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

June 2, 2016

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 06082
42 0 7.2 N
-72 31 18.1 W
T-Mobile#: CTHA170C_L700

Dear Ms. Bachman:

T-Mobile currently maintains three (3) antennas at the 187-foot level of the existing 188-foot Monopole Tower at 188 Moody Rd. The tower is owned by SBA 2012 TC Assets, LLC. The property is owned by Troiano Realty Corporation. T-Mobile now intends to install three (3) new L700MHz antennas. These antennas would be installed at the 187-foot level of the tower. T-Mobile also intends to:

Remove:

- None

Remove and Replace:

- None

Install:

- (3) Andrew LNX-6515DS Panel Antennas
- (6) 1-5/8" coax
- (3) Smart Bias T
- (1) Sitepro HRK 12

Existing Equipment to Remain (and Entitlements):

- (3) RFS APX16 Panel antennas (reserved entitlement only)
- (3) RFS APX18 Panel antennas
- (12) 1-5/8" coax – (6) lines present – (6) lines reserved entitlement only
- (12) Ericsson KRY112 114-1 TMAs -- (3) present – (9) reserved entitlement only

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, T-Mobile was granted Council's approval under Petition 844 to extend the tower by ten feet to accommodate 9 antennas on T-arm mounts. This modification complies with all tower 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 Honorable Scott R. Kaupin, Mayor of Enfield, as well as the property owner. (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,

Kri 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: The Honorable Scott R. Kaupin–as elected official
Enfield Town Hall, 820 Enfield St, Enfield, CT 06082
Troiano Realty Corporation–as property owner
777 Enfield St., Enfield CT 06082

POWER DENSITY

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	RFS APXV18-209014	Make / Model:	RFS APXV18-209014	Make / Model:	RFS APXV18-209014
Gain:	14.4 dBd	Gain:	14.4 dBd	Gain:	14.4 dBd
Height (AGL):	187	Height (AGL):	187	Height (AGL):	187
Frequency Bands	1900 MHz(PCS)	Frequency Bands	1900 MHz(PCS)	Frequency Bands	1900 MHz(PCS)
Channel Count	6	Channel Count	6	Channel Count	6
Total TX Power(W):	240	Total TX Power(W):	240	Total TX Power(W):	240
ERP (W):	4,219.02	ERP (W):	4,219.02	ERP (W):	4,219.02
Antenna A1 MPE%	0.46	Antenna B1 MPE%	0.46	Antenna C1 MPE%	0.46
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Commscope LNX-6515DS-VTM	Make / Model:	Commscope LNX-6515DS-VTM	Make / Model:	Commscope LNX-6515DS-VTM
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	187	Height (AGL):	187	Height (AGL):	187
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30
ERP (W):	668.53	ERP (W):	668.53	ERP (W):	668.53
Antenna A2 MPE%	0.16	Antenna B2 MPE%	0.16	Antenna C2 MPE%	0.16

Site Composite MPE%	
Carrier	MPE%
T-Mobile (Per Sector Max)	0.62 %
AT&T	15.05 %
MetroPCS	3.11 %
Nextel	1.76 %
Sprint	3.80 %
Clearwire	0.59 %
Site Total MPE %:	**24.93 %**

T-Mobile Sector 1 Total:	0.62 %
T-Mobile Sector 2 Total:	0.62 %
T-Mobile Sector 3 Total:	0.62 %
Site Total:	24.93 %

T-Mobile _per sector	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (μW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 2100 MHz (AWS) LTE	2	1054.75	187	2.31	1900	1000	0.23 %
T-Mobile 1900 MHz (PCS) GSM	4	527.38	187	2.31	1900	1000	0.23 %
T-Mobile 700 MHz LTE	1	668.53	187	0.73	700	467	0.16 %
						Total:	0.62%

188 MOODY RD

Location 188 MOODY RD **Mblu** 100/ / 0012/ /

Acct# 001600020130 **Owner** TROIANO REALTY CORP

Assessment $1,320,520 **Appraisal** $1,886,450

PID 2238 **Building Count** 1

Fire District 3

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2015	$1,180,530	$705,920	$1,886,450
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2015	$826,370	$494,150	$1,320,520

Owner of Record

Owner TROIANO REALTY CORP
Co-Owner
Address 0777 ENFIELD ST
ENFIELD, CT 06082

Sale Price $0
Certificate 1
Book & Page 305/ 468
Sale Date

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
TROIANO REALTY CORP		1	305/ 468	

Building Information

Building 1 : Section 1

Year Built: 1965
Living Area: 10980
Replacement Cost: $338,742
Building Percent Good: 57
Replacement Cost Less Depreciation: $193,080

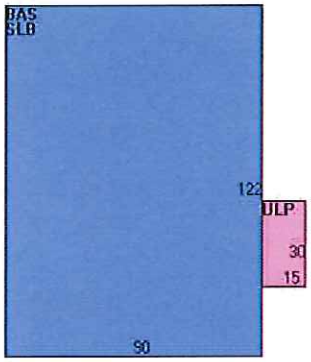
Building Photo

Building Attributes	
Field	**Description**
STYLE	Industrial Flex Bldg

MODEL	Ind/Comm
Grade	Average
Stories:	1
Occupancy	1
Exterior Wall 1	Pre-finish 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
% Comn Wall	

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

Building Layout



Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	10980	10980
SLB	Slab	10980	0
ULP	Uncvrd Loading Platform	450	0
		22410	10980

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
Category	

Land Line Valuation

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

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
SHD1	Shed	FR	Frame	64 S.F.	$60	1
TWR5	Cell Twr5 Carriers			1 UNITS	$740,630	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2014	$1,180,530	$705,920	$1,886,450
2013	$1,180,530	$705,920	$1,886,450
2012	$1,180,530	$705,920	$1,886,450

Assessment			
Valuation Year	Improvements	Land	Total
2014	$826,370	$494,150	$1,320,520
2013	$826,370	$494,150	$1,320,520
2012	$826,370	$494,150	$1,320,520

Tower Engineering Solutions
Phone (972) 483-0607, Fax (972) 975-9615
8445 Freeport Parkway, Suite 375, Irving, Texas 75063

Structural Analysis Report

Existing 188 ft 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

Site Location: 188 Moody Rd

Enfield, Connecticut

Hartford County

Latitude: 42.002000

Longitude: -72.521694

Analysis Result:

Max Structural Usage: 97.1% [Pass]

Max Foundation Usage: 82% [Pass]

Report Prepared By : Ram Kodali

Introduction

The purpose of this report is to summarize the analysis results on the 188 ft 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, Project # 1335291400, dated 2/20/15 TES, Job # 19423, dated 1/7/16

Analysis Criteria

The analysis was performed in accordance with the requirements and stipulations of the ANSI/TIA/EIA 222-F**.** 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.

Basic Wind Speed Used in the Analysis:	80 mph (fastest mile)
Basic Wind Speed with Ice:	69 mph (fastest mile) with 1/2" radial ice concurrent
Operational Wind Speed:	50 mph + 0" Radial ice
Standard/Codes:	ANSI/TIA/EIA 222-F / 2005 Connecticut State Building Code

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
-	188.0	9	RFS APX16PV-16PVL - Panel	Low Profile Platform*	(18) 1 5/8"	T-Mobile
-		12	TMA			
6	181.0	2	VHLP1-23 - Dish	Low Profile Platform	(3) 1/2" (9) 1 5/8" (6) 5/16"	Sprint / Clearwire
7	178.5	3	26" x 14" x 9" RRU			
8		3	840 10054 - Panel			
9		9	DB844H90E-XY - Panel			
10		1	GPS			
11	168.5	3	1900 MHz RRH	Low Profile Platform	(4) 1 5/8" Fiber	Sprint
12		3	800 MHz Filters			
13		3	800 MHz RRH			
14		4	ACU-A20-N			
15		1	APXV9ERR18-C-A20 - Panel			
16		2	APXVSPP18-C-A20 - Panel			
17		3	APXVTM14-C-120 - Panel			
18		3	TD-RRH8x20-25			
19	158.0	3	7770.00 - Panel	(3) T-Arm	(6) 1 5/8" (1) 3/8" (2) 5/8"	AT&T
20		1	DC6-48-60-18-8F			
21		6	LGP21401			
22		2	P65-17-XLH-RR - Panel			
23		6	RRUS 11			
24		1	SBNHH-1D6565C - Panel			
25	148.0	3	742 213 - Panel	Flush Mount	(6) 1 5/8"	Pocket Communications
26	60.5	1	GPS	Stand-Off	(1) 1/2"	Sprint

*Mount is at 184'.

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	188.0	3	Kathrein 782 11054 - Bias T	Low Profile Platform*	(18) 1 5/8"	T-Mobile
2	187.0	3	RFS APX16PV-16PVL - Panel			
3		3	RFS APXV18-209014 - Panel			
4		3	LNX-6515DS-A1M - Panel			
5		12	Ericsson KRY 112 114-1 - TMA			

All transmission lines are considered running inside of the pole shafts except coax lines at 148' & 60.5' elevations.

Analysis Results

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

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	**97.1%**	**81%**	**79.5%**
Pass/Fail	**Pass**	**Pass**	**Pass**

Foundations

	Moment (Kip-Ft)	Shear (Kips)
Analysis Reactions	3923.7	29.1

The foundation has been investigated using the supplied documents and soils report and was found to be 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-F for the installed antennas. Maximum twist/sway at the elevation of the proposed equipment is 3.202 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the structure and its foundation will be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the design ANSI/TIA/EIA 222-F standards under a basic wind speed of 80 mph no ice and 69 mph with 1/2" radial ice.

Standard Conditions

1. This analysis was performed based on the information supplied to **(TES) Tower Engineering Solutions, LLC.** Verification of the information provided was not included in the Scope of Work for **TES**. The accuracy of the analysis is dependent on the accuracy of the information provided.

2. The 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 or/and 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 Stress 97.1% at 34.0ft

Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)			Page: 1	

Tower Engineering Solutions

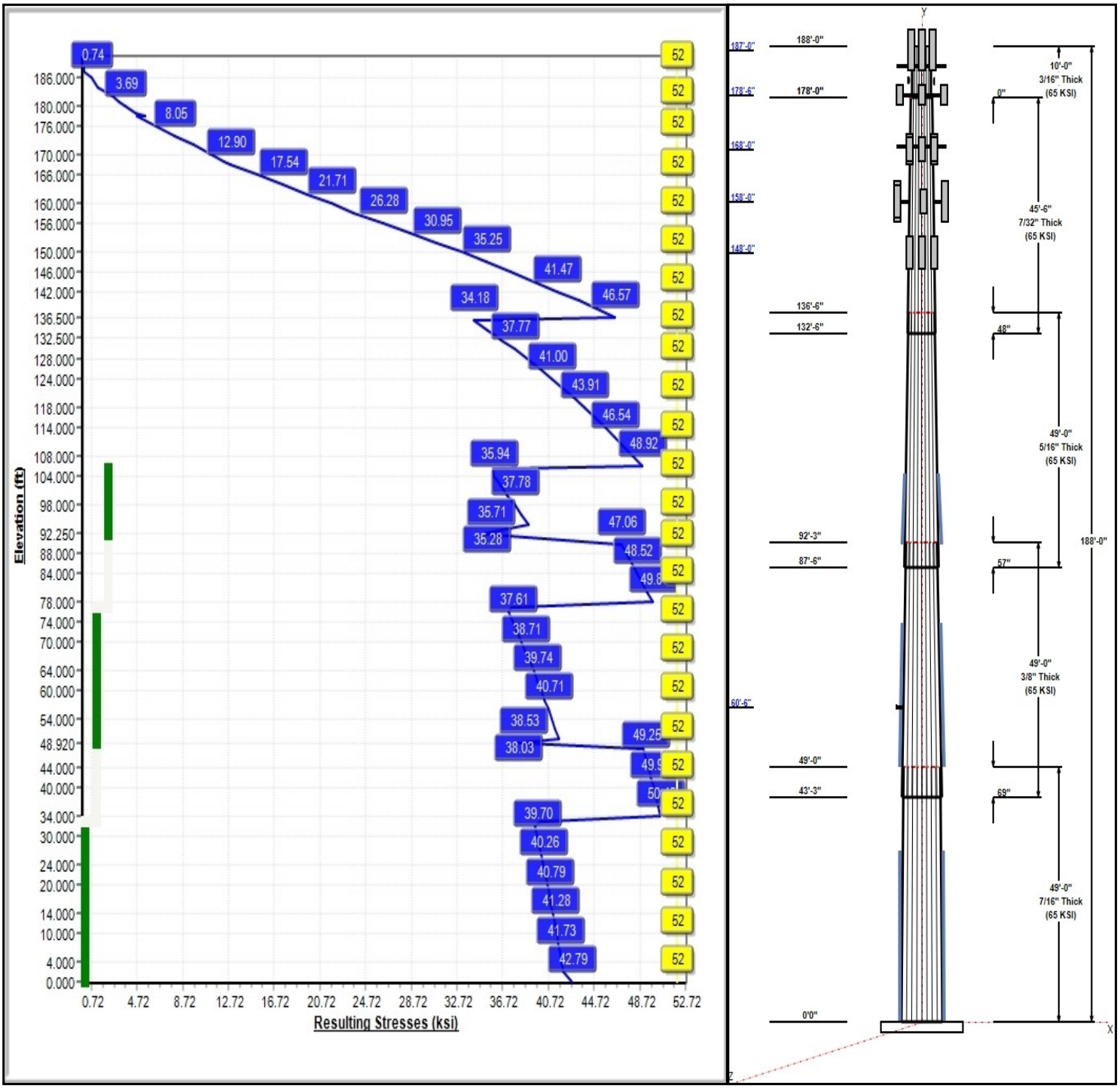
Dead Load Factor:	1.00
Wind Load Factor:	1.00

52 Alllowable Stress

50 Resulting Stress

Load Case : 80 mph Wind with 0 in Ice

Iterations: 33



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

5/19/2016

Tower Engineering Solutions

Shaft Properties

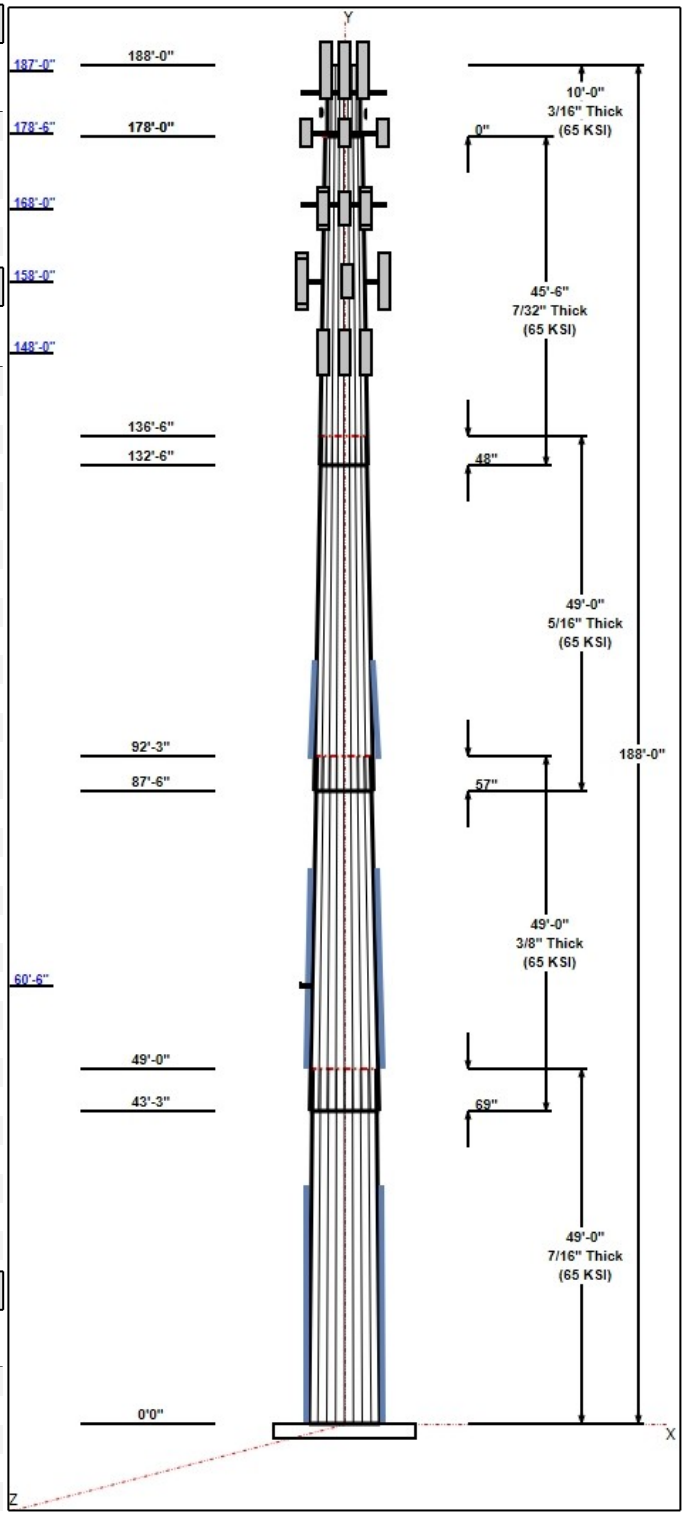
Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	49.00	43.60	51.74	0.438		0.16603	65
2	49.00	37.17	45.31	0.375	Slip	0.16603	65
3	49.00	30.45	38.59	0.313	Slip	0.16603	65
4	45.50	24.00	31.55	0.219	Slip	0.16603	65
5	10.00	22.34	24.00	0.188	Butt	0.00000	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
188.00	188.00	12	KRY 112 144/1	T-Mobile
187.00	187.00	3	APX16PV-16PVL-E	T-Mobile
187.00	187.00	3	APXV18-209014-C	T-Mobile
187.00	187.00	3	LNX-6515DS-A1M	T-Mobile
184.00	184.00	1	Low Profile Platform	T-Mobile
181.00	181.00	2	VHLP1-23	Sprint/Clearwire
178.50	178.50	3	26" x 14" x 9" RRU	Sprint/Clearwire
178.50	178.50	3	840 10054	Sprint/Clearwire
178.50	178.50	9	DB844H90E-XY	Sprint/Clearwire
178.50	178.50	1	GPS	Sprint/Clearwire
178.50	178.50	1	Low Profile Platform	Sprint/Clearwire
168.50	168.50	1	Low Profile Platform	Sprint
168.00	168.00	3	1900 MHz RRH	Sprint
168.00	168.00	3	800 MHz Filters	Sprint
168.00	168.00	3	800 MHz RRH	Sprint
168.00	168.00	4	ACU-A20-N	Sprint
168.00	168.00	1	APXV9ERR18-C-A20	Sprint
168.00	168.00	2	APXVSPP18-C-A20	Sprint
168.00	168.00	3	APXVTM14-C-120	Sprint
168.00	168.00	3	TD-RRH8x20-25	Sprint
158.00	158.00	3	7770.00	AT&T
158.00	158.00	1	DC6-48-60-18-8F	AT&T
158.00	158.00	6	LGP21401	AT&T
158.00	158.00	2	P65-17-XLH-RR	AT&T
158.00	158.00	6	RRUS 11	AT&T
158.00	158.00	1	SBNHH-1D6565C	AT&T
158.00	158.00	3	T-Arm	AT&T
148.00	148.00	3	742 213	Pocket
148.00	148.00	1	Flush Mount	Pocket
60.50	60.50	1	GPS	Sprint
60.50	60.50	1	Stand-Off	Sprint

Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	187.00	Inside	1 5/8" Coax	T-Mobile
0.00	181.00	Inside	1/2" Coax	Sprint/Clearwire
0.00	178.50	Inside	1 5/8" Coax	Sprint/Clearwire
0.00	178.50	Inside	5/16" Coax	Sprint/Clearwire
0.00	168.00	Inside	1 5/8" Fiber	Sprint
0.00	158.00	Inside	1 5/8" Coax	AT&T
0.00	158.00	Inside	3/8" Coax	AT&T
0.00	158.00	Inside	5/8" Coax	AT&T
107.25	148.00	Outside	1 5/8" Coax	Pocket
0.00	107.25	Outside	1 5/8" Coax	Pocket



90.25	107.25	Outside	1.25" Reinforcing plate	
46.50	79.25	Outside	1.25" Reinforcing plate	
35.50	60.50	Outside	1/2" Coax	Sprint
0.00	35.50	Outside	1.25" Reinforcing plate	
0.00	35.50	Outside	1/2" Coax	Sprint

Anchor Bolts

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

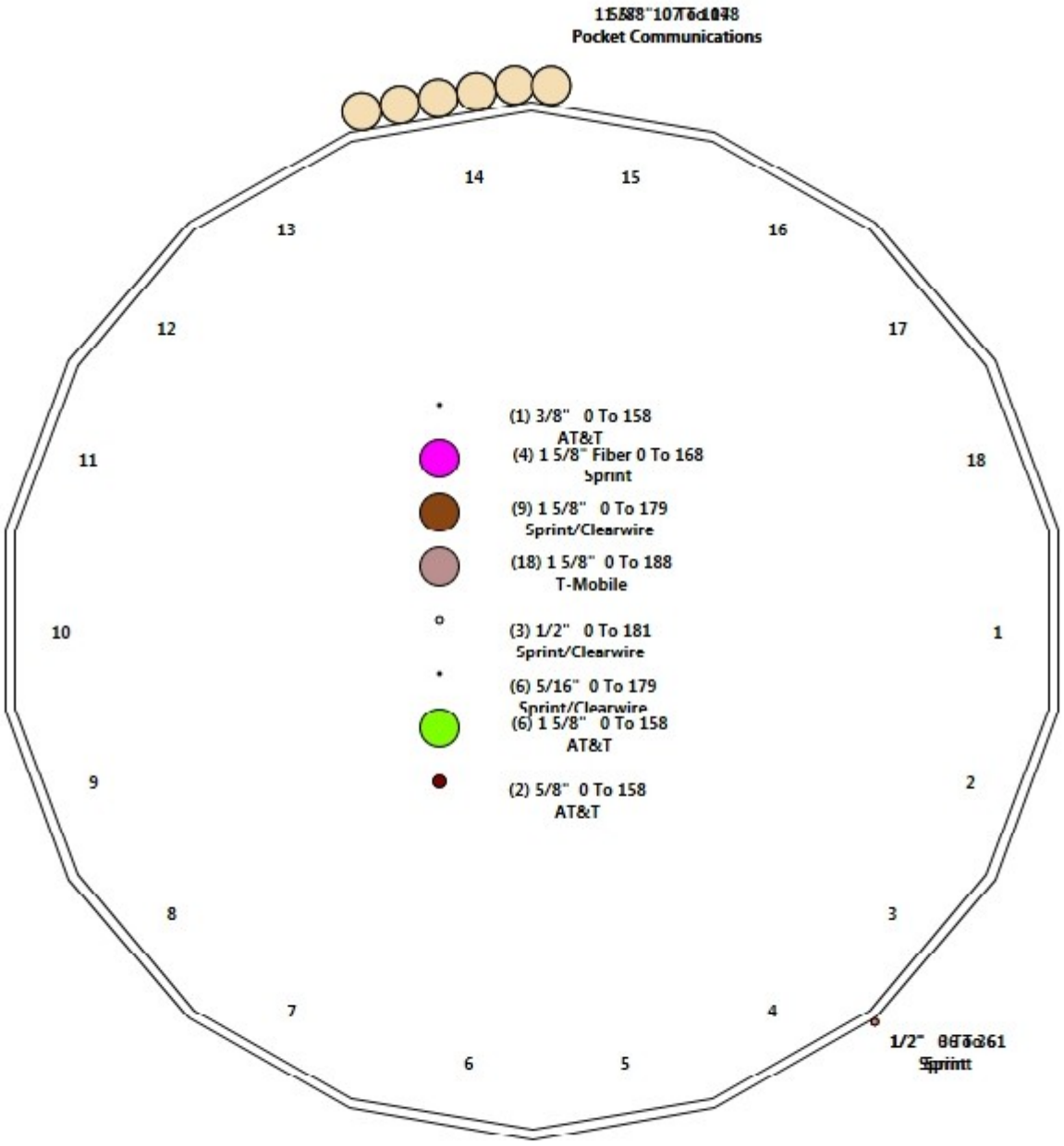
Load Case	Moment	Shear	Axial
80 mph Wind with 0" Ice	3923.7	29.1	45.8
69.28 mph Wind with 0.5" Ice	3337.7	24.4	52.4
50 mph Wind with 0" Ice	1536.3	11.4	45.8

Structure: CT46124-A-SBA - Coax Line Placement

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

5/19/2016

Tower Engineering Solutions



Shaft Properties

Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 5	

Tower Engineering Solutions

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	136.5	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	178.0	16.51	1180.03	17.93	109.69	0.166026
5	24.00	178.0	14.17	1015.22	21.16	128.00	22.34	188.0	14.17	1015.22	21.16	119.15	0.000000

Additional Steel

							Intermediate Connectors		Termination Connectors			
Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	Description	Spacing (in)	Description	Spacing (in)	Lower Qty	Upper Qty
	32.83	3	PLT 6"X1-1/4"(1.25"	65	80	0.00	AJM20&sleeve	21.00	AJM20&sleeve	3.00		
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		
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		

Loading Summary

Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 6	

Tower Engineering Solutions

Discrete Appurtenances

				No Ice			Ice				
No.	Elev (ft)	Description	Qty	Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
1	188.00	KRY 112 144/1	12	11.00	0.41	0.67	14.10	0.550	0.67	0.00	0.00
2	187.00	APX16PV-16PVL-E	3	39.60	6.65	0.62	0.00	7.300	0.62	0.00	0.00
3	187.00	APXV18-209014-C	3	18.70	3.57	0.74	0.00	4.090	0.74	0.00	0.00
4	187.00	LNX-6515DS-A1M	3	49.80	11.41	0.80	115.60	12.340	0.80	0.00	0.00
5	184.00	Low Profile Platform	1	1500.00	20.00	1.00	1800.00	24.000	1.00	0.00	0.00
6	181.00	VHLP1-23	2	14.20	1.61	1.00	24.30	1.820	1.00	0.00	0.00
7	178.50	26" x 14" x 9" RRU	3	20.00	3.54	0.67	53.00	3.870	0.67	0.00	0.00
8	178.50	840 10054	3	35.00	5.18	0.61	59.10	5.720	0.61	0.00	0.00
9	178.50	DB844H90E-XY	9	14.00	3.73	0.91	0.00	4.290	0.91	0.00	0.00
10	178.50	GPS	1	10.00	1.00	1.00	18.00	1.250	1.00	0.00	0.00
11	178.50	Low Profile Platform	1	1500.00	23.00	1.00	1800.00	28.000	1.00	0.00	0.00
12	168.50	Low Profile Platform	1	1500.00	20.00	1.00	1800.00	24.000	1.00	0.00	0.00
13	168.00	1900 MHz RRH	3	44.00	2.94	0.67	63.30	3.290	0.67	0.00	0.00
14	168.00	800 MHz Filters	3	54.00	2.94	0.67	75.60	3.290	0.67	0.00	0.00
15	168.00	800 MHz RRH	3	54.00	2.94	0.67	75.60	3.290	0.67	0.00	0.00
16	168.00	ACU-A20-N	4	1.00	0.14	1.00	2.30	0.220	1.00	0.00	0.00
17	168.00	APXV9ERR18-C-A20	1	62.00	8.26	0.83	113.90	9.080	0.83	0.00	0.00
18	168.00	APXVSPP18-C-A20	2	57.00	8.26	0.83	106.50	9.080	0.83	0.00	0.00
19	168.00	APXVTM14-C-120	3	56.00	6.90	0.79	91.90	7.290	0.79	0.00	0.00
20	168.00	TD-RRH8x20-25	3	70.00	4.72	0.67	92.00	4.970	0.67	0.00	0.00
21	158.00	7770.00	3	35.00	5.88	0.73	0.00	6.530	0.73	0.00	0.00
22	158.00	DC6-48-60-18-8F	1	31.80	1.47	1.00	49.50	1.670	1.00	0.00	0.00
23	158.00	LGP21401	6	19.00	1.26	0.67	26.10	1.500	0.67	0.00	0.00
24	158.00	P65-17-XLH-RR	2	59.00	11.46	0.75	121.00	12.390	0.75	0.00	0.00
25	158.00	RRUS 11	6	50.70	2.94	0.67	66.00	3.140	0.67	0.00	0.00
26	158.00	SBNHH-1D6565C	1	47.40	8.41	0.75	94.00	8.890	0.75	0.00	0.00
27	158.00	T-Arm	3	300.00	6.00	0.75	420.00	8.000	0.75	0.00	0.00
28	148.00	742 213	3	22.00	5.14	0.72	0.00	5.850	0.72	0.00	0.00
29	148.00	Flush Mount	1	150.00	4.00	1.00	225.00	6.000	1.00	0.00	0.00
30	60.50	GPS	1	10.00	1.00	1.00	18.00	1.250	1.00	0.00	0.00
31	60.50	Stand-Off	1	50.00	1.00	1.00	75.00	2.500	1.00	0.00	0.00
		Totals:	**92**	**8,196.10**			**10,366.30**				

Linear Appurtenances

			No Ice		Ice		
Bottom Elev. (ft)	Top Elev. (ft)	Description	Weight (lb/ft)	CaAa (sf/ft)	Weight (lb/ft)	CaAa (sf/ft)	Exposed
0.00	187.00	(18) 1 5/8" Coax	1.04	0.00	0.00	0.00	Inside
0.00	181.00	(3) 1/2" Coax	0.32	0.00	0.00	0.00	Inside
0.00	178.50	(9) 1 5/8" Coax	9.36	0.00	0.00	0.00	Inside
0.00	178.50	(6) 5/16" Coax	0.24	0.00	0.00	0.00	Inside
0.00	168.00	(4) 1 5/8" Fiber	4.40	0.00	0.00	0.00	Inside
0.00	158.00	(6) 1 5/8" Coax	6.24	0.00	0.00	0.00	Inside
0.00	158.00	(1) 3/8" Coax	0.16	0.00	0.00	0.00	Inside
0.00	158.00	(2) 5/8" Coax	0.90	0.00	0.00	0.00	Inside
107.25	148.00	(6) 1 5/8" Coax	1.04	0.20	1.50	0.30	Outside

