



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

May 25, 2022

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

RE: Exempt Modification Application
215 Coatney Hill Road, Woodstock, CT 06281
Latitude: 41.962030
Longitude: -72.018055
Site #: CT08748-A_CTNL181A_SBA/T-Mobile

Dear Ms. Bachman:

T-Mobile is requesting to file an exempt modification for an existing tower located at 215 Coatney Hill Road, Woodstock, CT 06281. T-Mobile currently maintains six (6) antennas at the 177-foot level of the existing 190-foot monopole tower. The property is owned by the Town of Woodstock, and the tower is owned by SBA. T-Mobile now intends to replace (3) antennas and install (3) antennas. The new antennas would be installed at the 177-foot level of the tower. This modification includes B2, B5 hardware that is both 4G (LTE), and 5G capable.

T-Mobile Planned Modifications:

Remove:

(2) Coax – 1-5/8"

Remove and Replace:

(3) RFS Antennas (REMOVE) - (3) ERICSSON AIR6449 B41 Antennas (REPLACE)

Install New:

(3) COMMScope VV-65A-R1 Antennas
(3) ERICSSON 4460 B25+B66 RRU
(1) HCS Fiber Cable 1.9"

Existing to Remain:

(3) RFS APXVAARR24-43-U-NA20 Antennas
(3) ERICSSON 4449 B71+B85 RRU
(3) HCS Fiber Cable 1-5/8"
(13) Coax – 1-5/8" *
(3) Twin TMAs – KRY 112 489/2 *
(3) Kathrein Bias-Ts *

*Equipment listed for entitlement purposed only



The facility was approved by the Town of Woodstock Planning & Zoning Commission on January 18, 2001. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-72(b)(2), 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 Jay Swan, First Selectman and Ashley Stevens, Zoning Enforcement Officer for the Town of Woodstock, 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



NORTHEAST
SITE SOLUTIONS

Turnkey Wireless Development

Attachments

Cc: Jay Swan, First Selectman & Property Owner
Town of Woodstock CT
415 Route 169
Woodstock, CT 06281-3039

Ashley Stevens, Zoning Enforcement Officer
Town of Woodstock CT
415 Route 169
Woodstock, CT 06281-3039

SBA - Tower Owner

Exhibit A

Original Facility Approval

000077

NOTICE OF SPECIAL PERMIT

Pursuant to Section 8-3c of the Connecticut General Statutes, notice is hereby given that on January 18, 2001 the Woodstock Planning and Zoning Commission:

1. Description of Premises:
Woodstock, Assessor Map 7276
Block 32 Lot 19A

2. Permit Granted:

Special Permit granted on condition maintenance agreement is executed as soon as lease is in effect.

(application No. SP438-00-11)

3. Name and address
Owner of record:

TOWN OF WOODSTOCK
Town Hall
415 Route 169
Woodstock, CT 06281

4. Name and address
of applicant:

MCF Communications, Inc.
668 Main Street
Suite 114
Wilmington, CT 01887

Dated at Woodstock, Connecticut, this 19th day of January, 2001.

This information certified by:

RECEIVED
TOWN CLERK, WOODSTOCK, CT

01 JAN 19 PM 1:40

Judith M. Roberts

Terry Beriman
Terry Beriman
Zoning Enforcement Officer

Permit No

8508

Dept. of Building Inspections
Town of Woodstock

BUILDING PERMIT

ADDRESS

215 Coatney Hill

OWNER

Town of Woodstock

DATE

June 15, 2001

WORK AUTHORIZED

Construction of Tower Site

Attach this Permit in Clear View

CALL 928-1388 FOR INSPECTIONS

Fred Belman

BUILDING OFFICIAL

CERTIFICATE OF USE AND OCCUPANCY
DEPARTMENT OF BUILDING INSPECTIONS
WOODSTOCK, CONNECTICUT

Certificate No. 1286

This is to certify that.....TOWN OF WOODSTOCK.....Map No. 7276
Owner

Located at Street:215 COATNEY HILL ROAD.....Block 32

Building Permit No.8508.....Lot No 19A

conforms substantially to the requirements of the Connecticut State Building Code, Sanitation Code, all the Zoning Ordinance of the Town of Woodstock and is hereby approved for occupancy as indicated below:

Type of Construction Use Group:

Conditions:

Occupancy Load

Live Loads

Fire Grading

Type of Structure CELLULAR TOWER

Date 8-26-01


BUILDING OFFICIAL

Any change or extension of the use herein approved requires a new certificate

WHITE: APPLICANT YELLOW: ASSESSOR PINK: BUILDING OFFICE GOLD: FILE

Exhibit B

Property Card



neccog

Neccog GIS Site



1: 2,257



0.1 0 0.04 0.1 Miles

WGS_1984_Web_Mercator_Auxiliary_Sphere
© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Legend

- Town
- Buildings 2012
- Parcels

Notes

Enter Map Description

215 COATNEY HILL RD

Location 215 COATNEY HILL RD

Mblu 7276/ 32/ 19A/ /

Acct# W0438400

Owner WOODSTOCK TOWN OF

Assessment \$825,500

Appraisal \$1,179,000

PID 4525

Building Count 2

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$919,500	\$259,500	\$1,179,000
Assessment			
Valuation Year	Improvements	Land	Total
2016	\$643,800	\$181,700	\$825,500

Owner of Record

Owner	WOODSTOCK TOWN OF	Sale Price	\$0
Co-Owner	TOWN GARAGE	Certificate	1
Address	415 RT 169	Book & Page	62/ 315
	WOODSTOCK , CT 06281-3039	Sale Date	09/14/1967

Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
WOODSTOCK TOWN OF	\$0	1	62/ 315	09/14/1967

Building Information

Building 1 : Section 1

Year Built:	1970
Living Area:	4,600
Replacement Cost:	\$208,028
Building Percent Good:	56
Replacement Cost	
Less Depreciation:	\$116,500

Building Attributes

Field	Description
STYLE	Pre-Eng Garage
MODEL	Commercial
Grade	Average
Stories:	1.00
Occupancy	1
Exterior Wall 1	Pre-finish Metl
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Enam Mtl Shing
Interior Wall 1	Minimum
Interior Wall 2	
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	
Heating Fuel	Gas
Heating Type	Hot Air-No Duc
AC Type	None
Bldg Use	Commercial
Sprinkler Type	
Sprinkler %	
Mezzanine Fin.	
Mezanine Unf.	1120
1st Floor Use:	200
Heat/AC	None
Frame Type	Steel
Baths/Plumbing	Average
Ceiling/Walls	Susp Ceil Only
Rooms/Prtns	Average
Wall Height	14
% Comn Wall	

Building 1 : Section 2

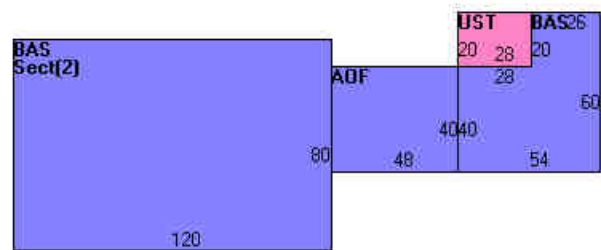
Year Built:	2011
Living Area:	9,600
Replacement Cost:	\$403,200
Building Percent Good:	90
Replacement Cost	
Less Depreciation:	\$362,900
Building Attributes : Section 2 of 2	
Field	Description
STYLE	Pre-Eng Garage
MODEL	Commercial

Building Photo



(<http://images.vgsi.com/photos/WoodstockCTPhotos/\00\00\46\96.jpg>)

Building Layout



(http://images.vgsi.com/photos/WoodstockCTPhotos//Sketches/4525_4525)

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	2,680	2,680
AOF	Office Area	1,920	1,920
UST	Utility Storage	560	0
		5,160	4,600

Grade	Average
Stories:	1.00
Occupancy	1
Exterior Wall 1	Pre-finish Metl
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Metal/Tin
Interior Wall 1	Minimum
Interior Wall 2	Drywall
Interior Floor 1	Concrete
Interior Floor 2	Carpet
Heating Fuel	Oil
Heating Type	Radiant
AC Type	None
Bldg Use	Commercial
Sprinkler Type	
Sprinkler %	
Mezzanine Fin.	
Mezanine Unf.	800
1st Floor Use:	200
Heat/AC	None
Frame Type	Steel
Baths/Plumbing	Average
Ceiling/Walls	Susp Ceil Only
Rooms/Prtns	Average
Wall Height	14
% Comn Wall	

Building 2 : Section 1

Year Built:	2011
Living Area:	11,282
Replacement Cost:	\$315,827
Building Percent Good:	70
Replacement Cost	
Less Depreciation:	\$221,100

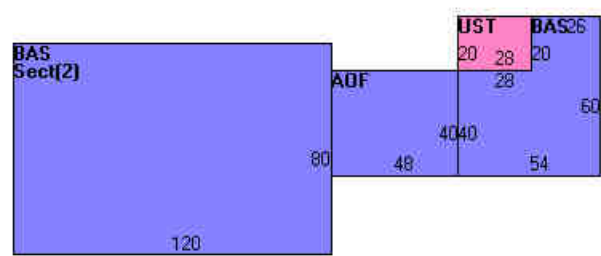
Building Attributes : Bldg 2 of 2	
Field	Description
STYLE	Warehouse
MODEL	Commercial
Grade	Below Average
Stories:	1

Building Photo



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

Building Layout



(http://images.vgsi.com/photos/WoodstockCTPhotos/Sketches/4525_4525)

Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	9,600	9,600
		9,600	9,600

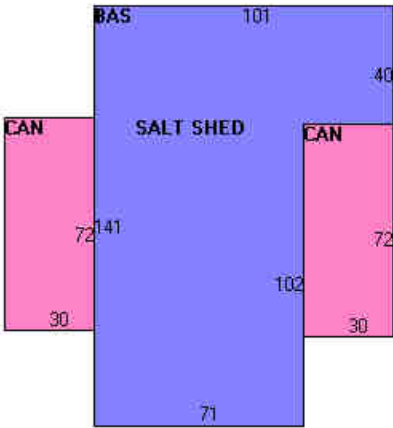
Occupancy	1
Exterior Wall 1	Board & Batten
Exterior Wall 2	
Roof Structure	Gable
Roof Cover	Enam Mtl Shing
Interior Wall 1	Minimum
Interior Wall 2	
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	
Heating Fuel	Oil
Heating Type	None
AC Type	None
Bldg Use	Mun Bldg Com
Sprinkler Type	
Sprinkler %	
Mezzanine Fin.	
Mezanine Unf.	
1st Floor Use:	
Heat/AC	None
Frame Type	Masonry
Baths/Plumbing	Light
Ceiling/Walls	None
Rooms/Prtns	Light
Wall Height	18
% Comn Wall	

Building Photo



(http://images.vgsi.com/photos/WoodstockCTPhotos/default.jpg)

Building Layout



(http://images.vgsi.com/photos/WoodstockCTPhotos/Sketches/4525_1002

Building Sub-Areas (sq ft)			<u>Legend</u>
Code	Description	Gross Area	Living Area
BAS	First Floor	11,282	11,282
CAN	Canopy	4,320	0
		15,602	11,282

Extra Features

Extra Features				<u>Legend</u>
Code	Description	Size	Value	Bldg #
	LUMP SUM -	1800	\$0	1
XKIT	Addnl. Kitchen	1 UNITS	\$1,400	1

Land

Land Use

Use Code 922

Land Line Valuation

Size (Acres) 8.3

Description Mun Bldg Com
Zone
Neighborhood
Alt Land Appr No
Category

Frontage
Depth
Assessed Value \$181,700
Appraised Value \$259,500

Outbuildings

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
SHD1	Shed	FR	Frame	360 S.F.	\$4,100	2
SHD1	Shed	FR	Frame	200 S.F.	\$2,300	2
FN3	Fence 6'			316 L.F.	\$5,200	2
PAV1	Paving Asph.			68566 S.F.	\$119,300	1
CNP	Canopy			576 S.F.	\$2,800	1
FN3	Fence 6'			320 L.F.	\$2,900	1
SHD2	Pre Cast Cell			360 S.F.	\$40,500	1
SHD2	Pre Cast Cell			360 S.F.	\$40,500	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2019	\$919,500	\$259,500	\$1,179,000
2018	\$919,500	\$259,500	\$1,179,000
2017	\$919,500	\$259,500	\$1,179,000

Assessment			
Valuation Year	Improvements	Land	Total
2019	\$643,800	\$181,700	\$825,500
2018	\$643,800	\$181,700	\$825,500
2017	\$643,800	\$181,700	\$825,500

Exhibit C

Construction Drawings

NL181/MCF WOODSTOCK

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

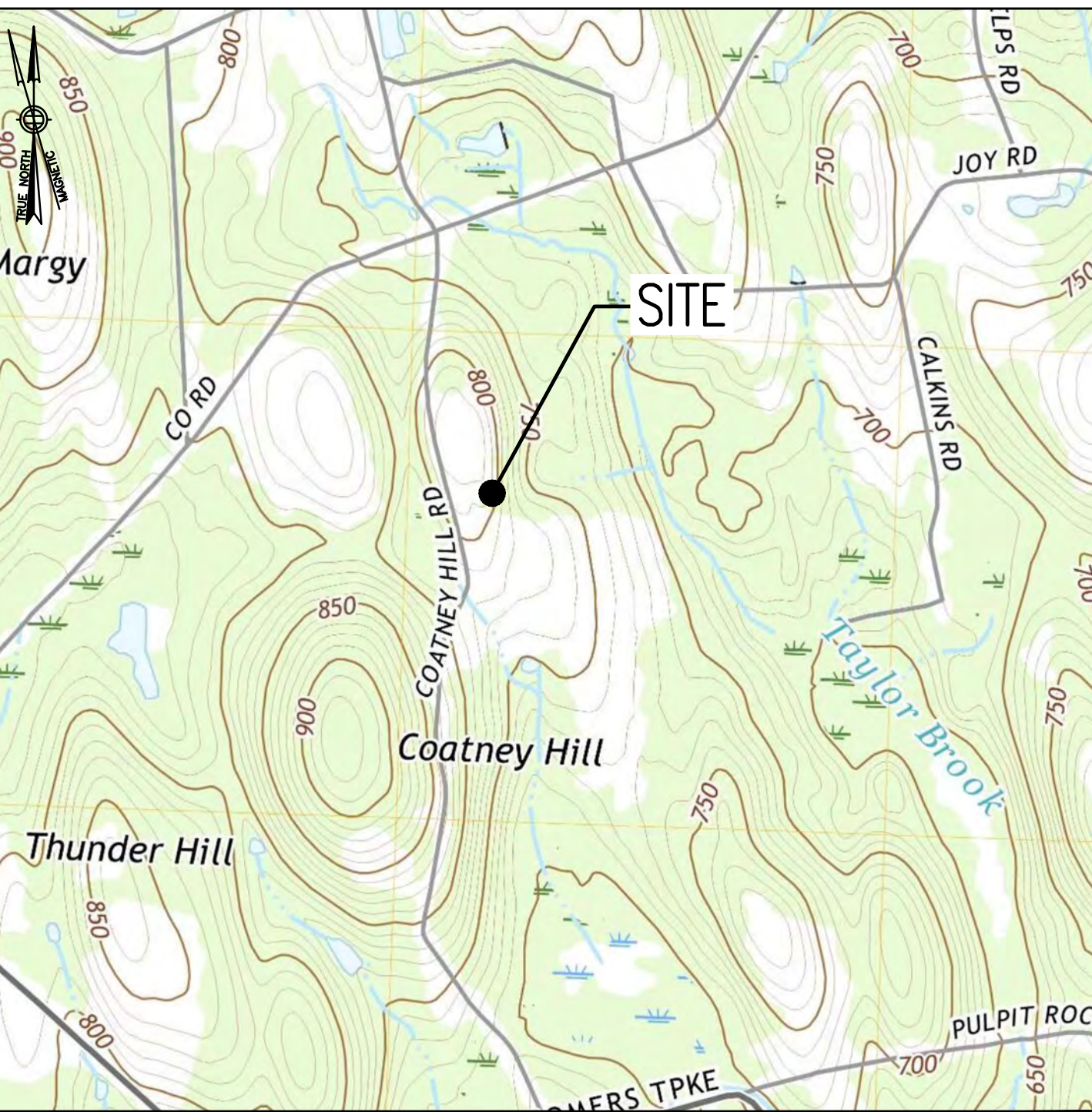
- THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT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

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



VICINITY MAP

SCALE: 1" = 1000'-0"



DIRECTIONS

TURN LEFT ONTO S WASHINGTON ST. TURN RIGHT ONTO MA-123 E. TURN LEFT TO MERGE ONTO I-495 NORTH TOWARD MANSFIELD/MARLBORO. MERGE ONTO I-495 NORTH. TAKE EXIT 58 TO MERGE ONTO I-90 WEST. TAKE EXIT 90 FOR I-395 S/I-290 E TOWARD WORCESTER. KEEP RIGHT AT THE FORK, FOLLOW SIGNS FOR I-395 S/NEW LONDON AND MERGE ONTO I-395 S. TAKE EXIT 2 TO MERGE ONTO MA-16 W/E MAIN ST TOWARD WEBSTER. CONTINUE ON E MAIN ST. TAKE CT-197 W/OLD TURNPIKE RD TO COATNEY HILL RD IN WOODSTOCK. MERGE ONTO MA-16 W/E MAIN ST. CONTINUE TO FOLLOW E MAIN ST. ENTERING CONNECTICUT. CONTINUE ONTO CT-197 W/OLD TURNPIKE RD. TURN LEFT ONTO CT-169 S. TURN RIGHT ONTO COUNTY RD. TURN LEFT ONTO COATNEY HILL RD. DESTINATION WILL BE ON THE LEFT.

215 COATNEY HILL ROAD
WOODSTOCK, CT 06281
WINDHAM COUNTY

SITE NO.: CTNL181A

SITE TYPE: 190'± MONOPOLE

RF DESIGN GUIDELINE: 67D5D998E ODE+6160

SCOPE OF WORK

REMOVE:	INSTALL:
3 ANTENNAS - ALL TMAs - ALL COAX CABLES	6 ANTENNAS 3 RADIOS 1 HYBRID FIBER CABLES 1 6160 EQUIPMENT CABINET 1 6160 BATTERY CABINET 1 SLACKBOX 1 150A-2P BREAKER 2 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.

SHEET INDEX

SHEET NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	0
GN-1	GENERAL NOTES	0
A-1	COMPOUND & EQUIPMENT PLANS	0
A-2	TOWER ELEVATIONS & ANTENNA PLANS	0
A-3	SITE DETAILS	0
A-4	ANTENNA & FEEDLINE CHARTS	0
S-1	ANTENNA & RADIO MOUNTING DETAIL	0
E-1	ELECTRIC & GROUNDING DETAILS	0

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: CTNL181A
SITE NAME: NL181/MCF WOODSTOCK
SBA SITE NUMBER: CT08748-A
SBA SITE NAME: WOODSTOCK 4, CT
SITE ADDRESS: 215 COATNEY HILL ROAD WOODSTOCK, CT 06281
PROPERTY OWNER: MCF COMMUNICATIONS, INC. 31 ASHWOOD AVENUE WILMINGTON, MA 01887-4403
TOWER OWNER: SBA TOWERS V, LLC 8501 CONGRESS AVENUE BOCA RATON, FL 33487 PHONE: 561-226-9523
COUNTY: WINDHAM
ZONING DISTRICT: COMMUNITY DISTRICT
STRUCTURE TYPE: MONOPOLE
STRUCTURE HEIGHT: 190'±
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: N.41.9623° (41°-57'-44.15") LONGITUDE W.-72.0187° (72°-01'-07.16")

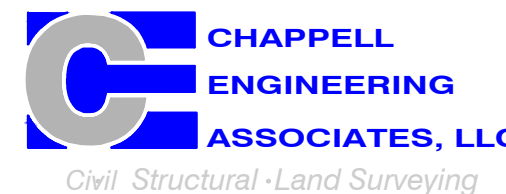
SPECIAL ZONING NOTE:
BASED ON INFORMATION PROVIDED BY T-MOBILE REGULATORY COMPLIANCE PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409(A), AND IS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

..T..Mobile..

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (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
0	04/07/22	ISSUED FOR CONSTRUCTION	BDJ

SITE NUMBER:
CTNL181A
SITE ADDRESS:
215 COATNEY HILL ROAD
WOODSTOCK, CT 06281

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

GENERAL NOTES:

1. 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
2. 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.
3. 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.
4. 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.
5. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
9. 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.
10. 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.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.
13. 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.
14. 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.
15. CONSTRUCTION SHALL COMPLY WITH ALL T-MOBILE STANDARDS AND SPECIFICATIONS.
16. 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.
17. 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.
18. 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:

1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
2. 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.
3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
5. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
6. 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.
7. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
8. 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.
9. 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.
10. 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.
11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T-MOBILE SPECIFICATION FOR SITE SIGNAGE.

CONCRETE AND REINFORCING STEEL NOTES:

1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.
2. 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
3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
CONCRETE CAST AGAINST EARTH.....3 IN.
CONCRETE EXPOSED TO EARTH OR WEATHER:
#6 AND LARGER2 IN.
#5 AND SMALLER & WWF1½ IN.
CONCRETE NOT EXPOSED TO EARTH OR WEATHER
OR NOT CAST AGAINST THE GROUND:
SLAB AND WALL¾ IN.
BEAMS AND COLUMNS1½ IN.
5. A CHAMFER ¾" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
6. 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.
7. 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.
8. 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.
9. 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:

1. 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".
2. 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.
3. 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.
4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE ¾" DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL
6. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

SOIL COMPACTION NOTES FOR SLAB ON GRADE:

1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
3. 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.
4. 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.
5. 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:

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

CONSTRUCTION NOTES:

1. FIELD VERIFICATION:
SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T-MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.
2. COORDINATION OF WORK:
SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
3. 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:

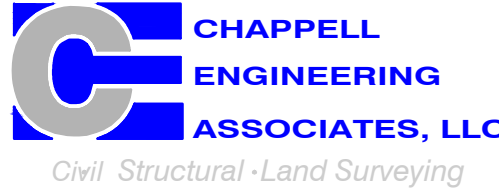
1. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
2. SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND TELCORDIA.
4. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
5. 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.
6. POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ½ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSHA.
7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATINGS, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
10. 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.
11. 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.
12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
13. 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.
14. 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).
15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
17. 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.
18. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE GRADE.
20. 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.
21. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
23. CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
24. CABINETS, BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
25. 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.
26. 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.
27. 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.
28. 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.
29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
30. 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.
31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

..T-Mobile..

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (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
0	04/07/22	ISSUED FOR CONSTRUCTION	BDJ

SITE NUMBER:
CTNL181A

SITE ADDRESS:
215 COATNEY HILL ROAD
WOODSTOCK, CT 06281

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-1

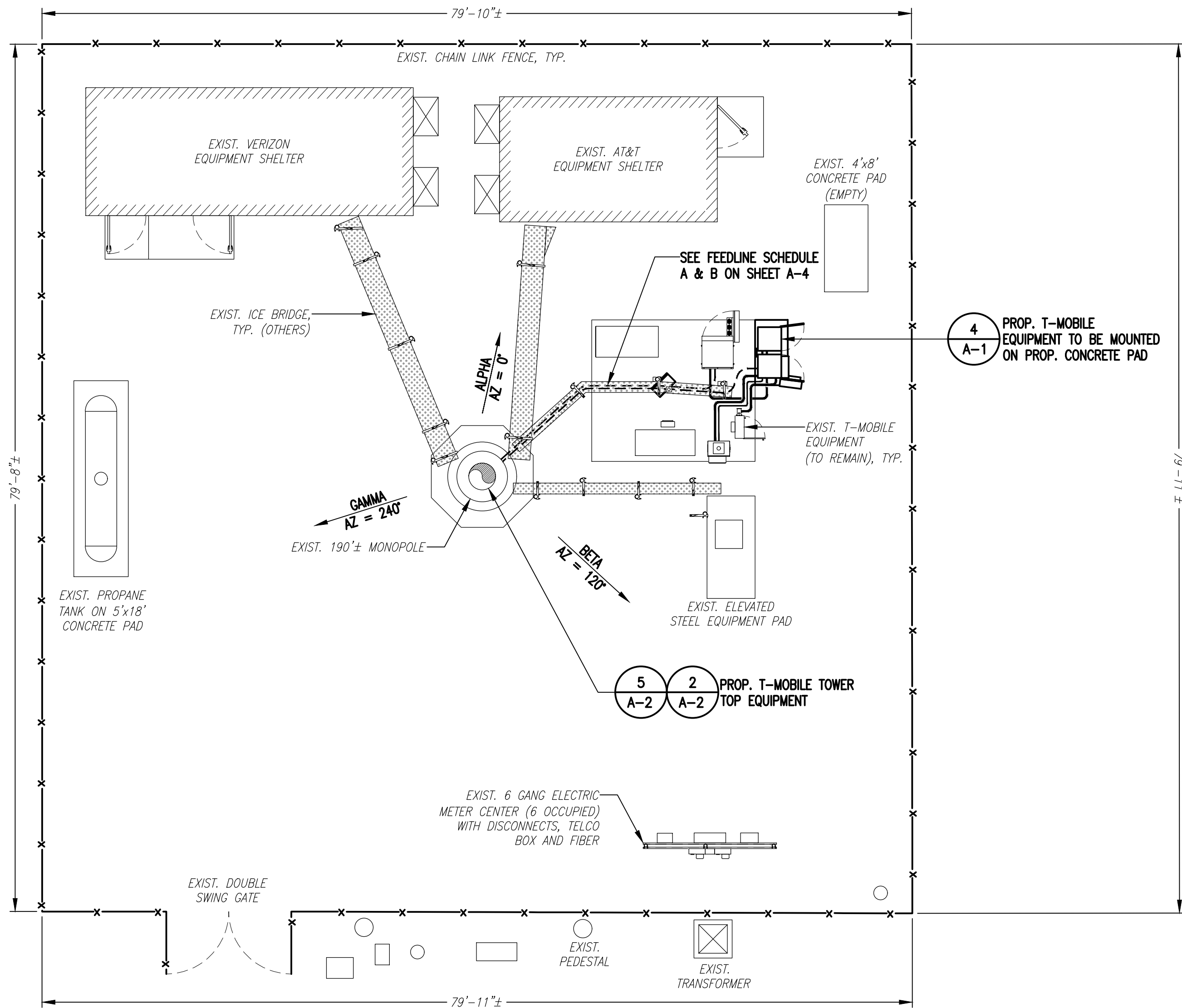
SPECIAL PRE-CONSTRUCTION WORK NOTE (SBA-PROVIDED TOWER STRUCTURAL ANALYSIS SPECIAL EQUIPMENT INSTALLATION REQUIREMENTS):
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM
SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY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

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



EXISTING EQUIPMENT PHOTO DETAIL
SCALE: NTS

2
A-1

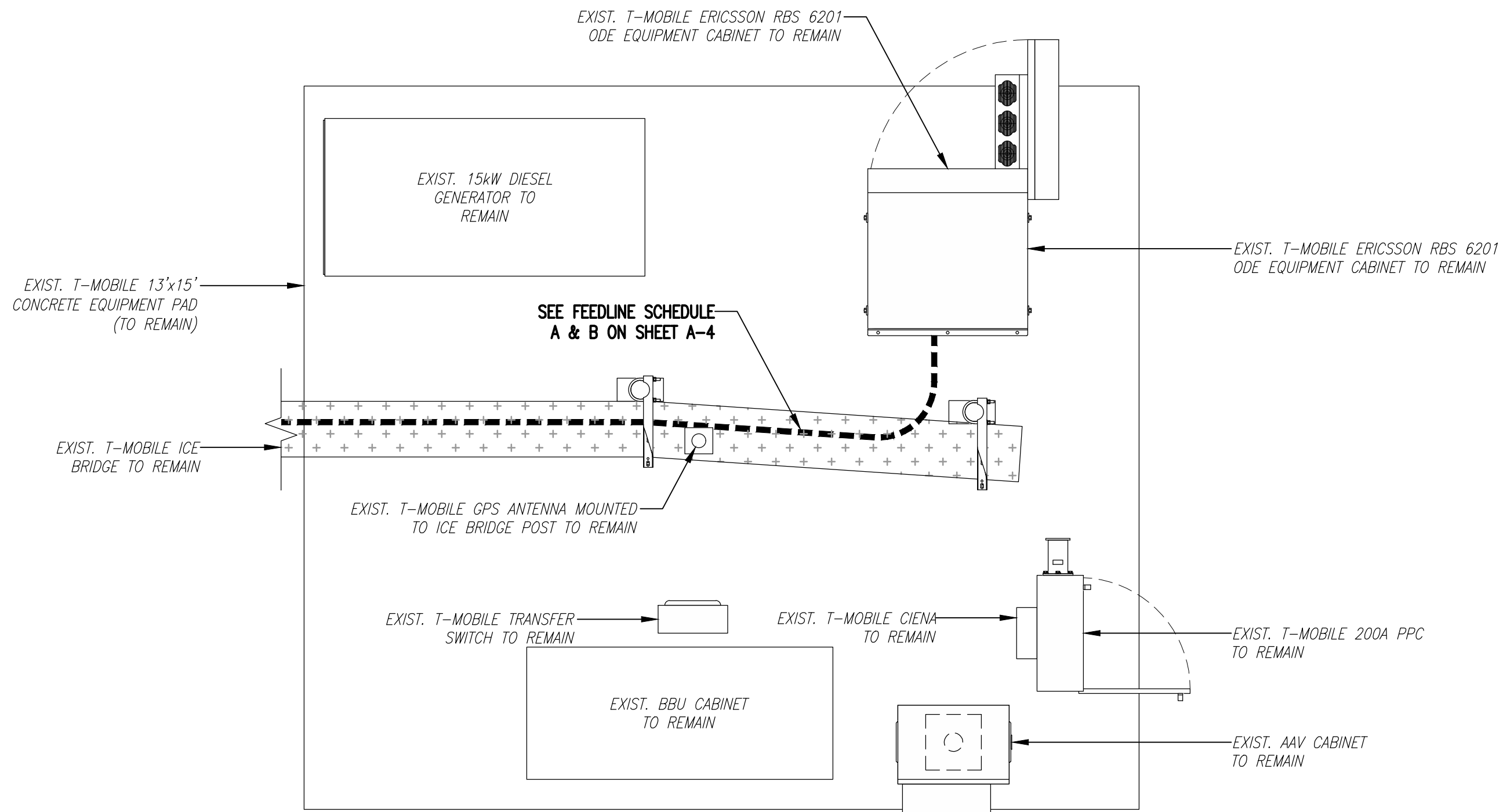


T-MOBILE TO
UTILIZE EXIST.
SITE ACCESS

COMPOUND PLAN
SCALE: 1" = 8'-0"

0 4'-0" 8'-0" 16'-0" 24'-0"

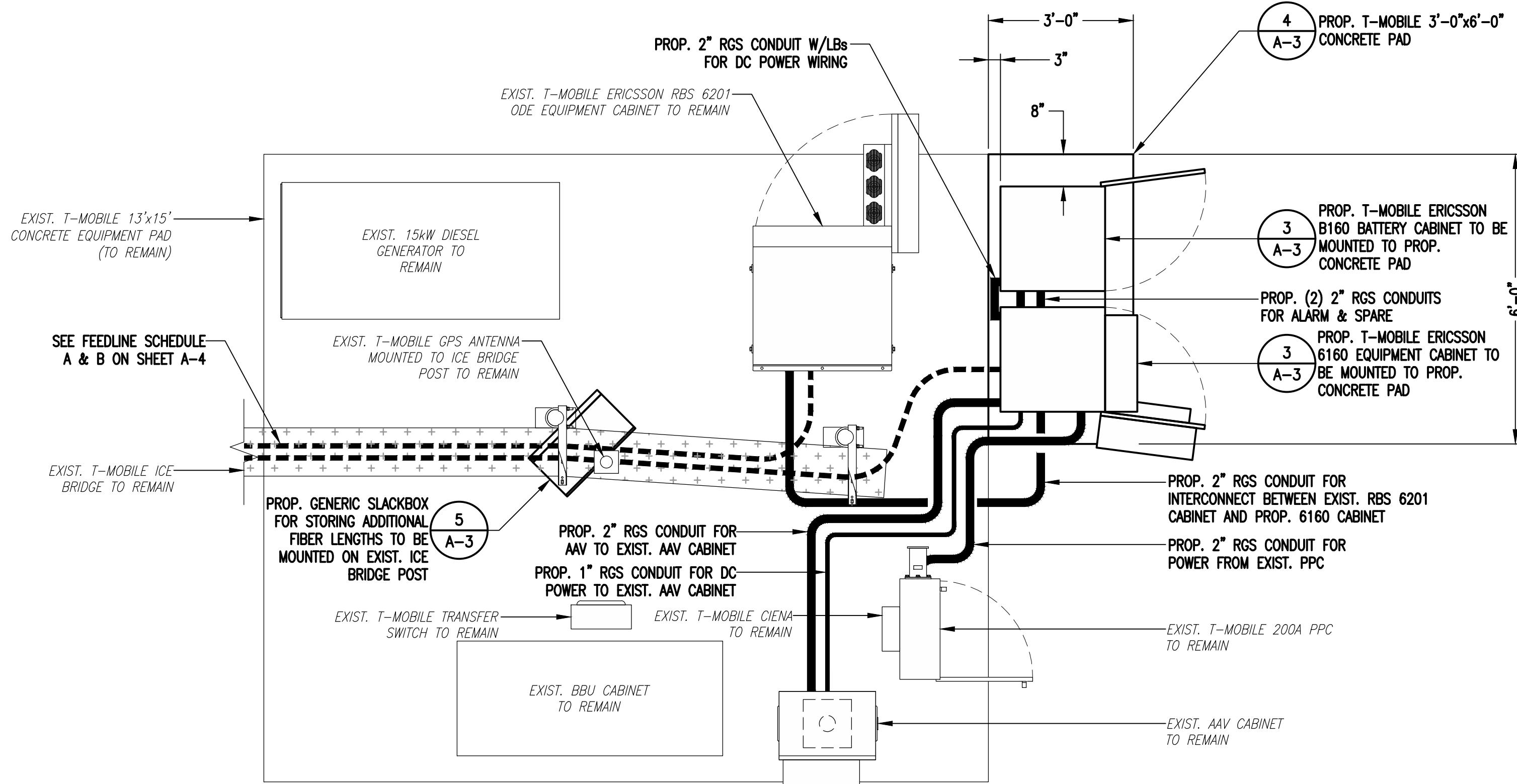
1
A-1



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

0 2'-0" 4'-0" 6'-0"

3
A-1



NOTES:
ALL PROPOSED CONDUITS TO BE
BURIED TO AVOID TRIP HAZARD.

EXISTING CONDUITS NOT SHOWN
FOR CLARITY.

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

0 2'-0" 4'-0" 6'-0"

4
A-1

..T..Mobile..

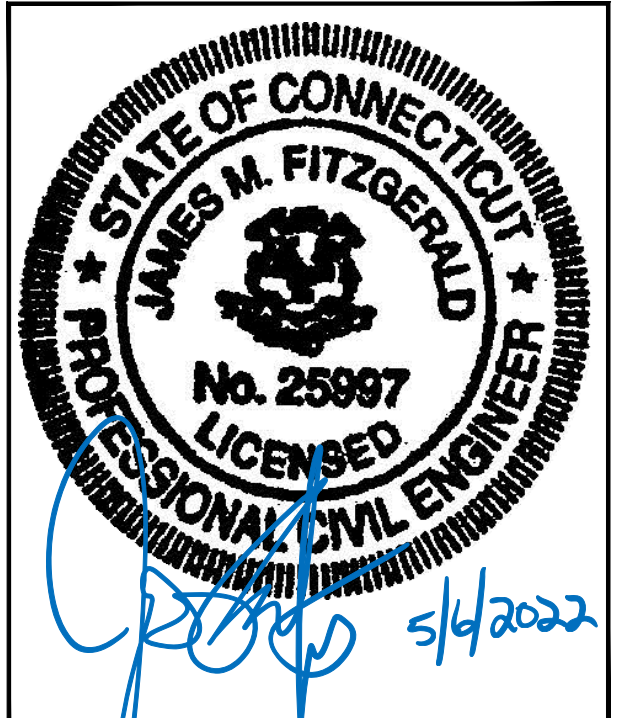
T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700

SBA

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

CHAPPELL
ENGINEERING
ASSOCIATES, LLC
Civil Structural Land Surveying

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



CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS

REV.	DATE	DESCRIPTION	BY
0	04/07/22	ISSUED FOR CONSTRUCTION	BDJ

SITE NUMBER:

CTNL181A

SITE ADDRESS:
215 COATNEY HILL ROAD
WOODSTOCK, CT 06281

SHEET TITLE

COMPOUND &
EQUIPMENT PLAN

SHEET NUMBER

A-1



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

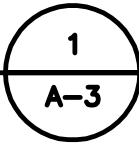
A-2



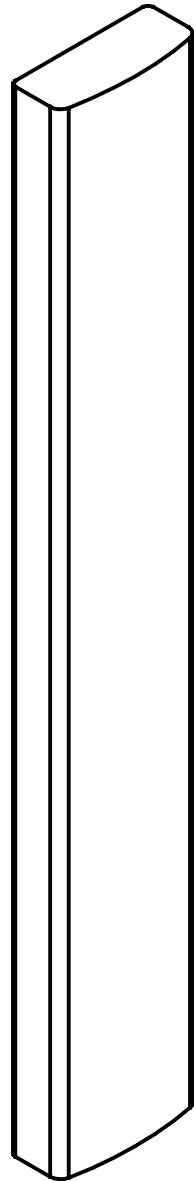
ERICSSON RADIO 4460 B25+B66
DIMENSIONS: 17.0"H x 15.1"W x 11.9"D
WEIGHT: 104.0 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3

RADIO DETAIL

SCALE: N.T.S.



