



Filed by:
G. Scott Shepherd, Site Development Specialist II - SBA Communications
134 Flanders Rd., Suite 125, Westborough, MA 01581
508.251.0720 x 3807 - gshepherd@sbsite.com

September 18, 2020

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 (14) 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 install one (1) new Microwave 11000 MHZ. The new antennas would be installed at the 83-foot level of the tower.

Please note: Per the Connecticut Siting Council Website: CSC COVID 19 Guidelines.
In order to prevent the spread of Coronavirus and protect the health and safety of our members and staff, as of March 18, 2020, the Connecticut Siting Council shall convert to full remote operations until March 30, 2020. Please be advised that during this time period, all hard copy filing requirements will be waived in lieu of an electronic filing. Please also be advised that the March 26, 2020 regular meeting shall be held via teleconference. The Council's website is not equipped with an on-line filing fee receipt service. Therefore, filing fees and/or direct cost charges associated with matters received electronically during the above-mentioned time period will be directly invoiced at a later date.

Planned Modifications:

TOWER

Remove:

- (2) 5/16" CAT6
- (1) 5/16" Corning Fiber

Remove and Replace:

- N/A

Install New:

- (1) ½" coax (Ground)
- (1) Commscope VHLP3-11W MW antenna
- (1) Sitepro Modified Platform w/handrail includes: (3) MS-HRCP-35, (1) MS-HRECP-35, (1) MS-1436, (3) PST2375-8, (1) MS-K122-8

Existing Equipment to Remain:

- (3) RFS APXV18-209014 antenna
- (1) RFS SC3-W100AC - antenna
- (1) AVIAT OD6 600 - antenna
- (3) LNX-6515DS-A1M Antenna
- Platform w/handrail kit
- (3) RFS ATMAA1412D-1A20 antenna
- (3) Kathrein 782 11054 antenna
- (3) TBD S20057A1 TMA
- (12) 1-1/4" coax

Entitlements:

- N/A

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,

G. Scott Shepherd
Site Development Specialist II
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581

508.251.0720 x3807 + T
508.366.2610 + F
gshepherd@sbsite.com

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	Check Copy	x
Exhibit 2	Notification Receipts	x
Exhibit 3	Property Card	x
Exhibit 4	Property Map	x
Exhibit 5	Original Zoning Approval	Town of Newtown ZBA 11/13/98
Exhibit 6	Construction Drawings	Chappell Engineering 9/8/20
Exhibit 7	Modification Drawings	TES 7/10/20
Exhibit 8	Structural Analysis	TES 6/8/20
Exhibit 9	Post Mod Mount Analysis	TES 7/9/20
Exhibit 10	EME Report	EBI Consulting 9/17/20

EXHIBIT 1

Normally, Exhibit 1 would contain a copy of the check for the filing fee.

EXHIBIT 2

ORIGIN ID:BFBA (508) 614-0389
RICK WOODS
SBA COMMUNICATIONS CORPORATION
134 FLANDERS RD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

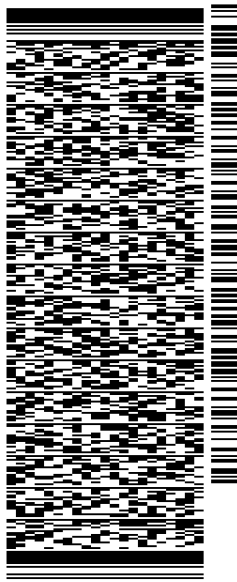
SHIP DATE: 18SEP20
ACTWGT: 1.00 LB
CAD: 105843304/NET4280

BILL SENDER

TO **MELANIE A. BACHMAN EXEC. DIR**
CONNECTICUT SITING COUNCIL
TEN FRANKLIN SQUARE

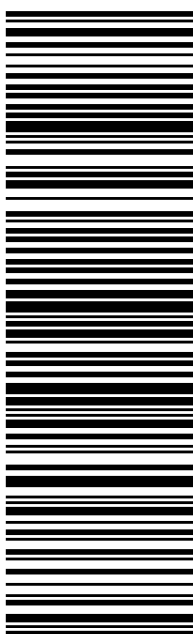
NEW BRITAIN CT 06051

(508) 251-0720 X 302 REF: 105692009-6089
INV# PO: DEPT:



TRK# 7715 6462 2637
0201
MON - 21 SEP 10:30A
PRIORITY OVERNIGHT

SEBDLA
CT:US **BDL**
06051



56B,J6/1545/B766

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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

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

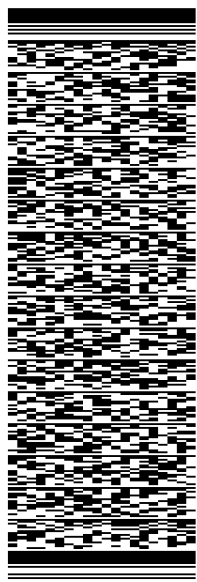
ORIGIN ID:BFBA (508) 614-0389
RICK WOODS
SBA COMMUNICATIONS CORPORATION
134 FLANDERS RD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 18SEP20
ACTWGT: 1.00 LB
CAD: 105843304/NET4280

BILL SENDER

TO DANIEL ROSENTHAL, FIRST SELECTMAN
TOWN OF NEWTOWN
3 PRIMROSE ST
NEWTOWN CT 06470

(508) 251-0720 X.3807 REF: 105692009-6089
INV# DEPT:
PO:

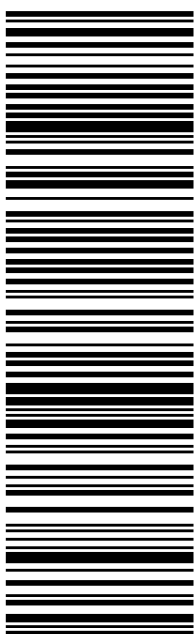


TRK# 7715 6465 7881
0201

MON - 21 SEP 10:30A
PRIORITY OVERNIGHT

SH DXRA

06470
CT-US SWF



56B,J6/1545/B766

After printing this label:

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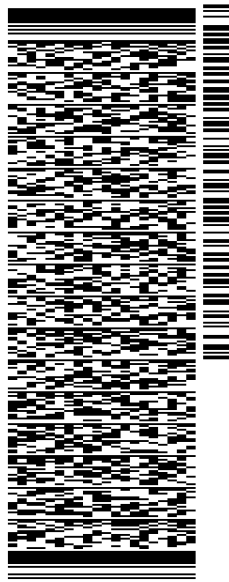
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RICK WOODS
SBA COMMUNICATIONS CORPORATION
134 FLANDERS RD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

SHIP DATE: 18SEP20
ACTWGT: 1.00 LB
CAD: 105843304/NET4280
BILL SENDER

TO STEVE HNATUK, LAND USE ENF. OFFICER
TOWN OF NEWTOWN
3 PRIMROSE ST

NEWTOWN CT 06470
(508) 251-0720 X 3807 REF: 105692009-6089
INV# DEPT:



TRK# 7715 6467 5078
0201
MON - 21 SEP 10:30A
PRIORITY OVERNIGHT

SH DXRA
CT-US SWF
06470
Large barcode area

56B,J6/1545/B766

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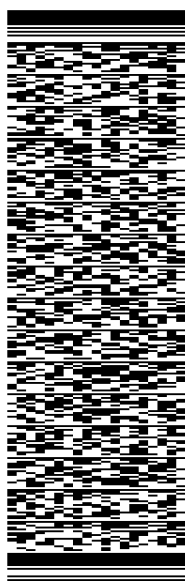
BILL SENDER

TO **PATRICAL & ERICH GERTSCH**

8 FERRIS RD

NEWTOWN CT 06470

(508) 251-0720 X 3807 REF: 1056-92009-6089
INV# PO: DEPT:



J2020071401uv

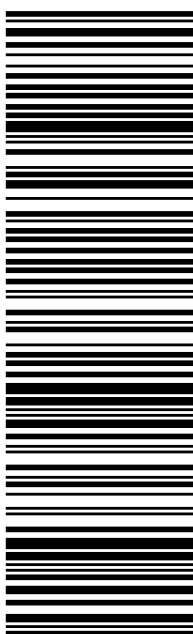
56B,J6/1545/B766

TRK# 7715 6469 6477
0201

MON - 21 SEP 10:30A
PRIORITY OVERNIGHT

SH DXRA

06470
CT:US SWF



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EXHIBIT 3

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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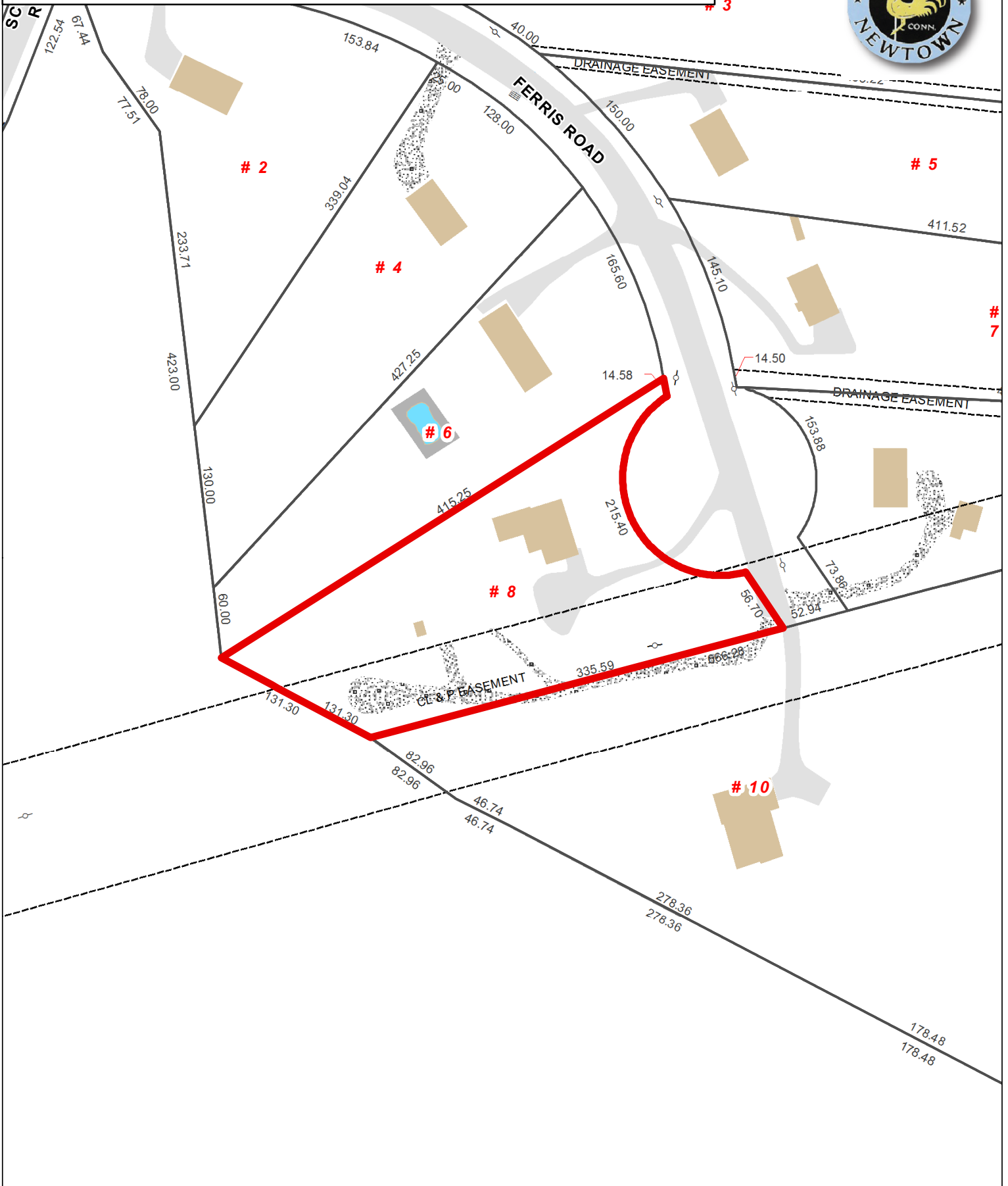
EXHIBIT 4

Town of Newtown, Connecticut - Assessment Parcel Map

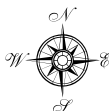
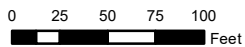
Parcel: 7-7-11

Address: 8 FERRIS ROAD

632.07



Approximate Scale:



Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Newtown and its mapping contractors assume no legal responsibility for the information contained herein.

Map Produced Oct 2016

EXHIBIT 5



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.

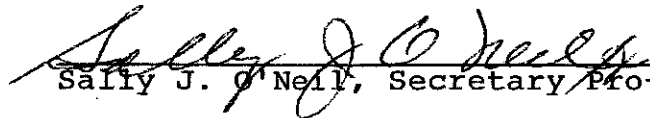
ZONING BOARD OF APPEALS OF THE TOWN OF NEWTOWN


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 6

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).

NEWTOWN-FERRIS ROAD

8 FERRIS ROAD
 NEWTOWN, CT 06470
 FAIRFIELD COUNTY

SITE NO.: CT11805A

SITE TYPE: 118'± MONOPOLE

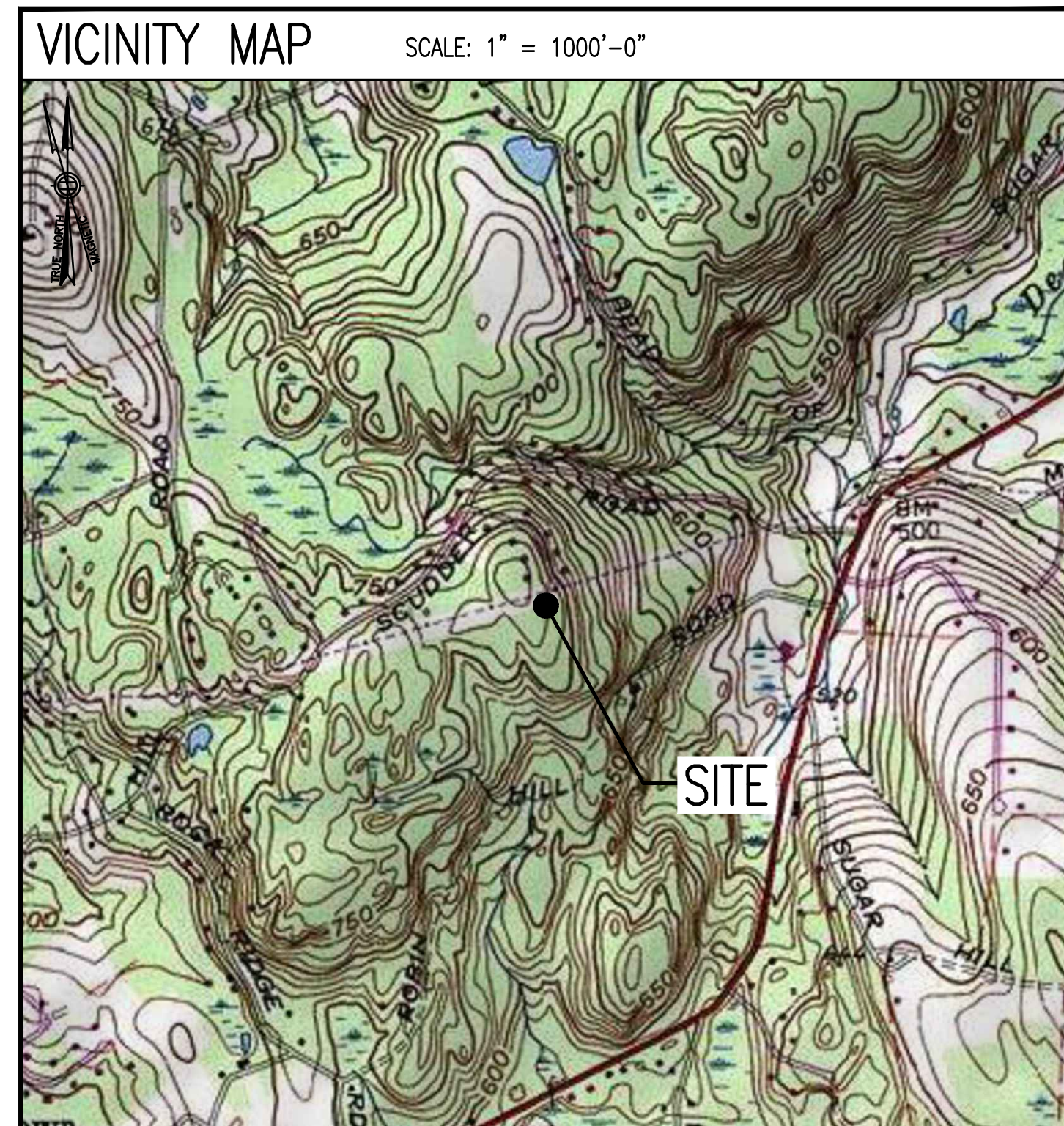
RF DESIGN GUIDELINE: 1024QAM

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
GPS/LMU:	UNRESTRICTED
RADIO CABINETS:	UNRESTRICTED
PPC DISCONNECT:	UNRESTRICTED
MAIN CIRCUIT D/C:	UNRESTRICTED
NIU/T DEMARC:	UNRESTRICTED
OTHER/SPECIAL:	NONE

GENERAL NOTES	
1. 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.	11. 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.
2. 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.	12. 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.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE ONPOINT 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.	13. 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.
4. 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.	14. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
5. 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.	15. 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.
6. 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.	16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
7. 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.	17. 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.
8. 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.	
9. 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.	
10. 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.	

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



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.

SHEET INDEX		
SHEET NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	2
GN-1	GENERAL NOTES	2
A-1	COMPOUND & EQUIPMENT PLAN	2
A-2	TOWER ELEVATIONS, ANTENNA PLAN & DETAILS	2
E-1	ELECTRIC & GROUNDING DETAILS	2
-	MOUNT MODIFICATION AND DESIGN DRAWINGS (BY OTHERS)	0

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).

- 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: 2018 CONNECTICUT STATE BUILDING CODE
 - ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
 - STRUCTURAL CODE: TIA/EIA-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

**T-MOBILE
 NORTHEAST LLC**

15 COMMERCE WAY, SUITE B
 NORTON, MA 02766
 (508) 286-2700

SBA

SBA COMMUNICATIONS CORP.
 134 FLANDERS ROAD, SUITE 125
 WESTBOROUGH, MA 01581
 (508) 251-0720

**CHAPPELL
 ENGINEERING
 ASSOCIATES, LLC**
 Civil Structural Land Surveying

R.K. EXECUTIVE CENTRE
 201 BOSTON POST ROAD WEST, SUITE 101
 MARLBOROUGH, MA 01752
 (508) 481-7400
 www.chappellengineering.com



CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
2	09/08/20	CONSTRUCTION REVISED	CMC
1	08/04/20	ISSUED FOR CONSTRUCTION	CMC
0	06/04/20	ISSUED FOR REVIEW	CMC

SITE NUMBER:
CT11805A

SITE ADDRESS:
 8 FERRIS ROAD
 NEWTOWN, CT 06470

SHEET TITLE

TITLE SHEET

SHEET NUMBER

T-1

PROJECT SUMMARY	
SITE NUMBER:	CT11805A
SBA SITE NUMBER:	CT46132-A
SBA SITE NAME:	NEWTOWN-FERRIS ROAD
SITE ADDRESS:	8 FERRIS ROAD NEWTOWN, CT 06470
PROPERTY OWNER:	ERICH A & PATRICIA A GERTSCH 8 FERRIS ROAD NEWTOWN, CT 06470
TOWER OWNER:	SBA TOWERS II, LLC 8501 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226-9523
COUNTY:	FAIRFIELD COUNTY
ZONING DISTRICT:	R1 - RESIDENTIAL
STRUCTURE TYPE:	MONOPOLE
STRUCTURE HEIGHT:	118'
APPLICANT:	T-MOBILE NORTHEAST LLC 15 COMMERCE WAY, SUITE B NORTON, MA 02766
SBA RSM:	STEPHEN ROTH PHONE: 860-539-4920 EMAIL: SROth@sbasite.com
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: N.41.38975° 41'23'23.10" LONGITUDE W.73.338167° 73'20'17.40"

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, UNDO.
- 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 ¼" 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 SUPPLIERS 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:

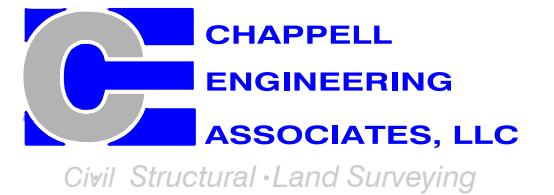
- WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
- SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLE TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR 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, 1/2 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.

**T-MOBILE
NORTHEAST LLC**

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SITE NUMBER:
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NEWTOWN, CT 06470

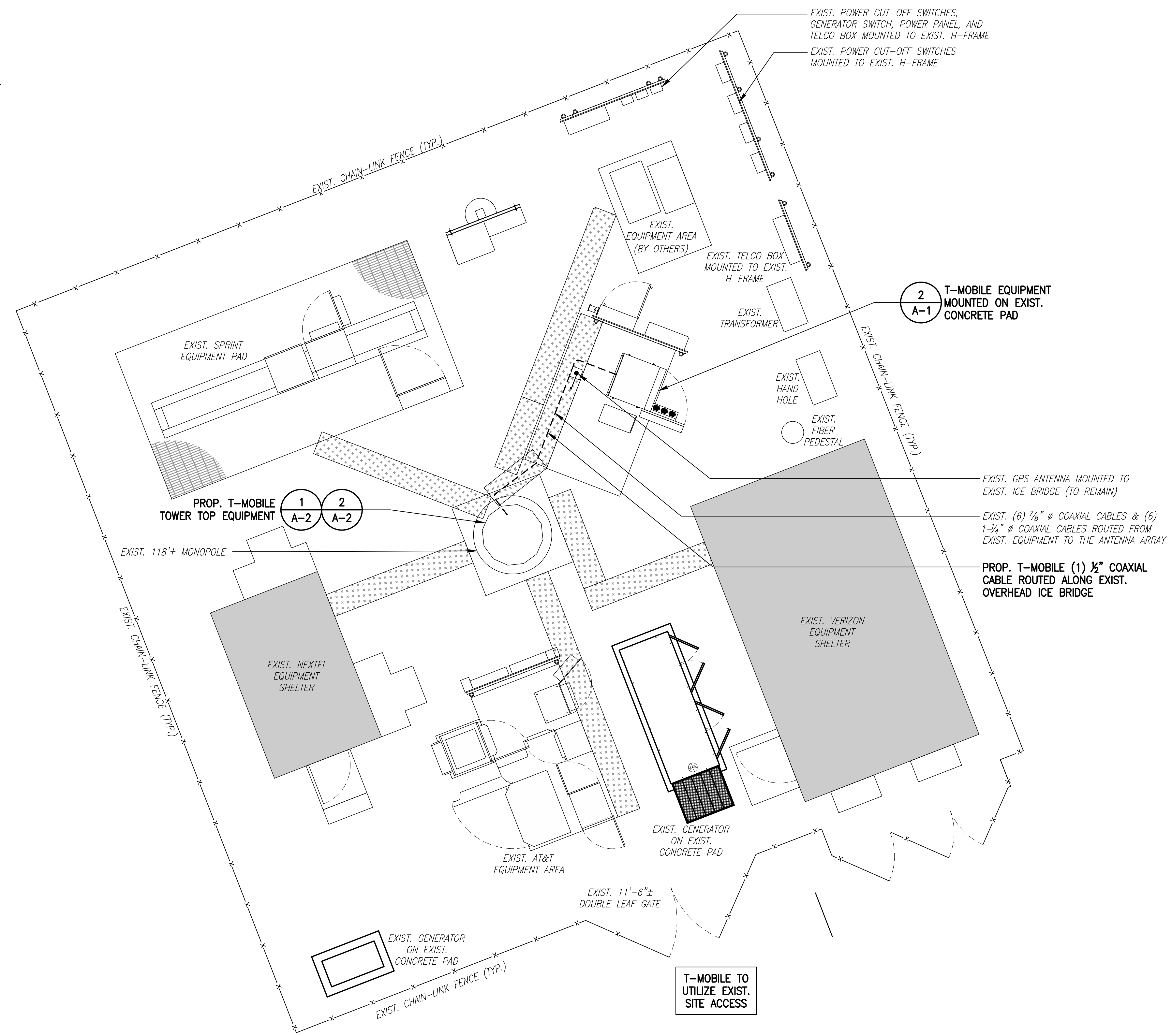
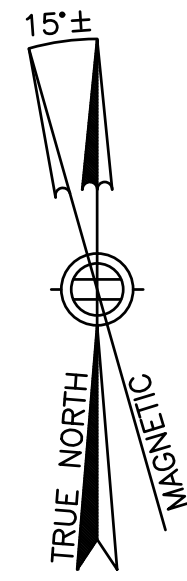
SHEET TITLE

GENERAL NOTES

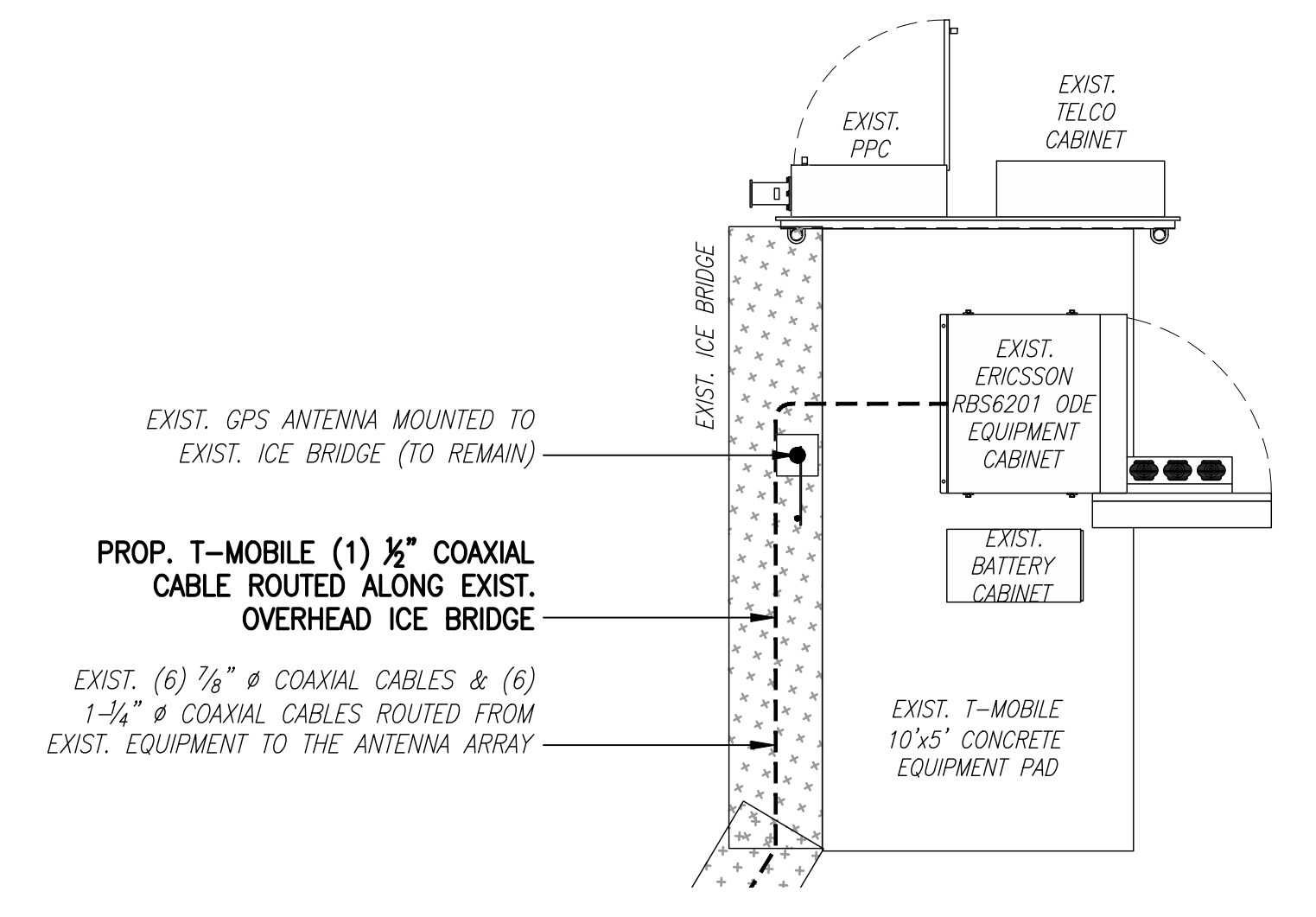
SHEET NUMBER

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.



COMPOUND PLAN
 SCALE: 1/4" = 1'-0"
 0 2'-0" 4'-0" 8'-0" 12'-0"



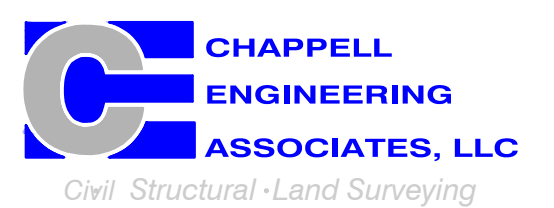
EXIST. EQUIPMENT PLAN
 SCALE: 3/8" = 1'-0"
 0 2'-8" 5'-4" 8'-0"

**T-MOBILE
 NORTHEAST LLC**

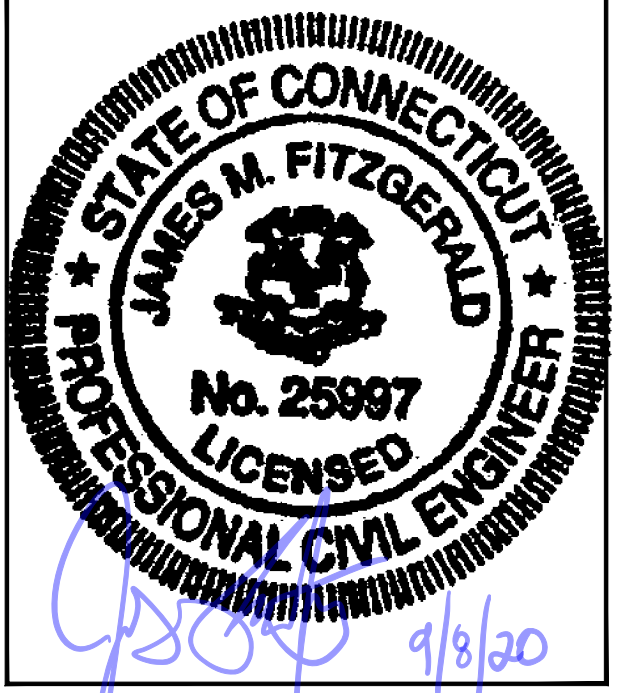
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SHEET TITLE
**COMPOUND &
 EQUIPMENT PLAN**

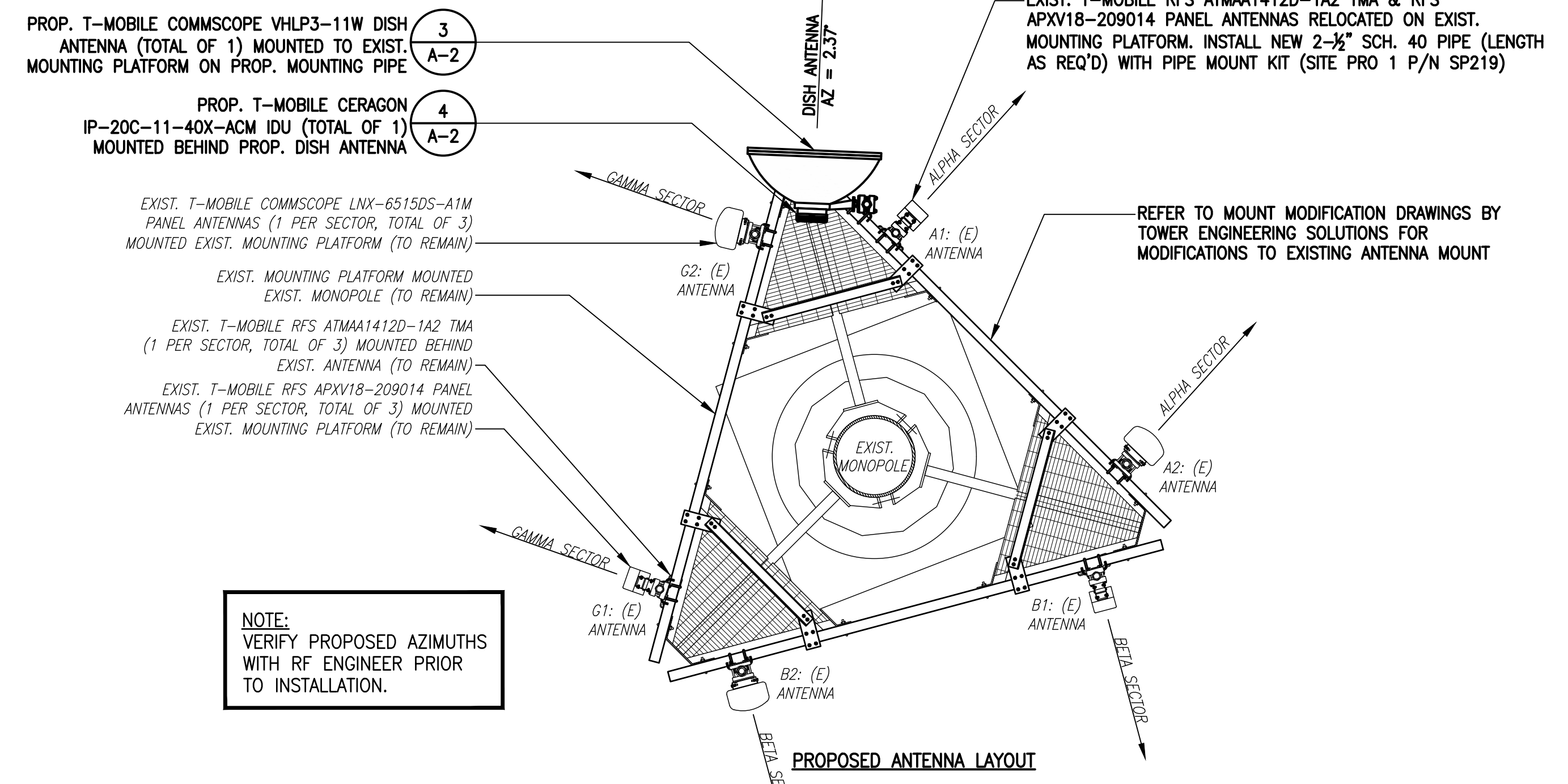
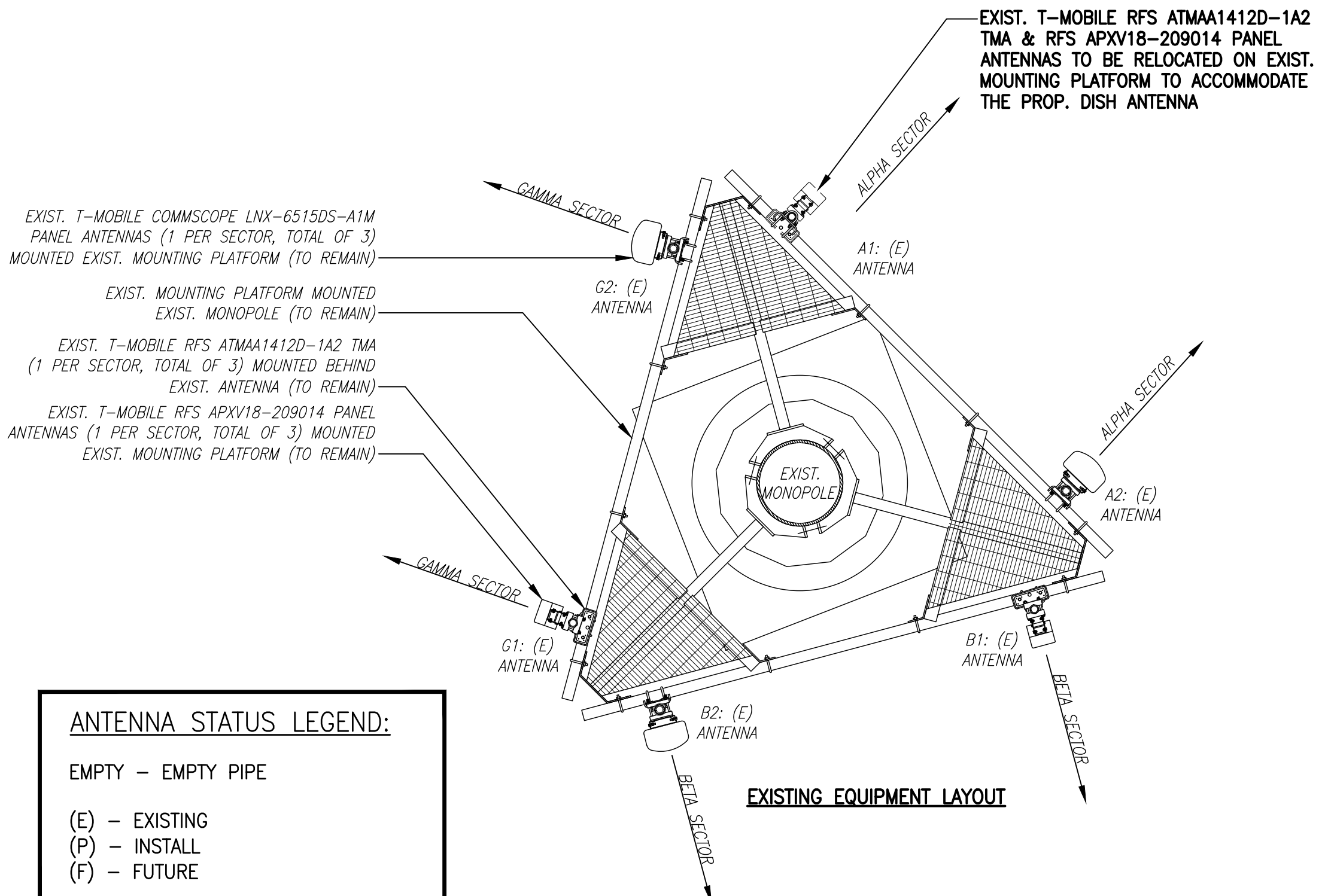
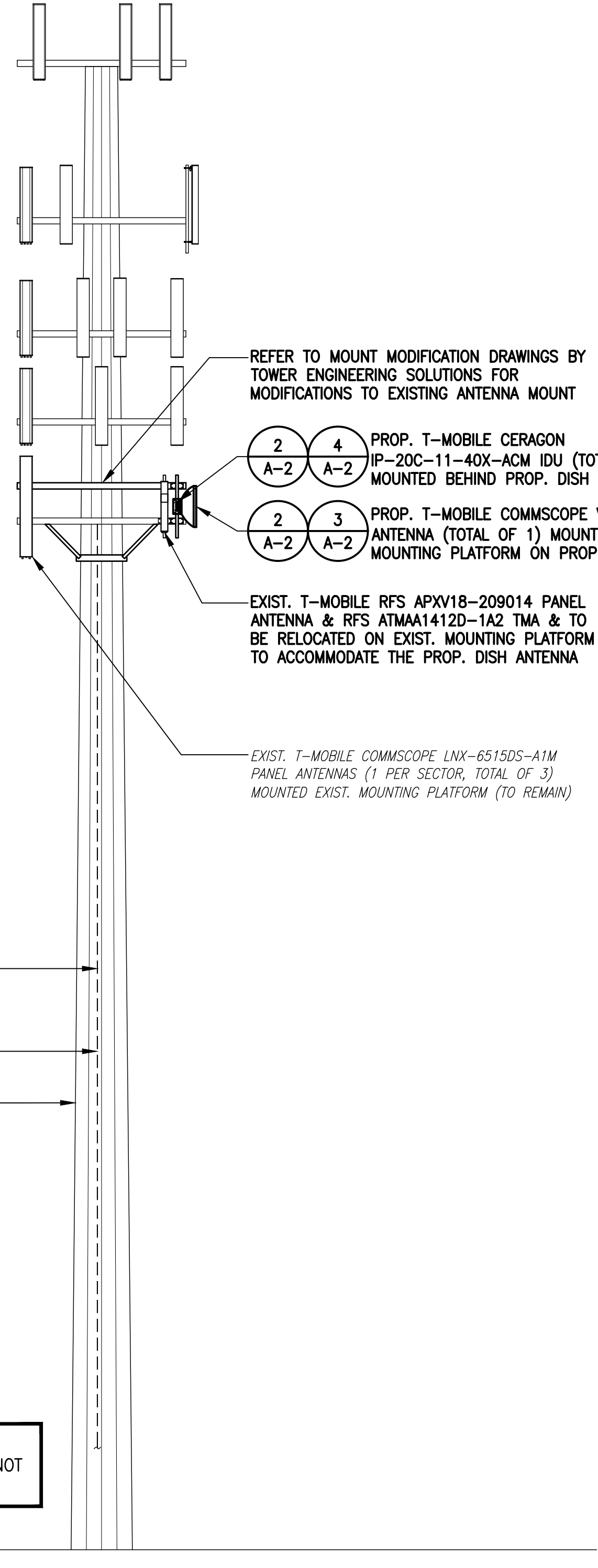
SHEET NUMBER
A-1

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 TOWER TOP EQUIPMENT INSTALLATION WORK NOTE (SAFETY-CLIMB ALIGNMENT REQUIREMENTS):
 GENERAL CONTRACTOR SHALL ORIENT PROPOSED PLATFORM REINFORCEMENT KIT RING-MOUNTS SO THAT EXISTING SAFETY CLIMB CABLE IS NOT OBSTRUCTED/RE-ROUTED FROM VERTICAL ALIGNMENT AND IS NOT IN PHYSICAL CONTACT WITH EXISTING OR PROPOSED RING-MOUNT HARDWARE. GENERAL CONTRACTOR SHALL INSTALL NEW OR ADDITIONAL SAFETY-CLIMB CABLE GUIDES IF ADDITIONAL CLEARANCE IS REQUIRED. ADDITIONAL CABLE GUIDES SHALL BE ATTACHED SECURELY TO THE POLE USING MECHANICAL FASTENERS OR FIELD WELDED BY A CERTIFIED WELDING TECHNICIAN.

RAD CENTER NOTE:
 T-MOBILE RAD CENTER SHOWN IN RED TEXT BASED ON SBA-PROVIDED CO-LOCATION APPLICATION, EQUIPMENT DATABASE, AND STRUCTURAL ANALYSIS. THE SBA-PROVIDED ANTENNA RAD CENTER SHALL SUPERSEDE ANY CONFLICTING INFORMATION DERIVED FROM THE T-MOBILE RFDs.

- ⊙ EXIST. (9) NEXTEL ANTENNAS
EL. = 120.0'± AGL
- ⊙ TOP OF EXIST. MONOPOLE
EL. = 118.0'± AGL
- ⊙ EXIST. (6) SPRINT ANTENNAS
EL. = 107.0'± AGL
- ⊙ EXIST. (12) VERIZON ANTENNAS
EL. = 98.0'± AGL
- ⊙ EXIST. (9) AT&T ANTENNAS
EL. = 91.0'± AGL
- ⊙ PROP. (1) T-MOBILE ANTENNA
EL. = 83'± AGL
- ⊙ EXIST. (6) T-MOBILE ANTENNAS
EL. = 83.0'± AGL



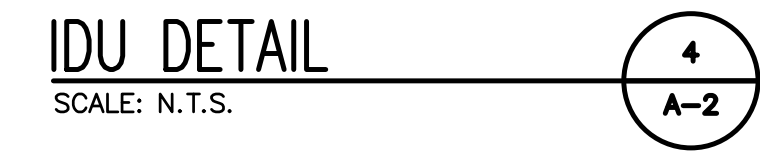
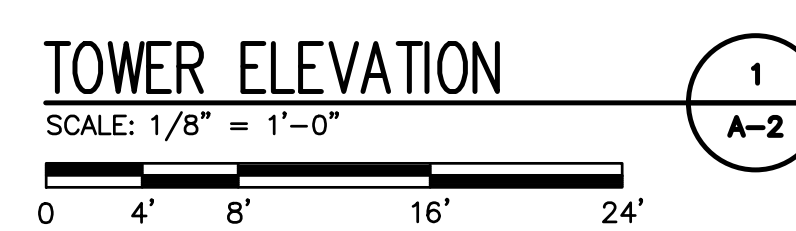
COMMSCOPE VHL3-11 DISH ANTENNA
 DIMENSIONS: 39.3"Ø x 17.2"D
 WEIGHT: 37.0 LBS
 TOTAL OF 1

ANTENNA DETAILS
 SCALE: N.T.S.



CERAGON IP-20C-11-40X-ACM IDU
 DIMENSIONS: 9.0"H x 9.0"W x 3.8"D
 WEIGHT: 14.3 LBS
 TOTAL OF 1

IDU DETAIL
 SCALE: N.T.S.

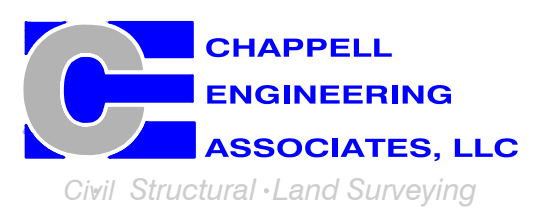


**T-MOBILE
NORTHEAST LLC**

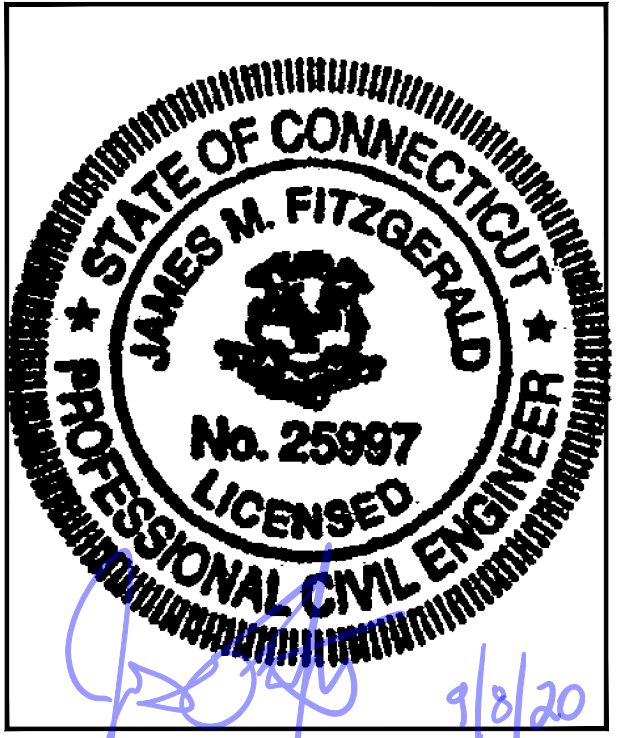
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SHEET TITLE
**TOWER ELEVATIONS,
ANTENNA PLAN &
DETAILS**

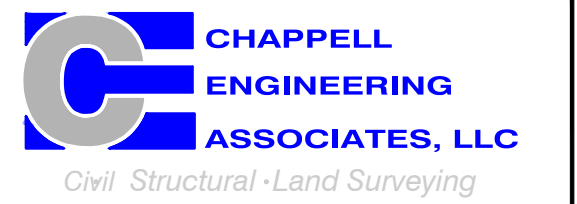
SHEET NUMBER
A-2

T-MOBILE
NORTHEAST LLC

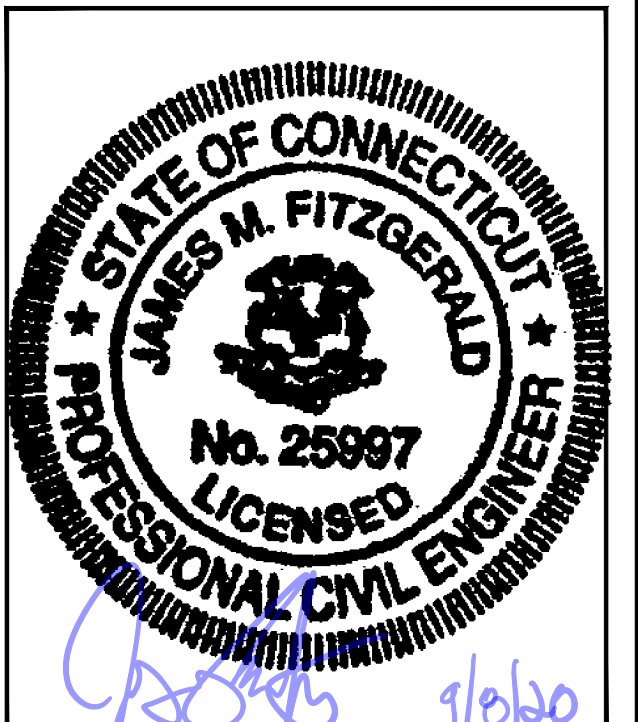
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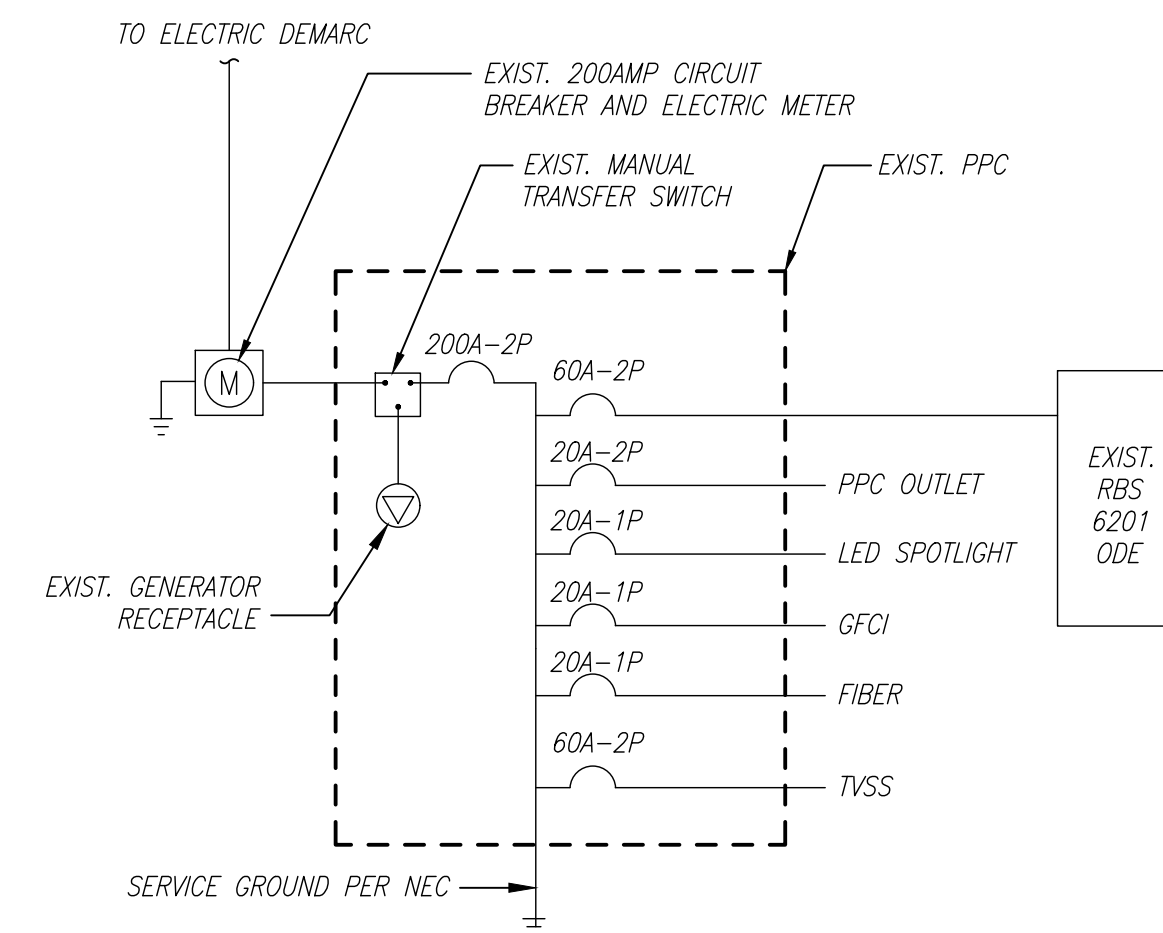
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SHEET TITLE
**ELECTRIC & GROUNDING
DETAILS**

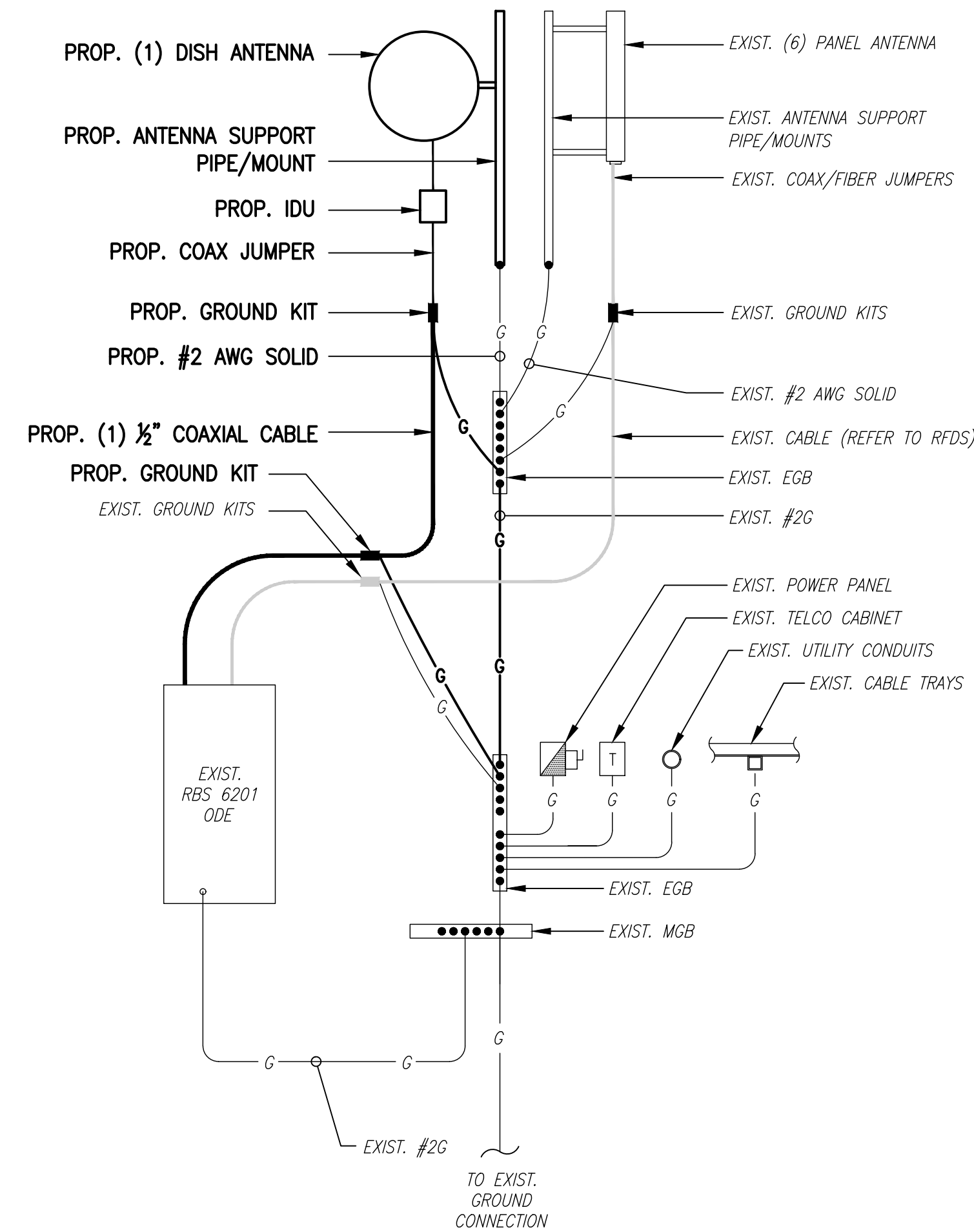
SHEET NUMBER
E-1



ONE LINE DIAGRAM

SCALE: NOT TO SCALE

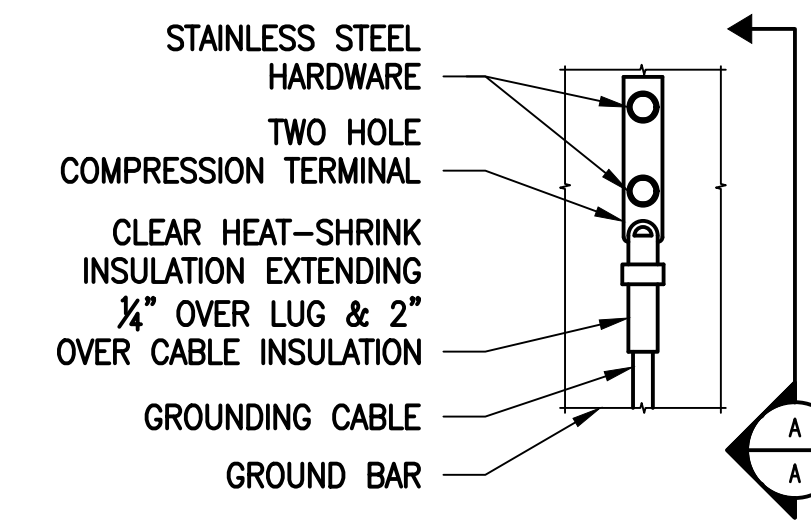
1
E-1



GROUNDING RISER DIAGRAM

SCALE: NOT TO SCALE

2
E-1



ELEVATION

FLAT WASHER, TYP.
LOCK WASHER, TYP.
NUT, TYP.
FLAT WASHER, TYP.
5/8"x1/4" HEX BOLT

GROUND BAR
GROUND CABLE
EXPOSED BARE COPPER TO BE KEPT TO ABSOLUTE MINIMUM, NO INSULATION ALLOWED WITHIN THE COMPRESSION TERMINAL (TYP.)

SECTION A-A

NOTES:

- "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
- OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
- CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB.