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Hor. Ecc. (ft)	Vert Ecc (ft)
0.00	107.25	(6) 1 5/8" Coax		1.04	0.07		1.50	0.17	Outside		
90.25	107.25	(3) 1.25" Reinforcing plate		0.00	0.42		0.00	0.58	Outside		
46.50	79.25	(3) 1.25" Reinforcing plate		0.00	0.42		0.00	0.58	Outside		
35.50	60.50	(1) 1/2" Coax		0.16	0.07		0.32	0.17	Outside		
0.00	35.50	(3) 1.25" Reinforcing plate		0.00	0.42		0.00	0.58	Outside		
0.00	35.50	(1) 1/2" Coax		0.16	0.00		0.00	0.00	Outside		
		Totals:		**4,022.20**			**230.00**				

Shaft Section Properties

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

Increment Length: 2 (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	RB1	0.4375	51.740	71.237	23688.5	19.44	118.26	65	52	0.0	22.50	9686.0	6089.6	0.0
2.00		0.4375	51.408	70.776	23231.5	19.31	117.50	65	52	483.2	22.50	9565.2	6013.8	153.1
4.00		0.4375	51.076	70.315	22780.4	19.17	116.74	65	52	480.1	22.50	9445.2	5938.5	153.1
6.00		0.4375	50.744	69.854	22335.2	19.04	115.99	65	52	477.0	22.50	9325.9	5863.7	153.1
8.00		0.4375	50.412	69.393	21895.9	18.91	115.23	65	52	473.8	22.50	9207.4	5789.3	153.1
10.00		0.4375	50.080	68.932	21462.3	18.77	114.47	65	52	470.7	22.50	9089.7	5715.4	153.1
12.00		0.4375	49.748	68.471	21034.5	18.64	113.71	65	52	467.6	22.50	8972.7	5642.0	153.1
14.00		0.4375	49.416	68.010	20612.4	18.51	112.95	65	52	464.4	22.50	8856.5	5569.1	153.1
16.00		0.4375	49.084	67.549	20196.0	18.37	112.19	65	52	461.3	22.50	8741.0	5496.7	153.1
18.00		0.4375	48.752	67.088	19785.3	18.24	111.43	65	52	458.1	22.50	8626.3	5424.7	153.1
20.00		0.4375	48.419	66.627	19380.1	18.10	110.67	65	52	455.0	22.50	8512.4	5353.2	153.1
22.00		0.4375	48.087	66.166	18980.6	17.97	109.91	65	52	451.9	22.50	8399.2	5282.2	153.1
24.00		0.4375	47.755	65.704	18586.5	17.84	109.16	65	52	448.7	22.50	8286.8	5211.7	153.1
26.00		0.4375	47.423	65.243	18198.0	17.70	108.40	65	52	445.6	22.50	8175.1	5141.6	153.1
28.00		0.4375	47.091	64.782	17814.9	17.57	107.64	65	52	442.4	22.50	8064.2	5072.0	153.1
30.00		0.4375	46.759	64.321	17437.2	17.43	106.88	65	52	439.3	22.50	7954.1	5002.9	153.1
32.00		0.4375	46.427	63.860	17064.9	17.30	106.12	65	52	436.2	22.50	7844.7	4934.3	153.1
32.83	RT1	0.4375	46.289	63.669	16911.9	17.25	105.80	65	52	180.1	22.50	7799.6	4906.0	63.5
34.00		0.4375	46.095	63.399	16697.9	17.17	105.36	65	52	252.9				
36.00		0.4375	45.763	62.938	16336.2	17.03	104.60	65	52	429.9				
38.00		0.4375	45.431	62.477	15979.8	16.90	103.84	65	52	426.8				
40.00		0.4375	45.099	62.016	15628.6	16.77	103.08	65	52	423.6				
42.00		0.4375	44.767	61.555	15282.6	16.63	102.32	65	52	420.5				
43.25	Bot - Section 2	0.4375	44.559	61.267	15069.0	16.55	101.85	65	52	261.2				
44.00		0.4375	44.435	61.094	14941.8	16.50	101.57	65	52	292.4				
46.00		0.4375	44.103	60.633	14606.0	16.36	100.81	65	52	775.8				
48.00		0.4375	43.771	60.171	14275.3	16.23	100.05	65	52	770.0				
48.92	RB2	0.4375	43.618	59.959	14124.9	16.17	99.70	65	52	352.2	20.63	6581.7	4138.9	64.6
49.00	Top - Section 1	0.3750	44.355	52.345	12791.9	19.45	118.28	65	52	30.6	20.63	6577.9	4136.5	5.6
50.00		0.3750	44.189	52.147	12647.5	19.37	117.84	65	52	177.8	20.63	6527.5	4103.7	70.2
52.00		0.3750	43.857	51.752	12362.1	19.21	116.95	65	52	353.5	20.63	6432.7	4044.3	140.4
54.00		0.3750	43.525	51.357	12081.1	19.05	116.07	65	52	350.9	20.63	6338.5	3985.2	140.4
56.00		0.3750	43.193	50.962	11804.3	18.90	115.18	65	52	348.2	20.63	6245.1	3926.6	140.4
58.00		0.3750	42.861	50.567	11531.8	18.74	114.29	65	52	345.5	20.63	6152.3	3868.4	140.4
60.00		0.3750	42.528	50.171	11263.5	18.59	113.41	65	52	342.8	20.63	6060.3	3810.7	140.4
60.50		0.3750	42.445	50.073	11197.1	18.55	113.19	65	52	85.3	20.63	6037.4	3796.3	35.1
62.00		0.3750	42.196	49.776	10999.5	18.43	112.52	65	52	254.8	20.63	5968.9	3753.4	105.3
64.00		0.3750	41.864	49.381	10739.5	18.27	111.64	65	52	337.4	20.63	5878.3	3696.5	140.4
66.00		0.3750	41.532	48.986	10483.7	18.12	110.75	65	52	334.7	20.63	5788.3	3640.1	140.4
68.00		0.3750	41.200	48.590	10232.0	17.96	109.87	65	52	332.0	20.63	5699.1	3584.1	140.4
70.00		0.3750	40.868	48.195	9984.4	17.81	108.98	65	52	329.3	20.63	5610.5	3528.6	140.4
72.00		0.3750	40.536	47.800	9740.8	17.65	108.10	65	52	326.7	20.63	5522.6	3473.5	140.4
74.00		0.3750	40.204	47.405	9501.2	17.49	107.21	65	52	324.0	20.63	5435.5	3418.8	140.4
76.00		0.3750	39.872	47.010	9265.5	17.34	106.33	65	52	321.3	20.63	5349.0	3364.6	140.4
76.83	RT2	0.3750	39.734	46.846	9168.9	17.27	105.96	65	52	132.5	20.63	5313.3	3342.2	58.3
78.00		0.3750	39.540	46.614	9033.8	17.18	105.44	65	52	186.0				
80.00		0.3750	39.208	46.219	8805.9	17.03	104.55	65	52	315.9				
82.00		0.3750	38.876	45.824	8582.0	16.87	103.67	65	52	313.2				
84.00		0.3750	38.544	45.429	8361.8	16.71	102.78	65	52	310.5				
86.00		0.3750	38.212	45.034	8145.5	16.56	101.90	65	52	307.8				
87.50	Bot - Section 3	0.3750	37.963	44.737	7985.7	16.44	101.23	65	52	229.1				
88.00		0.3750	37.880	44.638	7932.9	16.40	101.01	65	52	140.6				

Increment Length: **2 (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)	Weight (lb)
90.00		0.3750	37.548	44.243	7724.1	16.24	100.13	65	52	559.1				
91.92	RB3	0.3750	37.229	43.864	7527.1	16.09	99.28	65	52	532.1	16.88	3954.6	2485.6	110.2
92.00		0.3750	37.216	43.848	7518.9	16.09	99.24	65	52	22.1	16.88	3951.9	2484.0	4.6
92.25	Top - Section 2	0.3125	37.799	37.181	6601.2	19.92	120.96	65	52	68.9	16.88	3943.6	2478.7	14.4
94.00		0.3125	37.509	36.893	6448.9	19.75	120.03	65	52	220.5	16.88	3883.2	2440.0	100.5
96.00		0.3125	37.177	36.563	6277.7	19.57	118.96	65	52	250.0	16.88	3817.1	2398.5	114.8
98.00		0.3125	36.844	36.234	6109.6	19.38	117.90	65	52	247.7	16.88	3751.6	2357.4	114.8
100.00		0.3125	36.512	35.904	5944.5	19.19	116.84	65	52	245.5	16.88	3686.6	2316.7	114.8
102.00		0.3125	36.180	35.575	5782.4	19.00	115.78	65	52	243.2	16.88	3622.2	2276.3	114.8
104.00		0.3125	35.848	35.246	5623.3	18.82	114.71	65	52	241.0	16.88	3558.4	2236.3	114.8
105.58	RT3	0.3125	35.586	34.986	5499.7	18.67	113.88	65	52	188.8	16.88	3508.3	2204.9	90.7
106.00		0.3125	35.516	34.916	5467.2	18.63	113.65	65	52	50.0				
108.00		0.3125	35.184	34.587	5313.9	18.44	112.59	65	52	236.5				
110.00		0.3125	34.852	34.258	5163.6	18.25	111.53	65	52	234.3				
112.00		0.3125	34.520	33.928	5016.1	18.07	110.46	65	52	232.0				
114.00		0.3125	34.188	33.599	4871.4	17.88	109.40	65	52	229.8				
116.00		0.3125	33.856	33.270	4729.5	17.69	108.34	65	52	227.5				
118.00		0.3125	33.524	32.940	4590.5	17.51	107.28	65	52	225.3				
120.00		0.3125	33.192	32.611	4454.2	17.32	106.21	65	52	223.1				
122.00		0.3125	32.860	32.282	4320.6	17.13	105.15	65	52	220.8				
124.00		0.3125	32.528	31.952	4189.7	16.94	104.09	65	52	218.6				
126.00		0.3125	32.196	31.623	4061.5	16.76	103.03	65	52	216.3				
128.00		0.3125	31.864	31.294	3935.9	16.57	101.96	65	52	214.1				
130.00		0.3125	31.532	30.964	3812.9	16.38	100.90	65	52	211.9				
132.00		0.3125	31.200	30.635	3692.5	16.19	99.84	65	52	209.6				
132.50	Bot - Section 4	0.3125	31.117	30.553	3662.8	16.15	99.57	65	52	52.1				
134.00		0.3125	30.868	30.306	3574.7	16.01	98.78	65	52	265.9				
136.00		0.3125	30.535	29.976	3459.4	15.82	97.71	65	52	351.3				
136.50	Top - Section 3	0.2188	30.890	21.300	2531.6	23.48	141.18	65	52	87.2				
138.00		0.2188	30.641	21.127	2470.4	23.28	140.04	65	52	108.3				
140.00		0.2188	30.309	20.896	2390.4	23.01	138.52	65	52	143.0				
142.00		0.2188	29.977	20.665	2312.1	22.75	137.01	65	52	141.4				
144.00		0.2188	29.645	20.435	2235.6	22.48	135.49	65	52	139.9				
146.00		0.2188	29.313	20.204	2160.7	22.21	133.97	65	52	138.3				
148.00		0.2188	28.981	19.974	2087.6	21.94	132.45	65	52	136.7				
150.00		0.2188	28.649	19.743	2016.1	21.68	130.94	65	52	135.1				
152.00		0.2188	28.317	19.512	1946.3	21.41	129.42	65	52	133.6				
154.00		0.2188	27.985	19.282	1878.1	21.14	127.90	65	52	132.0				
156.00		0.2188	27.653	19.051	1811.5	20.87	126.38	65	52	130.4				
158.00		0.2188	27.321	18.821	1746.6	20.61	124.87	65	52	128.9				
160.00		0.2188	26.988	18.590	1683.1	20.34	123.35	65	52	127.3				
162.00		0.2188	26.656	18.359	1621.3	20.07	121.83	65	52	125.7				
164.00		0.2188	26.324	18.129	1561.0	19.80	120.31	65	52	124.2				
166.00		0.2188	25.992	17.898	1502.1	19.54	118.79	65	52	122.6				
168.00		0.2188	25.660	17.668	1444.8	19.27	117.28	65	52	121.0				
168.50		0.2188	25.577	17.610	1430.7	19.20	116.90	65	52	30.0				
170.00		0.2188	25.328	17.437	1389.0	19.00	115.76	65	52	89.4				
172.00		0.2188	24.996	17.207	1334.6	18.73	114.24	65	52	117.9				
174.00		0.2188	24.664	16.976	1281.7	18.47	112.72	65	52	116.3				
176.00		0.2188	24.332	16.745	1230.2	18.20	111.21	65	52	114.7				
178.00	Top - Section 4	0.0000	0.000	0.000	0.0	NAN	NAN	0	0	113.2				
178.00	Bot - Section 5	0.2188	24.000	16.515	1180.0	17.93	109.69	65	52					
178.50		0.1875	24.000	14.171	1015.2	21.16	128.00	65	52	24.1				
180.00		0.1875	24.000	14.171	1015.2	21.16	128.00	65	52	72.3				
181.00		0.1875	24.000	14.171	1015.2	21.16	128.00	65	52	48.2				
182.00		0.1875	24.000	14.171	1015.2	21.16	128.00	65	52	48.2				
184.00		0.1875	24.000	14.171	1015.2	21.16	128.00	65	52	96.4				
186.00		0.1875	24.000	14.171	1015.2	21.16	128.00	65	52	96.4				
187.00		0.1875	24.000	14.171	1015.2	21.16	128.00	65	52	48.2				
188.00		0.1875	24.000	14.171	1015.2	21.16	128.00	65	52	48.2				

Increment Length: **2 (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)	Additional Reinforcing Ixp (in^4)	Additional Reinforcing Iyp (in^4)	Additional Reinforcing Weight (lb)
								Total Weight		**28148.4**				**5431.4**

Wind Loading - Shaft

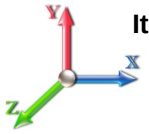
Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 11	

Tower Engineering Solutions

Load Case: 80 mph Wind with 0" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations: 33

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	RB1	0.00	1.00	16.384	27.69	344.93	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		0.00	1.00	16.384	27.69	342.72	0.650	0.000	2.00	8.596	5.59	154.7	0.0	789.5
4.00		0.00	1.00	16.384	27.69	340.51	0.650	0.000	2.00	8.540	5.55	153.7	0.0	786.3
6.00		0.00	1.00	16.384	27.69	338.29	0.650	0.000	2.00	8.485	5.52	152.7	0.0	783.2
8.00		0.00	1.00	16.384	27.69	336.08	0.650	0.000	2.00	8.430	5.48	151.7	0.0	780.1
10.00		0.00	1.00	16.384	27.69	333.86	0.650	0.000	2.00	8.374	5.44	150.7	0.0	776.9
12.00		0.00	1.00	16.384	27.69	331.65	0.650	0.000	2.00	8.319	5.41	149.7	0.0	773.8
14.00		0.00	1.00	16.384	27.69	329.44	0.650	0.000	2.00	8.264	5.37	148.7	0.0	770.7
16.00		0.00	1.00	16.384	27.69	327.22	0.650	0.000	2.00	8.208	5.34	147.7	0.0	767.5
18.00		0.00	1.00	16.384	27.69	325.01	0.650	0.000	2.00	8.153	5.30	146.7	0.0	764.4
20.00		0.00	1.00	16.384	27.69	322.80	0.650	0.000	2.00	8.098	5.26	145.7	0.0	761.2
22.00		0.00	1.00	16.384	27.69	320.58	0.650	0.000	2.00	8.042	5.23	144.7	0.0	758.1
24.00		0.00	1.00	16.384	27.69	318.37	0.650	0.000	2.00	7.987	5.19	143.7	0.0	755.0
26.00		0.00	1.00	16.384	27.69	316.16	0.650	0.000	2.00	7.932	5.16	142.8	0.0	751.8
28.00		0.00	1.00	16.384	27.69	313.94	0.650	0.000	2.00	7.876	5.12	141.8	0.0	748.7
30.00		0.00	1.00	16.384	27.69	311.73	0.650	0.000	2.00	7.821	5.08	140.8	0.0	745.6
32.00		0.00	1.00	16.384	27.69	309.51	0.650	0.000	2.00	7.766	5.05	139.8	0.0	742.4
32.83	RT1	0.00	1.00	16.384	27.69	308.60	0.650	0.000	0.83	3.206	2.08	57.7	0.0	307.2
34.00		0.00	1.01	16.524	27.93	308.61	0.650	0.000	1.17	4.504	2.93	81.8	0.0	252.9
36.00		0.00	1.03	16.796	28.39	308.90	0.650	0.000	2.00	7.655	4.98	141.2	0.0	429.9
38.00		0.00	1.04	17.058	28.83	309.04	0.650	0.000	2.00	7.600	4.94	142.4	0.0	426.8
40.00		0.00	1.06	17.310	29.25	309.04	0.650	0.000	2.00	7.544	4.90	143.5	0.0	423.6
42.00		0.00	1.07	17.553	29.66	308.91	0.650	0.000	2.00	7.489	4.87	144.4	0.0	420.5
43.25	Bot - Section 2	0.00	1.08	17.700	29.91	308.77	0.650	0.000	1.25	4.652	3.02	90.5	0.0	261.2
44.00		0.00	1.09	17.788	30.06	308.66	0.650	0.000	0.75	2.828	1.84	55.3	0.0	292.4
46.00		0.00	1.10	18.015	30.45	308.31	0.650	0.000	2.00	7.503	4.88	148.5	0.0	775.8
48.00		0.00	1.11	18.235	30.82	307.85	0.650	0.000	2.00	7.448	4.84	149.2	0.0	770.0
48.92	RB2	0.00	1.12	18.335	30.99	307.61	0.650	0.000	0.92	3.407	2.21	68.6	0.0	481.4
49.00	Top - Section 1	0.00	1.12	18.343	31.00	307.59	0.650	0.000	0.08	0.296	0.19	6.0	0.0	41.8
50.00		0.00	1.13	18.449	31.18	312.61	0.650	0.000	1.00	3.689	2.40	74.8	0.0	318.1
52.00		0.00	1.14	18.657	31.53	312.00	0.650	0.000	2.00	7.337	4.77	150.4	0.0	634.3
54.00		0.00	1.15	18.859	31.87	311.31	0.650	0.000	2.00	7.282	4.73	150.9	0.0	631.6
56.00		0.00	1.16	19.056	32.21	310.55	0.650	0.000	2.00	7.226	4.70	151.3	0.0	628.9
58.00		0.00	1.17	19.248	32.53	309.71	0.650	0.000	2.00	7.171	4.66	151.6	0.0	626.2
60.00		0.00	1.19	19.436	32.85	308.80	0.650	0.000	2.00	7.116	4.63	151.9	0.0	623.5
60.50	Appurtenance(s)	0.00	1.19	19.482	32.92	308.56	0.650	0.000	0.50	1.770	1.15	37.9	0.0	155.5
62.00		0.00	1.20	19.619	33.16	307.83	0.650	0.000	1.50	5.290	3.44	114.0	0.0	465.4
64.00		0.00	1.21	19.797	33.46	306.79	0.650	0.000	2.00	7.005	4.55	152.3	0.0	618.1
66.00		0.00	1.22	19.972	33.75	305.70	0.650	0.000	2.00	6.950	4.52	152.5	0.0	615.4
68.00		0.00	1.23	20.143	34.04	304.55	0.650	0.000	2.00	6.894	4.48	152.6	0.0	612.8
70.00		0.00	1.24	20.311	34.33	303.35	0.650	0.000	2.00	6.839	4.45	152.6	0.0	610.1
72.00		0.00	1.25	20.475	34.60	302.10	0.650	0.000	2.00	6.784	4.41	152.6	0.0	607.4
74.00		0.00	1.26	20.636	34.87	300.80	0.650	0.000	2.00	6.728	4.37	152.5	0.0	604.7
76.00		0.00	1.27	20.794	35.14	299.46	0.650	0.000	2.00	6.673	4.34	152.4	0.0	602.0
76.83	RT2	0.00	1.27	20.858	35.25	298.89	0.650	0.000	0.83	2.753	1.79	63.1	0.0	249.0
78.00		0.00	1.28	20.949	35.40	298.07	0.650	0.000	1.17	3.865	2.51	88.9	0.0	186.0
80.00		0.00	1.29	21.101	35.66	296.63	0.650	0.000	2.00	6.562	4.27	152.1	0.0	315.9
82.00		0.00	1.30	21.250	35.91	295.16	0.650	0.000	2.00	6.507	4.23	151.9	0.0	313.2

Wind Loading - Shaft

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

84.00	0.00	1.31	21.397	36.16	293.65	0.650	0.000	2.00	6.452	4.19	151.6	0.0	310.5
86.00	0.00	1.31	21.541	36.40	292.10	0.650	0.000	2.00	6.396	4.16	151.4	0.0	307.8
87.50 Bot - Section 3	0.00	1.32	21.648	36.59	290.91	0.650	0.000	1.50	4.761	3.09	113.2	0.0	229.1
88.00	0.00	1.32	21.683	36.64	290.51	0.650	0.000	0.50	1.606	1.04	38.3	0.0	140.6
90.00	0.00	1.33	21.823	36.88	288.89	0.650	0.000	2.00	6.390	4.15	153.2	0.0	559.1
91.92 RB3	0.00	1.34	21.955	37.10	287.31	0.650	0.000	1.92	6.082	3.95	146.7	0.0	752.6
92.00	0.00	1.34	21.960	37.11	287.24	0.650	0.000	0.08	0.252	0.16	6.1	0.0	31.3
92.25 Top - Section 2	0.00	1.34	21.977	37.14	287.03	0.650	0.000	0.25	0.788	0.51	19.0	0.0	97.6
94.00	0.00	1.35	22.096	37.34	290.39	0.650	0.000	1.75	5.491	3.57	133.3	0.0	421.5
96.00	0.00	1.36	22.229	37.57	288.69	0.650	0.000	2.00	6.224	4.05	152.0	0.0	479.6
98.00	0.00	1.36	22.360	37.79	286.95	0.650	0.000	2.00	6.168	4.01	151.5	0.0	477.4
100.00	0.00	1.37	22.490	38.01	285.19	0.650	0.000	2.00	6.113	3.97	151.0	0.0	475.2
102.00	0.00	1.38	22.617	38.22	283.40	0.650	0.000	2.00	6.058	3.94	150.5	0.0	472.9
104.00	0.00	1.39	22.743	38.44	281.58	0.650	0.000	2.00	6.002	3.90	150.0	0.0	470.7
105.58 RT3	0.00	1.39	22.842	38.60	280.12	0.650	0.000	1.58	4.703	3.06	118.0	0.0	370.2
106.00	0.00	1.40	22.867	38.65	279.73	0.650	0.000	0.42	1.244	0.81	31.3	0.0	50.0
108.00	0.00	1.40	22.990	38.85	277.85	0.650	0.000	2.00	5.892	3.83	148.8	0.0	236.5
110.00	0.00	1.41	23.111	39.06	275.95	0.650	0.000	2.00	5.836	3.79	148.2	0.0	234.3
112.00	0.00	1.42	23.230	39.26	274.03	0.650	0.000	2.00	5.781	3.76	147.5	0.0	232.0
114.00	0.00	1.43	23.348	39.46	272.08	0.650	0.000	2.00	5.726	3.72	146.8	0.0	229.8
116.00	0.00	1.43	23.464	39.65	270.11	0.650	0.000	2.00	5.670	3.69	146.2	0.0	227.5
118.00	0.00	1.44	23.579	39.85	268.11	0.650	0.000	2.00	5.615	3.65	145.4	0.0	225.3
120.00	0.00	1.45	23.692	40.04	266.09	0.650	0.000	2.00	5.560	3.61	144.7	0.0	223.1
122.00	0.00	1.45	23.805	40.23	264.06	0.650	0.000	2.00	5.504	3.58	143.9	0.0	220.8
124.00	0.00	1.46	23.915	40.42	262.00	0.650	0.000	2.00	5.449	3.54	143.2	0.0	218.6
126.00	0.00	1.47	24.025	40.60	259.91	0.650	0.000	2.00	5.394	3.51	142.3	0.0	216.3
128.00	0.00	1.47	24.133	40.79	257.81	0.650	0.000	2.00	5.338	3.47	141.5	0.0	214.1
130.00	0.00	1.48	24.241	40.97	255.69	0.650	0.000	2.00	5.283	3.43	140.7	0.0	211.9
132.00	0.00	1.49	24.347	41.15	253.55	0.650	0.000	2.00	5.228	3.40	139.8	0.0	209.6
132.50 Bot - Section 4	0.00	1.49	24.373	41.19	253.01	0.650	0.000	0.50	1.298	0.84	34.8	0.0	52.1
134.00	0.00	1.49	24.451	41.32	251.39	0.650	0.000	1.50	3.929	2.55	105.5	0.0	265.9
136.00	0.00	1.50	24.555	41.50	249.22	0.650	0.000	2.00	5.190	3.37	140.0	0.0	351.3
136.50 Top - Section 3	0.00	1.50	24.581	41.54	248.67	0.650	0.000	0.50	1.289	0.84	34.8	0.0	87.2
138.00	0.00	1.50	24.658	41.67	250.60	0.650	0.000	1.50	3.846	2.50	104.2	0.0	108.3
140.00	0.00	1.51	24.759	41.84	248.39	0.650	0.000	2.00	5.079	3.30	138.1	0.0	143.0
142.00	0.00	1.52	24.860	42.01	246.17	0.650	0.000	2.00	5.024	3.27	137.2	0.0	141.4
144.00	0.00	1.52	24.959	42.18	243.93	0.650	0.000	2.00	4.968	3.23	136.2	0.0	139.9
146.00	0.00	1.53	25.058	42.35	241.67	0.650	0.000	2.00	4.913	3.19	135.2	0.0	138.3
148.00 Appurtenance(s)	0.00	1.54	25.156	42.51	239.40	0.650	0.000	2.00	4.858	3.16	134.2	0.0	136.7
150.00	0.00	1.54	25.252	42.68	237.11	0.650	0.000	2.00	4.802	3.12	133.2	0.0	135.1
152.00	0.00	1.55	25.348	42.84	234.81	0.650	0.000	2.00	4.747	3.09	132.2	0.0	133.6
154.00	0.00	1.55	25.443	43.00	232.49	0.650	0.000	2.00	4.692	3.05	131.1	0.0	132.0
156.00	0.00	1.56	25.537	43.16	230.15	0.650	0.000	2.00	4.636	3.01	130.1	0.0	130.4
158.00 Appurtenance(s)	0.00	1.56	25.630	43.31	227.80	0.650	0.000	2.00	4.581	2.98	129.0	0.0	128.9
160.00	0.00	1.57	25.722	43.47	225.44	0.650	0.000	2.00	4.526	2.94	127.9	0.0	127.3
162.00	0.00	1.58	25.814	43.63	223.06	0.650	0.000	2.00	4.470	2.91	126.8	0.0	125.7
164.00	0.00	1.58	25.904	43.78	220.67	0.650	0.000	2.00	4.415	2.87	125.6	0.0	124.2
166.00	0.00	1.59	25.994	43.93	218.26	0.650	0.000	2.00	4.360	2.83	124.5	0.0	122.6
168.00 Appurtenance(s)	0.00	1.59	26.083	44.08	215.84	0.650	0.000	2.00	4.304	2.80	123.3	0.0	121.0
168.50 Appurtenance(s)	0.00	1.59	26.105	44.12	215.24	0.650	0.000	0.50	1.067	0.69	30.6	0.0	30.0
170.00	0.00	1.60	26.172	44.23	213.41	0.650	0.000	1.50	3.182	2.07	91.5	0.0	89.4
172.00	0.00	1.60	26.259	44.38	210.97	0.650	0.000	2.00	4.194	2.73	121.0	0.0	117.9
174.00	0.00	1.61	26.346	44.52	208.51	0.650	0.000	2.00	4.138	2.69	119.8	0.0	116.3
176.00	0.00	1.61	26.432	44.67	206.04	0.650	0.000	2.00	4.083	2.65	118.6	0.0	114.7
178.00 Top - Section 4	0.00	1.62	26.518	44.81	203.55	0.650	0.000	2.00	4.028	2.62	117.3	0.0	113.2
178.50 Appurtenance(s)	0.00	1.62	26.539	44.85	203.63	0.650	0.000	0.50	1.000	0.65	29.2	0.0	24.1
180.00	0.00	1.62	26.602	44.96	203.88	0.650	0.000	1.50	3.000	1.95	87.7	0.0	72.3
181.00 Appurtenance(s)	0.00	1.63	26.645	45.03	204.04	0.650	0.000	1.00	2.000	1.30	58.5	0.0	48.2

Wind Loading - Shaft

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

182.00	0.00	1.63	26.687	45.10	204.20	0.650	0.000	1.00	2.000	1.30	58.6	0.0	48.2
184.00 Appurtenance(s)	0.00	1.63	26.770	45.24	204.52	0.650	0.000	2.00	4.000	2.60	117.6	0.0	96.4
186.00	0.00	1.64	26.853	45.38	204.84	0.650	0.000	2.00	4.000	2.60	118.0	0.0	96.4
187.00 Appurtenance(s)	0.00	1.64	26.894	45.45	204.99	0.650	0.000	1.00	2.000	1.30	59.1	0.0	48.2
188.00 Appurtenance(s)	0.00	1.64	26.935	45.52	205.15	0.650	0.000	1.00	2.000	1.30	59.2	0.0	48.2
							Totals:	**188.00**			**13,357.4**		**39,011.3**

Discrete Appurtenance Forces

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 14	

Tower Engineering Solutions

Load Case: 80 mph Wind with 0" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations: 33

