

July 14, 2020

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

Regarding: Notice of Exempt Modification – AT&T Site CT5266
Address: 1428 Monroe Turnpike (aka 1432 Monroe Turnpike), Monroe, CT 06468

Dear Ms. Bachman:

New Cingular Wireless, PCS, LLC (“AT&T”) currently maintains a wireless telecommunications facility on an existing +/- 159’ monopole tower at the above-referenced address, latitude 41.376463, longitude -73.186541. Said monopole tower is operated by SBA Infrastructure, LLC.

AT&T desires to modify its existing telecommunications facility by adding three (3) antennae, swapping three (3) antennae, adding three (3) remote radio units, swapping (3) remote radio units and adding one (1) surge arrester and accompanying feedlines as more particularly detailed and described on the enclosed Construction Drawings prepared by Hudson Design Group LLC, last revised July 9, 2020. The centerline height of the existing antennas is and will remain at 162 feet.

Please accept this letter as notification pursuant to 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 R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the following individuals: Ken Kellogg, First Selectman of the Town of Monroe; William Agresta, Planning & Zoning Administrator of the Town of Monroe; and SBA Infrastructure, LLC, as tower operator.

The planned modifications to the facility fall 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 modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety

standard. *Please see the RF emissions calculation for AT&T's modified facility enclosed herewith.*

5. The proposed modifications will not cause an ineligible change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading. *Please see the structural analysis dated June 12, 2020 and prepared by Tower Engineering Solutions enclosed herewith.*

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

Sincerely,



Jennifer Iliades
Site Acquisition Consultant
Centerline Communications, LLC
750 West Center Street, Suite 301
West Bridgewater, MA 02379
jiliades@clinellc.com

Enclosures: Exhibit 1 – Construction Drawings
Exhibit 2 – Property Card and GIS
Exhibit 3 – Structural Analysis
Exhibit 4 – Mount Analysis
Exhibit 5 – RF Emissions Analysis Report Evaluation
Exhibit 6 – Original Tower Approval
Exhibit 7 – Notice Delivery Confirmations

cc: Ken Kellogg, First Selectman, Town of Monroe, as elected official
William Agresta, Planning & Zoning Administrator, Town of Monroe
SBA Infrastructure, LLC, as tower operator

EXHIBIT 1

PROJECT INFORMATION

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

- NEW AT&T ANTENNAS: DMP65R-BU6DA @ POS. 1 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T ANTENNAS: OPA65R-BU6DA @ POS. 2 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: 4449 B5/B12 (850/700) @ POS. 1 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T RRUS: 4478 B14 (700) @ POS. 2 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- NEW AT&T DC ONLY SURGE ARRESTOR DC6-48-60-0-8C-EV (TOTAL OF 1) WITH (2) DC POWER.
- NEW HANDRAIL KIT SITEPRO-1 P/N HRK12-HD (OR APPROVED EQUAL).

ITEMS TO BE MOUNTED AT EQUIPMENT LOCATION:

- ADD (1) IDLe.
- ADD (1) 6630 FOR 5G.

ITEMS TO BE REMOVED:

- EXISTING AT&T ANTENNAS: P65-16-XLH-RR @ POS. 1 (TYP. OF 1 PER SECTOR, TOTAL OF 3).
- EXISTING AT&T RRUS: RRUS-11 B12 (700) (TYP. OF 1 PER SECTOR, TOTAL OF 3).

ITEMS TO REMAIN:

- (6) ANTENNAS, (6) RRU'S, (6) TMA'S (2) SURGE ARRESTORS, (12) COAX CABLES, (4) DC POWER & (2) FIBER.

PTN: 2051A0VDE3, 2051A0VA6X, 2051A0V9YE
 SITE ADDRESS: 1428 MONROE TURNPIKE
 MONROE, CT 06468
 LATITUDE: 41.376391° N, 41° 22' 35.01" N
 LONGITUDE: 73.186398° W, 73° 11' 11.03" W
 TYPE OF SITE: MONOPOLE / OUTDOOR
 STRUCTURE HEIGHT: 160'-0"±
 RAD CENTER: 160'-0"±
 CURRENT USE: TELECOMMUNICATIONS FACILITY
 PROPOSED USE: TELECOMMUNICATIONS FACILITY



SITE NUMBER: CT5266
SITE NAME: MONROE NE
FA CODE: 10071137

PACE ID: MRCTB047202, MRCTB047207, MRCTB047295

PROJECT: LTE 4C, RETRO, 5G NR 2021 UPGRADE

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
SN-1	STRUCTURAL NOTES	1
S-1	MOUNT MODIFICATION DESIGN	1
G-1	GROUNDING DETAILS	1
RF-1	RF PLUMBING DIAGRAM	1

SBA SITE #: CT13055

VICINITY MAP

DIRECTIONS TO SITE:

TURN LEFT ONTO CAPITAL BLVD. THEN 0.2 MILES TURN LEFT ONTO CAPITOL BLVD. THEN 0.3 MILES TURN LEFT TO MERGE ONTO I-91 S. IN 9.4 MILES TAKE EXIT 17 TO MERGE ONTO CT-15 S/WILBUR CROSS PKWY, CONTINUE 21.8 MILES AND TAKE EXIT 58 TO MERGE ONTO CT-34 W/DERBY AVE/DERBY TURNPIKE TOWARD DERBY. CONTINUE ON CT-34 W/ROOSEVELT DR TO CT-111 S IN MONROE. USE THE LEFT TWO LANES TO TURN ONTO MAIN ST FOR .5 MILES, CONTINUE ONTO CT-34 W/ROOSEVELT DR FOR 7.9 MILES, THE N TURN LEFT ONTO CT-111S. DESTINATION WILL BE ON LEFT.



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

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

CENTERLINE COMMUNICATIONS
 750 WEST CENTER STREET, SUITE #301
 WEST BRIDGEWATER, MA 02379

SITE NUMBER: CT5266
SITE NAME: MONROE NE
SBA SITE # ID: CT13055
 1428 MONROE TURNPIKE
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 FAIRFIELD COUNTY

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

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	07/09/20	ISSUED FOR CONSTRUCTION	SG	AT	DPH
A	04/24/20	ISSUED FOR REVIEW	TR	AT	DPH

SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: TR

AT&T
 Daniel P. Hamm
 No. 24178
 LICENSED PROFESSIONAL ENGINEER
TITLE SHEET
 LTE 4C, RETRO, 5G NR 2021 UPGRADE
 SITE NUMBER: CT5266 DRAWING NUMBER: 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) LIGHTNING 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 – CENTERLINE
 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		

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

750 WEST CENTER STREET, SUITE #301
WEST BRIDGEWATER, MA 02379

**SITE NUMBER: CT5266
 SITE NAME: MONROE NE
 SBA SITE # ID: CT13055**

1428 MONROE TURNPIKE
MONROE, CT 06468
FAIRFIELD COUNTY

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

1	07/09/20	ISSUED FOR CONSTRUCTION	SG	AT	DPH
A	04/24/20	ISSUED FOR REVIEW	TR	AT	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: TR		

Daniel P. Hamm
 No. 24178
 LICENSED PROFESSIONAL ENGINEER

AT&T

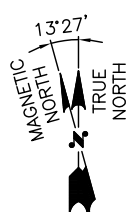
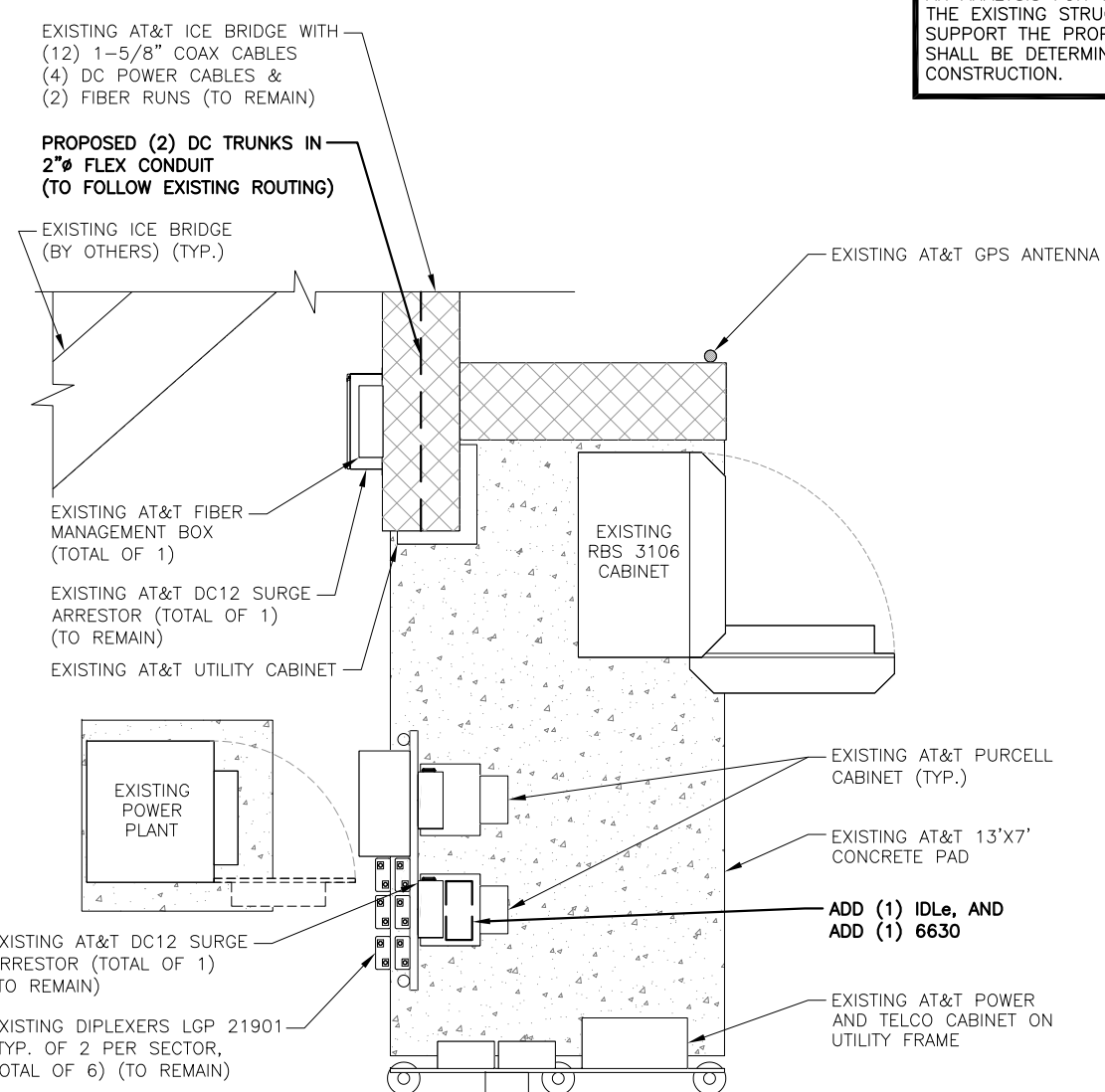
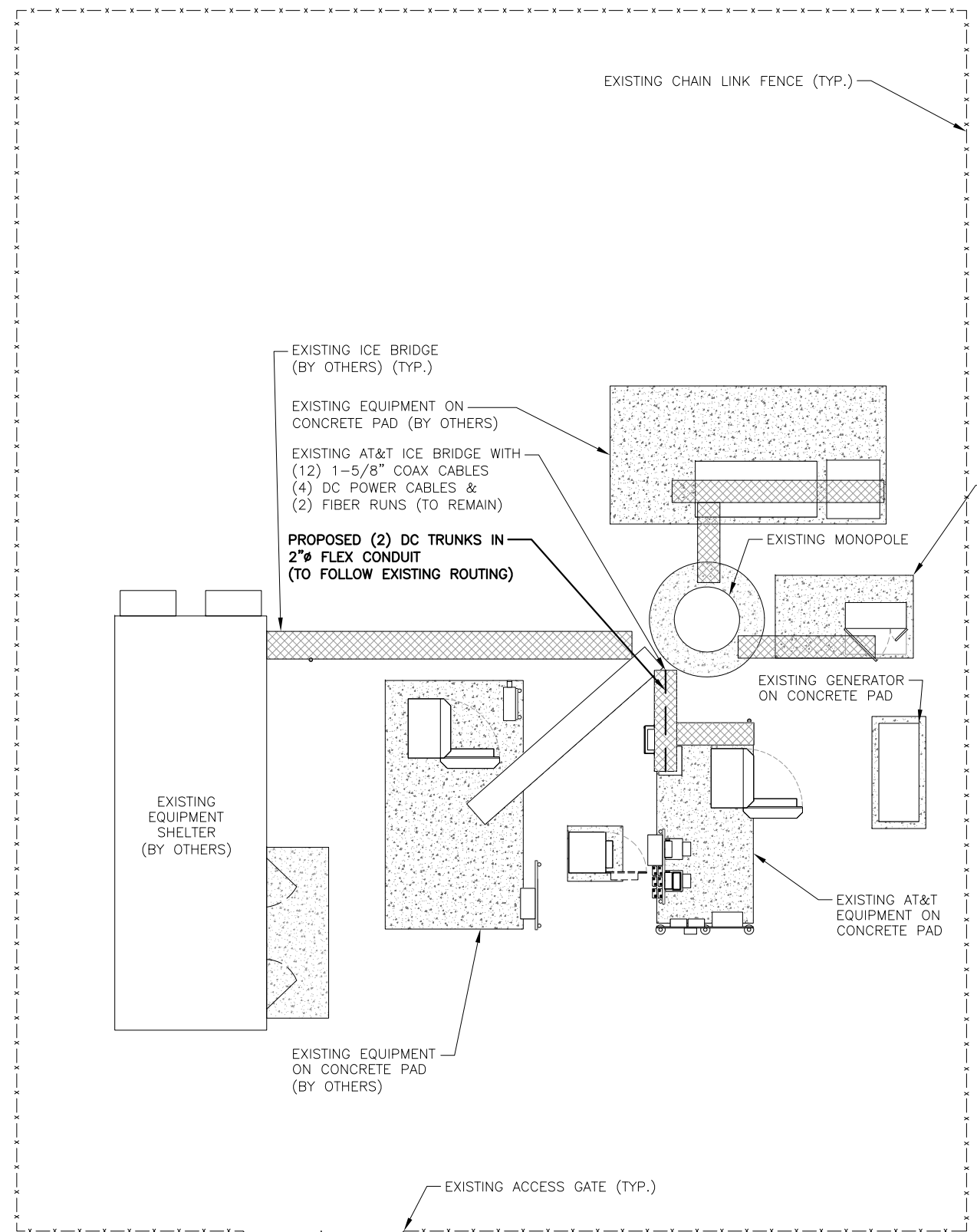
GENERAL NOTES
 LTE 4C, RETRO, 5G NR 2021 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT5266	GN-1	1

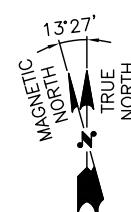
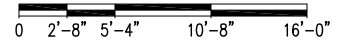
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
REFER TO STRUCTURAL ANALYSIS BY: HUDSON DESIGN GROUP, LLC, DATED: MAY 7, 2020, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

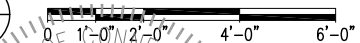
NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.



COMPOUND PLAN
22x34 SCALE: 3/16"=1'-0"
11x17 SCALE: 3/32"=1'-0"
1 A-1



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



HUDSON Design Group LLC
45 BEECHWOOD DRIVE
NORTH ANDOVER, MA 01845
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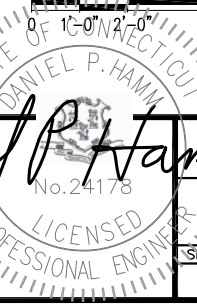
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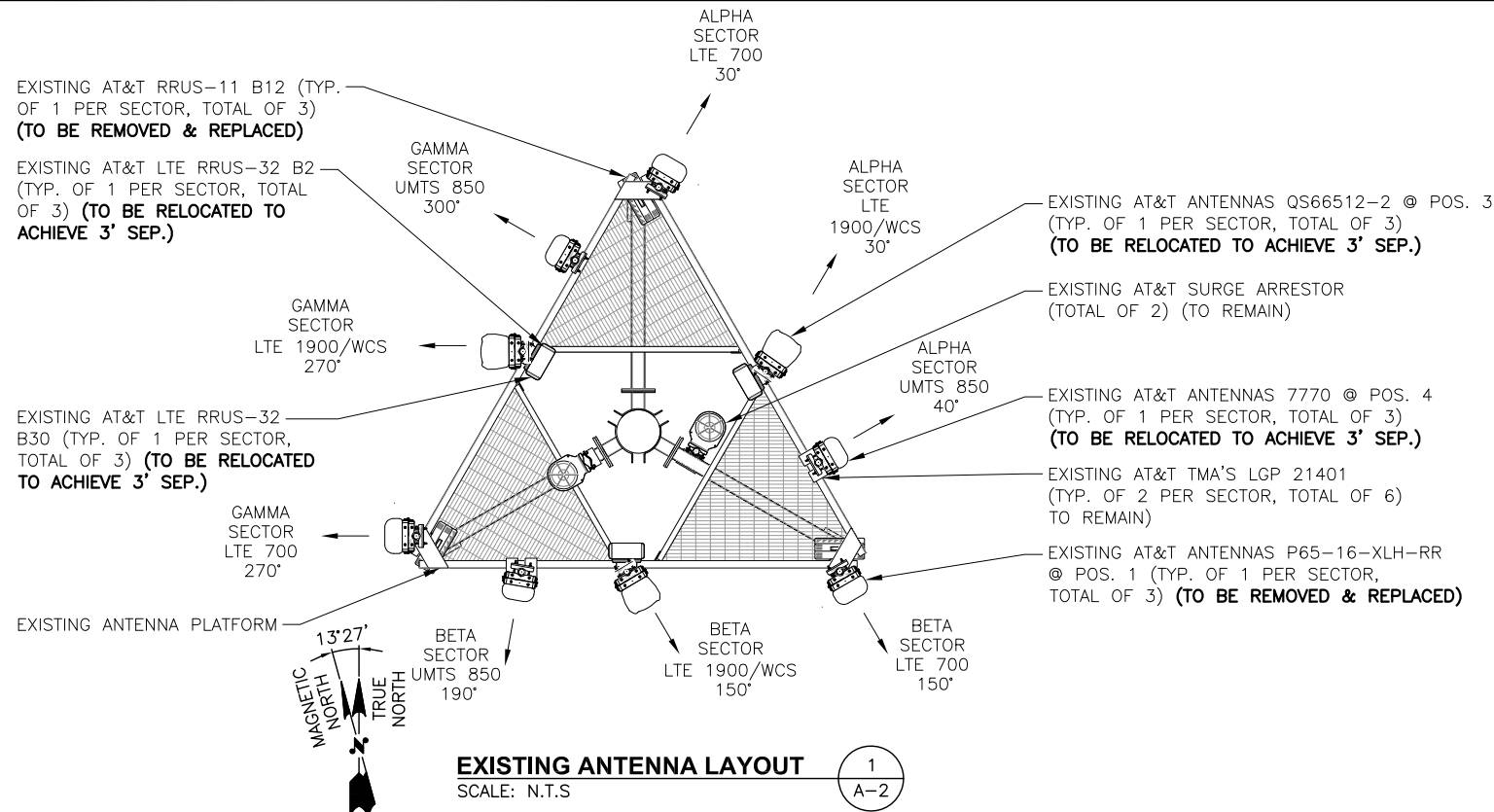
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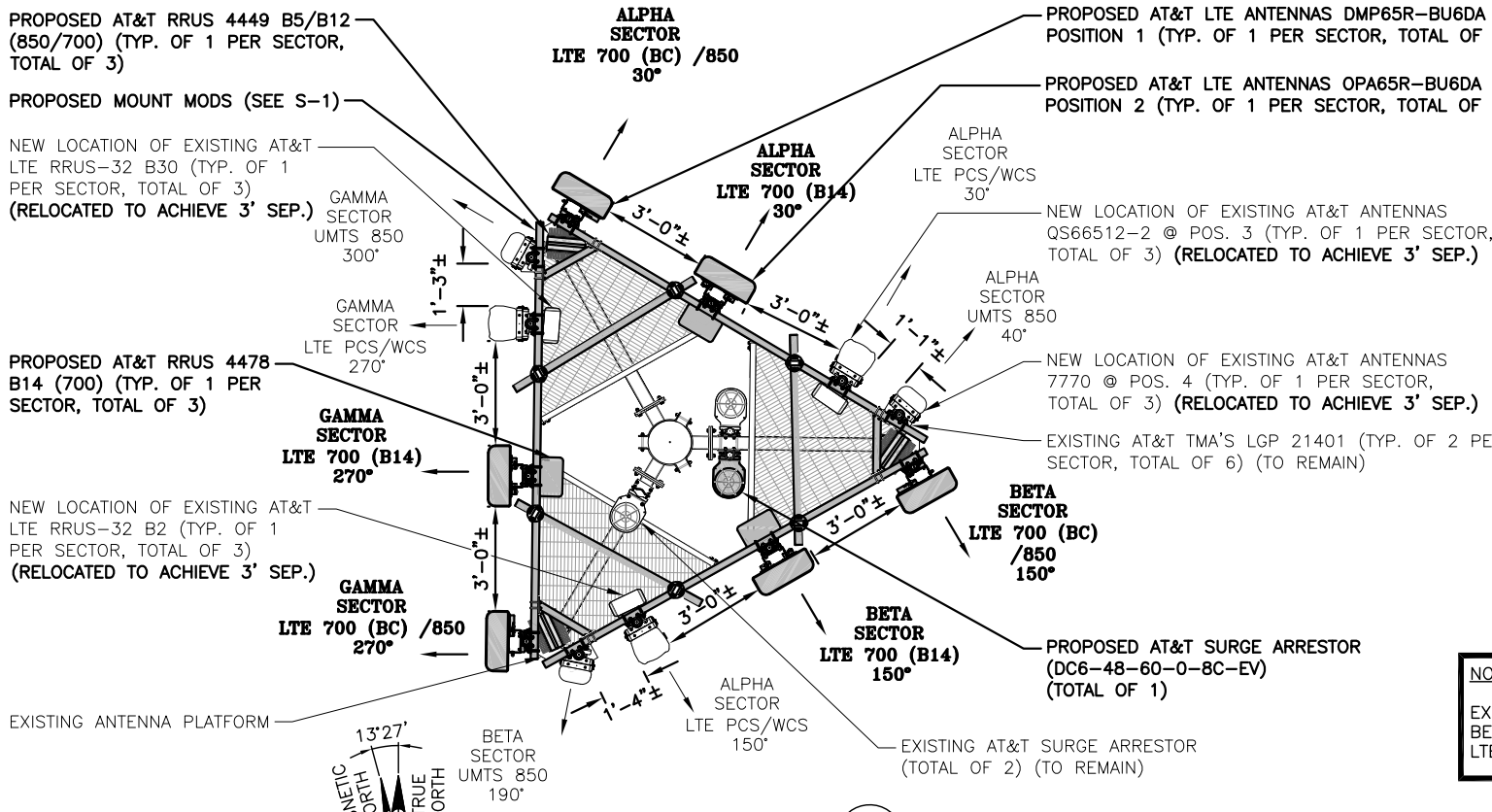
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AT&T
COMPOUND & EQUIPMENT PLANS
LTE 4C, RETRO, 5G NR 2021 UPGRADE
SITE NUMBER: CT5266 DRAWING NUMBER: A-1 REV: 1



EXISTING ANTENNA LAYOUT
SCALE: N.T.S.



PROPOSED ANTENNA LAYOUT
SCALE: N.T.S.

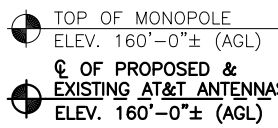
NEW LOCATION OF EXISTING AT&T LTE RRUS-32 B30 (TYP. OF 1 PER SECTOR, TOTAL OF 3) (RELOCATED TO ACHIEVE 3' SEP.)

NEW LOCATION OF EXISTING AT&T LTE RRUS-32 B2 (TYP. OF 1 PER SECTOR, TOTAL OF 3) (RELOCATED TO ACHIEVE 3' SEP.)

NEW LOCATION OF EXISTING AT&T ANTENNAS 7770 @ POS. 4 (TYP. OF 1 PER SECTOR, TOTAL OF 3) (RELOCATED TO ACHIEVE 3' SEP.)

NEW LOCATION OF EXISTING AT&T ANTENNAS QS66512-2 @ POS. 3 (TYP. OF 1 PER SECTOR, TOTAL OF 3) (RELOCATED TO ACHIEVE 3' SEP.)

EXISTING AT&T SURGE ARRESTOR (TOTAL OF 2) (TO REMAIN)



PROPOSED MOUNT MODS (SEE S-1)

PROPOSED AT&T SURGE ARRESTOR (DC6-48-60-0-8C-EV) (TOTAL OF 1)

PROPOSED AT&T LTE ANTENNAS DMP65R-BU6DA @ POSITION 1 (TYP. OF 1 PER SECTOR, TOTAL OF 3)

PROPOSED AT&T RRUS 4449 B5/B12 (850/700) (TYP. OF 1 PER SECTOR, TOTAL OF 3)

PROPOSED AT&T RRUS 4478 B14 (700) (TYP. OF 1 PER SECTOR, TOTAL OF 3)

PROPOSED AT&T LTE ANTENNAS OPA65R-BU6DA @ POSITION 2 (TYP. OF 1 PER SECTOR, TOTAL OF 3)

EXISTING ANTENNAS (BY OTHERS)

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

NOTE:
REFER TO STRUCTURAL ANALYSIS BY: HUDSON DESIGN GROUP, LLC, DATED: MAY 7, 2020, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

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

NOTE:
EXISTING PLATFORM TO BE ROTATED TO MATCH LTE AZIMUTHS

NOTE:
ANTENNAS AND MOUNTS TO BE ADJUSTED AS REQUIRED TO ACHIEVE A 3'-0" MINIMUM SEPARATION BETWEEN ANTENNAS

GROUND LEVEL
ELEV. 0'-0"± (AGL)

ELEVATION
22x34 SCALE: 3/32"=1'-0"
11x17 SCALE: 3/64"=1'-0"



NOTE:
GROUND EQUIPMENT NOT SHOWN FOR CLARITY

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

CENTERLINE COMMUNICATIONS
750 WEST CENTER STREET, SUITE #301
WEST BRIDGEWATER, MA 02379

SITE NUMBER: CT5266
SITE NAME: MONROE NE
SBA SITE # ID: CT13055
1428 MONROE TURNPIKE
MONROE, CT 06468
FAIRFIELD COUNTY

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

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	07/09/20	ISSUED FOR CONSTRUCTION	SG	AT	DPH
A	04/24/20	ISSUED FOR REVIEW	TR	AT	DPH

SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: TR

Daniel P. Hamm
No. 24178
LICENSED PROFESSIONAL ENGINEER

AT&T
ANTENNA LAYOUTS & ELEVATION
LTE 4C, RETRO, 5G NR 2021 UPGRADE
SITE NUMBER: CT5266 DRAWING NUMBER: A-2 REV: 1

ANTENNA SCHEDULE

SECTOR	EXISTING/ PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA CL. HEIGHT	AZIMUTH	TMA/ DIPLEXER	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	PROPOSED	LTE 700 (BC) /850	DMP65R-BU6DA	71.2X20.7X7.7	160'-0"±	30°	-	(1)(P) 4449 B5/B12 (850)	17.9X13.2X10.4	(2)(E) DC (1)(E) FIBER	(E) (1) RAYCAP DC6-48-60-18-8F
A2	PROPOSED	LTE 700 (B14)	OPA65R-BU6DA	71.2X21X7.8	160'-0"±	30°	-	(1)(P) 4478 B14 (700)	18.1X13.4X8.3	-	
A3	EXISTING	LTE PCS/WCS	QS66512-2	72X12X9.6	160'-0"±	30°	-	(1)(E) RRUS-32 B2 (PCS) (1)(E) RRUS-32 B30 (WCS)	-	(2)1-5/8 COAX	
A4	EXISTING	UMTS 850	7770	55X11X5	160'-0"±	40°	(2)(E) LGP21401	-	-	(2)1-5/8 COAX	
B1	PROPOSED	LTE 700 (BC) /850	DMP65R-BU6DA	71.2X20.7X7.7	160'-0"±	150°	-	(1)(P) 4449 B5/B12 (850)	17.9X13.2X10.4	(2)(E) DC (1)(E) FIBER	(E) (1) RAYCAP DC6-48-60-18-8F
B2	PROPOSED	LTE 700 (B14)	OPA65R-BU6DA	71.2X21X7.8	160'-0"±	150°	-	(1)(P) 4478 B14 (700)	18.1X13.4X8.3	-	
B3	EXISTING	LTE PCS/WCS	QS66512-2	72X12X9.6	160'-0"±	150°	-	(1)(E) RRUS-32 B2 (PCS) (1)(E) RRUS-32 B30 (WCS)	-	(2)1-5/8 COAX	
B4	EXISTING	UMTS 850	7770	55X11X5	160'-0"±	190°	(2)(E) LGP21401	-	-	(2)1-5/8 COAX	
C1	PROPOSED	LTE 700 (BC) /850	DMP65R-BU6DA	71.2X20.7X7.7	160'-0"±	270°	-	(1)(P) 4449 B5/B12 (850)	17.9X13.2X10.4	-	(P) (1) RAYCAP DC6-48-60-0-8C-EV
C2	PROPOSED	LTE 700 (B14)	OPA65R-BU6DA	71.2X21X7.8	160'-0"±	270°	-	(1)(P) 4478 B14 (700)	18.1X13.4X8.3	(2)(P) DC	
C3	EXISTING	LTE PCS/WCS	QS66512-2	72X12X9.6	160'-0"±	270°	-	(1)(E) RRUS-32 B2 (PCS) (1)(E) RRUS-32 B30 (WCS)	-	(2)1-5/8 COAX	
C4	EXISTING	UMTS 850	7770	55X11X5	160'-0"±	300°	(2)(E) LGP21401	-	-	(2)1-5/8 COAX	

RRU CHART

QUANTITY	MODEL	SIZE (L x W x D)
3(P)	4449 (850/700)	17.9"x13.2"x10.4"
3(P)	4478 B14 (700)	18.1"x13.4"x8.3"
3(E)	RRUS-32 B2 (PCS)	27.2"x12.1"x7.0"
3(E)	RRUS-32 B30 (WCS)	27.2"x12.1"x7.0"

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS

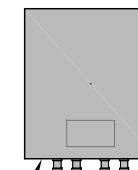
NOTE:

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
SCALE: N.T.S.



2
A-3

NOTE:

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

NOTE:

REFER TO STRUCTURAL ANALYSIS
BY: HUDSON DESIGN GROUP, LLC,
DATED: MAY 7, 2020,
FOR THE CAPACITY OF THE
EXISTING STRUCTURES TO SUPPORT
THE PROPOSED EQUIPMENT.

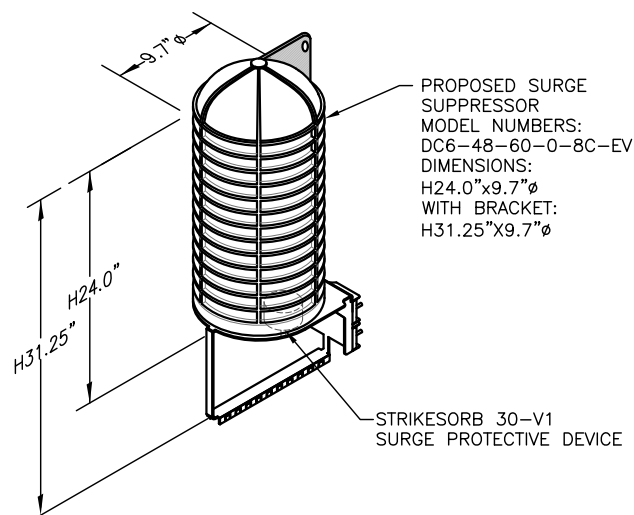
NOTE:

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

FINAL ANTENNA SCHEDULE

SCALE: N.T.S.

1
A-3

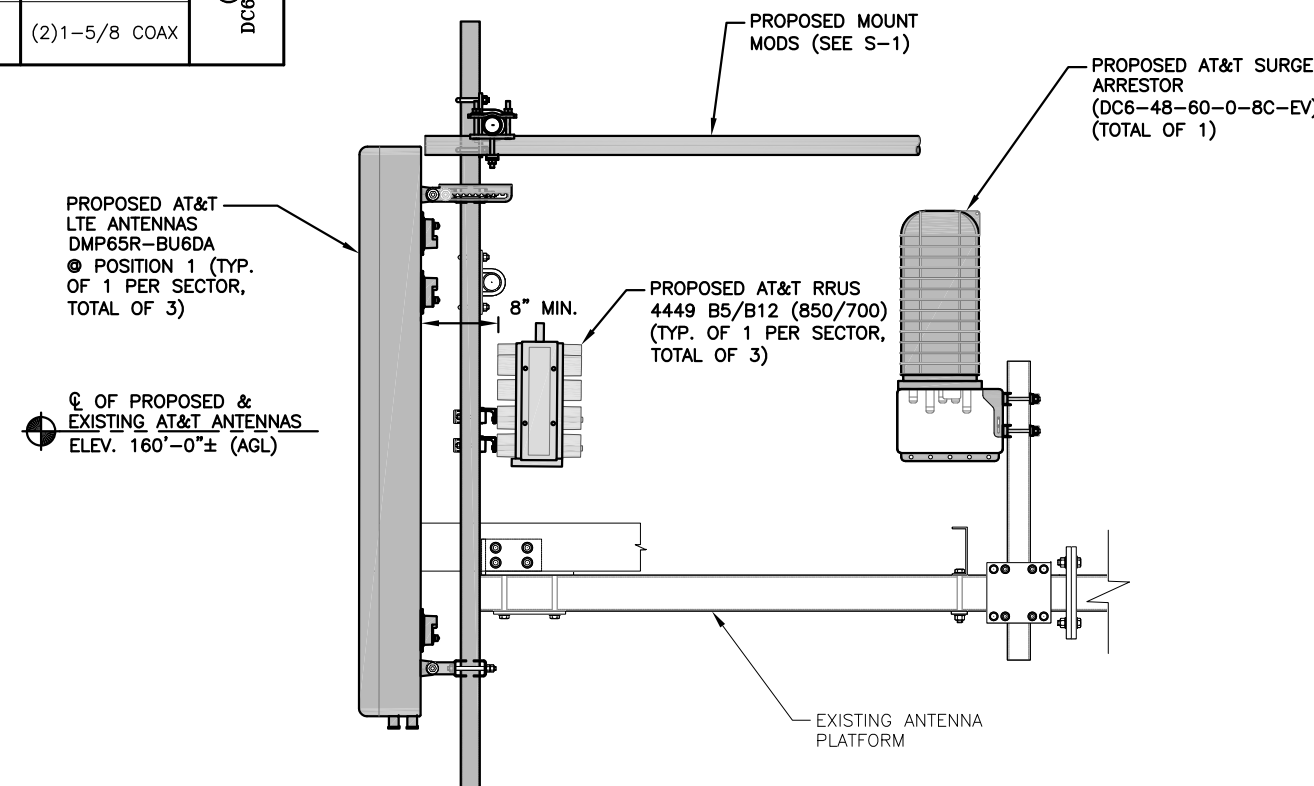


NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

DC SURGE SUPPRESSOR DETAIL

SCALE: N.T.S.

3
A-3



**PROPOSED LTE ANTENNA
MOUNTING DETAIL**

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



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SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: TR

AT&T
DETAILS
LTE 4C, RETRO, 5G NR 2021 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT5266	A-3	1

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 D.I. 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.

NOTES:

- ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"Ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
- VERIFICATION OF EXISTING ROOF CONSTRUCTION IS REQUIRED PRIOR TO THE INSTALLATION OF THE ROOF PLATFORM. ENGINEER OF RECORD IS TO APPROVE EXISTING CONDITIONS IN ORDER TO MOVE FORWARD.
- CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
- EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

NOTES:

- REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
- PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
- PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
- HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
- ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. DESIGN ADHESIVE BOND STRENGTH HAS BEEN BASED ON ACI 355.4 TEMPERATURE CATEGORY B WITH INSTALLATIONS INTO DRY HOLES DRILLED USING A CARBIDE BIT INTO CRACKED CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS REQUIRING CERTIFIED INSTALLATIONS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318-11 D.9.2.2. INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-11 D.8.2.4. AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

SPECIAL INSPECTION CHECKLIST

BEFORE CONSTRUCTION

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	ENGINEER OF RECORD APPROVED SHOP DRAWINGS ¹
REQUIRED	MATERIAL SPECIFICATIONS REPORT ²
N/A	FABRICATOR NDE INSPECTION
REQUIRED	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
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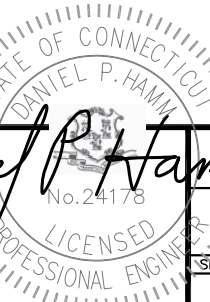
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A	04/24/20	ISSUED FOR REVIEW	TR	AT	DPH

SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: TR



AT&T

STRUCTURAL NOTES

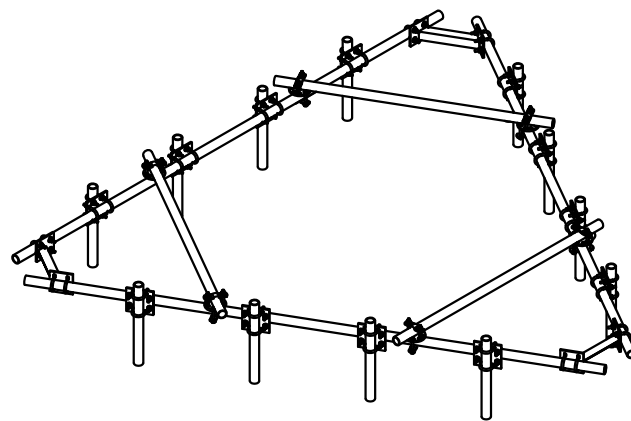
LTE 4C, RETRO, 5G NR 2021 UPGRADE

SITE NUMBER	DRAWING NUMBER	REV
CT5266	SN-1	1

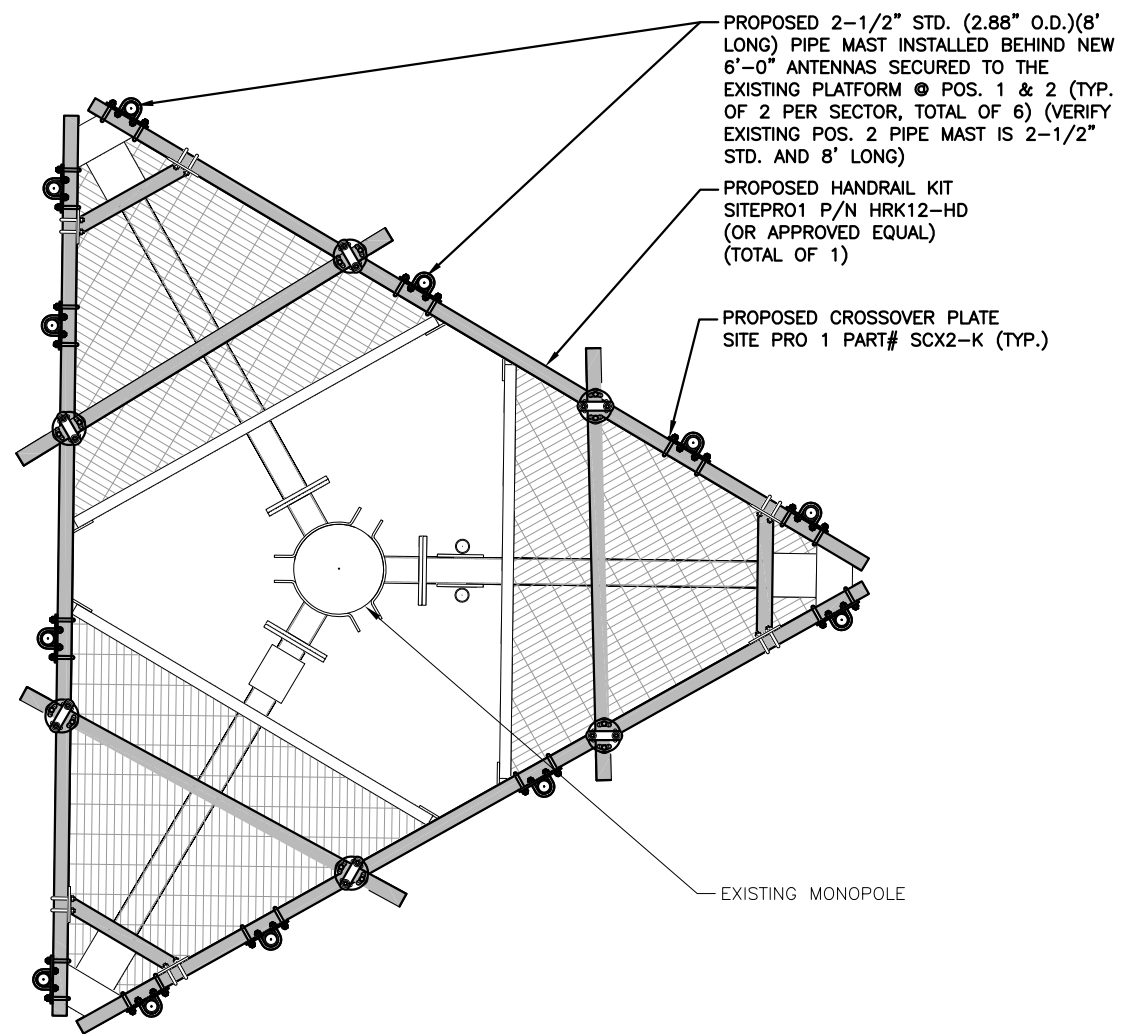
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

NOTE:
REFER TO STRUCTURAL ANALYSIS BY: HUDSON DESIGN GROUP, LLC, DATED: MAY 7, 2020, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

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



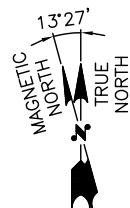
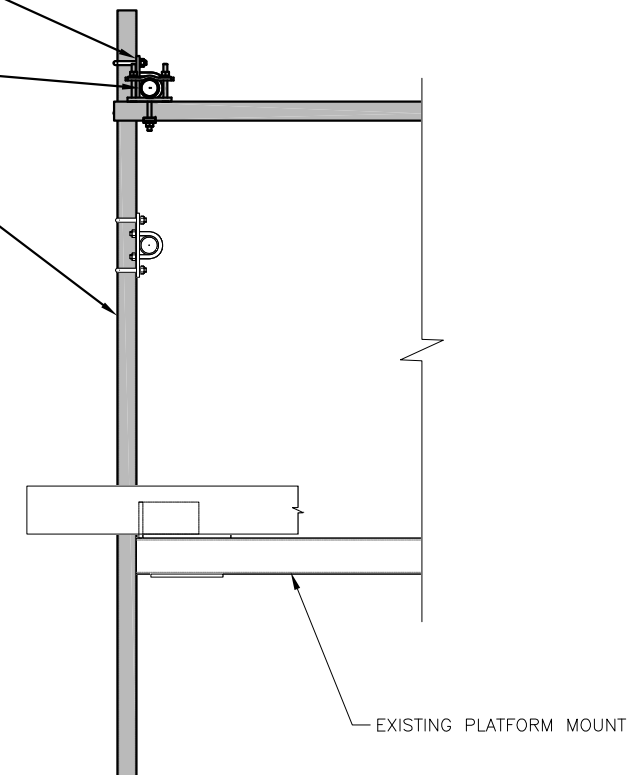
HANDRAIL KIT DETAIL 2
SCALE: N.T.S. S-1



PROPOSED CROSSOVER PLATE SITE PRO 1 PART# SCX2-K (TYP.)

PROPOSED HANDRAIL KIT SITEPRO1 P/N HRK12-HD (OR APPROVED EQUAL) (TOTAL OF 1)

PROPOSED 2-1/2" STD. (2.88" O.D.)(8' LONG) PIPE MAST INSTALLED BEHIND NEW 6'-0" ANTENNAS SECURED TO THE EXISTING PLATFORM @ POS. 1 & 2 (TYP. OF 2 PER SECTOR, TOTAL OF 6) (VERIFY EXISTING POS. 2 PIPE MAST IS 2-1/2" STD. AND 8' LONG)



PROPOSED MOUNT MODIFICATIONS PLAN 1
22x34 SCALE: 3/4"=1'-0"
11x17 SCALE: 3/8"=1'-0" S-1



PROPOSED MOUNT MODIFICATION ELEVATION 3
22x34 SCALE: 1"=1'-0"
11x17 SCALE: 1/2"=1'-0" S-1



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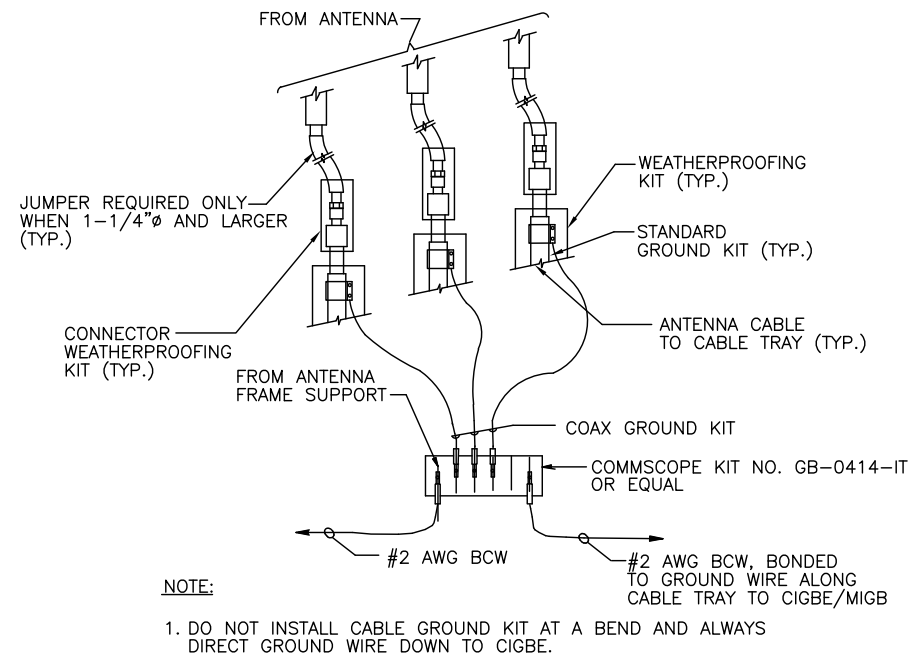
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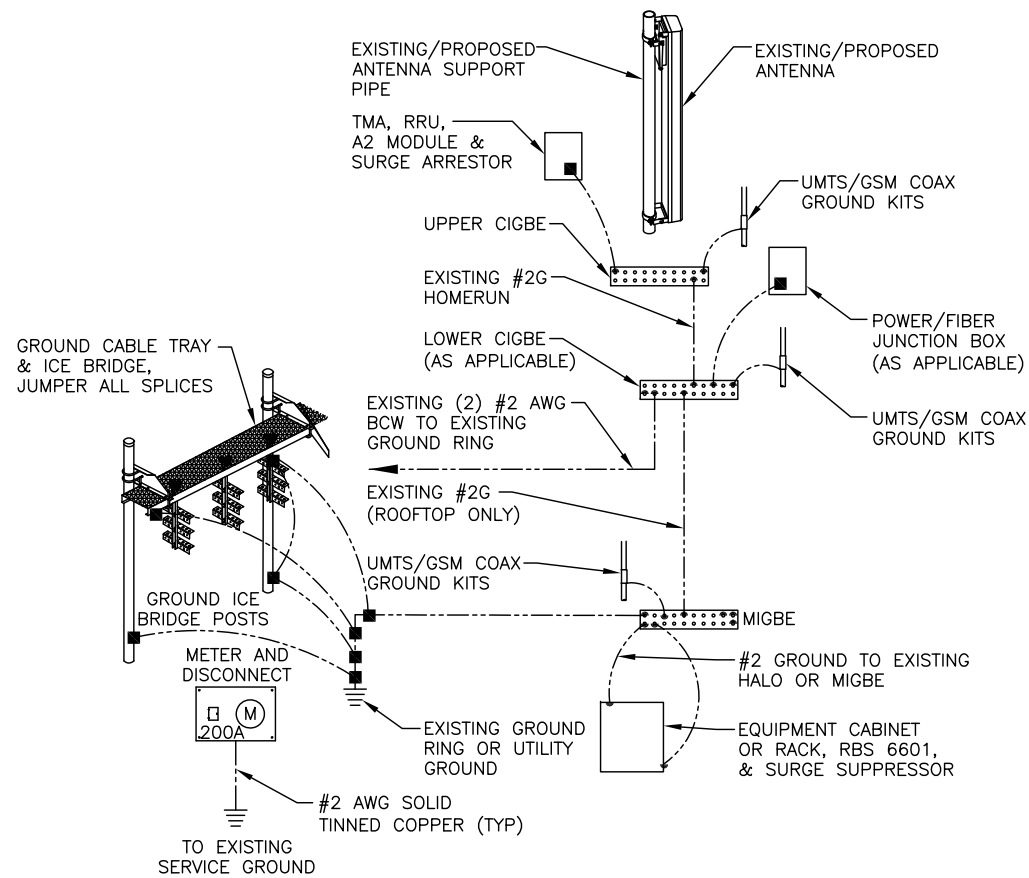


500 ENTERPRISE DRIVE, SUITE 3A
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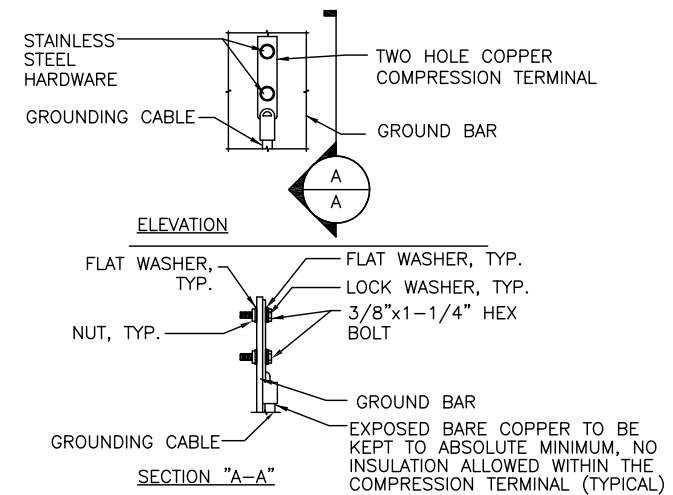
				AT&T	
				MOUNT MODIFICATION DESIGN	
				LTE 4C, RETRO, 5G NR 2021 UPGRADE	
NO.		DATE		REVISIONS	
BY		CHK		APP'D	
SCALE: AS SHOWN		DESIGNED BY: AT		DRAWN BY: TR	
SITE NUMBER		DRAWING NUMBER		REV	
CT5266		S-1		1	



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

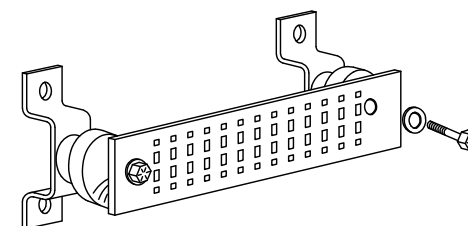
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

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.

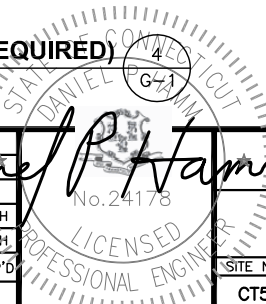
SECTION "A" - SURGE ABSORBERS

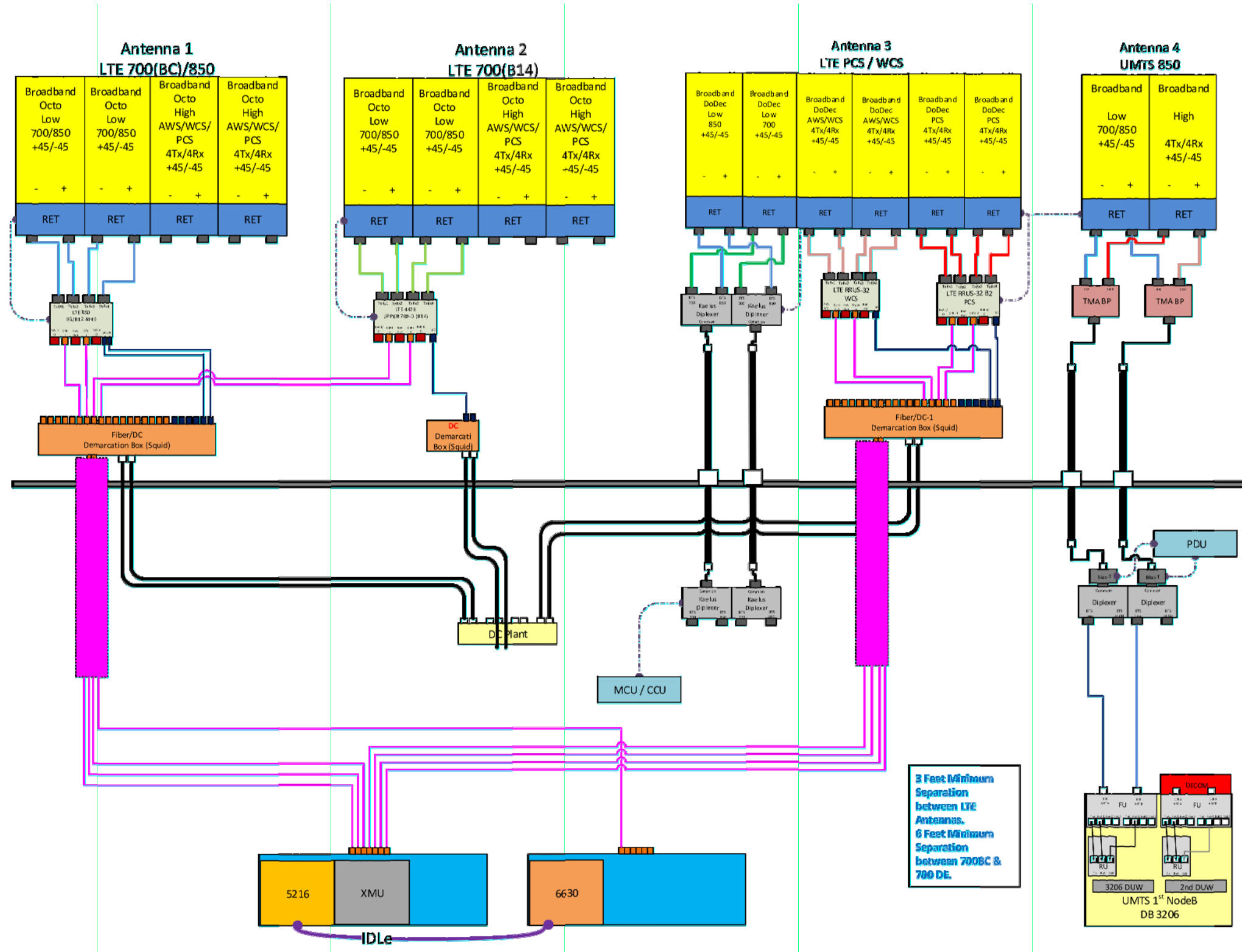
- INTERIOR GROUND RING (#2 AWG)
- EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2 AWG)
- METALLIC COLD WATER PIPE (IF AVAILABLE) (#2 AWG)
- BUILDING STEEL (IF AVAILABLE) (#2 AWG)



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

NO.	DATE	REVISIONS	BY	CHK	APP'D
1	07/09/20	ISSUED FOR CONSTRUCTION	SG	AT	DPH
A	04/24/20	ISSUED FOR REVIEW	TR	AT	DPH
SCALE: AS SHOWN DESIGNED BY: AT DRAWN BY: TR					





3 Feet Minimum Separation between LTE Antennas.
6 Feet Minimum Separation between 700BC & 700 DE.

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

1	07/09/20	ISSUED FOR CONSTRUCTION	SG	AT	DPH
A	04/24/20	ISSUED FOR REVIEW	TR	AT	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: AT	DRAWN BY: TR		

EXHIBIT 2

1434 MONROE TPKE

Location 1434 MONROE TPKE

Map/Lot 145/ 024/ 0Z/ /

Acct# 1450240Z

Owner SBA INFRSTRCTR-TX -CELL TOWER &

Assessment \$213,600

Appraisal \$305,200

PID 16245

Building Count 1

Survey

Affordable

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2019	\$230,200	\$75,000	\$305,200

Assessment			
Valuation Year	Improvements	Land	Total
2019	\$161,100	\$52,500	\$213,600

Owner of Record

Owner SBA INFRSTRCTR-TX -CELL TOWER &
Co-Owner STONE CASTLE INVESTMENTS LLC
Address 8501 CONGRESS AVE
BOCA RATON, FL 33487-1307

Sale Price \$200,000
Certificate 1
Book & Page 1789/ 323
Sale Date 07/13/2012
Instrument 06

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
SBA INFRSTRCTR-TX -CELL TOWER &	\$200,000	1	1789/ 323	06	07/13/2012
SISTERS OF THE HOLY FAMILY &	\$0	2	1603/ 14		07/10/2009
SISTERS OF THE HOLY FAMILY OF NAZARETH I	\$0	3	CORP/MERG		

Building Information

Building 1 : Section 1

Year Built:

Building Photo

Living Area: 0

Building Attributes	
Field	Description
Style	Vacant Land
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Fireplaces	
Wdstv Flues	
Basement Gar.	
Attic	
Basement	
In Law Apt	



(<http://images.vgsi.com/photos/MonroeCTPhotos//00\0139\44.jpg>)

Building Layout

(http://images.vgsi.com/photos/MonroeCTPhotos//Sketches/16245_16245,

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

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Land Line Valuation

Use Code 431
Description TEL REL TW
Zone RF2
Neighborhood
Alt Land Approved No
Category

Size (Acres) 0.23
Appraised Value \$75,000

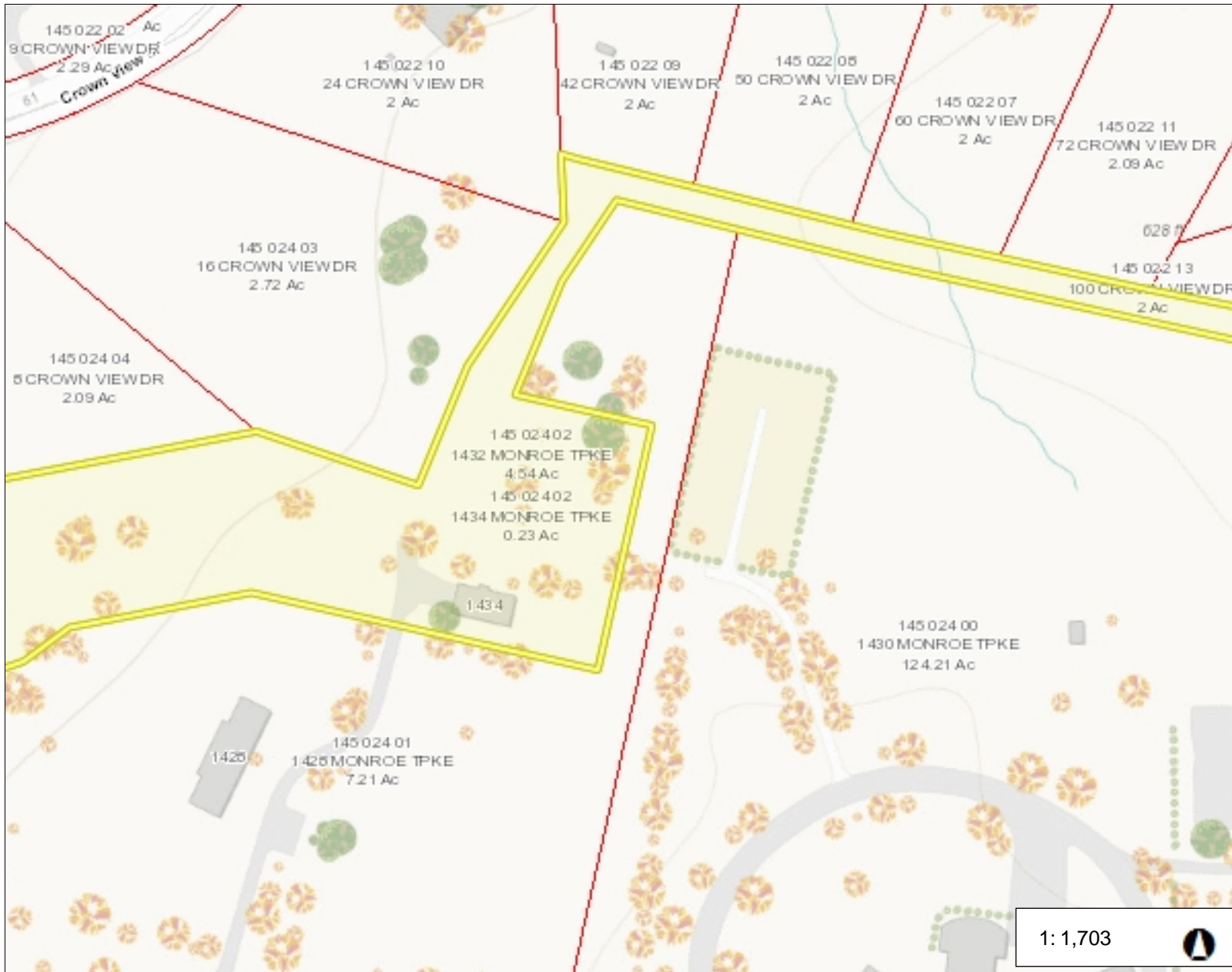
Outbuildings

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
FN1	FENCE CHAIN			1440 L.F.	\$20,200	1
CELL	Cell Tower Unit			1 UNIT	\$210,000	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2019	\$230,200	\$75,000	\$305,200
2019	\$230,200	\$75,000	\$305,200

Assessment			
Valuation Year	Improvements	Land	Total
2019	\$161,100	\$52,500	\$213,600
2019	\$161,100	\$52,500	\$213,600



Legend

- Parcels
- Streetname
- Roadways
 - Local
 - Collector
 - Minor Collector
 - Minor Arterial
 - Major Collector
 - PA Other
 - PA Other Expwy
 - PA Interstate

1: 1,703



283.9 0 141.95 283.9 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere
Created by Greater Bridgeport Regional Council

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

THIS MAP IS NOT TO BE USED FOR NAVIGATION



EXHIBIT 3



Tower Engineering Solutions

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

Structural Analysis Report

Existing 159 ft SABRE Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT13055-A

Customer Site Name: Monroe Turnpike

Carrier Name: AT&T (App#: 133099, V2)

Carrier Site ID / Name: CT5266 / MONROE NE

Site Location: 1428 Monroe Turnpike

Monroe, Connecticut

Fairfield County

Latitude: 41.376463

Longitude: -73.186541

Analysis Result:

Max Structural Usage: 97.0% [Pass]

Max Foundation Usage: 88.0% [Pass]

Additional Usage Caused by New Mount/Mount Modification: +1.8%

Report Prepared By : Dipika Dhungana





Tower Engineering Solutions

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

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Monroe, Connecticut

Fairfield County

Latitude: 41.376463

Longitude: -73.186541

Analysis Result:

Max Structural Usage: 97.0% [Pass]

Max Foundation Usage: 88.0% [Pass]

Additional Usage Caused by New Mount/Mount Modification: +1.8%

Report Prepared By : Dipika Dhungana

Introduction

The purpose of this report is to summarize the analysis results on the 159 ft SABRE 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	Sabre Communications Corporation; Job #04-05018; 5/23/2003
Foundation Drawing	Sabre Communications Corporation; Job #04-05018; 5/23/2003
Geotechnical Report	Dr. Clarence Welti, P.E., P.C.; 4/25/2003
Modification Drawings	N/A

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:	117.0 mph (3-Sec. Gust) (Ultimate wind speed)
Wind Speed with Ice:	50 mph (3-Sec. Gust) with 3/4" radial ice concurrent
Service Load Wind Speed:	60 mph + 0" Radial ice
Standard/Codes:	TIA-222-H / 2018 IBC
Exposure Category:	C
Risk Category:	II
Topographic Category:	1
Crest Height:	0 ft
Seismic Parameters:	$S_5 = 0.204$, $S_1 = 0.054$

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 ¹	Owner
-	162.0	3	Powerwave 7770 - Panel	Platform w/ Handrails (Site Pro 1 - RMQP-496-HK)	(12) 1 5/8" (2) 1/2" Fiber (4) 3/4" DC Power	AT&T
-		3	Powerwave P65-16-XLHH-RR - Panel			
-		3	Quintel QS66512-2 - Panel			
-		6	Powerwave Technologies LGP21401 - TMA			
-		3	Kaelus DBC0061F1V51-2 - Diplexer			
-		3	Ericsson RRUS 11-700			
-		3	Ericsson RRUS 32 B30			
-		3	Ericsson RRUS 32 B2			
-		2	Raycap DC6-48-60-18-8F			
12			1			
13	151.0	3	RFS - APXVSP18-C-A20 - Panel	Low Profile Platform with SitePro HRK-12 Handrail Kit	(4) 1-1/4" Hybrid	Sprint Nextel
14		3	RFS - APXVTM14-C-I20 - Panel			
15		4	RFS - ACU-A20-N - RET			
16		3	Alcatel Lucent - 1900 MHz RRH			
17		3	Alcatel Lucent - 800 MHz RRH			
18		3	Alcatel Lucent - TD-RRH8x20-25 - RRH			
19		3	Alcatel Lucent - 800 MHz Filters			
20	142.5	6	EMS - FR90-16-XXDP - Panel	LP Platform w/ Handrails w/ (3) VSR-MS-B	(24) 1 1/4"	T-Mobile
21		3	RFS - APX16DWV-16DWVS-E-A20			
22		3	RFS - APXVAA24_43-U-A20 - Panel			
23		3	RFS - ATMA4P4DBP-1A20 - TMA			
24		3	Andrew - ATSBT-TOP-FM - Bias T			
25	131.0	3	Kathrein 742 213_2110_P45_02.0	Low Profile Platform	(12) 1 5/8" (1) 1 5/8" Hybriflex	Verizon
26		3	Antel BXA-70063/6CF - Panel			
27		3	Antel BXA-171063-12BF - Panel			
28		6	Antel LPA-80063/6CF - Panel			
29		3	Alcatel Lucent RRH2x60-AWS - RRU			
30		6	RFS FD9R6004/2C-3L - Diplexer			
31		1	RFS DB-T1-6Z-8AB-0Z - Distribution Box			
32	110.0	1	Sinclair SCL329-HL - Omni	(1) 4 ft. Standoff	(1) 7/8" ²	Town
33	80.0	1	Sinclair SCL329-HL - Omni	(1) 4 ft. Standoff	(1) 7/8" ²	
34	50.0	1	Decibel 26DB - GPS	(1) 4 ft. Standoff	(1) 1/2" ³	Sprint Nextel

1. Transmission lines installed inside the pole shafts unless otherwise noted.
2. Town has (2) 7/8" coax installed outside the pole shafts in a single row to 110 ft. and 80 ft.
3. Sprint Nextel has (1) 1/2" coax installed outside the pole shafts to 50 ft.

