

**METROPCS MASSACHUSETTS, LLC NOTICE OF INTENT TO MODIFY  
AN EXISTING TELECOMMUNICATIONS FACILITY AT  
77 SPRINGBROOK ROAD, OLD SAYBROOK, CONNECTICUT**

Pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes § 16-50g et. Seq. (“PUESA”), and Sections 16-50j-72(b) and 16-50j-73 of the Regulations of Connecticut State Agencies (“R.C.S.A”) adopted pursuant to the PUESA, Metro PCS, Inc., by and through its agent MetroPCS Massachusetts, LLC (“MetroPCS”) hereby notifies the Connecticut Siting Council of its intent to modify an existing facility located at 77 Springbrook Road, Old Saybrook, CT, Connecticut. The telecommunications facility is owned by Crossroads Communications of Old Saybrook, LLC and leased to MetroPCS.

**MetroPCS’ Proposed Wireless Modifications**

MetroPCS achieved an initial exempt modification approval from the Siting Council to install antennas and related ground equipment on March 2, 2009. The facility consists of a One-Hundred and seventy five (175’) foot high Monopole telecommunications tower (the “Tower”) within a fenced compound. MetroPCS now intends to modify the facility as shown on the enclosed plans prepared by Advanced Engineering Group and annexed hereto as Exhibit 1. The modifications will consist of removing three (3) exiting antennas and replacing them with six (6) new antennas at an AGL of 163’. A structural analysis has been completed for the site. Please see report attached in exhibit 3.

In accordance with R.C.S.A Section 16-50j-73, a copy of this submission is being sent to the Town of Old Saybrook. A copy of this submission is also being sent to Crossroads Communications of Old Saybrook, LLC, the property owner on which the tower is located.

**MetroPCS’ Proposed Wireless Modifications Constitutes An “Exempt Modification”**

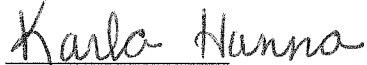
The proposed modification to the Old Saybrook, CT Facility constitutes an exempt modification of an existing facility provided for in R.C.S.A Section 16-50j-72(b)(2) and Council regulations promulgated pursuant thereto.

- 1) The proposed modifications will be to swap the existing MetroPCS antennas at the same AGL of 163’. This installation will not result in an increase in the height of the existing tower.
- 2) The proposed modifications will not require expansion of the site boundaries.
- 3) The proposed modifications will not increase noise levels at the facility by six decibels or more.
- 4) MetroPCS’ proposed facility will not increase the cumulative radio frequency electromagnetic radiation power density at the Tower site’s boundary to or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission. A cumulative General

Power Density table for MetroPCS' proposed modified facility is included as Exhibit 2.

For all the foregoing reasons, MetroPCS' respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A Section 16-50j-72(b)(2)

Respectfully submitted,



**Karla Hanna (978) 852-7520**

On behalf of MetroPCS Massachusetts, LLC

c/o Tower Resource Management, Inc.  
16 Chestnut Street, Suite 220  
Foxboro, MA 02035

cc: **Town of Old Saybrook, CT**  
**Crossroads Communications of Old Saybrook, LLC**

## Exhibit 1

### Site Plan

**PROJECT INFORMATION**

SCOPE OF WORK: UNMANNED TELECOMMUNICATIONS FACILITY MODIFICATIONS  
 SITE ADDRESS: 77 SPRINGBROOK ROAD  
 OLD SAYBROOK, CT 06475  
 LATITUDE: 41.313889  
 LONGITUDE: -72.364167  
 JURISDICTION: NATIONAL, STATE & LOCAL CODES OR ORDINANCES  
 CURRENT USE: TELECOMMUNICATIONS FACILITY  
 PROPOSED USE: TELECOMMUNICATIONS FACILITY  
 DESIGN GUIDELINE: 5A

