



Filed by:

Kri Pelletier, Property Specialist - SBA Communications
134 Flanders Rd., Suite 125, Westborough, MA 01581
508.251.0720 x 3804 - kpelletier@sbasite.com

September 7, 2018

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

Notice of Exempt Modification
188 Moody Rd., Enfield, CT
42° 0' 7.2" N
-72° 31' 18.1" W
T-Mobile #: CTHA170C_L700 4x2

Dear Ms. Bachman:

T-Mobile currently maintains antennas at the 187-foot level of the existing 188-foot Monopole Tower at 188 Moody Road in Enfield, CT. The tower is owned by SBA 2012 TC Assets, LLC. The property is owned by Troiano Realty Corporation. T-Mobile now intends to remove (6) existing cell antennas and replace with (6) newer technology cell antennas at the 187-foot level of the tower. The proposed full scope of work is as follows:

Remove:

- (18) 1-5/8" lines

Remove and Replace:

- Remove: (3) RFS APXV18-20914 Panel Antennas
 - Replace with: (3) KRD901146-1_B66A_B2A Panel Antennas
- Remove: (3) RFS APX16PV-16-PVL E Panel Antennas
 - Replace with: (3) APXVAARR24_43_U-NA20 Panel Antennas

Install:

- (3) Ericsson Radio 4449 B71+B12
- (16) 1-1/4" lines
- (2) 1-1/4" hybrid
 - At ground level: (within existing leased area of compound)
- (1) 6102 cabinet

Existing Equipment to Remain (Including entitlements):

- (3) Commscope LNX-6515DS-A1M Panel Antennas (entitlements only/not installed)
- (3) Kathrein 782 11054 Bias T
- (12) Ericsson KRY 112 114-1 TMAs
- (1) Low Profile Platform with handrails

This facility was approved by Enfield's Planning and Zoning Commission on February 3, 2000. Special Use Permit File PH 2157 was granted under Section 14 and Section 16 allowing construction of a 180' high monopole not to interfere with existing or proposed public safety communications, commercial television and radio signals or other forms of communication transmissions. All generators installed were ordered to comply with all state and local noise regulations and the tower was to be maintained in a manner to blend in with the surroundings. On January 24, 2008, Council granted approval under Petition 844 (T-Mobile) to extend the tower by ten feet. This modification complies with all conditions.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16.50j-72(b)(2). In accordance with R.C.S.A. § 16.50j-73, a copy of this letter is being sent to the Town of Enfield's Acting Town Manager, Christopher Bromson, and Assistant Town Planners, Raquel Ocasio and Jennifer Pacacha, as well as to the property owner, Troiano Realty Corporation. (Separate notice is not being sent to tower owner, as it belongs to SBA.)

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. §16.50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modification will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modification will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

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

Sincerely,



Kiri Pelletier
Property Specialist
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581
508.251.0720 x3804 + T - 508.366.2610 + F
203.446.7700 + C - kpelletier@sbasite.com

Attachments

cc: Christopher Bromson, Acting Town Manager / with attachments
Town of Enfield, 820 Enfield St., Enfield, CT 06082
Raquel Ocasio and Jennifer Pacacha, Assistant Town Planners / with attachments
Town of Enfield, 820 Enfield St., Enfield, CT 06082
Troiano Realty Corporation / with attachments
777 Enfield Street, Enfield, CT 06082



POWER DENSITY

T-Mobile Site Inventory and Power Data by Antenna

| Sector | A | Secto | B | Sector | C |
|---------------|------------------------------------|---------------|------------------------------------|---------------|------------------------------------|
| Antenna | 1 | Antenna | 1 | Antenna | 1 |
| Make / Model: | Ericsson AIR32 KRD901146_1 | Make / Model: | Ericsson AIR32 KRD901146_1 | Make / Model: | Ericsson AIR32 KRD901146_1 |
| Gain: | 15.95dBd | Gain: | 15.95dBd | Gain: | 15.95dBd |
| Height | 187 | Height | 187 | Height | 187 |
| Frequency | 1900 MHz (PCS) / 2100 MHz (AWS) | Frequency | 1900 MHz (PCS) / 2100 MHz (AWS) | Frequency | 1900 MHz (PCS) / 2100 MHz (AWS) |
| Channel | 5 | Channel | 5 | Channel | 5 |
| Total TX | 2 | Total TX | 2 | Total TX | 2 |
| ERP | 8,364. | ERP | 8,364. | ERP | 8,364. |
| Antenna A1 | 0. | Antenna B1 | 0. | Antenna C1 | 0. |
| Antenna | 2 | Antenna | 2 | Antenna | 2 |
| Make / Model: | RFS APXVAARR24_43- IL_NA20 | Make / Model: | RFS APXVAARR24_43- IL_NA20 | Make / Model: | RFS APXVAARR24_43- IL_NA20 |
| Gain: | 12.95 / 13.35 dBd | Gain: | 12.95 / 13.35 dBd | Gain: | 12.95 / 13.35 dBd |
| Height | 187 | Height | 187 | Height | 187 |
| Frequency | 600 MHz / 700 MHz | Frequency | 600 MHz / 700 MHz | Frequency | 600 MHz / 700 MHz |
| Channel | 4 | Channel | 4 | Channel | 4 |
| Total TX | 1 | Total TX | 1 | Total TX | 1 |
| ERP | 2,443. | ERP | 2,443. | ERP | 2,443. |
| Antenna A2 | 0. | Antenna B2 | 0. | Antenna C2 | 0. |

| Site Composite MPE% | |
|---------------------------|---------------|
| Carrier | MPE% |
| T-Mobile (Per Sector Max) | 1.55 % |
| AT&T | 3.23 % |
| MetroPCS | 0.34 % |
| NexTEL | 0.19 % |
| Sprint | 2.02 % |
| Clearwire | 0.06 % |
| Site Total MPE %: | 7.39 % |

| | |
|--------------------------|--------|
| T-Mobile Sector A Total: | 1.55 % |
| T-Mobile Sector B Total: | 1.55 % |
| T-Mobile Sector C Total: | 1.55 % |
| Site Total: | 7.39 % |

T-Mobile Maximum MPE Power Values (Per Sector)

| T-Mobile_Frequency Band / Technology (Per Sector) | # Channels | Watts ERP (Per Channel) | Height (feet) | Total Power Density ($\mu\text{W}/\text{cm}^2$) | Frequency (MHz) | Allowable MPE ($\mu\text{W}/\text{cm}^2$) | Calculated % MPE |
|---|------------|-------------------------|---------------|---|-----------------|---|------------------|
| T-Mobile PCS - 1900 MHz LTE | 2 | 1,556.18 | 187 | 3.42 | PCS - 1900 MHz | 1000.00 | 0.34% |
| T-Mobile AWS - 2100 MHz LTE | 2 | 2,334.27 | 187 | 5.12 | AWS - 2100 MHz | 1000.00 | 0.51% |
| T-Mobile PCS - 1900 MHz GSM | 1 | 583.57 | 187 | 0.64 | PCS - 1900 MHz | 1000.00 | 0.07% |
| T-Mobile 600 MHz LTE | 2 | 788.97 | 187 | 1.73 | 600 MHz | 400.00 | 0.43% |
| T-Mobile 700 MHz LTE | 2 | 432.54 | 187 | 0.95 | 700 MHz | 467.00 | 0.20% |
| | | | | | | Total: | 1.55% |

ORIGINID:BBEA
KR PELLETIER
SBA COMMUNICATIONS CORPORATION
134 FLAUNDERS RD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

(508) 251-0720
ACTWGT:.00 LB
CAD: 105.843304/MET4040

SHIP DATE: 07 SEP 18
DEPT:
BILL SENDER

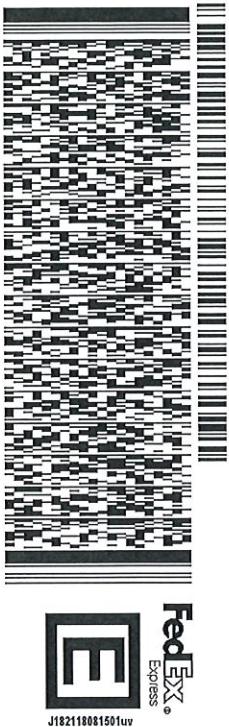
TO CHRISTOPHER BROMSON, TOWN MANAGER
TOWN OF ENFIELD
820 ENFIELD STREET

552J1/F78C/DCA5

ENFIELD CT 06082

(508) 251-0720 X 3804

REF: 1056-92009-6089
PO:
DEPT:



MON - 10 SEP 10:30A
TRK# 0201
7731 6108 7538
PRIORITY OVERNIGHT

SE QCWA

06082
CT-US
BDL



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 KR PELLETIER SBA COMMUNICATIONS CORPORATION
 134 FLANDERS RD
 SUITE 125
 WESBROUGH, MA 01581
 UNITED STATES US

SHIP DATE: 07 SEP 18
 ACT WT: 1.00 LB
 CAD: 105843304/NET4040

BILL SENDER

TO RAQUEL OCASIO AND JENNIFER PACACHA
 TOWN OF ENFIELD-ASST. TOWN PLANNERS
 820 ENFIELD ST

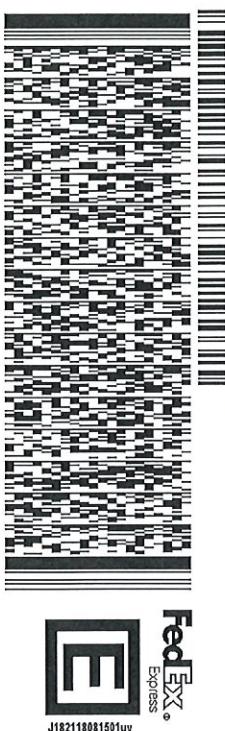
ENFIELD CT 06082

(508) 251-0720 X3804

REF: 1056-92009-6089

PO:

DEPT:

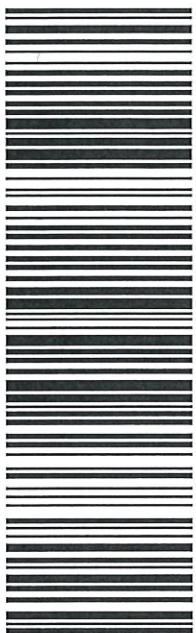


552J1/F78C/DCA5

MON - 10 SEP 10:30A
 PRIORITY OVERNIGHT

TRK#
 0201 7731 6111 7317

SE QCWA
 06082
 CT-US
 BDL



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ORIGIN ID:BBFA
KR PELLETIER COMMUNICATIONS CORPORATION
134 FLANDERS RD
SUITE 125
WESTBOROUGH, MA 01581
UNITED STATES US

(508) 251-0720
ACTIVWGT: 1.00 LB
CAD: 105843304/NET4040

SHIP DATE: 07 SEP 18
BILL SENDER

TO TROIANO REALTY CORP

777 ENFIELD STREET

552J1/F78C/DCA5

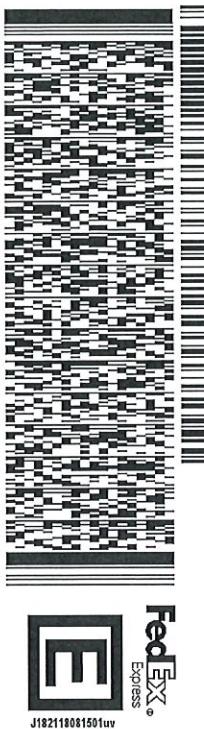
ENFIELD CT 06082

REF: 1056-92009-6089

INV:

DO:

DEPT:



MON - 10 SEP 10:30A

PRIORITY OVERNIGHT

TRK#
0201

7731 6113 3184

06082
CT-US
BDL

SE QCWA



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188 MOODY RD**Location** 188 MOODY RD**Mblu** 100/ / 0012/ /**Acct#** 001600020130**Owner** TROIANO REALTY CORP**Assessment** \$1,312,310**Appraisal** \$1,874,720**PID** 2238**Building Count** 1**Fire District** 3**Current Value**

| Appraisal | | | |
|-----------------------|---------------------|-------------|--------------|
| Valuation Year | Improvements | Land | Total |
| 2017 | \$1,168,800 | \$705,920 | \$1,874,720 |
| Assessment | | | |
| Valuation Year | Improvements | Land | Total |
| 2017 | \$818,160 | \$494,150 | \$1,312,310 |

Owner of Record

| | | | |
|-----------------|--------------------------------------|------------------------|----------|
| Owner | TROIANO REALTY CORP | Sale Price | \$0 |
| Co-Owner | | Certificate | 1 |
| Address | 0777 ENFIELD ST ENFIELD, CT 06082 | Book & Page | 305/ 468 |
| | | Sale Date | |
| | | Instrument | |

Ownership History

| Ownership History | | | | | |
|--------------------------|-------------------|--------------------|------------------------|-------------------|------------------|
| Owner | Sale Price | Certificate | Book & Page | Instrument | Sale Date |
| TROIANO REALTY CORP | \$0 | 1 | 305/ 468 | | |

Building Information**Building 1 : Section 1**

Year Built: 1965
Living Area: 10,980
Replacement Cost: \$490,290
Building Percent 37
Good:
Replacement Cost
Less Depreciation: \$181,410

Building Photo

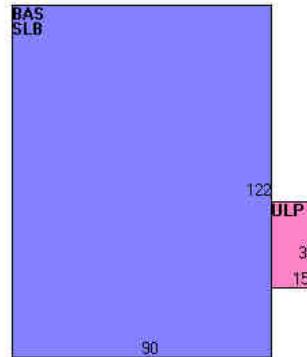
| Building Attributes | |
|----------------------------|--------------------|
| Field | Description |
| | |

| | |
|------------------|----------------------|
| STYLE | Industrial Flex Bldg |
| MODEL | Ind/Comm |
| Grade | Average |
| Stories: | 1 |
| Occupancy | 3 |
| Exterior Wall 1 | Pre-finsh Metl |
| Exterior Wall 2 | |
| Roof Structure | Gable |
| Roof Cover | Metal/Tin |
| Interior Wall 1 | Minim/Masonry |
| Interior Wall 2 | |
| Interior Floor 1 | Vinyl/Asphalt |
| Interior Floor 2 | |
| Heating Fuel | Gas |
| Heating Type | Forced Air-Duc |
| AC Type | None |
| Bldg Use | Industrial |
| Total Rooms | |
| Total Bedrms | |
| Total Baths | |
| Total H Bths | |
| Extra Fixtures | |
| 1st Floor Use: | |
| Heat/AC | None |
| Frame Type | Steel |
| Baths/Plumbing | Average |
| Ceiling/Wall | None |
| Rooms/Prtns | Average |
| Wall Height | 15 |
| % Comm Wall | |



(http://images.vgsi.com/photos2/EnfieldCTPhotos//00\01\95\47.JPG)

Building Layout



(http://images.vgsi.com/photos2/EnfieldCTPhotos//Sketches/223

| Building Sub-Areas (sq ft) | | Legend | |
|----------------------------|-------------------------|------------|-------------|
| Code | Description | Gross Area | Living Area |
| BAS | First Floor | 10,980 | 10,980 |
| SLB | Slab | 10,980 | 0 |
| ULP | Uncvrd Loading Platform | 450 | 0 |
| | | 22,410 | 10,980 |



Extra Features

| Extra Features | | Legend |
|----------------------------|--|--------|
| No Data for Extra Features | | |

Land

Land Use

| | |
|---------------|------------|
| Use Code | 301 |
| Description | Industrial |
| Zone | I-1 |
| Neighborhood | C500 |
| Alt Land Appr | No |

Land Line Valuation

| | |
|-----------------|-----------|
| Size (Acres) | 15.1 |
| Frontage | |
| Depth | |
| Assessed Value | \$494,150 |
| Appraised Value | \$705,920 |

Category**Outbuildings**

| Outbuildings | | | | | | Legend |
|---------------------|--------------------|-----------------|------------------------|-------------|--------------|---------------|
| Code | Description | Sub Code | Sub Description | Size | Value | Bldg # |
| PAV1 | Paving | AS | Asphalt | 32200 S.F. | \$5,540 | 1 |
| TNK2 | Tank - Oil | | | 500000 GALS | \$240,000 | 1 |
| FN2 | FENCE-6' CHAIN | | | 900 L.F. | \$1,220 | 1 |
| TWR5 | Cell Twr5 Carriers | | | 1 UNITS | \$740,630 | 1 |

Valuation History

| Appraisal | | | |
|-----------------------|---------------------|-------------|--------------|
| Valuation Year | Improvements | Land | Total |
| 2017 | \$1,168,800 | \$705,920 | \$1,874,720 |
| 2016 | \$1,168,800 | \$705,920 | \$1,874,720 |
| 2015 | \$1,180,530 | \$705,920 | \$1,886,450 |

| Assessment | | | |
|-----------------------|---------------------|-------------|--------------|
| Valuation Year | Improvements | Land | Total |
| 2017 | \$818,160 | \$494,150 | \$1,312,310 |
| 2016 | \$818,160 | \$494,150 | \$1,312,310 |
| 2015 | \$826,370 | \$494,150 | \$1,320,520 |

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

T-Mobile Existing Facility

Site ID: CTHA170C

Moody Rd
188 Moody Road
Enfield, CT 06082

August 17, 2018

EBI Project Number: 6218005631

| Site Compliance Summary | |
|---|------------------|
| Compliance Status: | COMPLIANT |
| Site total MPE% of FCC general population allowable limit: | 7.39 % |



August 17, 2018

T-Mobile USA
Attn: Jason Overbey, RF Manager
35 Griffin Road South
Bloomfield, CT 06002

Emissions Analysis for Site: **CTHA170C – Moody Rd**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **188 Moody Road, Enfield, CT**, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

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



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

Additional details can be found in FCC OET 65.

CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at **188 Moody Road, Enfield, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

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

- 1) 1 GSM channels (PCS Band - 1900 MHz) was considered for each sector of the proposed installation. These Channels have a transmit power of 15 Watts per Channel.
- 2) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 3) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 4) 2 LTE channels (600 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 40 Watts per Channel.
- 5) 2 LTE channels (700 MHz Band) were considered for each sector of the proposed installation. These Channels have a transmit power of 20 Watts per Channel.



- 6) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 7) For the following calculations the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 8) The antennas used in this modeling are the **Ericsson AIR32 KRD901146-1 B66A_B2A** for 1900 MHz (PCS) and 2100 MHz (AWS) channels, the **RFS APXVAARR24_43-U-NA20** for 600 MHz and 700 MHz channels. This is based on feedback from the carrier with regard to anticipated antenna selection. All Antenna gain values and associated transmit power levels are shown in the Site Inventory and Power Data table below. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB for directional panel antennas, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 9) The antenna mounting height centerline of the proposed antennas is **187 feet** above ground level (AGL).
- 10) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 11) All calculations were done with respect to uncontrolled / general population threshold limits.



T-Mobile Site Inventory and Power Data

| Sector: | A | Sector: | B | Sector: | C |
|--------------------|---|--------------------|---|--------------------|---|
| Antenna #: | 1 | Antenna #: | 1 | Antenna #: | 1 |
| Make / Model: | Ericsson AIR32 KRD901146-1 B66A_B2A | Make / Model: | Ericsson AIR32 KRD901146-1 B66A_B2A | Make / Model: | Ericsson AIR32 KRD901146-1 B66A_B2A |
| Gain: | 15.95dBd | Gain: | 15.95dBd | Gain: | 15.95dBd |
| Height (AGL): | 187 feet | Height (AGL): | 187 feet | Height (AGL): | 187 feet |
| Frequency Bands | 1900 MHz (PCS) / 2100 MHz (AWS) | Frequency Bands | 1900 MHz (PCS) / 2100 MHz (AWS) | Frequency Bands | 1900 MHz (PCS) / 2100 MHz (AWS) |
| Channel Count | 5 | Channel Count | 5 | Channel Count | 5 |
| Total TX Power(W): | 215 | Total TX Power(W): | 215 | Total TX Power(W): | 215 |
| ERP (W): | 8,364.47 | ERP (W): | 8,364.47 | ERP (W): | 8,364.47 |
| Antenna A1 MPE% | 0.92 | Antenna B1 MPE% | 0.92 | Antenna C1 MPE% | 0.92 |
| Antenna #: | 2 | Antenna #: | 2 | Antenna #: | 2 |
| Make / Model: | RFS APXVAARR24_43-U-NA20 | Make / Model: | RFS APXVAARR24_43-U-NA20 | Make / Model: | RFS APXVAARR24_43-U-NA20 |
| Gain: | 12.95 / 13.35 dBd | Gain: | 12.95 / 13.35 dBd | Gain: | 12.95 / 13.35 dBd |
| Height (AGL): | 187 feet | Height (AGL): | 187 feet | Height (AGL): | 187 feet |
| Frequency Bands | 600 MHz / 700 MHz | Frequency Bands | 600 MHz / 700 MHz | Frequency Bands | 600 MHz / 700 MHz |
| Channel Count | 4 | Channel Count | 4 | Channel Count | 4 |
| Total TX Power(W): | 120 | Total TX Power(W): | 120 | Total TX Power(W): | 120 |
| ERP (W): | 2,443.03 | ERP (W): | 2,443.03 | ERP (W): | 2,443.03 |
| Antenna A2 MPE% | 0.63 | Antenna B2 MPE% | 0.63 | Antenna C2 MPE% | 0.63 |

| Site Composite MPE% | |
|---------------------------|---------------|
| Carrier | MPE% |
| T-Mobile (Per Sector Max) | 1.55 % |
| AT&T | 3.23 % |
| MetroPCS | 0.34 % |
| Nextel | 0.19 % |
| Sprint | 2.02 % |
| Clearwire | 0.06 % |
| Site Total MPE %: | 7.39 % |

| | |
|--------------------------|--------|
| T-Mobile Sector A Total: | 1.55 % |
| T-Mobile Sector B Total: | 1.55 % |
| T-Mobile Sector C Total: | 1.55 % |
| | |
| Site Total: | 7.39 % |



T-Mobile Maximum MPE Power Values (Per Sector)

| T-Mobile Frequency Band / Technology (Per Sector) | # Channels | Watts ERP (Per Channel) | Height (feet) | Total Power Density ($\mu\text{W}/\text{cm}^2$) | Frequency (MHz) | Allowable MPE ($\mu\text{W}/\text{cm}^2$) | Calculated % MPE |
|---|------------|-------------------------|---------------|---|-----------------|---|------------------|
| T-Mobile PCS - 1900 MHz LTE | 2 | 1,556.18 | 187 | 3.42 | PCS - 1900 MHz | 1000.00 | 0.34% |
| T-Mobile AWS - 2100 MHz LTE | 2 | 2,334.27 | 187 | 5.12 | AWS - 2100 MHz | 1000.00 | 0.51% |
| T-Mobile PCS - 1900 MHz GSM | 1 | 583.57 | 187 | 0.64 | PCS - 1900 MHz | 1000.00 | 0.07% |
| T-Mobile 600 MHz LTE | 2 | 788.97 | 187 | 1.73 | 600 MHz | 400.00 | 0.43% |
| T-Mobile 700 MHz LTE | 2 | 432.54 | 187 | 0.95 | 700 MHz | 467.00 | 0.20% |
| | | | | | | Total: | 1.55% |



Summary

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

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

| T-Mobile Sector | Power Density Value (%) |
|--------------------------------------|-------------------------|
| Sector A: | 1.55 % |
| Sector B: | 1.55 % |
| Sector C: | 1.55 % |
| T-Mobile Maximum MPE % (Per Sector): | 1.55 % |
| | |
| Site Total: | 7.39 % |
| | |
| Site Compliance Status: | COMPLIANT |

The anticipated composite MPE value for this site assuming all carriers present is **7.39%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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



Tower Engineering Solutions

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1320 Greenway Drive, Suite 600, Irving, Texas 75038

Structural Analysis Report

Existing 188 ft SUMMIT Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT46124-A

Customer Site Name: Enfield-Moody Rd.

Carrier Name: T-Mobile

Carrier Site ID / Name: CTHA170C / Moody Rd

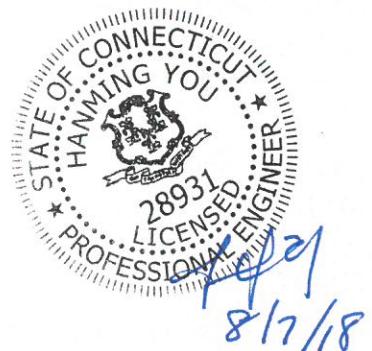
Site Location: 188 Moody Rd

Enfield, Connecticut

Hartford County

Latitude: 42.002000

Longitude: -72.521694



Analysis Result:

Max Structural Usage: 86.0% [Pass]

Max Foundation Usage: 79.2% [Pass]

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

Report Prepared By : Uma S Atluri

Introduction

The purpose of this report is to summarize the analysis results on the 188 ft SUMMIT 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 | Summit, Job # 29200-155, dated 2/12/00 |
| Foundation Drawing | Summit, Job # 29200-155, dated 2/12/00 |
| Geotechnical Report | Tectonic, Project # 1170.C054, dated 9/17/98 |
| Modification Drawings | FDH Engineering, Project #1335291400 dated February 20, 2015: Tower Engineering Solutions, Job #19423 dated June 1, 2016 |

Analysis Criteria

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

| | |
|---|---|
| Wind Speed Used in the Analysis: | Ultimate Design Wind Speed V_{ult} = 121.0 mph (3-Sec. Gust)/ Nominal Design Wind Speed V_{asd} = 94.0 mph (3-Sec. Gust) |
| Wind Speed with Ice: | 50 mph (3-Sec. Gust) with 1" radial ice concurrent |
| Operational Wind Speed: | 60 mph + 0" Radial ice |
| Standard/Codes: | ANSI/TIA/EIA 222-G / 2012 IBC / 2016 Connecticut State Building Code |
| Exposure Category: | C |
| Structure Class: | II |
| Topographic Category: | 1 |
| Crest Height: | 0 ft |
| Seismic Parameters: | $S_s = 0.175$, $S_1 = 0.064$ |

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

Existing Antennas, Mounts and Transmission Lines

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

| Items | Elevation (ft) | Qty. | Antenna Descriptions | Mount Type & Qty. | Transmission Lines | Owner |
|-------|----------------|------|------------------------------------|----------------------------------|--|------------------------|
| - | 187.0 | 3 | Kathrein 782 11054 - Bias T | Low Profile Platform w/Handrails | (18) 1 5/8" | T-Mobile |
| - | | 3 | RFS APX16PV-16-PVL-E - Panel | | | |
| - | | 3 | RFS APXV18-209014 - Panel | | | |
| - | | 3 | Commscope LNX-6515DS-A1M - Panel | | | |
| - | | 12 | Ericsson KRY 112 114-1 - TMA | | | |
| 7 | 168.0 | 1 | RFS APXV9ERR18-C-A20 - Panel | Low Profile Platform | (3) 1-1/4" Fiber (1) 0.7" Fiber | Sprint |
| 8 | | 2 | RFS APXVSPP18-C-A20 - Panel | | | |
| 9 | | 3 | RFS APXVTM14-C-120 - Panel | | | |
| 10 | | 4 | ACU-A20-N - RET | | | |
| 11 | | 3 | Alcatel-Lucent 1900MHz RRU | | | |
| 12 | | 3 | Alcatel-Lucent 800 MHz RRH | | | |
| 13 | | 3 | Alcatel-Lucent TD-RRH8x20-25 - RRU | | | |
| 14 | | 3 | Alcatel-Lucent 800 MHz Filter | | | |
| 15 | 158.0 | 3 | Powerwave 7770 - Panel | (3) T-Arm | (9) 1 5/8" (1) 3" Innerduct ¹ | AT&T |
| 16 | | 1 | Raycap DC-48-60-18-8F | | | |
| 17 | | 6 | Powerwave LGP21401 - TMA | | | |
| 18 | | 2 | Powerwave P65-17-XLH-RR - Panel | | | |
| 19 | | 6 | Ericsson RRUS-11 | | | |
| 19 | | 1 | Andrew SBNH-1D6565C - Panel | | | |
| 20 | 148.0 | 3 | Kathrein 742 213 - Panel | Flush Mount | (6) 1 5/8" | Metro PCS ² |

1. (1) 3/8" Fiber and (2) 5/8" DC Power cables are considered to be installed inside (1) 3" innerduct.

2. Lines considered to be installed outside of pole shaft.

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 | 187.0 | 3 | Ericsson KRD901146-1_B66A_B2A (Octa) - Panel | Low Profile Platform w/Handrails | (16) 1 1/4" (2) 1-1/4" Hybrid | T-Mobile |
| 2 | | 3 | RFS APXVAARR24_43-U-NA20 (Octa) - Panel | | | |
| 3 | | 3 | Commscope LNX-6515DS-A1M - Panel | | | |
| 4 | | 12 | Ericsson KRY 112 114-1 Double TMA | | | |
| 5 | | 3 | Ericsson Radio 4449 B71 + B12 | | | |
| 6 | | 3 | Kathrein 782 11054-Smart Bias T | | | |

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 | Flange Connection | Reinforcement |
|-------------|--------------|--------------|--------------|-------------------|---------------|
| Max. Usage: | 77.5% | 65.2% | 79.3% | 35.0% | 86.0% |
| Pass/Fail | Pass | Pass | Pass | Pass | Pass |

Foundations

| | Moment (Kip-Ft) | Shear (Kips) |
|--------------------|-----------------|--------------|
| Analysis Reactions | 4061.5 | 30.3 |

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

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by ANSI/TIA/EIA 222-G for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 2.0079 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

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

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC**. Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.
2. The analysis is based on the presumption that the tower members and components along with any existing reinforcement items have been correctly and properly designed, manufactured, installed and maintained.
3. All the existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion.
4. An initial tension of 10% of the break strength on all the existing guy wires was assumed in all the structural analyses of guyed towers unless different values were provided by the client. **TES** cannot take responsibility for the deviations in the analysis results because of differences in the initial tension forces of the existing guy wires.
5. Secondary component or connection secondary components, welds and bolts are assumed to be able to carry their intended original design loads. **TES** cannot take responsibility for verification of the adequacy on the connections, bolts and welds present in the structure.
6. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of **TES**. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the EIA/TIA-222 standard or other codes, **TES** should be notified in writing and the applicable minimum values provided by the client.
7. 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.
8. 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.
9. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.

Usage Diagram - Max Ratio 77.45% at 0.0ft

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)

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

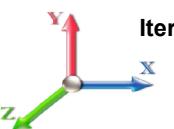
8/7/2018



Page: 1

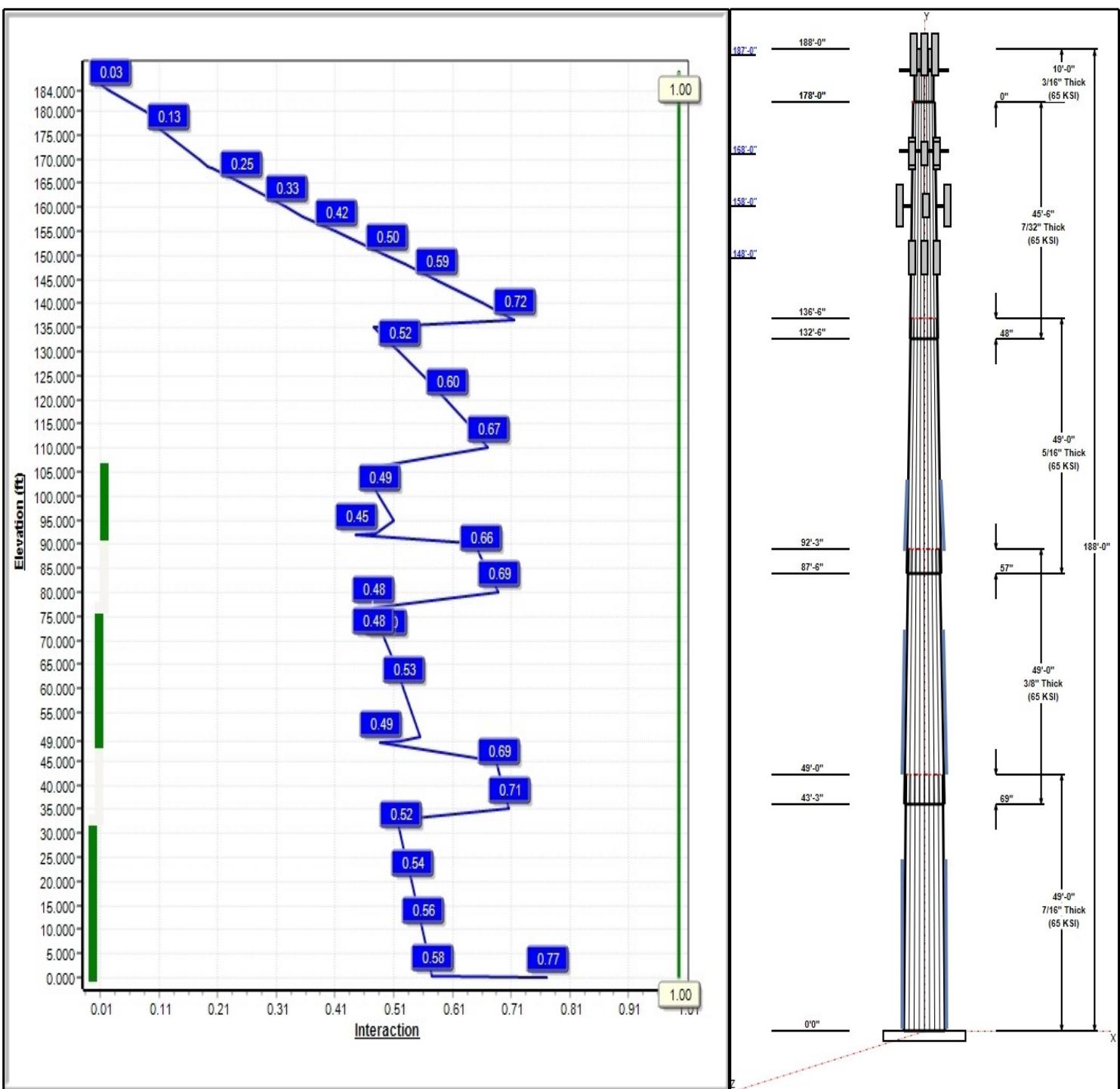
Dead Load Factor: 1.20
Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 94 mph Wind



Iterations: 29

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Structure: CT46124-A-SBA

Type: Custom
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.00000

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Shaft Properties

| Seq | Length (ft) | Top (in) | Bottom (in) | Thick (in) | Joint Type | Taper | Grade (ksi) |
|-----|-------------|----------|-------------|------------|------------|---------|-------------|
| 1 | 49.00 | 43.60 | 51.74 | 0.438 | | 0.16603 | 65 |
| 2 | 49.00 | 37.17 | 45.31 | 0.375 | Slip | 0.16603 | 65 |
| 3 | 49.00 | 30.45 | 38.59 | 0.313 | Slip | 0.16603 | 65 |
| 4 | 45.50 | 24.00 | 31.55 | 0.219 | Slip | 0.16603 | 65 |
| 5 | 10.00 | 22.34 | 24.00 | 0.188 | Butt | 0.00000 | 65 |

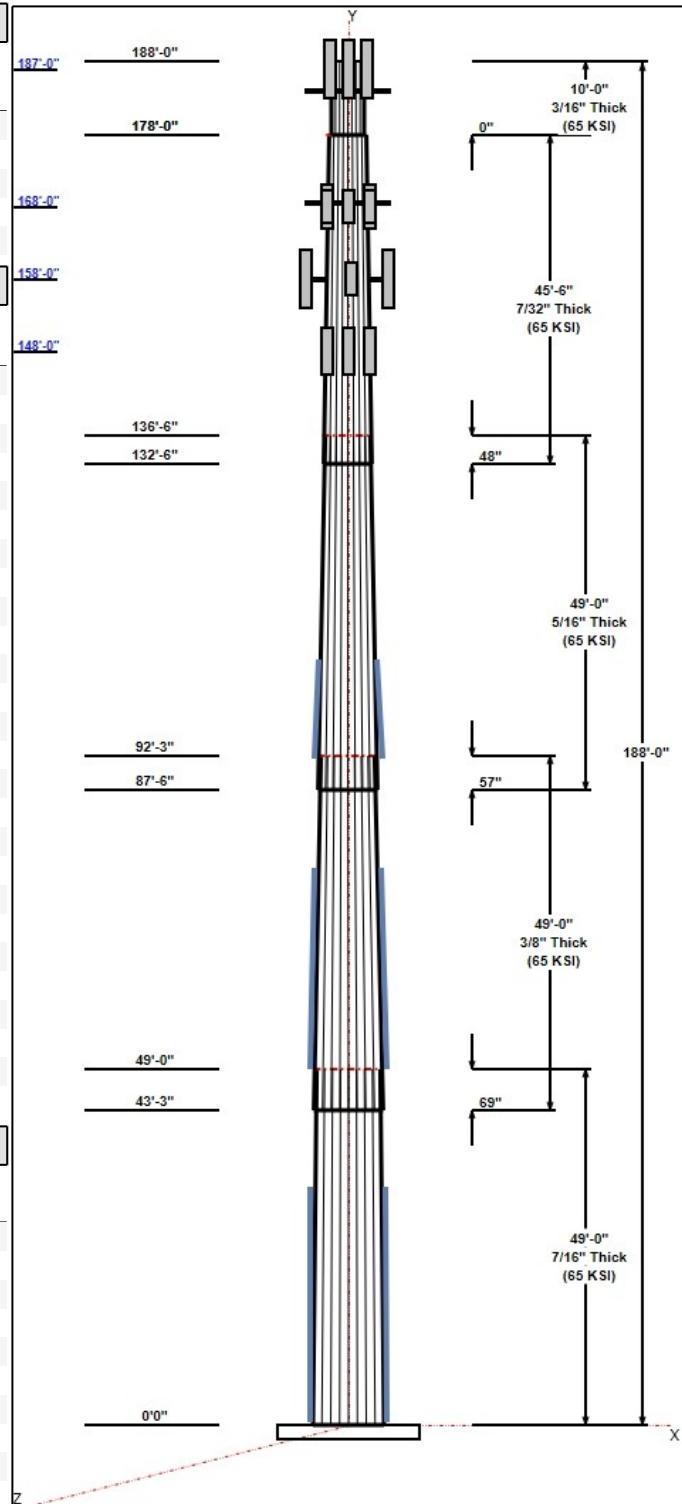
Discrete Appurtenances

| Attach Elev (ft) | Force Elev (ft) | Qty | Description | Carrier |
|------------------|-----------------|-----|--------------------------|-----------|
| 187.00 | 187.00 | 12 | Ericsson KRY 112 114-1 | T-Mobile |
| 187.00 | 187.00 | 3 | Kathrein 782 11054-Smart | T-Mobile |
| 187.00 | 187.00 | 3 | Commscope | T-Mobile |
| 187.00 | 187.00 | 3 | Ericsson | T-Mobile |
| 187.00 | 187.00 | 3 | RFS | T-Mobile |
| 187.00 | 187.00 | 3 | Ericsson Radio 4449 B71 | T-Mobile |
| 187.00 | 187.00 | 3 | B12 | T-Mobile |
| 184.00 | 184.00 | 1 | Platform w/ Hand Rail | T-Mobile |
| 168.50 | 168.50 | 1 | Low Profile Platform | Sprint |
| 168.00 | 168.00 | 2 | APXVSPP18-C-A20 | Sprint |
| 168.00 | 168.00 | 3 | 800 MHz Filters | Sprint |
| 168.00 | 168.00 | 3 | APXVTM14-C-120 | Sprint |
| 168.00 | 168.00 | 3 | 1900 MHz RRH | Sprint |
| 168.00 | 168.00 | 3 | 800 MHz RRH | Sprint |
| 168.00 | 168.00 | 3 | TD-RRH8x20-25 | Sprint |
| 168.00 | 168.00 | 4 | ACU-A20-N | Sprint |
| 168.00 | 168.00 | 1 | APXV9ERR18-C-A20 | Sprint |
| 158.00 | 158.00 | 3 | T-Arm | AT&T |
| 158.00 | 158.00 | 2 | P65-17-XLH-RR | AT&T |
| 158.00 | 158.00 | 6 | LGP21401 | AT&T |
| 158.00 | 158.00 | 6 | RRUS-11 | AT&T |
| 158.00 | 158.00 | 1 | DC-48-60-18-8F | AT&T |
| 158.00 | 158.00 | 3 | 7770 | AT&T |
| 158.00 | 158.00 | 1 | SBNH-1D6565C | AT&T |
| 148.00 | 148.00 | 1 | Flush Mount | Metro PCS |
| 148.00 | 148.00 | 3 | 742 213 | Metro PCS |

Linear Appurtenances

| Elev From (ft) | Elev To (ft) | Placement | Description | Carrier |
|----------------|--------------|-----------|-------------------------|-----------|
| 0.00 | 187.00 | Inside | 1 1/4" Coax | T-Mobile |
| 0.00 | 187.00 | Inside | 1-1/4" Hybrid | T-Mobile |
| 0.00 | 168.00 | Inside | 0.7" Fiber | Sprint |
| 0.00 | 168.00 | Inside | 1-1/4" Fiber | Sprint |
| 0.00 | 158.00 | Inside | 1 5/8" Coax | AT&T |
| 0.00 | 158.00 | Inside | 3" Innerduct | AT&T |
| 0.00 | 158.00 | Inside | 3/8" Fiber | AT&T |
| 0.00 | 158.00 | Inside | 5/8" DC | AT&T |
| 0.00 | 148.00 | Outside | 1 5/8" Coax | Metro PCS |
| 90.25 | 107.25 | Outside | 1.25" Reinforcing plate | |
| 46.50 | 79.25 | Outside | 1.25" Reinforcing plate | |
| 0.00 | 35.50 | Outside | 1.25" Reinforcing plate | |

Anchor Bolts



Structure: CT46124-A-SBA

Type: Custom
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.00 (ft)

Base Shape: 18 Sided
Taper: 0.00000

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| Qty | Specifications | Grade (ksi) | Arrangement |
|-----|----------------|----------------|-------------|
| 16 | 2.25" 18J | 75.0 | Cluster |

Base Plate

| Thickness (in) | Specifications (in) | Grade (ksi) | Geometry |
|-------------------|------------------------|----------------|----------|
| 3.2500 | 57.0 | 50.0 | Clipped |

