



Northeast Site Solutions  
Denise Sabo  
4 Angela's Way, Burlington CT 06013  
203-435-3640  
denise@northeastsitesolutions.com

April 22, 2022

Members of the Siting Council  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, CT 06051

RE: Exempt Modification Application  
712 Bread and Milk Street, Coventry, CT 06238  
Latitude: 41.818066  
Longitude: -72.393177  
Site#: CT02573-S\_CT11515A\_SBA/T-Mobile

Dear Ms. Bachman:

T-Mobile is requesting to file an exempt modification for an existing tower located at 712 Bread and Milk Street, Coventry, CT 06238. T-Mobile currently maintains six (6) antennas at the 172-foot level of the existing 178-foot tower. The property is owned by Ronald Nadeau, and the tower is owned by SBA. T-Mobile now intends to replace (3) existing antennas with (3) new antennas and add three (3) new antennas. The new antennas would be installed at the 172-foot level of the tower. This modification includes B2, B5 hardware that is both 4G (LTE), and 5G capable.

**T-Mobile Planned Modifications:**

Remove:

(3) Coax 1-5/8"

Remove and Replace:

(3) EMS RR90-17-02DP Antennas (Remove) – (3) Ericsson AIR6449 B41 Antennas (Replace)

Install New:

(3) COMMSCOPE W-65A-R1 Antennas

(3) Ericsson 4460 B25+B66 RRH

(2) HCS Fiber Cable 1.9"

Existing to Remain:

(3) RFS APXVAALL24\_43 U-NA20 Antennas

(3) Ericsson 4449 B71+B85 RRH

(1) HCS Fiber Cable 1-5/8"

(9) Coax 1-5/8" \*

(3) 489/2 TMAs \*

(3) 144/1 TMAs \*

(3) Kathrein Bias Ts \*

\*Equipment listed for entitlement purposed only



This facility was approved by the Town of Coventry Planning & Zoning Commission on October 23, 2000. 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 Lisa Thomas, Town Council Chair, John Elssesser, Town Manager and Eric Trott, Director of Land Use for the Town of Coventry, as well as the property owner and the tower owner.

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 modifications 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 modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

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

Sincerely,

Denise Sabo  
Mobile: 203-435-3640  
Fax: 413-521-0558  
Office: 4 Angela's Way, Burlington CT 06013  
Email: [denise@northeastsitesolutions.com](mailto:denise@northeastsitesolutions.com)



**NSS** **NORTHEAST**  
SITE SOLUTIONS  
*Turnkey Wireless Development*

Attachments

Cc: Lisa Thomas, Town Council Chair  
Town of Coventry  
1712 Main Street  
Coventry, CT 06238

John Elsesser, Town Manager  
Town of Coventry  
1712 Main Street  
Coventry, CT 06238

Eric Trott, Director of Land Use  
Town of Coventry  
1712 Main Street  
Coventry, CT 06238

Ronald Nadeau, Property Owner  
2050 Boston Tpk.  
Coventry, CT 06238

SBA – Tower Owner

# Exhibit A

## **Original Facility Approval**

TO: OFFICE OF THE TOWN CLERK  
 FROM: COVENTRY PLANNING AND ZONING COMMISSION  
 SUBJECT: FILING REQUIREMENTS - SECTION 8-3D, CT. GENERAL STATUTES.

In accordance with the provisions of Public Act Number 75-317, State of Connecticut, the following application #00-20S approved on October 23, 2000, by the Coventry Planning and Zoning Commission, is being submitted to your office for recording within the Coventry Land Records.

1. Description of Premises: 712 BREAD AND MILK STREET.
2. Assessor's Map: 4 ; Block: 12 ; Lot (s): 8 .  
 Volume 226 ; Page(s): 35-39 .
3. Nature of **SPECIAL PERMIT**: Granted to SBA, Inc. to install a 175' monopole communications tower with the capability of expanding to 195', antenna, and associated equipment. The following conditions apply: 1) A copy of federal licenses necessary to operate the facility must be submitted by the applicant as necessary. 2) The landscape plans provided on the site plan, currently propose vegetation on the westerly fence as white pine to be used. The vegetation is to be reviewed by the Planning and Zoning staff. 3) The tower be constructed to provide service for seven carriers, and that it be built and constructed with the ability to be expanded to 195'. Reason for approval: application meets the regulations and is appropriate for the location.
4. Zoning Regulation(s) which apply: Section 4.0 and 6.19.
5. Owner(s) of Record: NORMAN NADEAU AND RONALD NADEAU.

This information is certified by:

Jacques Polbinsky Chairman  
 Name Title

11/16/00  
 Date Signed

Return to:  
 Attorney Wendell g. Davis  
 Cranmore, Fitzgerald, and Meany  
 For SBA, Inc.  
 49 Wethersfield Avenue  
 Hartford CT 06114

Received for record Nov 29 2000  
 At 7:30 P M. Recorded in Coventry  
 Land Records, Vol. 687 Page 290  
 By Quinn Bennett Town Clerk

# Exhibit B

## Property Card

# 712 BREAD & MILK ST

**Location** 712 BREAD & MILK ST

**Mblu** 10 / 15 / 1

**Acct#** R04086

**Owner** NADEAU, RONALD R

**PBN**

**Assessment** \$1,268,300

**Appraisal** \$1,836,300

**PID** 3904

**Building Count** 6

## Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2019	\$1,114,600	\$721,700	\$1,836,300

Assessment			
Valuation Year	Improvements	Land	Total
2019	\$780,400	\$487,900	\$1,268,300

## Owner of Record

**Owner** NADEAU, RONALD R  
**Co-Owner**  
**Address** 2050 BOSTON TPK  
COVENTRY, CT 06238

**Sale Price** \$0  
**Certificate**  
**Book & Page** 1264/462  
**Sale Date** 10/10/2019  
**Instrument** 79

## Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
NADEAU, RONALD R	\$0		1264/462	79	10/10/2019
NADEAU RONALD R +	\$407,500		0968/0121	81	11/02/2005
NADEAU RONALD&RENETTE G TRUSTEE	\$0		0876/0158	64	03/15/2004

## Building Information

### Building 1 : Section 1

**Year Built:** 1950

**Building Photo**

**Living Area:** 24,816  
**Replacement Cost:** \$1,022,221  
**Building Percent Good:** 60  
**Replacement Cost**  
**Less Depreciation:** \$613,300

**Building Attributes**

Field	Description
Style	Office/Warehs
Model	Comm/Ind
Grade	C-
Stories:	2
Occupancy	8.00
Exterior Wall 1	Pre-finsh Metl
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Metal/Tin
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Cement
Interior Floor 2	
Heating Fuel	Gas
Heating Type	Forced Air
AC Type	None/partial
Struct Class	
Bldg Use	Commercial Improv
Total Rooms	0
Usrflid 216	
Total Baths	2
Usrflid 218	
Usrflid 219	
1st Floor Use:	201
Heat/AC	HEAT ONLY
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	8.00
% Comn Wall	0.00
Usrflid 100	
Usrflid 302	
Usrflid 301	
Usrflid 303	

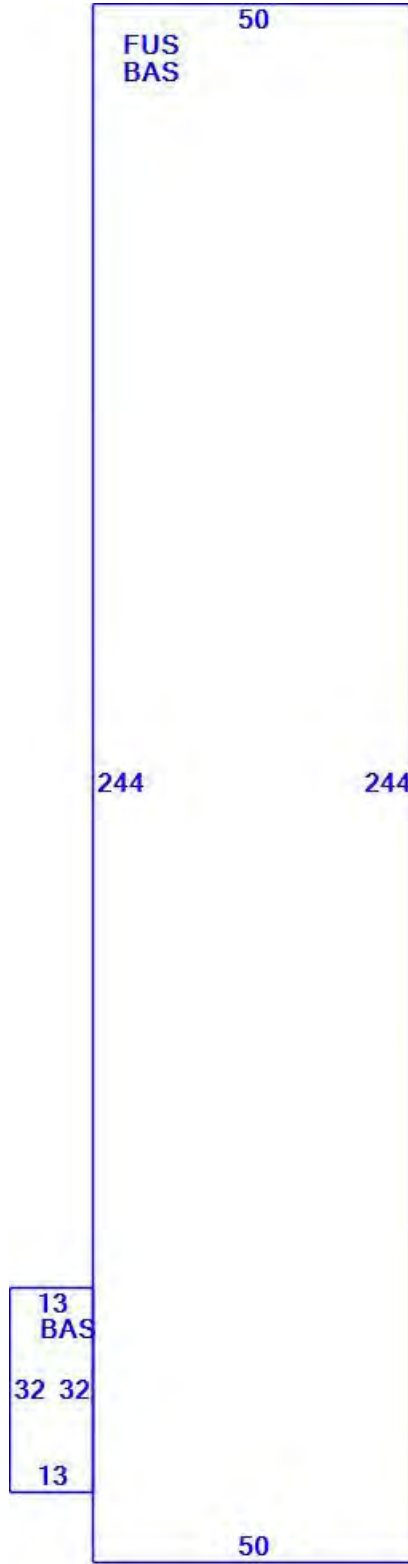


(<http://images.vgsi.com/photos/CoventryCTPhotos/\00\00\65\83.jpg>)



Usrflid 103	
Usrflid 107	
Usrflid 304	
Usrflid 104	
Usrflid 105	
Usrflid 101	
Usrflid 225	
Usrflid 300	
Usrflid 220	
Usrflid 221	
Usrflid 102	
Usrflid 701	
Usrflid 106	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No

### Building Layout



(ParcelSketch.ashx?pid=3904&bid=3904)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	12,616	12,616
FUS	Upper Story, Finished	12,200	12,200

		24,816	24,816
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**Building 2 : Section 1**

**Year Built:** 1950  
**Living Area:** 14,520  
**Replacement Cost:** \$515,800  
**Building Percent Good:** 54  
**Replacement Cost Less Depreciation:** \$278,500

**Building Photo**

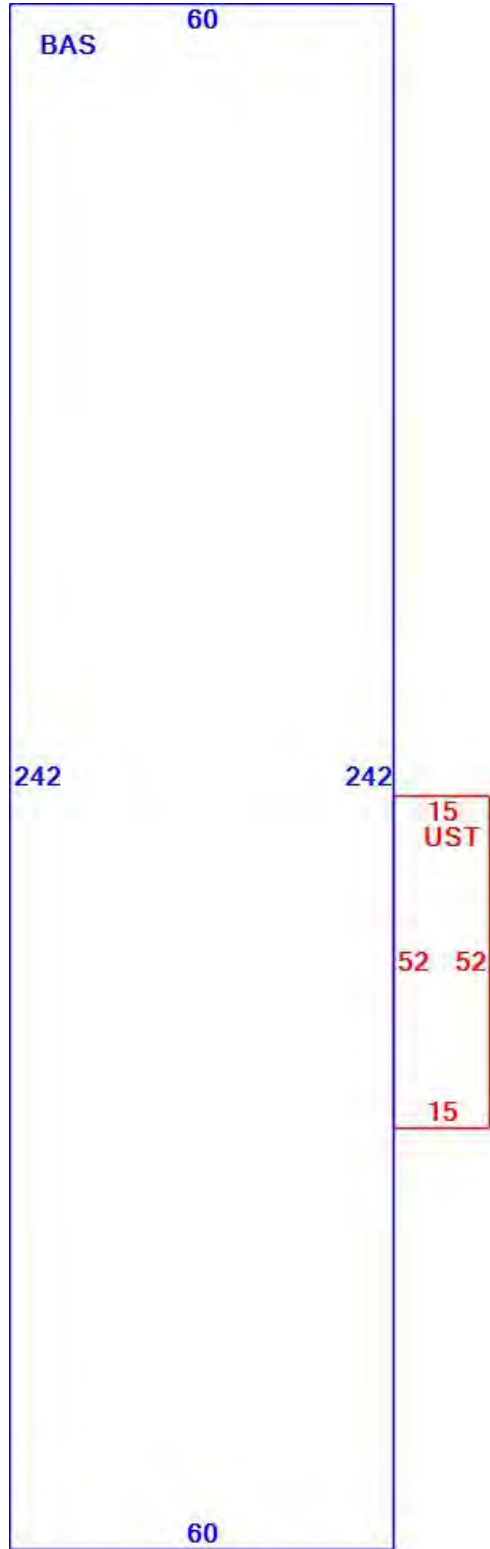


(<http://images.vgsi.com/photos/CoventryCTPhotos/\00\00\65\88.jpg>)

Building Attributes : Bldg 2 of 6	
Field	Description
Style	Light Indust
Model	Comm/Ind
Grade	C
Stories:	1
Occupancy	2.00
Exterior Wall 1	Pre-finsh Metl
Exterior Wall 2	
Roof Structure	Shed
Roof Cover	Metal/Tin
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Cement
Interior Floor 2	
Heating Fuel	Gas
Heating Type	Forced Air
AC Type	None/partial
Struct Class	
Bldg Use	Commercial Improv
Total Rooms	0
Usrflid 216	
Total Baths	
Usrflid 218	
Usrflid 219	
1st Floor Use:	201
Heat/AC	HEAT ONLY
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & MIN WL
Rooms/Prtns	AVERAGE
Wall Height	10.00
% Comn Wall	0.00

Usrflid 100	
Usrflid 302	
Usrflid 301	
Usrflid 303	
Usrflid 103	
Usrflid 107	
Usrflid 304	
Usrflid 104	
Usrflid 105	
Usrflid 101	
Usrflid 225	
Usrflid 300	
Usrflid 220	
Usrflid 221	
Usrflid 102	
Usrflid 701	
Usrflid 106	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No

**Building Layout**



(ParcelSketch.ashx?pid=3904&bid=20055)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	14,520	14,520
UST	Utility, Storage, Unfinished	780	0

		15,300	14,520
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**Building 3 : Section 1**

**Year Built:** 1950  
**Living Area:** 4,800  
**Replacement Cost:** \$171,410  
**Building Percent Good:** 54  
**Replacement Cost Less Depreciation:** \$92,600

**Building Photo**

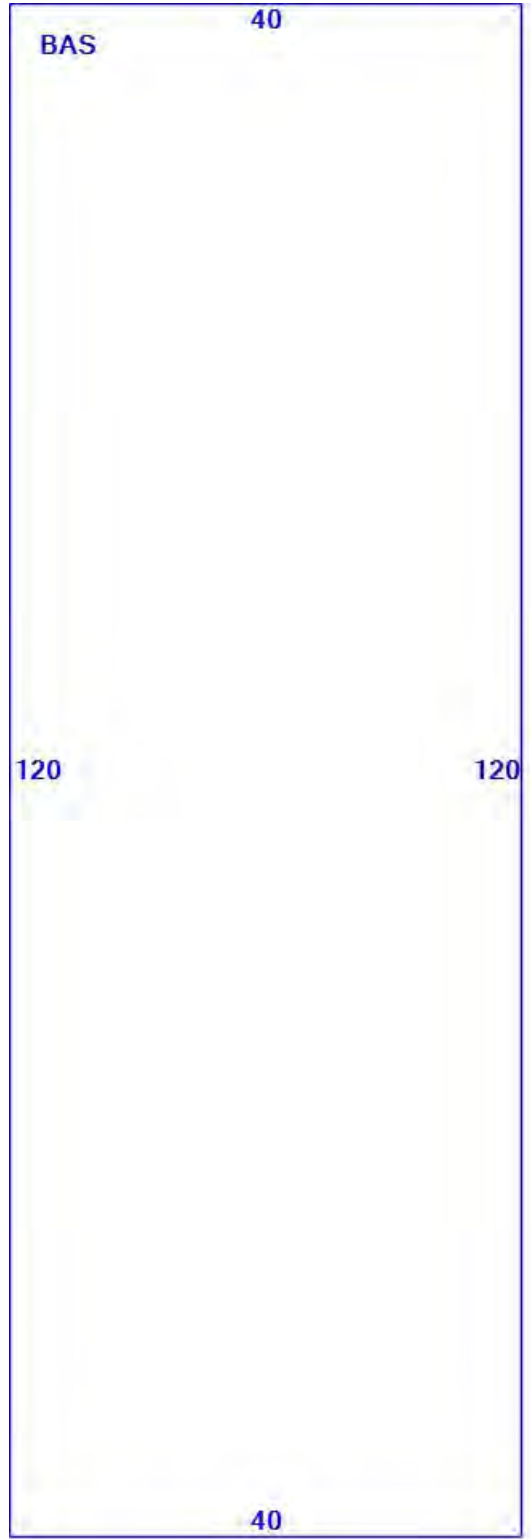


(<http://images.vgsi.com/photos/CoventryCTPhotos/\A00\00\65\95.jpg>)

Building Attributes : Bldg 3 of 6	
Field	Description
Style	Warehouse
Model	Comm/Ind
Grade	C-
Stories:	1
Occupancy	2.00
Exterior Wall 1	Pre-finsh Metl
Exterior Wall 2	
Roof Structure	Shed
Roof Cover	Metal/Tin
Interior Wall 1	Drywall
Interior Wall 2	
Interior Floor 1	Cement
Interior Floor 2	
Heating Fuel	Gas
Heating Type	Forced Air
AC Type	None/partial
Struct Class	
Bldg Use	Commercial Improv
Total Rooms	0
Usrflid 216	
Total Baths	
Usrflid 218	
Usrflid 219	
1st Floor Use:	201
Heat/AC	HEAT ONLY
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	AVERAGE
Wall Height	14.00
% Comn Wall	0.00

Usrflid 100	
Usrflid 302	
Usrflid 301	
Usrflid 303	
Usrflid 103	
Usrflid 107	
Usrflid 304	
Usrflid 104	
Usrflid 105	
Usrflid 101	
Usrflid 225	
Usrflid 300	
Usrflid 220	
Usrflid 221	
Usrflid 102	
Usrflid 701	
Usrflid 106	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No

**Building Layout**



(ParcelSketch.ashx?pid=3904&bid=20056)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	4,800	4,800
		4,800	4,800

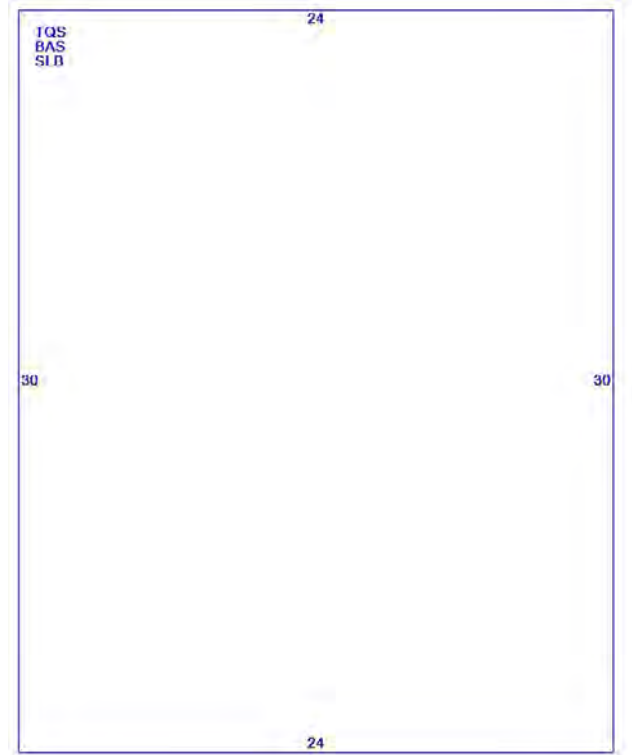
**Year Built:** 1957  
**Living Area:** 1,296  
**Replacement Cost:** \$84,468  
**Building Percent Good:** 30  
**Replacement Cost Less Depreciation:** \$25,300

**Building Photo**



(<http://images.vgsi.com/photos/CoventryCTPhotos/\00\00\66\00.jpg>)

**Building Layout**



(ParcelSketch.ashx?pid=3904&bid=20057)

Building Attributes : Bldg 4 of 6	
Field	Description
Style	Conventional
Model	Residential
Grade:	Below Average
Story Height	1.75
Occupancy	1
Exterior Wall 1	Vinyl
Exterior Wall 2	
Roof Structure:	Gable
Roof Cover	Metal/Tin
Interior Wall 1	Panel
Interior Wall 2	Drywall
Interior Flr 1	Vnl Linoleum
Interior Flr 2	Carpet
Heat Fuel	Electric
Heat Type:	Electr Basebrd
AC Type:	None/partial
Total Bedrooms:	2 Bedrooms
Total Bthrms:	1
Total Half Baths:	
Extra Fixtures	
Total Rooms:	4
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Bsmt Gar	
Usrflid 103	06
Usrflid 104	0
Fire_Places	
Usrflid 106	
Usrflid 107	
Num Park	
Fireplaces	
Usrflid 108	

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	720	720
TQS	Three Quarter Story	720	576
SLB	Slab	720	0
		2,160	1,296

Usrflid 101	
Usrflid 102	
Usrflid 100	
Usrflid 300	
Usrflid 301	
Usrflid 302	
Usrflid 304	
Fndtn Cndtn	
Basement	
Usrflid 701	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No
Usrflid 303	

**Building 5 : Section 1**

**Year Built:** 1950  
**Living Area:** 360  
**Replacement Cost:** \$7,326  
**Building Percent Good:** 60  
**Replacement Cost Less Depreciation:** \$4,400

**Building Photo**

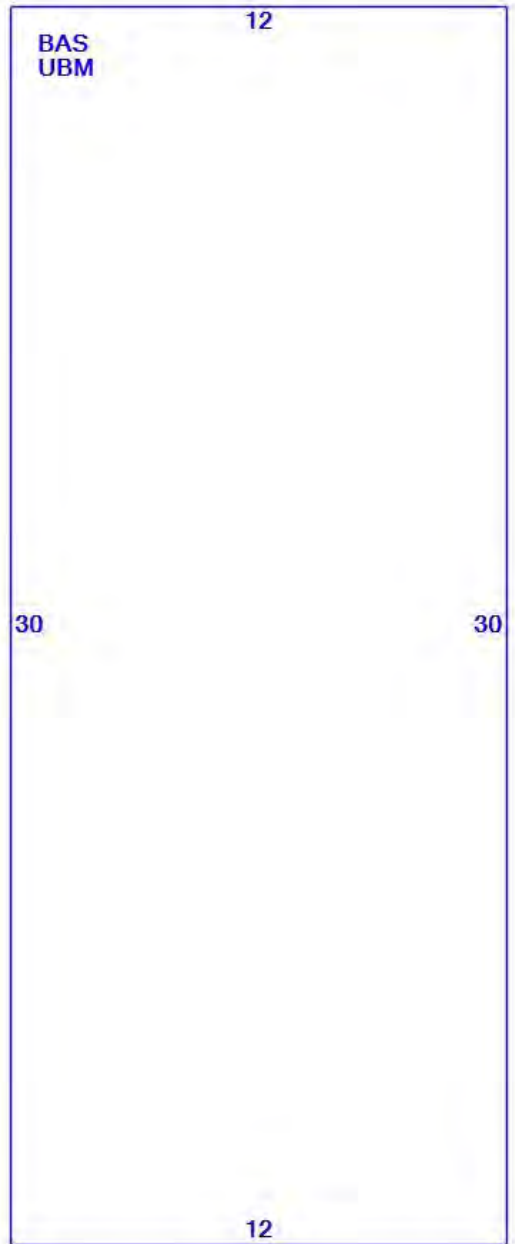


(<http://images.vgsi.com/photos/CoventryCTPhotos/100100166104.jpg>)

Building Attributes : Bldg 5 of 6	
Field	Description
Style	Support Shed
Model	Comm/Ind
Grade	D
Stories:	1
Occupancy	
Exterior Wall 1	Vinyl
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Roll Roofing
Interior Wall 1	Minimum
Interior Wall 2	
Interior Floor 1	Sub Floor
Interior Floor 2	
Heating Fuel	None
Heating Type	None
AC Type	None/partial
Struct Class	
Bldg Use	Commercial Improv

Total Rooms	
Usrflid 216	
Total Baths	
Usrflid 218	
Usrflid 219	
1st Floor Use:	
Heat/AC	HEAT ONLY
Frame Type	WOOD FRAME
Baths/Plumbing	NONE
Ceiling/Wall	CEIL & MIN WL
Rooms/Prtns	AVERAGE
Wall Height	8.00
% Comn Wall	
Usrflid 100	
Usrflid 302	
Usrflid 301	
Usrflid 303	
Usrflid 103	
Usrflid 107	
Usrflid 304	
Usrflid 104	
Usrflid 105	
Usrflid 101	
Usrflid 225	
Usrflid 300	
Usrflid 220	
Usrflid 221	
Usrflid 102	
Usrflid 701	
Usrflid 106	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No

### Building Layout



(ParcelSketch.ashx?pid=3904&bid=20058)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	360	360
UBM	Basement	360	0
		720	360

### Building 6 : Section 1

<b>Year Built:</b>	1930
<b>Living Area:</b>	920
<b>Replacement Cost:</b>	\$99,585
<b>Building Percent Good:</b>	68
<b>Replacement Cost</b>	
<b>Less Depreciation:</b>	\$67,700



**Building Attributes : Bldg 6 of 6**

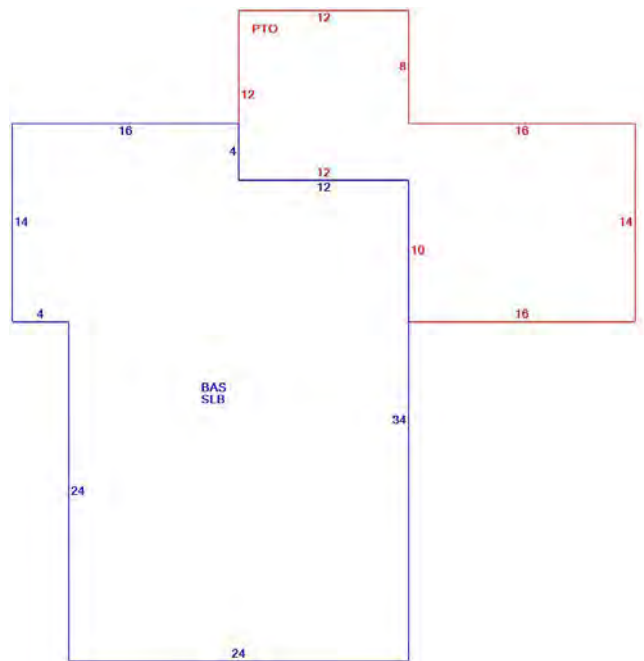
Field	Description
Style	Ranch
Model	Residential
Grade:	Average
Story Height	1
Occupancy	1
Exterior Wall 1	Vinyl
Exterior Wall 2	
Roof Structure:	Gable
Roof Cover	Asphalt Shingl
Interior Wall 1	Drywall
Interior Wall 2	
Interior Flr 1	Hardwood
Interior Flr 2	Carpet
Heat Fuel	Gas
Heat Type:	Forced Air
AC Type:	None/partial
Total Bedrooms:	2 Bedrooms
Total Bthrms:	1
Total Half Baths:	
Extra Fixtures	
Total Rooms:	5
Bath Style:	Average
Kitchen Style:	Average
Num Kitchens	
Bsmt Gar	
Usrflid 103	
Usrflid 104	
Fire_Places	0
Usrflid 106	
Usrflid 107	
Num Park	
Fireplaces	
Usrflid 108	
Usrflid 101	
Usrflid 102	
Usrflid 100	
Usrflid 300	
Usrflid 301	
Usrflid 302	

**Building Photo**



(<http://images.vgsi.com/photos/CoventryCTPhotos/A00\00\72\71.jpg>)

**Building Layout**



(ParcelSketch.ashx?pid=3904&bid=20331)

Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	920	920
PTO	Patio	368	0
SLB	Slab	920	0
		2,208	920

Usrflid 304	
Fndtn Cndtn	
Basement	
Usrflid 701	
Usrflid 305	
Usrflid 900	No
Usrflid 901	No
Usrflid 303	

**Extra Features**

Extra Features				Legend
Code	Description	Size	Value	Bldg #
MEZ1	Mezzanine-Unf	2184.00 S.F.	\$9,400	3

**Land**

**Land Use**

**Use Code** 201  
**Description** Commercial Improv  
**Zone** RD  
**Neighborhood** E  
**Alt Land Appr** No  
**Category**

**Land Line Valuation**

**Size (Acres)** 24.94  
**Frontage**  
**Depth**  
**Assessed Value** \$487,900  
**Appraised Value** \$721,700

**Outbuildings**

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
PAV1	Paving			15250.00 S.F.	\$13,700	1
SHD1	Shed			288.00 S.F.	\$1,400	1
SHD1	Shed			560.00 S.F.	\$2,800	1
LNT	Lean-to			384.00 S.F.	\$1,800	1
FNC	Fence	M	Metal	280.00 L.F.	\$3,700	1

**Valuation History**

Appraisal			
Valuation Year	Improvements	Land	Total
2018	\$1,253,600	\$728,800	\$1,982,400
2018	\$1,253,600	\$728,800	\$1,982,400
2017	\$1,253,600	\$728,800	\$1,982,400

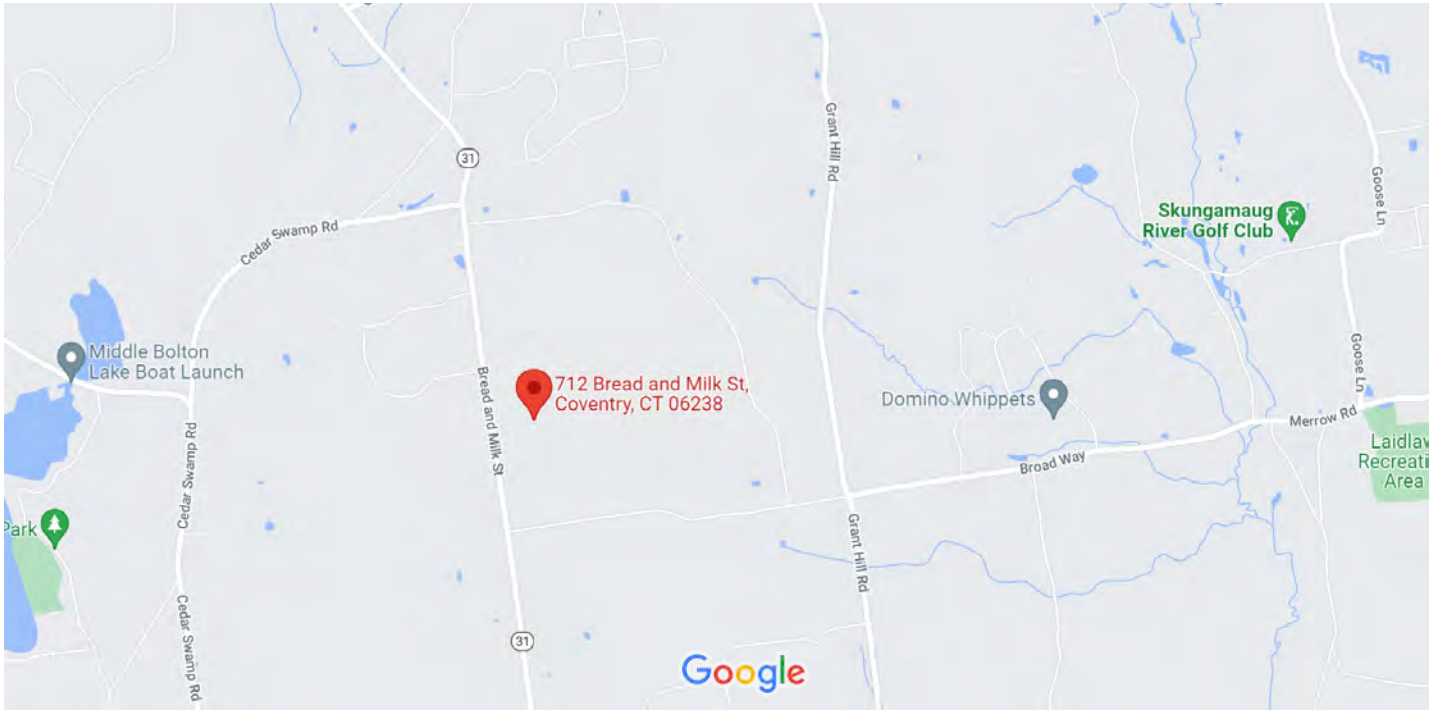
Assessment			
Valuation Year	Improvements	Land	Total

2018		\$877,700	\$487,900	\$1,365,600
2018		\$877,700	\$487,900	\$1,365,600
2017		\$877,700	\$487,900	\$1,365,600

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Google Maps 712 Bread and Milk St



Map data ©2021 2000 ft

# Exhibit C

## **Construction Drawings**

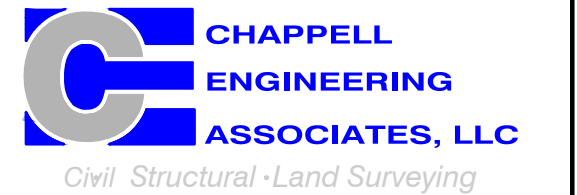
# SBA - COVENTRY

## T-MOBILE NORTHEAST LLC

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



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



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
1	04/20/22	ISSUED FOR CONSTRUCTION	CMC
0	12/20/21	ISSUED FOR REVIEW	CMC

SITE NUMBER:  
**CT11515A**

SITE ADDRESS:  
712 BREAD & MILK STREET  
COVENTRY, CT 06238

SHEET TITLE  
**TITLE SHEET**

SHEET NUMBER  
**T-1**

### APPROVALS

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

### T-MOBILE TECHNICIAN SITE SAFETY NOTES

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

### GENERAL NOTES

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

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



712 BREAD & MILK STREET  
COVENTRY, CT 06238  
TOLLAND COUNTY

SITE NO.: CT11515A

SITE TYPE: 178'± MONOPOLE

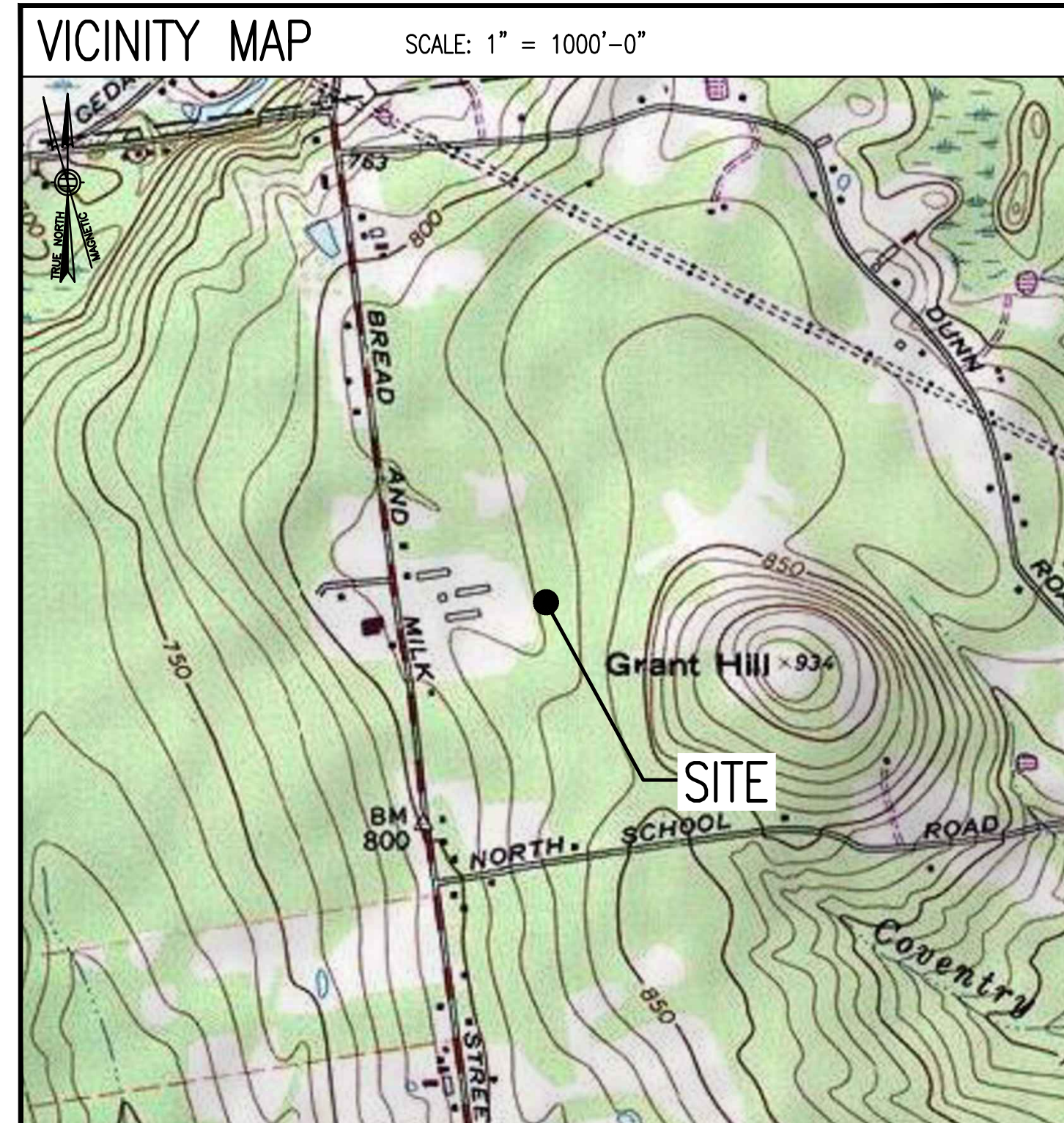
RF DESIGN GUIDELINE: 67D5A998E ODE+6160

### SCOPE OF WORK

REMOVE:	INSTALL:
• 3 ANTENNAS	• 6 ANTENNAS
• 6 TMAS	• 3 RADIOS
• 3 RADIOS	• 1 6160 EQUIPMENT CABINET
• 12 COAX CABLES	• 1 B160 BATTERY CABINET
	• 1 SLACKBOX
	• 2 HYBRID CABLES
	• 1 125A-2P BREAKER
	• 1 25A-1P BREAKER

### 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.



### DIRECTIONS

MERGE ONTO I-495 NORTH TOWARD MANSFIELD/MARLBORO. TAKE EXIT 58 TO MERGE ONTO I-90 WEST TOWARD ALBANY. TAKE EXIT 78 FOR I-84 TOWARD HARTFORD CT/NEW YORK CITY. TAKE EXIT 67 FOR CT-31 TOWARD ROCKVILLE/COVENTRY. TURN LEFT ONTO CT-31 SOUTH. SITE IS LOCATED ON THE LEFT HAND SIDE.

### SHEET INDEX

SHEET NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
A-1	COMPOUND & EQUIPMENT PLANS	1
A-2	TOWER ELEVATION & ANTENNA PLANS	1
A-3	SITE DETAILS	1
A-4	ANTENNA & FEEDLINE CHARTS	1
E-1	ELECTRIC & GROUNDING DETAILS	1

### DO NOT SCALE DRAWINGS

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

### PROJECT SUMMARY

SITE NUMBER:	CT11515A
SITE NAME:	SBA - COVENTRY
SBA SITE NUMBER:	CT02573-S
SBA SITE NAME:	COVENTRY 2 CT
SITE ADDRESS:	712 BREAD & MILK STREET COVENTRY, CT 06238
PROPERTY OWNER:	RONALD R. NADEAU 2050 BOSTON TURNPIKE COVENTRY, CT 06238-1110
TOWER OWNER:	SBA TOWERS, LLC 8501 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226-9523
COUNTY:	TOLLAND
ZONING DISTRICT:	RD (RURAL DEVELOPMENT)
STRUCTURE TYPE:	MONOPOLE
STRUCTURE HEIGHT:	178'±
APPLICANT:	T-MOBILE NORTHEAST LLC 15 COMMERCE WAY, SUITE B NORTON, MA 02766
ARCHITECT:	CHAPPELL ENGINEERING ASSOCIATES, LLC. 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752
STRUCTURAL ENGINEER:	CHAPPELL ENGINEERING ASSOCIATES, LLC. 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752
SITE CONTROL POINT:	LATITUDE: 41.818149° N41°49'05.34" LONGITUDE: -72.393186° W72°23'35.47"

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).