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

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

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	162.0	3	Powerwave 7770	Platform w/ Handrails (Site Pro 1 - RMQP-496-HK w/ HRK14) w/ new SitePro1 HRK12-HD and (6) Mast pipes	(3) 2" conduit housing{(6) 3/4" DC and (2) 1/2" FIBER} (12) 1 5/8"	AT&T
2		3	Quintel QS66512-2			
3		3	Cci DMP65R-BU6DA			
4		3	Cci OPA65R-BU6DA			
5		6	Powerwave Technologies LGP21401			
6		3	Kaelus DBC0061F1V51-2			
7		3	Ericsson RRUS 32 B30			
8		3	Ericsson RRUS 32 B2			
9		3	Ericsson 4449 B5/B12			
10		3	Ericsson RRUS 4478 B14			
11		3	Raycap DC6-48-60-18-8F			

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:	88.9%	97.0%	44.0%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)
Analysis Reactions	4565.7	36.8

The foundation has been investigated using the supplied documents and soils report, and was found adequate to support the reactions resulting from the current analysis. Therefore, no modifications to the existing foundation will be necessary.

Service Load Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by ANSI/TIA/EIA 222-H for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 2.7519 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure was found adequate to safely support the existing and proposed equipment per the ANSI/TIA/EIA 222-H standards under a basic wind speed of 117 mph no ice and 50 mph with 3/4" radial ice.

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 88.94% at 101.0ft

Structure: CT13055-A-SBA
Site Name: Monroe Turnpike
Height: 159.00 (ft)
Base Elev: 1.000 (ft)

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

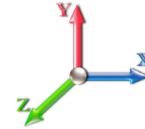
6/12/2020



Page: 1

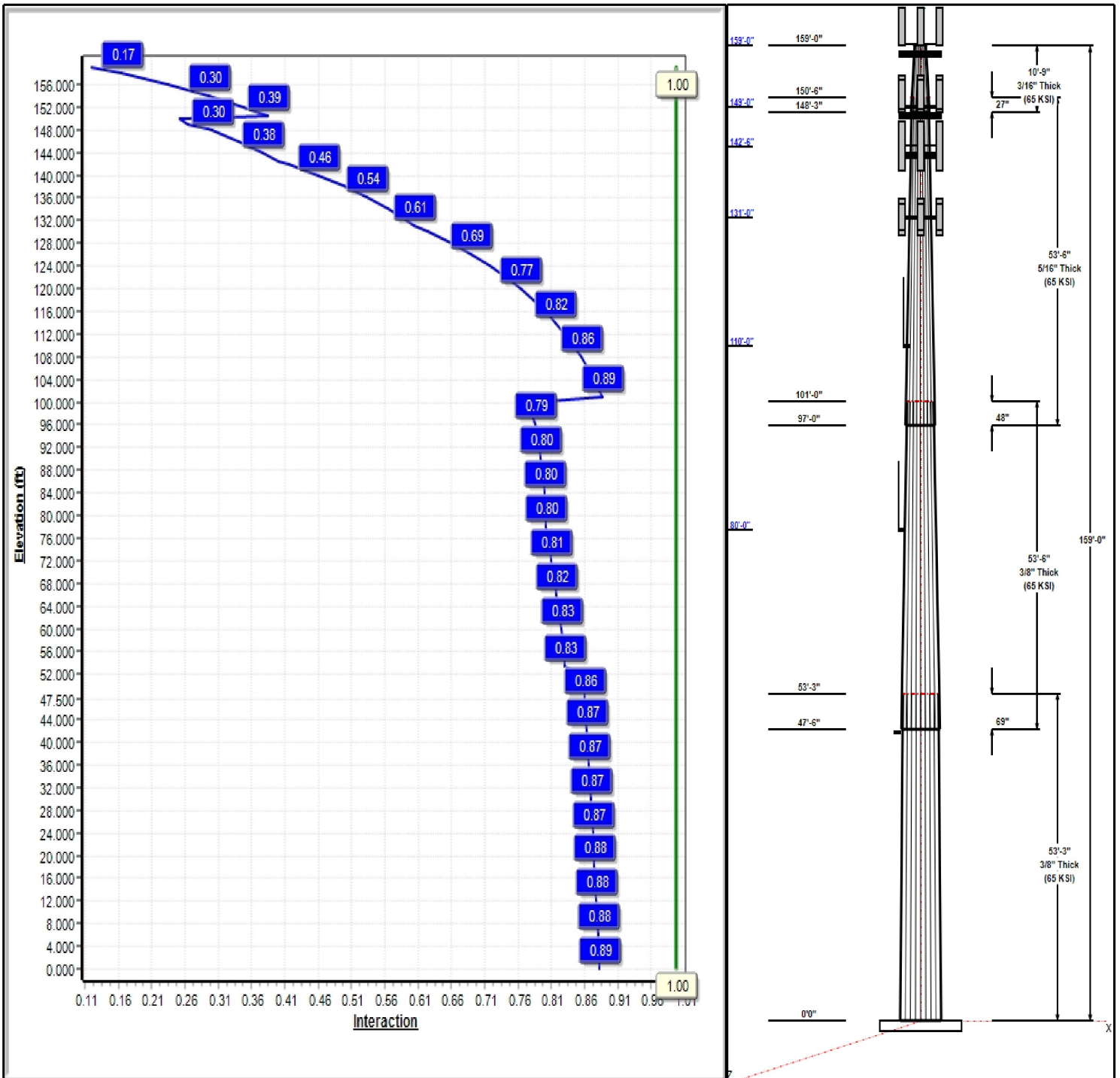
Dead Load Factor: 1.20
Wind Load Factor: 1.00

Load Case : 1.2D + 1.0W 117 mph Wind



Iterations: 30

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Structure: CT13055-A-SBA

Type: Tapered
Site Name: Monroe Turnpike
Height: 159.00 (ft)
Base Elev: 1.00 (ft)

Base Shape: 18 Sided
Taper: 0.28277

6/12/2020

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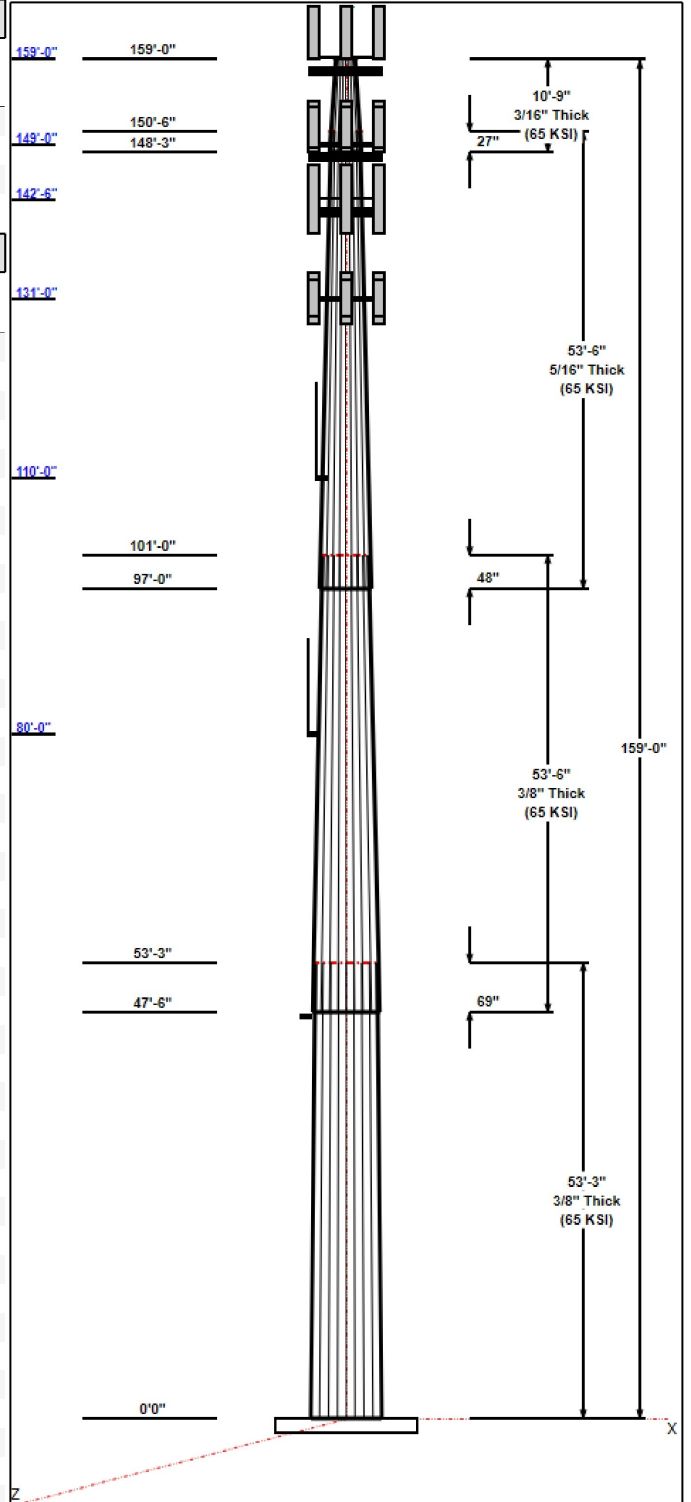
Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	53.25	43.15	58.21	0.375		0.28277	65
2	53.50	30.40	45.53	0.375	Slip	0.28277	65
3	53.50	17.03	32.16	0.313	Slip	0.28277	65
4	10.75	15.00	18.04	0.188	Slip	0.28277	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
159.00	162.00	3	Powerwave 7770	AT&T
159.00	162.00	3	DMP65R-BU6DA	AT&T
159.00	162.00	6	Powerwave Technologies	AT&T
159.00	162.00	3	4449 B5/B12	AT&T
159.00	162.00	3	Raycap DC6-48-60-18-8F	AT&T
159.00	162.00	1	Site Pro 1 - RMQP-496-HK	AT&T
159.00	162.00	1	Decibel DB404-B - Omni	Town
159.00	162.00	1	Site Pro 1 - HRK14	AT&T
159.00	162.00	3	OPA65R-BU6DA	AT&T
159.00	162.00	3	RRUS 4478 B14	AT&T
159.00	162.00	3	Quintel QS66512-2	AT&T
159.00	162.00	3	Kaelus DBC0061F1V51-2	AT&T
159.00	162.00	3	Ericsson RRUS 32 B30	AT&T
159.00	162.00	3	Ericsson RRUS 32 B2	AT&T
149.00	151.00	3	RFS - APXVSP18-C-A20	Sprint Nextel
149.00	151.00	3	Alcatel Lucent - 1900 MHZ	Sprint Nextel
149.00	151.00	3	Alcatel Lucent - 800 MHZ	Sprint Nextel
149.00	151.00	3	Alcatel Lucent - 800 MHZ	Sprint Nextel
149.00	151.00	4	RFS - ACU-A20-N - RET	Sprint Nextel
149.00	149.00	1	Low Profile Platform	Sprint Nextel
149.00	149.00	1	SitePro HRK-12 Handrail	Sprint Nextel
149.00	151.00	3	RFS - APXVTM14-C-I20 -	Sprint Nextel
149.00	151.00	3	Alcatel Lucent -	Sprint Nextel
142.50	142.50	1	LP Platform w/ Handrails	T-Mobile
142.50	142.50	3	Andrew - ATSBT-TOP-FM	T-Mobile
142.50	142.50	6	EMS - FR90-16-XXDP -	T-Mobile
142.50	142.50	3	RFS -	T-Mobile
142.50	142.50	3	RFS -	T-Mobile
142.50	142.50	3	RFS -	T-Mobile
131.00	131.00	3	Kathrein 742	Verizon
131.00	131.00	3	Antel BXA-70063/6CF -	Verizon
131.00	131.00	3	Antel BXA-171063-12BF -	Verizon
131.00	131.00	6	Antel LPA-80063/6CF -	Verizon
131.00	131.00	3	Alcatel Lucent	Verizon
131.00	131.00	6	RFS FD9R6004/2C-3L -	Verizon
131.00	131.00	1	RFS DB-T1-6Z-8AB-0Z -	Verizon
131.00	131.00	1	Low Profile Platform	Verizon
110.00	115.55	1	Sinclair SCL329-HL - Omni	Town
110.00	110.00	1	4 ft. Standoff	Town
80.00	80.00	1	4 ft Standoff	Town
80.00	85.55	1	Sinclair SCL329-HL - Omni	Town
47.00	50.00	1	Decibel 26DB - GPS	Sprint Nextel
47.00	47.00	1	4 ft Standoff	Sprint Nextel

Linear Appurtenances



Structure: CT13055-A-SBA

Type: Tapered
Site Name: Monroe Turnpike
Height: 159.00 (ft)
Base Elev: 1.00 (ft)

Base Shape: 18 Sided
Taper: 0.28277

6/12/2020

Page: 3



Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	159.00	Outside	1 5/8"	AT&T
0.00	159.00	Inside	1/2" Fiber	AT&T
0.00	159.00	Outside	1/2" Fiber	Town
0.00	159.00	Outside	2" Conduit	AT&T
0.00	159.00	Inside	3/4" DC Power	AT&T
0.00	151.00	Inside	1-1/4" Hybrid	Sprint Nextel
0.00	140.00	Inside	1 1/4"	T-Mobile
0.00	131.00	Inside	1 5/8"	Verizon
0.00	131.00	Inside	1 5/8" Hybriflex	Verizon
0.00	110.00	Outside	7/8"	Town
0.00	80.00	Outside	7/8"	Town
0.00	50.00	Outside	1/2"	Sprint Nextel

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
14	2.25" 18J	75.0	Radial

Base Plate

Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.2500	71.0	60.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.0W 117 mph Wind	4565.7	36.8	51.6
0.9D + 1.0W 117 mph Wind	4492.9	36.8	38.7
1.2D + 1.0Di + 1.0Wi 50 mph Wind	1160.1	9.6	67.8
1.2D + 1.0Ev + 1.0Eh	106.2	0.7	53.5
0.9D + 1.0Ev + 1.0Eh	104.4	0.7	40.5
1.0D + 1.0W 60 mph Wind	1066.9	8.7	43.0

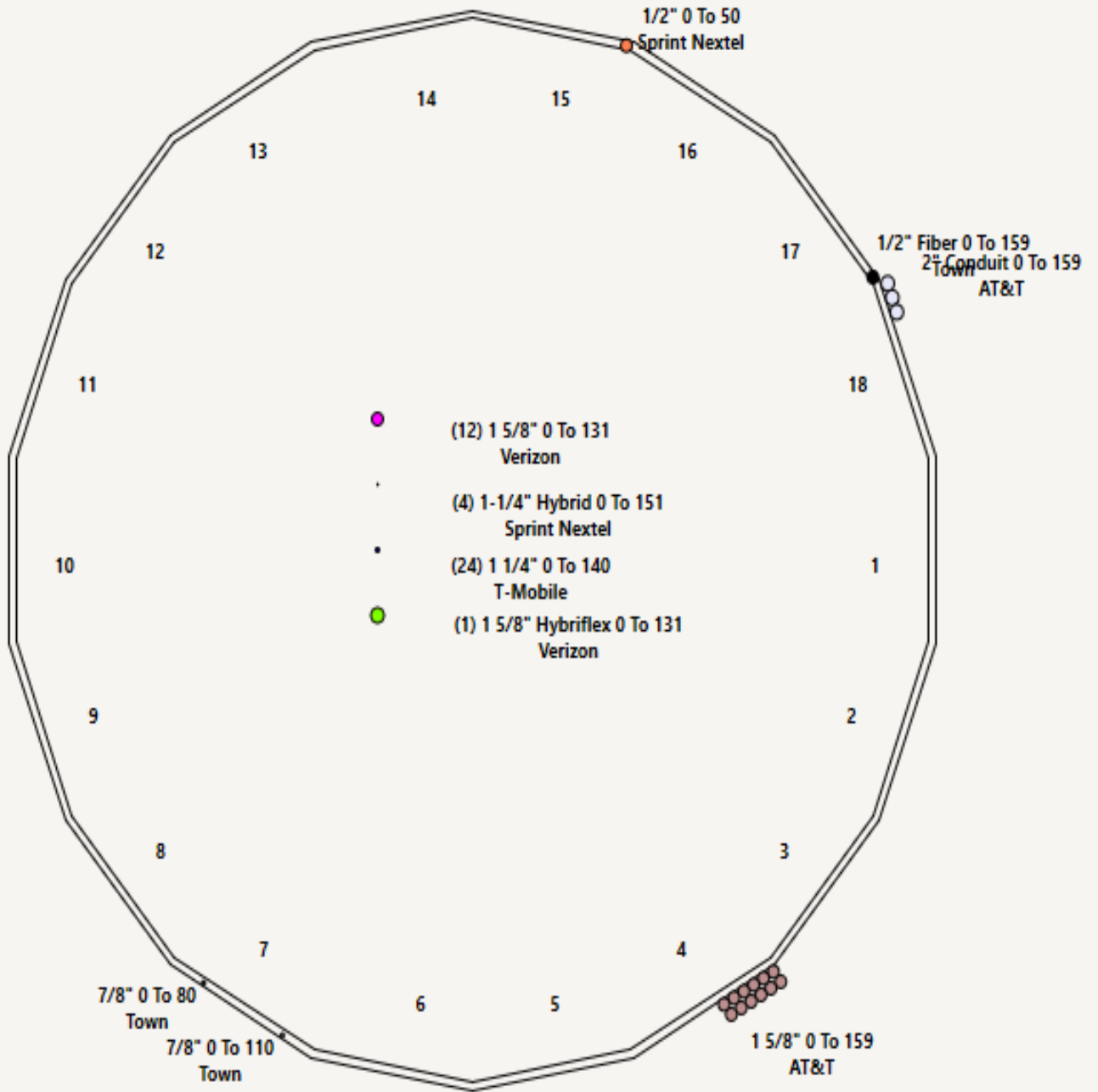
Structure: CT13055-A-SBA - Coax Line Placement

Type: Monopole
Site Name: Monroe Turnpike
Height: 159.00 (ft)

6/12/2020



Page: 4



Shaft Properties

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 5

Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	53.250	0.3750	65		0.00	10,849
2	18	53.500	0.3750	65	Slip	69.00	8,145
3	18	53.500	0.3125	65	Slip	48.00	4,384
4	18	10.750	0.1875	65	Slip	27.00	356
Total Shaft Weight:							23,734

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	58.21	0.00	68.84	29090.28	25.96	155.23	43.15	53.25	50.91	11771.3	18.88	115.0	0.282767
2	45.53	47.50	53.74	13843.68	20.00	121.41	30.40	101.00	35.74	4070.49	12.88	81.07	0.282767
3	32.16	97.00	31.58	4046.51	16.73	102.90	17.03	150.50	16.58	585.32	8.20	54.49	0.282767
4	18.04	148.2	10.62	427.78	15.55	96.21	15.00	159.00	8.81	244.36	12.70	80.00	0.282767

Load Summary

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	159.00	Powerwave 7770	3	35.00	5.79	0.73	93.18	6.530	0.73	0.00	3.00
2	159.00	DMP65R-BU6DA	3	79.40	12.71	0.72	227.63	13.447	0.72	0.00	3.00
3	159.00	Powerwave Technologies LGP21401	6	14.10	1.29	0.50	26.68	1.711	0.50	0.00	3.00
4	159.00	4449 B5/B12	3	71.00	1.97	0.50	97.86	2.245	0.50	0.00	3.00
5	159.00	Raycap DC6-48-60-18-8F	3	32.80	0.92	0.50	64.89	1.140	0.50	0.00	3.00
6	159.00	Site Pro 1 - RMQP-496-HK	1	2645.00	48.00	1.00	4038.79	65.874	1.00	0.00	3.00
7	159.00	Decibel DB404-B - Omni	1	14.00	0.00	1.00	14.00	0.000	1.00	0.00	3.00
8	159.00	Site Pro 1 - HRK14	1	302.36	8.13	1.00	482.93	12.129	1.00	0.00	3.00
9	159.00	OPA65R-BU6DA	3	63.30	12.71	0.50	197.61	13.441	0.50	0.00	3.00
10	159.00	RRUS 4478 B14	3	59.40	1.65	0.50	80.27	1.911	0.50	0.00	3.00
11	159.00	Quintel QS66512-2	3	111.00	8.13	0.92	215.62	8.762	0.92	0.00	3.00
12	159.00	Kaelus DBC0061F1V51-2	3	18.30	0.43	0.50	23.57	0.574	0.50	0.00	3.00
13	159.00	Ericsson RRUS 32 B30	3	60.00	2.74	0.50	99.20	3.093	0.50	0.00	3.00
14	159.00	Ericsson RRUS 32 B2	3	53.00	2.74	0.50	92.20	3.093	0.50	0.00	3.00
15	149.00	RFS - APXVSPP18-C-A20 - Panel	3	106.00	8.42	0.83	239.71	9.355	0.83	0.00	2.00
16	149.00	Alcatel Lucent - 1900 MHz RRH	3	44.00	3.80	0.67	98.58	4.495	0.67	0.00	2.00
17	149.00	Alcatel Lucent - 800 MHz RRH	3	53.00	2.49	0.67	89.98	3.062	0.67	0.00	2.00
18	149.00	Alcatel Lucent - 800 MHz Filters	3	8.80	0.78	0.67	17.62	1.103	0.67	0.00	2.00
19	149.00	RFS - ACU-A20-N - RET	4	1.00	0.14	0.67	3.15	0.288	0.67	0.00	2.00
20	149.00	Low Profile Platform	1	1200.00	35.00	1.00	1723.56	49.660	1.00	0.00	0.00
21	149.00	SitePro HRK-12 Handrail Kit	1	261.72	6.75	1.00	417.02	10.049	1.00	0.00	0.00
22	149.00	RFS - APXVTM14-C-I20 - Panel	3	56.00	6.34	0.79	119.35	6.895	0.79	0.00	2.00
23	149.00	Alcatel Lucent - TD-RRH8x20-25 -	3	70.00	4.05	0.67	118.87	4.757	0.67	0.00	2.00
24	142.50	LP Platform w/ Handrails w/ (3)	1	1600.00	34.00	1.00	2645.28	48.769	1.00	0.00	0.00
25	142.50	Andrew - ATSBT-TOP-FM - Bias T	3	1.80	0.20	0.67	4.71	0.373	0.67	0.00	0.00
26	142.50	EMS - FR90-16-XXDP - Panel	6	18.00	4.36	0.68	60.02	4.823	0.68	0.00	0.00
27	142.50	RFS - APX16DWV-16DWVS-E-A20 -	3	40.70	6.61	0.62	98.97	7.694	0.62	0.00	0.00
28	142.50	RFS - APXVAA24_43-U-A20 - Panel	3	101.40	20.24	0.73	301.31	21.193	0.73	0.00	0.00
29	142.50	RFS - ATMA4P4DBP-1A20 - TMA	3	15.85	1.17	0.67	31.98	1.560	0.67	0.00	0.00
30	131.00	Kathrein 742 213_2110_P45_02.0	3	16.50	3.15	0.72	48.58	3.583	0.72	0.00	0.00
31	131.00	Antel BXA-70063/6CF - Panel	3	17.00	7.57	0.70	86.95	8.934	0.70	0.00	0.00
32	131.00	Antel BXA-171063-12BF - Panel	3	15.00	4.74	0.84	61.86	5.900	0.84	0.00	0.00
33	131.00	Antel LPA-80063/6CF - Panel	6	27.00	9.60	0.94	158.91	10.244	0.94	0.00	0.00
34	131.00	Alcatel Lucent RRH2x60-AWS - RRU	3	55.00	3.50	0.67	94.50	3.890	0.67	0.00	0.00
35	131.00	RFS FD9R6004/2C-3L - Diplexer	6	3.10	0.36	0.67	7.06	0.579	0.67	0.00	0.00
36	131.00	RFS DB-T1-6Z-8AB-0Z - Distribution	1	18.90	4.80	1.00	83.61	5.216	1.00	0.00	0.00
37	131.00	Low Profile Platform	1	1200.00	22.00	1.00	1716.91	31.098	1.00	0.00	0.00
38	110.00	Sinclair SCL329-HL - Omni	1	10.40	2.22	1.00	39.49	4.142	1.00	0.00	5.55
39	110.00	4 ft. Standoff	1	53.32	3.50	1.00	105.28	7.378	1.00	0.00	0.00
40	80.00	4 ft Standoff	1	53.32	3.50	1.00	103.66	7.258	1.00	0.00	0.00
41	80.00	Sinclair SCL329-HL - Omni	1	10.40	2.22	1.00	38.59	4.082	1.00	0.00	5.55
42	47.00	Decibel 26DB - GPS	1	10.00	0.16	1.00	12.47	0.331	1.00	0.00	3.00
43	47.00	4 ft Standoff	1	53.32	3.50	1.00	101.10	7.066	1.00	0.00	0.00
Totals:			114	11,362.69			20,866.40				

Linear Appurtenances

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		
Bottom	Top			Exposed							
Elev.	Elev.	Description		Width	Exposed						
(ft)	(ft)										
0.00	159.00	(12) 1 5/8"		2.00	Outside						
0.00	159.00	(2) 1/2" Fiber		1.00	Inside						
0.00	159.00	(1) 1/2" Fiber		0.00	Outside						
0.00	159.00	(3) 2" Conduit		0.00	Outside						
0.00	159.00	(6) 3/4" DC Power		1.50	Inside						
0.00	151.00	(4) 1-1/4" Hybrid		0.00	Inside						
0.00	140.00	(24) 1 1/4"		0.00	Inside						
0.00	131.00	(12) 1 5/8"		0.00	Inside						
0.00	131.00	(1) 1 5/8" Hybriflex		0.00	Inside						
0.00	110.00	(1) 7/8"		1.11	Outside						
0.00	80.00	(1) 7/8"		0.00	Outside						
0.00	50.00	(1) 1/2"		0.65	Outside						

Shaft Section Properties

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Increment Length: 2 (ft)

Elev (ft)	Description	Thick (in)	Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Fpy (ksi)	S (in ³)	Weight (lb)
0.00		0.3750	58.210	68.836	29090.3	25.96	155.23	70.9	984.3	0.0
2.00		0.3750	57.644	68.163	28245.2	25.69	153.72	71.2	965.1	466.2
4.00		0.3750	57.079	67.489	27416.7	25.43	152.21	71.5	946.1	461.6
6.00		0.3750	56.513	66.816	26604.5	25.16	150.70	71.8	927.2	457.0
8.00		0.3750	55.948	66.143	25808.6	24.90	149.19	72.1	908.6	452.4
10.00		0.3750	55.382	65.470	25028.6	24.63	147.69	72.4	890.1	447.9
12.00		0.3750	54.817	64.797	24264.6	24.36	146.18	72.7	871.8	443.3
14.00		0.3750	54.251	64.124	23516.2	24.10	144.67	73.1	853.8	438.7
16.00		0.3750	53.686	63.451	22783.4	23.83	143.16	73.4	835.9	434.1
18.00		0.3750	53.120	62.778	22066.0	23.57	141.65	73.7	818.2	429.5
20.00		0.3750	52.555	62.105	21363.8	23.30	140.15	74.0	800.7	424.9
22.00		0.3750	51.989	61.431	20676.7	23.03	138.64	74.3	783.3	420.4
24.00		0.3750	51.424	60.758	20004.5	22.77	137.13	74.6	766.2	415.8
26.00		0.3750	50.858	60.085	19346.9	22.50	135.62	74.9	749.3	411.2
28.00		0.3750	50.293	59.412	18704.0	22.24	134.11	75.2	732.5	406.6
30.00		0.3750	49.727	58.739	18075.5	21.97	132.61	75.6	715.9	402.0
32.00		0.3750	49.161	58.066	17461.2	21.71	131.10	75.9	699.6	397.5
34.00		0.3750	48.596	57.393	16860.9	21.44	129.59	76.2	683.4	392.9
36.00		0.3750	48.030	56.720	16274.6	21.17	128.08	76.5	667.4	388.3
38.00		0.3750	47.465	56.047	15702.1	20.91	126.57	76.8	651.6	383.7
40.00		0.3750	46.899	55.374	15143.1	20.64	125.06	77.1	636.0	379.1
42.00		0.3750	46.334	54.700	14597.6	20.38	123.56	77.4	620.5	374.6
44.00		0.3750	45.768	54.027	14065.3	20.11	122.05	77.7	605.3	370.0
46.00		0.3750	45.203	53.354	13546.1	19.84	120.54	78.1	590.2	365.4
47.00		0.3750	44.920	53.018	13291.4	19.71	119.79	78.2	582.8	181.0
47.50	Bot - Section 2	0.3750	44.779	52.849	13165.2	19.64	119.41	78.3	579.1	90.1
48.00		0.3750	44.637	52.681	13039.9	19.58	119.03	78.4	575.4	181.1
50.00		0.3750	44.072	52.008	12546.4	19.31	117.52	78.7	560.7	718.5
52.00		0.3750	43.506	51.335	12065.6	19.05	116.02	79.0	546.2	709.4
53.25	Top - Section 1	0.3750	43.903	51.807	12401.4	19.23	117.07	0.0	0.0	438.7
54.00		0.3750	43.691	51.554	12221.0	19.13	116.51	78.9	550.9	131.9
56.00		0.3750	43.125	50.881	11748.6	18.87	115.00	79.2	536.6	348.6
58.00		0.3750	42.559	50.208	11288.4	18.60	113.49	79.5	522.4	344.0
60.00		0.3750	41.994	49.535	10840.5	18.34	111.98	79.8	508.4	339.4
62.00		0.3750	41.428	48.862	10404.6	18.07	110.48	80.1	494.7	334.8
64.00		0.3750	40.863	48.189	9980.5	17.80	108.97	80.5	481.1	330.2
66.00		0.3750	40.297	47.516	9568.1	17.54	107.46	80.8	467.7	325.7
68.00		0.3750	39.732	46.843	9167.2	17.27	105.95	81.1	454.4	321.1
70.00		0.3750	39.166	46.170	8777.7	17.01	104.44	81.4	441.4	316.5
72.00		0.3750	38.601	45.497	8399.3	16.74	102.94	81.7	428.6	311.9
74.00		0.3750	38.035	44.823	8032.0	16.47	101.43	82.0	415.9	307.3
76.00		0.3750	37.470	44.150	7675.6	16.21	99.92	82.3	403.5	302.8
78.00		0.3750	36.904	43.477	7329.8	15.94	98.41	82.5	391.2	298.2
80.00		0.3750	36.339	42.804	6994.6	15.68	96.90	82.5	379.1	293.6
82.00		0.3750	35.773	42.131	6669.8	15.41	95.39	82.5	367.2	289.0
84.00		0.3750	35.208	41.458	6355.2	15.14	93.89	82.5	355.5	284.4
86.00		0.3750	34.642	40.785	6050.7	14.88	92.38	82.5	344.0	279.9
88.00		0.3750	34.076	40.112	5756.0	14.61	90.87	82.5	332.7	275.3
90.00		0.3750	33.511	39.439	5471.1	14.35	89.36	82.5	321.6	270.7
92.00		0.3750	32.945	38.766	5195.7	14.08	87.85	82.5	310.6	266.1

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		0.3750	32.380	38.092	4929.7	13.81	86.35	82.5	299.9	261.5
96.00		0.3750	31.814	37.419	4673.0	13.55	84.84	82.5	289.3	256.9
97.00	Bot - Section 3	0.3750	31.532	37.083	4548.0	13.42	84.08	82.5	284.1	126.8
98.00		0.3750	31.249	36.746	4425.3	13.28	83.33	82.5	278.9	232.6
100.00		0.3750	30.683	36.073	4186.6	13.02	81.82	82.5	268.7	458.9
101.00	Top - Section 2	0.3125	31.026	30.462	3630.5	16.10	99.28	0.0	0.0	226.3
102.00		0.3125	30.743	30.182	3531.1	15.94	98.38	82.5	226.2	103.2
104.00		0.3125	30.177	29.621	3337.9	15.62	96.57	82.5	217.9	203.5
106.00		0.3125	29.612	29.060	3151.8	15.30	94.76	82.5	209.6	199.7
108.00		0.3125	29.046	28.499	2972.8	14.98	92.95	82.5	201.6	195.9
110.00		0.3125	28.481	27.938	2800.7	14.66	91.14	82.5	193.7	192.0
112.00		0.3125	27.915	27.377	2635.4	14.34	89.33	82.5	185.9	188.2
114.00		0.3125	27.350	26.816	2476.7	14.02	87.52	82.5	178.4	184.4
116.00		0.3125	26.784	26.255	2324.5	13.70	85.71	82.5	170.9	180.6
118.00		0.3125	26.218	25.695	2178.7	13.38	83.90	82.5	163.7	176.8
120.00		0.3125	25.653	25.134	2039.1	13.06	82.09	82.5	156.6	173.0
122.00		0.3125	25.087	24.573	1905.6	12.74	80.28	82.5	149.6	169.1
124.00		0.3125	24.522	24.012	1778.1	12.43	78.47	82.5	142.8	165.3
126.00		0.3125	23.956	23.451	1656.3	12.11	76.66	82.5	136.2	161.5
128.00		0.3125	23.391	22.890	1540.3	11.79	74.85	82.5	129.7	157.7
130.00		0.3125	22.825	22.329	1429.8	11.47	73.04	82.5	123.4	153.9
131.00		0.3125	22.542	22.049	1376.6	11.31	72.14	82.5	120.3	75.5
132.00		0.3125	22.260	21.768	1324.7	11.15	71.23	82.5	117.2	74.5
134.00		0.3125	21.694	21.207	1225.0	10.83	69.42	82.5	111.2	146.2
136.00		0.3125	21.129	20.646	1130.3	10.51	67.61	82.5	105.4	142.4
138.00		0.3125	20.563	20.085	1040.7	10.19	65.80	82.5	99.7	138.6
140.00		0.3125	19.998	19.524	955.9	9.87	63.99	82.5	94.1	134.8
142.00		0.3125	19.432	18.964	875.8	9.55	62.18	82.5	88.8	131.0
142.50		0.3125	19.291	18.823	856.6	9.47	61.73	82.5	87.5	32.1
144.00		0.3125	18.867	18.403	800.4	9.23	60.37	82.5	83.6	95.0
146.00		0.3125	18.301	17.842	729.4	8.92	58.56	82.5	78.5	123.3
148.00		0.3125	17.735	17.281	662.8	8.60	56.75	82.5	73.6	119.5
148.25	Bot - Section 4	0.3125	17.665	17.211	654.7	8.56	56.53	82.5	73.0	14.7
149.00		0.3125	17.453	17.000	631.0	8.44	55.85	82.5	71.2	70.6
150.00		0.3125	17.170	16.720	600.3	8.28	54.94	82.5	68.9	92.8
150.50	Top - Section 3	0.1875	17.404	10.245	383.7	14.96	92.82	0.0	0.0	45.8
152.00		0.1875	16.979	9.993	356.0	14.56	90.56	82.5	41.3	51.6
154.00		0.1875	16.414	9.656	321.2	14.03	87.54	82.5	38.5	66.9
156.00		0.1875	15.848	9.320	288.8	13.49	84.52	82.5	35.9	64.6
158.00		0.1875	15.283	8.983	258.6	12.96	81.51	82.5	33.3	62.3
159.00		0.1875	15.000	8.815	244.4	12.70	80.00	82.5	32.1	30.3

23733.6

Wind Loading - Shaft

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

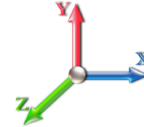


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Load Case: 1.2D + 1.0W 117 mph Wind

Iterations 30

Dead Load Factor 1.20
Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	27.701	30.47	525.69	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	27.701	30.47	520.58	0.730	0.000	2.00	9.803	7.16	218.1	0.0	559.4
4.00		1.00	0.85	27.701	30.47	515.47	0.730	0.000	2.00	9.708	7.09	215.9	0.0	553.9
6.00		1.00	0.85	27.701	30.47	510.37	0.730	0.000	2.00	9.612	7.02	213.8	0.0	548.4
8.00		1.00	0.85	27.701	30.47	505.26	0.730	0.000	2.00	9.516	6.95	211.7	0.0	542.9
10.00		1.00	0.85	27.701	30.47	500.15	0.730	0.000	2.00	9.421	6.88	209.5	0.0	537.4
12.00		1.00	0.85	27.701	30.47	495.04	0.730	0.000	2.00	9.325	6.81	207.4	0.0	531.9
14.00		1.00	0.85	27.701	30.47	489.94	0.730	0.000	2.00	9.229	6.74	205.3	0.0	526.4
16.00		1.00	0.87	28.403	31.24	490.94	0.730	0.000	2.00	9.134	6.67	208.3	0.0	520.9
18.00		1.00	0.89	29.076	31.98	491.49	0.730	0.000	2.00	9.038	6.60	211.0	0.0	515.4
20.00		1.00	0.91	29.695	32.66	491.40	0.730	0.000	2.00	8.942	6.53	213.2	0.0	509.9
22.00		1.00	0.93	30.269	33.30	490.79	0.730	0.000	2.00	8.846	6.46	215.0	0.0	504.4
24.00		1.00	0.95	30.805	33.89	489.73	0.730	0.000	2.00	8.751	6.39	216.5	0.0	498.9
26.00		1.00	0.96	31.308	34.44	488.29	0.730	0.000	2.00	8.655	6.32	217.6	0.0	493.4
28.00		1.00	0.98	31.783	34.96	486.50	0.730	0.000	2.00	8.559	6.25	218.4	0.0	487.9
30.00		1.00	0.99	32.232	35.46	484.42	0.730	0.000	2.00	8.464	6.18	219.1	0.0	482.5
32.00		1.00	1.00	32.659	35.93	482.07	0.730	0.000	2.00	8.368	6.11	219.5	0.0	477.0
34.00		1.00	1.01	33.066	36.37	479.49	0.730	0.000	2.00	8.272	6.04	219.6	0.0	471.5
36.00		1.00	1.03	33.456	36.80	476.69	0.730	0.000	2.00	8.176	5.97	219.7	0.0	466.0
38.00		1.00	1.04	33.828	37.21	473.69	0.730	0.000	2.00	8.081	5.90	219.5	0.0	460.5
40.00		1.00	1.05	34.186	37.61	470.52	0.730	0.000	2.00	7.985	5.83	219.2	0.0	455.0
42.00		1.00	1.06	34.531	37.98	467.18	0.730	0.000	2.00	7.889	5.76	218.8	0.0	449.5
44.00		1.00	1.07	34.863	38.35	463.69	0.730	0.000	2.00	7.794	5.69	218.2	0.0	444.0
46.00		1.00	1.08	35.184	38.70	460.07	0.730	0.000	2.00	7.698	5.62	217.5	0.0	438.5
47.00	Appurtenance(s)	1.00	1.08	35.340	38.87	458.20	0.730	0.000	1.00	3.813	2.78	108.2	0.0	217.2
47.50	Bot - Section 2	1.00	1.09	35.417	38.96	457.26	0.730	0.000	0.50	1.898	1.39	54.0	0.0	108.1
48.00		1.00	1.09	35.494	39.04	456.31	0.730	0.000	0.50	1.923	1.40	54.8	0.0	217.3
50.00		1.00	1.10	35.794	39.37	452.43	0.730	0.000	2.00	7.633	5.57	219.4	0.0	862.3
52.00		1.00	1.11	36.085	39.69	448.43	0.730	0.000	2.00	7.538	5.50	218.4	0.0	851.3
53.25	Top - Section 1	1.00	1.11	36.262	39.89	445.88	0.730	0.000	1.25	4.662	3.40	135.8	0.0	526.5
54.00		1.00	1.12	36.367	40.00	452.09	0.730	0.000	0.75	2.780	2.03	81.2	0.0	158.3
56.00		1.00	1.12	36.642	40.31	447.92	0.730	0.000	2.00	7.346	5.36	216.2	0.0	418.3
58.00		1.00	1.13	36.909	40.60	443.66	0.730	0.000	2.00	7.251	5.29	214.9	0.0	412.8
60.00		1.00	1.14	37.169	40.89	439.30	0.730	0.000	2.00	7.155	5.22	213.5	0.0	407.3
62.00		1.00	1.15	37.422	41.16	434.86	0.730	0.000	2.00	7.059	5.15	212.1	0.0	401.8
64.00		1.00	1.16	37.669	41.44	430.34	0.730	0.000	2.00	6.963	5.08	210.6	0.0	396.3
66.00		1.00	1.16	37.910	41.70	425.74	0.730	0.000	2.00	6.868	5.01	209.1	0.0	390.8
68.00		1.00	1.17	38.146	41.96	421.06	0.730	0.000	2.00	6.772	4.94	207.4	0.0	385.3
70.00		1.00	1.18	38.376	42.21	416.32	0.730	0.000	2.00	6.676	4.87	205.7	0.0	379.8
72.00		1.00	1.18	38.601	42.46	411.51	0.730	0.000	2.00	6.581	4.80	204.0	0.0	374.3
74.00		1.00	1.19	38.821	42.70	406.64	0.730	0.000	2.00	6.485	4.73	202.2	0.0	368.8
76.00		1.00	1.20	39.037	42.94	401.70	0.730	0.000	2.00	6.389	4.66	200.3	0.0	363.3
78.00		1.00	1.20	39.248	43.17	396.71	0.730	0.000	2.00	6.293	4.59	198.3	0.0	357.8
80.00	Appurtenance(s)	1.00	1.21	39.455	43.40	391.66	0.730	0.000	2.00	6.198	4.52	196.4	0.0	352.3
82.00		1.00	1.22	39.659	43.62	386.55	0.730	0.000	2.00	6.102	4.45	194.3	0.0	346.8
84.00		1.00	1.22	39.858	43.84	381.40	0.730	0.000	2.00	6.006	4.38	192.2	0.0	341.3
86.00		1.00	1.23	40.053	44.06	376.19	0.730	0.000	2.00	5.911	4.31	190.1	0.0	335.8

Wind Loading - Shaft

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00	1.00	1.23	40.246	44.27	370.94	0.730	0.000	2.00	5.815	4.24	187.9	0.0	330.3
90.00	1.00	1.24	40.434	44.48	365.63	0.730	0.000	2.00	5.719	4.17	185.7	0.0	324.8
92.00	1.00	1.25	40.620	44.68	360.29	0.730	0.000	2.00	5.623	4.11	183.4	0.0	319.3
94.00	1.00	1.25	40.802	44.88	354.90	0.730	0.000	2.00	5.528	4.04	181.1	0.0	313.8
96.00	1.00	1.26	40.982	45.08	349.46	0.730	0.000	2.00	5.432	3.97	178.8	0.0	308.3
97.00 Bot - Section 3	1.00	1.26	41.070	45.18	346.73	0.730	0.000	1.00	2.680	1.96	88.4	0.0	152.1
98.00	1.00	1.26	41.158	45.27	343.99	0.730	0.000	1.00	2.709	1.98	89.5	0.0	279.1
100.00	1.00	1.27	41.332	45.46	338.48	0.730	0.000	2.00	5.346	3.90	177.4	0.0	550.7
101.00 Top - Section 2	1.00	1.27	41.417	45.56	335.71	0.731 *	0.000	1.00	2.637	1.93	87.8	0.0	271.6
102.00	1.00	1.27	41.503	45.65	339.83	0.730	0.000	1.00	2.613	1.91	87.1	0.0	123.8
104.00	1.00	1.28	41.671	45.84	334.26	0.731 *	0.000	2.00	5.155	3.77	172.8	0.0	244.2
106.00	1.00	1.28	41.837	46.02	328.65	0.735 *	0.000	2.00	5.059	3.72	171.2	0.0	239.6
108.00	1.00	1.29	42.000	46.20	323.00	0.740 *	0.000	2.00	4.964	3.67	169.6	0.0	235.0
110.00 Appurtenance(s)	1.00	1.29	42.161	46.38	317.32	0.744 *	0.000	2.00	4.868	3.62	168.0	0.0	230.5
112.00	1.00	1.30	42.320	46.55	311.60	0.730	0.000	2.00	4.772	3.48	162.2	0.0	225.9
114.00	1.00	1.30	42.477	46.72	305.85	0.730	0.000	2.00	4.676	3.41	159.5	0.0	221.3
116.00	1.00	1.31	42.631	46.89	300.07	0.730	0.000	2.00	4.581	3.34	156.8	0.0	216.7
118.00	1.00	1.31	42.784	47.06	294.26	0.730	0.000	2.00	4.485	3.27	154.1	0.0	212.1
120.00	1.00	1.32	42.934	47.23	288.42	0.730	0.000	2.00	4.389	3.20	151.3	0.0	207.5
122.00	1.00	1.32	43.082	47.39	282.55	0.730	0.000	2.00	4.294	3.13	148.5	0.0	203.0
124.00	1.00	1.33	43.229	47.55	276.65	0.730	0.000	2.00	4.198	3.06	145.7	0.0	198.4
126.00	1.00	1.33	43.374	47.71	270.72	0.730	0.000	2.00	4.102	2.99	142.9	0.0	193.8
128.00	1.00	1.34	43.517	47.87	264.76	0.730	0.000	2.00	4.006	2.92	140.0	0.0	189.2
130.00	1.00	1.34	43.658	48.02	258.78	0.730	0.000	2.00	3.911	2.85	137.1	0.0	184.6
131.00 Appurtenance(s)	1.00	1.34	43.728	48.10	255.78	0.730	0.000	1.00	1.919	1.40	67.4	0.0	90.6
132.00	1.00	1.34	43.797	48.18	252.77	0.730	0.000	1.00	1.896	1.38	66.7	0.0	89.5
134.00	1.00	1.35	43.935	48.33	246.74	0.730	0.000	2.00	3.719	2.72	131.2	0.0	175.5
136.00	1.00	1.35	44.071	48.48	240.68	0.730	0.000	2.00	3.624	2.65	128.2	0.0	170.9
138.00	1.00	1.36	44.206	48.63	234.59	0.730	0.000	2.00	3.528	2.58	125.2	0.0	166.3
140.00	1.00	1.36	44.339	48.77	228.48	0.730	0.000	2.00	3.432	2.51	122.2	0.0	161.7
142.00	1.00	1.36	44.471	48.92	222.35	0.730	0.000	2.00	3.336	2.44	119.1	0.0	157.2
142.50 Appurtenance(s)	1.00	1.37	44.504	48.95	220.82	0.734 *	0.000	0.50	0.819	0.60	29.4	0.0	38.6
144.00	1.00	1.37	44.601	49.06	216.20	0.737 *	0.000	1.50	2.422	1.78	87.6	0.0	114.0
146.00	1.00	1.37	44.730	49.20	210.02	0.743 *	0.000	2.00	3.145	2.34	115.0	0.0	148.0
148.00	1.00	1.38	44.857	49.34	203.82	0.750 *	0.000	2.00	3.049	2.29	112.9	0.0	143.4
148.25 Bot - Section 4	1.00	1.38	44.873	49.36	203.04	0.755 *	0.000	0.25	0.374	0.28	13.9	0.0	17.6
149.00 Appurtenance(s)	1.00	1.38	44.921	49.41	200.71	0.757 *	0.000	0.75	1.138	0.86	42.6	0.0	84.7
150.00	1.00	1.38	44.983	49.48	197.60	0.760 *	0.000	1.00	1.497	1.14	56.3	0.0	111.4
150.50 Top - Section 3	1.00	1.38	45.015	49.52	196.04	0.763 *	0.000	0.50	0.739	0.56	27.9	0.0	55.0
152.00	1.00	1.38	45.108	49.62	195.67	0.762 *	0.000	1.50	2.182	1.66	82.5	0.0	62.0
154.00	1.00	1.39	45.232	49.75	189.42	0.769 *	0.000	2.00	2.826	2.17	108.2	0.0	80.2
156.00	1.00	1.39	45.354	49.89	183.14	0.778 *	0.000	2.00	2.730	2.13	106.0	0.0	77.5
158.00	1.00	1.40	45.475	50.02	176.84	0.788 *	0.000	2.00	2.634	2.08	103.9	0.0	74.7
159.00 Appurtenance(s)	1.00	1.40	45.535	50.09	173.68	0.796 *	0.000	1.00	1.281	1.02	51.1	0.0	36.3

* Cf Adjusted by Linear Load Ra Effect

Totals:	159.00	14,416.1	28,480.3
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Discrete Appurtenance Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 117 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 30

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	159.00	Decibel DB404-B - Omni	1	45.713	50.285	1.00	1.00	0.00	16.80	0.000	3.000	0.00	0.00	0.00
2	159.00	Powerwave 7770	3	45.713	50.285	0.73	1.00	12.68	126.00	0.000	3.000	637.62	0.00	1912.85
3	159.00	DMP65R-BU6DA	3	45.713	50.285	0.72	1.00	27.45	285.84	0.000	3.000	1380.50	0.00	4141.50
4	159.00	Powerwave Technologies	6	45.713	50.285	0.50	1.00	3.87	101.52	0.000	3.000	194.60	0.00	583.81
5	159.00	4449 B5/B12	3	45.713	50.285	0.50	1.00	2.96	255.60	0.000	3.000	148.59	0.00	445.77
6	159.00	Raycap DC6-48-60-18-8F	3	45.713	50.285	0.50	1.00	1.38	118.08	0.000	3.000	69.39	0.00	208.18
7	159.00	Site Pro 1 -	1	45.713	50.285	1.00	1.00	48.00	3174.00	0.000	3.000	2413.67	0.00	7241.01
8	159.00	RRUS 4478 B14	3	45.713	50.285	0.50	1.00	2.47	213.84	0.000	3.000	124.45	0.00	373.36
9	159.00	Quintel QS66512-2	3	45.713	50.285	0.92	1.00	22.44	399.60	0.000	3.000	1128.33	0.00	3384.99
10	159.00	Kaelus DBC0061F1V51-2	3	45.713	50.285	0.50	1.00	0.65	65.88	0.000	3.000	32.43	0.00	97.30
11	159.00	Ericsson RRUS 32 B30	3	45.713	50.285	0.50	1.00	4.11	216.00	0.000	3.000	206.67	0.00	620.01
12	159.00	Ericsson RRUS 32 B2	3	45.713	50.285	0.50	1.00	4.11	190.80	0.000	3.000	206.67	0.00	620.01
13	159.00	OPA65R-BU6DA	3	45.713	50.285	0.50	1.00	19.07	227.88	0.000	3.000	958.68	0.00	2876.04
14	159.00	Site Pro 1 - HRK14	1	45.713	50.285	1.00	1.00	8.13	362.83	0.000	3.000	408.82	0.00	1226.45
15	149.00	Alcatel Lucent - 800 MHz	3	45.046	49.551	0.50	0.75	3.75	190.80	0.000	2.000	186.00	0.00	371.99
16	149.00	RFS - APXVSP18-C-A20	3	45.046	49.551	0.62	0.75	15.72	381.60	0.000	2.000	779.15	0.00	1558.30
17	149.00	Alcatel Lucent - 1900 MHz	3	45.046	49.551	0.50	0.75	5.73	158.40	0.000	2.000	283.85	0.00	567.70
18	149.00	SitePro HRK-12 Handrail	1	44.921	49.413	1.00	1.00	6.75	314.06	0.000	0.000	333.53	0.00	0.00
19	149.00	Alcatel Lucent - 800 MHz	3	45.046	49.551	0.50	0.75	1.18	31.68	0.000	2.000	58.26	0.00	116.53
20	149.00	RFS - ACU-A20-N - RET	4	45.046	49.551	0.50	0.75	0.28	4.80	0.000	2.000	13.94	0.00	27.89
21	149.00	Low Profile Platform	1	44.921	49.413	1.00	1.00	35.00	1440.00	0.000	0.000	1729.44	0.00	0.00
22	149.00	Alcatel Lucent -	3	45.046	49.551	0.50	0.75	6.11	252.00	0.000	2.000	302.52	0.00	605.05
23	149.00	RFS - APXVTM14-C-I20 -	3	45.046	49.551	0.59	0.75	11.27	201.60	0.000	2.000	558.40	0.00	1116.81
24	142.50	EMS - FR90-16-XXDP -	6	44.504	48.954	0.51	0.75	13.34	129.60	0.000	0.000	653.12	0.00	0.00
25	142.50	LP Platform w/ Handrails	1	44.504	48.954	1.00	1.00	34.00	1920.00	0.000	0.000	1664.43	0.00	0.00
26	142.50	Andrew - ATSBT-TOP-FM	3	44.504	48.954	0.50	0.75	0.30	6.48	0.000	0.000	14.76	0.00	0.00
27	142.50	RFS -	3	44.504	48.954	0.46	0.75	9.22	146.52	0.000	0.000	451.40	0.00	0.00
28	142.50	RFS -	3	44.504	48.954	0.55	0.75	33.24	365.04	0.000	0.000	1627.43	0.00	0.00
29	142.50	RFS -	3	44.504	48.954	0.50	0.75	1.76	57.06	0.000	0.000	86.34	0.00	0.00
30	131.00	Kathrein 742	3	43.728	48.101	0.58	0.80	5.44	59.40	0.000	0.000	261.82	0.00	0.00
31	131.00	Antel BXA-70063/6CF -	3	43.728	48.101	0.56	0.80	12.72	61.20	0.000	0.000	611.72	0.00	0.00
32	131.00	Antel BXA-171063-12BF -	3	43.728	48.101	0.67	0.80	9.56	54.00	0.000	0.000	459.64	0.00	0.00
33	131.00	Antel LPA-80063/6CF -	6	43.728	48.101	0.75	0.80	43.32	194.40	0.000	0.000	2083.48	0.00	0.00
34	131.00	Alcatel Lucent	3	43.728	48.101	0.54	0.80	5.63	198.00	0.000	0.000	270.71	0.00	0.00
35	131.00	RFS FD9R6004/2C-3L -	6	43.728	48.101	0.54	0.80	1.16	22.32	0.000	0.000	55.69	0.00	0.00
36	131.00	RFS DB-T1-6Z-8AB-0Z -	1	43.728	48.101	1.00	1.00	4.80	22.68	0.000	0.000	230.88	0.00	0.00
37	131.00	Low Profile Platform	1	43.728	48.101	1.00	1.00	22.00	1440.00	0.000	0.000	1058.21	0.00	0.00
38	110.00	4 ft. Standoff	1	42.161	46.378	1.00	1.00	3.50	63.98	0.000	0.000	162.32	0.00	0.00
39	110.00	Sinclair SCL329-HL -	1	42.597	46.856	1.00	1.00	2.22	12.48	0.000	5.550	104.02	0.00	577.32
40	80.00	Sinclair SCL329-HL -	1	40.010	44.011	1.00	1.00	2.22	12.48	0.000	5.550	97.70	0.00	542.26
41	80.00	4 ft Standoff	1	39.455	43.401	1.00	1.00	3.50	63.98	0.000	0.000	151.90	0.00	0.00
42	47.00	4 ft Standoff	1	35.340	38.874	1.00	1.00	3.50	63.98	0.000	0.000	136.06	0.00	0.00
43	47.00	Decibel 26DB - GPS	1	35.794	39.373	1.00	1.00	0.16	12.00	0.000	3.000	6.30	0.00	18.90

Totals: 13,635.23

22,343.50

Total Applied Force Summary

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

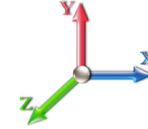


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Load Case: 1.2D + 1.0W 117 mph Wind

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations 30

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		218.06	690.51	0.00	0.00
4.00		215.94	685.01	0.00	0.00
6.00		213.81	679.52	0.00	0.00
8.00		211.68	674.02	0.00	0.00
10.00		209.55	668.52	0.00	0.00
12.00		207.42	663.03	0.00	0.00
14.00		205.29	657.53	0.00	0.00
16.00		208.31	652.03	0.00	0.00
18.00		211.01	646.54	0.00	0.00
20.00		213.22	641.04	0.00	0.00
22.00		215.02	635.54	0.00	0.00
24.00		216.46	630.04	0.00	0.00
26.00		217.59	624.55	0.00	0.00
28.00		218.45	619.05	0.00	0.00
30.00		219.06	613.55	0.00	0.00
32.00		219.45	608.06	0.00	0.00
34.00		219.64	602.56	0.00	0.00
36.00		219.66	597.06	0.00	0.00
38.00		219.51	591.57	0.00	0.00
40.00		219.20	586.07	0.00	0.00
42.00		218.76	580.57	0.00	0.00
44.00		218.18	575.07	0.00	0.00
46.00		217.48	569.58	0.00	0.00
47.00	(2) attachments	250.56	358.71	0.00	18.90
47.50		53.97	140.85	0.00	0.00
48.00		54.82	250.06	0.00	0.00
50.00		219.40	993.35	0.00	0.00
52.00		218.41	981.98	0.00	0.00
53.25		135.76	608.15	0.00	0.00
54.00		81.17	207.29	0.00	0.00
56.00		216.15	549.00	0.00	0.00
58.00		214.89	543.50	0.00	0.00
60.00		213.55	538.00	0.00	0.00
62.00		212.13	532.51	0.00	0.00
64.00		210.63	527.01	0.00	0.00
66.00		209.07	521.51	0.00	0.00
68.00		207.43	516.02	0.00	0.00
70.00		205.74	510.52	0.00	0.00
72.00		203.98	505.02	0.00	0.00
74.00		202.16	499.53	0.00	0.00
76.00		200.28	494.03	0.00	0.00
78.00		198.35	488.53	0.00	0.00
80.00	(2) attachments	445.97	559.50	0.00	542.26
82.00		194.32	476.29	0.00	0.00
84.00		192.24	470.79	0.00	0.00
86.00		190.10	465.30	0.00	0.00