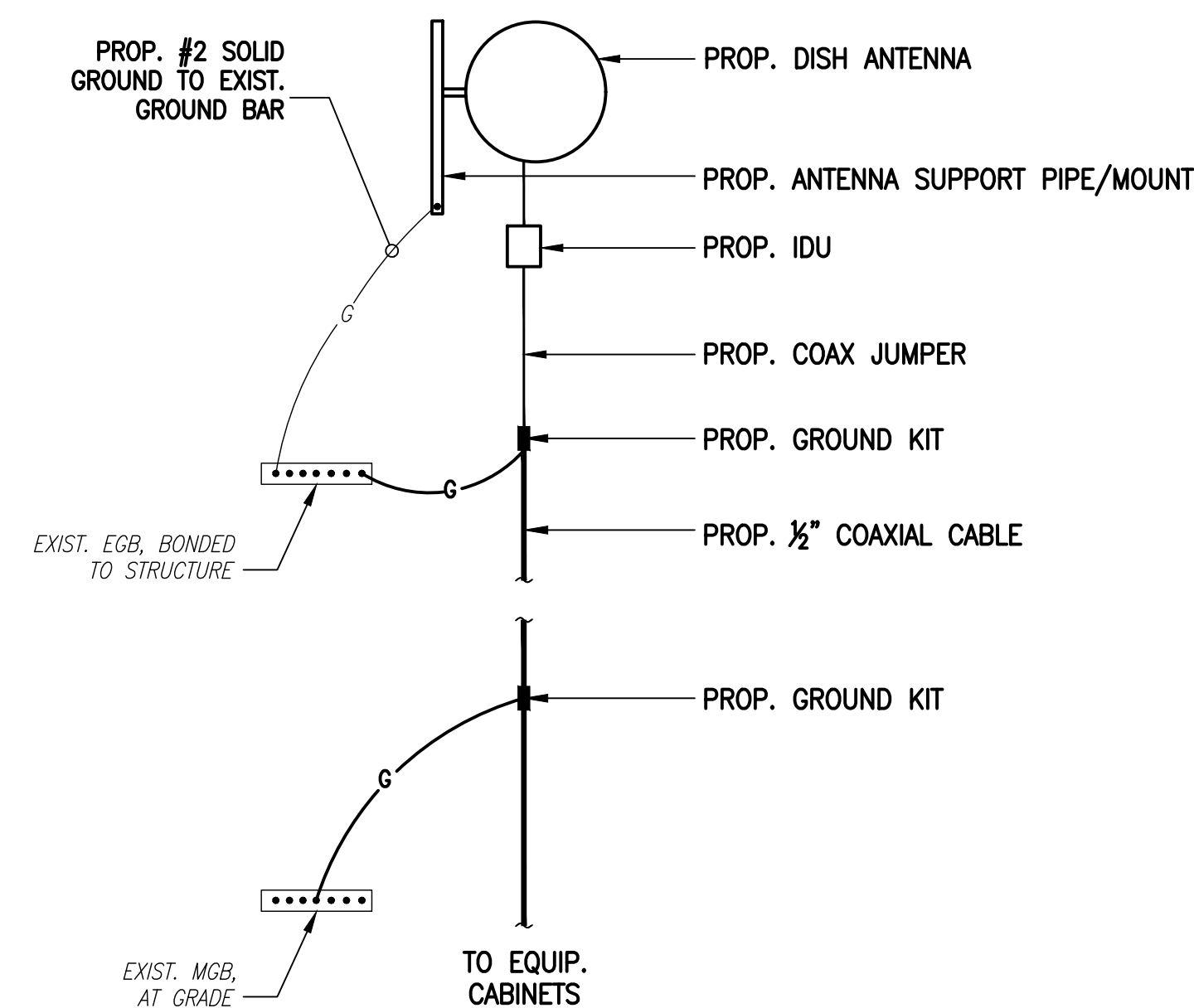
TYPICAL GROUND BAR CONNECTIONS DETAIL

SCALE: NOT TO SCALE

3
E-1

ELECTRICAL AND GROUNDING NOTES

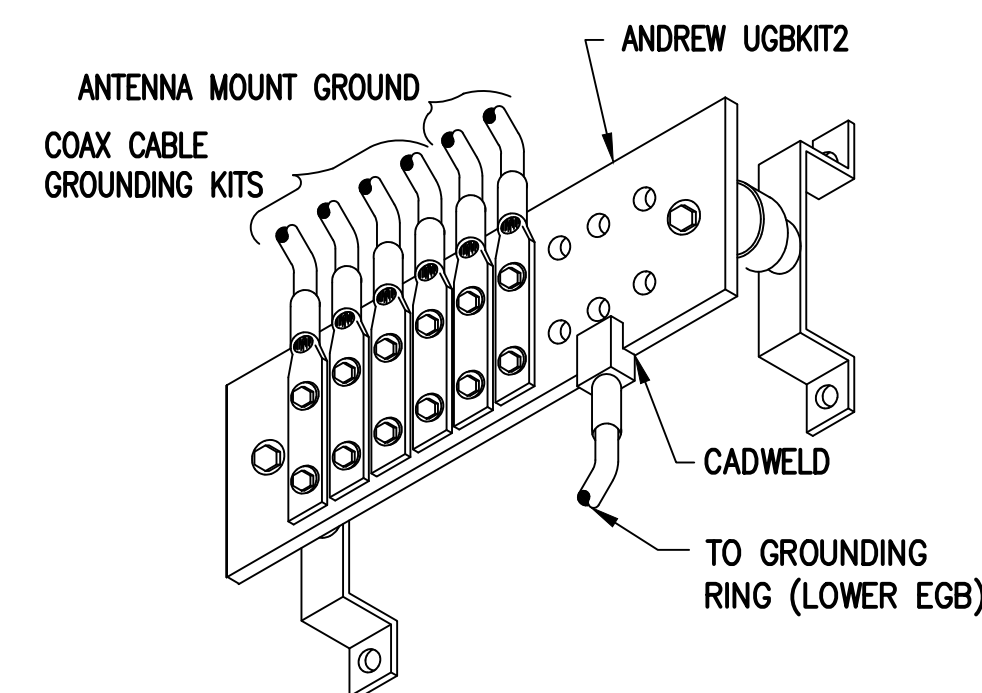
- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED 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 THIN INSULATION.
- 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 BTS 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 BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS 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 BTS 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.



COAX CABLE CONNECTION AND GROUNDING DETAIL

SCALE: NOT TO SCALE

4
E-1



GROUND BAR (EGB)

SCALE: NOT TO SCALE

5
E-1

EXHIBIT 7

MODIFICATION AND DESIGN DRAWINGS FOR EXISTING ANTENNA MOUNTS EXISTING MONOPOLE TOWER

PROPOSED CARRIER: T-MOBILE

TOWER OWNER: SBA / TOWER OWNER SITE #: CT46132-A
CARRIER SITE #/NAME: CT11805A / CT805/NEXTELL NEWTOWN_MP
COORDINATES (LATITUDE: 41.389747°, LONGITUDE: -73.338444°)

PLEASE NOTE THIS SET OF DRAWINGS ARE FOR INSTALLATION AND ASSEMBLY ONLY. FABRICATION DETAIL DRAWINGS ARE NOT PROVIDED AND MUST BE COMPLETED BY THE STEEL FABRICATOR SELECTED. TES CAN PROVIDE THE FABRICATION DETAIL DRAWINGS FOR AN ADDITIONAL FEE.

NOTE:

1. THE MODIFICATION DRAWINGS ARE BASED ON THE TES PROJECT NO. 94586, DATED 06/22/2020.

SHEET	SHEET TITLE	REV
T-1	TITLE SHEET	0
BOM	BILL OF MATERIALS	0
GN-1	GENERAL NOTES	0
A-1	ANTENNA MOUNT MODIFICATION DETAILS	0
A-2	ANTENNA MOUNT PHOTOS	0
D-1	STANDARD DETAILS	0
SAF-1	SAFETY CABLE GUIDE DETAILS	0
MS-HRCP-35-2875	METROSITE SUPPORT RAIL CENTER PIPE KIT	
MS-HR35-2875	METROSITE SUPPORT RAIL KIT	
MS-HR35-33ECP	METROSITE SUPPORT RAIL END CONNECTION KIT	
MS-HK22-8	METROSITE HEAVY KICKER SUPPORT KIT	
MS-H1436	METROSITE HEAVY COLLAR MOUNT PLATE ASSEMBLY	
MPHW-1	METROSITE HEAVY COLLAR MOUNT PLATE WELDMENT	
MS-HRCP-35	METROSITE SUPPORT RAIL CENTER PIPE KIT	



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IRVING, TX 75038
PH: (972) 483-0607



5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487
(800)-487-SITE

TES JOB NO:
95177

CUSTOMER SITE NO:
CT46132-A-SBA
CUSTOMER SITE NAME:
NEWTOWN-FERRIS RD
8 FERRIS ROAD
NEWTOWN, CT 06470



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△			
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TITLE SHEET

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SHEET NUMBER: T-1 REV #: 0

BILL OF MATERIALS

QUANTITY COUNTED	QUANTITY PROVIDED	PART NUMBER	DESCRIPTIONS	SHEET LIST	PIECE WEIGHT (LBS)	WEIGHT (LB)	NOTES
MATERIAL & HARDWARE							
5	5	MS-HRCP-35-2875	METROSITE SUPPORT RAIL CENTER PIPE KIT	A-1, MS-HRCP-35-2875	11.0	55.0	Galvanized
1	1	MS-HRCP-35	METROSITE SUPPORT RAIL CENTER PIPE KIT	A-1, MS-HRCP-35	23.0	23.0	Galvanized
1	1	MS-HR35-2875	METROSITE SUPPORT RAIL KIT	A-1, MS-HR35-2875	523.0	523.0	Galvanized
1	1	MS-HR35-33ECP	METROSITE SUPPORT RAIL END CONNECTION KIT	A-1, MS-HR35-33ECP	84.0	84.0	Galvanized
1	1	MS-H1436	METROSITE HEAVY COLLAR MOUNT PLATE ASSEMBLY	A-1, MS-H1436	136.7	136.7	Galvanized
1	1	MS-HK122-8	METROSITE HEAVY KICKER SUPPORT KIT	A-1, MS-HK122-8	211.0	211.0	Galvanized
FOLLOWING ITEMS ARE "CUSTOM" PARTS							
3	3	PST2375-8	2" PST (2.375" O.D. X 0.154" THK) 8'-0" A53 GR-B 35KSI	A-1	30.20	90.6	GALVANIZED
1	1	PST2875-8	2 1/2" PST (2.875" O.D. X 0.203" THK) 8'-0" A53 GR-B 35KSI	A-1	47.50	47.5	GALVANIZED
1	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)	A-1	0.00	0.0	GALVANIZED
ALL METROSITE PARTS ARE AVAILABLE FROM METROSITE, LLC.							
180 IND PARK BLVD COMMERCE, GA 30529 OFFICE: (706) 335-7045 FAX: (706) 335-7056							
NOTE: ALL MATERIALS, WHICH WEREN'T LISTED IN THIS SHEET, ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.							
					TOTAL WEIGHT (LBS) =	1170.8	



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BILL OF MATERIALS

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SHEET NUMBER: **BOM** REV #: **0**

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE ANSI/TIA-222-G, ANSI/ASSP A10.48, AND ANY OTHER GOVERNING BUILDING CODES AND OSHA SAFETY REGULATIONS.
2. ALL WORK INDICATED ON THE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TELECOMMUNICATIONS TOWER, POLE AND FOUNDATION CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND FABRICATION OF ALL MISCELLANEOUS PARTS (SUCH AS SHIMS), TEMPORARY SUPPORTS, AND GUYINGS, ETC., PER ANSI/ASSP A10.48, TO COMPLETE THE ASSEMBLY AS SHOWN IN THE DRAWINGS.
4. CONTRACTOR SHALL PROCEED WITH THE INSTALLATION WORK CAREFULLY SO THE WORK WILL NOT DAMAGE ANY EXISTING CABLE, EQUIPMENT OR THE STRUCTURE.
5. THE USE OF GAS TORCH OR WELDER, ARE NOT ALLOWED ON ANY TOWER STRUCTURE WITHOUT THE CONSENT OF THE TOWER OWNER.
6. GENERALLY THE CONTRACTOR IS RESPONSIBLE TO CONDUCT AN ONSITE VISIT SURVEY OF THE JOB SITE AFTER AWARD, AND REPORT ANY ISSUES WITH THE SITE TO **TES** BEFORE PROCEEDING CONSTRUCTION.
7. IT IS THE RESPONSIBILITY OF THE GC TO VERIFY THAT THERE IS NO INTERFERENCES (WITH SAFETY CLIMB BRACKETS, TRANSMISSION LINES, ETC.) PRIOR TO MOBILIZATION AND INSTALLATION OF THESE MODIFICATIONS.
8. PLEASE NOTIFY TES IMMEDIATELY IF ANY INSTALLATION ISSUES OCCUR RELATED TO THIS DRAWING @ 972-483-0607 OR EMAIL-TESORDERS@TESTOWER.US

FABRICATION

1. ALL STEEL SHALL MEET OR EXCEED THE MINIMUM STRENGTH AS SPECIFIED IN THE DRAWINGS. IF YIELD STRENGTH WAS NOT NOTED IN THE DRAWINGS, CONTRACTORS SHALL CONTACT TES FOR DIRECTION.
2. ALL FIELD CUT EDGES SHALL BE GROUND SMOOTH. ALL FIELD CUT AND DRILLED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

WELDING

1. ALL WELDING SHALL BE PERFORMED BY AWS CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNO. (E70XX UNLESS NOTED OTHERWISE).
2. PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING APPROX. 0.5" BEYOND THE PROPOSED FIELD WELD SURFACES.
3. ALL WELDS SHALL BE INSPECTED VISUALLY. A MINIMUM OF 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. 100% OF WELDS SHALL BE INSPECTED IF DEFECTS ARE FOUND.
4. WELD INSPECTIONS SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
5. AFTER INSPECTION, ALL FIELD WELDED SURFACES SHALL BE REPAIRED WITH A MINIMUM OF TWO COATS OF ZINGA COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

BOLTED ASSEMBLIES AND TIGHTENING OF CONNECTIONS

1. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE PROVISIONS OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS AS APPROVED BY THE RSCC.
2. FLANGE BOLTS SHALL BE TIGHTENED BY THE AISC "TURN-OF-THE-NUT" METHOD. THE FOLLOWING TABLE SHOULD BE USED FOR THE "TURN-OF-THE-NUT" TIGHTENING.
3. SPLICE BOLTS AND ALL OTHER BOLTS IN BEARING TYPE CONNECTIONS SHALL BE TIGHTENED TO A SNUG-TIGHT CONDITION.
4. THE SNUG-TIGHT CONDITION IS DEFINED AS THE TIGHTNESS ATTAINED BY EITHER A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER WITH AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.
5. HB HOLLO-BOLT SHALL BE INSTALLED PER ICC ESR-3330 INSTRUCTIONS.

VERIFICATION AND INSPECTION

1. IF APPLICABLE, VERIFICATION INSPECTION TO BE PERFORMED SHALL BE IN ACCORDANCE TO IBC-2015 SECTION 1705 FOR STEEL CONSTRUCTION AND TABLE 1705.3 FOR CONCRETE CONSTRUCTION.

TABLE 8.2 NUT ROTATION FROM SNUG-TIGHT CONDITION FOR TURN-OF-NUT PRETENSIONING^{a,b}

BOLT LENGTH ^f	DISPOSITION OF OUTER FACE OF BOLTED PARTS		
	BOTH FACES NORMAL TO BOLT AXIS	ONE FACE NORMAL TO BOLT AXIS, OTHER SLOPED NOT MORE THAN 1:20 ^d	BOTH FACES SLOPED NOT MORE THAN 1:20 FROM NORMAL TO BOLT AXIS ^d
NOT MORE THAN 4d _b	1/3 TURN	1/2 TURN	2/3 TURN
MORE THAN 4d _b BUT NOT MORE THAN 8d _b	1/2 TURN	2/3 TURN	5/6 TURN
MORE THAN 8d _b BUT NOT MORE THAN 12d _b	2/3 TURN	5/6 TURN	1 TURN

^a NUT ROTATION IS RELATIVE TO BOLT REGARDLESS OF THE ELEMENT (NUT OR BOLT) BEING TURNED. FOR REQUIRED NUT ROTATIONS OF 1/2 TURN AND LESS, THE TOLERANCE IS PLUS OR MINUS 30 DEGREES; FOR REQUIRED NUT ROTATIONS OF 2/3 TURN AND MORE, THE TOLERANCE IS PLUS OR MINUS 45 DEGREES.

^b APPLICABLE ONLY TO JOINTS IN WHICH ALL MATERIAL WITHIN THE GRIP IS STEEL.

^c WHEN THE BOLT LENGTH EXCEEDS 12d_b, THE REQUIRED NUT ROTATION SHALL BE DETERMINED BY ACTUAL TESTING IN A SUITABLE TENSION CALIBRATOR THAT SIMULATES THE CONDITIONS OF SOLIDLY FITTING STEEL.

^d BEVELED WASHER NOT USED.

SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, JUNE 30, 2004 RESEARCH COUNCIL ON STRUCTURAL CONNECTIONS

INSTALLATION TORQUE REQUIRED FOR HOLLO BOLTS AND AJAX BOLTS:

1. HB12 HOLLO BOLT: 59 FT-LBS
2. HB16 HOLLO BOLT: 140 FT-LBS
3. HB20 HOLLO BOLT: 221 FT-LBS
4. M20 AJAX BOLT: 280 FT-LBS.

FIELD HOT WORK PLAN NOTES:

FOLLOWING GUIDELINES SHALL BE COMPLIED WITH:

1. CONTRACTOR'S RESPONSIBILITY TO COMPLETE A HOT WORK PLAN IF AWARDED PER CUSTOMER SPECIFICATIONS GUIDELINES FOR WELDING, CUTTING & SPARK PRODUCING WORK.
2. HAVE A FIRE PLAN APPROVED BY THE CUSTOMER AND THEIR SAFETY MANAGEMENT DEPT.
3. CONTRACTOR MUST OBTAIN THE CONTACT INFO OF THE LOCAL FIRE DEPARTMENT AND THE 911 ADDRESS OF THE TOWER SITE BEFORE CONSTRUCTION.
4. CONTRACTOR SHALL MAKE SURE THAT CELL PHONE COVERAGE IS AVAILABLE IN THE TOWER SITE. IF CELL COVERAGE IS NOT AVAILABLE, AN IMMEDIATE AVAILABLE MEANS OF DIRECT COMMUNICATION WITH THE FIRE DEPARTMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION START.
5. ALL CONSTRUCTION SHALL BE PERFORMED UNDER WIND SPEED LESS THAN 10 MPH ON THE GROUND LEVEL. IF WIND SPEED INCREASE, CONTRACTOR MUST DETERMINE IF CONSTRUCTION SHALL BE DISCONTINUED.
6. FIRE SUPPRESSION EQUIPMENT MUST BE MADE AVAILABLE ON SITE AND READY TO USE.
7. CONTRACTOR SHALL ASSIGN A FIRE WATCHER TO PERFORM FIRE-FIGHTING DUTIES.
8. ALL WELDERS SHALL BE AWS OR STATE CERTIFIED. THEY MUST ALSO BE EXPERIENCED IN WELDING ON GALVANIZED MATERIALS.
9. IF IT IS POSSIBLE, ALL EXISTING COAX NEAR WELDING AREA SHALL BE TEMPORARILY MOVED AWAY FROM THE WELDING AREA BEFORE WELDING THE PLATES.
10. PLEASE REPORT ANY FIELD ISSUE TO TES @ 972-483-0607.



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GN-1 0

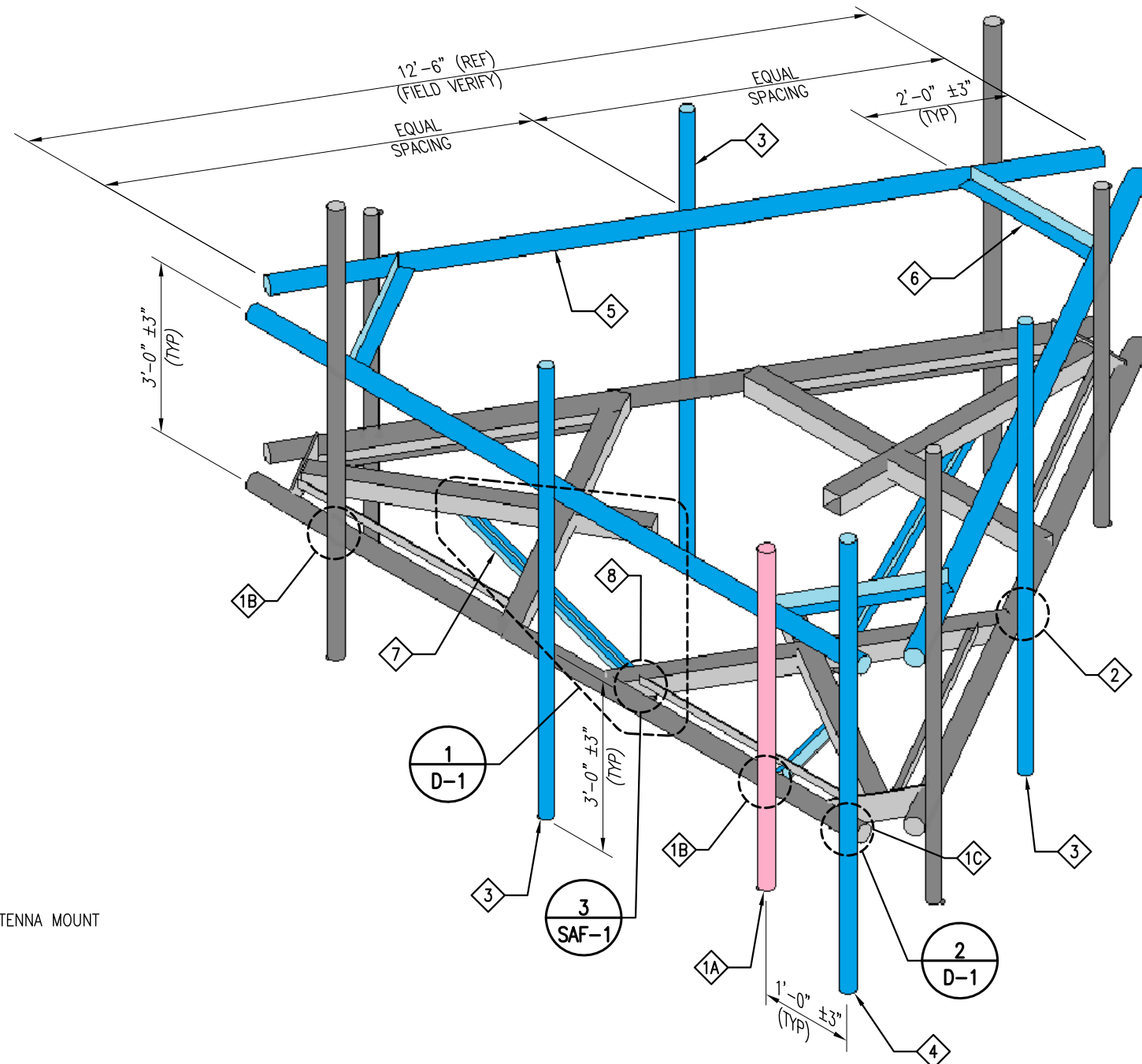
SCOPE OF WORK

- 1 A. RELOCATE EXISTING ANTENNA MOUNT PIPE (PINK COLOR) 1'-0" TOWARD THE CENTER AS SHOWN, THEN RELOCATE EXISTING ANTENNA TO RELOCATED MOUNT PIPE, (1) ON ALPHA SECTOR ONLY. EXISTING RAD ANTENNA RAD CENTER TO BE MAINTAINED.
NOTE:
CONTRACTOR TO COORDINATE WITH CARRIER PRIOR TO RELOCATING OF EXISTING ANTENNA MOUNT PIPE TO DETERMINE IF EXISTING ANTENNA NEEDS TO BE TURNED DOWN.
- B. REPLACE ALL EXISTING CROSSOVER CHANNEL BRACKETS WITH NEW SUPPORT RAIL CENTER PIPE KITS, (2) PER SECTOR. SEE SHEET MS-HRCP-35-2875 FOR DETAILS
- C. INSTALL NEW SUPPORT RAIL CENTER PIPE KIT, AS SHOWN FOR ALPHA SECTOR ONLY. SEE SHEETS D-1 AND MS-HRCP-35-2875 FOR DETAILS
- 2 INSTALL NEW SUPPORT RAIL CENTER PIPE KIT, (1) PER SECTOR. SEE SHEET MS-HRCP-35 FOR DETAILS
- 3 INSTALL NEW 2" PST ANTENNA MOUNT PIPE (8'-0" LONG), (1) PER SECTOR
- 4 INSTALL NEW 2 1/2" PST DISH MOUNT PIPE (8'-0" LONG), (1) ON ALPHA SECTOR ONLY
- 5 INSTALL NEW SUPPORT RAIL KIT. SEE SHEET MS-HR35-2875 FOR DETAILS
- 6 INSTALL NEW SUPPORT RAIL END CONNECTION KIT. SEE SHEET MS-HR35-33ECP FOR DETAILS
- 7 INSTALL NEW HEAVY COLLAR MOUNT (NOT SHOWN FOR CLARITY) & KICKER SUPPORT KIT. SEE SHEETS D-1, MS-H1436 & MS-HKI22-8 FOR DETAILS.
- 8 INSTALL NEW SAFETY CLIMB GUIDE TO PREVENT EXISTING SAFETY CLIMB FROM RUBBING AGAINST NEW COLLAR MOUNT. SEE SHEET SAF-1 FOR DETAILS
- 9 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEAN-UP, REMOVAL AND DISPOSAL OF EXCESS MATERIALS USED AND REMOVED FROM THE STRUCTURE AT THE COMPLETION OF THE PROJECT.



EXISTING ANTENNA MOUNT @ 83' ELEV

PHOTO 1



ISOMETRIC VIEW
EXISTING ANTENNA MOUNT @ 83' ELEV.

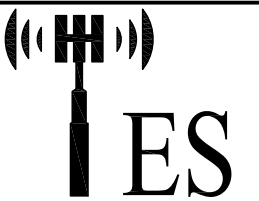
CONTRACTOR NOTE:

1. IT IS THE RESPONSIBILITY OF THE GC TO VERIFY THAT THERE IS NO INTERFERENCES WITH (PORT HOLES, SAFETY CLIMB BRACKETS, TRANSMISSION LINES, ETC.) PRIOR TO MOBILIZATION AND INSTALLATION OF THESE MODIFICATIONS.
2. PLEASE NOTIFY TES IMMEDIATELY IF ANY INSTALLATION ISSUES OCCUR RELATED TO THIS DRAWING @ 972-483-0607 OR EMAIL-TESORDERS@TESTOWER.US

NOTES:

1. TEMPORARILY RELOCATE ANY EXISTING COAX ATTACHED TO THE LEGS AND/OR ANY OTHER MEMBERS WHERE OBSTRUCTION WITH THE PROPOSED MODIFICATION MAY OCCUR.
2. WHEN FIELD CUTTING AND DRILLING ANGLES, USE SAME GAGE LINES AND EDGE DISTANCES AS INDICATED ON SHOP CUT AND DRILLED ENDS.
3. APPLY (2) COATS OF ZINGA COLD GALVANIZING COMPOUND AS PER THE MANUFACTURER'S SPECIFICATIONS TO ALL FIELD CUT AND DRILLED AREAS.
4. MEMBERS IN BLUE COLOR ARE NEW REINFORCEMENTS.

ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	5	MS-HRCP-35-2875	METROSITE SUPPORT RAIL CENTER PIPE KIT
2	1	MS-HRCP-35	METROSITE SUPPORT RAIL CENTER PIPE KIT
3	3	PST2375-8	2" PST (2.375" O.D. X 0.154" THK) 8'-0" A53 GR-B 35KSI
4	1	PST2875-8	2 1/2" PST (2.875" O.D. X 0.203" THK) 8'-0" A53 GR-B 35K
5	1	MS-HR35-2875	METROSITE SUPPORT RAIL KIT
6	1	MS-HR35-33ECP	METROSITE SUPPORT RAIL END CONNECTION KIT
7	1	MS-H1436	METROSITE HEAVY COLLAR MOUNT PLATE ASSEMBLY
8	1	MS-HKI22-8	METROSITE HEAVY KICKER SUPPORT KIT



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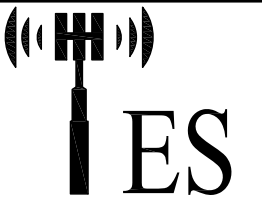
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ANTENNA MOUNT
MODIFICATION DETAILS

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ANTENNA MOUNT PHOTOS

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A-2 0



PHOTO 1



PHOTO 2

EXISTING EQUIPMENT MUST BE RELOCATED UP OR DOWN ALONG THE MEMBER TO ACCOMMODATE INSTALLATION OF MOUNT MODIFICATION

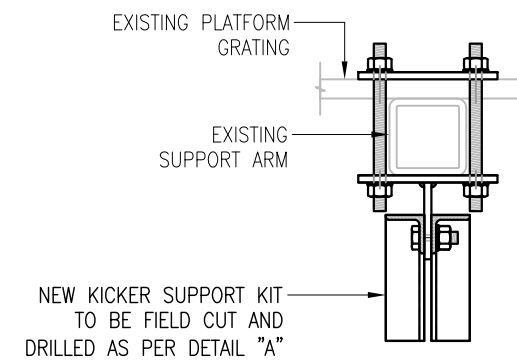
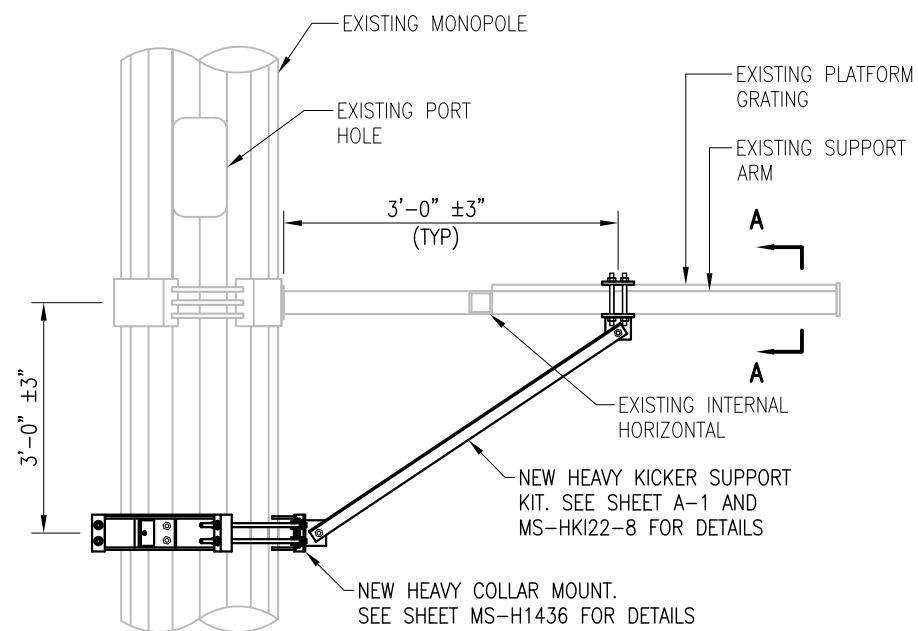


PHOTO 3



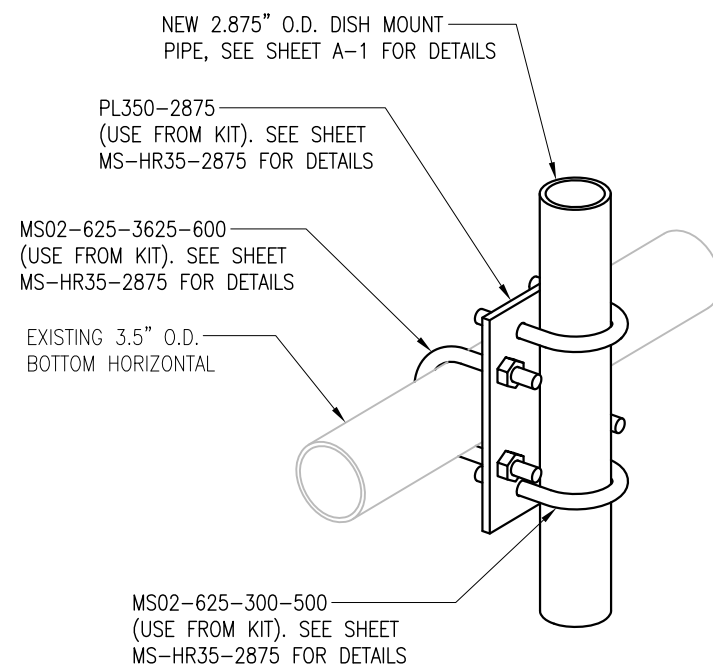
PHOTO 4

NOTE:
EXISTING RRUS/EQUIPMENT MAY BE RELOCATED ALONG THE MEMBER TO ACCOMMODATE THE INSTALLATION OF NEW MOUNT MODIFICATION

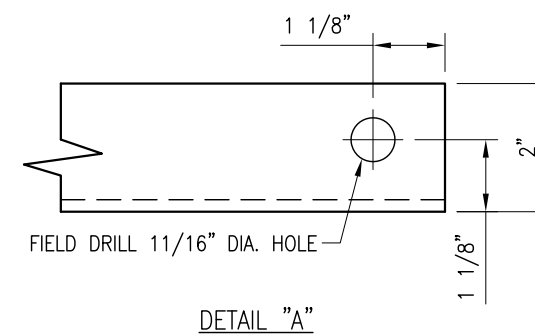


SECTION A-A

1
D-1
DETAIL



2
D-1
DETAIL



DETAIL "A"

- NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.
 2. ALL HOLES ARE 11/16" DIA. U.N.O



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SHEET NUMBER: D-1 | REV #: 0



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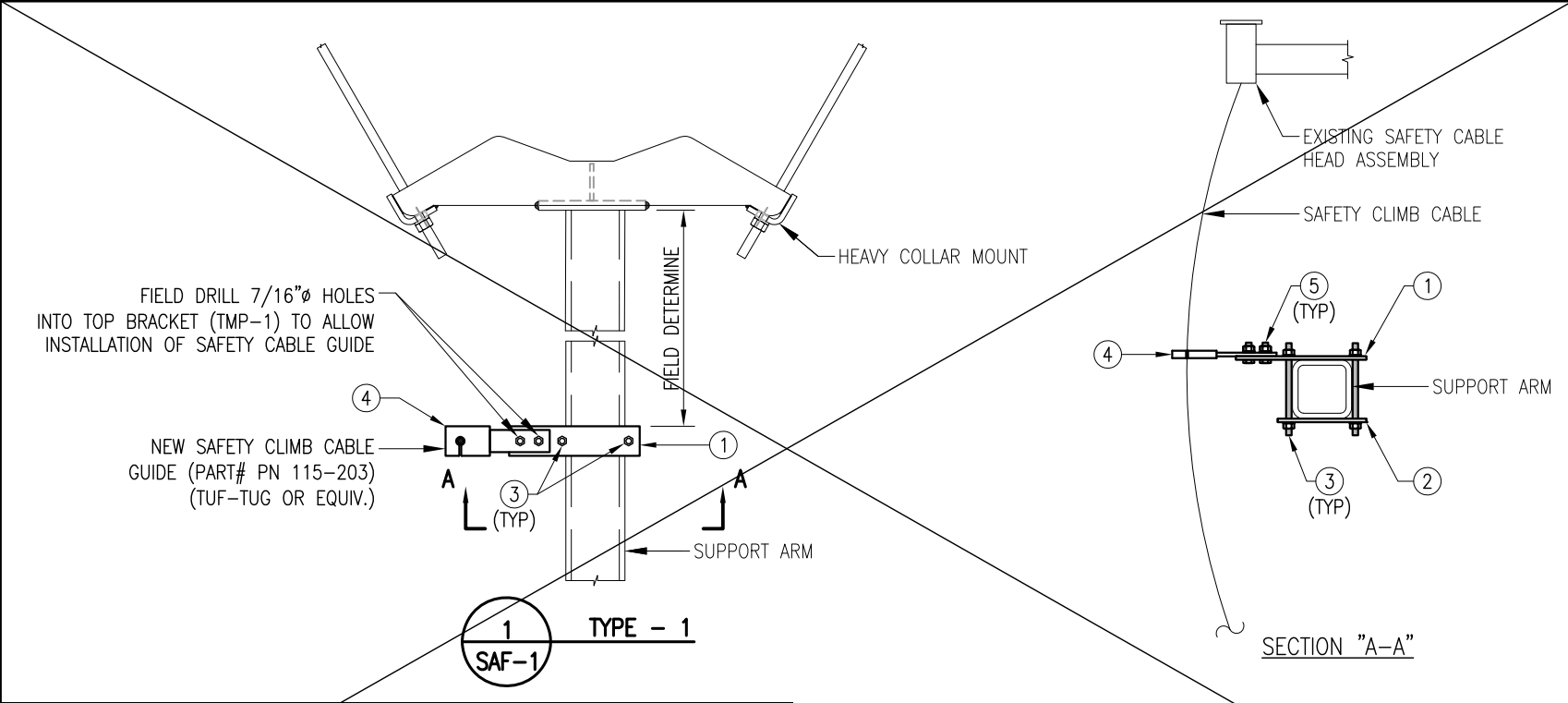
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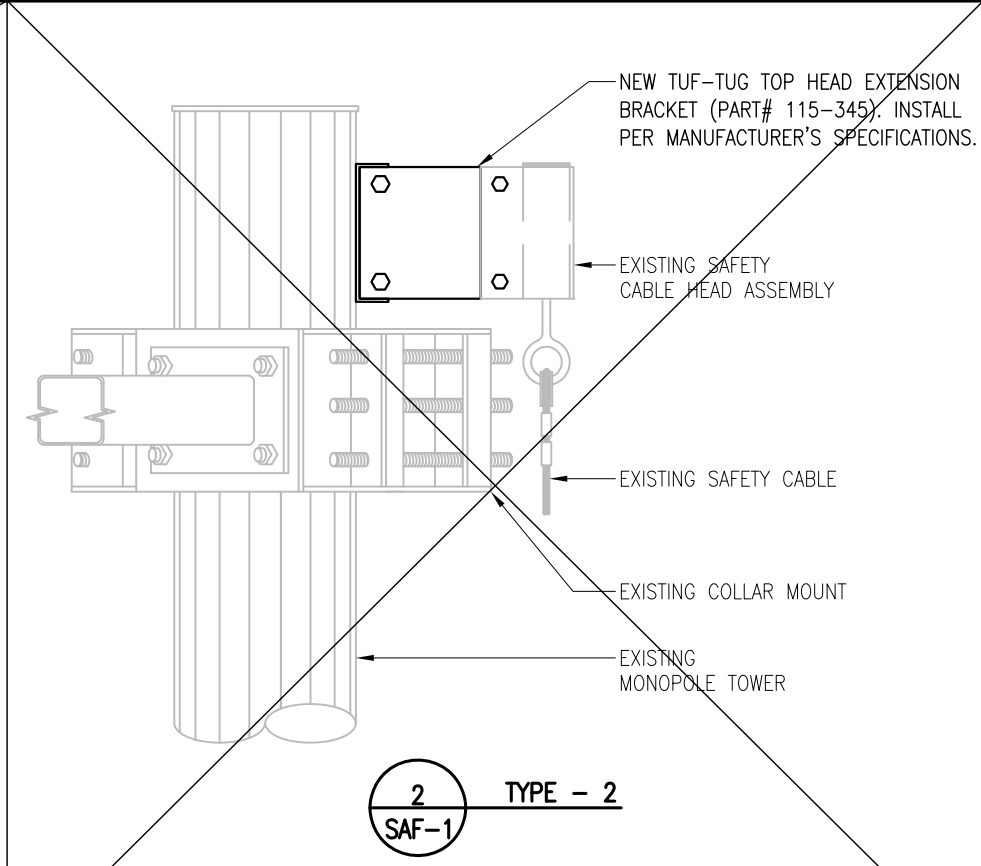
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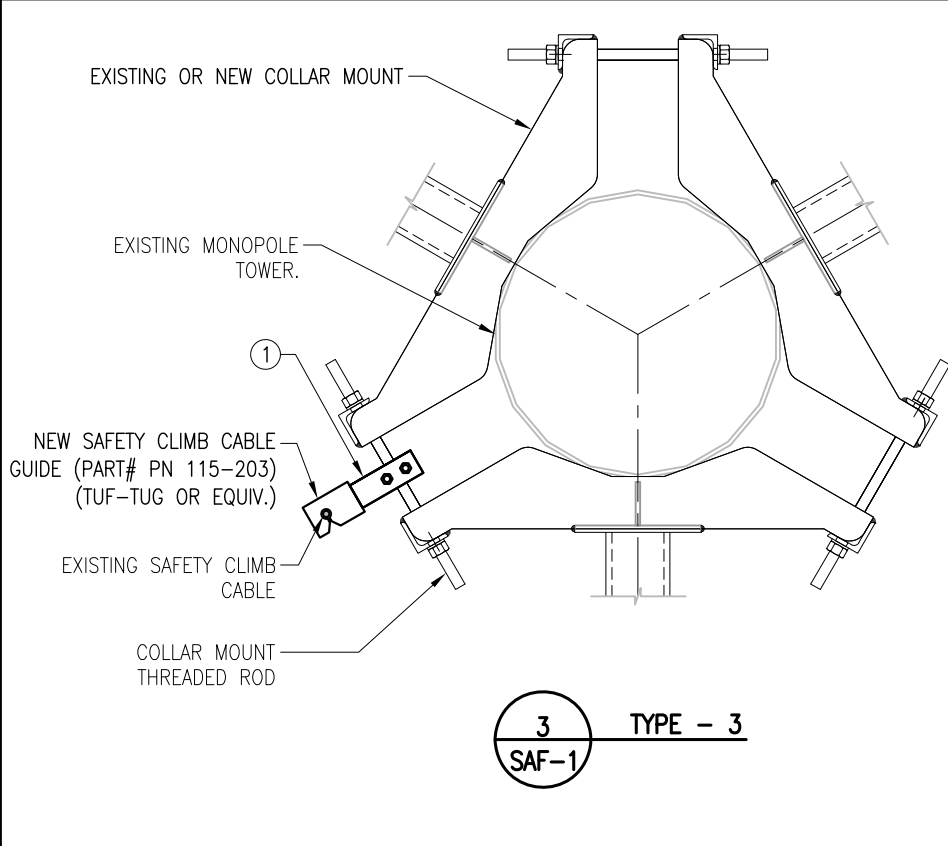


ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	TMP-1	PL 1/4" X 2" X 9 1/2" A36
2	1	BMP-1	PL 1/4" X 2" X 6 1/2" A36
3	2	---	THREADED ROD 3/8" X 8" A36
4	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)
5	2	---	BOLT 3/8" X 1 1/2" FULL THREAD SAE GR 5

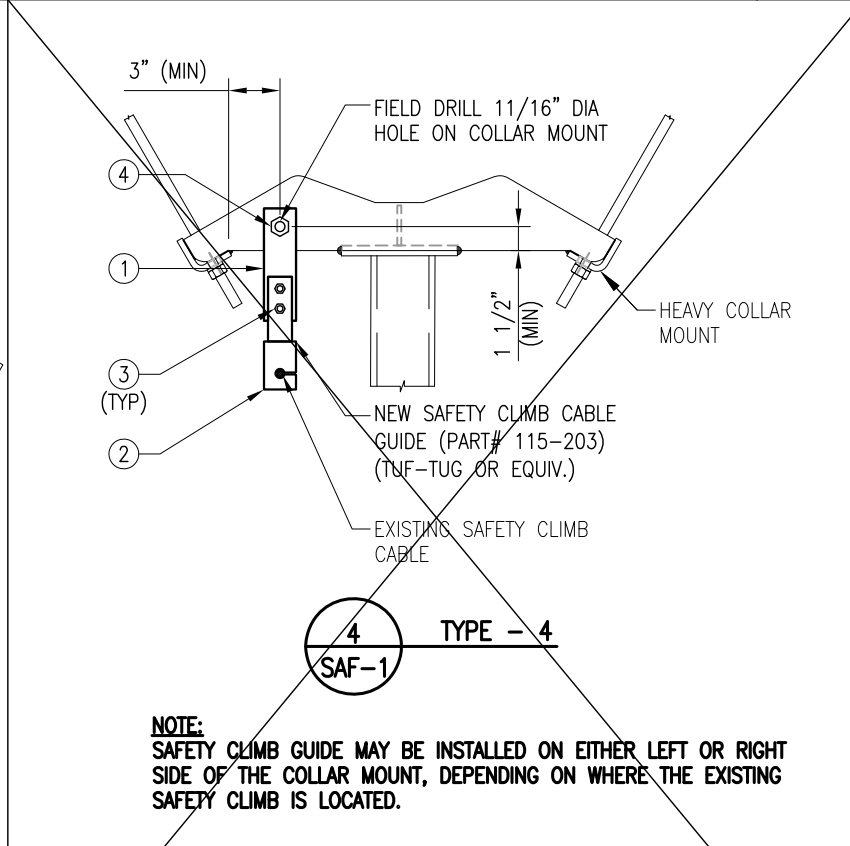
NOTE:
SAFETY CLIMB GUIDE MAY BE INSTALLED ON EITHER LEFT OR RIGHT SIDE OF THE SUPPORT ARM, DEPENDING ON WHERE THE EXISTING SAFETY CLIMB IS LOCATED.



ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	115-345	TUF-TUG MONOPOLE HEAD EXTENSION ASSEMBLY

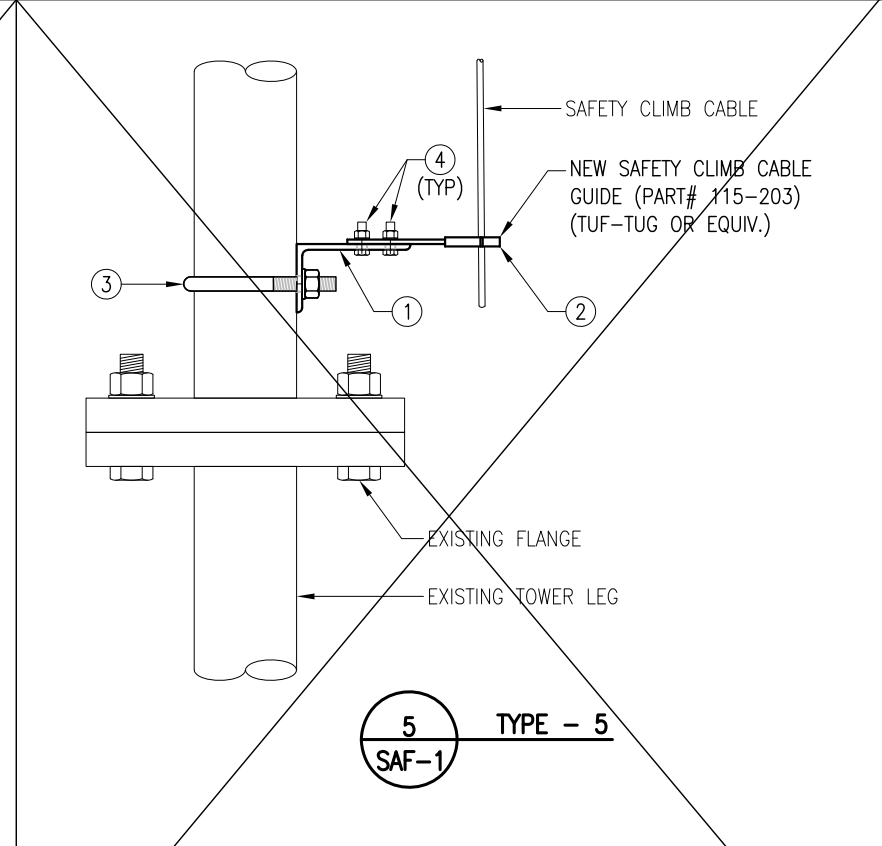


ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)



ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	TMP-2	PL 1/4" X 2" X 7" A36
2	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)
3	2	---	BOLT 3/8" X 1 1/2" FULL THREAD SAE GR 5
4	1	---	BOLT 5/8" X 2" A325

NOTE:
SAFETY CLIMB GUIDE MAY BE INSTALLED ON EITHER LEFT OR RIGHT SIDE OF THE COLLAR MOUNT, DEPENDING ON WHERE THE EXISTING SAFETY CLIMB IS LOCATED.



ITEM NO.	QTY.	PART NO.	DESCRIPTIONS
1	1	SCGB-4	L 5" X 3" X 1/4" X 7 1/2" A36
2	1	PN 115-203	SAFETY CABLE GUIDE (TUF-TUG OR EQUIV.)
3	1	MS02-625-4625-700	RU-BOLT 5/8" X 4 5/8" I.W. X 7" I.L. A36 (OR EQUIV.)
4	2	---	BOLT 3/8" X 1 1/2" FULL THREAD SAE GR 5

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SAFETY CABLE GUIDE DETAILS

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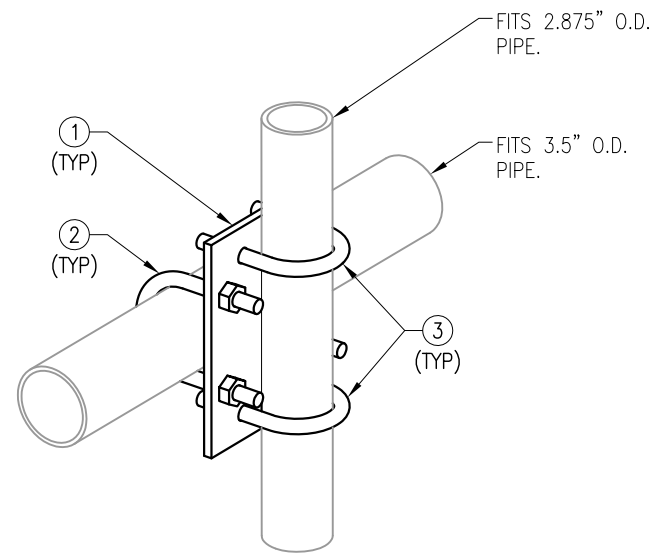
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PLEASE REFER TO THE INSTALLATION DRAWINGS FOR ACTUAL INSTALLATION DETAILS

NOTES:



1. ALL HOLES ARE 11/16" DIA. U.N.O
2. HOT-DIPPED GALVANIZED PER ASTM A123.

MS-HRCP-35-2875

ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	1	PL350-2875	PL 3/8" X 7 1/8" X 10"	A36	TAF-2	7.7
2	2	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	A36	RBC-1	1.5
3	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	A36	RBC-1	1.4
					GALVANIZED WT	11

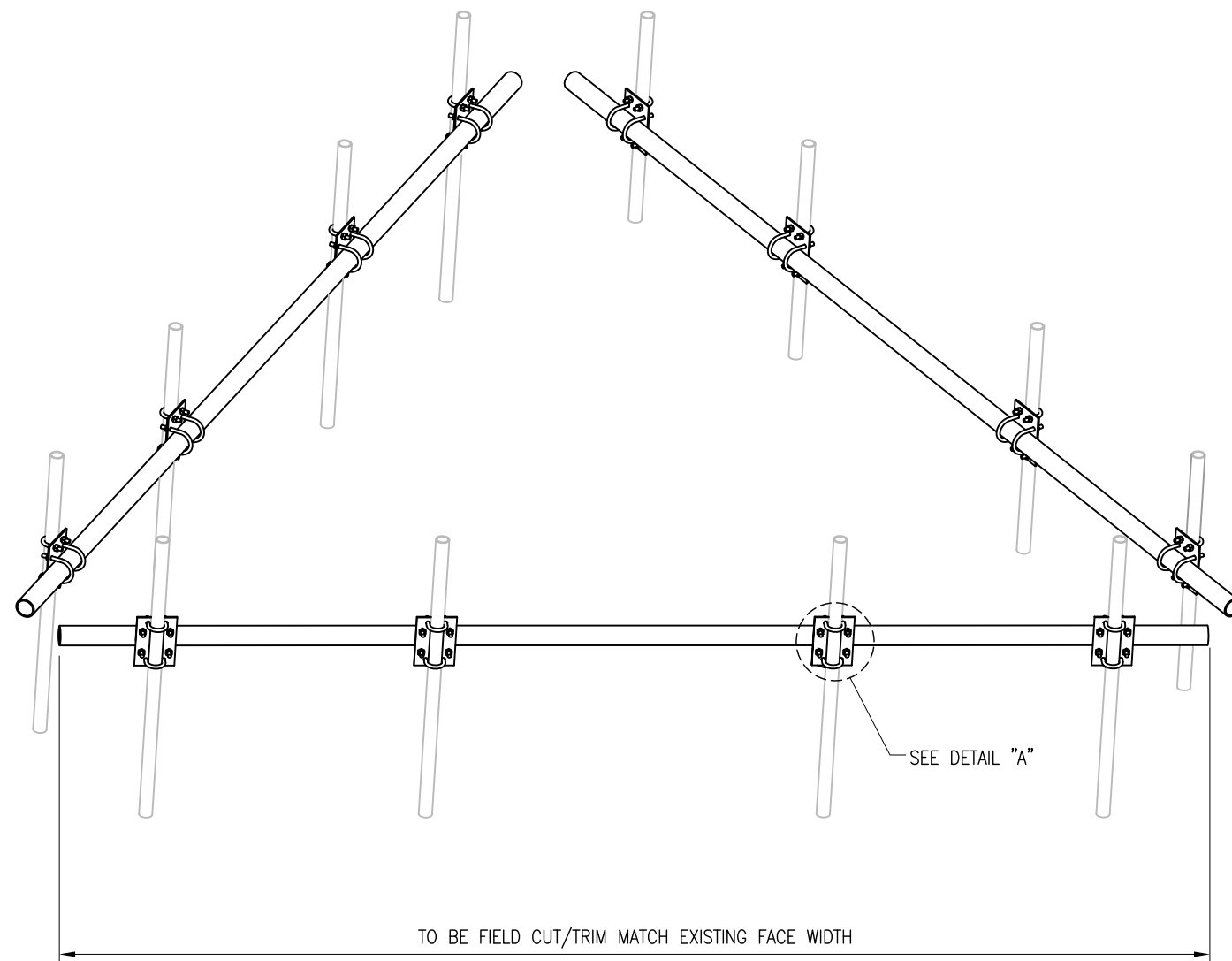


MS-HRCP-35-2875

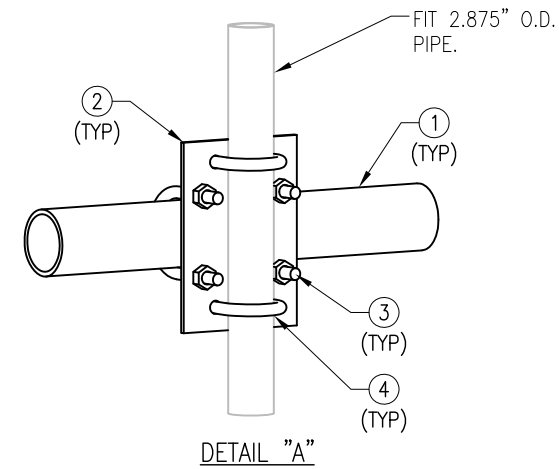
THIRD ANGLE PROJECTION						METROSITE FABRICATORS LLC 180 INDUSTRIAL PARK BLVD. COMMERCE GA 30529			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH				CONFIDENTIAL ALL INFORMATION ON THIS DOCUMENT IS PROPERTY OF METROSITE FABRICATORS LLC				TITLE MS-HRCP-35-2875 SUPPORT RAIL CENTER PIPE KIT	
STANDARD SHEET TOLERANCES		APPROVAL / SIGNATURES		DATE		SIZE/DWG NO			
DECIMALS	ANGLES	DRAWN BY: XXX		05/12/17		B MS-HRCP-35-2875			
.X ± 0.1	± 1°	REVIEWED: XXX		-		REV 0			
.XX ± 0.02	FRACTIONS	APPROVED: XXX		-		SCALE -			
.XXX ± 0.005	± 1/32					SHEET 1 OF 1			

MS-HR35-2875

ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	3	3PST-216	3" PST (3.50" O.D X .216" THICK) X 18'-0"	A53 GR-B	HR35-18	430.2
2	12	PL350-2875	PL 3/8" X 7 1/8" X 10"	A36	TAF-2	92.4
3	24	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	A36	RBC-1	--
4	24	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	A36	RBC-1	--
GALVANIZED WT						523



ELEVATION VIEW



DETAIL "A"

NOTES:

1. ALL HOLES ARE 11/16" DIA. U.N.O
2. HOT-DIPPED GALVANIZED PER ASTM A123.

THIRD ANGLE PROJECTION				METROSITE FABRICATORS LLC 180 INDUSTRIAL PARK BLVD. COMMERCE GA 30529	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH				CONFIDENTIAL ALL INFORMATION ON THIS DOCUMENT IS PROPERTY OF METROSITE FABRICATORS LLC	
STANDARD SHEET TOLERANCES		APPROVAL / SIGNATURES		DATE	
DECIMALS	ANGLES	DRAWN BY: XXX	REVIEWED: XXX	APPROVED: XXX	05/12/17
.X ± 0.1	± 1°				-
.XX ± 0.02	FRACTIONS				-
.XXX ± 0.005	± 1/32				
		SCALE		SHEET 1 OF 1	

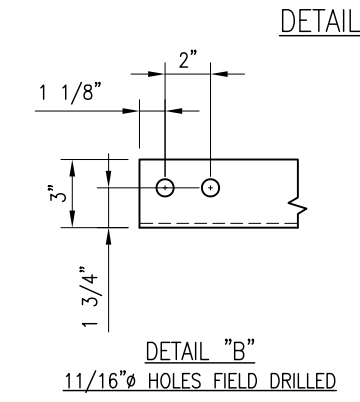
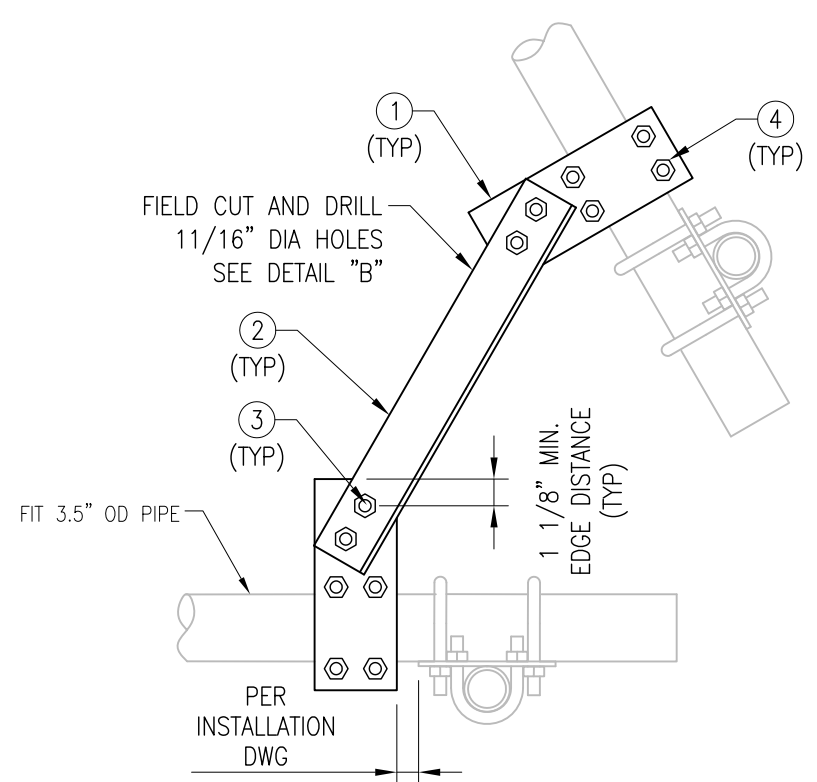
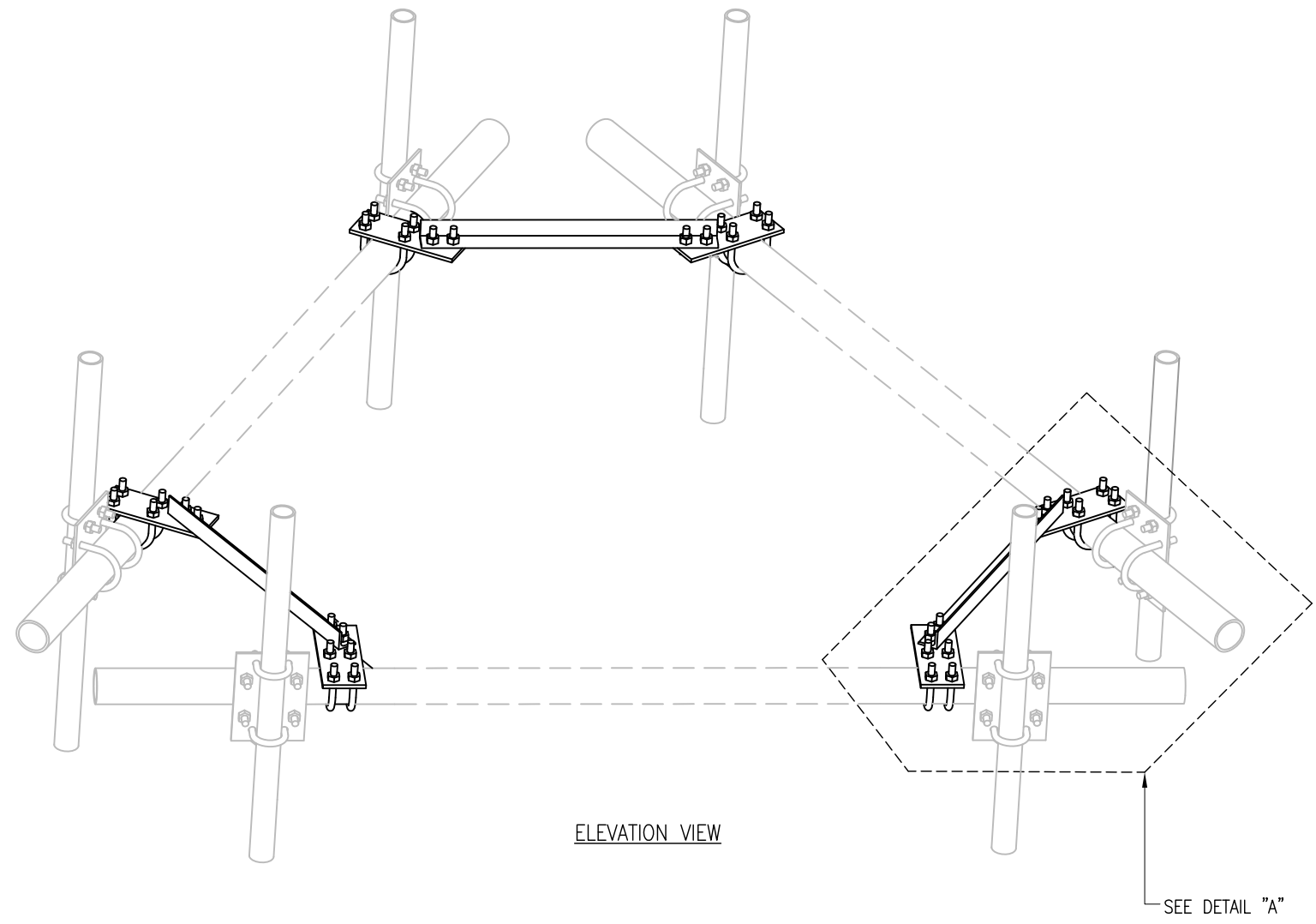
REV 0

NOTE:

- 1) FITS 3 1/2" DIA. PIPE.
- 2) ALL HOLES ARE 11/16" DIA. U.N.O
- 3) HOT-DIPPED GALVANIZED PER ASTM A123

1

MS-HR35-33ECP						
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	6	PL375-11	PL 3/8" X 4 1/4" X 0'-11"	A36	TAF-1	30.0
2	3	AL-33C	L 3" X 3" X 1/4" X 3'-6"	A36	ECP-1	54.0
3	12	--	BOLT 5/8" X 2" A325 W/ HHN & LKW	A325	--	--
4	12	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	A36	RBC-1	--
GALVANIZED WT						84

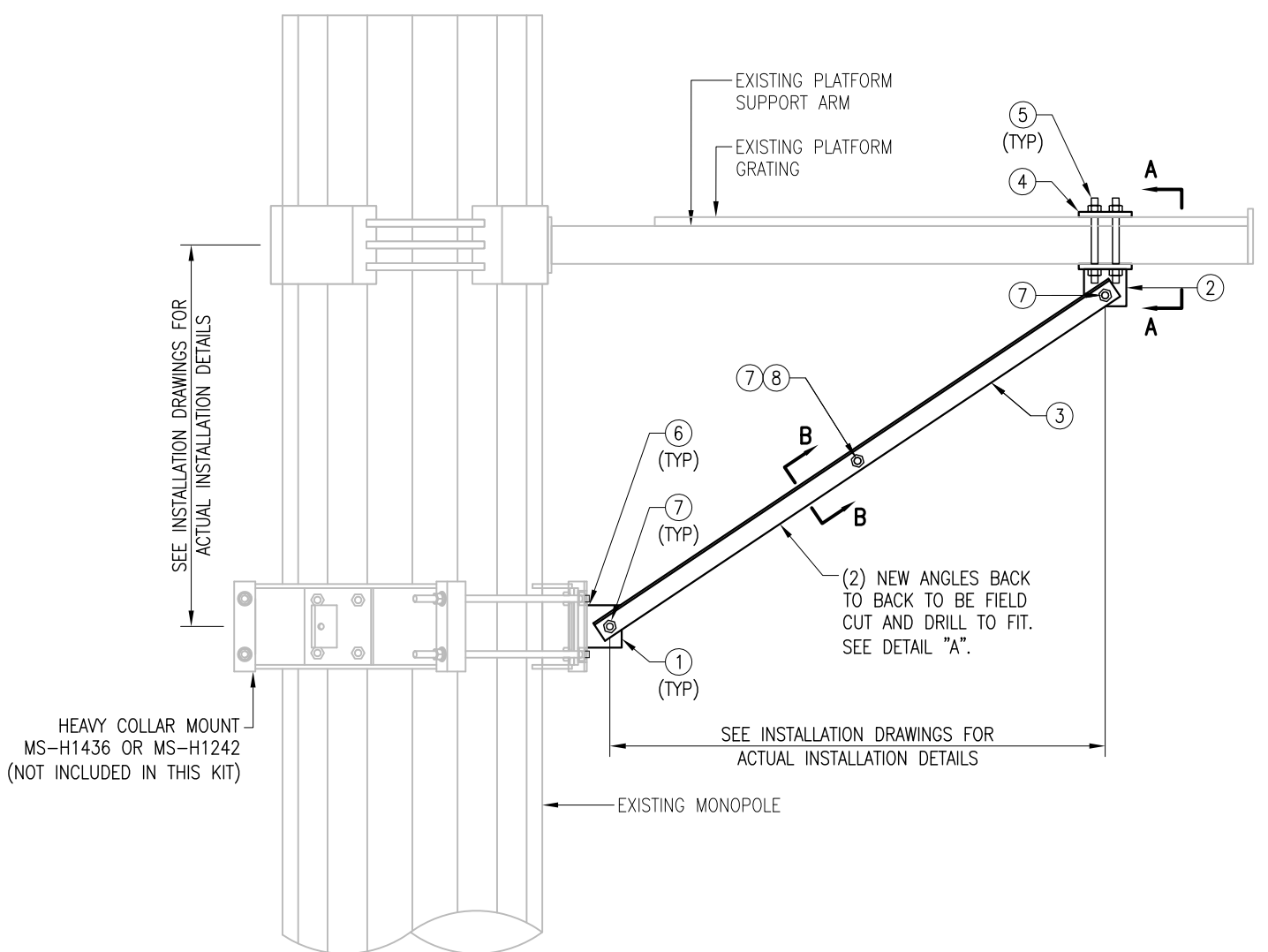


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH STANDARD SHEET TOLERANCES DECIMALS .X ± 0.1 .XX ± 0.02 .XXX ± 0.005 ANGLES ± 1° FRACTIONS ± 1/32		THIRD ANGLE PROJECTION 		 METROSITE FABRICATORS LLC 180 INDUSTRIAL PARK BLVD. COMMERCE GA 30529
		CONFIDENTIAL ALL INFORMATION ON THIS DOCUMENT IS PROPERTY OF METROSITE FABRICATORS LLC		
APPROVAL / SIGNATURES DRAWN BY: XXX REVIEWED: XXX APPROVED: XXX		DATE 05/12/17 - -		SIZE/DWG NO B MS-HR35-33ECP
		SCALE -		SHEET 1 OF 1 REV 1

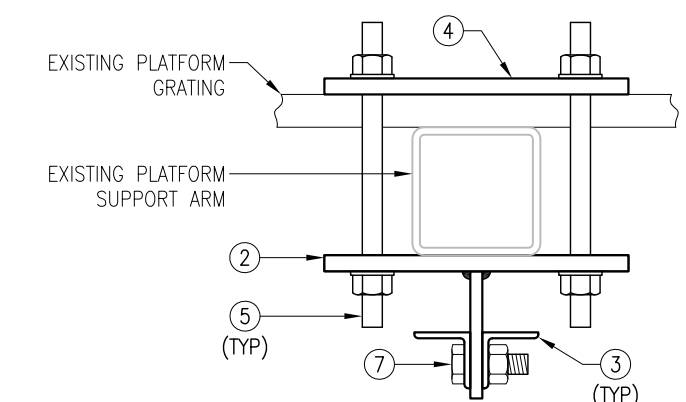
NOTE:
THE LOCATION OF KICKER AND EXISTING ANTENNA MOUNT SHOWN ON THE DRAWING IS FOR REPRESENTATION PURPOSE ONLY. SEE INSTALLATION DRAWINGS FOR ACTUAL INSTALLATION OF DETAILS.