**SITE NAME: CROWN OLD SAYBROOK MONOPOLE**

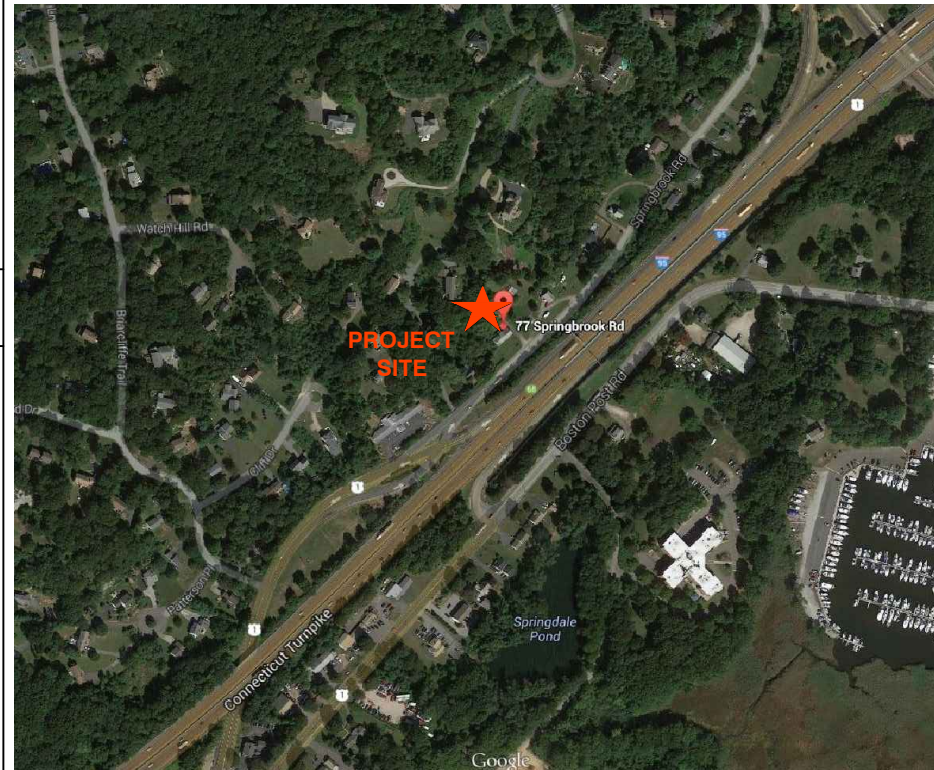
77 SPRINGBROOK ROAD  
 OLD SAYBROOK, CT 06475  
 MIDDLESEX COUNTY  
 SITE NUMBER: NLD0012B  
 (CTHA540)

**DRAWING INDEX**

**REV**

<b>T-1</b>	<b>TITLE SHEET</b>	<b>0</b>
<b>GN-1</b>	<b>GENERAL NOTES</b>	<b>0</b>
<b>A-1</b>	<b>COMPOUND &amp; EQUIPMENT PLAN</b>	<b>0</b>
<b>A-2</b>	<b>ELEVATION &amp; ANTENNA PLAN</b>	<b>0</b>
<b>A-3</b>	<b>DETAILS</b>	<b>0</b>
<b>G-1</b>	<b>GROUNDING, ONE-LINE DIAGRAM &amp; DETAILS</b>	<b>0</b>

**LOCUS MAP**

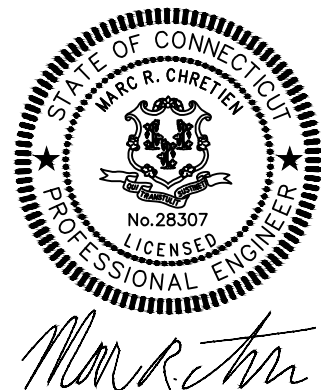


**GENERAL NOTES**

- THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE NORTHEAST, LLC. 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 REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

**SIGNATURES**

CONSTRUCTION	DATE	OPERATIONS	DATE
RF ENGINEERING	DATE	LAND OWNER	DATE
ZONING / SITE ACQ.	DATE		



CALL



BEFORE YOU DIG

CALL TOLL FREE 811 OR 888-DIG-SAFE

UNDERGROUND SERVICE ALERT



**SITE NUMBER: NLD0012B**  
**SITE NAME: CROWN OLD SAYBROOK MONOPOLE**  
 77 SPRINGBROOK ROAD  
 OLD SAYBROOK, CT 06475

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	08/06/14	ISSUED FOR REVIEW	JTG	SNA	SNA
SCALE: AS SHOWN		DESIGNED BY: SNA	DRAWN BY: JTG		