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	188.00	KRY 112 144/1	12	26.935	45.520	0.67	3.30	132.00	0.000	0.000	150.05	0.00	0.00
2	187.00	LNX-6515DS-A1M	3	26.894	45.451	0.80	27.38	149.40	0.000	0.000	1244.63	0.00	0.00
3	187.00	APXV18-209014-C	3	26.894	45.451	0.74	7.93	56.10	0.000	0.000	360.22	0.00	0.00
4	187.00	APX16PV-16PVL-E	3	26.894	45.451	0.62	12.37	118.80	0.000	0.000	562.18	0.00	0.00
5	184.00	Low Profile Platform	1	26.770	45.241	1.00	20.00	1500.00	0.000	0.000	904.83	0.00	0.00
6	181.00	VHLP1-23	2	26.645	45.029	1.00	3.22	28.40	0.000	0.000	144.99	0.00	0.00
7	178.50	840 10054	3	26.539	44.851	0.61	9.48	105.00	0.000	0.000	425.16	0.00	0.00
8	178.50	26" x 14" x 9" RRU	3	26.539	44.851	0.67	7.12	60.00	0.000	0.000	319.13	0.00	0.00
9	178.50	GPS	1	26.539	44.851	1.00	1.00	10.00	0.000	0.000	44.85	0.00	0.00
10	178.50	DB844H90E-XY	9	26.539	44.851	0.91	30.55	126.00	0.000	0.000	1370.14	0.00	0.00
11	178.50	Low Profile Platform	1	26.539	44.851	1.00	23.00	1500.00	0.000	0.000	1031.57	0.00	0.00
12	168.50	Low Profile Platform	1	26.105	44.118	1.00	20.00	1500.00	0.000	0.000	882.36	0.00	0.00
13	168.00	TD-RRH8x20-25	3	26.083	44.081	0.67	9.49	210.00	0.000	0.000	418.20	0.00	0.00
14	168.00	APXVTM14-C-120	3	26.083	44.081	0.79	16.35	168.00	0.000	0.000	720.85	0.00	0.00
15	168.00	APXVSPP18-C-A20	2	26.083	44.081	0.83	13.71	114.00	0.000	0.000	604.42	0.00	0.00
16	168.00	APXV9ERR18-C-A20	1	26.083	44.081	0.83	6.86	62.00	0.000	0.000	302.21	0.00	0.00
17	168.00	ACU-A20-N	4	26.083	44.081	1.00	0.56	4.00	0.000	0.000	24.69	0.00	0.00
18	168.00	800 MHz RRH	3	26.083	44.081	0.67	5.91	162.00	0.000	0.000	260.49	0.00	0.00
19	168.00	800 MHz Filters	3	26.083	44.081	0.67	5.91	162.00	0.000	0.000	260.49	0.00	0.00
20	168.00	1900 MHz RRH	3	26.083	44.081	0.67	5.91	132.00	0.000	0.000	260.49	0.00	0.00
21	158.00	7770.00	3	25.630	43.314	0.73	12.88	105.00	0.000	0.000	557.77	0.00	0.00
22	158.00	DC6-48-60-18-8F	1	25.630	43.314	1.00	1.47	31.80	0.000	0.000	63.67	0.00	0.00
23	158.00	LGP21401	6	25.630	43.314	0.67	5.07	114.00	0.000	0.000	219.40	0.00	0.00
24	158.00	P65-17-XLH-RR	2	25.630	43.314	0.75	17.19	118.00	0.000	0.000	744.58	0.00	0.00
25	158.00	RRUS 11	6	25.630	43.314	0.67	11.82	304.20	0.000	0.000	511.93	0.00	0.00
26	158.00	SBNHH-1D6565C	1	25.630	43.314	0.75	6.31	47.40	0.000	0.000	273.21	0.00	0.00
27	158.00	T-Arm	3	25.630	43.314	0.75	13.50	900.00	0.000	0.000	584.75	0.00	0.00
28	148.00	Flush Mount	1	25.156	42.513	1.00	4.00	150.00	0.000	0.000	170.05	0.00	0.00
29	148.00	742 213	3	25.156	42.513	0.72	11.10	66.00	0.000	0.000	471.99	0.00	0.00
30	60.50	Stand-Off	1	19.482	32.924	1.00	1.00	50.00	0.000	0.000	32.92	0.00	0.00
31	60.50	GPS	1	19.482	32.924	1.00	1.00	10.00	0.000	0.000	32.92	0.00	0.00
						Totals:		**8,196.10**			**13,955.14**		

Total Applied Force Summary

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 15	

Tower Engineering Solutions

Load Case: 80 mph Wind with 0" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations: 33

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		181.84	684.08	0.00	0.00
4.00		180.84	680.94	0.00	0.00
6.00		179.85	677.81	0.00	0.00
8.00		178.85	674.67	0.00	0.00
10.00		177.85	671.53	0.00	0.00
12.00		176.86	668.39	0.00	0.00
14.00		175.86	665.25	0.00	0.00
16.00		174.87	662.12	0.00	0.00
18.00		173.87	658.98	0.00	0.00
20.00		172.87	655.84	0.00	0.00
22.00		171.88	652.70	0.00	0.00
24.00		170.88	649.56	0.00	0.00
26.00		169.89	646.43	0.00	0.00
28.00		168.89	643.29	0.00	0.00
30.00		167.89	640.15	0.00	0.00
32.00		166.90	637.01	0.00	0.00
32.83		68.97	263.44	0.00	0.00
34.00		97.76	280.86	0.00	0.00
36.00		164.09	477.62	0.00	0.00
38.00		150.47	474.48	0.00	0.00
40.00		151.64	471.34	0.00	0.00
42.00		152.70	468.20	0.00	0.00
43.25		95.70	291.03	0.00	0.00
44.00		58.41	310.33	0.00	0.00
46.00		157.01	823.54	0.00	0.00
48.00		177.23	817.72	0.00	0.00
48.92		84.59	438.76	0.00	0.00
49.00		7.35	38.09	0.00	0.00
50.00		92.23	271.82	0.00	0.00
52.00		185.69	541.63	0.00	0.00
54.00		186.55	538.94	0.00	0.00
56.00		187.34	536.25	0.00	0.00
58.00		188.06	533.56	0.00	0.00
60.00		188.71	530.87	0.00	0.00
60.50	(2) appurtenances	112.95	192.30	0.00	0.00
62.00		138.38	395.65	0.00	0.00
64.00		185.13	525.17	0.00	0.00
66.00		185.55	522.48	0.00	0.00
68.00		185.92	519.79	0.00	0.00
70.00		186.23	517.10	0.00	0.00
72.00		186.49	514.41	0.00	0.00
74.00		186.70	511.73	0.00	0.00
76.00		186.86	509.04	0.00	0.00
76.83		77.42	210.46	0.00	0.00
78.00		109.23	213.77	0.00	0.00
80.00		175.82	363.29	0.00	0.00
82.00		156.92	360.60	0.00	0.00
84.00		156.71	357.91	0.00	0.00

Total Applied Force Summary

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

86.00		156.45	355.22	0.00	0.00
87.50		117.06	264.65	0.00	0.00
88.00		39.54	152.40	0.00	0.00
90.00		158.34	606.52	0.00	0.00
91.92		177.70	687.87	0.00	0.00
92.00		7.54	28.56	0.00	0.00
92.25		23.57	89.21	0.00	0.00
94.00		165.30	362.51	0.00	0.00
96.00		188.79	412.19	0.00	0.00
98.00		188.55	409.95	0.00	0.00
100.00		188.27	407.71	0.00	0.00
102.00		187.97	405.47	0.00	0.00
104.00		187.63	403.23	0.00	0.00
105.58		147.88	316.97	0.00	0.00
106.00		39.21	59.90	0.00	0.00
108.00		178.42	283.91	0.00	0.00
110.00		163.79	281.66	0.00	0.00
112.00		163.22	279.42	0.00	0.00
114.00		162.63	277.18	0.00	0.00
116.00		162.02	274.94	0.00	0.00
118.00		161.38	272.70	0.00	0.00
120.00		160.71	270.46	0.00	0.00
122.00		160.03	268.22	0.00	0.00
124.00		159.32	265.97	0.00	0.00
126.00		158.59	263.73	0.00	0.00
128.00		157.84	261.49	0.00	0.00
130.00		157.06	259.25	0.00	0.00
132.00		156.27	257.01	0.00	0.00
132.50		38.88	63.90	0.00	0.00
134.00		117.92	301.49	0.00	0.00
136.00		156.59	398.66	0.00	0.00
136.50		38.95	99.07	0.00	0.00
138.00		116.67	143.83	0.00	0.00
140.00		154.88	190.39	0.00	0.00
142.00		154.00	188.82	0.00	0.00
144.00		153.10	187.26	0.00	0.00
146.00		152.18	185.69	0.00	0.00
148.00	(4) appurtenances	793.29	400.12	0.00	0.00
150.00		133.22	180.47	0.00	0.00
152.00		132.18	178.90	0.00	0.00
154.00		131.13	177.33	0.00	0.00
156.00		130.06	175.76	0.00	0.00
158.00	(22) appurtenances	3084.27	1794.59	0.00	0.00
160.00		127.88	158.02	0.00	0.00
162.00		126.76	156.45	0.00	0.00
164.00		125.63	154.88	0.00	0.00
166.00		124.49	153.31	0.00	0.00
168.00	(22) appurtenances	2975.17	1165.74	0.00	0.00
168.50	(1) appurtenances	912.97	1535.49	0.00	0.00
170.00		91.47	105.88	0.00	0.00
172.00		120.97	139.80	0.00	0.00
174.00		119.77	138.24	0.00	0.00
176.00		118.55	136.67	0.00	0.00
178.00		117.32	135.10	0.00	0.00
178.50	(17) appurtenances	3220.00	1830.59	0.00	0.00
180.00		87.67	74.37	0.00	0.00
181.00	(2) appurtenances	203.53	77.98	0.00	0.00
182.00		58.63	49.26	0.00	0.00

Total Applied Force Summary

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

184.00	(1) appurtenances	1022.46	1598.52	0.00	0.00
186.00		117.99	98.52	0.00	0.00
187.00	(9) appurtenances	2226.12	373.56	0.00	0.00
188.00	(12) appurtenances	209.23	180.22	0.00	0.00
	Totals:	**29,083.73**	**45,798.15**	**0.00**	**0.00**

Resulting Forces and Deflections

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 18	

Tower Engineering Solutions

Load Case: 80 mph Wind with 0" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations: 33

Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	Deflect X (in)	Deflect Z (in)	Deflect Resultant (in)	Rotation Sway (deg)	Rotation Twist (deg)
0.00	-29.113	-45.778	0.000	0.000	0.000	-3923.744	0.000	0.000	0.000	0.000	0.000
2.00	-28.989	-45.057	0.000	0.000	0.000	-3865.519	-0.016	0.000	0.016	-0.074	0.000
4.00	-28.865	-44.339	0.000	0.000	0.000	-3807.542	-0.063	0.000	0.063	-0.149	0.000
6.00	-28.740	-43.624	0.000	0.000	0.000	-3749.813	-0.142	0.000	0.142	-0.224	0.000
8.00	-28.614	-42.913	0.000	0.000	0.000	-3692.334	-0.252	0.000	0.252	-0.299	0.000
10.00	-28.488	-42.205	0.000	0.000	0.000	-3635.106	-0.394	0.000	0.394	-0.374	0.000
12.00	-28.361	-41.500	0.000	0.000	0.000	-3578.131	-0.567	0.000	0.567	-0.450	0.000
14.00	-28.234	-40.799	0.000	0.000	0.000	-3521.409	-0.771	0.000	0.771	-0.525	0.000
16.00	-28.105	-40.102	0.000	0.000	0.000	-3464.943	-1.008	0.000	1.008	-0.601	0.000
18.00	-27.977	-39.407	0.000	0.000	0.000	-3408.733	-1.276	0.000	1.276	-0.677	0.000
20.00	-27.847	-38.717	0.000	0.000	0.000	-3352.781	-1.576	0.000	1.576	-0.753	0.000
22.00	-27.717	-38.030	0.000	0.000	0.000	-3297.087	-1.908	0.000	1.908	-0.830	0.000
24.00	-27.586	-37.346	0.000	0.000	0.000	-3241.654	-2.272	0.000	2.272	-0.906	0.000
26.00	-27.455	-36.665	0.000	0.000	0.000	-3186.482	-2.669	0.000	2.669	-0.983	0.000
28.00	-27.323	-35.989	0.000	0.000	0.000	-3131.573	-3.097	0.000	3.097	-1.060	0.000
30.00	-27.191	-35.315	0.000	0.000	0.000	-3076.928	-3.558	0.000	3.558	-1.137	0.000
32.00	-27.044	-34.656	0.000	0.000	0.000	-3022.547	-4.051	0.000	4.051	-1.215	0.000
32.83	-26.992	-34.376	0.000	0.000	0.000	-3000.101	-4.265	0.000	4.265	-1.247	0.000
34.00	-26.932	-34.063	0.000	0.000	0.000	-2968.521	-4.577	0.000	4.577	-1.292	0.000
36.00	-26.816	-33.542	0.000	0.000	0.000	-2914.657	-5.140	0.000	5.140	-1.393	0.000
38.00	-26.712	-33.024	0.000	0.000	0.000	-2861.027	-5.745	0.000	5.745	-1.493	0.000
40.00	-26.605	-32.511	0.000	0.000	0.000	-2807.605	-6.392	0.000	6.392	-1.594	0.000
42.00	-26.485	-32.009	0.000	0.000	0.000	-2754.397	-7.082	0.000	7.082	-1.695	0.000
43.25	-26.408	-31.697	0.000	0.000	0.000	-2721.292	-7.534	0.000	7.534	-1.759	0.000
44.00	-26.379	-31.357	0.000	0.000	0.000	-2701.486	-7.814	0.000	7.814	-1.797	0.000
46.00	-26.250	-30.492	0.000	0.000	0.000	-2648.729	-8.589	0.000	8.589	-1.899	0.000
48.00	-26.083	-29.647	0.000	0.000	0.000	-2596.231	-9.406	0.000	9.406	-2.001	0.000
48.92	-25.996	-29.200	0.000	0.000	0.000	-2572.234	-9.797	0.000	9.797	-2.049	0.000
49.00	-25.998	-29.152	0.000	0.000	0.000	-2570.155	-9.831	0.000	9.831	-2.052	0.000
50.00	-25.928	-28.856	0.000	0.000	0.000	-2544.157	-10.265	0.000	10.265	-2.092	0.000
52.00	-25.764	-28.283	0.000	0.000	0.000	-2492.302	-11.160	0.000	11.160	-2.177	0.000
54.00	-25.598	-27.713	0.000	0.000	0.000	-2440.774	-12.090	0.000	12.090	-2.263	0.000
56.00	-25.430	-27.147	0.000	0.000	0.000	-2389.578	-13.056	0.000	13.056	-2.348	0.000
58.00	-25.260	-26.584	0.000	0.000	0.000	-2338.719	-14.058	0.000	14.058	-2.434	0.000
60.00	-25.072	-26.039	0.000	0.000	0.000	-2288.200	-15.096	0.000	15.096	-2.519	0.000
60.50	-24.970	-25.833	0.000	0.000	0.000	-2275.664	-15.361	0.000	15.361	-2.541	0.000
62.00	-24.848	-25.412	0.000	0.000	0.000	-2238.209	-16.169	0.000	16.169	-2.605	0.000
64.00	-24.675	-24.859	0.000	0.000	0.000	-2188.514	-17.278	0.000	17.278	-2.690	0.000
66.00	-24.501	-24.309	0.000	0.000	0.000	-2139.164	-18.423	0.000	18.423	-2.775	0.000
68.00	-24.325	-23.763	0.000	0.000	0.000	-2090.162	-19.604	0.000	19.604	-2.860	0.000
70.00	-24.148	-23.221	0.000	0.000	0.000	-2041.512	-20.820	0.000	20.820	-2.945	0.000
72.00	-23.968	-22.681	0.000	0.000	0.000	-1993.217	-22.072	0.000	22.072	-3.030	0.000
74.00	-23.787	-22.145	0.000	0.000	0.000	-1945.282	-23.359	0.000	23.359	-3.115	0.000
76.00	-23.595	-21.623	0.000	0.000	0.000	-1897.708	-24.681	0.000	24.681	-3.200	0.000
76.83	-23.522	-21.399	0.000	0.000	0.000	-1878.125	-25.240	0.000	25.240	-3.235	0.000
78.00	-23.431	-21.158	0.000	0.000	0.000	-1850.605	-26.039	0.000	26.039	-3.284	0.000
80.00	-23.276	-20.759	0.000	0.000	0.000	-1803.743	-27.439	0.000	27.439	-3.399	0.000
82.00	-23.139	-20.362	0.000	0.000	0.000	-1757.191	-28.887	0.000	28.887	-3.515	0.000
84.00	-23.000	-19.969	0.000	0.000	0.000	-1710.914	-30.383	0.000	30.383	-3.629	0.000

Resulting Forces and Deflections

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

86.00	-22.856	-19.584	0.000	0.000	0.000	-1664.915	-31.928	0.000	31.928	-3.744	0.000
87.50	-22.741	-19.305	0.000	0.000	0.000	-1630.632	-33.117	0.000	33.117	-3.831	0.000
88.00	-22.715	-19.127	0.000	0.000	0.000	-1619.262	-33.520	0.000	33.520	-3.860	0.000
90.00	-22.552	-18.489	0.000	0.000	0.000	-1573.832	-35.160	0.000	35.160	-3.974	0.000
91.92	-22.344	-17.793	0.000	0.000	0.000	-1530.533	-36.780	0.000	36.780	-4.084	0.000
92.00	-22.336	-17.763	0.000	0.000	0.000	-1528.746	-36.848	0.000	36.848	-4.087	0.000
92.25	-22.320	-17.658	0.000	0.000	0.000	-1523.162	-37.062	0.000	37.062	-4.098	0.000
94.00	-22.154	-17.276	0.000	0.000	0.000	-1484.103	-38.577	0.000	38.577	-4.173	0.000
96.00	-21.963	-16.843	0.000	0.000	0.000	-1439.795	-40.344	0.000	40.344	-4.267	0.000
98.00	-21.771	-16.414	0.000	0.000	0.000	-1395.869	-42.150	0.000	42.150	-4.360	0.000
100.00	-21.577	-15.987	0.000	0.000	0.000	-1352.329	-43.994	0.000	43.994	-4.452	0.000
102.00	-21.383	-15.563	0.000	0.000	0.000	-1309.174	-45.877	0.000	45.877	-4.543	0.000
104.00	-21.185	-15.147	0.000	0.000	0.000	-1266.409	-47.798	0.000	47.798	-4.634	0.000
105.58	-21.024	-14.826	0.000	0.000	0.000	-1232.937	-49.342	0.000	49.342	-4.706	0.000
106.00	-20.998	-14.743	0.000	0.000	0.000	-1224.107	-49.757	0.000	49.757	-4.725	0.000
108.00	-20.828	-14.430	0.000	0.000	0.000	-1182.111	-51.761	0.000	51.761	-4.850	0.000
110.00	-20.672	-14.118	0.000	0.000	0.000	-1140.455	-53.817	0.000	53.817	-4.974	0.000
112.00	-20.514	-13.810	0.000	0.000	0.000	-1099.112	-55.925	0.000	55.925	-5.098	0.000
114.00	-20.356	-13.506	0.000	0.000	0.000	-1058.084	-58.084	0.000	58.084	-5.220	0.000
116.00	-20.197	-13.204	0.000	0.000	0.000	-1017.373	-60.294	0.000	60.294	-5.341	0.000
118.00	-20.038	-12.906	0.000	0.000	0.000	-976.979	-62.554	0.000	62.554	-5.461	0.000
120.00	-19.878	-12.612	0.000	0.000	0.000	-936.903	-64.864	0.000	64.864	-5.580	0.000
122.00	-19.717	-12.321	0.000	0.000	0.000	-897.148	-67.223	0.000	67.223	-5.697	0.000
124.00	-19.556	-12.033	0.000	0.000	0.000	-857.714	-69.631	0.000	69.631	-5.812	0.000
126.00	-19.395	-11.748	0.000	0.000	0.000	-818.602	-72.086	0.000	72.086	-5.926	0.000
128.00	-19.233	-11.468	0.000	0.000	0.000	-779.813	-74.589	0.000	74.589	-6.038	0.000
130.00	-19.070	-11.190	0.000	0.000	0.000	-741.348	-77.137	0.000	77.137	-6.148	0.000
132.00	-18.900	-10.930	0.000	0.000	0.000	-703.207	-79.731	0.000	79.731	-6.256	0.000
132.50	-18.865	-10.853	0.000	0.000	0.000	-693.758	-80.387	0.000	80.387	-6.283	0.000
134.00	-18.731	-10.536	0.000	0.000	0.000	-665.461	-82.370	0.000	82.370	-6.362	0.000
136.00	-18.542	-10.137	0.000	0.000	0.000	-628.000	-85.052	0.000	85.052	-6.465	0.000
136.50	-18.501	-10.027	0.000	0.000	0.000	-618.729	-85.729	0.000	85.729	-6.491	0.000
138.00	-18.387	-9.863	0.000	0.000	0.000	-590.977	-87.776	0.000	87.776	-6.566	0.000
140.00	-18.233	-9.651	0.000	0.000	0.000	-554.204	-90.550	0.000	90.550	-6.698	0.000
142.00	-18.079	-9.442	0.000	0.000	0.000	-517.738	-93.377	0.000	93.377	-6.825	0.000
144.00	-17.924	-9.237	0.000	0.000	0.000	-481.582	-96.257	0.000	96.257	-6.948	0.000
146.00	-17.768	-9.035	0.000	0.000	0.000	-445.735	-99.186	0.000	99.186	-7.066	0.000
148.00	-16.948	-8.704	0.000	0.000	0.000	-410.199	-102.164	0.000	102.164	-7.179	0.000
150.00	-16.809	-8.511	0.000	0.000	0.000	-376.303	-105.187	0.000	105.187	-7.286	0.000
152.00	-16.669	-8.322	0.000	0.000	0.000	-342.686	-108.254	0.000	108.254	-7.388	0.000
154.00	-16.529	-8.137	0.000	0.000	0.000	-309.348	-111.361	0.000	111.361	-7.483	0.000
156.00	-16.389	-7.955	0.000	0.000	0.000	-276.290	-114.507	0.000	114.507	-7.572	0.000
158.00	-13.103	-6.567	0.000	0.000	0.000	-243.512	-117.688	0.000	117.688	-7.653	0.000
160.00	-12.963	-6.412	0.000	0.000	0.000	-217.306	-120.901	0.000	120.901	-7.728	0.000
162.00	-12.824	-6.259	0.000	0.000	0.000	-191.380	-124.145	0.000	124.145	-7.797	0.000
164.00	-12.685	-6.110	0.000	0.000	0.000	-165.732	-127.415	0.000	127.415	-7.860	0.000
166.00	-12.546	-5.963	0.000	0.000	0.000	-140.363	-130.710	0.000	130.710	-7.916	0.000
168.00	-9.441	-5.215	0.000	0.000	0.000	-115.272	-134.027	0.000	134.027	-7.964	0.000
168.50	-8.325	-3.818	0.000	0.000	0.000	-110.551	-134.859	0.000	134.859	-7.975	0.000
170.00	-8.222	-3.721	0.000	0.000	0.000	-98.064	-137.362	0.000	137.362	-8.007	0.000
172.00	-8.085	-3.595	0.000	0.000	0.000	-81.620	-140.714	0.000	140.714	-8.043	0.000
174.00	-7.949	-3.471	0.000	0.000	0.000	-65.450	-144.079	0.000	144.079	-8.075	0.000
176.00	-7.813	-3.349	0.000	0.000	0.000	-49.553	-147.457	0.000	147.457	-8.100	0.000
178.00	-7.679	-3.230	0.000	0.000	0.000	-33.927	-150.844	0.000	150.844	-8.120	0.000
178.50	-4.233	-1.873	0.000	0.000	0.000	-30.087	-151.691	0.000	151.691	-8.123	0.000
180.00	-4.136	-1.811	0.000	0.000	0.000	-23.738	-154.237	0.000	154.237	-8.135	0.000
181.00	-3.923	-1.762	0.000	0.000	0.000	-19.602	-155.936	0.000	155.936	-8.141	0.000
182.00	-3.859	-1.721	0.000	0.000	0.000	-15.679	-157.636	0.000	157.636	-8.146	0.000

Resulting Forces and Deflections

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 20	

184.00	-2.620	-0.284	0.000	0.000	0.000	-7.962	-161.039	0.000	161.039	-8.152	0.000
186.00	-2.489	-0.203	0.000	0.000	0.000	-2.722	-164.443	0.000	164.443	-8.155	0.000
187.00	-0.233	-0.149	0.000	0.000	0.000	-0.233	-166.145	0.000	166.145	-8.156	0.000
188.00	-0.209	0.000	0.000	0.000	0.000	0.000	0.000	0.000	167.848	-8.156	0.000

Resulting Stresses

Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 21	

Tower Engineering Solutions

Load Case: 80 mph Wind with 0" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations: 33

Applied Stresses

Elev (ft)	fa Axial (Y) (ksi)	fvx Shear (X) (ksi)	fvz Shear (Z) (ksi)	fvt Torsion (ksi)	fbx Bending (X) (ksi)	fbz Bending (Z) (ksi)	fb Combined (ksi)	Fb Allow Stress (ksi)	f/Fb Stress Ratio
0.00	0.64	0.82	0.00	0.00	0.00	42.15	42.79	52.0	0.823
2.00	0.64	0.83	0.00	0.00	0.00	42.01	42.01	52.0	0.808
4.00	0.63	0.83	0.00	0.00	0.00	41.87	41.87	52.0	0.806
6.00	0.62	0.83	0.00	0.00	0.00	41.73	41.73	52.0	0.803
8.00	0.62	0.83	0.00	0.00	0.00	41.58	41.58	52.0	0.800
10.00	0.61	0.83	0.00	0.00	0.00	41.43	41.43	52.0	0.797
12.00	0.61	0.83	0.00	0.00	0.00	41.28	41.28	52.0	0.794
14.00	0.60	0.84	0.00	0.00	0.00	41.12	41.12	52.0	0.791
16.00	0.59	0.84	0.00	0.00	0.00	40.96	40.96	52.0	0.788
18.00	0.59	0.84	0.00	0.00	0.00	40.79	40.79	52.0	0.785
20.00	0.58	0.84	0.00	0.00	0.00	40.62	40.62	52.0	0.781
22.00	0.57	0.84	0.00	0.00	0.00	40.44	40.44	52.0	0.778
24.00	0.57	0.85	0.00	0.00	0.00	40.26	40.26	52.0	0.775
26.00	0.56	0.85	0.00	0.00	0.00	40.08	40.08	52.0	0.771
28.00	0.56	0.85	0.00	0.00	0.00	39.89	39.89	52.0	0.767
30.00	0.55	0.85	0.00	0.00	0.00	39.70	39.70	52.0	0.764
32.00	0.54	0.85	0.00	0.00	0.00	39.50	39.50	52.0	0.760
32.83	0.54	0.85	0.00	0.00	0.00	39.42	39.96	52.0	0.769
34.00	0.54	0.86	0.00	0.00	0.00	49.93	50.49	52.0	0.971
36.00	0.53	0.86	0.00	0.00	0.00	49.75	50.30	52.0	0.968
38.00	0.53	0.86	0.00	0.00	0.00	49.56	50.11	52.0	0.964
40.00	0.52	0.86	0.00	0.00	0.00	49.36	49.91	52.0	0.960
42.00	0.52	0.87	0.00	0.00	0.00	49.16	49.70	52.0	0.956
43.25	0.52	0.87	0.00	0.00	0.00	49.03	49.57	52.0	0.954
44.00	0.51	0.87	0.00	0.00	0.00	48.95	49.48	52.0	0.952
46.00	0.50	0.87	0.00	0.00	0.00	48.73	49.25	52.0	0.948
48.00	0.49	0.87	0.00	0.00	0.00	48.50	49.02	52.0	0.943
48.92	0.49	0.87	0.00	0.00	0.00	38.04	38.53	52.0	0.741
49.00	0.56	1.00	0.00	0.00	0.00	38.03	38.03	52.0	0.732
50.00	0.55	1.00	0.00	0.00	0.00	41.63	41.63	52.0	0.801
52.00	0.55	1.00	0.00	0.00	0.00	41.33	41.33	52.0	0.795
54.00	0.54	1.00	0.00	0.00	0.00	41.03	41.03	52.0	0.789
56.00	0.53	1.01	0.00	0.00	0.00	40.71	40.71	52.0	0.783
58.00	0.53	1.01	0.00	0.00	0.00	40.39	40.39	52.0	0.777
60.00	0.52	1.01	0.00	0.00	0.00	40.07	40.07	52.0	0.771
60.50	0.52	1.01	0.00	0.00	0.00	39.99	39.99	52.0	0.769
62.00	0.51	1.01	0.00	0.00	0.00	39.74	39.74	52.0	0.765
64.00	0.50	1.01	0.00	0.00	0.00	39.40	39.40	52.0	0.758
66.00	0.50	1.01	0.00	0.00	0.00	39.06	39.06	52.0	0.751
68.00	0.49	1.01	0.00	0.00	0.00	38.71	38.71	52.0	0.745
70.00	0.48	1.01	0.00	0.00	0.00	38.35	38.35	52.0	0.738
72.00	0.47	1.01	0.00	0.00	0.00	37.98	37.98	52.0	0.731
74.00	0.47	1.01	0.00	0.00	0.00	37.61	37.61	52.0	0.723
76.00	0.46	1.01	0.00	0.00	0.00	37.22	37.22	52.0	0.716
76.83	0.46	1.01	0.00	0.00	0.00	37.06	37.52	52.0	0.722
78.00	0.45	1.01	0.00	0.00	0.00	49.35	49.83	52.0	0.959
80.00	0.45	1.01	0.00	0.00	0.00	48.93	49.41	52.0	0.951