Total Applied Force Summary

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00		187.92	459.80	0.00	0.00
90.00		185.69	454.30	0.00	0.00
92.00		183.42	448.80	0.00	0.00
94.00		181.11	443.31	0.00	0.00
96.00		178.76	437.81	0.00	0.00
97.00		88.39	216.84	0.00	0.00
98.00		89.54	343.87	0.00	0.00
100.00		177.44	680.17	0.00	0.00
101.00		87.79	336.31	0.00	0.00
102.00		87.10	188.55	0.00	0.00
104.00		172.78	373.67	0.00	0.00
106.00		171.22	369.08	0.00	0.00
108.00		169.63	364.50	0.00	0.00
110.00	(2) attachments	434.35	436.39	0.00	577.32
112.00		162.17	354.09	0.00	0.00
114.00		159.51	349.51	0.00	0.00
116.00		156.81	344.93	0.00	0.00
118.00		154.08	340.35	0.00	0.00
120.00		151.33	335.77	0.00	0.00
122.00		148.54	331.19	0.00	0.00
124.00		145.72	326.61	0.00	0.00
126.00		142.87	322.03	0.00	0.00
128.00		140.00	317.45	0.00	0.00
130.00		137.10	312.87	0.00	0.00
131.00	(26) attachments	5099.56	2206.72	0.00	0.00
132.00		66.67	137.27	0.00	0.00
134.00		131.22	271.11	0.00	0.00
136.00		128.24	266.53	0.00	0.00
138.00		125.23	261.95	0.00	0.00
140.00		122.20	257.37	0.00	0.00
142.00		119.15	214.77	0.00	0.00
142.50	(19) attachments	4526.92	2677.68	0.00	0.00
144.00		87.57	157.22	0.00	0.00
146.00		114.99	205.61	0.00	0.00
148.00		112.91	201.03	0.00	0.00
148.25		13.95	24.81	0.00	0.00
149.00	(24) attachments	4287.66	3081.28	0.00	4364.27
150.00		56.29	140.17	0.00	0.00
150.50		27.94	69.40	0.00	0.00
152.00		82.49	100.61	0.00	0.00
154.00		108.16	128.69	0.00	0.00
156.00		106.02	125.94	0.00	0.00
158.00		103.85	123.19	0.00	0.00
159.00	(39) attachments	7961.51	5815.24	0.00	23731.29
Totals:		36,759.61	51,583.27	0.00	29,234.03

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 117 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 30

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.064	0.000	27.701	0.00	29.95
2.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	27.701	0.00	0.38
2.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	27.701	0.00	11.59
2.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.064	0.000	27.701	0.00	1.25
2.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	27.701	0.00	1.25
2.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.064	0.000	27.701	0.00	0.38
4.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.065	0.000	27.701	0.00	29.95
4.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	0.38
4.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	11.59
4.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.065	0.000	27.701	0.00	1.25
4.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	1.25
4.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.065	0.000	27.701	0.00	0.38
6.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.065	0.000	27.701	0.00	29.95
6.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	0.38
6.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	11.59
6.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.065	0.000	27.701	0.00	1.25
6.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	1.25
6.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.065	0.000	27.701	0.00	0.38
8.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.066	0.000	27.701	0.00	29.95
8.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	27.701	0.00	0.38
8.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	27.701	0.00	11.59
8.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.066	0.000	27.701	0.00	1.25
8.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	27.701	0.00	1.25
8.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.066	0.000	27.701	0.00	0.38
10.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.067	0.000	27.701	0.00	29.95
10.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	0.38
10.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	11.59
10.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.067	0.000	27.701	0.00	1.25
10.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	1.25
10.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.067	0.000	27.701	0.00	0.38
12.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.067	0.000	27.701	0.00	29.95
12.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	0.38
12.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	11.59
12.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.067	0.000	27.701	0.00	1.25
12.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	1.25
12.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.067	0.000	27.701	0.00	0.38
14.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.068	0.000	27.701	0.00	29.95
14.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.701	0.00	0.38
14.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.701	0.00	11.59
14.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.068	0.000	27.701	0.00	1.25
14.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.701	0.00	1.25
14.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.068	0.000	27.701	0.00	0.38
16.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.069	0.000	28.403	0.00	29.95
16.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	28.403	0.00	0.38
16.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	28.403	0.00	11.59
16.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.069	0.000	28.403	0.00	1.25
16.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	28.403	0.00	1.25

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0W 117 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 30

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)
16.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.069	0.000	28.403	0.00	0.38
18.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.069	0.000	29.076	0.00	29.95
18.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	29.076	0.00	0.38
18.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	29.076	0.00	11.59
18.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.069	0.000	29.076	0.00	1.25
18.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	29.076	0.00	1.25
18.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.069	0.000	29.076	0.00	0.38
20.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	29.695	0.00	29.95
20.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	29.695	0.00	0.38
20.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	29.695	0.00	11.59
20.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.070	0.000	29.695	0.00	1.25
20.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	29.695	0.00	1.25
20.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.070	0.000	29.695	0.00	0.38
22.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	30.269	0.00	29.95
22.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	30.269	0.00	0.38
22.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	30.269	0.00	11.59
22.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.071	0.000	30.269	0.00	1.25
22.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	30.269	0.00	1.25
22.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.071	0.000	30.269	0.00	0.38
24.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.072	0.000	30.805	0.00	29.95
24.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	30.805	0.00	0.38
24.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	30.805	0.00	11.59
24.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.072	0.000	30.805	0.00	1.25
24.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	30.805	0.00	1.25
24.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.072	0.000	30.805	0.00	0.38
26.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.072	0.000	31.308	0.00	29.95
26.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	31.308	0.00	0.38
26.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	31.308	0.00	11.59
26.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.072	0.000	31.308	0.00	1.25
26.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	31.308	0.00	1.25
26.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.072	0.000	31.308	0.00	0.38
28.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.073	0.000	31.783	0.00	29.95
28.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	31.783	0.00	0.38
28.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	31.783	0.00	11.59
28.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.073	0.000	31.783	0.00	1.25
28.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	31.783	0.00	1.25
28.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.073	0.000	31.783	0.00	0.38
30.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	32.232	0.00	29.95
30.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	32.232	0.00	0.38
30.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	32.232	0.00	11.59
30.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.074	0.000	32.232	0.00	1.25
30.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	32.232	0.00	1.25
30.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.074	0.000	32.232	0.00	0.38
32.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.075	0.000	32.659	0.00	29.95
32.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	32.659	0.00	0.38
32.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	32.659	0.00	11.59
32.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.075	0.000	32.659	0.00	1.25

Linear Appurtenance Segment Forces (Factored)

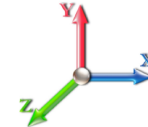
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 117 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 30

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)
32.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	32.659	0.00	1.25
32.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.075	0.000	32.659	0.00	0.38
34.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.076	0.000	33.066	0.00	29.95
34.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	33.066	0.00	0.38
34.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	33.066	0.00	11.59
34.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.076	0.000	33.066	0.00	1.25
34.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	33.066	0.00	1.25
34.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.076	0.000	33.066	0.00	0.38
36.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.077	0.000	33.456	0.00	29.95
36.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	33.456	0.00	0.38
36.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	33.456	0.00	11.59
36.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.077	0.000	33.456	0.00	1.25
36.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	33.456	0.00	1.25
36.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.077	0.000	33.456	0.00	0.38
38.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	33.828	0.00	29.95
38.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	33.828	0.00	0.38
38.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	33.828	0.00	11.59
38.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.078	0.000	33.828	0.00	1.25
38.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	33.828	0.00	1.25
38.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.078	0.000	33.828	0.00	0.38
40.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	34.186	0.00	29.95
40.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	34.186	0.00	0.38
40.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	34.186	0.00	11.59
40.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.078	0.000	34.186	0.00	1.25
40.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	34.186	0.00	1.25
40.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.078	0.000	34.186	0.00	0.38
42.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.079	0.000	34.531	0.00	29.95
42.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	34.531	0.00	0.38
42.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	34.531	0.00	11.59
42.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.079	0.000	34.531	0.00	1.25
42.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	34.531	0.00	1.25
42.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.079	0.000	34.531	0.00	0.38
44.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.080	0.000	34.863	0.00	29.95
44.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	34.863	0.00	0.38
44.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	34.863	0.00	11.59
44.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.080	0.000	34.863	0.00	1.25
44.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	34.863	0.00	1.25
44.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.080	0.000	34.863	0.00	0.38
46.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	35.184	0.00	29.95
46.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	35.184	0.00	0.38
46.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	35.184	0.00	11.59
46.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.081	0.000	35.184	0.00	1.25
46.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	35.184	0.00	1.25
46.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.081	0.000	35.184	0.00	0.38
47.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.082	0.000	35.340	0.00	14.98
47.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	35.340	0.00	0.19
47.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	35.340	0.00	5.80

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 117 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 30

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)
47.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.082	0.000	35.340	0.00	0.62
47.00	7/8"	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	35.340	0.00	0.62
47.00	1/2"	Yes	1.00	0.000	0.65	0.05	0.00	0.082	0.000	35.340	0.00	0.19
47.50	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.083	0.000	35.417	0.00	7.49
47.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.417	0.00	0.10
47.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.417	0.00	2.90
47.50	7/8"	Yes	0.50	0.000	1.11	0.05	0.00	0.083	0.000	35.417	0.00	0.31
47.50	7/8"	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.417	0.00	0.31
47.50	1/2"	Yes	0.50	0.000	0.65	0.03	0.00	0.083	0.000	35.417	0.00	0.10
48.00	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.083	0.000	35.494	0.00	7.49
48.00	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.494	0.00	0.10
48.00	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.494	0.00	2.90
48.00	7/8"	Yes	0.50	0.000	1.11	0.05	0.00	0.083	0.000	35.494	0.00	0.31
48.00	7/8"	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.494	0.00	0.31
48.00	1/2"	Yes	0.50	0.000	0.65	0.03	0.00	0.083	0.000	35.494	0.00	0.10
50.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	35.794	0.00	29.95
50.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	35.794	0.00	0.38
50.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	35.794	0.00	11.59
50.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.083	0.000	35.794	0.00	1.25
50.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	35.794	0.00	1.25
50.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.083	0.000	35.794	0.00	0.38
52.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	36.085	0.00	29.95
52.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	36.085	0.00	0.38
52.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	36.085	0.00	11.59
52.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.070	0.000	36.085	0.00	1.25
52.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	36.085	0.00	1.25
53.25	1 5/8"	Yes	1.25	0.000	2.00	0.21	0.00	0.071	0.000	36.262	0.00	18.72
53.25	1/2" Fiber	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	36.262	0.00	0.24
53.25	2" Conduit	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	36.262	0.00	7.25
53.25	7/8"	Yes	1.25	0.000	1.11	0.12	0.00	0.071	0.000	36.262	0.00	0.78
53.25	7/8"	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	36.262	0.00	0.78
54.00	1 5/8"	Yes	0.75	0.000	2.00	0.13	0.00	0.070	0.000	36.367	0.00	11.23
54.00	1/2" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	36.367	0.00	0.14
54.00	2" Conduit	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	36.367	0.00	4.35
54.00	7/8"	Yes	0.75	0.000	1.11	0.07	0.00	0.070	0.000	36.367	0.00	0.47
54.00	7/8"	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	36.367	0.00	0.47
56.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	36.642	0.00	29.95
56.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.642	0.00	0.38
56.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.642	0.00	11.59
56.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.071	0.000	36.642	0.00	1.25
56.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.642	0.00	1.25
58.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	36.909	0.00	29.95
58.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.909	0.00	0.38
58.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.909	0.00	11.59
58.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.071	0.000	36.909	0.00	1.25
58.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.909	0.00	1.25
60.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.072	0.000	37.169	0.00	29.95

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 117 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 30

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)
60.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	37.169	0.00	0.38
60.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	37.169	0.00	11.59
60.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.072	0.000	37.169	0.00	1.25
60.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	37.169	0.00	1.25
62.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.073	0.000	37.422	0.00	29.95
62.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	37.422	0.00	0.38
62.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	37.422	0.00	11.59
62.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.073	0.000	37.422	0.00	1.25
62.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	37.422	0.00	1.25
64.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	37.669	0.00	29.95
64.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	37.669	0.00	0.38
64.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	37.669	0.00	11.59
64.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.074	0.000	37.669	0.00	1.25
64.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	37.669	0.00	1.25
66.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.075	0.000	37.910	0.00	29.95
66.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	37.910	0.00	0.38
66.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	37.910	0.00	11.59
66.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.075	0.000	37.910	0.00	1.25
66.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	37.910	0.00	1.25
68.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.077	0.000	38.146	0.00	29.95
68.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	38.146	0.00	0.38
68.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	38.146	0.00	11.59
68.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.077	0.000	38.146	0.00	1.25
68.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	38.146	0.00	1.25
70.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	38.376	0.00	29.95
70.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	38.376	0.00	0.38
70.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	38.376	0.00	11.59
70.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.078	0.000	38.376	0.00	1.25
70.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	38.376	0.00	1.25
72.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.079	0.000	38.601	0.00	29.95
72.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	38.601	0.00	0.38
72.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	38.601	0.00	11.59
72.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.079	0.000	38.601	0.00	1.25
72.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	38.601	0.00	1.25
74.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.080	0.000	38.821	0.00	29.95
74.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	38.821	0.00	0.38
74.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	38.821	0.00	11.59
74.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.080	0.000	38.821	0.00	1.25
74.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	38.821	0.00	1.25
76.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	39.037	0.00	29.95
76.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	39.037	0.00	0.38
76.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	39.037	0.00	11.59
76.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.081	0.000	39.037	0.00	1.25
76.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	39.037	0.00	1.25
78.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.082	0.000	39.248	0.00	29.95
78.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	39.248	0.00	0.38
78.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	39.248	0.00	11.59

Linear Appurtenance Segment Forces (Factored)

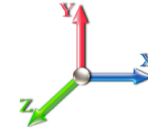
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 117 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 30

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)
78.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.082	0.000	39.248	0.00	1.25
78.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	39.248	0.00	1.25
80.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.084	0.000	39.455	0.00	29.95
80.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	39.455	0.00	0.38
80.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	39.455	0.00	11.59
80.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.084	0.000	39.455	0.00	1.25
80.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	39.455	0.00	1.25
82.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.085	0.000	39.659	0.00	29.95
82.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	39.659	0.00	0.38
82.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	39.659	0.00	11.59
82.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.085	0.000	39.659	0.00	1.25
84.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.086	0.000	39.858	0.00	29.95
84.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	39.858	0.00	0.38
84.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	39.858	0.00	11.59
84.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.086	0.000	39.858	0.00	1.25
86.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.088	0.000	40.053	0.00	29.95
86.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.088	0.000	40.053	0.00	0.38
86.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.088	0.000	40.053	0.00	11.59
86.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.088	0.000	40.053	0.00	1.25
88.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.089	0.000	40.246	0.00	29.95
88.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	40.246	0.00	0.38
88.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	40.246	0.00	11.59
88.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.089	0.000	40.246	0.00	1.25
90.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.091	0.000	40.434	0.00	29.95
90.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	40.434	0.00	0.38
90.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	40.434	0.00	11.59
90.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.091	0.000	40.434	0.00	1.25
92.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.092	0.000	40.620	0.00	29.95
92.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	40.620	0.00	0.38
92.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	40.620	0.00	11.59
92.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.092	0.000	40.620	0.00	1.25
94.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.094	0.000	40.802	0.00	29.95
94.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	40.802	0.00	0.38
94.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	40.802	0.00	11.59
94.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.094	0.000	40.802	0.00	1.25
96.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.095	0.000	40.982	0.00	29.95
96.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.095	0.000	40.982	0.00	0.38
96.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.095	0.000	40.982	0.00	11.59
96.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.095	0.000	40.982	0.00	1.25
97.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.097	0.000	41.070	0.00	14.98
97.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	41.070	0.00	0.19
97.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	41.070	0.00	5.80
97.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.097	0.000	41.070	0.00	0.62
98.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.098	0.000	41.158	0.00	14.98
98.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	41.158	0.00	0.19
98.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	41.158	0.00	5.80
98.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.098	0.000	41.158	0.00	0.62

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 117 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 30

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)
100.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.099	0.000	41.332	0.00	29.95
100.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.099	0.000	41.332	0.00	0.38
100.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.099	0.000	41.332	0.00	11.59
100.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.099	0.000	41.332	0.00	1.25
101.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.100	1.001	41.417	0.00	14.98
101.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.100	1.001	41.417	0.00	0.19
101.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.100	1.001	41.417	0.00	5.80
101.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.100	1.001	41.417	0.00	0.62
102.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.099	0.000	41.503	0.00	14.98
102.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.099	0.000	41.503	0.00	0.19
102.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.099	0.000	41.503	0.00	5.80
102.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.099	0.000	41.503	0.00	0.62
104.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.101	1.002	41.671	0.00	29.95
104.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.101	1.002	41.671	0.00	0.38
104.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.101	1.002	41.671	0.00	11.59
104.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.101	1.002	41.671	0.00	1.25
106.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.102	1.007	41.837	0.00	29.95
106.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.102	1.007	41.837	0.00	0.38
106.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.102	1.007	41.837	0.00	11.59
106.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.102	1.007	41.837	0.00	1.25
108.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.104	1.013	42.000	0.00	29.95
108.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.104	1.013	42.000	0.00	0.38
108.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.104	1.013	42.000	0.00	11.59
108.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.104	1.013	42.000	0.00	1.25
110.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.106	1.019	42.161	0.00	29.95
110.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.019	42.161	0.00	0.38
110.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.019	42.161	0.00	11.59
110.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.106	1.019	42.161	0.00	1.25
112.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	42.320	0.00	29.95
112.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	42.320	0.00	0.38
112.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	42.320	0.00	11.59
114.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	42.477	0.00	29.95
114.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	42.477	0.00	0.38
114.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	42.477	0.00	11.59
116.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.073	0.000	42.631	0.00	29.95
116.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	42.631	0.00	0.38
116.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	42.631	0.00	11.59
118.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	42.784	0.00	29.95
118.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	42.784	0.00	0.38
118.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	42.784	0.00	11.59
120.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.076	0.000	42.934	0.00	29.95
120.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	42.934	0.00	0.38
120.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	42.934	0.00	11.59
122.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	43.082	0.00	29.95
122.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	43.082	0.00	0.38
122.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	43.082	0.00	11.59
124.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.079	0.000	43.229	0.00	29.95

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 117 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 30

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)
124.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	43.229	0.00	0.38
124.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	43.229	0.00	11.59
126.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	43.374	0.00	29.95
126.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	43.374	0.00	0.38
126.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	43.374	0.00	11.59
128.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	43.517	0.00	29.95
128.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	43.517	0.00	0.38
128.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	43.517	0.00	11.59
130.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.085	0.000	43.658	0.00	29.95
130.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	43.658	0.00	0.38
130.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	43.658	0.00	11.59
131.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.087	0.000	43.728	0.00	14.98
131.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.087	0.000	43.728	0.00	0.19
131.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.087	0.000	43.728	0.00	5.80
132.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.088	0.000	43.797	0.00	14.98
132.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.088	0.000	43.797	0.00	0.19
132.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.088	0.000	43.797	0.00	5.80
134.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.090	0.000	43.935	0.00	29.95
134.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	43.935	0.00	0.38
134.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	43.935	0.00	11.59
136.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.092	0.000	44.071	0.00	29.95
136.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	44.071	0.00	0.38
136.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	44.071	0.00	11.59
138.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.094	0.000	44.206	0.00	29.95
138.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	44.206	0.00	0.38
138.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	44.206	0.00	11.59
140.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.097	0.000	44.339	0.00	29.95
140.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.097	0.000	44.339	0.00	0.38
140.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.097	0.000	44.339	0.00	11.59
142.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.100	0.000	44.471	0.00	29.95
142.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.100	0.000	44.471	0.00	0.38
142.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.100	0.000	44.471	0.00	11.59
142.50	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.102	1.005	44.504	0.00	7.49
142.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.102	1.005	44.504	0.00	0.10
142.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.102	1.005	44.504	0.00	2.90
144.00	1 5/8"	Yes	1.50	0.000	2.00	0.25	0.00	0.103	1.010	44.601	0.00	22.46
144.00	1/2" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.103	1.010	44.601	0.00	0.29
144.00	2" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	0.103	1.010	44.601	0.00	8.69
146.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.106	1.018	44.730	0.00	29.95
146.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.018	44.730	0.00	0.38
146.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.018	44.730	0.00	11.59
148.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.109	1.028	44.857	0.00	29.95
148.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.109	1.028	44.857	0.00	0.38
148.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.109	1.028	44.857	0.00	11.59
148.25	1 5/8"	Yes	0.25	0.000	2.00	0.04	0.00	0.111	1.034	44.873	0.00	3.74
148.25	1/2" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.111	1.034	44.873	0.00	0.05
148.25	2" Conduit	Yes	0.25	0.000	0.00	0.00	0.00	0.111	1.034	44.873	0.00	1.45

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 117 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 30

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)
149.00	1 5/8"	Yes	0.75	0.000	2.00	0.13	0.00	0.112	1.037	44.921	0.00	11.23
149.00	1/2" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.112	1.037	44.921	0.00	0.14
149.00	2" Conduit	Yes	0.75	0.000	0.00	0.00	0.00	0.112	1.037	44.921	0.00	4.35
150.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.041	44.983	0.00	14.98
150.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	44.983	0.00	0.19
150.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	44.983	0.00	5.80
150.50	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.046	45.015	0.00	7.49
150.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.046	45.015	0.00	0.10
150.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.046	45.015	0.00	2.90
152.00	1 5/8"	Yes	1.50	0.000	2.00	0.25	0.00	0.115	1.044	45.108	0.00	22.46
152.00	1/2" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.115	1.044	45.108	0.00	0.29
152.00	2" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	0.115	1.044	45.108	0.00	8.69
154.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.054	45.232	0.00	29.95
154.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.054	45.232	0.00	0.38
154.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.054	45.232	0.00	11.59
156.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	45.354	0.00	29.95
156.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	45.354	0.00	0.38
156.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	45.354	0.00	11.59
158.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	45.475	0.00	29.95
158.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	45.475	0.00	0.38
158.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	45.475	0.00	11.59
159.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.130	1.090	45.535	0.00	14.98
159.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.130	1.090	45.535	0.00	0.19
159.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.130	1.090	45.535	0.00	5.80
Totals:											0.0	3,461.4

Calculated Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0W 117 mph Wind

Iterations 30

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	-51.55	-36.80	0.00	-4565.6	0.00	4565.69	4390.37	1208.07	5796.90	5231.64	0.00	0.000	0.000	0.885
2.00	-50.81	-36.66	0.00	-4492.0	0.00	4492.09	4366.62	1196.25	5684.08	5152.14	0.02	-0.089	0.000	0.884
4.00	-50.06	-36.52	0.00	-4418.7	0.00	4418.77	4342.50	1184.44	5572.38	5072.75	0.08	-0.178	0.000	0.884
6.00	-49.33	-36.38	0.00	-4345.7	0.00	4345.73	4318.00	1172.63	5461.78	4993.49	0.17	-0.269	0.000	0.883
8.00	-48.60	-36.25	0.00	-4272.9	0.00	4272.96	4293.12	1160.81	5352.29	4914.37	0.30	-0.361	0.000	0.882
10.00	-47.87	-36.11	0.00	-4200.4	0.00	4200.46	4267.86	1149.00	5243.91	4835.41	0.48	-0.455	0.000	0.881
12.00	-47.15	-35.98	0.00	-4128.2	0.00	4128.24	4242.22	1137.19	5136.64	4756.61	0.69	-0.550	0.000	0.880
14.00	-46.43	-35.84	0.00	-4056.2	0.00	4056.29	4216.20	1125.37	5030.48	4677.99	0.94	-0.646	0.000	0.879
16.00	-45.72	-35.71	0.00	-3984.6	0.00	3984.60	4189.80	1113.56	4925.42	4599.57	1.23	-0.743	0.000	0.878
18.00	-45.02	-35.56	0.00	-3913.1	0.00	3913.19	4163.03	1101.75	4821.48	4521.36	1.56	-0.841	0.000	0.877
20.00	-44.32	-35.42	0.00	-3842.0	0.00	3842.06	4135.87	1089.94	4718.64	4443.36	1.94	-0.941	0.000	0.876
22.00	-43.62	-35.27	0.00	-3771.2	0.00	3771.23	4108.34	1078.12	4616.91	4365.60	2.35	-1.043	0.000	0.876
24.00	-42.93	-35.12	0.00	-3700.6	0.00	3700.69	4080.43	1066.31	4516.29	4288.09	2.81	-1.146	0.000	0.875
26.00	-42.25	-34.97	0.00	-3630.4	0.00	3630.45	4052.14	1054.50	4416.78	4210.84	3.32	-1.250	0.000	0.874
28.00	-41.57	-34.81	0.00	-3560.5	0.00	3560.52	4023.46	1042.68	4318.37	4133.86	3.86	-1.356	0.000	0.873
30.00	-40.90	-34.65	0.00	-3490.9	0.00	3490.90	3994.42	1030.87	4221.08	4057.17	4.45	-1.463	0.000	0.872
32.00	-40.23	-34.50	0.00	-3421.5	0.00	3421.59	3964.99	1019.06	4124.89	3980.79	5.09	-1.572	0.000	0.871
34.00	-39.57	-34.34	0.00	-3352.6	0.00	3352.60	3935.18	1007.24	4029.81	3904.71	5.77	-1.682	0.000	0.870
36.00	-38.91	-34.18	0.00	-3283.9	0.00	3283.93	3904.99	995.43	3935.85	3828.97	6.50	-1.794	0.000	0.869
38.00	-38.26	-34.01	0.00	-3215.5	0.00	3215.58	3874.43	983.62	3842.99	3753.56	7.28	-1.908	0.000	0.868
40.00	-37.61	-33.85	0.00	-3147.5	0.00	3147.55	3843.48	971.81	3751.23	3678.51	8.10	-2.023	0.000	0.867
42.00	-36.97	-33.69	0.00	-3079.8	0.00	3079.86	3812.16	959.99	3660.59	3603.83	8.97	-2.140	0.000	0.866
44.00	-36.33	-33.52	0.00	-3012.4	0.00	3012.48	3780.46	948.18	3571.06	3529.52	9.90	-2.259	0.000	0.864
46.00	-35.72	-33.34	0.00	-2945.4	0.00	2945.44	3748.38	936.37	3482.63	3455.62	10.87	-2.379	0.000	0.863
47.00	-35.35	-33.10	0.00	-2912.0	0.00	2912.08	3732.20	930.46	3438.83	3418.81	11.37	-2.441	0.000	0.863
47.50	-35.19	-33.06	0.00	-2895.5	0.00	2895.53	3724.07	927.51	3417.04	3400.45	11.63	-2.472	0.000	0.862
48.00	-34.90	-33.04	0.00	-2879.0	0.00	2879.00	3715.92	924.55	3395.31	3382.11	11.89	-2.503	0.000	0.862
50.00	-33.84	-32.85	0.00	-2812.9	0.00	2812.92	3683.08	912.74	3309.10	3309.03	12.97	-2.627	0.000	0.861
52.00	-32.81	-32.65	0.00	-2747.2	0.00	2747.21	3649.86	900.93	3224.00	3236.39	14.10	-2.753	0.000	0.859
53.25	-32.18	-32.52	0.00	-2706.4	0.00	2706.40	3673.19	909.21	3283.56	3287.28	14.83	-2.834	0.000	0.833
54.00	-31.92	-32.48	0.00	-2682.0	0.00	2682.01	3660.74	904.78	3251.64	3260.04	15.28	-2.882	0.000	0.833
56.00	-31.32	-32.30	0.00	-2617.0	0.00	2617.06	3627.27	892.97	3167.28	3187.69	16.51	-3.006	0.000	0.831
58.00	-30.72	-32.12	0.00	-2552.4	0.00	2552.46	3593.41	881.16	3084.04	3115.80	17.80	-3.131	0.000	0.829
60.00	-30.12	-31.95	0.00	-2488.2	0.00	2488.22	3559.18	869.34	3001.90	3044.38	19.13	-3.258	0.000	0.827
62.00	-29.53	-31.77	0.00	-2424.3	0.00	2424.32	3524.57	857.53	2920.88	2973.45	20.53	-3.387	0.000	0.825
64.00	-28.94	-31.60	0.00	-2360.7	0.00	2360.78	3489.59	845.72	2840.96	2903.01	21.97	-3.518	0.000	0.823
66.00	-28.36	-31.42	0.00	-2297.5	0.00	2297.59	3454.22	833.90	2762.15	2833.08	23.47	-3.651	0.000	0.821
68.00	-27.79	-31.25	0.00	-2234.7	0.00	2234.74	3418.47	822.09	2684.44	2763.67	25.03	-3.785	0.000	0.818
70.00	-27.22	-31.07	0.00	-2172.2	0.00	2172.25	3382.35	810.28	2607.85	2694.80	26.65	-3.922	0.000	0.816
72.00	-26.65	-30.90	0.00	-2110.1	0.00	2110.10	3345.84	798.46	2532.37	2626.49	28.32	-4.061	0.000	0.813
74.00	-26.09	-30.73	0.00	-2048.3	0.00	2048.30	3308.96	786.65	2457.99	2558.73	30.05	-4.202	0.000	0.810
76.00	-25.54	-30.55	0.00	-1986.8	0.00	1986.85	3271.70	774.84	2384.72	2491.55	31.84	-4.345	0.000	0.807
78.00	-24.99	-30.38	0.00	-1925.7	0.00	1925.74	3230.14	763.03	2312.56	2422.03	33.69	-4.490	0.000	0.804
80.00	-24.39	-29.96	0.00	-1864.4	0.00	1864.44	3180.13	751.21	2241.51	2347.24	35.60	-4.637	0.000	0.804
82.00	-23.85	-29.79	0.00	-1804.5	0.00	1804.52	3130.13	739.40	2171.57	2273.62	37.57	-4.786	0.000	0.803
84.00	-23.32	-29.62	0.00	-1744.9	0.00	1744.95	3080.12	727.59	2102.74	2201.18	39.61	-4.938	0.000	0.802
86.00	-22.79	-29.45	0.00	-1685.7	0.00	1685.71	3030.11	715.77	2035.01	2129.91	41.70	-5.091	0.000	0.801
88.00	-22.27	-29.28	0.00	-1626.8	0.00	1626.82	2980.10	703.96	1968.39	2059.81	43.87	-5.247	0.000	0.799

Calculated Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00	-21.76	-29.12	0.00	-1568.2	0.00	1568.25	2930.09	692.15	1902.89	1990.89	46.10	-5.405	0.000	0.797
92.00	-21.25	-28.95	0.00	-1510.0	0.00	1510.02	2880.09	680.34	1838.49	1923.14	48.39	-5.565	0.000	0.794
94.00	-20.74	-28.79	0.00	-1452.1	0.00	1452.12	2830.08	668.52	1775.20	1856.56	50.76	-5.727	0.000	0.791
96.00	-20.26	-28.61	0.00	-1394.5	0.00	1394.55	2780.07	656.71	1713.01	1791.15	53.19	-5.891	0.000	0.788
97.00	-20.01	-28.53	0.00	-1365.9	0.00	1365.95	2755.06	650.80	1682.34	1758.89	54.43	-5.975	0.000	0.786
98.00	-19.62	-28.44	0.00	-1337.4	0.00	1337.42	2730.06	644.90	1651.94	1726.92	55.69	-6.060	0.000	0.784
100.00	-18.90	-28.24	0.00	-1280.5	0.00	1280.53	2680.05	633.08	1591.98	1663.86	58.26	-6.228	0.000	0.779
101.00	-18.53	-28.14	0.00	-1252.3	0.00	1252.30	2260.99	534.61	1362.32	1425.54	59.57	-6.314	0.000	0.889
102.00	-18.28	-28.08	0.00	-1224.1	0.00	1224.16	2242.36	529.69	1337.35	1400.64	60.90	-6.401	0.000	0.885
104.00	-17.84	-27.93	0.00	-1168.0	0.00	1168.00	2200.69	519.85	1288.10	1348.81	63.61	-6.594	0.000	0.877
106.00	-17.40	-27.77	0.00	-1112.1	0.00	1112.15	2159.02	510.00	1239.78	1297.95	66.41	-6.788	0.000	0.868
108.00	-16.96	-27.62	0.00	-1056.6	0.00	1056.61	2117.34	500.16	1192.38	1248.07	69.29	-6.984	0.000	0.858
110.00	-16.49	-27.19	0.00	-1000.8	0.00	1000.80	2075.67	490.32	1145.90	1199.16	72.25	-7.181	0.000	0.846
112.00	-16.06	-27.04	0.00	-946.42	0.00	946.42	2034.00	480.47	1100.35	1151.23	75.30	-7.378	0.000	0.833
114.00	-15.64	-26.89	0.00	-892.34	0.00	892.34	1992.32	470.63	1055.73	1104.29	78.42	-7.577	0.000	0.819
116.00	-15.23	-26.74	0.00	-838.56	0.00	838.56	1950.65	460.78	1012.02	1058.31	81.63	-7.776	0.000	0.804
118.00	-14.82	-26.59	0.00	-785.08	0.00	785.08	1908.98	450.94	969.24	1013.32	84.92	-7.974	0.000	0.786
120.00	-14.42	-26.45	0.00	-731.89	0.00	731.89	1867.30	441.10	927.39	969.30	88.29	-8.173	0.000	0.766
122.00	-14.02	-26.30	0.00	-679.00	0.00	679.00	1825.63	431.25	886.45	926.26	91.75	-8.369	0.000	0.744
124.00	-13.63	-26.15	0.00	-626.40	0.00	626.40	1783.96	421.41	846.45	884.20	95.28	-8.564	0.000	0.720
126.00	-13.25	-26.01	0.00	-574.09	0.00	574.09	1742.28	411.56	807.36	843.12	98.90	-8.756	0.000	0.693
128.00	-12.87	-25.86	0.00	-522.07	0.00	522.07	1700.61	401.72	769.20	803.01	102.59	-8.945	0.000	0.662
130.00	-12.53	-25.71	0.00	-470.34	0.00	470.34	1658.94	391.87	731.96	763.88	106.37	-9.128	0.000	0.628
131.00	-11.13	-20.34	0.00	-444.64	0.00	444.64	1638.10	386.95	713.69	744.68	108.28	-9.219	0.000	0.607
132.00	-10.96	-20.28	0.00	-424.30	0.00	424.30	1617.26	382.03	695.65	725.73	110.21	-9.309	0.000	0.594
134.00	-10.65	-20.14	0.00	-383.74	0.00	383.74	1575.59	372.19	660.26	688.55	114.13	-9.482	0.000	0.567
136.00	-10.35	-20.00	0.00	-343.47	0.00	343.47	1533.91	362.34	625.80	652.35	118.12	-9.651	0.000	0.536
138.00	-10.06	-19.86	0.00	-303.48	0.00	303.48	1492.24	352.50	592.26	617.13	122.18	-9.814	0.000	0.502
140.00	-9.78	-19.72	0.00	-263.77	0.00	263.77	1450.57	342.65	559.64	582.89	126.31	-9.969	0.000	0.463
142.00	-9.55	-19.58	0.00	-224.33	0.00	224.33	1408.89	332.81	527.94	549.63	130.49	-10.114	0.000	0.418
142.50	-7.70	-14.66	0.00	-214.55	0.00	214.55	1398.48	330.35	520.17	541.46	131.55	-10.150	0.000	0.404
144.00	-7.53	-14.56	0.00	-192.56	0.00	192.56	1367.22	322.97	497.17	517.34	134.74	-10.252	0.000	0.380
146.00	-7.32	-14.43	0.00	-163.44	0.00	163.44	1325.55	313.12	467.33	486.03	139.04	-10.378	0.000	0.344
148.00	-7.12	-14.29	0.00	-134.59	0.00	134.59	1283.87	303.28	438.41	455.70	143.39	-10.494	0.000	0.303
148.25	-7.10	-14.27	0.00	-131.02	0.00	131.02	1278.66	302.05	434.86	451.97	143.94	-10.509	0.000	0.298
149.00	-4.84	-9.50	0.00	-115.95	0.00	115.95	1263.04	298.36	424.29	440.90	145.58	-10.550	0.000	0.268
150.00	-4.71	-9.42	0.00	-106.45	0.00	106.45	1242.20	293.43	410.41	426.34	147.78	-10.600	0.000	0.255
150.50	-4.64	-9.38	0.00	-101.74	0.00	101.74	761.18	179.81	256.83	268.82	148.89	-10.624	0.000	0.387
152.00	-4.54	-9.29	0.00	-87.67	0.00	87.67	742.42	175.38	244.33	255.67	152.22	-10.693	0.000	0.352
154.00	-4.41	-9.17	0.00	-69.09	0.00	69.09	717.42	169.47	228.15	238.65	156.70	-10.819	0.000	0.299
156.00	-4.29	-9.05	0.00	-50.75	0.00	50.75	692.41	163.56	212.53	222.21	161.23	-10.925	0.000	0.238
158.00	-4.19	-8.93	0.00	-32.66	0.00	32.66	667.41	157.66	197.45	206.36	165.80	-11.007	0.000	0.168
159.00	0.00	-7.96	0.00	-23.73	0.00	23.73	654.91	154.70	190.13	198.65	168.09	-11.038	0.000	0.122

Wind Loading - Shaft

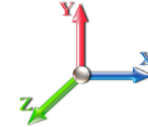
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	27.701	30.47	525.69	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	27.701	30.47	520.58	0.730	0.000	2.00	9.803	7.16	218.1	0.0	419.6
4.00		1.00	0.85	27.701	30.47	515.47	0.730	0.000	2.00	9.708	7.09	215.9	0.0	415.4
6.00		1.00	0.85	27.701	30.47	510.37	0.730	0.000	2.00	9.612	7.02	213.8	0.0	411.3
8.00		1.00	0.85	27.701	30.47	505.26	0.730	0.000	2.00	9.516	6.95	211.7	0.0	407.2
10.00		1.00	0.85	27.701	30.47	500.15	0.730	0.000	2.00	9.421	6.88	209.5	0.0	403.1
12.00		1.00	0.85	27.701	30.47	495.04	0.730	0.000	2.00	9.325	6.81	207.4	0.0	398.9
14.00		1.00	0.85	27.701	30.47	489.94	0.730	0.000	2.00	9.229	6.74	205.3	0.0	394.8
16.00		1.00	0.87	28.403	31.24	490.94	0.730	0.000	2.00	9.134	6.67	208.3	0.0	390.7
18.00		1.00	0.89	29.076	31.98	491.49	0.730	0.000	2.00	9.038	6.60	211.0	0.0	386.6
20.00		1.00	0.91	29.695	32.66	491.40	0.730	0.000	2.00	8.942	6.53	213.2	0.0	382.5
22.00		1.00	0.93	30.269	33.30	490.79	0.730	0.000	2.00	8.846	6.46	215.0	0.0	378.3
24.00		1.00	0.95	30.805	33.89	489.73	0.730	0.000	2.00	8.751	6.39	216.5	0.0	374.2
26.00		1.00	0.96	31.308	34.44	488.29	0.730	0.000	2.00	8.655	6.32	217.6	0.0	370.1
28.00		1.00	0.98	31.783	34.96	486.50	0.730	0.000	2.00	8.559	6.25	218.4	0.0	366.0
30.00		1.00	0.99	32.232	35.46	484.42	0.730	0.000	2.00	8.464	6.18	219.1	0.0	361.8
32.00		1.00	1.00	32.659	35.93	482.07	0.730	0.000	2.00	8.368	6.11	219.5	0.0	357.7
34.00		1.00	1.01	33.066	36.37	479.49	0.730	0.000	2.00	8.272	6.04	219.6	0.0	353.6
36.00		1.00	1.03	33.456	36.80	476.69	0.730	0.000	2.00	8.176	5.97	219.7	0.0	349.5
38.00		1.00	1.04	33.828	37.21	473.69	0.730	0.000	2.00	8.081	5.90	219.5	0.0	345.3
40.00		1.00	1.05	34.186	37.61	470.52	0.730	0.000	2.00	7.985	5.83	219.2	0.0	341.2
42.00		1.00	1.06	34.531	37.98	467.18	0.730	0.000	2.00	7.889	5.76	218.8	0.0	337.1
44.00		1.00	1.07	34.863	38.35	463.69	0.730	0.000	2.00	7.794	5.69	218.2	0.0	333.0
46.00		1.00	1.08	35.184	38.70	460.07	0.730	0.000	2.00	7.698	5.62	217.5	0.0	328.9
47.00	Appurtenance(s)	1.00	1.08	35.340	38.87	458.20	0.730	0.000	1.00	3.813	2.78	108.2	0.0	162.9
47.50	Bot - Section 2	1.00	1.09	35.417	38.96	457.26	0.730	0.000	0.50	1.898	1.39	54.0	0.0	81.1
48.00		1.00	1.09	35.494	39.04	456.31	0.730	0.000	0.50	1.923	1.40	54.8	0.0	163.0
50.00		1.00	1.10	35.794	39.37	452.43	0.730	0.000	2.00	7.633	5.57	219.4	0.0	646.7
52.00		1.00	1.11	36.085	39.69	448.43	0.730	0.000	2.00	7.538	5.50	218.4	0.0	638.4
53.25	Top - Section 1	1.00	1.11	36.262	39.89	445.88	0.730	0.000	1.25	4.662	3.40	135.8	0.0	394.8
54.00		1.00	1.12	36.367	40.00	452.09	0.730	0.000	0.75	2.780	2.03	81.2	0.0	118.7
56.00		1.00	1.12	36.642	40.31	447.92	0.730	0.000	2.00	7.346	5.36	216.2	0.0	313.7
58.00		1.00	1.13	36.909	40.60	443.66	0.730	0.000	2.00	7.251	5.29	214.9	0.0	309.6
60.00		1.00	1.14	37.169	40.89	439.30	0.730	0.000	2.00	7.155	5.22	213.5	0.0	305.5
62.00		1.00	1.15	37.422	41.16	434.86	0.730	0.000	2.00	7.059	5.15	212.1	0.0	301.3
64.00		1.00	1.16	37.669	41.44	430.34	0.730	0.000	2.00	6.963	5.08	210.6	0.0	297.2
66.00		1.00	1.16	37.910	41.70	425.74	0.730	0.000	2.00	6.868	5.01	209.1	0.0	293.1
68.00		1.00	1.17	38.146	41.96	421.06	0.730	0.000	2.00	6.772	4.94	207.4	0.0	289.0
70.00		1.00	1.18	38.376	42.21	416.32	0.730	0.000	2.00	6.676	4.87	205.7	0.0	284.9
72.00		1.00	1.18	38.601	42.46	411.51	0.730	0.000	2.00	6.581	4.80	204.0	0.0	280.7
74.00		1.00	1.19	38.821	42.70	406.64	0.730	0.000	2.00	6.485	4.73	202.2	0.0	276.6
76.00		1.00	1.20	39.037	42.94	401.70	0.730	0.000	2.00	6.389	4.66	200.3	0.0	272.5
78.00		1.00	1.20	39.248	43.17	396.71	0.730	0.000	2.00	6.293	4.59	198.3	0.0	268.4
80.00	Appurtenance(s)	1.00	1.21	39.455	43.40	391.66	0.730	0.000	2.00	6.198	4.52	196.4	0.0	264.2
82.00		1.00	1.22	39.659	43.62	386.55	0.730	0.000	2.00	6.102	4.45	194.3	0.0	260.1
84.00		1.00	1.22	39.858	43.84	381.40	0.730	0.000	2.00	6.006	4.38	192.2	0.0	256.0
86.00		1.00	1.23	40.053	44.06	376.19	0.730	0.000	2.00	5.911	4.31	190.1	0.0	251.9

Wind Loading - Shaft

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00	1.00	1.23	40.246	44.27	370.94	0.730	0.000	2.00	5.815	4.24	187.9	0.0	247.7
90.00	1.00	1.24	40.434	44.48	365.63	0.730	0.000	2.00	5.719	4.17	185.7	0.0	243.6
92.00	1.00	1.25	40.620	44.68	360.29	0.730	0.000	2.00	5.623	4.11	183.4	0.0	239.5
94.00	1.00	1.25	40.802	44.88	354.90	0.730	0.000	2.00	5.528	4.04	181.1	0.0	235.4
96.00	1.00	1.26	40.982	45.08	349.46	0.730	0.000	2.00	5.432	3.97	178.8	0.0	231.3
97.00 Bot - Section 3	1.00	1.26	41.070	45.18	346.73	0.730	0.000	1.00	2.680	1.96	88.4	0.0	114.1
98.00	1.00	1.26	41.158	45.27	343.99	0.730	0.000	1.00	2.709	1.98	89.5	0.0	209.3
100.00	1.00	1.27	41.332	45.46	338.48	0.730	0.000	2.00	5.346	3.90	177.4	0.0	413.0
101.00 Top - Section 2	1.00	1.27	41.417	45.56	335.71	0.731 *	0.000	1.00	2.637	1.93	87.8	0.0	203.7
102.00	1.00	1.27	41.503	45.65	339.83	0.730	0.000	1.00	2.613	1.91	87.1	0.0	92.9
104.00	1.00	1.28	41.671	45.84	334.26	0.731 *	0.000	2.00	5.155	3.77	172.8	0.0	183.1
106.00	1.00	1.28	41.837	46.02	328.65	0.735 *	0.000	2.00	5.059	3.72	171.2	0.0	179.7
108.00	1.00	1.29	42.000	46.20	323.00	0.740 *	0.000	2.00	4.964	3.67	169.6	0.0	176.3
110.00 Appurtenance(s)	1.00	1.29	42.161	46.38	317.32	0.744 *	0.000	2.00	4.868	3.62	168.0	0.0	172.8
112.00	1.00	1.30	42.320	46.55	311.60	0.730	0.000	2.00	4.772	3.48	162.2	0.0	169.4
114.00	1.00	1.30	42.477	46.72	305.85	0.730	0.000	2.00	4.676	3.41	159.5	0.0	166.0
116.00	1.00	1.31	42.631	46.89	300.07	0.730	0.000	2.00	4.581	3.34	156.8	0.0	162.5
118.00	1.00	1.31	42.784	47.06	294.26	0.730	0.000	2.00	4.485	3.27	154.1	0.0	159.1
120.00	1.00	1.32	42.934	47.23	288.42	0.730	0.000	2.00	4.389	3.20	151.3	0.0	155.7
122.00	1.00	1.32	43.082	47.39	282.55	0.730	0.000	2.00	4.294	3.13	148.5	0.0	152.2
124.00	1.00	1.33	43.229	47.55	276.65	0.730	0.000	2.00	4.198	3.06	145.7	0.0	148.8
126.00	1.00	1.33	43.374	47.71	270.72	0.730	0.000	2.00	4.102	2.99	142.9	0.0	145.4
128.00	1.00	1.34	43.517	47.87	264.76	0.730	0.000	2.00	4.006	2.92	140.0	0.0	141.9
130.00	1.00	1.34	43.658	48.02	258.78	0.730	0.000	2.00	3.911	2.85	137.1	0.0	138.5
131.00 Appurtenance(s)	1.00	1.34	43.728	48.10	255.78	0.730	0.000	1.00	1.919	1.40	67.4	0.0	68.0
132.00	1.00	1.34	43.797	48.18	252.77	0.730	0.000	1.00	1.896	1.38	66.7	0.0	67.1
134.00	1.00	1.35	43.935	48.33	246.74	0.730	0.000	2.00	3.719	2.72	131.2	0.0	131.6
136.00	1.00	1.35	44.071	48.48	240.68	0.730	0.000	2.00	3.624	2.65	128.2	0.0	128.2
138.00	1.00	1.36	44.206	48.63	234.59	0.730	0.000	2.00	3.528	2.58	125.2	0.0	124.7
140.00	1.00	1.36	44.339	48.77	228.48	0.730	0.000	2.00	3.432	2.51	122.2	0.0	121.3
142.00	1.00	1.36	44.471	48.92	222.35	0.730	0.000	2.00	3.336	2.44	119.1	0.0	117.9
142.50 Appurtenance(s)	1.00	1.37	44.504	48.95	220.82	0.734 *	0.000	0.50	0.819	0.60	29.4	0.0	28.9
144.00	1.00	1.37	44.601	49.06	216.20	0.737 *	0.000	1.50	2.422	1.78	87.6	0.0	85.5
146.00	1.00	1.37	44.730	49.20	210.02	0.743 *	0.000	2.00	3.145	2.34	115.0	0.0	111.0
148.00	1.00	1.38	44.857	49.34	203.82	0.750 *	0.000	2.00	3.049	2.29	112.9	0.0	107.6
148.25 Bot - Section 4	1.00	1.38	44.873	49.36	203.04	0.755 *	0.000	0.25	0.374	0.28	13.9	0.0	13.2
149.00 Appurtenance(s)	1.00	1.38	44.921	49.41	200.71	0.757 *	0.000	0.75	1.138	0.86	42.6	0.0	63.5
150.00	1.00	1.38	44.983	49.48	197.60	0.760 *	0.000	1.00	1.497	1.14	56.3	0.0	83.5
150.50 Top - Section 3	1.00	1.38	45.015	49.52	196.04	0.763 *	0.000	0.50	0.739	0.56	27.9	0.0	41.2
152.00	1.00	1.38	45.108	49.62	195.67	0.762 *	0.000	1.50	2.182	1.66	82.5	0.0	46.5
154.00	1.00	1.39	45.232	49.75	189.42	0.769 *	0.000	2.00	2.826	2.17	108.2	0.0	60.2
156.00	1.00	1.39	45.354	49.89	183.14	0.778 *	0.000	2.00	2.730	2.13	106.0	0.0	58.1
158.00	1.00	1.40	45.475	50.02	176.84	0.788 *	0.000	2.00	2.634	2.08	103.9	0.0	56.1
159.00 Appurtenance(s)	1.00	1.40	45.535	50.09	173.68	0.796 *	0.000	1.00	1.281	1.02	51.1	0.0	27.3

* Cf Adjusted by Linear Load Ra Effect

Totals:	159.00	14,416.1	21,360.2
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Discrete Appurtenance Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

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	159.00	Decibel DB404-B - Omni	1	45.713	50.285	1.00	1.00	0.00	12.60	0.000	3.000	0.00	0.00	0.00
2	159.00	Powerwave 7770	3	45.713	50.285	0.73	1.00	12.68	94.50	0.000	3.000	637.62	0.00	1912.85
3	159.00	DMP65R-BU6DA	3	45.713	50.285	0.72	1.00	27.45	214.38	0.000	3.000	1380.50	0.00	4141.50
4	159.00	Powerwave Technologies	6	45.713	50.285	0.50	1.00	3.87	76.14	0.000	3.000	194.60	0.00	583.81
5	159.00	4449 B5/B12	3	45.713	50.285	0.50	1.00	2.96	191.70	0.000	3.000	148.59	0.00	445.77
6	159.00	Raycap DC6-48-60-18-8F	3	45.713	50.285	0.50	1.00	1.38	88.56	0.000	3.000	69.39	0.00	208.18
7	159.00	Site Pro 1 -	1	45.713	50.285	1.00	1.00	48.00	2380.50	0.000	3.000	2413.67	0.00	7241.01
8	159.00	RRUS 4478 B14	3	45.713	50.285	0.50	1.00	2.47	160.38	0.000	3.000	124.45	0.00	373.36
9	159.00	Quintel QS66512-2	3	45.713	50.285	0.92	1.00	22.44	299.70	0.000	3.000	1128.33	0.00	3384.99
10	159.00	Kaelus DBC0061F1V51-2	3	45.713	50.285	0.50	1.00	0.65	49.41	0.000	3.000	32.43	0.00	97.30
11	159.00	Ericsson RRUS 32 B30	3	45.713	50.285	0.50	1.00	4.11	162.00	0.000	3.000	206.67	0.00	620.01
12	159.00	Ericsson RRUS 32 B2	3	45.713	50.285	0.50	1.00	4.11	143.10	0.000	3.000	206.67	0.00	620.01
13	159.00	OPA65R-BU6DA	3	45.713	50.285	0.50	1.00	19.07	170.91	0.000	3.000	958.68	0.00	2876.04
14	159.00	Site Pro 1 - HRK14	1	45.713	50.285	1.00	1.00	8.13	272.12	0.000	3.000	408.82	0.00	1226.45
15	149.00	Alcatel Lucent - 800 MHz	3	45.046	49.551	0.50	0.75	3.75	143.10	0.000	2.000	186.00	0.00	371.99
16	149.00	RFS - APXVSP18-C-A20	3	45.046	49.551	0.62	0.75	15.72	286.20	0.000	2.000	779.15	0.00	1558.30
17	149.00	Alcatel Lucent - 1900 MHz	3	45.046	49.551	0.50	0.75	5.73	118.80	0.000	2.000	283.85	0.00	567.70
18	149.00	SitePro HRK-12 Handrail	1	44.921	49.413	1.00	1.00	6.75	235.55	0.000	0.000	333.53	0.00	0.00
19	149.00	Alcatel Lucent - 800 MHz	3	45.046	49.551	0.50	0.75	1.18	23.76	0.000	2.000	58.26	0.00	116.53
20	149.00	RFS - ACU-A20-N - RET	4	45.046	49.551	0.50	0.75	0.28	3.60	0.000	2.000	13.94	0.00	27.89
21	149.00	Low Profile Platform	1	44.921	49.413	1.00	1.00	35.00	1080.00	0.000	0.000	1729.44	0.00	0.00
22	149.00	Alcatel Lucent -	3	45.046	49.551	0.50	0.75	6.11	189.00	0.000	2.000	302.52	0.00	605.05
23	149.00	RFS - APXVTM14-C-I20 -	3	45.046	49.551	0.59	0.75	11.27	151.20	0.000	2.000	558.40	0.00	1116.81
24	142.50	EMS - FR90-16-XXDP -	6	44.504	48.954	0.51	0.75	13.34	97.20	0.000	0.000	653.12	0.00	0.00
25	142.50	LP Platform w/ Handrails	1	44.504	48.954	1.00	1.00	34.00	1440.00	0.000	0.000	1664.43	0.00	0.00
26	142.50	Andrew - ATSBT-TOP-FM	3	44.504	48.954	0.50	0.75	0.30	4.86	0.000	0.000	14.76	0.00	0.00
27	142.50	RFS -	3	44.504	48.954	0.46	0.75	9.22	109.89	0.000	0.000	451.40	0.00	0.00
28	142.50	RFS -	3	44.504	48.954	0.55	0.75	33.24	273.78	0.000	0.000	1627.43	0.00	0.00
29	142.50	RFS -	3	44.504	48.954	0.50	0.75	1.76	42.80	0.000	0.000	86.34	0.00	0.00
30	131.00	Kathrein 742	3	43.728	48.101	0.58	0.80	5.44	44.55	0.000	0.000	261.82	0.00	0.00
31	131.00	Antel BXA-70063/6CF -	3	43.728	48.101	0.56	0.80	12.72	45.90	0.000	0.000	611.72	0.00	0.00
32	131.00	Antel BXA-171063-12BF -	3	43.728	48.101	0.67	0.80	9.56	40.50	0.000	0.000	459.64	0.00	0.00
33	131.00	Antel LPA-80063/6CF -	6	43.728	48.101	0.75	0.80	43.32	145.80	0.000	0.000	2083.48	0.00	0.00
34	131.00	Alcatel Lucent	3	43.728	48.101	0.54	0.80	5.63	148.50	0.000	0.000	270.71	0.00	0.00
35	131.00	RFS FD9R6004/2C-3L -	6	43.728	48.101	0.54	0.80	1.16	16.74	0.000	0.000	55.69	0.00	0.00
36	131.00	RFS DB-T1-6Z-8AB-0Z -	1	43.728	48.101	1.00	1.00	4.80	17.01	0.000	0.000	230.88	0.00	0.00
37	131.00	Low Profile Platform	1	43.728	48.101	1.00	1.00	22.00	1080.00	0.000	0.000	1058.21	0.00	0.00
38	110.00	4 ft. Standoff	1	42.161	46.378	1.00	1.00	3.50	47.99	0.000	0.000	162.32	0.00	0.00
39	110.00	Sinclair SCL329-HL -	1	42.597	46.856	1.00	1.00	2.22	9.36	0.000	5.550	104.02	0.00	577.32
40	80.00	Sinclair SCL329-HL -	1	40.010	44.011	1.00	1.00	2.22	9.36	0.000	5.550	97.70	0.00	542.26
41	80.00	4 ft Standoff	1	39.455	43.401	1.00	1.00	3.50	47.99	0.000	0.000	151.90	0.00	0.00
42	47.00	4 ft Standoff	1	35.340	38.874	1.00	1.00	3.50	47.99	0.000	0.000	136.06	0.00	0.00
43	47.00	Decibel 26DB - GPS	1	35.794	39.373	1.00	1.00	0.16	9.00	0.000	3.000	6.30	0.00	18.90

Totals: 10,226.42

22,343.50

Total Applied Force Summary

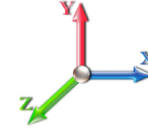
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

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		218.06	517.88	0.00	0.00
4.00		215.94	513.76	0.00	0.00
6.00		213.81	509.64	0.00	0.00
8.00		211.68	505.52	0.00	0.00
10.00		209.55	501.39	0.00	0.00
12.00		207.42	497.27	0.00	0.00
14.00		205.29	493.15	0.00	0.00
16.00		208.31	489.02	0.00	0.00
18.00		211.01	484.90	0.00	0.00
20.00		213.22	480.78	0.00	0.00
22.00		215.02	476.66	0.00	0.00
24.00		216.46	472.53	0.00	0.00
26.00		217.59	468.41	0.00	0.00
28.00		218.45	464.29	0.00	0.00
30.00		219.06	460.17	0.00	0.00
32.00		219.45	456.04	0.00	0.00
34.00		219.64	451.92	0.00	0.00
36.00		219.66	447.80	0.00	0.00
38.00		219.51	443.67	0.00	0.00
40.00		219.20	439.55	0.00	0.00
42.00		218.76	435.43	0.00	0.00
44.00		218.18	431.31	0.00	0.00
46.00		217.48	427.18	0.00	0.00
47.00	(2) attachments	250.56	269.03	0.00	18.90
47.50		53.97	105.64	0.00	0.00
48.00		54.82	187.54	0.00	0.00
50.00		219.40	745.02	0.00	0.00
52.00		218.41	736.48	0.00	0.00
53.25		135.76	456.11	0.00	0.00
54.00		81.17	155.47	0.00	0.00
56.00		216.15	411.75	0.00	0.00
58.00		214.89	407.63	0.00	0.00
60.00		213.55	403.50	0.00	0.00
62.00		212.13	399.38	0.00	0.00
64.00		210.63	395.26	0.00	0.00
66.00		209.07	391.13	0.00	0.00
68.00		207.43	387.01	0.00	0.00
70.00		205.74	382.89	0.00	0.00
72.00		203.98	378.77	0.00	0.00
74.00		202.16	374.64	0.00	0.00
76.00		200.28	370.52	0.00	0.00
78.00		198.35	366.40	0.00	0.00
80.00	(2) attachments	445.97	419.62	0.00	542.26
82.00		194.32	357.22	0.00	0.00
84.00		192.24	353.09	0.00	0.00
86.00		190.10	348.97	0.00	0.00

Total Applied Force Summary

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00		187.92	344.85	0.00	0.00
90.00		185.69	340.73	0.00	0.00
92.00		183.42	336.60	0.00	0.00
94.00		181.11	332.48	0.00	0.00
96.00		178.76	328.36	0.00	0.00
97.00		88.39	162.63	0.00	0.00
98.00		89.54	257.90	0.00	0.00
100.00		177.44	510.13	0.00	0.00
101.00		87.79	252.23	0.00	0.00
102.00		87.10	141.41	0.00	0.00
104.00		172.78	280.25	0.00	0.00
106.00		171.22	276.81	0.00	0.00
108.00		169.63	273.38	0.00	0.00
110.00	(2) attachments	434.35	327.29	0.00	577.32
112.00		162.17	265.57	0.00	0.00
114.00		159.51	262.13	0.00	0.00
116.00		156.81	258.70	0.00	0.00
118.00		154.08	255.26	0.00	0.00
120.00		151.33	251.83	0.00	0.00
122.00		148.54	248.39	0.00	0.00
124.00		145.72	244.96	0.00	0.00
126.00		142.87	241.52	0.00	0.00
128.00		140.00	238.09	0.00	0.00
130.00		137.10	234.65	0.00	0.00
131.00	(26) attachments	5099.56	1655.04	0.00	0.00
132.00		66.67	102.96	0.00	0.00
134.00		131.22	203.33	0.00	0.00
136.00		128.24	199.90	0.00	0.00
138.00		125.23	196.46	0.00	0.00
140.00		122.20	193.03	0.00	0.00
142.00		119.15	161.08	0.00	0.00
142.50	(19) attachments	4526.92	2008.26	0.00	0.00
144.00		87.57	117.91	0.00	0.00
146.00		114.99	154.21	0.00	0.00
148.00		112.91	150.77	0.00	0.00
148.25		13.95	18.61	0.00	0.00
149.00	(24) attachments	4287.66	2310.96	0.00	4364.27
150.00		56.29	105.13	0.00	0.00
150.50		27.94	52.05	0.00	0.00
152.00		82.49	75.46	0.00	0.00
154.00		108.16	96.52	0.00	0.00
156.00		106.02	94.46	0.00	0.00
158.00		103.85	92.40	0.00	0.00
159.00	(39) attachments	7961.51	4361.43	0.00	23731.29
Totals:		36,759.61	38,687.45	0.00	29,234.03

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
2.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.064	0.000	27.701	0.00	22.46
2.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	27.701	0.00	0.29
2.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	27.701	0.00	8.69
2.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.064	0.000	27.701	0.00	0.94
2.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	27.701	0.00	0.94
2.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.064	0.000	27.701	0.00	0.29
4.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.065	0.000	27.701	0.00	22.46
4.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	0.29
4.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	8.69
4.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.065	0.000	27.701	0.00	0.94
4.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	0.94
4.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.065	0.000	27.701	0.00	0.29
6.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.065	0.000	27.701	0.00	22.46
6.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	0.29
6.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	8.69
6.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.065	0.000	27.701	0.00	0.94
6.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	27.701	0.00	0.94
6.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.065	0.000	27.701	0.00	0.29
8.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.066	0.000	27.701	0.00	22.46
8.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	27.701	0.00	0.29
8.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	27.701	0.00	8.69
8.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.066	0.000	27.701	0.00	0.94
8.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	27.701	0.00	0.94
8.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.066	0.000	27.701	0.00	0.29
10.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.067	0.000	27.701	0.00	22.46
10.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	0.29
10.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	8.69
10.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.067	0.000	27.701	0.00	0.94
10.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	0.94
10.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.067	0.000	27.701	0.00	0.29
12.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.067	0.000	27.701	0.00	22.46
12.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	0.29
12.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	8.69
12.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.067	0.000	27.701	0.00	0.94
12.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	27.701	0.00	0.94
12.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.067	0.000	27.701	0.00	0.29
14.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.068	0.000	27.701	0.00	22.46
14.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.701	0.00	0.29
14.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.701	0.00	8.69
14.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.068	0.000	27.701	0.00	0.94
14.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	27.701	0.00	0.94
14.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.068	0.000	27.701	0.00	0.29
16.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.069	0.000	28.403	0.00	22.46
16.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	28.403	0.00	0.29
16.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	28.403	0.00	8.69
16.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.069	0.000	28.403	0.00	0.94
16.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	28.403	0.00	0.94