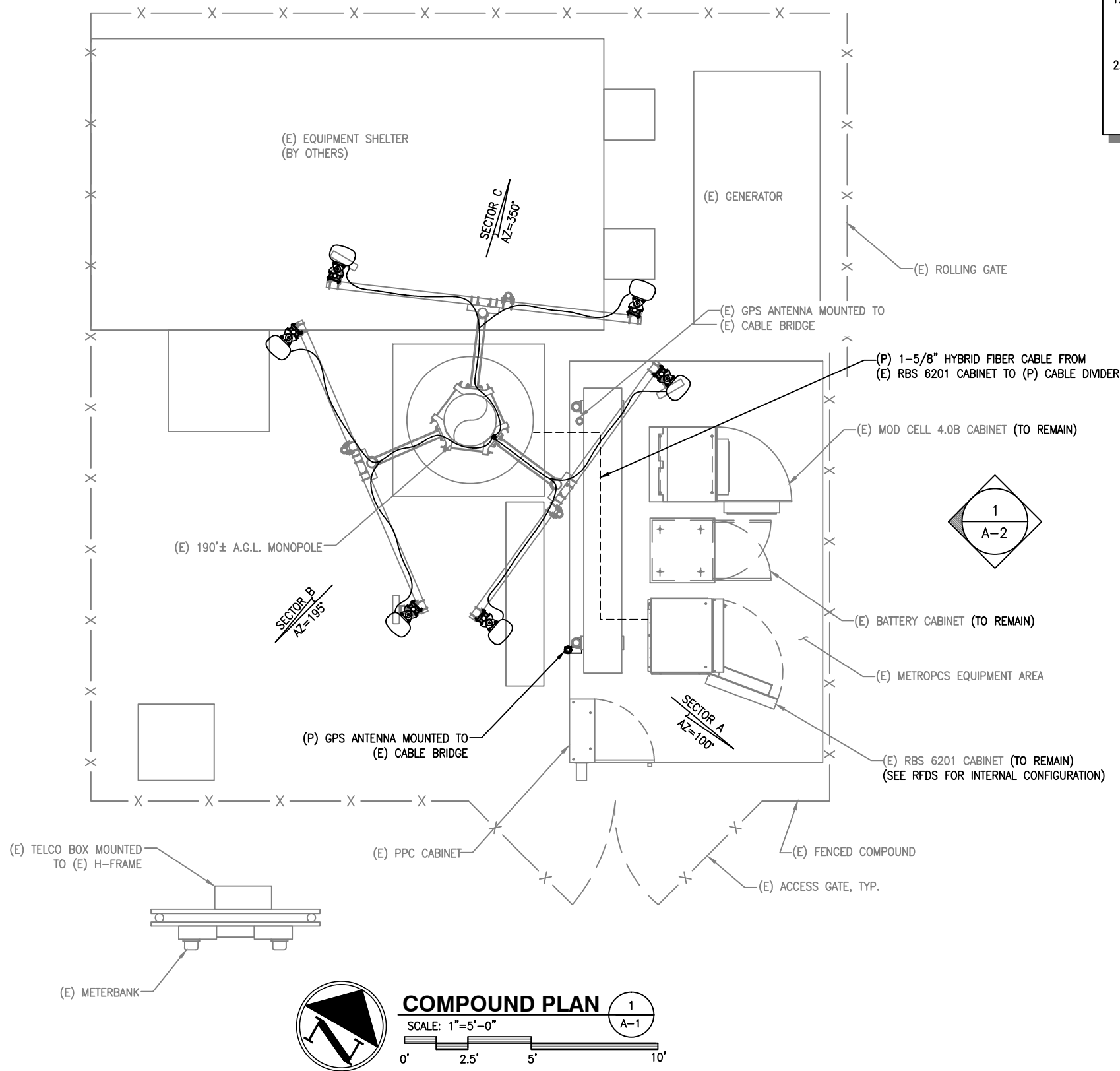
**MetroPCS**

TITLE SHEET

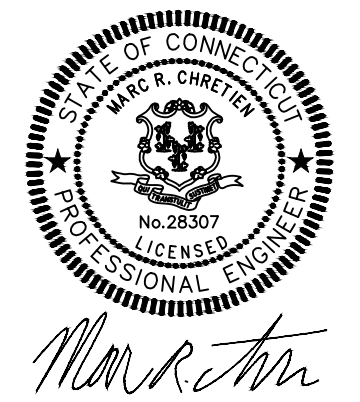
JOB NUMBER	DRAWING NUMBER	REV
NLD0012B	T-1	0



- NOTE:
1. A SITE VISIT/SURVEY WAS NOT CONDUCTED BY ADVANCED ENGINEERING GROUP, P.C. SITE INFORMATION AND PLANS ARE BASED UPON INFORMATION PROVIDED BY CLIENT
  2. AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE CONDUCTED PRIOR TO CONSTRUCTION (BY OTHERS.) AEG HAS NOT CONDUCTED A STRUCTURAL ANALYSIS.



**COMPOUND PLAN** 1  
 SCALE: 1"=5'-0"  
 0' 2.5' 5' 10'



NO.	DATE	REVISIONS	BY	CHK	APP'D
0	08/06/14	ISSUED FOR REVIEW	JTG	SNA	SNA

SCALE: AS SHOWN    DESIGNED BY: SNA    DRAWN BY: JTG



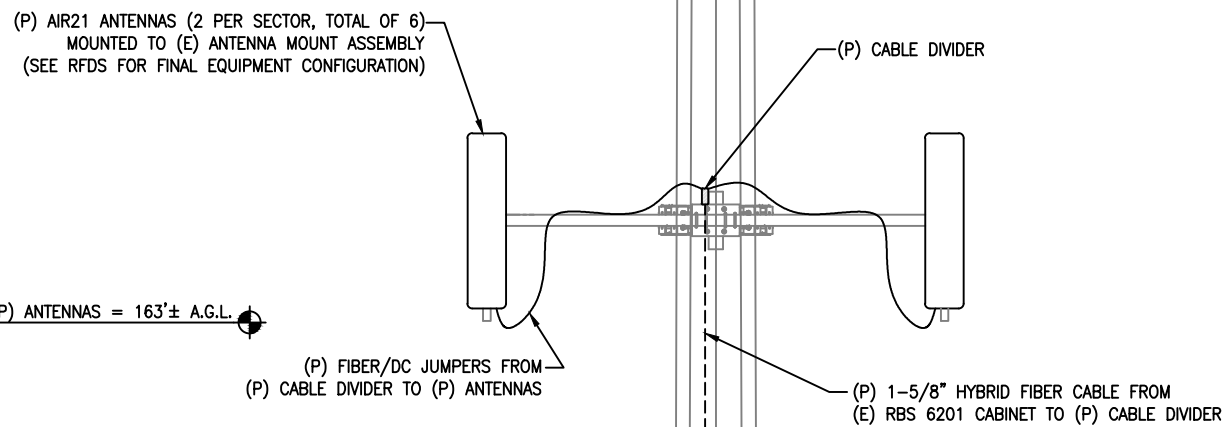
Marc R. Chretien

**EXISTING ANTENNA SCHEDULE**

SECTOR	MAKE	MODEL#	SIZE (INCHES)
SECTOR A:	RFS	APXV18-206517S	6.65x3.15x72
SECTOR B:	RFS	APXV18-206517S	6.65x3.15x72
SECTOR C:	RFS	APXV18-206517S	6.65x3.15x72