Resulting Stresses

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

82.00	0.44	1.02	0.00	0.00	0.00	48.50	48.97	52.0	0.942
84.00	0.44	1.02	0.00	0.00	0.00	48.05	48.52	52.0	0.933
86.00	0.43	1.02	0.00	0.00	0.00	47.59	48.05	52.0	0.924
87.50	0.43	1.02	0.00	0.00	0.00	47.23	47.69	52.0	0.918
88.00	0.43	1.03	0.00	0.00	0.00	47.11	47.57	52.0	0.915
90.00	0.42	1.03	0.00	0.00	0.00	46.61	47.06	52.0	0.905
91.92	0.41	1.03	0.00	0.00	0.00	35.30	35.71	52.0	0.687
92.00	0.41	1.03	0.00	0.00	0.00	35.28	35.28	52.0	0.679
92.25	0.47	1.21	0.00	0.00	0.00	35.22	35.22	52.0	0.678
94.00	0.47	1.21	0.00	0.00	0.00	38.94	38.94	52.0	0.749
96.00	0.46	1.21	0.00	0.00	0.00	38.37	38.37	52.0	0.738
98.00	0.45	1.21	0.00	0.00	0.00	37.78	37.78	52.0	0.727
100.00	0.45	1.21	0.00	0.00	0.00	37.18	37.18	52.0	0.715
102.00	0.44	1.21	0.00	0.00	0.00	36.57	36.57	52.0	0.704
104.00	0.43	1.21	0.00	0.00	0.00	35.94	35.94	52.0	0.691
105.58	0.42	1.21	0.00	0.00	0.00	35.44	35.87	52.0	0.690
106.00	0.42	1.21	0.00	0.00	0.00	48.45	48.92	52.0	0.941
108.00	0.42	1.21	0.00	0.00	0.00	47.69	48.15	52.0	0.926
110.00	0.41	1.22	0.00	0.00	0.00	46.90	47.36	52.0	0.911
112.00	0.41	1.22	0.00	0.00	0.00	46.08	46.54	52.0	0.895
114.00	0.40	1.22	0.00	0.00	0.00	45.24	45.69	52.0	0.879
116.00	0.40	1.22	0.00	0.00	0.00	44.37	44.82	52.0	0.862
118.00	0.39	1.23	0.00	0.00	0.00	43.47	43.91	52.0	0.845
120.00	0.39	1.23	0.00	0.00	0.00	42.54	42.98	52.0	0.827
122.00	0.38	1.23	0.00	0.00	0.00	41.57	42.01	52.0	0.808
124.00	0.38	1.23	0.00	0.00	0.00	40.57	41.00	52.0	0.789
126.00	0.37	1.24	0.00	0.00	0.00	39.54	39.96	52.0	0.769
128.00	0.37	1.24	0.00	0.00	0.00	38.46	38.89	52.0	0.748
130.00	0.36	1.24	0.00	0.00	0.00	37.35	37.77	52.0	0.727
132.00	0.36	1.24	0.00	0.00	0.00	36.20	36.62	52.0	0.704
132.50	0.36	1.24	0.00	0.00	0.00	35.91	36.33	52.0	0.699
134.00	0.35	1.25	0.00	0.00	0.00	35.01	35.42	52.0	0.681
136.00	0.34	1.25	0.00	0.00	0.00	33.77	34.18	52.0	0.658
136.50	0.47	1.75	0.00	0.00	0.00	46.00	46.57	52.0	0.896
138.00	0.47	1.75	0.00	0.00	0.00	44.66	45.23	52.0	0.870
140.00	0.46	1.76	0.00	0.00	0.00	42.81	43.38	52.0	0.835
142.00	0.46	1.76	0.00	0.00	0.00	40.90	41.47	52.0	0.798
144.00	0.45	1.77	0.00	0.00	0.00	38.91	39.48	52.0	0.759
146.00	0.45	1.77	0.00	0.00	0.00	36.84	37.41	52.0	0.720
148.00	0.44	1.71	0.00	0.00	0.00	34.69	35.25	52.0	0.678
150.00	0.43	1.72	0.00	0.00	0.00	32.58	33.14	52.0	0.638
152.00	0.43	1.72	0.00	0.00	0.00	30.38	30.95	52.0	0.595
154.00	0.42	1.73	0.00	0.00	0.00	28.08	28.66	52.0	0.551
156.00	0.42	1.73	0.00	0.00	0.00	25.70	26.28	52.0	0.506
158.00	0.35	1.40	0.00	0.00	0.00	23.21	23.68	52.0	0.456
160.00	0.34	1.41	0.00	0.00	0.00	21.23	21.71	52.0	0.418
162.00	0.34	1.41	0.00	0.00	0.00	19.17	19.66	52.0	0.378
164.00	0.34	1.41	0.00	0.00	0.00	17.03	17.54	52.0	0.337
166.00	0.33	1.41	0.00	0.00	0.00	14.80	15.33	52.0	0.295
168.00	0.30	1.08	0.00	0.00	0.00	12.47	12.90	52.0	0.248
168.50	0.22	0.95	0.00	0.00	0.00	12.04	12.37	52.0	0.238
170.00	0.21	0.95	0.00	0.00	0.00	10.89	11.23	52.0	0.216
172.00	0.21	0.95	0.00	0.00	0.00	9.31	9.66	52.0	0.186
174.00	0.20	0.94	0.00	0.00	0.00	7.67	8.05	52.0	0.155
176.00	0.20	0.94	0.00	0.00	0.00	5.97	6.38	52.0	0.123
178.00	0.20	0.94	0.00	0.00	0.00	4.20	4.69	52.0	0.090
178.00	0.20	0.94	0.00	0.00	0.00	4.20	4.69	52.0	0.105
178.50	0.13	0.60	0.00	0.00	0.00	4.33	4.59	52.0	0.088

Resulting Stresses

Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 23	

180.00	0.13	0.59	0.00	0.00	0.00	3.42	3.69	52.0	0.071
181.00	0.12	0.56	0.00	0.00	0.00	2.82	3.10	52.0	0.060
182.00	0.12	0.55	0.00	0.00	0.00	2.26	2.56	52.0	0.049
184.00	0.02	0.37	0.00	0.00	0.00	1.15	1.33	52.0	0.026
186.00	0.01	0.35	0.00	0.00	0.00	0.39	0.74	52.0	0.014
187.00	0.01	0.03	0.00	0.00	0.00	0.03	0.07	52.0	0.001
188.00	0.00	0.03	0.00	0.00	0.00	0.00	0.05	52.0	0.001

Wind Loading - Shaft

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

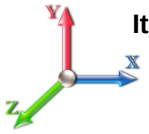
Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

Load Case: 69.28 mph Wind with 0.5" Ice

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations: 33

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	RB1	0.00	1.00	12.287	20.77	298.71	0.650	0.500	0.00	0.000	0.00	0.0	0.0	0.0
2.00		0.00	1.00	12.287	20.77	296.80	0.650	0.500	2.00	8.762	5.70	118.3	64.1	853.6
4.00		0.00	1.00	12.287	20.77	294.88	0.650	0.500	2.00	8.707	5.66	117.5	63.7	850.0
6.00		0.00	1.00	12.287	20.77	292.96	0.650	0.500	2.00	8.652	5.62	116.8	63.2	846.5
8.00		0.00	1.00	12.287	20.77	291.04	0.650	0.500	2.00	8.596	5.59	116.0	62.8	842.9
10.00		0.00	1.00	12.287	20.77	289.13	0.650	0.500	2.00	8.541	5.55	115.3	62.4	839.4
12.00		0.00	1.00	12.287	20.77	287.21	0.650	0.500	2.00	8.486	5.52	114.5	62.0	835.8
14.00		0.00	1.00	12.287	20.77	285.29	0.650	0.500	2.00	8.430	5.48	113.8	61.6	832.3
16.00		0.00	1.00	12.287	20.77	283.38	0.650	0.500	2.00	8.375	5.44	113.0	61.2	828.7
18.00		0.00	1.00	12.287	20.77	281.46	0.650	0.500	2.00	8.320	5.41	112.3	60.8	825.2
20.00		0.00	1.00	12.287	20.77	279.54	0.650	0.500	2.00	8.264	5.37	111.5	60.4	821.6
22.00		0.00	1.00	12.287	20.77	277.62	0.650	0.500	2.00	8.209	5.34	110.8	60.0	818.1
24.00		0.00	1.00	12.287	20.77	275.71	0.650	0.500	2.00	8.154	5.30	110.1	59.6	814.5
26.00		0.00	1.00	12.287	20.77	273.79	0.650	0.500	2.00	8.098	5.26	109.3	59.2	811.0
28.00		0.00	1.00	12.287	20.77	271.87	0.650	0.500	2.00	8.043	5.23	108.6	58.7	807.4
30.00		0.00	1.00	12.287	20.77	269.96	0.650	0.500	2.00	7.988	5.19	107.8	58.3	803.9
32.00		0.00	1.00	12.287	20.77	268.04	0.650	0.500	2.00	7.932	5.16	107.1	57.9	800.3
32.83	RT1	0.00	1.00	12.287	20.77	267.24	0.650	0.500	0.83	3.276	2.13	44.2	24.0	331.1
34.00		0.00	1.01	12.393	20.94	267.26	0.650	0.500	1.17	4.601	2.99	62.6	33.6	286.6
36.00		0.00	1.03	12.597	21.29	267.51	0.650	0.500	2.00	7.822	5.08	108.2	57.1	487.0
38.00		0.00	1.04	12.793	21.62	267.63	0.650	0.500	2.00	7.766	5.05	109.1	56.7	483.5
40.00		0.00	1.06	12.982	21.94	267.63	0.650	0.500	2.00	7.711	5.01	110.0	56.3	479.9
42.00		0.00	1.07	13.164	22.25	267.51	0.650	0.500	2.00	7.655	4.98	110.7	55.9	476.4
43.25	Bot - Section 2	0.00	1.08	13.275	22.43	267.39	0.650	0.500	1.25	4.757	3.09	69.4	34.8	296.0
44.00		0.00	1.09	13.340	22.54	267.30	0.650	0.500	0.75	2.890	1.88	42.4	21.1	313.6
46.00		0.00	1.10	13.510	22.83	266.99	0.650	0.500	2.00	7.670	4.99	113.8	56.0	831.8
48.00		0.00	1.11	13.676	23.11	266.60	0.650	0.500	2.00	7.614	4.95	114.4	55.6	825.6
48.92	RB2	0.00	1.12	13.750	23.24	266.39	0.650	0.500	0.92	3.484	2.26	52.6	25.5	506.9
49.00	Top - Section 1	0.00	1.12	13.756	23.25	266.37	0.650	0.500	0.08	0.302	0.20	4.6	2.2	44.0
50.00		0.00	1.13	13.836	23.38	270.72	0.650	0.500	1.00	3.773	2.45	57.3	27.6	345.7
52.00		0.00	1.14	13.992	23.65	270.19	0.650	0.500	2.00	7.504	4.88	115.3	54.7	689.0
54.00		0.00	1.15	14.144	23.90	269.60	0.650	0.500	2.00	7.448	4.84	115.7	54.3	685.9
56.00		0.00	1.16	14.291	24.15	268.93	0.650	0.500	2.00	7.393	4.81	116.1	53.9	682.8
58.00		0.00	1.17	14.435	24.40	268.21	0.650	0.500	2.00	7.338	4.77	116.4	53.5	679.7
60.00		0.00	1.19	14.576	24.63	267.42	0.650	0.500	2.00	7.282	4.73	116.6	53.1	676.6
60.50	Appurtenance(s)	0.00	1.19	14.611	24.69	267.22	0.650	0.500	0.50	1.812	1.18	29.1	13.3	168.7
62.00		0.00	1.20	14.713	24.87	266.58	0.650	0.500	1.50	5.415	3.52	87.5	39.5	504.9
64.00		0.00	1.21	14.847	25.09	265.68	0.650	0.500	2.00	7.172	4.66	117.0	52.3	670.4
66.00		0.00	1.22	14.978	25.31	264.74	0.650	0.500	2.00	7.116	4.63	117.1	51.9	667.3
68.00		0.00	1.23	15.107	25.53	263.74	0.650	0.500	2.00	7.061	4.59	117.2	51.5	664.2
70.00		0.00	1.24	15.232	25.74	262.70	0.650	0.500	2.00	7.006	4.55	117.2	51.1	661.1
72.00		0.00	1.25	15.355	25.95	261.62	0.650	0.500	2.00	6.950	4.52	117.2	50.7	658.0
74.00		0.00	1.26	15.476	26.15	260.49	0.650	0.500	2.00	6.895	4.48	117.2	50.2	654.9
76.00		0.00	1.27	15.594	26.35	259.33	0.650	0.500	2.00	6.840	4.45	117.2	49.8	651.8
76.83	RT2	0.00	1.27	15.643	26.44	258.83	0.650	0.500	0.83	2.822	1.83	48.5	20.6	269.6
78.00		0.00	1.28	15.711	26.55	258.13	0.650	0.500	1.17	3.962	2.58	68.4	28.9	215.0
80.00		0.00	1.29	15.825	26.74	256.89	0.650	0.500	2.00	6.729	4.37	117.0	49.0	364.9
82.00		0.00	1.30	15.937	26.93	255.61	0.650	0.500	2.00	6.674	4.34	116.8	48.6	361.8

Wind Loading - Shaft

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

84.00	0.00	1.31	16.047	27.12	254.30	0.650	0.500	2.00	6.618	4.30	116.7	48.2	358.7
86.00	0.00	1.31	16.155	27.30	252.96	0.650	0.500	2.00	6.563	4.27	116.5	47.8	355.6
87.50 Bot - Section 3	0.00	1.32	16.235	27.44	251.93	0.650	0.500	1.50	4.886	3.18	87.1	35.6	264.7
88.00	0.00	1.32	16.262	27.48	251.59	0.650	0.500	0.50	1.648	1.07	29.4	12.0	152.6
90.00	0.00	1.33	16.366	27.66	250.18	0.650	0.500	2.00	6.556	4.26	117.9	47.7	606.9
91.92 RB3	0.00	1.34	16.465	27.83	248.81	0.650	0.500	1.92	6.242	4.06	112.9	45.4	798.1
92.00	0.00	1.34	16.469	27.83	248.75	0.650	0.500	0.08	0.259	0.17	4.7	1.9	33.2
92.25 Top - Section 2	0.00	1.34	16.482	27.85	248.57	0.650	0.500	0.25	0.809	0.53	14.6	5.9	103.5
94.00	0.00	1.35	16.571	28.00	251.48	0.650	0.500	1.75	5.637	3.66	102.6	41.0	462.6
96.00	0.00	1.36	16.671	28.17	250.00	0.650	0.500	2.00	6.390	4.15	117.0	46.5	526.1
98.00	0.00	1.36	16.769	28.34	248.50	0.650	0.500	2.00	6.335	4.12	116.7	46.1	523.5
100.00	0.00	1.37	16.866	28.50	246.97	0.650	0.500	2.00	6.280	4.08	116.3	45.7	520.8
102.00	0.00	1.38	16.962	28.67	245.42	0.650	0.500	2.00	6.224	4.05	116.0	45.3	518.2
104.00	0.00	1.39	17.056	28.83	243.84	0.650	0.500	2.00	6.169	4.01	115.6	44.9	515.5
105.58 RT3	0.00	1.39	17.130	28.95	242.58	0.650	0.500	1.58	4.834	3.14	91.0	35.2	405.4
106.00	0.00	1.40	17.150	28.98	242.24	0.650	0.500	0.42	1.279	0.83	24.1	9.3	59.3
108.00	0.00	1.40	17.241	29.14	240.62	0.650	0.500	2.00	6.058	3.94	114.7	44.0	280.5
110.00	0.00	1.41	17.332	29.29	238.98	0.650	0.500	2.00	6.003	3.90	114.3	43.6	277.9
112.00	0.00	1.42	17.421	29.44	237.31	0.650	0.500	2.00	5.948	3.87	113.8	43.2	275.2
114.00	0.00	1.43	17.510	29.59	235.62	0.650	0.500	2.00	5.892	3.83	113.3	42.8	272.6
116.00	0.00	1.43	17.597	29.74	233.91	0.650	0.500	2.00	5.837	3.79	112.8	42.4	269.9
118.00	0.00	1.44	17.683	29.88	232.19	0.650	0.500	2.00	5.782	3.76	112.3	42.0	267.3
120.00	0.00	1.45	17.768	30.03	230.44	0.650	0.500	2.00	5.726	3.72	111.8	41.6	264.6
122.00	0.00	1.45	17.852	30.17	228.67	0.650	0.500	2.00	5.671	3.69	111.2	41.2	262.0
124.00	0.00	1.46	17.936	30.31	226.89	0.650	0.500	2.00	5.616	3.65	110.6	40.8	259.3
126.00	0.00	1.47	18.018	30.45	225.09	0.650	0.500	2.00	5.560	3.61	110.1	40.4	256.7
128.00	0.00	1.47	18.099	30.59	223.27	0.650	0.500	2.00	5.505	3.58	109.4	39.9	254.0
130.00	0.00	1.48	18.179	30.72	221.43	0.650	0.500	2.00	5.450	3.54	108.8	39.5	251.4
132.00	0.00	1.49	18.259	30.86	219.58	0.650	0.500	2.00	5.394	3.51	108.2	39.1	248.7
132.50 Bot - Section 4	0.00	1.49	18.279	30.89	219.11	0.650	0.500	0.50	1.340	0.87	26.9	9.8	61.8
134.00	0.00	1.49	18.337	30.99	217.71	0.650	0.500	1.50	4.054	2.63	81.7	29.4	295.4
136.00	0.00	1.50	18.415	31.12	215.82	0.650	0.500	2.00	5.357	3.48	108.4	38.8	390.1
136.50 Top - Section 3	0.00	1.50	18.435	31.15	215.35	0.650	0.500	0.50	1.330	0.86	26.9	9.7	96.9
138.00	0.00	1.50	18.492	31.25	217.02	0.650	0.500	1.50	3.971	2.58	80.7	28.8	137.1
140.00	0.00	1.51	18.568	31.38	215.11	0.650	0.500	2.00	5.246	3.41	107.0	38.0	181.0
142.00	0.00	1.52	18.644	31.51	213.18	0.650	0.500	2.00	5.190	3.37	106.3	37.6	179.0
144.00	0.00	1.52	18.718	31.63	211.24	0.650	0.500	2.00	5.135	3.34	105.6	37.2	177.1
146.00	0.00	1.53	18.792	31.76	209.29	0.650	0.500	2.00	5.080	3.30	104.9	36.8	175.1
148.00 Appurtenance(s)	0.00	1.54	18.866	31.88	207.32	0.650	0.500	2.00	5.024	3.27	104.1	36.4	173.1
150.00	0.00	1.54	18.938	32.01	205.34	0.650	0.500	2.00	4.969	3.23	103.4	36.0	171.1
152.00	0.00	1.55	19.010	32.13	203.34	0.650	0.500	2.00	4.914	3.19	102.6	35.6	169.1
154.00	0.00	1.55	19.081	32.25	201.33	0.650	0.500	2.00	4.858	3.16	101.8	35.2	167.2
156.00	0.00	1.56	19.151	32.37	199.31	0.650	0.500	2.00	4.803	3.12	101.0	34.7	165.2
158.00 Appurtenance(s)	0.00	1.56	19.221	32.48	197.28	0.650	0.500	2.00	4.748	3.09	100.2	34.3	163.2
160.00	0.00	1.57	19.290	32.60	195.23	0.650	0.500	2.00	4.692	3.05	99.4	33.9	161.2
162.00	0.00	1.58	19.359	32.72	193.17	0.650	0.500	2.00	4.637	3.01	98.6	33.5	159.3
164.00	0.00	1.58	19.427	32.83	191.10	0.650	0.500	2.00	4.582	2.98	97.8	33.1	157.3
166.00	0.00	1.59	19.494	32.95	189.02	0.650	0.500	2.00	4.526	2.94	96.9	32.7	155.3
168.00 Appurtenance(s)	0.00	1.59	19.561	33.06	186.92	0.650	0.500	2.00	4.471	2.91	96.1	32.3	153.3
168.50 Appurtenance(s)	0.00	1.59	19.578	33.09	186.40	0.650	0.500	0.50	1.109	0.72	23.9	8.0	38.1
170.00	0.00	1.60	19.628	33.17	184.81	0.650	0.500	1.50	3.307	2.15	71.3	23.9	113.4
172.00	0.00	1.60	19.693	33.28	182.70	0.650	0.500	2.00	4.360	2.83	94.3	31.5	149.4
174.00	0.00	1.61	19.758	33.39	180.57	0.650	0.500	2.00	4.305	2.80	93.4	31.1	147.4
176.00	0.00	1.61	19.823	33.50	178.43	0.650	0.500	2.00	4.250	2.76	92.5	30.6	145.4
178.00 Top - Section 4	0.00	1.62	19.887	33.61	176.28	0.650	0.500	2.00	4.194	2.73	91.6	30.2	143.4
178.50 Appurtenance(s)	0.00	1.62	19.903	33.64	176.35	0.650	0.500	0.50	1.042	0.68	22.8	7.6	31.7
180.00	0.00	1.62	19.951	33.72	176.56	0.650	0.500	1.50	3.125	2.03	68.5	22.7	95.0
181.00 Appurtenance(s)	0.00	1.63	19.982	33.77	176.70	0.650	0.500	1.00	2.083	1.35	45.7	15.1	63.3

Wind Loading - Shaft

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

182.00	0.00	1.63	20.014	33.82	176.84	0.650	0.500	1.00	2.083	1.35	45.8	15.1	63.3
184.00 Appurtenance(s)	0.00	1.63	20.076	33.93	177.11	0.650	0.500	2.00	4.167	2.71	91.9	30.2	126.7
186.00	0.00	1.64	20.138	34.03	177.39	0.650	0.500	2.00	4.167	2.71	92.2	30.2	126.7
187.00 Appurtenance(s)	0.00	1.64	20.169	34.09	177.52	0.650	0.500	1.00	2.083	1.35	46.2	15.1	63.3
188.00 Appurtenance(s)	0.00	1.64	20.200	34.14	177.66	0.650	0.500	1.00	2.083	1.35	46.2	15.1	63.3
							Totals:	**188.00**			**10,296.8**		**43,370.2**

Discrete Appurtenance Forces

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 27	

Tower Engineering Solutions

Load Case: 69.28 mph Wind with 0.5" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations: 33

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	188.00	KRY 112 144/1	12	20.200	34.138	0.67	4.42	169.20	0.000	0.000	150.96	0.00	0.00
2	187.00	LNX-6515DS-A1M	3	20.169	34.086	0.80	29.62	346.80	0.000	0.000	1009.50	0.00	0.00
3	187.00	APXV18-209014-C	3	20.169	34.086	0.74	9.08	0.00	0.000	0.000	309.50	0.00	0.00
4	187.00	APX16PV-16PVL-E	3	20.169	34.086	0.62	13.58	0.00	0.000	0.000	462.82	0.00	0.00
5	184.00	Low Profile Platform	1	20.076	33.929	1.00	24.00	1800.00	0.000	0.000	814.30	0.00	0.00
6	181.00	VHLP1-23	2	19.982	33.770	1.00	3.64	48.60	0.000	0.000	122.92	0.00	0.00
7	178.50	840 10054	3	19.903	33.636	0.61	10.47	177.30	0.000	0.000	352.09	0.00	0.00
8	178.50	26" x 14" x 9" RRU	3	19.903	33.636	0.67	7.78	159.00	0.000	0.000	261.65	0.00	0.00
9	178.50	GPS	1	19.903	33.636	1.00	1.25	18.00	0.000	0.000	42.05	0.00	0.00
10	178.50	DB844H90E-XY	9	19.903	33.636	0.91	35.14	0.00	0.000	0.000	1181.81	0.00	0.00
11	178.50	Low Profile Platform	1	19.903	33.636	1.00	28.00	1800.00	0.000	0.000	941.81	0.00	0.00
12	168.50	Low Profile Platform	1	19.578	33.087	1.00	24.00	1800.00	0.000	0.000	794.08	0.00	0.00
13	168.00	TD-RRH8x20-25	3	19.561	33.059	0.67	9.99	276.00	0.000	0.000	330.25	0.00	0.00
14	168.00	APXVTM14-C-120	3	19.561	33.059	0.79	17.28	275.70	0.000	0.000	571.16	0.00	0.00
15	168.00	APXVSPP18-C-A20	2	19.561	33.059	0.83	15.07	213.00	0.000	0.000	498.29	0.00	0.00
16	168.00	APXV9ERR18-C-A20	1	19.561	33.059	0.83	7.54	113.90	0.000	0.000	249.14	0.00	0.00
17	168.00	ACU-A20-N	4	19.561	33.059	1.00	0.88	9.20	0.000	0.000	29.09	0.00	0.00
18	168.00	800 MHz RRH	3	19.561	33.059	0.67	6.61	226.80	0.000	0.000	218.61	0.00	0.00
19	168.00	800 MHz Filters	3	19.561	33.059	0.67	6.61	226.80	0.000	0.000	218.61	0.00	0.00
20	168.00	1900 MHz RRH	3	19.561	33.059	0.67	6.61	189.90	0.000	0.000	218.61	0.00	0.00
21	158.00	7770.00	3	19.221	32.484	0.73	14.30	0.00	0.000	0.000	464.54	0.00	0.00
22	158.00	DC6-48-60-18-8F	1	19.221	32.484	1.00	1.67	49.50	0.000	0.000	54.25	0.00	0.00
23	158.00	LGP21401	6	19.221	32.484	0.67	6.03	156.60	0.000	0.000	195.88	0.00	0.00
24	158.00	P65-17-XLH-RR	2	19.221	32.484	0.75	18.59	242.00	0.000	0.000	603.71	0.00	0.00
25	158.00	RRUS 11	6	19.221	32.484	0.67	12.62	396.00	0.000	0.000	410.04	0.00	0.00
26	158.00	SBNHH-1D6565C	1	19.221	32.484	0.75	6.67	94.00	0.000	0.000	216.59	0.00	0.00
27	158.00	T-Arm	3	19.221	32.484	0.75	18.00	1260.00	0.000	0.000	584.71	0.00	0.00
28	148.00	Flush Mount	1	18.866	31.883	1.00	6.00	225.00	0.000	0.000	191.30	0.00	0.00
29	148.00	742 213	3	18.866	31.883	0.72	12.64	0.00	0.000	0.000	402.87	0.00	0.00
30	60.50	Stand-Off	1	14.611	24.692	1.00	2.50	75.00	0.000	0.000	61.73	0.00	0.00
31	60.50	GPS	1	14.611	24.692	1.00	1.25	18.00	0.000	0.000	30.86	0.00	0.00
						Totals:		**10,366.30**			**11,993.73**		

Total Applied Force Summary

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 28	

Tower Engineering Solutions

Load Case: 69.28 mph Wind with 0.5" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations: 33

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		149.42	748.75	0.00	0.00
4.00		148.67	745.20	0.00	0.00
6.00		147.92	741.65	0.00	0.00
8.00		147.18	738.11	0.00	0.00
10.00		146.43	734.56	0.00	0.00
12.00		145.68	731.01	0.00	0.00
14.00		144.94	727.46	0.00	0.00
16.00		144.19	723.92	0.00	0.00
18.00		143.44	720.37	0.00	0.00
20.00		142.70	716.82	0.00	0.00
22.00		141.95	713.27	0.00	0.00
24.00		141.20	709.73	0.00	0.00
26.00		140.45	706.18	0.00	0.00
28.00		139.71	702.63	0.00	0.00
30.00		138.96	699.08	0.00	0.00
32.00		138.21	695.53	0.00	0.00
32.83		57.14	287.65	0.00	0.00
34.00		81.02	314.86	0.00	0.00
36.00		135.80	535.48	0.00	0.00
38.00		123.84	532.41	0.00	0.00
40.00		124.88	528.86	0.00	0.00
42.00		125.83	525.32	0.00	0.00
43.25		78.90	326.57	0.00	0.00
44.00		48.11	331.94	0.00	0.00
46.00		129.36	880.76	0.00	0.00
48.00		150.21	874.52	0.00	0.00
48.92		72.29	464.81	0.00	0.00
49.00		6.28	40.36	0.00	0.00
50.00		78.85	300.02	0.00	0.00
52.00		158.84	597.62	0.00	0.00
54.00		159.71	594.52	0.00	0.00
56.00		160.51	591.42	0.00	0.00
58.00		161.25	588.32	0.00	0.00
60.00		161.93	585.22	0.00	0.00
60.50	(2) appurtenances	133.03	238.86	0.00	0.00
62.00		115.49	435.86	0.00	0.00
64.00		154.61	578.38	0.00	0.00
66.00		155.06	575.28	0.00	0.00
68.00		155.47	572.18	0.00	0.00
70.00		155.84	569.08	0.00	0.00
72.00		156.16	565.99	0.00	0.00
74.00		156.45	562.89	0.00	0.00
76.00		156.70	559.79	0.00	0.00
76.83		64.95	231.45	0.00	0.00
78.00		91.68	243.22	0.00	0.00
80.00		145.45	413.22	0.00	0.00
82.00		125.99	410.12	0.00	0.00
84.00		125.88	407.02	0.00	0.00

Total Applied Force Summary

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 29	

Tower Engineering Solutions

86.00		125.75	403.93	0.00	0.00
87.50		94.13	300.95	0.00	0.00
88.00		31.77	164.67	0.00	0.00
90.00		127.28	655.17	0.00	0.00
91.92		148.94	734.20	0.00	0.00
92.00		6.36	30.49	0.00	0.00
92.25		19.87	95.23	0.00	0.00
94.00		139.37	404.36	0.00	0.00
96.00		159.29	459.62	0.00	0.00
98.00		159.21	456.97	0.00	0.00
100.00		159.11	454.31	0.00	0.00
102.00		158.98	451.66	0.00	0.00
104.00		158.83	449.01	0.00	0.00
105.58		125.28	352.88	0.00	0.00
106.00		33.23	69.43	0.00	0.00
108.00		148.62	328.87	0.00	0.00
110.00		131.87	326.22	0.00	0.00
112.00		131.49	323.57	0.00	0.00
114.00		131.09	320.92	0.00	0.00
116.00		130.67	318.27	0.00	0.00
118.00		130.24	315.61	0.00	0.00
120.00		129.79	312.96	0.00	0.00
122.00		129.32	310.31	0.00	0.00
124.00		128.83	307.66	0.00	0.00
126.00		128.32	305.01	0.00	0.00
128.00		127.80	302.36	0.00	0.00
130.00		127.26	299.71	0.00	0.00
132.00		126.71	297.06	0.00	0.00
132.50		31.54	73.89	0.00	0.00
134.00		95.60	331.63	0.00	0.00
136.00		127.03	438.43	0.00	0.00
136.50		31.62	108.99	0.00	0.00
138.00		94.72	173.34	0.00	0.00
140.00		125.83	229.34	0.00	0.00
142.00		125.21	227.36	0.00	0.00
144.00		124.57	225.38	0.00	0.00
146.00		123.92	223.40	0.00	0.00
148.00	(4) appurtenances	717.42	446.42	0.00	0.00
150.00		103.37	216.45	0.00	0.00
152.00		102.61	214.47	0.00	0.00
154.00		101.84	212.49	0.00	0.00
156.00		101.05	210.51	0.00	0.00
158.00	(22) appurtenances	2629.97	2406.63	0.00	0.00
160.00		99.44	191.95	0.00	0.00
162.00		98.61	189.97	0.00	0.00
164.00		97.78	187.99	0.00	0.00
166.00		96.93	186.01	0.00	0.00
168.00	(22) appurtenances	2429.84	1715.33	0.00	0.00
168.50	(1) appurtenances	817.93	1843.54	0.00	0.00
170.00		71.29	129.79	0.00	0.00
172.00		94.33	171.27	0.00	0.00
174.00		93.44	169.30	0.00	0.00
176.00		92.54	167.32	0.00	0.00
178.00		91.63	165.34	0.00	0.00
178.50	(17) appurtenances	2802.18	2191.45	0.00	0.00
180.00		68.49	97.05	0.00	0.00
181.00	(2) appurtenances	168.65	113.30	0.00	0.00
182.00		45.80	64.38	0.00	0.00