**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 LARGER .....2 IN.  
#5 AND SMALLER & WWF .....1½ IN.  
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND:  
SLAB AND WALL .....¾ IN.  
BEAMS AND COLUMNS .....½ IN.
- A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
- INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.
- CONCRETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;  
(A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE 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:**

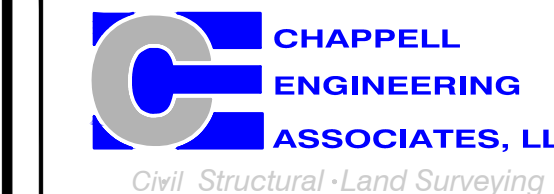
- WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
- SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLEING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR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

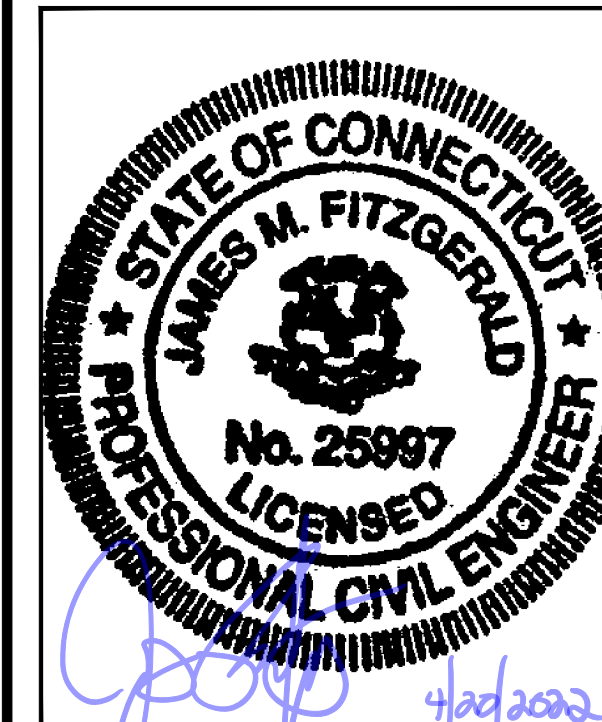
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SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
1	04/20/22	ISSUED FOR CONSTRUCTION	CMC
0	12/20/21	ISSUED FOR REVIEW	CMC

SITE NUMBER:  
**CT11515A**

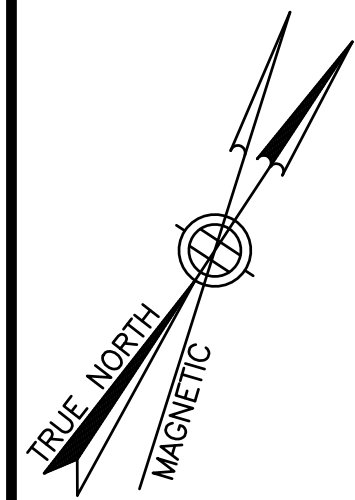
SITE ADDRESS:  
712 BREAD & MILK STREET  
COVENTRY, CT 06238

SHEET TITLE

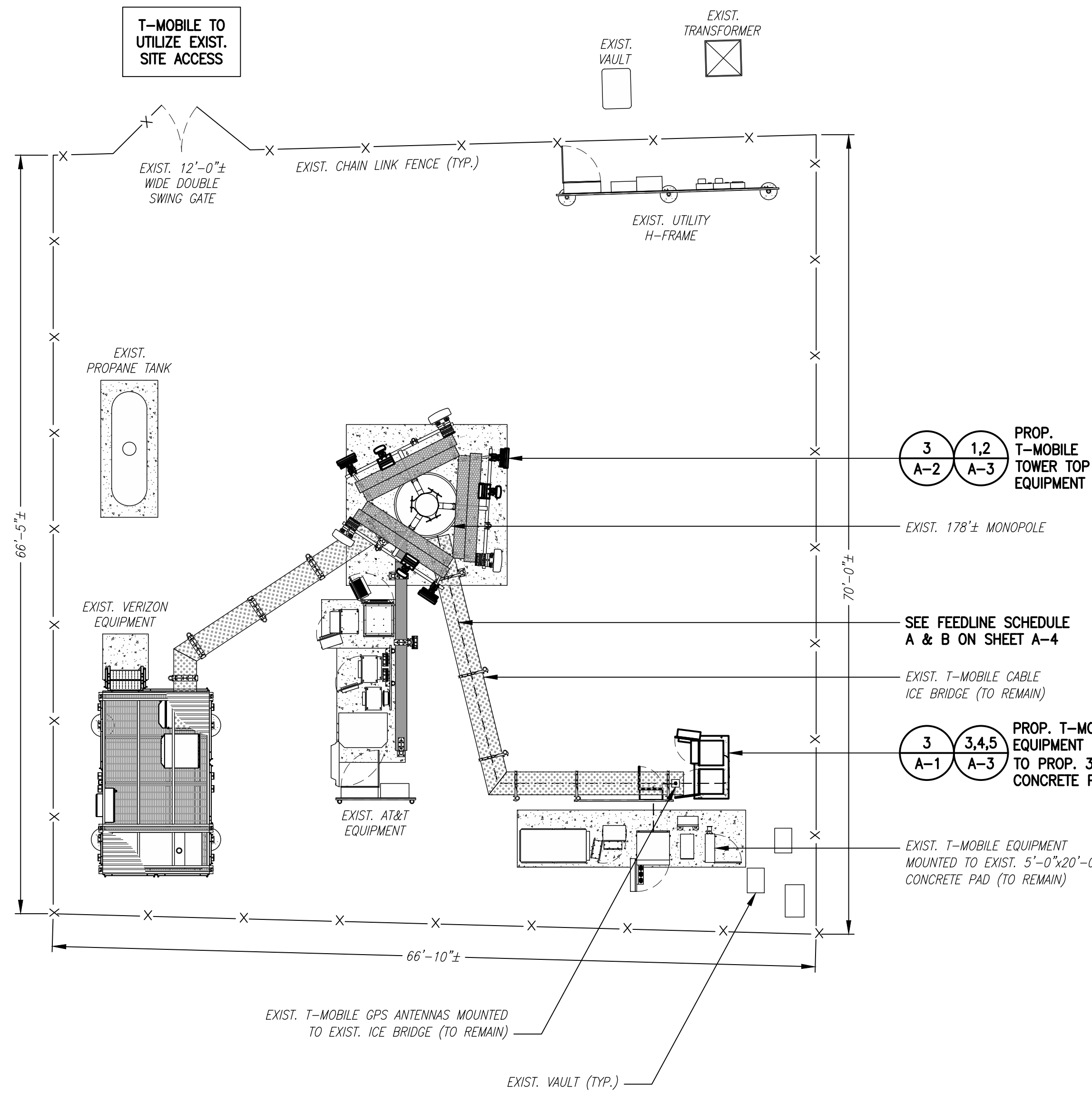
GENERAL NOTES

SHEET NUMBER

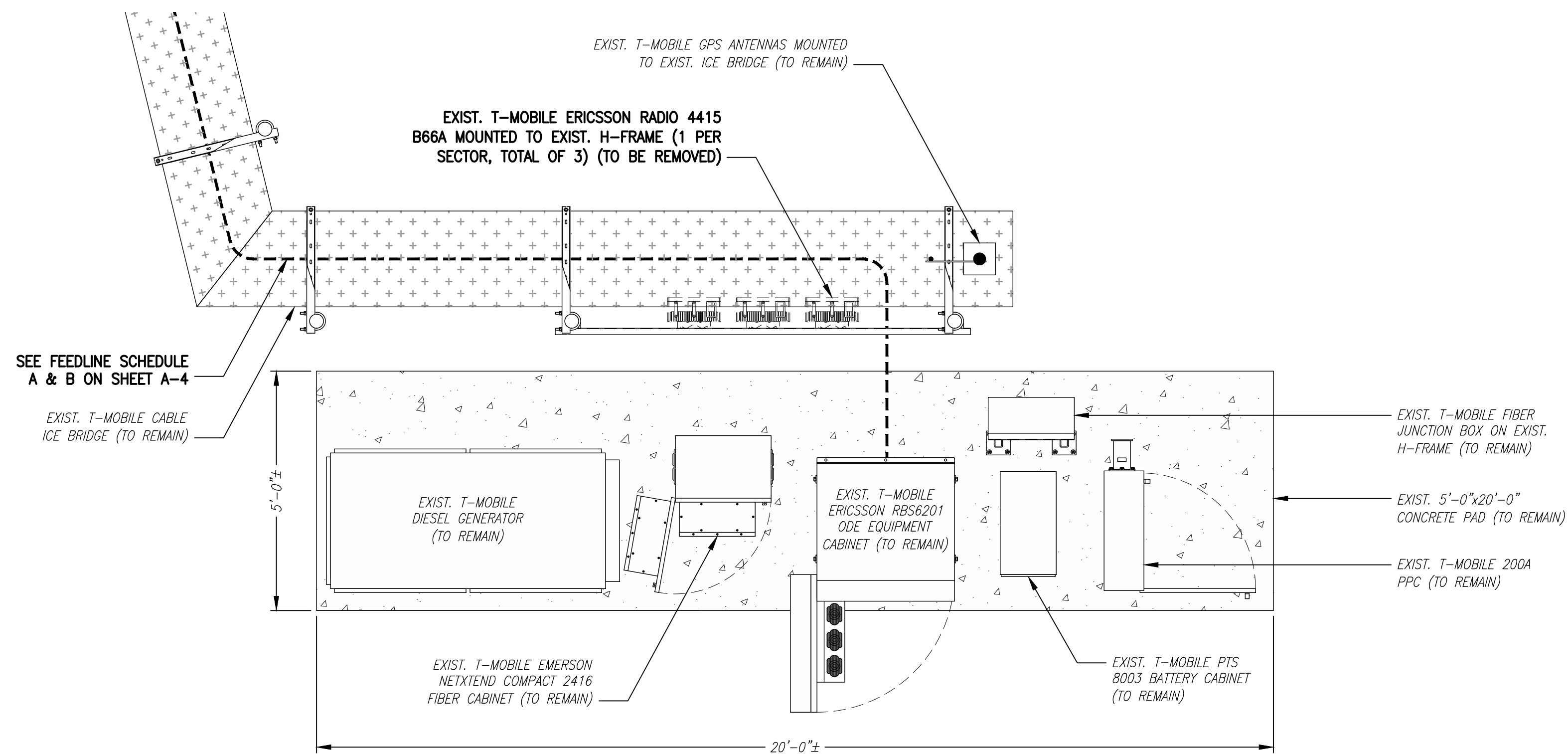
**GN-1**



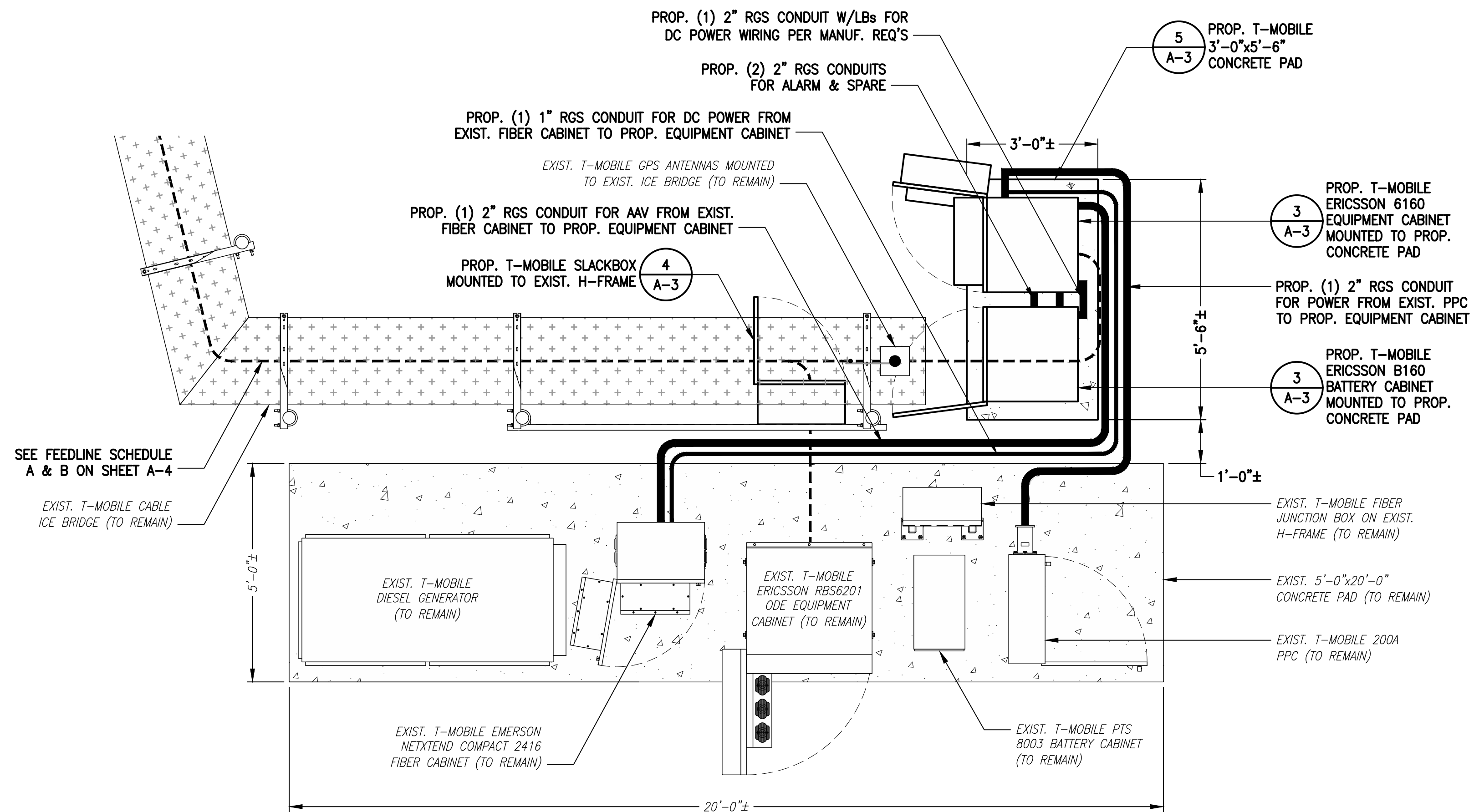
T-MOBILE TO UTILIZE EXIST. SITE ACCESS



**COMPOUND PLAN**  
SCALE: 1/8" = 1'-0"  
1 A-1



**EXISTING EQUIPMENT PLAN**  
SCALE: 1/2" = 1'-0"  
2 A-1



**PROPOSED EQUIPMENT PLAN**  
SCALE: 1/2" = 1'-0"  
3 A-1

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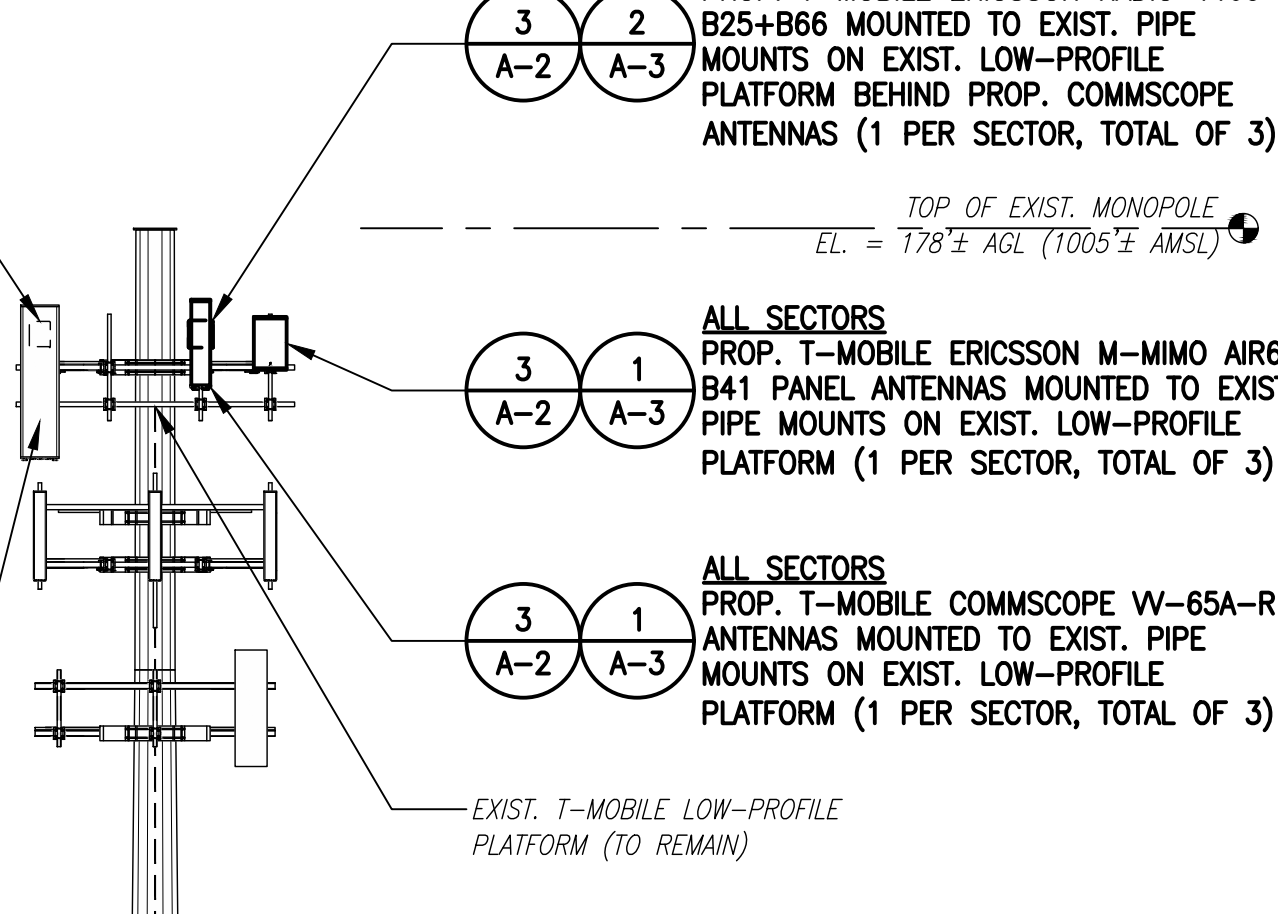
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**COMPOUND & EQUIPMENT PLANS**

SHEET NUMBER  
**A-1**



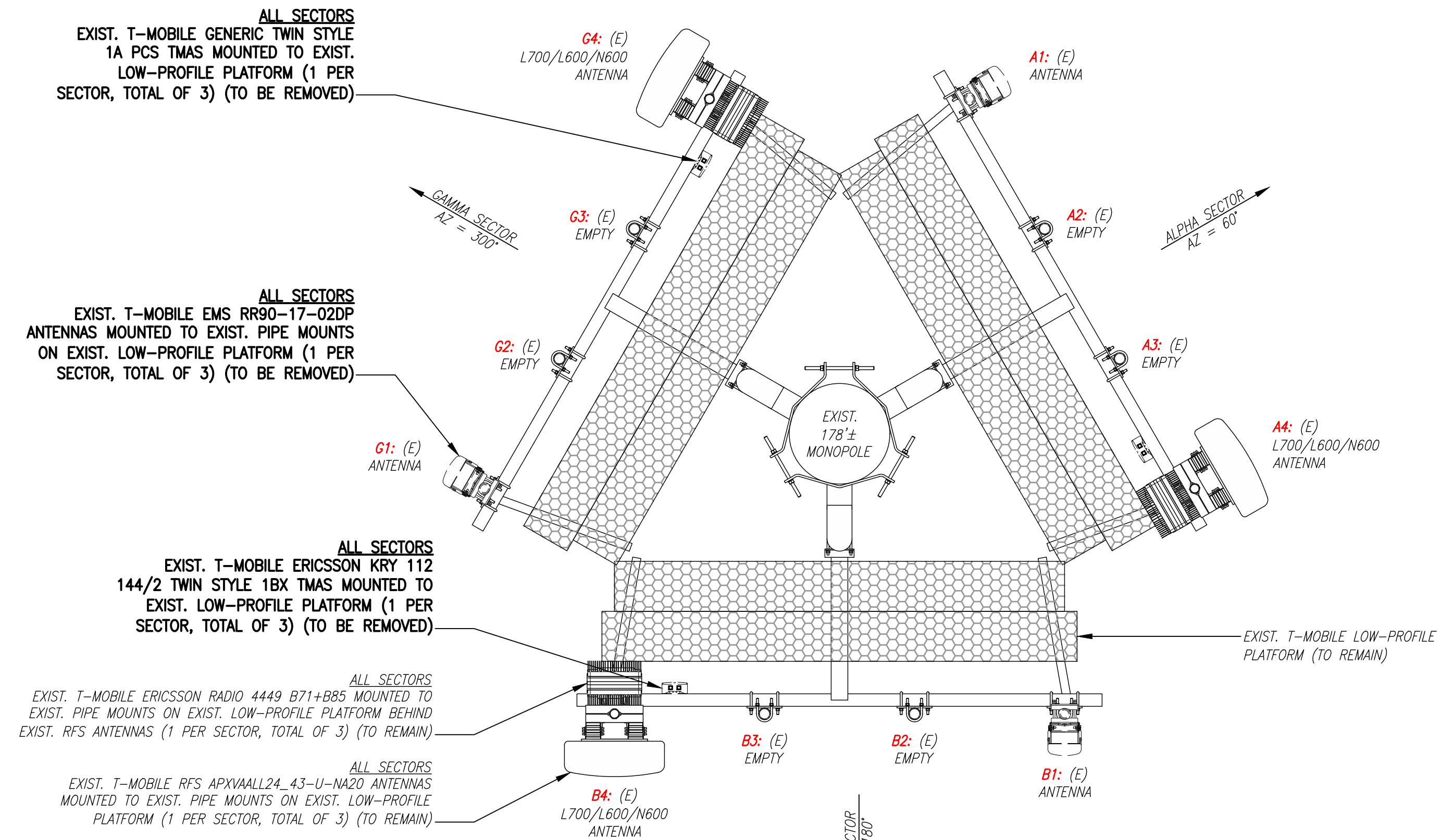
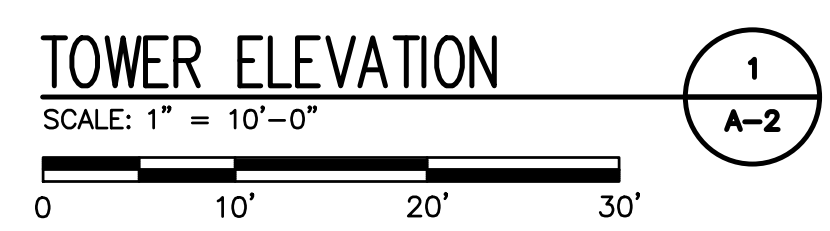
**RAD CENTER NOTE:**  
 T-MOBILE RAD CENTER SHOWN IN RED TEXT BASED ON SBA-PROVIDED CO-LOCATION APPLICATION, EQUIPMENT DATABASE, AND STRUCTURAL ANALYSIS. THE SBA-PROVIDED ANTENNA RAD CENTER SHALL SUPERSEDE ANY CONFLICTING INFORMATION DERIVED FROM THE T-MOBILE RFDS.

- ALL SECTORS  
 EXIST. T-MOBILE ERICSSON RADIO 4449 B71+B85 MOUNTED TO EXIST. PIPE MOUNTS ON EXIST. LOW-PROFILE PLATFORM BEHIND EXIST. RFS ANTENNAS (1 PER SECTOR, TOTAL OF 3) (TO REMAIN)
- TOP OF T-MOBILE ANTENNAS  
 EL. = 174' ± AGL (1001' ± AMSL)
- PROP. (6) T-MOBILE ANTENNAS  
 EL. = 172' ± AGL (999' ± AMSL)
- EXIST. (3) T-MOBILE ANTENNAS  
 EL. = 170' ± AGL (997' ± AMSL)
- EXIST. AT&T PANEL ANTENNAS  
 EL. = 162' ± AGL (989' ± AMSL)
- FUTURE DISH NETWORK PANEL ANTENNAS  
 EL. = 153' ± AGL (980' ± AMSL)
- ALL SECTORS  
 EXIST. T-MOBILE RFS APXVALL24\_43-U-NA20 ANTENNAS MOUNTED TO EXIST. PIPE MOUNTS ON EXIST. LOW-PROFILE PLATFORM (1 PER SECTOR, TOTAL OF 3) (TO REMAIN)
- EXIST. VERIZON PANEL ANTENNAS  
 EL. = 130' ± AGL (957' ± AMSL)

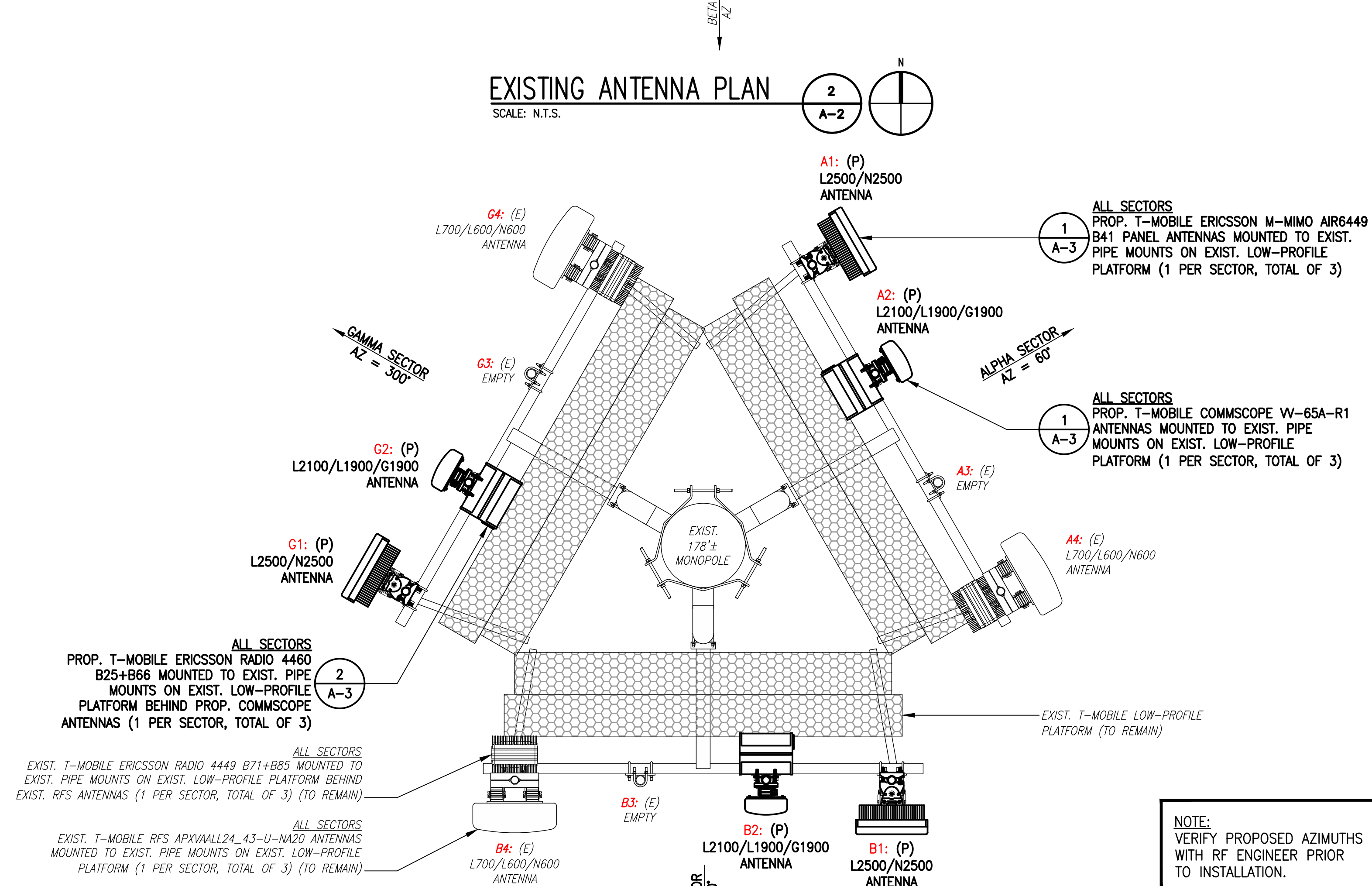


NOTE:  
 GROUND EQUIPMENT NOT SHOWN, FOR CLARITY.

GROUND LEVEL  
 EL. = 0' AGL (827' ± AMSL)



**EXISTING ANTENNA PLAN**  
 SCALE: N.T.S.



**PROPOSED ANTENNA PLAN**  
 SCALE: N.T.S.

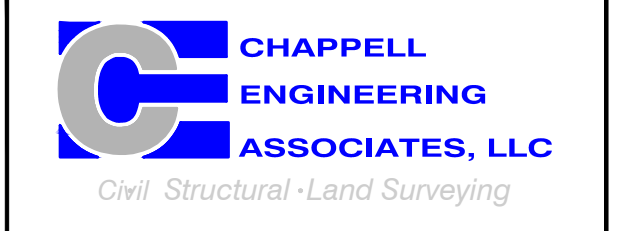
**ANTENNA STATUS LEGEND:**  
 EMPTY - EMPTY PIPE  
 (E) - EXISTING  
 (P) - INSTALL  
 (F) - FUTURE

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

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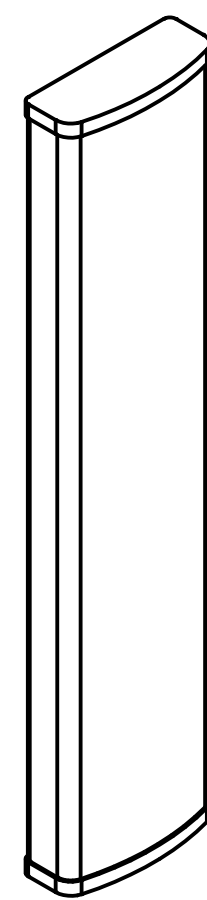
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**CT11515A**  
 SITE ADDRESS:  
 712 BREAD & MILK STREET  
 COVENTRY, CT 06238

SHEET TITLE:  
**TOWER ELEVATION & ANTENNA PLANS**

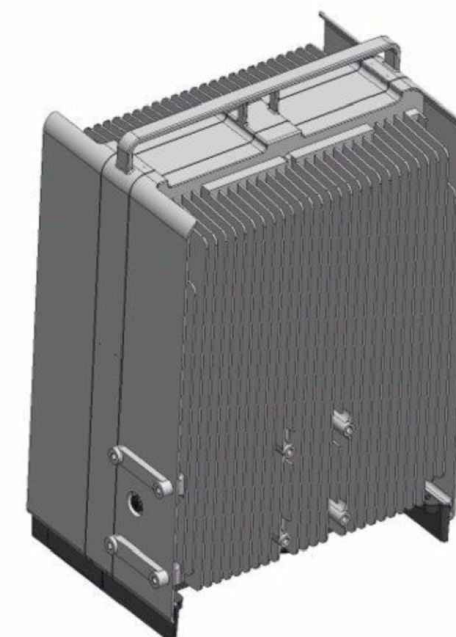
SHEET NUMBER:  
**A-2**



**COMMSCOPE WV-65A-R1 ANTENNA**  
 DIMENSIONS: 54.7"H x 12.1"W x 4.6"D  
 WEIGHT: 23.8 lbs  
 QUANTITY: 1 PER SECTOR, TOTAL OF 3

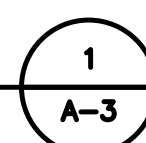


**ERICSSON M-MIMO AIR6449 B41 ANTENNA**  
 DIMENSIONS: 33.1"H x 20.5"W x 8.3"D  
 WEIGHT: 103.0 lbs  
 QUANTITY: 1 PER SECTOR, TOTAL OF 3

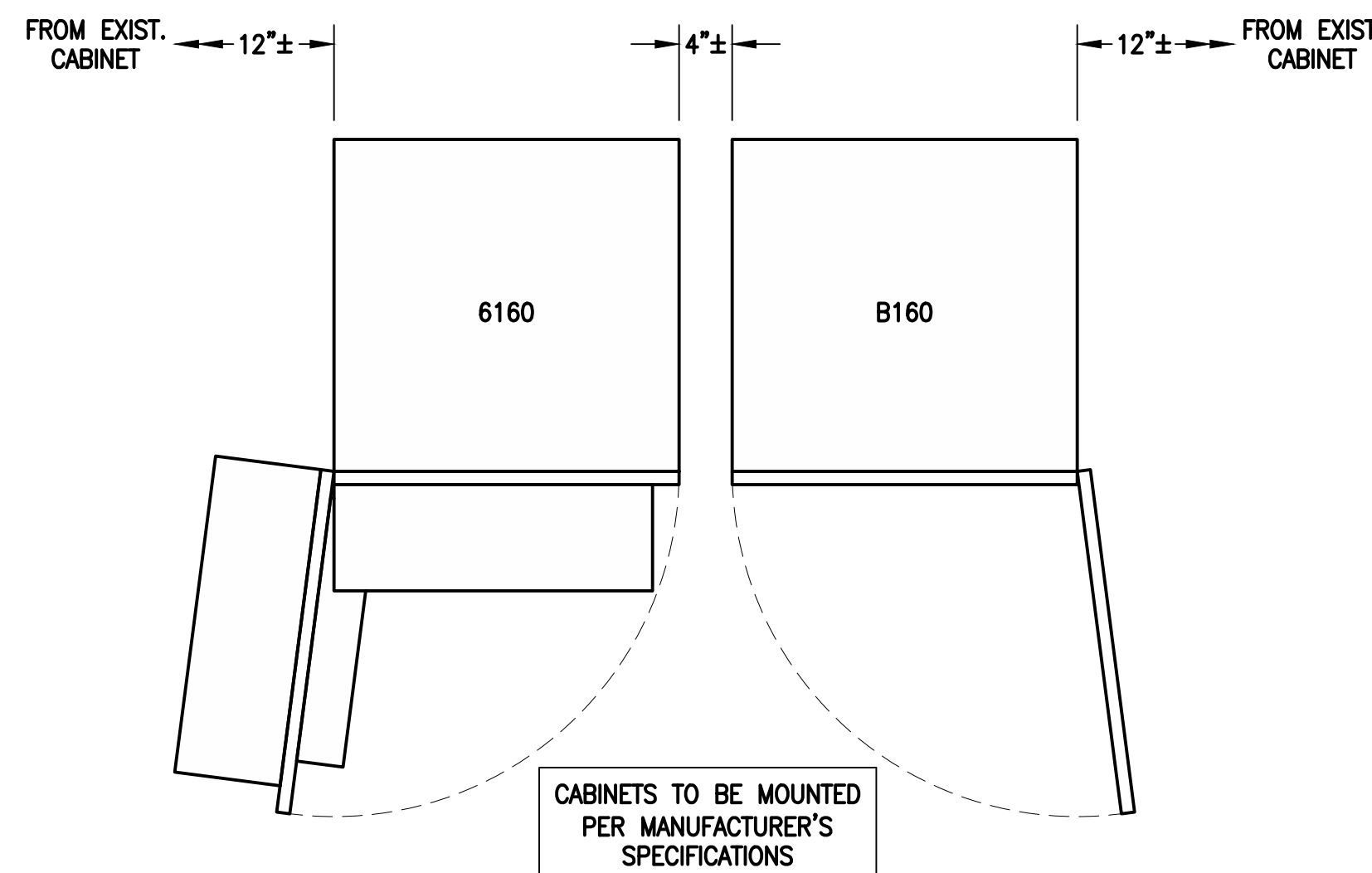
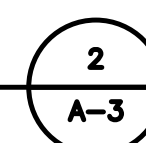


**ERICSSON RADIO 4460 B25+B66**  
 DIMENSIONS: 17.0"H x 15.1"W x 11.9"D  
 WEIGHT: 104.0 lbs  
 QUANTITY: 1 PER SECTOR, TOTAL OF 3

**ANTENNA DETAILS**  
 SCALE: N.T.S.



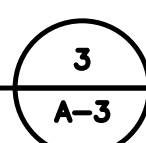
**RADIO DETAILS**  
 SCALE: N.T.S.



**ERICSSON 6160 SITE SUPPORT CABINET**  
 DIMENSIONS: 63.25"H x 26.0"W x 34.0"D  
 WEIGHT: 680.0 lbs  
 QUANTITY: TOTAL OF 1

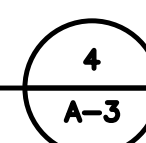
**ERICSSON B160 BATTERY CABINET**  
 DIMENSIONS: 63.25"H x 26.0"W x 26.0"D  
 WEIGHT: 1771.0 lbs  
 QUANTITY: TOTAL OF 1

**EQUIPMENT DETAIL**  
 SCALE: N.T.S.



**SLACKBOX - HOFFMAN 32FH91 NEMA 3R ENCLOSURE**  
 DIMENSIONS: 24.0"H x 24.0"W x 12.0"D  
 QUANTITY: TOTAL OF 1

**SSC DETAILS**  
 SCALE: N.T.S.



**CONCRETE GENERAL NOTES**

- ALL CONCRETE WORK SHALL CONFORM TO ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND TO THE PROJECT SPECIFICATIONS.
- ALL CONCRETE IS TO BE NORMAL DENSITY CONCRETE WITH A MAXIMUM SLUMP OF 4 INCHES. MAXIMUM AGGREGATE SIZE 3/4 INCH. NO ADDITIONAL WATER SHALL BE ADDED TO THE CONCRETE AT THE JOB SITE.
- PROVIDE AIR ENTRAINMENT OF 4 TO 6 PERCENT IN ALL EXPOSED CONCRETE WORK WITH AIR-ENTRAINING ADMIXTURE COMPLYING WITH ASTM C 260. AT TROWEL-FINISHED FLOORS, DO NOT EXCEED AIR-ENTRAINMENT CONTENT OF 3 PERCENT.
- NO HOLES OR SLEEVES SHALL BE MADE THROUGH CONCRETE WORK OTHER THAN THOSE INDICATED ON THE STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
- ALL FORMWORK OFFSET TOLERANCES (PER ACI 117) TO BE CLASS A.
- FLOOR SLAB TOLERANCES TO ASTM E1155; SPECIFIED OVERALL MINIMUM VALUE OF FLATNESS F F=25 WITH LOCAL MINIMUM F F=17, AND MINIMUM VALUE OF LEVELNESS F F=20 WITH LOCAL MINIMUM F I AND F F WITHIN 72 HOURS OF SLAB CONSTRUCTION.
- CABINETS ON SLAB (IF APPLICABLE). ALLOWABLE CAPACITY OF CONCRETE USED IN DESIGN MIN. 4000 PSI.

**FOUNDATION NOTES:**

**1. DESIGN INFORMATION AND GENERAL REQUIREMENTS**

**1.1 CODES**

- DESIGN CONFORMS TO INTERNATIONAL BUILDING CODE 2012.
- AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318-08.

**2. EARTHWORK**

**2.1 FOUNDATIONS**

- FOUNDATIONS HAVE BEEN DESIGNED TO BEAR ON (UNDISTURBED RESIDUAL SOILS/COMPACTED STRUCTURAL FILL), CAPABLE OF SAFELY SUPPORTING A NET ALLOWABLE BEARING PRESSURE OF 2000 PSF. IF FOUNDATION CONDITIONS PROVE UNACCEPTABLE AT ELEVATIONS SHOWN, EXCAVATION SHALL BE CARRIED DEEPER AND SHALL BE BACKFILLED WITH LEAN CONCRETE TO PLAN FOOTING BOTTOM, OR REDESIGN OF FOUNDATIONS WILL BE REQUIRED AT THE DIRECTION OF THE ENGINEER.
- DESIGN, FURNISH AND INSTALL ALL TEMPORARY SHEETING, SHORING AND DRAINAGE NECESSARY TO MAINTAIN THE EXCAVATION AND PROTECT SURROUNDING STRUCTURES AND UTILITIES.
- THOROUGHLY COMPACT ALL BOTTOM OF FOOTINGS PRIOR TO PLACING ANY CONCRETE.

**3. CONCRETE**

**3.1 FORMWORK**

- CONCRETE CONSTRUCTION SHALL CONFORM TO "SPECIFICATIONS FOR STRUCTURAL, CONCRETE FOR BUILDINGS," (ACI 301-89).
- FORMWORK SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS."