Reactions

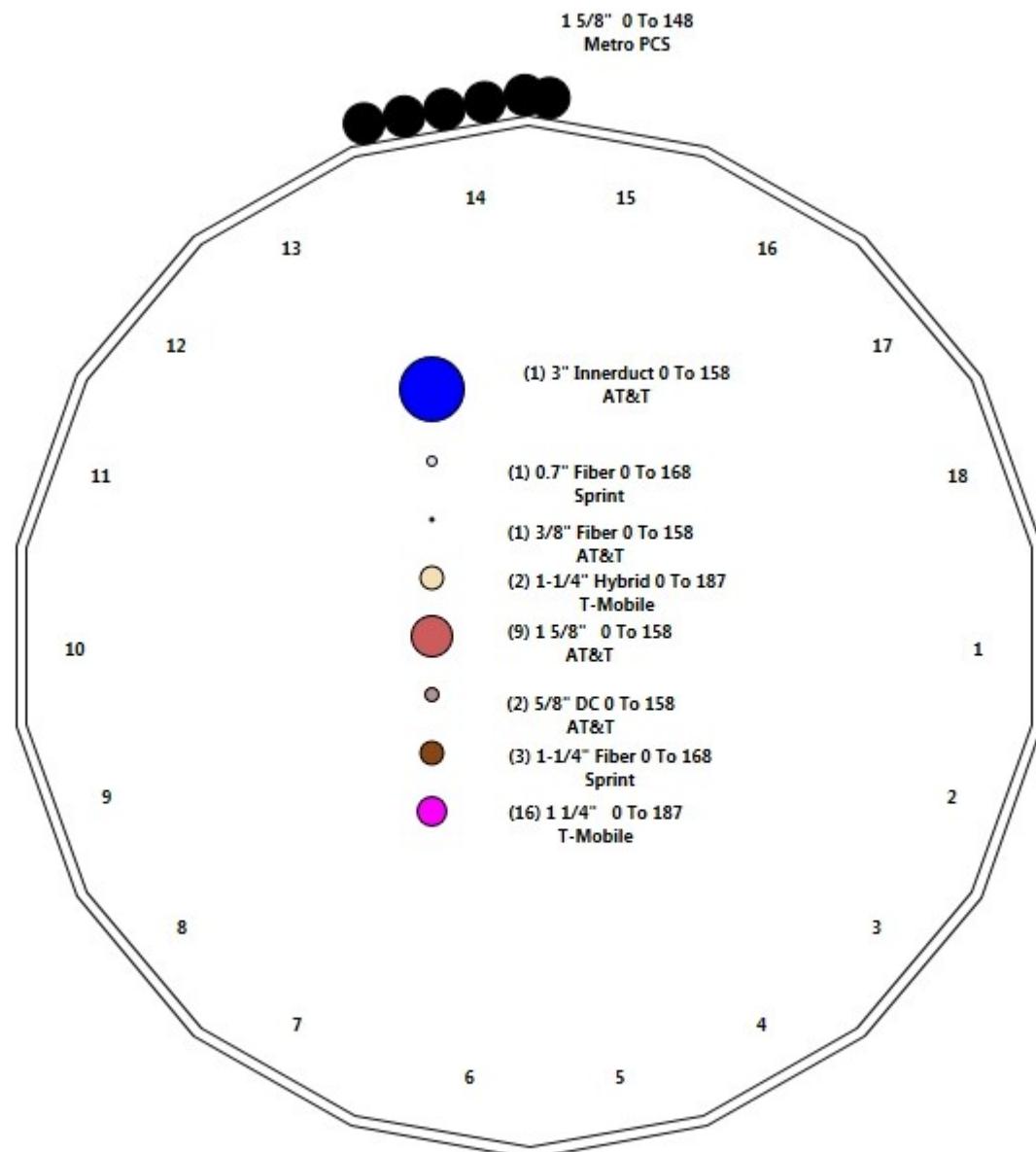
| Load Case | Moment (FT-Kips) | Shear (Kips) | Axial (Kips) |
|----------------------------------|---------------------|-----------------|-----------------|
| 1.2D + 1.6W 94 mph Wind | 4061.5 | 30.3 | 48.9 |
| 0.9D + 1.6W 94 mph Wind | 4005.0 | 30.3 | 36.7 |
| 1.2D + 1.0Di + 1.0Wi 50 mph Wind | 1433.9 | 10.2 | 87.1 |
| 1.2D + 1.0E | 253.0 | 1.8 | 48.9 |
| 0.9D + 1.0E | 249.2 | 1.8 | 36.7 |
| 1.0D + 1.0W 60 mph Wind | 1026.9 | 7.7 | 40.8 |

Structure: CT46124-A-SBA - Coax Line Placement

Type: Monopole
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)

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Shaft Properties

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C

Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II



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| Sec. No. | Shape | Length (ft) | Thick (in) | Fy (ksi) | Joint Type | Overlap (in) | Weight (lb) |
|----------------------------|-------|-------------|------------|----------|------------|--------------|---------------|
| 1 | 18 | 49.000 | 0.4375 | 65 | | 0.00 | 10,936 |
| 2 | 18 | 49.000 | 0.3750 | 65 | Slip | 69.00 | 8,110 |
| 3 | 18 | 49.000 | 0.3125 | 65 | Slip | 57.00 | 5,657 |
| 4 | 18 | 45.500 | 0.2188 | 65 | Slip | 48.00 | 2,963 |
| 5 | 18 | 10.000 | 0.1875 | 65 | Flange | 0.00 | 482 |
| Total Shaft Weight: | | | | | | | 28,148 |

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 | 51.74 | 0.00 | 71.24 | 23688.52 | 19.44 | 118.26 | 43.60 | 49.00 | 59.94 | 14111.8 | 16.16 | 99.67 | 0.166026 |
| 2 | 45.31 | 43.25 | 53.48 | 13643.07 | 19.89 | 120.83 | 37.17 | 92.25 | 43.80 | 7493.55 | 16.07 | 99.13 | 0.166026 |
| 3 | 38.59 | 87.50 | 37.96 | 7026.65 | 20.36 | 123.48 | 30.45 | 136.50 | 29.89 | 3431.02 | 15.77 | 97.45 | 0.166026 |
| 4 | 31.55 | 132.5 | 21.76 | 2699.58 | 24.02 | 144.21 | 24.00 | 178.00 | 16.51 | 1180.03 | 17.93 | 109.6 | 0.166026 |
| 5 | 24.00 | 178.0 | 14.17 | 1015.22 | 21.16 | 128.00 | 22.34 | 188.00 | 14.17 | 1015.22 | 21.16 | 119.1 | 0.000000 |

Additional Steel

| Elev From (ft) | Elev To (ft) | Qty | Description | Fy (ksi) | Fu (ksi) | Offset (in) | Intermediate Connectors | | | Termination Connectors | | |
|----------------|--------------|-----|--------------------------|----------|----------|-------------|-------------------------|--------------|---------------------|------------------------|-----------|-----------|
| | | | | | | | Description | Spacing (in) | Spacinq Description | Spacing (in) | Lower Qty | Upper Qty |
| 0.25 | 32.83 | 3 | PLT 6"X1-1/4"(1.25" Hole | 65 | 80 | 0.00 | AJM20&sleeve | 21.00 | AJM20&sleeve | 3.00 | 11 | |
| 48.92 | 76.83 | 3 | PLT 5.5"x1 1/4"(1.25"hol | 65 | 80 | 0.00 | AJM20&sleeve | 21.00 | AJM20&sleeve | 3.00 | 10 | 10 |
| 91.92 | 105.5 | 3 | PLT 4.5"x 1-1/4"(1.25"ho | 65 | 80 | 0.00 | AJM20&sleeve | 24.00 | AJM20&sleeve | 3.00 | 7 | 7 |

Load Summary

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

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

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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 | 187.00 | Ericsson KRY 112 114-1 Double | 12 | 11.00 | 0.41 | 0.67 | 25.70 | 1.058 | 0.67 | 0.00 | 0.00 |
| 2 | 187.00 | Kathrein 782 11054-Smart Bias T | 3 | 1.80 | 0.22 | 0.67 | 5.18 | 0.893 | 0.67 | 0.00 | 0.00 |
| 3 | 187.00 | Commscope LNX-6515DS-A1M | 3 | 49.80 | 11.47 | 0.80 | 362.69 | 15.923 | 0.80 | 0.00 | 0.00 |
| 4 | 187.00 | Ericsson KRD901146-1_B66A_B2A | 3 | 132.20 | 6.51 | 0.87 | 398.86 | 8.075 | 1.00 | 0.00 | 0.00 |
| 5 | 187.00 | RFS APXVAARR24_43-U-NA20 | 3 | 128.00 | 20.24 | 0.70 | 724.23 | 22.865 | 1.00 | 0.00 | 0.00 |
| 6 | 187.00 | Ericsson Radio 4449 B71 + B12 | 3 | 70.00 | 1.65 | 0.67 | 171.96 | 2.412 | 1.00 | 0.00 | 0.00 |
| 7 | 187.00 | B12 | 3 | 50.00 | 2.57 | 0.50 | 138.49 | 3.450 | 1.00 | 0.00 | 0.00 |
| 8 | 184.00 | Platform w/ Hand Rail (round) | 1 | 1600.00 | 32.00 | 1.00 | 4457.58 | 70.000 | 1.00 | 0.00 | 0.00 |
| 9 | 168.50 | Low Profile Platform | 1 | 1500.00 | 22.00 | 1.00 | 3265.63 | 45.824 | 1.00 | 0.00 | 0.00 |
| 10 | 168.00 | APXVSPP18-C-A20 | 2 | 57.00 | 8.02 | 0.83 | 290.10 | 11.787 | 0.83 | 0.00 | 0.00 |
| 11 | 168.00 | 800 MHz Filters | 3 | 54.00 | 2.94 | 0.67 | 155.87 | 4.579 | 0.67 | 0.00 | 0.00 |
| 12 | 168.00 | APXVTM14-C-120 | 3 | 56.00 | 6.34 | 0.79 | 287.79 | 7.875 | 0.79 | 0.00 | 0.00 |
| 13 | 168.00 | 1900 MHz RRH | 3 | 44.00 | 2.94 | 0.67 | 134.92 | 4.579 | 0.67 | 0.00 | 0.00 |
| 14 | 168.00 | 800 MHz RRH | 3 | 54.00 | 2.94 | 0.67 | 155.87 | 4.579 | 0.67 | 0.00 | 0.00 |
| 15 | 168.00 | TD-RRH8x20-25 | 3 | 70.00 | 4.05 | 0.67 | 230.02 | 5.176 | 0.67 | 0.00 | 0.00 |
| 16 | 168.00 | ACU-A20-N | 4 | 1.00 | 0.14 | 1.00 | 6.79 | 0.540 | 1.00 | 0.00 | 0.00 |
| 17 | 168.00 | APXV9ERR18-C-A20 | 1 | 62.00 | 8.02 | 0.83 | 306.73 | 11.787 | 0.83 | 0.00 | 0.00 |
| 18 | 158.00 | T-Arm | 3 | 300.00 | 8.00 | 0.67 | 580.69 | 17.356 | 0.67 | 0.00 | 0.00 |
| 19 | 158.00 | P65-17-XLH-RR | 2 | 59.00 | 11.44 | 0.75 | 349.31 | 15.775 | 0.75 | 0.00 | 0.00 |
| 20 | 158.00 | LGP21401 | 6 | 17.50 | 1.26 | 0.67 | 48.20 | 2.369 | 0.67 | 0.00 | 0.00 |
| 21 | 158.00 | RRUS-11 | 6 | 50.70 | 2.52 | 0.67 | 179.64 | 3.419 | 0.67 | 0.00 | 0.00 |
| 22 | 158.00 | DC-48-60-18-8F | 1 | 31.80 | 1.47 | 1.00 | 114.66 | 2.408 | 1.00 | 0.00 | 0.00 |
| 23 | 158.00 | 7770 | 3 | 35.00 | 5.50 | 0.73 | 230.43 | 6.960 | 0.73 | 0.00 | 0.00 |
| 24 | 158.00 | SBNH-1D6565C | 1 | 66.10 | 11.47 | 0.80 | 374.21 | 15.827 | 0.80 | 0.00 | 0.00 |
| 25 | 148.00 | Flush Mount | 1 | 150.00 | 5.00 | 1.00 | 317.32 | 9.648 | 1.00 | 0.00 | 0.00 |
| 26 | 148.00 | 742 213 | 3 | 22.00 | 5.12 | 0.72 | 188.84 | 6.883 | 0.72 | 0.00 | 0.00 |
| Totals: | | | 80 | 7,387.50 | | | 23,115.04 | | | | |

Linear Appurtenances

| Bottom Elev. (ft) | Top Elev. (ft) | Description | Exposed Width | Exposed |
|-------------------------|----------------------|-----------------------------|------------------|---------|
| 0.00 | 187.00 | (16) 1 1/4" Coax | 0.00 | Inside |
| 0.00 | 187.00 | (2) 1-1/4" Hybrid | 0.00 | Inside |
| 0.00 | 168.00 | (1) 0.7" Fiber | 0.00 | Inside |
| 0.00 | 168.00 | (3) 1-1/4" Fiber | 0.00 | Inside |
| 0.00 | 158.00 | (9) 1 5/8" Coax | 0.00 | Inside |
| 0.00 | 158.00 | (1) 3" Innerduct | 0.00 | Inside |
| 0.00 | 158.00 | (1) 3/8" Fiber | 0.00 | Inside |
| 0.00 | 158.00 | (2) 5/8" DC | 0.00 | Inside |
| 0.00 | 148.00 | (6) 1 5/8" Coax | 1.98 | Outside |
| 90.25 | 107.25 | (3) 1.25" Reinforcing plate | 1.25 | Outside |
| 46.50 | 79.25 | (3) 1.25" Reinforcing plate | 1.25 | Outside |
| 0.00 | 35.50 | (3) 1.25" Reinforcing plate | 1.25 | Outside |

Shaft Section Properties

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

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Increment Length: 5 (ft)

| Additional Reinforcing | | | | | | | | | | | | | | |
|------------------------|-----------------|------------|---------------|-------------|-----------|-----------|-----------|----------|----------|-------------|-------------|------------|------------|-------------|
| Elev (ft) | Description | Thick (in) | Flat Dia (in) | Area (in^2) | Ix (in^4) | W/t Ratio | D/t Ratio | Fy (ksi) | Fb (ksi) | Weight (lb) | Area (in^2) | Ixp (in^4) | Iyp (in^4) | Weight (lb) |
| 0.00 | | 0.4375 | 51.740 | 71.237 | 23688.5 | 19.44 | 118.26 | 65 | 79 | 0.0 | | | | |
| 0.25 | RB1 | 0.4375 | 51.698 | 71.180 | 23631.1 | 19.43 | 118.17 | 65 | 79 | 60.6 | 22.50 | 7920.2 | 7920.2 | 19.1 |
| 5.00 | | 0.4375 | 50.910 | 70.085 | 22557.1 | 19.11 | 116.37 | 65 | 79 | 1141.6 | 22.50 | 7687.0 | 7687.0 | 363.7 |
| 10.00 | | 0.4375 | 50.080 | 68.932 | 21462.3 | 18.77 | 114.47 | 65 | 79 | 1182.6 | 22.50 | 7445.4 | 7445.4 | 382.8 |
| 15.00 | | 0.4375 | 49.250 | 67.779 | 20403.5 | 18.44 | 112.57 | 65 | 80 | 1163.0 | 22.50 | 7207.7 | 7207.7 | 382.8 |
| 20.00 | | 0.4375 | 48.419 | 66.627 | 19380.1 | 18.10 | 110.67 | 65 | 80 | 1143.4 | 22.50 | 6973.8 | 6973.8 | 382.8 |
| 25.00 | | 0.4375 | 47.589 | 65.474 | 18391.6 | 17.77 | 108.78 | 65 | 81 | 1123.8 | 22.50 | 6743.8 | 6743.8 | 382.8 |
| 30.00 | | 0.4375 | 46.759 | 64.321 | 17437.2 | 17.43 | 106.88 | 65 | 81 | 1104.2 | 22.50 | 6517.7 | 6517.7 | 382.8 |
| 32.83 | RT1 | 0.4375 | 46.289 | 63.669 | 16911.9 | 17.25 | 105.80 | 65 | 81 | 616.3 | 22.50 | 6391.4 | 6391.4 | 216.7 |
| 35.00 | | 0.4375 | 45.929 | 63.168 | 16516.4 | 17.10 | 104.98 | 65 | 81 | 468.3 | | | | |
| 40.00 | | 0.4375 | 45.099 | 62.016 | 15628.6 | 16.77 | 103.08 | 65 | 82 | 1064.9 | | | | |
| 43.25 | Bot - Section 2 | 0.4375 | 44.559 | 61.267 | 15069.0 | 16.55 | 101.85 | 65 | 82 | 681.7 | | | | |
| 45.00 | | 0.4375 | 44.269 | 60.863 | 14773.3 | 16.43 | 101.19 | 65 | 82 | 681.1 | | | | |
| 48.92 | RB2 | 0.4375 | 43.618 | 59.959 | 14124.9 | 16.17 | 99.70 | 65 | 82 | 1509.4 | 20.63 | 5392.4 | 5392.4 | 275.1 |
| 49.00 | Top - Section 1 | 0.3750 | 44.355 | 52.345 | 12791.9 | 19.45 | 118.28 | 65 | 79 | 30.6 | 20.63 | 5389.3 | 5389.3 | 5.6 |
| 50.00 | | 0.3750 | 44.189 | 52.147 | 12647.5 | 19.37 | 117.84 | 65 | 79 | 177.8 | 20.63 | 5350.3 | 5350.3 | 70.2 |
| 55.00 | | 0.3750 | 43.359 | 51.159 | 11942.2 | 18.98 | 115.62 | 65 | 79 | 878.8 | 20.63 | 5157.6 | 5157.6 | 350.9 |
| 60.00 | | 0.3750 | 42.528 | 50.171 | 11263.5 | 18.59 | 113.41 | 65 | 80 | 862.0 | 20.63 | 4968.5 | 4968.5 | 350.9 |
| 65.00 | | 0.3750 | 41.698 | 49.183 | 10611.1 | 18.20 | 111.20 | 65 | 80 | 845.2 | 20.63 | 4782.8 | 4782.8 | 350.9 |
| 70.00 | | 0.3750 | 40.868 | 48.195 | 9984.4 | 17.81 | 108.98 | 65 | 80 | 828.4 | 20.63 | 4600.8 | 4600.8 | 350.9 |
| 75.00 | | 0.3750 | 40.038 | 47.207 | 9382.8 | 17.42 | 106.77 | 65 | 81 | 811.6 | 20.63 | 4422.3 | 4422.3 | 350.9 |
| 76.83 | RT2 | 0.3750 | 39.734 | 46.846 | 9168.9 | 17.27 | 105.96 | 65 | 81 | 292.8 | 20.63 | 4357.8 | 4357.8 | 128.4 |
| 80.00 | | 0.3750 | 39.208 | 46.219 | 8805.9 | 17.03 | 104.55 | 65 | 81 | 501.9 | | | | |
| 85.00 | | 0.3750 | 38.378 | 45.231 | 8253.2 | 16.63 | 102.34 | 65 | 82 | 778.0 | | | | |
| 87.50 | Bot - Section 3 | 0.3750 | 37.963 | 44.737 | 7985.7 | 16.44 | 101.23 | 65 | 82 | 382.7 | | | | |
| 90.00 | | 0.3750 | 37.548 | 44.243 | 7724.1 | 16.24 | 100.13 | 65 | 82 | 699.7 | | | | |
| 91.92 | RB3 | 0.3750 | 37.229 | 43.864 | 7527.1 | 16.09 | 99.28 | 65 | 82 | 532.1 | 16.88 | 3240.8 | 3240.8 | 110.2 |
| 92.25 | Top - Section 2 | 0.3125 | 37.799 | 37.181 | 6601.2 | 19.92 | 120.96 | 65 | 78 | 91.0 | 16.88 | 3231.8 | 3231.8 | 18.9 |
| 95.00 | | 0.3125 | 37.343 | 36.728 | 6362.9 | 19.66 | 119.50 | 65 | 78 | 345.8 | 16.88 | 3157.0 | 3157.0 | 157.9 |
| 100.00 | | 0.3125 | 36.512 | 35.904 | 5944.5 | 19.19 | 116.84 | 65 | 79 | 617.9 | 16.88 | 3023.3 | 3023.3 | 287.1 |
| 105.00 | | 0.3125 | 35.682 | 35.081 | 5544.9 | 18.72 | 114.18 | 65 | 79 | 603.9 | 16.88 | 2892.5 | 2892.5 | 287.1 |
| 105.58 | RT3 | 0.3125 | 35.586 | 34.986 | 5499.7 | 18.67 | 113.88 | 65 | 79 | 69.1 | 16.88 | 2877.5 | 2877.5 | 33.3 |
| 110.00 | | 0.3125 | 34.852 | 34.258 | 5163.6 | 18.25 | 111.53 | 65 | 80 | 520.7 | | | | |
| 115.00 | | 0.3125 | 34.022 | 33.434 | 4800.1 | 17.79 | 108.87 | 65 | 80 | 575.9 | | | | |
| 120.00 | | 0.3125 | 33.192 | 32.611 | 4454.2 | 17.32 | 106.21 | 65 | 81 | 561.8 | | | | |
| 125.00 | | 0.3125 | 32.362 | 31.788 | 4125.2 | 16.85 | 103.56 | 65 | 82 | 547.8 | | | | |
| 130.00 | | 0.3125 | 31.532 | 30.964 | 3812.9 | 16.38 | 100.90 | 65 | 82 | 533.8 | | | | |
| 132.50 | Bot - Section 4 | 0.3125 | 31.117 | 30.553 | 3662.8 | 16.15 | 99.57 | 65 | 82 | 261.7 | | | | |
| 135.00 | | 0.3125 | 30.702 | 30.141 | 3516.8 | 15.91 | 98.24 | 65 | 83 | 442.1 | | | | |
| 136.50 | Top - Section 3 | 0.2188 | 30.890 | 21.300 | 2531.6 | 23.48 | 141.18 | 65 | 74 | 262.4 | | | | |
| 140.00 | | 0.2188 | 30.309 | 20.896 | 2390.4 | 23.01 | 138.52 | 65 | 74 | 251.3 | | | | |
| 145.00 | | 0.2188 | 29.479 | 20.320 | 2197.9 | 22.35 | 134.73 | 65 | 75 | 350.6 | | | | |
| 148.00 | | 0.2188 | 28.981 | 19.974 | 2087.6 | 21.94 | 132.45 | 65 | 76 | 205.7 | | | | |
| 150.00 | | 0.2188 | 28.649 | 19.743 | 2016.1 | 21.68 | 130.94 | 65 | 76 | 135.1 | | | | |
| 155.00 | | 0.2188 | 27.819 | 19.167 | 1844.6 | 21.01 | 127.14 | 65 | 77 | 331.0 | | | | |
| 158.00 | | 0.2188 | 27.321 | 18.821 | 1746.6 | 20.61 | 124.87 | 65 | 77 | 193.9 | | | | |
| 160.00 | | 0.2188 | 26.988 | 18.590 | 1683.1 | 20.34 | 123.35 | 65 | 77 | 127.3 | | | | |
| 165.00 | | 0.2188 | 26.158 | 18.014 | 1531.4 | 19.67 | 119.55 | 65 | 78 | 311.4 | | | | |
| 168.00 | | 0.2188 | 25.660 | 17.668 | 1444.8 | 19.27 | 117.28 | 65 | 79 | 182.1 | | | | |
| 168.50 | | 0.2188 | 25.577 | 17.610 | 1430.7 | 19.20 | 116.90 | 65 | 79 | 30.0 | | | | |

Increment Length: 5 (ft)

| Elev (ft) | Description | Thick (in) | Flat Dia (in) | Area (in^2) | Ix (in^4) | W/t Ratio | D/t Ratio | Fy (ksi) | Fb (ksi) | Weight (lb) | Additional Reinforcing | | |
|--------------|-----------------|---------------|---------------------|----------------|--------------|--------------|--------------|-------------|-------------|----------------|------------------------|---------------|---------------|
| | | | | | | | | | | | Area (in^2) | Ixp (in^4) | Iyp (in^4) |
| 170.00 | | 0.2188 | 25.328 | 17.437 | 1389.0 | 19.00 | 115.76 | 65 | 79 | 89.4 | | | |
| 175.00 | | 0.2188 | 24.498 | 16.861 | 1255.7 | 18.33 | 111.97 | 65 | 80 | 291.8 | | | |
| 178.00 | Top - Section 4 | 0.2188 | 24.000 | 16.515 | 1180.0 | 17.93 | 109.69 | 65 | 80 | 170.4 | | | |
| 178.00 | Bot - Section 5 | 0.1875 | 24.000 | 14.171 | 1015.2 | 20.92 | 128.00 | 65 | 77 | | | | |
| 180.00 | | 0.1875 | 24.000 | 14.171 | 1015.2 | 21.16 | 128.00 | 65 | 77 | 96.4 | | | |
| 184.00 | | 0.1875 | 24.000 | 14.171 | 1015.2 | 21.16 | 128.00 | 65 | 77 | 192.9 | | | |
| 185.00 | | 0.1875 | 24.000 | 14.171 | 1015.2 | 21.16 | 128.00 | 65 | 77 | 48.2 | | | |
| 187.00 | | 0.1875 | 24.000 | 14.171 | 1015.2 | 21.16 | 128.00 | 65 | 77 | 96.4 | | | |
| 188.00 | | 0.1875 | 24.000 | 14.171 | 1015.2 | 21.16 | 128.00 | 65 | 77 | 48.2 | | | |
| | | | | | | | | | | Total Weight | 28148.4 | | 5642.0 |

Wind Loading - Shaft

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

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Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations

29

| 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 | 18.266 | 20.09 | 379.43 | 0.650 | 0.000 | 0.00 | 0.000 | 0.00 | 0.0 | 0.0 | 0.0 |
| 0.25 | RB1 | 1.00 | 0.85 | 18.266 | 20.09 | 379.13 | 0.650 | 0.000 | 0.25 | 1.094 | 0.71 | 22.9 | 0.0 | 72.7 |
| 5.00 | | 1.00 | 0.85 | 18.266 | 20.09 | 373.34 | 0.650 | 0.000 | 4.75 | 20.621 | 13.40 | 430.9 | 0.0 | 1370.0 |
| 10.00 | | 1.00 | 0.85 | 18.266 | 20.09 | 367.25 | 0.650 | 0.000 | 5.00 | 21.364 | 13.89 | 446.4 | 0.0 | 1419.1 |
| 15.00 | | 1.00 | 0.85 | 18.266 | 20.09 | 361.17 | 0.650 | 0.000 | 5.00 | 21.013 | 13.66 | 439.1 | 0.0 | 1395.6 |
| 20.00 | | 1.00 | 0.90 | 19.381 | 21.32 | 365.76 | 0.650 | 0.000 | 5.00 | 20.662 | 13.43 | 458.1 | 0.0 | 1372.1 |
| 25.00 | | 1.00 | 0.95 | 20.313 | 22.34 | 368.03 | 0.650 | 0.000 | 5.00 | 20.310 | 13.20 | 472.0 | 0.0 | 1348.5 |
| 30.00 | | 1.00 | 0.98 | 21.108 | 23.22 | 368.62 | 0.650 | 0.000 | 5.00 | 19.959 | 12.97 | 482.0 | 0.0 | 1325.0 |
| 32.83 | RT1 | 1.00 | 1.00 | 21.512 | 23.66 | 368.39 | 0.650 | 0.000 | 2.83 | 11.141 | 7.24 | 274.2 | 0.0 | 739.5 |
| 35.00 | | 1.00 | 1.01 | 21.804 | 23.98 | 367.99 | 0.650 | 0.000 | 2.17 | 8.467 | 5.50 | 211.2 | 0.0 | 561.9 |
| 40.00 | | 1.00 | 1.04 | 22.426 | 24.67 | 366.46 | 0.650 | 0.000 | 5.00 | 19.257 | 12.52 | 494.0 | 0.0 | 1277.9 |
| 43.25 | Bot - Section 2 | 1.00 | 1.06 | 22.798 | 25.08 | 365.06 | 0.650 | 0.000 | 3.25 | 12.329 | 8.01 | 321.5 | 0.0 | 818.0 |
| 45.00 | | 1.00 | 1.07 | 22.989 | 25.29 | 364.20 | 0.650 | 0.000 | 1.75 | 6.688 | 4.35 | 175.9 | 0.0 | 817.3 |
| 48.92 | RB2 | 1.00 | 1.09 | 23.397 | 25.74 | 362.02 | 0.650 | 0.000 | 3.92 | 14.825 | 9.64 | 396.8 | 0.0 | 1811.3 |
| 49.00 | Top - Section 1 | 1.00 | 1.09 | 23.405 | 25.75 | 361.97 | 0.650 | 0.000 | 0.08 | 0.300 | 0.20 | 8.0 | 0.0 | 36.7 |
| 50.00 | | 1.00 | 1.09 | 23.504 | 25.85 | 367.60 | 0.650 | 0.000 | 1.00 | 3.746 | 2.44 | 100.7 | 0.0 | 213.3 |
| 55.00 | | 1.00 | 1.12 | 23.981 | 26.38 | 364.33 | 0.650 | 0.000 | 5.00 | 18.520 | 12.04 | 508.1 | 0.0 | 1054.6 |
| 60.00 | | 1.00 | 1.14 | 24.424 | 26.87 | 360.64 | 0.650 | 0.000 | 5.00 | 18.169 | 11.81 | 507.7 | 0.0 | 1034.4 |
| 65.00 | | 1.00 | 1.16 | 24.839 | 27.32 | 356.59 | 0.650 | 0.000 | 5.00 | 17.818 | 11.58 | 506.3 | 0.0 | 1014.2 |
| 70.00 | | 1.00 | 1.17 | 25.230 | 27.75 | 352.23 | 0.650 | 0.000 | 5.00 | 17.467 | 11.35 | 504.1 | 0.0 | 994.1 |
| 75.00 | | 1.00 | 1.19 | 25.599 | 28.16 | 347.59 | 0.650 | 0.000 | 5.00 | 17.115 | 11.13 | 501.2 | 0.0 | 973.9 |
| 76.83 | RT2 | 1.00 | 1.20 | 25.729 | 28.30 | 345.83 | 0.650 | 0.000 | 1.83 | 6.176 | 4.01 | 181.8 | 0.0 | 351.4 |
| 80.00 | | 1.00 | 1.21 | 25.949 | 28.54 | 342.70 | 0.650 | 0.000 | 3.17 | 10.588 | 6.88 | 314.3 | 0.0 | 602.3 |
| 85.00 | | 1.00 | 1.22 | 26.282 | 28.91 | 337.60 | 0.650 | 0.000 | 5.00 | 16.413 | 10.67 | 493.5 | 0.0 | 933.6 |
| 87.50 | Bot - Section 3 | 1.00 | 1.23 | 26.443 | 29.09 | 334.97 | 0.650 | 0.000 | 2.50 | 8.075 | 5.25 | 244.3 | 0.0 | 459.2 |
| 90.00 | | 1.00 | 1.24 | 26.600 | 29.26 | 332.29 | 0.650 | 0.000 | 2.50 | 8.119 | 5.28 | 247.1 | 0.0 | 839.6 |
| 91.92 | RB3 | 1.00 | 1.24 | 26.719 | 29.39 | 330.20 | 0.650 | 0.000 | 1.92 | 6.176 | 4.01 | 188.8 | 0.0 | 638.5 |
| 92.25 | Top - Section 2 | 1.00 | 1.24 | 26.739 | 29.41 | 329.84 | 0.650 | 0.000 | 0.33 | 1.056 | 0.69 | 32.3 | 0.0 | 109.2 |
| 95.00 | | 1.00 | 1.25 | 26.905 | 29.60 | 332.36 | 0.650 | 0.000 | 2.75 | 8.743 | 5.68 | 269.1 | 0.0 | 415.0 |
| 100.00 | | 1.00 | 1.27 | 27.197 | 29.92 | 326.73 | 0.650 | 0.000 | 5.00 | 15.624 | 10.16 | 486.1 | 0.0 | 741.5 |
| 105.00 | | 1.00 | 1.28 | 27.478 | 30.23 | 320.94 | 0.650 | 0.000 | 5.00 | 15.273 | 9.93 | 480.1 | 0.0 | 724.6 |
| 105.58 | RT3 | 1.00 | 1.28 | 27.510 | 30.26 | 320.26 | 0.650 | 0.000 | 0.58 | 1.749 | 1.14 | 55.0 | 0.0 | 83.0 |
| 110.00 | | 1.00 | 1.29 | 27.748 | 30.52 | 315.02 | 0.650 | 0.000 | 4.42 | 13.172 | 8.56 | 418.1 | 0.0 | 624.9 |
| 115.00 | | 1.00 | 1.30 | 28.009 | 30.81 | 308.96 | 0.650 | 0.000 | 5.00 | 14.570 | 9.47 | 466.9 | 0.0 | 691.0 |
| 120.00 | | 1.00 | 1.32 | 28.261 | 31.09 | 302.77 | 0.650 | 0.000 | 5.00 | 14.219 | 9.24 | 459.7 | 0.0 | 674.2 |
| 125.00 | | 1.00 | 1.33 | 28.505 | 31.36 | 296.47 | 0.650 | 0.000 | 5.00 | 13.868 | 9.01 | 452.2 | 0.0 | 657.4 |
| 130.00 | | 1.00 | 1.34 | 28.742 | 31.62 | 290.06 | 0.650 | 0.000 | 5.00 | 13.516 | 8.79 | 444.4 | 0.0 | 640.6 |
| 132.50 | Bot - Section 4 | 1.00 | 1.34 | 28.857 | 31.74 | 286.82 | 0.650 | 0.000 | 2.50 | 6.627 | 4.31 | 218.8 | 0.0 | 314.0 |
| 135.00 | | 1.00 | 1.35 | 28.971 | 31.87 | 283.55 | 0.650 | 0.000 | 2.50 | 6.631 | 4.31 | 219.8 | 0.0 | 530.5 |
| 136.50 | Top - Section 3 | 1.00 | 1.35 | 29.038 | 31.94 | 281.57 | 0.650 | 0.000 | 1.50 | 3.937 | 2.56 | 130.8 | 0.0 | 314.8 |
| 140.00 | | 1.00 | 1.36 | 29.193 | 32.11 | 281.00 | 0.650 | 0.000 | 3.50 | 9.063 | 5.89 | 302.7 | 0.0 | 301.5 |
| 145.00 | | 1.00 | 1.37 | 29.410 | 32.35 | 274.31 | 0.650 | 0.000 | 5.00 | 12.648 | 8.22 | 425.5 | 0.0 | 420.7 |
| 148.00 | Appurtenance(s) | 1.00 | 1.37 | 29.537 | 32.49 | 270.26 | 0.650 | 0.000 | 3.00 | 7.420 | 4.82 | 250.7 | 0.0 | 246.8 |
| 150.00 | | 1.00 | 1.38 | 29.621 | 32.58 | 267.54 | 0.650 | 0.000 | 2.00 | 4.877 | 3.17 | 165.2 | 0.0 | 162.2 |
| 155.00 | | 1.00 | 1.39 | 29.826 | 32.81 | 260.69 | 0.650 | 0.000 | 5.00 | 11.946 | 7.76 | 407.6 | 0.0 | 397.2 |
| 158.00 | Appurtenance(s) | 1.00 | 1.39 | 29.946 | 32.94 | 256.54 | 0.650 | 0.000 | 3.00 | 6.999 | 4.55 | 239.8 | 0.0 | 232.7 |
| 160.00 | | 1.00 | 1.40 | 30.026 | 33.03 | 253.75 | 0.650 | 0.000 | 2.00 | 4.596 | 2.99 | 157.9 | 0.0 | 152.8 |

Wind Loading - Shaft

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C



Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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| | | | | | | | | | | | | | |
|------------------------|------|------|--------|-------|--------|-------|-------|---------------|--------|------|-----------------|-----|-----------------|
| 165.00 | 1.00 | 1.41 | 30.221 | 33.24 | 246.75 | 0.650 | 0.000 | 5.00 | 11.243 | 7.31 | 388.7 | 0.0 | 373.7 |
| 168.00 Appurtenance(s) | 1.00 | 1.41 | 30.336 | 33.37 | 242.51 | 0.650 | 0.000 | 3.00 | 6.577 | 4.28 | 228.3 | 0.0 | 218.5 |
| 168.50 Appurtenance(s) | 1.00 | 1.41 | 30.355 | 33.39 | 241.80 | 0.650 | 0.000 | 0.50 | 1.084 | 0.70 | 37.6 | 0.0 | 36.0 |
| 170.00 | 1.00 | 1.42 | 30.411 | 33.45 | 239.67 | 0.650 | 0.000 | 1.50 | 3.231 | 2.10 | 112.4 | 0.0 | 107.3 |
| 175.00 | 1.00 | 1.42 | 30.598 | 33.66 | 232.52 | 0.650 | 0.000 | 5.00 | 10.541 | 6.85 | 369.0 | 0.0 | 350.1 |
| 178.00 Top - Section 4 | 1.00 | 1.43 | 30.707 | 33.78 | 228.20 | 0.650 | 0.000 | 3.00 | 6.156 | 4.00 | 216.2 | 0.0 | 204.4 |
| 180.00 | 1.00 | 1.43 | 30.780 | 33.86 | 228.47 | 0.650 | 0.000 | 2.00 | 4.062 | 2.64 | 143.0 | 0.0 | 115.7 |
| 184.00 Appurtenance(s) | 1.00 | 1.44 | 30.922 | 34.01 | 229.00 | 0.650 | 0.000 | 4.00 | 8.123 | 5.28 | 287.4 | 0.0 | 231.5 |
| 185.00 | 1.00 | 1.44 | 30.958 | 34.05 | 229.13 | 0.650 | 0.000 | 1.00 | 2.031 | 1.32 | 71.9 | 0.0 | 57.9 |
| 187.00 Appurtenance(s) | 1.00 | 1.44 | 31.028 | 34.13 | 229.39 | 0.650 | 0.000 | 2.00 | 4.062 | 2.64 | 144.2 | 0.0 | 115.7 |
| 188.00 | 1.00 | 1.45 | 31.063 | 34.17 | 229.52 | 0.650 | 0.000 | 1.00 | 2.031 | 1.32 | 72.2 | 0.0 | 57.9 |
| Totals: | | | | | | | | 188.00 | | | 17,084.4 | | 33,778.1 |

Discrete Appurtenance Forces

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

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Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations

29

| No. | Elev (ft) | Description | Qty | qz (psf) | qzGh (psf) | CaAa 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 | 187.00 | Commscope | 3 | 31.028 | 34.131 | 0.60 | 0.75 | 20.65 | 179.28 | 0.000 | 0.000 | 1127.46 | 0.00 | 0.00 |
| 2 | 187.00 | Ericsson KRY 112 114-1 | 12 | 31.028 | 34.131 | 0.50 | 0.75 | 2.47 | 158.40 | 0.000 | 0.000 | 135.01 | 0.00 | 0.00 |
| 3 | 187.00 | Kathrein 782 11054-Smart | 3 | 31.028 | 34.131 | 0.50 | 0.75 | 0.33 | 6.48 | 0.000 | 0.000 | 18.11 | 0.00 | 0.00 |
| 4 | 187.00 | B12 | 3 | 31.028 | 34.131 | 0.38 | 0.75 | 2.89 | 180.00 | 0.000 | 0.000 | 157.89 | 0.00 | 0.00 |
| 5 | 187.00 | Ericsson | 3 | 31.028 | 34.131 | 0.65 | 0.75 | 12.74 | 475.92 | 0.000 | 0.000 | 695.90 | 0.00 | 0.00 |
| 6 | 187.00 | RFS | 3 | 31.028 | 34.131 | 0.52 | 0.75 | 31.88 | 460.80 | 0.000 | 0.000 | 1740.83 | 0.00 | 0.00 |
| 7 | 187.00 | Ericsson Radio 4449 B71 | 3 | 31.028 | 34.131 | 0.50 | 0.75 | 2.49 | 252.00 | 0.000 | 0.000 | 135.83 | 0.00 | 0.00 |
| 8 | 184.00 | Platform w/ Hand Rail | 1 | 30.922 | 34.015 | 1.00 | 1.00 | 32.00 | 1920.00 | 0.000 | 0.000 | 1741.55 | 0.00 | 0.00 |
| 9 | 168.50 | Low Profile Platform | 1 | 30.355 | 33.390 | 1.00 | 1.00 | 22.00 | 1800.00 | 0.000 | 0.000 | 1175.34 | 0.00 | 0.00 |
| 10 | 168.00 | APXV9ERR18-C-A20 | 1 | 30.336 | 33.369 | 0.66 | 0.80 | 5.33 | 74.40 | 0.000 | 0.000 | 284.32 | 0.00 | 0.00 |
| 11 | 168.00 | ACU-A20-N | 4 | 30.336 | 33.369 | 0.80 | 0.80 | 0.45 | 4.80 | 0.000 | 0.000 | 23.92 | 0.00 | 0.00 |
| 12 | 168.00 | TD-RRH8x20-25 | 3 | 30.336 | 33.369 | 0.54 | 0.80 | 6.51 | 252.00 | 0.000 | 0.000 | 347.70 | 0.00 | 0.00 |
| 13 | 168.00 | 800 MHz RRH | 3 | 30.336 | 33.369 | 0.54 | 0.80 | 4.73 | 194.40 | 0.000 | 0.000 | 252.41 | 0.00 | 0.00 |
| 14 | 168.00 | 1900 MHz RRH | 3 | 30.336 | 33.369 | 0.54 | 0.80 | 4.73 | 158.40 | 0.000 | 0.000 | 252.41 | 0.00 | 0.00 |
| 15 | 168.00 | 800 MHz Filters | 3 | 30.336 | 33.369 | 0.54 | 0.80 | 4.73 | 194.40 | 0.000 | 0.000 | 252.41 | 0.00 | 0.00 |
| 16 | 168.00 | APXVSPP18-C-A20 | 2 | 30.336 | 33.369 | 0.66 | 0.80 | 10.65 | 136.80 | 0.000 | 0.000 | 568.64 | 0.00 | 0.00 |
| 17 | 168.00 | APXVTM14-C-120 | 3 | 30.336 | 33.369 | 0.63 | 0.80 | 12.02 | 201.60 | 0.000 | 0.000 | 641.79 | 0.00 | 0.00 |
| 18 | 158.00 | LGP21401 | 6 | 29.946 | 32.941 | 0.54 | 0.80 | 4.05 | 126.00 | 0.000 | 0.000 | 213.57 | 0.00 | 0.00 |
| 19 | 158.00 | T-Arm | 3 | 29.946 | 32.941 | 0.50 | 0.75 | 12.06 | 1080.00 | 0.000 | 0.000 | 635.63 | 0.00 | 0.00 |
| 20 | 158.00 | P65-17-XLH-RR | 2 | 29.946 | 32.941 | 0.60 | 0.80 | 13.73 | 141.60 | 0.000 | 0.000 | 723.54 | 0.00 | 0.00 |
| 21 | 158.00 | DC-48-60-18-8F | 1 | 29.946 | 32.941 | 0.80 | 0.80 | 1.18 | 38.16 | 0.000 | 0.000 | 61.98 | 0.00 | 0.00 |
| 22 | 158.00 | RRUS-11 | 6 | 29.946 | 32.941 | 0.54 | 0.80 | 8.10 | 365.04 | 0.000 | 0.000 | 427.14 | 0.00 | 0.00 |
| 23 | 158.00 | 7770 | 3 | 29.946 | 32.941 | 0.58 | 0.80 | 9.64 | 126.00 | 0.000 | 0.000 | 507.87 | 0.00 | 0.00 |
| 24 | 158.00 | SBNH-1D6565C | 1 | 29.946 | 32.941 | 0.64 | 0.80 | 7.34 | 79.32 | 0.000 | 0.000 | 386.90 | 0.00 | 0.00 |
| 25 | 148.00 | 742 213 | 3 | 29.537 | 32.491 | 0.58 | 0.80 | 8.85 | 79.20 | 0.000 | 0.000 | 459.93 | 0.00 | 0.00 |
| 26 | 148.00 | Flush Mount | 1 | 29.537 | 32.491 | 1.00 | 1.00 | 5.00 | 180.00 | 0.000 | 0.000 | 259.93 | 0.00 | 0.00 |

