	0.00	-25.67	0.00	25.67	2281.92	541.21	1396.16	1456.67	0.46	-0.08	-0.08	0.028
56.00	-22.41	-0.59	0.00	-24.49	0.00	24.49	2256.40	533.17	1354.99	1418.77	0.49	-0.09	-0.09	0.027
58.00	-22.15	-0.59	0.00	-23.31	0.00	23.31	2223.07	525.14	1314.43	1376.53	0.53	-0.09	-0.09	0.027
60.00	-21.88	-0.59	0.00	-22.12	0.00	22.12	2189.04	517.10	1274.49	1334.49	0.57	-0.10	-0.10	0.027
62.00	-21.62	-0.59	0.00	-20.94	0.00	20.94	2155.00	509.06	1235.17	1293.10	0.61	-0.10	-0.10	0.026
64.00	-21.36	-0.59	0.00	-19.75	0.00	19.75	2120.97	501.02	1196.47	1252.37	0.65	-0.10	-0.10	0.026
66.00	-21.11	-0.60	0.00	-18.56	0.00	18.56	2086.94	492.98	1158.38	1212.28	0.70	-0.11	-0.11	0.025
68.00	-18.60	-0.56	0.00	-17.37	0.00	17.37	2052.90	484.94	1120.90	1172.85	0.74	-0.11	-0.11	0.024
70.00	-18.36	-0.56	0.00	-16.25	0.00	16.25	2018.87	476.90	1084.04	1134.08	0.79	-0.11	-0.11	0.023
72.00	-18.12	-0.56	0.00	-15.14	0.00	15.14	1984.83	468.86	1047.80	1095.95	0.84	-0.12	-0.12	0.023
74.00	-17.83	-0.56	0.00	-14.02	0.00	14.02	1950.80	460.82	1012.18	1058.48	0.89	-0.12	-0.12	0.022
76.00	-17.59	-0.56	0.00	-12.90	0.00	12.90	1916.76	452.78	977.17	1021.65	0.94	-0.12	-0.12	0.022
78.00	-17.36	-0.56	0.00	-11.78	0.00	11.78	1882.73	444.74	942.77	985.48	0.99	-0.13	-0.13	0.021
80.00	-17.02	-0.56	0.00	-10.67	0.00	10.67	1848.70	436.70	909.00	949.96	1.05	-0.13	-0.13	0.020
82.00	-13.56	-0.46	0.00	-9.55	0.00	9.55	1814.66	428.66	875.84	915.10	1.10	-0.13	-0.13	0.018
84.00	-13.31	-0.46	0.00	-8.64	0.00	8.64	1780.63	420.62	843.29	880.88	1.16	-0.14	-0.14	0.017
86.00	-13.11	-0.46	0.00	-7.73	0.00	7.73	1746.59	412.58	811.36	847.32	1.22	-0.14	-0.14	0.017
88.00	-12.91	-0.46	0.00	-6.82	0.00	6.82	1712.56	404.54	780.05	814.41	1.27	-0.14	-0.14	0.016

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 56



90.00	-10.36	-0.39	0.00	-5.91	0.00	5.91	1678.53	396.50	749.35	782.15	1.33	-0.14	0.014
91.29	-10.24	-0.39	0.00	-5.41	0.00	5.41	1656.52	391.30	729.83	761.64	1.37	-0.15	0.013
92.00	-10.15	-0.39	0.00	-5.14	0.00	5.14	1644.49	388.46	719.27	750.54	1.40	-0.15	0.013
94.00	-9.89	-0.39	0.00	-4.36	0.00	4.36	1610.46	380.42	689.81	719.59	1.46	-0.15	0.012
94.71	-9.80	-0.39	0.00	-4.09	0.00	4.09	930.70	231.76	426.71	424.70	1.48	-0.15	0.020
96.00	-9.72	-0.39	0.00	-3.59	0.00	3.59	922.07	228.65	415.33	415.07	1.52	-0.15	0.019
97.00	-6.38	-0.25	0.00	-3.21	0.00	3.21	915.31	226.24	406.62	407.64	1.55	-0.15	0.015
98.00	-6.34	-0.25	0.00	-2.96	0.00	2.96	908.49	223.83	397.99	400.25	1.58	-0.15	0.014
100.00	-6.25	-0.25	0.00	-2.46	0.00	2.46	894.64	219.00	381.02	385.59	1.65	-0.15	0.013
102.00	-6.16	-0.25	0.00	-1.96	0.00	1.96	880.55	214.18	364.42	371.08	1.71	-0.16	0.012
104.00	-6.07	-0.25	0.00	-1.45	0.00	1.45	866.20	209.36	348.19	356.74	1.78	-0.16	0.011
106.00	-2.89	-0.11	0.00	-0.95	0.00	0.95	851.60	204.53	332.33	342.57	1.84	-0.16	0.006
108.00	-2.82	-0.11	0.00	-0.74	0.00	0.74	836.75	199.71	316.84	328.58	1.91	-0.16	0.006
110.00	-2.74	-0.11	0.00	-0.53	0.00	0.53	821.65	194.89	301.72	314.78	1.98	-0.16	0.005
112.00	-2.66	-0.11	0.00	-0.32	0.00	0.32	804.60	190.06	286.97	300.54	2.04	-0.16	0.004
114.00	-2.59	-0.11	0.00	-0.11	0.00	0.11	784.18	185.24	272.59	285.40	2.11	-0.16	0.004
115.00	-0.10	0.00	0.00	0.00	0.00	0.00	773.97	182.83	265.54	277.98	2.14	-0.16	0.000
116.00	-0.07	0.00	0.00	0.00	0.00	0.00	763.76	180.41	258.58	270.66	2.18	-0.16	0.000
118.00	0.00	0.00	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	2.25	-0.16	0.000

Wind Loading - Shaft

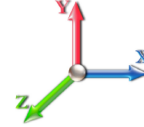
Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 57



Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 25

Dead Load Factor 1.00
Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	6.473	7.12	199.61	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	6.473	7.12	197.48	0.730	0.000	2.00	7.280	5.31	37.8	0.0	345.4
4.00		1.00	0.85	6.473	7.12	195.34	0.730	0.000	2.00	7.202	5.26	37.4	0.0	341.7
6.00		1.00	0.85	6.473	7.12	193.21	0.730	0.000	2.00	7.124	5.20	37.0	0.0	337.9
8.00		1.00	0.85	6.473	7.12	191.08	0.730	0.000	2.00	7.046	5.14	36.6	0.0	334.2
10.00		1.00	0.85	6.473	7.12	188.95	0.730	0.000	2.00	6.968	5.09	36.2	0.0	330.5
12.00		1.00	0.85	6.473	7.12	186.82	0.730	0.000	2.00	6.890	5.03	35.8	0.0	326.7
14.00		1.00	0.85	6.473	7.12	184.69	0.730	0.000	2.00	6.811	4.97	35.4	0.0	323.0
16.00		1.00	0.87	6.637	7.30	184.85	0.730	0.000	2.00	6.733	4.92	35.9	0.0	319.2
18.00		1.00	0.89	6.794	7.47	184.85	0.730	0.000	2.00	6.655	4.86	36.3	0.0	315.5
20.00		1.00	0.91	6.939	7.63	184.60	0.730	0.000	2.00	6.577	4.80	36.6	0.0	311.7
22.00		1.00	0.93	7.073	7.78	184.15	0.730	0.000	2.00	6.499	4.74	36.9	0.0	308.0
24.00		1.00	0.95	7.198	7.92	183.52	0.730	0.000	2.00	6.421	4.69	37.1	0.0	304.3
26.00		1.00	0.96	7.316	8.05	182.75	0.730	0.000	2.00	6.342	4.63	37.3	0.0	300.5
28.00		1.00	0.98	7.427	8.17	181.84	0.730	0.000	2.00	6.264	4.57	37.4	0.0	296.8
30.00		1.00	0.99	7.532	8.29	180.83	0.730	0.000	2.00	6.186	4.52	37.4	0.0	293.0
32.00		1.00	1.00	7.632	8.39	179.71	0.730	0.000	2.00	6.108	4.46	37.4	0.0	289.3
34.00		1.00	1.01	7.727	8.50	178.49	0.730	0.000	2.00	6.030	4.40	37.4	0.0	285.6
36.00		1.00	1.03	7.818	8.60	177.20	0.730	0.000	2.00	5.952	4.34	37.4	0.0	281.8
38.00		1.00	1.04	7.905	8.70	175.83	0.730	0.000	2.00	5.873	4.29	37.3	0.0	278.1
40.00		1.00	1.05	7.989	8.79	174.39	0.730	0.000	2.00	5.795	4.23	37.2	0.0	274.3
42.00		1.00	1.06	8.069	8.88	172.88	0.730	0.000	2.00	5.717	4.17	37.0	0.0	270.6
44.00		1.00	1.07	8.147	8.96	171.32	0.730	0.000	2.00	5.639	4.12	36.9	0.0	266.9
45.13	Bot - Section 2	1.00	1.08	8.189	9.01	170.41	0.730	0.000	1.13	3.151	2.30	20.7	0.0	149.1
46.00		1.00	1.08	8.222	9.04	169.70	0.730	0.000	0.87	2.455	1.79	16.2	0.0	211.0
48.00		1.00	1.09	8.294	9.12	168.04	0.730	0.000	2.00	5.588	4.08	37.2	0.0	480.2
49.88	Top - Section 1	1.00	1.10	8.360	9.20	166.43	0.730	0.000	1.88	5.182	3.78	34.8	0.0	445.1
50.00		1.00	1.10	8.364	9.20	169.60	0.730	0.000	0.12	0.328	0.24	2.2	0.0	13.0
52.00		1.00	1.11	8.432	9.28	167.86	0.730	0.000	2.00	5.432	3.97	36.8	0.0	214.5
54.00		1.00	1.12	8.498	9.35	166.07	0.730	0.000	2.00	5.354	3.91	36.5	0.0	211.4
56.00		1.00	1.12	8.562	9.42	164.25	0.730	0.000	2.00	5.276	3.85	36.3	0.0	208.3
58.00		1.00	1.13	8.625	9.49	162.38	0.730	0.000	2.00	5.198	3.79	36.0	0.0	205.2
60.00		1.00	1.14	8.685	9.55	160.48	0.730	0.000	2.00	5.119	3.74	35.7	0.0	202.1
62.00		1.00	1.15	8.745	9.62	158.55	0.730	0.000	2.00	5.041	3.68	35.4	0.0	199.0
64.00		1.00	1.16	8.802	9.68	156.59	0.730	0.000	2.00	4.963	3.62	35.1	0.0	195.8
66.00		1.00	1.16	8.859	9.74	154.60	0.730	0.000	2.00	4.885	3.57	34.7	0.0	192.7
68.00	Appurtenance(s)	1.00	1.17	8.914	9.81	152.57	0.730	0.000	2.00	4.807	3.51	34.4	0.0	189.6
70.00		1.00	1.18	8.968	9.86	150.52	0.730	0.000	2.00	4.729	3.45	34.1	0.0	186.5
72.00		1.00	1.18	9.020	9.92	148.45	0.730	0.000	2.00	4.650	3.39	33.7	0.0	183.4
74.00	Appurtenance(s)	1.00	1.19	9.072	9.98	146.35	0.730	0.000	2.00	4.572	3.34	33.3	0.0	180.3
76.00		1.00	1.20	9.122	10.03	144.22	0.730	0.000	2.00	4.494	3.28	32.9	0.0	177.1
78.00		1.00	1.20	9.171	10.09	142.08	0.730	0.000	2.00	4.416	3.22	32.5	0.0	174.0
80.00	Appurtenance(s)	1.00	1.21	9.220	10.14	139.91	0.730	0.000	2.00	4.338	3.17	32.1	0.0	170.9
82.00	Appurtenance(s)	1.00	1.22	9.267	10.19	137.72	0.730	0.000	2.00	4.260	3.11	31.7	0.0	167.8
84.00	Appurtenance(s)	1.00	1.22	9.314	10.25	135.50	0.730	0.000	2.00	4.181	3.05	31.3	0.0	164.7
86.00		1.00	1.23	9.360	10.30	133.27	0.730	0.000	2.00	4.103	3.00	30.8	0.0	161.5
88.00		1.00	1.23	9.404	10.34	131.02	0.730	0.000	2.00	4.025	2.94	30.4	0.0	158.4

Wind Loading - Shaft

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00 Appurtenance(s)	1.00	1.24	9.449	10.39	128.76	0.730	0.000	2.00	3.947	2.88	29.9	0.0	155.3
91.29 Bot - Section 3	1.00	1.24	9.477	10.42	127.28	0.730	0.000	1.29	2.511	1.83	19.1	0.0	98.8
92.00	1.00	1.25	9.492	10.44	126.47	0.730	0.000	0.71	1.380	1.01	10.5	0.0	86.2
94.00	1.00	1.25	9.534	10.49	124.17	0.730	0.000	2.00	3.854	2.81	29.5	0.0	240.6
94.71 Top - Section 2	1.00	1.25	9.549	10.50	123.34	0.730	0.000	0.71	1.349	0.99	10.3	0.0	84.2
96.00	1.00	1.26	9.576	10.53	123.95	0.730	0.000	1.29	2.427	1.77	18.7	0.0	57.6
97.00 Appurtenance(s)	1.00	1.26	9.597	10.56	122.79	0.730	0.000	1.00	1.859	1.36	14.3	0.0	44.1
98.00	1.00	1.26	9.618	10.58	121.62	0.730	0.000	1.00	1.839	1.34	14.2	0.0	43.6
100.00	1.00	1.27	9.658	10.62	119.27	0.730	0.000	2.00	3.620	2.64	28.1	0.0	85.9
102.00	1.00	1.27	9.698	10.67	116.91	0.730	0.000	2.00	3.541	2.59	27.6	0.0	84.0
104.00	1.00	1.28	9.738	10.71	114.53	0.730	0.000	2.00	3.463	2.53	27.1	0.0	82.1
106.00 Appurtenance(s)	1.00	1.28	9.776	10.75	112.14	0.730	0.000	2.00	3.385	2.47	26.6	0.0	80.2
108.00	1.00	1.29	9.814	10.80	109.73	0.730	0.000	2.00	3.307	2.41	26.1	0.0	78.4
110.00	1.00	1.29	9.852	10.84	107.31	0.730	0.000	2.00	3.229	2.36	25.5	0.0	76.5
112.00	1.00	1.30	9.889	10.88	104.88	0.730	0.000	2.00	3.151	2.30	25.0	0.0	74.6
114.00	1.00	1.30	9.926	10.92	102.44	0.730	0.000	2.00	3.072	2.24	24.5	0.0	72.8
115.00 Appurtenance(s)	1.00	1.31	9.944	10.94	101.21	0.730	0.000	1.00	1.507	1.10	12.0	0.0	35.7
116.00	1.00	1.31	9.962	10.96	99.98	0.730	0.000	1.00	1.487	1.09	11.9	0.0	35.2
118.00	1.00	1.31	9.998	11.00	97.51	0.730	0.000	2.00	2.916	2.13	23.4	0.0	69.0
Totals:								118.00			1,971.1		13,161.4

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.0D + 1.0W 60 mph Wind	Iterations 25
Dead Load Factor 1.00	
Wind Load Factor 1.00	

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	115.00	Low Profile Platform	1	9.944	10.938	1.00	1.00	28.50	1800.00	0.000	0.000	311.74	0.00	0.00
2	115.00	Mount Pipes	12	9.980	10.978	0.90	0.90	20.52	720.00	0.000	2.000	225.26	0.00	450.53
3	115.00	DS1F03F36D-N	1	10.173	11.190	1.00	1.00	6.75	71.00	0.000	13.250	75.53	0.00	1000.83
4	106.00	APXV9TM14-ALU-120	3	9.795	10.775	0.63	0.80	12.02	168.00	0.000	1.000	129.52	0.00	129.52
5	106.00	Universal Ring Mount	1	9.776	10.754	1.00	1.00	5.00	350.00	0.000	0.000	53.77	0.00	0.00
6	106.00	Low Profile Platform	1	9.776	10.754	0.75	0.75	21.00	2000.00	0.000	0.000	225.83	0.00	0.00
7	106.00	APXVSP18-C-A20	3	9.776	10.754	0.66	0.80	15.98	171.00	0.000	0.000	171.80	0.00	0.00
8	106.00	1900 MHz 4X45 RRH	3	9.776	10.754	0.40	0.80	3.25	180.00	0.000	0.000	34.97	0.00	0.00
9	106.00	800 MHz RRU Filter	3	9.776	10.754	0.40	0.80	2.88	192.00	0.000	0.000	30.97	0.00	0.00
10	106.00	TD-RRH8x20-25	3	9.776	10.754	0.40	0.80	4.86	210.00	0.000	0.000	52.26	0.00	0.00
11	106.00	ACU-A20-N	4	9.776	10.754	0.40	0.80	0.22	4.00	0.000	0.000	2.41	0.00	0.00
12	97.00	Amphenol	3	9.597	10.557	0.55	0.75	12.43	51.00	0.000	0.000	131.26	0.00	0.00
13	97.00	Samsung MT6407-77A	3	9.597	10.557	0.52	0.75	7.39	238.20	0.000	0.000	77.98	0.00	0.00
14	97.00	Samsung RF4439d-25A	3	9.597	10.557	0.38	0.75	2.09	224.10	0.000	0.000	22.09	0.00	0.00
15	97.00	JMA MX06FRO660-03	6	9.597	10.557	0.65	0.75	38.64	522.60	0.000	0.000	407.93	0.00	0.00
16	97.00	Low Profile Platform w/	1	9.597	10.557	0.75	0.75	26.27	2100.00	0.000	0.000	277.35	0.00	0.00
17	97.00	Samsung RF4440d-13A	3	9.597	10.557	0.50	0.75	2.80	210.99	0.000	0.000	29.60	0.00	0.00
18	97.00	Commscope	1	9.597	10.557	0.75	0.75	1.40	15.21	0.000	0.000	14.81	0.00	0.00
19	97.00	Kaelus KA-6030	6	9.597	10.557	0.49	0.75	2.81	105.60	0.000	0.000	29.64	0.00	0.00
20	90.00	RRUS 32 B30	3	9.449	10.393	0.40	0.80	3.29	180.00	0.000	0.000	34.17	0.00	0.00
21	90.00	RRUS 32 B2	3	9.449	10.393	0.40	0.80	3.29	159.00	0.000	0.000	34.17	0.00	0.00
22	90.00	QS66512-2	3	9.449	10.393	0.72	0.80	17.56	231.00	0.000	0.000	182.52	0.00	0.00
23	90.00	DC6-48-60-18-8F	2	9.449	10.393	1.00	1.00	1.84	63.60	0.000	0.000	19.12	0.00	0.00
24	90.00	RRUS-11	3	9.449	10.393	0.40	0.80	5.30	165.00	0.000	0.000	55.13	0.00	0.00
25	90.00	LGP21401	6	9.449	10.393	0.40	0.80	3.10	84.60	0.000	0.000	32.18	0.00	0.00
26	90.00	P65-16-XLH-RR	3	9.449	10.393	0.60	0.80	14.69	159.00	0.000	0.000	152.66	0.00	0.00
27	90.00	Low Profile Platform	1	9.449	10.393	0.75	0.75	18.75	1349.00	0.000	0.000	194.88	0.00	0.00
28	90.00	7770.00	3	9.449	10.393	0.58	0.80	9.64	105.00	0.000	0.000	100.15	0.00	0.00
29	84.00	12.5' - 2" Horizontal Pipe	1	9.314	10.245	1.00	1.00	2.97	45.75	0.000	0.000	30.42	0.00	0.00
30	82.00	Ericsson 4460 B25 + B66	3	9.267	10.194	0.38	0.75	3.21	327.00	0.000	0.000	32.68	0.00	0.00
31	82.00	Platform w/ Handrail	1	9.267	10.194	0.75	0.75	17.86	1868.20	0.000	0.000	182.04	0.00	0.00
32	82.00	Kathrein 782 11054	3	9.267	10.194	0.38	0.75	0.17	5.40	0.000	0.000	1.72	0.00	0.00
33	82.00	RFS	3	9.267	10.194	0.54	0.75	32.79	368.40	0.000	0.000	334.25	0.00	0.00
34	82.00	Ericsson AIR6419 B41	3	9.267	10.194	0.57	0.75	6.50	198.30	0.000	0.000	66.24	0.00	0.00
35	82.00	Commscope VV-65A-R1	3	9.267	10.194	0.55	0.75	13.15	88.50	0.000	0.000	134.09	0.00	0.00
36	82.00	Ericsson 4480 B71 + B85	3	9.267	10.194	0.38	0.75	3.21	279.00	0.000	0.000	32.68	0.00	0.00
37	82.00	Andrew VHLP3-11W	1	9.267	10.194	1.00	1.00	10.68	53.00	0.000	0.000	108.87	0.00	0.00
38	82.00	Ceragon	1	9.267	10.194	0.38	0.75	0.39	11.50	0.000	0.000	4.01	0.00	0.00
39	82.00	TBD S20057A1	3	9.267	10.194	0.38	0.75	0.01	33.00	0.000	0.000	0.11	0.00	0.00
40	82.00	MS-KI22-5 (Kickers w/o	1	9.267	10.194	1.00	1.00	6.33	146.00	0.000	0.000	64.53	0.00	0.00
41	82.00	RFS ATMAA1412D-1A20	3	9.267	10.194	0.38	0.75	1.32	39.00	0.000	0.000	13.42	0.00	0.00
42	80.00	Pipe Mount	1	9.220	10.142	1.00	1.00	2.50	60.00	0.000	0.000	25.35	0.00	0.00
43	80.00	Ericsson ANT3 A 0.9 11	1	9.220	10.142	1.00	1.00	10.63	41.80	0.000	0.000	107.81	0.00	0.00
44	80.00	Ericsson Mini-Link 6365	2	9.220	10.142	0.72	1.00	0.66	11.00	0.000	0.000	6.72	0.00	0.00
45	74.00	GPS	1	9.072	9.979	1.00	1.00	1.00	10.00	0.000	0.000	9.98	0.00	0.00
46	74.00	Standoff Mount	1	9.072	9.979	1.00	1.00	2.63	40.00	0.000	0.000	26.24	0.00	0.00
47	68.00	MC-PK8-DSH	1	8.914	9.805	0.75	0.75	25.68	1727.00	0.000	0.000	251.80	0.00	0.00

Discrete Appurtenance Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 60
	Struct Class: II	



48	68.00	RDIDC-9181-OF-48	1	8.914	9.805	1.00	1.00	2.01	21.90	0.000	0.000	19.71	0.00	0.00
49	68.00	TA08025-B605	3	8.914	9.805	0.38	0.75	2.21	225.00	0.000	0.000	21.62	0.00	0.00
50	68.00	TA08025-B604	3	8.914	9.805	0.38	0.75	2.21	191.70	0.000	0.000	21.62	0.00	0.00
51	68.00	Commscope	3	8.914	9.805	0.55	0.75	19.71	212.40	0.000	0.000	193.29	0.00	0.00
Totals:												17,833.75		4,798.92

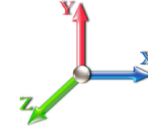
Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 61



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		37.84	423.29	0.00	0.00
4.00		37.44	419.55	0.00	0.00
6.00		37.03	415.81	0.00	0.00
8.00		36.62	412.07	0.00	0.00
10.00		36.22	408.33	0.00	0.00
12.00		35.81	404.59	0.00	0.00
14.00		35.40	400.85	0.00	0.00
16.00		35.89	397.10	0.00	0.00
18.00		36.31	393.36	0.00	0.00
20.00		36.65	389.62	0.00	0.00
22.00		36.91	385.88	0.00	0.00
24.00		37.11	382.14	0.00	0.00
26.00		37.26	378.40	0.00	0.00
28.00		37.36	374.66	0.00	0.00
30.00		37.41	370.92	0.00	0.00
32.00		37.43	367.18	0.00	0.00
34.00		37.41	363.43	0.00	0.00
36.00		37.36	359.69	0.00	0.00
38.00		37.28	355.95	0.00	0.00
40.00		37.18	352.21	0.00	0.00
42.00		37.04	348.47	0.00	0.00
44.00		36.89	344.73	0.00	0.00
45.13		20.72	193.12	0.00	0.00
46.00		16.21	244.88	0.00	0.00
48.00		37.22	558.03	0.00	0.00
49.88		34.79	518.29	0.00	0.00
50.00		2.21	17.64	0.00	0.00
52.00		36.78	292.42	0.00	0.00
54.00		36.54	289.31	0.00	0.00
56.00		36.27	286.19	0.00	0.00
58.00		36.00	283.07	0.00	0.00
60.00		35.71	279.95	0.00	0.00
62.00		35.40	276.84	0.00	0.00
64.00		35.08	273.72	0.00	0.00
66.00		34.75	270.60	0.00	0.00
68.00	(11) attachments	542.44	2645.48	0.00	0.00
70.00		34.05	260.38	0.00	0.00
72.00		33.68	257.27	0.00	0.00
74.00	(2) attachments	69.53	304.15	0.00	0.00
76.00		32.92	250.71	0.00	0.00
78.00		32.52	247.59	0.00	0.00
80.00	(4) attachments	171.99	357.27	0.00	0.00
82.00	(28) attachments	1006.35	3658.34	0.00	0.00
84.00	(1) attachments	61.69	262.16	0.00	0.00
86.00		30.84	213.30	0.00	0.00
88.00		30.40	210.18	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Page: 62
Struct Class: II		



90.00	(27) attachments	834.92	2703.26	0.00	0.00
91.29		19.11	121.94	0.00	0.00
92.00		10.52	98.85	0.00	0.00
94.00		29.51	276.38	0.00	0.00
94.71		10.35	96.91	0.00	0.00
96.00		18.66	80.69	0.00	0.00
97.00	(26) attachments	1004.98	3529.71	0.00	0.00
98.00		14.20	47.96	0.00	0.00
100.00		28.07	94.53	0.00	0.00
102.00		27.58	92.66	0.00	0.00
104.00		27.08	90.79	0.00	0.00
106.00	(21) attachments	728.12	3363.92	0.00	129.52
108.00		26.06	83.08	0.00	0.00
110.00		25.54	81.21	0.00	0.00
112.00		25.02	79.34	0.00	0.00
114.00		24.49	77.47	0.00	0.00
115.00	(14) attachments	624.57	2629.04	0.00	1451.35
116.00		11.90	37.57	0.00	0.00
118.00		23.41	72.69	0.00	0.00
Totals:		6,770.04	34,557.12	0.00	1,580.87

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

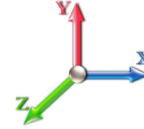


Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 25

Dead Load Factor 1.00

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.063	0.000	6.473	0.00	0.55
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.063	0.000	6.473	0.00	2.08
2.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.063	0.000	6.473	0.00	0.32
2.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.063	0.000	6.473	0.00	3.98
4.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.064	0.000	6.473	0.00	0.55
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.064	0.000	6.473	0.00	2.08
4.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	6.473	0.00	0.32
4.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.064	0.000	6.473	0.00	3.98
6.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	6.473	0.00	0.55
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	6.473	0.00	2.08
6.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	6.473	0.00	0.32
6.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	6.473	0.00	3.98
8.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.065	0.000	6.473	0.00	0.55
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.065	0.000	6.473	0.00	2.08
8.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	6.473	0.00	0.32
8.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.065	0.000	6.473	0.00	3.98
10.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.066	0.000	6.473	0.00	0.55
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.066	0.000	6.473	0.00	2.08
10.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	6.473	0.00	0.32
10.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.066	0.000	6.473	0.00	3.98
12.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.067	0.000	6.473	0.00	0.55
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.067	0.000	6.473	0.00	2.08
12.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	6.473	0.00	0.32
12.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.067	0.000	6.473	0.00	3.98
14.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	6.473	0.00	0.55
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	6.473	0.00	2.08
14.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	6.473	0.00	0.32
14.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	6.473	0.00	3.98
16.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.068	0.000	6.637	0.00	0.55
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.068	0.000	6.637	0.00	2.08
16.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	6.637	0.00	0.32
16.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.068	0.000	6.637	0.00	3.98
18.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.069	0.000	6.794	0.00	0.55
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.069	0.000	6.794	0.00	2.08
18.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	6.794	0.00	0.32
18.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.069	0.000	6.794	0.00	3.98
20.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.070	0.000	6.939	0.00	0.55
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.070	0.000	6.939	0.00	2.08
20.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	6.939	0.00	0.32
20.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.070	0.000	6.939	0.00	3.98
22.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.071	0.000	7.073	0.00	0.55
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.071	0.000	7.073	0.00	2.08
22.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	7.073	0.00	0.32
22.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.071	0.000	7.073	0.00	3.98
24.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.072	0.000	7.198	0.00	0.55
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.072	0.000	7.198	0.00	2.08
24.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	7.198	0.00	0.32

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



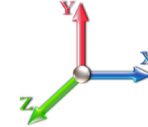
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Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 25

Dead Load Factor 1.00

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
24.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.072	0.000	7.198	0.00	3.98
26.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.073	0.000	7.316	0.00	0.55
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.073	0.000	7.316	0.00	2.08
26.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	7.316	0.00	0.32
26.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.073	0.000	7.316	0.00	3.98
28.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.073	0.000	7.427	0.00	0.55
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.073	0.000	7.427	0.00	2.08
28.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	7.427	0.00	0.32
28.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.073	0.000	7.427	0.00	3.98
30.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.074	0.000	7.532	0.00	0.55
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.074	0.000	7.532	0.00	2.08
30.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	7.532	0.00	0.32
30.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.074	0.000	7.532	0.00	3.98
32.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.075	0.000	7.632	0.00	0.55
32.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.075	0.000	7.632	0.00	2.08
32.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	7.632	0.00	0.32
32.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.075	0.000	7.632	0.00	3.98
34.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.076	0.000	7.727	0.00	0.55
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.076	0.000	7.727	0.00	2.08
34.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	7.727	0.00	0.32
34.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.076	0.000	7.727	0.00	3.98
36.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.077	0.000	7.818	0.00	0.55
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.077	0.000	7.818	0.00	2.08
36.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	7.818	0.00	0.32
36.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.077	0.000	7.818	0.00	3.98
38.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.078	0.000	7.905	0.00	0.55
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.078	0.000	7.905	0.00	2.08
38.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	7.905	0.00	0.32
38.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.078	0.000	7.905	0.00	3.98
40.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.079	0.000	7.989	0.00	0.55
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.079	0.000	7.989	0.00	2.08
40.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	7.989	0.00	0.32
40.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.079	0.000	7.989	0.00	3.98
42.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.080	0.000	8.069	0.00	0.55
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.080	0.000	8.069	0.00	2.08
42.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	8.069	0.00	0.32
42.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.080	0.000	8.069	0.00	3.98
44.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.082	0.000	8.147	0.00	0.55
44.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.082	0.000	8.147	0.00	2.08
44.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	8.147	0.00	0.32
44.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.082	0.000	8.147	0.00	3.98
45.13	Safety Cable	Yes	1.13	0.000	0.38	0.04	0.00	0.082	0.000	8.189	0.00	0.31
45.13	Step bolts (ladder)	Yes	1.13	0.000	0.63	0.06	0.00	0.082	0.000	8.189	0.00	1.18
45.13	1/2"	Yes	1.13	0.000	0.00	0.00	0.00	0.082	0.000	8.189	0.00	0.18
45.13	1.75" Hybrid	Yes	1.13	0.000	1.75	0.16	0.00	0.082	0.000	8.189	0.00	2.25
46.00	Safety Cable	Yes	0.87	0.000	0.38	0.03	0.00	0.083	0.000	8.222	0.00	0.24
46.00	Step bolts (ladder)	Yes	0.87	0.000	0.63	0.05	0.00	0.083	0.000	8.222	0.00	0.90

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

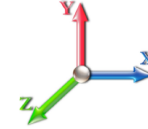


Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 25

Dead Load Factor 1.00

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	1/2"	Yes	0.87	0.000	0.00	0.00	0.00	0.083	0.000	8.222	0.00	0.14
46.00	1.75" Hybrid	Yes	0.87	0.000	1.75	0.13	0.00	0.083	0.000	8.222	0.00	1.73
48.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.084	0.000	8.294	0.00	0.55
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.084	0.000	8.294	0.00	2.08
48.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	8.294	0.00	0.32
48.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.084	0.000	8.294	0.00	3.98
49.88	Safety Cable	Yes	1.88	0.000	0.38	0.06	0.00	0.085	0.000	8.360	0.00	0.51
49.88	Step bolts (ladder)	Yes	1.88	0.000	0.63	0.10	0.00	0.085	0.000	8.360	0.00	1.96
49.88	1/2"	Yes	1.88	0.000	0.00	0.00	0.00	0.085	0.000	8.360	0.00	0.30
49.88	1.75" Hybrid	Yes	1.88	0.000	1.75	0.27	0.00	0.085	0.000	8.360	0.00	3.74
50.00	Safety Cable	Yes	0.12	0.000	0.38	0.00	0.00	0.084	0.000	8.364	0.00	0.03
50.00	Step bolts (ladder)	Yes	0.12	0.000	0.63	0.01	0.00	0.084	0.000	8.364	0.00	0.12
50.00	1/2"	Yes	0.12	0.000	0.00	0.00	0.00	0.084	0.000	8.364	0.00	0.02
50.00	1.75" Hybrid	Yes	0.12	0.000	1.75	0.02	0.00	0.084	0.000	8.364	0.00	0.24
52.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.085	0.000	8.432	0.00	0.55
52.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.085	0.000	8.432	0.00	2.08
52.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	8.432	0.00	0.32
52.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.085	0.000	8.432	0.00	3.98
54.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.086	0.000	8.498	0.00	0.55
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.086	0.000	8.498	0.00	2.08
54.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	8.498	0.00	0.32
54.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.086	0.000	8.498	0.00	3.98
56.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.087	0.000	8.562	0.00	0.55
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.087	0.000	8.562	0.00	2.08
56.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.087	0.000	8.562	0.00	0.32
56.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.087	0.000	8.562	0.00	3.98
58.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.089	0.000	8.625	0.00	0.55
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.089	0.000	8.625	0.00	2.08
58.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	8.625	0.00	0.32
58.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.089	0.000	8.625	0.00	3.98
60.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.090	0.000	8.685	0.00	0.55
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.090	0.000	8.685	0.00	2.08
60.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	8.685	0.00	0.32
60.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.090	0.000	8.685	0.00	3.98
62.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.091	0.000	8.745	0.00	0.55
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.091	0.000	8.745	0.00	2.08
62.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	8.745	0.00	0.32
62.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.091	0.000	8.745	0.00	3.98
64.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.093	0.000	8.802	0.00	0.55
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.093	0.000	8.802	0.00	2.08
64.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.093	0.000	8.802	0.00	0.32
64.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.093	0.000	8.802	0.00	3.98
66.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.094	0.000	8.859	0.00	0.55
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.094	0.000	8.859	0.00	2.08
66.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	8.859	0.00	0.32
66.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.094	0.000	8.859	0.00	3.98
68.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.096	0.000	8.914	0.00	0.55

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

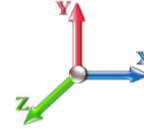


Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 25

Dead Load Factor 1.00

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.096	0.000	8.914	0.00	2.08
68.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.096	0.000	8.914	0.00	0.32
68.00	1.75" Hybrid	Yes	2.00	0.000	1.75	0.29	0.00	0.096	0.000	8.914	0.00	3.98
70.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	8.968	0.00	0.55
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	8.968	0.00	2.08
70.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	8.968	0.00	0.32
72.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.036	0.000	9.020	0.00	0.55
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.036	0.000	9.020	0.00	2.08
72.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.036	0.000	9.020	0.00	0.32
74.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	9.072	0.00	0.55
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	9.072	0.00	2.08
74.00	1/2"	Yes	2.00	0.000	0.00	0.00	0.00	0.037	0.000	9.072	0.00	0.32
76.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.037	0.000	9.122	0.00	0.55
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.037	0.000	9.122	0.00	2.08
78.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.038	0.000	9.171	0.00	0.55
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.038	0.000	9.171	0.00	2.08
80.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.039	0.000	9.220	0.00	0.55
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.039	0.000	9.220	0.00	2.08
82.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	9.267	0.00	0.55
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	9.267	0.00	2.08
84.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.040	0.000	9.314	0.00	0.55
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.040	0.000	9.314	0.00	2.08
86.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.041	0.000	9.360	0.00	0.55
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.041	0.000	9.360	0.00	2.08
88.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.042	0.000	9.404	0.00	0.55
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.042	0.000	9.404	0.00	2.08
90.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.043	0.000	9.449	0.00	0.55
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.043	0.000	9.449	0.00	2.08
91.29	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.043	0.000	9.477	0.00	0.35
91.29	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.043	0.000	9.477	0.00	1.35
92.00	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.044	0.000	9.492	0.00	0.19
92.00	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.044	0.000	9.492	0.00	0.73
94.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.044	0.000	9.534	0.00	0.55
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.044	0.000	9.534	0.00	2.08
94.71	Safety Cable	Yes	0.71	0.000	0.38	0.02	0.00	0.045	0.000	9.549	0.00	0.19
94.71	Step bolts (ladder)	Yes	0.71	0.000	0.63	0.04	0.00	0.045	0.000	9.549	0.00	0.74
96.00	Safety Cable	Yes	1.29	0.000	0.38	0.04	0.00	0.045	0.000	9.576	0.00	0.35
96.00	Step bolts (ladder)	Yes	1.29	0.000	0.63	0.07	0.00	0.045	0.000	9.576	0.00	1.34
97.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.045	0.000	9.597	0.00	0.27
97.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.045	0.000	9.597	0.00	1.04
98.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.046	0.000	9.618	0.00	0.27
98.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.046	0.000	9.618	0.00	1.04
100.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.047	0.000	9.658	0.00	0.55
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.047	0.000	9.658	0.00	2.08
102.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.048	0.000	9.698	0.00	0.55
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.048	0.000	9.698	0.00	2.08
104.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.049	0.000	9.738	0.00	0.55

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



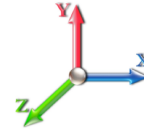
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Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 25

Dead Load Factor 1.00

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.049	0.000	9.738	0.00	2.08
106.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.050	0.000	9.776	0.00	0.55
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.050	0.000	9.776	0.00	2.08
108.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.051	0.000	9.814	0.00	0.55
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.051	0.000	9.814	0.00	2.08
110.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.052	0.000	9.852	0.00	0.55
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.052	0.000	9.852	0.00	2.08
112.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.053	0.000	9.889	0.00	0.55
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.053	0.000	9.889	0.00	2.08
114.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.055	0.000	9.926	0.00	0.55
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.055	0.000	9.926	0.00	2.08
115.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.056	0.000	9.944	0.00	0.27
115.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.056	0.000	9.944	0.00	1.04
116.00	Safety Cable	Yes	1.00	0.000	0.38	0.03	0.00	0.057	0.000	9.962	0.00	0.27
116.00	Step bolts (ladder)	Yes	1.00	0.000	0.63	0.05	0.00	0.057	0.000	9.962	0.00	1.04
118.00	Safety Cable	Yes	2.00	0.000	0.38	0.06	0.00	0.058	0.000	9.998	0.00	0.55
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.63	0.10	0.00	0.058	0.000	9.998	0.00	2.08
Totals:											0.0	302.2

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

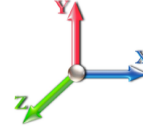


Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 25

Dead Load Factor 1.00

Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-34.56	-6.78	0.00	-583.41	0.00	583.41	3634.70	895.58	3185.83	3203.64	0.00	0.000	0.000	0.192
2.00	-34.13	-6.76	0.00	-569.86	0.00	569.86	3607.15	885.93	3117.56	3144.81	0.01	-0.028	0.000	0.191
4.00	-33.71	-6.73	0.00	-556.34	0.00	556.34	3579.34	876.28	3050.03	3086.29	0.02	-0.056	0.000	0.190
6.00	-33.29	-6.71	0.00	-542.87	0.00	542.87	3551.29	866.64	2983.24	3028.09	0.05	-0.084	0.000	0.189
8.00	-32.87	-6.69	0.00	-529.45	0.00	529.45	3522.98	856.99	2917.19	2970.21	0.09	-0.112	0.000	0.188
10.00	-32.46	-6.67	0.00	-516.06	0.00	516.06	3494.42	847.34	2851.88	2912.67	0.15	-0.141	0.000	0.187
12.00	-32.05	-6.65	0.00	-502.72	0.00	502.72	3465.61	837.69	2787.31	2855.46	0.21	-0.170	0.000	0.185
14.00	-31.65	-6.63	0.00	-489.42	0.00	489.42	3436.54	828.05	2723.48	2798.60	0.29	-0.199	0.000	0.184
16.00	-31.25	-6.61	0.00	-476.15	0.00	476.15	3407.22	818.40	2660.39	2742.09	0.38	-0.228	0.000	0.183
18.00	-30.85	-6.59	0.00	-462.94	0.00	462.94	3377.65	808.75	2598.04	2685.95	0.48	-0.258	0.000	0.182
20.00	-30.46	-6.56	0.00	-449.76	0.00	449.76	3347.83	799.10	2536.42	2630.17	0.60	-0.287	0.000	0.180
22.00	-30.07	-6.54	0.00	-436.63	0.00	436.63	3317.75	789.46	2475.55	2574.76	0.72	-0.317	0.000	0.179
24.00	-29.68	-6.52	0.00	-423.55	0.00	423.55	3287.42	779.81	2415.41	2519.74	0.86	-0.348	0.000	0.177
26.00	-29.30	-6.49	0.00	-410.51	0.00	410.51	3256.84	770.16	2356.02	2465.11	1.02	-0.378	0.000	0.176
28.00	-28.92	-6.47	0.00	-397.53	0.00	397.53	3219.51	760.51	2297.36	2406.03	1.18	-0.408	0.000	0.174
30.00	-28.55	-6.44	0.00	-384.59	0.00	384.59	3178.67	750.87	2239.44	2345.06	1.36	-0.439	0.000	0.173
32.00	-28.18	-6.42	0.00	-371.70	0.00	371.70	3137.83	741.22	2182.27	2284.88	1.55	-0.470	0.000	0.172
34.00	-27.81	-6.39	0.00	-358.86	0.00	358.86	3096.99	731.57	2125.83	2225.48	1.75	-0.501	0.000	0.170
36.00	-27.45	-6.37	0.00	-346.07	0.00	346.07	3056.15	721.92	2070.13	2166.87	1.97	-0.532	0.000	0.169
38.00	-27.09	-6.34	0.00	-333.34	0.00	333.34	3015.30	712.28	2015.17	2109.03	2.20	-0.563	0.000	0.167
40.00	-26.74	-6.32	0.00	-320.65	0.00	320.65	2974.46	702.63	1960.95	2051.98	2.44	-0.594	0.000	0.165
42.00	-26.38	-6.29	0.00	-308.02	0.00	308.02	2933.62	692.98	1907.47	1995.71	2.70	-0.625	0.000	0.163
44.00	-26.04	-6.26	0.00	-295.44	0.00	295.44	2892.78	683.33	1854.73	1940.23	2.97	-0.657	0.000	0.161
45.13	-25.84	-6.24	0.00	-288.37	0.00	288.37	2869.71	677.88	1825.26	1909.22	3.12	-0.674	0.000	0.160
46.00	-25.60	-6.24	0.00	-282.93	0.00	282.93	2851.94	673.69	1802.73	1885.52	3.25	-0.688	0.000	0.159
48.00	-25.04	-6.20	0.00	-270.46	0.00	270.46	2811.10	664.04	1751.47	1831.60	3.54	-0.719	0.000	0.157
49.88	-24.52	-6.17	0.00	-258.80	0.00	258.80	2333.69	557.78	1482.91	1535.76	3.83	-0.749	0.000	0.179
50.00	-24.50	-6.18	0.00	-258.06	0.00	258.06	2332.20	557.29	1480.35	1533.44	3.85	-0.751	0.000	0.179
52.00	-24.20	-6.15	0.00	-245.71	0.00	245.71	2307.18	549.25	1437.95	1494.89	4.17	-0.785	0.000	0.175
54.00	-23.91	-6.12	0.00	-233.41	0.00	233.41	2281.92	541.21	1396.16	1456.67	4.51	-0.820	0.000	0.171
56.00	-23.62	-6.10	0.00	-221.16	0.00	221.16	2256.40	533.17	1354.99	1418.77	4.86	-0.854	0.000	0.166
58.00	-23.33	-6.07	0.00	-208.97	0.00	208.97	2223.07	525.14	1314.43	1376.53	5.23	-0.888	0.000	0.162
60.00	-23.05	-6.04	0.00	-196.83	0.00	196.83	2189.04	517.10	1274.49	1334.49	5.61	-0.922	0.000	0.158
62.00	-22.77	-6.02	0.00	-184.74	0.00	184.74	2155.00	509.06	1235.17	1293.10	6.00	-0.955	0.000	0.154
64.00	-22.49	-5.99	0.00	-172.71	0.00	172.71	2120.97	501.02	1196.47	1252.37	6.41	-0.987	0.000	0.149
66.00	-22.22	-5.96	0.00	-160.73	0.00	160.73	2086.94	492.98	1158.38	1212.28	6.83	-1.019	0.000	0.143
68.00	-19.58	-5.38	0.00	-148.81	0.00	148.81	2052.90	484.94	1120.90	1172.85	7.26	-1.050	0.000	0.137
70.00	-19.32	-5.35	0.00	-138.04	0.00	138.04	2018.87	476.90	1084.04	1134.08	7.71	-1.080	0.000	0.131
72.00	-19.06	-5.32	0.00	-127.34	0.00	127.34	1984.83	468.86	1047.80	1095.95	8.17	-1.110	0.000	0.126
74.00	-18.76	-5.26	0.00	-116.69	0.00	116.69	1950.80	460.82	1012.18	1058.48	8.64	-1.138	0.000	0.120
76.00	-18.50	-5.23	0.00	-106.17	0.00	106.17	1916.76	452.78	977.17	1021.65	9.12	-1.165	0.000	0.114
78.00	-18.25	-5.20	0.00	-95.72	0.00	95.72	1882.73	444.74	942.77	985.48	9.61	-1.191	0.000	0.107
80.00	-17.90	-5.03	0.00	-85.32	0.00	85.32	1848.70	436.70	909.00	949.96	10.12	-1.216	0.000	0.100
82.00	-14.26	-3.95	0.00	-75.26	0.00	75.26	1814.66	428.66	875.84	915.10	10.63	-1.239	0.000	0.090
84.00	-14.00	-3.89	0.00	-67.37	0.00	67.37	1780.63	420.62	843.29	880.88	11.16	-1.261	0.000	0.084
86.00	-13.78	-3.86	0.00	-59.59	0.00	59.59	1746.59	412.58	811.36	847.32	11.69	-1.281	0.000	0.078
88.00	-13.57	-3.82	0.00	-51.88	0.00	51.88	1712.56	404.54	780.05	814.41	12.23	-1.300	0.000	0.072
90.00	-10.89	-2.93	0.00	-44.23	0.00	44.23	1678.53	396.50	749.35	782.15	12.78	-1.317	0.000	0.063

Calculated Forces

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 69



91.29	-10.77	-2.91	0.00	-40.44	0.00	40.44	1656.52	391.30	729.83	761.64	13.14	-1.328	0.000	0.060
92.00	-10.67	-2.90	0.00	-38.39	0.00	38.39	1644.49	388.46	719.27	750.54	13.33	-1.334	0.000	0.058
94.00	-10.39	-2.87	0.00	-32.59	0.00	32.59	1610.46	380.42	689.81	719.59	13.90	-1.348	0.000	0.052
94.71	-10.30	-2.85	0.00	-30.55	0.00	30.55	930.70	231.76	426.71	424.70	14.10	-1.353	0.000	0.083
96.00	-10.22	-2.83	0.00	-26.87	0.00	26.87	922.07	228.65	415.33	415.07	14.46	-1.361	0.000	0.076
97.00	-6.71	-1.75	0.00	-24.04	0.00	24.04	915.31	226.24	406.62	407.64	14.75	-1.370	0.000	0.066
98.00	-6.66	-1.73	0.00	-22.29	0.00	22.29	908.49	223.83	397.99	400.25	15.04	-1.379	0.000	0.063
100.00	-6.57	-1.70	0.00	-18.82	0.00	18.82	894.64	219.00	381.02	385.59	15.62	-1.395	0.000	0.056
102.00	-6.48	-1.68	0.00	-15.41	0.00	15.41	880.55	214.18	364.42	371.08	16.21	-1.409	0.000	0.049
104.00	-6.39	-1.65	0.00	-12.06	0.00	12.06	866.20	209.36	348.19	356.74	16.80	-1.421	0.000	0.041
106.00	-3.04	-0.84	0.00	-8.64	0.00	8.64	851.60	204.53	332.33	342.57	17.40	-1.431	0.000	0.029
108.00	-2.96	-0.81	0.00	-6.96	0.00	6.96	836.75	199.71	316.84	328.58	18.00	-1.439	0.000	0.025
110.00	-2.88	-0.78	0.00	-5.34	0.00	5.34	821.65	194.89	301.72	314.78	18.60	-1.445	0.000	0.020
112.00	-2.80	-0.76	0.00	-3.78	0.00	3.78	804.60	190.06	286.97	300.54	19.21	-1.451	0.000	0.016
114.00	-2.72	-0.73	0.00	-2.27	0.00	2.27	784.18	185.24	272.59	285.40	19.82	-1.454	0.000	0.011
115.00	-0.11	-0.04	0.00	-0.09	0.00	0.09	773.97	182.83	265.54	277.98	20.12	-1.456	0.000	0.000
116.00	-0.07	-0.03	0.00	-0.05	0.00	0.05	763.76	180.41	258.58	270.66	20.43	-1.456	0.000	0.000
118.00	0.00	-0.02	0.00	0.00	0.00	0.00	743.33	175.59	244.93	256.30	21.04	-1.456	0.000	0.000

Final Analysis Summary

Structure: CT46132-A	Code: TIA-222-H	10/31/2023
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 70




Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.0W 116 mph Wind	28.3	0.00	41.44	0.00	0.00	2457.93
0.9D + 1.0W 116 mph Wind	28.3	0.00	31.07	0.00	0.00	2421.50
1.2D + 1.0Di + 1.0Wi 50 mph Wind	7.6	0.00	59.59	0.00	0.00	662.76
1.2D + 1.0Ev + 1.0Eh	0.6	0.00	43.08	0.00	0.00	57.86
0.9D + 1.0Ev + 1.0Eh	0.6	0.00	32.66	0.00	0.00	56.89
1.0D + 1.0W 60 mph Wind	6.8	0.00	34.56	0.00	0.00	583.41

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.0W 116 mph Wind	-41.44	-28.32	0.00	-2457.9	0.00	-2457.9	3634.70	895.58	3185.83	3203.64	0.00	0.780
0.9D + 1.0W 116 mph Wind	-31.07	-28.31	0.00	-2421.5	0.00	-2421.5	3634.70	895.58	3185.83	3203.64	0.00	0.765
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-59.59	-7.61	0.00	-662.76	0.00	-662.76	3634.70	895.58	3185.83	3203.64	0.00	0.223
1.2D + 1.0Ev + 1.0Eh	-30.65	-0.60	0.00	-28.72	0.00	-28.72	2333.69	557.78	1482.91	1535.76	49.88	0.032
0.9D + 1.0Ev + 1.0Eh	-23.25	-0.59	0.00	-28.10	0.00	-28.10	2333.69	557.78	1482.91	1535.76	49.88	0.028
1.0D + 1.0W 60 mph Wind	-34.56	-6.78	0.00	-583.41	0.00	-583.41	3634.70	895.58	3185.83	3203.64	0.00	0.192

	Monopole Mat Foundation Design			<i>Date</i>
				10/31/2023
	Customer Name:	T-Mobile	TIA Standard:	TIA-222-H
	Site Name:		Structure Height (Ft.):	118
	Site Number:	CT46132-A	Engineer Name:	SBA Engineer
Engr. Number:		Engineer Login ID:		

Foundation Info Obtained from:

Drawings/Calculations
Monopole
Analysis

Structure Type:

Analysis or Design?