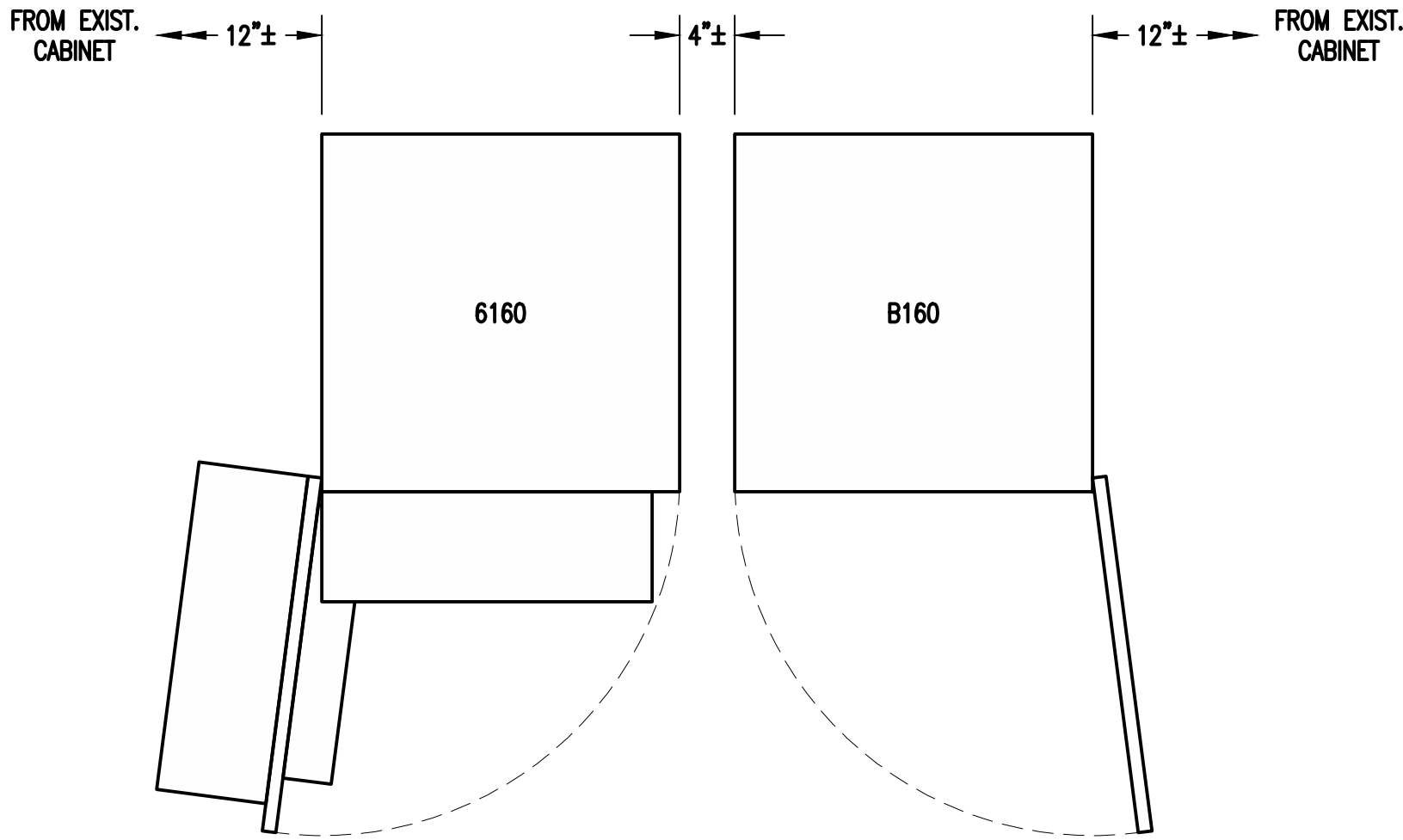
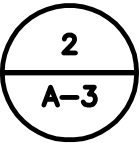
ERICSSON M-MIMO AIR6419 B41 ANTENNA
DIMENSIONS: 36.3"H x 20.9"W x 9.0"D
WEIGHT: 83.3 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3



COMMSCOPE W-65A-R1 ANTENNA
DIMENSIONS: 54.7"H x 12.1"W x 4.7"D
WEIGHT: 23.8 lbs
QUANTITY: 1 PER SECTOR, TOTAL OF 3

ANTENNA DETAILS

SCALE: N.T.S.



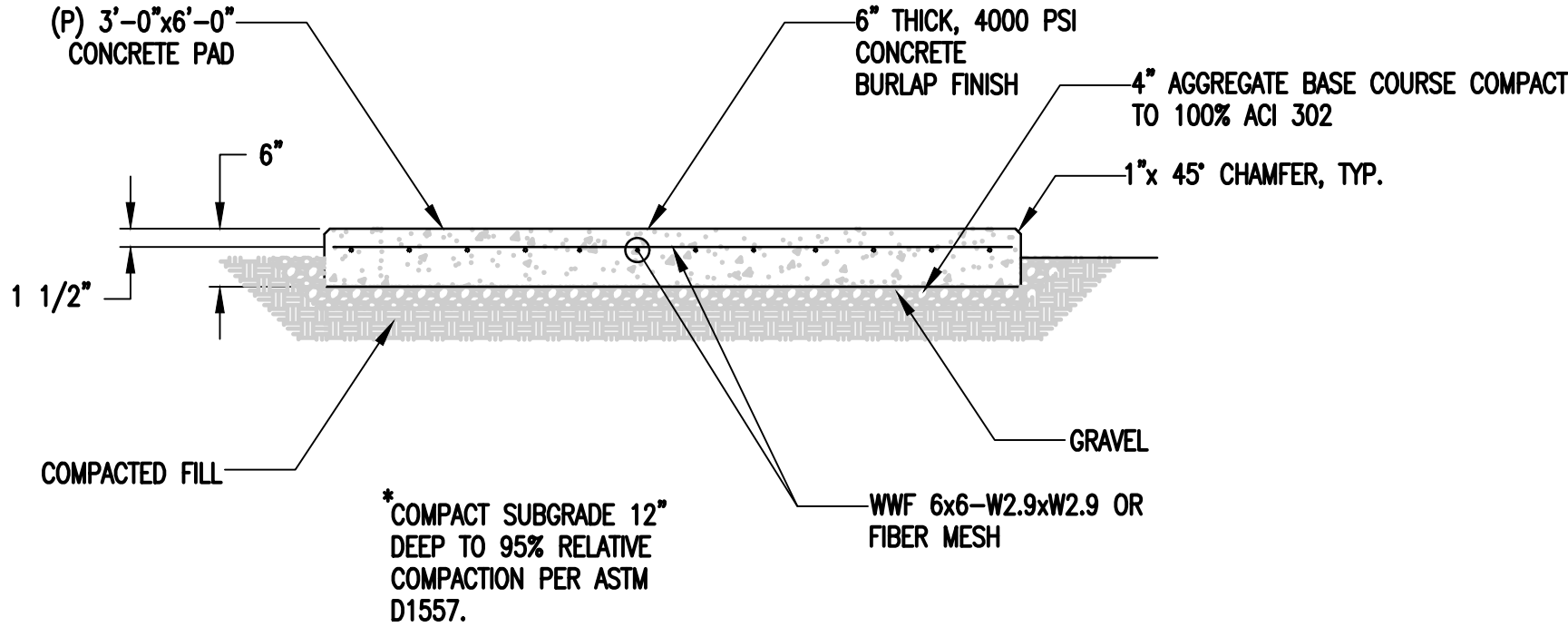
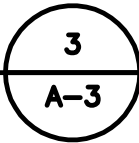
CABINETS TO BE MOUNTED
PER MANUFACTURER'S
SPECIFICATIONS

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

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

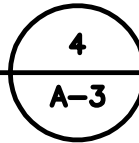
EQUIPMENT DETAIL

SCALE: N.T.S.



CONCRETE PAD DETAIL

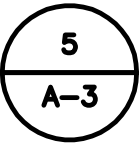
SCALE: N.T.S.



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.

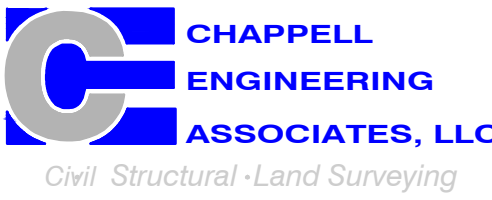


..T..Mobile..

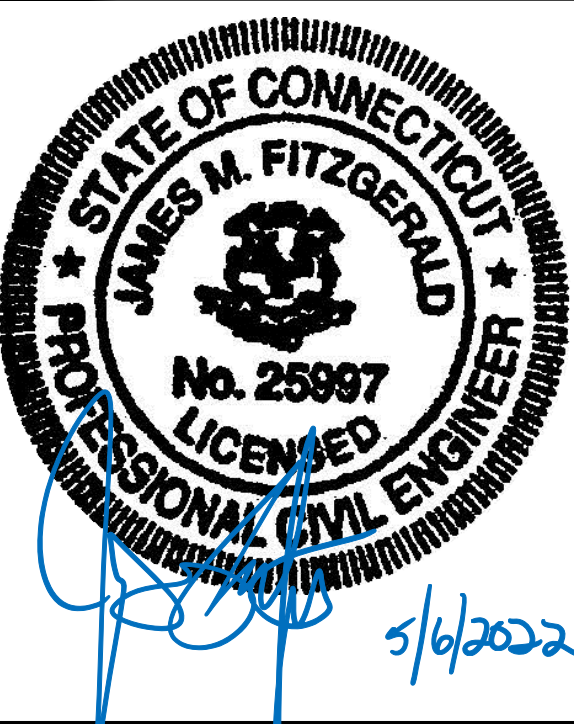
T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700



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
0	04/07/22	ISSUED FOR CONSTRUCTION	BDJ

SITE NUMBER:
CTNL181A
SITE ADDRESS:
215 COATNEY HILL ROAD
WOODSTOCK, CT 06281

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	SIGNAL CABLES
ALPHA	A1 ERICSSON M-MIMO AIR6449 B41	177'± AGL	0°	0°	2°	L2500/N2500	-	PROP. (1) 1-¾" (6x24) HCS FIBER CABLE EXIST. (3) 1-⅝" (6x12) HCS FIBER CABLES
	A2 RFS APXVAARR24_43-U-NA20	177'± AGL	0°	0°	2°	L700/L600/N600	ERICSSON RADIO 4449 B71+B85	
	A3 COMMSCOPE VV-65A-R1	177'± AGL	0°	0°	2°	L1900/G1900	ERICSSON RADIO 4460 B25+B66	
						L2100		
BETA	B1 ERICSSON M-MIMO AIR6449 B41	177'± AGL	120°	0°	2°	L2500/N2500	-	
	B2 RFS APXVAARR24_43-U-NA20	177'± AGL	120°	0°	2°	L700/L600/N600	ERICSSON RADIO 4449 B71+B85	
	B3 COMMSCOPE VV-65A-R1	177'± AGL	120°	0°	2°	L1900/G1900	ERICSSON RADIO 4460 B25+B66	
						L2100		
GAMMA	C1 ERICSSON M-MIMO AIR6449 B41	177'± AGL	240°	0°	2°	L2500/N2500	-	
	C2 RFS APXVAARR24_43-U-NA20	177'± AGL	240°	0°	2°	L700/L600/N600	ERICSSON RADIO 4449 B71+B85	
	C3 COMMSCOPE VV-65A-R1	177'± AGL	240°	0°	2°	L1900/G1900	ERICSSON RADIO 4460 B25+B66	
						L2100		
CABLE NOTE: EXISTING T-MOBILE ALL COAX CABLES TO BE WRAPPED, CAPPED & REMOVED. (3) 1-⅝" (6x12) HCS FIBER CABLES & (1) ½" COAX CABLE USED FOR GPS ANTENNA TO REMAIN. SEE FEEDLINE SCHEDULE A & B BELOW.								

NOTE: RFDS REV3 - 03/08/22

FEEDLINE SCHEDULE		
SCHEDULE	FEEDLINES	LOCATION
A	EXISTING TO REMAIN: (3) 1-5/8" (6x12) HCS FIBER CABLES (1) 1/2" COAX CABLE FOR GPS ANTENNA EXISTING TO BE REMOVED: ALL COAX CABLES	ROUTED PER STRUCTURAL ANALYSIS
B	PROPOSED: (1) 1-3/4" (6x24) HCS FIBER CABLE	
NOTE: EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER.		

••T••Mobile•

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700

SBA

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

CHAPPELL
ENGINEERING
ASSOCIATES, LLC
Civil Structural Land Surveying

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

5/6/2022

CHECKED BY: JMT

APPROVED BY: JMT

SUBMITTALS			
REV.	DATE	DESCRIPTION	BY
0	04/07/22	ISSUED FOR CONSTRUCTION	BDJ

SITE NUMBER:
CTNL181A

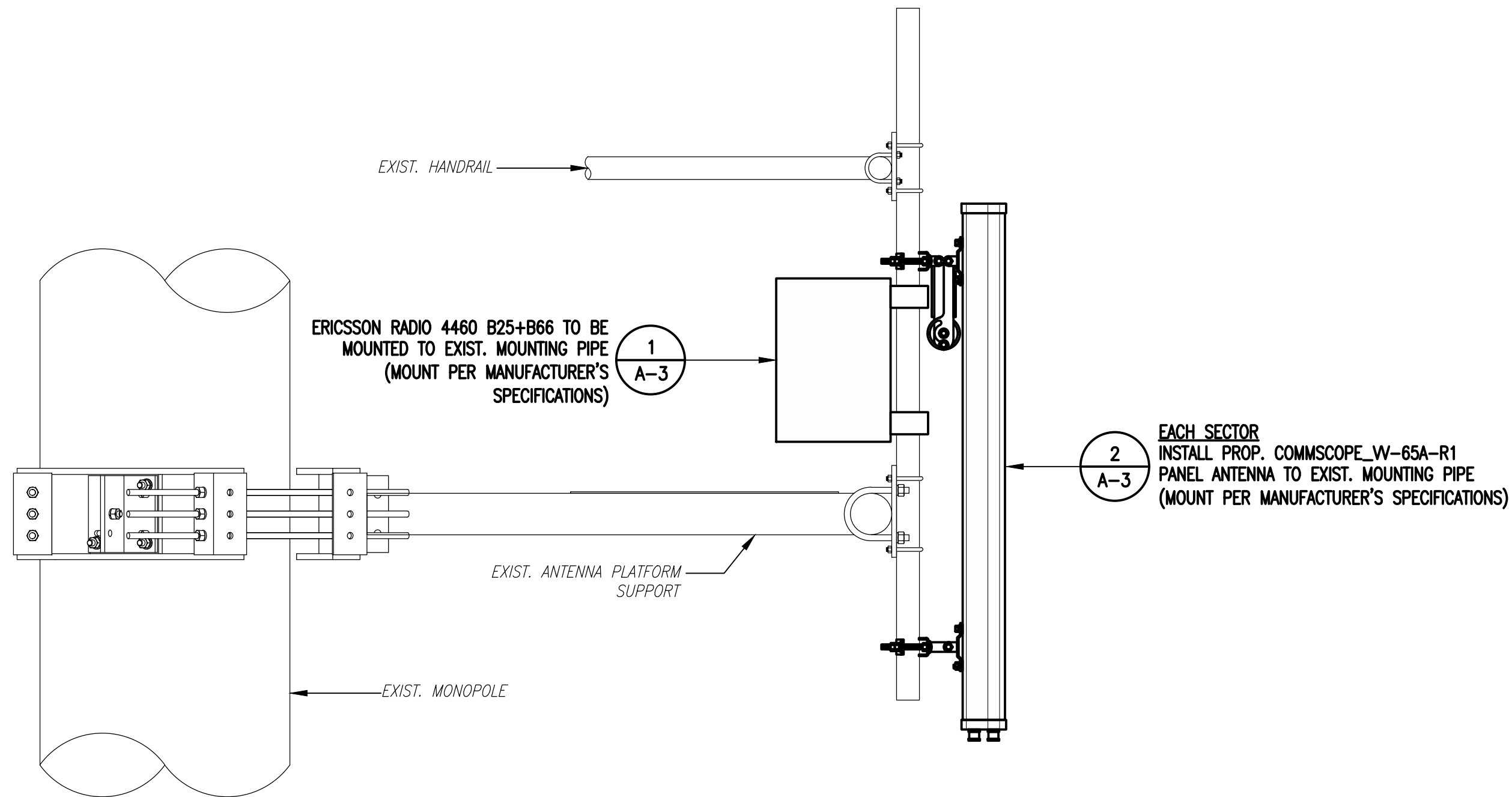
SITE ADDRESS:
215 COATNEY HILL ROAD
WOODSTOCK, CT 06281

SHEET TITLE

ANTENNA & FEEDLINE CHARTS

SHEET NUMBER

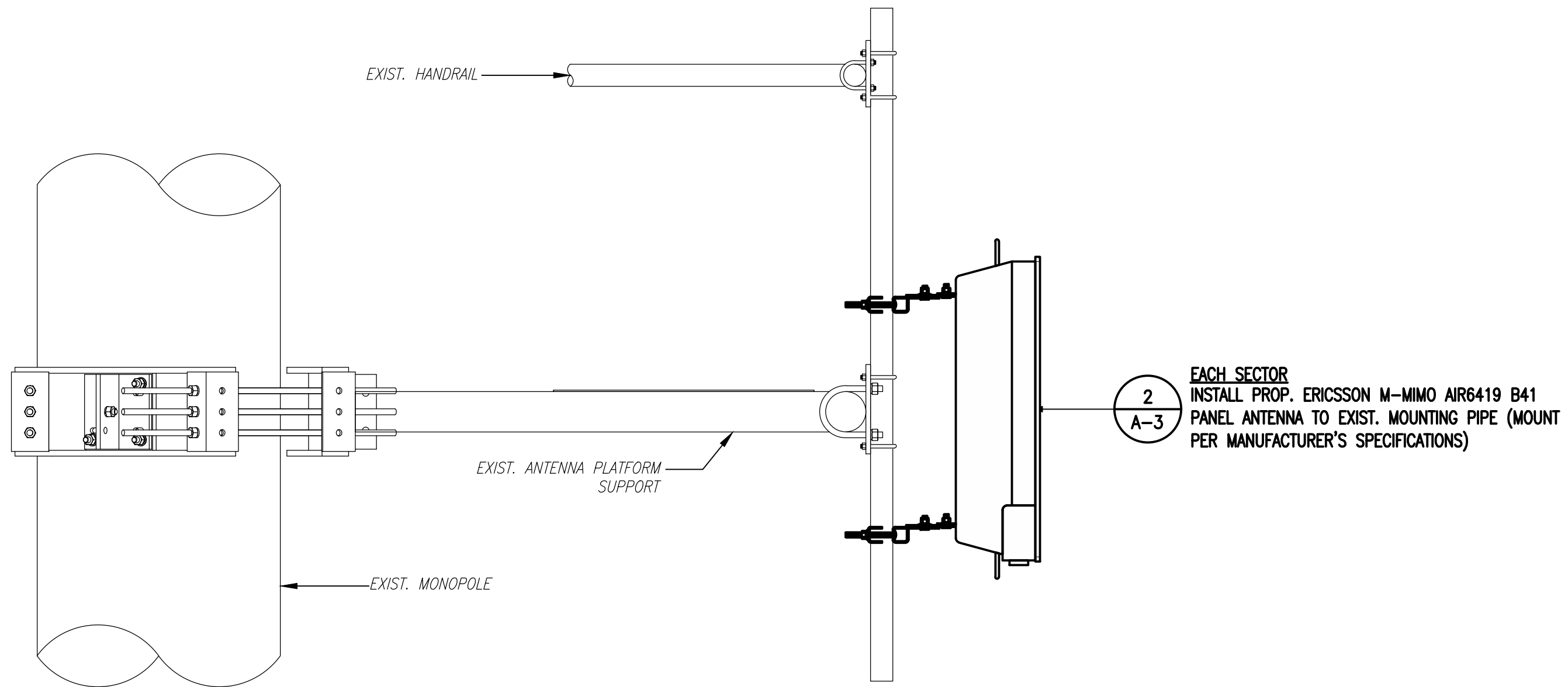
A-4



ANTENNA & RADIO MOUNT DETAIL

SCALE: N.T.S.

1
S-1



ANTENNA MOUNT DETAIL

SCALE: N.T.S.

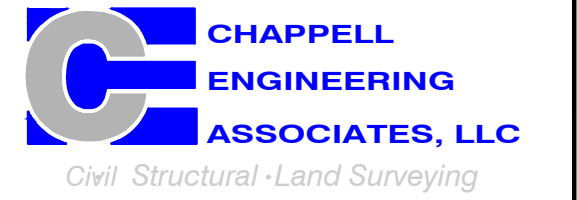
2
S-1

..T..Mobile..

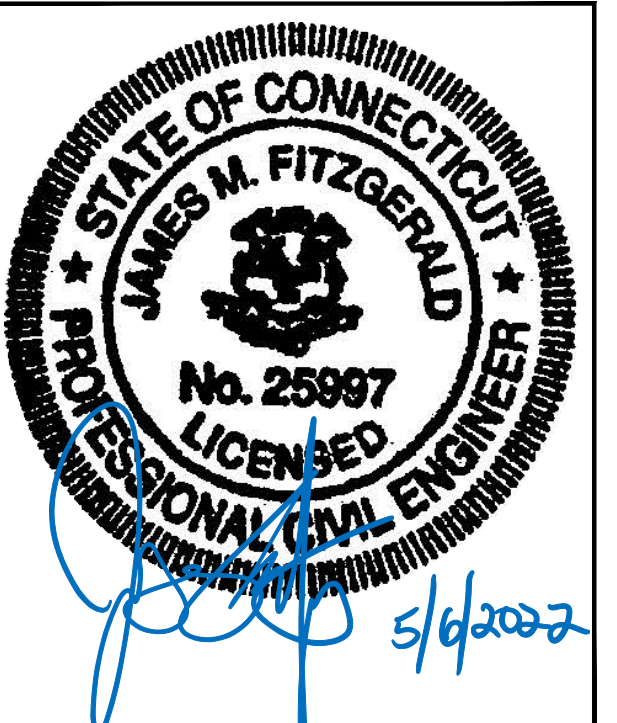
T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (508) 286-2700



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
0	04/07/22	ISSUED FOR CONSTRUCTION	BDJ