MS-HK122-8

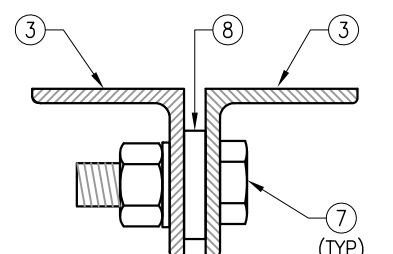
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	3	BRKW-HK	BRACKET WELDMENT	---	BRKW-HK	23.4
2	3	BRKW-5S	BRACKET WELDMENT	---	BRKW-5S	18.9
3	6	L2225-8	L 2" X 2" X 1/4" X 8'-0"	A36	HKF-8	156.0
4	3	PL5S-375	PL 3/8" X 4 3/4" X 8 1/2"	A36	HKF-8	12.9
5	12	---	ALL THREADED ROD 5/8" DIA. X 1'-0" HDG W/ (2) HHN & LKW EA.	A36	---	---
6	12	---	BOLT 5/8" X 2" W/ HHN & LKW	A325	---	---
7	9	---	BOLT 5/8" X 2 1/4" W/ HHN & LKW	A325	---	---
8	3	---	SPACER/SHIM FOR 5/8" BOLT (3/8" THICK)	A36	---	---
GALVANIZED WT						211



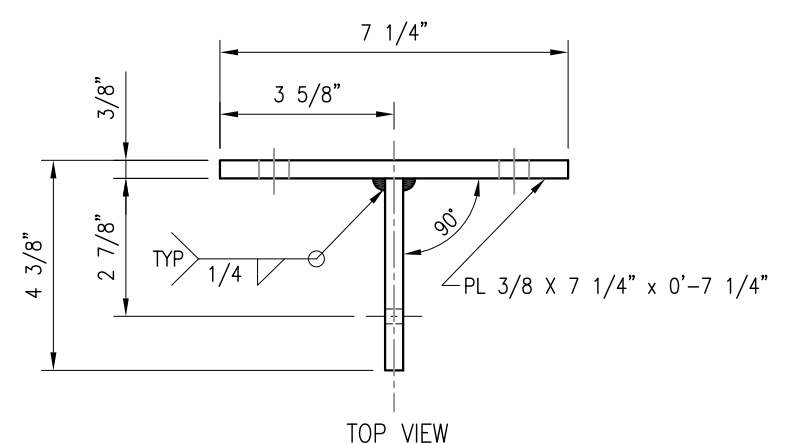
ELEVATION



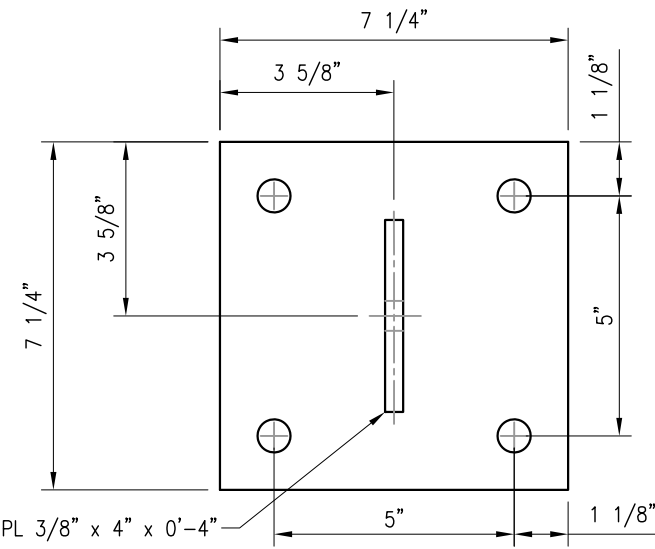
SECTION "A-A"



SECTION "B-B"

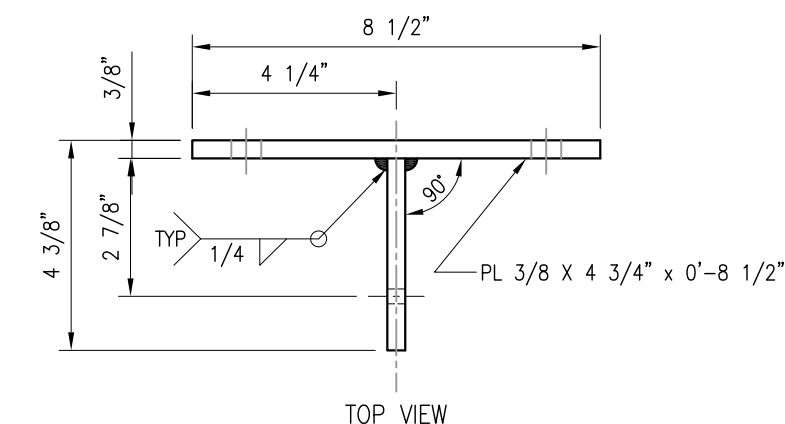


TOP VIEW

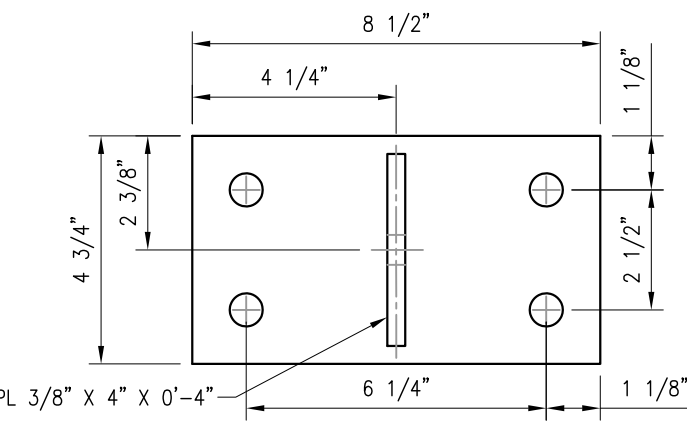


FRONT VIEW

BRKW-HK WELDMENT

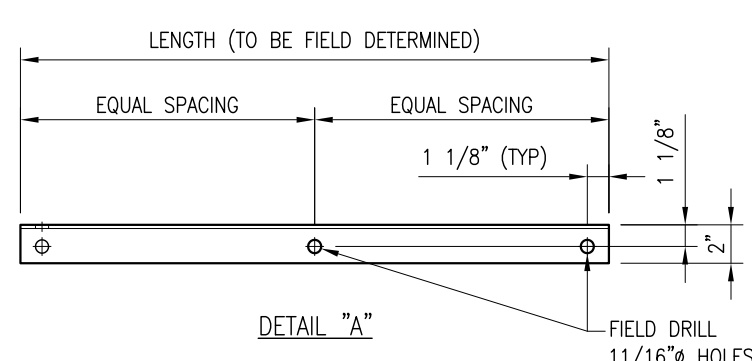


TOP VIEW



FRONT VIEW

BRKW-5S WELDMENT



DETAIL "A"

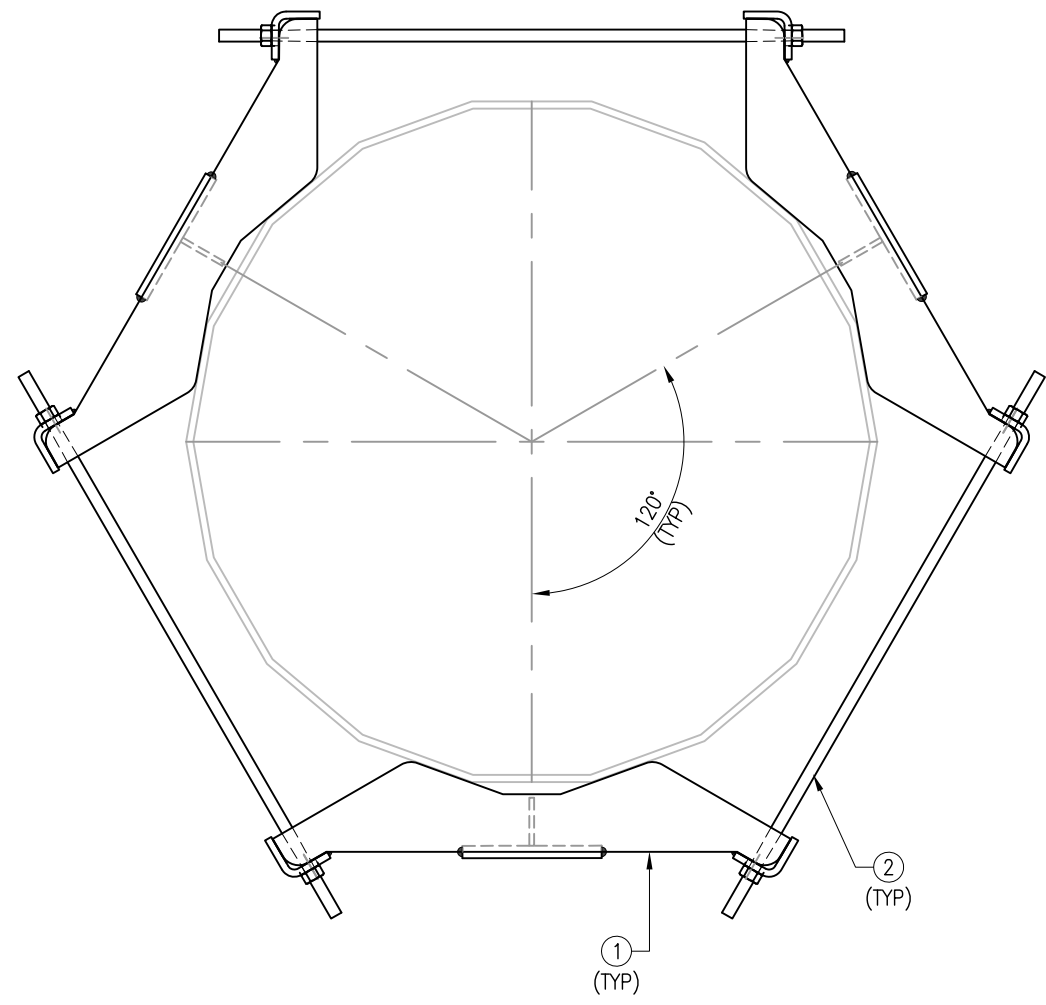
- NOTES:
1. ALL HOLES ARE 11/16" DIA. U.N.O
 2. HOT-DIPPED GALVANIZED PER ASTM A123.
 3. FIT UP TO 5" X 5" SQ. TUBING OR 4 1/2" O.D. PIPE

<p>THIRD ANGLE PROJECTION</p>			<p>METROSITE FABRICATORS LLC 180 INDUSTRIAL PARK BLVD. COMMERCE GA 30529</p>								
<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH</p>											
<p>STANDARD SHEET TOLERANCES</p> <table border="1"> <tr> <td>DECIMALS</td> <td>ANGLES</td> </tr> <tr> <td>.X ± 0.1</td> <td>± 1°</td> </tr> <tr> <td>.XX ± 0.02</td> <td>FRACTIONS</td> </tr> <tr> <td>.XXX ± 0.005</td> <td>± 1/32</td> </tr> </table>		DECIMALS	ANGLES	.X ± 0.1	± 1°	.XX ± 0.02	FRACTIONS	.XXX ± 0.005	± 1/32	<p>CONFIDENTIAL ALL INFORMATION ON THIS DOCUMENT IS PROPERTY OF METROSITE FABRICATORS LLC</p>	
DECIMALS	ANGLES										
.X ± 0.1	± 1°										
.XX ± 0.02	FRACTIONS										
.XXX ± 0.005	± 1/32										
<p>APPROVAL / SIGNATURES</p> <p>DRAWN BY: XXX</p> <p>REVIEWED: XXX</p> <p>APPROVED: XXX</p>		<p>DATE</p> <p>06/21/18</p>	<p>TITLE</p> <p>HEAVY KICKER SUPPORT KIT</p>								
<p>SIZE DWG NO</p> <p>B MS-HK122-8</p>		<p>SCALE</p> <p>-</p>	<p>REV</p> <p>0</p>								
<p>SHEET 1 OF 1</p>			<p>0</p>								

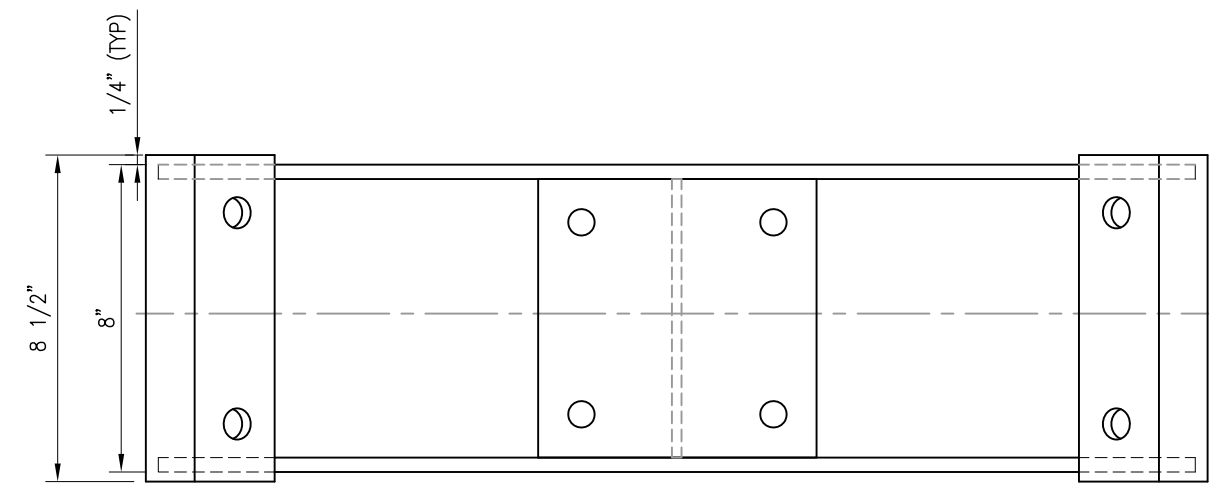
ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	3	MPHW-1	MOUNT PLATE WELDMENT A36
2	6	---	THREADED ROD 3/4" X 2'-4 3/4" W/ 2 HHN & LW EA A36

GALVANIZED WEIGHT: 136.7 LBS

NOTE:
1) FITS 12" DIA TO 32" DIA.



TOP VIEW

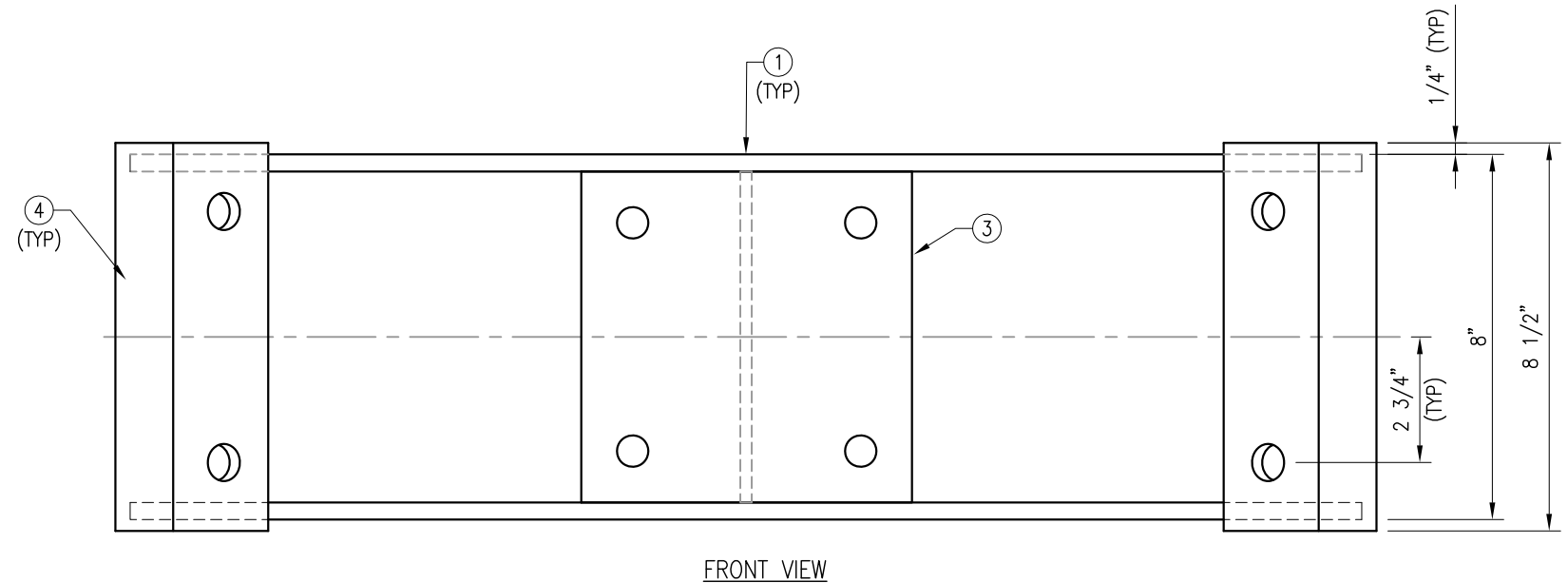
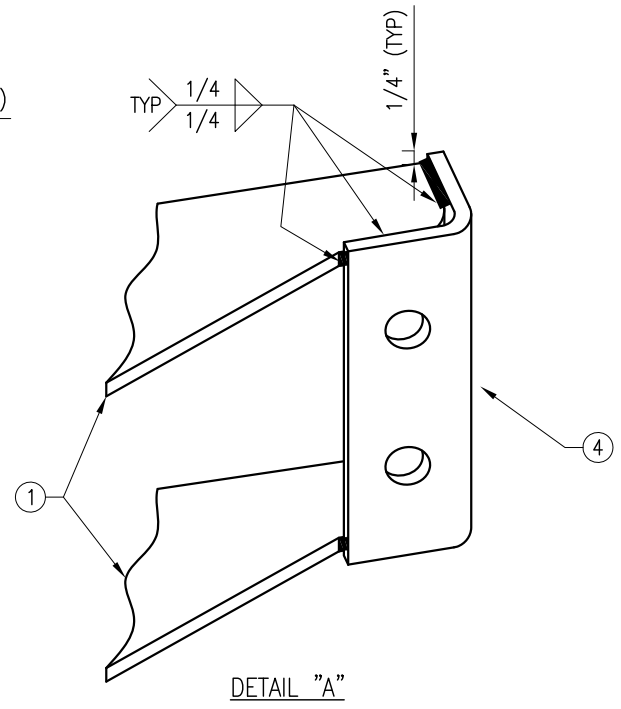
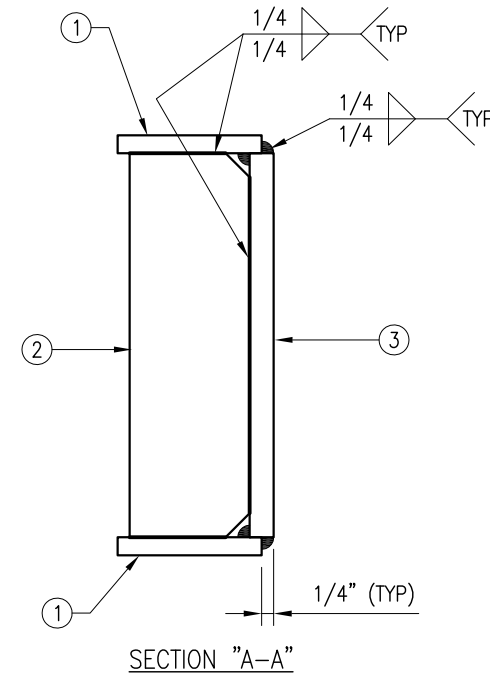
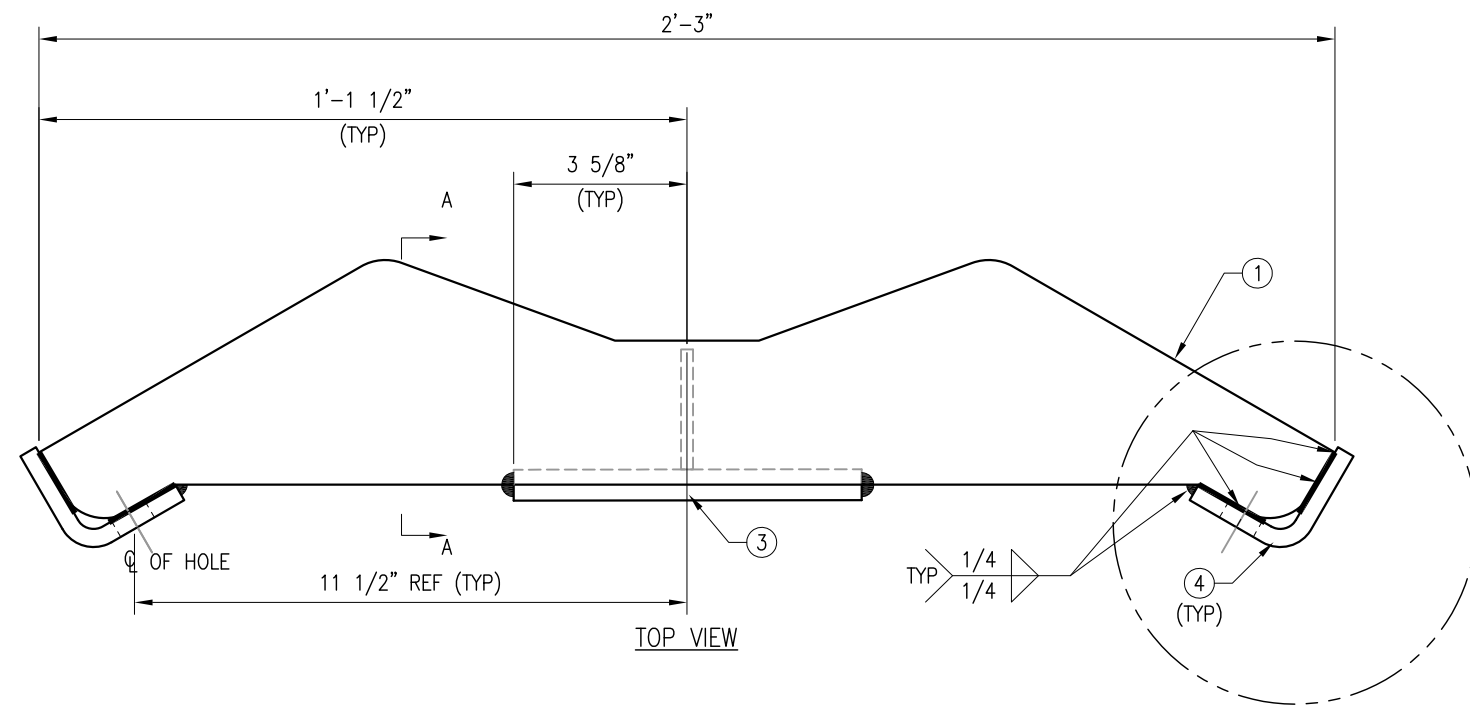


FRONT VIEW

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH		THIRD ANGLE PROJECTION 				METROSITE FABRICATORS LLC 180 INDUSTRIAL PARK BLVD. COMMERCE GA 30529	
STANDARD SHEET TOLERANCES DECIMALS .X ± 0.1 .XX ± 0.02 .XXX ± 0.005		ANGLES ± 1° FRACTIONS ± 1/32		CONFIDENTIAL ALL INFORMATION ON THIS DOCUMENT IS PROPERTY OF METROSITE FABRICATORS LLC		TITLE HEAVY COLLAR MOUNT PLATE ASSEMBLY DETAIL MS-H1436	
APPROVAL / SIGNATURES DRAWN BY: XXX REVIEWED: XXX APPROVED: XXX		DATE 05/12/17 - -		SIZE/DWG NO B MS-H1436		REV 1	
SCALE -		SHEET 1 OF 1					

- NOTES:
 1. HOT-DIPPED GALVANIZED PER ASTM A123.
 2. WELD TYPE: E70XX.

MPHW-1 WELDMENT						
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	2	PL-4	PL 3/8" X 5 3/8" X 2'-3"	A36	F-2	18.8
2	1	PL-5	PL 3/8" X 2 1/2" X 0'-7 1/4"	A36	F-2	1.9
3	1	PL-6	PL 1/2" X 7 1/4" X 0'-7 1/4"	A36	F-2	7.5
4	2	PL-7	PL 3/8" x 4 3/8" x 8 1/2"	A36	F-2	7.8
BLACK WT						36
GALVANIZED WT						38



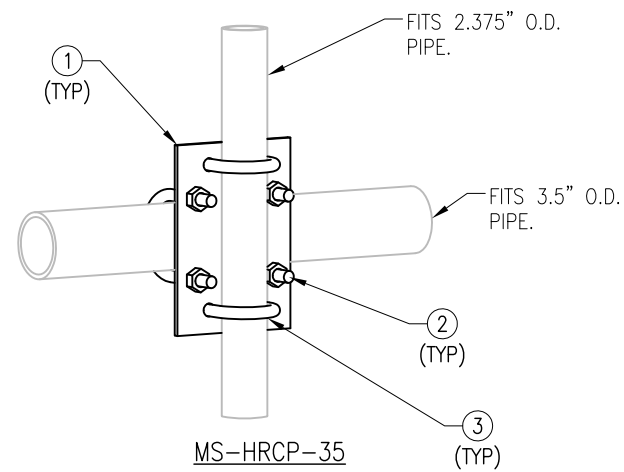
FRONT VIEW
 MPW-1 WELDMENT

THIRD ANGLE PROJECTION						METROSITE FABRICATORS LLC 180 INDUSTRIAL PARK BLVD. COMMERCE GA 30529	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH				CONFIDENTIAL ALL INFORMATION ON THIS DOCUMENT IS PROPERTY OF METROSITE FABRICATORS LLC			
STANDARD SHEET TOLERANCES DECIMALS .X ± 0.1 .XX ± 0.02 .XXX ± 0.005				ANGLES ± 1° FRACTIONS ± 1/32		APPROVAL / SIGNATURES DRAWN BY: XXX REVIEWED: XXX APPROVED: XXX	
				DATE 05/12/17		TITLE HEAVY COLLAR MOUNT PLATE WELDMENT DETAIL	
				SIZE/DWG NO B MPHW-1		REV 0	
				SCALE -		SHEET 1 OF 1	

NOTES:

1. ALL HOLES ARE 11/16" DIA. U.N.O
2. HOT-DIPPED GALVANIZED PER ASTM A123.

MS-HRCP-35						
ITEM NO.	QTY.	PART NO.	DESCRIPTION	GRADE	SHEET #	WT
1	3	PL375-10	PL 3/8" X 7 1/8" X 10"	A36	TAF-1	23.1
2	6	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	A36	RBC-1	--
3	6	MS02-625-250-400	RU-BOLT 5/8" X 2 1/2" I.W. X 4" I.L. A36 (OR EQUIV.)	A36	RBC-1	--
					GALVANIZED WT	23





THIRD ANGLE PROJECTION						METROSITE FABRICATORS LLC 180 INDUSTRIAL PARK BLVD. COMMERCE GA 30529	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES AND INCLUDE FINISH				CONFIDENTIAL ALL INFORMATION ON THIS DOCUMENT IS PROPERTY OF METROSITE FABRICATORS LLC			
STANDARD SHEET TOLERANCES		APPROVAL / SIGNATURES		DATE		TITLE	
DECIMALS	ANGLES	DRAWN BY: XXX REVIEWED: XXX APPROVED: XXX		05/12/17 - -		MS-HRCP-35 SUPPORT RAIL CENTER PIPE KIT	
.X ± 0.1	± 1°						
.XX ± 0.02	FRACTIONS ± 1/32						
.XXX ± 0.005		SCALE		-		SHEET 1 OF 1	

EXHIBIT 8



Tower Engineering Solutions

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

Structural Analysis Report

Existing 118 ft EEI Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT46132-A

Customer Site Name: Newtown-ferris Rd

Carrier Name: T-Mobile (App#: 117481, V2)

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

Site Location: 8 Ferris Road

Newtown, Connecticut

Fairfield County

Latitude: 41.389747

Longitude: -73.338444

Analysis Result:

Max Structural Usage: 78.5% [Pass]

Max Foundation Usage: 87.0% [Pass]

Additional Usage Caused by New Mount/Mount Modification: +3.1%

Report Prepared By : Dipika Dhungana



Introduction

The purpose of this report is to summarize the analysis results on the 118 ft EEI Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	EEI, Job No. 5189, dated 06/30/1999.
Foundation Drawing	EEI, Job No. 5189, dated 06/30/1999.
Geotechnical Report	New England Boring Contractors & Applied Earth Technologies Inc. dated 06/14/1999.
Modification Drawings	Vertical Solutions, Project No. 100188.08, dated 5/7/2010.

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the TIA-222-G-2. In accordance with this standard, the structure was analyzed using **TESPoles**, a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed $V_{ult} = 120.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 93.0$ mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	C
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_S = 0.41, S_1 = 0.1$

This structural analysis is based upon the tower being classified as a Structure Class 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.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	118.0	1	Telewave ANT150D - Dipole	Low Profile Platform	(2) 1/2"	Town of Newtown
2		1	Decibel DB222 - Dipole			
3	118.0	9	Decibel DB844H90E-XY - Panel		(12) 7/8"	Nextel
4	108.0	3	RFS APXV9TM14-ALU-120 - Panel	Low Profile Platform	(3) 1-1/4"	Sprint
5	107.0	3	RFS APXVSPP18-C-A20 - Panel			
6		3	ALU TD-RRH8x20-25			
7		3	ALU 1900 MHz RRU's			
8		3	ALU 800 MHz RRU Filter			
9		4	RFS ACU-A20-N			
10	98.0	2	RFS APL868013 – Panel	(1) Low Profile Platform	(12) 1-5/8" Coax (2) 1-5/8" Fiber	Verizon
11		6	Andrew SBNHH-1D85C – Panel			
12		4	Andrew DB846H80E-SX – Panel			
13		3	Alcatel Lucent RRH4X45-AWS – RRU			
14		3	Alcatel Lucent RRH2x60-700 – RRU			
15		3	Alcatel-Lucent RRH2X60-1900A-4R – RRU			
16		2	RFS Celwave DB-T1-6Z-8AB-0Z			
17	91.0	3	Powerwave 7770 – Panel	Low Profile Platform	(12) 7/8" (2) 3/8" Fiber (4) 5/8" DC	AT&T
18		3	Powerwave P65-16-XLH-RR - Panel			
19		3	Quintel QS66512-2 - Panel			
20		6	Powerwave LGP21401 TMA			
21		3	Ericsson RRUS-11			
22		3	Ericsson RRUS 32 B2			
23		3	Ericsson RRUS 32 B30			
24		2	Raycap DC6-48-60-18-8F			
-	81.0	3	RFS APXV18-209014	Platform w/ Handrail kit	(12) 1 1/4" (1) 5/16" Corning Fiber (2) 5/16" Belden CAT6	T-Mobile
-		3	Commscope LNX-6515DS-A1M			
-		1	RFS SC3-W100AC			
-		1	Aviat ODU 600			
-		3	RFS ATMAA1412D-1A20			
-		3	TBD S20057A1 TMA			
-		3	Kathrein 782 11054			
32	75.0	1	GPS	Direct	(1) 1/2"	Sprint

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
25	83.0	3	RFS - APXV18-209014	Modified Platform w/ Handrail includes {(3)mS-HRCP-35 (1) MS-HRECP-35 (1) MS-1436 (3) PST2375-8 (1) MS-KI22-8}	(12) 1 1/4" (1) 1/2"	T-Mobile
26		3	Commscope - LNX-6515DS-A1M			
27		1	Andrew VHLP3-11W			
28		1	Ceragon IP20C-11-40X-ACM			
29		3	RFS ATMAA1412D-1A20			
30		3	TBD S20057A1			
31		3	Kathrein 782 11054			

See the attached coax layout for the line placement considered in the analysis.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	78.5%	77.0%	73.0%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)
Analysis Reactions	2481.6	27.3

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by ANSI/TIA/EIA 222-G for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.4867 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the ANSI/TIA/EIA 222-G Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC**. Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.
2. The structural analysis was performance based upon the evidence available at the time of this report. All information provided by the client is considered to be accurate.
3. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the EIA/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.
4. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.
5. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.
6. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Usage Diagram - Max Ratio 78.48% at 0.0ft

Structure: CT46132-A-SBA
Site Name: Newtown-ferris Rd
Height: 118.00 (ft)
Base Elev: 0.000 (ft)

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

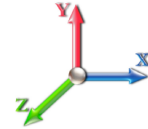
6/8/2020



Page: 1

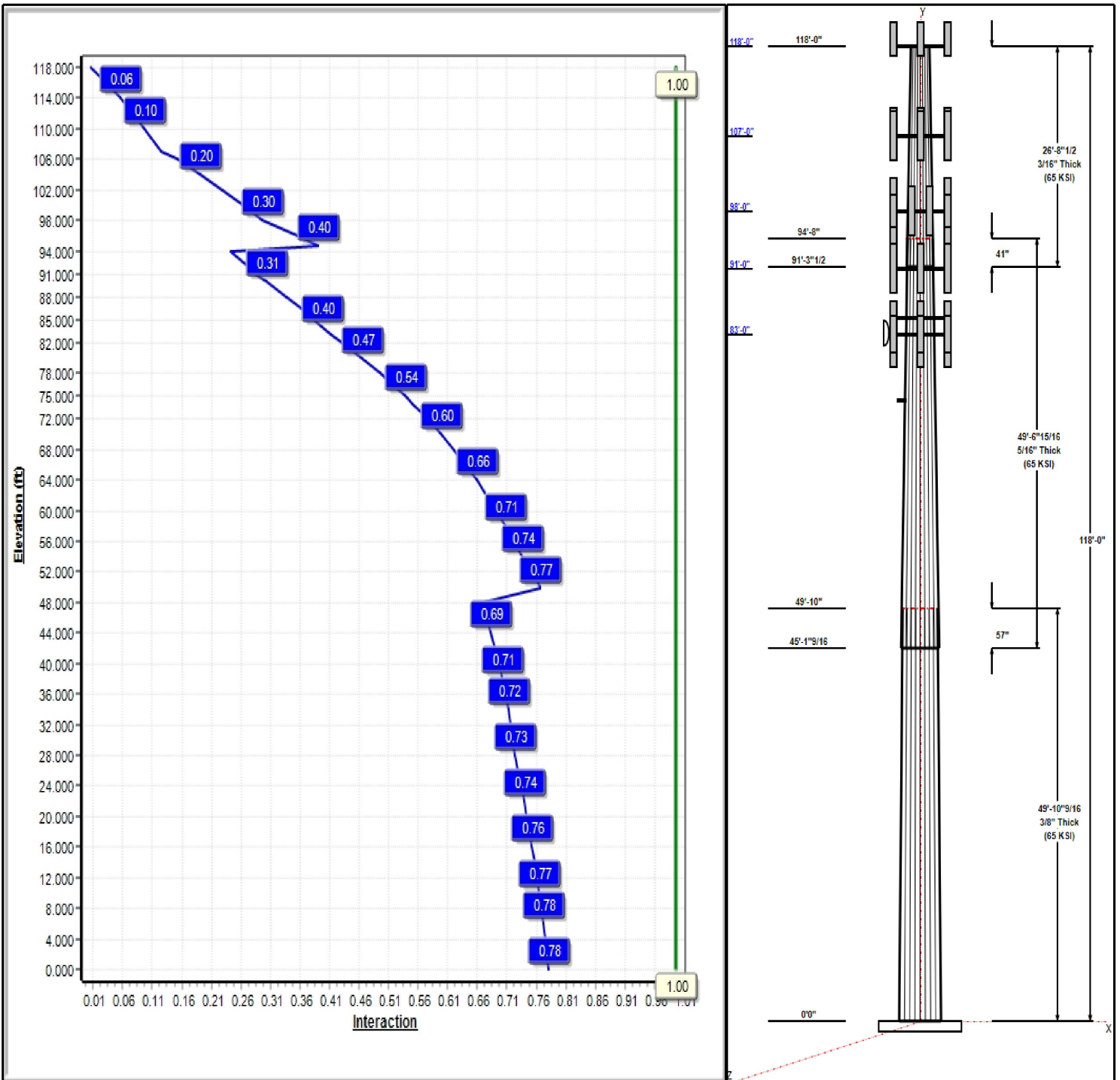
Dead Load Factor: 1.20
Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 93 mph Wind



Iterations: 27

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Structure: CT46132-A-SBA

Type: Tapered
Site Name: Newtown-ferris Rd
Height: 118.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.23093

6/8/2020

Page: 2



Shaft Properties

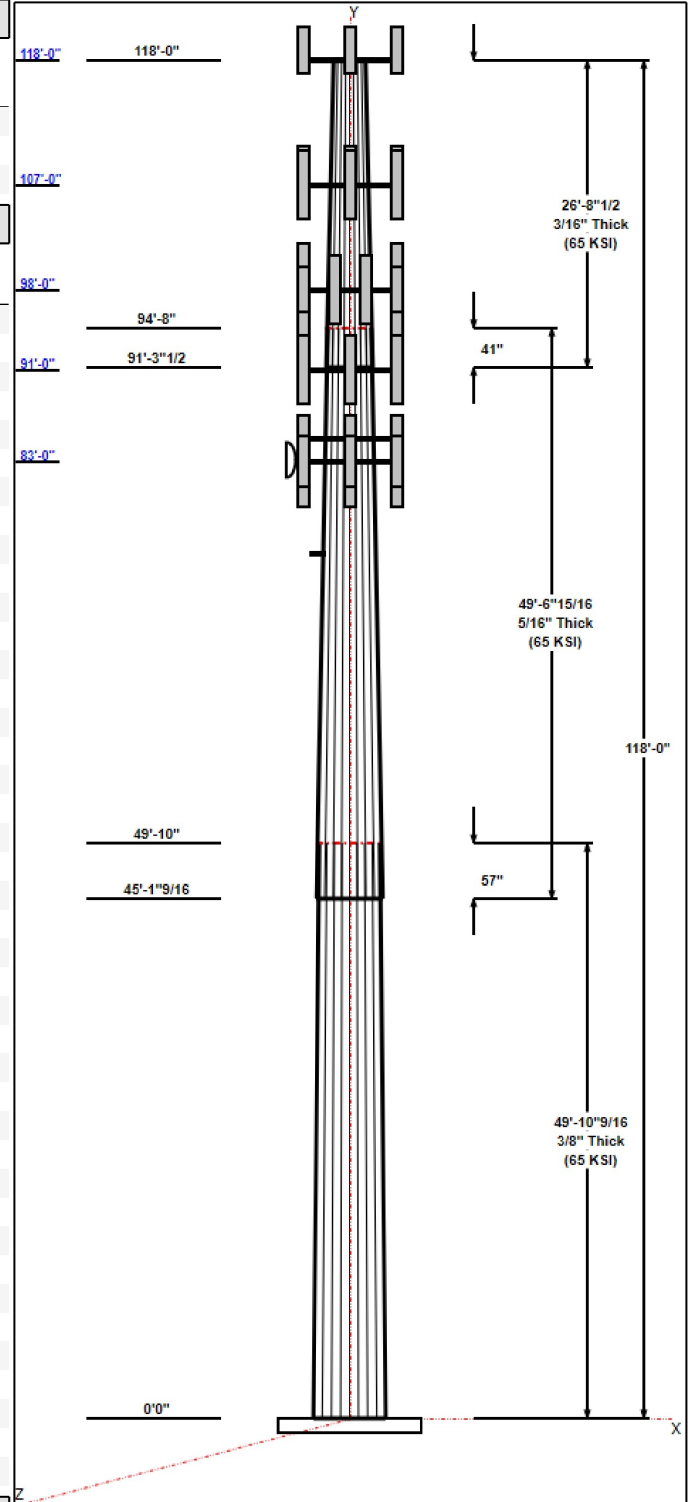
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	49.88	31.73	43.25	0.375		0.23093	65
2	49.58	22.00	33.45	0.313	Slip	0.23093	65
3	26.71	17.00	23.17	0.188	Slip	0.23093	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
118.00	118.00	1	Low Profile Platform	Town of
118.00	130.00	1	DB222	Town of Newtown
118.00	119.42	1	ANT150D	Town of Newtown
118.00	118.80	9	DB844H90E-XY	Nextel
107.00	107.00	3	1900 MHz 4X45 RRH	Sprint
107.00	107.00	3	800 MHz RRU Filter	Sprint
107.00	107.00	3	TD-RRH8x20-25	Sprint
107.00	107.00	4	ACU-A20-N	Sprint
107.00	107.00	1	Universal Ring Mount	Sprint
107.00	107.00	1	Low Profile Platform	Sprint
107.00	107.00	3	APXVSPP18-C-A20	Sprint
107.00	108.00	3	APXV9TM14-ALU-120	Sprint
98.00	98.00	1	Low Profile Platform	Verizon
98.00	98.00	2	RFS APL868013	Verizon
98.00	98.00	6	Andrew SBNHH-1D85C	Verizon
98.00	98.00	3	Alcatel Lucent	Verizon
98.00	98.00	3	Alcatel Lucent	Verizon
98.00	98.00	3	Alcatel-Lucent	Verizon
98.00	98.00	2	Rfs Celwave	Verizon
98.00	98.00	4	Andrew DB846H80E-SX	Verizon
91.00	91.00	3	QS66512-2	AT&T
91.00	91.00	3	7770.00	AT&T
91.00	91.00	3	P65-16-XLH-RR	AT&T
91.00	91.00	6	LGP21401	AT&T
91.00	91.00	3	RRUS-11	AT&T
91.00	91.00	2	DC6-48-60-18-8F	AT&T
91.00	91.00	3	RRUS 32 B2	AT&T
91.00	91.00	3	RRUS 32 B30	AT&T
91.00	91.00	1	Low Profile Platform	AT&T
85.00	85.00	1	12.5' - 2" Horizontal Pipe	T-Mobile
83.00	83.00	1	Platform w/ Handrail kit	T-Mobile
83.00	83.00	1	MS-KI22-5 (Kickers w/o	T-Mobile
83.00	83.00	3	RFS - APXV18-209014	T-Mobile
83.00	83.00	3	Commscope -	T-Mobile
83.00	83.00	3	RFS - ATMAA1412D-1A2	T-Mobile
83.00	83.00	3	Kathrein - 782 11054 -	T-Mobile
83.00	83.00	1	VHLP3-11W	T-Mobile
83.00	83.00	1	IP20C	T-Mobile
83.00	83.00	3	S20057A1 TMA	T-Mobile
75.00	75.00	1	Standoff Mount	Sprint
75.00	75.00	1	GPS	Sprint

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	118.00	Inside	1/2" Coax	Town of Newtown
0.00	118.00	Inside	7/8"	Nextel



Structure: CT46132-A-SBA

Type: Tapered
Site Name: Newtown-ferris Rd
Height: 118.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.23093

6/8/2020

Page: 3



0.00	107.00	Inside	1-1/4"	Sprint
0.00	98.00	Inside	1 5/8" Hybrid	Verizon
0.00	98.00	Inside	1-5/8" Coax	Verizon
0.00	91.00	Inside	3/8" Fiber	AT&T
0.00	91.00	Inside	5/8" DC	AT&T
0.00	91.00	Inside	7/8"	AT&T
0.00	83.00	Inside	1 1/4" Coax	T-Mobile
0.00	83.00	Inside	1/2" Coax	T-Mobile
0.00	75.00	Outside	1/2"	Sprint

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

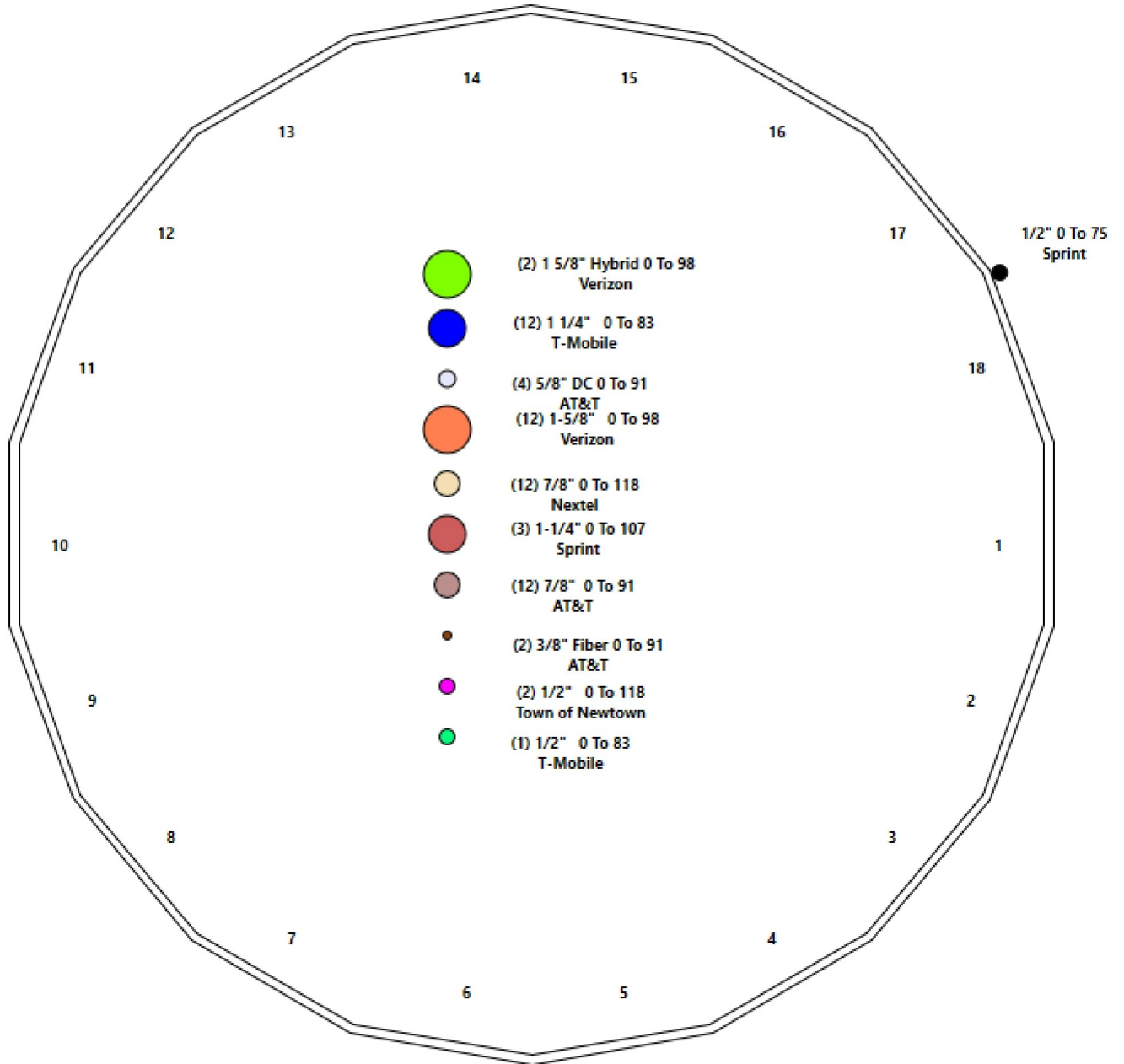
Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 93 mph Wind	2481.6	27.3	36.2
0.9D + 1.6W 93 mph Wind	2448.3	27.3	27.1
1.2D + 1.0Di + 1.0Wi 50 mph Wind	706.5	7.7	60.9
1.2D + 1.0E	273.0	2.8	36.2
0.9D + 1.0E	268.9	2.8	27.2
1.0D + 1.0W 60 mph Wind	640.9	7.1	30.2

Structure: CT46132-A-SBA - Coax Line Placement

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

6/8/2020

Page: 4



Shaft Properties

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 5

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-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 6

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	118.00	Low Profile Platform	1	1800.00	28.47	1.00	3716.82	35.191	1.00	0.00	0.00
2	118.00	DB222	1	16.00	2.25	1.00	83.66	8.168	1.00	0.00	12.00
3	118.00	ANT150D	1	6.00	1.00	1.00	14.49	2.675	1.00	0.00	1.42
4	118.00	DB844H90E-XY	9	14.00	3.05	1.12	121.41	3.900	1.12	0.00	0.80
5	107.00	1900 MHz 4X45 RRH	3	60.00	2.71	0.67	138.07	3.932	0.69	0.00	0.00
6	107.00	800 MHz RRU Filter	3	64.00	2.40	0.67	138.64	3.482	0.69	0.00	0.00
7	107.00	TD-RRH8x20-25	3	70.00	4.05	0.67	176.05	4.834	0.69	0.00	0.00
8	107.00	ACU-A20-N	4	1.00	0.14	0.67	5.15	0.427	0.69	0.00	0.00
9	107.00	Universal Ring Mount	1	350.00	5.00	1.00	633.46	8.374	1.00	0.00	0.00
10	107.00	Low Profile Platform	1	2000.00	27.33	1.00	4109.06	33.719	1.00	0.00	0.00
11	107.00	APXVSP18-C-A20	3	57.00	8.02	0.83	224.11	10.721	0.85	0.00	0.00
12	107.00	APXV9TM14-ALU-120	3	56.00	6.34	0.79	210.04	7.414	0.81	0.00	1.00
13	98.00	Low Profile Platform	1	2100.00	23.10	1.00	4295.14	28.453	1.00	0.00	0.00
14	98.00	RFS APL868013	2	6.30	2.86	1.15	108.04	3.687	1.15	0.00	0.00
15	98.00	Andrew SBNHH-1D85C	6	49.60	11.39	0.84	299.40	12.976	0.86	0.00	0.00
16	98.00	Alcatel Lucent RRH2x60-700	3	60.00	3.50	0.67	143.65	4.256	0.69	0.00	0.00
17	98.00	Alcatel Lucent RRH4X45-AWS	3	56.80	2.54	0.67	136.61	3.203	0.69	0.00	0.00
18	98.00	Alcatel-Lucent RRH2X60-1900A-4R	3	46.00	1.88	0.67	124.65	2.439	0.69	0.00	0.00
19	98.00	Rfs Celwave DB-T1-6Z-8AB-OZ	2	18.90	4.80	0.67	155.62	5.635	0.69	0.00	0.00
20	98.00	Andrew DB846H80E-SX	4	16.00	5.01	1.12	167.39	6.169	1.14	0.00	0.00
21	91.00	QS66512-2	3	77.00	8.13	0.90	285.73	9.362	0.90	0.00	0.00
22	91.00	7770.00	3	35.00	5.50	0.73	162.16	6.510	0.75	0.00	0.00
23	91.00	P65-16-XLH-RR	3	53.00	8.16	0.75	210.00	10.826	0.75	0.00	0.00
24	91.00	LGP21401	6	14.10	1.29	0.67	37.88	2.085	0.69	0.00	0.00
25	91.00	RRUS-11	3	55.00	4.42	0.67	140.57	5.846	0.69	0.00	0.00
26	91.00	DC6-48-60-18-8F	2	31.80	0.92	1.00	90.61	1.337	1.00	0.00	0.00
27	91.00	RRUS 32 B2	3	53.00	2.74	0.81	135.74	3.431	0.81	0.00	0.00
28	91.00	RRUS 32 B30	3	60.00	2.74	0.81	142.74	3.431	0.81	0.00	0.00
29	91.00	Low Profile Platform	1	1349.00	17.46	1.00	2468.76	30.794	1.00	0.00	0.00
30	85.00	12.5' - 2" Horizontal Pipe	1	45.75	2.97	1.00	87.99	6.493	1.00	0.00	0.00
31	83.00	Platform w/ Handrail kit	1	1868.20	37.16	1.00	3404.73	65.278	1.00	0.00	0.00
32	83.00	MS-KI22-5 (Kickers w/o Collar)	1	146.00	5.33	1.00	338.13	10.591	1.00	0.00	0.00
33	83.00	RFS - APXV18-209014	3	18.70	3.58	0.74	100.78	4.453	0.74	0.00	0.00
34	83.00	Commscope - LNX-6515DS-A1M	3	49.80	11.47	0.80	266.16	14.549	0.80	0.00	0.00
35	83.00	RFS - ATMAA1412D-1A2	3	13.00	1.17	0.67	38.05	1.907	0.67	0.00	0.00
36	83.00	Kathrein - 782 11054 - Bias T	3	1.80	0.15	0.67	8.12	0.407	0.67	0.00	0.00
37	83.00	VHLP3-11W	1	53.00	10.68	1.00	258.02	12.486	1.00	0.00	0.00
38	83.00	IP20C	1	11.50	1.05	0.67	35.92	1.754	0.67	0.00	0.00
39	83.00	S20057A1 TMA	3	11.00	0.01	0.67	11.01	0.010	0.67	0.00	0.00
40	75.00	Standoff Mount	1	40.00	2.63	1.00	114.90	8.199	1.00	0.00	0.00
41	75.00	GPS	1	10.00	1.00	1.00	37.36	1.664	1.00	0.00	0.00
Totals:			106	13,176.95			32,492.16				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed

