



January 25, 2021

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

Re: Notice of Exempt Modification New Cingular Wireless PCS LLC ("AT&T") Site CT5873
220 Winthrop Road, Deep River, CT 06417 (the "Property")
Latitude: 41.365881 N Longitude: 72.474898 W

Dear Ms. Bachman:

AT&T currently maintains (9) antennas at the 150-foot level on the existing 180' monopole tower ("Tower") at 220 Winthrop Road, Deep River, CT. The Tower is owned by SBA 2012 TC Assets, LLC ("SBA") and the property is owned by the Town of Deep River. AT&T intends to modify its facility by replacing (3) antennas with (1) DMP65R-BU4DA & (2) DMP65R-BU6BA antennas, replacing (6) RRUs with (3) B5/B12 4449 and (3) 8843 B2/B66A RRUs. The height of AT&T's existing and proposed antennas & RRUs is 150'.

This modification includes B2, B5, and B12 hardware that is both 4G (LTE) and 5GNR capable through remote software configuration and either or both services may be turned on or off at various times.

The tower is on town property and is exempt from zoning and was not acted up by the planning & zoning commission. A building permit was issued to construct the tower on August 24, 1998.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies ("R.C.S.A") §16-50j-73 for construction that constitutes an exempt modification pursuant to R.C.S.A §16-50j-72(b)(2). In accordance with to R.C.S.A §16-50j-73, a copy of this letter is being sent the Honorable Angus L. McDonald, Jr., First Selectman, Town of Deep River, as elected official & property owner and Mike D'Amato & John Guskowski, Co- Enforcement Officers, Town of Deep River. SBA, the tower owner, received a copy by email.

The planned modification of the facility falls squarely within those activities explicitly provided for in R.C.S.A §16-50j-72(b)(2). Specifically:

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require an extension of the site boundary.
3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility 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 foundation can support the proposed loading.

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

Sincerely,

Hollis M. Redding

Hollis M. Redding
SAI Communications, LLC
12 Industrial Way
Salem, NH 03079
Mobile: 860-834-6964
hredding@saigrp.com

Enclosures

Cc: Honorable Angus L. McDonald, Jr., First Selectman and property owner, Town of Deep River
Mike D'Amato, John Guskowski, Co- Interim Zoning Enforcement Officers, Town of Deep River
SBA 2012 TC Assets, LLC, tower owner

Power Density

Existing Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm ²)	Freq. Band (MHz ^{**})	Limit S (mW/cm ²)	%MPE
Other Carriers*							13.11%
AT&T	1	565	150	0.0098	880	0.5867	0.17%
AT&T	1	875	150	0.0152	1900	1.0000	0.15%
AT&T	1	249	150	0.0043	734	0.4893	0.09%
AT&T	2	3664	150	0.1271	1900	1.0000	1.27%
Site Total							14.79%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

Proposed Loading on Tower

Carrier	# of Channels	ERP/Ch (W)	Antenna Centerline Height (ft)	Power Density (mW/cm ²)	Freq. Band (MHz ^{**})	Limit S (mW/cm ²)	%MPE
Other Carriers*							13.11%
AT&T	1	525	150	0.0098	700	0.5667	0.17%
AT&T	1	249	150	0.0043	850	0.4667	0.09%
AT&T	1	249	150	0.0043	850	1.0000	0.04%
AT&T	1	249	150	0.0043	700	0.4667	0.09%
AT&T	1	249	150	0.0043	2100	0.5667	0.08%
AT&T	2	3664	150	0.1271	1900	1.0000	1.27%
AT&T	1	249	150	0.0043	700	0.5667	0.08%
Site Total							14.94%

*Per CSC Records (available upon request, includes calculation formulas)

** If a range of frequencies are used, such as 880-894, enter the lowest value, i.e. 880

PROJECT INFORMATION

SCOPE OF WORK: ITEMS TO BE MOUNTED ON THE EXISTING MONOPOLE:

- NEW AT&T ANTENNAS: DMP65R-BU4DA (TOTAL OF 1 PER BETA SECTOR)
- DMP65R-BU6DA (TYP. OF 1 PER ALPHA AND GAMMA SECTORS, TOTAL OF 2).
- EXISTING AT&T ANTENNAS: HPA-65R-BUU-H6 TO BE RELOCATED TO POS.3 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: B5/B12 4449 (850/700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: 8843 B2/B66A (PCS/AWS) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T (6) Y CABLES.
- MOVE UMTS SMART BIAS T TO UMTS LINES
- RELOCATE EXISTING ANTENNA (HPA-65R-BUU-H6) TO POSITION 3 (TYP. OF 1 PER ALPHA AND GAMMA SECTORS, TOTAL OF 2)
- RELOCATE EXISTING ANTENNA (SBNHH-1D65A) TO POSITION 3 (TOTAL OF 1 PER BETA SECTOR)
- RELOCATE EXISTING DIPLEXER (DBC0061F1V51-2) TO BE RELOCATED TO POSITION 3 (TYP. OF 1 PER SECTOR, TOTAL OF 3).

ITEMS TO BE MOUNTED AT EQUIPMENT LOCATION:

- ADD (1) XMU.
- ADD RBS 6630 FOR 5G.
- ADD IDLe.
- NEW AT&T RRUS: 4478 B14 (700) (TYP. OF 1 PER ALPHA & BETA SECTOR, TOTAL OF 2, GAMMA WILL SHARE WITH ALPHA).
- NEW AT&T SURGE ARRESTOR: TSXDC-4310FM (TYP. OF 4 PER SECTOR, TOTAL OF 8).
- PROPOSED (12) UP-CONVERTERS IN EXISTING POWER PLANT.

ITEMS TO BE REMOVED:

- EXISTING AT&T ANTENNAS: AM-X-CD-14-65-00T-RET (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T RRUS: RRUS-11 B12 (700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T RRUS: RRUS-32 B2 (PCS) (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T TMA'S: LGP21401 (TYP. OF 2 PER SECTOR, TOTAL OF 6)

ITEMS TO REMAIN:

- (6) ANTENNAS, (1) SURGE ARRESTOR, (12) COAX CABLES, (2) DC POWER, & (1) FIBER.

SITE ADDRESS: 220 WINTHROP ROAD
DEEP RIVER, CT 06417

LATITUDE: 41.365881° N, 41° 21' 57.17" N
LONGITUDE: 72.474898° W, 72° 28' 29.63" W

TYPE OF SITE: MONOPOLE / OUTDOOR

STRUCTURE HEIGHT: 180'-0"±
RAD CENTER: 150'-0"±

CURRENT USE: TELECOMMUNICATIONS FACILITY
PROPOSED USE: TELECOMMUNICATIONS FACILITY

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	1
GN-1	GENERAL NOTES	1
A-1	COMPOUND & EQUIPMENT PLANS	1
A-2	ANTENNA LAYOUTS & ELEVATION	1
A-3	DETAILS	1
A-4	PENETRATION DETAILS	1
SN-1	STRUCTURAL NOTES	1
S-1	MOUNT MODIFICATION DESIGN	1
G-1	GROUNDING DETAILS	1
RF-1	RF PLUMBING DIAGRAM	1



SITE NUMBER: CT5873

SITE NAME: DEEP RIVER CENTRAL

FA CODE: 10070997

PACE ID: MRCTB049650, MRCTB049660, MRCTB049662

PROJECT: LTE-3C-4C- 5G NR 2020 UPGRADE

VICINITY MAP

DIRECTIONS TO SITE:

DEPART ENTERPRISE DR TOWARD CAPITOL BLVD. 0.1 MI. TURN LEFT ONTO CAPITOL BLVD. 0.3 MI. TURN LEFT ONTO WEST ST. 0.3 MI. TAKE RAMP LEFT FOR I-91 S. 1.4 MI. AT EXIT 22S, TAKE RAMP LEFT FOR CT-9 SOUTH TOWARD MIDDLETOWN / OLD SAYBROOK. 5.5 MI. ROAD NAME CHANGES TO CT-17 S / CT-9 S. 0.8 MI. KEEP STRAIGHT ONTO CT-9 S. 16.1 MI. AT EXIT 5, TAKE RAMP RIGHT FOR CT-80 TOWARD DEEP RIVER / KILLINGWORTH. 0.2 MI. TURN RIGHT ONTO CT-80 / W ELM ST. 1.1 MI. TURN RIGHT TO STAY ON CT-80 / WINTHROP RD. 1.0 MI. ARRIVE AT ENTRANCE TO SITE ON THE RIGHT.



GENERAL NOTES

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.

72 HOURS

CALL BEFORE YOU DIG

CALL TOLL FREE 1-800-922-4455
OR CALL 811

UNDERGROUND SERVICE ALERT

45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT5873
SITE NAME: DEEP RIVER CENTRAL

220 WINTHROP ROAD
DEEP RIVER, CT 06417
MIDDLESEX COUNTY

500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	01/07/21	ISSUED FOR CONSTRUCTION	HC	HC	DPH
A	12/16/20	ISSUED FOR REVIEW	GA	HC	DPH
		REVISIONS			
			BY	CHK	APP'D

SCALE: AS SHOWN DESIGNED BY: HC DRAWN BY: GA

AT&T	
TITLE SHEET	
LTE-3C-4C- 5G NR 2020 UPGRADE	
SITE NUMBER	DRAWING NUMBER
CT5873	T-1
REV	1

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81 STANDARDS) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS AND #2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR – SAI
 SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER – AT&T MOBILITY
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. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
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 SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, 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.
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 OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCH UP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T SITES."
17. 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.
18. THE EXISTING CELL SITE IS 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.
19. SINCE THE 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 ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. **APPLICABLE BUILDING CODES:**
 SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

**BUILDING CODE: IBC 2015 WITH 2018 CT STATE BUILDING CODE AMENDMENTS
 ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE (NFPA 70-2017)**

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARDS FOR STEEL

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS					
AGL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		

HGD HUDSON Design Group LLC
 45 BEECHWOOD DRIVE NORTH ANDOVER, MA 01845
 TEL: (978) 557-5553 FAX: (978) 336-5586

SAI
 12 INDUSTRIAL WAY SALEM, NH 03079

**SITE NUMBER: CT5873
 SITE NAME: DEEP RIVER CENTRAL**

220 WINTHROP ROAD
 DEEP RIVER, CT 06417
 MIDDLESEX COUNTY

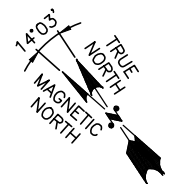
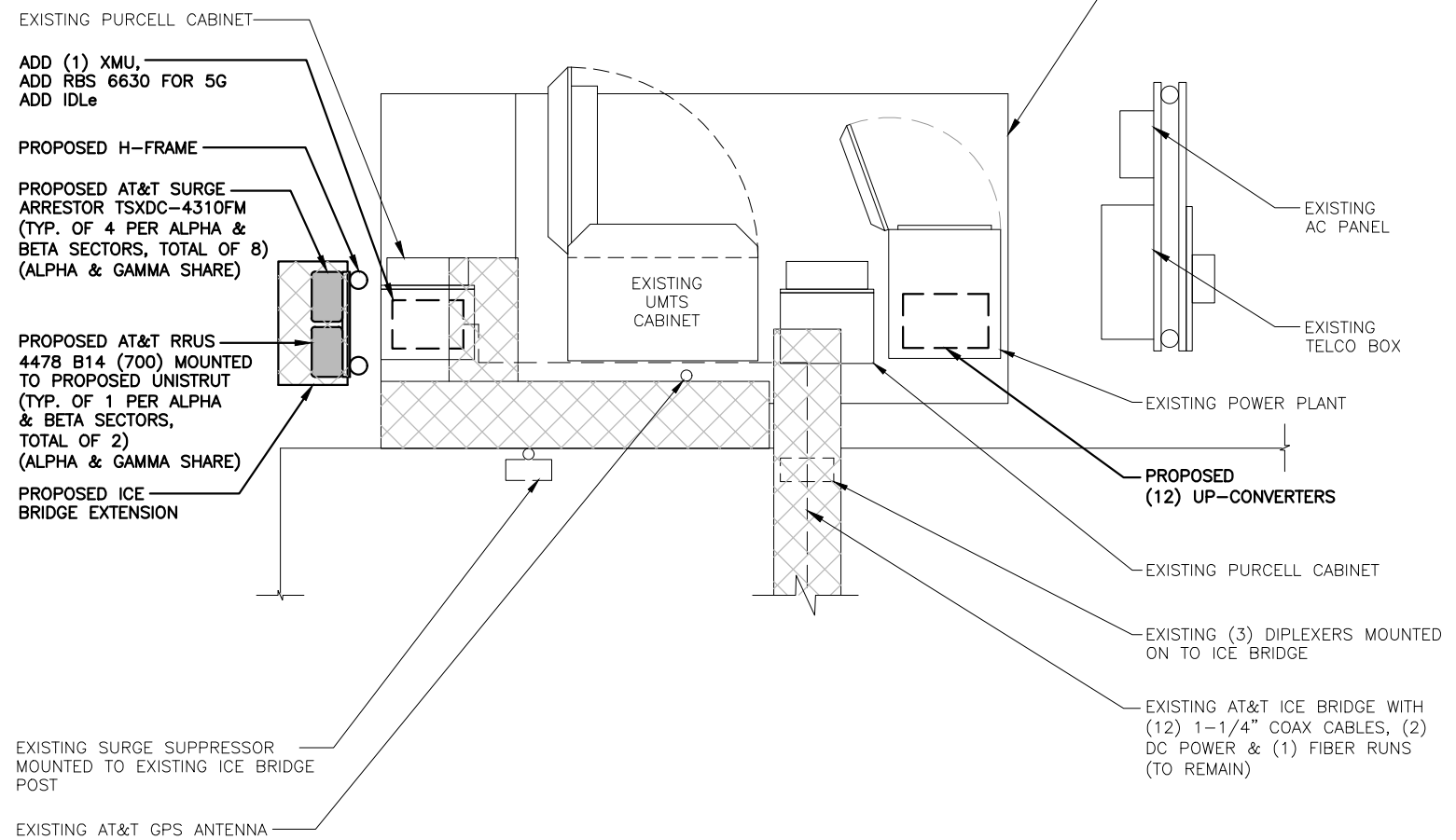
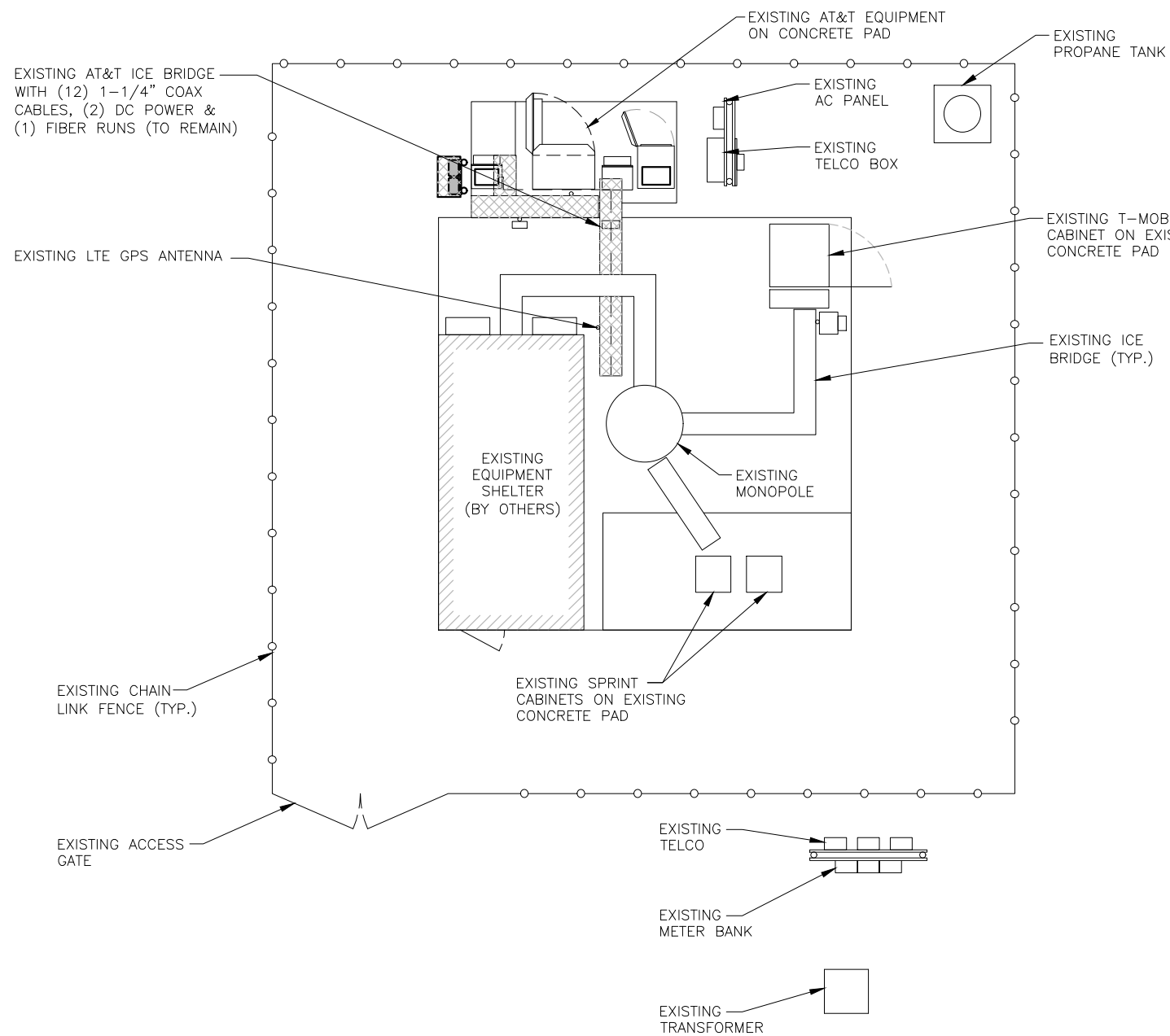
at&t
 500 ENTERPRISE DRIVE, SUITE 3A
 ROCKY HILL, CT 06067

Daniel P. Hamm
 No. 24178
 LICENSED PROFESSIONAL ENGINEER

1 01/07/21 ISSUED FOR CONSTRUCTION		HC	HC	DPH	AT&T
A 12/16/20 ISSUED FOR REVIEW		GA	HC	DPH	
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: HC	DRAWN BY: GA		
GENERAL NOTES		LTE-3C-4C- 5G NR 2020 UPGRADE			
SITE NUMBER		DRAWING NUMBER		REV	
CT5873		GN-1		1	

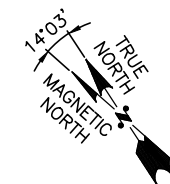
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.



COMPOUND PLAN
22x34 SCALE: 1/4"=1'-0"
11x17 SCALE: 1/8"=1'-0"

1
A-1



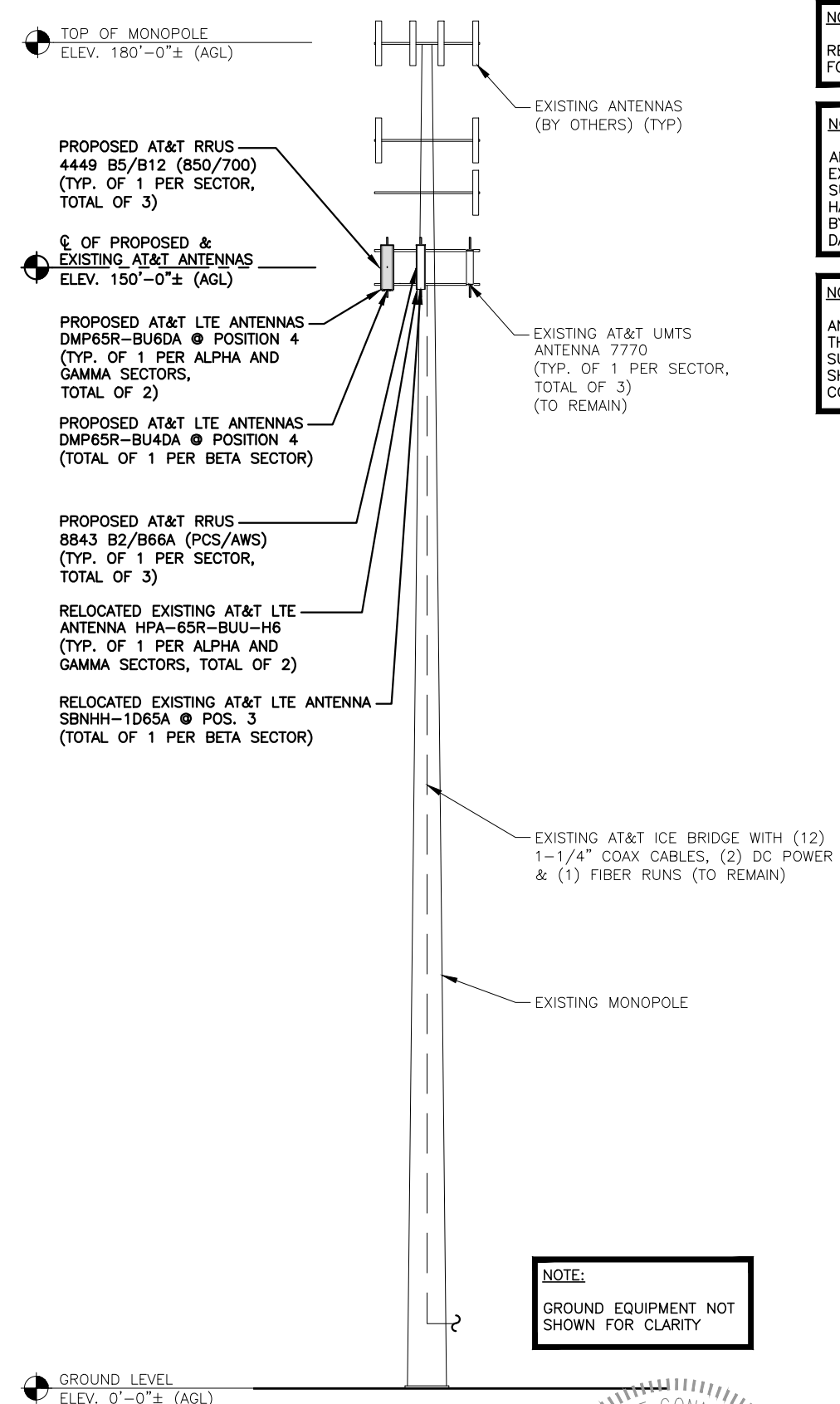
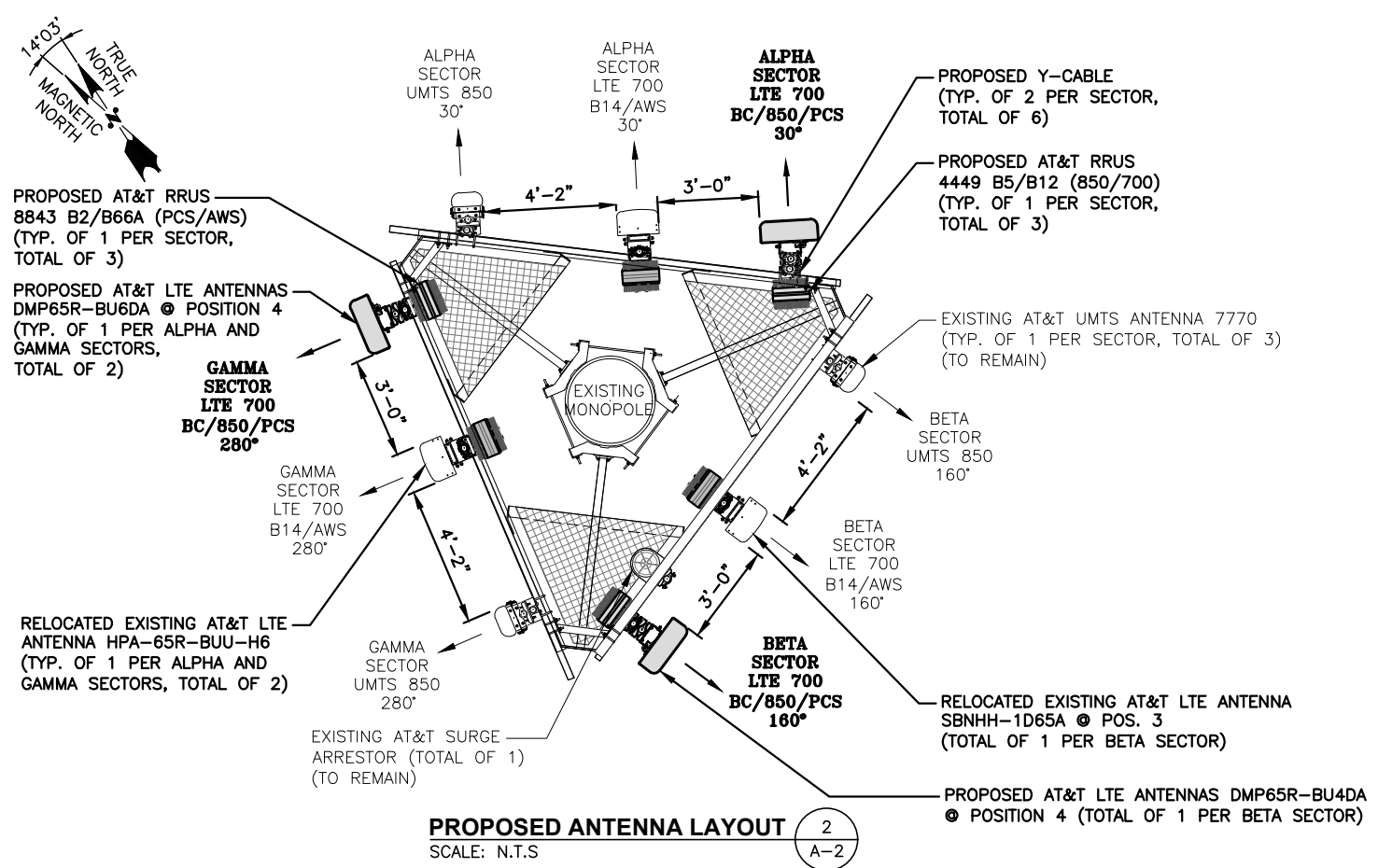
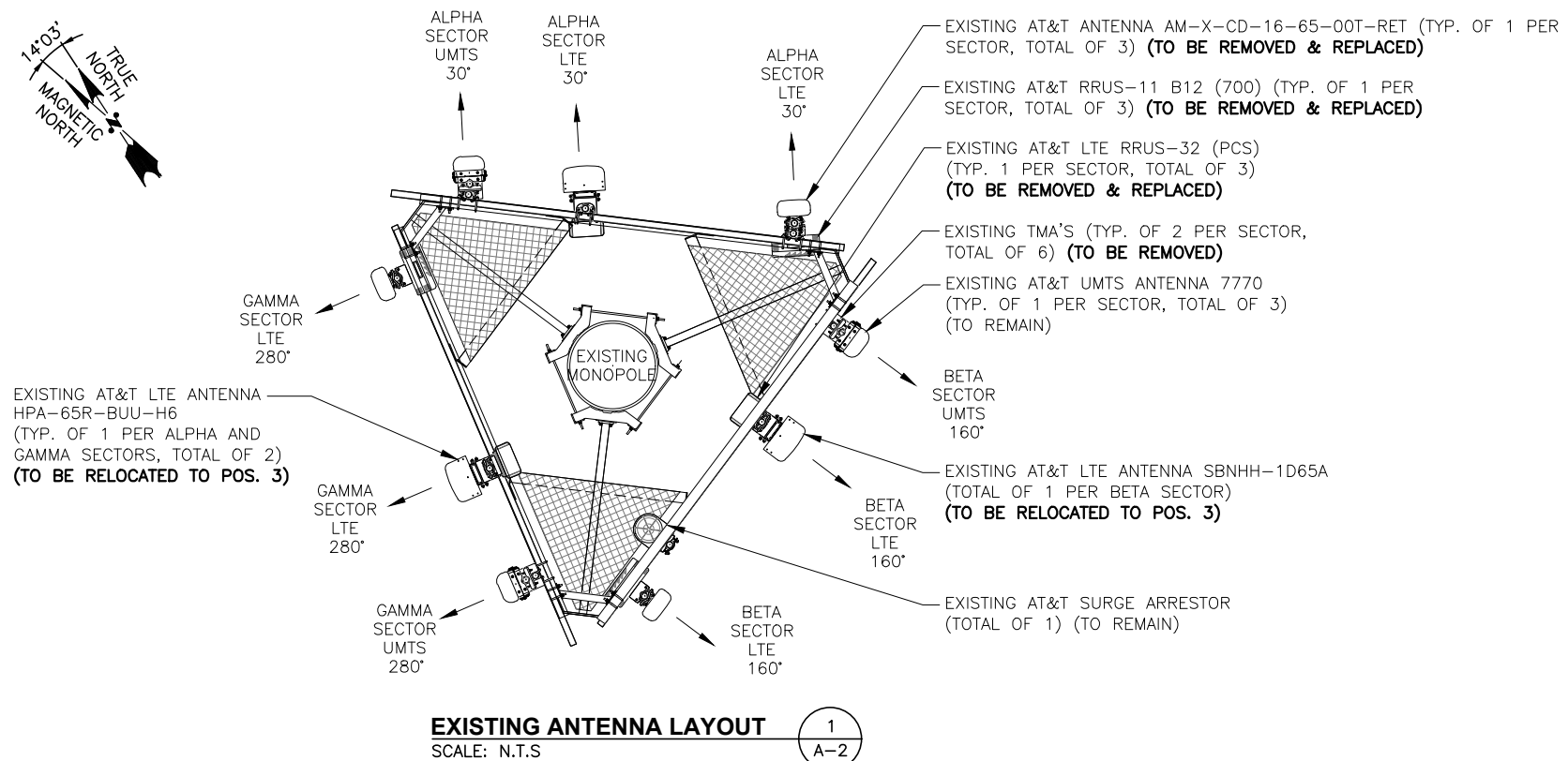
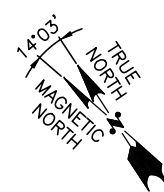
EQUIPMENT PLAN
22x34 SCALE: 1/2"=1'-0"
11x17 SCALE: 1/4"=1'-0"

2
A-1



1	01/07/21	ISSUED FOR CONSTRUCTION	HC	HC	DPH
A	12/16/20	ISSUED FOR REVIEW	GA	HC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: HC	DRAWN BY: GA		





NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
AN ANALYSIS FOR THE CAPACITY OF EXISTING ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: DECEMBER 14, 2020

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

NOTE:
GROUND EQUIPMENT NOT SHOWN FOR CLARITY

HDG HUDSON Design Group LLC
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

SAI
12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT5873
SITE NAME: DEEP RIVER CENTRAL

220 WINTHROP ROAD
DEEP RIVER, CT 06417
MIDDLESEX COUNTY

at&t
500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	01/07/21	ISSUED FOR CONSTRUCTION	HC	HC	DPH
A	12/16/20	ISSUED FOR REVIEW	GA	HC	DPH

SCALE: AS SHOWN DESIGNED BY: HC DRAWN BY: GA

PROFESSIONAL ENGINEER
DANIEL P. HAMM
No. 24178
STATE OF CONNECTICUT

AT&T

ANTENNA LAYOUTS & ELEVATION
LTE-3C-4C- 5G NR 2020 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT5873	A-2	1

ANTENNA SCHEDULE

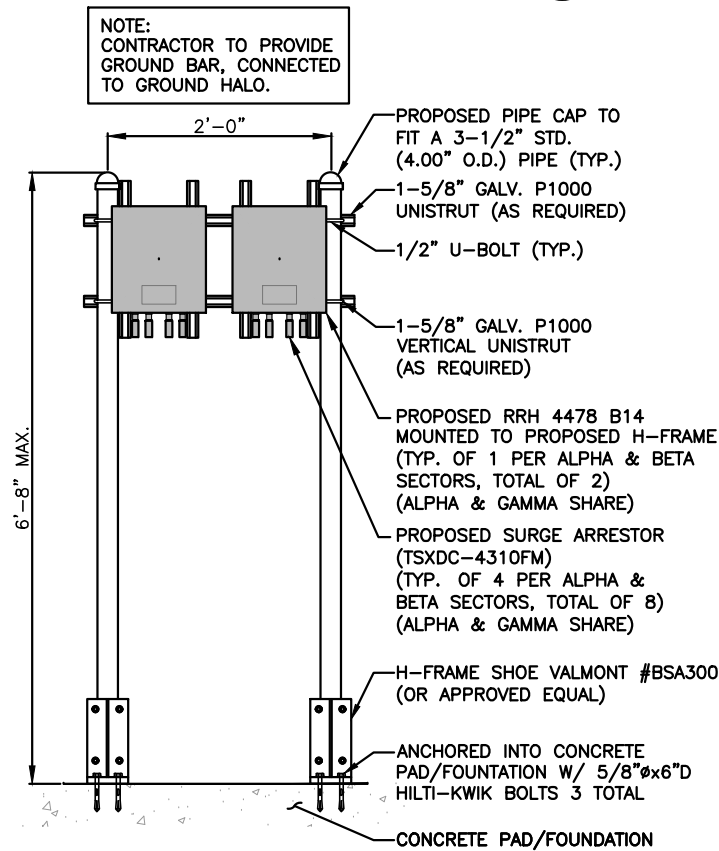
SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA Ø HEIGHT	AZIMUTH	TMA/ DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	EXISTING	UMTS 850	7770	55X11X5	150'-0"±	30°	-	-	-	(2)1-1/4 COAX	(E) (1) RAYCAP DC6-48-60-18-8F
A2	-	-	-	-	-	-	-	-	-	-	
A3	EXISTING	LTE 700 B14/AWS	HPA-65R-BUU-H6	72X14.8X9	150'-0"±	30°	(1)(E)(G) DBC0061F1V51-2 (1)(P) Y-CABLE	(1)(P) 8843 B2/B66A (PCS/AWS) (1)(P)(G) 4478 B14 (700) SHARED WITH GAMMA SECTOR	14.9X13.2X10.9 18.1X13.4X8.3	(2)1-1/4 COAX, (2) DC POWER & (1) FIBER	
A4	PROPOSED	LTE 700 BC/850/PCS	DMP65R-BU6DA	71.2X20.7X7.7	150'-0"±	30°	(1)(P) Y-CABLE	(1)(P) 4449 B5/B12 (850/700)	17.9X13.2X10.4	-	
B1	EXISTING	UMTS 850	7770	55X11X5	150'-0"±	160°	-	-	-	(2)1-1/4 COAX	-
B2	EXISTING	-	-	-	-	-	-	-	-	-	
B3	EXISTING	LTE 700 B14/AWS	SBNHH-1D65A	55X11.9X7.1	150'-0"±	160°	(1)(E)(G) DBC0061F1V51-2 (1)(P) Y-CABLE	(1)(P) 8843 B2/B66A (PCS/AWS) (1)(P)(G) 4478 B14 (700)	14.9X13.2X10.9 18.1X13.4X8.3	(2)1-1/4 COAX	
B4	PROPOSED	LTE 700 BC/850/PCS	DMP65R-BU4DA	48X20.7X7.7	150'-0"±	160°	(1)(P) Y-CABLE	(1)(P) 4449 B5/B12 (850/700)	17.9X13.2X10.4	-	
C1	EXISTING	UMTS 850	7770	55X11X5	150'-0"±	280°	-	-	-	(2)1-1/4 COAX	-
C2	-	-	-	-	-	-	-	-	-	-	
C3	EXISTING	LTE 700 B14/AWS	HPA-65R-BUU-H6	72X14.8X9	150'-0"±	280°	(1)(E)(G) DBC0061F1V51-2 (1)(P) Y-CABLE	(1)(P) 8843 B2/B66A (PCS/AWS)	14.9X13.2X10.9	(2)1-1/4 COAX	
C4	PROPOSED	LTE 700 BC/850/PCS	DMP65R-BU6DA	71.2X20.7X7.7	150'-0"±	280°	(1)(P) Y-CABLE	(1)(P) 4449 B5/B12 (850/700)	17.9X13.2X10.4	-	

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

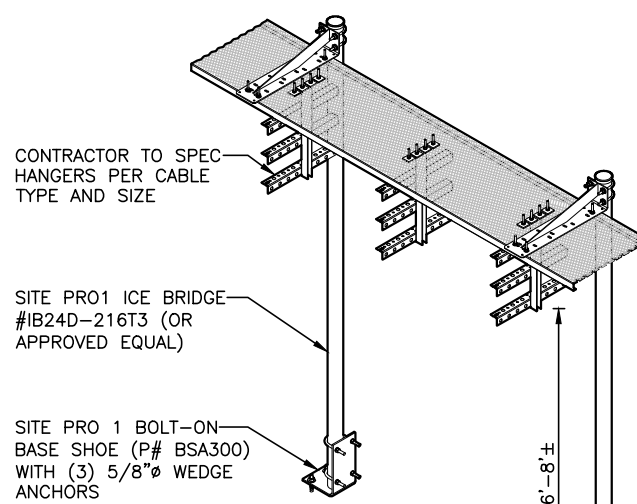
NOTE:
AN ANALYSIS FOR THE CAPACITY OF EXISTING ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: HUDSON DESIGN GROUP, LLC. DATED: DECEMBER 14, 2020

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

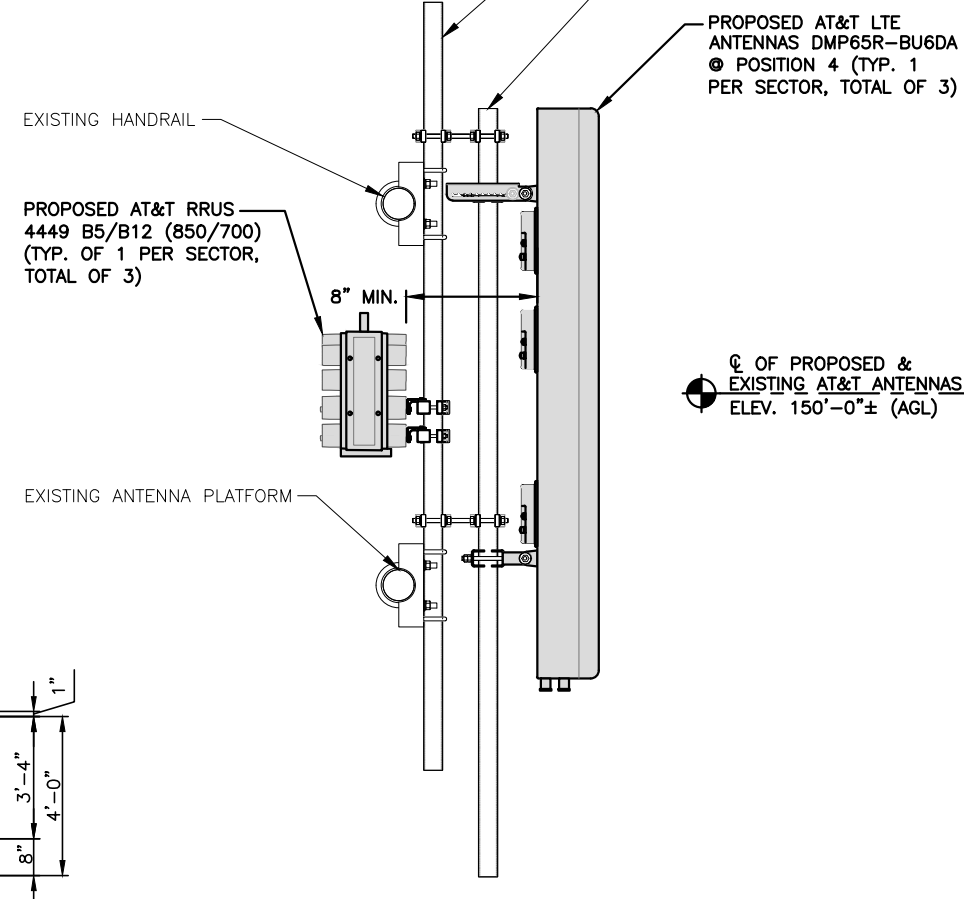
FINAL ANTENNA SCHEDULE 1
SCALE: N.T.S. A-3



PROPOSED RRUS MOUNTING DETAIL 3
SCALE: N.T.S. A-3



CABLE BRIDGE DETAIL 4
22x34 SCALE: N.T.S. A-3



PROPOSED LTE ANTENNA MOUNTING DETAIL 5
22x34 SCALE: 1"=1'-0" A-3
11x17 SCALE: 1/2"=1'-0" A-3

QUANTITY	MODEL	SIZE (L x W x D)
3(P)	4449 (850/700)	17.9"x13.2"x10.4"
3(P)	8843 (PCS/AWS)	14.9"x13.2"x10.9"
2(P)	4478 B14 (700)	18.1"x13.4"x8.3"

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS

NOTE:
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

PROPOSED RRU REFER TO THE FINAL RFDS AND CHART FOR QUANTITY, MODEL AND DIMENSIONS

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

PROPOSED RRUS DETAIL 2
SCALE: N.T.S. A-3

STRUCTURAL NOTES:

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD.
- DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
- STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
- STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 TYPE-X "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 3/4" DIA UON.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
- FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
- CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL", 14TH EDITION.
- INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
- UNISTRUT SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP., WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
- EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS, AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-270 AND OR HY-200 SYSTEMS (AS SPECIFIED IN DWG.) OR ENGINEERS APPROVED EQUAL.
- EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
- WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE BUILDING OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY. ROOF SHALL BE WATERTIGHT.
- ALL FIBERGLASS MEMBERS USED ARE AS MANUFACTURED BY STRONGWELL COMPANY OF BRISTOL, VA 24203. ALL DESIGN CRITERIA FOR THESE MEMBERS IS BASED ON INFORMATION PROVIDED IN THE DESIGN MANUAL. ALL REQUIREMENTS PUBLISHED IN SAID MANUAL MUST BE STRICTLY ADHERED TO.
- NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
- SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):

GENERAL: WHERE APPLICATION IS MADE FOR CONSTRUCTION, THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE INSPECTION CHECKLIST ABOVE.

THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.

STATEMENT OF SPECIAL INSPECTIONS: THE APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 107.1 AS A CONDITION FOR ISSUANCE. THIS STATEMENT SHALL BE IN ACCORDANCE WITH SECTION 1705.

REPORT REQUIREMENT: SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS SHALL BE SUBMITTED.

SPECIAL INSPECTION CHECKLIST	
BEFORE CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
N/A	ENGINEER OF RECORD APPROVED SHOP DRAWINGS ¹
N/A	MATERIAL SPECIFICATIONS REPORT ²
N/A	FABRICATOR NDE INSPECTION
N/A	PACKING SLIPS ³
ADDITIONAL TESTING AND INSPECTIONS:	
DURING CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS ⁴
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION ⁵
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT
ADDITIONAL TESTING AND INSPECTIONS:	
AFTER CONSTRUCTION	
CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS ⁶
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
TEL: (978) 557-5553
FAX: (978) 336-5586

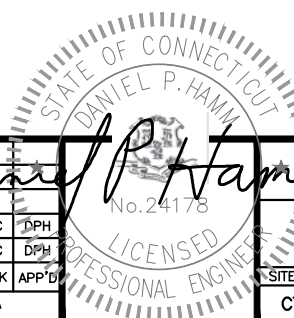
12 INDUSTRIAL WAY
SALEM, NH 03079

SITE NUMBER: CT5873
SITE NAME: DEEP RIVER CENTRAL

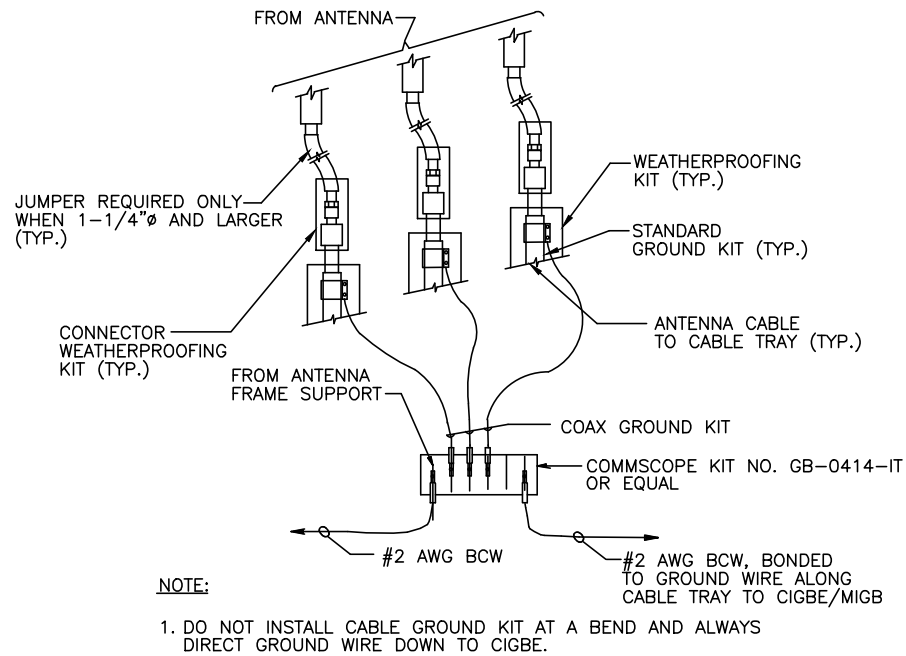
220 WINTHROP ROAD
DEEP RIVER, CT 06417
MIDDLESEX COUNTY

500 ENTERPRISE DRIVE, SUITE 3A
ROCKY HILL, CT 06067

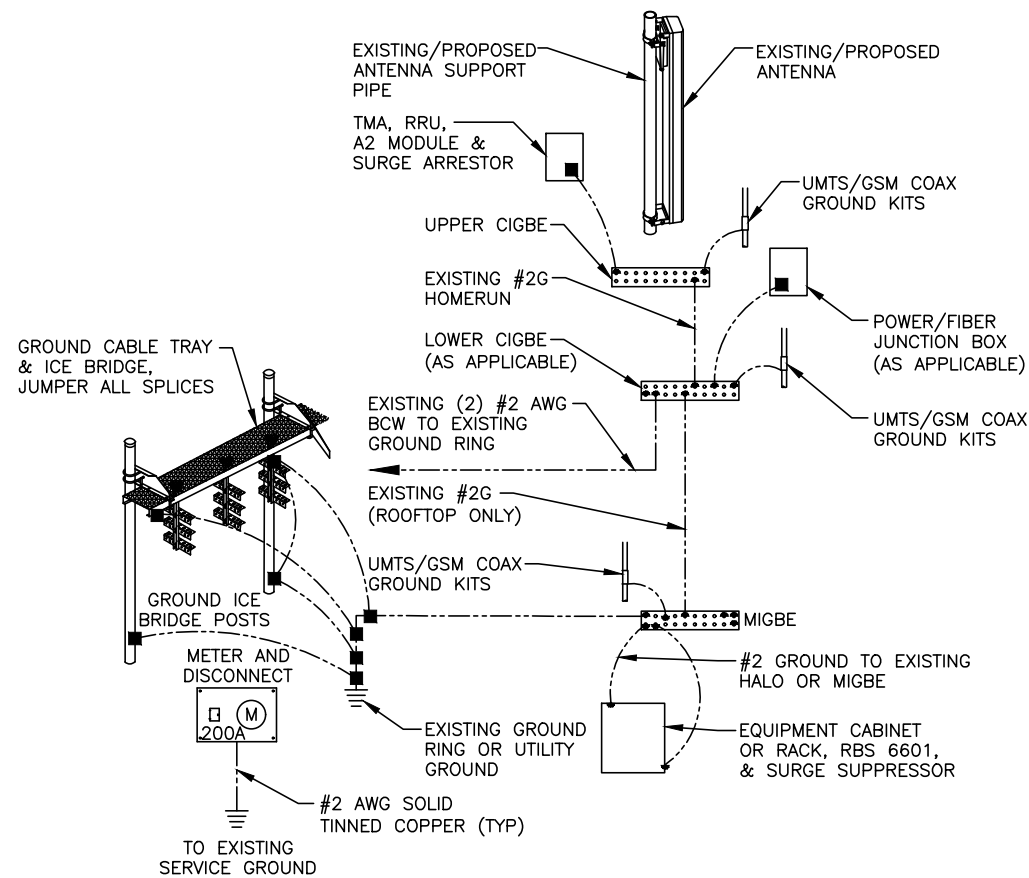
NO.	DATE	REVISIONS	BY	CHK	APP'D
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A	12/16/20	ISSUED FOR REVIEW	GA	HC	DPH
SCALE: AS SHOWN DESIGNED BY: HC DRAWN BY: GA					



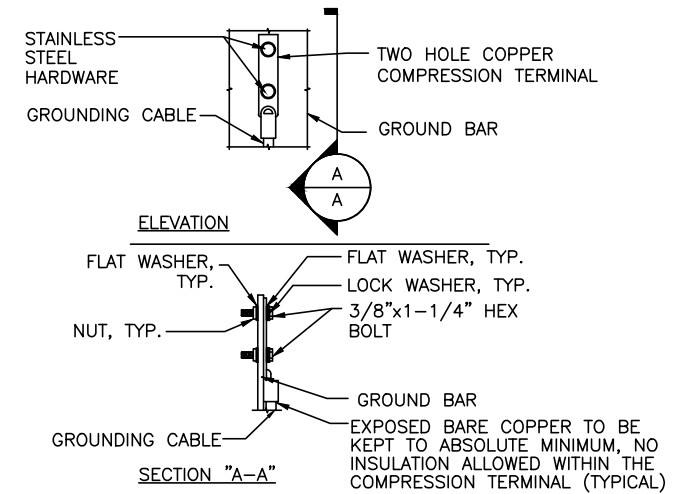
AT&T	
STRUCTURAL NOTES	
LTE-3C-4C- 5G NR 2020 UPGRADE	
SITE NUMBER	DRAWING NUMBER
CT5873	SN-1
REV	
	1



GROUND WIRE TO GROUND BAR CONNECTION DETAIL 1
SCALE: N.T.S. G-1



GROUNDING RISER DIAGRAM 2
SCALE: N.T.S. G-1



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

TYPICAL GROUND BAR CONNECTION DETAIL 3
SCALE: N.T.S. G-1

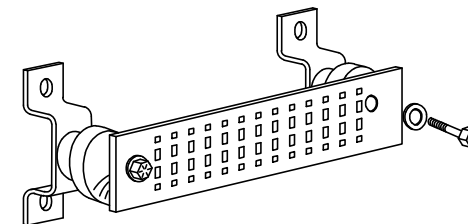
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" - SURGE PRODUCERS

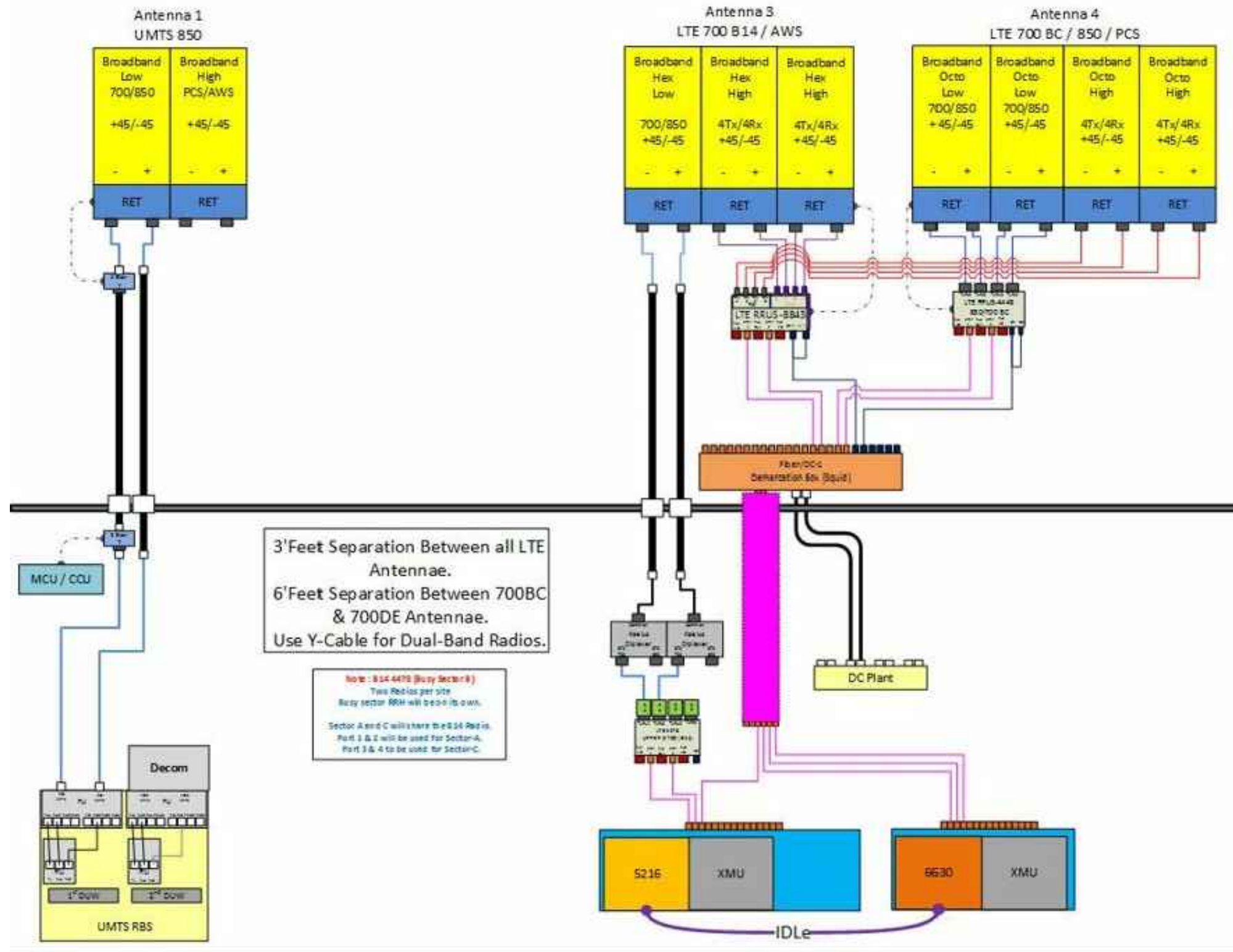
- CABLE ENTRY PORTS (HATCH PLATES) (#2 AWG)
- GENERATOR FRAMEWORK (IF AVAILABLE) (#2 AWG)
- TELCO GROUND BAR
- COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2 AWG)
- +24V POWER SUPPLY RETURN BAR (#2 AWG)
- 48V POWER SUPPLY RETURN BAR (#2 AWG)
- RECTIFIER FRAMES.