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

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)
16.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.069	0.000	28.403	0.00	0.29
18.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.069	0.000	29.076	0.00	22.46
18.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	29.076	0.00	0.29
18.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	29.076	0.00	8.69
18.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.069	0.000	29.076	0.00	0.94
18.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	29.076	0.00	0.94
18.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.069	0.000	29.076	0.00	0.29
20.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	29.695	0.00	22.46
20.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	29.695	0.00	0.29
20.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	29.695	0.00	8.69
20.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.070	0.000	29.695	0.00	0.94
20.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	29.695	0.00	0.94
20.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.070	0.000	29.695	0.00	0.29
22.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	30.269	0.00	22.46
22.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	30.269	0.00	0.29
22.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	30.269	0.00	8.69
22.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.071	0.000	30.269	0.00	0.94
22.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	30.269	0.00	0.94
22.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.071	0.000	30.269	0.00	0.29
24.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.072	0.000	30.805	0.00	22.46
24.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	30.805	0.00	0.29
24.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	30.805	0.00	8.69
24.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.072	0.000	30.805	0.00	0.94
24.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	30.805	0.00	0.94
24.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.072	0.000	30.805	0.00	0.29
26.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.072	0.000	31.308	0.00	22.46
26.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	31.308	0.00	0.29
26.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	31.308	0.00	8.69
26.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.072	0.000	31.308	0.00	0.94
26.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	31.308	0.00	0.94
26.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.072	0.000	31.308	0.00	0.29
28.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.073	0.000	31.783	0.00	22.46
28.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	31.783	0.00	0.29
28.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	31.783	0.00	8.69
28.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.073	0.000	31.783	0.00	0.94
28.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	31.783	0.00	0.94
28.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.073	0.000	31.783	0.00	0.29
30.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	32.232	0.00	22.46
30.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	32.232	0.00	0.29
30.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	32.232	0.00	8.69
30.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.074	0.000	32.232	0.00	0.94
30.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	32.232	0.00	0.94
30.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.074	0.000	32.232	0.00	0.29
32.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.075	0.000	32.659	0.00	22.46
32.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	32.659	0.00	0.29
32.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	32.659	0.00	8.69
32.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.075	0.000	32.659	0.00	0.94

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

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)
32.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	32.659	0.00	0.94
32.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.075	0.000	32.659	0.00	0.29
34.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.076	0.000	33.066	0.00	22.46
34.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	33.066	0.00	0.29
34.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	33.066	0.00	8.69
34.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.076	0.000	33.066	0.00	0.94
34.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	33.066	0.00	0.94
34.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.076	0.000	33.066	0.00	0.29
36.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.077	0.000	33.456	0.00	22.46
36.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	33.456	0.00	0.29
36.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	33.456	0.00	8.69
36.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.077	0.000	33.456	0.00	0.94
36.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	33.456	0.00	0.94
36.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.077	0.000	33.456	0.00	0.29
38.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	33.828	0.00	22.46
38.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	33.828	0.00	0.29
38.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	33.828	0.00	8.69
38.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.078	0.000	33.828	0.00	0.94
38.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	33.828	0.00	0.94
38.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.078	0.000	33.828	0.00	0.29
40.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	34.186	0.00	22.46
40.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	34.186	0.00	0.29
40.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	34.186	0.00	8.69
40.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.078	0.000	34.186	0.00	0.94
40.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	34.186	0.00	0.94
40.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.078	0.000	34.186	0.00	0.29
42.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.079	0.000	34.531	0.00	22.46
42.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	34.531	0.00	0.29
42.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	34.531	0.00	8.69
42.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.079	0.000	34.531	0.00	0.94
42.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	34.531	0.00	0.94
42.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.079	0.000	34.531	0.00	0.29
44.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.080	0.000	34.863	0.00	22.46
44.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	34.863	0.00	0.29
44.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	34.863	0.00	8.69
44.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.080	0.000	34.863	0.00	0.94
44.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	34.863	0.00	0.94
44.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.080	0.000	34.863	0.00	0.29
46.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	35.184	0.00	22.46
46.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	35.184	0.00	0.29
46.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	35.184	0.00	8.69
46.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.081	0.000	35.184	0.00	0.94
46.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	35.184	0.00	0.94
46.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.081	0.000	35.184	0.00	0.29
47.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.082	0.000	35.340	0.00	11.23
47.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	35.340	0.00	0.14
47.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	35.340	0.00	4.35

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

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)
47.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.082	0.000	35.340	0.00	0.47
47.00	7/8"	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	35.340	0.00	0.47
47.00	1/2"	Yes	1.00	0.000	0.65	0.05	0.00	0.082	0.000	35.340	0.00	0.14
47.50	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.083	0.000	35.417	0.00	5.62
47.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.417	0.00	0.07
47.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.417	0.00	2.17
47.50	7/8"	Yes	0.50	0.000	1.11	0.05	0.00	0.083	0.000	35.417	0.00	0.23
47.50	7/8"	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.417	0.00	0.23
47.50	1/2"	Yes	0.50	0.000	0.65	0.03	0.00	0.083	0.000	35.417	0.00	0.07
48.00	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.083	0.000	35.494	0.00	5.62
48.00	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.494	0.00	0.07
48.00	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.494	0.00	2.17
48.00	7/8"	Yes	0.50	0.000	1.11	0.05	0.00	0.083	0.000	35.494	0.00	0.23
48.00	7/8"	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	35.494	0.00	0.23
48.00	1/2"	Yes	0.50	0.000	0.65	0.03	0.00	0.083	0.000	35.494	0.00	0.07
50.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	35.794	0.00	22.46
50.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	35.794	0.00	0.29
50.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	35.794	0.00	8.69
50.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.083	0.000	35.794	0.00	0.94
50.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	35.794	0.00	0.94
50.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.083	0.000	35.794	0.00	0.29
52.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	36.085	0.00	22.46
52.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	36.085	0.00	0.29
52.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	36.085	0.00	8.69
52.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.070	0.000	36.085	0.00	0.94
52.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	36.085	0.00	0.94
53.25	1 5/8"	Yes	1.25	0.000	2.00	0.21	0.00	0.071	0.000	36.262	0.00	14.04
53.25	1/2" Fiber	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	36.262	0.00	0.18
53.25	2" Conduit	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	36.262	0.00	5.43
53.25	7/8"	Yes	1.25	0.000	1.11	0.12	0.00	0.071	0.000	36.262	0.00	0.59
53.25	7/8"	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	36.262	0.00	0.59
54.00	1 5/8"	Yes	0.75	0.000	2.00	0.13	0.00	0.070	0.000	36.367	0.00	8.42
54.00	1/2" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	36.367	0.00	0.11
54.00	2" Conduit	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	36.367	0.00	3.26
54.00	7/8"	Yes	0.75	0.000	1.11	0.07	0.00	0.070	0.000	36.367	0.00	0.35
54.00	7/8"	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	36.367	0.00	0.35
56.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	36.642	0.00	22.46
56.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.642	0.00	0.29
56.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.642	0.00	8.69
56.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.071	0.000	36.642	0.00	0.94
56.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.642	0.00	0.94
58.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	36.909	0.00	22.46
58.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.909	0.00	0.29
58.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.909	0.00	8.69
58.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.071	0.000	36.909	0.00	0.94
58.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	36.909	0.00	0.94
60.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.072	0.000	37.169	0.00	22.46

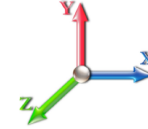
Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

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)
60.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	37.169	0.00	0.29
60.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	37.169	0.00	8.69
60.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.072	0.000	37.169	0.00	0.94
60.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	37.169	0.00	0.94
62.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.073	0.000	37.422	0.00	22.46
62.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	37.422	0.00	0.29
62.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	37.422	0.00	8.69
62.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.073	0.000	37.422	0.00	0.94
62.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	37.422	0.00	0.94
64.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	37.669	0.00	22.46
64.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	37.669	0.00	0.29
64.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	37.669	0.00	8.69
64.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.074	0.000	37.669	0.00	0.94
64.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	37.669	0.00	0.94
66.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.075	0.000	37.910	0.00	22.46
66.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	37.910	0.00	0.29
66.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	37.910	0.00	8.69
66.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.075	0.000	37.910	0.00	0.94
66.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	37.910	0.00	0.94
68.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.077	0.000	38.146	0.00	22.46
68.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	38.146	0.00	0.29
68.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	38.146	0.00	8.69
68.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.077	0.000	38.146	0.00	0.94
68.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	38.146	0.00	0.94
70.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	38.376	0.00	22.46
70.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	38.376	0.00	0.29
70.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	38.376	0.00	8.69
70.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.078	0.000	38.376	0.00	0.94
70.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	38.376	0.00	0.94
72.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.079	0.000	38.601	0.00	22.46
72.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	38.601	0.00	0.29
72.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	38.601	0.00	8.69
72.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.079	0.000	38.601	0.00	0.94
72.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	38.601	0.00	0.94
74.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.080	0.000	38.821	0.00	22.46
74.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	38.821	0.00	0.29
74.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	38.821	0.00	8.69
74.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.080	0.000	38.821	0.00	0.94
74.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	38.821	0.00	0.94
76.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	39.037	0.00	22.46
76.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	39.037	0.00	0.29
76.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	39.037	0.00	8.69
76.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.081	0.000	39.037	0.00	0.94
76.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	39.037	0.00	0.94
78.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.082	0.000	39.248	0.00	22.46
78.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	39.248	0.00	0.29
78.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	39.248	0.00	8.69

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

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)
78.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.082	0.000	39.248	0.00	0.94
78.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	39.248	0.00	0.94
80.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.084	0.000	39.455	0.00	22.46
80.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	39.455	0.00	0.29
80.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	39.455	0.00	8.69
80.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.084	0.000	39.455	0.00	0.94
80.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	39.455	0.00	0.94
82.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.085	0.000	39.659	0.00	22.46
82.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	39.659	0.00	0.29
82.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	39.659	0.00	8.69
82.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.085	0.000	39.659	0.00	0.94
84.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.086	0.000	39.858	0.00	22.46
84.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	39.858	0.00	0.29
84.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	39.858	0.00	8.69
84.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.086	0.000	39.858	0.00	0.94
86.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.088	0.000	40.053	0.00	22.46
86.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.088	0.000	40.053	0.00	0.29
86.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.088	0.000	40.053	0.00	8.69
86.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.088	0.000	40.053	0.00	0.94
88.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.089	0.000	40.246	0.00	22.46
88.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	40.246	0.00	0.29
88.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	40.246	0.00	8.69
88.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.089	0.000	40.246	0.00	0.94
90.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.091	0.000	40.434	0.00	22.46
90.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	40.434	0.00	0.29
90.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	40.434	0.00	8.69
90.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.091	0.000	40.434	0.00	0.94
92.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.092	0.000	40.620	0.00	22.46
92.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	40.620	0.00	0.29
92.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	40.620	0.00	8.69
92.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.092	0.000	40.620	0.00	0.94
94.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.094	0.000	40.802	0.00	22.46
94.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	40.802	0.00	0.29
94.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	40.802	0.00	8.69
94.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.094	0.000	40.802	0.00	0.94
96.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.095	0.000	40.982	0.00	22.46
96.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.095	0.000	40.982	0.00	0.29
96.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.095	0.000	40.982	0.00	8.69
96.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.095	0.000	40.982	0.00	0.94
97.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.097	0.000	41.070	0.00	11.23
97.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	41.070	0.00	0.14
97.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	41.070	0.00	4.35
97.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.097	0.000	41.070	0.00	0.47
98.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.098	0.000	41.158	0.00	11.23
98.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	41.158	0.00	0.14
98.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	41.158	0.00	4.35
98.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.098	0.000	41.158	0.00	0.47

Linear Appurtenance Segment Forces (Factored)

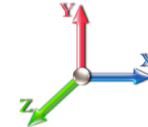
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

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)
100.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.099	0.000	41.332	0.00	22.46
100.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.099	0.000	41.332	0.00	0.29
100.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.099	0.000	41.332	0.00	8.69
100.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.099	0.000	41.332	0.00	0.94
101.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.100	1.001	41.417	0.00	11.23
101.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.100	1.001	41.417	0.00	0.14
101.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.100	1.001	41.417	0.00	4.35
101.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.100	1.001	41.417	0.00	0.47
102.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.099	0.000	41.503	0.00	11.23
102.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.099	0.000	41.503	0.00	0.14
102.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.099	0.000	41.503	0.00	4.35
102.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.099	0.000	41.503	0.00	0.47
104.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.101	1.002	41.671	0.00	22.46
104.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.101	1.002	41.671	0.00	0.29
104.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.101	1.002	41.671	0.00	8.69
104.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.101	1.002	41.671	0.00	0.94
106.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.102	1.007	41.837	0.00	22.46
106.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.102	1.007	41.837	0.00	0.29
106.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.102	1.007	41.837	0.00	8.69
106.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.102	1.007	41.837	0.00	0.94
108.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.104	1.013	42.000	0.00	22.46
108.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.104	1.013	42.000	0.00	0.29
108.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.104	1.013	42.000	0.00	8.69
108.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.104	1.013	42.000	0.00	0.94
110.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.106	1.019	42.161	0.00	22.46
110.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.019	42.161	0.00	0.29
110.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.019	42.161	0.00	8.69
110.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.106	1.019	42.161	0.00	0.94
112.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	42.320	0.00	22.46
112.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	42.320	0.00	0.29
112.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	42.320	0.00	8.69
114.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	42.477	0.00	22.46
114.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	42.477	0.00	0.29
114.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	42.477	0.00	8.69
116.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.073	0.000	42.631	0.00	22.46
116.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	42.631	0.00	0.29
116.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	42.631	0.00	8.69
118.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	42.784	0.00	22.46
118.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	42.784	0.00	0.29
118.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	42.784	0.00	8.69
120.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.076	0.000	42.934	0.00	22.46
120.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	42.934	0.00	0.29
120.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	42.934	0.00	8.69
122.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	43.082	0.00	22.46
122.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	43.082	0.00	0.29
122.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	43.082	0.00	8.69
124.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.079	0.000	43.229	0.00	22.46

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

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)
124.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	43.229	0.00	0.29
124.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	43.229	0.00	8.69
126.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	43.374	0.00	22.46
126.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	43.374	0.00	0.29
126.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	43.374	0.00	8.69
128.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	43.517	0.00	22.46
128.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	43.517	0.00	0.29
128.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	43.517	0.00	8.69
130.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.085	0.000	43.658	0.00	22.46
130.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	43.658	0.00	0.29
130.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	43.658	0.00	8.69
131.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.087	0.000	43.728	0.00	11.23
131.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.087	0.000	43.728	0.00	0.14
131.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.087	0.000	43.728	0.00	4.35
132.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.088	0.000	43.797	0.00	11.23
132.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.088	0.000	43.797	0.00	0.14
132.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.088	0.000	43.797	0.00	4.35
134.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.090	0.000	43.935	0.00	22.46
134.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	43.935	0.00	0.29
134.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	43.935	0.00	8.69
136.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.092	0.000	44.071	0.00	22.46
136.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	44.071	0.00	0.29
136.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	44.071	0.00	8.69
138.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.094	0.000	44.206	0.00	22.46
138.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	44.206	0.00	0.29
138.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	44.206	0.00	8.69
140.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.097	0.000	44.339	0.00	22.46
140.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.097	0.000	44.339	0.00	0.29
140.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.097	0.000	44.339	0.00	8.69
142.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.100	0.000	44.471	0.00	22.46
142.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.100	0.000	44.471	0.00	0.29
142.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.100	0.000	44.471	0.00	8.69
142.50	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.102	1.005	44.504	0.00	5.62
142.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.102	1.005	44.504	0.00	0.07
142.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.102	1.005	44.504	0.00	2.17
144.00	1 5/8"	Yes	1.50	0.000	2.00	0.25	0.00	0.103	1.010	44.601	0.00	16.85
144.00	1/2" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.103	1.010	44.601	0.00	0.22
144.00	2" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	0.103	1.010	44.601	0.00	6.52
146.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.106	1.018	44.730	0.00	22.46
146.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.018	44.730	0.00	0.29
146.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.018	44.730	0.00	8.69
148.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.109	1.028	44.857	0.00	22.46
148.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.109	1.028	44.857	0.00	0.29
148.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.109	1.028	44.857	0.00	8.69
148.25	1 5/8"	Yes	0.25	0.000	2.00	0.04	0.00	0.111	1.034	44.873	0.00	2.81
148.25	1/2" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.111	1.034	44.873	0.00	0.04
148.25	2" Conduit	Yes	0.25	0.000	0.00	0.00	0.00	0.111	1.034	44.873	0.00	1.09

Linear Appurtenance Segment Forces (Factored)

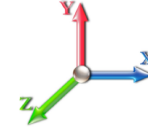
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0W 117 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.00



Iterations 30

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)
149.00	1 5/8"	Yes	0.75	0.000	2.00	0.13	0.00	0.112	1.037	44.921	0.00	8.42
149.00	1/2" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.112	1.037	44.921	0.00	0.11
149.00	2" Conduit	Yes	0.75	0.000	0.00	0.00	0.00	0.112	1.037	44.921	0.00	3.26
150.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.041	44.983	0.00	11.23
150.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	44.983	0.00	0.14
150.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	44.983	0.00	4.35
150.50	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.046	45.015	0.00	5.62
150.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.046	45.015	0.00	0.07
150.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.046	45.015	0.00	2.17
152.00	1 5/8"	Yes	1.50	0.000	2.00	0.25	0.00	0.115	1.044	45.108	0.00	16.85
152.00	1/2" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.115	1.044	45.108	0.00	0.22
152.00	2" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	0.115	1.044	45.108	0.00	6.52
154.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.054	45.232	0.00	22.46
154.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.054	45.232	0.00	0.29
154.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.054	45.232	0.00	8.69
156.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	45.354	0.00	22.46
156.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	45.354	0.00	0.29
156.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	45.354	0.00	8.69
158.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	45.475	0.00	22.46
158.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	45.475	0.00	0.29
158.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	45.475	0.00	8.69
159.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.130	1.090	45.535	0.00	11.23
159.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.130	1.090	45.535	0.00	0.14
159.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.130	1.090	45.535	0.00	4.35
Totals:											0.0	2,596.1

Calculated Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

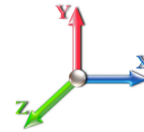


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Load Case: 0.9D + 1.0W 117 mph Wind

Iterations 30

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	-38.66	-36.79	0.00	-4492.9	0.00	4492.91	4390.37	1208.07	5796.90	5231.64	0.00	0.000	0.000	0.869
2.00	-38.08	-36.63	0.00	-4419.3	0.00	4419.33	4366.62	1196.25	5684.08	5152.14	0.02	-0.087	0.000	0.867
4.00	-37.51	-36.47	0.00	-4346.0	0.00	4346.07	4342.50	1184.44	5572.38	5072.75	0.08	-0.175	0.000	0.866
6.00	-36.95	-36.31	0.00	-4273.1	0.00	4273.13	4318.00	1172.63	5461.78	4993.49	0.17	-0.265	0.000	0.865
8.00	-36.39	-36.16	0.00	-4200.5	0.00	4200.51	4293.12	1160.81	5352.29	4914.37	0.30	-0.356	0.000	0.864
10.00	-35.83	-36.00	0.00	-4128.1	0.00	4128.19	4267.86	1149.00	5243.91	4835.41	0.47	-0.447	0.000	0.863
12.00	-35.27	-35.85	0.00	-4056.1	0.00	4056.19	4242.22	1137.19	5136.64	4756.61	0.68	-0.540	0.000	0.862
14.00	-34.72	-35.69	0.00	-3984.5	0.00	3984.50	4216.20	1125.37	5030.48	4677.99	0.92	-0.635	0.000	0.861
16.00	-34.18	-35.54	0.00	-3913.1	0.00	3913.11	4189.80	1113.56	4925.42	4599.57	1.21	-0.730	0.000	0.860
18.00	-33.64	-35.38	0.00	-3842.0	0.00	3842.04	4163.03	1101.75	4821.48	4521.36	1.54	-0.827	0.000	0.859
20.00	-33.10	-35.21	0.00	-3771.2	0.00	3771.28	4135.87	1089.94	4718.64	4443.36	1.91	-0.925	0.000	0.858
22.00	-32.56	-35.05	0.00	-3700.8	0.00	3700.86	4108.34	1078.12	4616.91	4365.60	2.31	-1.025	0.000	0.857
24.00	-32.03	-34.88	0.00	-3630.7	0.00	3630.76	4080.43	1066.31	4516.29	4288.09	2.77	-1.126	0.000	0.856
26.00	-31.51	-34.71	0.00	-3561.0	0.00	3561.00	4052.14	1054.50	4416.78	4210.84	3.26	-1.228	0.000	0.855
28.00	-30.99	-34.54	0.00	-3491.5	0.00	3491.59	4023.46	1042.68	4318.37	4133.86	3.80	-1.332	0.000	0.853
30.00	-30.47	-34.36	0.00	-3422.5	0.00	3422.51	3994.42	1030.87	4221.08	4057.17	4.38	-1.437	0.000	0.852
32.00	-29.95	-34.19	0.00	-3353.7	0.00	3353.79	3964.99	1019.06	4124.89	3980.79	5.00	-1.543	0.000	0.851
34.00	-29.44	-34.01	0.00	-3285.4	0.00	3285.41	3935.18	1007.24	4029.81	3904.71	5.67	-1.652	0.000	0.850
36.00	-28.94	-33.83	0.00	-3217.3	0.00	3217.39	3904.99	995.43	3935.85	3828.97	6.39	-1.761	0.000	0.849
38.00	-28.43	-33.66	0.00	-3149.7	0.00	3149.72	3874.43	983.62	3842.99	3753.56	7.15	-1.873	0.000	0.848
40.00	-27.94	-33.48	0.00	-3082.4	0.00	3082.41	3843.48	971.81	3751.23	3678.51	7.96	-1.986	0.000	0.846
42.00	-27.44	-33.30	0.00	-3015.4	0.00	3015.45	3812.16	959.99	3660.59	3603.83	8.82	-2.100	0.000	0.845
44.00	-26.95	-33.12	0.00	-2948.8	0.00	2948.85	3780.46	948.18	3571.06	3529.52	9.72	-2.216	0.000	0.844
46.00	-26.48	-32.93	0.00	-2882.6	0.00	2882.61	3748.38	936.37	3482.63	3455.62	10.67	-2.334	0.000	0.842
47.00	-26.20	-32.69	0.00	-2849.6	0.00	2849.67	3732.20	930.46	3438.83	3418.81	11.17	-2.394	0.000	0.842
47.50	-26.08	-32.64	0.00	-2833.3	0.00	2833.32	3724.07	927.51	3417.04	3400.45	11.42	-2.425	0.000	0.841
48.00	-25.85	-32.61	0.00	-2817.0	0.00	2817.00	3715.92	924.55	3395.31	3382.11	11.68	-2.455	0.000	0.841
50.00	-25.04	-32.42	0.00	-2751.7	0.00	2751.78	3683.08	912.74	3309.10	3309.03	12.73	-2.577	0.000	0.840
52.00	-24.26	-32.21	0.00	-2686.9	0.00	2686.95	3649.86	900.93	3224.00	3236.39	13.84	-2.700	0.000	0.838
53.25	-23.78	-32.08	0.00	-2646.6	0.00	2646.69	3673.19	909.21	3283.56	3287.28	14.56	-2.779	0.000	0.813
54.00	-23.58	-32.02	0.00	-2622.6	0.00	2622.63	3660.74	904.78	3251.64	3260.04	15.00	-2.827	0.000	0.812
56.00	-23.11	-31.83	0.00	-2558.5	0.00	2558.59	3627.27	892.97	3167.28	3187.69	16.21	-2.947	0.000	0.810
58.00	-22.65	-31.65	0.00	-2494.9	0.00	2494.92	3593.41	881.16	3084.04	3115.80	17.47	-3.070	0.000	0.808
60.00	-22.19	-31.46	0.00	-2431.6	0.00	2431.63	3559.18	869.34	3001.90	3044.38	18.78	-3.194	0.000	0.806
62.00	-21.73	-31.27	0.00	-2368.7	0.00	2368.71	3524.57	857.53	2920.88	2973.45	20.14	-3.320	0.000	0.804
64.00	-21.28	-31.09	0.00	-2306.1	0.00	2306.17	3489.59	845.72	2840.96	2903.01	21.56	-3.448	0.000	0.802
66.00	-20.83	-30.90	0.00	-2243.9	0.00	2243.99	3454.22	833.90	2762.15	2833.08	23.03	-3.577	0.000	0.799
68.00	-20.39	-30.72	0.00	-2182.1	0.00	2182.19	3418.47	822.09	2684.44	2763.67	24.56	-3.709	0.000	0.797
70.00	-19.95	-30.53	0.00	-2120.7	0.00	2120.75	3382.35	810.28	2607.85	2694.80	26.14	-3.842	0.000	0.794
72.00	-19.51	-30.35	0.00	-2059.6	0.00	2059.68	3345.84	798.46	2532.37	2626.49	27.78	-3.978	0.000	0.791
74.00	-19.08	-30.17	0.00	-1998.9	0.00	1998.98	3308.96	786.65	2457.99	2558.73	29.47	-4.115	0.000	0.788
76.00	-18.65	-29.99	0.00	-1938.6	0.00	1938.64	3271.70	774.84	2384.72	2491.55	31.23	-4.255	0.000	0.785
78.00	-18.23	-29.81	0.00	-1878.6	0.00	1878.66	3230.14	763.03	2312.56	2422.03	33.04	-4.396	0.000	0.783
80.00	-17.77	-29.38	0.00	-1818.5	0.00	1818.50	3180.13	751.21	2241.51	2347.24	34.91	-4.540	0.000	0.782
82.00	-17.35	-29.20	0.00	-1759.7	0.00	1759.75	3130.13	739.40	2171.57	2273.62	36.84	-4.685	0.000	0.781
84.00	-16.94	-29.02	0.00	-1701.3	0.00	1701.35	3080.12	727.59	2102.74	2201.18	38.83	-4.833	0.000	0.780
86.00	-16.54	-28.85	0.00	-1643.3	0.00	1643.31	3030.11	715.77	2035.01	2129.91	40.89	-4.983	0.000	0.779
88.00	-16.13	-28.67	0.00	-1585.6	0.00	1585.62	2980.10	703.96	1968.39	2059.81	43.01	-5.135	0.000	0.777

Calculated Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00	-15.73	-28.50	0.00	-1528.2	0.00	1528.27	2930.09	692.15	1902.89	1990.89	45.19	-5.289	0.000	0.775
92.00	-15.34	-28.33	0.00	-1471.2	0.00	1471.27	2880.09	680.34	1838.49	1923.14	47.43	-5.445	0.000	0.772
94.00	-14.95	-28.16	0.00	-1414.6	0.00	1414.62	2830.08	668.52	1775.20	1856.56	49.74	-5.603	0.000	0.769
96.00	-14.58	-27.98	0.00	-1358.3	0.00	1358.31	2780.07	656.71	1713.01	1791.15	52.12	-5.763	0.000	0.765
97.00	-14.38	-27.89	0.00	-1330.3	0.00	1330.33	2755.06	650.80	1682.34	1758.89	53.34	-5.844	0.000	0.763
98.00	-14.08	-27.81	0.00	-1302.4	0.00	1302.44	2730.06	644.90	1651.94	1726.92	54.57	-5.927	0.000	0.761
100.00	-13.53	-27.61	0.00	-1246.8	0.00	1246.83	2680.05	633.08	1591.98	1663.86	57.08	-6.091	0.000	0.756
101.00	-13.25	-27.51	0.00	-1219.2	0.00	1219.22	2260.99	534.61	1362.32	1425.54	58.36	-6.174	0.000	0.864
102.00	-13.05	-27.44	0.00	-1191.7	0.00	1191.71	2242.36	529.69	1337.35	1400.64	59.66	-6.259	0.000	0.859
104.00	-12.70	-27.28	0.00	-1136.8	0.00	1136.83	2200.69	519.85	1288.10	1348.81	62.32	-6.446	0.000	0.851
106.00	-12.36	-27.12	0.00	-1082.2	0.00	1082.26	2159.02	510.00	1239.78	1297.95	65.06	-6.635	0.000	0.842
108.00	-12.01	-26.96	0.00	-1028.0	0.00	1028.03	2117.34	500.16	1192.38	1248.07	67.87	-6.826	0.000	0.832
110.00	-11.65	-26.53	0.00	-973.53	0.00	973.53	2075.67	490.32	1145.90	1199.16	70.77	-7.018	0.000	0.820
112.00	-11.32	-26.37	0.00	-920.47	0.00	920.47	2034.00	480.47	1100.35	1151.23	73.74	-7.210	0.000	0.808
114.00	-10.99	-26.22	0.00	-867.73	0.00	867.73	1992.32	470.63	1055.73	1104.29	76.79	-7.403	0.000	0.794
116.00	-10.67	-26.07	0.00	-815.29	0.00	815.29	1950.65	460.78	1012.02	1058.31	79.93	-7.596	0.000	0.779
118.00	-10.35	-25.91	0.00	-763.16	0.00	763.16	1908.98	450.94	969.24	1013.32	83.14	-7.790	0.000	0.762
120.00	-10.03	-25.76	0.00	-711.33	0.00	711.33	1867.30	441.10	927.39	969.30	86.44	-7.982	0.000	0.743
122.00	-9.72	-25.61	0.00	-659.81	0.00	659.81	1825.63	431.25	886.45	926.26	89.81	-8.173	0.000	0.721
124.00	-9.42	-25.47	0.00	-608.58	0.00	608.58	1783.96	421.41	846.45	884.20	93.27	-8.363	0.000	0.697
126.00	-9.12	-25.32	0.00	-557.65	0.00	557.65	1742.28	411.56	807.36	843.12	96.80	-8.549	0.000	0.670
128.00	-8.83	-25.17	0.00	-507.02	0.00	507.02	1700.61	401.72	769.20	803.01	100.41	-8.732	0.000	0.641
130.00	-8.56	-25.02	0.00	-456.67	0.00	456.67	1658.94	391.87	731.96	763.88	104.09	-8.910	0.000	0.607
131.00	-7.69	-19.74	0.00	-431.65	0.00	431.65	1638.10	386.95	713.69	744.68	105.96	-8.999	0.000	0.587
132.00	-7.55	-19.67	0.00	-411.92	0.00	411.92	1617.26	382.03	695.65	725.73	107.84	-9.086	0.000	0.575
134.00	-7.32	-19.53	0.00	-372.57	0.00	372.57	1575.59	372.19	660.26	688.55	111.67	-9.254	0.000	0.548
136.00	-7.08	-19.39	0.00	-333.51	0.00	333.51	1533.91	362.34	625.80	652.35	115.57	-9.418	0.000	0.519
138.00	-6.86	-19.25	0.00	-294.73	0.00	294.73	1492.24	352.50	592.26	617.13	119.53	-9.576	0.000	0.485
140.00	-6.64	-19.12	0.00	-256.22	0.00	256.22	1450.57	342.65	559.64	582.89	123.55	-9.727	0.000	0.447
142.00	-6.47	-18.98	0.00	-217.98	0.00	217.98	1408.89	332.81	527.94	549.63	127.64	-9.868	0.000	0.404
142.50	-5.26	-14.19	0.00	-208.49	0.00	208.49	1398.48	330.35	520.17	541.46	128.67	-9.903	0.000	0.391
144.00	-5.13	-14.09	0.00	-187.21	0.00	187.21	1367.22	322.97	497.17	517.34	131.78	-10.001	0.000	0.368
146.00	-4.97	-13.96	0.00	-159.03	0.00	159.03	1325.55	313.12	467.33	486.03	135.98	-10.124	0.000	0.333
148.00	-4.82	-13.83	0.00	-131.12	0.00	131.12	1283.87	303.28	438.41	455.70	140.22	-10.238	0.000	0.294
148.25	-4.80	-13.81	0.00	-127.66	0.00	127.66	1278.66	302.05	434.86	451.97	140.76	-10.251	0.000	0.288
149.00	-3.29	-9.18	0.00	-112.94	0.00	112.94	1263.04	298.36	424.29	440.90	142.36	-10.291	0.000	0.260
150.00	-3.19	-9.11	0.00	-103.75	0.00	103.75	1242.20	293.43	410.41	426.34	144.51	-10.340	0.000	0.247
150.50	-3.13	-9.08	0.00	-99.20	0.00	99.20	761.18	179.81	256.83	268.82	145.59	-10.364	0.000	0.376
152.00	-3.06	-8.99	0.00	-85.58	0.00	85.58	742.42	175.38	244.33	255.67	148.84	-10.432	0.000	0.341
154.00	-2.97	-8.87	0.00	-67.61	0.00	67.61	717.42	169.47	228.15	238.65	153.21	-10.554	0.000	0.290
156.00	-2.88	-8.75	0.00	-49.87	0.00	49.87	692.41	163.56	212.53	222.21	157.63	-10.658	0.000	0.231
158.00	-2.80	-8.64	0.00	-32.37	0.00	32.37	667.41	157.66	197.45	206.36	162.09	-10.739	0.000	0.164
159.00	0.00	-7.96	0.00	-23.73	0.00	23.73	654.91	154.70	190.13	198.65	164.33	-10.770	0.000	0.122

Wind Loading - Shaft

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

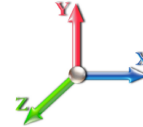


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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 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	5.059	5.56	0.00	1.200	0.529	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	5.059	5.56	0.00	1.200	0.590	2.00	10.000	12.00	66.8	86.1	645.5
4.00		1.00	0.85	5.059	5.56	0.00	1.200	0.621	2.00	9.915	11.90	66.2	89.8	643.7
6.00		1.00	0.85	5.059	5.56	0.00	1.200	0.642	2.00	9.826	11.79	65.6	92.0	640.4
8.00		1.00	0.85	5.059	5.56	0.00	1.200	0.659	2.00	9.736	11.68	65.0	93.4	636.4
10.00		1.00	0.85	5.059	5.56	0.00	1.200	0.672	2.00	9.645	11.57	64.4	94.4	631.8
12.00		1.00	0.85	5.059	5.56	0.00	1.200	0.683	2.00	9.553	11.46	63.8	95.0	627.0
14.00		1.00	0.85	5.059	5.56	0.00	1.200	0.693	2.00	9.460	11.35	63.2	95.4	621.9
16.00		1.00	0.87	5.187	5.71	0.00	1.200	0.702	2.00	9.367	11.24	64.1	95.7	616.6
18.00		1.00	0.89	5.310	5.84	0.00	1.200	0.710	2.00	9.274	11.13	65.0	95.7	611.2
20.00		1.00	0.91	5.423	5.97	0.00	1.200	0.717	2.00	9.181	11.02	65.7	95.7	605.6
22.00		1.00	0.93	5.528	6.08	0.00	1.200	0.723	2.00	9.088	10.91	66.3	95.6	600.0
24.00		1.00	0.95	5.626	6.19	0.00	1.200	0.729	2.00	8.994	10.79	66.8	95.3	594.3
26.00		1.00	0.96	5.718	6.29	0.00	1.200	0.735	2.00	8.900	10.68	67.2	95.0	588.5
28.00		1.00	0.98	5.804	6.38	0.00	1.200	0.740	2.00	8.806	10.57	67.5	94.7	582.6
30.00		1.00	0.99	5.887	6.48	0.00	1.200	0.745	2.00	8.712	10.45	67.7	94.3	576.7
32.00		1.00	1.00	5.965	6.56	0.00	1.200	0.750	2.00	8.618	10.34	67.8	93.8	570.8
34.00		1.00	1.01	6.039	6.64	0.00	1.200	0.754	2.00	8.524	10.23	67.9	93.3	564.8
36.00		1.00	1.03	6.110	6.72	0.00	1.200	0.759	2.00	8.429	10.12	68.0	92.8	558.7
38.00		1.00	1.04	6.178	6.80	0.00	1.200	0.763	2.00	8.335	10.00	68.0	92.2	552.6
40.00		1.00	1.05	6.243	6.87	0.00	1.200	0.766	2.00	8.240	9.89	67.9	91.6	546.5
42.00		1.00	1.06	6.306	6.94	0.00	1.200	0.770	2.00	8.146	9.78	67.8	90.9	540.4
44.00		1.00	1.07	6.367	7.00	0.00	1.200	0.774	2.00	8.051	9.66	67.7	90.2	534.2
46.00		1.00	1.08	6.426	7.07	0.00	1.200	0.777	2.00	7.957	9.55	67.5	89.5	528.0
47.00	Appurtenance(s)	1.00	1.08	6.454	7.10	0.00	1.200	0.779	1.00	3.943	4.73	33.6	44.6	261.8
47.50	Bot - Section 2	1.00	1.09	6.468	7.11	0.00	1.200	0.779	0.50	1.963	2.36	16.8	22.2	130.3
48.00		1.00	1.09	6.482	7.13	0.00	1.200	0.780	0.50	1.988	2.39	17.0	22.6	239.8
50.00		1.00	1.10	6.537	7.19	0.00	1.200	0.783	2.00	7.894	9.47	68.1	89.5	951.8
52.00		1.00	1.11	6.590	7.25	0.00	1.200	0.786	2.00	7.800	9.36	67.9	88.8	940.0
53.25	Top - Section 1	1.00	1.11	6.623	7.28	0.00	1.200	0.788	1.25	4.827	5.79	42.2	55.2	581.6
54.00		1.00	1.12	6.642	7.31	0.00	1.200	0.789	0.75	2.878	3.45	25.2	33.0	191.3
56.00		1.00	1.12	6.692	7.36	0.00	1.200	0.792	2.00	7.610	9.13	67.2	87.2	505.5
58.00		1.00	1.13	6.741	7.41	0.00	1.200	0.795	2.00	7.515	9.02	66.9	86.4	499.1
60.00		1.00	1.14	6.788	7.47	0.00	1.200	0.798	2.00	7.421	8.90	66.5	85.5	492.8
62.00		1.00	1.15	6.834	7.52	0.00	1.200	0.800	2.00	7.326	8.79	66.1	84.7	486.5
64.00		1.00	1.16	6.879	7.57	0.00	1.200	0.803	2.00	7.231	8.68	65.7	83.8	480.1
66.00		1.00	1.16	6.923	7.62	0.00	1.200	0.805	2.00	7.136	8.56	65.2	82.9	473.7
68.00		1.00	1.17	6.967	7.66	0.00	1.200	0.807	2.00	7.041	8.45	64.7	82.0	467.3
70.00		1.00	1.18	7.009	7.71	0.00	1.200	0.810	2.00	6.946	8.34	64.3	81.1	460.9
72.00		1.00	1.18	7.050	7.75	0.00	1.200	0.812	2.00	6.851	8.22	63.8	80.2	454.5
74.00		1.00	1.19	7.090	7.80	0.00	1.200	0.814	2.00	6.756	8.11	63.2	79.3	448.1
76.00		1.00	1.20	7.129	7.84	0.00	1.200	0.816	2.00	6.661	7.99	62.7	78.3	441.6
78.00		1.00	1.20	7.168	7.88	0.00	1.200	0.818	2.00	6.566	7.88	62.1	77.4	435.2
80.00	Appurtenance(s)	1.00	1.21	7.206	7.93	0.00	1.200	0.820	2.00	6.471	7.77	61.6	76.4	428.7
82.00		1.00	1.22	7.243	7.97	0.00	1.200	0.822	2.00	6.376	7.65	61.0	75.4	422.2
84.00		1.00	1.22	7.279	8.01	0.00	1.200	0.824	2.00	6.281	7.54	60.4	74.4	415.8
86.00		1.00	1.23	7.315	8.05	0.00	1.200	0.826	2.00	6.186	7.42	59.7	73.4	409.3

Wind Loading - Shaft

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00	1.00	1.23	7.350	8.08	0.00	1.200	0.828	2.00	6.091	7.31	59.1	72.4	402.8
90.00	1.00	1.24	7.384	8.12	0.00	1.200	0.830	2.00	5.996	7.20	58.4	71.4	396.3
92.00	1.00	1.25	7.418	8.16	0.00	1.200	0.832	2.00	5.901	7.08	57.8	70.4	389.7
94.00	1.00	1.25	7.452	8.20	0.00	1.200	0.834	2.00	5.806	6.97	57.1	69.4	383.2
96.00	1.00	1.26	7.484	8.23	0.00	1.200	0.835	2.00	5.711	6.85	56.4	68.3	376.7
97.00 Bot - Section 3	1.00	1.26	7.501	8.25	0.00	1.200	0.836	1.00	2.820	3.38	27.9	33.9	186.0
98.00	1.00	1.26	7.517	8.27	0.00	1.200	0.837	1.00	2.849	3.42	28.3	34.3	313.4
100.00	1.00	1.27	7.548	8.30	0.00	1.200	0.839	2.00	5.626	6.75	56.1	67.6	618.3
101.00 Top - Section 2	1.00	1.27	7.564	8.32	0.00	1.201 *	0.840	1.00	2.777	3.34	27.8	33.5	305.1
102.00	1.00	1.27	7.580	8.34	0.00	1.200	0.840	1.00	2.753	3.30	27.5	33.3	157.1
104.00	1.00	1.28	7.610	8.37	0.00	1.202 *	0.842	2.00	5.436	6.53	54.7	65.4	309.6
106.00	1.00	1.28	7.641	8.40	0.00	1.209 *	0.844	2.00	5.340	6.46	54.3	64.4	304.0
108.00	1.00	1.29	7.670	8.44	0.00	1.216 *	0.845	2.00	5.245	6.38	53.8	63.3	298.3
110.00 Appurtenance(s)	1.00	1.29	7.700	8.47	0.00	1.223 *	0.847	2.00	5.150	6.30	53.4	62.2	292.7
112.00	1.00	1.30	7.729	8.50	0.00	1.200	0.848	2.00	5.055	6.07	51.6	61.1	287.0
114.00	1.00	1.30	7.757	8.53	0.00	1.200	0.850	2.00	4.960	5.95	50.8	60.0	281.3
116.00	1.00	1.31	7.786	8.56	0.00	1.200	0.851	2.00	4.864	5.84	50.0	58.9	275.6
118.00	1.00	1.31	7.814	8.59	0.00	1.200	0.853	2.00	4.769	5.72	49.2	57.8	270.0
120.00	1.00	1.32	7.841	8.63	0.00	1.200	0.854	2.00	4.674	5.61	48.4	56.7	264.3
122.00	1.00	1.32	7.868	8.65	0.00	1.200	0.855	2.00	4.579	5.49	47.6	55.6	258.6
124.00	1.00	1.33	7.895	8.68	0.00	1.200	0.857	2.00	4.483	5.38	46.7	54.5	252.9
126.00	1.00	1.33	7.921	8.71	0.00	1.200	0.858	2.00	4.388	5.27	45.9	53.4	247.2
128.00	1.00	1.34	7.947	8.74	0.00	1.200	0.860	2.00	4.293	5.15	45.0	52.2	241.4
130.00	1.00	1.34	7.973	8.77	0.00	1.200	0.861	2.00	4.198	5.04	44.2	51.1	235.7
131.00 Appurtenance(s)	1.00	1.34	7.986	8.78	0.00	1.200	0.862	1.00	2.063	2.48	21.7	25.3	115.9
132.00	1.00	1.34	7.999	8.80	0.00	1.200	0.862	1.00	2.039	2.45	21.5	25.0	114.4
134.00	1.00	1.35	8.024	8.83	0.00	1.200	0.863	2.00	4.007	4.81	42.4	48.8	224.3
136.00	1.00	1.35	8.049	8.85	0.00	1.200	0.865	2.00	3.912	4.69	41.6	47.6	218.5
138.00	1.00	1.36	8.073	8.88	0.00	1.200	0.866	2.00	3.817	4.58	40.7	46.5	212.8
140.00	1.00	1.36	8.098	8.91	0.00	1.200	0.867	2.00	3.721	4.47	39.8	45.3	207.1
142.00	1.00	1.36	8.122	8.93	0.00	1.200	0.868	2.00	3.626	4.35	38.9	44.2	201.3
142.50 Appurtenance(s)	1.00	1.37	8.128	8.94	0.00	1.206 *	0.869	0.50	0.892	1.08	9.6	11.0	49.5
144.00	1.00	1.37	8.145	8.96	0.00	1.212 *	0.870	1.50	2.639	3.20	28.7	32.2	146.3
146.00	1.00	1.37	8.169	8.99	0.00	1.222 *	0.871	2.00	3.435	4.20	37.7	41.8	189.8
148.00	1.00	1.38	8.192	9.01	0.00	1.234 *	0.872	2.00	3.340	4.12	37.1	40.6	184.1
148.25 Bot - Section 4	1.00	1.38	8.195	9.01	0.00	1.241 *	0.872	0.25	0.411	0.51	4.6	5.1	22.7
149.00 Appurtenance(s)	1.00	1.38	8.204	9.02	0.00	1.244 *	0.873	0.75	1.247	1.55	14.0	15.3	100.1
150.00	1.00	1.38	8.215	9.04	0.00	1.250 *	0.873	1.00	1.642	2.05	18.5	20.1	131.5
150.50 Top - Section 3	1.00	1.38	8.221	9.04	0.00	1.255 *	0.873	0.50	0.812	1.02	9.2	10.0	65.0
152.00	1.00	1.38	8.238	9.06	0.00	1.252 *	0.874	1.50	2.401	3.01	27.2	29.3	91.3
154.00	1.00	1.39	8.261	9.09	0.00	1.265 *	0.875	2.00	3.118	3.94	35.8	37.9	118.1
156.00	1.00	1.39	8.283	9.11	0.00	1.280 *	0.877	2.00	3.022	3.87	35.2	36.7	114.2
158.00	1.00	1.40	8.305	9.14	0.00	1.296 *	0.878	2.00	2.927	3.79	34.6	35.5	110.3
159.00 Appurtenance(s)	1.00	1.40	8.316	9.15	0.00	1.308 *	0.878	1.00	1.428	1.87	17.1	17.5	53.8

* Cf Adjusted by Linear Load Ra Effect

Totals:	159.00	4,527.5	34,254.2
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Discrete Appurtenance Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

Dead Load Factor 1.20
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	159.00	Decibel DB404-B - Omni	1	8.349	9.183	1.00	1.00	0.00	30.80	0.000	3.000	0.00	0.00	0.00
2	159.00	Powerwave 7770	3	8.349	9.183	0.73	1.00	14.30	-592.98	0.000	3.000	131.34	0.00	394.01
3	159.00	DMP65R-BU6DA	3	8.349	9.183	0.72	1.00	29.04	528.62	0.000	3.000	266.73	0.00	800.20
4	159.00	Powerwave Technologies	6	8.349	9.183	0.50	1.00	5.13	134.41	0.000	3.000	47.13	0.00	141.38
5	159.00	4449 B5/B12	3	8.349	9.183	0.50	1.00	3.37	295.39	0.000	3.000	30.93	0.00	92.79
6	159.00	Raycap DC6-48-60-18-8F	3	8.349	9.183	0.50	1.00	1.71	164.25	0.000	3.000	15.71	0.00	47.13
7	159.00	Site Pro 1 -	1	8.349	9.183	1.00	1.00	65.87	3812.79	0.000	3.000	604.95	0.00	1814.86
8	159.00	RRUS 4478 B14	3	8.349	9.183	0.50	1.00	2.87	248.24	0.000	3.000	26.32	0.00	78.97
9	159.00	Quintel QS66512-2	3	8.349	9.183	0.92	1.00	24.18	713.46	0.000	3.000	222.08	0.00	666.24
10	159.00	Kaelus DBC0061F1V51-2	3	8.349	9.183	0.50	1.00	0.86	49.89	0.000	3.000	7.90	0.00	23.70
11	159.00	Ericsson RRUS 32 B30	3	8.349	9.183	0.50	1.00	4.64	333.60	0.000	3.000	42.61	0.00	127.83
12	159.00	Ericsson RRUS 32 B2	3	8.349	9.183	0.50	1.00	4.64	308.40	0.000	3.000	42.61	0.00	127.83
13	159.00	OPA65R-BU6DA	3	8.349	9.183	0.50	1.00	20.16	630.82	0.000	3.000	185.16	0.00	555.47
14	159.00	Site Pro 1 - HRK14	1	8.349	9.183	1.00	1.00	12.13	845.77	0.000	3.000	111.38	0.00	334.14
15	149.00	Alcatel Lucent - 800 MHz	3	8.227	9.049	0.50	0.75	4.62	238.44	0.000	2.000	41.77	0.00	83.54
16	149.00	RFS - APXVSP18-C-A20	3	8.227	9.049	0.62	0.75	17.47	781.24	0.000	2.000	158.09	0.00	316.18
17	149.00	Alcatel Lucent - 1900 MHz	3	8.227	9.049	0.50	0.75	6.78	228.55	0.000	2.000	61.32	0.00	122.64
18	149.00	SitePro HRK-12 Handrail	1	8.204	9.024	1.00	1.00	10.05	731.08	0.000	0.000	90.68	0.00	0.00
19	149.00	Alcatel Lucent - 800 MHz	3	8.227	9.049	0.50	0.75	1.66	43.14	0.000	2.000	15.05	0.00	30.11
20	149.00	RFS - ACU-A20-N - RET	4	8.227	9.049	0.50	0.75	0.58	8.19	0.000	2.000	5.24	0.00	10.49
21	149.00	Low Profile Platform	1	8.204	9.024	1.00	1.00	49.66	1663.56	0.000	0.000	448.14	0.00	0.00
22	149.00	Alcatel Lucent -	3	8.227	9.049	0.50	0.75	7.17	332.60	0.000	2.000	64.89	0.00	129.78
23	149.00	RFS - APXVTM14-C-I20 -	3	8.227	9.049	0.59	0.75	12.26	283.95	0.000	2.000	110.91	0.00	221.83
24	142.50	EMS - FR90-16-XXDP -	6	8.128	8.940	0.51	0.75	14.76	381.73	0.000	0.000	131.95	0.00	0.00
25	142.50	LP Platform w/ Handrails	1	8.128	8.940	1.00	1.00	48.77	2365.28	0.000	0.000	436.01	0.00	0.00
26	142.50	Andrew - ATSBT-TOP-FM	3	8.128	8.940	0.50	0.75	0.56	10.10	0.000	0.000	5.02	0.00	0.00
27	142.50	RFS -	3	8.128	8.940	0.46	0.75	10.73	220.83	0.000	0.000	95.96	0.00	0.00
28	142.50	RFS -	3	8.128	8.940	0.55	0.75	34.81	964.77	0.000	0.000	311.21	0.00	0.00
29	142.50	RFS -	3	8.128	8.940	0.50	0.75	2.35	91.21	0.000	0.000	21.02	0.00	0.00
30	131.00	Kathrein 742	3	7.986	8.785	0.58	0.80	6.19	155.63	0.000	0.000	54.39	0.00	0.00
31	131.00	Antel BXA-70063/6CF -	3	7.986	8.785	0.56	0.80	15.01	149.26	0.000	0.000	131.85	0.00	0.00
32	131.00	Antel BXA-171063-12BF -	3	7.986	8.785	0.67	0.80	11.89	112.99	0.000	0.000	104.48	0.00	0.00
33	131.00	Antel LPA-80063/6CF -	6	7.986	8.785	0.75	0.80	46.22	985.87	0.000	0.000	406.04	0.00	0.00
34	131.00	Alcatel Lucent	3	7.986	8.785	0.54	0.80	6.25	256.20	0.000	0.000	54.94	0.00	0.00
35	131.00	RFS FD9R6004/2C-3L -	6	7.986	8.785	0.54	0.80	1.86	32.29	0.000	0.000	16.35	0.00	0.00
36	131.00	RFS DB-T1-6Z-8AB-0Z -	1	7.986	8.785	1.00	1.00	5.22	87.39	0.000	0.000	45.82	0.00	0.00
37	131.00	Low Profile Platform	1	7.986	8.785	1.00	1.00	31.10	1656.91	0.000	0.000	273.18	0.00	0.00
38	110.00	4 ft. Standoff	1	7.700	8.470	1.00	1.00	7.38	85.26	0.000	0.000	62.49	0.00	0.00
39	110.00	Sinclair SCL329-HL -	1	7.779	8.557	1.00	1.00	4.14	24.47	0.000	5.550	35.44	0.00	196.71
40	80.00	Sinclair SCL329-HL -	1	7.307	8.038	1.00	1.00	4.08	23.57	0.000	5.550	32.81	0.00	182.10
41	80.00	4 ft Standoff	1	7.206	7.926	1.00	1.00	7.26	83.65	0.000	0.000	57.53	0.00	0.00
42	47.00	4 ft Standoff	1	6.454	7.099	1.00	1.00	7.07	81.08	0.000	0.000	50.17	0.00	0.00
43	47.00	Decibel 26DB - GPS	1	6.537	7.191	1.00	1.00	0.33	12.97	0.000	3.000	2.38	0.00	7.15

Totals: 19,595.70

5,060.01

Total Applied Force Summary

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

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		66.78	822.70	0.00	0.00
4.00		66.21	823.03	0.00	0.00
6.00		65.62	821.23	0.00	0.00
8.00		65.01	818.32	0.00	0.00
10.00		64.40	814.74	0.00	0.00
12.00		63.79	810.69	0.00	0.00
14.00		63.17	806.31	0.00	0.00
16.00		64.14	801.66	0.00	0.00
18.00		65.01	796.81	0.00	0.00
20.00		65.72	791.80	0.00	0.00
22.00		66.31	786.64	0.00	0.00
24.00		66.79	781.36	0.00	0.00
26.00		67.17	775.98	0.00	0.00
28.00		67.47	770.51	0.00	0.00
30.00		67.69	764.97	0.00	0.00
32.00		67.85	759.35	0.00	0.00
34.00		67.94	753.67	0.00	0.00
36.00		67.98	747.94	0.00	0.00
38.00		67.97	742.15	0.00	0.00
40.00		67.91	736.32	0.00	0.00
42.00		67.81	730.45	0.00	0.00
44.00		67.67	724.54	0.00	0.00
46.00		67.49	718.59	0.00	0.00
47.00	(2) attachments	86.14	451.17	0.00	7.15
47.50		16.76	178.01	0.00	0.00
48.00		17.01	287.56	0.00	0.00
50.00		68.12	1142.84	0.00	0.00
52.00		67.85	1128.55	0.00	0.00
53.25		42.19	699.54	0.00	0.00
54.00		25.23	262.04	0.00	0.00
56.00		67.22	694.39	0.00	0.00
58.00		66.87	688.26	0.00	0.00
60.00		66.49	682.11	0.00	0.00
62.00		66.09	675.94	0.00	0.00
64.00		65.66	669.76	0.00	0.00
66.00		65.22	663.55	0.00	0.00
68.00		64.75	657.32	0.00	0.00
70.00		64.26	651.08	0.00	0.00
72.00		63.75	644.82	0.00	0.00
74.00		63.23	638.55	0.00	0.00
76.00		62.69	632.26	0.00	0.00
78.00		62.13	625.95	0.00	0.00
80.00	(2) attachments	151.89	726.86	0.00	182.10
82.00		60.96	608.78	0.00	0.00
84.00		60.35	602.43	0.00	0.00
86.00		59.73	596.06	0.00	0.00

Total Applied Force Summary

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00		59.09	589.68	0.00	0.00
90.00		58.44	583.29	0.00	0.00
92.00		57.78	576.89	0.00	0.00
94.00		57.11	570.48	0.00	0.00
96.00		56.42	564.07	0.00	0.00
97.00		27.92	279.74	0.00	0.00
98.00		28.26	407.18	0.00	0.00
100.00		56.06	805.87	0.00	0.00
101.00		27.75	398.92	0.00	0.00
102.00		27.55	250.92	0.00	0.00
104.00		54.69	497.46	0.00	0.00
106.00		54.26	491.91	0.00	0.00
108.00		53.81	486.36	0.00	0.00
110.00	(2) attachments	151.30	590.53	0.00	196.71
112.00		51.57	470.55	0.00	0.00
114.00		50.79	464.96	0.00	0.00
116.00		49.99	459.37	0.00	0.00
118.00		49.19	453.77	0.00	0.00
120.00		48.38	448.16	0.00	0.00
122.00		47.55	442.55	0.00	0.00
124.00		46.72	436.93	0.00	0.00
126.00		45.88	431.30	0.00	0.00
128.00		45.04	425.67	0.00	0.00
130.00		44.18	420.03	0.00	0.00
131.00	(26) attachments	1108.81	3644.59	0.00	0.00
132.00		21.53	190.33	0.00	0.00
134.00		42.44	376.15	0.00	0.00
136.00		41.56	370.49	0.00	0.00
138.00		40.67	364.83	0.00	0.00
140.00		39.78	359.16	0.00	0.00
142.00		38.87	315.47	0.00	0.00
142.50	(19) attachments	1010.79	4112.00	0.00	0.00
144.00		28.65	231.92	0.00	0.00
146.00		37.71	304.11	0.00	0.00
148.00		37.13	298.43	0.00	0.00
148.25		4.59	36.96	0.00	0.00
149.00	(24) attachments	1010.10	4453.71	0.00	914.57
150.00		18.54	188.73	0.00	0.00
150.50		9.21	93.61	0.00	0.00
152.00		27.25	172.60	0.00	0.00
154.00		35.83	223.56	0.00	0.00
156.00		35.23	219.69	0.00	0.00
158.00		34.64	215.81	0.00	0.00
159.00	(39) attachments	1751.93	7610.06	0.00	5204.55
Totals:		9,587.52	67,836.38	0.00	6,505.07

Linear Appurtenance Segment Forces (Factored)

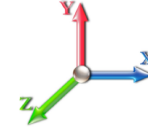
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

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	1 5/8"	Yes	2.00	0.000	2.00	0.53	0.00	0.064	0.000	5.059	0.00	60.47
2.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	5.059	0.00	1.90
2.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	5.059	0.00	19.95
2.00	7/8"	Yes	2.00	0.000	1.11	0.38	0.00	0.064	0.000	5.059	0.00	3.32
2.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	5.059	0.00	3.32
2.00	1/2"	Yes	2.00	0.000	0.65	0.31	0.00	0.064	0.000	5.059	0.00	1.90
4.00	1 5/8"	Yes	2.00	0.000	2.00	0.54	0.00	0.065	0.000	5.059	0.00	61.70
4.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	5.059	0.00	2.02
4.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	5.059	0.00	20.33
4.00	7/8"	Yes	2.00	0.000	1.11	0.39	0.00	0.065	0.000	5.059	0.00	3.47
4.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	5.059	0.00	3.47
4.00	1/2"	Yes	2.00	0.000	0.65	0.32	0.00	0.065	0.000	5.059	0.00	2.02
6.00	1 5/8"	Yes	2.00	0.000	2.00	0.55	0.00	0.065	0.000	5.059	0.00	62.55
6.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	5.059	0.00	2.11
6.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	5.059	0.00	20.60
6.00	7/8"	Yes	2.00	0.000	1.11	0.40	0.00	0.065	0.000	5.059	0.00	3.57
6.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	5.059	0.00	3.57
6.00	1/2"	Yes	2.00	0.000	0.65	0.32	0.00	0.065	0.000	5.059	0.00	2.11
8.00	1 5/8"	Yes	2.00	0.000	2.00	0.55	0.00	0.066	0.000	5.059	0.00	63.21
8.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	5.059	0.00	2.18
8.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	5.059	0.00	20.80
8.00	7/8"	Yes	2.00	0.000	1.11	0.40	0.00	0.066	0.000	5.059	0.00	3.65
8.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	5.059	0.00	3.65
8.00	1/2"	Yes	2.00	0.000	0.65	0.33	0.00	0.066	0.000	5.059	0.00	2.18
10.00	1 5/8"	Yes	2.00	0.000	2.00	0.56	0.00	0.067	0.000	5.059	0.00	63.74
10.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	5.059	0.00	2.24
10.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	5.059	0.00	20.97
10.00	7/8"	Yes	2.00	0.000	1.11	0.41	0.00	0.067	0.000	5.059	0.00	3.72
10.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	5.059	0.00	3.72
10.00	1/2"	Yes	2.00	0.000	0.65	0.33	0.00	0.067	0.000	5.059	0.00	2.24
12.00	1 5/8"	Yes	2.00	0.000	2.00	0.56	0.00	0.067	0.000	5.059	0.00	64.20
12.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	5.059	0.00	2.29
12.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	5.059	0.00	21.11
12.00	7/8"	Yes	2.00	0.000	1.11	0.41	0.00	0.067	0.000	5.059	0.00	3.77
12.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	5.059	0.00	3.77
12.00	1/2"	Yes	2.00	0.000	0.65	0.34	0.00	0.067	0.000	5.059	0.00	2.29
14.00	1 5/8"	Yes	2.00	0.000	2.00	0.56	0.00	0.068	0.000	5.059	0.00	64.60
14.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	5.059	0.00	2.33
14.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	5.059	0.00	21.24
14.00	7/8"	Yes	2.00	0.000	1.11	0.42	0.00	0.068	0.000	5.059	0.00	3.82
14.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	5.059	0.00	3.82
14.00	1/2"	Yes	2.00	0.000	0.65	0.34	0.00	0.068	0.000	5.059	0.00	2.33
16.00	1 5/8"	Yes	2.00	0.000	2.00	0.57	0.00	0.069	0.000	5.187	0.00	64.95
16.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	5.187	0.00	2.37
16.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	5.187	0.00	21.35
16.00	7/8"	Yes	2.00	0.000	1.11	0.42	0.00	0.069	0.000	5.187	0.00	3.87
16.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	5.187	0.00	3.87

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

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)
16.00	1/2"	Yes	2.00	0.000	0.65	0.34	0.00	0.069	0.000	5.187	0.00	2.37
18.00	1 5/8"	Yes	2.00	0.000	2.00	0.57	0.00	0.069	0.000	5.310	0.00	65.27
18.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	5.310	0.00	2.40
18.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	5.310	0.00	21.45
18.00	7/8"	Yes	2.00	0.000	1.11	0.42	0.00	0.069	0.000	5.310	0.00	3.91
18.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	5.310	0.00	3.91
18.00	1/2"	Yes	2.00	0.000	0.65	0.34	0.00	0.069	0.000	5.310	0.00	2.40
20.00	1 5/8"	Yes	2.00	0.000	2.00	0.57	0.00	0.070	0.000	5.423	0.00	65.56
20.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	5.423	0.00	2.43
20.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	5.423	0.00	21.54
20.00	7/8"	Yes	2.00	0.000	1.11	0.42	0.00	0.070	0.000	5.423	0.00	3.95
20.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	5.423	0.00	3.95
20.00	1/2"	Yes	2.00	0.000	0.65	0.35	0.00	0.070	0.000	5.423	0.00	2.43
22.00	1 5/8"	Yes	2.00	0.000	2.00	0.57	0.00	0.071	0.000	5.528	0.00	65.82
22.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	5.528	0.00	2.46
22.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	5.528	0.00	21.63
22.00	7/8"	Yes	2.00	0.000	1.11	0.43	0.00	0.071	0.000	5.528	0.00	3.98
22.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	5.528	0.00	3.98
22.00	1/2"	Yes	2.00	0.000	0.65	0.35	0.00	0.071	0.000	5.528	0.00	2.46
24.00	1 5/8"	Yes	2.00	0.000	2.00	0.58	0.00	0.072	0.000	5.626	0.00	66.07
24.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	5.626	0.00	2.49
24.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	5.626	0.00	21.70
24.00	7/8"	Yes	2.00	0.000	1.11	0.43	0.00	0.072	0.000	5.626	0.00	4.01
24.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	5.626	0.00	4.01
24.00	1/2"	Yes	2.00	0.000	0.65	0.35	0.00	0.072	0.000	5.626	0.00	2.49
26.00	1 5/8"	Yes	2.00	0.000	2.00	0.58	0.00	0.072	0.000	5.718	0.00	66.29
26.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	5.718	0.00	2.52
26.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	5.718	0.00	21.78
26.00	7/8"	Yes	2.00	0.000	1.11	0.43	0.00	0.072	0.000	5.718	0.00	4.04
26.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	5.718	0.00	4.04
26.00	1/2"	Yes	2.00	0.000	0.65	0.35	0.00	0.072	0.000	5.718	0.00	2.52
28.00	1 5/8"	Yes	2.00	0.000	2.00	0.58	0.00	0.073	0.000	5.804	0.00	66.51
28.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	5.804	0.00	2.54
28.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	5.804	0.00	21.84
28.00	7/8"	Yes	2.00	0.000	1.11	0.43	0.00	0.073	0.000	5.804	0.00	4.07
28.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	5.804	0.00	4.07
28.00	1/2"	Yes	2.00	0.000	0.65	0.36	0.00	0.073	0.000	5.804	0.00	2.54
30.00	1 5/8"	Yes	2.00	0.000	2.00	0.58	0.00	0.074	0.000	5.887	0.00	66.71
30.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	5.887	0.00	2.57
30.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	5.887	0.00	21.91
30.00	7/8"	Yes	2.00	0.000	1.11	0.43	0.00	0.074	0.000	5.887	0.00	4.10
30.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	5.887	0.00	4.10
30.00	1/2"	Yes	2.00	0.000	0.65	0.36	0.00	0.074	0.000	5.887	0.00	2.57
32.00	1 5/8"	Yes	2.00	0.000	2.00	0.58	0.00	0.075	0.000	5.965	0.00	66.90
32.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	5.965	0.00	2.59
32.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	5.965	0.00	21.97
32.00	7/8"	Yes	2.00	0.000	1.11	0.44	0.00	0.075	0.000	5.965	0.00	4.12