Total Applied Force Summary

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 30	

184.00	(1) appurtenances	906.19	1928.76	0.00	0.00
186.00		92.18	128.76	0.00	0.00
187.00	(9) appurtenances	1827.97	411.18	0.00	0.00
188.00	(12) appurtenances	197.19	232.54	0.00	0.00
	Totals:	**24,386.63**	**52,393.65**	**0.00**	**0.00**

Resulting Forces and Deflections

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 31	

Tower Engineering Solutions

Load Case: 69.28 mph Wind with 0.5" Ice

Iterations: 33

Dead Load Factor 1.00

Wind Load Factor 1.00

Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	Deflect X (in)	Deflect Z (in)	Deflect Resultant (in)	Rotation Sway (deg)	Rotation Twist (deg)
0.00	-24.415	-52.380	0.000	0.000	0.000	-3337.734	0.000	0.000	0.000	0.000	0.000
2.00	-24.322	-51.604	0.000	0.000	0.000	-3288.905	-0.014	0.000	0.014	-0.063	0.000
4.00	-24.229	-50.832	0.000	0.000	0.000	-3240.261	-0.054	0.000	0.054	-0.127	0.000
6.00	-24.135	-50.064	0.000	0.000	0.000	-3191.804	-0.121	0.000	0.121	-0.190	0.000
8.00	-24.040	-49.300	0.000	0.000	0.000	-3143.535	-0.214	0.000	0.214	-0.254	0.000
10.00	-23.944	-48.539	0.000	0.000	0.000	-3095.456	-0.335	0.000	0.335	-0.318	0.000
12.00	-23.848	-47.782	0.000	0.000	0.000	-3047.569	-0.482	0.000	0.482	-0.383	0.000
14.00	-23.750	-47.029	0.000	0.000	0.000	-2999.875	-0.656	0.000	0.656	-0.447	0.000
16.00	-23.652	-46.280	0.000	0.000	0.000	-2952.375	-0.858	0.000	0.858	-0.512	0.000
18.00	-23.554	-45.534	0.000	0.000	0.000	-2905.072	-1.086	0.000	1.086	-0.577	0.000
20.00	-23.454	-44.792	0.000	0.000	0.000	-2857.965	-1.342	0.000	1.342	-0.642	0.000
22.00	-23.354	-44.054	0.000	0.000	0.000	-2811.057	-1.624	0.000	1.624	-0.707	0.000
24.00	-23.253	-43.320	0.000	0.000	0.000	-2764.350	-1.935	0.000	1.935	-0.772	0.000
26.00	-23.152	-42.589	0.000	0.000	0.000	-2717.845	-2.272	0.000	2.272	-0.838	0.000
28.00	-23.049	-41.863	0.000	0.000	0.000	-2671.542	-2.637	0.000	2.637	-0.903	0.000
30.00	-22.946	-41.139	0.000	0.000	0.000	-2625.445	-3.030	0.000	3.030	-0.969	0.000
32.00	-22.829	-40.428	0.000	0.000	0.000	-2579.553	-3.450	0.000	3.450	-1.035	0.000
32.83	-22.790	-40.128	0.000	0.000	0.000	-2560.605	-3.632	0.000	3.632	-1.062	0.000
34.00	-22.746	-39.790	0.000	0.000	0.000	-2533.942	-3.898	0.000	3.898	-1.101	0.000
36.00	-22.658	-39.223	0.000	0.000	0.000	-2488.451	-4.378	0.000	4.378	-1.187	0.000
38.00	-22.581	-38.660	0.000	0.000	0.000	-2443.135	-4.893	0.000	4.893	-1.273	0.000
40.00	-22.502	-38.100	0.000	0.000	0.000	-2397.973	-5.445	0.000	5.445	-1.359	0.000
42.00	-22.409	-37.551	0.000	0.000	0.000	-2352.971	-6.033	0.000	6.033	-1.445	0.000
43.25	-22.350	-37.209	0.000	0.000	0.000	-2324.960	-6.419	0.000	6.419	-1.500	0.000
44.00	-22.332	-36.855	0.000	0.000	0.000	-2308.198	-6.657	0.000	6.657	-1.533	0.000
46.00	-22.233	-35.945	0.000	0.000	0.000	-2263.535	-7.318	0.000	7.318	-1.620	0.000
48.00	-22.097	-35.050	0.000	0.000	0.000	-2219.069	-8.015	0.000	8.015	-1.707	0.000
48.92	-22.023	-34.580	0.000	0.000	0.000	-2198.741	-8.348	0.000	8.348	-1.748	0.000
49.00	-22.027	-34.532	0.000	0.000	0.000	-2196.979	-8.378	0.000	8.378	-1.750	0.000
50.00	-21.971	-34.214	0.000	0.000	0.000	-2174.953	-8.748	0.000	8.748	-1.784	0.000
52.00	-21.836	-33.594	0.000	0.000	0.000	-2131.012	-9.511	0.000	9.511	-1.857	0.000
54.00	-21.699	-32.978	0.000	0.000	0.000	-2087.341	-10.305	0.000	10.305	-1.930	0.000
56.00	-21.559	-32.365	0.000	0.000	0.000	-2043.944	-11.129	0.000	11.129	-2.004	0.000
58.00	-21.418	-31.755	0.000	0.000	0.000	-2000.826	-11.984	0.000	11.984	-2.077	0.000
60.00	-21.259	-31.160	0.000	0.000	0.000	-1957.991	-12.870	0.000	12.870	-2.150	0.000
60.50	-21.137	-30.912	0.000	0.000	0.000	-1947.362	-13.096	0.000	13.096	-2.168	0.000
62.00	-21.039	-30.458	0.000	0.000	0.000	-1915.657	-13.786	0.000	13.786	-2.223	0.000
64.00	-20.900	-29.859	0.000	0.000	0.000	-1873.580	-14.732	0.000	14.732	-2.296	0.000
66.00	-20.759	-29.264	0.000	0.000	0.000	-1831.781	-15.710	0.000	15.710	-2.369	0.000
68.00	-20.616	-28.673	0.000	0.000	0.000	-1790.264	-16.718	0.000	16.718	-2.442	0.000
70.00	-20.471	-28.085	0.000	0.000	0.000	-1749.034	-17.756	0.000	17.756	-2.515	0.000
72.00	-20.325	-27.501	0.000	0.000	0.000	-1708.092	-18.825	0.000	18.825	-2.587	0.000
74.00	-20.177	-26.920	0.000	0.000	0.000	-1667.443	-19.924	0.000	19.924	-2.660	0.000
76.00	-20.018	-26.351	0.000	0.000	0.000	-1627.090	-21.053	0.000	21.053	-2.733	0.000
76.83	-19.958	-26.110	0.000	0.000	0.000	-1610.476	-21.531	0.000	21.531	-2.763	0.000
78.00	-19.887	-25.847	0.000	0.000	0.000	-1587.125	-22.213	0.000	22.213	-2.805	0.000
80.00	-19.765	-25.407	0.000	0.000	0.000	-1547.352	-23.409	0.000	23.409	-2.904	0.000
82.00	-19.661	-24.970	0.000	0.000	0.000	-1507.823	-24.647	0.000	24.647	-3.003	0.000
84.00	-19.556	-24.537	0.000	0.000	0.000	-1468.502	-25.925	0.000	25.925	-3.101	0.000

Resulting Forces and Deflections

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

86.00	-19.444	-24.111	0.000	0.000	0.000	-1429.391	-27.245	0.000	27.245	-3.200	0.000
87.50	-19.354	-23.800	0.000	0.000	0.000	-1400.225	-28.262	0.000	28.262	-3.274	0.000
88.00	-19.338	-23.616	0.000	0.000	0.000	-1390.548	-28.606	0.000	28.606	-3.299	0.000
90.00	-19.212	-22.937	0.000	0.000	0.000	-1351.872	-30.008	0.000	30.008	-3.397	0.000
91.92	-19.037	-22.197	0.000	0.000	0.000	-1314.987	-31.393	0.000	31.393	-3.492	0.000
92.00	-19.032	-22.165	0.000	0.000	0.000	-1313.464	-31.452	0.000	31.452	-3.495	0.000
92.25	-19.020	-22.059	0.000	0.000	0.000	-1308.706	-31.635	0.000	31.635	-3.504	0.000
94.00	-18.884	-21.640	0.000	0.000	0.000	-1275.421	-32.931	0.000	32.931	-3.568	0.000
96.00	-18.725	-21.165	0.000	0.000	0.000	-1237.655	-34.442	0.000	34.442	-3.649	0.000
98.00	-18.566	-20.694	0.000	0.000	0.000	-1200.205	-35.987	0.000	35.987	-3.729	0.000
100.00	-18.405	-20.226	0.000	0.000	0.000	-1163.074	-37.565	0.000	37.565	-3.808	0.000
102.00	-18.243	-19.761	0.000	0.000	0.000	-1126.264	-39.176	0.000	39.176	-3.887	0.000
104.00	-18.077	-19.302	0.000	0.000	0.000	-1089.779	-40.819	0.000	40.819	-3.965	0.000
105.58	-17.941	-18.946	0.000	0.000	0.000	-1061.217	-42.141	0.000	42.141	-4.026	0.000
106.00	-17.923	-18.860	0.000	0.000	0.000	-1053.682	-42.496	0.000	42.496	-4.043	0.000
108.00	-17.787	-18.509	0.000	0.000	0.000	-1017.835	-44.211	0.000	44.211	-4.150	0.000
110.00	-17.665	-18.160	0.000	0.000	0.000	-982.263	-45.971	0.000	45.971	-4.257	0.000
112.00	-17.542	-17.815	0.000	0.000	0.000	-946.934	-47.776	0.000	47.776	-4.364	0.000
114.00	-17.419	-17.473	0.000	0.000	0.000	-911.850	-49.625	0.000	49.625	-4.469	0.000
116.00	-17.295	-17.135	0.000	0.000	0.000	-877.013	-51.518	0.000	51.518	-4.574	0.000
118.00	-17.170	-16.800	0.000	0.000	0.000	-842.424	-53.454	0.000	53.454	-4.677	0.000
120.00	-17.044	-16.469	0.000	0.000	0.000	-808.085	-55.434	0.000	55.434	-4.779	0.000
122.00	-16.917	-16.141	0.000	0.000	0.000	-773.998	-57.455	0.000	57.455	-4.880	0.000
124.00	-16.790	-15.817	0.000	0.000	0.000	-740.164	-59.519	0.000	59.519	-4.980	0.000
126.00	-16.662	-15.496	0.000	0.000	0.000	-706.585	-61.624	0.000	61.624	-5.078	0.000
128.00	-16.533	-15.178	0.000	0.000	0.000	-673.263	-63.770	0.000	63.770	-5.175	0.000
130.00	-16.403	-14.864	0.000	0.000	0.000	-640.198	-65.955	0.000	65.955	-5.270	0.000
132.00	-16.264	-14.564	0.000	0.000	0.000	-607.393	-68.180	0.000	68.180	-5.363	0.000
132.50	-16.237	-14.480	0.000	0.000	0.000	-599.261	-68.742	0.000	68.742	-5.386	0.000
134.00	-16.130	-14.137	0.000	0.000	0.000	-574.905	-70.443	0.000	70.443	-5.455	0.000
136.00	-15.975	-13.697	0.000	0.000	0.000	-542.645	-72.744	0.000	72.744	-5.544	0.000
136.50	-15.944	-13.580	0.000	0.000	0.000	-534.657	-73.325	0.000	73.325	-5.566	0.000
138.00	-15.854	-13.392	0.000	0.000	0.000	-510.743	-75.082	0.000	75.082	-5.631	0.000
140.00	-15.731	-13.145	0.000	0.000	0.000	-479.036	-77.462	0.000	77.462	-5.745	0.000
142.00	-15.608	-12.902	0.000	0.000	0.000	-447.574	-79.889	0.000	79.889	-5.855	0.000
144.00	-15.484	-12.663	0.000	0.000	0.000	-416.358	-82.361	0.000	82.361	-5.961	0.000
146.00	-15.359	-12.427	0.000	0.000	0.000	-385.391	-84.876	0.000	84.876	-6.063	0.000
148.00	-14.618	-12.035	0.000	0.000	0.000	-354.673	-87.433	0.000	87.433	-6.161	0.000
150.00	-14.511	-11.808	0.000	0.000	0.000	-325.437	-90.029	0.000	90.029	-6.254	0.000
152.00	-14.403	-11.585	0.000	0.000	0.000	-296.416	-92.663	0.000	92.663	-6.341	0.000
154.00	-14.294	-11.365	0.000	0.000	0.000	-267.612	-95.333	0.000	95.333	-6.424	0.000
156.00	-14.184	-11.149	0.000	0.000	0.000	-239.025	-98.035	0.000	98.035	-6.500	0.000
158.00	-11.307	-9.044	0.000	0.000	0.000	-210.658	-100.768	0.000	100.768	-6.571	0.000
160.00	-11.196	-8.853	0.000	0.000	0.000	-188.044	-103.530	0.000	103.530	-6.636	0.000
162.00	-11.085	-8.665	0.000	0.000	0.000	-165.652	-106.317	0.000	106.317	-6.696	0.000
164.00	-10.973	-8.480	0.000	0.000	0.000	-143.482	-109.128	0.000	109.128	-6.750	0.000
166.00	-10.862	-8.298	0.000	0.000	0.000	-121.536	-111.960	0.000	111.960	-6.798	0.000
168.00	-8.248	-6.880	0.000	0.000	0.000	-99.813	-114.811	0.000	114.811	-6.840	0.000
168.50	-7.218	-5.145	0.000	0.000	0.000	-95.688	-115.526	0.000	115.526	-6.850	0.000
170.00	-7.134	-5.020	0.000	0.000	0.000	-84.861	-117.678	0.000	117.678	-6.877	0.000
172.00	-7.023	-4.858	0.000	0.000	0.000	-70.593	-120.559	0.000	120.559	-6.909	0.000
174.00	-6.912	-4.698	0.000	0.000	0.000	-56.547	-123.452	0.000	123.452	-6.936	0.000
176.00	-6.801	-4.541	0.000	0.000	0.000	-42.724	-126.356	0.000	126.356	-6.958	0.000
178.00	-6.691	-4.387	0.000	0.000	0.000	-29.122	-129.268	0.000	129.268	-6.974	0.000
178.50	-3.644	-2.552	0.000	0.000	0.000	-25.776	-129.996	0.000	129.996	-6.978	0.000
180.00	-3.564	-2.463	0.000	0.000	0.000	-20.311	-132.185	0.000	132.185	-6.987	0.000
181.00	-3.383	-2.371	0.000	0.000	0.000	-16.747	-133.646	0.000	133.646	-6.993	0.000
182.00	-3.330	-2.313	0.000	0.000	0.000	-13.364	-135.107	0.000	135.107	-6.997	0.000

Resulting Forces and Deflections

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 33	

184.00	-2.196	-0.509	0.000	0.000	0.000	-6.704	-138.032	0.000	138.032	-7.003	0.000
186.00	-2.088	-0.392	0.000	0.000	0.000	-2.313	-140.959	0.000	140.959	-7.005	0.000
187.00	-0.224	-0.207	0.000	0.000	0.000	-0.224	-142.423	0.000	142.423	-7.005	0.000
188.00	-0.197	0.000	0.000	0.000	0.000	0.000	0.000	0.000	143.886	-7.005	0.000

Resulting Stresses

Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 34	

Tower Engineering Solutions

Load Case: 69.28 mph Wind with 0.5" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations: 33

Applied Stresses

Elev (ft)	fa Axial (Y) (ksi)	fvx Shear (X) (ksi)	fvz Shear (Z) (ksi)	fvt Torsion (ksi)	fbx Bending (X) (ksi)	fbz Bending (Z) (ksi)	fb Combined (ksi)	Fb Allow Stress (ksi)	f/Fb Stress Ratio
0.00	0.74	0.69	0.00	0.00	0.00	35.85	36.59	52.0	0.704
2.00	0.73	0.69	0.00	0.00	0.00	35.75	35.75	52.0	0.688
4.00	0.72	0.69	0.00	0.00	0.00	35.63	35.63	52.0	0.686
6.00	0.72	0.70	0.00	0.00	0.00	35.52	35.52	52.0	0.683
8.00	0.71	0.70	0.00	0.00	0.00	35.40	35.40	52.0	0.681
10.00	0.70	0.70	0.00	0.00	0.00	35.28	35.28	52.0	0.679
12.00	0.70	0.70	0.00	0.00	0.00	35.16	35.16	52.0	0.676
14.00	0.69	0.70	0.00	0.00	0.00	35.03	35.03	52.0	0.674
16.00	0.69	0.71	0.00	0.00	0.00	34.90	34.90	52.0	0.671
18.00	0.68	0.71	0.00	0.00	0.00	34.76	34.76	52.0	0.669
20.00	0.67	0.71	0.00	0.00	0.00	34.62	34.62	52.0	0.666
22.00	0.67	0.71	0.00	0.00	0.00	34.48	34.48	52.0	0.663
24.00	0.66	0.71	0.00	0.00	0.00	34.34	34.34	52.0	0.661
26.00	0.65	0.72	0.00	0.00	0.00	34.18	34.18	52.0	0.658
28.00	0.65	0.72	0.00	0.00	0.00	34.03	34.03	52.0	0.655
30.00	0.64	0.72	0.00	0.00	0.00	33.87	33.87	52.0	0.652
32.00	0.63	0.72	0.00	0.00	0.00	33.71	33.71	52.0	0.649
32.83	0.63	0.72	0.00	0.00	0.00	33.64	34.27	52.0	0.659
34.00	0.63	0.72	0.00	0.00	0.00	42.62	43.26	52.0	0.832
36.00	0.62	0.73	0.00	0.00	0.00	42.47	43.11	52.0	0.829
38.00	0.62	0.73	0.00	0.00	0.00	42.32	42.96	52.0	0.826
40.00	0.61	0.73	0.00	0.00	0.00	42.16	42.79	52.0	0.823
42.00	0.61	0.73	0.00	0.00	0.00	41.99	42.62	52.0	0.820
43.25	0.61	0.74	0.00	0.00	0.00	41.89	42.51	52.0	0.818
44.00	0.60	0.74	0.00	0.00	0.00	41.82	42.44	52.0	0.817
46.00	0.59	0.74	0.00	0.00	0.00	41.64	42.25	52.0	0.813
48.00	0.58	0.74	0.00	0.00	0.00	41.45	42.06	52.0	0.809
48.92	0.58	0.74	0.00	0.00	0.00	32.52	33.09	52.0	0.637
49.00	0.66	0.85	0.00	0.00	0.00	32.51	32.51	52.0	0.625
50.00	0.66	0.85	0.00	0.00	0.00	35.59	35.59	52.0	0.685
52.00	0.65	0.85	0.00	0.00	0.00	35.34	35.34	52.0	0.680
54.00	0.64	0.85	0.00	0.00	0.00	35.09	35.09	52.0	0.675
56.00	0.64	0.85	0.00	0.00	0.00	34.82	34.82	52.0	0.670
58.00	0.63	0.85	0.00	0.00	0.00	34.56	34.56	52.0	0.665
60.00	0.62	0.85	0.00	0.00	0.00	34.29	34.29	52.0	0.660
60.50	0.62	0.85	0.00	0.00	0.00	34.22	34.22	52.0	0.658
62.00	0.61	0.85	0.00	0.00	0.00	34.01	34.01	52.0	0.654
64.00	0.60	0.85	0.00	0.00	0.00	33.73	33.73	52.0	0.649
66.00	0.60	0.85	0.00	0.00	0.00	33.45	33.45	52.0	0.643
68.00	0.59	0.86	0.00	0.00	0.00	33.15	33.15	52.0	0.638
70.00	0.58	0.86	0.00	0.00	0.00	32.85	32.85	52.0	0.632
72.00	0.58	0.86	0.00	0.00	0.00	32.55	32.55	52.0	0.626
74.00	0.57	0.86	0.00	0.00	0.00	32.24	32.24	52.0	0.620
76.00	0.56	0.86	0.00	0.00	0.00	31.92	31.92	52.0	0.614
76.83	0.56	0.86	0.00	0.00	0.00	31.78	32.34	52.0	0.622
78.00	0.55	0.86	0.00	0.00	0.00	42.32	42.90	52.0	0.825
80.00	0.55	0.86	0.00	0.00	0.00	41.97	42.55	52.0	0.819

Resulting Stresses

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

82.00	0.54	0.86	0.00	0.00	0.00	41.61	42.19	52.0	0.812
84.00	0.54	0.87	0.00	0.00	0.00	41.24	41.81	52.0	0.804
86.00	0.54	0.87	0.00	0.00	0.00	40.85	41.42	52.0	0.797
87.50	0.53	0.87	0.00	0.00	0.00	40.55	41.11	52.0	0.791
88.00	0.53	0.87	0.00	0.00	0.00	40.45	41.01	52.0	0.789
90.00	0.52	0.88	0.00	0.00	0.00	40.04	40.58	52.0	0.781
91.92	0.51	0.87	0.00	0.00	0.00	30.33	30.84	52.0	0.593
92.00	0.51	0.87	0.00	0.00	0.00	30.31	30.31	52.0	0.583
92.25	0.59	1.03	0.00	0.00	0.00	30.26	30.26	52.0	0.582
94.00	0.59	1.03	0.00	0.00	0.00	33.46	33.46	52.0	0.644
96.00	0.58	1.03	0.00	0.00	0.00	32.98	32.98	52.0	0.634
98.00	0.57	1.03	0.00	0.00	0.00	32.48	32.48	52.0	0.625
100.00	0.56	1.03	0.00	0.00	0.00	31.98	31.98	52.0	0.615
102.00	0.56	1.03	0.00	0.00	0.00	31.46	31.46	52.0	0.605
104.00	0.55	1.03	0.00	0.00	0.00	30.93	30.93	52.0	0.595
105.58	0.54	1.03	0.00	0.00	0.00	30.51	31.05	52.0	0.597
106.00	0.54	1.03	0.00	0.00	0.00	41.70	42.28	52.0	0.813
108.00	0.54	1.04	0.00	0.00	0.00	41.06	41.63	52.0	0.801
110.00	0.53	1.04	0.00	0.00	0.00	40.39	40.96	52.0	0.788
112.00	0.53	1.04	0.00	0.00	0.00	39.70	40.27	52.0	0.775
114.00	0.52	1.04	0.00	0.00	0.00	38.99	39.55	52.0	0.761
116.00	0.52	1.05	0.00	0.00	0.00	38.25	38.81	52.0	0.747
118.00	0.51	1.05	0.00	0.00	0.00	37.48	38.04	52.0	0.732
120.00	0.51	1.05	0.00	0.00	0.00	36.69	37.24	52.0	0.716
122.00	0.50	1.06	0.00	0.00	0.00	35.86	36.41	52.0	0.700
124.00	0.50	1.06	0.00	0.00	0.00	35.01	35.55	52.0	0.684
126.00	0.49	1.06	0.00	0.00	0.00	34.13	34.66	52.0	0.667
128.00	0.49	1.06	0.00	0.00	0.00	33.21	33.74	52.0	0.649
130.00	0.48	1.07	0.00	0.00	0.00	32.26	32.79	52.0	0.631
132.00	0.48	1.07	0.00	0.00	0.00	31.27	31.80	52.0	0.612
132.50	0.47	1.07	0.00	0.00	0.00	31.02	31.54	52.0	0.607
134.00	0.47	1.07	0.00	0.00	0.00	30.25	30.77	52.0	0.592
136.00	0.46	1.07	0.00	0.00	0.00	29.18	29.70	52.0	0.571
136.50	0.64	1.51	0.00	0.00	0.00	39.75	40.47	52.0	0.779
138.00	0.63	1.51	0.00	0.00	0.00	38.60	39.32	52.0	0.756
140.00	0.63	1.52	0.00	0.00	0.00	37.01	37.73	52.0	0.726
142.00	0.62	1.52	0.00	0.00	0.00	35.35	36.08	52.0	0.694
144.00	0.62	1.53	0.00	0.00	0.00	33.64	34.36	52.0	0.661
146.00	0.62	1.53	0.00	0.00	0.00	31.85	32.58	52.0	0.627
148.00	0.60	1.48	0.00	0.00	0.00	30.00	30.71	52.0	0.591
150.00	0.60	1.48	0.00	0.00	0.00	28.17	28.89	52.0	0.556
152.00	0.59	1.49	0.00	0.00	0.00	26.27	26.99	52.0	0.519
154.00	0.59	1.49	0.00	0.00	0.00	24.29	25.02	52.0	0.481
156.00	0.59	1.50	0.00	0.00	0.00	22.23	22.96	52.0	0.442
158.00	0.48	1.21	0.00	0.00	0.00	20.08	20.66	52.0	0.398
160.00	0.48	1.21	0.00	0.00	0.00	18.37	18.96	52.0	0.365
162.00	0.47	1.22	0.00	0.00	0.00	16.59	17.20	52.0	0.331
164.00	0.47	1.22	0.00	0.00	0.00	14.74	15.36	52.0	0.295
166.00	0.46	1.22	0.00	0.00	0.00	12.81	13.44	52.0	0.259
168.00	0.39	0.94	0.00	0.00	0.00	10.80	11.31	52.0	0.218
168.50	0.29	0.83	0.00	0.00	0.00	10.42	10.81	52.0	0.208
170.00	0.29	0.82	0.00	0.00	0.00	9.43	9.82	52.0	0.189
172.00	0.28	0.82	0.00	0.00	0.00	8.06	8.46	52.0	0.163
174.00	0.28	0.82	0.00	0.00	0.00	6.63	7.05	52.0	0.136
176.00	0.27	0.82	0.00	0.00	0.00	5.15	5.60	52.0	0.108
178.00	0.27	0.82	0.00	0.00	0.00	3.61	4.12	52.0	0.079
178.00	0.27	0.82	0.00	0.00	0.00	3.61	4.12	52.0	0.092
178.50	0.18	0.52	0.00	0.00	0.00	3.71	3.99	52.0	0.077

Resulting Stresses

Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 36	

180.00	0.17	0.51	0.00	0.00	0.00	2.93	3.22	52.0	0.062
181.00	0.17	0.48	0.00	0.00	0.00	2.41	2.71	52.0	0.052
182.00	0.16	0.47	0.00	0.00	0.00	1.92	2.24	52.0	0.043
184.00	0.04	0.31	0.00	0.00	0.00	0.97	1.14	52.0	0.022
186.00	0.03	0.30	0.00	0.00	0.00	0.33	0.63	52.0	0.012
187.00	0.01	0.03	0.00	0.00	0.00	0.03	0.07	52.0	0.001
188.00	0.00	0.03	0.00	0.00	0.00	0.00	0.05	52.0	0.001

Wind Loading - Shaft

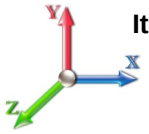
Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 37	

Tower Engineering Solutions

Load Case: 50 mph Wind with 0" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00



Iterations: 32

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	RB1	0.00	1.00	6.400	10.82	215.58	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
2.00		0.00	1.00	6.400	10.82	214.20	0.650	0.000	2.00	8.596	5.59	60.4	0.0	789.5
4.00		0.00	1.00	6.400	10.82	212.82	0.650	0.000	2.00	8.540	5.55	60.0	0.0	786.3
6.00		0.00	1.00	6.400	10.82	211.43	0.650	0.000	2.00	8.485	5.52	59.7	0.0	783.2
8.00		0.00	1.00	6.400	10.82	210.05	0.650	0.000	2.00	8.430	5.48	59.3	0.0	780.1
10.00		0.00	1.00	6.400	10.82	208.67	0.650	0.000	2.00	8.374	5.44	58.9	0.0	776.9
12.00		0.00	1.00	6.400	10.82	207.28	0.650	0.000	2.00	8.319	5.41	58.5	0.0	773.8
14.00		0.00	1.00	6.400	10.82	205.90	0.650	0.000	2.00	8.264	5.37	58.1	0.0	770.7
16.00		0.00	1.00	6.400	10.82	204.51	0.650	0.000	2.00	8.208	5.34	57.7	0.0	767.5
18.00		0.00	1.00	6.400	10.82	203.13	0.650	0.000	2.00	8.153	5.30	57.3	0.0	764.4
20.00		0.00	1.00	6.400	10.82	201.75	0.650	0.000	2.00	8.098	5.26	56.9	0.0	761.2
22.00		0.00	1.00	6.400	10.82	200.36	0.650	0.000	2.00	8.042	5.23	56.5	0.0	758.1
24.00		0.00	1.00	6.400	10.82	198.98	0.650	0.000	2.00	7.987	5.19	56.2	0.0	755.0
26.00		0.00	1.00	6.400	10.82	197.60	0.650	0.000	2.00	7.932	5.16	55.8	0.0	751.8
28.00		0.00	1.00	6.400	10.82	196.21	0.650	0.000	2.00	7.876	5.12	55.4	0.0	748.7
30.00		0.00	1.00	6.400	10.82	194.83	0.650	0.000	2.00	7.821	5.08	55.0	0.0	745.6
32.00		0.00	1.00	6.400	10.82	193.45	0.650	0.000	2.00	7.766	5.05	54.6	0.0	742.4
32.83	RT1	0.00	1.00	6.400	10.82	192.87	0.650	0.000	0.83	3.206	2.08	22.5	0.0	307.2
34.00		0.00	1.01	6.455	10.91	192.88	0.650	0.000	1.17	4.504	2.93	31.9	0.0	252.9
36.00		0.00	1.03	6.561	11.09	193.06	0.650	0.000	2.00	7.655	4.98	55.2	0.0	429.9
38.00		0.00	1.04	6.663	11.26	193.15	0.650	0.000	2.00	7.600	4.94	55.6	0.0	426.8
40.00		0.00	1.06	6.762	11.43	193.15	0.650	0.000	2.00	7.544	4.90	56.0	0.0	423.6
42.00		0.00	1.07	6.857	11.59	193.07	0.650	0.000	2.00	7.489	4.87	56.4	0.0	420.5
43.25	Bot - Section 2	0.00	1.08	6.914	11.69	192.98	0.650	0.000	1.25	4.652	3.02	35.3	0.0	261.2
44.00		0.00	1.09	6.948	11.74	192.91	0.650	0.000	0.75	2.828	1.84	21.6	0.0	292.4
46.00		0.00	1.10	7.037	11.89	192.69	0.650	0.000	2.00	7.503	4.88	58.0	0.0	775.8
48.00		0.00	1.11	7.123	12.04	192.41	0.650	0.000	2.00	7.448	4.84	58.3	0.0	770.0
48.92	RB2	0.00	1.12	7.162	12.10	192.26	0.650	0.000	0.92	3.407	2.21	26.8	0.0	481.4
49.00	Top - Section 1	0.00	1.12	7.165	12.11	192.24	0.650	0.000	0.08	0.296	0.19	2.3	0.0	41.8
50.00		0.00	1.13	7.207	12.18	195.38	0.650	0.000	1.00	3.689	2.40	29.2	0.0	318.1
52.00		0.00	1.14	7.288	12.32	195.00	0.650	0.000	2.00	7.337	4.77	58.7	0.0	634.3
54.00		0.00	1.15	7.367	12.45	194.57	0.650	0.000	2.00	7.282	4.73	58.9	0.0	631.6
56.00		0.00	1.16	7.444	12.58	194.09	0.650	0.000	2.00	7.226	4.70	59.1	0.0	628.9
58.00		0.00	1.17	7.519	12.71	193.57	0.650	0.000	2.00	7.171	4.66	59.2	0.0	626.2
60.00		0.00	1.19	7.592	12.83	193.00	0.650	0.000	2.00	7.116	4.63	59.3	0.0	623.5
60.50	Appurtenance(s)	0.00	1.19	7.610	12.86	192.85	0.650	0.000	0.50	1.770	1.15	14.8	0.0	155.5
62.00		0.00	1.20	7.664	12.95	192.39	0.650	0.000	1.50	5.290	3.44	44.5	0.0	465.4
64.00		0.00	1.21	7.733	13.07	191.75	0.650	0.000	2.00	7.005	4.55	59.5	0.0	618.1
66.00		0.00	1.22	7.802	13.18	191.06	0.650	0.000	2.00	6.950	4.52	59.6	0.0	615.4
68.00		0.00	1.23	7.869	13.30	190.35	0.650	0.000	2.00	6.894	4.48	59.6	0.0	612.8
70.00		0.00	1.24	7.934	13.41	189.60	0.650	0.000	2.00	6.839	4.45	59.6	0.0	610.1
72.00		0.00	1.25	7.998	13.52	188.81	0.650	0.000	2.00	6.784	4.41	59.6	0.0	607.4
74.00		0.00	1.26	8.061	13.62	188.00	0.650	0.000	2.00	6.728	4.37	59.6	0.0	604.7
76.00		0.00	1.27	8.123	13.73	187.16	0.650	0.000	2.00	6.673	4.34	59.5	0.0	602.0
76.83	RT2	0.00	1.27	8.148	13.77	186.80	0.650	0.000	0.83	2.753	1.79	24.6	0.0	249.0
78.00		0.00	1.28	8.183	13.83	186.29	0.650	0.000	1.17	3.865	2.51	34.7	0.0	186.0
80.00		0.00	1.29	8.242	13.93	185.40	0.650	0.000	2.00	6.562	4.27	59.4	0.0	315.9
82.00		0.00	1.30	8.301	14.03	184.48	0.650	0.000	2.00	6.507	4.23	59.3	0.0	313.2