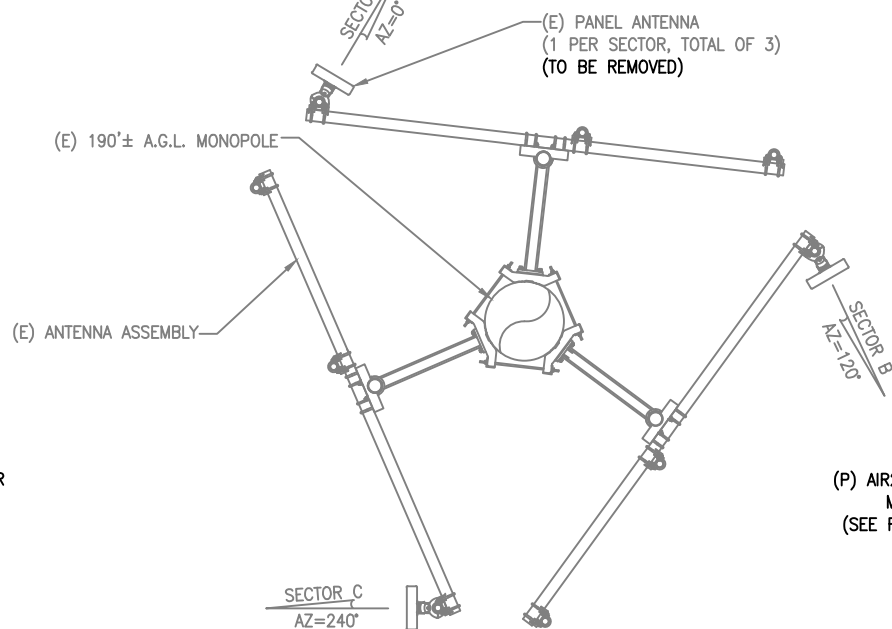
**PROPOSED ANTENNA SCHEDULE**

SECTOR	MAKE	MODEL#	SIZE (INCHES)
SECTOR A:	ERICSSON	AIR21 B2A/B4P	12X8X56
	ERICSSON	AIR21 B4A/B2P	12X8X56
SECTOR B:	ERICSSON	AIR21 B2A/B4P	12X8X56
	ERICSSON	AIR21 B4A/B2P	12X8X56
SECTOR C:	ERICSSON	AIR21 B2A/B4P	12X8X56
	ERICSSON	AIR21 B4A/B2P	12X8X56



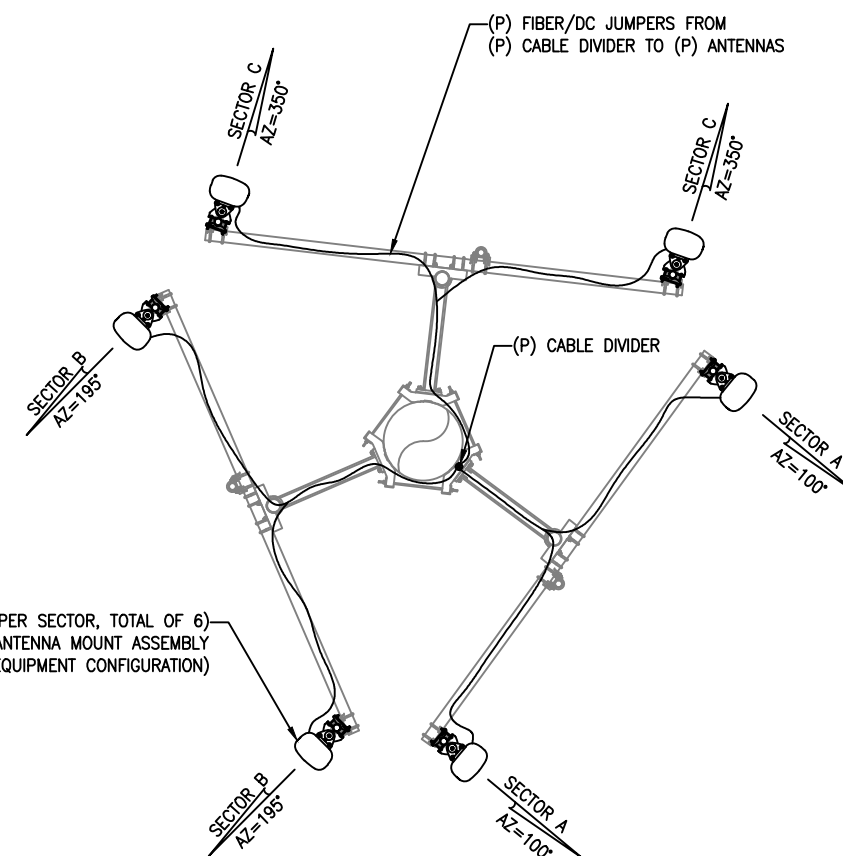
**ENLARGED ELEVATION**

SCALE: 1"=5'-0"