Linear Appurtenance Segment Forces (Factored)

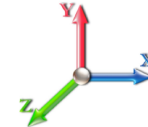
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

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)
32.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	5.965	0.00	4.12
32.00	1/2"	Yes	2.00	0.000	0.65	0.36	0.00	0.075	0.000	5.965	0.00	2.59
34.00	1 5/8"	Yes	2.00	0.000	2.00	0.58	0.00	0.076	0.000	6.039	0.00	67.08
34.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	6.039	0.00	2.61
34.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	6.039	0.00	22.03
34.00	7/8"	Yes	2.00	0.000	1.11	0.44	0.00	0.076	0.000	6.039	0.00	4.15
34.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	6.039	0.00	4.15
34.00	1/2"	Yes	2.00	0.000	0.65	0.36	0.00	0.076	0.000	6.039	0.00	2.61
36.00	1 5/8"	Yes	2.00	0.000	2.00	0.59	0.00	0.077	0.000	6.110	0.00	67.25
36.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	6.110	0.00	2.63
36.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	6.110	0.00	22.08
36.00	7/8"	Yes	2.00	0.000	1.11	0.44	0.00	0.077	0.000	6.110	0.00	4.17
36.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	6.110	0.00	4.17
36.00	1/2"	Yes	2.00	0.000	0.65	0.36	0.00	0.077	0.000	6.110	0.00	2.63
38.00	1 5/8"	Yes	2.00	0.000	2.00	0.59	0.00	0.078	0.000	6.178	0.00	67.41
38.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	6.178	0.00	2.65
38.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	6.178	0.00	22.13
38.00	7/8"	Yes	2.00	0.000	1.11	0.44	0.00	0.078	0.000	6.178	0.00	4.19
38.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	6.178	0.00	4.19
38.00	1/2"	Yes	2.00	0.000	0.65	0.36	0.00	0.078	0.000	6.178	0.00	2.65
40.00	1 5/8"	Yes	2.00	0.000	2.00	0.59	0.00	0.078	0.000	6.243	0.00	67.57
40.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	6.243	0.00	2.66
40.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	6.243	0.00	22.18
40.00	7/8"	Yes	2.00	0.000	1.11	0.44	0.00	0.078	0.000	6.243	0.00	4.21
40.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	6.243	0.00	4.21
40.00	1/2"	Yes	2.00	0.000	0.65	0.36	0.00	0.078	0.000	6.243	0.00	2.66
42.00	1 5/8"	Yes	2.00	0.000	2.00	0.59	0.00	0.079	0.000	6.306	0.00	67.72
42.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	6.306	0.00	2.68
42.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	6.306	0.00	22.23
42.00	7/8"	Yes	2.00	0.000	1.11	0.44	0.00	0.079	0.000	6.306	0.00	4.23
42.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	6.306	0.00	4.23
42.00	1/2"	Yes	2.00	0.000	0.65	0.37	0.00	0.079	0.000	6.306	0.00	2.68
44.00	1 5/8"	Yes	2.00	0.000	2.00	0.59	0.00	0.080	0.000	6.367	0.00	67.86
44.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	6.367	0.00	2.70
44.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	6.367	0.00	22.28
44.00	7/8"	Yes	2.00	0.000	1.11	0.44	0.00	0.080	0.000	6.367	0.00	4.25
44.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	6.367	0.00	4.25
44.00	1/2"	Yes	2.00	0.000	0.65	0.37	0.00	0.080	0.000	6.367	0.00	2.70
46.00	1 5/8"	Yes	2.00	0.000	2.00	0.59	0.00	0.081	0.000	6.426	0.00	68.00
46.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	6.426	0.00	2.72
46.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	6.426	0.00	22.32
46.00	7/8"	Yes	2.00	0.000	1.11	0.44	0.00	0.081	0.000	6.426	0.00	4.27
46.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	6.426	0.00	4.27
46.00	1/2"	Yes	2.00	0.000	0.65	0.37	0.00	0.081	0.000	6.426	0.00	2.72
47.00	1 5/8"	Yes	1.00	0.000	2.00	0.30	0.00	0.082	0.000	6.454	0.00	34.03
47.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	6.454	0.00	1.36
47.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	6.454	0.00	11.17

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

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)
47.00	7/8"	Yes	1.00	0.000	1.11	0.22	0.00	0.082	0.000	6.454	0.00	2.14
47.00	7/8"	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	6.454	0.00	2.14
47.00	1/2"	Yes	1.00	0.000	0.65	0.18	0.00	0.082	0.000	6.454	0.00	1.36
47.50	1 5/8"	Yes	0.50	0.000	2.00	0.15	0.00	0.083	0.000	6.468	0.00	17.02
47.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	6.468	0.00	0.68
47.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	6.468	0.00	5.59
47.50	7/8"	Yes	0.50	0.000	1.11	0.11	0.00	0.083	0.000	6.468	0.00	1.07
47.50	7/8"	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	6.468	0.00	1.07
47.50	1/2"	Yes	0.50	0.000	0.65	0.09	0.00	0.083	0.000	6.468	0.00	0.68
48.00	1 5/8"	Yes	0.50	0.000	2.00	0.15	0.00	0.083	0.000	6.482	0.00	17.03
48.00	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	6.482	0.00	0.68
48.00	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	6.482	0.00	5.59
48.00	7/8"	Yes	0.50	0.000	1.11	0.11	0.00	0.083	0.000	6.482	0.00	1.07
48.00	7/8"	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	6.482	0.00	1.07
48.00	1/2"	Yes	0.50	0.000	0.65	0.09	0.00	0.083	0.000	6.482	0.00	0.68
50.00	1 5/8"	Yes	2.00	0.000	2.00	0.59	0.00	0.083	0.000	6.537	0.00	68.26
50.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	6.537	0.00	2.75
50.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	6.537	0.00	22.41
50.00	7/8"	Yes	2.00	0.000	1.11	0.45	0.00	0.083	0.000	6.537	0.00	4.31
50.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	6.537	0.00	4.31
50.00	1/2"	Yes	2.00	0.000	0.65	0.37	0.00	0.083	0.000	6.537	0.00	2.75
52.00	1 5/8"	Yes	2.00	0.000	2.00	0.60	0.00	0.070	0.000	6.590	0.00	68.38
52.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	6.590	0.00	2.76
52.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	6.590	0.00	22.45
52.00	7/8"	Yes	2.00	0.000	1.11	0.45	0.00	0.070	0.000	6.590	0.00	4.32
52.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	6.590	0.00	4.32
53.25	1 5/8"	Yes	1.25	0.000	2.00	0.37	0.00	0.071	0.000	6.623	0.00	42.78
53.25	1/2" Fiber	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	6.623	0.00	1.73
53.25	2" Conduit	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	6.623	0.00	14.04
53.25	7/8"	Yes	1.25	0.000	1.11	0.28	0.00	0.071	0.000	6.623	0.00	2.71
53.25	7/8"	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	6.623	0.00	2.71
54.00	1 5/8"	Yes	0.75	0.000	2.00	0.22	0.00	0.070	0.000	6.642	0.00	25.69
54.00	1/2" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	6.642	0.00	1.04
54.00	2" Conduit	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	6.642	0.00	8.43
54.00	7/8"	Yes	0.75	0.000	1.11	0.17	0.00	0.070	0.000	6.642	0.00	1.63
54.00	7/8"	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	6.642	0.00	1.63
56.00	1 5/8"	Yes	2.00	0.000	2.00	0.60	0.00	0.071	0.000	6.692	0.00	68.61
56.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	6.692	0.00	2.79
56.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	6.692	0.00	22.52
56.00	7/8"	Yes	2.00	0.000	1.11	0.45	0.00	0.071	0.000	6.692	0.00	4.35
56.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	6.692	0.00	4.35
58.00	1 5/8"	Yes	2.00	0.000	2.00	0.60	0.00	0.071	0.000	6.741	0.00	68.73
58.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	6.741	0.00	2.80
58.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	6.741	0.00	22.56
58.00	7/8"	Yes	2.00	0.000	1.11	0.45	0.00	0.071	0.000	6.741	0.00	4.37
58.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	6.741	0.00	4.37
60.00	1 5/8"	Yes	2.00	0.000	2.00	0.60	0.00	0.072	0.000	6.788	0.00	68.83

Linear Appurtenance Segment Forces (Factored)

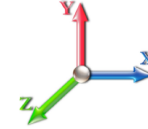
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

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)
60.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	6.788	0.00	2.82
60.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	6.788	0.00	22.59
60.00	7/8"	Yes	2.00	0.000	1.11	0.45	0.00	0.072	0.000	6.788	0.00	4.38
60.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	6.788	0.00	4.38
62.00	1 5/8"	Yes	2.00	0.000	2.00	0.60	0.00	0.073	0.000	6.834	0.00	68.94
62.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	6.834	0.00	2.83
62.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	6.834	0.00	22.63
62.00	7/8"	Yes	2.00	0.000	1.11	0.45	0.00	0.073	0.000	6.834	0.00	4.40
62.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	6.834	0.00	4.40
64.00	1 5/8"	Yes	2.00	0.000	2.00	0.60	0.00	0.074	0.000	6.879	0.00	69.04
64.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	6.879	0.00	2.84
64.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	6.879	0.00	22.66
64.00	7/8"	Yes	2.00	0.000	1.11	0.45	0.00	0.074	0.000	6.879	0.00	4.41
64.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	6.879	0.00	4.41
66.00	1 5/8"	Yes	2.00	0.000	2.00	0.60	0.00	0.075	0.000	6.923	0.00	69.14
66.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	6.923	0.00	2.85
66.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	6.923	0.00	22.69
66.00	7/8"	Yes	2.00	0.000	1.11	0.45	0.00	0.075	0.000	6.923	0.00	4.43
66.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	6.923	0.00	4.43
68.00	1 5/8"	Yes	2.00	0.000	2.00	0.60	0.00	0.077	0.000	6.967	0.00	69.24
68.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	6.967	0.00	2.86
68.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	6.967	0.00	22.72
68.00	7/8"	Yes	2.00	0.000	1.11	0.45	0.00	0.077	0.000	6.967	0.00	4.44
68.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	6.967	0.00	4.44
70.00	1 5/8"	Yes	2.00	0.000	2.00	0.60	0.00	0.078	0.000	7.009	0.00	69.33
70.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	7.009	0.00	2.88
70.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	7.009	0.00	22.75
70.00	7/8"	Yes	2.00	0.000	1.11	0.45	0.00	0.078	0.000	7.009	0.00	4.45
70.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	7.009	0.00	4.45
72.00	1 5/8"	Yes	2.00	0.000	2.00	0.60	0.00	0.079	0.000	7.050	0.00	69.43
72.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	7.050	0.00	2.89
72.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	7.050	0.00	22.78
72.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.079	0.000	7.050	0.00	4.47
72.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	7.050	0.00	4.47
74.00	1 5/8"	Yes	2.00	0.000	2.00	0.60	0.00	0.080	0.000	7.090	0.00	69.52
74.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	7.090	0.00	2.90
74.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	7.090	0.00	22.81
74.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.080	0.000	7.090	0.00	4.48
74.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	7.090	0.00	4.48
76.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.081	0.000	7.129	0.00	69.60
76.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	7.129	0.00	2.91
76.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	7.129	0.00	22.84
76.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.081	0.000	7.129	0.00	4.49
76.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	7.129	0.00	4.49
78.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.082	0.000	7.168	0.00	69.69
78.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	7.168	0.00	2.92
78.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	7.168	0.00	22.87

Linear Appurtenance Segment Forces (Factored)

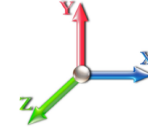
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

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)
78.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.082	0.000	7.168	0.00	4.50
78.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	7.168	0.00	4.50
80.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.084	0.000	7.206	0.00	69.77
80.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	7.206	0.00	2.93
80.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	7.206	0.00	22.90
80.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.084	0.000	7.206	0.00	4.52
80.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	7.206	0.00	4.52
82.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.085	0.000	7.243	0.00	69.86
82.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	7.243	0.00	2.94
82.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	7.243	0.00	22.92
82.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.085	0.000	7.243	0.00	4.53
84.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.086	0.000	7.279	0.00	69.94
84.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	7.279	0.00	2.95
84.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	7.279	0.00	22.95
84.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.086	0.000	7.279	0.00	4.54
86.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.088	0.000	7.315	0.00	70.01
86.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.088	0.000	7.315	0.00	2.96
86.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.088	0.000	7.315	0.00	22.98
86.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.088	0.000	7.315	0.00	4.55
88.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.089	0.000	7.350	0.00	70.09
88.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	7.350	0.00	2.97
88.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	7.350	0.00	23.00
88.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.089	0.000	7.350	0.00	4.56
90.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.091	0.000	7.384	0.00	70.17
90.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	7.384	0.00	2.98
90.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	7.384	0.00	23.03
90.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.091	0.000	7.384	0.00	4.57
92.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.092	0.000	7.418	0.00	70.24
92.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	7.418	0.00	2.99
92.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	7.418	0.00	23.05
92.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.092	0.000	7.418	0.00	4.58
94.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.094	0.000	7.452	0.00	70.31
94.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	7.452	0.00	3.00
94.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	7.452	0.00	23.07
94.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.094	0.000	7.452	0.00	4.59
96.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.095	0.000	7.484	0.00	70.39
96.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.095	0.000	7.484	0.00	3.00
96.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.095	0.000	7.484	0.00	23.10
96.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.095	0.000	7.484	0.00	4.60
97.00	1 5/8"	Yes	1.00	0.000	2.00	0.31	0.00	0.097	0.000	7.501	0.00	35.21
97.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	7.501	0.00	1.50
97.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	7.501	0.00	11.55
97.00	7/8"	Yes	1.00	0.000	1.11	0.23	0.00	0.097	0.000	7.501	0.00	2.30
98.00	1 5/8"	Yes	1.00	0.000	2.00	0.31	0.00	0.098	0.000	7.517	0.00	35.23
98.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	7.517	0.00	1.51
98.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	7.517	0.00	11.56
98.00	7/8"	Yes	1.00	0.000	1.11	0.23	0.00	0.098	0.000	7.517	0.00	2.31

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

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)
100.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.099	0.000	7.548	0.00	70.52
100.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.099	0.000	7.548	0.00	3.02
100.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.099	0.000	7.548	0.00	23.14
100.00	7/8"	Yes	2.00	0.000	1.11	0.46	0.00	0.099	0.000	7.548	0.00	4.62
101.00	1 5/8"	Yes	1.00	0.000	2.00	0.31	0.00	0.100	1.001	7.564	0.00	35.28
101.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.100	1.001	7.564	0.00	1.51
101.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.100	1.001	7.564	0.00	11.58
101.00	7/8"	Yes	1.00	0.000	1.11	0.23	0.00	0.100	1.001	7.564	0.00	2.31
102.00	1 5/8"	Yes	1.00	0.000	2.00	0.31	0.00	0.099	0.000	7.580	0.00	35.30
102.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.099	0.000	7.580	0.00	1.52
102.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.099	0.000	7.580	0.00	11.58
102.00	7/8"	Yes	1.00	0.000	1.11	0.23	0.00	0.099	0.000	7.580	0.00	2.32
104.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.101	1.002	7.610	0.00	70.66
104.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.101	1.002	7.610	0.00	3.04
104.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.101	1.002	7.610	0.00	23.19
104.00	7/8"	Yes	2.00	0.000	1.11	0.47	0.00	0.101	1.002	7.610	0.00	4.64
106.00	1 5/8"	Yes	2.00	0.000	2.00	0.61	0.00	0.102	1.007	7.641	0.00	70.72
106.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.102	1.007	7.641	0.00	3.05
106.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.102	1.007	7.641	0.00	23.21
106.00	7/8"	Yes	2.00	0.000	1.11	0.47	0.00	0.102	1.007	7.641	0.00	4.65
108.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.104	1.013	7.670	0.00	70.79
108.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.104	1.013	7.670	0.00	3.05
108.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.104	1.013	7.670	0.00	23.23
108.00	7/8"	Yes	2.00	0.000	1.11	0.47	0.00	0.104	1.013	7.670	0.00	4.66
110.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.106	1.019	7.700	0.00	70.85
110.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.019	7.700	0.00	3.06
110.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.019	7.700	0.00	23.25
110.00	7/8"	Yes	2.00	0.000	1.11	0.47	0.00	0.106	1.019	7.700	0.00	4.67
112.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.070	0.000	7.729	0.00	70.91
112.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	7.729	0.00	3.07
112.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	7.729	0.00	23.27
114.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.071	0.000	7.757	0.00	70.97
114.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	7.757	0.00	3.08
114.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	7.757	0.00	23.29
116.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.073	0.000	7.786	0.00	71.03
116.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	7.786	0.00	3.09
116.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	7.786	0.00	23.31
118.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.074	0.000	7.814	0.00	71.09
118.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	7.814	0.00	3.09
118.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	7.814	0.00	23.33
120.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.076	0.000	7.841	0.00	71.15
120.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	7.841	0.00	3.10
120.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	7.841	0.00	23.35
122.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.078	0.000	7.868	0.00	71.21
122.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	7.868	0.00	3.11
122.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	7.868	0.00	23.37
124.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.079	0.000	7.895	0.00	71.27

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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

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)
124.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	7.895	0.00	3.11
124.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	7.895	0.00	23.39
126.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.081	0.000	7.921	0.00	71.32
126.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	7.921	0.00	3.12
126.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	7.921	0.00	23.40
128.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.083	0.000	7.947	0.00	71.38
128.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	7.947	0.00	3.13
128.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	7.947	0.00	23.42
130.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.085	0.000	7.973	0.00	71.43
130.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	7.973	0.00	3.14
130.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	7.973	0.00	23.44
131.00	1 5/8"	Yes	1.00	0.000	2.00	0.31	0.00	0.087	0.000	7.986	0.00	35.73
131.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.087	0.000	7.986	0.00	1.57
131.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.087	0.000	7.986	0.00	11.72
132.00	1 5/8"	Yes	1.00	0.000	2.00	0.31	0.00	0.088	0.000	7.999	0.00	35.74
132.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.088	0.000	7.999	0.00	1.57
132.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.088	0.000	7.999	0.00	11.73
134.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.090	0.000	8.024	0.00	71.54
134.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	8.024	0.00	3.15
134.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	8.024	0.00	23.48
136.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.092	0.000	8.049	0.00	71.59
136.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	8.049	0.00	3.16
136.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	8.049	0.00	23.49
138.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.094	0.000	8.073	0.00	71.64
138.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	8.073	0.00	3.16
138.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	8.073	0.00	23.51
140.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.097	0.000	8.098	0.00	71.69
140.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.097	0.000	8.098	0.00	3.17
140.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.097	0.000	8.098	0.00	23.53
142.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.100	0.000	8.122	0.00	71.75
142.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.100	0.000	8.122	0.00	3.18
142.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.100	0.000	8.122	0.00	23.54
142.50	1 5/8"	Yes	0.50	0.000	2.00	0.16	0.00	0.102	1.005	8.128	0.00	17.94
142.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.102	1.005	8.128	0.00	0.79
142.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.102	1.005	8.128	0.00	5.89
144.00	1 5/8"	Yes	1.50	0.000	2.00	0.47	0.00	0.103	1.010	8.145	0.00	53.85
144.00	1/2" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.103	1.010	8.145	0.00	2.39
144.00	2" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	0.103	1.010	8.145	0.00	17.67
146.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.106	1.018	8.169	0.00	71.84
146.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.018	8.169	0.00	3.19
146.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.018	8.169	0.00	23.58
148.00	1 5/8"	Yes	2.00	0.000	2.00	0.62	0.00	0.109	1.028	8.192	0.00	71.89
148.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.109	1.028	8.192	0.00	3.19
148.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.109	1.028	8.192	0.00	23.59
148.25	1 5/8"	Yes	0.25	0.000	2.00	0.08	0.00	0.111	1.034	8.195	0.00	8.99
148.25	1/2" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.111	1.034	8.195	0.00	0.40
148.25	2" Conduit	Yes	0.25	0.000	0.00	0.00	0.00	0.111	1.034	8.195	0.00	2.95

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



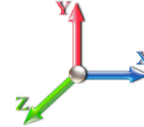
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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind

Iterations 29

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)
149.00	1 5/8"	Yes	0.75	0.000	2.00	0.23	0.00	0.112	1.037	8.204	0.00	26.97
149.00	1/2" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.112	1.037	8.204	0.00	1.20
149.00	2" Conduit	Yes	0.75	0.000	0.00	0.00	0.00	0.112	1.037	8.204	0.00	8.85
150.00	1 5/8"	Yes	1.00	0.000	2.00	0.31	0.00	0.114	1.041	8.215	0.00	35.97
150.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	8.215	0.00	1.60
150.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	8.215	0.00	11.80
150.50	1 5/8"	Yes	0.50	0.000	2.00	0.16	0.00	0.115	1.046	8.221	0.00	17.99
150.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.046	8.221	0.00	0.80
150.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.046	8.221	0.00	5.90
152.00	1 5/8"	Yes	1.50	0.000	2.00	0.47	0.00	0.115	1.044	8.238	0.00	53.99
152.00	1/2" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.115	1.044	8.238	0.00	2.40
152.00	2" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	0.115	1.044	8.238	0.00	17.72
154.00	1 5/8"	Yes	2.00	0.000	2.00	0.63	0.00	0.118	1.054	8.261	0.00	72.03
154.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.054	8.261	0.00	3.21
154.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.054	8.261	0.00	23.64
156.00	1 5/8"	Yes	2.00	0.000	2.00	0.63	0.00	0.122	1.066	8.283	0.00	72.08
156.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	8.283	0.00	3.22
156.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	8.283	0.00	23.65
158.00	1 5/8"	Yes	2.00	0.000	2.00	0.63	0.00	0.127	1.080	8.305	0.00	72.13
158.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	8.305	0.00	3.22
158.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	8.305	0.00	23.67
159.00	1 5/8"	Yes	1.00	0.000	2.00	0.31	0.00	0.130	1.090	8.316	0.00	36.07
159.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.130	1.090	8.316	0.00	1.61
159.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.130	1.090	8.316	0.00	11.84
Totals:											0.0	7,980.2

Calculated Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0Di + 1.0Wi 50 mph Wind	Iterations 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	-67.83	-9.60	0.00	-1160.0	0.00	1160.07	4390.37	1208.07	5796.90	5231.64	0.00	0.000	0.000	0.237
2.00	-67.01	-9.56	0.00	-1140.8	0.00	1140.87	4366.62	1196.25	5684.08	5152.14	0.00	-0.023	0.000	0.237
4.00	-66.18	-9.52	0.00	-1121.7	0.00	1121.75	4342.50	1184.44	5572.38	5072.75	0.02	-0.045	0.000	0.236
6.00	-65.36	-9.48	0.00	-1102.7	0.00	1102.71	4318.00	1172.63	5461.78	4993.49	0.04	-0.068	0.000	0.236
8.00	-64.53	-9.44	0.00	-1083.7	0.00	1083.75	4293.12	1160.81	5352.29	4914.37	0.08	-0.092	0.000	0.236
10.00	-63.72	-9.40	0.00	-1064.8	0.00	1064.87	4267.86	1149.00	5243.91	4835.41	0.12	-0.115	0.000	0.235
12.00	-62.90	-9.36	0.00	-1046.0	0.00	1046.07	4242.22	1137.19	5136.64	4756.61	0.17	-0.139	0.000	0.235
14.00	-62.09	-9.32	0.00	-1027.3	0.00	1027.34	4216.20	1125.37	5030.48	4677.99	0.24	-0.164	0.000	0.234
16.00	-61.29	-9.28	0.00	-1008.7	0.00	1008.70	4189.80	1113.56	4925.42	4599.57	0.31	-0.188	0.000	0.234
18.00	-60.48	-9.24	0.00	-990.13	0.00	990.13	4163.03	1101.75	4821.48	4521.36	0.40	-0.213	0.000	0.234
20.00	-59.69	-9.20	0.00	-971.65	0.00	971.65	4135.87	1089.94	4718.64	4443.36	0.49	-0.239	0.000	0.233
22.00	-58.90	-9.16	0.00	-953.25	0.00	953.25	4108.34	1078.12	4616.91	4365.60	0.60	-0.264	0.000	0.233
24.00	-58.11	-9.11	0.00	-934.94	0.00	934.94	4080.43	1066.31	4516.29	4288.09	0.71	-0.290	0.000	0.232
26.00	-57.33	-9.07	0.00	-916.72	0.00	916.72	4052.14	1054.50	4416.78	4210.84	0.84	-0.317	0.000	0.232
28.00	-56.56	-9.02	0.00	-898.58	0.00	898.58	4023.46	1042.68	4318.37	4133.86	0.98	-0.343	0.000	0.232
30.00	-55.79	-8.98	0.00	-880.54	0.00	880.54	3994.42	1030.87	4221.08	4057.17	1.13	-0.370	0.000	0.231
32.00	-55.03	-8.93	0.00	-862.59	0.00	862.59	3964.99	1019.06	4124.89	3980.79	1.29	-0.398	0.000	0.231
34.00	-54.27	-8.88	0.00	-844.73	0.00	844.73	3935.18	1007.24	4029.81	3904.71	1.46	-0.426	0.000	0.230
36.00	-53.52	-8.84	0.00	-826.96	0.00	826.96	3904.99	995.43	3935.85	3828.97	1.65	-0.454	0.000	0.230
38.00	-52.77	-8.79	0.00	-809.29	0.00	809.29	3874.43	983.62	3842.99	3753.56	1.84	-0.482	0.000	0.229
40.00	-52.03	-8.74	0.00	-791.72	0.00	791.72	3843.48	971.81	3751.23	3678.51	2.05	-0.511	0.000	0.229
42.00	-51.30	-8.69	0.00	-774.24	0.00	774.24	3812.16	959.99	3660.59	3603.83	2.27	-0.541	0.000	0.228
44.00	-50.57	-8.64	0.00	-756.85	0.00	756.85	3780.46	948.18	3571.06	3529.52	2.51	-0.571	0.000	0.228
46.00	-49.85	-8.59	0.00	-739.56	0.00	739.56	3748.38	936.37	3482.63	3455.62	2.75	-0.601	0.000	0.227
47.00	-49.40	-8.51	0.00	-730.97	0.00	730.97	3732.20	930.46	3438.83	3418.81	2.88	-0.616	0.000	0.227
47.50	-49.22	-8.50	0.00	-726.71	0.00	726.71	3724.07	927.51	3417.04	3400.45	2.94	-0.624	0.000	0.227
48.00	-48.93	-8.49	0.00	-722.47	0.00	722.47	3715.92	924.55	3395.31	3382.11	3.01	-0.632	0.000	0.227
50.00	-47.78	-8.44	0.00	-705.48	0.00	705.48	3683.08	912.74	3309.10	3309.03	3.28	-0.663	0.000	0.226
52.00	-46.65	-8.38	0.00	-688.60	0.00	688.60	3649.86	900.93	3224.00	3236.39	3.57	-0.695	0.000	0.226
53.25	-45.95	-8.34	0.00	-678.13	0.00	678.13	3673.19	909.21	3283.56	3287.28	3.75	-0.715	0.000	0.219
54.00	-45.68	-8.33	0.00	-671.88	0.00	671.88	3660.74	904.78	3251.64	3260.04	3.86	-0.727	0.000	0.219
56.00	-44.98	-8.28	0.00	-655.22	0.00	655.22	3627.27	892.97	3167.28	3187.69	4.18	-0.758	0.000	0.218
58.00	-44.29	-8.23	0.00	-638.67	0.00	638.67	3593.41	881.16	3084.04	3115.80	4.50	-0.789	0.000	0.217
60.00	-43.61	-8.17	0.00	-622.22	0.00	622.22	3559.18	869.34	3001.90	3044.38	4.84	-0.821	0.000	0.217
62.00	-42.93	-8.12	0.00	-605.87	0.00	605.87	3524.57	857.53	2920.88	2973.45	5.19	-0.853	0.000	0.216
64.00	-42.25	-8.07	0.00	-589.63	0.00	589.63	3489.59	845.72	2840.96	2903.01	5.55	-0.886	0.000	0.215
66.00	-41.59	-8.02	0.00	-573.49	0.00	573.49	3454.22	833.90	2762.15	2833.08	5.93	-0.919	0.000	0.215
68.00	-40.93	-7.97	0.00	-557.45	0.00	557.45	3418.47	822.09	2684.44	2763.67	6.32	-0.953	0.000	0.214
70.00	-40.27	-7.92	0.00	-541.51	0.00	541.51	3382.35	810.28	2607.85	2694.80	6.73	-0.987	0.000	0.213
72.00	-39.62	-7.87	0.00	-525.68	0.00	525.68	3345.84	798.46	2532.37	2626.49	7.15	-1.022	0.000	0.212
74.00	-38.98	-7.81	0.00	-509.95	0.00	509.95	3308.96	786.65	2457.99	2558.73	7.59	-1.057	0.000	0.211
76.00	-38.35	-7.76	0.00	-494.32	0.00	494.32	3271.70	774.84	2384.72	2491.55	8.04	-1.092	0.000	0.210
78.00	-37.72	-7.71	0.00	-478.79	0.00	478.79	3230.14	763.03	2312.56	2422.03	8.50	-1.128	0.000	0.209
80.00	-36.99	-7.57	0.00	-463.19	0.00	463.19	3180.13	751.21	2241.51	2347.24	8.98	-1.165	0.000	0.209
82.00	-36.38	-7.52	0.00	-448.04	0.00	448.04	3130.13	739.40	2171.57	2273.62	9.48	-1.202	0.000	0.209
84.00	-35.77	-7.47	0.00	-433.00	0.00	433.00	3080.12	727.59	2102.74	2201.18	9.99	-1.240	0.000	0.208
86.00	-35.17	-7.42	0.00	-418.06	0.00	418.06	3030.11	715.77	2035.01	2129.91	10.52	-1.278	0.000	0.208
88.00	-34.58	-7.37	0.00	-403.21	0.00	403.21	2980.10	703.96	1968.39	2059.81	11.06	-1.316	0.000	0.207

Calculated Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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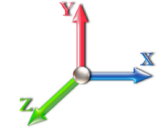
90.00	-33.99	-7.33	0.00	-388.47	0.00	388.47	2930.09	692.15	1902.89	1990.89	11.62	-1.355	0.000	0.207
92.00	-33.41	-7.28	0.00	-373.82	0.00	373.82	2880.09	680.34	1838.49	1923.14	12.20	-1.395	0.000	0.206
94.00	-32.84	-7.23	0.00	-359.26	0.00	359.26	2830.08	668.52	1775.20	1856.56	12.79	-1.435	0.000	0.205
96.00	-32.27	-7.18	0.00	-344.81	0.00	344.81	2780.07	656.71	1713.01	1791.15	13.40	-1.476	0.000	0.204
97.00	-31.99	-7.15	0.00	-337.63	0.00	337.63	2755.06	650.80	1682.34	1758.89	13.71	-1.497	0.000	0.204
98.00	-31.58	-7.13	0.00	-330.48	0.00	330.48	2730.06	644.90	1651.94	1726.92	14.03	-1.517	0.000	0.203
100.00	-30.77	-7.07	0.00	-316.22	0.00	316.22	2680.05	633.08	1591.98	1663.86	14.67	-1.559	0.000	0.202
101.00	-30.37	-7.04	0.00	-309.15	0.00	309.15	2260.99	534.61	1362.32	1425.54	15.00	-1.580	0.000	0.230
102.00	-30.11	-7.03	0.00	-302.11	0.00	302.11	2242.36	529.69	1337.35	1400.64	15.33	-1.602	0.000	0.229
104.00	-29.61	-6.98	0.00	-288.06	0.00	288.06	2200.69	519.85	1288.10	1348.81	16.02	-1.649	0.000	0.227
106.00	-29.12	-6.94	0.00	-274.10	0.00	274.10	2159.02	510.00	1239.78	1297.95	16.72	-1.697	0.000	0.225
108.00	-28.63	-6.89	0.00	-260.22	0.00	260.22	2117.34	500.16	1192.38	1248.07	17.44	-1.745	0.000	0.222
110.00	-28.04	-6.75	0.00	-246.24	0.00	246.24	2075.67	490.32	1145.90	1199.16	18.18	-1.794	0.000	0.219
112.00	-27.56	-6.70	0.00	-232.75	0.00	232.75	2034.00	480.47	1100.35	1151.23	18.94	-1.842	0.000	0.216
114.00	-27.09	-6.66	0.00	-219.34	0.00	219.34	1992.32	470.63	1055.73	1104.29	19.72	-1.891	0.000	0.212
116.00	-26.63	-6.62	0.00	-206.02	0.00	206.02	1950.65	460.78	1012.02	1058.31	20.53	-1.940	0.000	0.209
118.00	-26.17	-6.58	0.00	-192.78	0.00	192.78	1908.98	450.94	969.24	1013.32	21.35	-1.989	0.000	0.204
120.00	-25.72	-6.53	0.00	-179.62	0.00	179.62	1867.30	441.10	927.39	969.30	22.19	-2.038	0.000	0.199
122.00	-25.27	-6.49	0.00	-166.56	0.00	166.56	1825.63	431.25	886.45	926.26	23.06	-2.086	0.000	0.194
124.00	-24.83	-6.45	0.00	-153.57	0.00	153.57	1783.96	421.41	846.45	884.20	23.94	-2.134	0.000	0.188
126.00	-24.40	-6.41	0.00	-140.67	0.00	140.67	1742.28	411.56	807.36	843.12	24.85	-2.181	0.000	0.181
128.00	-23.97	-6.37	0.00	-127.86	0.00	127.86	1700.61	401.72	769.20	803.01	25.77	-2.227	0.000	0.174
130.00	-23.55	-6.32	0.00	-115.13	0.00	115.13	1658.94	391.87	731.96	763.88	26.71	-2.272	0.000	0.165
131.00	-19.95	-5.07	0.00	-108.81	0.00	108.81	1638.10	386.95	713.69	744.68	27.19	-2.294	0.000	0.158
132.00	-19.76	-5.05	0.00	-103.74	0.00	103.74	1617.26	382.03	695.65	725.73	27.67	-2.316	0.000	0.155
134.00	-19.38	-5.01	0.00	-93.63	0.00	93.63	1575.59	372.19	660.26	688.55	28.65	-2.358	0.000	0.148
136.00	-19.01	-4.97	0.00	-83.61	0.00	83.61	1533.91	362.34	625.80	652.35	29.65	-2.400	0.000	0.141
138.00	-18.64	-4.92	0.00	-73.67	0.00	73.67	1492.24	352.50	592.26	617.13	30.66	-2.439	0.000	0.132
140.00	-18.28	-4.88	0.00	-63.82	0.00	63.82	1450.57	342.65	559.64	582.89	31.69	-2.477	0.000	0.122
142.00	-17.97	-4.84	0.00	-54.06	0.00	54.06	1408.89	332.81	527.94	549.63	32.74	-2.512	0.000	0.111
142.50	-13.90	-3.65	0.00	-51.64	0.00	51.64	1398.48	330.35	520.17	541.46	33.00	-2.520	0.000	0.105
144.00	-13.67	-3.62	0.00	-46.17	0.00	46.17	1367.22	322.97	497.17	517.34	33.80	-2.545	0.000	0.099
146.00	-13.37	-3.57	0.00	-38.94	0.00	38.94	1325.55	313.12	467.33	486.03	34.87	-2.575	0.000	0.090
148.00	-13.07	-3.52	0.00	-31.80	0.00	31.80	1283.87	303.28	438.41	455.70	35.95	-2.603	0.000	0.080
148.25	-13.03	-3.52	0.00	-30.92	0.00	30.92	1278.66	302.05	434.86	451.97	36.09	-2.606	0.000	0.079
149.00	-8.63	-2.31	0.00	-27.36	0.00	27.36	1263.04	298.36	424.29	440.90	36.50	-2.616	0.000	0.069
150.00	-8.44	-2.28	0.00	-25.05	0.00	25.05	1242.20	293.43	410.41	426.34	37.05	-2.627	0.000	0.066
150.50	-8.35	-2.27	0.00	-23.91	0.00	23.91	761.18	179.81	256.83	268.82	37.32	-2.633	0.000	0.100
152.00	-8.17	-2.24	0.00	-20.50	0.00	20.50	742.42	175.38	244.33	255.67	38.15	-2.649	0.000	0.091
154.00	-7.95	-2.20	0.00	-16.02	0.00	16.02	717.42	169.47	228.15	238.65	39.27	-2.679	0.000	0.078
156.00	-7.73	-2.16	0.00	-11.63	0.00	11.63	692.41	163.56	212.53	222.21	40.40	-2.703	0.000	0.064
158.00	-7.52	-2.11	0.00	-7.32	0.00	7.32	667.41	157.66	197.45	206.36	41.53	-2.722	0.000	0.047
159.00	0.00	-1.75	0.00	-5.20	0.00	5.20	654.91	154.70	190.13	198.65	42.11	-2.729	0.000	0.026

Seismic Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0Ev + 1.0Eh							Iterations 26
Gust Response Factor	1.10			Sds	0.22	Ss	0.20
Dead Load Factor	1.20	Seismic Load Factor	1.00	Sd1	0.09	S1	0.05
Wind Load Factor	0.00	Structure Frequency (f1)	0.33	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		597.28	1.00	25.99	0.00	
4.00		592.70	3.00	25.79	0.00	
6.00		588.11	5.00	25.59	0.01	
8.00		583.53	7.00	25.40	0.01	
10.00		578.95	9.00	25.20	0.02	
12.00		574.37	11.00	25.00	0.03	
14.00		569.79	13.00	24.80	0.04	
16.00		565.21	15.00	24.60	0.05	
18.00		560.63	17.00	24.40	0.06	
20.00		556.05	19.00	24.20	0.08	
22.00		551.47	21.00	24.00	0.09	
24.00		546.89	23.00	23.80	0.11	
26.00		542.31	25.00	23.60	0.13	
28.00		537.73	27.00	23.40	0.14	
30.00		533.14	29.00	23.20	0.16	
32.00		528.56	31.00	23.00	0.18	
34.00		523.98	33.00	22.80	0.21	
36.00		519.40	35.00	22.60	0.23	
38.00		514.82	37.00	22.41	0.25	
40.00		510.24	39.00	22.21	0.27	
42.00		505.66	41.00	22.01	0.30	
44.00		501.08	43.00	21.81	0.32	
46.00		496.50	45.00	21.61	0.34	
47.00	Appurtenance(s)	309.85	46.50	13.48	0.14	
47.50	Bot - Section 2	122.84	47.25	5.35	0.02	
48.00		213.84	47.75	9.31	0.07	
50.00		849.65	49.00	36.98	1.19	
52.00		840.10	51.00	36.56	1.26	
53.25	Top - Section 1	520.41	52.63	22.65	0.52	
54.00		180.91	53.63	7.87	0.06	
56.00		479.28	55.00	20.86	0.48	
58.00		474.70	57.00	20.66	0.50	
60.00		470.12	59.00	20.46	0.53	
62.00		465.54	61.00	20.26	0.55	
64.00		460.96	63.00	20.06	0.58	
66.00		456.38	65.00	19.86	0.60	
68.00		451.80	67.00	19.66	0.63	
70.00		447.22	69.00	19.46	0.65	
72.00		442.64	71.00	19.26	0.68	
74.00		438.06	73.00	19.06	0.70	
76.00		433.48	75.00	18.86	0.73	
78.00		428.90	77.00	18.67	0.75	
80.00	Appurtenance(s)	488.03	79.00	21.24	1.02	
82.00		418.49	81.00	18.21	0.79	
84.00		413.91	83.00	18.01	0.81	

Seismic Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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86.00		409.32	85.00	17.81	0.83
88.00		404.74	87.00	17.61	0.85
90.00		400.16	89.00	17.42	0.87
92.00		395.58	91.00	17.22	0.89
94.00		391.00	93.00	17.02	0.91
96.00		386.42	95.00	16.82	0.93
97.00	Bot - Section 3	191.49	96.50	8.33	0.23
98.00		297.34	97.50	12.94	0.58
100.00		588.39	99.00	25.61	2.33
101.00	Top - Section 2	291.05	100.50	12.67	0.59
102.00		167.91	101.50	7.31	0.20
104.00		332.97	103.00	14.49	0.81
106.00		329.15	105.00	14.32	0.82
108.00		325.33	107.00	14.16	0.83
110.00	Appurtenance(s)	385.23	109.00	16.77	1.21
112.00		316.45	111.00	13.77	0.85
114.00		312.63	113.00	13.61	0.86
116.00		308.81	115.00	13.44	0.87
118.00		305.00	117.00	13.27	0.88
120.00		301.18	119.00	13.11	0.88
122.00		297.36	121.00	12.94	0.89
124.00		293.54	123.00	12.78	0.90
126.00		289.73	125.00	12.61	0.90
128.00		285.91	127.00	12.44	0.91
130.00		282.09	129.00	12.28	0.91
131.00	Appurtenance(s)	1849.6	130.50	80.50	40.04
132.00		122.36	131.50	5.33	0.18
134.00		241.87	133.00	10.53	0.71
136.00		238.05	135.00	10.36	0.71
138.00		234.23	137.00	10.19	0.71
140.00		230.41	139.00	10.03	0.71
142.00		188.58	141.00	8.21	0.49
142.50	Appurtenance(s)	2233.8	142.25	97.21	69.40
144.00		138.21	143.25	6.02	0.27
146.00		180.95	145.00	7.87	0.47
148.00		177.13	147.00	7.71	0.47
148.25	Bot - Section 4	21.87	148.13	0.95	0.01
149.00	Appurtenance(s)	2571.3	148.63	111.90	100.38
150.00		121.61	149.50	5.29	0.23
150.50	Top - Section 3	60.23	150.25	2.62	0.06
152.00		90.28	151.25	3.93	0.13
154.00		115.32	153.00	5.02	0.21
156.00		113.03	155.00	4.92	0.21
158.00		110.74	157.00	4.82	0.21
159.00	Appurtenance(s)	4850.0	158.50	211.08	406.17
Totals:		44,564.0		1,939.4	659.8

Total Wind: 36,759.6

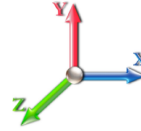
Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0Ev + 1.0Eh		Iterations 26
Gust Response Factor 1.10	Sds 0.22	Ss 0.20
Dead Load Factor 1.20	Seismic Load Factor 1.00	S1 0.05
Wind Load Factor 0.00	Structure Frequency (f1) 0.33	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	-53.52	-0.66	0.00	-106.16	0.00	106.16	4390.37	1208.07	5796.90	5231.64	0.00	0.00	0.00	0.032
2.00	-52.81	-0.66	0.00	-104.84	0.00	104.84	4366.62	1196.25	5684.08	5152.14	0.00	0.00	0.00	0.032
4.00	-52.10	-0.66	0.00	-103.52	0.00	103.52	4342.50	1184.44	5572.38	5072.75	0.00	0.00	0.00	0.032
6.00	-51.39	-0.67	0.00	-102.19	0.00	102.19	4318.00	1172.63	5461.78	4993.49	0.00	0.00	-0.01	0.032
8.00	-50.69	-0.67	0.00	-100.86	0.00	100.86	4293.12	1160.81	5352.29	4914.37	0.01	0.01	-0.01	0.032
10.00	-50.00	-0.67	0.00	-99.53	0.00	99.53	4267.86	1149.00	5243.91	4835.41	0.01	0.01	-0.01	0.032
12.00	-49.31	-0.67	0.00	-98.19	0.00	98.19	4242.22	1137.19	5136.64	4756.61	0.02	0.02	-0.01	0.032
14.00	-48.63	-0.67	0.00	-96.85	0.00	96.85	4216.20	1125.37	5030.48	4677.99	0.02	0.02	-0.02	0.032
16.00	-47.95	-0.67	0.00	-95.51	0.00	95.51	4189.80	1113.56	4925.42	4599.57	0.03	0.03	-0.02	0.032
18.00	-47.28	-0.68	0.00	-94.16	0.00	94.16	4163.03	1101.75	4821.48	4521.36	0.04	0.04	-0.02	0.032
20.00	-46.61	-0.68	0.00	-92.81	0.00	92.81	4135.87	1089.94	4718.64	4443.36	0.05	0.05	-0.02	0.032
22.00	-45.95	-0.68	0.00	-91.45	0.00	91.45	4108.34	1078.12	4616.91	4365.60	0.06	0.06	-0.02	0.032
24.00	-45.30	-0.68	0.00	-90.09	0.00	90.09	4080.43	1066.31	4516.29	4288.09	0.07	0.07	-0.03	0.032
26.00	-44.65	-0.68	0.00	-88.73	0.00	88.73	4052.14	1054.50	4416.78	4210.84	0.08	0.08	-0.03	0.032
28.00	-44.01	-0.68	0.00	-87.37	0.00	87.37	4023.46	1042.68	4318.37	4133.86	0.09	0.09	-0.03	0.032
30.00	-43.37	-0.69	0.00	-86.00	0.00	86.00	3994.42	1030.87	4221.08	4057.17	0.11	0.11	-0.04	0.032
32.00	-42.74	-0.69	0.00	-84.63	0.00	84.63	3964.99	1019.06	4124.89	3980.79	0.12	0.12	-0.04	0.032
34.00	-42.12	-0.69	0.00	-83.26	0.00	83.26	3935.18	1007.24	4029.81	3904.71	0.14	0.14	-0.04	0.032
36.00	-41.50	-0.69	0.00	-81.88	0.00	81.88	3904.99	995.43	3935.85	3828.97	0.15	0.15	-0.04	0.032
38.00	-40.88	-0.69	0.00	-80.50	0.00	80.50	3874.43	983.62	3842.99	3753.56	0.17	0.17	-0.05	0.032
40.00	-40.27	-0.69	0.00	-79.12	0.00	79.12	3843.48	971.81	3751.23	3678.51	0.19	0.19	-0.05	0.032
42.00	-39.67	-0.69	0.00	-77.74	0.00	77.74	3812.16	959.99	3660.59	3603.83	0.21	0.21	-0.05	0.032
44.00	-39.07	-0.69	0.00	-76.35	0.00	76.35	3780.46	948.18	3571.06	3529.52	0.24	0.24	-0.05	0.032
46.00	-38.48	-0.69	0.00	-74.96	0.00	74.96	3748.38	936.37	3482.63	3455.62	0.26	0.26	-0.06	0.032
47.00	-38.11	-0.70	0.00	-74.27	0.00	74.27	3732.20	930.46	3438.83	3418.81	0.27	0.27	-0.06	0.032
47.50	-37.97	-0.70	0.00	-73.92	0.00	73.92	3724.07	927.51	3417.04	3400.45	0.28	0.28	-0.06	0.032
48.00	-37.71	-0.70	0.00	-73.57	0.00	73.57	3715.92	924.55	3395.31	3382.11	0.29	0.29	-0.06	0.032
50.00	-36.68	-0.70	0.00	-72.18	0.00	72.18	3683.08	912.74	3309.10	3309.03	0.31	0.31	-0.06	0.032
52.00	-35.66	-0.70	0.00	-70.79	0.00	70.79	3649.86	900.93	3224.00	3236.39	0.34	0.34	-0.07	0.032
53.25	-35.03	-0.70	0.00	-69.92	0.00	69.92	3673.19	909.21	3283.56	3287.28	0.36	0.36	-0.07	0.031
54.00	-34.81	-0.70	0.00	-69.40	0.00	69.40	3660.74	904.78	3251.64	3260.04	0.37	0.37	-0.07	0.031
56.00	-34.24	-0.70	0.00	-68.01	0.00	68.01	3627.27	892.97	3167.28	3187.69	0.40	0.40	-0.07	0.031
58.00	-33.68	-0.70	0.00	-66.61	0.00	66.61	3593.41	881.16	3084.04	3115.80	0.43	0.43	-0.08	0.031
60.00	-33.12	-0.70	0.00	-65.22	0.00	65.22	3559.18	869.34	3001.90	3044.38	0.46	0.46	-0.08	0.031
62.00	-32.57	-0.70	0.00	-63.82	0.00	63.82	3524.57	857.53	2920.88	2973.45	0.50	0.50	-0.08	0.031
64.00	-32.02	-0.70	0.00	-62.42	0.00	62.42	3489.59	845.72	2840.96	2903.01	0.53	0.53	-0.09	0.031
66.00	-31.48	-0.70	0.00	-61.02	0.00	61.02	3454.22	833.90	2762.15	2833.08	0.57	0.57	-0.09	0.031
68.00	-30.94	-0.70	0.00	-59.62	0.00	59.62	3418.47	822.09	2684.44	2763.67	0.61	0.61	-0.09	0.031
70.00	-30.41	-0.70	0.00	-58.22	0.00	58.22	3382.35	810.28	2607.85	2694.80	0.65	0.65	-0.10	0.031
72.00	-29.89	-0.70	0.00	-56.82	0.00	56.82	3345.84	798.46	2532.37	2626.49	0.69	0.69	-0.10	0.031
74.00	-29.37	-0.70	0.00	-55.42	0.00	55.42	3308.96	786.65	2457.99	2558.73	0.74	0.74	-0.11	0.031
76.00	-28.86	-0.70	0.00	-54.01	0.00	54.01	3271.70	774.84	2384.72	2491.55	0.78	0.78	-0.11	0.030
78.00	-28.35	-0.70	0.00	-52.61	0.00	52.61	3230.14	763.03	2312.56	2422.03	0.83	0.83	-0.11	0.030
80.00	-27.77	-0.70	0.00	-51.21	0.00	51.21	3180.13	751.21	2241.51	2347.24	0.88	0.88	-0.12	0.031
82.00	-27.27	-0.70	0.00	-49.80	0.00	49.80	3130.13	739.40	2171.57	2273.62	0.93	0.93	-0.12	0.031
84.00	-26.78	-0.70	0.00	-48.40	0.00	48.40	3080.12	727.59	2102.74	2201.18	0.98	0.98	-0.13	0.031
86.00	-26.30	-0.70	0.00	-46.99	0.00	46.99	3030.11	715.77	2035.01	2129.91	1.03	1.03	-0.13	0.031

Calculated Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00	-25.82	-0.70	0.00	-45.59	0.00	45.59	2980.10	703.96	1968.39	2059.81	1.09	-0.13	0.031
90.00	-25.35	-0.70	0.00	-44.18	0.00	44.18	2930.09	692.15	1902.89	1990.89	1.15	-0.14	0.031
92.00	-24.89	-0.70	0.00	-42.78	0.00	42.78	2880.09	680.34	1838.49	1923.14	1.20	-0.14	0.031
94.00	-24.42	-0.70	0.00	-41.37	0.00	41.37	2830.08	668.52	1775.20	1856.56	1.27	-0.15	0.031
96.00	-23.97	-0.70	0.00	-39.97	0.00	39.97	2780.07	656.71	1713.01	1791.15	1.33	-0.15	0.031
97.00	-23.75	-0.70	0.00	-39.27	0.00	39.27	2755.06	650.80	1682.34	1758.89	1.36	-0.16	0.031
98.00	-23.39	-0.70	0.00	-38.57	0.00	38.57	2730.06	644.90	1651.94	1726.92	1.39	-0.16	0.031
100.00	-22.68	-0.70	0.00	-37.16	0.00	37.16	2680.05	633.08	1591.98	1663.86	1.46	-0.16	0.031
101.00	-22.33	-0.70	0.00	-36.46	0.00	36.46	2260.99	534.61	1362.32	1425.54	1.50	-0.17	0.035
102.00	-22.14	-0.70	0.00	-35.77	0.00	35.77	2242.36	529.69	1337.35	1400.64	1.53	-0.17	0.035
104.00	-21.75	-0.70	0.00	-34.37	0.00	34.37	2200.69	519.85	1288.10	1348.81	1.60	-0.17	0.035
106.00	-21.37	-0.70	0.00	-32.97	0.00	32.97	2159.02	510.00	1239.78	1297.95	1.68	-0.18	0.035
108.00	-20.99	-0.70	0.00	-31.57	0.00	31.57	2117.34	500.16	1192.38	1248.07	1.75	-0.18	0.035
110.00	-20.53	-0.70	0.00	-30.17	0.00	30.17	2075.67	490.32	1145.90	1199.16	1.83	-0.19	0.035
112.00	-20.17	-0.70	0.00	-28.77	0.00	28.77	2034.00	480.47	1100.35	1151.23	1.91	-0.20	0.035
114.00	-19.80	-0.70	0.00	-27.37	0.00	27.37	1992.32	470.63	1055.73	1104.29	2.00	-0.20	0.035
116.00	-19.44	-0.70	0.00	-25.98	0.00	25.98	1950.65	460.78	1012.02	1058.31	2.08	-0.21	0.035
118.00	-19.09	-0.70	0.00	-24.58	0.00	24.58	1908.98	450.94	969.24	1013.32	2.17	-0.22	0.034
120.00	-18.74	-0.70	0.00	-23.18	0.00	23.18	1867.30	441.10	927.39	969.30	2.26	-0.22	0.034
122.00	-18.40	-0.70	0.00	-21.78	0.00	21.78	1825.63	431.25	886.45	926.26	2.36	-0.23	0.034
124.00	-18.06	-0.70	0.00	-20.38	0.00	20.38	1783.96	421.41	846.45	884.20	2.45	-0.23	0.033
126.00	-17.72	-0.70	0.00	-18.99	0.00	18.99	1742.28	411.56	807.36	843.12	2.55	-0.24	0.033
128.00	-17.39	-0.70	0.00	-17.59	0.00	17.59	1700.61	401.72	769.20	803.01	2.65	-0.25	0.032
130.00	-17.07	-0.70	0.00	-16.20	0.00	16.20	1658.94	391.87	731.96	763.88	2.76	-0.25	0.031
131.00	-14.78	-0.65	0.00	-15.50	0.00	15.50	1638.10	386.95	713.69	744.68	2.81	-0.26	0.030
132.00	-14.64	-0.65	0.00	-14.85	0.00	14.85	1617.26	382.03	695.65	725.73	2.87	-0.26	0.030
134.00	-14.36	-0.65	0.00	-13.56	0.00	13.56	1575.59	372.19	660.26	688.55	2.98	-0.27	0.029
136.00	-14.08	-0.65	0.00	-12.26	0.00	12.26	1533.91	362.34	625.80	652.35	3.09	-0.27	0.028
138.00	-13.81	-0.65	0.00	-10.97	0.00	10.97	1492.24	352.50	592.26	617.13	3.20	-0.28	0.027
140.00	-13.54	-0.65	0.00	-9.67	0.00	9.67	1450.57	342.65	559.64	582.89	3.32	-0.28	0.026
142.00	-13.32	-0.64	0.00	-8.38	0.00	8.38	1408.89	332.81	527.94	549.63	3.44	-0.29	0.025
142.50	-10.54	-0.56	0.00	-8.06	0.00	8.06	1398.48	330.35	520.17	541.46	3.47	-0.29	0.022
144.00	-10.38	-0.56	0.00	-7.22	0.00	7.22	1367.22	322.97	497.17	517.34	3.56	-0.29	0.022
146.00	-10.17	-0.56	0.00	-6.09	0.00	6.09	1325.55	313.12	467.33	486.03	3.69	-0.30	0.020
148.00	-9.96	-0.56	0.00	-4.97	0.00	4.97	1283.87	303.28	438.41	455.70	3.81	-0.30	0.019
148.25	-9.93	-0.56	0.00	-4.83	0.00	4.83	1278.66	302.05	434.86	451.97	3.83	-0.30	0.018
149.00	-6.74	-0.44	0.00	-4.41	0.00	4.41	1263.04	298.36	424.29	440.90	3.88	-0.30	0.015
150.00	-6.59	-0.44	0.00	-3.97	0.00	3.97	1242.20	293.43	410.41	426.34	3.94	-0.31	0.015
150.50	-6.52	-0.44	0.00	-3.75	0.00	3.75	761.18	179.81	256.83	268.82	3.97	-0.31	0.023
152.00	-6.42	-0.44	0.00	-3.09	0.00	3.09	742.42	175.38	244.33	255.67	4.07	-0.31	0.021
154.00	-6.28	-0.44	0.00	-2.20	0.00	2.20	717.42	169.47	228.15	238.65	4.20	-0.31	0.018
156.00	-6.15	-0.44	0.00	-1.32	0.00	1.32	692.41	163.56	212.53	222.21	4.33	-0.32	0.015
158.00	-6.02	-0.44	0.00	-0.44	0.00	0.44	667.41	157.66	197.45	206.36	4.46	-0.32	0.011
159.00	0.00	-0.41	0.00	0.00	0.00	0.00	654.91	154.70	190.13	198.65	4.53	-0.32	0.000

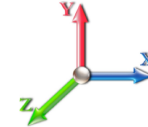
Seismic Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0Ev + 1.0Eh				Iterations 25
Gust Response Factor	1.10	Sds	0.22	Ss 0.20
Dead Load Factor	0.90	Seismic Load Factor	1.00	S1 0.05
Wind Load Factor	0.00	Structure Frequency (f1)	0.33	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		564.50	1.00	24.57	0.00	
4.00		559.92	3.00	24.37	0.00	
6.00		555.34	5.00	24.17	0.01	
8.00		550.76	7.00	23.97	0.01	
10.00		546.18	9.00	23.77	0.02	
12.00		541.60	11.00	23.57	0.02	
14.00		537.02	13.00	23.37	0.03	
16.00		532.44	15.00	23.17	0.04	
18.00		527.85	17.00	22.97	0.06	
20.00		523.27	19.00	22.77	0.07	
22.00		518.69	21.00	22.57	0.08	
24.00		514.11	23.00	22.37	0.10	
26.00		509.53	25.00	22.17	0.11	
28.00		504.95	27.00	21.98	0.13	
30.00		500.37	29.00	21.78	0.15	
32.00		495.79	31.00	21.58	0.16	
34.00		491.21	33.00	21.38	0.18	
36.00		486.63	35.00	21.18	0.20	
38.00		482.05	37.00	20.98	0.22	
40.00		477.47	39.00	20.78	0.24	
42.00		472.88	41.00	20.58	0.26	
44.00		468.30	43.00	20.38	0.28	
46.00		463.72	45.00	20.18	0.30	
47.00	Appurtenance(s)	293.46	46.50	12.77	0.13	
47.50	Bot - Section 2	114.64	47.25	4.99	0.02	
48.00		205.65	47.75	8.95	0.07	
50.00		816.87	49.00	35.55	1.12	
52.00		807.42	51.00	35.14	1.18	
53.25	Top - Section 1	499.99	52.63	21.76	0.48	
54.00		168.66	53.63	7.34	0.06	
56.00		446.61	55.00	19.44	0.42	
58.00		442.02	57.00	19.24	0.44	
60.00		437.44	59.00	19.04	0.46	
62.00		432.86	61.00	18.84	0.49	
64.00		428.28	63.00	18.64	0.51	
66.00		423.70	65.00	18.44	0.53	
68.00		419.12	67.00	18.24	0.55	
70.00		414.54	69.00	18.04	0.57	
72.00		409.96	71.00	17.84	0.59	
74.00		405.38	73.00	17.64	0.61	
76.00		400.80	75.00	17.44	0.63	
78.00		396.22	77.00	17.24	0.65	
80.00	Appurtenance(s)	455.36	79.00	19.82	0.90	
82.00		386.12	81.00	16.80	0.68	
84.00		381.54	83.00	16.60	0.70	

Seismic Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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86.00		376.96	85.00	16.41	0.72
88.00		372.38	87.00	16.21	0.73
90.00		367.80	89.00	16.01	0.75
92.00		363.21	91.00	15.81	0.76
94.00		358.63	93.00	15.61	0.78
96.00		354.05	95.00	15.41	0.79
97.00	Bot - Section 3	175.31	96.50	7.63	0.20
98.00		281.16	97.50	12.24	0.52
100.00		556.02	99.00	24.20	2.11
101.00	Top - Section 2	274.86	100.50	11.96	0.53
102.00		151.73	101.50	6.60	0.17
104.00		300.60	103.00	13.08	0.67
106.00		296.78	105.00	12.92	0.68
108.00		292.96	107.00	12.75	0.68
110.00	Appurtenance(s)	352.87	109.00	15.36	1.03
112.00		284.39	111.00	12.38	0.69
114.00		280.58	113.00	12.21	0.70
116.00		276.76	115.00	12.04	0.71
118.00		272.94	117.00	11.88	0.71
120.00		269.12	119.00	11.71	0.71
122.00		265.31	121.00	11.55	0.72
124.00		261.49	123.00	11.38	0.72
126.00		257.67	125.00	11.21	0.72
128.00		253.85	127.00	11.05	0.72
130.00		250.04	129.00	10.88	0.73
131.00	Appurtenance(s)	1833.5	130.50	79.80	39.90
132.00		110.41	131.50	4.81	0.15
134.00		217.96	133.00	9.49	0.59
136.00		214.14	135.00	9.32	0.58
138.00		210.32	137.00	9.15	0.58
140.00		206.51	139.00	8.99	0.57
142.00		174.18	141.00	7.58	0.42
142.50	Appurtenance(s)	2230.2	142.25	97.06	70.14
144.00		127.41	143.25	5.54	0.23
146.00		166.54	145.00	7.25	0.41
148.00		162.72	147.00	7.08	0.40
148.25	Bot - Section 4	20.07	148.13	0.87	0.01
149.00	Appurtenance(s)	2565.9	148.63	111.67	101.36
150.00		114.41	149.50	4.98	0.20
150.50	Top - Section 3	56.63	150.25	2.46	0.05
152.00		80.62	151.25	3.51	0.10
154.00		103.20	153.00	4.49	0.17
156.00		100.91	155.00	4.39	0.17
158.00		98.62	157.00	4.29	0.17
159.00	Appurtenance(s)	4844.0	158.50	210.81	410.84
Totals:		42,197.1	1,836.4	659.8	