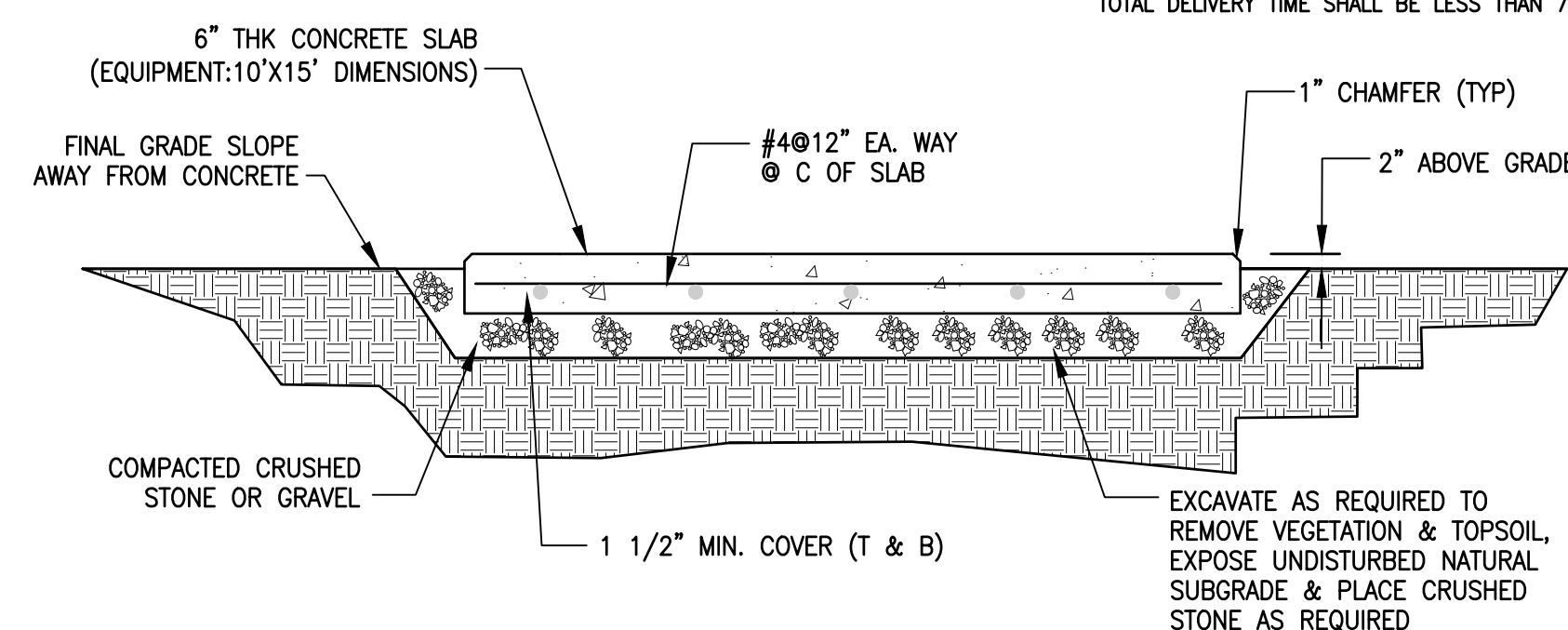
**3.2 REINFORCEMENT**

- REINFORCING STEEL ASTM A615, GRADE 60. WELDED WIRE ASTM A185 (FLAT SHEET). LAPS 40 BAR DIAMETERS UNLESS NOTED. BARS SHALL BE SECURELY HELD IN ACCURATE POSITION BY SUITABLE ACCESSORIES, TIE BARS, SUPPORT BARS, ETC. HOOK LENGTHS SHALL BE 12 BAR DIAMETERS.
- CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:  
 FOOTINGS & SLABS CAST AGAINST GROUND . . . . . 3"  
 CONCRETE TO BE IN CONTACT WITH GROUND OR WEATHER AT BARS GREATER THAN #5 . . . . . 2"  
 AT BARS #5 OR LESS . . . . . 1-1/2"  
 CONCRETE NOT TO BE EXPOSED TO GROUND OR WEATHER BEAMS, GIRDERS & COLUMNS . . . . . 1-1/2"  
 SLABS & WALLS . . . . . 3/4"

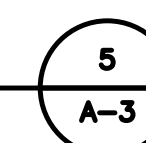
**3.3 CAST-IN-PLACE-CONCRETE**

- MINIMUM 28 DAY CYLINDER STRENGTH AND MAXIMUM SLUMP, PRIOR TO ADDITION OF SUPER PLASTICIZERS, AS FOLLOWS:  

	F'C (PSI)	SLUMP
CLASS I FOOTINGS . . . . .	4000	3"
CLASS II FOOTINGS . . . . .	4000	3"
CLASS III INTERIOR ELEVATED SLABS & WALLS . . . . .	4000	4"
CLASS IV OTHER WORK . . . . .	4000	4"
CLASS V LEAN CONCRETE FOR OVER EXCAVATION OF FOUNDATIONS . . . . .	2000	N/A
- MIX DESIGN TO BE IN ACCORDANCE WITH ACI 318, CHAPTER 5. NO CALCIUM CHLORIDE OR ADMIXTURE CONTAINING CHLORIDES SHALL BE USED IN ANY CONCRETE.
- COARSE AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33 SIZE #57. COARSE AGGREGATE FOR LIGHT WEIGHT CONCRETE SHALL CONFORM TO ASTM C330 GRADED 3/4" TO 1/4".
- COLD WEATHER PLACEMENT SHALL COMPLY WITH ACI 306.1.
- HOT WEATHER PLACEMENT SHALL COMPLY WITH ACI 305 R.
- CHAMFER ALL EXPOSED EDGES 3/4".
- THE MAXIMUM TEMPERATURE OF ALL CONCRETE AT DELIVERY TO THE SITE SHALL BE 85F. TOTAL DELIVERY TIME SHALL BE LESS THAN 75 MINUTES.



**CONCRETE PAD DETAIL**  
 SCALE: N.T.S.

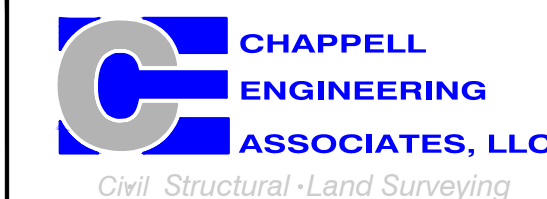


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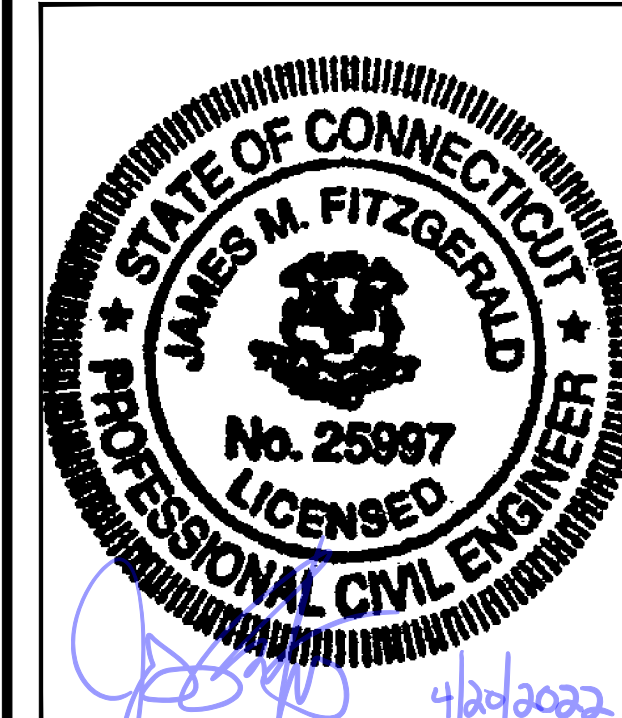
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SITE NUMBER:  
**CT11515A**

SITE ADDRESS:  
 712 BREAD & MILK STREET  
 COVENTRY, CT 06238

SHEET TITLE  
**SITE DETAILS**

SHEET NUMBER  
**A-3**

FINAL ANTENNA CONFIGURATION								
SECTOR	ANTENNA	RAD CENTER	AZIMUTH (TRUE NORTH)	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	BAND	TMA/RADIOS	CABLES
ALPHA	A1	ERICSSON M-MIMO AIR6449 B41	172'± AGL	60°	0°	2'	L2500/N2500	-
	A2	COMMSCOPE WV-65A-R1	172'± AGL	60°	0°	2'	L2100/L1900/G1900	ERICSSON RADIO 4460 B25+B66
	A3	EMPTY PIPE	-	-	-	-	-	-
	A4	RFS APXVAALL24_43-U-NA20	170'± AGL	60°	0°	2'	L700/L600/N600	ERICSSON RADIO 4449 B71+B85
BETA	B1	ERICSSON M-MIMO AIR6449 B41	172'± AGL	180°	0°	2'	L2500/N2500	-
	B2	COMMSCOPE WV-65A-R1	172'± AGL	180°	0°	2'	L2100/L1900/G1900	ERICSSON RADIO 4460 B25+B66
	B3	EMPTY PIPE	-	-	-	-	-	-
	B4	RFS APXVAALL24_43-U-NA20	170'± AGL	180°	0°	2'	L700/L600/N600	ERICSSON RADIO 4449 B71+B85
GAMMA	G1	ERICSSON M-MIMO AIR6449 B41	172'± AGL	300°	0°	2'	L2500/N2500	-
	G2	COMMSCOPE WV-65A-R1	172'± AGL	300°	0°	2'	L2100/L1900/G1900	ERICSSON RADIO 4460 B25+B66
	G3	EMPTY PIPE	-	-	-	-	-	-
	G4	RFS APXVAALL24_43-U-NA20	170'± AGL	300°	0°	2'	L700/L600/N600	ERICSSON RADIO 4449 B71+B85

EXIST. (1) 1-3/8" (6x12) HCS FIBER CABLE  
 PROP. (2) 2" (6x24) HCS FIBER CABLES

CABLE NOTE: EXISTING (12) 1-3/8" COAX CABLES TO BE REMOVED. SEE FEEDLINE SCHEDULE A & B BELOW.

NOTE: RFDS REV4 - 11/12/21

FEEDLINE SCHEDULE		
SCHEDULE	FEEDLINES	LOCATION
A	EXISTING TO REMAIN: (1) 1/2" COAX FOR GPS ANTENNA (1) 1-3/8" (6x12) HCS FIBER CABLE EXISTING TO BE REMOVED: (12) 1-3/8" COAX CABLES	ROUTED PER STRUCTURAL ANALYSIS
B	PROPOSED: (2) 2" (6x24) HCS FIBER CABLES	

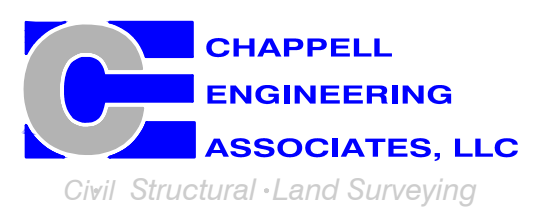
NOTE: EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.

**T-MOBILE  
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SITE ADDRESS:  
712 BREAD & MILK STREET  
COVENTRY, CT 06238

SHEET TITLE  
**ANTENNA & FEEDLINE CHARTS**

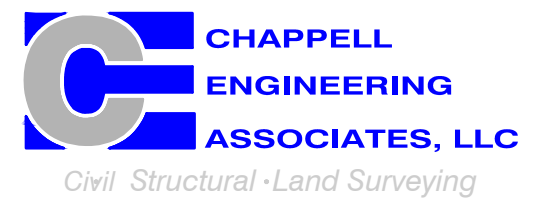
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**A-4**

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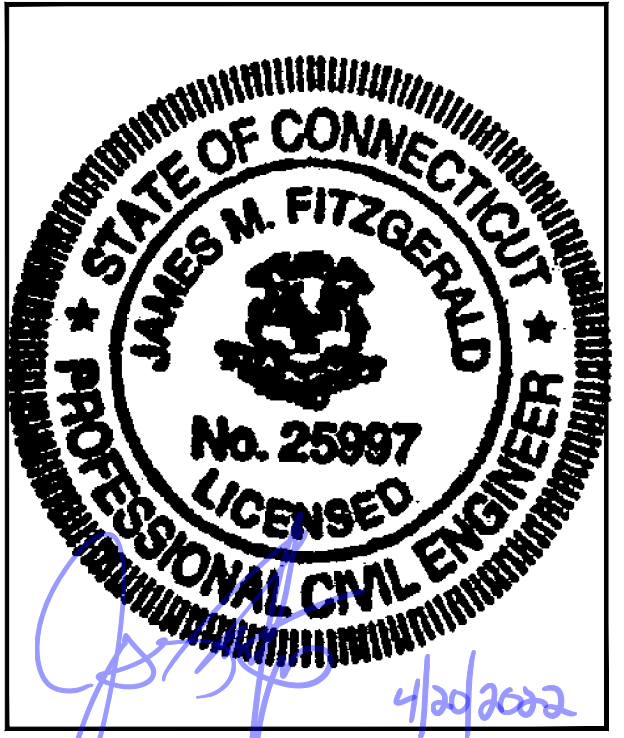
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NORTON, MA 02766  
(508) 286-2700



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



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

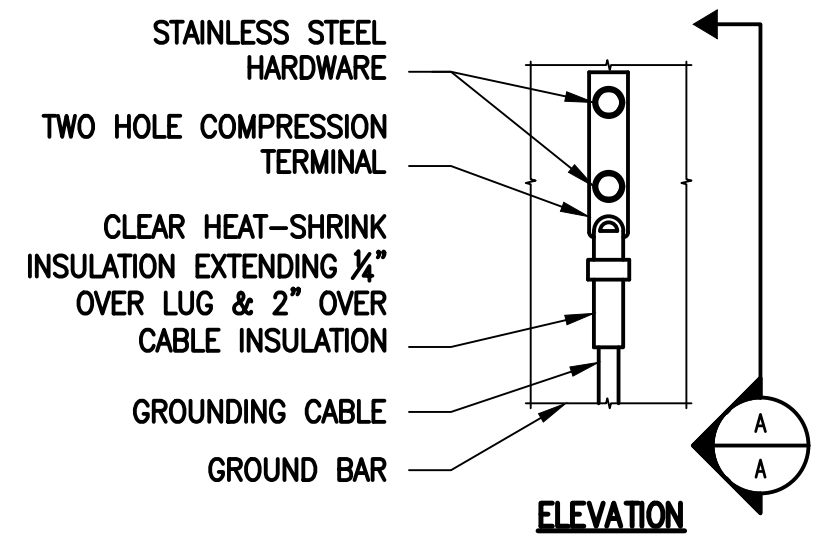
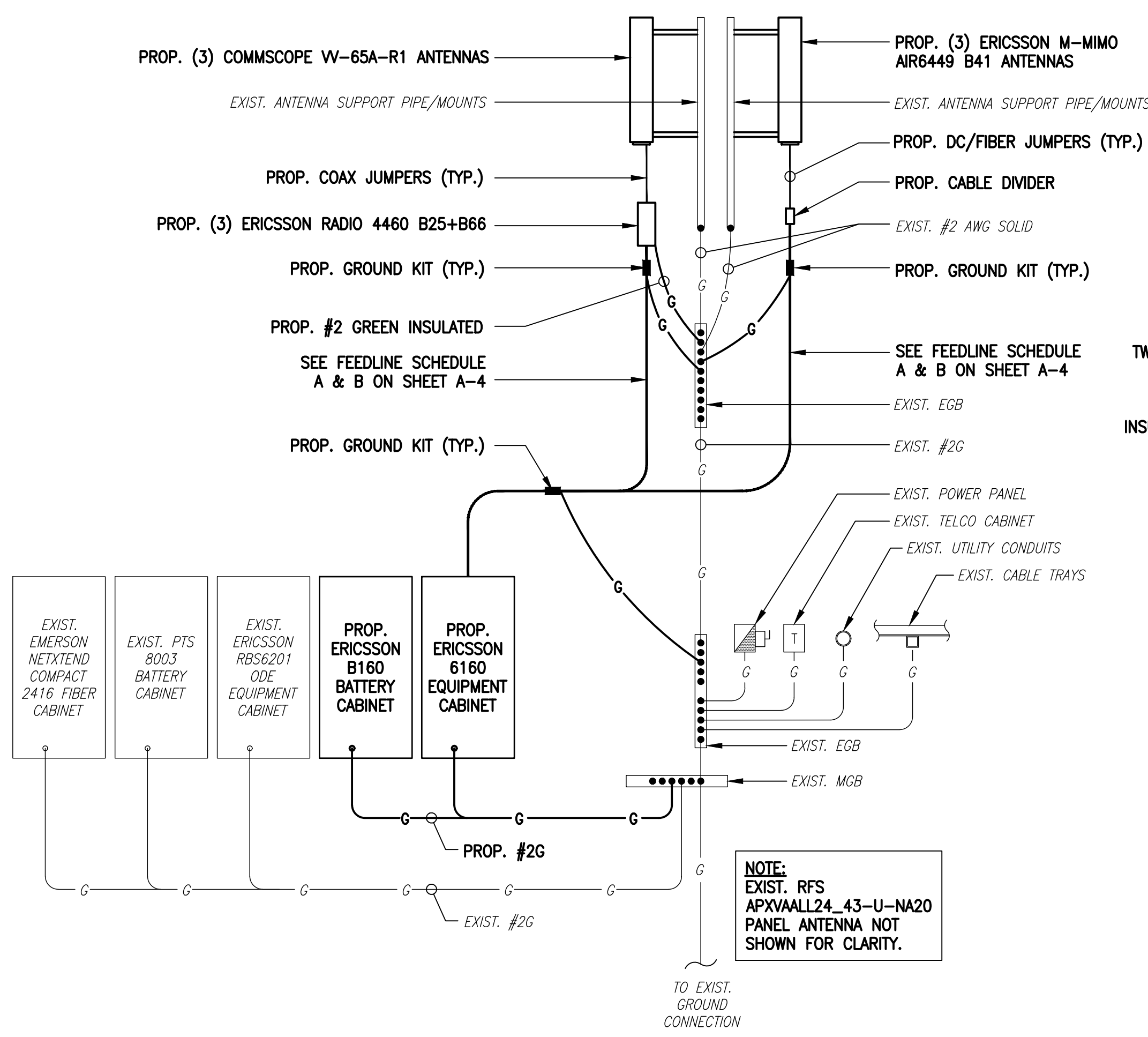
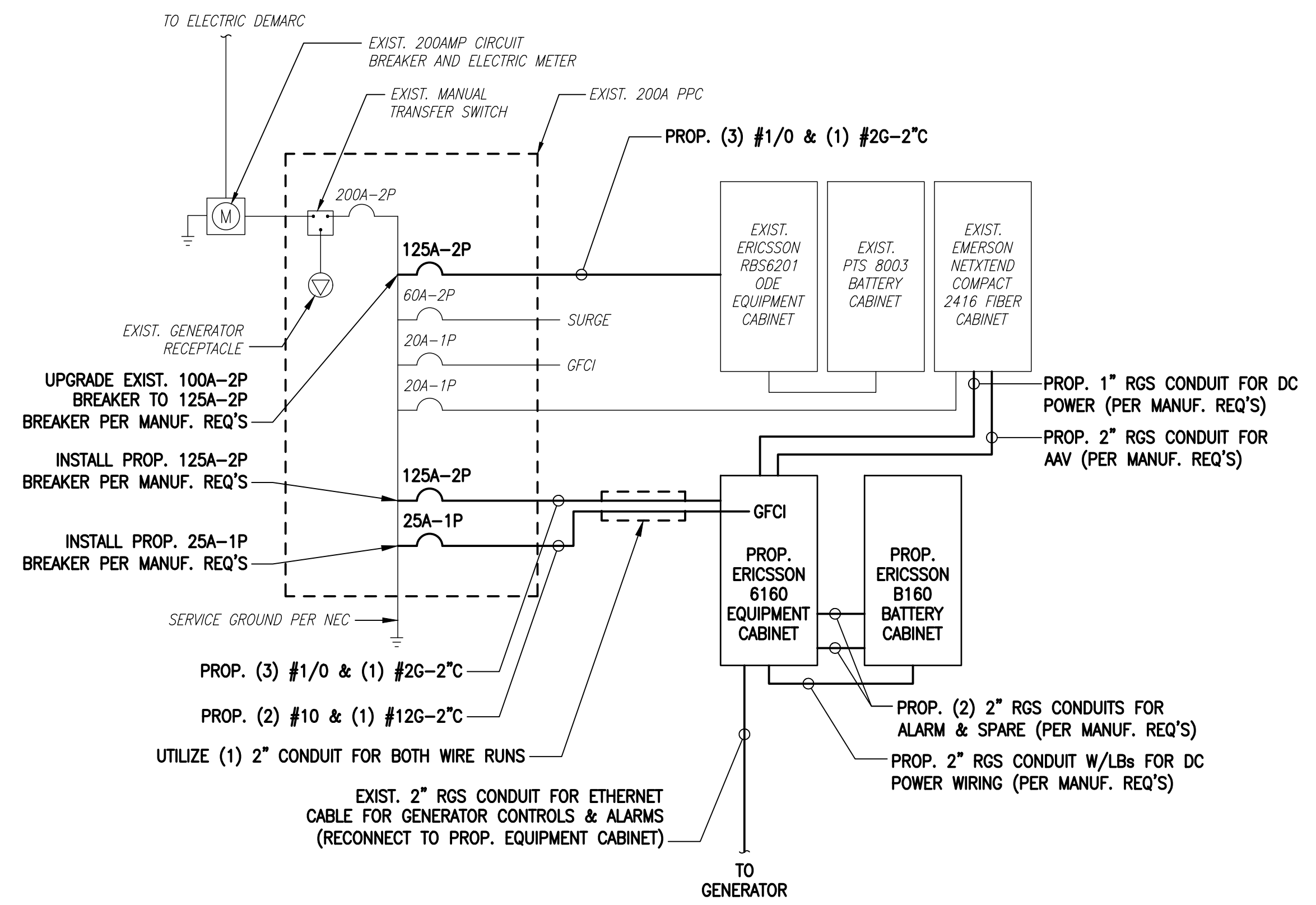
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REV.	DATE	DESCRIPTION	BY
1	04/20/22	ISSUED FOR CONSTRUCTION	CMC
0	12/20/21	ISSUED FOR REVIEW	CMC

SITE NUMBER:  
**CT11515A**

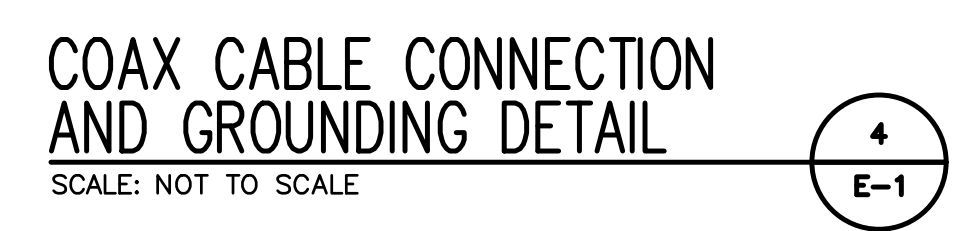
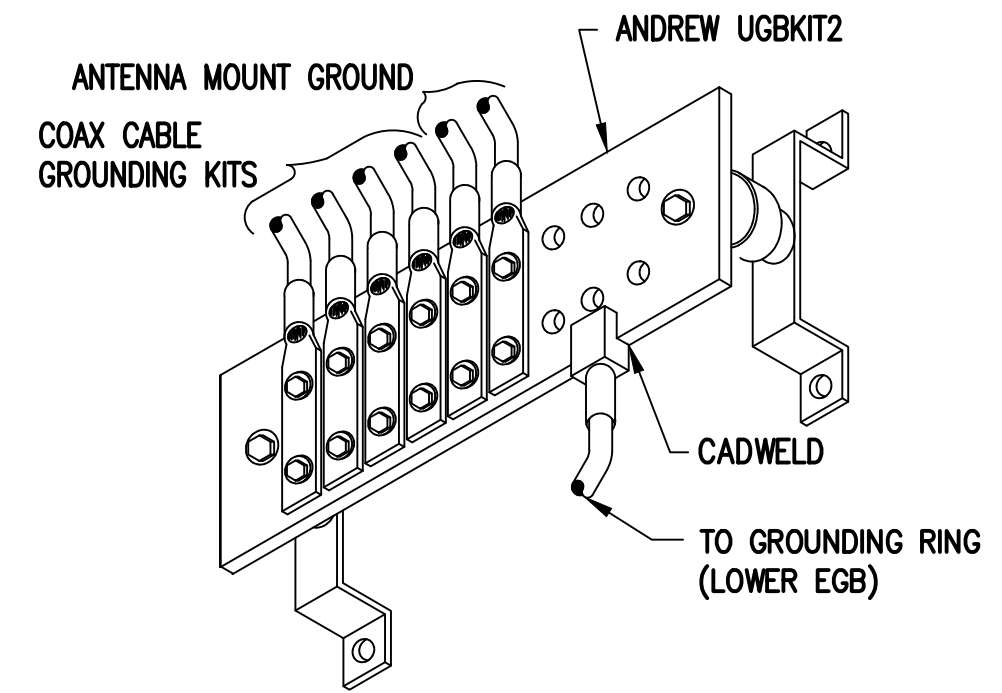
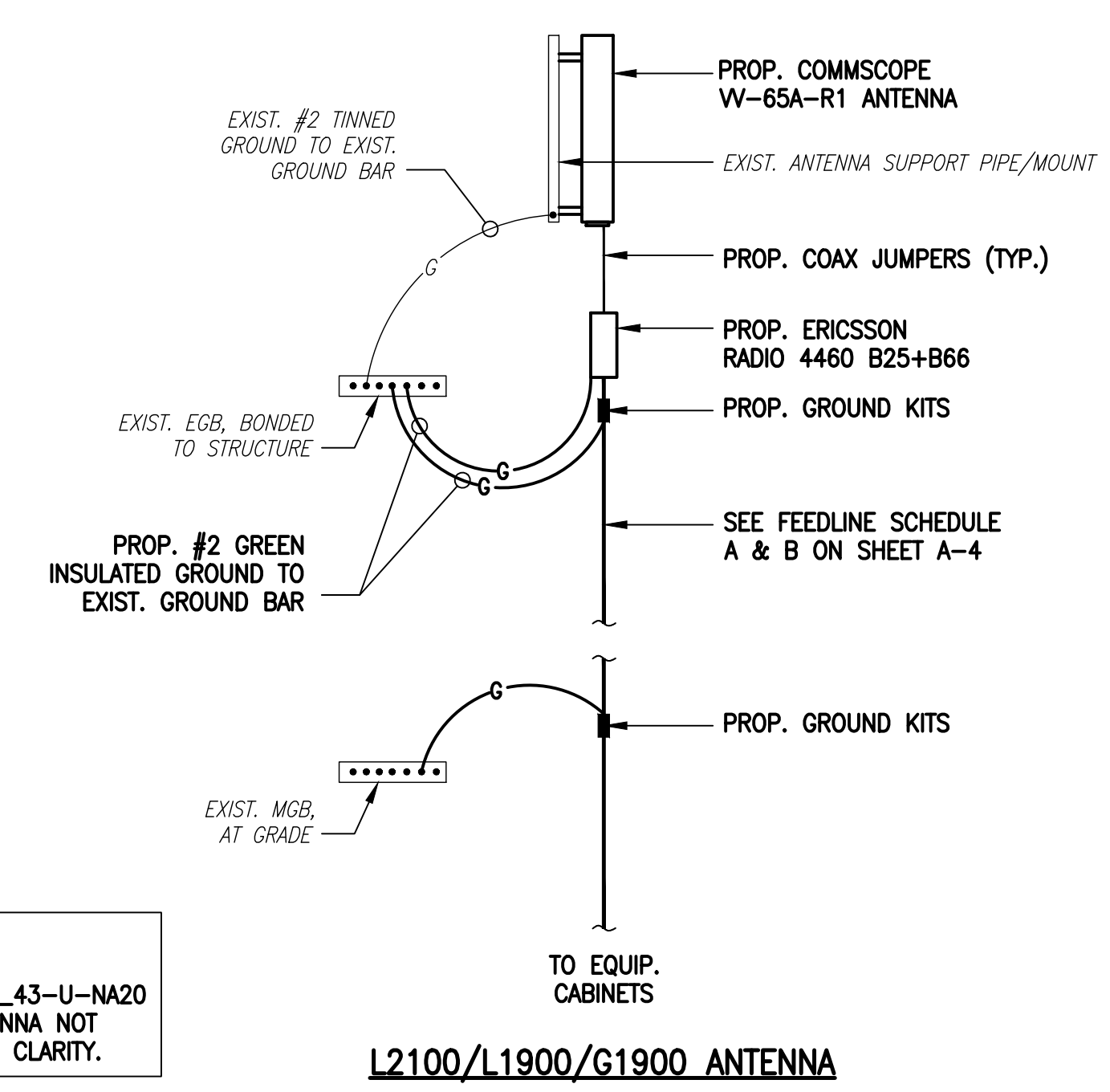
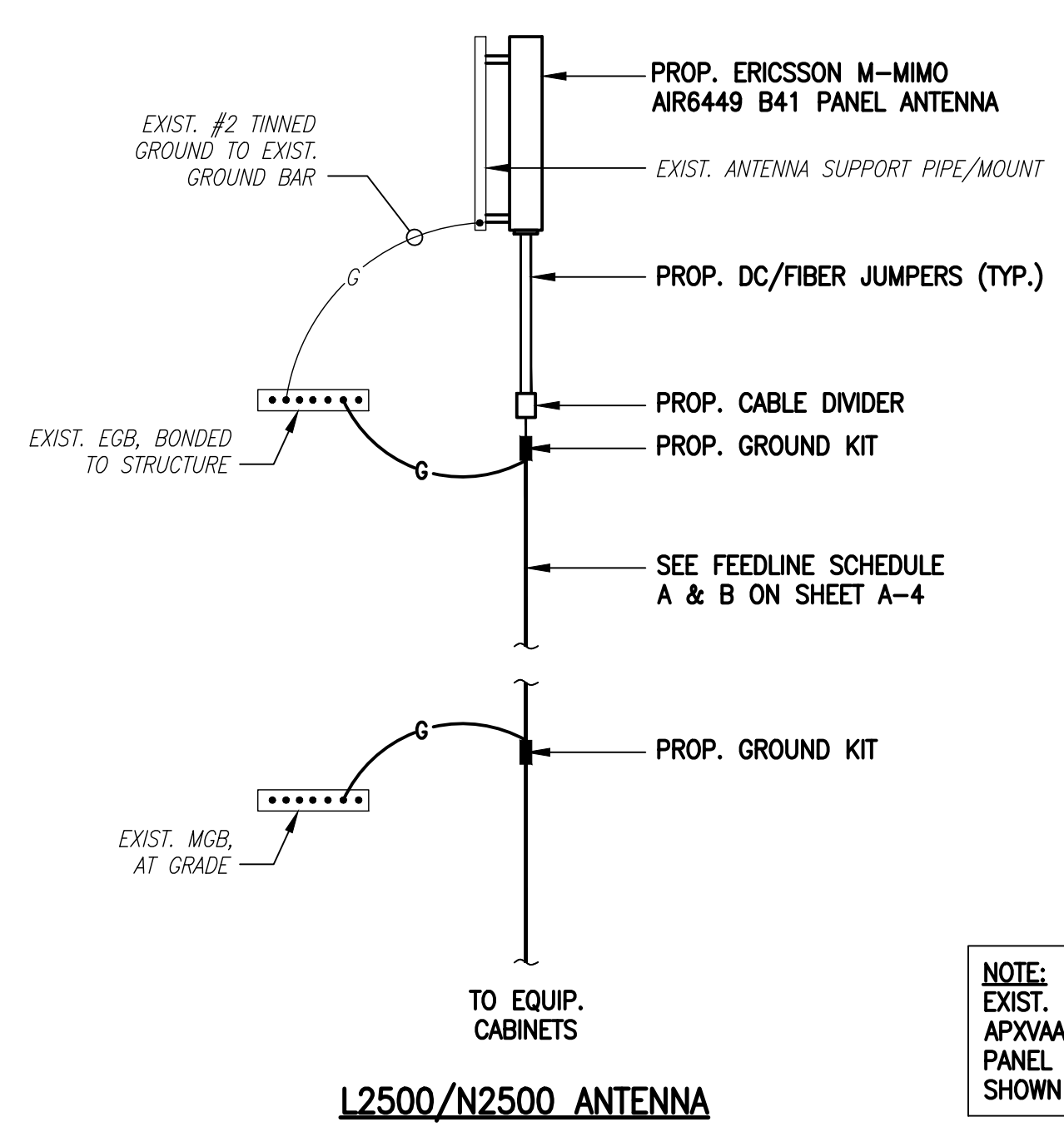
SITE ADDRESS:  
712 BREAD & MILK STREET  
COVENTRY, CT 06238

SHEET TITLE  
**ELECTRIC & GROUNDING  
DETAILS**

SHEET NUMBER  
**E-1**



- 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.



**ELECTRICAL AND GROUNDING NOTES**

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

# Exhibit D

## **Structural Analysis Report**



**Tower Engineering Solutions**

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

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## **Structural Analysis Report**

Existing 178 ft Nudd Corporation Monopole  
Customer Name: SBA Communications Corp  
Customer Site Number: CT02573-S  
Customer Site Name: Coventry 2 CT  
Carrier Name: T-Mobile (App#: 183549-1)  
Carrier Site ID / Name: CT11515A / Coventry  
Site Location: 712 Bread & Milk Street  
Coventry, Connecticut  
Tolland County  
Latitude: 41.818091  
Longitude: -72.393175

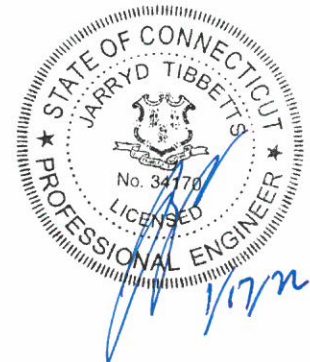
**Analysis Result:**

Max Structural Usage: 97.7% [Pass]

Max Foundation Usage: 35% [Pass]

Additional Usage Caused by New Mount/Mount Modification: N/A

Report Prepared By: Suvash Chapain





**Tower Engineering Solutions**

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

---

## **Structural Analysis Report**

**Existing 178 ft Nudd Corporation Monopole**

**Customer Name: SBA Communications Corp**

**Customer Site Number: CT02573-S**

**Customer Site Name: Coventry 2 CT**

**Carrier Name: T-Mobile (App#: 183549-1)**

**Carrier Site ID / Name: CT11515A / Coventry**

**Site Location: 712 Bread & Milk Street**

**Coventry, Connecticut**

**Tolland County**

**Latitude: 41.818091**

**Longitude: -72.393175**

### **Analysis Result:**

**Max Structural Usage: 97.7% [Pass]**

**Max Foundation Usage: 35% [Pass]**

**Additional Usage Caused by New Mount/Mount Modification: N/A**

**Report Prepared By: Suvash Chapain**

## Introduction

The purpose of this report is to summarize the analysis results on the 178 ft Nudd Corporation 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

<b>Tower Drawings</b>	Fred A. Nudd Corporation Project # 7491R Rev A, dated 10/03/2002; Engineered Tower Solutions Job # 171015 (Mapping), dated 05/12/2017
<b>Foundation Drawing</b>	Fred A. Nudd Corporation, Project # 7491R Rev A Dated 10/03/2002; Engineered Tower Solutions Job # 171015 (Mapping), dated 05/12/2017
<b>Geotechnical Report</b>	Jaworski Geotech Inc., Project # 00214G Dated 06/14/2000
<b>Modification Drawings</b>	N/A
<b>Mount Analysis</b>	TES Project Number: 121434, dated January 6, 2022

## 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.

<b>Wind Speed Used in the Analysis:</b>	Ultimate Design Wind Speed $V_{ult} = 130.0$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 101.0$ mph (3-Sec. Gust)
<b>Wind Speed with Ice:</b>	50 mph (3-Sec. Gust) with 1" radial ice concurrent
<b>Operational Wind Speed:</b>	60 mph + 0" Radial ice
<b>Standard/Codes:</b>	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
<b>Exposure Category:</b>	B
<b>Structure Class:</b>	II
<b>Topographic Category:</b>	1
<b>Crest Height:</b>	0 ft
<b>Seismic Parameters:</b>	$S_5 = 0.176$ , $S_1 = 0.063$

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	172.0	3	EMS - RR90-1702-DP - Panel	Low-Profile Platform w/ Mods	(12) 1 5/8" (1) 1 5/8" Fiber	T-Mobile
2		3	Ericsson - KRY 112 144/1 - TMA			
3		3	Ericsson - KRY 112 489/2 - TMA			
4		3	Ericsson - Radio 4449 B71+B12 - RRU			
5		3	Kathrein - 782 11056 - Bias T			
-	170.0	3	RFS - APXVAARR24_43-U-NA20 - Panel			
6	162.0	2	Cci DMP65R-BU6DA - Panel	Platform w/ Hand Rail HRK12 (Handrail Kit)	(12) 1 5/8" (2) 1" DC Power (4) 1/2" (1) 3/8" Fiber	AT&T
7		1	Cci DMP65R-BU8DA - Panel			
8		1	Cci HPA-65R-BU8AA - Panel			
9		2	Cci HPA-65R-BU6AA - Panel			
10		6	Powerwave 21401 TMA			
11		6	Powerwave 7020.00 RET			
12		3	Ericsson RRUS 8843 B2 B66A RRU			
13		3	Ericsson RRUS 4449 B5/B12 RRU			
14		3	Powerwave 7770 - Panel			
15		1	Raycap DC6-48-60-18-8F			
16	153.0	3	JMA Wireless MX08FRO665-21	Low-profile platform w/support rail Commscope MC-PK8-DSH	(1) 1.75" Hybrid	Dish Network
17		3	Fujitsu TA08025-B605			
18		3	Fujitsu TA08025-B604			
19		1	Raycap RDIDC-9181-PF-48			
20	130.0	3	Samsung MT6407-77A - Panel	14'-6" Platform w/ Support Rail [PV-LPP14M-HR-B]	(2) 1 5/8" Hybrid	Verizon
21		3	Samsung XXDWMM-12.5-65 - Panel			
22		6	Andrew SBNHH-1D65B - Panel			
23		3	Samsung RF4440d-13A			
24		3	Samsung RF4439d-25A			
25		3	Alcatel Lucent B25 RRH4X30			
26		2	RFS DB-T1-6Z-8AB-OZ			

## 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
1	172.0	3	Ericsson AIR6449 B41 - Panel	Low-Profile Platform w/ Mods*	(9) 1 5/8" (1) 1 5/8" Fiber (2) 1.9" Fiber	T-Mobile
2		3	Commscope VV-65A-R1 - Panel			
3		3	Ericsson KRY 112 489/2-TMA			
4		3	Ericsson KRY 112 144/1-TMA			
5		3	Ericsson 4449 B71 + B85-RRU			
6		3	Ericsson 4460 B25 + B66-RRU			
7		3	Kathrein 782 11056 Bias Ts			
8	170.0	3	RFS APXVAALL24-43-U-NA20 - Panel			

\*Mount modifications taken from TES Job # 81108

All transmission lines are considered running inside of the pole shafts.