SITE NUMBER:
CTNL181A

SITE ADDRESS:
215 COATNEY HILL ROAD
WOODSTOCK, CT 06281

SHEET TITLE

ANTENNA & RADIO
MOUNTING DETAIL

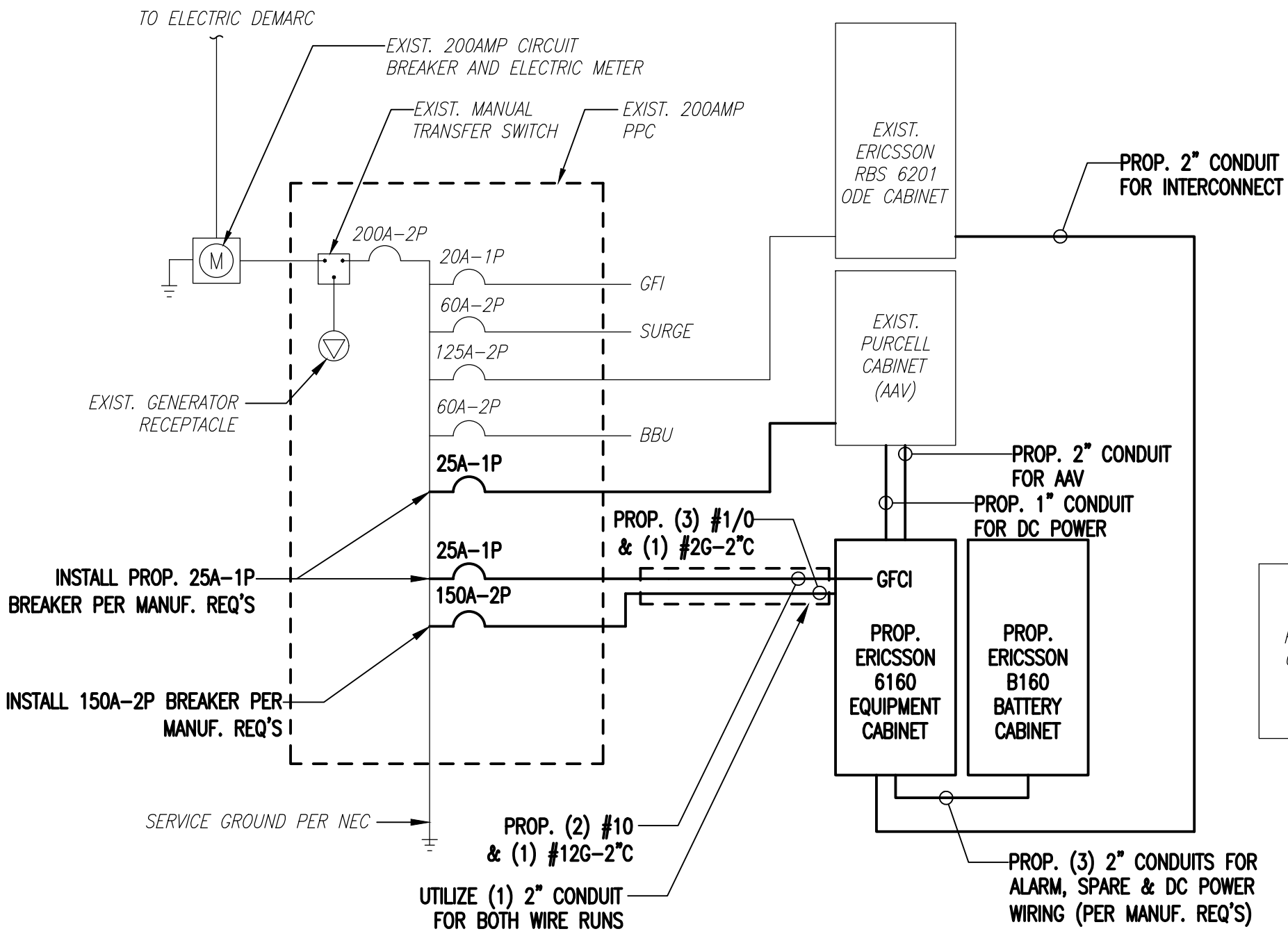
SHEET NUMBER

S-1



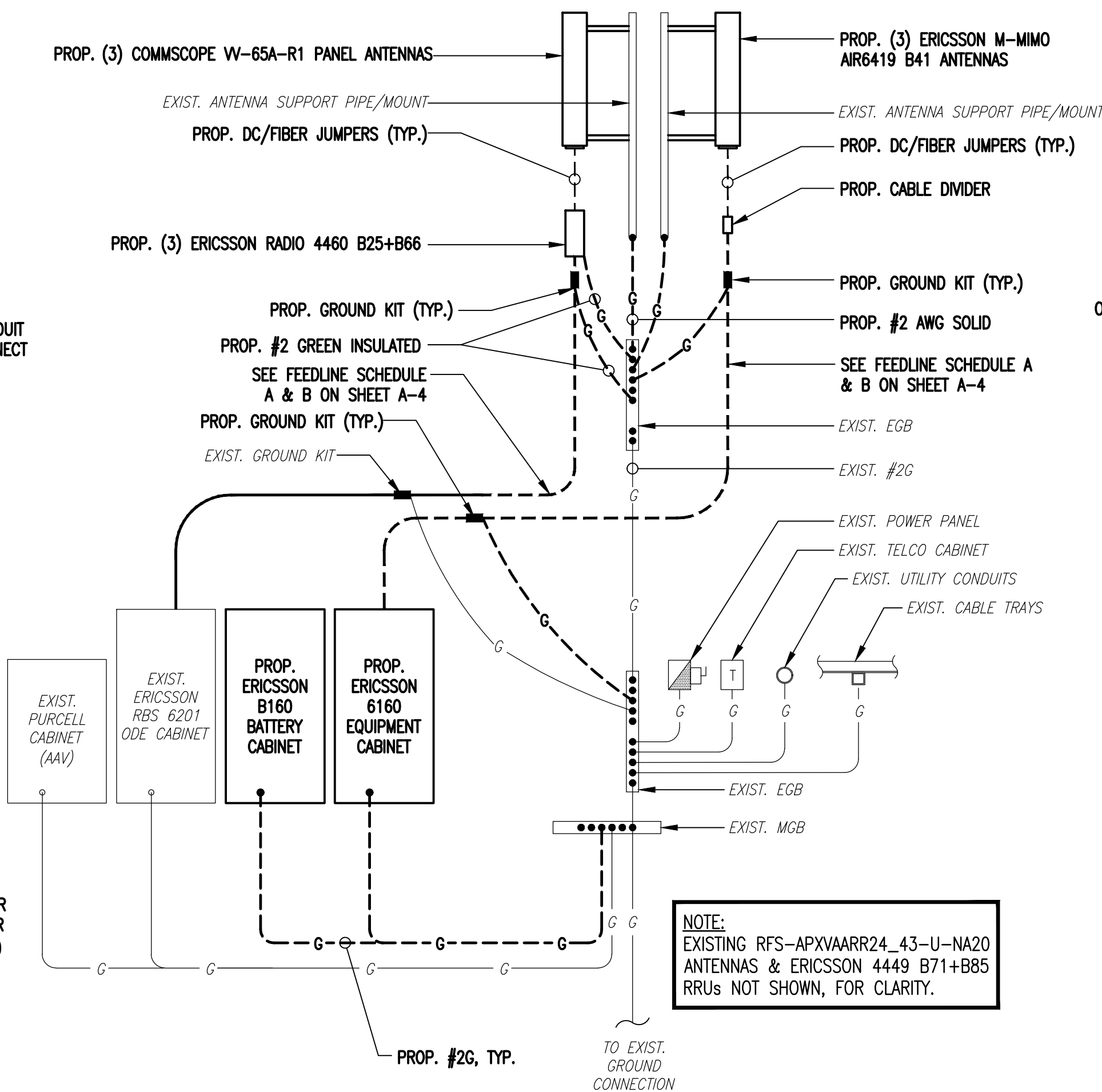
PPC PHOTO DETAIL
SCALE: NOT TO SCALE

1
E-1



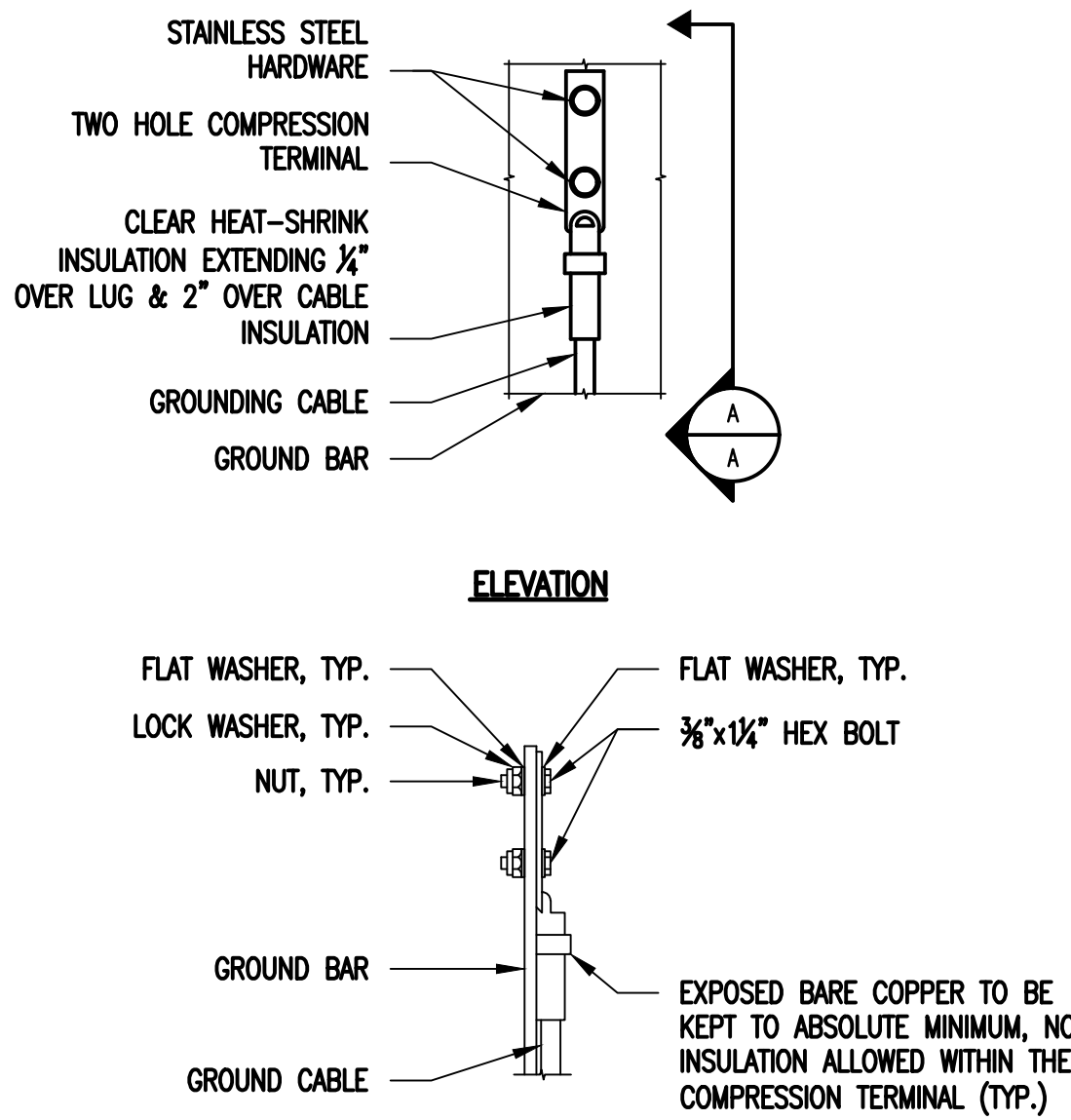
ONE LINE DIAGRAM
SCALE: NOT TO SCALE

2
E-1



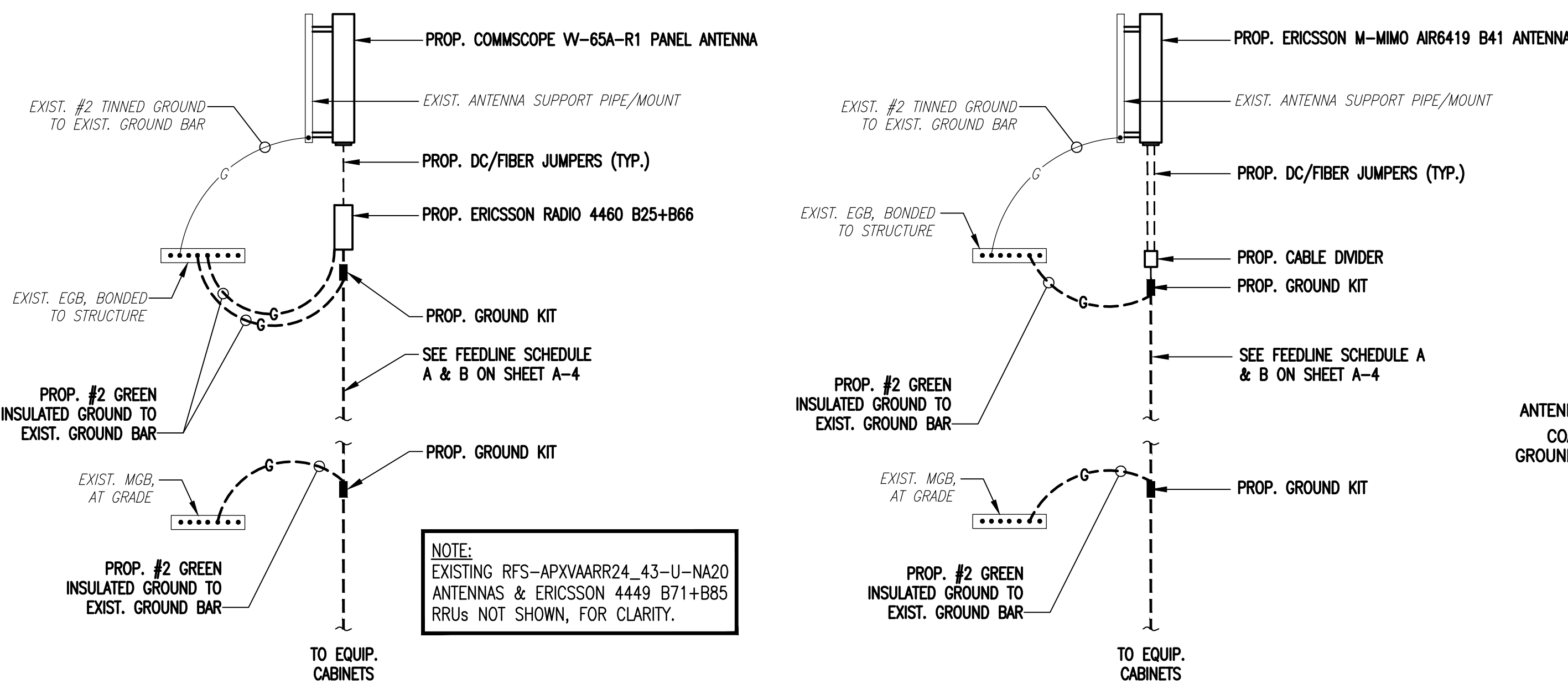
GROUNDING RISER DIAGRAM
SCALE: NOT TO SCALE

3
E-1



TYPICAL GROUND BAR
CONNECTIONS DETAIL
SCALE: NOT TO SCALE

4
E-1

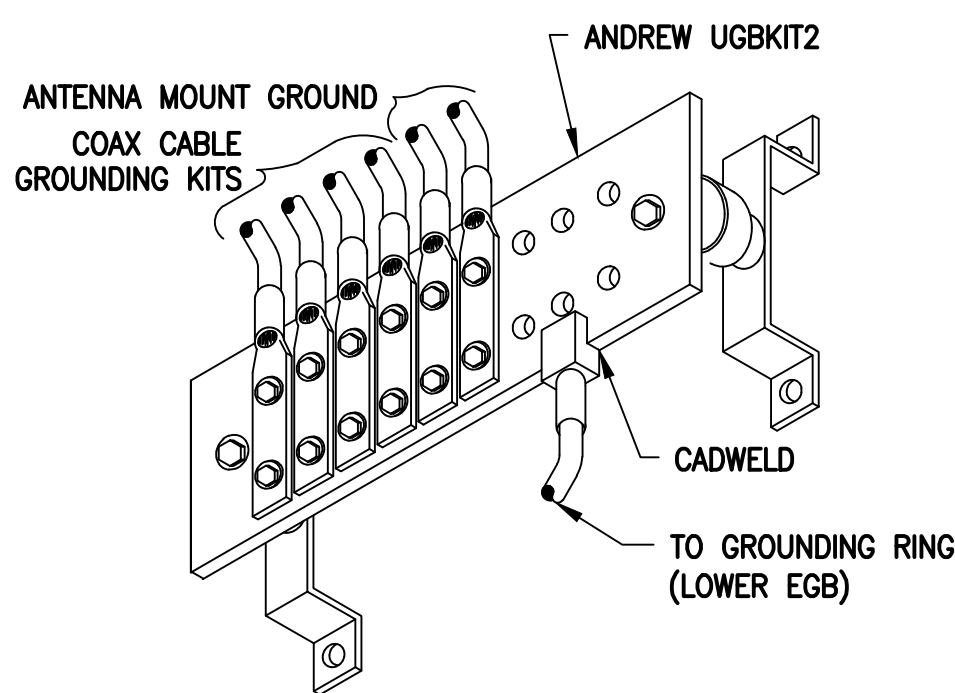


L600/N600/L700 ANTENNA &
G1900/L1900/L2100 ANTENNA

L2500/N2500 ANTENNA

COAX CABLE CONNECTION
AND GROUNDING DETAIL
SCALE: NOT TO SCALE

5
E-1



GROUND BAR (EGB)
SCALE: NOT TO SCALE

6
E-1

ELECTRICAL AND GROUNDING NOTES

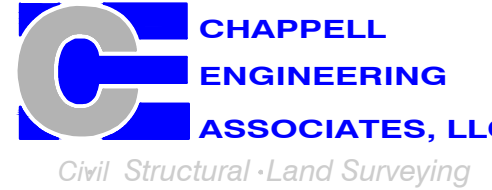
- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR 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 BTS CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
- ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- PPC SUPPLIED BY PROJECT OWNER.
- GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE BTS SITE GROUNDING STANDARDS".
- GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
- USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
- ALL GROUND CONNECTIONS TO BE BURNED 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.

..T..Mobile..

T-MOBILE NORTHEAST LLC
15 COMMERCE WAY, SUITE B
NORTON, MA 02766
OFFICE: (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
0	04/07/22	ISSUED FOR CONSTRUCTION	BDJ

SITE NUMBER:

CTNL181A

SITE ADDRESS:

215 COATNEY HILL ROAD
WOODSTOCK, CT 06281

SHEET TITLE

ELECTRICAL &
GROUNDING DETAILS

SHEET NUMBER

E-1

Exhibit D

Structural Analysis Report



Tower Engineering Solutions

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

Structural Analysis Report

Existing 190 ft Nudd Corporation Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT08748-A

Customer Site Name: Woodstock 4, CT

Carrier Name: T-Mobile (App#: 193381, V1)

Carrier Site ID / Name: CTNL181A / Woodstock

Site Location: 215 Coatney Hill Road

Woodstock, Connecticut

Windham County

Latitude: 41.962264

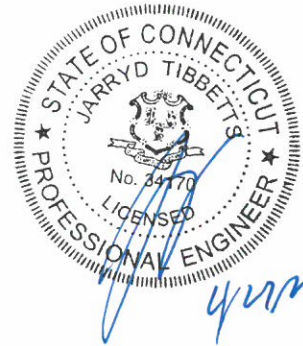
Longitude: -72.018655

Analysis Result:

Max Structural Usage: 98.1% [Pass]

Max Foundation Usage: 74.0% [Pass]

Additional Usage Caused by New Mount: N/A



Report Prepared By: Praveen Shrestha



Tower Engineering Solutions

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

Structural Analysis Report

Existing 190 ft Nudd Corporation Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT08748-A

Customer Site Name: Woodstock 4, CT

Carrier Name: T-Mobile (App#: 193381, V1)

Carrier Site ID / Name: CTNL181A / Woodstock

Site Location: 215 Coatney Hill Road

Woodstock, Connecticut

Windham County

Latitude: 41.962264

Longitude: -72.018655

Analysis Result:

Max Structural Usage: 98.1% [Pass]

Max Foundation Usage: 74.0% [Pass]

Additional Usage Caused by New Mount: N/A

Report Prepared By: Praveen Shrestha

Introduction

The purpose of this report is to summarize the analysis results on the 190 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

Tower Drawings	Fred A. Nudd Corporation, Project No. 01-8280, dated June 10,2001
Foundation Drawing	Fred A. Nudd Corporation, Project No. 01-8280, dated June 10,2001
Geotechnical Report	N/A
Modification Drawings	N/A
Mount Analysis	TES Project Number: 127938, dated April 20,2022

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.

Wind Speed Used in the Analysis:	Ultimate Design Wind Speed $V_{ult} = 130$ mph (3-Sec. Gust)/ Nominal Design Wind Speed $V_{asd} = 101.0$ mph (3-Sec. Gust)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" radial ice concurrent
Operational Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-G-2 / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	C
Structure Class:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_S = 0.172$, $S_1 = 0.063$

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	185.0	9	Powerwave 7770.00 - Panel	Low Profile Platform	(12) 1 5/8"	AT&T
2		6	Powerwave LGP21401			
3		6	Powerwave LGP21903			
4		6	ADC CG-1900W800-FULL-DIN			
-	177.0	3	EMS RR90-17-02DPL2 - Panel	Platform w/ Hand Rails	(15) 1 5/8" (3) 1 5/8" Fiber	T-Mobile
-		3	APXV18-206516S-C-A20 - Panel			
-		3	APXVAARR24 43-U-NA20 - Panel			
-		3	Ericsson KRY 112 489/2			
-		3	Ericsson 4449 B71+B12			
-		3	Kathrein 782 11056			
12	167.0	6	Andrew JAHH-65B-R3B	(1) Low Profile Platform	(12) 1 5/8" Coax (2) 1 5/8" Fiber	Verizon
13		3	Samsung VZS01			
14		3	Commscope LNX-6514DS-A1M			
15		3	Commscope CBC78T-DS-43-2X			
16		3	Samsung B2/B66A RRH-BR049			
17		3	Samsung B5/B13 RRH-BR04C			
18	157.0	2	RFS DB-T1-6Z-8AB-OZ	(2) Commscope PM-SC4-96 (Pole Mount)	(6) 1/2" Coax (6) 1/4" CAT6 (6) 1/4" Copper Power	DRW Canada Co.
19		1	Commscope USX6-6W			
20		1	Commscope VHLPX3-6W			
21		4	SAF SAF			
22	150.0	1	ANT450F6 - Whip	(1) Side arm (CommScope DB5004)	(1) 1 1/4"	Connecticut Light & Power
23		1	RFS PAD6-59A - Dish		(1) 1 5/8"	
24	135.0	1	ANT450F6 - Whip	(1) Side arm (CommScope DB5004)	(1) 1 5/8"	
25	125.0	3	JMA Wireless MX08FRO665-21 - Panel	(1) Commscope low-profile platform w/HRK [MC-PK8-DSH]	(1) 1.6" Hybrid	Dish Wireless
26		3	Fujitsu TA08025-B605			
27		3	Fujitsu TA08025-B604			
28		1	Raycap RDIDC-9181-PF-48			
29	110.0	2	Antenex Y1505	Flush Mount	(6) 7/8"	Town of Woodstock *
30		2	Decibel DB212-1			
31		2	Telewave ANT450D6-9			

*Leased but not installed.

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
5	177.0	3	Ericsson AIR6419 B41 Panel	Platform w/ Hand Rails	(13) 1 5/8" (3) 1 5/8" Fiber (1) 1.9" Fiber	T-Mobile
6		3	Commscope VV-65A-R1 Panel			
7		3	RFS APXVAARR24_43-U-NA20 Panel			
8		3	Ericsson KRY 112 489/2 TMA			
9		3	Ericsson 4449 B71 + B85 RRU			
10		3	Ericsson 4460 B25 + B66 RRU			
11		3	Kathrein 782 11056 BiasT			

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

Analysis Results

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

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	98.1%	81.1%	83.7%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	6788.9	50.9	109.6

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):

The maximum twist and sway of the microwave dishes under the operational wind speed as specified in the Analysis Criteria are listed in the table below:

Elevation (ft)	Antenna / Dish	Carrier	Twist (deg)	Sway (deg)
157.0	SUX6-65B - Dish	DRW Canada Co.	0.000	1.815
157.0	VHLPX3-6W - Dish	DRW Canada Co.	0.000	1.815
150.0	PAD6-59A - Dish	Connecticut Light &	0.000	1.748

It is recommended that the carriers review the twist and sway values of the microwave dishes.

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 98.10% at 91.0ft

Structure: CT08748-A-SBA
Site Name: Woodstock 4, CT
Height: 190.00 (ft)
Base Elev: 0.000 (ft)

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

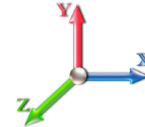
4/26/2022

Page: 1



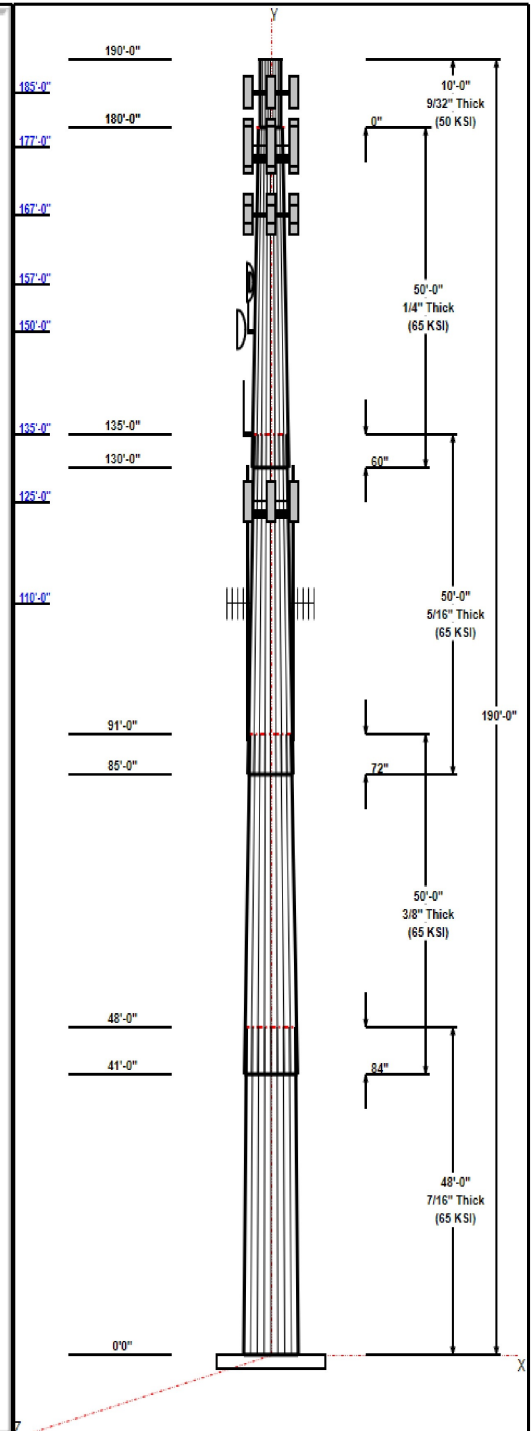
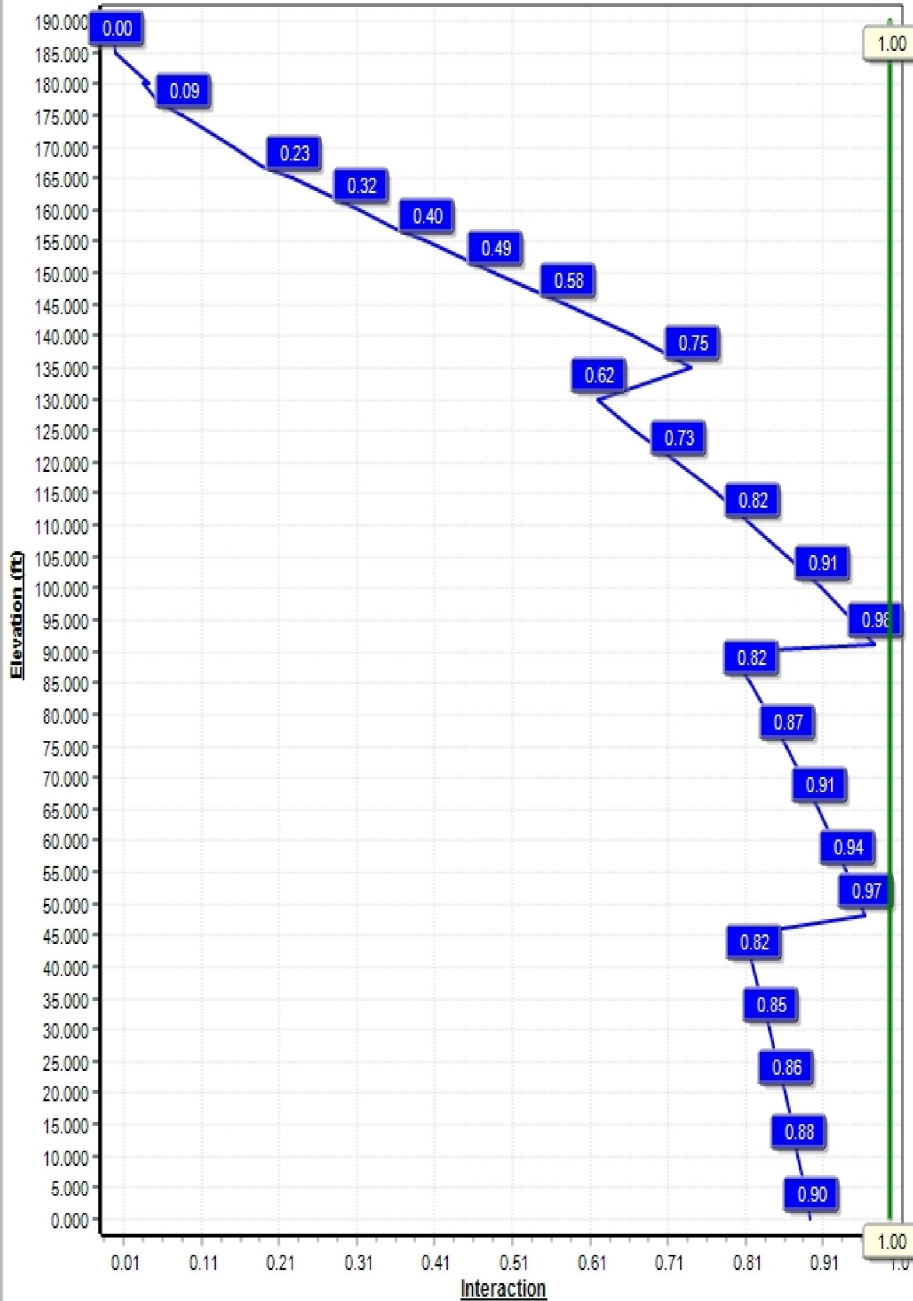
Dead Load Factor: 1.20
Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 101 mph Wind



Iterations: 26

Copyright © 2022 by Tower Engineering Solutions, LLC. All rights reserved.



Structure: CT08748-A-SBA

Type: Custom
Site Name: Woodstock 4, CT
Height: 190.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.23542

4/26/2022

Page: 2



Shaft Properties

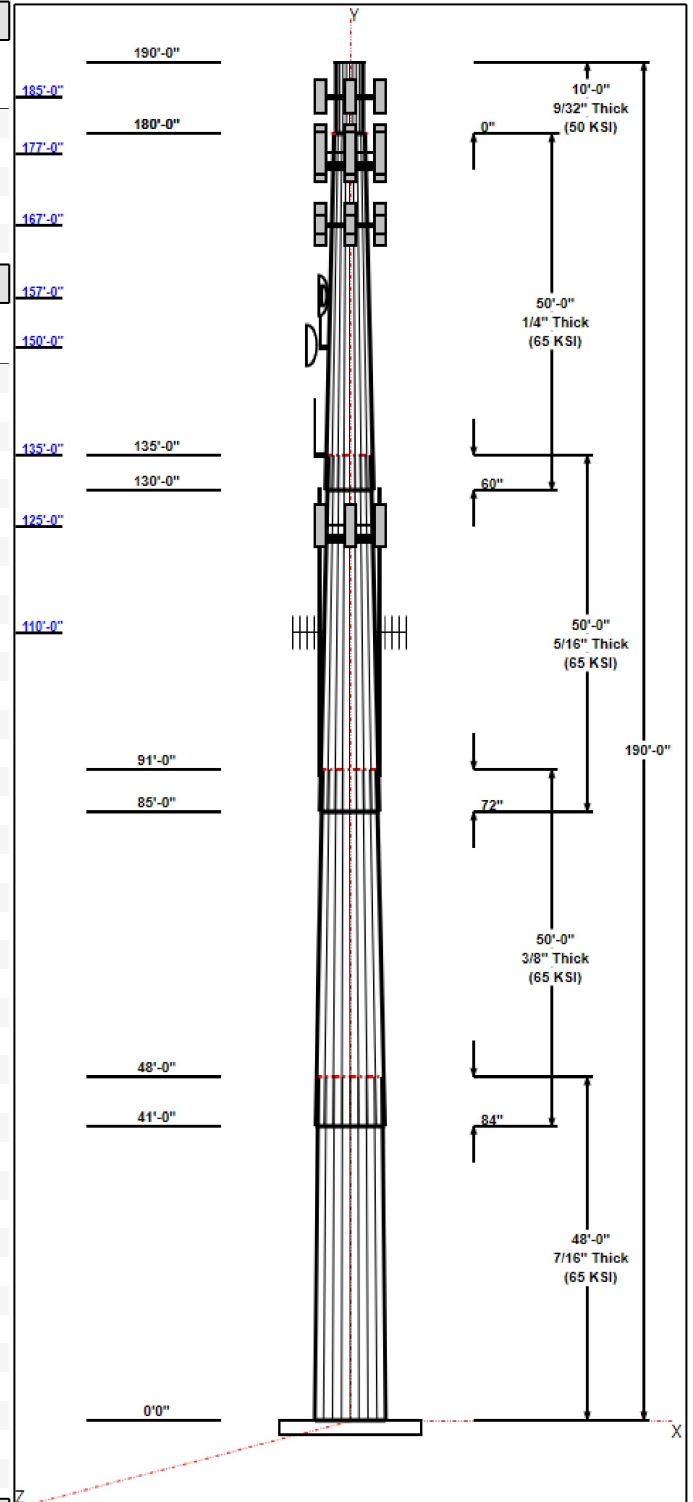
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	48.00	53.20	64.50	0.438		0.23542	65
2	50.00	43.83	55.60	0.375	Slip	0.23542	65
3	50.00	34.09	45.86	0.313	Slip	0.23542	65
4	50.00	24.00	35.77	0.250	Slip	0.23542	65
5	10.00	24.00	24.00	0.281	Butt	0.00000	50

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
185.00	185.00	9	Powerwave 7770.00	AT&T
185.00	185.00	6	Powerwave LGP21401	AT&T
185.00	185.00	6	Powerwave LGP21903	AT&T
185.00	185.00	6	ADC	AT&T
185.00	185.00	1	Low Profile Platform	AT&T
177.00	177.00	3	Ericsson KRY 112 489/2	T-Mobile
177.00	177.00	1	Platform w/ Hand Rails	T-Mobile
177.00	177.00	3	APXVAARR24_43-U-NA20	T-Mobile
177.00	177.00	3	782 11056	T-Mobile
177.00	177.00	3	AIR6419 B41	T-Mobile
177.00	177.00	3	VV-65A-R1	T-Mobile
177.00	177.00	3	4449 B71 + B85	T-Mobile
177.00	177.00	3	8843 B25/B66A	T-Mobile
167.00	167.00	1	Platform w/ Hand Rail	Verizon
167.00	167.00	6	JAHH-65B-R3B	Verizon
167.00	167.00	3	LNK-6514DS-A1M	Verizon
167.00	167.00	2	Rfs Celwave	Verizon
167.00	167.00	3	VZS01	Verizon
167.00	167.00	3	B2/B66A RRH-BR049	Verizon
167.00	167.00	3	B5/B13 RRH-BR04C	Verizon
167.00	167.00	3	CBC78T-DS-43-2X	Verizon
157.00	157.00	2	Flush Mount	DRW Canada Co.
157.00	157.00	1	SUX6-65B	DRW Canada Co.
157.00	157.00	1	VHLPX3-6W	DRW Canada Co.
157.00	157.00	4	SAF	DRW Canada Co.
150.00	153.92	1	ANT450F6	Connecticut Light &
150.00	150.00	1	PAD6-59A	Connecticut Light &
150.00	150.00	1	Side Arm	Connecticut Light &
135.00	135.00	1	Side Arm	Connecticut Light &
135.00	138.92	1	ANT450F6	Connecticut Light &
125.00	125.00	3	MX08FRO665-21	Dish Wireless
125.00	125.00	3	TA08025-B605	Dish Wireless
125.00	125.00	3	TA08025-B604	Dish Wireless
125.00	125.00	1	RDIDC-9181-OF-48	Dish Wireless
125.00	125.00	1	MC-PK8-DSH	Dish Wireless
110.00	110.00	2	Decibel DB212-1	Town of Woodstock
110.00	110.00	2	Telewave ANT450D6-9	Town of Woodstock
110.00	110.00	1	Flush Mount	Town of Woodstock
110.00	110.00	2	Antenex Y1505	Town of Woodstock

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	185.00	Inside	1 5/8" Coax	AT&T
0.00	177.00	Inside	1 5/8" Coax	T-Mobile



Structure: CT08748-A-SBA

Type: Custom	Base Shape: 18 Sided	4/26/2022
Site Name: Woodstock 4, CT	Taper: 0.00000	
Height: 190.00 (ft)		
Base Elev: 0.00 (ft)		Page: 3



0.00	177.00	Inside	1 5/8" Fiber	T-Mobile
0.00	177.00	Inside	1.9" Fiber	T-Mobile
0.00	167.00	Inside	1 5/8" Coax	Verizon
0.00	167.00	Inside	1 5/8" Fiber	Verizon
0.00	157.00	Inside	1/2" Coax	DRW Canada Co.
0.00	157.00	Inside	1/4" CAT6	DRW Canada Co.
0.00	157.00	Inside	1/4" Copper Power	DRW Canada Co.
0.00	150.00	Inside	1 1/4" Coax	Connecticut Light &
0.00	150.00	Inside	1 5/8" Coax	Connecticut Light &
0.00	135.00	Inside	1 5/8" Coax	Connecticut Light &
0.00	125.00	Inside	1.6" Hybrid	Dish Wireless
0.00	110.00	Inside	7/8" Coax	Town of Woodstock
0.00	110.00	Inside	7/8" Coax	Town of Woodstock
0.00	110.00	Inside	7/8" Coax	Town of Woodstock

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
29	2.00" F1554 105	105.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.2500	76.1	50.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 101 mph Wind	6788.9	50.9	64.9
0.9D + 1.6W 101 mph Wind	6701.4	50.9	48.7
1.2D + 1.0Di + 1.0Wi 50 mph Wind	2031.6	14.9	109.6
1.2D + 1.0E	284.9	2.1	65.0
0.9D + 1.0E	280.8	2.1	48.8
1.0D + 1.0W 60 mph Wind	1488.8	11.2	54.2

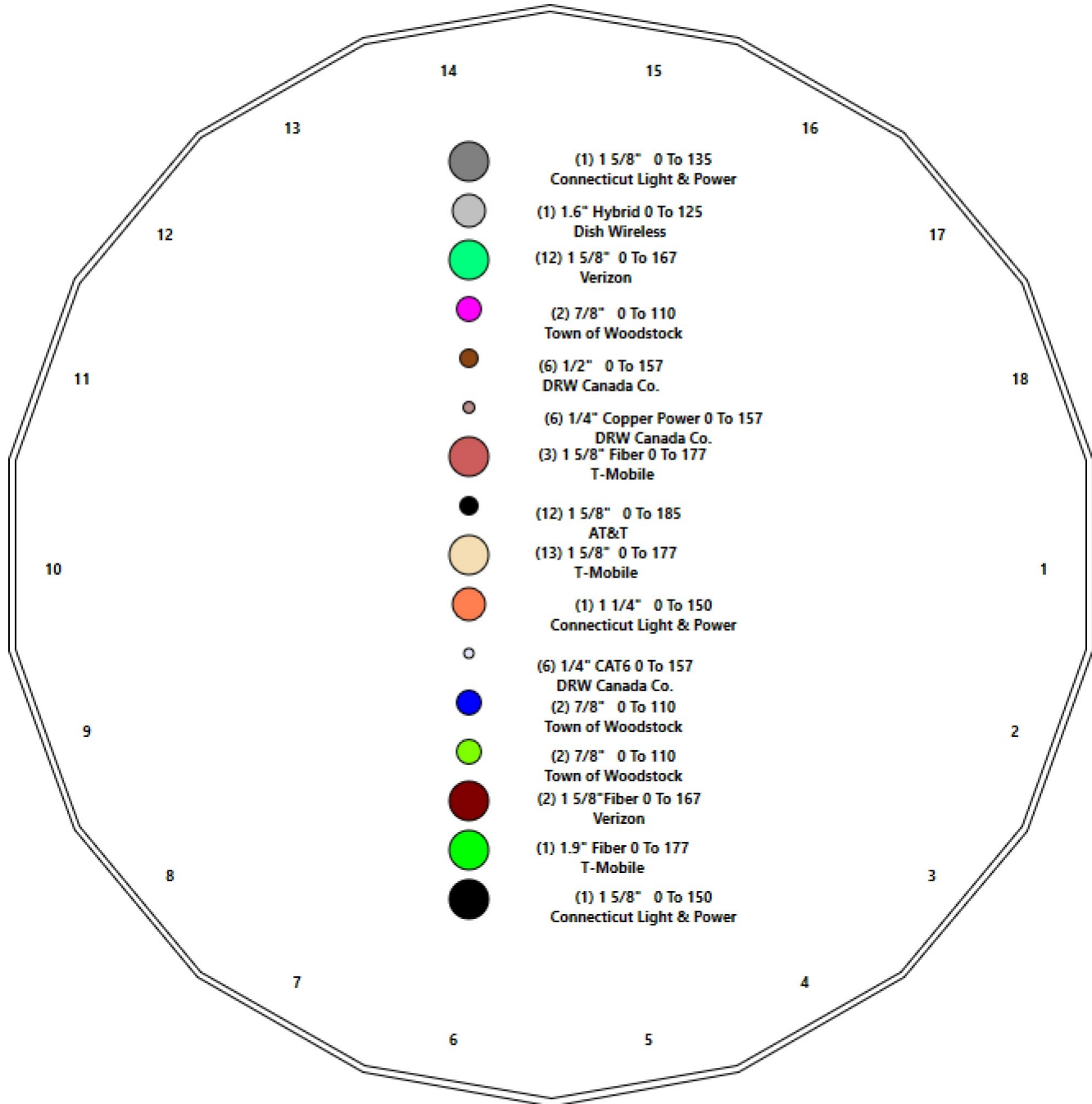
Structure: CT08748-A-SBA - Coax Line Placement

Type: Monopole
Site Name: Woodstock 4, CT
Height: 190.00 (ft)

4/26/2022



Page: 4



Shaft Properties

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 5

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	48.000	0.4375	65		0.00	13,248
2	18	50.000	0.3750	65	Slip	84.00	9,991
3	18	50.000	0.3125	65	Slip	72.00	6,694
4	18	50.000	0.2500	65	Slip	60.00	4,001
5	18	10.000	0.2813	50	Flange	0.00	720
Total Shaft Weight:							34,654

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	53.20	48.00	73.26	25769.0	20.03	121.6	0.235417
2	55.60	41.00	65.73	25324.08	24.73	148.26	43.83	91.00	51.72	12336.9	19.20	116.8	0.235417
3	45.86	85.00	45.18	11844.57	24.47	146.77	34.09	135.00	33.51	4830.83	17.83	109.1	0.235417
4	35.77	130.0	28.18	4492.97	23.82	143.08	24.00	180.00	18.84	1343.00	15.52	96.00	0.235417
5	24.00	180.0	21.17	1504.92	13.64	85.33	24.00	190.00	21.17	1504.92	13.64	85.33	0.000000

Load Summary

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 6



Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	185.00	Powerwave 7770.00	9	53.28	5.50	0.73	252.74	6.985	0.73	0.00	0.00
2	185.00	Powerwave LGP21401	6	14.10	1.29	0.50	48.14	2.428	0.50	0.00	0.00
3	185.00	Powerwave LGP21903	6	5.50	0.27	0.50	16.98	0.811	0.50	0.00	0.00
4	185.00	ADC CG-1900W800-FULL-DIN	6	16.00	0.10	0.50	16.15	0.101	0.50	0.00	0.00
5	185.00	Low Profile Platform	1	1250.00	22.00	1.00	2735.17	46.048	1.00	0.00	0.00
6	177.00	Ericsson KRY 112 489/2	3	15.40	0.65	0.82	39.29	1.480	0.82	0.00	0.00
7	177.00	Platform w/ Hand Rails	1	1588.50	32.00	1.00	4414.56	69.853	1.00	0.00	0.00
8	177.00	APXVAARR24_43-U-NA20	3	128.00	20.24	0.70	720.41	22.850	0.70	0.00	0.00
9	177.00	782 11056	3	1.30	0.22	0.50	18.55	0.514	0.50	0.00	0.00
10	177.00	AIR6419 B41	3	103.00	5.65	0.71	288.88	6.939	0.71	0.00	0.00
11	177.00	VV-65A-R1	3	29.50	7.90	0.74	283.39	9.675	0.74	0.00	0.00
12	177.00	4449 B71 + B85	3	73.20	1.97	0.50	151.48	2.742	0.50	0.00	0.00
13	177.00	8843 B25/B66A	3	72.00	1.64	0.50	135.50	2.313	0.50	0.00	0.00
14	167.00	Platform w/ Hand Rail	1	1600.00	32.00	1.00	4430.01	69.633	1.00	0.00	0.00
15	167.00	JAHH-65B-R3B	6	68.56	9.11	0.83	398.08	10.962	0.83	0.00	0.00
16	167.00	LNx-6514DS-A1M	3	38.80	8.17	0.83	278.85	11.975	0.83	0.00	0.00
17	167.00	Rfs Celwave DB-T1-6Z-8AB-0Z	2	44.00	2.52	0.50	125.84	4.168	0.50	0.00	0.00
18	167.00	VZS01	3	87.10	4.30	0.69	248.19	5.516	0.69	0.00	0.00
19	167.00	B2/B66A RRH-BR049	3	84.40	1.87	0.50	196.49	2.669	0.50	0.00	0.00
20	167.00	B5/B13 RRH-BR04C (RFV01U-D2A)	3	70.30	1.87	0.50	172.34	2.669	0.50	0.00	0.00
21	167.00	CBC78T-DS-43-2X	3	10.40	0.37	0.50	43.22	0.780	0.50	0.00	0.00
22	157.00	Flush Mount	2	350.00	5.00	1.00	742.72	9.675	1.00	0.00	0.00
23	157.00	SUX6-65B	1	209.00	35.67	1.00	1160.12	40.339	1.00	0.00	0.00
24	157.00	VHLPX3-6W	1	53.00	10.68	1.00	344.35	13.246	1.00	0.00	0.00
25	157.00	SAF	4	7.70	1.22	1.00	41.24	2.284	1.00	0.00	0.00
26	150.00	ANT450F6	1	21.00	1.86	1.00	86.38	5.636	1.00	0.00	3.92
27	150.00	PAD6-59A	1	185.00	47.05	1.00	816.27	53.181	1.00	0.00	0.00
28	150.00	Side Arm	1	120.00	4.50	1.00	259.62	11.495	1.00	0.00	0.00
29	135.00	Side Arm	1	120.00	4.50	1.00	258.15	11.422	1.00	0.00	0.00
30	135.00	ANT450F6	1	21.00	1.86	1.00	85.70	5.596	1.00	0.00	3.92
31	125.00	MX08FRO665-21	3	64.50	12.49	0.74	445.32	14.408	0.74	0.00	0.00
32	125.00	TA08025-B605	3	75.00	1.96	0.50	143.48	2.695	0.50	0.00	0.00
33	125.00	TA08025-B604	3	63.90	1.96	0.50	130.19	2.695	0.50	0.00	0.00
34	125.00	RDIDC-9181-OF-48	1	21.90	2.01	1.00	91.62	2.754	1.00	0.00	0.00
35	125.00	MC-PK8-DSH	1	1727.00	37.59	1.00	3936.78	99.431	1.00	0.00	0.00
36	110.00	Decibel DB212-1	2	31.00	6.50	1.00	349.61	51.939	1.00	0.00	0.00
37	110.00	Telewave ANT450D6-9	2	18.00	2.77	1.00	124.68	6.687	1.00	0.00	0.00
38	110.00	Flush Mount	1	350.00	5.00	1.00	728.99	9.512	1.00	0.00	0.00
39	110.00	Antenex Y1505	2	5.00	3.60	1.00	73.97	9.876	1.00	0.00	0.00
Totals:			105	12,048.08			37,383.69				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	185.00	(12) 1 5/8" Coax	0.00	Inside
0.00	177.00	(13) 1 5/8" Coax	0.00	Inside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice		Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	Weight (lb)	CaAa (sf)	CaAa Factor		
0.00	177.00	(3) 1 5/8" Fiber		0.00	Inside					
0.00	177.00	(1) 1.9" Fiber		0.00	Inside					
0.00	167.00	(12) 1 5/8" Coax		0.00	Inside					
0.00	167.00	(2) 1 5/8"Fiber		0.00	Inside					
0.00	157.00	(6) 1/2" Coax		0.00	Inside					
0.00	157.00	(6) 1/4" CAT6		0.00	Inside					
0.00	157.00	(6) 1/4" Copper Power		0.00	Inside					
0.00	150.00	(1) 1 1/4" Coax		0.00	Inside					
0.00	150.00	(1) 1 5/8" Coax		0.00	Inside					
0.00	135.00	(1) 1 5/8" Coax		0.00	Inside					
0.00	125.00	(1) 1.6" Hybrid		0.00	Inside					
0.00	110.00	(2) 7/8" Coax		0.00	Inside					
0.00	110.00	(2) 7/8" Coax		0.00	Inside					
0.00	110.00	(2) 7/8" Coax		0.00	Inside					