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		
0.00	118.00	(2) 1/2" Coax		0.00							
0.00	118.00	(12) 7/8"		0.00							
0.00	107.00	(3) 1-1/4"		0.00							
0.00	98.00	(2) 1 5/8" Hybrid		0.00							
0.00	98.00	(12) 1-5/8" Coax		0.00							
0.00	91.00	(2) 3/8" Fiber		0.00							
0.00	91.00	(4) 5/8" DC		0.00							
0.00	91.00	(12) 7/8"		0.00							
0.00	83.00	(12) 1 1/4" Coax		0.00							
0.00	83.00	(1) 1/2" Coax		0.00							
0.00	75.00	(1) 1/2"		0.65							

Shaft Section Properties

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 8

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
75.00		0.3125	26.555	26.028	2264.7	13.57	84.98	82.5	168.0	89.0
76.00		0.3125	26.324	25.799	2205.5	13.44	84.24	82.5	165.0	88.2
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
83.00		0.3125	24.708	24.196	1819.3	12.53	79.06	82.5	145.0	82.7
84.00		0.3125	24.477	23.967	1768.1	12.40	78.33	82.5	142.3	81.9
85.00		0.3125	24.246	23.738	1717.9	12.27	77.59	82.5	139.6	81.2
86.00		0.3125	24.015	23.509	1668.7	12.14	76.85	82.5	136.9	80.4
88.00		0.3125	23.553	23.051	1573.0	11.88	75.37	82.5	131.5	158.4

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)
90.00		0.3125	23.091	22.593	1481.1	11.62	73.89	82.5	126.3	155.3
91.00		0.3125	22.860	22.364	1436.5	11.49	73.15	82.5	123.8	76.5
91.29	Bot - Section 3	0.3125	22.792	22.296	1423.6	11.45	72.94	82.5	123.0	22.3
92.00		0.3125	22.629	22.135	1392.8	11.36	72.41	82.5	121.2	86.2
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
98.00		0.1875	21.619	12.754	740.1	18.92	115.30	79.1	67.4	87.7
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
107.00		0.1875	19.540	11.517	545.0	16.97	104.21	81.4	54.9	39.4
108.00		0.1875	19.309	11.379	525.7	16.75	102.98	81.7	53.6	39.0
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
116.00		0.1875	17.462	10.280	387.6	15.01	93.13	82.5	43.7	70.9
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

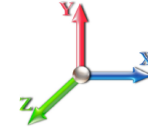
Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 10

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 27

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	17.879	19.67	313.79	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	17.879	19.67	310.44	0.650	0.000	2.00	7.280	4.73	148.9	0.0	414.5
4.00		1.00	0.85	17.879	19.67	307.09	0.650	0.000	2.00	7.202	4.68	147.3	0.0	410.0
6.00		1.00	0.85	17.879	19.67	303.74	0.650	0.000	2.00	7.124	4.63	145.7	0.0	405.5
8.00		1.00	0.85	17.879	19.67	300.39	0.650	0.000	2.00	7.046	4.58	144.1	0.0	401.0
10.00		1.00	0.85	17.879	19.67	297.04	0.650	0.000	2.00	6.968	4.53	142.5	0.0	396.5
12.00		1.00	0.85	17.879	19.67	293.69	0.650	0.000	2.00	6.890	4.48	140.9	0.0	392.1
14.00		1.00	0.85	17.879	19.67	290.34	0.650	0.000	2.00	6.811	4.43	139.3	0.0	387.6
16.00		1.00	0.86	18.100	19.91	288.75	0.650	0.000	2.00	6.733	4.38	139.4	0.0	383.1
18.00		1.00	0.88	18.554	20.41	288.94	0.650	0.000	2.00	6.655	4.33	141.3	0.0	378.6
20.00		1.00	0.90	18.971	20.87	288.71	0.650	0.000	2.00	6.577	4.28	142.7	0.0	374.1
22.00		1.00	0.92	19.355	21.29	288.14	0.650	0.000	2.00	6.499	4.22	143.9	0.0	369.6
24.00		1.00	0.94	19.713	21.68	287.27	0.650	0.000	2.00	6.421	4.17	144.8	0.0	365.1
26.00		1.00	0.95	20.048	22.05	286.15	0.650	0.000	2.00	6.342	4.12	145.5	0.0	360.6
28.00		1.00	0.97	20.363	22.40	284.82	0.650	0.000	2.00	6.264	4.07	145.9	0.0	356.1
30.00		1.00	0.98	20.661	22.73	283.29	0.650	0.000	2.00	6.186	4.02	146.2	0.0	351.7
32.00		1.00	1.00	20.944	23.04	281.59	0.650	0.000	2.00	6.108	3.97	146.3	0.0	347.2
34.00		1.00	1.01	21.213	23.33	279.75	0.650	0.000	2.00	6.030	3.92	146.3	0.0	342.7
36.00		1.00	1.02	21.470	23.62	277.76	0.650	0.000	2.00	5.952	3.87	146.2	0.0	338.2
38.00		1.00	1.03	21.715	23.89	275.66	0.650	0.000	2.00	5.873	3.82	145.9	0.0	333.7
40.00		1.00	1.04	21.951	24.15	273.44	0.650	0.000	2.00	5.795	3.77	145.5	0.0	329.2
42.00		1.00	1.05	22.178	24.40	271.11	0.650	0.000	2.00	5.717	3.72	145.1	0.0	324.7
44.00		1.00	1.06	22.396	24.64	268.69	0.650	0.000	2.00	5.639	3.67	144.5	0.0	320.2
45.13	Bot - Section 2	1.00	1.07	22.516	24.77	267.28	0.650	0.000	1.13	3.151	2.05	81.2	0.0	178.9
46.00		1.00	1.07	22.607	24.87	266.18	0.650	0.000	0.87	2.455	1.60	63.5	0.0	253.2
48.00		1.00	1.08	22.810	25.09	263.59	0.650	0.000	2.00	5.588	3.63	145.8	0.0	576.2
49.88	Top - Section 1	1.00	1.09	22.995	25.29	261.09	0.650	0.000	1.88	5.182	3.37	136.3	0.0	534.1
50.00		1.00	1.09	23.007	25.31	266.07	0.650	0.000	0.12	0.328	0.21	8.6	0.0	15.6
52.00		1.00	1.10	23.198	25.52	263.36	0.650	0.000	2.00	5.432	3.53	144.2	0.0	257.5
54.00		1.00	1.11	23.383	25.72	260.57	0.650	0.000	2.00	5.354	3.48	143.2	0.0	253.7
56.00		1.00	1.12	23.562	25.92	257.72	0.650	0.000	2.00	5.276	3.43	142.2	0.0	250.0
58.00		1.00	1.13	23.737	26.11	254.82	0.650	0.000	2.00	5.198	3.38	141.1	0.0	246.2
60.00		1.00	1.14	23.907	26.30	251.85	0.650	0.000	2.00	5.119	3.33	140.0	0.0	242.5
62.00		1.00	1.14	24.073	26.48	248.84	0.650	0.000	2.00	5.041	3.28	138.8	0.0	238.8
64.00		1.00	1.15	24.234	26.66	245.77	0.650	0.000	2.00	4.963	3.23	137.6	0.0	235.0
66.00		1.00	1.16	24.392	26.83	242.65	0.650	0.000	2.00	4.885	3.18	136.3	0.0	231.3
68.00		1.00	1.17	24.545	27.00	239.49	0.650	0.000	2.00	4.807	3.12	135.0	0.0	227.5
70.00		1.00	1.17	24.696	27.17	236.28	0.650	0.000	2.00	4.729	3.07	133.6	0.0	223.8
72.00		1.00	1.18	24.843	27.33	233.03	0.650	0.000	2.00	4.650	3.02	132.2	0.0	220.0
74.00		1.00	1.19	24.986	27.48	229.74	0.650	0.000	2.00	4.572	2.97	130.7	0.0	216.3
75.00	Appurtenance(s)	1.00	1.19	25.057	27.56	228.09	0.650	0.000	1.00	2.257	1.47	64.7	0.0	106.8
76.00		1.00	1.19	25.127	27.64	226.42	0.650	0.000	1.00	2.237	1.45	64.3	0.0	105.8
78.00		1.00	1.20	25.265	27.79	223.05	0.650	0.000	2.00	4.416	2.87	127.6	0.0	208.8
80.00		1.00	1.21	25.400	27.94	219.66	0.650	0.000	2.00	4.338	2.82	126.0	0.0	205.1
82.00		1.00	1.21	25.532	28.09	216.22	0.650	0.000	2.00	4.260	2.77	124.4	0.0	201.3
83.00	Appurtenance(s)	1.00	1.22	25.597	28.16	214.49	0.650	0.000	1.00	2.101	1.37	61.5	0.0	99.3
84.00		1.00	1.22	25.662	28.23	212.76	0.650	0.000	1.00	2.081	1.35	61.1	0.0	98.3

Wind Loading - Shaft

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 11

85.00 Appurtenance(s)	1.00	1.22	25.726	28.30	211.01	0.650	0.000	1.00	2.061	1.34	60.7	0.0	97.4
86.00	1.00	1.23	25.789	28.37	209.26	0.650	0.000	1.00	2.042	1.33	60.2	0.0	96.5
88.00	1.00	1.23	25.915	28.51	205.73	0.650	0.000	2.00	4.025	2.62	119.3	0.0	190.1
90.00	1.00	1.24	26.037	28.64	202.18	0.650	0.000	2.00	3.947	2.57	117.6	0.0	186.4
91.00 Appurtenance(s)	1.00	1.24	26.098	28.71	200.39	0.650	0.000	1.00	1.944	1.26	58.0	0.0	91.8
91.29 Bot - Section 3	1.00	1.24	26.116	28.73	199.86	0.650	0.000	0.29	0.567	0.37	16.9	0.0	26.7
92.00	1.00	1.24	26.158	28.77	198.59	0.650	0.000	0.71	1.380	0.90	41.3	0.0	103.4
94.00	1.00	1.25	26.277	28.90	194.98	0.650	0.000	2.00	3.854	2.51	115.9	0.0	288.7
94.71 Top - Section 2	1.00	1.25	26.319	28.95	193.69	0.650	0.000	0.71	1.349	0.88	40.6	0.0	101.0
96.00	1.00	1.25	26.394	29.03	194.65	0.650	0.000	1.29	2.427	1.58	73.3	0.0	69.1
98.00 Appurtenance(s)	1.00	1.26	26.509	29.16	190.99	0.650	0.000	2.00	3.698	2.40	112.1	0.0	105.3
100.00	1.00	1.27	26.621	29.28	187.31	0.650	0.000	2.00	3.620	2.35	110.2	0.0	103.0
102.00	1.00	1.27	26.733	29.41	183.60	0.650	0.000	2.00	3.541	2.30	108.3	0.0	100.8
104.00	1.00	1.28	26.842	29.53	179.87	0.650	0.000	2.00	3.463	2.25	106.3	0.0	98.5
106.00	1.00	1.28	26.950	29.65	176.12	0.650	0.000	2.00	3.385	2.20	104.4	0.0	96.3
107.00 Appurtenance(s)	1.00	1.28	27.003	29.70	174.23	0.650	0.000	1.00	1.663	1.08	51.4	0.0	47.3
108.00	1.00	1.29	27.056	29.76	172.34	0.650	0.000	1.00	1.644	1.07	50.9	0.0	46.7
110.00	1.00	1.29	27.161	29.88	168.54	0.650	0.000	2.00	3.229	2.10	100.3	0.0	91.8
112.00	1.00	1.30	27.264	29.99	164.73	0.650	0.000	2.00	3.151	2.05	98.3	0.0	89.6
114.00	1.00	1.30	27.366	30.10	160.89	0.650	0.000	2.00	3.072	2.00	96.2	0.0	87.3
116.00	1.00	1.31	27.466	30.21	157.03	0.650	0.000	2.00	2.994	1.95	94.1	0.0	85.1
118.00 Appurtenance(s)	1.00	1.31	27.565	30.32	153.15	0.650	0.000	2.00	2.916	1.90	92.0	0.0	82.8
Totals:								118.00			7,726.8		15,793.7

Discrete Appurtenance Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 12

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 27

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	118.00	ANT150D	1	27.635	30.398	1.00	1.00	1.00	7.20	0.000	1.420	48.64	0.00	69.07
2	118.00	DB222	1	28.133	30.947	1.00	1.00	2.25	19.20	0.000	12.000	111.41	0.00	1336.89
3	118.00	Low Profile Platform	1	27.565	30.322	1.00	1.00	28.47	2160.00	0.000	0.000	1381.23	0.00	0.00
4	118.00	DB844H90E-XY	9	27.605	30.365	1.12	1.00	30.74	151.20	0.000	0.800	1493.68	0.00	1194.94
5	107.00	ACU-A20-N	4	27.003	29.704	0.54	0.80	0.30	4.80	0.000	0.000	14.27	0.00	0.00
6	107.00	1900 MHz 4X45 RRH	3	27.003	29.704	0.54	0.80	4.36	216.00	0.000	0.000	207.10	0.00	0.00
7	107.00	800 MHz RRU Filter	3	27.003	29.704	0.54	0.80	3.86	230.40	0.000	0.000	183.41	0.00	0.00
8	107.00	TD-RRH8x20-25	3	27.003	29.704	0.54	0.80	6.51	252.00	0.000	0.000	309.51	0.00	0.00
9	107.00	Low Profile Platform	1	27.003	29.704	1.00	1.00	27.33	2400.00	0.000	0.000	1298.89	0.00	0.00
10	107.00	APXVSP18-C-A20	3	27.003	29.704	0.66	0.80	15.98	205.20	0.000	0.000	759.27	0.00	0.00
11	107.00	APXV9TM14-ALU-120	3	27.056	29.762	0.63	0.80	12.02	201.60	0.000	1.000	572.41	0.00	572.41
12	107.00	Universal Ring Mount	1	27.003	29.704	1.00	1.00	5.00	420.00	0.000	0.000	237.63	0.00	0.00
13	98.00	Alcatel Lucent	3	26.509	29.159	0.54	0.80	5.63	216.00	0.000	0.000	262.57	0.00	0.00
14	98.00	Low Profile Platform	1	26.509	29.159	1.00	1.00	23.10	2520.00	0.000	0.000	1077.73	0.00	0.00
15	98.00	RFS APL868013	2	26.509	29.159	0.92	0.80	5.27	15.12	0.000	0.000	245.73	0.00	0.00
16	98.00	Andrew SBNHH-1D85C	6	26.509	29.159	0.67	0.80	45.92	357.12	0.000	0.000	2142.61	0.00	0.00
17	98.00	Rfs Celwave	2	26.509	29.159	0.54	0.80	5.15	45.36	0.000	0.000	240.07	0.00	0.00
18	98.00	Alcatel Lucent	3	26.509	29.159	0.54	0.80	4.08	204.48	0.000	0.000	190.55	0.00	0.00
19	98.00	Alcatel-Lucent	3	26.509	29.159	0.54	0.80	3.02	165.60	0.000	0.000	141.04	0.00	0.00
20	98.00	Andrew DB846H80E-SX	4	26.509	29.159	0.90	0.80	17.96	76.80	0.000	0.000	837.73	0.00	0.00
21	91.00	Low Profile Platform	1	26.098	28.708	1.00	1.00	17.46	1618.80	0.000	0.000	801.99	0.00	0.00
22	91.00	RRUS 32 B2	3	26.098	28.708	0.65	0.80	5.33	190.80	0.000	0.000	244.66	0.00	0.00
23	91.00	DC6-48-60-18-8F	2	26.098	28.708	1.00	1.00	1.84	76.32	0.000	0.000	84.52	0.00	0.00
24	91.00	RRUS-11	3	26.098	28.708	0.54	0.80	7.11	198.00	0.000	0.000	326.46	0.00	0.00
25	91.00	LGP21401	6	26.098	28.708	0.54	0.80	4.15	101.52	0.000	0.000	190.56	0.00	0.00
26	91.00	P65-16-XLH-RR	3	26.098	28.708	0.60	0.80	14.69	190.80	0.000	0.000	674.66	0.00	0.00
27	91.00	7770.00	3	26.098	28.708	0.58	0.80	9.64	126.00	0.000	0.000	442.61	0.00	0.00
28	91.00	QS66512-2	3	26.098	28.708	0.72	0.80	17.56	277.20	0.000	0.000	806.62	0.00	0.00
29	91.00	RRUS 32 B30	3	26.098	28.708	0.65	0.80	5.33	216.00	0.000	0.000	244.66	0.00	0.00
30	85.00	12.5' - 2" Horizontal Pipe	1	25.726	28.299	1.00	1.00	2.97	54.90	0.000	0.000	134.42	0.00	0.00
31	83.00	RFS - APXV18-209014	3	25.597	28.157	0.55	0.75	5.96	67.32	0.000	0.000	268.54	0.00	0.00
32	83.00	MS-KI22-5 (Kickers w/o	1	25.597	28.157	1.00	1.00	5.33	175.20	0.000	0.000	240.12	0.00	0.00
33	83.00	Commscope -	3	25.597	28.157	0.60	0.75	20.65	179.28	0.000	0.000	930.13	0.00	0.00
34	83.00	Platform w/ Handrail kit	1	25.597	28.157	1.00	1.00	37.16	2241.84	0.000	0.000	1674.11	0.00	0.00
35	83.00	S20057A1 TMA	3	25.597	28.157	0.50	0.75	0.02	39.60	0.000	0.000	0.68	0.00	0.00
36	83.00	RFS - ATMAA1412D-1A2	3	25.597	28.157	0.50	0.75	1.76	46.80	0.000	0.000	79.46	0.00	0.00
37	83.00	Kathrein - 782 11054 -	3	25.597	28.157	0.50	0.75	0.23	6.48	0.000	0.000	10.19	0.00	0.00
38	83.00	VHLP3-11W	1	25.597	28.157	1.00	1.00	10.68	63.60	0.000	0.000	481.15	0.00	0.00
39	83.00	IP20C	1	25.597	28.157	0.50	0.75	0.53	13.80	0.000	0.000	23.77	0.00	0.00
40	75.00	GPS	1	25.057	27.563	1.00	1.00	1.00	12.00	0.000	0.000	44.10	0.00	0.00
41	75.00	Standoff Mount	1	25.057	27.563	1.00	1.00	2.63	48.00	0.000	0.000	115.98	0.00	0.00

Totals: 15,812.34 19,574.85

Total Applied Force Summary

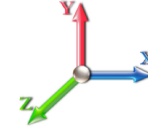
Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 13

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 27

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		148.91	509.11	0.00	0.00
4.00		147.31	504.62	0.00	0.00
6.00		145.72	500.13	0.00	0.00
8.00		144.12	495.64	0.00	0.00
10.00		142.52	491.15	0.00	0.00
12.00		140.92	486.66	0.00	0.00
14.00		139.32	482.17	0.00	0.00
16.00		139.42	477.68	0.00	0.00
18.00		141.26	473.19	0.00	0.00
20.00		142.74	468.71	0.00	0.00
22.00		143.90	464.22	0.00	0.00
24.00		144.80	459.73	0.00	0.00
26.00		145.46	455.24	0.00	0.00
28.00		145.93	450.75	0.00	0.00
30.00		146.22	446.26	0.00	0.00
32.00		146.34	441.77	0.00	0.00
34.00		146.33	437.28	0.00	0.00
36.00		146.18	432.79	0.00	0.00
38.00		145.91	428.30	0.00	0.00
40.00		145.53	423.81	0.00	0.00
42.00		145.05	419.32	0.00	0.00
44.00		144.48	414.83	0.00	0.00
45.13		81.18	232.40	0.00	0.00
46.00		63.50	294.36	0.00	0.00
48.00		145.83	670.80	0.00	0.00
49.88		136.32	623.04	0.00	0.00
50.00		8.64	21.24	0.00	0.00
52.00		144.16	352.07	0.00	0.00
54.00		143.22	348.33	0.00	0.00
56.00		142.21	344.58	0.00	0.00
58.00		141.14	340.84	0.00	0.00
60.00		140.02	337.10	0.00	0.00
62.00		138.83	333.36	0.00	0.00
64.00		137.60	329.62	0.00	0.00
66.00		136.31	325.88	0.00	0.00
68.00		134.97	322.14	0.00	0.00
70.00		133.59	318.40	0.00	0.00
72.00		132.17	314.66	0.00	0.00
74.00		130.70	310.91	0.00	0.00
75.00	(2) attachments	224.78	214.05	0.00	0.00
76.00		64.31	152.93	0.00	0.00
78.00		127.63	303.05	0.00	0.00
80.00		126.04	299.31	0.00	0.00
82.00		124.42	295.57	0.00	0.00
83.00	(19) attachments	3769.66	2980.30	0.00	0.00
84.00		61.09	135.75	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 14

85.00	(1) attachments	195.09	189.71	0.00	0.00
86.00		60.24	133.88	0.00	0.00
88.00		119.33	264.95	0.00	0.00
90.00		117.57	261.21	0.00	0.00
91.00	(27) attachments	3874.78	3124.64	0.00	0.00
91.29		16.93	34.92	0.00	0.00
92.00		41.31	123.12	0.00	0.00
94.00		115.86	344.39	0.00	0.00
94.71		40.63	120.82	0.00	0.00
96.00		73.27	105.04	0.00	0.00
98.00	(24) attachments	5250.17	3761.49	0.00	0.00
100.00		110.24	123.53	0.00	0.00
102.00		108.31	121.28	0.00	0.00
104.00		106.35	119.04	0.00	0.00
106.00		104.37	116.80	0.00	0.00
107.00	(21) attachments	3633.86	3987.56	0.00	572.41
108.00		50.88	54.62	0.00	0.00
110.00		100.33	107.55	0.00	0.00
112.00		98.27	105.31	0.00	0.00
114.00		96.19	103.06	0.00	0.00
116.00		94.09	100.82	0.00	0.00
118.00	(12) attachments	3126.91	2436.18	0.00	2600.90
Totals:		27,301.62	36,203.97	0.00	3,173.31

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 15

Load Case: 1.2D + 1.6W 93 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 27

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	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	17.879	0.00	0.38
4.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	17.879	0.00	0.38
6.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	17.879	0.00	0.38
8.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	17.879	0.00	0.38
10.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	17.879	0.00	0.38
12.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	17.879	0.00	0.38
14.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	17.879	0.00	0.38
16.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	18.100	0.00	0.38
18.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	18.554	0.00	0.38
20.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	18.971	0.00	0.38
22.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	19.355	0.00	0.38
24.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	19.713	0.00	0.38
26.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	20.048	0.00	0.38
28.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	20.363	0.00	0.38
30.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	20.661	0.00	0.38
32.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	20.944	0.00	0.38
34.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	21.213	0.00	0.38
36.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	21.470	0.00	0.38
38.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	21.715	0.00	0.38
40.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.019	0.000	21.951	0.00	0.38
42.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.019	0.000	22.178	0.00	0.38
44.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.019	0.000	22.396	0.00	0.38
45.13	1/2"	Yes	1.13	0.000	0.65	0.06	0.00	0.019	0.000	22.516	0.00	0.22
46.00	1/2"	Yes	0.87	0.000	0.65	0.05	0.00	0.020	0.000	22.607	0.00	0.17
48.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.020	0.000	22.810	0.00	0.38
49.88	1/2"	Yes	1.88	0.000	0.65	0.10	0.00	0.020	0.000	22.995	0.00	0.36
50.00	1/2"	Yes	0.12	0.000	0.65	0.01	0.00	0.020	0.000	23.007	0.00	0.02
52.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.020	0.000	23.198	0.00	0.38
54.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.020	0.000	23.383	0.00	0.38
56.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	23.562	0.00	0.38
58.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	23.737	0.00	0.38
60.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	23.907	0.00	0.38
62.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	24.073	0.00	0.38
64.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.022	0.000	24.234	0.00	0.38
66.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.022	0.000	24.392	0.00	0.38
68.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.023	0.000	24.545	0.00	0.38
70.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.023	0.000	24.696	0.00	0.38
72.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.023	0.000	24.843	0.00	0.38
74.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.024	0.000	24.986	0.00	0.38
75.00	1/2"	Yes	1.00	0.000	0.65	0.05	0.00	0.024	0.000	25.057	0.00	0.19
Totals:											0.0	14.4

Calculated Forces

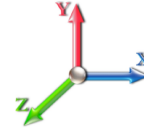
Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.6W 93 mph Wind

Iterations 27

Dead Load Factor 1.20
Wind Load Factor 1.60



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	-36.17	-27.34	0.00	-2481.6	0.00	2481.65	3634.70	1817.35	6397.77	3203.64	0.00	0.000	0.000	0.785
2.00	-35.61	-27.26	0.00	-2426.9	0.00	2426.97	3607.15	1803.57	6280.28	3144.81	0.03	-0.118	0.000	0.782
4.00	-35.05	-27.19	0.00	-2372.4	0.00	2372.44	3579.34	1789.67	6163.42	3086.29	0.10	-0.237	0.000	0.779
6.00	-34.49	-27.11	0.00	-2318.0	0.00	2318.07	3551.29	1775.64	6047.19	3028.09	0.23	-0.357	0.000	0.775
8.00	-33.94	-27.04	0.00	-2263.8	0.00	2263.84	3522.98	1761.49	5931.61	2970.21	0.40	-0.478	0.000	0.772
10.00	-33.39	-26.96	0.00	-2209.7	0.00	2209.77	3494.42	1747.21	5816.69	2912.67	0.63	-0.601	0.000	0.768
12.00	-32.85	-26.89	0.00	-2155.8	0.00	2155.85	3465.61	1732.80	5702.44	2855.46	0.91	-0.725	0.000	0.765
14.00	-32.31	-26.81	0.00	-2102.0	0.00	2102.08	3436.54	1718.27	5588.89	2798.60	1.24	-0.850	0.000	0.761
16.00	-31.78	-26.73	0.00	-2048.4	0.00	2048.45	3407.22	1703.61	5476.05	2742.09	1.62	-0.976	0.000	0.757
18.00	-31.25	-26.65	0.00	-1994.9	0.00	1994.98	3377.65	1688.83	5363.92	2685.95	2.06	-1.103	0.000	0.752
20.00	-30.72	-26.57	0.00	-1941.6	0.00	1941.68	3347.83	1673.91	5252.53	2630.17	2.55	-1.231	0.000	0.748
22.00	-30.20	-26.49	0.00	-1888.5	0.00	1888.53	3317.75	1658.87	5141.89	2574.76	3.09	-1.361	0.000	0.743
24.00	-29.68	-26.40	0.00	-1835.5	0.00	1835.56	3287.42	1643.71	5032.01	2519.74	3.69	-1.491	0.000	0.738
26.00	-29.17	-26.31	0.00	-1782.7	0.00	1782.77	3256.84	1628.42	4922.91	2465.11	4.34	-1.623	0.000	0.732
28.00	-28.66	-26.21	0.00	-1730.1	0.00	1730.16	3219.51	1609.75	4804.91	2406.03	5.05	-1.755	0.000	0.728
30.00	-28.16	-26.12	0.00	-1677.7	0.00	1677.73	3178.67	1589.33	4683.16	2345.06	5.82	-1.889	0.000	0.725
32.00	-27.66	-26.02	0.00	-1625.4	0.00	1625.49	3137.83	1568.91	4562.98	2284.88	6.64	-2.023	0.000	0.721
34.00	-27.17	-25.93	0.00	-1573.4	0.00	1573.44	3096.99	1548.49	4444.36	2225.48	7.51	-2.159	0.000	0.716
36.00	-26.68	-25.83	0.00	-1521.5	0.00	1521.59	3056.15	1528.07	4327.30	2166.87	8.45	-2.295	0.000	0.711
38.00	-26.20	-25.73	0.00	-1469.9	0.00	1469.93	3015.30	1507.65	4211.81	2109.03	9.44	-2.432	0.000	0.706
40.00	-25.72	-25.63	0.00	-1418.4	0.00	1418.48	2974.46	1487.23	4097.87	2051.98	10.49	-2.570	0.000	0.700
42.00	-25.25	-25.52	0.00	-1367.2	0.00	1367.23	2933.62	1466.81	3985.50	1995.71	11.59	-2.709	0.000	0.694
44.00	-24.79	-25.40	0.00	-1316.1	0.00	1316.19	2892.78	1446.39	3874.69	1940.23	12.76	-2.848	0.000	0.687
45.13	-24.53	-25.34	0.00	-1287.4	0.00	1287.48	2869.71	1434.85	3812.78	1909.22	13.44	-2.927	0.000	0.683
46.00	-24.20	-25.31	0.00	-1265.4	0.00	1265.44	2851.94	1425.97	3765.45	1885.52	13.98	-2.989	0.000	0.680
48.00	-23.48	-25.18	0.00	-1214.8	0.00	1214.82	2811.10	1405.55	3657.76	1831.60	15.26	-3.128	0.000	0.672
49.88	-22.83	-25.04	0.00	-1167.4	0.00	1167.48	2333.69	1166.84	3066.96	1535.76	16.52	-3.260	0.000	0.770
50.00	-22.77	-25.06	0.00	-1164.4	0.00	1164.48	2332.20	1166.10	3062.32	1533.44	16.60	-3.269	0.000	0.770
52.00	-22.36	-24.96	0.00	-1114.3	0.00	1114.36	2307.18	1153.59	2985.35	1494.89	18.01	-3.427	0.000	0.756
54.00	-21.95	-24.85	0.00	-1064.4	0.00	1064.44	2281.92	1140.96	2909.02	1456.67	19.47	-3.584	0.000	0.741
56.00	-21.55	-24.75	0.00	-1014.7	0.00	1014.74	2256.40	1128.20	2833.34	1418.77	21.01	-3.741	0.000	0.725
58.00	-21.15	-24.64	0.00	-965.24	0.00	965.24	2223.07	1111.54	2748.96	1376.53	22.61	-3.897	0.000	0.711
60.00	-20.76	-24.54	0.00	-915.95	0.00	915.95	2189.04	1094.52	2665.01	1334.49	24.28	-4.053	0.000	0.696
62.00	-20.37	-24.43	0.00	-866.88	0.00	866.88	2155.00	1077.50	2582.36	1293.10	26.01	-4.207	0.000	0.680
64.00	-19.99	-24.32	0.00	-818.02	0.00	818.02	2120.97	1060.48	2501.02	1252.37	27.80	-4.360	0.000	0.663
66.00	-19.61	-24.21	0.00	-769.38	0.00	769.38	2086.94	1043.47	2420.97	1212.28	29.66	-4.512	0.000	0.645
68.00	-19.24	-24.10	0.00	-720.96	0.00	720.96	2052.90	1026.45	2342.23	1172.85	31.58	-4.660	0.000	0.625
70.00	-18.87	-23.99	0.00	-672.76	0.00	672.76	2018.87	1009.43	2264.79	1134.08	33.56	-4.807	0.000	0.603
72.00	-18.51	-23.88	0.00	-624.78	0.00	624.78	1984.83	992.42	2188.65	1095.95	35.60	-4.950	0.000	0.580
74.00	-18.17	-23.75	0.00	-577.03	0.00	577.03	1950.80	975.40	2113.81	1058.48	37.71	-5.090	0.000	0.555
75.00	-17.95	-23.53	0.00	-553.28	0.00	553.28	1933.78	966.89	2076.88	1039.98	38.78	-5.159	0.000	0.542
76.00	-17.76	-23.48	0.00	-529.75	0.00	529.75	1916.76	958.38	2040.27	1021.65	39.86	-5.227	0.000	0.528
78.00	-17.42	-23.37	0.00	-482.79	0.00	482.79	1882.73	941.37	1968.04	985.48	42.08	-5.357	0.000	0.500
80.00	-17.08	-23.25	0.00	-436.05	0.00	436.05	1848.70	924.35	1897.11	949.96	44.35	-5.483	0.000	0.469
82.00	-16.77	-23.12	0.00	-389.56	0.00	389.56	1814.66	907.33	1827.48	915.10	46.67	-5.601	0.000	0.436
83.00	-14.15	-19.09	0.00	-366.43	0.00	366.43	1797.65	898.82	1793.15	897.91	47.85	-5.659	0.000	0.416
84.00	-14.01	-19.03	0.00	-347.34	0.00	347.34	1780.63	890.31	1759.15	880.88	49.04	-5.715	0.000	0.403
85.00	-13.82	-18.83	0.00	-328.31	0.00	328.31	1763.61	881.81	1725.48	864.02	50.24	-5.769	0.000	0.388

Calculated Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 17

86.00	-13.67	-18.78	0.00	-309.48	0.00	309.48	1746.59	873.30	1692.13	847.32	51.45	-5.822	0.000	0.374
88.00	-13.38	-18.65	0.00	-271.92	0.00	271.92	1712.56	856.28	1626.40	814.41	53.91	-5.921	0.000	0.342
90.00	-13.11	-18.52	0.00	-234.62	0.00	234.62	1678.53	839.26	1561.98	782.15	56.40	-6.012	0.000	0.308
91.00	-10.41	-14.35	0.00	-216.09	0.00	216.09	1661.51	830.75	1530.26	766.27	57.67	-6.056	0.000	0.289
91.29	-10.37	-14.33	0.00	-211.89	0.00	211.89	1656.52	828.26	1521.01	761.64	58.04	-6.068	0.000	0.285
92.00	-10.24	-14.29	0.00	-201.76	0.00	201.76	1644.49	822.25	1498.86	750.54	58.94	-6.097	0.000	0.275
94.00	-9.90	-14.14	0.00	-173.19	0.00	173.19	1610.46	805.23	1437.04	719.59	61.50	-6.174	0.000	0.247
94.71	-9.77	-14.10	0.00	-163.15	0.00	163.15	930.70	465.35	848.15	424.70	62.42	-6.200	0.000	0.396
96.00	-9.66	-14.02	0.00	-144.96	0.00	144.96	922.07	461.04	828.91	415.07	64.10	-6.244	0.000	0.361
98.00	-6.48	-8.40	0.00	-116.92	0.00	116.92	908.49	454.24	799.32	400.25	66.73	-6.339	0.000	0.300
100.00	-6.36	-8.29	0.00	-100.11	0.00	100.11	894.64	447.32	770.03	385.59	69.40	-6.422	0.000	0.267
102.00	-6.24	-8.17	0.00	-83.54	0.00	83.54	880.55	440.27	741.05	371.08	72.10	-6.497	0.000	0.233
104.00	-6.13	-8.06	0.00	-67.19	0.00	67.19	866.20	433.10	712.41	356.74	74.83	-6.563	0.000	0.196
106.00	-6.02	-7.95	0.00	-51.06	0.00	51.06	851.60	425.80	684.12	342.57	77.59	-6.619	0.000	0.156
107.00	-2.47	-3.88	0.00	-42.54	0.00	42.54	844.21	422.10	670.11	335.55	78.98	-6.643	0.000	0.130
108.00	-2.42	-3.82	0.00	-38.66	0.00	38.66	836.75	418.38	656.18	328.58	80.37	-6.664	0.000	0.121
110.00	-2.33	-3.71	0.00	-31.02	0.00	31.02	821.65	410.82	628.62	314.78	83.16	-6.702	0.000	0.101
112.00	-2.23	-3.60	0.00	-23.59	0.00	23.59	804.60	402.30	600.19	300.54	85.97	-6.733	0.000	0.081
114.00	-2.14	-3.50	0.00	-16.38	0.00	16.38	784.18	392.09	569.96	285.40	88.79	-6.759	0.000	0.060
116.00	-2.05	-3.39	0.00	-9.39	0.00	9.39	763.76	381.88	540.51	270.66	91.62	-6.776	0.000	0.037
118.00	0.00	-3.13	0.00	-2.60	0.00	2.60	743.33	371.67	511.84	256.30	94.45	-6.785	0.000	0.010

Wind Loading - Shaft

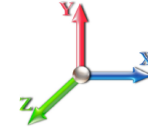
Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 18

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 26

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	17.879	19.67	313.79	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	17.879	19.67	310.44	0.650	0.000	2.00	7.280	4.73	148.9	0.0	310.9
4.00		1.00	0.85	17.879	19.67	307.09	0.650	0.000	2.00	7.202	4.68	147.3	0.0	307.5
6.00		1.00	0.85	17.879	19.67	303.74	0.650	0.000	2.00	7.124	4.63	145.7	0.0	304.1
8.00		1.00	0.85	17.879	19.67	300.39	0.650	0.000	2.00	7.046	4.58	144.1	0.0	300.8
10.00		1.00	0.85	17.879	19.67	297.04	0.650	0.000	2.00	6.968	4.53	142.5	0.0	297.4
12.00		1.00	0.85	17.879	19.67	293.69	0.650	0.000	2.00	6.890	4.48	140.9	0.0	294.0
14.00		1.00	0.85	17.879	19.67	290.34	0.650	0.000	2.00	6.811	4.43	139.3	0.0	290.7
16.00		1.00	0.86	18.100	19.91	288.75	0.650	0.000	2.00	6.733	4.38	139.4	0.0	287.3
18.00		1.00	0.88	18.554	20.41	288.94	0.650	0.000	2.00	6.655	4.33	141.3	0.0	283.9
20.00		1.00	0.90	18.971	20.87	288.71	0.650	0.000	2.00	6.577	4.28	142.7	0.0	280.6
22.00		1.00	0.92	19.355	21.29	288.14	0.650	0.000	2.00	6.499	4.22	143.9	0.0	277.2
24.00		1.00	0.94	19.713	21.68	287.27	0.650	0.000	2.00	6.421	4.17	144.8	0.0	273.8
26.00		1.00	0.95	20.048	22.05	286.15	0.650	0.000	2.00	6.342	4.12	145.5	0.0	270.5
28.00		1.00	0.97	20.363	22.40	284.82	0.650	0.000	2.00	6.264	4.07	145.9	0.0	267.1
30.00		1.00	0.98	20.661	22.73	283.29	0.650	0.000	2.00	6.186	4.02	146.2	0.0	263.7
32.00		1.00	1.00	20.944	23.04	281.59	0.650	0.000	2.00	6.108	3.97	146.3	0.0	260.4
34.00		1.00	1.01	21.213	23.33	279.75	0.650	0.000	2.00	6.030	3.92	146.3	0.0	257.0
36.00		1.00	1.02	21.470	23.62	277.76	0.650	0.000	2.00	5.952	3.87	146.2	0.0	253.6
38.00		1.00	1.03	21.715	23.89	275.66	0.650	0.000	2.00	5.873	3.82	145.9	0.0	250.3
40.00		1.00	1.04	21.951	24.15	273.44	0.650	0.000	2.00	5.795	3.77	145.5	0.0	246.9
42.00		1.00	1.05	22.178	24.40	271.11	0.650	0.000	2.00	5.717	3.72	145.1	0.0	243.5
44.00		1.00	1.06	22.396	24.64	268.69	0.650	0.000	2.00	5.639	3.67	144.5	0.0	240.2
45.13	Bot - Section 2	1.00	1.07	22.516	24.77	267.28	0.650	0.000	1.13	3.151	2.05	81.2	0.0	134.2
46.00		1.00	1.07	22.607	24.87	266.18	0.650	0.000	0.87	2.455	1.60	63.5	0.0	189.9
48.00		1.00	1.08	22.810	25.09	263.59	0.650	0.000	2.00	5.588	3.63	145.8	0.0	432.1
49.88	Top - Section 1	1.00	1.09	22.995	25.29	261.09	0.650	0.000	1.88	5.182	3.37	136.3	0.0	400.6
50.00		1.00	1.09	23.007	25.31	266.07	0.650	0.000	0.12	0.328	0.21	8.6	0.0	11.7
52.00		1.00	1.10	23.198	25.52	263.36	0.650	0.000	2.00	5.432	3.53	144.2	0.0	193.1
54.00		1.00	1.11	23.383	25.72	260.57	0.650	0.000	2.00	5.354	3.48	143.2	0.0	190.3
56.00		1.00	1.12	23.562	25.92	257.72	0.650	0.000	2.00	5.276	3.43	142.2	0.0	187.5
58.00		1.00	1.13	23.737	26.11	254.82	0.650	0.000	2.00	5.198	3.38	141.1	0.0	184.7
60.00		1.00	1.14	23.907	26.30	251.85	0.650	0.000	2.00	5.119	3.33	140.0	0.0	181.9
62.00		1.00	1.14	24.073	26.48	248.84	0.650	0.000	2.00	5.041	3.28	138.8	0.0	179.1
64.00		1.00	1.15	24.234	26.66	245.77	0.650	0.000	2.00	4.963	3.23	137.6	0.0	176.3
66.00		1.00	1.16	24.392	26.83	242.65	0.650	0.000	2.00	4.885	3.18	136.3	0.0	173.5
68.00		1.00	1.17	24.545	27.00	239.49	0.650	0.000	2.00	4.807	3.12	135.0	0.0	170.6
70.00		1.00	1.17	24.696	27.17	236.28	0.650	0.000	2.00	4.729	3.07	133.6	0.0	167.8
72.00		1.00	1.18	24.843	27.33	233.03	0.650	0.000	2.00	4.650	3.02	132.2	0.0	165.0
74.00		1.00	1.19	24.986	27.48	229.74	0.650	0.000	2.00	4.572	2.97	130.7	0.0	162.2
75.00	Appurtenance(s)	1.00	1.19	25.057	27.56	228.09	0.650	0.000	1.00	2.257	1.47	64.7	0.0	80.1
76.00		1.00	1.19	25.127	27.64	226.42	0.650	0.000	1.00	2.237	1.45	64.3	0.0	79.4
78.00		1.00	1.20	25.265	27.79	223.05	0.650	0.000	2.00	4.416	2.87	127.6	0.0	156.6
80.00		1.00	1.21	25.400	27.94	219.66	0.650	0.000	2.00	4.338	2.82	126.0	0.0	153.8
82.00		1.00	1.21	25.532	28.09	216.22	0.650	0.000	2.00	4.260	2.77	124.4	0.0	151.0
83.00	Appurtenance(s)	1.00	1.22	25.597	28.16	214.49	0.650	0.000	1.00	2.101	1.37	61.5	0.0	74.5
84.00		1.00	1.22	25.662	28.23	212.76	0.650	0.000	1.00	2.081	1.35	61.1	0.0	73.7

Wind Loading - Shaft

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 19

85.00 Appurtenance(s)	1.00	1.22	25.726	28.30	211.01	0.650	0.000	1.00	2.061	1.34	60.7	0.0	73.0
86.00	1.00	1.23	25.789	28.37	209.26	0.650	0.000	1.00	2.042	1.33	60.2	0.0	72.3
88.00	1.00	1.23	25.915	28.51	205.73	0.650	0.000	2.00	4.025	2.62	119.3	0.0	142.6
90.00	1.00	1.24	26.037	28.64	202.18	0.650	0.000	2.00	3.947	2.57	117.6	0.0	139.8
91.00 Appurtenance(s)	1.00	1.24	26.098	28.71	200.39	0.650	0.000	1.00	1.944	1.26	58.0	0.0	68.8
91.29 Bot - Section 3	1.00	1.24	26.116	28.73	199.86	0.650	0.000	0.29	0.567	0.37	16.9	0.0	20.1
92.00	1.00	1.24	26.158	28.77	198.59	0.650	0.000	0.71	1.380	0.90	41.3	0.0	77.6
94.00	1.00	1.25	26.277	28.90	194.98	0.650	0.000	2.00	3.854	2.51	115.9	0.0	216.5
94.71 Top - Section 2	1.00	1.25	26.319	28.95	193.69	0.650	0.000	0.71	1.349	0.88	40.6	0.0	75.8
96.00	1.00	1.25	26.394	29.03	194.65	0.650	0.000	1.29	2.427	1.58	73.3	0.0	51.8
98.00 Appurtenance(s)	1.00	1.26	26.509	29.16	190.99	0.650	0.000	2.00	3.698	2.40	112.1	0.0	79.0
100.00	1.00	1.27	26.621	29.28	187.31	0.650	0.000	2.00	3.620	2.35	110.2	0.0	77.3
102.00	1.00	1.27	26.733	29.41	183.60	0.650	0.000	2.00	3.541	2.30	108.3	0.0	75.6
104.00	1.00	1.28	26.842	29.53	179.87	0.650	0.000	2.00	3.463	2.25	106.3	0.0	73.9
106.00	1.00	1.28	26.950	29.65	176.12	0.650	0.000	2.00	3.385	2.20	104.4	0.0	72.2
107.00 Appurtenance(s)	1.00	1.28	27.003	29.70	174.23	0.650	0.000	1.00	1.663	1.08	51.4	0.0	35.5
108.00	1.00	1.29	27.056	29.76	172.34	0.650	0.000	1.00	1.644	1.07	50.9	0.0	35.1
110.00	1.00	1.29	27.161	29.88	168.54	0.650	0.000	2.00	3.229	2.10	100.3	0.0	68.9
112.00	1.00	1.30	27.264	29.99	164.73	0.650	0.000	2.00	3.151	2.05	98.3	0.0	67.2
114.00	1.00	1.30	27.366	30.10	160.89	0.650	0.000	2.00	3.072	2.00	96.2	0.0	65.5
116.00	1.00	1.31	27.466	30.21	157.03	0.650	0.000	2.00	2.994	1.95	94.1	0.0	63.8
118.00 Appurtenance(s)	1.00	1.31	27.565	30.32	153.15	0.650	0.000	2.00	2.916	1.90	92.0	0.0	62.1
Totals:								118.00			7,726.8		11,845.3

Discrete Appurtenance Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 20

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 26

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	118.00	ANT150D	1	27.635	30.398	1.00	1.00	1.00	5.40	0.000	1.420	48.64	0.00	69.07
2	118.00	DB222	1	28.133	30.947	1.00	1.00	2.25	14.40	0.000	12.000	111.41	0.00	1336.89
3	118.00	Low Profile Platform	1	27.565	30.322	1.00	1.00	28.47	1620.00	0.000	0.000	1381.23	0.00	0.00
4	118.00	DB844H90E-XY	9	27.605	30.365	1.12	1.00	30.74	113.40	0.000	0.800	1493.68	0.00	1194.94
5	107.00	ACU-A20-N	4	27.003	29.704	0.54	0.80	0.30	3.60	0.000	0.000	14.27	0.00	0.00
6	107.00	1900 MHz 4X45 RRH	3	27.003	29.704	0.54	0.80	4.36	162.00	0.000	0.000	207.10	0.00	0.00
7	107.00	800 MHz RRU Filter	3	27.003	29.704	0.54	0.80	3.86	172.80	0.000	0.000	183.41	0.00	0.00
8	107.00	TD-RRH8x20-25	3	27.003	29.704	0.54	0.80	6.51	189.00	0.000	0.000	309.51	0.00	0.00
9	107.00	Low Profile Platform	1	27.003	29.704	1.00	1.00	27.33	1800.00	0.000	0.000	1298.89	0.00	0.00
10	107.00	APXVSP18-C-A20	3	27.003	29.704	0.66	0.80	15.98	153.90	0.000	0.000	759.27	0.00	0.00
11	107.00	APXV9TM14-ALU-120	3	27.056	29.762	0.63	0.80	12.02	151.20	0.000	1.000	572.41	0.00	572.41
12	107.00	Universal Ring Mount	1	27.003	29.704	1.00	1.00	5.00	315.00	0.000	0.000	237.63	0.00	0.00
13	98.00	Alcatel Lucent	3	26.509	29.159	0.54	0.80	5.63	162.00	0.000	0.000	262.57	0.00	0.00
14	98.00	Low Profile Platform	1	26.509	29.159	1.00	1.00	23.10	1890.00	0.000	0.000	1077.73	0.00	0.00
15	98.00	RFS APL868013	2	26.509	29.159	0.92	0.80	5.27	11.34	0.000	0.000	245.73	0.00	0.00
16	98.00	Andrew SBNHH-1D85C	6	26.509	29.159	0.67	0.80	45.92	267.84	0.000	0.000	2142.61	0.00	0.00
17	98.00	Rfs Celwave	2	26.509	29.159	0.54	0.80	5.15	34.02	0.000	0.000	240.07	0.00	0.00
18	98.00	Alcatel Lucent	3	26.509	29.159	0.54	0.80	4.08	153.36	0.000	0.000	190.55	0.00	0.00
19	98.00	Alcatel-Lucent	3	26.509	29.159	0.54	0.80	3.02	124.20	0.000	0.000	141.04	0.00	0.00
20	98.00	Andrew DB846H80E-SX	4	26.509	29.159	0.90	0.80	17.96	57.60	0.000	0.000	837.73	0.00	0.00
21	91.00	Low Profile Platform	1	26.098	28.708	1.00	1.00	17.46	1214.10	0.000	0.000	801.99	0.00	0.00
22	91.00	RRUS 32 B2	3	26.098	28.708	0.65	0.80	5.33	143.10	0.000	0.000	244.66	0.00	0.00
23	91.00	DC6-48-60-18-8F	2	26.098	28.708	1.00	1.00	1.84	57.24	0.000	0.000	84.52	0.00	0.00
24	91.00	RRUS-11	3	26.098	28.708	0.54	0.80	7.11	148.50	0.000	0.000	326.46	0.00	0.00
25	91.00	LGP21401	6	26.098	28.708	0.54	0.80	4.15	76.14	0.000	0.000	190.56	0.00	0.00
26	91.00	P65-16-XLH-RR	3	26.098	28.708	0.60	0.80	14.69	143.10	0.000	0.000	674.66	0.00	0.00
27	91.00	7770.00	3	26.098	28.708	0.58	0.80	9.64	94.50	0.000	0.000	442.61	0.00	0.00
28	91.00	QS66512-2	3	26.098	28.708	0.72	0.80	17.56	207.90	0.000	0.000	806.62	0.00	0.00
29	91.00	RRUS 32 B30	3	26.098	28.708	0.65	0.80	5.33	162.00	0.000	0.000	244.66	0.00	0.00
30	85.00	12.5' - 2" Horizontal Pipe	1	25.726	28.299	1.00	1.00	2.97	41.18	0.000	0.000	134.42	0.00	0.00
31	83.00	RFS - APXV18-209014	3	25.597	28.157	0.55	0.75	5.96	50.49	0.000	0.000	268.54	0.00	0.00
32	83.00	MS-KI22-5 (Kickers w/o	1	25.597	28.157	1.00	1.00	5.33	131.40	0.000	0.000	240.12	0.00	0.00
33	83.00	Commscope -	3	25.597	28.157	0.60	0.75	20.65	134.46	0.000	0.000	930.13	0.00	0.00
34	83.00	Platform w/ Handrail kit	1	25.597	28.157	1.00	1.00	37.16	1681.38	0.000	0.000	1674.11	0.00	0.00
35	83.00	S20057A1 TMA	3	25.597	28.157	0.50	0.75	0.02	29.70	0.000	0.000	0.68	0.00	0.00
36	83.00	RFS - ATMAA1412D-1A2	3	25.597	28.157	0.50	0.75	1.76	35.10	0.000	0.000	79.46	0.00	0.00
37	83.00	Kathrein - 782 11054 -	3	25.597	28.157	0.50	0.75	0.23	4.86	0.000	0.000	10.19	0.00	0.00
38	83.00	VHLP3-11W	1	25.597	28.157	1.00	1.00	10.68	47.70	0.000	0.000	481.15	0.00	0.00
39	83.00	IP20C	1	25.597	28.157	0.50	0.75	0.53	10.35	0.000	0.000	23.77	0.00	0.00
40	75.00	GPS	1	25.057	27.563	1.00	1.00	1.00	9.00	0.000	0.000	44.10	0.00	0.00
41	75.00	Standoff Mount	1	25.057	27.563	1.00	1.00	2.63	36.00	0.000	0.000	115.98	0.00	0.00

Totals: 11,859.26 19,574.85

Total Applied Force Summary

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 21

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



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		148.91	381.83	0.00	0.00
4.00		147.31	378.47	0.00	0.00
6.00		145.72	375.10	0.00	0.00
8.00		144.12	371.73	0.00	0.00
10.00		142.52	368.36	0.00	0.00
12.00		140.92	365.00	0.00	0.00
14.00		139.32	361.63	0.00	0.00
16.00		139.42	358.26	0.00	0.00
18.00		141.26	354.90	0.00	0.00
20.00		142.74	351.53	0.00	0.00
22.00		143.90	348.16	0.00	0.00
24.00		144.80	344.80	0.00	0.00
26.00		145.46	341.43	0.00	0.00
28.00		145.93	338.06	0.00	0.00
30.00		146.22	334.69	0.00	0.00
32.00		146.34	331.33	0.00	0.00
34.00		146.33	327.96	0.00	0.00
36.00		146.18	324.59	0.00	0.00
38.00		145.91	321.23	0.00	0.00
40.00		145.53	317.86	0.00	0.00
42.00		145.05	314.49	0.00	0.00
44.00		144.48	311.13	0.00	0.00
45.13		81.18	174.30	0.00	0.00
46.00		63.50	220.77	0.00	0.00
48.00		145.83	503.10	0.00	0.00
49.88		136.32	467.28	0.00	0.00
50.00		8.64	15.93	0.00	0.00
52.00		144.16	264.05	0.00	0.00
54.00		143.22	261.24	0.00	0.00
56.00		142.21	258.44	0.00	0.00
58.00		141.14	255.63	0.00	0.00
60.00		140.02	252.83	0.00	0.00
62.00		138.83	250.02	0.00	0.00
64.00		137.60	247.22	0.00	0.00
66.00		136.31	244.41	0.00	0.00
68.00		134.97	241.60	0.00	0.00
70.00		133.59	238.80	0.00	0.00
72.00		132.17	235.99	0.00	0.00
74.00		130.70	233.19	0.00	0.00
75.00	(2) attachments	224.78	160.54	0.00	0.00
76.00		64.31	114.70	0.00	0.00
78.00		127.63	227.29	0.00	0.00
80.00		126.04	224.48	0.00	0.00
82.00		124.42	221.67	0.00	0.00
83.00	(19) attachments	3769.66	2235.23	0.00	0.00
84.00		61.09	101.81	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 22

85.00	(1) attachments	195.09	142.29	0.00	0.00
86.00		60.24	100.41	0.00	0.00
88.00		119.33	198.71	0.00	0.00
90.00		117.57	195.91	0.00	0.00
91.00	(27) attachments	3874.78	2343.48	0.00	0.00
91.29		16.93	26.19	0.00	0.00
92.00		41.31	92.34	0.00	0.00
94.00		115.86	258.29	0.00	0.00
94.71		40.63	90.61	0.00	0.00
96.00		73.27	78.78	0.00	0.00
98.00	(24) attachments	5250.17	2821.11	0.00	0.00
100.00		110.24	92.65	0.00	0.00
102.00		108.31	90.96	0.00	0.00
104.00		106.35	89.28	0.00	0.00
106.00		104.37	87.60	0.00	0.00
107.00	(21) attachments	3633.86	2990.67	0.00	572.41
108.00		50.88	40.96	0.00	0.00
110.00		100.33	80.67	0.00	0.00
112.00		98.27	78.98	0.00	0.00
114.00		96.19	77.30	0.00	0.00
116.00		94.09	75.61	0.00	0.00
118.00	(12) attachments	3126.91	1827.13	0.00	2600.90
Totals:		27,301.62	27,152.98	0.00	3,173.31

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 23

Load Case: 0.9D + 1.6W 93 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



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)
2.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	17.879	0.00	0.29
4.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	17.879	0.00	0.29
6.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	17.879	0.00	0.29
8.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	17.879	0.00	0.29
10.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	17.879	0.00	0.29
12.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	17.879	0.00	0.29
14.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	17.879	0.00	0.29
16.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	18.100	0.00	0.29
18.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	18.554	0.00	0.29
20.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	18.971	0.00	0.29
22.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	19.355	0.00	0.29
24.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	19.713	0.00	0.29
26.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	20.048	0.00	0.29
28.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	20.363	0.00	0.29
30.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	20.661	0.00	0.29
32.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	20.944	0.00	0.29
34.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	21.213	0.00	0.29
36.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	21.470	0.00	0.29
38.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	21.715	0.00	0.29
40.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.019	0.000	21.951	0.00	0.29
42.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.019	0.000	22.178	0.00	0.29
44.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.019	0.000	22.396	0.00	0.29
45.13	1/2"	Yes	1.13	0.000	0.65	0.06	0.00	0.019	0.000	22.516	0.00	0.16
46.00	1/2"	Yes	0.87	0.000	0.65	0.05	0.00	0.020	0.000	22.607	0.00	0.13
48.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.020	0.000	22.810	0.00	0.29
49.88	1/2"	Yes	1.88	0.000	0.65	0.10	0.00	0.020	0.000	22.995	0.00	0.27
50.00	1/2"	Yes	0.12	0.000	0.65	0.01	0.00	0.020	0.000	23.007	0.00	0.02
52.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.020	0.000	23.198	0.00	0.29
54.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.020	0.000	23.383	0.00	0.29
56.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	23.562	0.00	0.29
58.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	23.737	0.00	0.29
60.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	23.907	0.00	0.29
62.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	24.073	0.00	0.29
64.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.022	0.000	24.234	0.00	0.29
66.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.022	0.000	24.392	0.00	0.29
68.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.023	0.000	24.545	0.00	0.29
70.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.023	0.000	24.696	0.00	0.29
72.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.023	0.000	24.843	0.00	0.29
74.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.024	0.000	24.986	0.00	0.29
75.00	1/2"	Yes	1.00	0.000	0.65	0.05	0.00	0.024	0.000	25.057	0.00	0.14
Totals:											0.0	10.8

Calculated Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 24

Load Case: 0.9D + 1.6W 93 mph Wind	Iterations 26
Dead Load Factor 0.90	
Wind Load Factor 1.60	