## **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	Flange Bolts
Max. Usage:	<b>60.7%</b>	<b>50.7%</b>	<b>97.7%</b>	<b>96.8%</b>
Pass/Fail	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>	<b>Pass</b>

## **Foundations**

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	4561.7	35.7	64.7

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 TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.0025 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 TIA-222 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 ANSI/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 60.70% at 0.0ft

**Structure:** CT02573-S-SBA  
**Site Name:** Coventry 2 CT  
**Height:** 177.95 (ft)  
**Base Elev:** 0.000 (ft)

**Code:** EIA/TIA-222-G  
**Exposure:** B  
**Gh:** 1.1

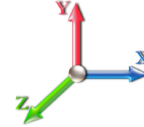
1/17/2022



Page: 1

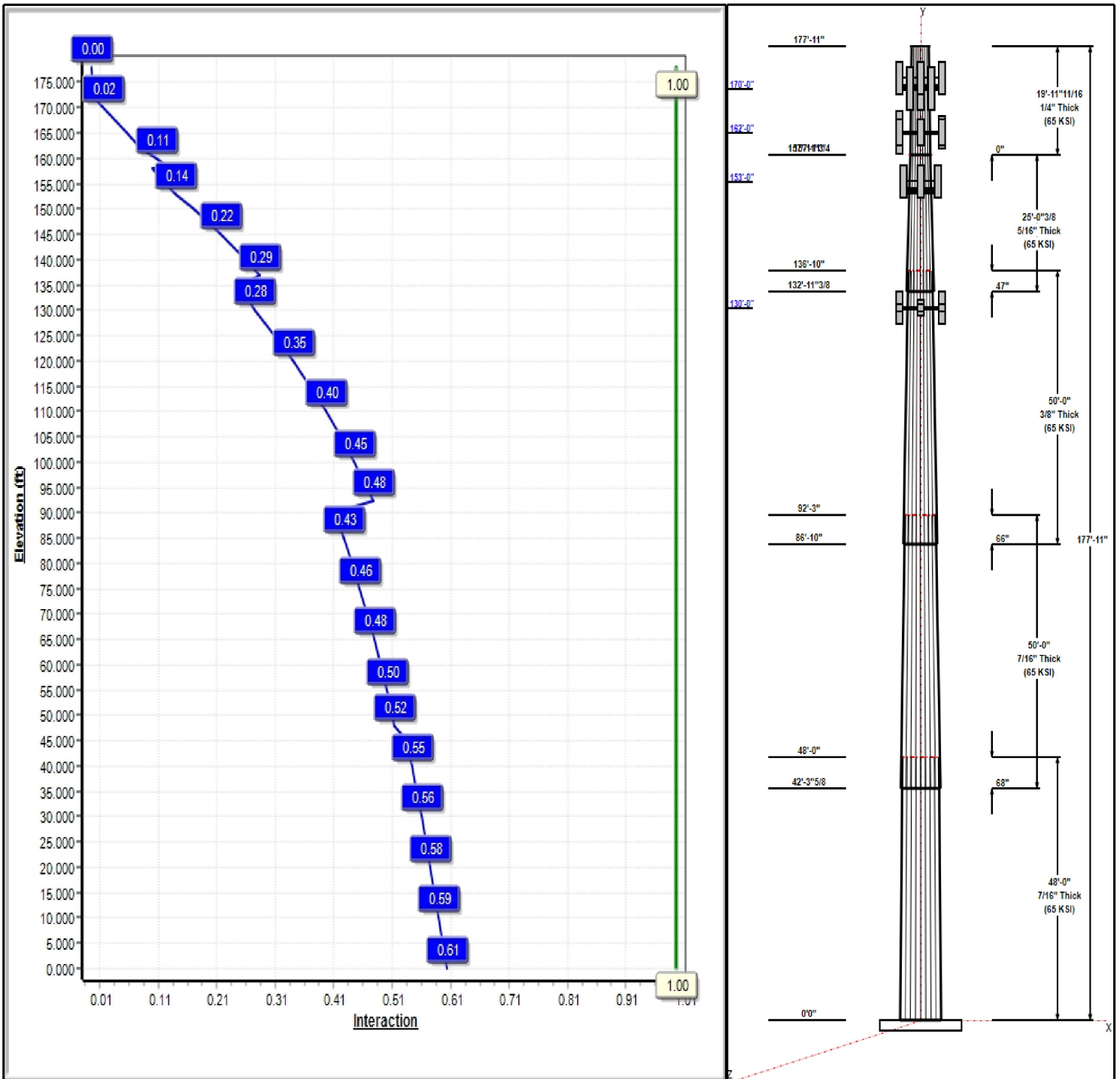
Dead Load Factor: 1.20  
 Wind Load Factor: 1.60

**Load Case : 1.2D + 1.6W 101 mph Wind**



**Iterations:** 24

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## Structure: CT02573-S-SBA

**Type:** Tapered  
**Site Name:** Coventry 2 CT  
**Height:** 177.95 (ft)  
**Base Elev:** 0.00 (ft)

**Base Shape:** 18 Sided  
**Taper:** 0.23391

1/17/2022

Page: 2



### Shaft Properties

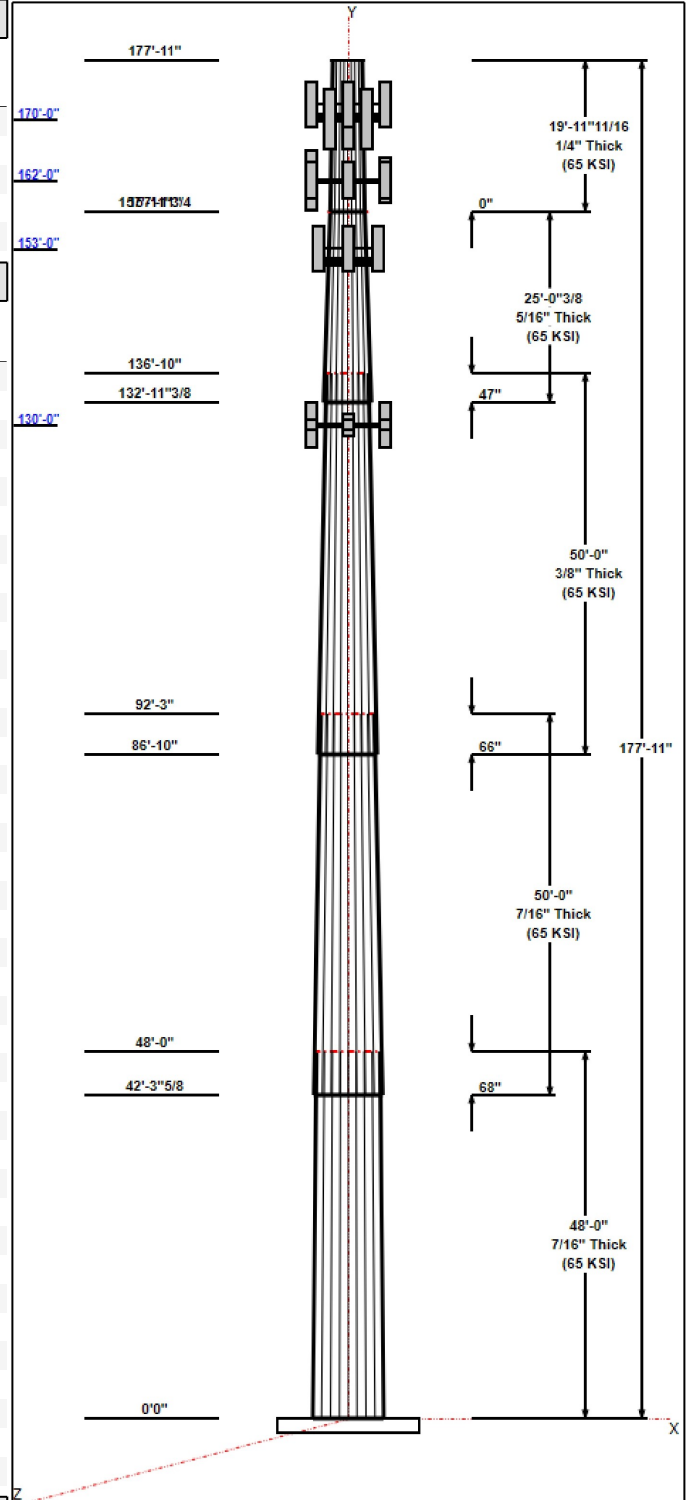
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	48.00	53.27	64.50	0.438		0.23391	65
2	50.00	43.78	55.48	0.438	Slip	0.23391	65
3	50.00	34.12	45.81	0.375	Slip	0.23391	65
4	25.03	29.80	35.65	0.313	Slip	0.23391	65
5	19.97	25.13	29.80	0.250	Butt	0.23391	65

### Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
177.95	177.95	1	6' Lightning rod	
172.00	172.00	1	MS-1436 (Light Collar	T-Mobile
172.00	172.00	1	MS-HRECP	T-Mobile
172.00	172.00	1	MS-HR35	T-Mobile
172.00	172.00	1	MS-C1B-2875P	T-Mobile
172.00	172.00	3	KRY 112 144/1	T-Mobile
172.00	172.00	3	KRY 112 89/4	T-Mobile
172.00	172.00	3	4449 B71 + B85	T-Mobile
172.00	172.00	3	782 10660	T-Mobile
172.00	172.00	3	T-Frames w/ Pipe Mount	T-Mobile
172.00	172.00	3	AIR6449 B41	T-Mobile
172.00	172.00	3	VV-65A-R1	T-Mobile
172.00	172.00	3	4460 B25 + B66	T-Mobile
170.00	170.00	3	APXVAALL24_43-U-NA20	T-Mobile
162.00	162.00	2	Cci DMP65R-BU6DA	AT&T
162.00	162.00	1	Cci DMP65R-BU8DA	AT&T
162.00	162.00	1	Cci HPA-65R-BU8AA	AT&T
162.00	162.00	2	Cci HPA-65R-BU6AA	AT&T
162.00	162.00	6	Powerwave 21401 TMA	AT&T
162.00	162.00	6	Powerwave 7020.00 RET	AT&T
162.00	162.00	3	Ericsson RRUS 8843 B2	AT&T
162.00	162.00	3	Ericsson RRUS 4449	AT&T
162.00	162.00	1	HRK12 (Handrail Kit)	AT&T
162.00	162.00	1	HP Platform w/ Pipe Mount	AT&T
162.00	162.00	3	Powerwave 7770	AT&T
162.00	162.00	1	Raycap DC6-48-60-18-8F	AT&T
153.00	153.00	1	RDIDC-9181-OF-48	Dish Network
153.00	153.00	3	MX08FRO665-21	Dish Network
153.00	153.00	1	MC-PK8-DSH	Dish Network
153.00	153.00	3	TA08025-B604	Dish Network
153.00	153.00	3	TA08025-B605	Dish Network
130.00	130.00	3	B25 RRH4x30-4R	Verizon
130.00	130.00	2	DB-T1-6Z-8AB-0Z	Verizon
130.00	130.00	1	PV-LPP14L-HR-B Platform	Verizon
130.00	130.00	3	MT6407-77A	Verizon
130.00	130.00	3	XXDMMM-12.5-65	Verizon
130.00	130.00	3	RF4440d-13A	Verizon
130.00	130.00	3	RF4439d-25A	Verizon
130.00	130.00	6	SBNHH-1D65B	Verizon

### Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	173.00	Inside	1 5/8" Coax	T-Mobile
0.00	173.00	Inside	1 5/8" Fiber	T-Mobile



**Structure: CT02573-S-SBA**

**Type:** Tapered  
**Site Name:** Coventry 2 CT  
**Height:** 177.95 (ft)  
**Base Elev:** 0.00 (ft)

**Base Shape:** 18 Sided  
**Taper:** 0.23391

1/17/2022

Page: 3



0.00	173.00	Inside	1.9" Fiber	T-Mobile
0.00	162.00	Inside	1 5/8" Coax	AT&T
0.00	162.00	Inside	1" DC Power	AT&T
0.00	162.00	Inside	1/2" Coax	AT&T
0.00	162.00	Inside	3/8" Fiber	AT&T
0.00	153.00	Inside	1.75" Hybrid	Dish Network
0.00	130.00	Inside	1 5/8" Hybrid	Verizon

**Anchor Bolts**

Qty	Specifications	Grade (ksi)	Arrangement
24	2.00" F1554 105	105.0	Radial

**Base Plate**

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.2500	68.0	50.0	Round

**Reactions**

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 101 mph Wind	4561.7	35.7	64.7
0.9D + 1.6W 101 mph Wind	4512.1	35.7	48.5
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1330.9	10.2	109.8
1.2D + 1.0E	305.2	2.3	64.7
0.9D + 1.0E	301.7	2.3	48.5
1.0D + 1.0W 60 mph Wind	999.7	7.9	53.9



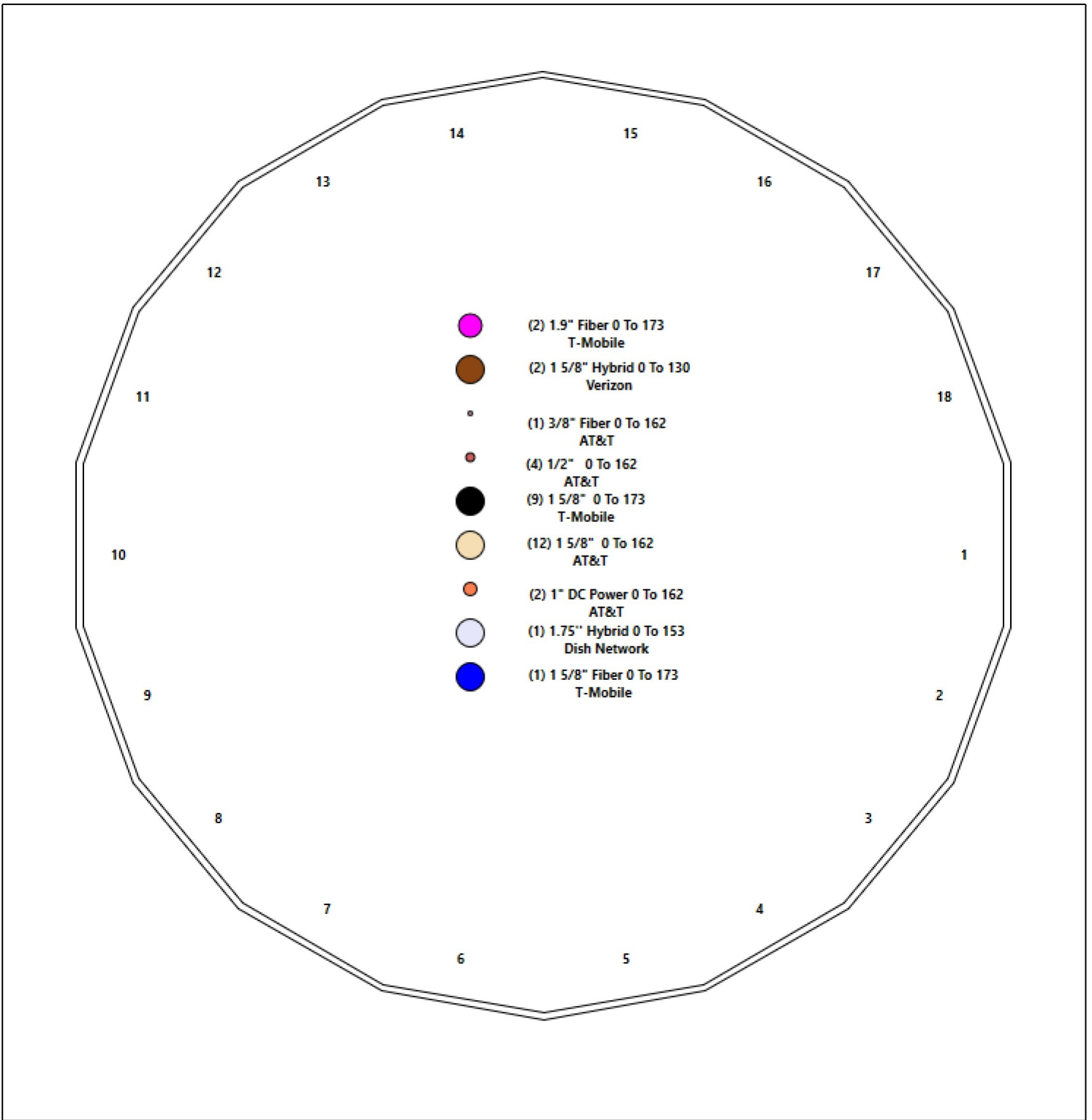
# Structure: CT02573-S-SBA - Coax Line Placement

**Type:** Monopole  
**Site Name:** Coventry 2 CT  
**Height:** 177.95 (ft)

1/17/2022



Page: 4



## Shaft Properties

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 5

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	48.000	0.4375	65		0.00	13,256
2	18	50.000	0.4375	65	Slip	68.38	11,622
3	18	50.000	0.3750	65	Slip	65.63	8,017
4	18	25.030	0.3125	65	Slip	46.63	2,738
5	18	19.972	0.2500	65	Flange	0.00	1,467
<b>Total Shaft Weight:</b>							<b>37,101</b>

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	64.50	0.00	88.96	46124.76	24.59	147.43	53.27	48.00	73.36	25874.8	20.06	121.7	0.233914
2	55.48	42.30	76.43	29256.05	20.95	126.81	43.78	92.30	60.19	14288.6	16.24	100.0	0.233914
3	45.81	86.83	54.08	14107.39	20.13	122.17	34.12	136.83	40.16	5777.20	14.63	90.98	0.233914
4	35.65	132.9	35.05	5530.46	18.71	114.09	29.80	157.98	29.24	3211.92	15.40	95.35	0.233914
5	29.80	157.9	23.44	2585.91	19.61	119.19	25.13	177.95	19.74	1543.03	16.31	100.5	0.233914

## Load Summary

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> 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	177.95	6' Lightning rod	1	6.50	0.38	1.00	55.73	1.855	1.00	0.00	0.00
2	172.00	MS-1436 (Light Collar Mount)	1	65.60	1.50	1.00	189.40	3.623	1.00	0.00	0.00
3	172.00	MS-HRECP	1	514.00	12.25	1.00	1338.52	28.433	1.00	0.00	0.00
4	172.00	MS-HR35	1	430.00	8.75	1.00	1119.78	20.309	1.00	0.00	0.00
5	172.00	MS-C1B-2875P	1	329.00	10.00	1.00	949.89	24.154	1.00	0.00	0.00
6	172.00	KRY 112 144/1	3	11.00	0.41	0.50	25.57	1.052	0.50	0.00	0.00
7	172.00	KRY 112 89/4	3	15.40	0.65	0.50	39.22	1.477	0.50	0.00	0.00
8	172.00	4449 B71 + B85	3	70.00	1.65	0.67	202.11	2.429	0.67	0.00	0.00
9	172.00	782 10660	3	2.60	0.28	0.50	11.43	0.822	0.50	0.00	0.00
10	172.00	T-Frames w/ Pipe Mount	3	450.00	16.00	0.75	925.58	26.870	0.75	0.00	0.00
11	172.00	AIR6449 B41	3	103.00	5.65	0.71	288.34	6.935	0.71	0.00	0.00
12	172.00	VV-65A-R1	3	29.50	7.90	0.74	282.46	9.669	0.74	0.00	0.00
13	172.00	4460 B25 + B66	3	109.00	2.85	0.67	206.20	3.762	0.67	0.00	0.00
14	170.00	APXVAALL24_43-U-NA20	3	122.80	20.24	0.73	725.75	22.839	0.75	0.00	0.00
15	162.00	Cci DMP65R-BU6DA	2	79.40	12.71	0.72	475.16	14.677	0.72	0.00	0.00
16	162.00	Cci DMP65R-BU8DA	1	95.70	17.87	0.72	713.81	20.284	0.72	0.00	0.00
17	162.00	Cci HPA-65R-BU8AA	1	54.00	11.23	0.86	434.64	13.482	0.86	0.00	0.00
18	162.00	Cci HPA-65R-BU6AA	2	43.00	7.92	0.99	387.80	9.679	0.99	0.00	0.00
19	162.00	Powerwave 21401 TMA	6	17.50	0.82	0.50	61.25	1.402	0.50	0.00	0.00
20	162.00	Powerwave 7020.00 RET	6	2.20	0.40	0.50	15.94	1.051	0.50	0.00	0.00
21	162.00	Ericsson RRUS 8843 B2 B66A RRU	3	72.00	1.64	0.67	134.94	2.308	0.67	0.00	0.00
22	162.00	Ericsson RRUS 4449 B5/B12 RRU	3	70.00	1.65	0.67	170.03	2.400	0.67	0.00	0.00
23	162.00	HRK12 (Handrail Kit)	1	261.72	6.75	1.00	679.05	15.614	1.00	0.00	0.00
24	162.00	HP Platform w/ Pipe Mount	1	1600.00	25.00	1.00	3475.95	51.967	1.00	0.00	0.00
25	162.00	Powerwave 7770	3	35.00	5.50	0.73	231.06	6.964	0.75	0.00	0.00
26	162.00	Raycap DC6-48-60-18-8F	1	31.80	0.92	1.00	114.87	1.509	1.00	0.00	0.00
27	153.00	RDIDC-9181-OF-48	1	21.90	2.01	0.67	93.04	2.769	0.67	0.00	0.00
28	153.00	MX08FRO665-21	3	64.50	12.49	0.74	453.10	14.447	0.74	0.00	0.00
29	153.00	MC-PK8-DSH	1	1727.00	37.59	1.00	3981.90	00.693	1.00	0.00	0.00
30	153.00	TA08025-B604	3	63.90	1.96	0.67	131.54	2.709	0.67	0.00	0.00
31	153.00	TA08025-B605	3	75.00	1.96	0.67	144.88	2.709	0.67	0.00	0.00
32	130.00	B25 RRH4x30-4R	3	51.00	2.14	0.67	126.90	2.939	0.67	0.00	0.00
33	130.00	DB-T1-6Z-8AB-OZ	2	18.90	4.80	0.67	218.60	5.973	0.67	0.00	0.00
34	130.00	PV-LPP14L-HR-B Platform w/	1	1641.00	36.80	1.00	4471.74	79.008	1.00	0.00	0.00
35	130.00	MT6407-77A	3	79.40	4.69	0.70	247.09	5.953	0.70	0.00	0.00
36	130.00	XXDWMM-12.5-65	3	23.14	1.53	0.74	136.31	2.274	0.74	0.00	0.00
37	130.00	RF4440d-13A	3	70.33	1.93	0.67	177.52	3.138	0.67	0.00	0.00
38	130.00	RF4439d-25A	3	50.70	1.93	0.75	127.97	3.138	0.67	0.00	0.00
39	130.00	SBNHH-1D65B	6	40.00	8.16	0.83	323.26	9.906	0.83	0.00	0.00
<b>Totals:</b>			<b>97</b>	<b>12,123.83</b>			<b>36,548.09</b>				

### Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	173.00	(9) 1 5/8" Coax	0.00	Inside
0.00	173.00	(1) 1 5/8" Fiber	0.00	Inside

## 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	173.00	(2) 1.9" Fiber		0.00		Inside					
0.00	162.00	(12) 1 5/8" Coax		0.00		Inside					
0.00	162.00	(2) 1" DC Power		0.00		Inside					
0.00	162.00	(4) 1/2" Coax		0.00		Inside					
0.00	162.00	(1) 3/8" Fiber		0.00		Inside					
0.00	153.00	(1) 1.75" Hybrid		0.00		Inside					
0.00	130.00	(2) 1 5/8" Hybrid		0.00		Inside					

## Shaft Section Properties

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 8

**Increment Length:** 5 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in <sup>3</sup> )	Weight (lb)
0.00		0.4375	64.500	88.956	46124.8	24.59	147.43	72.5	1408.	0.0
5.00		0.4375	63.330	87.332	43644.3	24.11	144.76	73.0	1357.	1499.7
10.00		0.4375	62.161	85.708	41254.5	23.64	142.08	73.6	1307.	1472.0
15.00		0.4375	60.991	84.083	38953.5	23.17	139.41	74.1	1257.	1444.4
20.00		0.4375	59.822	82.459	36739.7	22.70	136.74	74.7	1209.	1416.8
25.00		0.4375	58.652	80.835	34611.4	22.23	134.06	75.3	1162.	1389.1
30.00		0.4375	57.483	79.211	32566.9	21.76	131.39	75.8	1115.	1361.5
35.00		0.4375	56.313	77.587	30604.6	21.29	128.72	76.4	1070.	1333.9
40.00		0.4375	55.143	75.963	28722.7	20.81	126.04	76.9	1025.	1306.2
42.30	Bot - Section 2	0.4375	54.605	75.216	27882.9	20.60	124.81	77.2	1005.	592.1
45.00		0.4375	53.974	74.339	26919.6	20.34	123.37	77.5	982.4	1384.1
48.00	Top - Section 1	0.4375	54.147	74.580	27181.8	20.41	123.76	0.0	0.0	1520.2
50.00		0.4375	53.679	73.930	26477.7	20.22	122.70	77.6	971.5	505.3
55.00		0.4375	52.510	72.306	24770.9	19.75	120.02	78.2	929.1	1244.0
60.00		0.4375	51.340	70.682	23139.0	19.28	117.35	78.7	887.7	1216.4
65.00		0.4375	50.171	69.058	21580.4	18.81	114.68	79.3	847.2	1188.8
70.00		0.4375	49.001	67.434	20093.4	18.34	112.00	79.8	807.7	1161.1
75.00		0.4375	47.831	65.810	18676.3	17.87	109.33	80.4	769.1	1133.5
80.00		0.4375	46.662	64.186	17327.5	17.40	106.66	80.9	731.4	1105.9
85.00		0.4375	45.492	62.562	16045.2	16.92	103.98	81.5	694.7	1078.2
86.83	Bot - Section 3	0.4375	45.063	61.966	15591.4	16.75	103.00	81.7	681.5	388.4
90.00		0.4375	44.323	60.938	14827.8	16.45	101.31	82.0	658.9	1240.2
92.30	Top - Section 2	0.3750	44.534	52.559	12949.1	19.53	118.76	0.0	0.0	888.7
95.00		0.3750	43.903	51.808	12401.9	19.23	117.08	78.8	556.4	479.1
100.00		0.3750	42.734	50.416	11428.8	18.68	113.96	79.4	526.8	869.6
105.00		0.3750	41.564	49.023	10508.0	18.13	110.84	80.1	497.9	845.9
110.00		0.3750	40.394	47.631	9638.1	17.58	107.72	80.7	469.9	822.2
115.00		0.3750	39.225	46.239	8817.5	17.03	104.60	81.4	442.8	798.6
120.00		0.3750	38.055	44.847	8044.9	16.48	101.48	82.0	416.4	774.9
125.00		0.3750	36.886	43.455	7318.8	15.93	98.36	82.6	390.8	751.2
130.00		0.3750	35.716	42.063	6637.7	15.38	95.24	82.6	366.0	727.5
132.95	Bot - Section 4	0.3750	35.027	41.243	6256.7	15.06	93.40	82.6	351.8	417.8
135.00		0.3750	34.547	40.671	6000.3	14.83	92.12	82.6	342.1	529.1
136.83	Top - Section 3	0.3125	34.743	34.149	5114.6	18.19	111.18	0.0	0.0	466.5
140.00		0.3125	34.002	33.415	4791.6	17.77	108.81	80.5	277.6	364.0
145.00		0.3125	32.832	32.255	4309.7	17.11	105.06	81.3	258.5	558.6
150.00		0.3125	31.663	31.095	3861.2	16.46	101.32	82.0	240.2	538.9
153.00		0.3125	30.961	30.399	3607.7	16.06	99.08	82.5	229.5	313.9
155.00		0.3125	30.493	29.935	3445.0	15.80	97.58	82.6	222.5	205.3
157.98	Top - Section 4	0.3125	29.797	29.244	3211.9	15.40	95.35	82.6	212.3	299.8
157.98	Bot - Section 5	0.2500	29.797	23.445	2585.9	19.25	119.19	78.3	170.9	
160.00		0.2500	29.324	23.069	2463.7	19.27	117.30	78.7	165.5	160.0
162.00		0.2500	28.856	22.698	2346.7	18.94	115.42	79.1	160.2	155.7
165.00		0.2500	28.154	22.141	2178.2	18.45	112.62	79.7	152.4	228.9
170.00		0.2500	26.985	21.213	1915.6	17.62	107.94	80.7	139.8	368.8
172.00		0.2500	26.517	20.842	1816.8	17.29	106.07	81.1	134.9	143.1
175.00		0.2500	25.815	20.285	1675.0	16.80	103.26	81.6	127.8	209.9
177.95		0.2500	25.125	19.738	1543.0	16.31	100.50	82.2	121.0	200.9

**37100.9**

## Wind Loading - Shaft

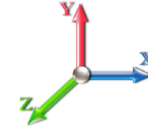
<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 9

**Load Case:** 1.2D + 1.6W 101 mph Wind

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.60



**Iterations** 24

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	0.70	17.366	19.10	461.21	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	17.366	19.10	452.85	0.650	0.000	5.00	27.042	17.58	537.2	0.0	1799.6
10.00		1.00	0.70	17.366	19.10	444.48	0.650	0.000	5.00	26.547	17.26	527.4	0.0	1766.4
15.00		1.00	0.70	17.366	19.10	436.12	0.650	0.000	5.00	26.052	16.93	517.6	0.0	1733.3
20.00		1.00	0.70	17.366	19.10	427.76	0.650	0.000	5.00	25.558	16.61	507.8	0.0	1700.1
25.00		1.00	0.70	17.366	19.10	419.39	0.650	0.000	5.00	25.063	16.29	497.9	0.0	1667.0
30.00		1.00	0.70	17.381	19.12	411.20	0.650	0.000	5.00	24.568	15.97	488.5	0.0	1633.8
35.00		1.00	0.73	18.163	19.98	411.81	0.650	0.000	5.00	24.073	15.65	500.2	0.0	1600.7
40.00		1.00	0.76	18.870	20.76	411.02	0.650	0.000	5.00	23.578	15.33	509.0	0.0	1567.5
42.30	Bot - Section 2	1.00	0.77	19.174	21.09	410.27	0.650	0.000	2.30	10.689	6.95	234.5	0.0	710.6
45.00		1.00	0.79	19.516	21.47	409.13	0.650	0.000	2.70	12.594	8.19	281.2	0.0	1661.0
48.00	Top - Section 1	1.00	0.80	19.879	21.87	407.55	0.650	0.000	3.00	13.835	8.99	314.6	0.0	1824.3
50.00		1.00	0.81	20.112	22.12	413.07	0.650	0.000	2.00	9.124	5.93	209.9	0.0	606.4
55.00		1.00	0.83	20.667	22.73	409.61	0.650	0.000	5.00	22.464	14.60	531.1	0.0	1492.8
60.00		1.00	0.85	21.187	23.31	405.49	0.650	0.000	5.00	21.969	14.28	532.5	0.0	1459.7
65.00		1.00	0.87	21.678	23.85	400.81	0.650	0.000	5.00	21.474	13.96	532.5	0.0	1426.5
70.00		1.00	0.89	22.142	24.36	395.63	0.650	0.000	5.00	20.979	13.64	531.4	0.0	1393.4
75.00		1.00	0.91	22.582	24.84	390.02	0.650	0.000	5.00	20.485	13.32	529.2	0.0	1360.2
80.00		1.00	0.93	23.003	25.30	384.00	0.650	0.000	5.00	19.990	12.99	526.0	0.0	1327.0
85.00		1.00	0.94	23.404	25.74	377.64	0.650	0.000	5.00	19.495	12.67	522.0	0.0	1293.9
86.83	Bot - Section 3	1.00	0.95	23.548	25.90	375.22	0.650	0.000	1.83	7.024	4.57	189.2	0.0	466.1
90.00		1.00	0.96	23.790	26.17	370.94	0.650	0.000	3.17	12.177	7.92	331.4	0.0	1488.2
92.30	Top - Section 2	1.00	0.97	23.962	26.36	367.76	0.650	0.000	2.30	8.728	5.67	239.2	0.0	1066.4
95.00		1.00	0.97	24.160	26.58	370.28	0.650	0.000	2.70	10.095	6.56	279.0	0.0	574.9
100.00		1.00	0.99	24.517	26.97	363.07	0.650	0.000	5.00	18.328	11.91	514.0	0.0	1043.5
105.00		1.00	1.00	24.861	27.35	355.60	0.650	0.000	5.00	17.833	11.59	507.2	0.0	1015.1
110.00		1.00	1.02	25.194	27.71	347.90	0.650	0.000	5.00	17.338	11.27	499.7	0.0	986.7
115.00		1.00	1.03	25.516	28.07	339.98	0.650	0.000	5.00	16.843	10.95	491.7	0.0	958.3
120.00		1.00	1.04	25.828	28.41	331.85	0.650	0.000	5.00	16.348	10.63	483.0	0.0	929.8
125.00		1.00	1.05	26.131	28.74	323.53	0.650	0.000	5.00	15.854	10.30	473.9	0.0	901.4
130.00	Appurtenance(s)	1.00	1.07	26.425	29.07	315.04	0.650	0.000	5.00	15.359	9.98	464.3	0.0	873.0
132.95	Bot - Section 4	1.00	1.07	26.595	29.25	309.95	0.650	0.000	2.95	8.823	5.74	268.4	0.0	501.4
135.00		1.00	1.08	26.712	29.38	306.37	0.650	0.000	2.05	6.149	4.00	187.9	0.0	634.9
136.83	Top - Section 3	1.00	1.08	26.815	29.50	303.15	0.650	0.000	1.83	5.423	3.52	166.4	0.0	559.8
140.00		1.00	1.09	26.991	29.69	303.11	0.650	0.000	3.17	9.210	5.99	284.4	0.0	436.8
145.00		1.00	1.10	27.263	29.99	294.15	0.650	0.000	5.00	14.139	9.19	441.0	0.0	670.4
150.00		1.00	1.11	27.528	30.28	285.05	0.650	0.000	5.00	13.644	8.87	429.7	0.0	646.7
153.00	Appurtenance(s)	1.00	1.12	27.684	30.45	279.52	0.650	0.000	3.00	7.949	5.17	251.7	0.0	376.6
155.00		1.00	1.12	27.787	30.57	275.81	0.650	0.000	2.00	5.200	3.38	165.3	0.0	246.4
157.98	Top - Section 4	1.00	1.13	27.939	30.73	270.25	0.650	0.000	2.98	7.596	4.94	242.8	0.0	359.8
160.00		1.00	1.13	28.040	30.84	266.44	0.650	0.000	2.02	5.058	3.29	162.3	0.0	192.0
162.00	Appurtenance(s)	1.00	1.13	28.140	30.95	262.65	0.650	0.000	2.00	4.923	3.20	158.5	0.0	186.9
165.00		1.00	1.14	28.288	31.12	256.94	0.650	0.000	3.00	7.236	4.70	234.2	0.0	274.6
170.00	Appurtenance(s)	1.00	1.15	28.530	31.38	247.32	0.650	0.000	5.00	11.664	7.58	380.7	0.0	442.6
172.00	Appurtenance(s)	1.00	1.15	28.626	31.49	243.44	0.650	0.000	2.00	4.527	2.94	148.3	0.0	171.7
175.00		1.00	1.16	28.768	31.64	237.58	0.650	0.000	3.00	6.642	4.32	218.6	0.0	251.9
177.95	Appurtenance(s)	1.00	1.17	28.905	31.80	231.78	0.650	0.000	2.95	6.358	4.13	210.2	0.0	241.1

## Wind Loading - Shaft

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		Page: 10



<b>Totals:</b>	<b>177.95</b>	<b>17,253.7</b>	<b>44,521.1</b>
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## Discrete Appurtenance Forces

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 11

**Load Case:** 1.2D + 1.6W 101 mph Wind

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.60



**Iterations** 24

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	177.95	6' Lightning rod	1	28.905	31.796	1.00	1.00	0.38	7.80	0.000	0.000	19.33	0.00	0.00
2	172.00	KRY 112 89/4	3	28.626	31.488	0.40	0.80	0.78	55.44	0.000	0.000	39.30	0.00	0.00
3	172.00	MS-1436 (Light Collar)	1	28.626	31.488	1.00	1.00	1.50	78.72	0.000	0.000	75.57	0.00	0.00
4	172.00	MS-HRECP	1	28.626	31.488	1.00	1.00	12.25	616.80	0.000	0.000	617.17	0.00	0.00
5	172.00	MS-HR35	1	28.626	31.488	1.00	1.00	8.75	516.00	0.000	0.000	440.84	0.00	0.00
6	172.00	KRY 112 144/1	3	28.626	31.488	0.40	0.80	0.49	39.60	0.000	0.000	24.79	0.00	0.00
7	172.00	MS-C1B-2875P	1	28.626	31.488	1.00	1.00	10.00	394.80	0.000	0.000	503.82	0.00	0.00
8	172.00	AIR6449 B41	3	28.626	31.488	0.57	0.80	9.63	370.80	0.000	0.000	485.05	0.00	0.00
9	172.00	4460 B25 + B66	3	28.626	31.488	0.54	0.80	4.58	392.40	0.000	0.000	230.89	0.00	0.00
10	172.00	VV-65A-R1	3	28.626	31.488	0.59	0.80	14.03	106.20	0.000	0.000	706.87	0.00	0.00
11	172.00	4449 B71 + B85	3	28.626	31.488	0.54	0.80	2.65	252.00	0.000	0.000	133.67	0.00	0.00
12	172.00	T-Frames w/ Pipe Mount	3	28.626	31.488	0.56	0.75	27.00	1620.00	0.000	0.000	1360.30	0.00	0.00
13	172.00	782 10660	3	28.626	31.488	0.40	0.80	0.34	9.36	0.000	0.000	16.93	0.00	0.00
14	170.00	APXVAALL24_43-U-NA20	3	28.530	31.383	0.58	0.80	35.46	442.08	0.000	0.000	1780.59	0.00	0.00
15	162.00	Raycap DC6-48-60-18-8F	1	28.140	30.954	0.75	0.75	0.69	38.16	0.000	0.000	34.17	0.00	0.00
16	162.00	Powerwave 7770	3	28.140	30.954	0.55	0.75	9.03	126.00	0.000	0.000	447.41	0.00	0.00
17	162.00	HP Platform w/ Pipe	1	28.140	30.954	1.00	1.00	25.00	1920.00	0.000	0.000	1238.17	0.00	0.00
18	162.00	HRK12 (Handrail Kit)	1	28.140	30.954	1.00	1.00	6.75	314.06	0.000	0.000	334.30	0.00	0.00
19	162.00	Ericsson RRUS 4449	3	28.140	30.954	0.50	0.75	2.49	252.00	0.000	0.000	123.19	0.00	0.00
20	162.00	Ericsson RRUS 8843 B2	3	28.140	30.954	0.50	0.75	2.47	259.20	0.000	0.000	122.44	0.00	0.00
21	162.00	Powerwave 21401 TMA	6	28.140	30.954	0.38	0.75	1.85	126.00	0.000	0.000	91.38	0.00	0.00
22	162.00	Cci HPA-65R-BU6AA	2	28.140	30.954	0.74	0.75	11.76	103.20	0.000	0.000	582.49	0.00	0.00
23	162.00	Cci HPA-65R-BU8AA	1	28.140	30.954	0.65	0.75	7.24	64.80	0.000	0.000	358.74	0.00	0.00
24	162.00	Cci DMP65R-BU8DA	1	28.140	30.954	0.54	0.75	9.65	114.84	0.000	0.000	477.92	0.00	0.00
25	162.00	Cci DMP65R-BU6DA	2	28.140	30.954	0.54	0.75	13.73	190.56	0.000	0.000	679.84	0.00	0.00
26	162.00	Powerwave 7020.00 RET	6	28.140	30.954	0.38	0.75	0.90	15.84	0.000	0.000	44.57	0.00	0.00
27	153.00	MC-PK8-DSH	1	27.684	30.453	1.00	1.00	37.59	2072.40	0.000	0.000	1831.55	0.00	0.00
28	153.00	RDIDC-9181-OF-48	1	27.684	30.453	0.50	0.75	1.01	26.28	0.000	0.000	49.21	0.00	0.00
29	153.00	MX08FRO665-21	3	27.684	30.453	0.55	0.75	20.80	232.20	0.000	0.000	1013.27	0.00	0.00
30	153.00	TA08025-B604	3	27.684	30.453	0.50	0.75	2.95	230.04	0.000	0.000	143.97	0.00	0.00
31	153.00	TA08025-B605	3	27.684	30.453	0.50	0.75	2.95	270.00	0.000	0.000	143.97	0.00	0.00
32	130.00	SBNHH-1D65B	6	26.425	29.068	0.62	0.75	30.48	288.00	0.000	0.000	1417.47	0.00	0.00
33	130.00	RF4439d-25A	3	26.425	29.068	0.56	0.75	3.26	182.52	0.000	0.000	151.47	0.00	0.00
34	130.00	RF4440d-13A	3	26.425	29.068	0.50	0.75	2.91	253.19	0.000	0.000	135.32	0.00	0.00
35	130.00	XXDWMM-12.5-65	3	26.425	29.068	0.56	0.75	2.56	83.30	0.000	0.000	118.96	0.00	0.00
36	130.00	MT6407-77A	3	26.425	29.068	0.52	0.75	7.39	285.84	0.000	0.000	343.55	0.00	0.00
37	130.00	PV-LPP14L-HR-B	1	26.425	29.068	1.00	1.00	36.80	1969.20	0.000	0.000	1711.51	0.00	0.00
38	130.00	DB-T1-6Z-8AB-0Z	2	26.425	29.068	0.50	0.75	4.82	45.36	0.000	0.000	224.36	0.00	0.00
39	130.00	B25 RRR4x30-4R	3	26.425	29.068	0.50	0.75	3.23	183.60	0.000	0.000	150.04	0.00	0.00

**Totals: 14,548.60**

**18,404.40**



## Total Applied Force Summary

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 12

**Load Case:** 1.2D + 1.6W 101 mph Wind

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.60



**Iterations** 24

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
5.00		537.24	1971.68	0.00	0.00
10.00		527.41	1938.52	0.00	0.00
15.00		517.58	1905.36	0.00	0.00
20.00		507.75	1872.21	0.00	0.00
25.00		497.92	1839.05	0.00	0.00
30.00		488.50	1805.89	0.00	0.00
35.00		500.22	1772.73	0.00	0.00
40.00		508.99	1739.58	0.00	0.00
42.30		234.47	789.78	0.00	0.00
45.00		281.17	1753.81	0.00	0.00
48.00		314.62	1927.51	0.00	0.00
50.00		209.93	675.25	0.00	0.00
55.00		531.12	1664.91	0.00	0.00
60.00		532.50	1631.75	0.00	0.00
65.00		532.55	1598.60	0.00	0.00
70.00		531.41	1565.44	0.00	0.00
75.00		529.20	1532.28	0.00	0.00
80.00		526.03	1499.12	0.00	0.00
85.00		521.97	1465.97	0.00	0.00
86.83		189.22	529.21	0.00	0.00
90.00		331.40	1597.20	0.00	0.00
92.30		239.25	1145.61	0.00	0.00
95.00		279.02	667.73	0.00	0.00
100.00		514.04	1215.61	0.00	0.00
105.00		507.19	1187.19	0.00	0.00
110.00		499.71	1158.77	0.00	0.00
115.00		491.65	1130.34	0.00	0.00
120.00		483.05	1101.92	0.00	0.00
125.00		473.92	1073.50	0.00	0.00
130.00	(24) attachments	4716.98	4336.10	0.00	0.00
132.95		268.45	595.06	0.00	0.00
135.00		187.90	700.11	0.00	0.00
136.83		166.36	618.05	0.00	0.00
140.00		284.39	537.44	0.00	0.00
145.00		440.96	829.25	0.00	0.00
150.00		429.67	805.57	0.00	0.00
153.00	(11) attachments	3433.70	3302.89	0.00	0.00
155.00		165.31	307.42	0.00	0.00
157.98		242.79	450.71	0.00	0.00
160.00		162.25	253.76	0.00	0.00
162.00	(30) attachments	4693.13	3772.60	0.00	0.00
165.00		234.17	315.90	0.00	0.00
170.00	(3) attachments	2161.31	953.42	0.00	0.00
172.00	(28) attachments	4783.46	4651.35	0.00	0.00
175.00		218.60	265.66	0.00	0.00
177.95	(1) attachments	229.58	248.85	0.00	0.00

## Total Applied Force Summary

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 13

<b>Totals:</b>	<b>35,658.06</b>	<b>64,700.64</b>	<b>0.00</b>	<b>0.00</b>
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## Calculated Forces

**Structure:** CT02573-S-SBA  
**Site Name:** Coventry 2 CT  
**Height:** 177.95 (ft)  
**Base Elev:** 0.000 (ft)  
**Gh:** 1.1

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

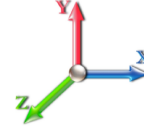
1/17/2022  
  
  
  