Totals: 8,865.00

13,228.03

Total Applied Force Summary

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Topography: 1

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

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Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



| 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 |
| 0.25 | | 22.86 | 82.01 | 0.00 | 0.00 |
| 5.00 | | 430.90 | 1546.94 | 0.00 | 0.00 |
| 10.00 | | 446.42 | 1605.42 | 0.00 | 0.00 |
| 15.00 | | 439.09 | 1581.88 | 0.00 | 0.00 |
| 20.00 | | 458.10 | 1558.35 | 0.00 | 0.00 |
| 25.00 | | 471.97 | 1534.81 | 0.00 | 0.00 |
| 30.00 | | 481.96 | 1511.28 | 0.00 | 0.00 |
| 32.83 | | 274.19 | 844.95 | 0.00 | 0.00 |
| 35.00 | | 211.19 | 642.79 | 0.00 | 0.00 |
| 40.00 | | 494.03 | 1464.21 | 0.00 | 0.00 |
| 43.25 | | 321.53 | 939.12 | 0.00 | 0.00 |
| 45.00 | | 175.89 | 882.49 | 0.00 | 0.00 |
| 48.92 | | 396.80 | 1957.35 | 0.00 | 0.00 |
| 49.00 | | 8.04 | 39.67 | 0.00 | 0.00 |
| 50.00 | | 100.73 | 250.60 | 0.00 | 0.00 |
| 55.00 | | 508.09 | 1240.88 | 0.00 | 0.00 |
| 60.00 | | 507.67 | 1220.71 | 0.00 | 0.00 |
| 65.00 | | 506.31 | 1200.53 | 0.00 | 0.00 |
| 70.00 | | 504.14 | 1180.36 | 0.00 | 0.00 |
| 75.00 | | 501.23 | 1160.19 | 0.00 | 0.00 |
| 76.83 | | 181.80 | 419.59 | 0.00 | 0.00 |
| 80.00 | | 314.31 | 720.43 | 0.00 | 0.00 |
| 85.00 | | 493.49 | 1119.84 | 0.00 | 0.00 |
| 87.50 | | 244.27 | 552.36 | 0.00 | 0.00 |
| 90.00 | | 247.08 | 932.75 | 0.00 | 0.00 |
| 91.92 | | 188.78 | 710.08 | 0.00 | 0.00 |
| 92.25 | | 32.31 | 121.50 | 0.00 | 0.00 |
| 95.00 | | 269.10 | 517.42 | 0.00 | 0.00 |
| 100.00 | | 486.11 | 927.74 | 0.00 | 0.00 |
| 105.00 | | 480.09 | 910.93 | 0.00 | 0.00 |
| 105.58 | | 55.04 | 104.58 | 0.00 | 0.00 |
| 110.00 | | 418.15 | 789.54 | 0.00 | 0.00 |
| 115.00 | | 466.86 | 877.31 | 0.00 | 0.00 |
| 120.00 | | 459.71 | 860.50 | 0.00 | 0.00 |
| 125.00 | | 452.23 | 843.69 | 0.00 | 0.00 |
| 130.00 | | 444.43 | 826.88 | 0.00 | 0.00 |
| 132.50 | | 218.76 | 407.14 | 0.00 | 0.00 |
| 135.00 | | 219.78 | 623.60 | 0.00 | 0.00 |
| 136.50 | | 130.77 | 370.73 | 0.00 | 0.00 |
| 140.00 | | 302.66 | 431.92 | 0.00 | 0.00 |
| 145.00 | | 425.54 | 607.03 | 0.00 | 0.00 |
| 148.00 | (4) attachments | 970.59 | 617.77 | 0.00 | 0.00 |
| 150.00 | | 165.25 | 221.72 | 0.00 | 0.00 |
| 155.00 | | 407.59 | 546.05 | 0.00 | 0.00 |
| 158.00 | (22) attachments | 3196.41 | 2278.10 | 0.00 | 0.00 |
| 160.00 | | 157.86 | 188.01 | 0.00 | 0.00 |

Total Applied Force Summary

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)

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

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| Gh: | 1.1 | Topography: | 1 | Struct Class: | II | |
|----------------|------------------|------------------|------------------|---------------|-------------|--|
| 165.00 | | 388.70 | 461.79 | 0.00 | 0.00 | |
| 168.00 | (22) attachments | 2851.86 | 1488.22 | 0.00 | 0.00 | |
| 168.50 | (1) attachments | 1212.98 | 1843.49 | 0.00 | 0.00 | |
| 170.00 | | 112.40 | 129.77 | 0.00 | 0.00 | |
| 175.00 | | 368.96 | 424.93 | 0.00 | 0.00 | |
| 178.00 | | 216.25 | 249.31 | 0.00 | 0.00 | |
| 180.00 | | 143.02 | 145.65 | 0.00 | 0.00 | |
| 184.00 | (1) attachments | 2028.92 | 2211.30 | 0.00 | 0.00 | |
| 185.00 | | 71.92 | 72.83 | 0.00 | 0.00 | |
| 187.00 | (30) attachments | 4155.20 | 1858.53 | 0.00 | 0.00 | |
| 188.00 | | 72.17 | 57.86 | 0.00 | 0.00 | |
| Totals: | | 30,312.47 | 48,915.47 | 0.00 | 0.00 | |

Linear Appurtenance Segment Forces (Factored)

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

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Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



| 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) |
|---------------|-------------------|--------------|-------------|-------|--------------------|-------------|-------------|-------|------------------|----------|----------|----------------|
| 0.25 | 1 5/8" Coax | Yes | 0.25 | 0.000 | 1.98 | 0.04 | 0.00 | 0.062 | 0.000 | 18.266 | 0.00 | 1.87 |
| 0.25 | 1.25" Reinforcing | Yes | 0.25 | 0.000 | 1.25 | 0.03 | 0.00 | 0.062 | 0.000 | 18.266 | 0.00 | 0.00 |
| 5.00 | 1 5/8" Coax | Yes | 4.75 | 0.000 | 1.98 | 0.78 | 0.00 | 0.062 | 0.000 | 18.266 | 0.00 | 35.57 |
| 5.00 | 1.25" Reinforcing | Yes | 4.75 | 0.000 | 1.25 | 0.49 | 0.00 | 0.062 | 0.000 | 18.266 | 0.00 | 0.00 |
| 10.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.063 | 0.000 | 18.266 | 0.00 | 37.44 |
| 10.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.063 | 0.000 | 18.266 | 0.00 | 0.00 |
| 15.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.064 | 0.000 | 18.266 | 0.00 | 37.44 |
| 15.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.064 | 0.000 | 18.266 | 0.00 | 0.00 |
| 20.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.065 | 0.000 | 19.381 | 0.00 | 37.44 |
| 20.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.065 | 0.000 | 19.381 | 0.00 | 0.00 |
| 25.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.066 | 0.000 | 20.313 | 0.00 | 37.44 |
| 25.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.066 | 0.000 | 20.313 | 0.00 | 0.00 |
| 30.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.067 | 0.000 | 21.108 | 0.00 | 37.44 |
| 30.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.067 | 0.000 | 21.108 | 0.00 | 0.00 |
| 32.83 | 1 5/8" Coax | Yes | 2.83 | 0.000 | 1.98 | 0.47 | 0.00 | 0.068 | 0.000 | 21.512 | 0.00 | 21.19 |
| 32.83 | 1.25" Reinforcing | Yes | 2.83 | 0.000 | 1.25 | 0.29 | 0.00 | 0.068 | 0.000 | 21.512 | 0.00 | 0.00 |
| 35.00 | 1 5/8" Coax | Yes | 2.17 | 0.000 | 1.98 | 0.36 | 0.00 | 0.069 | 0.000 | 21.804 | 0.00 | 16.25 |
| 35.00 | 1.25" Reinforcing | Yes | 2.17 | 0.000 | 1.25 | 0.23 | 0.00 | 0.069 | 0.000 | 21.804 | 0.00 | 0.00 |
| 40.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.046 | 0.000 | 22.426 | 0.00 | 37.44 |
| 40.00 | 1.25" Reinforcing | Yes | 0.50 | 0.000 | 1.25 | 0.05 | 0.00 | 0.046 | 0.000 | 22.426 | 0.00 | 0.00 |
| 43.25 | 1 5/8" Coax | Yes | 3.25 | 0.000 | 1.98 | 0.54 | 0.00 | 0.043 | 0.000 | 22.798 | 0.00 | 24.34 |
| 45.00 | 1 5/8" Coax | Yes | 1.75 | 0.000 | 1.98 | 0.29 | 0.00 | 0.044 | 0.000 | 22.989 | 0.00 | 13.10 |
| 48.92 | 1 5/8" Coax | Yes | 3.92 | 0.000 | 1.98 | 0.65 | 0.00 | 0.062 | 0.000 | 23.397 | 0.00 | 29.35 |
| 48.92 | 1.25" Reinforcing | Yes | 2.42 | 0.000 | 1.25 | 0.25 | 0.00 | 0.062 | 0.000 | 23.397 | 0.00 | 0.00 |
| 49.00 | 1 5/8" Coax | Yes | 0.08 | 0.000 | 1.98 | 0.01 | 0.00 | 0.073 | 0.000 | 23.405 | 0.00 | 0.60 |
| 49.00 | 1.25" Reinforcing | Yes | 0.08 | 0.000 | 1.25 | 0.01 | 0.00 | 0.073 | 0.000 | 23.405 | 0.00 | 0.00 |
| 50.00 | 1 5/8" Coax | Yes | 1.00 | 0.000 | 1.98 | 0.17 | 0.00 | 0.072 | 0.000 | 23.504 | 0.00 | 7.49 |
| 50.00 | 1.25" Reinforcing | Yes | 1.00 | 0.000 | 1.25 | 0.10 | 0.00 | 0.072 | 0.000 | 23.504 | 0.00 | 0.00 |
| 55.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.073 | 0.000 | 23.981 | 0.00 | 37.44 |
| 55.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.073 | 0.000 | 23.981 | 0.00 | 0.00 |
| 60.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.074 | 0.000 | 24.424 | 0.00 | 37.44 |
| 60.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.074 | 0.000 | 24.424 | 0.00 | 0.00 |
| 65.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.076 | 0.000 | 24.839 | 0.00 | 37.44 |
| 65.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.076 | 0.000 | 24.839 | 0.00 | 0.00 |
| 70.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.077 | 0.000 | 25.230 | 0.00 | 37.44 |
| 70.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.077 | 0.000 | 25.230 | 0.00 | 0.00 |
| 75.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.079 | 0.000 | 25.599 | 0.00 | 37.44 |
| 75.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.079 | 0.000 | 25.599 | 0.00 | 0.00 |
| 76.83 | 1 5/8" Coax | Yes | 1.83 | 0.000 | 1.98 | 0.30 | 0.00 | 0.080 | 0.000 | 25.729 | 0.00 | 13.70 |
| 76.83 | 1.25" Reinforcing | Yes | 1.83 | 0.000 | 1.25 | 0.19 | 0.00 | 0.080 | 0.000 | 25.729 | 0.00 | 0.00 |
| 80.00 | 1 5/8" Coax | Yes | 3.17 | 0.000 | 1.98 | 0.52 | 0.00 | 0.073 | 0.000 | 25.949 | 0.00 | 23.74 |
| 80.00 | 1.25" Reinforcing | Yes | 2.42 | 0.000 | 1.25 | 0.25 | 0.00 | 0.073 | 0.000 | 25.949 | 0.00 | 0.00 |
| 85.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.050 | 0.000 | 26.282 | 0.00 | 37.44 |
| 87.50 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.051 | 0.000 | 26.443 | 0.00 | 18.72 |
| 90.00 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.052 | 0.000 | 26.600 | 0.00 | 18.72 |
| 91.92 | 1 5/8" Coax | Yes | 1.92 | 0.000 | 1.98 | 0.32 | 0.00 | 0.081 | 0.000 | 26.719 | 0.00 | 14.38 |
| 91.92 | 1.25" Reinforcing | Yes | 1.67 | 0.000 | 1.25 | 0.17 | 0.00 | 0.081 | 0.000 | 26.719 | 0.00 | 0.00 |

Linear Appurtenance Segment Forces (Factored)

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

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Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



| 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) |
|----------------|-------------------|--------------|-------------|-------|--------------------|-------------|-------------|-------|------------------|------------|----------------|----------------|
| 92.25 | 1 5/8" Coax | Yes | 0.33 | 0.000 | 1.98 | 0.05 | 0.00 | 0.086 | 0.000 | 26.739 | 0.00 | 2.47 |
| 92.25 | 1.25" Reinforcing | Yes | 0.33 | 0.000 | 1.25 | 0.03 | 0.00 | 0.086 | 0.000 | 26.739 | 0.00 | 0.00 |
| 95.00 | 1 5/8" Coax | Yes | 2.75 | 0.000 | 1.98 | 0.45 | 0.00 | 0.085 | 0.000 | 26.905 | 0.00 | 20.59 |
| 95.00 | 1.25" Reinforcing | Yes | 2.75 | 0.000 | 1.25 | 0.29 | 0.00 | 0.085 | 0.000 | 26.905 | 0.00 | 0.00 |
| 100.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.086 | 0.000 | 27.197 | 0.00 | 37.44 |
| 100.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.086 | 0.000 | 27.197 | 0.00 | 0.00 |
| 105.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.088 | 0.000 | 27.478 | 0.00 | 37.44 |
| 105.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.088 | 0.000 | 27.478 | 0.00 | 0.00 |
| 105.58 | 1 5/8" Coax | Yes | 0.58 | 0.000 | 1.98 | 0.10 | 0.00 | 0.089 | 0.000 | 27.510 | 0.00 | 4.34 |
| 105.58 | 1.25" Reinforcing | Yes | 0.58 | 0.000 | 1.25 | 0.06 | 0.00 | 0.089 | 0.000 | 27.510 | 0.00 | 0.00 |
| 110.00 | 1 5/8" Coax | Yes | 4.42 | 0.000 | 1.98 | 0.73 | 0.00 | 0.069 | 0.000 | 27.748 | 0.00 | 33.10 |
| 110.00 | 1.25" Reinforcing | Yes | 1.67 | 0.000 | 1.25 | 0.17 | 0.00 | 0.069 | 0.000 | 27.748 | 0.00 | 0.00 |
| 115.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.057 | 0.000 | 28.009 | 0.00 | 37.44 |
| 120.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.058 | 0.000 | 28.261 | 0.00 | 37.44 |
| 125.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.059 | 0.000 | 28.505 | 0.00 | 37.44 |
| 130.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.061 | 0.000 | 28.742 | 0.00 | 37.44 |
| 132.50 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.062 | 0.000 | 28.857 | 0.00 | 18.72 |
| 135.00 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.063 | 0.000 | 28.971 | 0.00 | 18.72 |
| 136.50 | 1 5/8" Coax | Yes | 1.50 | 0.000 | 1.98 | 0.25 | 0.00 | 0.064 | 0.000 | 29.038 | 0.00 | 11.23 |
| 140.00 | 1 5/8" Coax | Yes | 3.50 | 0.000 | 1.98 | 0.58 | 0.00 | 0.064 | 0.000 | 29.193 | 0.00 | 26.21 |
| 145.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.065 | 0.000 | 29.410 | 0.00 | 37.44 |
| 148.00 | 1 5/8" Coax | Yes | 3.00 | 0.000 | 1.98 | 0.49 | 0.00 | 0.067 | 0.000 | 29.537 | 0.00 | 22.46 |
| Totals: | | | | | | | | | | 0.0 | 1,108.2 | |

Calculated Forces

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

8/7/2018

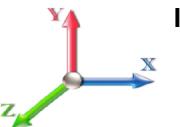


Topography: 1

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Load Case: 1.2D + 1.6W 94 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations

29

| Seg Elev (ft) | Pu FY (-) (kips) | Vu FX (-) (kips) | Tu MY (-) (ft-kips) | Mu MZ (ft-kips) | Mu MX (ft-kips) | Resultant Moment (ft-kips) | phi Pn (kips) | phi Vn (kips) | phi Tn (ft-kips) | phi Mn (ft-kips) | Total Deflect (in) | Rotation Sway (deg) | Rotation Twist (deg) | Stress Ratio |
|---------------|------------------|------------------|---------------------|-----------------|-----------------|----------------------------|---------------|---------------|------------------|------------------|--------------------|---------------------|----------------------|--------------|
| 0.00 | -48.91 | -30.32 | 0.00 | -4061.5 | 0.00 | 4061.52 | 5035.03 | 2517.52 | 10606.9 | 5311.37 | 0.00 | 0.000 | 0.000 | 0.775 |
| 0.25 | -48.78 | -30.37 | 0.00 | -4053.9 | 0.00 | 4053.94 | 5032.22 | 2516.11 | 10592.3 | 5304.07 | 0.00 | -0.012 | 0.000 | 0.580 |
| 5.00 | -47.14 | -30.08 | 0.00 | -3909.6 | 0.00 | 3909.67 | 4978.38 | 2489.19 | 10316.4 | 5165.91 | 0.10 | -0.183 | 0.000 | 0.572 |
| 10.00 | -45.45 | -29.77 | 0.00 | -3759.2 | 0.00 | 3759.26 | 4920.91 | 2460.46 | 10028.2 | 5021.57 | 0.39 | -0.363 | 0.000 | 0.563 |
| 15.00 | -43.77 | -29.46 | 0.00 | -3610.3 | 0.00 | 3610.39 | 4862.63 | 2431.31 | 9742.31 | 4878.39 | 0.86 | -0.544 | 0.000 | 0.554 |
| 20.00 | -42.13 | -29.12 | 0.00 | -3463.0 | 0.00 | 3463.09 | 4803.53 | 2401.76 | 9458.77 | 4736.42 | 1.53 | -0.727 | 0.000 | 0.544 |
| 25.00 | -40.51 | -28.76 | 0.00 | -3317.5 | 0.00 | 3317.50 | 4743.61 | 2371.81 | 9177.73 | 4595.68 | 2.39 | -0.910 | 0.000 | 0.535 |
| 30.00 | -38.93 | -28.35 | 0.00 | -3173.7 | 0.00 | 3173.72 | 4682.88 | 2341.44 | 8899.25 | 4456.24 | 3.44 | -1.093 | 0.000 | 0.525 |
| 32.83 | -38.05 | -28.12 | 0.00 | -3093.5 | 0.00 | 3093.51 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 4.12 | -1.199 | 0.000 | 0.519 |
| 32.83 | -38.05 | -28.12 | 0.00 | -3093.5 | 0.00 | 3093.51 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 4.12 | -1.199 | 0.000 | 0.519 |
| 35.00 | -37.33 | -28.00 | 0.00 | -3032.5 | 0.00 | 3032.50 | 4621.33 | 2310.66 | 8623.42 | 4318.12 | 4.68 | -1.280 | 0.000 | 0.710 |
| 40.00 | -35.78 | -27.60 | 0.00 | -2892.4 | 0.00 | 2892.49 | 4558.96 | 2279.48 | 8350.33 | 4181.37 | 6.16 | -1.535 | 0.000 | 0.700 |
| 43.25 | -34.78 | -27.33 | 0.00 | -2802.7 | 0.00 | 2802.78 | 4517.98 | 2258.99 | 8174.32 | 4093.24 | 7.26 | -1.703 | 0.000 | 0.693 |
| 45.00 | -33.84 | -27.22 | 0.00 | -2754.9 | 0.00 | 2754.95 | 4495.78 | 2247.89 | 8080.06 | 4046.03 | 7.91 | -1.795 | 0.000 | 0.689 |
| 48.92 | -31.85 | -26.82 | 0.00 | -2648.2 | 0.00 | 2648.25 | 4445.67 | 2222.84 | 7870.19 | 3940.94 | 9.47 | -1.999 | 0.000 | 0.492 |
| 49.00 | -31.80 | -26.82 | 0.00 | -2646.1 | 0.00 | 2646.10 | 3699.57 | 1849.78 | 6681.20 | 3345.56 | 9.50 | -2.002 | 0.000 | 0.525 |
| 50.00 | -31.49 | -26.77 | 0.00 | -2619.2 | 0.00 | 2619.29 | 3689.91 | 1844.95 | 6638.39 | 3324.13 | 9.92 | -2.041 | 0.000 | 0.560 |
| 55.00 | -30.18 | -26.33 | 0.00 | -2485.4 | 0.00 | 2485.42 | 3641.14 | 1820.57 | 6425.47 | 3217.51 | 12.17 | -2.242 | 0.000 | 0.546 |
| 60.00 | -28.89 | -25.87 | 0.00 | -2353.7 | 0.00 | 2353.79 | 3591.55 | 1795.77 | 6214.50 | 3111.87 | 14.62 | -2.444 | 0.000 | 0.531 |
| 65.00 | -27.63 | -25.41 | 0.00 | -2224.4 | 0.00 | 2224.43 | 3541.14 | 1770.57 | 6005.55 | 3007.24 | 17.29 | -2.644 | 0.000 | 0.516 |
| 70.00 | -26.38 | -24.94 | 0.00 | -2097.4 | 0.00 | 2097.40 | 3489.91 | 1744.96 | 5798.71 | 2903.67 | 20.16 | -2.844 | 0.000 | 0.500 |
| 75.00 | -25.19 | -24.44 | 0.00 | -1972.7 | 0.00 | 1972.70 | 3437.87 | 1718.94 | 5594.07 | 2801.19 | 23.25 | -3.042 | 0.000 | 0.484 |
| 76.83 | -24.74 | -24.28 | 0.00 | -1927.9 | 0.00 | 1927.97 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 24.43 | -3.116 | 0.000 | 0.478 |
| 76.83 | -24.74 | -24.28 | 0.00 | -1927.9 | 0.00 | 1927.97 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 24.43 | -3.116 | 0.000 | 0.478 |
| 80.00 | -23.95 | -24.01 | 0.00 | -1851.0 | 0.00 | 1851.01 | 3385.02 | 1692.51 | 5391.70 | 2699.86 | 26.54 | -3.242 | 0.000 | 0.693 |
| 85.00 | -22.78 | -23.54 | 0.00 | -1730.9 | 0.00 | 1730.95 | 3331.35 | 1665.67 | 5191.69 | 2599.71 | 30.09 | -3.531 | 0.000 | 0.673 |
| 87.50 | -22.18 | -23.32 | 0.00 | -1672.1 | 0.00 | 1672.10 | 3304.20 | 1652.10 | 5092.60 | 2550.09 | 31.97 | -3.678 | 0.000 | 0.663 |
| 90.00 | -21.21 | -23.06 | 0.00 | -1613.8 | 0.00 | 1613.81 | 3276.86 | 1638.43 | 4994.13 | 2500.78 | 33.94 | -3.824 | 0.000 | 0.652 |
| 91.92 | -20.49 | -22.84 | 0.00 | -1569.5 | 0.00 | 1569.54 | 3255.72 | 1627.86 | 4918.94 | 2463.13 | 35.50 | -3.937 | 0.000 | 0.450 |
| 92.25 | -20.35 | -22.83 | 0.00 | -1562.0 | 0.00 | 1562.00 | 2609.22 | 1304.61 | 4017.17 | 2011.57 | 35.77 | -3.950 | 0.000 | 0.483 |
| 95.00 | -19.79 | -22.58 | 0.00 | -1499.2 | 0.00 | 1499.23 | 2587.46 | 1293.73 | 3934.74 | 1970.29 | 38.08 | -4.062 | 0.000 | 0.514 |
| 100.00 | -18.81 | -22.10 | 0.00 | -1386.3 | 0.00 | 1386.34 | 2547.26 | 1273.63 | 3786.04 | 1895.83 | 42.44 | -4.278 | 0.000 | 0.490 |
| 105.00 | -17.90 | -21.58 | 0.00 | -1275.8 | 0.00 | 1275.86 | 2506.24 | 1253.12 | 3638.92 | 1822.16 | 47.03 | -4.489 | 0.000 | 0.465 |
| 105.58 | -17.76 | -21.55 | 0.00 | -1263.3 | 0.00 | 1263.34 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 47.58 | -4.514 | 0.000 | 0.462 |
| 105.58 | -17.76 | -21.55 | 0.00 | -1263.3 | 0.00 | 1263.34 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 47.58 | -4.514 | 0.000 | 0.462 |
| 110.00 | -16.92 | -21.15 | 0.00 | -1168.0 | 0.00 | 1168.07 | 2464.40 | 1232.20 | 3493.46 | 1749.33 | 51.84 | -4.696 | 0.000 | 0.675 |
| 115.00 | -15.97 | -20.69 | 0.00 | -1062.3 | 0.00 | 1062.34 | 2421.75 | 1210.87 | 3349.75 | 1677.36 | 56.92 | -5.003 | 0.000 | 0.640 |
| 120.00 | -15.05 | -20.24 | 0.00 | -958.87 | 0.00 | 958.87 | 2378.28 | 1189.14 | 3207.87 | 1606.32 | 62.31 | -5.303 | 0.000 | 0.604 |
| 125.00 | -14.16 | -19.78 | 0.00 | -857.70 | 0.00 | 857.70 | 2333.99 | 1167.00 | 3067.90 | 1536.23 | 68.01 | -5.593 | 0.000 | 0.565 |
| 130.00 | -13.31 | -19.30 | 0.00 | -758.83 | 0.00 | 758.83 | 2288.89 | 1144.45 | 2929.94 | 1467.15 | 74.01 | -5.872 | 0.000 | 0.523 |
| 132.50 | -12.88 | -19.07 | 0.00 | -710.58 | 0.00 | 710.58 | 2266.03 | 1133.02 | 2861.73 | 1432.99 | 77.12 | -6.009 | 0.000 | 0.502 |
| 135.00 | -12.25 | -18.81 | 0.00 | -662.91 | 0.00 | 662.91 | 2239.33 | 1119.66 | 2789.52 | 1396.83 | 80.29 | -6.142 | 0.000 | 0.480 |
| 136.50 | -11.85 | -18.66 | 0.00 | -634.70 | 0.00 | 634.70 | 1414.34 | 707.17 | 1783.76 | 893.21 | 82.23 | -6.221 | 0.000 | 0.720 |
| 140.00 | -11.38 | -18.36 | 0.00 | -569.38 | 0.00 | 569.38 | 1397.90 | 698.95 | 1729.39 | 865.98 | 86.85 | -6.396 | 0.000 | 0.666 |
| 145.00 | -10.75 | -17.92 | 0.00 | -477.56 | 0.00 | 477.56 | 1373.73 | 686.86 | 1652.26 | 827.36 | 93.70 | -6.707 | 0.000 | 0.586 |
| 148.00 | -10.21 | -16.91 | 0.00 | -423.80 | 0.00 | 423.80 | 1358.83 | 679.41 | 1606.31 | 804.35 | 97.97 | -6.882 | 0.000 | 0.535 |
| 150.00 | -9.96 | -16.75 | 0.00 | -389.99 | 0.00 | 389.99 | 1348.73 | 674.37 | 1575.83 | 789.09 | 100.87 | -6.993 | 0.000 | 0.502 |
| 155.00 | -9.41 | -16.31 | 0.00 | -306.25 | 0.00 | 306.25 | 1322.92 | 661.46 | 1500.20 | 751.22 | 108.31 | -7.239 | 0.000 | 0.415 |

Calculated Forces

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C

Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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Tower Engineering Solutions

| 158.00 | -7.54 | -12.86 | 0.00 | -257.34 | 0.00 | 257.34 | 1307.05 | 653.52 | 1455.24 | 728.70 | 112.89 | -7.369 | 0.000 | 0.359 | | |
|--------|-------|--------|------|---------|------|--------|---------|--------|---------|--------|--------|--------|-------|-------|--|--|
| 160.00 | -7.34 | -12.69 | 0.00 | -231.62 | 0.00 | 231.62 | 1296.30 | 648.15 | 1425.45 | 713.78 | 115.98 | -7.449 | 0.000 | 0.331 | | |
| 165.00 | -6.91 | -12.26 | 0.00 | -168.15 | 0.00 | 168.15 | 1268.86 | 634.43 | 1351.65 | 676.83 | 123.86 | -7.618 | 0.000 | 0.254 | | |
| 168.00 | -5.81 | -9.24 | 0.00 | -131.36 | 0.00 | 131.36 | 1252.00 | 626.00 | 1307.87 | 654.91 | 128.66 | -7.701 | 0.000 | 0.205 | | |
| 168.50 | -4.14 | -7.80 | 0.00 | -126.73 | 0.00 | 126.73 | 1249.16 | 624.58 | 1300.61 | 651.27 | 129.46 | -7.714 | 0.000 | 0.198 | | |
| 170.00 | -4.02 | -7.67 | 0.00 | -115.04 | 0.00 | 115.04 | 1240.60 | 620.30 | 1278.90 | 640.40 | 131.89 | -7.750 | 0.000 | 0.183 | | |
| 175.00 | -3.64 | -7.25 | 0.00 | -76.68 | 0.00 | 76.68 | 1211.52 | 605.76 | 1207.28 | 604.54 | 140.03 | -7.848 | 0.000 | 0.130 | | |
| 178.00 | -3.41 | -7.01 | 0.00 | -54.92 | 0.00 | 54.92 | 1193.69 | 596.84 | 1164.89 | 583.31 | 144.96 | -7.893 | 0.000 | 0.097 | | |
| 178.00 | -3.41 | -7.01 | 0.00 | -54.92 | 0.00 | 54.92 | 975.84 | 487.92 | 954.81 | 478.11 | 144.96 | -7.893 | 0.000 | 0.119 | | |
| 180.00 | -3.29 | -6.85 | 0.00 | -40.90 | 0.00 | 40.90 | 975.84 | 487.92 | 954.81 | 478.11 | 148.26 | -7.916 | 0.000 | 0.089 | | |
| 184.00 | -1.38 | -4.53 | 0.00 | -13.52 | 0.00 | 13.52 | 975.84 | 487.92 | 954.81 | 478.11 | 154.89 | -7.946 | 0.000 | 0.030 | | |
| 185.00 | -1.31 | -4.45 | 0.00 | -8.98 | 0.00 | 8.98 | 975.84 | 487.92 | 954.81 | 478.11 | 156.55 | -7.949 | 0.000 | 0.020 | | |
| 187.00 | -0.05 | -0.08 | 0.00 | -0.08 | 0.00 | 0.08 | 975.84 | 487.92 | 954.81 | 478.11 | 159.87 | -7.952 | 0.000 | 0.000 | | |
| 188.00 | 0.00 | -0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 975.84 | 487.92 | 954.81 | 478.11 | 161.53 | -7.952 | 0.000 | 0.000 | | |

Wind Loading - Shaft

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

8/7/2018



Page: 18

Load Case: 0.9D + 1.6W 94 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations

29

| 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 | 18.266 | 20.09 | 379.43 | 0.650 | 0.000 | 0.00 | 0.000 | 0.00 | 0.0 | 0.0 | 0.0 |
| 0.25 | RB1 | 1.00 | 0.85 | 18.266 | 20.09 | 379.13 | 0.650 | 0.000 | 0.25 | 1.094 | 0.71 | 22.9 | 0.0 | 54.5 |
| 5.00 | | 1.00 | 0.85 | 18.266 | 20.09 | 373.34 | 0.650 | 0.000 | 4.75 | 20.621 | 13.40 | 430.9 | 0.0 | 1027.5 |
| 10.00 | | 1.00 | 0.85 | 18.266 | 20.09 | 367.25 | 0.650 | 0.000 | 5.00 | 21.364 | 13.89 | 446.4 | 0.0 | 1064.3 |
| 15.00 | | 1.00 | 0.85 | 18.266 | 20.09 | 361.17 | 0.650 | 0.000 | 5.00 | 21.013 | 13.66 | 439.1 | 0.0 | 1046.7 |
| 20.00 | | 1.00 | 0.90 | 19.381 | 21.32 | 365.76 | 0.650 | 0.000 | 5.00 | 20.662 | 13.43 | 458.1 | 0.0 | 1029.0 |
| 25.00 | | 1.00 | 0.95 | 20.313 | 22.34 | 368.03 | 0.650 | 0.000 | 5.00 | 20.310 | 13.20 | 472.0 | 0.0 | 1011.4 |
| 30.00 | | 1.00 | 0.98 | 21.108 | 23.22 | 368.62 | 0.650 | 0.000 | 5.00 | 19.959 | 12.97 | 482.0 | 0.0 | 993.7 |
| 32.83 | RT1 | 1.00 | 1.00 | 21.512 | 23.66 | 368.39 | 0.650 | 0.000 | 2.83 | 11.141 | 7.24 | 274.2 | 0.0 | 554.6 |
| 35.00 | | 1.00 | 1.01 | 21.804 | 23.98 | 367.99 | 0.650 | 0.000 | 2.17 | 8.467 | 5.50 | 211.2 | 0.0 | 421.5 |
| 40.00 | | 1.00 | 1.04 | 22.426 | 24.67 | 366.46 | 0.650 | 0.000 | 5.00 | 19.257 | 12.52 | 494.0 | 0.0 | 958.4 |
| 43.25 | Bot - Section 2 | 1.00 | 1.06 | 22.798 | 25.08 | 365.06 | 0.650 | 0.000 | 3.25 | 12.329 | 8.01 | 321.5 | 0.0 | 613.5 |
| 45.00 | | 1.00 | 1.07 | 22.989 | 25.29 | 364.20 | 0.650 | 0.000 | 1.75 | 6.688 | 4.35 | 175.9 | 0.0 | 613.0 |
| 48.92 | RB2 | 1.00 | 1.09 | 23.397 | 25.74 | 362.02 | 0.650 | 0.000 | 3.92 | 14.825 | 9.64 | 396.8 | 0.0 | 1358.5 |
| 49.00 | Top - Section 1 | 1.00 | 1.09 | 23.405 | 25.75 | 361.97 | 0.650 | 0.000 | 0.08 | 0.300 | 0.20 | 8.0 | 0.0 | 27.5 |
| 50.00 | | 1.00 | 1.09 | 23.504 | 25.85 | 367.60 | 0.650 | 0.000 | 1.00 | 3.746 | 2.44 | 100.7 | 0.0 | 160.0 |
| 55.00 | | 1.00 | 1.12 | 23.981 | 26.38 | 364.33 | 0.650 | 0.000 | 5.00 | 18.520 | 12.04 | 508.1 | 0.0 | 790.9 |
| 60.00 | | 1.00 | 1.14 | 24.424 | 26.87 | 360.64 | 0.650 | 0.000 | 5.00 | 18.169 | 11.81 | 507.7 | 0.0 | 775.8 |
| 65.00 | | 1.00 | 1.16 | 24.839 | 27.32 | 356.59 | 0.650 | 0.000 | 5.00 | 17.818 | 11.58 | 506.3 | 0.0 | 760.7 |
| 70.00 | | 1.00 | 1.17 | 25.230 | 27.75 | 352.23 | 0.650 | 0.000 | 5.00 | 17.467 | 11.35 | 504.1 | 0.0 | 745.6 |
| 75.00 | | 1.00 | 1.19 | 25.599 | 28.16 | 347.59 | 0.650 | 0.000 | 5.00 | 17.115 | 11.13 | 501.2 | 0.0 | 730.4 |
| 76.83 | RT2 | 1.00 | 1.20 | 25.729 | 28.30 | 345.83 | 0.650 | 0.000 | 1.83 | 6.176 | 4.01 | 181.8 | 0.0 | 263.6 |
| 80.00 | | 1.00 | 1.21 | 25.949 | 28.54 | 342.70 | 0.650 | 0.000 | 3.17 | 10.588 | 6.88 | 314.3 | 0.0 | 451.7 |
| 85.00 | | 1.00 | 1.22 | 26.282 | 28.91 | 337.60 | 0.650 | 0.000 | 5.00 | 16.413 | 10.67 | 493.5 | 0.0 | 700.2 |
| 87.50 | Bot - Section 3 | 1.00 | 1.23 | 26.443 | 29.09 | 334.97 | 0.650 | 0.000 | 2.50 | 8.075 | 5.25 | 244.3 | 0.0 | 344.4 |
| 90.00 | | 1.00 | 1.24 | 26.600 | 29.26 | 332.29 | 0.650 | 0.000 | 2.50 | 8.119 | 5.28 | 247.1 | 0.0 | 629.7 |
| 91.92 | RB3 | 1.00 | 1.24 | 26.719 | 29.39 | 330.20 | 0.650 | 0.000 | 1.92 | 6.176 | 4.01 | 188.8 | 0.0 | 478.9 |
| 92.25 | Top - Section 2 | 1.00 | 1.24 | 26.739 | 29.41 | 329.84 | 0.650 | 0.000 | 0.33 | 1.056 | 0.69 | 32.3 | 0.0 | 81.9 |
| 95.00 | | 1.00 | 1.25 | 26.905 | 29.60 | 332.36 | 0.650 | 0.000 | 2.75 | 8.743 | 5.68 | 269.1 | 0.0 | 311.2 |
| 100.00 | | 1.00 | 1.27 | 27.197 | 29.92 | 326.73 | 0.650 | 0.000 | 5.00 | 15.624 | 10.16 | 486.1 | 0.0 | 556.1 |
| 105.00 | | 1.00 | 1.28 | 27.478 | 30.23 | 320.94 | 0.650 | 0.000 | 5.00 | 15.273 | 9.93 | 480.1 | 0.0 | 543.5 |
| 105.58 | RT3 | 1.00 | 1.28 | 27.510 | 30.26 | 320.26 | 0.650 | 0.000 | 0.58 | 1.749 | 1.14 | 55.0 | 0.0 | 62.2 |
| 110.00 | | 1.00 | 1.29 | 27.748 | 30.52 | 315.02 | 0.650 | 0.000 | 4.42 | 13.172 | 8.56 | 418.1 | 0.0 | 468.6 |
| 115.00 | | 1.00 | 1.30 | 28.009 | 30.81 | 308.96 | 0.650 | 0.000 | 5.00 | 14.570 | 9.47 | 466.9 | 0.0 | 518.3 |
| 120.00 | | 1.00 | 1.32 | 28.261 | 31.09 | 302.77 | 0.650 | 0.000 | 5.00 | 14.219 | 9.24 | 459.7 | 0.0 | 505.7 |
| 125.00 | | 1.00 | 1.33 | 28.505 | 31.36 | 296.47 | 0.650 | 0.000 | 5.00 | 13.868 | 9.01 | 452.2 | 0.0 | 493.1 |
| 130.00 | | 1.00 | 1.34 | 28.742 | 31.62 | 290.06 | 0.650 | 0.000 | 5.00 | 13.516 | 8.79 | 444.4 | 0.0 | 480.4 |
| 132.50 | Bot - Section 4 | 1.00 | 1.34 | 28.857 | 31.74 | 286.82 | 0.650 | 0.000 | 2.50 | 6.627 | 4.31 | 218.8 | 0.0 | 235.5 |
| 135.00 | | 1.00 | 1.35 | 28.971 | 31.87 | 283.55 | 0.650 | 0.000 | 2.50 | 6.631 | 4.31 | 219.8 | 0.0 | 397.8 |
| 136.50 | Top - Section 3 | 1.00 | 1.35 | 29.038 | 31.94 | 281.57 | 0.650 | 0.000 | 1.50 | 3.937 | 2.56 | 130.8 | 0.0 | 236.1 |
| 140.00 | | 1.00 | 1.36 | 29.193 | 32.11 | 281.00 | 0.650 | 0.000 | 3.50 | 9.063 | 5.89 | 302.7 | 0.0 | 226.1 |
| 145.00 | | 1.00 | 1.37 | 29.410 | 32.35 | 274.31 | 0.650 | 0.000 | 5.00 | 12.648 | 8.22 | 425.5 | 0.0 | 315.6 |
| 148.00 | Appurtenance(s) | 1.00 | 1.37 | 29.537 | 32.49 | 270.26 | 0.650 | 0.000 | 3.00 | 7.420 | 4.82 | 250.7 | 0.0 | 185.1 |
| 150.00 | | 1.00 | 1.38 | 29.621 | 32.58 | 267.54 | 0.650 | 0.000 | 2.00 | 4.877 | 3.17 | 165.2 | 0.0 | 121.6 |
| 155.00 | | 1.00 | 1.39 | 29.826 | 32.81 | 260.69 | 0.650 | 0.000 | 5.00 | 11.946 | 7.76 | 407.6 | 0.0 | 297.9 |
| 158.00 | Appurtenance(s) | 1.00 | 1.39 | 29.946 | 32.94 | 256.54 | 0.650 | 0.000 | 3.00 | 6.999 | 4.55 | 239.8 | 0.0 | 174.5 |
| 160.00 | | 1.00 | 1.40 | 30.026 | 33.03 | 253.75 | 0.650 | 0.000 | 2.00 | 4.596 | 2.99 | 157.9 | 0.0 | 114.6 |