SECTION "A" - SURGE ABSORBERS

- INTERIOR GROUND RING (#2 AWG)
- EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2 AWG)
- METALLIC COLD WATER PIPE (IF AVAILABLE) (#2 AWG)
- BUILDING STEEL (IF AVAILABLE) (#2 AWG)



GROUND BAR - DETAIL (AS REQUIRED) 4
SCALE: N.T.S. G-1



3' Feet Separation Between all LTE Antennae.
6' Feet Separation Between 700BC & 700DE Antennae.
Use Y-Cable for Dual-Band Radios.

Note: 814 4470 (Busy Sector)
Two Rbs per site
Busy sector RBS will be on its own.
Sector A and C will have the 814 Rbs.
Part 3 & 4 will be used for Sector-A.
Part 3 & 4 to be used for Sector-C.

NOTE:
1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

RF PLUMBING DIAGRAM 1
SCALE: N.T.S. RF-1

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	01/07/21	ISSUED FOR CONSTRUCTION	HC	HC	DPH
A	12/16/20	ISSUED FOR REVIEW	GA	HC	DPH
SCALE: AS SHOWN		DESIGNED BY: HC	DRAWN BY: GA		

AT&T		
RF PLUMBING DIAGRAM LTE-3C-4C- 5G NR 2020 UPGRADE		
SITE NUMBER	DRAWING NUMBER	REV
CT5873	RF-1	1



Tower Engineering Solutions

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

Structural Analysis Report

Existing 180 ft Valmont Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT46130-A

Customer Site Name: Deep River-winthrop Rd

Carrier Name: AT&T (App#: 144026, V2)

Carrier Site ID / Name: CT5873 / AWE-DEEP RIVER CENTRAL

Site Location: 220 Winthrop Rd

Deep River, Connecticut

Middlesex County

Latitude: 41.365872

Longitude: -72.474849

Exp.10/31/2021



Analysis Result:

Max Structural Usage: 92.7% [Pass]

Max Foundation Usage: 82.0% [Pass]

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

Report Prepared By : Dipika Dhungana

01/13/2021



Tower Engineering Solutions

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

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Analysis Result:

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Max Foundation Usage: 82.0% [Pass]

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

Report Prepared By : Dipika Dhungana

Introduction

The purpose of this report is to summarize the analysis results on the 180 ft Valmont 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	Original structural design report & permit drawings prepared by Valmont. Dated 10-27-2000. Order No 17593-98. CT750 Deep River Site. Project No F082. Previous structural report prepared by FDH Engineering, Inc. Dated 11-04-2013. Project No 13SFRX1400.
Foundation Drawing	Original foundation drawings prepared by Valmont Industries, Inc. Dated 08-11-1998. Project No 2633. Order No 17593-98. Drawing No 2633-F.
Geotechnical Report	Geotechnical report prepared by TECTONIC Engineering Consultants, P.C. Dated 07-13-1998. Work Order No 1170.C750.
Modification Drawings	N/A
Mount Analysis	MA by Hudson Design Group, LLC. PT# 2051A0X1TB, dated 12/14/2020

Analysis Criteria

The comprehensive analysis was performed in accordance with the requirements and stipulations of the TIA-222-H. 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:	123.0 mph (3-Sec. Gust) (Ultimate wind speed)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 1" radial ice concurrent
Service Load Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-H / 2018 Connecticut State Building Code
Exposure Category:	C
Risk Category:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_S = 0.21$, $S_1 = 0.054$

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

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	178.0	6	JMA MX06FRO660-03 - Panel	Platform w/ Handrails (3) 91900314	(2) 1 5/8" Hybrid	Verizon
2		3	Samsung B5/B13 RRH BR04C			
3		3	Samsung B2/B66A RRH BR049			
4		1	Raycap RRFDS-6627-PF48			
5	166.0	3	RFS APXVTM14-C-I20 - Panel	Platform w/Handrails + Sitepro PRK-1245L + handrail kit + Sitepro PRK-SFS-H-L]	(4) 1-1/4" Hybrid	Sprint Nextel
6		3	Commscope NNVV-65B-R4 - Panel			
7		3	ALU 1900 Mhz			
8		6	ALU 800 Mhz			
9		3	ALU TD-RRH8x20-25			
10	160.0	3	EMS - RR90-17-02VDPL2/-R - Panel	(3) T-Arms w/ Reinforcements	(12) 1 5/8" Coax (1) 1 5/8" Fiber	T-Mobile
11		3	RFS - APXVAARR24_43-U-NA20 - Panel			
12		3	Ericsson - KRY 112 489/2 - TMA			
13		3	Ericsson - KRY 112 144/2 - TMA			
14		3	Ericsson - Radio 4449 B71+B12 - RRU			
-	150.0	2	Cci HPA-65R-BUU-H6- Panel	Low Profile Platform w/ Handrail kit HRK-12	(12) 1 1/4"; [(1) 10 mm & (2) 19.7 mm inside (1) 3" Innerduct]	AT&T
-		1	Commscope SBNHH-1D65A- Panel			
-		3	Ericsson RRUS-32- RRU			
-		2	KMW AM-X-CD-16-65-00T-RET Panel			
-		3	Powerwave 7770 - Panel			
-		1	KMW AM-X-CD-14-65-00T- Panel			
-		6	Powerwave LGP21401 TMA			
-		3	Ericsson RRUS-11- RRU			
-		1	Raycap DC6-48-60-18-8F Surge			

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
15	150.0	3	Powerwave 7770	Low Profile Platform w/ Handrail kit HRK-12	(12) 1 1/4" (2) 1" DC (1) 0.39" Fiber	AT&T
16		1	Commscope SBNHH-1D65A			
17		2	Cci HPA-65R-BUU-H6			
18		1	Cci DMP65R-BU4DA			
19		2	Cci DMP65R-BU6DA			
20		6	Powerwave LGP21401			
21		3	Ericsson RRUS 8843 B2 B66A			
22		3	Ericsson RRUS 4449 B5/B12			
23		1	Raycap DC-6-48-60-18-8F			

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:	92.7%	80.4%	61.4%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)
Analysis Reactions	5886.2	48.0

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.

Service Load Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by TIA-222 for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.6652 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

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

Standard Conditions

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

Usage Diagram - Max Ratio 92.74% at 0.0ft

Structure: CT46130-A-SBA
Site Name: Deep River-winthrop Rd
Height: 180.00 (ft)
Base Elev: 0.000 (ft)

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

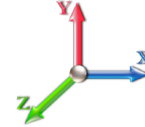
1/13/2021



Page: 1

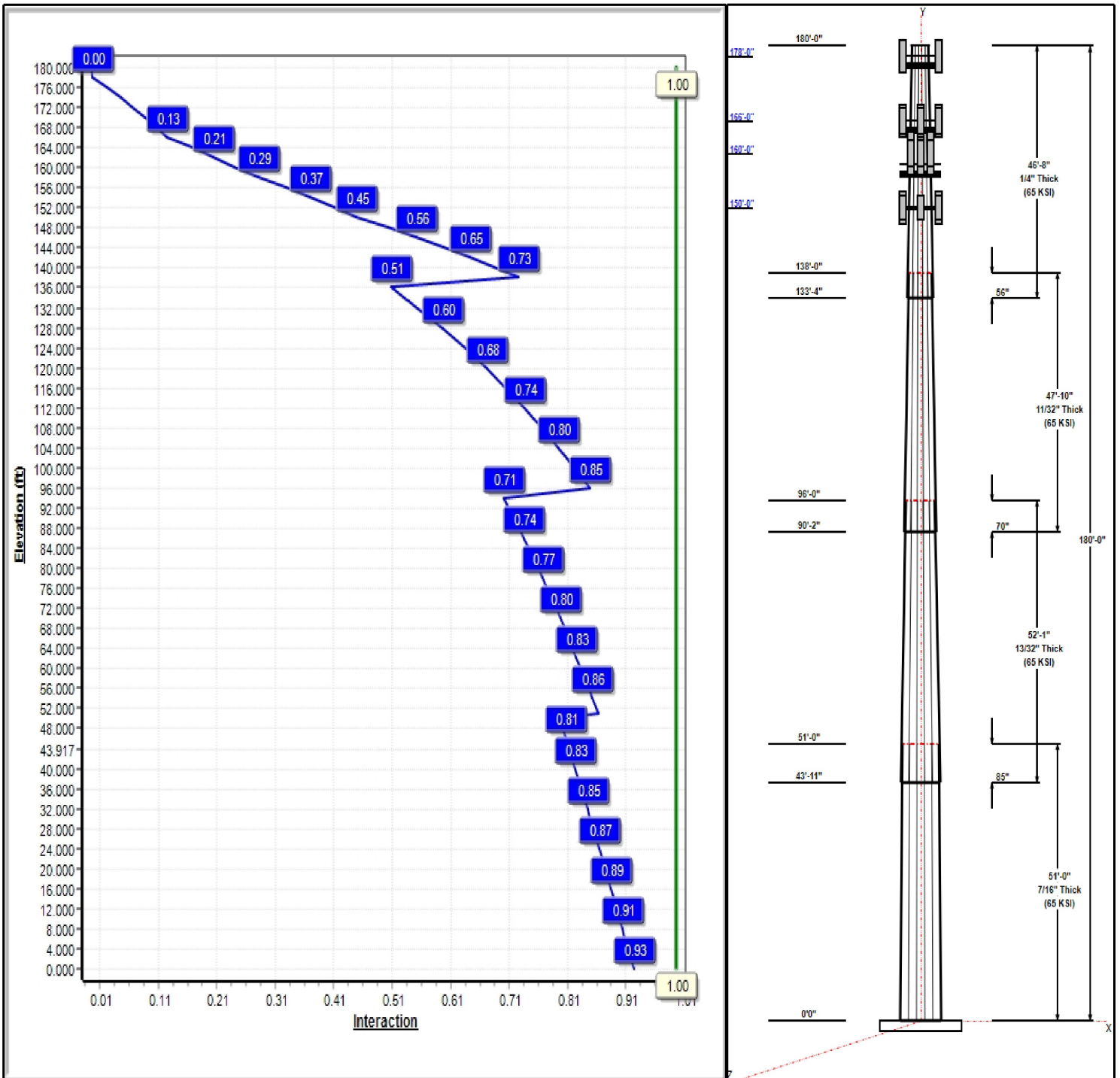
Dead Load Factor: 1.20
Wind Load Factor: 1.00

Load Case : 1.2D + 1.0W 123 mph Wind



Iterations: 29

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Structure: CT46130-A-SBA

Type: Tapered
Site Name: Deep River-winthrop Rd
Height: 180.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 12 Sided
Taper: 0.24800

1/13/2021

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Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	51.00	49.35	62.00	0.438		0.24800	65
2	52.08	39.00	51.92	0.406	Slip	0.24800	65
3	47.83	29.28	41.14	0.344	Slip	0.24800	65
4	46.67	19.36	30.93	0.250	Slip	0.24800	65

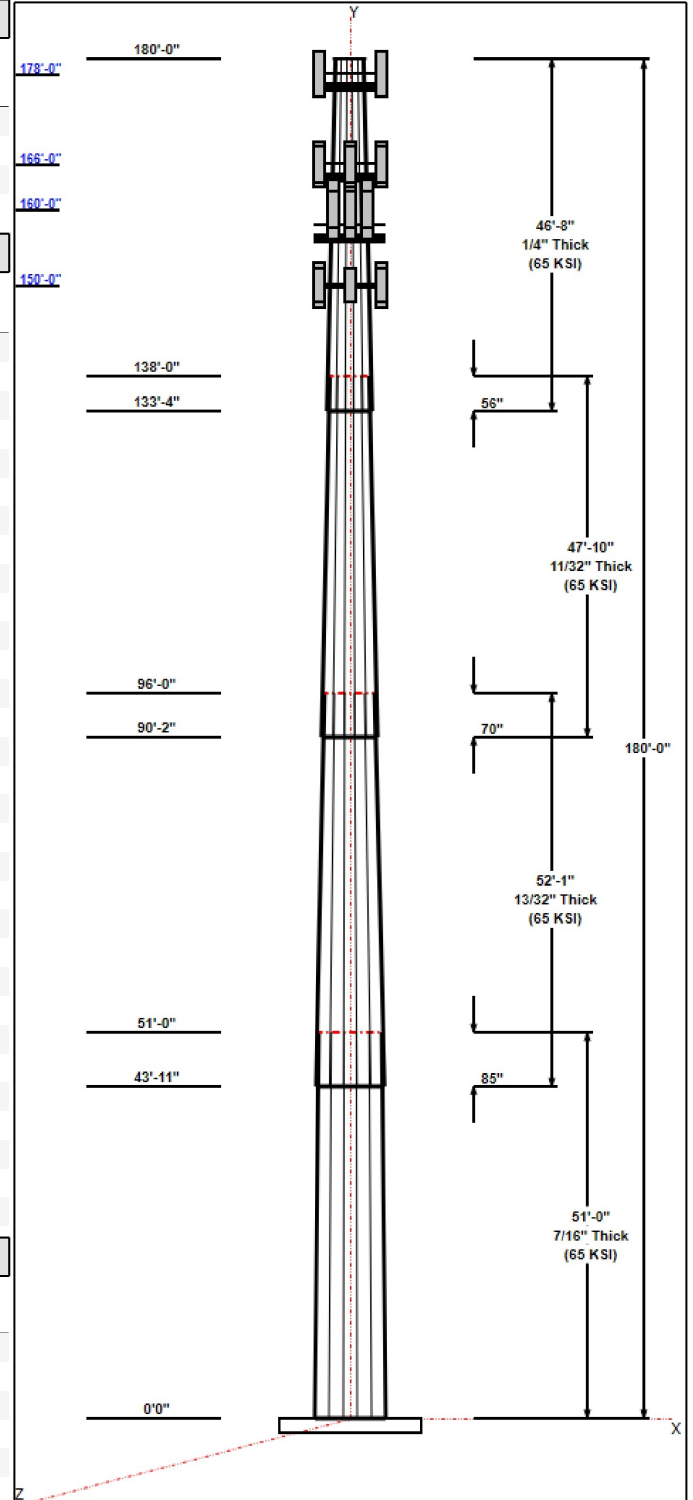
Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
178.00	178.00	1	Platform w/ Handrails w/	Verizon
178.00	178.00	3	Samsung B5/B13 RRH	Verizon
178.00	178.00	1	Raycap	Verizon
178.00	178.00	6	JMA MX06FRO660-03	Verizon
178.00	178.00	3	Samsung B2/B66A RRH	Verizon
166.00	166.00	3	RFS APXVTM14-C-I20	Sprint Nextel
166.00	166.00	3	Commscope	Sprint Nextel
166.00	166.00	3	ALU 1900 Mhz	Sprint Nextel
166.00	166.00	6	ALU 800 Mhz	Sprint Nextel
166.00	166.00	3	ALU TD-RRH8x20-25	Sprint Nextel
166.00	166.00	1	Sitepro	Sprint Nextel
166.00	166.00	1	Sitepro	Sprint Nextel
166.00	166.00	1	Platform w/ Hand Rails	Sprint Nextel
160.00	160.00	3	APXVAARR24_43-U-NA20	T-Mobile
160.00	160.00	3	KRY 112 489/2	T-Mobile
160.00	160.00	3	KRY 112 144/2	T-Mobile
160.00	160.00	3	4449 B71+B12	T-Mobile
160.00	160.00	3	RR90-17-00VDPL2/-R	T-Mobile
158.00	158.00	1	T-Arm Kit	T-Mobile
158.00	158.00	1	V-Brace	T-Mobile
158.00	158.00	3	T-Arms	T-Mobile
150.00	150.00	2	Cci HPA-65R-BUU-H6	AT&T
150.00	150.00	1	SBNHH-1D65A	AT&T
150.00	150.00	3	4449 B5/B12	AT&T
150.00	150.00	2	DMP65R-BU6DA	AT&T
150.00	150.00	3	Powerwave 7770	AT&T
150.00	150.00	1	DMP65R-BU4DA	AT&T
150.00	150.00	6	Powerwave LGP21401	AT&T
150.00	150.00	3	B2 B66A 8843	AT&T
150.00	150.00	1	Raycap DC6-48-60-18-8F	AT&T
150.00	150.00	1	Platform w/ Hand Rail	AT&T

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	180.00	Outside	Safety Cable	
0.00	180.00	Outside	Step bolts (ladder)	
3.00	178.00	Inside	1 5/8" Hybrid	Verizon
3.00	166.00	Inside	1-1/4" Hybrid	Sprint Nextel
3.00	160.00	Inside	1 5/8" Coax	T-Mobile
3.00	160.00	Inside	1 5/8" Fiber	T-Mobile
3.00	150.00	Inside	0.39" Fiber	AT&T
3.00	150.00	Inside	1 1/4" Coax	AT&T
3.00	150.00	Inside	1" DC	AT&T

Anchor Bolts



Structure: CT46130-A-SBA

Type: Tapered	Base Shape: 12 Sided	1/13/2021
Site Name: Deep River-winthrop Rd	Taper: 0.24800	
Height: 180.00 (ft)		
Base Elev: 0.00 (ft)		Page: 3



Qty	Specifications	Grade (ksi)	Arrangement
20	2.25" 18J	75.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.7500	76.7	60.0	Polygon

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 123 mph Wind	5886.2	48.0	60.1
0.9D + 1.0W 123 mph Wind	5809.3	48.0	45.0
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1312.3	10.4	80.3
1.2D + 1.0Ev + 1.0Eh	134.2	0.8	62.4
0.9D + 1.0Ev + 1.0Eh	132.5	0.8	47.3
1.0D + 1.0W 60 mph Wind	1245.3	10.2	50.1

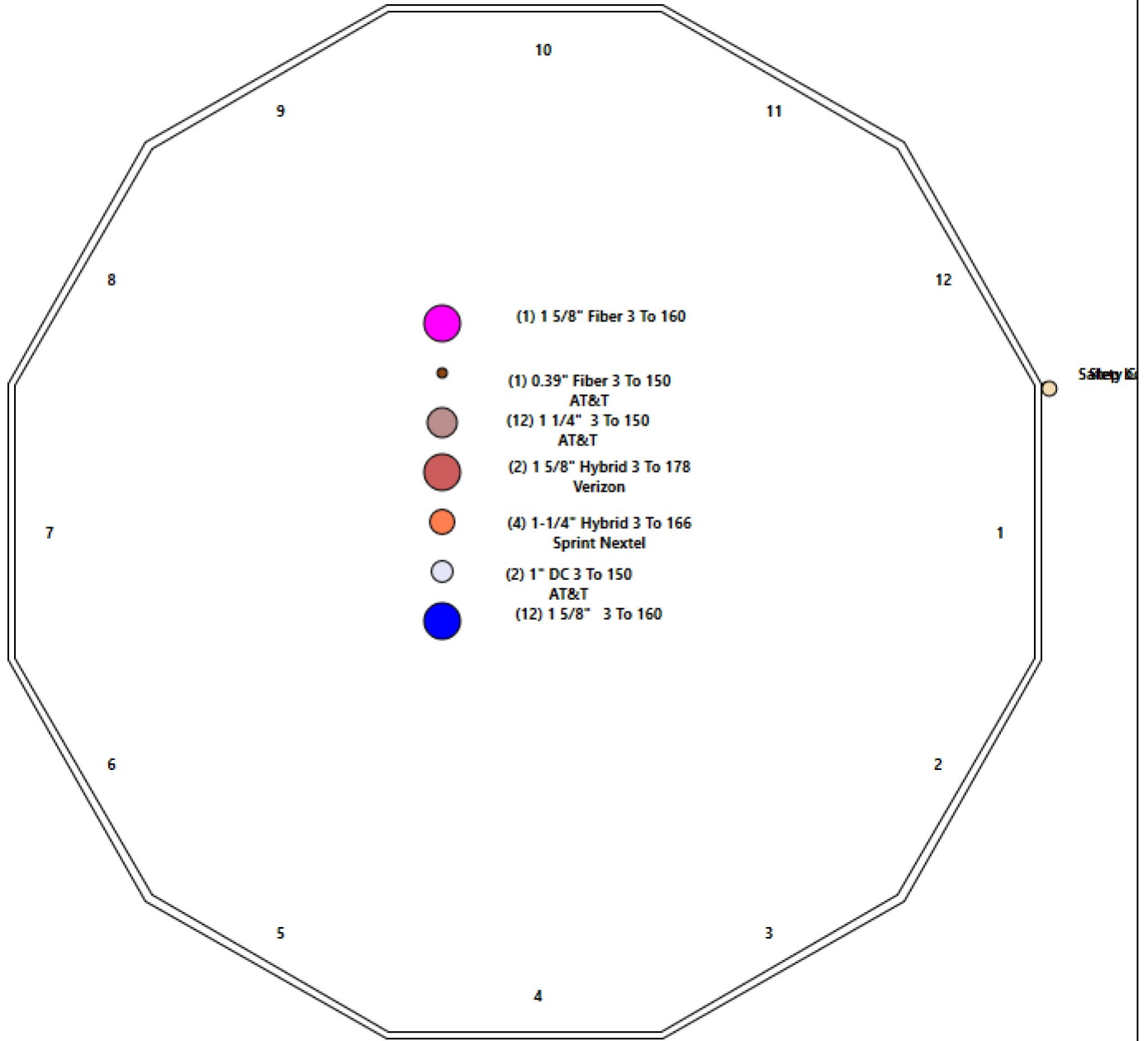
Structure: CT46130-A-SBA - Coax Line Placement

Type: Monopole
Site Name: Deep River-winthrop Rd
Height: 180.00 (ft)

1/13/2021



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Shaft Properties

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	12	51.000	0.4375	65		0.00	13,505
2	12	52.083	0.4063	65	Slip	85.00	10,446
3	12	47.833	0.3438	65	Slip	70.00	6,281
4	12	46.667	0.2500	65	Slip	56.00	3,183
Total Shaft Weight:							33,414

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	62.00	0.00	86.73	41953.54	35.83	141.71	49.35	51.00	68.91	21044.2	28.08	112.8	0.248000
2	51.92	43.92	67.39	22826.23	32.10	127.81	39.00	96.00	50.49	9601.48	23.58	96.01	0.248000
3	41.14	90.17	45.15	9591.86	29.92	119.68	29.28	138.00	32.02	3421.62	20.68	85.17	0.248000
4	30.93	133.3	24.70	2968.17	31.01	123.73	19.36	180.00	15.38	717.07	18.61	77.44	0.248000

Load Summary

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	178.00	Platform w/ Handrails w/ 91900314	1	2202.20	40.00	1.00	3766.06	54.203	1.00	0.00	0.00
2	178.00	Samsung B5/B13 RRH BR04C	3	70.30	2.22	0.67	109.57	2.640	0.67	0.00	0.00
3	178.00	Raycap RRFDS-6627-PF48	1	32.00	2.61	1.00	82.34	3.046	1.00	0.00	0.00
4	178.00	JMA MX06FRO660-03	6	60.00	9.87	0.82	232.86	10.736	0.82	0.00	0.00
5	178.00	Samsung B2/B66A RRH BR049	3	84.40	1.88	0.67	168.63	2.475	0.67	0.00	0.00
6	166.00	RFS APXVTM14-C-I20	3	56.20	6.34	0.77	157.19	7.074	0.77	0.00	0.00
7	166.00	Commscope NNVV-65B-R4	3	77.40	12.27	0.74	269.71	13.251	0.74	0.00	0.00
8	166.00	ALU 1900 Mhz	3	44.00	3.80	0.67	117.52	4.736	0.67	0.00	0.00
9	166.00	ALU 800 Mhz	6	53.00	2.49	0.50	102.81	3.260	0.50	0.00	0.00
10	166.00	ALU TD-RRH8x20-25	3	70.00	4.05	0.67	139.42	4.583	0.67	0.00	0.00
11	166.00	Sitepro	1	230.00	6.70	1.00	446.26	11.425	1.00	0.00	0.00
12	166.00	Sitepro	1	406.61	7.00	1.00	731.58	11.607	1.00	0.00	0.00
13	166.00	Platform w/ Hand Rails	1	2000.00	40.00	1.00	3410.39	54.104	1.00	0.00	0.00
14	160.00	APXVAARR24_43-U-NA20	3	128.00	20.24	0.70	396.79	21.499	0.70	0.00	0.00
15	160.00	KRY 112 489/2	3	15.40	0.65	0.67	27.22	1.061	0.67	0.00	0.00
16	160.00	KRY 112 144/2	3	15.40	0.65	0.67	27.22	1.061	0.67	0.00	0.00
17	160.00	4449 B71+B12	3	70.00	1.65	0.67	112.02	1.998	0.67	0.00	0.00
18	160.00	RR90-17-00VDPL2/-R	3	13.50	4.36	0.68	73.39	4.998	0.68	0.00	0.00
19	158.00	T-Arm Kit	1	500.00	16.50	1.00	897.64	27.306	1.00	0.00	0.00
20	158.00	V-Brace	1	197.00	6.30	1.00	381.32	10.721	1.00	0.00	0.00
21	158.00	T-Arms	3	350.00	8.00	0.75	513.74	12.678	0.75	0.00	0.00
22	150.00	Cci HPA-65R-BUU-H6	2	51.00	9.66	0.85	207.49	10.552	0.85	0.00	0.00
23	150.00	SBNHH-1D65A	1	33.50	5.88	1.00	132.07	6.584	1.00	0.00	0.00
24	150.00	4449 B5/B12	3	71.00	1.97	0.67	106.59	2.335	0.67	0.00	0.00
25	150.00	DMP65R-BU6DA	2	79.40	12.71	0.72	275.76	13.686	0.72	0.00	0.00
26	150.00	Powerwave 7770	3	35.00	5.51	0.73	118.38	6.195	0.73	0.00	0.00
27	150.00	DMP65R-BU4DA	1	79.40	12.71	0.72	275.76	13.686	0.72	0.00	0.00
28	150.00	Powerwave LGP21401 TMA's	6	14.10	1.22	0.67	30.77	1.747	0.67	0.00	0.00
29	150.00	B2 B66A 8843	3	70.00	1.64	0.67	100.66	1.984	0.67	0.00	0.00
30	150.00	Raycap DC6-48-60-18-8F	1	31.80	1.81	0.67	73.02	2.385	0.67	0.00	0.00
31	150.00	Platform w/ Hand Rail	1	1600.00	35.00	1.00	2999.90	55.361	1.00	0.00	0.00
Totals:			78	11,847.71			23,675.58				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	180.00	(1) Safety Cable	0.00	Outside
0.00	180.00	(1) Step bolts (ladder)	0.00	Outside
3.00	178.00	(2) 1 5/8" Hybrid	0.00	Inside
3.00	166.00	(4) 1-1/4" Hybrid	0.00	Inside
3.00	160.00	(12) 1 5/8" Coax	0.00	Inside
3.00	160.00	(1) 1 5/8" Fiber	0.00	Inside
3.00	150.00	(1) 0.39" Fiber	0.00	Inside
3.00	150.00	(12) 1 1/4" Coax	0.00	Inside
3.00	150.00	(2) 1" DC	0.00	Inside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		

Shaft Section Properties

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in ³)	Weight (lb)
0.00		0.4375	62.000	86.726	41953.5	35.83	141.71	65.6	1307.	0.0
2.00		0.4375	61.504	86.027	40947.6	35.52	140.58	66.0	1286.	587.8
4.00		0.4375	61.008	85.329	39958.0	35.22	139.45	66.3	1265.	583.1
6.00		0.4375	60.512	84.630	38984.4	34.92	138.31	66.6	1244.	578.3
8.00		0.4375	60.016	83.931	38026.7	34.61	137.18	67.0	1224.	573.6
10.00		0.4375	59.520	83.232	37084.8	34.31	136.05	67.3	1203.	568.8
12.00		0.4375	59.024	82.534	36158.7	34.01	134.91	67.6	1183.	564.1
14.00		0.4375	58.528	81.835	35248.1	33.70	133.78	68.0	1163.	559.3
16.00		0.4375	58.032	81.136	34352.9	33.40	132.64	68.3	1143.	554.6
18.00		0.4375	57.536	80.438	33472.9	33.09	131.51	68.6	1123.	549.8
20.00		0.4375	57.040	79.739	32608.2	32.79	130.38	69.0	1104.	545.0
22.00		0.4375	56.544	79.040	31758.5	32.49	129.24	69.3	1085.	540.3
24.00		0.4375	56.048	78.341	30923.6	32.18	128.11	69.6	1065.	535.5
26.00		0.4375	55.552	77.643	30103.5	31.88	126.98	69.9	1046.	530.8
28.00		0.4375	55.056	76.944	29298.1	31.58	125.84	70.3	1028.	526.0
30.00		0.4375	54.560	76.245	28507.1	31.27	124.71	70.6	1009.	521.3
32.00		0.4375	54.064	75.546	27730.5	30.97	123.57	70.9	990.9	516.5
34.00		0.4375	53.568	74.848	26968.2	30.66	122.44	71.3	972.6	511.8
36.00		0.4375	53.072	74.149	26219.9	30.36	121.31	71.6	954.4	507.0
38.00		0.4375	52.576	73.450	25485.6	30.06	120.17	71.9	936.4	502.2
40.00		0.4375	52.080	72.751	24765.2	29.75	119.04	72.3	918.6	497.5
42.00		0.4375	51.584	72.053	24058.4	29.45	117.91	72.6	901.0	492.7
43.92	Bot - Section 2	0.4375	51.109	71.383	23393.9	29.16	116.82	72.9	884.3	467.7
44.00		0.4375	51.088	71.354	23365.3	29.15	116.77	72.9	883.5	39.3
46.00		0.4375	50.592	70.655	22685.6	28.84	115.64	73.3	866.2	939.4
48.00		0.4375	50.096	69.956	22019.2	28.54	114.51	73.6	849.1	930.3
50.00		0.4375	49.600	69.258	21365.9	28.23	113.37	73.9	832.2	921.1
51.00	Top - Section 1	0.4063	50.165	65.090	20569.8	30.94	123.48	0.0	0.0	457.1
52.00		0.4063	49.917	64.766	20263.8	30.78	122.87	71.1	784.2	220.9
54.00		0.4063	49.421	64.117	19660.8	30.45	121.65	71.5	768.5	438.6
56.00		0.4063	48.925	63.468	19070.0	30.13	120.43	71.9	753.0	434.1
58.00		0.4063	48.429	62.819	18491.1	29.80	119.21	72.2	737.6	429.7
60.00		0.4063	47.933	62.170	17924.0	29.47	117.99	72.6	722.4	425.3
62.00		0.4063	47.437	61.521	17368.7	29.14	116.77	72.9	707.3	420.9
64.00		0.4063	46.941	60.873	16824.9	28.82	115.55	73.3	692.4	416.5
66.00		0.4063	46.445	60.224	16292.6	28.49	114.32	73.6	677.7	412.1
68.00		0.4063	45.949	59.575	15771.7	28.16	113.10	74.0	663.1	407.6
70.00		0.4063	45.453	58.926	15262.0	27.84	111.88	74.4	648.7	403.2
72.00		0.4063	44.957	58.277	14763.4	27.51	110.66	74.7	634.4	398.8
74.00		0.4063	44.461	57.628	14275.7	27.18	109.44	75.1	620.3	394.4
76.00		0.4063	43.965	56.980	13799.0	26.85	108.22	75.4	606.3	390.0
78.00		0.4063	43.469	56.331	13332.9	26.53	107.00	75.8	592.5	385.6
80.00		0.4063	42.973	55.682	12877.5	26.20	105.78	76.1	578.9	381.2
82.00		0.4063	42.477	55.033	12432.6	25.87	104.56	76.5	565.4	376.7
84.00		0.4063	41.981	54.384	11998.0	25.55	103.34	76.9	552.1	372.3
86.00		0.4063	41.485	53.735	11573.7	25.22	102.12	77.2	539.0	367.9
88.00		0.4063	40.989	53.087	11159.5	24.89	100.89	77.6	526.0	363.5
90.00		0.4063	40.493	52.438	10755.3	24.56	99.67	77.9	513.1	359.1
90.17	Bot - Section 3	0.4063	40.451	52.384	10722.0	24.54	99.57	78.0	512.1	29.7
92.00		0.4063	39.997	51.789	10361.0	24.24	98.45	78.3	500.4	605.1

Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in ³)	Weight (lb)
94.00		0.4063	39.501	51.140	9976.4	23.91	97.23	78.6	487.9	652.3
96.00	Top - Section 2	0.3438	39.692	43.554	8607.2	28.80	115.47	0.0	0.0	644.1
98.00		0.3438	39.196	43.005	8285.8	28.41	114.02	73.7	408.4	294.5
100.00		0.3438	38.700	42.456	7972.5	28.02	112.58	74.2	398.0	290.8
102.00		0.3438	38.204	41.907	7667.2	27.64	111.14	74.6	387.7	287.1
104.00		0.3438	37.708	41.358	7369.8	27.25	109.70	75.0	377.6	283.3
106.00		0.3438	37.212	40.809	7080.1	26.86	108.25	75.4	367.6	279.6
108.00		0.3438	36.716	40.260	6798.2	26.48	106.81	75.8	357.7	275.9
110.00		0.3438	36.220	39.711	6523.9	26.09	105.37	76.3	348.0	272.1
112.00		0.3438	35.724	39.162	6257.0	25.70	103.92	76.7	338.4	268.4
114.00		0.3438	35.228	38.613	5997.5	25.32	102.48	77.1	328.9	264.6
116.00		0.3438	34.732	38.063	5745.3	24.93	101.04	77.5	319.6	260.9
118.00		0.3438	34.236	37.514	5500.3	24.54	99.60	77.9	310.4	257.2
120.00		0.3438	33.740	36.965	5262.3	24.16	98.15	78.4	301.3	253.4
122.00		0.3438	33.244	36.416	5031.3	23.77	96.71	78.8	292.4	249.7
124.00		0.3438	32.748	35.867	4807.2	23.38	95.27	79.2	283.6	246.0
126.00		0.3438	32.252	35.318	4589.8	23.00	93.82	79.6	274.9	242.2
128.00		0.3438	31.756	34.769	4379.1	22.61	92.38	80.1	266.4	238.5
130.00		0.3438	31.260	34.220	4174.9	22.22	90.94	80.5	258.0	234.8
132.00		0.3438	30.764	33.671	3977.2	21.84	89.50	80.9	249.7	231.0
133.33	Bot - Section 4	0.3438	30.433	33.305	3848.9	21.58	88.53	81.2	244.3	151.9
134.00		0.3438	30.268	33.122	3785.8	21.45	88.05	81.3	241.6	131.2
136.00		0.3438	29.772	32.573	3600.6	21.06	86.61	81.7	233.6	389.4
138.00	Top - Section 3	0.2500	29.776	23.768	2644.8	29.77	119.10	0.0	0.0	382.9
140.00		0.2500	29.280	23.369	2513.8	29.24	117.12	72.8	165.9	160.4
142.00		0.2500	28.784	22.970	2387.1	28.71	115.14	73.4	160.2	157.7
144.00		0.2500	28.288	22.571	2264.8	28.18	113.15	74.0	154.7	155.0
146.00		0.2500	27.792	22.171	2146.7	27.64	111.17	74.6	149.2	152.2
148.00		0.2500	27.296	21.772	2032.8	27.11	109.18	75.1	143.9	149.5
150.00		0.2500	26.800	21.373	1923.0	26.58	107.20	75.7	138.6	146.8
152.00		0.2500	26.304	20.973	1817.2	26.05	105.22	76.3	133.5	144.1
154.00		0.2500	25.808	20.574	1715.4	25.52	103.23	76.9	128.4	141.4
156.00		0.2500	25.312	20.175	1617.4	24.99	101.25	77.5	123.4	138.7
158.00		0.2500	24.816	19.776	1523.3	24.45	99.26	78.0	118.6	135.9
160.00		0.2500	24.320	19.376	1432.9	23.92	97.28	78.6	113.8	133.2
162.00		0.2500	23.824	18.977	1346.1	23.39	95.30	79.2	109.2	130.5
164.00		0.2500	23.328	18.578	1262.9	22.86	93.31	79.8	104.6	127.8
166.00		0.2500	22.832	18.179	1183.2	22.33	91.33	80.4	100.1	125.1
168.00		0.2500	22.336	17.779	1107.0	21.80	89.34	80.9	95.7	122.4
170.00		0.2500	21.840	17.380	1034.0	21.26	87.36	81.5	91.5	119.6
172.00		0.2500	21.344	16.981	964.4	20.73	85.38	81.9	87.3	116.9
174.00		0.2500	20.848	16.581	898.0	20.20	83.39	81.9	83.2	114.2
176.00		0.2500	20.352	16.182	834.6	19.67	81.41	81.9	79.2	111.5
178.00		0.2500	19.856	15.783	774.4	19.14	79.42	81.9	75.3	108.8
180.00		0.2500	19.360	15.384	717.1	18.61	77.44	81.9	71.6	106.1

33413.9

Wind Loading - Shaft

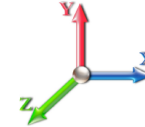
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0W 123 mph Wind

Iterations 29

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	31.009	34.11	603.99	0.950	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	31.009	34.11	599.16	0.950	0.000	2.00	10.655	10.12	345.3	0.0	705.4
4.00		1.00	0.85	31.009	34.11	594.33	0.950	0.000	2.00	10.569	10.04	342.5	0.0	699.7
6.00		1.00	0.85	31.009	34.11	589.49	0.950	0.000	2.00	10.484	9.96	339.7	0.0	694.0
8.00		1.00	0.85	31.009	34.11	584.66	0.950	0.000	2.00	10.398	9.88	337.0	0.0	688.3
10.00		1.00	0.85	31.009	34.11	579.83	0.950	0.000	2.00	10.313	9.80	334.2	0.0	682.6
12.00		1.00	0.85	31.009	34.11	575.00	0.950	0.000	2.00	10.227	9.72	331.4	0.0	676.9
14.00		1.00	0.85	31.009	34.11	570.17	0.950	0.000	2.00	10.142	9.63	328.6	0.0	671.2
16.00		1.00	0.86	31.392	34.53	568.81	0.950	0.000	2.00	10.056	9.55	329.9	0.0	665.5
18.00		1.00	0.88	32.180	35.40	570.99	0.950	0.000	2.00	9.970	9.47	335.3	0.0	659.8
20.00		1.00	0.90	32.902	36.19	572.38	0.950	0.000	2.00	9.885	9.39	339.9	0.0	654.1
22.00		1.00	0.92	33.569	36.93	573.12	0.950	0.000	2.00	9.799	9.31	343.8	0.0	648.3
24.00		1.00	0.94	34.189	37.61	573.32	0.950	0.000	2.00	9.714	9.23	347.0	0.0	642.6
26.00		1.00	0.95	34.770	38.25	573.06	0.950	0.000	2.00	9.628	9.15	349.8	0.0	636.9
28.00		1.00	0.97	35.317	38.85	572.39	0.950	0.000	2.00	9.542	9.07	352.2	0.0	631.2
30.00		1.00	0.98	35.834	39.42	571.37	0.950	0.000	2.00	9.457	8.98	354.1	0.0	625.5
32.00		1.00	1.00	36.324	39.96	570.03	0.950	0.000	2.00	9.371	8.90	355.7	0.0	619.8
34.00		1.00	1.01	36.791	40.47	568.42	0.950	0.000	2.00	9.286	8.82	357.0	0.0	614.1
36.00		1.00	1.02	37.236	40.96	566.55	0.950	0.000	2.00	9.200	8.74	358.0	0.0	608.4
38.00		1.00	1.03	37.662	41.43	564.46	0.950	0.000	2.00	9.115	8.66	358.7	0.0	602.7
40.00		1.00	1.04	38.071	41.88	562.16	0.950	0.000	2.00	9.029	8.58	359.2	0.0	597.0
42.00		1.00	1.05	38.464	42.31	559.68	0.950	0.000	2.00	8.943	8.50	359.5	0.0	591.3
43.92	Bot - Section 2	1.00	1.06	38.827	42.71	557.13	0.950	0.000	1.92	8.490	8.07	344.5	0.0	561.3
44.00		1.00	1.06	38.843	42.73	557.02	0.950	0.000	0.08	0.373	0.35	15.1	0.0	47.2
46.00		1.00	1.07	39.208	43.13	554.19	0.950	0.000	2.00	8.912	8.47	365.2	0.0	1127.3
48.00		1.00	1.08	39.561	43.52	551.23	0.950	0.000	2.00	8.827	8.39	364.9	0.0	1116.3
50.00		1.00	1.09	39.902	43.89	548.12	0.950	0.000	2.00	8.741	8.30	364.5	0.0	1105.3
51.00	Top - Section 1	1.00	1.10	40.069	44.08	546.52	0.950	0.000	1.00	4.339	4.12	181.7	0.0	548.5
52.00		1.00	1.10	40.233	44.26	553.90	0.950	0.000	1.00	4.317	4.10	181.5	0.0	265.1
54.00		1.00	1.11	40.554	44.61	550.58	0.950	0.000	2.00	8.570	8.14	363.2	0.0	526.3
56.00		1.00	1.12	40.866	44.95	547.14	0.950	0.000	2.00	8.485	8.06	362.3	0.0	521.0
58.00		1.00	1.13	41.169	45.29	543.60	0.950	0.000	2.00	8.399	7.98	361.3	0.0	515.7
60.00		1.00	1.14	41.464	45.61	539.95	0.950	0.000	2.00	8.313	7.90	360.2	0.0	510.4
62.00		1.00	1.14	41.751	45.93	536.21	0.950	0.000	2.00	8.228	7.82	359.0	0.0	505.1
64.00		1.00	1.15	42.031	46.23	532.38	0.950	0.000	2.00	8.142	7.74	357.6	0.0	499.8
66.00		1.00	1.16	42.304	46.53	528.47	0.950	0.000	2.00	8.057	7.65	356.2	0.0	494.5
68.00		1.00	1.17	42.571	46.83	524.47	0.950	0.000	2.00	7.971	7.57	354.6	0.0	489.2
70.00		1.00	1.17	42.831	47.11	520.39	0.950	0.000	2.00	7.885	7.49	352.9	0.0	483.9
72.00		1.00	1.18	43.086	47.39	516.24	0.950	0.000	2.00	7.800	7.41	351.2	0.0	478.6
74.00		1.00	1.19	43.335	47.67	512.02	0.950	0.000	2.00	7.714	7.33	349.3	0.0	473.3
76.00		1.00	1.19	43.579	47.94	507.73	0.950	0.000	2.00	7.629	7.25	347.4	0.0	468.0
78.00		1.00	1.20	43.818	48.20	503.38	0.950	0.000	2.00	7.543	7.17	345.4	0.0	462.7
80.00		1.00	1.21	44.053	48.46	498.96	0.950	0.000	2.00	7.458	7.08	343.3	0.0	457.4
82.00		1.00	1.21	44.282	48.71	494.49	0.950	0.000	2.00	7.372	7.00	341.1	0.0	452.1
84.00		1.00	1.22	44.507	48.96	489.96	0.950	0.000	2.00	7.286	6.92	338.9	0.0	446.8
86.00		1.00	1.23	44.728	49.20	485.37	0.950	0.000	2.00	7.201	6.84	336.6	0.0	441.5
88.00		1.00	1.23	44.945	49.44	480.73	0.950	0.000	2.00	7.115	6.76	334.2	0.0	436.2

Wind Loading - Shaft

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00	1.00	1.24	45.159	49.67	476.03	0.950	0.000	2.00	7.030	6.68	331.7	0.0	430.9
90.17 Bot - Section 3	1.00	1.24	45.176	49.69	475.64	0.950	0.000	0.17	0.582	0.55	27.5	0.0	35.7
92.00	1.00	1.24	45.368	49.90	471.29	0.950	0.000	1.83	6.471	6.15	306.8	0.0	726.1
94.00	1.00	1.25	45.574	50.13	466.50	0.950	0.000	2.00	6.977	6.63	332.3	0.0	782.7
96.00 Top - Section 2	1.00	1.25	45.776	50.35	461.67	0.950	0.000	2.00	6.891	6.55	329.7	0.0	772.9
98.00	1.00	1.26	45.975	50.57	464.94	0.950	0.000	2.00	6.806	6.47	327.0	0.0	353.4
100.00	1.00	1.27	46.171	50.79	460.03	0.950	0.000	2.00	6.720	6.38	324.2	0.0	349.0
102.00	1.00	1.27	46.364	51.00	455.09	0.950	0.000	2.00	6.635	6.30	321.5	0.0	344.5
104.00	1.00	1.28	46.554	51.21	450.10	0.950	0.000	2.00	6.549	6.22	318.6	0.0	340.0
106.00	1.00	1.28	46.741	51.42	445.07	0.950	0.000	2.00	6.464	6.14	315.7	0.0	335.5
108.00	1.00	1.29	46.926	51.62	440.00	0.950	0.000	2.00	6.378	6.06	312.8	0.0	331.0
110.00	1.00	1.29	47.107	51.82	434.90	0.950	0.000	2.00	6.292	5.98	309.8	0.0	326.5
112.00	1.00	1.30	47.286	52.01	429.75	0.950	0.000	2.00	6.207	5.90	306.7	0.0	322.1
114.00	1.00	1.30	47.463	52.21	424.58	0.950	0.000	2.00	6.121	5.82	303.6	0.0	317.6
116.00	1.00	1.31	47.637	52.40	419.37	0.950	0.000	2.00	6.036	5.73	300.5	0.0	313.1
118.00	1.00	1.31	47.809	52.59	414.12	0.950	0.000	2.00	5.950	5.65	297.3	0.0	308.6
120.00	1.00	1.32	47.978	52.78	408.85	0.950	0.000	2.00	5.864	5.57	294.0	0.0	304.1
122.00	1.00	1.32	48.145	52.96	403.54	0.950	0.000	2.00	5.779	5.49	290.7	0.0	299.6
124.00	1.00	1.32	48.310	53.14	398.20	0.950	0.000	2.00	5.693	5.41	287.4	0.0	295.2
126.00	1.00	1.33	48.473	53.32	392.83	0.950	0.000	2.00	5.608	5.33	284.1	0.0	290.7
128.00	1.00	1.33	48.634	53.50	387.43	0.950	0.000	2.00	5.522	5.25	280.7	0.0	286.2
130.00	1.00	1.34	48.793	53.67	382.00	0.950	0.000	2.00	5.437	5.16	277.2	0.0	281.7
132.00	1.00	1.34	48.950	53.85	376.54	0.950	0.000	2.00	5.351	5.08	273.7	0.0	277.2
133.33 Bot - Section 4	1.00	1.34	49.054	53.96	372.89	0.950	0.000	1.33	3.520	3.34	180.4	0.0	182.3
134.00	1.00	1.35	49.106	54.02	371.06	0.950	0.000	0.67	1.774	1.69	91.1	0.0	157.5
136.00	1.00	1.35	49.259	54.19	365.55	0.950	0.000	2.00	5.266	5.00	271.1	0.0	467.3
138.00 Top - Section 3	1.00	1.35	49.411	54.35	360.01	0.950	0.000	2.00	5.181	4.92	267.5	0.0	459.5
140.00	1.00	1.36	49.561	54.52	360.61	0.950	0.000	2.00	5.095	4.84	263.9	0.0	192.5
142.00	1.00	1.36	49.709	54.68	355.03	0.950	0.000	2.00	5.009	4.76	260.2	0.0	189.2
144.00	1.00	1.37	49.855	54.84	349.42	0.950	0.000	2.00	4.924	4.68	256.5	0.0	186.0
146.00	1.00	1.37	50.000	55.00	343.80	0.950	0.000	2.00	4.838	4.60	252.8	0.0	182.7
148.00	1.00	1.37	50.144	55.16	338.14	0.950	0.000	2.00	4.753	4.51	249.0	0.0	179.4
150.00 Appurtenance(s)	1.00	1.38	50.286	55.31	332.47	0.950	0.000	2.00	4.667	4.43	245.2	0.0	176.2
152.00	1.00	1.38	50.426	55.47	326.77	0.950	0.000	2.00	4.581	4.35	241.4	0.0	172.9
154.00	1.00	1.39	50.565	55.62	321.05	0.950	0.000	2.00	4.496	4.27	237.6	0.0	169.7
156.00	1.00	1.39	50.703	55.77	315.31	0.950	0.000	2.00	4.410	4.19	233.7	0.0	166.4
158.00 Appurtenance(s)	1.00	1.39	50.839	55.92	309.54	0.950	0.000	2.00	4.325	4.11	229.8	0.0	163.1
160.00 Appurtenance(s)	1.00	1.40	50.974	56.07	303.76	0.950	0.000	2.00	4.239	4.03	225.8	0.0	159.9
162.00	1.00	1.40	51.107	56.22	297.95	0.950	0.000	2.00	4.154	3.95	221.8	0.0	156.6
164.00	1.00	1.40	51.239	56.36	292.13	0.950	0.000	2.00	4.068	3.86	217.8	0.0	153.3
166.00 Appurtenance(s)	1.00	1.41	51.370	56.51	286.28	0.950	0.000	2.00	3.982	3.78	213.8	0.0	150.1
168.00	1.00	1.41	51.500	56.65	280.42	0.950	0.000	2.00	3.897	3.70	209.7	0.0	146.8
170.00	1.00	1.42	51.628	56.79	274.53	0.950	0.000	2.00	3.811	3.62	205.6	0.0	143.6
172.00	1.00	1.42	51.756	56.93	268.63	0.950	0.000	2.00	3.726	3.54	201.5	0.0	140.3
174.00	1.00	1.42	51.882	57.07	262.70	0.950	0.000	2.00	3.640	3.46	197.3	0.0	137.0
176.00	1.00	1.43	52.007	57.21	256.76	0.950	0.000	2.00	3.554	3.38	193.2	0.0	133.8
178.00 Appurtenance(s)	1.00	1.43	52.131	57.34	250.80	0.950	0.000	2.00	3.469	3.30	189.0	0.0	130.5
180.00	1.00	1.43	52.253	57.48	244.83	0.950	0.000	2.00	3.383	3.21	184.7	0.0	127.3
Totals:								180.00			27,684.8		40,096.7