Base Reactions (Factored):

Axial Load (Kips):	41.4	Shear Force (Kips):	28.3
Uplift Force (Kips):	0.0	Moment (Kips-ft):	2457.9

Allowable overstress %: 5.0%

Foundation Geometries:

		Mods required -Yes/No ?:	No
Diameter of Pier (ft.):	6.0	Depth of Base BG (ft.):	5.5
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	2.00
Length of Pad (ft.):	23	Width of Pad (ft.):	23

Final Length of pad (ft)	23.0	Final width of pad (ft):	23.0
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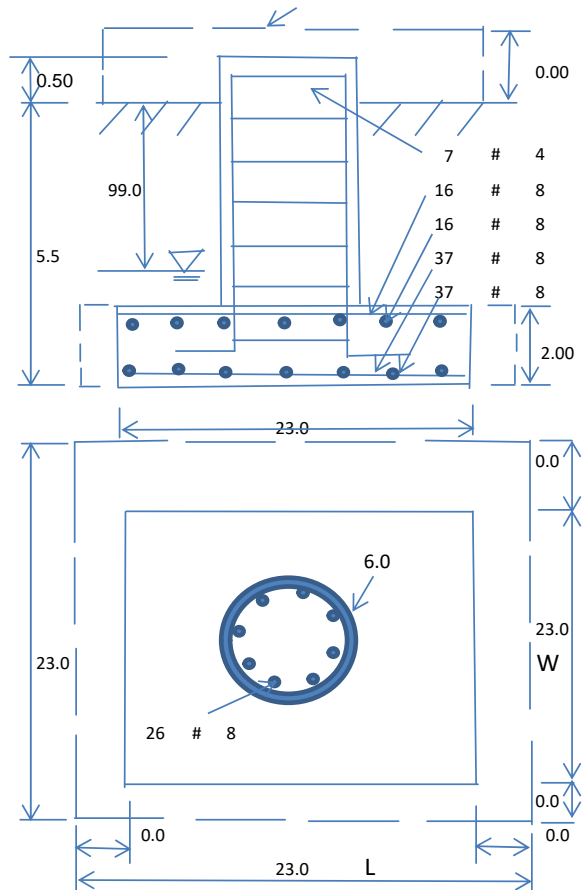
Material Properties and Reabr Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	26	Tie Spacing (in):	11.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	37	Qty. of Rebar in Pad (W):	37	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	16	Qty. of Rebar in Pad (W):	16	

Apply 1.35 factor for e/w Per G: 1.35

Soil Design Parameters:

Soil Unit Weight (pcf):	155.0	Soil Buoyant Weight:	92.6	Pcf	
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad: 30
Ultimate Bearing Pressure (psf):	40000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad: 25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad: 25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00		



Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	1752.54	Total Dry Soil Weight (Kips):	271.64
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	271.64	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	1171.10	Total Dry Concrete Weight (Kips):	175.66
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	175.66	Total Vertical Load on Base (Kips):	488.71

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	2240	<	Allowable Factored Soil Bearing (psf):	30000	0.07	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	5105.7	>	Design Factored Momont (kips-ft):	2628	0.51	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.94					OK!

Load/
Capacity
Ratio

Check the capacities of Reinforcing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75
Strength reduction factor (Axial compression):	0.65	Wind Load Factor on Concrete Design:	1.00

Load/
Capacity
Ratio**(1) Concrete Pier:**

Vertical Steel Rebar Area (sq. in./each):	0.79	Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	2994.3	> Design Factored Moment (Mu, Kips-Ft)	2571.1	0.86	OK!
Calculated Shear Capacity (Kips):	511.9	> Design Factored Shear (Kips):	28.3	0.06	OK!
Calculated Tension Capacity (Tn, Kips):	1109.2	> Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	7162.1	> Design Factored Axial Load (Pu Kips):	41.4	0.01	OK!
Moment & Axial Strength Combination:	0.86	OK! Check Tie Spacing (Design/Required):		0.9167	OK!
Pier Reinforcement Ratio:	0.005	Reinforcement Ratio is satisfied per ACI			

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	536.8	> One-Way Factored Shear (L-D. Kips):	181.0	0.34	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	536.8	> One-Way Factored Shear (W-D., Kips)	181.0	0.34	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	539.3	> One-Way Factored Shear (C-C, Kips):	181.6	0.34	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0052	OK! Lower Steel Pad Reinf. Ratio (W-Direc	0.0052		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	2573.6	> Moment at Bottom (L-Dir. K-Ft):	857.1	0.33	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	2573.6	> Moment at Bottom (W-Dir. K-Ft):	857.1	0.33	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	3600.2	> Moment at Bottom (C-C Dir. K-Ft):	1212.1	0.34	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0022	OK! Upper Steel Reinf. Ratio (W-Dir.):	0.0022		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	1143.1	> Moment at the top (L-Dir K-Ft):	432.3	0.38	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	1143.1	> Moment at the top (W-Dir K-Ft):	432.3	0.38	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	1609.2	> Moment at the top (C-C Dir. K-Ft):	404.7	0.25	OK!

(3).Check Punching Shear Capacity due to Moment in the Pier:

Moment transferred by punching shear:	983.2	k-ft.	Max. factored shear stress v_{u_CD} :	3.9	Psi
Max. factored shear stress v_{u_AB} :	15.3	Psi	Factored shear Strength ϕv_n :	189.7	Psi
Max. factored shear stress v_u :	15.3	Psi	Check Usage of Punching Shear Capacity:	0.08	OK!

(4).Check Bending Capacity of the Pad Within the Effective Slab Width:

Overturning moment to be transferred by flexure:	737.4	k-ft.	Effective Width for resisting OT moment:	12.0	ft.
Calculated number of Rebar in Effective width:	9		Actual number of Rebar in Effective width:	12	
Steel Pad Moment Capacity (L-Direc. Kips-ft):	849.7	k-ft.	Check Usage of the Flexure Capacity:	0.87	OK!

EXHIBIT 9



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615
1320 Greenway Drive, Suite 600, Irving, Texas 75038

Antenna Mount Analysis Report

Existing Monopole Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT46132-A-SBA

Customer Site Name: Newtown-ferris Rd

Carrier Name: T-Mobile (App#: 239069, V1)

Carrier Site ID / Name: CT11805A / CT805/Nextel Newtown_MP

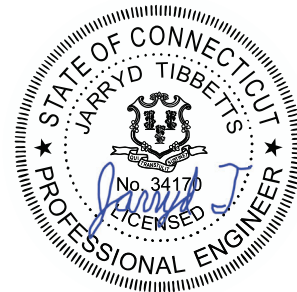
Site Location: 8 Ferris Road

Newtown, Connecticut

Fairfield County

Latitude: 41.389747

Longitude: -73.338444



10/19/2023

Analysis Result:

Max Structural Usage: 55.4% [Pass]

Report Prepared By: Venkata Annamreddy

Introduction

The purpose of this report is to summarize the analysis results on the (1) Modified Platform at 83.00' elevation to support the proposed antenna configuration. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Mount Drawings	Mount mapping by SGS Towers; dated 8/8/19
Antenna Loading	Provided by SBA; Application #: 239069, v1; dated: 10/18/2023
Existing Drawings	Provided by Tower Engineering Solutions; Project #95177; dated 07/10/20
Recent site picture	Provided by SBA
Previous Mount Analysis	Provided by TES Project No: 138676; dated: 02/15/2023

Analysis Criteria

Wind Speed Used in the Analysis: 120mph (3-Sec. Gust) (Ultimate Wind Speed)

Wind Speed with Ice: 50 mph (3-Sec. Gust) with 1" radial ice concurrent

Operational Wind Speed: 30 mph +0" Radial ice

Standard/Codes: ANSI/TIA/EIA 222-H / IBC 2021

Exposure Category: C

Structure Class: II

Topographic Category: 1

Crest Height (Ft): 0

Ground Elevation Factor: 0.972

The site is a Risk Category II structure per IBC Table 1604.5. This site does not support emergency communication equipment for first responders such as fire departments, police, hospitals, ambulance services or any of the facilities listed for Risk Categories III and IV. The scope of work detailed in this structural analysis does not include items that are a part of emergency service as the 911 or essential facility service of an emergency response system.

Mount Information

(1) Modified Platform at 83.00' elevation

Final Antenna Configuration

3	Commscope VV-65A-R1
3	RFS APXVAALL24_43-U-NA20
3	Ericsson AIR6419 B41
3	RFS ATMAA1412D-1A20
3	TBD S20057A1
3	Ericsson 4460 B25 + B66
3	Ericsson 4480 B71 + B85
3	Kathrein 782 11054

- 1 Ericsson ANT3 A 0.9 11 HPX @81'
- 2 Ericsson Mini-Link 6365 @81'

In addition to the proposed equipment loading, a 500 lb serviceability load was also considered in this analysis in accordance with TIA requirements.

Analysis Results

Our calculations have determined that under design wind load the existing mounts will be structurally adequate to support the proposed antenna configuration. The maximum structural usage is 55.4%, which occurs in the support rail. The proposed equipment must be installed as stipulated in the Final Antenna Configuration section of this report. The analysis results are void if the proposed equipment is not installed in accordance with this report.

Attachments

1. Mount Photos
2. Antenna Placement Diagram
3. Mount Mapping Information
4. Analysis Calculations

Standard Conditions

1. The loading configuration as analyzed in this report is as provided from the customer. Any deviation from this design shall be communicated to TES to verify deviation will not adversely impact the analysis.
2. The analysis is based on the presumption that the antenna mount members and components along with any existing reinforcement items have been correctly and properly designed, manufactured, installed and maintained.
3. All the existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion. The mount analysis is not a condition assessment of the mount.
4. The mount analysis was performed in accordance with the loading provided, and if applicable the modification required to support the additional loading.
5. If the mount is modified, installation must adhere to the configuration communicated in the modification drawings.
6. The modification drawings are not intended to convey means or methods. These are the responsibility of the installing contractor.
7. Rigging plan review is available if the contractor requires for a construction class IV or other if required. Review fee would apply.
8. The mount modification package was created based upon information provided for the mount loading. The underlying tower is assumed to provide support and sufficient rigidity to support the mount loads as a tower analysis was not part of the mount analysis.
9. TES is not responsible for modifications to climbing facilities unless communicated to TES in writing.



Structure: CT46132-A-SBA - Newtown-ferris Rd

Sector: **A**

10/19/2023

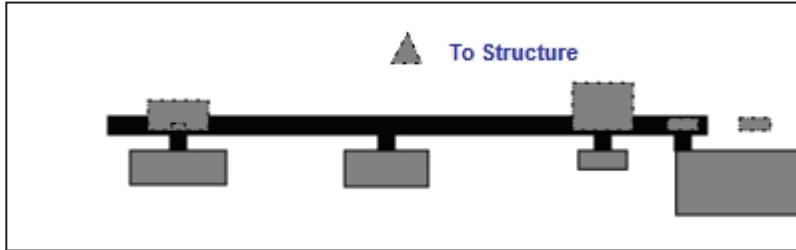


Structure Type: Monopole

Page: 1

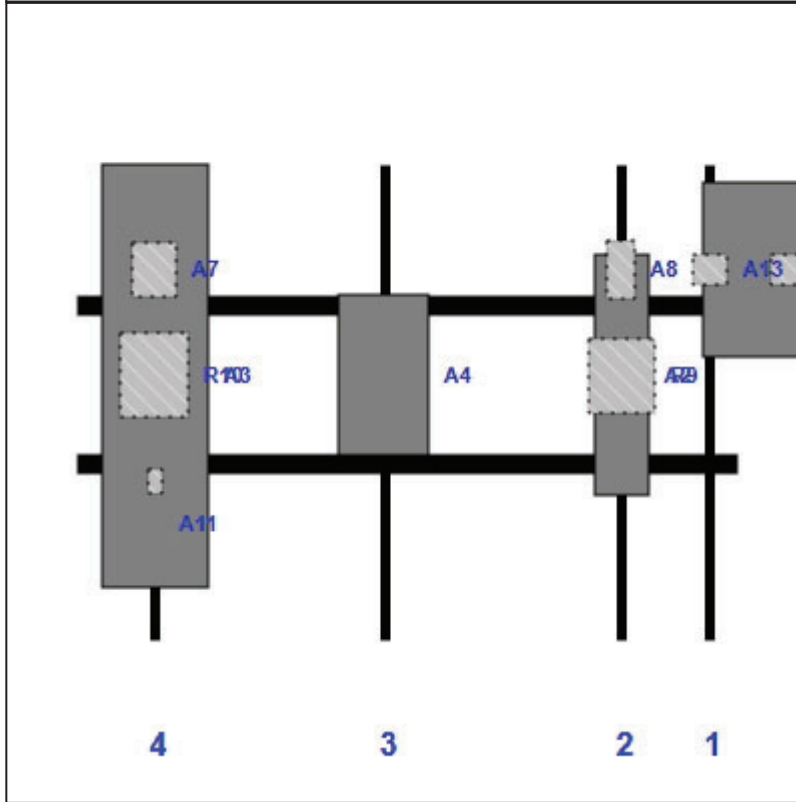
Mount Elev: 83.00

Plan View



Front View

Looking Toward Structure



Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A12	ANT3 A 0.9 11 HPX	39.30	39.30	144.00	1	a	Front	24.00	18.00	Added	
A13	Mini-Link 6365	7.00	7.80	144.00	1	a	Behind	24.00	18.00	Added	
A13	Mini-Link 6365	7.00	7.80	144.00	1	b	Behind	24.00		Added	
A2	VV-65A-R1	54.72	12.08	124.00	2	a	Front	48.00		Retained	10/19/2023
A8	S20057A1	13.20	6.40	124.00	2	a	Behind	24.00		Retained	
R9	4460 B25 + B66	17.00	15.10	124.00	2	a	Behind	48.00		Retained	
A4	AIR6419 B41	36.30	20.90	70.00	3	a	Front	47.94		Retained	
A3	APXVAALL24_43-U-NA20	95.90	24.00	18.00	4	a	Front	48.00		Retained	
A7	ATMAA1412D-1A20	12.00	10.00	18.00	4	a	Behind	24.00		Retained	
R10	4480 B71 + B85	19.20	15.10	18.00	4	a	Behind	48.00		Retained	
A11	782 11054	5.50	3.20	18.00	4	a	Behind	72.00		Retained	

Structure: CT46132-A-SBA - Newtown-ferris Rd

Sector: **B**

10/19/2023

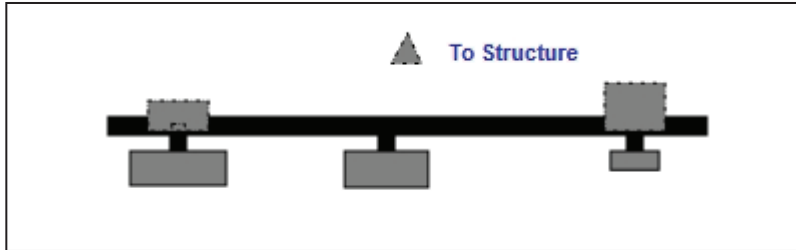
Structure Type: Monopole



Mount Elev: 83.00

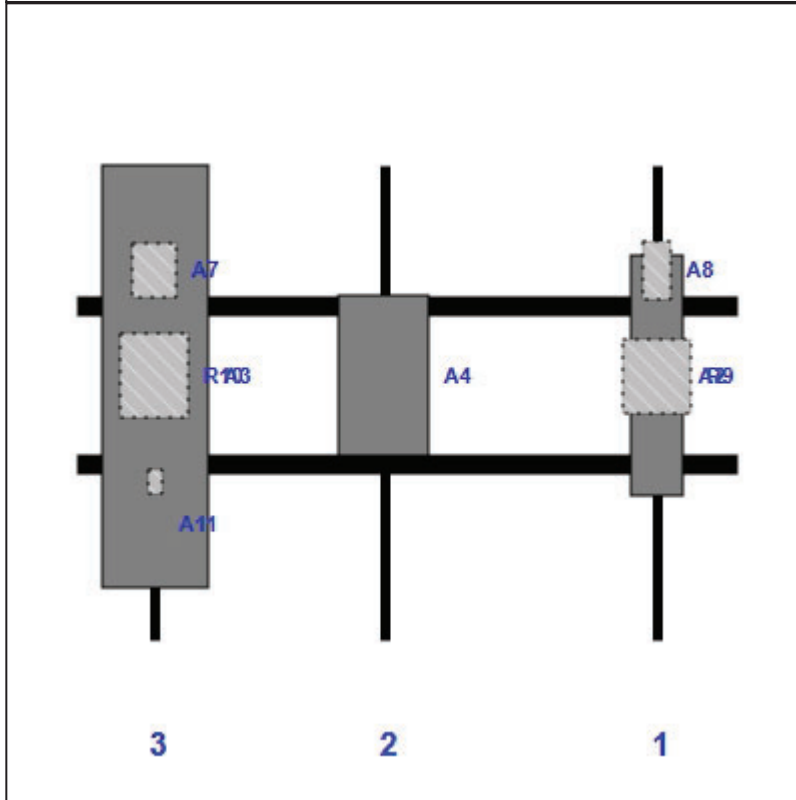
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Plan View



Front View

Looking Toward Structure



Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A2	VV-65A-R1	54.72	12.08	132.00	1	a	Front	48.00		Retained	10/19/2023
A8	S20057A1	13.20	6.40	132.00	1	a	Behind	24.00		Retained	
R9	4460 B25 + B66	17.00	15.10	132.00	1	a	Behind	48.00		Retained	
A4	AIR6419 B41	36.30	20.90	70.00	2	a	Front	47.94		Retained	
A7	ATMAA1412D-1A20	12.00	10.00	18.00	3	a	Behind	24.00		Retained	
R10	4480 B71 + B85	19.20	15.10	18.00	3	a	Behind	48.00		Retained	
A11	782 11054	5.50	3.20	18.00	3	a	Behind	72.00		Retained	
A3	APXVAALL24_43-U-NA20	95.90	24.00	18.00	3	b	Front	48.00		Retained	

Structure: CT46132-A-SBA - Newtown-ferris Rd

Sector: C

10/19/2023

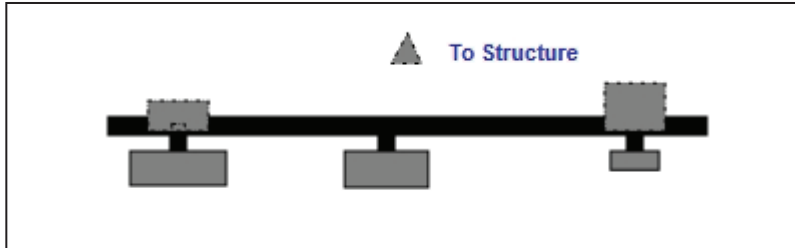
Structure Type: Monopole

Mount Elev: 83.00

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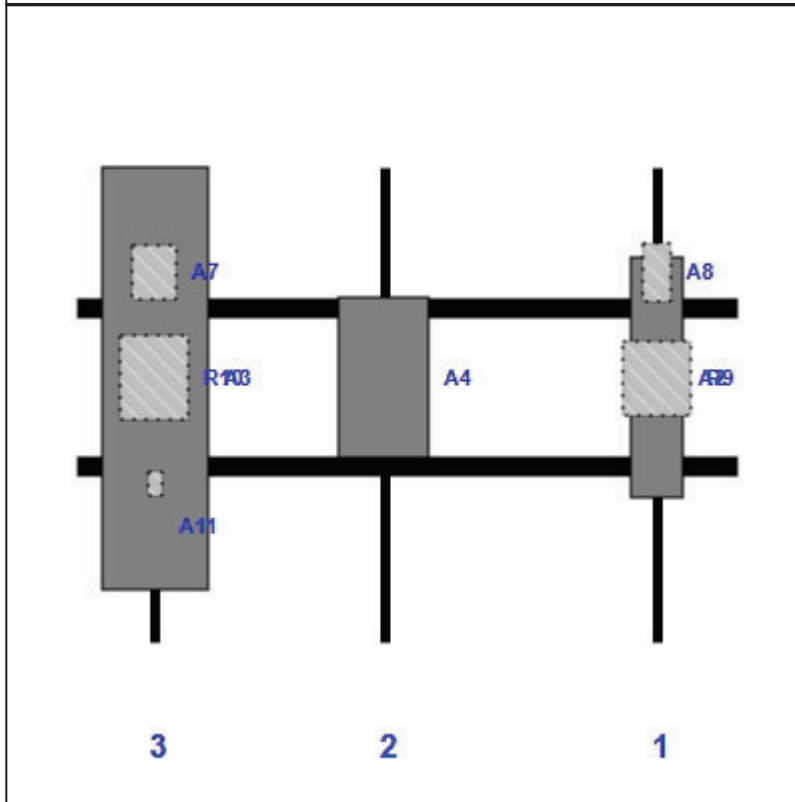


Plan View



Front View

Looking Toward Structure



Ref #	Model	Height (in)	Width (in)	H Dist Left	Pipe #	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A2	VV-65A-R1	54.72	12.08	132.00	1	a	Front	48.00		Retained	10/19/2023
A8	S20057A1	13.20	6.40	132.00	1	a	Behind	24.00		Retained	
R9	4460 B25 + B66	17.00	15.10	132.00	1	a	Behind	48.00		Retained	
A4	AIR6419 B41	36.30	20.90	70.00	2	a	Front	47.94		Retained	
A7	ATMAA1412D-1A20	12.00	10.00	18.00	3	a	Behind	24.00		Retained	
R10	4480 B71 + B85	19.20	15.10	18.00	3	a	Behind	48.00		Retained	
A11	782 11054	5.50	3.20	18.00	3	a	Behind	72.00		Retained	
A3	APXVAALL24_43-U-NA20	95.90	24.00	18.00	3	b	Front	48.00		Retained	

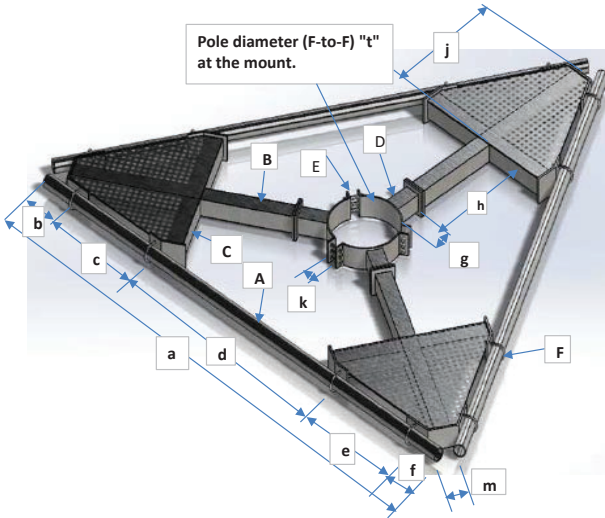


Antenna Mount Type "MT-C" Mapping Form (PATENT PENDING)

FCC #
1258249

Tower Owner:	SBA	Mapping Date:	8/8/19
Site Name:	Newtown-Ferris Rd	Structure Type:	Monopole
Site Number or ID:	CT46132-A	Structure Height (Ft.):	118
Mapping Contractor:	SGS Towers	Mount Height (Ft.):	81

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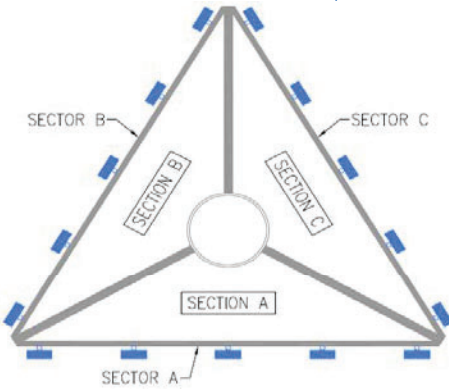
Geometries (Unit: inches)									
a	150	e	43.5	j	47	o		s	
b	12	f	12	k	15	p		t	
c	43.5	g	6	m	9	q		u*	68&
d	39	h	16	n		r		v*	120 & 72

Members/Bolts (Unit: inches)* - See Ant. Layout for "u", "v" and member "K" (pipe)									
Items	Member	Lx (O.D.)	Ly (I.D.)	T	Items	Member	Lx (O.D.)	Ly (I.D.)	T
A	3.5 OD x 0.216 Pipe	3.5	3.068	0.216	F	1/2" U-Bolt			
B	Tubing 4x4x1/4	4	4	0.25	G				
C	Tubing 4x4x1/4	4	4	0.25	H				
D					J				
E	3/4" Bolt				K* (pipe)				

Distance from Top of platform to bottom of lowest antenna tip of carrier above (Enter N/A if > 10 ft.)	6'
Distance from Top of platform to top of highest antenna tip of carrier below (Enter N/A if > 10 ft.)	9'

Please enter the information below if members can't be found from the drop down lists

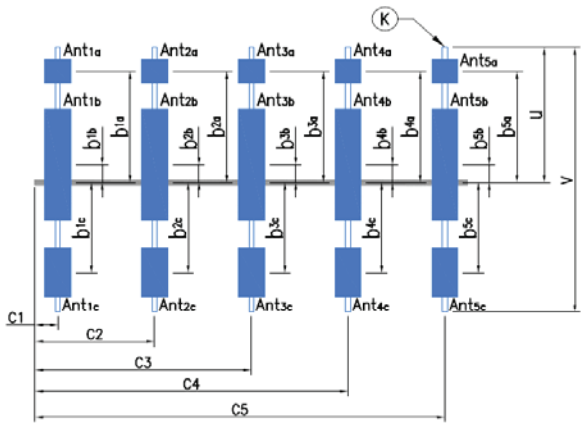
Member D does not exist. Collar goes straight to member B with 6" of spacing.
 A pipe is supporting both corner antenna pipes. It is 48" above member A (perpendicular). The size is 63"x2.375"ODx0.25" wall.
 K pipes are 2.875" OD x 0.2" & 2.375" OD x 0.154".



Climbing facility is Located at Section C, at 340 Degree Azimuth

Ants. Items	Enter antenna model. If not labled, enter "Unknown". If no antenna at specified location, enter "N/A". If antennas and the locations are the same on all three sectors, only enter one sector.					Mounting Locations (Unit: inches)			Photos of antennas
	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Vertical Distances "b _{1a} , b _{2a} , b _{3a} , b _{1b} ..." (In.)	Horiz. offset (Use ".") if Ant. is inside	Horiz. offset "C ₁ , C ₂ , C ₃ , C ₄ , C ₅ " (in.)	Photo Numbers
Sector A									
Ant _{1a}	Commscope LNX-6515DS-A1M				(2) 1.5" cd	14	6	130	
Ant _{1b}									
Ant _{1c}									
Ant _{2a}									
Ant _{2b}									
Ant _{2c}									
Ant _{3a}	RFS APXV18-209014				(2) 1.5" cd	12	6	18	
Ant _{3b}	Intertek DTMA1900 CWA					12	0	18	
Ant _{3c}									
Ant _{4a}									
Ant _{4b}									
Ant _{4c}									
Ant _{5a}									
Ant _{5b}									
Ant _{5c}									

Are Ant same as sector A? Yes Antennas on Sector B are the same as Sector A



Antenna Layout

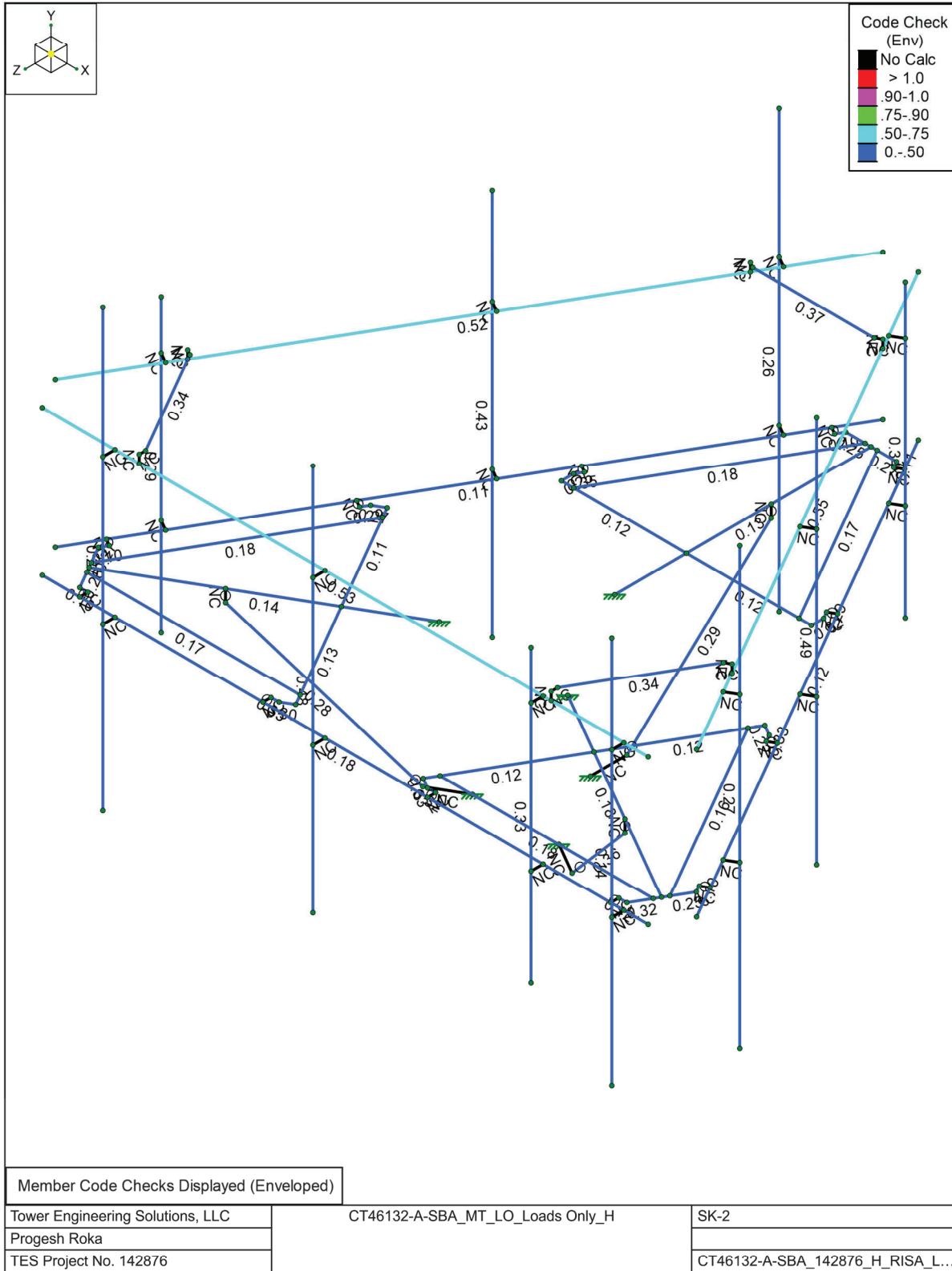
Azimuth (Degree) of Each Sector and Climbing Information

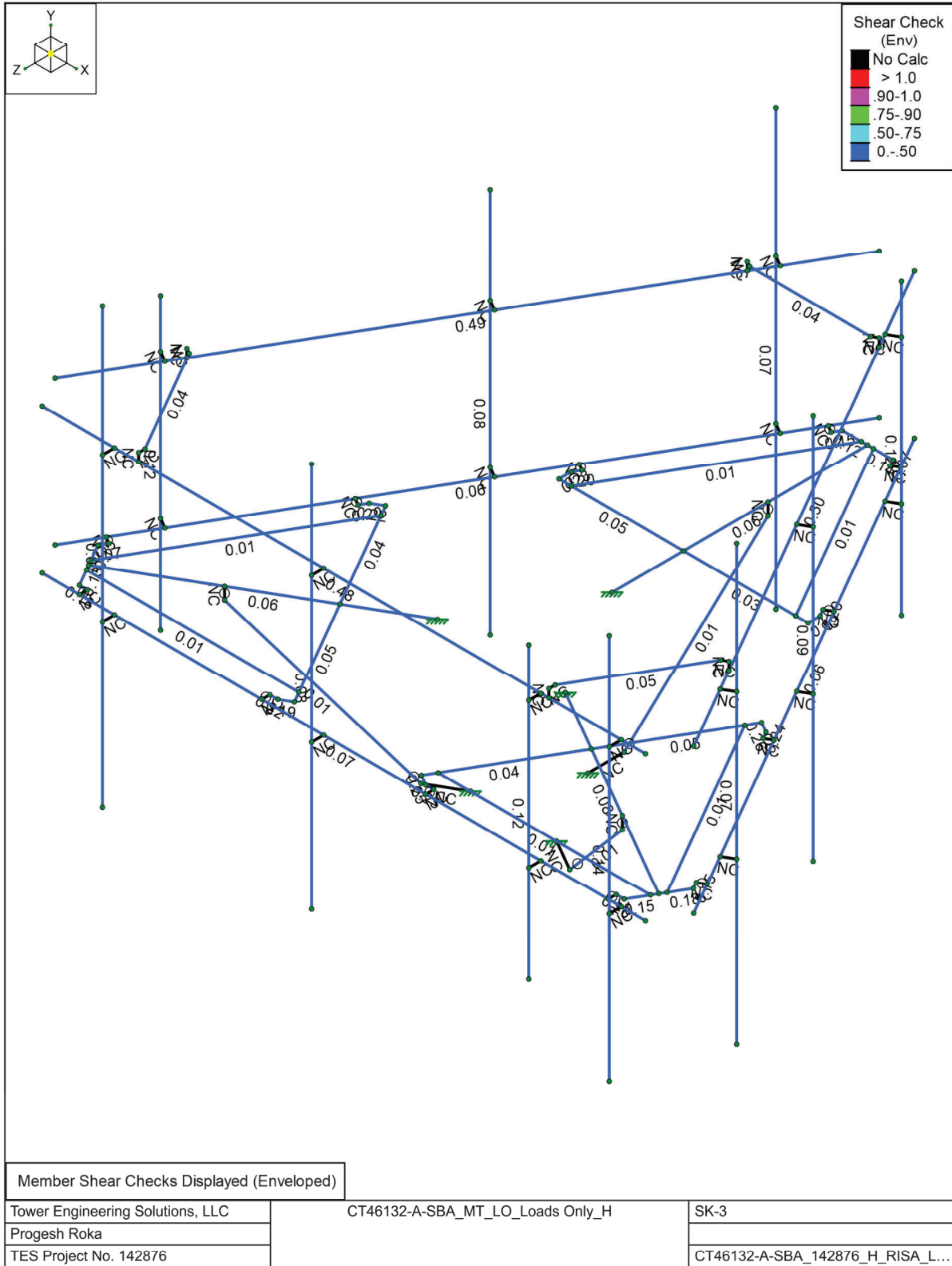
Sector A:	310	Deg	
Sector B:	190	Deg	
Sector C:	70	Deg	
Climbing:	340	Deg	Located at Section C

Climbing Facility	Corrosion Type:	Good condition
	Access:	Climbing path was unobstructed.
	Condition:	N/A

Are Ant same as sector A/B? Same As A Antennas on Sector C are the same as Sector A









Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
1	Antenna D	None				105		
2	Antenna Di	None				105		
3	Antenna Wo (0 Deg)	None				105		
4	Antenna Wo (30 Deg)	None				105		
5	Antenna Wo (60 Deg)	None				105		
6	Antenna Wo (90 Deg)	None				105		
7	Antenna Wo (120 Deg)	None				105		
8	Antenna Wo (150 Deg)	None				105		
9	Antenna Wo (180 Deg)	None				105		
10	Antenna Wo (210 Deg)	None				105		
11	Antenna Wo (240 Deg)	None				105		
12	Antenna Wo (270 Deg)	None				105		
13	Antenna Wo (300 Deg)	None				105		
14	Antenna Wo (330 Deg)	None				105		
15	Antenna Wi (0 Deg)	None				105		
16	Antenna Wi (30 Deg)	None				105		
17	Antenna Wi (60 Deg)	None				105		
18	Antenna Wi (90 Deg)	None				105		
19	Antenna Wi (120 Deg)	None				105		
20	Antenna Wi (150 Deg)	None				105		
21	Antenna Wi (180 Deg)	None				105		
22	Antenna Wi (210 Deg)	None				105		
23	Antenna Wi (240 Deg)	None				105		
24	Antenna Wi (270 Deg)	None				105		
25	Antenna Wi (300 Deg)	None				105		
26	Antenna Wi (330 Deg)	None				105		
27	Antenna Wm (0 Deg)	None				105		
28	Antenna Wm (30 Deg)	None				105		
29	Antenna Wm (60 Deg)	None				105		
30	Antenna Wm (90 Deg)	None				105		
31	Antenna Wm (120 Deg)	None				105		
32	Antenna Wm (150 Deg)	None				105		
33	Antenna Wm (180 Deg)	None				105		
34	Antenna Wm (210 Deg)	None				105		
35	Antenna Wm (240 Deg)	None				105		
36	Antenna Wm (270 Deg)	None				105		
37	Antenna Wm (300 Deg)	None				105		
38	Antenna Wm (330 Deg)	None				105		
39	Structure D	None		-1				3
40	Structure Di	None					61	3
41	Structure Wo (0 Deg)	None					122	
42	Structure Wo (30 Deg)	None					122	
43	Structure Wo (60 Deg)	None					122	
44	Structure Wo (90 Deg)	None					122	
45	Structure Wo (120 Deg)	None					122	
46	Structure Wo (150 Deg)	None					122	
47	Structure Wo (180 Deg)	None					122	
48	Structure Wo (210 Deg)	None					122	
49	Structure Wo (240 Deg)	None					122	
50	Structure Wo (270 Deg)	None					122	
51	Structure Wo (300 Deg)	None					122	
52	Structure Wo (330 Deg)	None					122	
53	Structure Wi (0 Deg)	None					122	
54	Structure Wi (30 Deg)	None					122	
55	Structure Wi (60 Deg)	None					122	
56	Structure Wi (90 Deg)	None					122	
57	Structure Wi (120 Deg)	None					122	
58	Structure Wi (150 Deg)	None					122	
59	Structure Wi (180 Deg)	None					122	
60	Structure Wi (210 Deg)	None					122	
61	Structure Wi (240 Deg)	None					122	



Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Point	Distributed	Area(Member)
62	Structure Wi (270 Deg)	None					122	
63	Structure Wi (300 Deg)	None					122	
64	Structure Wi (330 Deg)	None					122	
65	Structure Wm (0 Deg)	None					122	
66	Structure Wm (30 Deg)	None					122	
67	Structure Wm (60 Deg)	None					122	
68	Structure Wm (90 Deg)	None					122	
69	Structure Wm (120 Deg)	None					122	
70	Structure Wm (150 Deg)	None					122	
71	Structure Wm (180 Deg)	None					122	
72	Structure Wm (210 Deg)	None					122	
73	Structure Wm (240 Deg)	None					122	
74	Structure Wm (270 Deg)	None					122	
75	Structure Wm (300 Deg)	None					122	
76	Structure Wm (330 Deg)	None					122	
77	Lm1	None				1		
78	Lm2	None				1		
79	Lv1	None				1		
80	Lv2	None				1		
81	Antenna Ev	None				105		
82	Antenna Eh (0 Deg)	None				70		
83	Antenna Eh (90 Deg)	None				70		
84	Structure Ev	ELY		-0.046				3
85	Structure Eh (0 Deg)	ELZ			-0.114			3
86	Structure Eh (90 Deg)	ELX	0.114					3
87	BLC 39 Transient Area Loads	None					57	
88	BLC 40 Transient Area Loads	None					57	
89	BLC 84 Transient Area Loads	None					57	
90	BLC 85 Transient Area Loads	None					57	
91	BLC 86 Transient Area Loads	None					57	

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			
17	1.2D + 1.0Di + 1.0Wi (120 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	19	1	57	1			
18	1.2D + 1.0Di + 1.0Wi (150 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	20	1	58	1			
19	1.2D + 1.0Di + 1.0Wi (180 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	21	1	59	1			
20	1.2D + 1.0Di + 1.0Wi (210 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	22	1	60	1			
21	1.2D + 1.0Di + 1.0Wi (240 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	23	1	61	1			
22	1.2D + 1.0Di + 1.0Wi (270 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	24	1	62	1			
23	1.2D + 1.0Di + 1.0Wi (300 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	25	1	63	1			
24	1.2D + 1.0Di + 1.0Wi (330 Deg)	Yes	Y	1	1.2	39	1.2	2	1	40	1	26	1	64	1			
25	1.2D + 1.5Lm1 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	27	1	65	1					
26	1.2D + 1.5Lm1 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	28	1	66	1					
27	1.2D + 1.5Lm1 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	29	1	67	1					
28	1.2D + 1.5Lm1 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	30	1	68	1					



Load Combinations (Continued)

Description	SolveP-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	BLC Factor	BLC Factor
29 1.2D + 1.5Lm1 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	31	1	69	1						
30 1.2D + 1.5Lm1 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	32	1	70	1						
31 1.2D + 1.5Lm1 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	33	1	71	1						
32 1.2D + 1.5Lm1 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	34	1	72	1						
33 1.2D + 1.5Lm1 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	35	1	73	1						
34 1.2D + 1.5Lm1 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	36	1	74	1						
35 1.2D + 1.5Lm1 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	37	1	75	1						
36 1.2D + 1.5Lm1 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	77	1.5	38	1	76	1						
37 1.2D + 1.5Lm2 + 1.0Wm (0 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	27	1	65	1						
38 1.2D + 1.5Lm2 + 1.0Wm (30 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	28	1	66	1						
39 1.2D + 1.5Lm2 + 1.0Wm (60 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	29	1	67	1						
40 1.2D + 1.5Lm2 + 1.0Wm (90 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	30	1	68	1						
41 1.2D + 1.5Lm2 + 1.0Wm (120 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	31	1	69	1						
42 1.2D + 1.5Lm2 + 1.0Wm (150 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	32	1	70	1						
43 1.2D + 1.5Lm2 + 1.0Wm (180 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	33	1	71	1						
44 1.2D + 1.5Lm2 + 1.0Wm (210 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	34	1	72	1						
45 1.2D + 1.5Lm2 + 1.0Wm (240 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	35	1	73	1						
46 1.2D + 1.5Lm2 + 1.0Wm (270 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	36	1	74	1						
47 1.2D + 1.5Lm2 + 1.0Wm (300 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	37	1	75	1						
48 1.2D + 1.5Lm2 + 1.0Wm (330 Deg)	Yes	Y	1	1.2	39	1.2	78	1.5	38	1	76	1						
49 1.2D + 1.5Lv1	Yes	Y	1	1.2	39	1.2	79	1.5										
50 1.2D + 1.5Lv2	Yes	Y	1	1.2	39	1.2	80	1.5										
51 1.4D	Yes	Y	1	1.4	39	1.4												
52 1.2D + 1.0Ev + 1.0Eh (0 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	1	83		ELZ	1	ELX	
53 1.2D + 1.0Ev + 1.0Eh (30 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	0.5	ELZ	0.866	ELX	0.5
54 1.2D + 1.0Ev + 1.0Eh (60 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	0.866	ELZ	0.5	ELX	0.866
55 1.2D + 1.0Ev + 1.0Eh (90 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	1	ELZ		ELX	1
56 1.2D + 1.0Ev + 1.0Eh (120 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	0.866	ELZ	-0.5	ELX	0.866
57 1.2D + 1.0Ev + 1.0Eh (150 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	0.5	ELZ	-0.866	ELX	0.5
58 1.2D + 1.0Ev + 1.0Eh (180 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-1	83		ELZ	-1	ELX	
59 1.2D + 1.0Ev + 1.0Eh (210 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.866	83	-0.5	ELZ	-0.866	ELX	-0.5
60 1.2D + 1.0Ev + 1.0Eh (240 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	-0.5	83	-0.866	ELZ	-0.5	ELX	-0.866
61 1.2D + 1.0Ev + 1.0Eh (270 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82		83	-1	ELZ		ELX	-1
62 1.2D + 1.0Ev + 1.0Eh (300 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.5	83	-0.866	ELZ	0.5	ELX	-0.866
63 1.2D + 1.0Ev + 1.0Eh (330 Deg)	Yes	Y	1	1.2	39	1.2	81	1	ELY	1	82	0.866	83	-0.5	ELZ	0.866	ELX	-0.5
64 0.9D - 1.0Ev + 1.0Eh (0 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	1	83		ELZ	1	ELX	
65 0.9D - 1.0Ev + 1.0Eh (30 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
66 0.9D - 1.0Ev + 1.0Eh (60 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
67 0.9D - 1.0Ev + 1.0Eh (90 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82		83	1	ELZ		ELX	1
68 0.9D - 1.0Ev + 1.0Eh (120 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
69 0.9D - 1.0Ev + 1.0Eh (150 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
70 0.9D - 1.0Ev + 1.0Eh (180 Deg)	Yes	Y	1	0.9	39	0.9	81	-1	ELY	-1	82	-1	83		ELZ	-1	ELX	
71 0.9D - 1.0Ev + 1.0Eh (210 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
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

Node Coordinates

Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
1 N1	-6.250002	0	4.030589	
2 N2	6.249998	0	4.030589	
3 N4	0	0	-1.5295	
4 N5	0	0	-3.008527	
5 N6	0	0	-6.819624	
6 N7	2.58	0	-3.008527	
7 N8	-2.58	0	-3.008527	
8 N9	2.580391	0	-3.258559	
9 N10	-2.580391	0	-3.258559	
10 N12	-6.250002	3	4.030589	
11 N13	6.249998	3	4.030589	



Company : Tower Engineering Solutions, LLC
 Designer : Progesh Roka
 Job Number : TES Project No. 142876
 Model Name : CT46132-A-SBA_MT_LO_Loads Onl...