Wind Loading - Shaft

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C



Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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| | | | | | | | | | | | | | |
|------------------------|------|------|--------|-------|--------|-------|-------|---------------|--------|------|-----------------|-----|-----------------|
| 165.00 | 1.00 | 1.41 | 30.221 | 33.24 | 246.75 | 0.650 | 0.000 | 5.00 | 11.243 | 7.31 | 388.7 | 0.0 | 280.2 |
| 168.00 Appurtenance(s) | 1.00 | 1.41 | 30.336 | 33.37 | 242.51 | 0.650 | 0.000 | 3.00 | 6.577 | 4.28 | 228.3 | 0.0 | 163.9 |
| 168.50 Appurtenance(s) | 1.00 | 1.41 | 30.355 | 33.39 | 241.80 | 0.650 | 0.000 | 0.50 | 1.084 | 0.70 | 37.6 | 0.0 | 27.0 |
| 170.00 | 1.00 | 1.42 | 30.411 | 33.45 | 239.67 | 0.650 | 0.000 | 1.50 | 3.231 | 2.10 | 112.4 | 0.0 | 80.5 |
| 175.00 | 1.00 | 1.42 | 30.598 | 33.66 | 232.52 | 0.650 | 0.000 | 5.00 | 10.541 | 6.85 | 369.0 | 0.0 | 262.6 |
| 178.00 Top - Section 4 | 1.00 | 1.43 | 30.707 | 33.78 | 228.20 | 0.650 | 0.000 | 3.00 | 6.156 | 4.00 | 216.2 | 0.0 | 153.3 |
| 180.00 | 1.00 | 1.43 | 30.780 | 33.86 | 228.47 | 0.650 | 0.000 | 2.00 | 4.062 | 2.64 | 143.0 | 0.0 | 86.8 |
| 184.00 Appurtenance(s) | 1.00 | 1.44 | 30.922 | 34.01 | 229.00 | 0.650 | 0.000 | 4.00 | 8.123 | 5.28 | 287.4 | 0.0 | 173.6 |
| 185.00 | 1.00 | 1.44 | 30.958 | 34.05 | 229.13 | 0.650 | 0.000 | 1.00 | 2.031 | 1.32 | 71.9 | 0.0 | 43.4 |
| 187.00 Appurtenance(s) | 1.00 | 1.44 | 31.028 | 34.13 | 229.39 | 0.650 | 0.000 | 2.00 | 4.062 | 2.64 | 144.2 | 0.0 | 86.8 |
| 188.00 | 1.00 | 1.45 | 31.063 | 34.17 | 229.52 | 0.650 | 0.000 | 1.00 | 2.031 | 1.32 | 72.2 | 0.0 | 43.4 |
| Totals: | | | | | | | | 188.00 | | | 17,084.4 | | 25,333.6 |

Discrete Appurtenance Forces

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

8/7/2018



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Load Case: 0.9D + 1.6W 94 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations

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| No. | Elev (ft) | Description | Qty | qz (psf) | qzGh (psf) | CaAa 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 | 187.00 | Commscope | 3 | 31.028 | 34.131 | 0.60 | 0.75 | 20.65 | 134.46 | 0.000 | 0.000 | 1127.46 | 0.00 | 0.00 |
| 2 | 187.00 | Ericsson KRY 112 114-1 | 12 | 31.028 | 34.131 | 0.50 | 0.75 | 2.47 | 118.80 | 0.000 | 0.000 | 135.01 | 0.00 | 0.00 |
| 3 | 187.00 | Kathrein 782 11054-Smart | 3 | 31.028 | 34.131 | 0.50 | 0.75 | 0.33 | 4.86 | 0.000 | 0.000 | 18.11 | 0.00 | 0.00 |
| 4 | 187.00 | B12 | 3 | 31.028 | 34.131 | 0.38 | 0.75 | 2.89 | 135.00 | 0.000 | 0.000 | 157.89 | 0.00 | 0.00 |
| 5 | 187.00 | Ericsson | 3 | 31.028 | 34.131 | 0.65 | 0.75 | 12.74 | 356.94 | 0.000 | 0.000 | 695.90 | 0.00 | 0.00 |
| 6 | 187.00 | RFS | 3 | 31.028 | 34.131 | 0.52 | 0.75 | 31.88 | 345.60 | 0.000 | 0.000 | 1740.83 | 0.00 | 0.00 |
| 7 | 187.00 | Ericsson Radio 4449 B71 | 3 | 31.028 | 34.131 | 0.50 | 0.75 | 2.49 | 189.00 | 0.000 | 0.000 | 135.83 | 0.00 | 0.00 |
| 8 | 184.00 | Platform w/ Hand Rail | 1 | 30.922 | 34.015 | 1.00 | 1.00 | 32.00 | 1440.00 | 0.000 | 0.000 | 1741.55 | 0.00 | 0.00 |
| 9 | 168.50 | Low Profile Platform | 1 | 30.355 | 33.390 | 1.00 | 1.00 | 22.00 | 1350.00 | 0.000 | 0.000 | 1175.34 | 0.00 | 0.00 |
| 10 | 168.00 | APXV9ERR18-C-A20 | 1 | 30.336 | 33.369 | 0.66 | 0.80 | 5.33 | 55.80 | 0.000 | 0.000 | 284.32 | 0.00 | 0.00 |
| 11 | 168.00 | ACU-A20-N | 4 | 30.336 | 33.369 | 0.80 | 0.80 | 0.45 | 3.60 | 0.000 | 0.000 | 23.92 | 0.00 | 0.00 |
| 12 | 168.00 | TD-RRH8x20-25 | 3 | 30.336 | 33.369 | 0.54 | 0.80 | 6.51 | 189.00 | 0.000 | 0.000 | 347.70 | 0.00 | 0.00 |
| 13 | 168.00 | 800 MHz RRH | 3 | 30.336 | 33.369 | 0.54 | 0.80 | 4.73 | 145.80 | 0.000 | 0.000 | 252.41 | 0.00 | 0.00 |
| 14 | 168.00 | 1900 MHz RRH | 3 | 30.336 | 33.369 | 0.54 | 0.80 | 4.73 | 118.80 | 0.000 | 0.000 | 252.41 | 0.00 | 0.00 |
| 15 | 168.00 | 800 MHz Filters | 3 | 30.336 | 33.369 | 0.54 | 0.80 | 4.73 | 145.80 | 0.000 | 0.000 | 252.41 | 0.00 | 0.00 |
| 16 | 168.00 | APXVSPP18-C-A20 | 2 | 30.336 | 33.369 | 0.66 | 0.80 | 10.65 | 102.60 | 0.000 | 0.000 | 568.64 | 0.00 | 0.00 |
| 17 | 168.00 | APXVTM14-C-120 | 3 | 30.336 | 33.369 | 0.63 | 0.80 | 12.02 | 151.20 | 0.000 | 0.000 | 641.79 | 0.00 | 0.00 |
| 18 | 158.00 | LGP21401 | 6 | 29.946 | 32.941 | 0.54 | 0.80 | 4.05 | 94.50 | 0.000 | 0.000 | 213.57 | 0.00 | 0.00 |
| 19 | 158.00 | T-Arm | 3 | 29.946 | 32.941 | 0.50 | 0.75 | 12.06 | 810.00 | 0.000 | 0.000 | 635.63 | 0.00 | 0.00 |
| 20 | 158.00 | P65-17-XLH-RR | 2 | 29.946 | 32.941 | 0.60 | 0.80 | 13.73 | 106.20 | 0.000 | 0.000 | 723.54 | 0.00 | 0.00 |
| 21 | 158.00 | DC-48-60-18-8F | 1 | 29.946 | 32.941 | 0.80 | 0.80 | 1.18 | 28.62 | 0.000 | 0.000 | 61.98 | 0.00 | 0.00 |
| 22 | 158.00 | RRUS-11 | 6 | 29.946 | 32.941 | 0.54 | 0.80 | 8.10 | 273.78 | 0.000 | 0.000 | 427.14 | 0.00 | 0.00 |
| 23 | 158.00 | 7770 | 3 | 29.946 | 32.941 | 0.58 | 0.80 | 9.64 | 94.50 | 0.000 | 0.000 | 507.87 | 0.00 | 0.00 |
| 24 | 158.00 | SBNH-1D6565C | 1 | 29.946 | 32.941 | 0.64 | 0.80 | 7.34 | 59.49 | 0.000 | 0.000 | 386.90 | 0.00 | 0.00 |
| 25 | 148.00 | 742 213 | 3 | 29.537 | 32.491 | 0.58 | 0.80 | 8.85 | 59.40 | 0.000 | 0.000 | 459.93 | 0.00 | 0.00 |
| 26 | 148.00 | Flush Mount | 1 | 29.537 | 32.491 | 1.00 | 1.00 | 5.00 | 135.00 | 0.000 | 0.000 | 259.93 | 0.00 | 0.00 |

Totals: 6,648.75

13,228.03

Total Applied Force Summary

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

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Load Case: 0.9D + 1.6W 94 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



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 |
| 0.25 | | 22.86 | 61.50 | 0.00 | 0.00 |
| 5.00 | | 430.90 | 1160.21 | 0.00 | 0.00 |
| 10.00 | | 446.42 | 1204.06 | 0.00 | 0.00 |
| 15.00 | | 439.09 | 1186.41 | 0.00 | 0.00 |
| 20.00 | | 458.10 | 1168.76 | 0.00 | 0.00 |
| 25.00 | | 471.97 | 1151.11 | 0.00 | 0.00 |
| 30.00 | | 481.96 | 1133.46 | 0.00 | 0.00 |
| 32.83 | | 274.19 | 633.72 | 0.00 | 0.00 |
| 35.00 | | 211.19 | 482.09 | 0.00 | 0.00 |
| 40.00 | | 494.03 | 1098.16 | 0.00 | 0.00 |
| 43.25 | | 321.53 | 704.34 | 0.00 | 0.00 |
| 45.00 | | 175.89 | 661.87 | 0.00 | 0.00 |
| 48.92 | | 396.80 | 1468.02 | 0.00 | 0.00 |
| 49.00 | | 8.04 | 29.75 | 0.00 | 0.00 |
| 50.00 | | 100.73 | 187.95 | 0.00 | 0.00 |
| 55.00 | | 508.09 | 930.66 | 0.00 | 0.00 |
| 60.00 | | 507.67 | 915.53 | 0.00 | 0.00 |
| 65.00 | | 506.31 | 900.40 | 0.00 | 0.00 |
| 70.00 | | 504.14 | 885.27 | 0.00 | 0.00 |
| 75.00 | | 501.23 | 870.14 | 0.00 | 0.00 |
| 76.83 | | 181.80 | 314.69 | 0.00 | 0.00 |
| 80.00 | | 314.31 | 540.32 | 0.00 | 0.00 |
| 85.00 | | 493.49 | 839.88 | 0.00 | 0.00 |
| 87.50 | | 244.27 | 414.27 | 0.00 | 0.00 |
| 90.00 | | 247.08 | 699.56 | 0.00 | 0.00 |
| 91.92 | | 188.78 | 532.56 | 0.00 | 0.00 |
| 92.25 | | 32.31 | 91.12 | 0.00 | 0.00 |
| 95.00 | | 269.10 | 388.07 | 0.00 | 0.00 |
| 100.00 | | 486.11 | 695.81 | 0.00 | 0.00 |
| 105.00 | | 480.09 | 683.20 | 0.00 | 0.00 |
| 105.58 | | 55.04 | 78.44 | 0.00 | 0.00 |
| 110.00 | | 418.15 | 592.16 | 0.00 | 0.00 |
| 115.00 | | 466.86 | 657.98 | 0.00 | 0.00 |
| 120.00 | | 459.71 | 645.38 | 0.00 | 0.00 |
| 125.00 | | 452.23 | 632.77 | 0.00 | 0.00 |
| 130.00 | | 444.43 | 620.16 | 0.00 | 0.00 |
| 132.50 | | 218.76 | 305.35 | 0.00 | 0.00 |
| 135.00 | | 219.78 | 467.70 | 0.00 | 0.00 |
| 136.50 | | 130.77 | 278.05 | 0.00 | 0.00 |
| 140.00 | | 302.66 | 323.94 | 0.00 | 0.00 |
| 145.00 | | 425.54 | 455.27 | 0.00 | 0.00 |
| 148.00 | (4) attachments | 970.59 | 463.33 | 0.00 | 0.00 |
| 150.00 | | 165.25 | 166.29 | 0.00 | 0.00 |
| 155.00 | | 407.59 | 409.54 | 0.00 | 0.00 |
| 158.00 | (22) attachments | 3196.41 | 1708.58 | 0.00 | 0.00 |
| 160.00 | | 157.86 | 141.01 | 0.00 | 0.00 |

Total Applied Force Summary

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)

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

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| | | Topography: | 1 | Struct Class: | II |
|----------------|------------------|--------------------|------------------|----------------------|-------------|
| 165.00 | | 388.70 | 346.34 | 0.00 | 0.00 |
| 168.00 | (22) attachments | 2851.86 | 1116.17 | 0.00 | 0.00 |
| 168.50 | (1) attachments | 1212.98 | 1382.62 | 0.00 | 0.00 |
| 170.00 | | 112.40 | 97.33 | 0.00 | 0.00 |
| 175.00 | | 368.96 | 318.70 | 0.00 | 0.00 |
| 178.00 | | 216.25 | 186.98 | 0.00 | 0.00 |
| 180.00 | | 143.02 | 109.24 | 0.00 | 0.00 |
| 184.00 | (1) attachments | 2028.92 | 1658.48 | 0.00 | 0.00 |
| 185.00 | | 71.92 | 54.62 | 0.00 | 0.00 |
| 187.00 | (30) attachments | 4155.20 | 1393.90 | 0.00 | 0.00 |
| 188.00 | | 72.17 | 43.40 | 0.00 | 0.00 |
| Totals: | | 30,312.47 | 36,686.60 | 0.00 | 0.00 |

Linear Appurtenance Segment Forces (Factored)

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C

Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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Load Case: 0.9D + 1.6W 94 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



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) |
|---------------|-------------------|--------------|-------------|-------|--------------------|-------------|-------------|-------|------------------|----------|----------|----------------|
| 0.25 | 1 5/8" Coax | Yes | 0.25 | 0.000 | 1.98 | 0.04 | 0.00 | 0.062 | 0.000 | 18.266 | 0.00 | 1.40 |
| 0.25 | 1.25" Reinforcing | Yes | 0.25 | 0.000 | 1.25 | 0.03 | 0.00 | 0.062 | 0.000 | 18.266 | 0.00 | 0.00 |
| 5.00 | 1 5/8" Coax | Yes | 4.75 | 0.000 | 1.98 | 0.78 | 0.00 | 0.062 | 0.000 | 18.266 | 0.00 | 26.68 |
| 5.00 | 1.25" Reinforcing | Yes | 4.75 | 0.000 | 1.25 | 0.49 | 0.00 | 0.062 | 0.000 | 18.266 | 0.00 | 0.00 |
| 10.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.063 | 0.000 | 18.266 | 0.00 | 28.08 |
| 10.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.063 | 0.000 | 18.266 | 0.00 | 0.00 |
| 15.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.064 | 0.000 | 18.266 | 0.00 | 28.08 |
| 15.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.064 | 0.000 | 18.266 | 0.00 | 0.00 |
| 20.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.065 | 0.000 | 19.381 | 0.00 | 28.08 |
| 20.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.065 | 0.000 | 19.381 | 0.00 | 0.00 |
| 25.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.066 | 0.000 | 20.313 | 0.00 | 28.08 |
| 25.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.066 | 0.000 | 20.313 | 0.00 | 0.00 |
| 30.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.067 | 0.000 | 21.108 | 0.00 | 28.08 |
| 30.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.067 | 0.000 | 21.108 | 0.00 | 0.00 |
| 32.83 | 1 5/8" Coax | Yes | 2.83 | 0.000 | 1.98 | 0.47 | 0.00 | 0.068 | 0.000 | 21.512 | 0.00 | 15.89 |
| 32.83 | 1.25" Reinforcing | Yes | 2.83 | 0.000 | 1.25 | 0.29 | 0.00 | 0.068 | 0.000 | 21.512 | 0.00 | 0.00 |
| 35.00 | 1 5/8" Coax | Yes | 2.17 | 0.000 | 1.98 | 0.36 | 0.00 | 0.069 | 0.000 | 21.804 | 0.00 | 12.19 |
| 35.00 | 1.25" Reinforcing | Yes | 2.17 | 0.000 | 1.25 | 0.23 | 0.00 | 0.069 | 0.000 | 21.804 | 0.00 | 0.00 |
| 40.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.046 | 0.000 | 22.426 | 0.00 | 28.08 |
| 40.00 | 1.25" Reinforcing | Yes | 0.50 | 0.000 | 1.25 | 0.05 | 0.00 | 0.046 | 0.000 | 22.426 | 0.00 | 0.00 |
| 43.25 | 1 5/8" Coax | Yes | 3.25 | 0.000 | 1.98 | 0.54 | 0.00 | 0.043 | 0.000 | 22.798 | 0.00 | 18.25 |
| 45.00 | 1 5/8" Coax | Yes | 1.75 | 0.000 | 1.98 | 0.29 | 0.00 | 0.044 | 0.000 | 22.989 | 0.00 | 9.83 |
| 48.92 | 1 5/8" Coax | Yes | 3.92 | 0.000 | 1.98 | 0.65 | 0.00 | 0.062 | 0.000 | 23.397 | 0.00 | 22.01 |
| 48.92 | 1.25" Reinforcing | Yes | 2.42 | 0.000 | 1.25 | 0.25 | 0.00 | 0.062 | 0.000 | 23.397 | 0.00 | 0.00 |
| 49.00 | 1 5/8" Coax | Yes | 0.08 | 0.000 | 1.98 | 0.01 | 0.00 | 0.073 | 0.000 | 23.405 | 0.00 | 0.45 |
| 49.00 | 1.25" Reinforcing | Yes | 0.08 | 0.000 | 1.25 | 0.01 | 0.00 | 0.073 | 0.000 | 23.405 | 0.00 | 0.00 |
| 50.00 | 1 5/8" Coax | Yes | 1.00 | 0.000 | 1.98 | 0.17 | 0.00 | 0.072 | 0.000 | 23.504 | 0.00 | 5.62 |
| 50.00 | 1.25" Reinforcing | Yes | 1.00 | 0.000 | 1.25 | 0.10 | 0.00 | 0.072 | 0.000 | 23.504 | 0.00 | 0.00 |
| 55.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.073 | 0.000 | 23.981 | 0.00 | 28.08 |
| 55.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.073 | 0.000 | 23.981 | 0.00 | 0.00 |
| 60.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.074 | 0.000 | 24.424 | 0.00 | 28.08 |
| 60.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.074 | 0.000 | 24.424 | 0.00 | 0.00 |
| 65.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.076 | 0.000 | 24.839 | 0.00 | 28.08 |
| 65.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.076 | 0.000 | 24.839 | 0.00 | 0.00 |
| 70.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.077 | 0.000 | 25.230 | 0.00 | 28.08 |
| 70.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.077 | 0.000 | 25.230 | 0.00 | 0.00 |
| 75.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.079 | 0.000 | 25.599 | 0.00 | 28.08 |
| 75.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.079 | 0.000 | 25.599 | 0.00 | 0.00 |
| 76.83 | 1 5/8" Coax | Yes | 1.83 | 0.000 | 1.98 | 0.30 | 0.00 | 0.080 | 0.000 | 25.729 | 0.00 | 10.28 |
| 76.83 | 1.25" Reinforcing | Yes | 1.83 | 0.000 | 1.25 | 0.19 | 0.00 | 0.080 | 0.000 | 25.729 | 0.00 | 0.00 |
| 80.00 | 1 5/8" Coax | Yes | 3.17 | 0.000 | 1.98 | 0.52 | 0.00 | 0.073 | 0.000 | 25.949 | 0.00 | 17.80 |
| 80.00 | 1.25" Reinforcing | Yes | 2.42 | 0.000 | 1.25 | 0.25 | 0.00 | 0.073 | 0.000 | 25.949 | 0.00 | 0.00 |
| 85.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.050 | 0.000 | 26.282 | 0.00 | 28.08 |
| 87.50 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.051 | 0.000 | 26.443 | 0.00 | 14.04 |
| 90.00 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.052 | 0.000 | 26.600 | 0.00 | 14.04 |
| 91.92 | 1 5/8" Coax | Yes | 1.92 | 0.000 | 1.98 | 0.32 | 0.00 | 0.081 | 0.000 | 26.719 | 0.00 | 10.78 |
| 91.92 | 1.25" Reinforcing | Yes | 1.67 | 0.000 | 1.25 | 0.17 | 0.00 | 0.081 | 0.000 | 26.719 | 0.00 | 0.00 |

Linear Appurtenance Segment Forces (Factored)

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
Topography: 1 **Struct Class:** II

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Load Case: 0.9D + 1.6W 94 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



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) |
|----------------|-------------------|--------------|-------------|-------|--------------------|-------------|-------------|-------|------------------|------------|--------------|----------------|
| 92.25 | 1 5/8" Coax | Yes | 0.33 | 0.000 | 1.98 | 0.05 | 0.00 | 0.086 | 0.000 | 26.739 | 0.00 | 1.85 |
| 92.25 | 1.25" Reinforcing | Yes | 0.33 | 0.000 | 1.25 | 0.03 | 0.00 | 0.086 | 0.000 | 26.739 | 0.00 | 0.00 |
| 95.00 | 1 5/8" Coax | Yes | 2.75 | 0.000 | 1.98 | 0.45 | 0.00 | 0.085 | 0.000 | 26.905 | 0.00 | 15.44 |
| 95.00 | 1.25" Reinforcing | Yes | 2.75 | 0.000 | 1.25 | 0.29 | 0.00 | 0.085 | 0.000 | 26.905 | 0.00 | 0.00 |
| 100.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.086 | 0.000 | 27.197 | 0.00 | 28.08 |
| 100.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.086 | 0.000 | 27.197 | 0.00 | 0.00 |
| 105.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.088 | 0.000 | 27.478 | 0.00 | 28.08 |
| 105.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.088 | 0.000 | 27.478 | 0.00 | 0.00 |
| 105.58 | 1 5/8" Coax | Yes | 0.58 | 0.000 | 1.98 | 0.10 | 0.00 | 0.089 | 0.000 | 27.510 | 0.00 | 3.26 |
| 105.58 | 1.25" Reinforcing | Yes | 0.58 | 0.000 | 1.25 | 0.06 | 0.00 | 0.089 | 0.000 | 27.510 | 0.00 | 0.00 |
| 110.00 | 1 5/8" Coax | Yes | 4.42 | 0.000 | 1.98 | 0.73 | 0.00 | 0.069 | 0.000 | 27.748 | 0.00 | 24.82 |
| 110.00 | 1.25" Reinforcing | Yes | 1.67 | 0.000 | 1.25 | 0.17 | 0.00 | 0.069 | 0.000 | 27.748 | 0.00 | 0.00 |
| 115.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.057 | 0.000 | 28.009 | 0.00 | 28.08 |
| 120.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.058 | 0.000 | 28.261 | 0.00 | 28.08 |
| 125.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.059 | 0.000 | 28.505 | 0.00 | 28.08 |
| 130.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.061 | 0.000 | 28.742 | 0.00 | 28.08 |
| 132.50 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.062 | 0.000 | 28.857 | 0.00 | 14.04 |
| 135.00 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.063 | 0.000 | 28.971 | 0.00 | 14.04 |
| 136.50 | 1 5/8" Coax | Yes | 1.50 | 0.000 | 1.98 | 0.25 | 0.00 | 0.064 | 0.000 | 29.038 | 0.00 | 8.42 |
| 140.00 | 1 5/8" Coax | Yes | 3.50 | 0.000 | 1.98 | 0.58 | 0.00 | 0.064 | 0.000 | 29.193 | 0.00 | 19.66 |
| 145.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.065 | 0.000 | 29.410 | 0.00 | 28.08 |
| 148.00 | 1 5/8" Coax | Yes | 3.00 | 0.000 | 1.98 | 0.49 | 0.00 | 0.067 | 0.000 | 29.537 | 0.00 | 16.85 |
| Totals: | | | | | | | | | | 0.0 | 831.2 | |

Calculated Forces

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

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Load Case: 0.9D + 1.6W 94 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations

29

| Seg Elev (ft) | Pu FY (-) (kips) | Vu FX (-) (kips) | Tu MY (-) (ft-kips) | Mu MZ (ft-kips) | Mu MX (ft-kips) | Resultant Moment (ft-kips) | phi Pn (kips) | phi Vn (kips) | phi Tn (ft-kips) | phi Mn (ft-kips) | Total Deflect (in) | Rotation Sway (deg) | Rotation Twist (deg) | Stress Ratio |
|---------------|------------------|------------------|---------------------|-----------------|-----------------|----------------------------|---------------|---------------|------------------|------------------|--------------------|---------------------|----------------------|--------------|
| 0.00 | -36.68 | -30.32 | 0.00 | -4005.0 | 0.00 | 4005.03 | 5035.03 | 2517.52 | 10606.9 | 5311.37 | 0.00 | 0.000 | 0.000 | 0.761 |
| 0.25 | -36.57 | -30.35 | 0.00 | -3997.4 | 0.00 | 3997.45 | 5032.22 | 2516.11 | 10592.3 | 5304.07 | 0.00 | -0.012 | 0.000 | 0.570 |
| 5.00 | -35.32 | -30.02 | 0.00 | -3853.2 | 0.00 | 3853.29 | 4978.38 | 2489.19 | 10316.4 | 5165.91 | 0.10 | -0.180 | 0.000 | 0.562 |
| 10.00 | -34.03 | -29.68 | 0.00 | -3703.1 | 0.00 | 3703.17 | 4920.91 | 2460.46 | 10028.2 | 5021.57 | 0.38 | -0.358 | 0.000 | 0.553 |
| 15.00 | -32.75 | -29.33 | 0.00 | -3554.7 | 0.00 | 3554.78 | 4862.63 | 2431.31 | 9742.31 | 4878.39 | 0.85 | -0.536 | 0.000 | 0.544 |
| 20.00 | -31.50 | -28.96 | 0.00 | -3408.1 | 0.00 | 3408.12 | 4803.53 | 2401.76 | 9458.77 | 4736.42 | 1.51 | -0.716 | 0.000 | 0.534 |
| 25.00 | -30.27 | -28.57 | 0.00 | -3263.3 | 0.00 | 3263.31 | 4743.61 | 2371.81 | 9177.73 | 4595.68 | 2.36 | -0.896 | 0.000 | 0.524 |
| 30.00 | -29.07 | -28.14 | 0.00 | -3120.4 | 0.00 | 3120.47 | 4682.88 | 2341.44 | 8899.25 | 4456.24 | 3.39 | -1.076 | 0.000 | 0.514 |
| 32.83 | -28.40 | -27.90 | 0.00 | -3040.8 | 0.00 | 3040.84 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 4.06 | -1.180 | 0.000 | 0.509 |
| 32.83 | -28.40 | -27.90 | 0.00 | -3040.8 | 0.00 | 3040.84 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 4.06 | -1.180 | 0.000 | 0.509 |
| 35.00 | -27.84 | -27.76 | 0.00 | -2980.3 | 0.00 | 2980.31 | 4621.33 | 2310.66 | 8623.42 | 4318.12 | 4.61 | -1.260 | 0.000 | 0.696 |
| 40.00 | -26.66 | -27.33 | 0.00 | -2841.5 | 0.00 | 2841.52 | 4558.96 | 2279.48 | 8350.33 | 4181.37 | 6.07 | -1.510 | 0.000 | 0.686 |
| 43.25 | -25.90 | -27.05 | 0.00 | -2752.6 | 0.00 | 2752.69 | 4517.98 | 2258.99 | 8174.32 | 4093.24 | 7.15 | -1.676 | 0.000 | 0.678 |
| 45.00 | -25.18 | -26.92 | 0.00 | -2705.3 | 0.00 | 2705.36 | 4495.78 | 2247.89 | 8080.06 | 4046.03 | 7.78 | -1.766 | 0.000 | 0.674 |
| 48.92 | -23.68 | -26.52 | 0.00 | -2599.8 | 0.00 | 2599.84 | 4445.67 | 2222.84 | 7870.19 | 3940.94 | 9.32 | -1.966 | 0.000 | 0.482 |
| 49.00 | -23.64 | -26.51 | 0.00 | -2597.7 | 0.00 | 2597.72 | 3699.57 | 1849.78 | 6681.20 | 3345.56 | 9.35 | -1.969 | 0.000 | 0.514 |
| 50.00 | -23.40 | -26.46 | 0.00 | -2571.2 | 0.00 | 2571.20 | 3689.91 | 1844.95 | 6638.39 | 3324.13 | 9.77 | -2.007 | 0.000 | 0.548 |
| 55.00 | -22.40 | -25.99 | 0.00 | -2438.9 | 0.00 | 2438.92 | 3641.14 | 1820.57 | 6425.47 | 3217.51 | 11.98 | -2.205 | 0.000 | 0.534 |
| 60.00 | -21.41 | -25.52 | 0.00 | -2308.9 | 0.00 | 2308.96 | 3591.55 | 1795.77 | 6214.50 | 3111.87 | 14.39 | -2.403 | 0.000 | 0.519 |
| 65.00 | -20.45 | -25.05 | 0.00 | -2181.3 | 0.00 | 2181.36 | 3541.14 | 1770.57 | 6005.55 | 3007.24 | 17.01 | -2.599 | 0.000 | 0.504 |
| 70.00 | -19.51 | -24.57 | 0.00 | -2056.1 | 0.00 | 2056.13 | 3489.91 | 1744.96 | 5798.71 | 2903.67 | 19.84 | -2.795 | 0.000 | 0.489 |
| 75.00 | -18.61 | -24.07 | 0.00 | -1933.2 | 0.00 | 1933.29 | 3437.87 | 1718.94 | 5594.07 | 2801.19 | 22.87 | -2.990 | 0.000 | 0.473 |
| 76.83 | -18.26 | -23.90 | 0.00 | -1889.2 | 0.00 | 1889.25 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 24.03 | -3.062 | 0.000 | 0.467 |
| 76.83 | -18.26 | -23.90 | 0.00 | -1889.2 | 0.00 | 1889.25 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 24.03 | -3.062 | 0.000 | 0.467 |
| 80.00 | -17.66 | -23.62 | 0.00 | -1813.4 | 0.00 | 1813.49 | 3385.02 | 1692.51 | 5391.70 | 2699.86 | 26.10 | -3.185 | 0.000 | 0.677 |
| 85.00 | -16.76 | -23.14 | 0.00 | -1695.3 | 0.00 | 1695.39 | 3331.35 | 1665.67 | 5191.69 | 2599.71 | 29.59 | -3.469 | 0.000 | 0.657 |
| 87.50 | -16.30 | -22.91 | 0.00 | -1637.5 | 0.00 | 1637.54 | 3304.20 | 1652.10 | 5092.60 | 2550.09 | 31.44 | -3.612 | 0.000 | 0.647 |
| 90.00 | -15.57 | -22.65 | 0.00 | -1580.2 | 0.00 | 1580.26 | 3276.86 | 1638.43 | 4994.13 | 2500.78 | 33.37 | -3.756 | 0.000 | 0.637 |
| 91.92 | -15.03 | -22.45 | 0.00 | -1536.7 | 0.00 | 1536.76 | 3255.72 | 1627.86 | 4918.94 | 2463.13 | 34.90 | -3.866 | 0.000 | 0.440 |
| 92.25 | -14.92 | -22.42 | 0.00 | -1529.3 | 0.00 | 1529.35 | 2609.22 | 1304.61 | 4017.17 | 2011.57 | 35.17 | -3.879 | 0.000 | 0.472 |
| 95.00 | -14.49 | -22.17 | 0.00 | -1467.6 | 0.00 | 1467.69 | 2587.46 | 1293.73 | 3934.74 | 1970.29 | 37.43 | -3.988 | 0.000 | 0.502 |
| 100.00 | -13.75 | -21.69 | 0.00 | -1356.8 | 0.00 | 1356.83 | 2547.26 | 1273.63 | 3786.04 | 1895.83 | 41.72 | -4.199 | 0.000 | 0.478 |
| 105.00 | -13.06 | -21.18 | 0.00 | -1248.4 | 0.00 | 1248.40 | 2506.24 | 1253.12 | 3638.92 | 1822.16 | 46.23 | -4.406 | 0.000 | 0.454 |
| 105.58 | -12.95 | -21.14 | 0.00 | -1236.1 | 0.00 | 1236.12 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 46.76 | -4.430 | 0.000 | 0.451 |
| 105.58 | -12.95 | -21.14 | 0.00 | -1236.1 | 0.00 | 1236.12 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 46.76 | -4.430 | 0.000 | 0.451 |
| 110.00 | -12.30 | -20.73 | 0.00 | -1142.6 | 0.00 | 1142.66 | 2464.40 | 1232.20 | 3493.46 | 1749.33 | 50.94 | -4.609 | 0.000 | 0.658 |
| 115.00 | -11.58 | -20.27 | 0.00 | -1038.9 | 0.00 | 1038.99 | 2421.75 | 1210.87 | 3349.75 | 1677.36 | 55.93 | -4.909 | 0.000 | 0.624 |
| 120.00 | -10.88 | -19.81 | 0.00 | -937.63 | 0.00 | 937.63 | 2378.28 | 1189.14 | 3207.87 | 1606.32 | 61.22 | -5.202 | 0.000 | 0.589 |
| 125.00 | -10.20 | -19.35 | 0.00 | -838.56 | 0.00 | 838.56 | 2333.99 | 1167.00 | 3067.90 | 1536.23 | 66.81 | -5.486 | 0.000 | 0.550 |
| 130.00 | -9.56 | -18.88 | 0.00 | -741.79 | 0.00 | 741.79 | 2288.89 | 1144.45 | 2929.94 | 1467.15 | 72.70 | -5.758 | 0.000 | 0.510 |
| 132.50 | -9.23 | -18.66 | 0.00 | -694.58 | 0.00 | 694.58 | 2266.03 | 1133.02 | 2861.73 | 1432.99 | 75.74 | -5.892 | 0.000 | 0.489 |
| 135.00 | -8.76 | -18.41 | 0.00 | -647.93 | 0.00 | 647.93 | 2239.33 | 1119.66 | 2789.52 | 1396.83 | 78.86 | -6.023 | 0.000 | 0.468 |
| 136.50 | -8.46 | -18.27 | 0.00 | -620.32 | 0.00 | 620.32 | 1414.34 | 707.17 | 1783.76 | 893.21 | 80.76 | -6.100 | 0.000 | 0.701 |
| 140.00 | -8.09 | -17.96 | 0.00 | -556.40 | 0.00 | 556.40 | 1397.90 | 698.95 | 1729.39 | 865.98 | 85.29 | -6.270 | 0.000 | 0.649 |
| 145.00 | -7.61 | -17.52 | 0.00 | -466.58 | 0.00 | 466.58 | 1373.73 | 686.86 | 1652.26 | 827.36 | 92.01 | -6.575 | 0.000 | 0.570 |
| 148.00 | -7.23 | -16.52 | 0.00 | -414.01 | 0.00 | 414.01 | 1358.83 | 679.41 | 1606.31 | 804.35 | 96.19 | -6.746 | 0.000 | 0.521 |
| 150.00 | -7.03 | -16.36 | 0.00 | -380.97 | 0.00 | 380.97 | 1348.73 | 674.37 | 1575.83 | 789.09 | 99.03 | -6.854 | 0.000 | 0.489 |
| 155.00 | -6.62 | -15.93 | 0.00 | -299.17 | 0.00 | 299.17 | 1322.92 | 661.46 | 1500.20 | 751.22 | 106.32 | -7.094 | 0.000 | 0.404 |

Calculated Forces

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C

Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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Tower Engineering Solutions

| 158.00 | -5.30 | -12.55 | 0.00 | -251.40 | 0.00 | 251.40 | 1307.05 | 653.52 | 1455.24 | 728.70 | 110.81 | -7.221 | 0.000 | 0.349 |
|--------|-------|--------|------|---------|------|--------|---------|--------|---------|--------|--------|--------|-------|-------|
| 160.00 | -5.16 | -12.39 | 0.00 | -226.30 | 0.00 | 226.30 | 1296.30 | 648.15 | 1425.45 | 713.78 | 113.85 | -7.299 | 0.000 | 0.321 |
| 165.00 | -4.84 | -11.97 | 0.00 | -164.36 | 0.00 | 164.36 | 1268.86 | 634.43 | 1351.65 | 676.83 | 121.56 | -7.464 | 0.000 | 0.247 |
| 168.00 | -4.10 | -9.00 | 0.00 | -128.45 | 0.00 | 128.45 | 1252.00 | 626.00 | 1307.87 | 654.91 | 126.27 | -7.546 | 0.000 | 0.200 |
| 168.50 | -2.88 | -7.62 | 0.00 | -123.95 | 0.00 | 123.95 | 1249.16 | 624.58 | 1300.61 | 651.27 | 127.06 | -7.558 | 0.000 | 0.193 |
| 170.00 | -2.79 | -7.49 | 0.00 | -112.53 | 0.00 | 112.53 | 1240.60 | 620.30 | 1278.90 | 640.40 | 129.43 | -7.594 | 0.000 | 0.178 |
| 175.00 | -2.52 | -7.09 | 0.00 | -75.06 | 0.00 | 75.06 | 1211.52 | 605.76 | 1207.28 | 604.54 | 137.41 | -7.690 | 0.000 | 0.126 |
| 178.00 | -2.36 | -6.85 | 0.00 | -53.79 | 0.00 | 53.79 | 1193.69 | 596.84 | 1164.89 | 583.31 | 142.25 | -7.734 | 0.000 | 0.094 |
| 178.00 | -2.36 | -6.85 | 0.00 | -53.79 | 0.00 | 53.79 | 975.84 | 487.92 | 954.81 | 478.11 | 142.25 | -7.734 | 0.000 | 0.115 |
| 180.00 | -2.27 | -6.70 | 0.00 | -40.09 | 0.00 | 40.09 | 975.84 | 487.92 | 954.81 | 478.11 | 145.48 | -7.756 | 0.000 | 0.086 |
| 184.00 | -0.90 | -4.46 | 0.00 | -13.31 | 0.00 | 13.31 | 975.84 | 487.92 | 954.81 | 478.11 | 151.97 | -7.786 | 0.000 | 0.029 |
| 185.00 | -0.85 | -4.38 | 0.00 | -8.84 | 0.00 | 8.84 | 975.84 | 487.92 | 954.81 | 478.11 | 153.60 | -7.789 | 0.000 | 0.019 |
| 187.00 | -0.03 | -0.08 | 0.00 | -0.08 | 0.00 | 0.08 | 975.84 | 487.92 | 954.81 | 478.11 | 156.85 | -7.792 | 0.000 | 0.000 |
| 188.00 | 0.00 | -0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 975.84 | 487.92 | 954.81 | 478.11 | 158.48 | -7.792 | 0.000 | 0.000 |