Discrete Appurtenance Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 123 mph Wind	Iterations 29
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	178.00	Samsung B5/B13 RRH	3	52.131	57.344	0.50	0.75	3.35	253.08	0.000	0.000	191.91	0.00	0.00	
2	178.00	Samsung B2/B66A RRH	3	52.131	57.344	0.50	0.75	2.83	303.84	0.000	0.000	162.52	0.00	0.00	
3	178.00	JMA MX06FRO660-03	6	52.131	57.344	0.61	0.75	36.42	432.00	0.000	0.000	2088.48	0.00	0.00	
4	178.00	Platform w/ Handrails w/	1	52.131	57.344	1.00	1.00	40.00	2642.64	0.000	0.000	2293.75	0.00	0.00	
5	178.00	Raycap	1	52.131	57.344	1.00	1.00	2.61	38.40	0.000	0.000	149.67	0.00	0.00	
6	166.00	ALU 800 Mhz	6	51.370	56.507	0.38	0.75	5.60	381.60	0.000	0.000	316.58	0.00	0.00	
7	166.00	RFS APXVTM14-C-I20	3	51.370	56.507	0.58	0.75	10.98	202.32	0.000	0.000	620.68	0.00	0.00	
8	166.00	Commscope	3	51.370	56.507	0.55	0.75	20.43	278.64	0.000	0.000	1154.42	0.00	0.00	
9	166.00	ALU 1900 Mhz	3	51.370	56.507	0.50	0.75	5.73	158.40	0.000	0.000	323.70	0.00	0.00	
10	166.00	Sitepro	1	51.370	56.507	1.00	1.00	6.70	276.00	0.000	0.000	378.60	0.00	0.00	
11	166.00	ALU TD-RRH8x20-25	3	51.370	56.507	0.50	0.75	6.11	252.00	0.000	0.000	345.00	0.00	0.00	
12	166.00	Sitepro	1	51.370	56.507	1.00	1.00	7.00	487.93	0.000	0.000	395.55	0.00	0.00	
13	166.00	Platform w/ Hand Rails	1	51.370	56.507	1.00	1.00	40.00	2400.00	0.000	0.000	2260.29	0.00	0.00	
14	160.00	RR90-17-00VDPL2/-R	3	50.974	56.071	0.54	0.80	7.12	48.60	0.000	0.000	398.97	0.00	0.00	
15	160.00	4449 B71+B12	3	50.974	56.071	0.54	0.80	2.65	252.00	0.000	0.000	148.77	0.00	0.00	
16	160.00	KRY 112 144/2	3	50.974	56.071	0.54	0.80	1.05	55.44	0.000	0.000	58.61	0.00	0.00	
17	160.00	APXVAARR24_43-U-NA2	3	50.974	56.071	0.56	0.80	34.00	460.80	0.000	0.000	1906.59	0.00	0.00	
18	160.00	KRY 112 489/2	3	50.974	56.071	0.54	0.80	1.05	55.44	0.000	0.000	58.61	0.00	0.00	
19	158.00	V-Brace	1	50.839	55.923	0.75	0.75	4.72	236.40	0.000	0.000	264.23	0.00	0.00	
20	158.00	T-Arm Kit	1	50.839	55.923	0.75	0.75	12.38	600.00	0.000	0.000	692.04	0.00	0.00	
21	158.00	T-Arms	3	50.839	55.923	0.56	0.75	13.50	1260.00	0.000	0.000	754.96	0.00	0.00	
22	150.00	Powerwave 7770	3	50.286	55.314	0.55	0.75	9.05	126.00	0.000	0.000	500.60	0.00	0.00	
23	150.00	Cci HPA-65R-BUU-H6	2	50.286	55.314	0.77	0.90	14.78	122.40	0.000	0.000	817.53	0.00	0.00	
24	150.00	SBNHH-1D65A	1	50.286	55.314	1.00	1.00	5.88	40.20	0.000	0.000	325.25	0.00	0.00	
25	150.00	4449 B5/B12	3	50.286	55.314	0.50	0.75	2.97	255.60	0.000	0.000	164.27	0.00	0.00	
26	150.00	DMP65R-BU6DA	2	50.286	55.314	0.54	0.75	13.73	190.56	0.000	0.000	759.29	0.00	0.00	
27	150.00	B2 B66A 8843	3	50.286	55.314	0.50	0.75	2.47	252.00	0.000	0.000	136.75	0.00	0.00	
28	150.00	DMP65R-BU4DA	1	50.286	55.314	0.54	0.75	6.86	95.28	0.000	0.000	379.64	0.00	0.00	
29	150.00	Powerwave LGP21401	6	50.286	55.314	0.50	0.75	3.68	101.52	0.000	0.000	203.46	0.00	0.00	
30	150.00	Raycap DC6-48-60-18-8F	1	50.286	55.314	0.67	1.00	1.21	38.16	0.000	0.000	67.08	0.00	0.00	
31	150.00	Platform w/ Hand Rail	1	50.286	55.314	1.00	1.00	35.00	1920.00	0.000	0.000	1936.00	0.00	0.00	
Totals:									14,217.25						20,253.81

Total Applied Force Summary

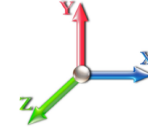
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 123 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 29

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		345.27	708.56	0.00	0.00
4.00		342.50	738.12	0.00	0.00
6.00		339.73	767.68	0.00	0.00
8.00		336.95	761.97	0.00	0.00
10.00		334.18	756.26	0.00	0.00
12.00		331.41	750.56	0.00	0.00
14.00		328.63	744.85	0.00	0.00
16.00		329.88	739.14	0.00	0.00
18.00		335.29	733.44	0.00	0.00
20.00		339.86	727.73	0.00	0.00
22.00		343.75	722.02	0.00	0.00
24.00		347.05	716.32	0.00	0.00
26.00		349.84	710.61	0.00	0.00
28.00		352.18	704.91	0.00	0.00
30.00		354.13	699.20	0.00	0.00
32.00		355.72	693.49	0.00	0.00
34.00		357.00	687.79	0.00	0.00
36.00		357.99	682.08	0.00	0.00
38.00		358.72	676.37	0.00	0.00
40.00		359.21	670.67	0.00	0.00
42.00		359.48	664.96	0.00	0.00
43.92		344.50	631.90	0.00	0.00
44.00		15.15	50.28	0.00	0.00
46.00		365.16	1201.01	0.00	0.00
48.00		364.91	1190.01	0.00	0.00
50.00		364.49	1179.00	0.00	0.00
51.00		181.66	585.37	0.00	0.00
52.00		181.51	301.96	0.00	0.00
54.00		363.19	599.95	0.00	0.00
56.00		362.33	594.65	0.00	0.00
58.00		361.33	589.35	0.00	0.00
60.00		360.21	584.05	0.00	0.00
62.00		358.98	578.75	0.00	0.00
64.00		357.62	573.45	0.00	0.00
66.00		356.16	568.15	0.00	0.00
68.00		354.60	562.86	0.00	0.00
70.00		352.94	557.56	0.00	0.00
72.00		351.19	552.26	0.00	0.00
74.00		349.34	546.96	0.00	0.00
76.00		347.41	541.66	0.00	0.00
78.00		345.40	536.36	0.00	0.00
80.00		343.31	531.06	0.00	0.00
82.00		341.14	525.76	0.00	0.00
84.00		338.89	520.47	0.00	0.00
86.00		336.57	515.17	0.00	0.00
88.00		334.19	509.87	0.00	0.00

Total Applied Force Summary

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00		331.73	504.57	0.00	0.00
90.17		27.47	41.81	0.00	0.00
92.00		306.78	793.61	0.00	0.00
94.00		332.28	856.38	0.00	0.00
96.00		329.66	846.60	0.00	0.00
98.00		326.99	427.12	0.00	0.00
100.00		324.25	422.64	0.00	0.00
102.00		321.46	418.16	0.00	0.00
104.00		318.61	413.67	0.00	0.00
106.00		315.71	409.19	0.00	0.00
108.00		312.76	404.71	0.00	0.00
110.00		309.76	400.22	0.00	0.00
112.00		306.70	395.74	0.00	0.00
114.00		303.61	391.25	0.00	0.00
116.00		300.46	386.77	0.00	0.00
118.00		297.27	382.29	0.00	0.00
120.00		294.03	377.80	0.00	0.00
122.00		290.75	373.32	0.00	0.00
124.00		287.42	368.84	0.00	0.00
126.00		284.06	364.35	0.00	0.00
128.00		280.65	359.87	0.00	0.00
130.00		277.21	355.39	0.00	0.00
132.00		273.72	350.90	0.00	0.00
133.33		180.43	231.44	0.00	0.00
134.00		91.05	182.03	0.00	0.00
136.00		271.08	540.94	0.00	0.00
138.00		267.49	533.19	0.00	0.00
140.00		263.87	266.16	0.00	0.00
142.00		260.21	262.90	0.00	0.00
144.00		256.52	259.63	0.00	0.00
146.00		252.80	256.37	0.00	0.00
148.00		249.04	253.11	0.00	0.00
150.00	(23) attachments	5535.13	3391.57	0.00	0.00
152.00		241.42	222.66	0.00	0.00
154.00		237.56	219.40	0.00	0.00
156.00		233.68	216.14	0.00	0.00
158.00	(5) attachments	1940.99	2309.28	0.00	0.00
160.00	(15) attachments	2797.35	1081.90	0.00	0.00
162.00		221.83	173.91	0.00	0.00
164.00		217.82	170.65	0.00	0.00
166.00	(21) attachments	6008.60	4604.28	0.00	0.00
168.00		209.71	154.97	0.00	0.00
170.00		205.62	151.71	0.00	0.00
172.00		201.50	148.45	0.00	0.00
174.00		197.35	145.19	0.00	0.00
176.00		193.17	141.93	0.00	0.00
178.00	(14) attachments	5075.29	3808.63	0.00	0.00
180.00		184.74	130.41	0.00	0.00
Totals:		47,938.59	60,086.68	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

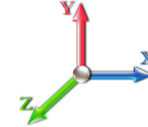
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 123 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 29

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.66
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	2.50
4.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.66
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	2.50
6.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.66
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	2.50
8.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.66
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	2.50
10.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.66
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	2.50
12.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.66
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	2.50
14.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.66
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	2.50
16.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.392	0.00	0.66
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.392	0.00	2.50
18.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	32.180	0.00	0.66
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	32.180	0.00	2.50
20.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	32.902	0.00	0.66
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	32.902	0.00	2.50
22.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	33.569	0.00	0.66
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	33.569	0.00	2.50
24.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	34.189	0.00	0.66
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	34.189	0.00	2.50
26.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	34.770	0.00	0.66
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	34.770	0.00	2.50
28.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	35.317	0.00	0.66
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	35.317	0.00	2.50
30.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	35.834	0.00	0.66
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	35.834	0.00	2.50
32.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	36.324	0.00	0.66
32.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	36.324	0.00	2.50
34.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	36.791	0.00	0.66
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	36.791	0.00	2.50
36.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	37.236	0.00	0.66
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	37.236	0.00	2.50
38.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	37.662	0.00	0.66
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	37.662	0.00	2.50
40.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	38.071	0.00	0.66
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	38.071	0.00	2.50
42.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	38.464	0.00	0.66
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	38.464	0.00	2.50
43.92	Safety Cable	Yes	1.92	0.000	0.00	0.00	0.00	0.000	0.000	38.827	0.00	0.63
43.92	Step bolts (ladder)	Yes	1.92	0.000	0.00	0.00	0.00	0.000	0.000	38.827	0.00	2.39
44.00	Safety Cable	Yes	0.08	0.000	0.00	0.00	0.00	0.000	0.000	38.843	0.00	0.03
44.00	Step bolts (ladder)	Yes	0.08	0.000	0.00	0.00	0.00	0.000	0.000	38.843	0.00	0.10
46.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.208	0.00	0.66

Linear Appurtenance Segment Forces (Factored)

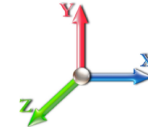
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 123 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 29

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.208	0.00	2.50
48.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.561	0.00	0.66
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.561	0.00	2.50
50.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.902	0.00	0.66
50.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.902	0.00	2.50
51.00	Safety Cable	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	40.069	0.00	0.33
51.00	Step bolts (ladder)	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	40.069	0.00	1.25
52.00	Safety Cable	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	40.233	0.00	0.33
52.00	Step bolts (ladder)	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	40.233	0.00	1.25
54.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	40.554	0.00	0.66
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	40.554	0.00	2.50
56.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	40.866	0.00	0.66
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	40.866	0.00	2.50
58.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.169	0.00	0.66
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.169	0.00	2.50
60.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.464	0.00	0.66
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.464	0.00	2.50
62.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.751	0.00	0.66
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.751	0.00	2.50
64.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.031	0.00	0.66
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.031	0.00	2.50
66.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.304	0.00	0.66
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.304	0.00	2.50
68.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.571	0.00	0.66
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.571	0.00	2.50
70.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.831	0.00	0.66
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.831	0.00	2.50
72.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.086	0.00	0.66
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.086	0.00	2.50
74.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.335	0.00	0.66
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.335	0.00	2.50
76.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.579	0.00	0.66
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.579	0.00	2.50
78.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.818	0.00	0.66
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.818	0.00	2.50
80.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.053	0.00	0.66
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.053	0.00	2.50
82.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.282	0.00	0.66
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.282	0.00	2.50
84.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.507	0.00	0.66
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.507	0.00	2.50
86.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.728	0.00	0.66
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.728	0.00	2.50
88.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.945	0.00	0.66
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.945	0.00	2.50
90.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.159	0.00	0.66
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.159	0.00	2.50

Linear Appurtenance Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

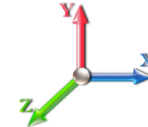


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Load Case: 1.2D + 1.0W 123 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 29

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
90.17	Safety Cable	Yes	0.17	0.000	0.00	0.00	0.00	0.000	0.000	45.176	0.00	0.05
90.17	Step bolts (ladder)	Yes	0.17	0.000	0.00	0.00	0.00	0.000	0.000	45.176	0.00	0.21
92.00	Safety Cable	Yes	1.83	0.000	0.00	0.00	0.00	0.000	0.000	45.368	0.00	0.60
92.00	Step bolts (ladder)	Yes	1.83	0.000	0.00	0.00	0.00	0.000	0.000	45.368	0.00	2.29
94.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.574	0.00	0.66
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.574	0.00	2.50
96.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.776	0.00	0.66
96.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.776	0.00	2.50
98.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.975	0.00	0.66
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.975	0.00	2.50
100.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.171	0.00	0.66
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.171	0.00	2.50
102.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.364	0.00	0.66
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.364	0.00	2.50
104.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.554	0.00	0.66
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.554	0.00	2.50
106.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.741	0.00	0.66
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.741	0.00	2.50
108.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.926	0.00	0.66
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.926	0.00	2.50
110.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.107	0.00	0.66
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.107	0.00	2.50
112.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.286	0.00	0.66
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.286	0.00	2.50
114.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.463	0.00	0.66
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.463	0.00	2.50
116.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.637	0.00	0.66
116.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.637	0.00	2.50
118.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.809	0.00	0.66
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.809	0.00	2.50
120.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.978	0.00	0.66
120.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.978	0.00	2.50
122.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.145	0.00	0.66
122.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.145	0.00	2.50
124.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.310	0.00	0.66
124.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.310	0.00	2.50
126.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.473	0.00	0.66
126.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.473	0.00	2.50
128.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.634	0.00	0.66
128.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.634	0.00	2.50
130.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.793	0.00	0.66
130.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.793	0.00	2.50
132.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.950	0.00	0.66
132.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.950	0.00	2.50
133.33	Safety Cable	Yes	1.33	0.000	0.00	0.00	0.00	0.000	0.000	49.054	0.00	0.44
133.33	Step bolts (ladder)	Yes	1.33	0.000	0.00	0.00	0.00	0.000	0.000	49.054	0.00	1.66
134.00	Safety Cable	Yes	0.67	0.000	0.00	0.00	0.00	0.000	0.000	49.106	0.00	0.22

Linear Appurtenance Segment Forces (Factored)

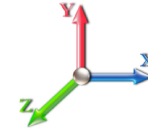
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 123 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 29

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
134.00	Step bolts (ladder)	Yes	0.67	0.000	0.00	0.00	0.00	0.000	0.000	49.106	0.00	0.83
136.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.259	0.00	0.66
136.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.259	0.00	2.50
138.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.411	0.00	0.66
138.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.411	0.00	2.50
140.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.561	0.00	0.66
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.561	0.00	2.50
142.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.709	0.00	0.66
142.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.709	0.00	2.50
144.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.855	0.00	0.66
144.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.855	0.00	2.50
146.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.000	0.00	0.66
146.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.000	0.00	2.50
148.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.144	0.00	0.66
148.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.144	0.00	2.50
150.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.286	0.00	0.66
150.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.286	0.00	2.50
152.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.426	0.00	0.66
152.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.426	0.00	2.50
154.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.565	0.00	0.66
154.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.565	0.00	2.50
156.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.703	0.00	0.66
156.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.703	0.00	2.50
158.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.839	0.00	0.66
158.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.839	0.00	2.50
160.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.974	0.00	0.66
160.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.974	0.00	2.50
162.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.107	0.00	0.66
162.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.107	0.00	2.50
164.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.239	0.00	0.66
164.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.239	0.00	2.50
166.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.370	0.00	0.66
166.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.370	0.00	2.50
168.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.500	0.00	0.66
168.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.500	0.00	2.50
170.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.628	0.00	0.66
170.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.628	0.00	2.50
172.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.756	0.00	0.66
172.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.756	0.00	2.50
174.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.882	0.00	0.66
174.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.882	0.00	2.50
176.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.007	0.00	0.66
176.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.007	0.00	2.50
178.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.131	0.00	0.66
178.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.131	0.00	2.50
180.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.253	0.00	0.66
180.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.253	0.00	2.50

Linear Appurtenance Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

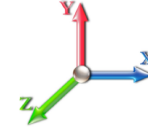


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Load Case: 1.2D + 1.0W 123 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 29

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
Totals:											0.0	283.6

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 123 mph Wind

Iterations 29

Dead Load Factor 1.20

Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-60.05	-47.98	0.00	-5886.1	0.00	5886.15	5123.29	1522.04	7808.40	6435.29	0.00	0.000	0.000	0.927
2.00	-59.28	-47.72	0.00	-5790.1	0.00	5790.19	5107.67	1509.78	7683.09	6363.61	0.02	-0.079	0.000	0.922
4.00	-58.47	-47.46	0.00	-5694.7	0.00	5694.76	5091.62	1497.52	7558.79	6291.73	0.07	-0.159	0.000	0.918
6.00	-57.64	-47.19	0.00	-5599.8	0.00	5599.85	5075.16	1485.26	7435.50	6219.67	0.15	-0.239	0.000	0.913
8.00	-56.81	-46.93	0.00	-5505.4	0.00	5505.46	5058.29	1472.99	7313.22	6147.44	0.27	-0.320	0.000	0.908
10.00	-55.99	-46.68	0.00	-5411.6	0.00	5411.60	5041.00	1460.73	7191.96	6075.05	0.42	-0.402	0.000	0.903
12.00	-55.18	-46.42	0.00	-5318.2	0.00	5318.25	5023.29	1448.47	7071.72	6002.51	0.61	-0.484	0.000	0.898
14.00	-54.37	-46.16	0.00	-5225.4	0.00	5225.42	5005.16	1436.20	6952.48	5929.84	0.83	-0.567	0.000	0.893
16.00	-53.57	-45.90	0.00	-5133.1	0.00	5133.10	4986.62	1423.94	6834.27	5857.05	1.09	-0.651	0.000	0.888
18.00	-52.77	-45.64	0.00	-5041.2	0.00	5041.29	4967.66	1411.68	6717.06	5784.16	1.38	-0.735	0.000	0.883
20.00	-51.98	-45.36	0.00	-4950.0	0.00	4950.02	4948.29	1399.42	6600.87	5711.17	1.71	-0.820	0.000	0.878
22.00	-51.19	-45.09	0.00	-4859.3	0.00	4859.30	4928.49	1387.15	6485.69	5638.10	2.07	-0.906	0.000	0.873
24.00	-50.42	-44.80	0.00	-4769.1	0.00	4769.13	4908.28	1374.89	6371.53	5564.95	2.47	-0.992	0.000	0.868
26.00	-49.64	-44.52	0.00	-4679.5	0.00	4679.52	4887.66	1362.63	6258.37	5491.76	2.90	-1.079	0.000	0.863
28.00	-48.88	-44.23	0.00	-4590.4	0.00	4590.49	4866.62	1350.36	6146.24	5418.52	3.37	-1.167	0.000	0.858
30.00	-48.12	-43.93	0.00	-4502.0	0.00	4502.04	4845.16	1338.10	6035.11	5345.24	3.88	-1.255	0.000	0.853
32.00	-47.37	-43.63	0.00	-4414.1	0.00	4414.18	4823.28	1325.84	5925.00	5271.95	4.43	-1.344	0.000	0.848
34.00	-46.62	-43.33	0.00	-4326.9	0.00	4326.92	4800.99	1313.58	5815.91	5198.66	5.01	-1.434	0.000	0.843
36.00	-45.88	-43.03	0.00	-4240.2	0.00	4240.25	4778.28	1301.31	5707.83	5125.37	5.63	-1.524	0.000	0.838
38.00	-45.14	-42.73	0.00	-4154.1	0.00	4154.19	4755.15	1289.05	5600.76	5052.10	6.29	-1.615	0.000	0.833
40.00	-44.42	-42.42	0.00	-4068.7	0.00	4068.74	4731.61	1276.79	5494.70	4978.87	6.98	-1.707	0.000	0.828
42.00	-43.70	-42.11	0.00	-3983.9	0.00	3983.91	4707.65	1264.52	5389.66	4905.68	7.72	-1.799	0.000	0.822
43.92	-43.04	-41.78	0.00	-3903.2	0.00	3903.20	4684.30	1252.77	5289.95	4835.60	8.46	-1.889	0.000	0.817
44.00	-42.96	-41.80	0.00	-3899.7	0.00	3899.72	4683.27	1252.26	5285.64	4832.55	8.49	-1.893	0.000	0.817
46.00	-41.70	-41.46	0.00	-3816.1	0.00	3816.13	4658.48	1240.00	5182.62	4759.49	9.31	-1.987	0.000	0.812
48.00	-40.46	-41.12	0.00	-3733.2	0.00	3733.20	4633.27	1227.74	5080.62	4686.52	10.16	-2.081	0.000	0.806
50.00	-39.24	-40.76	0.00	-3650.9	0.00	3650.96	4607.64	1215.47	4979.64	4613.64	11.05	-2.177	0.000	0.801
51.00	-38.63	-40.59	0.00	-3610.2	0.00	3610.20	4157.28	1142.33	4736.69	4216.21	11.51	-2.225	0.000	0.867
52.00	-38.28	-40.45	0.00	-3569.6	0.00	3569.61	4146.96	1136.64	4689.60	4184.61	11.98	-2.274	0.000	0.864
54.00	-37.63	-40.13	0.00	-3488.7	0.00	3488.71	4126.01	1125.25	4596.10	4121.41	12.96	-2.373	0.000	0.857
56.00	-36.98	-39.80	0.00	-3408.4	0.00	3408.46	4104.64	1113.86	4503.55	4058.23	13.97	-2.472	0.000	0.850
58.00	-36.34	-39.48	0.00	-3328.8	0.00	3328.86	4082.85	1102.48	4411.95	3995.08	15.03	-2.573	0.000	0.843
60.00	-35.70	-39.16	0.00	-3249.9	0.00	3249.90	4060.64	1091.09	4321.28	3931.97	16.13	-2.674	0.000	0.837
62.00	-35.07	-38.83	0.00	-3171.5	0.00	3171.59	4038.02	1079.70	4231.55	3868.91	17.27	-2.776	0.000	0.830
64.00	-34.44	-38.51	0.00	-3093.9	0.00	3093.92	4014.98	1068.31	4142.77	3805.92	18.46	-2.879	0.000	0.823
66.00	-33.83	-38.19	0.00	-3016.9	0.00	3016.90	3991.52	1056.93	4054.92	3743.01	19.69	-2.982	0.000	0.816
68.00	-33.21	-37.86	0.00	-2940.5	0.00	2940.53	3967.65	1045.54	3968.02	3680.19	20.96	-3.086	0.000	0.809
70.00	-32.61	-37.54	0.00	-2864.8	0.00	2864.80	3943.36	1034.15	3882.06	3617.47	22.27	-3.191	0.000	0.802
72.00	-32.01	-37.22	0.00	-2789.7	0.00	2789.72	3918.66	1022.77	3797.04	3554.87	23.63	-3.296	0.000	0.794
74.00	-31.41	-36.90	0.00	-2715.2	0.00	2715.29	3893.54	1011.38	3712.96	3492.40	25.04	-3.402	0.000	0.787
76.00	-30.83	-36.57	0.00	-2641.5	0.00	2641.50	3868.00	999.99	3629.83	3430.07	26.48	-3.509	0.000	0.779
78.00	-30.24	-36.25	0.00	-2568.3	0.00	2568.35	3842.04	988.61	3547.63	3367.90	27.98	-3.616	0.000	0.772
80.00	-29.67	-35.93	0.00	-2495.8	0.00	2495.85	3815.67	977.22	3466.38	3305.90	29.51	-3.725	0.000	0.764
82.00	-29.10	-35.61	0.00	-2423.9	0.00	2423.98	3788.88	965.83	3386.07	3244.07	31.10	-3.833	0.000	0.756
84.00	-28.53	-35.29	0.00	-2352.7	0.00	2352.76	3761.67	954.44	3306.69	3182.44	32.72	-3.943	0.000	0.748
86.00	-27.98	-34.98	0.00	-2282.1	0.00	2282.17	3734.05	943.06	3228.26	3121.02	34.40	-4.052	0.000	0.740
88.00	-27.43	-34.66	0.00	-2212.2	0.00	2212.22	3706.01	931.67	3150.77	3059.82	36.12	-4.163	0.000	0.732
90.00	-26.91	-34.32	0.00	-2142.9	0.00	2142.91	3677.55	920.28	3074.23	2998.84	37.89	-4.274	0.000	0.723

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.17	-26.84	-34.32	0.00	-2137.1	0.00	2137.19	3675.16	919.33	3067.89	2993.77	38.03	-4.283	0.000	0.723
92.00	-26.01	-34.00	0.00	-2074.2	0.00	2074.28	3648.68	908.90	2998.62	2938.12	39.70	-4.386	0.000	0.715
94.00	-25.11	-33.65	0.00	-2006.2	0.00	2006.28	3619.39	897.51	2923.96	2877.64	41.56	-4.498	0.000	0.706
96.00	-24.23	-33.30	0.00	-1938.9	0.00	1938.98	2873.56	764.37	2506.37	2303.28	43.47	-4.610	0.000	0.852
98.00	-23.76	-32.99	0.00	-1872.3	0.00	1872.38	2853.66	754.73	2443.58	2258.25	45.42	-4.723	0.000	0.839
100.00	-23.29	-32.68	0.00	-1806.4	0.00	1806.40	2833.34	745.10	2381.59	2213.29	47.42	-4.850	0.000	0.826
102.00	-22.83	-32.38	0.00	-1741.0	0.00	1741.03	2812.61	735.46	2320.39	2168.43	49.48	-4.976	0.000	0.813
104.00	-22.38	-32.07	0.00	-1676.2	0.00	1676.28	2791.46	725.83	2259.99	2123.68	51.59	-5.103	0.000	0.799
106.00	-21.93	-31.77	0.00	-1612.1	0.00	1612.13	2769.89	716.19	2200.39	2079.04	53.75	-5.230	0.000	0.785
108.00	-21.49	-31.47	0.00	-1548.5	0.00	1548.59	2747.90	706.55	2141.58	2034.53	55.97	-5.357	0.000	0.771
110.00	-21.05	-31.17	0.00	-1485.6	0.00	1485.65	2725.50	696.92	2083.57	1990.17	58.24	-5.484	0.000	0.756
112.00	-20.61	-30.87	0.00	-1423.3	0.00	1423.31	2702.68	687.28	2026.36	1945.97	60.56	-5.611	0.000	0.741
114.00	-20.19	-30.58	0.00	-1361.5	0.00	1361.56	2679.45	677.65	1969.94	1901.93	62.93	-5.737	0.000	0.725
116.00	-19.77	-30.28	0.00	-1300.4	0.00	1300.41	2655.79	668.01	1914.32	1858.08	65.36	-5.864	0.000	0.709
118.00	-19.35	-29.99	0.00	-1239.8	0.00	1239.84	2631.73	658.38	1859.50	1814.42	67.84	-5.990	0.000	0.693
120.00	-18.94	-29.70	0.00	-1179.8	0.00	1179.87	2607.24	648.74	1805.47	1770.96	70.37	-6.115	0.000	0.676
122.00	-18.54	-29.41	0.00	-1120.4	0.00	1120.47	2582.34	639.11	1752.24	1727.73	72.95	-6.239	0.000	0.658
124.00	-18.14	-29.12	0.00	-1061.6	0.00	1061.65	2557.02	629.47	1699.80	1684.74	75.59	-6.362	0.000	0.639
126.00	-17.75	-28.84	0.00	-1003.4	0.00	1003.40	2531.28	619.84	1648.16	1641.98	78.28	-6.485	0.000	0.620
128.00	-17.36	-28.55	0.00	-945.73	0.00	945.73	2505.13	610.20	1597.32	1599.49	81.01	-6.605	0.000	0.600
130.00	-16.99	-28.27	0.00	-888.62	0.00	888.62	2478.56	600.57	1547.28	1557.27	83.80	-6.725	0.000	0.580
132.00	-16.62	-27.99	0.00	-832.08	0.00	832.08	2451.58	590.93	1498.03	1515.33	86.64	-6.842	0.000	0.558
133.33	-16.39	-27.80	0.00	-794.76	0.00	794.76	2433.35	584.51	1465.64	1487.53	88.56	-6.920	0.000	0.543
134.00	-16.18	-27.71	0.00	-776.23	0.00	776.23	2424.17	581.30	1449.58	1473.69	89.52	-6.958	0.000	0.536
136.00	-15.62	-27.40	0.00	-720.82	0.00	720.82	2396.35	571.66	1401.92	1432.35	92.45	-7.071	0.000	0.512
138.00	-15.08	-27.10	0.00	-666.02	0.00	666.02	2366.02	561.99	1354.81	1381.04	95.43	-7.180	0.000	0.488
140.00	-14.79	-26.83	0.00	-611.82	0.00	611.82	2334.26	552.26	1307.64	1329.87	98.46	-7.287	0.000	0.464
142.00	-14.50	-26.58	0.00	-558.15	0.00	558.15	2301.07	542.51	1259.03	1278.70	101.53	-7.419	0.000	0.440
144.00	-14.22	-26.32	0.00	-505.00	0.00	505.00	2267.44	532.76	1209.86	1227.53	104.66	-7.546	0.000	0.416
146.00	-13.95	-26.06	0.00	-452.37	0.00	452.37	2233.37	523.01	1160.70	1176.36	107.84	-7.666	0.000	0.392
148.00	-13.68	-25.81	0.00	-400.24	0.00	400.24	2198.86	513.26	1111.54	1125.19	111.06	-7.779	0.000	0.368
150.00	-11.04	-19.88	0.00	-348.63	0.00	348.63	2163.91	503.51	1062.38	1074.02	114.34	-7.884	0.000	0.344
152.00	-10.82	-19.63	0.00	-308.87	0.00	308.87	2128.52	493.76	1013.21	1022.85	117.65	-7.981	0.000	0.320
154.00	-10.61	-19.38	0.00	-269.61	0.00	269.61	2092.69	484.01	964.04	971.68	121.00	-8.072	0.000	0.296
156.00	-10.40	-19.13	0.00	-230.85	0.00	230.85	2056.42	474.26	914.87	920.51	124.39	-8.155	0.000	0.272
158.00	-8.37	-16.89	0.00	-192.59	0.00	192.59	2019.71	464.51	865.70	869.34	127.81	-8.229	0.000	0.248
160.00	-7.69	-13.98	0.00	-158.81	0.00	158.81	1982.56	454.76	816.53	818.17	131.27	-8.295	0.000	0.224
162.00	-7.53	-13.74	0.00	-130.86	0.00	130.86	1944.97	445.01	767.36	767.00	134.74	-8.352	0.000	0.200
164.00	-7.39	-13.50	0.00	-103.38	0.00	103.38	1906.94	435.26	718.19	715.83	138.24	-8.402	0.000	0.176
166.00	-3.71	-6.89	0.00	-76.37	0.00	76.37	1868.47	425.51	669.02	664.66	141.76	-8.442	0.000	0.152
168.00	-3.58	-6.66	0.00	-62.60	0.00	62.60	1829.56	415.76	620.85	615.49	145.29	-8.476	0.000	0.128
170.00	-3.46	-6.44	0.00	-49.28	0.00	49.28	1790.21	406.01	572.68	566.32	148.83	-8.504	0.000	0.104
172.00	-3.34	-6.22	0.00	-36.41	0.00	36.41	1750.42	396.26	524.51	517.15	152.39	-8.528	0.000	0.080
174.00	-3.22	-6.00	0.00	-23.98	0.00	23.98	1710.19	386.51	476.34	468.00	155.95	-8.546	0.000	0.056
176.00	-3.11	-5.79	0.00	-11.98	0.00	11.98	1669.52	376.76	428.17	418.89	159.52	-8.557	0.000	0.032
178.00	-0.10	-0.20	0.00	-0.40	0.00	0.40	1628.41	367.01	380.00	370.78	163.09	-8.561	0.000	0.008
180.00	0.00	-0.18	0.00	0.00	0.00	0.00	1586.86	357.26	331.83	322.61	166.66	-8.562	0.000	0.000

Wind Loading - Shaft

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 123 mph Wind

Iterations 29

Dead Load Factor 0.90
Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	31.009	34.11	603.99	0.950	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	31.009	34.11	599.16	0.950	0.000	2.00	10.655	10.12	345.3	0.0	529.1
4.00		1.00	0.85	31.009	34.11	594.33	0.950	0.000	2.00	10.569	10.04	342.5	0.0	524.8
6.00		1.00	0.85	31.009	34.11	589.49	0.950	0.000	2.00	10.484	9.96	339.7	0.0	520.5
8.00		1.00	0.85	31.009	34.11	584.66	0.950	0.000	2.00	10.398	9.88	337.0	0.0	516.2
10.00		1.00	0.85	31.009	34.11	579.83	0.950	0.000	2.00	10.313	9.80	334.2	0.0	511.9
12.00		1.00	0.85	31.009	34.11	575.00	0.950	0.000	2.00	10.227	9.72	331.4	0.0	507.7
14.00		1.00	0.85	31.009	34.11	570.17	0.950	0.000	2.00	10.142	9.63	328.6	0.0	503.4
16.00		1.00	0.86	31.392	34.53	568.81	0.950	0.000	2.00	10.056	9.55	329.9	0.0	499.1
18.00		1.00	0.88	32.180	35.40	570.99	0.950	0.000	2.00	9.970	9.47	335.3	0.0	494.8
20.00		1.00	0.90	32.902	36.19	572.38	0.950	0.000	2.00	9.885	9.39	339.9	0.0	490.5
22.00		1.00	0.92	33.569	36.93	573.12	0.950	0.000	2.00	9.799	9.31	343.8	0.0	486.3
24.00		1.00	0.94	34.189	37.61	573.32	0.950	0.000	2.00	9.714	9.23	347.0	0.0	482.0
26.00		1.00	0.95	34.770	38.25	573.06	0.950	0.000	2.00	9.628	9.15	349.8	0.0	477.7
28.00		1.00	0.97	35.317	38.85	572.39	0.950	0.000	2.00	9.542	9.07	352.2	0.0	473.4
30.00		1.00	0.98	35.834	39.42	571.37	0.950	0.000	2.00	9.457	8.98	354.1	0.0	469.1
32.00		1.00	1.00	36.324	39.96	570.03	0.950	0.000	2.00	9.371	8.90	355.7	0.0	464.9
34.00		1.00	1.01	36.791	40.47	568.42	0.950	0.000	2.00	9.286	8.82	357.0	0.0	460.6
36.00		1.00	1.02	37.236	40.96	566.55	0.950	0.000	2.00	9.200	8.74	358.0	0.0	456.3
38.00		1.00	1.03	37.662	41.43	564.46	0.950	0.000	2.00	9.115	8.66	358.7	0.0	452.0
40.00		1.00	1.04	38.071	41.88	562.16	0.950	0.000	2.00	9.029	8.58	359.2	0.0	447.7
42.00		1.00	1.05	38.464	42.31	559.68	0.950	0.000	2.00	8.943	8.50	359.5	0.0	443.5
43.92	Bot - Section 2	1.00	1.06	38.827	42.71	557.13	0.950	0.000	1.92	8.490	8.07	344.5	0.0	421.0
44.00		1.00	1.06	38.843	42.73	557.02	0.950	0.000	0.08	0.373	0.35	15.1	0.0	35.4
46.00		1.00	1.07	39.208	43.13	554.19	0.950	0.000	2.00	8.912	8.47	365.2	0.0	845.5
48.00		1.00	1.08	39.561	43.52	551.23	0.950	0.000	2.00	8.827	8.39	364.9	0.0	837.2
50.00		1.00	1.09	39.902	43.89	548.12	0.950	0.000	2.00	8.741	8.30	364.5	0.0	829.0
51.00	Top - Section 1	1.00	1.10	40.069	44.08	546.52	0.950	0.000	1.00	4.339	4.12	181.7	0.0	411.4
52.00		1.00	1.10	40.233	44.26	553.90	0.950	0.000	1.00	4.317	4.10	181.5	0.0	198.8
54.00		1.00	1.11	40.554	44.61	550.58	0.950	0.000	2.00	8.570	8.14	363.2	0.0	394.7
56.00		1.00	1.12	40.866	44.95	547.14	0.950	0.000	2.00	8.485	8.06	362.3	0.0	390.7
58.00		1.00	1.13	41.169	45.29	543.60	0.950	0.000	2.00	8.399	7.98	361.3	0.0	386.8
60.00		1.00	1.14	41.464	45.61	539.95	0.950	0.000	2.00	8.313	7.90	360.2	0.0	382.8
62.00		1.00	1.14	41.751	45.93	536.21	0.950	0.000	2.00	8.228	7.82	359.0	0.0	378.8
64.00		1.00	1.15	42.031	46.23	532.38	0.950	0.000	2.00	8.142	7.74	357.6	0.0	374.8
66.00		1.00	1.16	42.304	46.53	528.47	0.950	0.000	2.00	8.057	7.65	356.2	0.0	370.9
68.00		1.00	1.17	42.571	46.83	524.47	0.950	0.000	2.00	7.971	7.57	354.6	0.0	366.9
70.00		1.00	1.17	42.831	47.11	520.39	0.950	0.000	2.00	7.885	7.49	352.9	0.0	362.9
72.00		1.00	1.18	43.086	47.39	516.24	0.950	0.000	2.00	7.800	7.41	351.2	0.0	358.9
74.00		1.00	1.19	43.335	47.67	512.02	0.950	0.000	2.00	7.714	7.33	349.3	0.0	355.0
76.00		1.00	1.19	43.579	47.94	507.73	0.950	0.000	2.00	7.629	7.25	347.4	0.0	351.0
78.00		1.00	1.20	43.818	48.20	503.38	0.950	0.000	2.00	7.543	7.17	345.4	0.0	347.0
80.00		1.00	1.21	44.053	48.46	498.96	0.950	0.000	2.00	7.458	7.08	343.3	0.0	343.0
82.00		1.00	1.21	44.282	48.71	494.49	0.950	0.000	2.00	7.372	7.00	341.1	0.0	339.1
84.00		1.00	1.22	44.507	48.96	489.96	0.950	0.000	2.00	7.286	6.92	338.9	0.0	335.1
86.00		1.00	1.23	44.728	49.20	485.37	0.950	0.000	2.00	7.201	6.84	336.6	0.0	331.1
88.00		1.00	1.23	44.945	49.44	480.73	0.950	0.000	2.00	7.115	6.76	334.2	0.0	327.1

Wind Loading - Shaft

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00	1.00	1.24	45.159	49.67	476.03	0.950	0.000	2.00	7.030	6.68	331.7	0.0	323.2	
90.17 Bot - Section 3	1.00	1.24	45.176	49.69	475.64	0.950	0.000	0.17	0.582	0.55	27.5	0.0	26.8	
92.00	1.00	1.24	45.368	49.90	471.29	0.950	0.000	1.83	6.471	6.15	306.8	0.0	544.6	
94.00	1.00	1.25	45.574	50.13	466.50	0.950	0.000	2.00	6.977	6.63	332.3	0.0	587.0	
96.00 Top - Section 2	1.00	1.25	45.776	50.35	461.67	0.950	0.000	2.00	6.891	6.55	329.7	0.0	579.7	
98.00	1.00	1.26	45.975	50.57	464.94	0.950	0.000	2.00	6.806	6.47	327.0	0.0	265.1	
100.00	1.00	1.27	46.171	50.79	460.03	0.950	0.000	2.00	6.720	6.38	324.2	0.0	261.7	
102.00	1.00	1.27	46.364	51.00	455.09	0.950	0.000	2.00	6.635	6.30	321.5	0.0	258.4	
104.00	1.00	1.28	46.554	51.21	450.10	0.950	0.000	2.00	6.549	6.22	318.6	0.0	255.0	
106.00	1.00	1.28	46.741	51.42	445.07	0.950	0.000	2.00	6.464	6.14	315.7	0.0	251.6	
108.00	1.00	1.29	46.926	51.62	440.00	0.950	0.000	2.00	6.378	6.06	312.8	0.0	248.3	
110.00	1.00	1.29	47.107	51.82	434.90	0.950	0.000	2.00	6.292	5.98	309.8	0.0	244.9	
112.00	1.00	1.30	47.286	52.01	429.75	0.950	0.000	2.00	6.207	5.90	306.7	0.0	241.5	
114.00	1.00	1.30	47.463	52.21	424.58	0.950	0.000	2.00	6.121	5.82	303.6	0.0	238.2	
116.00	1.00	1.31	47.637	52.40	419.37	0.950	0.000	2.00	6.036	5.73	300.5	0.0	234.8	
118.00	1.00	1.31	47.809	52.59	414.12	0.950	0.000	2.00	5.950	5.65	297.3	0.0	231.5	
120.00	1.00	1.32	47.978	52.78	408.85	0.950	0.000	2.00	5.864	5.57	294.0	0.0	228.1	
122.00	1.00	1.32	48.145	52.96	403.54	0.950	0.000	2.00	5.779	5.49	290.7	0.0	224.7	
124.00	1.00	1.32	48.310	53.14	398.20	0.950	0.000	2.00	5.693	5.41	287.4	0.0	221.4	
126.00	1.00	1.33	48.473	53.32	392.83	0.950	0.000	2.00	5.608	5.33	284.1	0.0	218.0	
128.00	1.00	1.33	48.634	53.50	387.43	0.950	0.000	2.00	5.522	5.25	280.7	0.0	214.6	
130.00	1.00	1.34	48.793	53.67	382.00	0.950	0.000	2.00	5.437	5.16	277.2	0.0	211.3	
132.00	1.00	1.34	48.950	53.85	376.54	0.950	0.000	2.00	5.351	5.08	273.7	0.0	207.9	
133.33 Bot - Section 4	1.00	1.34	49.054	53.96	372.89	0.950	0.000	1.33	3.520	3.34	180.4	0.0	136.7	
134.00	1.00	1.35	49.106	54.02	371.06	0.950	0.000	0.67	1.774	1.69	91.1	0.0	118.1	
136.00	1.00	1.35	49.259	54.19	365.55	0.950	0.000	2.00	5.266	5.00	271.1	0.0	350.4	
138.00 Top - Section 3	1.00	1.35	49.411	54.35	360.01	0.950	0.000	2.00	5.181	4.92	267.5	0.0	344.6	
140.00	1.00	1.36	49.561	54.52	360.61	0.950	0.000	2.00	5.095	4.84	263.9	0.0	144.4	
142.00	1.00	1.36	49.709	54.68	355.03	0.950	0.000	2.00	5.009	4.76	260.2	0.0	141.9	
144.00	1.00	1.37	49.855	54.84	349.42	0.950	0.000	2.00	4.924	4.68	256.5	0.0	139.5	
146.00	1.00	1.37	50.000	55.00	343.80	0.950	0.000	2.00	4.838	4.60	252.8	0.0	137.0	
148.00	1.00	1.37	50.144	55.16	338.14	0.950	0.000	2.00	4.753	4.51	249.0	0.0	134.6	
150.00 Appurtenance(s)	1.00	1.38	50.286	55.31	332.47	0.950	0.000	2.00	4.667	4.43	245.2	0.0	132.1	
152.00	1.00	1.38	50.426	55.47	326.77	0.950	0.000	2.00	4.581	4.35	241.4	0.0	129.7	
154.00	1.00	1.39	50.565	55.62	321.05	0.950	0.000	2.00	4.496	4.27	237.6	0.0	127.2	
156.00	1.00	1.39	50.703	55.77	315.31	0.950	0.000	2.00	4.410	4.19	233.7	0.0	124.8	
158.00 Appurtenance(s)	1.00	1.39	50.839	55.92	309.54	0.950	0.000	2.00	4.325	4.11	229.8	0.0	122.3	
160.00 Appurtenance(s)	1.00	1.40	50.974	56.07	303.76	0.950	0.000	2.00	4.239	4.03	225.8	0.0	119.9	
162.00	1.00	1.40	51.107	56.22	297.95	0.950	0.000	2.00	4.154	3.95	221.8	0.0	117.5	
164.00	1.00	1.40	51.239	56.36	292.13	0.950	0.000	2.00	4.068	3.86	217.8	0.0	115.0	
166.00 Appurtenance(s)	1.00	1.41	51.370	56.51	286.28	0.950	0.000	2.00	3.982	3.78	213.8	0.0	112.6	
168.00	1.00	1.41	51.500	56.65	280.42	0.950	0.000	2.00	3.897	3.70	209.7	0.0	110.1	
170.00	1.00	1.42	51.628	56.79	274.53	0.950	0.000	2.00	3.811	3.62	205.6	0.0	107.7	
172.00	1.00	1.42	51.756	56.93	268.63	0.950	0.000	2.00	3.726	3.54	201.5	0.0	105.2	
174.00	1.00	1.42	51.882	57.07	262.70	0.950	0.000	2.00	3.640	3.46	197.3	0.0	102.8	
176.00	1.00	1.43	52.007	57.21	256.76	0.950	0.000	2.00	3.554	3.38	193.2	0.0	100.3	
178.00 Appurtenance(s)	1.00	1.43	52.131	57.34	250.80	0.950	0.000	2.00	3.469	3.30	189.0	0.0	97.9	
180.00	1.00	1.43	52.253	57.48	244.83	0.950	0.000	2.00	3.383	3.21	184.7	0.0	95.4	
Totals:								180.00			27,684.8			30,072.5

Discrete Appurtenance Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

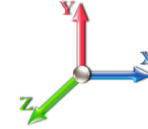


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Load Case: 0.9D + 1.0W 123 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 29