  
 Page: 14



**Load Case:** 1.2D + 1.6W 101 mph Wind

**Iterations** 24

**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	-64.66	-35.74	0.00	-4561.6	0.00	4561.68	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.607
5.00	-62.60	-35.35	0.00	-4383.0	0.00	4383.00	5740.73	2870.37	14848.9	7435.53	0.07	-0.138	0.000	0.601
10.00	-60.58	-34.96	0.00	-4206.2	0.00	4206.26	5676.74	2838.37	14408.5	7214.97	0.29	-0.278	0.000	0.594
15.00	-58.59	-34.58	0.00	-4031.4	0.00	4031.45	5611.13	2805.57	13970.2	6995.50	0.66	-0.420	0.000	0.587
20.00	-56.63	-34.20	0.00	-3858.5	0.00	3858.55	5543.90	2771.95	13534.3	6777.22	1.18	-0.564	0.000	0.580
25.00	-54.71	-33.82	0.00	-3687.5	0.00	3687.55	5475.05	2737.52	13101.0	6560.27	1.85	-0.710	0.000	0.572
30.00	-52.83	-33.45	0.00	-3518.4	0.00	3518.44	5404.57	2702.29	12670.6	6344.75	2.67	-0.858	0.000	0.564
35.00	-50.98	-33.05	0.00	-3351.2	0.00	3351.21	5332.48	2666.24	12243.3	6130.79	3.65	-1.008	0.000	0.556
40.00	-49.18	-32.61	0.00	-3185.9	0.00	3185.95	5258.76	2629.38	11819.4	5918.51	4.79	-1.160	0.000	0.548
42.30	-48.36	-32.42	0.00	-3110.8	0.00	3110.89	5224.28	2612.14	11625.4	5821.36	5.37	-1.232	0.000	0.544
45.00	-46.56	-32.17	0.00	-3023.4	0.00	3023.42	5183.43	2591.71	11399.0	5708.01	6.09	-1.316	0.000	0.539
48.00	-44.60	-31.87	0.00	-2926.9	0.00	2926.90	5194.69	2597.35	11461.1	5739.07	6.95	-1.411	0.000	0.519
50.00	-43.87	-31.73	0.00	-2863.1	0.00	2863.15	5164.20	2582.10	11293.7	5655.29	7.55	-1.474	0.000	0.515
55.00	-42.13	-31.26	0.00	-2704.5	0.00	2704.51	5086.83	2543.42	10878.2	5447.20	9.18	-1.624	0.000	0.505
60.00	-40.44	-30.79	0.00	-2548.1	0.00	2548.19	5007.85	2503.92	10466.7	5241.17	10.96	-1.775	0.000	0.494
65.00	-38.78	-30.31	0.00	-2394.2	0.00	2394.24	4927.24	2463.62	10059.6	5037.31	12.90	-1.927	0.000	0.483
70.00	-37.15	-29.82	0.00	-2242.6	0.00	2242.69	4845.02	2422.51	9657.14	4835.75	15.00	-2.079	0.000	0.472
75.00	-35.56	-29.33	0.00	-2093.5	0.00	2093.57	4761.17	2380.58	9259.43	4636.60	17.26	-2.233	0.000	0.459
80.00	-34.01	-28.84	0.00	-1946.9	0.00	1946.91	4675.70	2337.85	8866.76	4439.97	19.68	-2.387	0.000	0.446
85.00	-32.51	-28.31	0.00	-1802.7	0.00	1802.72	4588.61	2294.31	8479.38	4245.99	22.26	-2.541	0.000	0.432
86.83	-31.95	-28.14	0.00	-1750.8	0.00	1750.81	4556.28	2278.14	8338.71	4175.55	23.25	-2.599	0.000	0.426
90.00	-30.33	-27.78	0.00	-1661.6	0.00	1661.69	4499.90	2249.95	8097.52	4054.78	25.00	-2.697	0.000	0.417
92.30	-29.16	-27.53	0.00	-1597.7	0.00	1597.73	3709.97	1854.99	6727.57	3368.78	26.32	-2.769	0.000	0.482
95.00	-28.45	-27.28	0.00	-1523.4	0.00	1523.46	3673.22	1836.61	6564.94	3287.35	27.91	-2.853	0.000	0.471
100.00	-27.18	-26.79	0.00	-1387.0	0.00	1387.05	3603.88	1801.94	6266.45	3137.88	30.99	-3.020	0.000	0.450
105.00	-25.95	-26.29	0.00	-1253.1	0.00	1253.12	3532.91	1766.45	5971.95	2990.41	34.24	-3.184	0.000	0.427
110.00	-24.75	-25.79	0.00	-1121.6	0.00	1121.68	3460.32	1730.16	5681.65	2845.05	37.66	-3.345	0.000	0.402
115.00	-23.59	-25.30	0.00	-992.73	0.00	992.73	3386.11	1693.05	5395.81	2701.92	41.25	-3.501	0.000	0.375
120.00	-22.45	-24.80	0.00	-866.24	0.00	866.24	3310.28	1655.14	5114.65	2561.13	44.99	-3.651	0.000	0.345
125.00	-21.35	-24.31	0.00	-742.23	0.00	742.23	3228.52	1614.26	4831.97	2419.57	48.89	-3.793	0.000	0.314
130.00	-17.31	-19.34	0.00	-620.67	0.00	620.67	3125.09	1562.55	4525.83	2266.28	52.93	-3.926	0.000	0.280
132.95	-16.72	-19.05	0.00	-563.65	0.00	563.65	3064.12	1532.06	4350.03	2178.25	55.38	-4.000	0.000	0.264
135.00	-16.02	-18.83	0.00	-524.55	0.00	524.55	3021.67	1510.84	4229.72	2118.00	57.11	-4.051	0.000	0.253
136.83	-15.39	-18.64	0.00	-490.02	0.00	490.02	2458.83	1229.41	3474.42	1739.79	58.67	-4.095	0.000	0.288
140.00	-14.85	-18.34	0.00	-431.01	0.00	431.01	2420.71	1210.36	3346.31	1675.64	61.41	-4.167	0.000	0.264
145.00	-14.02	-17.86	0.00	-339.32	0.00	339.32	2359.20	1179.60	3147.03	1575.85	65.84	-4.281	0.000	0.221
150.00	-13.23	-17.39	0.00	-250.00	0.00	250.00	2296.08	1148.04	2951.62	1478.00	70.37	-4.379	0.000	0.175
153.00	-10.19	-13.72	0.00	-197.83	0.00	197.83	2257.42	1128.71	2836.33	1420.27	73.14	-4.428	0.000	0.144
155.00	-9.89	-13.54	0.00	-170.39	0.00	170.39	2223.99	1111.99	2751.24	1377.66	75.00	-4.457	0.000	0.128
157.98	-9.45	-13.27	0.00	-130.07	0.00	130.07	2172.66	1086.33	2625.07	1314.48	77.79	-4.494	0.000	0.103
157.98	-9.45	-13.27	0.00	-130.07	0.00	130.07	1653.01	826.50	2005.69	1004.33	77.79	-4.494	0.000	0.135
160.00	-9.20	-13.09	0.00	-103.25	0.00	103.25	1634.69	817.35	1951.45	977.17	79.69	-4.515	0.000	0.112
162.00	-5.81	-8.11	0.00	-77.08	0.00	77.08	1616.31	808.16	1898.20	950.51	81.59	-4.536	0.000	0.085
165.00	-5.51	-7.86	0.00	-52.74	0.00	52.74	1588.26	794.13	1819.10	910.90	84.44	-4.559	0.000	0.061
170.00	-4.73	-5.63	0.00	-13.45	0.00	13.45	1540.22	770.11	1689.48	845.99	89.23	-4.581	0.000	0.019
172.00	-0.48	-0.49	0.00	-2.20	0.00	2.20	1520.54	760.27	1638.44	820.44	91.15	-4.583	0.000	0.003
175.00	-0.23	-0.25	0.00	-0.73	0.00	0.73	1490.55	745.27	1562.81	782.56	94.02	-4.584	0.000	0.001
177.95	0.00	-0.23	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	96.85	-4.584	0.000	0.000

## Calculated Forces

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II

Page: 15



## Wind Loading - Shaft

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



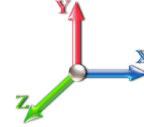
Page: 16

**Load Case:** 0.9D + 1.6W 101 mph Wind

**Iterations** 24

**Dead Load Factor** 0.90

**Wind Load Factor** 1.60



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	0.70	17.366	19.10	461.21	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	17.366	19.10	452.85	0.650	0.000	5.00	27.042	17.58	537.2	0.0	1349.7
10.00		1.00	0.70	17.366	19.10	444.48	0.650	0.000	5.00	26.547	17.26	527.4	0.0	1324.8
15.00		1.00	0.70	17.366	19.10	436.12	0.650	0.000	5.00	26.052	16.93	517.6	0.0	1300.0
20.00		1.00	0.70	17.366	19.10	427.76	0.650	0.000	5.00	25.558	16.61	507.8	0.0	1275.1
25.00		1.00	0.70	17.366	19.10	419.39	0.650	0.000	5.00	25.063	16.29	497.9	0.0	1250.2
30.00		1.00	0.70	17.381	19.12	411.20	0.650	0.000	5.00	24.568	15.97	488.5	0.0	1225.4
35.00		1.00	0.73	18.163	19.98	411.81	0.650	0.000	5.00	24.073	15.65	500.2	0.0	1200.5
40.00		1.00	0.76	18.870	20.76	411.02	0.650	0.000	5.00	23.578	15.33	509.0	0.0	1175.6
42.30	Bot - Section 2	1.00	0.77	19.174	21.09	410.27	0.650	0.000	2.30	10.689	6.95	234.5	0.0	532.9
45.00		1.00	0.79	19.516	21.47	409.13	0.650	0.000	2.70	12.594	8.19	281.2	0.0	1245.7
48.00	Top - Section 1	1.00	0.80	19.879	21.87	407.55	0.650	0.000	3.00	13.835	8.99	314.6	0.0	1368.2
50.00		1.00	0.81	20.112	22.12	413.07	0.650	0.000	2.00	9.124	5.93	209.9	0.0	454.8
55.00		1.00	0.83	20.667	22.73	409.61	0.650	0.000	5.00	22.464	14.60	531.1	0.0	1119.6
60.00		1.00	0.85	21.187	23.31	405.49	0.650	0.000	5.00	21.969	14.28	532.5	0.0	1094.8
65.00		1.00	0.87	21.678	23.85	400.81	0.650	0.000	5.00	21.474	13.96	532.5	0.0	1069.9
70.00		1.00	0.89	22.142	24.36	395.63	0.650	0.000	5.00	20.979	13.64	531.4	0.0	1045.0
75.00		1.00	0.91	22.582	24.84	390.02	0.650	0.000	5.00	20.485	13.32	529.2	0.0	1020.2
80.00		1.00	0.93	23.003	25.30	384.00	0.650	0.000	5.00	19.990	12.99	526.0	0.0	995.3
85.00		1.00	0.94	23.404	25.74	377.64	0.650	0.000	5.00	19.495	12.67	522.0	0.0	970.4
86.83	Bot - Section 3	1.00	0.95	23.548	25.90	375.22	0.650	0.000	1.83	7.024	4.57	189.2	0.0	349.6
90.00		1.00	0.96	23.790	26.17	370.94	0.650	0.000	3.17	12.177	7.92	331.4	0.0	1116.2
92.30	Top - Section 2	1.00	0.97	23.962	26.36	367.76	0.650	0.000	2.30	8.728	5.67	239.2	0.0	799.8
95.00		1.00	0.97	24.160	26.58	370.28	0.650	0.000	2.70	10.095	6.56	279.0	0.0	431.2
100.00		1.00	0.99	24.517	26.97	363.07	0.650	0.000	5.00	18.328	11.91	514.0	0.0	782.6
105.00		1.00	1.00	24.861	27.35	355.60	0.650	0.000	5.00	17.833	11.59	507.2	0.0	761.3
110.00		1.00	1.02	25.194	27.71	347.90	0.650	0.000	5.00	17.338	11.27	499.7	0.0	740.0
115.00		1.00	1.03	25.516	28.07	339.98	0.650	0.000	5.00	16.843	10.95	491.7	0.0	718.7
120.00		1.00	1.04	25.828	28.41	331.85	0.650	0.000	5.00	16.348	10.63	483.0	0.0	697.4
125.00		1.00	1.05	26.131	28.74	323.53	0.650	0.000	5.00	15.854	10.30	473.9	0.0	676.1
130.00	Appurtenance(s)	1.00	1.07	26.425	29.07	315.04	0.650	0.000	5.00	15.359	9.98	464.3	0.0	654.8
132.95	Bot - Section 4	1.00	1.07	26.595	29.25	309.95	0.650	0.000	2.95	8.823	5.74	268.4	0.0	376.0
135.00		1.00	1.08	26.712	29.38	306.37	0.650	0.000	2.05	6.149	4.00	187.9	0.0	476.2
136.83	Top - Section 3	1.00	1.08	26.815	29.50	303.15	0.650	0.000	1.83	5.423	3.52	166.4	0.0	419.8
140.00		1.00	1.09	26.991	29.69	303.11	0.650	0.000	3.17	9.210	5.99	284.4	0.0	327.6
145.00		1.00	1.10	27.263	29.99	294.15	0.650	0.000	5.00	14.139	9.19	441.0	0.0	502.8
150.00		1.00	1.11	27.528	30.28	285.05	0.650	0.000	5.00	13.644	8.87	429.7	0.0	485.0
153.00	Appurtenance(s)	1.00	1.12	27.684	30.45	279.52	0.650	0.000	3.00	7.949	5.17	251.7	0.0	282.5
155.00		1.00	1.12	27.787	30.57	275.81	0.650	0.000	2.00	5.200	3.38	165.3	0.0	184.8
157.98	Top - Section 4	1.00	1.13	27.939	30.73	270.25	0.650	0.000	2.98	7.596	4.94	242.8	0.0	269.8
160.00		1.00	1.13	28.040	30.84	266.44	0.650	0.000	2.02	5.058	3.29	162.3	0.0	144.0
162.00	Appurtenance(s)	1.00	1.13	28.140	30.95	262.65	0.650	0.000	2.00	4.923	3.20	158.5	0.0	140.2
165.00		1.00	1.14	28.288	31.12	256.94	0.650	0.000	3.00	7.236	4.70	234.2	0.0	206.0
170.00	Appurtenance(s)	1.00	1.15	28.530	31.38	247.32	0.650	0.000	5.00	11.664	7.58	380.7	0.0	331.9
172.00	Appurtenance(s)	1.00	1.15	28.626	31.49	243.44	0.650	0.000	2.00	4.527	2.94	148.3	0.0	128.8
175.00		1.00	1.16	28.768	31.64	237.58	0.650	0.000	3.00	6.642	4.32	218.6	0.0	188.9
177.95	Appurtenance(s)	1.00	1.17	28.905	31.80	231.78	0.650	0.000	2.95	6.358	4.13	210.2	0.0	180.8

## Wind Loading - Shaft

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		Page: 17



<b>Totals:</b>	<b>177.95</b>	<b>17,253.7</b>	<b>33,390.8</b>
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## Discrete Appurtenance Forces

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II

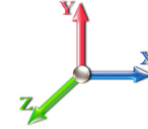


Page: 18

**Load Case:** 0.9D + 1.6W 101 mph Wind

**Dead Load Factor** 0.90

**Wind Load Factor** 1.60



**Iterations** 24

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	177.95	6' Lightning rod	1	28.905	31.796	1.00	1.00	0.38	5.85	0.000	0.000	19.33	0.00	0.00
2	172.00	KRY 112 89/4	3	28.626	31.488	0.40	0.80	0.78	41.58	0.000	0.000	39.30	0.00	0.00
3	172.00	MS-1436 (Light Collar)	1	28.626	31.488	1.00	1.00	1.50	59.04	0.000	0.000	75.57	0.00	0.00
4	172.00	MS-HRECP	1	28.626	31.488	1.00	1.00	12.25	462.60	0.000	0.000	617.17	0.00	0.00
5	172.00	MS-HR35	1	28.626	31.488	1.00	1.00	8.75	387.00	0.000	0.000	440.84	0.00	0.00
6	172.00	KRY 112 144/1	3	28.626	31.488	0.40	0.80	0.49	29.70	0.000	0.000	24.79	0.00	0.00
7	172.00	MS-C1B-2875P	1	28.626	31.488	1.00	1.00	10.00	296.10	0.000	0.000	503.82	0.00	0.00
8	172.00	AIR6449 B41	3	28.626	31.488	0.57	0.80	9.63	278.10	0.000	0.000	485.05	0.00	0.00
9	172.00	4460 B25 + B66	3	28.626	31.488	0.54	0.80	4.58	294.30	0.000	0.000	230.89	0.00	0.00
10	172.00	VV-65A-R1	3	28.626	31.488	0.59	0.80	14.03	79.65	0.000	0.000	706.87	0.00	0.00
11	172.00	4449 B71 + B85	3	28.626	31.488	0.54	0.80	2.65	189.00	0.000	0.000	133.67	0.00	0.00
12	172.00	T-Frames w/ Pipe Mount	3	28.626	31.488	0.56	0.75	27.00	1215.00	0.000	0.000	1360.30	0.00	0.00
13	172.00	782 10660	3	28.626	31.488	0.40	0.80	0.34	7.02	0.000	0.000	16.93	0.00	0.00
14	170.00	APXVAALL24_43-U-NA20	3	28.530	31.383	0.58	0.80	35.46	331.56	0.000	0.000	1780.59	0.00	0.00
15	162.00	Raycap DC6-48-60-18-8F	1	28.140	30.954	0.75	0.75	0.69	28.62	0.000	0.000	34.17	0.00	0.00
16	162.00	Powerwave 7770	3	28.140	30.954	0.55	0.75	9.03	94.50	0.000	0.000	447.41	0.00	0.00
17	162.00	HP Platform w/ Pipe	1	28.140	30.954	1.00	1.00	25.00	1440.00	0.000	0.000	1238.17	0.00	0.00
18	162.00	HRK12 (Handrail Kit)	1	28.140	30.954	1.00	1.00	6.75	235.55	0.000	0.000	334.30	0.00	0.00
19	162.00	Ericsson RRUS 4449	3	28.140	30.954	0.50	0.75	2.49	189.00	0.000	0.000	123.19	0.00	0.00
20	162.00	Ericsson RRUS 8843 B2	3	28.140	30.954	0.50	0.75	2.47	194.40	0.000	0.000	122.44	0.00	0.00
21	162.00	Powerwave 21401 TMA	6	28.140	30.954	0.38	0.75	1.85	94.50	0.000	0.000	91.38	0.00	0.00
22	162.00	Cci HPA-65R-BU6AA	2	28.140	30.954	0.74	0.75	11.76	77.40	0.000	0.000	582.49	0.00	0.00
23	162.00	Cci HPA-65R-BU8AA	1	28.140	30.954	0.65	0.75	7.24	48.60	0.000	0.000	358.74	0.00	0.00
24	162.00	Cci DMP65R-BU8DA	1	28.140	30.954	0.54	0.75	9.65	86.13	0.000	0.000	477.92	0.00	0.00
25	162.00	Cci DMP65R-BU6DA	2	28.140	30.954	0.54	0.75	13.73	142.92	0.000	0.000	679.84	0.00	0.00
26	162.00	Powerwave 7020.00 RET	6	28.140	30.954	0.38	0.75	0.90	11.88	0.000	0.000	44.57	0.00	0.00
27	153.00	MC-PK8-DSH	1	27.684	30.453	1.00	1.00	37.59	1554.30	0.000	0.000	1831.55	0.00	0.00
28	153.00	RDIDC-9181-OF-48	1	27.684	30.453	0.50	0.75	1.01	19.71	0.000	0.000	49.21	0.00	0.00
29	153.00	MX08FRO665-21	3	27.684	30.453	0.55	0.75	20.80	174.15	0.000	0.000	1013.27	0.00	0.00
30	153.00	TA08025-B604	3	27.684	30.453	0.50	0.75	2.95	172.53	0.000	0.000	143.97	0.00	0.00
31	153.00	TA08025-B605	3	27.684	30.453	0.50	0.75	2.95	202.50	0.000	0.000	143.97	0.00	0.00
32	130.00	SBNHH-1D65B	6	26.425	29.068	0.62	0.75	30.48	216.00	0.000	0.000	1417.47	0.00	0.00
33	130.00	RF4439d-25A	3	26.425	29.068	0.56	0.75	3.26	136.89	0.000	0.000	151.47	0.00	0.00
34	130.00	RF4440d-13A	3	26.425	29.068	0.50	0.75	2.91	189.89	0.000	0.000	135.32	0.00	0.00
35	130.00	XXDWMM-12.5-65	3	26.425	29.068	0.56	0.75	2.56	62.48	0.000	0.000	118.96	0.00	0.00
36	130.00	MT6407-77A	3	26.425	29.068	0.52	0.75	7.39	214.38	0.000	0.000	343.55	0.00	0.00
37	130.00	PV-LPP14L-HR-B	1	26.425	29.068	1.00	1.00	36.80	1476.90	0.000	0.000	1711.51	0.00	0.00
38	130.00	DB-T1-6Z-8AB-0Z	2	26.425	29.068	0.50	0.75	4.82	34.02	0.000	0.000	224.36	0.00	0.00
39	130.00	B25 RRR4x30-4R	3	26.425	29.068	0.50	0.75	3.23	137.70	0.000	0.000	150.04	0.00	0.00

**Totals:** 10,911.45

18,404.40

## Total Applied Force Summary

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 19

**Load Case:** 0.9D + 1.6W 101 mph Wind

**Dead Load Factor** 0.90  
**Wind Load Factor** 1.60



**Iterations** 24

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
5.00		537.24	1478.76	0.00	0.00
10.00		527.41	1453.89	0.00	0.00
15.00		517.58	1429.02	0.00	0.00
20.00		507.75	1404.15	0.00	0.00
25.00		497.92	1379.29	0.00	0.00
30.00		488.50	1354.42	0.00	0.00
35.00		500.22	1329.55	0.00	0.00
40.00		508.99	1304.68	0.00	0.00
42.30		234.47	592.34	0.00	0.00
45.00		281.17	1315.35	0.00	0.00
48.00		314.62	1445.63	0.00	0.00
50.00		209.93	506.44	0.00	0.00
55.00		531.12	1248.68	0.00	0.00
60.00		532.50	1223.81	0.00	0.00
65.00		532.55	1198.95	0.00	0.00
70.00		531.41	1174.08	0.00	0.00
75.00		529.20	1149.21	0.00	0.00
80.00		526.03	1124.34	0.00	0.00
85.00		521.97	1099.47	0.00	0.00
86.83		189.22	396.91	0.00	0.00
90.00		331.40	1197.90	0.00	0.00
92.30		239.25	859.21	0.00	0.00
95.00		279.02	500.79	0.00	0.00
100.00		514.04	911.71	0.00	0.00
105.00		507.19	890.39	0.00	0.00
110.00		499.71	869.07	0.00	0.00
115.00		491.65	847.76	0.00	0.00
120.00		483.05	826.44	0.00	0.00
125.00		473.92	805.13	0.00	0.00
130.00	(24) attachments	4716.98	3252.07	0.00	0.00
132.95		268.45	446.30	0.00	0.00
135.00		187.90	525.08	0.00	0.00
136.83		166.36	463.54	0.00	0.00
140.00		284.39	403.08	0.00	0.00
145.00		440.96	621.94	0.00	0.00
150.00		429.67	604.18	0.00	0.00
153.00	(11) attachments	3433.70	2477.17	0.00	0.00
155.00		165.31	230.56	0.00	0.00
157.98		242.79	338.03	0.00	0.00
160.00		162.25	190.32	0.00	0.00
162.00	(30) attachments	4693.13	2829.45	0.00	0.00
165.00		234.17	236.92	0.00	0.00
170.00	(3) attachments	2161.31	715.06	0.00	0.00
172.00	(28) attachments	4783.46	3488.51	0.00	0.00
175.00		218.60	199.24	0.00	0.00
177.95	(1) attachments	229.58	186.64	0.00	0.00



## Total Applied Force Summary

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 20

<b>Totals:</b>	<b>35,658.06</b>	<b>48,525.48</b>	<b>0.00</b>	<b>0.00</b>
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## Calculated Forces

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II

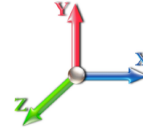


Page: 21

**Load Case:** 0.9D + 1.6W 101 mph Wind

**Iterations** 24

**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	-48.48	-35.72	0.00	-4512.0	0.00	4512.09	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.598
5.00	-46.92	-35.29	0.00	-4333.5	0.00	4333.51	5740.73	2870.37	14848.9	7435.53	0.07	-0.136	0.000	0.591
10.00	-45.38	-34.87	0.00	-4157.0	0.00	4157.07	5676.74	2838.37	14408.5	7214.97	0.29	-0.275	0.000	0.584
15.00	-43.87	-34.45	0.00	-3982.7	0.00	3982.73	5611.13	2805.57	13970.2	6995.50	0.65	-0.415	0.000	0.577
20.00	-42.39	-34.04	0.00	-3810.4	0.00	3810.49	5543.90	2771.95	13534.3	6777.22	1.17	-0.557	0.000	0.570
25.00	-40.93	-33.63	0.00	-3640.3	0.00	3640.31	5475.05	2737.52	13101.0	6560.27	1.83	-0.702	0.000	0.563
30.00	-39.50	-33.22	0.00	-3472.1	0.00	3472.18	5404.57	2702.29	12670.6	6344.75	2.64	-0.848	0.000	0.555
35.00	-38.09	-32.80	0.00	-3306.0	0.00	3306.07	5332.48	2666.24	12243.3	6130.79	3.61	-0.996	0.000	0.547
40.00	-36.73	-32.34	0.00	-3142.0	0.00	3142.08	5258.76	2629.38	11819.4	5918.51	4.73	-1.146	0.000	0.538
42.30	-36.10	-32.14	0.00	-3067.6	0.00	3067.64	5224.28	2612.14	11625.4	5821.36	5.30	-1.216	0.000	0.534
45.00	-34.74	-31.88	0.00	-2980.9	0.00	2980.94	5183.43	2591.71	11399.0	5708.01	6.01	-1.300	0.000	0.529
48.00	-33.26	-31.58	0.00	-2885.2	0.00	2885.29	5194.69	2597.35	11461.1	5739.07	6.86	-1.393	0.000	0.509
50.00	-32.70	-31.42	0.00	-2822.1	0.00	2822.14	5164.20	2582.10	11293.7	5655.29	7.46	-1.456	0.000	0.506
55.00	-31.39	-30.93	0.00	-2665.0	0.00	2665.06	5086.83	2543.42	10878.2	5447.20	9.06	-1.603	0.000	0.496
60.00	-30.10	-30.44	0.00	-2510.4	0.00	2510.40	5007.85	2503.92	10466.7	5241.17	10.82	-1.752	0.000	0.485
65.00	-28.84	-29.95	0.00	-2358.1	0.00	2358.18	4927.24	2463.62	10059.6	5037.31	12.74	-1.901	0.000	0.474
70.00	-27.61	-29.45	0.00	-2208.4	0.00	2208.44	4845.02	2422.51	9657.14	4835.75	14.81	-2.052	0.000	0.463
75.00	-26.41	-28.95	0.00	-2061.1	0.00	2061.19	4761.17	2380.58	9259.43	4636.60	17.04	-2.203	0.000	0.450
80.00	-25.23	-28.44	0.00	-1916.4	0.00	1916.45	4675.70	2337.85	8866.76	4439.97	19.43	-2.354	0.000	0.437
85.00	-24.10	-27.92	0.00	-1774.2	0.00	1774.23	4588.61	2294.31	8479.38	4245.99	21.97	-2.506	0.000	0.423
86.83	-23.68	-27.75	0.00	-1723.0	0.00	1723.05	4556.28	2278.14	8338.71	4175.55	22.95	-2.563	0.000	0.418
90.00	-22.45	-27.39	0.00	-1635.1	0.00	1635.19	4499.90	2249.95	8097.52	4054.78	24.68	-2.660	0.000	0.408
92.30	-21.57	-27.14	0.00	-1572.1	0.00	1572.13	3709.97	1854.99	6727.57	3368.78	25.98	-2.730	0.000	0.473
95.00	-21.03	-26.88	0.00	-1498.9	0.00	1498.90	3673.22	1836.61	6564.94	3287.35	27.55	-2.813	0.000	0.462
100.00	-20.07	-26.38	0.00	-1364.4	0.00	1364.48	3603.88	1801.94	6266.45	3137.88	30.58	-2.977	0.000	0.441
105.00	-19.13	-25.88	0.00	-1232.5	0.00	1232.57	3532.91	1766.45	5971.95	2990.41	33.78	-3.139	0.000	0.418
110.00	-18.22	-25.38	0.00	-1103.1	0.00	1103.16	3460.32	1730.16	5681.65	2845.05	37.15	-3.297	0.000	0.393
115.00	-17.34	-24.89	0.00	-976.24	0.00	976.24	3386.11	1693.05	5395.81	2701.92	40.69	-3.450	0.000	0.367
120.00	-16.48	-24.40	0.00	-851.79	0.00	851.79	3310.28	1655.14	5114.65	2561.13	44.38	-3.598	0.000	0.338
125.00	-15.66	-23.91	0.00	-729.81	0.00	729.81	3228.52	1614.26	4831.97	2419.57	48.22	-3.738	0.000	0.307
130.00	-12.69	-19.01	0.00	-610.26	0.00	610.26	3125.09	1562.55	4525.83	2266.28	52.21	-3.868	0.000	0.273
132.95	-12.24	-18.72	0.00	-554.22	0.00	554.22	3064.12	1532.06	4350.03	2178.25	54.62	-3.941	0.000	0.259
135.00	-11.72	-18.51	0.00	-515.79	0.00	515.79	3021.67	1510.84	4229.72	2118.00	56.32	-3.991	0.000	0.248
136.83	-11.25	-18.32	0.00	-481.86	0.00	481.86	2458.83	1229.41	3474.42	1739.79	57.86	-4.035	0.000	0.282
140.00	-10.84	-18.03	0.00	-423.83	0.00	423.83	2420.71	1210.36	3346.31	1675.64	60.56	-4.105	0.000	0.258
145.00	-10.22	-17.56	0.00	-333.69	0.00	333.69	2359.20	1179.60	3147.03	1575.85	64.92	-4.218	0.000	0.216
150.00	-9.63	-17.10	0.00	-245.88	0.00	245.88	2296.08	1148.04	2951.62	1478.00	69.39	-4.313	0.000	0.171
153.00	-7.41	-13.49	0.00	-194.57	0.00	194.57	2257.42	1128.71	2836.33	1420.27	72.11	-4.362	0.000	0.140
155.00	-7.18	-13.32	0.00	-167.59	0.00	167.59	2223.99	1111.99	2751.24	1377.66	73.94	-4.391	0.000	0.125
157.98	-6.86	-13.05	0.00	-127.93	0.00	127.93	2172.66	1086.33	2625.07	1314.48	76.69	-4.427	0.000	0.101
157.98	-6.86	-13.05	0.00	-127.93	0.00	127.93	1653.01	826.50	2005.69	1004.33	76.69	-4.427	0.000	0.132
160.00	-6.67	-12.88	0.00	-101.54	0.00	101.54	1634.69	817.35	1951.45	977.17	78.57	-4.448	0.000	0.108
162.00	-4.22	-7.98	0.00	-75.78	0.00	75.78	1616.31	808.16	1898.20	950.51	80.44	-4.468	0.000	0.082
165.00	-3.99	-7.73	0.00	-51.84	0.00	51.84	1588.26	794.13	1819.10	910.90	83.25	-4.491	0.000	0.060
170.00	-3.45	-5.52	0.00	-13.19	0.00	13.19	1540.22	770.11	1689.48	845.99	87.96	-4.513	0.000	0.018
172.00	-0.35	-0.48	0.00	-2.15	0.00	2.15	1520.54	760.27	1638.44	820.44	89.85	-4.515	0.000	0.003
175.00	-0.17	-0.24	0.00	-0.72	0.00	0.72	1490.55	745.27	1562.81	782.56	92.69	-4.515	0.000	0.001
177.95	0.00	-0.23	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	95.47	-4.516	0.000	0.000

## Calculated Forces

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		Page: 22



## Wind Loading - Shaft

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



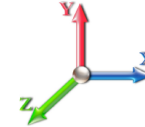
Page: 23

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

**Iterations** 24

**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	0.70	4.256	4.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	4.256	4.68	0.00	1.200	1.656	5.00	28.422	34.11	159.7	674.2	2473.8
10.00		1.00	0.70	4.256	4.68	0.00	1.200	1.775	5.00	28.026	33.63	157.5	710.8	2477.3
15.00		1.00	0.70	4.256	4.68	0.00	1.200	1.848	5.00	27.593	33.11	155.0	727.5	2460.8
20.00		1.00	0.70	4.256	4.68	0.00	1.200	1.902	5.00	27.143	32.57	152.5	735.5	2435.6
25.00		1.00	0.70	4.256	4.68	0.00	1.200	1.945	5.00	26.684	32.02	149.9	738.3	2405.3
30.00		1.00	0.70	4.260	4.69	0.00	1.200	1.981	5.00	26.219	31.46	147.4	737.8	2371.6
35.00		1.00	0.73	4.451	4.90	0.00	1.200	2.012	5.00	25.750	30.90	151.3	734.9	2335.6
40.00		1.00	0.76	4.625	5.09	0.00	1.200	2.039	5.00	25.277	30.33	154.3	730.2	2297.7
42.30	Bot - Section 2	1.00	0.77	4.699	5.17	0.00	1.200	2.050	2.30	11.476	13.77	71.2	335.0	1045.5
45.00		1.00	0.79	4.783	5.26	0.00	1.200	2.063	2.70	13.521	16.23	85.4	396.8	2057.7
48.00	Top - Section 1	1.00	0.80	4.872	5.36	0.00	1.200	2.076	3.00	14.873	17.85	95.6	438.7	2263.0
50.00		1.00	0.81	4.929	5.42	0.00	1.200	2.085	2.00	9.819	11.78	63.9	291.3	897.7
55.00		1.00	0.83	5.065	5.57	0.00	1.200	2.105	5.00	24.218	29.06	161.9	720.0	2212.8
60.00		1.00	0.85	5.193	5.71	0.00	1.200	2.123	5.00	23.738	28.49	162.7	710.9	2170.6
65.00		1.00	0.87	5.313	5.84	0.00	1.200	2.140	5.00	23.258	27.91	163.1	701.2	2127.7
70.00		1.00	0.89	5.426	5.97	0.00	1.200	2.156	5.00	22.776	27.33	163.1	690.8	2084.2
75.00		1.00	0.91	5.534	6.09	0.00	1.200	2.171	5.00	22.294	26.75	162.9	679.9	2040.1
80.00		1.00	0.93	5.637	6.20	0.00	1.200	2.185	5.00	21.811	26.17	162.3	668.4	1995.5
85.00		1.00	0.94	5.736	6.31	0.00	1.200	2.198	5.00	21.327	25.59	161.5	656.6	1950.5
86.83	Bot - Section 3	1.00	0.95	5.771	6.35	0.00	1.200	2.203	1.83	7.697	9.24	58.6	239.1	705.2
90.00		1.00	0.96	5.830	6.41	0.00	1.200	2.211	3.17	13.344	16.01	102.7	414.6	1902.9
92.30	Top - Section 2	1.00	0.97	5.872	6.46	0.00	1.200	2.217	2.30	9.578	11.49	74.2	298.8	1365.2
95.00		1.00	0.97	5.921	6.51	0.00	1.200	2.223	2.70	11.095	13.31	86.7	346.5	921.4
100.00		1.00	0.99	6.008	6.61	0.00	1.200	2.234	5.00	20.190	24.23	160.1	629.2	1672.7
105.00		1.00	1.00	6.093	6.70	0.00	1.200	2.245	5.00	19.704	23.64	158.5	616.0	1631.1
110.00		1.00	1.02	6.174	6.79	0.00	1.200	2.256	5.00	19.218	23.06	156.6	602.5	1589.1
115.00		1.00	1.03	6.253	6.88	0.00	1.200	2.266	5.00	18.732	22.48	154.6	588.7	1546.9
120.00		1.00	1.04	6.330	6.96	0.00	1.200	2.276	5.00	18.245	21.89	152.4	574.6	1504.5
125.00		1.00	1.05	6.404	7.04	0.00	1.200	2.285	5.00	17.758	21.31	150.1	560.4	1461.8
130.00	Appurtenance(s)	1.00	1.07	6.476	7.12	0.00	1.200	2.294	5.00	17.270	20.72	147.6	545.9	1418.9
132.95	Bot - Section 4	1.00	1.07	6.518	7.17	0.00	1.200	2.299	2.95	9.953	11.94	85.6	316.8	818.1
135.00		1.00	1.08	6.546	7.20	0.00	1.200	2.303	2.05	6.937	8.32	59.9	221.7	856.6
136.83	Top - Section 3	1.00	1.08	6.572	7.23	0.00	1.200	2.306	1.83	6.128	7.35	53.2	196.1	755.9
140.00		1.00	1.09	6.615	7.28	0.00	1.200	2.311	3.17	10.430	12.52	91.1	332.7	769.6
145.00		1.00	1.10	6.681	7.35	0.00	1.200	2.319	5.00	16.071	19.29	141.7	510.3	1180.7
150.00		1.00	1.11	6.746	7.42	0.00	1.200	2.327	5.00	15.583	18.70	138.8	495.1	1141.8
153.00	Appurtenance(s)	1.00	1.12	6.785	7.46	0.00	1.200	2.332	3.00	9.115	10.94	81.6	291.6	668.2
155.00		1.00	1.12	6.810	7.49	0.00	1.200	2.335	2.00	5.978	7.17	53.7	191.9	438.3
157.98	Top - Section 4	1.00	1.13	6.847	7.53	0.00	1.200	2.339	2.98	8.757	10.51	79.1	280.2	640.0
160.00		1.00	1.13	6.872	7.56	0.00	1.200	2.342	2.02	5.847	7.02	53.0	187.7	379.8
162.00	Appurtenance(s)	1.00	1.13	6.896	7.59	0.00	1.200	2.345	2.00	5.705	6.85	51.9	183.2	370.1
165.00		1.00	1.14	6.933	7.63	0.00	1.200	2.349	3.00	8.411	10.09	77.0	269.1	543.8
170.00	Appurtenance(s)	1.00	1.15	6.992	7.69	0.00	1.200	2.356	5.00	13.628	16.35	125.8	432.7	875.3
172.00	Appurtenance(s)	1.00	1.15	7.015	7.72	0.00	1.200	2.359	2.00	5.314	6.38	49.2	170.5	342.3
175.00		1.00	1.16	7.050	7.76	0.00	1.200	2.363	3.00	7.824	9.39	72.8	250.1	502.0
177.95	Appurtenance(s)	1.00	1.17	7.084	7.79	0.00	1.200	2.367	2.95	7.522	9.03	70.3	240.3	481.3

## Wind Loading - Shaft

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		<b>Page:</b> 24



<b>Totals:</b>	<b>177.95</b>	<b>5,368.3</b>	<b>66,586.2</b>
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## Discrete Appurtenance Forces

**Structure:** CT02573-S-SBA  
**Site Name:** Coventry 2 CT  
**Height:** 177.95 (ft)  
**Base Elev:** 0.000 (ft)  
**Gh:** 1.1