Wind Loading - Shaft

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

8/7/2018



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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 | Kzt | Kz | qz (psf) | qzGh (psf) | C (mph-ft) | Cf | Ice Thick (in) | Tributary (ft) | Aa (sf) | CfAa (sf) | Wind Force X (lb) | Dead Load Ice (lb) | Tot Dead Load (lb) |
|-----------|-----------------|------|------|----------|------------|------------|-------|----------------|----------------|---------|-----------|-------------------|--------------------|--------------------|
| 0.00 | | 1.00 | 0.85 | 5.168 | 5.68 | 0.00 | 1.200 | 0.000 | 0.00 | 0.000 | 0.00 | 0.0 | 0.0 | 0.0 |
| 0.25 | RB1 | 1.00 | 0.85 | 5.168 | 5.68 | 0.00 | 1.200 | 1.227 | 0.25 | 1.145 | 1.37 | 7.8 | 20.3 | 93.0 |
| 5.00 | | 1.00 | 0.85 | 5.168 | 5.68 | 0.00 | 1.200 | 1.656 | 4.75 | 21.932 | 26.32 | 149.6 | 518.0 | 1888.0 |
| 10.00 | | 1.00 | 0.85 | 5.168 | 5.68 | 0.00 | 1.200 | 1.775 | 5.00 | 22.843 | 27.41 | 155.8 | 576.5 | 1995.6 |
| 15.00 | | 1.00 | 0.85 | 5.168 | 5.68 | 0.00 | 1.200 | 1.848 | 5.00 | 22.553 | 27.06 | 153.9 | 591.5 | 1987.1 |
| 20.00 | | 1.00 | 0.90 | 5.483 | 6.03 | 0.00 | 1.200 | 1.902 | 5.00 | 22.247 | 26.70 | 161.0 | 599.5 | 1971.6 |
| 25.00 | | 1.00 | 0.95 | 5.747 | 6.32 | 0.00 | 1.200 | 1.945 | 5.00 | 21.931 | 26.32 | 166.4 | 603.5 | 1952.0 |
| 30.00 | | 1.00 | 0.98 | 5.972 | 6.57 | 0.00 | 1.200 | 1.981 | 5.00 | 21.610 | 25.93 | 170.4 | 604.7 | 1929.7 |
| 32.83 | RT1 | 1.00 | 1.00 | 6.087 | 6.70 | 0.00 | 1.200 | 1.999 | 2.83 | 12.084 | 14.50 | 97.1 | 342.2 | 1081.7 |
| 35.00 | | 1.00 | 1.01 | 6.169 | 6.79 | 0.00 | 1.200 | 2.012 | 2.17 | 9.194 | 11.03 | 74.9 | 262.1 | 824.1 |
| 40.00 | | 1.00 | 1.04 | 6.345 | 6.98 | 0.00 | 1.200 | 2.039 | 5.00 | 20.956 | 25.15 | 175.5 | 601.9 | 1879.8 |
| 43.25 | Bot - Section 2 | 1.00 | 1.06 | 6.450 | 7.10 | 0.00 | 1.200 | 2.055 | 3.25 | 13.442 | 16.13 | 114.4 | 389.9 | 1207.9 |
| 45.00 | | 1.00 | 1.07 | 6.504 | 7.15 | 0.00 | 1.200 | 2.063 | 1.75 | 7.290 | 8.75 | 62.6 | 212.9 | 1030.2 |
| 48.92 | RB2 | 1.00 | 1.09 | 6.620 | 7.28 | 0.00 | 1.200 | 2.080 | 3.92 | 16.184 | 19.42 | 141.4 | 474.4 | 2285.7 |
| 49.00 | Top - Section 1 | 1.00 | 1.09 | 6.622 | 7.28 | 0.00 | 1.200 | 2.081 | 0.08 | 0.328 | 0.39 | 2.9 | 9.7 | 46.4 |
| 50.00 | | 1.00 | 1.09 | 6.650 | 7.32 | 0.00 | 1.200 | 2.085 | 1.00 | 4.094 | 4.91 | 35.9 | 120.8 | 334.2 |
| 55.00 | | 1.00 | 1.12 | 6.785 | 7.46 | 0.00 | 1.200 | 2.105 | 5.00 | 20.274 | 24.33 | 181.6 | 599.2 | 1653.8 |
| 60.00 | | 1.00 | 1.14 | 6.910 | 7.60 | 0.00 | 1.200 | 2.123 | 5.00 | 19.939 | 23.93 | 181.9 | 593.7 | 1628.1 |
| 65.00 | | 1.00 | 1.16 | 7.028 | 7.73 | 0.00 | 1.200 | 2.140 | 5.00 | 19.602 | 23.52 | 181.8 | 587.5 | 1601.8 |
| 70.00 | | 1.00 | 1.17 | 7.138 | 7.85 | 0.00 | 1.200 | 2.156 | 5.00 | 19.264 | 23.12 | 181.5 | 580.9 | 1575.0 |
| 75.00 | | 1.00 | 1.19 | 7.243 | 7.97 | 0.00 | 1.200 | 2.171 | 5.00 | 18.925 | 22.71 | 180.9 | 573.8 | 1547.7 |
| 76.83 | RT2 | 1.00 | 1.20 | 7.280 | 8.01 | 0.00 | 1.200 | 2.176 | 1.83 | 6.840 | 8.21 | 65.7 | 209.0 | 560.4 |
| 80.00 | | 1.00 | 1.21 | 7.342 | 8.08 | 0.00 | 1.200 | 2.185 | 3.17 | 11.742 | 14.09 | 113.8 | 359.1 | 961.4 |
| 85.00 | | 1.00 | 1.22 | 7.436 | 8.18 | 0.00 | 1.200 | 2.198 | 5.00 | 18.245 | 21.89 | 179.1 | 558.6 | 1492.1 |
| 87.50 | Bot - Section 3 | 1.00 | 1.23 | 7.482 | 8.23 | 0.00 | 1.200 | 2.205 | 2.50 | 8.994 | 10.79 | 88.8 | 277.3 | 736.5 |
| 90.00 | | 1.00 | 1.24 | 7.526 | 8.28 | 0.00 | 1.200 | 2.211 | 2.50 | 9.041 | 10.85 | 89.8 | 279.5 | 1119.2 |
| 91.92 | RB3 | 1.00 | 1.24 | 7.560 | 8.32 | 0.00 | 1.200 | 2.216 | 1.92 | 6.885 | 8.26 | 68.7 | 213.5 | 852.0 |
| 92.25 | Top - Section 2 | 1.00 | 1.24 | 7.565 | 8.32 | 0.00 | 1.200 | 2.217 | 0.33 | 1.178 | 1.41 | 11.8 | 36.7 | 145.9 |
| 95.00 | | 1.00 | 1.25 | 7.612 | 8.37 | 0.00 | 1.200 | 2.223 | 2.75 | 9.762 | 11.71 | 98.1 | 302.9 | 717.9 |
| 100.00 | | 1.00 | 1.27 | 7.695 | 8.46 | 0.00 | 1.200 | 2.234 | 5.00 | 17.486 | 20.98 | 177.6 | 542.1 | 1283.5 |
| 105.00 | | 1.00 | 1.28 | 7.774 | 8.55 | 0.00 | 1.200 | 2.245 | 5.00 | 17.144 | 20.57 | 175.9 | 533.2 | 1257.9 |
| 105.58 | RT3 | 1.00 | 1.28 | 7.783 | 8.56 | 0.00 | 1.200 | 2.247 | 0.58 | 1.966 | 2.36 | 20.2 | 61.7 | 144.7 |
| 110.00 | | 1.00 | 1.29 | 7.851 | 8.64 | 0.00 | 1.200 | 2.256 | 4.42 | 14.834 | 17.80 | 153.7 | 463.3 | 1088.2 |
| 115.00 | | 1.00 | 1.30 | 7.925 | 8.72 | 0.00 | 1.200 | 2.266 | 5.00 | 16.458 | 19.75 | 172.2 | 514.8 | 1205.8 |
| 120.00 | | 1.00 | 1.32 | 7.996 | 8.80 | 0.00 | 1.200 | 2.276 | 5.00 | 16.115 | 19.34 | 170.1 | 505.3 | 1179.5 |
| 125.00 | | 1.00 | 1.33 | 8.065 | 8.87 | 0.00 | 1.200 | 2.285 | 5.00 | 15.772 | 18.93 | 167.9 | 495.6 | 1153.0 |
| 130.00 | | 1.00 | 1.34 | 8.132 | 8.95 | 0.00 | 1.200 | 2.294 | 5.00 | 15.428 | 18.51 | 165.6 | 485.7 | 1126.3 |
| 132.50 | Bot - Section 4 | 1.00 | 1.34 | 8.165 | 8.98 | 0.00 | 1.200 | 2.298 | 2.50 | 7.584 | 9.10 | 81.7 | 240.4 | 554.4 |
| 135.00 | | 1.00 | 1.35 | 8.197 | 9.02 | 0.00 | 1.200 | 2.303 | 2.50 | 7.591 | 9.11 | 82.1 | 241.0 | 771.5 |
| 136.50 | Top - Section 3 | 1.00 | 1.35 | 8.216 | 9.04 | 0.00 | 1.200 | 2.305 | 1.50 | 4.513 | 5.42 | 48.9 | 143.7 | 458.5 |
| 140.00 | | 1.00 | 1.36 | 8.260 | 9.09 | 0.00 | 1.200 | 2.311 | 3.50 | 10.411 | 12.49 | 113.5 | 330.3 | 631.8 |
| 145.00 | | 1.00 | 1.37 | 8.321 | 9.15 | 0.00 | 1.200 | 2.319 | 5.00 | 14.581 | 17.50 | 160.1 | 461.6 | 882.3 |
| 148.00 | Appurtenance(s) | 1.00 | 1.37 | 8.357 | 9.19 | 0.00 | 1.200 | 2.324 | 3.00 | 8.582 | 10.30 | 94.7 | 273.2 | 520.0 |
| 150.00 | | 1.00 | 1.38 | 8.381 | 9.22 | 0.00 | 1.200 | 2.327 | 2.00 | 5.652 | 6.78 | 62.5 | 180.5 | 342.6 |
| 155.00 | | 1.00 | 1.39 | 8.439 | 9.28 | 0.00 | 1.200 | 2.335 | 5.00 | 13.891 | 16.67 | 154.7 | 440.6 | 837.8 |
| 158.00 | Appurtenance(s) | 1.00 | 1.39 | 8.473 | 9.32 | 0.00 | 1.200 | 2.339 | 3.00 | 8.168 | 9.80 | 91.4 | 260.5 | 493.2 |
| 160.00 | | 1.00 | 1.40 | 8.495 | 9.34 | 0.00 | 1.200 | 2.342 | 2.00 | 5.376 | 6.45 | 60.3 | 172.0 | 324.7 |

Wind Loading - Shaft

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C



Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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| | | | | | | | | | | | | | |
|------------------------|------|------|-------|------|------|-------|-------|---------------|--------|-------|----------------|-------|-----------------|
| 165.00 | 1.00 | 1.41 | 8.551 | 9.41 | 0.00 | 1.200 | 2.349 | 5.00 | 13.201 | 15.84 | 149.0 | 419.2 | 792.8 |
| 168.00 Appurtenance(s) | 1.00 | 1.41 | 8.583 | 9.44 | 0.00 | 1.200 | 2.353 | 3.00 | 7.754 | 9.30 | 87.8 | 247.6 | 466.1 |
| 168.50 Appurtenance(s) | 1.00 | 1.41 | 8.588 | 9.45 | 0.00 | 1.200 | 2.354 | 0.50 | 1.280 | 1.54 | 14.5 | 41.2 | 77.2 |
| 170.00 | 1.00 | 1.42 | 8.604 | 9.46 | 0.00 | 1.200 | 2.356 | 1.50 | 3.820 | 4.58 | 43.4 | 122.5 | 229.8 |
| 175.00 | 1.00 | 1.42 | 8.657 | 9.52 | 0.00 | 1.200 | 2.363 | 5.00 | 12.510 | 15.01 | 143.0 | 397.2 | 747.4 |
| 178.00 Top - Section 4 | 1.00 | 1.43 | 8.688 | 9.56 | 0.00 | 1.200 | 2.367 | 3.00 | 7.339 | 8.81 | 84.2 | 234.4 | 438.8 |
| 180.00 | 1.00 | 1.43 | 8.709 | 9.58 | 0.00 | 1.200 | 2.370 | 2.00 | 4.852 | 5.82 | 55.8 | 156.4 | 272.2 |
| 184.00 Appurtenance(s) | 1.00 | 1.44 | 8.749 | 9.62 | 0.00 | 1.200 | 2.375 | 4.00 | 9.707 | 11.65 | 112.1 | 313.6 | 545.1 |
| 185.00 | 1.00 | 1.44 | 8.759 | 9.63 | 0.00 | 1.200 | 2.376 | 1.00 | 2.427 | 2.91 | 28.1 | 78.4 | 136.3 |
| 187.00 Appurtenance(s) | 1.00 | 1.44 | 8.779 | 9.66 | 0.00 | 1.200 | 2.379 | 2.00 | 4.855 | 5.83 | 56.3 | 157.1 | 272.8 |
| 188.00 | 1.00 | 1.45 | 8.789 | 9.67 | 0.00 | 1.200 | 2.380 | 1.00 | 2.428 | 2.91 | 28.2 | 78.6 | 136.4 |
| Totals: | | | | | | | | 188.00 | | | 6,248.6 | | 53,469.6 |

Discrete Appurtenance Forces

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

8/7/2018



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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



| No. | Elev (ft) | Description | Qty | qz (psf) | qzGh (psf) | CaAa 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 | 187.00 | Commscope | 3 | 8.779 | 9.657 | 0.60 | 0.75 | 28.66 | 920.55 | 0.000 | 0.000 | 276.77 | 0.00 | 0.00 |
| 2 | 187.00 | Ericsson KRY 112 114-1 | 12 | 8.779 | 9.657 | 0.50 | 0.75 | 6.38 | 297.55 | 0.000 | 0.000 | 61.58 | 0.00 | 0.00 |
| 3 | 187.00 | Kathrein 782 11054-Smart | 3 | 8.779 | 9.657 | 0.50 | 0.75 | 1.35 | 10.02 | 0.000 | 0.000 | 13.01 | 0.00 | 0.00 |
| 4 | 187.00 | B12 | 3 | 8.779 | 9.657 | 0.75 | 0.75 | 7.76 | 401.98 | 0.000 | 0.000 | 74.97 | 0.00 | 0.00 |
| 5 | 187.00 | Ericsson | 3 | 8.779 | 9.657 | 0.75 | 0.75 | 18.17 | 1275.89 | 0.000 | 0.000 | 175.44 | 0.00 | 0.00 |
| 6 | 187.00 | RFS | 3 | 8.779 | 9.657 | 0.75 | 0.75 | 51.45 | 2249.48 | 0.000 | 0.000 | 496.80 | 0.00 | 0.00 |
| 7 | 187.00 | Ericsson Radio 4449 B71 | 3 | 8.779 | 9.657 | 0.75 | 0.75 | 5.43 | 557.89 | 0.000 | 0.000 | 52.41 | 0.00 | 0.00 |
| 8 | 184.00 | Platform w/ Hand Rail | 1 | 8.749 | 9.624 | 1.00 | 1.00 | 70.00 | 4177.58 | 0.000 | 0.000 | 673.67 | 0.00 | 0.00 |
| 9 | 168.50 | Low Profile Platform | 1 | 8.588 | 9.447 | 1.00 | 1.00 | 45.82 | 3265.63 | 0.000 | 0.000 | 432.91 | 0.00 | 0.00 |
| 10 | 168.00 | APXV9ERR18-C-A20 | 1 | 8.583 | 9.441 | 0.66 | 0.80 | 7.83 | 267.23 | 0.000 | 0.000 | 73.90 | 0.00 | 0.00 |
| 11 | 168.00 | ACU-A20-N | 4 | 8.583 | 9.441 | 0.80 | 0.80 | 1.73 | 22.77 | 0.000 | 0.000 | 16.32 | 0.00 | 0.00 |
| 12 | 168.00 | TD-RRH8x20-25 | 3 | 8.583 | 9.441 | 0.54 | 0.80 | 8.32 | 732.06 | 0.000 | 0.000 | 78.58 | 0.00 | 0.00 |
| 13 | 168.00 | 800 MHz RRH | 3 | 8.583 | 9.441 | 0.54 | 0.80 | 7.36 | 435.22 | 0.000 | 0.000 | 69.51 | 0.00 | 0.00 |
| 14 | 168.00 | 1900 MHz RRH | 3 | 8.583 | 9.441 | 0.54 | 0.80 | 7.36 | 373.26 | 0.000 | 0.000 | 69.51 | 0.00 | 0.00 |
| 15 | 168.00 | 800 MHz Filters | 3 | 8.583 | 9.441 | 0.54 | 0.80 | 7.36 | 435.22 | 0.000 | 0.000 | 69.51 | 0.00 | 0.00 |
| 16 | 168.00 | APXVSPP18-C-A20 | 2 | 8.583 | 9.441 | 0.66 | 0.80 | 15.65 | 503.99 | 0.000 | 0.000 | 147.79 | 0.00 | 0.00 |
| 17 | 168.00 | APXVTM14-C-120 | 3 | 8.583 | 9.441 | 0.63 | 0.80 | 14.93 | 896.98 | 0.000 | 0.000 | 140.97 | 0.00 | 0.00 |
| 18 | 158.00 | LGP21401 | 6 | 8.473 | 9.320 | 0.54 | 0.80 | 7.62 | 258.60 | 0.000 | 0.000 | 71.02 | 0.00 | 0.00 |
| 19 | 158.00 | T-Arm | 3 | 8.473 | 9.320 | 0.50 | 0.75 | 26.16 | 1562.07 | 0.000 | 0.000 | 243.86 | 0.00 | 0.00 |
| 20 | 158.00 | P65-17-XLH-RR | 2 | 8.473 | 9.320 | 0.60 | 0.80 | 18.93 | 598.22 | 0.000 | 0.000 | 176.43 | 0.00 | 0.00 |
| 21 | 158.00 | DC-48-60-18-8F | 1 | 8.473 | 9.320 | 0.80 | 0.80 | 1.93 | 103.32 | 0.000 | 0.000 | 17.95 | 0.00 | 0.00 |
| 22 | 158.00 | RRUS-11 | 6 | 8.473 | 9.320 | 0.54 | 0.80 | 11.00 | 1138.67 | 0.000 | 0.000 | 102.49 | 0.00 | 0.00 |
| 23 | 158.00 | 7770 | 3 | 8.473 | 9.320 | 0.58 | 0.80 | 12.19 | 712.28 | 0.000 | 0.000 | 113.64 | 0.00 | 0.00 |
| 24 | 158.00 | SBNH-1D6565C | 1 | 8.473 | 9.320 | 0.64 | 0.80 | 10.13 | 321.53 | 0.000 | 0.000 | 94.41 | 0.00 | 0.00 |
| 25 | 148.00 | 742 213 | 3 | 8.357 | 9.193 | 0.58 | 0.80 | 11.89 | 579.73 | 0.000 | 0.000 | 109.34 | 0.00 | 0.00 |
| 26 | 148.00 | Flush Mount | 1 | 8.357 | 9.193 | 1.00 | 1.00 | 9.65 | 272.32 | 0.000 | 0.000 | 88.69 | 0.00 | 0.00 |

Totals: 22,370.04

3,941.48

Total Applied Force Summary

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

8/7/2018



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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



| 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 |
| 0.25 | | 7.81 | 107.59 | 0.00 | 0.00 |
| 5.00 | | 149.62 | 2203.59 | 0.00 | 0.00 |
| 10.00 | | 155.83 | 2340.03 | 0.00 | 0.00 |
| 15.00 | | 153.85 | 2339.29 | 0.00 | 0.00 |
| 20.00 | | 161.03 | 2329.51 | 0.00 | 0.00 |
| 25.00 | | 166.38 | 2314.53 | 0.00 | 0.00 |
| 30.00 | | 170.36 | 2296.12 | 0.00 | 0.00 |
| 32.83 | | 97.09 | 1290.18 | 0.00 | 0.00 |
| 35.00 | | 74.87 | 984.58 | 0.00 | 0.00 |
| 40.00 | | 175.51 | 2201.19 | 0.00 | 0.00 |
| 43.25 | | 114.44 | 1413.87 | 0.00 | 0.00 |
| 45.00 | | 62.59 | 1141.28 | 0.00 | 0.00 |
| 48.92 | | 141.42 | 2563.96 | 0.00 | 0.00 |
| 49.00 | | 2.87 | 52.41 | 0.00 | 0.00 |
| 50.00 | | 35.94 | 409.75 | 0.00 | 0.00 |
| 55.00 | | 181.58 | 2033.96 | 0.00 | 0.00 |
| 60.00 | | 181.87 | 2010.29 | 0.00 | 0.00 |
| 65.00 | | 181.84 | 1985.91 | 0.00 | 0.00 |
| 70.00 | | 181.51 | 1960.90 | 0.00 | 0.00 |
| 75.00 | | 180.93 | 1935.35 | 0.00 | 0.00 |
| 76.83 | | 65.73 | 702.53 | 0.00 | 0.00 |
| 80.00 | | 113.80 | 1198.72 | 0.00 | 0.00 |
| 85.00 | | 179.09 | 1819.31 | 0.00 | 0.00 |
| 87.50 | | 88.82 | 900.31 | 0.00 | 0.00 |
| 90.00 | | 89.81 | 1283.21 | 0.00 | 0.00 |
| 91.92 | | 68.70 | 999.60 | 0.00 | 0.00 |
| 92.25 | | 11.77 | 171.78 | 0.00 | 0.00 |
| 95.00 | | 98.09 | 934.32 | 0.00 | 0.00 |
| 100.00 | | 177.61 | 1678.42 | 0.00 | 0.00 |
| 105.00 | | 175.93 | 1654.00 | 0.00 | 0.00 |
| 105.58 | | 20.20 | 190.67 | 0.00 | 0.00 |
| 110.00 | | 153.73 | 1403.17 | 0.00 | 0.00 |
| 115.00 | | 172.17 | 1537.97 | 0.00 | 0.00 |
| 120.00 | | 170.09 | 1512.37 | 0.00 | 0.00 |
| 125.00 | | 167.90 | 1486.56 | 0.00 | 0.00 |
| 130.00 | | 165.61 | 1460.56 | 0.00 | 0.00 |
| 132.50 | | 81.74 | 721.64 | 0.00 | 0.00 |
| 135.00 | | 82.13 | 938.91 | 0.00 | 0.00 |
| 136.50 | | 48.94 | 559.07 | 0.00 | 0.00 |
| 140.00 | | 113.51 | 866.69 | 0.00 | 0.00 |
| 145.00 | | 160.15 | 1218.44 | 0.00 | 0.00 |
| 148.00 | (4) attachments | 292.70 | 1573.93 | 0.00 | 0.00 |
| 150.00 | | 62.53 | 402.19 | 0.00 | 0.00 |
| 155.00 | | 154.73 | 986.68 | 0.00 | 0.00 |
| 158.00 | (22) attachments | 911.15 | 5277.22 | 0.00 | 0.00 |
| 160.00 | | 60.29 | 359.99 | 0.00 | 0.00 |

Total Applied Force Summary

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C

Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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| | | | | | |
|----------------|------------------|------------------|------------------|-------------|-------------|
| 165.00 | | 148.99 | 880.95 | 0.00 | 0.00 |
| 168.00 | (22) attachments | 753.93 | 4185.74 | 0.00 | 0.00 |
| 168.50 | (1) attachments | 447.42 | 3350.28 | 0.00 | 0.00 |
| 170.00 | | 43.38 | 252.25 | 0.00 | 0.00 |
| 175.00 | | 142.95 | 822.18 | 0.00 | 0.00 |
| 178.00 | | 84.17 | 483.67 | 0.00 | 0.00 |
| 180.00 | | 55.77 | 302.08 | 0.00 | 0.00 |
| 184.00 | (1) attachments | 785.77 | 4782.49 | 0.00 | 0.00 |
| 185.00 | | 28.06 | 151.27 | 0.00 | 0.00 |
| 187.00 | (30) attachments | 1207.25 | 6016.08 | 0.00 | 0.00 |
| 188.00 | | 28.16 | 136.45 | 0.00 | 0.00 |
| Totals: | | 10,190.11 | 87,116.00 | 0.00 | 0.00 |

Linear Appurtenance Segment Forces (Factored)

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C

Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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

Dead Load Factor 1.20

Wind Load Factor 1.00



Iterations

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) |
|---------------|-------------------|--------------|-------------|-------|--------------------|-------------|-------------|-------|------------------|----------|----------|----------------|
| 0.25 | 1 5/8" Coax | Yes | 0.25 | 0.000 | 1.98 | 0.09 | 0.00 | 0.062 | 0.000 | 5.168 | 0.00 | 5.66 |
| 0.25 | 1.25" Reinforcing | Yes | 0.25 | 0.000 | 1.25 | 0.08 | 0.00 | 0.062 | 0.000 | 5.168 | 0.00 | 1.45 |
| 5.00 | 1 5/8" Coax | Yes | 4.75 | 0.000 | 1.98 | 2.09 | 0.00 | 0.062 | 0.000 | 5.168 | 0.00 | 133.49 |
| 5.00 | 1.25" Reinforcing | Yes | 4.75 | 0.000 | 1.25 | 1.81 | 0.00 | 0.062 | 0.000 | 5.168 | 0.00 | 40.72 |
| 10.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.30 | 0.00 | 0.063 | 0.000 | 5.168 | 0.00 | 148.50 |
| 10.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.00 | 0.00 | 0.063 | 0.000 | 5.168 | 0.00 | 47.08 |
| 15.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.37 | 0.00 | 0.064 | 0.000 | 5.168 | 0.00 | 153.52 |
| 15.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.06 | 0.00 | 0.064 | 0.000 | 5.168 | 0.00 | 49.78 |
| 20.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.41 | 0.00 | 0.065 | 0.000 | 5.483 | 0.00 | 157.25 |
| 20.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.11 | 0.00 | 0.065 | 0.000 | 5.483 | 0.00 | 51.80 |
| 25.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.45 | 0.00 | 0.066 | 0.000 | 5.747 | 0.00 | 160.24 |
| 25.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.14 | 0.00 | 0.066 | 0.000 | 5.747 | 0.00 | 53.44 |
| 30.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.48 | 0.00 | 0.067 | 0.000 | 5.972 | 0.00 | 162.75 |
| 30.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.17 | 0.00 | 0.067 | 0.000 | 5.972 | 0.00 | 54.82 |
| 32.83 | 1 5/8" Coax | Yes | 2.83 | 0.000 | 1.98 | 1.41 | 0.00 | 0.068 | 0.000 | 6.087 | 0.00 | 92.83 |
| 32.83 | 1.25" Reinforcing | Yes | 2.83 | 0.000 | 1.25 | 1.24 | 0.00 | 0.068 | 0.000 | 6.087 | 0.00 | 31.42 |
| 35.00 | 1 5/8" Coax | Yes | 2.17 | 0.000 | 1.98 | 1.09 | 0.00 | 0.069 | 0.000 | 6.169 | 0.00 | 71.58 |
| 35.00 | 1.25" Reinforcing | Yes | 2.17 | 0.000 | 1.25 | 0.95 | 0.00 | 0.069 | 0.000 | 6.169 | 0.00 | 24.31 |
| 40.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.52 | 0.00 | 0.046 | 0.000 | 6.345 | 0.00 | 166.84 |
| 40.00 | 1.25" Reinforcing | Yes | 0.50 | 0.000 | 1.25 | 0.22 | 0.00 | 0.046 | 0.000 | 6.345 | 0.00 | 5.71 |
| 43.25 | 1 5/8" Coax | Yes | 3.25 | 0.000 | 1.98 | 1.65 | 0.00 | 0.043 | 0.000 | 6.450 | 0.00 | 109.19 |
| 45.00 | 1 5/8" Coax | Yes | 1.75 | 0.000 | 1.98 | 0.89 | 0.00 | 0.044 | 0.000 | 6.504 | 0.00 | 59.00 |
| 48.92 | 1 5/8" Coax | Yes | 3.92 | 0.000 | 1.98 | 2.01 | 0.00 | 0.062 | 0.000 | 6.620 | 0.00 | 133.12 |
| 48.92 | 1.25" Reinforcing | Yes | 2.42 | 0.000 | 1.25 | 1.09 | 0.00 | 0.062 | 0.000 | 6.620 | 0.00 | 28.43 |
| 49.00 | 1 5/8" Coax | Yes | 0.08 | 0.000 | 1.98 | 0.04 | 0.00 | 0.073 | 0.000 | 6.622 | 0.00 | 2.72 |
| 49.00 | 1.25" Reinforcing | Yes | 0.08 | 0.000 | 1.25 | 0.04 | 0.00 | 0.073 | 0.000 | 6.622 | 0.00 | 0.94 |
| 50.00 | 1 5/8" Coax | Yes | 1.00 | 0.000 | 1.98 | 0.51 | 0.00 | 0.072 | 0.000 | 6.650 | 0.00 | 34.03 |
| 50.00 | 1.25" Reinforcing | Yes | 1.00 | 0.000 | 1.25 | 0.45 | 0.00 | 0.072 | 0.000 | 6.650 | 0.00 | 11.78 |
| 55.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.58 | 0.00 | 0.073 | 0.000 | 6.785 | 0.00 | 171.56 |
| 55.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.27 | 0.00 | 0.073 | 0.000 | 6.785 | 0.00 | 59.71 |
| 60.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.59 | 0.00 | 0.074 | 0.000 | 6.910 | 0.00 | 172.89 |
| 60.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.29 | 0.00 | 0.074 | 0.000 | 6.910 | 0.00 | 60.46 |
| 65.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.61 | 0.00 | 0.076 | 0.000 | 7.028 | 0.00 | 174.12 |
| 65.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.30 | 0.00 | 0.076 | 0.000 | 7.028 | 0.00 | 61.15 |
| 70.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.62 | 0.00 | 0.077 | 0.000 | 7.138 | 0.00 | 175.27 |
| 70.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.32 | 0.00 | 0.077 | 0.000 | 7.138 | 0.00 | 61.80 |
| 75.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.63 | 0.00 | 0.079 | 0.000 | 7.243 | 0.00 | 176.36 |
| 75.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.33 | 0.00 | 0.079 | 0.000 | 7.243 | 0.00 | 62.41 |
| 76.83 | 1 5/8" Coax | Yes | 1.83 | 0.000 | 1.98 | 0.97 | 0.00 | 0.080 | 0.000 | 7.280 | 0.00 | 64.69 |
| 76.83 | 1.25" Reinforcing | Yes | 1.83 | 0.000 | 1.25 | 0.85 | 0.00 | 0.080 | 0.000 | 7.280 | 0.00 | 22.92 |
| 80.00 | 1 5/8" Coax | Yes | 3.17 | 0.000 | 1.98 | 1.68 | 0.00 | 0.073 | 0.000 | 7.342 | 0.00 | 112.46 |
| 80.00 | 1.25" Reinforcing | Yes | 2.42 | 0.000 | 1.25 | 1.13 | 0.00 | 0.073 | 0.000 | 7.342 | 0.00 | 30.49 |
| 85.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.66 | 0.00 | 0.050 | 0.000 | 7.436 | 0.00 | 178.35 |
| 87.50 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 1.33 | 0.00 | 0.051 | 0.000 | 7.482 | 0.00 | 89.41 |
| 90.00 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 1.33 | 0.00 | 0.052 | 0.000 | 7.526 | 0.00 | 89.64 |
| 91.92 | 1 5/8" Coax | Yes | 1.92 | 0.000 | 1.98 | 1.03 | 0.00 | 0.081 | 0.000 | 7.560 | 0.00 | 68.97 |
| 91.92 | 1.25" Reinforcing | Yes | 1.67 | 0.000 | 1.25 | 0.79 | 0.00 | 0.081 | 0.000 | 7.560 | 0.00 | 21.46 |

Linear Appurtenance Segment Forces (Factored)

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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



| 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) |
|----------------|-------------------|--------------|-------------|-------|--------------------|-------------|-------------|-------|------------------|------------|----------------|----------------|
| 92.25 | 1 5/8" Coax | Yes | 0.33 | 0.000 | 1.98 | 0.18 | 0.00 | 0.086 | 0.000 | 7.565 | 0.00 | 11.86 |
| 92.25 | 1.25" Reinforcing | Yes | 0.33 | 0.000 | 1.25 | 0.16 | 0.00 | 0.086 | 0.000 | 7.565 | 0.00 | 4.24 |
| 95.00 | 1 5/8" Coax | Yes | 2.75 | 0.000 | 1.98 | 1.47 | 0.00 | 0.085 | 0.000 | 7.612 | 0.00 | 99.08 |
| 95.00 | 1.25" Reinforcing | Yes | 2.75 | 0.000 | 1.25 | 1.31 | 0.00 | 0.085 | 0.000 | 7.612 | 0.00 | 35.51 |
| 100.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.69 | 0.00 | 0.086 | 0.000 | 7.695 | 0.00 | 180.99 |
| 100.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.38 | 0.00 | 0.086 | 0.000 | 7.695 | 0.00 | 65.04 |
| 105.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.70 | 0.00 | 0.088 | 0.000 | 7.774 | 0.00 | 181.79 |
| 105.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 2.39 | 0.00 | 0.088 | 0.000 | 7.774 | 0.00 | 65.50 |
| 105.58 | 1 5/8" Coax | Yes | 0.58 | 0.000 | 1.98 | 0.31 | 0.00 | 0.089 | 0.000 | 7.783 | 0.00 | 21.10 |
| 105.58 | 1.25" Reinforcing | Yes | 0.58 | 0.000 | 1.25 | 0.28 | 0.00 | 0.089 | 0.000 | 7.783 | 0.00 | 7.60 |
| 110.00 | 1 5/8" Coax | Yes | 4.42 | 0.000 | 1.98 | 2.39 | 0.00 | 0.069 | 0.000 | 7.851 | 0.00 | 161.39 |
| 110.00 | 1.25" Reinforcing | Yes | 1.67 | 0.000 | 1.25 | 0.80 | 0.00 | 0.069 | 0.000 | 7.851 | 0.00 | 22.02 |
| 115.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.71 | 0.00 | 0.057 | 0.000 | 7.925 | 0.00 | 183.31 |
| 120.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.72 | 0.00 | 0.058 | 0.000 | 7.996 | 0.00 | 184.02 |
| 125.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.73 | 0.00 | 0.059 | 0.000 | 8.065 | 0.00 | 184.71 |
| 130.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.74 | 0.00 | 0.061 | 0.000 | 8.132 | 0.00 | 185.38 |
| 132.50 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 1.37 | 0.00 | 0.062 | 0.000 | 8.165 | 0.00 | 92.85 |
| 135.00 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 1.37 | 0.00 | 0.063 | 0.000 | 8.197 | 0.00 | 93.01 |
| 136.50 | 1 5/8" Coax | Yes | 1.50 | 0.000 | 1.98 | 0.82 | 0.00 | 0.064 | 0.000 | 8.216 | 0.00 | 55.86 |
| 140.00 | 1 5/8" Coax | Yes | 3.50 | 0.000 | 1.98 | 1.93 | 0.00 | 0.064 | 0.000 | 8.260 | 0.00 | 130.65 |
| 145.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 2.76 | 0.00 | 0.065 | 0.000 | 8.321 | 0.00 | 187.25 |
| 148.00 | 1 5/8" Coax | Yes | 3.00 | 0.000 | 1.98 | 1.66 | 0.00 | 0.067 | 0.000 | 8.357 | 0.00 | 112.56 |
| Totals: | | | | | | | | | | 0.0 | 6,112.3 | |

Calculated Forces

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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



| 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 | -87.12 | -10.19 | 0.00 | -1433.8 | 0.00 | 1433.88 | 5035.03 | 2517.52 | 10606.9 | 5311.37 | 0.00 | 0.000 | 0.000 | 0.287 |
| 0.25 | -87.00 | -10.23 | 0.00 | -1431.3 | 0.00 | 1431.33 | 5032.22 | 2516.11 | 10592.3 | 5304.07 | 0.00 | -0.004 | 0.000 | 0.215 |
| 5.00 | -84.79 | -10.18 | 0.00 | -1382.7 | 0.00 | 1382.71 | 4978.38 | 2489.19 | 10316.4 | 5165.91 | 0.03 | -0.065 | 0.000 | 0.213 |
| 10.00 | -82.44 | -10.11 | 0.00 | -1331.8 | 0.00 | 1331.84 | 4920.91 | 2460.46 | 10028.2 | 5021.57 | 0.14 | -0.128 | 0.000 | 0.210 |
| 15.00 | -80.09 | -10.04 | 0.00 | -1281.3 | 0.00 | 1281.30 | 4862.63 | 2431.31 | 9742.31 | 4878.39 | 0.31 | -0.193 | 0.000 | 0.206 |
| 20.00 | -77.75 | -9.96 | 0.00 | -1231.1 | 0.00 | 1231.11 | 4803.53 | 2401.76 | 9458.77 | 4736.42 | 0.54 | -0.257 | 0.000 | 0.203 |
| 25.00 | -75.42 | -9.86 | 0.00 | -1181.3 | 0.00 | 1181.34 | 4743.61 | 2371.81 | 9177.73 | 4595.68 | 0.85 | -0.323 | 0.000 | 0.200 |
| 30.00 | -73.12 | -9.74 | 0.00 | -1132.0 | 0.00 | 1132.02 | 4682.88 | 2341.44 | 8899.25 | 4456.24 | 1.22 | -0.388 | 0.000 | 0.196 |
| 32.83 | -71.82 | -9.68 | 0.00 | -1104.4 | 0.00 | 1104.45 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 1.46 | -0.426 | 0.000 | 0.195 |
| 32.83 | -71.82 | -9.68 | 0.00 | -1104.4 | 0.00 | 1104.45 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 1.46 | -0.426 | 0.000 | 0.195 |
| 35.00 | -70.83 | -9.67 | 0.00 | -1083.4 | 0.00 | 1083.44 | 4621.33 | 2310.66 | 8623.42 | 4318.12 | 1.66 | -0.455 | 0.000 | 0.266 |
| 40.00 | -68.62 | -9.57 | 0.00 | -1035.0 | 0.00 | 1035.08 | 4558.96 | 2279.48 | 8350.33 | 4181.37 | 2.19 | -0.546 | 0.000 | 0.263 |
| 43.25 | -67.20 | -9.49 | 0.00 | -1003.9 | 0.00 | 1003.99 | 4517.98 | 2258.99 | 8174.32 | 4093.24 | 2.58 | -0.606 | 0.000 | 0.260 |
| 45.00 | -66.05 | -9.48 | 0.00 | -987.37 | 0.00 | 987.37 | 4495.78 | 2247.89 | 8080.06 | 4046.03 | 2.81 | -0.639 | 0.000 | 0.259 |
| 48.92 | -63.48 | -9.35 | 0.00 | -950.21 | 0.00 | 950.21 | 4445.67 | 2222.84 | 7870.19 | 3940.94 | 3.36 | -0.712 | 0.000 | 0.185 |
| 49.00 | -63.43 | -9.35 | 0.00 | -949.46 | 0.00 | 949.46 | 3699.57 | 1849.78 | 6681.20 | 3345.56 | 3.37 | -0.713 | 0.000 | 0.197 |
| 50.00 | -63.01 | -9.36 | 0.00 | -940.11 | 0.00 | 940.11 | 3689.91 | 1844.95 | 6638.39 | 3324.13 | 3.52 | -0.727 | 0.000 | 0.211 |
| 55.00 | -60.97 | -9.23 | 0.00 | -893.31 | 0.00 | 893.31 | 3641.14 | 1820.57 | 6425.47 | 3217.51 | 4.32 | -0.799 | 0.000 | 0.206 |
| 60.00 | -58.95 | -9.09 | 0.00 | -847.16 | 0.00 | 847.16 | 3591.55 | 1795.77 | 6214.50 | 3111.87 | 5.20 | -0.872 | 0.000 | 0.201 |
| 65.00 | -56.95 | -8.95 | 0.00 | -801.70 | 0.00 | 801.70 | 3541.14 | 1770.57 | 6005.55 | 3007.24 | 6.15 | -0.944 | 0.000 | 0.195 |
| 70.00 | -54.98 | -8.80 | 0.00 | -756.95 | 0.00 | 756.95 | 3489.91 | 1744.96 | 5798.71 | 2903.67 | 7.18 | -1.016 | 0.000 | 0.190 |
| 75.00 | -53.05 | -8.63 | 0.00 | -712.93 | 0.00 | 712.93 | 3437.87 | 1718.94 | 5594.07 | 2801.19 | 8.28 | -1.088 | 0.000 | 0.184 |
| 76.83 | -52.34 | -8.59 | 0.00 | -697.13 | 0.00 | 697.13 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 8.70 | -1.114 | 0.000 | 0.182 |
| 76.83 | -52.34 | -8.59 | 0.00 | -697.13 | 0.00 | 697.13 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 8.70 | -1.114 | 0.000 | 0.182 |
| 80.00 | -51.13 | -8.52 | 0.00 | -669.91 | 0.00 | 669.91 | 3385.02 | 1692.51 | 5391.70 | 2699.86 | 9.46 | -1.160 | 0.000 | 0.263 |
| 85.00 | -49.30 | -8.37 | 0.00 | -627.33 | 0.00 | 627.33 | 3331.35 | 1665.67 | 5191.69 | 2599.71 | 10.73 | -1.265 | 0.000 | 0.256 |
| 87.50 | -48.40 | -8.30 | 0.00 | -606.41 | 0.00 | 606.41 | 3304.20 | 1652.10 | 5092.60 | 2550.09 | 11.41 | -1.318 | 0.000 | 0.252 |
| 90.00 | -47.11 | -8.22 | 0.00 | -585.65 | 0.00 | 585.65 | 3276.86 | 1638.43 | 4994.13 | 2500.78 | 12.11 | -1.371 | 0.000 | 0.249 |
| 91.92 | -46.11 | -8.15 | 0.00 | -569.87 | 0.00 | 569.87 | 3255.72 | 1627.86 | 4918.94 | 2463.13 | 12.67 | -1.412 | 0.000 | 0.172 |
| 92.25 | -45.94 | -8.15 | 0.00 | -567.18 | 0.00 | 567.18 | 2609.22 | 1304.61 | 4017.17 | 2011.57 | 12.77 | -1.417 | 0.000 | 0.184 |
| 95.00 | -45.00 | -8.08 | 0.00 | -544.77 | 0.00 | 544.77 | 2587.46 | 1293.73 | 3934.74 | 1970.29 | 13.60 | -1.457 | 0.000 | 0.197 |
| 100.00 | -43.31 | -7.91 | 0.00 | -504.39 | 0.00 | 504.39 | 2547.26 | 1273.63 | 3786.04 | 1895.83 | 15.16 | -1.536 | 0.000 | 0.188 |
| 105.00 | -41.66 | -7.72 | 0.00 | -464.83 | 0.00 | 464.83 | 2506.24 | 1253.12 | 3638.92 | 1822.16 | 16.81 | -1.613 | 0.000 | 0.179 |
| 105.58 | -41.46 | -7.72 | 0.00 | -460.35 | 0.00 | 460.35 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 17.01 | -1.622 | 0.000 | 0.178 |
| 105.58 | -41.46 | -7.72 | 0.00 | -460.35 | 0.00 | 460.35 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 17.01 | -1.622 | 0.000 | 0.178 |
| 110.00 | -40.05 | -7.59 | 0.00 | -426.22 | 0.00 | 426.22 | 2464.40 | 1232.20 | 3493.46 | 1749.33 | 18.54 | -1.688 | 0.000 | 0.260 |
| 115.00 | -38.51 | -7.45 | 0.00 | -388.25 | 0.00 | 388.25 | 2421.75 | 1210.87 | 3349.75 | 1677.36 | 20.37 | -1.800 | 0.000 | 0.247 |
| 120.00 | -36.99 | -7.30 | 0.00 | -351.01 | 0.00 | 351.01 | 2378.28 | 1189.14 | 3207.87 | 1606.32 | 22.32 | -1.910 | 0.000 | 0.234 |
| 125.00 | -35.49 | -7.14 | 0.00 | -314.52 | 0.00 | 314.52 | 2333.99 | 1167.00 | 3067.90 | 1536.23 | 24.37 | -2.016 | 0.000 | 0.220 |
| 130.00 | -34.03 | -6.97 | 0.00 | -278.80 | 0.00 | 278.80 | 2288.89 | 1144.45 | 2929.94 | 1467.15 | 26.54 | -2.119 | 0.000 | 0.205 |
| 132.50 | -33.31 | -6.89 | 0.00 | -261.37 | 0.00 | 261.37 | 2266.03 | 1133.02 | 2861.73 | 1432.99 | 27.66 | -2.169 | 0.000 | 0.197 |
| 135.00 | -32.37 | -6.80 | 0.00 | -244.14 | 0.00 | 244.14 | 2239.33 | 1119.66 | 2789.52 | 1396.83 | 28.81 | -2.218 | 0.000 | 0.189 |
| 136.50 | -31.81 | -6.75 | 0.00 | -233.95 | 0.00 | 233.95 | 1414.34 | 707.17 | 1783.76 | 893.21 | 29.51 | -2.247 | 0.000 | 0.284 |
| 140.00 | -30.93 | -6.65 | 0.00 | -210.32 | 0.00 | 210.32 | 1397.90 | 698.95 | 1729.39 | 865.98 | 31.18 | -2.311 | 0.000 | 0.265 |
| 145.00 | -29.71 | -6.49 | 0.00 | -177.06 | 0.00 | 177.06 | 1373.73 | 686.86 | 1652.26 | 827.36 | 33.67 | -2.427 | 0.000 | 0.236 |
| 148.00 | -28.15 | -6.15 | 0.00 | -157.59 | 0.00 | 157.59 | 1358.83 | 679.41 | 1606.31 | 804.35 | 35.21 | -2.492 | 0.000 | 0.217 |
| 150.00 | -27.74 | -6.11 | 0.00 | -145.28 | 0.00 | 145.28 | 1348.73 | 674.37 | 1575.83 | 789.09 | 36.27 | -2.533 | 0.000 | 0.205 |
| 155.00 | -26.75 | -5.94 | 0.00 | -114.75 | 0.00 | 114.75 | 1322.92 | 661.46 | 1500.20 | 751.22 | 38.97 | -2.625 | 0.000 | 0.173 |