Wind Loading - Shaft

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

84.00	0.00	1.31	8.358	14.13	183.53	0.650	0.000	2.00	6.452	4.19	59.2	0.0	310.5
86.00	0.00	1.31	8.415	14.22	182.56	0.650	0.000	2.00	6.396	4.16	59.1	0.0	307.8
87.50 Bot - Section 3	0.00	1.32	8.456	14.29	181.82	0.650	0.000	1.50	4.761	3.09	44.2	0.0	229.1
88.00	0.00	1.32	8.470	14.31	181.57	0.650	0.000	0.50	1.606	1.04	14.9	0.0	140.6
90.00	0.00	1.33	8.525	14.41	180.56	0.650	0.000	2.00	6.390	4.15	59.8	0.0	559.1
91.92 RB3	0.00	1.34	8.576	14.49	179.57	0.650	0.000	1.92	6.082	3.95	57.3	0.0	752.6
92.00	0.00	1.34	8.578	14.50	179.52	0.650	0.000	0.08	0.252	0.16	2.4	0.0	31.3
92.25 Top - Section 2	0.00	1.34	8.585	14.51	179.39	0.650	0.000	0.25	0.788	0.51	7.4	0.0	97.6
94.00	0.00	1.35	8.631	14.59	181.49	0.650	0.000	1.75	5.491	3.57	52.1	0.0	421.5
96.00	0.00	1.36	8.683	14.67	180.43	0.650	0.000	2.00	6.224	4.05	59.4	0.0	479.6
98.00	0.00	1.36	8.735	14.76	179.35	0.650	0.000	2.00	6.168	4.01	59.2	0.0	477.4
100.00	0.00	1.37	8.785	14.85	178.24	0.650	0.000	2.00	6.113	3.97	59.0	0.0	475.2
102.00	0.00	1.38	8.835	14.93	177.12	0.650	0.000	2.00	6.058	3.94	58.8	0.0	472.9
104.00	0.00	1.39	8.884	15.01	175.98	0.650	0.000	2.00	6.002	3.90	58.6	0.0	470.7
105.58 RT3	0.00	1.39	8.922	15.08	175.07	0.650	0.000	1.58	4.703	3.06	46.1	0.0	370.2
106.00	0.00	1.40	8.933	15.10	174.83	0.650	0.000	0.42	1.244	0.81	12.2	0.0	50.0
108.00	0.00	1.40	8.980	15.18	173.66	0.650	0.000	2.00	5.892	3.83	58.1	0.0	236.5
110.00	0.00	1.41	9.028	15.26	172.47	0.650	0.000	2.00	5.836	3.79	57.9	0.0	234.3
112.00	0.00	1.42	9.074	15.34	171.27	0.650	0.000	2.00	5.781	3.76	57.6	0.0	232.0
114.00	0.00	1.43	9.120	15.41	170.05	0.650	0.000	2.00	5.726	3.72	57.4	0.0	229.8
116.00	0.00	1.43	9.166	15.49	168.82	0.650	0.000	2.00	5.670	3.69	57.1	0.0	227.5
118.00	0.00	1.44	9.211	15.57	167.57	0.650	0.000	2.00	5.615	3.65	56.8	0.0	225.3
120.00	0.00	1.45	9.255	15.64	166.31	0.650	0.000	2.00	5.560	3.61	56.5	0.0	223.1
122.00	0.00	1.45	9.299	15.71	165.03	0.650	0.000	2.00	5.504	3.58	56.2	0.0	220.8
124.00	0.00	1.46	9.342	15.79	163.75	0.650	0.000	2.00	5.449	3.54	55.9	0.0	218.6
126.00	0.00	1.47	9.385	15.86	162.45	0.650	0.000	2.00	5.394	3.51	55.6	0.0	216.3
128.00	0.00	1.47	9.427	15.93	161.13	0.650	0.000	2.00	5.338	3.47	55.3	0.0	214.1
130.00	0.00	1.48	9.469	16.00	159.81	0.650	0.000	2.00	5.283	3.43	55.0	0.0	211.9
132.00	0.00	1.49	9.510	16.07	158.47	0.650	0.000	2.00	5.228	3.40	54.6	0.0	209.6
132.50 Bot - Section 4	0.00	1.49	9.521	16.09	158.13	0.650	0.000	0.50	1.298	0.84	13.6	0.0	52.1
134.00	0.00	1.49	9.551	16.14	157.12	0.650	0.000	1.50	3.929	2.55	41.2	0.0	265.9
136.00	0.00	1.50	9.592	16.21	155.76	0.650	0.000	2.00	5.190	3.37	54.7	0.0	351.3
136.50 Top - Section 3	0.00	1.50	9.602	16.23	155.42	0.650	0.000	0.50	1.289	0.84	13.6	0.0	87.2
138.00	0.00	1.50	9.632	16.28	156.62	0.650	0.000	1.50	3.846	2.50	40.7	0.0	108.3
140.00	0.00	1.51	9.672	16.35	155.25	0.650	0.000	2.00	5.079	3.30	54.0	0.0	143.0
142.00	0.00	1.52	9.711	16.41	153.86	0.650	0.000	2.00	5.024	3.27	53.6	0.0	141.4
144.00	0.00	1.52	9.750	16.48	152.46	0.650	0.000	2.00	4.968	3.23	53.2	0.0	139.9
146.00	0.00	1.53	9.788	16.54	151.05	0.650	0.000	2.00	4.913	3.19	52.8	0.0	138.3
148.00 Appurtenance(s)	0.00	1.54	9.826	16.61	149.63	0.650	0.000	2.00	4.858	3.16	52.4	0.0	136.7
150.00	0.00	1.54	9.864	16.67	148.20	0.650	0.000	2.00	4.802	3.12	52.0	0.0	135.1
152.00	0.00	1.55	9.902	16.73	146.75	0.650	0.000	2.00	4.747	3.09	51.6	0.0	133.6
154.00	0.00	1.55	9.939	16.80	145.31	0.650	0.000	2.00	4.692	3.05	51.2	0.0	132.0
156.00	0.00	1.56	9.975	16.86	143.85	0.650	0.000	2.00	4.636	3.01	50.8	0.0	130.4
158.00 Appurtenance(s)	0.00	1.56	10.012	16.92	142.38	0.650	0.000	2.00	4.581	2.98	50.4	0.0	128.9
160.00	0.00	1.57	10.048	16.98	140.90	0.650	0.000	2.00	4.526	2.94	50.0	0.0	127.3
162.00	0.00	1.58	10.083	17.04	139.41	0.650	0.000	2.00	4.470	2.91	49.5	0.0	125.7
164.00	0.00	1.58	10.119	17.10	137.92	0.650	0.000	2.00	4.415	2.87	49.1	0.0	124.2
166.00	0.00	1.59	10.154	17.16	136.41	0.650	0.000	2.00	4.360	2.83	48.6	0.0	122.6
168.00 Appurtenance(s)	0.00	1.59	10.189	17.22	134.90	0.650	0.000	2.00	4.304	2.80	48.2	0.0	121.0
168.50 Appurtenance(s)	0.00	1.59	10.197	17.23	134.52	0.650	0.000	0.50	1.067	0.69	12.0	0.0	30.0
170.00	0.00	1.60	10.223	17.28	133.38	0.650	0.000	1.50	3.182	2.07	35.7	0.0	89.4
172.00	0.00	1.60	10.257	17.34	131.85	0.650	0.000	2.00	4.194	2.73	47.3	0.0	117.9
174.00	0.00	1.61	10.291	17.39	130.32	0.650	0.000	2.00	4.138	2.69	46.8	0.0	116.3
176.00	0.00	1.61	10.325	17.45	128.77	0.650	0.000	2.00	4.083	2.65	46.3	0.0	114.7
178.00 Top - Section 4	0.00	1.62	10.358	17.51	127.22	0.650	0.000	2.00	4.028	2.62	45.8	0.0	113.2
178.50 Appurtenance(s)	0.00	1.62	10.367	17.52	127.27	0.650	0.000	0.50	1.000	0.65	11.4	0.0	24.1
180.00	0.00	1.62	10.392	17.56	127.42	0.650	0.000	1.50	3.000	1.95	34.2	0.0	72.3
181.00 Appurtenance(s)	0.00	1.63	10.408	17.59	127.52	0.650	0.000	1.00	2.000	1.30	22.9	0.0	48.2

Wind Loading - Shaft

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

182.00	0.00	1.63	10.424	17.62	127.63	0.650	0.000	1.00	2.000	1.30	22.9	0.0	48.2
184.00 Appurtenance(s)	0.00	1.63	10.457	17.67	127.82	0.650	0.000	2.00	4.000	2.60	45.9	0.0	96.4
186.00	0.00	1.64	10.489	17.73	128.02	0.650	0.000	2.00	4.000	2.60	46.1	0.0	96.4
187.00 Appurtenance(s)	0.00	1.64	10.505	17.75	128.12	0.650	0.000	1.00	2.000	1.30	23.1	0.0	48.2
188.00 Appurtenance(s)	0.00	1.64	10.522	17.78	128.22	0.650	0.000	1.00	2.000	1.30	23.1	0.0	48.2
							Totals:	**188.00**			**5,217.7**		**39,011.3**

Discrete Appurtenance Forces

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 40	

Tower Engineering Solutions

Load Case: 50 mph Wind with 0" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations: 32

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	188.00	KRY 112 144/1	12	10.522	17.781	0.67	3.30	132.00	0.000	0.000	58.61	0.00	0.00
2	187.00	LNX-6515DS-A1M	3	10.505	17.754	0.80	27.38	149.40	0.000	0.000	486.18	0.00	0.00
3	187.00	APXV18-209014-C	3	10.505	17.754	0.74	7.93	56.10	0.000	0.000	140.71	0.00	0.00
4	187.00	APX16PV-16PVL-E	3	10.505	17.754	0.62	12.37	118.80	0.000	0.000	219.60	0.00	0.00
5	184.00	Low Profile Platform	1	10.457	17.672	1.00	20.00	1500.00	0.000	0.000	353.45	0.00	0.00
6	181.00	VHLP1-23	2	10.408	17.590	1.00	3.22	28.40	0.000	0.000	56.64	0.00	0.00
7	178.50	840 10054	3	10.367	17.520	0.61	9.48	105.00	0.000	0.000	166.08	0.00	0.00
8	178.50	26" x 14" x 9" RRU	3	10.367	17.520	0.67	7.12	60.00	0.000	0.000	124.66	0.00	0.00
9	178.50	GPS	1	10.367	17.520	1.00	1.00	10.00	0.000	0.000	17.52	0.00	0.00
10	178.50	DB844H90E-XY	9	10.367	17.520	0.91	30.55	126.00	0.000	0.000	535.21	0.00	0.00
11	178.50	Low Profile Platform	1	10.367	17.520	1.00	23.00	1500.00	0.000	0.000	402.96	0.00	0.00
12	168.50	Low Profile Platform	1	10.197	17.234	1.00	20.00	1500.00	0.000	0.000	344.67	0.00	0.00
13	168.00	TD-RRH8x20-25	3	10.189	17.219	0.67	9.49	210.00	0.000	0.000	163.36	0.00	0.00
14	168.00	APXVTM14-C-120	3	10.189	17.219	0.79	16.35	168.00	0.000	0.000	281.58	0.00	0.00
15	168.00	APXVSPP18-C-A20	2	10.189	17.219	0.83	13.71	114.00	0.000	0.000	236.10	0.00	0.00
16	168.00	APXV9ERR18-C-A20	1	10.189	17.219	0.83	6.86	62.00	0.000	0.000	118.05	0.00	0.00
17	168.00	ACU-A20-N	4	10.189	17.219	1.00	0.56	4.00	0.000	0.000	9.64	0.00	0.00
18	168.00	800 MHz RRH	3	10.189	17.219	0.67	5.91	162.00	0.000	0.000	101.75	0.00	0.00
19	168.00	800 MHz Filters	3	10.189	17.219	0.67	5.91	162.00	0.000	0.000	101.75	0.00	0.00
20	168.00	1900 MHz RRH	3	10.189	17.219	0.67	5.91	132.00	0.000	0.000	101.75	0.00	0.00
21	158.00	7770.00	3	10.012	16.920	0.73	12.88	105.00	0.000	0.000	217.88	0.00	0.00
22	158.00	DC6-48-60-18-8F	1	10.012	16.920	1.00	1.47	31.80	0.000	0.000	24.87	0.00	0.00
23	158.00	LGP21401	6	10.012	16.920	0.67	5.07	114.00	0.000	0.000	85.70	0.00	0.00
24	158.00	P65-17-XLH-RR	2	10.012	16.920	0.75	17.19	118.00	0.000	0.000	290.85	0.00	0.00
25	158.00	RRUS 11	6	10.012	16.920	0.67	11.82	304.20	0.000	0.000	199.97	0.00	0.00
26	158.00	SBNHH-1D6565C	1	10.012	16.920	0.75	6.31	47.40	0.000	0.000	106.72	0.00	0.00
27	158.00	T-Arm	3	10.012	16.920	0.75	13.50	900.00	0.000	0.000	228.42	0.00	0.00
28	148.00	Flush Mount	1	9.826	16.607	1.00	4.00	150.00	0.000	0.000	66.43	0.00	0.00
29	148.00	742 213	3	9.826	16.607	0.72	11.10	66.00	0.000	0.000	184.37	0.00	0.00
30	60.50	Stand-Off	1	7.610	12.861	1.00	1.00	50.00	0.000	0.000	12.86	0.00	0.00
31	60.50	GPS	1	7.610	12.861	1.00	1.00	10.00	0.000	0.000	12.86	0.00	0.00
						Totals:		**8,196.10**			**5,451.22**		

Total Applied Force Summary

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 41	

Tower Engineering Solutions

Load Case: 50 mph Wind with 0" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations: 32

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
2.00		71.03	684.08	0.00	0.00
4.00		70.64	680.94	0.00	0.00
6.00		70.25	677.81	0.00	0.00
8.00		69.86	674.67	0.00	0.00
10.00		69.47	671.53	0.00	0.00
12.00		69.09	668.39	0.00	0.00
14.00		68.70	665.25	0.00	0.00
16.00		68.31	662.12	0.00	0.00
18.00		67.92	658.98	0.00	0.00
20.00		67.53	655.84	0.00	0.00
22.00		67.14	652.70	0.00	0.00
24.00		66.75	649.56	0.00	0.00
26.00		66.36	646.43	0.00	0.00
28.00		65.97	643.29	0.00	0.00
30.00		65.58	640.15	0.00	0.00
32.00		65.19	637.01	0.00	0.00
32.83		26.94	263.44	0.00	0.00
34.00		38.19	280.86	0.00	0.00
36.00		64.10	477.62	0.00	0.00
38.00		58.78	474.48	0.00	0.00
40.00		59.23	471.34	0.00	0.00
42.00		59.65	468.20	0.00	0.00
43.25		37.38	291.03	0.00	0.00
44.00		22.82	310.33	0.00	0.00
46.00		61.33	823.54	0.00	0.00
48.00		69.23	817.72	0.00	0.00
48.92		33.04	438.76	0.00	0.00
49.00		2.87	38.09	0.00	0.00
50.00		36.03	271.82	0.00	0.00
52.00		72.53	541.63	0.00	0.00
54.00		72.87	538.94	0.00	0.00
56.00		73.18	536.25	0.00	0.00
58.00		73.46	533.56	0.00	0.00
60.00		73.72	530.87	0.00	0.00
60.50	(2) appurtenances	44.12	192.30	0.00	0.00
62.00		54.05	395.65	0.00	0.00
64.00		72.32	525.17	0.00	0.00
66.00		72.48	522.48	0.00	0.00
68.00		72.62	519.79	0.00	0.00
70.00		72.75	517.10	0.00	0.00
72.00		72.85	514.41	0.00	0.00
74.00		72.93	511.73	0.00	0.00
76.00		72.99	509.04	0.00	0.00
76.83		30.24	210.46	0.00	0.00
78.00		42.67	213.77	0.00	0.00
80.00		68.68	363.29	0.00	0.00
82.00		61.30	360.60	0.00	0.00
84.00		61.21	357.91	0.00	0.00

Total Applied Force Summary

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 42	

Tower Engineering Solutions

86.00		61.11	355.22	0.00	0.00
87.50		45.73	264.65	0.00	0.00
88.00		15.44	152.40	0.00	0.00
90.00		61.85	606.52	0.00	0.00
91.92		69.41	687.87	0.00	0.00
92.00		2.95	28.56	0.00	0.00
92.25		9.21	89.21	0.00	0.00
94.00		64.57	362.51	0.00	0.00
96.00		73.75	412.19	0.00	0.00
98.00		73.65	409.95	0.00	0.00
100.00		73.54	407.71	0.00	0.00
102.00		73.42	405.47	0.00	0.00
104.00		73.29	403.23	0.00	0.00
105.58		57.77	316.97	0.00	0.00
106.00		15.32	59.90	0.00	0.00
108.00		69.69	283.91	0.00	0.00
110.00		63.98	281.66	0.00	0.00
112.00		63.76	279.42	0.00	0.00
114.00		63.53	277.18	0.00	0.00
116.00		63.29	274.94	0.00	0.00
118.00		63.04	272.70	0.00	0.00
120.00		62.78	270.46	0.00	0.00
122.00		62.51	268.22	0.00	0.00
124.00		62.23	265.97	0.00	0.00
126.00		61.95	263.73	0.00	0.00
128.00		61.65	261.49	0.00	0.00
130.00		61.35	259.25	0.00	0.00
132.00		61.04	257.01	0.00	0.00
132.50		15.19	63.90	0.00	0.00
134.00		46.06	301.49	0.00	0.00
136.00		61.17	398.66	0.00	0.00
136.50		15.22	99.07	0.00	0.00
138.00		45.57	143.83	0.00	0.00
140.00		60.50	190.39	0.00	0.00
142.00		60.16	188.82	0.00	0.00
144.00		59.80	187.26	0.00	0.00
146.00		59.44	185.69	0.00	0.00
148.00	(4) appurtenances	309.88	400.12	0.00	0.00
150.00		52.04	180.47	0.00	0.00
152.00		51.63	178.90	0.00	0.00
154.00		51.22	177.33	0.00	0.00
156.00		50.81	175.76	0.00	0.00
158.00	(22) appurtenances	1204.79	1794.59	0.00	0.00
160.00		49.95	158.02	0.00	0.00
162.00		49.52	156.45	0.00	0.00
164.00		49.08	154.88	0.00	0.00
166.00		48.63	153.31	0.00	0.00
168.00	(22) appurtenances	1162.17	1165.74	0.00	0.00
168.50	(1) appurtenances	356.63	1535.49	0.00	0.00
170.00		35.73	105.88	0.00	0.00
172.00		47.25	139.80	0.00	0.00
174.00		46.78	138.24	0.00	0.00
176.00		46.31	136.67	0.00	0.00
178.00		45.83	135.10	0.00	0.00
178.50	(17) appurtenances	1257.81	1830.59	0.00	0.00
180.00		34.25	74.37	0.00	0.00
181.00	(2) appurtenances	79.51	77.98	0.00	0.00
182.00		22.90	49.26	0.00	0.00

Total Applied Force Summary

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 43	

184.00	(1) appurtenances	399.40	1598.52	0.00	0.00
186.00		46.09	98.52	0.00	0.00
187.00	(9) appurtenances	869.58	373.56	0.00	0.00
188.00	(12) appurtenances	81.73	180.22	0.00	0.00
	Totals:	**11,360.83**	**45,798.15**	**0.00**	**0.00**

Resulting Forces and Deflections

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 44	

Tower Engineering Solutions

Load Case: 50 mph Wind with 0" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations: 32

Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	Deflect X (in)	Deflect Z (in)	Deflect Resultant (in)	Rotation Sway (deg)	Rotation Twist (deg)
0.00	-11.371	-45.795	0.000	0.000	0.000	-1536.282	0.000	0.000	0.000	0.000	0.000
2.00	-11.323	-45.105	0.000	0.000	0.000	-1513.540	-0.006	0.000	0.006	-0.029	0.000
4.00	-11.275	-44.419	0.000	0.000	0.000	-1490.894	-0.025	0.000	0.025	-0.058	0.000
6.00	-11.226	-43.735	0.000	0.000	0.000	-1468.345	-0.056	0.000	0.056	-0.088	0.000
8.00	-11.177	-43.055	0.000	0.000	0.000	-1445.894	-0.099	0.000	0.099	-0.117	0.000
10.00	-11.128	-42.378	0.000	0.000	0.000	-1423.540	-0.154	0.000	0.154	-0.146	0.000
12.00	-11.078	-41.704	0.000	0.000	0.000	-1401.285	-0.222	0.000	0.222	-0.176	0.000
14.00	-11.029	-41.033	0.000	0.000	0.000	-1379.129	-0.302	0.000	0.302	-0.206	0.000
16.00	-10.979	-40.366	0.000	0.000	0.000	-1357.072	-0.395	0.000	0.395	-0.235	0.000
18.00	-10.929	-39.701	0.000	0.000	0.000	-1335.114	-0.500	0.000	0.500	-0.265	0.000
20.00	-10.878	-39.040	0.000	0.000	0.000	-1313.257	-0.617	0.000	0.617	-0.295	0.000
22.00	-10.828	-38.382	0.000	0.000	0.000	-1291.501	-0.747	0.000	0.747	-0.325	0.000
24.00	-10.777	-37.727	0.000	0.000	0.000	-1269.846	-0.890	0.000	0.890	-0.355	0.000
26.00	-10.726	-37.076	0.000	0.000	0.000	-1248.293	-1.045	0.000	1.045	-0.385	0.000
28.00	-10.675	-36.427	0.000	0.000	0.000	-1226.841	-1.213	0.000	1.213	-0.415	0.000
30.00	-10.623	-35.782	0.000	0.000	0.000	-1205.493	-1.393	0.000	1.393	-0.445	0.000
32.00	-10.566	-35.142	0.000	0.000	0.000	-1184.247	-1.587	0.000	1.587	-0.476	0.000
32.83	-10.546	-34.876	0.000	0.000	0.000	-1175.477	-1.670	0.000	1.670	-0.488	0.000
34.00	-10.523	-34.590	0.000	0.000	0.000	-1163.139	-1.792	0.000	1.792	-0.506	0.000
36.00	-10.478	-34.106	0.000	0.000	0.000	-1142.094	-2.013	0.000	2.013	-0.545	0.000
38.00	-10.437	-33.625	0.000	0.000	0.000	-1121.139	-2.250	0.000	2.250	-0.585	0.000
40.00	-10.396	-33.147	0.000	0.000	0.000	-1100.264	-2.504	0.000	2.504	-0.624	0.000
42.00	-10.350	-32.673	0.000	0.000	0.000	-1079.472	-2.774	0.000	2.774	-0.664	0.000
43.25	-10.320	-32.379	0.000	0.000	0.000	-1066.536	-2.951	0.000	2.951	-0.689	0.000
44.00	-10.309	-32.064	0.000	0.000	0.000	-1058.796	-3.060	0.000	3.060	-0.704	0.000
46.00	-10.259	-31.234	0.000	0.000	0.000	-1038.178	-3.364	0.000	3.364	-0.744	0.000
48.00	-10.194	-30.412	0.000	0.000	0.000	-1017.661	-3.684	0.000	3.684	-0.784	0.000
48.92	-10.160	-29.972	0.000	0.000	0.000	-1008.282	-3.837	0.000	3.837	-0.803	0.000
49.00	-10.161	-29.933	0.000	0.000	0.000	-1007.469	-3.851	0.000	3.851	-0.804	0.000
50.00	-10.134	-29.657	0.000	0.000	0.000	-997.308	-4.021	0.000	4.021	-0.820	0.000
52.00	-10.071	-29.111	0.000	0.000	0.000	-977.040	-4.372	0.000	4.372	-0.853	0.000
54.00	-10.007	-28.567	0.000	0.000	0.000	-956.899	-4.736	0.000	4.736	-0.887	0.000
56.00	-9.941	-28.026	0.000	0.000	0.000	-936.886	-5.115	0.000	5.115	-0.920	0.000
58.00	-9.875	-27.488	0.000	0.000	0.000	-917.004	-5.507	0.000	5.507	-0.954	0.000
60.00	-9.802	-26.955	0.000	0.000	0.000	-897.254	-5.914	0.000	5.914	-0.987	0.000
60.50	-9.763	-26.761	0.000	0.000	0.000	-892.352	-6.018	0.000	6.018	-0.995	0.000
62.00	-9.715	-26.361	0.000	0.000	0.000	-877.709	-6.335	0.000	6.335	-1.021	0.000
64.00	-9.649	-25.832	0.000	0.000	0.000	-858.278	-6.769	0.000	6.769	-1.054	0.000
66.00	-9.581	-25.305	0.000	0.000	0.000	-838.982	-7.218	0.000	7.218	-1.087	0.000
68.00	-9.513	-24.781	0.000	0.000	0.000	-819.820	-7.681	0.000	7.681	-1.121	0.000
70.00	-9.444	-24.260	0.000	0.000	0.000	-800.795	-8.158	0.000	8.158	-1.154	0.000
72.00	-9.374	-23.742	0.000	0.000	0.000	-781.907	-8.648	0.000	8.648	-1.188	0.000
74.00	-9.304	-23.227	0.000	0.000	0.000	-763.159	-9.153	0.000	9.153	-1.221	0.000
76.00	-9.230	-22.716	0.000	0.000	0.000	-744.551	-9.671	0.000	9.671	-1.254	0.000
76.83	-9.201	-22.503	0.000	0.000	0.000	-736.890	-9.891	0.000	9.891	-1.268	0.000
78.00	-9.166	-22.285	0.000	0.000	0.000	-726.125	-10.204	0.000	10.204	-1.287	0.000
80.00	-9.107	-21.916	0.000	0.000	0.000	-707.793	-10.753	0.000	10.753	-1.332	0.000
82.00	-9.054	-21.550	0.000	0.000	0.000	-689.580	-11.321	0.000	11.321	-1.377	0.000
84.00	-9.001	-21.187	0.000	0.000	0.000	-671.472	-11.907	0.000	11.907	-1.423	0.000