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	-27.12	-27.33	0.00	-2448.2	0.00	2448.29	3634.70	1817.35	6397.77	3203.64	0.00	0.000	0.000	0.772
2.00	-26.69	-27.23	0.00	-2393.6	0.00	2393.63	3607.15	1803.57	6280.28	3144.81	0.03	-0.116	0.000	0.769
4.00	-26.25	-27.14	0.00	-2339.1	0.00	2339.17	3579.34	1789.67	6163.42	3086.29	0.10	-0.234	0.000	0.765
6.00	-25.82	-27.05	0.00	-2284.8	0.00	2284.89	3551.29	1775.64	6047.19	3028.09	0.22	-0.352	0.000	0.762
8.00	-25.40	-26.95	0.00	-2230.8	0.00	2230.80	3522.98	1761.49	5931.61	2970.21	0.40	-0.472	0.000	0.759
10.00	-24.97	-26.86	0.00	-2176.9	0.00	2176.90	3494.42	1747.21	5816.69	2912.67	0.62	-0.592	0.000	0.755
12.00	-24.55	-26.77	0.00	-2123.1	0.00	2123.18	3465.61	1732.80	5702.44	2855.46	0.90	-0.714	0.000	0.751
14.00	-24.13	-26.67	0.00	-2069.6	0.00	2069.65	3436.54	1718.27	5588.89	2798.60	1.22	-0.837	0.000	0.747
16.00	-23.72	-26.58	0.00	-2016.3	0.00	2016.30	3407.22	1703.61	5476.05	2742.09	1.60	-0.961	0.000	0.743
18.00	-23.31	-26.48	0.00	-1963.1	0.00	1963.14	3377.65	1688.83	5363.92	2685.95	2.03	-1.087	0.000	0.738
20.00	-22.90	-26.39	0.00	-1910.1	0.00	1910.17	3347.83	1673.91	5252.53	2630.17	2.51	-1.213	0.000	0.733
22.00	-22.50	-26.28	0.00	-1857.4	0.00	1857.41	3317.75	1658.87	5141.89	2574.76	3.05	-1.340	0.000	0.728
24.00	-22.10	-26.18	0.00	-1804.8	0.00	1804.84	3287.42	1643.71	5032.01	2519.74	3.64	-1.469	0.000	0.723
26.00	-21.70	-26.08	0.00	-1752.4	0.00	1752.48	3256.84	1628.42	4922.91	2465.11	4.28	-1.598	0.000	0.718
28.00	-21.31	-25.97	0.00	-1700.3	0.00	1700.33	3219.51	1609.75	4804.91	2406.03	4.98	-1.728	0.000	0.714
30.00	-20.92	-25.86	0.00	-1648.3	0.00	1648.39	3178.67	1589.33	4683.16	2345.06	5.73	-1.859	0.000	0.710
32.00	-20.53	-25.75	0.00	-1596.6	0.00	1596.67	3137.83	1568.91	4562.98	2284.88	6.54	-1.992	0.000	0.706
34.00	-20.15	-25.64	0.00	-1545.1	0.00	1545.18	3096.99	1548.49	4444.36	2225.48	7.40	-2.125	0.000	0.701
36.00	-19.77	-25.53	0.00	-1493.9	0.00	1493.90	3056.15	1528.07	4327.30	2166.87	8.32	-2.259	0.000	0.696
38.00	-19.40	-25.41	0.00	-1442.8	0.00	1442.85	3015.30	1507.65	4211.81	2109.03	9.29	-2.393	0.000	0.691
40.00	-19.03	-25.30	0.00	-1392.0	0.00	1392.02	2974.46	1487.23	4097.87	2051.98	10.33	-2.528	0.000	0.685
42.00	-18.66	-25.19	0.00	-1341.4	0.00	1341.42	2933.62	1466.81	3985.50	1995.71	11.41	-2.664	0.000	0.679
44.00	-18.31	-25.06	0.00	-1291.0	0.00	1291.05	2892.78	1446.39	3874.69	1940.23	12.56	-2.801	0.000	0.672
45.13	-18.11	-24.99	0.00	-1262.7	0.00	1262.73	2869.71	1434.85	3812.78	1909.22	13.23	-2.879	0.000	0.668
46.00	-17.85	-24.95	0.00	-1240.9	0.00	1240.99	2851.94	1425.97	3765.45	1885.52	13.76	-2.939	0.000	0.665
48.00	-17.30	-24.82	0.00	-1191.0	0.00	1191.09	2811.10	1405.55	3657.76	1831.60	15.02	-3.076	0.000	0.657
49.88	-16.81	-24.68	0.00	-1144.4	0.00	1144.44	2333.69	1166.84	3066.96	1535.76	16.26	-3.205	0.000	0.753
50.00	-16.76	-24.69	0.00	-1141.4	0.00	1141.48	2332.20	1166.10	3062.32	1533.44	16.34	-3.214	0.000	0.752
52.00	-16.44	-24.58	0.00	-1092.1	0.00	1092.10	2307.18	1153.59	2985.35	1494.89	17.72	-3.368	0.000	0.738
54.00	-16.12	-24.46	0.00	-1042.9	0.00	1042.95	2281.92	1140.96	2909.02	1456.67	19.16	-3.523	0.000	0.724
56.00	-15.80	-24.34	0.00	-994.03	0.00	994.03	2256.40	1128.20	2833.34	1418.77	20.67	-3.676	0.000	0.708
58.00	-15.49	-24.23	0.00	-945.34	0.00	945.34	2223.07	1111.54	2748.96	1376.53	22.24	-3.830	0.000	0.694
60.00	-15.19	-24.11	0.00	-896.89	0.00	896.89	2189.04	1094.52	2665.01	1334.49	23.88	-3.982	0.000	0.680
62.00	-14.88	-23.99	0.00	-848.67	0.00	848.67	2155.00	1077.50	2582.36	1293.10	25.58	-4.133	0.000	0.664
64.00	-14.59	-23.88	0.00	-800.68	0.00	800.68	2120.97	1060.48	2501.02	1252.37	27.34	-4.283	0.000	0.647
66.00	-14.29	-23.76	0.00	-752.92	0.00	752.92	2086.94	1043.47	2420.97	1212.28	29.17	-4.431	0.000	0.628
68.00	-14.00	-23.64	0.00	-705.41	0.00	705.41	2052.90	1026.45	2342.23	1172.85	31.05	-4.577	0.000	0.609
70.00	-13.72	-23.52	0.00	-658.12	0.00	658.12	2018.87	1009.43	2264.79	1134.08	33.00	-4.720	0.000	0.588
72.00	-13.44	-23.40	0.00	-611.08	0.00	611.08	1984.83	992.42	2188.65	1095.95	35.01	-4.860	0.000	0.565
74.00	-13.17	-23.28	0.00	-564.27	0.00	564.27	1950.80	975.40	2113.81	1058.48	37.07	-4.996	0.000	0.540
75.00	-13.01	-23.05	0.00	-540.99	0.00	540.99	1933.78	966.89	2076.88	1039.98	38.12	-5.064	0.000	0.527
76.00	-12.86	-23.00	0.00	-517.94	0.00	517.94	1916.76	958.38	2040.27	1021.65	39.19	-5.131	0.000	0.514
78.00	-12.59	-22.88	0.00	-471.94	0.00	471.94	1882.73	941.37	1968.04	985.48	41.37	-5.258	0.000	0.486
80.00	-12.34	-22.76	0.00	-426.17	0.00	426.17	1848.70	924.35	1897.11	949.96	43.59	-5.380	0.000	0.456
82.00	-12.09	-22.63	0.00	-380.65	0.00	380.65	1814.66	907.33	1827.48	915.10	45.87	-5.496	0.000	0.423
83.00	-10.21	-18.68	0.00	-358.02	0.00	358.02	1797.65	898.82	1793.15	897.91	47.02	-5.553	0.000	0.405
84.00	-10.10	-18.62	0.00	-339.34	0.00	339.34	1780.63	890.31	1759.15	880.88	48.19	-5.607	0.000	0.391
85.00	-9.96	-18.42	0.00	-320.73	0.00	320.73	1763.61	881.81	1725.48	864.02	49.37	-5.660	0.000	0.377

Calculated Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 25

86.00	-9.84	-18.36	0.00	-302.31	0.00	302.31	1746.59	873.30	1692.13	847.32	50.56	-5.712	0.000	0.363
88.00	-9.63	-18.24	0.00	-265.59	0.00	265.59	1712.56	856.28	1626.40	814.41	52.97	-5.809	0.000	0.332
90.00	-9.42	-18.11	0.00	-229.12	0.00	229.12	1678.53	839.26	1561.98	782.15	55.42	-5.898	0.000	0.299
91.00	-7.49	-14.02	0.00	-211.01	0.00	211.01	1661.51	830.75	1530.26	766.27	56.66	-5.940	0.000	0.280
91.29	-7.46	-14.00	0.00	-206.89	0.00	206.89	1656.52	828.26	1521.01	761.64	57.02	-5.953	0.000	0.276
92.00	-7.36	-13.96	0.00	-197.00	0.00	197.00	1644.49	822.25	1498.86	750.54	57.91	-5.981	0.000	0.267
94.00	-7.10	-13.82	0.00	-169.09	0.00	169.09	1610.46	805.23	1437.04	719.59	60.42	-6.056	0.000	0.240
94.71	-7.01	-13.78	0.00	-159.27	0.00	159.27	930.70	465.35	848.15	424.70	61.32	-6.081	0.000	0.383
96.00	-6.92	-13.70	0.00	-141.50	0.00	141.50	922.07	461.04	828.91	415.07	62.97	-6.124	0.000	0.349
98.00	-4.67	-8.19	0.00	-114.10	0.00	114.10	908.49	454.24	799.32	400.25	65.55	-6.217	0.000	0.291
100.00	-4.58	-8.07	0.00	-97.72	0.00	97.72	894.64	447.32	770.03	385.59	68.17	-6.298	0.000	0.259
102.00	-4.49	-7.96	0.00	-81.58	0.00	81.58	880.55	440.27	741.05	371.08	70.82	-6.372	0.000	0.225
104.00	-4.40	-7.85	0.00	-65.65	0.00	65.65	866.20	433.10	712.41	356.74	73.50	-6.436	0.000	0.189
106.00	-4.32	-7.74	0.00	-49.95	0.00	49.95	851.60	425.80	684.12	342.57	76.20	-6.490	0.000	0.151
107.00	-1.76	-3.79	0.00	-41.64	0.00	41.64	844.21	422.10	670.11	335.55	77.56	-6.514	0.000	0.126
108.00	-1.72	-3.74	0.00	-37.85	0.00	37.85	836.75	418.38	656.18	328.58	78.92	-6.534	0.000	0.117
110.00	-1.65	-3.63	0.00	-30.38	0.00	30.38	821.65	410.82	628.62	314.78	81.66	-6.571	0.000	0.099
112.00	-1.58	-3.52	0.00	-23.12	0.00	23.12	804.60	402.30	600.19	300.54	84.42	-6.602	0.000	0.079
114.00	-1.52	-3.42	0.00	-16.07	0.00	16.07	784.18	392.09	569.96	285.40	87.18	-6.627	0.000	0.058
116.00	-1.45	-3.32	0.00	-9.24	0.00	9.24	763.76	381.88	540.51	270.66	89.96	-6.644	0.000	0.036
118.00	0.00	-3.13	0.00	-2.60	0.00	2.60	743.33	371.67	511.84	256.30	92.74	-6.653	0.000	0.010

Wind Loading - Shaft

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

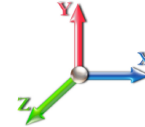


Page: 26

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	5.168	5.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	5.168	5.68	0.00	1.200	1.133	2.00	7.658	9.19	52.2	124.7	539.2
4.00		1.00	0.85	5.168	5.68	0.00	1.200	1.215	2.00	7.607	9.13	51.9	132.5	542.5
6.00		1.00	0.85	5.168	5.68	0.00	1.200	1.265	2.00	7.546	9.05	51.5	136.7	542.2
8.00		1.00	0.85	5.168	5.68	0.00	1.200	1.302	2.00	7.480	8.98	51.0	139.3	540.3
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.331	2.00	7.412	8.89	50.6	141.0	537.5
12.00		1.00	0.85	5.168	5.68	0.00	1.200	1.356	2.00	7.342	8.81	50.1	142.1	534.1
14.00		1.00	0.85	5.168	5.68	0.00	1.200	1.377	2.00	7.270	8.72	49.6	142.8	530.3
16.00		1.00	0.86	5.232	5.76	0.00	1.200	1.395	2.00	7.198	8.64	49.7	143.1	526.2
18.00		1.00	0.88	5.363	5.90	0.00	1.200	1.412	2.00	7.126	8.55	50.4	143.3	521.9
20.00		1.00	0.90	5.483	6.03	0.00	1.200	1.427	2.00	7.053	8.46	51.0	143.2	517.3
22.00		1.00	0.92	5.595	6.15	0.00	1.200	1.440	2.00	6.979	8.37	51.5	142.9	512.5
24.00		1.00	0.94	5.698	6.27	0.00	1.200	1.453	2.00	6.905	8.29	51.9	142.5	507.7
26.00		1.00	0.95	5.795	6.37	0.00	1.200	1.465	2.00	6.831	8.20	52.2	142.0	502.7
28.00		1.00	0.97	5.886	6.47	0.00	1.200	1.476	2.00	6.756	8.11	52.5	141.4	497.6
30.00		1.00	0.98	5.972	6.57	0.00	1.200	1.486	2.00	6.681	8.02	52.7	140.7	492.4
32.00		1.00	1.00	6.054	6.66	0.00	1.200	1.495	2.00	6.606	7.93	52.8	139.9	487.1
34.00		1.00	1.01	6.132	6.74	0.00	1.200	1.504	2.00	6.531	7.84	52.9	139.1	481.8
36.00		1.00	1.02	6.206	6.83	0.00	1.200	1.513	2.00	6.456	7.75	52.9	138.2	476.3
38.00		1.00	1.03	6.277	6.90	0.00	1.200	1.521	2.00	6.381	7.66	52.9	137.2	470.9
40.00		1.00	1.04	6.345	6.98	0.00	1.200	1.529	2.00	6.305	7.57	52.8	136.1	465.3
42.00		1.00	1.05	6.410	7.05	0.00	1.200	1.537	2.00	6.229	7.48	52.7	135.1	459.8
44.00		1.00	1.06	6.474	7.12	0.00	1.200	1.544	2.00	6.154	7.38	52.6	133.9	454.2
45.13	Bot - Section 2	1.00	1.07	6.508	7.16	0.00	1.200	1.548	1.13	3.443	4.13	29.6	75.3	254.2
46.00		1.00	1.07	6.534	7.19	0.00	1.200	1.551	0.87	2.680	3.22	23.1	58.8	312.0
48.00		1.00	1.08	6.593	7.25	0.00	1.200	1.557	2.00	6.108	7.33	53.2	134.0	710.2
49.88	Top - Section 1	1.00	1.09	6.647	7.31	0.00	1.200	1.563	1.88	5.672	6.81	49.8	124.9	659.0
50.00		1.00	1.09	6.650	7.32	0.00	1.200	1.564	0.12	0.360	0.43	3.2	8.0	23.5
52.00		1.00	1.10	6.705	7.38	0.00	1.200	1.570	2.00	5.955	7.15	52.7	131.5	388.9
54.00		1.00	1.11	6.759	7.43	0.00	1.200	1.576	2.00	5.879	7.06	52.5	130.2	383.9
56.00		1.00	1.12	6.811	7.49	0.00	1.200	1.581	2.00	5.803	6.96	52.2	128.8	378.8
58.00		1.00	1.13	6.861	7.55	0.00	1.200	1.587	2.00	5.727	6.87	51.9	127.5	373.7
60.00		1.00	1.14	6.910	7.60	0.00	1.200	1.592	2.00	5.650	6.78	51.5	126.1	368.6
62.00		1.00	1.14	6.958	7.65	0.00	1.200	1.598	2.00	5.574	6.69	51.2	124.7	363.4
64.00		1.00	1.15	7.005	7.71	0.00	1.200	1.603	2.00	5.497	6.60	50.8	123.2	358.2
66.00		1.00	1.16	7.050	7.76	0.00	1.200	1.608	2.00	5.421	6.51	50.4	121.8	353.0
68.00		1.00	1.17	7.095	7.80	0.00	1.200	1.612	2.00	5.344	6.41	50.1	120.3	347.8
70.00		1.00	1.17	7.138	7.85	0.00	1.200	1.617	2.00	5.268	6.32	49.6	118.8	342.6
72.00		1.00	1.18	7.181	7.90	0.00	1.200	1.622	2.00	5.191	6.23	49.2	117.3	337.3
74.00		1.00	1.19	7.222	7.94	0.00	1.200	1.626	2.00	5.114	6.14	48.8	115.7	332.0
75.00	Appurtenance(s)	1.00	1.19	7.243	7.97	0.00	1.200	1.628	1.00	2.528	3.03	24.2	57.5	164.2
76.00		1.00	1.19	7.263	7.99	0.00	1.200	1.631	1.00	2.509	3.01	24.1	57.1	162.9
78.00		1.00	1.20	7.303	8.03	0.00	1.200	1.635	2.00	4.961	5.95	47.8	112.6	321.4
80.00		1.00	1.21	7.342	8.08	0.00	1.200	1.639	2.00	4.884	5.86	47.3	111.0	316.1
82.00		1.00	1.21	7.380	8.12	0.00	1.200	1.643	2.00	4.807	5.77	46.8	109.4	310.7
83.00	Appurtenance(s)	1.00	1.22	7.399	8.14	0.00	1.200	1.645	1.00	2.375	2.85	23.2	54.3	153.5
84.00		1.00	1.22	7.418	8.16	0.00	1.200	1.647	1.00	2.355	2.83	23.1	53.9	152.2

Wind Loading - Shaft

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 27

85.00 Appurtenance(s)	1.00	1.22	7.436	8.18	0.00	1.200	1.649	1.00	2.336	2.80	22.9	53.5	150.9		
86.00	1.00	1.23	7.454	8.20	0.00	1.200	1.651	1.00	2.317	2.78	22.8	53.0	149.5		
88.00	1.00	1.23	7.491	8.24	0.00	1.200	1.655	2.00	4.577	5.49	45.3	104.4	294.6		
90.00	1.00	1.24	7.526	8.28	0.00	1.200	1.658	2.00	4.500	5.40	44.7	102.8	289.2		
91.00 Appurtenance(s)	1.00	1.24	7.544	8.30	0.00	1.200	1.660	1.00	2.221	2.67	22.1	51.0	142.8		
91.29 Bot - Section 3	1.00	1.24	7.549	8.30	0.00	1.200	1.661	0.29	0.648	0.78	6.5	14.9	41.7		
92.00	1.00	1.24	7.561	8.32	0.00	1.200	1.662	0.71	1.576	1.89	15.7	36.3	139.7		
94.00	1.00	1.25	7.595	8.35	0.00	1.200	1.666	2.00	4.409	5.29	44.2	101.0	389.6		
94.71 Top - Section 2	1.00	1.25	7.607	8.37	0.00	1.200	1.667	0.71	1.547	1.86	15.5	35.6	136.7		
96.00	1.00	1.25	7.629	8.39	0.00	1.200	1.669	1.29	2.785	3.34	28.0	64.0	133.1		
98.00 Appurtenance(s)	1.00	1.26	7.662	8.43	0.00	1.200	1.672	2.00	4.255	5.11	43.0	97.5	202.8		
100.00	1.00	1.27	7.695	8.46	0.00	1.200	1.676	2.00	4.178	5.01	42.4	95.8	198.8		
102.00	1.00	1.27	7.727	8.50	0.00	1.200	1.679	2.00	4.101	4.92	41.8	94.1	194.9		
104.00	1.00	1.28	7.759	8.53	0.00	1.200	1.682	2.00	4.024	4.83	41.2	92.3	190.9		
106.00	1.00	1.28	7.790	8.57	0.00	1.200	1.686	2.00	3.947	4.74	40.6	90.6	186.9		
107.00 Appurtenance(s)	1.00	1.28	7.805	8.59	0.00	1.200	1.687	1.00	1.944	2.33	20.0	44.8	92.1		
108.00	1.00	1.29	7.821	8.60	0.00	1.200	1.689	1.00	1.925	2.31	19.9	44.4	91.1		
110.00	1.00	1.29	7.851	8.64	0.00	1.200	1.692	2.00	3.793	4.55	39.3	87.0	178.8		
112.00	1.00	1.30	7.881	8.67	0.00	1.200	1.695	2.00	3.716	4.46	38.7	85.2	174.8		
114.00	1.00	1.30	7.910	8.70	0.00	1.200	1.698	2.00	3.638	4.37	38.0	83.4	170.7		
116.00	1.00	1.31	7.939	8.73	0.00	1.200	1.701	2.00	3.561	4.27	37.3	81.6	166.7		
118.00 Appurtenance(s)	1.00	1.31	7.968	8.76	0.00	1.200	1.704	2.00	3.484	4.18	36.6	79.8	162.6		
Totals:								118.00				2,851.3			22,886.8

Discrete Appurtenance Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

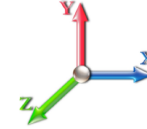


Page: 28

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	118.00	ANT150D	1	7.988	8.787	1.00	1.00	2.68	-5.21	0.000	1.420	23.51	0.00	33.38
2	118.00	DB222	1	8.132	8.945	1.00	1.00	8.17	66.96	0.000	12.000	73.06	0.00	876.72
3	118.00	Low Profile Platform	1	7.968	8.765	1.00	1.00	35.19	3776.82	0.000	0.000	308.43	0.00	0.00
4	118.00	DB844H90E-XY	9	7.979	8.777	1.12	1.00	39.31	1117.86	0.000	0.800	345.05	0.00	276.04
5	107.00	ACU-A20-N	4	7.805	8.586	0.55	0.80	0.94	16.21	0.000	0.000	8.09	0.00	0.00
6	107.00	1900 MHz 4X45 RRH	3	7.805	8.586	0.55	0.80	6.51	380.92	0.000	0.000	55.90	0.00	0.00
7	107.00	800 MHz RRU Filter	3	7.805	8.586	0.55	0.80	5.77	388.02	0.000	0.000	49.51	0.00	0.00
8	107.00	TD-RRH8x20-25	3	7.805	8.586	0.55	0.80	8.01	570.16	0.000	0.000	68.73	0.00	0.00
9	107.00	Low Profile Platform	1	7.805	8.586	1.00	1.00	33.72	4409.06	0.000	0.000	289.51	0.00	0.00
10	107.00	APXVSP18-C-A20	3	7.805	8.586	0.68	0.80	21.87	558.03	0.000	0.000	187.78	0.00	0.00
11	107.00	APXV9TM14-ALU-120	3	7.821	8.603	0.65	0.80	14.41	663.73	0.000	1.000	123.99	0.00	123.99
12	107.00	Universal Ring Mount	1	7.805	8.586	1.00	1.00	8.37	603.46	0.000	0.000	71.90	0.00	0.00
13	98.00	Alcatel Lucent	3	7.662	8.429	0.55	0.80	7.05	406.65	0.000	0.000	59.41	0.00	0.00
14	98.00	Low Profile Platform	1	7.662	8.429	1.00	1.00	28.45	4715.14	0.000	0.000	239.82	0.00	0.00
15	98.00	RFS APL868013	2	7.662	8.429	0.92	0.80	6.80	218.61	0.000	0.000	57.28	0.00	0.00
16	98.00	Andrew SBNHH-1D85C	6	7.662	8.429	0.69	0.80	53.56	1855.90	0.000	0.000	451.46	0.00	0.00
17	98.00	Rfs Celwave	2	7.662	8.429	0.55	0.80	6.22	318.79	0.000	0.000	52.43	0.00	0.00
18	98.00	Alcatel Lucent	3	7.662	8.429	0.55	0.80	5.30	443.90	0.000	0.000	44.70	0.00	0.00
19	98.00	Alcatel-Lucent	3	7.662	8.429	0.55	0.80	4.04	401.56	0.000	0.000	34.05	0.00	0.00
20	98.00	Andrew DB846H80E-SX	4	7.662	8.429	0.91	0.80	22.51	682.35	0.000	0.000	189.69	0.00	0.00
21	91.00	Low Profile Platform	1	7.544	8.298	1.00	1.00	30.79	2287.56	0.000	0.000	255.53	0.00	0.00
22	91.00	RRUS 32 B2	3	7.544	8.298	0.65	0.80	6.67	439.03	0.000	0.000	55.34	0.00	0.00
23	91.00	DC6-48-60-18-8F	2	7.544	8.298	1.00	1.00	2.67	158.54	0.000	0.000	22.18	0.00	0.00
24	91.00	RRUS-11	3	7.544	8.298	0.55	0.80	9.68	377.62	0.000	0.000	80.34	0.00	0.00
25	91.00	LGP21401	6	7.544	8.298	0.55	0.80	6.91	201.61	0.000	0.000	57.30	0.00	0.00
26	91.00	P65-16-XLH-RR	3	7.544	8.298	0.60	0.80	19.49	520.21	0.000	0.000	161.70	0.00	0.00
27	91.00	7770.00	3	7.544	8.298	0.60	0.80	11.72	507.48	0.000	0.000	97.24	0.00	0.00
28	91.00	QS66512-2	3	7.544	8.298	0.72	0.80	20.22	903.38	0.000	0.000	167.80	0.00	0.00
29	91.00	RRUS 32 B30	3	7.544	8.298	0.65	0.80	6.67	464.23	0.000	0.000	55.34	0.00	0.00
30	85.00	12.5' - 2" Horizontal Pipe	1	7.436	8.180	1.00	1.00	6.49	82.89	0.000	0.000	53.11	0.00	0.00
31	83.00	RFS - APXV18-209014	3	7.399	8.139	0.55	0.75	7.41	313.55	0.000	0.000	60.35	0.00	0.00
32	83.00	MS-KI22-5 (Kickers w/o	1	7.399	8.139	1.00	1.00	10.59	303.33	0.000	0.000	86.19	0.00	0.00
33	83.00	Commscope -	3	7.399	8.139	0.60	0.75	26.19	630.96	0.000	0.000	213.14	0.00	0.00
34	83.00	Platform w/ Handrail kit	1	7.399	8.139	1.00	1.00	65.28	3846.57	0.000	0.000	531.29	0.00	0.00
35	83.00	S20057A1 TMA	3	7.399	8.139	0.50	0.75	0.02	72.62	0.000	0.000	0.12	0.00	0.00
36	83.00	RFS - ATMAA1412D-1A2	3	7.399	8.139	0.50	0.75	2.88	99.16	0.000	0.000	23.40	0.00	0.00
37	83.00	Kathrein - 782 11054 -	3	7.399	8.139	0.50	0.75	0.61	20.65	0.000	0.000	4.99	0.00	0.00
38	83.00	VHLP3-11W	1	7.399	8.139	1.00	1.00	12.49	206.32	0.000	0.000	101.62	0.00	0.00
39	83.00	IP20C	1	7.399	8.139	0.50	0.75	0.88	30.82	0.000	0.000	7.17	0.00	0.00
40	75.00	GPS	1	7.243	7.967	1.00	1.00	1.66	31.36	0.000	0.000	13.26	0.00	0.00
41	75.00	Standoff Mount	1	7.243	7.967	1.00	1.00	8.20	99.90	0.000	0.000	65.32	0.00	0.00

Totals: 33,186.70

4,847.06

Total Applied Force Summary

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 29

Load Case: 1.2D + 1.0Di + 1.0Wi 50 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		52.24	638.19	0.00	0.00
4.00		51.89	642.04	0.00	0.00
6.00		51.48	642.08	0.00	0.00
8.00		51.03	640.46	0.00	0.00
10.00		50.56	637.89	0.00	0.00
12.00		50.08	634.69	0.00	0.00
14.00		49.60	631.05	0.00	0.00
16.00		49.71	627.07	0.00	0.00
18.00		50.45	622.83	0.00	0.00
20.00		51.05	618.38	0.00	0.00
22.00		51.54	613.75	0.00	0.00
24.00		51.93	608.97	0.00	0.00
26.00		52.25	604.07	0.00	0.00
28.00		52.49	599.06	0.00	0.00
30.00		52.67	593.95	0.00	0.00
32.00		52.79	588.76	0.00	0.00
34.00		52.86	583.49	0.00	0.00
36.00		52.89	578.15	0.00	0.00
38.00		52.87	572.74	0.00	0.00
40.00		52.81	567.29	0.00	0.00
42.00		52.71	561.78	0.00	0.00
44.00		52.58	556.22	0.00	0.00
45.13		29.58	311.93	0.00	0.00
46.00		23.12	356.44	0.00	0.00
48.00		53.15	812.35	0.00	0.00
49.88		49.76	755.06	0.00	0.00
50.00		3.16	29.67	0.00	0.00
52.00		52.71	491.22	0.00	0.00
54.00		52.45	486.23	0.00	0.00
56.00		52.17	481.20	0.00	0.00
58.00		51.86	476.15	0.00	0.00
60.00		51.54	471.06	0.00	0.00
62.00		51.19	465.95	0.00	0.00
64.00		50.83	460.82	0.00	0.00
66.00		50.45	455.66	0.00	0.00
68.00		50.05	450.48	0.00	0.00
70.00		49.63	445.27	0.00	0.00
72.00		49.20	440.05	0.00	0.00
74.00		48.76	434.80	0.00	0.00
75.00	(2) attachments	102.75	346.88	0.00	0.00
76.00		24.05	210.00	0.00	0.00
78.00		47.82	415.62	0.00	0.00
80.00		47.33	410.29	0.00	0.00
82.00		46.83	404.93	0.00	0.00
83.00	(19) attachments	1051.48	5724.64	0.00	0.00
84.00		23.06	189.62	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 30

85.00	(1) attachments	76.05	271.17	0.00	0.00
86.00		22.80	186.93	0.00	0.00
88.00		45.25	369.39	0.00	0.00
90.00		44.70	363.98	0.00	0.00
91.00	(27) attachments	974.88	6039.84	0.00	0.00
91.29		6.45	49.83	0.00	0.00
92.00		15.73	159.39	0.00	0.00
94.00		44.21	445.35	0.00	0.00
94.71		15.53	156.45	0.00	0.00
96.00		28.05	169.06	0.00	0.00
98.00	(24) attachments	1171.88	9301.43	0.00	0.00
100.00		42.44	219.34	0.00	0.00
102.00		41.83	215.35	0.00	0.00
104.00		41.21	211.36	0.00	0.00
106.00		40.59	207.35	0.00	0.00
107.00	(21) attachments	875.45	7691.97	0.00	123.99
108.00		19.87	99.01	0.00	0.00
110.00		39.31	194.55	0.00	0.00
112.00		38.65	190.52	0.00	0.00
114.00		37.99	186.47	0.00	0.00
116.00		37.32	182.41	0.00	0.00
118.00	(12) attachments	786.69	5134.78	0.00	1186.14
Totals:		7,698.33	60,935.11	0.00	1,310.13

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



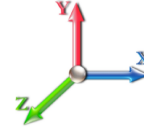
Page: 31

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	1/2"	Yes	2.00	0.000	0.65	0.49	0.00	0.015	0.000	5.168	0.00	4.74
4.00	1/2"	Yes	2.00	0.000	0.65	0.51	0.00	0.015	0.000	5.168	0.00	5.29
6.00	1/2"	Yes	2.00	0.000	0.65	0.53	0.00	0.015	0.000	5.168	0.00	5.64
8.00	1/2"	Yes	2.00	0.000	0.65	0.54	0.00	0.015	0.000	5.168	0.00	5.91
10.00	1/2"	Yes	2.00	0.000	0.65	0.55	0.00	0.016	0.000	5.168	0.00	6.13
12.00	1/2"	Yes	2.00	0.000	0.65	0.56	0.00	0.016	0.000	5.168	0.00	6.32
14.00	1/2"	Yes	2.00	0.000	0.65	0.57	0.00	0.016	0.000	5.168	0.00	6.48
16.00	1/2"	Yes	2.00	0.000	0.65	0.57	0.00	0.016	0.000	5.232	0.00	6.62
18.00	1/2"	Yes	2.00	0.000	0.65	0.58	0.00	0.016	0.000	5.363	0.00	6.75
20.00	1/2"	Yes	2.00	0.000	0.65	0.58	0.00	0.016	0.000	5.483	0.00	6.87
22.00	1/2"	Yes	2.00	0.000	0.65	0.59	0.00	0.017	0.000	5.595	0.00	6.98
24.00	1/2"	Yes	2.00	0.000	0.65	0.59	0.00	0.017	0.000	5.698	0.00	7.08
26.00	1/2"	Yes	2.00	0.000	0.65	0.60	0.00	0.017	0.000	5.795	0.00	7.18
28.00	1/2"	Yes	2.00	0.000	0.65	0.60	0.00	0.017	0.000	5.886	0.00	7.27
30.00	1/2"	Yes	2.00	0.000	0.65	0.60	0.00	0.018	0.000	5.972	0.00	7.35
32.00	1/2"	Yes	2.00	0.000	0.65	0.61	0.00	0.018	0.000	6.054	0.00	7.43
34.00	1/2"	Yes	2.00	0.000	0.65	0.61	0.00	0.018	0.000	6.132	0.00	7.51
36.00	1/2"	Yes	2.00	0.000	0.65	0.61	0.00	0.018	0.000	6.206	0.00	7.58
38.00	1/2"	Yes	2.00	0.000	0.65	0.62	0.00	0.018	0.000	6.277	0.00	7.65
40.00	1/2"	Yes	2.00	0.000	0.65	0.62	0.00	0.019	0.000	6.345	0.00	7.71
42.00	1/2"	Yes	2.00	0.000	0.65	0.62	0.00	0.019	0.000	6.410	0.00	7.78
44.00	1/2"	Yes	2.00	0.000	0.65	0.62	0.00	0.019	0.000	6.474	0.00	7.84
45.13	1/2"	Yes	1.13	0.000	0.65	0.35	0.00	0.019	0.000	6.508	0.00	4.45
46.00	1/2"	Yes	0.87	0.000	0.65	0.27	0.00	0.020	0.000	6.534	0.00	3.44
48.00	1/2"	Yes	2.00	0.000	0.65	0.63	0.00	0.020	0.000	6.593	0.00	7.95
49.88	1/2"	Yes	1.88	0.000	0.65	0.59	0.00	0.020	0.000	6.647	0.00	7.53
50.00	1/2"	Yes	0.12	0.000	0.65	0.04	0.00	0.020	0.000	6.650	0.00	0.48
52.00	1/2"	Yes	2.00	0.000	0.65	0.63	0.00	0.020	0.000	6.705	0.00	8.06
54.00	1/2"	Yes	2.00	0.000	0.65	0.63	0.00	0.020	0.000	6.759	0.00	8.11
56.00	1/2"	Yes	2.00	0.000	0.65	0.64	0.00	0.021	0.000	6.811	0.00	8.16
58.00	1/2"	Yes	2.00	0.000	0.65	0.64	0.00	0.021	0.000	6.861	0.00	8.21
60.00	1/2"	Yes	2.00	0.000	0.65	0.64	0.00	0.021	0.000	6.910	0.00	8.26
62.00	1/2"	Yes	2.00	0.000	0.65	0.64	0.00	0.021	0.000	6.958	0.00	8.31
64.00	1/2"	Yes	2.00	0.000	0.65	0.64	0.00	0.022	0.000	7.005	0.00	8.35
66.00	1/2"	Yes	2.00	0.000	0.65	0.64	0.00	0.022	0.000	7.050	0.00	8.40
68.00	1/2"	Yes	2.00	0.000	0.65	0.65	0.00	0.023	0.000	7.095	0.00	8.44
70.00	1/2"	Yes	2.00	0.000	0.65	0.65	0.00	0.023	0.000	7.138	0.00	8.48
72.00	1/2"	Yes	2.00	0.000	0.65	0.65	0.00	0.023	0.000	7.181	0.00	8.52
74.00	1/2"	Yes	2.00	0.000	0.65	0.65	0.00	0.024	0.000	7.222	0.00	8.56
75.00	1/2"	Yes	1.00	0.000	0.65	0.33	0.00	0.024	0.000	7.243	0.00	4.29
Totals:											0.0	278.1

Calculated Forces

Structure: CT46132-A-SBA
Site Name: Newtown-ferris Rd
Height: 118.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Struct Class: II

6/8/2020
 Page: 32



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	-60.93	-7.72	0.00	-706.53	0.00	706.53	3634.70	1817.35	6397.77	3203.64	0.00	0.000	0.000	0.237
2.00	-60.29	-7.70	0.00	-691.10	0.00	691.10	3607.15	1803.57	6280.28	3144.81	0.01	-0.034	0.000	0.236
4.00	-59.64	-7.68	0.00	-675.70	0.00	675.70	3579.34	1789.67	6163.42	3086.29	0.03	-0.067	0.000	0.236
6.00	-59.00	-7.67	0.00	-660.34	0.00	660.34	3551.29	1775.64	6047.19	3028.09	0.06	-0.102	0.000	0.235
8.00	-58.35	-7.65	0.00	-645.01	0.00	645.01	3522.98	1761.49	5931.61	2970.21	0.11	-0.136	0.000	0.234
10.00	-57.71	-7.63	0.00	-629.72	0.00	629.72	3494.42	1747.21	5816.69	2912.67	0.18	-0.171	0.000	0.233
12.00	-57.07	-7.61	0.00	-614.45	0.00	614.45	3465.61	1732.80	5702.44	2855.46	0.26	-0.206	0.000	0.232
14.00	-56.43	-7.60	0.00	-599.23	0.00	599.23	3436.54	1718.27	5588.89	2798.60	0.35	-0.242	0.000	0.231
16.00	-55.80	-7.58	0.00	-584.03	0.00	584.03	3407.22	1703.61	5476.05	2742.09	0.46	-0.278	0.000	0.229
18.00	-55.18	-7.56	0.00	-568.87	0.00	568.87	3377.65	1688.83	5363.92	2685.95	0.59	-0.314	0.000	0.228
20.00	-54.55	-7.54	0.00	-553.75	0.00	553.75	3347.83	1673.91	5252.53	2630.17	0.73	-0.351	0.000	0.227
22.00	-53.93	-7.52	0.00	-538.67	0.00	538.67	3317.75	1658.87	5141.89	2574.76	0.88	-0.388	0.000	0.225
24.00	-53.32	-7.50	0.00	-523.63	0.00	523.63	3287.42	1643.71	5032.01	2519.74	1.05	-0.425	0.000	0.224
26.00	-52.71	-7.48	0.00	-508.63	0.00	508.63	3256.84	1628.42	4922.91	2465.11	1.24	-0.463	0.000	0.223
28.00	-52.11	-7.45	0.00	-493.67	0.00	493.67	3219.51	1609.75	4804.91	2406.03	1.44	-0.500	0.000	0.221
30.00	-51.51	-7.43	0.00	-478.76	0.00	478.76	3178.67	1589.33	4683.16	2345.06	1.66	-0.538	0.000	0.220
32.00	-50.92	-7.41	0.00	-463.90	0.00	463.90	3137.83	1568.91	4562.98	2284.88	1.89	-0.577	0.000	0.219
34.00	-50.33	-7.38	0.00	-449.09	0.00	449.09	3096.99	1548.49	4444.36	2225.48	2.14	-0.616	0.000	0.218
36.00	-49.75	-7.36	0.00	-434.33	0.00	434.33	3056.15	1528.07	4327.30	2166.87	2.41	-0.654	0.000	0.217
38.00	-49.17	-7.33	0.00	-419.62	0.00	419.62	3015.30	1507.65	4211.81	2109.03	2.69	-0.694	0.000	0.215
40.00	-48.60	-7.30	0.00	-404.96	0.00	404.96	2974.46	1487.23	4097.87	2051.98	2.99	-0.733	0.000	0.214
42.00	-48.03	-7.28	0.00	-390.35	0.00	390.35	2933.62	1466.81	3985.50	1995.71	3.31	-0.772	0.000	0.212
44.00	-47.47	-7.24	0.00	-375.79	0.00	375.79	2892.78	1446.39	3874.69	1940.23	3.64	-0.812	0.000	0.210
45.13	-47.16	-7.23	0.00	-367.61	0.00	367.61	2869.71	1434.85	3812.78	1909.22	3.83	-0.835	0.000	0.209
46.00	-46.80	-7.22	0.00	-361.33	0.00	361.33	2851.94	1425.97	3765.45	1885.52	3.99	-0.852	0.000	0.208
48.00	-45.98	-7.19	0.00	-346.89	0.00	346.89	2811.10	1405.55	3657.76	1831.60	4.35	-0.892	0.000	0.206
49.88	-45.23	-7.14	0.00	-333.38	0.00	333.38	2333.69	1166.84	3066.96	1535.76	4.71	-0.930	0.000	0.236
50.00	-45.19	-7.16	0.00	-332.52	0.00	332.52	2332.20	1166.10	3062.32	1533.44	4.73	-0.932	0.000	0.236
52.00	-44.70	-7.13	0.00	-318.21	0.00	318.21	2307.18	1153.59	2985.35	1494.89	5.13	-0.977	0.000	0.232
54.00	-44.21	-7.10	0.00	-303.95	0.00	303.95	2281.92	1140.96	2909.02	1456.67	5.55	-1.022	0.000	0.228
56.00	-43.72	-7.08	0.00	-289.75	0.00	289.75	2256.40	1128.20	2833.34	1418.77	5.99	-1.067	0.000	0.224
58.00	-43.24	-7.05	0.00	-275.59	0.00	275.59	2223.07	1111.54	2748.96	1376.53	6.45	-1.112	0.000	0.220
60.00	-42.77	-7.02	0.00	-261.50	0.00	261.50	2189.04	1094.52	2665.01	1334.49	6.92	-1.156	0.000	0.216
62.00	-42.30	-6.99	0.00	-247.45	0.00	247.45	2155.00	1077.50	2582.36	1293.10	7.42	-1.200	0.000	0.211
64.00	-41.83	-6.96	0.00	-233.47	0.00	233.47	2120.97	1060.48	2501.02	1252.37	7.93	-1.244	0.000	0.206
66.00	-41.37	-6.93	0.00	-219.54	0.00	219.54	2086.94	1043.47	2420.97	1212.28	8.46	-1.287	0.000	0.201
68.00	-40.92	-6.90	0.00	-205.67	0.00	205.67	2052.90	1026.45	2342.23	1172.85	9.01	-1.330	0.000	0.195
70.00	-40.47	-6.87	0.00	-191.87	0.00	191.87	2018.87	1009.43	2264.79	1134.08	9.58	-1.371	0.000	0.189
72.00	-40.02	-6.84	0.00	-178.12	0.00	178.12	1984.83	992.42	2188.65	1095.95	10.16	-1.412	0.000	0.183
74.00	-39.59	-6.80	0.00	-164.44	0.00	164.44	1950.80	975.40	2113.81	1058.48	10.76	-1.452	0.000	0.176
75.00	-39.24	-6.70	0.00	-157.64	0.00	157.64	1933.78	966.89	2076.88	1039.98	11.07	-1.472	0.000	0.172
76.00	-39.03	-6.69	0.00	-150.93	0.00	150.93	1916.76	958.38	2040.27	1021.65	11.38	-1.491	0.000	0.168
78.00	-38.61	-6.66	0.00	-137.54	0.00	137.54	1882.73	941.37	1968.04	985.48	12.01	-1.528	0.000	0.160
80.00	-38.20	-6.62	0.00	-124.22	0.00	124.22	1848.70	924.35	1897.11	949.96	12.66	-1.564	0.000	0.151
82.00	-37.79	-6.58	0.00	-110.98	0.00	110.98	1814.66	907.33	1827.48	915.10	13.32	-1.598	0.000	0.142
83.00	-32.10	-5.38	0.00	-104.39	0.00	104.39	1797.65	898.82	1793.15	897.91	13.66	-1.614	0.000	0.134
84.00	-31.91	-5.36	0.00	-99.01	0.00	99.01	1780.63	890.31	1759.15	880.88	14.00	-1.630	0.000	0.130
85.00	-31.64	-5.29	0.00	-93.65	0.00	93.65	1763.61	881.81	1725.48	864.02	14.34	-1.646	0.000	0.126

Calculated Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 33

86.00	-31.45	-5.27	0.00	-88.37	0.00	88.37	1746.59	873.30	1692.13	847.32	14.69	-1.661	0.000	0.122
88.00	-31.08	-5.23	0.00	-77.83	0.00	77.83	1712.56	856.28	1626.40	814.41	15.39	-1.689	0.000	0.114
90.00	-30.71	-5.18	0.00	-67.37	0.00	67.37	1678.53	839.26	1561.98	782.15	16.10	-1.715	0.000	0.104
91.00	-24.70	-4.03	0.00	-62.19	0.00	62.19	1661.51	830.75	1530.26	766.27	16.46	-1.728	0.000	0.096
91.29	-24.65	-4.03	0.00	-61.01	0.00	61.01	1656.52	828.26	1521.01	761.64	16.57	-1.731	0.000	0.095
92.00	-24.49	-4.01	0.00	-58.16	0.00	58.16	1644.49	822.25	1498.86	750.54	16.83	-1.740	0.000	0.092
94.00	-24.05	-3.96	0.00	-50.14	0.00	50.14	1610.46	805.23	1437.04	719.59	17.56	-1.762	0.000	0.085
94.71	-23.89	-3.94	0.00	-47.33	0.00	47.33	930.70	465.35	848.15	424.70	17.82	-1.769	0.000	0.137
96.00	-23.72	-3.92	0.00	-42.24	0.00	42.24	922.07	461.04	828.91	415.07	18.30	-1.782	0.000	0.128
98.00	-14.46	-2.46	0.00	-34.40	0.00	34.40	908.49	454.24	799.32	400.25	19.05	-1.810	0.000	0.102
100.00	-14.24	-2.42	0.00	-29.48	0.00	29.48	894.64	447.32	770.03	385.59	19.82	-1.834	0.000	0.092
102.00	-14.03	-2.38	0.00	-24.64	0.00	24.64	880.55	440.27	741.05	371.08	20.59	-1.857	0.000	0.082
104.00	-13.82	-2.33	0.00	-19.89	0.00	19.89	866.20	433.10	712.41	356.74	21.37	-1.876	0.000	0.072
106.00	-13.61	-2.29	0.00	-15.23	0.00	15.23	851.60	425.80	684.12	342.57	22.16	-1.893	0.000	0.060
107.00	-5.95	-1.16	0.00	-12.82	0.00	12.82	844.21	422.10	670.11	335.55	22.56	-1.900	0.000	0.045
108.00	-5.85	-1.14	0.00	-11.66	0.00	11.66	836.75	418.38	656.18	328.58	22.96	-1.906	0.000	0.042
110.00	-5.66	-1.09	0.00	-9.39	0.00	9.39	821.65	410.82	628.62	314.78	23.76	-1.918	0.000	0.037
112.00	-5.47	-1.05	0.00	-7.21	0.00	7.21	804.60	402.30	600.19	300.54	24.57	-1.927	0.000	0.031
114.00	-5.29	-1.00	0.00	-5.11	0.00	5.11	784.18	392.09	569.96	285.40	25.37	-1.935	0.000	0.025
116.00	-5.11	-0.96	0.00	-3.11	0.00	3.11	763.76	381.88	540.51	270.66	26.19	-1.941	0.000	0.018
118.00	0.00	-0.79	0.00	-1.19	0.00	1.19	743.33	371.67	511.84	256.30	27.00	-1.944	0.000	0.005

Seismic Segment Forces (Factored)

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 34

Load Case: 1.2D + 1.0E				Iterations 24
Gust Response Factor	1.10	Sds	0.40	Ss 0.41
Dead Load Factor	1.20	Seismic Load Factor	1.00	S1 0.10
Wind Load Factor	0.00	Structure Frequency (f1)	0.33	SA 0.05
				Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
2.00		345.42	0.00	0.02	0.01	10.29	
4.00		341.68	0.00	0.03	0.02	15.97	
6.00		337.94	0.00	0.04	0.02	19.45	
8.00		334.19	0.01	0.05	0.03	21.65	
10.00		330.45	0.01	0.06	0.03	23.03	
12.00		326.71	0.02	0.06	0.04	23.88	
14.00		322.97	0.03	0.07	0.04	24.38	
16.00		319.23	0.03	0.07	0.04	24.65	
18.00		315.49	0.04	0.07	0.04	24.78	
20.00		311.75	0.05	0.07	0.04	24.83	
22.00		308.01	0.07	0.07	0.04	24.84	
24.00		304.27	0.08	0.07	0.04	24.84	
26.00		300.52	0.09	0.07	0.04	24.85	
28.00		296.78	0.11	0.07	0.04	24.85	
30.00		293.04	0.12	0.07	0.03	24.86	
32.00		289.30	0.14	0.07	0.03	24.85	
34.00		285.56	0.16	0.07	0.03	24.81	
36.00		281.82	0.18	0.07	0.03	24.69	
38.00		278.08	0.20	0.06	0.02	24.46	
40.00		274.34	0.22	0.06	0.02	24.07	
42.00		270.60	0.24	0.06	0.02	23.45	
44.00		266.85	0.26	0.05	0.02	22.55	
45.13	Bot - Section 2	149.12	0.28	0.05	0.01	12.33	
46.00		211.01	0.29	0.05	0.01	17.07	
48.00		480.16	0.31	0.04	0.01	36.27	
49.88	Top - Section 1	445.09	0.34	0.04	0.01	30.49	
50.00		12.97	0.34	0.04	0.01	0.88	
52.00		214.55	0.37	0.03	0.01	12.44	
54.00		211.43	0.40	0.02	0.01	9.60	
56.00		208.31	0.43	0.01	0.01	6.30	
58.00		205.20	0.46	0.00	0.01	2.65	
60.00		202.08	0.49	-0.01	0.01	-1.17	
62.00		198.96	0.52	-0.02	0.01	-4.94	
64.00		195.84	0.56	-0.04	0.01	-8.44	
66.00		192.73	0.59	-0.05	0.01	-11.48	
68.00		189.61	0.63	-0.06	0.02	-13.93	
70.00		186.49	0.67	-0.08	0.02	-15.75	
72.00		183.37	0.70	-0.09	0.03	-16.91	
74.00		180.26	0.74	-0.10	0.04	-17.45	
75.00	Appurtenance(s)	138.96	0.76	-0.10	0.04	-13.61	
76.00		88.18	0.78	-0.11	0.05	-8.67	
78.00		174.02	0.83	-0.12	0.06	-16.84	
80.00		170.90	0.87	-0.12	0.08	-15.79	
82.00		167.79	0.91	-0.12	0.09	-14.30	
83.00	Appurtenance(s)	2444.3	0.94	-0.12	0.10	-197.12	

Seismic Segment Forces (Factored)

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 35

84.00		81.94	0.96	-0.12	0.11	-6.18
85.00	Appurtenance(s)	126.91	0.98	-0.11	0.12	-8.82
86.00		80.39	1.00	-0.11	0.13	-5.06
88.00		158.43	1.05	-0.09	0.16	-7.57
90.00		155.31	1.10	-0.07	0.19	-4.68
91.00	Appurtenance(s)	2572.6	1.12	-0.06	0.20	-52.24
91.29	Bot - Section 3	22.29	1.13	-0.05	0.21	-0.39
92.00		86.19	1.15	-0.04	0.22	-0.85
94.00		240.55	1.20	0.00	0.25	3.14
94.71	Top - Section 2	84.20	1.22	0.02	0.27	1.84
96.00		57.58	1.25	0.06	0.29	2.22
98.00	Appurtenance(s)	3088.1	1.30	0.13	0.34	206.06
100.00		85.86	1.36	0.21	0.39	8.38
102.00		83.99	1.41	0.31	0.44	11.01
104.00		82.12	1.47	0.43	0.51	13.75
106.00		80.25	1.53	0.56	0.57	16.58
107.00	Appurtenance(s)	3314.4	1.55	0.64	0.61	752.89
108.00		38.96	1.58	0.73	0.65	9.68
110.00		76.51	1.64	0.92	0.73	22.44
112.00		74.64	1.70	1.13	0.82	25.45
114.00		72.77	1.76	1.38	0.92	28.50
116.00		70.90	1.83	1.66	1.02	31.57
118.00	Appurtenance(s)	2017.0	1.89	1.98	1.14	1012.43
Totals:		26,338.4				2,337.9

Total Wind: 27,301.6

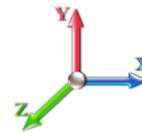
Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0E			Iterations 24
Gust Response Factor 1.10		Sds 0.40	Ss 0.41
Dead Load Factor 1.20	Seismic Load Factor 1.00	Sd1 0.16	S1 0.10
Wind Load Factor 0.00	Structure Frequency (f1) 0.33	SA 0.05	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	-36.20	-2.78	0.00	-272.96	0.00	272.96	3634.70	1817.35	6397.77	3203.64	0.00	0.00	0.00	0.095
2.00	-35.69	-2.78	0.00	-267.40	0.00	267.40	3607.15	1803.57	6280.28	3144.81	0.00	-0.01	0.00	0.095
4.00	-35.19	-2.77	0.00	-261.84	0.00	261.84	3579.34	1789.67	6163.42	3086.29	0.01	-0.03	0.00	0.095
6.00	-34.69	-2.76	0.00	-256.30	0.00	256.30	3551.29	1775.64	6047.19	3028.09	0.02	-0.04	0.00	0.094
8.00	-34.19	-2.75	0.00	-250.78	0.00	250.78	3522.98	1761.49	5931.61	2970.21	0.04	-0.05	0.00	0.094
10.00	-33.70	-2.73	0.00	-245.28	0.00	245.28	3494.42	1747.21	5816.69	2912.67	0.07	-0.07	0.00	0.094
12.00	-33.21	-2.71	0.00	-239.82	0.00	239.82	3465.61	1732.80	5702.44	2855.46	0.10	-0.08	0.00	0.094
14.00	-32.73	-2.70	0.00	-234.39	0.00	234.39	3436.54	1718.27	5588.89	2798.60	0.14	-0.09	0.00	0.093
16.00	-32.25	-2.68	0.00	-229.00	0.00	229.00	3407.22	1703.61	5476.05	2742.09	0.18	-0.11	0.00	0.093
18.00	-31.78	-2.66	0.00	-223.64	0.00	223.64	3377.65	1688.83	5363.92	2685.95	0.23	-0.12	0.00	0.093
20.00	-31.31	-2.64	0.00	-218.32	0.00	218.32	3347.83	1673.91	5252.53	2630.17	0.28	-0.14	0.00	0.092
22.00	-30.84	-2.63	0.00	-213.03	0.00	213.03	3317.75	1658.87	5141.89	2574.76	0.34	-0.15	0.00	0.092
24.00	-30.38	-2.61	0.00	-207.78	0.00	207.78	3287.42	1643.71	5032.01	2519.74	0.41	-0.17	0.00	0.092
26.00	-29.93	-2.59	0.00	-202.57	0.00	202.57	3256.84	1628.42	4922.91	2465.11	0.48	-0.18	0.00	0.091
28.00	-29.48	-2.57	0.00	-197.39	0.00	197.39	3229.51	1609.75	4804.91	2406.03	0.56	-0.20	0.00	0.091
30.00	-29.03	-2.55	0.00	-192.25	0.00	192.25	3178.67	1589.33	4683.16	2345.06	0.65	-0.21	0.00	0.091
32.00	-28.59	-2.53	0.00	-187.14	0.00	187.14	3137.83	1568.91	4562.98	2284.88	0.74	-0.23	0.00	0.091
34.00	-28.15	-2.51	0.00	-182.08	0.00	182.08	3096.99	1548.49	4444.36	2225.48	0.84	-0.24	0.00	0.091
36.00	-27.72	-2.50	0.00	-177.05	0.00	177.05	3056.15	1528.07	4327.30	2166.87	0.94	-0.26	0.00	0.091
38.00	-27.29	-2.48	0.00	-172.06	0.00	172.06	3015.30	1507.65	4211.81	2109.03	1.05	-0.27	0.00	0.091
40.00	-26.86	-2.46	0.00	-167.11	0.00	167.11	2974.46	1487.23	4097.87	2051.98	1.17	-0.29	0.00	0.090
42.00	-26.44	-2.44	0.00	-162.19	0.00	162.19	2933.62	1466.81	3985.50	1995.71	1.30	-0.31	0.00	0.090
44.00	-26.03	-2.42	0.00	-157.31	0.00	157.31	2892.78	1446.39	3874.69	1940.23	1.43	-0.32	0.00	0.090
45.13	-25.79	-2.41	0.00	-154.57	0.00	154.57	2869.71	1434.85	3812.78	1909.22	1.51	-0.33	0.00	0.090
46.00	-25.50	-2.40	0.00	-152.48	0.00	152.48	2851.94	1425.97	3765.45	1885.52	1.57	-0.34	0.00	0.090
48.00	-24.83	-2.36	0.00	-147.68	0.00	147.68	2811.10	1405.55	3657.76	1831.60	1.71	-0.36	0.00	0.089
49.88	-24.21	-2.33	0.00	-143.24	0.00	143.24	2333.69	1166.84	3066.96	1535.76	1.86	-0.37	0.00	0.104
50.00	-24.18	-2.34	0.00	-142.96	0.00	142.96	2332.20	1166.10	3062.32	1533.44	1.87	-0.37	0.00	0.104
52.00	-23.83	-2.33	0.00	-138.28	0.00	138.28	2307.18	1153.59	2985.35	1494.89	2.03	-0.39	0.00	0.103
54.00	-23.48	-2.33	0.00	-133.62	0.00	133.62	2281.92	1140.96	2909.02	1456.67	2.20	-0.41	0.00	0.102
56.00	-23.14	-2.33	0.00	-128.97	0.00	128.97	2256.40	1128.20	2833.34	1418.77	2.38	-0.43	0.00	0.101
58.00	-22.79	-2.33	0.00	-124.32	0.00	124.32	2223.07	1111.54	2748.96	1376.53	2.56	-0.45	0.00	0.101
60.00	-22.46	-2.33	0.00	-119.66	0.00	119.66	2189.04	1094.52	2665.01	1334.49	2.76	-0.47	0.00	0.100
62.00	-22.12	-2.34	0.00	-114.99	0.00	114.99	2155.00	1077.50	2582.36	1293.10	2.96	-0.49	0.00	0.099
64.00	-21.79	-2.34	0.00	-110.31	0.00	110.31	2120.97	1060.48	2501.02	1252.37	3.17	-0.51	0.00	0.098
66.00	-21.47	-2.35	0.00	-105.63	0.00	105.63	2086.94	1043.47	2420.97	1212.28	3.39	-0.53	0.00	0.097
68.00	-21.14	-2.35	0.00	-100.93	0.00	100.93	2052.90	1026.45	2342.23	1172.85	3.62	-0.56	0.00	0.096
70.00	-20.82	-2.36	0.00	-96.22	0.00	96.22	2018.87	1009.43	2264.79	1134.08	3.86	-0.58	0.00	0.095
72.00	-20.51	-2.36	0.00	-91.51	0.00	91.51	1984.83	992.42	2188.65	1095.95	4.10	-0.60	0.00	0.094
74.00	-20.20	-2.36	0.00	-86.78	0.00	86.78	1950.80	975.40	2113.81	1058.48	4.36	-0.62	0.00	0.092
75.00	-19.98	-2.37	0.00	-84.42	0.00	84.42	1933.78	966.89	2076.88	1039.98	4.49	-0.63	0.00	0.092
76.00	-19.83	-2.37	0.00	-82.06	0.00	82.06	1916.76	958.38	2040.27	1021.65	4.62	-0.64	0.00	0.091
78.00	-19.52	-2.37	0.00	-77.32	0.00	77.32	1882.73	941.37	1968.04	985.48	4.89	-0.66	0.00	0.089
80.00	-19.22	-2.38	0.00	-72.57	0.00	72.57	1848.70	924.35	1897.11	949.96	5.17	-0.68	0.00	0.087
82.00	-18.93	-2.38	0.00	-67.82	0.00	67.82	1814.66	907.33	1827.48	915.10	5.46	-0.70	0.00	0.085
83.00	-18.95	-2.34	0.00	-65.44	0.00	65.44	1797.65	898.82	1793.15	897.91	5.61	-0.71	0.00	0.082
84.00	-18.81	-2.34	0.00	-63.10	0.00	63.10	1780.63	890.31	1759.15	880.88	5.76	-0.72	0.00	0.081

Calculated Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 37

85.00	-15.62	-2.35	0.00	-60.75	0.00	60.75	1763.61	881.81	1725.48	864.02	5.91	-0.73	0.079
86.00	-15.49	-2.35	0.00	-58.41	0.00	58.41	1746.59	873.30	1692.13	847.32	6.06	-0.74	0.078
88.00	-15.22	-2.35	0.00	-53.71	0.00	53.71	1712.56	856.28	1626.40	814.41	6.38	-0.76	0.075
90.00	-14.96	-2.35	0.00	-49.02	0.00	49.02	1678.53	839.26	1561.98	782.15	6.70	-0.78	0.072
91.00	-11.83	-2.31	0.00	-46.67	0.00	46.67	1661.51	830.75	1530.26	766.27	6.86	-0.79	0.068
91.29	-11.80	-2.31	0.00	-45.99	0.00	45.99	1656.52	828.26	1521.01	761.64	6.91	-0.79	0.068
92.00	-11.68	-2.31	0.00	-44.36	0.00	44.36	1644.49	822.25	1498.86	750.54	7.03	-0.80	0.066
94.00	-11.33	-2.30	0.00	-39.74	0.00	39.74	1610.46	805.23	1437.04	719.59	7.37	-0.81	0.062
94.71	-11.21	-2.30	0.00	-38.11	0.00	38.11	930.70	465.35	848.15	424.70	7.49	-0.82	0.102
96.00	-11.10	-2.30	0.00	-35.14	0.00	35.14	922.07	461.04	828.91	415.07	7.71	-0.83	0.097
98.00	-7.35	-2.04	0.00	-30.53	0.00	30.53	908.49	454.24	799.32	400.25	8.06	-0.85	0.084
100.00	-7.22	-2.04	0.00	-26.45	0.00	26.45	894.64	447.32	770.03	385.59	8.43	-0.87	0.077
102.00	-7.10	-2.02	0.00	-22.38	0.00	22.38	880.55	440.27	741.05	371.08	8.80	-0.90	0.068
104.00	-6.98	-2.01	0.00	-18.33	0.00	18.33	866.20	433.10	712.41	356.74	9.18	-0.91	0.059
106.00	-6.86	-1.99	0.00	-14.31	0.00	14.31	851.60	425.80	684.12	342.57	9.56	-0.93	0.050
107.00	-2.89	-1.18	0.00	-12.31	0.00	12.31	844.21	422.10	670.11	335.55	9.76	-0.93	0.040
108.00	-2.83	-1.17	0.00	-11.13	0.00	11.13	836.75	418.38	656.18	328.58	9.95	-0.94	0.037
110.00	-2.73	-1.14	0.00	-8.80	0.00	8.80	821.65	410.82	628.62	314.78	10.35	-0.95	0.031
112.00	-2.62	-1.12	0.00	-6.51	0.00	6.51	804.60	402.30	600.19	300.54	10.75	-0.96	0.025
114.00	-2.52	-1.09	0.00	-4.28	0.00	4.28	784.18	392.09	569.96	285.40	11.16	-0.97	0.018
116.00	-2.42	-1.05	0.00	-2.11	0.00	2.11	763.76	381.88	540.51	270.66	11.56	-0.97	0.011
118.00	0.00	-1.01	0.00	0.00	0.00	0.00	743.33	371.67	511.84	256.30	11.97	-0.97	0.000