Checked By : _____

Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
12	N14	2.497058	0	-3.402897	
13	N15	-2.497058	0	-3.402897	
14	N16	0.607743	0	-6.675287	
15	N17	-0.607743	0	-6.675287	
16	N18	-0.524409	0	-6.819624	
17	N19	0.524409	0	-6.819624	
18	N20	0.125	0	-6.819624	
19	N21	-0.125	0	-6.819624	
20	N22	2.325338	0	-3.008527	
21	N23	-2.325338	0	-3.008527	
22	N24	-4.750027	0	4.030589	
23	N25	-4.750027	3	4.030589	
24	N26	-4.750027	0	4.280589	
25	N27	-4.750027	3	4.280589	
26	N28	-4.750027	5.666667	4.280589	
27	N29	-4.750027	-3.333333	4.280589	
28	N30	2.641359	0	-3.486209	
29	N31	0.752044	0	-6.758599	
30	N32	-2.641359	0	-3.486209	
31	N33	-0.752044	0	-6.758599	
32	N34	-1.324586	0	0.76475	
33	N35	-2.605461	0	1.504263	
34	N36	-5.905968	0	3.409812	
35	N37	-3.895461	0	-0.730082	
36	N38	-1.315461	0	3.738609	
37	N39	-4.112191	0	-0.605405	
38	N40	-1.5318	0	3.863964	
39	N42	-4.195524	0	-0.461067	
40	N43	-1.698466	0	3.863964	
41	N44	-6.084839	0	2.811323	
42	N45	-5.477097	0	3.863964	
43	N46	-5.643763	0	3.863964	
44	N47	-6.168172	0	2.95566	
45	N48	-5.968468	0	3.301559	
46	N49	-5.843468	0	3.518065	
47	N50	-3.76813	0	-0.509539	
48	N51	-1.442791	0	3.518065	
49	N52	-4.339825	0	-0.544379	
50	N53	-6.229141	0	2.72801	
51	N54	-1.698466	0	4.030589	
52	N55	-5.477097	0	4.030589	
53	N56	-4.250001	3	4.030589	
54	N57	1.324586	0	0.76475	
55	N58	2.605461	0	1.504263	
56	N59	5.905968	0	3.409812	
57	N60	1.315461	0	3.738609	
58	N61	3.895461	0	-0.730082	
59	N62	1.5318	0	3.863964	
60	N63	4.112191	0	-0.605405	
61	N65	1.698466	0	3.863964	
62	N66	4.195524	0	-0.461067	
63	N67	5.477097	0	3.863964	
64	N68	6.084839	0	2.811323	
65	N69	6.168172	0	2.95566	
66	N70	5.643763	0	3.863964	
67	N71	5.843468	0	3.518065	
68	N72	5.968468	0	3.301559	
69	N73	1.442791	0	3.518065	
70	N74	3.76813	0	-0.509539	
71	N75	1.698466	0	4.030589	
72	N76	5.477097	0	4.030589	



Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
73	N77	4.339825	0	-0.544379	
74	N78	6.229141	0	2.72801	
75	N79	6.615593	0	3.397366	
76	N80	0.365593	0	-7.427952	
77	N81	6.615593	3	3.397366	
78	N82	0.365593	3	-7.427952	
79	N83	-0.365591	0	-7.427955	
80	N84	-6.615591	0	3.397363	
81	N85	-0.365591	3	-7.427955	
82	N86	-6.615591	3	3.397363	
83	N87	-4.250001	3.166667	4.030589	
84	N88	-4.250001	3.166667	3.900422	
85	N89	4.250001	3	4.030589	
86	N90	4.250001	3.166667	4.030589	
87	N91	4.250001	3.166667	3.900422	
88	N92	5.615593	3	1.665314	
89	N93	5.615593	3.166667	1.665314	
90	N94	5.502865	3.166667	1.730398	
91	N95	1.365592	3	-5.695903	
92	N96	1.365592	3.166667	-5.695903	
93	N97	1.252864	3.166667	-5.63082	
94	N98	-1.365592	3	-5.695903	
95	N99	-1.365592	3.166667	-5.695903	
96	N100	-1.252864	3.166667	-5.63082	
97	N101	-5.615593	3	1.665314	
98	N102	-5.615593	3.166667	1.665314	
99	N103	-5.502865	3.166667	1.730398	
100	N104	0	0	-4.758527	
101	N105	0	-0.25	-4.758527	
102	N106	0	-3	-1.7795	
103	N107	0	-3	-1.0295	
104	N108	-4.121005	-0.25	2.379263	
105	N109	-1.541092	-3	0.88975	
106	N110	-0.891573	-3	0.51475	
107	N111	4.121005	-0.25	2.379263	
108	N112	1.541092	-3	0.88975	
109	N113	0.891573	-3	0.51475	
110	N114	-4.121005	0	2.379263	
111	N115	4.121005	0	2.379263	
112	N116	-0.416693	0	4.030589	
113	N117	-0.416693	3	4.030589	
114	N118	-0.416693	0	4.280589	
115	N119	-0.416693	3	4.280589	
116	N120	4.083307	0	4.030589	
117	N121	4.083307	3	4.030589	
118	N122	4.083307	0	4.280589	
119	N123	4.083307	3	4.280589	
120	N124	5.749973	0	4.030589	
121	N125	5.749973	3	4.030589	
122	N126	5.749973	0	4.280589	
123	N127	5.749973	3	4.280589	
124	N128	-0.416693	5	4.280589	
125	N129	-0.416693	-3	4.280589	
126	N130	4.083307	4	4.280589	
127	N131	5.749973	5	4.280589	
128	N132	4.083307	-2	4.280589	
129	N133	5.749973	-3	4.280589	
130	N134	5.865606	0	2.098349	
131	N135	5.865606	3	2.098349	
132	N136	6.082112	0	1.973349	
133	N137	6.082112	3	1.973349	



Node Coordinates (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Detach From Diaphragm
134	N138	6.082112	5.666667	1.973349	
135	N139	6.082112	-3.333333	1.973349	
136	N140	3.698939	0	-1.654427	
137	N141	3.698939	3	-1.654427	
138	N142	3.915445	0	-1.779427	
139	N143	3.915445	3	-1.779427	
140	N144	1.198939	0	-5.984554	
141	N145	1.198939	3	-5.984554	
142	N146	1.415445	0	-6.109554	
143	N147	1.415445	3	-6.109554	
144	N148	3.915445	5	-1.779427	
145	N149	3.915445	-3	-1.779427	
146	N150	1.415445	4	-6.109554	
147	N151	1.415445	-2	-6.109554	
148	N152	-1.115579	0	-6.128938	
149	N153	-1.115579	3	-6.128938	
150	N154	-1.332085	0	-6.253938	
151	N155	-1.332085	3	-6.253938	
152	N156	-1.332085	5.666667	-6.253938	
153	N157	-1.332085	-3.333333	-6.253938	
154	N158	-3.282246	0	-2.376162	
155	N159	-3.282246	3	-2.376162	
156	N160	-3.498752	0	-2.501162	
157	N161	-3.498752	3	-2.501162	
158	N162	-5.782246	0	1.953965	
159	N163	-5.782246	3	1.953965	
160	N164	-5.998752	0	1.828965	
161	N165	-5.998752	3	1.828965	
162	N166	-3.498752	5	-2.501162	
163	N167	-3.498752	-3	-2.501162	
164	N168	-5.998752	4	1.828965	
165	N169	-5.998752	-2	1.828965	

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	58	1.2
3	A992	29000	11154	0.3	0.65	0.49	50	1.1	58	1.2
4	A500 Gr.42	29000	11154	0.3	0.65	0.49	42	1.3	58	1.1
5	A500 Gr.46	29000	11154	0.3	0.65	0.49	46	1.2	58	1.1
6	A53 Gr.B	29000	11154	0.3	0.65	0.49	35	1.5	58	1.2
7	Q235	29000	11154	0.3	0.65	0.49	34	1.5	58	1.2
8	J429-Gr5	29000	11154	0.3	0.65	0.49	92	1.5	120	1.2

Cold Formed Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm. Coeff. [1e ⁵ F ⁻¹]	Density [k/ft ³]	Yield [ksi]	Fu [ksi]
1	A570 33	29500	11346	0.3	0.65	0.49	33	52
2	A607 C1 55	29500	11346	0.3	0.65	0.49	55	70

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	Footrails	PIPE 3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
2	Grating Angles	L2X2X3	Beam	Single Angle	A36 Gr.36	Typical	0.722	0.271	0.271	0.009
3	Kickers	LL2X2X4X0	Beam	Single Angle	A36 Gr.36	Typical	1.89	1.34	0.692	0.042
4	Handrails	PIPE 3.0	Beam	Pipe	A53 Gr.B	Typical	2.07	2.85	2.85	5.69
5	Standoff Arm	HSS4X4X4	Beam	SquareTube	A500 Gr.46	Typical	3.37	7.8	7.8	12.8
6	Plan Bracing	HSS4X4X4	Beam	SquareTube	A500 Gr.46	Typical	3.37	7.8	7.8	12.8
7	Mount Pipe 1	PIPE 2.5	Beam	Pipe	A53 Gr.B	Typical	1.61	1.45	1.45	2.89



Hot Rolled Steel Section Sets (Continued)

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
8	Mount Pipe 2	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
9	Support Rail	PIPE 2.0	Beam	Pipe	A53 Gr.B	Typical	1.02	0.627	0.627	1.25
10	Footrail Connection Plates	PL1/2X6	Beam	RECT	A36 Gr.36	Typical	3	0.063	9	0.237
11	Plan Bracing Connection Plates	PL3/8X6	Beam	RECT	A36 Gr.36	Typical	2.25	0.026	6.75	0.101
12	Handrail Corner Braces	L3X3X4	Beam	Single Angle	A36 Gr.36	Typical	1.44	1.23	1.23	0.031

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rule	Area [in ²]	Iyy [in ⁴]	Izz [in ⁴]	J [in ⁴]
1	CF1A	1.5CU1.25X035	Beam	None	A570 33	Typical	0.131	0.022	0.052	5.4e-5

Member Primary Data

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
1	M1	N6	N4		Standoff Arm	Beam	SquareTube	A500 Gr.46	Typical
2	M2	N8	N5		Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
3	M3	N5	N7		Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
4	M4	N1	N2		Footrails	Beam	Pipe	A53 Gr.B	Typical
5	M5	N7	N9		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
6	M6	N8	N10		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
7	M8	N12	N13		Support Rail	Beam	Pipe	A53 Gr.B	Typical
8	M9	N9	N14		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
9	M10	N10	N15		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
10	M11	N18	N17		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical
11	M12	N19	N16		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical
12	M13	N19	N6		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical
13	M14	N6	N18		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical
14	M15	N20	N22		Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
15	M16	N23	N21		Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
16	M17	N27	N25		RIGID	None	None	RIGID	Typical
17	M18	N26	N24		RIGID	None	None	RIGID	Typical
18	MP4A	N28	N29		Mount Pipe 1	Beam	Pipe	A53 Gr.B	Typical
19	M20	N14	N30		RIGID	None	None	RIGID	Typical
20	M21	N31	N16		RIGID	None	None	RIGID	Typical
21	M22	N15	N32		RIGID	None	None	RIGID	Typical
22	M23	N33	N17		RIGID	None	None	RIGID	Typical
23	M24	N36	N34		Standoff Arm	Beam	SquareTube	A500 Gr.46	Typical
24	M25	N38	N35		Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
25	M26	N35	N37		Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
26	M27	N37	N39		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
27	M28	N38	N40		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
28	M30	N39	N42		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
29	M31	N40	N43		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
30	M32	N46	N45		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical
31	M33	N47	N44		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical
32	M34	N47	N36		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical
33	M35	N36	N46		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical
34	M36	N48	N50		Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
35	M37	N51	N49		Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
36	M38	N42	N52		RIGID	None	None	RIGID	Typical
37	M39	N53	N44		RIGID	None	None	RIGID	Typical
38	M40	N43	N54		RIGID	None	None	RIGID	Typical
39	M41	N55	N45		RIGID	None	None	RIGID	Typical
40	M42	N59	N57		Standoff Arm	Beam	SquareTube	A500 Gr.46	Typical
41	M43	N61	N58		Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
42	M44	N58	N60		Plan Bracing	Beam	SquareTube	A500 Gr.46	Typical
43	M45	N60	N62		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
44	M46	N61	N63		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
45	M48	N62	N65		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
46	M49	N63	N66		Plan Bracing Connection Plates	Beam	RECT	A36 Gr.36	Typical
47	M50	N69	N68		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical



Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
48	M51	N70	N67		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical
49	M52	N70	N59		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical
50	M53	N59	N69		Footrail Connection Plates	Beam	RECT	A36 Gr.36	Typical
51	M54	N71	N73		Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
52	M55	N74	N72		Grating Angles	Beam	Single Angle	A36 Gr.36	Typical
53	M56	N65	N75		RIGID	None	None	RIGID	Typical
54	M57	N76	N67		RIGID	None	None	RIGID	Typical
55	M58	N66	N77		RIGID	None	None	RIGID	Typical
56	M59	N78	N68		RIGID	None	None	RIGID	Typical
57	M60	N79	N80		Footrails	Beam	Pipe	A53 Gr.B	Typical
58	M61	N81	N82		Support Rail	Beam	Pipe	A53 Gr.B	Typical
59	M62	N83	N84		Footrails	Beam	Pipe	A53 Gr.B	Typical
60	M63	N85	N86		Support Rail	Beam	Pipe	A53 Gr.B	Typical
61	M64	N88	N103		Handrail Corner Braces	Beam	Single Angle	A36 Gr.36	Typical
62	M65	N87	N88		RIGID	None	None	RIGID	Typical
63	M66	N87	N56		RIGID	None	None	RIGID	Typical
64	M67	N90	N91		RIGID	None	None	RIGID	Typical
65	M68	N90	N89		RIGID	None	None	RIGID	Typical
66	M69	N93	N94		RIGID	None	None	RIGID	Typical
67	M70	N93	N92	240	RIGID	None	None	RIGID	Typical
68	M71	N96	N97		RIGID	None	None	RIGID	Typical
69	M72	N96	N95	240	RIGID	None	None	RIGID	Typical
70	M73	N99	N100		RIGID	None	None	RIGID	Typical
71	M74	N99	N98	120	RIGID	None	None	RIGID	Typical
72	M75	N102	N103		RIGID	None	None	RIGID	Typical
73	M76	N102	N101	120	RIGID	None	None	RIGID	Typical
74	M77	N94	N91		Handrail Corner Braces	Beam	Single Angle	A36 Gr.36	Typical
75	M78	N100	N97		Handrail Corner Braces	Beam	Single Angle	A36 Gr.36	Typical
76	M79	N104	N105		RIGID	None	None	RIGID	Typical
77	M80	N107	N106		RIGID	None	None	RIGID	Typical
78	M81	N105	N106		Kickers	Beam	Single Angle	A36 Gr.36	Typical
79	M82	N110	N109		RIGID	None	None	RIGID	Typical
80	M83	N108	N109		Kickers	Beam	Single Angle	A36 Gr.36	Typical
81	M84	N113	N112		RIGID	None	None	RIGID	Typical
82	M85	N111	N112		Kickers	Beam	Single Angle	A36 Gr.36	Typical
83	M86	N114	N108	240	RIGID	None	None	RIGID	Typical
84	M87	N115	N111	120	RIGID	None	None	RIGID	Typical
85	M88	N119	N117		RIGID	None	None	RIGID	Typical
86	M89	N118	N116		RIGID	None	None	RIGID	Typical
87	M90	N123	N121		RIGID	None	None	RIGID	Typical
88	M91	N122	N120		RIGID	None	None	RIGID	Typical
89	M92	N127	N125		RIGID	None	None	RIGID	Typical
90	M93	N126	N124		RIGID	None	None	RIGID	Typical
91	MP3A	N128	N129		Mount Pipe 2	Beam	Pipe	A53 Gr.B	Typical
92	MP2A	N130	N132		Mount Pipe 2	Beam	Pipe	A53 Gr.B	Typical
93	MP1A	N131	N133		Mount Pipe 1	Beam	Pipe	A53 Gr.B	Typical
94	M97	N137	N135		RIGID	None	None	RIGID	Typical
95	M98	N136	N134		RIGID	None	None	RIGID	Typical
96	MP3C	N138	N139		Mount Pipe 1	Beam	Pipe	A53 Gr.B	Typical
97	M100	N143	N141		RIGID	None	None	RIGID	Typical
98	M101	N142	N140		RIGID	None	None	RIGID	Typical
99	M102	N147	N145		RIGID	None	None	RIGID	Typical
100	M103	N146	N144		RIGID	None	None	RIGID	Typical
101	MP2C	N148	N149		Mount Pipe 2	Beam	Pipe	A53 Gr.B	Typical
102	MP1C	N150	N151		Mount Pipe 2	Beam	Pipe	A53 Gr.B	Typical
103	M106	N155	N153		RIGID	None	None	RIGID	Typical
104	M107	N154	N152		RIGID	None	None	RIGID	Typical
105	MP3B	N156	N157		Mount Pipe 1	Beam	Pipe	A53 Gr.B	Typical
106	M109	N161	N159		RIGID	None	None	RIGID	Typical
107	M110	N160	N158		RIGID	None	None	RIGID	Typical
108	M111	N165	N163		RIGID	None	None	RIGID	Typical



Member Primary Data (Continued)

	Label	I Node	J Node	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rule
109	M112	N164	N162		RIGID	None	None	RIGID	Typical
110	MP2B	N166	N167		Mount Pipe 2	Beam	Pipe	A53 Gr.B	Typical
111	MP1B	N168	N169		Mount Pipe 2	Beam	Pipe	A53 Gr.B	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset [in]	J Offset [in]	Physical	Deflection Ratio Options	Analysis Offset [in]	Seismic DR
1	M1					Yes	N/A		None
2	M2				2	Yes	N/A		None
3	M3			2		Yes	N/A		None
4	M4					Yes	N/A		None
5	M5			2		Yes	N/A		None
6	M6			2		Yes	N/A		None
7	M8					Yes	N/A		None
8	M9					Yes	N/A		None
9	M10					Yes	N/A		None
10	M11					Yes	N/A		None
11	M12					Yes	N/A		None
12	M13				2	Yes	N/A		None
13	M14			2		Yes	N/A		None
14	M15					Yes	N/A	+y+2.1	None
15	M16					Yes	N/A	+y+2.1	None
16	M17					Yes	** NA **		None
17	M18					Yes	** NA **		None
18	MP4A					Yes	N/A		None
19	M20		BenPIN			Yes	** NA **		None
20	M21	BenPIN				Yes	** NA **		None
21	M22		BenPIN			Yes	** NA **		None
22	M23	BenPIN				Yes	** NA **		None
23	M24					Yes	N/A		None
24	M25				2	Yes	N/A		None
25	M26			2		Yes	N/A		None
26	M27			2		Yes	N/A		None
27	M28			2		Yes	N/A		None
28	M30					Yes	N/A		None
29	M31					Yes	N/A		None
30	M32					Yes	N/A		None
31	M33					Yes	N/A		None
32	M34				2	Yes	N/A		None
33	M35			2		Yes	N/A		None
34	M36					Yes	N/A	+y+2.1	None
35	M37					Yes	N/A	+y+2.1	None
36	M38		BenPIN			Yes	** NA **		None
37	M39	BenPIN				Yes	** NA **		None
38	M40		BenPIN			Yes	** NA **		None
39	M41	BenPIN				Yes	** NA **		None
40	M42					Yes	N/A		None
41	M43				2	Yes	N/A		None
42	M44			2		Yes	N/A		None
43	M45			2		Yes	N/A		None
44	M46			2		Yes	N/A		None
45	M48					Yes	N/A		None
46	M49					Yes	N/A		None
47	M50					Yes	N/A		None
48	M51					Yes	N/A		None
49	M52				2	Yes	N/A		None
50	M53			2		Yes	N/A		None
51	M54					Yes	N/A	+y+2.1	None
52	M55					Yes	N/A	+y+2.1	None
53	M56		BenPIN			Yes	** NA **		None
54	M57	BenPIN				Yes	** NA **		None
55	M58		BenPIN			Yes	** NA **		None



Member Advanced Data (Continued)

	Label	I Release	J Release	I Offset [in]	J Offset [in]	Physical	Deflection	Ratio Options	Analysis Offset [in]	Seismic DR
56	M59	BenPIN				Yes	** NA **			None
57	M60					Yes	N/A			None
58	M61					Yes	N/A			None
59	M62					Yes	N/A			None
60	M63					Yes	N/A			None
61	M64					Yes	N/A		+y	None
62	M65					Yes	** NA **			None
63	M66					Yes	** NA **			None
64	M67					Yes	** NA **			None
65	M68					Yes	** NA **			None
66	M69					Yes	** NA **			None
67	M70					Yes	** NA **			None
68	M71					Yes	** NA **			None
69	M72					Yes	** NA **			None
70	M73					Yes	** NA **			None
71	M74					Yes	** NA **			None
72	M75					Yes	** NA **			None
73	M76					Yes	** NA **			None
74	M77					Yes	N/A		+y	None
75	M78					Yes	N/A		+y	None
76	M79	BenPIN				Yes	** NA **			None
77	M80					Yes	** NA **			None
78	M81		BenPIN			Yes	N/A			None
79	M82					Yes	** NA **			None
80	M83		BenPIN			Yes	N/A			None
81	M84					Yes	** NA **			None
82	M85		BenPIN			Yes	N/A			None
83	M86	BenPIN				Yes	** NA **			None
84	M87	BenPIN				Yes	** NA **			None
85	M88					Yes	** NA **			None
86	M89					Yes	** NA **			None
87	M90					Yes	** NA **			None
88	M91					Yes	** NA **			None
89	M92					Yes	** NA **			None
90	M93					Yes	** NA **			None
91	MP3A					Yes	N/A			None
92	MP2A					Yes	N/A			None
93	MP1A					Yes	N/A			None
94	M97					Yes	** NA **			None
95	M98					Yes	** NA **			None
96	MP3C					Yes	N/A			None
97	M100					Yes	** NA **			None
98	M101					Yes	** NA **			None
99	M102					Yes	** NA **			None
100	M103					Yes	** NA **			None
101	MP2C					Yes	N/A			None
102	MP1C					Yes	N/A			None
103	M106					Yes	** NA **			None
104	M107					Yes	** NA **			None
105	MP3B					Yes	N/A			None
106	M109					Yes	** NA **			None
107	M110					Yes	** NA **			None
108	M111					Yes	** NA **			None
109	M112					Yes	** NA **			None
110	MP2B					Yes	N/A			None
111	MP1B					Yes	N/A			None



Company : Tower Engineering Solutions, LLC
 Designer : Progesh Roka
 Job Number : TES Project No. 142876
 Model Name : CT46132-A-SBA_MT_LO_Loads Onl...

Checked By : _____

Hot Rolled Steel Design Parameters

Label	Shape	Length [ft]	Lcomp top [ft]	K y-y	K z-z	Channel Conn.	a [ft]	Function	
1	M1	Standoff Arm	5.29	Lbyy	2.1	2.1	N/A	N/A	Lateral
2	M2	Plan Bracing	2.58	Lbyy	1	1	N/A	N/A	Lateral
3	M3	Plan Bracing	2.58	Lbyy	1	1	N/A	N/A	Lateral
4	M4	Footrails	12.5	Lbyy	1	1	N/A	N/A	Lateral
5	M5	Plan Bracing Connection Plates	0.25	Lbyy	0.65	0.65	N/A	N/A	Lateral
6	M6	Plan Bracing Connection Plates	0.25	Lbyy	0.65	0.65	N/A	N/A	Lateral
7	M8	Support Rail	12.5	Lbyy			N/A	N/A	Lateral
8	M9	Plan Bracing Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
9	M10	Plan Bracing Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
10	M11	Footrail Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
11	M12	Footrail Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
12	M13	Footrail Connection Plates	0.524	Lbyy			N/A	N/A	Lateral
13	M14	Footrail Connection Plates	0.524	Lbyy			N/A	N/A	Lateral
14	M15	Grating Angles	4.401	Lbyy			N/A	N/A	Lateral
15	M16	Grating Angles	4.401	Lbyy			N/A	N/A	Lateral
16	MP4A	Mount Pipe 1	9	Lbyy			N/A	N/A	Lateral
17	M24	Standoff Arm	5.29	Lbyy	2.1	2.1	N/A	N/A	Lateral
18	M25	Plan Bracing	2.58	Lbyy	1	1	N/A	N/A	Lateral
19	M26	Plan Bracing	2.58	Lbyy	1	1	N/A	N/A	Lateral
20	M27	Plan Bracing Connection Plates	0.25	Lbyy	0.65	0.65	N/A	N/A	Lateral
21	M28	Plan Bracing Connection Plates	0.25	Lbyy	0.65	0.65	N/A	N/A	Lateral
22	M30	Plan Bracing Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
23	M31	Plan Bracing Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
24	M32	Footrail Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
25	M33	Footrail Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
26	M34	Footrail Connection Plates	0.524	Lbyy			N/A	N/A	Lateral
27	M35	Footrail Connection Plates	0.524	Lbyy			N/A	N/A	Lateral
28	M36	Grating Angles	4.401	Lbyy			N/A	N/A	Lateral
29	M37	Grating Angles	4.401	Lbyy			N/A	N/A	Lateral
30	M42	Standoff Arm	5.29	Lbyy	2.1	2.1	N/A	N/A	Lateral
31	M43	Plan Bracing	2.58	Lbyy	1	1	N/A	N/A	Lateral
32	M44	Plan Bracing	2.58	Lbyy	1	1	N/A	N/A	Lateral
33	M45	Plan Bracing Connection Plates	0.25	Lbyy	0.65	0.65	N/A	N/A	Lateral
34	M46	Plan Bracing Connection Plates	0.25	Lbyy	0.65	0.65	N/A	N/A	Lateral
35	M48	Plan Bracing Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
36	M49	Plan Bracing Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
37	M50	Footrail Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
38	M51	Footrail Connection Plates	0.167	Lbyy			N/A	N/A	Lateral
39	M52	Footrail Connection Plates	0.524	Lbyy			N/A	N/A	Lateral
40	M53	Footrail Connection Plates	0.524	Lbyy			N/A	N/A	Lateral
41	M54	Grating Angles	4.401	Lbyy			N/A	N/A	Lateral
42	M55	Grating Angles	4.401	Lbyy			N/A	N/A	Lateral
43	M60	Footrails	12.5	Lbyy	1	1	N/A	N/A	Lateral
44	M61	Support Rail	12.5	Lbyy			N/A	N/A	Lateral
45	M62	Footrails	12.5	Lbyy	1	1	N/A	N/A	Lateral
46	M63	Support Rail	12.5	Lbyy			N/A	N/A	Lateral
47	M64	Handrail Corner Braces	2.506	Lbyy			N/A	N/A	Lateral
48	M77	Handrail Corner Braces	2.506	Lbyy			N/A	N/A	Lateral
49	M78	Handrail Corner Braces	2.506	Lbyy			N/A	N/A	Lateral
50	M81	Kickers	4.054	Lbyy			N/A	N/A	Lateral
51	M83	Kickers	4.054	Lbyy			N/A	N/A	Lateral
52	M85	Kickers	4.054	Lbyy			N/A	N/A	Lateral
53	MP3A	Mount Pipe 2	8	Lbyy			N/A	N/A	Lateral
54	MP2A	Mount Pipe 2	6	Lbyy			N/A	N/A	Lateral
55	MP1A	Mount Pipe 1	8	Lbyy			N/A	N/A	Lateral
56	MP3C	Mount Pipe 1	9	Lbyy			N/A	N/A	Lateral
57	MP2C	Mount Pipe 2	8	Lbyy			N/A	N/A	Lateral
58	MP1C	Mount Pipe 2	6	Lbyy			N/A	N/A	Lateral
59	MP3B	Mount Pipe 1	9	Lbyy			N/A	N/A	Lateral
60	MP2B	Mount Pipe 2	8	Lbyy			N/A	N/A	Lateral
61	MP1B	Mount Pipe 2	6	Lbyy			N/A	N/A	Lateral



Cold Formed Steel Design Parameters

No Data to Print...

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	Y	-11.905	1
2	MP1B	My	0.002	1
3	MP1B	Mz	-0.004	1
4	MP1B	Y	-11.905	5
5	MP1B	My	0.002	5
6	MP1B	Mz	-0.004	5
7	MP1C	Y	-11.905	1
8	MP1C	My	0.002	1
9	MP1C	Mz	0.004	1
10	MP1C	Y	-11.905	5
11	MP1C	My	0.002	5
12	MP1C	Mz	0.004	5
13	MP2A	Y	-11.905	1
14	MP2A	My	-0.005	1
15	MP2A	Mz	0	1
16	MP2A	Y	-11.905	5
17	MP2A	My	-0.005	5
18	MP2A	Mz	0	5
19	MP3B	Y	-61.4	0.5
20	MP3B	My	0.023	0.5
21	MP3B	Mz	-0.04	0.5
22	MP3B	Y	-61.4	7.5
23	MP3B	My	0.023	7.5
24	MP3B	Mz	-0.04	7.5
25	MP3C	Y	-61.4	0.5
26	MP3C	My	0.023	0.5
27	MP3C	Mz	0.04	0.5
28	MP3C	Y	-61.4	7.5
29	MP3C	My	0.023	7.5
30	MP3C	Mz	0.04	7.5
31	MP4A	Y	-61.4	0.5
32	MP4A	My	-0.046	0.5
33	MP4A	Mz	0	0.5
34	MP4A	Y	-61.4	7.5
35	MP4A	My	-0.046	7.5
36	MP4A	Mz	0	7.5
37	MP2B	Y	-41.65	2.48
38	MP2B	My	0.016	2.48
39	MP2B	Mz	-0.027	2.48
40	MP2B	Y	-41.65	5.51
41	MP2B	My	0.016	5.51
42	MP2B	Mz	-0.027	5.51
43	MP2C	Y	-41.65	2.48
44	MP2C	My	0.016	2.48
45	MP2C	Mz	0.027	2.48
46	MP2C	Y	-41.65	5.51
47	MP2C	My	0.016	5.51
48	MP2C	Mz	0.027	5.51
49	MP3A	Y	-41.65	2.48
50	MP3A	My	-0.031	2.48
51	MP3A	Mz	0	2.48
52	MP3A	Y	-41.65	5.51
53	MP3A	My	-0.031	5.51
54	MP3A	Mz	0	5.51
55	MP3B	Y	-13	2
56	MP3B	My	-0.003	2
57	MP3B	Mz	0.005	2
58	MP3C	Y	-13	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
59	MP3C	My	-0.003	2
60	MP3C	Mz	-0.005	2
61	MP4A	Y	-13	2
62	MP4A	My	0.005	2
63	MP4A	Mz	0	2
64	MP1B	Y	-11	2
65	MP1B	My	-0.001	2
66	MP1B	Mz	0.002	2
67	MP1C	Y	-11	2
68	MP1C	My	-0.001	2
69	MP1C	Mz	-0.002	2
70	MP2A	Y	-11	2
71	MP2A	My	0.003	2
72	MP2A	Mz	0	2
73	MP1B	Y	-104	3
74	MP1B	My	-0.043	3
75	MP1B	Mz	0.075	3
76	MP1C	Y	-104	3
77	MP1C	My	-0.043	3
78	MP1C	Mz	-0.075	3
79	MP2A	Y	-104	3
80	MP2A	My	0.087	3
81	MP2A	Mz	0	3
82	MP3B	Y	-93	4
83	MP3B	My	-0.031	4
84	MP3B	Mz	0.054	4
85	MP3C	Y	-93	4
86	MP3C	My	-0.031	4
87	MP3C	Mz	-0.054	4
88	MP4A	Y	-93	4
89	MP4A	My	0.062	4
90	MP4A	Mz	0	4
91	MP3B	Y	-1.8	6
92	MP3B	My	-0.00015	6
93	MP3B	Mz	0.00026	6
94	MP3C	Y	-1.8	6
95	MP3C	My	-0.00015	6
96	MP3C	Mz	-0.00026	6
97	MP4A	Y	-1.8	6
98	MP4A	My	0.0003	6
99	MP4A	Mz	0	6
100	MP1A	Y	-41.8	2
101	MP1A	My	0.05	2
102	MP1A	Mz	0.043	2
103	MP1A	Y	-5.5	2
104	MP1A	My	0.009	2
105	MP1A	Mz	0.000598	2

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	Y	-38.97	1
2	MP1B	My	0.008	1
3	MP1B	Mz	-0.014	1
4	MP1B	Y	-38.97	5
5	MP1B	My	0.008	5
6	MP1B	Mz	-0.014	5
7	MP1C	Y	-38.97	1
8	MP1C	My	0.008	1
9	MP1C	Mz	0.014	1
10	MP1C	Y	-38.97	5
11	MP1C	My	0.008	5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
12	MP1C	Mz	0.014	5
13	MP2A	Y	-38.97	1
14	MP2A	My	-0.016	1
15	MP2A	Mz	0	1
16	MP2A	Y	-38.97	5
17	MP2A	My	-0.016	5
18	MP2A	Mz	0	5
19	MP3B	Y	-125.965	0.5
20	MP3B	My	0.047	0.5
21	MP3B	Mz	-0.082	0.5
22	MP3B	Y	-125.965	7.5
23	MP3B	My	0.047	7.5
24	MP3B	Mz	-0.082	7.5
25	MP3C	Y	-125.965	0.5
26	MP3C	My	0.047	0.5
27	MP3C	Mz	0.082	0.5
28	MP3C	Y	-125.965	7.5
29	MP3C	My	0.047	7.5
30	MP3C	Mz	0.082	7.5
31	MP4A	Y	-125.965	0.5
32	MP4A	My	-0.094	0.5
33	MP4A	Mz	0	0.5
34	MP4A	Y	-125.965	7.5
35	MP4A	My	-0.094	7.5
36	MP4A	Mz	0	7.5
37	MP2B	Y	-49.4	2.48
38	MP2B	My	0.019	2.48
39	MP2B	Mz	-0.032	2.48
40	MP2B	Y	-49.4	5.51
41	MP2B	My	0.019	5.51
42	MP2B	Mz	-0.032	5.51
43	MP2C	Y	-49.4	2.48
44	MP2C	My	0.019	2.48
45	MP2C	Mz	0.032	2.48
46	MP2C	Y	-49.4	5.51
47	MP2C	My	0.019	5.51
48	MP2C	Mz	0.032	5.51
49	MP3A	Y	-49.4	2.48
50	MP3A	My	-0.037	2.48
51	MP3A	Mz	0	2.48
52	MP3A	Y	-49.4	5.51
53	MP3A	My	-0.037	5.51
54	MP3A	Mz	0	5.51
55	MP3B	Y	-18.146	2
56	MP3B	My	-0.004	2
57	MP3B	Mz	0.007	2
58	MP3C	Y	-18.146	2
59	MP3C	My	-0.004	2
60	MP3C	Mz	-0.007	2
61	MP4A	Y	-18.146	2
62	MP4A	My	0.008	2
63	MP4A	Mz	0	2
64	MP1B	Y	-13.13	2
65	MP1B	My	-0.002	2
66	MP1B	Mz	0.003	2
67	MP1C	Y	-13.13	2
68	MP1C	My	-0.002	2
69	MP1C	Mz	-0.003	2
70	MP2A	Y	-13.13	2
71	MP2A	My	0.003	2
72	MP2A	Mz	0	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
73	MP1B	Y	-50.963	3
74	MP1B	My	-0.021	3
75	MP1B	Mz	0.037	3
76	MP1C	Y	-50.963	3
77	MP1C	My	-0.021	3
78	MP1C	Mz	-0.037	3
79	MP2A	Y	-50.963	3
80	MP2A	My	0.042	3
81	MP2A	Mz	0	3
82	MP3B	Y	-44.188	4
83	MP3B	My	-0.015	4
84	MP3B	Mz	0.026	4
85	MP3C	Y	-44.188	4
86	MP3C	My	-0.015	4
87	MP3C	Mz	-0.026	4
88	MP4A	Y	-44.188	4
89	MP4A	My	0.029	4
90	MP4A	Mz	0	4
91	MP3B	Y	-3.829	6
92	MP3B	My	-0.000319	6
93	MP3B	Mz	0.000553	6
94	MP3C	Y	-3.829	6
95	MP3C	My	-0.000319	6
96	MP3C	Mz	-0.000553	6
97	MP4A	Y	-3.829	6
98	MP4A	My	0.000638	6
99	MP4A	Mz	0	6
100	MP1A	Y	-182.767	2
101	MP1A	My	0.219	2
102	MP1A	Mz	0.189	2
103	MP1A	Y	-9.512	2
104	MP1A	My	0.015	2
105	MP1A	Mz	0.001	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	0	1
2	MP1B	Z	-67.305	1
3	MP1B	Mx	0.024	1
4	MP1B	X	0	5
5	MP1B	Z	-67.305	5
6	MP1B	Mx	0.024	5
7	MP1C	X	0	1
8	MP1C	Z	-67.305	1
9	MP1C	Mx	-0.024	1
10	MP1C	X	0	5
11	MP1C	Z	-67.305	5
12	MP1C	Mx	-0.024	5
13	MP2A	X	0	1
14	MP2A	Z	-115.402	1
15	MP2A	Mx	0	1
16	MP2A	X	0	5
17	MP2A	Z	-115.402	5
18	MP2A	Mx	0	5
19	MP3B	X	0	0.5
20	MP3B	Z	-216.446	0.5
21	MP3B	Mx	0.141	0.5
22	MP3B	X	0	7.5
23	MP3B	Z	-216.446	7.5
24	MP3B	Mx	0.141	7.5
25	MP3C	X	0	0.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
26	MP3C	Z	-216.446	0.5
27	MP3C	Mx	-0.141	0.5
28	MP3C	X	0	7.5
29	MP3C	Z	-216.446	7.5
30	MP3C	Mx	-0.141	7.5
31	MP4A	X	0	0.5
32	MP4A	Z	-377.341	0.5
33	MP4A	Mx	0	0.5
34	MP4A	X	0	7.5
35	MP4A	Z	-377.341	7.5
36	MP4A	Mx	0	7.5
37	MP2B	X	0	2.48
38	MP2B	Z	-69.686	2.48
39	MP2B	Mx	0.045	2.48
40	MP2B	X	0	5.51
41	MP2B	Z	-69.686	5.51
42	MP2B	Mx	0.045	5.51
43	MP2C	X	0	2.48
44	MP2C	Z	-69.686	2.48
45	MP2C	Mx	-0.045	2.48
46	MP2C	X	0	5.51
47	MP2C	Z	-69.686	5.51
48	MP2C	Mx	-0.045	5.51
49	MP3A	X	0	2.48
50	MP3A	Z	-117.826	2.48
51	MP3A	Mx	0	2.48
52	MP3A	X	0	5.51
53	MP3A	Z	-117.826	5.51
54	MP3A	Mx	0	5.51
55	MP3B	X	0	2
56	MP3B	Z	-22.3	2
57	MP3B	Mx	-0.008	2
58	MP3C	X	0	2
59	MP3C	Z	-22.3	2
60	MP3C	Mx	0.008	2
61	MP4A	X	0	2
62	MP4A	Z	-43.625	2
63	MP4A	Mx	0	2
64	MP1B	X	0	2
65	MP1B	Z	-17.522	2
66	MP1B	Mx	-0.004	2
67	MP1C	X	0	2
68	MP1C	Z	-17.522	2
69	MP1C	Mx	0.004	2
70	MP2A	X	0	2
71	MP2A	Z	-30.575	2
72	MP2A	Mx	0	2
73	MP1B	X	0	3
74	MP1B	Z	-67.093	3
75	MP1B	Mx	-0.048	3
76	MP1C	X	0	3
77	MP1C	Z	-67.093	3
78	MP1C	Mx	0.048	3
79	MP2A	X	0	3
80	MP2A	Z	-79.794	3
81	MP2A	Mx	0	3
82	MP3B	X	0	4
83	MP3B	Z	-56.098	4
84	MP3B	Mx	-0.032	4
85	MP3C	X	0	4
86	MP3C	Z	-56.098	4



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
87	MP3C	Mx	0.032	4
88	MP4A	X	0	4
89	MP4A	Z	-89.861	4
90	MP4A	Mx	0	4
91	MP3B	X	0	6
92	MP3B	Z	-3.566	6
93	MP3B	Mx	-0.000515	6
94	MP3C	X	0	6
95	MP3C	Z	-3.566	6
96	MP3C	Mx	0.000515	6
97	MP4A	X	0	6
98	MP4A	Z	-4.847	6
99	MP4A	Mx	0	6
100	MP1A	X	0	2
101	MP1A	Z	-224.942	2
102	MP1A	Mx	-0.232	2
103	MP1A	X	0	2
104	MP1A	Z	-11.549	2
105	MP1A	Mx	-0.001	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	25.636	1
2	MP1B	Z	-44.403	1
3	MP1B	Mx	0.021	1
4	MP1B	X	25.636	5
5	MP1B	Z	-44.403	5
6	MP1B	Mx	0.021	5
7	MP1C	X	49.685	1
8	MP1C	Z	-86.057	1
9	MP1C	Mx	-0.021	1
10	MP1C	X	49.685	5
11	MP1C	Z	-86.057	5
12	MP1C	Mx	-0.021	5
13	MP2A	X	49.685	1
14	MP2A	Z	-86.057	1
15	MP2A	Mx	-0.021	1
16	MP2A	X	49.685	5
17	MP2A	Z	-86.057	5
18	MP2A	Mx	-0.021	5
19	MP3B	X	81.407	0.5
20	MP3B	Z	-141.001	0.5
21	MP3B	Mx	0.122	0.5
22	MP3B	X	81.407	7.5
23	MP3B	Z	-141.001	7.5
24	MP3B	Mx	0.122	7.5
25	MP3C	X	161.855	0.5
26	MP3C	Z	-280.341	0.5
27	MP3C	Mx	-0.121	0.5
28	MP3C	X	161.855	7.5
29	MP3C	Z	-280.341	7.5
30	MP3C	Mx	-0.121	7.5
31	MP4A	X	161.855	0.5
32	MP4A	Z	-280.341	0.5
33	MP4A	Mx	-0.121	0.5
34	MP4A	X	161.855	7.5
35	MP4A	Z	-280.341	7.5
36	MP4A	Mx	-0.121	7.5
37	MP2B	X	26.819	2.48
38	MP2B	Z	-46.453	2.48
39	MP2B	Mx	0.04	2.48



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
40	MP2B	X	26.819	5.51
41	MP2B	Z	-46.453	5.51
42	MP2B	Mx	0.04	5.51
43	MP2C	X	50.89	2.48
44	MP2C	Z	-88.143	2.48
45	MP2C	Mx	-0.038	2.48
46	MP2C	X	50.89	5.51
47	MP2C	Z	-88.143	5.51
48	MP2C	Mx	-0.038	5.51
49	MP3A	X	50.89	2.48
50	MP3A	Z	-88.143	2.48
51	MP3A	Mx	-0.038	2.48
52	MP3A	X	50.89	5.51
53	MP3A	Z	-88.143	5.51
54	MP3A	Mx	-0.038	5.51
55	MP3B	X	7.595	2
56	MP3B	Z	-13.156	2
57	MP3B	Mx	-0.006	2
58	MP3C	X	18.258	2
59	MP3C	Z	-31.624	2
60	MP3C	Mx	0.008	2
61	MP4A	X	18.258	2
62	MP4A	Z	-31.624	2
63	MP4A	Mx	0.008	2
64	MP1B	X	6.585	2
65	MP1B	Z	-11.406	2
66	MP1B	Mx	-0.003	2
67	MP1C	X	13.112	2
68	MP1C	Z	-22.711	2
69	MP1C	Mx	0.003	2
70	MP2A	X	13.112	2
71	MP2A	Z	-22.711	2
72	MP2A	Mx	0.003	2
73	MP1B	X	31.43	3
74	MP1B	Z	-54.438	3
75	MP1B	Mx	-0.052	3
76	MP1C	X	37.78	3
77	MP1C	Z	-65.437	3
78	MP1C	Mx	0.031	3
79	MP2A	X	37.78	3
80	MP2A	Z	-65.437	3
81	MP2A	Mx	0.031	3
82	MP3B	X	22.422	4
83	MP3B	Z	-38.836	4
84	MP3B	Mx	-0.03	4
85	MP3C	X	39.303	4
86	MP3C	Z	-68.075	4
87	MP3C	Mx	0.026	4
88	MP4A	X	39.303	4
89	MP4A	Z	-68.075	4
90	MP4A	Mx	0.026	4
91	MP3B	X	1.57	6
92	MP3B	Z	-2.719	6
93	MP3B	Mx	-0.000523	6
94	MP3C	X	2.21	6
95	MP3C	Z	-3.828	6
96	MP3C	Mx	0.000368	6
97	MP4A	X	2.21	6
98	MP4A	Z	-3.828	6
99	MP4A	Mx	0.000368	6
100	MP1A	X	99.591	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
101	MP1A	Z	-172.497	2
102	MP1A	Mx	-0.059	2
103	MP1A	X	3.663	2
104	MP1A	Z	-6.344	2
105	MP1A	Mx	0.005	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	58.288	1
2	MP1B	Z	-33.653	1
3	MP1B	Mx	0.024	1
4	MP1B	X	58.288	5
5	MP1B	Z	-33.653	5
6	MP1B	Mx	0.024	5
7	MP1C	X	99.941	1
8	MP1C	Z	-57.701	1
9	MP1C	Mx	0	1
10	MP1C	X	99.941	5
11	MP1C	Z	-57.701	5
12	MP1C	Mx	0	5
13	MP2A	X	58.288	1
14	MP2A	Z	-33.653	1
15	MP2A	Mx	-0.024	1
16	MP2A	X	58.288	5
17	MP2A	Z	-33.653	5
18	MP2A	Mx	-0.024	5
19	MP3B	X	187.448	0.5
20	MP3B	Z	-108.223	0.5
21	MP3B	Mx	0.141	0.5
22	MP3B	X	187.448	7.5
23	MP3B	Z	-108.223	7.5
24	MP3B	Mx	0.141	7.5
25	MP3C	X	326.787	0.5
26	MP3C	Z	-188.671	0.5
27	MP3C	Mx	0	0.5
28	MP3C	X	326.787	7.5
29	MP3C	Z	-188.671	7.5
30	MP3C	Mx	0	7.5
31	MP4A	X	187.448	0.5
32	MP4A	Z	-108.223	0.5
33	MP4A	Mx	-0.141	0.5
34	MP4A	X	187.448	7.5
35	MP4A	Z	-108.223	7.5
36	MP4A	Mx	-0.141	7.5
37	MP2B	X	60.35	2.48
38	MP2B	Z	-34.843	2.48
39	MP2B	Mx	0.045	2.48
40	MP2B	X	60.35	5.51
41	MP2B	Z	-34.843	5.51
42	MP2B	Mx	0.045	5.51
43	MP2C	X	102.04	2.48
44	MP2C	Z	-58.913	2.48
45	MP2C	Mx	0	2.48
46	MP2C	X	102.04	5.51
47	MP2C	Z	-58.913	5.51
48	MP2C	Mx	0	5.51
49	MP3A	X	60.35	2.48
50	MP3A	Z	-34.843	2.48
51	MP3A	Mx	-0.045	2.48
52	MP3A	X	60.35	5.51
53	MP3A	Z	-34.843	5.51



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
54	MP3A	Mx	-0.045	5.51
55	MP3B	X	19.312	2
56	MP3B	Z	-11.15	2
57	MP3B	Mx	-0.008	2
58	MP3C	X	37.781	2
59	MP3C	Z	-21.813	2
60	MP3C	Mx	0	2
61	MP4A	X	19.312	2
62	MP4A	Z	-11.15	2
63	MP4A	Mx	0.008	2
64	MP1B	X	15.174	2
65	MP1B	Z	-8.761	2
66	MP1B	Mx	-0.004	2
67	MP1C	X	26.479	2
68	MP1C	Z	-15.288	2
69	MP1C	Mx	0	2
70	MP2A	X	15.174	2
71	MP2A	Z	-8.761	2
72	MP2A	Mx	0.004	2
73	MP1B	X	58.104	3
74	MP1B	Z	-33.546	3
75	MP1B	Mx	-0.048	3
76	MP1C	X	69.103	3
77	MP1C	Z	-39.897	3
78	MP1C	Mx	0	3
79	MP2A	X	58.104	3
80	MP2A	Z	-33.546	3
81	MP2A	Mx	0.048	3
82	MP3B	X	48.582	4
83	MP3B	Z	-28.049	4
84	MP3B	Mx	-0.032	4
85	MP3C	X	77.822	4
86	MP3C	Z	-44.93	4
87	MP3C	Mx	0	4
88	MP4A	X	48.582	4
89	MP4A	Z	-28.049	4
90	MP4A	Mx	0.032	4
91	MP3B	X	3.089	6
92	MP3B	Z	-1.783	6
93	MP3B	Mx	-0.000515	6
94	MP3C	X	4.198	6
95	MP3C	Z	-2.424	6
96	MP3C	Mx	0	6
97	MP4A	X	3.089	6
98	MP4A	Z	-1.783	6
99	MP4A	Mx	0.000515	6
100	MP1A	X	234.673	2
101	MP1A	Z	-135.489	2
102	MP1A	Mx	0.141	2
103	MP1A	X	16.538	2
104	MP1A	Z	-9.548	2
105	MP1A	Mx	0.025	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	99.37	1
2	MP1B	Z	0	1
3	MP1B	Mx	0.021	1
4	MP1B	X	99.37	5
5	MP1B	Z	0	5
6	MP1B	Mx	0.021	5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
7	MP1C	X	99.37	1
8	MP1C	Z	0	1
9	MP1C	Mx	0.021	1
10	MP1C	X	99.37	5
11	MP1C	Z	0	5
12	MP1C	Mx	0.021	5
13	MP2A	X	51.273	1
14	MP2A	Z	0	1
15	MP2A	Mx	-0.021	1
16	MP2A	X	51.273	5
17	MP2A	Z	0	5
18	MP2A	Mx	-0.021	5
19	MP3B	X	323.71	0.5
20	MP3B	Z	0	0.5
21	MP3B	Mx	0.121	0.5
22	MP3B	X	323.71	7.5
23	MP3B	Z	0	7.5
24	MP3B	Mx	0.121	7.5
25	MP3C	X	323.71	0.5
26	MP3C	Z	0	0.5
27	MP3C	Mx	0.121	0.5
28	MP3C	X	323.71	7.5
29	MP3C	Z	0	7.5
30	MP3C	Mx	0.121	7.5
31	MP4A	X	162.814	0.5
32	MP4A	Z	0	0.5
33	MP4A	Mx	-0.122	0.5
34	MP4A	X	162.814	7.5
35	MP4A	Z	0	7.5
36	MP4A	Mx	-0.122	7.5
37	MP2B	X	101.779	2.48
38	MP2B	Z	0	2.48
39	MP2B	Mx	0.038	2.48
40	MP2B	X	101.779	5.51
41	MP2B	Z	0	5.51
42	MP2B	Mx	0.038	5.51
43	MP2C	X	101.779	2.48
44	MP2C	Z	0	2.48
45	MP2C	Mx	0.038	2.48
46	MP2C	X	101.779	5.51
47	MP2C	Z	0	5.51
48	MP2C	Mx	0.038	5.51
49	MP3A	X	53.639	2.48
50	MP3A	Z	0	2.48
51	MP3A	Mx	-0.04	2.48
52	MP3A	X	53.639	5.51
53	MP3A	Z	0	5.51
54	MP3A	Mx	-0.04	5.51
55	MP3B	X	36.517	2
56	MP3B	Z	0	2
57	MP3B	Mx	-0.008	2
58	MP3C	X	36.517	2
59	MP3C	Z	0	2
60	MP3C	Mx	-0.008	2
61	MP4A	X	15.191	2
62	MP4A	Z	0	2
63	MP4A	Mx	0.006	2
64	MP1B	X	26.224	2
65	MP1B	Z	0	2
66	MP1B	Mx	-0.003	2
67	MP1C	X	26.224	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
68	MP1C	Z	0	2
69	MP1C	Mx	-0.003	2
70	MP2A	X	13.17	2
71	MP2A	Z	0	2
72	MP2A	Mx	0.003	2
73	MP1B	X	75.56	3
74	MP1B	Z	0	3
75	MP1B	Mx	-0.031	3
76	MP1C	X	75.56	3
77	MP1C	Z	0	3
78	MP1C	Mx	-0.031	3
79	MP2A	X	62.859	3
80	MP2A	Z	0	3
81	MP2A	Mx	0.052	3
82	MP3B	X	78.607	4
83	MP3B	Z	0	4
84	MP3B	Mx	-0.026	4
85	MP3C	X	78.607	4
86	MP3C	Z	0	4
87	MP3C	Mx	-0.026	4
88	MP4A	X	44.843	4
89	MP4A	Z	0	4
90	MP4A	Mx	0.03	4
91	MP3B	X	4.42	6
92	MP3B	Z	0	6
93	MP3B	Mx	-0.000368	6
94	MP3C	X	4.42	6
95	MP3C	Z	0	6
96	MP3C	Mx	-0.000368	6
97	MP4A	X	3.139	6
98	MP4A	Z	0	6
99	MP4A	Mx	0.000523	6
100	MP1A	X	368.533	2
101	MP1A	Z	0	2
102	MP1A	Mx	0.441	2
103	MP1A	X	35.09	2
104	MP1A	Z	0	2
105	MP1A	Mx	0.055	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	99.941	1
2	MP1B	Z	57.701	1
3	MP1B	Mx	0	1
4	MP1B	X	99.941	5
5	MP1B	Z	57.701	5
6	MP1B	Mx	0	5
7	MP1C	X	58.288	1
8	MP1C	Z	33.653	1
9	MP1C	Mx	0.024	1
10	MP1C	X	58.288	5
11	MP1C	Z	33.653	5
12	MP1C	Mx	0.024	5
13	MP2A	X	58.288	1
14	MP2A	Z	33.653	1
15	MP2A	Mx	-0.024	1
16	MP2A	X	58.288	5
17	MP2A	Z	33.653	5
18	MP2A	Mx	-0.024	5
19	MP3B	X	326.787	0.5
20	MP3B	Z	188.671	0.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
21	MP3B	Mx	0	0.5
22	MP3B	X	326.787	7.5
23	MP3B	Z	188.671	7.5
24	MP3B	Mx	0	7.5
25	MP3C	X	187.448	0.5
26	MP3C	Z	108.223	0.5
27	MP3C	Mx	0.141	0.5
28	MP3C	X	187.448	7.5
29	MP3C	Z	108.223	7.5
30	MP3C	Mx	0.141	7.5
31	MP4A	X	187.448	0.5
32	MP4A	Z	108.223	0.5
33	MP4A	Mx	-0.141	0.5
34	MP4A	X	187.448	7.5
35	MP4A	Z	108.223	7.5
36	MP4A	Mx	-0.141	7.5
37	MP2B	X	102.04	2.48
38	MP2B	Z	58.913	2.48
39	MP2B	Mx	0	2.48
40	MP2B	X	102.04	5.51
41	MP2B	Z	58.913	5.51
42	MP2B	Mx	0	5.51
43	MP2C	X	60.35	2.48
44	MP2C	Z	34.843	2.48
45	MP2C	Mx	0.045	2.48
46	MP2C	X	60.35	5.51
47	MP2C	Z	34.843	5.51
48	MP2C	Mx	0.045	5.51
49	MP3A	X	60.35	2.48
50	MP3A	Z	34.843	2.48
51	MP3A	Mx	-0.045	2.48
52	MP3A	X	60.35	5.51
53	MP3A	Z	34.843	5.51
54	MP3A	Mx	-0.045	5.51
55	MP3B	X	37.781	2
56	MP3B	Z	21.813	2
57	MP3B	Mx	0	2
58	MP3C	X	19.312	2
59	MP3C	Z	11.15	2
60	MP3C	Mx	-0.008	2
61	MP4A	X	19.312	2
62	MP4A	Z	11.15	2
63	MP4A	Mx	0.008	2
64	MP1B	X	26.479	2
65	MP1B	Z	15.288	2
66	MP1B	Mx	0	2
67	MP1C	X	15.174	2
68	MP1C	Z	8.761	2
69	MP1C	Mx	-0.004	2
70	MP2A	X	15.174	2
71	MP2A	Z	8.761	2
72	MP2A	Mx	0.004	2
73	MP1B	X	69.103	3
74	MP1B	Z	39.897	3
75	MP1B	Mx	0	3
76	MP1C	X	58.104	3
77	MP1C	Z	33.546	3
78	MP1C	Mx	-0.048	3
79	MP2A	X	58.104	3
80	MP2A	Z	33.546	3
81	MP2A	Mx	0.048	3