Shaft Section Properties

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 8

Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in^3)	Weight (lb)
0.00		0.4375	64.500	88.956	46124.8	24.59	147.43	72.5	1408.	0.0
5.00		0.4375	63.323	87.321	43628.7	24.11	144.74	73.0	1357.	1499.6
10.00		0.4375	62.146	85.687	41224.4	23.64	142.05	73.6	1306.	1471.8
15.00		0.4375	60.969	84.052	38910.0	23.16	139.36	74.2	1257.	1444.0
20.00		0.4375	59.792	82.418	36683.9	22.69	136.67	74.7	1208.	1416.2
25.00		0.4375	58.615	80.783	34544.4	22.21	133.98	75.3	1160.	1388.3
30.00		0.4375	57.437	79.149	32489.8	21.74	131.29	75.8	1114.	1360.5
35.00		0.4375	56.260	77.514	30518.3	21.26	128.60	76.4	1068.	1332.7
40.00		0.4375	55.083	75.880	28628.2	20.79	125.90	76.9	1023.	1304.9
41.00	Bot - Section 2	0.4375	54.848	75.553	28259.8	20.69	125.37	77.1	1014.	257.6
45.00		0.4375	53.906	74.245	26817.8	20.32	123.21	77.5	979.9	1906.4
48.00	Top - Section 1	0.3750	53.950	63.765	23124.0	23.96	143.87	0.0	0.0	1408.1
50.00		0.3750	53.479	63.205	22519.6	23.74	142.61	73.5	829.4	432.1
55.00		0.3750	52.302	61.804	21055.1	23.18	139.47	74.1	792.9	1063.4
60.00		0.3750	51.125	60.403	19655.5	22.63	136.33	74.8	757.2	1039.6
65.00		0.3750	49.948	59.002	18319.3	22.08	133.19	75.4	722.4	1015.8
70.00		0.3750	48.771	57.601	17045.1	21.52	130.06	76.1	688.4	991.9
75.00		0.3750	47.594	56.200	15831.4	20.97	126.92	76.7	655.2	968.1
80.00		0.3750	46.417	54.799	14676.7	20.41	123.78	77.4	622.8	944.3
85.00	Bot - Section 3	0.3750	45.240	53.398	13579.6	19.86	120.64	78.0	591.2	920.4
90.00		0.3750	44.062	51.997	12538.5	19.31	117.50	78.7	560.5	1655.4
91.00	Top - Section 2	0.3125	44.452	43.779	10776.5	23.67	142.25	0.0	0.0	325.8
95.00		0.3125	43.510	42.845	10101.4	23.14	139.23	74.2	457.3	589.5
100.00		0.3125	42.333	41.678	9298.0	22.48	135.47	75.0	432.6	719.0
105.00		0.3125	41.156	40.510	8538.3	21.81	131.70	75.7	408.6	699.2
110.00		0.3125	39.979	39.343	7821.2	21.15	127.93	76.5	385.3	679.3
115.00		0.3125	38.802	38.175	7145.4	20.48	124.17	77.3	362.7	659.4
120.00		0.3125	37.625	37.008	6509.6	19.82	120.40	78.1	340.8	639.6
125.00		0.3125	36.448	35.841	5912.8	19.15	116.63	78.9	319.5	619.7
130.00	Bot - Section 4	0.3125	35.271	34.673	5353.6	18.49	112.87	79.7	299.0	599.9
135.00	Top - Section 3	0.2500	34.594	27.251	4060.9	22.99	138.37	0.0	0.0	1051.6
140.00		0.2500	33.417	26.317	3657.5	22.16	133.67	75.3	215.6	455.7
145.00		0.2500	32.240	25.383	3281.8	21.33	128.96	76.3	200.5	439.8
150.00		0.2500	31.062	24.449	2932.7	20.50	124.25	77.3	186.0	423.9
155.00		0.2500	29.885	23.515	2609.3	19.67	119.54	78.3	172.0	408.0
157.00		0.2500	29.415	23.141	2486.9	19.34	117.66	78.7	166.5	158.8
160.00		0.2500	28.708	22.581	2310.5	18.84	114.83	79.2	158.5	233.4
165.00		0.2500	27.531	21.647	2035.5	18.01	110.12	80.2	145.6	376.2
167.00		0.2500	27.060	21.273	1931.9	17.68	108.24	80.6	140.6	146.0
170.00		0.2500	26.354	20.713	1783.3	17.18	105.42	81.2	133.3	214.3
175.00		0.2500	25.177	19.779	1552.7	16.35	100.71	82.2	121.5	344.5
177.00		0.2500	24.706	19.405	1466.4	16.01	98.82	82.5	116.9	133.3
180.00	Top - Section 4	0.2500	24.000	18.845	1343.0	15.52	96.00	82.5	110.2	195.2
180.00	Bot - Section 5	0.2813	24.000	21.173	1504.9	13.79	85.33	63.5	123.5	
185.00		0.2813	24.000	21.173	1504.9	13.64	85.33	63.5	123.5	360.2
190.00		0.2813	24.000	21.173	1504.9	13.64	85.33	63.5	123.5	360.2
										34653.9

Wind Loading - Shaft

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 9

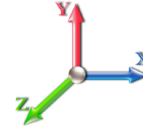


Load Case: 1.2D + 1.6W 101 mph Wind

Iterations 26

Dead Load Factor 1.20

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	0.85	21.088	23.20	508.23	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	21.088	23.20	498.95	0.650	0.000	5.00	27.041	17.58	652.3	0.0	1799.5
10.00		1.00	0.85	21.088	23.20	489.68	0.650	0.000	5.00	26.543	17.25	640.3	0.0	1766.1
15.00		1.00	0.85	21.088	23.20	480.40	0.650	0.000	5.00	26.045	16.93	628.3	0.0	1732.8
20.00		1.00	0.90	22.375	24.61	485.29	0.650	0.000	5.00	25.547	16.61	653.9	0.0	1699.4
25.00		1.00	0.95	23.451	25.80	487.05	0.650	0.000	5.00	25.049	16.28	672.0	0.0	1666.0
30.00		1.00	0.98	24.369	26.81	486.51	0.650	0.000	5.00	24.550	15.96	684.4	0.0	1632.6
35.00		1.00	1.01	25.172	27.69	484.34	0.650	0.000	5.00	24.052	15.63	692.6	0.0	1599.3
40.00		1.00	1.04	25.890	28.48	480.92	0.650	0.000	5.00	23.554	15.31	697.6	0.0	1565.9
41.00	Bot - Section 2	1.00	1.05	26.025	28.63	480.11	0.650	0.000	1.00	4.651	3.02	138.5	0.0	309.2
45.00		1.00	1.07	26.540	29.19	476.51	0.650	0.000	4.00	18.659	12.13	566.5	0.0	2287.7
48.00	Top - Section 1	1.00	1.08	26.903	29.59	473.48	0.650	0.000	3.00	13.785	8.96	424.3	0.0	1689.8
50.00		1.00	1.09	27.135	29.85	478.01	0.650	0.000	2.00	9.091	5.91	282.2	0.0	518.5
55.00		1.00	1.12	27.685	30.45	472.20	0.650	0.000	5.00	22.378	14.55	708.7	0.0	1276.1
60.00		1.00	1.14	28.197	31.02	465.82	0.650	0.000	5.00	21.880	14.22	705.8	0.0	1247.5
65.00		1.00	1.16	28.676	31.54	458.95	0.650	0.000	5.00	21.382	13.90	701.4	0.0	1218.9
70.00		1.00	1.17	29.127	32.04	451.64	0.650	0.000	5.00	20.884	13.57	695.9	0.0	1190.3
75.00		1.00	1.19	29.553	32.51	443.95	0.650	0.000	5.00	20.386	13.25	689.2	0.0	1161.7
80.00		1.00	1.21	29.958	32.95	435.93	0.650	0.000	5.00	19.888	12.93	681.6	0.0	1133.1
85.00	Bot - Section 3	1.00	1.22	30.342	33.38	427.59	0.650	0.000	5.00	19.390	12.60	673.0	0.0	1104.5
90.00		1.00	1.24	30.710	33.78	418.98	0.650	0.000	5.00	19.156	12.45	673.0	0.0	1986.4
91.00	Top - Section 2	1.00	1.24	30.781	33.86	417.23	0.650	0.000	1.00	3.771	2.45	132.8	0.0	391.0
95.00		1.00	1.25	31.061	34.17	416.09	0.650	0.000	4.00	14.887	9.68	529.0	0.0	707.4
100.00		1.00	1.27	31.399	34.54	407.03	0.650	0.000	5.00	18.160	11.80	652.3	0.0	862.8
105.00		1.00	1.28	31.723	34.89	397.75	0.650	0.000	5.00	17.662	11.48	641.0	0.0	839.0
110.00	Appurtenance(s)	1.00	1.29	32.035	35.24	388.27	0.650	0.000	5.00	17.164	11.16	629.0	0.0	815.2
115.00		1.00	1.30	32.336	35.57	378.60	0.650	0.000	5.00	16.666	10.83	616.5	0.0	791.3
120.00		1.00	1.32	32.627	35.89	368.77	0.650	0.000	5.00	16.168	10.51	603.5	0.0	767.5
125.00	Appurtenance(s)	1.00	1.33	32.909	36.20	358.77	0.650	0.000	5.00	15.670	10.19	589.9	0.0	743.7
130.00	Bot - Section 4	1.00	1.34	33.182	36.50	348.62	0.650	0.000	5.00	15.172	9.86	575.9	0.0	719.8
135.00	Top - Section 3	1.00	1.35	33.446	36.79	338.33	0.650	0.000	5.00	14.885	9.68	569.6	0.0	1261.9
140.00		1.00	1.36	33.703	37.07	332.88	0.650	0.000	5.00	14.387	9.35	554.7	0.0	546.8
145.00		1.00	1.37	33.953	37.35	322.34	0.650	0.000	5.00	13.889	9.03	539.5	0.0	527.8
150.00	Appurtenance(s)	1.00	1.38	34.196	37.62	311.68	0.650	0.000	5.00	13.391	8.70	523.9	0.0	508.7
155.00		1.00	1.39	34.433	37.88	300.91	0.650	0.000	5.00	12.893	8.38	507.9	0.0	489.6
157.00	Appurtenance(s)	1.00	1.39	34.526	37.98	296.57	0.650	0.000	2.00	5.018	3.26	198.2	0.0	190.5
160.00		1.00	1.40	34.664	38.13	290.02	0.650	0.000	3.00	7.377	4.80	292.6	0.0	280.0
165.00		1.00	1.41	34.890	38.38	279.04	0.650	0.000	5.00	11.897	7.73	474.9	0.0	451.5
167.00	Appurtenance(s)	1.00	1.41	34.978	38.48	274.61	0.650	0.000	2.00	4.619	3.00	184.8	0.0	175.3
170.00		1.00	1.42	35.110	38.62	267.95	0.650	0.000	3.00	6.780	4.41	272.3	0.0	257.2
175.00		1.00	1.42	35.324	38.86	256.76	0.650	0.000	5.00	10.901	7.09	440.5	0.0	413.4
177.00	Appurtenance(s)	1.00	1.43	35.409	38.95	252.26	0.650	0.000	2.00	4.221	2.74	171.0	0.0	160.0
180.00	Top - Section 4	1.00	1.43	35.535	39.09	245.48	0.650	0.000	3.00	6.182	4.02	251.3	0.0	234.3
185.00	Appurtenance(s)	1.00	1.44	35.740	39.31	246.19	0.650	0.000	5.00	10.154	6.60	415.2	0.0	432.3
190.00		1.00	1.45	35.941	39.54	246.88	0.650	0.000	5.00	10.154	6.60	417.5	0.0	432.3
Totals:									190.00			23,045.5		41,584.7

Discrete Appurtenance Forces

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 10

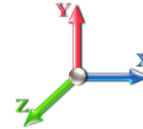


Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 26



No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	185.00	Low Profile Platform	1	35.740	39.314	1.00	1.00	22.00	1500.00	0.000	0.000	1383.86	0.00	0.00
2	185.00	ADC	6	35.740	39.314	0.40	0.80	0.24	115.20	0.000	0.000	15.10	0.00	0.00
3	185.00	Powerwave LGP21903	6	35.740	39.314	0.40	0.80	0.65	39.60	0.000	0.000	40.76	0.00	0.00
4	185.00	Powerwave LGP21401	6	35.740	39.314	0.40	0.80	3.10	101.52	0.000	0.000	194.75	0.00	0.00
5	185.00	Powerwave 7770.00	9	35.740	39.314	0.58	0.80	28.91	575.42	0.000	0.000	1818.39	0.00	0.00
6	177.00	Ericsson KRY 112 489/2	3	35.409	38.950	0.61	0.75	1.20	55.44	0.000	0.000	74.74	0.00	0.00
7	177.00	Platform w/ Hand Rails	1	35.409	38.950	1.00	1.00	32.00	1906.20	0.000	0.000	1994.24	0.00	0.00
8	177.00	APXVAARR24_43-U-NA2	3	35.409	38.950	0.52	0.75	31.88	460.80	0.000	0.000	1986.63	0.00	0.00
9	177.00	782 11056	3	35.409	38.950	0.38	0.75	0.25	4.68	0.000	0.000	15.42	0.00	0.00
10	177.00	AIR6419 B41	3	35.409	38.950	0.53	0.75	9.03	370.80	0.000	0.000	562.49	0.00	0.00
11	177.00	VV-65A-R1	3	35.409	38.950	0.55	0.75	13.15	106.20	0.000	0.000	819.72	0.00	0.00
12	177.00	4449 B71 + B85	3	35.409	38.950	0.38	0.75	2.22	263.52	0.000	0.000	138.12	0.00	0.00
13	177.00	8843 B25/B66A	3	35.409	38.950	0.38	0.75	1.84	259.20	0.000	0.000	114.98	0.00	0.00
14	167.00	LNx-6514DS-A1M	3	34.978	38.476	0.62	0.75	15.26	139.68	0.000	0.000	939.27	0.00	0.00
15	167.00	JAHH-65B-R3B	6	34.978	38.476	0.62	0.75	34.03	493.63	0.000	0.000	2094.68	0.00	0.00
16	167.00	Platform w/ Hand Rail	1	34.978	38.476	1.00	1.00	32.00	1920.00	0.000	0.000	1969.97	0.00	0.00
17	167.00	CBC78T-DS-43-2X	3	34.978	38.476	0.38	0.75	0.42	37.44	0.000	0.000	25.62	0.00	0.00
18	167.00	B5/B13 RRH-BR04C	3	34.978	38.476	0.38	0.75	2.10	253.08	0.000	0.000	129.51	0.00	0.00
19	167.00	B2/B66A RRH-BR049	3	34.978	38.476	0.38	0.75	2.10	303.84	0.000	0.000	129.51	0.00	0.00
20	167.00	VZS01	3	34.978	38.476	0.52	0.75	6.68	313.56	0.000	0.000	410.97	0.00	0.00
21	167.00	Rfs Celwave	2	34.978	38.476	0.38	0.75	1.89	105.60	0.000	0.000	116.35	0.00	0.00
22	157.00	SAF	4	34.526	37.979	1.00	1.00	4.88	36.96	0.000	0.000	296.54	0.00	0.00
23	157.00	VHLPX3-6W	1	34.526	37.979	1.00	1.00	10.68	63.60	0.000	0.000	648.99	0.00	0.00
24	157.00	SUX6-65B	1	34.526	37.979	1.00	1.00	35.67	250.80	0.000	0.000	2167.54	0.00	0.00
25	157.00	Flush Mount	2	34.526	37.979	1.00	1.00	10.00	840.00	0.000	0.000	607.66	0.00	0.00
26	150.00	Side Arm	1	34.196	37.616	1.00	1.00	4.50	144.00	0.000	0.000	270.84	0.00	0.00
27	150.00	ANT450F6	1	34.383	37.821	1.00	1.00	1.86	25.20	0.000	3.917	112.55	0.00	440.84
28	150.00	PAD6-59A	1	34.196	37.616	1.00	1.00	47.05	222.00	0.000	0.000	2831.74	0.00	0.00
29	135.00	Side Arm	1	33.446	36.791	1.00	1.00	4.50	144.00	0.000	0.000	264.89	0.00	0.00
30	135.00	ANT450F6	1	33.648	37.013	1.00	1.00	1.86	25.20	0.000	3.917	110.15	0.00	431.42
31	125.00	MC-PK8-DSH	1	32.909	36.200	1.00	1.00	37.59	2072.40	0.000	0.000	2177.19	0.00	0.00
32	125.00	RDIDC-9181-OF-48	1	32.909	36.200	1.00	1.00	2.01	26.28	0.000	0.000	116.42	0.00	0.00
33	125.00	TA08025-B604	3	32.909	36.200	0.38	0.75	2.21	230.04	0.000	0.000	127.71	0.00	0.00
34	125.00	TA08025-B605	3	32.909	36.200	0.38	0.75	2.21	270.00	0.000	0.000	127.71	0.00	0.00
35	125.00	MX08FRO665-21	3	32.909	36.200	0.55	0.75	20.80	232.20	0.000	0.000	1204.48	0.00	0.00
36	110.00	Antenex Y1505	2	32.035	35.238	1.00	1.00	7.20	12.00	0.000	0.000	405.95	0.00	0.00
37	110.00	Flush Mount	1	32.035	35.238	1.00	1.00	5.00	420.00	0.000	0.000	281.91	0.00	0.00
38	110.00	Telewave ANT450D6-9	2	32.035	35.238	1.00	1.00	5.54	43.20	0.000	0.000	312.35	0.00	0.00
39	110.00	Decibel DB212-1	2	32.035	35.238	1.00	1.00	13.00	74.40	0.000	0.000	732.96	0.00	0.00

Totals: 14,457.70

27,772.68

Total Applied Force Summary

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



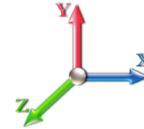
Page: 11

Load Case: 1.2D + 1.6W 101 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.60

Iterations 26



Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		652.33	2072.91	0.00	0.00
10.00		640.32	2039.54	0.00	0.00
15.00		628.30	2006.17	0.00	0.00
20.00		653.91	1972.80	0.00	0.00
25.00		672.00	1939.43	0.00	0.00
30.00		684.41	1906.06	0.00	0.00
35.00		692.64	1872.69	0.00	0.00
40.00		697.64	1839.32	0.00	0.00
41.00		138.48	363.86	0.00	0.00
45.00		566.53	2506.47	0.00	0.00
48.00		424.27	1853.83	0.00	0.00
50.00		282.20	627.83	0.00	0.00
55.00		708.75	1549.55	0.00	0.00
60.00		705.78	1520.95	0.00	0.00
65.00		701.44	1492.35	0.00	0.00
70.00		695.88	1463.74	0.00	0.00
75.00		689.22	1435.14	0.00	0.00
80.00		681.58	1406.54	0.00	0.00
85.00		673.05	1371.69	0.00	0.00
90.00		672.99	2253.60	0.00	0.00
91.00		132.81	444.43	0.00	0.00
95.00		528.98	921.18	0.00	0.00
100.00		652.31	1130.02	0.00	0.00
105.00		640.97	1099.95	0.00	0.00
110.00	(7) attachments	2362.19	1625.71	0.00	0.00
115.00		616.52	1046.03	0.00	0.00
120.00		603.48	1022.20	0.00	0.00
125.00	(11) attachments	4343.45	3829.28	0.00	0.00
130.00		575.92	963.61	0.00	0.00
135.00	(2) attachments	944.60	1674.87	0.00	431.42
140.00		554.73	784.38	0.00	0.00
145.00		539.50	765.31	0.00	0.00
150.00	(3) attachments	3739.01	1137.44	0.00	440.84
155.00		507.89	716.97	0.00	0.00
157.00	(8) attachments	3918.93	1472.81	0.00	0.00
160.00		292.56	411.59	0.00	0.00
165.00		474.87	670.73	0.00	0.00
167.00	(24) attachments	6000.74	3829.79	0.00	0.00
170.00		272.31	335.86	0.00	0.00
175.00		440.53	544.51	0.00	0.00
177.00	(22) attachments	5877.33	3639.31	0.00	0.00
180.00		251.32	241.19	0.00	0.00
185.00	(28) attachments	3868.02	2775.54	0.00	0.00
190.00		417.51	432.28	0.00	0.00
Totals:		50,818.16	65,009.45	0.00	872.26

Calculated Forces

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 12

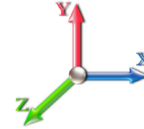


Load Case: 1.2D + 1.6W 101 mph Wind

Iterations 26

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	-64.92	-50.94	0.00	-6788.9	0.00	6788.90	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.898
5.00	-62.66	-50.51	0.00	-6534.2	0.00	6534.22	5740.33	2870.16	14846.1	7434.11	0.11	-0.205	0.000	0.890
10.00	-60.44	-50.08	0.00	-6281.6	0.00	6281.69	5675.91	2837.95	14402.8	7212.14	0.44	-0.414	0.000	0.882
15.00	-58.26	-49.65	0.00	-6031.3	0.00	6031.30	5609.85	2804.93	13961.8	6991.28	0.99	-0.627	0.000	0.873
20.00	-56.11	-49.19	0.00	-5783.0	0.00	5783.05	5542.15	2771.07	13523.1	6771.63	1.76	-0.843	0.000	0.864
25.00	-53.99	-48.69	0.00	-5537.1	0.00	5537.13	5472.81	2736.40	13087.2	6553.32	2.76	-1.062	0.000	0.855
30.00	-51.91	-48.17	0.00	-5293.6	0.00	5293.69	5401.82	2700.91	12654.1	6336.48	3.99	-1.285	0.000	0.845
35.00	-49.87	-47.63	0.00	-5052.8	0.00	5052.84	5329.20	2664.60	12224.2	6121.21	5.46	-1.512	0.000	0.835
40.00	-47.93	-47.00	0.00	-4814.6	0.00	4814.69	5254.93	2627.47	11797.7	5907.64	7.17	-1.742	0.000	0.824
41.00	-47.48	-46.95	0.00	-4767.6	0.00	4767.69	5239.88	2619.94	11712.8	5865.14	7.54	-1.789	0.000	0.822
45.00	-44.86	-46.43	0.00	-4579.9	0.00	4579.91	5179.02	2589.51	11374.8	5695.90	9.12	-1.978	0.000	0.813
48.00	-42.92	-46.03	0.00	-4440.6	0.00	4440.64	4202.19	2101.09	9258.62	4636.19	10.41	-2.121	0.000	0.969
50.00	-42.16	-45.86	0.00	-4348.5	0.00	4348.59	4180.07	2090.03	9128.39	4570.98	11.32	-2.218	0.000	0.962
55.00	-40.43	-45.27	0.00	-4119.3	0.00	4119.31	4123.62	2061.81	8804.12	4408.60	13.78	-2.486	0.000	0.945
60.00	-38.73	-44.68	0.00	-3892.9	0.00	3892.94	4065.54	2032.77	8481.93	4247.27	16.53	-2.756	0.000	0.927
65.00	-37.06	-44.09	0.00	-3669.5	0.00	3669.52	4005.81	2002.90	8162.06	4087.10	19.56	-3.030	0.000	0.908
70.00	-35.43	-43.48	0.00	-3449.0	0.00	3449.09	3944.44	1972.22	7844.75	3928.21	22.88	-3.306	0.000	0.888
75.00	-33.83	-42.87	0.00	-3231.6	0.00	3231.68	3881.43	1940.71	7530.24	3770.72	26.49	-3.585	0.000	0.866
80.00	-32.26	-42.26	0.00	-3017.3	0.00	3017.31	3816.78	1908.39	7218.77	3614.75	30.40	-3.866	0.000	0.844
85.00	-30.74	-41.65	0.00	-2806.0	0.00	2806.00	3750.48	1875.24	6910.57	3460.42	34.60	-4.148	0.000	0.820
90.00	-28.42	-40.89	0.00	-2597.7	0.00	2597.77	3682.55	1841.27	6605.90	3307.86	39.09	-4.431	0.000	0.794
91.00	-27.88	-40.79	0.00	-2556.8	0.00	2556.88	2898.33	1449.17	5260.79	2634.30	40.02	-4.490	0.000	0.981
95.00	-26.81	-40.32	0.00	-2393.7	0.00	2393.70	2860.60	1430.30	5080.74	2544.15	43.88	-4.718	0.000	0.951
100.00	-25.52	-39.72	0.00	-2192.0	0.00	2192.09	2811.95	1405.98	4857.28	2432.25	48.99	-5.041	0.000	0.911
105.00	-24.27	-39.12	0.00	-1993.4	0.00	1993.48	2761.66	1380.83	4635.80	2321.34	54.43	-5.361	0.000	0.868
110.00	-22.67	-36.74	0.00	-1797.8	0.00	1797.89	2709.73	1354.87	4416.54	2211.55	60.21	-5.677	0.000	0.822
115.00	-21.50	-36.13	0.00	-1614.2	0.00	1614.22	2656.16	1328.08	4199.76	2103.00	66.31	-5.987	0.000	0.776
120.00	-20.37	-35.53	0.00	-1433.5	0.00	1433.56	2600.95	1300.48	3985.68	1995.80	72.74	-6.290	0.000	0.727
125.00	-16.89	-30.87	0.00	-1255.9	0.00	1255.92	2544.10	1272.05	3774.55	1890.08	79.47	-6.584	0.000	0.672
130.00	-15.86	-30.26	0.00	-1101.5	0.00	1101.58	2485.60	1242.80	3566.61	1785.96	86.50	-6.868	0.000	0.624
135.00	-14.18	-29.19	0.00	-949.85	0.00	949.85	1823.78	911.89	2575.19	1289.51	93.83	-7.141	0.000	0.745
140.00	-13.33	-28.60	0.00	-803.92	0.00	803.92	1784.40	892.20	2432.60	1218.11	101.43	-7.399	0.000	0.668
145.00	-12.51	-28.02	0.00	-660.93	0.00	660.93	1743.38	871.69	2291.70	1147.55	109.31	-7.684	0.000	0.584
150.00	-11.79	-24.21	0.00	-520.37	0.00	520.37	1700.71	850.36	2152.72	1077.96	117.48	-7.940	0.000	0.490
155.00	-11.09	-23.64	0.00	-399.30	0.00	399.30	1656.41	828.20	2015.90	1009.45	125.89	-8.163	0.000	0.403
157.00	-10.16	-19.57	0.00	-352.03	0.00	352.03	1638.23	819.11	1961.83	982.37	129.32	-8.245	0.000	0.365
160.00	-9.75	-19.24	0.00	-293.32	0.00	293.32	1610.46	805.23	1881.48	942.14	134.52	-8.355	0.000	0.318
165.00	-9.13	-18.69	0.00	-197.12	0.00	197.12	1562.88	781.44	1749.71	876.15	143.32	-8.506	0.000	0.231
167.00	-6.22	-12.19	0.00	-159.74	0.00	159.74	1543.38	771.69	1697.79	850.16	146.88	-8.556	0.000	0.192
170.00	-5.91	-11.88	0.00	-123.16	0.00	123.16	1513.65	756.82	1620.81	811.61	152.26	-8.619	0.000	0.156
175.00	-5.43	-11.37	0.00	-63.76	0.00	63.76	1462.77	731.39	1495.04	748.63	161.30	-8.693	0.000	0.089
177.00	-2.72	-5.01	0.00	-41.03	0.00	41.03	1441.72	720.86	1445.41	723.78	164.93	-8.713	0.000	0.059
180.00	-2.52	-4.72	0.00	-26.01	0.00	26.01	1400.09	700.04	1362.73	682.38	170.39	-8.732	0.000	0.040
180.00	-2.52	-4.72	0.00	-26.01	0.00	26.01	1210.02	605.01	1174.63	588.19	170.39	-8.732	0.000	0.046
185.00	-0.36	-0.48	0.00	-2.39	0.00	2.39	1210.02	605.01	1174.63	588.19	179.51	-8.747	0.000	0.004
190.00	0.00	-0.42	0.00	0.00	0.00	0.00	1210.02	605.01	1174.63	588.19	188.63	-8.748	0.000	0.000

Wind Loading - Shaft

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 13

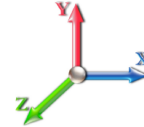


Load Case: 0.9D + 1.6W 101 mph Wind

Iterations 26

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	0.85	21.088	23.20	508.23	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	21.088	23.20	498.95	0.650	0.000	5.00	27.041	17.58	652.3	0.0	1349.6
10.00		1.00	0.85	21.088	23.20	489.68	0.650	0.000	5.00	26.543	17.25	640.3	0.0	1324.6
15.00		1.00	0.85	21.088	23.20	480.40	0.650	0.000	5.00	26.045	16.93	628.3	0.0	1299.6
20.00		1.00	0.90	22.375	24.61	485.29	0.650	0.000	5.00	25.547	16.61	653.9	0.0	1274.5
25.00		1.00	0.95	23.451	25.80	487.05	0.650	0.000	5.00	25.049	16.28	672.0	0.0	1249.5
30.00		1.00	0.98	24.369	26.81	486.51	0.650	0.000	5.00	24.550	15.96	684.4	0.0	1224.5
35.00		1.00	1.01	25.172	27.69	484.34	0.650	0.000	5.00	24.052	15.63	692.6	0.0	1199.5
40.00		1.00	1.04	25.890	28.48	480.92	0.650	0.000	5.00	23.554	15.31	697.6	0.0	1174.4
41.00	Bot - Section 2	1.00	1.05	26.025	28.63	480.11	0.650	0.000	1.00	4.651	3.02	138.5	0.0	231.9
45.00		1.00	1.07	26.540	29.19	476.51	0.650	0.000	4.00	18.659	12.13	566.5	0.0	1715.8
48.00	Top - Section 1	1.00	1.08	26.903	29.59	473.48	0.650	0.000	3.00	13.785	8.96	424.3	0.0	1267.3
50.00		1.00	1.09	27.135	29.85	478.01	0.650	0.000	2.00	9.091	5.91	282.2	0.0	388.8
55.00		1.00	1.12	27.685	30.45	472.20	0.650	0.000	5.00	22.378	14.55	708.7	0.0	957.1
60.00		1.00	1.14	28.197	31.02	465.82	0.650	0.000	5.00	21.880	14.22	705.8	0.0	935.6
65.00		1.00	1.16	28.676	31.54	458.95	0.650	0.000	5.00	21.382	13.90	701.4	0.0	914.2
70.00		1.00	1.17	29.127	32.04	451.64	0.650	0.000	5.00	20.884	13.57	695.9	0.0	892.7
75.00		1.00	1.19	29.553	32.51	443.95	0.650	0.000	5.00	20.386	13.25	689.2	0.0	871.3
80.00		1.00	1.21	29.958	32.95	435.93	0.650	0.000	5.00	19.888	12.93	681.6	0.0	849.8
85.00	Bot - Section 3	1.00	1.22	30.342	33.38	427.59	0.650	0.000	5.00	19.390	12.60	673.0	0.0	828.4
90.00		1.00	1.24	30.710	33.78	418.98	0.650	0.000	5.00	19.156	12.45	673.0	0.0	1489.8
91.00	Top - Section 2	1.00	1.24	30.781	33.86	417.23	0.650	0.000	1.00	3.771	2.45	132.8	0.0	293.2
95.00		1.00	1.25	31.061	34.17	416.09	0.650	0.000	4.00	14.887	9.68	529.0	0.0	530.6
100.00		1.00	1.27	31.399	34.54	407.03	0.650	0.000	5.00	18.160	11.80	652.3	0.0	647.1
105.00		1.00	1.28	31.723	34.89	397.75	0.650	0.000	5.00	17.662	11.48	641.0	0.0	629.3
110.00	Appurtenance(s)	1.00	1.29	32.035	35.24	388.27	0.650	0.000	5.00	17.164	11.16	629.0	0.0	611.4
115.00		1.00	1.30	32.336	35.57	378.60	0.650	0.000	5.00	16.666	10.83	616.5	0.0	593.5
120.00		1.00	1.32	32.627	35.89	368.77	0.650	0.000	5.00	16.168	10.51	603.5	0.0	575.6
125.00	Appurtenance(s)	1.00	1.33	32.909	36.20	358.77	0.650	0.000	5.00	15.670	10.19	589.9	0.0	557.7
130.00	Bot - Section 4	1.00	1.34	33.182	36.50	348.62	0.650	0.000	5.00	15.172	9.86	575.9	0.0	539.9
135.00	Top - Section 3	1.00	1.35	33.446	36.79	338.33	0.650	0.000	5.00	14.885	9.68	569.6	0.0	946.4
140.00		1.00	1.36	33.703	37.07	332.88	0.650	0.000	5.00	14.387	9.35	554.7	0.0	410.1
145.00		1.00	1.37	33.953	37.35	322.34	0.650	0.000	5.00	13.889	9.03	539.5	0.0	395.8
150.00	Appurtenance(s)	1.00	1.38	34.196	37.62	311.68	0.650	0.000	5.00	13.391	8.70	523.9	0.0	381.5
155.00		1.00	1.39	34.433	37.88	300.91	0.650	0.000	5.00	12.893	8.38	507.9	0.0	367.2
157.00	Appurtenance(s)	1.00	1.39	34.526	37.98	296.57	0.650	0.000	2.00	5.018	3.26	198.2	0.0	142.9
160.00		1.00	1.40	34.664	38.13	290.02	0.650	0.000	3.00	7.377	4.80	292.6	0.0	210.0
165.00		1.00	1.41	34.890	38.38	279.04	0.650	0.000	5.00	11.897	7.73	474.9	0.0	338.6
167.00	Appurtenance(s)	1.00	1.41	34.978	38.48	274.61	0.650	0.000	2.00	4.619	3.00	184.8	0.0	131.4
170.00		1.00	1.42	35.110	38.62	267.95	0.650	0.000	3.00	6.780	4.41	272.3	0.0	192.9
175.00		1.00	1.42	35.324	38.86	256.76	0.650	0.000	5.00	10.901	7.09	440.5	0.0	310.0
177.00	Appurtenance(s)	1.00	1.43	35.409	38.95	252.26	0.650	0.000	2.00	4.221	2.74	171.0	0.0	120.0
180.00	Top - Section 4	1.00	1.43	35.535	39.09	245.48	0.650	0.000	3.00	6.182	4.02	251.3	0.0	175.7
185.00	Appurtenance(s)	1.00	1.44	35.740	39.31	246.19	0.650	0.000	5.00	10.154	6.60	415.2	0.0	324.2
190.00		1.00	1.45	35.941	39.54	246.88	0.650	0.000	5.00	10.154	6.60	417.5	0.0	324.2
Totals:									190.00			23,045.5		31,188.5