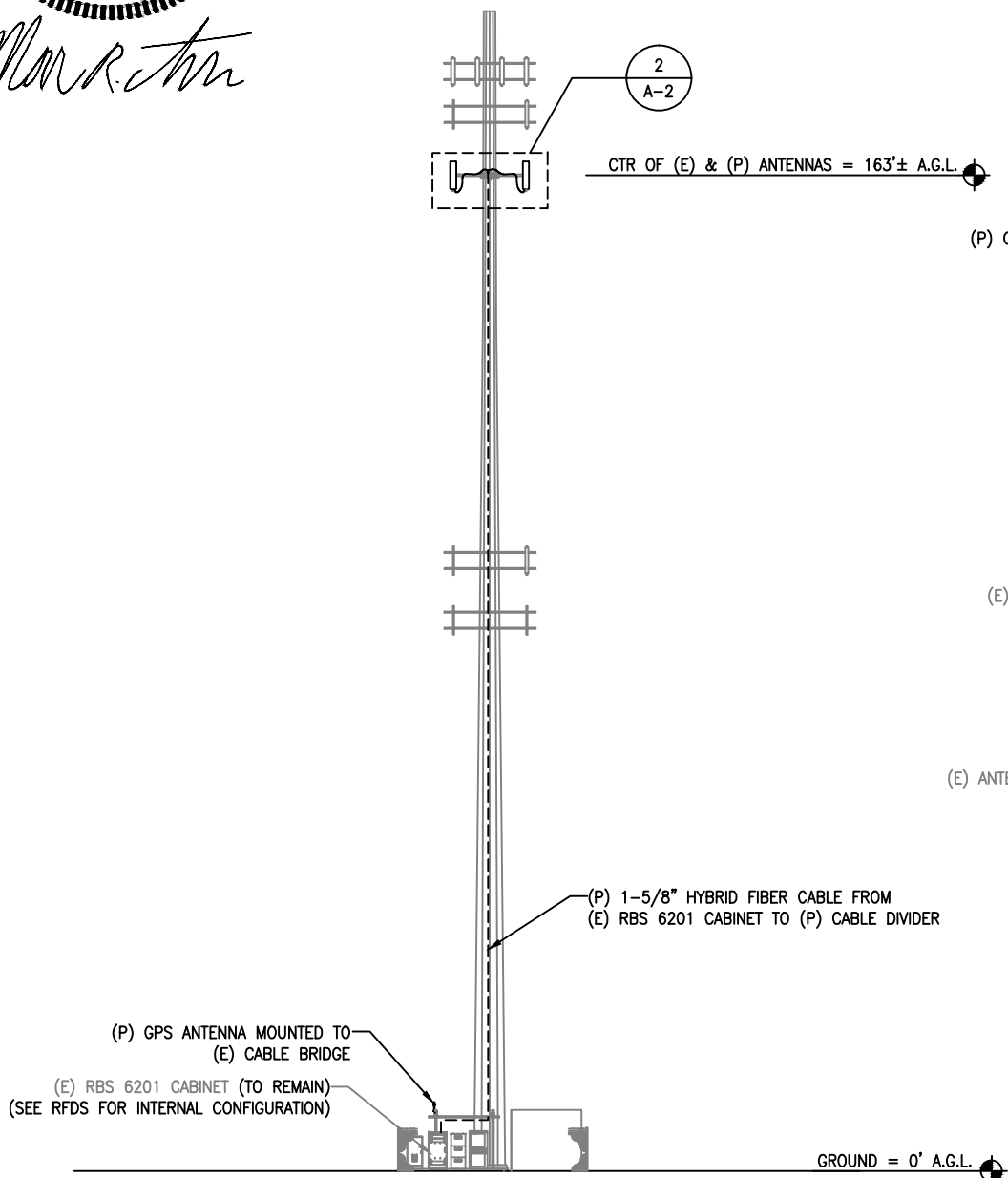
**EXISTING ANTENNA PLAN**

SCALE: N.T.S.



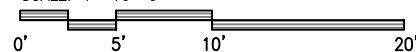
**PROPOSED ANTENNA PLAN**

SCALE: N.T.S.