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
82	MP3B	X	77.822	4
83	MP3B	Z	44.93	4
84	MP3B	Mx	0	4
85	MP3C	X	48.582	4
86	MP3C	Z	28.049	4
87	MP3C	Mx	-0.032	4
88	MP4A	X	48.582	4
89	MP4A	Z	28.049	4
90	MP4A	Mx	0.032	4
91	MP3B	X	4.198	6
92	MP3B	Z	2.424	6
93	MP3B	Mx	0	6
94	MP3C	X	3.089	6
95	MP3C	Z	1.783	6
96	MP3C	Mx	-0.000515	6
97	MP4A	X	3.089	6
98	MP4A	Z	1.783	6
99	MP4A	Mx	0.000515	6
100	MP1A	X	341.468	2
101	MP1A	Z	197.147	2
102	MP1A	Mx	0.612	2
103	MP1A	X	34.047	2
104	MP1A	Z	19.657	2
105	MP1A	Mx	0.056	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	49.685	1
2	MP1B	Z	86.057	1
3	MP1B	Mx	-0.021	1
4	MP1B	X	49.685	5
5	MP1B	Z	86.057	5
6	MP1B	Mx	-0.021	5
7	MP1C	X	25.636	1
8	MP1C	Z	44.403	1
9	MP1C	Mx	0.021	1
10	MP1C	X	25.636	5
11	MP1C	Z	44.403	5
12	MP1C	Mx	0.021	5
13	MP2A	X	49.685	1
14	MP2A	Z	86.057	1
15	MP2A	Mx	-0.021	1
16	MP2A	X	49.685	5
17	MP2A	Z	86.057	5
18	MP2A	Mx	-0.021	5
19	MP3B	X	161.855	0.5
20	MP3B	Z	280.341	0.5
21	MP3B	Mx	-0.121	0.5
22	MP3B	X	161.855	7.5
23	MP3B	Z	280.341	7.5
24	MP3B	Mx	-0.121	7.5
25	MP3C	X	81.407	0.5
26	MP3C	Z	141.001	0.5
27	MP3C	Mx	0.122	0.5
28	MP3C	X	81.407	7.5
29	MP3C	Z	141.001	7.5
30	MP3C	Mx	0.122	7.5
31	MP4A	X	161.855	0.5
32	MP4A	Z	280.341	0.5
33	MP4A	Mx	-0.121	0.5
34	MP4A	X	161.855	7.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
35	MP4A	Z	280.341	7.5
36	MP4A	Mx	-0.121	7.5
37	MP2B	X	50.89	2.48
38	MP2B	Z	88.143	2.48
39	MP2B	Mx	-0.038	2.48
40	MP2B	X	50.89	5.51
41	MP2B	Z	88.143	5.51
42	MP2B	Mx	-0.038	5.51
43	MP2C	X	26.819	2.48
44	MP2C	Z	46.453	2.48
45	MP2C	Mx	0.04	2.48
46	MP2C	X	26.819	5.51
47	MP2C	Z	46.453	5.51
48	MP2C	Mx	0.04	5.51
49	MP3A	X	50.89	2.48
50	MP3A	Z	88.143	2.48
51	MP3A	Mx	-0.038	2.48
52	MP3A	X	50.89	5.51
53	MP3A	Z	88.143	5.51
54	MP3A	Mx	-0.038	5.51
55	MP3B	X	18.258	2
56	MP3B	Z	31.624	2
57	MP3B	Mx	0.008	2
58	MP3C	X	7.595	2
59	MP3C	Z	13.156	2
60	MP3C	Mx	-0.006	2
61	MP4A	X	18.258	2
62	MP4A	Z	31.624	2
63	MP4A	Mx	0.008	2
64	MP1B	X	13.112	2
65	MP1B	Z	22.711	2
66	MP1B	Mx	0.003	2
67	MP1C	X	6.585	2
68	MP1C	Z	11.406	2
69	MP1C	Mx	-0.003	2
70	MP2A	X	13.112	2
71	MP2A	Z	22.711	2
72	MP2A	Mx	0.003	2
73	MP1B	X	37.78	3
74	MP1B	Z	65.437	3
75	MP1B	Mx	0.031	3
76	MP1C	X	31.43	3
77	MP1C	Z	54.438	3
78	MP1C	Mx	-0.052	3
79	MP2A	X	37.78	3
80	MP2A	Z	65.437	3
81	MP2A	Mx	0.031	3
82	MP3B	X	39.303	4
83	MP3B	Z	68.075	4
84	MP3B	Mx	0.026	4
85	MP3C	X	22.422	4
86	MP3C	Z	38.836	4
87	MP3C	Mx	-0.03	4
88	MP4A	X	39.303	4
89	MP4A	Z	68.075	4
90	MP4A	Mx	0.026	4
91	MP3B	X	2.21	6
92	MP3B	Z	3.828	6
93	MP3B	Mx	0.000368	6
94	MP3C	X	1.57	6
95	MP3C	Z	2.719	6



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
96	MP3C	Mx	-0.000523	6
97	MP4A	X	2.21	6
98	MP4A	Z	3.828	6
99	MP4A	Mx	0.000368	6
100	MP1A	X	161.249	2
101	MP1A	Z	279.291	2
102	MP1A	Mx	0.482	2
103	MP1A	X	13.772	2
104	MP1A	Z	23.853	2
105	MP1A	Mx	0.024	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	0	1
2	MP1B	Z	67.305	1
3	MP1B	Mx	-0.024	1
4	MP1B	X	0	5
5	MP1B	Z	67.305	5
6	MP1B	Mx	-0.024	5
7	MP1C	X	0	1
8	MP1C	Z	67.305	1
9	MP1C	Mx	0.024	1
10	MP1C	X	0	5
11	MP1C	Z	67.305	5
12	MP1C	Mx	0.024	5
13	MP2A	X	0	1
14	MP2A	Z	115.402	1
15	MP2A	Mx	0	1
16	MP2A	X	0	5
17	MP2A	Z	115.402	5
18	MP2A	Mx	0	5
19	MP3B	X	0	0.5
20	MP3B	Z	216.446	0.5
21	MP3B	Mx	-0.141	0.5
22	MP3B	X	0	7.5
23	MP3B	Z	216.446	7.5
24	MP3B	Mx	-0.141	7.5
25	MP3C	X	0	0.5
26	MP3C	Z	216.446	0.5
27	MP3C	Mx	0.141	0.5
28	MP3C	X	0	7.5
29	MP3C	Z	216.446	7.5
30	MP3C	Mx	0.141	7.5
31	MP4A	X	0	0.5
32	MP4A	Z	377.341	0.5
33	MP4A	Mx	0	0.5
34	MP4A	X	0	7.5
35	MP4A	Z	377.341	7.5
36	MP4A	Mx	0	7.5
37	MP2B	X	0	2.48
38	MP2B	Z	69.686	2.48
39	MP2B	Mx	-0.045	2.48
40	MP2B	X	0	5.51
41	MP2B	Z	69.686	5.51
42	MP2B	Mx	-0.045	5.51
43	MP2C	X	0	2.48
44	MP2C	Z	69.686	2.48
45	MP2C	Mx	0.045	2.48
46	MP2C	X	0	5.51
47	MP2C	Z	69.686	5.51
48	MP2C	Mx	0.045	5.51



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
49	MP3A	X	0	2.48
50	MP3A	Z	117.826	2.48
51	MP3A	Mx	0	2.48
52	MP3A	X	0	5.51
53	MP3A	Z	117.826	5.51
54	MP3A	Mx	0	5.51
55	MP3B	X	0	2
56	MP3B	Z	22.3	2
57	MP3B	Mx	0.008	2
58	MP3C	X	0	2
59	MP3C	Z	22.3	2
60	MP3C	Mx	-0.008	2
61	MP4A	X	0	2
62	MP4A	Z	43.625	2
63	MP4A	Mx	0	2
64	MP1B	X	0	2
65	MP1B	Z	17.522	2
66	MP1B	Mx	0.004	2
67	MP1C	X	0	2
68	MP1C	Z	17.522	2
69	MP1C	Mx	-0.004	2
70	MP2A	X	0	2
71	MP2A	Z	30.575	2
72	MP2A	Mx	0	2
73	MP1B	X	0	3
74	MP1B	Z	67.093	3
75	MP1B	Mx	0.048	3
76	MP1C	X	0	3
77	MP1C	Z	67.093	3
78	MP1C	Mx	-0.048	3
79	MP2A	X	0	3
80	MP2A	Z	79.794	3
81	MP2A	Mx	0	3
82	MP3B	X	0	4
83	MP3B	Z	56.098	4
84	MP3B	Mx	0.032	4
85	MP3C	X	0	4
86	MP3C	Z	56.098	4
87	MP3C	Mx	-0.032	4
88	MP4A	X	0	4
89	MP4A	Z	89.861	4
90	MP4A	Mx	0	4
91	MP3B	X	0	6
92	MP3B	Z	3.566	6
93	MP3B	Mx	0.000515	6
94	MP3C	X	0	6
95	MP3C	Z	3.566	6
96	MP3C	Mx	-0.000515	6
97	MP4A	X	0	6
98	MP4A	Z	4.847	6
99	MP4A	Mx	0	6
100	MP1A	X	0	2
101	MP1A	Z	224.942	2
102	MP1A	Mx	0.232	2
103	MP1A	X	0	2
104	MP1A	Z	11.549	2
105	MP1A	Mx	0.001	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-25.636	1
2	MP1B	Z	44.403	1
3	MP1B	Mx	-0.021	1
4	MP1B	X	-25.636	5
5	MP1B	Z	44.403	5
6	MP1B	Mx	-0.021	5
7	MP1C	X	-49.685	1
8	MP1C	Z	86.057	1
9	MP1C	Mx	0.021	1
10	MP1C	X	-49.685	5
11	MP1C	Z	86.057	5
12	MP1C	Mx	0.021	5
13	MP2A	X	-49.685	1
14	MP2A	Z	86.057	1
15	MP2A	Mx	0.021	1
16	MP2A	X	-49.685	5
17	MP2A	Z	86.057	5
18	MP2A	Mx	0.021	5
19	MP3B	X	-81.407	0.5
20	MP3B	Z	141.001	0.5
21	MP3B	Mx	-0.122	0.5
22	MP3B	X	-81.407	7.5
23	MP3B	Z	141.001	7.5
24	MP3B	Mx	-0.122	7.5
25	MP3C	X	-161.855	0.5
26	MP3C	Z	280.341	0.5
27	MP3C	Mx	0.121	0.5
28	MP3C	X	-161.855	7.5
29	MP3C	Z	280.341	7.5
30	MP3C	Mx	0.121	7.5
31	MP4A	X	-161.855	0.5
32	MP4A	Z	280.341	0.5
33	MP4A	Mx	0.121	0.5
34	MP4A	X	-161.855	7.5
35	MP4A	Z	280.341	7.5
36	MP4A	Mx	0.121	7.5
37	MP2B	X	-26.819	2.48
38	MP2B	Z	46.453	2.48
39	MP2B	Mx	-0.04	2.48
40	MP2B	X	-26.819	5.51
41	MP2B	Z	46.453	5.51
42	MP2B	Mx	-0.04	5.51
43	MP2C	X	-50.89	2.48
44	MP2C	Z	88.143	2.48
45	MP2C	Mx	0.038	2.48
46	MP2C	X	-50.89	5.51
47	MP2C	Z	88.143	5.51
48	MP2C	Mx	0.038	5.51
49	MP3A	X	-50.89	2.48
50	MP3A	Z	88.143	2.48
51	MP3A	Mx	0.038	2.48
52	MP3A	X	-50.89	5.51
53	MP3A	Z	88.143	5.51
54	MP3A	Mx	0.038	5.51
55	MP3B	X	-7.595	2
56	MP3B	Z	13.156	2
57	MP3B	Mx	0.006	2
58	MP3C	X	-18.258	2
59	MP3C	Z	31.624	2
60	MP3C	Mx	-0.008	2
61	MP4A	X	-18.258	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
62	MP4A	Z	31.624	2
63	MP4A	Mx	-0.008	2
64	MP1B	X	-6.585	2
65	MP1B	Z	11.406	2
66	MP1B	Mx	0.003	2
67	MP1C	X	-13.112	2
68	MP1C	Z	22.711	2
69	MP1C	Mx	-0.003	2
70	MP2A	X	-13.112	2
71	MP2A	Z	22.711	2
72	MP2A	Mx	-0.003	2
73	MP1B	X	-31.43	3
74	MP1B	Z	54.438	3
75	MP1B	Mx	0.052	3
76	MP1C	X	-37.78	3
77	MP1C	Z	65.437	3
78	MP1C	Mx	-0.031	3
79	MP2A	X	-37.78	3
80	MP2A	Z	65.437	3
81	MP2A	Mx	-0.031	3
82	MP3B	X	-22.422	4
83	MP3B	Z	38.836	4
84	MP3B	Mx	0.03	4
85	MP3C	X	-39.303	4
86	MP3C	Z	68.075	4
87	MP3C	Mx	-0.026	4
88	MP4A	X	-39.303	4
89	MP4A	Z	68.075	4
90	MP4A	Mx	-0.026	4
91	MP3B	X	-1.57	6
92	MP3B	Z	2.719	6
93	MP3B	Mx	0.000523	6
94	MP3C	X	-2.21	6
95	MP3C	Z	3.828	6
96	MP3C	Mx	-0.000368	6
97	MP4A	X	-2.21	6
98	MP4A	Z	3.828	6
99	MP4A	Mx	-0.000368	6
100	MP1A	X	-99.591	2
101	MP1A	Z	172.497	2
102	MP1A	Mx	0.059	2
103	MP1A	X	-3.663	2
104	MP1A	Z	6.344	2
105	MP1A	Mx	-0.005	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-58.288	1
2	MP1B	Z	33.653	1
3	MP1B	Mx	-0.024	1
4	MP1B	X	-58.288	5
5	MP1B	Z	33.653	5
6	MP1B	Mx	-0.024	5
7	MP1C	X	-99.941	1
8	MP1C	Z	57.701	1
9	MP1C	Mx	0	1
10	MP1C	X	-99.941	5
11	MP1C	Z	57.701	5
12	MP1C	Mx	0	5
13	MP2A	X	-58.288	1
14	MP2A	Z	33.653	1



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
15	MP2A	Mx	0.024	1
16	MP2A	X	-58.288	5
17	MP2A	Z	33.653	5
18	MP2A	Mx	0.024	5
19	MP3B	X	-187.448	0.5
20	MP3B	Z	108.223	0.5
21	MP3B	Mx	-0.141	0.5
22	MP3B	X	-187.448	7.5
23	MP3B	Z	108.223	7.5
24	MP3B	Mx	-0.141	7.5
25	MP3C	X	-326.787	0.5
26	MP3C	Z	188.671	0.5
27	MP3C	Mx	0	0.5
28	MP3C	X	-326.787	7.5
29	MP3C	Z	188.671	7.5
30	MP3C	Mx	0	7.5
31	MP4A	X	-187.448	0.5
32	MP4A	Z	108.223	0.5
33	MP4A	Mx	0.141	0.5
34	MP4A	X	-187.448	7.5
35	MP4A	Z	108.223	7.5
36	MP4A	Mx	0.141	7.5
37	MP2B	X	-60.35	2.48
38	MP2B	Z	34.843	2.48
39	MP2B	Mx	-0.045	2.48
40	MP2B	X	-60.35	5.51
41	MP2B	Z	34.843	5.51
42	MP2B	Mx	-0.045	5.51
43	MP2C	X	-102.04	2.48
44	MP2C	Z	58.913	2.48
45	MP2C	Mx	0	2.48
46	MP2C	X	-102.04	5.51
47	MP2C	Z	58.913	5.51
48	MP2C	Mx	0	5.51
49	MP3A	X	-60.35	2.48
50	MP3A	Z	34.843	2.48
51	MP3A	Mx	0.045	2.48
52	MP3A	X	-60.35	5.51
53	MP3A	Z	34.843	5.51
54	MP3A	Mx	0.045	5.51
55	MP3B	X	-19.312	2
56	MP3B	Z	11.15	2
57	MP3B	Mx	0.008	2
58	MP3C	X	-37.781	2
59	MP3C	Z	21.813	2
60	MP3C	Mx	0	2
61	MP4A	X	-19.312	2
62	MP4A	Z	11.15	2
63	MP4A	Mx	-0.008	2
64	MP1B	X	-15.174	2
65	MP1B	Z	8.761	2
66	MP1B	Mx	0.004	2
67	MP1C	X	-26.479	2
68	MP1C	Z	15.288	2
69	MP1C	Mx	0	2
70	MP2A	X	-15.174	2
71	MP2A	Z	8.761	2
72	MP2A	Mx	-0.004	2
73	MP1B	X	-58.104	3
74	MP1B	Z	33.546	3
75	MP1B	Mx	0.048	3



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
76	MP1C	X	-69.103	3
77	MP1C	Z	39.897	3
78	MP1C	Mx	0	3
79	MP2A	X	-58.104	3
80	MP2A	Z	33.546	3
81	MP2A	Mx	-0.048	3
82	MP3B	X	-48.582	4
83	MP3B	Z	28.049	4
84	MP3B	Mx	0.032	4
85	MP3C	X	-77.822	4
86	MP3C	Z	44.93	4
87	MP3C	Mx	0	4
88	MP4A	X	-48.582	4
89	MP4A	Z	28.049	4
90	MP4A	Mx	-0.032	4
91	MP3B	X	-3.089	6
92	MP3B	Z	1.783	6
93	MP3B	Mx	0.000515	6
94	MP3C	X	-4.198	6
95	MP3C	Z	2.424	6
96	MP3C	Mx	0	6
97	MP4A	X	-3.089	6
98	MP4A	Z	1.783	6
99	MP4A	Mx	-0.000515	6
100	MP1A	X	-234.673	2
101	MP1A	Z	135.489	2
102	MP1A	Mx	-0.141	2
103	MP1A	X	-16.538	2
104	MP1A	Z	9.548	2
105	MP1A	Mx	-0.025	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-99.37	1
2	MP1B	Z	0	1
3	MP1B	Mx	-0.021	1
4	MP1B	X	-99.37	5
5	MP1B	Z	0	5
6	MP1B	Mx	-0.021	5
7	MP1C	X	-99.37	1
8	MP1C	Z	0	1
9	MP1C	Mx	-0.021	1
10	MP1C	X	-99.37	5
11	MP1C	Z	0	5
12	MP1C	Mx	-0.021	5
13	MP2A	X	-51.273	1
14	MP2A	Z	0	1
15	MP2A	Mx	0.021	1
16	MP2A	X	-51.273	5
17	MP2A	Z	0	5
18	MP2A	Mx	0.021	5
19	MP3B	X	-323.71	0.5
20	MP3B	Z	0	0.5
21	MP3B	Mx	-0.121	0.5
22	MP3B	X	-323.71	7.5
23	MP3B	Z	0	7.5
24	MP3B	Mx	-0.121	7.5
25	MP3C	X	-323.71	0.5
26	MP3C	Z	0	0.5
27	MP3C	Mx	-0.121	0.5
28	MP3C	X	-323.71	7.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
29	MP3C	Z	0	7.5
30	MP3C	Mx	-0.121	7.5
31	MP4A	X	-162.814	0.5
32	MP4A	Z	0	0.5
33	MP4A	Mx	0.122	0.5
34	MP4A	X	-162.814	7.5
35	MP4A	Z	0	7.5
36	MP4A	Mx	0.122	7.5
37	MP2B	X	-101.779	2.48
38	MP2B	Z	0	2.48
39	MP2B	Mx	-0.038	2.48
40	MP2B	X	-101.779	5.51
41	MP2B	Z	0	5.51
42	MP2B	Mx	-0.038	5.51
43	MP2C	X	-101.779	2.48
44	MP2C	Z	0	2.48
45	MP2C	Mx	-0.038	2.48
46	MP2C	X	-101.779	5.51
47	MP2C	Z	0	5.51
48	MP2C	Mx	-0.038	5.51
49	MP3A	X	-53.639	2.48
50	MP3A	Z	0	2.48
51	MP3A	Mx	0.04	2.48
52	MP3A	X	-53.639	5.51
53	MP3A	Z	0	5.51
54	MP3A	Mx	0.04	5.51
55	MP3B	X	-36.517	2
56	MP3B	Z	0	2
57	MP3B	Mx	0.008	2
58	MP3C	X	-36.517	2
59	MP3C	Z	0	2
60	MP3C	Mx	0.008	2
61	MP4A	X	-15.191	2
62	MP4A	Z	0	2
63	MP4A	Mx	-0.006	2
64	MP1B	X	-26.224	2
65	MP1B	Z	0	2
66	MP1B	Mx	0.003	2
67	MP1C	X	-26.224	2
68	MP1C	Z	0	2
69	MP1C	Mx	0.003	2
70	MP2A	X	-13.17	2
71	MP2A	Z	0	2
72	MP2A	Mx	-0.003	2
73	MP1B	X	-75.56	3
74	MP1B	Z	0	3
75	MP1B	Mx	0.031	3
76	MP1C	X	-75.56	3
77	MP1C	Z	0	3
78	MP1C	Mx	0.031	3
79	MP2A	X	-62.859	3
80	MP2A	Z	0	3
81	MP2A	Mx	-0.052	3
82	MP3B	X	-78.607	4
83	MP3B	Z	0	4
84	MP3B	Mx	0.026	4
85	MP3C	X	-78.607	4
86	MP3C	Z	0	4
87	MP3C	Mx	0.026	4
88	MP4A	X	-44.843	4
89	MP4A	Z	0	4



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
90	MP4A	Mx	-0.03	4
91	MP3B	X	-4.42	6
92	MP3B	Z	0	6
93	MP3B	Mx	0.000368	6
94	MP3C	X	-4.42	6
95	MP3C	Z	0	6
96	MP3C	Mx	0.000368	6
97	MP4A	X	-3.139	6
98	MP4A	Z	0	6
99	MP4A	Mx	-0.000523	6
100	MP1A	X	-368.533	2
101	MP1A	Z	0	2
102	MP1A	Mx	-0.441	2
103	MP1A	X	-35.09	2
104	MP1A	Z	0	2
105	MP1A	Mx	-0.055	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-99.941	1
2	MP1B	Z	-57.701	1
3	MP1B	Mx	0	1
4	MP1B	X	-99.941	5
5	MP1B	Z	-57.701	5
6	MP1B	Mx	0	5
7	MP1C	X	-58.288	1
8	MP1C	Z	-33.653	1
9	MP1C	Mx	-0.024	1
10	MP1C	X	-58.288	5
11	MP1C	Z	-33.653	5
12	MP1C	Mx	-0.024	5
13	MP2A	X	-58.288	1
14	MP2A	Z	-33.653	1
15	MP2A	Mx	0.024	1
16	MP2A	X	-58.288	5
17	MP2A	Z	-33.653	5
18	MP2A	Mx	0.024	5
19	MP3B	X	-326.787	0.5
20	MP3B	Z	-188.671	0.5
21	MP3B	Mx	0	0.5
22	MP3B	X	-326.787	7.5
23	MP3B	Z	-188.671	7.5
24	MP3B	Mx	0	7.5
25	MP3C	X	-187.448	0.5
26	MP3C	Z	-108.223	0.5
27	MP3C	Mx	-0.141	0.5
28	MP3C	X	-187.448	7.5
29	MP3C	Z	-108.223	7.5
30	MP3C	Mx	-0.141	7.5
31	MP4A	X	-187.448	0.5
32	MP4A	Z	-108.223	0.5
33	MP4A	Mx	0.141	0.5
34	MP4A	X	-187.448	7.5
35	MP4A	Z	-108.223	7.5
36	MP4A	Mx	0.141	7.5
37	MP2B	X	-102.04	2.48
38	MP2B	Z	-58.913	2.48
39	MP2B	Mx	0	2.48
40	MP2B	X	-102.04	5.51
41	MP2B	Z	-58.913	5.51
42	MP2B	Mx	0	5.51



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
43	MP2C	X	-60.35	2.48
44	MP2C	Z	-34.843	2.48
45	MP2C	Mx	-0.045	2.48
46	MP2C	X	-60.35	5.51
47	MP2C	Z	-34.843	5.51
48	MP2C	Mx	-0.045	5.51
49	MP3A	X	-60.35	2.48
50	MP3A	Z	-34.843	2.48
51	MP3A	Mx	0.045	2.48
52	MP3A	X	-60.35	5.51
53	MP3A	Z	-34.843	5.51
54	MP3A	Mx	0.045	5.51
55	MP3B	X	-37.781	2
56	MP3B	Z	-21.813	2
57	MP3B	Mx	0	2
58	MP3C	X	-19.312	2
59	MP3C	Z	-11.15	2
60	MP3C	Mx	0.008	2
61	MP4A	X	-19.312	2
62	MP4A	Z	-11.15	2
63	MP4A	Mx	-0.008	2
64	MP1B	X	-26.479	2
65	MP1B	Z	-15.288	2
66	MP1B	Mx	0	2
67	MP1C	X	-15.174	2
68	MP1C	Z	-8.761	2
69	MP1C	Mx	0.004	2
70	MP2A	X	-15.174	2
71	MP2A	Z	-8.761	2
72	MP2A	Mx	-0.004	2
73	MP1B	X	-69.103	3
74	MP1B	Z	-39.897	3
75	MP1B	Mx	0	3
76	MP1C	X	-58.104	3
77	MP1C	Z	-33.546	3
78	MP1C	Mx	0.048	3
79	MP2A	X	-58.104	3
80	MP2A	Z	-33.546	3
81	MP2A	Mx	-0.048	3
82	MP3B	X	-77.822	4
83	MP3B	Z	-44.93	4
84	MP3B	Mx	0	4
85	MP3C	X	-48.582	4
86	MP3C	Z	-28.049	4
87	MP3C	Mx	0.032	4
88	MP4A	X	-48.582	4
89	MP4A	Z	-28.049	4
90	MP4A	Mx	-0.032	4
91	MP3B	X	-4.198	6
92	MP3B	Z	-2.424	6
93	MP3B	Mx	0	6
94	MP3C	X	-3.089	6
95	MP3C	Z	-1.783	6
96	MP3C	Mx	0.000515	6
97	MP4A	X	-3.089	6
98	MP4A	Z	-1.783	6
99	MP4A	Mx	-0.000515	6
100	MP1A	X	-341.468	2
101	MP1A	Z	-197.147	2
102	MP1A	Mx	-0.612	2
103	MP1A	X	-34.047	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
104	MP1A	Z	-19.657	2
105	MP1A	Mx	-0.056	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-49.685	1
2	MP1B	Z	-86.057	1
3	MP1B	Mx	0.021	1
4	MP1B	X	-49.685	5
5	MP1B	Z	-86.057	5
6	MP1B	Mx	0.021	5
7	MP1C	X	-25.636	1
8	MP1C	Z	-44.403	1
9	MP1C	Mx	-0.021	1
10	MP1C	X	-25.636	5
11	MP1C	Z	-44.403	5
12	MP1C	Mx	-0.021	5
13	MP2A	X	-49.685	1
14	MP2A	Z	-86.057	1
15	MP2A	Mx	0.021	1
16	MP2A	X	-49.685	5
17	MP2A	Z	-86.057	5
18	MP2A	Mx	0.021	5
19	MP3B	X	-161.855	0.5
20	MP3B	Z	-280.341	0.5
21	MP3B	Mx	0.121	0.5
22	MP3B	X	-161.855	7.5
23	MP3B	Z	-280.341	7.5
24	MP3B	Mx	0.121	7.5
25	MP3C	X	-81.407	0.5
26	MP3C	Z	-141.001	0.5
27	MP3C	Mx	-0.122	0.5
28	MP3C	X	-81.407	7.5
29	MP3C	Z	-141.001	7.5
30	MP3C	Mx	-0.122	7.5
31	MP4A	X	-161.855	0.5
32	MP4A	Z	-280.341	0.5
33	MP4A	Mx	0.121	0.5
34	MP4A	X	-161.855	7.5
35	MP4A	Z	-280.341	7.5
36	MP4A	Mx	0.121	7.5
37	MP2B	X	-50.89	2.48
38	MP2B	Z	-88.143	2.48
39	MP2B	Mx	0.038	2.48
40	MP2B	X	-50.89	5.51
41	MP2B	Z	-88.143	5.51
42	MP2B	Mx	0.038	5.51
43	MP2C	X	-26.819	2.48
44	MP2C	Z	-46.453	2.48
45	MP2C	Mx	-0.04	2.48
46	MP2C	X	-26.819	5.51
47	MP2C	Z	-46.453	5.51
48	MP2C	Mx	-0.04	5.51
49	MP3A	X	-50.89	2.48
50	MP3A	Z	-88.143	2.48
51	MP3A	Mx	0.038	2.48
52	MP3A	X	-50.89	5.51
53	MP3A	Z	-88.143	5.51
54	MP3A	Mx	0.038	5.51
55	MP3B	X	-18.258	2
56	MP3B	Z	-31.624	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
57	MP3B	Mx	-0.008	2
58	MP3C	X	-7.595	2
59	MP3C	Z	-13.156	2
60	MP3C	Mx	0.006	2
61	MP4A	X	-18.258	2
62	MP4A	Z	-31.624	2
63	MP4A	Mx	-0.008	2
64	MP1B	X	-13.112	2
65	MP1B	Z	-22.711	2
66	MP1B	Mx	-0.003	2
67	MP1C	X	-6.585	2
68	MP1C	Z	-11.406	2
69	MP1C	Mx	0.003	2
70	MP2A	X	-13.112	2
71	MP2A	Z	-22.711	2
72	MP2A	Mx	-0.003	2
73	MP1B	X	-37.78	3
74	MP1B	Z	-65.437	3
75	MP1B	Mx	-0.031	3
76	MP1C	X	-31.43	3
77	MP1C	Z	-54.438	3
78	MP1C	Mx	0.052	3
79	MP2A	X	-37.78	3
80	MP2A	Z	-65.437	3
81	MP2A	Mx	-0.031	3
82	MP3B	X	-39.303	4
83	MP3B	Z	-68.075	4
84	MP3B	Mx	-0.026	4
85	MP3C	X	-22.422	4
86	MP3C	Z	-38.836	4
87	MP3C	Mx	0.03	4
88	MP4A	X	-39.303	4
89	MP4A	Z	-68.075	4
90	MP4A	Mx	-0.026	4
91	MP3B	X	-2.21	6
92	MP3B	Z	-3.828	6
93	MP3B	Mx	-0.000368	6
94	MP3C	X	-1.57	6
95	MP3C	Z	-2.719	6
96	MP3C	Mx	0.000523	6
97	MP4A	X	-2.21	6
98	MP4A	Z	-3.828	6
99	MP4A	Mx	-0.000368	6
100	MP1A	X	-161.249	2
101	MP1A	Z	-279.291	2
102	MP1A	Mx	-0.482	2
103	MP1A	X	-13.772	2
104	MP1A	Z	-23.853	2
105	MP1A	Mx	-0.024	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	0	1
2	MP1B	Z	-13.396	1
3	MP1B	Mx	0.005	1
4	MP1B	X	0	5
5	MP1B	Z	-13.396	5
6	MP1B	Mx	0.005	5
7	MP1C	X	0	1
8	MP1C	Z	-13.396	1
9	MP1C	Mx	-0.005	1



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
10	MP1C	X	0	5
11	MP1C	Z	-13.396	5
12	MP1C	Mx	-0.005	5
13	MP2A	X	0	1
14	MP2A	Z	-21.305	1
15	MP2A	Mx	0	1
16	MP2A	X	0	5
17	MP2A	Z	-21.305	5
18	MP2A	Mx	0	5
19	MP3B	X	0	0.5
20	MP3B	Z	-40.908	0.5
21	MP3B	Mx	0.027	0.5
22	MP3B	X	0	7.5
23	MP3B	Z	-40.908	7.5
24	MP3B	Mx	0.027	7.5
25	MP3C	X	0	0.5
26	MP3C	Z	-40.908	0.5
27	MP3C	Mx	-0.027	0.5
28	MP3C	X	0	7.5
29	MP3C	Z	-40.908	7.5
30	MP3C	Mx	-0.027	7.5
31	MP4A	X	0	0.5
32	MP4A	Z	-69.322	0.5
33	MP4A	Mx	0	0.5
34	MP4A	X	0	7.5
35	MP4A	Z	-69.322	7.5
36	MP4A	Mx	0	7.5
37	MP2B	X	0	2.48
38	MP2B	Z	-13.733	2.48
39	MP2B	Mx	0.009	2.48
40	MP2B	X	0	5.51
41	MP2B	Z	-13.733	5.51
42	MP2B	Mx	0.009	5.51
43	MP2C	X	0	2.48
44	MP2C	Z	-13.733	2.48
45	MP2C	Mx	-0.009	2.48
46	MP2C	X	0	5.51
47	MP2C	Z	-13.733	5.51
48	MP2C	Mx	-0.009	5.51
49	MP3A	X	0	2.48
50	MP3A	Z	-22.513	2.48
51	MP3A	Mx	0	2.48
52	MP3A	X	0	5.51
53	MP3A	Z	-22.513	5.51
54	MP3A	Mx	0	5.51
55	MP3B	X	0	2
56	MP3B	Z	-4.92	2
57	MP3B	Mx	-0.002	2
58	MP3C	X	0	2
59	MP3C	Z	-4.92	2
60	MP3C	Mx	0.002	2
61	MP4A	X	0	2
62	MP4A	Z	-8.143	2
63	MP4A	Mx	0	2
64	MP1B	X	0	2
65	MP1B	Z	-4.111	2
66	MP1B	Mx	-0.00089	2
67	MP1C	X	0	2
68	MP1C	Z	-4.111	2
69	MP1C	Mx	0.00089	2
70	MP2A	X	0	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
71	MP2A	Z	-6.061	2
72	MP2A	Mx	0	2
73	MP1B	X	0	3
74	MP1B	Z	-13.848	3
75	MP1B	Mx	-0.01	3
76	MP1C	X	0	3
77	MP1C	Z	-13.848	3
78	MP1C	Mx	0.01	3
79	MP2A	X	0	3
80	MP2A	Z	-16.214	3
81	MP2A	Mx	0	3
82	MP3B	X	0	4
83	MP3B	Z	-11.861	4
84	MP3B	Mx	-0.007	4
85	MP3C	X	0	4
86	MP3C	Z	-11.861	4
87	MP3C	Mx	0.007	4
88	MP4A	X	0	4
89	MP4A	Z	-18.158	4
90	MP4A	Mx	0	4
91	MP3B	X	0	6
92	MP3B	Z	-1.317	6
93	MP3B	Mx	-0.00019	6
94	MP3C	X	0	6
95	MP3C	Z	-1.317	6
96	MP3C	Mx	0.00019	6
97	MP4A	X	0	6
98	MP4A	Z	-1.701	6
99	MP4A	Mx	0	6
100	MP1A	X	0	2
101	MP1A	Z	-45.32	2
102	MP1A	Mx	-0.047	2
103	MP1A	X	0	2
104	MP1A	Z	-2.323	2
105	MP1A	Mx	-0.000253	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	5.38	1
2	MP1B	Z	-9.318	1
3	MP1B	Mx	0.004	1
4	MP1B	X	5.38	5
5	MP1B	Z	-9.318	5
6	MP1B	Mx	0.004	5
7	MP1C	X	9.334	1
8	MP1C	Z	-16.167	1
9	MP1C	Mx	-0.004	1
10	MP1C	X	9.334	5
11	MP1C	Z	-16.167	5
12	MP1C	Mx	-0.004	5
13	MP2A	X	9.334	1
14	MP2A	Z	-16.167	1
15	MP2A	Mx	-0.004	1
16	MP2A	X	9.334	5
17	MP2A	Z	-16.167	5
18	MP2A	Mx	-0.004	5
19	MP3B	X	15.718	0.5
20	MP3B	Z	-27.224	0.5
21	MP3B	Mx	0.024	0.5
22	MP3B	X	15.718	7.5
23	MP3B	Z	-27.224	7.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
24	MP3B	Mx	0.024	7.5
25	MP3C	X	29.925	0.5
26	MP3C	Z	-51.832	0.5
27	MP3C	Mx	-0.022	0.5
28	MP3C	X	29.925	7.5
29	MP3C	Z	-51.832	7.5
30	MP3C	Mx	-0.022	7.5
31	MP4A	X	29.925	0.5
32	MP4A	Z	-51.832	0.5
33	MP4A	Mx	-0.022	0.5
34	MP4A	X	29.925	7.5
35	MP4A	Z	-51.832	7.5
36	MP4A	Mx	-0.022	7.5
37	MP2B	X	5.403	2.48
38	MP2B	Z	-9.358	2.48
39	MP2B	Mx	0.008	2.48
40	MP2B	X	5.403	5.51
41	MP2B	Z	-9.358	5.51
42	MP2B	Mx	0.008	5.51
43	MP2C	X	9.793	2.48
44	MP2C	Z	-16.962	2.48
45	MP2C	Mx	-0.007	2.48
46	MP2C	X	9.793	5.51
47	MP2C	Z	-16.962	5.51
48	MP2C	Mx	-0.007	5.51
49	MP3A	X	9.793	2.48
50	MP3A	Z	-16.962	2.48
51	MP3A	Mx	-0.007	2.48
52	MP3A	X	9.793	5.51
53	MP3A	Z	-16.962	5.51
54	MP3A	Mx	-0.007	5.51
55	MP3B	X	1.922	2
56	MP3B	Z	-3.33	2
57	MP3B	Mx	-0.002	2
58	MP3C	X	3.534	2
59	MP3C	Z	-6.122	2
60	MP3C	Mx	0.001	2
61	MP4A	X	3.534	2
62	MP4A	Z	-6.122	2
63	MP4A	Mx	0.001	2
64	MP1B	X	1.731	2
65	MP1B	Z	-2.997	2
66	MP1B	Mx	-0.000865	2
67	MP1C	X	2.706	2
68	MP1C	Z	-4.686	2
69	MP1C	Mx	0.000676	2
70	MP2A	X	2.706	2
71	MP2A	Z	-4.686	2
72	MP2A	Mx	0.000677	2
73	MP1B	X	6.529	3
74	MP1B	Z	-11.309	3
75	MP1B	Mx	-0.011	3
76	MP1C	X	7.713	3
77	MP1C	Z	-13.359	3
78	MP1C	Mx	0.006	3
79	MP2A	X	7.713	3
80	MP2A	Z	-13.359	3
81	MP2A	Mx	0.006	3
82	MP3B	X	4.881	4
83	MP3B	Z	-8.454	4
84	MP3B	Mx	-0.007	4



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
85	MP3C	X	8.03	4
86	MP3C	Z	-13.908	4
87	MP3C	Mx	0.005	4
88	MP4A	X	8.03	4
89	MP4A	Z	-13.908	4
90	MP4A	Mx	0.005	4
91	MP3B	X	0.595	6
92	MP3B	Z	-1.03	6
93	MP3B	Mx	-0.000198	6
94	MP3C	X	0.787	6
95	MP3C	Z	-1.362	6
96	MP3C	Mx	0.000131	6
97	MP4A	X	0.787	6
98	MP4A	Z	-1.362	6
99	MP4A	Mx	0.000131	6
100	MP1A	X	19.414	2
101	MP1A	Z	-33.626	2
102	MP1A	Mx	-0.012	2
103	MP1A	X	1.028	2
104	MP1A	Z	-1.781	2
105	MP1A	Mx	0.001	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	11.601	1
2	MP1B	Z	-6.698	1
3	MP1B	Mx	0.005	1
4	MP1B	X	11.601	5
5	MP1B	Z	-6.698	5
6	MP1B	Mx	0.005	5
7	MP1C	X	18.45	1
8	MP1C	Z	-10.652	1
9	MP1C	Mx	0	1
10	MP1C	X	18.45	5
11	MP1C	Z	-10.652	5
12	MP1C	Mx	0	5
13	MP2A	X	11.601	1
14	MP2A	Z	-6.698	1
15	MP2A	Mx	-0.005	1
16	MP2A	X	11.601	5
17	MP2A	Z	-6.698	5
18	MP2A	Mx	-0.005	5
19	MP3B	X	35.427	0.5
20	MP3B	Z	-20.454	0.5
21	MP3B	Mx	0.027	0.5
22	MP3B	X	35.427	7.5
23	MP3B	Z	-20.454	7.5
24	MP3B	Mx	0.027	7.5
25	MP3C	X	60.035	0.5
26	MP3C	Z	-34.661	0.5
27	MP3C	Mx	0	0.5
28	MP3C	X	60.035	7.5
29	MP3C	Z	-34.661	7.5
30	MP3C	Mx	0	7.5
31	MP4A	X	35.427	0.5
32	MP4A	Z	-20.454	0.5
33	MP4A	Mx	-0.027	0.5
34	MP4A	X	35.427	7.5
35	MP4A	Z	-20.454	7.5
36	MP4A	Mx	-0.027	7.5
37	MP2B	X	11.893	2.48



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
38	MP2B	Z	-6.866	2.48
39	MP2B	Mx	0.009	2.48
40	MP2B	X	11.893	5.51
41	MP2B	Z	-6.866	5.51
42	MP2B	Mx	0.009	5.51
43	MP2C	X	19.497	2.48
44	MP2C	Z	-11.256	2.48
45	MP2C	Mx	0	2.48
46	MP2C	X	19.497	5.51
47	MP2C	Z	-11.256	5.51
48	MP2C	Mx	0	5.51
49	MP3A	X	11.893	2.48
50	MP3A	Z	-6.866	2.48
51	MP3A	Mx	-0.009	2.48
52	MP3A	X	11.893	5.51
53	MP3A	Z	-6.866	5.51
54	MP3A	Mx	-0.009	5.51
55	MP3B	X	4.26	2
56	MP3B	Z	-2.46	2
57	MP3B	Mx	-0.002	2
58	MP3C	X	7.052	2
59	MP3C	Z	-4.072	2
60	MP3C	Mx	0	2
61	MP4A	X	4.26	2
62	MP4A	Z	-2.46	2
63	MP4A	Mx	0.002	2
64	MP1B	X	3.56	2
65	MP1B	Z	-2.056	2
66	MP1B	Mx	-0.00089	2
67	MP1C	X	5.249	2
68	MP1C	Z	-3.031	2
69	MP1C	Mx	0	2
70	MP2A	X	3.56	2
71	MP2A	Z	-2.056	2
72	MP2A	Mx	0.00089	2
73	MP1B	X	11.993	3
74	MP1B	Z	-6.924	3
75	MP1B	Mx	-0.01	3
76	MP1C	X	14.042	3
77	MP1C	Z	-8.107	3
78	MP1C	Mx	0	3
79	MP2A	X	11.993	3
80	MP2A	Z	-6.924	3
81	MP2A	Mx	0.01	3
82	MP3B	X	10.272	4
83	MP3B	Z	-5.931	4
84	MP3B	Mx	-0.007	4
85	MP3C	X	15.726	4
86	MP3C	Z	-9.079	4
87	MP3C	Mx	0	4
88	MP4A	X	10.272	4
89	MP4A	Z	-5.931	4
90	MP4A	Mx	0.007	4
91	MP3B	X	1.141	6
92	MP3B	Z	-0.659	6
93	MP3B	Mx	-0.00019	6
94	MP3C	X	1.473	6
95	MP3C	Z	-0.851	6
96	MP3C	Mx	0	6
97	MP4A	X	1.141	6
98	MP4A	Z	-0.659	6



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
99	MP4A	Mx	0.00019	6
100	MP1A	X	49.295	2
101	MP1A	Z	-28.461	2
102	MP1A	Mx	0.03	2
103	MP1A	X	2.426	2
104	MP1A	Z	-1.401	2
105	MP1A	Mx	0.004	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	18.668	1
2	MP1B	Z	0	1
3	MP1B	Mx	0.004	1
4	MP1B	X	18.668	5
5	MP1B	Z	0	5
6	MP1B	Mx	0.004	5
7	MP1C	X	18.668	1
8	MP1C	Z	0	1
9	MP1C	Mx	0.004	1
10	MP1C	X	18.668	5
11	MP1C	Z	0	5
12	MP1C	Mx	0.004	5
13	MP2A	X	10.76	1
14	MP2A	Z	0	1
15	MP2A	Mx	-0.004	1
16	MP2A	X	10.76	5
17	MP2A	Z	0	5
18	MP2A	Mx	-0.004	5
19	MP3B	X	59.851	0.5
20	MP3B	Z	0	0.5
21	MP3B	Mx	0.022	0.5
22	MP3B	X	59.851	7.5
23	MP3B	Z	0	7.5
24	MP3B	Mx	0.022	7.5
25	MP3C	X	59.851	0.5
26	MP3C	Z	0	0.5
27	MP3C	Mx	0.022	0.5
28	MP3C	X	59.851	7.5
29	MP3C	Z	0	7.5
30	MP3C	Mx	0.022	7.5
31	MP4A	X	31.436	0.5
32	MP4A	Z	0	0.5
33	MP4A	Mx	-0.024	0.5
34	MP4A	X	31.436	7.5
35	MP4A	Z	0	7.5
36	MP4A	Mx	-0.024	7.5
37	MP2B	X	19.586	2.48
38	MP2B	Z	0	2.48
39	MP2B	Mx	0.007	2.48
40	MP2B	X	19.586	5.51
41	MP2B	Z	0	5.51
42	MP2B	Mx	0.007	5.51
43	MP2C	X	19.586	2.48
44	MP2C	Z	0	2.48
45	MP2C	Mx	0.007	2.48
46	MP2C	X	19.586	5.51
47	MP2C	Z	0	5.51
48	MP2C	Mx	0.007	5.51
49	MP3A	X	10.806	2.48
50	MP3A	Z	0	2.48
51	MP3A	Mx	-0.008	2.48