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	178.00	Samsung B5/B13 RRH	3	52.131	57.344	0.50	0.75	3.35	189.81	0.000	0.000	191.91	0.00	0.00	
2	178.00	Samsung B2/B66A RRH	3	52.131	57.344	0.50	0.75	2.83	227.88	0.000	0.000	162.52	0.00	0.00	
3	178.00	JMA MX06FRO660-03	6	52.131	57.344	0.61	0.75	36.42	324.00	0.000	0.000	2088.48	0.00	0.00	
4	178.00	Platform w/ Handrails w/	1	52.131	57.344	1.00	1.00	40.00	1981.98	0.000	0.000	2293.75	0.00	0.00	
5	178.00	Raycap	1	52.131	57.344	1.00	1.00	2.61	28.80	0.000	0.000	149.67	0.00	0.00	
6	166.00	ALU 800 Mhz	6	51.370	56.507	0.38	0.75	5.60	286.20	0.000	0.000	316.58	0.00	0.00	
7	166.00	RFS APXVTM14-C-I20	3	51.370	56.507	0.58	0.75	10.98	151.74	0.000	0.000	620.68	0.00	0.00	
8	166.00	Commscope	3	51.370	56.507	0.55	0.75	20.43	208.98	0.000	0.000	1154.42	0.00	0.00	
9	166.00	ALU 1900 Mhz	3	51.370	56.507	0.50	0.75	5.73	118.80	0.000	0.000	323.70	0.00	0.00	
10	166.00	Sitepro	1	51.370	56.507	1.00	1.00	6.70	207.00	0.000	0.000	378.60	0.00	0.00	
11	166.00	ALU TD-RRH8x20-25	3	51.370	56.507	0.50	0.75	6.11	189.00	0.000	0.000	345.00	0.00	0.00	
12	166.00	Sitepro	1	51.370	56.507	1.00	1.00	7.00	365.95	0.000	0.000	395.55	0.00	0.00	
13	166.00	Platform w/ Hand Rails	1	51.370	56.507	1.00	1.00	40.00	1800.00	0.000	0.000	2260.29	0.00	0.00	
14	160.00	RR90-17-00VDPL2/-R	3	50.974	56.071	0.54	0.80	7.12	36.45	0.000	0.000	398.97	0.00	0.00	
15	160.00	4449 B71+B12	3	50.974	56.071	0.54	0.80	2.65	189.00	0.000	0.000	148.77	0.00	0.00	
16	160.00	KRY 112 144/2	3	50.974	56.071	0.54	0.80	1.05	41.58	0.000	0.000	58.61	0.00	0.00	
17	160.00	APXVAARR24_43-U-NA2	3	50.974	56.071	0.56	0.80	34.00	345.60	0.000	0.000	1906.59	0.00	0.00	
18	160.00	KRY 112 489/2	3	50.974	56.071	0.54	0.80	1.05	41.58	0.000	0.000	58.61	0.00	0.00	
19	158.00	V-Brace	1	50.839	55.923	0.75	0.75	4.72	177.30	0.000	0.000	264.23	0.00	0.00	
20	158.00	T-Arm Kit	1	50.839	55.923	0.75	0.75	12.38	450.00	0.000	0.000	692.04	0.00	0.00	
21	158.00	T-Arms	3	50.839	55.923	0.56	0.75	13.50	945.00	0.000	0.000	754.96	0.00	0.00	
22	150.00	Powerwave 7770	3	50.286	55.314	0.55	0.75	9.05	94.50	0.000	0.000	500.60	0.00	0.00	
23	150.00	Cci HPA-65R-BUU-H6	2	50.286	55.314	0.77	0.90	14.78	91.80	0.000	0.000	817.53	0.00	0.00	
24	150.00	SBNHH-1D65A	1	50.286	55.314	1.00	1.00	5.88	30.15	0.000	0.000	325.25	0.00	0.00	
25	150.00	4449 B5/B12	3	50.286	55.314	0.50	0.75	2.97	191.70	0.000	0.000	164.27	0.00	0.00	
26	150.00	DMP65R-BU6DA	2	50.286	55.314	0.54	0.75	13.73	142.92	0.000	0.000	759.29	0.00	0.00	
27	150.00	B2 B66A 8843	3	50.286	55.314	0.50	0.75	2.47	189.00	0.000	0.000	136.75	0.00	0.00	
28	150.00	DMP65R-BU4DA	1	50.286	55.314	0.54	0.75	6.86	71.46	0.000	0.000	379.64	0.00	0.00	
29	150.00	Powerwave LGP21401	6	50.286	55.314	0.50	0.75	3.68	76.14	0.000	0.000	203.46	0.00	0.00	
30	150.00	Raycap DC6-48-60-18-8F	1	50.286	55.314	0.67	1.00	1.21	28.62	0.000	0.000	67.08	0.00	0.00	
31	150.00	Platform w/ Hand Rail	1	50.286	55.314	1.00	1.00	35.00	1440.00	0.000	0.000	1936.00	0.00	0.00	
Totals:									10,662.94						20,253.81

Total Applied Force Summary

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

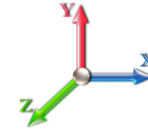


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Load Case: 0.9D + 1.0W 123 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 29

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		345.27	531.42	0.00	0.00
4.00		342.50	553.59	0.00	0.00
6.00		339.73	575.76	0.00	0.00
8.00		336.95	571.48	0.00	0.00
10.00		334.18	567.20	0.00	0.00
12.00		331.41	562.92	0.00	0.00
14.00		328.63	558.64	0.00	0.00
16.00		329.88	554.36	0.00	0.00
18.00		335.29	550.08	0.00	0.00
20.00		339.86	545.80	0.00	0.00
22.00		343.75	541.52	0.00	0.00
24.00		347.05	537.24	0.00	0.00
26.00		349.84	532.96	0.00	0.00
28.00		352.18	528.68	0.00	0.00
30.00		354.13	524.40	0.00	0.00
32.00		355.72	520.12	0.00	0.00
34.00		357.00	515.84	0.00	0.00
36.00		357.99	511.56	0.00	0.00
38.00		358.72	507.28	0.00	0.00
40.00		359.21	503.00	0.00	0.00
42.00		359.48	498.72	0.00	0.00
43.92		344.50	473.92	0.00	0.00
44.00		15.15	37.71	0.00	0.00
46.00		365.16	900.76	0.00	0.00
48.00		364.91	892.51	0.00	0.00
50.00		364.49	884.25	0.00	0.00
51.00		181.66	439.03	0.00	0.00
52.00		181.51	226.47	0.00	0.00
54.00		363.19	449.96	0.00	0.00
56.00		362.33	445.99	0.00	0.00
58.00		361.33	442.01	0.00	0.00
60.00		360.21	438.04	0.00	0.00
62.00		358.98	434.06	0.00	0.00
64.00		357.62	430.09	0.00	0.00
66.00		356.16	426.12	0.00	0.00
68.00		354.60	422.14	0.00	0.00
70.00		352.94	418.17	0.00	0.00
72.00		351.19	414.19	0.00	0.00
74.00		349.34	410.22	0.00	0.00
76.00		347.41	406.25	0.00	0.00
78.00		345.40	402.27	0.00	0.00
80.00		343.31	398.30	0.00	0.00
82.00		341.14	394.32	0.00	0.00
84.00		338.89	390.35	0.00	0.00
86.00		336.57	386.38	0.00	0.00
88.00		334.19	382.40	0.00	0.00

Total Applied Force Summary

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00		331.73	378.43	0.00	0.00
90.17		27.47	31.36	0.00	0.00
92.00		306.78	595.21	0.00	0.00
94.00		332.28	642.29	0.00	0.00
96.00		329.66	634.95	0.00	0.00
98.00		326.99	320.34	0.00	0.00
100.00		324.25	316.98	0.00	0.00
102.00		321.46	313.62	0.00	0.00
104.00		318.61	310.25	0.00	0.00
106.00		315.71	306.89	0.00	0.00
108.00		312.76	303.53	0.00	0.00
110.00		309.76	300.17	0.00	0.00
112.00		306.70	296.80	0.00	0.00
114.00		303.61	293.44	0.00	0.00
116.00		300.46	290.08	0.00	0.00
118.00		297.27	286.72	0.00	0.00
120.00		294.03	283.35	0.00	0.00
122.00		290.75	279.99	0.00	0.00
124.00		287.42	276.63	0.00	0.00
126.00		284.06	273.27	0.00	0.00
128.00		280.65	269.90	0.00	0.00
130.00		277.21	266.54	0.00	0.00
132.00		273.72	263.18	0.00	0.00
133.33		180.43	173.58	0.00	0.00
134.00		91.05	136.52	0.00	0.00
136.00		271.08	405.70	0.00	0.00
138.00		267.49	399.89	0.00	0.00
140.00		263.87	199.62	0.00	0.00
142.00		260.21	197.17	0.00	0.00
144.00		256.52	194.73	0.00	0.00
146.00		252.80	192.28	0.00	0.00
148.00		249.04	189.83	0.00	0.00
150.00	(23) attachments	5535.13	2543.68	0.00	0.00
152.00		241.42	167.00	0.00	0.00
154.00		237.56	164.55	0.00	0.00
156.00		233.68	162.11	0.00	0.00
158.00	(5) attachments	1940.99	1731.96	0.00	0.00
160.00	(15) attachments	2797.35	811.43	0.00	0.00
162.00		221.83	130.43	0.00	0.00
164.00		217.82	127.99	0.00	0.00
166.00	(21) attachments	6008.60	3453.21	0.00	0.00
168.00		209.71	116.23	0.00	0.00
170.00		205.62	113.78	0.00	0.00
172.00		201.50	111.34	0.00	0.00
174.00		197.35	108.89	0.00	0.00
176.00		193.17	106.45	0.00	0.00
178.00	(14) attachments	5075.29	2856.47	0.00	0.00
180.00		184.74	97.81	0.00	0.00
Totals:		47,938.59	45,065.01	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



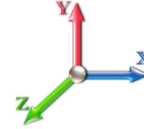
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Load Case: 0.9D + 1.0W 123 mph Wind

Iterations 29

Dead Load Factor 0.90

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.49
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	1.87
4.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.49
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	1.87
6.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.49
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	1.87
8.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.49
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	1.87
10.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.49
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	1.87
12.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.49
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	1.87
14.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	0.49
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.009	0.00	1.87
16.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.392	0.00	0.49
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	31.392	0.00	1.87
18.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	32.180	0.00	0.49
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	32.180	0.00	1.87
20.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	32.902	0.00	0.49
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	32.902	0.00	1.87
22.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	33.569	0.00	0.49
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	33.569	0.00	1.87
24.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	34.189	0.00	0.49
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	34.189	0.00	1.87
26.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	34.770	0.00	0.49
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	34.770	0.00	1.87
28.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	35.317	0.00	0.49
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	35.317	0.00	1.87
30.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	35.834	0.00	0.49
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	35.834	0.00	1.87
32.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	36.324	0.00	0.49
32.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	36.324	0.00	1.87
34.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	36.791	0.00	0.49
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	36.791	0.00	1.87
36.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	37.236	0.00	0.49
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	37.236	0.00	1.87
38.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	37.662	0.00	0.49
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	37.662	0.00	1.87
40.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	38.071	0.00	0.49
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	38.071	0.00	1.87
42.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	38.464	0.00	0.49
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	38.464	0.00	1.87
43.92	Safety Cable	Yes	1.92	0.000	0.00	0.00	0.00	0.000	0.000	38.827	0.00	0.47
43.92	Step bolts (ladder)	Yes	1.92	0.000	0.00	0.00	0.00	0.000	0.000	38.827	0.00	1.79
44.00	Safety Cable	Yes	0.08	0.000	0.00	0.00	0.00	0.000	0.000	38.843	0.00	0.02
44.00	Step bolts (ladder)	Yes	0.08	0.000	0.00	0.00	0.00	0.000	0.000	38.843	0.00	0.08
46.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.208	0.00	0.49

Linear Appurtenance Segment Forces (Factored)

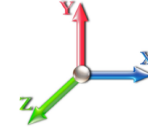
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 123 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 29

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.208	0.00	1.87
48.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.561	0.00	0.49
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.561	0.00	1.87
50.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.902	0.00	0.49
50.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	39.902	0.00	1.87
51.00	Safety Cable	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	40.069	0.00	0.25
51.00	Step bolts (ladder)	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	40.069	0.00	0.94
52.00	Safety Cable	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	40.233	0.00	0.25
52.00	Step bolts (ladder)	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	40.233	0.00	0.94
54.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	40.554	0.00	0.49
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	40.554	0.00	1.87
56.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	40.866	0.00	0.49
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	40.866	0.00	1.87
58.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.169	0.00	0.49
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.169	0.00	1.87
60.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.464	0.00	0.49
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.464	0.00	1.87
62.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.751	0.00	0.49
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	41.751	0.00	1.87
64.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.031	0.00	0.49
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.031	0.00	1.87
66.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.304	0.00	0.49
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.304	0.00	1.87
68.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.571	0.00	0.49
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.571	0.00	1.87
70.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.831	0.00	0.49
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	42.831	0.00	1.87
72.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.086	0.00	0.49
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.086	0.00	1.87
74.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.335	0.00	0.49
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.335	0.00	1.87
76.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.579	0.00	0.49
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.579	0.00	1.87
78.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.818	0.00	0.49
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	43.818	0.00	1.87
80.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.053	0.00	0.49
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.053	0.00	1.87
82.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.282	0.00	0.49
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.282	0.00	1.87
84.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.507	0.00	0.49
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.507	0.00	1.87
86.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.728	0.00	0.49
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.728	0.00	1.87
88.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.945	0.00	0.49
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	44.945	0.00	1.87
90.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.159	0.00	0.49
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.159	0.00	1.87

Linear Appurtenance Segment Forces (Factored)

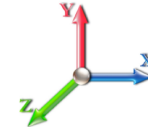
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 123 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 29

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
90.17	Safety Cable	Yes	0.17	0.000	0.00	0.00	0.00	0.000	0.000	45.176	0.00	0.04
90.17	Step bolts (ladder)	Yes	0.17	0.000	0.00	0.00	0.00	0.000	0.000	45.176	0.00	0.16
92.00	Safety Cable	Yes	1.83	0.000	0.00	0.00	0.00	0.000	0.000	45.368	0.00	0.45
92.00	Step bolts (ladder)	Yes	1.83	0.000	0.00	0.00	0.00	0.000	0.000	45.368	0.00	1.72
94.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.574	0.00	0.49
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.574	0.00	1.87
96.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.776	0.00	0.49
96.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.776	0.00	1.87
98.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.975	0.00	0.49
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	45.975	0.00	1.87
100.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.171	0.00	0.49
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.171	0.00	1.87
102.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.364	0.00	0.49
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.364	0.00	1.87
104.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.554	0.00	0.49
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.554	0.00	1.87
106.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.741	0.00	0.49
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.741	0.00	1.87
108.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.926	0.00	0.49
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	46.926	0.00	1.87
110.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.107	0.00	0.49
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.107	0.00	1.87
112.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.286	0.00	0.49
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.286	0.00	1.87
114.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.463	0.00	0.49
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.463	0.00	1.87
116.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.637	0.00	0.49
116.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.637	0.00	1.87
118.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.809	0.00	0.49
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.809	0.00	1.87
120.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.978	0.00	0.49
120.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	47.978	0.00	1.87
122.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.145	0.00	0.49
122.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.145	0.00	1.87
124.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.310	0.00	0.49
124.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.310	0.00	1.87
126.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.473	0.00	0.49
126.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.473	0.00	1.87
128.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.634	0.00	0.49
128.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.634	0.00	1.87
130.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.793	0.00	0.49
130.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.793	0.00	1.87
132.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.950	0.00	0.49
132.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	48.950	0.00	1.87
133.33	Safety Cable	Yes	1.33	0.000	0.00	0.00	0.00	0.000	0.000	49.054	0.00	0.33
133.33	Step bolts (ladder)	Yes	1.33	0.000	0.00	0.00	0.00	0.000	0.000	49.054	0.00	1.25
134.00	Safety Cable	Yes	0.67	0.000	0.00	0.00	0.00	0.000	0.000	49.106	0.00	0.16

Linear Appurtenance Segment Forces (Factored)

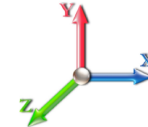
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 123 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 29

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
134.00	Step bolts (ladder)	Yes	0.67	0.000	0.00	0.00	0.00	0.000	0.000	49.106	0.00	0.62
136.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.259	0.00	0.49
136.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.259	0.00	1.87
138.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.411	0.00	0.49
138.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.411	0.00	1.87
140.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.561	0.00	0.49
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.561	0.00	1.87
142.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.709	0.00	0.49
142.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.709	0.00	1.87
144.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.855	0.00	0.49
144.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	49.855	0.00	1.87
146.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.000	0.00	0.49
146.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.000	0.00	1.87
148.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.144	0.00	0.49
148.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.144	0.00	1.87
150.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.286	0.00	0.49
150.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.286	0.00	1.87
152.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.426	0.00	0.49
152.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.426	0.00	1.87
154.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.565	0.00	0.49
154.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.565	0.00	1.87
156.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.703	0.00	0.49
156.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.703	0.00	1.87
158.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.839	0.00	0.49
158.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.839	0.00	1.87
160.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.974	0.00	0.49
160.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	50.974	0.00	1.87
162.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.107	0.00	0.49
162.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.107	0.00	1.87
164.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.239	0.00	0.49
164.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.239	0.00	1.87
166.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.370	0.00	0.49
166.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.370	0.00	1.87
168.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.500	0.00	0.49
168.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.500	0.00	1.87
170.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.628	0.00	0.49
170.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.628	0.00	1.87
172.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.756	0.00	0.49
172.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.756	0.00	1.87
174.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.882	0.00	0.49
174.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	51.882	0.00	1.87
176.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.007	0.00	0.49
176.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.007	0.00	1.87
178.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.131	0.00	0.49
178.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.131	0.00	1.87
180.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.253	0.00	0.49
180.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	52.253	0.00	1.87

Linear Appurtenance Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

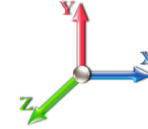


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Load Case: 0.9D + 1.0W 123 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.00



Iterations 29

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
Totals:											0.0	212.7

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 123 mph Wind

Iterations 29

Dead Load Factor 0.90

Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-45.03	-47.97	0.00	-5809.2	0.00	5809.29	5123.29	1522.04	7808.40	6435.29	0.00	0.000	0.000	0.913
2.00	-44.43	-47.69	0.00	-5713.3	0.00	5713.36	5107.67	1509.78	7683.09	6363.61	0.02	-0.078	0.000	0.908
4.00	-43.82	-47.40	0.00	-5617.9	0.00	5617.99	5091.62	1497.52	7558.79	6291.73	0.07	-0.157	0.000	0.903
6.00	-43.18	-47.12	0.00	-5523.1	0.00	5523.18	5075.16	1485.26	7435.50	6219.67	0.15	-0.236	0.000	0.898
8.00	-42.54	-46.84	0.00	-5428.9	0.00	5428.95	5058.29	1472.99	7313.22	6147.44	0.27	-0.316	0.000	0.893
10.00	-41.91	-46.56	0.00	-5335.2	0.00	5335.27	5041.00	1460.73	7191.96	6075.05	0.42	-0.397	0.000	0.888
12.00	-41.28	-46.28	0.00	-5242.1	0.00	5242.15	5023.29	1448.47	7071.72	6002.51	0.60	-0.478	0.000	0.883
14.00	-40.66	-46.01	0.00	-5149.5	0.00	5149.58	5005.16	1436.20	6952.48	5929.84	0.82	-0.560	0.000	0.878
16.00	-40.05	-45.73	0.00	-5057.5	0.00	5057.56	4986.62	1423.94	6834.27	5857.05	1.07	-0.642	0.000	0.873
18.00	-39.43	-45.45	0.00	-4966.1	0.00	4966.10	4967.66	1411.68	6717.06	5784.16	1.36	-0.725	0.000	0.868
20.00	-38.83	-45.16	0.00	-4875.2	0.00	4875.21	4948.29	1399.42	6600.87	5711.17	1.68	-0.809	0.000	0.863
22.00	-38.22	-44.86	0.00	-4784.8	0.00	4784.89	4928.49	1387.15	6485.69	5638.10	2.04	-0.893	0.000	0.857
24.00	-37.63	-44.56	0.00	-4695.1	0.00	4695.17	4908.28	1374.89	6371.53	5564.95	2.43	-0.978	0.000	0.852
26.00	-37.03	-44.26	0.00	-4606.0	0.00	4606.05	4887.66	1362.63	6258.37	5491.76	2.86	-1.063	0.000	0.847
28.00	-36.44	-43.95	0.00	-4517.5	0.00	4517.54	4866.62	1350.36	6146.24	5418.52	3.33	-1.150	0.000	0.842
30.00	-35.86	-43.64	0.00	-4429.6	0.00	4429.64	4845.16	1338.10	6035.11	5345.24	3.83	-1.237	0.000	0.837
32.00	-35.28	-43.33	0.00	-4342.3	0.00	4342.36	4823.28	1325.84	5925.00	5271.95	4.36	-1.324	0.000	0.832
34.00	-34.71	-43.01	0.00	-4255.7	0.00	4255.70	4800.99	1313.58	5815.91	5198.66	4.94	-1.412	0.000	0.827
36.00	-34.14	-42.69	0.00	-4169.6	0.00	4169.68	4778.28	1301.31	5707.83	5125.37	5.55	-1.501	0.000	0.822
38.00	-33.58	-42.37	0.00	-4084.2	0.00	4084.29	4755.15	1289.05	5600.76	5052.10	6.20	-1.591	0.000	0.817
40.00	-33.02	-42.05	0.00	-3999.5	0.00	3999.55	4731.61	1276.79	5494.70	4978.87	6.88	-1.681	0.000	0.811
42.00	-32.46	-41.73	0.00	-3915.4	0.00	3915.44	4707.65	1264.52	5389.66	4905.68	7.61	-1.772	0.000	0.806
43.92	-31.97	-41.40	0.00	-3835.4	0.00	3835.46	4684.30	1252.77	5289.95	4835.60	8.34	-1.860	0.000	0.801
44.00	-31.90	-41.41	0.00	-3832.0	0.00	3832.01	4683.27	1252.26	5285.64	4832.55	8.37	-1.864	0.000	0.801
46.00	-30.94	-41.06	0.00	-3749.2	0.00	3749.20	4658.48	1240.00	5182.62	4759.49	9.17	-1.956	0.000	0.795
48.00	-30.00	-40.71	0.00	-3667.0	0.00	3667.08	4633.27	1227.74	5080.62	4686.52	10.01	-2.049	0.000	0.790
50.00	-29.08	-40.35	0.00	-3585.6	0.00	3585.65	4607.64	1215.47	4979.64	4613.64	10.89	-2.143	0.000	0.785
51.00	-28.61	-40.18	0.00	-3545.3	0.00	3545.30	4157.28	1142.33	4736.69	4216.21	11.34	-2.190	0.000	0.849
52.00	-28.34	-40.03	0.00	-3505.1	0.00	3505.12	4146.96	1136.64	4689.60	4184.61	11.81	-2.238	0.000	0.846
54.00	-27.84	-39.69	0.00	-3425.0	0.00	3425.07	4126.01	1125.25	4596.10	4121.41	12.77	-2.335	0.000	0.839
56.00	-27.34	-39.36	0.00	-3345.6	0.00	3345.69	4104.64	1113.86	4503.55	4058.23	13.76	-2.433	0.000	0.832
58.00	-26.85	-39.02	0.00	-3266.9	0.00	3266.97	4082.85	1102.48	4411.95	3995.08	14.81	-2.532	0.000	0.826
60.00	-26.36	-38.69	0.00	-3188.9	0.00	3188.92	4060.64	1091.09	4321.28	3931.97	15.89	-2.631	0.000	0.819
62.00	-25.88	-38.36	0.00	-3111.5	0.00	3111.54	4038.02	1079.70	4231.55	3868.91	17.01	-2.731	0.000	0.812
64.00	-25.40	-38.02	0.00	-3034.8	0.00	3034.83	4014.98	1068.31	4142.77	3805.92	18.18	-2.832	0.000	0.805
66.00	-24.92	-37.69	0.00	-2958.7	0.00	2958.78	3991.52	1056.93	4054.92	3743.01	19.38	-2.933	0.000	0.798
68.00	-24.45	-37.36	0.00	-2883.4	0.00	2883.40	3967.65	1045.54	3968.02	3680.19	20.63	-3.035	0.000	0.791
70.00	-23.99	-37.03	0.00	-2808.6	0.00	2808.68	3943.36	1034.15	3882.06	3617.47	21.93	-3.138	0.000	0.784
72.00	-23.53	-36.70	0.00	-2734.6	0.00	2734.63	3918.66	1022.77	3797.04	3554.87	23.26	-3.241	0.000	0.777
74.00	-23.07	-36.37	0.00	-2661.2	0.00	2661.24	3893.54	1011.38	3712.96	3492.40	24.64	-3.345	0.000	0.769
76.00	-22.62	-36.04	0.00	-2588.5	0.00	2588.51	3868.00	999.99	3629.83	3430.07	26.07	-3.450	0.000	0.762
78.00	-22.17	-35.71	0.00	-2516.4	0.00	2516.44	3842.04	988.61	3547.63	3367.90	27.54	-3.555	0.000	0.754
80.00	-21.73	-35.38	0.00	-2445.0	0.00	2445.02	3815.67	977.22	3466.38	3305.90	29.05	-3.661	0.000	0.747
82.00	-21.30	-35.05	0.00	-2374.2	0.00	2374.26	3788.88	965.83	3386.07	3244.07	30.60	-3.767	0.000	0.739
84.00	-20.86	-34.73	0.00	-2304.1	0.00	2304.15	3761.67	954.44	3306.69	3182.44	32.20	-3.874	0.000	0.731
86.00	-20.44	-34.41	0.00	-2234.7	0.00	2234.70	3734.05	943.06	3228.26	3121.02	33.85	-3.982	0.000	0.723
88.00	-20.01	-34.08	0.00	-2165.8	0.00	2165.89	3706.01	931.67	3150.77	3059.82	35.54	-4.090	0.000	0.715
90.00	-19.63	-33.75	0.00	-2097.7	0.00	2097.72	3677.55	920.28	3074.23	2998.84	37.27	-4.199	0.000	0.706

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.17	-19.56	-33.73	0.00	-2092.1	0.00	2092.10	3675.16	919.33	3067.89	2993.77	37.42	-4.208	0.000	0.705
92.00	-18.93	-33.42	0.00	-2030.2	0.00	2030.25	3648.68	908.90	2998.62	2938.12	39.06	-4.308	0.000	0.698
94.00	-18.25	-33.07	0.00	-1963.4	0.00	1963.41	3619.39	897.51	2923.96	2877.64	40.88	-4.418	0.000	0.689
96.00	-17.58	-32.73	0.00	-1897.2	0.00	1897.27	2873.56	764.37	2506.37	2303.28	42.76	-4.528	0.000	0.832
98.00	-17.22	-32.41	0.00	-1831.8	0.00	1831.81	2853.66	754.73	2443.58	2258.25	44.67	-4.639	0.000	0.819
100.00	-16.87	-32.10	0.00	-1766.9	0.00	1766.98	2833.34	745.10	2381.59	2213.29	46.64	-4.762	0.000	0.806
102.00	-16.51	-31.79	0.00	-1702.7	0.00	1702.78	2812.61	735.46	2320.39	2168.43	48.66	-4.886	0.000	0.793
104.00	-16.16	-31.48	0.00	-1639.2	0.00	1639.20	2791.46	725.83	2259.99	2123.68	50.73	-5.010	0.000	0.780
106.00	-15.82	-31.17	0.00	-1576.2	0.00	1576.24	2769.89	716.19	2200.39	2079.04	52.86	-5.134	0.000	0.766
108.00	-15.48	-30.87	0.00	-1513.9	0.00	1513.90	2747.90	706.55	2141.58	2034.53	55.03	-5.258	0.000	0.752
110.00	-15.14	-30.56	0.00	-1452.1	0.00	1452.16	2725.50	696.92	2083.57	1990.17	57.26	-5.382	0.000	0.737
112.00	-14.81	-30.26	0.00	-1391.0	0.00	1391.03	2702.68	687.28	2026.36	1945.97	59.54	-5.506	0.000	0.722
114.00	-14.48	-29.96	0.00	-1330.5	0.00	1330.51	2679.45	677.65	1969.94	1901.93	61.87	-5.630	0.000	0.707
116.00	-14.16	-29.67	0.00	-1270.5	0.00	1270.58	2655.79	668.01	1914.32	1858.08	64.25	-5.754	0.000	0.691
118.00	-13.84	-29.37	0.00	-1211.2	0.00	1211.25	2631.73	658.38	1859.50	1814.42	66.68	-5.876	0.000	0.675
120.00	-13.53	-29.08	0.00	-1152.5	0.00	1152.51	2607.24	648.74	1805.47	1770.96	69.17	-5.999	0.000	0.658
122.00	-13.22	-28.79	0.00	-1094.3	0.00	1094.35	2582.34	639.11	1752.24	1727.73	71.70	-6.120	0.000	0.641
124.00	-12.91	-28.50	0.00	-1036.7	0.00	1036.78	2557.02	629.47	1699.80	1684.74	74.29	-6.241	0.000	0.622
126.00	-12.62	-28.21	0.00	-979.78	0.00	979.78	2531.28	619.84	1648.16	1641.98	76.92	-6.360	0.000	0.604
128.00	-12.32	-27.93	0.00	-923.35	0.00	923.35	2505.13	610.20	1597.32	1599.49	79.61	-6.478	0.000	0.584
130.00	-12.03	-27.65	0.00	-867.49	0.00	867.49	2478.56	600.57	1547.28	1557.27	82.34	-6.594	0.000	0.564
132.00	-11.76	-27.37	0.00	-812.20	0.00	812.20	2451.58	590.93	1498.03	1515.33	85.12	-6.709	0.000	0.543
133.33	-11.58	-27.18	0.00	-775.71	0.00	775.71	2433.35	584.51	1465.64	1487.53	87.00	-6.785	0.000	0.528
134.00	-11.42	-27.09	0.00	-757.59	0.00	757.59	2424.17	581.30	1449.58	1473.69	87.95	-6.822	0.000	0.521
136.00	-11.00	-26.79	0.00	-703.42	0.00	703.42	2396.35	571.66	1401.92	1432.35	90.83	-6.932	0.000	0.498
138.00	-10.59	-26.49	0.00	-649.85	0.00	649.85	2368.53	562.03	1354.29	1380.62	93.75	-7.039	0.000	0.471
140.00	-10.37	-26.23	0.00	-596.86	0.00	596.86	2341.71	552.40	1306.66	1328.95	96.71	-7.143	0.000	0.440
142.00	-10.15	-25.97	0.00	-544.40	0.00	544.40	2314.89	542.77	1259.09	1277.28	99.72	-7.247	0.000	0.402
144.00	-9.93	-25.71	0.00	-492.47	0.00	492.47	2288.07	533.14	1211.42	1225.61	102.79	-7.349	0.000	0.358
146.00	-9.72	-25.45	0.00	-441.05	0.00	441.05	2261.25	523.50	1163.75	1173.94	105.91	-7.451	0.000	0.309
148.00	-9.52	-25.20	0.00	-390.14	0.00	390.14	2234.43	513.86	1116.08	1126.27	109.07	-7.553	0.000	0.255
150.00	-7.71	-19.39	0.00	-339.74	0.00	339.74	2207.61	504.22	1068.41	1078.60	112.28	-7.655	0.000	0.191
152.00	-7.54	-19.14	0.00	-300.97	0.00	300.97	2180.79	494.58	1020.74	1030.93	115.52	-7.757	0.000	0.117
154.00	-7.39	-18.89	0.00	-262.69	0.00	262.69	2153.97	484.94	973.07	983.26	118.81	-7.859	0.000	0.043
156.00	-7.23	-18.65	0.00	-224.91	0.00	224.91	2127.15	475.30	925.40	935.59	122.13	-7.961	0.000	0.000
158.00	-5.77	-16.49	0.00	-187.62	0.00	187.62	2100.33	465.66	877.73	887.92	125.48	-8.063	0.000	0.277
160.00	-5.35	-13.61	0.00	-154.64	0.00	154.64	2073.51	456.02	830.06	840.25	128.86	-8.165	0.000	0.236
162.00	-5.24	-13.38	0.00	-127.42	0.00	127.42	2046.69	446.38	782.39	792.58	132.27	-8.181	0.000	0.202
164.00	-5.13	-13.15	0.00	-100.66	0.00	100.66	2019.87	436.74	734.72	744.91	135.70	-8.230	0.000	0.166
166.00	-2.57	-6.71	0.00	-74.36	0.00	74.36	1993.05	427.10	687.05	697.24	139.14	-8.269	0.000	0.126
168.00	-2.48	-6.48	0.00	-60.95	0.00	60.95	1966.23	417.46	639.38	649.57	142.60	-8.302	0.000	0.107
170.00	-2.40	-6.27	0.00	-47.98	0.00	47.98	1939.41	407.82	591.71	601.90	146.07	-8.330	0.000	0.088
172.00	-2.31	-6.05	0.00	-35.45	0.00	35.45	1912.59	398.18	544.04	554.22	149.55	-8.353	0.000	0.068
174.00	-2.23	-5.84	0.00	-23.34	0.00	23.34	1885.77	388.54	496.37	506.55	153.04	-8.370	0.000	0.048
176.00	-2.16	-5.63	0.00	-11.66	0.00	11.66	1858.95	378.90	448.70	458.88	156.54	-8.381	0.000	0.026
178.00	-0.07	-0.20	0.00	-0.39	0.00	0.39	1832.13	369.26	401.03	411.21	160.04	-8.385	0.000	0.001
180.00	0.00	-0.18	0.00	0.00	0.00	0.00	1805.31	359.62	353.36	363.54	163.54	-8.385	0.000	0.000

Wind Loading - Shaft

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

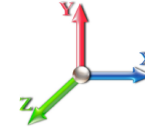


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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 28

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	5.124	5.64	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	5.124	5.64	0.00	1.200	0.756	2.00	10.907	13.09	73.8	121.9	827.3
4.00		1.00	0.85	5.124	5.64	0.00	1.200	0.810	2.00	10.839	13.01	73.3	129.7	829.4
6.00		1.00	0.85	5.124	5.64	0.00	1.200	0.843	2.00	10.765	12.92	72.8	134.1	828.1
8.00		1.00	0.85	5.124	5.64	0.00	1.200	0.868	2.00	10.688	12.83	72.3	136.9	825.2
10.00		1.00	0.85	5.124	5.64	0.00	1.200	0.887	2.00	10.609	12.73	71.8	138.9	821.5
12.00		1.00	0.85	5.124	5.64	0.00	1.200	0.904	2.00	10.528	12.63	71.2	140.4	817.2
14.00		1.00	0.85	5.124	5.64	0.00	1.200	0.918	2.00	10.448	12.54	70.7	141.4	812.6
16.00		1.00	0.86	5.187	5.71	0.00	1.200	0.930	2.00	10.366	12.44	71.0	142.1	807.6
18.00		1.00	0.88	5.318	5.85	0.00	1.200	0.941	2.00	10.284	12.34	72.2	142.6	802.4
20.00		1.00	0.90	5.437	5.98	0.00	1.200	0.951	2.00	10.202	12.24	73.2	142.9	797.0
22.00		1.00	0.92	5.547	6.10	0.00	1.200	0.960	2.00	10.119	12.14	74.1	143.1	791.4
24.00		1.00	0.94	5.650	6.21	0.00	1.200	0.969	2.00	10.037	12.04	74.8	143.1	785.8
26.00		1.00	0.95	5.746	6.32	0.00	1.200	0.976	2.00	9.954	11.94	75.5	143.0	780.0
28.00		1.00	0.97	5.836	6.42	0.00	1.200	0.984	2.00	9.870	11.84	76.0	142.8	774.1
30.00		1.00	0.98	5.921	6.51	0.00	1.200	0.991	2.00	9.787	11.74	76.5	142.6	768.1
32.00		1.00	1.00	6.002	6.60	0.00	1.200	0.997	2.00	9.704	11.64	76.9	142.2	762.0
34.00		1.00	1.01	6.079	6.69	0.00	1.200	1.003	2.00	9.620	11.54	77.2	141.8	755.9
36.00		1.00	1.02	6.153	6.77	0.00	1.200	1.009	2.00	9.536	11.44	77.5	141.4	749.8
38.00		1.00	1.03	6.224	6.85	0.00	1.200	1.014	2.00	9.453	11.34	77.7	140.8	743.5
40.00		1.00	1.04	6.291	6.92	0.00	1.200	1.019	2.00	9.369	11.24	77.8	140.3	737.2
42.00		1.00	1.05	6.356	6.99	0.00	1.200	1.024	2.00	9.285	11.14	77.9	139.6	730.9
43.92	Bot - Section 2	1.00	1.06	6.416	7.06	0.00	1.200	1.029	1.92	8.819	10.58	74.7	133.2	694.5
44.00		1.00	1.06	6.419	7.06	0.00	1.200	1.029	0.08	0.388	0.47	3.3	5.9	53.1
46.00		1.00	1.07	6.479	7.13	0.00	1.200	1.034	2.00	9.257	11.11	79.2	140.5	1267.8
48.00		1.00	1.08	6.537	7.19	0.00	1.200	1.038	2.00	9.173	11.01	79.2	139.7	1256.1
50.00		1.00	1.09	6.594	7.25	0.00	1.200	1.042	2.00	9.089	10.91	79.1	139.0	1244.3
51.00	Top - Section 1	1.00	1.10	6.621	7.28	0.00	1.200	1.044	1.00	4.513	5.42	39.4	69.3	617.8
52.00		1.00	1.10	6.648	7.31	0.00	1.200	1.047	1.00	4.492	5.39	39.4	69.1	334.2
54.00		1.00	1.11	6.701	7.37	0.00	1.200	1.050	2.00	8.920	10.70	78.9	137.4	663.6
56.00		1.00	1.12	6.753	7.43	0.00	1.200	1.054	2.00	8.836	10.60	78.8	136.5	657.5
58.00		1.00	1.13	6.803	7.48	0.00	1.200	1.058	2.00	8.752	10.50	78.6	135.7	651.3
60.00		1.00	1.14	6.852	7.54	0.00	1.200	1.062	2.00	8.667	10.40	78.4	134.8	645.1
62.00		1.00	1.14	6.899	7.59	0.00	1.200	1.065	2.00	8.583	10.30	78.2	133.8	638.9
64.00		1.00	1.15	6.945	7.64	0.00	1.200	1.068	2.00	8.498	10.20	77.9	132.9	632.7
66.00		1.00	1.16	6.991	7.69	0.00	1.200	1.072	2.00	8.414	10.10	77.6	131.9	626.4
68.00		1.00	1.17	7.035	7.74	0.00	1.200	1.075	2.00	8.329	10.00	77.3	131.0	620.1
70.00		1.00	1.17	7.078	7.79	0.00	1.200	1.078	2.00	8.245	9.89	77.0	130.0	613.8
72.00		1.00	1.18	7.120	7.83	0.00	1.200	1.081	2.00	8.160	9.79	76.7	128.9	607.5
74.00		1.00	1.19	7.161	7.88	0.00	1.200	1.084	2.00	8.076	9.69	76.3	127.9	601.2
76.00		1.00	1.19	7.201	7.92	0.00	1.200	1.087	2.00	7.991	9.59	76.0	126.9	594.9
78.00		1.00	1.20	7.241	7.96	0.00	1.200	1.090	2.00	7.906	9.49	75.6	125.8	588.5
80.00		1.00	1.21	7.279	8.01	0.00	1.200	1.093	2.00	7.822	9.39	75.2	124.7	582.1
82.00		1.00	1.21	7.317	8.05	0.00	1.200	1.095	2.00	7.737	9.28	74.7	123.6	575.7
84.00		1.00	1.22	7.355	8.09	0.00	1.200	1.098	2.00	7.652	9.18	74.3	122.5	569.3
86.00		1.00	1.23	7.391	8.13	0.00	1.200	1.101	2.00	7.568	9.08	73.8	121.4	562.9
88.00		1.00	1.23	7.427	8.17	0.00	1.200	1.103	2.00	7.483	8.98	73.4	120.3	556.5

Wind Loading - Shaft

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00	1.00	1.24	7.462	8.21	0.00	1.200	1.106	2.00	7.398	8.88	72.9	119.1	550.0
90.17 Bot - Section 3	1.00	1.24	7.465	8.21	0.00	1.200	1.106	0.17	0.613	0.74	6.0	9.9	45.6
92.00	1.00	1.24	7.497	8.25	0.00	1.200	1.108	1.83	6.809	8.17	67.4	110.0	836.0
94.00	1.00	1.25	7.531	8.28	0.00	1.200	1.110	2.00	7.347	8.82	73.0	118.8	901.5
96.00 Top - Section 2	1.00	1.25	7.564	8.32	0.00	1.200	1.113	2.00	7.262	8.71	72.5	117.6	890.5
98.00	1.00	1.26	7.597	8.36	0.00	1.200	1.115	2.00	7.178	8.61	72.0	116.4	469.9
100.00	1.00	1.27	7.630	8.39	0.00	1.200	1.117	2.00	7.093	8.51	71.4	115.2	464.2
102.00	1.00	1.27	7.661	8.43	0.00	1.200	1.119	2.00	7.008	8.41	70.9	114.0	458.5
104.00	1.00	1.28	7.693	8.46	0.00	1.200	1.122	2.00	6.923	8.31	70.3	112.8	452.8
106.00	1.00	1.28	7.724	8.50	0.00	1.200	1.124	2.00	6.838	8.21	69.7	111.6	447.1
108.00	1.00	1.29	7.754	8.53	0.00	1.200	1.126	2.00	6.753	8.10	69.1	110.4	441.4
110.00	1.00	1.29	7.784	8.56	0.00	1.200	1.128	2.00	6.668	8.00	68.5	109.1	435.7
112.00	1.00	1.30	7.814	8.60	0.00	1.200	1.130	2.00	6.583	7.90	67.9	107.9	429.9
114.00	1.00	1.30	7.843	8.63	0.00	1.200	1.132	2.00	6.499	7.80	67.3	106.6	424.2
116.00	1.00	1.31	7.872	8.66	0.00	1.200	1.134	2.00	6.414	7.70	66.6	105.3	418.4
118.00	1.00	1.31	7.900	8.69	0.00	1.200	1.136	2.00	6.329	7.59	66.0	104.1	412.7
120.00	1.00	1.32	7.928	8.72	0.00	1.200	1.138	2.00	6.244	7.49	65.3	102.8	406.9
122.00	1.00	1.32	7.956	8.75	0.00	1.200	1.140	2.00	6.159	7.39	64.7	101.5	401.1
124.00	1.00	1.32	7.983	8.78	0.00	1.200	1.142	2.00	6.074	7.29	64.0	100.2	395.3
126.00	1.00	1.33	8.010	8.81	0.00	1.200	1.143	2.00	5.989	7.19	63.3	98.9	389.6
128.00	1.00	1.33	8.037	8.84	0.00	1.200	1.145	2.00	5.904	7.08	62.6	97.6	383.8
130.00	1.00	1.34	8.063	8.87	0.00	1.200	1.147	2.00	5.819	6.98	61.9	96.3	378.0
132.00	1.00	1.34	8.089	8.90	0.00	1.200	1.149	2.00	5.734	6.88	61.2	94.9	372.2
133.33 Bot - Section 4	1.00	1.34	8.106	8.92	0.00	1.200	1.150	1.33	3.775	4.53	40.4	62.7	245.0
134.00	1.00	1.35	8.115	8.93	0.00	1.200	1.150	0.67	1.902	2.28	20.4	31.7	189.2
136.00	1.00	1.35	8.140	8.95	0.00	1.200	1.152	2.00	5.650	6.78	60.7	93.8	561.0
138.00 Top - Section 3	1.00	1.35	8.165	8.98	0.00	1.200	1.154	2.00	5.565	6.68	60.0	92.4	551.9
140.00	1.00	1.36	8.190	9.01	0.00	1.200	1.155	2.00	5.480	6.58	59.2	91.1	283.5
142.00	1.00	1.36	8.214	9.04	0.00	1.200	1.157	2.00	5.395	6.47	58.5	89.7	278.9
144.00	1.00	1.37	8.238	9.06	0.00	1.200	1.159	2.00	5.310	6.37	57.7	88.4	274.3
146.00	1.00	1.37	8.262	9.09	0.00	1.200	1.160	2.00	5.225	6.27	57.0	87.0	269.7
148.00	1.00	1.37	8.286	9.11	0.00	1.200	1.162	2.00	5.140	6.17	56.2	85.6	265.0
150.00 Appurtenance(s)	1.00	1.38	8.309	9.14	0.00	1.200	1.163	2.00	5.055	6.07	55.4	84.2	260.4
152.00	1.00	1.38	8.333	9.17	0.00	1.200	1.165	2.00	4.970	5.96	54.7	82.9	255.8
154.00	1.00	1.39	8.356	9.19	0.00	1.200	1.167	2.00	4.885	5.86	53.9	81.5	251.1
156.00	1.00	1.39	8.378	9.22	0.00	1.200	1.168	2.00	4.800	5.76	53.1	80.1	246.5
158.00 Appurtenance(s)	1.00	1.39	8.401	9.24	0.00	1.200	1.170	2.00	4.715	5.66	52.3	78.7	241.8
160.00 Appurtenance(s)	1.00	1.40	8.423	9.27	0.00	1.200	1.171	2.00	4.629	5.56	51.5	77.3	237.1
162.00	1.00	1.40	8.445	9.29	0.00	1.200	1.172	2.00	4.544	5.45	50.7	75.9	232.5
164.00	1.00	1.40	8.467	9.31	0.00	1.200	1.174	2.00	4.459	5.35	49.8	74.5	227.8
166.00 Appurtenance(s)	1.00	1.41	8.489	9.34	0.00	1.200	1.175	2.00	4.374	5.25	49.0	73.0	223.1
168.00	1.00	1.41	8.510	9.36	0.00	1.200	1.177	2.00	4.289	5.15	48.2	71.6	218.4
170.00	1.00	1.42	8.531	9.38	0.00	1.200	1.178	2.00	4.204	5.04	47.3	70.2	213.8
172.00	1.00	1.42	8.552	9.41	0.00	1.200	1.180	2.00	4.119	4.94	46.5	68.8	209.1
174.00	1.00	1.42	8.573	9.43	0.00	1.200	1.181	2.00	4.034	4.84	45.6	67.3	204.4
176.00	1.00	1.43	8.594	9.45	0.00	1.200	1.182	2.00	3.949	4.74	44.8	65.9	199.7
178.00 Appurtenance(s)	1.00	1.43	8.614	9.48	0.00	1.200	1.184	2.00	3.863	4.64	43.9	64.4	195.0
180.00	1.00	1.43	8.635	9.50	0.00	1.200	1.185	2.00	3.778	4.53	43.1	63.0	190.3
Totals:								180.00			6,091.7		50,333.6

Discrete Appurtenance Forces

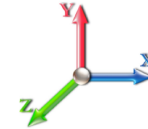
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 28

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	178.00	Samsung B5/B13 RRH	3	8.614	9.476	0.50	0.75	3.98	319.30	0.000	0.000	37.72	0.00	0.00	
2	178.00	Samsung B2/B66A RRH	3	8.614	9.476	0.50	0.75	3.73	596.43	0.000	0.000	35.36	0.00	0.00	
3	178.00	JMA MX06FRO660-03	6	8.614	9.476	0.61	0.75	39.62	1469.15	0.000	0.000	375.38	0.00	0.00	
4	178.00	Platform w/ Handrails w/	1	8.614	9.476	1.00	1.00	54.20	3808.70	0.000	0.000	513.61	0.00	0.00	
5	178.00	Raycap	1	8.614	9.476	1.00	1.00	3.05	70.34	0.000	0.000	28.86	0.00	0.00	
6	166.00	ALU 800 Mhz	6	8.489	9.338	0.38	0.75	7.34	553.85	0.000	0.000	68.50	0.00	0.00	
7	166.00	RFS APXVTM14-C-I20	3	8.489	9.338	0.58	0.75	12.26	505.30	0.000	0.000	114.44	0.00	0.00	
8	166.00	Commscope	3	8.489	9.338	0.55	0.75	22.06	658.17	0.000	0.000	206.01	0.00	0.00	
9	166.00	ALU 1900 Mhz	3	8.489	9.338	0.50	0.75	7.14	285.35	0.000	0.000	66.67	0.00	0.00	
10	166.00	Sitepro	1	8.489	9.338	1.00	1.00	11.42	391.26	0.000	0.000	106.68	0.00	0.00	
11	166.00	ALU TD-RRH8x20-25	3	8.489	9.338	0.50	0.75	6.91	460.26	0.000	0.000	64.51	0.00	0.00	
12	166.00	Sitepro	1	8.489	9.338	1.00	1.00	11.61	1219.51	0.000	0.000	108.38	0.00	0.00	
13	166.00	Platform w/ Hand Rails	1	8.489	9.338	1.00	1.00	54.10	3210.39	0.000	0.000	505.20	0.00	0.00	
14	160.00	RR90-17-00VDPL2/-R	3	8.423	9.265	0.54	0.80	8.16	228.28	0.000	0.000	75.58	0.00	0.00	
15	160.00	4449 B71+B12	3	8.423	9.265	0.54	0.80	3.21	378.05	0.000	0.000	29.76	0.00	0.00	
16	160.00	KRY 112 144/2	3	8.423	9.265	0.54	0.80	1.71	75.91	0.000	0.000	15.80	0.00	0.00	
17	160.00	APXVAARR24_43-U-NA2	3	8.423	9.265	0.56	0.80	36.12	1267.16	0.000	0.000	334.66	0.00	0.00	
18	160.00	KRY 112 489/2	3	8.423	9.265	0.54	0.80	1.71	75.91	0.000	0.000	15.80	0.00	0.00	
19	158.00	V-Brace	1	8.401	9.241	0.75	0.75	8.04	333.72	0.000	0.000	74.30	0.00	0.00	
20	158.00	T-Arm Kit	1	8.401	9.241	0.75	0.75	20.48	847.64	0.000	0.000	189.25	0.00	0.00	
21	158.00	T-Arms	3	8.401	9.241	0.56	0.75	21.39	1541.21	0.000	0.000	197.71	0.00	0.00	
22	150.00	Powerwave 7770	3	8.309	9.140	0.55	0.75	10.18	376.13	0.000	0.000	93.01	0.00	0.00	
23	150.00	Cci HPA-65R-BUU-H6	2	8.309	9.140	0.77	0.90	16.14	435.37	0.000	0.000	147.57	0.00	0.00	
24	150.00	SBNHH-1D65A	1	8.309	9.140	1.00	1.00	6.58	138.77	0.000	0.000	60.18	0.00	0.00	
25	150.00	4449 B5/B12	3	8.309	9.140	0.50	0.75	3.52	321.56	0.000	0.000	32.17	0.00	0.00	
26	150.00	DMP65R-BU6DA	2	8.309	9.140	0.54	0.75	14.78	448.69	0.000	0.000	135.10	0.00	0.00	
27	150.00	B2 B66A 8843	3	8.309	9.140	0.50	0.75	2.99	310.07	0.000	0.000	27.34	0.00	0.00	
28	150.00	DMP65R-BU4DA	1	8.309	9.140	0.54	0.75	7.39	224.34	0.000	0.000	67.55	0.00	0.00	
29	150.00	Powerwave LGP21401	6	8.309	9.140	0.50	0.75	5.27	158.93	0.000	0.000	48.14	0.00	0.00	
30	150.00	Raycap DC6-48-60-18-8F	1	8.309	9.140	0.67	1.00	1.60	61.68	0.000	0.000	14.60	0.00	0.00	
31	150.00	Platform w/ Hand Rail	1	8.309	9.140	1.00	1.00	55.36	2719.90	0.000	0.000	506.02	0.00	0.00	
Totals:									23,491.33						4,295.90