**ELEVATION**

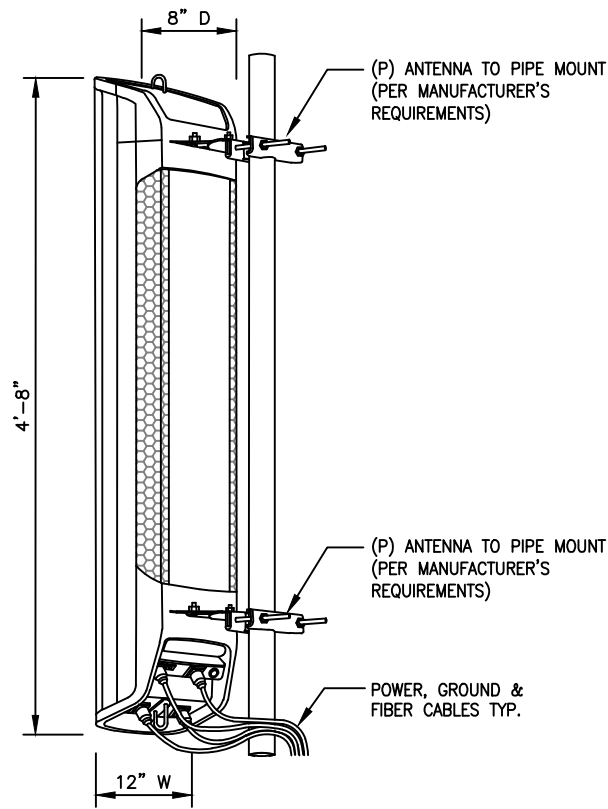
SCALE: 1"=10'-0"



NO.	DATE	REVISIONS	BY	CHK	APP'D
0	08/06/14	ISSUED FOR REVIEW	JTG	SNA	SNA

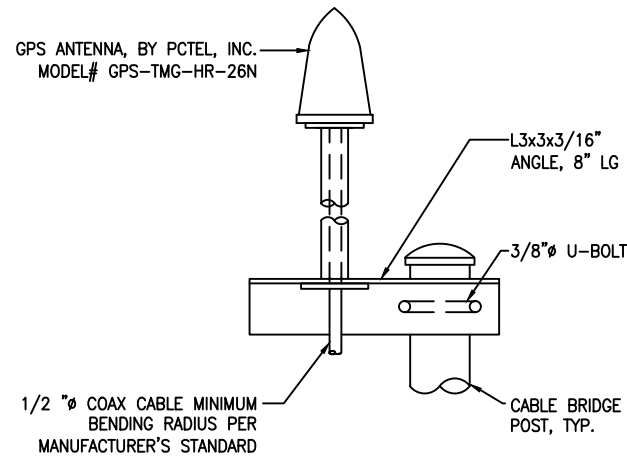
SCALE: AS SHOWN    DESIGNED BY: SNA    DRAWN BY: JTG

JOB NUMBER	DRAWING NUMBER	REV
NLD0012B	A-2	0



**AIR21 ANTENNA TYP.** 1  
A-3

SCALE: N.T.S.



**GPS MOUNTING DETAILS** 2  
A-3

SCALE: N.T.S.