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
52	MP3A	X	10.806	5.51
53	MP3A	Z	0	5.51
54	MP3A	Mx	-0.008	5.51
55	MP3B	X	7.069	2
56	MP3B	Z	0	2
57	MP3B	Mx	-0.001	2
58	MP3C	X	7.069	2
59	MP3C	Z	0	2
60	MP3C	Mx	-0.001	2
61	MP4A	X	3.845	2
62	MP4A	Z	0	2
63	MP4A	Mx	0.002	2
64	MP1B	X	5.411	2
65	MP1B	Z	0	2
66	MP1B	Mx	-0.000676	2
67	MP1C	X	5.411	2
68	MP1C	Z	0	2
69	MP1C	Mx	-0.000676	2
70	MP2A	X	3.461	2
71	MP2A	Z	0	2
72	MP2A	Mx	0.000865	2
73	MP1B	X	15.426	3
74	MP1B	Z	0	3
75	MP1B	Mx	-0.006	3
76	MP1C	X	15.426	3
77	MP1C	Z	0	3
78	MP1C	Mx	-0.006	3
79	MP2A	X	13.059	3
80	MP2A	Z	0	3
81	MP2A	Mx	0.011	3
82	MP3B	X	16.059	4
83	MP3B	Z	0	4
84	MP3B	Mx	-0.005	4
85	MP3C	X	16.059	4
86	MP3C	Z	0	4
87	MP3C	Mx	-0.005	4
88	MP4A	X	9.762	4
89	MP4A	Z	0	4
90	MP4A	Mx	0.007	4
91	MP3B	X	1.573	6
92	MP3B	Z	0	6
93	MP3B	Mx	-0.000131	6
94	MP3C	X	1.573	6
95	MP3C	Z	0	6
96	MP3C	Mx	-0.000131	6
97	MP4A	X	1.189	6
98	MP4A	Z	0	6
99	MP4A	Mx	0.000198	6
100	MP1A	X	81.506	2
101	MP1A	Z	0	2
102	MP1A	Mx	0.098	2
103	MP1A	X	3.814	2
104	MP1A	Z	0	2
105	MP1A	Mx	0.006	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	18.45	1
2	MP1B	Z	10.652	1
3	MP1B	Mx	0	1
4	MP1B	X	18.45	5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
5	MP1B	Z	10.652	5
6	MP1B	Mx	0	5
7	MP1C	X	11.601	1
8	MP1C	Z	6.698	1
9	MP1C	Mx	0.005	1
10	MP1C	X	11.601	5
11	MP1C	Z	6.698	5
12	MP1C	Mx	0.005	5
13	MP2A	X	11.601	1
14	MP2A	Z	6.698	1
15	MP2A	Mx	-0.005	1
16	MP2A	X	11.601	5
17	MP2A	Z	6.698	5
18	MP2A	Mx	-0.005	5
19	MP3B	X	60.035	0.5
20	MP3B	Z	34.661	0.5
21	MP3B	Mx	0	0.5
22	MP3B	X	60.035	7.5
23	MP3B	Z	34.661	7.5
24	MP3B	Mx	0	7.5
25	MP3C	X	35.427	0.5
26	MP3C	Z	20.454	0.5
27	MP3C	Mx	0.027	0.5
28	MP3C	X	35.427	7.5
29	MP3C	Z	20.454	7.5
30	MP3C	Mx	0.027	7.5
31	MP4A	X	35.427	0.5
32	MP4A	Z	20.454	0.5
33	MP4A	Mx	-0.027	0.5
34	MP4A	X	35.427	7.5
35	MP4A	Z	20.454	7.5
36	MP4A	Mx	-0.027	7.5
37	MP2B	X	19.497	2.48
38	MP2B	Z	11.256	2.48
39	MP2B	Mx	0	2.48
40	MP2B	X	19.497	5.51
41	MP2B	Z	11.256	5.51
42	MP2B	Mx	0	5.51
43	MP2C	X	11.893	2.48
44	MP2C	Z	6.866	2.48
45	MP2C	Mx	0.009	2.48
46	MP2C	X	11.893	5.51
47	MP2C	Z	6.866	5.51
48	MP2C	Mx	0.009	5.51
49	MP3A	X	11.893	2.48
50	MP3A	Z	6.866	2.48
51	MP3A	Mx	-0.009	2.48
52	MP3A	X	11.893	5.51
53	MP3A	Z	6.866	5.51
54	MP3A	Mx	-0.009	5.51
55	MP3B	X	7.052	2
56	MP3B	Z	4.072	2
57	MP3B	Mx	0	2
58	MP3C	X	4.26	2
59	MP3C	Z	2.46	2
60	MP3C	Mx	-0.002	2
61	MP4A	X	4.26	2
62	MP4A	Z	2.46	2
63	MP4A	Mx	0.002	2
64	MP1B	X	5.249	2
65	MP1B	Z	3.031	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
66	MP1B	Mx	0	2
67	MP1C	X	3.56	2
68	MP1C	Z	2.056	2
69	MP1C	Mx	-0.00089	2
70	MP2A	X	3.56	2
71	MP2A	Z	2.056	2
72	MP2A	Mx	0.00089	2
73	MP1B	X	14.042	3
74	MP1B	Z	8.107	3
75	MP1B	Mx	0	3
76	MP1C	X	11.993	3
77	MP1C	Z	6.924	3
78	MP1C	Mx	-0.01	3
79	MP2A	X	11.993	3
80	MP2A	Z	6.924	3
81	MP2A	Mx	0.01	3
82	MP3B	X	15.726	4
83	MP3B	Z	9.079	4
84	MP3B	Mx	0	4
85	MP3C	X	10.272	4
86	MP3C	Z	5.931	4
87	MP3C	Mx	-0.007	4
88	MP4A	X	10.272	4
89	MP4A	Z	5.931	4
90	MP4A	Mx	0.007	4
91	MP3B	X	1.473	6
92	MP3B	Z	0.851	6
93	MP3B	Mx	0	6
94	MP3C	X	1.141	6
95	MP3C	Z	0.659	6
96	MP3C	Mx	-0.00019	6
97	MP4A	X	1.141	6
98	MP4A	Z	0.659	6
99	MP4A	Mx	0.00019	6
100	MP1A	X	76.208	2
101	MP1A	Z	43.999	2
102	MP1A	Mx	0.137	2
103	MP1A	X	3.535	2
104	MP1A	Z	2.041	2
105	MP1A	Mx	0.006	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	9.334	1
2	MP1B	Z	16.167	1
3	MP1B	Mx	-0.004	1
4	MP1B	X	9.334	5
5	MP1B	Z	16.167	5
6	MP1B	Mx	-0.004	5
7	MP1C	X	5.38	1
8	MP1C	Z	9.318	1
9	MP1C	Mx	0.004	1
10	MP1C	X	5.38	5
11	MP1C	Z	9.318	5
12	MP1C	Mx	0.004	5
13	MP2A	X	9.334	1
14	MP2A	Z	16.167	1
15	MP2A	Mx	-0.004	1
16	MP2A	X	9.334	5
17	MP2A	Z	16.167	5
18	MP2A	Mx	-0.004	5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
19	MP3B	X	29.925	0.5
20	MP3B	Z	51.832	0.5
21	MP3B	Mx	-0.022	0.5
22	MP3B	X	29.925	7.5
23	MP3B	Z	51.832	7.5
24	MP3B	Mx	-0.022	7.5
25	MP3C	X	15.718	0.5
26	MP3C	Z	27.224	0.5
27	MP3C	Mx	0.024	0.5
28	MP3C	X	15.718	7.5
29	MP3C	Z	27.224	7.5
30	MP3C	Mx	0.024	7.5
31	MP4A	X	29.925	0.5
32	MP4A	Z	51.832	0.5
33	MP4A	Mx	-0.022	0.5
34	MP4A	X	29.925	7.5
35	MP4A	Z	51.832	7.5
36	MP4A	Mx	-0.022	7.5
37	MP2B	X	9.793	2.48
38	MP2B	Z	16.962	2.48
39	MP2B	Mx	-0.007	2.48
40	MP2B	X	9.793	5.51
41	MP2B	Z	16.962	5.51
42	MP2B	Mx	-0.007	5.51
43	MP2C	X	5.403	2.48
44	MP2C	Z	9.358	2.48
45	MP2C	Mx	0.008	2.48
46	MP2C	X	5.403	5.51
47	MP2C	Z	9.358	5.51
48	MP2C	Mx	0.008	5.51
49	MP3A	X	9.793	2.48
50	MP3A	Z	16.962	2.48
51	MP3A	Mx	-0.007	2.48
52	MP3A	X	9.793	5.51
53	MP3A	Z	16.962	5.51
54	MP3A	Mx	-0.007	5.51
55	MP3B	X	3.534	2
56	MP3B	Z	6.122	2
57	MP3B	Mx	0.001	2
58	MP3C	X	1.922	2
59	MP3C	Z	3.33	2
60	MP3C	Mx	-0.002	2
61	MP4A	X	3.534	2
62	MP4A	Z	6.122	2
63	MP4A	Mx	0.001	2
64	MP1B	X	2.706	2
65	MP1B	Z	4.686	2
66	MP1B	Mx	0.000676	2
67	MP1C	X	1.731	2
68	MP1C	Z	2.997	2
69	MP1C	Mx	-0.000865	2
70	MP2A	X	2.706	2
71	MP2A	Z	4.686	2
72	MP2A	Mx	0.000677	2
73	MP1B	X	7.713	3
74	MP1B	Z	13.359	3
75	MP1B	Mx	0.006	3
76	MP1C	X	6.529	3
77	MP1C	Z	11.309	3
78	MP1C	Mx	-0.011	3
79	MP2A	X	7.713	3



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
80	MP2A	Z	13.359	3
81	MP2A	Mx	0.006	3
82	MP3B	X	8.03	4
83	MP3B	Z	13.908	4
84	MP3B	Mx	0.005	4
85	MP3C	X	4.881	4
86	MP3C	Z	8.454	4
87	MP3C	Mx	-0.007	4
88	MP4A	X	8.03	4
89	MP4A	Z	13.908	4
90	MP4A	Mx	0.005	4
91	MP3B	X	0.787	6
92	MP3B	Z	1.362	6
93	MP3B	Mx	0.000131	6
94	MP3C	X	0.595	6
95	MP3C	Z	1.03	6
96	MP3C	Mx	-0.000198	6
97	MP4A	X	0.787	6
98	MP4A	Z	1.362	6
99	MP4A	Mx	0.000131	6
100	MP1A	X	34.952	2
101	MP1A	Z	60.539	2
102	MP1A	Mx	0.104	2
103	MP1A	X	1.668	2
104	MP1A	Z	2.889	2
105	MP1A	Mx	0.003	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	0	1
2	MP1B	Z	13.396	1
3	MP1B	Mx	-0.005	1
4	MP1B	X	0	5
5	MP1B	Z	13.396	5
6	MP1B	Mx	-0.005	5
7	MP1C	X	0	1
8	MP1C	Z	13.396	1
9	MP1C	Mx	0.005	1
10	MP1C	X	0	5
11	MP1C	Z	13.396	5
12	MP1C	Mx	0.005	5
13	MP2A	X	0	1
14	MP2A	Z	21.305	1
15	MP2A	Mx	0	1
16	MP2A	X	0	5
17	MP2A	Z	21.305	5
18	MP2A	Mx	0	5
19	MP3B	X	0	0.5
20	MP3B	Z	40.908	0.5
21	MP3B	Mx	-0.027	0.5
22	MP3B	X	0	7.5
23	MP3B	Z	40.908	7.5
24	MP3B	Mx	-0.027	7.5
25	MP3C	X	0	0.5
26	MP3C	Z	40.908	0.5
27	MP3C	Mx	0.027	0.5
28	MP3C	X	0	7.5
29	MP3C	Z	40.908	7.5
30	MP3C	Mx	0.027	7.5
31	MP4A	X	0	0.5
32	MP4A	Z	69.322	0.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
33	MP4A	Mx	0	0.5
34	MP4A	X	0	7.5
35	MP4A	Z	69.322	7.5
36	MP4A	Mx	0	7.5
37	MP2B	X	0	2.48
38	MP2B	Z	13.733	2.48
39	MP2B	Mx	-0.009	2.48
40	MP2B	X	0	5.51
41	MP2B	Z	13.733	5.51
42	MP2B	Mx	-0.009	5.51
43	MP2C	X	0	2.48
44	MP2C	Z	13.733	2.48
45	MP2C	Mx	0.009	2.48
46	MP2C	X	0	5.51
47	MP2C	Z	13.733	5.51
48	MP2C	Mx	0.009	5.51
49	MP3A	X	0	2.48
50	MP3A	Z	22.513	2.48
51	MP3A	Mx	0	2.48
52	MP3A	X	0	5.51
53	MP3A	Z	22.513	5.51
54	MP3A	Mx	0	5.51
55	MP3B	X	0	2
56	MP3B	Z	4.92	2
57	MP3B	Mx	0.002	2
58	MP3C	X	0	2
59	MP3C	Z	4.92	2
60	MP3C	Mx	-0.002	2
61	MP4A	X	0	2
62	MP4A	Z	8.143	2
63	MP4A	Mx	0	2
64	MP1B	X	0	2
65	MP1B	Z	4.111	2
66	MP1B	Mx	0.00089	2
67	MP1C	X	0	2
68	MP1C	Z	4.111	2
69	MP1C	Mx	-0.00089	2
70	MP2A	X	0	2
71	MP2A	Z	6.061	2
72	MP2A	Mx	0	2
73	MP1B	X	0	3
74	MP1B	Z	13.848	3
75	MP1B	Mx	0.01	3
76	MP1C	X	0	3
77	MP1C	Z	13.848	3
78	MP1C	Mx	-0.01	3
79	MP2A	X	0	3
80	MP2A	Z	16.214	3
81	MP2A	Mx	0	3
82	MP3B	X	0	4
83	MP3B	Z	11.861	4
84	MP3B	Mx	0.007	4
85	MP3C	X	0	4
86	MP3C	Z	11.861	4
87	MP3C	Mx	-0.007	4
88	MP4A	X	0	4
89	MP4A	Z	18.158	4
90	MP4A	Mx	0	4
91	MP3B	X	0	6
92	MP3B	Z	1.317	6
93	MP3B	Mx	0.00019	6



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
94	MP3C	X	0	6
95	MP3C	Z	1.317	6
96	MP3C	Mx	-0.00019	6
97	MP4A	X	0	6
98	MP4A	Z	1.701	6
99	MP4A	Mx	0	6
100	MP1A	X	0	2
101	MP1A	Z	45.32	2
102	MP1A	Mx	0.047	2
103	MP1A	X	0	2
104	MP1A	Z	2.323	2
105	MP1A	Mx	0.000253	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-5.38	1
2	MP1B	Z	9.318	1
3	MP1B	Mx	-0.004	1
4	MP1B	X	-5.38	5
5	MP1B	Z	9.318	5
6	MP1B	Mx	-0.004	5
7	MP1C	X	-9.334	1
8	MP1C	Z	16.167	1
9	MP1C	Mx	0.004	1
10	MP1C	X	-9.334	5
11	MP1C	Z	16.167	5
12	MP1C	Mx	0.004	5
13	MP2A	X	-9.334	1
14	MP2A	Z	16.167	1
15	MP2A	Mx	0.004	1
16	MP2A	X	-9.334	5
17	MP2A	Z	16.167	5
18	MP2A	Mx	0.004	5
19	MP3B	X	-15.718	0.5
20	MP3B	Z	27.224	0.5
21	MP3B	Mx	-0.024	0.5
22	MP3B	X	-15.718	7.5
23	MP3B	Z	27.224	7.5
24	MP3B	Mx	-0.024	7.5
25	MP3C	X	-29.925	0.5
26	MP3C	Z	51.832	0.5
27	MP3C	Mx	0.022	0.5
28	MP3C	X	-29.925	7.5
29	MP3C	Z	51.832	7.5
30	MP3C	Mx	0.022	7.5
31	MP4A	X	-29.925	0.5
32	MP4A	Z	51.832	0.5
33	MP4A	Mx	0.022	0.5
34	MP4A	X	-29.925	7.5
35	MP4A	Z	51.832	7.5
36	MP4A	Mx	0.022	7.5
37	MP2B	X	-5.403	2.48
38	MP2B	Z	9.358	2.48
39	MP2B	Mx	-0.008	2.48
40	MP2B	X	-5.403	5.51
41	MP2B	Z	9.358	5.51
42	MP2B	Mx	-0.008	5.51
43	MP2C	X	-9.793	2.48
44	MP2C	Z	16.962	2.48
45	MP2C	Mx	0.007	2.48
46	MP2C	X	-9.793	5.51



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
47	MP2C	Z	16.962	5.51
48	MP2C	Mx	0.007	5.51
49	MP3A	X	-9.793	2.48
50	MP3A	Z	16.962	2.48
51	MP3A	Mx	0.007	2.48
52	MP3A	X	-9.793	5.51
53	MP3A	Z	16.962	5.51
54	MP3A	Mx	0.007	5.51
55	MP3B	X	-1.922	2
56	MP3B	Z	3.33	2
57	MP3B	Mx	0.002	2
58	MP3C	X	-3.534	2
59	MP3C	Z	6.122	2
60	MP3C	Mx	-0.001	2
61	MP4A	X	-3.534	2
62	MP4A	Z	6.122	2
63	MP4A	Mx	-0.001	2
64	MP1B	X	-1.731	2
65	MP1B	Z	2.997	2
66	MP1B	Mx	0.000865	2
67	MP1C	X	-2.706	2
68	MP1C	Z	4.686	2
69	MP1C	Mx	-0.000676	2
70	MP2A	X	-2.706	2
71	MP2A	Z	4.686	2
72	MP2A	Mx	-0.000676	2
73	MP1B	X	-6.529	3
74	MP1B	Z	11.309	3
75	MP1B	Mx	0.011	3
76	MP1C	X	-7.713	3
77	MP1C	Z	13.359	3
78	MP1C	Mx	-0.006	3
79	MP2A	X	-7.713	3
80	MP2A	Z	13.359	3
81	MP2A	Mx	-0.006	3
82	MP3B	X	-4.881	4
83	MP3B	Z	8.454	4
84	MP3B	Mx	0.007	4
85	MP3C	X	-8.03	4
86	MP3C	Z	13.908	4
87	MP3C	Mx	-0.005	4
88	MP4A	X	-8.03	4
89	MP4A	Z	13.908	4
90	MP4A	Mx	-0.005	4
91	MP3B	X	-0.595	6
92	MP3B	Z	1.03	6
93	MP3B	Mx	0.000198	6
94	MP3C	X	-0.787	6
95	MP3C	Z	1.362	6
96	MP3C	Mx	-0.000131	6
97	MP4A	X	-0.787	6
98	MP4A	Z	1.362	6
99	MP4A	Mx	-0.000131	6
100	MP1A	X	-19.414	2
101	MP1A	Z	33.626	2
102	MP1A	Mx	0.012	2
103	MP1A	X	-1.028	2
104	MP1A	Z	1.781	2
105	MP1A	Mx	-0.001	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-11.601	1
2	MP1B	Z	6.698	1
3	MP1B	Mx	-0.005	1
4	MP1B	X	-11.601	5
5	MP1B	Z	6.698	5
6	MP1B	Mx	-0.005	5
7	MP1C	X	-18.45	1
8	MP1C	Z	10.652	1
9	MP1C	Mx	0	1
10	MP1C	X	-18.45	5
11	MP1C	Z	10.652	5
12	MP1C	Mx	0	5
13	MP2A	X	-11.601	1
14	MP2A	Z	6.698	1
15	MP2A	Mx	0.005	1
16	MP2A	X	-11.601	5
17	MP2A	Z	6.698	5
18	MP2A	Mx	0.005	5
19	MP3B	X	-35.427	0.5
20	MP3B	Z	20.454	0.5
21	MP3B	Mx	-0.027	0.5
22	MP3B	X	-35.427	7.5
23	MP3B	Z	20.454	7.5
24	MP3B	Mx	-0.027	7.5
25	MP3C	X	-60.035	0.5
26	MP3C	Z	34.661	0.5
27	MP3C	Mx	0	0.5
28	MP3C	X	-60.035	7.5
29	MP3C	Z	34.661	7.5
30	MP3C	Mx	0	7.5
31	MP4A	X	-35.427	0.5
32	MP4A	Z	20.454	0.5
33	MP4A	Mx	0.027	0.5
34	MP4A	X	-35.427	7.5
35	MP4A	Z	20.454	7.5
36	MP4A	Mx	0.027	7.5
37	MP2B	X	-11.893	2.48
38	MP2B	Z	6.866	2.48
39	MP2B	Mx	-0.009	2.48
40	MP2B	X	-11.893	5.51
41	MP2B	Z	6.866	5.51
42	MP2B	Mx	-0.009	5.51
43	MP2C	X	-19.497	2.48
44	MP2C	Z	11.256	2.48
45	MP2C	Mx	0	2.48
46	MP2C	X	-19.497	5.51
47	MP2C	Z	11.256	5.51
48	MP2C	Mx	0	5.51
49	MP3A	X	-11.893	2.48
50	MP3A	Z	6.866	2.48
51	MP3A	Mx	0.009	2.48
52	MP3A	X	-11.893	5.51
53	MP3A	Z	6.866	5.51
54	MP3A	Mx	0.009	5.51
55	MP3B	X	-4.26	2
56	MP3B	Z	2.46	2
57	MP3B	Mx	0.002	2
58	MP3C	X	-7.052	2
59	MP3C	Z	4.072	2
60	MP3C	Mx	0	2
61	MP4A	X	-4.26	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
62	MP4A	Z	2.46	2
63	MP4A	Mx	-0.002	2
64	MP1B	X	-3.56	2
65	MP1B	Z	2.056	2
66	MP1B	Mx	0.00089	2
67	MP1C	X	-5.249	2
68	MP1C	Z	3.031	2
69	MP1C	Mx	0	2
70	MP2A	X	-3.56	2
71	MP2A	Z	2.056	2
72	MP2A	Mx	-0.00089	2
73	MP1B	X	-11.993	3
74	MP1B	Z	6.924	3
75	MP1B	Mx	0.01	3
76	MP1C	X	-14.042	3
77	MP1C	Z	8.107	3
78	MP1C	Mx	0	3
79	MP2A	X	-11.993	3
80	MP2A	Z	6.924	3
81	MP2A	Mx	-0.01	3
82	MP3B	X	-10.272	4
83	MP3B	Z	5.931	4
84	MP3B	Mx	0.007	4
85	MP3C	X	-15.726	4
86	MP3C	Z	9.079	4
87	MP3C	Mx	0	4
88	MP4A	X	-10.272	4
89	MP4A	Z	5.931	4
90	MP4A	Mx	-0.007	4
91	MP3B	X	-1.141	6
92	MP3B	Z	0.659	6
93	MP3B	Mx	0.00019	6
94	MP3C	X	-1.473	6
95	MP3C	Z	0.851	6
96	MP3C	Mx	0	6
97	MP4A	X	-1.141	6
98	MP4A	Z	0.659	6
99	MP4A	Mx	-0.00019	6
100	MP1A	X	-49.295	2
101	MP1A	Z	28.461	2
102	MP1A	Mx	-0.03	2
103	MP1A	X	-2.426	2
104	MP1A	Z	1.401	2
105	MP1A	Mx	-0.004	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-18.668	1
2	MP1B	Z	0	1
3	MP1B	Mx	-0.004	1
4	MP1B	X	-18.668	5
5	MP1B	Z	0	5
6	MP1B	Mx	-0.004	5
7	MP1C	X	-18.668	1
8	MP1C	Z	0	1
9	MP1C	Mx	-0.004	1
10	MP1C	X	-18.668	5
11	MP1C	Z	0	5
12	MP1C	Mx	-0.004	5
13	MP2A	X	-10.76	1
14	MP2A	Z	0	1



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
15	MP2A	Mx	0.004	1
16	MP2A	X	-10.76	5
17	MP2A	Z	0	5
18	MP2A	Mx	0.004	5
19	MP3B	X	-59.851	0.5
20	MP3B	Z	0	0.5
21	MP3B	Mx	-0.022	0.5
22	MP3B	X	-59.851	7.5
23	MP3B	Z	0	7.5
24	MP3B	Mx	-0.022	7.5
25	MP3C	X	-59.851	0.5
26	MP3C	Z	0	0.5
27	MP3C	Mx	-0.022	0.5
28	MP3C	X	-59.851	7.5
29	MP3C	Z	0	7.5
30	MP3C	Mx	-0.022	7.5
31	MP4A	X	-31.436	0.5
32	MP4A	Z	0	0.5
33	MP4A	Mx	0.024	0.5
34	MP4A	X	-31.436	7.5
35	MP4A	Z	0	7.5
36	MP4A	Mx	0.024	7.5
37	MP2B	X	-19.586	2.48
38	MP2B	Z	0	2.48
39	MP2B	Mx	-0.007	2.48
40	MP2B	X	-19.586	5.51
41	MP2B	Z	0	5.51
42	MP2B	Mx	-0.007	5.51
43	MP2C	X	-19.586	2.48
44	MP2C	Z	0	2.48
45	MP2C	Mx	-0.007	2.48
46	MP2C	X	-19.586	5.51
47	MP2C	Z	0	5.51
48	MP2C	Mx	-0.007	5.51
49	MP3A	X	-10.806	2.48
50	MP3A	Z	0	2.48
51	MP3A	Mx	0.008	2.48
52	MP3A	X	-10.806	5.51
53	MP3A	Z	0	5.51
54	MP3A	Mx	0.008	5.51
55	MP3B	X	-7.069	2
56	MP3B	Z	0	2
57	MP3B	Mx	0.001	2
58	MP3C	X	-7.069	2
59	MP3C	Z	0	2
60	MP3C	Mx	0.001	2
61	MP4A	X	-3.845	2
62	MP4A	Z	0	2
63	MP4A	Mx	-0.002	2
64	MP1B	X	-5.411	2
65	MP1B	Z	0	2
66	MP1B	Mx	0.000676	2
67	MP1C	X	-5.411	2
68	MP1C	Z	0	2
69	MP1C	Mx	0.000676	2
70	MP2A	X	-3.461	2
71	MP2A	Z	0	2
72	MP2A	Mx	-0.000865	2
73	MP1B	X	-15.426	3
74	MP1B	Z	0	3
75	MP1B	Mx	0.006	3



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
76	MP1C	X	-15.426	3
77	MP1C	Z	0	3
78	MP1C	Mx	0.006	3
79	MP2A	X	-13.059	3
80	MP2A	Z	0	3
81	MP2A	Mx	-0.011	3
82	MP3B	X	-16.059	4
83	MP3B	Z	0	4
84	MP3B	Mx	0.005	4
85	MP3C	X	-16.059	4
86	MP3C	Z	0	4
87	MP3C	Mx	0.005	4
88	MP4A	X	-9.762	4
89	MP4A	Z	0	4
90	MP4A	Mx	-0.007	4
91	MP3B	X	-1.573	6
92	MP3B	Z	0	6
93	MP3B	Mx	0.000131	6
94	MP3C	X	-1.573	6
95	MP3C	Z	0	6
96	MP3C	Mx	0.000131	6
97	MP4A	X	-1.189	6
98	MP4A	Z	0	6
99	MP4A	Mx	-0.000198	6
100	MP1A	X	-81.506	2
101	MP1A	Z	0	2
102	MP1A	Mx	-0.098	2
103	MP1A	X	-3.814	2
104	MP1A	Z	0	2
105	MP1A	Mx	-0.006	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-18.45	1
2	MP1B	Z	-10.652	1
3	MP1B	Mx	0	1
4	MP1B	X	-18.45	5
5	MP1B	Z	-10.652	5
6	MP1B	Mx	0	5
7	MP1C	X	-11.601	1
8	MP1C	Z	-6.698	1
9	MP1C	Mx	-0.005	1
10	MP1C	X	-11.601	5
11	MP1C	Z	-6.698	5
12	MP1C	Mx	-0.005	5
13	MP2A	X	-11.601	1
14	MP2A	Z	-6.698	1
15	MP2A	Mx	0.005	1
16	MP2A	X	-11.601	5
17	MP2A	Z	-6.698	5
18	MP2A	Mx	0.005	5
19	MP3B	X	-60.035	0.5
20	MP3B	Z	-34.661	0.5
21	MP3B	Mx	0	0.5
22	MP3B	X	-60.035	7.5
23	MP3B	Z	-34.661	7.5
24	MP3B	Mx	0	7.5
25	MP3C	X	-35.427	0.5
26	MP3C	Z	-20.454	0.5
27	MP3C	Mx	-0.027	0.5
28	MP3C	X	-35.427	7.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
29	MP3C	Z	-20.454	7.5
30	MP3C	Mx	-0.027	7.5
31	MP4A	X	-35.427	0.5
32	MP4A	Z	-20.454	0.5
33	MP4A	Mx	0.027	0.5
34	MP4A	X	-35.427	7.5
35	MP4A	Z	-20.454	7.5
36	MP4A	Mx	0.027	7.5
37	MP2B	X	-19.497	2.48
38	MP2B	Z	-11.256	2.48
39	MP2B	Mx	0	2.48
40	MP2B	X	-19.497	5.51
41	MP2B	Z	-11.256	5.51
42	MP2B	Mx	0	5.51
43	MP2C	X	-11.893	2.48
44	MP2C	Z	-6.866	2.48
45	MP2C	Mx	-0.009	2.48
46	MP2C	X	-11.893	5.51
47	MP2C	Z	-6.866	5.51
48	MP2C	Mx	-0.009	5.51
49	MP3A	X	-11.893	2.48
50	MP3A	Z	-6.866	2.48
51	MP3A	Mx	0.009	2.48
52	MP3A	X	-11.893	5.51
53	MP3A	Z	-6.866	5.51
54	MP3A	Mx	0.009	5.51
55	MP3B	X	-7.052	2
56	MP3B	Z	-4.072	2
57	MP3B	Mx	0	2
58	MP3C	X	-4.26	2
59	MP3C	Z	-2.46	2
60	MP3C	Mx	0.002	2
61	MP4A	X	-4.26	2
62	MP4A	Z	-2.46	2
63	MP4A	Mx	-0.002	2
64	MP1B	X	-5.249	2
65	MP1B	Z	-3.031	2
66	MP1B	Mx	0	2
67	MP1C	X	-3.56	2
68	MP1C	Z	-2.056	2
69	MP1C	Mx	0.00089	2
70	MP2A	X	-3.56	2
71	MP2A	Z	-2.056	2
72	MP2A	Mx	-0.00089	2
73	MP1B	X	-14.042	3
74	MP1B	Z	-8.107	3
75	MP1B	Mx	0	3
76	MP1C	X	-11.993	3
77	MP1C	Z	-6.924	3
78	MP1C	Mx	0.01	3
79	MP2A	X	-11.993	3
80	MP2A	Z	-6.924	3
81	MP2A	Mx	-0.01	3
82	MP3B	X	-15.726	4
83	MP3B	Z	-9.079	4
84	MP3B	Mx	0	4
85	MP3C	X	-10.272	4
86	MP3C	Z	-5.931	4
87	MP3C	Mx	0.007	4
88	MP4A	X	-10.272	4
89	MP4A	Z	-5.931	4



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
90	MP4A	Mx	-0.007	4
91	MP3B	X	-1.473	6
92	MP3B	Z	-0.851	6
93	MP3B	Mx	0	6
94	MP3C	X	-1.141	6
95	MP3C	Z	-0.659	6
96	MP3C	Mx	0.00019	6
97	MP4A	X	-1.141	6
98	MP4A	Z	-0.659	6
99	MP4A	Mx	-0.00019	6
100	MP1A	X	-76.208	2
101	MP1A	Z	-43.999	2
102	MP1A	Mx	-0.137	2
103	MP1A	X	-3.535	2
104	MP1A	Z	-2.041	2
105	MP1A	Mx	-0.006	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-9.334	1
2	MP1B	Z	-16.167	1
3	MP1B	Mx	0.004	1
4	MP1B	X	-9.334	5
5	MP1B	Z	-16.167	5
6	MP1B	Mx	0.004	5
7	MP1C	X	-5.38	1
8	MP1C	Z	-9.318	1
9	MP1C	Mx	-0.004	1
10	MP1C	X	-5.38	5
11	MP1C	Z	-9.318	5
12	MP1C	Mx	-0.004	5
13	MP2A	X	-9.334	1
14	MP2A	Z	-16.167	1
15	MP2A	Mx	0.004	1
16	MP2A	X	-9.334	5
17	MP2A	Z	-16.167	5
18	MP2A	Mx	0.004	5
19	MP3B	X	-29.925	0.5
20	MP3B	Z	-51.832	0.5
21	MP3B	Mx	0.022	0.5
22	MP3B	X	-29.925	7.5
23	MP3B	Z	-51.832	7.5
24	MP3B	Mx	0.022	7.5
25	MP3C	X	-15.718	0.5
26	MP3C	Z	-27.224	0.5
27	MP3C	Mx	-0.024	0.5
28	MP3C	X	-15.718	7.5
29	MP3C	Z	-27.224	7.5
30	MP3C	Mx	-0.024	7.5
31	MP4A	X	-29.925	0.5
32	MP4A	Z	-51.832	0.5
33	MP4A	Mx	0.022	0.5
34	MP4A	X	-29.925	7.5
35	MP4A	Z	-51.832	7.5
36	MP4A	Mx	0.022	7.5
37	MP2B	X	-9.793	2.48
38	MP2B	Z	-16.962	2.48
39	MP2B	Mx	0.007	2.48
40	MP2B	X	-9.793	5.51
41	MP2B	Z	-16.962	5.51
42	MP2B	Mx	0.007	5.51



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
43	MP2C	X	-5.403	2.48
44	MP2C	Z	-9.358	2.48
45	MP2C	Mx	-0.008	2.48
46	MP2C	X	-5.403	5.51
47	MP2C	Z	-9.358	5.51
48	MP2C	Mx	-0.008	5.51
49	MP3A	X	-9.793	2.48
50	MP3A	Z	-16.962	2.48
51	MP3A	Mx	0.007	2.48
52	MP3A	X	-9.793	5.51
53	MP3A	Z	-16.962	5.51
54	MP3A	Mx	0.007	5.51
55	MP3B	X	-3.534	2
56	MP3B	Z	-6.122	2
57	MP3B	Mx	-0.001	2
58	MP3C	X	-1.922	2
59	MP3C	Z	-3.33	2
60	MP3C	Mx	0.002	2
61	MP4A	X	-3.534	2
62	MP4A	Z	-6.122	2
63	MP4A	Mx	-0.001	2
64	MP1B	X	-2.706	2
65	MP1B	Z	-4.686	2
66	MP1B	Mx	-0.000676	2
67	MP1C	X	-1.731	2
68	MP1C	Z	-2.997	2
69	MP1C	Mx	0.000865	2
70	MP2A	X	-2.706	2
71	MP2A	Z	-4.686	2
72	MP2A	Mx	-0.000676	2
73	MP1B	X	-7.713	3
74	MP1B	Z	-13.359	3
75	MP1B	Mx	-0.006	3
76	MP1C	X	-6.529	3
77	MP1C	Z	-11.309	3
78	MP1C	Mx	0.011	3
79	MP2A	X	-7.713	3
80	MP2A	Z	-13.359	3
81	MP2A	Mx	-0.006	3
82	MP3B	X	-8.03	4
83	MP3B	Z	-13.908	4
84	MP3B	Mx	-0.005	4
85	MP3C	X	-4.881	4
86	MP3C	Z	-8.454	4
87	MP3C	Mx	0.007	4
88	MP4A	X	-8.03	4
89	MP4A	Z	-13.908	4
90	MP4A	Mx	-0.005	4
91	MP3B	X	-0.787	6
92	MP3B	Z	-1.362	6
93	MP3B	Mx	-0.000131	6
94	MP3C	X	-0.595	6
95	MP3C	Z	-1.03	6
96	MP3C	Mx	0.000198	6
97	MP4A	X	-0.787	6
98	MP4A	Z	-1.362	6
99	MP4A	Mx	-0.000131	6
100	MP1A	X	-34.952	2
101	MP1A	Z	-60.539	2
102	MP1A	Mx	-0.104	2
103	MP1A	X	-1.668	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
104	MP1A	Z	-2.889	2
105	MP1A	Mx	-0.003	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	0	1
2	MP1B	Z	-4.207	1
3	MP1B	Mx	0.002	1
4	MP1B	X	0	5
5	MP1B	Z	-4.207	5
6	MP1B	Mx	0.002	5
7	MP1C	X	0	1
8	MP1C	Z	-4.207	1
9	MP1C	Mx	-0.002	1
10	MP1C	X	0	5
11	MP1C	Z	-4.207	5
12	MP1C	Mx	-0.002	5
13	MP2A	X	0	1
14	MP2A	Z	-7.213	1
15	MP2A	Mx	0	1
16	MP2A	X	0	5
17	MP2A	Z	-7.213	5
18	MP2A	Mx	0	5
19	MP3B	X	0	0.5
20	MP3B	Z	-13.528	0.5
21	MP3B	Mx	0.009	0.5
22	MP3B	X	0	7.5
23	MP3B	Z	-13.528	7.5
24	MP3B	Mx	0.009	7.5
25	MP3C	X	0	0.5
26	MP3C	Z	-13.528	0.5
27	MP3C	Mx	-0.009	0.5
28	MP3C	X	0	7.5
29	MP3C	Z	-13.528	7.5
30	MP3C	Mx	-0.009	7.5
31	MP4A	X	0	0.5
32	MP4A	Z	-23.584	0.5
33	MP4A	Mx	0	0.5
34	MP4A	X	0	7.5
35	MP4A	Z	-23.584	7.5
36	MP4A	Mx	0	7.5
37	MP2B	X	0	2.48
38	MP2B	Z	-4.355	2.48
39	MP2B	Mx	0.003	2.48
40	MP2B	X	0	5.51
41	MP2B	Z	-4.355	5.51
42	MP2B	Mx	0.003	5.51
43	MP2C	X	0	2.48
44	MP2C	Z	-4.355	2.48
45	MP2C	Mx	-0.003	2.48
46	MP2C	X	0	5.51
47	MP2C	Z	-4.355	5.51
48	MP2C	Mx	-0.003	5.51
49	MP3A	X	0	2.48
50	MP3A	Z	-7.364	2.48
51	MP3A	Mx	0	2.48
52	MP3A	X	0	5.51
53	MP3A	Z	-7.364	5.51
54	MP3A	Mx	0	5.51
55	MP3B	X	0	2
56	MP3B	Z	-1.394	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
57	MP3B	Mx	-0.000503	2
58	MP3C	X	0	2
59	MP3C	Z	-1.394	2
60	MP3C	Mx	0.000503	2
61	MP4A	X	0	2
62	MP4A	Z	-2.727	2
63	MP4A	Mx	0	2
64	MP1B	X	0	2
65	MP1B	Z	-1.095	2
66	MP1B	Mx	-0.000237	2
67	MP1C	X	0	2
68	MP1C	Z	-1.095	2
69	MP1C	Mx	0.000237	2
70	MP2A	X	0	2
71	MP2A	Z	-1.911	2
72	MP2A	Mx	0	2
73	MP1B	X	0	3
74	MP1B	Z	-4.193	3
75	MP1B	Mx	-0.003	3
76	MP1C	X	0	3
77	MP1C	Z	-4.193	3
78	MP1C	Mx	0.003	3
79	MP2A	X	0	3
80	MP2A	Z	-4.987	3
81	MP2A	Mx	0	3
82	MP3B	X	0	4
83	MP3B	Z	-3.506	4
84	MP3B	Mx	-0.002	4
85	MP3C	X	0	4
86	MP3C	Z	-3.506	4
87	MP3C	Mx	0.002	4
88	MP4A	X	0	4
89	MP4A	Z	-5.616	4
90	MP4A	Mx	0	4
91	MP3B	X	0	6
92	MP3B	Z	-0.223	6
93	MP3B	Mx	-3.2e-5	6
94	MP3C	X	0	6
95	MP3C	Z	-0.223	6
96	MP3C	Mx	3.2e-5	6
97	MP4A	X	0	6
98	MP4A	Z	-0.303	6
99	MP4A	Mx	0	6
100	MP1A	X	0	2
101	MP1A	Z	-14.059	2
102	MP1A	Mx	-0.015	2
103	MP1A	X	0	2
104	MP1A	Z	-0.722	2
105	MP1A	Mx	-7.9e-5	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	1.602	1
2	MP1B	Z	-2.775	1
3	MP1B	Mx	0.001	1
4	MP1B	X	1.602	5
5	MP1B	Z	-2.775	5
6	MP1B	Mx	0.001	5
7	MP1C	X	3.105	1
8	MP1C	Z	-5.379	1
9	MP1C	Mx	-0.001	1



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
10	MP1C	X	3.105	5
11	MP1C	Z	-5.379	5
12	MP1C	Mx	-0.001	5
13	MP2A	X	3.105	1
14	MP2A	Z	-5.379	1
15	MP2A	Mx	-0.001	1
16	MP2A	X	3.105	5
17	MP2A	Z	-5.379	5
18	MP2A	Mx	-0.001	5
19	MP3B	X	5.088	0.5
20	MP3B	Z	-8.813	0.5
21	MP3B	Mx	0.008	0.5
22	MP3B	X	5.088	7.5
23	MP3B	Z	-8.813	7.5
24	MP3B	Mx	0.008	7.5
25	MP3C	X	10.116	0.5
26	MP3C	Z	-17.521	0.5
27	MP3C	Mx	-0.008	0.5
28	MP3C	X	10.116	7.5
29	MP3C	Z	-17.521	7.5
30	MP3C	Mx	-0.008	7.5
31	MP4A	X	10.116	0.5
32	MP4A	Z	-17.521	0.5
33	MP4A	Mx	-0.008	0.5
34	MP4A	X	10.116	7.5
35	MP4A	Z	-17.521	7.5
36	MP4A	Mx	-0.008	7.5
37	MP2B	X	1.676	2.48
38	MP2B	Z	-2.903	2.48
39	MP2B	Mx	0.003	2.48
40	MP2B	X	1.676	5.51
41	MP2B	Z	-2.903	5.51
42	MP2B	Mx	0.003	5.51
43	MP2C	X	3.181	2.48
44	MP2C	Z	-5.509	2.48
45	MP2C	Mx	-0.002	2.48
46	MP2C	X	3.181	5.51
47	MP2C	Z	-5.509	5.51
48	MP2C	Mx	-0.002	5.51
49	MP3A	X	3.181	2.48
50	MP3A	Z	-5.509	2.48
51	MP3A	Mx	-0.002	2.48
52	MP3A	X	3.181	5.51
53	MP3A	Z	-5.509	5.51
54	MP3A	Mx	-0.002	5.51
55	MP3B	X	0.475	2
56	MP3B	Z	-0.822	2
57	MP3B	Mx	-0.000396	2
58	MP3C	X	1.141	2
59	MP3C	Z	-1.977	2
60	MP3C	Mx	0.000476	2
61	MP4A	X	1.141	2
62	MP4A	Z	-1.977	2
63	MP4A	Mx	0.000475	2
64	MP1B	X	0.412	2
65	MP1B	Z	-0.713	2
66	MP1B	Mx	-0.000206	2
67	MP1C	X	0.819	2
68	MP1C	Z	-1.419	2
69	MP1C	Mx	0.000205	2
70	MP2A	X	0.819	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
71	MP2A	Z	-1.419	2
72	MP2A	Mx	0.000205	2
73	MP1B	X	1.964	3
74	MP1B	Z	-3.402	3
75	MP1B	Mx	-0.003	3
76	MP1C	X	2.361	3
77	MP1C	Z	-4.09	3
78	MP1C	Mx	0.002	3
79	MP2A	X	2.361	3
80	MP2A	Z	-4.09	3
81	MP2A	Mx	0.002	3
82	MP3B	X	1.401	4
83	MP3B	Z	-2.427	4
84	MP3B	Mx	-0.002	4
85	MP3C	X	2.456	4
86	MP3C	Z	-4.255	4
87	MP3C	Mx	0.002	4
88	MP4A	X	2.456	4
89	MP4A	Z	-4.255	4
90	MP4A	Mx	0.002	4
91	MP3B	X	0.098	6
92	MP3B	Z	-0.17	6
93	MP3B	Mx	-3.3e-5	6
94	MP3C	X	0.138	6
95	MP3C	Z	-0.239	6
96	MP3C	Mx	2.3e-5	6
97	MP4A	X	0.138	6
98	MP4A	Z	-0.239	6
99	MP4A	Mx	2.3e-5	6
100	MP1A	X	6.224	2
101	MP1A	Z	-10.781	2
102	MP1A	Mx	-0.004	2
103	MP1A	X	0.229	2
104	MP1A	Z	-0.397	2
105	MP1A	Mx	0.000318	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	3.643	1
2	MP1B	Z	-2.103	1
3	MP1B	Mx	0.002	1
4	MP1B	X	3.643	5
5	MP1B	Z	-2.103	5
6	MP1B	Mx	0.002	5
7	MP1C	X	6.246	1
8	MP1C	Z	-3.606	1
9	MP1C	Mx	0	1
10	MP1C	X	6.246	5
11	MP1C	Z	-3.606	5
12	MP1C	Mx	0	5
13	MP2A	X	3.643	1
14	MP2A	Z	-2.103	1
15	MP2A	Mx	-0.002	1
16	MP2A	X	3.643	5
17	MP2A	Z	-2.103	5
18	MP2A	Mx	-0.002	5
19	MP3B	X	11.715	0.5
20	MP3B	Z	-6.764	0.5
21	MP3B	Mx	0.009	0.5
22	MP3B	X	11.715	7.5
23	MP3B	Z	-6.764	7.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
24	MP3B	Mx	0.009	7.5
25	MP3C	X	20.424	0.5
26	MP3C	Z	-11.792	0.5
27	MP3C	Mx	0	0.5
28	MP3C	X	20.424	7.5
29	MP3C	Z	-11.792	7.5
30	MP3C	Mx	0	7.5
31	MP4A	X	11.715	0.5
32	MP4A	Z	-6.764	0.5
33	MP4A	Mx	-0.009	0.5
34	MP4A	X	11.715	7.5
35	MP4A	Z	-6.764	7.5
36	MP4A	Mx	-0.009	7.5
37	MP2B	X	3.772	2.48
38	MP2B	Z	-2.178	2.48
39	MP2B	Mx	0.003	2.48
40	MP2B	X	3.772	5.51
41	MP2B	Z	-2.178	5.51
42	MP2B	Mx	0.003	5.51
43	MP2C	X	6.378	2.48
44	MP2C	Z	-3.682	2.48
45	MP2C	Mx	0	2.48
46	MP2C	X	6.378	5.51
47	MP2C	Z	-3.682	5.51
48	MP2C	Mx	0	5.51
49	MP3A	X	3.772	2.48
50	MP3A	Z	-2.178	2.48
51	MP3A	Mx	-0.003	2.48
52	MP3A	X	3.772	5.51
53	MP3A	Z	-2.178	5.51
54	MP3A	Mx	-0.003	5.51
55	MP3B	X	1.207	2
56	MP3B	Z	-0.697	2
57	MP3B	Mx	-0.000503	2
58	MP3C	X	2.361	2
59	MP3C	Z	-1.363	2
60	MP3C	Mx	0	2
61	MP4A	X	1.207	2
62	MP4A	Z	-0.697	2
63	MP4A	Mx	0.000503	2
64	MP1B	X	0.948	2
65	MP1B	Z	-0.548	2
66	MP1B	Mx	-0.000237	2
67	MP1C	X	1.655	2
68	MP1C	Z	-0.955	2
69	MP1C	Mx	0	2
70	MP2A	X	0.948	2
71	MP2A	Z	-0.548	2
72	MP2A	Mx	0.000237	2
73	MP1B	X	3.632	3
74	MP1B	Z	-2.097	3
75	MP1B	Mx	-0.003	3
76	MP1C	X	4.319	3
77	MP1C	Z	-2.494	3
78	MP1C	Mx	0	3
79	MP2A	X	3.632	3
80	MP2A	Z	-2.097	3
81	MP2A	Mx	0.003	3
82	MP3B	X	3.036	4
83	MP3B	Z	-1.753	4
84	MP3B	Mx	-0.002	4



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
85	MP3C	X	4.864	4
86	MP3C	Z	-2.808	4
87	MP3C	Mx	0	4
88	MP4A	X	3.036	4
89	MP4A	Z	-1.753	4
90	MP4A	Mx	0.002	4
91	MP3B	X	0.193	6
92	MP3B	Z	-0.111	6
93	MP3B	Mx	-3.2e-5	6
94	MP3C	X	0.262	6
95	MP3C	Z	-0.151	6
96	MP3C	Mx	0	6
97	MP4A	X	0.193	6
98	MP4A	Z	-0.111	6
99	MP4A	Mx	3.2e-5	6
100	MP1A	X	14.667	2
101	MP1A	Z	-8.468	2
102	MP1A	Mx	0.009	2
103	MP1A	X	1.034	2
104	MP1A	Z	-0.597	2
105	MP1A	Mx	0.002	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	6.211	1
2	MP1B	Z	0	1
3	MP1B	Mx	0.001	1
4	MP1B	X	6.211	5
5	MP1B	Z	0	5
6	MP1B	Mx	0.001	5
7	MP1C	X	6.211	1
8	MP1C	Z	0	1
9	MP1C	Mx	0.001	1
10	MP1C	X	6.211	5
11	MP1C	Z	0	5
12	MP1C	Mx	0.001	5
13	MP2A	X	3.205	1
14	MP2A	Z	0	1
15	MP2A	Mx	-0.001	1
16	MP2A	X	3.205	5
17	MP2A	Z	0	5
18	MP2A	Mx	-0.001	5
19	MP3B	X	20.232	0.5
20	MP3B	Z	0	0.5
21	MP3B	Mx	0.008	0.5
22	MP3B	X	20.232	7.5
23	MP3B	Z	0	7.5
24	MP3B	Mx	0.008	7.5
25	MP3C	X	20.232	0.5
26	MP3C	Z	0	0.5
27	MP3C	Mx	0.008	0.5
28	MP3C	X	20.232	7.5
29	MP3C	Z	0	7.5
30	MP3C	Mx	0.008	7.5
31	MP4A	X	10.176	0.5
32	MP4A	Z	0	0.5
33	MP4A	Mx	-0.008	0.5
34	MP4A	X	10.176	7.5
35	MP4A	Z	0	7.5
36	MP4A	Mx	-0.008	7.5
37	MP2B	X	6.361	2.48