Discrete Appurtenance Forces

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 14

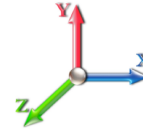


Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60

Iterations 26



No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	185.00	Low Profile Platform	1	35.740	39.314	1.00	1.00	22.00	1125.00	0.000	0.000	1383.86	0.00	0.00
2	185.00	ADC	6	35.740	39.314	0.40	0.80	0.24	86.40	0.000	0.000	15.10	0.00	0.00
3	185.00	Powerwave LGP21903	6	35.740	39.314	0.40	0.80	0.65	29.70	0.000	0.000	40.76	0.00	0.00
4	185.00	Powerwave LGP21401	6	35.740	39.314	0.40	0.80	3.10	76.14	0.000	0.000	194.75	0.00	0.00
5	185.00	Powerwave 7770.00	9	35.740	39.314	0.58	0.80	28.91	431.57	0.000	0.000	1818.39	0.00	0.00
6	177.00	Ericsson KRY 112 489/2	3	35.409	38.950	0.61	0.75	1.20	41.58	0.000	0.000	74.74	0.00	0.00
7	177.00	Platform w/ Hand Rails	1	35.409	38.950	1.00	1.00	32.00	1429.65	0.000	0.000	1994.24	0.00	0.00
8	177.00	APXVAARR24_43-U-NA2	3	35.409	38.950	0.52	0.75	31.88	345.60	0.000	0.000	1986.63	0.00	0.00
9	177.00	782 11056	3	35.409	38.950	0.38	0.75	0.25	3.51	0.000	0.000	15.42	0.00	0.00
10	177.00	AIR6419 B41	3	35.409	38.950	0.53	0.75	9.03	278.10	0.000	0.000	562.49	0.00	0.00
11	177.00	VV-65A-R1	3	35.409	38.950	0.55	0.75	13.15	79.65	0.000	0.000	819.72	0.00	0.00
12	177.00	4449 B71 + B85	3	35.409	38.950	0.38	0.75	2.22	197.64	0.000	0.000	138.12	0.00	0.00
13	177.00	8843 B25/B66A	3	35.409	38.950	0.38	0.75	1.84	194.40	0.000	0.000	114.98	0.00	0.00
14	167.00	LNx-6514DS-A1M	3	34.978	38.476	0.62	0.75	15.26	104.76	0.000	0.000	939.27	0.00	0.00
15	167.00	JAHH-65B-R3B	6	34.978	38.476	0.62	0.75	34.03	370.22	0.000	0.000	2094.68	0.00	0.00
16	167.00	Platform w/ Hand Rail	1	34.978	38.476	1.00	1.00	32.00	1440.00	0.000	0.000	1969.97	0.00	0.00
17	167.00	CBC78T-DS-43-2X	3	34.978	38.476	0.38	0.75	0.42	28.08	0.000	0.000	25.62	0.00	0.00
18	167.00	B5/B13 RRH-BR04C	3	34.978	38.476	0.38	0.75	2.10	189.81	0.000	0.000	129.51	0.00	0.00
19	167.00	B2/B66A RRH-BR049	3	34.978	38.476	0.38	0.75	2.10	227.88	0.000	0.000	129.51	0.00	0.00
20	167.00	VZS01	3	34.978	38.476	0.52	0.75	6.68	235.17	0.000	0.000	410.97	0.00	0.00
21	167.00	Rfs Celwave	2	34.978	38.476	0.38	0.75	1.89	79.20	0.000	0.000	116.35	0.00	0.00
22	157.00	SAF	4	34.526	37.979	1.00	1.00	4.88	27.72	0.000	0.000	296.54	0.00	0.00
23	157.00	VHLPX3-6W	1	34.526	37.979	1.00	1.00	10.68	47.70	0.000	0.000	648.99	0.00	0.00
24	157.00	SUX6-65B	1	34.526	37.979	1.00	1.00	35.67	188.10	0.000	0.000	2167.54	0.00	0.00
25	157.00	Flush Mount	2	34.526	37.979	1.00	1.00	10.00	630.00	0.000	0.000	607.66	0.00	0.00
26	150.00	Side Arm	1	34.196	37.616	1.00	1.00	4.50	108.00	0.000	0.000	270.84	0.00	0.00
27	150.00	ANT450F6	1	34.383	37.821	1.00	1.00	1.86	18.90	0.000	3.917	112.55	0.00	440.84
28	150.00	PAD6-59A	1	34.196	37.616	1.00	1.00	47.05	166.50	0.000	0.000	2831.74	0.00	0.00
29	135.00	Side Arm	1	33.446	36.791	1.00	1.00	4.50	108.00	0.000	0.000	264.89	0.00	0.00
30	135.00	ANT450F6	1	33.648	37.013	1.00	1.00	1.86	18.90	0.000	3.917	110.15	0.00	431.42
31	125.00	MC-PK8-DSH	1	32.909	36.200	1.00	1.00	37.59	1554.30	0.000	0.000	2177.19	0.00	0.00
32	125.00	RDIDC-9181-OF-48	1	32.909	36.200	1.00	1.00	2.01	19.71	0.000	0.000	116.42	0.00	0.00
33	125.00	TA08025-B604	3	32.909	36.200	0.38	0.75	2.21	172.53	0.000	0.000	127.71	0.00	0.00
34	125.00	TA08025-B605	3	32.909	36.200	0.38	0.75	2.21	202.50	0.000	0.000	127.71	0.00	0.00
35	125.00	MX08FRO665-21	3	32.909	36.200	0.55	0.75	20.80	174.15	0.000	0.000	1204.48	0.00	0.00
36	110.00	Antenex Y1505	2	32.035	35.238	1.00	1.00	7.20	9.00	0.000	0.000	405.95	0.00	0.00
37	110.00	Flush Mount	1	32.035	35.238	1.00	1.00	5.00	315.00	0.000	0.000	281.91	0.00	0.00
38	110.00	Telewave ANT450D6-9	2	32.035	35.238	1.00	1.00	5.54	32.40	0.000	0.000	312.35	0.00	0.00
39	110.00	Decibel DB212-1	2	32.035	35.238	1.00	1.00	13.00	55.80	0.000	0.000	732.96	0.00	0.00

Totals: 10,843.27

27,772.68

Total Applied Force Summary

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

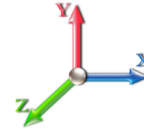


Page: 15

Load Case: 0.9D + 1.6W 101 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 26

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		652.33	1554.68	0.00	0.00
10.00		640.32	1529.66	0.00	0.00
15.00		628.30	1504.63	0.00	0.00
20.00		653.91	1479.60	0.00	0.00
25.00		672.00	1454.57	0.00	0.00
30.00		684.41	1429.54	0.00	0.00
35.00		692.64	1404.52	0.00	0.00
40.00		697.64	1379.49	0.00	0.00
41.00		138.48	272.89	0.00	0.00
45.00		566.53	1879.85	0.00	0.00
48.00		424.27	1390.37	0.00	0.00
50.00		282.20	470.87	0.00	0.00
55.00		708.75	1162.16	0.00	0.00
60.00		705.78	1140.71	0.00	0.00
65.00		701.44	1119.26	0.00	0.00
70.00		695.88	1097.81	0.00	0.00
75.00		689.22	1076.36	0.00	0.00
80.00		681.58	1054.90	0.00	0.00
85.00		673.05	1028.77	0.00	0.00
90.00		672.99	1690.20	0.00	0.00
91.00		132.81	333.32	0.00	0.00
95.00		528.98	690.88	0.00	0.00
100.00		652.31	847.52	0.00	0.00
105.00		640.97	824.96	0.00	0.00
110.00	(7) attachments	2362.19	1219.28	0.00	0.00
115.00		616.52	784.53	0.00	0.00
120.00		603.48	766.65	0.00	0.00
125.00	(11) attachments	4343.45	2871.96	0.00	0.00
130.00		575.92	722.70	0.00	0.00
135.00	(2) attachments	944.60	1256.16	0.00	431.42
140.00		554.73	588.28	0.00	0.00
145.00		539.50	573.98	0.00	0.00
150.00	(3) attachments	3739.01	853.08	0.00	440.84
155.00		507.89	537.73	0.00	0.00
157.00	(8) attachments	3918.93	1104.61	0.00	0.00
160.00		292.56	308.69	0.00	0.00
165.00		474.87	503.05	0.00	0.00
167.00	(24) attachments	6000.74	2872.34	0.00	0.00
170.00		272.31	251.90	0.00	0.00
175.00		440.53	408.39	0.00	0.00
177.00	(22) attachments	5877.33	2729.48	0.00	0.00
180.00		251.32	180.90	0.00	0.00
185.00	(28) attachments	3868.02	2081.65	0.00	0.00
190.00		417.51	324.21	0.00	0.00
Totals:		50,818.16	48,757.09	0.00	872.26

Calculated Forces

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 16

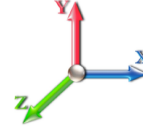


Load Case: 0.9D + 1.6W 101 mph Wind

Iterations 26

Dead Load Factor 0.90

Wind Load Factor 1.60



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-48.66	-50.91	0.00	-6701.3	0.00	6701.35	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.884
5.00	-46.93	-50.42	0.00	-6446.8	0.00	6446.83	5740.33	2870.16	14846.1	7434.11	0.11	-0.203	0.000	0.876
10.00	-45.22	-49.93	0.00	-6194.7	0.00	6194.74	5675.91	2837.95	14402.8	7212.14	0.43	-0.409	0.000	0.867
15.00	-43.54	-49.45	0.00	-5945.0	0.00	5945.07	5609.85	2804.93	13961.8	6991.28	0.97	-0.618	0.000	0.858
20.00	-41.89	-48.94	0.00	-5697.8	0.00	5697.81	5542.15	2771.07	13523.1	6771.63	1.74	-0.831	0.000	0.849
25.00	-40.26	-48.40	0.00	-5453.1	0.00	5453.12	5472.81	2736.40	13087.2	6553.32	2.72	-1.047	0.000	0.840
30.00	-38.66	-47.83	0.00	-5211.1	0.00	5211.15	5401.82	2700.91	12654.1	6336.48	3.94	-1.267	0.000	0.830
35.00	-37.09	-47.25	0.00	-4971.9	0.00	4971.99	5329.20	2664.60	12224.2	6121.21	5.38	-1.490	0.000	0.820
40.00	-35.62	-46.60	0.00	-4735.7	0.00	4735.73	5254.93	2627.47	11797.7	5907.64	7.07	-1.716	0.000	0.809
41.00	-35.26	-46.53	0.00	-4689.1	0.00	4689.13	5239.88	2619.94	11712.8	5865.14	7.43	-1.763	0.000	0.807
45.00	-33.27	-45.99	0.00	-4503.0	0.00	4503.04	5179.02	2589.51	11374.8	5695.90	8.99	-1.948	0.000	0.797
48.00	-31.80	-45.59	0.00	-4365.0	0.00	4365.06	4202.19	2101.09	9258.62	4636.19	10.26	-2.089	0.000	0.950
50.00	-31.19	-45.38	0.00	-4273.8	0.00	4273.89	4180.07	2090.03	9128.39	4570.98	11.15	-2.184	0.000	0.943
55.00	-29.86	-44.77	0.00	-4046.9	0.00	4046.97	4123.62	2061.81	8804.12	4408.60	13.58	-2.447	0.000	0.926
60.00	-28.54	-44.14	0.00	-3823.1	0.00	3823.14	4065.54	2032.77	8481.93	4247.27	16.29	-2.713	0.000	0.908
65.00	-27.25	-43.52	0.00	-3602.4	0.00	3602.42	4005.81	2002.90	8162.06	4087.10	19.27	-2.982	0.000	0.889
70.00	-25.99	-42.89	0.00	-3384.8	0.00	3384.83	3944.44	1972.22	7844.75	3928.21	22.54	-3.253	0.000	0.869
75.00	-24.76	-42.25	0.00	-3170.4	0.00	3170.40	3881.43	1940.71	7530.24	3770.72	26.09	-3.527	0.000	0.848
80.00	-23.55	-41.62	0.00	-2959.1	0.00	2959.14	3816.78	1908.39	7218.77	3614.75	29.93	-3.802	0.000	0.825
85.00	-22.37	-40.99	0.00	-2751.0	0.00	2751.04	3750.48	1875.24	6910.57	3460.42	34.06	-4.079	0.000	0.801
90.00	-20.62	-40.25	0.00	-2546.1	0.00	2546.10	3682.55	1841.27	6605.90	3307.86	38.48	-4.356	0.000	0.776
91.00	-20.20	-40.14	0.00	-2505.8	0.00	2505.85	2898.33	1449.17	5260.79	2634.30	39.39	-4.414	0.000	0.959
95.00	-19.36	-39.65	0.00	-2345.2	0.00	2345.28	2860.60	1430.30	5080.74	2544.15	43.19	-4.637	0.000	0.929
100.00	-18.36	-39.03	0.00	-2147.0	0.00	2147.02	2811.95	1405.98	4857.28	2432.25	48.21	-4.954	0.000	0.890
105.00	-17.38	-38.42	0.00	-1951.8	0.00	1951.85	2761.66	1380.83	4635.80	2321.34	53.56	-5.267	0.000	0.848
110.00	-16.20	-36.04	0.00	-1759.7	0.00	1759.76	2709.73	1354.87	4416.54	2211.55	59.23	-5.576	0.000	0.802
115.00	-15.30	-35.43	0.00	-1579.5	0.00	1579.58	2656.16	1328.08	4199.76	2103.00	65.23	-5.880	0.000	0.758
120.00	-14.42	-34.82	0.00	-1402.4	0.00	1402.45	2600.95	1300.48	3985.68	1995.80	71.54	-6.177	0.000	0.709
125.00	-11.90	-30.25	0.00	-1228.3	0.00	1228.35	2544.10	1272.05	3774.55	1890.08	78.15	-6.464	0.000	0.655
130.00	-11.10	-29.64	0.00	-1077.1	0.00	1077.12	2485.60	1242.80	3566.61	1785.96	85.06	-6.742	0.000	0.608
135.00	-9.84	-28.60	0.00	-928.48	0.00	928.48	1823.78	911.89	2575.19	1289.51	92.24	-7.008	0.000	0.726
140.00	-9.19	-28.02	0.00	-785.48	0.00	785.48	1784.40	892.20	2432.60	1218.11	99.70	-7.260	0.000	0.651
145.00	-8.57	-27.45	0.00	-645.39	0.00	645.39	1743.38	871.69	2291.70	1147.55	107.44	-7.539	0.000	0.568
150.00	-8.13	-23.66	0.00	-507.70	0.00	507.70	1700.71	850.36	2152.72	1077.96	115.45	-7.789	0.000	0.477
155.00	-7.60	-23.11	0.00	-389.38	0.00	389.38	1656.41	828.20	2015.90	1009.45	123.70	-8.006	0.000	0.391
157.00	-7.03	-19.08	0.00	-343.16	0.00	343.16	1638.23	819.11	1961.83	982.37	127.07	-8.086	0.000	0.354
160.00	-6.72	-18.77	0.00	-285.92	0.00	285.92	1610.46	805.23	1881.48	942.14	132.17	-8.194	0.000	0.308
165.00	-6.26	-18.23	0.00	-192.09	0.00	192.09	1562.88	781.44	1749.71	876.15	140.80	-8.341	0.000	0.224
167.00	-4.28	-11.88	0.00	-155.63	0.00	155.63	1543.38	771.69	1697.79	850.16	144.30	-8.390	0.000	0.186
170.00	-4.06	-11.58	0.00	-119.98	0.00	119.98	1513.65	756.82	1620.81	811.61	149.57	-8.451	0.000	0.151
175.00	-3.71	-11.09	0.00	-62.07	0.00	62.07	1462.77	731.39	1495.04	748.63	158.43	-8.523	0.000	0.086
177.00	-1.88	-4.87	0.00	-39.90	0.00	39.90	1441.72	720.86	1445.41	723.78	161.99	-8.542	0.000	0.056
180.00	-1.74	-4.60	0.00	-25.29	0.00	25.29	1400.09	700.04	1362.73	682.38	167.35	-8.561	0.000	0.038
180.00	-1.74	-4.60	0.00	-25.29	0.00	25.29	1210.02	605.01	1174.63	588.19	167.35	-8.561	0.000	0.044
185.00	-0.26	-0.46	0.00	-2.31	0.00	2.31	1210.02	605.01	1174.63	588.19	176.29	-8.576	0.000	0.004
190.00	0.00	-0.42	0.00	0.00	0.00	0.00	1210.02	605.01	1174.63	588.19	185.24	-8.577	0.000	0.000

Wind Loading - Shaft

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 17

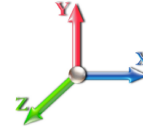


Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	5.168	5.68	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	5.168	5.68	0.00	1.200	1.656	5.00	28.421	34.10	193.9	674.1	2473.6
10.00		1.00	0.85	5.168	5.68	0.00	1.200	1.775	5.00	28.022	33.63	191.2	710.7	2476.8
15.00		1.00	0.85	5.168	5.68	0.00	1.200	1.848	5.00	27.585	33.10	188.2	727.3	2460.0
20.00		1.00	0.90	5.483	6.03	0.00	1.200	1.902	5.00	27.132	32.56	196.4	735.1	2434.5
25.00		1.00	0.95	5.747	6.32	0.00	1.200	1.945	5.00	26.670	32.00	202.3	737.9	2403.9
30.00		1.00	0.98	5.972	6.57	0.00	1.200	1.981	5.00	26.201	31.44	206.5	737.3	2369.9
35.00		1.00	1.01	6.169	6.79	0.00	1.200	2.012	5.00	25.729	30.87	209.5	734.3	2333.5
40.00		1.00	1.04	6.345	6.98	0.00	1.200	2.039	5.00	25.253	30.30	211.5	729.4	2295.3
41.00	Bot - Section 2	1.00	1.05	6.378	7.02	0.00	1.200	2.044	1.00	4.992	5.99	42.0	145.7	454.8
45.00		1.00	1.07	6.504	7.15	0.00	1.200	2.063	4.00	20.035	24.04	172.0	586.3	2874.0
48.00	Top - Section 1	1.00	1.08	6.593	7.25	0.00	1.200	2.076	3.00	14.823	17.79	129.0	437.2	2126.9
50.00		1.00	1.09	6.650	7.32	0.00	1.200	2.085	2.00	9.785	11.74	85.9	290.2	808.7
55.00		1.00	1.12	6.785	7.46	0.00	1.200	2.105	5.00	24.132	28.96	216.1	717.2	1993.3
60.00		1.00	1.14	6.910	7.60	0.00	1.200	2.123	5.00	23.649	28.38	215.7	708.1	1955.6
65.00		1.00	1.16	7.028	7.73	0.00	1.200	2.140	5.00	23.165	27.80	214.9	698.2	1917.1
70.00		1.00	1.17	7.138	7.85	0.00	1.200	2.156	5.00	22.681	27.22	213.7	687.7	1878.0
75.00		1.00	1.19	7.243	7.97	0.00	1.200	2.171	5.00	22.195	26.63	212.2	676.6	1838.4
80.00		1.00	1.21	7.342	8.08	0.00	1.200	2.185	5.00	21.709	26.05	210.4	665.1	1798.2
85.00	Bot - Section 3	1.00	1.22	7.436	8.18	0.00	1.200	2.198	5.00	21.222	25.47	208.3	653.1	1757.6
90.00		1.00	1.24	7.526	8.28	0.00	1.200	2.211	5.00	20.999	25.20	208.6	649.4	2635.8
91.00	Top - Section 2	1.00	1.24	7.544	8.30	0.00	1.200	2.214	1.00	4.140	4.97	41.2	129.4	520.4
95.00		1.00	1.25	7.612	8.37	0.00	1.200	2.223	4.00	16.369	19.64	164.5	509.3	1216.8
100.00		1.00	1.27	7.695	8.46	0.00	1.200	2.234	5.00	20.022	24.03	203.4	623.6	1486.4
105.00		1.00	1.28	7.774	8.55	0.00	1.200	2.245	5.00	19.533	23.44	200.5	610.2	1449.2
110.00	Appurtenance(s)	1.00	1.29	7.851	8.64	0.00	1.200	2.256	5.00	19.044	22.85	197.4	596.6	1411.8
115.00		1.00	1.30	7.925	8.72	0.00	1.200	2.266	5.00	18.554	22.27	194.1	582.7	1374.0
120.00		1.00	1.32	7.996	8.80	0.00	1.200	2.276	5.00	18.064	21.68	190.7	568.5	1336.0
125.00	Appurtenance(s)	1.00	1.33	8.065	8.87	0.00	1.200	2.285	5.00	17.574	21.09	187.1	554.1	1297.8
130.00	Bot - Section 4	1.00	1.34	8.132	8.95	0.00	1.200	2.294	5.00	17.083	20.50	183.4	539.5	1259.3
135.00	Top - Section 3	1.00	1.35	8.197	9.02	0.00	1.200	2.303	5.00	16.804	20.17	181.8	531.9	1793.8
140.00		1.00	1.36	8.260	9.09	0.00	1.200	2.311	5.00	16.313	19.58	177.9	516.9	1063.7
145.00		1.00	1.37	8.321	9.15	0.00	1.200	2.319	5.00	15.822	18.99	173.8	501.7	1029.5
150.00	Appurtenance(s)	1.00	1.38	8.381	9.22	0.00	1.200	2.327	5.00	15.331	18.40	169.6	486.4	995.1
155.00		1.00	1.39	8.439	9.28	0.00	1.200	2.335	5.00	14.839	17.81	165.3	470.9	960.5
157.00	Appurtenance(s)	1.00	1.39	8.462	9.31	0.00	1.200	2.338	2.00	5.797	6.96	64.7	185.8	376.4
160.00		1.00	1.40	8.495	9.34	0.00	1.200	2.342	3.00	8.548	10.26	95.9	273.1	553.2
165.00		1.00	1.41	8.551	9.41	0.00	1.200	2.349	5.00	13.855	16.63	156.4	439.4	890.9
167.00	Appurtenance(s)	1.00	1.41	8.572	9.43	0.00	1.200	2.352	2.00	5.404	6.48	61.1	173.2	348.5
170.00		1.00	1.42	8.604	9.46	0.00	1.200	2.356	3.00	7.958	9.55	90.4	254.0	511.2
175.00		1.00	1.42	8.657	9.52	0.00	1.200	2.363	5.00	12.871	15.44	147.1	407.3	820.7
177.00	Appurtenance(s)	1.00	1.43	8.678	9.55	0.00	1.200	2.366	2.00	5.010	6.01	57.4	160.3	320.3
180.00	Top - Section 4	1.00	1.43	8.709	9.58	0.00	1.200	2.370	3.00	7.367	8.84	84.7	234.6	468.9
185.00	Appurtenance(s)	1.00	1.44	8.759	9.63	0.00	1.200	2.376	5.00	12.134	14.56	140.3	392.2	824.5
190.00		1.00	1.45	8.808	9.69	0.00	1.200	2.383	5.00	12.140	14.57	141.1	393.4	825.7
Totals:									190.00			7,197.9		64,420.4

Discrete Appurtenance Forces

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 18

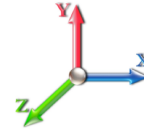


Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	185.00	Low Profile Platform	1	8.759	9.635	1.00	1.00	46.05	2753.84	0.000	0.000	443.67	0.00	0.00
2	185.00	ADC	6	8.759	9.635	0.40	0.80	0.24	79.27	0.000	0.000	2.33	0.00	0.00
3	185.00	Powerwave LGP21903	6	8.759	9.635	0.40	0.80	1.95	99.81	0.000	0.000	18.76	0.00	0.00
4	185.00	Powerwave LGP21401	6	8.759	9.635	0.40	0.80	5.83	270.55	0.000	0.000	56.14	0.00	0.00
5	185.00	Powerwave 7770.00	9	8.759	9.635	0.58	0.80	36.71	2370.52	0.000	0.000	353.72	0.00	0.00
6	177.00	Ericsson KRY 112 489/2	3	8.678	9.546	0.61	0.75	2.73	115.52	0.000	0.000	26.06	0.00	0.00
7	177.00	Platform w/ Hand Rails	1	8.678	9.546	1.00	1.00	69.85	4291.58	0.000	0.000	666.79	0.00	0.00
8	177.00	APXVAARR24_43-U-NA2	3	8.678	9.546	0.52	0.75	35.99	2238.03	0.000	0.000	343.53	0.00	0.00
9	177.00	782 11056	3	8.678	9.546	0.38	0.75	0.58	56.42	0.000	0.000	5.52	0.00	0.00
10	177.00	AIR6419 B41	3	8.678	9.546	0.53	0.75	11.08	833.33	0.000	0.000	105.81	0.00	0.00
11	177.00	VV-65A-R1	3	8.678	9.546	0.55	0.75	16.11	867.87	0.000	0.000	153.76	0.00	0.00
12	177.00	4449 B71 + B85	3	8.678	9.546	0.38	0.75	3.08	323.15	0.000	0.000	29.44	0.00	0.00
13	177.00	8843 B25/B66A	3	8.678	9.546	0.38	0.75	2.60	413.70	0.000	0.000	24.84	0.00	0.00
14	167.00	LNx-6514DS-A1M	3	8.572	9.429	0.62	0.75	22.36	709.53	0.000	0.000	210.87	0.00	0.00
15	167.00	JAHH-65B-R3B	6	8.572	9.429	0.62	0.75	40.94	2470.72	0.000	0.000	386.08	0.00	0.00
16	167.00	Platform w/ Hand Rail	1	8.572	9.429	1.00	1.00	69.63	4150.01	0.000	0.000	656.60	0.00	0.00
17	167.00	CBC78T-DS-43-2X	3	8.572	9.429	0.38	0.75	0.88	135.89	0.000	0.000	8.27	0.00	0.00
18	167.00	B5/B13 RRH-BR04C	3	8.572	9.429	0.38	0.75	3.00	559.21	0.000	0.000	28.31	0.00	0.00
19	167.00	B2/B66A RRH-BR049	3	8.572	9.429	0.38	0.75	3.00	640.12	0.000	0.000	28.31	0.00	0.00
20	167.00	VZS01	3	8.572	9.429	0.52	0.75	8.56	796.82	0.000	0.000	80.76	0.00	0.00
21	167.00	Rfs Celwave	2	8.572	9.429	0.38	0.75	3.13	234.48	0.000	0.000	29.47	0.00	0.00
22	157.00	SAF	4	8.462	9.308	1.00	1.00	9.14	142.74	0.000	0.000	85.05	0.00	0.00
23	157.00	VHLPX3-6W	1	8.462	9.308	1.00	1.00	13.25	292.65	0.000	0.000	123.29	0.00	0.00
24	157.00	SUX6-65B	1	8.462	9.308	1.00	1.00	40.34	998.52	0.000	0.000	375.47	0.00	0.00
25	157.00	Flush Mount	2	8.462	9.308	1.00	1.00	19.35	1425.43	0.000	0.000	180.11	0.00	0.00
26	150.00	Side Arm	1	8.381	9.219	1.00	1.00	11.49	253.62	0.000	0.000	105.97	0.00	0.00
27	150.00	ANT450F6	1	8.426	9.269	1.00	1.00	5.64	76.58	0.000	3.917	52.24	0.00	204.60
28	150.00	PAD6-59A	1	8.381	9.219	1.00	1.00	53.18	717.67	0.000	0.000	490.26	0.00	0.00
29	135.00	Side Arm	1	8.197	9.016	1.00	1.00	11.42	252.15	0.000	0.000	102.98	0.00	0.00
30	135.00	ANT450F6	1	8.246	9.071	1.00	1.00	5.60	75.90	0.000	3.917	50.76	0.00	198.82
31	125.00	MC-PK8-DSH	1	8.065	8.872	1.00	1.00	99.43	3909.18	0.000	0.000	882.11	0.00	0.00
32	125.00	RDIDC-9181-OF-48	1	8.065	8.872	1.00	1.00	2.75	83.30	0.000	0.000	24.43	0.00	0.00
33	125.00	TA08025-B604	3	8.065	8.872	0.38	0.75	3.03	392.60	0.000	0.000	26.89	0.00	0.00
34	125.00	TA08025-B605	3	8.065	8.872	0.38	0.75	3.03	437.64	0.000	0.000	26.89	0.00	0.00
35	125.00	MX08FRO665-21	3	8.065	8.872	0.55	0.75	23.99	1173.07	0.000	0.000	212.82	0.00	0.00
36	110.00	Antenex Y1505	2	7.851	8.636	1.00	1.00	19.75	88.53	0.000	0.000	170.58	0.00	0.00
37	110.00	Flush Mount	1	7.851	8.636	1.00	1.00	9.51	698.99	0.000	0.000	82.14	0.00	0.00
38	110.00	Telewave ANT450D6-9	2	7.851	8.636	1.00	1.00	13.37	209.36	0.000	0.000	115.49	0.00	0.00
39	110.00	Decibel DB212-1	2	7.851	8.636	1.00	1.00	103.88	570.43	0.000	0.000	897.08	0.00	0.00

Totals: 36,208.71

7,663.63

Total Applied Force Summary

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



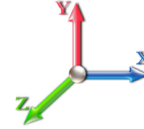
Page: 19

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

Dead Load Factor 1.20

Wind Load Factor 1.00

Iterations 26



Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		193.88	2747.00	0.00	0.00
10.00		191.16	2750.22	0.00	0.00
15.00		188.18	2733.46	0.00	0.00
20.00		196.38	2707.92	0.00	0.00
25.00		202.32	2677.30	0.00	0.00
30.00		206.55	2643.33	0.00	0.00
35.00		209.52	2606.96	0.00	0.00
40.00		211.51	2568.76	0.00	0.00
41.00		42.03	509.52	0.00	0.00
45.00		172.01	3092.77	0.00	0.00
48.00		129.01	2290.98	0.00	0.00
50.00		85.90	918.04	0.00	0.00
55.00		216.13	2266.77	0.00	0.00
60.00		215.72	2229.01	0.00	0.00
65.00		214.90	2190.54	0.00	0.00
70.00		213.71	2151.43	0.00	0.00
75.00		212.19	2111.78	0.00	0.00
80.00		210.38	2071.62	0.00	0.00
85.00		208.31	2024.79	0.00	0.00
90.00		208.61	2902.97	0.00	0.00
91.00		41.23	573.80	0.00	0.00
95.00		164.48	1430.50	0.00	0.00
100.00		203.37	1753.62	0.00	0.00
105.00		200.45	1710.18	0.00	0.00
110.00	(7) attachments	1462.66	3240.01	0.00	0.00
115.00		194.09	1628.70	0.00	0.00
120.00		190.66	1590.70	0.00	0.00
125.00	(11) attachments	1360.24	7548.25	0.00	0.00
130.00		183.38	1503.10	0.00	0.00
135.00	(2) attachments	335.56	2365.61	0.00	198.82
140.00		177.86	1301.27	0.00	0.00
145.00		173.79	1267.03	0.00	0.00
150.00	(3) attachments	818.06	2280.48	0.00	204.60
155.00		165.29	1187.83	0.00	0.00
157.00	(8) attachments	828.66	3326.63	0.00	0.00
160.00		95.86	684.71	0.00	0.00
165.00		156.38	1110.10	0.00	0.00
167.00	(24) attachments	1489.82	10132.95	0.00	0.00
170.00		90.39	589.90	0.00	0.00
175.00		147.08	951.82	0.00	0.00
177.00	(22) attachments	1413.14	9512.39	0.00	0.00
180.00		84.69	475.84	0.00	0.00
185.00	(28) attachments	1014.92	6410.02	0.00	0.00
190.00		141.15	825.65	0.00	0.00
Totals:		14,861.58	109,596.25	0.00	403.42

Calculated Forces

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 20

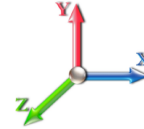


Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 26

Dead Load Factor 1.20

Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-109.5	-14.92	0.00	-2031.5	0.00	2031.59	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.284
5.00	-106.8	-14.84	0.00	-1956.9	0.00	1956.99	5740.33	2870.16	14846.1	7434.11	0.03	-0.062	0.000	0.282
10.00	-104.0	-14.76	0.00	-1882.7	0.00	1882.78	5675.91	2837.95	14402.8	7212.14	0.13	-0.124	0.000	0.279
15.00	-101.3	-14.68	0.00	-1808.9	0.00	1808.98	5609.85	2804.93	13961.8	6991.28	0.30	-0.188	0.000	0.277
20.00	-98.59	-14.58	0.00	-1735.5	0.00	1735.59	5542.15	2771.07	13523.1	6771.63	0.53	-0.253	0.000	0.274
25.00	-95.89	-14.48	0.00	-1662.6	0.00	1662.67	5472.81	2736.40	13087.2	6553.32	0.83	-0.318	0.000	0.271
30.00	-93.23	-14.37	0.00	-1590.2	0.00	1590.27	5401.82	2700.91	12654.1	6336.48	1.20	-0.385	0.000	0.268
35.00	-90.61	-14.25	0.00	-1518.4	0.00	1518.43	5329.20	2664.60	12224.2	6121.21	1.64	-0.454	0.000	0.265
40.00	-88.03	-14.08	0.00	-1447.2	0.00	1447.20	5254.93	2627.47	11797.7	5907.64	2.15	-0.523	0.000	0.262
41.00	-87.52	-14.09	0.00	-1433.1	0.00	1433.12	5239.88	2619.94	11712.8	5865.14	2.26	-0.537	0.000	0.261
45.00	-84.41	-13.96	0.00	-1376.7	0.00	1376.78	5179.02	2589.51	11374.8	5695.90	2.73	-0.594	0.000	0.258
48.00	-82.12	-13.85	0.00	-1334.9	0.00	1334.92	4202.19	2101.09	9258.62	4636.19	3.12	-0.637	0.000	0.308
50.00	-81.19	-13.84	0.00	-1307.2	0.00	1307.21	4180.07	2090.03	9128.39	4570.98	3.39	-0.666	0.000	0.305
55.00	-78.90	-13.70	0.00	-1238.0	0.00	1238.03	4123.62	2061.81	8804.12	4408.60	4.13	-0.746	0.000	0.300
60.00	-76.66	-13.57	0.00	-1169.5	0.00	1169.52	4065.54	2032.77	8481.93	4247.27	4.96	-0.828	0.000	0.294
65.00	-74.45	-13.43	0.00	-1101.6	0.00	1101.69	4005.81	2002.90	8162.06	4087.10	5.87	-0.910	0.000	0.288
70.00	-72.28	-13.28	0.00	-1034.5	0.00	1034.57	3944.44	1972.22	7844.75	3928.21	6.87	-0.993	0.000	0.282
75.00	-70.16	-13.13	0.00	-968.16	0.00	968.16	3881.43	1940.71	7530.24	3770.72	7.95	-1.076	0.000	0.275
80.00	-68.07	-12.98	0.00	-902.50	0.00	902.50	3816.78	1908.39	7218.77	3614.75	9.13	-1.160	0.000	0.268
85.00	-66.03	-12.83	0.00	-837.59	0.00	837.59	3750.48	1875.24	6910.57	3460.42	10.39	-1.245	0.000	0.260
90.00	-63.12	-12.61	0.00	-773.44	0.00	773.44	3682.55	1841.27	6605.90	3307.86	11.74	-1.329	0.000	0.251
91.00	-62.54	-12.60	0.00	-760.83	0.00	760.83	2898.33	1449.17	5260.79	2634.30	12.02	-1.346	0.000	0.310
95.00	-61.10	-12.49	0.00	-710.42	0.00	710.42	2860.60	1430.30	5080.74	2544.15	13.17	-1.414	0.000	0.301
100.00	-59.33	-12.34	0.00	-647.96	0.00	647.96	2811.95	1405.98	4857.28	2432.25	14.71	-1.510	0.000	0.288
105.00	-57.61	-12.19	0.00	-586.25	0.00	586.25	2761.66	1380.83	4635.80	2321.34	16.34	-1.604	0.000	0.273
110.00	-54.39	-10.72	0.00	-525.31	0.00	525.31	2709.73	1354.87	4416.54	2211.55	18.07	-1.697	0.000	0.258
115.00	-52.75	-10.56	0.00	-471.70	0.00	471.70	2656.16	1328.08	4199.76	2103.00	19.89	-1.788	0.000	0.244
120.00	-51.15	-10.40	0.00	-418.90	0.00	418.90	2600.95	1300.48	3985.68	1995.80	21.81	-1.876	0.000	0.230
125.00	-43.64	-8.85	0.00	-366.92	0.00	366.92	2544.10	1272.05	3774.55	1890.08	23.83	-1.962	0.000	0.211
130.00	-42.13	-8.67	0.00	-322.68	0.00	322.68	2485.60	1242.80	3566.61	1785.96	25.93	-2.045	0.000	0.198
135.00	-39.77	-8.31	0.00	-279.12	0.00	279.12	1823.78	911.89	2575.19	1289.51	28.11	-2.125	0.000	0.238
140.00	-38.47	-8.13	0.00	-237.60	0.00	237.60	1784.40	892.20	2432.60	1218.11	30.38	-2.201	0.000	0.217
145.00	-37.20	-7.96	0.00	-196.94	0.00	196.94	1743.38	871.69	2291.70	1147.55	32.73	-2.286	0.000	0.193
150.00	-34.94	-7.10	0.00	-156.93	0.00	156.93	1700.71	850.36	2152.72	1077.96	35.16	-2.362	0.000	0.166
155.00	-33.76	-6.91	0.00	-121.45	0.00	121.45	1656.41	828.20	2015.90	1009.45	37.68	-2.430	0.000	0.141
157.00	-30.46	-5.95	0.00	-107.63	0.00	107.63	1638.23	819.11	1961.83	982.37	38.70	-2.455	0.000	0.128
160.00	-29.78	-5.85	0.00	-89.77	0.00	89.77	1610.46	805.23	1881.48	942.14	40.25	-2.489	0.000	0.114
165.00	-28.68	-5.66	0.00	-60.53	0.00	60.53	1562.88	781.44	1749.71	876.15	42.88	-2.535	0.000	0.087
167.00	-18.62	-3.73	0.00	-49.21	0.00	49.21	1543.38	771.69	1697.79	850.16	43.95	-2.550	0.000	0.070
170.00	-18.03	-3.62	0.00	-38.03	0.00	38.03	1513.65	756.82	1620.81	811.61	45.56	-2.570	0.000	0.059
175.00	-17.09	-3.43	0.00	-19.94	0.00	19.94	1462.77	731.39	1495.04	748.63	48.26	-2.593	0.000	0.038
177.00	-7.65	-1.59	0.00	-13.08	0.00	13.08	1441.72	720.86	1445.41	723.78	49.35	-2.599	0.000	0.023
180.00	-7.18	-1.48	0.00	-8.31	0.00	8.31	1400.09	700.04	1362.73	682.38	50.98	-2.605	0.000	0.017
180.00	-7.18	-1.48	0.00	-8.31	0.00	8.31	1210.02	605.01	1174.63	588.19	50.98	-2.605	0.000	0.020
185.00	-0.82	-0.18	0.00	-0.89	0.00	0.89	1210.02	605.01	1174.63	588.19	53.71	-2.610	0.000	0.002
190.00	0.00	-0.14	0.00	0.00	0.00	0.00	1210.02	605.01	1174.63	588.19	56.45	-2.610	0.000	0.000