Total Wind: 36,759.6

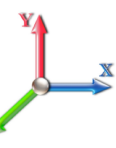
Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.0Ev + 1.0Eh



Iterations 25
Ss 0.20
S1 0.05

Gust Response Factor 1.10 **Sds** 0.22
Dead Load Factor 0.90 **Seismic Load Factor** 1.00 **Sd1** 0.09
Wind Load Factor 0.00 **Structure Frequency (f1)** 0.33 **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	-40.52	-0.66	0.00	-104.40	0.00	104.40	4390.37	1208.07	5796.90	5231.64	0.00	0.00	0.00	0.029
2.00	-39.98	-0.66	0.00	-103.08	0.00	103.08	4366.62	1196.25	5684.08	5152.14	0.00	0.00	0.00	0.029
4.00	-39.44	-0.66	0.00	-101.77	0.00	101.77	4342.50	1184.44	5572.38	5072.75	0.00	0.00	0.00	0.029
6.00	-38.91	-0.66	0.00	-100.44	0.00	100.44	4318.00	1172.63	5461.78	4993.49	0.00	-0.01	-0.01	0.029
8.00	-38.38	-0.66	0.00	-99.12	0.00	99.12	4293.12	1160.81	5352.29	4914.37	0.01	-0.01	-0.01	0.029
10.00	-37.85	-0.66	0.00	-97.79	0.00	97.79	4267.86	1149.00	5243.91	4835.41	0.01	-0.01	-0.01	0.029
12.00	-37.33	-0.67	0.00	-96.46	0.00	96.46	4242.22	1137.19	5136.64	4756.61	0.02	-0.01	-0.01	0.029
14.00	-36.82	-0.67	0.00	-95.13	0.00	95.13	4216.20	1125.37	5030.48	4677.99	0.02	-0.01	-0.01	0.029
16.00	-36.31	-0.67	0.00	-93.80	0.00	93.80	4189.80	1113.56	4925.42	4599.57	0.03	-0.02	-0.02	0.029
18.00	-35.80	-0.67	0.00	-92.46	0.00	92.46	4163.03	1101.75	4821.48	4521.36	0.04	-0.02	-0.02	0.029
20.00	-35.29	-0.67	0.00	-91.12	0.00	91.12	4135.87	1089.94	4718.64	4443.36	0.04	-0.02	-0.02	0.029
22.00	-34.79	-0.67	0.00	-89.78	0.00	89.78	4108.34	1078.12	4616.91	4365.60	0.05	-0.02	-0.02	0.029
24.00	-34.30	-0.67	0.00	-88.44	0.00	88.44	4080.43	1066.31	4516.29	4288.09	0.07	-0.03	-0.03	0.029
26.00	-33.81	-0.67	0.00	-87.09	0.00	87.09	4052.14	1054.50	4416.78	4210.84	0.08	-0.03	-0.03	0.029
28.00	-33.32	-0.68	0.00	-85.74	0.00	85.74	4023.46	1042.68	4318.37	4133.86	0.09	-0.03	-0.03	0.029
30.00	-32.84	-0.68	0.00	-84.39	0.00	84.39	3994.42	1030.87	4221.08	4057.17	0.10	-0.03	-0.03	0.029
32.00	-32.36	-0.68	0.00	-83.04	0.00	83.04	3964.99	1019.06	4124.89	3980.79	0.12	-0.04	-0.04	0.029
34.00	-31.89	-0.68	0.00	-81.68	0.00	81.68	3935.18	1007.24	4029.81	3904.71	0.13	-0.04	-0.04	0.029
36.00	-31.42	-0.68	0.00	-80.32	0.00	80.32	3904.99	995.43	3935.85	3828.97	0.15	-0.04	-0.04	0.029
38.00	-30.96	-0.68	0.00	-78.96	0.00	78.96	3874.43	983.62	3842.99	3753.56	0.17	-0.05	-0.05	0.029
40.00	-30.50	-0.68	0.00	-77.60	0.00	77.60	3843.48	971.81	3751.23	3678.51	0.19	-0.05	-0.05	0.029
42.00	-30.04	-0.68	0.00	-76.24	0.00	76.24	3812.16	959.99	3660.59	3603.83	0.21	-0.05	-0.05	0.029
44.00	-29.59	-0.68	0.00	-74.87	0.00	74.87	3780.46	948.18	3571.06	3529.52	0.23	-0.05	-0.05	0.029
46.00	-29.14	-0.68	0.00	-73.51	0.00	73.51	3748.38	936.37	3482.63	3455.62	0.26	-0.06	-0.06	0.029
47.00	-28.86	-0.68	0.00	-72.82	0.00	72.82	3732.20	930.46	3438.83	3418.81	0.27	-0.06	-0.06	0.029
47.50	-28.75	-0.68	0.00	-72.48	0.00	72.48	3724.07	927.51	3417.04	3400.45	0.27	-0.06	-0.06	0.029
48.00	-28.55	-0.68	0.00	-72.14	0.00	72.14	3715.92	924.55	3395.31	3382.11	0.28	-0.06	-0.06	0.029
50.00	-27.77	-0.68	0.00	-70.77	0.00	70.77	3683.08	912.74	3309.10	3309.03	0.31	-0.06	-0.06	0.029
52.00	-27.00	-0.68	0.00	-69.40	0.00	69.40	3649.86	900.93	3224.00	3236.39	0.33	-0.07	-0.07	0.029
53.25	-26.52	-0.68	0.00	-68.55	0.00	68.55	3673.19	909.21	3283.56	3287.28	0.35	-0.07	-0.07	0.028
54.00	-26.36	-0.68	0.00	-68.03	0.00	68.03	3660.74	904.78	3251.64	3260.04	0.36	-0.07	-0.07	0.028
56.00	-25.93	-0.68	0.00	-66.67	0.00	66.67	3627.27	892.97	3167.28	3187.69	0.39	-0.07	-0.07	0.028
58.00	-25.50	-0.69	0.00	-65.30	0.00	65.30	3593.41	881.16	3084.04	3115.80	0.42	-0.08	-0.08	0.028
60.00	-25.08	-0.69	0.00	-63.93	0.00	63.93	3559.18	869.34	3001.90	3044.38	0.46	-0.08	-0.08	0.028
62.00	-24.66	-0.69	0.00	-62.55	0.00	62.55	3524.57	857.53	2920.88	2973.45	0.49	-0.08	-0.08	0.028
64.00	-24.25	-0.69	0.00	-61.18	0.00	61.18	3489.59	845.72	2840.96	2903.01	0.52	-0.09	-0.09	0.028
66.00	-23.84	-0.69	0.00	-59.81	0.00	59.81	3454.22	833.90	2762.15	2833.08	0.56	-0.09	-0.09	0.028
68.00	-23.43	-0.69	0.00	-58.44	0.00	58.44	3418.47	822.09	2684.44	2763.67	0.60	-0.09	-0.09	0.028
70.00	-23.03	-0.69	0.00	-57.06	0.00	57.06	3382.35	810.28	2607.85	2694.80	0.64	-0.10	-0.10	0.028
72.00	-22.63	-0.69	0.00	-55.69	0.00	55.69	3345.84	798.46	2532.37	2626.49	0.68	-0.10	-0.10	0.028
74.00	-22.24	-0.69	0.00	-54.32	0.00	54.32	3308.96	786.65	2457.99	2558.73	0.72	-0.10	-0.10	0.028
76.00	-21.85	-0.69	0.00	-52.94	0.00	52.94	3271.70	774.84	2384.72	2491.55	0.77	-0.11	-0.11	0.028
78.00	-21.47	-0.69	0.00	-51.57	0.00	51.57	3230.14	763.03	2312.56	2422.03	0.81	-0.11	-0.11	0.028
80.00	-21.03	-0.69	0.00	-50.19	0.00	50.19	3180.13	751.21	2241.51	2347.24	0.86	-0.12	-0.12	0.028
82.00	-20.66	-0.69	0.00	-48.82	0.00	48.82	3130.13	739.40	2171.57	2273.62	0.91	-0.12	-0.12	0.028
84.00	-20.29	-0.69	0.00	-47.44	0.00	47.44	3080.12	727.59	2102.74	2201.18	0.96	-0.12	-0.12	0.028
86.00	-19.92	-0.69	0.00	-46.07	0.00	46.07	3030.11	715.77	2035.01	2129.91	1.01	-0.13	-0.13	0.028

Calculated Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00	-19.56	-0.69	0.00	-44.69	0.00	44.69	2980.10	703.96	1968.39	2059.81	1.07	-0.13	0.028
90.00	-19.20	-0.69	0.00	-43.32	0.00	43.32	2930.09	692.15	1902.89	1990.89	1.12	-0.14	0.028
92.00	-18.85	-0.69	0.00	-41.94	0.00	41.94	2880.09	680.34	1838.49	1923.14	1.18	-0.14	0.028
94.00	-18.50	-0.69	0.00	-40.57	0.00	40.57	2830.08	668.52	1775.20	1856.56	1.24	-0.15	0.028
96.00	-18.16	-0.69	0.00	-39.20	0.00	39.20	2780.07	656.71	1713.01	1791.15	1.30	-0.15	0.028
97.00	-17.99	-0.69	0.00	-38.51	0.00	38.51	2755.06	650.80	1682.34	1758.89	1.34	-0.15	0.028
98.00	-17.72	-0.69	0.00	-37.82	0.00	37.82	2730.06	644.90	1651.94	1726.92	1.37	-0.15	0.028
100.00	-17.18	-0.68	0.00	-36.45	0.00	36.45	2680.05	633.08	1591.98	1663.86	1.43	-0.16	0.028
101.00	-16.92	-0.68	0.00	-35.77	0.00	35.77	2260.99	534.61	1362.32	1425.54	1.47	-0.16	0.033
102.00	-16.77	-0.68	0.00	-35.08	0.00	35.08	2242.36	529.69	1337.35	1400.64	1.50	-0.16	0.033
104.00	-16.48	-0.68	0.00	-33.71	0.00	33.71	2200.69	519.85	1288.10	1348.81	1.57	-0.17	0.032
106.00	-16.19	-0.68	0.00	-32.35	0.00	32.35	2159.02	510.00	1239.78	1297.95	1.64	-0.18	0.032
108.00	-15.90	-0.68	0.00	-30.98	0.00	30.98	2117.34	500.16	1192.38	1248.07	1.72	-0.18	0.032
110.00	-15.56	-0.68	0.00	-29.61	0.00	29.61	2075.67	490.32	1145.90	1199.16	1.80	-0.19	0.032
112.00	-15.28	-0.68	0.00	-28.24	0.00	28.24	2034.00	480.47	1100.35	1151.23	1.88	-0.19	0.032
114.00	-15.01	-0.68	0.00	-26.87	0.00	26.87	1992.32	470.63	1055.73	1104.29	1.96	-0.20	0.032
116.00	-14.74	-0.68	0.00	-25.51	0.00	25.51	1950.65	460.78	1012.02	1058.31	2.04	-0.20	0.032
118.00	-14.47	-0.68	0.00	-24.14	0.00	24.14	1908.98	450.94	969.24	1013.32	2.13	-0.21	0.031
120.00	-14.20	-0.68	0.00	-22.77	0.00	22.77	1867.30	441.10	927.39	969.30	2.22	-0.22	0.031
122.00	-13.94	-0.68	0.00	-21.40	0.00	21.40	1825.63	431.25	886.45	926.26	2.31	-0.22	0.031
124.00	-13.69	-0.68	0.00	-20.04	0.00	20.04	1783.96	421.41	846.45	884.20	2.41	-0.23	0.030
126.00	-13.44	-0.68	0.00	-18.67	0.00	18.67	1742.28	411.56	807.36	843.12	2.50	-0.24	0.030
128.00	-13.19	-0.68	0.00	-17.31	0.00	17.31	1700.61	401.72	769.20	803.01	2.60	-0.24	0.029
130.00	-12.94	-0.68	0.00	-15.94	0.00	15.94	1658.94	391.87	731.96	763.88	2.71	-0.25	0.029
131.00	-11.21	-0.64	0.00	-15.26	0.00	15.26	1638.10	386.95	713.69	744.68	2.76	-0.25	0.027
132.00	-11.10	-0.64	0.00	-14.62	0.00	14.62	1617.26	382.03	695.65	725.73	2.81	-0.25	0.027
134.00	-10.89	-0.64	0.00	-13.35	0.00	13.35	1575.59	372.19	660.26	688.55	2.92	-0.26	0.026
136.00	-10.68	-0.63	0.00	-12.08	0.00	12.08	1533.91	362.34	625.80	652.35	3.03	-0.27	0.025
138.00	-10.47	-0.63	0.00	-10.81	0.00	10.81	1492.24	352.50	592.26	617.13	3.14	-0.27	0.025
140.00	-10.27	-0.63	0.00	-9.54	0.00	9.54	1450.57	342.65	559.64	582.89	3.26	-0.28	0.023
142.00	-10.10	-0.63	0.00	-8.28	0.00	8.28	1408.89	332.81	527.94	549.63	3.38	-0.28	0.022
142.50	-7.99	-0.55	0.00	-7.96	0.00	7.96	1398.48	330.35	520.17	541.46	3.41	-0.28	0.020
144.00	-7.87	-0.55	0.00	-7.13	0.00	7.13	1367.22	322.97	497.17	517.34	3.49	-0.29	0.020
146.00	-7.71	-0.55	0.00	-6.02	0.00	6.02	1325.55	313.12	467.33	486.03	3.62	-0.29	0.018
148.00	-7.55	-0.55	0.00	-4.92	0.00	4.92	1283.87	303.28	438.41	455.70	3.74	-0.30	0.017
148.25	-7.53	-0.55	0.00	-4.78	0.00	4.78	1278.66	302.05	434.86	451.97	3.76	-0.30	0.016
149.00	-5.11	-0.44	0.00	-4.37	0.00	4.37	1263.04	298.36	424.29	440.90	3.80	-0.30	0.014
150.00	-5.00	-0.44	0.00	-3.93	0.00	3.93	1242.20	293.43	410.41	426.34	3.87	-0.30	0.013
150.50	-4.95	-0.44	0.00	-3.71	0.00	3.71	761.18	179.81	256.83	268.82	3.90	-0.30	0.020
152.00	-4.87	-0.44	0.00	-3.06	0.00	3.06	742.42	175.38	244.33	255.67	3.99	-0.30	0.019
154.00	-4.77	-0.44	0.00	-2.18	0.00	2.18	717.42	169.47	228.15	238.65	4.12	-0.31	0.016
156.00	-4.67	-0.44	0.00	-1.31	0.00	1.31	692.41	163.56	212.53	222.21	4.25	-0.31	0.013
158.00	-4.57	-0.44	0.00	-0.44	0.00	0.44	667.41	157.66	197.45	206.36	4.38	-0.31	0.009
159.00	0.00	-0.41	0.00	0.00	0.00	0.00	654.91	154.70	190.13	198.65	4.45	-0.31	0.000

Wind Loading - Shaft

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 28

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	6.518	7.17	269.58	0.730	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		1.00	0.85	6.518	7.17	266.96	0.730	0.000	2.00	9.803	7.16	51.3	0.0	466.2
4.00		1.00	0.85	6.518	7.17	264.35	0.730	0.000	2.00	9.708	7.09	50.8	0.0	461.6
6.00		1.00	0.85	6.518	7.17	261.73	0.730	0.000	2.00	9.612	7.02	50.3	0.0	457.0
8.00		1.00	0.85	6.518	7.17	259.11	0.730	0.000	2.00	9.516	6.95	49.8	0.0	452.4
10.00		1.00	0.85	6.518	7.17	256.49	0.730	0.000	2.00	9.421	6.88	49.3	0.0	447.9
12.00		1.00	0.85	6.518	7.17	253.87	0.730	0.000	2.00	9.325	6.81	48.8	0.0	443.3
14.00		1.00	0.85	6.518	7.17	251.25	0.730	0.000	2.00	9.229	6.74	48.3	0.0	438.7
16.00		1.00	0.87	6.683	7.35	251.76	0.730	0.000	2.00	9.134	6.67	49.0	0.0	434.1
18.00		1.00	0.89	6.842	7.53	252.04	0.730	0.000	2.00	9.038	6.60	49.7	0.0	429.5
20.00		1.00	0.91	6.987	7.69	252.00	0.730	0.000	2.00	8.942	6.53	50.2	0.0	424.9
22.00		1.00	0.93	7.122	7.83	251.69	0.730	0.000	2.00	8.846	6.46	50.6	0.0	420.4
24.00		1.00	0.95	7.249	7.97	251.15	0.730	0.000	2.00	8.751	6.39	50.9	0.0	415.8
26.00		1.00	0.96	7.367	8.10	250.40	0.730	0.000	2.00	8.655	6.32	51.2	0.0	411.2
28.00		1.00	0.98	7.479	8.23	249.49	0.730	0.000	2.00	8.559	6.25	51.4	0.0	406.6
30.00		1.00	0.99	7.584	8.34	248.42	0.730	0.000	2.00	8.464	6.18	51.5	0.0	402.0
32.00		1.00	1.00	7.685	8.45	247.22	0.730	0.000	2.00	8.368	6.11	51.6	0.0	397.5
34.00		1.00	1.01	7.781	8.56	245.89	0.730	0.000	2.00	8.272	6.04	51.7	0.0	392.9
36.00		1.00	1.03	7.872	8.66	244.46	0.730	0.000	2.00	8.176	5.97	51.7	0.0	388.3
38.00		1.00	1.04	7.960	8.76	242.92	0.730	0.000	2.00	8.081	5.90	51.7	0.0	383.7
40.00		1.00	1.05	8.044	8.85	241.29	0.730	0.000	2.00	7.985	5.83	51.6	0.0	379.1
42.00		1.00	1.06	8.125	8.94	239.58	0.730	0.000	2.00	7.889	5.76	51.5	0.0	374.6
44.00		1.00	1.07	8.203	9.02	237.79	0.730	0.000	2.00	7.794	5.69	51.3	0.0	370.0
46.00		1.00	1.08	8.279	9.11	235.93	0.730	0.000	2.00	7.698	5.62	51.2	0.0	365.4
47.00	Appurtenance(s)	1.00	1.08	8.316	9.15	234.98	0.730	0.000	1.00	3.813	2.78	25.5	0.0	181.0
47.50	Bot - Section 2	1.00	1.09	8.334	9.17	234.49	0.730	0.000	0.50	1.898	1.39	12.7	0.0	90.1
48.00		1.00	1.09	8.352	9.19	234.00	0.730	0.000	0.50	1.923	1.40	12.9	0.0	181.1
50.00		1.00	1.10	8.422	9.26	232.01	0.730	0.000	2.00	7.633	5.57	51.6	0.0	718.5
52.00		1.00	1.11	8.491	9.34	229.97	0.730	0.000	2.00	7.538	5.50	51.4	0.0	709.4
53.25	Top - Section 1	1.00	1.11	8.533	9.39	228.66	0.730	0.000	1.25	4.662	3.40	31.9	0.0	438.7
54.00		1.00	1.12	8.557	9.41	231.84	0.730	0.000	0.75	2.780	2.03	19.1	0.0	131.9
56.00		1.00	1.12	8.622	9.48	229.70	0.730	0.000	2.00	7.346	5.36	50.9	0.0	348.6
58.00		1.00	1.13	8.685	9.55	227.52	0.730	0.000	2.00	7.251	5.29	50.6	0.0	344.0
60.00		1.00	1.14	8.746	9.62	225.28	0.730	0.000	2.00	7.155	5.22	50.2	0.0	339.4
62.00		1.00	1.15	8.806	9.69	223.00	0.730	0.000	2.00	7.059	5.15	49.9	0.0	334.8
64.00		1.00	1.16	8.864	9.75	220.69	0.730	0.000	2.00	6.963	5.08	49.6	0.0	330.2
66.00		1.00	1.16	8.920	9.81	218.33	0.730	0.000	2.00	6.868	5.01	49.2	0.0	325.7
68.00		1.00	1.17	8.976	9.87	215.93	0.730	0.000	2.00	6.772	4.94	48.8	0.0	321.1
70.00		1.00	1.18	9.030	9.93	213.50	0.730	0.000	2.00	6.676	4.87	48.4	0.0	316.5
72.00		1.00	1.18	9.083	9.99	211.03	0.730	0.000	2.00	6.581	4.80	48.0	0.0	311.9
74.00		1.00	1.19	9.135	10.05	208.53	0.730	0.000	2.00	6.485	4.73	47.6	0.0	307.3
76.00		1.00	1.20	9.185	10.10	206.00	0.730	0.000	2.00	6.389	4.66	47.1	0.0	302.8
78.00		1.00	1.20	9.235	10.16	203.44	0.730	0.000	2.00	6.293	4.59	46.7	0.0	298.2
80.00	Appurtenance(s)	1.00	1.21	9.284	10.21	200.85	0.730	0.000	2.00	6.198	4.52	46.2	0.0	293.6
82.00		1.00	1.22	9.332	10.26	198.23	0.730	0.000	2.00	6.102	4.45	45.7	0.0	289.0
84.00		1.00	1.22	9.379	10.32	195.59	0.730	0.000	2.00	6.006	4.38	45.2	0.0	284.4
86.00		1.00	1.23	9.425	10.37	192.92	0.730	0.000	2.00	5.911	4.31	44.7	0.0	279.9

Wind Loading - Shaft

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00	1.00	1.23	9.470	10.42	190.22	0.730	0.000	2.00	5.815	4.24	44.2	0.0	275.3
90.00	1.00	1.24	9.514	10.47	187.50	0.730	0.000	2.00	5.719	4.17	43.7	0.0	270.7
92.00	1.00	1.25	9.558	10.51	184.76	0.730	0.000	2.00	5.623	4.11	43.2	0.0	266.1
94.00	1.00	1.25	9.601	10.56	182.00	0.730	0.000	2.00	5.528	4.04	42.6	0.0	261.5
96.00	1.00	1.26	9.643	10.61	179.21	0.730	0.000	2.00	5.432	3.97	42.1	0.0	256.9
97.00 Bot - Section 3	1.00	1.26	9.664	10.63	177.81	0.730	0.000	1.00	2.680	1.96	20.8	0.0	126.8
98.00	1.00	1.26	9.685	10.65	176.41	0.730	0.000	1.00	2.709	1.98	21.1	0.0	232.6
100.00	1.00	1.27	9.725	10.70	173.58	0.730	0.000	2.00	5.346	3.90	41.8	0.0	458.9
101.00 Top - Section 2	1.00	1.27	9.746	10.72	172.16	0.731 *	0.000	1.00	2.637	1.93	20.7	0.0	226.3
102.00	1.00	1.27	9.766	10.74	174.27	0.730	0.000	1.00	2.613	1.91	20.5	0.0	103.2
104.00	1.00	1.28	9.805	10.79	171.41	0.731 *	0.000	2.00	5.155	3.77	40.7	0.0	203.5
106.00	1.00	1.28	9.844	10.83	168.54	0.735 *	0.000	2.00	5.059	3.72	40.3	0.0	199.7
108.00	1.00	1.29	9.883	10.87	165.64	0.740 *	0.000	2.00	4.964	3.67	39.9	0.0	195.9
110.00 Appurtenance(s)	1.00	1.29	9.921	10.91	162.73	0.744 *	0.000	2.00	4.868	3.62	39.5	0.0	192.0
112.00	1.00	1.30	9.958	10.95	159.80	0.730	0.000	2.00	4.772	3.48	38.2	0.0	188.2
114.00	1.00	1.30	9.995	10.99	156.85	0.730	0.000	2.00	4.676	3.41	37.5	0.0	184.4
116.00	1.00	1.31	10.031	11.03	153.88	0.730	0.000	2.00	4.581	3.34	36.9	0.0	180.6
118.00	1.00	1.31	10.067	11.07	150.90	0.730	0.000	2.00	4.485	3.27	36.3	0.0	176.8
120.00	1.00	1.32	10.102	11.11	147.91	0.730	0.000	2.00	4.389	3.20	35.6	0.0	173.0
122.00	1.00	1.32	10.137	11.15	144.90	0.730	0.000	2.00	4.294	3.13	35.0	0.0	169.1
124.00	1.00	1.33	10.172	11.19	141.87	0.730	0.000	2.00	4.198	3.06	34.3	0.0	165.3
126.00	1.00	1.33	10.206	11.23	138.83	0.730	0.000	2.00	4.102	2.99	33.6	0.0	161.5
128.00	1.00	1.34	10.240	11.26	135.78	0.730	0.000	2.00	4.006	2.92	32.9	0.0	157.7
130.00	1.00	1.34	10.273	11.30	132.71	0.730	0.000	2.00	3.911	2.85	32.3	0.0	153.9
131.00 Appurtenance(s)	1.00	1.34	10.289	11.32	131.17	0.730	0.000	1.00	1.919	1.40	15.9	0.0	75.5
132.00	1.00	1.34	10.306	11.34	129.63	0.730	0.000	1.00	1.896	1.38	15.7	0.0	74.5
134.00	1.00	1.35	10.338	11.37	126.53	0.730	0.000	2.00	3.719	2.72	30.9	0.0	146.2
136.00	1.00	1.35	10.370	11.41	123.42	0.730	0.000	2.00	3.624	2.65	30.2	0.0	142.4
138.00	1.00	1.36	10.402	11.44	120.30	0.730	0.000	2.00	3.528	2.58	29.5	0.0	138.6
140.00	1.00	1.36	10.433	11.48	117.17	0.730	0.000	2.00	3.432	2.51	28.8	0.0	134.8
142.00	1.00	1.36	10.464	11.51	114.03	0.730	0.000	2.00	3.336	2.44	28.0	0.0	131.0
142.50 Appurtenance(s)	1.00	1.37	10.472	11.52	113.24	0.734 *	0.000	0.50	0.819	0.60	6.9	0.0	32.1
144.00	1.00	1.37	10.495	11.54	110.87	0.737 *	0.000	1.50	2.422	1.78	20.6	0.0	95.0
146.00	1.00	1.37	10.525	11.58	107.70	0.743 *	0.000	2.00	3.145	2.34	27.1	0.0	123.3
148.00	1.00	1.38	10.555	11.61	104.52	0.750 *	0.000	2.00	3.049	2.29	26.6	0.0	119.5
148.25 Bot - Section 4	1.00	1.38	10.559	11.61	104.12	0.755 *	0.000	0.25	0.374	0.28	3.3	0.0	14.7
149.00 Appurtenance(s)	1.00	1.38	10.570	11.63	102.93	0.757 *	0.000	0.75	1.138	0.86	10.0	0.0	70.6
150.00	1.00	1.38	10.585	11.64	101.33	0.760 *	0.000	1.00	1.497	1.14	13.2	0.0	92.8
150.50 Top - Section 3	1.00	1.38	10.592	11.65	100.53	0.763 *	0.000	0.50	0.739	0.56	6.6	0.0	45.8
152.00	1.00	1.38	10.614	11.68	100.35	0.762 *	0.000	1.50	2.182	1.66	19.4	0.0	51.6
154.00	1.00	1.39	10.643	11.71	97.14	0.769 *	0.000	2.00	2.826	2.17	25.5	0.0	66.9
156.00	1.00	1.39	10.672	11.74	93.92	0.778 *	0.000	2.00	2.730	2.13	24.9	0.0	64.6
158.00	1.00	1.40	10.700	11.77	90.69	0.788 *	0.000	2.00	2.634	2.08	24.4	0.0	62.3
159.00 Appurtenance(s)	1.00	1.40	10.714	11.79	89.07	0.796 *	0.000	1.00	1.281	1.02	12.0	0.0	30.3

* Cf Adjusted by Linear Load Ra Effect

Totals:	159.00	3,392.1	23,733.6
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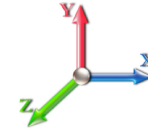
Discrete Appurtenance Forces

Structure: CT13055-A-SBA **Code:** EIA/TIA-222-H 6/12/2020
Site Name: Monroe Turnpike **Exposure:** C
Height: 159.00 (ft) **Crest Height:** 0.00
Base Elev: 1.000 (ft) **Site Class:** D - Stiff Soil
Gh: 1.1 **Topography:** 1 **Struct Class:** II Page: 68



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
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	159.00	Decibel DB404-B - Omni	1	10.756	11.832	1.00	1.00	0.00	14.00	0.000	3.000	0.00	0.00	0.00
2	159.00	Powerwave 7770	3	10.756	11.832	0.73	1.00	12.68	105.00	0.000	3.000	150.03	0.00	450.10
3	159.00	DMP65R-BU6DA	3	10.756	11.832	0.72	1.00	27.45	238.20	0.000	3.000	324.83	0.00	974.50
4	159.00	Powerwave Technologies	6	10.756	11.832	0.50	1.00	3.87	84.60	0.000	3.000	45.79	0.00	137.37
5	159.00	4449 B5/B12	3	10.756	11.832	0.50	1.00	2.96	213.00	0.000	3.000	34.96	0.00	104.89
6	159.00	Raycap DC6-48-60-18-8F	3	10.756	11.832	0.50	1.00	1.38	98.40	0.000	3.000	16.33	0.00	48.99
7	159.00	Site Pro 1 -	1	10.756	11.832	1.00	1.00	48.00	2645.00	0.000	3.000	567.94	0.00	1703.83
8	159.00	RRUS 4478 B14	3	10.756	11.832	0.50	1.00	2.47	178.20	0.000	3.000	29.28	0.00	87.85
9	159.00	Quintel QS66512-2	3	10.756	11.832	0.92	1.00	22.44	333.00	0.000	3.000	265.50	0.00	796.50
10	159.00	Kaelus DBC0061F1V51-2	3	10.756	11.832	0.50	1.00	0.65	54.90	0.000	3.000	7.63	0.00	22.90
11	159.00	Ericsson RRUS 32 B30	3	10.756	11.832	0.50	1.00	4.11	180.00	0.000	3.000	48.63	0.00	145.89
12	159.00	Ericsson RRUS 32 B2	3	10.756	11.832	0.50	1.00	4.11	159.00	0.000	3.000	48.63	0.00	145.89
13	159.00	OPA65R-BU6DA	3	10.756	11.832	0.50	1.00	19.07	189.90	0.000	3.000	225.58	0.00	676.74
14	159.00	Site Pro 1 - HRK14	1	10.756	11.832	1.00	1.00	8.13	302.36	0.000	3.000	96.20	0.00	288.59
15	149.00	Alcatel Lucent - 800 MHz	3	10.599	11.659	0.50	0.75	3.75	159.00	0.000	2.000	43.77	0.00	87.53
16	149.00	RFS - APXVSP18-C-A20	3	10.599	11.659	0.62	0.75	15.72	318.00	0.000	2.000	183.34	0.00	366.67
17	149.00	Alcatel Lucent - 1900 MHz	3	10.599	11.659	0.50	0.75	5.73	132.00	0.000	2.000	66.79	0.00	133.58
18	149.00	SitePro HRK-12 Handrail	1	10.570	11.627	1.00	1.00	6.75	261.72	0.000	0.000	78.48	0.00	0.00
19	149.00	Alcatel Lucent - 800 MHz	3	10.599	11.659	0.50	0.75	1.18	26.40	0.000	2.000	13.71	0.00	27.42
20	149.00	RFS - ACU-A20-N - RET	4	10.599	11.659	0.50	0.75	0.28	4.00	0.000	2.000	3.28	0.00	6.56
21	149.00	Low Profile Platform	1	10.570	11.627	1.00	1.00	35.00	1200.00	0.000	0.000	406.94	0.00	0.00
22	149.00	Alcatel Lucent -	3	10.599	11.659	0.50	0.75	6.11	210.00	0.000	2.000	71.18	0.00	142.37
23	149.00	RFS - APXVTM14-C-I20 -	3	10.599	11.659	0.59	0.75	11.27	168.00	0.000	2.000	131.39	0.00	262.79
24	142.50	EMS - FR90-16-XXDP -	6	10.472	11.519	0.51	0.75	13.34	108.00	0.000	0.000	153.68	0.00	0.00
25	142.50	LP Platform w/ Handrails	1	10.472	11.519	1.00	1.00	34.00	1600.00	0.000	0.000	391.64	0.00	0.00
26	142.50	Andrew - ATSBT-TOP-FM	3	10.472	11.519	0.50	0.75	0.30	5.40	0.000	0.000	3.47	0.00	0.00
27	142.50	RFS -	3	10.472	11.519	0.46	0.75	9.22	122.10	0.000	0.000	106.22	0.00	0.00
28	142.50	RFS -	3	10.472	11.519	0.55	0.75	33.24	304.20	0.000	0.000	382.94	0.00	0.00
29	142.50	RFS -	3	10.472	11.519	0.50	0.75	1.76	47.55	0.000	0.000	20.32	0.00	0.00
30	131.00	Kathrein 742	3	10.289	11.318	0.58	0.80	5.44	49.50	0.000	0.000	61.61	0.00	0.00
31	131.00	Antel BXA-70063/6CF -	3	10.289	11.318	0.56	0.80	12.72	51.00	0.000	0.000	143.94	0.00	0.00
32	131.00	Antel BXA-171063-12BF -	3	10.289	11.318	0.67	0.80	9.56	45.00	0.000	0.000	108.15	0.00	0.00
33	131.00	Antel LPA-80063/6CF -	6	10.289	11.318	0.75	0.80	43.32	162.00	0.000	0.000	490.25	0.00	0.00
34	131.00	Alcatel Lucent	3	10.289	11.318	0.54	0.80	5.63	165.00	0.000	0.000	63.70	0.00	0.00
35	131.00	RFS FD9R6004/2C-3L -	6	10.289	11.318	0.54	0.80	1.16	18.60	0.000	0.000	13.10	0.00	0.00
36	131.00	RFS DB-T1-6Z-8AB-0Z -	1	10.289	11.318	1.00	1.00	4.80	18.90	0.000	0.000	54.33	0.00	0.00
37	131.00	Low Profile Platform	1	10.289	11.318	1.00	1.00	22.00	1200.00	0.000	0.000	249.00	0.00	0.00
38	110.00	4 ft. Standoff	1	9.921	10.913	1.00	1.00	3.50	53.32	0.000	0.000	38.19	0.00	0.00
39	110.00	Sinclair SCL329-HL -	1	10.023	11.025	1.00	1.00	2.22	10.40	0.000	5.550	24.48	0.00	135.84
40	80.00	Sinclair SCL329-HL -	1	9.414	10.356	1.00	1.00	2.22	10.40	0.000	5.550	22.99	0.00	127.59
41	80.00	4 ft Standoff	1	9.284	10.212	1.00	1.00	3.50	53.32	0.000	0.000	35.74	0.00	0.00
42	47.00	4 ft Standoff	1	8.316	9.147	1.00	1.00	3.50	53.32	0.000	0.000	32.01	0.00	0.00
43	47.00	Decibel 26DB - GPS	1	8.422	9.265	1.00	1.00	0.16	10.00	0.000	3.000	1.48	0.00	4.45

Totals: 11,362.69

5,257.48

Total Applied Force Summary

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
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		51.31	575.43	0.00	0.00
4.00		50.81	570.85	0.00	0.00
6.00		50.31	566.26	0.00	0.00
8.00		49.81	561.68	0.00	0.00
10.00		49.31	557.10	0.00	0.00
12.00		48.81	552.52	0.00	0.00
14.00		48.31	547.94	0.00	0.00
16.00		49.02	543.36	0.00	0.00
18.00		49.65	538.78	0.00	0.00
20.00		50.17	534.20	0.00	0.00
22.00		50.59	529.62	0.00	0.00
24.00		50.93	525.04	0.00	0.00
26.00		51.20	520.46	0.00	0.00
28.00		51.40	515.88	0.00	0.00
30.00		51.54	511.29	0.00	0.00
32.00		51.64	506.71	0.00	0.00
34.00		51.68	502.13	0.00	0.00
36.00		51.69	497.55	0.00	0.00
38.00		51.65	492.97	0.00	0.00
40.00		51.58	488.39	0.00	0.00
42.00		51.47	483.81	0.00	0.00
44.00		51.34	479.23	0.00	0.00
46.00		51.17	474.65	0.00	0.00
47.00	(2) attachments	58.96	298.93	0.00	4.45
47.50		12.70	117.37	0.00	0.00
48.00		12.90	208.38	0.00	0.00
50.00		51.63	827.80	0.00	0.00
52.00		51.39	818.31	0.00	0.00
53.25		31.95	506.79	0.00	0.00
54.00		19.10	172.74	0.00	0.00
56.00		50.86	457.50	0.00	0.00
58.00		50.56	452.92	0.00	0.00
60.00		50.25	448.34	0.00	0.00
62.00		49.91	443.76	0.00	0.00
64.00		49.56	439.18	0.00	0.00
66.00		49.19	434.59	0.00	0.00
68.00		48.81	430.01	0.00	0.00
70.00		48.41	425.43	0.00	0.00
72.00		48.00	420.85	0.00	0.00
74.00		47.57	416.27	0.00	0.00
76.00		47.13	411.69	0.00	0.00
78.00		46.67	407.11	0.00	0.00
80.00	(2) attachments	104.94	466.25	0.00	127.59
82.00		45.72	396.91	0.00	0.00
84.00		45.23	392.33	0.00	0.00
86.00		44.73	387.75	0.00	0.00

Total Applied Force Summary

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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88.00		44.22	383.17	0.00	0.00
90.00		43.69	378.58	0.00	0.00
92.00		43.16	374.00	0.00	0.00
94.00		42.62	369.42	0.00	0.00
96.00		42.06	364.84	0.00	0.00
97.00		20.80	180.70	0.00	0.00
98.00		21.07	286.55	0.00	0.00
100.00		41.75	566.81	0.00	0.00
101.00		20.66	280.26	0.00	0.00
102.00		20.49	157.13	0.00	0.00
104.00		40.66	311.39	0.00	0.00
106.00		40.29	307.57	0.00	0.00
108.00		39.91	303.75	0.00	0.00
110.00	(2) attachments	102.20	363.66	0.00	135.84
112.00		38.16	295.08	0.00	0.00
114.00		37.53	291.26	0.00	0.00
116.00		36.90	287.44	0.00	0.00
118.00		36.26	283.63	0.00	0.00
120.00		35.61	279.81	0.00	0.00
122.00		34.95	275.99	0.00	0.00
124.00		34.29	272.17	0.00	0.00
126.00		33.62	268.36	0.00	0.00
128.00		32.94	264.54	0.00	0.00
130.00		32.26	260.72	0.00	0.00
131.00	(26) attachments	1199.94	1838.93	0.00	0.00
132.00		15.69	114.40	0.00	0.00
134.00		30.88	225.93	0.00	0.00
136.00		30.17	222.11	0.00	0.00
138.00		29.47	218.29	0.00	0.00
140.00		28.75	214.48	0.00	0.00
142.00		28.04	178.98	0.00	0.00
142.50	(19) attachments	1065.19	2231.40	0.00	0.00
144.00		20.61	131.01	0.00	0.00
146.00		27.06	171.34	0.00	0.00
148.00		26.57	167.53	0.00	0.00
148.25		3.28	20.67	0.00	0.00
149.00	(24) attachments	1008.90	2567.73	0.00	1026.92
150.00		13.25	116.81	0.00	0.00
150.50		6.57	57.83	0.00	0.00
152.00		19.41	83.84	0.00	0.00
154.00		25.45	107.24	0.00	0.00
156.00		24.95	104.95	0.00	0.00
158.00		24.44	102.66	0.00	0.00
159.00	(39) attachments	1873.36	4846.03	0.00	5584.03
Totals:		8,649.62	42,986.06	0.00	6,878.83

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA
Site Name: Monroe Turnpike
Height: 159.00 (ft)
Base Elev: 1.000 (ft)
Gh: 1.1

Topography: 1

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

6/12/2020

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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
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)
2.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.064	0.000	6.518	0.00	24.96
2.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	6.518	0.00	0.32
2.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	6.518	0.00	9.66
2.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.064	0.000	6.518	0.00	1.04
2.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.064	0.000	6.518	0.00	1.04
2.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.064	0.000	6.518	0.00	0.32
4.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.065	0.000	6.518	0.00	24.96
4.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	6.518	0.00	0.32
4.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	6.518	0.00	9.66
4.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.065	0.000	6.518	0.00	1.04
4.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	6.518	0.00	1.04
4.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.065	0.000	6.518	0.00	0.32
6.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.065	0.000	6.518	0.00	24.96
6.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	6.518	0.00	0.32
6.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	6.518	0.00	9.66
6.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.065	0.000	6.518	0.00	1.04
6.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.065	0.000	6.518	0.00	1.04
6.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.065	0.000	6.518	0.00	0.32
8.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.066	0.000	6.518	0.00	24.96
8.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	6.518	0.00	0.32
8.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	6.518	0.00	9.66
8.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.066	0.000	6.518	0.00	1.04
8.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.066	0.000	6.518	0.00	1.04
8.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.066	0.000	6.518	0.00	0.32
10.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.067	0.000	6.518	0.00	24.96
10.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	6.518	0.00	0.32
10.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	6.518	0.00	9.66
10.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.067	0.000	6.518	0.00	1.04
10.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	6.518	0.00	1.04
10.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.067	0.000	6.518	0.00	0.32
12.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.067	0.000	6.518	0.00	24.96
12.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	6.518	0.00	0.32
12.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	6.518	0.00	9.66
12.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.067	0.000	6.518	0.00	1.04
12.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.067	0.000	6.518	0.00	1.04
12.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.067	0.000	6.518	0.00	0.32
14.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.068	0.000	6.518	0.00	24.96
14.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	6.518	0.00	0.32
14.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	6.518	0.00	9.66
14.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.068	0.000	6.518	0.00	1.04
14.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.068	0.000	6.518	0.00	1.04
14.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.068	0.000	6.518	0.00	0.32
16.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.069	0.000	6.683	0.00	24.96
16.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	6.683	0.00	0.32
16.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	6.683	0.00	9.66
16.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.069	0.000	6.683	0.00	1.04
16.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	6.683	0.00	1.04

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
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)
16.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.069	0.000	6.683	0.00	0.32
18.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.069	0.000	6.842	0.00	24.96
18.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	6.842	0.00	0.32
18.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	6.842	0.00	9.66
18.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.069	0.000	6.842	0.00	1.04
18.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.069	0.000	6.842	0.00	1.04
18.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.069	0.000	6.842	0.00	0.32
20.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	6.987	0.00	24.96
20.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	6.987	0.00	0.32
20.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	6.987	0.00	9.66
20.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.070	0.000	6.987	0.00	1.04
20.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	6.987	0.00	1.04
20.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.070	0.000	6.987	0.00	0.32
22.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	7.122	0.00	24.96
22.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	7.122	0.00	0.32
22.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	7.122	0.00	9.66
22.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.071	0.000	7.122	0.00	1.04
22.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	7.122	0.00	1.04
22.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.071	0.000	7.122	0.00	0.32
24.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.072	0.000	7.249	0.00	24.96
24.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	7.249	0.00	0.32
24.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	7.249	0.00	9.66
24.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.072	0.000	7.249	0.00	1.04
24.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	7.249	0.00	1.04
24.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.072	0.000	7.249	0.00	0.32
26.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.072	0.000	7.367	0.00	24.96
26.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	7.367	0.00	0.32
26.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	7.367	0.00	9.66
26.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.072	0.000	7.367	0.00	1.04
26.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	7.367	0.00	1.04
26.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.072	0.000	7.367	0.00	0.32
28.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.073	0.000	7.479	0.00	24.96
28.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	7.479	0.00	0.32
28.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	7.479	0.00	9.66
28.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.073	0.000	7.479	0.00	1.04
28.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	7.479	0.00	1.04
28.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.073	0.000	7.479	0.00	0.32
30.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	7.584	0.00	24.96
30.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	7.584	0.00	0.32
30.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	7.584	0.00	9.66
30.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.074	0.000	7.584	0.00	1.04
30.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	7.584	0.00	1.04
30.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.074	0.000	7.584	0.00	0.32
32.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.075	0.000	7.685	0.00	24.96
32.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	7.685	0.00	0.32
32.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	7.685	0.00	9.66
32.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.075	0.000	7.685	0.00	1.04

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
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)
32.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	7.685	0.00	1.04
32.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.075	0.000	7.685	0.00	0.32
34.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.076	0.000	7.781	0.00	24.96
34.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	7.781	0.00	0.32
34.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	7.781	0.00	9.66
34.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.076	0.000	7.781	0.00	1.04
34.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	7.781	0.00	1.04
34.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.076	0.000	7.781	0.00	0.32
36.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.077	0.000	7.872	0.00	24.96
36.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	7.872	0.00	0.32
36.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	7.872	0.00	9.66
36.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.077	0.000	7.872	0.00	1.04
36.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	7.872	0.00	1.04
36.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.077	0.000	7.872	0.00	0.32
38.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	7.960	0.00	24.96
38.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	7.960	0.00	0.32
38.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	7.960	0.00	9.66
38.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.078	0.000	7.960	0.00	1.04
38.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	7.960	0.00	1.04
38.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.078	0.000	7.960	0.00	0.32
40.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	8.044	0.00	24.96
40.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	8.044	0.00	0.32
40.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	8.044	0.00	9.66
40.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.078	0.000	8.044	0.00	1.04
40.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	8.044	0.00	1.04
40.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.078	0.000	8.044	0.00	0.32
42.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.079	0.000	8.125	0.00	24.96
42.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	8.125	0.00	0.32
42.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	8.125	0.00	9.66
42.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.079	0.000	8.125	0.00	1.04
42.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	8.125	0.00	1.04
42.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.079	0.000	8.125	0.00	0.32
44.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.080	0.000	8.203	0.00	24.96
44.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	8.203	0.00	0.32
44.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	8.203	0.00	9.66
44.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.080	0.000	8.203	0.00	1.04
44.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	8.203	0.00	1.04
44.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.080	0.000	8.203	0.00	0.32
46.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	8.279	0.00	24.96
46.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	8.279	0.00	0.32
46.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	8.279	0.00	9.66
46.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.081	0.000	8.279	0.00	1.04
46.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	8.279	0.00	1.04
46.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.081	0.000	8.279	0.00	0.32
47.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.082	0.000	8.316	0.00	12.48
47.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	8.316	0.00	0.16
47.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	8.316	0.00	4.83

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



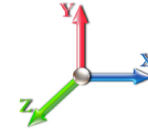
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Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 28

Dead Load Factor 1.00

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
47.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.082	0.000	8.316	0.00	0.52
47.00	7/8"	Yes	1.00	0.000	0.00	0.00	0.00	0.082	0.000	8.316	0.00	0.52
47.00	1/2"	Yes	1.00	0.000	0.65	0.05	0.00	0.082	0.000	8.316	0.00	0.16
47.50	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.083	0.000	8.334	0.00	6.24
47.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	8.334	0.00	0.08
47.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	8.334	0.00	2.42
47.50	7/8"	Yes	0.50	0.000	1.11	0.05	0.00	0.083	0.000	8.334	0.00	0.26
47.50	7/8"	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	8.334	0.00	0.26
47.50	1/2"	Yes	0.50	0.000	0.65	0.03	0.00	0.083	0.000	8.334	0.00	0.08
48.00	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.083	0.000	8.352	0.00	6.24
48.00	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	8.352	0.00	0.08
48.00	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	8.352	0.00	2.42
48.00	7/8"	Yes	0.50	0.000	1.11	0.05	0.00	0.083	0.000	8.352	0.00	0.26
48.00	7/8"	Yes	0.50	0.000	0.00	0.00	0.00	0.083	0.000	8.352	0.00	0.26
48.00	1/2"	Yes	0.50	0.000	0.65	0.03	0.00	0.083	0.000	8.352	0.00	0.08
50.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	8.422	0.00	24.96
50.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	8.422	0.00	0.32
50.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	8.422	0.00	9.66
50.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.083	0.000	8.422	0.00	1.04
50.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	8.422	0.00	1.04
50.00	1/2"	Yes	2.00	0.000	0.65	0.11	0.00	0.083	0.000	8.422	0.00	0.32
52.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	8.491	0.00	24.96
52.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	8.491	0.00	0.32
52.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	8.491	0.00	9.66
52.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.070	0.000	8.491	0.00	1.04
52.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	8.491	0.00	1.04
53.25	1 5/8"	Yes	1.25	0.000	2.00	0.21	0.00	0.071	0.000	8.533	0.00	15.60
53.25	1/2" Fiber	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	8.533	0.00	0.20
53.25	2" Conduit	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	8.533	0.00	6.04
53.25	7/8"	Yes	1.25	0.000	1.11	0.12	0.00	0.071	0.000	8.533	0.00	0.65
53.25	7/8"	Yes	1.25	0.000	0.00	0.00	0.00	0.071	0.000	8.533	0.00	0.65
54.00	1 5/8"	Yes	0.75	0.000	2.00	0.13	0.00	0.070	0.000	8.557	0.00	9.36
54.00	1/2" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	8.557	0.00	0.12
54.00	2" Conduit	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	8.557	0.00	3.62
54.00	7/8"	Yes	0.75	0.000	1.11	0.07	0.00	0.070	0.000	8.557	0.00	0.39
54.00	7/8"	Yes	0.75	0.000	0.00	0.00	0.00	0.070	0.000	8.557	0.00	0.39
56.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	8.622	0.00	24.96
56.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	8.622	0.00	0.32
56.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	8.622	0.00	9.66
56.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.071	0.000	8.622	0.00	1.04
56.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	8.622	0.00	1.04
58.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	8.685	0.00	24.96
58.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	8.685	0.00	0.32
58.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	8.685	0.00	9.66
58.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.071	0.000	8.685	0.00	1.04
58.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	8.685	0.00	1.04
60.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.072	0.000	8.746	0.00	24.96

Linear Appurtenance Segment Forces (Factored)

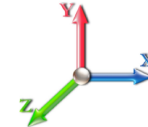
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
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)
60.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	8.746	0.00	0.32
60.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	8.746	0.00	9.66
60.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.072	0.000	8.746	0.00	1.04
60.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.072	0.000	8.746	0.00	1.04
62.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.073	0.000	8.806	0.00	24.96
62.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	8.806	0.00	0.32
62.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	8.806	0.00	9.66
62.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.073	0.000	8.806	0.00	1.04
62.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	8.806	0.00	1.04
64.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	8.864	0.00	24.96
64.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	8.864	0.00	0.32
64.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	8.864	0.00	9.66
64.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.074	0.000	8.864	0.00	1.04
64.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	8.864	0.00	1.04
66.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.075	0.000	8.920	0.00	24.96
66.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	8.920	0.00	0.32
66.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	8.920	0.00	9.66
66.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.075	0.000	8.920	0.00	1.04
66.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.075	0.000	8.920	0.00	1.04
68.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.077	0.000	8.976	0.00	24.96
68.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	8.976	0.00	0.32
68.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	8.976	0.00	9.66
68.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.077	0.000	8.976	0.00	1.04
68.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.077	0.000	8.976	0.00	1.04
70.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	9.030	0.00	24.96
70.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	9.030	0.00	0.32
70.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	9.030	0.00	9.66
70.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.078	0.000	9.030	0.00	1.04
70.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	9.030	0.00	1.04
72.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.079	0.000	9.083	0.00	24.96
72.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	9.083	0.00	0.32
72.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	9.083	0.00	9.66
72.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.079	0.000	9.083	0.00	1.04
72.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	9.083	0.00	1.04
74.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.080	0.000	9.135	0.00	24.96
74.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	9.135	0.00	0.32
74.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	9.135	0.00	9.66
74.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.080	0.000	9.135	0.00	1.04
74.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.080	0.000	9.135	0.00	1.04
76.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	9.185	0.00	24.96
76.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	9.185	0.00	0.32
76.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	9.185	0.00	9.66
76.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.081	0.000	9.185	0.00	1.04
76.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	9.185	0.00	1.04
78.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.082	0.000	9.235	0.00	24.96
78.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	9.235	0.00	0.32
78.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	9.235	0.00	9.66

Linear Appurtenance Segment Forces (Factored)

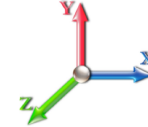
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
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)
78.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.082	0.000	9.235	0.00	1.04
78.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.082	0.000	9.235	0.00	1.04
80.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.084	0.000	9.284	0.00	24.96
80.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	9.284	0.00	0.32
80.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	9.284	0.00	9.66
80.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.084	0.000	9.284	0.00	1.04
80.00	7/8"	Yes	2.00	0.000	0.00	0.00	0.00	0.084	0.000	9.284	0.00	1.04
82.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.085	0.000	9.332	0.00	24.96
82.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	9.332	0.00	0.32
82.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	9.332	0.00	9.66
82.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.085	0.000	9.332	0.00	1.04
84.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.086	0.000	9.379	0.00	24.96
84.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	9.379	0.00	0.32
84.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.086	0.000	9.379	0.00	9.66
84.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.086	0.000	9.379	0.00	1.04
86.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.088	0.000	9.425	0.00	24.96
86.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.088	0.000	9.425	0.00	0.32
86.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.088	0.000	9.425	0.00	9.66
86.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.088	0.000	9.425	0.00	1.04
88.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.089	0.000	9.470	0.00	24.96
88.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	9.470	0.00	0.32
88.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.089	0.000	9.470	0.00	9.66
88.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.089	0.000	9.470	0.00	1.04
90.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.091	0.000	9.514	0.00	24.96
90.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	9.514	0.00	0.32
90.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.091	0.000	9.514	0.00	9.66
90.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.091	0.000	9.514	0.00	1.04
92.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.092	0.000	9.558	0.00	24.96
92.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	9.558	0.00	0.32
92.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	9.558	0.00	9.66
92.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.092	0.000	9.558	0.00	1.04
94.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.094	0.000	9.601	0.00	24.96
94.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	9.601	0.00	0.32
94.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	9.601	0.00	9.66
94.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.094	0.000	9.601	0.00	1.04
96.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.095	0.000	9.643	0.00	24.96
96.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.095	0.000	9.643	0.00	0.32
96.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.095	0.000	9.643	0.00	9.66
96.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.095	0.000	9.643	0.00	1.04
97.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.097	0.000	9.664	0.00	12.48
97.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	9.664	0.00	0.16
97.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.097	0.000	9.664	0.00	4.83
97.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.097	0.000	9.664	0.00	0.52
98.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.098	0.000	9.685	0.00	12.48
98.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	9.685	0.00	0.16
98.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.098	0.000	9.685	0.00	4.83
98.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.098	0.000	9.685	0.00	0.52

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
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)
100.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.099	0.000	9.725	0.00	24.96
100.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.099	0.000	9.725	0.00	0.32
100.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.099	0.000	9.725	0.00	9.66
100.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.099	0.000	9.725	0.00	1.04
101.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.100	1.001	9.746	0.00	12.48
101.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.100	1.001	9.746	0.00	0.16
101.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.100	1.001	9.746	0.00	4.83
101.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.100	1.001	9.746	0.00	0.52
102.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.099	0.000	9.766	0.00	12.48
102.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.099	0.000	9.766	0.00	0.16
102.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.099	0.000	9.766	0.00	4.83
102.00	7/8"	Yes	1.00	0.000	1.11	0.09	0.00	0.099	0.000	9.766	0.00	0.52
104.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.101	1.002	9.805	0.00	24.96
104.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.101	1.002	9.805	0.00	0.32
104.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.101	1.002	9.805	0.00	9.66
104.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.101	1.002	9.805	0.00	1.04
106.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.102	1.007	9.844	0.00	24.96
106.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.102	1.007	9.844	0.00	0.32
106.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.102	1.007	9.844	0.00	9.66
106.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.102	1.007	9.844	0.00	1.04
108.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.104	1.013	9.883	0.00	24.96
108.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.104	1.013	9.883	0.00	0.32
108.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.104	1.013	9.883	0.00	9.66
108.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.104	1.013	9.883	0.00	1.04
110.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.106	1.019	9.921	0.00	24.96
110.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.019	9.921	0.00	0.32
110.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.019	9.921	0.00	9.66
110.00	7/8"	Yes	2.00	0.000	1.11	0.19	0.00	0.106	1.019	9.921	0.00	1.04
112.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.070	0.000	9.958	0.00	24.96
112.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	9.958	0.00	0.32
112.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.070	0.000	9.958	0.00	9.66
114.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.071	0.000	9.995	0.00	24.96
114.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	9.995	0.00	0.32
114.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.071	0.000	9.995	0.00	9.66
116.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.073	0.000	10.031	0.00	24.96
116.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	10.031	0.00	0.32
116.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.073	0.000	10.031	0.00	9.66
118.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.074	0.000	10.067	0.00	24.96
118.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	10.067	0.00	0.32
118.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.074	0.000	10.067	0.00	9.66
120.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.076	0.000	10.102	0.00	24.96
120.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	10.102	0.00	0.32
120.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.076	0.000	10.102	0.00	9.66
122.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.078	0.000	10.137	0.00	24.96
122.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	10.137	0.00	0.32
122.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.078	0.000	10.137	0.00	9.66
124.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.079	0.000	10.172	0.00	24.96

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
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)
124.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	10.172	0.00	0.32
124.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.079	0.000	10.172	0.00	9.66
126.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.081	0.000	10.206	0.00	24.96
126.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	10.206	0.00	0.32
126.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.081	0.000	10.206	0.00	9.66
128.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.083	0.000	10.240	0.00	24.96
128.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	10.240	0.00	0.32
128.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.083	0.000	10.240	0.00	9.66
130.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.085	0.000	10.273	0.00	24.96
130.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	10.273	0.00	0.32
130.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.085	0.000	10.273	0.00	9.66
131.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.087	0.000	10.289	0.00	12.48
131.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.087	0.000	10.289	0.00	0.16
131.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.087	0.000	10.289	0.00	4.83
132.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.088	0.000	10.306	0.00	12.48
132.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.088	0.000	10.306	0.00	0.16
132.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.088	0.000	10.306	0.00	4.83
134.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.090	0.000	10.338	0.00	24.96
134.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	10.338	0.00	0.32
134.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.090	0.000	10.338	0.00	9.66
136.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.092	0.000	10.370	0.00	24.96
136.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	10.370	0.00	0.32
136.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.092	0.000	10.370	0.00	9.66
138.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.094	0.000	10.402	0.00	24.96
138.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	10.402	0.00	0.32
138.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.094	0.000	10.402	0.00	9.66
140.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.097	0.000	10.433	0.00	24.96
140.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.097	0.000	10.433	0.00	0.32
140.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.097	0.000	10.433	0.00	9.66
142.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.100	0.000	10.464	0.00	24.96
142.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.100	0.000	10.464	0.00	0.32
142.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.100	0.000	10.464	0.00	9.66
142.50	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.102	1.005	10.472	0.00	6.24
142.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.102	1.005	10.472	0.00	0.08
142.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.102	1.005	10.472	0.00	2.42
144.00	1 5/8"	Yes	1.50	0.000	2.00	0.25	0.00	0.103	1.010	10.495	0.00	18.72
144.00	1/2" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.103	1.010	10.495	0.00	0.24
144.00	2" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	0.103	1.010	10.495	0.00	7.25
146.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.106	1.018	10.525	0.00	24.96
146.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.018	10.525	0.00	0.32
146.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.106	1.018	10.525	0.00	9.66
148.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.109	1.028	10.555	0.00	24.96
148.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.109	1.028	10.555	0.00	0.32
148.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.109	1.028	10.555	0.00	9.66
148.25	1 5/8"	Yes	0.25	0.000	2.00	0.04	0.00	0.111	1.034	10.559	0.00	3.12
148.25	1/2" Fiber	Yes	0.25	0.000	0.00	0.00	0.00	0.111	1.034	10.559	0.00	0.04
148.25	2" Conduit	Yes	0.25	0.000	0.00	0.00	0.00	0.111	1.034	10.559	0.00	1.21

Linear Appurtenance Segment Forces (Factored)

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
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)
149.00	1 5/8"	Yes	0.75	0.000	2.00	0.13	0.00	0.112	1.037	10.570	0.00	9.36
149.00	1/2" Fiber	Yes	0.75	0.000	0.00	0.00	0.00	0.112	1.037	10.570	0.00	0.12
149.00	2" Conduit	Yes	0.75	0.000	0.00	0.00	0.00	0.112	1.037	10.570	0.00	3.62
150.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.114	1.041	10.585	0.00	12.48
150.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	10.585	0.00	0.16
150.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.114	1.041	10.585	0.00	4.83
150.50	1 5/8"	Yes	0.50	0.000	2.00	0.08	0.00	0.115	1.046	10.592	0.00	6.24
150.50	1/2" Fiber	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.046	10.592	0.00	0.08
150.50	2" Conduit	Yes	0.50	0.000	0.00	0.00	0.00	0.115	1.046	10.592	0.00	2.42
152.00	1 5/8"	Yes	1.50	0.000	2.00	0.25	0.00	0.115	1.044	10.614	0.00	18.72
152.00	1/2" Fiber	Yes	1.50	0.000	0.00	0.00	0.00	0.115	1.044	10.614	0.00	0.24
152.00	2" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	0.115	1.044	10.614	0.00	7.25
154.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.118	1.054	10.643	0.00	24.96
154.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.054	10.643	0.00	0.32
154.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.118	1.054	10.643	0.00	9.66
156.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.122	1.066	10.672	0.00	24.96
156.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	10.672	0.00	0.32
156.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.122	1.066	10.672	0.00	9.66
158.00	1 5/8"	Yes	2.00	0.000	2.00	0.33	0.00	0.127	1.080	10.700	0.00	24.96
158.00	1/2" Fiber	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	10.700	0.00	0.32
158.00	2" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	0.127	1.080	10.700	0.00	9.66
159.00	1 5/8"	Yes	1.00	0.000	2.00	0.17	0.00	0.130	1.090	10.714	0.00	12.48
159.00	1/2" Fiber	Yes	1.00	0.000	0.00	0.00	0.00	0.130	1.090	10.714	0.00	0.16
159.00	2" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	0.130	1.090	10.714	0.00	4.83
Totals:											0.0	2,884.5

Calculated Forces

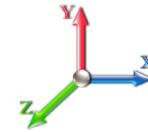
Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 28