Resulting Forces and Deflections

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

86.00	-8.945	-20.827	0.000	0.000	0.000	-653.471	-12.513	0.000	12.513	-1.468	0.000
87.50	-8.901	-20.560	0.000	0.000	0.000	-640.054	-12.980	0.000	12.980	-1.502	0.000
88.00	-8.891	-20.404	0.000	0.000	0.000	-635.604	-13.138	0.000	13.138	-1.513	0.000
90.00	-8.828	-19.792	0.000	0.000	0.000	-617.822	-13.781	0.000	13.781	-1.558	0.000
91.92	-8.747	-19.103	0.000	0.000	0.000	-600.872	-14.416	0.000	14.416	-1.601	0.000
92.00	-8.744	-19.074	0.000	0.000	0.000	-600.172	-14.443	0.000	14.443	-1.602	0.000
92.25	-8.738	-18.983	0.000	0.000	0.000	-597.986	-14.527	0.000	14.527	-1.607	0.000
94.00	-8.674	-18.617	0.000	0.000	0.000	-582.694	-15.122	0.000	15.122	-1.636	0.000
96.00	-8.600	-18.202	0.000	0.000	0.000	-565.346	-15.815	0.000	15.815	-1.673	0.000
98.00	-8.526	-17.789	0.000	0.000	0.000	-548.146	-16.523	0.000	16.523	-1.709	0.000
100.00	-8.451	-17.378	0.000	0.000	0.000	-531.094	-17.247	0.000	17.247	-1.745	0.000
102.00	-8.376	-16.970	0.000	0.000	0.000	-514.192	-17.986	0.000	17.986	-1.781	0.000
104.00	-8.299	-16.565	0.000	0.000	0.000	-497.441	-18.740	0.000	18.740	-1.817	0.000
105.58	-8.236	-16.247	0.000	0.000	0.000	-484.329	-19.346	0.000	19.346	-1.845	0.000
106.00	-8.227	-16.184	0.000	0.000	0.000	-480.870	-19.509	0.000	19.509	-1.853	0.000
108.00	-8.162	-15.895	0.000	0.000	0.000	-464.416	-20.295	0.000	20.295	-1.902	0.000
110.00	-8.102	-15.609	0.000	0.000	0.000	-448.092	-21.102	0.000	21.102	-1.951	0.000
112.00	-8.041	-15.325	0.000	0.000	0.000	-431.889	-21.930	0.000	21.930	-1.999	0.000
114.00	-7.981	-15.044	0.000	0.000	0.000	-415.807	-22.778	0.000	22.778	-2.047	0.000
116.00	-7.920	-14.765	0.000	0.000	0.000	-399.847	-23.645	0.000	23.645	-2.095	0.000
118.00	-7.858	-14.488	0.000	0.000	0.000	-384.008	-24.533	0.000	24.533	-2.142	0.000
120.00	-7.797	-14.214	0.000	0.000	0.000	-368.291	-25.440	0.000	25.440	-2.189	0.000
122.00	-7.735	-13.942	0.000	0.000	0.000	-352.698	-26.367	0.000	26.367	-2.235	0.000
124.00	-7.673	-13.673	0.000	0.000	0.000	-337.227	-27.313	0.000	27.313	-2.280	0.000
126.00	-7.611	-13.406	0.000	0.000	0.000	-321.881	-28.277	0.000	28.277	-2.325	0.000
128.00	-7.549	-13.142	0.000	0.000	0.000	-306.659	-29.261	0.000	29.261	-2.369	0.000
130.00	-7.487	-12.880	0.000	0.000	0.000	-291.561	-30.262	0.000	30.262	-2.412	0.000
132.00	-7.420	-12.622	0.000	0.000	0.000	-276.588	-31.281	0.000	31.281	-2.455	0.000
132.50	-7.407	-12.556	0.000	0.000	0.000	-272.878	-31.539	0.000	31.539	-2.465	0.000
134.00	-7.356	-12.252	0.000	0.000	0.000	-261.768	-32.318	0.000	32.318	-2.496	0.000
136.00	-7.282	-11.853	0.000	0.000	0.000	-247.056	-33.373	0.000	33.373	-2.537	0.000
136.50	-7.267	-11.753	0.000	0.000	0.000	-243.415	-33.639	0.000	33.639	-2.547	0.000
138.00	-7.223	-11.606	0.000	0.000	0.000	-232.515	-34.444	0.000	34.444	-2.576	0.000
140.00	-7.164	-11.412	0.000	0.000	0.000	-218.069	-35.534	0.000	35.534	-2.628	0.000
142.00	-7.105	-11.220	0.000	0.000	0.000	-203.740	-36.646	0.000	36.646	-2.679	0.000
144.00	-7.046	-11.030	0.000	0.000	0.000	-189.530	-37.778	0.000	37.778	-2.727	0.000
146.00	-6.986	-10.842	0.000	0.000	0.000	-175.439	-38.930	0.000	38.930	-2.773	0.000
148.00	-6.665	-10.452	0.000	0.000	0.000	-161.467	-40.102	0.000	40.102	-2.818	0.000
150.00	-6.612	-10.270	0.000	0.000	0.000	-148.137	-41.291	0.000	41.291	-2.860	0.000
152.00	-6.558	-10.089	0.000	0.000	0.000	-134.914	-42.497	0.000	42.497	-2.900	0.000
154.00	-6.504	-9.911	0.000	0.000	0.000	-121.799	-43.720	0.000	43.720	-2.937	0.000
156.00	-6.450	-9.734	0.000	0.000	0.000	-108.792	-44.958	0.000	44.958	-2.972	0.000
158.00	-5.157	-8.002	0.000	0.000	0.000	-95.892	-46.210	0.000	46.210	-3.004	0.000
160.00	-5.103	-7.844	0.000	0.000	0.000	-85.578	-47.475	0.000	47.475	-3.034	0.000
162.00	-5.049	-7.688	0.000	0.000	0.000	-75.372	-48.751	0.000	48.751	-3.061	0.000
164.00	-4.995	-7.534	0.000	0.000	0.000	-65.274	-50.039	0.000	50.039	-3.086	0.000
166.00	-4.940	-7.382	0.000	0.000	0.000	-55.285	-51.336	0.000	51.336	-3.108	0.000
168.00	-3.718	-6.281	0.000	0.000	0.000	-45.405	-52.641	0.000	52.641	-3.127	0.000
168.50	-3.279	-4.766	0.000	0.000	0.000	-43.546	-52.969	0.000	52.969	-3.131	0.000
170.00	-3.238	-4.662	0.000	0.000	0.000	-38.628	-53.954	0.000	53.954	-3.144	0.000
172.00	-3.184	-4.524	0.000	0.000	0.000	-32.152	-55.274	0.000	55.274	-3.158	0.000
174.00	-3.131	-4.388	0.000	0.000	0.000	-25.783	-56.599	0.000	56.599	-3.170	0.000
176.00	-3.078	-4.254	0.000	0.000	0.000	-19.521	-57.929	0.000	57.929	-3.181	0.000
178.00	-3.025	-4.121	0.000	0.000	0.000	-13.365	-59.263	0.000	59.263	-3.188	0.000
178.50	-1.667	-2.363	0.000	0.000	0.000	-11.853	-59.596	0.000	59.596	-3.190	0.000
180.00	-1.629	-2.291	0.000	0.000	0.000	-9.352	-60.599	0.000	60.599	-3.194	0.000
181.00	-1.546	-2.217	0.000	0.000	0.000	-7.722	-61.268	0.000	61.268	-3.196	0.000
182.00	-1.520	-2.169	0.000	0.000	0.000	-6.177	-61.937	0.000	61.937	-3.198	0.000

Resulting Forces and Deflections

Structure:	CT46124-A-SB	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 46	

184.00	-1.032	-0.596	0.000	0.000	0.000	-3.137	-63.277	0.000	63.277	-3.201	0.000
186.00	-0.981	-0.500	0.000	0.000	0.000	-1.072	-64.618	0.000	64.618	-3.202	0.000
187.00	-0.092	-0.175	0.000	0.000	0.000	-0.092	-65.288	0.000	65.288	-3.202	0.000
188.00	-0.082	0.000	0.000	0.000	0.000	0.000	0.000	0.000	65.958	-3.202	0.000

Resulting Stresses

Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 47	

Tower Engineering Solutions

Load Case: 50 mph Wind with 0" Ice

Dead Load Factor 1.00

Wind Load Factor 1.00

Iterations: 32

Applied Stresses

Elev (ft)	fa Axial (Y) (ksi)	fvx Shear (X) (ksi)	fvz Shear (Z) (ksi)	fvt Torsion (ksi)	fbx Bending (X) (ksi)	fbz Bending (Z) (ksi)	fb Combined (ksi)	Fb Allow Stress (ksi)	f/Fb Stress Ratio
0.00	0.64	0.32	0.00	0.00	0.00	16.50	17.15	52.0	0.330
2.00	0.64	0.32	0.00	0.00	0.00	16.45	16.45	52.0	0.316
4.00	0.63	0.32	0.00	0.00	0.00	16.40	16.40	52.0	0.315
6.00	0.63	0.32	0.00	0.00	0.00	16.34	16.34	52.0	0.314
8.00	0.62	0.32	0.00	0.00	0.00	16.28	16.28	52.0	0.313
10.00	0.61	0.33	0.00	0.00	0.00	16.23	16.23	52.0	0.312
12.00	0.61	0.33	0.00	0.00	0.00	16.17	16.17	52.0	0.311
14.00	0.60	0.33	0.00	0.00	0.00	16.10	16.10	52.0	0.310
16.00	0.60	0.33	0.00	0.00	0.00	16.04	16.04	52.0	0.309
18.00	0.59	0.33	0.00	0.00	0.00	15.98	15.98	52.0	0.307
20.00	0.59	0.33	0.00	0.00	0.00	15.91	15.91	52.0	0.306
22.00	0.58	0.33	0.00	0.00	0.00	15.84	15.84	52.0	0.305
24.00	0.57	0.33	0.00	0.00	0.00	15.77	15.77	52.0	0.303
26.00	0.57	0.33	0.00	0.00	0.00	15.70	15.70	52.0	0.302
28.00	0.56	0.33	0.00	0.00	0.00	15.63	15.63	52.0	0.301
30.00	0.56	0.33	0.00	0.00	0.00	15.55	15.55	52.0	0.299
32.00	0.55	0.33	0.00	0.00	0.00	15.48	15.48	52.0	0.298
32.83	0.55	0.33	0.00	0.00	0.00	15.44	15.99	52.0	0.308
34.00	0.55	0.33	0.00	0.00	0.00	19.56	20.12	52.0	0.387
36.00	0.54	0.34	0.00	0.00	0.00	19.49	20.04	52.0	0.386
38.00	0.54	0.34	0.00	0.00	0.00	19.42	19.97	52.0	0.384
40.00	0.53	0.34	0.00	0.00	0.00	19.34	19.89	52.0	0.383
42.00	0.53	0.34	0.00	0.00	0.00	19.27	19.80	52.0	0.381
43.25	0.53	0.34	0.00	0.00	0.00	19.21	19.75	52.0	0.380
44.00	0.52	0.34	0.00	0.00	0.00	19.18	19.72	52.0	0.379
46.00	0.52	0.34	0.00	0.00	0.00	19.10	19.62	52.0	0.378
48.00	0.51	0.34	0.00	0.00	0.00	19.01	19.53	52.0	0.376
48.92	0.50	0.34	0.00	0.00	0.00	14.91	15.41	52.0	0.296
49.00	0.57	0.39	0.00	0.00	0.00	14.91	14.91	52.0	0.287
50.00	0.57	0.39	0.00	0.00	0.00	16.32	16.32	52.0	0.314
52.00	0.56	0.39	0.00	0.00	0.00	16.20	16.20	52.0	0.312
54.00	0.56	0.39	0.00	0.00	0.00	16.08	16.08	52.0	0.309
56.00	0.55	0.39	0.00	0.00	0.00	15.96	15.96	52.0	0.307
58.00	0.54	0.39	0.00	0.00	0.00	15.84	15.84	52.0	0.305
60.00	0.54	0.39	0.00	0.00	0.00	15.71	15.71	52.0	0.302
60.50	0.53	0.39	0.00	0.00	0.00	15.68	15.68	52.0	0.302
62.00	0.53	0.39	0.00	0.00	0.00	15.58	15.58	52.0	0.300
64.00	0.52	0.39	0.00	0.00	0.00	15.45	15.45	52.0	0.297
66.00	0.52	0.39	0.00	0.00	0.00	15.32	15.32	52.0	0.295
68.00	0.51	0.39	0.00	0.00	0.00	15.18	15.18	52.0	0.292
70.00	0.50	0.39	0.00	0.00	0.00	15.04	15.04	52.0	0.289
72.00	0.50	0.40	0.00	0.00	0.00	14.90	14.90	52.0	0.287
74.00	0.49	0.40	0.00	0.00	0.00	14.75	14.75	52.0	0.284
76.00	0.48	0.40	0.00	0.00	0.00	14.60	14.60	52.0	0.281
76.83	0.48	0.40	0.00	0.00	0.00	14.54	15.02	52.0	0.289
78.00	0.48	0.40	0.00	0.00	0.00	19.36	19.85	52.0	0.382
80.00	0.47	0.40	0.00	0.00	0.00	19.20	19.69	52.0	0.379

Resulting Stresses

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

Code: EIA/TIA-222-F
Exposure: C
Gh: 1.69
Struct Class: II

5/19/2016

Tower Engineering Solutions

82.00	0.47	0.40	0.00	0.00	0.00	19.03	19.51	52.0	0.375
84.00	0.47	0.40	0.00	0.00	0.00	18.86	19.34	52.0	0.372
86.00	0.46	0.40	0.00	0.00	0.00	18.68	19.15	52.0	0.368
87.50	0.46	0.40	0.00	0.00	0.00	18.54	19.01	52.0	0.366
88.00	0.46	0.40	0.00	0.00	0.00	18.49	18.96	52.0	0.365
90.00	0.45	0.40	0.00	0.00	0.00	18.30	18.76	52.0	0.361
91.92	0.44	0.40	0.00	0.00	0.00	13.86	14.29	52.0	0.275
92.00	0.44	0.40	0.00	0.00	0.00	13.85	13.85	52.0	0.266
92.25	0.51	0.47	0.00	0.00	0.00	13.83	13.83	52.0	0.266
94.00	0.50	0.47	0.00	0.00	0.00	15.29	15.29	52.0	0.294
96.00	0.50	0.47	0.00	0.00	0.00	15.06	15.06	52.0	0.290
98.00	0.49	0.47	0.00	0.00	0.00	14.84	14.84	52.0	0.285
100.00	0.48	0.47	0.00	0.00	0.00	14.60	14.60	52.0	0.281
102.00	0.48	0.47	0.00	0.00	0.00	14.36	14.36	52.0	0.276
104.00	0.47	0.47	0.00	0.00	0.00	14.12	14.12	52.0	0.272
105.58	0.46	0.47	0.00	0.00	0.00	13.92	14.39	52.0	0.277
106.00	0.46	0.47	0.00	0.00	0.00	19.03	19.51	52.0	0.375
108.00	0.46	0.48	0.00	0.00	0.00	18.73	19.21	52.0	0.370
110.00	0.46	0.48	0.00	0.00	0.00	18.43	18.90	52.0	0.364
112.00	0.45	0.48	0.00	0.00	0.00	18.11	18.58	52.0	0.357
114.00	0.45	0.48	0.00	0.00	0.00	17.78	18.25	52.0	0.351
116.00	0.44	0.48	0.00	0.00	0.00	17.44	17.90	52.0	0.344
118.00	0.44	0.48	0.00	0.00	0.00	17.09	17.55	52.0	0.338
120.00	0.44	0.48	0.00	0.00	0.00	16.72	17.18	52.0	0.330
122.00	0.43	0.48	0.00	0.00	0.00	16.34	16.80	52.0	0.323
124.00	0.43	0.48	0.00	0.00	0.00	15.95	16.40	52.0	0.316
126.00	0.42	0.49	0.00	0.00	0.00	15.55	15.99	52.0	0.308
128.00	0.42	0.49	0.00	0.00	0.00	15.13	15.57	52.0	0.300
130.00	0.42	0.49	0.00	0.00	0.00	14.69	15.13	52.0	0.291
132.00	0.41	0.49	0.00	0.00	0.00	14.24	14.67	52.0	0.282
132.50	0.41	0.49	0.00	0.00	0.00	14.12	14.56	52.0	0.280
134.00	0.40	0.49	0.00	0.00	0.00	13.77	14.20	52.0	0.273
136.00	0.40	0.49	0.00	0.00	0.00	13.29	13.71	52.0	0.264
136.50	0.55	0.69	0.00	0.00	0.00	18.10	18.69	52.0	0.359
138.00	0.55	0.69	0.00	0.00	0.00	17.57	18.16	52.0	0.349
140.00	0.55	0.69	0.00	0.00	0.00	16.85	17.43	52.0	0.335
142.00	0.54	0.69	0.00	0.00	0.00	16.09	16.68	52.0	0.321
144.00	0.54	0.69	0.00	0.00	0.00	15.31	15.90	52.0	0.306
146.00	0.54	0.70	0.00	0.00	0.00	14.50	15.09	52.0	0.290
148.00	0.52	0.67	0.00	0.00	0.00	13.66	14.23	52.0	0.274
150.00	0.52	0.67	0.00	0.00	0.00	12.82	13.40	52.0	0.258
152.00	0.52	0.68	0.00	0.00	0.00	11.96	12.53	52.0	0.241
154.00	0.51	0.68	0.00	0.00	0.00	11.06	11.63	52.0	0.224
156.00	0.51	0.68	0.00	0.00	0.00	10.12	10.69	52.0	0.206
158.00	0.43	0.55	0.00	0.00	0.00	9.14	9.61	52.0	0.185
160.00	0.42	0.55	0.00	0.00	0.00	8.36	8.83	52.0	0.170
162.00	0.42	0.55	0.00	0.00	0.00	7.55	8.03	52.0	0.154
164.00	0.42	0.56	0.00	0.00	0.00	6.71	7.19	52.0	0.138
166.00	0.41	0.56	0.00	0.00	0.00	5.83	6.31	52.0	0.121
168.00	0.36	0.42	0.00	0.00	0.00	4.91	5.32	52.0	0.102
168.50	0.27	0.38	0.00	0.00	0.00	4.74	5.06	52.0	0.097
170.00	0.27	0.37	0.00	0.00	0.00	4.29	4.60	52.0	0.089
172.00	0.26	0.37	0.00	0.00	0.00	3.67	3.98	52.0	0.077
174.00	0.26	0.37	0.00	0.00	0.00	3.02	3.34	52.0	0.064
176.00	0.25	0.37	0.00	0.00	0.00	2.35	2.68	52.0	0.052
178.00	0.25	0.37	0.00	0.00	0.00	1.66	2.01	52.0	0.039
178.00	0.25	0.37	0.00	0.00	0.00	1.66	2.01	52.0	0.045
178.50	0.17	0.24	0.00	0.00	0.00	1.71	1.92	52.0	0.037

Resulting Stresses

Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 49	

180.00	0.16	0.23	0.00	0.00	0.00	1.35	1.56	52.0	0.030
181.00	0.16	0.22	0.00	0.00	0.00	1.11	1.32	52.0	0.025
182.00	0.15	0.22	0.00	0.00	0.00	0.89	1.11	52.0	0.021
184.00	0.04	0.15	0.00	0.00	0.00	0.45	0.56	52.0	0.011
186.00	0.04	0.14	0.00	0.00	0.00	0.15	0.31	52.0	0.006
187.00	0.01	0.01	0.00	0.00	0.00	0.01	0.03	52.0	0.001
188.00	0.00	0.01	0.00	0.00	0.00	0.00	0.02	52.0	0.000

Final Analysis Summary

Structure:	CT46124-A-SBA	**Code:**	EIA/TIA-222-F	5/19/2016	
Site Name:	Enfield-Moody Rd.	**Exposure:**	C		
Height:	188.00 (ft)	**Gh:**	1.69		
Base Elev:	0.000 (ft)	**Struct Class:**	II	Page: 50	

Tower Engineering Solutions

Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
80 mph Wind with 0" Ice	29.1	0.00	45.78	0.00	0.00	3923.74
69.28 mph Wind with 0.5" Ice	24.4	0.00	52.38	0.00	0.00	3337.73
50 mph Wind with 0" Ice	11.4	0.00	45.80	0.00	0.00	1536.28

Max Stresses

Load Case	fa Axial (Y) (ksi)	fvx Shear (X) (ksi)	fvz Shear (Z) (ksi)	fvt Torsion (ksi)	fbx Bending (X) (ksi)	fbz Bending (Z) (ksi)	Combined Stress (ksi)	Allowable Stress (ksi)	Elev (ft)	Stress Ratio
80 mph Wind with 0" Ice	0.54	0.86	0.00	0.00	0.00	49.93	50.49	52.0	34.00	0.971
69.28 mph Wind with 0.5" Ice	0.63	0.72	0.00	0.00	0.00	42.62	43.26	52.0	34.00	0.832
50 mph Wind with 0" Ice	0.55	0.33	0.00	0.00	0.00	19.56	20.12	52.0	34.00	0.387

Additional Steel Summary

			Intermediate Connectors			Upper Termination			Lower Termination			Max Member			
Elev From (ft)	Elev To (ft)	Member	VQ/I (lb/in)	V (kips)	Shear Allow (kips)	MQ/I (kips)	Num Reqd	Num Actual	MQ/I (kips)	Num Reqd	Num Actual	MQ/I (kips)	Ta (kips)	Pa (kips)	Ratio
0.0	32.8	(3) PLT-6"X1-1/4"(1.25" Hole	-210.2	-4.41	33.0	280.4	9	0	300.6	0		300.6	316.7	347.7	0.864
48.9	76.8	(3) PLT-5.5"x1 1/4"(1.25"hol	-250.5	-5.26	33.0	240.0	8	0	252.7	2	0	270.3	283.3	318.7	0.848
91.9	105.6	(3) PLT-4.5"x 1-1/4"(1.25"ho	-266.5	-6.40	33.0	187.5	6	0	191.6	2	0	206.3	216.7	254.6	0.810

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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

May 26, 2016

EBI Project Number: 6216002595

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general public allowable limit:	24.93 %

21 B Street · Burlington, MA 01803 · Tel: (781) 273.2500 · Fax: (781) 273.3311

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May 26, 2016

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 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of $\mu W/cm^2$ 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 public 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 public 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 ($\mu W/cm^2$). The general population exposure limit for the 700 MHz Band is approximately 467 $\mu W/cm^2$, and the general population exposure limit for the PCS and AWS bands is 1000 $\mu W/cm^2$. 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 manufactures supplied specifications, minus 10 dB, 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) 4 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel

2) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.

3) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.

4) Since the radios are ground mounted there are additional cabling losses accounted for. For each RF path the following losses were calculated. 1.12 dB of additional cable loss for all 700 MHz Channels and 1.95 dB of additional cable loss for all 1900 MHz channels. This is based on manufacturers Specifications for 160 feet of 1-1/4” coax cable on each path.

5) 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.

6) For the following calculations the sample point was the top of a six-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB 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.

7) The antennas used in this modeling are the **RFS APXV18-209014** for 1900 MHz (PCS) channels and the **Commscope LNX-6515DS-VTM** for 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The **RFS APXV18-209014** has a maximum gain of **14.4 dBd** at its main lobe at 1900 MHz. The **Commscope LNX-6515DS-VTM** has a maximum gain of **14.6 dBd** at its main lobe at 700 MHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, 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.

8) The antenna mounting height centerline of the proposed antennas is **187 feet** above ground level (AGL).

9) 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.

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

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	**1**	Antenna #:	**1**	Antenna #:	**1**
Make / Model:	RFS APXV18-209014	Make / Model:	RFS APXV18-209014	Make / Model:	RFS APXV18-209014
Gain:	14.4 dBd	Gain:	14.4 dBd	Gain:	14.4 dBd
Height (AGL):	187	Height (AGL):	187	Height (AGL):	187
Frequency Bands	1900 MHz(PCS)	Frequency Bands	1900 MHz(PCS)	Frequency Bands	1900 MHz(PCS)
Channel Count	6	Channel Count	6	Channel Count	6
Total TX Power(W):	240	Total TX Power(W):	240	Total TX Power(W):	240
ERP (W):	4,219.02	ERP (W):	4,219.02	ERP (W):	4,219.02
Antenna A1 MPE%	0.46	Antenna B1 MPE%	0.46	Antenna C1 MPE%	0.46
Antenna #:	**2**	Antenna #:	**2**	Antenna #:	**2**
Make / Model:	Commscope LNX-6515DS-VTM	Make / Model:	Commscope LNX-6515DS-VTM	Make / Model:	Commscope LNX-6515DS-VTM
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	187	Height (AGL):	187	Height (AGL):	187
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30
ERP (W):	668.53	ERP (W):	668.53	ERP (W):	668.53
Antenna A2 MPE%	0.16	Antenna B2 MPE%	0.16	Antenna C2 MPE%	0.16

Site Composite MPE%	
Carrier	**MPE%**
T-Mobile (Per Sector Max)	**0.62 %**
AT&T	15.05 %
MetroPCS	3.11 %
Nextel	1.76 %
Sprint	3.80 %
Clearwire	0.59 %
Site Total MPE %:	**24.93 %**

T-Mobile Sector 1 Total:	0.62 %
T-Mobile Sector 2 Total:	0.62 %
T-Mobile Sector 3 Total:	0.62 %
Site Total:	24.93 %

T-Mobile _per sector	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
T-Mobile 2100 MHz (AWS) LTE	**2**	**1054.75**	**187**	**2.31**	**1900**	**1000**	**0.23 %**
T-Mobile 1900 MHz (PCS) GSM	**4**	**527.38**	**187**	**2.31**	**1900**	**1000**	**0.23 %**
T-Mobile 700 MHz LTE	**1**	**668.53**	**187**	**0.73**	**700**	**467**	**0.16 %**
						Total:	**0.62%**

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general public 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 public exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector 1:	0.62 %
Sector 2:	0.62 %
Sector 3:	0.62 %
T-Mobile Per Sector Maximum:	0.62 %
Site Total:	24.93 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **24.93%** of the allowable FCC established general public 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.

SITE NAME: MOODY RD

188 MOODY RD
ENFIELD, CT 06082

SITE NUMBER: CTHA170C

SITE CONFIG: 704G

PROJECT NOTES

GENERAL NOTES:

THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T–MOBILE. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.

THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC, ROUTINE MAINTENANCE AND THEREFORE, DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE T–MOBILE NORTHEAST LLC REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

SPECIAL STRUCTURAL NOTES:

TOWER OWNER SHALL PROVIDE GLOBAL STRUCTURAL STABILITY ANALYSIS OF EXISTING ANTENNA SUPPORT STRUCTURE. GENERAL CONTRACTOR SCOPE OF WORK SHALL INCLUDE ALL REQUIRED STRUCTURAL MODIFICATIONS, RE–BUNDLING OF COAXIAL CABLES OR OTHER SPECIAL MODIFICATIONS AS OUTLINED THEREIN.

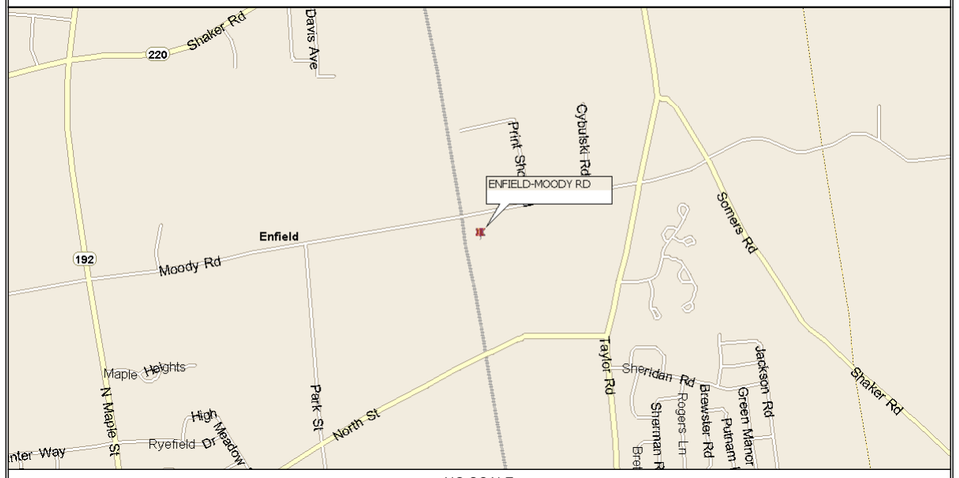
ENGINEER OF RECORD HAS MADE A VISUAL ASSESSMENT ONLY AND HAS DETERMINED THAT THE EXISTING ANTENNA MOUNT SHALL BE REPLACED OR MODIFIED TO ACCOMMODATE ANY ADDITIONAL EQUIPMENT LOAD. STRUCTURAL DESIGNS AND DETAILS AS SHOWN HEREIN FOR STRUCTURAL MODIFICATIONS OF THE EXISTING ANTENNA MOUNT ARE PRELIMINARY ONLY AND FINAL CONSTRUCTION DETAILS ARE SUBJECT TO CHANGE PENDING THE COMPLETION OF AN ANTENNA MOUNT STRUCTURAL ASSESSMENT.

B+T GROUP ASSUMES THAT THE TOWER IS PROPERLY CONSTRUCTED AND MAINTAINED. ALL STRUCTURAL MEMBERS AND THEIR CONNECTIONS ARE ASSUMED TO BE IN GOOD CONDITION AND ARE FREE FROM DEFECTS WITH NO DETERIORATION TO ITS MEMBER CAPACITIES.

T-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION	SPECIAL RESTRICTIONS	LOCATION	SPECIAL RESTRICTIONS
SECTOR A:	ACCESS NOT PERMITTED	DIPLEXERS:	UNRESTRICTED
SECTOR B:	ACCESS NOT PERMITTED	RADIO CABINETS:	UNRESTRICTED
SECTOR C:	ACCESS NOT PERMITTED	PPC DISCONNECT:	UNRESTRICTED
RRH:	ACCESS NOT PERMITTED	MAIN CIRCUIT D/C:	UNRESTRICTED
TMA:	ACCESS NOT PERMITTED	NIU/T DEMARC:	UNRESTRICTED
GPS/LMU:	CAUTION: OSHA APPROVED PORTABLE 8' STEP–LADDER REQUIRED	OTHER/SPECIAL:	NONE

LOCATION MAP



NO SCALE

PROJECT INFORMATION

SCOPE OF WORK:	UNMANNED TELECOMMUNICATIONS FACILITY T–MOBILE EQUIPMENT MODERNIZATION
ZONING JURISDICTION: (TOWN OF ENFIELD)	BASED ON INFORMATION PROVIDED BY T–MOBILE, REGULATORY COMPLIANCE AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409 AND IS SUBJECT TO AN ELIGIBLE FACILITY REQUEST, EXPEDITED REVIEW AND LIMITED/PARTIAL ZONING PRE–EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW OR ADMINISTRATIVE REVIEW).
SITE ADDRESS:	188 MOODY RD ENFIELD, CT 06082
LATITUDE: LONGITUDE:	42.00297222° N 72.52147220° W
JURISDICTION:	NATIONAL, STATE & LOCAL CODES & ORDINANCES
CURRENT USE:	TELECOMMUNICATIONS FACILITY
PROPOSED USE:	TELECOMMUNICATIONS FACILITY
TOWER OWNER:	SBA 2012 TC ASSETS, LLC
SBA SITE ID:	CT46124–A
SBA SITE NAME:	ENFIELD–MOODY RD
SBA REGIONAL SITE MANAGER:	STEPHEN ROTH (860) 539–4920 sroth@sbasite.com

APPROVALS

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

ACCEPTANCE DOES NOT CONSTITUTE APPROVAL OF DESIGN, CALCULATIONS, ANALYSIS, TEST METHODS OF MATERIALS DEVELOPED OR SELECTED BY THE SUBCONTRACTOR AND DOES NOT RELIEVE SUBCONTRACTOR FROM FULL COMPLIANCE WITH CONTRACTUAL OBLIGATIONS.