Seismic Segment Forces (Factored)

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 21



Load Case: 1.2D + 1.0E

Iterations 23

Gust Response Factor 1.10

Sds 0.18

Ss 0.17

Dead Load Factor 1.20 **Seismic Load Factor** 1.00

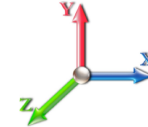
Sd1 0.10

S1 0.06

Wind Load Factor 0.00 **Structure Frequency (f1)** 0.31

SA 0.03

Seismic Importance Factor 1.00



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		1499.5	0.00	0.03	0.01	23.83	
10.00		1471.7	0.01	0.05	0.03	35.18	
15.00		1443.9	0.01	0.06	0.03	40.93	
20.00		1416.1	0.02	0.06	0.04	43.74	
25.00		1388.3	0.03	0.07	0.04	44.98	
30.00		1360.5	0.05	0.07	0.04	45.39	
35.00		1332.7	0.06	0.07	0.04	45.44	
40.00		1304.9	0.08	0.07	0.04	45.36	
41.00	Bot - Section 2	257.65	0.09	0.07	0.04	8.99	
45.00		1906.4	0.11	0.07	0.04	67.54	
48.00	Top - Section 1	1408.1	0.12	0.07	0.03	50.45	
50.00		432.05	0.13	0.07	0.03	15.59	
55.00		1063.4	0.16	0.07	0.03	38.95	
60.00		1039.6	0.19	0.06	0.02	38.35	
65.00		1015.7	0.22	0.06	0.02	37.20	
70.00		991.94	0.26	0.05	0.02	35.20	
75.00		968.10	0.29	0.05	0.01	32.05	
80.00		944.26	0.34	0.04	0.01	27.43	
85.00	Bot - Section 3	920.43	0.38	0.02	0.01	21.15	
90.00		1655.3	0.42	0.01	0.01	24.43	
91.00	Top - Section 2	325.83	0.43	0.01	0.01	4.19	
95.00		589.53	0.47	-0.01	0.01	2.78	
100.00		719.04	0.52	-0.02	0.01	-4.55	
105.00		699.17	0.58	-0.04	0.01	-11.98	
110.00	Appurtenance(s)	1137.3	0.63	-0.06	0.02	-30.06	
115.00		659.45	0.69	-0.08	0.03	-21.96	
120.00		639.58	0.75	-0.10	0.04	-23.79	
125.00	Appurtenance(s)	2978.8	0.82	-0.11	0.06	-113.02	
130.00	Bot - Section 4	599.86	0.88	-0.12	0.08	-21.32	
135.00	Top - Section 3	1192.5	0.95	-0.12	0.11	-35.84	
140.00		455.70	1.03	-0.10	0.14	-9.82	
145.00		439.81	1.10	-0.07	0.19	-4.43	
150.00	Appurtenance(s)	749.92	1.18	-0.02	0.24	3.27	
155.00		408.02	1.26	0.07	0.30	8.88	
157.00	Appurtenance(s)	1151.5	1.29	0.11	0.33	34.03	
160.00		233.37	1.34	0.18	0.37	9.84	
165.00		376.24	1.43	0.33	0.46	24.67	
167.00	Appurtenance(s)	3118.4	1.46	0.41	0.50	236.38	
170.00		214.30	1.51	0.53	0.56	19.73	
175.00		344.46	1.60	0.79	0.67	41.93	
177.00	Appurtenance(s)	2989.0	1.64	0.91	0.73	401.96	
180.00	Top - Section 4	195.24	1.70	1.11	0.81	30.18	
185.00	Appurtenance(s)	2303.3	1.79	1.50	0.96	439.22	
190.00		360.23	1.89	1.98	1.14	82.90	

Totals: 46,702.0

1,785.4

Total Wind:

50,818.2

Seismic Segment Forces (Factored)

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 22



Calculated Forces

Structure: CT08748-A-SBA **Code:** TIA-222-G 4/26/2022
Site Name: Woodstock 4, CT **Exposure:** C
Height: 190.00 (ft) **Crest Height:** 0.00
Base Elev: 0.000 (ft) **Site Class:** D - Stiff Soil
Gh: 1.1 **Topography:** 1 **Struct Class:** II Page: 23



Load Case: 1.2D + 1.0E

Iterations 23

Gust Response Factor 1.10

Sds 0.18

Ss 0.17

Dead Load Factor 1.20

Seismic Load Factor 1.00

Sd1 0.10

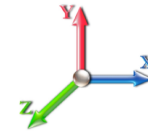
S1 0.06

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	-65.01	-2.07	0.00	-284.89	0.00	284.89	5803.10	2901.55	15291.3	7657.05	0.00	0.00	0.00	0.048
5.00	-62.94	-2.05	0.00	-274.56	0.00	274.56	5740.33	2870.16	14846.1	7434.11	0.00	-0.01	0.048	
10.00	-60.90	-2.03	0.00	-264.30	0.00	264.30	5675.91	2837.95	14402.8	7212.14	0.02	-0.02	0.047	
15.00	-58.89	-1.99	0.00	-254.17	0.00	254.17	5609.85	2804.93	13961.8	6991.28	0.04	-0.03	0.047	
20.00	-56.92	-1.96	0.00	-244.21	0.00	244.21	5542.15	2771.07	13523.1	6771.63	0.07	-0.04	0.046	
25.00	-54.98	-1.92	0.00	-234.42	0.00	234.42	5472.81	2736.40	13087.2	6553.32	0.12	-0.04	0.046	
30.00	-53.07	-1.88	0.00	-224.82	0.00	224.82	5401.82	2700.91	12654.1	6336.48	0.17	-0.05	0.045	
35.00	-51.20	-1.84	0.00	-215.42	0.00	215.42	5329.20	2664.60	12224.2	6121.21	0.23	-0.06	0.045	
40.00	-49.36	-1.80	0.00	-206.20	0.00	206.20	5254.93	2627.47	11797.7	5907.64	0.30	-0.07	0.044	
41.00	-48.99	-1.80	0.00	-204.40	0.00	204.40	5239.88	2619.94	11712.8	5865.14	0.32	-0.08	0.044	
45.00	-46.49	-1.73	0.00	-197.22	0.00	197.22	5179.02	2589.51	11374.8	5695.90	0.38	-0.08	0.044	
48.00	-44.63	-1.68	0.00	-192.03	0.00	192.03	4202.19	2101.09	9258.62	4636.19	0.44	-0.09	0.052	
50.00	-44.01	-1.67	0.00	-188.67	0.00	188.67	4180.07	2090.03	9128.39	4570.98	0.48	-0.09	0.052	
55.00	-42.46	-1.64	0.00	-180.31	0.00	180.31	4123.62	2061.81	8804.12	4408.60	0.58	-0.11	0.051	
60.00	-40.93	-1.60	0.00	-172.13	0.00	172.13	4065.54	2032.77	8481.93	4247.27	0.70	-0.12	0.051	
65.00	-39.44	-1.57	0.00	-164.10	0.00	164.10	4005.81	2002.90	8162.06	4087.10	0.83	-0.13	0.050	
70.00	-37.98	-1.54	0.00	-156.24	0.00	156.24	3944.44	1972.22	7844.75	3928.21	0.97	-0.14	0.049	
75.00	-36.54	-1.52	0.00	-148.52	0.00	148.52	3881.43	1940.71	7530.24	3770.72	1.13	-0.16	0.049	
80.00	-35.14	-1.49	0.00	-140.95	0.00	140.95	3816.78	1908.39	7218.77	3614.75	1.30	-0.17	0.048	
85.00	-33.76	-1.47	0.00	-133.49	0.00	133.49	3750.48	1875.24	6910.57	3460.42	1.48	-0.18	0.048	
90.00	-31.51	-1.45	0.00	-126.12	0.00	126.12	3682.55	1841.27	6605.90	3307.86	1.68	-0.19	0.047	
91.00	-31.07	-1.45	0.00	-124.67	0.00	124.67	2898.33	1449.17	5260.79	2634.30	1.72	-0.20	0.058	
95.00	-30.14	-1.45	0.00	-118.89	0.00	118.89	2860.60	1430.30	5080.74	2544.15	1.89	-0.21	0.057	
100.00	-29.01	-1.45	0.00	-111.66	0.00	111.66	2811.95	1405.98	4857.28	2432.25	2.12	-0.23	0.056	
105.00	-27.91	-1.45	0.00	-104.41	0.00	104.41	2761.66	1380.83	4635.80	2321.34	2.36	-0.24	0.055	
110.00	-26.29	-1.45	0.00	-97.14	0.00	97.14	2709.73	1354.87	4416.54	2211.55	2.62	-0.26	0.054	
115.00	-25.24	-1.46	0.00	-89.86	0.00	89.86	2656.16	1328.08	4199.76	2103.00	2.90	-0.28	0.052	
120.00	-24.22	-1.46	0.00	-82.58	0.00	82.58	2600.95	1300.48	3985.68	1995.80	3.20	-0.29	0.051	
125.00	-20.39	-1.45	0.00	-75.28	0.00	75.28	2544.10	1272.05	3774.55	1890.08	3.52	-0.31	0.048	
130.00	-19.42	-1.45	0.00	-68.05	0.00	68.05	2485.60	1242.80	3566.61	1785.96	3.85	-0.33	0.046	
135.00	-17.75	-1.44	0.00	-60.82	0.00	60.82	1823.78	911.89	2575.19	1289.51	4.20	-0.34	0.057	
140.00	-16.96	-1.44	0.00	-53.61	0.00	53.61	1784.40	892.20	2432.60	1218.11	4.57	-0.36	0.054	
145.00	-16.20	-1.44	0.00	-46.40	0.00	46.40	1743.38	871.69	2291.70	1147.55	4.96	-0.38	0.050	
150.00	-15.06	-1.44	0.00	-39.19	0.00	39.19	1700.71	850.36	2152.72	1077.96	5.37	-0.40	0.045	
155.00	-14.34	-1.43	0.00	-32.01	0.00	32.01	1656.41	828.20	2015.90	1009.45	5.80	-0.42	0.040	
157.00	-12.87	-1.38	0.00	-29.15	0.00	29.15	1638.23	819.11	1961.83	982.37	5.98	-0.42	0.038	
160.00	-12.46	-1.37	0.00	-25.01	0.00	25.01	1610.46	805.23	1881.48	942.14	6.24	-0.43	0.034	
165.00	-11.79	-1.34	0.00	-18.15	0.00	18.15	1562.88	781.44	1749.71	876.15	6.71	-0.45	0.028	
167.00	-7.96	-1.08	0.00	-15.46	0.00	15.46	1543.38	771.69	1697.79	850.16	6.89	-0.45	0.023	
170.00	-7.62	-1.06	0.00	-12.22	0.00	12.22	1513.65	756.82	1620.81	811.61	7.18	-0.46	0.020	
175.00	-7.08	-1.01	0.00	-6.94	0.00	6.94	1462.77	731.39	1495.04	748.63	7.66	-0.46	0.014	
177.00	-3.44	-0.58	0.00	-4.91	0.00	4.91	1441.72	720.86	1445.41	723.78	7.86	-0.47	0.009	
180.00	-3.20	-0.55	0.00	-3.17	0.00	3.17	1400.09	700.04	1362.73	682.38	8.15	-0.47	0.007	
180.00	-3.20	-0.55	0.00	-3.17	0.00	3.17	1210.02	605.01	1174.63	588.19	8.15	-0.47	0.008	
185.00	-0.43	-0.09	0.00	-0.43	0.00	0.43	1210.02	605.01	1174.63	588.19	8.64	-0.47	0.001	
190.00	0.00	-0.08	0.00	0.00	0.00	0.00	1210.02	605.01	1174.63	588.19	9.13	-0.47	0.000	

Calculated Forces

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 24



Seismic Segment Forces (Factored)

Structure: CT08748-A-SBA
Site Name: Woodstock 4, CT
Height: 190.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

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

4/26/2022

Page: 25



Load Case: 0.9D + 1.0E

Iterations 23

Gust Response Factor 1.10

Sds 0.18

Ss 0.17

Dead Load Factor 0.90 **Seismic Load Factor** 1.00

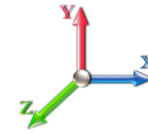
Sd1 0.10

S1 0.06

Wind Load Factor 0.00 **Structure Frequency (f1)** 0.31

SA 0.03

Seismic Importance Factor 1.00



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		1499.5	0.00	0.03	0.01	23.83	
10.00		1471.7	0.01	0.05	0.03	35.18	
15.00		1443.9	0.01	0.06	0.03	40.93	
20.00		1416.1	0.02	0.06	0.04	43.74	
25.00		1388.3	0.03	0.07	0.04	44.98	
30.00		1360.5	0.05	0.07	0.04	45.39	
35.00		1332.7	0.06	0.07	0.04	45.44	
40.00		1304.9	0.08	0.07	0.04	45.36	
41.00	Bot - Section 2	257.65	0.09	0.07	0.04	8.99	
45.00		1906.4	0.11	0.07	0.04	67.54	
48.00	Top - Section 1	1408.1	0.12	0.07	0.03	50.45	
50.00		432.05	0.13	0.07	0.03	15.59	
55.00		1063.4	0.16	0.07	0.03	38.95	
60.00		1039.6	0.19	0.06	0.02	38.35	
65.00		1015.7	0.22	0.06	0.02	37.20	
70.00		991.94	0.26	0.05	0.02	35.20	
75.00		968.10	0.29	0.05	0.01	32.05	
80.00		944.26	0.34	0.04	0.01	27.43	
85.00	Bot - Section 3	920.43	0.38	0.02	0.01	21.15	
90.00		1655.3	0.42	0.01	0.01	24.43	
91.00	Top - Section 2	325.83	0.43	0.01	0.01	4.19	
95.00		589.53	0.47	-0.01	0.01	2.78	
100.00		719.04	0.52	-0.02	0.01	-4.55	
105.00		699.17	0.58	-0.04	0.01	-11.98	
110.00	Appurtenance(s)	1137.3	0.63	-0.06	0.02	-30.06	
115.00		659.45	0.69	-0.08	0.03	-21.96	
120.00		639.58	0.75	-0.10	0.04	-23.79	
125.00	Appurtenance(s)	2978.8	0.82	-0.11	0.06	-113.02	
130.00	Bot - Section 4	599.86	0.88	-0.12	0.08	-21.32	
135.00	Top - Section 3	1192.5	0.95	-0.12	0.11	-35.84	
140.00		455.70	1.03	-0.10	0.14	-9.82	
145.00		439.81	1.10	-0.07	0.19	-4.43	
150.00	Appurtenance(s)	749.92	1.18	-0.02	0.24	3.27	
155.00		408.02	1.26	0.07	0.30	8.88	
157.00	Appurtenance(s)	1151.5	1.29	0.11	0.33	34.03	
160.00		233.37	1.34	0.18	0.37	9.84	
165.00		376.24	1.43	0.33	0.46	24.67	
167.00	Appurtenance(s)	3118.4	1.46	0.41	0.50	236.38	
170.00		214.30	1.51	0.53	0.56	19.73	
175.00		344.46	1.60	0.79	0.67	41.93	
177.00	Appurtenance(s)	2989.0	1.64	0.91	0.73	401.96	
180.00	Top - Section 4	195.24	1.70	1.11	0.81	30.18	
185.00	Appurtenance(s)	2303.3	1.79	1.50	0.96	439.22	
190.00		360.23	1.89	1.98	1.14	82.90	

Totals: 46,702.0

1,785.4

Total Wind:

50,818.2

Seismic Segment Forces (Factored)

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 26



Calculated Forces

Structure: CT08748-A-SBA **Code:** TIA-222-G 4/26/2022
Site Name: Woodstock 4, CT **Exposure:** C
Height: 190.00 (ft) **Crest Height:** 0.00
Base Elev: 0.000 (ft) **Site Class:** D - Stiff Soil
Gh: 1.1 **Topography:** 1 **Struct Class:** II Page: 27



Load Case: 0.9D + 1.0E

Iterations 23

Gust Response Factor 1.10

Sds 0.18

Ss 0.17

Dead Load Factor 0.90 **Seismic Load Factor** 1.00

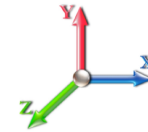
Sd1 0.10

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	-48.76	-2.06	0.00	-280.84	0.00	280.84	5803.10	2901.55	15291.3	7657.05	0.00	0.00	0.00	0.045
5.00	-47.20	-2.05	0.00	-270.52	0.00	270.52	5740.33	2870.16	14846.1	7434.11	0.00	-0.01	0.045	
10.00	-45.67	-2.02	0.00	-260.28	0.00	260.28	5675.91	2837.95	14402.8	7212.14	0.02	-0.02	0.044	
15.00	-44.17	-1.98	0.00	-250.18	0.00	250.18	5609.85	2804.93	13961.8	6991.28	0.04	-0.03	0.044	
20.00	-42.69	-1.95	0.00	-240.26	0.00	240.26	5542.15	2771.07	13523.1	6771.63	0.07	-0.03	0.043	
25.00	-41.23	-1.91	0.00	-230.52	0.00	230.52	5472.81	2736.40	13087.2	6553.32	0.11	-0.04	0.043	
30.00	-39.80	-1.87	0.00	-220.99	0.00	220.99	5401.82	2700.91	12654.1	6336.48	0.17	-0.05	0.042	
35.00	-38.40	-1.83	0.00	-211.65	0.00	211.65	5329.20	2664.60	12224.2	6121.21	0.23	-0.06	0.042	
40.00	-37.02	-1.78	0.00	-202.51	0.00	202.51	5254.93	2627.47	11797.7	5907.64	0.30	-0.07	0.041	
41.00	-36.75	-1.78	0.00	-200.73	0.00	200.73	5239.88	2619.94	11712.8	5865.14	0.31	-0.07	0.041	
45.00	-34.87	-1.71	0.00	-193.62	0.00	193.62	5179.02	2589.51	11374.8	5695.90	0.38	-0.08	0.041	
48.00	-33.47	-1.66	0.00	-188.48	0.00	188.48	4202.19	2101.09	9258.62	4636.19	0.43	-0.09	0.049	
50.00	-33.00	-1.65	0.00	-185.16	0.00	185.16	4180.07	2090.03	9128.39	4570.98	0.47	-0.09	0.048	
55.00	-31.84	-1.62	0.00	-176.91	0.00	176.91	4123.62	2061.81	8804.12	4408.60	0.57	-0.10	0.048	
60.00	-30.70	-1.58	0.00	-168.83	0.00	168.83	4065.54	2032.77	8481.93	4247.27	0.69	-0.12	0.047	
65.00	-29.58	-1.55	0.00	-160.92	0.00	160.92	4005.81	2002.90	8162.06	4087.10	0.82	-0.13	0.047	
70.00	-28.48	-1.52	0.00	-153.18	0.00	153.18	3944.44	1972.22	7844.75	3928.21	0.96	-0.14	0.046	
75.00	-27.41	-1.49	0.00	-145.59	0.00	145.59	3881.43	1940.71	7530.24	3770.72	1.11	-0.15	0.046	
80.00	-26.35	-1.46	0.00	-138.15	0.00	138.15	3816.78	1908.39	7218.77	3614.75	1.28	-0.17	0.045	
85.00	-25.32	-1.45	0.00	-130.84	0.00	130.84	3750.48	1875.24	6910.57	3460.42	1.46	-0.18	0.045	
90.00	-23.63	-1.42	0.00	-123.61	0.00	123.61	3682.55	1841.27	6605.90	3307.86	1.65	-0.19	0.044	
91.00	-23.30	-1.42	0.00	-122.19	0.00	122.19	2898.33	1449.17	5260.79	2634.30	1.69	-0.19	0.054	
95.00	-22.61	-1.42	0.00	-116.53	0.00	116.53	2860.60	1430.30	5080.74	2544.15	1.86	-0.21	0.054	
100.00	-21.76	-1.42	0.00	-109.45	0.00	109.45	2811.95	1405.98	4857.28	2432.25	2.08	-0.22	0.053	
105.00	-20.93	-1.42	0.00	-102.35	0.00	102.35	2761.66	1380.83	4635.80	2321.34	2.32	-0.24	0.052	
110.00	-19.71	-1.42	0.00	-95.24	0.00	95.24	2709.73	1354.87	4416.54	2211.55	2.58	-0.25	0.050	
115.00	-18.93	-1.42	0.00	-88.13	0.00	88.13	2656.16	1328.08	4199.76	2103.00	2.85	-0.27	0.049	
120.00	-18.16	-1.43	0.00	-81.01	0.00	81.01	2600.95	1300.48	3985.68	1995.80	3.15	-0.29	0.048	
125.00	-15.29	-1.42	0.00	-73.88	0.00	73.88	2544.10	1272.05	3774.55	1890.08	3.46	-0.30	0.045	
130.00	-14.57	-1.42	0.00	-66.80	0.00	66.80	2485.60	1242.80	3566.61	1785.96	3.78	-0.32	0.043	
135.00	-13.31	-1.41	0.00	-59.72	0.00	59.72	1823.78	911.89	2575.19	1289.51	4.13	-0.34	0.054	
140.00	-12.72	-1.41	0.00	-52.65	0.00	52.65	1784.40	892.20	2432.60	1218.11	4.49	-0.35	0.050	
145.00	-12.15	-1.41	0.00	-45.59	0.00	45.59	1743.38	871.69	2291.70	1147.55	4.87	-0.37	0.047	
150.00	-11.29	-1.41	0.00	-38.52	0.00	38.52	1700.71	850.36	2152.72	1077.96	5.28	-0.39	0.042	
155.00	-10.76	-1.40	0.00	-31.48	0.00	31.48	1656.41	828.20	2015.90	1009.45	5.69	-0.41	0.038	
157.00	-9.65	-1.36	0.00	-28.68	0.00	28.68	1638.23	819.11	1961.83	982.37	5.87	-0.42	0.035	
160.00	-9.34	-1.35	0.00	-24.61	0.00	24.61	1610.46	805.23	1881.48	942.14	6.13	-0.42	0.032	
165.00	-8.84	-1.32	0.00	-17.88	0.00	17.88	1562.88	781.44	1749.71	876.15	6.58	-0.44	0.026	
167.00	-5.97	-1.06	0.00	-15.24	0.00	15.24	1543.38	771.69	1697.79	850.16	6.77	-0.44	0.022	
170.00	-5.72	-1.04	0.00	-12.05	0.00	12.05	1513.65	756.82	1620.81	811.61	7.05	-0.45	0.019	
175.00	-5.31	-1.00	0.00	-6.85	0.00	6.85	1462.77	731.39	1495.04	748.63	7.52	-0.46	0.013	
177.00	-2.58	-0.57	0.00	-4.85	0.00	4.85	1441.72	720.86	1445.41	723.78	7.71	-0.46	0.008	
180.00	-2.40	-0.54	0.00	-3.13	0.00	3.13	1400.09	700.04	1362.73	682.38	8.00	-0.46	0.006	
180.00	-2.40	-0.54	0.00	-3.13	0.00	3.13	1210.02	605.01	1174.63	588.19	8.00	-0.46	0.007	
185.00	-0.32	-0.09	0.00	-0.43	0.00	0.43	1210.02	605.01	1174.63	588.19	8.49	-0.46	0.001	
190.00	0.00	-0.08	0.00	0.00	0.00	0.00	1210.02	605.01	1174.63	588.19	8.97	-0.46	0.000	

Calculated Forces

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 28



Wind Loading - Shaft

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 29

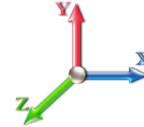


Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 25

Dead Load Factor 1.00

Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	7.442	8.19	301.92	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.19	296.41	0.650	0.000	5.00	27.041	17.58	143.9	0.0	1499.6
10.00		1.00	0.85	7.442	8.19	290.90	0.650	0.000	5.00	26.543	17.25	141.2	0.0	1471.8
15.00		1.00	0.85	7.442	8.19	285.39	0.650	0.000	5.00	26.045	16.93	138.6	0.0	1444.0
20.00		1.00	0.90	7.896	8.69	288.29	0.650	0.000	5.00	25.547	16.61	144.2	0.0	1416.2
25.00		1.00	0.95	8.276	9.10	289.33	0.650	0.000	5.00	25.049	16.28	148.2	0.0	1388.3
30.00		1.00	0.98	8.600	9.46	289.02	0.650	0.000	5.00	24.550	15.96	151.0	0.0	1360.5
35.00		1.00	1.01	8.883	9.77	287.73	0.650	0.000	5.00	24.052	15.63	152.8	0.0	1332.7
40.00		1.00	1.04	9.137	10.05	285.69	0.650	0.000	5.00	23.554	15.31	153.9	0.0	1304.9
41.00	Bot - Section 2	1.00	1.05	9.184	10.10	285.21	0.650	0.000	1.00	4.651	3.02	30.5	0.0	257.6
45.00		1.00	1.07	9.366	10.30	283.08	0.650	0.000	4.00	18.659	12.13	125.0	0.0	1906.4
48.00	Top - Section 1	1.00	1.08	9.494	10.44	281.27	0.650	0.000	3.00	13.785	8.96	93.6	0.0	1408.1
50.00		1.00	1.09	9.576	10.53	283.97	0.650	0.000	2.00	9.091	5.91	62.2	0.0	432.1
55.00		1.00	1.12	9.770	10.75	280.52	0.650	0.000	5.00	22.378	14.55	156.3	0.0	1063.4
60.00		1.00	1.14	9.951	10.95	276.73	0.650	0.000	5.00	21.880	14.22	155.7	0.0	1039.6
65.00		1.00	1.16	10.120	11.13	272.64	0.650	0.000	5.00	21.382	13.90	154.7	0.0	1015.8
70.00		1.00	1.17	10.279	11.31	268.30	0.650	0.000	5.00	20.884	13.57	153.5	0.0	991.9
75.00		1.00	1.19	10.430	11.47	263.74	0.650	0.000	5.00	20.386	13.25	152.0	0.0	968.1
80.00		1.00	1.21	10.572	11.63	258.97	0.650	0.000	5.00	19.888	12.93	150.3	0.0	944.3
85.00	Bot - Section 3	1.00	1.22	10.708	11.78	254.01	0.650	0.000	5.00	19.390	12.60	148.5	0.0	920.4
90.00		1.00	1.24	10.838	11.92	248.90	0.650	0.000	5.00	19.156	12.45	148.4	0.0	1655.4
91.00	Top - Section 2	1.00	1.24	10.863	11.95	247.86	0.650	0.000	1.00	3.771	2.45	29.3	0.0	325.8
95.00		1.00	1.25	10.962	12.06	247.18	0.650	0.000	4.00	14.887	9.68	116.7	0.0	589.5
100.00		1.00	1.27	11.081	12.19	241.80	0.650	0.000	5.00	18.160	11.80	143.9	0.0	719.0
105.00		1.00	1.28	11.195	12.31	236.29	0.650	0.000	5.00	17.662	11.48	141.4	0.0	699.2
110.00	Appurtenance(s)	1.00	1.29	11.305	12.44	230.65	0.650	0.000	5.00	17.164	11.16	138.7	0.0	679.3
115.00		1.00	1.30	11.412	12.55	224.91	0.650	0.000	5.00	16.666	10.83	136.0	0.0	659.4
120.00		1.00	1.32	11.514	12.67	219.07	0.650	0.000	5.00	16.168	10.51	133.1	0.0	639.6
125.00	Appurtenance(s)	1.00	1.33	11.614	12.78	213.13	0.650	0.000	5.00	15.670	10.19	130.1	0.0	619.7
130.00	Bot - Section 4	1.00	1.34	11.710	12.88	207.10	0.650	0.000	5.00	15.172	9.86	127.0	0.0	599.9
135.00	Top - Section 3	1.00	1.35	11.803	12.98	200.99	0.650	0.000	5.00	14.885	9.68	125.6	0.0	1051.6
140.00		1.00	1.36	11.894	13.08	197.75	0.650	0.000	5.00	14.387	9.35	122.4	0.0	455.7
145.00		1.00	1.37	11.982	13.18	191.49	0.650	0.000	5.00	13.889	9.03	119.0	0.0	439.8
150.00	Appurtenance(s)	1.00	1.38	12.068	13.27	185.16	0.650	0.000	5.00	13.391	8.70	115.6	0.0	423.9
155.00		1.00	1.39	12.152	13.37	178.76	0.650	0.000	5.00	12.893	8.38	112.0	0.0	408.0
157.00	Appurtenance(s)	1.00	1.39	12.185	13.40	176.18	0.650	0.000	2.00	5.018	3.26	43.7	0.0	158.8
160.00		1.00	1.40	12.233	13.46	172.29	0.650	0.000	3.00	7.377	4.80	64.5	0.0	233.4
165.00		1.00	1.41	12.313	13.54	165.76	0.650	0.000	5.00	11.897	7.73	104.7	0.0	376.2
167.00	Appurtenance(s)	1.00	1.41	12.344	13.58	163.14	0.650	0.000	2.00	4.619	3.00	40.8	0.0	146.0
170.00		1.00	1.42	12.390	13.63	159.18	0.650	0.000	3.00	6.780	4.41	60.1	0.0	214.3
175.00		1.00	1.42	12.466	13.71	152.53	0.650	0.000	5.00	10.901	7.09	97.2	0.0	344.5
177.00	Appurtenance(s)	1.00	1.43	12.496	13.75	149.86	0.650	0.000	2.00	4.221	2.74	37.7	0.0	133.3
180.00	Top - Section 4	1.00	1.43	12.540	13.79	145.83	0.650	0.000	3.00	6.182	4.02	55.4	0.0	195.2
185.00	Appurtenance(s)	1.00	1.44	12.613	13.87	146.25	0.650	0.000	5.00	10.154	6.60	91.6	0.0	360.2
190.00		1.00	1.45	12.684	13.95	146.66	0.650	0.000	5.00	10.154	6.60	92.1	0.0	360.2
Totals:									190.00			5,083.1		34,653.9

Discrete Appurtenance Forces

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 30

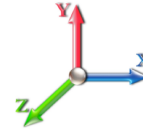


Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 25

Dead Load Factor 1.00

Wind Load Factor 1.00



No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	185.00	Low Profile Platform	1	12.613	13.874	1.00	1.00	22.00	1250.00	0.000	0.000	305.23	0.00	0.00
2	185.00	ADC	6	12.613	13.874	0.40	0.80	0.24	96.00	0.000	0.000	3.33	0.00	0.00
3	185.00	Powerwave LGP21903	6	12.613	13.874	0.40	0.80	0.65	33.00	0.000	0.000	8.99	0.00	0.00
4	185.00	Powerwave LGP21401	6	12.613	13.874	0.40	0.80	3.10	84.60	0.000	0.000	42.95	0.00	0.00
5	185.00	Powerwave 7770.00	9	12.613	13.874	0.58	0.80	28.91	479.52	0.000	0.000	401.08	0.00	0.00
6	177.00	Ericsson KRY 112 489/2	3	12.496	13.746	0.61	0.75	1.20	46.20	0.000	0.000	16.48	0.00	0.00
7	177.00	Platform w/ Hand Rails	1	12.496	13.746	1.00	1.00	32.00	1588.50	0.000	0.000	439.86	0.00	0.00
8	177.00	APXVAARR24_43-U-NA2	3	12.496	13.746	0.52	0.75	31.88	384.00	0.000	0.000	438.19	0.00	0.00
9	177.00	782 11056	3	12.496	13.746	0.38	0.75	0.25	3.90	0.000	0.000	3.40	0.00	0.00
10	177.00	AIR6419 B41	3	12.496	13.746	0.53	0.75	9.03	309.00	0.000	0.000	124.07	0.00	0.00
11	177.00	VV-65A-R1	3	12.496	13.746	0.55	0.75	13.15	88.50	0.000	0.000	180.80	0.00	0.00
12	177.00	4449 B71 + B85	3	12.496	13.746	0.38	0.75	2.22	219.60	0.000	0.000	30.46	0.00	0.00
13	177.00	8843 B25/B66A	3	12.496	13.746	0.38	0.75	1.84	216.00	0.000	0.000	25.36	0.00	0.00
14	167.00	LNx-6514DS-A1M	3	12.344	13.578	0.62	0.75	15.26	116.40	0.000	0.000	207.17	0.00	0.00
15	167.00	JAHH-65B-R3B	6	12.344	13.578	0.62	0.75	34.03	411.36	0.000	0.000	462.02	0.00	0.00
16	167.00	Platform w/ Hand Rail	1	12.344	13.578	1.00	1.00	32.00	1600.00	0.000	0.000	434.51	0.00	0.00
17	167.00	CBC78T-DS-43-2X	3	12.344	13.578	0.38	0.75	0.42	31.20	0.000	0.000	5.65	0.00	0.00
18	167.00	B5/B13 RRH-BR04C	3	12.344	13.578	0.38	0.75	2.10	210.90	0.000	0.000	28.57	0.00	0.00
19	167.00	B2/B66A RRH-BR049	3	12.344	13.578	0.38	0.75	2.10	253.20	0.000	0.000	28.57	0.00	0.00
20	167.00	VZS01	3	12.344	13.578	0.52	0.75	6.68	261.30	0.000	0.000	90.65	0.00	0.00
21	167.00	Rfs Celwave	2	12.344	13.578	0.38	0.75	1.89	88.00	0.000	0.000	25.66	0.00	0.00
22	157.00	SAF	4	12.185	13.403	1.00	1.00	4.88	30.80	0.000	0.000	65.41	0.00	0.00
23	157.00	VHLPX3-6W	1	12.185	13.403	1.00	1.00	10.68	53.00	0.000	0.000	143.14	0.00	0.00
24	157.00	SUX6-65B	1	12.185	13.403	1.00	1.00	35.67	209.00	0.000	0.000	478.09	0.00	0.00
25	157.00	Flush Mount	2	12.185	13.403	1.00	1.00	10.00	700.00	0.000	0.000	134.03	0.00	0.00
26	150.00	Side Arm	1	12.068	13.275	1.00	1.00	4.50	120.00	0.000	0.000	59.74	0.00	0.00
27	150.00	ANT450F6	1	12.134	13.347	1.00	1.00	1.86	21.00	0.000	3.917	24.83	0.00	97.23
28	150.00	PAD6-59A	1	12.068	13.275	1.00	1.00	47.05	185.00	0.000	0.000	624.59	0.00	0.00
29	135.00	Side Arm	1	11.803	12.984	1.00	1.00	4.50	120.00	0.000	0.000	58.43	0.00	0.00
30	135.00	ANT450F6	1	11.875	13.062	1.00	1.00	1.86	21.00	0.000	3.917	24.30	0.00	95.16
31	125.00	MC-PK8-DSH	1	11.614	12.775	1.00	1.00	37.59	1727.00	0.000	0.000	480.22	0.00	0.00
32	125.00	RDIDC-9181-OF-48	1	11.614	12.775	1.00	1.00	2.01	21.90	0.000	0.000	25.68	0.00	0.00
33	125.00	TA08025-B604	3	11.614	12.775	0.38	0.75	2.21	191.70	0.000	0.000	28.17	0.00	0.00
34	125.00	TA08025-B605	3	11.614	12.775	0.38	0.75	2.21	225.00	0.000	0.000	28.17	0.00	0.00
35	125.00	MX08FRO665-21	3	11.614	12.775	0.55	0.75	20.80	193.50	0.000	0.000	265.67	0.00	0.00
36	110.00	Antenex Y1505	2	11.305	12.436	1.00	1.00	7.20	10.00	0.000	0.000	89.54	0.00	0.00
37	110.00	Flush Mount	1	11.305	12.436	1.00	1.00	5.00	350.00	0.000	0.000	62.18	0.00	0.00
38	110.00	Telewave ANT450D6-9	2	11.305	12.436	1.00	1.00	5.54	36.00	0.000	0.000	68.89	0.00	0.00
39	110.00	Decibel DB212-1	2	11.305	12.436	1.00	1.00	13.00	62.00	0.000	0.000	161.67	0.00	0.00