**Topography:** 1

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

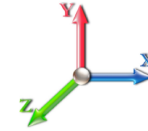
1/17/2022



Page: 25

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

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.00



**Iterations** 24

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	177.95	6' Lightning rod	1	7.084	7.792	1.00	1.00	1.86	51.73	51.73	0.000	0.000	14.46	0.00	0.00
2	172.00	KRY 112 89/4	3	7.015	7.717	0.40	0.80	1.77	111.89	111.89	0.000	0.000	13.68	0.00	0.00
3	172.00	MS-1436 (Light Collar)	1	7.015	7.717	1.00	1.00	3.62	173.62	173.62	0.000	0.000	27.96	0.00	0.00
4	172.00	MS-HRECP	1	7.015	7.717	1.00	1.00	28.43	1955.32	1955.32	0.000	0.000	219.42	0.00	0.00
5	172.00	MS-HR35	1	7.015	7.717	1.00	1.00	20.31	1635.78	1635.78	0.000	0.000	156.73	0.00	0.00
6	172.00	KRY 112 144/1	3	7.015	7.717	0.40	0.80	1.26	74.02	74.02	0.000	0.000	9.74	0.00	0.00
7	172.00	MS-C1B-2875P	1	7.015	7.717	1.00	1.00	24.15	870.69	870.69	0.000	0.000	186.40	0.00	0.00
8	172.00	AIR6449 B41	3	7.015	7.717	0.57	0.80	11.82	831.73	831.73	0.000	0.000	91.19	0.00	0.00
9	172.00	4460 B25 + B66	3	7.015	7.717	0.54	0.80	6.05	632.99	632.99	0.000	0.000	46.68	0.00	0.00
10	172.00	VV-65A-R1	3	7.015	7.717	0.59	0.80	17.17	865.09	865.09	0.000	0.000	132.52	0.00	0.00
11	172.00	4449 B71 + B85	3	7.015	7.717	0.54	0.80	3.90	614.42	614.42	0.000	0.000	30.13	0.00	0.00
12	172.00	T-Frames w/ Pipe Mount	3	7.015	7.717	0.56	0.75	45.34	2746.73	2746.73	0.000	0.000	349.92	0.00	0.00
13	172.00	782 10660	3	7.015	7.717	0.40	0.80	0.99	30.15	30.15	0.000	0.000	7.62	0.00	0.00
14	170.00	APXVAALL24_43-U-NA20	3	6.992	7.691	0.60	0.80	41.11	2250.92	2250.92	0.000	0.000	316.19	0.00	0.00
15	162.00	Raycap DC6-48-60-18-8F	1	6.896	7.586	0.75	0.75	1.13	103.53	103.53	0.000	0.000	8.58	0.00	0.00
16	162.00	Powerwave 7770	3	6.896	7.586	0.56	0.75	11.75	714.18	714.18	0.000	0.000	89.14	0.00	0.00
17	162.00	HP Platform w/ Pipe	1	6.896	7.586	1.00	1.00	51.97	3595.94	3595.94	0.000	0.000	394.22	0.00	0.00
18	162.00	HRK12 (Handrail Kit)	1	6.896	7.586	1.00	1.00	15.61	993.11	993.11	0.000	0.000	118.45	0.00	0.00
19	162.00	Ericsson RRUS 4449	3	6.896	7.586	0.50	0.75	3.62	552.08	552.08	0.000	0.000	27.44	0.00	0.00
20	162.00	Ericsson RRUS 8843 B2	3	6.896	7.586	0.50	0.75	3.48	412.03	412.03	0.000	0.000	26.39	0.00	0.00
21	162.00	Powerwave 21401 TMA	6	6.896	7.586	0.38	0.75	3.16	388.49	388.49	0.000	0.000	23.94	0.00	0.00
22	162.00	Cci HPA-65R-BU6AA	2	6.896	7.586	0.74	0.75	14.37	792.80	792.80	0.000	0.000	109.04	0.00	0.00
23	162.00	Cci HPA-65R-BU8AA	1	6.896	7.586	0.65	0.75	8.70	445.44	445.44	0.000	0.000	65.97	0.00	0.00
24	162.00	Cci DMP65R-BU8DA	1	6.896	7.586	0.54	0.75	10.95	655.35	655.35	0.000	0.000	83.09	0.00	0.00
25	162.00	Cci DMP65R-BU6DA	2	6.896	7.586	0.54	0.75	15.85	847.48	847.48	0.000	0.000	120.25	0.00	0.00
26	162.00	Powerwave 7020.00 RET	6	6.896	7.586	0.38	0.75	2.36	80.90	80.90	0.000	0.000	17.93	0.00	0.00
27	153.00	MC-PK8-DSH	1	6.785	7.463	1.00	1.00	100.69	3954.30	3954.30	0.000	0.000	751.49	0.00	0.00
28	153.00	RDIDC-9181-OF-48	1	6.785	7.463	0.50	0.75	1.39	84.72	84.72	0.000	0.000	10.39	0.00	0.00
29	153.00	MX08FRO665-21	3	6.785	7.463	0.55	0.75	24.05	1196.39	1196.39	0.000	0.000	179.52	0.00	0.00
30	153.00	TA08025-B604	3	6.785	7.463	0.50	0.75	4.08	396.66	396.66	0.000	0.000	30.48	0.00	0.00
31	153.00	TA08025-B605	3	6.785	7.463	0.50	0.75	4.08	441.83	441.83	0.000	0.000	30.48	0.00	0.00
32	130.00	SBNHH-1D65B	6	6.476	7.124	0.62	0.75	37.00	1987.55	1987.55	0.000	0.000	263.56	0.00	0.00
33	130.00	RF4439d-25A	3	6.476	7.124	0.50	0.75	4.73	363.93	363.93	0.000	0.000	33.70	0.00	0.00
34	130.00	RF4440d-13A	3	6.476	7.124	0.50	0.75	4.73	583.24	583.24	0.000	0.000	33.70	0.00	0.00
35	130.00	XXDWMM-12.5-65	3	6.476	7.124	0.56	0.75	3.80	355.43	355.43	0.000	0.000	27.08	0.00	0.00
36	130.00	MT6407-77A	3	6.476	7.124	0.52	0.75	9.38	788.92	788.92	0.000	0.000	66.80	0.00	0.00
37	130.00	PV-LPP14L-HR-B	1	6.476	7.124	1.00	1.00	79.01	4240.94	4240.94	0.000	0.000	562.83	0.00	0.00
38	130.00	DB-T1-6Z-8AB-0Z	2	6.476	7.124	0.50	0.75	6.00	444.75	444.75	0.000	0.000	42.76	0.00	0.00
39	130.00	B25 RRH4x30-4R	3	6.476	7.124	0.50	0.75	4.43	369.61	369.61	0.000	0.000	31.56	0.00	0.00

**Totals:** 37,634.69

4,751.42

## Total Applied Force Summary

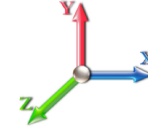
<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 26

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

**Dead Load Factor** 1.20  
**Wind Load Factor** 1.00



**Iterations** 24

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
5.00		159.67	2645.84	0.00	0.00
10.00		157.45	2649.37	0.00	0.00
15.00		155.01	2632.91	0.00	0.00
20.00		152.49	2607.68	0.00	0.00
25.00		149.91	2577.38	0.00	0.00
30.00		147.42	2543.72	0.00	0.00
35.00		151.30	2507.66	0.00	0.00
40.00		154.30	2469.78	0.00	0.00
42.30		71.18	1124.75	0.00	0.00
45.00		85.36	2150.59	0.00	0.00
48.00		95.64	2366.20	0.00	0.00
50.00		63.89	966.51	0.00	0.00
55.00		161.92	2384.86	0.00	0.00
60.00		162.71	2342.68	0.00	0.00
65.00		163.10	2299.77	0.00	0.00
70.00		163.14	2256.24	0.00	0.00
75.00		162.86	2212.15	0.00	0.00
80.00		162.30	2167.57	0.00	0.00
85.00		161.47	2122.54	0.00	0.00
86.83		58.64	768.32	0.00	0.00
90.00		102.69	2011.84	0.00	0.00
92.30		74.25	1444.40	0.00	0.00
95.00		86.71	1014.20	0.00	0.00
100.00		160.13	1844.81	0.00	0.00
105.00		158.47	1803.16	0.00	0.00
110.00		156.63	1761.22	0.00	0.00
115.00		154.62	1719.02	0.00	0.00
120.00		152.44	1676.57	0.00	0.00
125.00		150.11	1633.88	0.00	0.00
130.00	(24) attachments	1209.63	10725.33	0.00	0.00
132.95		85.63	911.82	0.00	0.00
135.00		59.94	921.82	0.00	0.00
136.83		53.15	814.15	0.00	0.00
140.00		91.07	870.18	0.00	0.00
145.00		141.74	1339.59	0.00	0.00
150.00		138.77	1300.70	0.00	0.00
153.00	(11) attachments	1083.99	6837.44	0.00	0.00
155.00		53.74	499.32	0.00	0.00
157.98		79.15	730.94	0.00	0.00
160.00		53.04	441.50	0.00	0.00
162.00	(30) attachments	1136.37	10012.45	0.00	0.00
165.00		76.97	585.02	0.00	0.00
170.00	(3) attachments	441.97	3194.97	0.00	0.00
172.00	(28) attachments	1321.19	10912.20	0.00	0.00
175.00		72.81	515.71	0.00	0.00
177.95	(1) attachments	84.79	533.08	0.00	0.00

## Total Applied Force Summary

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Struct Class:</b> II	Page: 27



<b>Totals:</b>	<u>10,119.76</u>	<u>109,851.8</u> 8	<u>0.00</u>	<u>0.00</u>
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## Calculated Forces

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II

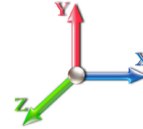


Page: 28

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

**Iterations** 24

**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	-109.8	-10.16	0.00	-1330.8	0.00	1330.89	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.193
5.00	-107.2	-10.07	0.00	-1280.1	0.00	1280.10	5740.73	2870.37	14848.9	7435.53	0.02	-0.040	0.000	0.191
10.00	-104.5	-9.99	0.00	-1229.7	0.00	1229.73	5676.74	2838.37	14408.5	7214.97	0.09	-0.081	0.000	0.189
15.00	-101.9	-9.90	0.00	-1179.7	0.00	1179.78	5611.13	2805.57	13970.2	6995.50	0.19	-0.123	0.000	0.187
20.00	-99.28	-9.82	0.00	-1130.2	0.00	1130.27	5543.90	2771.95	13534.3	6777.22	0.34	-0.165	0.000	0.185
25.00	-96.70	-9.73	0.00	-1081.1	0.00	1081.18	5475.05	2737.52	13101.0	6560.27	0.54	-0.208	0.000	0.182
30.00	-94.15	-9.65	0.00	-1032.5	0.00	1032.51	5404.57	2702.29	12670.6	6344.75	0.78	-0.251	0.000	0.180
35.00	-91.64	-9.55	0.00	-984.28	0.00	984.28	5332.48	2666.24	12243.3	6130.79	1.07	-0.295	0.000	0.178
40.00	-89.16	-9.44	0.00	-936.51	0.00	936.51	5258.76	2629.38	11819.4	5918.51	1.40	-0.340	0.000	0.175
42.30	-88.03	-9.40	0.00	-914.78	0.00	914.78	5224.28	2612.14	11625.4	5821.36	1.57	-0.361	0.000	0.174
45.00	-85.88	-9.34	0.00	-889.44	0.00	889.44	5183.43	2591.71	11399.0	5708.01	1.78	-0.386	0.000	0.172
48.00	-83.51	-9.26	0.00	-861.43	0.00	861.43	5194.69	2597.35	11461.1	5739.07	2.03	-0.414	0.000	0.166
50.00	-82.54	-9.23	0.00	-842.92	0.00	842.92	5164.20	2582.10	11293.7	5655.29	2.21	-0.432	0.000	0.165
55.00	-80.15	-9.11	0.00	-796.76	0.00	796.76	5086.83	2543.42	10878.2	5447.20	2.69	-0.476	0.000	0.162
60.00	-77.80	-8.99	0.00	-751.20	0.00	751.20	5007.85	2503.92	10466.7	5241.17	3.21	-0.521	0.000	0.159
65.00	-75.50	-8.86	0.00	-706.26	0.00	706.26	4927.24	2463.62	10059.6	5037.31	3.78	-0.566	0.000	0.156
70.00	-73.23	-8.74	0.00	-661.94	0.00	661.94	4845.02	2422.51	9657.14	4835.75	4.40	-0.611	0.000	0.152
75.00	-71.02	-8.60	0.00	-618.26	0.00	618.26	4761.17	2380.58	9259.43	4636.60	5.06	-0.656	0.000	0.148
80.00	-68.84	-8.47	0.00	-575.24	0.00	575.24	4675.70	2337.85	8866.76	4439.97	5.77	-0.701	0.000	0.144
85.00	-66.72	-8.32	0.00	-532.88	0.00	532.88	4588.61	2294.31	8479.38	4245.99	6.53	-0.747	0.000	0.140
86.83	-65.95	-8.28	0.00	-517.63	0.00	517.63	4556.28	2278.14	8338.71	4175.55	6.82	-0.764	0.000	0.138
90.00	-63.93	-8.18	0.00	-491.42	0.00	491.42	4499.90	2249.95	8097.52	4054.78	7.34	-0.793	0.000	0.135
92.30	-62.49	-8.11	0.00	-472.60	0.00	472.60	3709.97	1854.99	6727.57	3368.78	7.73	-0.814	0.000	0.157
95.00	-61.47	-8.04	0.00	-450.74	0.00	450.74	3673.22	1836.61	6564.94	3287.35	8.19	-0.839	0.000	0.154
100.00	-59.62	-7.91	0.00	-410.52	0.00	410.52	3603.88	1801.94	6266.45	3137.88	9.10	-0.889	0.000	0.147
105.00	-57.81	-7.77	0.00	-370.98	0.00	370.98	3532.91	1766.45	5971.95	2990.41	10.06	-0.937	0.000	0.140
110.00	-56.05	-7.63	0.00	-332.13	0.00	332.13	3460.32	1730.16	5681.65	2845.05	11.06	-0.985	0.000	0.133
115.00	-54.33	-7.49	0.00	-293.99	0.00	293.99	3386.11	1693.05	5395.81	2701.92	12.12	-1.031	0.000	0.125
120.00	-52.65	-7.34	0.00	-256.56	0.00	256.56	3310.28	1655.14	5114.65	2561.13	13.22	-1.075	0.000	0.116
125.00	-51.01	-7.20	0.00	-219.84	0.00	219.84	3228.52	1614.26	4831.97	2419.57	14.37	-1.118	0.000	0.107
130.00	-40.31	-5.80	0.00	-183.85	0.00	183.85	3125.09	1562.55	4525.83	2266.28	15.56	-1.157	0.000	0.094
132.95	-39.40	-5.71	0.00	-166.76	0.00	166.76	3064.12	1532.06	4350.03	2178.25	16.29	-1.179	0.000	0.089
135.00	-38.48	-5.64	0.00	-155.05	0.00	155.05	3021.67	1510.84	4229.72	2118.00	16.80	-1.194	0.000	0.086
136.83	-37.66	-5.58	0.00	-144.72	0.00	144.72	2458.83	1229.41	3474.42	1739.79	17.26	-1.207	0.000	0.099
140.00	-36.79	-5.49	0.00	-127.06	0.00	127.06	2420.71	1210.36	3346.31	1675.64	18.07	-1.228	0.000	0.091
145.00	-35.45	-5.33	0.00	-99.63	0.00	99.63	2359.20	1179.60	3147.03	1575.85	19.37	-1.262	0.000	0.078
150.00	-34.15	-5.18	0.00	-72.96	0.00	72.96	2296.08	1148.04	2951.62	1478.00	20.71	-1.290	0.000	0.064
153.00	-27.34	-3.95	0.00	-57.43	0.00	57.43	2257.42	1128.71	2836.33	1420.27	21.52	-1.305	0.000	0.053
155.00	-26.84	-3.89	0.00	-49.54	0.00	49.54	2223.99	1111.99	2751.24	1377.66	22.07	-1.313	0.000	0.048
157.98	-26.11	-3.79	0.00	-37.97	0.00	37.97	2172.66	1086.33	2625.07	1314.48	22.89	-1.324	0.000	0.041
157.98	-26.11	-3.79	0.00	-37.97	0.00	37.97	1653.01	826.50	2005.69	1004.33	22.89	-1.324	0.000	0.054
160.00	-25.67	-3.73	0.00	-30.30	0.00	30.30	1634.69	817.35	1951.45	977.17	23.46	-1.330	0.000	0.047
162.00	-15.69	-2.37	0.00	-22.83	0.00	22.83	1616.31	808.16	1898.20	950.51	24.02	-1.336	0.000	0.034
165.00	-15.11	-2.28	0.00	-15.74	0.00	15.74	1588.26	794.13	1819.10	910.90	24.86	-1.343	0.000	0.027
170.00	-11.92	-1.76	0.00	-4.35	0.00	4.35	1540.22	770.11	1689.48	845.99	26.27	-1.350	0.000	0.013
172.00	-1.04	-0.18	0.00	-0.83	0.00	0.83	1520.54	760.27	1638.44	820.44	26.83	-1.351	0.000	0.002
175.00	-0.53	-0.10	0.00	-0.29	0.00	0.29	1490.55	745.27	1562.81	782.56	27.68	-1.351	0.000	0.001
177.95	0.00	-0.08	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	28.52	-1.351	0.000	0.000

## Calculated Forces

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



## Seismic Segment Forces (Factored)

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 30

<b>Load Case:</b> 1.2D + 1.0E				<b>Iterations</b> 22
<b>Gust Response Factor</b>	1.10	<b>Sds</b>	0.19	<b>Ss</b> 0.18
<b>Dead Load Factor</b>	1.20	<b>Seismic Load Factor</b>	1.00	<b>S1</b> 0.06
<b>Wind Load Factor</b>	0.00	<b>Structure Frequency (f1)</b>	0.31	<b>SA</b> 0.03
				<b>Seismic Importance Factor</b> 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	
5.00		1499.6	0.00	0.03	0.02	25.42	
10.00		1472.0	0.01	0.05	0.03	37.08	
15.00		1444.4	0.01	0.06	0.03	42.76	
20.00		1416.7	0.02	0.07	0.04	45.42	
25.00		1389.1	0.04	0.07	0.04	46.51	
30.00		1361.5	0.05	0.07	0.04	46.86	
35.00		1333.8	0.07	0.07	0.04	46.91	
40.00		1306.2	0.10	0.07	0.04	46.88	
42.30	Bot - Section 2	592.13	0.11	0.07	0.04	21.45	
45.00		1384.1	0.12	0.07	0.03	50.68	
48.00	Top - Section 1	1520.2	0.14	0.07	0.03	56.29	
50.00		505.35	0.15	0.07	0.03	18.83	
55.00		1244.0	0.18	0.07	0.03	46.86	
60.00		1216.3	0.21	0.06	0.02	45.64	
65.00		1188.7	0.25	0.05	0.02	43.34	
70.00		1161.1	0.29	0.05	0.01	39.47	
75.00		1133.5	0.34	0.04	0.01	33.56	
80.00		1105.8	0.38	0.02	0.01	25.30	
85.00		1078.2	0.43	0.01	0.01	14.74	
86.83	Bot - Section 3	388.43	0.45	0.00	0.01	3.78	
90.00		1240.1	0.48	-0.01	0.01	3.04	
92.30	Top - Section 2	888.65	0.51	-0.02	0.01	-2.75	
95.00		479.06	0.54	-0.03	0.01	-4.61	
100.00		869.61	0.60	-0.05	0.01	-18.27	
105.00		845.92	0.66	-0.07	0.02	-25.57	
110.00		822.24	0.72	-0.09	0.03	-29.84	
115.00		798.55	0.79	-0.11	0.05	-30.96	
120.00		774.87	0.86	-0.12	0.07	-29.10	
125.00		751.19	0.93	-0.12	0.10	-24.57	
130.00	Appurtenance(s)	3470.0	1.01	-0.11	0.14	-84.43	
132.95	Bot - Section 4	417.83	1.05	-0.09	0.16	-7.42	
135.00		529.08	1.09	-0.08	0.18	-6.60	
136.83	Top - Section 3	466.50	1.12	-0.06	0.20	-3.38	
140.00		364.02	1.17	-0.02	0.23	1.04	
145.00		558.64	1.25	0.06	0.30	12.07	
150.00		538.91	1.34	0.18	0.38	23.65	
153.00	Appurtenance(s)	2672.9	1.40	0.28	0.43	157.52	
155.00		205.30	1.43	0.35	0.47	14.31	
157.98	Top - Section 4	299.83	1.49	0.48	0.53	26.01	
160.00		160.02	1.53	0.57	0.58	15.86	
162.00	Appurtenance(s)	3092.9	1.57	0.68	0.63	346.04	
165.00		228.87	1.62	0.86	0.70	30.25	
170.00	Appurtenance(s)	737.21	1.72	1.22	0.85	124.60	
172.00	Appurtenance(s)	3853.2	1.77	1.39	0.92	712.13	
175.00		209.92	1.83	1.67	1.03	44.02	

## Seismic Segment Forces (Factored)

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 31

177.95	Appurtenance(s)	207.38	1.89	1.98	1.14	48.84
<b>Totals:</b>		<b>49,224.7</b>				<b>2,029.7</b>
						<b>Total Wind: 35,658.1</b>

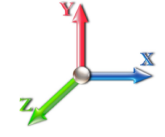
Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

## Calculated Forces

**Structure:** CT02573-S-SBA      **Code:** EIA/TIA-222-G      1/17/2022  
**Site Name:** Coventry 2 CT      **Exposure:** B  
**Height:** 177.95 (ft)      **Crest Height:** 0.00  
**Base Elev:** 0.000 (ft)      **Site Class:** D - Stiff Soil  
**Gh:** 1.1      **Topography:** 1      **Struct Class:** II      Page: 32



**Load Case:** 1.2D + 1.0E      **Iterations:** 22  
**Gust Response Factor:** 1.10      **Sds:** 0.19      **Ss:** 0.18  
**Dead Load Factor:** 1.20      **Seismic Load Factor:** 1.00      **Sd1:** 0.10      **S1:** 0.06  
**Wind Load Factor:** 0.00      **Structure Frequency (f1):** 0.31      **SA:** 0.03      **Seismic Importance Factor:** 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-64.70	-2.30	0.00	-305.19	0.00	305.19	5803.10	2901.55	15291.3	7657.05	0.00	0.00	0.00	0.051
5.00	-62.73	-2.29	0.00	-293.68	0.00	293.68	5740.73	2870.37	14848.9	7435.53	0.00	-0.01	0.050	
10.00	-60.79	-2.26	0.00	-282.25	0.00	282.25	5676.74	2838.37	14408.5	7214.97	0.02	-0.02	0.050	
15.00	-58.88	-2.22	0.00	-270.96	0.00	270.96	5611.13	2805.57	13970.2	6995.50	0.04	-0.03	0.049	
20.00	-57.01	-2.19	0.00	-259.84	0.00	259.84	5543.90	2771.95	13534.3	6777.22	0.08	-0.04	0.049	
25.00	-55.17	-2.15	0.00	-248.90	0.00	248.90	5475.05	2737.52	13101.0	6560.27	0.12	-0.05	0.048	
30.00	-53.37	-2.11	0.00	-238.15	0.00	238.15	5404.57	2702.29	12670.6	6344.75	0.18	-0.06	0.047	
35.00	-51.59	-2.07	0.00	-227.60	0.00	227.60	5332.48	2666.24	12243.3	6130.79	0.25	-0.07	0.047	
40.00	-49.85	-2.03	0.00	-217.24	0.00	217.24	5258.76	2629.38	11819.4	5918.51	0.32	-0.08	0.046	
42.30	-49.06	-2.01	0.00	-212.57	0.00	212.57	5224.28	2612.14	11625.4	5821.36	0.36	-0.08	0.046	
45.00	-47.31	-1.96	0.00	-207.15	0.00	207.15	5183.43	2591.71	11399.0	5708.01	0.41	-0.09	0.045	
48.00	-45.38	-1.91	0.00	-201.26	0.00	201.26	5194.69	2597.35	11461.1	5739.07	0.47	-0.10	0.044	
50.00	-44.71	-1.89	0.00	-197.45	0.00	197.45	5164.20	2582.10	11293.7	5655.29	0.51	-0.10	0.044	
55.00	-43.04	-1.85	0.00	-187.98	0.00	187.98	5086.83	2543.42	10878.2	5447.20	0.62	-0.11	0.043	
60.00	-41.41	-1.81	0.00	-178.73	0.00	178.73	5007.85	2503.92	10466.7	5241.17	0.74	-0.12	0.042	
65.00	-39.81	-1.77	0.00	-169.68	0.00	169.68	4927.24	2463.62	10059.6	5037.31	0.87	-0.13	0.042	
70.00	-38.24	-1.73	0.00	-160.83	0.00	160.83	4845.02	2422.51	9657.14	4835.75	1.01	-0.14	0.041	
75.00	-36.71	-1.70	0.00	-152.16	0.00	152.16	4761.17	2380.58	9259.43	4636.60	1.17	-0.15	0.041	
80.00	-35.21	-1.68	0.00	-143.64	0.00	143.64	4675.70	2337.85	8866.76	4439.97	1.34	-0.16	0.040	
85.00	-33.75	-1.67	0.00	-135.23	0.00	135.23	4588.61	2294.31	8479.38	4245.99	1.51	-0.18	0.039	
86.83	-33.22	-1.67	0.00	-132.17	0.00	132.17	4556.28	2278.14	8338.71	4175.55	1.58	-0.18	0.039	
90.00	-31.62	-1.66	0.00	-126.90	0.00	126.90	4499.90	2249.95	8097.52	4054.78	1.71	-0.19	0.038	
92.30	-30.47	-1.66	0.00	-123.08	0.00	123.08	3709.97	1854.99	6727.57	3368.78	1.80	-0.19	0.045	
95.00	-29.81	-1.66	0.00	-118.60	0.00	118.60	3673.22	1836.61	6564.94	3287.35	1.91	-0.20	0.044	
100.00	-28.59	-1.67	0.00	-110.29	0.00	110.29	3603.88	1801.94	6266.45	3137.88	2.13	-0.21	0.043	
105.00	-27.40	-1.67	0.00	-101.96	0.00	101.96	3532.91	1766.45	5971.95	2990.41	2.36	-0.23	0.042	
110.00	-26.24	-1.67	0.00	-93.63	0.00	93.63	3460.32	1730.16	5681.65	2845.05	2.60	-0.24	0.040	
115.00	-25.11	-1.67	0.00	-85.29	0.00	85.29	3386.11	1693.05	5395.81	2701.92	2.86	-0.25	0.039	
120.00	-24.01	-1.67	0.00	-76.94	0.00	76.94	3310.28	1655.14	5114.65	2561.13	3.13	-0.27	0.037	
125.00	-22.94	-1.67	0.00	-68.59	0.00	68.59	3228.52	1614.26	4831.97	2419.57	3.41	-0.28	0.035	
130.00	-18.60	-1.65	0.00	-60.24	0.00	60.24	3125.09	1562.55	4525.83	2266.28	3.71	-0.29	0.033	
132.95	-18.00	-1.65	0.00	-55.38	0.00	55.38	3064.12	1532.06	4350.03	2178.25	3.89	-0.30	0.031	
135.00	-17.30	-1.65	0.00	-51.99	0.00	51.99	3021.67	1510.84	4229.72	2118.00	4.02	-0.30	0.030	
136.83	-16.69	-1.65	0.00	-48.97	0.00	48.97	2458.83	1229.41	3474.42	1739.79	4.14	-0.31	0.035	
140.00	-16.15	-1.65	0.00	-43.76	0.00	43.76	2420.71	1210.36	3346.31	1675.64	4.35	-0.32	0.033	
145.00	-15.32	-1.63	0.00	-35.53	0.00	35.53	2359.20	1179.60	3147.03	1575.85	4.69	-0.33	0.029	
150.00	-14.51	-1.61	0.00	-27.37	0.00	27.37	2296.08	1148.04	2951.62	1478.00	5.03	-0.34	0.025	
153.00	-11.21	-1.43	0.00	-22.56	0.00	22.56	2257.42	1128.71	2836.33	1420.27	5.25	-0.34	0.021	
155.00	-10.90	-1.41	0.00	-19.70	0.00	19.70	2223.99	1111.99	2751.24	1377.66	5.39	-0.35	0.019	
157.98	-10.45	-1.39	0.00	-15.49	0.00	15.49	2172.66	1086.33	2625.07	1314.48	5.61	-0.35	0.017	
157.98	-10.45	-1.39	0.00	-15.49	0.00	15.49	1653.01	826.50	2005.69	1004.33	5.61	-0.35	0.022	
160.00	-10.20	-1.37	0.00	-12.69	0.00	12.69	1634.69	817.35	1951.45	977.17	5.76	-0.35	0.019	
162.00	-6.43	-1.00	0.00	-9.95	0.00	9.95	1616.31	808.16	1898.20	950.51	5.91	-0.36	0.014	
165.00	-6.11	-0.97	0.00	-6.95	0.00	6.95	1588.26	794.13	1819.10	910.90	6.13	-0.36	0.011	
170.00	-5.16	-0.84	0.00	-2.11	0.00	2.11	1540.22	770.11	1689.48	845.99	6.51	-0.36	0.006	
172.00	-0.51	-0.10	0.00	-0.44	0.00	0.44	1520.54	760.27	1638.44	820.44	6.66	-0.36	0.001	
175.00	-0.25	-0.05	0.00	-0.15	0.00	0.15	1490.55	745.27	1562.81	782.56	6.89	-0.36	0.000	

## Calculated Forces

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Page:</b> 33
<b>Struct Class:</b> II		



177.95	0.00	-0.05	0.00	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	7.11	-0.36	0.000
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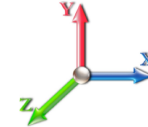
## Seismic Segment Forces (Factored)

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 34

<b>Load Case:</b> 0.9D + 1.0E				<b>Iterations</b> 22	
<b>Gust Response Factor</b>	1.10	<b>Sds</b>	0.19	<b>Ss</b>	0.18
<b>Dead Load Factor</b>	0.90	<b>Seismic Load Factor</b>	1.00	<b>Sd1</b>	0.10
<b>Wind Load Factor</b>	0.00	<b>Structure Frequency (f1)</b>	0.31	<b>SA</b>	0.03
				<b>Seismic Importance Factor</b>	1.00



Top Elev (ft)	Description	Wz (lb)	Lateral Fs (lb)			R: 1.50
			a	b	c	
0.00		0.00	0.00	0.00	0.00	
5.00		1499.6	0.00	0.03	0.02	25.42
10.00		1472.0	0.01	0.05	0.03	37.08
15.00		1444.4	0.01	0.06	0.03	42.76
20.00		1416.7	0.02	0.07	0.04	45.42
25.00		1389.1	0.04	0.07	0.04	46.51
30.00		1361.5	0.05	0.07	0.04	46.86
35.00		1333.8	0.07	0.07	0.04	46.91
40.00		1306.2	0.10	0.07	0.04	46.88
42.30	Bot - Section 2	592.13	0.11	0.07	0.04	21.45
45.00		1384.1	0.12	0.07	0.03	50.68
48.00	Top - Section 1	1520.2	0.14	0.07	0.03	56.29
50.00		505.35	0.15	0.07	0.03	18.83
55.00		1244.0	0.18	0.07	0.03	46.86
60.00		1216.3	0.21	0.06	0.02	45.64
65.00		1188.7	0.25	0.05	0.02	43.34
70.00		1161.1	0.29	0.05	0.01	39.47
75.00		1133.5	0.34	0.04	0.01	33.56
80.00		1105.8	0.38	0.02	0.01	25.30
85.00		1078.2	0.43	0.01	0.01	14.74
86.83	Bot - Section 3	388.43	0.45	0.00	0.01	3.78
90.00		1240.1	0.48	-0.01	0.01	3.04
92.30	Top - Section 2	888.65	0.51	-0.02	0.01	-2.75
95.00		479.06	0.54	-0.03	0.01	-4.61
100.00		869.61	0.60	-0.05	0.01	-18.27
105.00		845.92	0.66	-0.07	0.02	-25.57
110.00		822.24	0.72	-0.09	0.03	-29.84
115.00		798.55	0.79	-0.11	0.05	-30.96
120.00		774.87	0.86	-0.12	0.07	-29.10
125.00		751.19	0.93	-0.12	0.10	-24.57
130.00	Appurtenance(s)	3470.0	1.01	-0.11	0.14	-84.43
132.95	Bot - Section 4	417.83	1.05	-0.09	0.16	-7.42
135.00		529.08	1.09	-0.08	0.18	-6.60
136.83	Top - Section 3	466.50	1.12	-0.06	0.20	-3.38
140.00		364.02	1.17	-0.02	0.23	1.04
145.00		558.64	1.25	0.06	0.30	12.07
150.00		538.91	1.34	0.18	0.38	23.65
153.00	Appurtenance(s)	2672.9	1.40	0.28	0.43	157.52
155.00		205.30	1.43	0.35	0.47	14.31
157.98	Top - Section 4	299.83	1.49	0.48	0.53	26.01
160.00		160.02	1.53	0.57	0.58	15.86
162.00	Appurtenance(s)	3092.9	1.57	0.68	0.63	346.04
165.00		228.87	1.62	0.86	0.70	30.25
170.00	Appurtenance(s)	737.21	1.72	1.22	0.85	124.60
172.00	Appurtenance(s)	3853.2	1.77	1.39	0.92	712.13
175.00		209.92	1.83	1.67	1.03	44.02

## Seismic Segment Forces (Factored)

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 35

177.95	Appurtenance(s)	207.38	1.89	1.98	1.14	48.84
	<b>Totals:</b>	<b>49,224.7</b>				<b>2,029.7</b>
						<b>Total Wind: 35,658.1</b>

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



## Calculated Forces

**Structure:** CT02573-S-SBA      **Code:** EIA/TIA-222-G      1/17/2022  
**Site Name:** Coventry 2 CT      **Exposure:** B  
**Height:** 177.95 (ft)      **Crest Height:** 0.00  
**Base Elev:** 0.000 (ft)      **Site Class:** D - Stiff Soil  
**Gh:** 1.1      **Topography:** 1      **Struct Class:** II      Page: 36



**Load Case:** 0.9D + 1.0E

**Iterations** 22

**Gust Response Factor** 1.10      **Sds** 0.19      **Ss** 0.18

**Dead Load Factor** 0.90      **Seismic Load Factor** 1.00      **Sd1** 0.10      **S1** 0.06

**Wind Load Factor** 0.00      **Structure Frequency (f1)** 0.31      **SA** 0.03      **Seismic Importance Factor** 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-48.53	-2.30	0.00	-301.67	0.00	301.67	5803.10	2901.55	15291.3	7657.05	0.00	0.00	0.00	0.048
5.00	-47.05	-2.28	0.00	-290.16	0.00	290.16	5740.73	2870.37	14848.9	7435.53	0.00	-0.01	0.047	
10.00	-45.59	-2.25	0.00	-278.75	0.00	278.75	5676.74	2838.37	14408.5	7214.97	0.02	-0.02	0.047	
15.00	-44.16	-2.22	0.00	-267.49	0.00	267.49	5611.13	2805.57	13970.2	6995.50	0.04	-0.03	0.046	
20.00	-42.76	-2.18	0.00	-256.41	0.00	256.41	5543.90	2771.95	13534.3	6777.22	0.08	-0.04	0.046	
25.00	-41.38	-2.14	0.00	-245.53	0.00	245.53	5475.05	2737.52	13101.0	6560.27	0.12	-0.05	0.045	
30.00	-40.02	-2.10	0.00	-234.85	0.00	234.85	5404.57	2702.29	12670.6	6344.75	0.18	-0.06	0.044	
35.00	-38.69	-2.05	0.00	-224.37	0.00	224.37	5332.48	2666.24	12243.3	6130.79	0.24	-0.07	0.044	
40.00	-37.39	-2.01	0.00	-214.10	0.00	214.10	5258.76	2629.38	11819.4	5918.51	0.32	-0.08	0.043	
42.30	-36.80	-1.99	0.00	-209.47	0.00	209.47	5224.28	2612.14	11625.4	5821.36	0.36	-0.08	0.043	
45.00	-35.48	-1.94	0.00	-204.10	0.00	204.10	5183.43	2591.71	11399.0	5708.01	0.40	-0.09	0.043	
48.00	-34.04	-1.89	0.00	-198.27	0.00	198.27	5194.69	2597.35	11461.1	5739.07	0.46	-0.09	0.041	
50.00	-33.53	-1.87	0.00	-194.50	0.00	194.50	5164.20	2582.10	11293.7	5655.29	0.50	-0.10	0.041	
55.00	-32.28	-1.83	0.00	-185.14	0.00	185.14	5086.83	2543.42	10878.2	5447.20	0.61	-0.11	0.040	
60.00	-31.06	-1.79	0.00	-176.00	0.00	176.00	5007.85	2503.92	10466.7	5241.17	0.73	-0.12	0.040	
65.00	-29.86	-1.75	0.00	-167.07	0.00	167.07	4927.24	2463.62	10059.6	5037.31	0.86	-0.13	0.039	
70.00	-28.68	-1.71	0.00	-158.34	0.00	158.34	4845.02	2422.51	9657.14	4835.75	1.00	-0.14	0.039	
75.00	-27.53	-1.68	0.00	-149.80	0.00	149.80	4761.17	2380.58	9259.43	4636.60	1.15	-0.15	0.038	
80.00	-26.41	-1.65	0.00	-141.41	0.00	141.41	4675.70	2337.85	8866.76	4439.97	1.32	-0.16	0.037	
85.00	-25.31	-1.64	0.00	-133.14	0.00	133.14	4588.61	2294.31	8479.38	4245.99	1.49	-0.17	0.037	
86.83	-24.91	-1.64	0.00	-130.13	0.00	130.13	4556.28	2278.14	8338.71	4175.55	1.56	-0.18	0.037	
90.00	-23.71	-1.63	0.00	-124.95	0.00	124.95	4499.90	2249.95	8097.52	4054.78	1.68	-0.19	0.036	
92.30	-22.85	-1.63	0.00	-121.19	0.00	121.19	3709.97	1854.99	6727.57	3368.78	1.77	-0.19	0.042	
95.00	-22.35	-1.63	0.00	-116.78	0.00	116.78	3673.22	1836.61	6564.94	3287.35	1.88	-0.20	0.042	
100.00	-21.44	-1.64	0.00	-108.61	0.00	108.61	3603.88	1801.94	6266.45	3137.88	2.10	-0.21	0.041	
105.00	-20.55	-1.64	0.00	-100.43	0.00	100.43	3532.91	1766.45	5971.95	2990.41	2.32	-0.22	0.039	
110.00	-19.68	-1.64	0.00	-92.24	0.00	92.24	3460.32	1730.16	5681.65	2845.05	2.56	-0.24	0.038	
115.00	-18.83	-1.64	0.00	-84.04	0.00	84.04	3386.11	1693.05	5395.81	2701.92	2.82	-0.25	0.037	
120.00	-18.01	-1.64	0.00	-75.84	0.00	75.84	3310.28	1655.14	5114.65	2561.13	3.08	-0.26	0.035	
125.00	-17.20	-1.64	0.00	-67.65	0.00	67.65	3228.52	1614.26	4831.97	2419.57	3.37	-0.27	0.033	
130.00	-13.95	-1.63	0.00	-59.45	0.00	59.45	3125.09	1562.55	4525.83	2266.28	3.66	-0.29	0.031	
132.95	-13.50	-1.63	0.00	-54.65	0.00	54.65	3064.12	1532.06	4350.03	2178.25	3.84	-0.29	0.029	
135.00	-12.98	-1.62	0.00	-51.32	0.00	51.32	3021.67	1510.84	4229.72	2118.00	3.97	-0.30	0.029	
136.83	-12.51	-1.62	0.00	-48.34	0.00	48.34	2458.83	1229.41	3474.42	1739.79	4.08	-0.30	0.033	
140.00	-12.11	-1.62	0.00	-43.20	0.00	43.20	2420.71	1210.36	3346.31	1675.64	4.29	-0.31	0.031	
145.00	-11.49	-1.61	0.00	-35.09	0.00	35.09	2359.20	1179.60	3147.03	1575.85	4.62	-0.32	0.027	
150.00	-10.88	-1.58	0.00	-27.05	0.00	27.05	2296.08	1148.04	2951.62	1478.00	4.96	-0.33	0.023	
153.00	-8.41	-1.41	0.00	-22.30	0.00	22.30	2257.42	1128.71	2836.33	1420.27	5.17	-0.34	0.019	
155.00	-8.18	-1.40	0.00	-19.48	0.00	19.48	2223.99	1111.99	2751.24	1377.66	5.31	-0.34	0.018	
157.98	-7.84	-1.37	0.00	-15.32	0.00	15.32	2172.66	1086.33	2625.07	1314.48	5.53	-0.35	0.015	
157.98	-7.84	-1.37	0.00	-15.32	0.00	15.32	1653.01	826.50	2005.69	1004.33	5.53	-0.35	0.020	
160.00	-7.65	-1.35	0.00	-12.55	0.00	12.55	1634.69	817.35	1951.45	977.17	5.68	-0.35	0.018	
162.00	-4.82	-0.99	0.00	-9.85	0.00	9.85	1616.31	808.16	1898.20	950.51	5.82	-0.35	0.013	
165.00	-4.58	-0.96	0.00	-6.88	0.00	6.88	1588.26	794.13	1819.10	910.90	6.04	-0.35	0.010	
170.00	-3.87	-0.83	0.00	-2.09	0.00	2.09	1540.22	770.11	1689.48	845.99	6.42	-0.36	0.005	
172.00	-0.39	-0.10	0.00	-0.43	0.00	0.43	1520.54	760.27	1638.44	820.44	6.57	-0.36	0.001	
175.00	-0.19	-0.05	0.00	-0.15	0.00	0.15	1490.55	745.27	1562.81	782.56	6.79	-0.36	0.000	

## Calculated Forces

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Page:</b> 37
	<b>Struct Class:</b> II	



177.95	0.00	-0.05	0.00	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	7.01	-0.36	0.000
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## Wind Loading - Shaft

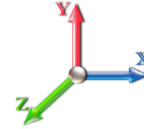
<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