Total Applied Force Summary

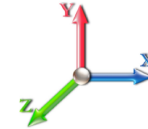
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 28

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		73.77	834.53	0.00	0.00
4.00		73.32	872.40	0.00	0.00
6.00		72.81	906.64	0.00	0.00
8.00		72.29	904.02	0.00	0.00
10.00		71.75	900.51	0.00	0.00
12.00		71.21	896.40	0.00	0.00
14.00		70.67	891.87	0.00	0.00
16.00		70.98	887.03	0.00	0.00
18.00		72.19	881.94	0.00	0.00
20.00		73.22	876.66	0.00	0.00
22.00		74.10	871.20	0.00	0.00
24.00		74.85	865.61	0.00	0.00
26.00		75.49	859.91	0.00	0.00
28.00		76.04	854.10	0.00	0.00
30.00		76.50	848.20	0.00	0.00
32.00		76.88	842.22	0.00	0.00
34.00		77.20	836.18	0.00	0.00
36.00		77.46	830.07	0.00	0.00
38.00		77.65	823.90	0.00	0.00
40.00		77.80	817.68	0.00	0.00
42.00		77.90	811.41	0.00	0.00
43.92		74.69	771.69	0.00	0.00
44.00		3.28	56.45	0.00	0.00
46.00		79.17	1348.39	0.00	0.00
48.00		79.15	1336.71	0.00	0.00
50.00		79.11	1325.00	0.00	0.00
51.00		39.44	658.19	0.00	0.00
52.00		39.42	374.59	0.00	0.00
54.00		78.91	744.43	0.00	0.00
56.00		78.76	738.33	0.00	0.00
58.00		78.59	732.21	0.00	0.00
60.00		78.39	726.06	0.00	0.00
62.00		78.16	719.88	0.00	0.00
64.00		77.91	713.68	0.00	0.00
66.00		77.64	707.46	0.00	0.00
68.00		77.34	701.23	0.00	0.00
70.00		77.03	694.97	0.00	0.00
72.00		76.69	688.69	0.00	0.00
74.00		76.34	682.39	0.00	0.00
76.00		75.96	676.08	0.00	0.00
78.00		75.57	669.75	0.00	0.00
80.00		75.16	663.41	0.00	0.00
82.00		74.73	657.05	0.00	0.00
84.00		74.29	650.68	0.00	0.00
86.00		73.83	644.29	0.00	0.00
88.00		73.36	637.89	0.00	0.00

Total Applied Force Summary

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00		72.87	631.48	0.00	0.00
90.17		6.04	52.38	0.00	0.00
92.00		67.38	910.73	0.00	0.00
94.00		73.04	983.01	0.00	0.00
96.00		72.51	972.08	0.00	0.00
98.00		71.98	551.45	0.00	0.00
100.00		71.43	545.80	0.00	0.00
102.00		70.87	540.14	0.00	0.00
104.00		70.30	534.47	0.00	0.00
106.00		69.72	528.79	0.00	0.00
108.00		69.12	523.09	0.00	0.00
110.00		68.52	517.40	0.00	0.00
112.00		67.90	511.69	0.00	0.00
114.00		67.28	505.97	0.00	0.00
116.00		66.64	500.24	0.00	0.00
118.00		66.00	494.51	0.00	0.00
120.00		65.34	488.77	0.00	0.00
122.00		64.68	483.02	0.00	0.00
124.00		64.00	477.26	0.00	0.00
126.00		63.32	471.49	0.00	0.00
128.00		62.63	465.72	0.00	0.00
130.00		61.93	459.94	0.00	0.00
132.00		61.22	454.16	0.00	0.00
133.33		40.40	299.70	0.00	0.00
134.00		20.37	216.51	0.00	0.00
136.00		60.71	643.06	0.00	0.00
138.00		59.98	633.99	0.00	0.00
140.00		59.24	365.63	0.00	0.00
142.00		58.50	361.04	0.00	0.00
144.00		57.74	356.44	0.00	0.00
146.00		56.99	351.83	0.00	0.00
148.00		56.22	347.22	0.00	0.00
150.00	(23) attachments	1187.14	5538.03	0.00	0.00
152.00		54.66	314.05	0.00	0.00
154.00		53.88	309.42	0.00	0.00
156.00		53.08	304.79	0.00	0.00
158.00	(5) attachments	513.54	3022.72	0.00	0.00
160.00	(15) attachments	523.08	2320.81	0.00	0.00
162.00		50.66	258.41	0.00	0.00
164.00		49.84	253.75	0.00	0.00
166.00	(21) attachments	1289.40	7533.21	0.00	0.00
168.00		48.18	235.27	0.00	0.00
170.00		47.34	230.60	0.00	0.00
172.00		46.50	225.93	0.00	0.00
174.00		45.65	221.25	0.00	0.00
176.00		44.79	216.57	0.00	0.00
178.00	(14) attachments	1034.87	6475.80	0.00	0.00
180.00		43.06	202.20	0.00	0.00
Totals:		10,387.56	80,273.81	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



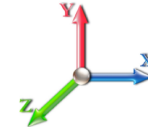
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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 28

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	2.51
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	4.69
4.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	2.75
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	4.95
6.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	2.91
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	5.12
8.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	3.03
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	5.25
10.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	3.12
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	5.35
12.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	3.20
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	5.44
14.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	3.27
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.124	0.00	5.51
16.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.187	0.00	3.34
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.187	0.00	5.58
18.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.318	0.00	3.39
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.318	0.00	5.64
20.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.437	0.00	3.44
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.437	0.00	5.70
22.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.547	0.00	3.49
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.547	0.00	5.75
24.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.650	0.00	3.54
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.650	0.00	5.80
26.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.746	0.00	3.58
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.746	0.00	5.84
28.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.836	0.00	3.62
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.836	0.00	5.88
30.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.921	0.00	3.65
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	5.921	0.00	5.92
32.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.002	0.00	3.69
32.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.002	0.00	5.96
34.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.079	0.00	3.72
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.079	0.00	5.99
36.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.153	0.00	3.75
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.153	0.00	6.03
38.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.224	0.00	3.78
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.224	0.00	6.06
40.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.291	0.00	3.81
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.291	0.00	6.09
42.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.356	0.00	3.84
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.356	0.00	6.12
43.92	Safety Cable	Yes	1.92	0.000	0.00	0.00	0.00	0.000	0.000	6.416	0.00	3.71
43.92	Step bolts (ladder)	Yes	1.92	0.000	0.00	0.00	0.00	0.000	0.000	6.416	0.00	5.89
44.00	Safety Cable	Yes	0.08	0.000	0.00	0.00	0.00	0.000	0.000	6.419	0.00	0.16
44.00	Step bolts (ladder)	Yes	0.08	0.000	0.00	0.00	0.00	0.000	0.000	6.419	0.00	0.26
46.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.479	0.00	3.89

Linear Appurtenance Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



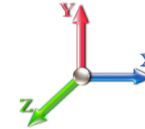
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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 28

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.479	0.00	6.18
48.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.537	0.00	3.92
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.537	0.00	6.20
50.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.594	0.00	3.94
50.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.594	0.00	6.23
51.00	Safety Cable	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	6.621	0.00	1.98
51.00	Step bolts (ladder)	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	6.621	0.00	3.12
52.00	Safety Cable	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	6.648	0.00	1.98
52.00	Step bolts (ladder)	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	6.648	0.00	3.13
54.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.701	0.00	3.99
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.701	0.00	6.28
56.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.753	0.00	4.01
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.753	0.00	6.30
58.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.803	0.00	4.03
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.803	0.00	6.33
60.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.852	0.00	4.05
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.852	0.00	6.35
62.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.899	0.00	4.07
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.899	0.00	6.37
64.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.945	0.00	4.09
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.945	0.00	6.39
66.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.991	0.00	4.11
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.991	0.00	6.41
68.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.035	0.00	4.13
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.035	0.00	6.43
70.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.078	0.00	4.15
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.078	0.00	6.45
72.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.120	0.00	4.17
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.120	0.00	6.47
74.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.161	0.00	4.18
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.161	0.00	6.49
76.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.201	0.00	4.20
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.201	0.00	6.51
78.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.241	0.00	4.22
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.241	0.00	6.52
80.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.279	0.00	4.23
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.279	0.00	6.54
82.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.317	0.00	4.25
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.317	0.00	6.56
84.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.355	0.00	4.26
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.355	0.00	6.57
86.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.391	0.00	4.28
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.391	0.00	6.59
88.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.427	0.00	4.30
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.427	0.00	6.61
90.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.462	0.00	4.31
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.462	0.00	6.62

Linear Appurtenance Segment Forces (Factored)

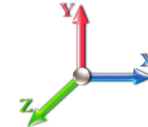
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
90.17	Safety Cable	Yes	0.17	0.000	0.00	0.00	0.00	0.000	0.000	7.465	0.00	0.36
90.17	Step bolts (ladder)	Yes	0.17	0.000	0.00	0.00	0.00	0.000	0.000	7.465	0.00	0.55
92.00	Safety Cable	Yes	1.83	0.000	0.00	0.00	0.00	0.000	0.000	7.497	0.00	3.96
92.00	Step bolts (ladder)	Yes	1.83	0.000	0.00	0.00	0.00	0.000	0.000	7.497	0.00	6.08
94.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.531	0.00	4.34
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.531	0.00	6.65
96.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.564	0.00	4.35
96.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.564	0.00	6.67
98.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.597	0.00	4.37
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.597	0.00	6.68
100.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.630	0.00	4.38
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.630	0.00	6.70
102.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.661	0.00	4.39
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.661	0.00	6.71
104.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.693	0.00	4.41
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.693	0.00	6.73
106.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.724	0.00	4.42
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.724	0.00	6.74
108.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.754	0.00	4.43
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.754	0.00	6.75
110.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.784	0.00	4.45
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.784	0.00	6.77
112.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.814	0.00	4.46
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.814	0.00	6.78
114.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.843	0.00	4.47
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.843	0.00	6.79
116.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.872	0.00	4.48
116.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.872	0.00	6.81
118.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.900	0.00	4.49
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.900	0.00	6.82
120.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.928	0.00	4.51
120.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.928	0.00	6.83
122.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.956	0.00	4.52
122.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.956	0.00	6.84
124.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.983	0.00	4.53
124.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.983	0.00	6.86
126.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.010	0.00	4.54
126.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.010	0.00	6.87
128.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.037	0.00	4.55
128.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.037	0.00	6.88
130.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.063	0.00	4.56
130.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.063	0.00	6.89
132.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.089	0.00	4.57
132.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.089	0.00	6.90
133.33	Safety Cable	Yes	1.33	0.000	0.00	0.00	0.00	0.000	0.000	8.106	0.00	3.05
133.33	Step bolts (ladder)	Yes	1.33	0.000	0.00	0.00	0.00	0.000	0.000	8.106	0.00	4.61
134.00	Safety Cable	Yes	0.67	0.000	0.00	0.00	0.00	0.000	0.000	8.115	0.00	1.53

Linear Appurtenance Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



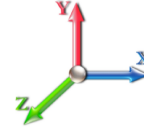
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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 28

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
134.00	Step bolts (ladder)	Yes	0.67	0.000	0.00	0.00	0.00	0.000	0.000	8.115	0.00	2.30
136.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.140	0.00	4.59
136.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.140	0.00	6.92
138.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.165	0.00	4.60
138.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.165	0.00	6.94
140.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.190	0.00	4.62
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.190	0.00	6.95
142.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.214	0.00	4.63
142.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.214	0.00	6.96
144.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.238	0.00	4.64
144.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.238	0.00	6.97
146.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.262	0.00	4.65
146.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.262	0.00	6.98
148.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.286	0.00	4.66
148.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.286	0.00	6.99
150.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.309	0.00	4.67
150.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.309	0.00	7.00
152.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.333	0.00	4.67
152.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.333	0.00	7.01
154.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.356	0.00	4.68
154.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.356	0.00	7.02
156.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.378	0.00	4.69
156.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.378	0.00	7.03
158.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.401	0.00	4.70
158.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.401	0.00	7.04
160.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.423	0.00	4.71
160.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.423	0.00	7.05
162.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.445	0.00	4.72
162.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.445	0.00	7.06
164.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.467	0.00	4.73
164.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.467	0.00	7.07
166.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.489	0.00	4.74
166.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.489	0.00	7.08
168.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.510	0.00	4.75
168.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.510	0.00	7.09
170.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.531	0.00	4.76
170.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.531	0.00	7.10
172.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.552	0.00	4.77
172.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.552	0.00	7.11
174.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.573	0.00	4.77
174.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.573	0.00	7.12
176.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.594	0.00	4.78
176.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.594	0.00	7.13
178.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.614	0.00	4.79
178.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.614	0.00	7.13
180.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.635	0.00	4.80
180.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.635	0.00	7.14

Linear Appurtenance Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 28

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
Totals:											0.0	959.8

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Iterations 28

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	-80.27	-10.40	0.00	-1312.2	0.00	1312.28	5123.29	1522.04	7808.40	6435.29	0.00	0.000	0.000	0.220
2.00	-79.43	-10.35	0.00	-1291.4	0.00	1291.48	5107.67	1509.78	7683.09	6363.61	0.00	-0.018	0.000	0.219
4.00	-78.56	-10.30	0.00	-1270.7	0.00	1270.78	5091.62	1497.52	7558.79	6291.73	0.02	-0.035	0.000	0.217
6.00	-77.65	-10.25	0.00	-1250.1	0.00	1250.18	5075.16	1485.26	7435.50	6219.67	0.03	-0.053	0.000	0.216
8.00	-76.74	-10.20	0.00	-1229.6	0.00	1229.67	5058.29	1472.99	7313.22	6147.44	0.06	-0.072	0.000	0.215
10.00	-75.84	-10.15	0.00	-1209.2	0.00	1209.27	5041.00	1460.73	7191.96	6075.05	0.09	-0.090	0.000	0.214
12.00	-74.94	-10.11	0.00	-1188.9	0.00	1188.96	5023.29	1448.47	7071.72	6002.51	0.14	-0.108	0.000	0.213
14.00	-74.04	-10.06	0.00	-1168.7	0.00	1168.75	5005.16	1436.20	6952.48	5929.84	0.19	-0.127	0.000	0.212
16.00	-73.15	-10.01	0.00	-1148.6	0.00	1148.64	4986.62	1423.94	6834.27	5857.05	0.24	-0.145	0.000	0.211
18.00	-72.27	-9.96	0.00	-1128.6	0.00	1128.62	4967.66	1411.68	6717.06	5784.16	0.31	-0.164	0.000	0.210
20.00	-71.39	-9.91	0.00	-1108.7	0.00	1108.71	4948.29	1399.42	6600.87	5711.17	0.38	-0.183	0.000	0.209
22.00	-70.51	-9.85	0.00	-1088.9	0.00	1088.90	4928.49	1387.15	6485.69	5638.10	0.46	-0.202	0.000	0.207
24.00	-69.65	-9.80	0.00	-1069.1	0.00	1069.19	4908.28	1374.89	6371.53	5564.95	0.55	-0.222	0.000	0.206
26.00	-68.78	-9.74	0.00	-1049.6	0.00	1049.60	4887.66	1362.63	6258.37	5491.76	0.65	-0.241	0.000	0.205
28.00	-67.93	-9.69	0.00	-1030.1	0.00	1030.11	4866.62	1350.36	6146.24	5418.52	0.75	-0.261	0.000	0.204
30.00	-67.07	-9.63	0.00	-1010.7	0.00	1010.74	4845.16	1338.10	6035.11	5345.24	0.87	-0.281	0.000	0.203
32.00	-66.23	-9.57	0.00	-991.49	0.00	991.49	4823.28	1325.84	5925.00	5271.95	0.99	-0.301	0.000	0.202
34.00	-65.39	-9.51	0.00	-972.35	0.00	972.35	4800.99	1313.58	5815.91	5198.66	1.12	-0.321	0.000	0.201
36.00	-64.56	-9.45	0.00	-953.32	0.00	953.32	4778.28	1301.31	5707.83	5125.37	1.26	-0.341	0.000	0.200
38.00	-63.73	-9.39	0.00	-934.42	0.00	934.42	4755.15	1289.05	5600.76	5052.10	1.41	-0.362	0.000	0.198
40.00	-62.91	-9.33	0.00	-915.63	0.00	915.63	4731.61	1276.79	5494.70	4978.87	1.56	-0.382	0.000	0.197
42.00	-62.10	-9.27	0.00	-896.97	0.00	896.97	4707.65	1264.52	5389.66	4905.68	1.73	-0.403	0.000	0.196
43.92	-61.32	-9.20	0.00	-879.20	0.00	879.20	4684.30	1252.77	5289.95	4835.60	1.89	-0.423	0.000	0.195
44.00	-61.26	-9.21	0.00	-878.43	0.00	878.43	4683.27	1252.26	5285.64	4832.55	1.90	-0.424	0.000	0.195
46.00	-59.91	-9.14	0.00	-860.02	0.00	860.02	4658.48	1240.00	5182.62	4759.49	2.08	-0.445	0.000	0.194
48.00	-58.57	-9.08	0.00	-841.73	0.00	841.73	4633.27	1227.74	5080.62	4686.52	2.27	-0.467	0.000	0.192
50.00	-57.25	-9.00	0.00	-823.58	0.00	823.58	4607.64	1215.47	4979.64	4613.64	2.47	-0.488	0.000	0.191
51.00	-56.59	-8.97	0.00	-814.58	0.00	814.58	4157.28	1142.33	4736.69	4216.21	2.58	-0.499	0.000	0.207
52.00	-56.21	-8.94	0.00	-805.61	0.00	805.61	4146.96	1136.64	4689.60	4184.61	2.68	-0.510	0.000	0.206
54.00	-55.46	-8.88	0.00	-787.73	0.00	787.73	4126.01	1125.25	4596.10	4121.41	2.90	-0.532	0.000	0.205
56.00	-54.72	-8.81	0.00	-769.98	0.00	769.98	4104.64	1113.86	4503.55	4058.23	3.13	-0.555	0.000	0.203
58.00	-53.99	-8.75	0.00	-752.36	0.00	752.36	4082.85	1102.48	4411.95	3995.08	3.37	-0.578	0.000	0.202
60.00	-53.26	-8.68	0.00	-734.86	0.00	734.86	4060.64	1091.09	4321.28	3931.97	3.61	-0.601	0.000	0.200
62.00	-52.54	-8.62	0.00	-717.49	0.00	717.49	4038.02	1079.70	4231.55	3868.91	3.87	-0.624	0.000	0.199
64.00	-51.82	-8.55	0.00	-700.26	0.00	700.26	4014.98	1068.31	4142.77	3805.92	4.14	-0.647	0.000	0.197
66.00	-51.11	-8.49	0.00	-683.15	0.00	683.15	3991.52	1056.93	4054.92	3743.01	4.41	-0.670	0.000	0.195
68.00	-50.41	-8.42	0.00	-666.17	0.00	666.17	3967.65	1045.54	3968.02	3680.19	4.70	-0.694	0.000	0.194
70.00	-49.71	-8.36	0.00	-649.32	0.00	649.32	3943.36	1034.15	3882.06	3617.47	5.00	-0.718	0.000	0.192
72.00	-49.02	-8.29	0.00	-632.60	0.00	632.60	3918.66	1022.77	3797.04	3554.87	5.30	-0.741	0.000	0.191
74.00	-48.33	-8.23	0.00	-616.01	0.00	616.01	3893.54	1011.38	3712.96	3492.40	5.62	-0.765	0.000	0.189
76.00	-47.66	-8.16	0.00	-599.56	0.00	599.56	3868.00	999.99	3629.83	3430.07	5.94	-0.790	0.000	0.187
78.00	-46.98	-8.10	0.00	-583.23	0.00	583.23	3842.04	988.61	3547.63	3367.90	6.28	-0.814	0.000	0.185
80.00	-46.32	-8.04	0.00	-567.03	0.00	567.03	3815.67	977.22	3466.38	3305.90	6.63	-0.839	0.000	0.184
82.00	-45.66	-7.97	0.00	-550.96	0.00	550.96	3788.88	965.83	3386.07	3244.07	6.98	-0.863	0.000	0.182
84.00	-45.01	-7.91	0.00	-535.02	0.00	535.02	3761.67	954.44	3306.69	3182.44	7.35	-0.888	0.000	0.180
86.00	-44.36	-7.84	0.00	-519.21	0.00	519.21	3734.05	943.06	3228.26	3121.02	7.73	-0.913	0.000	0.178
88.00	-43.72	-7.78	0.00	-503.52	0.00	503.52	3706.01	931.67	3150.77	3059.82	8.11	-0.938	0.000	0.176
90.00	-43.09	-7.70	0.00	-487.97	0.00	487.97	3677.55	920.28	3074.23	2998.84	8.51	-0.964	0.000	0.175

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.17	-43.03	-7.71	0.00	-486.69	0.00	486.69	3675.16	919.33	3067.89	2993.77	8.55	-0.966	0.000	0.174
92.00	-42.12	-7.64	0.00	-472.56	0.00	472.56	3648.68	908.90	2998.62	2938.12	8.92	-0.989	0.000	0.172
94.00	-41.14	-7.57	0.00	-457.28	0.00	457.28	3619.39	897.51	2923.96	2877.64	9.34	-1.015	0.000	0.170
96.00	-40.16	-7.50	0.00	-442.14	0.00	442.14	2873.56	764.37	2506.37	2303.28	9.77	-1.040	0.000	0.206
98.00	-39.61	-7.43	0.00	-427.14	0.00	427.14	2853.66	754.73	2443.58	2258.25	10.21	-1.066	0.000	0.203
100.00	-39.06	-7.37	0.00	-412.27	0.00	412.27	2833.34	745.10	2381.59	2213.29	10.67	-1.095	0.000	0.200
102.00	-38.52	-7.31	0.00	-397.53	0.00	397.53	2812.61	735.46	2320.39	2168.43	11.13	-1.124	0.000	0.197
104.00	-37.98	-7.25	0.00	-382.91	0.00	382.91	2791.46	725.83	2259.99	2123.68	11.61	-1.153	0.000	0.194
106.00	-37.45	-7.19	0.00	-368.41	0.00	368.41	2769.89	716.19	2200.39	2079.04	12.10	-1.182	0.000	0.191
108.00	-36.92	-7.13	0.00	-354.04	0.00	354.04	2747.90	706.55	2141.58	2034.53	12.60	-1.211	0.000	0.188
110.00	-36.40	-7.07	0.00	-339.78	0.00	339.78	2725.50	696.92	2083.57	1990.17	13.11	-1.240	0.000	0.184
112.00	-35.89	-7.00	0.00	-325.66	0.00	325.66	2702.68	687.28	2026.36	1945.97	13.64	-1.269	0.000	0.181
114.00	-35.38	-6.94	0.00	-311.65	0.00	311.65	2679.45	677.65	1969.94	1901.93	14.18	-1.298	0.000	0.177
116.00	-34.88	-6.88	0.00	-297.76	0.00	297.76	2655.79	668.01	1914.32	1858.08	14.73	-1.327	0.000	0.173
118.00	-34.39	-6.82	0.00	-284.00	0.00	284.00	2631.73	658.38	1859.50	1814.42	15.29	-1.355	0.000	0.170
120.00	-33.89	-6.76	0.00	-270.35	0.00	270.35	2607.24	648.74	1805.47	1770.96	15.86	-1.384	0.000	0.166
122.00	-33.41	-6.70	0.00	-256.83	0.00	256.83	2582.34	639.11	1752.24	1727.73	16.45	-1.413	0.000	0.162
124.00	-32.93	-6.64	0.00	-243.42	0.00	243.42	2557.02	629.47	1699.80	1684.74	17.05	-1.441	0.000	0.157
126.00	-32.46	-6.58	0.00	-230.14	0.00	230.14	2531.28	619.84	1648.16	1641.98	17.66	-1.469	0.000	0.153
128.00	-31.99	-6.52	0.00	-216.97	0.00	216.97	2505.13	610.20	1597.32	1599.49	18.28	-1.497	0.000	0.149
130.00	-31.53	-6.47	0.00	-203.92	0.00	203.92	2478.56	600.57	1547.28	1557.27	18.91	-1.524	0.000	0.144
132.00	-31.08	-6.40	0.00	-190.99	0.00	190.99	2451.58	590.93	1498.03	1515.33	19.56	-1.551	0.000	0.139
133.33	-30.78	-6.36	0.00	-182.45	0.00	182.45	2433.35	584.51	1465.64	1487.53	19.99	-1.569	0.000	0.135
134.00	-30.56	-6.35	0.00	-178.21	0.00	178.21	2424.17	581.30	1449.58	1473.69	20.21	-1.578	0.000	0.134
136.00	-29.91	-6.28	0.00	-165.52	0.00	165.52	2396.35	571.66	1401.92	1432.35	20.88	-1.603	0.000	0.128
138.00	-29.28	-6.22	0.00	-152.96	0.00	152.96	2368.56	562.02	1354.28	1381.01	21.55	-1.629	0.000	0.124
140.00	-28.91	-6.16	0.00	-140.53	0.00	140.53	2340.81	552.38	1306.69	1329.10	22.24	-1.653	0.000	0.119
142.00	-28.55	-6.11	0.00	-128.21	0.00	128.21	2313.10	542.74	1258.16	1277.19	22.94	-1.683	0.000	0.114
144.00	-28.19	-6.05	0.00	-116.00	0.00	116.00	2285.43	533.10	1209.69	1225.28	23.65	-1.713	0.000	0.109
146.00	-27.84	-6.00	0.00	-103.90	0.00	103.90	2257.81	523.46	1161.28	1173.37	24.38	-1.740	0.000	0.104
148.00	-27.49	-5.94	0.00	-91.91	0.00	91.91	2230.24	513.82	1112.89	1121.46	25.11	-1.766	0.000	0.099
150.00	-27.14	-5.89	0.00	-80.02	0.00	80.02	2202.71	504.18	1064.54	1070.00	25.86	-1.790	0.000	0.094
152.00	-26.79	-5.84	0.00	-68.24	0.00	68.24	2175.22	494.54	1016.24	1018.54	26.61	-1.813	0.000	0.089
154.00	-26.44	-5.79	0.00	-56.56	0.00	56.56	2147.77	484.90	967.98	967.08	27.38	-1.833	0.000	0.084
156.00	-26.09	-5.74	0.00	-45.00	0.00	45.00	2120.36	475.26	919.81	915.62	28.15	-1.852	0.000	0.079
158.00	-25.74	-5.69	0.00	-33.56	0.00	33.56	2092.99	465.62	871.74	864.16	28.93	-1.869	0.000	0.074
160.00	-25.39	-5.64	0.00	-22.24	0.00	22.24	2065.66	455.98	823.76	812.70	29.71	-1.884	0.000	0.069
162.00	-25.04	-5.59	0.00	-11.04	0.00	11.04	2038.37	446.34	775.87	761.24	30.51	-1.897	0.000	0.064
164.00	-24.69	-5.54	0.00	0.00	0.00	0.00	2011.12	436.70	728.07	708.78	31.30	-1.909	0.000	0.059
166.00	-24.34	-5.49	0.00	0.00	0.00	0.00	1983.91	427.06	680.37	656.32	32.10	-1.918	0.000	0.054
168.00	-23.99	-5.44	0.00	0.00	0.00	0.00	1956.74	417.42	632.76	603.86	32.91	-1.926	0.000	0.049
170.00	-23.64	-5.39	0.00	0.00	0.00	0.00	1929.61	407.78	585.24	551.40	33.72	-1.932	0.000	0.044
172.00	-23.29	-5.34	0.00	0.00	0.00	0.00	1902.52	398.14	537.81	498.94	34.53	-1.937	0.000	0.039
174.00	-22.94	-5.29	0.00	0.00	0.00	0.00	1875.47	388.50	490.38	446.48	35.34	-1.941	0.000	0.034
176.00	-22.59	-5.24	0.00	0.00	0.00	0.00	1848.46	378.86	442.94	394.02	36.15	-1.944	0.000	0.029
178.00	-22.24	-5.19	0.00	0.00	0.00	0.00	1821.49	369.22	395.40	341.56	36.97	-1.945	0.000	0.024
180.00	-21.89	-5.14	0.00	0.00	0.00	0.00	1794.56	359.58	346.86	289.10	37.78	-1.945	0.000	0.019

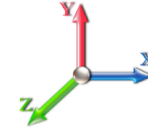
Seismic Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0Ev + 1.0Eh				Iterations 25
Gust Response Factor	1.10	Sds	0.22	Ss 0.21
Dead Load Factor	1.20	Seismic Load Factor	1.00	S1 0.05
Wind Load Factor	0.00	Structure Frequency (f1)	0.30	SA 0.03
				Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	
2.00		590.99	1.00	26.48	0.00	
4.00		621.50	3.00	27.84	0.00	
6.00		652.01	5.00	29.21	0.01	
8.00		647.25	7.00	29.00	0.01	
10.00		642.50	9.00	28.78	0.02	
12.00		637.74	11.00	28.57	0.04	
14.00		632.99	13.00	28.36	0.05	
16.00		628.23	15.00	28.14	0.06	
18.00		623.48	17.00	27.93	0.08	
20.00		618.72	19.00	27.72	0.10	
22.00		613.97	21.00	27.51	0.12	
24.00		609.21	23.00	27.29	0.14	
26.00		604.46	25.00	27.08	0.16	
28.00		599.70	27.00	26.87	0.19	
30.00		594.95	29.00	26.65	0.21	
32.00		590.19	31.00	26.44	0.24	
34.00		585.43	33.00	26.23	0.27	
36.00		580.68	35.00	26.01	0.30	
38.00		575.92	37.00	25.80	0.32	
40.00		571.17	39.00	25.59	0.35	
42.00		566.41	41.00	25.38	0.39	
43.92	Bot - Section 2	538.35	42.96	24.12	0.38	
44.00		42.41	43.96	1.90	0.00	
46.00		1013.1	45.00	45.39	1.48	
48.00		1003.9	47.00	44.98	1.59	
50.00		994.78	49.00	44.57	1.70	
51.00	Top - Section 1	493.95	50.50	22.13	0.44	
52.00		257.77	51.50	11.55	0.13	
54.00		512.24	53.00	22.95	0.53	
56.00		507.82	55.00	22.75	0.56	
58.00		503.40	57.00	22.55	0.59	
60.00		498.99	59.00	22.35	0.62	
62.00		494.57	61.00	22.16	0.65	
64.00		490.16	63.00	21.96	0.68	
66.00		485.74	65.00	21.76	0.71	
68.00		481.33	67.00	21.56	0.74	
70.00		476.91	69.00	21.37	0.77	
72.00		472.49	71.00	21.17	0.80	
74.00		468.08	73.00	20.97	0.83	
76.00		463.66	75.00	20.77	0.86	
78.00		459.25	77.00	20.57	0.89	
80.00		454.83	79.00	20.38	0.92	
82.00		450.42	81.00	20.18	0.95	
84.00		446.00	83.00	19.98	0.98	
86.00		441.59	85.00	19.78	1.01	

Seismic Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00		437.17	87.00	19.59	1.03
90.00		432.75	89.00	19.39	1.06
90.17	Bot - Section 3	35.86	90.08	1.61	0.01
92.00		672.60	91.08	30.13	2.68
94.00		725.93	93.00	32.52	3.26
96.00	Top - Section 2	717.78	95.00	32.16	3.32
98.00		368.22	97.00	16.50	0.91
100.00		364.48	99.00	16.33	0.93
102.00		360.74	101.00	16.16	0.95
104.00		357.01	103.00	15.99	0.97
106.00		353.27	105.00	15.83	0.98
108.00		349.53	107.00	15.66	1.00
110.00		345.80	109.00	15.49	1.01
112.00		342.06	111.00	15.32	1.03
114.00		338.33	113.00	15.16	1.04
116.00		334.59	115.00	14.99	1.06
118.00		330.85	117.00	14.82	1.07
120.00		327.12	119.00	14.65	1.08
122.00		323.38	121.00	14.49	1.09
124.00		319.64	123.00	14.32	1.10
126.00		315.91	125.00	14.15	1.11
128.00		312.17	127.00	13.99	1.12
130.00		308.43	129.00	13.82	1.13
132.00		304.70	131.00	13.65	1.14
133.33	Bot - Section 4	201.06	132.67	9.01	0.51
134.00		155.79	133.67	6.98	0.31
136.00		463.06	135.00	20.75	2.79
138.00	Top - Section 3	456.61	137.00	20.46	2.80
140.00		234.08	139.00	10.49	0.76
142.00		231.36	141.00	10.36	0.76
144.00		228.64	143.00	10.24	0.76
146.00		225.92	145.00	10.12	0.77
148.00		223.21	147.00	10.00	0.77
150.00	Appurtenance(s)	2838.5	149.00	127.17	127.79
152.00		193.84	151.00	8.68	0.61
154.00		191.13	153.00	8.56	0.61
156.00		188.41	155.00	8.44	0.61
158.00	Appurtenance(s)	1932.6	157.00	86.58	65.77
160.00	Appurtenance(s)	909.88	159.00	40.76	14.95
162.00		147.81	161.00	6.62	0.40
164.00		145.09	163.00	6.50	0.40
166.00	Appurtenance(s)	3839.7	165.00	172.02	286.75
168.00		130.50	167.00	5.85	0.34
170.00		127.78	169.00	5.72	0.33
172.00		125.06	171.00	5.60	0.33
174.00		122.35	173.00	5.48	0.32
176.00		119.63	175.00	5.36	0.31
178.00	Appurtenance(s)	3175.2	177.00	142.25	225.64
180.00		109.20	179.00	4.89	0.27
Totals:		51,034.3	2,286.3	787.7	
					Total Wind: 47,938.6

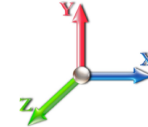
Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0Ev + 1.0Eh										Iterations 25
Gust Response Factor 1.10					Sds 0.22					Ss 0.21
Dead Load Factor 1.20			Seismic Load Factor 1.00			Sd1 0.09				S1 0.05
Wind Load Factor 0.00		Structure Frequency (f1) 0.30		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	-62.37	-0.79	0.00	-134.16	0.00	134.16	5123.29	1522.04	7808.40	6435.29	0.00	0.00	0.00	0.033
2.00	-61.64	-0.79	0.00	-132.59	0.00	132.59	5107.67	1509.78	7683.09	6363.61	0.00	0.00	0.00	0.033
4.00	-60.87	-0.79	0.00	-131.01	0.00	131.01	5091.62	1497.52	7558.79	6291.73	0.00	0.00	0.00	0.033
6.00	-60.08	-0.79	0.00	-129.43	0.00	129.43	5075.16	1485.26	7435.50	6219.67	0.00	-0.01	0.00	0.033
8.00	-59.28	-0.79	0.00	-127.84	0.00	127.84	5058.29	1472.99	7313.22	6147.44	0.01	-0.01	0.00	0.033
10.00	-58.50	-0.80	0.00	-126.25	0.00	126.25	5041.00	1460.73	7191.96	6075.05	0.01	-0.01	0.00	0.032
12.00	-57.72	-0.80	0.00	-124.66	0.00	124.66	5023.29	1448.47	7071.72	6002.51	0.01	-0.01	0.00	0.032
14.00	-56.95	-0.80	0.00	-123.06	0.00	123.06	5005.16	1436.20	6952.48	5929.84	0.02	-0.01	0.00	0.032
16.00	-56.18	-0.80	0.00	-121.46	0.00	121.46	4986.62	1423.94	6834.27	5857.05	0.03	-0.02	0.00	0.032
18.00	-55.42	-0.80	0.00	-119.86	0.00	119.86	4967.66	1411.68	6717.06	5784.16	0.03	-0.02	0.00	0.032
20.00	-54.66	-0.80	0.00	-118.26	0.00	118.26	4948.29	1399.42	6600.87	5711.17	0.04	-0.02	0.00	0.032
22.00	-53.91	-0.81	0.00	-116.65	0.00	116.65	4928.49	1387.15	6485.69	5638.10	0.05	-0.02	0.00	0.032
24.00	-53.17	-0.81	0.00	-115.03	0.00	115.03	4908.28	1374.89	6371.53	5564.95	0.06	-0.02	0.00	0.032
26.00	-52.43	-0.81	0.00	-113.42	0.00	113.42	4887.66	1362.63	6258.37	5491.76	0.07	-0.03	0.00	0.031
28.00	-51.70	-0.81	0.00	-111.80	0.00	111.80	4866.62	1350.36	6146.24	5418.52	0.08	-0.03	0.00	0.031
30.00	-50.97	-0.81	0.00	-110.18	0.00	110.18	4845.16	1338.10	6035.11	5345.24	0.09	-0.03	0.00	0.031
32.00	-50.25	-0.81	0.00	-108.55	0.00	108.55	4823.28	1325.84	5925.00	5271.95	0.10	-0.03	0.00	0.031
34.00	-49.54	-0.81	0.00	-106.93	0.00	106.93	4800.99	1313.58	5815.91	5198.66	0.12	-0.03	0.00	0.031
36.00	-48.83	-0.82	0.00	-105.30	0.00	105.30	4778.28	1301.31	5707.83	5125.37	0.13	-0.04	0.00	0.031
38.00	-48.13	-0.82	0.00	-103.67	0.00	103.67	4755.15	1289.05	5600.76	5052.10	0.15	-0.04	0.00	0.031
40.00	-47.43	-0.82	0.00	-102.03	0.00	102.03	4731.61	1276.79	5494.70	4978.87	0.16	-0.04	0.00	0.031
42.00	-46.74	-0.82	0.00	-100.40	0.00	100.40	4707.65	1264.52	5389.66	4905.68	0.18	-0.04	0.00	0.030
43.92	-46.09	-0.82	0.00	-98.83	0.00	98.83	4684.30	1252.77	5289.95	4835.60	0.20	-0.05	0.00	0.030
44.00	-46.03	-0.82	0.00	-98.76	0.00	98.76	4683.27	1252.26	5285.64	4832.55	0.20	-0.05	0.00	0.030
46.00	-44.79	-0.82	0.00	-97.12	0.00	97.12	4658.48	1240.00	5182.62	4759.49	0.22	-0.05	0.00	0.030
48.00	-43.55	-0.82	0.00	-95.48	0.00	95.48	4633.27	1227.74	5080.62	4686.52	0.24	-0.05	0.00	0.030
50.00	-42.33	-0.82	0.00	-93.84	0.00	93.84	4607.64	1215.47	4979.64	4613.64	0.26	-0.05	0.00	0.030
51.00	-41.72	-0.82	0.00	-93.03	0.00	93.03	4157.28	1142.33	4736.69	4216.21	0.27	-0.05	0.00	0.032
52.00	-41.41	-0.82	0.00	-92.21	0.00	92.21	4146.96	1136.64	4689.60	4184.61	0.28	-0.06	0.00	0.032
54.00	-40.79	-0.82	0.00	-90.57	0.00	90.57	4126.01	1125.25	4596.10	4121.41	0.31	-0.06	0.00	0.032
56.00	-40.17	-0.82	0.00	-88.94	0.00	88.94	4104.64	1113.86	4503.55	4058.23	0.33	-0.06	0.00	0.032
58.00	-39.56	-0.82	0.00	-87.30	0.00	87.30	4082.85	1102.48	4411.95	3995.08	0.36	-0.06	0.00	0.032
60.00	-38.95	-0.82	0.00	-85.66	0.00	85.66	4060.64	1091.09	4321.28	3931.97	0.39	-0.07	0.00	0.031
62.00	-38.35	-0.82	0.00	-84.02	0.00	84.02	4038.02	1079.70	4231.55	3868.91	0.41	-0.07	0.00	0.031
64.00	-37.75	-0.82	0.00	-82.38	0.00	82.38	4014.98	1068.31	4142.77	3805.92	0.44	-0.07	0.00	0.031
66.00	-37.16	-0.82	0.00	-80.73	0.00	80.73	3991.52	1056.93	4054.92	3743.01	0.47	-0.07	0.00	0.031
68.00	-36.58	-0.82	0.00	-79.09	0.00	79.09	3967.65	1045.54	3968.02	3680.19	0.51	-0.08	0.00	0.031
70.00	-36.00	-0.82	0.00	-77.45	0.00	77.45	3943.36	1034.15	3882.06	3617.47	0.54	-0.08	0.00	0.031
72.00	-35.43	-0.82	0.00	-75.80	0.00	75.80	3918.66	1022.77	3797.04	3554.87	0.57	-0.08	0.00	0.030
74.00	-34.86	-0.82	0.00	-74.16	0.00	74.16	3893.54	1011.38	3712.96	3492.40	0.61	-0.09	0.00	0.030
76.00	-34.30	-0.82	0.00	-72.51	0.00	72.51	3868.00	999.99	3629.83	3430.07	0.64	-0.09	0.00	0.030
78.00	-33.74	-0.82	0.00	-70.87	0.00	70.87	3842.04	988.61	3547.63	3367.90	0.68	-0.09	0.00	0.030
80.00	-33.19	-0.82	0.00	-69.22	0.00	69.22	3815.67	977.22	3466.38	3305.90	0.72	-0.09	0.00	0.030
82.00	-32.64	-0.82	0.00	-67.58	0.00	67.58	3788.88	965.83	3386.07	3244.07	0.76	-0.10	0.00	0.029
84.00	-32.10	-0.82	0.00	-65.93	0.00	65.93	3761.67	954.44	3306.69	3182.44	0.80	-0.10	0.00	0.029
86.00	-31.57	-0.82	0.00	-64.29	0.00	64.29	3734.05	943.06	3228.26	3121.02	0.84	-0.10	0.00	0.029
88.00	-31.04	-0.82	0.00	-62.65	0.00	62.65	3706.01	931.67	3150.77	3059.82	0.89	-0.11	0.00	0.029

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00	-30.51	-0.82	0.00	-61.00	0.00	61.00	3677.55	920.28	3074.23	2998.84	0.93	-0.11	0.029
90.17	-30.47	-0.82	0.00	-60.87	0.00	60.87	3675.16	919.33	3067.89	2993.77	0.94	-0.11	0.029
92.00	-29.65	-0.82	0.00	-59.36	0.00	59.36	3648.68	908.90	2998.62	2938.12	0.98	-0.11	0.028
94.00	-28.76	-0.82	0.00	-57.72	0.00	57.72	3619.39	897.51	2923.96	2877.64	1.03	-0.12	0.028
96.00	-27.88	-0.81	0.00	-56.09	0.00	56.09	2873.56	764.37	2506.37	2303.28	1.08	-0.12	0.034
98.00	-27.43	-0.81	0.00	-54.47	0.00	54.47	2853.66	754.73	2443.58	2258.25	1.13	-0.12	0.034
100.00	-26.99	-0.81	0.00	-52.85	0.00	52.85	2833.34	745.10	2381.59	2213.29	1.18	-0.13	0.033
102.00	-26.56	-0.81	0.00	-51.22	0.00	51.22	2812.61	735.46	2320.39	2168.43	1.23	-0.13	0.033
104.00	-26.13	-0.81	0.00	-49.60	0.00	49.60	2791.46	725.83	2259.99	2123.68	1.29	-0.13	0.033
106.00	-25.71	-0.81	0.00	-47.98	0.00	47.98	2769.89	716.19	2200.39	2079.04	1.35	-0.14	0.032
108.00	-25.29	-0.81	0.00	-46.36	0.00	46.36	2747.90	706.55	2141.58	2034.53	1.40	-0.14	0.032
110.00	-24.87	-0.81	0.00	-44.74	0.00	44.74	2725.50	696.92	2083.57	1990.17	1.46	-0.15	0.032
112.00	-24.46	-0.81	0.00	-43.12	0.00	43.12	2702.68	687.28	2026.36	1945.97	1.53	-0.15	0.031
114.00	-24.05	-0.81	0.00	-41.50	0.00	41.50	2679.45	677.65	1969.94	1901.93	1.59	-0.15	0.031
116.00	-23.65	-0.81	0.00	-39.88	0.00	39.88	2655.79	668.01	1914.32	1858.08	1.65	-0.16	0.030
118.00	-23.25	-0.81	0.00	-38.26	0.00	38.26	2631.73	658.38	1859.50	1814.42	1.72	-0.16	0.030
120.00	-22.86	-0.81	0.00	-36.65	0.00	36.65	2607.24	648.74	1805.47	1770.96	1.79	-0.16	0.029
122.00	-22.47	-0.81	0.00	-35.03	0.00	35.03	2582.34	639.11	1752.24	1727.73	1.86	-0.17	0.029
124.00	-22.09	-0.81	0.00	-33.42	0.00	33.42	2557.02	629.47	1699.80	1684.74	1.93	-0.17	0.028
126.00	-21.71	-0.81	0.00	-31.81	0.00	31.81	2531.28	619.84	1648.16	1641.98	2.00	-0.18	0.028
128.00	-21.34	-0.80	0.00	-30.19	0.00	30.19	2505.13	610.20	1597.32	1599.49	2.08	-0.18	0.027
130.00	-20.97	-0.80	0.00	-28.59	0.00	28.59	2478.56	600.57	1547.28	1557.27	2.15	-0.18	0.027
132.00	-20.60	-0.80	0.00	-26.98	0.00	26.98	2451.58	590.93	1498.03	1515.33	2.23	-0.19	0.026
133.33	-20.36	-0.80	0.00	-25.91	0.00	25.91	2433.35	584.51	1465.64	1487.53	2.28	-0.19	0.026
134.00	-20.17	-0.80	0.00	-25.37	0.00	25.37	2424.17	581.30	1449.58	1473.69	2.31	-0.19	0.026
136.00	-19.61	-0.80	0.00	-23.77	0.00	23.77	2396.35	571.66	1401.92	1432.35	2.39	-0.19	0.025
138.00	-19.06	-0.79	0.00	-22.17	0.00	22.17	1545.45	417.14	1026.36	929.77	2.47	-0.20	0.036
140.00	-18.78	-0.79	0.00	-20.58	0.00	20.58	1531.69	410.13	992.17	905.88	2.56	-0.20	0.035
142.00	-18.51	-0.79	0.00	-19.00	0.00	19.00	1517.50	403.12	958.56	882.03	2.64	-0.21	0.034
144.00	-18.24	-0.79	0.00	-17.41	0.00	17.41	1502.90	396.11	925.52	858.22	2.73	-0.21	0.032
146.00	-17.97	-0.79	0.00	-15.82	0.00	15.82	1487.88	389.11	893.06	834.49	2.82	-0.22	0.031
148.00	-17.71	-0.79	0.00	-14.23	0.00	14.23	1472.45	382.10	861.19	810.82	2.91	-0.22	0.030
150.00	-14.19	-0.65	0.00	-12.65	0.00	12.65	1456.60	375.09	829.89	787.25	3.00	-0.22	0.026
152.00	-13.96	-0.65	0.00	-11.34	0.00	11.34	1440.33	368.08	799.17	763.78	3.10	-0.23	0.025
154.00	-13.73	-0.65	0.00	-10.04	0.00	10.04	1423.65	361.08	769.03	740.42	3.19	-0.23	0.023
156.00	-13.51	-0.65	0.00	-8.73	0.00	8.73	1406.55	354.07	739.47	717.20	3.29	-0.23	0.022
158.00	-11.11	-0.58	0.00	-7.43	0.00	7.43	1389.03	347.06	710.49	694.11	3.39	-0.24	0.019
160.00	-9.99	-0.56	0.00	-6.28	0.00	6.28	1371.10	340.05	682.09	671.17	3.49	-0.24	0.017
162.00	-9.81	-0.56	0.00	-5.17	0.00	5.17	1352.75	333.05	654.27	648.41	3.59	-0.24	0.015
164.00	-9.63	-0.55	0.00	-4.06	0.00	4.06	1333.98	326.04	627.03	625.81	3.69	-0.24	0.014
166.00	-4.86	-0.25	0.00	-2.95	0.00	2.95	1314.79	319.03	600.37	603.42	3.79	-0.24	0.009
168.00	-4.69	-0.25	0.00	-2.45	0.00	2.45	1295.19	312.03	574.28	581.22	3.89	-0.25	0.008
170.00	-4.54	-0.25	0.00	-1.96	0.00	1.96	1275.17	305.02	548.78	559.24	4.00	-0.25	0.007
172.00	-4.38	-0.25	0.00	-1.47	0.00	1.47	1251.65	298.01	523.85	536.17	4.10	-0.25	0.006
174.00	-4.23	-0.24	0.00	-0.98	0.00	0.98	1222.21	291.00	499.51	511.11	4.20	-0.25	0.005
176.00	-4.09	-0.24	0.00	-0.49	0.00	0.49	1192.78	284.00	475.74	486.64	4.31	-0.25	0.004
178.00	-0.14	0.00	0.00	0.00	0.00	0.00	1163.35	276.99	452.55	462.78	4.41	-0.25	0.000
180.00	0.00	0.00	0.00	0.00	0.00	0.00	1133.92	269.98	429.95	439.52	4.52	-0.25	0.000

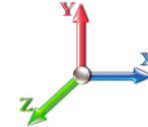
Seismic Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0Ev + 1.0Eh						Iterations 25
Gust Response Factor	1.10			Sds 0.22		Ss 0.21
Dead Load Factor	0.90	Seismic Load Factor	1.00	Sd1 0.09		S1 0.05
Wind Load Factor	0.00	Structure Frequency (f1)	0.30	SA 0.03	Seismic Importance Factor	1.00