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
38	MP2B	Z	0	2.48
39	MP2B	Mx	0.002	2.48
40	MP2B	X	6.361	5.51
41	MP2B	Z	0	5.51
42	MP2B	Mx	0.002	5.51
43	MP2C	X	6.361	2.48
44	MP2C	Z	0	2.48
45	MP2C	Mx	0.002	2.48
46	MP2C	X	6.361	5.51
47	MP2C	Z	0	5.51
48	MP2C	Mx	0.002	5.51
49	MP3A	X	3.352	2.48
50	MP3A	Z	0	2.48
51	MP3A	Mx	-0.003	2.48
52	MP3A	X	3.352	5.51
53	MP3A	Z	0	5.51
54	MP3A	Mx	-0.003	5.51
55	MP3B	X	2.282	2
56	MP3B	Z	0	2
57	MP3B	Mx	-0.000475	2
58	MP3C	X	2.282	2
59	MP3C	Z	0	2
60	MP3C	Mx	-0.000475	2
61	MP4A	X	0.949	2
62	MP4A	Z	0	2
63	MP4A	Mx	0.000395	2
64	MP1B	X	1.639	2
65	MP1B	Z	0	2
66	MP1B	Mx	-0.000205	2
67	MP1C	X	1.639	2
68	MP1C	Z	0	2
69	MP1C	Mx	-0.000205	2
70	MP2A	X	0.823	2
71	MP2A	Z	0	2
72	MP2A	Mx	0.000206	2
73	MP1B	X	4.722	3
74	MP1B	Z	0	3
75	MP1B	Mx	-0.002	3
76	MP1C	X	4.722	3
77	MP1C	Z	0	3
78	MP1C	Mx	-0.002	3
79	MP2A	X	3.929	3
80	MP2A	Z	0	3
81	MP2A	Mx	0.003	3
82	MP3B	X	4.913	4
83	MP3B	Z	0	4
84	MP3B	Mx	-0.002	4
85	MP3C	X	4.913	4
86	MP3C	Z	0	4
87	MP3C	Mx	-0.002	4
88	MP4A	X	2.803	4
89	MP4A	Z	0	4
90	MP4A	Mx	0.002	4
91	MP3B	X	0.276	6
92	MP3B	Z	0	6
93	MP3B	Mx	-2.3e-5	6
94	MP3C	X	0.276	6
95	MP3C	Z	0	6
96	MP3C	Mx	-2.3e-5	6
97	MP4A	X	0.196	6
98	MP4A	Z	0	6



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
99	MP4A	Mx	3.3e-5	6
100	MP1A	X	23.033	2
101	MP1A	Z	0	2
102	MP1A	Mx	0.028	2
103	MP1A	X	2.193	2
104	MP1A	Z	0	2
105	MP1A	Mx	0.003	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	6.246	1
2	MP1B	Z	3.606	1
3	MP1B	Mx	0	1
4	MP1B	X	6.246	5
5	MP1B	Z	3.606	5
6	MP1B	Mx	0	5
7	MP1C	X	3.643	1
8	MP1C	Z	2.103	1
9	MP1C	Mx	0.002	1
10	MP1C	X	3.643	5
11	MP1C	Z	2.103	5
12	MP1C	Mx	0.002	5
13	MP2A	X	3.643	1
14	MP2A	Z	2.103	1
15	MP2A	Mx	-0.002	1
16	MP2A	X	3.643	5
17	MP2A	Z	2.103	5
18	MP2A	Mx	-0.002	5
19	MP3B	X	20.424	0.5
20	MP3B	Z	11.792	0.5
21	MP3B	Mx	0	0.5
22	MP3B	X	20.424	7.5
23	MP3B	Z	11.792	7.5
24	MP3B	Mx	0	7.5
25	MP3C	X	11.715	0.5
26	MP3C	Z	6.764	0.5
27	MP3C	Mx	0.009	0.5
28	MP3C	X	11.715	7.5
29	MP3C	Z	6.764	7.5
30	MP3C	Mx	0.009	7.5
31	MP4A	X	11.715	0.5
32	MP4A	Z	6.764	0.5
33	MP4A	Mx	-0.009	0.5
34	MP4A	X	11.715	7.5
35	MP4A	Z	6.764	7.5
36	MP4A	Mx	-0.009	7.5
37	MP2B	X	6.378	2.48
38	MP2B	Z	3.682	2.48
39	MP2B	Mx	0	2.48
40	MP2B	X	6.378	5.51
41	MP2B	Z	3.682	5.51
42	MP2B	Mx	0	5.51
43	MP2C	X	3.772	2.48
44	MP2C	Z	2.178	2.48
45	MP2C	Mx	0.003	2.48
46	MP2C	X	3.772	5.51
47	MP2C	Z	2.178	5.51
48	MP2C	Mx	0.003	5.51
49	MP3A	X	3.772	2.48
50	MP3A	Z	2.178	2.48
51	MP3A	Mx	-0.003	2.48



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
52	MP3A	X	3.772	5.51
53	MP3A	Z	2.178	5.51
54	MP3A	Mx	-0.003	5.51
55	MP3B	X	2.361	2
56	MP3B	Z	1.363	2
57	MP3B	Mx	0	2
58	MP3C	X	1.207	2
59	MP3C	Z	0.697	2
60	MP3C	Mx	-0.000503	2
61	MP4A	X	1.207	2
62	MP4A	Z	0.697	2
63	MP4A	Mx	0.000503	2
64	MP1B	X	1.655	2
65	MP1B	Z	0.955	2
66	MP1B	Mx	0	2
67	MP1C	X	0.948	2
68	MP1C	Z	0.548	2
69	MP1C	Mx	-0.000237	2
70	MP2A	X	0.948	2
71	MP2A	Z	0.548	2
72	MP2A	Mx	0.000237	2
73	MP1B	X	4.319	3
74	MP1B	Z	2.494	3
75	MP1B	Mx	0	3
76	MP1C	X	3.632	3
77	MP1C	Z	2.097	3
78	MP1C	Mx	-0.003	3
79	MP2A	X	3.632	3
80	MP2A	Z	2.097	3
81	MP2A	Mx	0.003	3
82	MP3B	X	4.864	4
83	MP3B	Z	2.808	4
84	MP3B	Mx	0	4
85	MP3C	X	3.036	4
86	MP3C	Z	1.753	4
87	MP3C	Mx	-0.002	4
88	MP4A	X	3.036	4
89	MP4A	Z	1.753	4
90	MP4A	Mx	0.002	4
91	MP3B	X	0.262	6
92	MP3B	Z	0.151	6
93	MP3B	Mx	0	6
94	MP3C	X	0.193	6
95	MP3C	Z	0.111	6
96	MP3C	Mx	-3.2e-5	6
97	MP4A	X	0.193	6
98	MP4A	Z	0.111	6
99	MP4A	Mx	3.2e-5	6
100	MP1A	X	21.342	2
101	MP1A	Z	12.322	2
102	MP1A	Mx	0.038	2
103	MP1A	X	2.128	2
104	MP1A	Z	1.229	2
105	MP1A	Mx	0.003	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	3.105	1
2	MP1B	Z	5.379	1
3	MP1B	Mx	-0.001	1
4	MP1B	X	3.105	5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
5	MP1B	Z	5.379	5
6	MP1B	Mx	-0.001	5
7	MP1C	X	1.602	1
8	MP1C	Z	2.775	1
9	MP1C	Mx	0.001	1
10	MP1C	X	1.602	5
11	MP1C	Z	2.775	5
12	MP1C	Mx	0.001	5
13	MP2A	X	3.105	1
14	MP2A	Z	5.379	1
15	MP2A	Mx	-0.001	1
16	MP2A	X	3.105	5
17	MP2A	Z	5.379	5
18	MP2A	Mx	-0.001	5
19	MP3B	X	10.116	0.5
20	MP3B	Z	17.521	0.5
21	MP3B	Mx	-0.008	0.5
22	MP3B	X	10.116	7.5
23	MP3B	Z	17.521	7.5
24	MP3B	Mx	-0.008	7.5
25	MP3C	X	5.088	0.5
26	MP3C	Z	8.813	0.5
27	MP3C	Mx	0.008	0.5
28	MP3C	X	5.088	7.5
29	MP3C	Z	8.813	7.5
30	MP3C	Mx	0.008	7.5
31	MP4A	X	10.116	0.5
32	MP4A	Z	17.521	0.5
33	MP4A	Mx	-0.008	0.5
34	MP4A	X	10.116	7.5
35	MP4A	Z	17.521	7.5
36	MP4A	Mx	-0.008	7.5
37	MP2B	X	3.181	2.48
38	MP2B	Z	5.509	2.48
39	MP2B	Mx	-0.002	2.48
40	MP2B	X	3.181	5.51
41	MP2B	Z	5.509	5.51
42	MP2B	Mx	-0.002	5.51
43	MP2C	X	1.676	2.48
44	MP2C	Z	2.903	2.48
45	MP2C	Mx	0.003	2.48
46	MP2C	X	1.676	5.51
47	MP2C	Z	2.903	5.51
48	MP2C	Mx	0.003	5.51
49	MP3A	X	3.181	2.48
50	MP3A	Z	5.509	2.48
51	MP3A	Mx	-0.002	2.48
52	MP3A	X	3.181	5.51
53	MP3A	Z	5.509	5.51
54	MP3A	Mx	-0.002	5.51
55	MP3B	X	1.141	2
56	MP3B	Z	1.977	2
57	MP3B	Mx	0.000476	2
58	MP3C	X	0.475	2
59	MP3C	Z	0.822	2
60	MP3C	Mx	-0.000396	2
61	MP4A	X	1.141	2
62	MP4A	Z	1.977	2
63	MP4A	Mx	0.000475	2
64	MP1B	X	0.819	2
65	MP1B	Z	1.419	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
66	MP1B	Mx	0.000205	2
67	MP1C	X	0.412	2
68	MP1C	Z	0.713	2
69	MP1C	Mx	-0.000206	2
70	MP2A	X	0.819	2
71	MP2A	Z	1.419	2
72	MP2A	Mx	0.000205	2
73	MP1B	X	2.361	3
74	MP1B	Z	4.09	3
75	MP1B	Mx	0.002	3
76	MP1C	X	1.964	3
77	MP1C	Z	3.402	3
78	MP1C	Mx	-0.003	3
79	MP2A	X	2.361	3
80	MP2A	Z	4.09	3
81	MP2A	Mx	0.002	3
82	MP3B	X	2.456	4
83	MP3B	Z	4.255	4
84	MP3B	Mx	0.002	4
85	MP3C	X	1.401	4
86	MP3C	Z	2.427	4
87	MP3C	Mx	-0.002	4
88	MP4A	X	2.456	4
89	MP4A	Z	4.255	4
90	MP4A	Mx	0.002	4
91	MP3B	X	0.138	6
92	MP3B	Z	0.239	6
93	MP3B	Mx	2.3e-5	6
94	MP3C	X	0.098	6
95	MP3C	Z	0.17	6
96	MP3C	Mx	-3.3e-5	6
97	MP4A	X	0.138	6
98	MP4A	Z	0.239	6
99	MP4A	Mx	2.3e-5	6
100	MP1A	X	10.078	2
101	MP1A	Z	17.456	2
102	MP1A	Mx	0.03	2
103	MP1A	X	0.861	2
104	MP1A	Z	1.491	2
105	MP1A	Mx	0.002	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	0	1
2	MP1B	Z	4.207	1
3	MP1B	Mx	-0.002	1
4	MP1B	X	0	5
5	MP1B	Z	4.207	5
6	MP1B	Mx	-0.002	5
7	MP1C	X	0	1
8	MP1C	Z	4.207	1
9	MP1C	Mx	0.002	1
10	MP1C	X	0	5
11	MP1C	Z	4.207	5
12	MP1C	Mx	0.002	5
13	MP2A	X	0	1
14	MP2A	Z	7.213	1
15	MP2A	Mx	0	1
16	MP2A	X	0	5
17	MP2A	Z	7.213	5
18	MP2A	Mx	0	5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
19	MP3B	X	0	0.5
20	MP3B	Z	13.528	0.5
21	MP3B	Mx	-0.009	0.5
22	MP3B	X	0	7.5
23	MP3B	Z	13.528	7.5
24	MP3B	Mx	-0.009	7.5
25	MP3C	X	0	0.5
26	MP3C	Z	13.528	0.5
27	MP3C	Mx	0.009	0.5
28	MP3C	X	0	7.5
29	MP3C	Z	13.528	7.5
30	MP3C	Mx	0.009	7.5
31	MP4A	X	0	0.5
32	MP4A	Z	23.584	0.5
33	MP4A	Mx	0	0.5
34	MP4A	X	0	7.5
35	MP4A	Z	23.584	7.5
36	MP4A	Mx	0	7.5
37	MP2B	X	0	2.48
38	MP2B	Z	4.355	2.48
39	MP2B	Mx	-0.003	2.48
40	MP2B	X	0	5.51
41	MP2B	Z	4.355	5.51
42	MP2B	Mx	-0.003	5.51
43	MP2C	X	0	2.48
44	MP2C	Z	4.355	2.48
45	MP2C	Mx	0.003	2.48
46	MP2C	X	0	5.51
47	MP2C	Z	4.355	5.51
48	MP2C	Mx	0.003	5.51
49	MP3A	X	0	2.48
50	MP3A	Z	7.364	2.48
51	MP3A	Mx	0	2.48
52	MP3A	X	0	5.51
53	MP3A	Z	7.364	5.51
54	MP3A	Mx	0	5.51
55	MP3B	X	0	2
56	MP3B	Z	1.394	2
57	MP3B	Mx	0.000503	2
58	MP3C	X	0	2
59	MP3C	Z	1.394	2
60	MP3C	Mx	-0.000503	2
61	MP4A	X	0	2
62	MP4A	Z	2.727	2
63	MP4A	Mx	0	2
64	MP1B	X	0	2
65	MP1B	Z	1.095	2
66	MP1B	Mx	0.000237	2
67	MP1C	X	0	2
68	MP1C	Z	1.095	2
69	MP1C	Mx	-0.000237	2
70	MP2A	X	0	2
71	MP2A	Z	1.911	2
72	MP2A	Mx	0	2
73	MP1B	X	0	3
74	MP1B	Z	4.193	3
75	MP1B	Mx	0.003	3
76	MP1C	X	0	3
77	MP1C	Z	4.193	3
78	MP1C	Mx	-0.003	3
79	MP2A	X	0	3



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
80	MP2A	Z	4.987	3
81	MP2A	Mx	0	3
82	MP3B	X	0	4
83	MP3B	Z	3.506	4
84	MP3B	Mx	0.002	4
85	MP3C	X	0	4
86	MP3C	Z	3.506	4
87	MP3C	Mx	-0.002	4
88	MP4A	X	0	4
89	MP4A	Z	5.616	4
90	MP4A	Mx	0	4
91	MP3B	X	0	6
92	MP3B	Z	0.223	6
93	MP3B	Mx	3.2e-5	6
94	MP3C	X	0	6
95	MP3C	Z	0.223	6
96	MP3C	Mx	-3.2e-5	6
97	MP4A	X	0	6
98	MP4A	Z	0.303	6
99	MP4A	Mx	0	6
100	MP1A	X	0	2
101	MP1A	Z	14.059	2
102	MP1A	Mx	0.015	2
103	MP1A	X	0	2
104	MP1A	Z	0.722	2
105	MP1A	Mx	7.9e-5	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-1.602	1
2	MP1B	Z	2.775	1
3	MP1B	Mx	-0.001	1
4	MP1B	X	-1.602	5
5	MP1B	Z	2.775	5
6	MP1B	Mx	-0.001	5
7	MP1C	X	-3.105	1
8	MP1C	Z	5.379	1
9	MP1C	Mx	0.001	1
10	MP1C	X	-3.105	5
11	MP1C	Z	5.379	5
12	MP1C	Mx	0.001	5
13	MP2A	X	-3.105	1
14	MP2A	Z	5.379	1
15	MP2A	Mx	0.001	1
16	MP2A	X	-3.105	5
17	MP2A	Z	5.379	5
18	MP2A	Mx	0.001	5
19	MP3B	X	-5.088	0.5
20	MP3B	Z	8.813	0.5
21	MP3B	Mx	-0.008	0.5
22	MP3B	X	-5.088	7.5
23	MP3B	Z	8.813	7.5
24	MP3B	Mx	-0.008	7.5
25	MP3C	X	-10.116	0.5
26	MP3C	Z	17.521	0.5
27	MP3C	Mx	0.008	0.5
28	MP3C	X	-10.116	7.5
29	MP3C	Z	17.521	7.5
30	MP3C	Mx	0.008	7.5
31	MP4A	X	-10.116	0.5
32	MP4A	Z	17.521	0.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
33	MP4A	Mx	0.008	0.5
34	MP4A	X	-10.116	7.5
35	MP4A	Z	17.521	7.5
36	MP4A	Mx	0.008	7.5
37	MP2B	X	-1.676	2.48
38	MP2B	Z	2.903	2.48
39	MP2B	Mx	-0.003	2.48
40	MP2B	X	-1.676	5.51
41	MP2B	Z	2.903	5.51
42	MP2B	Mx	-0.003	5.51
43	MP2C	X	-3.181	2.48
44	MP2C	Z	5.509	2.48
45	MP2C	Mx	0.002	2.48
46	MP2C	X	-3.181	5.51
47	MP2C	Z	5.509	5.51
48	MP2C	Mx	0.002	5.51
49	MP3A	X	-3.181	2.48
50	MP3A	Z	5.509	2.48
51	MP3A	Mx	0.002	2.48
52	MP3A	X	-3.181	5.51
53	MP3A	Z	5.509	5.51
54	MP3A	Mx	0.002	5.51
55	MP3B	X	-0.475	2
56	MP3B	Z	0.822	2
57	MP3B	Mx	0.000396	2
58	MP3C	X	-1.141	2
59	MP3C	Z	1.977	2
60	MP3C	Mx	-0.000476	2
61	MP4A	X	-1.141	2
62	MP4A	Z	1.977	2
63	MP4A	Mx	-0.000475	2
64	MP1B	X	-0.412	2
65	MP1B	Z	0.713	2
66	MP1B	Mx	0.000206	2
67	MP1C	X	-0.819	2
68	MP1C	Z	1.419	2
69	MP1C	Mx	-0.000205	2
70	MP2A	X	-0.819	2
71	MP2A	Z	1.419	2
72	MP2A	Mx	-0.000205	2
73	MP1B	X	-1.964	3
74	MP1B	Z	3.402	3
75	MP1B	Mx	0.003	3
76	MP1C	X	-2.361	3
77	MP1C	Z	4.09	3
78	MP1C	Mx	-0.002	3
79	MP2A	X	-2.361	3
80	MP2A	Z	4.09	3
81	MP2A	Mx	-0.002	3
82	MP3B	X	-1.401	4
83	MP3B	Z	2.427	4
84	MP3B	Mx	0.002	4
85	MP3C	X	-2.456	4
86	MP3C	Z	4.255	4
87	MP3C	Mx	-0.002	4
88	MP4A	X	-2.456	4
89	MP4A	Z	4.255	4
90	MP4A	Mx	-0.002	4
91	MP3B	X	-0.098	6
92	MP3B	Z	0.17	6
93	MP3B	Mx	3.3e-5	6



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
94	MP3C	X	-0.138	6
95	MP3C	Z	0.239	6
96	MP3C	Mx	-2.3e-5	6
97	MP4A	X	-0.138	6
98	MP4A	Z	0.239	6
99	MP4A	Mx	-2.3e-5	6
100	MP1A	X	-6.224	2
101	MP1A	Z	10.781	2
102	MP1A	Mx	0.004	2
103	MP1A	X	-0.229	2
104	MP1A	Z	0.397	2
105	MP1A	Mx	-0.000318	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-3.643	1
2	MP1B	Z	2.103	1
3	MP1B	Mx	-0.002	1
4	MP1B	X	-3.643	5
5	MP1B	Z	2.103	5
6	MP1B	Mx	-0.002	5
7	MP1C	X	-6.246	1
8	MP1C	Z	3.606	1
9	MP1C	Mx	0	1
10	MP1C	X	-6.246	5
11	MP1C	Z	3.606	5
12	MP1C	Mx	0	5
13	MP2A	X	-3.643	1
14	MP2A	Z	2.103	1
15	MP2A	Mx	0.002	1
16	MP2A	X	-3.643	5
17	MP2A	Z	2.103	5
18	MP2A	Mx	0.002	5
19	MP3B	X	-11.715	0.5
20	MP3B	Z	6.764	0.5
21	MP3B	Mx	-0.009	0.5
22	MP3B	X	-11.715	7.5
23	MP3B	Z	6.764	7.5
24	MP3B	Mx	-0.009	7.5
25	MP3C	X	-20.424	0.5
26	MP3C	Z	11.792	0.5
27	MP3C	Mx	0	0.5
28	MP3C	X	-20.424	7.5
29	MP3C	Z	11.792	7.5
30	MP3C	Mx	0	7.5
31	MP4A	X	-11.715	0.5
32	MP4A	Z	6.764	0.5
33	MP4A	Mx	0.009	0.5
34	MP4A	X	-11.715	7.5
35	MP4A	Z	6.764	7.5
36	MP4A	Mx	0.009	7.5
37	MP2B	X	-3.772	2.48
38	MP2B	Z	2.178	2.48
39	MP2B	Mx	-0.003	2.48
40	MP2B	X	-3.772	5.51
41	MP2B	Z	2.178	5.51
42	MP2B	Mx	-0.003	5.51
43	MP2C	X	-6.378	2.48
44	MP2C	Z	3.682	2.48
45	MP2C	Mx	0	2.48
46	MP2C	X	-6.378	5.51



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
47	MP2C	Z	3.682	5.51
48	MP2C	Mx	0	5.51
49	MP3A	X	-3.772	2.48
50	MP3A	Z	2.178	2.48
51	MP3A	Mx	0.003	2.48
52	MP3A	X	-3.772	5.51
53	MP3A	Z	2.178	5.51
54	MP3A	Mx	0.003	5.51
55	MP3B	X	-1.207	2
56	MP3B	Z	0.697	2
57	MP3B	Mx	0.000503	2
58	MP3C	X	-2.361	2
59	MP3C	Z	1.363	2
60	MP3C	Mx	0	2
61	MP4A	X	-1.207	2
62	MP4A	Z	0.697	2
63	MP4A	Mx	-0.000503	2
64	MP1B	X	-0.948	2
65	MP1B	Z	0.548	2
66	MP1B	Mx	0.000237	2
67	MP1C	X	-1.655	2
68	MP1C	Z	0.955	2
69	MP1C	Mx	0	2
70	MP2A	X	-0.948	2
71	MP2A	Z	0.548	2
72	MP2A	Mx	-0.000237	2
73	MP1B	X	-3.632	3
74	MP1B	Z	2.097	3
75	MP1B	Mx	0.003	3
76	MP1C	X	-4.319	3
77	MP1C	Z	2.494	3
78	MP1C	Mx	0	3
79	MP2A	X	-3.632	3
80	MP2A	Z	2.097	3
81	MP2A	Mx	-0.003	3
82	MP3B	X	-3.036	4
83	MP3B	Z	1.753	4
84	MP3B	Mx	0.002	4
85	MP3C	X	-4.864	4
86	MP3C	Z	2.808	4
87	MP3C	Mx	0	4
88	MP4A	X	-3.036	4
89	MP4A	Z	1.753	4
90	MP4A	Mx	-0.002	4
91	MP3B	X	-0.193	6
92	MP3B	Z	0.111	6
93	MP3B	Mx	3.2e-5	6
94	MP3C	X	-0.262	6
95	MP3C	Z	0.151	6
96	MP3C	Mx	0	6
97	MP4A	X	-0.193	6
98	MP4A	Z	0.111	6
99	MP4A	Mx	-3.2e-5	6
100	MP1A	X	-14.667	2
101	MP1A	Z	8.468	2
102	MP1A	Mx	-0.009	2
103	MP1A	X	-1.034	2
104	MP1A	Z	0.597	2
105	MP1A	Mx	-0.002	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-6.211	1
2	MP1B	Z	0	1
3	MP1B	Mx	-0.001	1
4	MP1B	X	-6.211	5
5	MP1B	Z	0	5
6	MP1B	Mx	-0.001	5
7	MP1C	X	-6.211	1
8	MP1C	Z	0	1
9	MP1C	Mx	-0.001	1
10	MP1C	X	-6.211	5
11	MP1C	Z	0	5
12	MP1C	Mx	-0.001	5
13	MP2A	X	-3.205	1
14	MP2A	Z	0	1
15	MP2A	Mx	0.001	1
16	MP2A	X	-3.205	5
17	MP2A	Z	0	5
18	MP2A	Mx	0.001	5
19	MP3B	X	-20.232	0.5
20	MP3B	Z	0	0.5
21	MP3B	Mx	-0.008	0.5
22	MP3B	X	-20.232	7.5
23	MP3B	Z	0	7.5
24	MP3B	Mx	-0.008	7.5
25	MP3C	X	-20.232	0.5
26	MP3C	Z	0	0.5
27	MP3C	Mx	-0.008	0.5
28	MP3C	X	-20.232	7.5
29	MP3C	Z	0	7.5
30	MP3C	Mx	-0.008	7.5
31	MP4A	X	-10.176	0.5
32	MP4A	Z	0	0.5
33	MP4A	Mx	0.008	0.5
34	MP4A	X	-10.176	7.5
35	MP4A	Z	0	7.5
36	MP4A	Mx	0.008	7.5
37	MP2B	X	-6.361	2.48
38	MP2B	Z	0	2.48
39	MP2B	Mx	-0.002	2.48
40	MP2B	X	-6.361	5.51
41	MP2B	Z	0	5.51
42	MP2B	Mx	-0.002	5.51
43	MP2C	X	-6.361	2.48
44	MP2C	Z	0	2.48
45	MP2C	Mx	-0.002	2.48
46	MP2C	X	-6.361	5.51
47	MP2C	Z	0	5.51
48	MP2C	Mx	-0.002	5.51
49	MP3A	X	-3.352	2.48
50	MP3A	Z	0	2.48
51	MP3A	Mx	0.003	2.48
52	MP3A	X	-3.352	5.51
53	MP3A	Z	0	5.51
54	MP3A	Mx	0.003	5.51
55	MP3B	X	-2.282	2
56	MP3B	Z	0	2
57	MP3B	Mx	0.000475	2
58	MP3C	X	-2.282	2
59	MP3C	Z	0	2
60	MP3C	Mx	0.000475	2
61	MP4A	X	-0.949	2



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
62	MP4A	Z	0	2
63	MP4A	Mx	-0.000395	2
64	MP1B	X	-1.639	2
65	MP1B	Z	0	2
66	MP1B	Mx	0.000205	2
67	MP1C	X	-1.639	2
68	MP1C	Z	0	2
69	MP1C	Mx	0.000205	2
70	MP2A	X	-0.823	2
71	MP2A	Z	0	2
72	MP2A	Mx	-0.000206	2
73	MP1B	X	-4.722	3
74	MP1B	Z	0	3
75	MP1B	Mx	0.002	3
76	MP1C	X	-4.722	3
77	MP1C	Z	0	3
78	MP1C	Mx	0.002	3
79	MP2A	X	-3.929	3
80	MP2A	Z	0	3
81	MP2A	Mx	-0.003	3
82	MP3B	X	-4.913	4
83	MP3B	Z	0	4
84	MP3B	Mx	0.002	4
85	MP3C	X	-4.913	4
86	MP3C	Z	0	4
87	MP3C	Mx	0.002	4
88	MP4A	X	-2.803	4
89	MP4A	Z	0	4
90	MP4A	Mx	-0.002	4
91	MP3B	X	-0.276	6
92	MP3B	Z	0	6
93	MP3B	Mx	2.3e-5	6
94	MP3C	X	-0.276	6
95	MP3C	Z	0	6
96	MP3C	Mx	2.3e-5	6
97	MP4A	X	-0.196	6
98	MP4A	Z	0	6
99	MP4A	Mx	-3.3e-5	6
100	MP1A	X	-23.033	2
101	MP1A	Z	0	2
102	MP1A	Mx	-0.028	2
103	MP1A	X	-2.193	2
104	MP1A	Z	0	2
105	MP1A	Mx	-0.003	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-6.246	1
2	MP1B	Z	-3.606	1
3	MP1B	Mx	0	1
4	MP1B	X	-6.246	5
5	MP1B	Z	-3.606	5
6	MP1B	Mx	0	5
7	MP1C	X	-3.643	1
8	MP1C	Z	-2.103	1
9	MP1C	Mx	-0.002	1
10	MP1C	X	-3.643	5
11	MP1C	Z	-2.103	5
12	MP1C	Mx	-0.002	5
13	MP2A	X	-3.643	1
14	MP2A	Z	-2.103	1



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
15	MP2A	Mx	0.002	1
16	MP2A	X	-3.643	5
17	MP2A	Z	-2.103	5
18	MP2A	Mx	0.002	5
19	MP3B	X	-20.424	0.5
20	MP3B	Z	-11.792	0.5
21	MP3B	Mx	0	0.5
22	MP3B	X	-20.424	7.5
23	MP3B	Z	-11.792	7.5
24	MP3B	Mx	0	7.5
25	MP3C	X	-11.715	0.5
26	MP3C	Z	-6.764	0.5
27	MP3C	Mx	-0.009	0.5
28	MP3C	X	-11.715	7.5
29	MP3C	Z	-6.764	7.5
30	MP3C	Mx	-0.009	7.5
31	MP4A	X	-11.715	0.5
32	MP4A	Z	-6.764	0.5
33	MP4A	Mx	0.009	0.5
34	MP4A	X	-11.715	7.5
35	MP4A	Z	-6.764	7.5
36	MP4A	Mx	0.009	7.5
37	MP2B	X	-6.378	2.48
38	MP2B	Z	-3.682	2.48
39	MP2B	Mx	0	2.48
40	MP2B	X	-6.378	5.51
41	MP2B	Z	-3.682	5.51
42	MP2B	Mx	0	5.51
43	MP2C	X	-3.772	2.48
44	MP2C	Z	-2.178	2.48
45	MP2C	Mx	-0.003	2.48
46	MP2C	X	-3.772	5.51
47	MP2C	Z	-2.178	5.51
48	MP2C	Mx	-0.003	5.51
49	MP3A	X	-3.772	2.48
50	MP3A	Z	-2.178	2.48
51	MP3A	Mx	0.003	2.48
52	MP3A	X	-3.772	5.51
53	MP3A	Z	-2.178	5.51
54	MP3A	Mx	0.003	5.51
55	MP3B	X	-2.361	2
56	MP3B	Z	-1.363	2
57	MP3B	Mx	0	2
58	MP3C	X	-1.207	2
59	MP3C	Z	-0.697	2
60	MP3C	Mx	0.000503	2
61	MP4A	X	-1.207	2
62	MP4A	Z	-0.697	2
63	MP4A	Mx	-0.000503	2
64	MP1B	X	-1.655	2
65	MP1B	Z	-0.955	2
66	MP1B	Mx	0	2
67	MP1C	X	-0.948	2
68	MP1C	Z	-0.548	2
69	MP1C	Mx	0.000237	2
70	MP2A	X	-0.948	2
71	MP2A	Z	-0.548	2
72	MP2A	Mx	-0.000237	2
73	MP1B	X	-4.319	3
74	MP1B	Z	-2.494	3
75	MP1B	Mx	0	3



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
76	MP1C	X	-3.632	3
77	MP1C	Z	-2.097	3
78	MP1C	Mx	0.003	3
79	MP2A	X	-3.632	3
80	MP2A	Z	-2.097	3
81	MP2A	Mx	-0.003	3
82	MP3B	X	-4.864	4
83	MP3B	Z	-2.808	4
84	MP3B	Mx	0	4
85	MP3C	X	-3.036	4
86	MP3C	Z	-1.753	4
87	MP3C	Mx	0.002	4
88	MP4A	X	-3.036	4
89	MP4A	Z	-1.753	4
90	MP4A	Mx	-0.002	4
91	MP3B	X	-0.262	6
92	MP3B	Z	-0.151	6
93	MP3B	Mx	0	6
94	MP3C	X	-0.193	6
95	MP3C	Z	-0.111	6
96	MP3C	Mx	3.2e-5	6
97	MP4A	X	-0.193	6
98	MP4A	Z	-0.111	6
99	MP4A	Mx	-3.2e-5	6
100	MP1A	X	-21.342	2
101	MP1A	Z	-12.322	2
102	MP1A	Mx	-0.038	2
103	MP1A	X	-2.128	2
104	MP1A	Z	-1.229	2
105	MP1A	Mx	-0.003	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	-3.105	1
2	MP1B	Z	-5.379	1
3	MP1B	Mx	0.001	1
4	MP1B	X	-3.105	5
5	MP1B	Z	-5.379	5
6	MP1B	Mx	0.001	5
7	MP1C	X	-1.602	1
8	MP1C	Z	-2.775	1
9	MP1C	Mx	-0.001	1
10	MP1C	X	-1.602	5
11	MP1C	Z	-2.775	5
12	MP1C	Mx	-0.001	5
13	MP2A	X	-3.105	1
14	MP2A	Z	-5.379	1
15	MP2A	Mx	0.001	1
16	MP2A	X	-3.105	5
17	MP2A	Z	-5.379	5
18	MP2A	Mx	0.001	5
19	MP3B	X	-10.116	0.5
20	MP3B	Z	-17.521	0.5
21	MP3B	Mx	0.008	0.5
22	MP3B	X	-10.116	7.5
23	MP3B	Z	-17.521	7.5
24	MP3B	Mx	0.008	7.5
25	MP3C	X	-5.088	0.5
26	MP3C	Z	-8.813	0.5
27	MP3C	Mx	-0.008	0.5
28	MP3C	X	-5.088	7.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
29	MP3C	Z	-8.813	7.5
30	MP3C	Mx	-0.008	7.5
31	MP4A	X	-10.116	0.5
32	MP4A	Z	-17.521	0.5
33	MP4A	Mx	0.008	0.5
34	MP4A	X	-10.116	7.5
35	MP4A	Z	-17.521	7.5
36	MP4A	Mx	0.008	7.5
37	MP2B	X	-3.181	2.48
38	MP2B	Z	-5.509	2.48
39	MP2B	Mx	0.002	2.48
40	MP2B	X	-3.181	5.51
41	MP2B	Z	-5.509	5.51
42	MP2B	Mx	0.002	5.51
43	MP2C	X	-1.676	2.48
44	MP2C	Z	-2.903	2.48
45	MP2C	Mx	-0.003	2.48
46	MP2C	X	-1.676	5.51
47	MP2C	Z	-2.903	5.51
48	MP2C	Mx	-0.003	5.51
49	MP3A	X	-3.181	2.48
50	MP3A	Z	-5.509	2.48
51	MP3A	Mx	0.002	2.48
52	MP3A	X	-3.181	5.51
53	MP3A	Z	-5.509	5.51
54	MP3A	Mx	0.002	5.51
55	MP3B	X	-1.141	2
56	MP3B	Z	-1.977	2
57	MP3B	Mx	-0.000476	2
58	MP3C	X	-0.475	2
59	MP3C	Z	-0.822	2
60	MP3C	Mx	0.000396	2
61	MP4A	X	-1.141	2
62	MP4A	Z	-1.977	2
63	MP4A	Mx	-0.000475	2
64	MP1B	X	-0.819	2
65	MP1B	Z	-1.419	2
66	MP1B	Mx	-0.000205	2
67	MP1C	X	-0.412	2
68	MP1C	Z	-0.713	2
69	MP1C	Mx	0.000206	2
70	MP2A	X	-0.819	2
71	MP2A	Z	-1.419	2
72	MP2A	Mx	-0.000205	2
73	MP1B	X	-2.361	3
74	MP1B	Z	-4.09	3
75	MP1B	Mx	-0.002	3
76	MP1C	X	-1.964	3
77	MP1C	Z	-3.402	3
78	MP1C	Mx	0.003	3
79	MP2A	X	-2.361	3
80	MP2A	Z	-4.09	3
81	MP2A	Mx	-0.002	3
82	MP3B	X	-2.456	4
83	MP3B	Z	-4.255	4
84	MP3B	Mx	-0.002	4
85	MP3C	X	-1.401	4
86	MP3C	Z	-2.427	4
87	MP3C	Mx	0.002	4
88	MP4A	X	-2.456	4
89	MP4A	Z	-4.255	4



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
90	MP4A	Mx	-0.002	4
91	MP3B	X	-0.138	6
92	MP3B	Z	-0.239	6
93	MP3B	Mx	-2.3e-5	6
94	MP3C	X	-0.098	6
95	MP3C	Z	-0.17	6
96	MP3C	Mx	3.3e-5	6
97	MP4A	X	-0.138	6
98	MP4A	Z	-0.239	6
99	MP4A	Mx	-2.3e-5	6
100	MP1A	X	-10.078	2
101	MP1A	Z	-17.456	2
102	MP1A	Mx	-0.03	2
103	MP1A	X	-0.861	2
104	MP1A	Z	-1.491	2
105	MP1A	Mx	-0.002	2

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M4	Y	-500	%12

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M4	Y	-500	%96

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M1	Y	-250	%100

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	M1	Y	-250	%50

Member Point Loads (BLC 81 : Antenna Ev)

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	Y	-0.544	1
2	MP1B	My	0.000113	1
3	MP1B	Mz	-0.000196	1
4	MP1B	Y	-0.544	5
5	MP1B	My	0.000113	5
6	MP1B	Mz	-0.000196	5
7	MP1C	Y	-0.544	1
8	MP1C	My	0.000113	1
9	MP1C	Mz	0.000196	1
10	MP1C	Y	-0.544	5
11	MP1C	My	0.000113	5
12	MP1C	Mz	0.000196	5
13	MP2A	Y	-0.544	1
14	MP2A	My	-0.000226	1
15	MP2A	Mz	0	1
16	MP2A	Y	-0.544	5
17	MP2A	My	-0.000226	5
18	MP2A	Mz	0	5
19	MP3B	Y	-2.803	0.5
20	MP3B	My	0.001	0.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
21	MP3B	Mz	-0.002	0.5
22	MP3B	Y	-2.803	7.5
23	MP3B	My	0.001	7.5
24	MP3B	Mz	-0.002	7.5
25	MP3C	Y	-2.803	0.5
26	MP3C	My	0.001	0.5
27	MP3C	Mz	0.002	0.5
28	MP3C	Y	-2.803	7.5
29	MP3C	My	0.001	7.5
30	MP3C	Mz	0.002	7.5
31	MP4A	Y	-2.803	0.5
32	MP4A	My	-0.002	0.5
33	MP4A	Mz	0	0.5
34	MP4A	Y	-2.803	7.5
35	MP4A	My	-0.002	7.5
36	MP4A	Mz	0	7.5
37	MP2B	Y	-1.901	2.48
38	MP2B	My	0.000713	2.48
39	MP2B	Mz	-0.001	2.48
40	MP2B	Y	-1.901	5.51
41	MP2B	My	0.000713	5.51
42	MP2B	Mz	-0.001	5.51
43	MP2C	Y	-1.901	2.48
44	MP2C	My	0.000713	2.48
45	MP2C	Mz	0.001	2.48
46	MP2C	Y	-1.901	5.51
47	MP2C	My	0.000713	5.51
48	MP2C	Mz	0.001	5.51
49	MP3A	Y	-1.901	2.48
50	MP3A	My	-0.001	2.48
51	MP3A	Mz	0	2.48
52	MP3A	Y	-1.901	5.51
53	MP3A	My	-0.001	5.51
54	MP3A	Mz	0	5.51
55	MP3B	Y	-0.593	2
56	MP3B	My	-0.000124	2
57	MP3B	Mz	0.000214	2
58	MP3C	Y	-0.593	2
59	MP3C	My	-0.000124	2
60	MP3C	Mz	-0.000214	2
61	MP4A	Y	-0.593	2
62	MP4A	My	0.000247	2
63	MP4A	Mz	0	2
64	MP1B	Y	-0.502	2
65	MP1B	My	-6.3e-5	2
66	MP1B	Mz	0.000109	2
67	MP1C	Y	-0.502	2
68	MP1C	My	-6.3e-5	2
69	MP1C	Mz	-0.000109	2
70	MP2A	Y	-0.502	2
71	MP2A	My	0.000126	2
72	MP2A	Mz	0	2
73	MP1B	Y	-4.748	3
74	MP1B	My	-0.002	3
75	MP1B	Mz	0.003	3
76	MP1C	Y	-4.748	3
77	MP1C	My	-0.002	3
78	MP1C	Mz	-0.003	3
79	MP2A	Y	-4.748	3
80	MP2A	My	0.004	3
81	MP2A	Mz	0	3



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
82	MP3B	Y	-4.246	4
83	MP3B	My	-0.001	4
84	MP3B	Mz	0.002	4
85	MP3C	Y	-4.246	4
86	MP3C	My	-0.001	4
87	MP3C	Mz	-0.002	4
88	MP4A	Y	-4.246	4
89	MP4A	My	0.003	4
90	MP4A	Mz	0	4
91	MP3B	Y	-0.082	6
92	MP3B	My	-7e-6	6
93	MP3B	Mz	1.2e-5	6
94	MP3C	Y	-0.082	6
95	MP3C	My	-7e-6	6
96	MP3C	Mz	-1.2e-5	6
97	MP4A	Y	-0.082	6
98	MP4A	My	1.4e-5	6
99	MP4A	Mz	0	6
100	MP1A	Y	-1.908	2
101	MP1A	My	0.002	2
102	MP1A	Mz	0.002	2
103	MP1A	Y	-0.251	2
104	MP1A	My	0.000396	2
105	MP1A	Mz	2.7e-5	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	Z	-1.359	1
2	MP1B	Mx	0.00049	1
3	MP1B	Z	-1.359	5
4	MP1B	Mx	0.00049	5
5	MP1C	Z	-1.359	1
6	MP1C	Mx	-0.00049	1
7	MP1C	Z	-1.359	5
8	MP1C	Mx	-0.00049	5
9	MP2A	Z	-1.359	1
10	MP2A	Mx	0	1
11	MP2A	Z	-1.359	5
12	MP2A	Mx	0	5
13	MP3B	Z	-7.008	0.5
14	MP3B	Mx	0.005	0.5
15	MP3B	Z	-7.008	7.5
16	MP3B	Mx	0.005	7.5
17	MP3C	Z	-7.008	0.5
18	MP3C	Mx	-0.005	0.5
19	MP3C	Z	-7.008	7.5
20	MP3C	Mx	-0.005	7.5
21	MP4A	Z	-7.008	0.5
22	MP4A	Mx	0	0.5
23	MP4A	Z	-7.008	7.5
24	MP4A	Mx	0	7.5
25	MP2B	Z	-4.754	2.48
26	MP2B	Mx	0.003	2.48
27	MP2B	Z	-4.754	5.51
28	MP2B	Mx	0.003	5.51
29	MP2C	Z	-4.754	2.48
30	MP2C	Mx	-0.003	2.48
31	MP2C	Z	-4.754	5.51
32	MP2C	Mx	-0.003	5.51
33	MP3A	Z	-4.754	2.48
34	MP3A	Mx	0	2.48



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
35	MP3A	Z	-4.754	5.51
36	MP3A	Mx	0	5.51
37	MP3B	Z	-1.484	2
38	MP3B	Mx	-0.000535	2
39	MP3C	Z	-1.484	2
40	MP3C	Mx	0.000535	2
41	MP4A	Z	-1.484	2
42	MP4A	Mx	0	2
43	MP1B	Z	-1.255	2
44	MP1B	Mx	-0.000272	2
45	MP1C	Z	-1.255	2
46	MP1C	Mx	0.000272	2
47	MP2A	Z	-1.255	2
48	MP2A	Mx	0	2
49	MP1B	Z	-11.87	3
50	MP1B	Mx	-0.009	3
51	MP1C	Z	-11.87	3
52	MP1C	Mx	0.009	3
53	MP2A	Z	-11.87	3
54	MP2A	Mx	0	3
55	MP3B	Z	-10.614	4
56	MP3B	Mx	-0.006	4
57	MP3C	Z	-10.614	4
58	MP3C	Mx	0.006	4
59	MP4A	Z	-10.614	4
60	MP4A	Mx	0	4
61	MP3B	Z	-0.205	6
62	MP3B	Mx	-3e-5	6
63	MP3C	Z	-0.205	6
64	MP3C	Mx	3e-5	6
65	MP4A	Z	-0.205	6
66	MP4A	Mx	0	6
67	MP1A	Z	-4.771	2
68	MP1A	Mx	-0.005	2
69	MP1A	Z	-0.628	2
70	MP1A	Mx	-6.8e-5	2

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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
1	MP1B	X	1.359	1
2	MP1B	Mx	0.000283	1
3	MP1B	X	1.359	5
4	MP1B	Mx	0.000283	5
5	MP1C	X	1.359	1
6	MP1C	Mx	0.000283	1
7	MP1C	X	1.359	5
8	MP1C	Mx	0.000283	5
9	MP2A	X	1.359	1
10	MP2A	Mx	-0.000566	1
11	MP2A	X	1.359	5
12	MP2A	Mx	-0.000566	5
13	MP3B	X	7.008	0.5
14	MP3B	Mx	0.003	0.5
15	MP3B	X	7.008	7.5
16	MP3B	Mx	0.003	7.5
17	MP3C	X	7.008	0.5
18	MP3C	Mx	0.003	0.5
19	MP3C	X	7.008	7.5
20	MP3C	Mx	0.003	7.5
21	MP4A	X	7.008	0.5
22	MP4A	Mx	-0.005	0.5



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

	Member Label	Direction	Magnitude [lb, k-ft]	Location [(ft, %)]
23	MP4A	X	7.008	7.5
24	MP4A	Mx	-0.005	7.5
25	MP2B	X	4.754	2.48
26	MP2B	Mx	0.002	2.48
27	MP2B	X	4.754	5.51
28	MP2B	Mx	0.002	5.51
29	MP2C	X	4.754	2.48
30	MP2C	Mx	0.002	2.48
31	MP2C	X	4.754	5.51
32	MP2C	Mx	0.002	5.51
33	MP3A	X	4.754	2.48
34	MP3A	Mx	-0.004	2.48
35	MP3A	X	4.754	5.51
36	MP3A	Mx	-0.004	5.51
37	MP3B	X	1.484	2
38	MP3B	Mx	-0.000309	2
39	MP3C	X	1.484	2
40	MP3C	Mx	-0.000309	2
41	MP4A	X	1.484	2
42	MP4A	Mx	0.000618	2
43	MP1B	X	1.255	2
44	MP1B	Mx	-0.000157	2
45	MP1C	X	1.255	2
46	MP1C	Mx	-0.000157	2
47	MP2A	X	1.255	2
48	MP2A	Mx	0.000314	2
49	MP1B	X	11.87	3
50	MP1B	Mx	-0.005	3
51	MP1C	X	11.87	3
52	MP1C	Mx	-0.005	3
53	MP2A	X	11.87	3
54	MP2A	Mx	0.01	3
55	MP3B	X	10.614	4
56	MP3B	Mx	-0.004	4
57	MP3C	X	10.614	4
58	MP3C	Mx	-0.004	4
59	MP4A	X	10.614	4
60	MP4A	Mx	0.007	4
61	MP3B	X	0.205	6
62	MP3B	Mx	-1.7e-5	6
63	MP3C	X	0.205	6
64	MP3C	Mx	-1.7e-5	6
65	MP4A	X	0.205	6
66	MP4A	Mx	3.4e-5	6
67	MP1A	X	4.771	2
68	MP1A	Mx	0.006	2
69	MP1A	X	0.628	2
70	MP1A	Mx	0.00099	2

Member Area Loads (BLC 39 : Structure D)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N21	N20	N22	N23	Y	Two Way	-0.005
2	N49	N48	N50	N51	Y	Two Way	-0.005
3	N72	N71	N73	N74	Y	Two Way	-0.005

Member Area Loads (BLC 40 : Structure Di)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N21	N20	N22	N23	Y	Two Way	-0.01
2	N49	N48	N50	N51	Y	Two Way	-0.01



Member Area Loads (BLC 40 : Structure Di) (Continued)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
3	N72	N71	N73	N74	Y	Two Way	-0.01

Member Area Loads (BLC 84 : Structure Ev)

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N21	N20	N22	N23	Y	Two Way	-0.000237
2	N49	N48	N50	N51	Y	Two Way	-0.000237
3	N72	N71	N73	N74	Y	Two Way	-0.000237

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

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N21	N20	N22	N23	Z	Two Way	-0.000593
2	N49	N48	N50	N51	Z	Two Way	-0.000593
3	N72	N71	N73	N74	Z	Two Way	-0.000593

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

	Node A	Node B	Node C	Node D	Direction	Load Direction	Magnitude [ksf]
1	N21	N20	N22	N23	X	Two Way	0.000593
2	N49	N48	N50	N51	X	Two Way	0.000593
3	N72	N71	N73	N74	X	Two Way	0.000593

Node Boundary Conditions

	Node Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot [k-ft/rad]	Y Rot [k-ft/rad]	Z Rot [k-ft/rad]
1	N4	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N34	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N57	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N106						
5	N107	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
6	N109						
7	N110	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
8	N112						
9	N113	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