Totals: 12,048.08

6,125.72

Total Applied Force Summary

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

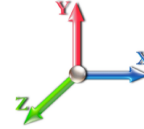


Page: 31

Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		143.88	1727.43	0.00	0.00
10.00		141.23	1699.62	0.00	0.00
15.00		138.58	1671.81	0.00	0.00
20.00		144.23	1644.00	0.00	0.00
25.00		148.22	1616.19	0.00	0.00
30.00		150.96	1588.38	0.00	0.00
35.00		152.77	1560.57	0.00	0.00
40.00		153.88	1532.77	0.00	0.00
41.00		30.54	303.22	0.00	0.00
45.00		124.96	2088.73	0.00	0.00
48.00		93.58	1544.85	0.00	0.00
50.00		62.24	523.19	0.00	0.00
55.00		156.33	1291.29	0.00	0.00
60.00		155.67	1267.46	0.00	0.00
65.00		154.71	1243.62	0.00	0.00
70.00		153.49	1219.79	0.00	0.00
75.00		152.02	1195.95	0.00	0.00
80.00		150.33	1172.11	0.00	0.00
85.00		148.45	1143.08	0.00	0.00
90.00		148.44	1878.00	0.00	0.00
91.00		29.29	370.36	0.00	0.00
95.00		116.68	767.65	0.00	0.00
100.00		143.88	941.69	0.00	0.00
105.00		141.38	916.62	0.00	0.00
110.00	(7) attachments	521.02	1354.76	0.00	0.00
115.00		135.98	871.70	0.00	0.00
120.00		133.11	851.83	0.00	0.00
125.00	(11) attachments	958.02	3191.07	0.00	0.00
130.00		127.03	803.01	0.00	0.00
135.00	(2) attachments	208.35	1395.73	0.00	95.16
140.00		122.35	653.65	0.00	0.00
145.00		119.00	637.76	0.00	0.00
150.00	(3) attachments	824.70	947.87	0.00	97.23
155.00		112.02	597.47	0.00	0.00
157.00	(8) attachments	864.38	1227.34	0.00	0.00
160.00		64.53	342.99	0.00	0.00
165.00		104.74	558.94	0.00	0.00
167.00	(24) attachments	1323.56	3191.49	0.00	0.00
170.00		60.06	279.88	0.00	0.00
175.00		97.17	453.76	0.00	0.00
177.00	(22) attachments	1296.34	3032.76	0.00	0.00
180.00		55.43	201.00	0.00	0.00
185.00	(28) attachments	853.16	2312.95	0.00	0.00
190.00		92.09	360.23	0.00	0.00
Totals:		11,208.79	54,174.55	0.00	192.39

Calculated Forces

Structure: CT08748-A-SBA

Code: TIA-222-G

4/26/2022

Site Name: Woodstock 4, CT

Exposure: C

Height: 190.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

Page: 32

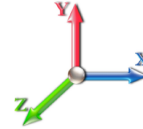


Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 25

Dead Load Factor 1.00

Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-54.17	-11.23	0.00	-1488.8	0.00	1488.85	5803.10	2901.55	15291.3	7657.05	0.00	0.000	0.000	0.204
5.00	-52.43	-11.13	0.00	-1432.7	0.00	1432.70	5740.33	2870.16	14846.1	7434.11	0.02	-0.045	0.000	0.202
10.00	-50.73	-11.02	0.00	-1377.0	0.00	1377.07	5675.91	2837.95	14402.8	7212.14	0.10	-0.091	0.000	0.200
15.00	-49.05	-10.92	0.00	-1321.9	0.00	1321.94	5609.85	2804.93	13961.8	6991.28	0.22	-0.137	0.000	0.198
20.00	-47.39	-10.81	0.00	-1267.3	0.00	1267.33	5542.15	2771.07	13523.1	6771.63	0.39	-0.185	0.000	0.196
25.00	-45.77	-10.70	0.00	-1213.2	0.00	1213.26	5472.81	2736.40	13087.2	6553.32	0.61	-0.233	0.000	0.194
30.00	-44.17	-10.58	0.00	-1159.7	0.00	1159.77	5401.82	2700.91	12654.1	6336.48	0.88	-0.282	0.000	0.191
35.00	-42.60	-10.45	0.00	-1106.8	0.00	1106.88	5329.20	2664.60	12224.2	6121.21	1.20	-0.331	0.000	0.189
40.00	-41.06	-10.31	0.00	-1054.6	0.00	1054.61	5254.93	2627.47	11797.7	5907.64	1.57	-0.382	0.000	0.186
41.00	-40.76	-10.30	0.00	-1044.3	0.00	1044.30	5239.88	2619.94	11712.8	5865.14	1.65	-0.392	0.000	0.186
45.00	-38.66	-10.18	0.00	-1003.1	0.00	1003.10	5179.02	2589.51	11374.8	5695.90	2.00	-0.433	0.000	0.184
48.00	-37.11	-10.09	0.00	-972.56	0.00	972.56	4202.19	2101.09	9258.62	4636.19	2.28	-0.465	0.000	0.219
50.00	-36.58	-10.05	0.00	-952.37	0.00	952.37	4180.07	2090.03	9128.39	4570.98	2.48	-0.486	0.000	0.217
55.00	-35.28	-9.92	0.00	-902.10	0.00	902.10	4123.62	2061.81	8804.12	4408.60	3.02	-0.545	0.000	0.213
60.00	-34.01	-9.79	0.00	-852.50	0.00	852.50	4065.54	2032.77	8481.93	4247.27	3.62	-0.604	0.000	0.209
65.00	-32.76	-9.65	0.00	-803.55	0.00	803.55	4005.81	2002.90	8162.06	4087.10	4.29	-0.664	0.000	0.205
70.00	-31.53	-9.52	0.00	-755.28	0.00	755.28	3944.44	1972.22	7844.75	3928.21	5.02	-0.724	0.000	0.200
75.00	-30.32	-9.38	0.00	-707.68	0.00	707.68	3881.43	1940.71	7530.24	3770.72	5.81	-0.785	0.000	0.196
80.00	-29.15	-9.25	0.00	-660.76	0.00	660.76	3816.78	1908.39	7218.77	3614.75	6.66	-0.847	0.000	0.190
85.00	-27.99	-9.11	0.00	-614.52	0.00	614.52	3750.48	1875.24	6910.57	3460.42	7.58	-0.909	0.000	0.185
90.00	-26.11	-8.95	0.00	-568.96	0.00	568.96	3682.55	1841.27	6605.90	3307.86	8.57	-0.971	0.000	0.179
91.00	-25.74	-8.93	0.00	-560.01	0.00	560.01	2898.33	1449.17	5260.79	2634.30	8.77	-0.983	0.000	0.222
95.00	-24.96	-8.83	0.00	-524.29	0.00	524.29	2860.60	1430.30	5080.74	2544.15	9.62	-1.033	0.000	0.215
100.00	-24.01	-8.69	0.00	-480.16	0.00	480.16	2811.95	1405.98	4857.28	2432.25	10.74	-1.104	0.000	0.206
105.00	-23.09	-8.56	0.00	-436.69	0.00	436.69	2761.66	1380.83	4635.80	2321.34	11.93	-1.174	0.000	0.197
110.00	-21.74	-8.04	0.00	-393.88	0.00	393.88	2709.73	1354.87	4416.54	2211.55	13.20	-1.244	0.000	0.186
115.00	-20.86	-7.91	0.00	-353.69	0.00	353.69	2656.16	1328.08	4199.76	2103.00	14.54	-1.312	0.000	0.176
120.00	-20.00	-7.78	0.00	-314.15	0.00	314.15	2600.95	1300.48	3985.68	1995.80	15.95	-1.378	0.000	0.165
125.00	-16.83	-6.76	0.00	-275.26	0.00	275.26	2544.10	1272.05	3774.55	1890.08	17.43	-1.442	0.000	0.152
130.00	-16.02	-6.63	0.00	-241.46	0.00	241.46	2485.60	1242.80	3566.61	1785.96	18.97	-1.505	0.000	0.142
135.00	-14.63	-6.40	0.00	-208.22	0.00	208.22	1823.78	911.89	2575.19	1289.51	20.58	-1.564	0.000	0.170
140.00	-13.97	-6.27	0.00	-176.23	0.00	176.23	1784.40	892.20	2432.60	1218.11	22.25	-1.621	0.000	0.153
145.00	-13.33	-6.15	0.00	-144.87	0.00	144.87	1743.38	871.69	2291.70	1147.55	23.98	-1.683	0.000	0.134
150.00	-12.40	-5.31	0.00	-114.03	0.00	114.03	1700.71	850.36	2152.72	1077.96	25.78	-1.739	0.000	0.113
155.00	-11.80	-5.18	0.00	-87.49	0.00	87.49	1656.41	828.20	2015.90	1009.45	27.62	-1.788	0.000	0.094
157.00	-10.60	-4.29	0.00	-77.12	0.00	77.12	1638.23	819.11	1961.83	982.37	28.38	-1.806	0.000	0.085
160.00	-10.26	-4.22	0.00	-64.26	0.00	64.26	1610.46	805.23	1881.48	942.14	29.52	-1.831	0.000	0.075
165.00	-9.70	-4.10	0.00	-43.18	0.00	43.18	1562.88	781.44	1749.71	876.15	31.46	-1.864	0.000	0.056
167.00	-6.56	-2.67	0.00	-34.99	0.00	34.99	1543.38	771.69	1697.79	850.16	32.24	-1.875	0.000	0.045
170.00	-6.28	-2.60	0.00	-26.98	0.00	26.98	1513.65	756.82	1620.81	811.61	33.42	-1.888	0.000	0.037
175.00	-5.83	-2.49	0.00	-13.96	0.00	13.96	1462.77	731.39	1495.04	748.63	35.41	-1.905	0.000	0.023
177.00	-2.84	-1.10	0.00	-8.98	0.00	8.98	1441.72	720.86	1445.41	723.78	36.21	-1.909	0.000	0.014
180.00	-2.64	-1.03	0.00	-5.69	0.00	5.69	1400.09	700.04	1362.73	682.38	37.41	-1.913	0.000	0.010
180.00	-2.64	-1.03	0.00	-5.69	0.00	5.69	1210.02	605.01	1174.63	588.19	37.41	-1.913	0.000	0.012
185.00	-0.36	-0.10	0.00	-0.52	0.00	0.52	1210.02	605.01	1174.63	588.19	39.41	-1.916	0.000	0.001
190.00	0.00	-0.09	0.00	0.00	0.00	0.00	1210.02	605.01	1174.63	588.19	41.42	-1.917	0.000	0.000

Final Analysis Summary

Structure: CT08748-A-SBA	Code: TIA-222-G	4/26/2022
Site Name: Woodstock 4, CT	Exposure: C	
Height: 190.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



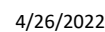
Page: 33

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	50.9	0.00	64.92	0.00	0.00	6788.90
0.9D + 1.6W 101 mph Wind	50.9	0.00	48.66	0.00	0.00	6701.35
1.2D + 1.0Di + 1.0Wi 50 mph Wind	14.9	0.00	109.59	0.00	0.00	2031.59
1.2D + 1.0E	2.1	0.00	65.01	0.00	0.00	284.89
0.9D + 1.0E	2.1	0.00	48.76	0.00	0.00	280.84
1.0D + 1.0W 60 mph Wind	11.2	0.00	54.17	0.00	0.00	1488.85

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	-27.88	-40.79	0.00	-2556.8	0.00	-2556.8	2898.33	1449.1	5260.79	2634.30	91.00	0.981
0.9D + 1.6W 101 mph Wind	-20.20	-40.14	0.00	-2505.8	0.00	-2505.8	2898.33	1449.1	5260.79	2634.30	91.00	0.959
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-62.54	-12.60	0.00	-760.83	0.00	-760.83	2898.33	1449.1	5260.79	2634.30	91.00	0.310
1.2D + 1.0E	-31.07	-1.45	0.00	-124.67	0.00	-124.67	2898.33	1449.1	5260.79	2634.30	91.00	0.058
0.9D + 1.0E	-23.30	-1.42	0.00	-122.19	0.00	-122.19	2898.33	1449.1	5260.79	2634.30	91.00	0.054
1.0D + 1.0W 60 mph Wind	-25.74	-8.93	0.00	-560.01	0.00	-560.01	2898.33	1449.1	5260.79	2634.30	91.00	0.222



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):

0.44

Calculated Moment Capacity (Mn,Kips-Ft):

14906.9

>

Design Factored Moment (Mu, Kips-F

7005.2

0.47

OK!

Calculated Shear Capacity (Kips):

969.3

>

Design Factored Shear (Kips):

50.9

0.05

OK!

Calculated Tension Capacity (Tn, Kips):

5222.9

>

Design Factored Tension (Tu Kips):

0.0

0.00

OK!

Calculated Compression Capacity (Pn, Kips):

9626.8

>

Design Factored Axial Load (Pu Kips):

64.9

0.01

OK!

Moment & Axial Strength Combination:

0.47

OK!

Check Tie Spacing (Design/Required):

0.6667

OK!

Pier Reinforcement Ratio:

0.017

Reinforcement Ratio is satisfied per ACI

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):

1631.9

>

One-Way Factored Shear (L-D. Kips):

411.1

0.25

OK!

One-Way Design Shear Capacity (W-Direction, Kips):

1631.9

>

One-Way Factored Shear (W-D., Kips)

411.1

0.25

OK!

One-Way Design Shear Capacity (Corner-Corner. Kips):

1603.6

>

One-Way Factored Shear (C-C, Kips):

390.7

0.24

OK!

Lower Steel Pad Reinforcement Ratio (L-Direct.):

0.0023

OK!

Lower Steel Pad Reinf. Ratio (W-Direc

0.0023

Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):

7658.3

>

Moment at Bottom (L-Dir. K-Ft):

3231.9

0.42

OK!

Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):

7658.3

>

Moment at Bottom (W-Dir. K-Ft):

3231.9

0.42

OK!

Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):

10790.5

>

Moment at Bottom (C-C Dir. K-Ft):

4570.6

0.42

OK!

Upper Steel Pad Reinforcement Ratio (L-Direct.):

0.0023

OK!

Upper Steel Reinf. Ratio (W-Dir.):

0.0023

Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):

7658.3

>

Moment at the top (L-Dir K-Ft):

1316.9

0.17

OK!

Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):

7658.3

>

Moment at the top (W-Dir K-Ft):

1316.9

0.17

OK!

Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):

10790.5

>

Moment at the top (C-C Dir. K-Ft):

1228.3

0.11

OK!

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

Moment transferred by punching shear:

2715.6

k-ft.

Max. factored shear stress v_{u_CD} :

7.2

Psi

Max. factored shear stress v_{u_AB} :

12.7

Psi

Factored shear Strength ϕv_n :

189.7

Psi

Max. factored shear stress v_u :

12.7

Psi

Check Usage of Punching Shear Capacity:

0.07

OK!

Exhibit E

Mount Analysis



Tower Engineering Solutions

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

Antenna Mount Analysis Report

Existing Monopole Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT08748-A-SBA / Woodstock 4, CT

Customer Site Name: Woodstock 4, CT

Carrier Name: T-Mobile (App#: 193381, V#1)

Carrier Site ID / Name: CTNL181A / Woodstock

Site Location: 215 Coatney Hill Road

Woodstock, Connecticut

Windham County

Latitude: 41.962264

Longitude: -72.018655

Analysis Result:

Max Structural Usage: 97.5% Pass

Report Prepared By : Anita Lama





Tower Engineering Solutions

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

Antenna Mount Analysis Report

Existing Monopole Tower

Customer Name: SBA Communications Corp

Customer Site Number: CT08748-A-SBA / Woodstock 4, CT

Customer Site Name: Woodstock 4, CT

Carrier Name: T-Mobile (App#: 193381, V#1)

Carrier Site ID / Name: CTNL181A / Woodstock

Site Location: 215 Coatney Hill Road

Woodstock, Connecticut

Windham County

Latitude: 41.962264

Longitude: -72.018655

Analysis Result:

Max Structural Usage: 97.5% Pass

Report Prepared By : Anita Lama

Introduction

The purpose of this report is to summarize the analysis results on the (1) Platform w/ Hand Rails at 177.00' 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	Sky Tower, LLC, Dated 5/1/2019
Antenna Loading	SBA Application #: 193381, v1
Modification Drawings	N/A

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: C

Structure Class: II

Topographic Category: 1

Crest Height (Ft): 0

The site is a Risk Category II structure per IBC 2015 Table 1604.5. This site does not support emergency communication equipment for first responders such as fire departments, police, hospitals, ambulance services or any of the facilities listed for Risk Categories III and IV. The scope of work detailed in this structural analysis does not include items that are a part of emergency service as the 911 or essential facility service of an emergency response system.

Mount Information

(1) Platform w/ Hand Rails at 177.00' elevation

Final Antenna Configuration

3	Ericsson AIR6419 B41
3	Commscope VV-65A-R1
3	RFS APXVAARR24_43-U-NA20
3	Ericsson KRY 112 489/2
3	Ericsson 4449 B71 + B85
3	Ericsson 4460 B25 + B66
3	Kathrein 782 11056*

* Equipment to be flush mounted directly to the standoff arm and are not included in this mount placement diagram.

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 97.5%, 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.



Structure: CT08748-A-SBA - Woodstock 4, CT

Sector: **A**

4/20/2022

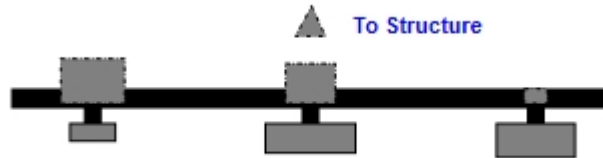
Structure Type: Monopole

Mount Elev: 177.00

Page: 1

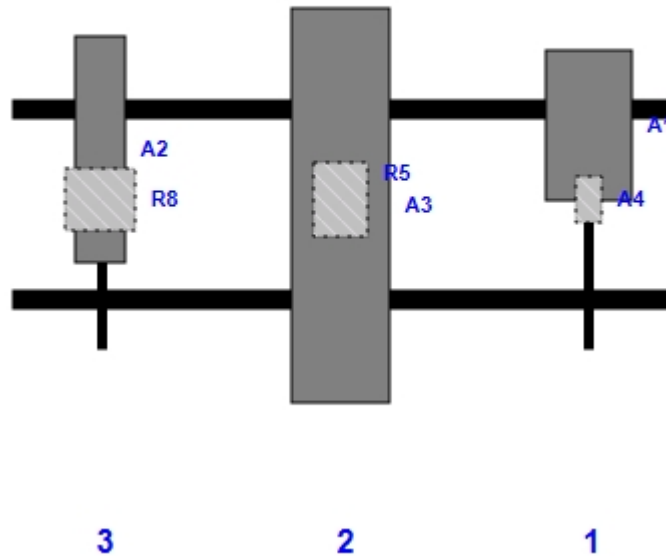


Plan View



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	AIR6419 B41	36.30	20.90	140.00	1	a	Front	18.00			
A4	KRY 112 489/2	11.00	6.10	140.00	1	a	Behind	36.00			
A3	APXVAARR24_43-U-NA20	95.90	24.00	80.00	2	a	Front	37.50			
R5	4449 B71 + B85	17.90	13.20	80.00	2	a	Behind	36.00			
A2	VV-65A-R1	54.72	12.08	22.00	3	a	Front	24.00			
R8	4460 B25 + B66	15.10	17.00	22.00	3	a	Behind	36.00			

Structure: CT08748-A-SBA - Woodstock 4, CT

Sector: **B**

4/20/2022

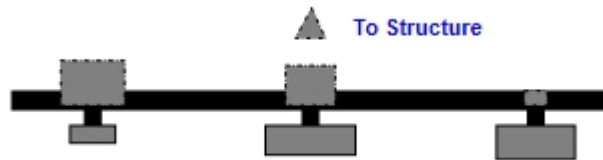
Structure Type: Monopole

Mount Elev: 177.00

Page: 2

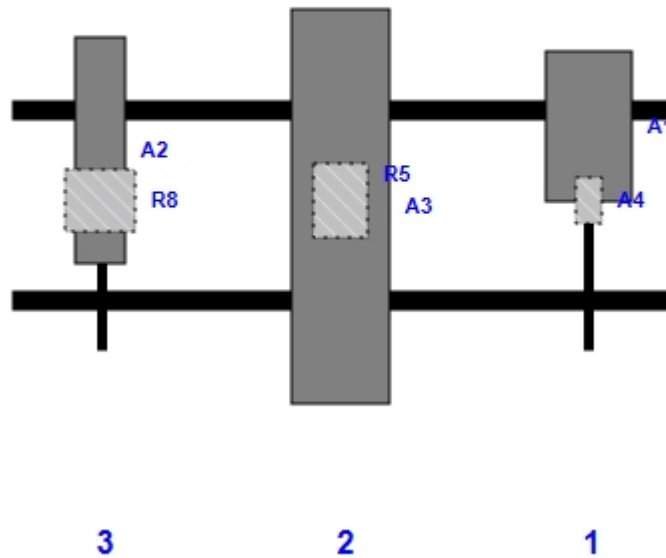


Plan View



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	AIR6419 B41	36.30	20.90	140.00	1	a	Front	18.00			
A4	KRY 112 489/2	11.00	6.10	140.00	1	a	Behind	36.00			
A3	APXVAARR24_43-U-NA20	95.90	24.00	80.00	2	a	Front	37.50			
R5	4449 B71 + B85	17.90	13.20	80.00	2	a	Behind	36.00			
A2	VV-65A-R1	54.72	12.08	22.00	3	a	Front	24.00			
R8	4460 B25 + B66	15.10	17.00	22.00	3	a	Behind	36.00			

Structure: CT08748-A-SBA - Woodstock 4, CT

Sector: **C**

4/20/2022

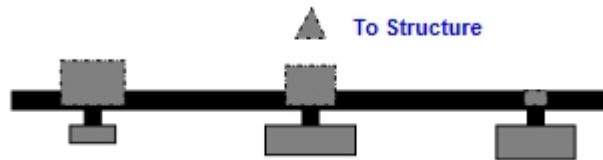
Structure Type: Monopole

Mount Elev: 177.00

Page: 3

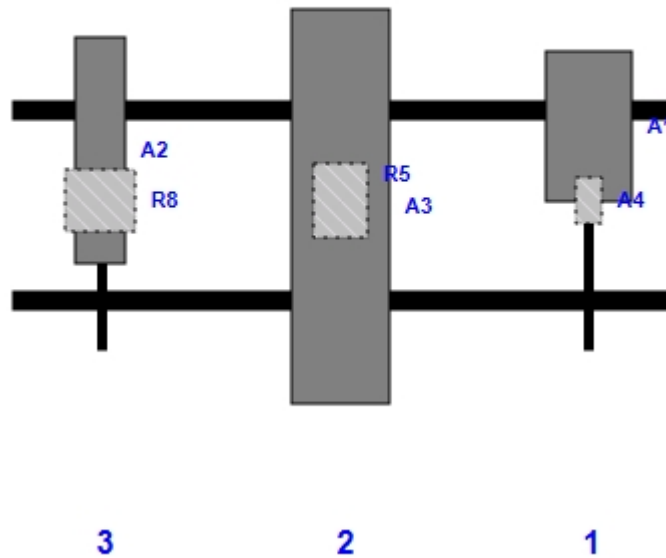


Plan View



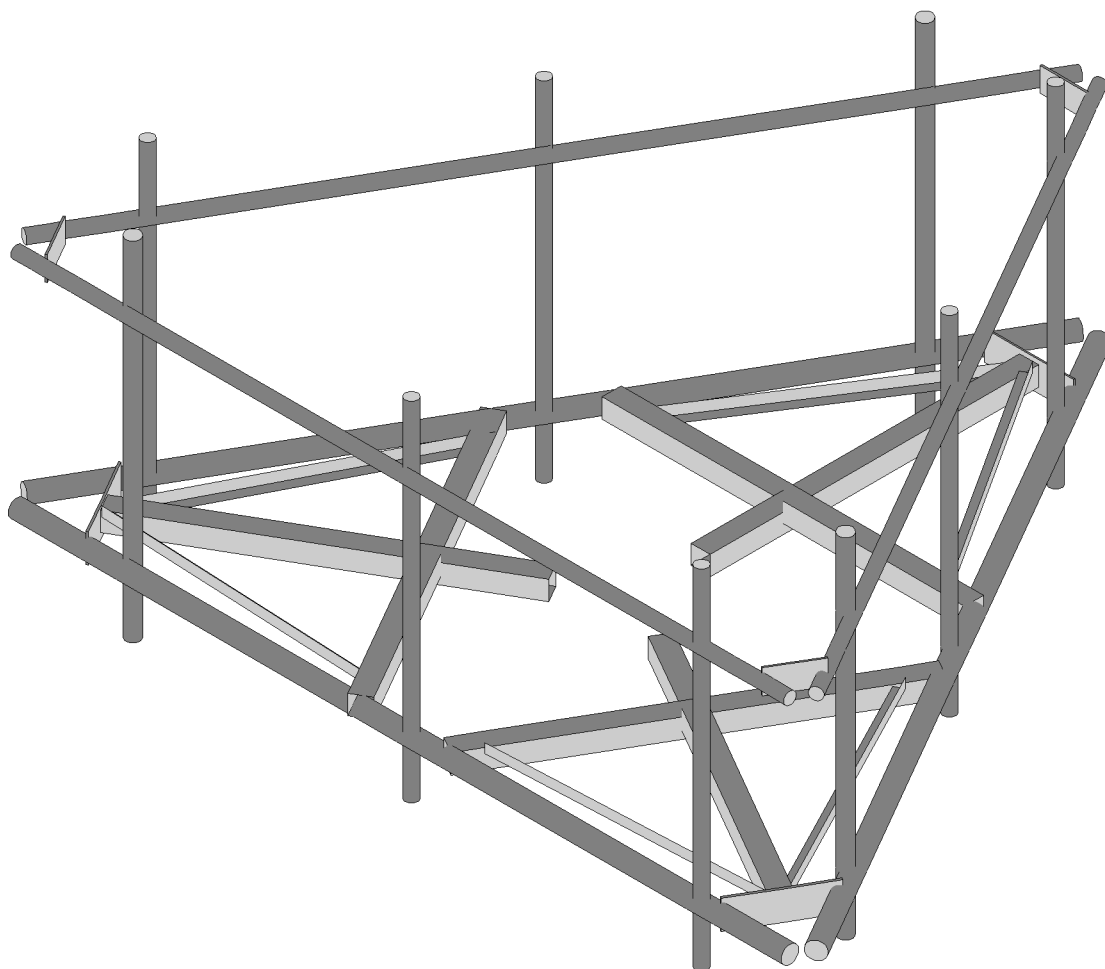
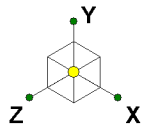
Front View

Looking Toward Structure

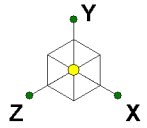


Ref	Model	Height (in)	Width (in)	H Dist Left	Pipe	Pipe Pos V	Pos	From Top	H Offset	Status	Validation
A1	AIR6419 B41	36.30	20.90	140.00	1	a	Front	18.00			
A4	KRY 112 489/2	11.00	6.10	140.00	1	a	Behind	36.00			
A3	APXVAARR24_43-U-NA20	95.90	24.00	80.00	2	a	Front	37.50			
R5	4449 B71 + B85	17.90	13.20	80.00	2	a	Behind	36.00			
A2	VV-65A-R1	54.72	12.08	22.00	3	a	Front	24.00			
R8	4460 B25 + B66	15.10	17.00	22.00	3	a	Behind	36.00			

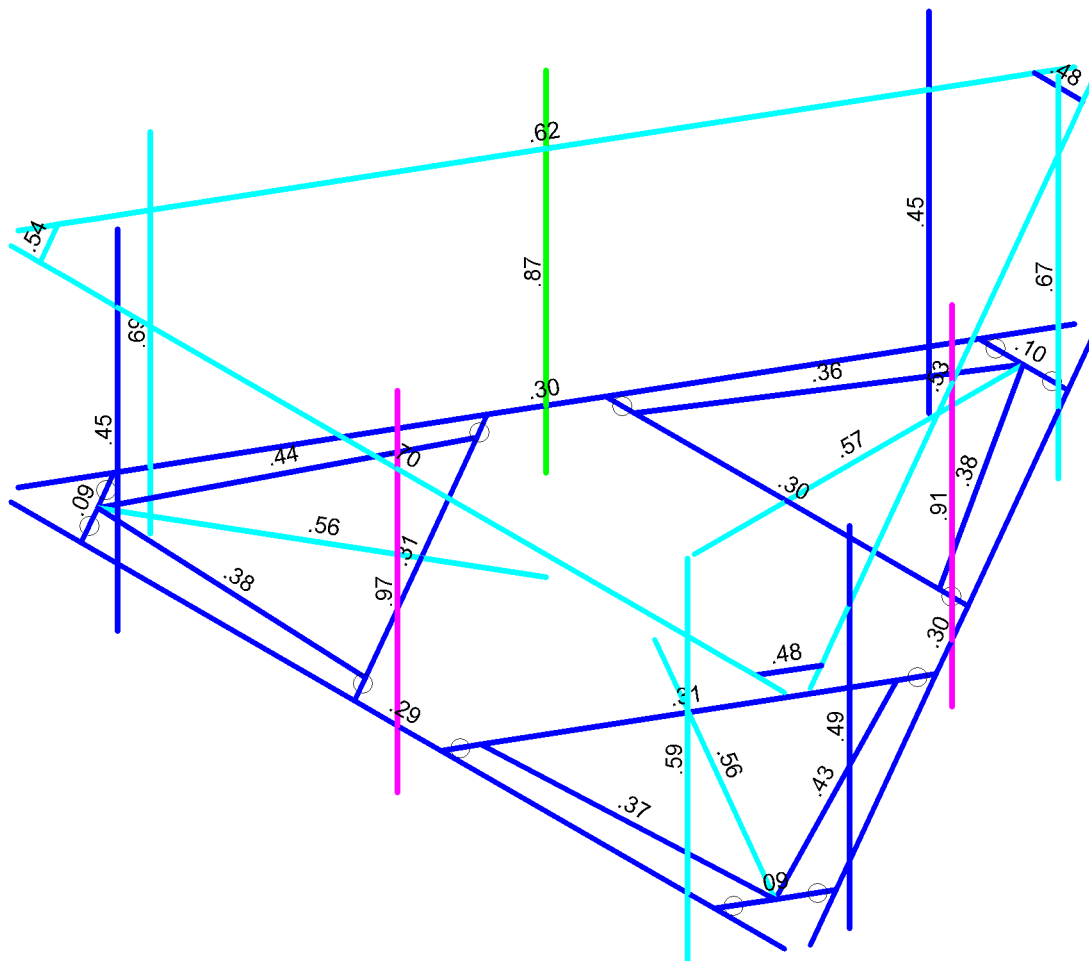
[illegible]



Tower Engineering Solutio...	CT08748-A-SBA_MT_LO_Loads Only_G	SK - 1
		Apr 20, 2022 at 9:41 AM
TES Project No. 127938		CT08748-A-SBA_127938_G_RISA_...

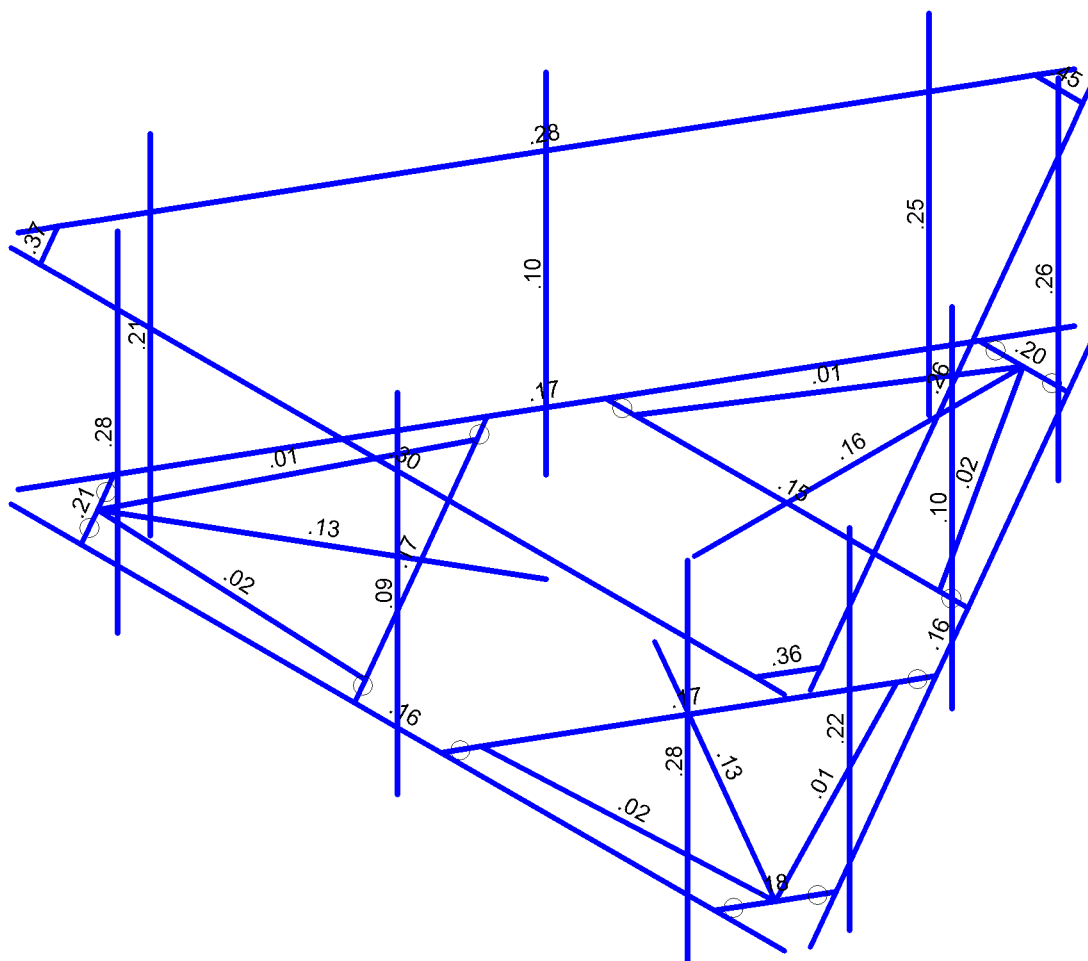
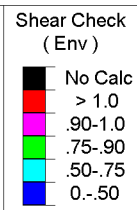


Code Check (Env)	
 	No Calc
 	> 1.0
 	.90-1.0
 	.75-.90
 	.50-.75
 	0-.50

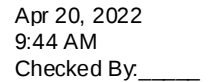


Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.6W (Front)

Tower Engineering Solutio...	CT08748-A-SBA_MT_LO_Loads Only_G	SK - 4
		Apr 20, 2022 at 9:41 AM
TES Project No. 127938		CT08748-A-SBA_127938_G_RISA_...