DRAWING INDEX

SHEET #	SHEET DESCRIPTION	REV. #
T–1	TITLE SHEET	0
GN–1	GENERAL NOTES	0
C–1	COMPOUND AND ELEVATION PLAN	0
C–2	EXISTING AND PROPOSED ANTENNA PLANS	0
C–3	DETAILS	0
E–1	GROUNDING DETAILS AND NOTES	0

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B+T GRP
1717 S. BOULDER
SUITE 300
TULSA, OK 74119
PH: (918) 587-4630
www.btgrp.com

T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581

CTHA170C

MOODY RD

188 MOODY RD
ENFIELD, CT 06082

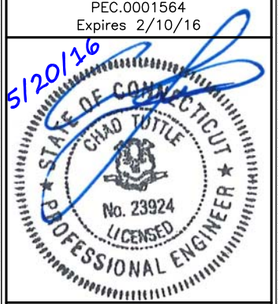
PROJECT NO:	106084.001
CHECKED BY:	SLM

ISSUED FOR:

REV	DATE	DRWN	DESCRIPTION
0	5/20/16	GEH	CONSTRUCTION

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/16

5/20/16



SHEET NUMBER:	REVISION:
T-1	0

106084.001_Enfield–Moody Rd.dwg – Sheet:T–1 – User: mwesel – May 20, 2016 – 5:13pm

GROUNDING NOTES:

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI OR NFPA) LIGHTING PROTECTION CODE AND GENERAL COMPLIANCE WITH TELECORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATION OR ADVERSE FINDING TO THE CONTRACTOR FOR RESOLUTION.

2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GE'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.

3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 & 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.

4. METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.

5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BUS 2 AWG STRANDED COPPER FOR OUTDOOR BTS.

6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.

7. APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.

8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.

9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.

10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.

11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDED FITTINGS OR BY BINDING ACROSS THE DISCONTINUITY WITH 6 AWS COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.

12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20' OR MORE OF 1/2" OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BAR TINNED COPPER GROUND WIRE, PER NEC 250.50.

GENERAL NOTES:

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY:
   - CONTRACTOR: SBA COMMUNICATIONS CORP.
   - SUBCONTRACTOR: GENERAL CONTRACTOR (CONSTRUCTION)
   - OWNER: T-MOBILE

2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.

3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.

4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.

5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.

7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, UNLESS SPECIFICALLY STATED OTHERWISE.

8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALL AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.

9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWINGS. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY, SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.

10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.

11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.

12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.

13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.

15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS NOTED OTHERWISE, PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WETHER SHALL BE HOT DIPPED GALVANIZED. TOUCH-UP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.

16. CONSTRUCTION SHALL COMPLY WITH UMTS SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T-MOBILE SITES."

17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.

18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW, USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.

19. SINCE THE CELL SITE IS ACTIVE, AL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION, EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT IF ANY DANGEROUS EXPOSURE LEVELS.

20. APPLICABLE BUILDING CODES:
    SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
    - BUILDING CODE: IBC 2009
    - ELECTRICAL CODE: NEC 2014

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

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

    AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

    MANUAL OF STEEL CONSTRUCTION; ASD, FOURTEENTH EDITION

    TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-G;
    STRUCTURAL STANDARDS FOR STEEL

    ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES;
    REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS

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

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	GC	GENERAL CONTRACTOR	REF.	REFERENCE
AWG	AMERICAN WIRE GAUGE	MAX.	MAXIMUM	REQ.	REQUIRED
BCW	BARE COPPER WIRE	MGB	MASTER GROUND BAR	RF	RADIO FREQUENCY
BTS	BASE TRANSCEIVER STATION	MIN.	MINIMUM	T.B.D.	TO BE DETERMINED
(E)	EXISTING	(N)	PROPOSED	T.B.R.	TO BE REMOVED
EG	EQUIPMENT GROUND	N.T.S.	NOT TO SCALE	T.B.R.R.	TO BE REMOVED AND REPLACED
EGR	EQUIPMENT GROUND RING	RE:	REFERENCE	(TYP)	TYPICAL

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CTHA170C

MOODY RD

188 MOODY RD
ENFIELD, CT 06082

PROJECT NO:	106084.001
CHECKED BY:	SLM

ISSUED FOR:

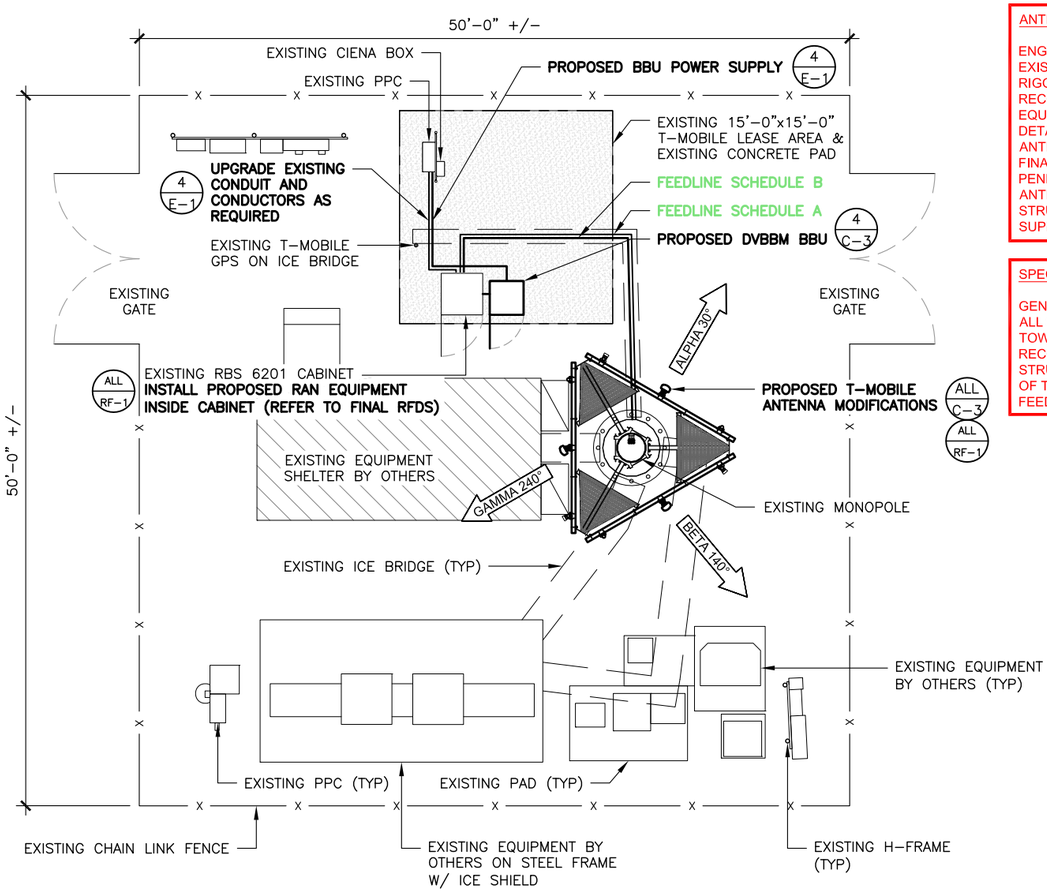
REV	DATE	DRWN	DESCRIPTION
0	5/20/16	GEH	CONSTRUCTION

B&T ENGINEERING, INC.
PEC.0001564
Expires 2/10/16

5/20/16

STATE OF CONNECTICUT
CHAD TUTTLE
No. 23924
LICENSED
PROFESSIONAL ENGINEER

SHEET NUMBER:	REVISION:
GN-1	0



1 OVERALL SITE PLAN

SCALE: 0' 5' 10' 15' 25' 11x17 SCALE: 3/32"=1'-0" 22x34 SCALE: 3/16"=1'-0"

N

SEE FEEDLINE SCHEDULE.
(REFER TO SBA PROVIDED STRUCTURAL ANALYSIS FOR SPECIAL CABLE INSTALLATION REQUIREMENTS, BUNDLING, SHIELDING, MOUNTING AND RELOCATION OF EXISTING CABLES)

SOURCE: B+T 05-05-2016

2A FEEDLINE PHOTO DETAIL @ TOWER BASE

SCALE: N.T.S.

ANTENNA MOUNT STRUCTURAL DESIGN NOTE:

ENGINEER-OF-RECORD HAS MADE A VISUAL ASSESSMENT ONLY OF EXISTING ANTENNA MOUNT ASSEMBLIES, WITHOUT THE BENEFIT OF A RIGOROUS ANTENNA MOUNT STRUCTURAL ANALYSIS, AND RECOMMENDS THAT EXISTING AND PROPOSED TOWER TOP EQUIPMENT BE INSTALLED AS DEPICTED HEREIN. STRUCTURAL DETALS AS DEPICTED HEREIN FOR MODIFICATION OF EXISTING ANTENNA MOUNT ASSEMBLIES ARE PRELIMINARY ONLY AND THAT FINAL CONSTRUCTION DETAILS MAY BE SUBJECT TO CHANGE PENDING THE COMPLETION OF A SEPARATE SUPPLEMENTAL ANTENNA MOUNT STRUCTURAL ASSESSMENT, SUPPLEMENTAL STRUCTURAL MAPPING/CONDITIONS ASSESSMENT REPORT AND/OR SUPPLEMENTAL RIGOROUS ANTENNA MOUNT STRUCTURAL ANALYSIS.

SPECIAL PRE-CONSTRUCTION WORK NOTE:

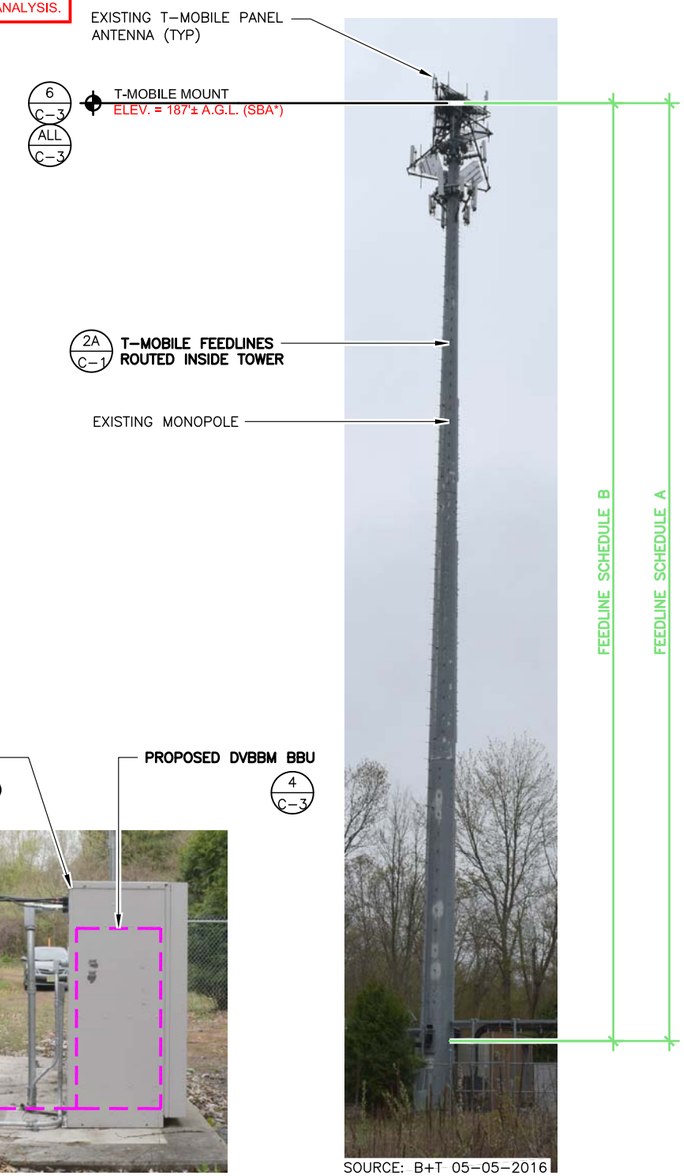
GENERAL CONTRACTOR SHALL FURNISH AND INSTALL ALL SPECIAL OR SUPPLEMENTAL ADDITIONAL TOWER-MOUNTED EQUIPMENT PER RECOMMENDATIONS FROM SBA-PROVIDED TOWER STRUCTURAL ANALYSIS FOR ANY SPECIAL SHIELDING OF TOWER TOP EQUIPMENT AND FOR ANY SPECIAL FEEDLINE BUNDLING OR RELOCATION.

SOURCE: B+T 04-22-2013

2B EQUIPMENT PHOTO DETAIL

SCALE: N.T.S.

FEEDLINE SCHEDULE	FEEDLINE DESCRIPTION	LOCATION
A	EXISTING TO REMAIN: (6) 1 1/4" COAX TO T-MOBILE RAD	INSIDE POLE
B	PROPOSED: (6) 1 1/4" COAX TO T-MOBILE RAD	INSIDE POLE
EXISTING T-MOBILE EQUIPMENT FEEDLINE INVENTORY BASED ON OBSERVED FIELD CONDITIONS. RFDS AND FEEDLINE LEASING ENTITLEMENTS MAY DIFFER		



SOURCE: B+T 05-05-2016

3 ELEVATION PHOTO DETAIL

SCALE: N.T.S.

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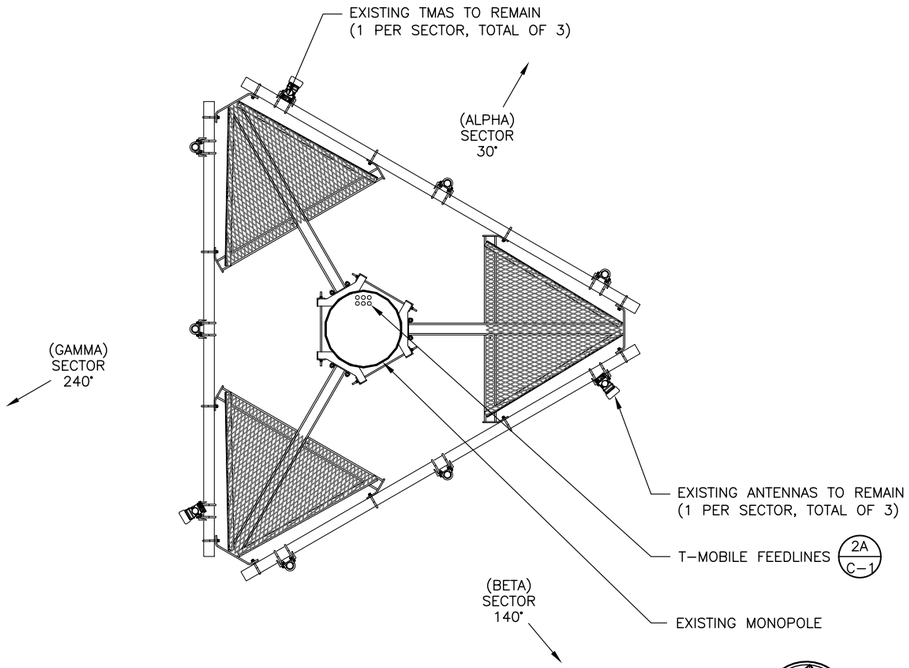
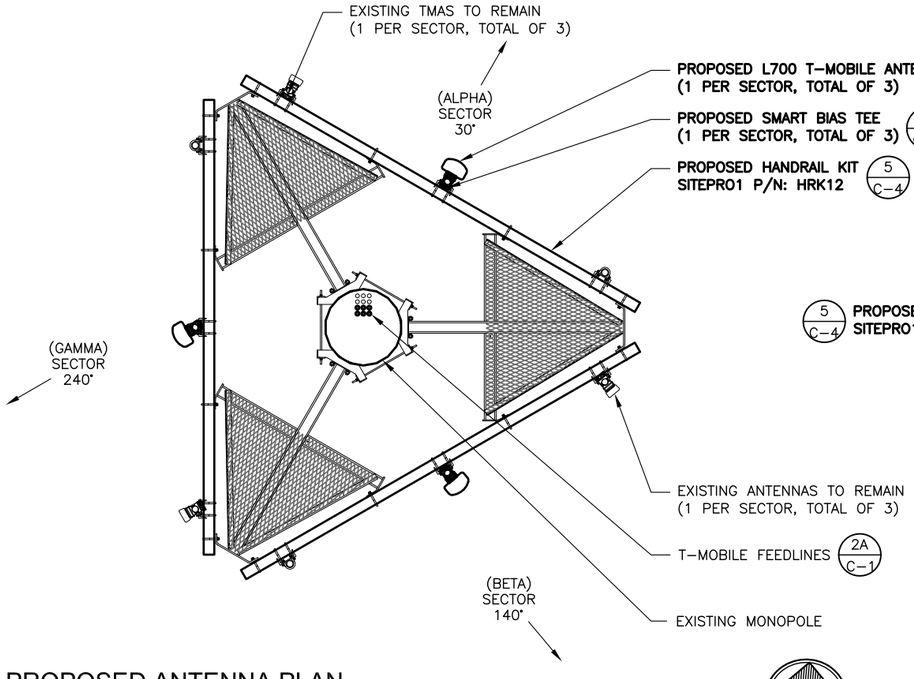


1A EXISTING ANTENNA PLAN

SCALE: 0' 1' 2' 3' 4' 5'

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

N



1B PROPOSED ANTENNA PLAN

SCALE: 0' 1' 2' 3' 4' 5'

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

N

NOTE:
AT TIME OF CONSTRUCTION, CONTRACTOR TO VERIFY AZIMUTHS OF EXISTING ANTENNAS. IF DIFFERENT FROM RFDS, PLEASE NOTIFY THE RF ENGINEER AND CONSTRUCTION MANAGER WITH ACTUAL AZIMUTH TO ENSURE T-MOBILE'S DATABASE IS ACCURATE AND UP-TO-DATE.

SPECIAL PRE-CONSTRUCTION WORK NOTE:

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ANTENNA INSTALLATION SPECIAL WORK NOTE:

ANTENNA INSTALLATION WORKING POINT IS THE TIP OF THE EXISTING ANTENNA. VERTICALLY CENTER ALL PIPE MASTS AND ANTENNAS TO 187' A.G.L. (SBA*).

SOURCE: B+T 05–05–2016

2 ANTENNA MOUNT PHOTO DETAIL

SCALE: N.T.S.

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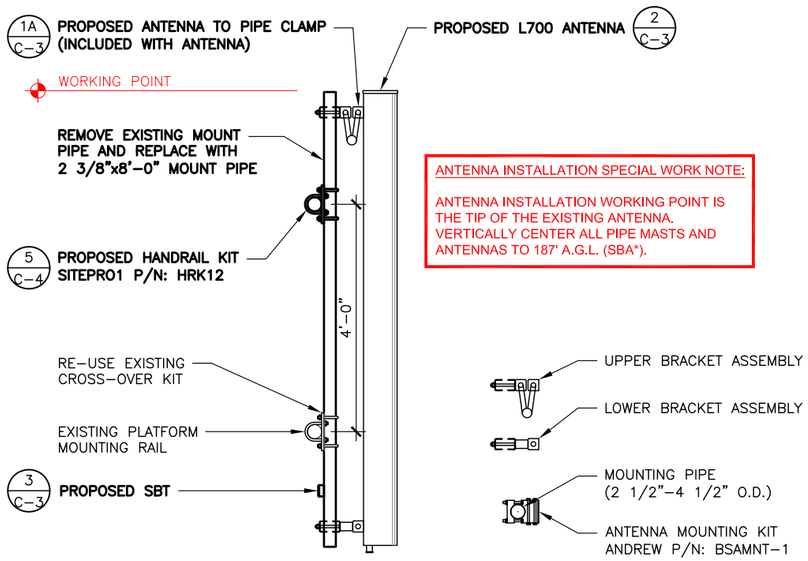


1 PROPOSED L700 ANTENNA & SBT MOUNTING DETAIL

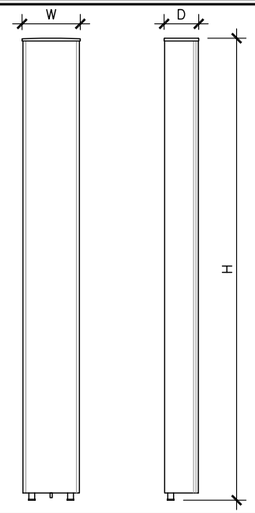
SCALE: N.T.S.

ANTENNA INSTALLATION SPECIAL WORK NOTE:

ANTENNA INSTALLATION WORKING POINT IS THE TIP OF THE EXISTING ANTENNA. VERTICALLY CENTER ALL PIPE MASTS AND ANTENNAS TO 187' A.G.L. (SBA*).

1A L700 ANTENNA MOUNTING BRACKET

SCALE: N.T.S.



L700 ANTENNA SPECS	
MANUFACTURER	ANDREW
MODEL #	LNX-6515DS
WIDTH	11.9"
DEPTH	7.1"
HEIGHT	96.4"
WEIGHT	50.3 LBS

2 L700 ANTENNA DETAIL

SCALE: N.T.S.

SPECIAL PRE-CONSTRUCTION WORK NOTE:

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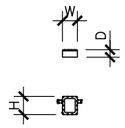
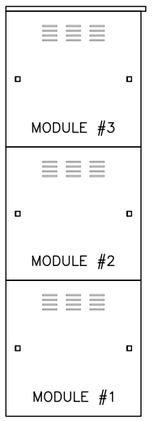


SBT SPECIFICATIONS	
MANUFACTURER	ANDREW
MODEL #	ATSBT-TOP-MF-4G
WIDTH	3.7"
DEPTH	2.0"
HEIGHT	5.63"
WEIGHT	1.8 LBS

3 SMART BIAS TEE (SBT)

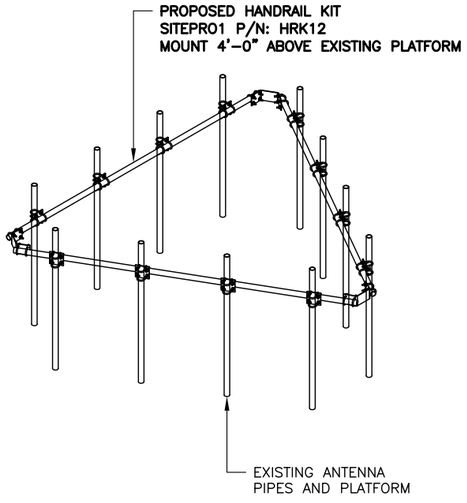
SCALE: N.T.S.



BBU SPECIFICATIONS	
MANUFACTURER	MSF DATA SERVICES
MODEL #	DVBBM-2ALM
WIDTH	28.45"
DEPTH	28.45"
HEIGHT	29.67"
WEIGHT	1,264 LBS
MOUNT BASE WITH (4) 1/2" DROP IN ANCHORS WITH 2" MIN. EMBEDMENT (INSTALL PER MANUFACTURER'S SPECS)	

4 BATTERY CABINET (BBU)

SCALE: N.T.S.



5 PROPOSED HANDRAIL KIT

SCALE: N.T.S.

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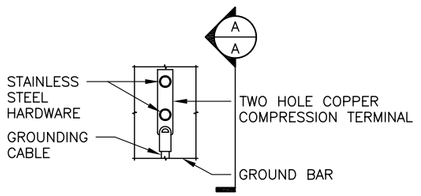
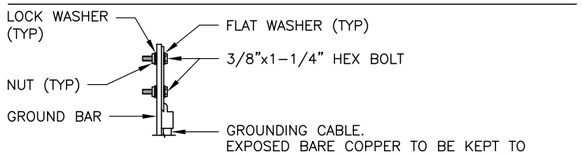


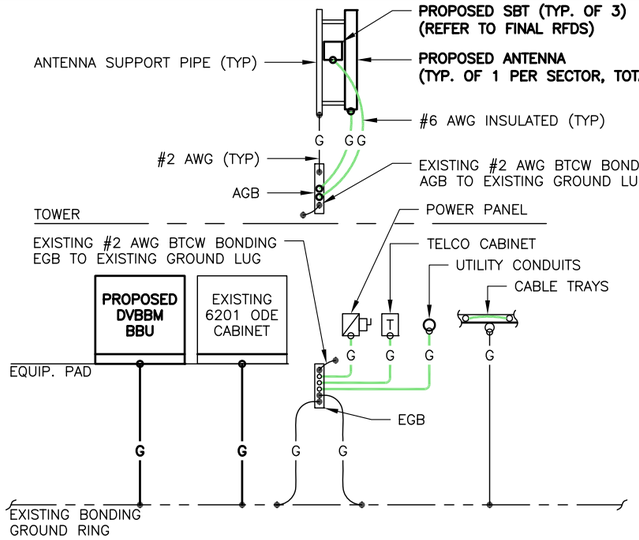
ELEVATION



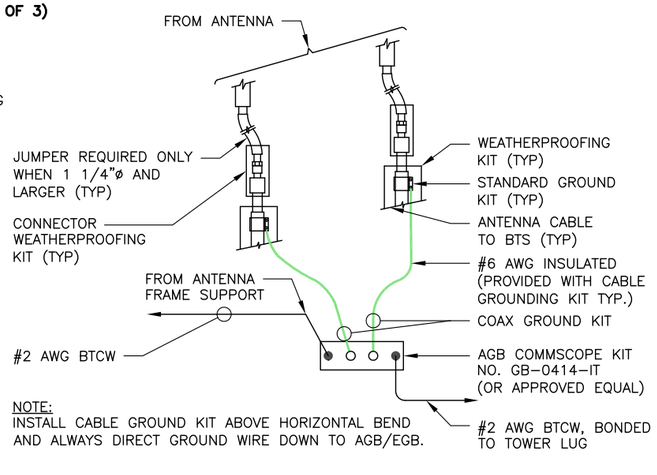
SECTION "A-A"

NOTE:
1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.
3. CADWELD DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB.

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

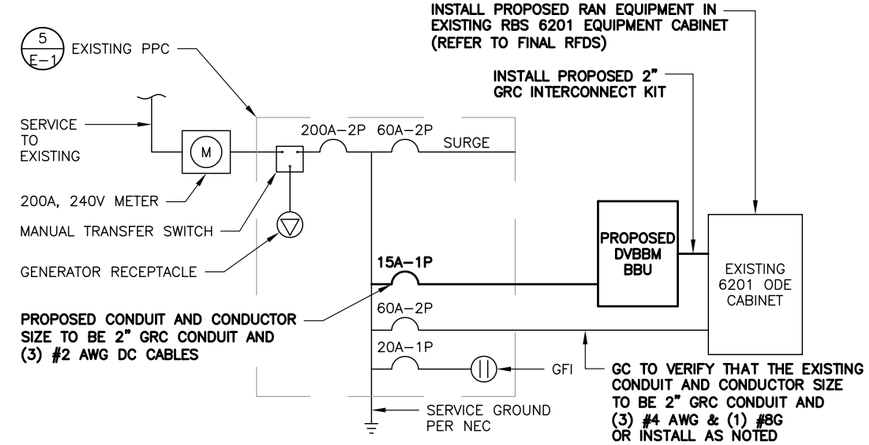


2 TYPICAL GROUNDING RISER DIAGRAM
SCALE: N.T.S.



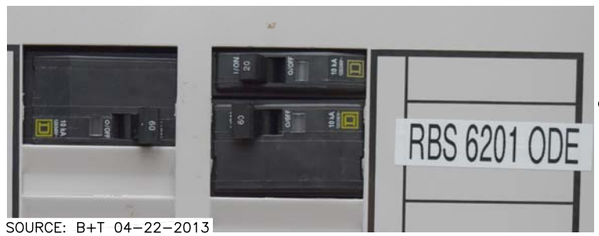
NOTE:
INSTALL CABLE GROUND KIT ABOVE HORIZONTAL BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO AGB/EGB.

3 TOWER TOP CABLE GROUNDING DETAIL
SCALE: N.T.S.



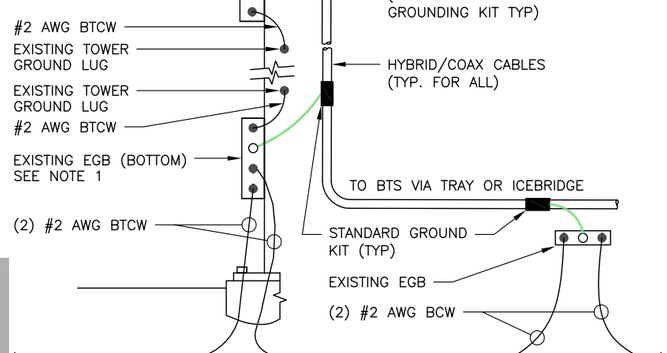
4 ONE-LINE POWER DIAGRAM
SCALE: N.T.S.

SOURCE: B+T 04-22-2013



SOURCE: B+T 04-22-2013

5 PHOTO DETAIL: PPC PANEL
SCALE: N.T.S.



NOTE:
1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER. ANTENNA LOCATION AND CONNECTION ANTENNA LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.
2. A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED.

6 TOWER BOTTOM CABLE GROUNDING DETAIL
SCALE: N.T.S.

ELECTRICAL LEGEND

A	AMPERE
BTCW	BARE TINNED (SOLID) COPPER WIRE
C	CONDUIT
GRC	GALVANIZED RIGID CONDUIT
KWH	KILOWATT – HOUR
PPC	POWER PROTECTION CABINET
V	VOLT
	5/8"x8' COPPER CLAD STAINLESS STEEL GROUND ROD
	GROUND
	EXOTHERMIC CONNECTION (CAD WELD) MECHANICAL CONNECTION
AGB/EGB	ANTENNA GROUND BAR/EQUIPMENT GROUND BAR
MGB	MASTER GROUND BAR
G	GROUND COPPER WIRE, SIZED AS NOTED
	EXPOSED WIRING, SIZE AS NOTED
	INSULATED WIRING, SIZE AS NOTED
	OMNI-DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALL

ELECTRICAL & GROUNDING NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATIONS INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
5. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
6. RIGID STEEL CONDUITS SHALL BE GROUNDED AT BOTH ENDS.
7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THIN INSULATION.
8. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL ROOM AND PROPOSED CELL SITE POWER PEDESTAL AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
9. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROPOSED CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON DRAWING A-1. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
10. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
11. GROUNDING SHALL COMPLY WITH NEC ART. 250.
12. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
13. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
14. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
15. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
16. CONNECTIONS TO MGB SHALL BE ARRANGED IN THREE MAIN GROUPS: SURGE PRODUCERS (COAXIAL CABLE GROUND KITS, TELCO AND POWER PANEL GROUND); (GROUNDING ELECTRODE RING OR BUILDING STEEL); NON-SURGING OBJECTS (EGB GROUND IN BTS UNIT).
17. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
18. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
19. BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
20. BOND ANTENNA EGB'S AND MGB TO WATER MAIN.
21. TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.
22. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.
23. VERIFY PROPOSED SERVICE UPGRADE WITH LOCAL UTILITY COMPANY PRIOR TO CONSTRUCTION.

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