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	-42.98	-8.66	0.00	-1066.8	0.00	1066.86	4390.37	1208.07	5796.90	5231.64	0.00	0.000	0.000	0.214
2.00	-42.41	-8.62	0.00	-1049.5	0.00	1049.55	4366.62	1196.25	5684.08	5152.14	0.00	-0.021	0.000	0.213
4.00	-41.83	-8.58	0.00	-1032.3	0.00	1032.31	4342.50	1184.44	5572.38	5072.75	0.02	-0.042	0.000	0.213
6.00	-41.26	-8.55	0.00	-1015.1	0.00	1015.14	4318.00	1172.63	5461.78	4993.49	0.04	-0.063	0.000	0.213
8.00	-40.70	-8.51	0.00	-998.05	0.00	998.05	4293.12	1160.81	5352.29	4914.37	0.07	-0.084	0.000	0.213
10.00	-40.14	-8.48	0.00	-981.02	0.00	981.02	4267.86	1149.00	5243.91	4835.41	0.11	-0.106	0.000	0.212
12.00	-39.58	-8.44	0.00	-964.06	0.00	964.06	4242.22	1137.19	5136.64	4756.61	0.16	-0.128	0.000	0.212
14.00	-39.03	-8.41	0.00	-947.17	0.00	947.17	4216.20	1125.37	5030.48	4677.99	0.22	-0.151	0.000	0.212
16.00	-38.48	-8.37	0.00	-930.35	0.00	930.35	4189.80	1113.56	4925.42	4599.57	0.29	-0.173	0.000	0.212
18.00	-37.94	-8.34	0.00	-913.60	0.00	913.60	4163.03	1101.75	4821.48	4521.36	0.37	-0.197	0.000	0.211
20.00	-37.40	-8.30	0.00	-896.93	0.00	896.93	4135.87	1089.94	4718.64	4443.36	0.45	-0.220	0.000	0.211
22.00	-36.87	-8.26	0.00	-880.32	0.00	880.32	4108.34	1078.12	4616.91	4365.60	0.55	-0.244	0.000	0.211
24.00	-36.34	-8.23	0.00	-863.79	0.00	863.79	4080.43	1066.31	4516.29	4288.09	0.66	-0.268	0.000	0.210
26.00	-35.82	-8.19	0.00	-847.34	0.00	847.34	4052.14	1054.50	4416.78	4210.84	0.77	-0.292	0.000	0.210
28.00	-35.30	-8.15	0.00	-830.96	0.00	830.96	4023.46	1042.68	4318.37	4133.86	0.90	-0.317	0.000	0.210
30.00	-34.79	-8.11	0.00	-814.66	0.00	814.66	3994.42	1030.87	4221.08	4057.17	1.04	-0.342	0.000	0.210
32.00	-34.28	-8.07	0.00	-798.44	0.00	798.44	3964.99	1019.06	4124.89	3980.79	1.19	-0.367	0.000	0.209
34.00	-33.77	-8.03	0.00	-782.30	0.00	782.30	3935.18	1007.24	4029.81	3904.71	1.35	-0.393	0.000	0.209
36.00	-33.27	-7.99	0.00	-766.24	0.00	766.24	3904.99	995.43	3935.85	3828.97	1.52	-0.419	0.000	0.209
38.00	-32.77	-7.95	0.00	-750.26	0.00	750.26	3874.43	983.62	3842.99	3753.56	1.70	-0.445	0.000	0.208
40.00	-32.28	-7.91	0.00	-734.36	0.00	734.36	3843.48	971.81	3751.23	3678.51	1.89	-0.472	0.000	0.208
42.00	-31.79	-7.87	0.00	-718.53	0.00	718.53	3812.16	959.99	3660.59	3603.83	2.10	-0.500	0.000	0.208
44.00	-31.31	-7.83	0.00	-702.79	0.00	702.79	3780.46	948.18	3571.06	3529.52	2.31	-0.527	0.000	0.207
46.00	-30.84	-7.79	0.00	-687.13	0.00	687.13	3748.38	936.37	3482.63	3455.62	2.54	-0.555	0.000	0.207
47.00	-30.54	-7.73	0.00	-679.34	0.00	679.34	3732.20	930.46	3438.83	3418.81	2.66	-0.570	0.000	0.207
47.50	-30.42	-7.72	0.00	-675.48	0.00	675.48	3724.07	927.51	3417.04	3400.45	2.72	-0.577	0.000	0.207
48.00	-30.21	-7.71	0.00	-671.62	0.00	671.62	3715.92	924.55	3395.31	3382.11	2.78	-0.584	0.000	0.207
50.00	-29.38	-7.67	0.00	-656.19	0.00	656.19	3683.08	912.74	3309.10	3309.03	3.03	-0.613	0.000	0.206
52.00	-28.55	-7.62	0.00	-640.85	0.00	640.85	3649.86	900.93	3224.00	3236.39	3.29	-0.643	0.000	0.206
53.25	-28.05	-7.59	0.00	-631.33	0.00	631.33	3673.19	909.21	3283.56	3287.28	3.46	-0.661	0.000	0.200
54.00	-27.87	-7.58	0.00	-625.63	0.00	625.63	3660.74	904.78	3251.64	3260.04	3.57	-0.673	0.000	0.200
56.00	-27.41	-7.54	0.00	-610.48	0.00	610.48	3627.27	892.97	3167.28	3187.69	3.86	-0.702	0.000	0.199
58.00	-26.95	-7.49	0.00	-595.40	0.00	595.40	3593.41	881.16	3084.04	3115.80	4.16	-0.731	0.000	0.199
60.00	-26.50	-7.45	0.00	-580.41	0.00	580.41	3559.18	869.34	3001.90	3044.38	4.47	-0.760	0.000	0.198
62.00	-26.06	-7.41	0.00	-565.51	0.00	565.51	3524.57	857.53	2920.88	2973.45	4.79	-0.790	0.000	0.198
64.00	-25.61	-7.37	0.00	-550.69	0.00	550.69	3489.59	845.72	2840.96	2903.01	5.13	-0.821	0.000	0.197
66.00	-25.18	-7.33	0.00	-535.96	0.00	535.96	3454.22	833.90	2762.15	2833.08	5.48	-0.852	0.000	0.197
68.00	-24.74	-7.28	0.00	-521.30	0.00	521.30	3418.47	822.09	2684.44	2763.67	5.85	-0.883	0.000	0.196
70.00	-24.31	-7.24	0.00	-506.74	0.00	506.74	3382.35	810.28	2607.85	2694.80	6.22	-0.915	0.000	0.195
72.00	-23.89	-7.20	0.00	-492.25	0.00	492.25	3345.84	798.46	2532.37	2626.49	6.61	-0.948	0.000	0.195
74.00	-23.47	-7.16	0.00	-477.85	0.00	477.85	3308.96	786.65	2457.99	2558.73	7.02	-0.981	0.000	0.194
76.00	-23.05	-7.12	0.00	-463.52	0.00	463.52	3271.70	774.84	2384.72	2491.55	7.43	-1.014	0.000	0.193
78.00	-22.64	-7.08	0.00	-449.29	0.00	449.29	3230.14	763.03	2312.56	2422.03	7.87	-1.048	0.000	0.193
80.00	-22.18	-6.98	0.00	-435.00	0.00	435.00	3180.13	751.21	2241.51	2347.24	8.31	-1.082	0.000	0.192
82.00	-21.78	-6.94	0.00	-421.04	0.00	421.04	3130.13	739.40	2171.57	2273.62	8.77	-1.117	0.000	0.192
84.00	-21.38	-6.90	0.00	-407.16	0.00	407.16	3080.12	727.59	2102.74	2201.18	9.25	-1.152	0.000	0.192
86.00	-20.99	-6.86	0.00	-393.36	0.00	393.36	3030.11	715.77	2035.01	2129.91	9.74	-1.188	0.000	0.192
88.00	-20.60	-6.82	0.00	-379.64	0.00	379.64	2980.10	703.96	1968.39	2059.81	10.25	-1.224	0.000	0.191

Calculated Forces

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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90.00	-20.22	-6.78	0.00	-366.00	0.00	366.00	2930.09	692.15	1902.89	1990.89	10.77	-1.261	0.000	0.191
92.00	-19.84	-6.74	0.00	-352.44	0.00	352.44	2880.09	680.34	1838.49	1923.14	11.30	-1.299	0.000	0.190
94.00	-19.47	-6.71	0.00	-338.95	0.00	338.95	2830.08	668.52	1775.20	1856.56	11.85	-1.336	0.000	0.190
96.00	-19.10	-6.66	0.00	-325.54	0.00	325.54	2780.07	656.71	1713.01	1791.15	12.42	-1.375	0.000	0.189
97.00	-18.92	-6.65	0.00	-318.87	0.00	318.87	2755.06	650.80	1682.34	1758.89	12.71	-1.394	0.000	0.188
98.00	-18.63	-6.63	0.00	-312.23	0.00	312.23	2730.06	644.90	1651.94	1726.92	13.01	-1.414	0.000	0.188
100.00	-18.06	-6.58	0.00	-298.97	0.00	298.97	2680.05	633.08	1591.98	1663.86	13.61	-1.453	0.000	0.187
101.00	-17.78	-6.56	0.00	-292.39	0.00	292.39	2260.99	534.61	1362.32	1425.54	13.91	-1.474	0.000	0.213
102.00	-17.62	-6.55	0.00	-285.83	0.00	285.83	2242.36	529.69	1337.35	1400.64	14.23	-1.494	0.000	0.212
104.00	-17.31	-6.51	0.00	-272.74	0.00	272.74	2200.69	519.85	1288.10	1348.81	14.86	-1.539	0.000	0.210
106.00	-16.99	-6.47	0.00	-259.72	0.00	259.72	2159.02	510.00	1239.78	1297.95	15.52	-1.584	0.000	0.208
108.00	-16.69	-6.44	0.00	-246.77	0.00	246.77	2117.34	500.16	1192.38	1248.07	16.19	-1.630	0.000	0.206
110.00	-16.32	-6.34	0.00	-233.76	0.00	233.76	2075.67	490.32	1145.90	1199.16	16.88	-1.676	0.000	0.203
112.00	-16.02	-6.31	0.00	-221.08	0.00	221.08	2034.00	480.47	1100.35	1151.23	17.59	-1.722	0.000	0.200
114.00	-15.73	-6.27	0.00	-208.47	0.00	208.47	1992.32	470.63	1055.73	1104.29	18.33	-1.768	0.000	0.197
116.00	-15.44	-6.24	0.00	-195.92	0.00	195.92	1950.65	460.78	1012.02	1058.31	19.08	-1.815	0.000	0.193
118.00	-15.15	-6.21	0.00	-183.44	0.00	183.44	1908.98	450.94	969.24	1013.32	19.85	-1.861	0.000	0.189
120.00	-14.86	-6.17	0.00	-171.03	0.00	171.03	1867.30	441.10	927.39	969.30	20.64	-1.908	0.000	0.185
122.00	-14.58	-6.14	0.00	-158.68	0.00	158.68	1825.63	431.25	886.45	926.26	21.45	-1.954	0.000	0.180
124.00	-14.31	-6.11	0.00	-146.40	0.00	146.40	1783.96	421.41	846.45	884.20	22.27	-1.999	0.000	0.174
126.00	-14.04	-6.08	0.00	-134.18	0.00	134.18	1742.28	411.56	807.36	843.12	23.12	-2.044	0.000	0.167
128.00	-13.77	-6.04	0.00	-122.03	0.00	122.03	1700.61	401.72	769.20	803.01	23.99	-2.088	0.000	0.160
130.00	-13.51	-6.01	0.00	-109.94	0.00	109.94	1658.94	391.87	731.96	763.88	24.87	-2.131	0.000	0.152
131.00	-11.71	-4.75	0.00	-103.93	0.00	103.93	1638.10	386.95	713.69	744.68	25.32	-2.152	0.000	0.147
132.00	-11.60	-4.73	0.00	-99.18	0.00	99.18	1617.26	382.03	695.65	725.73	25.77	-2.173	0.000	0.144
134.00	-11.37	-4.70	0.00	-89.72	0.00	89.72	1575.59	372.19	660.26	688.55	26.69	-2.214	0.000	0.138
136.00	-11.14	-4.67	0.00	-80.32	0.00	80.32	1533.91	362.34	625.80	652.35	27.63	-2.253	0.000	0.131
138.00	-10.92	-4.64	0.00	-70.98	0.00	70.98	1492.24	352.50	592.26	617.13	28.58	-2.291	0.000	0.123
140.00	-10.71	-4.61	0.00	-61.70	0.00	61.70	1450.57	342.65	559.64	582.89	29.55	-2.328	0.000	0.113
142.00	-10.53	-4.58	0.00	-52.48	0.00	52.48	1408.89	332.81	527.94	549.63	30.53	-2.362	0.000	0.103
142.50	-8.34	-3.42	0.00	-50.19	0.00	50.19	1398.48	330.35	520.17	541.46	30.78	-2.370	0.000	0.099
144.00	-8.21	-3.40	0.00	-45.06	0.00	45.06	1367.22	322.97	497.17	517.34	31.53	-2.394	0.000	0.093
146.00	-8.04	-3.37	0.00	-38.26	0.00	38.26	1325.55	313.12	467.33	486.03	32.53	-2.423	0.000	0.085
148.00	-7.87	-3.34	0.00	-31.51	0.00	31.51	1283.87	303.28	438.41	455.70	33.55	-2.450	0.000	0.075
148.25	-7.85	-3.34	0.00	-30.68	0.00	30.68	1278.66	302.05	434.86	451.97	33.68	-2.454	0.000	0.074
149.00	-5.33	-2.22	0.00	-27.15	0.00	27.15	1263.04	298.36	424.29	440.90	34.07	-2.463	0.000	0.066
150.00	-5.21	-2.20	0.00	-24.93	0.00	24.93	1242.20	293.43	410.41	426.34	34.59	-2.475	0.000	0.063
150.50	-5.15	-2.19	0.00	-23.83	0.00	23.83	761.18	179.81	256.83	268.82	34.85	-2.481	0.000	0.096
152.00	-5.07	-2.17	0.00	-20.54	0.00	20.54	742.42	175.38	244.33	255.67	35.63	-2.497	0.000	0.087
154.00	-4.96	-2.14	0.00	-16.20	0.00	16.20	717.42	169.47	228.15	238.65	36.68	-2.526	0.000	0.075
156.00	-4.86	-2.12	0.00	-11.91	0.00	11.91	692.41	163.56	212.53	222.21	37.74	-2.551	0.000	0.061
158.00	-4.76	-2.09	0.00	-7.67	0.00	7.67	667.41	157.66	197.45	206.36	38.82	-2.571	0.000	0.044
159.00	0.00	-1.87	0.00	-5.58	0.00	5.58	654.91	154.70	190.13	198.65	39.36	-2.578	0.000	0.028

Final Analysis Summary

Structure: CT13055-A-SBA	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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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 117 mph Wind	36.8	0.00	51.55	0.00	0.00	4565.69
0.9D + 1.0W 117 mph Wind	36.8	0.00	38.66	0.00	0.00	4492.91
1.2D + 1.0Di + 1.0Wi 50 mph Wind	9.6	0.00	67.83	0.00	0.00	1160.07
1.2D + 1.0Ev + 1.0Eh	0.7	0.00	53.52	0.00	0.00	106.16
0.9D + 1.0Ev + 1.0Eh	0.7	0.00	40.52	0.00	0.00	104.40
1.0D + 1.0W 60 mph Wind	8.7	0.00	42.98	0.00	0.00	1066.86

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 117 mph Wind	-18.53	-28.14	0.00	-1252.3	0.00	-1252.3	2260.99	534.61	1362.32	1425.54	101.00	0.889
0.9D + 1.0W 117 mph Wind	-38.66	-36.79	0.00	-4492.9	0.00	-4492.9	4390.37	1208.0	5796.90	5231.64	0.00	0.869
1.2D + 1.0Di + 1.0Wi 50 mph Wind	-67.83	-9.60	0.00	-1160.0	0.00	-1160.0	4390.37	1208.0	5796.90	5231.64	0.00	0.237
1.2D + 1.0Ev + 1.0Eh	-22.33	-0.70	0.00	-36.46	0.00	-36.46	2260.99	534.61	1362.32	1425.54	101.00	0.035
0.9D + 1.0Ev + 1.0Eh	-16.92	-0.68	0.00	-35.77	0.00	-35.77	2260.99	534.61	1362.32	1425.54	101.00	0.033
1.0D + 1.0W 60 mph Wind	-42.98	-8.66	0.00	-1066.8	0.00	-1066.8	4390.37	1208.0	5796.90	5231.64	0.00	0.214

Base Plate Summary

Structure: CT13055-A-SB	Code: EIA/TIA-222-H	6/12/2020
Site Name: Monroe Turnpike	Exposure: C	
Height: 159.00 (ft)	Crest Height: 0.00	
Base Elev: 1.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
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Reactions	Base Plate	Anchor Bolts
Original Design	Yield (ksi): 60.00	Bolt Circle: 65.00
Moment (kip-ft): 3665.00	Width (in): 71.00	Number Bolts: 14.00
Axial (kip): 41.45	Style: Round	Bolt Type: 2.25" 18J
Shear (kip): 31.29	Polygon Sides: 0.00	Bolt Diameter (in): 2.25
Analysis (1.2D + 1.0W)	Clip Length (in): 0.00	Yield (ksi): 75.00
Moment (kip-ft): 4565.69	Effective Len (in): 27.84	Ultimate (ksi): 100.00
Axial (kip): 51.55	Moment (kip-in): 834.06	Arrangement: Radial
Shear (kip): 36.80	Allow Stress (ksi): 81.00	Cluster Dist (in): 0.00
	Applied Stress (ksi): 35.64	Start Angle (deg): 0.00
	Stress Ratio: 0.44	Compression
		Force (kip): 245.67
		Allowable (kip): 268.39
		Ratio: 0.92
		Tension
		Force (kip): 235.98
		Allowable (kip): 243.75
		Ratio: 0.97



Monopole Mat Foundation Design

Date

6/12/2020

Customer Name:	AT&T	EIA/TIA Standard:	EIA-222-H
Site Name:		Structure Height (Ft.):	159
Site Number:	CT13055-A-SBA	Engineer Name:	J. Chen
Engr. Number:	94405	Engineer Login ID:	

Foundation Info Obtained from:

Drawings/Calculations
Monopole
Analysis

Structure Type:

Analysis or Design?

Base Reactions (Factored):

Axial Load (Kips):	51.6	Shear Force (Kips):	36.8
Uplift Force (Kips):	0.0	Moment (Kips-ft):	4565.7

Allowable overstress %: 5.0%

Foundation Geometries:

Diameter of Pier (ft.):	7.0	Mods required -Yes/No ?:	No
Pier Height A. G. (ft.):	1.00	Depth of Base BG (ft.):	5.5
Length of Pad (ft.):	25.5	Thickness of Pad (ft.):	2.00
		Width of Pad (ft.):	25.5

Final Length of pad (ft)	25.5	Final width of pad (ft):	25.5
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Material Properties and Rebar Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	9	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	32	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf

Rebar at the bottom of the concrete pad:

Qty. of Rebar in Pad (L):	50	Qty. of Rebar in Pad (W):	50
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Rebar at the top of the concrete pad:

Qty. of Rebar in Pad (L):	50	Qty. of Rebar in Pad (W):	50
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Apply 1.35 factor for e/w Per G: 1.35

Soil Design Parameters:

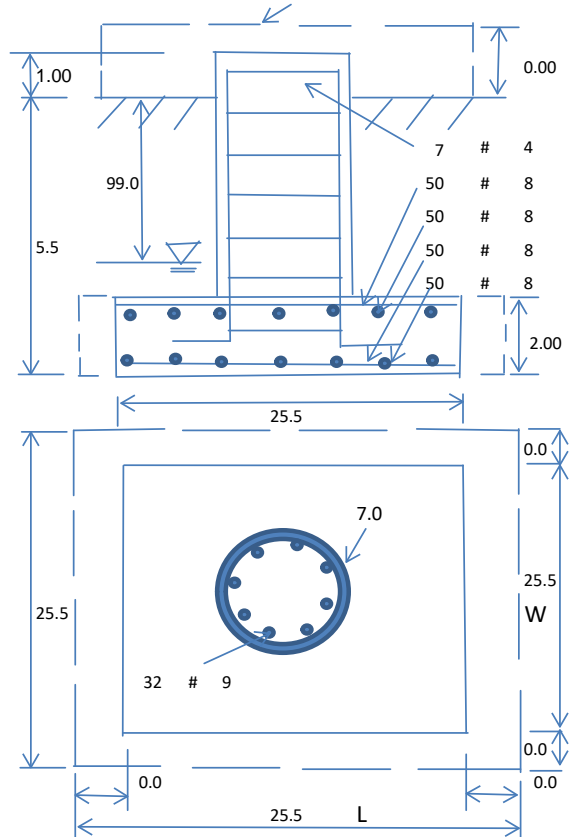
Soil Unit Weight (pcf):	120.0	Soil Buoyant Weight:	50.0	Pcf	Angle from Top of Pad:	30
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Bottm of Pad:	25
Ultimate Bearing Pressure (psf):	12000	Ultimate Skin Friction:	400	Psf	Angle from Bottm of Pad:	25
Consider Friction for O.T.M. (Y/N):	Yes	Consider Friction for bearing (Y/N):	Yes		Reduction factor on the maximum soil bearing pressure:	1.00
Consider soil hor. resist. for OTM.:	Yes					

Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	2141.18	Total Dry Soil Weight (Kips):	256.94
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	256.94	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	1473.68	Total Dry Concrete Weight (Kips):	221.05
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	221.05	Total Vertical Load on Base (Kips):	529.59

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	2930	<	Allowable Factored Soil Bearing (psf):	9000	0.33	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	6533.0	>	Design Factored Momont (kips-ft):	4713	0.72	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	1.39					OK!



Check the capacities of Reinforcing Concrete:

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

Load/
Capacity
Ratio

(1) Concrete Pier:

Vertical Steel Rebar Area (sq. in./each):	1.00	Tie / Stirrup Area (sq. in./each):	0.20			
Calculated Moment Capacity (Mn,Kips-Ft):	5377.0	> Design Factored Moment (Mu, Kips-F	4731.3	0.88	OK!	
Calculated Shear Capacity (Kips):	660.1	> Design Factored Shear (Kips):	36.8	0.06	OK!	
Calculated Tension Capacity (Tn, Kips):	1728.0	> Design Factored Tension (Tu Kips):	0.0	0.00	OK!	
Calculated Compression Capacity (Pn, Kips):	9741.3	> Design Factored Axial Load (Pu Kips):	51.6	0.01	OK!	
Moment & Axial Strength Combination:	0.88	OK! Check Tie Spacing (Design/Required):		1	OK!	
Pier Reinforcement Ratio:	0.006	Reinforcement Ratio is satisfied per ACI				

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	595.1	> One-Way Factored Shear (L-D. Kips):	275.2	0.46	OK!	
One-Way Design Shear Capacity (W-Direction, Kips):	595.1	> One-Way Factored Shear (W-D., Kips)	275.2	0.46	OK!	
One-Way Design Shear Capacity (Corner-Corner, Kips):	598.5	> One-Way Factored Shear (C-C, Kips):	289.2	0.48	OK!	
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0063	OK! Lower Steel Pad Reinf. Ratio (W-Direc	0.0063			
Lower Steel Pad Moment Capacity (L-Direction, Kips-ft):	3441.4	> Moment at Bottom (L-Dir. K-Ft):	1371.4	0.40	OK!	
Lower Steel Pad Moment Capacity (W-Direction, Kips-ft):	3441.4	> Moment at Bottom (W-Dir. K-Ft):	1371.4	0.40	OK!	
Lower Steel Pad Moment Capacity (Corner-Corner, K-ft):	4797.9	> Moment at Bottom (C-C Dir. K-Ft):	1939.5	0.40	OK!	
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0063	OK! Upper Steel Reinf. Ratio (W-Dir.):	0.0063			
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	3441.4	> Moment at the top (L-Dir K-Ft):	639.3	0.19	OK!	
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	3441.4	> Moment at the top (W-Dir K-Ft):	639.3	0.19	OK!	
Upper Steel Pad Moment Capacity (Corner-Corner, K-ft):	4797.9	> Moment at the top (C-C Dir. K-Ft):	637.4	0.13	OK!	

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

Moment transferred by punching shear:	1826.3	k-ft.	Max. factored shear stress $v_{u,CD}$:	6.1	Psi	
Max. factored shear stress $v_{u,AB}$:	18.9	Psi	Factored shear Strength ϕv_n :	189.7	Psi	
Max. factored shear stress v_u :	18.9	Psi	Check Usage of Punching Shear Capacity:	0.10	OK!	

EXHIBIT 4

May 7, 2020



Centerline Communications
750 West Center Street, Suite #301
West Bridgewater, MA 02379

RE:	Site Number:	CT5266 (LTE 4C, 5G NR)
	SBA Sire Number:	CT13055
	FA Number:	10071137
	PACE Number:	MRCTB047202
	PT Number:	2051A0VDE3
	Site Name:	MONOROE NE
	Site Address:	1428 Monroe Turnpike Monroe, CT 06468

To Whom It May Concern:

Hudson Design Group LLC (HDG) has been authorized by Centerline 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) QS66512-2 Antennas (72.0"x12.0"x9.6" – Wt. = 111 lbs. /each)
- (3) 7770 Antennas (55.0"x11.0"x5.0" - Wt. = 35 lbs. /each)
- (3) RRUS-32 B2 RRH's (27.2"x12.1"x7.0" – Wt. = 60 lbs. /each)
- (3) RRUS-32 B30 RRH's (27.2"x12.1"x7.0" – Wt. = 60 lbs. /each)
- (6) LGP21401 TMA's (14.4"x9.0"x2.7" – Wt. = 19 lbs. /each)
- (6) DBC0061F1V51-2 Diplexers (8.0"x6.2"x6.5" - Wt. = 26 lbs. /each)
- (2) Squid Surge Arrestors (24.0"x9.7" Ø – Wt. = 33 lbs.)
- **(3) DMP65R-BU6DA Antennas (71.2"x20.7"x7.7" – Wt. = 80 lbs. /each)**
- **(3) OPA65R-BU6DA Antennas (71.2"x21.0"x7.8" – Wt. = 63 lbs. /each)**
- **(3) 4449 B5/B12 RRH's (17.9"x13.2"x9.5" – Wt. = 71 lbs. /each)**
- **(3) B14 4478 RRH's (18.1"x13.4"x8.3" – Wt. = 60 lbs. /each)**
- **(1) Squid Surge Arrestor (24.0"x9.7" Ø – Wt. = 33 lbs.)**

*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 AT&T antenna mounts on March 24, 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 120 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 1.30 in was used for this analysis.
- HDG considers this site to be exposure category C; tower is located near large, flat, open, terrain/grasslands.
- HDG considers this site to be topographic category 3; tower is located at the upper half of a hill.
- 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 3.
- 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 ring mount and thru bolts. The connection is considered OK by visual inspection.

Based on our evaluation, we have determined that the existing mount **IS NOT CAPABLE** of supporting the proposed installation. HDG recommends the following modifications:

- **Install new 2-1/2" std. (2.88" O.D.) pipe masts behind new 6'-0" antennas secured to the existing platform (typ. of 2 per sector, total of 6).**
- **Install new handrail kit SitePro1 P/N HRK12-HD (or approved equal).**

	Component	Controlling Load Case	Stress Ratio	Pass/Fail
Existing (LTE 4C, 5G NR) Mount Rating	16	LC1	161%	FAIL
Modified (LTE 4C, 5G NR) Mount Rating	9	LC1	97%	PASS

Reference Documents:

- Mount mapping report prepared by ProVertic LLC dated April 10, 2020.

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

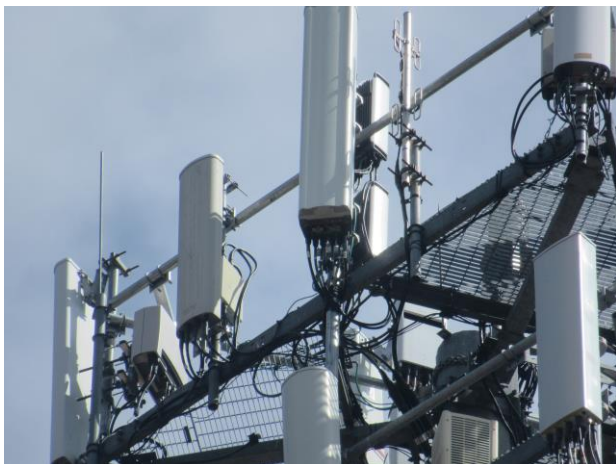


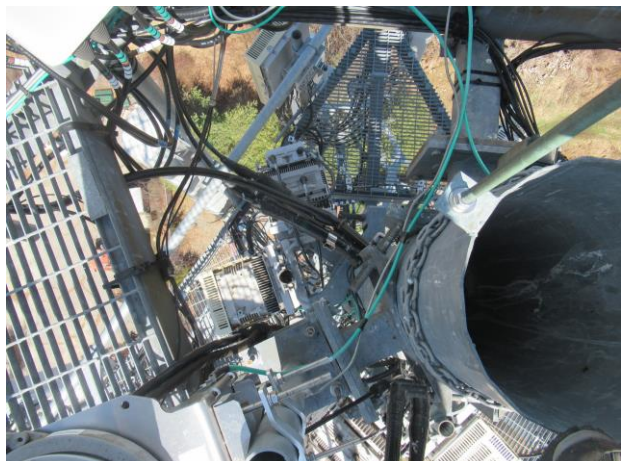
Michael Cabral
Vice President



Daniel P. Hamm, PE
Principal

FIELD PHOTOS:







HUDSON
Design Group LLC

**Wind & Ice
Calculations**

Date: 5/7/2020
 Project Name: MONOROE NE
 Project No.: CT5266
 Designed By: RL Checked By: MSC



2.6.5.2 Velocity Pressure Coeff:

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

$K_z =$ **1.397**

$z =$ 160 (ft)
 $z_g =$ 900 (ft)
 $\alpha =$ 9.5

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

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

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

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

$K_{zt} =$ **1.33**

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

Category = 3

$K_h =$ 3.42
 $K_c =$ 1.0 (from Table 2-4)
 $K_t =$ 0.53 (from Table 2-5)
 $f =$ 2.0 (from Table 2-5)
 $z =$ 160
 $z_s =$ 590 (Mean elevation of base of structure above sea level)
 $H =$ 260 (Ht. of the crest above surrounding terrain)
 $K_{zt} =$ 1.33 (from 2.6.6.2.1)
 $K_e =$ 0.98 (from 2.6.8)

2.6.10 Design Ice Thickness

Max Ice Thickness = $t_i =$ 1.00 in
 Importance Factor = $I =$ 1.00 (from Table 2-3)
 $K_{iz} =$ 1.17 (from Sec. 2.6.10)

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

$t_{iz} =$ **1.30 in**

Date: 5/7/2020
 Project Name: MONOROE NE
 Project No.: CT5266
 Designed By: RL 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

$h =$ 160 $G_h =$ 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

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

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

$q_z =$ 63.88
 $q_{z(ice)} =$ 11.09
 $q_{z(30)} =$ 3.99

$K_z =$ 1.397 (from 2.6.5.2)
 $K_{zt} =$ 1.3 (from 2.6.6.2.1)
 $K_s =$ 1.0 (from 2.6.7)
 $K_e =$ 0.98 (from 2.6.8)
 $K_d =$ 0.95 (from Table 2-2)
 $V_{max} =$ 120 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: 5/7/2020
 Project Name: MONOROE NE
 Project No.: CT5266
 Designed By: RL 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 = **1.30 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)
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.44	1.24	812	164	51
OPA65R-BU6DA Antenna	71.2	21.0	7.8	10.38	3.39	1.24	822	166	51
QS66512-2 Antenna	72.0	12.0	9.6	6.00	6.00	1.36	520	114	32
7770 Antenna	55.0	11.0	5.0	4.20	5.00	1.31	352	79	22
4449 B5/B12 RRH	17.9	13.2	9.5	1.64	1.36	1.20	126	30	8
4449 B5/B12 RRH (Shielded)	17.9	0.0	9.5	0.00	0.00	1.20	0	5	0
B14 4478 RRH	18.1	13.4	8.3	1.68	1.35	1.20	129	31	8
B14 4478 RRH (Shielded)	18.1	0.0	8.3	0.00	0.00	1.20	0	5	0
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	2.25	1.20	175	40	11
RRUS-32 B2 RRH (Shielded)	27.2	0.1	7.0	0.02	272.00	10.23	12	63	1
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	2.25	1.20	175	40	11
RRUS-32 B30 RRH (Shielded)	27.2	1.1	7.0	0.21	24.73	1.99	26	17	2
LGP21401 TMA	14.4	2.7	9.0	0.27	5.33	1.33	23	9	1
DBC0061F1V51-2 Diplexer	8.0	6.2	6.5	0.34	1.29	1.20	26	9	2
Surge Arrestor	24.0	9.7	9.7	1.62	2.47	0.70	72	18	5
C 6x2	6.0	12.0	-	0.50	0.50	1.25	40		
2" Pipe	2.4	12.0	-	0.20	0.20	1.20	15		
L 2-1/2x2-1/2 Angles	2.5	12.0	-	0.21	0.21	2.00	27		
HSS 4x4	4.0	12.0	-	0.33	0.33	1.25	27		

Date: 5/7/2020
 Project Name: MONROE NE
 Project No.: CT5266
 Designed By: RL Checked By: MSC



WIND LOADS

Angle = 30 (deg)

Ice Thickness = 1.30 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)	Force (lbs)	Force (lbs)
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	812	359	699
OPA65R-BU6DA Antenna	71.2	21.0	7.8	10.38	3.86	3.39	9.13	1.24	1.47	822	362	707
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	520	434	498
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	352	187	311
4449 B5/B12 RRH	17.9	13.2	9.5	1.64	1.18	1.36	1.88	1.20	1.20	126	91	117
4449 B5/B12 RRH (Shielded)	17.9	6.6	9.5	0.82	1.18	2.71	1.88	1.21	1.20	63	91	70
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	129	80	117
B14 4478 RRH (Shielded)	18.1	6.7	8.3	0.84	1.04	2.70	2.18	1.21	1.20	65	80	69
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	175	107	158
RRUS-32 B2 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	94	107	97
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	175	107	158
RRUS-32 B30 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	94	107	97
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	23	69	34
DBC0061F1V51-2 Diplexer	8.0	6.2	6.5	0.34	0.36	1.29	1.23	1.20	1.20	26	28	27

WIND LOADS WITH ICE:

DMP65R-BU6DA Antenna	73.8	23.3	10.3	11.93	5.27	3.17	7.17	1.23	1.41	163	82	143
OPA65R-BU6DA Antenna	73.8	23.6	10.4	12.09	5.32	3.13	7.10	1.23	1.40	165	83	144
QS66512-2 Antenna	74.6	14.6	12.2	7.56	6.31	5.11	6.12	1.32	1.36	110	95	107
7770 Antenna	57.6	13.6	7.6	5.44	3.04	4.24	7.59	1.28	1.42	77	48	70
4449 B5/B12 RRH	20.5	15.8	12.1	2.25	1.72	1.30	1.69	1.20	1.20	30	23	28
4449 B5/B12 RRH (Shielded)	20.5	7.9	12.1	1.12	1.72	2.60	1.69	1.20	1.20	15	23	17
B14 4478 RRH	20.7	16.0	10.9	2.30	1.56	1.29	1.90	1.20	1.20	31	21	28
B14 4478 RRH (Shielded)	20.7	8.0	10.9	1.15	1.56	2.59	1.90	1.20	1.20	15	21	17
RRUS-32 B2 RRH	29.8	14.7	9.6	3.04	1.98	2.03	3.11	1.20	1.23	40	27	37
RRUS-32 B2 RRH (Shielded)	29.8	7.3	9.6	1.52	1.98	4.06	3.11	1.27	1.23	21	27	23
RRUS-32 B30 RRH	29.8	14.7	9.6	3.04	1.98	2.03	3.11	1.20	1.23	40	27	37
RRUS-32 B30 RRH (Shielded)	29.8	7.3	9.6	1.52	1.98	4.06	3.11	1.27	1.23	21	27	23
LGP21401 TMA	17.0	5.3	11.6	0.62	1.37	3.21	1.47	1.23	1.20	9	18	11
DBC0061F1V51-2 Diplexer	10.6	8.8	9.1	0.65	0.67	1.20	1.17	1.20	1.20	9	9	9

WIND LOADS AT 30 MPH:

DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	51	22	44
OPA65R-BU6DA Antenna	71.2	21.0	7.8	10.38	3.86	3.39	9.13	1.24	1.47	51	23	44
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	32	27	31
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	22	12	19
4449 B5/B12 RRH	17.9	13.2	9.5	1.64	1.18	1.36	1.88	1.20	1.20	8	6	7
4449 B5/B12 RRH (Shielded)	17.9	6.6	9.5	0.82	1.18	2.71	1.88	1.21	1.20	4	6	4
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	8	5	7
B14 4478 RRH (Shielded)	18.1	6.7	8.3	0.84	1.04	2.70	2.18	1.21	1.20	4	5	4
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	11	7	10
RRUS-32 B2 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	6	7	6
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	11	7	10
RRUS-32 B30 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	6	7	6
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	4	2
DBC0061F1V51-2 Diplexer	8.0	6.2	6.5	0.34	0.36	1.29	1.23	1.20	1.20	2	2	2

Date: 5/7/2020
 Project Name: MONOROE NE
 Project No.: CT5266
 Designed By: RL Checked By: MSC



WIND LOADS

Angle = 60 (deg)

Ice Thickness = 1.30 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)	Force (lbs)	Force (lbs)
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	812	359	472
OPA65R-BU6DA Antenna	71.2	21.0	7.8	10.38	3.86	3.39	9.13	1.24	1.47	822	362	477
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	520	434	456
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	352	187	228
4449 B5/B12 RRH	17.9	13.2	9.5	1.64	1.18	1.36	1.88	1.20	1.20	126	91	99
4449 B5/B12 RRH (Shielded)	17.9	9.9	9.5	1.23	1.18	1.81	1.88	1.20	1.20	94	91	91
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	129	80	92
B14 4478 RRH (Shielded)	18.1	10.1	8.3	1.26	1.04	1.80	2.18	1.20	1.20	97	80	84
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	175	107	124
RRUS-32 B2 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	134	107	113
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	175	107	124
RRUS-32 B30 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	134	107	113
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	23	69	57
DBC0061F1V51-2 Diplexer	8.0	6.2	6.5	0.34	0.36	1.29	1.23	1.20	1.20	26	28	27

WIND LOADS WITH ICE:

DMP65R-BU6DA Antenna	73.8	23.3	10.3	11.93	5.27	3.17	7.17	1.23	1.41	163	82	102
OPA65R-BU6DA Antenna	73.8	23.6	10.4	12.09	5.32	3.13	7.10	1.23	1.40	165	83	103
QS66512-2 Antenna	74.6	14.6	12.2	7.56	6.31	5.11	6.12	1.32	1.36	110	95	99
7770 Antenna	57.6	13.6	7.6	5.44	3.04	4.24	7.59	1.28	1.42	77	48	55
4449 B5/B12 RRH	20.5	15.8	12.1	2.25	1.72	1.30	1.69	1.20	1.20	30	23	25
4449 B5/B12 RRH (Shielded)	20.5	11.8	12.1	1.69	1.72	1.73	1.69	1.20	1.20	22	23	23
B14 4478 RRH	20.7	16.0	10.9	2.30	1.56	1.29	1.90	1.20	1.20	31	21	23
B14 4478 RRH (Shielded)	20.7	12.0	10.9	1.72	1.56	1.73	1.90	1.20	1.20	23	21	21
RRUS-32 B2 RRH	29.8	14.7	9.6	3.04	1.98	2.03	3.11	1.20	1.23	40	27	30
RRUS-32 B2 RRH (Shielded)	29.8	11.0	9.6	2.28	1.98	2.70	3.11	1.21	1.23	31	27	28
RRUS-32 B30 RRH	29.8	14.7	9.6	3.04	1.98	2.03	3.11	1.20	1.23	40	27	30
RRUS-32 B30 RRH (Shielded)	29.8	11.0	9.6	2.28	1.98	2.70	3.11	1.21	1.23	31	27	28
LGP21401 TMA	17.0	5.3	11.6	0.62	1.37	3.21	1.47	1.23	1.20	9	18	16
DBC0061F1V51-2 Diplexer	10.6	8.8	9.1	0.65	0.67	1.20	1.17	1.20	1.20	9	9	9

WIND LOADS AT 30 MPH:

DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	51	22	29
OPA65R-BU6DA Antenna	71.2	21.0	7.8	10.38	3.86	3.39	9.13	1.24	1.47	51	23	30
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	32	27	28
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	22	12	14
4449 B5/B12 RRH	17.9	13.2	9.5	1.64	1.18	1.36	1.88	1.20	1.20	8	6	6
4449 B5/B12 RRH (Shielded)	17.9	9.9	9.5	1.23	1.18	1.81	1.88	1.20	1.20	6	6	6
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	8	5	6
B14 4478 RRH (Shielded)	18.1	10.1	8.3	1.26	1.04	1.80	2.18	1.20	1.20	6	5	5
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	11	7	8
RRUS-32 B2 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	8	7	7
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	11	7	8
RRUS-32 B30 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	8	7	7
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	4	4
DBC0061F1V51-2 Diplexer	8.0	6.2	6.5	0.34	0.36	1.29	1.23	1.20	1.20	2	2	2

Date: 5/7/2020
 Project Name: MONOROE NE
 Project No.: CT5266
 Designed By: RL Checked By: MSC



WIND LOADS

Angle = 90 (deg) Ice Thickness = 1.30 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)	Force (lbs)	Force (lbs)
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	812	359	359
OPA65R-BU6DA Antenna	71.2	21.0	7.8	10.38	3.86	3.39	9.13	1.24	1.47	822	362	362
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	520	434	434
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	352	187	187
4449 B5/B12 RRH	17.9	13.2	9.5	1.64	1.18	1.36	1.88	1.20	1.20	126	91	91
4449 B5/B12 RRH (Shielded)	17.9	0.0	9.5	0.00	1.18	0.00	1.88	1.20	1.20	0	91	91
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	129	80	80
B14 4478 RRH (Shielded)	18.1	0.0	8.3	0.00	1.04	0.00	2.18	1.20	1.20	0	80	80
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	175	107	107
RRUS-32 B2 RRH (Shielded)	27.2	0.1	7.0	0.02	1.32	272.00	3.89	10.23	1.26	12	107	107
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	175	107	107
RRUS-32 B30 RRH (Shielded)	27.2	1.1	7.0	0.21	1.32	24.73	3.89	1.99	1.26	26	107	107
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	23	69	69
DBC0061F1V51-2 Diplexer	8.0	6.2	6.5	0.34	0.36	1.29	1.23	1.20	1.20	26	28	28

WIND LOADS WITH ICE:

DMP65R-BU6DA Antenna	73.8	23.3	10.3	11.93	5.27	3.17	7.17	1.23	1.41	163	82	82
OPA65R-BU6DA Antenna	73.8	23.6	10.4	12.09	5.32	3.13	7.10	1.23	1.40	165	83	83
QS66512-2 Antenna	74.6	14.6	12.2	7.56	6.31	5.11	6.12	1.32	1.36	110	95	95
7770 Antenna	57.6	13.6	7.6	5.44	3.04	4.24	7.59	1.28	1.42	77	48	48
4449 B5/B12 RRH	20.5	15.8	12.1	2.25	1.72	1.30	1.69	1.20	1.20	30	23	23
4449 B5/B12 RRH (Shielded)	20.5	2.6	12.1	0.37	1.72	7.91	1.69	1.43	1.20	6	23	23
B14 4478 RRH	20.7	16.0	10.9	2.30	1.56	1.29	1.90	1.20	1.20	31	21	21
B14 4478 RRH (Shielded)	20.7	2.6	10.9	0.37	1.56	7.99	1.90	1.43	1.20	6	21	21
RRUS-32 B2 RRH	29.8	14.7	9.6	3.04	1.98	2.03	3.11	1.20	1.23	40	27	27
RRUS-32 B2 RRH (Shielded)	29.8	2.7	9.6	0.56	1.98	11.07	3.11	1.54	1.23	9	27	27
RRUS-32 B30 RRH	29.8	14.7	9.6	3.04	1.98	2.03	3.11	1.20	1.23	40	27	27
RRUS-32 B30 RRH (Shielded)	29.8	3.7	9.6	0.76	1.98	8.07	3.11	1.44	1.23	12	27	27
LGP21401 TMA	17.0	5.3	11.6	0.62	1.37	3.21	1.47	1.23	1.20	9	18	18
DBC0061F1V51-2 Diplexer	10.6	8.8	9.1	0.65	0.67	1.20	1.17	1.20	1.20	9	9	9

WIND LOADS AT 30 MPH:

DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	51	22	22
OPA65R-BU6DA Antenna	71.2	21.0	7.8	10.38	3.86	3.39	9.13	1.24	1.47	51	23	23
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	32	27	27
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	22	12	12
4449 B5/B12 RRH	17.9	13.2	9.5	1.64	1.18	1.36	1.88	1.20	1.20	8	6	6
4449 B5/B12 RRH (Shielded)	17.9	0.0	9.5	0.00	1.18	0.00	1.88	1.20	1.20	0	6	6
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	8	5	5
B14 4478 RRH (Shielded)	18.1	0.0	8.3	0.00	1.04	0.00	2.18	1.20	1.20	0	5	5
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	11	7	7
RRUS-32 B2 RRH (Shielded)	27.2	0.1	7.0	0.02	1.32	272.00	3.89	10.23	1.26	1	7	7
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	11	7	7
RRUS-32 B30 RRH (Shielded)	27.2	1.1	7.0	0.21	1.32	24.73	3.89	1.99	1.26	2	7	7
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	4	4
DBC0061F1V51-2 Diplexer	8.0	6.2	6.5	0.34	0.36	1.29	1.23	1.20	1.20	2	2	2

Date: 5/7/2020
 Project Name: MONOROE NE
 Project No.: CT5266
 Designed By: RL Checked By: MSC



WIND LOADS

Angle = 120 (deg) Ice Thickness = 1.30 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)	Force (lbs)	Force (lbs)
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	812	359	472
OPA65R-BU6DA Antenna	71.2	21.0	7.8	10.38	3.86	3.39	9.13	1.24	1.47	822	362	477
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	520	434	456
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	352	187	228
4449 B5/B12 RRH	17.9	13.2	9.5	1.64	1.18	1.36	1.88	1.20	1.20	126	91	99
4449 B5/B12 RRH (Shielded)	17.9	9.9	9.5	1.23	1.18	1.81	1.88	1.20	1.20	94	91	91
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	129	80	92
B14 4478 RRH (Shielded)	18.1	10.1	8.3	1.26	1.04	1.80	2.18	1.20	1.20	97	80	84
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	175	107	124
RRUS-32 B2 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	134	107	113
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	175	107	124
RRUS-32 B30 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	134	107	113
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	23	69	57
DBC0061F1V51-2 Diplexer	8.0	6.2	6.5	0.34	0.36	1.29	1.23	1.20	1.20	26	28	27

WIND LOADS WITH ICE:

DMP65R-BU6DA Antenna	73.8	23.3	10.3	11.93	5.27	3.17	7.17	1.23	1.41	163	82	102
OPA65R-BU6DA Antenna	73.8	23.6	10.4	12.09	5.32	3.13	7.10	1.23	1.40	165	83	103
QS66512-2 Antenna	74.6	14.6	12.2	7.56	6.31	5.11	6.12	1.32	1.36	110	95	99
7770 Antenna	57.6	13.6	7.6	5.44	3.04	4.24	7.59	1.28	1.42	77	48	55
4449 B5/B12 RRH	20.5	15.8	12.1	2.25	1.72	1.30	1.69	1.20	1.20	30	23	25
4449 B5/B12 RRH (Shielded)	20.5	11.8	12.1	1.69	1.72	1.73	1.69	1.20	1.20	22	23	23
B14 4478 RRH	20.7	16.0	10.9	2.30	1.56	1.29	1.90	1.20	1.20	31	21	23
B14 4478 RRH (Shielded)	20.7	12.0	10.9	1.72	1.56	1.73	1.90	1.20	1.20	23	21	21
RRUS-32 B2 RRH	29.8	14.7	9.6	3.04	1.98	2.03	3.11	1.20	1.23	40	27	30
RRUS-32 B2 RRH (Shielded)	29.8	11.0	9.6	2.28	1.98	2.70	3.11	1.21	1.23	31	27	28
RRUS-32 B30 RRH	29.8	14.7	9.6	3.04	1.98	2.03	3.11	1.20	1.23	40	27	30
RRUS-32 B30 RRH (Shielded)	29.8	11.0	9.6	2.28	1.98	2.70	3.11	1.21	1.23	31	27	28
LGP21401 TMA	17.0	5.3	11.6	0.62	1.37	3.21	1.47	1.23	1.20	9	18	16
DBC0061F1V51-2 Diplexer	10.6	8.8	9.1	0.65	0.67	1.20	1.17	1.20	1.20	9	9	9

WIND LOADS AT 30 MPH:

DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	51	22	29
OPA65R-BU6DA Antenna	71.2	21.0	7.8	10.38	3.86	3.39	9.13	1.24	1.47	51	23	30
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	32	27	28
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	22	12	14
4449 B5/B12 RRH	17.9	13.2	9.5	1.64	1.18	1.36	1.88	1.20	1.20	8	6	6
4449 B5/B12 RRH (Shielded)	17.9	9.9	9.5	1.23	1.18	1.81	1.88	1.20	1.20	6	6	6
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	8	5	6
B14 4478 RRH (Shielded)	18.1	10.1	8.3	1.26	1.04	1.80	2.18	1.20	1.20	6	5	5
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	11	7	8
RRUS-32 B2 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	8	7	7
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	11	7	8
RRUS-32 B30 RRH (Shielded)	27.2	9.1	7.0	1.71	1.32	3.00	3.89	1.22	1.26	8	7	7
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	4	4
DBC0061F1V51-2 Diplexer	8.0	6.2	6.5	0.34	0.36	1.29	1.23	1.20	1.20	2	2	2

Date: 5/7/2020
 Project Name: MONOROE NE
 Project No.: CT5266
 Designed By: RL Checked By: MSC



WIND LOADS

Angle = 150 (deg) Ice Thickness = 1.30 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)	Force (lbs)	Force (lbs)
DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	812	359	699
OPA65R-BU6DA Antenna	71.2	21.0	7.8	10.38	3.86	3.39	9.13	1.24	1.47	822	362	707
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	520	434	498
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	352	187	311
4449 B5/B12 RRH	17.9	13.2	9.5	1.64	1.18	1.36	1.88	1.20	1.20	126	91	117
4449 B5/B12 RRH (Shielded)	17.9	6.6	9.5	0.82	1.18	2.71	1.88	1.21	1.20	63	91	70
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	129	80	117
B14 4478 RRH (Shielded)	18.1	6.7	8.3	0.84	1.04	2.70	2.18	1.21	1.20	65	80	69
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	175	107	158
RRUS-32 B2 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	94	107	97
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	175	107	158
RRUS-32 B30 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	94	107	97
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	23	69	34
DBC0061F1V51-2 Diplexer	8.0	6.2	6.5	0.34	0.36	1.29	1.23	1.20	1.20	26	28	27

WIND LOADS WITH ICE:

DMP65R-BU6DA Antenna	73.8	23.3	10.3	11.93	5.27	3.17	7.17	1.23	1.41	163	82	143
OPA65R-BU6DA Antenna	73.8	23.6	10.4	12.09	5.32	3.13	7.10	1.23	1.40	165	83	144
QS66512-2 Antenna	74.6	14.6	12.2	7.56	6.31	5.11	6.12	1.32	1.36	110	95	107
7770 Antenna	57.6	13.6	7.6	5.44	3.04	4.24	7.59	1.28	1.42	77	48	70
4449 B5/B12 RRH	20.5	15.8	12.1	2.25	1.72	1.30	1.69	1.20	1.20	30	23	28
4449 B5/B12 RRH (Shielded)	20.5	7.9	12.1	1.12	1.72	2.60	1.69	1.20	1.20	15	23	17
B14 4478 RRH	20.7	16.0	10.9	2.30	1.56	1.29	1.90	1.20	1.20	31	21	28
B14 4478 RRH (Shielded)	20.7	8.0	10.9	1.15	1.56	2.59	1.90	1.20	1.20	15	21	17
RRUS-32 B2 RRH	29.8	14.7	9.6	3.04	1.98	2.03	3.11	1.20	1.23	40	27	37
RRUS-32 B2 RRH (Shielded)	29.8	7.3	9.6	1.52	1.98	4.06	3.11	1.27	1.23	21	27	23
RRUS-32 B30 RRH	29.8	14.7	9.6	3.04	1.98	2.03	3.11	1.20	1.23	40	27	37
RRUS-32 B30 RRH (Shielded)	29.8	7.3	9.6	1.52	1.98	4.06	3.11	1.27	1.23	21	27	23
LGP21401 TMA	17.0	5.3	11.6	0.62	1.37	3.21	1.47	1.23	1.20	9	18	11
DBC0061F1V51-2 Diplexer	10.6	8.8	9.1	0.65	0.67	1.20	1.17	1.20	1.20	9	9	9

WIND LOADS AT 30 MPH:

DMP65R-BU6DA Antenna	71.2	20.7	7.7	10.24	3.81	3.44	9.25	1.24	1.47	51	22	44
OPA65R-BU6DA Antenna	71.2	21.0	7.8	10.38	3.86	3.39	9.13	1.24	1.47	51	23	44
QS66512-2 Antenna	72.0	12.0	9.6	6.00	4.80	6.00	7.50	1.36	1.42	32	27	31
7770 Antenna	55.0	11.0	5.0	4.20	1.91	5.00	11.00	1.31	1.53	22	12	19
4449 B5/B12 RRH	17.9	13.2	9.5	1.64	1.18	1.36	1.88	1.20	1.20	8	6	7
4449 B5/B12 RRH (Shielded)	17.9	6.6	9.5	0.82	1.18	2.71	1.88	1.21	1.20	4	6	4
B14 4478 RRH	18.1	13.4	8.3	1.68	1.04	1.35	2.18	1.20	1.20	8	5	7
B14 4478 RRH (Shielded)	18.1	6.7	8.3	0.84	1.04	2.70	2.18	1.21	1.20	4	5	4
RRUS-32 B2 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	11	7	10
RRUS-32 B2 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	6	7	6
RRUS-32 B30 RRH	27.2	12.1	7.0	2.29	1.32	2.25	3.89	1.20	1.26	11	7	10
RRUS-32 B30 RRH (Shielded)	27.2	6.1	7.0	1.14	1.32	4.50	3.89	1.29	1.26	6	7	6
LGP21401 TMA	14.4	2.7	9.0	0.27	0.90	5.33	1.60	1.33	1.20	1	4	2
DBC0061F1V51-2 Diplexer	8.0	6.2	6.5	0.34	0.36	1.29	1.23	1.20	1.20	2	2	2

Date: 5/7/2020

Project Name: MONOROE NE

Project No.: CT5266

Designed By: RL Checked By: MSC



ICE WEIGHT CALCULATIONS

Thickness of ice: 1.30 in.