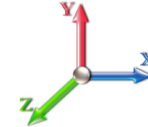
Seismic Segment Forces (Factored)

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 38

Load Case: 0.9D + 1.0E				Iterations 24
Gust Response Factor	1.10	Sds	0.40	Ss 0.41
Dead Load Factor	0.90	Seismic Load Factor	1.00	S1 0.10
Wind Load Factor	0.00	Structure Frequency (f1)	0.33	SA 0.05
				Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
2.00		345.42	0.00	0.02	0.01	10.29	
4.00		341.68	0.00	0.03	0.02	15.97	
6.00		337.94	0.00	0.04	0.02	19.45	
8.00		334.19	0.01	0.05	0.03	21.65	
10.00		330.45	0.01	0.06	0.03	23.03	
12.00		326.71	0.02	0.06	0.04	23.88	
14.00		322.97	0.03	0.07	0.04	24.38	
16.00		319.23	0.03	0.07	0.04	24.65	
18.00		315.49	0.04	0.07	0.04	24.78	
20.00		311.75	0.05	0.07	0.04	24.83	
22.00		308.01	0.07	0.07	0.04	24.84	
24.00		304.27	0.08	0.07	0.04	24.84	
26.00		300.52	0.09	0.07	0.04	24.85	
28.00		296.78	0.11	0.07	0.04	24.85	
30.00		293.04	0.12	0.07	0.03	24.86	
32.00		289.30	0.14	0.07	0.03	24.85	
34.00		285.56	0.16	0.07	0.03	24.81	
36.00		281.82	0.18	0.07	0.03	24.69	
38.00		278.08	0.20	0.06	0.02	24.46	
40.00		274.34	0.22	0.06	0.02	24.07	
42.00		270.60	0.24	0.06	0.02	23.45	
44.00		266.85	0.26	0.05	0.02	22.55	
45.13	Bot - Section 2	149.12	0.28	0.05	0.01	12.33	
46.00		211.01	0.29	0.05	0.01	17.07	
48.00		480.16	0.31	0.04	0.01	36.27	
49.88	Top - Section 1	445.09	0.34	0.04	0.01	30.49	
50.00		12.97	0.34	0.04	0.01	0.88	
52.00		214.55	0.37	0.03	0.01	12.44	
54.00		211.43	0.40	0.02	0.01	9.60	
56.00		208.31	0.43	0.01	0.01	6.30	
58.00		205.20	0.46	0.00	0.01	2.65	
60.00		202.08	0.49	-0.01	0.01	-1.17	
62.00		198.96	0.52	-0.02	0.01	-4.94	
64.00		195.84	0.56	-0.04	0.01	-8.44	
66.00		192.73	0.59	-0.05	0.01	-11.48	
68.00		189.61	0.63	-0.06	0.02	-13.93	
70.00		186.49	0.67	-0.08	0.02	-15.75	
72.00		183.37	0.70	-0.09	0.03	-16.91	
74.00		180.26	0.74	-0.10	0.04	-17.45	
75.00	Appurtenance(s)	138.96	0.76	-0.10	0.04	-13.61	
76.00		88.18	0.78	-0.11	0.05	-8.67	
78.00		174.02	0.83	-0.12	0.06	-16.84	
80.00		170.90	0.87	-0.12	0.08	-15.79	
82.00		167.79	0.91	-0.12	0.09	-14.30	
83.00	Appurtenance(s)	2444.3	0.94	-0.12	0.10	-197.12	

Seismic Segment Forces (Factored)

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 39

84.00		81.94	0.96	-0.12	0.11	-6.18
85.00	Appurtenance(s)	126.91	0.98	-0.11	0.12	-8.82
86.00		80.39	1.00	-0.11	0.13	-5.06
88.00		158.43	1.05	-0.09	0.16	-7.57
90.00		155.31	1.10	-0.07	0.19	-4.68
91.00	Appurtenance(s)	2572.6	1.12	-0.06	0.20	-52.24
91.29	Bot - Section 3	22.29	1.13	-0.05	0.21	-0.39
92.00		86.19	1.15	-0.04	0.22	-0.85
94.00		240.55	1.20	0.00	0.25	3.14
94.71	Top - Section 2	84.20	1.22	0.02	0.27	1.84
96.00		57.58	1.25	0.06	0.29	2.22
98.00	Appurtenance(s)	3088.1	1.30	0.13	0.34	206.06
100.00		85.86	1.36	0.21	0.39	8.38
102.00		83.99	1.41	0.31	0.44	11.01
104.00		82.12	1.47	0.43	0.51	13.75
106.00		80.25	1.53	0.56	0.57	16.58
107.00	Appurtenance(s)	3314.4	1.55	0.64	0.61	752.89
108.00		38.96	1.58	0.73	0.65	9.68
110.00		76.51	1.64	0.92	0.73	22.44
112.00		74.64	1.70	1.13	0.82	25.45
114.00		72.77	1.76	1.38	0.92	28.50
116.00		70.90	1.83	1.66	1.02	31.57
118.00	Appurtenance(s)	2017.0	1.89	1.98	1.14	1012.43
Totals:		26,338.4				2,337.9

Total Wind: 27,301.6

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0E							Iterations 24
Gust Response Factor	1.10			Sds	0.40		Ss 0.41
Dead Load Factor	0.90	Seismic Load Factor	1.00	Sd1	0.16		S1 0.10
Wind Load Factor	0.00	Structure Frequency (f1)	0.33	SA	0.05	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	-27.15	-2.78	0.00	-268.94	0.00	268.94	3634.70	1817.35	6397.77	3203.64	0.00	0.00	0.00	0.091
2.00	-26.77	-2.78	0.00	-263.38	0.00	263.38	3607.15	1803.57	6280.28	3144.81	0.00	-0.01	0.091	0.091
4.00	-26.39	-2.77	0.00	-257.83	0.00	257.83	3579.34	1789.67	6163.42	3086.29	0.01	-0.03	0.091	0.091
6.00	-26.02	-2.75	0.00	-252.29	0.00	252.29	3551.29	1775.64	6047.19	3028.09	0.02	-0.04	0.091	0.091
8.00	-25.64	-2.74	0.00	-246.79	0.00	246.79	3522.98	1761.49	5931.61	2970.21	0.04	-0.05	0.090	0.090
10.00	-25.27	-2.72	0.00	-241.31	0.00	241.31	3494.42	1747.21	5816.69	2912.67	0.07	-0.07	0.090	0.090
12.00	-24.91	-2.70	0.00	-235.87	0.00	235.87	3465.61	1732.80	5702.44	2855.46	0.10	-0.08	0.090	0.090
14.00	-24.55	-2.68	0.00	-230.47	0.00	230.47	3436.54	1718.27	5588.89	2798.60	0.13	-0.09	0.089	0.089
16.00	-24.19	-2.66	0.00	-225.11	0.00	225.11	3407.22	1703.61	5476.05	2742.09	0.18	-0.11	0.089	0.089
18.00	-23.83	-2.64	0.00	-219.78	0.00	219.78	3377.65	1688.83	5363.92	2685.95	0.22	-0.12	0.089	0.089
20.00	-23.48	-2.62	0.00	-214.50	0.00	214.50	3347.83	1673.91	5252.53	2630.17	0.28	-0.13	0.089	0.089
22.00	-23.13	-2.60	0.00	-209.25	0.00	209.25	3317.75	1658.87	5141.89	2574.76	0.34	-0.15	0.088	0.088
24.00	-22.79	-2.58	0.00	-204.04	0.00	204.04	3287.42	1643.71	5032.01	2519.74	0.40	-0.16	0.088	0.088
26.00	-22.44	-2.56	0.00	-198.88	0.00	198.88	3256.84	1628.42	4922.91	2465.11	0.47	-0.18	0.088	0.088
28.00	-22.10	-2.54	0.00	-193.75	0.00	193.75	3225.91	1613.00	4814.61	2411.30	0.55	-0.19	0.087	0.087
30.00	-21.77	-2.52	0.00	-188.66	0.00	188.66	3194.61	1597.45	4707.09	2358.10	0.64	-0.21	0.087	0.087
32.00	-21.44	-2.50	0.00	-183.62	0.00	183.62	3163.94	1581.76	4600.34	2305.30	0.73	-0.22	0.087	0.087
34.00	-21.11	-2.48	0.00	-178.61	0.00	178.61	3132.91	1565.92	4494.34	2252.90	0.82	-0.24	0.087	0.087
36.00	-20.78	-2.46	0.00	-173.65	0.00	173.65	3101.51	1550.00	4389.09	2200.90	0.93	-0.25	0.087	0.087
38.00	-20.46	-2.44	0.00	-168.73	0.00	168.73	3070.00	1534.00	4284.50	2149.30	1.04	-0.27	0.087	0.087
40.00	-20.14	-2.42	0.00	-163.85	0.00	163.85	2974.46	1487.23	4097.87	2051.98	1.15	-0.29	0.087	0.087
42.00	-19.83	-2.40	0.00	-159.00	0.00	159.00	2933.62	1466.81	3985.50	1995.71	1.28	-0.30	0.086	0.086
44.00	-19.52	-2.38	0.00	-154.20	0.00	154.20	2892.78	1446.39	3874.69	1940.23	1.41	-0.32	0.086	0.086
45.13	-19.34	-2.37	0.00	-151.51	0.00	151.51	2869.71	1434.85	3812.78	1909.22	1.48	-0.33	0.086	0.086
46.00	-19.12	-2.36	0.00	-149.44	0.00	149.44	2851.94	1425.97	3765.45	1885.52	1.54	-0.33	0.086	0.086
48.00	-18.62	-2.32	0.00	-144.73	0.00	144.73	2811.10	1405.55	3657.76	1831.60	1.69	-0.35	0.086	0.086
49.88	-18.15	-2.29	0.00	-140.36	0.00	140.36	2333.69	1166.84	3066.96	1535.76	1.83	-0.37	0.099	0.099
50.00	-18.13	-2.29	0.00	-140.09	0.00	140.09	2332.20	1166.10	3062.32	1533.44	1.84	-0.37	0.099	0.099
52.00	-17.87	-2.29	0.00	-135.50	0.00	135.50	2307.18	1153.59	2985.35	1494.89	1.99	-0.39	0.098	0.098
54.00	-17.61	-2.28	0.00	-130.93	0.00	130.93	2281.92	1140.96	2909.02	1456.67	2.16	-0.41	0.098	0.098
56.00	-17.35	-2.28	0.00	-126.36	0.00	126.36	2256.40	1128.20	2833.34	1418.77	2.33	-0.43	0.097	0.097
58.00	-17.09	-2.28	0.00	-121.81	0.00	121.81	2223.07	1111.54	2748.96	1376.53	2.52	-0.45	0.096	0.096
60.00	-16.84	-2.28	0.00	-117.25	0.00	117.25	2189.04	1094.52	2665.01	1334.49	2.71	-0.46	0.096	0.096
62.00	-16.59	-2.29	0.00	-112.68	0.00	112.68	2155.00	1077.50	2582.36	1293.10	2.91	-0.48	0.095	0.095
64.00	-16.34	-2.29	0.00	-108.10	0.00	108.10	2120.97	1060.48	2501.02	1252.37	3.11	-0.50	0.094	0.094
66.00	-16.09	-2.29	0.00	-103.52	0.00	103.52	2086.94	1043.47	2420.97	1212.28	3.33	-0.52	0.093	0.093
68.00	-15.85	-2.30	0.00	-98.93	0.00	98.93	2052.90	1026.45	2342.23	1172.85	3.55	-0.55	0.092	0.092
70.00	-15.61	-2.30	0.00	-94.34	0.00	94.34	2018.87	1009.43	2264.79	1134.08	3.79	-0.57	0.091	0.091
72.00	-15.38	-2.30	0.00	-89.73	0.00	89.73	1984.83	992.42	2188.65	1095.95	4.03	-0.59	0.090	0.090
74.00	-15.14	-2.31	0.00	-85.12	0.00	85.12	1950.80	975.40	2113.81	1058.48	4.28	-0.61	0.088	0.088
75.00	-14.98	-2.31	0.00	-82.82	0.00	82.82	1933.78	966.89	2076.88	1039.98	4.41	-0.62	0.087	0.087
76.00	-14.87	-2.31	0.00	-80.51	0.00	80.51	1916.76	958.38	2040.27	1021.65	4.54	-0.63	0.087	0.087
78.00	-14.64	-2.31	0.00	-75.89	0.00	75.89	1882.73	941.37	1968.04	985.48	4.80	-0.65	0.085	0.085
80.00	-14.41	-2.32	0.00	-71.27	0.00	71.27	1848.70	924.35	1897.11	949.96	5.08	-0.67	0.083	0.083
82.00	-14.19	-2.32	0.00	-66.64	0.00	66.64	1814.66	907.33	1827.48	915.10	5.36	-0.69	0.081	0.081
83.00	-11.95	-2.29	0.00	-64.32	0.00	64.32	1797.65	898.82	1793.15	897.91	5.51	-0.70	0.078	0.078
84.00	-11.85	-2.29	0.00	-62.03	0.00	62.03	1780.63	890.31	1759.15	880.88	5.65	-0.71	0.077	0.077

Calculated Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 41

85.00	-11.71	-2.29	0.00	-59.74	0.00	59.74	1763.61	881.81	1725.48	864.02	5.80	-0.72	0.076
86.00	-11.61	-2.29	0.00	-57.45	0.00	57.45	1746.59	873.30	1692.13	847.32	5.95	-0.73	0.074
88.00	-11.41	-2.30	0.00	-52.86	0.00	52.86	1712.56	856.28	1626.40	814.41	6.26	-0.74	0.072
90.00	-11.21	-2.30	0.00	-48.27	0.00	48.27	1678.53	839.26	1561.98	782.15	6.58	-0.76	0.068
91.00	-8.87	-2.26	0.00	-45.97	0.00	45.97	1661.51	830.75	1530.26	766.27	6.74	-0.77	0.065
91.29	-8.84	-2.27	0.00	-45.31	0.00	45.31	1656.52	828.26	1521.01	761.64	6.79	-0.77	0.065
92.00	-8.75	-2.27	0.00	-43.71	0.00	43.71	1644.49	822.25	1498.86	750.54	6.90	-0.78	0.064
94.00	-8.49	-2.26	0.00	-39.18	0.00	39.18	1610.46	805.23	1437.04	719.59	7.23	-0.80	0.060
94.71	-8.40	-2.26	0.00	-37.57	0.00	37.57	930.70	465.35	848.15	424.70	7.35	-0.80	0.098
96.00	-8.32	-2.26	0.00	-34.66	0.00	34.66	922.07	461.04	828.91	415.07	7.57	-0.81	0.093
98.00	-5.50	-2.01	0.00	-30.14	0.00	30.14	908.49	454.24	799.32	400.25	7.92	-0.84	0.081
100.00	-5.41	-2.01	0.00	-26.11	0.00	26.11	894.64	447.32	770.03	385.59	8.27	-0.86	0.074
102.00	-5.32	-2.00	0.00	-22.10	0.00	22.10	880.55	440.27	741.05	371.08	8.64	-0.88	0.066
104.00	-5.23	-1.98	0.00	-18.11	0.00	18.11	866.20	433.10	712.41	356.74	9.01	-0.90	0.057
106.00	-5.14	-1.96	0.00	-14.15	0.00	14.15	851.60	425.80	684.12	342.57	9.39	-0.91	0.047
107.00	-2.16	-1.16	0.00	-12.18	0.00	12.18	844.21	422.10	670.11	335.55	9.58	-0.92	0.039
108.00	-2.12	-1.15	0.00	-11.02	0.00	11.02	836.75	418.38	656.18	328.58	9.77	-0.92	0.036
110.00	-2.04	-1.13	0.00	-8.71	0.00	8.71	821.65	410.82	628.62	314.78	10.16	-0.94	0.030
112.00	-1.96	-1.10	0.00	-6.45	0.00	6.45	804.60	402.30	600.19	300.54	10.56	-0.94	0.024
114.00	-1.89	-1.08	0.00	-4.24	0.00	4.24	784.18	392.09	569.96	285.40	10.95	-0.95	0.017
116.00	-1.81	-1.04	0.00	-2.09	0.00	2.09	763.76	381.88	540.51	270.66	11.35	-0.96	0.010
118.00	0.00	-1.01	0.00	0.00	0.00	0.00	743.33	371.67	511.84	256.30	11.75	-0.96	0.000

Wind Loading - Shaft

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

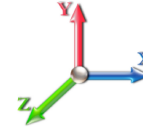


Page: 42

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	7.442	8.19	202.45	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	7.442	8.19	200.29	0.650	0.000	2.00	7.280	4.73	38.7	0.0	345.4
4.00		1.00	0.85	7.442	8.19	198.12	0.650	0.000	2.00	7.202	4.68	38.3	0.0	341.7
6.00		1.00	0.85	7.442	8.19	195.96	0.650	0.000	2.00	7.124	4.63	37.9	0.0	337.9
8.00		1.00	0.85	7.442	8.19	193.80	0.650	0.000	2.00	7.046	4.58	37.5	0.0	334.2
10.00		1.00	0.85	7.442	8.19	191.64	0.650	0.000	2.00	6.968	4.53	37.1	0.0	330.5
12.00		1.00	0.85	7.442	8.19	189.48	0.650	0.000	2.00	6.890	4.48	36.7	0.0	326.7
14.00		1.00	0.85	7.442	8.19	187.31	0.650	0.000	2.00	6.811	4.43	36.2	0.0	323.0
16.00		1.00	0.86	7.534	8.29	186.29	0.650	0.000	2.00	6.733	4.38	36.3	0.0	319.2
18.00		1.00	0.88	7.723	8.50	186.41	0.650	0.000	2.00	6.655	4.33	36.7	0.0	315.5
20.00		1.00	0.90	7.896	8.69	186.27	0.650	0.000	2.00	6.577	4.28	37.1	0.0	311.7
22.00		1.00	0.92	8.056	8.86	185.89	0.650	0.000	2.00	6.499	4.22	37.4	0.0	308.0
24.00		1.00	0.94	8.205	9.03	185.34	0.650	0.000	2.00	6.421	4.17	37.7	0.0	304.3
26.00		1.00	0.95	8.345	9.18	184.61	0.650	0.000	2.00	6.342	4.12	37.8	0.0	300.5
28.00		1.00	0.97	8.476	9.32	183.75	0.650	0.000	2.00	6.264	4.07	38.0	0.0	296.8
30.00		1.00	0.98	8.600	9.46	182.77	0.650	0.000	2.00	6.186	4.02	38.0	0.0	293.0
32.00		1.00	1.00	8.717	9.59	181.67	0.650	0.000	2.00	6.108	3.97	38.1	0.0	289.3
34.00		1.00	1.01	8.829	9.71	180.48	0.650	0.000	2.00	6.030	3.92	38.1	0.0	285.6
36.00		1.00	1.02	8.936	9.83	179.20	0.650	0.000	2.00	5.952	3.87	38.0	0.0	281.8
38.00		1.00	1.03	9.039	9.94	177.84	0.650	0.000	2.00	5.873	3.82	38.0	0.0	278.1
40.00		1.00	1.04	9.137	10.05	176.41	0.650	0.000	2.00	5.795	3.77	37.9	0.0	274.3
42.00		1.00	1.05	9.231	10.15	174.91	0.650	0.000	2.00	5.717	3.72	37.7	0.0	270.6
44.00		1.00	1.06	9.322	10.25	173.35	0.650	0.000	2.00	5.639	3.67	37.6	0.0	266.9
45.13	Bot - Section 2	1.00	1.07	9.372	10.31	172.44	0.650	0.000	1.13	3.151	2.05	21.1	0.0	149.1
46.00		1.00	1.07	9.410	10.35	171.73	0.650	0.000	0.87	2.455	1.60	16.5	0.0	211.0
48.00		1.00	1.08	9.494	10.44	170.06	0.650	0.000	2.00	5.588	3.63	37.9	0.0	480.2
49.88	Top - Section 1	1.00	1.09	9.571	10.53	168.44	0.650	0.000	1.88	5.182	3.37	35.5	0.0	445.1
50.00		1.00	1.09	9.576	10.53	171.66	0.650	0.000	0.12	0.328	0.21	2.2	0.0	13.0
52.00		1.00	1.10	9.656	10.62	169.91	0.650	0.000	2.00	5.432	3.53	37.5	0.0	214.5
54.00		1.00	1.11	9.733	10.71	168.11	0.650	0.000	2.00	5.354	3.48	37.3	0.0	211.4
56.00		1.00	1.12	9.807	10.79	166.27	0.650	0.000	2.00	5.276	3.43	37.0	0.0	208.3
58.00		1.00	1.13	9.880	10.87	164.40	0.650	0.000	2.00	5.198	3.38	36.7	0.0	205.2
60.00		1.00	1.14	9.951	10.95	162.49	0.650	0.000	2.00	5.119	3.33	36.4	0.0	202.1
62.00		1.00	1.14	10.020	11.02	160.54	0.650	0.000	2.00	5.041	3.28	36.1	0.0	199.0
64.00		1.00	1.15	10.087	11.10	158.56	0.650	0.000	2.00	4.963	3.23	35.8	0.0	195.8
66.00		1.00	1.16	10.153	11.17	156.55	0.650	0.000	2.00	4.885	3.18	35.5	0.0	192.7
68.00		1.00	1.17	10.217	11.24	154.51	0.650	0.000	2.00	4.807	3.12	35.1	0.0	189.6
70.00		1.00	1.17	10.279	11.31	152.44	0.650	0.000	2.00	4.729	3.07	34.8	0.0	186.5
72.00		1.00	1.18	10.340	11.37	150.34	0.650	0.000	2.00	4.650	3.02	34.4	0.0	183.4
74.00		1.00	1.19	10.400	11.44	148.22	0.650	0.000	2.00	4.572	2.97	34.0	0.0	180.3
75.00	Appurtenance(s)	1.00	1.19	10.430	11.47	147.15	0.650	0.000	1.00	2.257	1.47	16.8	0.0	89.0
76.00		1.00	1.19	10.459	11.50	146.08	0.650	0.000	1.00	2.237	1.45	16.7	0.0	88.2
78.00		1.00	1.20	10.516	11.57	143.91	0.650	0.000	2.00	4.416	2.87	33.2	0.0	174.0
80.00		1.00	1.21	10.572	11.63	141.71	0.650	0.000	2.00	4.338	2.82	32.8	0.0	170.9
82.00		1.00	1.21	10.627	11.69	139.50	0.650	0.000	2.00	4.260	2.77	32.4	0.0	167.8
83.00	Appurtenance(s)	1.00	1.22	10.654	11.72	138.38	0.650	0.000	1.00	2.101	1.37	16.0	0.0	82.7
84.00		1.00	1.22	10.681	11.75	137.26	0.650	0.000	1.00	2.081	1.35	15.9	0.0	81.9

Wind Loading - Shaft

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 43

85.00 Appurtenance(s)	1.00	1.22	10.708	11.78	136.14	0.650	0.000	1.00	2.061	1.34	15.8	0.0	81.2		
86.00	1.00	1.23	10.734	11.81	135.01	0.650	0.000	1.00	2.042	1.33	15.7	0.0	80.4		
88.00	1.00	1.23	10.787	11.87	132.73	0.650	0.000	2.00	4.025	2.62	31.0	0.0	158.4		
90.00	1.00	1.24	10.838	11.92	130.44	0.650	0.000	2.00	3.947	2.57	30.6	0.0	155.3		
91.00 Appurtenance(s)	1.00	1.24	10.863	11.95	129.28	0.650	0.000	1.00	1.944	1.26	15.1	0.0	76.5		
91.29 Bot - Section 3	1.00	1.24	10.870	11.96	128.94	0.650	0.000	0.29	0.567	0.37	4.4	0.0	22.3		
92.00	1.00	1.24	10.888	11.98	128.12	0.650	0.000	0.71	1.380	0.90	10.7	0.0	86.2		
94.00	1.00	1.25	10.937	12.03	125.79	0.650	0.000	2.00	3.854	2.51	30.1	0.0	240.6		
94.71 Top - Section 2	1.00	1.25	10.955	12.05	124.96	0.650	0.000	0.71	1.349	0.88	10.6	0.0	84.2		
96.00	1.00	1.25	10.986	12.08	125.58	0.650	0.000	1.29	2.427	1.58	19.1	0.0	57.6		
98.00 Appurtenance(s)	1.00	1.26	11.034	12.14	123.22	0.650	0.000	2.00	3.698	2.40	29.2	0.0	87.7		
100.00	1.00	1.27	11.081	12.19	120.84	0.650	0.000	2.00	3.620	2.35	28.7	0.0	85.9		
102.00	1.00	1.27	11.127	12.24	118.45	0.650	0.000	2.00	3.541	2.30	28.2	0.0	84.0		
104.00	1.00	1.28	11.173	12.29	116.04	0.650	0.000	2.00	3.463	2.25	27.7	0.0	82.1		
106.00	1.00	1.28	11.218	12.34	113.62	0.650	0.000	2.00	3.385	2.20	27.2	0.0	80.2		
107.00 Appurtenance(s)	1.00	1.28	11.240	12.36	112.41	0.650	0.000	1.00	1.663	1.08	13.4	0.0	39.4		
108.00	1.00	1.29	11.262	12.39	111.19	0.650	0.000	1.00	1.644	1.07	13.2	0.0	39.0		
110.00	1.00	1.29	11.305	12.44	108.74	0.650	0.000	2.00	3.229	2.10	26.1	0.0	76.5		
112.00	1.00	1.30	11.348	12.48	106.27	0.650	0.000	2.00	3.151	2.05	25.6	0.0	74.6		
114.00	1.00	1.30	11.391	12.53	103.80	0.650	0.000	2.00	3.072	2.00	25.0	0.0	72.8		
116.00	1.00	1.31	11.432	12.58	101.31	0.650	0.000	2.00	2.994	1.95	24.5	0.0	70.9		
118.00 Appurtenance(s)	1.00	1.31	11.474	12.62	98.81	0.650	0.000	2.00	2.916	1.90	23.9	0.0	69.0		
Totals:								118.00				2,010.1			13,161.4

Discrete Appurtenance Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 44

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 25

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	118.00	ANT150D	1	11.503	12.653	1.00	1.00	1.00	6.00	0.000	1.420	12.65	0.00	17.97
2	118.00	DB222	1	11.710	12.881	1.00	1.00	2.25	16.00	0.000	12.000	28.98	0.00	347.79
3	118.00	Low Profile Platform	1	11.474	12.621	1.00	1.00	28.47	1800.00	0.000	0.000	359.32	0.00	0.00
4	118.00	DB844H90E-XY	9	11.490	12.639	1.12	1.00	30.74	126.00	0.000	0.800	388.57	0.00	310.86
5	107.00	ACU-A20-N	4	11.240	12.364	0.54	0.80	0.30	4.00	0.000	0.000	3.71	0.00	0.00
6	107.00	1900 MHz 4X45 RRH	3	11.240	12.364	0.54	0.80	4.36	180.00	0.000	0.000	53.88	0.00	0.00
7	107.00	800 MHz RRU Filter	3	11.240	12.364	0.54	0.80	3.86	192.00	0.000	0.000	47.71	0.00	0.00
8	107.00	TD-RRH8x20-25	3	11.240	12.364	0.54	0.80	6.51	210.00	0.000	0.000	80.52	0.00	0.00
9	107.00	Low Profile Platform	1	11.240	12.364	1.00	1.00	27.33	2000.00	0.000	0.000	337.90	0.00	0.00
10	107.00	APXVSP18-C-A20	3	11.240	12.364	0.66	0.80	15.98	171.00	0.000	0.000	197.52	0.00	0.00
11	107.00	APXV9TM14-ALU-120	3	11.262	12.388	0.63	0.80	12.02	168.00	0.000	1.000	148.91	0.00	148.91
12	107.00	Universal Ring Mount	1	11.240	12.364	1.00	1.00	5.00	350.00	0.000	0.000	61.82	0.00	0.00
13	98.00	Alcatel Lucent	3	11.034	12.137	0.54	0.80	5.63	180.00	0.000	0.000	68.31	0.00	0.00
14	98.00	Low Profile Platform	1	11.034	12.137	1.00	1.00	23.10	2100.00	0.000	0.000	280.37	0.00	0.00
15	98.00	RFS APL868013	2	11.034	12.137	0.92	0.80	5.27	12.60	0.000	0.000	63.93	0.00	0.00
16	98.00	Andrew SBNHH-1D85C	6	11.034	12.137	0.67	0.80	45.92	297.60	0.000	0.000	557.39	0.00	0.00
17	98.00	Rfs Celwave	2	11.034	12.137	0.54	0.80	5.15	37.80	0.000	0.000	62.45	0.00	0.00
18	98.00	Alcatel Lucent	3	11.034	12.137	0.54	0.80	4.08	170.40	0.000	0.000	49.57	0.00	0.00
19	98.00	Alcatel-Lucent	3	11.034	12.137	0.54	0.80	3.02	138.00	0.000	0.000	36.69	0.00	0.00
20	98.00	Andrew DB846H80E-SX	4	11.034	12.137	0.90	0.80	17.96	64.00	0.000	0.000	217.93	0.00	0.00
21	91.00	Low Profile Platform	1	10.863	11.949	1.00	1.00	17.46	1349.00	0.000	0.000	208.63	0.00	0.00
22	91.00	RRUS 32 B2	3	10.863	11.949	0.65	0.80	5.33	159.00	0.000	0.000	63.65	0.00	0.00
23	91.00	DC6-48-60-18-8F	2	10.863	11.949	1.00	1.00	1.84	63.60	0.000	0.000	21.99	0.00	0.00
24	91.00	RRUS-11	3	10.863	11.949	0.54	0.80	7.11	165.00	0.000	0.000	84.93	0.00	0.00
25	91.00	LGP21401	6	10.863	11.949	0.54	0.80	4.15	84.60	0.000	0.000	49.57	0.00	0.00
26	91.00	P65-16-XLH-RR	3	10.863	11.949	0.60	0.80	14.69	159.00	0.000	0.000	175.51	0.00	0.00
27	91.00	7770.00	3	10.863	11.949	0.58	0.80	9.64	105.00	0.000	0.000	115.14	0.00	0.00
28	91.00	QS66512-2	3	10.863	11.949	0.72	0.80	17.56	231.00	0.000	0.000	209.84	0.00	0.00
29	91.00	RRUS 32 B30	3	10.863	11.949	0.65	0.80	5.33	180.00	0.000	0.000	63.65	0.00	0.00
30	85.00	12.5' - 2" Horizontal Pipe	1	10.708	11.779	1.00	1.00	2.97	45.75	0.000	0.000	34.97	0.00	0.00
31	83.00	RFS - APXV18-209014	3	10.654	11.720	0.55	0.75	5.96	56.10	0.000	0.000	69.86	0.00	0.00
32	83.00	MS-KI22-5 (Kickers w/o	1	10.654	11.720	1.00	1.00	5.33	146.00	0.000	0.000	62.47	0.00	0.00
33	83.00	Commscope -	3	10.654	11.720	0.60	0.75	20.65	149.40	0.000	0.000	241.97	0.00	0.00
34	83.00	Platform w/ Handrail kit	1	10.654	11.720	1.00	1.00	37.16	1868.20	0.000	0.000	435.51	0.00	0.00
35	83.00	S20057A1 TMA	3	10.654	11.720	0.50	0.75	0.02	33.00	0.000	0.000	0.18	0.00	0.00
36	83.00	RFS - ATMAA1412D-1A2	3	10.654	11.720	0.50	0.75	1.76	39.00	0.000	0.000	20.67	0.00	0.00
37	83.00	Kathrein - 782 11054 -	3	10.654	11.720	0.50	0.75	0.23	5.40	0.000	0.000	2.65	0.00	0.00
38	83.00	VHLP3-11W	1	10.654	11.720	1.00	1.00	10.68	53.00	0.000	0.000	125.17	0.00	0.00
39	83.00	IP20C	1	10.654	11.720	0.50	0.75	0.53	11.50	0.000	0.000	6.18	0.00	0.00
40	75.00	GPS	1	10.430	11.473	1.00	1.00	1.00	10.00	0.000	0.000	11.47	0.00	0.00
41	75.00	Standoff Mount	1	10.430	11.473	1.00	1.00	2.63	40.00	0.000	0.000	30.17	0.00	0.00

Totals: 13,176.95 5,092.31

Total Applied Force Summary

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 45

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		38.74	424.26	0.00	0.00
4.00		38.32	420.52	0.00	0.00
6.00		37.91	416.78	0.00	0.00
8.00		37.49	413.03	0.00	0.00
10.00		37.08	409.29	0.00	0.00
12.00		36.66	405.55	0.00	0.00
14.00		36.24	401.81	0.00	0.00
16.00		36.27	398.07	0.00	0.00
18.00		36.75	394.33	0.00	0.00
20.00		37.13	390.59	0.00	0.00
22.00		37.43	386.85	0.00	0.00
24.00		37.67	383.11	0.00	0.00
26.00		37.84	379.36	0.00	0.00
28.00		37.96	375.62	0.00	0.00
30.00		38.04	371.88	0.00	0.00
32.00		38.07	368.14	0.00	0.00
34.00		38.07	364.40	0.00	0.00
36.00		38.03	360.66	0.00	0.00
38.00		37.96	356.92	0.00	0.00
40.00		37.86	353.18	0.00	0.00
42.00		37.73	349.44	0.00	0.00
44.00		37.58	345.69	0.00	0.00
45.13		21.12	193.66	0.00	0.00
46.00		16.52	245.30	0.00	0.00
48.00		37.94	559.00	0.00	0.00
49.88		35.46	519.20	0.00	0.00
50.00		2.25	17.70	0.00	0.00
52.00		37.50	293.39	0.00	0.00
54.00		37.26	290.27	0.00	0.00
56.00		37.00	287.15	0.00	0.00
58.00		36.72	284.04	0.00	0.00
60.00		36.42	280.92	0.00	0.00
62.00		36.12	277.80	0.00	0.00
64.00		35.80	274.68	0.00	0.00
66.00		35.46	271.57	0.00	0.00
68.00		35.11	268.45	0.00	0.00
70.00		34.75	265.33	0.00	0.00
72.00		34.38	262.21	0.00	0.00
74.00		34.00	259.10	0.00	0.00
75.00	(2) attachments	58.47	178.38	0.00	0.00
76.00		16.73	127.44	0.00	0.00
78.00		33.20	252.54	0.00	0.00
80.00		32.79	249.42	0.00	0.00
82.00		32.37	246.31	0.00	0.00
83.00	(19) attachments	980.66	2483.58	0.00	0.00
84.00		15.89	113.12	0.00	0.00

Total Applied Force Summary

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 46

85.00	(1) attachments	50.75	158.09	0.00	0.00
86.00		15.67	111.57	0.00	0.00
88.00		31.04	220.79	0.00	0.00
90.00		30.58	217.67	0.00	0.00
91.00	(27) attachments	1008.01	2603.87	0.00	0.00
91.29		4.40	29.10	0.00	0.00
92.00		10.75	102.60	0.00	0.00
94.00		30.14	286.99	0.00	0.00
94.71		10.57	100.68	0.00	0.00
96.00		19.06	87.53	0.00	0.00
98.00	(24) attachments	1365.81	3134.57	0.00	0.00
100.00		28.68	102.94	0.00	0.00
102.00		28.18	101.07	0.00	0.00
104.00		27.67	99.20	0.00	0.00
106.00		27.15	97.33	0.00	0.00
107.00	(21) attachments	945.33	3322.96	0.00	148.91
108.00		13.24	45.52	0.00	0.00
110.00		26.10	89.63	0.00	0.00
112.00		25.56	87.76	0.00	0.00
114.00		25.02	85.89	0.00	0.00
116.00		24.48	84.02	0.00	0.00
118.00	(12) attachments	813.45	2030.15	0.00	676.61
Totals:		7,102.40	30,169.97	0.00	825.52

Linear Appurtenance Segment Forces (Factored)

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 47

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 25

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	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	7.442	0.00	0.32
4.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	7.442	0.00	0.32
6.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	7.442	0.00	0.32
8.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.015	0.000	7.442	0.00	0.32
10.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	7.442	0.00	0.32
12.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	7.442	0.00	0.32
14.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	7.442	0.00	0.32
16.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	7.534	0.00	0.32
18.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	7.723	0.00	0.32
20.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.016	0.000	7.896	0.00	0.32
22.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	8.056	0.00	0.32
24.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	8.205	0.00	0.32
26.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	8.345	0.00	0.32
28.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.017	0.000	8.476	0.00	0.32
30.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	8.600	0.00	0.32
32.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	8.717	0.00	0.32
34.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	8.829	0.00	0.32
36.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	8.936	0.00	0.32
38.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.018	0.000	9.039	0.00	0.32
40.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.019	0.000	9.137	0.00	0.32
42.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.019	0.000	9.231	0.00	0.32
44.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.019	0.000	9.322	0.00	0.32
45.13	1/2"	Yes	1.13	0.000	0.65	0.06	0.00	0.019	0.000	9.372	0.00	0.18
46.00	1/2"	Yes	0.87	0.000	0.65	0.05	0.00	0.020	0.000	9.410	0.00	0.14
48.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.020	0.000	9.494	0.00	0.32
49.88	1/2"	Yes	1.88	0.000	0.65	0.10	0.00	0.020	0.000	9.571	0.00	0.30
50.00	1/2"	Yes	0.12	0.000	0.65	0.01	0.00	0.020	0.000	9.576	0.00	0.02
52.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.020	0.000	9.656	0.00	0.32
54.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.020	0.000	9.733	0.00	0.32
56.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	9.807	0.00	0.32
58.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	9.880	0.00	0.32
60.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	9.951	0.00	0.32
62.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.021	0.000	10.020	0.00	0.32
64.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.022	0.000	10.087	0.00	0.32
66.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.022	0.000	10.153	0.00	0.32
68.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.023	0.000	10.217	0.00	0.32
70.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.023	0.000	10.279	0.00	0.32
72.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.023	0.000	10.340	0.00	0.32
74.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.024	0.000	10.400	0.00	0.32
75.00	1/2"	Yes	1.00	0.000	0.65	0.05	0.00	0.024	0.000	10.430	0.00	0.16
Totals:											0.0	12.0

Calculated Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

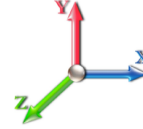


Load Case: 1.0D + 1.0W 60 mph Wind

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	-30.17	-7.11	0.00	-640.94	0.00	640.94	3634.70	1817.35	6397.77	3203.64	0.00	0.000	0.000	0.208
2.00	-29.74	-7.09	0.00	-626.72	0.00	626.72	3607.15	1803.57	6280.28	3144.81	0.01	-0.030	0.000	0.208
4.00	-29.32	-7.06	0.00	-612.55	0.00	612.55	3579.34	1789.67	6163.42	3086.29	0.03	-0.061	0.000	0.207
6.00	-28.90	-7.04	0.00	-598.42	0.00	598.42	3551.29	1775.64	6047.19	3028.09	0.06	-0.092	0.000	0.206
8.00	-28.48	-7.02	0.00	-584.34	0.00	584.34	3522.98	1761.49	5931.61	2970.21	0.10	-0.124	0.000	0.205
10.00	-28.07	-7.00	0.00	-570.30	0.00	570.30	3494.42	1747.21	5816.69	2912.67	0.16	-0.155	0.000	0.204
12.00	-27.66	-6.97	0.00	-556.31	0.00	556.31	3465.61	1732.80	5702.44	2855.46	0.23	-0.187	0.000	0.203
14.00	-27.25	-6.95	0.00	-542.37	0.00	542.37	3436.54	1718.27	5588.89	2798.60	0.32	-0.219	0.000	0.202
16.00	-26.85	-6.93	0.00	-528.46	0.00	528.46	3407.22	1703.61	5476.05	2742.09	0.42	-0.252	0.000	0.201
18.00	-26.45	-6.90	0.00	-514.61	0.00	514.61	3377.65	1688.83	5363.92	2685.95	0.53	-0.285	0.000	0.199
20.00	-26.06	-6.88	0.00	-500.80	0.00	500.80	3347.83	1673.91	5252.53	2630.17	0.66	-0.318	0.000	0.198
22.00	-25.67	-6.86	0.00	-487.04	0.00	487.04	3317.75	1658.87	5141.89	2574.76	0.80	-0.351	0.000	0.197
24.00	-25.28	-6.83	0.00	-473.33	0.00	473.33	3287.42	1643.71	5032.01	2519.74	0.95	-0.385	0.000	0.196
26.00	-24.90	-6.81	0.00	-459.67	0.00	459.67	3256.84	1628.42	4922.91	2465.11	1.12	-0.419	0.000	0.194
28.00	-24.52	-6.78	0.00	-446.06	0.00	446.06	3219.51	1609.75	4804.91	2406.03	1.30	-0.453	0.000	0.193
30.00	-24.14	-6.75	0.00	-432.50	0.00	432.50	3178.67	1589.33	4683.16	2345.06	1.50	-0.487	0.000	0.192
32.00	-23.77	-6.73	0.00	-418.99	0.00	418.99	3137.83	1568.91	4562.98	2284.88	1.71	-0.522	0.000	0.191
34.00	-23.40	-6.70	0.00	-405.54	0.00	405.54	3096.99	1548.49	4444.36	2225.48	1.94	-0.557	0.000	0.190
36.00	-23.04	-6.67	0.00	-392.14	0.00	392.14	3056.15	1528.07	4327.30	2166.87	2.18	-0.592	0.000	0.189
38.00	-22.68	-6.64	0.00	-378.80	0.00	378.80	3015.30	1507.65	4211.81	2109.03	2.44	-0.627	0.000	0.187
40.00	-22.32	-6.62	0.00	-365.52	0.00	365.52	2974.46	1487.23	4097.87	2051.98	2.71	-0.663	0.000	0.186
42.00	-21.97	-6.59	0.00	-352.29	0.00	352.29	2933.62	1466.81	3985.50	1995.71	2.99	-0.699	0.000	0.184
44.00	-21.62	-6.56	0.00	-339.11	0.00	339.11	2892.78	1446.39	3874.69	1940.23	3.29	-0.734	0.000	0.182
45.13	-21.42	-6.54	0.00	-331.70	0.00	331.70	2869.71	1434.85	3812.78	1909.22	3.47	-0.755	0.000	0.181
46.00	-21.17	-6.53	0.00	-326.02	0.00	326.02	2851.94	1425.97	3765.45	1885.52	3.61	-0.771	0.000	0.180
48.00	-20.61	-6.50	0.00	-312.96	0.00	312.96	2811.10	1405.55	3657.76	1831.60	3.94	-0.807	0.000	0.178
49.88	-20.09	-6.46	0.00	-300.75	0.00	300.75	2333.69	1166.84	3066.96	1535.76	4.26	-0.841	0.000	0.204
50.00	-20.07	-6.46	0.00	-299.97	0.00	299.97	2332.20	1166.10	3062.32	1533.44	4.28	-0.843	0.000	0.204
52.00	-19.77	-6.44	0.00	-287.04	0.00	287.04	2307.18	1153.59	2985.35	1494.89	4.65	-0.884	0.000	0.201
54.00	-19.48	-6.41	0.00	-274.17	0.00	274.17	2281.92	1140.96	2909.02	1456.67	5.03	-0.924	0.000	0.197
56.00	-19.19	-6.38	0.00	-261.35	0.00	261.35	2256.40	1128.20	2833.34	1418.77	5.42	-0.965	0.000	0.193
58.00	-18.90	-6.35	0.00	-248.59	0.00	248.59	2223.07	1111.54	2748.96	1376.53	5.83	-1.005	0.000	0.189
60.00	-18.62	-6.32	0.00	-235.89	0.00	235.89	2189.04	1094.52	2665.01	1334.49	6.26	-1.045	0.000	0.185
62.00	-18.33	-6.29	0.00	-223.25	0.00	223.25	2155.00	1077.50	2582.36	1293.10	6.71	-1.085	0.000	0.181
64.00	-18.06	-6.27	0.00	-210.66	0.00	210.66	2120.97	1060.48	2501.02	1252.37	7.17	-1.124	0.000	0.177
66.00	-17.78	-6.24	0.00	-198.12	0.00	198.12	2086.94	1043.47	2420.97	1212.28	7.65	-1.163	0.000	0.172
68.00	-17.51	-6.21	0.00	-185.65	0.00	185.65	2052.90	1026.45	2342.23	1172.85	8.15	-1.201	0.000	0.167
70.00	-17.24	-6.18	0.00	-173.23	0.00	173.23	2018.87	1009.43	2264.79	1134.08	8.66	-1.239	0.000	0.161
72.00	-16.98	-6.15	0.00	-160.88	0.00	160.88	1984.83	992.42	2188.65	1095.95	9.19	-1.276	0.000	0.155
74.00	-16.71	-6.12	0.00	-148.58	0.00	148.58	1950.80	975.40	2113.81	1058.48	9.73	-1.312	0.000	0.149
75.00	-16.54	-6.06	0.00	-142.46	0.00	142.46	1933.78	966.89	2076.88	1039.98	10.01	-1.330	0.000	0.146
76.00	-16.41	-6.05	0.00	-136.40	0.00	136.40	1916.76	958.38	2040.27	1021.65	10.29	-1.347	0.000	0.142
78.00	-16.15	-6.02	0.00	-124.30	0.00	124.30	1882.73	941.37	1968.04	985.48	10.86	-1.381	0.000	0.135
80.00	-15.90	-5.99	0.00	-112.27	0.00	112.27	1848.70	924.35	1897.11	949.96	11.44	-1.413	0.000	0.127
82.00	-15.65	-5.96	0.00	-100.29	0.00	100.29	1814.66	907.33	1827.48	915.10	12.04	-1.444	0.000	0.118
83.00	-13.19	-4.92	0.00	-94.34	0.00	94.34	1797.65	898.82	1793.15	897.91	12.35	-1.458	0.000	0.112
84.00	-13.08	-4.90	0.00	-89.42	0.00	89.42	1780.63	890.31	1759.15	880.88	12.65	-1.473	0.000	0.109
85.00	-12.92	-4.85	0.00	-84.52	0.00	84.52	1763.61	881.81	1725.48	864.02	12.96	-1.487	0.000	0.105

Calculated Forces

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 49

86.00	-12.81	-4.83	0.00	-79.67	0.00	79.67	1746.59	873.30	1692.13	847.32	13.28	-1.500	0.000	0.101
88.00	-12.59	-4.80	0.00	-70.00	0.00	70.00	1712.56	856.28	1626.40	814.41	13.91	-1.526	0.000	0.093
90.00	-12.37	-4.77	0.00	-60.40	0.00	60.40	1678.53	839.26	1561.98	782.15	14.56	-1.549	0.000	0.085
91.00	-9.79	-3.69	0.00	-55.63	0.00	55.63	1661.51	830.75	1530.26	766.27	14.88	-1.561	0.000	0.079
91.29	-9.76	-3.69	0.00	-54.55	0.00	54.55	1656.52	828.26	1521.01	761.64	14.98	-1.564	0.000	0.078
92.00	-9.66	-3.68	0.00	-51.94	0.00	51.94	1644.49	822.25	1498.86	750.54	15.21	-1.571	0.000	0.075
94.00	-9.37	-3.64	0.00	-44.58	0.00	44.58	1610.46	805.23	1437.04	719.59	15.87	-1.591	0.000	0.068
94.71	-9.27	-3.63	0.00	-42.00	0.00	42.00	930.70	465.35	848.15	424.70	16.11	-1.598	0.000	0.109
96.00	-9.18	-3.61	0.00	-37.32	0.00	37.32	922.07	461.04	828.91	415.07	16.54	-1.609	0.000	0.100
98.00	-6.09	-2.16	0.00	-30.09	0.00	30.09	908.49	454.24	799.32	400.25	17.22	-1.633	0.000	0.082
100.00	-5.98	-2.13	0.00	-25.77	0.00	25.77	894.64	447.32	770.03	385.59	17.91	-1.655	0.000	0.074
102.00	-5.88	-2.10	0.00	-21.51	0.00	21.51	880.55	440.27	741.05	371.08	18.61	-1.674	0.000	0.065
104.00	-5.78	-2.07	0.00	-17.31	0.00	17.31	866.20	433.10	712.41	356.74	19.31	-1.691	0.000	0.055
106.00	-5.69	-2.04	0.00	-13.16	0.00	13.16	851.60	425.80	684.12	342.57	20.03	-1.706	0.000	0.045
107.00	-2.39	-1.00	0.00	-10.97	0.00	10.97	844.21	422.10	670.11	335.55	20.38	-1.712	0.000	0.036
108.00	-2.35	-0.99	0.00	-9.97	0.00	9.97	836.75	418.38	656.18	328.58	20.74	-1.717	0.000	0.033
110.00	-2.26	-0.96	0.00	-8.00	0.00	8.00	821.65	410.82	628.62	314.78	21.46	-1.727	0.000	0.028
112.00	-2.17	-0.93	0.00	-6.09	0.00	6.09	804.60	402.30	600.19	300.54	22.19	-1.735	0.000	0.023
114.00	-2.09	-0.90	0.00	-4.23	0.00	4.23	784.18	392.09	569.96	285.40	22.92	-1.742	0.000	0.017
116.00	-2.00	-0.87	0.00	-2.43	0.00	2.43	763.76	381.88	540.51	270.66	23.65	-1.746	0.000	0.012
118.00	0.00	-0.81	0.00	-0.68	0.00	0.68	743.33	371.67	511.84	256.30	24.38	-1.748	0.000	0.003

Final Analysis Summary

Structure: CT46132-A-SBA	Code: EIA/TIA-222-G	6/8/2020
Site Name: Newtown-ferris Rd	Exposure: C	
Height: 118.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II




Page: 50

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 + 1.6W 93 mph Wind	27.3	0.00	36.17	0.00	0.00	2481.65
0.9D + 1.6W 93 mph Wind	27.3	0.00	27.12	0.00	0.00	2448.29
1.2D + 1.0Di + 1.0Wi 50 mph Wind	7.7	0.00	60.93	0.00	0.00	706.53
1.2D + 1.0E	2.8	0.00	36.20	0.00	0.00	272.96
0.9D + 1.0E	2.8	0.00	27.15	0.00	0.00	268.94
1.0D + 1.0W 60 mph Wind	7.1	0.00	30.17	0.00	0.00	640.94

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 + 1.6W 93 mph Wind	-36.17	-27.34	0.00	-2481.6	0.00	-2481.6	3634.70	1817.3	6397.77	3203.64	0.00	0.785
0.9D + 1.6W 93 mph Wind	-27.12	-27.33	0.00	-2448.2	0.00	-2448.2	3634.70	1817.3	6397.77	3203.64	0.00	0.772
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-60.93	-7.72	0.00	-706.53	0.00	-706.53	3634.70	1817.3	6397.77	3203.64	0.00	0.237
1.2D + 1.0E	-24.21	-2.33	0.00	-143.24	0.00	-143.24	2333.69	1166.8	3066.96	1535.76	49.88	0.104
0.9D + 1.0E	-18.15	-2.29	0.00	-140.36	0.00	-140.36	2333.69	1166.8	3066.96	1535.76	49.88	0.099
1.0D + 1.0W 60 mph Wind	-30.17	-7.11	0.00	-640.94	0.00	-640.94	3634.70	1817.3	6397.77	3203.64	0.00	0.208

	Monopole Mat Foundation Design		Date	
			6/8/2020	
	Customer Name:	T-Mobile	EIA/TIA Standard:	EIA-222-G
	Site Name:		Structure Height (Ft.):	118
	Site Number:	CT46132-A-SBA	Engineer Name:	J. Chen
Engr. Number:	94289	Engineer Login ID:		

Foundation Info Obtained from:

Drawings/Calculations
Monopole
Analysis

Structure Type:

Analysis or Design?

Base Reactions (Factored):

Axial Load (Kips):	36.7	Shear Force (Kips):	27.3
Uplift Force (Kips):	0.0	Moment (Kips-ft):	2481.6

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
--------------------------	------	--------------------------	------

Material Properties and Rebar 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):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf

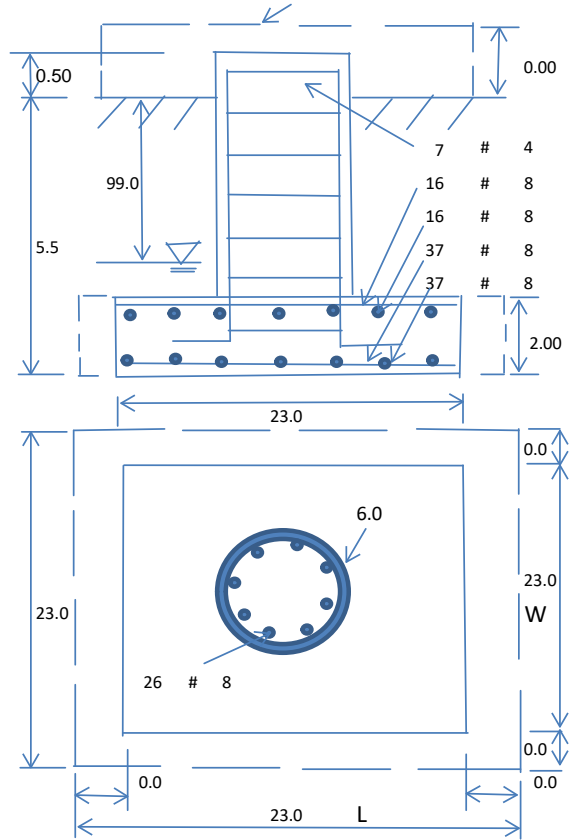
Rebar at the bottom of the concrete pad:			
Qty. of Rebar in Pad (L):	37	Qty. of Rebar in Pad (W):	37

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:	37.6	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):	20000	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):	Yes		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):	484.01

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	2211	<	Allowable Factored Soil Bearing (psf):	15000	0.15	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	5051.7	>	Design Factored Momont (kips-ft):	2645	0.52	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.91					OK!

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-F	2590.8	0.87	OK!
Calculated Shear Capacity (Kips):	501.5	> Design Factored Shear (Kips):	27.3	0.05	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):	36.7	0.01	OK!
Moment & Axial Strength Combination:	0.87	OK! Check Tie Spacing (Design/Required):		1	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):	181.7	0.34	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	536.8	> One-Way Factored Shear (W-D., Kips)	181.7	0.34	OK!
One-Way Design Shear Capacity (Corner-Corner, Kips):	539.3	> One-Way Factored Shear (C-C, Kips):	178.8	0.33	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):	858.1	0.33	OK!
Lower Steel Pad Moment Capacity (W-Direction, Kips-ft):	2573.6	> Moment at Bottom (W-Dir. K-Ft):	858.1	0.33	OK!
Lower Steel Pad Moment Capacity (Corner-Corner, K-ft):	3600.2	> Moment at Bottom (C-C Dir. K-Ft):	1213.6	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):	439.9	0.38	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	1143.1	> Moment at the top (W-Dir K-Ft):	439.9	0.38	OK!
Upper Steel Pad Moment Capacity (Corner-Corner, K-ft):	1609.2	> Moment at the top (C-C Dir. K-Ft):	411.8	0.26	OK!

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

Moment transferred by punching shear:	992.6	k-ft.	Max. factored shear stress $v_{u,CD}$:	4.6	Psi
Max. factored shear stress $v_{u,AB}$:	14.7	Psi	Factored shear Strength ϕv_n :	189.7	Psi
Max. factored shear stress v_u :	14.7	Psi	Check Usage of Punching Shear Capacity:	0.08	OK!

EXHIBIT 9



Tower Engineering Solutions

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

Post-Mod Antenna Mount Analysis Report

Existing 118-Ft Monopole Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT46132-A-SBA / Newtown-ferris Rd

Customer Site Name: Newtown-ferris Rd

Carrier Name: T-Mobile (App#: 117481, V2)

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

Site Location: 8 Ferris Road

Newtown, Connecticut

Fairfield County

Latitude: 41.389747

Longitude: -73.338444

Analysis Result:

Max Structural Usage: 39.2% [Pass]

Report Prepared By: Sital Shrestha



Introduction

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

The proposed modification by **TES** listed under Sources of Information was considered completed and was included in this analysis.

Sources of Information

Mount Drawings	Mount mapping by SGS Towers
Antenna Loading	Provided by SBA Application #: 117481, v2
Proposed Modification	TES Project No. 95177

Analysis Criteria

Basic Wind Speed Used in the Analysis: $V_{ULT} = 120$ mph (3-Sec. Gust) / Equivalent to
 $V_{ASD} = 93$ mph (3-Sec. Gust)

Basic Wind Speed with Ice: 50 mph (3-Sec. Gust) with 0.75" radial ice concurrent

Operational Wind Speed: 60 mph +0" Radial ice

Standard/Codes: ANSI/TIA/EIA 222-G

Exposure Category: C

Structure Class: II

Topographic Category: 1

Crest Height (Ft): 0

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) Low Profile Platform at 83.00' elevation.

Proposed Modification

(1) Support rail w/end connection Kit: MS-HRCEP-35

(1) Kicker Kit: MS-KI22-8

(1) Heavy Collar Mount assembly: MS-H1436

(3) One mount pipe per sector: PST2375-8

(1) One mount pipe in alpha sector: PST2875-8

Final Antenna Configuration

3	RFS APXV18-209014
3	Commscope LNX-6515DS-A1M
1	Andrew VHLP3-11W
1	Ceragon IP20C-11-40X-ACM
3	RFS ATMAA1412D-1A20
3	TBD S20057A1
3	Kathrein 782 11054*

* Equipment to be flush mounted directly to the Monopole. They are not mounted on the Low Profile Platform mounts and are not included in this mount analysis.

Analysis Results

Our calculations have determined that under design wind load the existing mounts will be structurally adequate to support the proposed antenna configuration after the proposed modification is successfully completed. The maximum structural usage is 39.2%, which occurs in the connection. 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 Before Modification
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.