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	N4	max	1126.214	10	493.14	49	4035.115	1	0.716	13	1.729	4	0.272	4
2		min	-1148.996	4	17.198	1	-2513.913	7	0.249	70	-1.753	10	-0.406	10
3	N34	max	3568.446	9	307.585	16	1313.68	1	0.078	1	1.756	12	-0.126	6
4		min	-2271.454	3	-18.348	34	-2046.836	7	-0.639	31	-1.796	6	-0.583	24
5	N57	max	2362.149	11	430.957	11	1307.27	11	0.324	3	2.441	8	0.716	15
6		min	-3900.375	5	-196.005	5	-2216.312	5	-0.706	9	-2.475	2	0.133	9
7	N107	max	25.797	10	2157.005	13	-80.153	7	1.618	13	0.02	4	0.001	10
8		min	-25.87	4	76.484	7	-2109.452	13	0.057	7	-0.02	10	-0.001	4
9	N110	max	-85.349	3	2076.764	21	1014.704	21	-0.035	3	0.02	12	-0.062	3
10		min	-1757.806	21	95.107	3	49.461	3	-0.779	21	-0.02	6	-1.349	21
11	N113	max	2276.963	17	2679.593	17	1314.685	17	0.01	11	0.02	8	1.74	17
12		min	-20.767	11	-28.425	11	-12.062	11	-1.005	17	-0.02	2	-0.019	11
13	Totals:	max	5365.469	10	6948.734	19	5193.886	1						
14		min	-5365.391	4	2438.304	65	-5193.749	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	M61	PIPE 2.0	0.554	1.953	2	0.5	1.953		3	6295.422	32130	1.872	1.872	1	H3-6
2	M8	PIPE 2.0	0.529	1.953	6	0.478	1.953		7	6295.422	32130	1.872	1.872	1	H3-6

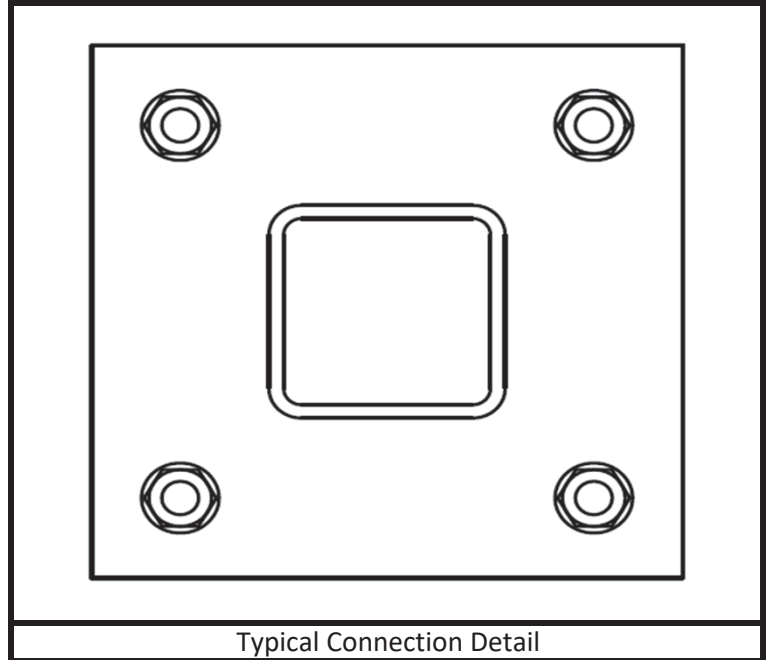


Envelope AISC 15TH (360-16): LRFD Member Steel Code Checks (Continued)

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	
3	M63	PIPE 2.0	0.524	1.953	10	0.493	1.953		11	6295.422	32130	1.872	1.872	1	H3-6
4	MP2C	PIPE 2.0	0.49	5	12	0.088	5		12	14916.096	32130	1.872	1.872	1	H1-1b
5	MP3A	PIPE 2.0	0.478	5	4	0.085	5		3	14916.096	32130	1.872	1.872	1	H1-1b
6	MP2B	PIPE 2.0	0.428	5	7	0.08	5		7	14916.096	32130	1.872	1.872	1	H1-1b
7	M78	L3X3X4	0.373	0	5	0.04	0	y	11	40598.025	46656	1.688	3.756	1.5	H2-1
8	M85	LL2X2X4X0	0.358	0	17	0.01	4.054	y	15	43571.736	61236	2.894	2.107	1	H1-1b
9	M31	PL3/8X6	0.346	0.167	2	0.218	0	y	21	71601.728	72900	0.57	9.113	1.019	H1-1b
10	M10	PL3/8X6	0.346	0.167	6	0.203	0	y	24	71601.728	72900	0.57	9.113	1.019	H1-1b
11	M64	L3X3X4	0.343	0	1	0.04	0	y	7	40598.025	46656	1.688	3.756	1.5	H2-1
12	MP1C	PIPE 2.0	0.341	4	6	0.122	4		5	20866.733	32130	1.872	1.872	1	H1-1b
13	M77	L3X3X4	0.34	0	9	0.048	0	y	3	40598.025	46656	1.688	3.756	1.5	H2-1
14	MP2A	PIPE 2.0	0.334	1	9	0.118	4		9	20866.733	32130	1.872	1.872	1	H1-1b
15	M45	PL3/8X6	0.333	0	12	0.247	0	y	2	72761.657	72900	0.57	9.113	1.127	H1-1b
16	M49	PL3/8X6	0.326	0.167	10	0.237	0	y	16	71601.728	72900	0.57	9.113	1.028	H1-1b
17	M5	PL3/8X6	0.32	0	8	0.191	0	y	11	72761.657	72900	0.57	9.113	1.013	H1-1b
18	M52	PL1/2X6	0.32	0.358	5	0.154	0.358	y	20	92811.566	97200	1.012	12.15	1.329	H1-1b
19	M48	PL3/8X6	0.319	0.167	12	0.232	0	y	18	71601.728	72900	0.57	9.113	1.123	H1-1b
20	M28	PL3/8X6	0.298	0	2	0.188	0	y	1	72761.657	72900	0.57	9.113	1.012	H1-1b
21	M30	PL3/8X6	0.289	0.167	4	0.202	0	y	21	71601.728	72900	0.57	9.113	1.023	H1-1b
22	MP1B	PIPE 2.0	0.287	4	1	0.123	4		1	20866.733	32130	1.872	1.872	1	H1-1b
23	M81	LL2X2X4X0	0.287	0	13	0.008	4.054	y	14	43571.736	61236	2.894	2.107	1	H1-1b
24	M9	PL3/8X6	0.285	0.167	8	0.198	0	y	13	71601.728	72900	0.57	9.113	1.019	H1-1b
25	M83	LL2X2X4X0	0.276	0	21	0.008	4.054	y	9	43571.736	61236	2.894	2.107	1	H1-1b
26	M27	PL3/8X6	0.274	0	4	0.22	0	y	6	72761.657	72900	0.57	9.113	1.015	H1-1b
27	M13	PL1/2X6	0.274	0.358	2	0.142	0.358	y	14	92811.566	97200	1.012	12.15	1.256	H1-1b
28	MP4A	PIPE 2.5	0.273	5.625	4	0.071	3.938		2	26137.193	50715	3.596	3.596	1	H1-1b
29	MP3C	PIPE 2.5	0.27	5.625	12	0.069	3.938		10	26137.193	50715	3.596	3.596	1	H1-1b
30	M34	PL1/2X6	0.266	0.358	10	0.15	0.358	y	34	92811.566	97200	1.012	12.15	1.249	H1-1b
31	M35	PL1/2X6	0.261	0	8	0.132	0	y	20	92811.566	97200	1.012	12.15	1.305	H1-1b
32	MP3B	PIPE 2.5	0.257	2.625	11	0.065	3.938		6	26137.193	50715	3.596	3.596	1	H1-1b
33	M14	PL1/2X6	0.253	0	12	0.125	0	y	23	92811.566	97200	1.012	12.15	1.307	H1-1b
34	M53	PL1/2X6	0.25	0	4	0.176	0	y	40	92811.566	97200	1.012	12.15	1.293	H1-1b
35	M6	PL3/8X6	0.246	0	6	0.226	0	y	11	72761.657	72900	0.57	9.113	1.013	H1-1b
36	M46	PL3/8X6	0.22	0	10	0.259	0	y	3	72761.657	72900	0.57	9.113	1.018	H1-1b
37	M42	HSS4X4X4	0.182	5.29	8	0.075	5.29	z	2	83236.584	139518	16.181	16.181	1.752	H1-1b
38	M16	L2X2X3	0.179	0	11	0.006	0	z	11	8850.644	23392.8	0.558	1.128	1.5	H2-1
39	M36	L2X2X3	0.179	0	10	0.008	0	y	19	8850.644	23392.8	0.558	1.128	1.5	H2-1
40	M4	PIPE 3.0	0.178	10.286	10	0.068	4.427		2	28250.554	65205	5.749	5.749	1	H1-1b
41	M54	L2X2X3	0.177	0	6	0.007	0	y	23	8850.644	23392.8	0.558	1.128	1.5	H2-1
42	M37	L2X2X3	0.169	0	7	0.006	0	z	7	8850.644	23392.8	0.558	1.128	1.5	H2-1
43	M15	L2X2X3	0.167	0	2	0.008	0	y	23	8850.644	23392.8	0.558	1.128	1.5	H2-1
44	M55	L2X2X3	0.165	0	3	0.007	4.401	y	21	8850.644	23392.8	0.558	1.128	1.5	H2-1
45	M24	HSS4X4X4	0.137	5.29	6	0.057	5.29	z	6	83236.584	139518	16.181	16.181	1.688	H1-1b
46	MP1A	PIPE 2.5	0.135	5	10	0.138	5		11	30038.461	50715	3.596	3.596	1	H1-1b
47	M1	HSS4X4X4	0.132	5.29	10	0.059	5.29	z	10	83236.584	139518	16.181	16.181	1.65	H1-1b
48	M25	HSS4X4X4	0.125	2.413	8	0.051	0.251	z	8	136158.394	139518	16.181	16.181	1.662	H1-1b
49	M60	PIPE 3.0	0.124	10.807	5	0.064	4.427		10	28250.554	65205	5.749	5.749	1	H1-1b
50	M51	PL1/2X6	0.122	0	6	0.198	0	y	42	96230.196	97200	1.012	12.15	1.49	H1-1b
51	M43	HSS4X4X4	0.122	2.413	4	0.054	0.251	z	4	136158.394	139518	16.181	16.181	1.712	H1-1b
52	M44	HSS4X4X4	0.121	0	18	0.045	0	y	21	136158.394	139518	16.181	16.181	1.709	H1-1b
53	M3	HSS4X4X4	0.119	0	2	0.035	2.162	z	2	136158.394	139518	16.181	16.181	1.611	H1-1b
54	M2	HSS4X4X4	0.116	2.413	12	0.053	0.251	z	12	136158.394	139518	16.181	16.181	1.679	H1-1b
55	M62	PIPE 3.0	0.114	10.807	1	0.063	4.427		6	28250.554	65205	5.749	5.749	1	H1-1b
56	M26	HSS4X4X4	0.114	0	10	0.037	2.162	z	10	136158.394	139518	16.181	16.181	1.609	H1-1b
57	M12	PL1/2X6	0.106	0	2	0.075	0	y	3	96230.196	97200	1.012	12.15	1.192	H1-1b
58	M33	PL1/2X6	0.103	0	10	0.073	0	y	12	96230.196	97200	1.012	12.15	1.175	H1-1b
59	M32	PL1/2X6	0.101	0	8	0.18	0	y	32	96230.196	97200	1.012	12.15	1.423	H1-1b
60	M50	PL1/2X6	0.098	0	4	0.145	0	y	4	96230.196	97200	1.012	12.15	1.338	H1-1b
61	M11	PL1/2X6	0.097	0	12	0.147	0	y	12	96230.196	97200	1.012	12.15	1.432	H1-1b

	Standoff Arm Flange Connection Check			Date
				10/19/2023
	Customer:	SBA	TIA Standard:	ANSI/TIA-222-H
	Carrier:	T-Mobile	Mount Elev. [ft]:	83
	Site Name:		Engineer Name:	V Annamreddy
Site Number:	CT46132	Project #:	142876	
<p><i>NOTE: The calculations shown below are for a single representative load combination for example purposes. The results for all load combinations are presented in the Results Summary Table.</i></p>				


RISA Member Label =	M42	
I or J End?	J	
Load Combination # =	2	
Plate Width, Wp =	10	[In]
Plate Height, Hp =	10	[In]
Plate Thickness, tp =	0.625	[In]
Plate Fy =	36	[KSI]
Bolt Diameter, db =	0.625	[In]
Bolt Fu =	120	[KSI]
Bolt Horizontal Spacing, Sbh =	8	[In]
Bolt Vertical Spacing, Sbv =	8	[In]
Standoff Member Shape =	Rect Tube	
Member Width, Wm =	4	[In]
Member Depth, Dm =	4	[In]
Member Thickness, tm =	0.25	[In]
Standoff Weld Size =	0.1875	[In]
# Standoff Welds =	2	
Length of Stiffener, Ls =		[In]
Width of Stiffener, Ws =		[In]
Width of Notch, Wn =		[In]
Stiffener Dim 1, ds1 =		[In]
Stiffener Dim 2, ds2 =		[In]
Stiffener Fy =		[KSI]
Stiffener Weld Size =		[In]
# Stiffener Welds =		



NOTES


Capacity Checks:

Max Bolt Shear =	0.591	[Kips]
Bolt Shear Capacity =	13.81	[Kips]
Max Bolt Shear Usage =	4.3%	PASS
Max Bolt Tension =	2.36	[Kips]
Bolt Tension Capacity =	20.34	[Kips]
Max Bolt Tension Usage =	11.6%	PASS
Max Bolt Interaction =	12.4%	PASS
Max Plate Bending Moment =	8.52	[Kip-In]
Length of Yield Line =	7.85	[In]
Plate Moment Capacity =	24.84	[Kip-In]
Max Plate Usage =	29.1%	PASS
Max Weld Usage =	20.9%	PASS

	Standoff Arm Flange Connection Check			Date
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	Site Name:		Engineer Name:	V Annamreddy
Site Number:	CT46132	Project #:	142876	


Results Summary Table

Member Label	Member End	Load Combo #	Max Bolt Shear [K]	Max Bolt Tension [K]	Bolt Shear Check	Bolt Tension Check	Bolt Interaction Check	Plate Bending Check	Weld Check
M1	J	1	0.0841	1.5000	0.6%	7.4%	7.4%	18.5%	10.5%
M24	J	1	0.3545	0.6952	2.6%	3.4%	4.2%	8.6%	6.6%
M42	J	1	0.3768	0.9996	2.7%	4.9%	5.5%	12.3%	12.0%
M1	J	2	0.0787	1.7040	0.6%	8.4%	8.4%	21.0%	12.7%
M24	J	2	0.1720	0.0436	1.2%	0.2%	1.3%	0.5%	8.7%
M42	J	2	0.5906	2.3630	4.3%	11.6%	12.4%	29.1%	20.9%
M1	J	3	0.2112	1.1433	1.5%	5.6%	5.8%	14.1%	4.4%
M24	J	3	0.0860	0.0070	0.6%	0.0%	0.6%	0.1%	9.6%
M42	J	3	0.5667	2.3277	4.1%	11.4%	12.2%	28.7%	19.2%
M1	J	4	0.4126	1.7047	3.0%	8.4%	8.9%	21.0%	10.3%
M24	J	4	0.1305	0.0000	0.9%	0.0%	0.9%	0.0%	5.8%
M42	J	4	0.3288	1.4332	2.4%	7.0%	7.4%	17.7%	10.1%
M1	J	5	0.3846	0.9365	2.8%	4.6%	5.3%	11.5%	9.5%
M24	J	5	0.2908	0.6043	2.1%	3.0%	3.5%	7.4%	9.4%
M42	J	5	0.1121	1.5371	0.8%	7.6%	7.6%	18.9%	7.5%
M1	J	6	0.1876	0.0000	1.4%	0.0%	1.4%	0.0%	4.6%
M24	J	6	0.4601	1.8310	3.3%	9.0%	9.5%	22.6%	16.2%
M42	J	6	0.1233	1.3056	0.9%	6.4%	6.5%	16.1%	7.7%
M1	J	7	0.1028	0.0000	0.7%	0.0%	0.7%	0.0%	4.3%
M24	J	7	0.4205	1.7280	3.0%	8.5%	9.0%	21.3%	14.0%
M42	J	7	0.3579	1.8238	2.6%	9.0%	9.3%	22.5%	9.3%
M1	J	8	0.1781	0.1907	1.3%	0.9%	1.4%	2.4%	5.7%
M24	J	8	0.2354	1.6383	1.7%	8.1%	8.2%	20.2%	5.9%
M42	J	8	0.6056	2.3463	4.4%	11.5%	12.3%	28.9%	15.0%
M1	J	9	0.2832	0.2828	2.1%	1.4%	2.3%	3.5%	5.9%
M24	J	9	0.1479	1.7984	1.1%	8.8%	8.9%	22.2%	6.7%
M42	J	9	0.5936	1.4105	4.3%	6.9%	7.9%	17.4%	11.5%
M1	J	10	0.4676	1.8128	3.4%	8.9%	9.5%	22.3%	15.9%
M24	J	10	0.0509	1.2967	0.4%	6.4%	6.4%	16.1%	8.4%
M42	J	10	0.3658	0.0000	2.6%	0.0%	2.6%	0.0%	6.2%
M1	J	11	0.4292	2.0490	3.1%	10.1%	10.5%	25.3%	16.6%
M24	J	11	0.2031	1.5202	1.5%	7.5%	7.6%	18.7%	6.3%
M42	J	11	0.1631	0.0000	1.2%	0.0%	1.2%	0.0%	8.9%
M1	J	12	0.2241	1.4388	1.6%	7.1%	7.3%	17.7%	10.1%
M24	J	12	0.3885	1.7591	2.8%	8.6%	9.1%	21.7%	10.6%
M42	J	12	0.1698	0.0000	1.2%	0.0%	1.2%	0.0%	6.9%
M1	J	13	0.1209	1.1526	0.9%	5.7%	5.7%	14.2%	8.7%
M24	J	13	0.1465	0.9229	1.1%	4.5%	4.6%	11.4%	5.4%
M42	J	13	0.1092	1.2015	0.8%	5.9%	5.9%	14.8%	9.6%
M1	J	14	0.1027	1.1837	0.7%	5.8%	5.8%	14.6%	9.1%
M24	J	14	0.1343	0.8472	1.0%	4.2%	4.2%	10.4%	7.1%
M42	J	14	0.1474	1.4941	1.1%	7.3%	7.4%	18.4%	12.0%

	Standoff Arm Flange Connection Check			Date
				10/19/2023
	Customer:	SBA	TIA Standard:	ANSI/TIA-222-H
	Carrier:	T-Mobile	Mount Elev. [ft]:	83
	Site Name:		Engineer Name:	V Annamreddy
Site Number:	CT46132	Project #:	142876	


Results Summary Table (Continued)

Member Label	Member End	Load Combo #	Max Bolt Shear [K]	Max Bolt Tension [K]	Bolt Shear Check	Bolt Tension Check	Bolt Interaction Check	Plate Bending Check	Weld Check
M1	J	15	0.1088	1.0518	0.8%	5.2%	5.2%	13.0%	7.2%
M24	J	15	0.1499	0.8419	1.1%	4.1%	4.2%	10.4%	7.1%
M42	J	15	0.1358	1.4866	1.0%	7.3%	7.4%	18.3%	11.6%
M1	J	16	0.1299	1.1596	0.9%	5.7%	5.7%	14.3%	4.6%
M24	J	16	0.1715	0.7930	1.2%	3.9%	3.9%	9.8%	6.7%
M42	J	16	0.0816	1.2995	0.6%	6.4%	6.4%	16.0%	9.7%
M1	J	17	0.1311	0.9858	0.9%	4.8%	4.9%	12.2%	4.4%
M24	J	17	0.2006	0.9903	1.5%	4.9%	4.9%	12.2%	8.3%
M42	J	17	0.0381	1.2759	0.3%	6.3%	6.3%	15.9%	9.1%
M1	J	18	0.1260	0.7324	0.9%	3.6%	3.7%	9.0%	5.7%
M24	J	18	0.2278	1.2495	1.6%	6.1%	6.2%	15.4%	10.3%
M42	J	18	0.0475	1.2438	0.3%	6.1%	6.1%	15.6%	9.0%
M1	J	19	0.1396	0.7269	1.0%	3.6%	3.7%	9.0%	5.6%
M24	J	19	0.2193	1.2260	1.6%	6.0%	6.1%	15.1%	9.8%
M42	J	19	0.1033	1.3612	0.7%	6.7%	6.7%	16.8%	7.0%
M1	J	20	0.1544	0.8171	1.1%	4.0%	4.1%	10.1%	5.3%
M24	J	20	0.1868	1.1330	1.4%	5.6%	5.7%	14.0%	8.1%
M42	J	20	0.1538	1.4610	1.1%	7.2%	7.2%	18.0%	4.8%
M1	J	21	0.1697	0.8809	1.2%	4.3%	4.4%	10.9%	7.2%
M24	J	21	0.1701	1.1728	1.2%	5.8%	5.9%	14.5%	8.0%
M42	J	21	0.1506	1.2498	1.1%	6.1%	6.2%	15.4%	5.1%
M1	J	22	0.1987	1.2083	1.4%	5.9%	6.0%	14.9%	9.8%
M24	J	22	0.1509	1.1109	1.1%	5.5%	5.5%	13.8%	8.5%
M42	J	22	0.1061	0.9201	0.8%	4.5%	4.6%	11.3%	6.9%
M1	J	23	0.1878	1.2615	1.4%	6.2%	6.3%	15.5%	10.0%
M24	J	23	0.1507	1.1293	1.1%	5.6%	5.6%	13.9%	6.9%
M42	J	23	0.0666	0.9258	0.5%	4.6%	4.6%	11.4%	7.5%
M1	J	24	0.1492	1.1404	1.1%	5.6%	5.6%	14.1%	8.7%
M24	J	24	0.1592	1.1637	1.2%	5.7%	5.8%	14.3%	5.0%
M42	J	24	0.0741	0.9511	0.5%	4.7%	4.7%	11.7%	7.6%
M1	J	25	0.0290	0.4887	0.2%	2.4%	2.4%	6.0%	3.8%
M24	J	25	0.2356	0.7666	1.7%	3.8%	4.1%	9.4%	5.5%
M42	J	25	0.0867	0.5726	0.6%	2.8%	2.9%	7.1%	4.6%
M1	J	26	0.0245	0.5010	0.2%	2.5%	2.5%	6.2%	3.9%
M24	J	26	0.2293	0.7474	1.7%	3.7%	4.0%	9.2%	6.0%
M42	J	26	0.0842	0.6581	0.6%	3.2%	3.3%	8.1%	5.3%
M1	J	27	0.0228	0.4347	0.2%	2.1%	2.1%	5.4%	3.4%
M24	J	27	0.2314	0.7463	1.7%	3.7%	4.0%	9.2%	6.0%
M42	J	27	0.0793	0.6559	0.6%	3.2%	3.3%	8.1%	5.2%
M1	J	28	0.0291	0.4417	0.2%	2.2%	2.2%	5.4%	2.6%
M24	J	28	0.2371	0.7278	1.7%	3.6%	4.0%	9.0%	5.9%
M42	J	28	0.0773	0.6005	0.6%	3.0%	3.0%	7.5%	4.7%

	Standoff Arm Flange Connection Check			Date
				10/19/2023
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	Carrier:	T-Mobile	Mount Elev. [ft]:	83
	Site Name:		Engineer Name:	V Annamreddy
Site Number:	CT46132	Project #:	142876	


Results Summary Table (Continued)

Member Label	Member End	Load Combo #	Max Bolt Shear [K]	Max Bolt Tension [K]	Bolt Shear Check	Bolt Tension Check	Bolt Interaction Check	Plate Bending Check	Weld Check
M1	J	29	0.0282	0.3934	0.2%	1.9%	1.9%	4.8%	2.5%
M24	J	29	0.2435	0.7833	1.8%	3.9%	4.2%	9.7%	6.3%
M42	J	29	0.0859	0.6076	0.6%	3.0%	3.0%	7.5%	4.5%
M1	J	30	0.0271	0.3626	0.2%	1.8%	1.8%	4.5%	2.9%
M24	J	30	0.2538	0.8600	1.8%	4.2%	4.6%	10.6%	6.9%
M42	J	30	0.0965	0.5927	0.7%	2.9%	3.0%	7.4%	4.5%
M1	J	31	0.0312	0.3586	0.2%	1.8%	1.8%	4.4%	2.9%
M24	J	31	0.2528	0.8530	1.8%	4.2%	4.6%	10.5%	6.8%
M42	J	31	0.1106	0.6253	0.8%	3.1%	3.1%	7.7%	4.0%
M1	J	32	0.0353	0.3463	0.3%	1.7%	1.7%	4.4%	2.8%
M24	J	32	0.2462	0.8257	1.8%	4.1%	4.4%	10.3%	6.3%
M42	J	32	0.1240	0.6582	0.9%	3.2%	3.3%	8.1%	3.4%
M1	J	33	0.0404	0.4118	0.3%	2.0%	2.0%	5.1%	3.3%
M24	J	33	0.2441	0.8351	1.8%	4.1%	4.4%	10.4%	6.3%
M42	J	33	0.1250	0.5998	0.9%	2.9%	3.0%	7.4%	3.5%
M1	J	34	0.0484	0.5075	0.4%	2.5%	2.5%	6.3%	4.1%
M24	J	34	0.2384	0.8236	1.7%	4.0%	4.4%	10.3%	6.4%
M42	J	34	0.1147	0.5031	0.8%	2.5%	2.5%	6.3%	4.0%
M1	J	35	0.0463	0.5228	0.3%	2.6%	2.6%	6.4%	4.1%
M24	J	35	0.2385	0.8183	1.7%	4.0%	4.3%	10.1%	6.0%
M42	J	35	0.1033	0.5013	0.7%	2.5%	2.6%	6.2%	4.1%
M1	J	36	0.0361	0.4840	0.3%	2.4%	2.4%	6.0%	3.7%
M24	J	36	0.2405	0.8330	1.7%	4.1%	4.4%	10.3%	5.4%
M42	J	36	0.0926	0.5035	0.7%	2.5%	2.6%	6.3%	4.1%
M1	J	37	0.0766	0.4666	0.6%	2.3%	2.4%	5.8%	3.3%
M24	J	37	0.1143	0.4440	0.8%	2.2%	2.3%	5.5%	3.5%
M42	J	37	0.1672	0.8373	1.2%	4.1%	4.2%	10.3%	6.3%
M1	J	38	0.0720	0.4460	0.5%	2.2%	2.2%	5.6%	3.5%
M24	J	38	0.1117	0.4704	0.8%	2.3%	2.3%	5.8%	4.0%
M42	J	38	0.1706	0.9227	1.2%	4.5%	4.6%	11.4%	7.0%
M1	J	39	0.0740	0.4651	0.5%	2.3%	2.3%	5.7%	2.9%
M24	J	39	0.1188	0.4678	0.9%	2.3%	2.3%	5.8%	4.0%
M42	J	39	0.1682	0.9205	1.2%	4.5%	4.6%	11.3%	6.9%
M1	J	40	0.0800	0.4998	0.6%	2.5%	2.5%	6.2%	2.2%
M24	J	40	0.1245	0.4493	0.9%	2.2%	2.2%	5.5%	3.8%
M42	J	40	0.1663	0.8651	1.2%	4.3%	4.3%	10.7%	6.3%
M1	J	41	0.0800	0.4515	0.6%	2.2%	2.3%	5.6%	2.1%
M24	J	41	0.1323	0.5056	1.0%	2.5%	2.5%	6.2%	4.3%
M42	J	41	0.1715	0.8497	1.2%	4.2%	4.4%	10.7%	6.2%
M1	J	42	0.0781	0.3765	0.6%	1.9%	1.9%	4.6%	2.5%
M24	J	42	0.1399	0.5823	1.0%	2.9%	2.9%	7.2%	4.9%
M42	J	42	0.1794	0.8475	1.3%	4.2%	4.3%	10.6%	6.2%

	Standoff Arm Flange Connection Check			Date
				10/19/2023
	Customer:	SBA	TIA Standard:	ANSI/TIA-222-H
	Carrier:	T-Mobile	Mount Elev. [ft]:	83
	Site Name:		Engineer Name:	V Annamreddy
Site Number:	CT46132	Project #:	142876	


Results Summary Table (Continued)

Member Label	Member End	Load Combo #	Max Bolt Shear [K]	Max Bolt Tension [K]	Bolt Shear Check	Bolt Tension Check	Bolt Interaction Check	Plate Bending Check	Weld Check
M1	J	43	0.0817	0.3755	0.6%	1.8%	1.9%	4.6%	2.5%
M24	J	43	0.1388	0.5753	1.0%	2.8%	2.9%	7.1%	4.8%
M42	J	43	0.1905	0.8683	1.4%	4.3%	4.5%	10.7%	5.7%
M1	J	44	0.0868	0.4051	0.6%	2.0%	2.1%	5.0%	2.4%
M24	J	44	0.1305	0.5241	0.9%	2.6%	2.6%	6.5%	4.2%
M42	J	44	0.2006	0.9004	1.5%	4.4%	4.7%	11.1%	5.1%
M1	J	45	0.0845	0.3771	0.6%	1.9%	1.9%	4.6%	2.9%
M24	J	45	0.1232	0.5267	0.9%	2.6%	2.7%	6.6%	4.2%
M42	J	45	0.1985	0.8420	1.4%	4.1%	4.4%	10.4%	5.2%
M1	J	46	0.0913	0.4532	0.7%	2.2%	2.3%	5.6%	3.7%
M24	J	46	0.1175	0.5452	0.9%	2.7%	2.7%	6.7%	4.4%
M42	J	46	0.1847	0.7513	1.3%	3.7%	3.9%	9.5%	5.7%
M1	J	47	0.0892	0.4678	0.6%	2.3%	2.3%	5.8%	3.7%
M24	J	47	0.1161	0.4957	0.8%	2.4%	2.6%	6.2%	4.0%
M42	J	47	0.1713	0.7652	1.2%	3.8%	3.9%	9.4%	5.8%
M1	J	48	0.0803	0.4657	0.6%	2.3%	2.4%	5.7%	3.3%
M24	J	48	0.1175	0.5103	0.9%	2.5%	2.6%	6.3%	3.4%
M42	J	48	0.1653	0.7681	1.2%	3.8%	3.9%	9.5%	5.8%
M1	J	49	0.0614	0.4623	0.4%	2.3%	2.3%	5.7%	3.6%
M24	J	49	0.0728	0.4792	0.5%	2.4%	2.4%	5.9%	3.8%
M42	J	49	0.0304	0.5247	0.2%	2.6%	2.6%	6.5%	4.1%
M1	J	50	0.0908	0.6611	0.7%	3.3%	3.3%	8.3%	5.2%
M24	J	50	0.0697	0.4801	0.5%	2.4%	2.4%	5.9%	3.8%
M42	J	50	0.0343	0.5256	0.2%	2.6%	2.6%	6.5%	4.1%
M1	J	51	0.0716	0.5389	0.5%	2.6%	2.7%	6.7%	4.2%
M24	J	51	0.0849	0.5590	0.6%	2.7%	2.8%	6.9%	4.4%
M42	J	51	0.0356	0.6114	0.3%	3.0%	3.0%	7.6%	4.7%
M1	J	52	0.0607	0.5394	0.4%	2.7%	2.7%	6.6%	4.1%
M24	J	52	0.0754	0.4809	0.5%	2.4%	2.4%	5.9%	3.4%
M42	J	52	0.0431	0.5762	0.3%	2.8%	2.8%	7.1%	4.6%
M1	J	53	0.0608	0.5244	0.4%	2.6%	2.6%	6.5%	3.9%
M24	J	53	0.0748	0.4406	0.5%	2.2%	2.2%	5.5%	3.5%
M42	J	53	0.0457	0.6097	0.3%	3.0%	3.0%	7.5%	4.8%
M1	J	54	0.0615	0.5257	0.4%	2.6%	2.6%	6.5%	3.6%
M24	J	54	0.0750	0.4516	0.5%	2.2%	2.2%	5.6%	3.7%
M42	J	54	0.0427	0.6263	0.3%	3.1%	3.1%	7.7%	4.9%
M1	J	55	0.0635	0.5103	0.5%	2.5%	2.5%	6.3%	3.3%
M24	J	55	0.0791	0.4842	0.6%	2.4%	2.4%	6.0%	3.9%
M42	J	55	0.0360	0.6207	0.3%	3.1%	3.1%	7.7%	4.8%
M1	J	56	0.0649	0.4827	0.5%	2.4%	2.4%	6.0%	3.2%
M24	J	56	0.0848	0.5192	0.6%	2.6%	2.6%	6.4%	4.2%
M42	J	56	0.0295	0.5954	0.2%	2.9%	2.9%	7.4%	4.5%

	Standoff Arm Flange Connection Check			Date
				10/19/2023
	Customer:	SBA	TIA Standard:	ANSI/TIA-222-H
	Carrier:	T-Mobile	Mount Elev. [ft]:	83
	Site Name:		Engineer Name:	V Annamreddy
Site Number:	CT46132	Project #:	142876	

Results Summary Table (Continued)

Member Label	Member End	Load Combo #	Max Bolt Shear [K]	Max Bolt Tension [K]	Bolt Shear Check	Bolt Tension Check	Bolt Interaction Check	Plate Bending Check	Weld Check
M1	J	57	0.0663	0.4502	0.5%	2.2%	2.3%	5.5%	3.2%
M24	J	57	0.0868	0.5487	0.6%	2.7%	2.7%	6.8%	4.4%
M42	J	57	0.0293	0.5944	0.2%	2.9%	2.9%	7.3%	4.2%
M1	J	58	0.0668	0.4213	0.5%	2.1%	2.1%	5.3%	3.4%
M24	J	58	0.0858	0.5644	0.6%	2.8%	2.8%	7.0%	4.5%
M42	J	58	0.0387	0.6011	0.3%	3.0%	3.0%	7.4%	3.8%
M1	J	59	0.0684	0.4521	0.5%	2.2%	2.2%	5.6%	3.6%
M24	J	59	0.0812	0.5621	0.6%	2.8%	2.8%	6.9%	4.4%
M42	J	59	0.0446	0.5863	0.3%	2.9%	2.9%	7.2%	3.6%
M1	J	60	0.0732	0.4927	0.5%	2.4%	2.4%	6.1%	3.9%
M24	J	60	0.0763	0.5421	0.6%	2.7%	2.7%	6.8%	4.2%
M42	J	60	0.0452	0.5540	0.3%	2.7%	2.7%	6.8%	3.6%
M1	J	61	0.0750	0.5290	0.5%	2.6%	2.6%	6.5%	4.2%
M24	J	61	0.0761	0.5447	0.6%	2.7%	2.7%	6.7%	3.9%
M42	J	61	0.0407	0.5132	0.3%	2.5%	2.5%	6.3%	3.7%
M1	J	62	0.0722	0.5529	0.5%	2.7%	2.7%	6.8%	4.3%
M24	J	62	0.0761	0.5403	0.6%	2.7%	2.7%	6.7%	3.7%
M42	J	62	0.0343	0.4943	0.2%	2.4%	2.4%	6.1%	3.9%
M1	J	63	0.0668	0.5562	0.5%	2.7%	2.7%	6.9%	4.3%
M24	J	63	0.0757	0.5169	0.5%	2.5%	2.6%	6.4%	3.5%
M42	J	63	0.0376	0.5335	0.3%	2.6%	2.6%	6.6%	4.2%
M1	J	64	0.0407	0.3890	0.3%	1.9%	1.9%	4.8%	3.0%
M24	J	64	0.0517	0.3340	0.4%	1.6%	1.7%	4.1%	2.2%
M42	J	64	0.0348	0.4044	0.3%	2.0%	2.0%	5.0%	3.2%
M1	J	65	0.0407	0.3784	0.3%	1.9%	1.9%	4.7%	2.7%
M24	J	65	0.0510	0.2937	0.4%	1.4%	1.5%	3.6%	2.2%
M42	J	65	0.0375	0.4380	0.3%	2.2%	2.2%	5.4%	3.5%
M1	J	66	0.0421	0.3798	0.3%	1.9%	1.9%	4.7%	2.4%
M24	J	66	0.0511	0.2957	0.4%	1.5%	1.5%	3.6%	2.4%
M42	J	66	0.0349	0.4546	0.3%	2.2%	2.2%	5.6%	3.5%
M1	J	67	0.0437	0.3644	0.3%	1.8%	1.8%	4.5%	2.1%
M24	J	67	0.0563	0.3275	0.4%	1.6%	1.6%	4.0%	2.7%
M42	J	67	0.0275	0.4497	0.2%	2.2%	2.2%	5.5%	3.4%
M1	J	68	0.0451	0.3368	0.3%	1.7%	1.7%	4.2%	2.0%
M24	J	68	0.0617	0.3633	0.4%	1.8%	1.8%	4.5%	3.0%
M42	J	68	0.0197	0.4236	0.1%	2.1%	2.1%	5.2%	3.2%
M1	J	69	0.0463	0.3043	0.3%	1.5%	1.5%	3.8%	2.0%
M24	J	69	0.0644	0.3928	0.5%	1.9%	2.0%	4.8%	3.2%
M42	J	69	0.0209	0.4309	0.2%	2.1%	2.1%	5.3%	2.8%
M1	J	70	0.0467	0.2761	0.3%	1.4%	1.4%	3.4%	2.2%
M24	J	70	0.0628	0.4086	0.5%	2.0%	2.0%	5.0%	3.2%
M42	J	70	0.0312	0.4368	0.2%	2.1%	2.2%	5.4%	2.5%

	Standoff Arm Flange Connection Check			Date
				10/19/2023
	Customer:	SBA	TIA Standard:	ANSI/TIA-222-H
	Carrier:	T-Mobile	Mount Elev. [ft]:	83
	Site Name:		Engineer Name:	V Annamreddy
Site Number:	CT46132	Project #:	142876	

Results Summary Table (Continued)

Member Label	Member End	Load Combo #	Max Bolt Shear [K]	Max Bolt Tension [K]	Bolt Shear Check	Bolt Tension Check	Bolt Interaction Check	Plate Bending Check	Weld Check
M1	J	71	0.0492	0.3016	0.4%	1.5%	1.5%	3.7%	2.5%
M24	J	71	0.0580	0.4062	0.4%	2.0%	2.0%	5.0%	3.2%
M42	J	71	0.0373	0.4220	0.3%	2.1%	2.1%	5.2%	2.3%
M1	J	72	0.0542	0.3422	0.4%	1.7%	1.7%	4.2%	2.8%
M24	J	72	0.0524	0.3862	0.4%	1.9%	1.9%	4.8%	3.0%
M42	J	72	0.0376	0.3897	0.3%	1.9%	1.9%	4.8%	2.2%
M1	J	73	0.0563	0.3786	0.4%	1.9%	1.9%	4.7%	3.0%
M24	J	73	0.0524	0.3970	0.4%	2.0%	2.0%	4.9%	2.7%
M42	J	73	0.0324	0.3489	0.2%	1.7%	1.7%	4.3%	2.3%
M1	J	74	0.0540	0.4017	0.4%	2.0%	2.0%	5.0%	3.2%
M24	J	74	0.0525	0.3934	0.4%	1.9%	2.0%	4.8%	2.4%
M42	J	74	0.0253	0.3233	0.2%	1.6%	1.6%	4.0%	2.6%
M1	J	75	0.0478	0.4057	0.3%	2.0%	2.0%	5.0%	3.1%
M24	J	75	0.0521	0.3707	0.4%	1.8%	1.8%	4.6%	2.2%
M42	J	75	0.0284	0.3625	0.2%	1.8%	1.8%	4.5%	2.9%

EXHIBIT 10

SPECIAL CONSTRUCTION NOTE (SBA-PROVIDED ANTENNA MOUNT STRUCTURAL MOD SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT
THE T-MOBILE RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL
ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).

CT805/NEXTELL NEWTOWN_MP

8 FERRIS ROAD
NEWTOWN, CT 06470
FAIRFIELD COUNTY

SITE NO.: CT11805A

SITE TYPE: 118'± MONOPOLE

PROJECT: MICROWAVE

APPROVALS

PROJECT MANAGER:	DATE:	ZONING/SITE ACQ.:	DATE:
CONSTRUCTION:	DATE:	OPERATIONS:	DATE:
RF ENGINEERING:	DATE:	TOWER OWNER:	DATE:

T-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION	SPECIAL RESTRICTIONS
SECTOR A:	ACCESS BY CERTIFIED CLIMBER
SECTOR B:	ACCESS BY CERTIFIED CLIMBER
SECTOR C:	ACCESS BY CERTIFIED CLIMBER
SECTOR D:	ACCESS BY CERTIFIED CLIMBER
GPS/LMU:	UNRESTRICTED
RADIO CABINETS:	UNRESTRICTED
PPC DISCONNECT:	UNRESTRICTED
MAIN CIRCUIT D/C:	UNRESTRICTED
NIU/T DEMARC:	UNRESTRICTED
OTHER/SPECIAL:	NONE

GENERAL NOTES

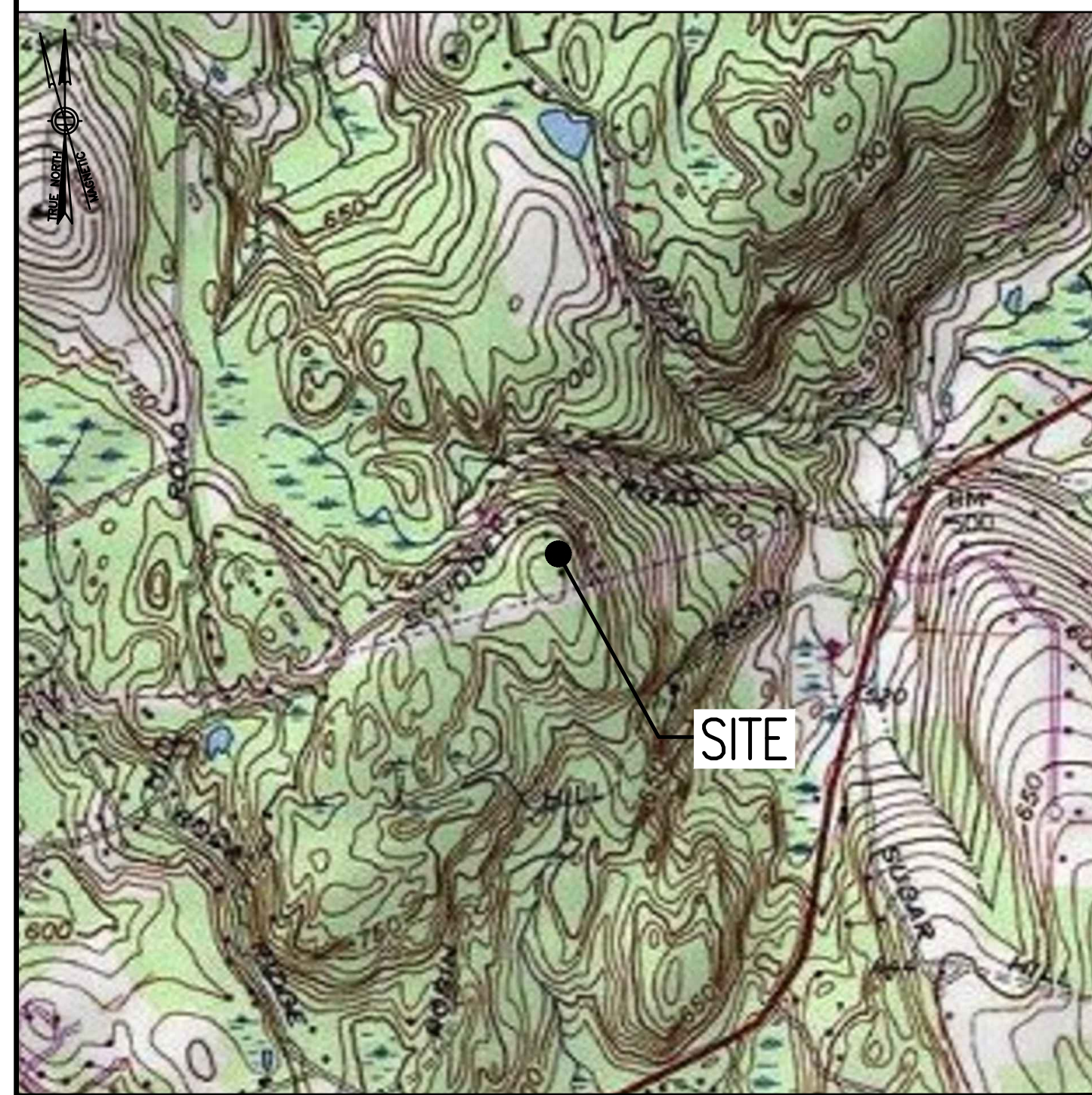
- THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
- THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
- THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE OMINPOINT REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
- THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
- THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
- THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
- THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
- THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE LESSEE/LICENSEE REPRESENTATIVE.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
- ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK.

AT LEAST 72 HOURS PRIOR TO DIGGING, THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT 811



VICINITY MAP

SCALE: 1" = 1000'-0"



DIRECTIONS

FROM NORTON, TAKE I-495 NORTH TOWARD MANSFIELD/MARLBORO. TAKE EXIT 78 FOR I-84 TOWARD HARTFORD CT/N.Y.CITY. CONTINUE ONTO I-84. ENTER CONNECTICUT. KEEP RIGHT TO STAY ON I-84. TAKE EXIT 11 TOWARD CT-34/DERBY/NEW HAVEN. USE LEFT 2 LANES TO TURN LEFT ONTO WASSERMAN WAY. CONTINUE ONTO MILE HILL ROAD. TURN RIGHT ONTO SOUTH MAIN STREET. TURN LEFT ONTO CT-302 WEST/SUGAR STREET. TURN RIGHT ONTO SCUDDER ROAD. TURN LEFT ONTO FERRIS ROAD. SITE IS LOCATED ON THE RIGHT HAND SIDE.

SHEET INDEX

SHEET NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
A-1	COMPOUND & EQUIPMENT PLAN	1
A-2	TOWER ELEVATION & ANTENNA PLANS	1
A-3	SITE DETAILS	1
RF-1	RF DATA	1
E-1	ELECTRIC & GROUNDING DETAILS	1

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SCOPE OF WORK

REMOVE:	INSTALL:
• 1 MICROWAVE ANTENNA	• 1 MICROWAVE ANTENNA
• 1 MICROWAVE ODU	• 2 MICROWAVE RADIOS
• 1 COAXIAL CABLE	• 2 COAXIAL CABLES

SITE NOTES

- THIS IS AN UNMANNED AND RESTRICTED ACCESS TELECOMMUNICATION FACILITY, AND IS NOT FOR HUMAN HABITATION. IT WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
 - ADA COMPLIANCE NOT REQUIRED.
 - POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
 - NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
 - BUILDING CODE: 2022 CONNECTICUT STATE BUILDING CODE
 - ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
 - STRUCTURAL CODE: TIA/EIA-222-H STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

PROJECT SUMMARY

SITE NUMBER:	CT11805A
SITE NAME:	CT805/NEXTELL NEWTOWN_MP
SBA SITE NUMBER:	CT46132-A
SBA SITE NAME:	NEWTOWN-FERRIS RD
SBA COLLO APP NUMBER:	239069, V1
SITE ADDRESS:	8 FERRIS ROAD NEWTOWN, CT 06470
PROPERTY OWNER:	ERICH A. & PATRICIA A. GERTSCH 8 FERRIS ROAD NEWTOWN, CT 06470
TOWER OWNER:	SBA 2012 TC ASSETS, LLC 8501 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226-9523
COUNTY:	FAIRFIELD
ZONING DISTRICT:	R-1 (RESIDENTIAL)
STRUCTURE TYPE:	MONOPOLE
STRUCTURE HEIGHT:	118'±
STRUCTURE HEIGHT W/APPERT.:	125'±
GROUND ELEVATION:	983'±
TOTAL AMSL:	1,108'±
APPLICANT:	T-MOBILE NORTHEAST LLC 15 COMMERCE WAY, SUITE B NORTON, MA 02766
ARCHITECT:	CHAPPELL ENGINEERING ASSOCIATES, LLC 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752
STRUCTURAL ENGINEER:	CHAPPELL ENGINEERING ASSOCIATES, LLC 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752
SITE CONTROL POINT:	LATITUDE: 41.389742° N41°23'23.07" LONGITUDE: -73.338214° W73°20'17.57"

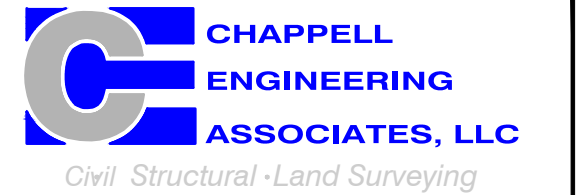
SPECIAL ZONING NOTE:
 BASED ON INFORMATION PROVIDED BY T-MOBILE REGULATORY COMPLIANCE PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409(A), AND IS SUBJECT TO AN ELIGIBLE FACILITY REQUEST, EXPEDITED REVIEW, AND LIMITED/PARTIAL ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW, OR ADMINISTRATIVE REVIEW).