Calculated Forces

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C

Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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| 158.00 | -21.52 | -4.80 | 0.00 | -96.93 | 0.00 | 96.93 | 1307.05 | 653.52 | 1455.24 | 728.70 | 40.63 | -2.674 | 0.000 | 0.150 | |
|--------|--------|-------|------|--------|------|-------|---------|--------|---------|--------|-------|--------|-------|-------|--|
| 160.00 | -21.16 | -4.74 | 0.00 | -87.32 | 0.00 | 87.32 | 1296.30 | 648.15 | 1425.45 | 713.78 | 41.76 | -2.704 | 0.000 | 0.139 | |
| 165.00 | -20.28 | -4.57 | 0.00 | -63.62 | 0.00 | 63.62 | 1268.86 | 634.43 | 1351.65 | 676.83 | 44.63 | -2.767 | 0.000 | 0.110 | |
| 168.00 | -16.14 | -3.62 | 0.00 | -49.91 | 0.00 | 49.91 | 1252.00 | 626.00 | 1307.87 | 654.91 | 46.37 | -2.799 | 0.000 | 0.089 | |
| 168.50 | -12.81 | -3.01 | 0.00 | -48.11 | 0.00 | 48.11 | 1249.16 | 624.58 | 1300.61 | 651.27 | 46.67 | -2.804 | 0.000 | 0.084 | |
| 170.00 | -12.56 | -2.96 | 0.00 | -43.60 | 0.00 | 43.60 | 1240.60 | 620.30 | 1278.90 | 640.40 | 47.55 | -2.818 | 0.000 | 0.078 | |
| 175.00 | -11.75 | -2.78 | 0.00 | -28.81 | 0.00 | 28.81 | 1211.52 | 605.76 | 1207.28 | 604.54 | 50.52 | -2.855 | 0.000 | 0.057 | |
| 178.00 | -11.27 | -2.67 | 0.00 | -20.47 | 0.00 | 20.47 | 1193.69 | 596.84 | 1164.89 | 583.31 | 52.32 | -2.871 | 0.000 | 0.045 | |
| 178.00 | -11.27 | -2.67 | 0.00 | -20.47 | 0.00 | 20.47 | 975.84 | 487.92 | 954.81 | 478.11 | 52.32 | -2.871 | 0.000 | 0.054 | |
| 180.00 | -10.97 | -2.60 | 0.00 | -15.12 | 0.00 | 15.12 | 975.84 | 487.92 | 954.81 | 478.11 | 53.52 | -2.880 | 0.000 | 0.043 | |
| 184.00 | -6.23 | -1.58 | 0.00 | -4.70 | 0.00 | 4.70 | 975.84 | 487.92 | 954.81 | 478.11 | 55.94 | -2.891 | 0.000 | 0.016 | |
| 185.00 | -6.08 | -1.54 | 0.00 | -3.12 | 0.00 | 3.12 | 975.84 | 487.92 | 954.81 | 478.11 | 56.55 | -2.892 | 0.000 | 0.013 | |
| 187.00 | -0.13 | -0.03 | 0.00 | -0.03 | 0.00 | 0.03 | 975.84 | 487.92 | 954.81 | 478.11 | 57.76 | -2.893 | 0.000 | 0.000 | |
| 188.00 | 0.00 | -0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 975.84 | 487.92 | 954.81 | 478.11 | 58.37 | -2.893 | 0.000 | 0.000 | |

Seismic Segment Forces (Factored)

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

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Topography: 1

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Load Case: 1.2D + 1.0E



| | | | | | |
|-----------------------------|------|----------------------------|------|----------------------------------|------|
| Gust Response Factor | 1.10 | Sds | 0.19 | Iterations | 26 |
| Dead Load Factor | 1.20 | Seismic Load Factor | 1.00 | Sd1 | 0.10 |
| Wind Load Factor | 0.00 | Structure Frequency | 0.25 | SA | 0.03 |
| | | | | Seismic Importance Factor | 1.00 |

| Top Elev (ft) | Description | Wz (lb) | a | b | c | Lateral Fs (lb) | R: 1.50 |
|----------------------|--------------------|----------------|----------|----------|----------|------------------------|----------------|
| 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.25 | RB1 | 60.58 | 0.00 | 0.00 | 0.00 | 0.08 | |
| 5.00 | | 1141.6 | 0.00 | 0.03 | 0.01 | 20.84 | |
| 10.00 | | 1182.6 | 0.01 | 0.05 | 0.03 | 31.58 | |
| 15.00 | | 1163.0 | 0.01 | 0.06 | 0.03 | 36.30 | |
| 20.00 | | 1143.3 | 0.02 | 0.06 | 0.04 | 38.58 | |
| 25.00 | | 1123.7 | 0.03 | 0.07 | 0.04 | 39.57 | |
| 30.00 | | 1104.1 | 0.05 | 0.07 | 0.04 | 39.93 | |
| 32.83 | RT1 | 616.26 | 0.06 | 0.07 | 0.04 | 22.55 | |
| 35.00 | | 468.28 | 0.07 | 0.07 | 0.04 | 17.28 | |
| 40.00 | | 1064.9 | 0.09 | 0.07 | 0.04 | 40.07 | |
| 43.25 | Bot - Section 2 | 681.69 | 0.10 | 0.07 | 0.04 | 25.98 | |
| 45.00 | | 681.08 | 0.11 | 0.07 | 0.04 | 26.14 | |
| 48.92 | RB2 | 1509.4 | 0.13 | 0.07 | 0.03 | 58.84 | |
| 49.00 | Top - Section 1 | 30.57 | 0.13 | 0.07 | 0.03 | 1.19 | |
| 50.00 | | 177.78 | 0.13 | 0.07 | 0.03 | 6.96 | |
| 55.00 | | 878.82 | 0.16 | 0.07 | 0.03 | 34.98 | |
| 60.00 | | 862.01 | 0.19 | 0.06 | 0.02 | 34.61 | |
| 65.00 | | 845.20 | 0.23 | 0.06 | 0.02 | 33.70 | |
| 70.00 | | 828.39 | 0.26 | 0.05 | 0.02 | 31.93 | |
| 75.00 | | 811.58 | 0.30 | 0.05 | 0.01 | 28.92 | |
| 76.83 | RT2 | 292.84 | 0.32 | 0.04 | 0.01 | 9.98 | |
| 80.00 | | 501.94 | 0.34 | 0.03 | 0.01 | 15.34 | |
| 85.00 | | 777.96 | 0.39 | 0.02 | 0.01 | 17.75 | |
| 87.50 | Bot - Section 3 | 382.68 | 0.41 | 0.02 | 0.01 | 6.85 | |
| 90.00 | | 699.67 | 0.43 | 0.01 | 0.01 | 8.61 | |
| 91.92 | RB3 | 532.12 | 0.45 | 0.00 | 0.01 | 4.07 | |
| 92.25 | Top - Section 2 | 91.00 | 0.46 | 0.00 | 0.01 | 0.62 | |
| 95.00 | | 345.80 | 0.48 | -0.01 | 0.01 | -0.11 | |
| 100.00 | | 617.88 | 0.53 | -0.03 | 0.01 | -8.43 | |
| 105.00 | | 603.87 | 0.59 | -0.05 | 0.01 | -15.58 | |
| 105.58 | RT3 | 69.14 | 0.60 | -0.05 | 0.01 | -1.87 | |
| 110.00 | | 520.72 | 0.65 | -0.07 | 0.02 | -18.41 | |
| 115.00 | | 575.85 | 0.71 | -0.09 | 0.03 | -23.93 | |
| 120.00 | | 561.85 | 0.77 | -0.11 | 0.05 | -24.83 | |
| 125.00 | | 547.84 | 0.84 | -0.12 | 0.06 | -23.78 | |
| 130.00 | | 533.83 | 0.90 | -0.12 | 0.09 | -21.01 | |
| 132.50 | Bot - Section 4 | 261.66 | 0.94 | -0.12 | 0.10 | -9.46 | |
| 135.00 | | 442.05 | 0.97 | -0.12 | 0.12 | -14.23 | |
| 136.50 | Top - Section 3 | 262.37 | 1.00 | -0.11 | 0.13 | -7.72 | |
| 140.00 | | 251.27 | 1.05 | -0.09 | 0.16 | -5.52 | |
| 145.00 | | 350.62 | 1.12 | -0.06 | 0.20 | -3.08 | |
| 148.00 | Appurtenance(s) | 421.66 | 1.17 | -0.02 | 0.23 | 0.23 | |
| 150.00 | | 135.15 | 1.20 | 0.01 | 0.26 | 1.00 | |
| 155.00 | | 331.00 | 1.28 | 0.10 | 0.32 | 8.80 | |
| 158.00 | Appurtenance(s) | 1823.9 | 1.33 | 0.17 | 0.37 | 72.18 | |

Seismic Segment Forces (Factored)

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

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| 160.00 | | 127.30 | 1.37 | 0.23 | 0.40 | 6.22 |
|----------------|-----------------|-----------------|------|------|----------------|-----------------------------|
| 165.00 | | 311.39 | 1.46 | 0.40 | 0.49 | 23.11 |
| 168.00 | Appurtenance(s) | 1196.1 | 1.51 | 0.52 | 0.55 | 108.83 |
| 168.50 | Appurtenance(s) | 1530.0 | 1.52 | 0.55 | 0.56 | 143.65 |
| 170.00 | | 89.44 | 1.55 | 0.62 | 0.60 | 9.19 |
| 175.00 | | 291.77 | 1.64 | 0.90 | 0.72 | 39.28 |
| 178.00 | Top - Section 4 | 170.35 | 1.69 | 1.10 | 0.81 | 26.46 |
| 180.00 | | 96.44 | 1.73 | 1.25 | 0.87 | 16.37 |
| 184.00 | Appurtenance(s) | 1792.8 | 1.81 | 1.59 | 1.00 | 359.16 |
| 185.00 | | 48.22 | 1.83 | 1.68 | 1.03 | 10.04 |
| 187.00 | Appurtenance(s) | 1523.8 | 1.87 | 1.88 | 1.10 | 342.39 |
| 188.00 | | 48.22 | 1.89 | 1.98 | 1.14 | 11.24 |
| Totals: | | 35,535.9 | | | 1,633.4 | |
| | | | | | | Total Wind: 30,312.5 |

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

Calculated Forces

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

8/7/2018



Topography: 1

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Load Case: 1.2D + 1.0E



| | | | | | |
|-----------------------------|------|----------------------------|------|-------------------|------|
| Gust Response Factor | 1.10 | Sds | 0.19 | Iterations | 26 |
| Dead Load Factor | 1.20 | Sd1 | 0.10 | Ss | 0.17 |
| Wind Load Factor | 0.00 | Structure Frequency | 0.25 | S1 | 0.06 |

| Seg Elev (ft) | Pu FY (-) (kips) | Vu FX (-) (kips) | Tu MY (-) (ft-kips) | Mu MZ (ft-kips) | Mu MX (ft-kips) | Resultant Moment (ft-kips) | phi Pn (kips) | phi Vn (kips) | phi Tn (ft-kips) | phi Mn (ft-kips) | Total Deflect (in) | Rotation Sway (deg) | Rotation Twist (deg) | Stress Ratio |
|---------------|------------------|------------------|---------------------|-----------------|-----------------|----------------------------|---------------|---------------|------------------|------------------|--------------------|---------------------|----------------------|--------------|
| 0.00 | -48.92 | -1.81 | 0.00 | -252.96 | 0.00 | 252.96 | 5035.03 | 2517.52 | 10606.9 | 5311.37 | 0.00 | 0.00 | 0.00 | 0.057 |
| 0.25 | -48.83 | -1.81 | 0.00 | -252.51 | 0.00 | 252.51 | 5032.22 | 2516.11 | 10592.3 | 5304.07 | 0.00 | 0.00 | 0.00 | 0.043 |
| 5.00 | -47.29 | -1.80 | 0.00 | -243.89 | 0.00 | 243.89 | 4978.38 | 2489.19 | 10316.4 | 5165.91 | 0.01 | -0.01 | 0.042 | |
| 10.00 | -45.68 | -1.78 | 0.00 | -234.87 | 0.00 | 234.87 | 4920.91 | 2460.46 | 10028.2 | 5021.57 | 0.02 | -0.02 | 0.042 | |
| 15.00 | -44.10 | -1.75 | 0.00 | -225.97 | 0.00 | 225.97 | 4862.63 | 2431.31 | 9742.31 | 4878.39 | 0.05 | -0.03 | 0.041 | |
| 20.00 | -42.54 | -1.72 | 0.00 | -217.22 | 0.00 | 217.22 | 4803.53 | 2401.76 | 9458.77 | 4736.42 | 0.10 | -0.05 | 0.040 | |
| 25.00 | -41.00 | -1.69 | 0.00 | -208.62 | 0.00 | 208.62 | 4743.61 | 2371.81 | 9177.73 | 4595.68 | 0.15 | -0.06 | 0.040 | |
| 30.00 | -39.49 | -1.65 | 0.00 | -200.18 | 0.00 | 200.18 | 4682.88 | 2341.44 | 8899.25 | 4456.24 | 0.22 | -0.07 | 0.039 | |
| 32.83 | -38.65 | -1.63 | 0.00 | -195.50 | 0.00 | 195.50 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 0.26 | -0.08 | 0.039 | |
| 32.83 | -38.65 | -1.63 | 0.00 | -195.50 | 0.00 | 195.50 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 0.26 | -0.08 | 0.039 | |
| 35.00 | -38.00 | -1.62 | 0.00 | -191.96 | 0.00 | 191.96 | 4621.33 | 2310.66 | 8623.42 | 4318.12 | 0.29 | -0.08 | 0.053 | |
| 40.00 | -36.54 | -1.59 | 0.00 | -183.85 | 0.00 | 183.85 | 4558.96 | 2279.48 | 8350.33 | 4181.37 | 0.39 | -0.10 | 0.052 | |
| 43.25 | -35.60 | -1.57 | 0.00 | -178.69 | 0.00 | 178.69 | 4517.98 | 2258.99 | 8174.32 | 4093.24 | 0.46 | -0.11 | 0.052 | |
| 45.00 | -34.72 | -1.54 | 0.00 | -175.95 | 0.00 | 175.95 | 4495.78 | 2247.89 | 8080.06 | 4046.03 | 0.50 | -0.11 | 0.051 | |
| 48.92 | -32.76 | -1.48 | 0.00 | -169.90 | 0.00 | 169.90 | 4445.67 | 2222.84 | 7870.19 | 3940.94 | 0.59 | -0.13 | 0.037 | |
| 49.00 | -32.72 | -1.48 | 0.00 | -169.78 | 0.00 | 169.78 | 3699.57 | 1849.78 | 6681.20 | 3345.56 | 0.60 | -0.13 | 0.039 | |
| 50.00 | -32.47 | -1.48 | 0.00 | -168.30 | 0.00 | 168.30 | 3689.91 | 1844.95 | 6638.39 | 3324.13 | 0.62 | -0.13 | 0.042 | |
| 55.00 | -31.23 | -1.45 | 0.00 | -160.90 | 0.00 | 160.90 | 3641.14 | 1820.57 | 6425.47 | 3217.51 | 0.76 | -0.14 | 0.041 | |
| 60.00 | -30.01 | -1.42 | 0.00 | -153.65 | 0.00 | 153.65 | 3591.55 | 1795.77 | 6214.50 | 3111.87 | 0.92 | -0.15 | 0.040 | |
| 65.00 | -28.81 | -1.39 | 0.00 | -146.56 | 0.00 | 146.56 | 3541.14 | 1770.57 | 6005.55 | 3007.24 | 1.09 | -0.17 | 0.039 | |
| 70.00 | -27.63 | -1.36 | 0.00 | -139.61 | 0.00 | 139.61 | 3489.91 | 1744.96 | 5798.71 | 2903.67 | 1.27 | -0.18 | 0.038 | |
| 75.00 | -26.47 | -1.33 | 0.00 | -132.82 | 0.00 | 132.82 | 3437.87 | 1718.94 | 5594.07 | 2801.19 | 1.47 | -0.19 | 0.038 | |
| 76.83 | -26.05 | -1.32 | 0.00 | -130.38 | 0.00 | 130.38 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 1.54 | -0.20 | 0.037 | |
| 76.83 | -26.05 | -1.32 | 0.00 | -130.38 | 0.00 | 130.38 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 1.54 | -0.20 | 0.037 | |
| 80.00 | -25.33 | -1.31 | 0.00 | -126.19 | 0.00 | 126.19 | 3385.02 | 1692.51 | 5391.70 | 2699.86 | 1.68 | -0.21 | 0.054 | |
| 85.00 | -24.21 | -1.30 | 0.00 | -119.64 | 0.00 | 119.64 | 3331.35 | 1665.67 | 5191.69 | 2599.71 | 1.91 | -0.23 | 0.053 | |
| 87.50 | -23.65 | -1.29 | 0.00 | -116.40 | 0.00 | 116.40 | 3304.20 | 1652.10 | 5092.60 | 2550.09 | 2.03 | -0.24 | 0.053 | |
| 90.00 | -22.72 | -1.28 | 0.00 | -113.17 | 0.00 | 113.17 | 3276.86 | 1638.43 | 4994.13 | 2500.78 | 2.16 | -0.25 | 0.052 | |
| 91.92 | -22.01 | -1.28 | 0.00 | -110.71 | 0.00 | 110.71 | 3255.72 | 1627.86 | 4918.94 | 2463.13 | 2.26 | -0.26 | 0.036 | |
| 92.25 | -21.89 | -1.28 | 0.00 | -110.29 | 0.00 | 110.29 | 2609.22 | 1304.61 | 4017.17 | 2011.57 | 2.28 | -0.26 | 0.039 | |
| 95.00 | -21.37 | -1.28 | 0.00 | -106.78 | 0.00 | 106.78 | 2587.46 | 1293.73 | 3934.74 | 1970.29 | 2.43 | -0.27 | 0.042 | |
| 100.00 | -20.44 | -1.28 | 0.00 | -100.39 | 0.00 | 100.39 | 2547.26 | 1273.63 | 3786.04 | 1895.83 | 2.71 | -0.28 | 0.041 | |
| 105.00 | -19.53 | -1.28 | 0.00 | -93.99 | 0.00 | 93.99 | 2506.24 | 1253.12 | 3638.92 | 1822.16 | 3.01 | -0.30 | 0.039 | |
| 105.58 | -19.43 | -1.28 | 0.00 | -93.25 | 0.00 | 93.25 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 3.05 | -0.30 | 0.039 | |
| 105.58 | -19.43 | -1.28 | 0.00 | -93.25 | 0.00 | 93.25 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 3.05 | -0.30 | 0.039 | |
| 110.00 | -18.64 | -1.28 | 0.00 | -87.60 | 0.00 | 87.60 | 2464.40 | 1232.20 | 3493.46 | 1749.33 | 3.33 | -0.31 | 0.058 | |
| 115.00 | -17.76 | -1.28 | 0.00 | -81.19 | 0.00 | 81.19 | 2421.75 | 1210.87 | 3349.75 | 1677.36 | 3.67 | -0.33 | 0.056 | |
| 120.00 | -16.90 | -1.29 | 0.00 | -74.77 | 0.00 | 74.77 | 2378.28 | 1189.14 | 3207.87 | 1606.32 | 4.03 | -0.36 | 0.054 | |
| 125.00 | -16.05 | -1.29 | 0.00 | -68.34 | 0.00 | 68.34 | 2333.99 | 1167.00 | 3067.90 | 1536.23 | 4.42 | -0.38 | 0.051 | |
| 130.00 | -15.23 | -1.29 | 0.00 | -61.90 | 0.00 | 61.90 | 2288.89 | 1144.45 | 2929.94 | 1467.15 | 4.83 | -0.40 | 0.049 | |
| 132.50 | -14.82 | -1.29 | 0.00 | -58.69 | 0.00 | 58.69 | 2266.03 | 1133.02 | 2861.73 | 1432.99 | 5.05 | -0.41 | 0.047 | |
| 135.00 | -14.20 | -1.28 | 0.00 | -55.48 | 0.00 | 55.48 | 2239.33 | 1119.66 | 2789.52 | 1396.83 | 5.27 | -0.43 | 0.046 | |
| 136.50 | -13.82 | -1.28 | 0.00 | -53.55 | 0.00 | 53.55 | 1414.34 | 707.17 | 1783.76 | 893.21 | 5.40 | -0.43 | 0.070 | |
| 140.00 | -13.39 | -1.28 | 0.00 | -49.06 | 0.00 | 49.06 | 1397.90 | 698.95 | 1729.39 | 865.98 | 5.72 | -0.45 | 0.066 | |
| 145.00 | -12.78 | -1.28 | 0.00 | -42.64 | 0.00 | 42.64 | 1373.73 | 686.86 | 1652.26 | 827.36 | 6.21 | -0.47 | 0.061 | |
| 148.00 | -12.17 | -1.28 | 0.00 | -38.78 | 0.00 | 38.78 | 1358.83 | 679.41 | 1606.31 | 804.35 | 6.51 | -0.49 | 0.057 | |
| 150.00 | -11.94 | -1.28 | 0.00 | -36.22 | 0.00 | 36.22 | 1348.73 | 674.37 | 1575.83 | 789.09 | 6.72 | -0.50 | 0.055 | |

Calculated Forces

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C

Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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| 155.00 | -11.40 | -1.27 | 0.00 | -29.81 | 0.00 | 29.81 | 1322.92 | 661.46 | 1500.20 | 751.22 | 7.25 | -0.52 | 0.048 |
|--------|--------|-------|------|--------|------|-------|---------|--------|---------|--------|-------|-------|-------|
| 158.00 | -9.12 | -1.18 | 0.00 | -25.99 | 0.00 | 25.99 | 1307.05 | 653.52 | 1455.24 | 728.70 | 7.59 | -0.54 | 0.043 |
| 160.00 | -8.93 | -1.18 | 0.00 | -23.62 | 0.00 | 23.62 | 1296.30 | 648.15 | 1425.45 | 713.78 | 7.81 | -0.54 | 0.040 |
| 165.00 | -8.47 | -1.15 | 0.00 | -17.75 | 0.00 | 17.75 | 1268.86 | 634.43 | 1351.65 | 676.83 | 8.39 | -0.56 | 0.033 |
| 168.00 | -6.98 | -1.03 | 0.00 | -14.30 | 0.00 | 14.30 | 1252.00 | 626.00 | 1307.87 | 654.91 | 8.75 | -0.57 | 0.027 |
| 168.50 | -5.14 | -0.87 | 0.00 | -13.79 | 0.00 | 13.79 | 1249.16 | 624.58 | 1300.61 | 651.27 | 8.81 | -0.57 | 0.025 |
| 170.00 | -5.01 | -0.86 | 0.00 | -12.49 | 0.00 | 12.49 | 1240.60 | 620.30 | 1278.90 | 640.40 | 8.99 | -0.58 | 0.024 |
| 175.00 | -4.59 | -0.81 | 0.00 | -8.21 | 0.00 | 8.21 | 1211.52 | 605.76 | 1207.28 | 604.54 | 9.60 | -0.59 | 0.017 |
| 178.00 | -4.34 | -0.78 | 0.00 | -5.77 | 0.00 | 5.77 | 1193.69 | 596.84 | 1164.89 | 583.31 | 9.97 | -0.59 | 0.014 |
| 178.00 | -4.34 | -0.78 | 0.00 | -5.77 | 0.00 | 5.77 | 975.84 | 487.92 | 954.81 | 478.11 | 9.97 | -0.59 | 0.017 |
| 180.00 | -4.19 | -0.77 | 0.00 | -4.21 | 0.00 | 4.21 | 975.84 | 487.92 | 954.81 | 478.11 | 10.22 | -0.59 | 0.013 |
| 184.00 | -1.99 | -0.38 | 0.00 | -1.14 | 0.00 | 1.14 | 975.84 | 487.92 | 954.81 | 478.11 | 10.72 | -0.60 | 0.004 |
| 185.00 | -1.91 | -0.37 | 0.00 | -0.76 | 0.00 | 0.76 | 975.84 | 487.92 | 954.81 | 478.11 | 10.84 | -0.60 | 0.004 |
| 187.00 | -0.06 | -0.01 | 0.00 | -0.01 | 0.00 | 0.01 | 975.84 | 487.92 | 954.81 | 478.11 | 11.09 | -0.60 | 0.000 |
| 188.00 | 0.00 | -0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 975.84 | 487.92 | 954.81 | 478.11 | 11.22 | -0.60 | 0.000 |

Seismic Segment Forces (Factored)

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

8/7/2018



Topography: 1

Page: 40

Load Case: 0.9D + 1.0E



| | | | | | |
|-----------------------------|------|----------------------------|------|----------------------------------|------|
| Gust Response Factor | 1.10 | Sds | 0.19 | Iterations | 26 |
| Dead Load Factor | 0.90 | Seismic Load Factor | 1.00 | Sd1 | 0.10 |
| Wind Load Factor | 0.00 | Structure Frequency | 0.25 | SA | 0.03 |
| | | | | Seismic Importance Factor | 1.00 |

| Top Elev (ft) | Description | Wz (lb) | a | b | c | Lateral Fs (lb) | R: 1.50 |
|----------------------|--------------------|----------------|----------|----------|----------|------------------------|----------------|
| 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 0.25 | RB1 | 60.58 | 0.00 | 0.00 | 0.00 | 0.08 | |
| 5.00 | | 1141.6 | 0.00 | 0.03 | 0.01 | 20.84 | |
| 10.00 | | 1182.6 | 0.01 | 0.05 | 0.03 | 31.58 | |
| 15.00 | | 1163.0 | 0.01 | 0.06 | 0.03 | 36.30 | |
| 20.00 | | 1143.3 | 0.02 | 0.06 | 0.04 | 38.58 | |
| 25.00 | | 1123.7 | 0.03 | 0.07 | 0.04 | 39.57 | |
| 30.00 | | 1104.1 | 0.05 | 0.07 | 0.04 | 39.93 | |
| 32.83 | RT1 | 616.26 | 0.06 | 0.07 | 0.04 | 22.55 | |
| 35.00 | | 468.28 | 0.07 | 0.07 | 0.04 | 17.28 | |
| 40.00 | | 1064.9 | 0.09 | 0.07 | 0.04 | 40.07 | |
| 43.25 | Bot - Section 2 | 681.69 | 0.10 | 0.07 | 0.04 | 25.98 | |
| 45.00 | | 681.08 | 0.11 | 0.07 | 0.04 | 26.14 | |
| 48.92 | RB2 | 1509.4 | 0.13 | 0.07 | 0.03 | 58.84 | |
| 49.00 | Top - Section 1 | 30.57 | 0.13 | 0.07 | 0.03 | 1.19 | |
| 50.00 | | 177.78 | 0.13 | 0.07 | 0.03 | 6.96 | |
| 55.00 | | 878.82 | 0.16 | 0.07 | 0.03 | 34.98 | |
| 60.00 | | 862.01 | 0.19 | 0.06 | 0.02 | 34.61 | |
| 65.00 | | 845.20 | 0.23 | 0.06 | 0.02 | 33.70 | |
| 70.00 | | 828.39 | 0.26 | 0.05 | 0.02 | 31.93 | |
| 75.00 | | 811.58 | 0.30 | 0.05 | 0.01 | 28.92 | |
| 76.83 | RT2 | 292.84 | 0.32 | 0.04 | 0.01 | 9.98 | |
| 80.00 | | 501.94 | 0.34 | 0.03 | 0.01 | 15.34 | |
| 85.00 | | 777.96 | 0.39 | 0.02 | 0.01 | 17.75 | |
| 87.50 | Bot - Section 3 | 382.68 | 0.41 | 0.02 | 0.01 | 6.85 | |
| 90.00 | | 699.67 | 0.43 | 0.01 | 0.01 | 8.61 | |
| 91.92 | RB3 | 532.12 | 0.45 | 0.00 | 0.01 | 4.07 | |
| 92.25 | Top - Section 2 | 91.00 | 0.46 | 0.00 | 0.01 | 0.62 | |
| 95.00 | | 345.80 | 0.48 | -0.01 | 0.01 | -0.11 | |
| 100.00 | | 617.88 | 0.53 | -0.03 | 0.01 | -8.43 | |
| 105.00 | | 603.87 | 0.59 | -0.05 | 0.01 | -15.58 | |
| 105.58 | RT3 | 69.14 | 0.60 | -0.05 | 0.01 | -1.87 | |
| 110.00 | | 520.72 | 0.65 | -0.07 | 0.02 | -18.41 | |
| 115.00 | | 575.85 | 0.71 | -0.09 | 0.03 | -23.93 | |
| 120.00 | | 561.85 | 0.77 | -0.11 | 0.05 | -24.83 | |
| 125.00 | | 547.84 | 0.84 | -0.12 | 0.06 | -23.78 | |
| 130.00 | | 533.83 | 0.90 | -0.12 | 0.09 | -21.01 | |
| 132.50 | Bot - Section 4 | 261.66 | 0.94 | -0.12 | 0.10 | -9.46 | |
| 135.00 | | 442.05 | 0.97 | -0.12 | 0.12 | -14.23 | |
| 136.50 | Top - Section 3 | 262.37 | 1.00 | -0.11 | 0.13 | -7.72 | |
| 140.00 | | 251.27 | 1.05 | -0.09 | 0.16 | -5.52 | |
| 145.00 | | 350.62 | 1.12 | -0.06 | 0.20 | -3.08 | |
| 148.00 | Appurtenance(s) | 421.66 | 1.17 | -0.02 | 0.23 | 0.23 | |
| 150.00 | | 135.15 | 1.20 | 0.01 | 0.26 | 1.00 | |
| 155.00 | | 331.00 | 1.28 | 0.10 | 0.32 | 8.80 | |
| 158.00 | Appurtenance(s) | 1823.9 | 1.33 | 0.17 | 0.37 | 72.18 | |

Seismic Segment Forces (Factored)

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

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Tower Engineering Solutions

| | | | | | | |
|----------------|-----------------|-----------------|------|------|----------------|-----------------------------|
| 160.00 | | 127.30 | 1.37 | 0.23 | 0.40 | 6.22 |
| 165.00 | | 311.39 | 1.46 | 0.40 | 0.49 | 23.11 |
| 168.00 | Appurtenance(s) | 1196.1 | 1.51 | 0.52 | 0.55 | 108.83 |
| 168.50 | Appurtenance(s) | 1530.0 | 1.52 | 0.55 | 0.56 | 143.65 |
| 170.00 | | 89.44 | 1.55 | 0.62 | 0.60 | 9.19 |
| 175.00 | | 291.77 | 1.64 | 0.90 | 0.72 | 39.28 |
| 178.00 | Top - Section 4 | 170.35 | 1.69 | 1.10 | 0.81 | 26.46 |
| 180.00 | | 96.44 | 1.73 | 1.25 | 0.87 | 16.37 |
| 184.00 | Appurtenance(s) | 1792.8 | 1.81 | 1.59 | 1.00 | 359.16 |
| 185.00 | | 48.22 | 1.83 | 1.68 | 1.03 | 10.04 |
| 187.00 | Appurtenance(s) | 1523.8 | 1.87 | 1.88 | 1.10 | 342.39 |
| 188.00 | | 48.22 | 1.89 | 1.98 | 1.14 | 11.24 |
| Totals: | | 35,535.9 | | | 1,633.4 | |
| | | | | | | Total Wind: 30,312.5 |

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

Calculated Forces

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

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Topography: 1

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| | | |
|-------------------------------|-------------------|---------------------------------------|
| Load Case: 0.9D + 1.0E | Iterations | 26 |
| Gust Response Factor | 1.10 | |
| Dead Load Factor | 0.90 | Ss 0.17 |
| Wind Load Factor | 0.00 | S1 0.06 |
| | | Seismic Importance Factor 1.00 |

| Seg Elev (ft) | Pu FY (-) (kips) | Vu FX (-) (kips) | Tu MY (-) (ft-kips) | Mu MZ (ft-kips) | Mu MX (ft-kips) | Resultant Moment (ft-kips) | phi Pn (kips) | phi Vn (kips) | phi Tn (ft-kips) | phi Mn (ft-kips) | Total Deflect (in) | Rotation Sway (deg) | Rotation Twist (deg) | Stress Ratio |
|---------------|------------------|------------------|---------------------|-----------------|-----------------|----------------------------|---------------|---------------|------------------|------------------|--------------------|---------------------|----------------------|--------------|
| 0.00 | -36.69 | -1.81 | 0.00 | -249.17 | 0.00 | 249.17 | 5035.03 | 2517.52 | 10606.9 | 5311.37 | 0.00 | 0.00 | 0.054 | |
| 0.25 | -36.62 | -1.81 | 0.00 | -248.72 | 0.00 | 248.72 | 5032.22 | 2516.11 | 10592.3 | 5304.07 | 0.00 | 0.00 | 0.041 | |
| 5.00 | -35.46 | -1.80 | 0.00 | -240.10 | 0.00 | 240.10 | 4978.38 | 2489.19 | 10316.4 | 5165.91 | 0.01 | -0.01 | 0.040 | |
| 10.00 | -34.26 | -1.77 | 0.00 | -231.11 | 0.00 | 231.11 | 4920.91 | 2460.46 | 10028.2 | 5021.57 | 0.02 | -0.02 | 0.039 | |
| 15.00 | -33.07 | -1.74 | 0.00 | -222.24 | 0.00 | 222.24 | 4862.63 | 2431.31 | 9742.31 | 4878.39 | 0.05 | -0.03 | 0.039 | |
| 20.00 | -31.90 | -1.71 | 0.00 | -213.52 | 0.00 | 213.52 | 4803.53 | 2401.76 | 9458.77 | 4736.42 | 0.09 | -0.04 | 0.038 | |
| 25.00 | -30.75 | -1.68 | 0.00 | -204.97 | 0.00 | 204.97 | 4743.61 | 2371.81 | 9177.73 | 4595.68 | 0.15 | -0.06 | 0.037 | |
| 30.00 | -29.62 | -1.64 | 0.00 | -196.59 | 0.00 | 196.59 | 4682.88 | 2341.44 | 8899.25 | 4456.24 | 0.21 | -0.07 | 0.037 | |
| 32.83 | -28.99 | -1.62 | 0.00 | -191.95 | 0.00 | 191.95 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 0.25 | -0.07 | 0.036 | |
| 32.83 | -28.99 | -1.62 | 0.00 | -191.95 | 0.00 | 191.95 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 0.25 | -0.07 | 0.036 | |
| 35.00 | -28.50 | -1.61 | 0.00 | -188.44 | 0.00 | 188.44 | 4621.33 | 2310.66 | 8623.42 | 4318.12 | 0.29 | -0.08 | 0.050 | |
| 40.00 | -27.40 | -1.57 | 0.00 | -180.40 | 0.00 | 180.40 | 4558.96 | 2279.48 | 8350.33 | 4181.37 | 0.38 | -0.09 | 0.049 | |
| 43.25 | -26.70 | -1.55 | 0.00 | -175.30 | 0.00 | 175.30 | 4517.98 | 2258.99 | 8174.32 | 4093.24 | 0.45 | -0.11 | 0.049 | |
| 45.00 | -26.04 | -1.52 | 0.00 | -172.59 | 0.00 | 172.59 | 4495.78 | 2247.89 | 8080.06 | 4046.03 | 0.49 | -0.11 | 0.048 | |
| 48.92 | -24.57 | -1.47 | 0.00 | -166.61 | 0.00 | 166.61 | 4445.67 | 2222.84 | 7870.19 | 3940.94 | 0.58 | -0.12 | 0.035 | |
| 49.00 | -24.54 | -1.46 | 0.00 | -166.50 | 0.00 | 166.50 | 3699.57 | 1849.78 | 6681.20 | 3345.56 | 0.59 | -0.12 | 0.037 | |
| 50.00 | -24.35 | -1.46 | 0.00 | -165.03 | 0.00 | 165.03 | 3689.91 | 1844.95 | 6638.39 | 3324.13 | 0.61 | -0.13 | 0.040 | |
| 55.00 | -23.42 | -1.43 | 0.00 | -157.73 | 0.00 | 157.73 | 3641.14 | 1820.57 | 6425.47 | 3217.51 | 0.75 | -0.14 | 0.039 | |
| 60.00 | -22.51 | -1.40 | 0.00 | -150.59 | 0.00 | 150.59 | 3591.55 | 1795.77 | 6214.50 | 3111.87 | 0.90 | -0.15 | 0.038 | |
| 65.00 | -21.60 | -1.37 | 0.00 | -143.61 | 0.00 | 143.61 | 3541.14 | 1770.57 | 6005.55 | 3007.24 | 1.07 | -0.16 | 0.037 | |
| 70.00 | -20.72 | -1.34 | 0.00 | -136.78 | 0.00 | 136.78 | 3489.91 | 1744.96 | 5798.71 | 2903.67 | 1.25 | -0.18 | 0.036 | |
| 75.00 | -19.85 | -1.31 | 0.00 | -130.10 | 0.00 | 130.10 | 3437.87 | 1718.94 | 5594.07 | 2801.19 | 1.44 | -0.19 | 0.036 | |
| 76.83 | -19.53 | -1.30 | 0.00 | -127.71 | 0.00 | 127.71 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 1.52 | -0.20 | 0.035 | |
| 76.83 | -19.53 | -1.30 | 0.00 | -127.71 | 0.00 | 127.71 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 1.52 | -0.20 | 0.035 | |
| 80.00 | -18.99 | -1.29 | 0.00 | -123.60 | 0.00 | 123.60 | 3385.02 | 1692.51 | 5391.70 | 2699.86 | 1.65 | -0.20 | 0.051 | |
| 85.00 | -18.15 | -1.27 | 0.00 | -117.17 | 0.00 | 117.17 | 3331.35 | 1665.67 | 5191.69 | 2599.71 | 1.87 | -0.22 | 0.051 | |
| 87.50 | -17.74 | -1.26 | 0.00 | -113.99 | 0.00 | 113.99 | 3304.20 | 1652.10 | 5092.60 | 2550.09 | 1.99 | -0.23 | 0.050 | |
| 90.00 | -17.04 | -1.26 | 0.00 | -110.83 | 0.00 | 110.83 | 3276.86 | 1638.43 | 4994.13 | 2500.78 | 2.12 | -0.24 | 0.050 | |
| 91.92 | -16.51 | -1.25 | 0.00 | -108.43 | 0.00 | 108.43 | 3255.72 | 1627.86 | 4918.94 | 2463.13 | 2.22 | -0.25 | 0.034 | |
| 92.25 | -16.42 | -1.25 | 0.00 | -108.01 | 0.00 | 108.01 | 2609.22 | 1304.61 | 4017.17 | 2011.57 | 2.24 | -0.25 | 0.037 | |
| 95.00 | -16.03 | -1.25 | 0.00 | -104.58 | 0.00 | 104.58 | 2587.46 | 1293.73 | 3934.74 | 1970.29 | 2.38 | -0.26 | 0.040 | |
| 100.00 | -15.33 | -1.25 | 0.00 | -98.32 | 0.00 | 98.32 | 2547.26 | 1273.63 | 3786.04 | 1895.83 | 2.66 | -0.28 | 0.038 | |
| 105.00 | -14.65 | -1.25 | 0.00 | -92.05 | 0.00 | 92.05 | 2506.24 | 1253.12 | 3638.92 | 1822.16 | 2.96 | -0.29 | 0.037 | |
| 105.58 | -14.57 | -1.25 | 0.00 | -91.33 | 0.00 | 91.33 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 3.00 | -0.29 | 0.037 | |
| 105.58 | -14.57 | -1.25 | 0.00 | -91.33 | 0.00 | 91.33 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 3.00 | -0.29 | 0.037 | |
| 110.00 | -13.98 | -1.25 | 0.00 | -85.79 | 0.00 | 85.79 | 2464.40 | 1232.20 | 3493.46 | 1749.33 | 3.27 | -0.31 | 0.055 | |
| 115.00 | -13.32 | -1.26 | 0.00 | -79.52 | 0.00 | 79.52 | 2421.75 | 1210.87 | 3349.75 | 1677.36 | 3.60 | -0.33 | 0.053 | |
| 120.00 | -12.67 | -1.26 | 0.00 | -73.24 | 0.00 | 73.24 | 2378.28 | 1189.14 | 3207.87 | 1606.32 | 3.96 | -0.35 | 0.051 | |
| 125.00 | -12.04 | -1.26 | 0.00 | -66.96 | 0.00 | 66.96 | 2333.99 | 1167.00 | 3067.90 | 1536.23 | 4.34 | -0.37 | 0.049 | |
| 130.00 | -11.42 | -1.26 | 0.00 | -60.67 | 0.00 | 60.67 | 2288.89 | 1144.45 | 2929.94 | 1467.15 | 4.74 | -0.40 | 0.046 | |
| 132.50 | -11.11 | -1.26 | 0.00 | -57.53 | 0.00 | 57.53 | 2266.03 | 1133.02 | 2861.73 | 1432.99 | 4.95 | -0.41 | 0.045 | |
| 135.00 | -10.64 | -1.26 | 0.00 | -54.38 | 0.00 | 54.38 | 2239.33 | 1119.66 | 2789.52 | 1396.83 | 5.17 | -0.42 | 0.044 | |
| 136.50 | -10.37 | -1.26 | 0.00 | -52.50 | 0.00 | 52.50 | 1414.34 | 707.17 | 1783.76 | 893.21 | 5.30 | -0.42 | 0.066 | |
| 140.00 | -10.04 | -1.26 | 0.00 | -48.11 | 0.00 | 48.11 | 1397.90 | 698.95 | 1729.39 | 865.98 | 5.62 | -0.44 | 0.063 | |
| 145.00 | -9.59 | -1.26 | 0.00 | -41.83 | 0.00 | 41.83 | 1373.73 | 686.86 | 1652.26 | 827.36 | 6.09 | -0.46 | 0.058 | |
| 148.00 | -9.12 | -1.25 | 0.00 | -38.06 | 0.00 | 38.06 | 1358.83 | 679.41 | 1606.31 | 804.35 | 6.39 | -0.48 | 0.054 | |
| 150.00 | -8.96 | -1.25 | 0.00 | -35.55 | 0.00 | 35.55 | 1348.73 | 674.37 | 1575.83 | 789.09 | 6.59 | -0.49 | 0.052 | |