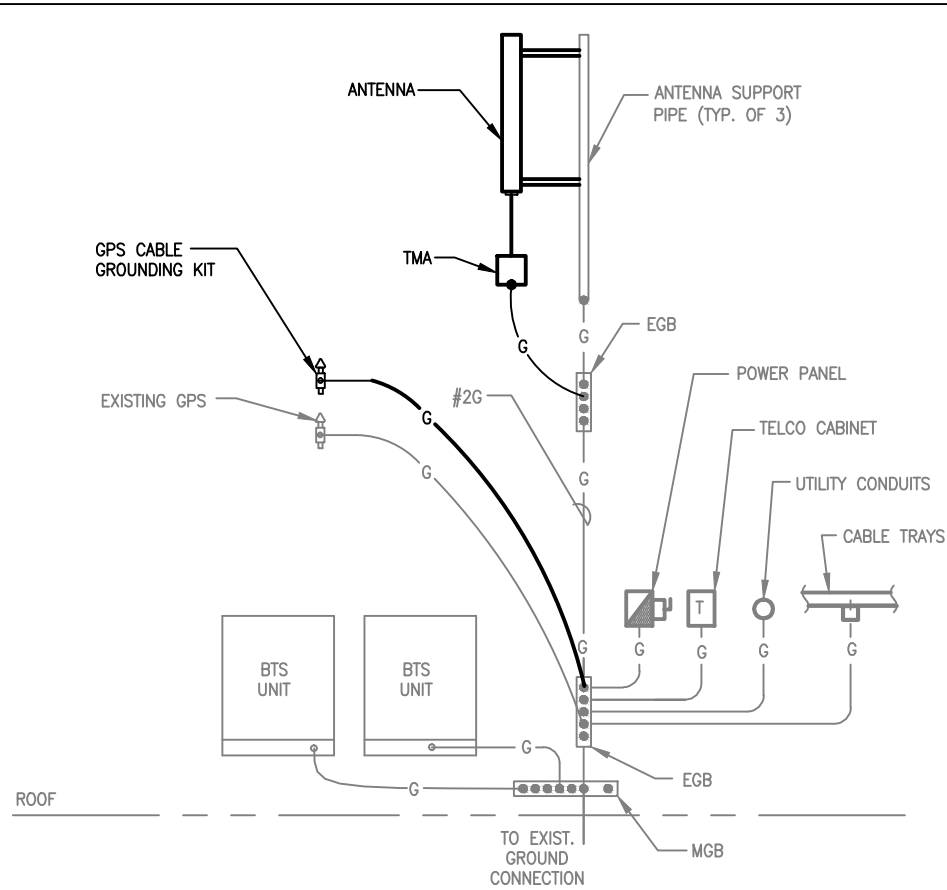


*Marc R. Chretien*

NO.	DATE	REVISIONS	BY	CHK	APP'D
0	08/06/14	ISSUED FOR REVIEW	JTG	SNA	SNA
SCALE: AS SHOWN		DESIGNED BY: SNA	DRAWN BY: JTG		

JOB NUMBER	DRAWING NUMBER	REV
NLD0012B	A-3	0

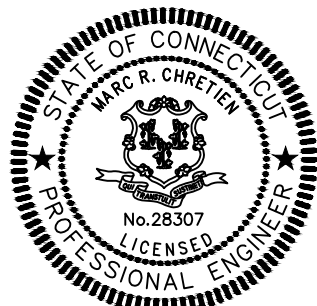




**GROUNDING RISER DIAGRAM**  
SCALE: N.T.S.

1  
G-1

NOTE:  
1. A SITE VISIT/SURVEY WAS NOT CONDUCTED BY ADVANCED ENGINEERING GROUP, P.C. SITE INFORMATION AND PLANS ARE BASED UPON INFORMATION PROVIDED BY CLIENT CONTRACTOR TO VERIFY IN FIELD

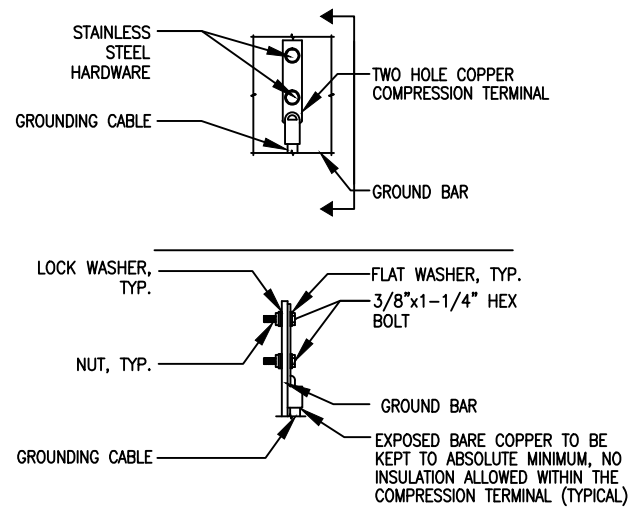


*Marc R. Chretien*

**HYBRID CABLE CONNECTION & GROUNDING DETAIL**

SCALE: N.T.S.

4  
G-1

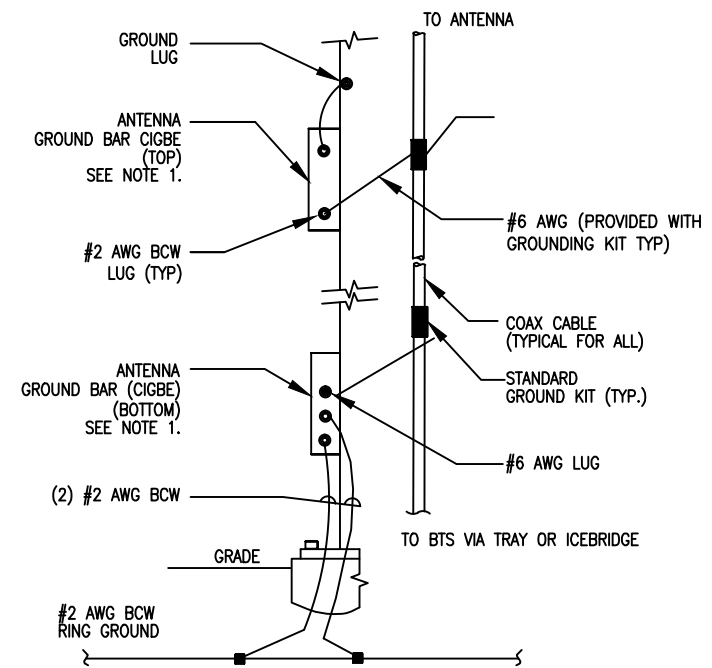


- NOTES:  
1. "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED.  
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.  
3. CADWELDED DOWNLEADS FROM UPPER EGB, LOWER EGB, AND MGB.  
4. ALL GROUND LUGS MUST BE HEAT SHRUNK AT WIRE/LUG CONNECTION

**TYP. GROUND BAR CONNECTION DETAIL**

SCALE: N.T.S.