Density of ice: 56 pcf

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: 220 lbs

Weight of object: 80.0 lbs

Combined weight of ice and object: 300 lbs

OPA65R-BU6DA Antenna

Weight of ice based on total radial SF area:

Height (in): 71.2

Width (in): 21.0

Depth (in): 7.8

Total weight of ice on object: 223 lbs

Weight of object: 63.0 lbs

Combined weight of ice and object: 286 lbs

QS66512-2 Antenna

Weight of ice based on total radial SF area:

Height (in): 72.0

Width (in): 12.0

Depth (in): 9.6

Total weight of ice on object: 159 lbs

Weight of object: 111.0 lbs

Combined weight of ice and object: 270 lbs

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: 97 lbs

Weight of object: 35.0 lbs

Combined weight of ice and object: 132 lbs

4449 B5/B12 RRH

Weight of ice based on total radial SF area:

Height (in): 17.9

Width (in): 13.2

Depth (in): 9.5

Total weight of ice on object: 42 lbs

Weight of object: 71.0 lbs

Combined weight of ice and object: 113 lbs

B14 4478 RRH

Weight of ice based on total radial SF area:

Height (in): 18.1

Width (in): 13.4

Depth (in): 8.3

Total weight of ice on object: 41 lbs

Weight of object: 60.0 lbs

Combined weight of ice and object: 101 lbs

RRUS-32 B2 RRH

Weight of ice based on total radial SF area:

Height (in): 27.2

Width (in): 12.1

Depth (in): 7.0

Total weight of ice on object: 55 lbs

Weight of object: 60.0 lbs

Combined weight of ice and object: 115 lbs

RRUS-32 B30 RRH

Weight of ice based on total radial SF area:

Height (in): 27.2

Width (in): 12.1

Depth (in): 7.0

Total weight of ice on object: 55 lbs

Weight of object: 60.0 lbs

Combined weight of ice and object: 115 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: 20 lbs

Weight of object: 19.0 lbs

Combined weight of ice and object: 39 lbs

DBC0061F1V51-2 Diplexer

Weight of ice based on total radial SF area:

Height (in): 8.0

Width (in): 6.2

Depth (in): 6.5

Total weight of ice on object: 11 lbs

Weight of object: 26.0 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: 35 lbs

Weight of object: 33 lbs

Combined weight of ice and object: 68 lbs

C 6x2

Weight of ice based on total radial SF area:

Height (in): 6

Width (in): 2

Per foot weight of ice on object: 12 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: 8 plf

2" pipe

Per foot weight of ice:

diameter (in): 2.38

Per foot weight of ice on object: 6 plf

HSS 4x4

Weight of ice based on total radial SF area:

Height (in): 4

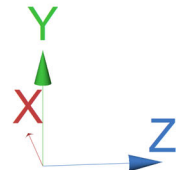
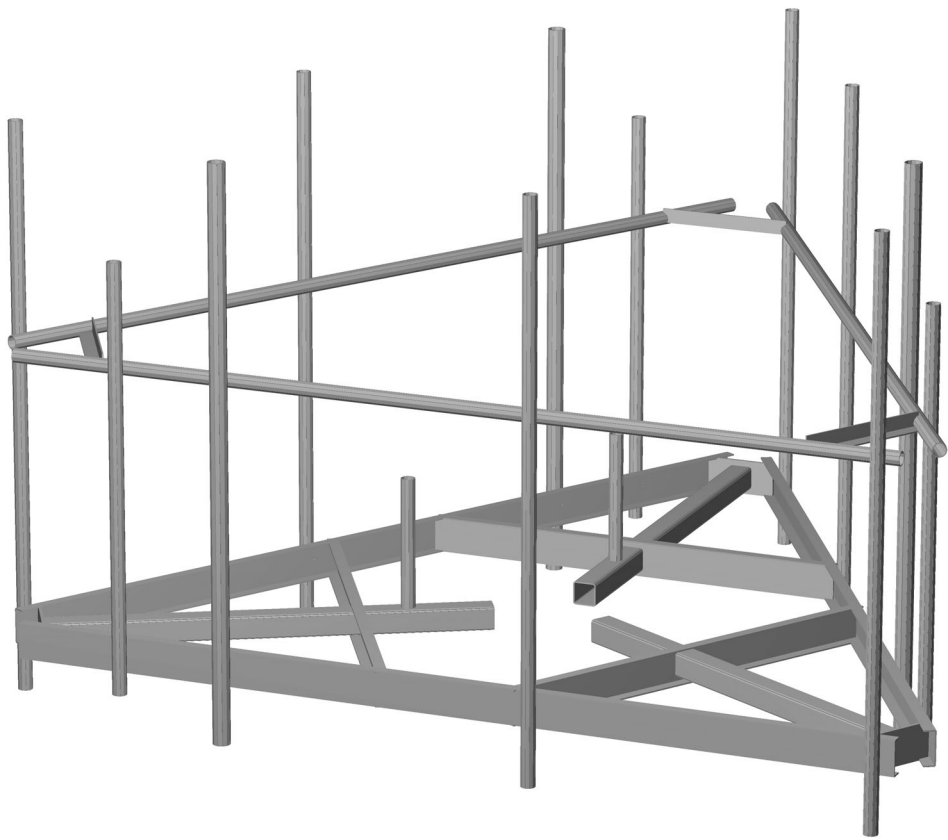
Width (in): 4

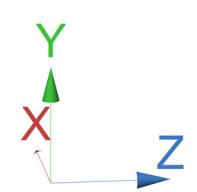
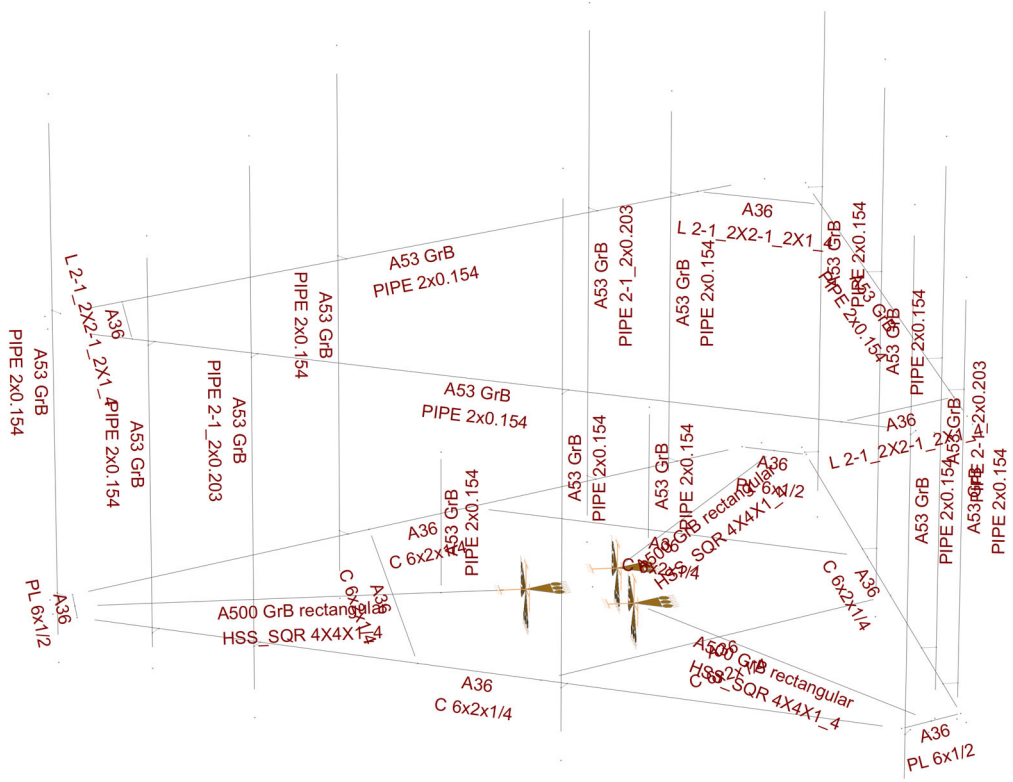
Per foot weight of ice on object: 11 plf

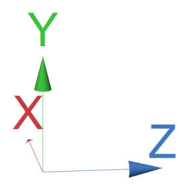
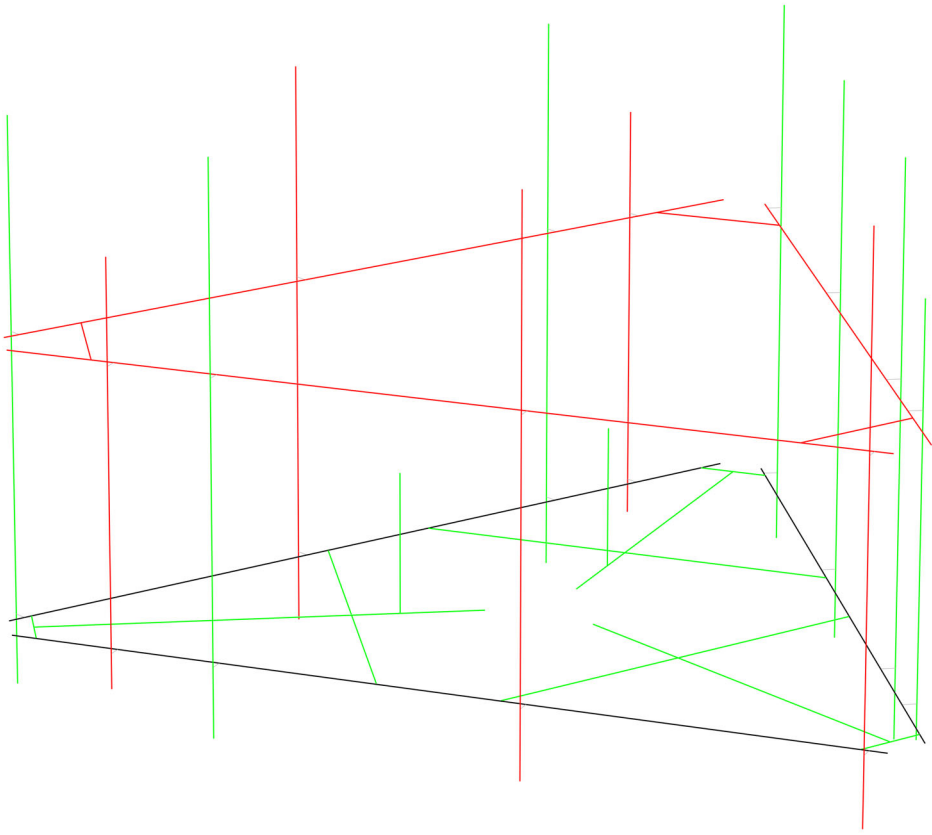


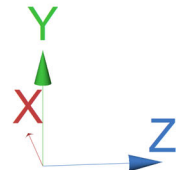
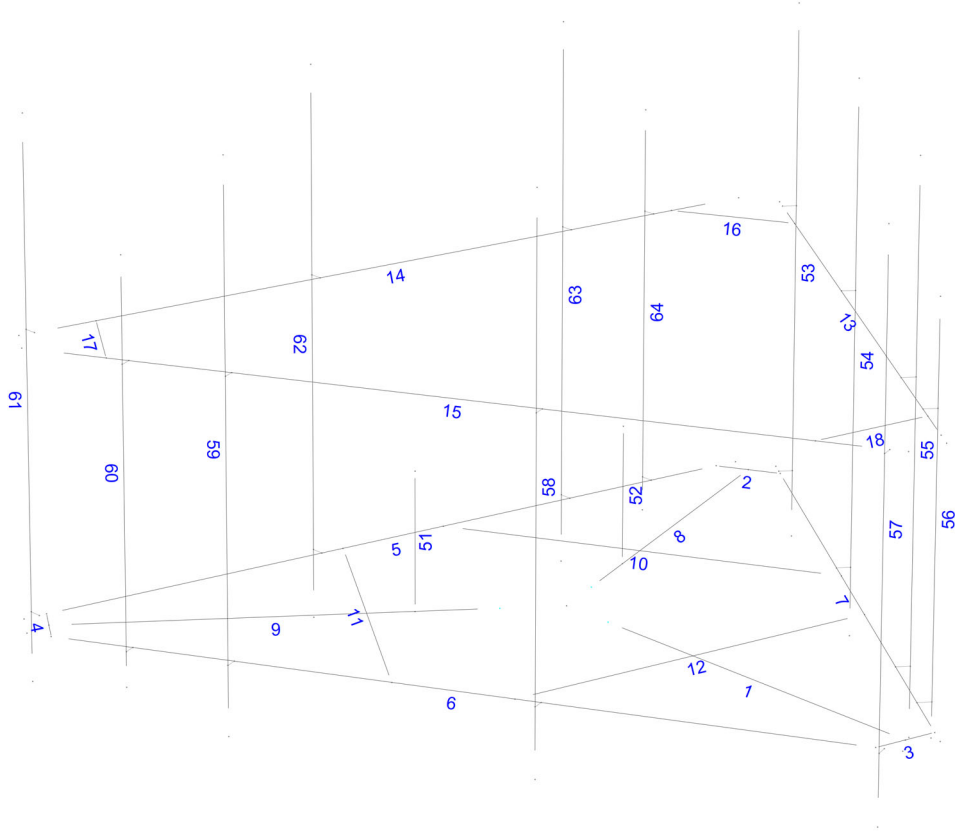
HUDSON
Design Group LLC

**Mount Calculations
(Existing Conditions)**









Load data

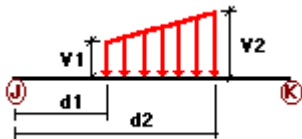
GLOSSARY

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

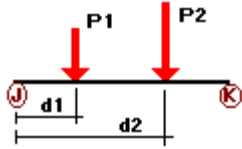


Condition	Member	Dir1	Val1 [Kip/ft]	Val2 [Kip/ft]	Dist1 [ft]	%	Dist2 [ft]	%
DL	5	y	-0.01	-0.01	3.00	Yes	43.00	Yes
		y	-0.01	-0.01	57.00	Yes	97.00	Yes
	7	y	-0.01	-0.01	3.00	Yes	43.00	Yes
		y	-0.01	-0.01	57.00	Yes	97.00	Yes
	6	y	-0.01	-0.01	3.00	Yes	43.00	Yes
		y	-0.01	-0.01	57.00	Yes	97.00	Yes
	12	y	-0.01	-0.01	0.00	No	100.00	Yes
		y	-0.01	-0.01	0.00	No	100.00	Yes
	11	y	-0.01	-0.01	0.00	No	100.00	Yes
		y	-0.01	-0.01	0.00	No	100.00	Yes
	W0	51	z	-0.015	-0.015	0.00	No	100.00
z			-0.015	-0.015	0.00	No	100.00	Yes
z			-0.015	-0.015	0.00	No	100.00	Yes
z			-0.015	-0.015	0.00	No	100.00	Yes
z			-0.015	-0.015	0.00	No	100.00	Yes
z			-0.015	-0.015	0.00	No	100.00	Yes

	61	z	-0.015	-0.015	0.00	No	100.00	Yes
	62	z	-0.015	-0.015	0.00	No	100.00	Yes
	63	z	-0.015	-0.015	0.00	No	100.00	Yes
	64	z	-0.015	-0.015	0.00	No	100.00	Yes
	5	z	-0.04	-0.04	0.00	No	100.00	Yes
	14	z	-0.015	-0.015	0.00	No	100.00	Yes
	7	z	-0.04	-0.04	0.00	No	100.00	Yes
	13	z	-0.015	-0.015	0.00	No	100.00	Yes
	6	z	-0.04	-0.04	0.00	No	100.00	Yes
	15	z	-0.015	-0.015	0.00	No	100.00	Yes
	1	z	-0.027	-0.027	0.00	No	100.00	Yes
	12	z	-0.04	-0.04	0.00	No	100.00	Yes
	10	z	-0.04	-0.04	0.00	No	100.00	Yes
	8	z	-0.027	-0.027	0.00	No	100.00	Yes
	11	z	-0.04	-0.04	0.00	No	100.00	Yes
	17	z	-0.027	-0.027	0.00	No	100.00	Yes
	16	z	-0.027	-0.027	0.00	No	100.00	Yes
	18	z	-0.027	-0.027	0.00	No	100.00	Yes
W30	51	x	-0.015	-0.015	0.00	No	100.00	Yes
	52	x	-0.015	-0.015	0.00	No	100.00	Yes
	53	x	-0.015	-0.015	0.00	No	100.00	Yes
	54	x	-0.015	-0.015	0.00	No	100.00	Yes
	55	x	-0.015	-0.015	0.00	No	100.00	Yes
	56	x	-0.015	-0.015	0.00	No	100.00	Yes
	57	x	-0.015	-0.015	0.00	No	100.00	Yes
	58	x	-0.015	-0.015	0.00	No	100.00	Yes
	59	x	-0.015	-0.015	0.00	No	100.00	Yes
	60	x	-0.015	-0.015	0.00	No	100.00	Yes
	5	x	-0.04	-0.04	0.00	No	100.00	Yes
	14	x	-0.015	-0.015	0.00	No	100.00	Yes
	6	x	-0.04	-0.04	0.00	No	100.00	Yes
	15	x	-0.015	-0.015	0.00	No	100.00	Yes
	1	x	-0.027	-0.027	0.00	No	100.00	Yes
	9	x	-0.027	-0.027	0.00	No	100.00	Yes
	12	x	-0.04	-0.04	0.00	No	100.00	Yes
	10	x	-0.04	-0.04	0.00	No	100.00	Yes
	8	x	-0.027	-0.027	0.00	No	100.00	Yes
Di	51	y	-0.006	-0.006	0.00	No	100.00	Yes
	52	y	-0.006	-0.006	0.00	No	100.00	Yes
	53	y	-0.006	-0.006	0.00	No	100.00	Yes
	54	y	-0.006	-0.006	0.00	No	100.00	Yes
	55	y	-0.006	-0.006	0.00	No	100.00	Yes
	56	y	-0.006	-0.006	0.00	No	100.00	Yes
	57	y	-0.006	-0.006	0.00	No	100.00	Yes
	58	y	-0.006	-0.006	0.00	No	100.00	Yes
	59	y	-0.006	-0.006	0.00	No	100.00	Yes
	60	y	-0.006	-0.006	0.00	No	100.00	Yes
	61	y	-0.006	-0.006	0.00	No	100.00	Yes
	62	y	-0.006	-0.006	0.00	No	100.00	Yes
	63	y	-0.006	-0.006	0.00	No	100.00	Yes
	64	y	-0.006	-0.006	0.00	No	100.00	Yes
	5	y	-0.012	-0.012	0.00	No	100.00	Yes
	14	y	-0.006	-0.006	0.00	No	100.00	Yes
	7	y	-0.012	-0.012	0.00	No	100.00	Yes
	13	y	-0.006	-0.006	0.00	No	100.00	Yes
	6	y	-0.012	-0.012	0.00	No	100.00	Yes
	15	y	-0.006	-0.006	0.00	No	100.00	Yes
	1	y	-0.011	-0.011	0.00	No	100.00	Yes
	9	y	-0.011	-0.011	0.00	No	100.00	Yes
	12	y	-0.012	-0.012	0.00	No	100.00	Yes

10	y	-0.012	-0.012	0.00	No	100.00	Yes
8	y	-0.011	-0.011	0.00	No	100.00	Yes
11	y	-0.012	-0.012	0.00	No	100.00	Yes
17	y	-0.008	-0.008	0.00	No	100.00	Yes
16	y	-0.008	-0.008	0.00	No	100.00	Yes
18	y	-0.008	-0.008	0.00	No	100.00	Yes

Concentrated forces on members



Condition	Member	Dir1	Value1 [Kip]	Dist1 [ft]	%
DL	51	y	-0.033	1.00	No
	52	y	-0.033	1.00	No
		y	-0.033	1.50	No
	53	y	-0.04	0.50	No
		y	-0.04	6.50	No
		y	-0.071	4.50	No
	54	y	-0.032	0.50	No
		y	-0.032	6.50	No
		y	-0.06	4.50	No
	55	y	-0.056	0.50	No
		y	-0.056	6.50	No
		y	-0.06	4.50	No
	56	y	-0.06	4.50	No
		y	-0.06	2.00	No
		y	-0.018	0.50	No
	57	y	-0.018	5.00	No
		y	-0.019	4.50	No
		y	-0.019	4.50	No
	58	y	-0.04	0.50	No
		y	-0.04	6.50	No
		y	-0.071	4.50	No
	59	y	-0.032	0.50	No
		y	-0.032	6.50	No
		y	-0.06	4.50	No
	60	y	-0.056	0.50	No
		y	-0.056	6.50	No
		y	-0.06	4.50	No
	61	y	-0.06	2.00	No
		y	-0.018	0.50	No
		y	-0.018	5.00	No
	62	y	-0.019	4.50	No
		y	-0.019	4.50	No
		y	-0.04	0.50	No
	63	y	-0.04	6.50	No
		y	-0.071	4.50	No
		y	-0.032	0.50	No
64	y	-0.032	6.50	No	
	y	-0.06	4.50	No	
	y	-0.056	0.50	No	
65	y	-0.056	6.50	No	
	y	-0.06	4.50	No	
	y	-0.06	2.00	No	

		y	-0.06	4.50	No
		y	-0.06	2.00	No
	64	y	-0.018	0.50	No
		y	-0.018	5.00	No
		y	-0.019	4.50	No
		y	-0.019	4.50	No
WO	51	z	-0.072	1.00	No
	52	z	-0.072	1.00	No
		z	-0.072	1.50	No
	53	z	-0.406	0.50	No
		z	-0.406	6.50	No
	54	z	-0.412	0.50	No
		z	-0.412	6.50	No
	55	z	-0.26	0.50	No
		z	-0.26	6.50	No
		z	-0.012	4.50	No
		z	-0.026	2.00	No
	56	z	-0.176	0.50	No
		z	-0.176	5.00	No
	57	z	-0.236	0.50	No
		z	-0.236	6.50	No
		z	-0.091	4.50	No
	58	z	-0.239	0.50	No
		z	-0.239	6.50	No
		z	-0.084	4.50	No
	59	z	-0.228	0.50	No
		z	-0.228	6.50	No
		z	-0.113	4.50	No
		z	-0.113	2.00	No
	60	z	-0.115	0.50	No
		z	-0.115	5.00	No
		z	-0.057	4.50	No
	61	z	-0.236	0.50	No
		z	-0.236	6.50	No
		z	-0.091	4.50	No
	62	z	-0.239	0.50	No
		z	-0.239	6.50	No
		z	-0.084	4.50	No
	63	z	-0.228	0.50	No
		z	-0.228	6.50	No
		z	-0.113	4.50	No
		z	-0.113	2.00	No
	64	z	-0.115	0.50	No
		z	-0.115	5.00	No
		z	-0.057	4.50	No
W30	51	x	-0.072	1.00	No
	52	x	-0.072	1.00	No
		x	-0.072	1.50	No
	53	x	-0.18	0.50	No
		x	-0.18	6.50	No
		x	-0.091	4.50	No
	54	x	-0.182	0.50	No
		x	-0.182	6.50	No
		x	-0.08	4.50	No
	55	x	-0.218	0.50	No
		x	-0.218	6.50	No
		x	-0.107	4.50	No
		x	-0.107	2.00	No
	56	x	-0.094	0.50	No
		x	-0.094	5.00	No

		x	-0.069	4.50	No
57		x	-0.35	0.50	No
		x	-0.35	6.50	No
		x	-0.07	4.50	No
58		x	-0.354	0.50	No
		x	-0.354	6.50	No
		x	-0.069	4.50	No
59		x	-0.25	0.50	No
		x	-0.25	6.50	No
		x	-0.097	4.50	No
		x	-0.097	2.00	No
60		x	-0.156	0.50	No
		x	-0.156	5.00	No
		x	-0.034	4.50	No
61		x	-0.35	0.50	No
		x	-0.35	6.50	No
		x	-0.07	4.50	No
62		x	-0.354	0.50	No
		x	-0.354	6.50	No
		x	-0.069	4.50	No
63		x	-0.25	0.50	No
		x	-0.25	6.50	No
		x	-0.097	4.50	No
		x	-0.097	2.00	No
64		x	-0.156	0.50	No
		x	-0.156	5.00	No
		x	-0.034	4.50	No
Di	51	y	-0.035	1.00	No
	52	y	-0.035	1.00	No
		y	-0.035	1.50	No
53		y	-0.11	0.50	No
		y	-0.11	6.50	No
		y	-0.042	4.50	No
54		y	-0.112	0.50	No
		y	-0.112	6.50	No
		y	-0.041	4.50	No
55		y	-0.079	0.50	No
		y	-0.079	6.50	No
		y	-0.055	4.50	No
		y	-0.055	2.00	No
56		y	-0.049	0.50	No
		y	-0.049	5.00	No
		y	-0.02	4.50	No
		y	-0.02	4.50	No
57		y	-0.11	0.50	No
		y	-0.11	6.50	No
		y	-0.042	4.50	No
58		y	-0.112	0.50	No
		y	-0.112	6.50	No
		y	-0.041	4.50	No
59		y	-0.079	0.50	No
		y	-0.079	6.50	No
		y	-0.055	4.50	No
		y	-0.055	2.00	No
60		y	-0.049	0.50	No
		y	-0.049	5.00	No
		y	-0.02	4.50	No
		y	-0.02	4.50	No
61		y	-0.11	0.50	No
		y	-0.11	6.50	No

		y	-0.042	4.50	No
	62	y	-0.112	0.50	No
		y	-0.112	6.50	No
		y	-0.041	4.50	No
	63	y	-0.079	0.50	No
		y	-0.079	6.50	No
		y	-0.055	4.50	No
		y	-0.055	2.00	No
	64	y	-0.049	0.50	No
		y	-0.049	5.00	No
		y	-0.02	4.50	No
		y	-0.02	4.50	No
Wi0	51	z	-0.018	1.00	No
	52	z	-0.018	1.00	No
		z	-0.018	1.50	No
	53	z	-0.083	0.50	No
		z	-0.083	6.50	No
	54	z	-0.084	0.50	No
		z	-0.084	6.50	No
	55	z	-0.057	0.50	No
		z	-0.057	6.50	No
		z	-0.063	4.50	No
		z	-0.017	2.00	No
	56	z	-0.04	0.50	No
		z	-0.04	5.00	No
	57	z	-0.052	0.50	No
		z	-0.052	6.50	No
		z	-0.023	4.50	No
	58	z	-0.052	0.50	No
		z	-0.052	6.50	No
		z	-0.021	4.50	No
	59	z	-0.05	0.50	No
		z	-0.05	6.50	No
		z	-0.028	4.50	No
		z	-0.028	2.00	No
	60	z	-0.028	0.50	No
		z	-0.028	5.00	No
		z	-0.016	4.50	No
	61	z	-0.052	0.50	No
		z	-0.052	6.50	No
		z	-0.023	4.50	No
	62	z	-0.052	0.50	No
		z	-0.052	6.50	No
		z	-0.021	4.50	No
	63	z	-0.05	0.50	No
		z	-0.05	6.50	No
		z	-0.028	4.50	No
		z	-0.028	2.00	No
	64	z	-0.028	0.50	No
		z	-0.028	5.00	No
		z	-0.016	4.50	No
Wi30	51	x	-0.018	1.00	No
	52	x	-0.018	1.00	No
		x	-0.018	1.50	No
	53	x	-0.042	0.50	No
		x	-0.042	6.50	No
		x	-0.023	4.50	No
	54	x	-0.042	0.50	No
		x	-0.042	6.50	No
		x	-0.021	4.50	No

	55	x	-0.048	0.50	No
		x	-0.048	6.50	No
		x	-0.027	4.50	No
		x	-0.027	2.00	No
	56	x	-0.024	0.50	No
		x	-0.024	5.00	No
		x	-0.018	4.50	No
	57	x	-0.072	0.50	No
		x	-0.072	6.50	No
		x	-0.017	4.50	No
	58	x	-0.073	0.50	No
		x	-0.073	6.50	No
		x	-0.017	4.50	No
	59	x	-0.054	0.50	No
		x	-0.054	6.50	No
		x	-0.023	4.50	No
		x	-0.023	2.00	No
	60	x	-0.035	0.50	No
		x	-0.035	5.00	No
		x	-0.011	4.50	No
	61	x	-0.072	0.50	No
		x	-0.072	6.50	No
		x	-0.017	4.50	No
	62	x	-0.073	0.50	No
		x	-0.073	6.50	No
		x	-0.017	4.50	No
	63	x	-0.054	0.50	No
		x	-0.054	6.50	No
		x	-0.023	4.50	No
		x	-0.023	2.00	No
	64	x	-0.035	0.50	No
		x	-0.035	5.00	No
		x	-0.011	4.50	No
WLO	51	z	-0.005	1.00	No
	52	z	-0.005	1.00	No
		z	-0.005	1.50	No
	53	z	-0.026	0.50	No
		z	-0.026	6.50	No
	54	z	-0.026	0.50	No
		z	-0.026	6.50	No
	55	z	-0.017	0.50	No
		z	-0.017	6.50	No
		z	-0.001	4.50	No
		z	-0.002	2.00	No
	56	z	-0.011	0.50	No
		z	-0.011	5.00	No
	57	z	-0.015	0.50	No
		z	-0.015	6.50	No
		z	-0.006	4.50	No
	58	z	-0.015	0.50	No
		z	-0.015	6.50	No
		z	-0.005	4.50	No
	59	z	-0.015	0.50	No
		z	-0.015	6.50	No
		z	-0.007	4.50	No
		z	-0.007	2.00	No
	60	z	-0.008	0.50	No
		z	-0.008	5.00	No
		z	-0.004	4.50	No
	61	z	-0.015	0.50	No

		z	-0.015	6.50	No
		z	-0.006	4.50	No
	62	z	-0.015	0.50	No
		z	-0.015	6.50	No
		z	-0.005	4.50	No
	63	z	-0.015	0.50	No
		z	-0.015	6.50	No
		z	-0.007	4.50	No
		z	-0.007	2.00	No
	64	z	-0.008	0.50	No
		z	-0.008	5.00	No
		z	-0.004	4.50	No
WL30	51	x	-0.005	1.00	No
	52	x	-0.005	1.00	No
		x	-0.005	1.50	No
	53	x	-0.012	0.50	No
		x	-0.012	6.50	No
		x	-0.006	4.50	No
	54	x	-0.012	0.50	No
		x	-0.012	6.50	No
		x	-0.005	4.50	No
	55	x	-0.014	0.50	No
		x	-0.014	6.50	No
		x	-0.007	4.50	No
		x	-0.007	2.00	No
	56	x	-0.006	0.50	No
		x	-0.006	5.00	No
		x	-0.004	4.50	No
	57	x	-0.022	0.50	No
		x	-0.022	6.50	No
		x	-0.004	4.50	No
	58	x	-0.023	0.50	No
		x	-0.023	6.50	No
		x	-0.004	4.50	No
	59	x	-0.016	0.50	No
		x	-0.016	6.50	No
		x	-0.006	4.50	No
		x	-0.006	2.00	No
	60	x	-0.01	0.50	No
		x	-0.01	5.00	No
		x	-0.002	4.50	No
	61	x	-0.022	0.50	No
		x	-0.022	6.50	No
		x	-0.004	4.50	No
	62	x	-0.023	0.50	No
		x	-0.023	6.50	No
		x	-0.004	4.50	No
	63	x	-0.016	0.50	No
		x	-0.016	6.50	No
		x	-0.006	4.50	No
		x	-0.006	2.00	No
	64	x	-0.01	0.50	No
		x	-0.01	5.00	No
		x	-0.002	4.50	No
LL1	13	y	-0.25	50.00	Yes
LL2	13	y	-0.25	100.00	Yes
LLa1	53	y	-0.25	50.00	Yes
LLa2	54	y	-0.25	50.00	Yes
LLa3	55	y	-0.25	50.00	Yes
LLa4	56	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



Current Date: 5/7/2020 11:42 AM

Units system: English

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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+W0
- LC10=1.2DL+Di+W30
- LC11=1.2DL+Di-W0
- LC12=1.2DL+Di-W30
- LC13=1.2DL
- LC15=1.2DL+1.5LL1
- LC16=1.2DL+1.5LL2
- LC17=1.2DL+W0+1.5LLa1
- LC18=1.2DL+W30+1.5LLa1
- LC19=1.2DL-W0+1.5LLa1
- LC20=1.2DL-W30+1.5LLa1
- LC21=1.2DL+W0+1.5LLa2
- LC22=1.2DL+W30+1.5LLa2
- LC23=1.2DL-W0+1.5LLa2
- LC24=1.2DL-W30+1.5LLa2
- LC25=1.2DL+W0+1.5LLa3
- LC26=1.2DL+W30+1.5LLa3
- LC27=1.2DL-W0+1.5LLa3
- LC28=1.2DL-W30+1.5LLa3
- LC29=1.2DL+W0+1.5LLa4
- LC30=1.2DL+W30+1.5LLa4
- LC31=1.2DL-W0+1.5LLa4
- LC32=1.2DL-W30+1.5LLa4

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	<i>C 6x2x1/4</i>	5	LC4 at 57.64%	0.92	With warnings	
		6	LC2 at 57.64%	0.83	With warnings	
		7	LC3 at 57.64%	0.97	With warnings	
		10	LC4 at 50.00%	0.76	OK	
		11	LC1 at 50.00%	0.69	OK	
		12	LC2 at 50.00%	0.69	OK	
	<i>HSS_SQR 4X4X1_4</i>	1	LC2 at 0.00%	0.85	OK	
		8	LC4 at 0.00%	0.83	OK	
		9	LC1 at 0.00%	0.94	OK	
	<i>L 2-1_2X2-1_2X1_4</i>	16	LC1 at 0.00%	1.61	N.G.	
		17	LC2 at 0.00%	1.57	N.G.	
		18	LC1 at 100.00%	1.24	N.G.	
	<i>PIPE 2-1_2x0.203</i>	55	LC4 at 85.42%	0.66	OK	
		59	LC3 at 85.42%	0.65	OK	
		63	LC1 at 85.42%	0.80	OK	

PIPE 2x0.154

13	LC2 at 10.16%	1.20	N.G.
14	LC4 at 9.82%	1.23	N.G.
15	LC2 at 87.50%	1.17	N.G.
51	LC2 at 100.00%	0.06	OK
52	LC1 at 100.00%	0.08	OK
53	LC2 at 85.42%	0.83	OK
54	LC2 at 85.42%	0.93	OK
56	LC4 at 25.00%	0.85	OK
57	LC1 at 85.42%	1.02	N.G.
58	LC1 at 85.42%	1.17	N.G.
60	LC2 at 25.00%	1.03	N.G.
61	LC4 at 85.42%	0.93	OK
62	LC3 at 85.42%	1.04	N.G.
64	LC1 at 89.58%	1.09	N.G.

PL 6x1/2

2	LC3 at 50.00%	0.58	OK
3	LC2 at 50.00%	0.73	OK
4	LC1 at 50.00%	0.70	OK

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
2	-0.7939	0.00	0.4583	0
17	0.7939	0.00	0.4583	0
19	0.00	0.00	-0.9167	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
2	1	1	1	1	1	1
17	1	1	1	1	1	1
19	1	1	1	1	1	1

Members

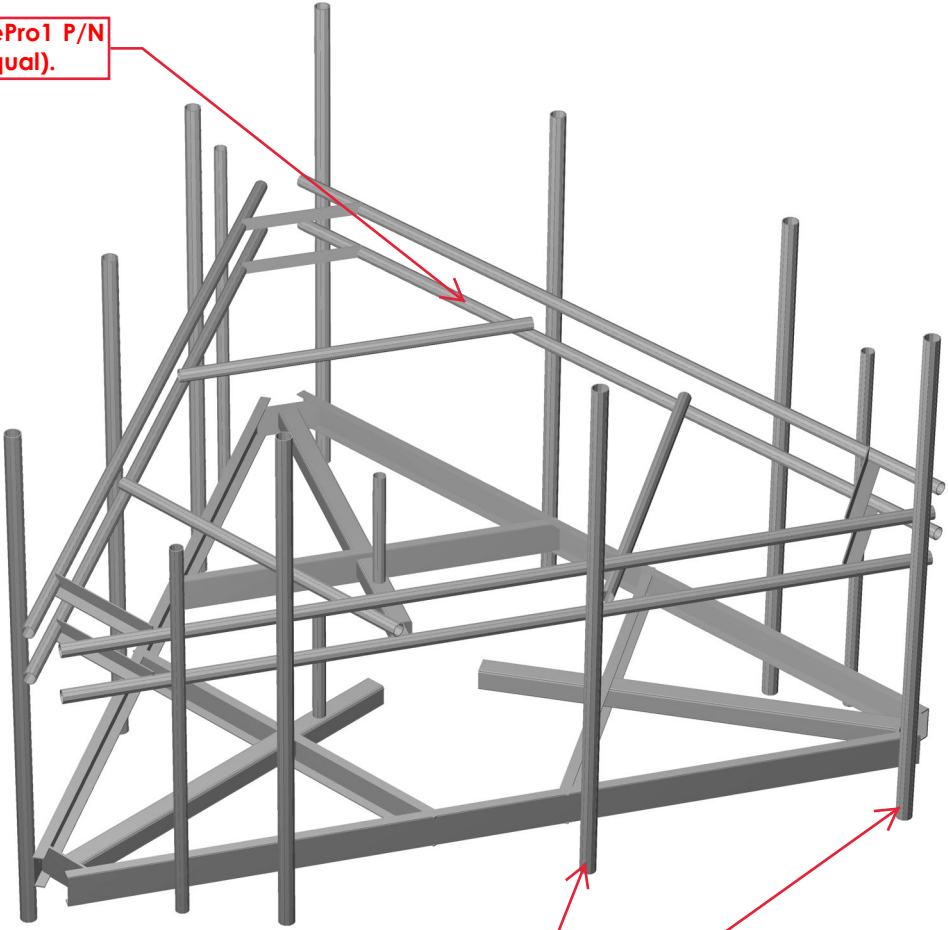
Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	Ig factor
51	107	105		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
52	106	104		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
53	129	117		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
54	130	118		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
55	131	119		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
56	128	116		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
57	125	113		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
58	126	114		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
59	127	115		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
60	124	112		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
61	123	111		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
62	122	110		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
63	120	108		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
64	121	109		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
5	11	12		C 6x2x1/4	A36	0.00	0.00	0.00
14	31	32		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
7	15	16		C 6x2x1/4	A36	0.00	0.00	0.00
13	29	30		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
6	13	14		C 6x2x1/4	A36	0.00	0.00	0.00
15	33	34		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
1	2	4		HSS_SQR 4X4X1_4	A500 GrB rectangular	0.00	0.00	0.00
9	19	20		HSS_SQR 4X4X1_4	A500 GrB rectangular	0.00	0.00	0.00
12	23	25		C 6x2x1/4	A36	0.00	0.00	0.00
10	22	21		C 6x2x1/4	A36	0.00	0.00	0.00
8	17	18		HSS_SQR 4X4X1_4	A500 GrB rectangular	0.00	0.00	0.00
11	26	24		C 6x2x1/4	A36	0.00	0.00	0.00
4	10	9		PL 6x1/2	A36	0.00	0.00	0.00
17	36	35		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
2	6	5		PL 6x1/2	A36	0.00	0.00	0.00
16	38	37		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
3	8	7		PL 6x1/2	A36	0.00	0.00	0.00
18	27	39		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00



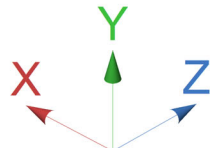
HUDSON
Design Group LLC

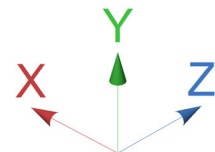
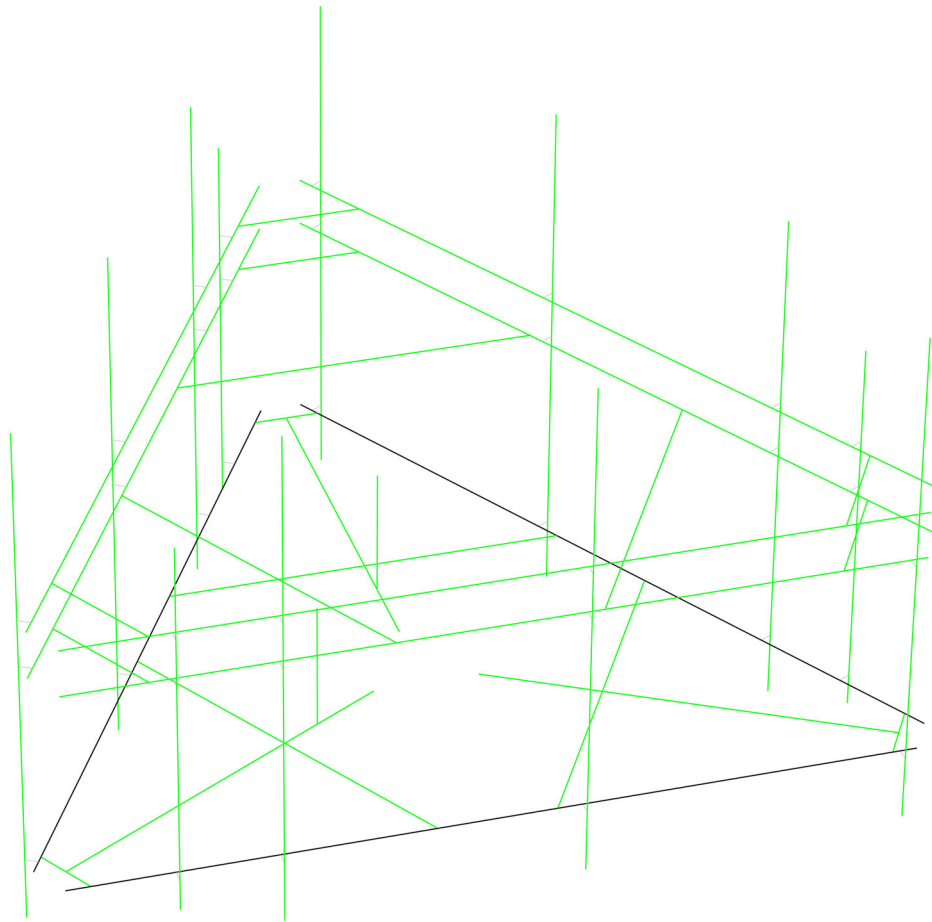
**Mount Calculations
(Modified Conditions)**

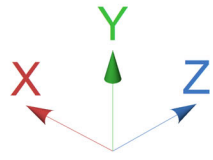
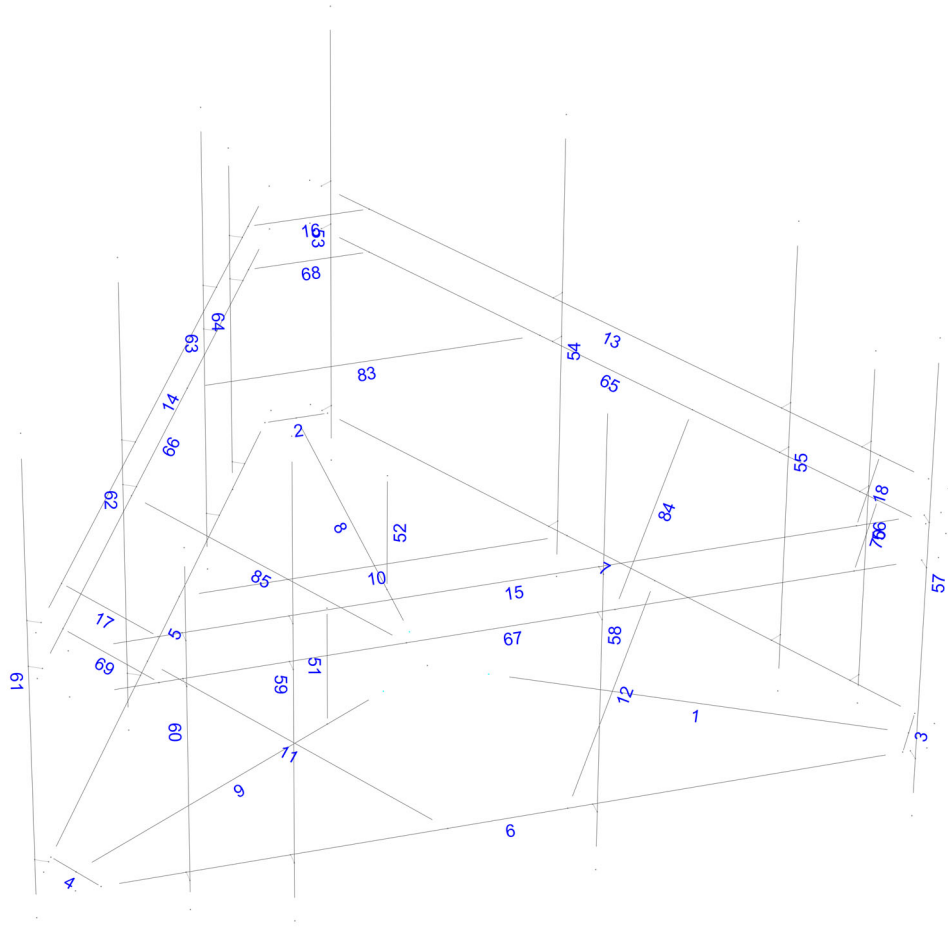
Install new handrail kit SitePro1 P/N HRK12-HD (or approved equal).



Install new 2-1/2" std. (2.88" O.D.) pipe masts behind new 6'-0" antennas secured to the existing platform (typ. of 2 per sector, total of 6).









Current Date: 5/8/2020 11:55 AM

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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+W0
- LC10=1.2DL+Di+W30
- LC11=1.2DL+Di-W0
- LC12=1.2DL+Di-W30
- LC13=1.2DL
- LC15=1.2DL+1.5LL1
- LC16=1.2DL+1.5LL2
- LC17=1.2DL+W0+1.5LLa1
- LC18=1.2DL+W30+1.5LLa1
- LC19=1.2DL-W0+1.5LLa1
- LC20=1.2DL-W30+1.5LLa1
- LC21=1.2DL+W0+1.5LLa2
- LC22=1.2DL+W30+1.5LLa2
- LC23=1.2DL-W0+1.5LLa2
- LC24=1.2DL-W30+1.5LLa2
- LC25=1.2DL+W0+1.5LLa3
- LC26=1.2DL+W30+1.5LLa3
- LC27=1.2DL-W0+1.5LLa3
- LC28=1.2DL-W30+1.5LLa3
- LC29=1.2DL+W0+1.5LLa4
- LC30=1.2DL+W30+1.5LLa4
- LC31=1.2DL-W0+1.5LLa4
- LC32=1.2DL-W30+1.5LLa4

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	<i>C 6x2x1/4</i>	5	LC4 at 57.64%	0.77	With warnings	
		6	LC2 at 43.06%	0.78	With warnings	
		7	LC3 at 57.64%	0.86	With warnings	
		10	LC4 at 50.00%	0.82	OK	
		11	LC1 at 50.00%	0.77	OK	
		12	LC2 at 50.00%	0.76	OK	
	<i>HSS_SQR 4X4X1_4</i>	1	LC2 at 0.00%	0.86	OK	
		8	LC4 at 0.00%	0.84	OK	
		9	LC1 at 0.00%	0.97	OK	
	<i>L 2-1_2X2-1_2X1_4</i>	16	LC1 at 0.00%	0.77	OK	
		17	LC2 at 0.00%	0.71	OK	
		18	LC4 at 0.00%	0.57	OK	
		68	LC1 at 0.00%	0.65	OK	
		69	LC4 at 100.00%	0.65	OK	
		70	LC1 at 100.00%	0.53	OK	

PIPE 2-1_2x0.203	53	LC2 at 85.94%	0.44	OK
	54	LC2 at 46.88%	0.52	OK
	55	LC4 at 85.94%	0.51	OK
	57	LC1 at 85.94%	0.60	OK
	58	LC1 at 85.94%	0.65	OK
	59	LC3 at 85.94%	0.46	OK
	61	LC4 at 85.94%	0.54	OK
	62	LC3 at 85.94%	0.57	OK
	63	LC1 at 85.94%	0.65	OK
<hr/>				
PIPE 2x0.154	13	LC3 at 9.38%	0.56	OK
	14	LC4 at 9.82%	0.70	OK
	15	LC1 at 9.82%	0.60	OK
	51	LC3 at 100.00%	0.06	OK
	52	LC1 at 100.00%	0.08	OK
	56	LC4 at 90.63%	0.61	OK
	60	LC2 at 25.00%	0.66	OK
	64	LC1 at 90.63%	0.79	OK
	65	LC4 at 40.00%	0.75	OK
	66	LC4 at 39.58%	0.75	OK
	67	LC1 at 39.58%	0.75	OK
	83	LC3 at 100.00%	0.61	OK
	84	LC1 at 100.00%	0.59	OK
	85	LC4 at 100.00%	0.71	OK
<hr/>				
PL 6x1/2	2	LC4 at 46.88%	0.60	OK
	3	LC6 at 50.00%	0.73	OK
	4	LC5 at 50.00%	0.71	OK

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
17	0.7939	0.00	0.4583	0
19	0.00	0.00	-0.9167	0
2	-0.7939	0.00	0.4583	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
17	1	1	1	1	1	1
19	1	1	1	1	1	1
2	1	1	1	1	1	1

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	Ig factor
51	107	105		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
52	106	104		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
53	129	117		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
54	130	118		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
55	131	119		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
56	128	116		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
57	125	113		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
58	126	114		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
59	127	115		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
60	124	112		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
61	123	111		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
62	122	110		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
63	120	108		PIPE 2-1_2x0.203	A53 GrB	0.00	0.00	0.00
64	121	109		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
5	11	12		C 6x2x1/4	A36	0.00	0.00	0.00
7	15	16		C 6x2x1/4	A36	0.00	0.00	0.00
8	17	18		HSS_SQR 4X4X1_4	A500 GrB rectangular	0.00	0.00	0.00
10	22	21		C 6x2x1/4	A36	0.00	0.00	0.00
13	29	30		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
14	31	32		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
65	134	135		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
66	136	137		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
83	174	171		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
2	6	5		PL 6x1/2	A36	0.00	0.00	0.00
16	38	37		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
68	143	142		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
6	13	14		C 6x2x1/4	A36	0.00	0.00	0.00
15	33	34		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
67	138	139		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
85	170	173		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
12	23	25		C 6x2x1/4	A36	0.00	0.00	0.00
84	172	169		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
1	2	4		HSS_SQR 4X4X1_4	A500 GrB rectangular	0.00	0.00	0.00
9	19	20		HSS_SQR 4X4X1_4	A500 GrB rectangular	0.00	0.00	0.00
11	26	24		C 6x2x1/4	A36	0.00	0.00	0.00
4	10	9		PL 6x1/2	A36	0.00	0.00	0.00
17	36	35		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
69	141	140		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
3	8	7		PL 6x1/2	A36	0.00	0.00	0.00
18	27	39		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00
70	132	144		L 2-1_2X2-1_2X1_4	A36	0.00	0.00	0.00

Rigid end offsets

Member	DJX [in]	DJY [in]	DJZ [in]	DKX [in]	DKY [in]	DKZ [in]
83	0.00	2.50	0.00	0.00	2.50	0.00
85	0.00	2.50	0.00	0.00	2.50	0.00
84	0.00	2.50	0.00	0.00	2.50	0.00

EXHIBIT 5



Radio Frequency Emissions Analysis Report

AT&T

Site Name: **MONROE NE**

1428 Monroe Turnpike
Monroe, CT 06468

June 10, 2020

Site Compliance Summary	
Compliance Status:	Compliant
AT&T Contribution MPE% of FCC general population	0.03579%
Site total MPE% of FCC general population allowable limit:	0.08578%



June 10, 2020

AT&T Mobility – New England
Attn: John Benedetto, RF Manager

Emissions Analysis for Site: **MONROE NE**

Centerline Communications, LLC (“Centerline”) was directed to analyze the proposed AT&T facility to be located on a **monopole** near **1428 Monroe Turnpike, Monroe CT 06468** for the purpose of determining whether the emissions from the proposed facility are within specified federal limits.

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

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

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

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The general population exposure limits for the 700 MHz (LTE) is $467 \mu\text{W}/\text{cm}^2$; and for the 850 MHz (UMTS, LTE, 5G) bands is $567 \mu\text{W}/\text{cm}^2$.



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

Additional details can be found in FCC OET 65.



CALCULATIONS

Centerline Communications, LLC has performed theoretical modeling using Waterford Consultants' RoofMaster™ 2015 Version 19.12.13.19 which uses a cylindrical model for conservative power density predictions within the near field of the antenna where the antenna pattern has not truly formed yet. Within this area power density values tend to decrease based upon an inverse distance function. At the point where it is appropriate for modeling to change from near-field calculations to far-field calculations the power decreases inversely with the square of the distance. This modeling technique is accurate with low antenna centerlines, such as rooftops, where persons can get close to the antennas and pass through fields in close proximity.

The modeling is based on worst-case assumptions for the number of antennas and transmitter power. No losses were included in the power calculations unless they were specifically provided for the project.

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

RRH #	Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
1	LTE	700	1	40
1	LTE	850	1	40
1	5G	850	2	40
2	LTE	700	4	40
3	LTE	1900	4	40
4	LTE	2300	4	25
5	UMTS	850	2	20

Table 1: Channel Data Table



The following antennas listed in *Table 2* were used in the modeling for transmission in the 700 MHz (LTE) and 850 MHz (UMTS, LTE, 5G) frequency bands. This is based on information from the carrier with regard to anticipated antenna selection.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	CCI DMP65R-BU6D	160.00
A	1	CCI DMP65R-BU6D	160.00
A	1	CCI DMP65R-BU6D	160.00
A	2	CCI OPA65R-BU6D	160.00
A	3	QUINTEL QS66512-2	160.00
A	3	QUINTEL QS66512-2	160.00
A	4	POWERWAVE 7770	160.00
B	5	CCI DMP65R-BU6D	160.00
B	5	CCI DMP65R-BU6D	160.00
B	5	CCI DMP65R-BU6D	160.00
B	6	CCI OPA65R-BU6D	160.00
B	7	QUINTEL QS66512-2	160.00
B	7	QUINTEL QS66512-2	160.00
B	8	POWERWAVE 7770	160.00
C	9	CCI DMP65R-BU6D	160.00
C	9	CCI DMP65R-BU6D	160.00
C	9	CCI DMP65R-BU6D	160.00
C	10	CCI OPA65R-BU6D	160.00
C	11	QUINTEL QS66512-2	160.00
C	11	QUINTEL QS66512-2	160.00
C	12	POWERWAVE 7770	160.00

Table 2: Antenna Data

All calculations were done with respect to uncontrolled / general population threshold limits.



RESULTS

Per the calculations completed for the proposed AT&T configurations *Table 3* shows resulting emissions power levels and percentages of the FCC’s allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Antenna Height (ft)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	CCI DMP65R-BU6D	700	11.35	160.00	1	40	545.833255	0.002883086
Antenna A1	CCI DMP65R-BU6D	850	11.35	160.00	1	40	545.833255	0.002397614
Antenna A1	CCI DMP65R-BU6D	850	11.35	160.00	2	80	1091.66651	0.004795228
Antenna A2	CCI OPA65R-BU6D	700	11.35	160.00	4	160	2183.33302	0.016357495
Antenna A3	QUINTEL QS66512-2	1900	13.65	160.00	4	160	3707.83144	0.005292274
Antenna A3	QUINTEL QS66512-2	2300	14.55	160.00	4	160	2851.01827	0.002851102
Antenna A4	POWERWAVE 7770	850	11.35	160.00	2	40	545.833255	0.001153305
Antenna B1	CCI DMP65R-BU6D	700	11.75	160.00	1	40	598.494262	0.000001675
Antenna B1	CCI DMP65R-BU6D	850	11.45	160.00	1	40	558.547344	0.000000645
Antenna B1	CCI DMP65R-BU6D	850	11.45	160.00	2	80	1117.09469	0.000001289
Antenna B2	CCI OPA65R-BU6D	700	11.85	160.00	4	160	2449.73994	0.000002693
Antenna B3	QUINTEL QS66512-2	1900	13.65	160.00	4	160	3707.83144	0.000002221
Antenna B3	QUINTEL QS66512-2	2300	14.55	160.00	4	160	2851.01827	0.000002074
Antenna B4	POWERWAVE 7770	850	11.35	160.00	2	40	545.833255	0.000001380
Antenna C1	CCI DMP65R-BU6D	700	11.75	160.00	1	40	598.494262	0.000001892
Antenna C1	CCI DMP65R-BU6D	850	11.45	160.00	1	40	558.547344	0.000002017
Antenna C1	CCI DMP65R-BU6D	850	11.45	160.00	2	80	1117.09469	0.000004030
Antenna C2	CCI OPA65R-BU6D	700	11.85	160.00	4	160	2449.73994	0.000003725
Antenna C3	QUINTEL QS66512-2	1900	14.15	160.00	4	160	4160.2553	0.000006213
Antenna C3	QUINTEL QS66512-2	2300	14.55	160.00	4	160	2851.01827	0.000003422
Antenna C4	POWERWAVE 7770	850	11.35	160.00	2	40	545.833255	0.000030495
AT&T Contribution								0.03579%

Table 3: AT&T Antenna Inventory & Power Levels



FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated AT&T sector(s).

Frequency Band	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (µW/cm ²)	Technology	Allowable MPE (µW/cm ²)	Calculated % MPE
700	1	545.8333	160.00	0.013454403	LTE	467	0.002883086
850	1	545.8333	160.00	0.013586480	LTE	567	0.002397614
850	2	545.8333	160.00	0.027172959	5G	567	0.004795228
700	4	545.8333	160.00	0.076334979	LTE	467	0.016357495
1900	4	926.9579	160.00	0.052922737	LTE	1000	0.005292274
2300	4	712.7546	160.00	0.028511020	LTE	1000	0.002851102
850	2	272.9166	160.00	0.006535392	UMTS	567	0.001153305
700	1	598.4943	160.00	0.000007817	LTE	467	0.000001675
850	1	558.5473	160.00	0.000003656	LTE	567	0.000000645
850	2	558.5473	160.00	0.000007306	5G	567	0.000001289
700	4	612.435	160.00	0.000012570	LTE	467	0.000002693
1900	4	926.9579	160.00	0.000022207	LTE	1000	0.000002221
2300	4	712.7546	160.00	0.000020736	LTE	1000	0.000002074
850	2	272.9166	160.00	0.000007817	UMTS	567	0.000001380
700	1	598.4943	160.00	0.000008832	LTE	467	0.000001892
850	1	558.5473	160.00	0.000011430	LTE	567	0.000002017
850	2	558.5473	160.00	0.000022839	5G	567	0.000004030
700	4	612.435	160.00	0.000017382	LTE	467	0.000003725
1900	4	1040.064	160.00	0.000062135	LTE	1000	0.000006213
2300	4	712.7546	160.00	0.000034219	LTE	1000	0.000003422
850	2	272.9166	160.00	0.000172805	UMTS	567	0.000030495
						AT&T	0.03579%

Table 6: AT&T Maximum Sector MPE Power Values



Summary

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

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

Site Total	Power Density Value (%)
AT&T Contribution:	0.03579%
Other Carrier Contribution:	0.04999%
Site Total:	0.085783%
Site Compliance Status:	Compliant

The anticipated composite MPE value for this site assuming all carriers present is **0.085783%** of the allowable FCC established general population limit sampled at the ground level.

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

A handwritten signature in black ink, appearing to read 'Erin Kavanaugh'.

Erin Kavanaugh
RF EME Technical Writer
Centerline Communications, LLC

750 West Center St. Suite 301
West Bridgewater, MA 02379

EXHIBIT 6

**TOWN OF MONROE
PLANNING & ZONING DEPARTMENT
PLANNING & ZONING COMMISSION**

APPLICATION FOR ZONING COMPLIANCE CERTIFICATE

TYPE OR PRINT IN INK

Date of Application 6/20/03

Complete all items / incomplete applications will be returned

Application for Provisional / Permanent Zoning Compliance Certificate is hereby made in accordance with the Zoning Regulations for (check one):

- NEW CONSTRUCTION ADDITION CHANGE OF USE CERTIFICATION OF EXISTING USE/STRUCTURE/LAND
 SWIMMING POOL CONVERSION/RENOVATION/REMODEL OTHER (specify) _____

Street No. 1428 Unit No. _____ Lot / (Parcel No.) 24

Street Name MONROE TURNPIKE

- Zoning District (check one): RC RD RE DR DRR DER
 DB DI LO DHO MIH

Record Owner _____

Mail Address _____ Phone _____

Applicant (if different) G. PIC. & SONS. CONST. CO.

Mail Address 38 BONNIE VIEW DR TREMBULL CT. 06611 Phone (203) 374-2300

- Current Property Use: Single Family Residence Commercial/Business Industrial Vacant
 Design Residence Other (specify) _____
(check one)

Existing Structures: Number 2 How Used _____

Description - Proposed Construction CELL TOWER

Dimensions 100' x 100' x _____ (hgt.) Livable Floor Area _____ sq.ft.

If this construction was subject to formal approval of Planning & Zoning Commission complete this section

Nature of P+Z Approval _____ File No _____ Effective Date _____
Record Map No _____ Subdivision Title _____

If this construction was subject to variance or other approval of Zoning Board of Appeals complete this section

Variance Granted (date) _____ ZBA File No. _____
Describe Variance _____

ENDORSEMENT

I hereby certify that I am making this application on behalf of and with the full authority of the owner(s) of the property or premises and am aware of and understand the Zoning and/or Subdivision Regulations pertinent to the application and affirm that the statements and information provided are accurate and true. Falsification, by misrepresentation or omission, or failure to comply with any conditions of issuance shall constitute a violation of the Monroe Zoning Regulations, and make the certificate subject to revocation or suspension. Further, the undersigned hereby authorizes the Town of Monroe and its agents, to access the premises for the purpose of application investigation, inspection of improvements or construction, and enforcement of the Zoning and/or Subdivision Regulations, Town Ordinances, or General Statutes of the State of Connecticut, as may be applicable.

I understand that the Provisional Certificate of Zoning Compliance, if issued, is based upon the plot plan and information submitted. The Permanent Certificate of Zoning Compliance shall be issued based upon determination to the satisfaction of the Zoning Enforcement Officer that completed work complies with the standards of the Monroe Zoning and/or Subdivision Regulations.

Applicant's Signature [Signature]

OFFICE USE ONLY

Fee of 25. Paid Date 6-23-03 Provisional Cert. # 11451 Dated 6/24/03
Permanent Cert. # 7735 Dated 11/13/03
Application Reviewed by [Signature] Date 6/24/03

- Plot Plan Attached Plot Plan Not Required As-built Rec'd. As-built Not Required

**NOTE: PROVISIONAL CERTIFICATE VOID ONE YEAR FROM DATE OF ISSUE
ZONING FEES NOT REFUNDABLE OR TRANSFERABLE AFTER ISSUE OF ANY CERTIFICATE**



TOWN OF MONROE, CONNECTICUT
PROVISIONAL CERTIFICATE
OF
ZONING COMPLIANCE

This is to certify that the residential, multi-residential, business, industrial; structure, use, or, premises, located at
Street No. 1428 [Lot or Unit No. _____] Monroe Turnpike (160' Cell Tower) (road name)
has been examined and based on the information contained in the application for provisional certificate, the subject of said application conforms to the requirements of
the Zoning Regulations of the Town of Monroe, last revised 11-30-02.

This provisional certificate expires one year from the date herein, or upon issuance of a permanent certificate of zoning compliance, whichever is occurs first.
Failure to obtain said permanent certificate prior to use or occupancy shall constitute a violation of the Zoning Regulations of the Town of Monroe.

Additionally the following conditions or restrictions apply:

No 11451

Dated at Monroe, Connecticut this 2nd day of June, 2003
By: [Signature]
Zoning Enforcement Officer (one signature required) Town Planner



TOWN OF MONROE, CONNECTICUT
PERMANENT CERTIFICATE
OF
ZONING COMPLIANCE

This is to certify that the residential, multi-residential, business, industrial; structure, use, or, premises, located at
Street No. 1428 [Lot or Unit No. _____] Monroe Turnpike (road name)
has been inspected and conforms to the requirements of the Zoning Regulations of the Town of Monroe, last revised Nov. 30, 2002
and may be occupied and/or used for the purpose of:

Construct a 160 ft, six carrier cell tower & fence.

This is not a Certificate of Occupancy as required by the State Building Code.

Provisional File No. 11451

Additionally the following conditions or restrictions apply:

No 7735

Dated at Monroe, Connecticut this 13 day of Nov., 2003
By: [Signature]
Zoning Enforcement Officer (one signature required) ~~Town Planner~~

EXHIBIT 7

UPS CampusShip: View/Print Label

- 1. Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
- 2. Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.
- 3. GETTING YOUR SHIPMENT TO UPS**
Customers with a Daily Pickup
 Your driver will pickup your shipment(s) as usual.

Customers without a Daily Pickup

Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

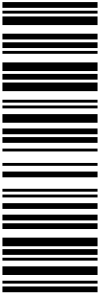


Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages. Hand the package to any UPS driver in your area.

UPS Access Point™
CVS STORE # 972
555 WASHINGTON ST
SOUTH EASTON ,MA 02375

UPS Access Point™
CVS STORE # 7232
689 DEPOT ST
NORTH EASTON ,MA 02356

UPS Access Point™
TOWN LINE GENERAL STORE
450 E CENTER ST
WEST BRIDGEWATER ,MA 02379

FOLD HERE

<p style="text-align: right;">1 OF 1</p> <p>1 LBS</p> <p>CENTERLINE COMMUNICATIONS 5082655599 CENTERLINE CORPORATE 95 RYAN DR. RAYNHAM MA 02767</p> <p>SHIP TO: KEN KELLOGG, FIRST SELECTMAN TOWN OF MONROE 7 FAN HILL ROAD MONROE CT 06468-1847</p>	<p>CT 068 0-02</p> 	<p>UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 3967 1672</p> 	<p style="text-align: center;">BILLING: P/P</p> <p>Reference # 1: CT5266 - CSC First Selectman</p> <p style="font-size: small; text-align: right;">CS 22.0.11. WNTNVS0 28.04.04/2020</p> 
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Jennifer Iliades

From: UPS Quantum View <pkginfo@ups.com>
Sent: Wednesday, July 15, 2020 12:57 PM
To: Jennifer Iliades
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030339671672



Hello, your package has been delivered.

Delivery Date: Wednesday, 07/15/2020

Delivery Time: 12:55 PM

Left At: FRONT DESK

Signed by: CHEATUM

CENTERLINE SITE ACQUISITION

Tracking Number: [1Z9Y45030339671672](#)

Ship To: TOWN OF MONROE
7 FAN HILL ROAD
MONROE, CT 064681847
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 0.2 LBS

Reference Number: CT5266 - CSC FIRST SELECTMAN



[Download the UPS mobile app](#)

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[For Questions, Visit Our Help and Support Center](#)

UPS CampusShip: View/Print Label

- 1. Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
- 2. Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.
- 3. GETTING YOUR SHIPMENT TO UPS**
Customers with a Daily Pickup
 Your driver will pickup your shipment(s) as usual.

Customers without a Daily Pickup

Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.


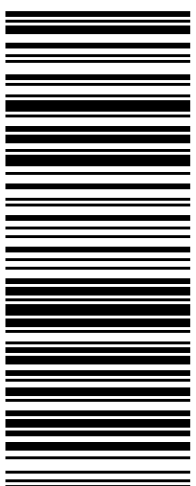

Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages. Hand the package to any UPS driver in your area.

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UPS Access Point™
TOWN LINE GENERAL STORE
450 E CENTER ST
WEST BRIDGEWATER ,MA 02379

FOLD HERE

<p style="text-align: right;">1 OF 1</p> <p>1 LBS</p> <p>CENTERLINE COMMUNICATIONS 5082655599 CENTERLINE CORPORATE 95 RYAN DR. RAYNHAM MA 02767</p> <p>SHIP TO: WILLIAM AGRESTA, PLANNING & ZONING TOWN OF MONROE0.2 7 FAN HILL ROAD MONROE CT 06468-1847</p>	<p>CT 068 0-02</p> 	<p>UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 3384 5898</p> 	<p style="text-align: center;">BILLING: P/P</p> <p>Reference # 1: CT5266 - CSC P&Z</p> <p style="font-size: small; text-align: right;">CS 22.0.11. WNTNVS0 28.04.04/2020</p> 
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Jennifer Iliades

From: UPS Quantum View <pkginfo@ups.com>
Sent: Wednesday, July 15, 2020 12:57 PM
To: Jennifer Iliades
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030333845898



Hello, your package has been delivered.

Delivery Date: Wednesday, 07/15/2020

Delivery Time: 12:55 PM

Left At: FRONT DESK

Signed by: CHEATUM

CENTERLINE SITE ACQUISITION

Tracking Number: [1Z9Y45030333845898](#)

Ship To: TOWN OF MONROE0.2
7 FAN HILL ROAD
MONROE, CT 064681847
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 0.2 LBS

Reference Number: CT5266 - CSC P&Z



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- 3. GETTING YOUR SHIPMENT TO UPS**
Customers with a Daily Pickup
 Your driver will pickup your shipment(s) as usual.

Customers without a Daily Pickup

Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.


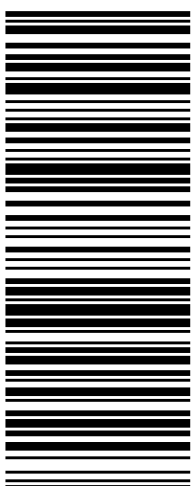

Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages. Hand the package to any UPS driver in your area.

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UPS Access Point™
TOWN LINE GENERAL STORE
450 E CENTER ST
WEST BRIDGEWATER ,MA 02379

FOLD HERE

<p style="text-align: right;">1 OF 1</p> <p>1 LBS</p> <p>CENTERLINE COMMUNICATIONS 5082655599 CENTERLINE CORPORATE 95 RYAN DR. RAYNHAM MA 02767</p> <p>SHIP TO: GEORGE O'NEILL, SBA COMM SBA INFRASTRUCTURE, LLC 8051 CONGRESS AVENUE BOCA RATON FL 33487-1307</p>	<p>FL 332 6-07</p> 	<p>UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 3286 2282</p> 	<p style="text-align: center;">BILLING: P/P</p> <p>Reference # 1: CT5266 - CSC SBA</p> <p style="font-size: small; text-align: right;">CS 22.0.11. WNTNVS0 28.0A.04/2020</p> 
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Jennifer Iliades

From: UPS Quantum View <pkginfo@ups.com>
Sent: Friday, July 17, 2020 1:29 PM
To: Jennifer Iliades
Subject: UPS Delivery Notification, Tracking Number 1Z9Y45030332862282



Hello, your package has been delivered.

Delivery Date: Friday, 07/17/2020

Delivery Time: 01:27 PM

Left At: OFFICE

Signed by: HAMPTON

CENTERLINE SITE ACQUISITION

Tracking Number: [1Z9Y45030332862282](#)

Ship To: SBA INFRASTRUCTURE, LLC
8051 CONGRESS AVENUE
BOCA RATON, FL 334871307
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 0.2 LBS

Reference Number: CT5266 - CSC SBA



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