Sector: **A**

6/22/2020

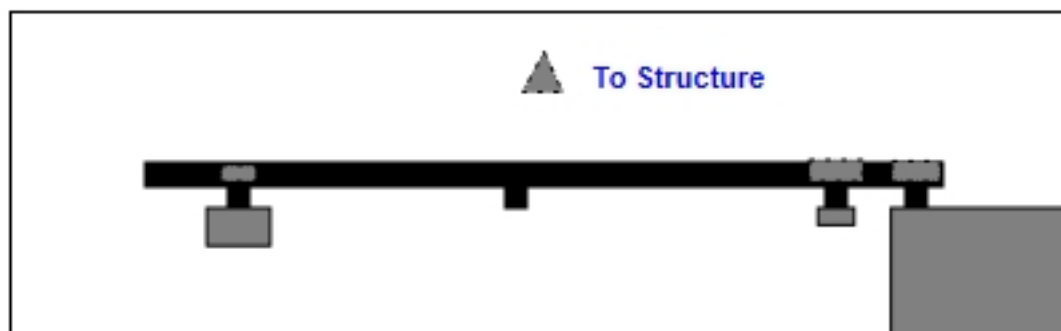


Structure Type: Monopole

Mount Elev: 83.00

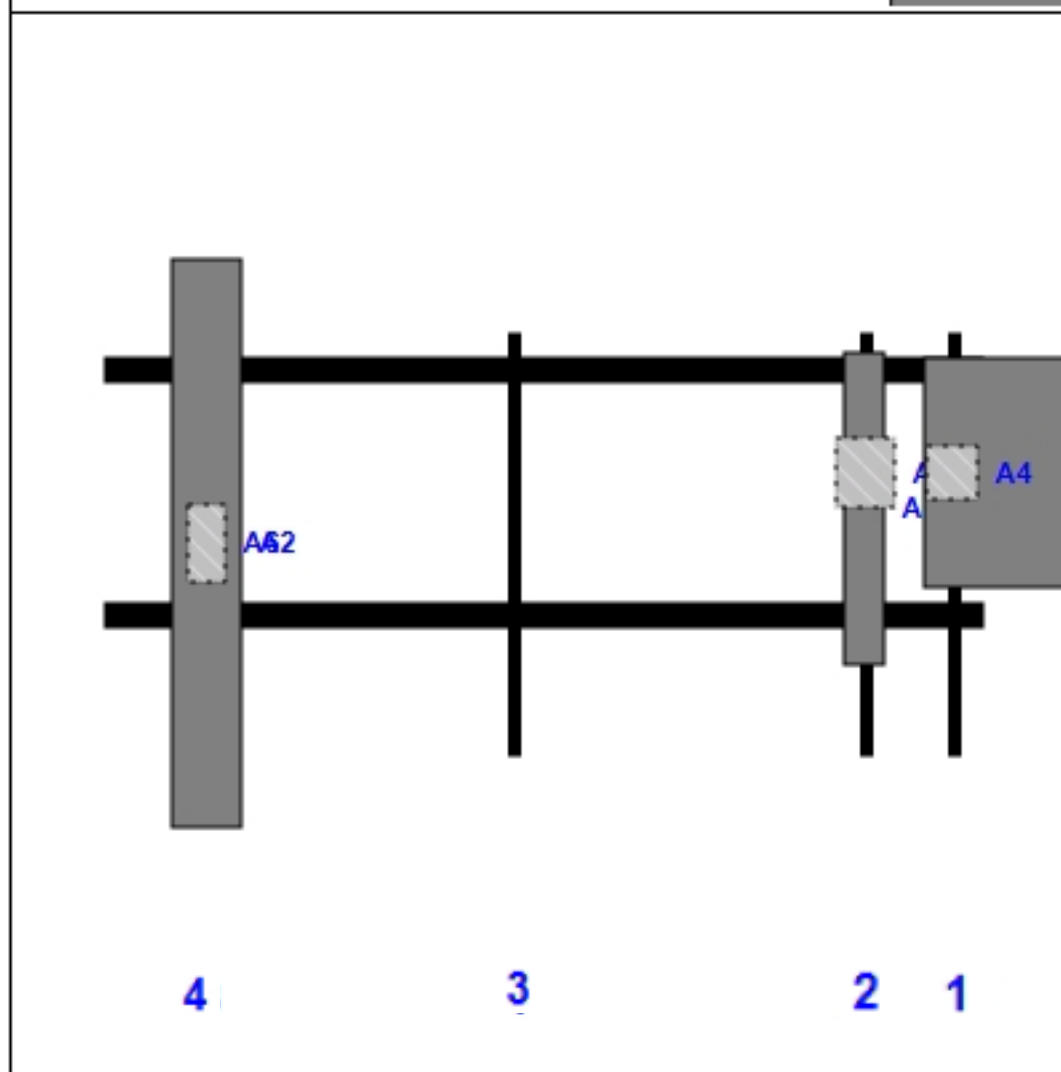
Page: 1

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
A1	APXV18-209014	53.00	6.80	130.0	1	a	Front	30.00			
A5	ATMAA1412D-1A20	12.00	10.00	130.0	1	a	Behind	24.00			
A3	SC3-W100AC	39.40	39.40	145.0	2	a	Front	24.00	15.00		
A4	ODU 600	9.00	9.00	145.0	2	a	Behind	24.00			
A2	LNx-6515DS-A1M	96.40	11.90	18.00	3	a	Front	36.00			
A6	TBD S20057A1	13.20	6.40	18.00	3	a	Behind	36.00			

Sector: **B**

6/22/2020

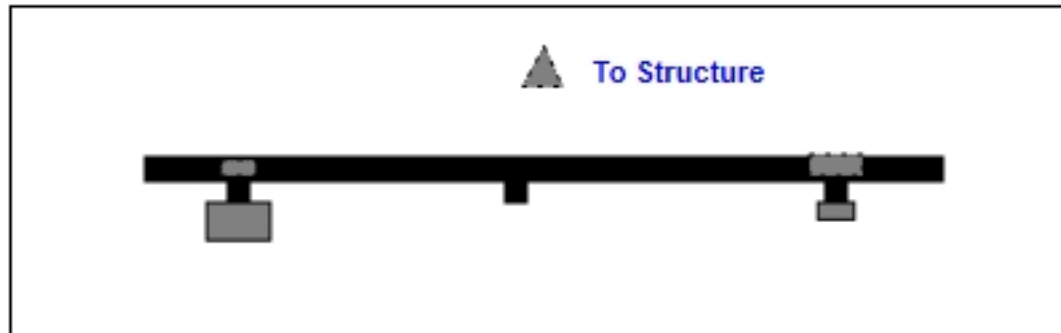


Structure Type: Monopole

Mount Elev: 83.00

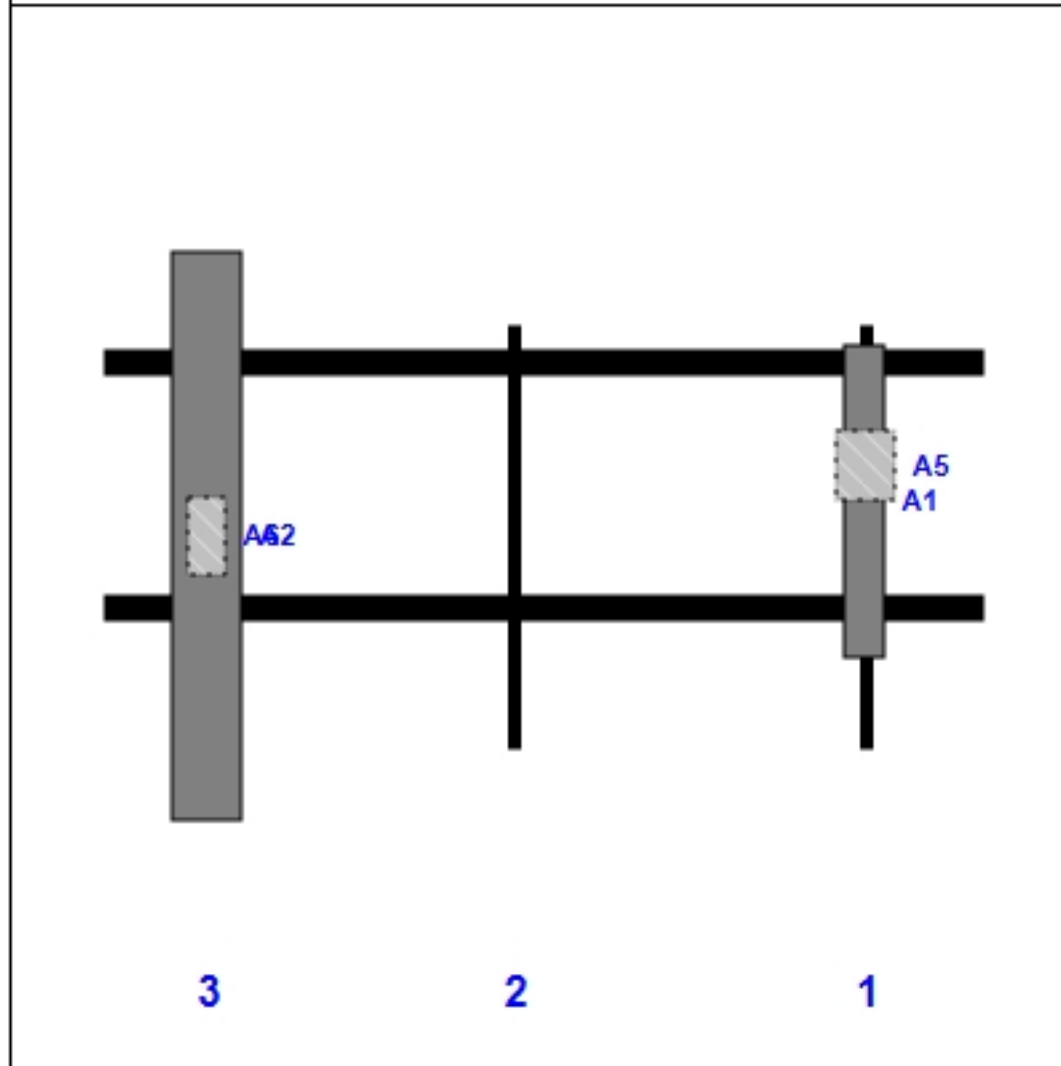
Page: 2

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
A1	APXV18-209014	53.00	6.80	130.0	1	a	Front	30.00			
A5	ATMAA1412D-1A20	12.00	10.00	130.0	1	a	Behind	24.00			
A2	LNX-6515DS-A1M	96.40	11.90	18.00	3	a	Front	36.00			
A6	TBD S20057A1	13.20	6.40	18.00	3	a	Behind	36.00			

Sector: **C**

6/22/2020

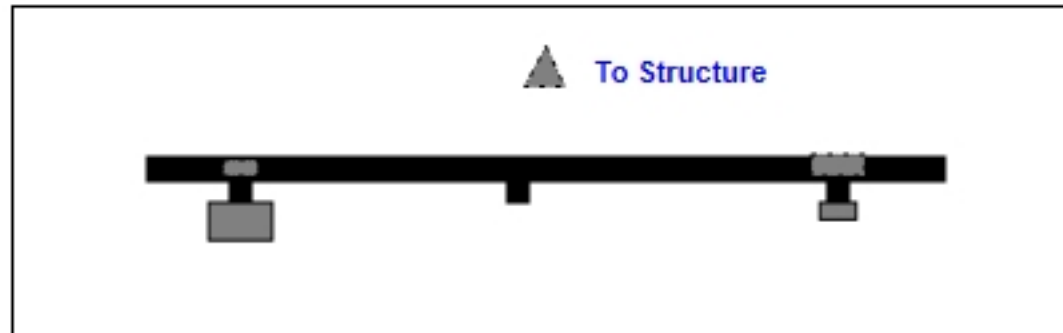


Structure Type: Monopole

Mount Elev: 83.00

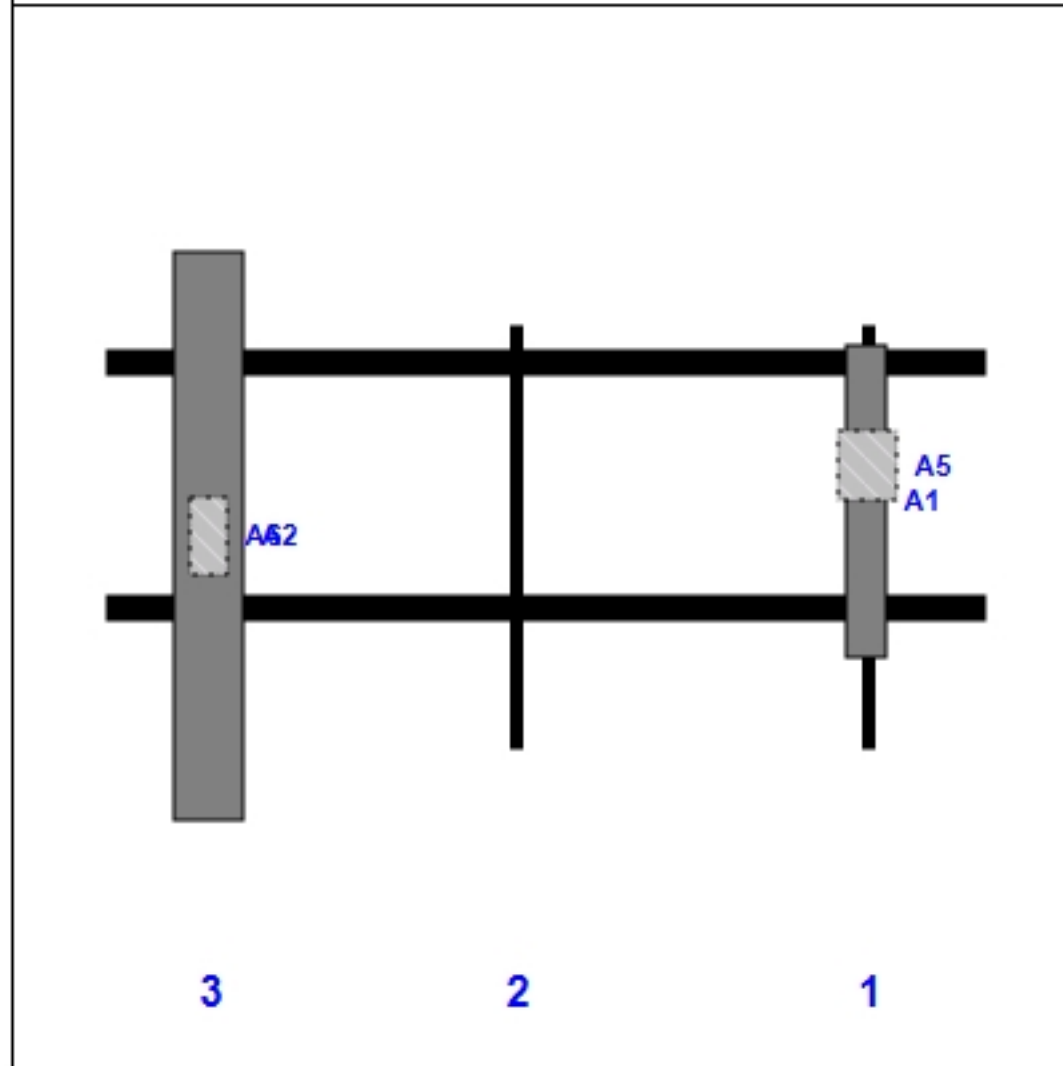
Page: 3

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
A1	APXV18-209014	53.00	6.80	130.0	1	a	Front	30.00			
A5	ATMAA1412D-1A20	12.00	10.00	130.0	1	a	Behind	24.00			
A2	LNx-6515DS-A1M	96.40	11.90	18.00	3	a	Front	36.00			
A6	TBD S20057A1	13.20	6.40	18.00	3	a	Behind	36.00			

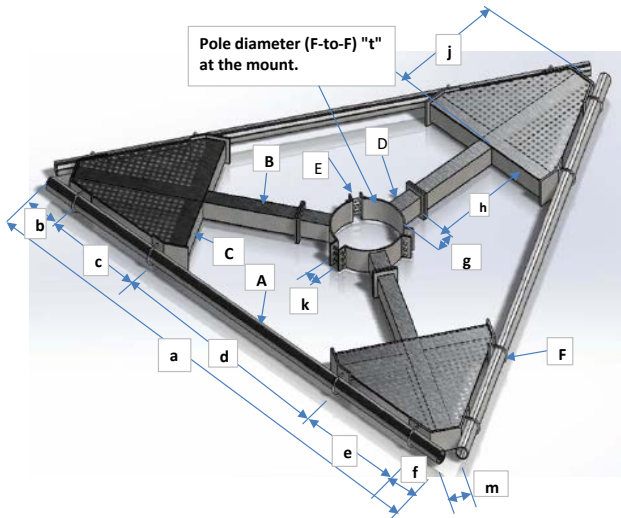


Antenna Mount Type "MT-C" Mapping Form (PATENT PENDING)

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

This antenna mapping form is the property of TES and under **PATENT PENDING**. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of TES. All means and methods are the responsibility of the contractor and the work shall be compliant with ANSI/ASSE A 10.48, OSHA, FCC, FAA and other safety requirements that may apply. TES is not warranting the usability of the safety climb as it must be assessed prior to each use in compliance with OSHA requirements.



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)				

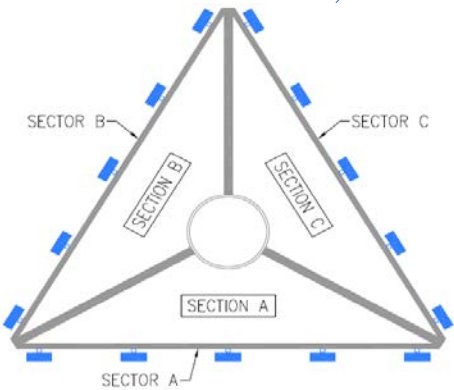
Distance from Top of platform to bottom of lowest antenna tip of carrier above (Enter N/A if > 10 ft.)	6'
Distance from Top of platform to top of highest antenna tip of carrier below (Enter N/A if > 10 ft.)	9'

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.

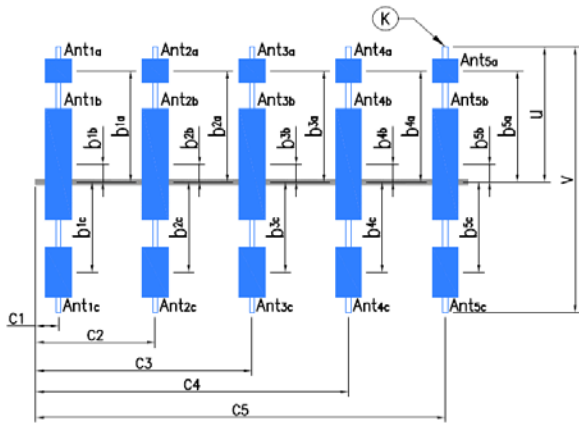
A pipe is supporting both corner antenna pipes. It is 48" above member A (perpendicular). The size is 63"x2.375"ODx0.216" wall.

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}									



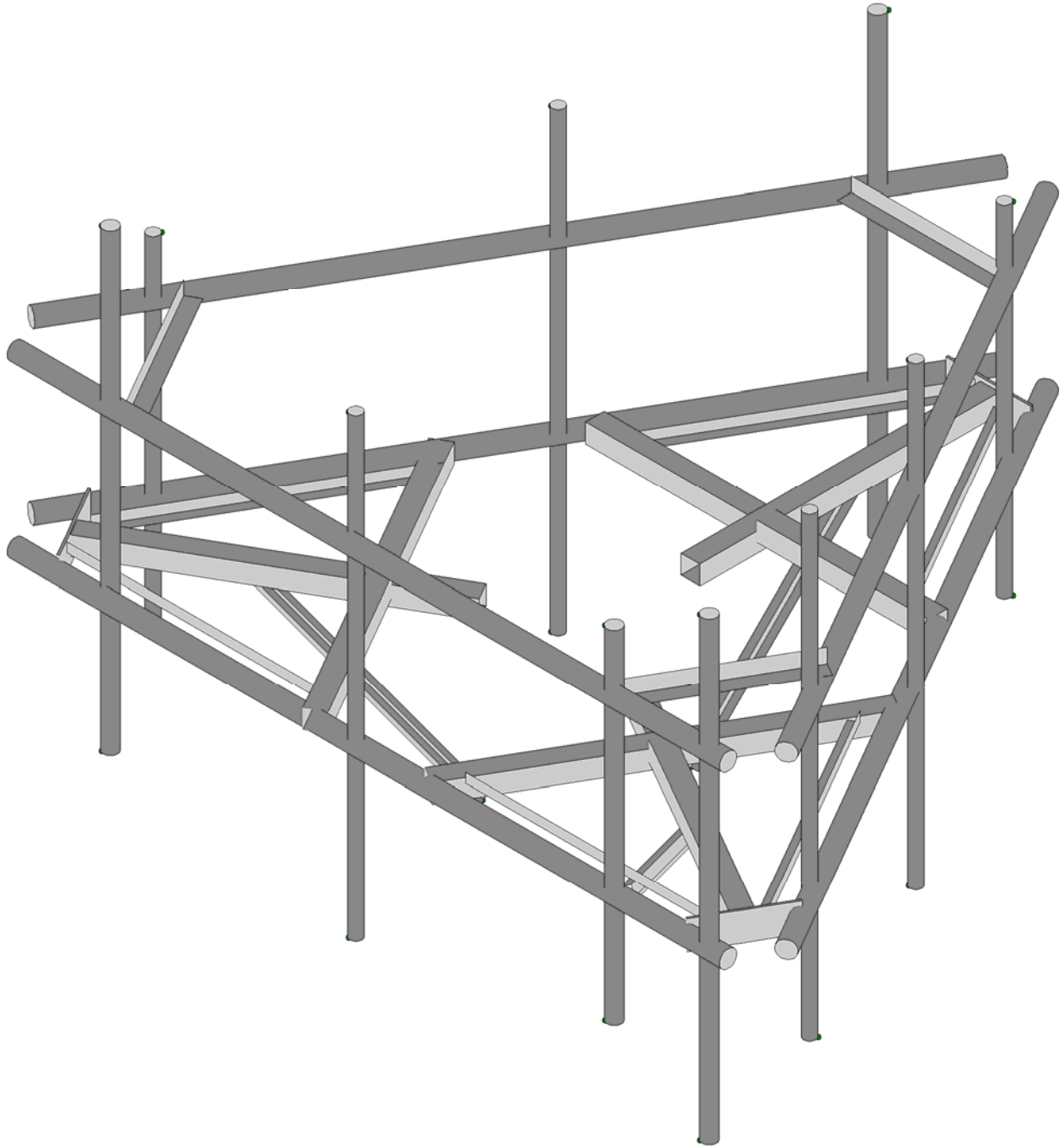
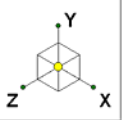
Antenna Layout

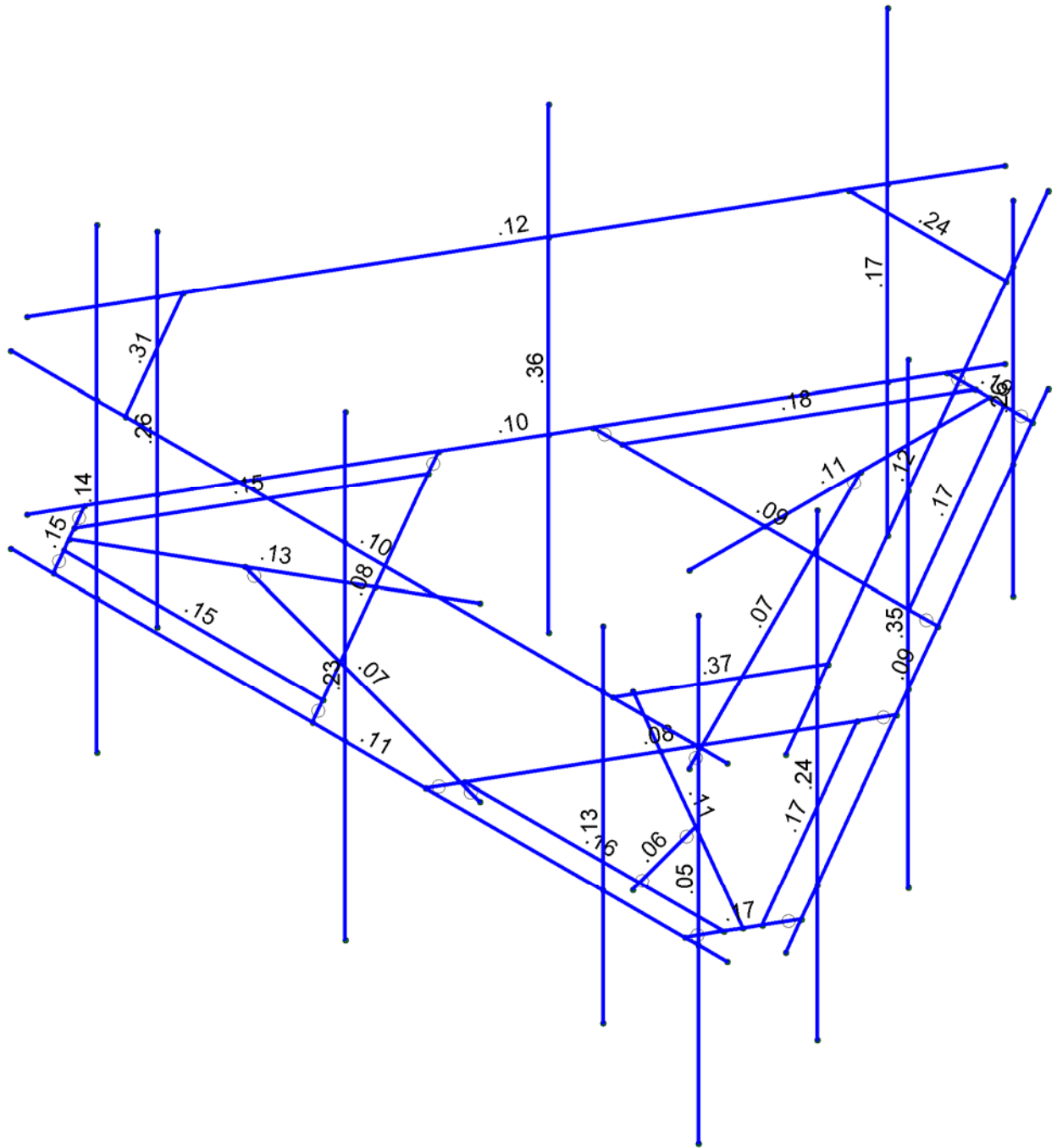
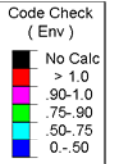
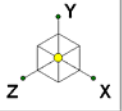
Azimuth (Degree) of Each Sector and Climbing Information

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

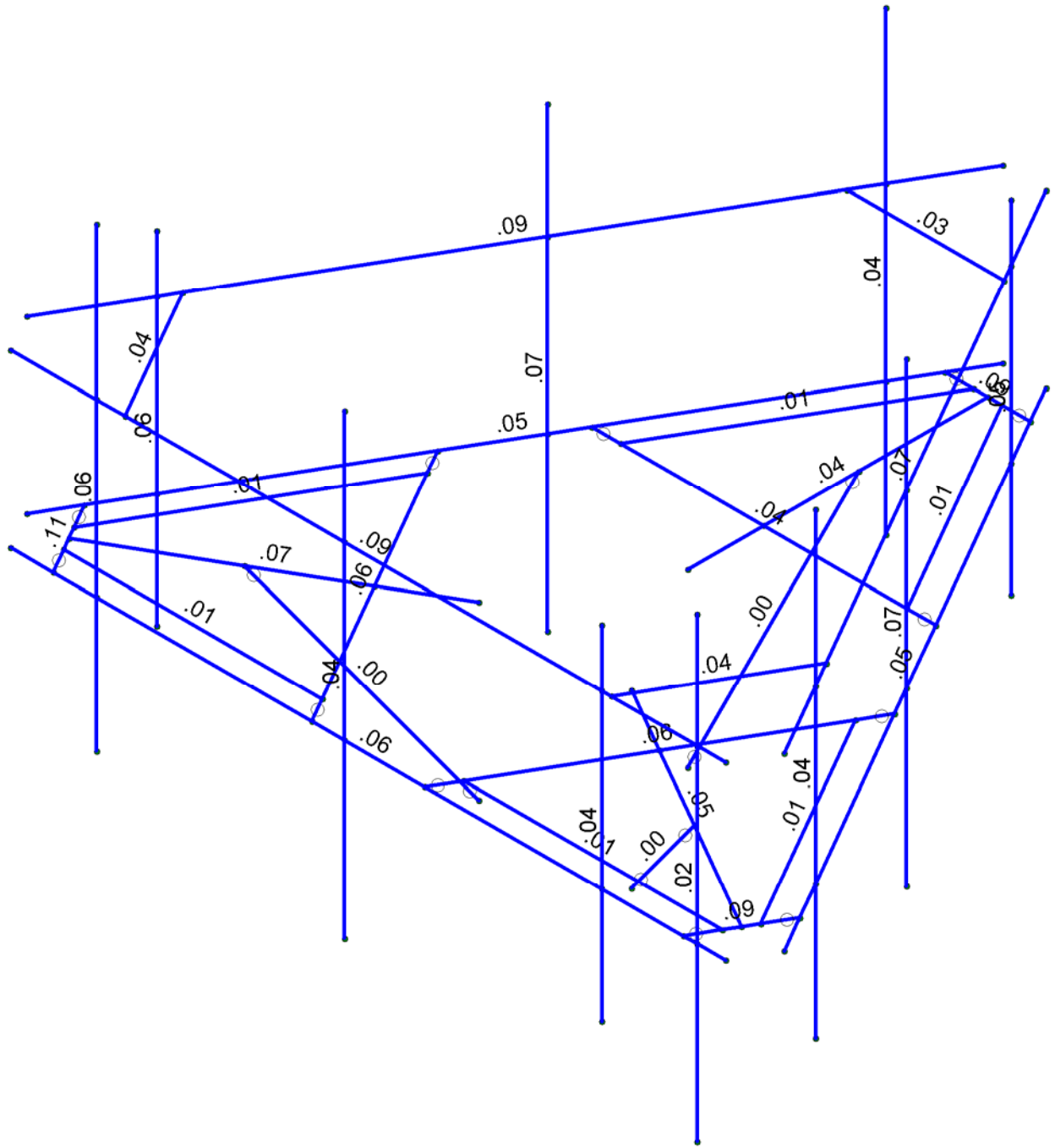
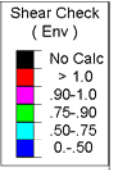
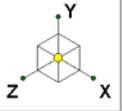
Climbing Facility	Corrosion Type:	Good condition
	Access:	Climbing path was unobstructed.
	Condition:	N/A

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





Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0W (Front)



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0W (Front)



Company : Tower Engineering Solutions, LLC
 Designer :
 Job Number : TES Project No. 82751
 Model Name : CT46132-A-SBA_MT-C_H

July 9, 2020
 9:28 AM
 Checked By: _____

Basic Load Cases

BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...)	Surface(P...
1 Antenna D	None					27		
2 Antenna Di	None					27		
3 Antenna W Front	None					27		
4 Antenna Wi Front	None					27		
5 Antenna W Side	None					27		
6 Antenna Wi Side	None					27		
7 Service Lm1	None					1		
8 Service Lm2	None					1		
9 Structure D	None		-1				3	
10 Structure Di	None						19	3
11 Structure W Front	None						19	
12 Structure Wi Front	None						19	
13 Structure W Side	None						19	
14 Structure Wi Side	None						19	
15 Antenna Wm Front	None					27		
16 Antenna Wm Side	None					27		
17 Structure Wm Front	None						19	
18 Structure Wm Side	None						19	
19 Service Lv1	None					1		
20 Service Lv2	None					1		
21 BLC 9 Transient Area...	None						103	
22 BLC 10 Transient Are...	None						103	

Load Combinations

Description	Solve	P...	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	
1 1.2D+1.0W (Front)	Yes	Y		1	1.2	9	1.2	3	1	11	1											
2 1.2D+1.0W (Back)	Yes	Y		1	1.2	9	1.2	3	-1	11	-1											
3 1.2D+1.0W (Left)	Yes	Y		1	1.2	9	1.2	5	1	13	1											
4 1.2D+1.0W (Right)	Yes	Y		1	1.2	9	1.2	5	-1	13	-1											
5 1.2D+1.0Di+1.0Wi (Front)	Yes	Y		1	1.2	9	1.2	2	1	10	1	4	1	12	1							
6 1.2D+1.0Di+1.0Wi (Back)	Yes	Y		1	1.2	9	1.2	2	1	10	1	4	-1	12	-1							
7 1.2D+1.0Di+1.0Wi (Left)	Yes	Y		1	1.2	9	1.2	2	1	10	1	6	1	14	1							
8 1.2D+1.0Di+1.0Wi (Right)	Yes	Y		1	1.2	9	1.2	2	1	10	1	6	-1	14	-1							
9 1.2D+1.5Lm1+1.0Wm (M...	Yes	Y		1	1.2	9	1.2	7	1.5	15	1	17	1									
10 1.2D+1.5LmL2+1.0Wm (...)	Yes	Y		1	1.2	9	1.2	8	1.5	15	1	17	1									
11 1.2D+1.5Lv1 (Maintenan...	Yes	Y		1	1.2	9	1.2	19	1.5													
12 1.2D+1.5Lv2 (Maintenan...	Yes	Y		1	1.2	9	1.2	20	1.5													
13 1.4D	Yes	Y		1	1.4	9	1.4															

Joint Coordinates and Temperatures

Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1 N1	-1.335122	0	0.770833	0	
2 N2	1.335122	0	0.770833	0	
3 N3	0	0	-1.541667	0	
4 N4	-6.25	0	4.041452	0	
5 N5	6.25	0	4.041452	0	
6 N6	6.625	0	3.391933	0	
7 N7	.375	0	-7.433385	0	
8 N8	-.375	0	-7.433385	0	
9 N9	-6.625	0	3.391933	0	



Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
10	N10	-5.881756	0	3.395833	0	
11	N11	5.881756	0	3.395833	0	
12	N12	0	0	-6.791667	0	
13	N13	-5.509008	0	4.041452	0	
14	N14	-0.986431	0	4.041452	0	
15	N15	0.986431	0	4.041452	0	
16	N16	5.509008	0	4.041452	0	
17	N17	6.254504	0	2.750215	0	
18	N18	3.993215	0	-1.166452	0	
19	N19	3.006785	0	-2.875	0	
20	N20	0.745496	0	-6.791667	0	
21	N21	-0.745496	0	-6.791667	0	
22	N22	-3.006785	0	-2.875	0	
23	N23	-3.993215	0	-1.166452	0	
24	N24	-6.254504	0	2.750215	0	
25	NP1	4.083333	4	4.041452	0	
26	NP2	4.083333	-2	4.041452	0	
27	NP3	-0.416667	5	4.041452	0	
28	NP4	-0.416667	-3	4.041452	0	
29	NP5	-4.75	5.6667	4.041452	0	
30	NP6	-4.75	-2.3333	4.041452	0	
31	NP11	-5.791667	4	1.948557	0	
32	NP12	-5.791667	-2	1.948557	0	
33	NP15	-1.125	5.6667	-6.134347	0	
34	NP16	-1.125	-2.3333	-6.134347	0	
35	NP21	1.208333	4	-5.990009	0	
36	NP22	1.208333	-2	-5.990009	0	
37	NP25	5.875	5.6667	2.092895	0	
38	NP26	5.875	-2.3333	2.092895	0	
39	N39	4.083333	0	4.041452	0	
40	N40	-0.416667	0	4.041452	0	
41	N41	-4.75	0	4.041452	0	
42	N42	1.208333	0	-5.990009	0	
43	N43	5.875	0	2.092895	0	
44	N44	-5.791667	0	1.948557	0	
45	N45	-1.125	0	-6.134347	0	
46	N46	-2.489823	0	1.4375	0	
47	N47	2.489823	0	1.4375	0	
48	N48	0	0	-2.875	0	
49	N55	-0.245496	0	-6.791667	0	
50	N56	-2.506785	0	-2.875	0	
51	N57	0.245496	0	-6.791667	0	
52	N58	2.506785	0	-2.875	0	
53	N59	-5.759008	0	3.608439	0	
54	N60	-1.236431	0	3.608439	0	
55	N61	-6.004504	0	3.183227	0	
56	N62	-3.743215	0	-0.733439	0	
57	N63	6.004504	0	3.183227	0	
58	N64	3.743215	0	-0.733439	0	
59	N65	5.759008	0	3.608439	0	
60	N66	1.236431	0	3.608439	0	
61	N61A	-6.25	3	4.041452	0	
62	N63A	6.25	3	4.041452	0	
63	N65A	6.625	3	3.391933	0	
64	N67	0.375	3	-7.433385	0	
65	N69	-0.375	3	-7.433385	0	
66	N71	-6.625	3	3.391933	0	



Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
67	N73	4.083333	3	4.041452	0	
68	N74	-0.416667	3	4.041452	0	
69	N75	-4.75	3	4.041452	0	
70	N76	-5.791667	3	1.948557	0	
71	N77	-1.125	3	-6.134347	0	
72	N78	1.208333	3	-5.990009	0	
73	N79	5.875	3	2.092895	0	
74	N80	0	-3	-1.541667	0	
75	N81	0	0	-4.541667	0	
76	N82	-1.335122	-3	0.770833	0	
77	N83	-3.933199	0	2.270833	0	
78	N84	1.335122	-3	0.770833	0	
79	N85	3.933199	0	2.270833	0	
80	N86	3.708334	5	-1.659882	0	
81	N87	3.708334	-3	-1.659882	0	
82	N88	3.708333	0	-1.659882	0	
83	N89	3.708334	3	-1.659882	0	
84	N90	-3.291667	5	-2.38157	0	
85	N91	-3.291667	-3	-2.38157	0	
86	N92	-3.291667	0	-2.38157	0	
87	N93	-3.291667	3	-2.38157	0	
88	N94	-4.25	3	4.041452	0	
89	N95	4.25	3	4.041452	0	
90	N96	5.625	3	1.659882	0	
91	N97	1.375	3	-5.701334	0	
92	N98	-1.375	3	-5.701334	0	
93	N99	-5.625	3	1.659882	0	
94	N94A	5.750333	5	4.041452	0	
95	N95A	5.750333	-3	4.041452	0	
96	N96A	5.750333	0	4.041452	0	
97	N97A	5.750333	3	4.041452	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Ru...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	xxxxx	HSS16x0....	Beam	None	A572 Gr.50	Typical	19.9	606	606	1210

Cold Formed Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF	4CU5.25X03..	Beam	CU	A570 Gr.33	Typical	4.854	13.238	12.817	.228

Aluminum Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	AL1A	AACS14X13.9	Beam	AA Channel	3003-H14	Typical	11.8	44.7	401	1.19

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1E...Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt	
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3



Hot Rolled Steel Properties (Continued)

	Label	E [ksi]	G [ksi]	Nu	Therm (1/E...)	Density[k/ft...]	Yield[ksi]	Rv	Fu[ksi]	Rt
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Cold Formed Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (1/E5 F)	Density[k/ft^3]	Yield[ksi]	Fu[ksi]
1	A570 Gr.33	29500	11346	.3	.65	.49	33	52
2	A607 C1 Gr.55	29500	11346	.3	.65	.49	55	70

Aluminum Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (...)	Density[...]	Table B.4	kt	Ftu[ksi]	Fty[ksi]	Fcy[ksi]	Fsu[ksi]	Ct
1	3003-H14	10100	3787.5	.33	1.3	.173	Table B...	1	19	16	13	12	141
2	6061-T6	10100	3787.5	.33	1.3	.173	Table B...	1	38	35	35	24	141
3	6063-T5	10100	3787.5	.33	1.3	.173	Table B...	1	22	16	16	13	141
4	6063-T6	10100	3787.5	.33	1.3	.173	Table B...	1	30	25	25	19	141
5	5052-H34	10200	3787.5	.33	1.3	.173	Table B...	1	34	26	24	20	141
6	6061-T6 W	10100	3787.5	.33	1.3	.173	Table B...	1	24	15	15	15	141

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N4	N5			PIPE 3.0	Beam	Pipe	A53 Gr.B	DR1
2	M2	N6	N7			PIPE 3.0	Beam	Pipe	A53 Gr.B	DR1
3	M3	N8	N9			PIPE 3.0	Beam	Pipe	A53 Gr.B	DR1
4	M4	N1	N10			HSS4x4x4	Beam	None	A500 Gr.B...	DR1
5	M5	N2	N11			HSS4x4x4	Beam	None	A500 Gr.B...	DR1
6	M6	N3	N12			HSS4x4x4	Beam	None	A500 Gr.B...	DR1
7	M7	N23	N14			HSS4x4x4	Beam	None	A500 Gr.B...	DR1
8	M8	N15	N18			HSS4x4x4	Beam	None	A500 Gr.B...	DR1
9	M9	N19	N22			HSS4x4x4	Beam	None	A500 Gr.B...	DR1
10	M10	N24	N13			PL1/2x6	Beam	RECT	A36 Gr.36	DR1
11	M11	N16	N17			PL1/2x6	Beam	RECT	A36 Gr.36	DR1
12	M12	N20	N21			PL1/2x6	Beam	RECT	A36 Gr.36	DR1
13	MP1A	NP1	NP2			PIPE 2.5	Beam	Pipe	A53 Gr.B	DR1
14	MP5A	NP3	NP4			PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
15	MP3A	NP5	NP6			PIPE 2.5	Beam	Pipe	A53 Gr.B	DR1
16	MP1B	NP11	NP12		300	PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
17	MP3B	NP15	NP16		300	PIPE 2.5	Beam	Pipe	A53 Gr.B	DR1
18	MP1C	NP21	NP22		60	PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
19	MP3C	NP25	NP26		60	PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
20	M23	N56	N55			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
21	M24	N57	N58			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
22	M25	N60	N59			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
23	M26	N61	N62			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
24	M27	N64	N63			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
25	M28	N65	N66			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
26	M26A	N61A	N63A			PIPE 3.0	Beam	Pipe	A53 Gr.B	Typical
27	M27A	N65A	N67			PIPE 3.0	Beam	Pipe	A53 Gr.B	Typical
28	M28A	N69	N71			PIPE 3.0	Beam	Pipe	A53 Gr.B	Typical
29	M32	N81	N80			LL2x2x4x0	Beam	Double Angle (...)	A36 Gr.36	Typical
30	M33	N83	N82			LL2x2x4x0	Beam	Double Angle (...)	A36 Gr.36	Typical
31	M34	N85	N84			LL2x2x4x0	Beam	Double Angle (...)	A36 Gr.36	Typical
32	M35	N86	N87			PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
33	M36	N90	N91			PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1



Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
34	M37	N94	N99			L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
35	M38	N98	N97			L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
36	M39	N95	N96			L3x3x4	Beam	Single Angle	A36 Gr.36	Typical
37	MP2A	N94A	N95A			PIPE_2.5	Beam	Pipe	A53 Gr.B	DR1

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Analysis ...	Inactive	Seismic Design ...
1	M1						Yes			None
2	M2						Yes			None
3	M3						Yes			None
4	M4						Yes			None
5	M5						Yes			None
6	M6						Yes			None
7	M7	BenPIN	BenPIN				Yes			None
8	M8	BenPIN	BenPIN				Yes			None
9	M9	BenPIN	BenPIN				Yes			None
10	M10	BenPIN	BenPIN				Yes			None
11	M11	BenPIN	BenPIN				Yes			None
12	M12	BenPIN	BenPIN				Yes			None
13	MP1A						Yes	-z		None
14	MP5A						Yes	-z		None
15	MP3A						Yes	-z		None
16	MP1B						Yes	+z		None
17	MP3B						Yes	+z		None
18	MP1C						Yes	+z		None
19	MP3C						Yes	+z		None
20	M23						Yes			None
21	M24						Yes			None
22	M25						Yes			None
23	M26						Yes			None
24	M27						Yes			None
25	M28						Yes			None
26	M26A						Yes			None
27	M27A						Yes			None
28	M28A						Yes			None
29	M32	BenPIN	BenPIN				Yes			None
30	M33	BenPIN	BenPIN				Yes			None
31	M34	BenPIN	BenPIN				Yes			None
32	M35						Yes	-z		None
33	M36						Yes	-z		None
34	M37						Yes			None
35	M38						Yes			None
36	M39						Yes			None
37	MP2A						Yes	-z		None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torq...	Kyy	Kzz	Cb	Function
1	M1	PIPE 3.0	12.5			Lbyy						Gravity
2	M2	PIPE 3.0	12.5			Lbyy						Gravity
3	M3	PIPE 3.0	12.5			Lbyy						Gravity
4	M4	HSS4x4x4	5.25			Lbyy						Gravity
5	M5	HSS4x4x4	5.25			Lbyy						Gravity
6	M6	HSS4x4x4	5.25			Lbyy						Gravity
7	M7	HSS4x4x4	6.014			Lbyy						Gravity



Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torg...	Kyy	Kzz	Cb	Function
8	M8	HSS4x4x4	6.014			Lbyy						Gravity
9	M9	HSS4x4x4	6.014			Lbyy						Gravity
10	M10	PL1/2x6	1.491			Lbyy						Gravity
11	M11	PL1/2x6	1.491			Lbyy						Gravity
12	M12	PL1/2x6	1.491			Lbyy						Gravity
13	MP1A	PIPE 2.5	6			Lbyy						Gravity
14	MP5A	PIPE 2.0	8			Lbyy						Lateral
15	MP3A	PIPE 2.5	8			Lbyy						Gravity
16	MP1B	PIPE 2.0	6			Lbyy						Gravity
17	MP3B	PIPE 2.5	8			Lbyy						Gravity
18	MP1C	PIPE 2.0	6			Lbyy						Gravity
19	MP3C	PIPE 2.0	8			Lbyy						Gravity
20	M23	L2x2x3	4.523			Lbyy						Lateral
21	M24	L2x2x3	4.523			Lbyy						Lateral
22	M25	L2x2x3	4.523			Lbyy						Lateral
23	M26	L2x2x3	4.523			Lbyy						Lateral
24	M27	L2x2x3	4.523			Lbyy						Lateral
25	M28	L2x2x3	4.523			Lbyy						Lateral
26	M26A	PIPE 3.0	12.5			Lbyy						Lateral
27	M27A	PIPE 3.0	12.5			Lbyy						Lateral
28	M28A	PIPE 3.0	12.5			Lbyy						Lateral
29	M32	LL2x2x4x0	4.243			Lbyy						Lateral
30	M33	LL2x2x4x0	4.243			Lbyy						Lateral
31	M34	LL2x2x4x0	4.243			Lbyy						Lateral
32	M35	PIPE 2.0	8			Lbyy						Gravity
33	M36	PIPE 2.0	8			Lbyy						Gravity
34	M37	L3x3x4	2.75			Lbyy						Lateral
35	M38	L3x3x4	2.75			Lbyy						Lateral
36	M39	L3x3x4	2.75			Lbyy						Lateral
37	MP2A	PIPE 2.5	8			Lbyy						Lateral

Cold Formed Steel Design Parameters

Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp t...	Lcomp ...	L-torque...	Kyy	Kzz	Cm-...	Cm-...	Cb	R	a[ft]	y sw...	z sw...
No Data to Print ...																

Aluminum Design Parameters

Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torg...	Kyy	Kzz	Cb	Function
No Data to Print ...											

Joint Loads and Enforced Displacements

Joint Label	L,D,M	Direction	Magnitude[(lb,k-ft), (in,rad), (lb*s^2...
No Data to Print ...			

Member Point Loads (BLC 1 : Antenna D)

Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]	
1	MP1A	Y	-9.35	.5
2	MP1A	Y	-9.35	5
3	MP1B	Y	-9.35	.5
4	MP1B	Y	-9.35	5
5	MP1C	Y	-9.35	.5
6	MP1C	Y	-9.35	5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
7	MP3A	Y	-24.9	.5
8	MP3A	Y	-24.9	6
9	MP3B	Y	-24.9	.5
10	MP3B	Y	-24.9	6
11	MP3C	Y	-24.9	.5
12	MP3C	Y	-24.9	6
13	MP5A	Y	-40	2
14	MP5A	Y	-11	2
15	MP1A	Y	-13	2
16	MP1B	Y	-13	2
17	MP1C	Y	-13	2
18	MP3A	Y	-11	3
19	MP3B	Y	-11	3
20	MP3C	Y	-11	3
21	M35	Y	-40	2
22	M35	Y	-11	2
23	M36	Y	-40	2
24	M36	Y	-11	2
25	MP2A	Y	-9.35	.5
26	MP2A	Y	-9.35	5
27	MP2A	Y	-13	2

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP1A	Y	-24.69	.5
2	MP1A	Y	-24.69	5
3	MP1B	Y	-24.69	.5
4	MP1B	Y	-24.69	5
5	MP1C	Y	-24.69	.5
6	MP1C	Y	-24.69	5
7	MP3A	Y	-77.261	.5
8	MP3A	Y	-77.261	6
9	MP3B	Y	-77.261	.5
10	MP3B	Y	-77.261	6
11	MP3C	Y	-77.261	.5
12	MP3C	Y	-77.261	6
13	MP5A	Y	-32.276	2
14	MP5A	Y	-19.28	2
15	MP1A	Y	-19.179	2
16	MP1B	Y	-19.179	2
17	MP1C	Y	-19.179	2
18	MP3A	Y	-14.049	3
19	MP3B	Y	-14.049	3
20	MP3C	Y	-14.049	3
21	M35	Y	-32.276	2
22	M35	Y	-19.28	2
23	M36	Y	-32.276	2
24	M36	Y	-19.28	2
25	MP2A	Y	-24.69	.5
26	MP2A	Y	-24.69	5
27	MP2A	Y	-19.179	2

Member Point Loads (BLC 3 : Antenna W Front)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP1A	Z	-62.368	.5
2	MP1A	Z	-62.368	5



Member Point Loads (BLC 3 : Antenna W Front) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
3	MP1B	Z	-42.041	.5
4	MP1B	Z	-42.041	5
5	MP1C	Z	-42.041	.5
6	MP1C	Z	-42.041	5
7	MP3A	Z	-199.821	.5
8	MP3A	Z	-199.821	6
9	MP3B	Z	-150.515	.5
10	MP3B	Z	-150.515	6
11	MP3C	Z	-150.515	.5
12	MP3C	Z	-150.515	6
13	MP5A	Z	-374.207	2
14	MP5A	Z	-15.679	2
15	MP1A	Z	-20.383	2
16	MP1B	Z	-10.419	2
17	MP1C	Z	-10.419	2
18	MP3A	Z	-14.285	3
19	MP3B	Z	-8.186	3
20	MP3C	Z	-8.186	3
21	M35	Z	-374.207	2
22	M35	Z	-15.679	2
23	M36	Z	-374.207	2
24	M36	Z	-15.679	2
25	MP2A	Z	-62.368	.5
26	MP2A	Z	-62.368	5
27	MP2A	Z	-20.383	2

Member Point Loads (BLC 4 : Antenna Wi Front)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.%]
1	MP1A	Z	-13.417	.5
2	MP1A	Z	-13.417	5
3	MP1B	Z	-9.547	.5
4	MP1B	Z	-9.547	5
5	MP1C	Z	-9.547	.5
6	MP1C	Z	-9.547	5
7	MP3A	Z	-40.451	.5
8	MP3A	Z	-40.451	6
9	MP3B	Z	-31.094	.5
10	MP3B	Z	-31.094	6
11	MP3C	Z	-31.094	.5
12	MP3C	Z	-31.094	6
13	MP5A	Z	-77.758	2
14	MP5A	Z	-3.711	2
15	MP1A	Z	-4.072	2
16	MP1B	Z	-2.46	2
17	MP1C	Z	-2.46	2
18	MP3A	Z	-3.031	3
19	MP3B	Z	-2.056	3
20	MP3C	Z	-2.056	3
21	M35	Z	-77.758	2
22	M35	Z	-3.711	2
23	M36	Z	-77.758	2
24	M36	Z	-3.711	2
25	MP2A	Z	-13.417	.5
26	MP2A	Z	-13.417	5
27	MP2A	Z	-4.072	2



Member Point Loads (BLC 5 : Antenna W Side)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP1A	X	35.266	.5
2	MP1A	X	35.266	5
3	MP1B	X	55.592	.5
4	MP1B	X	55.592	5
5	MP1C	X	55.592	.5
6	MP1C	X	55.592	5
7	MP3A	X	134.08	.5
8	MP3A	X	134.08	6
9	MP3B	X	183.386	.5
10	MP3B	X	183.386	6
11	MP3C	X	183.386	.5
12	MP3C	X	183.386	6
13	MP5A	X	172.884	2
14	MP5A	X	14.796	2
15	MP1A	X	14.195	2
16	MP1B	X	34.123	2
17	MP1C	X	34.123	2
18	MP3A	X	12.307	3
19	MP3B	X	24.505	3
20	MP3C	X	24.505	3
21	M35	X	172.884	2
22	M35	X	14.796	2
23	M36	X	172.884	2
24	M36	X	14.796	2
25	MP2A	X	35.266	.5
26	MP2A	X	35.266	5
27	MP2A	X	14.195	2

Member Point Loads (BLC 6 : Antenna Wi Side)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP1A	X	8.258	.5
2	MP1A	X	8.258	5
3	MP1B	X	12.127	.5
4	MP1B	X	12.127	5
5	MP1C	X	12.127	.5
6	MP1C	X	12.127	5
7	MP3A	X	27.975	.5
8	MP3A	X	27.975	6
9	MP3B	X	37.332	.5
10	MP3B	X	37.332	6
11	MP3C	X	37.332	.5
12	MP3C	X	37.332	6
13	MP5A	X	-29.79	2
14	MP5A	X	3.956	2
15	MP1A	X	3.845	2
16	MP1B	X	7.069	2
17	MP1C	X	7.069	2
18	MP3A	X	3.461	3
19	MP3B	X	5.411	3
20	MP3C	X	5.411	3
21	M35	X	-29.79	2
22	M35	X	3.956	2
23	M36	X	-29.79	2
24	M36	X	3.956	2
25	MP2A	X	8.258	.5
26	MP2A	X	8.258	5



Member Point Loads (BLC 6 : Antenna Wi Side) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
27	MP2A	X	3.845	2

Member Point Loads (BLC 7 : Service Lm1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	M1	Y	-500	0

Member Point Loads (BLC 8 : Service Lm2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	M1	Y	-500	%50

Member Point Loads (BLC 15 : Antenna Wm Front)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP1A	Z	-4.171	.5
2	MP1A	Z	-4.171	5
3	MP1B	Z	-2.812	.5
4	MP1B	Z	-2.812	5
5	MP1C	Z	-2.812	.5
6	MP1C	Z	-2.812	5
7	MP3A	Z	-13.365	.5
8	MP3A	Z	-13.365	6
9	MP3B	Z	-10.067	.5
10	MP3B	Z	-10.067	6
11	MP3C	Z	-10.067	.5
12	MP3C	Z	-10.067	6
13	MP5A	Z	-25.029	2
14	MP5A	Z	-1.049	2
15	MP1A	Z	-1.363	2
16	MP1B	Z	-.697	2
17	MP1C	Z	-.697	2
18	MP3A	Z	-.955	3
19	MP3B	Z	-.548	3
20	MP3C	Z	-.548	3
21	M35	Z	-25.029	2
22	M35	Z	-1.049	2
23	M36	Z	-25.029	2
24	M36	Z	-1.049	2
25	MP2A	Z	-4.171	.5
26	MP2A	Z	-4.171	5
27	MP2A	Z	-1.363	2

Member Point Loads (BLC 16 : Antenna Wm Side)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP1A	X	2.359	.5
2	MP1A	X	2.359	5
3	MP1B	X	3.718	.5
4	MP1B	X	3.718	5
5	MP1C	X	3.718	.5
6	MP1C	X	3.718	5
7	MP3A	X	8.968	.5
8	MP3A	X	8.968	6
9	MP3B	X	12.266	.5
10	MP3B	X	12.266	6
11	MP3C	X	12.266	.5
12	MP3C	X	12.266	6
13	MP5A	X	11.563	2



Member Point Loads (BLC 16 : Antenna Wm Side) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
14	MP5A	X	.99	2
15	MP1A	X	.949	2
16	MP1B	X	2.282	2
17	MP1C	X	2.282	2
18	MP3A	X	.823	3
19	MP3B	X	1.639	3
20	MP3C	X	1.639	3
21	M35	X	11.563	2
22	M35	X	.99	2
23	M36	X	11.563	2
24	M36	X	.99	2
25	MP2A	X	2.359	.5
26	MP2A	X	2.359	5
27	MP2A	X	.949	2

Member Point Loads (BLC 19 : Service Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft, %]
1	M1	Y	-250	0

Member Point Loads (BLC 20 : Service Lv2)

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

Member Distributed Loads (BLC 10 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft, ...]	End Magnitude[lb/ft, ...]	Start Location[ft, %]	End Location[ft, %]
1	M1	Y	-6.158	-6.158	0	%100
2	M2	Y	-6.158	-6.158	0	%100
3	M3	Y	-6.158	-6.158	0	%100
4	M4	Y	-9.048	-9.048	0	%100
5	M5	Y	-9.048	-9.048	0	%100
6	M6	Y	-9.048	-9.048	0	%100
7	M7	Y	-9.048	-9.048	0	%100
8	M8	Y	-9.048	-9.048	0	%100
9	M9	Y	-9.048	-9.048	0	%100
10	MP1A	Y	-4.651	-4.651	0	%100
11	MP5A	Y	-4.651	-4.651	0	%100
12	MP3A	Y	-4.651	-4.651	0	%100
13	MP1B	Y	-4.651	-4.651	0	%100
14	MP3B	Y	-4.651	-4.651	0	%100
15	MP1C	Y	-4.651	-4.651	0	%100
16	MP3C	Y	-4.651	-4.651	0	%100
17	M35	Y	-4.651	-4.651	0	%100
18	M36	Y	-4.651	-4.651	0	%100
19	MP2A	Y	-4.651	-4.651	0	%100

Member Distributed Loads (BLC 11 : Structure W Front)

	Member Label	Direction	Start Magnitude[lb/ft, ...]	End Magnitude[lb/ft, ...]	Start Location[ft, %]	End Location[ft, %]
1	M1	PZ	-12.195	-12.195	0	%100
2	M2	PZ	-12.195	-12.195	0	%100
3	M3	PZ	-12.195	-12.195	0	%100
4	M4	PZ	-12.429	-12.429	0	%100
5	M5	PZ	-12.429	-12.429	0	%100
6	M6	PZ	-12.429	-12.429	0	%100
7	M7	PZ	-12.946	-12.946	0	%100



Member Distributed Loads (BLC 11 : Structure W Front) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
8	M8	PZ	-12.946	-12.946	0	%100
9	M9	PZ	-12.946	-12.946	0	%100
10	MP1A	PZ	-8.275	-8.275	0	%100
11	MP5A	PZ	-8.275	-8.275	0	%100
12	MP3A	PZ	-8.275	-8.275	0	%100
13	MP1B	PZ	-8.275	-8.275	0	%100
14	MP3B	PZ	-8.275	-8.275	0	%100
15	MP1C	PZ	-8.275	-8.275	0	%100
16	MP3C	PZ	-8.275	-8.275	0	%100
17	M35	PZ	-8.275	-8.275	0	%100
18	M36	PZ	-8.275	-8.275	0	%100
19	MP2A	PZ	-8.275	-8.275	0	%100

Member Distributed Loads (BLC 12 : Structure Wi Front)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	PZ	-3.685	-3.685	0	%100
2	M2	PZ	-3.685	-3.685	0	%100
3	M3	PZ	-3.685	-3.685	0	%100
4	M4	PZ	-3.575	-3.575	0	%100
5	M5	PZ	-3.575	-3.575	0	%100
6	M6	PZ	-3.575	-3.575	0	%100
7	M7	PZ	-3.724	-3.724	0	%100
8	M8	PZ	-3.724	-3.724	0	%100
9	M9	PZ	-3.724	-3.724	0	%100
10	MP1A	PZ	-2.957	-2.957	0	%100
11	MP5A	PZ	-2.957	-2.957	0	%100
12	MP3A	PZ	-2.957	-2.957	0	%100
13	MP1B	PZ	-2.957	-2.957	0	%100
14	MP3B	PZ	-2.957	-2.957	0	%100
15	MP1C	PZ	-2.957	-2.957	0	%100
16	MP3C	PZ	-2.957	-2.957	0	%100
17	M35	PZ	-2.957	-2.957	0	%100
18	M36	PZ	-2.957	-2.957	0	%100
19	MP2A	PZ	-2.957	-2.957	0	%100

Member Distributed Loads (BLC 13 : Structure W Side)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M1	PX	12.195	12.195	0	%100
2	M2	PX	12.195	12.195	0	%100
3	M3	PX	12.195	12.195	0	%100
4	M4	PX	12.429	12.429	0	%100
5	M5	PX	12.429	12.429	0	%100
6	M6	PX	12.429	12.429	0	%100
7	M7	PX	12.946	12.946	0	%100
8	M8	PX	12.946	12.946	0	%100
9	M9	PX	12.946	12.946	0	%100
10	MP1A	PX	8.275	8.275	0	%100
11	MP5A	PX	8.275	8.275	0	%100
12	MP3A	PX	8.275	8.275	0	%100
13	MP1B	PX	8.275	8.275	0	%100
14	MP3B	PX	8.275	8.275	0	%100
15	MP1C	PX	8.275	8.275	0	%100
16	MP3C	PX	8.275	8.275	0	%100
17	M35	PX	8.275	8.275	0	%100
18	M36	PX	8.275	8.275	0	%100
19	MP2A	PX	8.275	8.275	0	%100



Member Distributed Loads (BLC 14 : Structure Wi Side)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[ft.%,]	End Location[ft.%,]
1	M1	PX	3.685	3.685	0	%100
2	M2	PX	3.685	3.685	0	%100
3	M3	PX	3.685	3.685	0	%100
4	M4	PX	3.575	3.575	0	%100
5	M5	PX	3.575	3.575	0	%100
6	M6	PX	3.575	3.575	0	%100
7	M7	PX	3.724	3.724	0	%100
8	M8	PX	3.724	3.724	0	%100
9	M9	PX	3.724	3.724	0	%100
10	MP1A	PX	2.957	2.957	0	%100
11	MP5A	PX	2.957	2.957	0	%100
12	MP3A	PX	2.957	2.957	0	%100
13	MP1B	PX	2.957	2.957	0	%100
14	MP3B	PX	2.957	2.957	0	%100
15	MP1C	PX	2.957	2.957	0	%100
16	MP3C	PX	2.957	2.957	0	%100
17	M35	PX	2.957	2.957	0	%100
18	M36	PX	2.957	2.957	0	%100
19	MP2A	PX	2.957	2.957	0	%100