T-Mobile

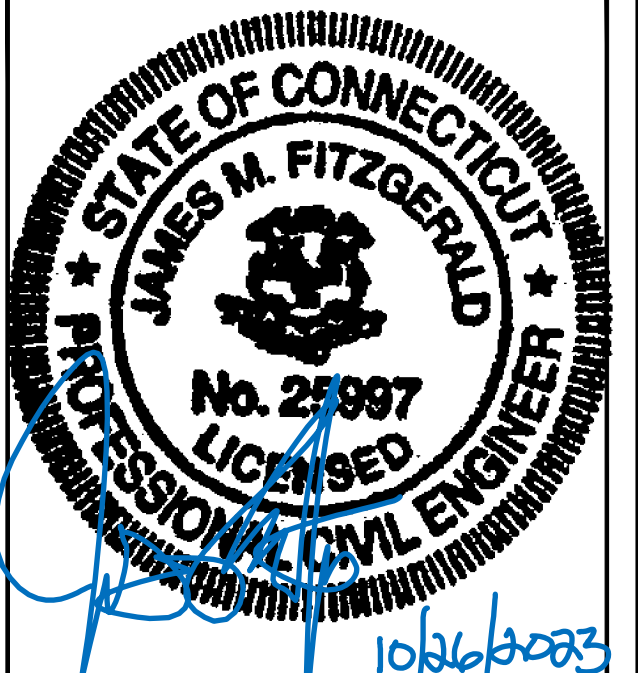
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CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	10/26/23	ISSUED FOR CONSTRUCTION	CMC
0	10/23/23	ISSUED FOR REVIEW	CMC

SITE NUMBER:
CT11805A

SITE ADDRESS:
8 FERRIS ROAD
NEWTOWN, CT 06470

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
CONTRACTOR – T-MOBILE
SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
OWNER – T-MOBILE
OEM – ORIGINAL EQUIPMENT MANUFACTURER
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR 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 CONTRACTOR.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL, STATE AND FEDERAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR AND/OR LANDLORD PRIOR TO CONSTRUCTION.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.
- THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS AND POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.
- CONSTRUCTION SHALL COMPLY WITH ALL T-MOBILE STANDARDS AND SPECIFICATIONS.
- SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- THE EXISTING CELL SITES ARE IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- IF THE EXISTING CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

SITE WORK GENERAL NOTES:

- THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 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 ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.
- ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
- IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
- 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.
- THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.
- 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 IN THE PROJECT SPECIFICATIONS.
- SUBCONTRACTOR 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.
- THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T-MOBILE SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

- 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.
- ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (400PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS
- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST EARTH.....3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 AND LARGER2 IN.
#5 AND SMALLER & WWF1½ IN.
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:
SLAB AND WALL¾ IN.
BEAMS AND COLUMNS½ IN.
- A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.
- CONCRETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
(A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIER'S PLANT.
(B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
- AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
- EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

STRUCTURAL STEEL NOTES:

- ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T-MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
- ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
- BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (¾") AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ¾" DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL.
- ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

- EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
- COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
- AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.
- COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.
- AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

COMPACTION EQUIPMENT:

- HAND OPERATED DOUBLE DRUM, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

CONSTRUCTION NOTES:

- FIELD VERIFICATION:
SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T-MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.
- COORDINATION OF WORK:
SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
- CABLE LADDER RACK:
SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

ELECTRICAL INSTALLATION NOTES:

- WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
- SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLE TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
- CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA, AND MATCH INSTALLATION REQUIREMENTS.
- POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ½ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSHA.
- ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
- POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
- ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY HARGER (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
- RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANS/IEEE AND NEC.
- NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
- RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
- CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANS/IEEE AND NEC.
- CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- WIREWAYS SHALL BE EPOXY-COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY-COATED, OR NON-CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.



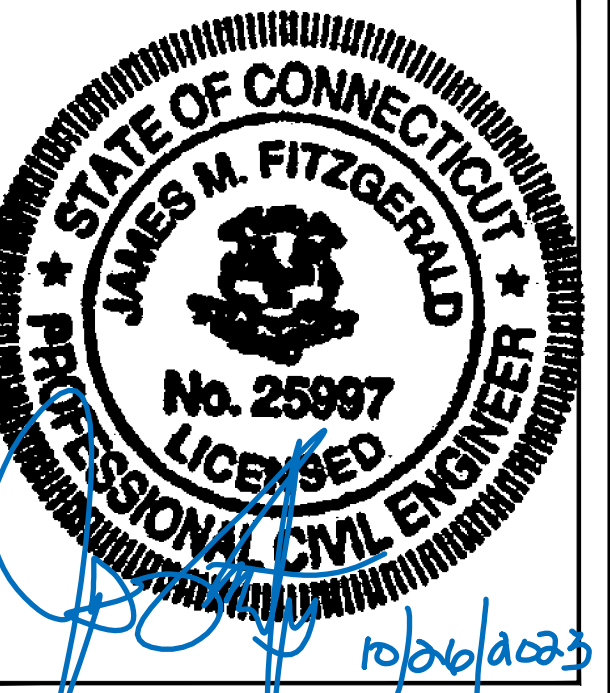
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1	10/26/23	ISSUED FOR CONSTRUCTION	CMC
0	10/23/23	ISSUED FOR REVIEW	CMC

SITE NUMBER:
CT11805A

SITE ADDRESS:
8 FERRIS ROAD
NEWTOWN, CT 06470

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

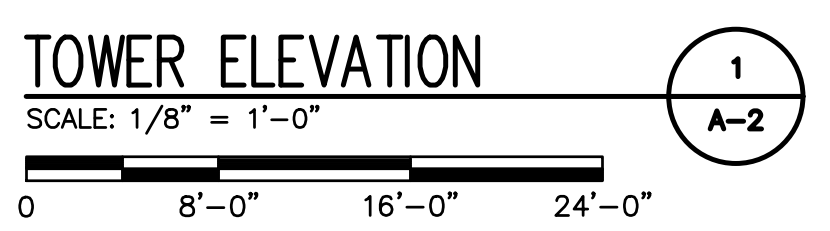
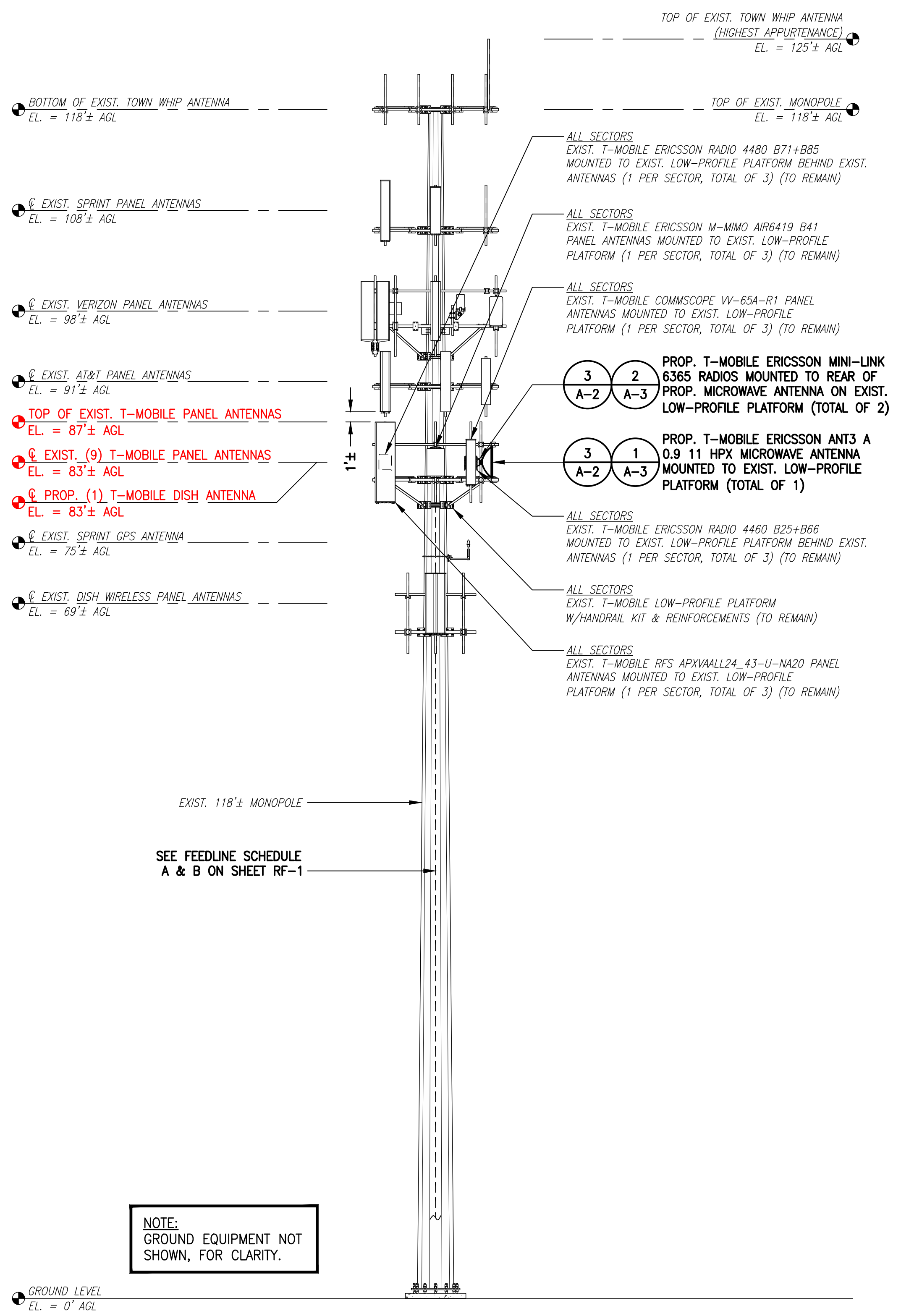
GN-1

SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
 GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

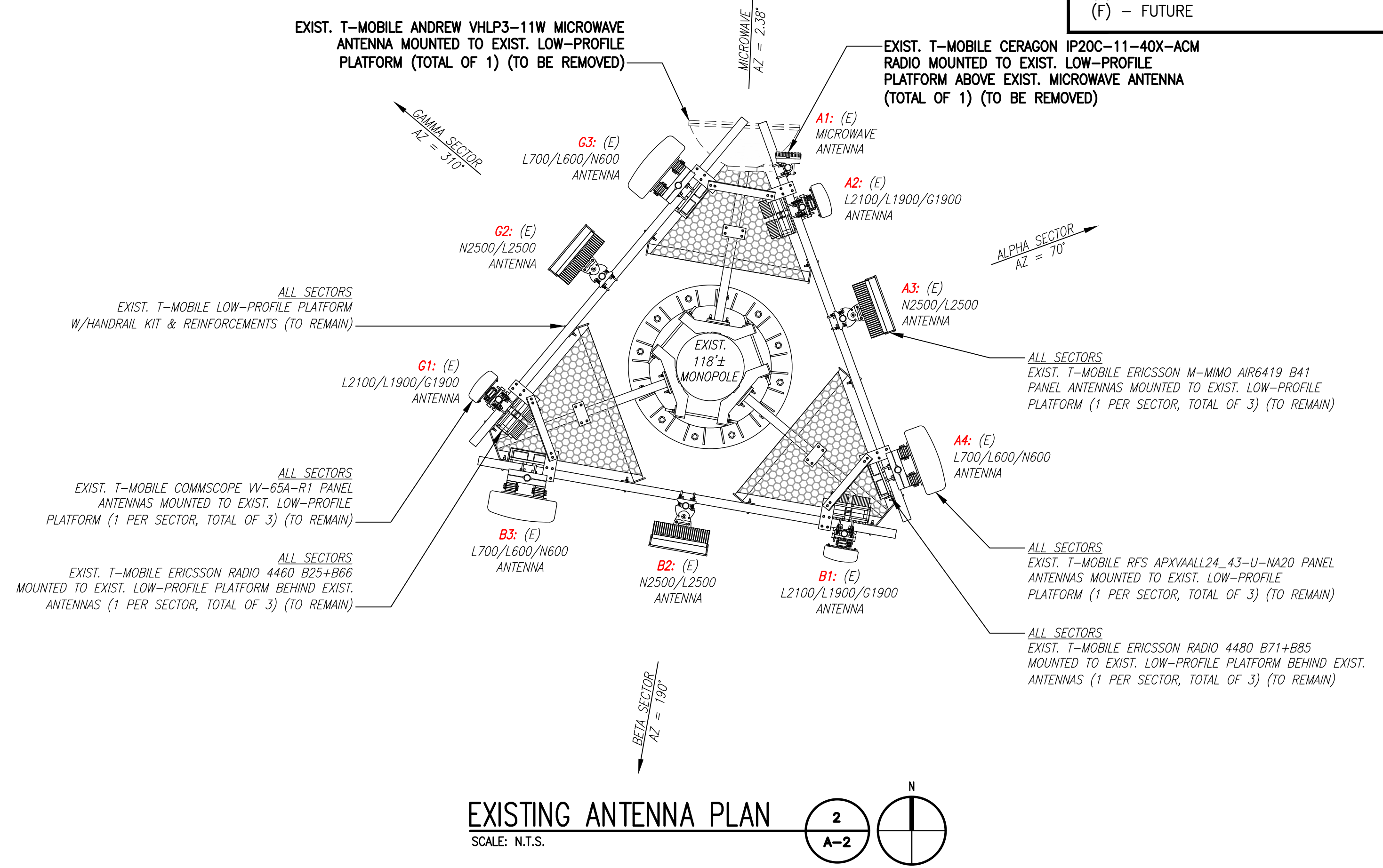
SPECIAL CONSTRUCTION NOTE (SBA-PROVIDED ANTENNA MOUNT STRUCTURAL MOD SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
 GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL ANTENNA MOUNT STRUCTURAL AUGMENTS (STRUCTURAL MODIFICATIONS) AT THE T-MOBILE RAD/VERTICAL EQUIPMENT SPACE PER RECOMMENDATIONS FROM SBA-PROVIDED ANTENNA MOUNT STRUCTURAL ANALYSIS AND ANY SUPPLEMENTAL CONSTRUCTION DRAWINGS (PROVIDED BY OTHERS).

RAD CENTER NOTE:
 T-MOBILE ANTENNA AND MOUNT RAD CENTER SHOWN IN ELEVATION ARE ACCORDING TO STRUCTURAL ANALYSIS DONE BY OTHERS AND MAY DIFFER FROM RAD CENTER ON RFDS PROVIDED BY T-MOBILE.

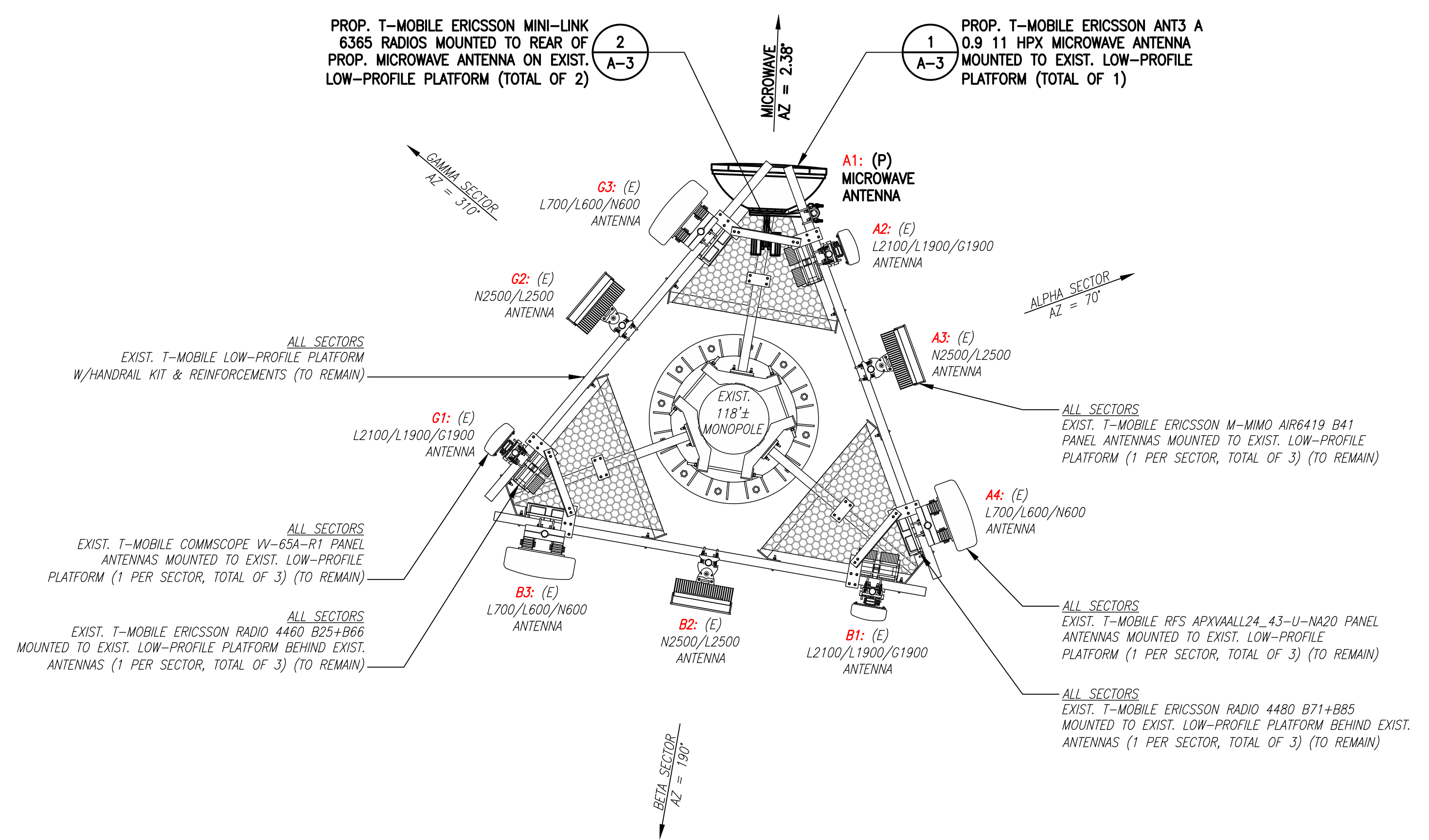
ANTENNA STATUS LEGEND:
 EMPTY - EMPTY PIPE
 (E) - EXISTING
 (P) - INSTALL
 (F) - FUTURE



NOTE:
 GROUND EQUIPMENT NOT SHOWN, FOR CLARITY.



EXISTING ANTENNA PLAN
 SCALE: N.T.S.



PROPOSED ANTENNA PLAN
 SCALE: N.T.S.

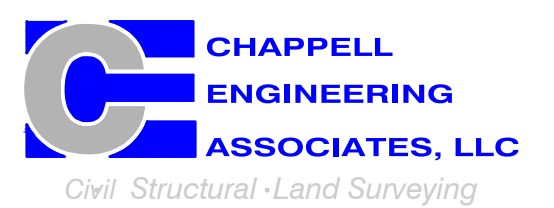
NOTE:
 VERIFY PROPOSED AZIMUTHS WITH RF ENGINEER PRIOR TO INSTALLATION.



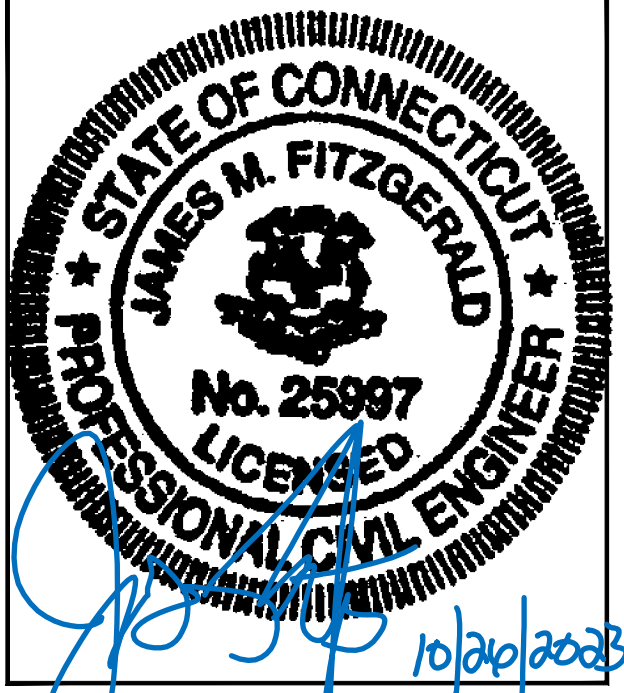
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SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	10/26/23	ISSUED FOR CONSTRUCTION	CMC
0	10/23/23	ISSUED FOR REVIEW	CMC

SITE NUMBER:
 CT11805A

SITE ADDRESS:
 8 FERRIS ROAD
 NEWTOWN, CT 06470

SHEET TITLE
 TOWER ELEVATION &
 ANTENNA PLANS

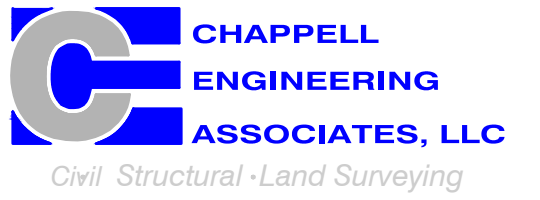
SHEET NUMBER
 A-2



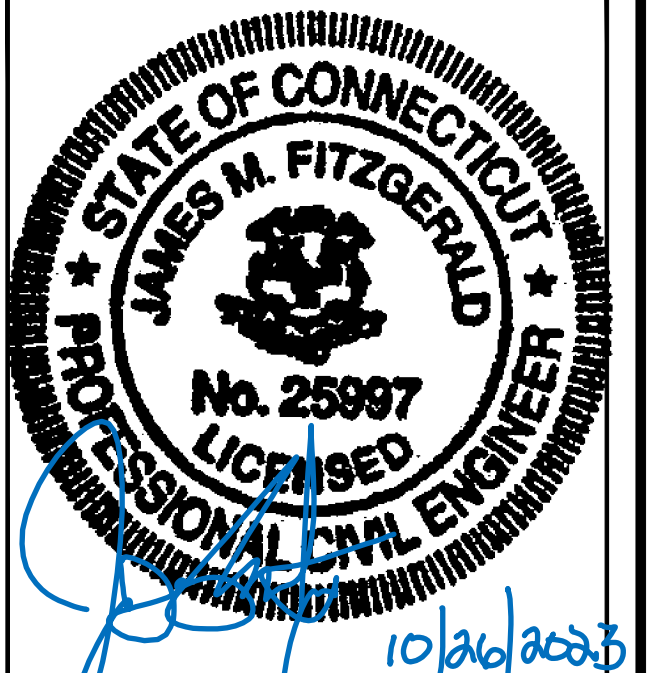
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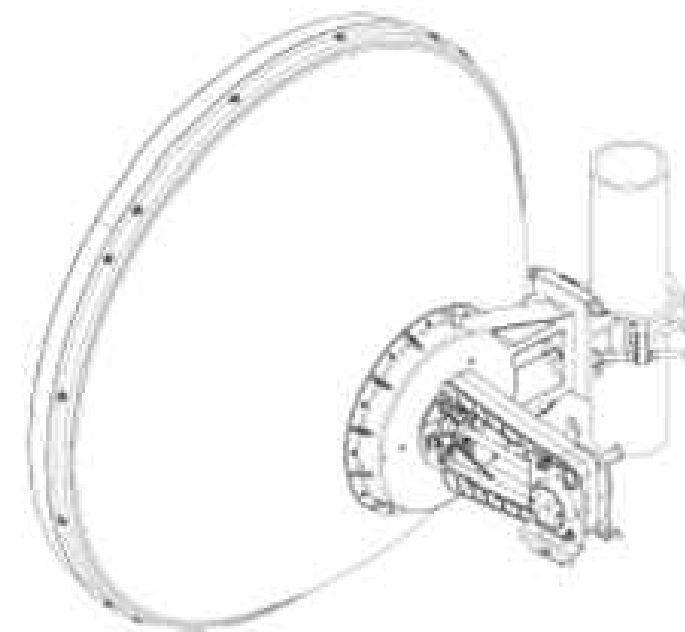
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NEWTOWN, CT 06470

SHEET TITLE
SITE DETAILS

SHEET NUMBER
A-3



ERICSSON ANT3 A 0.9 11 HPX
DIMENSIONS: 39.4"Ø x 29.1"D
WEIGHT: 41.9 lbs
QUANTITY: TOTAL OF 1

ANTENNA DETAIL 1
A-3
SCALE: N.T.S.



ERICSSON MINI-LINK 6365
DIMENSIONS: 7.0"H x 7.8"W x 3.1"D
WEIGHT: 5.5 lbs
QUANTITY: TOTAL OF 2

RADIO DETAIL 2
A-3
SCALE: N.T.S.

FINAL ANTENNA CONFIGURATION								
SECTOR	ANTENNA	RAD CENTER	AZIMUTH (TRUE NORTH)	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	BAND	RADIOS	SIGNAL CABLES
MICROWAVE	A1 ERICSSON ANT3 A 0.9 11 HPX	83'± AGL	2.38'	-	-	-	ERICSSON MINI-LINK 6365 (TOTAL OF 2)	PROP. (2) 3/8" COAXIAL CABLES
ALPHA	A2 COMMSCOPE W-65A-R1	83'± AGL	70'	0°	2°	L2100/L1900/G1900	ERICSSON RADIO 4460 B25+B66	EXIST. (3) 2" (6x24) HCS FIBER CABLES
	A3 ERICSSON M-MIMO AIR6419 B41	83'± AGL	70'	0°	2°	L2500/N2500	-	
	A4 RFS APXVAALL24_43-U-NA20	83'± AGL	70'	0°	2°	L700/L600/N600	ERICSSON RADIO 4480 B71+B85	
BETA	B1 COMMSCOPE W-65A-R1	83'± AGL	190'	0°	2°	L2100/L1900/G1900	ERICSSON RADIO 4460 B25+B66	
	B2 ERICSSON M-MIMO AIR6419 B41	83'± AGL	190'	0°	2°	L2500/N2500	-	
	B3 RFS APXVAALL24_43-U-NA20	83'± AGL	190'	0°	2°	L700/L600/N600	ERICSSON RADIO 4480 B71+B85	
GAMMA	G1 COMMSCOPE W-65A-R1	83'± AGL	310'	0°	2°	L2100/L1900/G1900	ERICSSON RADIO 4460 B25+B66	
	G2 ERICSSON M-MIMO AIR6419 B41	83'± AGL	310'	0°	2°	L2500/N2500	-	
	G3 RFS APXVAALL24_43-U-NA20	83'± AGL	310'	0°	2°	L700/L600/N600	ERICSSON RADIO 4480 B71+B85	

CABLE NOTE: EXISTING (1) 1/2" COAXIAL CABLE TO BE REMOVED. SEE FEEDLINE SCHEDULE A & B.

NOTE: ANCHOR RFDS REV4 - 04/01/22

RAD CENTER NOTE:
T-MOBILE ANTENNA RAD CENTER SHOWN IN ABOVE SCHEDULE IS ACCORDING TO RFDS PROVIDED BY T-MOBILE AND MIGHT DIFFER FROM ACTUAL ANTENNA RAD CENTER ON STRUCTURAL ANALYSIS.

FEEDLINE SCHEDULE		
SCHEDULE	FEEDLINES	LOCATION
A	EXISTING TO REMAIN: (1) 1/2" COAXIAL CABLE FOR GPS ANTENNA (3) 2" (6x24) HCS FIBER CABLES EXISTING TO BE REMOVED: (1) 1/2" COAXIAL CABLE FOR DISH ANTENNA	ROUTED PER STRUCTURAL ANALYSIS
B	PROPOSED: (2) 3/8" COAXIAL CABLES FOR DISH ANTENNA	

NOTE:
EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.

RAN EQUIPMENT		
CABINET	EXISTING	PROPOSED
ERICSSON RBS6201 ODE	(1) DUC20 (1) BB 5216 (6) RUS01 B2 (6) RUS01 B12	(1) DUC20 (6) RUS01 B12 (1) RP 6651 (1) XMU
ERICSSON 6160 AC V1	(1) RP 6651 (1) CSR IXRe V2 (GEN2)	(1) RP 6651 (1) CSR IXRe V2 (GEN2)

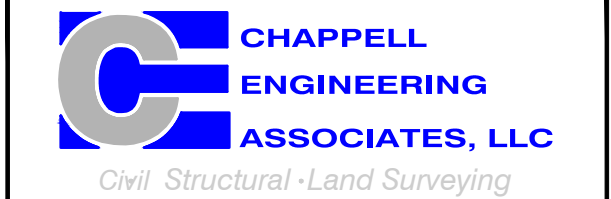
NOTE:
RAN EQUIPMENT IS BASED ON RFDS REV4 DATED 04/01/22.



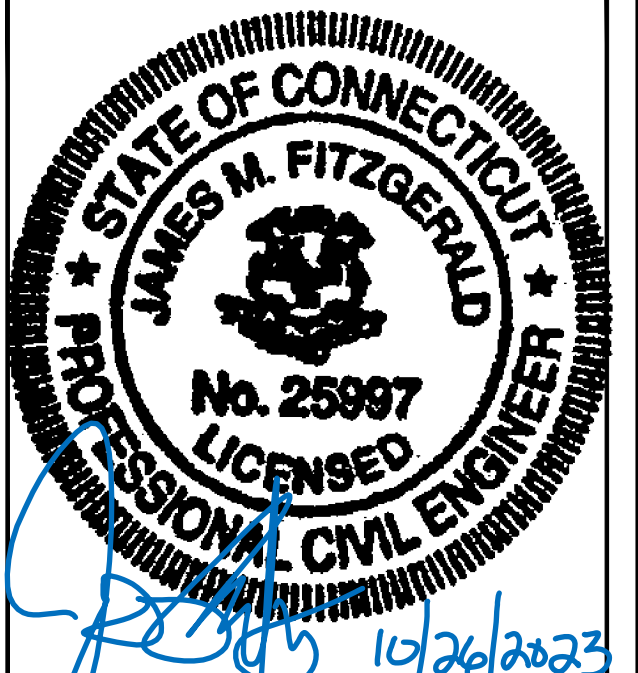
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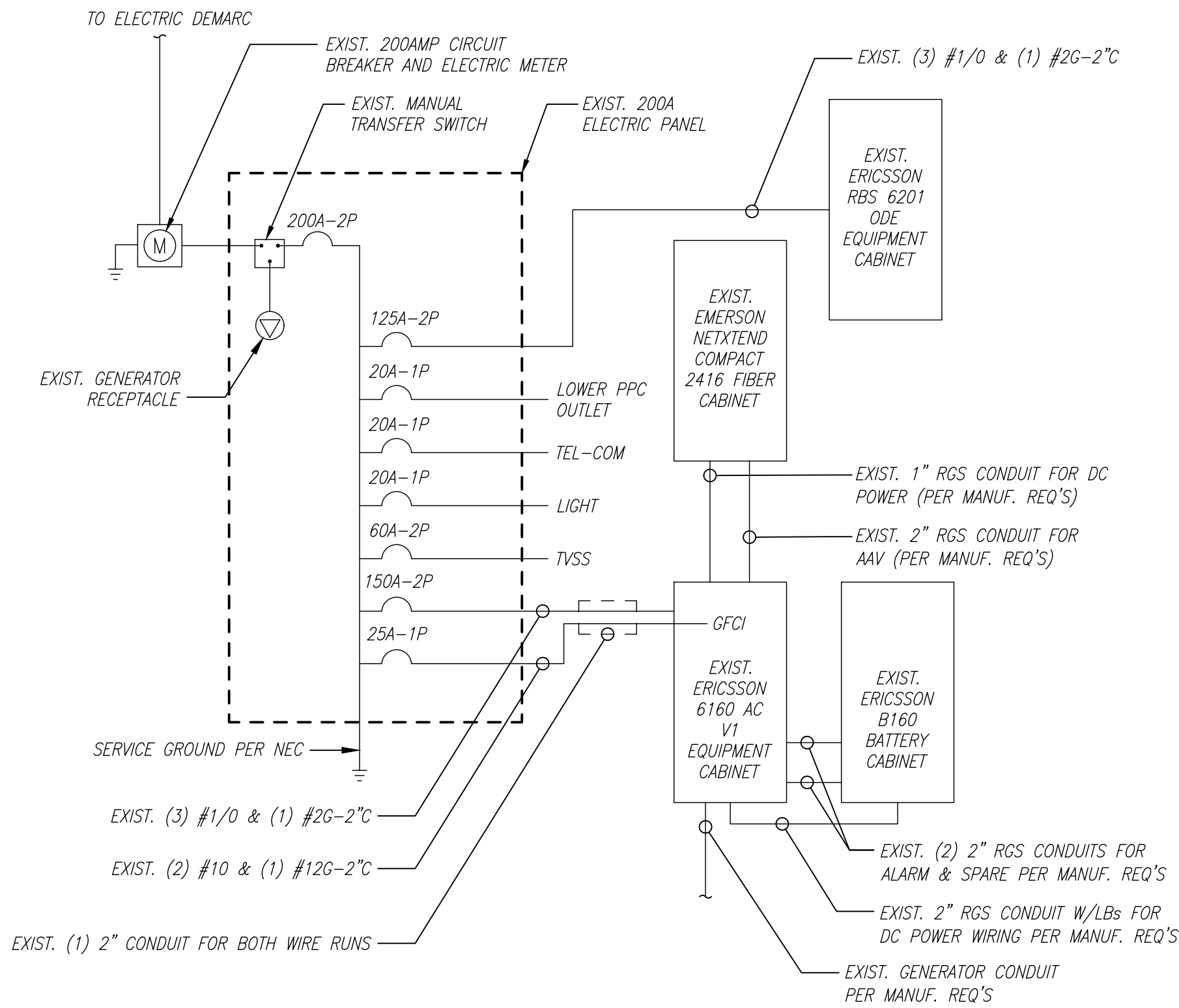
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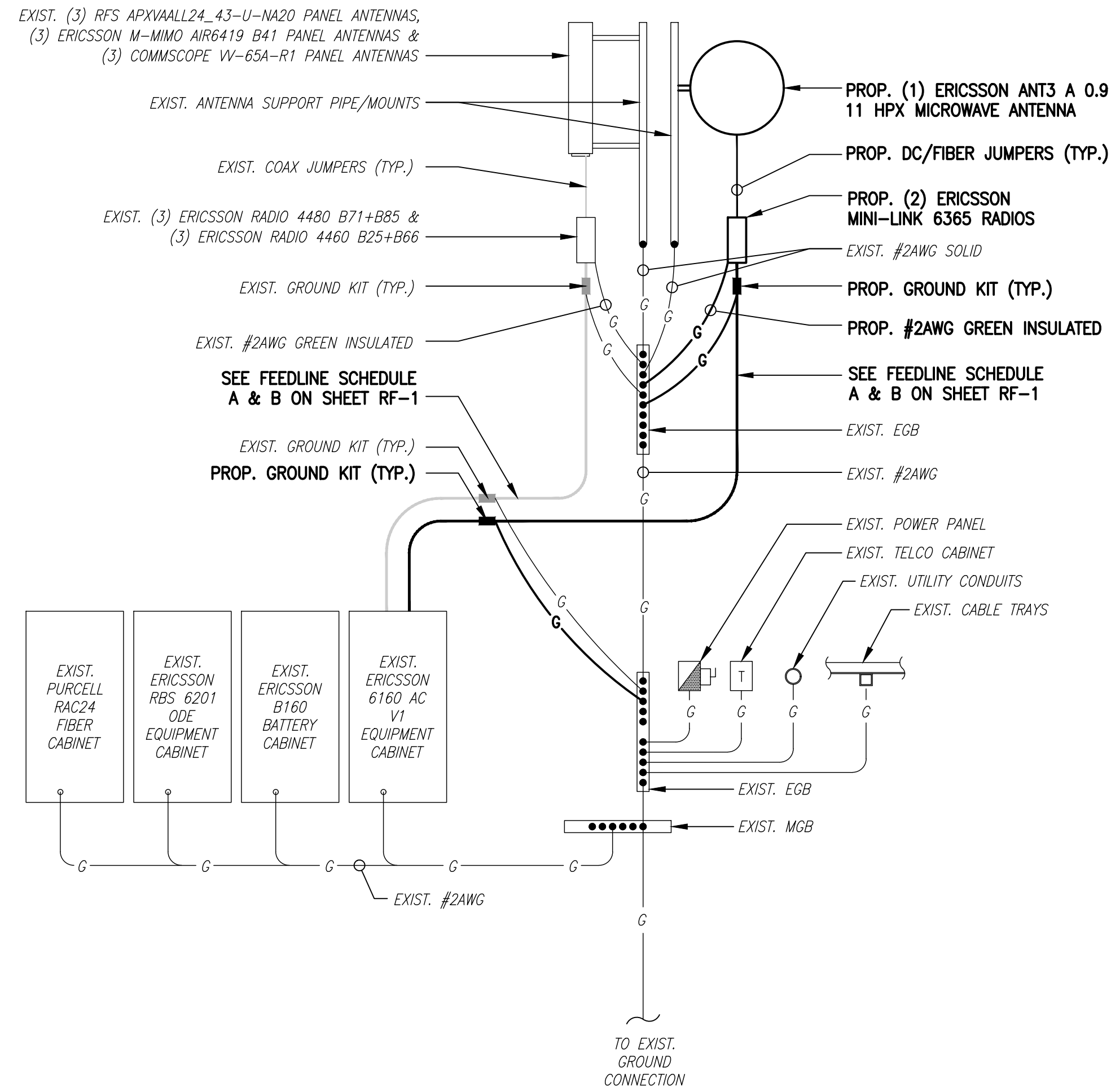
SITE ADDRESS:
8 FERRIS ROAD
NEWTOWN, CT 06470

SHEET TITLE
RF DATA

SHEET NUMBER
RF-1

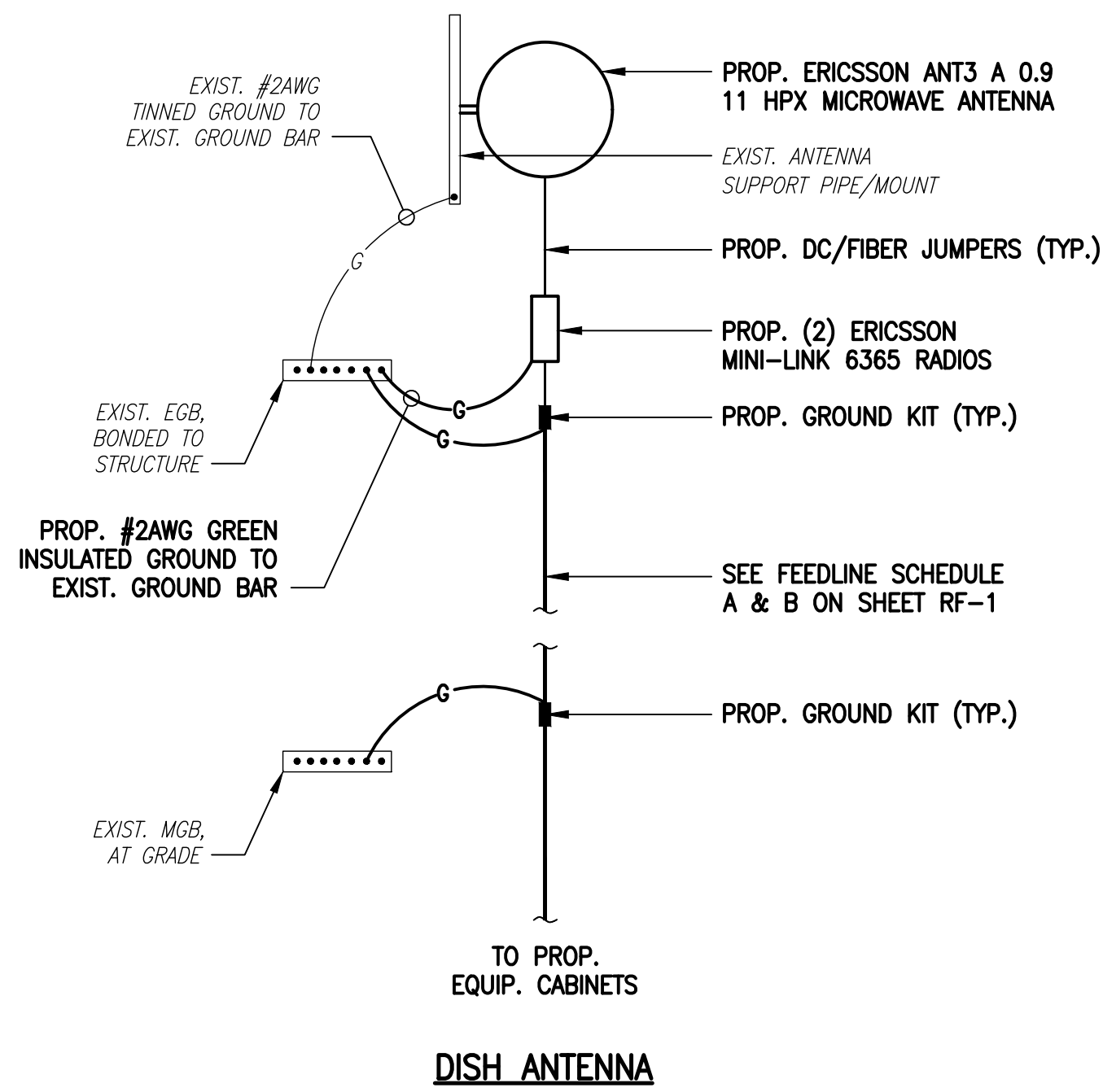


ONE LINE DIAGRAM
SCALE: NOT TO SCALE

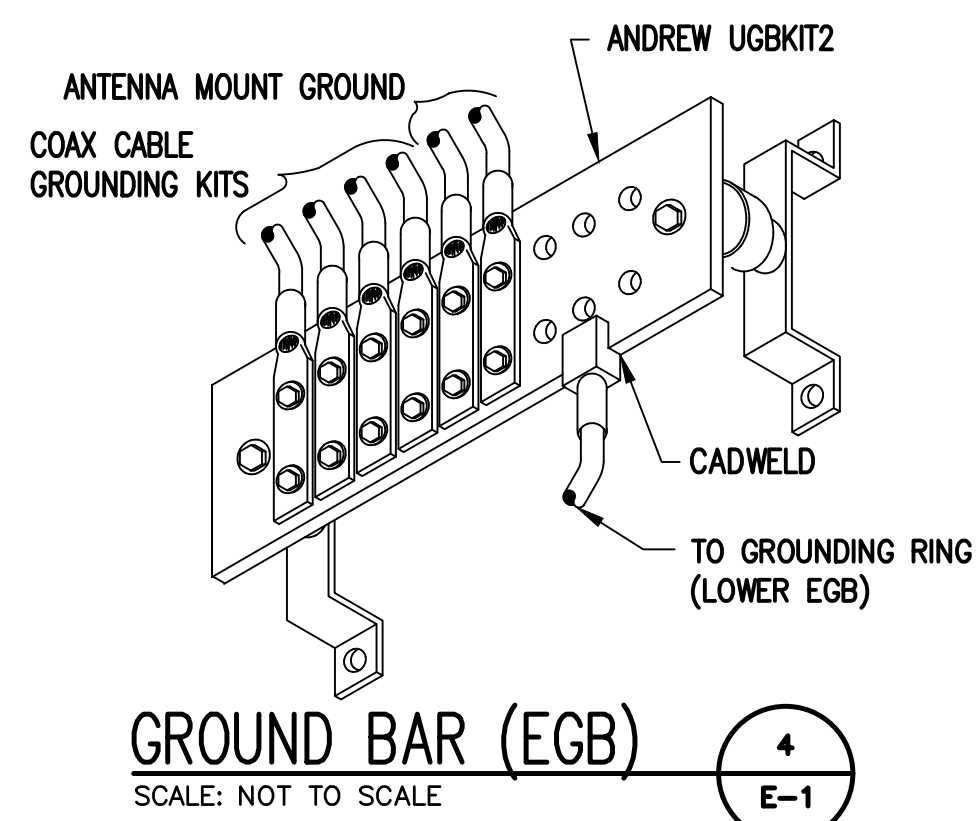


GROUNDING RISER DIAGRAM
SCALE: NOT TO SCALE

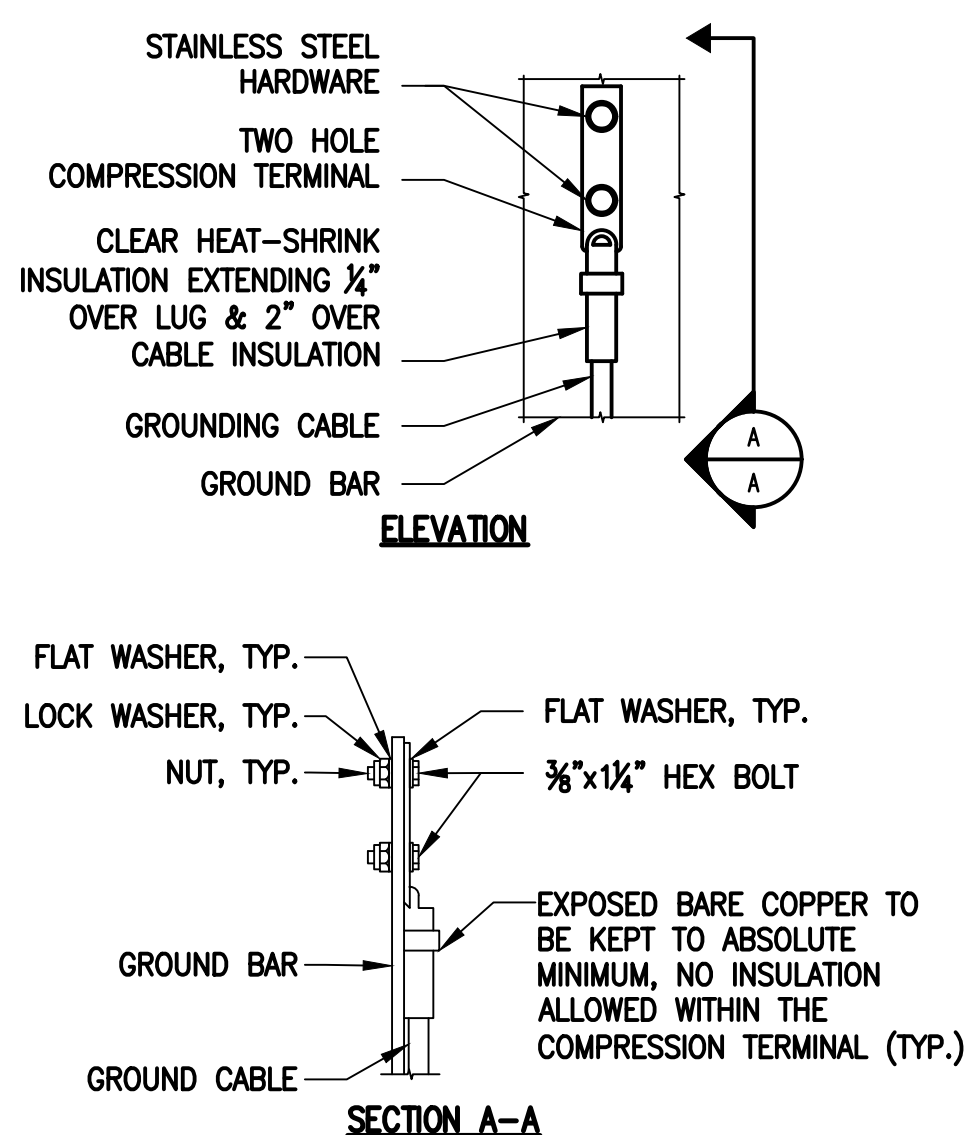
NOTE:
EXIST. PANEL ANTENNAS & RADIOS
NOT SHOWN, FOR CLARITY.



COAX CABLE CONNECTION AND GROUNDING DETAIL
SCALE: NOT TO SCALE



GROUND BAR (EGB) CONNECTIONS DETAIL
SCALE: NOT TO SCALE



NOTES:
1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
3. CADWELL DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB.

TYPICAL GROUND BAR CONNECTIONS DETAIL
SCALE: NOT TO SCALE

ELECTRICAL AND GROUNDING NOTES

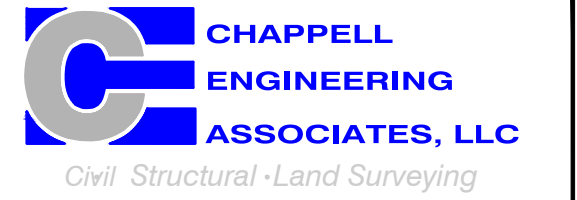
- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THININSULATION.
- RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BITS CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- WHERE CONDUIT BETWEEN BITS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BITS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- PPC SUPPLIED BY PROJECT OWNER.
- GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE BITS SITE GROUNDING STANDARDS".
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
- ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
- CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXIST. TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
- CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
- CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE-OUT.



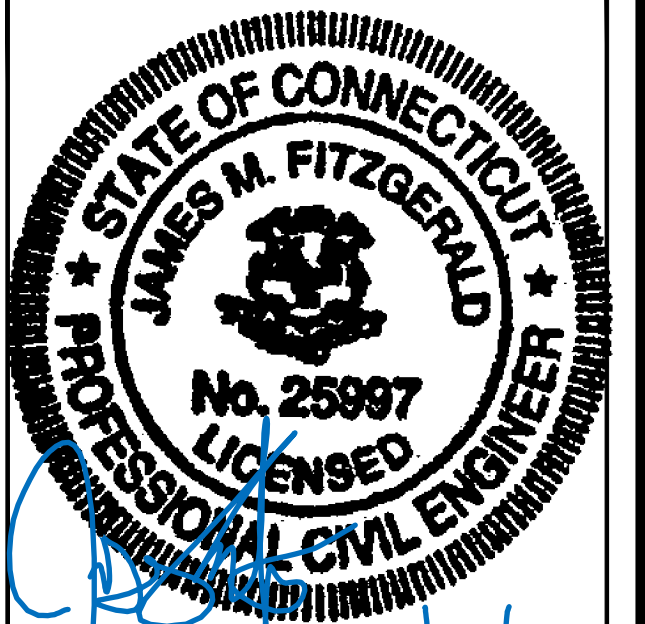
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SHEET TITLE
**ELECTRIC & GROUNDING
DETAILS**

SHEET NUMBER
E-1