Tower Engineering Solutio...	CT08748-A-SBA_MT_LO_Loads Only_G	SK - 5
		Apr 20, 2022 at 9:41 AM
TES Project No. 127938		CT08748-A-SBA_127938_G_RISA_...



	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distrib...	Area(Me...	Surface(...
1	Antenna D	None					27			
2	Antenna Di	None					27			
3	Antenna W Front	None					27			
4	Antenna Wi Front	None					27			
5	Antenna W Side	None					27			
6	Antenna Wi Side	None					27			
7	Service Lm1	None					1			
8	Service Lm2	None					1			
9	Structure D	None		-1					3	
10	Structure Di	None						33	3	
11	Structure W Front	None						33		
12	Structure Wi Front	None						33		
13	Structure W Side	None						33		
14	Structure Wi Side	None						33		
15	BLC 9 Transient Area Loads	None						96		
16	BLC 10 Transient Area Loads	None						96		

[illegible]

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	-0.938194	0	0.541667	0	
2	N2	0.938194	0	0.541667	0	
3	N3	0	0	-1.083333	0	
4	N4	-6.666667	0	4.041452	0	
5	N5	6.666667	0	4.041452	0	
6	N6	6.833333	0	3.752777	0	
7	N7	0.166667	0	-7.794229	0	
8	N8	-0.166667	0	-7.794229	0	
9	N9	-6.833333	0	3.752777	0	
10	N10	-5.845671	0	3.375	0	
11	N11	5.845671	0	3.375	0	
12	N12	0	0	-6.75	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
13	N13	-5.460895	0	4.041452	0	
14	N14	-0.745868	0	4.041452	0	
15	N15	0.745868	0	4.041452	0	
16	N16	5.460895	0	4.041452	0	
17	N17	6.230448	0	2.708548	0	
18	N18	3.872934	0	-1.374785	0	
19	N19	3.127066	0	-2.666667	0	
20	N20	0.769552	0	-6.75	0	
21	N21	-0.769552	0	-6.75	0	
22	N22	-3.127066	0	-2.666667	0	
23	N23	-3.872934	0	-1.374785	0	
24	N24	-6.230448	0	2.708548	0	
25	N25	-6.666667	3.833333	4.041452	0	
26	N26	6.666667	3.833333	4.041452	0	
27	N27	6.833333	3.833333	3.752777	0	
28	N28	0.166667	3.833333	-7.794229	0	
29	N29	-0.166667	3.833333	-7.794229	0	
30	N30	-6.833333	3.833333	3.752777	0	
31	N31	-6.333333	3.833333	4.041452	0	
32	N32	6.333333	3.833333	4.041452	0	
33	N33	6.666667	3.833333	3.464102	0	
34	N34	0.333333	3.833333	-7.505553	0	
35	N35	-0.333333	3.833333	-7.505553	0	
36	N36	-6.666667	3.833333	3.464102	0	
37	NP1	5	5	4.041452	0	
38	NP2	5	-1	4.041452	0	
39	NP3	0	5	4.041452	0	
40	NP4	0	-1	4.041452	0	
41	NP5	-4.833333	5	4.041452	0	
42	NP6	-4.833333	-1	4.041452	0	
43	NP11	-6	5	2.309401	0	
44	NP12	-6	-1	2.309401	0	
45	NP13	-3.5	5	-2.020726	0	
46	NP14	-3.5	-1	-2.020726	0	
47	NP15	-1.083333	5	-6.206515	0	
48	NP16	-1.083333	-1	-6.206515	0	
49	NP21	1	5	-6.350853	0	
50	NP22	1	-1	-6.350853	0	
51	NP23	3.5	5	-2.020726	0	
52	NP24	3.5	-1	-2.020726	0	
53	NP25	5.916667	5	2.165064	0	
54	NP26	5.916667	-1	2.165064	0	
55	N55	5	0	4.041452	0	
56	N56	0	0	4.041452	0	
57	N57	-4.833333	0	4.041452	0	
58	N58	1.	0	-6.350853	0	
59	N59	3.5	0	-2.020726	0	
60	N60	5.916667	0	2.165064	0	
61	N61	-6	0	2.309401	0	
62	N62	-3.5	0	-2.020726	0	
63	N63	-1.083333	0	-6.206515	0	
64	N64	-2.309401	0	1.333333	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
65	N65	2.309401	0	1.333333	0	
66	N66	0	0	-2.666667	0	
67	N67	5	3.833333	4.041452	0	
68	N68	0	3.833333	4.041452	0	
69	N69	-4.833333	3.833333	4.041452	0	
70	N70	1.	3.833333	-6.350853	0	
71	N71	3.5	3.833333	-2.020726	0	
72	N72	5.916667	3.833333	2.165064	0	
73	N73	-6	3.833333	2.309401	0	
74	N74	-3.5	3.833333	-2.020726	0	
75	N75	-1.083333	3.833333	-6.206515	0	
76	N76	2.627066	0	-2.666667	0	
77	N77	-2.627066	0	-2.666667	0	
78	N79	-3.622934	0	-0.941773	0	
79	N80	-0.995868	0	3.608439	0	
80	N82	0.995868	0	3.608439	0	
81	N83	3.622934	0	-0.941773	0	
82	N82A	-5.666667	3.833333	4.041452	0	
83	N83A	5.666667	3.833333	4.041452	0	
84	N84	6.333333	3.833333	2.886751	0	
85	N85	0.666667	3.833333	-6.928203	0	
86	N86	-0.666667	3.833333	-6.928203	0	
87	N87	-6.333333	3.833333	2.886751	0	
88	N88	-6.166667	3.833333	4.041452	0	
89	N89	6.166667	3.833333	4.041452	0	
90	N90	6.583333	3.833333	3.319764	0	
91	N91	0.416667	3.833333	-7.361216	0	
92	N92	-0.416667	3.833333	-7.361216	0	
93	N93	-6.583333	3.833333	3.319764	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	xxxxx	HSS16x0.438	Beam	None	A572 Gr.50	Typical	19.9	606	606	1210

Cold Formed Steel Section Sets

	Label	Shape	Type	Design Li...	Material	Design R...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	CF	4CU5.25X0375	Beam	CU	A570 Gr...	Typical	4.854	13.238	12.817	.228

Aluminum Section Sets

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

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E..Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt	
1	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
2	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A500 Gr.B RND	29000	11154	.3	.65	.527	42	1.4	58	1.3
5	A500 Gr.B Rect	29000	11154	.3	.65	.527	46	1.4	58	1.3
6	A53 Gr.B	29000	11154	.3	.65	.49	35	1.6	60	1.2
7	A1085	29000	11154	.3	.65	.49	50	1.4	65	1.3

Cold Formed Steel Properties

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

Aluminum Properties

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

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N4	N5			PIPE 3.0	Beam	Pipe	A53 Gr.B	DR1
2	M2	N6	N7			PIPE 3.0	Beam	Pipe	A53 Gr.B	DR1
3	M3	N8	N9			PIPE 3.0	Beam	Pipe	A53 Gr.B	DR1
4	M4	N1	N10			HSS4X4X4	Beam	None	A500 Gr.B...	DR1
5	M5	N2	N11			HSS4X4X4	Beam	None	A500 Gr.B...	DR1
6	M6	N3	N12			HSS4X4X4	Beam	None	A500 Gr.B...	DR1
7	M7	N23	N14			HSS4X4X4	Beam	Tube	A500 Gr.B...	DR1
8	M8	N15	N18			HSS4X4X4	Beam	Tube	A500 Gr.B...	DR1
9	M9	N19	N22			HSS4X4X4	Beam	Tube	A500 Gr.B...	DR1
10	M10	N24	N13			PL3/8x6	Beam	RECT	A36 Gr.36	DR1
11	M11	N16	N17			PL3/8x6	Beam	RECT	A36 Gr.36	DR1
12	M12	N20	N21			PL3/8x6	Beam	RECT	A36 Gr.36	DR1
13	M13	N25	N26			PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
14	M14	N27	N28			PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
15	M15	N29	N30			PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
16	MP1A	NP1	NP2			PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
17	MP2A	NP3	NP4			PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
18	MP3A	NP5	NP6			PIPE 2.5	Beam	Pipe	A53 Gr.B	DR1
19	MP1B	NP11	NP12		300	PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
20	MP2B	NP13	NP14		300	PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
21	MP3B	NP15	NP16		300	PIPE 2.5	Beam	Pipe	A53 Gr.B	DR1
22	MP1C	NP21	NP22		60	PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1
23	MP2C	NP23	NP24		60	PIPE 2.0	Beam	Pipe	A53 Gr.B	DR1

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
24	MP3C	NP25	NP26		60	PIPE 2.5	Beam	Pipe	A53 Gr.B	DR1
25	M28	N77	N12			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
26	M29	N12	N76			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
27	M30	N80	N10			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
28	M31	N10	N79			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
29	M32	N83	N11			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
30	M33	N11	N82			L2x2x3	Beam	Single Angle	A36 Gr.36	Typical
31	M34A	N88	N93			PL3/8x5	Beam	Wide Flange	A36 Gr.36	Typical
32	M35A	N90	N89			PL3/8x5	Beam	Wide Flange	A36 Gr.36	Typical
33	M36A	N92	N91			PL3/8x5	Beam	Wide Flange	A36 Gr.36	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M2						Yes				None
3	M3						Yes				None
4	M4						Yes				None
5	M5						Yes				None
6	M6						Yes				None
7	M7	BenPIN	BenPIN				Yes				None
8	M8	BenPIN	BenPIN				Yes				None
9	M9	BenPIN	BenPIN				Yes				None
10	M10	BenPIN	BenPIN				Yes				None
11	M11	BenPIN	BenPIN				Yes				None
12	M12	BenPIN	BenPIN				Yes				None
13	M13						Yes				None
14	M14						Yes				None
15	M15						Yes				None
16	MP1A						Yes		-z		None
17	MP2A						Yes		-z		None
18	MP3A						Yes		-z		None
19	MP1B						Yes		+z		None
20	MP2B						Yes		+z		None
21	MP3B						Yes		+z		None
22	MP1C						Yes		+z		None
23	MP2C						Yes		+z		None
24	MP3C						Yes		+z		None
25	M28						Yes				None
26	M29						Yes				None
27	M30						Yes				None
28	M31						Yes				None
29	M32						Yes				None
30	M33						Yes				None
31	M34A						Yes				None
32	M35A						Yes				None
33	M36A						Yes				None

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp to...	Lcomp bo...	L-tor...	Kyy	Kzz	Cb	Funct...
1	M1	PIPE 3.0	13.333			Lbyy						Gravity
2	M2	PIPE 3.0	13.333			Lbyy						Gravity
3	M3	PIPE 3.0	13.333			Lbyy						Gravity
4	M4	HSS4X4X4	5.667			Lbyy						Gravity
5	M5	HSS4X4X4	5.667			Lbyy						Gravity
6	M6	HSS4X4X4	5.667			Lbyy						Gravity
7	M7	HSS4X4X4	6.254			Lbyy						Gravity
8	M8	HSS4X4X4	6.254			Lbyy						Gravity
9	M9	HSS4X4X4	6.254			Lbyy						Gravity
10	M10	PL3/8x6	1.539			Lbyy						Gravity
11	M11	PL3/8x6	1.539			Lbyy						Gravity
12	M12	PL3/8x6	1.539			Lbyy						Gravity
13	M13	PIPE 2.0	13.333			Lbyy						Gravity
14	M14	PIPE 2.0	13.333			Lbyy						Gravity
15	M15	PIPE 2.0	13.333			Lbyy						Gravity
16	MP1A	PIPE 2.0	6			Lbyy						Gravity
17	MP2A	PIPE 2.0	6			Lbyy						Gravity
18	MP3A	PIPE 2.5	6			Lbyy						Gravity
19	MP1B	PIPE 2.0	6			Lbyy						Gravity
20	MP2B	PIPE 2.0	6			Lbyy						Gravity
21	MP3B	PIPE 2.5	6			Lbyy						Gravity
22	MP1C	PIPE 2.0	6			Lbyy						Gravity
23	MP2C	PIPE 2.0	6			Lbyy						Gravity
24	MP3C	PIPE 2.5	6			Lbyy						Gravity
25	M28	L2x2x3	4.855			Lbyy						Lateral
26	M29	L2x2x3	4.855			Lbyy						Lateral
27	M30	L2x2x3	4.855			Lbyy						Lateral
28	M31	L2x2x3	4.855			Lbyy						Lateral
29	M32	L2x2x3	4.855			Lbyy						Lateral
30	M33	L2x2x3	4.855			Lbyy						Lateral
31	M34A	PL3/8x5	.833			Lbyy						Lateral
32	M35A	PL3/8x5	.833			Lbyy						Lateral
33	M36A	PL3/8x5	.833			Lbyy						Lateral

Cold Formed Steel Design Parameters

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

Aluminum Design Parameters

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

Joint Loads and Enforced Displacements

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

Joint Boundary Conditions

	Joint Label	X [k/in]	Y [k/in]	Z [k/in]	X Rot.[k-ft/rad]	Y Rot.[k-ft/rad]	Z Rot.[k-ft/rad]
1	N1	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
2	N2	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction
3	N3	Reaction	Reaction	Reaction	Reaction	Reaction	Reaction

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	2633.114	4	4184.297	8	2636.259	1	1.021	1	1.964	1	2.886	3
2		min	-2664.816	3	-143.105	3	-2620.647	2	-4.445	6	-1.957	2	-7.892	8
3	N2	max	2885.741	4	4199.896	7	2360.283	1	1.368	1	1.755	2	7.854	7
4		min	-2856.546	3	-203.87	4	-2340.419	2	-4.468	6	-1.756	1	-2.586	4
5	N3	max	2872.809	4	4243.864	5	3304.211	1	9.176	5	3.165	3	1.194	3
6		min	-2870.302	3	-337.377	2	-3339.687	2	-3.347	2	-3.162	4	-1.224	4
7	Totals:	max	8391.664	4	11551.553	5	8300.753	1						
8		min	-8391.664	3	3480.959	2	-8300.753	2						

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

	Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc	phi*Pnt	[...phi*Mn y...	phi*Mn z...	Cb	Eqn
1	MP2A	PIPE 2.0	.975	5	1	.088	5		4	20866.7...	32130	1.872	1.872	1...	H1-1b
2	MP2C	PIPE 2.0	.905	5	4	.105	5		3	20866.7...	32130	1.872	1.872	1...	H1-1b
3	MP2B	PIPE 2.0	.874	5	3	.098	5		1	20866.7...	32130	1.872	1.872	1...	H1-1b
4	M13	PIPE 2.0	.702	1.806	2	.300	.556		2	5533.086	32130	1.872	1.872	3...	H3-6
5	MP1B	PIPE 2.0	.694	5	1	.210	5		4	20866.7...	32130	1.872	1.872	1...	H1-1b
6	MP1C	PIPE 2.0	.668	5	3	.256	5		3	20866.7...	32130	1.872	1.872	1...	H1-1b
7	M15	PIPE 2.0	.620	1.806	4	.279	.556		4	5533.086	32130	1.872	1.872	2...	H1-1b
8	MP1A	PIPE 2.0	.588	5	4	.283	5		2	20866.7...	32130	1.872	1.872	1...	H1-1b
9	M6	HSS4X4X4	.571	0	5	.165	0	z	4	121973....	139518	16.181	16.181	2...	H1-1b
10	M4	HSS4X4X4	.561	0	8	.126	0	y	6	121973....	139518	16.181	16.181	2...	H1-1b
11	M5	HSS4X4X4	.560	0	7	.127	0	y	2	121973....	139518	16.181	16.181	2...	H1-1b
12	M34A	PL3/8x5	.543	.833	2	.373	.833	y	1	23536.6...	60750	.475	6.328	2...	H1-1b
13	M14	PIPE 2.0	.531	11.667	3	.260	12.361		3	5533.086	32130	1.872	1.872	2...	H1-1b
14	MP3C	PIPE 2.5	.486	5	1	.219	5		3	37773.8...	50715	3.596	3.596	1...	H1-1b
15	M35A	PL3/8x5	.482	0	2	.361	.833	y	2	23536.6...	60750	.475	6.328	2...	H1-1b
16	M36A	PL3/8x5	.478	.833	4	.446	.833	y	3	23536.6...	60750	.475	6.328	2...	H1-1b
17	MP3B	PIPE 2.5	.455	5	4	.245	5		4	37773.8...	50715	3.596	3.596	1...	H1-1b
18	MP3A	PIPE 2.5	.449	5	3	.277	5		2	37773.8...	50715	3.596	3.596	1...	H1-1b
19	M31	L2x2x3	.438	0	4	.015	4.855	y	7	7270.436	23392.8	.558	1.194	2...	H2-1
20	M32	L2x2x3	.431	4.855	3	.015	0	y	8	7270.436	23392.8	.558	1.208	2...	H2-1
21	M29	L2x2x3	.383	0	1	.015	4.855	y	8	7270.436	23392.8	.558	1.159	1...	H2-1
22	M30	L2x2x3	.376	4.855	2	.016	0	z	2	7270.436	23392.8	.558	1.228	2...	H2-1
23	M33	L2x2x3	.368	0	2	.015	4.855	y	5	7270.436	23392.8	.558	1.232	2...	H2-1
24	M28	L2x2x3	.358	4.855	1	.015	0	y	7	7270.436	23392.8	.558	1.148	1...	H2-1
25	M8	HSS4X4X4	.308	3.127	7	.173	.456	z	1	118450....	139518	16.181	16.181	1...	H1-1b
26	M7	HSS4X4X4	.306	3.127	6	.174	5.798	z	1	118450....	139518	16.181	16.181	1...	H1-1b
27	M9	HSS4X4X4	.304	3.127	5	.152	5.798	z	3	118450....	139518	16.181	16.181	1...	H1-1b
28	M3	PIPE 3.0	.296	1.944	4	.168	6.667		3	25150.3...	65205	5.749	5.749	2...	H1-1b
29	M2	PIPE 3.0	.295	1.944	1	.156	7.361		4	25150.3...	65205	5.749	5.749	2...	H1-1b
30	M1	PIPE 3.0	.295	7.361	5	.163	6.667		1	25150.3...	65205	5.749	5.749	2...	H1-1b
31	M12	PL3/8x6	.095	.77	1	.195	.77	y	3	17462.3...	72900	.57	9.113	1...	H1-1b

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

Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc	...phi*Pnt	[...phi*Mn y...	phi*Mn z...	Cb	Eqn
32	M10	PL3/8x6	.092	.77	4	.207	1.539	y	1	17462.3...	72900	.57	9.113	1...H1-1b
33	M11	PL3/8x6	.089	.77	3	.183	0	y	1	17462.3...	72900	.57	9.113	1...H1-1b

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

Member	Shape	Code...	Loc[ft]	LC	Shea...	Loc[ft]	Dir	LC	phi*Pn...	phi*Tn...	phi*M...	phi*M...	Cb	Cmyy	Cmzz	Eqn
No Data to Print ...																

Envelope AA ADM1-10: ASD - Building Aluminum Code Checks

Member	Shape	Code C...	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	Pnc/O...	Pnt/Om...	Mny/O...	Mnz/O...	Vny/O...	Vnz/O...	Cb	Eqn
No Data to Print ...																



Standoff Arm Flange Connection Check

Date

4/20/2022

Customer: SBA

TIA Standard:

Carrier:

Mount Elev. [ft]:

Site Name:

Engineer Name:

Site Number:

Project #:

NOTE: The calculations shown below are for a single representative load combination for example purposes. The results for all load combinations are presented in the Results Summary Table.

RISA Member Label = M4

I or J End? I

Load Combination # = 4

Plate Width, Wp = 10 [In]

Plate Height, Hp = 10 [In]

Plate Thickness, tp = 0.625 [In]

Plate Fy = 36 [KSI]

Bolt Diameter, db = 0.625 [In]

Bolt Fu = 120 [KSI]

Bolt Horizontal Spacing, Sbh = 7 [In]

Bolt Vertical Spacing, Sbv = 7 [In]

Standoff Member Shape = Rect Tube

Member Width, Wm = 4 [In]

Member Depth, Dm = 4 [In]

Member Thickness, tm = 0.25 [In]

Standoff Weld Size = 0.1875 [In]

Standoff Welds = 2

Length of Stiffener, Ls = [In]

Width of Stiffener, Ws = [In]

Width of Notch, Wn = [In]

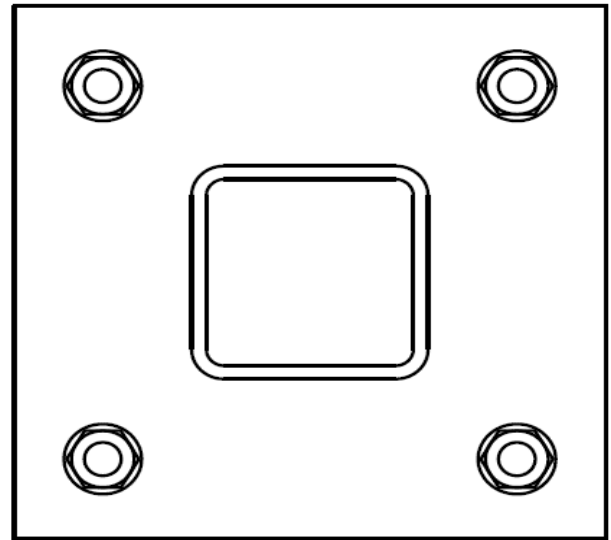
Stiffener Dim 1, ds1 = [In]

Stiffener Dim 2, ds2 = [In]

Stiffener Fy = [KSI]

Stiffener Weld Size = [In]

Stiffener Welds =



Typical Connection Detail

NOTES

Standoff and Stiffener welds are assumed 0.1875 in.

Capacity Checks:

Max Bolt Shear = 0.980 [Kips]

Bolt Shear Capacity = 13.81 [Kips]

Max Bolt Shear Usage = 7.1% PASS

Max Bolt Tension = 8.30 [Kips]

Bolt Tension Capacity = 20.34 [Kips]

Max Bolt Tension Usage = 40.8% PASS

Max Bolt Interaction = 41.0% PASS

Max Plate Bending Moment = 24.75 [Kip-In]

Length of Yield Line = 9.06 [In]

Plate Moment Capacity = 28.65 [Kip-In]

Max Plate Usage = 86.4% PASS

Max Weld Usage = 64.3% PASS

	Standoff Arm Flange Connection Check			Date
				4/20/2022
	Customer:	SBA	TIA Standard:	
	Carrier:		Mount Elev. [ft]:	
	Site Name:		Engineer Name:	
	Site Number:		Project #:	

Results Summary Table

Member Label	Member End	Load Combo #	Max Bolt Shear [K]	Max Bolt Tension [K]	Bolt Shear Check	Bolt Tension Check	Bolt Interaction Check	Plate Bending Check	Weld Check
M4	I	1	0.9869	2.3392	7.1%	11.5%	11.8%	22.5%	9.2%
M4	I	2	1.2635	7.3015	9.2%	35.9%	36.5%	70.1%	32.5%
M4	I	3	0.4897	2.7994	3.5%	13.8%	14.0%	28.8%	32.4%
M4	I	4	0.9795	8.3009	7.1%	40.8%	41.0%	86.4%	64.3%
M4	I	5	1.0171	6.2523	7.4%	30.7%	31.4%	61.3%	51.4%
M4	I	6	1.1540	8.0822	8.4%	39.7%	40.3%	80.4%	57.5%
M4	I	7	0.9510	5.2324	6.9%	25.7%	26.5%	54.6%	44.2%
M4	I	8	1.1131	8.3195	8.1%	40.9%	41.6%	87.0%	65.5%
M4	I	9	0.5315	4.9055	3.8%	24.1%	24.4%	49.7%	39.5%
M4	I	10	0.3495	1.2680	2.5%	6.2%	6.7%	12.2%	10.9%
M4	I	11	0.3419	2.3731	2.5%	11.7%	11.9%	24.8%	18.9%
M5	I	1	1.0086	2.4130	7.3%	11.9%	12.1%	23.2%	25.9%
M5	I	2	1.2637	7.3339	9.2%	36.1%	36.6%	70.4%	57.6%
M5	I	3	0.9748	8.3840	7.1%	41.2%	41.4%	86.3%	62.7%
M5	I	4	0.4743	2.8462	3.4%	14.0%	14.2%	28.3%	30.8%
M5	I	5	1.0502	6.2461	7.6%	30.7%	31.3%	61.2%	45.1%
M5	I	6	1.1270	8.0893	8.2%	39.8%	40.4%	80.5%	63.9%
M5	I	7	1.1360	8.3381	8.2%	41.0%	41.6%	87.0%	65.2%
M5	I	8	0.9191	5.2513	6.7%	25.8%	26.5%	54.7%	44.6%
M5	I	9	0.3379	1.2683	2.4%	6.2%	6.6%	12.2%	8.5%
M5	I	10	0.5213	4.8965	3.8%	24.1%	24.4%	49.6%	36.9%
M5	I	11	0.3419	2.3731	2.5%	11.7%	11.9%	24.8%	18.9%
M6	I	1	0.7340	8.9343	5.3%	43.9%	44.2%	93.0%	68.0%
M6	I	2	0.1660	3.2473	1.2%	16.0%	16.0%	33.4%	36.3%
M6	I	3	1.4130	4.7706	10.2%	23.5%	25.0%	45.8%	39.1%
M6	I	4	1.4250	4.7305	10.3%	23.3%	24.9%	45.4%	11.2%
M6	I	5	1.0881	8.5085	7.9%	41.8%	42.5%	89.0%	66.8%
M6	I	6	0.8753	5.0390	6.3%	24.8%	25.6%	52.7%	43.2%
M6	I	7	1.1044	7.4429	8.0%	36.6%	37.2%	71.5%	59.2%
M6	I	8	1.1357	7.4348	8.2%	36.6%	37.1%	71.4%	48.6%
M6	I	9	0.4286	2.2067	3.1%	10.8%	11.2%	23.0%	17.3%
M6	I	10	0.4224	2.1903	3.1%	10.8%	11.2%	22.9%	17.3%
M6	I	11	0.3419	2.3731	2.5%	11.7%	11.9%	24.8%	18.9%

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: CTNLI81A

NLI81/MCF Woodstock
215 Coatney Hill Road
Woodstock, Connecticut 06281

May 13, 2022

EBI Project Number: 6222003123

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	10.10%



May 13, 2022

T-Mobile

Attn: Jason Overbey, RF Manager

35 Griffin Road South

Bloomfield, Connecticut 06002

Emissions Analysis for Site: CTNL181A - NLI81/MCF Woodstock

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **215 Coatney Hill Road** in **Woodstock, 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 215 Coatney Hill Road in Woodstock, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

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

- 1) 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) I 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) I 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) I 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) I 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 6419 for the 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAARR24_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 6419 for the 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAARR24_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 6419 for the 2500 MHz / 2500 MHz / 2500 MHz channel(s), the RFS APXVAARR24_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 centerline of the proposed antennas is 177 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 6419	Make / Model:	Ericsson AIR 6419	Make / Model:	Ericsson AIR 6419
Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz	Frequency Bands:	2500 MHz / 2500 MHz / 2500 MHz
Gain:	22.05 dBd / 15.55 dBd / 22.05 dBd / 15.55 dBd	Gain:	22.05 dBd / 15.55 dBd / 22.05 dBd / 15.55 dBd	Gain:	22.05 dBd / 15.55 dBd / 22.05 dBd / 15.55 dBd
Height (AGL):	177 feet	Height (AGL):	177 feet	Height (AGL):	177 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):	31,011.95	ERP (W):	31,011.95	ERP (W):	31,011.95
Antenna A1 MPE %:	3.81%	Antenna B1 MPE %:	3.81%	Antenna C1 MPE %:	3.81%
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_43-U-NA20	Make / Model:	RFS APXVAARR24_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 / 13.35 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd	Gain:	12.95 dBd / 12.95 dBd / 13.35 dBd
Height (AGL):	177 feet	Height (AGL):	177 feet	Height (AGL):	177 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):	4,059.02	ERP (W):	4,059.02	ERP (W):	4,059.02
Antenna A2 MPE %:	1.19%	Antenna B2 MPE %:	1.19%	Antenna C2 MPE %:	1.19%
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):	177 feet	Height (AGL):	177 feet	Height (AGL):	177 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 %:	1.65%	Antenna B3 MPE %:	1.65%	Antenna C3 MPE %:	1.65%



Site Composite MPE %	
Carrier	MPE %
T-Mobile (Max at Sector A):	6.66%
DRW NX	0.85%
AT&T	1.08%
Verizon	1.51%
Site Total MPE % :	10.10%

T-Mobile MPE % Per Sector	
T-Mobile Sector A Total:	6.66%
T-Mobile Sector B Total:	6.66%
T-Mobile Sector C Total:	6.66%
Site Total MPE % :	10.10%

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	9619.47	177.0	11.83	2500 MHz LTE IC & 2C Traffic	1000	1.18%
T-Mobile 2500 MHz LTE IC & 2C Broadcast	1	717.84	177.0	0.88	2500 MHz LTE IC & 2C Broadcast	1000	0.09%
T-Mobile 2500 MHz NR Traffic	1	19238.94	177.0	23.65	2500 MHz NR Traffic	1000	2.37%
T-Mobile 2500 MHz NR Broadcast	1	1435.69	177.0	1.77	2500 MHz NR Broadcast	1000	0.18%
T-Mobile 600 MHz LTE	2	591.73	177.0	1.46	600 MHz LTE	400	0.36%
T-Mobile 600 MHz NR	1	1577.94	177.0	1.94	600 MHz NR	400	0.49%
T-Mobile 700 MHz LTE	2	648.82	177.0	1.60	700 MHz LTE	467	0.34%
T-Mobile 1900 MHz GSM	4	1076.77	177.0	5.30	1900 MHz GSM	1000	0.53%
T-Mobile 1900 MHz LTE	2	2153.53	177.0	5.30	1900 MHz LTE	1000	0.53%
T-Mobile 2100 MHz LTE	2	2416.30	177.0	5.94	2100 MHz LTE	1000	0.59%
						Total:	6.66%

• 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:

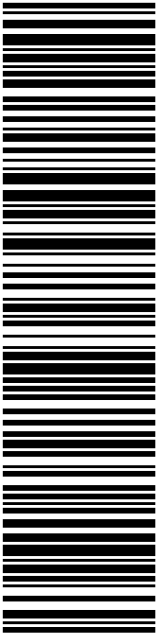
T-Mobile Sector	Power Density Value (%)
Sector A:	6.66%
Sector B:	6.66%
Sector C:	6.66%
T-Mobile Maximum MPE % (Sector A):	6.66%
Site Total:	10.10%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **10.10%** 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

 Click-N-Ship®	
P	usps.com US POSTAGE Flat Rate Env 05/25/2022 Mailed from 01566
US POSTAGE PAID Click-N-Ship®	
PRIORITY MAIL 1-DAY™	
DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359	Expected Delivery Date: 05/27/22 Ref#: SBCT-NL181 0006
SHIP TO: SBA COMMUNICATIONS CORPORATION 13 FLANDERS RD STE 125 WESTBOROUGH MA 01581	
USPS TRACKING # 	
9405 5036 9930 0258 3212 60	
Electronic Rate Approved #038555749	

✂ ————— Cut on dotted line.

Instructions

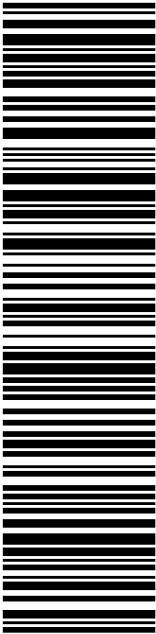
- Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
- Place your label so it does not wrap around the edge of the package.
- Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT 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

USPS TRACKING # : 9405 5036 9930 0258 3212 60	
Trans. #: 564311378 Print Date: 05/25/2022 Ship Date: 05/25/2022 Expected Delivery Date: 05/27/2022	Priority Mail® Postage: \$8.95 Total: \$8.95
From: DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359	
To: SBA COMMUNICATIONS CORPORATION 13 FLANDERS RD STE 125 WESTBOROUGH MA 01581	
Ref#: SBCT-NL181	
* 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.	



Thank you for shipping with the United States Postal Service!
 Check the status of your shipment on the USPS Tracking® page at usps.com

 Click-N-Ship®	
P	usps.com US POSTAGE Flat Rate Env 05/25/2022 Mailed from 01566
PRIORITY MAIL 2-DAY™	
DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359	Expected Delivery Date: 05/28/22 Ref#: SBCT-NL181 0006
SHIP TO: JAY SWAN FIRST SELECTMAN 415 ROUTE 169 WOODSTOCK CT 06281-3039	
USPS TRACKING #  9405 5036 9930 0258 3212 77	
Electronic Rate Approved #038555749	



Cut on dotted line.

Instructions

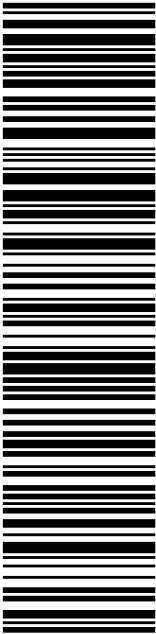
- Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
- Place your label so it does not wrap around the edge of the package.
- Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT 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

USPS TRACKING # : 9405 5036 9930 0258 3212 77	
Trans. #: 564311378 Print Date: 05/25/2022 Ship Date: 05/25/2022 Expected Delivery Date: 05/28/2022	Priority Mail® Postage: \$8.95 Total: \$8.95
From: DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359	
To: JAY SWAN FIRST SELECTMAN 415 ROUTE 169 WOODSTOCK CT 06281-3039	
Ref#: SBCT-NL181	
* 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.	



Thank you for shipping with the United States Postal Service!
 Check the status of your shipment on the USPS Tracking® page at usps.com

 Click-N-Ship®	
P	usps.com US POSTAGE Flat Rate Env 05/25/2022 Mailed from 01566
US POSTAGE PAID Click-N-Ship®	
PRIORITY MAIL 2-DAY™	
DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359	Expected Delivery Date: 05/28/22 Ref#: SBCT-NL181 0006
SHIP TO: ASHLEY STEVENS ZONING ENFORCEMENT OFFICER 415 ROUTE 169 WOODSTOCK CT 06281-3039	
USPS TRACKING # 	
9405 5036 9930 0258 3212 84	
Electronic Rate Approved #038555749	

✂ ————— Cut on dotted line.

Instructions

- Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
- Place your label so it does not wrap around the edge of the package.
- 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

USPS TRACKING # : 9405 5036 9930 0258 3212 84	
Trans. #: 564311378 Print Date: 05/25/2022 Ship Date: 05/25/2022 Expected Delivery Date: 05/28/2022	Priority Mail® Postage: \$8.95 Total: \$8.95
From: DEBORAH CHASE NORTHEAST SITE SOLUTIONS 420 MAIN ST STE 1 STURBRIDGE MA 01566-1359	
To: ASHLEY STEVENS ZONING ENFORCEMENT OFFICER 415 ROUTE 169 WOODSTOCK CT 06281-3039	
Ref#: SBCT-NL181	
* 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.	



Thank you for shipping with the United States Postal Service!
 Check the status of your shipment on the USPS Tracking® page at usps.com

CTNL 181A
SBA-TMO



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

05/27/2022

03:31 PM

Product	Qty	Unit Price	Price
---------	-----	------------	-------

Prepaid Mail	1		\$0.00
Westborough, MA 01581			
Weight: 0 lb 2.00 oz			
Acceptance Date:			
Fri 05/27/2022			
Tracking #:			
9405 5036 9930 0258 3212 60			

Prepaid Mail	1		\$0.00
Woodstock, CT 06281			
Weight: 0 lb 10.00 oz			
Acceptance Date:			
Fri 05/27/2022			
Tracking #:			
9405 5036 9930 0258 3212 77			

Prepaid Mail	1		\$0.00
Woodstock, CT 06281			
Weight: 0 lb 10.00 oz			
Acceptance Date:			
Fri 05/27/2022			
Tracking #:			
9405 5036 9930 0258 3212 84			

Grand Total:			\$0.00
--------------	--	--	--------

Every household in the U.S. is now
eligible to receive a third set
of 8 free test kits.
Go to www.covidtests.gov

Preview your Mail
Track your Packages
Sign up for FREE @
<https://informedelivery.usps.com>

All sales final on stamps and postage.
Refunds for guaranteed services only.
Thank you for your business.

Tell us about your experience.
Go to: <https://postalexperience.com/Pos>
or scan this code with your mobile device.



or call 1-800-410-7420.