Top Elev (ft)	Description	Wz (lb)	Hz (lb)	Vertical Ev (lb)	Lateral Fs (lb)	
0.00		0.00	0.00	0.00	0.00	
2.00		590.21	1.00	26.44	0.00	
4.00		611.90	3.00	27.41	0.00	
6.00		633.59	5.00	28.38	0.01	
8.00		628.83	7.00	28.17	0.01	
10.00		624.08	9.00	27.96	0.02	
12.00		619.32	11.00	27.75	0.03	
14.00		614.57	13.00	27.53	0.05	
16.00		609.81	15.00	27.32	0.06	
18.00		605.06	17.00	27.11	0.08	
20.00		600.30	19.00	26.89	0.09	
22.00		595.55	21.00	26.68	0.11	
24.00		590.79	23.00	26.47	0.13	
26.00		586.04	25.00	26.25	0.16	
28.00		581.28	27.00	26.04	0.18	
30.00		576.53	29.00	25.83	0.20	
32.00		571.77	31.00	25.62	0.23	
34.00		567.02	33.00	25.40	0.25	
36.00		562.26	35.00	25.19	0.28	
38.00		557.50	37.00	24.98	0.31	
40.00		552.75	39.00	24.76	0.34	
42.00		547.99	41.00	24.55	0.36	
43.92	Bot - Section 2	520.70	42.96	23.33	0.36	
44.00		41.65	43.96	1.87	0.00	
46.00		994.70	45.00	44.56	1.45	
48.00		985.53	47.00	44.15	1.55	
50.00		976.36	49.00	43.74	1.65	
51.00	Top - Section 1	484.74	50.50	21.72	0.43	
52.00		248.56	51.50	11.14	0.12	
54.00		493.82	53.00	22.12	0.50	
56.00		489.40	55.00	21.93	0.52	
58.00		484.98	57.00	21.73	0.55	
60.00		480.57	59.00	21.53	0.58	
62.00		476.15	61.00	21.33	0.61	
64.00		471.74	63.00	21.13	0.64	
66.00		467.32	65.00	20.94	0.67	
68.00		462.91	67.00	20.74	0.70	
70.00		458.49	69.00	20.54	0.72	
72.00		454.08	71.00	20.34	0.75	
74.00		449.66	73.00	20.14	0.78	
76.00		445.24	75.00	19.95	0.81	
78.00		440.83	77.00	19.75	0.83	
80.00		436.41	79.00	19.55	0.86	
82.00		432.00	81.00	19.35	0.89	
84.00		427.58	83.00	19.16	0.91	
86.00		423.17	85.00	18.96	0.94	

R: 1.50

Seismic Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00		418.75	87.00	18.76	0.96
90.00		414.33	89.00	18.56	0.98
90.17	Bot - Section 3	34.33	90.08	1.54	0.01
92.00		655.72	91.08	29.38	2.58
94.00		707.51	93.00	31.70	3.13
96.00	Top - Section 2	699.36	95.00	31.33	3.19
98.00		349.80	97.00	15.67	0.83
100.00		346.06	99.00	15.50	0.85
102.00		342.32	101.00	15.34	0.86
104.00		338.59	103.00	15.17	0.88
106.00		334.85	105.00	15.00	0.89
108.00		331.11	107.00	14.83	0.91
110.00		327.38	109.00	14.67	0.92
112.00		323.64	111.00	14.50	0.93
114.00		319.91	113.00	14.33	0.94
116.00		316.17	115.00	14.16	0.96
118.00		312.43	117.00	14.00	0.97
120.00		308.70	119.00	13.83	0.98
122.00		304.96	121.00	13.66	0.98
124.00		301.22	123.00	13.49	0.99
126.00		297.49	125.00	13.33	1.00
128.00		293.75	127.00	13.16	1.01
130.00		290.02	129.00	12.99	1.01
132.00		286.28	131.00	12.83	1.02
133.33	Bot - Section 4	188.78	132.67	8.46	0.45
134.00		149.65	133.67	6.70	0.29
136.00		444.64	135.00	19.92	2.60
138.00	Top - Section 3	438.19	137.00	19.63	2.61
140.00		215.66	139.00	9.66	0.65
142.00		212.94	141.00	9.54	0.65
144.00		210.22	143.00	9.42	0.65
146.00		207.50	145.00	9.30	0.65
148.00		204.79	147.00	9.17	0.66
150.00	Appurtenance(s)	2820.1	149.00	126.34	127.65
152.00		181.41	151.00	8.13	0.54
154.00		178.69	153.00	8.01	0.54
156.00		175.97	155.00	7.88	0.54
158.00	Appurtenance(s)	1920.2	157.00	86.03	65.71
160.00	Appurtenance(s)	897.44	159.00	40.21	14.72
162.00		143.48	161.00	6.43	0.39
164.00		140.77	163.00	6.31	0.38
166.00	Appurtenance(s)	3835.4	165.00	171.83	289.54
168.00		128.46	167.00	5.76	0.33
170.00		125.75	169.00	5.63	0.33
172.00		123.03	171.00	5.51	0.32
174.00		120.31	173.00	5.39	0.31
176.00		117.59	175.00	5.27	0.31
178.00	Appurtenance(s)	3173.1	177.00	142.16	228.06
180.00		108.42	179.00	4.86	0.27
Totals:		49,591.2	2,221.7	787.7	
					Total Wind: 47,938.6

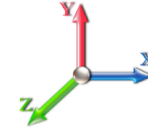
Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0Ev + 1.0Eh		Iterations 25
Gust Response Factor 1.10	Sds 0.22	Ss 0.21
Dead Load Factor 0.90	Seismic Load Factor 1.00	S1 0.05
Wind Load Factor 0.00	Structure Frequency (f1) 0.30	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	-47.29	-0.79	0.00	-132.48	0.00	132.48	5123.29	1522.04	7808.40	6435.29	0.00	0.00	0.00	0.030
2.00	-46.73	-0.79	0.00	-130.90	0.00	130.90	5107.67	1509.78	7683.09	6363.61	0.00	0.00	0.00	0.030
4.00	-46.15	-0.79	0.00	-129.33	0.00	129.33	5091.62	1497.52	7558.79	6291.73	0.00	0.00	0.00	0.030
6.00	-45.54	-0.79	0.00	-127.75	0.00	127.75	5075.16	1485.26	7435.50	6219.67	0.00	-0.01	0.00	0.030
8.00	-44.94	-0.79	0.00	-126.16	0.00	126.16	5058.29	1472.99	7313.22	6147.44	0.01	-0.01	0.00	0.029
10.00	-44.35	-0.79	0.00	-124.58	0.00	124.58	5041.00	1460.73	7191.96	6075.05	0.01	-0.01	0.00	0.029
12.00	-43.76	-0.80	0.00	-122.99	0.00	122.99	5023.29	1448.47	7071.72	6002.51	0.01	-0.01	0.00	0.029
14.00	-43.17	-0.80	0.00	-121.40	0.00	121.40	5005.16	1436.20	6952.48	5929.84	0.02	-0.01	0.00	0.029
16.00	-42.59	-0.80	0.00	-119.81	0.00	119.81	4986.62	1423.94	6834.27	5857.05	0.02	-0.01	0.00	0.029
18.00	-42.01	-0.80	0.00	-118.21	0.00	118.21	4967.66	1411.68	6717.06	5784.16	0.03	-0.02	0.00	0.029
20.00	-41.44	-0.80	0.00	-116.62	0.00	116.62	4948.29	1399.42	6600.87	5711.17	0.04	-0.02	0.00	0.029
22.00	-40.87	-0.80	0.00	-115.02	0.00	115.02	4928.49	1387.15	6485.69	5638.10	0.05	-0.02	0.00	0.029
24.00	-40.31	-0.80	0.00	-113.41	0.00	113.41	4908.28	1374.89	6371.53	5564.95	0.06	-0.02	0.00	0.029
26.00	-39.75	-0.80	0.00	-111.81	0.00	111.81	4887.66	1362.63	6258.37	5491.76	0.07	-0.03	0.00	0.028
28.00	-39.19	-0.80	0.00	-110.20	0.00	110.20	4866.62	1350.36	6146.24	5418.52	0.08	-0.03	0.00	0.028
30.00	-38.64	-0.81	0.00	-108.59	0.00	108.59	4845.16	1338.10	6035.11	5345.24	0.09	-0.03	0.00	0.028
32.00	-38.10	-0.81	0.00	-106.98	0.00	106.98	4823.28	1325.84	5925.00	5271.95	0.10	-0.03	0.00	0.028
34.00	-37.56	-0.81	0.00	-105.37	0.00	105.37	4800.99	1313.58	5815.91	5198.66	0.12	-0.03	0.00	0.028
36.00	-37.02	-0.81	0.00	-103.76	0.00	103.76	4778.28	1301.31	5707.83	5125.37	0.13	-0.04	0.00	0.028
38.00	-36.49	-0.81	0.00	-102.14	0.00	102.14	4755.15	1289.05	5600.76	5052.10	0.15	-0.04	0.00	0.028
40.00	-35.96	-0.81	0.00	-100.52	0.00	100.52	4731.61	1276.79	5494.70	4978.87	0.16	-0.04	0.00	0.028
42.00	-35.44	-0.81	0.00	-98.90	0.00	98.90	4707.65	1264.52	5389.66	4905.68	0.18	-0.04	0.00	0.028
43.92	-34.94	-0.81	0.00	-97.35	0.00	97.35	4684.30	1252.77	5289.95	4835.60	0.20	-0.04	0.00	0.028
44.00	-34.90	-0.81	0.00	-97.28	0.00	97.28	4683.27	1252.26	5285.64	4832.55	0.20	-0.04	0.00	0.028
46.00	-33.95	-0.81	0.00	-95.66	0.00	95.66	4658.48	1240.00	5182.62	4759.49	0.22	-0.05	0.00	0.027
48.00	-33.02	-0.81	0.00	-94.04	0.00	94.04	4633.27	1227.74	5080.62	4686.52	0.24	-0.05	0.00	0.027
50.00	-32.09	-0.81	0.00	-92.42	0.00	92.42	4607.64	1215.47	4979.64	4613.64	0.26	-0.05	0.00	0.027
51.00	-31.63	-0.81	0.00	-91.62	0.00	91.62	4157.28	1142.33	4736.69	4216.21	0.27	-0.05	0.00	0.029
52.00	-31.39	-0.81	0.00	-90.81	0.00	90.81	4146.96	1136.64	4689.60	4184.61	0.28	-0.05	0.00	0.029
54.00	-30.92	-0.81	0.00	-89.19	0.00	89.19	4126.01	1125.25	4596.10	4121.41	0.30	-0.06	0.00	0.029
56.00	-30.45	-0.81	0.00	-87.57	0.00	87.57	4104.64	1113.86	4503.55	4058.23	0.33	-0.06	0.00	0.029
58.00	-29.99	-0.81	0.00	-85.96	0.00	85.96	4082.85	1102.48	4411.95	3995.08	0.35	-0.06	0.00	0.029
60.00	-29.53	-0.81	0.00	-84.34	0.00	84.34	4060.64	1091.09	4321.28	3931.97	0.38	-0.06	0.00	0.029
62.00	-29.07	-0.81	0.00	-82.72	0.00	82.72	4038.02	1079.70	4231.55	3868.91	0.41	-0.07	0.00	0.029
64.00	-28.62	-0.81	0.00	-81.10	0.00	81.10	4014.98	1068.31	4142.77	3805.92	0.44	-0.07	0.00	0.028
66.00	-28.17	-0.81	0.00	-79.48	0.00	79.48	3991.52	1056.93	4054.92	3743.01	0.47	-0.07	0.00	0.028
68.00	-27.73	-0.81	0.00	-77.86	0.00	77.86	3967.65	1045.54	3968.02	3680.19	0.50	-0.08	0.00	0.028
70.00	-27.29	-0.81	0.00	-76.24	0.00	76.24	3943.36	1034.15	3882.06	3617.47	0.53	-0.08	0.00	0.028
72.00	-26.86	-0.81	0.00	-74.62	0.00	74.62	3918.66	1022.77	3797.04	3554.87	0.56	-0.08	0.00	0.028
74.00	-26.43	-0.81	0.00	-73.00	0.00	73.00	3893.54	1011.38	3712.96	3492.40	0.60	-0.08	0.00	0.028
76.00	-26.00	-0.81	0.00	-71.38	0.00	71.38	3868.00	999.99	3629.83	3430.07	0.63	-0.09	0.00	0.028
78.00	-25.58	-0.81	0.00	-69.76	0.00	69.76	3842.04	988.61	3547.63	3367.90	0.67	-0.09	0.00	0.027
80.00	-25.16	-0.81	0.00	-68.14	0.00	68.14	3815.67	977.22	3466.38	3305.90	0.71	-0.09	0.00	0.027
82.00	-24.75	-0.81	0.00	-66.52	0.00	66.52	3788.88	965.83	3386.07	3244.07	0.75	-0.10	0.00	0.027
84.00	-24.34	-0.81	0.00	-64.90	0.00	64.90	3761.67	954.44	3306.69	3182.44	0.79	-0.10	0.00	0.027
86.00	-23.93	-0.81	0.00	-63.28	0.00	63.28	3734.05	943.06	3228.26	3121.02	0.83	-0.10	0.00	0.027
88.00	-23.53	-0.81	0.00	-61.67	0.00	61.67	3706.01	931.67	3150.77	3059.82	0.88	-0.10	0.00	0.027

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00	-23.13	-0.81	0.00	-60.05	0.00	60.05	3677.55	920.28	3074.23	2998.84	0.92	-0.11	0.026
90.17	-23.10	-0.81	0.00	-59.92	0.00	59.92	3675.16	919.33	3067.89	2993.77	0.92	-0.11	0.026
92.00	-22.48	-0.81	0.00	-58.43	0.00	58.43	3648.68	908.90	2998.62	2938.12	0.97	-0.11	0.026
94.00	-21.80	-0.80	0.00	-56.82	0.00	56.82	3619.39	897.51	2923.96	2877.64	1.01	-0.11	0.026
96.00	-21.14	-0.80	0.00	-55.22	0.00	55.22	2873.56	764.37	2506.37	2303.28	1.06	-0.12	0.031
98.00	-20.80	-0.80	0.00	-53.62	0.00	53.62	2853.66	754.73	2443.58	2258.25	1.11	-0.12	0.031
100.00	-20.47	-0.80	0.00	-52.03	0.00	52.03	2833.34	745.10	2381.59	2213.29	1.16	-0.12	0.031
102.00	-20.14	-0.80	0.00	-50.43	0.00	50.43	2812.61	735.46	2320.39	2168.43	1.22	-0.13	0.030
104.00	-19.81	-0.80	0.00	-48.83	0.00	48.83	2791.46	725.83	2259.99	2123.68	1.27	-0.13	0.030
106.00	-19.49	-0.80	0.00	-47.24	0.00	47.24	2769.89	716.19	2200.39	2079.04	1.33	-0.14	0.030
108.00	-19.17	-0.80	0.00	-45.65	0.00	45.65	2747.90	706.55	2141.58	2034.53	1.38	-0.14	0.029
110.00	-18.86	-0.80	0.00	-44.05	0.00	44.05	2725.50	696.92	2083.57	1990.17	1.44	-0.14	0.029
112.00	-18.55	-0.80	0.00	-42.46	0.00	42.46	2702.68	687.28	2026.36	1945.97	1.50	-0.15	0.029
114.00	-18.24	-0.80	0.00	-40.87	0.00	40.87	2679.45	677.65	1969.94	1901.93	1.57	-0.15	0.028
116.00	-17.93	-0.79	0.00	-39.28	0.00	39.28	2655.79	668.01	1914.32	1858.08	1.63	-0.15	0.028
118.00	-17.63	-0.79	0.00	-37.69	0.00	37.69	2631.73	658.38	1859.50	1814.42	1.70	-0.16	0.027
120.00	-17.34	-0.79	0.00	-36.10	0.00	36.10	2607.24	648.74	1805.47	1770.96	1.76	-0.16	0.027
122.00	-17.04	-0.79	0.00	-34.51	0.00	34.51	2582.34	639.11	1752.24	1727.73	1.83	-0.17	0.027
124.00	-16.75	-0.79	0.00	-32.93	0.00	32.93	2557.02	629.47	1699.80	1684.74	1.90	-0.17	0.026
126.00	-16.47	-0.79	0.00	-31.34	0.00	31.34	2531.28	619.84	1648.16	1641.98	1.97	-0.17	0.026
128.00	-16.18	-0.79	0.00	-29.76	0.00	29.76	2505.13	610.20	1597.32	1599.49	2.05	-0.18	0.025
130.00	-15.90	-0.79	0.00	-28.18	0.00	28.18	2478.56	600.57	1547.28	1557.27	2.12	-0.18	0.025
132.00	-15.63	-0.79	0.00	-26.60	0.00	26.60	2451.58	590.93	1498.03	1515.33	2.20	-0.18	0.024
133.33	-15.45	-0.79	0.00	-25.55	0.00	25.55	2433.35	584.51	1465.64	1487.53	2.25	-0.19	0.024
134.00	-15.30	-0.79	0.00	-25.02	0.00	25.02	2424.17	581.30	1449.58	1473.69	2.28	-0.19	0.023
136.00	-14.88	-0.79	0.00	-23.44	0.00	23.44	2396.35	571.66	1401.92	1432.35	2.36	-0.19	0.023
138.00	-14.46	-0.78	0.00	-21.87	0.00	21.87	1545.45	417.14	1026.36	929.77	2.44	-0.20	0.033
140.00	-14.25	-0.78	0.00	-20.31	0.00	20.31	1531.69	410.13	992.17	905.88	2.52	-0.20	0.032
142.00	-14.04	-0.78	0.00	-18.75	0.00	18.75	1517.50	403.12	958.56	882.03	2.60	-0.20	0.031
144.00	-13.84	-0.78	0.00	-17.18	0.00	17.18	1502.90	396.11	925.52	858.22	2.69	-0.21	0.029
146.00	-13.64	-0.78	0.00	-15.62	0.00	15.62	1487.88	389.11	893.06	834.49	2.78	-0.21	0.028
148.00	-13.44	-0.78	0.00	-14.06	0.00	14.06	1472.45	382.10	861.19	810.82	2.87	-0.22	0.026
150.00	-10.77	-0.64	0.00	-12.50	0.00	12.50	1456.60	375.09	829.89	787.25	2.96	-0.22	0.023
152.00	-10.59	-0.64	0.00	-11.21	0.00	11.21	1440.33	368.08	799.17	763.78	3.05	-0.22	0.022
154.00	-10.42	-0.64	0.00	-9.93	0.00	9.93	1423.65	361.08	769.03	740.42	3.15	-0.23	0.021
156.00	-10.25	-0.64	0.00	-8.64	0.00	8.64	1406.55	354.07	739.47	717.20	3.24	-0.23	0.019
158.00	-8.43	-0.57	0.00	-7.36	0.00	7.36	1389.03	347.06	710.49	694.11	3.34	-0.23	0.017
160.00	-7.58	-0.55	0.00	-6.22	0.00	6.22	1371.10	340.05	682.09	671.17	3.44	-0.23	0.015
162.00	-7.44	-0.55	0.00	-5.12	0.00	5.12	1352.75	333.05	654.27	648.41	3.53	-0.24	0.013
164.00	-7.31	-0.55	0.00	-4.02	0.00	4.02	1333.98	326.04	627.03	625.81	3.63	-0.24	0.012
166.00	-3.68	-0.25	0.00	-2.92	0.00	2.92	1314.79	319.03	600.37	603.42	3.73	-0.24	0.008
168.00	-3.56	-0.24	0.00	-2.43	0.00	2.43	1295.19	312.03	574.28	581.22	3.84	-0.24	0.007
170.00	-3.44	-0.24	0.00	-1.94	0.00	1.94	1275.17	305.02	548.78	559.24	3.94	-0.24	0.006
172.00	-3.33	-0.24	0.00	-1.45	0.00	1.45	1251.65	298.01	523.85	536.17	4.04	-0.24	0.005
174.00	-3.21	-0.24	0.00	-0.97	0.00	0.97	1222.21	291.00	499.51	511.11	4.14	-0.24	0.005
176.00	-3.10	-0.24	0.00	-0.48	0.00	0.48	1192.78	284.00	475.74	486.64	4.24	-0.25	0.004
178.00	-0.10	0.00	0.00	0.00	0.00	0.00	1163.35	276.99	452.55	462.78	4.35	-0.25	0.000
180.00	0.00	0.00	0.00	0.00	0.00	0.00	1133.92	269.98	429.95	439.52	4.45	-0.25	0.000

Wind Loading - Shaft

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 27

Dead Load Factor 1.00

Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	6.602	7.26	294.63	0.950	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	6.602	7.26	292.27	0.950	0.000	2.00	10.655	10.12	73.5	0.0	587.8
4.00		1.00	0.85	6.602	7.26	289.91	0.950	0.000	2.00	10.569	10.04	72.9	0.0	583.1
6.00		1.00	0.85	6.602	7.26	287.56	0.950	0.000	2.00	10.484	9.96	72.3	0.0	578.3
8.00		1.00	0.85	6.602	7.26	285.20	0.950	0.000	2.00	10.398	9.88	71.7	0.0	573.6
10.00		1.00	0.85	6.602	7.26	282.84	0.950	0.000	2.00	10.313	9.80	71.1	0.0	568.8
12.00		1.00	0.85	6.602	7.26	280.49	0.950	0.000	2.00	10.227	9.72	70.6	0.0	564.1
14.00		1.00	0.85	6.602	7.26	278.13	0.950	0.000	2.00	10.142	9.63	70.0	0.0	559.3
16.00		1.00	0.86	6.684	7.35	277.47	0.950	0.000	2.00	10.056	9.55	70.2	0.0	554.6
18.00		1.00	0.88	6.851	7.54	278.53	0.950	0.000	2.00	9.970	9.47	71.4	0.0	549.8
20.00		1.00	0.90	7.005	7.71	279.21	0.950	0.000	2.00	9.885	9.39	72.4	0.0	545.0
22.00		1.00	0.92	7.147	7.86	279.57	0.950	0.000	2.00	9.799	9.31	73.2	0.0	540.3
24.00		1.00	0.94	7.279	8.01	279.67	0.950	0.000	2.00	9.714	9.23	73.9	0.0	535.5
26.00		1.00	0.95	7.403	8.14	279.54	0.950	0.000	2.00	9.628	9.15	74.5	0.0	530.8
28.00		1.00	0.97	7.519	8.27	279.21	0.950	0.000	2.00	9.542	9.07	75.0	0.0	526.0
30.00		1.00	0.98	7.629	8.39	278.72	0.950	0.000	2.00	9.457	8.98	75.4	0.0	521.3
32.00		1.00	1.00	7.734	8.51	278.06	0.950	0.000	2.00	9.371	8.90	75.7	0.0	516.5
34.00		1.00	1.01	7.833	8.62	277.28	0.950	0.000	2.00	9.286	8.82	76.0	0.0	511.8
36.00		1.00	1.02	7.928	8.72	276.37	0.950	0.000	2.00	9.200	8.74	76.2	0.0	507.0
38.00		1.00	1.03	8.019	8.82	275.35	0.950	0.000	2.00	9.115	8.66	76.4	0.0	502.2
40.00		1.00	1.04	8.106	8.92	274.23	0.950	0.000	2.00	9.029	8.58	76.5	0.0	497.5
42.00		1.00	1.05	8.189	9.01	273.01	0.950	0.000	2.00	8.943	8.50	76.5	0.0	492.7
43.92	Bot - Section 2	1.00	1.06	8.267	9.09	271.77	0.950	0.000	1.92	8.490	8.07	73.3	0.0	467.7
44.00		1.00	1.06	8.270	9.10	271.71	0.950	0.000	0.08	0.373	0.35	3.2	0.0	39.3
46.00		1.00	1.07	8.348	9.18	270.34	0.950	0.000	2.00	8.912	8.47	77.7	0.0	939.4
48.00		1.00	1.08	8.423	9.27	268.89	0.950	0.000	2.00	8.827	8.39	77.7	0.0	930.3
50.00		1.00	1.09	8.495	9.34	267.37	0.950	0.000	2.00	8.741	8.30	77.6	0.0	921.1
51.00	Top - Section 1	1.00	1.10	8.531	9.38	266.59	0.950	0.000	1.00	4.339	4.12	38.7	0.0	457.1
52.00		1.00	1.10	8.566	9.42	270.19	0.950	0.000	1.00	4.317	4.10	38.6	0.0	220.9
54.00		1.00	1.11	8.634	9.50	268.57	0.950	0.000	2.00	8.570	8.14	77.3	0.0	438.6
56.00		1.00	1.12	8.701	9.57	266.90	0.950	0.000	2.00	8.485	8.06	77.1	0.0	434.1
58.00		1.00	1.13	8.765	9.64	265.17	0.950	0.000	2.00	8.399	7.98	76.9	0.0	429.7
60.00		1.00	1.14	8.828	9.71	263.39	0.950	0.000	2.00	8.313	7.90	76.7	0.0	425.3
62.00		1.00	1.14	8.889	9.78	261.57	0.950	0.000	2.00	8.228	7.82	76.4	0.0	420.9
64.00		1.00	1.15	8.949	9.84	259.70	0.950	0.000	2.00	8.142	7.74	76.1	0.0	416.5
66.00		1.00	1.16	9.007	9.91	257.79	0.950	0.000	2.00	8.057	7.65	75.8	0.0	412.1
68.00		1.00	1.17	9.064	9.97	255.84	0.950	0.000	2.00	7.971	7.57	75.5	0.0	407.6
70.00		1.00	1.17	9.119	10.03	253.85	0.950	0.000	2.00	7.885	7.49	75.1	0.0	403.2
72.00		1.00	1.18	9.173	10.09	251.83	0.950	0.000	2.00	7.800	7.41	74.8	0.0	398.8
74.00		1.00	1.19	9.226	10.15	249.77	0.950	0.000	2.00	7.714	7.33	74.4	0.0	394.4
76.00		1.00	1.19	9.278	10.21	247.67	0.950	0.000	2.00	7.629	7.25	74.0	0.0	390.0
78.00		1.00	1.20	9.329	10.26	245.55	0.950	0.000	2.00	7.543	7.17	73.5	0.0	385.6
80.00		1.00	1.21	9.379	10.32	243.40	0.950	0.000	2.00	7.458	7.08	73.1	0.0	381.2
82.00		1.00	1.21	9.428	10.37	241.21	0.950	0.000	2.00	7.372	7.00	72.6	0.0	376.7
84.00		1.00	1.22	9.476	10.42	239.00	0.950	0.000	2.00	7.286	6.92	72.2	0.0	372.3
86.00		1.00	1.23	9.523	10.48	236.76	0.950	0.000	2.00	7.201	6.84	71.7	0.0	367.9
88.00		1.00	1.23	9.569	10.53	234.50	0.950	0.000	2.00	7.115	6.76	71.2	0.0	363.5

Wind Loading - Shaft

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00	1.00	1.24	9.615	10.58	232.21	0.950	0.000	2.00	7.030	6.68	70.6	0.0	359.1
90.17 Bot - Section 3	1.00	1.24	9.618	10.58	232.02	0.950	0.000	0.17	0.582	0.55	5.8	0.0	29.7
92.00	1.00	1.24	9.659	10.63	229.90	0.950	0.000	1.83	6.471	6.15	65.3	0.0	605.1
94.00	1.00	1.25	9.703	10.67	227.56	0.950	0.000	2.00	6.977	6.63	70.7	0.0	652.3
96.00 Top - Section 2	1.00	1.25	9.746	10.72	225.20	0.950	0.000	2.00	6.891	6.55	70.2	0.0	644.1
98.00	1.00	1.26	9.788	10.77	226.80	0.950	0.000	2.00	6.806	6.47	69.6	0.0	294.5
100.00	1.00	1.27	9.830	10.81	224.41	0.950	0.000	2.00	6.720	6.38	69.0	0.0	290.8
102.00	1.00	1.27	9.871	10.86	221.99	0.950	0.000	2.00	6.635	6.30	68.4	0.0	287.1
104.00	1.00	1.28	9.912	10.90	219.56	0.950	0.000	2.00	6.549	6.22	67.8	0.0	283.3
106.00	1.00	1.28	9.951	10.95	217.11	0.950	0.000	2.00	6.464	6.14	67.2	0.0	279.6
108.00	1.00	1.29	9.991	10.99	214.63	0.950	0.000	2.00	6.378	6.06	66.6	0.0	275.9
110.00	1.00	1.29	10.029	11.03	212.14	0.950	0.000	2.00	6.292	5.98	65.9	0.0	272.1
112.00	1.00	1.30	10.068	11.07	209.64	0.950	0.000	2.00	6.207	5.90	65.3	0.0	268.4
114.00	1.00	1.30	10.105	11.12	207.11	0.950	0.000	2.00	6.121	5.82	64.6	0.0	264.6
116.00	1.00	1.31	10.142	11.16	204.57	0.950	0.000	2.00	6.036	5.73	64.0	0.0	260.9
118.00	1.00	1.31	10.179	11.20	202.01	0.950	0.000	2.00	5.950	5.65	63.3	0.0	257.2
120.00	1.00	1.32	10.215	11.24	199.44	0.950	0.000	2.00	5.864	5.57	62.6	0.0	253.4
122.00	1.00	1.32	10.250	11.28	196.85	0.950	0.000	2.00	5.779	5.49	61.9	0.0	249.7
124.00	1.00	1.32	10.286	11.31	194.24	0.950	0.000	2.00	5.693	5.41	61.2	0.0	246.0
126.00	1.00	1.33	10.320	11.35	191.62	0.950	0.000	2.00	5.608	5.33	60.5	0.0	242.2
128.00	1.00	1.33	10.355	11.39	188.99	0.950	0.000	2.00	5.522	5.25	59.8	0.0	238.5
130.00	1.00	1.34	10.388	11.43	186.34	0.950	0.000	2.00	5.437	5.16	59.0	0.0	234.8
132.00	1.00	1.34	10.422	11.46	183.68	0.950	0.000	2.00	5.351	5.08	58.3	0.0	231.0
133.33 Bot - Section 4	1.00	1.34	10.444	11.49	181.90	0.950	0.000	1.33	3.520	3.34	38.4	0.0	151.9
134.00	1.00	1.35	10.455	11.50	181.00	0.950	0.000	0.67	1.774	1.69	19.4	0.0	131.2
136.00	1.00	1.35	10.488	11.54	178.32	0.950	0.000	2.00	5.266	5.00	57.7	0.0	389.4
138.00 Top - Section 3	1.00	1.35	10.520	11.57	175.62	0.950	0.000	2.00	5.181	4.92	57.0	0.0	382.9
140.00	1.00	1.36	10.552	11.61	175.91	0.950	0.000	2.00	5.095	4.84	56.2	0.0	160.4
142.00	1.00	1.36	10.583	11.64	173.18	0.950	0.000	2.00	5.009	4.76	55.4	0.0	157.7
144.00	1.00	1.37	10.615	11.68	170.45	0.950	0.000	2.00	4.924	4.68	54.6	0.0	155.0
146.00	1.00	1.37	10.645	11.71	167.70	0.950	0.000	2.00	4.838	4.60	53.8	0.0	152.2
148.00	1.00	1.37	10.676	11.74	164.95	0.950	0.000	2.00	4.753	4.51	53.0	0.0	149.5
150.00 Appurtenance(s)	1.00	1.38	10.706	11.78	162.18	0.950	0.000	2.00	4.667	4.43	52.2	0.0	146.8
152.00	1.00	1.38	10.736	11.81	159.40	0.950	0.000	2.00	4.581	4.35	51.4	0.0	144.1
154.00	1.00	1.39	10.766	11.84	156.61	0.950	0.000	2.00	4.496	4.27	50.6	0.0	141.4
156.00	1.00	1.39	10.795	11.87	153.81	0.950	0.000	2.00	4.410	4.19	49.8	0.0	138.7
158.00 Appurtenance(s)	1.00	1.39	10.824	11.91	151.00	0.950	0.000	2.00	4.325	4.11	48.9	0.0	135.9
160.00 Appurtenance(s)	1.00	1.40	10.853	11.94	148.18	0.950	0.000	2.00	4.239	4.03	48.1	0.0	133.2
162.00	1.00	1.40	10.881	11.97	145.34	0.950	0.000	2.00	4.154	3.95	47.2	0.0	130.5
164.00	1.00	1.40	10.909	12.00	142.50	0.950	0.000	2.00	4.068	3.86	46.4	0.0	127.8
166.00 Appurtenance(s)	1.00	1.41	10.937	12.03	139.65	0.950	0.000	2.00	3.982	3.78	45.5	0.0	125.1
168.00	1.00	1.41	10.965	12.06	136.79	0.950	0.000	2.00	3.897	3.70	44.6	0.0	122.4
170.00	1.00	1.42	10.992	12.09	133.92	0.950	0.000	2.00	3.811	3.62	43.8	0.0	119.6
172.00	1.00	1.42	11.019	12.12	131.04	0.950	0.000	2.00	3.726	3.54	42.9	0.0	116.9
174.00	1.00	1.42	11.046	12.15	128.15	0.950	0.000	2.00	3.640	3.46	42.0	0.0	114.2
176.00	1.00	1.43	11.073	12.18	125.25	0.950	0.000	2.00	3.554	3.38	41.1	0.0	111.5
178.00 Appurtenance(s)	1.00	1.43	11.099	12.21	122.34	0.950	0.000	2.00	3.469	3.30	40.2	0.0	108.8
180.00	1.00	1.43	11.125	12.24	119.43	0.950	0.000	2.00	3.383	3.21	39.3	0.0	106.1
Totals:								180.00			5,894.3		33,413.9

Discrete Appurtenance Forces

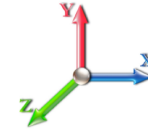
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 27

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orient Factor x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	
1	178.00	Samsung B5/B13 RRH	3	11.099	12.209	0.50	0.75	3.35	210.90	0.000	0.000	40.86	0.00	0.00	
2	178.00	Samsung B2/B66A RRH	3	11.099	12.209	0.50	0.75	2.83	253.20	0.000	0.000	34.60	0.00	0.00	
3	178.00	JMA MX06FRO660-03	6	11.099	12.209	0.61	0.75	36.42	360.00	0.000	0.000	444.65	0.00	0.00	
4	178.00	Platform w/ Handrails w/	1	11.099	12.209	1.00	1.00	40.00	2202.20	0.000	0.000	488.35	0.00	0.00	
5	178.00	Raycap	1	11.099	12.209	1.00	1.00	2.61	32.00	0.000	0.000	31.86	0.00	0.00	
6	166.00	ALU 800 Mhz	6	10.937	12.031	0.38	0.75	5.60	318.00	0.000	0.000	67.40	0.00	0.00	
7	166.00	RFS APXVTM14-C-I20	3	10.937	12.031	0.58	0.75	10.98	168.60	0.000	0.000	132.15	0.00	0.00	
8	166.00	Commscope	3	10.937	12.031	0.55	0.75	20.43	232.20	0.000	0.000	245.78	0.00	0.00	
9	166.00	ALU 1900 Mhz	3	10.937	12.031	0.50	0.75	5.73	132.00	0.000	0.000	68.92	0.00	0.00	
10	166.00	Sitepro	1	10.937	12.031	1.00	1.00	6.70	230.00	0.000	0.000	80.61	0.00	0.00	
11	166.00	ALU TD-RRH8x20-25	3	10.937	12.031	0.50	0.75	6.11	210.00	0.000	0.000	73.45	0.00	0.00	
12	166.00	Sitepro	1	10.937	12.031	1.00	1.00	7.00	406.61	0.000	0.000	84.22	0.00	0.00	
13	166.00	Platform w/ Hand Rails	1	10.937	12.031	1.00	1.00	40.00	2000.00	0.000	0.000	481.23	0.00	0.00	
14	160.00	RR90-17-00VDPL2/-R	3	10.853	11.938	0.54	0.80	7.12	40.50	0.000	0.000	84.94	0.00	0.00	
15	160.00	4449 B71+B12	3	10.853	11.938	0.54	0.80	2.65	210.00	0.000	0.000	31.67	0.00	0.00	
16	160.00	KRY 112 144/2	3	10.853	11.938	0.54	0.80	1.05	46.20	0.000	0.000	12.48	0.00	0.00	
17	160.00	APXVAARR24_43-U-NA2	3	10.853	11.938	0.56	0.80	34.00	384.00	0.000	0.000	405.93	0.00	0.00	
18	160.00	KRY 112 489/2	3	10.853	11.938	0.54	0.80	1.05	46.20	0.000	0.000	12.48	0.00	0.00	
19	158.00	V-Brace	1	10.824	11.906	0.75	0.75	4.72	197.00	0.000	0.000	56.26	0.00	0.00	
20	158.00	T-Arm Kit	1	10.824	11.906	0.75	0.75	12.38	500.00	0.000	0.000	147.34	0.00	0.00	
21	158.00	T-Arms	3	10.824	11.906	0.56	0.75	13.50	1050.00	0.000	0.000	160.73	0.00	0.00	
22	150.00	Powerwave 7770	3	10.706	11.777	0.55	0.75	9.05	105.00	0.000	0.000	106.58	0.00	0.00	
23	150.00	Cci HPA-65R-BUU-H6	2	10.706	11.777	0.77	0.90	14.78	102.00	0.000	0.000	174.06	0.00	0.00	
24	150.00	SBNHH-1D65A	1	10.706	11.777	1.00	1.00	5.88	33.50	0.000	0.000	69.25	0.00	0.00	
25	150.00	4449 B5/B12	3	10.706	11.777	0.50	0.75	2.97	213.00	0.000	0.000	34.97	0.00	0.00	
26	150.00	DMP65R-BU6DA	2	10.706	11.777	0.54	0.75	13.73	158.80	0.000	0.000	161.66	0.00	0.00	
27	150.00	B2 B66A 8843	3	10.706	11.777	0.50	0.75	2.47	210.00	0.000	0.000	29.12	0.00	0.00	
28	150.00	DMP65R-BU4DA	1	10.706	11.777	0.54	0.75	6.86	79.40	0.000	0.000	80.83	0.00	0.00	
29	150.00	Powerwave LGP21401	6	10.706	11.777	0.50	0.75	3.68	84.60	0.000	0.000	43.32	0.00	0.00	
30	150.00	Raycap DC6-48-60-18-8F	1	10.706	11.777	0.67	1.00	1.21	31.80	0.000	0.000	14.28	0.00	0.00	
31	150.00	Platform w/ Hand Rail	1	10.706	11.777	1.00	1.00	35.00	1600.00	0.000	0.000	412.19	0.00	0.00	
Totals:									11,847.71						4,312.15

Total Applied Force Summary

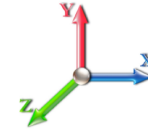
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 27

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		73.51	590.47	0.00	0.00
4.00		72.92	615.10	0.00	0.00
6.00		72.33	639.73	0.00	0.00
8.00		71.74	634.97	0.00	0.00
10.00		71.15	630.22	0.00	0.00
12.00		70.56	625.46	0.00	0.00
14.00		69.97	620.71	0.00	0.00
16.00		70.23	615.95	0.00	0.00
18.00		71.38	611.20	0.00	0.00
20.00		72.36	606.44	0.00	0.00
22.00		73.19	601.69	0.00	0.00
24.00		73.89	596.93	0.00	0.00
26.00		74.48	592.18	0.00	0.00
28.00		74.98	587.42	0.00	0.00
30.00		75.40	582.67	0.00	0.00
32.00		75.74	577.91	0.00	0.00
34.00		76.01	573.16	0.00	0.00
36.00		76.22	568.40	0.00	0.00
38.00		76.37	563.64	0.00	0.00
40.00		76.48	558.89	0.00	0.00
42.00		76.54	554.13	0.00	0.00
43.92		73.35	526.58	0.00	0.00
44.00		3.23	41.90	0.00	0.00
46.00		77.75	1000.84	0.00	0.00
48.00		77.69	991.67	0.00	0.00
50.00		77.60	982.50	0.00	0.00
51.00		38.68	487.81	0.00	0.00
52.00		38.64	251.63	0.00	0.00
54.00		77.33	499.96	0.00	0.00
56.00		77.14	495.54	0.00	0.00
58.00		76.93	491.12	0.00	0.00
60.00		76.69	486.71	0.00	0.00
62.00		76.43	482.29	0.00	0.00
64.00		76.14	477.88	0.00	0.00
66.00		75.83	473.46	0.00	0.00
68.00		75.50	469.05	0.00	0.00
70.00		75.14	464.63	0.00	0.00
72.00		74.77	460.22	0.00	0.00
74.00		74.38	455.80	0.00	0.00
76.00		73.97	451.38	0.00	0.00
78.00		73.54	446.97	0.00	0.00
80.00		73.09	442.55	0.00	0.00
82.00		72.63	438.14	0.00	0.00
84.00		72.15	433.72	0.00	0.00
86.00		71.66	429.31	0.00	0.00
88.00		71.15	424.89	0.00	0.00

Total Applied Force Summary

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00	70.63	420.47	0.00	0.00
90.17	5.85	34.84	0.00	0.00
92.00	65.32	661.34	0.00	0.00
94.00	70.74	713.65	0.00	0.00
96.00	70.19	705.50	0.00	0.00
98.00	69.62	355.94	0.00	0.00
100.00	69.03	352.20	0.00	0.00
102.00	68.44	348.46	0.00	0.00
104.00	67.83	344.73	0.00	0.00
106.00	67.22	340.99	0.00	0.00
108.00	66.59	337.25	0.00	0.00
110.00	65.95	333.52	0.00	0.00
112.00	65.30	329.78	0.00	0.00
114.00	64.64	326.05	0.00	0.00
116.00	63.97	322.31	0.00	0.00
118.00	63.29	318.57	0.00	0.00
120.00	62.60	314.84	0.00	0.00
122.00	61.90	311.10	0.00	0.00
124.00	61.19	307.36	0.00	0.00
126.00	60.48	303.63	0.00	0.00
128.00	59.75	299.89	0.00	0.00
130.00	59.02	296.16	0.00	0.00
132.00	58.28	292.42	0.00	0.00
133.33	38.41	192.87	0.00	0.00
134.00	19.39	151.69	0.00	0.00
136.00	57.71	450.78	0.00	0.00
138.00	56.95	444.33	0.00	0.00
140.00	56.18	221.80	0.00	0.00
142.00	55.40	219.08	0.00	0.00
144.00	54.62	216.36	0.00	0.00
146.00	53.82	213.64	0.00	0.00
148.00	53.02	210.93	0.00	0.00
150.00	(23) attachments	1178.46	2826.31	0.00
152.00		51.40	185.55	0.00
154.00		50.58	182.84	0.00
156.00		49.75	180.12	0.00
158.00	(5) attachments	413.25	1924.40	0.00
160.00	(15) attachments	595.57	901.58	0.00
162.00		47.23	144.93	0.00
164.00		46.37	142.21	0.00
166.00	(21) attachments	1279.27	3836.90	0.00
168.00		44.65	129.14	0.00
170.00		43.78	126.42	0.00
172.00		42.90	123.71	0.00
174.00		42.02	120.99	0.00
176.00		41.13	118.27	0.00
178.00	(14) attachments	1080.56	3173.86	0.00
180.00		39.33	108.68	0.00
Totals:		10,206.41	50,072.23	0.00

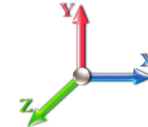
Linear Appurtenance Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 27

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	0.55
2.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	2.08
4.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	0.55
4.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	2.08
6.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	0.55
6.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	2.08
8.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	0.55
8.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	2.08
10.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	0.55
10.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	2.08
12.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	0.55
12.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	2.08
14.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	0.55
14.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.602	0.00	2.08
16.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.684	0.00	0.55
16.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.684	0.00	2.08
18.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.851	0.00	0.55
18.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	6.851	0.00	2.08
20.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.005	0.00	0.55
20.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.005	0.00	2.08
22.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.147	0.00	0.55
22.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.147	0.00	2.08
24.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.279	0.00	0.55
24.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.279	0.00	2.08
26.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.403	0.00	0.55
26.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.403	0.00	2.08
28.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.519	0.00	0.55
28.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.519	0.00	2.08
30.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.629	0.00	0.55
30.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.629	0.00	2.08
32.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.734	0.00	0.55
32.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.734	0.00	2.08
34.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.833	0.00	0.55
34.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.833	0.00	2.08
36.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.928	0.00	0.55
36.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	7.928	0.00	2.08
38.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.019	0.00	0.55
38.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.019	0.00	2.08
40.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.106	0.00	0.55
40.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.106	0.00	2.08
42.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.189	0.00	0.55
42.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.189	0.00	2.08
43.92	Safety Cable	Yes	1.92	0.000	0.00	0.00	0.00	0.000	0.000	8.267	0.00	0.52
43.92	Step bolts (ladder)	Yes	1.92	0.000	0.00	0.00	0.00	0.000	0.000	8.267	0.00	1.99
44.00	Safety Cable	Yes	0.08	0.000	0.00	0.00	0.00	0.000	0.000	8.270	0.00	0.02
44.00	Step bolts (ladder)	Yes	0.08	0.000	0.00	0.00	0.00	0.000	0.000	8.270	0.00	0.09
46.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.348	0.00	0.55

Linear Appurtenance Segment Forces (Factored)

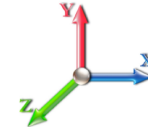
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 27

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
46.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.348	0.00	2.08
48.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.423	0.00	0.55
48.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.423	0.00	2.08
50.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.495	0.00	0.55
50.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.495	0.00	2.08
51.00	Safety Cable	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	8.531	0.00	0.27
51.00	Step bolts (ladder)	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	8.531	0.00	1.04
52.00	Safety Cable	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	8.566	0.00	0.27
52.00	Step bolts (ladder)	Yes	1.00	0.000	0.00	0.00	0.00	0.000	0.000	8.566	0.00	1.04
54.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.634	0.00	0.55
54.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.634	0.00	2.08
56.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.701	0.00	0.55
56.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.701	0.00	2.08
58.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.765	0.00	0.55
58.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.765	0.00	2.08
60.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.828	0.00	0.55
60.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.828	0.00	2.08
62.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.889	0.00	0.55
62.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.889	0.00	2.08
64.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.949	0.00	0.55
64.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	8.949	0.00	2.08
66.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.007	0.00	0.55
66.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.007	0.00	2.08
68.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.064	0.00	0.55
68.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.064	0.00	2.08
70.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.119	0.00	0.55
70.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.119	0.00	2.08
72.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.173	0.00	0.55
72.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.173	0.00	2.08
74.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.226	0.00	0.55
74.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.226	0.00	2.08
76.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.278	0.00	0.55
76.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.278	0.00	2.08
78.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.329	0.00	0.55
78.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.329	0.00	2.08
80.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.379	0.00	0.55
80.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.379	0.00	2.08
82.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.428	0.00	0.55
82.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.428	0.00	2.08
84.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.476	0.00	0.55
84.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.476	0.00	2.08
86.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.523	0.00	0.55
86.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.523	0.00	2.08
88.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.569	0.00	0.55
88.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.569	0.00	2.08
90.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.615	0.00	0.55
90.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.615	0.00	2.08

Linear Appurtenance Segment Forces (Factored)

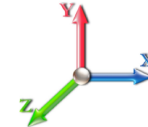
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 27

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
90.17	Safety Cable	Yes	0.17	0.000	0.00	0.00	0.00	0.000	0.000	9.618	0.00	0.05
90.17	Step bolts (ladder)	Yes	0.17	0.000	0.00	0.00	0.00	0.000	0.000	9.618	0.00	0.17
92.00	Safety Cable	Yes	1.83	0.000	0.00	0.00	0.00	0.000	0.000	9.659	0.00	0.50
92.00	Step bolts (ladder)	Yes	1.83	0.000	0.00	0.00	0.00	0.000	0.000	9.659	0.00	1.91
94.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.703	0.00	0.55
94.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.703	0.00	2.08
96.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.746	0.00	0.55
96.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.746	0.00	2.08
98.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.788	0.00	0.55
98.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.788	0.00	2.08
100.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.830	0.00	0.55
100.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.830	0.00	2.08
102.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.871	0.00	0.55
102.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.871	0.00	2.08
104.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.912	0.00	0.55
104.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.912	0.00	2.08
106.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.951	0.00	0.55
106.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.951	0.00	2.08
108.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.991	0.00	0.55
108.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	9.991	0.00	2.08
110.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.029	0.00	0.55
110.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.029	0.00	2.08
112.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.068	0.00	0.55
112.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.068	0.00	2.08
114.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.105	0.00	0.55
114.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.105	0.00	2.08
116.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.142	0.00	0.55
116.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.142	0.00	2.08
118.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.179	0.00	0.55
118.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.179	0.00	2.08
120.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.215	0.00	0.55
120.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.215	0.00	2.08
122.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.250	0.00	0.55
122.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.250	0.00	2.08
124.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.286	0.00	0.55
124.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.286	0.00	2.08
126.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.320	0.00	0.55
126.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.320	0.00	2.08
128.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.355	0.00	0.55
128.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.355	0.00	2.08
130.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.388	0.00	0.55
130.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.388	0.00	2.08
132.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.422	0.00	0.55
132.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.422	0.00	2.08
133.33	Safety Cable	Yes	1.33	0.000	0.00	0.00	0.00	0.000	0.000	10.444	0.00	0.36
133.33	Step bolts (ladder)	Yes	1.33	0.000	0.00	0.00	0.00	0.000	0.000	10.444	0.00	1.39
134.00	Safety Cable	Yes	0.67	0.000	0.00	0.00	0.00	0.000	0.000	10.455	0.00	0.18

Linear Appurtenance Segment Forces (Factored)

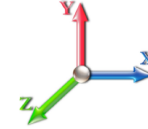
Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 27

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
134.00	Step bolts (ladder)	Yes	0.67	0.000	0.00	0.00	0.00	0.000	0.000	10.455	0.00	0.69
136.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.488	0.00	0.55
136.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.488	0.00	2.08
138.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.520	0.00	0.55
138.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.520	0.00	2.08
140.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.552	0.00	0.55
140.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.552	0.00	2.08
142.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.583	0.00	0.55
142.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.583	0.00	2.08
144.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.615	0.00	0.55
144.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.615	0.00	2.08
146.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.645	0.00	0.55
146.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.645	0.00	2.08
148.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.676	0.00	0.55
148.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.676	0.00	2.08
150.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.706	0.00	0.55
150.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.706	0.00	2.08
152.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.736	0.00	0.55
152.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.736	0.00	2.08
154.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.766	0.00	0.55
154.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.766	0.00	2.08
156.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.795	0.00	0.55
156.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.795	0.00	2.08
158.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.824	0.00	0.55
158.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.824	0.00	2.08
160.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.853	0.00	0.55
160.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.853	0.00	2.08
162.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.881	0.00	0.55
162.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.881	0.00	2.08
164.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.909	0.00	0.55
164.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.909	0.00	2.08
166.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.937	0.00	0.55
166.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.937	0.00	2.08
168.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.965	0.00	0.55
168.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.965	0.00	2.08
170.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.992	0.00	0.55
170.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	10.992	0.00	2.08
172.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	11.019	0.00	0.55
172.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	11.019	0.00	2.08
174.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	11.046	0.00	0.55
174.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	11.046	0.00	2.08
176.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	11.073	0.00	0.55
176.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	11.073	0.00	2.08
178.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	11.099	0.00	0.55
178.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	11.099	0.00	2.08
180.00	Safety Cable	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	11.125	0.00	0.55
180.00	Step bolts (ladder)	Yes	2.00	0.000	0.00	0.00	0.00	0.000	0.000	11.125	0.00	2.08