**Load Case:** 1.0D + 1.0W 60 mph Wind

**Iterations** 23

**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	0.70	6.129	6.74	273.99	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	6.129	6.74	269.02	0.650	0.000	5.00	27.042	17.58	118.5	0.0	1499.7
10.00		1.00	0.70	6.129	6.74	264.05	0.650	0.000	5.00	26.547	17.26	116.3	0.0	1472.0
15.00		1.00	0.70	6.129	6.74	259.08	0.650	0.000	5.00	26.052	16.93	114.2	0.0	1444.4
20.00		1.00	0.70	6.129	6.74	254.11	0.650	0.000	5.00	25.558	16.61	112.0	0.0	1416.8
25.00		1.00	0.70	6.129	6.74	249.14	0.650	0.000	5.00	25.063	16.29	109.8	0.0	1389.1
30.00		1.00	0.70	6.134	6.75	244.28	0.650	0.000	5.00	24.568	15.97	107.7	0.0	1361.5
35.00		1.00	0.73	6.410	7.05	244.64	0.650	0.000	5.00	24.073	15.65	110.3	0.0	1333.9
40.00		1.00	0.76	6.659	7.33	244.17	0.650	0.000	5.00	23.578	15.33	112.3	0.0	1306.2
42.30	Bot - Section 2	1.00	0.77	6.767	7.44	243.73	0.650	0.000	2.30	10.689	6.95	51.7	0.0	592.1
45.00		1.00	0.79	6.887	7.58	243.05	0.650	0.000	2.70	12.594	8.19	62.0	0.0	1384.1
48.00	Top - Section 1	1.00	0.80	7.015	7.72	242.11	0.650	0.000	3.00	13.835	8.99	69.4	0.0	1520.2
50.00		1.00	0.81	7.098	7.81	245.39	0.650	0.000	2.00	9.124	5.93	46.3	0.0	505.3
55.00		1.00	0.83	7.294	8.02	243.33	0.650	0.000	5.00	22.464	14.60	117.1	0.0	1244.0
60.00		1.00	0.85	7.477	8.22	240.89	0.650	0.000	5.00	21.969	14.28	117.5	0.0	1216.4
65.00		1.00	0.87	7.650	8.42	238.11	0.650	0.000	5.00	21.474	13.96	117.5	0.0	1188.8
70.00		1.00	0.89	7.814	8.60	235.03	0.650	0.000	5.00	20.979	13.64	117.2	0.0	1161.1
75.00		1.00	0.91	7.969	8.77	231.69	0.650	0.000	5.00	20.485	13.32	116.7	0.0	1133.5
80.00		1.00	0.93	8.118	8.93	228.12	0.650	0.000	5.00	19.990	12.99	116.0	0.0	1105.9
85.00		1.00	0.94	8.260	9.09	224.34	0.650	0.000	5.00	19.495	12.67	115.1	0.0	1078.2
86.83	Bot - Section 3	1.00	0.95	8.310	9.14	222.90	0.650	0.000	1.83	7.024	4.57	41.7	0.0	388.4
90.00		1.00	0.96	8.396	9.24	220.36	0.650	0.000	3.17	12.177	7.92	73.1	0.0	1240.2
92.30	Top - Section 2	1.00	0.97	8.456	9.30	218.47	0.650	0.000	2.30	8.728	5.67	52.8	0.0	888.7
95.00		1.00	0.97	8.526	9.38	219.97	0.650	0.000	2.70	10.095	6.56	61.5	0.0	479.1
100.00		1.00	0.99	8.652	9.52	215.68	0.650	0.000	5.00	18.328	11.91	113.4	0.0	869.6
105.00		1.00	1.00	8.774	9.65	211.25	0.650	0.000	5.00	17.833	11.59	111.9	0.0	845.9
110.00		1.00	1.02	8.891	9.78	206.67	0.650	0.000	5.00	17.338	11.27	110.2	0.0	822.2
115.00		1.00	1.03	9.005	9.91	201.97	0.650	0.000	5.00	16.843	10.95	108.4	0.0	798.6
120.00		1.00	1.04	9.115	10.03	197.14	0.650	0.000	5.00	16.348	10.63	106.5	0.0	774.9
125.00		1.00	1.05	9.222	10.14	192.20	0.650	0.000	5.00	15.854	10.30	104.5	0.0	751.2
130.00	Appurtenance(s)	1.00	1.07	9.326	10.26	187.15	0.650	0.000	5.00	15.359	9.98	102.4	0.0	727.5
132.95	Bot - Section 4	1.00	1.07	9.386	10.32	184.13	0.650	0.000	2.95	8.823	5.74	59.2	0.0	417.8
135.00		1.00	1.08	9.427	10.37	182.00	0.650	0.000	2.05	6.149	4.00	41.4	0.0	529.1
136.83	Top - Section 3	1.00	1.08	9.463	10.41	180.09	0.650	0.000	1.83	5.423	3.52	36.7	0.0	466.5
140.00		1.00	1.09	9.525	10.48	180.06	0.650	0.000	3.17	9.210	5.99	62.7	0.0	364.0
145.00		1.00	1.10	9.621	10.58	174.74	0.650	0.000	5.00	14.139	9.19	97.3	0.0	558.6
150.00		1.00	1.11	9.715	10.69	169.34	0.650	0.000	5.00	13.644	8.87	94.8	0.0	538.9
153.00	Appurtenance(s)	1.00	1.12	9.770	10.75	166.05	0.650	0.000	3.00	7.949	5.17	55.5	0.0	313.9
155.00		1.00	1.12	9.806	10.79	163.85	0.650	0.000	2.00	5.200	3.38	36.5	0.0	205.3
157.98	Top - Section 4	1.00	1.13	9.860	10.85	160.54	0.650	0.000	2.98	7.596	4.94	53.6	0.0	299.8
160.00		1.00	1.13	9.896	10.89	158.28	0.650	0.000	2.02	5.058	3.29	35.8	0.0	160.0
162.00	Appurtenance(s)	1.00	1.13	9.931	10.92	156.03	0.650	0.000	2.00	4.923	3.20	35.0	0.0	155.7
165.00		1.00	1.14	9.983	10.98	152.64	0.650	0.000	3.00	7.236	4.70	51.7	0.0	228.9
170.00	Appurtenance(s)	1.00	1.15	10.069	11.08	146.92	0.650	0.000	5.00	11.664	7.58	84.0	0.0	368.8
172.00	Appurtenance(s)	1.00	1.15	10.102	11.11	144.62	0.650	0.000	2.00	4.527	2.94	32.7	0.0	143.1
175.00		1.00	1.16	10.152	11.17	141.14	0.650	0.000	3.00	6.642	4.32	48.2	0.0	209.9
177.95	Appurtenance(s)	1.00	1.17	10.201	11.22	137.69	0.650	0.000	2.95	6.358	4.13	46.4	0.0	200.9

## Wind Loading - Shaft

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II
		<b>Page:</b> 39



<b>Totals:</b>	<b>177.95</b>	<b>3,805.6</b>	<b>37,100.9</b>
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## Discrete Appurtenance Forces

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 40

**Load Case:** 1.0D + 1.0W 60 mph Wind

**Dead Load Factor** 1.00  
**Wind Load Factor** 1.00



**Iterations** 23

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	177.95	6' Lightning rod	1	10.201	11.221	1.00	1.00	0.38	6.50	0.000	0.000	4.26	0.00	0.00	
2	172.00	KRY 112 89/4	3	10.102	11.112	0.40	0.80	0.78	46.20	0.000	0.000	8.67	0.00	0.00	
3	172.00	MS-1436 (Light Collar)	1	10.102	11.112	1.00	1.00	1.50	65.60	0.000	0.000	16.67	0.00	0.00	
4	172.00	MS-HRECP	1	10.102	11.112	1.00	1.00	12.25	514.00	0.000	0.000	136.13	0.00	0.00	
5	172.00	MS-HR35	1	10.102	11.112	1.00	1.00	8.75	430.00	0.000	0.000	97.23	0.00	0.00	
6	172.00	KRY 112 144/1	3	10.102	11.112	0.40	0.80	0.49	33.00	0.000	0.000	5.47	0.00	0.00	
7	172.00	MS-C1B-2875P	1	10.102	11.112	1.00	1.00	10.00	329.00	0.000	0.000	111.12	0.00	0.00	
8	172.00	AIR6449 B41	3	10.102	11.112	0.57	0.80	9.63	309.00	0.000	0.000	106.99	0.00	0.00	
9	172.00	4460 B25 + B66	3	10.102	11.112	0.54	0.80	4.58	327.00	0.000	0.000	50.93	0.00	0.00	
10	172.00	VV-65A-R1	3	10.102	11.112	0.59	0.80	14.03	88.50	0.000	0.000	155.91	0.00	0.00	
11	172.00	4449 B71 + B85	3	10.102	11.112	0.54	0.80	2.65	210.00	0.000	0.000	29.48	0.00	0.00	
12	172.00	T-Frames w/ Pipe Mount	3	10.102	11.112	0.56	0.75	27.00	1350.00	0.000	0.000	300.04	0.00	0.00	
13	172.00	782 10660	3	10.102	11.112	0.40	0.80	0.34	7.80	0.000	0.000	3.73	0.00	0.00	
14	170.00	APXVAALL24_43-U-NA20	3	10.069	11.075	0.58	0.80	35.46	368.40	0.000	0.000	392.74	0.00	0.00	
15	162.00	Raycap DC6-48-60-18-8F	1	9.931	10.924	0.75	0.75	0.69	31.80	0.000	0.000	7.54	0.00	0.00	
16	162.00	Powerwave 7770	3	9.931	10.924	0.55	0.75	9.03	105.00	0.000	0.000	98.68	0.00	0.00	
17	162.00	HP Platform w/ Pipe	1	9.931	10.924	1.00	1.00	25.00	1600.00	0.000	0.000	273.10	0.00	0.00	
18	162.00	HRK12 (Handrail Kit)	1	9.931	10.924	1.00	1.00	6.75	261.72	0.000	0.000	73.74	0.00	0.00	
19	162.00	Ericsson RRUS 4449	3	9.931	10.924	0.50	0.75	2.49	210.00	0.000	0.000	27.17	0.00	0.00	
20	162.00	Ericsson RRUS 8843 B2	3	9.931	10.924	0.50	0.75	2.47	216.00	0.000	0.000	27.01	0.00	0.00	
21	162.00	Powerwave 21401 TMA	6	9.931	10.924	0.38	0.75	1.85	105.00	0.000	0.000	20.15	0.00	0.00	
22	162.00	Cci HPA-65R-BU6AA	2	9.931	10.924	0.74	0.75	11.76	86.00	0.000	0.000	128.48	0.00	0.00	
23	162.00	Cci HPA-65R-BU8AA	1	9.931	10.924	0.65	0.75	7.24	54.00	0.000	0.000	79.13	0.00	0.00	
24	162.00	Cci DMP65R-BU8DA	1	9.931	10.924	0.54	0.75	9.65	95.70	0.000	0.000	105.41	0.00	0.00	
25	162.00	Cci DMP65R-BU6DA	2	9.931	10.924	0.54	0.75	13.73	158.80	0.000	0.000	149.95	0.00	0.00	
26	162.00	Powerwave 7020.00 RET	6	9.931	10.924	0.38	0.75	0.90	13.20	0.000	0.000	9.83	0.00	0.00	
27	153.00	MC-PK8-DSH	1	9.770	10.747	1.00	1.00	37.59	1727.00	0.000	0.000	403.98	0.00	0.00	
28	153.00	RDIDC-9181-OF-48	1	9.770	10.747	0.50	0.75	1.01	21.90	0.000	0.000	10.85	0.00	0.00	
29	153.00	MX08FRO665-21	3	9.770	10.747	0.55	0.75	20.80	193.50	0.000	0.000	223.49	0.00	0.00	
30	153.00	TA08025-B604	3	9.770	10.747	0.50	0.75	2.95	191.70	0.000	0.000	31.75	0.00	0.00	
31	153.00	TA08025-B605	3	9.770	10.747	0.50	0.75	2.95	225.00	0.000	0.000	31.75	0.00	0.00	
32	130.00	SBNHH-1D65B	6	9.326	10.258	0.62	0.75	30.48	240.00	0.000	0.000	312.65	0.00	0.00	
33	130.00	RF4439d-25A	3	9.326	10.258	0.56	0.75	3.26	152.10	0.000	0.000	33.41	0.00	0.00	
34	130.00	RF4440d-13A	3	9.326	10.258	0.50	0.75	2.91	210.99	0.000	0.000	29.85	0.00	0.00	
35	130.00	XXDWMM-12.5-65	3	9.326	10.258	0.56	0.75	2.56	69.42	0.000	0.000	26.24	0.00	0.00	
36	130.00	MT6407-77A	3	9.326	10.258	0.52	0.75	7.39	238.20	0.000	0.000	75.78	0.00	0.00	
37	130.00	PV-LPP14L-HR-B	1	9.326	10.258	1.00	1.00	36.80	1641.00	0.000	0.000	377.50	0.00	0.00	
38	130.00	DB-T1-6Z-8AB-0Z	2	9.326	10.258	0.50	0.75	4.82	37.80	0.000	0.000	49.49	0.00	0.00	
39	130.00	B25 RRH4x30-4R	3	9.326	10.258	0.50	0.75	3.23	153.00	0.000	0.000	33.09	0.00	0.00	
<b>Totals:</b>									<b>12,123.83</b>						<b>4,059.40</b>

## Total Applied Force Summary

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II

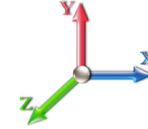


Page: 41

**Load Case:** 1.0D + 1.0W 60 mph Wind

**Dead Load Factor** 1.00

**Wind Load Factor** 1.00



**Iterations** 23

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
5.00		118.50	1643.06	0.00	0.00
10.00		116.33	1615.43	0.00	0.00
15.00		114.16	1587.80	0.00	0.00
20.00		111.99	1560.17	0.00	0.00
25.00		109.82	1532.54	0.00	0.00
30.00		107.75	1504.91	0.00	0.00
35.00		110.33	1477.28	0.00	0.00
40.00		112.27	1449.65	0.00	0.00
42.30		51.72	658.15	0.00	0.00
45.00		62.02	1461.51	0.00	0.00
48.00		69.39	1606.26	0.00	0.00
50.00		46.30	562.71	0.00	0.00
55.00		117.15	1387.43	0.00	0.00
60.00		117.45	1359.79	0.00	0.00
65.00		117.46	1332.16	0.00	0.00
70.00		117.21	1304.53	0.00	0.00
75.00		116.72	1276.90	0.00	0.00
80.00		116.02	1249.27	0.00	0.00
85.00		115.13	1221.64	0.00	0.00
86.83		41.74	441.01	0.00	0.00
90.00		73.10	1331.00	0.00	0.00
92.30		52.77	954.68	0.00	0.00
95.00		61.54	556.44	0.00	0.00
100.00		113.38	1013.01	0.00	0.00
105.00		111.87	989.32	0.00	0.00
110.00		110.22	965.64	0.00	0.00
115.00		108.44	941.95	0.00	0.00
120.00		106.54	918.27	0.00	0.00
125.00		104.53	894.59	0.00	0.00
130.00	(24) attachments	1040.41	3613.41	0.00	0.00
132.95		59.21	495.89	0.00	0.00
135.00		41.45	583.42	0.00	0.00
136.83		36.69	515.04	0.00	0.00
140.00		62.73	447.87	0.00	0.00
145.00		97.26	691.04	0.00	0.00
150.00		94.77	671.31	0.00	0.00
153.00	(11) attachments	757.36	2752.41	0.00	0.00
155.00		36.46	256.18	0.00	0.00
157.98		53.55	375.59	0.00	0.00
160.00		35.79	211.47	0.00	0.00
162.00	(30) attachments	1035.15	3143.84	0.00	0.00
165.00		51.65	263.25	0.00	0.00
170.00	(3) attachments	476.71	794.51	0.00	0.00
172.00	(28) attachments	1055.07	3876.12	0.00	0.00
175.00		48.22	221.38	0.00	0.00
177.95	(1) attachments	50.64	207.38	0.00	0.00

## Total Applied Force Summary

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Struct Class:</b> II	Page: 42



<b>Totals:</b>	<b>7,864.98</b>	<b>53,917.20</b>	<b>0.00</b>	<b>0.00</b>
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## Calculated Forces

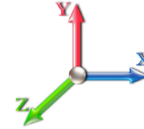
<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	<b>1/17/2022</b>
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



**Load Case:** 1.0D + 1.0W 60 mph Wind

**Iterations** 23

**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	-53.92	-7.88	0.00	-999.66	0.00	999.66	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.140
5.00	-52.27	-7.79	0.00	-960.27	0.00	960.27	5740.73	2870.37	14848.9	7435.53	0.02	-0.030	0.000	0.138
10.00	-50.65	-7.70	0.00	-921.33	0.00	921.33	5676.74	2838.37	14408.5	7214.97	0.06	-0.061	0.000	0.137
15.00	-49.06	-7.61	0.00	-882.85	0.00	882.85	5611.13	2805.57	13970.2	6995.50	0.15	-0.092	0.000	0.135
20.00	-47.49	-7.52	0.00	-844.81	0.00	844.81	5543.90	2771.95	13534.3	6777.22	0.26	-0.124	0.000	0.133
25.00	-45.96	-7.43	0.00	-807.22	0.00	807.22	5475.05	2737.52	13101.0	6560.27	0.40	-0.156	0.000	0.131
30.00	-44.45	-7.34	0.00	-770.06	0.00	770.06	5404.57	2702.29	12670.6	6344.75	0.59	-0.188	0.000	0.130
35.00	-42.97	-7.25	0.00	-733.34	0.00	733.34	5332.48	2666.24	12243.3	6130.79	0.80	-0.221	0.000	0.128
40.00	-41.51	-7.15	0.00	-697.07	0.00	697.07	5258.76	2629.38	11819.4	5918.51	1.05	-0.254	0.000	0.126
42.30	-40.85	-7.11	0.00	-680.61	0.00	680.61	5224.28	2612.14	11625.4	5821.36	1.18	-0.270	0.000	0.125
45.00	-39.39	-7.05	0.00	-661.42	0.00	661.42	5183.43	2591.71	11399.0	5708.01	1.33	-0.288	0.000	0.123
48.00	-37.78	-6.99	0.00	-640.26	0.00	640.26	5194.69	2597.35	11461.1	5739.07	1.52	-0.309	0.000	0.119
50.00	-37.22	-6.95	0.00	-626.28	0.00	626.28	5164.20	2582.10	11293.7	5655.29	1.65	-0.323	0.000	0.118
55.00	-35.83	-6.85	0.00	-591.51	0.00	591.51	5086.83	2543.42	10878.2	5447.20	2.01	-0.355	0.000	0.116
60.00	-34.46	-6.74	0.00	-557.27	0.00	557.27	5007.85	2503.92	10466.7	5241.17	2.40	-0.388	0.000	0.113
65.00	-33.13	-6.64	0.00	-523.55	0.00	523.55	4927.24	2463.62	10059.6	5037.31	2.82	-0.422	0.000	0.111
70.00	-31.82	-6.53	0.00	-490.38	0.00	490.38	4845.02	2422.51	9657.14	4835.75	3.28	-0.455	0.000	0.108
75.00	-30.54	-6.42	0.00	-457.74	0.00	457.74	4761.17	2380.58	9259.43	4636.60	3.78	-0.489	0.000	0.105
80.00	-29.29	-6.31	0.00	-425.66	0.00	425.66	4675.70	2337.85	8866.76	4439.97	4.31	-0.522	0.000	0.102
85.00	-28.07	-6.19	0.00	-394.12	0.00	394.12	4588.61	2294.31	8479.38	4245.99	4.87	-0.556	0.000	0.099
86.83	-27.62	-6.15	0.00	-382.77	0.00	382.77	4556.28	2278.14	8338.71	4175.55	5.09	-0.569	0.000	0.098
90.00	-26.29	-6.08	0.00	-363.28	0.00	363.28	4499.90	2249.95	8097.52	4054.78	5.47	-0.590	0.000	0.095
92.30	-25.34	-6.02	0.00	-349.29	0.00	349.29	3709.97	1854.99	6727.57	3368.78	5.76	-0.606	0.000	0.111
95.00	-24.78	-5.97	0.00	-333.05	0.00	333.05	3673.22	1836.61	6564.94	3287.35	6.11	-0.624	0.000	0.108
100.00	-23.76	-5.86	0.00	-303.22	0.00	303.22	3603.88	1801.94	6266.45	3137.88	6.78	-0.661	0.000	0.103
105.00	-22.77	-5.75	0.00	-273.94	0.00	273.94	3532.91	1766.45	5971.95	2990.41	7.50	-0.697	0.000	0.098
110.00	-21.80	-5.64	0.00	-245.21	0.00	245.21	3460.32	1730.16	5681.65	2845.05	8.24	-0.732	0.000	0.092
115.00	-20.86	-5.53	0.00	-217.02	0.00	217.02	3386.11	1693.05	5395.81	2701.92	9.03	-0.766	0.000	0.086
120.00	-19.94	-5.42	0.00	-189.38	0.00	189.38	3310.28	1655.14	5114.65	2561.13	9.85	-0.799	0.000	0.080
125.00	-19.04	-5.31	0.00	-162.27	0.00	162.27	3228.52	1614.26	4831.97	2419.57	10.70	-0.830	0.000	0.073
130.00	-15.44	-4.23	0.00	-135.70	0.00	135.70	3125.09	1562.55	4525.83	2266.28	11.59	-0.859	0.000	0.065
132.95	-14.95	-4.16	0.00	-123.24	0.00	123.24	3064.12	1532.06	4350.03	2178.25	12.12	-0.875	0.000	0.061
135.00	-14.37	-4.12	0.00	-114.70	0.00	114.70	3021.67	1510.84	4229.72	2118.00	12.50	-0.886	0.000	0.059
136.83	-13.85	-4.07	0.00	-107.16	0.00	107.16	2458.83	1229.41	3474.42	1739.79	12.84	-0.896	0.000	0.067
140.00	-13.40	-4.01	0.00	-94.26	0.00	94.26	2420.71	1210.36	3346.31	1675.64	13.44	-0.911	0.000	0.062
145.00	-12.71	-3.91	0.00	-74.21	0.00	74.21	2359.20	1179.60	3147.03	1575.85	14.41	-0.936	0.000	0.052
150.00	-12.04	-3.80	0.00	-54.68	0.00	54.68	2296.08	1148.04	2951.62	1478.00	15.40	-0.958	0.000	0.042
153.00	-9.30	-3.00	0.00	-43.27	0.00	43.27	2257.42	1128.71	2836.33	1420.27	16.01	-0.969	0.000	0.035
155.00	-9.04	-2.96	0.00	-37.27	0.00	37.27	2223.99	1111.99	2751.24	1377.66	16.42	-0.975	0.000	0.031
157.98	-8.67	-2.90	0.00	-28.45	0.00	28.45	2172.66	1086.33	2625.07	1314.48	17.03	-0.983	0.000	0.026
157.98	-8.67	-2.90	0.00	-28.45	0.00	28.45	1653.01	826.50	2005.69	1004.33	17.03	-0.983	0.000	0.034
160.00	-8.46	-2.86	0.00	-22.58	0.00	22.58	1634.69	817.35	1951.45	977.17	17.45	-0.988	0.000	0.028
162.00	-5.33	-1.77	0.00	-16.86	0.00	16.86	1616.31	808.16	1898.20	950.51	17.86	-0.992	0.000	0.021
165.00	-5.07	-1.72	0.00	-11.53	0.00	11.53	1588.26	794.13	1819.10	910.90	18.49	-0.997	0.000	0.016
170.00	-4.28	-1.23	0.00	-2.94	0.00	2.94	1540.22	770.11	1689.48	845.99	19.53	-1.002	0.000	0.006
172.00	-0.43	-0.11	0.00	-0.48	0.00	0.48	1520.54	760.27	1638.44	820.44	19.95	-1.003	0.000	0.001
175.00	-0.21	-0.05	0.00	-0.16	0.00	0.16	1490.55	745.27	1562.81	782.56	20.58	-1.003	0.000	0.000
177.95	0.00	-0.05	0.00	0.00	0.00	0.00	1460.49	730.24	1489.55	745.88	21.20	-1.003	0.000	0.000



## Calculated Forces

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 44

## Final Analysis Summary

<b>Structure:</b> CT02573-S-SBA	<b>Code:</b> EIA/TIA-222-G	1/17/2022
<b>Site Name:</b> Coventry 2 CT	<b>Exposure:</b> B	
<b>Height:</b> 177.95 (ft)	<b>Crest Height:</b> 0.00	
<b>Base Elev:</b> 0.000 (ft)	<b>Site Class:</b> D - Stiff Soil	
<b>Gh:</b> 1.1	<b>Topography:</b> 1	<b>Struct Class:</b> II



Page: 45

### 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 101 mph Wind	35.7	0.00	64.66	0.00	0.00	4561.68
0.9D + 1.6W 101 mph Wind	35.7	0.00	48.48	0.00	0.00	4512.09
1.2D + 1.0Di + 1.0Wi 50 mph Wind	10.2	0.00	109.85	0.00	0.00	1330.89
1.2D + 1.0E	2.3	0.00	64.70	0.00	0.00	305.19
0.9D + 1.0E	2.3	0.00	48.53	0.00	0.00	301.67
1.0D + 1.0W 60 mph Wind	7.9	0.00	53.92	0.00	0.00	999.66

### 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 101 mph Wind	-64.66	-35.74	0.00	-4561.6	0.00	-4561.6	5803.10	2901.5	15291.3	7657.05	0.00	0.607
0.9D + 1.6W 101 mph Wind	-48.48	-35.72	0.00	-4512.0	0.00	-4512.0	5803.10	2901.5	15291.3	7657.05	0.00	0.598
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-109.85	-10.16	0.00	-1330.8	0.00	-1330.8	5803.10	2901.5	15291.3	7657.05	0.00	0.193
1.2D + 1.0E	-64.70	-2.30	0.00	-305.19	0.00	-305.19	5803.10	2901.5	15291.3	7657.05	0.00	0.051
0.9D + 1.0E	-48.53	-2.30	0.00	-301.67	0.00	-301.67	5803.10	2901.5	15291.3	7657.05	0.00	0.048
1.0D + 1.0W 60 mph Wind	-53.92	-7.88	0.00	-999.66	0.00	-999.66	5803.10	2901.5	15291.3	7657.05	0.00	0.140



# Monopole Mat Foundation Design

Date

1/17/2022

<b>Customer Name:</b>	T-Mobile	<b>EIA/TIA Standard:</b>	EIA-222-G
<b>Site Name:</b>		<b>Structure Height (Ft.):</b>	177.95
<b>Site Number:</b>	CT02573-S-SBA	<b>Engineer Name:</b>	J. Tibbetts
<b>Engr. Number:</b>	122145	<b>Engineer Login ID:</b>	

**Foundation Info Obtained from:**

Drawings/Calculations
Monopole
Analysis

**Structure Type:**

**Analysis or Design?**

**Base Reactions (Factored):**

Axial Load (Kips):	64.7	Shear Force (Kips):	35.7
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4561.7

Allowable overstress %: 5.0%

**Foundation Geometries:**

Diameter of Pier (ft.):	14.0	Depth of Base BG (ft.):	6.0	Mods required -Yes/No ?:	No
Pier Height A. G. (ft.):	0.50	Thickness of Pad (ft):	4.00		
Length of Pad (ft.):	32	Width of Pad (ft.):	32		
Final Length of pad (ft)	32.0	Final width of pad (ft):	32.0		

**Material Properties and Rebar Info:**

Concrete Strength (psi):	3000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	11	Tie / Stirrup Size #:	5	
Qty. of Vertical Rebars:	46	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	9	
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):	31	Qty. of Rebar in Pad (W):	31
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Rebar at the top of the concrete pad:

Qty. of Rebar in Pad (L):	31	Qty. of Rebar in Pad (W):	31
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Apply 1.35 factor for e/w Per G: 1.35

**Soil Design Parameters:**

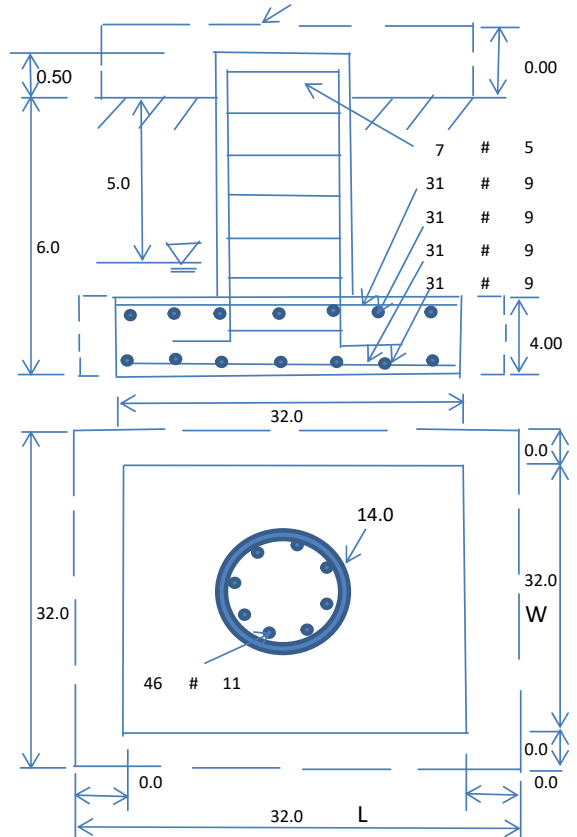
Soil Unit Weight (pcf):	125.0	Soil Buoyant Weight:	50.0	Pcf	Angle from Top of Pad:	30
Water Table B.G.S. (ft):	5.0	Unit Weight of Water:	62.4	pcf	Angle from Bottm of Pad:	25
Ultimate Bearing Pressure (psf):	16000	Ultimate Skin Friction:	175	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Reduction factor on the maximum soil bearing pressure:	1.00
Consider soil hor. resist. for OTM.:	Yes					

**Foundation Analysis and Design:**

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	1740.12	Total Dry Soil Weight (Kips):	217.52
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	217.52	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	3456.85	Total Dry Concrete Weight (Kips):	518.53
Total Buoyant Concrete Volume (cu. Ft.):	1024.00	Total Buoyant Concrete Weight (Kips):	89.70
Total Effective Concrete Weight (Kips):	608.23	Total Vertical Load on Base (Kips):	890.44

**Check Soil Capacities:**

Calculated Maxium Net Soil Pressure under the base (psf):	1929	< Allowable Factored Soil Bearing (psf):	12000	0.16	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	12925.9	> Design Factored Momont (kips-ft):	4581	0.35	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	2.82				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):	1.56	Tie / Stirrup Area (sq. in./each):	0.31		
Calculated Moment Capacity (Mn,Kips-Ft):	24776.3	> Design Factored Moment (Mu, Kips-F	4651.0	0.19	OK!
Calculated Shear Capacity (Kips):	2237.9	> Design Factored Shear (Kips):	35.7	0.02	OK!
Calculated Tension Capacity (Tn, Kips):	3875.0	> Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	29298.4	> Design Factored Axial Load (Pu Kips):	64.7	0.00	OK!
Moment & Axial Strength Combination:	0.19	OK! Check Tie Spacing (Design/Required):	1		OK!
Pier Reinforcement Ratio:	0.003	Reinforcement Ratio is too small			

**(2).Concrete Pad:**

One-Way Design Shear Capacity (L-Direction, Kips):	1402.0	> One-Way Factored Shear (L-D. Kips):	241.0	0.17	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	1402.0	> One-Way Factored Shear (W-D., Kips)	241.0	0.17	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	1044.8	> One-Way Factored Shear (C-C, Kips):	216.7	0.21	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct. ):	0.0018	OK! Lower Steel Pad Reinf. Ratio (W-Direc	0.0018		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	6066.5	> Moment at Bottom ( L-Dir. K-Ft):	1672.7	0.28	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	6066.5	> Moment at Bottom ( W-Dir. K-Ft):	1672.7	0.28	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	8495.5	> Moment at Bottom ( C-C Dir. K-Ft):	2365.6	0.28	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct. ):	0.0018	OK! Upper Steel Reinf. Ratio (W-Dir. ):	0.0018		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	6066.5	> Moment at the top ( L-Dir K-Ft):	413.4	0.07	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	6066.5	> Moment at the top (W-Dir K-Ft):	413.4	0.07	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	8495.5	> Moment at the top (C-C Dir. K-Ft):	405.8	0.05	OK!

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

Moment transferred by punching shear:	1824.7	k-ft.	Max. factored shear stress $v_{u,CD}$ :	0.3	Psi
Max. factored shear stress $v_{u,AB}$ :	3.3	Psi	Factored shear Strength $\phi v_n$ :	164.3	Psi
Max. factored shear stress $v_u$ :	3.3	Psi	Check Usage of Punching Shear Capacity:	0.02	OK!

# Exhibit E

## **Mount Analysis**



**Tower Engineering Solutions**

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

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## Antenna Mount Analysis Report

**Existing Monopole Tower**

**Customer Name: SBA Communications Corp**

**Customer Site Number: CT02573-S-SBA / Coventry 2 CT**

**Customer Site Name: Coventry 2 CT**

**Carrier Name: T-Mobile (App#: 183549, V#1)**

**Carrier Site ID / Name: CT11515A / Coventry**

**Site Location: 712 Bread & Milk Street**

**Coventry, Connecticut**

**Tolland County**

**Latitude: 41.818091**

**Longitude: -72.393175**

**Analysis Result:**

**Max Structural Usage: 87.3% Pass**

**Report Prepared By: Anita Lama**





**Tower Engineering Solutions**

Phone (972) 483-0607, Fax (972) 975-9615  
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### **Analysis Result:**

**Max Structural Usage: 87.3% Pass**

**Report Prepared By: Anita Lama**

## **Introduction**

The purpose of this report is to summarize the analysis results on the (3) T-arms at 172.00' elevation to support the proposed antenna configuration. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

## **Sources of Information**

Mount Drawings	Mount Mapping by Full Metal Tower Services, dated 04/19/2019.
Antenna Loading	SBA, Application #: 183549, v1
Modification Drawings	TES Project No. 81108 dated 7/23/2019

## **Analysis Criteria**

Basic Wind Speed Used in the Analysis:  $V_{ULT} = 130$  mph (3-Sec. Gust) / Equivalent to  
 $V_{ASD} = 101$  mph (3-Sec. Gust)

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

Operational Wind Speed: 60 mph +0" Radial ice

Standard/Codes: ANSI/TIA/EIA 222-G/ 2015 IBC / 2018 Connecticut State Building

Exposure Category: B

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**

(3) T-arms at 172.00' elevation

## **Final Antenna Configuration**

- 3 Ericsson AIR6449 B41 @172'
- 3 RFS APXVAALL24-43-U-NA20 @170'
- 3 Commscope VV-65A-R1 @172'
- 3 Ericsson KRY 112 144/1@172'
- 3 Ericsson KRY 112 489/2 @172'
- 3 Ericsson 4449 B71 + B85 @172'
- 3 Ericsson 4460 B25 + B66 @172'
- 3 Kathrein 782 11056 @172'



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

### **Analysis Results**

Our calculations have determined that under design wind load the existing mounts will be structurally adequate to support the proposed antenna configuration. The maximum structural usage is 87.3%, which occurs in the mount pipe. The proposed equipment must be installed as stipulated in the Final Antenna Configuration section of this report. The analysis results are void if the proposed equipment is not installed in accordance with this report.

### **Attachments**

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

## **Standard Conditions**

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



Sector: **A**

1/6/2022

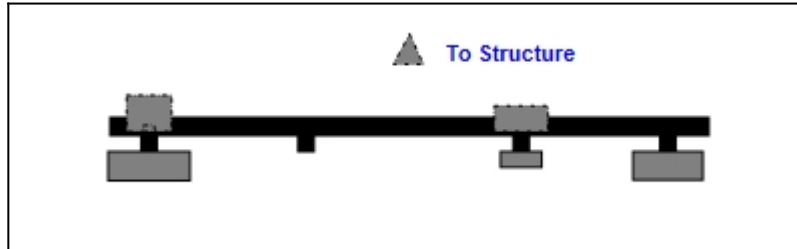
Structure Type: Monopole

Mount Elev: 172.00

Page: 1

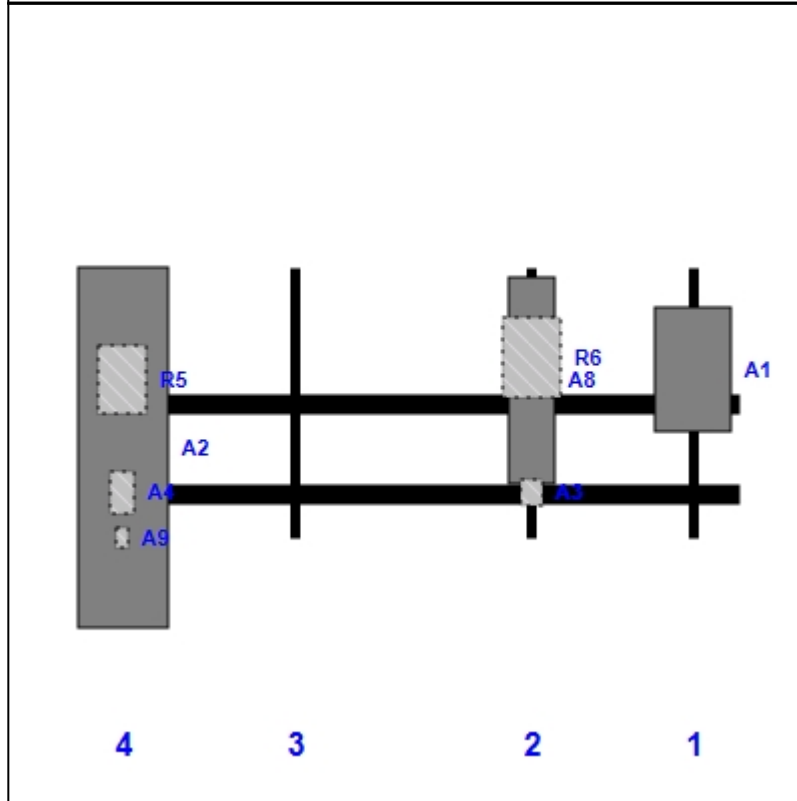


Plan View



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	AIR6449 B41	33.10	20.50	164.00	1	a	Front	27.00			
A8	VV-65A-R1	54.72	12.08	121.00	2	a	Front	30.00			
A3	KRY 112 144/1	6.90	6.10	121.00	2	a	Behind	60.00			
R6	4460 B25 + B66	21.80	15.70	121.00	2	a	Behind	24.00			
A2	APXVAALL24-43-U-NA20	95.90	24.00	12.00	4	a	Front	48.00			
A4	KRY 112 489/2	11.00	6.10	12.00	4	a	Behind	60.00			
R5	4449 B71 + B85	17.90	13.20	12.00	4	a	Behind	30.00			
A9	Kathrein 782 11056	5.50	3.20	12.00	4	a	Behind	72.00			

Sector: **B**

1/6/2022

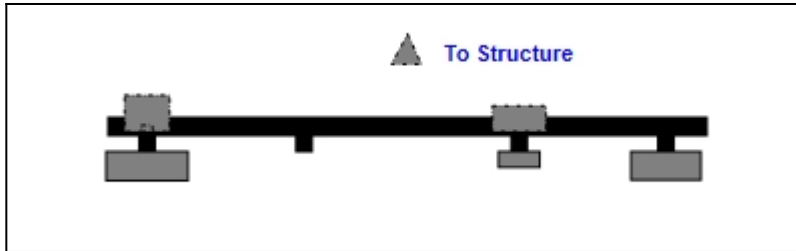
Structure Type: Monopole

Mount Elev: 172.00

Page: 2

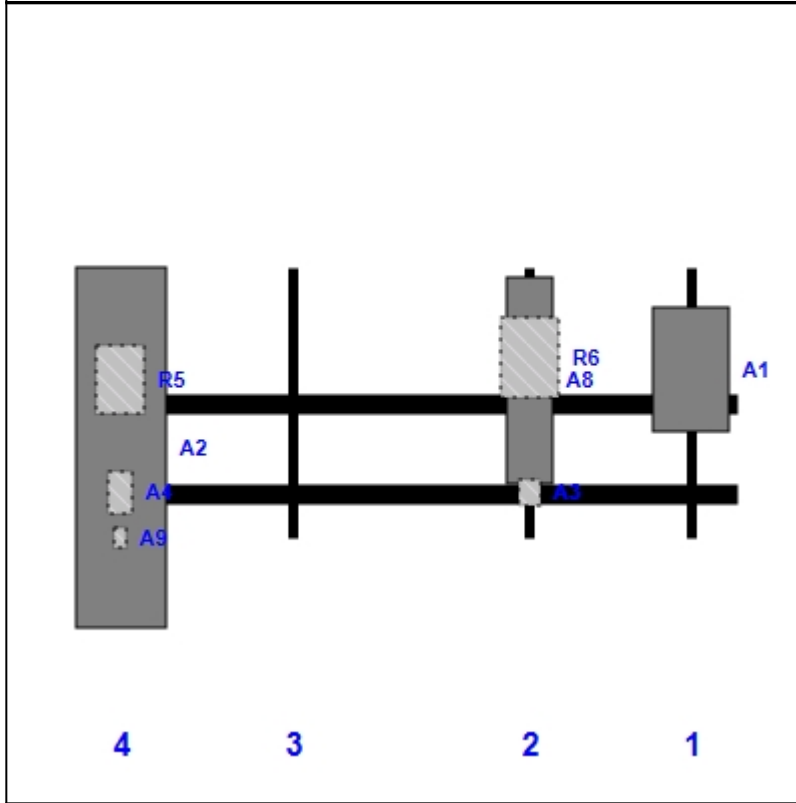


Plan View



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	AIR6449 B41	33.10	20.50	164.00	1	a	Front	27.00			
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R6	4460 B25 + B66	21.80	15.70	121.00	2	a	Behind	24.00			
A2	APXVAALL24-43-U-NA20	95.90	24.00	12.00	4	a	Front	48.00			
A4	KRY 112 489/2	11.00	6.10	12.00	4	a	Behind	60.00			
R5	4449 B71 + B85	17.90	13.20	12.00	4	a	Behind	30.00			
A9	Kathrein 782 11056	5.50	3.20	12.00	4	a	Behind	72.00			