Member Distributed Loads (BLC 17 : Structure Wm Front)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[ft.%,]	End Location[ft.%,]
1	M1	PZ	-.816	-.816	0	%100
2	M2	PZ	-.816	-.816	0	%100
3	M3	PZ	-.816	-.816	0	%100
4	M4	PZ	-.831	-.831	0	%100
5	M5	PZ	-.831	-.831	0	%100
6	M6	PZ	-.831	-.831	0	%100
7	M7	PZ	-.866	-.866	0	%100
8	M8	PZ	-.866	-.866	0	%100
9	M9	PZ	-.866	-.866	0	%100
10	MP1A	PZ	-.553	-.553	0	%100
11	MP5A	PZ	-.553	-.553	0	%100
12	MP3A	PZ	-.553	-.553	0	%100
13	MP1B	PZ	-.553	-.553	0	%100
14	MP3B	PZ	-.553	-.553	0	%100
15	MP1C	PZ	-.553	-.553	0	%100
16	MP3C	PZ	-.553	-.553	0	%100
17	M35	PZ	-.553	-.553	0	%100
18	M36	PZ	-.553	-.553	0	%100
19	MP2A	PZ	-.553	-.553	0	%100

Member Distributed Loads (BLC 18 : Structure Wm Side)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[ft.%,]	End Location[ft.%,]
1	M1	PX	.816	.816	0	%100
2	M2	PX	.816	.816	0	%100
3	M3	PX	.816	.816	0	%100
4	M4	PX	.831	.831	0	%100
5	M5	PX	.831	.831	0	%100
6	M6	PX	.831	.831	0	%100
7	M7	PX	.866	.866	0	%100
8	M8	PX	.866	.866	0	%100
9	M9	PX	.866	.866	0	%100
10	MP1A	PX	.553	.553	0	%100
11	MP5A	PX	.553	.553	0	%100
12	MP3A	PX	.553	.553	0	%100



Member Distributed Loads (BLC 18 : Structure Wm Side) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
13	MP1B	PX	.553	.553	0	%100
14	MP3B	PX	.553	.553	0	%100
15	MP1C	PX	.553	.553	0	%100
16	MP3C	PX	.553	.553	0	%100
17	M35	PX	.553	.553	0	%100
18	M36	PX	.553	.553	0	%100
19	MP2A	PX	.553	.553	0	%100

Member Distributed Loads (BLC 21 : BLC 9 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
1	M2	Y	-.041	-.542	6.25	7.5
2	M2	Y	-.542	-1.143	7.5	8.75
3	M2	Y	-1.143	-1.251	8.75	10
4	M2	Y	-1.251	-.855	10	11.25
5	M2	Y	-.855	-.045	11.25	12.5
6	M3	Y	-.045	-.857	0	1.25
7	M3	Y	-.857	-1.254	1.25	2.5
8	M3	Y	-1.254	-1.145	2.5	3.75
9	M3	Y	-1.145	-.543	3.75	5
10	M3	Y	-.543	-.041	5	6.25
11	M6	Y	-1.764	-6.404	1.575	2.31
12	M6	Y	-6.404	-7.993	2.31	3.045
13	M6	Y	-7.993	-6.188	3.045	3.78
14	M6	Y	-6.188	-3.67	3.78	4.515
15	M6	Y	-3.67	-.778	4.515	5.25
16	M9	Y	-.149	-2.792	0	1.203
17	M9	Y	-2.792	-3.822	1.203	2.405
18	M9	Y	-3.822	-3.816	2.405	3.608
19	M9	Y	-3.816	-2.78	3.608	4.811
20	M9	Y	-2.78	-.149	4.811	6.014
21	M12	Y	-.513	-.529	0	.298
22	M12	Y	-.529	-.594	.298	.596
23	M12	Y	-.594	-.594	.596	.895
24	M12	Y	-.594	-.529	.895	1.193
25	M12	Y	-.529	-.514	1.193	1.491
26	M23	Y	-.955	-3.758	0	.905
27	M23	Y	-3.758	-5.015	.905	1.809
28	M23	Y	-5.015	-4.17	1.809	2.714
29	M23	Y	-4.17	-2.914	2.714	3.618
30	M23	Y	-2.914	-1.804	3.618	4.523
31	M24	Y	-1.802	-2.912	0	.905
32	M24	Y	-2.912	-4.164	.905	1.809
33	M24	Y	-4.164	-5.012	1.809	2.714
34	M24	Y	-5.012	-3.761	2.714	3.618
35	M24	Y	-3.761	-.957	3.618	4.523
36	M1	Y	-.04	-.541	6.25	7.5
37	M1	Y	-.541	-1.142	7.5	8.75
38	M1	Y	-1.142	-1.243	8.75	10
39	M1	Y	-1.243	-.847	10	11.25
40	M1	Y	-.847	-.05	11.25	12.5
41	M2	Y	-.045	-.857	0	1.25
42	M2	Y	-.857	-1.254	1.25	2.5
43	M2	Y	-1.254	-1.145	2.5	3.75
44	M2	Y	-1.145	-.543	3.75	5
45	M2	Y	-.543	-.041	5	6.25
46	M5	Y	-1.764	-6.404	1.575	2.31



Member Distributed Loads (BLC 21 : BLC 9 Transient Area Loads) (Continued)

Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
47	M5	-6.404	-7.993	2.31	3.045
48	M5	-7.993	-6.188	3.045	3.78
49	M5	-6.188	-3.67	3.78	4.515
50	M5	-3.67	-.778	4.515	5.25
51	M8	-.149	-2.792	0	1.203
52	M8	-2.792	-3.822	1.203	2.405
53	M8	-3.822	-3.816	2.405	3.608
54	M8	-3.816	-2.78	3.608	4.811
55	M8	-2.78	-.149	4.811	6.014
56	M11	-.581	-.522	0	.373
57	M11	-.522	-.493	.373	.745
58	M11	-.493	-.542	.745	1.118
59	M11	-.542	-.64	1.118	1.491
60	M27	-.955	-3.758	0	.905
61	M27	-3.758	-5.015	.905	1.809
62	M27	-5.015	-4.17	1.809	2.714
63	M27	-4.17	-2.914	2.714	3.618
64	M27	-2.914	-1.804	3.618	4.523
65	M28	-1.849	-2.929	0	.905
66	M28	-2.929	-4.165	.905	1.809
67	M28	-4.165	-5.01	1.809	2.714
68	M28	-5.01	-3.759	2.714	3.618
69	M28	-3.759	-.956	3.618	4.523
70	M1	-.05	-.849	0	1.25
71	M1	-.849	-1.246	1.25	2.5
72	M1	-1.246	-1.144	2.5	3.75
73	M1	-1.144	-.542	3.75	5
74	M1	-.542	-.04	5	6.25
75	M3	-.041	-.542	6.25	7.5
76	M3	-.542	-1.143	7.5	8.75
77	M3	-1.143	-1.251	8.75	10
78	M3	-1.251	-.855	10	11.25
79	M3	-.855	-.045	11.25	12.5
80	M4	-1.054	-7.075	1.575	2.31
81	M4	-7.075	-8.822	2.31	3.045
82	M4	-8.822	-6.424	3.045	3.78
83	M4	-6.424	-3.786	3.78	4.515
84	M4	-3.786	-.777	4.515	5.25
85	M7	-.149	-2.764	0	1.203
86	M7	-2.764	-3.747	1.203	2.405
87	M7	-3.747	-3.741	2.405	3.608
88	M7	-3.741	-2.752	3.608	4.811
89	M7	-2.752	-.149	4.811	6.014
90	M10	-.643	-.536	0	.373
91	M10	-.536	-.482	.373	.745
92	M10	-.482	-.516	.745	1.118
93	M10	-.516	-.585	1.118	1.491
94	M25	-.952	-3.76	0	.905
95	M25	-3.76	-4.774	.905	1.809
96	M25	-4.774	-3.937	1.809	2.714
97	M25	-3.937	-2.939	2.714	3.618
98	M25	-2.939	-1.836	3.618	4.523
99	M26	-1.787	-2.92	0	.905
100	M26	-2.92	-3.934	.905	1.809
101	M26	-3.934	-4.774	1.809	2.714
102	M26	-4.774	-3.764	2.714	3.618
103	M26	-3.764	-.956	3.618	4.523



Member Distributed Loads (BLC 22 : BLC 10 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft....	Start Location[ft.%,]	End Location[ft.%,]
1	M2	Y	-0.076	-1.02	6.25	7.5
2	M2	Y	-1.02	-2.15	7.5	8.75
3	M2	Y	-2.15	-2.354	8.75	10
4	M2	Y	-2.354	-1.609	10	11.25
5	M2	Y	-1.609	-.085	11.25	12.5
6	M3	Y	-.085	-1.613	0	1.25
7	M3	Y	-1.613	-2.359	1.25	2.5
8	M3	Y	-2.359	-2.154	2.5	3.75
9	M3	Y	-2.154	-1.021	3.75	5
10	M3	Y	-1.021	-.076	5	6.25
11	M6	Y	-3.32	-12.049	1.575	2.31
12	M6	Y	-12.049	-15.038	2.31	3.045
13	M6	Y	-15.038	-11.643	3.045	3.78
14	M6	Y	-11.643	-6.904	3.78	4.515
15	M6	Y	-6.904	-1.464	4.515	5.25
16	M9	Y	-.281	-5.253	0	1.203
17	M9	Y	-5.253	-7.192	1.203	2.405
18	M9	Y	-7.192	-7.18	2.405	3.608
19	M9	Y	-7.18	-5.231	3.608	4.811
20	M9	Y	-5.231	-.281	4.811	6.014
21	M12	Y	-.965	-.995	0	.298
22	M12	Y	-.995	-1.117	.298	.596
23	M12	Y	-1.117	-1.117	.596	.895
24	M12	Y	-1.117	-.996	.895	1.193
25	M12	Y	-.996	-.968	1.193	1.491
26	M23	Y	-1.796	-7.071	0	.905
27	M23	Y	-7.071	-9.436	.905	1.809
28	M23	Y	-9.436	-7.845	1.809	2.714
29	M23	Y	-7.845	-5.484	2.714	3.618
30	M23	Y	-5.484	-3.395	3.618	4.523
31	M24	Y	-3.39	-5.48	0	.905
32	M24	Y	-5.48	-7.835	.905	1.809
33	M24	Y	-7.835	-9.43	1.809	2.714
34	M24	Y	-9.43	-7.076	2.714	3.618
35	M24	Y	-7.076	-1.801	3.618	4.523
36	M1	Y	-.075	-1.019	6.25	7.5
37	M1	Y	-1.019	-2.149	7.5	8.75
38	M1	Y	-2.149	-2.34	8.75	10
39	M1	Y	-2.34	-1.594	10	11.25
40	M1	Y	-1.594	-.094	11.25	12.5
41	M2	Y	-.085	-1.613	0	1.25
42	M2	Y	-1.613	-2.359	1.25	2.5
43	M2	Y	-2.359	-2.154	2.5	3.75
44	M2	Y	-2.154	-1.021	3.75	5
45	M2	Y	-1.021	-.076	5	6.25
46	M5	Y	-3.32	-12.049	1.575	2.31
47	M5	Y	-12.049	-15.038	2.31	3.045
48	M5	Y	-15.038	-11.643	3.045	3.78
49	M5	Y	-11.643	-6.904	3.78	4.515
50	M5	Y	-6.904	-1.464	4.515	5.25
51	M8	Y	-.281	-5.253	0	1.203
52	M8	Y	-5.253	-7.192	1.203	2.405
53	M8	Y	-7.192	-7.18	2.405	3.608
54	M8	Y	-7.18	-5.231	3.608	4.811
55	M8	Y	-5.231	-.281	4.811	6.014
56	M11	Y	-1.092	-.983	0	.373
57	M11	Y	-.983	-.928	.373	.745



Member Distributed Loads (BLC 22 : BLC 10 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft....]	End Magnitude[lb/ft....]	Start Location[ft.%]	End Location[ft.%]
58	M11	Y	-.928	-1.02	.745	1.118
59	M11	Y	-1.02	-1.204	1.118	1.491
60	M27	Y	-1.796	-7.071	0	.905
61	M27	Y	-7.071	-9.436	.905	1.809
62	M27	Y	-9.436	-7.845	1.809	2.714
63	M27	Y	-7.845	-5.484	2.714	3.618
64	M27	Y	-5.484	-3.395	3.618	4.523
65	M28	Y	-3.478	-5.512	0	.905
66	M28	Y	-5.512	-7.836	.905	1.809
67	M28	Y	-7.836	-9.427	1.809	2.714
68	M28	Y	-9.427	-7.073	2.714	3.618
69	M28	Y	-7.073	-1.799	3.618	4.523
70	M1	Y	-.094	-1.597	0	1.25
71	M1	Y	-1.597	-2.345	1.25	2.5
72	M1	Y	-2.345	-2.153	2.5	3.75
73	M1	Y	-2.153	-1.02	3.75	5
74	M1	Y	-1.02	-.075	5	6.25
75	M3	Y	-.076	-1.02	6.25	7.5
76	M3	Y	-1.02	-2.15	7.5	8.75
77	M3	Y	-2.15	-2.354	8.75	10
78	M3	Y	-2.354	-1.609	10	11.25
79	M3	Y	-1.609	-.085	11.25	12.5
80	M4	Y	-1.983	-13.313	1.575	2.31
81	M4	Y	-13.313	-16.599	2.31	3.045
82	M4	Y	-16.599	-12.088	3.045	3.78
83	M4	Y	-12.088	-7.123	3.78	4.515
84	M4	Y	-7.123	-1.461	4.515	5.25
85	M7	Y	-.28	-5.2	0	1.203
86	M7	Y	-5.2	-7.05	1.203	2.405
87	M7	Y	-7.05	-7.039	2.405	3.608
88	M7	Y	-7.039	-5.179	3.608	4.811
89	M7	Y	-5.179	-.28	4.811	6.014
90	M10	Y	-1.209	-1.008	0	.373
91	M10	Y	-1.008	-.907	.373	.745
92	M10	Y	-.907	-.971	.745	1.118
93	M10	Y	-.971	-1.101	1.118	1.491
94	M25	Y	-1.792	-7.074	0	.905
95	M25	Y	-7.074	-8.982	.905	1.809
96	M25	Y	-8.982	-7.408	1.809	2.714
97	M25	Y	-7.408	-5.531	2.714	3.618
98	M25	Y	-5.531	-3.455	3.618	4.523
99	M26	Y	-3.363	-5.495	0	.905
100	M26	Y	-5.495	-7.402	.905	1.809
101	M26	Y	-7.402	-8.983	1.809	2.714
102	M26	Y	-8.983	-7.082	2.714	3.618
103	M26	Y	-7.082	-1.799	3.618	4.523

Member Area Loads (BLC 9 : Structure D)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N19	N20	N21	N22	Y	Two Way	-.005
2	N15	N16	N17	N18	Y	Two Way	-.005
3	N13	N14	N23	N24	Y	Two Way	-.005

Member Area Loads (BLC 10 : Structure Di)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
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Member Area Loads (BLC 10 : Structure Di) (Continued)

	Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
1	N19	N20	N21	N22	Y	Two Way	-.01
2	N15	N16	N17	N18	Y	Two Way	-.01
3	N13	N14	N23	N24	Y	Two Way	-.01

Joint Boundary Conditions

	Joint 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	N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N3	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
4	N80	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
5	N81						
6	N82	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
7	N83						
8	N84	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
9	N85						

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	2361.265	4	311.171	10	980.194	1	.176	1	.701	1	.357	9
2		min	-1162.384	3	-416.006	9	-1673.671	2	-.471	10	-.702	2	-.211	1
3	N2	max	1318.87	4	361.563	4	1048.723	1	.212	3	.904	2	.29	1
4		min	-2768.463	3	-284.498	3	-1881.414	2	-.428	10	-.91	1	-.229	2
5	N3	max	783.452	4	471.218	2	3531.271	1	.234	2	.839	3	.245	3
6		min	-789.304	3	-320.87	1	-2163.141	2	-.093	1	-.835	4	-.303	4
7	N80	max	.205	3	1964.097	1	481.384	2	0	1	0	4	0	3
8		min	-.185	4	-465.049	2	-1948.111	1	0	1	0	3	0	4
9	N82	max	-24.071	3	2104.496	9	1044.232	9	0	1	0	9	0	9
10		min	-1808.692	9	44.167	3	13.899	3	0	9	0	1	0	1
11	N84	max	1619.567	6	1886.258	6	935.203	6	0	1	0	1	0	1
12		min	18.455	4	37.683	4	10.657	4	0	10	0	10	0	10
13	Totals:	max	3227.851	4	4872.672	5	3867.201	1						
14		min	-3227.851	3	2625.811	2	-3867.201	2						

Envelope Member Section Forces

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...]	LC	y-y Mome...	LC	z-z Mom...	LC
1	M1	1	max	0	1	0	1	0	1	0	1	0	1	0	1
2			min	0	1	-750	9	0	1	0	1	0	1	0	1
3		2	max	379.703	3	96.682	1	99.14	2	.041	3	.097	1	.164	9
4			min	-343.762	4	-174.668	2	-104.405	1	-.041	4	-.091	2	-.181	3
5		3	max	506.567	2	149.544	4	132.801	4	.111	2	.096	2	.194	1
6			min	-513.131	1	-306.853	3	-133.474	3	-.1	1	-.101	1	-.336	10
7		4	max	530.164	4	222.686	4	150.79	1	.168	1	.124	1	.295	3
8			min	-471.578	3	-106.343	3	-146.457	2	-.169	2	-.12	2	-.36	4
9		5	max	0	1	0	1	0	1	0	1	0	1	0	1
10			min	0	1	0	1	0	1	0	1	0	1	0	1
11	M2	1	max	0	1	.002	2	0	4	0	1	0	1	0	1
12			min	0	1	0	7	0	6	0	1	0	1	0	1
13		2	max	343.232	1	114.868	2	70.675	1	.105	1	.098	4	.076	2
14			min	-317.362	2	-190.723	1	-73.01	2	-.086	2	-.095	3	-.135	1
15		3	max	533.766	1	182.99	2	148.506	3	.167	1	.058	3	.383	2
16			min	-549.578	2	-319.386	1	-149.784	4	-.188	2	-.059	4	-.315	1
17		4	max	359.538	2	187.855	3	87.545	4	.07	1	.069	2	.16	1



Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC	
18		min	-327.932	1	-97.357	4	-85.008	3	-.082	2	-.067	1	-.202	2	
19	5	max	0	1	0	9	0	5	0	1	0	1	0	1	
20		min	0	1	-.001	2	0	2	0	1	0	1	0	1	
21	M3	1	max	0	.002	2	0	2	0	1	0	1	0	1	
22		min	0	1	0	7	0	5	0	1	0	1	0	1	
23	2	max	498.192	2	91.39	3	89.251	4	.069	4	.089	2	.163	1	
24		min	-473.32	1	-162.583	4	-93.816	3	-.056	3	-.083	1	-.235	2	
25	3	max	501.926	4	208.201	1	178.116	1	.125	4	.052	4	.199	3	
26		min	-523.444	3	-384.935	2	-181.479	2	-.146	3	-.055	3	-.168	4	
27	4	max	310.002	1	226.62	1	80.907	2	.113	2	.076	3	.173	2	
28		min	-288.126	2	-143.642	2	-76.795	1	-.116	1	-.073	4	-.211	1	
29	5	max	0	1	0	9	0	5	0	1	0	1	0	1	
30		min	0	1	-.002	1	0	3	0	1	0	1	0	1	
31	M4	1	max	1205.496	3	311.12	10	730.662	2	.409	10	.701	1	.233	10
32		min	-2590.459	4	-415.885	9	-730.4	1	-.258	1	-.702	2	-.277	9	
33	2	max	1198.433	3	291.696	10	718.427	2	.409	10	.249	2	.282	9	
34		min	-2583.395	4	-435.31	9	-718.165	1	-.258	1	-.25	1	-.193	3	
35	3	max	1200.964	3	5.638	3	30.093	2	.486	9	.033	2	1.55	9	
36		min	-2579.683	4	-1125.772	9	-30.812	1	-.225	1	-.033	1	-.052	3	
37	4	max	1221.696	3	915.417	9	17.898	2	.486	9	.065	2	1.105	9	
38		min	-1124.664	4	-14.519	3	-18.519	1	-.225	1	-.066	1	-.049	3	
39	5	max	1214.632	3	890.638	9	5.774	3	.486	9	.08	2	-.013	3	
40		min	-1117.6	4	-39.298	3	-6.285	1	-.225	1	-.082	1	-.098	8	
41	M5	1	max	1299.263	4	361.629	4	889.989	1	.324	1	.904	2	.232	4
42		min	-2970.707	3	-284.445	3	-885.437	2	-.383	10	-.91	1	-.132	3	
43	2	max	1292.2	4	342.205	4	877.754	1	.324	1	.25	1	.254	3	
44		min	-2963.643	3	-303.87	3	-873.203	2	-.383	10	-.25	2	-.23	4	
45	3	max	1298.834	4	-10.283	4	47.864	1	.162	1	.027	1	1.213	3	
46		min	-2962.566	3	-1034.008	6	-46.448	2	-.218	2	-.027	2	-.111	4	
47	4	max	1313.082	4	759.846	6	35.576	1	.162	1	.082	1	.869	3	
48		min	-1204.858	3	-36.098	4	-34.268	2	-.218	2	-.08	2	-.081	4	
49	5	max	1306.018	4	717.789	3	23.342	1	.162	1	.12	1	-.017	4	
50		min	-1197.794	3	-60.713	4	-22.033	2	-.218	2	-.117	2	-.111	7	
51	M6	1	max	2163.141	2	471.298	2	783.266	4	.303	4	.839	3	.234	2
52		min	-3531.271	1	-320.882	1	-789.145	3	-.245	3	-.835	4	-.093	1	
53	2	max	2163.141	2	451.874	2	766.954	4	.303	4	.182	4	.341	1	
54		min	-3531.271	1	-340.307	1	-772.833	3	-.245	3	-.186	3	-.372	2	
55	3	max	2174.219	2	309.978	2	41.655	4	.182	4	.023	4	1.266	1	
56		min	-3535.841	1	-1106.278	1	-42.165	3	-.117	3	-.024	3	-.385	2	
57	4	max	1692.835	2	792.744	1	25.353	4	.182	4	.067	4	.929	1	
58		min	-1587.73	1	-219.108	2	-25.853	3	-.118	3	-.068	3	-.304	2	
59	5	max	1692.835	2	768.128	1	9.04	4	.182	4	.09	4	0	2	
60		min	-1587.73	1	-243.723	2	-9.541	3	-.118	3	-.092	3	-.102	5	
61	M7	1	max	394.575	2	-7.67	3	625.857	4	.345	1	0	1	0	1
62		min	-409.642	1	-322.962	6	-667.99	3	-.38	2	0	1	0	1	
63	2	max	302.615	2	-64.219	3	32.825	1	.345	1	.267	4	.527	6	
64		min	-289.372	1	-401.62	6	-30.339	2	-.341	2	-.273	3	.037	3	
65	3	max	377.308	1	465.126	10	6.543	9	.47	1	.287	2	1.285	10	
66		min	-365.095	2	-445.348	8	-9.964	2	-.537	2	-.291	1	.256	1	
67	4	max	368.88	1	436.527	10	19.044	4	.47	1	.276	2	.608	10	
68		min	-356.667	2	91.032	1	-22.72	3	-.537	2	-.285	1	.065	1	
69	5	max	394.154	4	388.568	10	677.908	1	.529	1	0	1	0	1	
70		min	-418.3	3	29.592	1	-625.923	2	-.557	2	0	1	0	1	
71	M8	1	max	431.417	3	-61.001	1	668.331	2	.561	2	0	1	0	1
72		min	-460.428	4	-394.279	10	-729.331	1	-.535	1	0	1	0	1	
73	2	max	402.827	1	-126.642	1	32.319	4	.539	2	.287	2	.615	10	
74		min	-389.321	2	-443.087	10	-27.955	3	-.47	1	-.298	1	.113	1	



Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC	
75		3	max	416.749	2	434.611	5	17.722	4	.539	2	.316	3	1.303	10
76			min	-185.814	4	-471.813	10	-14.485	1	-.47	1	-.317	4	.43	4
77		4	max	408.322	2	403.041	6	16.238	2	.281	4	.316	3	.533	7
78			min	-397.982	1	120.258	4	-19.351	1	-.351	3	-.322	4	.119	4
79		5	max	404.143	2	325.472	7	768.742	4	.326	4	0	1	0	1
80			min	-423.745	1	62.52	4	-723.138	3	-.357	3	0	1	0	1
81	M9	1	max	537.064	1	58.545	2	704.29	1	.302	3	0	1	0	1
82			min	-557.962	2	-344.139	1	-746.346	2	-.319	4	0	1	0	1
83		2	max	314.715	4	.474	2	30.678	2	.3	3	.289	1	.538	1
84			min	-305.219	3	-386.521	5	-27.722	1	-.279	4	-.295	2	-.059	2
85		3	max	409.121	3	363.527	6	8.735	3	.3	3	.315	1	1.132	5
86			min	-394.251	4	-439.004	5	-8.26	1	-.303	4	-.321	2	.138	2
87		4	max	409.121	3	366.48	5	15.768	1	.244	3	.324	1	.479	5
88			min	-394.251	4	59.028	2	-19.324	2	-.303	4	-.336	2	.028	2
89		5	max	404.799	1	288.335	5	814.481	2	.288	3	0	1	0	1
90			min	-430.989	2	.623	2	-757.655	1	-.306	4	0	1	0	1
91	M10	1	max	114.002	2	38.925	3	19.392	9	.016	1	0	1	0	1
92			min	-103.359	1	-215.461	4	-14.225	3	-.041	2	0	1	0	1
93		2	max	114.002	2	34.095	3	19.392	9	.016	1	.007	9	.081	4
94			min	-103.359	1	-220.29	4	-14.225	3	-.041	2	-.005	3	-.014	3
95		3	max	319.873	4	784.043	9	694.072	1	.046	5	.126	4	.575	9
96			min	-338.646	3	-252.231	4	-712.726	3	-.071	9	-.134	3	-.036	3
97		4	max	193.682	1	778.775	9	12.809	1	.051	1	.005	2	.289	9
98			min	-174.312	2	-121.649	1	-12.402	2	-.024	2	-.005	1	-.046	1
99		5	max	193.682	1	773.963	9	12.809	1	.051	1	0	1	0	1
100			min	-174.312	2	-126.461	1	-12.402	2	-.024	2	0	1	0	1
101	M11	1	max	310.851	1	64.506	1	17.208	2	.042	2	0	1	0	1
102			min	-288.531	2	-387.124	2	-17.016	1	-.071	1	0	1	0	1
103		2	max	310.851	1	59.693	1	17.208	2	.042	2	.006	2	.145	2
104			min	-288.531	2	-391.937	2	-17.016	1	-.071	1	-.006	1	-.023	1
105		3	max	287.88	3	394.797	3	808.239	4	.063	2	.144	3	.329	2
106			min	-309.899	4	-431.32	2	-763.501	3	-.053	5	-.153	4	-.092	4
107		4	max	182.865	4	360.802	3	14.605	4	.051	2	.007	3	.134	3
108			min	-174.284	3	-108.94	4	-18.303	3	-.021	1	-.005	4	-.042	4
109		5	max	182.865	4	355.971	3	14.605	4	.051	2	0	1	0	1
110			min	-174.284	3	-113.77	4	-18.303	3	-.021	1	0	1	0	1
111	M12	1	max	128.549	4	78.473	2	24.086	1	.01	3	0	1	0	1
112			min	-124.985	3	-248.815	1	-21.224	2	-.033	4	0	1	0	1
113		2	max	128.549	4	73.673	2	24.086	1	.01	3	.009	1	.094	1
114			min	-124.985	3	-253.616	1	-21.224	2	-.033	4	-.008	2	-.028	2
115		3	max	473.524	1	483.066	1	874.329	2	.04	6	.156	1	.367	1
116			min	-500.063	2	-173.091	2	-812.892	1	-.056	1	-.167	2	-.146	2
117		4	max	206.297	3	450.434	1	21.286	2	.039	3	.007	1	.167	1
118			min	-192.105	4	-177.17	2	-19.823	1	-.01	4	-.008	2	-.067	2
119		5	max	206.297	3	445.633	1	21.286	2	.039	3	0	1	0	1
120			min	-192.105	4	-181.971	2	-19.823	1	-.01	4	0	1	0	1
121	MP1A	1	max	0	1	.009	4	.041	1	0	3	0	1	0	1
122			min	0	1	-.011	3	-.042	2	0	4	0	1	0	1
123		2	max	231.695	2	281.832	4	148.882	1	.07	1	.19	2	.291	4
124			min	-148.522	1	-246.659	3	-140.03	2	-.073	2	-.186	1	-.263	3
125		3	max	257.156	2	308.44	4	181.678	1	.07	1	.067	1	.13	3
126			min	-123.061	1	-273.267	3	-172.825	2	-.073	2	-.049	2	-.155	4
127		4	max	-21.081	1	47.692	3	74.84	2	0	4	.041	1	.027	3
128			min	-52.748	6	-47.689	4	-74.837	1	0	3	-.041	2	-.027	4
129		5	max	0	1	.013	3	.06	2	0	4	0	1	0	3
130			min	0	2	-.011	4	-.057	1	0	3	0	2	0	4
131	MP5A	1	max	0	1	.002	9	.024	1	0	7	0	1	0	1



Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC	
132		min	0	1	0	7	-.024	2	0	9	0	1	0	1	
133	2	max	269.36	9	230.146	4	218.016	1	.026	4	.286	2	.36	4	
134		min	8.33	10	-243.461	3	-217.514	2	-.025	3	-.277	1	-.376	3	
135	3	max	283.864	7	246.696	4	234.566	1	.026	4	.175	1	.127	3	
136		min	12.578	10	-260.011	3	-234.064	2	-.025	3	-.166	2	-.117	4	
137	4	max	-8.33	10	16.548	3	16.574	2	0	7	.017	1	.017	3	
138		min	-17.632	5	-16.549	4	-16.573	1	0	4	-.017	2	-.017	4	
139	5	max	0	10	.001	4	.024	2	0	7	0	1	0	4	
140		min	0	1	-.002	7	-.023	1	0	4	0	1	0	3	
141	MP3A	1	max	0	1	.061	4	.135	1	0	3	0	1	0	1
142		min	0	1	-.06	3	-.136	2	0	4	0	1	0	1	
143	2	max	129.592	8	150.691	4	216.506	1	0	3	.317	1	.218	3	
144		min	43.028	12	-150.69	3	-216.507	2	0	4	-.317	2	-.218	4	
145	3	max	468.581	2	216.156	4	64.475	4	.133	2	.071	1	.066	9	
146		min	-308.65	1	-243.866	3	-45.24	3	-.132	1	-.056	2	-.056	4	
147	4	max	-21.721	1	55.034	3	73.963	2	0	9	.018	1	.017	3	
148		min	-53.188	6	-55.031	4	-73.957	1	0	3	-.018	2	-.017	4	
149	5	max	0	1	.018	3	.086	2	0	9	0	9	0	3	
150		min	0	9	-.032	9	-.081	1	0	3	0	1	0	4	
151	MP1B	1	max	0	1	.007	2	.012	4	0	2	0	1	0	1
152		min	0	1	-.006	1	-.014	3	0	1	0	1	0	1	
153	2	max	300.487	1	258.495	2	109.438	1	.048	2	.176	2	.265	2	
154		min	-191.066	2	-274.074	1	-120.148	2	-.048	1	-.178	1	-.283	1	
155	3	max	322.335	1	278.268	2	120.854	1	.048	2	-.001	4	.145	1	
156		min	-169.219	2	-293.846	1	-131.563	2	-.048	1	-.022	7	-.14	2	
157	4	max	-17.467	9	47.164	1	58.906	3	0	1	.032	4	.026	1	
158		min	-49.135	7	-47.164	2	-58.907	4	0	2	-.032	3	-.026	2	
159	5	max	0	1	.005	1	.027	2	0	1	0	1	0	1	
160		min	0	1	-.006	2	-.027	1	0	2	0	2	0	2	
161	MP3B	1	max	0	1	.07	2	.095	4	0	2	0	1	0	1
162		min	0	1	-.074	1	-.095	3	0	1	0	1	0	1	
163	2	max	129.592	6	144.753	2	173.244	4	0	2	.253	4	.21	1	
164		min	43.028	2	-144.757	1	-173.244	3	0	1	-.253	3	-.21	2	
165	3	max	353.036	1	330.024	2	46.668	2	.056	4	.053	1	.052	1	
166		min	-189.371	2	-312.244	1	-62.987	1	-.057	3	-.06	2	-.028	2	
167	4	max	-21.721	2	51.755	1	59.951	3	0	1	.015	4	.015	1	
168		min	-53.189	5	-51.755	2	-59.953	4	0	2	-.015	3	-.015	2	
169	5	max	0	2	.026	1	.055	3	0	1	0	5	0	2	
170		min	0	1	-.026	2	-.057	4	0	2	0	2	0	1	
171	MP1C	1	max	0	1	.01	1	.015	3	0	1	0	1	0	1
172		min	0	1	-.009	2	-.016	4	0	2	0	1	0	1	
173	2	max	295.937	3	263.822	1	62.792	2	.043	4	.102	4	.257	1	
174		min	-185.307	4	-291.029	2	-65.661	1	-.041	3	-.114	3	-.286	2	
175	3	max	317.785	3	283.594	1	96.809	3	.043	4	.008	3	.168	2	
176		min	-163.46	4	-310.801	2	-99.724	4	-.041	3	-.025	4	-.155	1	
177	4	max	-17.467	1	47.164	2	58.915	4	0	2	.032	3	.026	2	
178		min	-49.134	6	-47.165	1	-58.917	3	0	1	-.032	4	-.026	1	
179	5	max	0	1	.006	2	.021	4	0	2	0	1	0	2	
180		min	0	2	-.006	1	-.023	3	0	1	0	2	0	1	
181	MP3C	1	max	0	1	.073	1	.119	3	0	1	0	1	0	1
182		min	0	1	-.08	2	-.121	4	0	2	0	1	0	1	
183	2	max	124.773	7	144.756	1	173.268	3	0	1	.253	3	.21	2	
184		min	38.21	10	-144.763	2	-173.27	4	0	2	-.253	4	-.21	1	
185	3	max	371.903	3	240.171	1	85.135	1	.025	1	.058	3	.02	7	
186		min	-205.562	4	-220.745	2	-91.753	2	-.026	2	-.069	4	-.006	4	
187	4	max	-16.902	4	51.743	2	59.93	4	0	6	.015	3	.015	2	
188		min	-48.37	7	-51.742	1	-59.934	3	0	1	-.015	4	-.015	1	



Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC	
189	5	max	0	4	.016	6	.057	2	0	6	0	1	0	2	
190		min	0	3	-.013	1	-.06	1	0	1	0	2	0	1	
191	M23	1	max	926.419	1	40.906	6	19.315	1	0	1	-.001	2	.068	2
192		min	-999.114	2	5.17	1	-23.442	2	0	2	-.026	5	-.025	1	
193		2	max	926.419	1	28.276	6	19.315	1	0	1	.004	2	.028	3
194		min	-999.114	2	-1.784	1	-23.442	2	0	2	-.006	1	-.014	4	
195		3	max	926.419	1	16.741	2	19.315	1	0	1	.008	8	.009	1
196		min	-999.114	2	-11.423	1	-23.442	2	0	2	0	3	-.011	2	
197		4	max	926.419	1	8.019	2	19.315	1	0	1	.007	1	.037	1
198		min	-999.114	2	-20.145	1	-23.442	2	0	2	-.006	2	-.039	2	
199		5	max	926.419	1	1.291	2	19.315	1	0	1	.004	1	.072	1
200		min	-999.114	2	-27.062	5	-23.442	2	0	2	-.021	2	-.062	2	
201	M24	1	max	878.575	1	30.671	5	21.895	2	0	1	-.002	1	.082	1
202		min	-932.668	2	-.936	2	-19.306	1	0	2	-.022	6	-.062	2	
203		2	max	878.575	1	22.416	1	21.895	2	0	1	.003	1	.046	1
204		min	-932.668	2	-7.66	2	-19.306	1	0	2	-.004	2	-.041	2	
205		3	max	878.575	1	13.7	1	21.895	2	0	1	.007	7	.016	1
206		min	-932.668	2	-16.376	2	-19.306	1	0	2	0	4	-.014	2	
207		4	max	878.575	1	4.064	1	21.895	2	0	1	.004	2	.026	4
208		min	-932.668	2	-26.012	2	-19.306	1	0	2	-.006	1	-.012	3	
209		5	max	878.575	1	-2.893	1	21.895	2	0	1	-.002	2	.062	2
210		min	-932.668	2	-37.72	6	-19.306	1	0	2	-.025	5	-.022	1	
211	M25	1	max	733.311	2	40.131	5	18.888	2	0	9	-.002	3	.086	1
212		min	-800.048	1	1.016	2	-22.473	1	0	1	-.024	8	-.045	2	
213		2	max	733.311	2	29.114	1	18.888	2	0	9	.004	3	.042	1
214		min	-800.048	1	-5.929	2	-22.473	1	0	1	-.006	9	-.029	2	
215		3	max	733.311	2	19.727	1	18.888	2	0	9	.008	6	.01	4
216		min	-800.048	1	-15.316	2	-22.473	1	0	1	0	1	-.011	3	
217		4	max	733.311	2	11.242	1	18.888	2	0	9	.007	2	.026	2
218		min	-800.048	1	-23.8	2	-22.473	1	0	1	-.006	1	-.026	1	
219		5	max	733.311	2	4.486	1	18.888	2	0	9	0	2	.063	2
220		min	-800.048	1	-30.557	2	-22.473	1	0	1	-.019	5	-.05	1	
221	M26	1	max	764.692	4	27.92	8	19.769	3	0	9	0	4	.068	4
222		min	-818.378	3	.317	3	-16.942	4	0	1	-.022	9	-.049	3	
223		2	max	764.692	4	20.208	4	19.769	3	0	9	.004	4	.035	4
224		min	-818.378	3	-6.398	3	-16.942	4	0	1	-.009	9	-.031	3	
225		3	max	764.692	4	11.732	4	19.769	3	0	9	.007	5	.021	9
226		min	-818.378	3	-14.874	3	-16.942	4	0	1	-.003	9	-.016	1	
227		4	max	764.692	4	2.344	4	19.769	3	0	9	.006	1	.027	2
228		min	-818.378	3	-24.262	3	-16.942	4	0	1	-.008	2	-.012	1	
229		5	max	764.692	4	-4.607	4	19.769	3	0	9	-.001	1	.063	3
230		min	-818.378	3	-35.927	7	-16.942	4	0	1	-.025	6	-.022	4	
231	M27	1	max	871.214	3	37.18	8	19.449	3	0	1	-.003	4	.071	4
232		min	-929.761	4	3.525	3	-22.157	4	0	10	-.026	7	-.029	3	
233		2	max	871.214	3	25.486	4	19.449	3	0	1	.005	1	.03	4
234		min	-929.761	4	-3.429	3	-22.157	4	0	10	-.006	2	-.014	3	
235		3	max	871.214	3	15.846	4	19.449	3	0	1	.007	5	.015	2
236		min	-929.761	4	-13.068	3	-22.157	4	0	10	0	2	-.011	1	
237		4	max	871.214	3	7.124	4	19.449	3	0	1	.006	3	.037	3
238		min	-929.761	4	-21.79	3	-22.157	4	0	10	-.007	4	-.031	4	
239		5	max	871.214	3	.396	4	19.449	3	0	1	.001	3	.073	3
240		min	-929.761	4	-28.518	3	-22.157	4	0	10	-.023	8	-.052	4	
241	M28	1	max	792.134	2	33.812	2	25.421	1	0	9	-.002	3	.077	2
242		min	-870.626	1	-8.119	1	-21.172	2	0	2	-.021	5	-.063	1	
243		2	max	792.134	2	27.049	2	25.421	1	0	9	.005	2	.035	2
244		min	-870.626	1	-14.882	1	-21.172	2	0	2	-.005	1	-.034	1	
245		3	max	792.134	2	18.328	2	25.421	1	0	9	.007	6	.018	3



Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC
246		min	-870.626	1	-23.604	1	-21.172	2	0	2	0	1	-.016	4
247	4	max	792.134	2	8.693	2	25.421	1	0	9	.006	4	.045	1
248		min	-870.626	1	-33.238	1	-21.172	2	0	2	-.008	3	-.028	2
249	5	max	792.134	2	1.738	2	25.421	1	0	9	0	4	.095	1
250		min	-870.626	1	-41.59	5	-21.172	2	0	2	-.026	7	-.048	2
251	M26A	1	max	0	1	0	1	0	1	0	1	0	1	0
252		min	0	1	0	1	0	1	0	1	0	1	0	1
253		2	max	109.265	10	161.072	4	80.487	1	.198	1	.16	1	.261
254		min	-156.393	9	-196.691	3	-83.393	2	-.189	2	-.153	2	-.284	3
255	3	max	124.95	10	160.783	4	106.448	2	.102	2	.318	1	.166	9
256		min	-147.929	9	-93.34	3	-108.975	1	-.112	1	-.321	2	-.102	10
257	4	max	124.95	10	134.369	4	106.448	2	.102	2	.157	3	.259	3
258		min	-147.929	9	-119.754	3	-108.975	1	-.112	1	-.167	4	-.296	4
259	5	max	0	1	0	1	0	1	0	1	0	1	0	1
260		min	0	1	0	1	0	1	0	1	0	1	0	1
261	M27A	1	max	0	1	0	1	0	1	0	1	0	1	0
262		min	0	1	0	1	0	1	0	1	0	1	0	1
263		2	max	69.483	1	189.156	2	36.252	4	.05	2	.204	2	.25
264		min	-107.117	2	-220.883	1	-36.232	3	-.053	1	-.2	1	-.253	1
265	3	max	65.168	3	179.556	2	88.287	1	.16	3	.164	2	.273	2
266		min	-107.913	4	-116.33	1	-85.451	2	-.15	4	-.161	1	-.183	1
267	4	max	65.168	3	153.142	2	88.287	1	.16	3	.138	4	.222	1
268		min	-107.913	4	-142.744	1	-85.451	2	-.15	4	-.126	3	-.247	2
269	5	max	0	1	0	1	0	1	0	1	0	1	0	1
270		min	0	1	0	1	0	1	0	1	0	1	0	1
271	M28A	1	max	0	1	0	1	0	1	0	1	0	1	0
272		min	0	1	0	1	0	1	0	1	0	1	0	1
273		2	max	75.322	4	223.285	1	79.456	2	.089	2	.149	3	.328
274		min	-90.447	3	-250.413	2	-78.952	1	-.079	1	-.153	4	-.351	2
275	3	max	81.857	1	152.686	1	49.281	4	.137	1	.154	2	.255	1
276		min	-114.66	2	-93.047	2	-43.726	3	-.121	2	-.157	1	-.168	2
277	4	max	81.857	1	126.272	1	49.281	4	.137	1	.253	2	.164	2
278		min	-114.66	2	-119.461	2	-43.726	3	-.121	2	-.238	1	-.181	1
279	5	max	0	1	0	1	0	1	0	1	0	1	0	1
280		min	0	1	0	1	0	1	0	1	0	1	0	1
281	M32	1	max	2743.197	1	13.506	13	0	1	0	4	0	1	0
282		min	-692.381	2	11.576	1	0	1	0	3	0	1	0	1
283		2	max	2748.985	1	6.753	13	0	1	0	4	0	1	-.009
284		min	-686.593	2	5.788	1	0	1	0	3	0	1	-.011	13
285	3	max	2754.773	1	0	1	0	1	0	4	0	1	-.012	1
286		min	-680.805	2	0	1	0	1	0	3	0	1	-.014	13
287	4	max	2760.561	1	-5.788	1	0	1	0	4	0	1	-.009	1
288		min	-675.017	2	-6.753	13	0	1	0	3	0	1	-.011	13
289	5	max	2766.349	1	-11.576	1	0	1	0	4	0	1	0	1
290		min	-669.229	2	-13.506	13	0	1	0	3	0	1	0	1
291	M33	1	max	2941.736	9	13.506	13	0	1	0	9	0	1	0
292		min	27.732	3	11.576	1	0	1	0	1	0	1	0	1
293		2	max	2947.524	9	6.753	13	0	1	0	9	0	1	-.009
294		min	33.521	3	5.788	1	0	1	0	1	0	1	-.011	13
295	3	max	2953.312	9	0	1	0	1	0	9	0	1	-.012	1
296		min	39.309	3	0	1	0	1	0	1	0	1	-.014	13
297	4	max	2959.1	9	-5.788	2	0	1	0	9	0	1	-.009	1
298		min	45.097	3	-6.753	13	0	1	0	1	0	1	-.011	13
299	5	max	2964.888	9	-11.576	2	0	1	0	9	0	1	0	1
300		min	50.885	3	-13.506	13	0	1	0	1	0	1	0	1
301	M34	1	max	2633.055	6	13.506	13	0	1	0	1	0	1	0
302		min	18.563	4	11.576	3	0	1	0	10	0	1	0	1



Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...	LC	y-y Mome...	LC	z-z Mom...	LC	
303	2	max	2638.844	6	6.753	13	0	1	0	1	0	1	-.009	3	
304		min	24.351	4	5.788	3	0	1	0	10	0	1	-.011	13	
305	3	max	2644.632	6	0	1	0	1	0	1	0	1	-.012	3	
306		min	30.139	4	0	1	0	1	0	10	0	1	-.014	13	
307	4	max	2650.42	6	-5.788	2	0	1	0	1	0	1	-.009	3	
308		min	35.927	4	-6.753	13	0	1	0	10	0	1	-.011	13	
309	5	max	2656.208	6	-11.576	2	0	1	0	1	0	1	0	1	
310		min	41.716	4	-13.506	13	0	1	0	10	0	1	0	1	
311	M35	1	max	0	1	.013	4	.008	1	0	3	0	1	0	1
312		min	0	1	-.013	3	-.008	2	0	4	0	1	0	1	
313	2	max	255.13	5	220.909	4	390.692	1	.042	2	.58	2	.294	4	
314		min	67.18	3	-214.937	3	-386.784	2	-.043	1	-.582	1	-.292	3	
315	3	max	272.762	5	237.459	4	407.242	1	.042	2	.216	1	.155	3	
316		min	75.51	3	-231.487	3	-403.334	2	-.043	1	-.211	2	-.164	4	
317	4	max	-8.33	1	16.562	3	16.559	2	0	4	.017	1	.017	3	
318		min	-17.632	6	-16.561	4	-16.558	1	0	3	-.017	2	-.017	4	
319	5	max	0	1	.011	3	.009	2	0	4	0	1	0	4	
320		min	0	2	-.011	4	-.008	1	0	3	0	2	0	3	
321	M36	1	max	0	1	.011	4	.007	1	0	3	0	1	0	1
322		min	0	1	-.012	3	-.007	2	0	4	0	1	0	1	
323	2	max	259.73	6	191.621	4	387.372	1	.035	1	.602	2	.268	4	
324		min	25.303	1	-187.638	3	-404.982	2	-.037	2	-.579	1	-.262	3	
325	3	max	277.362	6	208.171	4	403.922	1	.035	1	.212	1	.13	3	
326		min	33.633	1	-204.189	3	-421.532	2	-.037	2	-.225	2	-.132	4	
327	4	max	-8.33	4	16.561	3	16.556	2	0	1	.017	1	.017	3	
328		min	-17.632	7	-16.56	4	-16.557	1	0	2	-.017	2	-.017	4	
329	5	max	0	4	.011	2	.006	2	0	1	0	4	0	4	
330		min	0	1	-.011	1	-.007	1	0	2	0	2	0	3	
331	M37	1	max	246.932	1	370.932	2	213.492	1	.002	1	.213	1	.649	2
332		min	-271.463	2	-366.429	1	-219.725	2	-.002	2	-.196	2	-.668	1	
333	2	max	246.932	1	366.89	2	213.492	1	.002	1	.138	1	.363	2	
334		min	-271.463	2	-370.471	1	-219.725	2	-.002	2	-.123	2	-.385	1	
335	3	max	246.932	1	362.847	2	213.492	1	.002	1	.061	1	.079	2	
336		min	-271.463	2	-374.514	1	-219.725	2	-.002	2	-.053	2	-.101	1	
337	4	max	246.932	1	358.805	2	213.492	1	.002	1	.07	3	.186	1	
338		min	-271.463	2	-378.556	1	-219.725	2	-.002	2	-.073	4	-.204	2	
339	5	max	246.932	1	354.762	2	213.492	1	.002	1	.09	3	.475	1	
340		min	-271.463	2	-382.599	1	-219.725	2	-.002	2	-.107	4	-.484	2	
341	M38	1	max	229.414	2	299.232	4	157.888	3	.001	3	.155	3	.536	4
342		min	-242.271	1	-300.001	3	-168.378	4	-.001	4	-.126	4	-.552	3	
343	2	max	229.414	2	295.19	4	157.888	3	.001	3	.087	2	.31	4	
344		min	-242.271	1	-304.043	3	-168.378	4	-.001	4	-.064	1	-.329	3	
345	3	max	229.414	2	291.147	4	157.888	3	.001	3	.089	2	.085	4	
346		min	-242.271	1	-308.086	3	-168.378	4	-.001	4	-.078	1	-.103	3	
347	4	max	229.414	2	287.105	4	157.888	3	.001	3	.09	2	.125	3	
348		min	-242.271	1	-312.128	3	-168.378	4	-.001	4	-.094	1	-.137	4	
349	5	max	229.414	2	283.062	4	157.888	3	.001	3	.113	4	.354	3	
350		min	-242.271	1	-316.171	3	-168.378	4	-.001	4	-.137	3	-.357	4	
351	M39	1	max	210.003	4	350.615	2	145.476	4	.002	2	.474	1	.295	2
352		min	-224.718	3	-344.012	1	-134.715	3	-.003	1	-.476	2	-.333	1	
353	2	max	210.003	4	346.573	2	145.476	4	.002	2	.246	1	.191	2	
354		min	-224.718	3	-348.055	1	-134.715	3	-.003	1	-.241	2	-.224	1	
355	3	max	210.003	4	342.53	2	145.476	4	.002	2	.022	4	.111	3	
356		min	-224.718	3	-352.097	1	-134.715	3	-.003	1	-.014	3	-.136	4	
357	4	max	210.003	4	338.488	2	145.476	4	.002	2	.223	2	.123	3	
358		min	-224.718	3	-356.14	1	-134.715	3	-.003	1	-.216	1	-.136	4	
359	5	max	210.003	4	334.445	2	145.476	4	.002	2	.452	2	.138	3	



Envelope Member Section Forces (Continued)

Member	Sec	Axial[lb]	LC	y Shear[lb]	LC	z Shear[lb]	LC	Torque[k-...]	LC	y-y Mome...	LC	z-z Mom...	LC	
360		min	-224.718	3	-360.182	1	-134.715	3	-0.03	1	-0.45	1	-0.135	4
361	MP2A	1	max	0	1	.02	4	.062	1	0	3	0	1	0
362			min	0	1	-.022	3	-.063	2	0	4	0	1	0
363		2	max	206.118	2	98.235	4	78.98	1	.027	3	.11	1	.151
364			min	-122.587	1	-84.514	3	-78.981	2	-.028	4	-.11	2	-.132
365		3	max	219.266	2	114.785	4	24.623	1	.027	3	.021	5	.054
366			min	-109.439	1	-101.064	3	-13.867	2	-.028	4	.002	2	-.062
367		4	max	-13.148	2	16.564	3	16.598	2	0	4	.017	1	.017
368			min	-22.451	5	-16.562	4	-16.596	1	0	3	-.017	2	-.017
369		5	max	0	2	.014	3	.048	2	0	4	0	1	0
370			min	0	1	-.012	4	-.046	1	0	3	0	1	0

Envelope AISC 14th(360-10): LRFD Steel Code Checks

Member	Shape	Code Check	Loc...	LC	Shear Check	Loc.....	phi*Pn...	phi*Pn...	phi*Mn...	phi*Mn...	Cb	Eqn		
1	M1	PIPE_3.0	.107	10...	4	.062	5.339	2	28250...	65205	5.749	5.749	2.0...	H1-1b
2	M2	PIPE_3.0	.087	5.859	1	.050	7.161	1	28250...	65205	5.749	5.749	1.6...	H1-1b
3	M3	PIPE_3.0	.098	10...	1	.050	5.339	1	28250...	65205	5.749	5.749	2.0...	H1-1b
4	M4	HSS4x4x4	.126	2.953	9	.065	2.953	y 9	12431...	139518	16.181	16.181	1.6...	H1-1b
5	M5	HSS4x4x4	.107	2.953	3	.051	0	z 2	12431...	139518	16.181	16.181	1.6...	H1-1b
6	M6	HSS4x4x4	.114	2.953	1	.043	0	z 4	12431...	139518	16.181	16.181	1.6...	H1-1b
7	M7	HSS4x4x4	.081	3.007	10	.057	5.575	z 2	11992...	139518	16.181	16.181	1.3...	H1-1b
8	M8	HSS4x4x4	.082	3.007	10	.059	.438	z 2	11992...	139518	16.181	16.181	1.3...	H1-1b
9	M9	HSS4x4x4	.089	3.007	1	.042	5.575	z 2	11992...	139518	16.181	16.181	1.3...	H1-1b
10	M10	PL1/2x6	.147	.745	4	.113	.745	y 9	43286...	97200	1.012	12.15	1.4...	H1-1b
11	M11	PL1/2x6	.170	.745	3	.094	0	y 1	43286...	97200	1.012	12.15	1.3...	H1-1b
12	M12	PL1/2x6	.190	.745	1	.086	.745	y 1	43286...	97200	1.012	12.15	1.4...	H1-1b
13	MP1A	PIPE_2.5	.134	4	4	.035	4	2	37773...	50715	3.596	3.596	2.13	H1-1b
14	MP5A	PIPE_2.0	.228	5	1	.043	5	3	14916...	32130	1.872	1.872	2.0...	H1-1b
15	MP3A	PIPE_2.5	.137	2.667	2	.056	2.667	2	30038...	50715	3.596	3.596	2.71	H1-1b
16	MP1B	PIPE_2.0	.263	1	1	.062	4	1	20866...	32130	1.872	1.872	2.1...	H1-1b
17	MP3B	PIPE_2.5	.169	5.667	1	.038	5.667	2	30038...	50715	3.596	3.596	3.1...	H1-1b
18	MP1C	PIPE_2.0	.259	4	2	.049	4	2	20866...	32130	1.872	1.872	2.1...	H1-1b
19	MP3C	PIPE_2.0	.240	2.667	3	.043	5.667	1	14916...	32130	1.872	1.872	2.4...	H1-1b
20	M23	L2x2x3	.175	4.523	1	.006	0	y 6	8379.9...	23392.8	.558	1.239	2.4...	H2-1
21	M24	L2x2x3	.175	0	1	.006	4.523	y 6	8379.9...	23392.8	.558	1.239	2.4...	H2-1
22	M25	L2x2x3	.147	0	2	.008	0	y 9	8379.9...	23392.8	.558	1.228	2.3...	H2-1
23	M26	L2x2x3	.148	0	4	.006	4.523	y 6	8379.9...	23392.8	.558	1.239	2.4...	H2-1
24	M27	L2x2x3	.166	4.523	3	.006	0	y 8	8379.9...	23392.8	.558	1.239	2.4...	H2-1
25	M28	L2x2x3	.161	0	2	.006	4.523	y 5	8379.9...	23392.8	.558	1.239	2.5...	H2-1
26	M26A	PIPE_3.0	.103	1.563	3	.091	1.953	1	28250...	65205	5.749	5.749	2.1...	H1-1b
27	M27A	PIPE_3.0	.120	1.953	1	.067	1.562	3	28250...	65205	5.749	5.749	2.2...	H1-1b
28	M28A	PIPE_3.0	.121	1.562	2	.086	1.953	3	28250...	65205	5.749	5.749	2.1...	H1-1b
29	M32	LL2x2x4x0	.066	4.243	1	.001	0	y 4	42184...	61236	2.894	2.114	1	H1-1b*
30	M33	LL2x2x4x0	.070	4.243	9	.002	0	y 9	42184...	61236	2.894	2.114	1	H1-1b*
31	M34	LL2x2x4x0	.063	4.243	6	.002	0	y 10	42184...	61236	2.894	2.114	1	H1-1b*
32	M35	PIPE_2.0	.346	5	1	.069	5	1	14916...	32130	1.872	1.872	2.1...	H1-1b
33	M36	PIPE_2.0	.358	5	2	.067	5	2	14916...	32130	1.872	1.872	2.1...	H1-1b
34	M37	L3x3x4	.311	0	1	.035	2.75	y 1	39459...	46656	1.688	3.756	2.2...	H2-1
35	M38	L3x3x4	.241	0	3	.027	2.75	y 3	39459...	46656	1.688	3.756	2.19	H2-1
36	M39	L3x3x4	.371	0	1	.035	2.75	y 1	39459...	46656	1.688	3.756	2.1...	H2-1
37	MP2A	PIPE_2.5	.051	5	4	.017	5	4	30038...	50715	3.596	3.596	1.88	H1-1b



Company : Tower Engineering Solutions, LLC
 Designer :
 Job Number : TES Project No. 82751
 Model Name : CT46132-A-SBA_MT-C_H

July 9, 2020
 9:28 AM
 Checked By: _____

Envelope AISI S100-10: LRFD Cold Formed Steel Code Checks

Member	Shape	Code ...	Loc[ft]	LC Shear ...	Loc[ft]	Dir	LC ϕ^*P_n [lb]	ϕ^*T_n [lb]	ϕ^*M_{ny} ...	ϕ^*M_{nz} ...	Cb	Cmyy	Cmzz	Eqn
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Envelope AA ADM1-10: ASD - Building Aluminum Code Checks

Member	Shape	Code C...	Loc[ft]	LC Shear ...	Loc[ft]	Dir	LC $P_{nc}/O...$	$P_{nt}/O_{m}...$	$M_{ny}/O...$	$M_{nz}/O...$	$V_{ny}/O...$	$V_{nz}/O...$	Cb	Eqn
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EXHIBIT 10

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

T-Mobile Existing Facility

Site ID: CT11805A

CT805/Nextell Newtown_MP
8 Ferris Road
Newtown, Connecticut 06470

September 17, 2020

EBI Project Number: 6220004847

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	20.12%

September 17, 2020

T-Mobile

Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, Connecticut 06002

Emissions Analysis for Site: CT11805A - CT805/Nextell Newtown_MP

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **8 Ferris Road in Newtown, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

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

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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 8 Ferris Road in Newtown, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

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

- 1) 1 microwave backhaul channel (11 GHz) was considered for the proposed facility. This channel has a transmit power of 0.0138 Watts.
- 2) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 3) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used in this direction. This value is a very conservative

estimate as gain reductions for these particular antennas are typically much higher in this direction.

- 4) Modeling included calculations for the proposed 11 GHz microwave backhaul antennas. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 5) The antenna mounting height centerline of the proposed antennas (both microwave and panel antennas) is 83 feet above ground level (AGL).
- 6) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 7) All calculations were done with respect to uncontrolled / general population threshold limits.

Microwave Backhaul Data									
Sector	Antenna Make	Antenna Model	Frequency (MHz)	Transmitter Power (W)	Channel Count	Antenna Centerline (feet) AGL	Gain (dBd)	Total ERP (W)	MPE %
A	Andrew	VHLP3-11W	11000	0.013788498	1	83.0	36.35	59.50	0.03%

Site Composite MPE %	
Carrier	MPE %
T-Mobile (Max at Sector A):	0.03%
Nextel	0.45%
Sprint	0.13%
Verizon	4.98%
AT&T	7.17%
Existing T-Mobile	7.36%
Site Total MPE % :	20.12%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	0.03%
Site Total MPE % :	20.12%

T-Mobile Maximum MPE Power Values (Sector A)							
T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu\text{W}/\text{cm}^2$)	Frequency (MHz)	Allowable MPE ($\mu\text{W}/\text{cm}^2$)	Calculated % MPE
T-Mobile 11000 MHz	1	59.50	83.0	0.31	11000 MHz	1000	0.03%
						Total:	0.03%

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

Summary

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

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

T-Mobile Sector	Power Density Value (%)
Sector A:	0.03%
T-Mobile Maximum MPE % (Sector A):	0.03%
Site Total:	20.12%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **20.12%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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