Calculated Forces

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C

Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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| 155.00 | -8.55 | -1.24 | 0.00 | -29.28 | 0.00 | 29.28 | 1322.92 | 661.46 | 1500.20 | 751.22 | 7.12 | -0.51 | 0.045 |
|--------|-------|-------|------|--------|------|-------|---------|--------|---------|--------|-------|-------|-------|
| 158.00 | -6.84 | -1.16 | 0.00 | -25.54 | 0.00 | 25.54 | 1307.05 | 653.52 | 1455.24 | 728.70 | 7.44 | -0.53 | 0.040 |
| 160.00 | -6.70 | -1.15 | 0.00 | -23.22 | 0.00 | 23.22 | 1296.30 | 648.15 | 1425.45 | 713.78 | 7.66 | -0.53 | 0.038 |
| 165.00 | -6.35 | -1.13 | 0.00 | -17.46 | 0.00 | 17.46 | 1268.86 | 634.43 | 1351.65 | 676.83 | 8.23 | -0.55 | 0.031 |
| 168.00 | -5.24 | -1.01 | 0.00 | -14.08 | 0.00 | 14.08 | 1252.00 | 626.00 | 1307.87 | 654.91 | 8.58 | -0.56 | 0.026 |
| 168.50 | -3.85 | -0.85 | 0.00 | -13.58 | 0.00 | 13.58 | 1249.16 | 624.58 | 1300.61 | 651.27 | 8.64 | -0.56 | 0.024 |
| 170.00 | -3.76 | -0.84 | 0.00 | -12.30 | 0.00 | 12.30 | 1240.60 | 620.30 | 1278.90 | 640.40 | 8.82 | -0.57 | 0.022 |
| 175.00 | -3.44 | -0.80 | 0.00 | -8.09 | 0.00 | 8.09 | 1211.52 | 605.76 | 1207.28 | 604.54 | 9.42 | -0.58 | 0.016 |
| 178.00 | -3.25 | -0.77 | 0.00 | -5.69 | 0.00 | 5.69 | 1193.69 | 596.84 | 1164.89 | 583.31 | 9.78 | -0.58 | 0.012 |
| 178.00 | -3.25 | -0.77 | 0.00 | -5.69 | 0.00 | 5.69 | 975.84 | 487.92 | 954.81 | 478.11 | 9.78 | -0.58 | 0.015 |
| 180.00 | -3.14 | -0.75 | 0.00 | -4.15 | 0.00 | 4.15 | 975.84 | 487.92 | 954.81 | 478.11 | 10.02 | -0.58 | 0.012 |
| 184.00 | -1.49 | -0.38 | 0.00 | -1.13 | 0.00 | 1.13 | 975.84 | 487.92 | 954.81 | 478.11 | 10.51 | -0.59 | 0.004 |
| 185.00 | -1.43 | -0.37 | 0.00 | -0.75 | 0.00 | 0.75 | 975.84 | 487.92 | 954.81 | 478.11 | 10.64 | -0.59 | 0.003 |
| 187.00 | -0.04 | -0.01 | 0.00 | -0.01 | 0.00 | 0.01 | 975.84 | 487.92 | 954.81 | 478.11 | 10.88 | -0.59 | 0.000 |
| 188.00 | 0.00 | -0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 975.84 | 487.92 | 954.81 | 478.11 | 11.00 | -0.59 | 0.000 |

Wind Loading - Shaft

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

8/7/2018



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



| Elev (ft) | Description | Kzt | Kz | qz (psf) | qzGh (psf) | C (mph-ft) | Cf | Ice Thick (in) | Tributary (ft) | Aa (sf) | CfAa (sf) | Wind Force X (lb) | Dead Load Ice (lb) | Tot Dead Load (lb) |
|-----------|-----------------|------|------|----------|------------|------------|-------|----------------|----------------|---------|-----------|-------------------|--------------------|--------------------|
| 0.00 | | 1.00 | 0.85 | 7.442 | 8.19 | 242.19 | 0.650 | 0.000 | 0.00 | 0.000 | 0.00 | 0.0 | 0.0 | 0.0 |
| 0.25 | RB1 | 1.00 | 0.85 | 7.442 | 8.19 | 241.99 | 0.650 | 0.000 | 0.25 | 1.094 | 0.71 | 5.8 | 0.0 | 60.6 |
| 5.00 | | 1.00 | 0.85 | 7.442 | 8.19 | 238.30 | 0.650 | 0.000 | 4.75 | 20.621 | 13.40 | 109.7 | 0.0 | 1141.6 |
| 10.00 | | 1.00 | 0.85 | 7.442 | 8.19 | 234.42 | 0.650 | 0.000 | 5.00 | 21.364 | 13.89 | 113.7 | 0.0 | 1182.6 |
| 15.00 | | 1.00 | 0.85 | 7.442 | 8.19 | 230.53 | 0.650 | 0.000 | 5.00 | 21.013 | 13.66 | 111.8 | 0.0 | 1163.0 |
| 20.00 | | 1.00 | 0.90 | 7.896 | 8.69 | 233.46 | 0.650 | 0.000 | 5.00 | 20.662 | 13.43 | 116.7 | 0.0 | 1143.4 |
| 25.00 | | 1.00 | 0.95 | 8.276 | 9.10 | 234.91 | 0.650 | 0.000 | 5.00 | 20.310 | 13.20 | 120.2 | 0.0 | 1123.8 |
| 30.00 | | 1.00 | 0.98 | 8.600 | 9.46 | 235.29 | 0.650 | 0.000 | 5.00 | 19.959 | 12.97 | 122.7 | 0.0 | 1104.2 |
| 32.83 | RT1 | 1.00 | 1.00 | 8.765 | 9.64 | 235.14 | 0.650 | 0.000 | 2.83 | 11.141 | 7.24 | 69.8 | 0.0 | 616.3 |
| 35.00 | | 1.00 | 1.01 | 8.883 | 9.77 | 234.89 | 0.650 | 0.000 | 2.17 | 8.467 | 5.50 | 53.8 | 0.0 | 468.3 |
| 40.00 | | 1.00 | 1.04 | 9.137 | 10.05 | 233.91 | 0.650 | 0.000 | 5.00 | 19.257 | 12.52 | 125.8 | 0.0 | 1064.9 |
| 43.25 | Bot - Section 2 | 1.00 | 1.06 | 9.288 | 10.22 | 233.02 | 0.650 | 0.000 | 3.25 | 12.329 | 8.01 | 81.9 | 0.0 | 681.7 |
| 45.00 | | 1.00 | 1.07 | 9.366 | 10.30 | 232.47 | 0.650 | 0.000 | 1.75 | 6.688 | 4.35 | 44.8 | 0.0 | 681.1 |
| 48.92 | RB2 | 1.00 | 1.09 | 9.532 | 10.49 | 231.07 | 0.650 | 0.000 | 3.92 | 14.825 | 9.64 | 101.0 | 0.0 | 1509.4 |
| 49.00 | Top - Section 1 | 1.00 | 1.09 | 9.536 | 10.49 | 231.04 | 0.650 | 0.000 | 0.08 | 0.300 | 0.20 | 2.0 | 0.0 | 30.6 |
| 50.00 | | 1.00 | 1.09 | 9.576 | 10.53 | 234.64 | 0.650 | 0.000 | 1.00 | 3.746 | 2.44 | 25.7 | 0.0 | 177.8 |
| 55.00 | | 1.00 | 1.12 | 9.770 | 10.75 | 232.55 | 0.650 | 0.000 | 5.00 | 18.520 | 12.04 | 129.4 | 0.0 | 878.8 |
| 60.00 | | 1.00 | 1.14 | 9.951 | 10.95 | 230.20 | 0.650 | 0.000 | 5.00 | 18.169 | 11.81 | 129.3 | 0.0 | 862.0 |
| 65.00 | | 1.00 | 1.16 | 10.120 | 11.13 | 227.61 | 0.650 | 0.000 | 5.00 | 17.818 | 11.58 | 128.9 | 0.0 | 845.2 |
| 70.00 | | 1.00 | 1.17 | 10.279 | 11.31 | 224.83 | 0.650 | 0.000 | 5.00 | 17.467 | 11.35 | 128.4 | 0.0 | 828.4 |
| 75.00 | | 1.00 | 1.19 | 10.430 | 11.47 | 221.87 | 0.650 | 0.000 | 5.00 | 17.115 | 11.13 | 127.6 | 0.0 | 811.6 |
| 76.83 | RT2 | 1.00 | 1.20 | 10.483 | 11.53 | 220.74 | 0.650 | 0.000 | 1.83 | 6.176 | 4.01 | 46.3 | 0.0 | 292.8 |
| 80.00 | | 1.00 | 1.21 | 10.572 | 11.63 | 218.75 | 0.650 | 0.000 | 3.17 | 10.588 | 6.88 | 80.0 | 0.0 | 501.9 |
| 85.00 | | 1.00 | 1.22 | 10.708 | 11.78 | 215.49 | 0.650 | 0.000 | 5.00 | 16.413 | 10.67 | 125.7 | 0.0 | 778.0 |
| 87.50 | Bot - Section 3 | 1.00 | 1.23 | 10.774 | 11.85 | 213.81 | 0.650 | 0.000 | 2.50 | 8.075 | 5.25 | 62.2 | 0.0 | 382.7 |
| 90.00 | | 1.00 | 1.24 | 10.838 | 11.92 | 212.10 | 0.650 | 0.000 | 2.50 | 8.119 | 5.28 | 62.9 | 0.0 | 699.7 |
| 91.92 | RB3 | 1.00 | 1.24 | 10.886 | 11.97 | 210.77 | 0.650 | 0.000 | 1.92 | 6.176 | 4.01 | 48.1 | 0.0 | 532.1 |
| 92.25 | Top - Section 2 | 1.00 | 1.24 | 10.894 | 11.98 | 210.53 | 0.650 | 0.000 | 0.33 | 1.056 | 0.69 | 8.2 | 0.0 | 91.0 |
| 95.00 | | 1.00 | 1.25 | 10.962 | 12.06 | 212.14 | 0.650 | 0.000 | 2.75 | 8.743 | 5.68 | 68.5 | 0.0 | 345.8 |
| 100.00 | | 1.00 | 1.27 | 11.081 | 12.19 | 208.55 | 0.650 | 0.000 | 5.00 | 15.624 | 10.16 | 123.8 | 0.0 | 617.9 |
| 105.00 | | 1.00 | 1.28 | 11.195 | 12.31 | 204.86 | 0.650 | 0.000 | 5.00 | 15.273 | 9.93 | 122.2 | 0.0 | 603.9 |
| 105.58 | RT3 | 1.00 | 1.28 | 11.208 | 12.33 | 204.42 | 0.650 | 0.000 | 0.58 | 1.749 | 1.14 | 14.0 | 0.0 | 69.1 |
| 110.00 | | 1.00 | 1.29 | 11.305 | 12.44 | 201.07 | 0.650 | 0.000 | 4.42 | 13.172 | 8.56 | 106.5 | 0.0 | 520.7 |
| 115.00 | | 1.00 | 1.30 | 11.412 | 12.55 | 197.21 | 0.650 | 0.000 | 5.00 | 14.570 | 9.47 | 118.9 | 0.0 | 575.9 |
| 120.00 | | 1.00 | 1.32 | 11.514 | 12.67 | 193.26 | 0.650 | 0.000 | 5.00 | 14.219 | 9.24 | 117.1 | 0.0 | 561.8 |
| 125.00 | | 1.00 | 1.33 | 11.614 | 12.78 | 189.24 | 0.650 | 0.000 | 5.00 | 13.868 | 9.01 | 115.2 | 0.0 | 547.8 |
| 130.00 | | 1.00 | 1.34 | 11.710 | 12.88 | 185.14 | 0.650 | 0.000 | 5.00 | 13.516 | 8.79 | 113.2 | 0.0 | 533.8 |
| 132.50 | Bot - Section 4 | 1.00 | 1.34 | 11.757 | 12.93 | 183.07 | 0.650 | 0.000 | 2.50 | 6.627 | 4.31 | 55.7 | 0.0 | 261.7 |
| 135.00 | | 1.00 | 1.35 | 11.803 | 12.98 | 180.99 | 0.650 | 0.000 | 2.50 | 6.631 | 4.31 | 56.0 | 0.0 | 442.1 |
| 136.50 | Top - Section 3 | 1.00 | 1.35 | 11.831 | 13.01 | 179.73 | 0.650 | 0.000 | 1.50 | 3.937 | 2.56 | 33.3 | 0.0 | 262.4 |
| 140.00 | | 1.00 | 1.36 | 11.894 | 13.08 | 179.36 | 0.650 | 0.000 | 3.50 | 9.063 | 5.89 | 77.1 | 0.0 | 251.3 |
| 145.00 | | 1.00 | 1.37 | 11.982 | 13.18 | 175.09 | 0.650 | 0.000 | 5.00 | 12.648 | 8.22 | 108.4 | 0.0 | 350.6 |
| 148.00 | Appurtenance(s) | 1.00 | 1.37 | 12.034 | 13.24 | 172.51 | 0.650 | 0.000 | 3.00 | 7.420 | 4.82 | 63.8 | 0.0 | 205.7 |
| 150.00 | | 1.00 | 1.38 | 12.068 | 13.27 | 170.77 | 0.650 | 0.000 | 2.00 | 4.877 | 3.17 | 42.1 | 0.0 | 135.1 |
| 155.00 | | 1.00 | 1.39 | 12.152 | 13.37 | 166.39 | 0.650 | 0.000 | 5.00 | 11.946 | 7.76 | 103.8 | 0.0 | 331.0 |
| 158.00 | Appurtenance(s) | 1.00 | 1.39 | 12.201 | 13.42 | 163.75 | 0.650 | 0.000 | 3.00 | 6.999 | 4.55 | 61.1 | 0.0 | 193.9 |
| 160.00 | | 1.00 | 1.40 | 12.233 | 13.46 | 161.97 | 0.650 | 0.000 | 2.00 | 4.596 | 2.99 | 40.2 | 0.0 | 127.3 |

Wind Loading - Shaft

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C



Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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| | | | | | | | | | | | | | |
|------------------------|------|------|--------|-------|--------|-------|-------|---------------|--------|------|----------------|-----|-----------------|
| 165.00 | 1.00 | 1.41 | 12.313 | 13.54 | 157.50 | 0.650 | 0.000 | 5.00 | 11.243 | 7.31 | 99.0 | 0.0 | 311.4 |
| 168.00 Appurtenance(s) | 1.00 | 1.41 | 12.360 | 13.60 | 154.79 | 0.650 | 0.000 | 3.00 | 6.577 | 4.28 | 58.1 | 0.0 | 182.1 |
| 168.50 Appurtenance(s) | 1.00 | 1.41 | 12.367 | 13.60 | 154.34 | 0.650 | 0.000 | 0.50 | 1.084 | 0.70 | 9.6 | 0.0 | 30.0 |
| 170.00 | 1.00 | 1.42 | 12.390 | 13.63 | 152.98 | 0.650 | 0.000 | 1.50 | 3.231 | 2.10 | 28.6 | 0.0 | 89.4 |
| 175.00 | 1.00 | 1.42 | 12.466 | 13.71 | 148.42 | 0.650 | 0.000 | 5.00 | 10.541 | 6.85 | 94.0 | 0.0 | 291.8 |
| 178.00 Top - Section 4 | 1.00 | 1.43 | 12.511 | 13.76 | 145.66 | 0.650 | 0.000 | 3.00 | 6.156 | 4.00 | 55.1 | 0.0 | 170.4 |
| 180.00 | 1.00 | 1.43 | 12.540 | 13.79 | 145.83 | 0.650 | 0.000 | 2.00 | 4.062 | 2.64 | 36.4 | 0.0 | 96.4 |
| 184.00 Appurtenance(s) | 1.00 | 1.44 | 12.599 | 13.86 | 146.17 | 0.650 | 0.000 | 4.00 | 8.123 | 5.28 | 73.2 | 0.0 | 192.9 |
| 185.00 | 1.00 | 1.44 | 12.613 | 13.87 | 146.25 | 0.650 | 0.000 | 1.00 | 2.031 | 1.32 | 18.3 | 0.0 | 48.2 |
| 187.00 Appurtenance(s) | 1.00 | 1.44 | 12.642 | 13.91 | 146.42 | 0.650 | 0.000 | 2.00 | 4.062 | 2.64 | 36.7 | 0.0 | 96.4 |
| 188.00 | 1.00 | 1.45 | 12.656 | 13.92 | 146.50 | 0.650 | 0.000 | 1.00 | 2.031 | 1.32 | 18.4 | 0.0 | 48.2 |
| Totals: | | | | | | | | 188.00 | | | 4,350.4 | | 28,148.4 |

Discrete Appurtenance Forces

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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

8/7/2018



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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

| No. | Elev (ft) | Description | Qty | qz (psf) | qzGh (psf) | CaAa 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 | 187.00 | Commscope | 3 | 12.642 | 13.906 | 0.60 | 0.75 | 20.65 | 149.40 | 0.000 | 0.000 | 287.10 | 0.00 | 0.00 |
| 2 | 187.00 | Ericsson KRY 112 114-1 | 12 | 12.642 | 13.906 | 0.50 | 0.75 | 2.47 | 132.00 | 0.000 | 0.000 | 34.38 | 0.00 | 0.00 |
| 3 | 187.00 | Kathrein 782 11054-Smart | 3 | 12.642 | 13.906 | 0.50 | 0.75 | 0.33 | 5.40 | 0.000 | 0.000 | 4.61 | 0.00 | 0.00 |
| 4 | 187.00 | B12 | 3 | 12.642 | 13.906 | 0.38 | 0.75 | 2.89 | 150.00 | 0.000 | 0.000 | 40.20 | 0.00 | 0.00 |
| 5 | 187.00 | Ericsson | 3 | 12.642 | 13.906 | 0.65 | 0.75 | 12.74 | 396.60 | 0.000 | 0.000 | 177.20 | 0.00 | 0.00 |
| 6 | 187.00 | RFS | 3 | 12.642 | 13.906 | 0.52 | 0.75 | 31.88 | 384.00 | 0.000 | 0.000 | 443.28 | 0.00 | 0.00 |
| 7 | 187.00 | Ericsson Radio 4449 B71 | 3 | 12.642 | 13.906 | 0.50 | 0.75 | 2.49 | 210.00 | 0.000 | 0.000 | 34.59 | 0.00 | 0.00 |
| 8 | 184.00 | Platform w/ Hand Rail | 1 | 12.599 | 13.858 | 1.00 | 1.00 | 32.00 | 1600.00 | 0.000 | 0.000 | 443.47 | 0.00 | 0.00 |
| 9 | 168.50 | Low Profile Platform | 1 | 12.367 | 13.604 | 1.00 | 1.00 | 22.00 | 1500.00 | 0.000 | 0.000 | 299.29 | 0.00 | 0.00 |
| 10 | 168.00 | APXV9ERR18-C-A20 | 1 | 12.360 | 13.596 | 0.66 | 0.80 | 5.33 | 62.00 | 0.000 | 0.000 | 72.40 | 0.00 | 0.00 |
| 11 | 168.00 | ACU-A20-N | 4 | 12.360 | 13.596 | 0.80 | 0.80 | 0.45 | 4.00 | 0.000 | 0.000 | 6.09 | 0.00 | 0.00 |
| 12 | 168.00 | TD-RRH8x20-25 | 3 | 12.360 | 13.596 | 0.54 | 0.80 | 6.51 | 210.00 | 0.000 | 0.000 | 88.54 | 0.00 | 0.00 |
| 13 | 168.00 | 800 MHz RRH | 3 | 12.360 | 13.596 | 0.54 | 0.80 | 4.73 | 162.00 | 0.000 | 0.000 | 64.27 | 0.00 | 0.00 |
| 14 | 168.00 | 1900 MHz RRH | 3 | 12.360 | 13.596 | 0.54 | 0.80 | 4.73 | 132.00 | 0.000 | 0.000 | 64.27 | 0.00 | 0.00 |
| 15 | 168.00 | 800 MHz Filters | 3 | 12.360 | 13.596 | 0.54 | 0.80 | 4.73 | 162.00 | 0.000 | 0.000 | 64.27 | 0.00 | 0.00 |
| 16 | 168.00 | APXVSPP18-C-A20 | 2 | 12.360 | 13.596 | 0.66 | 0.80 | 10.65 | 114.00 | 0.000 | 0.000 | 144.80 | 0.00 | 0.00 |
| 17 | 168.00 | APXVTM14-C-120 | 3 | 12.360 | 13.596 | 0.63 | 0.80 | 12.02 | 168.00 | 0.000 | 0.000 | 163.43 | 0.00 | 0.00 |
| 18 | 158.00 | LGP21401 | 6 | 12.201 | 13.421 | 0.54 | 0.80 | 4.05 | 105.00 | 0.000 | 0.000 | 54.38 | 0.00 | 0.00 |
| 19 | 158.00 | T-Arm | 3 | 12.201 | 13.421 | 0.50 | 0.75 | 12.06 | 900.00 | 0.000 | 0.000 | 161.86 | 0.00 | 0.00 |
| 20 | 158.00 | P65-17-XLH-RR | 2 | 12.201 | 13.421 | 0.60 | 0.80 | 13.73 | 118.00 | 0.000 | 0.000 | 184.24 | 0.00 | 0.00 |
| 21 | 158.00 | DC-48-60-18-8F | 1 | 12.201 | 13.421 | 0.80 | 0.80 | 1.18 | 31.80 | 0.000 | 0.000 | 15.78 | 0.00 | 0.00 |
| 22 | 158.00 | RRUS-11 | 6 | 12.201 | 13.421 | 0.54 | 0.80 | 8.10 | 304.20 | 0.000 | 0.000 | 108.77 | 0.00 | 0.00 |
| 23 | 158.00 | 7770 | 3 | 12.201 | 13.421 | 0.58 | 0.80 | 9.64 | 105.00 | 0.000 | 0.000 | 129.32 | 0.00 | 0.00 |
| 24 | 158.00 | SBNH-1D6565C | 1 | 12.201 | 13.421 | 0.64 | 0.80 | 7.34 | 66.10 | 0.000 | 0.000 | 98.52 | 0.00 | 0.00 |
| 25 | 148.00 | 742 213 | 3 | 12.034 | 13.238 | 0.58 | 0.80 | 8.85 | 66.00 | 0.000 | 0.000 | 117.12 | 0.00 | 0.00 |
| 26 | 148.00 | Flush Mount | 1 | 12.034 | 13.238 | 1.00 | 1.00 | 5.00 | 150.00 | 0.000 | 0.000 | 66.19 | 0.00 | 0.00 |

Totals: 7,387.50

3,368.39

Total Applied Force Summary

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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



| 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 |
| 0.25 | | 5.82 | 68.34 | 0.00 | 0.00 |
| 5.00 | | 109.72 | 1289.12 | 0.00 | 0.00 |
| 10.00 | | 113.68 | 1337.85 | 0.00 | 0.00 |
| 15.00 | | 111.81 | 1318.24 | 0.00 | 0.00 |
| 20.00 | | 116.65 | 1298.62 | 0.00 | 0.00 |
| 25.00 | | 120.18 | 1279.01 | 0.00 | 0.00 |
| 30.00 | | 122.73 | 1259.40 | 0.00 | 0.00 |
| 32.83 | | 69.82 | 704.13 | 0.00 | 0.00 |
| 35.00 | | 53.78 | 535.66 | 0.00 | 0.00 |
| 40.00 | | 125.80 | 1220.18 | 0.00 | 0.00 |
| 43.25 | | 81.88 | 782.60 | 0.00 | 0.00 |
| 45.00 | | 44.79 | 735.41 | 0.00 | 0.00 |
| 48.92 | | 101.04 | 1631.13 | 0.00 | 0.00 |
| 49.00 | | 2.05 | 33.06 | 0.00 | 0.00 |
| 50.00 | | 25.65 | 208.83 | 0.00 | 0.00 |
| 55.00 | | 129.38 | 1034.06 | 0.00 | 0.00 |
| 60.00 | | 129.27 | 1017.25 | 0.00 | 0.00 |
| 65.00 | | 128.93 | 1000.44 | 0.00 | 0.00 |
| 70.00 | | 128.37 | 983.63 | 0.00 | 0.00 |
| 75.00 | | 127.63 | 966.82 | 0.00 | 0.00 |
| 76.83 | | 46.29 | 349.66 | 0.00 | 0.00 |
| 80.00 | | 80.03 | 600.36 | 0.00 | 0.00 |
| 85.00 | | 125.66 | 933.20 | 0.00 | 0.00 |
| 87.50 | | 62.20 | 460.30 | 0.00 | 0.00 |
| 90.00 | | 62.92 | 777.29 | 0.00 | 0.00 |
| 91.92 | | 48.07 | 591.73 | 0.00 | 0.00 |
| 92.25 | | 8.23 | 101.25 | 0.00 | 0.00 |
| 95.00 | | 68.52 | 431.19 | 0.00 | 0.00 |
| 100.00 | | 123.78 | 773.12 | 0.00 | 0.00 |
| 105.00 | | 122.25 | 759.11 | 0.00 | 0.00 |
| 105.58 | | 14.02 | 87.15 | 0.00 | 0.00 |
| 110.00 | | 106.48 | 657.95 | 0.00 | 0.00 |
| 115.00 | | 118.88 | 731.09 | 0.00 | 0.00 |
| 120.00 | | 117.06 | 717.09 | 0.00 | 0.00 |
| 125.00 | | 115.15 | 703.08 | 0.00 | 0.00 |
| 130.00 | | 113.17 | 689.07 | 0.00 | 0.00 |
| 132.50 | | 55.70 | 339.28 | 0.00 | 0.00 |
| 135.00 | | 55.96 | 519.67 | 0.00 | 0.00 |
| 136.50 | | 33.30 | 308.94 | 0.00 | 0.00 |
| 140.00 | | 77.07 | 359.94 | 0.00 | 0.00 |
| 145.00 | | 108.36 | 505.86 | 0.00 | 0.00 |
| 148.00 | (4) attachments | 247.15 | 514.81 | 0.00 | 0.00 |
| 150.00 | | 42.08 | 184.76 | 0.00 | 0.00 |
| 155.00 | | 103.79 | 455.04 | 0.00 | 0.00 |
| 158.00 | (22) attachments | 813.93 | 1898.42 | 0.00 | 0.00 |
| 160.00 | | 40.20 | 156.68 | 0.00 | 0.00 |

Total Applied Force Summary

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)

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

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Gh: 1.1 **Topography:** 1

Struct Class: II

| | | | | | |
|----------------|------------------|-----------------|------------------|-------------|-------------|
| 165.00 | | 98.98 | 384.83 | 0.00 | 0.00 |
| 168.00 | (22) attachments | 726.20 | 1240.19 | 0.00 | 0.00 |
| 168.50 | (1) attachments | 308.87 | 1536.24 | 0.00 | 0.00 |
| 170.00 | | 28.62 | 108.15 | 0.00 | 0.00 |
| 175.00 | | 93.95 | 354.11 | 0.00 | 0.00 |
| 178.00 | | 55.07 | 207.76 | 0.00 | 0.00 |
| 180.00 | | 36.42 | 121.38 | 0.00 | 0.00 |
| 184.00 | (1) attachments | 516.64 | 1842.75 | 0.00 | 0.00 |
| 185.00 | | 18.31 | 60.69 | 0.00 | 0.00 |
| 187.00 | (30) attachments | 1058.08 | 1548.78 | 0.00 | 0.00 |
| 188.00 | | 18.38 | 48.22 | 0.00 | 0.00 |
| Totals: | | 7,718.77 | 40,762.89 | 0.00 | 0.00 |

Linear Appurtenance Segment Forces (Factored)

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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



| 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) |
|---------------|-------------------|--------------|-------------|-------|--------------------|-------------|-------------|-------|------------------|----------|----------|----------------|
| 0.25 | 1 5/8" Coax | Yes | 0.25 | 0.000 | 1.98 | 0.04 | 0.00 | 0.062 | 0.000 | 7.442 | 0.00 | 1.56 |
| 0.25 | 1.25" Reinforcing | Yes | 0.25 | 0.000 | 1.25 | 0.03 | 0.00 | 0.062 | 0.000 | 7.442 | 0.00 | 0.00 |
| 5.00 | 1 5/8" Coax | Yes | 4.75 | 0.000 | 1.98 | 0.78 | 0.00 | 0.062 | 0.000 | 7.442 | 0.00 | 29.64 |
| 5.00 | 1.25" Reinforcing | Yes | 4.75 | 0.000 | 1.25 | 0.49 | 0.00 | 0.062 | 0.000 | 7.442 | 0.00 | 0.00 |
| 10.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.063 | 0.000 | 7.442 | 0.00 | 31.20 |
| 10.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.063 | 0.000 | 7.442 | 0.00 | 0.00 |
| 15.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.064 | 0.000 | 7.442 | 0.00 | 31.20 |
| 15.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.064 | 0.000 | 7.442 | 0.00 | 0.00 |
| 20.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.065 | 0.000 | 7.896 | 0.00 | 31.20 |
| 20.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.065 | 0.000 | 7.896 | 0.00 | 0.00 |
| 25.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.066 | 0.000 | 8.276 | 0.00 | 31.20 |
| 25.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.066 | 0.000 | 8.276 | 0.00 | 0.00 |
| 30.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.067 | 0.000 | 8.600 | 0.00 | 31.20 |
| 30.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.067 | 0.000 | 8.600 | 0.00 | 0.00 |
| 32.83 | 1 5/8" Coax | Yes | 2.83 | 0.000 | 1.98 | 0.47 | 0.00 | 0.068 | 0.000 | 8.765 | 0.00 | 17.66 |
| 32.83 | 1.25" Reinforcing | Yes | 2.83 | 0.000 | 1.25 | 0.29 | 0.00 | 0.068 | 0.000 | 8.765 | 0.00 | 0.00 |
| 35.00 | 1 5/8" Coax | Yes | 2.17 | 0.000 | 1.98 | 0.36 | 0.00 | 0.069 | 0.000 | 8.883 | 0.00 | 13.54 |
| 35.00 | 1.25" Reinforcing | Yes | 2.17 | 0.000 | 1.25 | 0.23 | 0.00 | 0.069 | 0.000 | 8.883 | 0.00 | 0.00 |
| 40.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.046 | 0.000 | 9.137 | 0.00 | 31.20 |
| 40.00 | 1.25" Reinforcing | Yes | 0.50 | 0.000 | 1.25 | 0.05 | 0.00 | 0.046 | 0.000 | 9.137 | 0.00 | 0.00 |
| 43.25 | 1 5/8" Coax | Yes | 3.25 | 0.000 | 1.98 | 0.54 | 0.00 | 0.043 | 0.000 | 9.288 | 0.00 | 20.28 |
| 45.00 | 1 5/8" Coax | Yes | 1.75 | 0.000 | 1.98 | 0.29 | 0.00 | 0.044 | 0.000 | 9.366 | 0.00 | 10.92 |
| 48.92 | 1 5/8" Coax | Yes | 3.92 | 0.000 | 1.98 | 0.65 | 0.00 | 0.062 | 0.000 | 9.532 | 0.00 | 24.46 |
| 48.92 | 1.25" Reinforcing | Yes | 2.42 | 0.000 | 1.25 | 0.25 | 0.00 | 0.062 | 0.000 | 9.532 | 0.00 | 0.00 |
| 49.00 | 1 5/8" Coax | Yes | 0.08 | 0.000 | 1.98 | 0.01 | 0.00 | 0.073 | 0.000 | 9.536 | 0.00 | 0.50 |
| 49.00 | 1.25" Reinforcing | Yes | 0.08 | 0.000 | 1.25 | 0.01 | 0.00 | 0.073 | 0.000 | 9.536 | 0.00 | 0.00 |
| 50.00 | 1 5/8" Coax | Yes | 1.00 | 0.000 | 1.98 | 0.17 | 0.00 | 0.072 | 0.000 | 9.576 | 0.00 | 6.24 |
| 50.00 | 1.25" Reinforcing | Yes | 1.00 | 0.000 | 1.25 | 0.10 | 0.00 | 0.072 | 0.000 | 9.576 | 0.00 | 0.00 |
| 55.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.073 | 0.000 | 9.770 | 0.00 | 31.20 |
| 55.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.073 | 0.000 | 9.770 | 0.00 | 0.00 |
| 60.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.074 | 0.000 | 9.951 | 0.00 | 31.20 |
| 60.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.074 | 0.000 | 9.951 | 0.00 | 0.00 |
| 65.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.076 | 0.000 | 10.120 | 0.00 | 31.20 |
| 65.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.076 | 0.000 | 10.120 | 0.00 | 0.00 |
| 70.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.077 | 0.000 | 10.279 | 0.00 | 31.20 |
| 70.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.077 | 0.000 | 10.279 | 0.00 | 0.00 |
| 75.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.079 | 0.000 | 10.430 | 0.00 | 31.20 |
| 75.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.079 | 0.000 | 10.430 | 0.00 | 0.00 |
| 76.83 | 1 5/8" Coax | Yes | 1.83 | 0.000 | 1.98 | 0.30 | 0.00 | 0.080 | 0.000 | 10.483 | 0.00 | 11.42 |
| 76.83 | 1.25" Reinforcing | Yes | 1.83 | 0.000 | 1.25 | 0.19 | 0.00 | 0.080 | 0.000 | 10.483 | 0.00 | 0.00 |
| 80.00 | 1 5/8" Coax | Yes | 3.17 | 0.000 | 1.98 | 0.52 | 0.00 | 0.073 | 0.000 | 10.572 | 0.00 | 19.78 |
| 80.00 | 1.25" Reinforcing | Yes | 2.42 | 0.000 | 1.25 | 0.25 | 0.00 | 0.073 | 0.000 | 10.572 | 0.00 | 0.00 |
| 85.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.050 | 0.000 | 10.708 | 0.00 | 31.20 |
| 87.50 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.051 | 0.000 | 10.774 | 0.00 | 15.60 |
| 90.00 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.052 | 0.000 | 10.838 | 0.00 | 15.60 |
| 91.92 | 1 5/8" Coax | Yes | 1.92 | 0.000 | 1.98 | 0.32 | 0.00 | 0.081 | 0.000 | 10.886 | 0.00 | 11.98 |
| 91.92 | 1.25" Reinforcing | Yes | 1.67 | 0.000 | 1.25 | 0.17 | 0.00 | 0.081 | 0.000 | 10.886 | 0.00 | 0.00 |

Linear Appurtenance Segment Forces (Factored)

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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



| 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) |
|----------------|-------------------|--------------|-------------|-------|--------------------|-------------|-------------|-------|------------------|------------|--------------|----------------|
| 92.25 | 1 5/8" Coax | Yes | 0.33 | 0.000 | 1.98 | 0.05 | 0.00 | 0.086 | 0.000 | 10.894 | 0.00 | 2.06 |
| 92.25 | 1.25" Reinforcing | Yes | 0.33 | 0.000 | 1.25 | 0.03 | 0.00 | 0.086 | 0.000 | 10.894 | 0.00 | 0.00 |
| 95.00 | 1 5/8" Coax | Yes | 2.75 | 0.000 | 1.98 | 0.45 | 0.00 | 0.085 | 0.000 | 10.962 | 0.00 | 17.16 |
| 95.00 | 1.25" Reinforcing | Yes | 2.75 | 0.000 | 1.25 | 0.29 | 0.00 | 0.085 | 0.000 | 10.962 | 0.00 | 0.00 |
| 100.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.086 | 0.000 | 11.081 | 0.00 | 31.20 |
| 100.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.086 | 0.000 | 11.081 | 0.00 | 0.00 |
| 105.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.088 | 0.000 | 11.195 | 0.00 | 31.20 |
| 105.00 | 1.25" Reinforcing | Yes | 5.00 | 0.000 | 1.25 | 0.52 | 0.00 | 0.088 | 0.000 | 11.195 | 0.00 | 0.00 |
| 105.58 | 1 5/8" Coax | Yes | 0.58 | 0.000 | 1.98 | 0.10 | 0.00 | 0.089 | 0.000 | 11.208 | 0.00 | 3.62 |
| 105.58 | 1.25" Reinforcing | Yes | 0.58 | 0.000 | 1.25 | 0.06 | 0.00 | 0.089 | 0.000 | 11.208 | 0.00 | 0.00 |
| 110.00 | 1 5/8" Coax | Yes | 4.42 | 0.000 | 1.98 | 0.73 | 0.00 | 0.069 | 0.000 | 11.305 | 0.00 | 27.58 |
| 110.00 | 1.25" Reinforcing | Yes | 1.67 | 0.000 | 1.25 | 0.17 | 0.00 | 0.069 | 0.000 | 11.305 | 0.00 | 0.00 |
| 115.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.057 | 0.000 | 11.412 | 0.00 | 31.20 |
| 120.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.058 | 0.000 | 11.514 | 0.00 | 31.20 |
| 125.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.059 | 0.000 | 11.614 | 0.00 | 31.20 |
| 130.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.061 | 0.000 | 11.710 | 0.00 | 31.20 |
| 132.50 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.062 | 0.000 | 11.757 | 0.00 | 15.60 |
| 135.00 | 1 5/8" Coax | Yes | 2.50 | 0.000 | 1.98 | 0.41 | 0.00 | 0.063 | 0.000 | 11.803 | 0.00 | 15.60 |
| 136.50 | 1 5/8" Coax | Yes | 1.50 | 0.000 | 1.98 | 0.25 | 0.00 | 0.064 | 0.000 | 11.831 | 0.00 | 9.36 |
| 140.00 | 1 5/8" Coax | Yes | 3.50 | 0.000 | 1.98 | 0.58 | 0.00 | 0.064 | 0.000 | 11.894 | 0.00 | 21.84 |
| 145.00 | 1 5/8" Coax | Yes | 5.00 | 0.000 | 1.98 | 0.82 | 0.00 | 0.065 | 0.000 | 11.982 | 0.00 | 31.20 |
| 148.00 | 1 5/8" Coax | Yes | 3.00 | 0.000 | 1.98 | 0.49 | 0.00 | 0.067 | 0.000 | 12.034 | 0.00 | 18.72 |
| Totals: | | | | | | | | | | 0.0 | 923.5 | |