Sector: C

1/6/2022

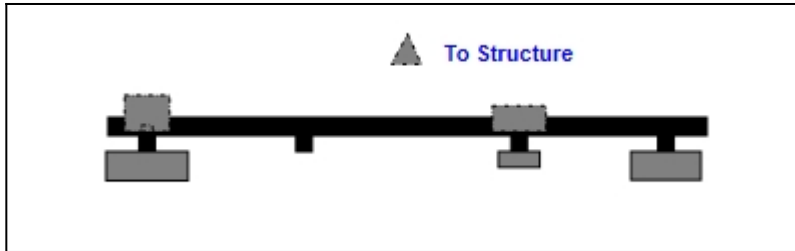
Structure Type: Monopole

Mount Elev: 172.00

Page: 3

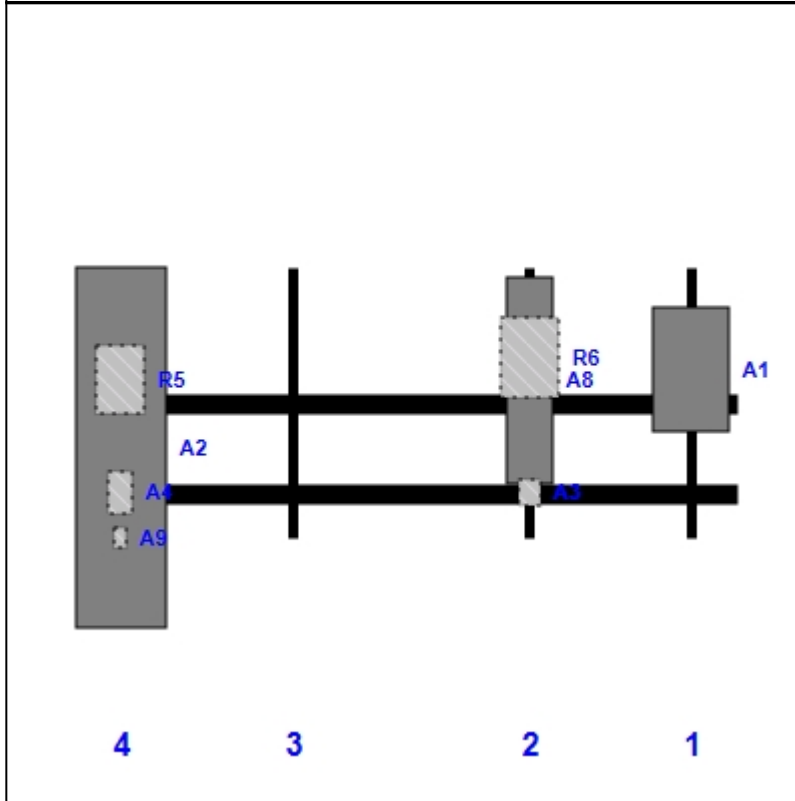


Plan View



Front View

Looking Toward Structure



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A1	AIR6449 B41	33.10	20.50	164.00	1	a	Front	27.00			
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R6	4460 B25 + B66	21.80	15.70	121.00	2	a	Behind	24.00			
A2	APXVAALL24-43-U-NA20	95.90	24.00	12.00	4	a	Front	48.00			
A4	KRY 112 489/2	11.00	6.10	12.00	4	a	Behind	60.00			
R5	4449 B71 + B85	17.90	13.20	12.00	4	a	Behind	30.00			
A9	Kathrein 782 11056	5.50	3.20	12.00	4	a	Behind	72.00			

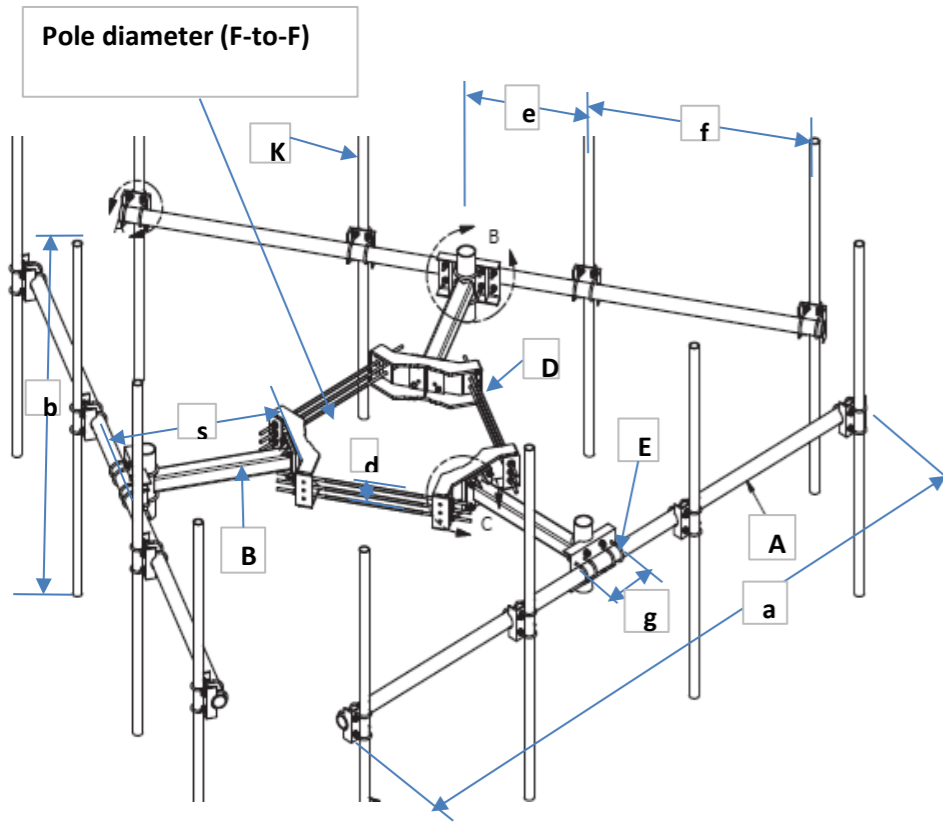


# Antenna Mount Type "MT-Z" Mapping Form (PATENT PENDING)

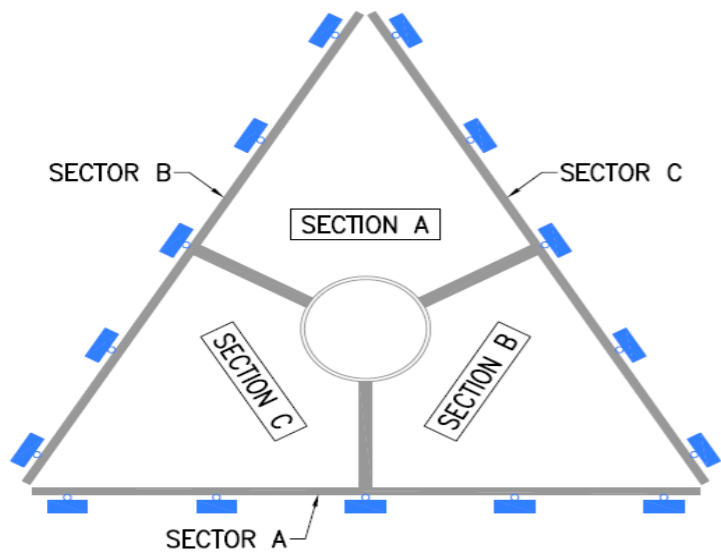
FCC #  
1232487

Tower Owner:	SBA Communications	Mapping Date:	4/29/19
Site Name:	Coventry 2 CT	Structure Type:	Monopole
Site Number or ID:	CT02573-S-SBA	Structure Height (Ft.):	176
Mapping Contractor:	Full Metal Tower Services	Mount Height (Ft.):	168.7

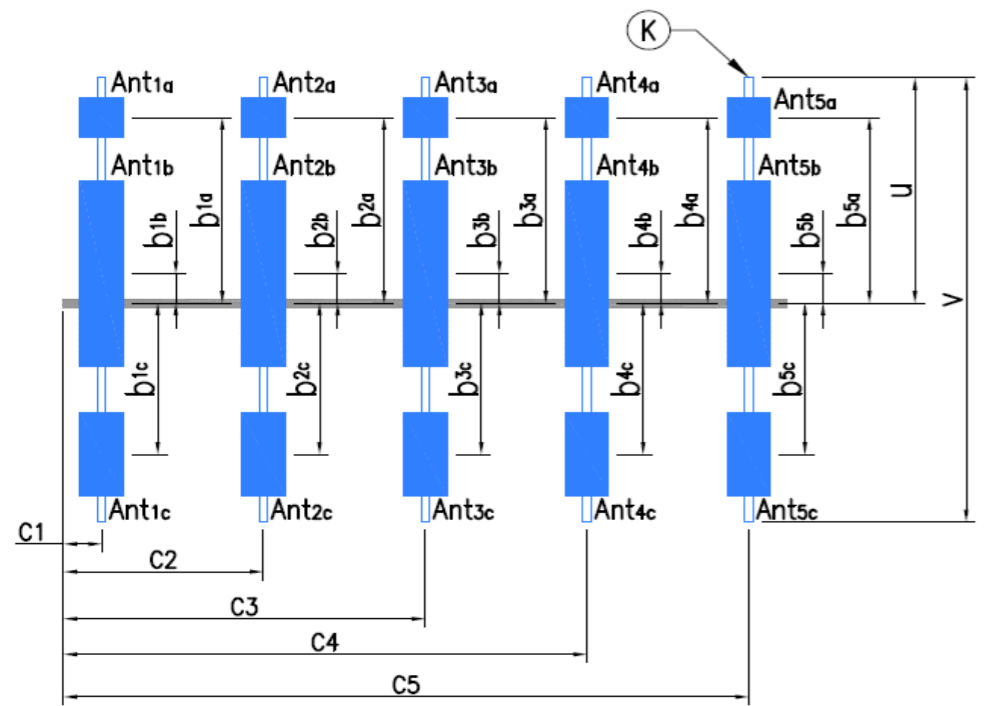
This antenna mapping form is the property of TES and under **PATENT PENDING**. The formation contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is 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	176	e	30	j	N/A	o	N/A	s	46
b	72	f	46	k	N/A	p	N/A	t	23
c	N/A	g	4	m	N/A	q	N/A	u *	36
d	6	h	N/A	n	N/A	r	N/A	v *	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	4.5 OD x 0.237 Pipe	4.5	4.026	0.237	F				
B	Tubing 4x4x1/4	4	4	0.25	G				
C					H				
D	5/8" Bolt		12		J				
E			Welded		K* (pipe)	2.375 OD x 0.154 Pipe	2.375	2.067	0.154
									Distance from top of main platform member to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.)
									Distance from top of main platform member to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.)
Please enter the information below if members can't be found from the drop down lists									



Climbing ladder is Located at Section C, at 260° Degree Azimuth



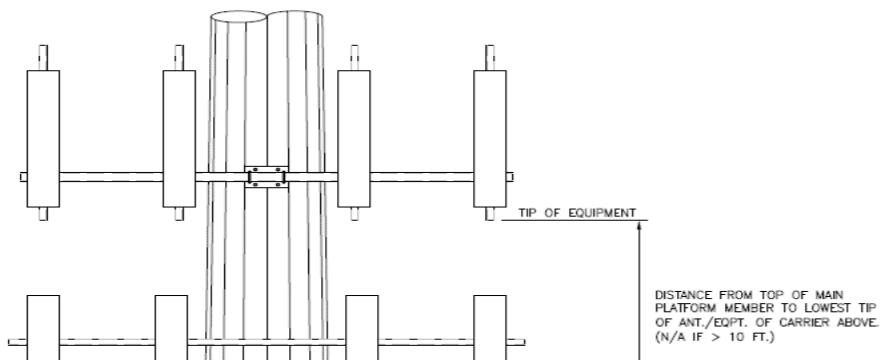
**Antenna Layout**

**Azimuth (Degree) of Each Sector and Climbing Information**

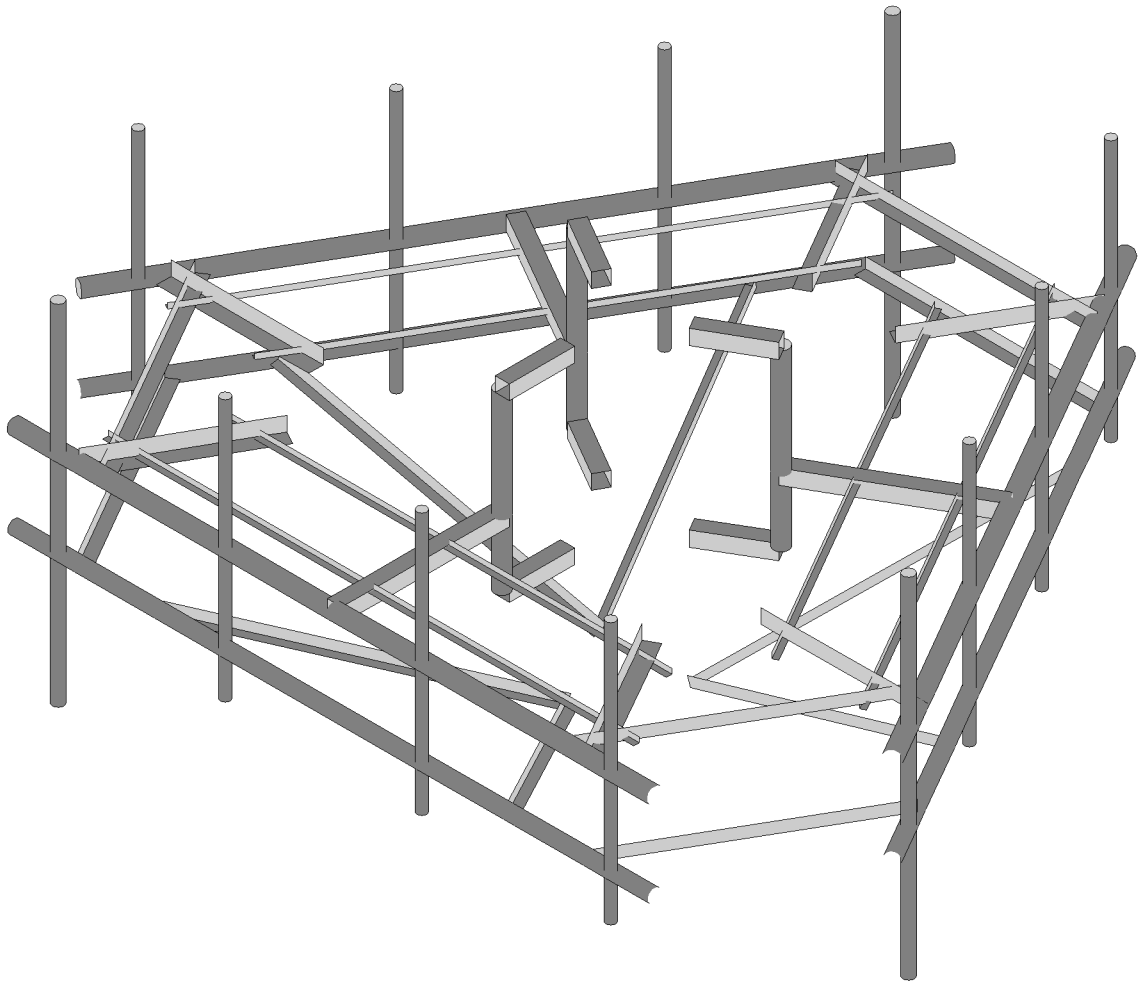
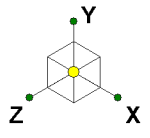
Sector A:	70°		Deg	
Sector B:	190°		Deg	
Sector C:	320°		Deg	
Climbing	260°		Deg	Located at Section C
Climbing Facility	Corrosion Type:	No corrosion observed		
	Access:	Climbing path was unobstructed.		
	Condition:	N/A		

Ants. Items	Enter antenna model. If not labeled, 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 <sub>1a</sub> , b <sub>2a</sub> , b <sub>3a</sub> , b <sub>1b</sub> ..." (In.)	Horiz. offset (Use "-" if Ant. is inside)	Horiz. offset "C <sub>1</sub> , C <sub>2</sub> , C <sub>3</sub> , C <sub>4</sub> , C <sub>5</sub> " (in.)	Photo Numbers
<b>Sector A</b>									
Ant <sub>1a</sub>									
Ant <sub>1b</sub>	Antenna A	8.5	3	56	1/2" (2)		6	12	
Ant <sub>1c</sub>									
Ant <sub>2a</sub>									
Ant <sub>2b</sub>	TMA A	6	4	12	1/2" (2)		N/A	28	
Ant <sub>2c</sub>									
Ant <sub>3a</sub>									
Ant <sub>3b</sub>	Empty Mast	N/A	N/A	N/A	N/A	N/A	N/A	118	
Ant <sub>3c</sub>									
Ant <sub>4a</sub>									
Ant <sub>4b</sub>	Antenna B	12	7.5	96.5	1/2" (2)		7	164	
Ant <sub>4c</sub>									
Ant <sub>5a</sub>									
Ant <sub>5b</sub>									
Ant <sub>5c</sub>									
Are Ant same as sector A?		Yes		<b>Antennas on Sector B are the same as Sector A</b>					

Are Ant same as sector A/B?		Same As A		<b>Antennas on Sector C are the same as Sector A</b>					
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DISTANCE FROM TOP OF MAIN PLATFORM MEMBER TO LOWEST TIP OF ANT./EQPT. OF CARRIER ABOVE. (N/A IF > 10 FT.)



Tower Engineering Solutio...

CT02573-S-SBA\_MT\_LO\_Loads Only\_G

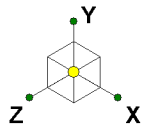
SK - 1

Jan 6, 2022 at 1:52 PM

TES Project No. 121434

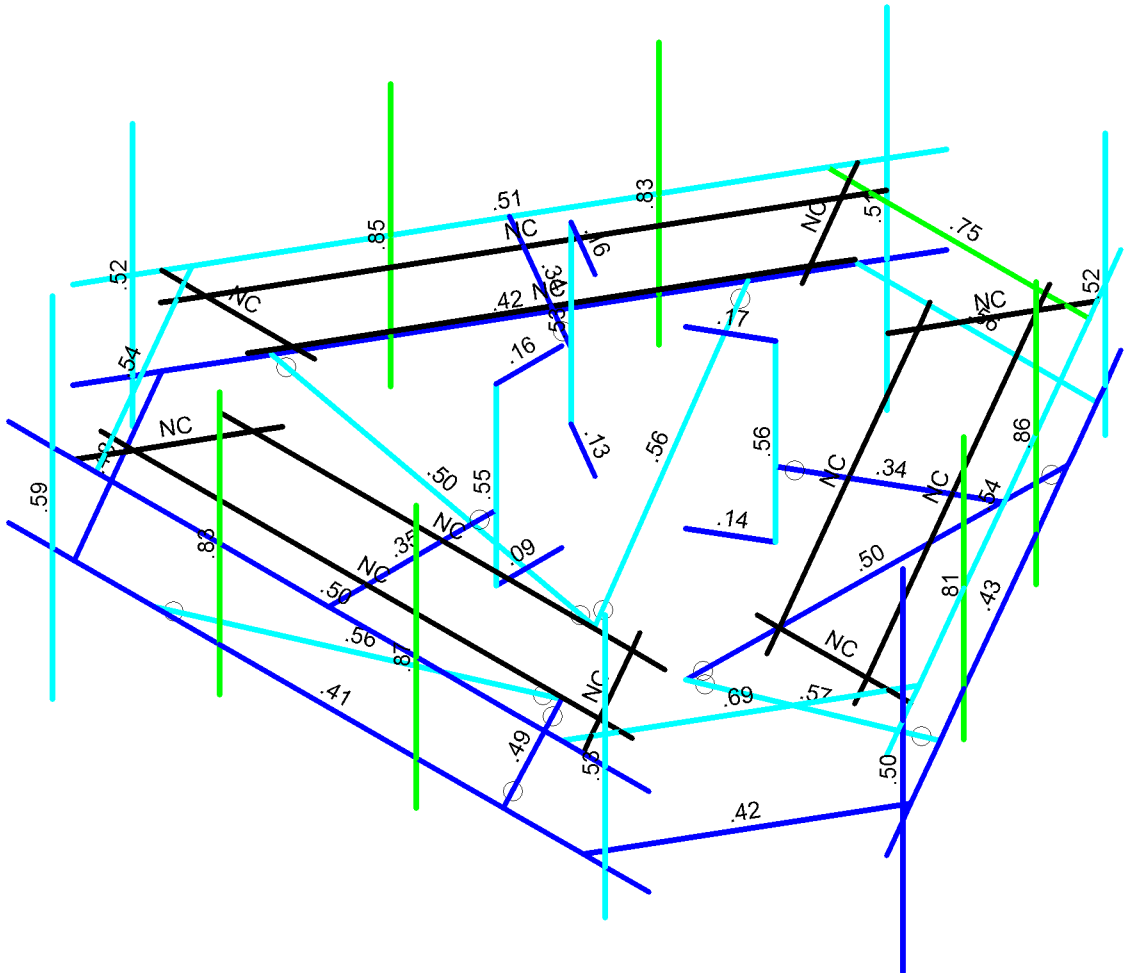
CT02573-S-SBA\_121434\_G\_RISA\_...





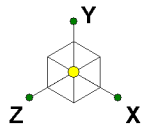
Code Check (Env)

Black	No Calc
Red	> 1.0
Magenta	.90-1.0
Green	.75-.90
Cyan	.50-.75
Blue	0-.50



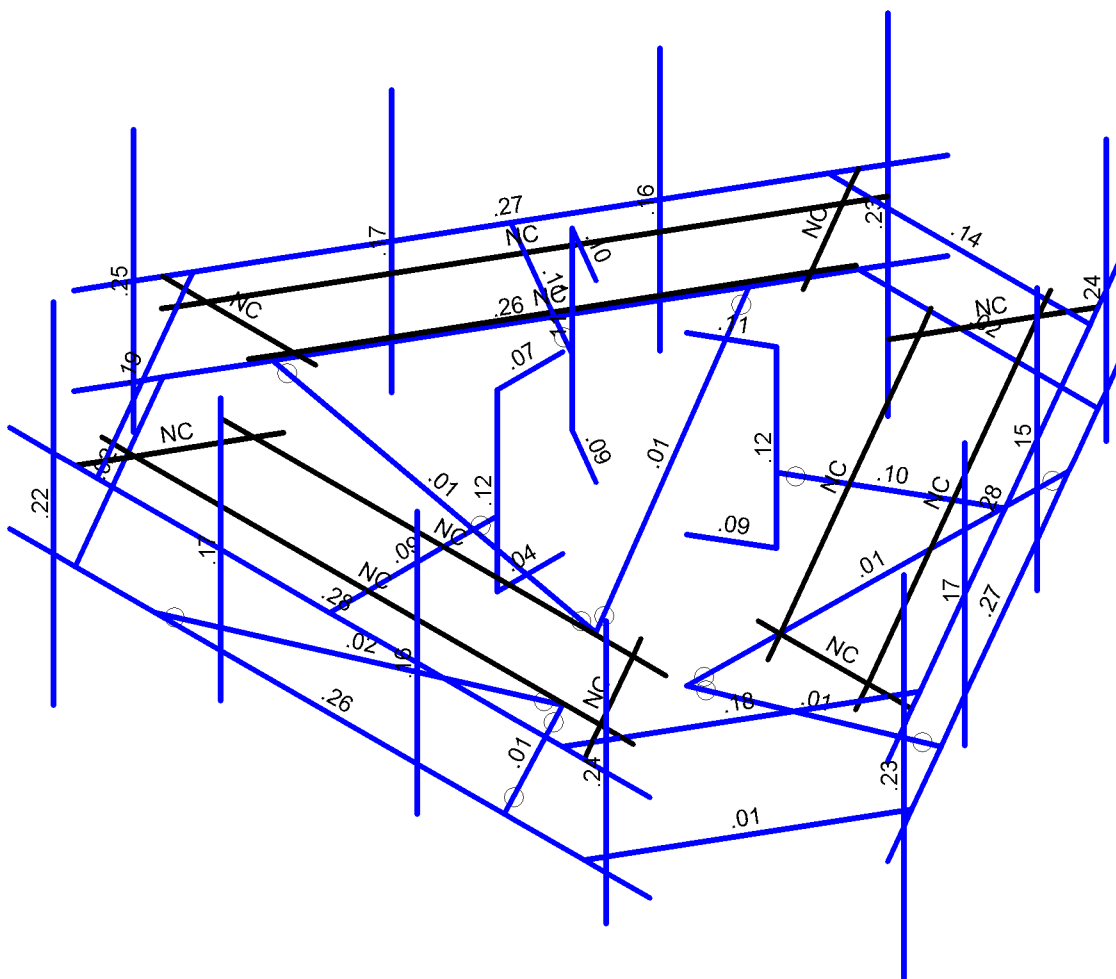
Member Code Checks Displayed (Enveloped)  
Results for LC 1, 1.2D+1.6W (Front)

Tower Engineering Solutio...	CT02573-S-SBA_MT_LO_Loads Only_G	SK - 2
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Shear Check  
(Env)

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



Member Shear Checks Displayed (Enveloped)  
Results for LC 1, 1.2D+1.6W (Front)

Tower Engineering Solutio...

CT02573-S-SBA\_MT\_LO\_Loads Only\_G

SK - 3

Jan 6, 2022 at 1:52 PM

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CT02573-S-SBA\_121434\_G\_RISA\_...















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# Exhibit F

## **Power Density/RF Emissions Report**

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

T-Mobile Existing Facility

Site ID: CT11515A

SBA - Coventry  
712 Bread and Milk Street  
Coventry, Connecticut 06238

**February 11, 2022**

**EBI Project Number: 6222000923**

Site Compliance Summary	
Compliance Status:	<b>COMPLIANT</b>
Site total MPE% of FCC general population allowable limit:	<b>28.95%</b>

February 11, 2022

T-Mobile

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

Emissions Analysis for Site: CT11515A - SBA - Coventry

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **712 Bread and Milk Street** in **Coventry, 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 712 Bread and Milk Street in Coventry, 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 power density calculations, the broadcast footprint of the AIR6449 antenna has been considered. Due to the beamforming nature of this antenna, the actual beam locations vary depending on demand and are narrow in nature. Using the broadcast footprint accounts for the potential location of beams at any given time.

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

- 1) 2 LTE channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 1 NR channel (600 MHz Band) was considered for each sector of the proposed installation. This Channel has a transmit power of 80 Watts.
- 3) 2 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 4) 4 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 5) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

- 6) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 7) 1 LTE Traffic channel (LTE IC and 2C BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 60 Watts.
- 8) 1 LTE Broadcast channel (LTE IC and 2C BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 20 Watts.
- 9) 1 NR Traffic channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 120 Watts.
- 10) 1 NR Broadcast channel (BRS Band - 2500 MHz) was considered for each sector of the proposed installation. This Channel has a transmit power of 40 Watts.
- 11) 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.
- 12) 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.
- 13) The antennas used in this modeling are the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24-43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz channel(s), the Commscope VV-65A-RI for the 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector A, the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24-43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz channel(s), the Commscope VV-65A-RI for the 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector B, the Ericsson AIR 6449 for the 2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAALL24-43-U-NA20 for the 600 MHz / 600 MHz / 700 MHz channel(s), the Commscope VV-65A-RI for the 1900 MHz / 1900 MHz / 2100 MHz channel(s) in Sector C. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels

are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

- 14) The antenna mounting height centerlines of the proposed antennas are 170 and 172 feet above ground level (AGL).
- 15) 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.
- 16) All calculations were done with respect to uncontrolled / general population threshold limits.

## T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449	Make / Model:	Ericsson AIR 6449
Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz
Gain:	22.35 dBd / 17.3 dBd / 22.35 dBd / 17.3 dBd	Gain:	22.35 dBd / 17.3 dBd / 22.35 dBd / 17.3 dBd	Gain:	22.35 dBd / 17.3 dBd / 22.35 dBd / 17.3 dBd
Height (AGL):	172 feet	Height (AGL):	172 feet	Height (AGL):	172 feet
Channel Count:	4	Channel Count:	4	Channel Count:	4
Total TX Power (W):	240.00 Watts	Total TX Power (W):	240.00 Watts	Total TX Power (W):	240.00 Watts
ERP (W):	34,144.54	ERP (W):	34,144.54	ERP (W):	34,144.54
Antenna A1 MPE %:	4.45%	Antenna B1 MPE %:	4.45%	Antenna C1 MPE %:	4.45%
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	RFS APXVAALL24-43-U-NA20	Make / Model:	RFS APXVAALL24-43-U-NA20	Make / Model:	RFS APXVAALL24-43-U-NA20
Frequency Bands:	600 MHz / 600 MHz / 700 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz	Frequency Bands:	600 MHz / 600 MHz / 700 MHz
Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.65 dBd
Height (AGL):	170 feet	Height (AGL):	170 feet	Height (AGL):	170 feet
Channel Count:	5	Channel Count:	5	Channel Count:	5
Total TX Power (W):	200.00 Watts	Total TX Power (W):	200.00 Watts	Total TX Power (W):	200.00 Watts
ERP (W):	4,151.83	ERP (W):	4,151.83	ERP (W):	4,151.83
Antenna A2 MPE %:	1.32%	Antenna B2 MPE %:	1.32%	Antenna C2 MPE %:	1.32%
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	Commscope VV-65A-RI	Make / Model:	Commscope VV-65A-RI	Make / Model:	Commscope VV-65A-RI
Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz	Frequency Bands:	1900 MHz / 1900 MHz / 2100 MHz
Gain:	15.55 dBd / 15.55 dBd / 16.05 dBd	Gain:	15.55 dBd / 15.55 dBd / 16.05 dBd	Gain:	15.55 dBd / 15.55 dBd / 16.05 dBd
Height (AGL):	172 feet	Height (AGL):	172 feet	Height (AGL):	172 feet
Channel Count:	8	Channel Count:	8	Channel Count:	8
Total TX Power (W):	360.00 Watts	Total TX Power (W):	360.00 Watts	Total TX Power (W):	360.00 Watts
ERP (W):	13,446.73	ERP (W):	13,446.73	ERP (W):	13,446.73
Antenna A3 MPE %:	1.75%	Antenna B3 MPE %:	1.75%	Antenna C3 MPE %:	1.75%

Site Composite MPE %	
Carrier	MPE %
T-Mobile (Max at Sector A):	7.53%
Dish	0.98%
Verizon	16.52%
AT&T	3.92%
<b>Site Total MPE % :</b>	<b>28.95%</b>

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	7.53%
T-Mobile Sector B Total:	7.53%
T-Mobile Sector C Total:	7.53%
<b>Site Total MPE % :</b>	<b>28.95%</b>

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 2500 MHz LTE IC & 2C Traffic	1	10307.45	172.0	13.45	2500 MHz LTE IC & 2C Traffic	1000	1.34%
T-Mobile 2500 MHz LTE IC & 2C Broadcast	1	1074.06	172.0	1.40	2500 MHz LTE IC & 2C Broadcast	1000	0.14%
T-Mobile 2500 MHz NR Traffic	1	20614.90	172.0	26.90	2500 MHz NR Traffic	1000	2.69%
T-Mobile 2500 MHz NR Broadcast	1	2148.13	172.0	2.80	2500 MHz NR Broadcast	1000	0.28%
T-Mobile 600 MHz LTE	2	591.73	170.0	1.58	600 MHz LTE	400	0.40%
T-Mobile 600 MHz NR	1	1577.94	170.0	2.11	600 MHz NR	400	0.53%
T-Mobile 700 MHz LTE	2	695.22	170.0	1.86	700 MHz LTE	467	0.40%
T-Mobile 1900 MHz GSM	4	1076.77	172.0	5.62	1900 MHz GSM	1000	0.56%
T-Mobile 1900 MHz LTE	2	2153.53	172.0	5.62	1900 MHz LTE	1000	0.56%
T-Mobile 2100 MHz LTE	2	2416.30	172.0	6.30	2100 MHz LTE	1000	0.63%
						<b>Total:</b>	<b>7.53%</b>

• 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:

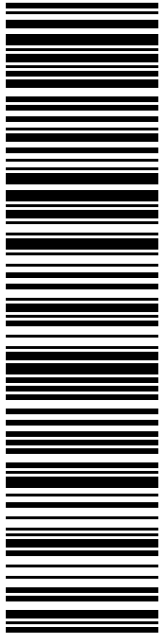
T-Mobile Sector	Power Density Value (%)
Sector A:	7.53%
Sector B:	7.53%
Sector C:	7.53%
T-Mobile Maximum MPE % (Sector A):	7.53%
Site Total:	28.95%
Site Compliance Status:	<b>COMPLIANT</b>

The anticipated composite MPE value for this site assuming all carriers present is **28.95%** 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.

# Exhibit G

## Recipient Mailings



**USPS TRACKING #**

**9405 5036 9930 0231 8341 45**

Electronic Rate Approved #038555749

**SHIP TO:** KRI PELLETIER  
SBA COMMUNICATIONS CORPORATION  
13 FLANDERS RD  
STE 125  
WESTBOROUGH MA 01581

**P**

04/25/2022

USPS.com  
**US POSTAGE**  
Flat Rate Env

**U.S. POSTAGE PAID**  
click-n-ship®


Mailed from 01566

**PRIORITY MAIL 1-DAY™**

DEBORAH CHASE  
NORTHEAST SITE SOLUTIONS  
420 MAIN ST  
STE 1  
STURBRIDGE MA 01566-1359

Expected Delivery Date: 04/26/22  
Ref#: SBCT-515A  
**0006**

**R005**



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- Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
- To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
- Mail your package on the "Ship Date" you selected when creating this label.


## Click-N-Ship® Label Record

<b>USPS TRACKING # :</b>	
<b>9405 5036 9930 0231 8341 45</b>	
Trans. #:	562057201
Print Date:	04/25/2022
Ship Date:	04/25/2022
Expected Delivery Date:	04/26/2022
Priority Mail® Postage:	<b>\$8.95</b>
Total:	<b>\$8.95</b>
<b>From:</b>	DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359
<b>To:</b>	KRI PELLETIER SBA COMMUNICATIONS CORPORATION 13 FLANDERS RD STE 125 WESTBOROUGH MA 01581
	Ref#: SBCT-515A
* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.	



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**UNITED STATES POSTAL SERVICE®**

**Click-N-Ship®**

**P**

USPS.com 9405 5036 9930 0231 8341 52 0089 5000 0010 6238

**US POSTAGE**  
Flat Rate Envoy

U.S. POSTAGE PAID  
click-n-ship®

04/25/2022 Mailed from 01566

**PRIORITY MAIL 3-DAY™**


Expected Delivery Date: 04/29/22  
Ref#: SBCT-515A  
**0006**

DEBORAH CHASE  
NORTHEAST SITE SOLUTIONS  
420 MAIN ST  
STE 1  
STURBRIDGE MA 01566-1359

**R013**

SHIP TO: ERIC TROTT  
COVENTRY DIRECTOR OF LAND USE  
1712 MAIN ST  
COVENTRY CT 06238-3615

**USPS TRACKING #**



**9405 5036 9930 0231 8341 52**

Electronic Rate Approved #038555749



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### Click-N-Ship® Label Record

**USPS TRACKING # :**  
**9405 5036 9930 0231 8341 52**

Trans. #: 562057201	Priority Mail® Postage: <b>\$8.95</b>
Print Date: 04/25/2022	Total: <b>\$8.95</b>
Ship Date: 04/25/2022	
Expected Delivery Date: 04/29/2022	

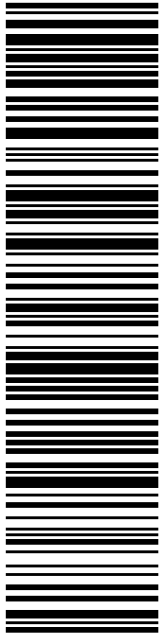
**From:** DEBORAH CHASE Ref#: SBCT-515A  
NORTHEAST SITE SOLUTIONS  
420 MAIN ST  
STE 1  
STURBRIDGE MA 01566-1359

**To:** ERIC TROTT  
COVENTRY DIRECTOR OF LAND USE  
1712 MAIN ST  
COVENTRY CT 06238-3615

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**USPS TRACKING #**

**9405 5036 9930 0231 8341 69**

Electronic Rate Approved #038555749

**SHIP TO:** JOHN ELESSER  
COVENTRY TOWN MANAGER  
1712 MAIN ST  
COVENTRY CT 06238-3615

**P**

04/25/2022

USPS.com 9405 5036 9930 0231 8341 69 0089 5000 0010 6238  
**US POSTAGE**  
Flat Rate Envoy

**U.S. POSTAGE PAID**  
Click-N-Ship®


Mailed from 01566

**PRIORITY MAIL 3-DAY™**

DEBORAH CHASE  
NORTHEAST SITE SOLUTIONS  
420 MAIN ST  
STE 1  
STURBRIDGE MA 01566-1359

Expected Delivery Date: 04/29/22  
Ref#: SBCT-515A  
**0006**

**R013**



**Click-N-Ship®**



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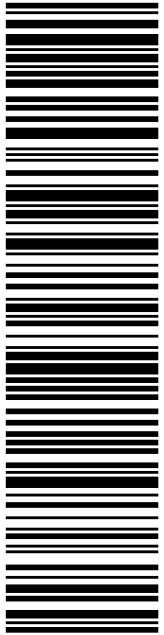
## Click-N-Ship® Label Record

<b>USPS TRACKING # :</b>	
<b>9405 5036 9930 0231 8341 69</b>	
Trans. #:	562057201
Print Date:	04/25/2022
Ship Date:	04/25/2022
Expected Delivery Date:	04/29/2022
Priority Mail® Postage:	<b>\$8.95</b>
Total:	<b>\$8.95</b>
<b>From:</b>	DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359
<b>To:</b>	JOHN ELESSER COVENTRY TOWN MANAGER 1712 MAIN ST COVENTRY CT 06238-3615
Ref#:	SBCT-515A

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**USPS TRACKING #**

**9405 5036 9930 0231 8341 76**

Electronic Rate Approved #038555749

**SHIP**

TO: LISA THOMAS  
TOWN COUNCIL CHAIR - COVENTRY  
1712 MAIN ST  
COVENTRY CT 06238-3615

**P**

**PRIORITY MAIL 3-DAY™**

DEBORAH CHASE  
NORTHEAST SITE SOLUTIONS  
420 MAIN ST  
STE 1  
STURBRIDGE MA 01566-1359

Expected Delivery Date: 04/29/22  
Ref#: SBCT-515A  
**0006**

**R013**

**UNITED STATES POSTAL SERVICE®**

**Click-N-Ship®**

USPS.com | 9405 5036 9930 0231 8341 76 0089 5000 0010 6238

**US POSTAGE**  
Flat Rate Envoy

**U.S. POSTAGE PAID**  
click-n-ship®

04/25/2022 | Mailed from 01566



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### Click-N-Ship® Label Record

**USPS TRACKING # :**  
**9405 5036 9930 0231 8341 76**

Trans. #: 562057201	Priority Mail® Postage: <b>\$8.95</b>
Print Date: 04/25/2022	Total: <b>\$8.95</b>
Ship Date: 04/25/2022	
Expected Delivery Date: 04/29/2022	

**From:** DEBORAH CHASE  
NORTHEAST SITE SOLUTIONS  
420 MAIN ST  
STE 1  
STURBRIDGE MA 01566-1359


Ref#: SBCT-515A

**To:** LISA THOMAS  
TOWN COUNCIL CHAIR - COVENTRY  
1712 MAIN ST  
COVENTRY CT 06238-3615

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usps.com 9405 5036 9930 0231 8341 83 0089 5000 0010 6238  
**US POSTAGE**  
 Flat Rate Env  
**U.S. POSTAGE PAID**  
Click-N-Ship®

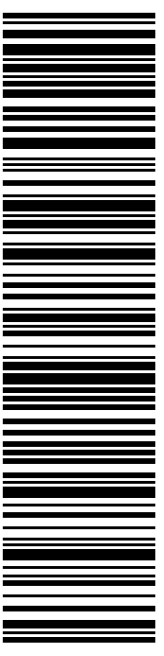
04/25/2022 Mailed from 01566

**PRIORITY MAIL 3-DAY™**

Expected Delivery Date: 04/29/22  
 Ref#: SBCT-515A  
**0006**

SHIP TO:  
 ROBERT NADEAU  
 2050 BOSTON TPKE  
 COVENTRY CT 06238-1110

**USPS TRACKING #**



**9405 5036 9930 0231 8341 83**

Electronic Rate Approved #038555749



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5. Mail your package on the "Ship Date" you selected when creating this label.

### Click-N-Ship® Label Record

**USPS TRACKING # :**  
**9405 5036 9930 0231 8341 83**

Trans. #: 562057201	Priority Mail® Postage: <b>\$8.95</b>
Print Date: 04/25/2022	Total: <b>\$8.95</b>
Ship Date: 04/25/2022	
Expected Delivery Date: 04/29/2022	

**From:** DEBORAH CHASE  
 NORTHEAST SITE SOLUTIONS  
 420 MAIN ST  
 STE 1  
 STURBRIDGE MA 01566-1359

Ref#: SBCT-515A

**To:** ROBERT NADEAU  
 2050 BOSTON TPKE  
 COVENTRY CT 06238-1110

\* Retail Pricing Priority Mail rates apply. There is no fee for USPS Tracking® service on Priority Mail service with use of this electronic rate shipping label. Refunds for unused postage paid labels can be requested online 30 days from the print date.



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CT11515A  
SBA-TMO



FARMINGTON  
210 MAIN ST  
FARMINGTON, CT 06032-9998  
(800)275-8777

04/26/2022 04:43 PM

Product	Qty	Unit Price	Price
Prepaid Mail Westborough, MA 01581 Weight: 0 lb 1.90 oz Acceptance Date: Tue 04/26/2022 Tracking #: 9405 5036 9930 0231 8341 45	1		\$0.00
Prepaid Mail Coventry, CT 06238 Weight: 0 lb 7.00 oz Acceptance Date: Tue 04/26/2022 Tracking #: 9405 5036 9930 0231 8341 52	1		\$0.00
Prepaid Mail Coventry, CT 06238 Weight: 0 lb 7.00 oz Acceptance Date: Tue 04/26/2022 Tracking #: 9405 5036 9930 0231 8341 69	1		\$0.00
Prepaid Mail Coventry, CT 06238 Weight: 0 lb 7.00 oz Acceptance Date: Tue 04/26/2022 Tracking #: 9405 5036 9930 0231 8341 76	1		\$0.00
Prepaid Mail Coventry, CT 06238 Weight: 0 lb 7.00 oz Acceptance Date: Tue 04/26/2022 Tracking #: 9405 5036 9930 0231 8341 83	1		\$0.00
Grand Total:			\$0.00