Linear Appurtenance Segment Forces (Factored)

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

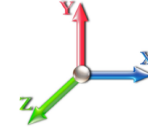


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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations 27

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
Totals:											0.0	236.3

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

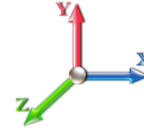


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Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 27

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	-50.07	-10.21	0.00	-1245.3	0.00	1245.33	5123.29	1522.04	7808.40	6435.29	0.00	0.000	0.000	0.203
2.00	-49.48	-10.15	0.00	-1224.9	0.00	1224.91	5107.67	1509.78	7683.09	6363.61	0.00	-0.017	0.000	0.202
4.00	-48.86	-10.09	0.00	-1204.6	0.00	1204.60	5091.62	1497.52	7558.79	6291.73	0.01	-0.034	0.000	0.201
6.00	-48.22	-10.04	0.00	-1184.4	0.00	1184.41	5075.16	1485.26	7435.50	6219.67	0.03	-0.051	0.000	0.200
8.00	-47.58	-9.98	0.00	-1164.3	0.00	1164.34	5058.29	1472.99	7313.22	6147.44	0.06	-0.068	0.000	0.199
10.00	-46.95	-9.92	0.00	-1144.3	0.00	1144.39	5041.00	1460.73	7191.96	6075.05	0.09	-0.085	0.000	0.198
12.00	-46.32	-9.86	0.00	-1124.5	0.00	1124.55	5023.29	1448.47	7071.72	6002.51	0.13	-0.102	0.000	0.197
14.00	-45.69	-9.81	0.00	-1104.8	0.00	1104.82	5005.16	1436.20	6952.48	5929.84	0.18	-0.120	0.000	0.195
16.00	-45.07	-9.75	0.00	-1085.2	0.00	1085.21	4986.62	1423.94	6834.27	5857.05	0.23	-0.138	0.000	0.194
18.00	-44.46	-9.69	0.00	-1065.7	0.00	1065.72	4967.66	1411.68	6717.06	5784.16	0.29	-0.155	0.000	0.193
20.00	-43.85	-9.63	0.00	-1046.3	0.00	1046.34	4948.29	1399.42	6600.87	5711.17	0.36	-0.173	0.000	0.192
22.00	-43.25	-9.57	0.00	-1027.0	0.00	1027.08	4928.49	1387.15	6485.69	5638.10	0.44	-0.192	0.000	0.191
24.00	-42.65	-9.50	0.00	-1007.9	0.00	1007.95	4908.28	1374.89	6371.53	5564.95	0.52	-0.210	0.000	0.190
26.00	-42.05	-9.44	0.00	-988.94	0.00	988.94	4887.66	1362.63	6258.37	5491.76	0.61	-0.228	0.000	0.189
28.00	-41.46	-9.38	0.00	-970.06	0.00	970.06	4866.62	1350.36	6146.24	5418.52	0.71	-0.247	0.000	0.188
30.00	-40.88	-9.31	0.00	-951.31	0.00	951.31	4845.16	1338.10	6035.11	5345.24	0.82	-0.265	0.000	0.186
32.00	-40.30	-9.25	0.00	-932.68	0.00	932.68	4823.28	1325.84	5925.00	5271.95	0.94	-0.284	0.000	0.185
34.00	-39.72	-9.18	0.00	-914.19	0.00	914.19	4800.99	1313.58	5815.91	5198.66	1.06	-0.303	0.000	0.184
36.00	-39.15	-9.12	0.00	-895.82	0.00	895.82	4778.28	1301.31	5707.83	5125.37	1.19	-0.322	0.000	0.183
38.00	-38.58	-9.05	0.00	-877.59	0.00	877.59	4755.15	1289.05	5600.76	5052.10	1.33	-0.341	0.000	0.182
40.00	-38.02	-8.98	0.00	-859.49	0.00	859.49	4731.61	1276.79	5494.70	4978.87	1.48	-0.361	0.000	0.181
42.00	-37.47	-8.91	0.00	-841.53	0.00	841.53	4707.65	1264.52	5389.66	4905.68	1.63	-0.380	0.000	0.180
43.92	-36.94	-8.84	0.00	-824.45	0.00	824.45	4684.30	1252.77	5289.95	4835.60	1.79	-0.399	0.000	0.178
44.00	-36.89	-8.85	0.00	-823.71	0.00	823.71	4683.27	1252.26	5285.64	4832.55	1.80	-0.400	0.000	0.178
46.00	-35.89	-8.77	0.00	-806.01	0.00	806.01	4658.48	1240.00	5182.62	4759.49	1.97	-0.420	0.000	0.177
48.00	-34.90	-8.70	0.00	-788.47	0.00	788.47	4633.27	1227.74	5080.62	4686.52	2.15	-0.440	0.000	0.176
50.00	-33.91	-8.63	0.00	-771.06	0.00	771.06	4607.64	1215.47	4979.64	4613.64	2.34	-0.460	0.000	0.175
51.00	-33.42	-8.59	0.00	-762.44	0.00	762.44	4157.28	1142.33	4736.69	4216.21	2.43	-0.470	0.000	0.189
52.00	-33.17	-8.56	0.00	-753.85	0.00	753.85	4146.96	1136.64	4689.60	4184.61	2.53	-0.480	0.000	0.188
54.00	-32.67	-8.49	0.00	-736.74	0.00	736.74	4126.01	1125.25	4596.10	4121.41	2.74	-0.501	0.000	0.187
56.00	-32.17	-8.42	0.00	-719.76	0.00	719.76	4104.64	1113.86	4503.55	4058.23	2.95	-0.523	0.000	0.185
58.00	-31.68	-8.35	0.00	-702.93	0.00	702.93	4082.85	1102.48	4411.95	3995.08	3.18	-0.544	0.000	0.184
60.00	-31.19	-8.28	0.00	-686.23	0.00	686.23	4060.64	1091.09	4321.28	3931.97	3.41	-0.565	0.000	0.182
62.00	-30.70	-8.21	0.00	-669.68	0.00	669.68	4038.02	1079.70	4231.55	3868.91	3.65	-0.587	0.000	0.181
64.00	-30.22	-8.14	0.00	-653.26	0.00	653.26	4014.98	1068.31	4142.77	3805.92	3.90	-0.608	0.000	0.179
66.00	-29.75	-8.07	0.00	-636.98	0.00	636.98	3991.52	1056.93	4054.92	3743.01	4.16	-0.630	0.000	0.178
68.00	-29.28	-8.00	0.00	-620.84	0.00	620.84	3967.65	1045.54	3968.02	3680.19	4.43	-0.652	0.000	0.176
70.00	-28.81	-7.93	0.00	-604.84	0.00	604.84	3943.36	1034.15	3882.06	3617.47	4.71	-0.674	0.000	0.175
72.00	-28.35	-7.86	0.00	-588.98	0.00	588.98	3918.66	1022.77	3797.04	3554.87	5.00	-0.696	0.000	0.173
74.00	-27.89	-7.79	0.00	-573.26	0.00	573.26	3893.54	1011.38	3712.96	3492.40	5.29	-0.719	0.000	0.171
76.00	-27.43	-7.72	0.00	-557.68	0.00	557.68	3868.00	999.99	3629.83	3430.07	5.60	-0.741	0.000	0.170
78.00	-26.99	-7.65	0.00	-542.23	0.00	542.23	3842.04	988.61	3547.63	3367.90	5.91	-0.764	0.000	0.168
80.00	-26.54	-7.59	0.00	-526.92	0.00	526.92	3815.67	977.22	3466.38	3305.90	6.24	-0.787	0.000	0.166
82.00	-26.10	-7.52	0.00	-511.75	0.00	511.75	3788.88	965.83	3386.07	3244.07	6.57	-0.810	0.000	0.165
84.00	-25.67	-7.45	0.00	-496.72	0.00	496.72	3761.67	954.44	3306.69	3182.44	6.92	-0.833	0.000	0.163
86.00	-25.23	-7.38	0.00	-481.82	0.00	481.82	3734.05	943.06	3228.26	3121.02	7.27	-0.856	0.000	0.161
88.00	-24.81	-7.31	0.00	-467.05	0.00	467.05	3706.01	931.67	3150.77	3059.82	7.64	-0.879	0.000	0.159
90.00	-24.39	-7.24	0.00	-452.42	0.00	452.42	3677.55	920.28	3074.23	2998.84	8.01	-0.903	0.000	0.158

Calculated Forces

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.17	-24.35	-7.24	0.00	-451.22	0.00	451.22	3675.16	919.33	3067.89	2993.77	8.04	-0.905	0.000	0.157
92.00	-23.69	-7.18	0.00	-437.94	0.00	437.94	3648.68	908.90	2998.62	2938.12	8.39	-0.926	0.000	0.156
94.00	-22.97	-7.10	0.00	-423.59	0.00	423.59	3619.39	897.51	2923.96	2877.64	8.79	-0.950	0.000	0.154
96.00	-22.26	-7.03	0.00	-409.39	0.00	409.39	2873.56	764.37	2506.37	2303.28	9.19	-0.974	0.000	0.186
98.00	-21.91	-6.96	0.00	-395.33	0.00	395.33	2853.66	754.73	2443.58	2258.25	9.60	-0.998	0.000	0.183
100.00	-21.55	-6.90	0.00	-381.40	0.00	381.40	2833.34	745.10	2381.59	2213.29	10.03	-1.024	0.000	0.180
102.00	-21.20	-6.83	0.00	-367.60	0.00	367.60	2812.61	735.46	2320.39	2168.43	10.46	-1.051	0.000	0.177
104.00	-20.86	-6.77	0.00	-353.94	0.00	353.94	2791.46	725.83	2259.99	2123.68	10.91	-1.078	0.000	0.174
106.00	-20.51	-6.70	0.00	-340.40	0.00	340.40	2769.89	716.19	2200.39	2079.04	11.36	-1.105	0.000	0.171
108.00	-20.17	-6.64	0.00	-326.99	0.00	326.99	2747.90	706.55	2141.58	2034.53	11.83	-1.132	0.000	0.168
110.00	-19.84	-6.58	0.00	-313.71	0.00	313.71	2725.50	696.92	2083.57	1990.17	12.31	-1.158	0.000	0.165
112.00	-19.51	-6.52	0.00	-300.55	0.00	300.55	2702.68	687.28	2026.36	1945.97	12.80	-1.185	0.000	0.162
114.00	-19.18	-6.45	0.00	-287.52	0.00	287.52	2679.45	677.65	1969.94	1901.93	13.31	-1.212	0.000	0.158
116.00	-18.86	-6.39	0.00	-274.62	0.00	274.62	2655.79	668.01	1914.32	1858.08	13.82	-1.239	0.000	0.155
118.00	-18.54	-6.33	0.00	-261.84	0.00	261.84	2631.73	658.38	1859.50	1814.42	14.34	-1.265	0.000	0.151
120.00	-18.22	-6.27	0.00	-249.18	0.00	249.18	2607.24	648.74	1805.47	1770.96	14.88	-1.292	0.000	0.148
122.00	-17.91	-6.21	0.00	-236.65	0.00	236.65	2582.34	639.11	1752.24	1727.73	15.43	-1.318	0.000	0.144
124.00	-17.60	-6.15	0.00	-224.23	0.00	224.23	2557.02	629.47	1699.80	1684.74	15.99	-1.344	0.000	0.140
126.00	-17.29	-6.09	0.00	-211.94	0.00	211.94	2531.28	619.84	1648.16	1641.98	16.55	-1.370	0.000	0.136
128.00	-16.99	-6.03	0.00	-199.77	0.00	199.77	2505.13	610.20	1597.32	1599.49	17.13	-1.395	0.000	0.132
130.00	-16.70	-5.97	0.00	-187.71	0.00	187.71	2478.56	600.57	1547.28	1557.27	17.72	-1.420	0.000	0.127
132.00	-16.40	-5.91	0.00	-175.78	0.00	175.78	2451.58	590.93	1498.03	1515.33	18.32	-1.445	0.000	0.123
133.33	-16.21	-5.87	0.00	-167.90	0.00	167.90	2433.35	584.51	1465.64	1487.53	18.73	-1.462	0.000	0.120
134.00	-16.06	-5.85	0.00	-163.98	0.00	163.98	2424.17	581.30	1449.58	1473.69	18.93	-1.470	0.000	0.118
136.00	-15.61	-5.79	0.00	-152.28	0.00	152.28	2396.35	571.66	1401.92	1432.35	19.56	-1.493	0.000	0.113
138.00	-15.16	-5.72	0.00	-140.71	0.00	140.71	2368.53	562.02	1354.28	1381.01	20.21	-1.516	0.000	0.108
140.00	-14.94	-5.67	0.00	-129.26	0.00	129.26	2340.71	552.38	1306.60	1329.10	20.97	-1.538	0.000	0.103
142.00	-14.72	-5.62	0.00	-117.92	0.00	117.92	2312.89	542.74	1251.92	1277.19	21.84	-1.560	0.000	0.098
144.00	-14.50	-5.56	0.00	-106.69	0.00	106.69	2285.07	533.10	1197.24	1225.28	22.81	-1.582	0.000	0.093
146.00	-14.29	-5.51	0.00	-95.57	0.00	95.57	2257.25	523.46	1142.56	1173.37	23.89	-1.604	0.000	0.088
148.00	-14.07	-5.45	0.00	-84.56	0.00	84.56	2229.43	513.82	1087.88	1119.46	25.07	-1.626	0.000	0.083
150.00	-11.28	-4.20	0.00	-73.65	0.00	73.65	2156.00	475.00	980.00	980.00	30.00	-1.700	0.000	0.070
152.00	-11.10	-4.15	0.00	-65.25	0.00	65.25	2100.00	430.00	850.00	850.00	35.00	-1.750	0.000	0.060
154.00	-10.91	-4.09	0.00	-56.96	0.00	56.96	2000.00	370.00	700.00	700.00	40.00	-1.800	0.000	0.050
156.00	-10.73	-4.04	0.00	-48.77	0.00	48.77	1850.00	300.00	550.00	550.00	45.00	-1.850	0.000	0.040
158.00	-8.82	-3.57	0.00	-40.69	0.00	40.69	1650.00	230.00	400.00	400.00	50.00	-1.900	0.000	0.030
160.00	-7.94	-2.95	0.00	-33.54	0.00	33.54	1450.00	160.00	250.00	250.00	55.00	-1.950	0.000	0.020
162.00	-7.79	-2.90	0.00	-27.64	0.00	27.64	1300.00	90.00	100.00	100.00	60.00	-2.000	0.000	0.010
164.00	-7.65	-2.85	0.00	-21.84	0.00	21.84	1150.00	30.00	50.00	50.00	65.00	-2.050	0.000	0.005
166.00	-3.86	-1.45	0.00	-16.13	0.00	16.13	1000.00	0.00	0.00	0.00	70.00	-2.100	0.000	0.002
168.00	-3.73	-1.41	0.00	-13.22	0.00	13.22	850.00	0.00	0.00	0.00	75.00	-2.150	0.000	0.001
170.00	-3.60	-1.36	0.00	-10.41	0.00	10.41	700.00	0.00	0.00	0.00	80.00	-2.200	0.000	0.000
172.00	-3.48	-1.31	0.00	-7.69	0.00	7.69	550.00	0.00	0.00	0.00	85.00	-2.250	0.000	0.000
174.00	-3.36	-1.27	0.00	-5.07	0.00	5.07	400.00	0.00	0.00	0.00	90.00	-2.300	0.000	0.000
176.00	-3.25	-1.22	0.00	-2.53	0.00	2.53	250.00	0.00	0.00	0.00	95.00	-2.350	0.000	0.000
178.00	-0.11	-0.04	0.00	-0.09	0.00	0.09	100.00	0.00	0.00	0.00	100.00	-2.400	0.000	0.000
180.00	0.00	-0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100.00	-2.400	0.000	0.000

Final Analysis Summary

Structure: CT46130-A-SBA	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.0W 123 mph Wind	48.0	0.00	60.05	0.00	0.00	5886.15
0.9D + 1.0W 123 mph Wind	48.0	0.00	45.03	0.00	0.00	5809.29
1.2D + 1.0Di + 1.0Wi 50 mph Wind	10.4	0.00	80.27	0.00	0.00	1312.28
1.2D + 1.0Ev + 1.0Eh	0.8	0.00	62.37	0.00	0.00	134.16
0.9D + 1.0Ev + 1.0Eh	0.8	0.00	47.29	0.00	0.00	132.48
1.0D + 1.0W 60 mph Wind	10.2	0.00	50.07	0.00	0.00	1245.33

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.0W 123 mph Wind	-60.05	-47.98	0.00	-5886.1	0.00	-5886.1	5123.29	1522.0	7808.40	6435.29	0.00	0.927
0.9D + 1.0W 123 mph Wind	-45.03	-47.97	0.00	-5809.2	0.00	-5809.2	5123.29	1522.0	7808.40	6435.29	0.00	0.913
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-80.27	-10.40	0.00	-1312.2	0.00	-1312.2	5123.29	1522.0	7808.40	6435.29	0.00	0.220
1.2D + 1.0Ev + 1.0Eh	-19.06	-0.79	0.00	-22.17	0.00	-22.17	1545.45	417.14	1026.36	929.77	138.00	0.036
0.9D + 1.0Ev + 1.0Eh	-14.46	-0.78	0.00	-21.87	0.00	-21.87	1545.45	417.14	1026.36	929.77	138.00	0.033
1.0D + 1.0W 60 mph Wind	-50.07	-10.21	0.00	-1245.3	0.00	-1245.3	5123.29	1522.0	7808.40	6435.29	0.00	0.203

Base Plate Summary

Structure: CT46130-A-SB	Code: EIA/TIA-222-H	1/13/2021
Site Name: Deep River-winthrop Rd	Exposure: C	
Height: 180.00 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Reactions	Base Plate	Anchor Bolts
Original Design	Yield (ksi): 60.00	Bolt Circle: 70.69
Moment (kip-ft): 5076.00	Width (in): 76.69	Number Bolts: 20.00
Axial (kip): 59.10	Style: Polygon	Bolt Type: 2.25" 18J
Shear (kip): 41.70	Polygon Sides: 12.00	Bolt Diameter (in): 2.25
Analysis (1.2D + 1.0W)	Clip Length (in): 0.00	Yield (ksi): 75.00
Moment (kip-ft): 5886.15	Effective Len (in): 14.14	Ultimate (ksi): 100.00
Axial (kip): 60.05	Moment (kip-in): 885.75	Arrangement: Radial
Shear (kip): 47.98	Allow Stress (ksi): 81.00	Cluster Dist (in): 0.00
	Applied Stress (ksi): 49.41	Start Angle (deg): 0.00
	Stress Ratio: 0.61	Compression
		Force (kip): 203.85
		Allowable (kip): 268.39
		Ratio: 0.76
		Tension
		Force (kip): 195.83
		Allowable (kip): 243.75
		Ratio: 0.80



Monopole Mat Foundation Design

Date

12/5/2019

Customer Name:	SBA Communications Corp	EIA/TIA Standard:	EIA-222-H
Site Name:	Deep River-winthrop Rd	Structure Height (Ft.):	180
Site Number:	CT46130-A-SBA	Engineer Name:	D. Zhou
Engr. Number:	90244	Manager Login Req'd:	

Foundation Info Obtained from:

Drawings/Calculations

Structure Type:

Monopole

Analysis or Design?

Analysis

Base Reactions (Factored):

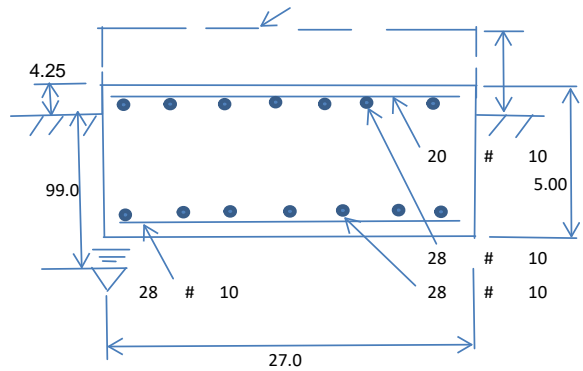
Axial Load (Kips):	60.1	Shear Force (Kips):	48.0
Uplift Force (Kips):	0.0	Moment (Kips-ft):	5886.1

Allowable overstress %: 5.0%

Foundation Geometries:

Anchor Bolt Circle (ft.):	5.89	Depth of Base BG (ft.):	0.75	Mods required -Yes/No ?:	No
Thickness of Pad (ft.):	5.00	Width of Pad (ft.):	27		
Length of Pad (ft.):	27				

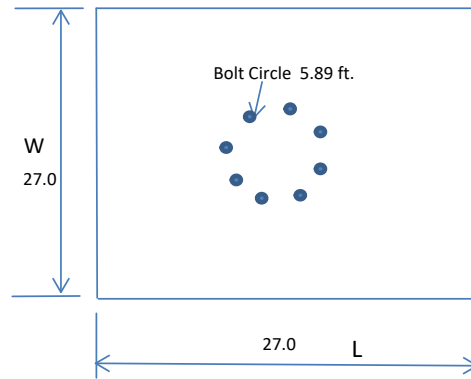
Final Length of pad (ft) 27.0 Final width of pad (ft): 27.0



Material Properties and Reabr Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Pad Rebar Yield (Ksi):	60	Tie Spacing (in):	12.0	
Pad Steel Rebar Size (#):	10			
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf
Rebar at the bottom of the concrete pad:				
Qty. of Rebar in Pad (L):	20	Qty. of Rebar in Pad (W):	20	
Rebar at the top of the concrete pad:				
Qty. of Rebar in Pad (L):	28	Qty. of Rebar in Pad (W):	28	

Apply 1.35 factor for e/w Per G: 1.35



Soil Design Parameters:

Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad:	30
Ultimate Bearing Pressure (psf):	120000	Ultimate Skin Friction:	0	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad:	25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00			

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	0.00	Total Dry Soil Weight (Kips):	0.00
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	0.00	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	3645.00	Total Dry Concrete Weight (Kips):	546.75
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	546.75	Total Vertical Load on Base (Kips):	606.80

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	4239	<	Allowable Factored Soil Bearing (psf):	90000	0.05	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	7453.7	>	Design Factored Momont (kips-ft):	6129	0.82	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.22					OK!

Load/
Capacity
Ratio

Check the capacities of Reinforcing Concrete:

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

Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	1732.8	>	One-Way Factored Shear (L-D. Kips):	361.4	0.21	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	1732.8	>	One-Way Factored Shear (W-D., Kips)	361.4	0.21	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	2040.5	>	One-Way Factored Shear (C-C, Kips):	816.3	0.40	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0014	OK!	Lower Steel Pad Reinf. Ratio (W-Direc	0.0014		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	6364.6	>	Moment at Bottom (L-Direct. K-Ft):	1013.3	0.16	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	6364.6	>	Moment at Bottom (W-Direct. K-Ft):	1013.3	0.16	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	8978.4	>	Moment at Bottom (C-C Dir. K-Ft):	1433.0	0.16	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0019	OK!	Upper Steel Reinf. Ratio (W-Direct.):	0.0019		
Upper Steel Pad Moment Capacity (L-Direction. Kips-ft):	8866.2	>	Moment at the top (L-Dir Kips-Ft):	50.7	0.01	OK!
Upper Steel Pad Moment Capacity (W-Direction. Kips-ft):	8866.2	>	Moment at the top (W-Dir Kips-Ft):	50.7	0.01	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	12494.6	>	Moment at the top (C-C Direc. K-Ft):	826.0	0.07	OK!

December 14, 2020



SAI Communications
12 Industrial Way
Salem NH, 03079

RE: Site Number: CT5873 (LTE 3C/4C/5G)
 SBA Site ID: NY11573-B Naples Hill South
 FA Number: 10070997
 PACE Number: MRCTB049650
 PT Number: 2051A0X1TB
 Site Name: DEEP RIVER CENTRAL
 Site Address: 220 Winthrop Road
 Deep River, CT 06417

To Whom It May Concern:

Hudson Design Group LLC (HDG) has been authorized by SAI Communications to perform a mount analysis on the existing AT&T antenna/RRH mounts to determine their capability of supporting the following additional loading:

- (3) 7770 Antennas (55.0"x11.0"x5.0" - Wt. = 35 lbs. /each)
- (2) HPA-65R-BUU-H6 Antennas (72.0"x14.8"x7.4" – Wt. = 51 lbs. /each)
- (1) SBNHH-1D65A Antennas (55.6"x11.9"x7.1" - Wt. = 34 lbs. /each)
- (6) LGP21401 TMA's (14.4"x9.0"x2.7" – Wt. = 19 lbs. /each)
- (1) Squid Surge Arrestor (24.0"x9.7" Φ – Wt. = 33 lbs. /each)
- **(2) DMP65R-BU6DA Antennas (71.2"x20.7"x7.7" – Wt. = 80 lbs. /each)**
- **(1) DMP65R-BU4DA Antennas (48.0"x20.7"x7.7" – Wt. = 68 lbs. /each)**
- **(3) B2/B66A 8843 RRH's (14.9"x13.2"x10.9" – Wt. = 72 lbs. /each)**
- **(3) B5/B12 4449 RRH's (17.9"x13.2"x9.4" – Wt. = 73 lbs. /each)**

**Proposed equipment shown in bold*

No original structural design documents or fabrication drawings were available for the existing mounts. HDG's subconsultant, ProVertic LLC, conducted a survey climb and mapping of the existing antenna mount on January 3, 2018. HDG conducted a ground audit of the existing antenna mount October 14, 2020.

Mount Analysis Methods:

- This analysis was conducted in accordance with EIA/TIA-222-H, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, the International Building Code 2015 with 2018 Connecticut State Building Code, and AT&T Mount Technical Directive – R13.
- HDG considers this mount to be asymmetrical and has applied wind loads in 30-degree increments all around the mount. Per TIA-222-H and Appendix N of the Connecticut State Building Code, the max basic wind speed for this site is equal to 130 mph with a max basic wind speed with ice of 50 mph and a max ice thickness of 1.0 in. An escalated ice thickness of 1.16 in was used for this analysis.
- HDG considers this site to be exposure category B; tower is located in an urban/suburban or wooded area with numerous closely spaced obstructions.
- HDG considers this site to be topographic category 1; tower is located on flat terrain or the bottom of a hill or ridge.
- HDG considers this site to have a spectral response acceleration parameter at short periods, S_s , of 0.170 and a spectral response acceleration parameter at a period of 1 second, S_1 , of 0.060.
- The mount has been analyzed with load combinations consisting of 250 lbs live load using a service wind speed of 30 mph wind on the worst case antenna. Analysis performed on each antenna pipe to determine worst case location; worst case location was antenna position 2.
- The mount has been analyzed with load combinations consisting of a 250 lbs live load in a worst case location on the mount.
- The existing mount is secured to the existing monopole with a ring mount. The connection is considered OK by visual inspection.

Based on our evaluation, we have determined that the existing mounts **ARE CAPABLE** of supporting the proposed installation.

	Component	Controlling Load Case	Stress Ratio	Pass/Fail
Existing (LTE 4C/5C/5G) Mount Rating	267	LC4	66%	PASS

Reference Documents:

- Mount mapping report prepared by ProVertic LLC, dated February 2, 2018.

This determination was based on the following limitations and assumptions:

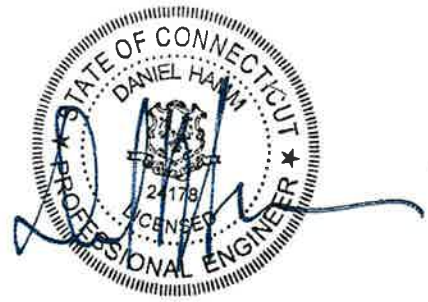
1. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.
2. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities.
3. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer's requirements.
4. The existing mount has been adequately secured to the tower structure per the mount manufacturer's specifications.
5. All components pertaining to AT&T's mounts must be tightened and re-plumbed prior to the installation of new appurtenances.
6. HDG performed a localized analysis on the mount itself and not on the supporting tower structure.

Please feel free to contact our office should you have any questions.

Respectfully Submitted,
Hudson Design Group LLC



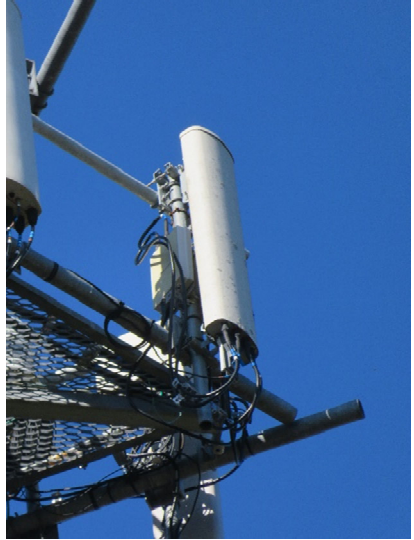
Michael Cabral
Vice President



Daniel P. Hamm, PE
Principal

FIELD PHOTOS:







HUDSON
Design Group LLC

**Wind & Ice
Calculations**

Date: 12/14/2020
 Project Name: DEEP RIVER CENTRAL
 Project No.: CT5873
 Designed By: KM Checked By: MSC



2.6.5.2 Velocity Pressure Coeff:

$$K_z = 2.01 (z/z_g)^{2/\alpha}$$

$K_z =$ **1.110**

$z =$ 150 (ft)
 $z_g =$ 1200 (ft)
 $\alpha =$ 7.0

$K_{zmin} \leq K_z \leq 2.01$

Table 2-4

Exposure	Z_g	α	K_{zmin}	K_c
B	1200 ft	7.0	0.70	0.9
C	900 ft	9.5	0.85	1.0
D	700 ft	11.5	1.03	1.1

2.6.6.2 Topographic Factor:

Table 2-5

Topo. Category	K_t	f
2	0.43	1.25
3	0.53	2.0
4	0.72	1.5

$$K_{zt} = [1 + (K_c K_t / K_h)]^2$$

$K_{zt} =$ **1**

(If Category 1 then $K_{zt} = 1.0$)

Category = **1**

$$K_h = e^{(fz/H)}$$

$K_h =$ 1
 $K_c =$ 0.9 (from Table 2-4)
 $K_t =$ 0 (from Table 2-5)
 $f =$ 0 (from Table 2-5)
 $z =$ 150
 $z_s =$ 245 (Mean elevation of base of structure above sea level)
 $H =$ 0 (Ht. of the crest above surrounding terrain)
 $K_{zt} =$ 1.00 (from 2.6.6.2.1)
 $K_e =$ 0.99 (from 2.6.8)

2.6.10 Design Ice Thickness

Max Ice Thickness = $t_i =$ **1.00** in
 Importance Factor = $I =$ **1.0** (from Table 2-3)
 $K_{iz} =$ **1.16** (from Sec. 2.6.10)

$$t_{iz} = t_i * I * K_{iz} * (K_{zt})^{0.35}$$

$t_{iz} =$ **1.16** in

Date: 12/14/2020
 Project Name: DEEP RIVER CENTRAL
 Project No.: CT5873
 Designed By: KM Checked By: MSC



2.6.9 Gust Effect Factor

2.6.9.1 Self Supporting Lattice Structures

$G_h = 1.0$ Latticed Structures > 600 ft

$G_h = 0.85$ Latticed Structures 450 ft or less

$G_h = 0.85 + 0.15 [h/150 - 3.0]$

$h =$ ht. of structure

$h =$ 180

$G_h =$ 0.85

2.6.9.2 Guyed Masts

$G_h =$ 0.85

2.6.9.3 Pole Structures

$G_h =$ 1.1

2.6.9 Appurtenances

$G_h =$ 1.0

2.6.9.4 Structures Supported on Other Structures

(Cantilevered tubular or latticed spines, pole, structures on buildings ($ht. : width$ ratio > 5))

$G_h =$ 1.35

$G_h =$ 1.00

2.6.11.2 Design Wind Force on Appurtenances

$F = q_z * G_h * (EPA)_A$

$q_z = 0.00256 * K_z * K_{zt} * K_s * K_e * K_d * V_{max}^2$

$q_z =$	45.20
$q_z (ice) =$	6.69
$q_z (30) =$	2.41

$K_z =$	1.110 (from 2.6.5.2)
$K_{zt} =$	1.0 (from 2.6.6.2.1)
$K_s =$	1.0 (from 2.6.7)
$K_e =$	0.99 (from 2.6.8)
$K_d =$	0.95 (from Table 2-2)
$V_{max} =$	130 mph (Ultimate Wind Speed)
$V_{max (ice)} =$	50 mph
$V_{30} =$	30 mph

Table 2-2

Structure Type	Wind Direction Probability Factor, K_d
Latticed structures with triangular, square or rectangular cross sections	0.85
Tubular pole structures, latticed structures with other cross sections, appurtenances	0.95
Tubular pole structures supporting antennas enclosed within a cylindrical shroud	1.00

Date: 12/14/2020
 Project Name: DEEP RIVER CENTRAL
 Project No.: CT5873
 Designed By: KM Checked By: MSC



Determine Ca:

Table 2-9

Force Coefficients (Ca) for Appurtenances				
Member Type		Aspect Ratio ≤ 2.5	Aspect Ratio = 7	Aspect Ratio ≥ 25
		Ca	Ca	Ca
Flat		1.2	1.4	2.0
Square/Rectangular HSS		1.2 - 2.8(r _s) ≥ 0.85	1.4 - 4.0(r _s) ≥ 0.90	2.0 - 6.0(r _s) ≥ 1.25
Round	C < 39 (Subcritical)	0.7	0.8	1.2
	39 ≤ C ≤ 78 (Transitional)	4.14/(C ^{0.485})	3.66/(C ^{0.415})	46.8/(C ^{1.0})
	C > 78 (Supercritical)	0.5	0.6	0.6

Aspect Ratio is the overall length/width ratio in the plane normal to the wind direction.
 (Aspect ratio is independent of the spacing between support points of a linear appurtenance.)

Note: Linear interpolation may be used for aspect ratios other than those shown.

Ice Thickness = **1.16 in** Angle = **0 (deg)** Equivalent Angle = **180 (deg)**

Appurtenances	Height	Width	Depth	Flat Area	Aspect Ratio	Ca	Force (lbs)	Force (lbs) (w/ Ice)	Force (lbs) (30 mph)
7770 Antenna	55.0	11.0	5.0	4.20	5.00	1.31	249	47	13
HPA-65R-BUU-H6 Antenna	72.0	14.8	7.4	7.40	4.86	1.31	437	77	23
SBNHH-1D65A Antenna	55.6	11.9	7.1	4.59	4.67	1.30	269	50	14
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.44	1.24	575	98	31
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.32	1.20	374	65	20
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.20	74	15	4
B2/B66A 8843 RRH (Shielded)	14.9	1.3	10.9	0.13	11.46	1.55	9	4	1
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.36	1.20	89	18	5
B5/B12 4449 RRH (Shielded)	17.9	0.0	9.4	0.00	0.00	1.20	0	3	0
LGP21401 TMA	14.4	2.7	9.0	0.27	5.33	1.33	16	5	1
Surge Arrestor	24.0	9.7	9.7	1.62	2.47	0.70	51	10	3
HSS 4x4	4.0	12.0	-	0.33	0.33	1.25	19		
L 2-1/2x2-1/2 Angle	2.0	12.0	-	0.17	0.17	2.00	15		
L 2x2 Angle	2.0	12.0	-	0.17	0.17	2.00	15		
PL 6x1/2	0.5	12.0	-	0.04	0.04	2.00	4		
3" Pipe	3.5	12.0	-	0.29	0.29	1.20	16		
2" Pipe	2.4	12.0	-	0.20	0.20	1.20	11		

Date: 12/14/2020
 Project Name: DEEP RIVER CENTRAL
 Project No.: CT5873
 Designed By: KM Checked By: MSC



WIND LOADS

Angle = 30 (deg)

Ice Thickness = 1.16 in.

Equivalent Angle = 210 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Aspect Ratio	Aspect Ratio	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	249	132	220
HPA-65R-BUU-H6 Antenna	72.0	14.8	7.4	7.40	3.70	4.86	9.73	1.31	1.49	437	249	390
SBNHH-1D65A Antenna	55.6	11.9	7.1	4.59	2.74	4.67	7.83	1.30	1.43	269	177	246
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	575	254	494
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	374	158	320
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	74	61	71
B2/B66A 8843 RRH (Shielded)	14.9	6.6	10.9	0.68	1.13	2.26	1.37	1.20	1.20	37	61	43
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	89	63	83
B5/B12 4449 RRH (Shielded)	17.9	6.6	9.4	0.82	1.17	2.71	1.90	1.21	1.20	45	63	49
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	16	49	24

WIND LOADS WITH ICE:

7770 Antenna	57.3	13.3	7.3	5.31	2.92	4.30	7.82	1.28	1.43	45	28	41
HPA-65R-BUU-H6 Antenna	74.3	17.1	9.7	8.84	5.02	4.34	7.64	1.28	1.42	76	48	69
SBNHH-1D65A Antenna	57.9	14.2	9.4	5.72	3.79	4.07	6.14	1.27	1.36	49	35	45
DMP65R-BU6DA Antenna	73.5	23.0	10.0	11.76	5.12	3.19	7.33	1.23	1.41	97	48	85
DMP65R-BU4DA Antenna	50.3	23.0	10.0	8.05	3.50	2.19	5.02	1.20	1.31	65	31	56
B2/B66A 8843 RRH	17.2	15.5	13.2	1.86	1.58	1.11	1.30	1.20	1.20	15	13	14
B2/B66A 8843 RRH (Shielded)	17.2	7.8	13.2	0.93	1.58	2.22	1.30	1.20	1.20	7	13	9
B5/B12 4449 RRH	20.2	15.5	11.7	2.18	1.65	1.30	1.72	1.20	1.20	18	13	16
B5/B12 4449 RRH (Shielded)	20.2	7.8	11.7	1.09	1.65	2.61	1.72	1.20	1.20	9	13	10
LGP21401 TMA	16.7	5.0	11.3	0.58	1.32	3.33	1.48	1.24	1.20	5	11	6

WIND LOADS AT 30 MPH:

7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	13	7	12
HPA-65R-BUU-H6 Antenna	72.0	14.8	7.4	7.40	3.70	4.86	9.73	1.31	1.49	23	13	21
SBNHH-1D65A Antenna	55.6	11.9	7.1	4.59	2.74	4.67	7.83	1.30	1.43	14	9	13
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	31	14	26
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	20	8	17
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	4	3	4
B2/B66A 8843 RRH (Shielded)	14.9	6.6	10.9	0.68	1.13	2.26	1.37	1.20	1.20	2	3	2
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	5	3	4
B5/B12 4449 RRH (Shielded)	17.9	6.6	9.4	0.82	1.17	2.71	1.90	1.21	1.20	2	3	3
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	1

Date: 12/14/2020
 Project Name: DEEP RIVER CENTRAL
 Project No.: CT5873
 Designed By: KM Checked By: MSC



WIND LOADS

Angle = 60 (deg) Ice Thickness = 1.16 in. Equivalent Angle = 240 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	249	132	162
HPA-65R-BUU-H6 Antenna	72.0	14.8	7.4	7.40	3.70	4.86	9.73	1.31	1.49	437	249	296
SBNHH-1D65A Antenna	55.6	11.9	7.1	4.59	2.74	4.67	7.83	1.30	1.43	269	177	200
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	575	254	334
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	374	158	212
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	74	61	64
B2/B66A 8843 RRH (Shielded)	14.9	9.9	10.9	1.02	1.13	1.51	1.37	1.20	1.20	56	61	60
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	89	63	70
B5/B12 4449 RRH (Shielded)	17.9	9.9	9.4	1.23	1.17	1.81	1.90	1.20	1.20	67	63	64
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	16	49	41

WIND LOADS WITH ICE:

7770 Antenna	57.3	13.3	7.3	5.31	2.92	4.30	7.82	1.28	1.43	45	28	32
HPA-65R-BUU-H6 Antenna	74.3	17.1	9.7	8.84	5.02	4.34	7.64	1.28	1.42	76	48	55
SBNHH-1D65A Antenna	57.9	14.2	9.4	5.72	3.79	4.07	6.14	1.27	1.36	49	35	38
DMP65R-BU6DA Antenna	73.5	23.0	10.0	11.76	5.12	3.19	7.33	1.23	1.41	97	48	60
DMP65R-BU4DA Antenna	50.3	23.0	10.0	8.05	3.50	2.19	5.02	1.20	1.31	65	31	39
B2/B66A 8843 RRH	17.2	15.5	13.2	1.86	1.58	1.11	1.30	1.20	1.20	15	13	13
B2/B66A 8843 RRH (Shielded)	17.2	11.6	13.2	1.39	1.58	1.48	1.30	1.20	1.20	11	13	12
B5/B12 4449 RRH	20.2	15.5	11.7	2.18	1.65	1.30	1.72	1.20	1.20	18	13	14
B5/B12 4449 RRH (Shielded)	20.2	11.6	11.7	1.64	1.65	1.74	1.72	1.20	1.20	13	13	13
LGP21401 TMA	16.7	5.0	11.3	0.58	1.32	3.33	1.48	1.24	1.20	5	11	9

WIND LOADS AT 30 MPH:

7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	13	7	9
HPA-65R-BUU-H6 Antenna	72.0	14.8	7.4	7.40	3.70	4.86	9.73	1.31	1.49	23	13	16
SBNHH-1D65A Antenna	55.6	11.9	7.1	4.59	2.74	4.67	7.83	1.30	1.43	14	9	11
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	31	14	18
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	20	8	11
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	4	3	3
B2/B66A 8843 RRH (Shielded)	14.9	9.9	10.9	1.02	1.13	1.51	1.37	1.20	1.20	3	3	3
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	5	3	4
B5/B12 4449 RRH (Shielded)	17.9	9.9	9.4	1.23	1.17	1.81	1.90	1.20	1.20	4	3	3
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	2

Date: 12/14/2020
 Project Name: DEEP RIVER CENTRAL
 Project No.: CT5873
 Designed By: KM Checked By: MSC



WIND LOADS

Angle = 90 (deg) Ice Thickness = 1.16 in. Equivalent Angle = 270 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	249	132	132
HPA-65R-BUU-H6 Antenna	72.0	14.8	7.4	7.40	3.70	4.86	9.73	1.31	1.49	437	249	249
SBNHH-1D65A Antenna	55.6	11.9	7.1	4.59	2.74	4.67	7.83	1.30	1.43	269	177	177
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	575	254	254
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	374	158	158
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	74	61	61
B2/B66A 8843 RRH (Shielded)	14.9	1.3	10.9	0.13	1.13	11.46	1.37	1.55	1.20	9	61	61
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	89	63	63
B5/B12 4449 RRH (Shielded)	17.9	0.0	9.4	0.00	1.17	0.00	1.90	1.20	1.20	0	63	63
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	16	49	49

WIND LOADS WITH ICE:

7770 Antenna	57.3	13.3	7.3	5.31	2.92	4.30	7.82	1.28	1.43	45	28	28
HPA-65R-BUU-H6 Antenna	74.3	17.1	9.7	8.84	5.02	4.34	7.64	1.28	1.42	76	48	48
SBNHH-1D65A Antenna	57.9	14.2	9.4	5.72	3.79	4.07	6.14	1.27	1.36	49	35	35
DMP65R-BU6DA Antenna	73.5	23.0	10.0	11.76	5.12	3.19	7.33	1.23	1.41	97	48	48
DMP65R-BU4DA Antenna	50.3	23.0	10.0	8.05	3.50	2.19	5.02	1.20	1.31	65	31	31
B2/B66A 8843 RRH	17.2	15.5	13.2	1.86	1.58	1.11	1.30	1.20	1.20	15	13	13
B2/B66A 8843 RRH (Shielded)	17.2	3.6	13.2	0.43	1.58	4.75	1.30	1.30	1.20	4	13	13
B5/B12 4449 RRH	20.2	15.5	11.7	2.18	1.65	1.30	1.72	1.20	1.20	18	13	13
B5/B12 4449 RRH (Shielded)	20.2	2.3	11.7	0.33	1.65	8.69	1.72	1.46	1.20	3	13	13
LGP21401 TMA	16.7	5.0	11.3	0.58	1.32	3.33	1.48	1.24	1.20	5	11	11

WIND LOADS AT 30 MPH:

7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	13	7	7
HPA-65R-BUU-H6 Antenna	72.0	14.8	7.4	7.40	3.70	4.86	9.73	1.31	1.49	23	13	13
SBNHH-1D65A Antenna	55.6	11.9	7.1	4.59	2.74	4.67	7.83	1.30	1.43	14	9	9
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	31	14	14
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	20	8	8
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	4	3	3
B2/B66A 8843 RRH (Shielded)	14.9	1.3	10.9	0.13	1.13	11.46	1.37	1.55	1.20	1	3	3
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	5	3	3
B5/B12 4449 RRH (Shielded)	17.9	0.0	9.4	0.00	1.17	0.00	1.90	1.20	1.20	0	3	3
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	3

Date: 12/14/2020
 Project Name: DEEP RIVER CENTRAL
 Project No.: CT5873
 Designed By: KM Checked By: MSC



WIND LOADS

Angle = 120 (deg) Ice Thickness = 1.16 in. Equivalent Angle = 300 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	249	132	162
HPA-65R-BUU-H6 Antenna	72.0	14.8	7.4	7.40	3.70	4.86	9.73	1.31	1.49	437	249	296
SBNHH-1D65A Antenna	55.6	11.9	7.1	4.59	2.74	4.67	7.83	1.30	1.43	269	177	200
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	575	254	334
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	374	158	212
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	74	61	64
B2/B66A 8843 RRH (Shielded)	14.9	9.9	10.9	1.02	1.13	1.51	1.37	1.20	1.20	56	61	60
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	89	63	70
B5/B12 4449 RRH (Shielded)	17.9	9.9	9.4	1.23	1.17	1.81	1.90	1.20	1.20	67	63	64
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	16	49	41

WIND LOADS WITH ICE:

7770 Antenna	57.3	13.3	7.3	5.31	2.92	4.30	7.82	1.28	1.43	45	28	32
HPA-65R-BUU-H6 Antenna	74.3	17.1	9.7	8.84	5.02	4.34	7.64	1.28	1.42	76	48	55
SBNHH-1D65A Antenna	57.9	14.2	9.4	5.72	3.79	4.07	6.14	1.27	1.36	49	35	38
DMP65R-BU6DA Antenna	73.5	23.0	10.0	11.76	5.12	3.19	7.33	1.23	1.41	97	48	60
DMP65R-BU4DA Antenna	50.3	23.0	10.0	8.05	3.50	2.19	5.02	1.20	1.31	65	31	39
B2/B66A 8843 RRH	17.2	15.5	13.2	1.86	1.58	1.11	1.30	1.20	1.20	15	13	13
B2/B66A 8843 RRH (Shielded)	17.2	11.6	13.2	1.39	1.58	1.48	1.30	1.20	1.20	11	13	12
B5/B12 4449 RRH	20.2	15.5	11.7	2.18	1.65	1.30	1.72	1.20	1.20	18	13	14
B5/B12 4449 RRH (Shielded)	20.2	11.6	11.7	1.64	1.65	1.74	1.72	1.20	1.20	13	13	13
LGP21401 TMA	16.7	5.0	11.3	0.58	1.32	3.33	1.48	1.24	1.20	5	11	9

WIND LOADS AT 30 MPH:

7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	13	7	9
HPA-65R-BUU-H6 Antenna	72.0	14.8	7.4	7.40	3.70	4.86	9.73	1.31	1.49	23	13	16
SBNHH-1D65A Antenna	55.6	11.9	7.1	4.59	2.74	4.67	7.83	1.30	1.43	14	9	11
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	31	14	18
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	20	8	11
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	4	3	3
B2/B66A 8843 RRH (Shielded)	14.9	9.9	10.9	1.02	1.13	1.51	1.37	1.20	1.20	3	3	3
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	5	3	4
B5/B12 4449 RRH (Shielded)	17.9	9.9	9.4	1.23	1.17	1.81	1.90	1.20	1.20	4	3	3
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	2

Date: 12/14/2020
 Project Name: DEEP RIVER CENTRAL
 Project No.: CT5873
 Designed By: KM Checked By: MSC



WIND LOADS

Angle = 150 (deg) Ice Thickness = 1.16 in. Equivalent Angle = 330 (deg)

WIND LOADS WITH NO ICE:

Appurtenances	Height	Width	Depth	Flat Area (normal)	Flat Area (side)	Ratio (normal)	Ratio (side)	Ca (normal)	Ca (side)	Force (lbs) (normal)	Force (lbs) (side)	Force (lbs) (angle)
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	249	132	220
HPA-65R-BUU-H6 Antenna	72.0	14.8	7.4	7.40	3.70	4.86	9.73	1.31	1.49	437	249	390
SBNHH-1D65A Antenna	55.6	11.9	7.1	4.59	2.74	4.67	7.83	1.30	1.43	269	177	246
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	575	254	494
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	374	158	320
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	74	61	71
B2/B66A 8843 RRH (Shielded)	14.9	6.6	10.9	0.68	1.13	2.26	1.37	1.20	1.20	37	61	43
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	89	63	83
B5/B12 4449 RRH (Shielded)	17.9	6.6	9.4	0.82	1.17	2.71	1.90	1.21	1.20	45	63	49
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	16	49	24

WIND LOADS WITH ICE:

7770 Antenna	57.3	13.3	7.3	5.31	2.92	4.30	7.82	1.28	1.43	45	28	41
HPA-65R-BUU-H6 Antenna	74.3	17.1	9.7	8.84	5.02	4.34	7.64	1.28	1.42	76	48	69
SBNHH-1D65A Antenna	57.9	14.2	9.4	5.72	3.79	4.07	6.14	1.27	1.36	49	35	45
DMP65R-BU6DA Antenna	73.5	23.0	10.0	11.76	5.12	3.19	7.33	1.23	1.41	97	48	85
DMP65R-BU4DA Antenna	50.3	23.0	10.0	8.05	3.50	2.19	5.02	1.20	1.31	65	31	56
B2/B66A 8843 RRH	17.2	15.5	13.2	1.86	1.58	1.11	1.30	1.20	1.20	15	13	14
B2/B66A 8843 RRH (Shielded)	17.2	7.8	13.2	0.93	1.58	2.22	1.30	1.20	1.20	7	13	9
B5/B12 4449 RRH	20.2	15.5	11.7	2.18	1.65	1.30	1.72	1.20	1.20	18	13	16
B5/B12 4449 RRH (Shielded)	20.2	7.8	11.7	1.09	1.65	2.61	1.72	1.20	1.20	9	13	10
LGP21401 TMA	16.7	5.0	11.3	0.58	1.32	3.33	1.48	1.24	1.20	5	11	6