Calculated Forces

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

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



| 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 | -40.76 | -7.72 | 0.00 | -1026.9 | 0.00 | 1026.91 | 5035.03 | 2517.52 | 10606.9 | 5311.37 | 0.00 | 0.000 | 0.000 | 0.201 |
| 0.25 | -40.69 | -7.73 | 0.00 | -1024.9 | 0.00 | 1024.98 | 5032.22 | 2516.11 | 10592.3 | 5304.07 | 0.00 | -0.003 | 0.000 | 0.151 |
| 5.00 | -39.40 | -7.65 | 0.00 | -988.26 | 0.00 | 988.26 | 4978.38 | 2489.19 | 10316.4 | 5165.91 | 0.03 | -0.046 | 0.000 | 0.149 |
| 10.00 | -38.05 | -7.57 | 0.00 | -950.01 | 0.00 | 950.01 | 4920.91 | 2460.46 | 10028.2 | 5021.57 | 0.10 | -0.092 | 0.000 | 0.146 |
| 15.00 | -36.73 | -7.48 | 0.00 | -912.19 | 0.00 | 912.19 | 4862.63 | 2431.31 | 9742.31 | 4878.39 | 0.22 | -0.138 | 0.000 | 0.144 |
| 20.00 | -35.42 | -7.39 | 0.00 | -874.79 | 0.00 | 874.79 | 4803.53 | 2401.76 | 9458.77 | 4736.42 | 0.39 | -0.184 | 0.000 | 0.141 |
| 25.00 | -34.14 | -7.29 | 0.00 | -837.84 | 0.00 | 837.84 | 4743.61 | 2371.81 | 9177.73 | 4595.68 | 0.60 | -0.230 | 0.000 | 0.139 |
| 30.00 | -32.88 | -7.18 | 0.00 | -801.39 | 0.00 | 801.39 | 4682.88 | 2341.44 | 8899.25 | 4456.24 | 0.87 | -0.276 | 0.000 | 0.136 |
| 32.83 | -32.17 | -7.12 | 0.00 | -781.06 | 0.00 | 781.06 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 1.04 | -0.303 | 0.000 | 0.135 |
| 32.83 | -32.17 | -7.12 | 0.00 | -781.06 | 0.00 | 781.06 | 4648.14 | 2324.07 | 8742.80 | 4377.90 | 1.04 | -0.303 | 0.000 | 0.135 |
| 35.00 | -31.63 | -7.09 | 0.00 | -765.60 | 0.00 | 765.60 | 4621.33 | 2310.66 | 8623.42 | 4318.12 | 1.18 | -0.323 | 0.000 | 0.184 |
| 40.00 | -30.40 | -6.99 | 0.00 | -730.15 | 0.00 | 730.15 | 4558.96 | 2279.48 | 8350.33 | 4181.37 | 1.56 | -0.388 | 0.000 | 0.181 |
| 43.25 | -29.62 | -6.91 | 0.00 | -707.45 | 0.00 | 707.45 | 4517.98 | 2258.99 | 8174.32 | 4093.24 | 1.84 | -0.430 | 0.000 | 0.179 |
| 45.00 | -28.88 | -6.88 | 0.00 | -695.35 | 0.00 | 695.35 | 4495.78 | 2247.89 | 8080.06 | 4046.03 | 2.00 | -0.453 | 0.000 | 0.178 |
| 48.92 | -27.24 | -6.78 | 0.00 | -668.37 | 0.00 | 668.37 | 4445.67 | 2222.84 | 7870.19 | 3940.94 | 2.39 | -0.505 | 0.000 | 0.127 |
| 49.00 | -27.21 | -6.78 | 0.00 | -667.82 | 0.00 | 667.82 | 3699.57 | 1849.78 | 6681.20 | 3345.56 | 2.40 | -0.506 | 0.000 | 0.136 |
| 50.00 | -27.00 | -6.77 | 0.00 | -661.04 | 0.00 | 661.04 | 3689.91 | 1844.95 | 6638.39 | 3324.13 | 2.51 | -0.515 | 0.000 | 0.145 |
| 55.00 | -25.96 | -6.65 | 0.00 | -627.20 | 0.00 | 627.20 | 3641.14 | 1820.57 | 6425.47 | 3217.51 | 3.07 | -0.566 | 0.000 | 0.141 |
| 60.00 | -24.94 | -6.53 | 0.00 | -593.95 | 0.00 | 593.95 | 3591.55 | 1795.77 | 6214.50 | 3111.87 | 3.69 | -0.617 | 0.000 | 0.137 |
| 65.00 | -23.93 | -6.42 | 0.00 | -561.28 | 0.00 | 561.28 | 3541.14 | 1770.57 | 6005.55 | 3007.24 | 4.37 | -0.668 | 0.000 | 0.133 |
| 70.00 | -22.95 | -6.29 | 0.00 | -529.20 | 0.00 | 529.20 | 3489.91 | 1744.96 | 5798.71 | 2903.67 | 5.09 | -0.718 | 0.000 | 0.129 |
| 75.00 | -21.98 | -6.17 | 0.00 | -497.73 | 0.00 | 497.73 | 3437.87 | 1718.94 | 5594.07 | 2801.19 | 5.87 | -0.768 | 0.000 | 0.125 |
| 76.83 | -21.63 | -6.13 | 0.00 | -486.44 | 0.00 | 486.44 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 6.17 | -0.787 | 0.000 | 0.124 |
| 76.83 | -21.63 | -6.13 | 0.00 | -486.44 | 0.00 | 486.44 | 3418.62 | 1709.31 | 5519.73 | 2763.97 | 6.17 | -0.787 | 0.000 | 0.124 |
| 80.00 | -21.02 | -6.06 | 0.00 | -467.02 | 0.00 | 467.02 | 3385.02 | 1692.51 | 5391.70 | 2699.86 | 6.70 | -0.819 | 0.000 | 0.179 |
| 85.00 | -20.08 | -5.94 | 0.00 | -436.73 | 0.00 | 436.73 | 3331.35 | 1665.67 | 5191.69 | 2599.71 | 7.60 | -0.892 | 0.000 | 0.174 |
| 87.50 | -19.62 | -5.88 | 0.00 | -421.89 | 0.00 | 421.89 | 3304.20 | 1652.10 | 5092.60 | 2550.09 | 8.08 | -0.929 | 0.000 | 0.171 |
| 90.00 | -18.84 | -5.82 | 0.00 | -407.19 | 0.00 | 407.19 | 3276.86 | 1638.43 | 4994.13 | 2500.78 | 8.57 | -0.965 | 0.000 | 0.169 |
| 91.92 | -18.25 | -5.76 | 0.00 | -396.03 | 0.00 | 396.03 | 3255.72 | 1627.86 | 4918.94 | 2463.13 | 8.97 | -0.994 | 0.000 | 0.116 |
| 92.25 | -18.15 | -5.76 | 0.00 | -394.13 | 0.00 | 394.13 | 2609.22 | 1304.61 | 4017.17 | 2011.57 | 9.04 | -0.997 | 0.000 | 0.125 |
| 95.00 | -17.71 | -5.69 | 0.00 | -378.29 | 0.00 | 378.29 | 2587.46 | 1293.73 | 3934.74 | 1970.29 | 9.62 | -1.025 | 0.000 | 0.133 |
| 100.00 | -16.94 | -5.57 | 0.00 | -349.83 | 0.00 | 349.83 | 2547.26 | 1273.63 | 3786.04 | 1895.83 | 10.72 | -1.080 | 0.000 | 0.127 |
| 105.00 | -16.18 | -5.44 | 0.00 | -321.97 | 0.00 | 321.97 | 2506.24 | 1253.12 | 3638.92 | 1822.16 | 11.88 | -1.133 | 0.000 | 0.120 |
| 105.58 | -16.09 | -5.43 | 0.00 | -318.81 | 0.00 | 318.81 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 12.02 | -1.139 | 0.000 | 0.120 |
| 105.58 | -16.09 | -5.43 | 0.00 | -318.81 | 0.00 | 318.81 | 2501.42 | 1250.71 | 3621.96 | 1813.67 | 12.02 | -1.139 | 0.000 | 0.120 |
| 110.00 | -15.43 | -5.33 | 0.00 | -294.79 | 0.00 | 294.79 | 2464.40 | 1232.20 | 3493.46 | 1749.33 | 13.10 | -1.185 | 0.000 | 0.175 |
| 115.00 | -14.69 | -5.22 | 0.00 | -268.13 | 0.00 | 268.13 | 2421.75 | 1210.87 | 3349.75 | 1677.36 | 14.38 | -1.263 | 0.000 | 0.166 |
| 120.00 | -13.97 | -5.10 | 0.00 | -242.05 | 0.00 | 242.05 | 2378.28 | 1189.14 | 3207.87 | 1606.32 | 15.74 | -1.339 | 0.000 | 0.157 |
| 125.00 | -13.26 | -4.99 | 0.00 | -216.54 | 0.00 | 216.54 | 2333.99 | 1167.00 | 3067.90 | 1536.23 | 17.18 | -1.412 | 0.000 | 0.147 |
| 130.00 | -12.57 | -4.87 | 0.00 | -191.61 | 0.00 | 191.61 | 2288.89 | 1144.45 | 2929.94 | 1467.15 | 18.70 | -1.482 | 0.000 | 0.136 |
| 132.50 | -12.23 | -4.81 | 0.00 | -179.44 | 0.00 | 179.44 | 2266.03 | 1133.02 | 2861.73 | 1432.99 | 19.49 | -1.517 | 0.000 | 0.131 |
| 135.00 | -11.71 | -4.75 | 0.00 | -167.42 | 0.00 | 167.42 | 2239.33 | 1119.66 | 2789.52 | 1396.83 | 20.29 | -1.550 | 0.000 | 0.125 |
| 136.50 | -11.40 | -4.71 | 0.00 | -160.30 | 0.00 | 160.30 | 1414.34 | 707.17 | 1783.76 | 893.21 | 20.78 | -1.570 | 0.000 | 0.188 |
| 140.00 | -11.04 | -4.64 | 0.00 | -143.81 | 0.00 | 143.81 | 1397.90 | 698.95 | 1729.39 | 865.98 | 21.95 | -1.614 | 0.000 | 0.174 |
| 145.00 | -10.53 | -4.52 | 0.00 | -120.64 | 0.00 | 120.64 | 1373.73 | 686.86 | 1652.26 | 827.36 | 23.68 | -1.693 | 0.000 | 0.154 |
| 148.00 | -10.02 | -4.27 | 0.00 | -107.07 | 0.00 | 107.07 | 1358.83 | 679.41 | 1606.31 | 804.35 | 24.76 | -1.737 | 0.000 | 0.141 |
| 150.00 | -9.84 | -4.23 | 0.00 | -98.53 | 0.00 | 98.53 | 1348.73 | 674.37 | 1575.83 | 789.09 | 25.49 | -1.765 | 0.000 | 0.132 |
| 155.00 | -9.38 | -4.12 | 0.00 | -77.39 | 0.00 | 77.39 | 1322.92 | 661.46 | 1500.20 | 751.22 | 27.38 | -1.827 | 0.000 | 0.110 |

Calculated Forces

Structure: CT46124-A-SBA

Code: EIA/TIA-222-G

8/7/2018

Site Name: Enfield-Moody Rd.

Exposure: C

Height: 188.00 (ft)

Crest Height: 0.00

Base Elev: 0.000 (ft)

Site Class: D - Stiff Soil

Gh: 1.1

Topography: 1

Struct Class: II

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| 158.00 | -7.51 | -3.25 | 0.00 | -65.04 | 0.00 | 65.04 | 1307.05 | 653.52 | 1455.24 | 728.70 | 28.54 | -1.860 | 0.000 | 0.095 |
|--------|-------|-------|------|--------|------|-------|---------|--------|---------|--------|-------|--------|-------|-------|
| 160.00 | -7.35 | -3.21 | 0.00 | -58.55 | 0.00 | 58.55 | 1296.30 | 648.15 | 1425.45 | 713.78 | 29.32 | -1.881 | 0.000 | 0.088 |
| 165.00 | -6.97 | -3.10 | 0.00 | -42.52 | 0.00 | 42.52 | 1268.86 | 634.43 | 1351.65 | 676.83 | 31.31 | -1.923 | 0.000 | 0.068 |
| 168.00 | -5.75 | -2.33 | 0.00 | -33.23 | 0.00 | 33.23 | 1252.00 | 626.00 | 1307.87 | 654.91 | 32.53 | -1.944 | 0.000 | 0.055 |
| 168.50 | -4.23 | -1.97 | 0.00 | -32.07 | 0.00 | 32.07 | 1249.16 | 624.58 | 1300.61 | 651.27 | 32.73 | -1.948 | 0.000 | 0.053 |
| 170.00 | -4.12 | -1.94 | 0.00 | -29.11 | 0.00 | 29.11 | 1240.60 | 620.30 | 1278.90 | 640.40 | 33.35 | -1.957 | 0.000 | 0.049 |
| 175.00 | -3.77 | -1.83 | 0.00 | -19.41 | 0.00 | 19.41 | 1211.52 | 605.76 | 1207.28 | 604.54 | 35.41 | -1.982 | 0.000 | 0.035 |
| 178.00 | -3.56 | -1.77 | 0.00 | -13.91 | 0.00 | 13.91 | 1193.69 | 596.84 | 1164.89 | 583.31 | 36.66 | -1.993 | 0.000 | 0.027 |
| 178.00 | -3.56 | -1.77 | 0.00 | -13.91 | 0.00 | 13.91 | 975.84 | 487.92 | 954.81 | 478.11 | 36.66 | -1.993 | 0.000 | 0.033 |
| 180.00 | -3.44 | -1.73 | 0.00 | -10.37 | 0.00 | 10.37 | 975.84 | 487.92 | 954.81 | 478.11 | 37.49 | -1.999 | 0.000 | 0.025 |
| 184.00 | -1.62 | -1.15 | 0.00 | -3.44 | 0.00 | 3.44 | 975.84 | 487.92 | 954.81 | 478.11 | 39.17 | -2.006 | 0.000 | 0.009 |
| 185.00 | -1.56 | -1.13 | 0.00 | -2.28 | 0.00 | 2.28 | 975.84 | 487.92 | 954.81 | 478.11 | 39.59 | -2.007 | 0.000 | 0.006 |
| 187.00 | -0.05 | -0.02 | 0.00 | -0.02 | 0.00 | 0.02 | 975.84 | 487.92 | 954.81 | 478.11 | 40.43 | -2.008 | 0.000 | 0.000 |
| 188.00 | 0.00 | -0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 975.84 | 487.92 | 954.81 | 478.11 | 40.85 | -2.008 | 0.000 | 0.000 |

Final Analysis Summary

Structure: CT46124-A-SBA
Site Name: Enfield-Moody Rd.
Height: 188.00 (ft)
Base Elev: 0.000 (ft)
Gh: 1.1

Code: EIA/TIA-222-G
Exposure: C
Crest Height: 0.00
Site Class: D - Stiff Soil
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 + 1.6W 94 mph Wind | 30.3 | 0.00 | 48.91 | 0.00 | 0.00 | 4061.52 |
| 0.9D + 1.6W 94 mph Wind | 30.3 | 0.00 | 36.68 | 0.00 | 0.00 | 4005.03 |
| 1.2D + 1.0Di + 1.0Wi 50 mph Wind | 10.2 | 0.00 | 87.12 | 0.00 | 0.00 | 1433.88 |
| 1.2D + 1.0E | 1.8 | 0.00 | 48.92 | 0.00 | 0.00 | 252.96 |
| 0.9D + 1.0E | 1.8 | 0.00 | 36.69 | 0.00 | 0.00 | 249.17 |
| 1.0D + 1.0W 60 mph Wind | 7.7 | 0.00 | 40.76 | 0.00 | 0.00 | 1026.91 |

Max Stresses

| Load Case | Pu FY (-) (kips) | Vu FX (-) (kips) | Tu MY (-) (ft-kips) | Mu MZ (ft-kips) | Mu MX (ft-kips) | Resultant Moment (ft-kips) | phi Pn (kips) | phi Vn (kips) | phi Tn (ft-kips) | phi Mn (ft-kips) | Elev (ft) | Stress Ratio |
|----------------------------------|------------------|------------------|---------------------|-----------------|-----------------|----------------------------|---------------|---------------|------------------|------------------|-----------|--------------|
| 1.2D + 1.6W 94 mph Wind | -48.91 | -30.32 | 0.00 | -4061.5 | 0.00 | -4061.5 | 5035.03 | 2517.5 | 10606.9 | 5311.37 | 0.00 | 0.775 |
| 0.9D + 1.6W 94 mph Wind | -36.68 | -30.32 | 0.00 | -4005.0 | 0.00 | -4005.0 | 5035.03 | 2517.5 | 10606.9 | 5311.37 | 0.00 | 0.761 |
| 1.2D + 1.0Di + 1.0Wi 50 mph Wind | -87.12 | -10.19 | 0.00 | -1433.8 | 0.00 | -1433.8 | 5035.03 | 2517.5 | 10606.9 | 5311.37 | 0.00 | 0.287 |
| 1.2D + 1.0E | -13.82 | -1.28 | 0.00 | -53.55 | 0.00 | -53.55 | 1414.34 | 707.17 | 1783.76 | 893.21 | 136.50 | 0.070 |
| 0.9D + 1.0E | -10.37 | -1.26 | 0.00 | -52.50 | 0.00 | -52.50 | 1414.34 | 707.17 | 1783.76 | 893.21 | 136.50 | 0.066 |
| 1.0D + 1.0W 60 mph Wind | -40.76 | -7.72 | 0.00 | -1026.9 | 0.00 | -1026.9 | 5035.03 | 2517.5 | 10606.9 | 5311.37 | 0.00 | 0.201 |

Additional Steel Summary

| Elev From (ft) | Elev To (ft) | Member | Intermediate Connectors | | | Lower Termination | | | Upper Termination | | | Max Member | | | | |
|----------------|--------------|-------------------------------|-------------------------|-----------|---------------|-------------------|-----------|-----------|-------------------|-------------|-----------|------------|------------|-----------|---------------|---------------|
| | | | VQ/I (lb/in) | Vu (kips) | phi Vn (kips) | MQ/I (kips) | Vn (kips) | Num Req'd | Num Actual | MQ/I (kips) | Vn (kips) | Num Req'd | Num Actual | Pu (kips) | phi Pn (kips) | phi Tn (kips) |
| 0.3 | 32.8 | (3) PLT-6"x1-1/4"(1.25" Hole | -215.1 | -4.52 | 37.1 | 306.1 | 37.1 | 9 | 0 | 284.0 | 37.1 | 8 | 11 | 306.14 | 404.8 | 356.25 |
| 48.9 | 76.8 | (3) PLT-5.5"x1 1/4"(1.25" hol | -252.9 | -5.31 | 37.1 | 255.3 | 37.1 | 7 | 10 | 241.0 | 37.1 | 7 | 10 | 272.78 | 371.1 | 318.75 |
| 91.9 | 105.6 | (3) PLT-4.5"x 1-1/4"(1.25"ho | -266.6 | -6.40 | 37.1 | 192.4 | 37.1 | 6 | 7 | 187.5 | 37.1 | 6 | 7 | 205.12 | 296.2 | 243.75 |
| | | | | | | | | | | | | | | | | 0.859 |
| | | | | | | | | | | | | | | | | 0.856 |
| | | | | | | | | | | | | | | | | 0.842 |

PROJECT INFORMATION

SITE INFORMATION

LATITUDE: 42.00297 N
 LONGITUDE: 72.52147 W
 GROUND ELEVATION 179.0' ± AMSL (PER GOOGLE EARTH)
 STRUCTURE HEIGHT 188.0' ± AGL (TYPE: MONOPOLE)
 ZONING JURISDICTION INDUSTRIAL 1 (I-1)
 ZONING DISTRICT/OCCUPANCY TOWN OF ENFIELD, CT

APPLICANT:

T-MOBILE
 35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002

PROPERTY OWNER:

TROIANO REALTY GROUP
 777 ENFIELD ST
 ENFIELD, CT 06082

TOWER OWNER:

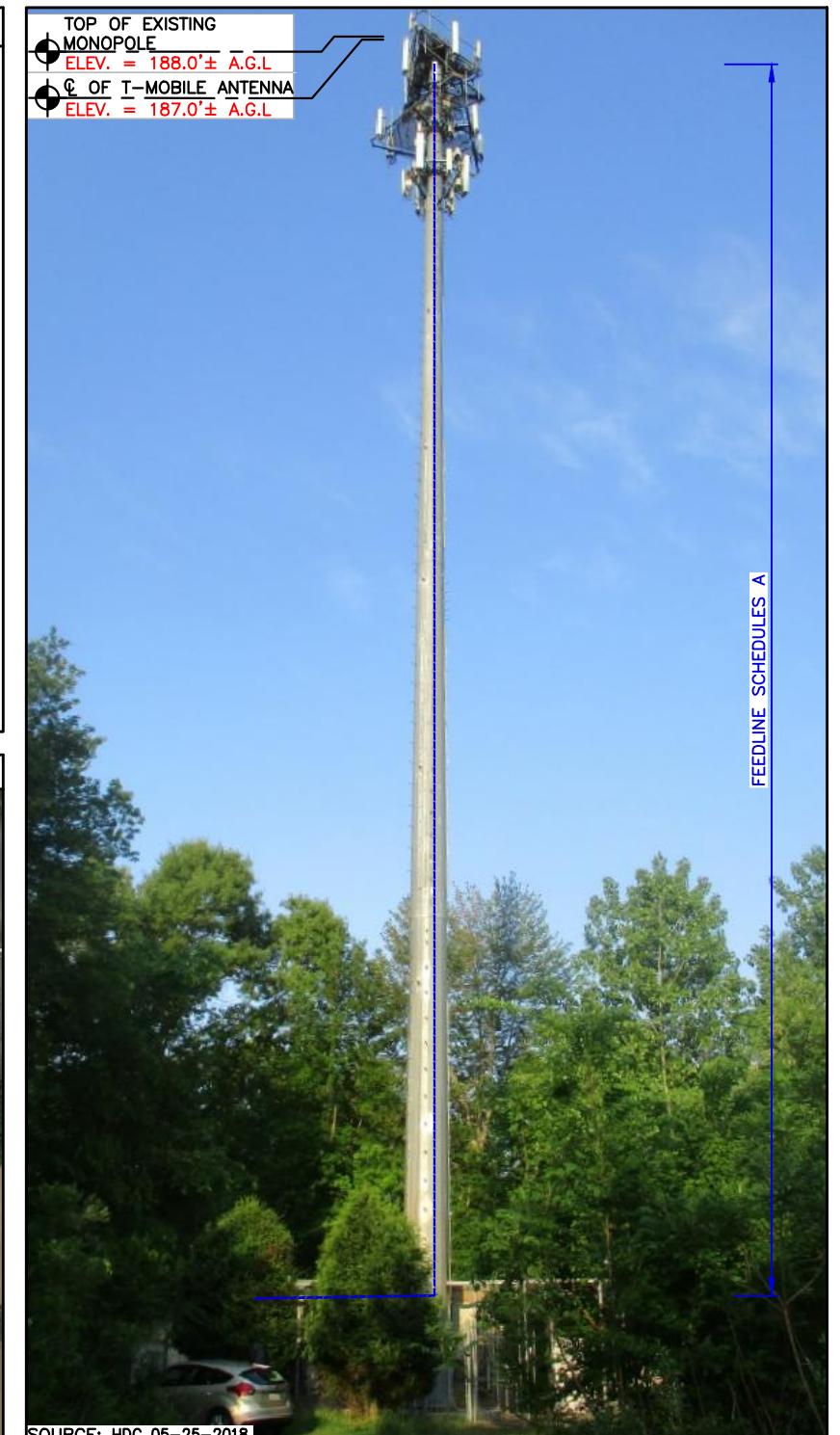
SBA 2012 TC ASSETS, LLC.
 8501 CONGRESS AVENUE
 BOCA RATON, FL 33487

SBA SITE ID: CT46124-A SBA SITE NAME: ENFILED-MOODY RD

SBA CONTACT:

STEPHEN ROTH
 SRoth@sbasite.com
 (860)539-4920

VICINITY MAP



SOURCE: HDG 05-25-2018

CODE COMPLIANCE

- BUILDING CODE: IBC 2012 WITH 2016 CT STATE BUILDING CODE AMENDMENTS
- TIA-EIA-222-G
- NFPA 70 2014 – NATIONAL ELECTRIC CODE

BASED ON INFORMATION PROVIDED BY T-MOBILE, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS AN ELIGIBLE FACILITY UNDER THE TAX RELIEF ACT OF 2012, 47 USC 1455(A), AND IS SUBJECT TO AN EXPEDITED ELIGIBLE FACILITIES REQUEST/REVIEW AND ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW).

FEEDLINE SCHEDULE

| FEEDLINE SCHEDULE | FEEDLINE DESCRIPTION | LOCATION |
|-------------------|--|-------------------------|
| A | INSTALL: (2) 1-1/4" 6X12 HCS HYBRID CABLE REMOVE: (18) 1-5/8" COAX INSTALL: (16) 1-1/4" COAX | MOUNTED INSIDE MONOPOLE |

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

TOWER ELEVATION PHOTO DETAIL

SCALE: N.T.S

1
A-1

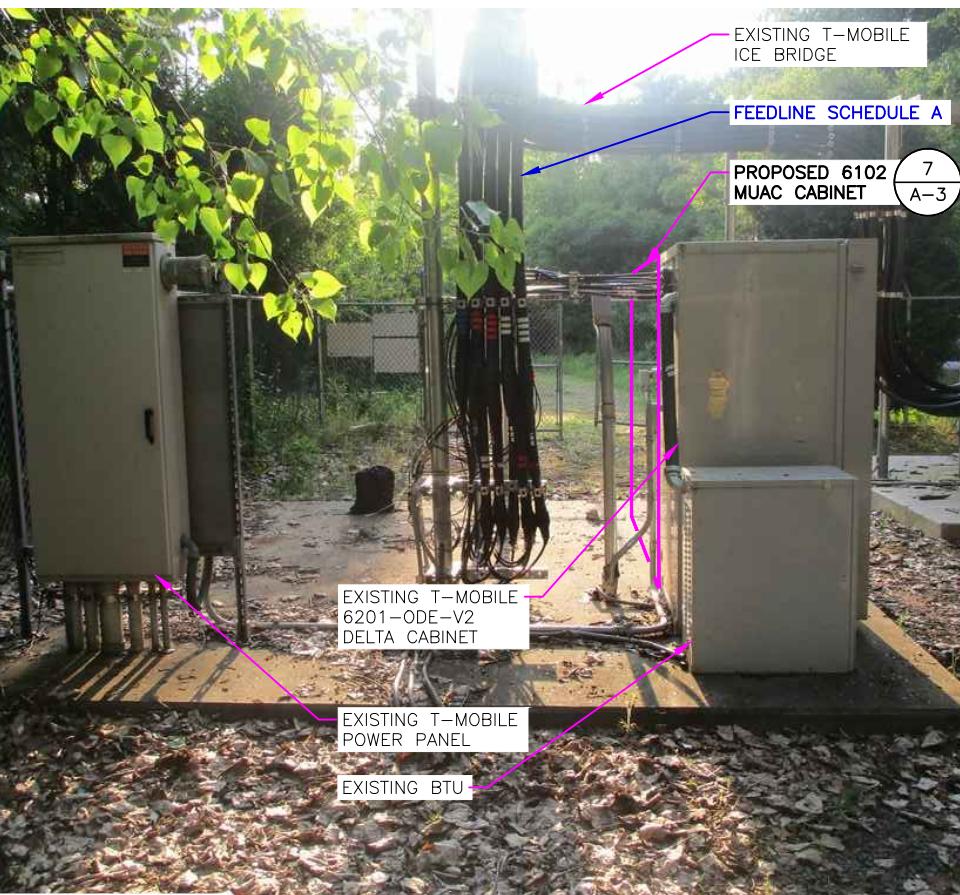
SITE NAME: MOODY RD
188 MOODY ROAD
ENFIELD, CT 06082

T-MOBILE SITE NUMBER: CTHA170C

RF DESIGN GUIDELINE: 67D95FDB

T-MOBILE TECHNICIAN SITE SAFETY NOTES

| LOCATION | SPECIAL RESTRICTIONS |
|------------------------------|--|
| SECTOR A: ANTENNA/TMA/RRH | ACCESS NOT PERMITTED |
| SECTOR B: ANTENNA/TMA/RRH | ACCESS NOT PERMITTED |
| SECTOR C: ANTENNA/TMA/RRH | ACCESS NOT PERMITTED |
| GPS/LMU: | CAUTION: OSHA-APPROVED PORTABLE 10' STEP-LADDER REQUIRED |
| RADIO CABINETS: | UNRESTRICTED |
| PPC DISCONNECT: | UNRESTRICTED |
| MAIN CIRCUIT D/C: | UNRESTRICTED |
| NIU/T DEMARC: | UNRESTRICTED |
| OTHER/SPECIAL: | NONE |



SOURCE: HDG 05-25-2018

EQUIPMENT PHOTO DETAIL

SCALE: N.T.S

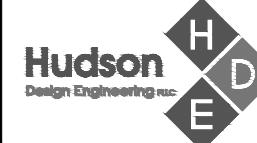
2
A-1

T-MOBILE
NORTHEAST LLC

35 GRIFFIN ROAD SOUTH
 BLOOMFIELD, CT 06002



SBA COMMUNICATIONS CORP.
 134 FLANDERS ROAD, SUITE 125
 WESTBOROUGH, MA 01581
 TEL: (508) 251-0720
 FAX: (508) 251-1755



29 HAMM ROAD
 HUDSON, NY 12534
 TEL: (978) 557-5553
 FAX: (978) 336-5586



CHECKED BY: JC

APPROVED BY: DJC

SUBMITTALS

| REV. | DATE | DESCRIPTION | BY |
|------|----------|-------------------------|----|
| 2 | 08/22/18 | ISSUED FOR CONSTRUCTION | CL |
| 1 | 08/01/18 | ISSUED FOR REVIEW | CL |
| 0 | 07/19/18 | ISSUED FOR REVIEW | CL |

SITE NUMBER:
CTHA170C
 SITE NAME:
MOODY RD

SITE ADDRESS:
 188 MOODY ROAD
 ENFIELD, CT 06082
 HARTFORD COUNTY

SHEET TITLE:
 TITLE SHEET,
 ELEVATION &
 EQUIPMENT PHOTO
 DETAIL

SHEET NUMBER:
A-1

**T-MOBILE
NORTHEAST LLC**

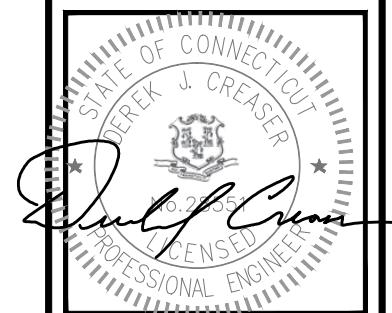
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002



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CHECKED BY: JC

APPROVED BY: DJC

SUBMITTALS

| REV. | DATE | DESCRIPTION | BY |
|------|------|-------------|----|
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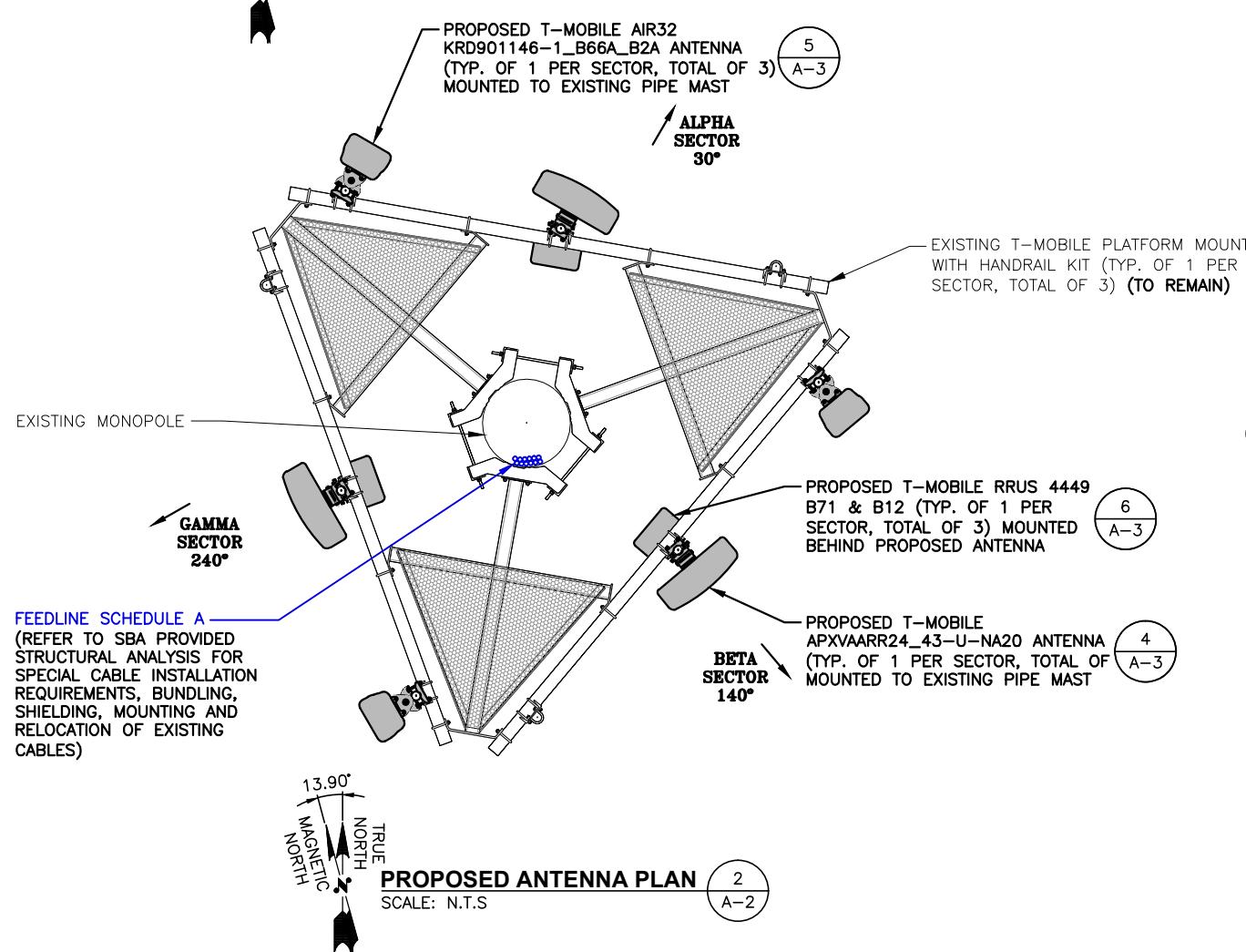
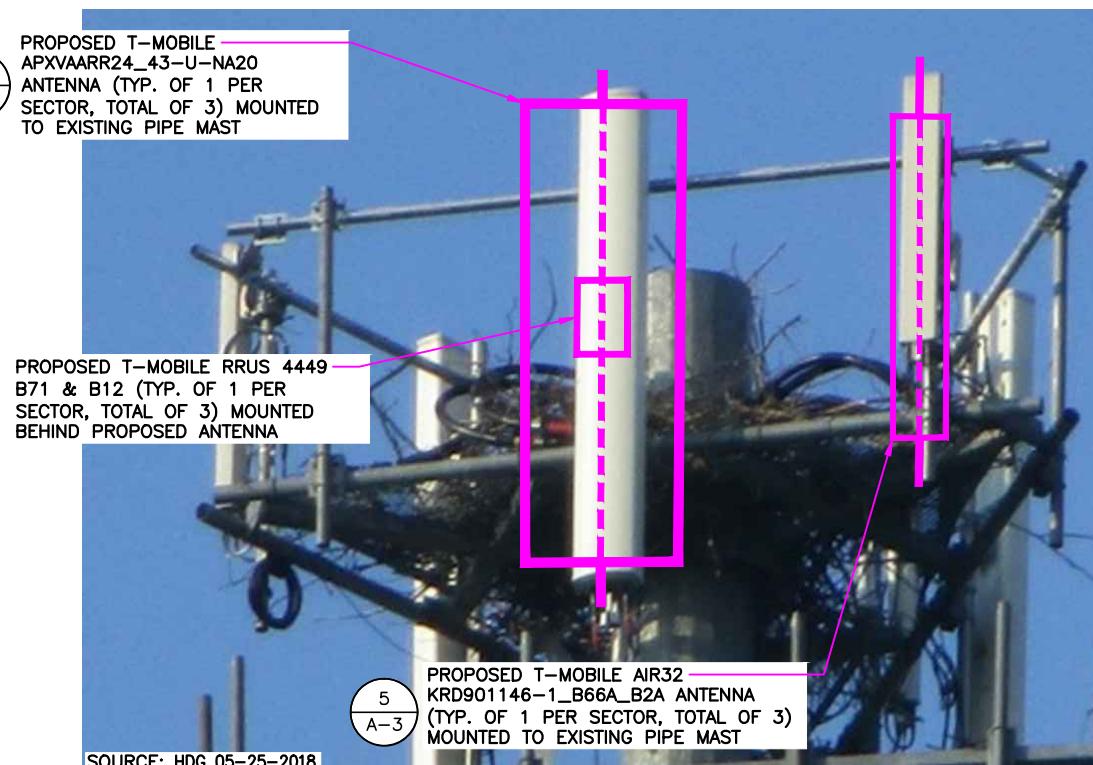
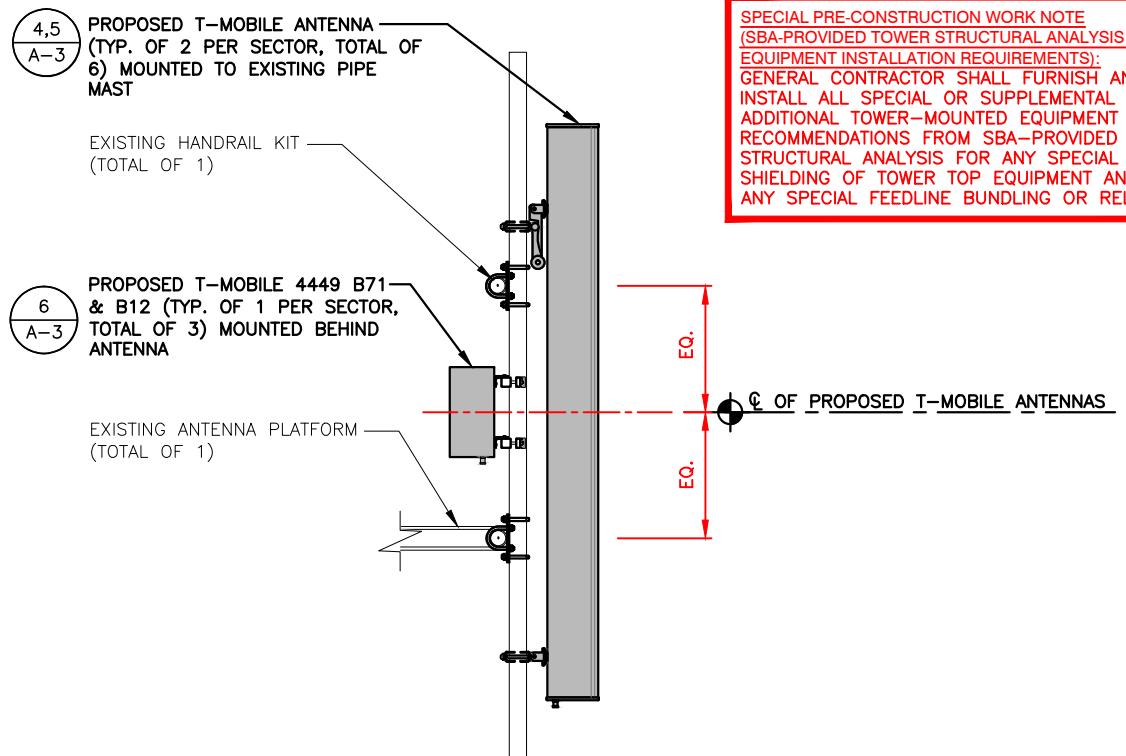
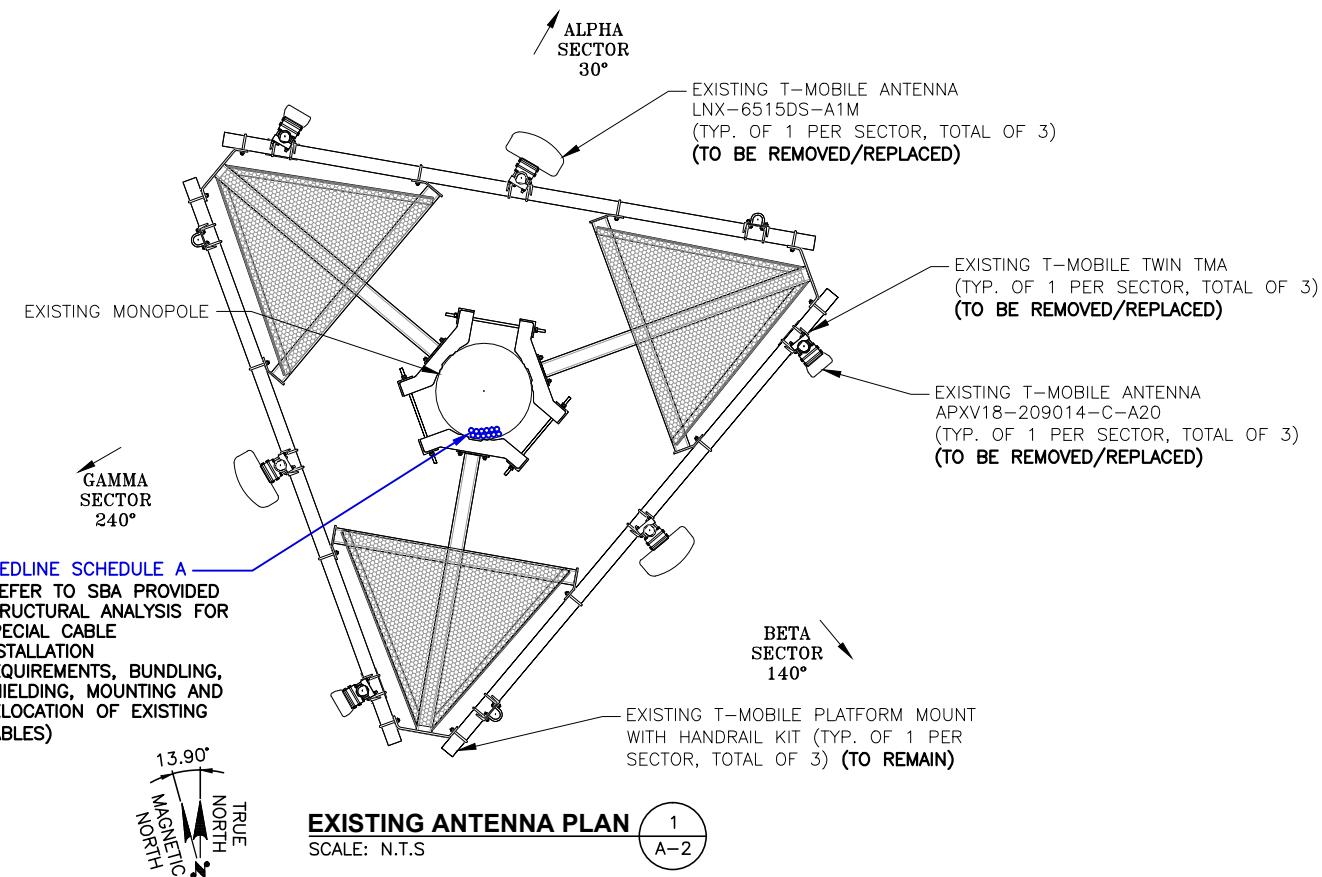
2 08/22/18 ISSUED FOR CONSTRUCTION CL
1 08/01/18 ISSUED FOR REVIEW CL
0 07/19/18 ISSUED FOR REVIEW CL

SITE NUMBER:
CTHA170C
SITE NAME:
MOODY RD

SITE ADDRESS:
188 MOODY ROAD
ENFIELD, CT 06082
HARTFORD COUNTY

SHEET TITLE
TOWER ELEVATIONS,
ANTENNA PLAN, &
DETAIL

SHEET NUMBER
A-2



ANTENNA & RRUS MOUNT PHOTO DETAIL
SCALE: N.T.S
4 A-2

**T-MOBILE
NORTHEAST LLC**

35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002



SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
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29 HAMM ROAD
HUDSON, NY 12534
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CHECKED BY: JC

APPROVED BY: DJC

SUBMITTALS

| REV. | DATE | DESCRIPTION | BY |
|------|----------|-------------------------|----|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| 2 | 08/22/18 | ISSUED FOR CONSTRUCTION | CL |
| 1 | 08/01/18 | ISSUED FOR REVIEW | CL |
| 0 | 07/19/18 | ISSUED FOR REVIEW | CL |

SITE NUMBER:
CTHA170C
SITE NAME:
MOODY RD
SITE ADDRESS:
188 MOODY ROAD
ENFIELD, CT 06082
HARTFORD COUNTY

SHEET TITLE
ANTENNA
SCHEDULE

SHEET NUMBER
A-4

| FINAL ANTENNA SCHEDULE | | | | | | |
|---|-------------------|----------------------------|-------------|---------|----------------------|---|
| SECTOR | BAND | ANTENNA MODEL | ANTENNA RAD | AZIMUTH | RADIOS | CABLE FEED LINES |
| ALPHA | L2100/G1900/L1900 | AIR32 KRD901146-1_B66A_B2A | 187'-0"± | 30° | | (P) (16) 1-1/4" SHARED COAX |
| | L700/L600 | APXVAARR24_43-U-NA20 | 187'-0"± | 30° | (P) (1) 4449 B71&B12 | (P) (2) 6X12 SHARED HYBRID CABLE TRUNKS |
| BETA | L2100/G1900/L1900 | AIR32 KRD901146-1_B66A_B2A | 187'-0"± | 140° | | (P) (16) 1-1/4" SHARED COAX |
| | L700/L600 | APXVAARR24_43-U-NA20 | 187'-0"± | 140° | (P) (1) 4449 B71&B12 | (P) (2) 6X12 SHARED HYBRID CABLE TRUNKS |
| GAMMA | L2100/G1900/L1900 | AIR32 KRD901146-1_B66A_B2A | 187'-0"± | 240° | | (P) (16) 1-1/4" SHARED COAX |
| | L700/L600 | APXVAARR24_43-U-NA20 | 187'-0"± | 240° | (P) (1) 4449 B71&B12 | (P) (2) 6X12 SHARED HYBRID CABLE TRUNKS |
| (P) (2) 6X12 HYBRID CABLE TRUNKS SERVES ANTENNAS ON ALL SECTORS (ALPHA, BETA & GAMMA) | | | | | | |

FINAL ANTENNA CONFIGURATION TABLE

SCALE: N.T.S

1
A-4

A-4