WIND LOADS AT 30 MPH:

7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	13	7	12
HPA-65R-BUU-H6 Antenna	72.0	14.8	7.4	7.40	3.70	4.86	9.73	1.31	1.49	23	13	21
SBNHH-1D65A Antenna	55.6	11.9	7.1	4.59	2.74	4.67	7.83	1.30	1.43	14	9	13
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	31	14	26
DMP65R-BU4DA Antenna	48.0	20.7	7.7	6.90	2.57	2.32	6.23	1.20	1.37	20	8	17
B2/B66A 8843 RRH	14.9	13.2	10.9	1.37	1.13	1.13	1.37	1.20	1.20	4	3	4
B2/B66A 8843 RRH (Shielded)	14.9	6.6	10.9	0.68	1.13	2.26	1.37	1.20	1.20	2	3	2
B5/B12 4449 RRH	17.9	13.2	9.4	1.64	1.17	1.36	1.90	1.20	1.20	5	3	4
B5/B12 4449 RRH (Shielded)	17.9	6.6	9.4	0.82	1.17	2.71	1.90	1.21	1.20	2	3	3
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	3	1

Date: 12/14/2020

Project Name: DEEP RIVER CENTRAL

Project No.: CT5873

Designed By: KM Checked By: MSC



ICE WEIGHT CALCULATIONS

Thickness of ice: 1.16 in.
Density of ice: 56 pcf

7770 Antenna

Weight of ice based on total radial SF area:
Height (in): 55.0
Width (in): 11.0
Depth (in): 5.0
Total weight of ice on object: 86 lbs
Weight of object: 35.0 lbs

Combined weight of ice and object: 121 lbs

HPA-65R-BUU-H6 Antenna

Weight of ice based on total radial SF area:
Height (in): 72.0
Width (in): 14.8
Depth (in): 7.4
Total weight of ice on object: 151 lbs
Weight of object: 51.0 lbs

Combined weight of ice and object: 202 lbs

SNHH-1D65A Antenna

Weight of ice based on total radial SF area:
Height (in): 55.6
Width (in): 11.9
Depth (in): 7.1
Total weight of ice on object: 99 lbs
Weight of object: 34.0 lbs

Combined weight of ice and object: 133 lbs

DMP65R-BU6DA Antenna

Weight of ice based on total radial SF area:
Height (in): 71.2
Width (in): 20.7
Depth (in): 7.7
Total weight of ice on object: 195 lbs
Weight of object: 80.0 lbs

Combined weight of ice and object: 275 lbs

DMP65R-BU4DA Antenna

Weight of ice based on total radial SF area:
Height (in): 48.0
Width (in): 20.7
Depth (in): 7.7
Total weight of ice on object: 132 lbs
Weight of object: 68.0 lbs

Combined weight of ice and object: 200 lbs

B2/B66A 8843 RRH

Weight of ice based on total radial SF area:
Height (in): 14.9
Width (in): 13.2
Depth (in): 10.9
Total weight of ice on object: 32 lbs
Weight of object: 72.0 lbs

Combined weight of ice and object: 104 lbs

B5/B12 4449 RRH

Weight of ice based on total radial SF area:
Height (in): 17.9
Width (in): 13.2
Depth (in): 9.4
Total weight of ice on object: 37 lbs
Weight of object: 73.0 lbs

Combined weight of ice and object: 110 lbs

LGP21401 TMA

Weight of ice based on total radial SF area:
Height (in): 14.4
Width (in): 2.7
Depth (in): 9.0
Total weight of ice on object: 18 lbs
Weight of object: 19.0 lbs

Combined weight of ice and object: 37 lbs

Squid Surge Arrestor

Weight of ice based on total radial SF area:
Depth (in): 24.0
Diameter(in): 9.7
Total weight of ice on object: 31 lbs
Weight of object: 33 lbs

Combined weight of ice and object: 64 lbs

HSS 4x4

Weight of ice based on total radial SF area:
Height (in): 4
Width (in): 4
Per foot weight of ice on object: 10 plf

L 2-1/2x2-1/2 Angles

Weight of ice based on total radial SF area:
Height (in): 2.5
Width (in): 2.5
Per foot weight of ice on object: 7 plf

L 2x2 Angles

Weight of ice based on total radial SF area:
Height (in): 2
Width (in): 2
Per foot weight of ice on object: 6 plf

PL 6x1/2

Weight of ice based on total radial SF area:
Height (in): 6
Width (in): 0.5
Per foot weight of ice on object: 10 plf

3" Pipe

Per foot weight of ice:
diameter (in): 3.5
Per foot weight of ice on object: 7 plf

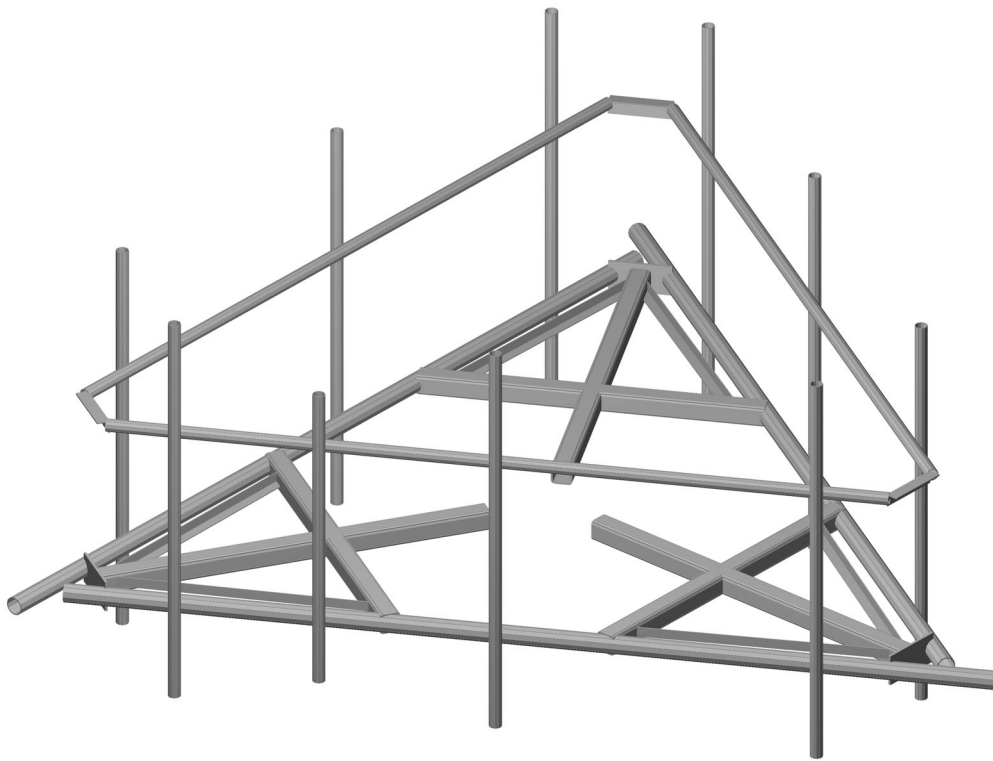
2" pipe

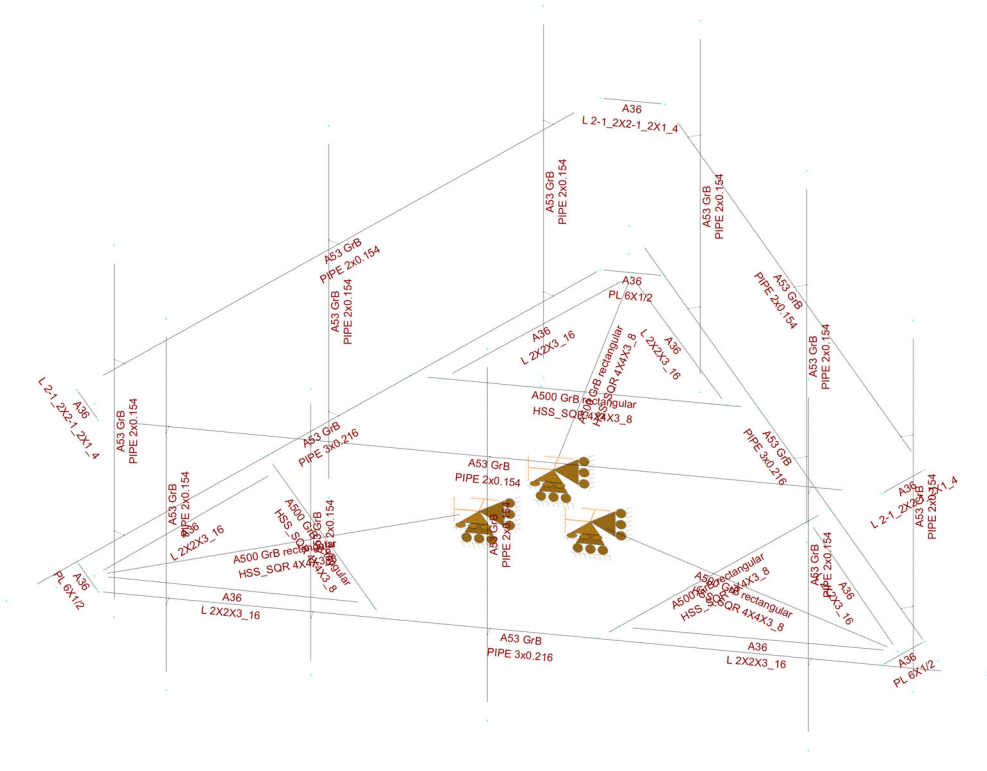
Per foot weight of ice:
diameter (in): 2.38
Per foot weight of ice on object: 5 plf

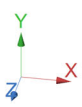
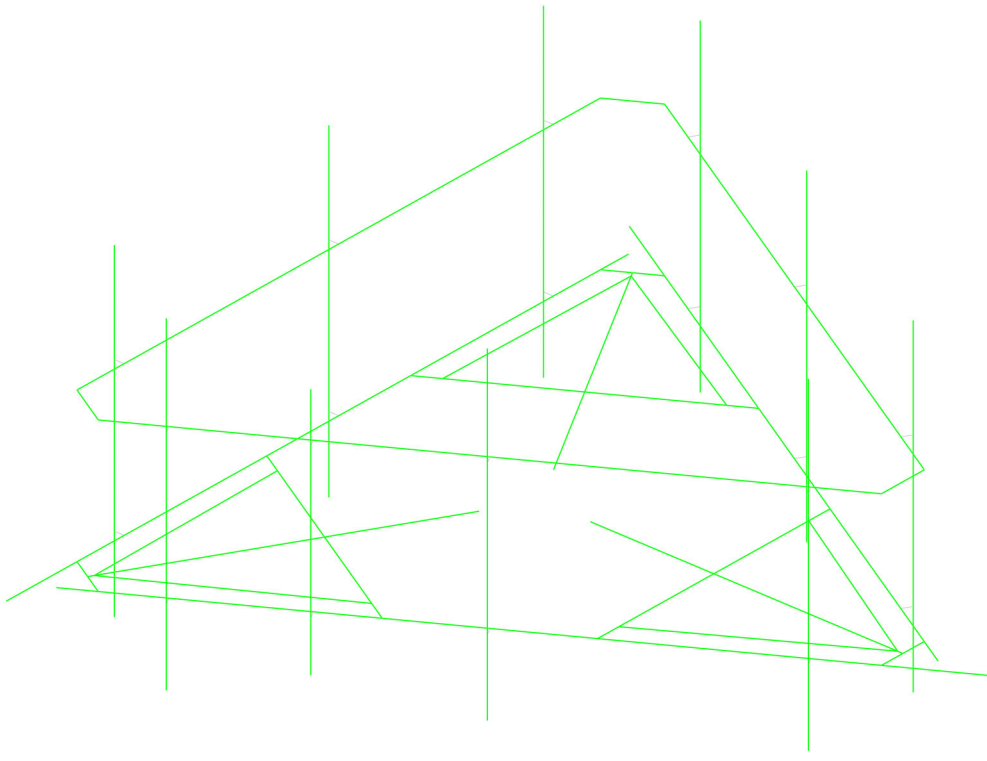


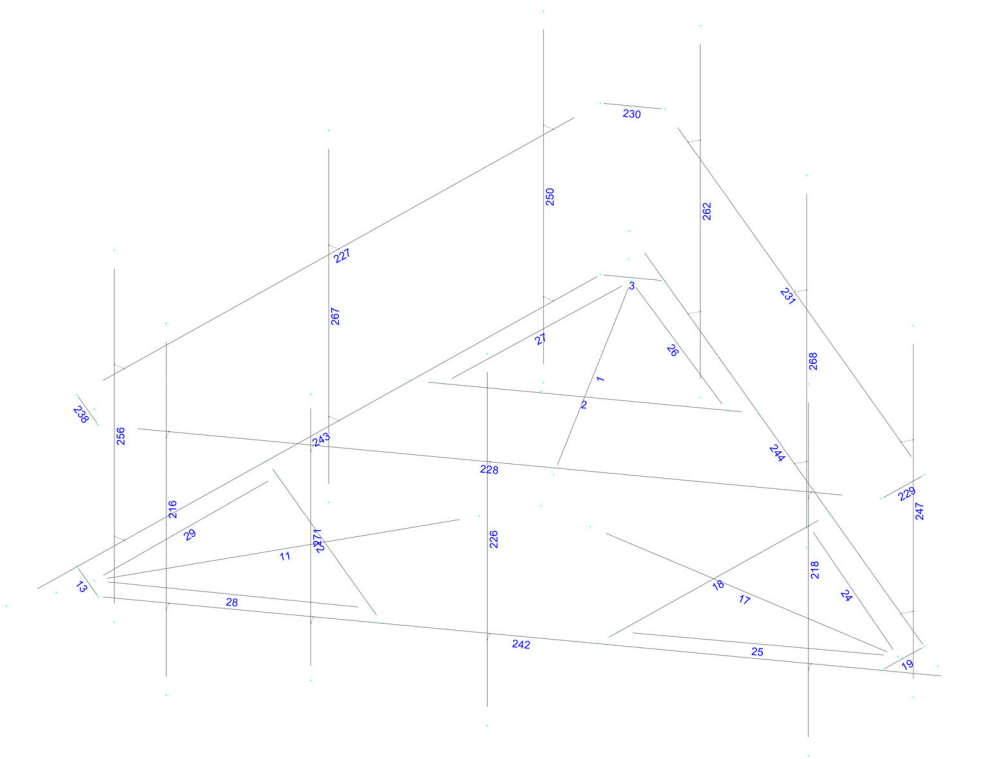
HUDSON
Design Group LLC

**Mount Calculations
(Existing Conditions)**









Load data

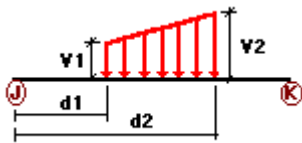
GLOSSARY

Comb : Indicates if load condition is a load combination

Load Conditions

Condition	Description	Comb.	Category
DL	Dead Load	No	DL
W0	Wind Load 0/60/120 deg	No	WIND
W30	Wind Load 30/90/150 deg	No	WIND
Di	Ice Load	No	LL
Wi0	Ice Wind Load 0/60/120 deg	No	WIND
Wi30	Ice Wind Load 30/90/150 deg	No	WIND
WL0	WL 30 mph 0/60/120 deg	No	WIND
WL30	WL 30 mph 30/90/150 deg	No	WIND
LL1	250 lb Live Load Center of Mount	No	LL
LL2	250 lb Live Load End of Mount	No	LL
LLa1	250 lb Live Load Antenna 1	No	LL
LLa2	250 lb Live Load Antenna 2	No	LL
LLa3	250 lb Live Load Antenna 3	No	LL
LLa4	250 lb Live Load Antenna 4	No	LL

Distributed force on members

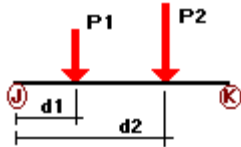


Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
DL	1	y	-0.01	-0.01	1.50	No	100.00	Yes
	2	y	-0.01	0.00	0.00	No	0.00	No
	11	y	-0.01	-0.01	1.50	No	100.00	Yes
	12	y	-0.01	0.00	0.00	No	0.00	No
	17	y	-0.01	-0.01	1.50	No	100.00	Yes
	18	y	-0.01	0.00	0.00	No	0.00	No
	24	y	-0.01	0.00	0.00	No	0.00	No
	25	y	-0.01	0.00	0.00	No	0.00	No
	26	y	-0.01	0.00	0.00	No	0.00	No
	27	y	-0.01	0.00	0.00	No	0.00	No
	28	y	-0.01	0.00	0.00	No	0.00	No
	29	y	-0.01	0.00	0.00	No	0.00	No
	W0	2	z	-0.019	0.00	0.00	No	0.00
3		z	-0.004	0.00	0.00	No	0.00	No

	11	z	-0.019	0.00	0.00	No	0.00	No
	12	z	-0.019	0.00	0.00	No	0.00	No
	13	z	-0.004	0.00	0.00	No	0.00	No
	17	z	-0.019	0.00	0.00	No	0.00	No
	18	z	-0.019	0.00	0.00	No	0.00	No
	19	z	-0.004	0.00	0.00	No	0.00	No
	24	z	-0.015	0.00	0.00	No	0.00	No
	25	z	-0.015	0.00	0.00	No	0.00	No
	26	z	-0.015	0.00	0.00	No	0.00	No
	27	z	-0.015	0.00	0.00	No	0.00	No
	28	z	-0.015	0.00	0.00	No	0.00	No
	29	z	-0.015	0.00	0.00	No	0.00	No
	227	z	-0.009	0.00	0.00	No	0.00	No
	228	z	-0.009	0.00	0.00	No	0.00	No
	229	z	-0.015	0.00	0.00	No	0.00	No
	230	z	-0.015	0.00	0.00	No	0.00	No
	231	z	-0.009	0.00	0.00	No	0.00	No
	238	z	-0.015	0.00	0.00	No	0.00	No
	242	z	-0.016	0.00	0.00	No	0.00	No
	243	z	-0.016	0.00	0.00	No	0.00	No
	244	z	-0.016	0.00	0.00	No	0.00	No
	247	z	-0.011	0.00	0.00	No	0.00	No
	250	z	-0.011	0.00	0.00	No	0.00	No
	256	z	-0.011	0.00	0.00	No	0.00	No
	262	z	-0.011	0.00	0.00	No	0.00	No
	267	z	-0.011	0.00	0.00	No	0.00	No
	268	z	-0.011	0.00	0.00	No	0.00	No
	271	z	-0.011	0.00	0.00	No	0.00	No
W30	1	x	-0.019	0.00	0.00	No	0.00	No
	11	x	-0.019	0.00	0.00	No	0.00	No
	12	x	-0.019	0.00	0.00	No	0.00	No
	13	x	-0.004	0.00	0.00	No	0.00	No
	17	x	-0.019	0.00	0.00	No	0.00	No
	18	x	-0.019	0.00	0.00	No	0.00	No
	19	x	-0.004	0.00	0.00	No	0.00	No
	24	x	-0.015	0.00	0.00	No	0.00	No
	26	x	-0.015	0.00	0.00	No	0.00	No
	27	x	-0.015	0.00	0.00	No	0.00	No
	29	x	-0.015	0.00	0.00	No	0.00	No
	216	x	-0.011	0.00	0.00	No	0.00	No
	218	x	-0.011	0.00	0.00	No	0.00	No
	226	x	-0.011	0.00	0.00	No	0.00	No
	227	x	-0.009	0.00	0.00	No	0.00	No
	229	x	-0.015	0.00	0.00	No	0.00	No
	231	x	-0.009	0.00	0.00	No	0.00	No
	238	x	-0.015	0.00	0.00	No	0.00	No
	243	x	-0.016	0.00	0.00	No	0.00	No
	244	x	-0.016	0.00	0.00	No	0.00	No
	250	x	-0.011	0.00	0.00	No	0.00	No
	256	x	-0.011	0.00	0.00	No	0.00	No
	267	x	-0.011	0.00	0.00	No	0.00	No
	271	x	-0.011	0.00	0.00	No	0.00	No
Di	1	y	-0.01	0.00	0.00	No	0.00	No
	2	y	-0.01	0.00	0.00	No	0.00	No
	3	y	-0.01	0.00	0.00	No	0.00	No
	11	y	-0.01	0.00	0.00	No	0.00	No
	12	y	-0.01	0.00	0.00	No	0.00	No
	13	y	-0.01	0.00	0.00	No	0.00	No
	17	y	-0.01	0.00	0.00	No	0.00	No
	18	y	-0.01	0.00	0.00	No	0.00	No

19	y	-0.01	0.00	0.00	No	0.00	No
24	y	-0.006	0.00	0.00	No	0.00	No
25	y	-0.006	0.00	0.00	No	0.00	No
26	y	-0.006	0.00	0.00	No	0.00	No
27	y	-0.006	0.00	0.00	No	0.00	No
28	y	-0.006	0.00	0.00	No	0.00	No
29	y	-0.006	0.00	0.00	No	0.00	No
216	y	-0.005	0.00	0.00	No	0.00	No
218	y	-0.005	0.00	0.00	No	0.00	No
226	y	-0.005	0.00	0.00	No	0.00	No
227	y	-0.005	0.00	0.00	No	0.00	No
228	y	-0.005	0.00	0.00	No	0.00	No
229	y	-0.007	0.00	0.00	No	0.00	No
230	y	-0.007	0.00	0.00	No	0.00	No
231	y	-0.005	0.00	0.00	No	0.00	No
238	y	-0.007	0.00	0.00	No	0.00	No
242	y	-0.007	0.00	0.00	No	0.00	No
243	y	-0.007	0.00	0.00	No	0.00	No
244	y	-0.007	0.00	0.00	No	0.00	No
247	y	-0.005	0.00	0.00	No	0.00	No
250	y	-0.005	0.00	0.00	No	0.00	No
256	y	-0.005	0.00	0.00	No	0.00	No
262	y	-0.005	0.00	0.00	No	0.00	No
267	y	-0.005	0.00	0.00	No	0.00	No
268	y	-0.005	0.00	0.00	No	0.00	No
271	y	-0.005	0.00	0.00	No	0.00	No

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
DL	216	y	-0.04	0.50	No
		y	-0.04	5.50	No
		y	-0.073	3.00	No
	218	y	-0.018	0.50	No
		y	-0.018	4.50	No
		y	-0.038	3.00	No
	226	y	-0.026	0.50	No
		y	-0.026	4.50	No
		y	-0.072	3.00	No
	247	y	-0.034	1.00	No
		y	-0.034	4.50	No
		y	-0.073	3.00	No
	250	y	-0.04	0.50	No
		y	-0.04	5.50	No
		y	-0.073	3.00	No
	256	y	-0.018	0.50	No
		y	-0.018	4.50	No
		y	-0.038	3.00	No
262	y	-0.018	0.50	No	

		y	-0.018	4.50	No
		y	-0.038	3.00	No
	267	y	-0.026	0.50	No
		y	-0.026	4.50	No
		y	-0.072	3.00	No
	268	y	-0.017	0.50	No
		y	-0.017	4.50	No
		y	-0.072	3.00	No
W0	271	y	-0.033	2.50	No
	216	z	-0.288	0.50	No
		z	-0.288	5.50	No
	218	z	-0.125	0.50	No
		z	-0.125	4.50	No
	226	z	-0.219	0.50	No
		z	-0.219	4.50	No
		z	-0.009	3.00	No
	247	z	-0.106	1.00	No
		z	-0.106	4.50	No
		z	-0.064	3.00	No
	250	z	-0.167	0.50	No
		z	-0.167	5.50	No
		z	-0.064	3.00	No
	256	z	-0.081	0.50	No
		z	-0.081	4.50	No
		z	-0.041	3.00	No
	262	z	-0.081	0.50	No
		z	-0.081	4.50	No
		z	-0.041	3.00	No
	267	z	-0.148	0.50	No
		z	-0.148	4.50	No
		z	-0.06	3.00	No
	268	z	-0.10	0.50	No
		z	-0.10	4.50	No
		z	-0.06	3.00	No
W30	271	z	-0.051	2.50	No
	216	x	-0.127	0.50	No
		x	-0.127	5.50	No
		x	-0.063	3.00	No
	218	x	-0.066	0.50	No
		x	-0.066	4.50	No
		x	-0.049	3.00	No
	226	x	-0.125	0.50	No
		x	-0.125	4.50	No
		x	-0.061	3.00	No
	247	x	-0.16	1.00	No
		x	-0.16	4.50	No
		x	-0.049	3.00	No
	250	x	-0.247	0.50	No
		x	-0.247	5.50	No
		x	-0.049	3.00	No
	256	x	-0.11	0.50	No
		x	-0.11	4.50	No
		x	-0.024	3.00	No
	262	x	-0.11	0.50	No
		x	-0.11	4.50	No
		x	-0.024	3.00	No
	267	x	-0.195	0.50	No
		x	-0.195	4.50	No
		x	-0.043	3.00	No
	268	x	-0.123	0.50	No

		x	-0.123	4.50	No
		x	-0.043	3.00	No
Di	271	x	-0.051	2.50	No
	216	y	-0.098	0.50	No
		y	-0.098	5.50	No
		y	-0.037	3.00	No
	218	y	-0.043	0.50	No
		y	-0.043	4.50	No
		y	-0.036	3.00	No
	226	y	-0.076	0.50	No
		y	-0.076	4.50	No
		y	-0.032	3.00	No
	247	y	-0.066	1.00	No
		y	-0.066	4.50	No
		y	-0.037	3.00	No
	250	y	-0.098	0.50	No
		y	-0.098	5.50	No
		y	-0.037	3.00	No
	256	y	-0.043	0.50	No
		y	-0.043	4.50	No
		y	-0.036	3.00	No
	262	y	-0.043	0.50	No
		y	-0.043	4.50	No
		y	-0.036	3.00	No
	267	y	-0.076	0.50	No
		y	-0.076	4.50	No
		y	-0.032	3.00	No
	268	y	-0.05	0.50	No
		y	-0.05	4.50	No
		y	-0.032	3.00	No
Wi0	271	y	-0.031	2.50	No
	216	z	-0.049	0.50	No
		z	-0.049	5.50	No
	218	z	-0.024	0.50	No
		z	-0.024	4.50	No
	226	z	-0.039	0.50	No
		z	-0.039	4.50	No
		z	-0.004	3.00	No
	247	z	-0.02	1.00	No
		z	-0.02	4.50	No
		z	-0.013	3.00	No
	250	z	-0.03	0.50	No
		z	-0.03	5.50	No
		z	-0.013	3.00	No
	256	z	-0.016	0.50	No
		z	-0.016	4.50	No
		z	-0.009	3.00	No
	262	z	-0.016	0.50	No
		z	-0.016	4.50	No
		z	-0.009	3.00	No
	267	z	-0.028	0.50	No
		z	-0.028	4.50	No
		z	-0.012	3.00	No
	268	z	-0.019	0.50	No
		z	-0.019	4.50	No
		z	-0.012	3.00	No
Wi30	271	z	-0.01	2.50	No
	216	x	-0.024	0.50	No
		x	-0.024	5.50	No
		x	-0.013	3.00	No

	218	x	-0.014	0.50	No
		x	-0.014	4.50	No
		x	-0.011	3.00	No
	226	x	-0.024	0.50	No
		x	-0.024	4.50	No
		x	-0.013	3.00	No
	247	x	-0.028	1.00	No
		x	-0.028	4.50	No
		x	-0.01	3.00	No
	250	x	-0.043	0.50	No
		x	-0.043	5.50	No
		x	-0.01	3.00	No
	256	x	-0.021	0.50	No
		x	-0.021	4.50	No
		x	-0.006	3.00	No
	262	x	-0.021	0.50	No
		x	-0.021	4.50	No
		x	-0.006	3.00	No
	267	x	-0.035	0.50	No
		x	-0.035	4.50	No
		x	-0.009	3.00	No
	268	x	-0.023	0.50	No
		x	-0.023	4.50	No
		x	-0.009	3.00	No
	271	x	-0.01	2.50	No
WLO	216	z	-0.016	0.50	No
		z	-0.016	5.50	No
	218	z	-0.007	0.50	No
		z	-0.007	4.50	No
	226	z	-0.012	0.50	No
		z	-0.012	4.50	No
		z	-0.001	3.00	No
	247	z	-0.006	1.00	No
		z	-0.006	4.50	No
		z	-0.003	3.00	No
	250	z	-0.009	0.50	No
		z	-0.009	5.50	No
		z	-0.003	3.00	No
	256	z	-0.005	0.50	No
		z	-0.005	4.50	No
		z	-0.002	3.00	No
	262	z	-0.005	0.50	No
		z	-0.005	4.50	No
		z	-0.002	3.00	No
	267	z	-0.008	0.50	No
		z	-0.008	4.50	No
		z	-0.003	3.00	No
	268	z	-0.006	0.50	No
		z	-0.006	4.50	No
		z	-0.003	3.00	No
	271	z	-0.003	2.50	No
WL30	216	x	-0.007	0.50	No
		x	-0.007	5.50	No
		x	-0.003	3.00	No
	218	x	-0.004	0.50	No
		x	-0.004	4.50	No
		x	-0.003	3.00	No
	226	x	-0.007	0.50	No
		x	-0.007	4.50	No
		x	-0.003	3.00	No

	247	x	-0.009	1.00	No
		x	-0.009	4.50	No
		x	-0.003	3.00	No
	250	x	-0.013	0.50	No
		x	-0.013	5.50	No
		x	-0.003	3.00	No
	256	x	-0.006	0.50	No
		x	-0.006	4.50	No
		x	-0.001	3.00	No
	262	x	-0.006	0.50	No
		x	-0.006	4.50	No
		x	-0.001	3.00	No
	267	x	-0.011	0.50	No
		x	-0.011	4.50	No
		x	-0.002	3.00	No
	268	x	-0.007	0.50	No
		x	-0.007	4.50	No
		x	-0.002	3.00	No
	271	x	-0.003	2.50	No
LL1	242	y	-0.25	50.00	Yes
LL2	242	y	-0.25	0.00	Yes
LLa1	218	y	-0.25	50.00	Yes
LLa2	226	y	-0.25	50.00	Yes
LLa3	216	y	-0.25	50.00	Yes

Self weight multipliers for load conditions

Condition	Description	Self weight multiplier			
		Comb.	MultX	MultY	MultZ
DL	Dead Load	No	0.00	-1.00	0.00
W0	Wind Load 0/60/120 deg	No	0.00	0.00	0.00
W30	Wind Load 30/90/150 deg	No	0.00	0.00	0.00
Di	Ice Load	No	0.00	0.00	0.00
Wi0	Ice Wind Load 0/60/120 deg	No	0.00	0.00	0.00
Wi30	Ice Wind Load 30/90/150 deg	No	0.00	0.00	0.00
WL0	WL 30 mph 0/60/120 deg	No	0.00	0.00	0.00
WL30	WL 30 mph 30/90/150 deg	No	0.00	0.00	0.00
LL1	250 lb Live Load Center of Mount	No	0.00	0.00	0.00
LL2	250 lb Live Load End of Mount	No	0.00	0.00	0.00
LLa1	250 lb Live Load Antenna 1	No	0.00	0.00	0.00
LLa2	250 lb Live Load Antenna 2	No	0.00	0.00	0.00
LLa3	250 lb Live Load Antenna 3	No	0.00	0.00	0.00
LLa4	250 lb Live Load Antenna 4	No	0.00	0.00	0.00

Earthquake (Dynamic analysis only)

Condition	a/g	Ang. [Deg]	Damp. [%]
DL	0.00	0.00	0.00
W0	0.00	0.00	0.00
W30	0.00	0.00	0.00
Di	0.00	0.00	0.00
Wi0	0.00	0.00	0.00
Wi30	0.00	0.00	0.00
WL0	0.00	0.00	0.00
WL30	0.00	0.00	0.00
LL1	0.00	0.00	0.00
LL2	0.00	0.00	0.00
LLa1	0.00	0.00	0.00
LLa2	0.00	0.00	0.00
LLa3	0.00	0.00	0.00
LLa4	0.00	0.00	0.00



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Steel Code Check

Report: Summary - Group by member

Load conditions to be included in design :

- LC1=1.2DL+W0
- LC2=1.2DL+W30
- LC3=1.2DL-W0
- LC4=1.2DL-W30
- LC5=0.9DL+W0
- LC6=0.9DL+W30
- LC7=0.9DL-W0
- LC8=0.9DL-W30
- LC9=1.2DL+Di+Wi0
- LC10=1.2DL+Di+Wi30
- LC11=1.2DL+Di-Wi0
- LC12=1.2DL+Di-Wi30
- LC13=1.2DL
- LC14=1.2DL+1.6LL1
- LC15=1.2DL+1.6LL2
- LC16=1.2DL+W0+1.6LLa1
- LC17=1.2DL+W30+1.6LLa1
- LC18=1.2DL-W0+1.6LLa1
- LC19=1.2DL-W30+1.6LLa1
- LC20=1.2DL+W0+1.6LLa2
- LC21=1.2DL+W30+1.6LLa2
- LC22=1.2DL-W0+1.6LLa2
- LC23=1.2DL-W30+1.6LLa2
- LC24=1.2DL+W0+1.6LLa3
- LC25=1.2DL+W30+1.6LLa3
- LC26=1.2DL-W0+1.6LLa3
- LC27=1.2DL-W30+1.6LLa3
- LC28=1.2DL+W0+1.6LLa4
- LC29=1.2DL+W30+1.6LLa4
- LC30=1.2DL-W0+1.6LLa4
- LC31=1.2DL-W30+1.6LLa4

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	HSS_SQR 4X4X3_8	1	LC1 at 0.00%	0.30	OK	Eq. H1-1b
		2	LC1 at 48.44%	0.13	OK	Eq. H1-1b
		11	LC2 at 0.00%	0.30	OK	Eq. H1-1b
		12	LC3 at 51.56%	0.15	OK	Eq. H1-1b
		17	LC4 at 0.00%	0.27	OK	Eq. H1-1b
		18	LC4 at 48.44%	0.13	OK	Eq. H1-1b
	L 2-1_2X2-1_2X1_4	229	LC4 at 100.00%	0.18	OK	Eq. H2-1
		230	LC4 at 0.00%	0.19	OK	Eq. H2-1
		238	LC1 at 0.00%	0.21	OK	Sec. F1
	L 2X2X3_16	24	LC4 at 0.00%	0.24	OK	Eq. H2-1
		25	LC3 at 0.00%	0.20	OK	Eq. H2-1
		26	LC1 at 0.00%	0.20	OK	Eq. H2-1
		27	LC1 at 0.00%	0.23	OK	Eq. H2-1
		28	LC3 at 0.00%	0.18	OK	Eq. H2-1
		29	LC2 at 100.00%	0.24	OK	Eq. H2-1

PIPE 2x0.154	216	LC1 at 75.00%	0.37	OK	Eq. H1-1b
	218	LC2 at 75.00%	0.41	OK	Eq. H1-1b
	226	LC1 at 75.00%	0.57	OK	Eq. H1-1b
	227	LC4 at 92.19%	0.32	OK	Eq. H1-1b
	228	LC1 at 8.75%	0.34	OK	Eq. H1-1b
	231	LC2 at 92.19%	0.29	OK	Eq. H1-1b
	247	LC1 at 75.00%	0.44	OK	Eq. H1-1b
	250	LC3 at 75.00%	0.47	OK	Eq. H1-1b
	256	LC1 at 75.00%	0.47	OK	Eq. H1-1b
	262	LC4 at 75.00%	0.42	OK	Eq. H1-1b
	267	LC4 at 75.00%	0.66	OK	Eq. H1-1b
	268	LC2 at 75.00%	0.56	OK	Eq. H1-1b
	271	LC1 at 79.17%	0.53	OK	Eq. H1-1b
PIPE 3x0.216	242	LC2 at 64.58%	0.31	OK	Eq. H1-1b
	243	LC2 at 42.19%	0.27	OK	Eq. H1-1b
	244	LC1 at 42.19%	0.31	OK	Eq. H1-1b
PL 6X1/2	3	LC3 at 50.00%	0.15	OK	Eq. H1-1b
	13	LC2 at 0.00%	0.12	OK	Eq. H1-1b
	19	LC4 at 100.00%	0.12	OK	Eq. H1-1b



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Geometry data

GLOSSARY

Cb22, Cb33	: Moment gradient coefficients
Cm22, Cm33	: Coefficients applied to bending term in interaction formula
d0	: Tapered member section depth at J end of member
DJX	: Rigid end offset distance measured from J node in axis X
DJY	: Rigid end offset distance measured from J node in axis Y
DJZ	: Rigid end offset distance measured from J node in axis Z
DKX	: Rigid end offset distance measured from K node in axis X
DKY	: Rigid end offset distance measured from K node in axis Y
DKZ	: Rigid end offset distance measured from K node in axis Z
dL	: Tapered member section depth at K end of member
Ig factor	: Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members
K22	: Effective length factor about axis 2
K33	: Effective length factor about axis 3
L22	: Member length for calculation of axial capacity
L33	: Member length for calculation of axial capacity
LB pos	: Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg	: Lateral unbraced length of the compression flange in the negative side of local axis 2
RX	: Rotation about X
RY	: Rotation about Y
RZ	: Rotation about Z
TO	: 1 = Tension only member 0 = Normal member
TX	: Translation in X
TY	: Translation in Y
TZ	: Translation in Z

Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
3	0.00	0.00	0.25	0
5	0.00	0.00	-6.08	0
6	-2.709	0.00	-2.25	0
7	2.709	0.00	-2.25	0
8	-0.50	0.00	-6.08	0
9	0.50	0.00	-6.08	0
10	2.212	0.00	-2.25	0
11	-2.212	0.00	-2.25	0
15	0.00	0.00	1.25	0
28	-0.866	0.00	1.75	0
30	-6.348	0.00	4.915	0
31	-1.6766	0.00	5.3461	0
32	-4.3856	0.00	0.6539	0
33	-6.098	0.00	5.348	0
34	-6.598	0.00	4.482	0
35	-4.1371	0.00	1.0844	0
36	-1.9251	0.00	4.9156	0
39	0.866	0.00	1.75	0
41	6.348	0.00	4.915	0
42	4.3856	0.00	0.6539	0
43	1.6766	0.00	5.3461	0

44	6.598	0.00	4.482	0
45	6.098	0.00	5.348	0
46	1.9251	0.00	4.9156	0
47	4.1371	0.00	1.0844	0
375	6.2566	0.00	4.8622	0
377	0.00	0.00	-5.9745	0
379	-6.2566	0.00	4.8622	0
793	-5.00	-1.50	5.5461	0
794	-5.00	5.00	5.5461	0
797	5.00	-1.50	5.5461	0
798	5.00	5.00	5.5461	0
813	0.00	-1.50	5.5461	0
814	0.00	5.00	5.5461	0
815	0.50	3.00	-6.08	0
827	-6.098	3.00	5.348	0
828	-6.2566	3.00	4.8622	0
830	-6.598	3.00	4.482	0
836	-0.50	3.00	-6.08	0
837	6.098	3.00	5.348	0
838	6.598	3.00	4.482	0
842	0.00	2.00	1.25	0
852	7.75	0.00	5.3461	0
853	-6.75	0.00	5.3461	0
854	-0.3277	0.00	-7.5097	0
855	-7.4223	0.00	5.9137	0
856	6.9223	0.00	5.0476	0
857	-0.1723	0.00	-6.6437	0
866	6.2205	5.00	3.4321	0
867	-1.2205	5.00	-5.2282	0
868	6.2205	-1.50	3.4321	0
869	-1.2205	-1.50	-5.2282	0
882	1.2205	-1.50	-5.2282	0
883	-6.2205	-1.50	3.4321	0
892	1.2205	5.00	-5.2282	0
893	-6.2205	5.00	3.4321	0
894	3.7205	5.00	-0.898	0
895	-3.7205	5.00	-0.898	0
904	3.7205	-1.50	-0.898	0
905	-3.7205	-1.50	-0.898	0
911	-2.75	4.00	5.5461	0
912	-2.75	-1.00	5.5461	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
3	1	1	1	1	0	1
28	1	1	1	1	0	1
39	1	1	1	1	0	1

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	Ig factor
1	3	5		HSS_SQR 4X4X3_8	A500 GrB rectangular	0.00	0.00	0.00
2	7	6		HSS_SQR 4X4X3_8	A500 GrB rectangular	0.00	0.00	0.00
3	8	9		PL 6X1/2	A36	0.00	0.00	0.00
11	28	30		HSS_SQR 4X4X3_8	A500 GrB rectangular	0.00	0.00	0.00
12	32	31		HSS_SQR 4X4X3_8	A500 GrB rectangular	0.00	0.00	0.00
13	33	34		PL 6X1/2	A36	0.00	0.00	0.00
17	39	41		HSS_SQR 4X4X3_8	A500 GrB rectangular	0.00	0.00	0.00
18	43	42		HSS_SQR 4X4X3_8	A500 GrB rectangular	0.00	0.00	0.00
19	44	45		PL 6X1/2	A36	0.00	0.00	0.00
24	47	375		L 2X2X3_16	A36	0.00	0.00	0.00
25	46	375		L 2X2X3_16	A36	0.00	0.00	0.00
26	10	377		L 2X2X3_16	A36	0.00	0.00	0.00
27	11	377		L 2X2X3_16	A36	0.00	0.00	0.00
28	36	379		L 2X2X3_16	A36	0.00	0.00	0.00
29	379	35		L 2X2X3_16	A36	0.00	0.00	0.00
216	794	793		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
218	798	797		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
226	814	813		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
227	830	836		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
228	827	837		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
229	838	837		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
230	836	815		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
231	838	815		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
238	827	830		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
242	852	853		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
243	855	857		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
244	854	856		PIPE 3x0.216	A53 GrB	0.00	0.00	0.00
247	866	868		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
250	867	869		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
256	893	883		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
262	892	882		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
267	895	905		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
268	894	904		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
271	911	912		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00

Orientation of local axes

Member	Rotation [Deg]	Axes23	NX	NY	NZ
25	270.00	0	0.00	0.00	0.00
26	270.00	0	0.00	0.00	0.00
216	315.00	0	0.00	0.00	0.00
218	315.00	0	0.00	0.00	0.00
226	315.00	0	0.00	0.00	0.00
229	180.00	0	0.00	0.00	0.00
230	180.00	0	0.00	0.00	0.00
238	180.00	0	0.00	0.00	0.00
247	315.00	0	0.00	0.00	0.00
250	315.00	0	0.00	0.00	0.00
256	315.00	0	0.00	0.00	0.00
262	315.00	0	0.00	0.00	0.00
267	315.00	0	0.00	0.00	0.00
268	315.00	0	0.00	0.00	0.00
271	315.00	0	0.00	0.00	0.00

220 WINTHROP RD

Location 220 WINTHROP RD

Mblu 33 / 1A /

Acct# 00047000

Owner TOWN OF DEEP RIVER

Assessment \$229,250

Appraisal \$327,500

PID 546

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2020	\$180,300	\$147,200	\$327,500

Assessment			
Valuation Year	Improvements	Land	Total
2020	\$126,210	\$103,040	\$229,250

Parcel Addresses

Additional Addresses
No Additional Addresses available for this parcel

Owner of Record

Owner TOWN OF DEEP RIVER
Co-Owner
Address 174 MAIN ST
DEEP RIVER, CT 06417

Sale Price \$0
Certificate
Book & Page 0093/0797
Sale Date 12/27/1977

Ownership History

Ownership History				
Owner	Sale Price	Certificate	Book & Page	Sale Date
TOWN OF DEEP RIVER	\$0		0093/0797	12/27/1977

Building Information

Building 1 : Section 1

Year Built: 1979

Living Area: 247

Building Attributes

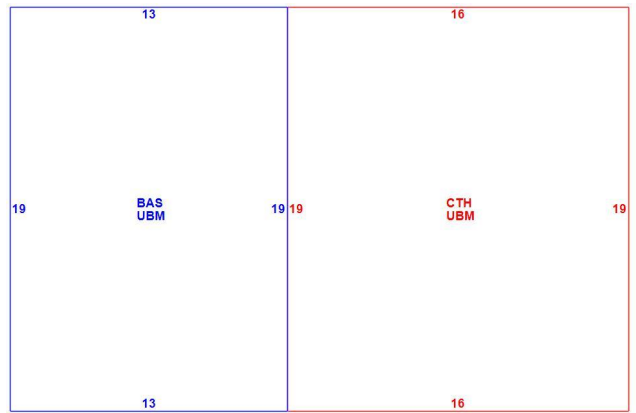
Field	Description
Style:	Commercial
Model	Commercial
Grade	Average
Stories:	1
Occupancy	1.00
Exterior Wall 1	Aluminum Sidng
Exterior Wall 2	
Roof Structure	Gambrel
Roof Cover	Asph/F Gls/Cmp
Interior Wall 1	Drywall/Sheet
Interior Wall 2	
Interior Floor 1	Inlaid Sht Gds
Interior Floor 2	
Heating Fuel	Electric
Heating Type	Electr Basebrd
AC Type	None
Struct Class	
Bldg Use	MUNICIPAL MDL-94
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	903I
Heat/AC	NONE
Frame Type	WOOD FRAME
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & WALLS
Rooms/Prtns	LIGHT
Wall Height	9.00
% Comn Wall	0.00

Building Photo



(http://images.vgsi.com/photos/DeepRiverCTPhotos///0009/100_0050_962

Building Layout



(ParcelSketch.ashx?pid=546&bid=546)

Building Sub-Areas (sq ft)

Code	Description	Gross Area	Living Area
BAS	First Floor	247	247
CTH	Cath Ceiling	304	0
UBM	Basement, Unfinished	551	0
		1,102	247

Land

Land Use

Use Code	9030
Description	MUNICIPAL MDL-94
Zone	PRD
Neighborhood	0002

Land Line Valuation

Size (Acres)	9.94
Assessed Value	\$103,040
Appraised Value	\$147,200

Outbuildings

Outbuildings		
Code	Description	Size
PAV1	PAVING-ASPHALT	30000.00 S.F.
PAV2	PAVING-CONC	1400.00 S.F.
SHD1	SHED FRAME	45.00 S.F.
SHD1	SHED FRAME	100.00 S.F.
FN3	FENCE-6' CHAIN	200.00 L.F.
MSC11	COMPACTOR	1.00 UNIT

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Google Maps 220 Winthrop Rd



Map data ©2021 100 ft

BUILDING PERMIT

AMOUNT PAID

VALIDATION

APPLICANT Tim Bonanno DATE 8/24/98 19 PERMIT NO. 98-5-143
 ADDRESS PO BOX 83, QUAKER HILL 59502
(NO.) (STREET) (CONTR'S LICENSE)

PERMIT TO ERECT COMMUNICATIONS TOWER NUMBER OF DWELLING UNITS 0
(TYPE OF IMPROVEMENT) NO. (PROPOSED USE)

AT (LOCATION) 220 WINTHROP ROAD (TOWN TRANSFER STATION PROPTY) ZONING DISTRICT _____
(NO.) (STREET)

BETWEEN _____ AND _____
(CROSS STREET) (CROSS STREET)

SUBDIVISION _____ LOT _____ BLOCK _____ LOT SIZE _____

BUILDING IS TO BE _____ FT. WIDE BY _____ FT. LONG BY _____ FT. IN HEIGHT AND SHALL CONFORM IN CONSTRUCTION

TO TYPE _____ USE GROUP _____ BASEMENT WALLS OR FOUNDATION _____ (TYPE)

REMARKS: PERMIT ISSUED FOR THE ERECTION OF COMMUNICATIONS TOWER. PRMIT INCLUDES ELECTRICAL WORK.

AREA OR VOLUME _____ ESTIMATED COST \$ 30,000.00 PERMIT \$ 310.00
(CUBIC/SQUARE FEET)

OWNER TOWN OF DEEP RIVER BUILDING DEPT BY 
 ADDRESS 220 WINTHROP ROAD, DEEP RIVER

(Affidavit on reverse side of application to be completed by authorized agent of owner)

FORM NO. BOCK - BP 1914



SBA Communications Corporation
8051 Congress Avenue
Boca Raton, FL 33487-1307

T + 561.995.7670
F + 561.995.7626

sbasite.com

LETTER OF AUTHORIZATION

SBA Site ID: CT46130-A, Deep River-winthrop Rd

Property Located at: 220 Winthrop Rd, Deep River, CT, 06417

THE CITY/COUNTY OF: Deep River / Middlesex

APPLICATION FOR ZONING/USE/BUILDING PERMIT

This letter authorizes AT&T and its authorized agents to file for all necessary zoning, planning and building permits (local, state and federal) for the purposes of installing, operating and maintaining a telecommunications facility on the existing tower on the property referenced above on behalf of The Town of Deep River.

All approval conditions that may be granted to AT&T in connection with above referenced facility relating to this specific application are the sole responsibility of AT&T.

SBA 2012 TC Assets, LLC

A handwritten signature in black ink, appearing to read "Jason Silberstein", written in a cursive style.

Jason Silberstein

Executive VP, Site Leasing

Date: 1/19/2021



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Expected Delivery Date: 01/26/21

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39 WESTVIEW DR
MERIDEN CT 06450-4723

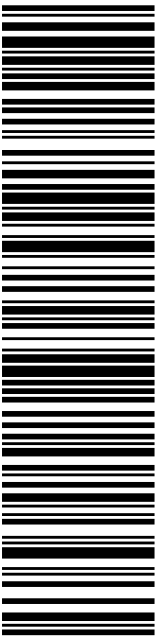
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C003

SHIP

TO: HON. ANGUS L MCDONALD, JR
FIRST SELECTMAN TOWN OF DEEP RIVER
174 MAIN ST
DEEP RIVER CT 06417-2008

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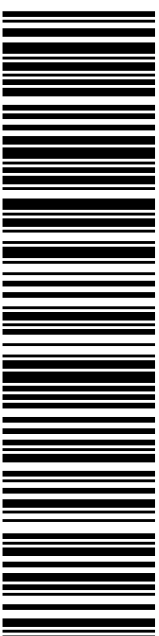
0005

C006

SHIP

TO: MELANIE BACHMAN EXECUTIVE DIRECTOR
CT SITING COUNCIL
10 FRANKLIN SQ
NEW BRITAIN CT 06051-2655

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Hollis Redding

To: Michael McNamara
Subject: AT&T Wireless Exempt Mod Filing SBA Site CT46130-A, Deep River-Winthrop Rd

Mike-

Attached please find AT&T Wireless' Exempt Mod filing for modifications to its 220 Winthrop Road, Deep River, CT site that will be filed with the CSC today, January 25, 2021.

Thank you. Hollis

Hollis M. Redding



SAI Communications LLC
Mobile: 860-834-6964
hredding@saigrp.com