2  
G-1

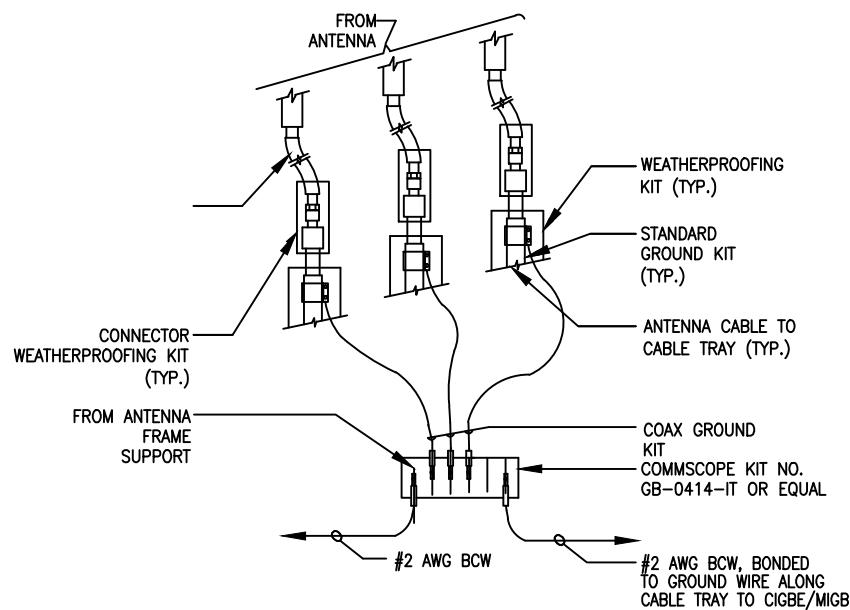


- NOTE:  
1. NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER. ANTENNA LOCATION AND CONNECTION ANTENNA LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.  
2. A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED.

**ANTENNA CABLE GROUNDING**

SCALE: N.T.S.

3  
G-1

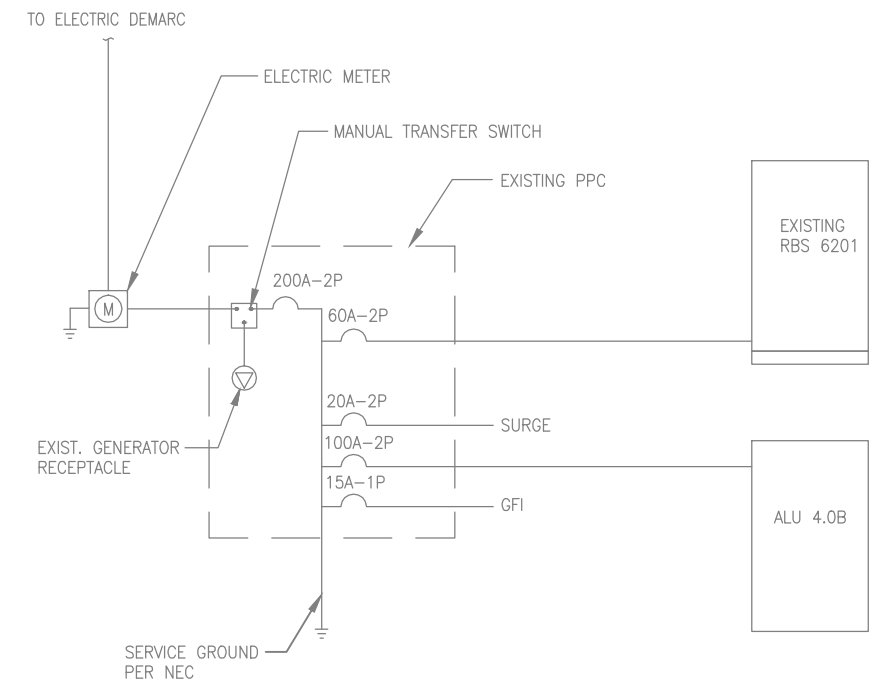


- NOTE:  
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

**GROUND WIRE TO GROUND BAR CONNECTION DETAIL**

SCALE: N.T.S.

5  
G-1



**ONE-LINE POWER DIAGRAM**

SCALE: N.T.S.

6  
G-1

HALF SIZE PRINT  
THIS DRAWING IS SCALEABLE  
AT TWICE THE NOTED SCALE

## Exhibit 2

### Power Density Calculation

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

MetroPCS Existing Facility

Site ID: CTHA540A

Crown Old Saybrook Monopole

77 Springbrook Road  
Old Saybrook, CT 06475

**August 14, 2014**

**EBI Project Number: 62144272**

August 14, 2014

MetroPCS USA  
Attn: Jason Overbey, RF Manager  
35 Griffin Road South  
Bloomfield, CT 06002

Re: Emissions Values for Site: **CTHA540A - Crown Old Saybrook Monopole**

EBI Consulting was directed to analyze the proposed MetroPCS facility located at **77 Springbrook Road, Old Saybrook, CT**, for the purpose of determining whether the emissions from the Proposed MetroPCS Antenna Installation located on this property are within specified federal limits.

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

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

General population/uncontrolled exposure limits apply to situations in which the general 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 ( $\mu\text{W}/\text{cm}^2$ ). The general population exposure limit for the cellular band is  $567 \mu\text{W}/\text{cm}^2$ , and the general population exposure limit for the PCS and AWS bands is  $1000 \mu\text{W}/\text{cm}^2$ . Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

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

Additional details can be found in FCC OET 65.

## CALCULATIONS

Calculations were done for the proposed MetroPCS Wireless antenna facility located at **77 Springbrook Road, Old Saybrook, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since MetroPCS is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, the actual antenna pattern gain value in the direction of the sample area was used. For this report the sample point is a 6 foot person standing at the base of the tower

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

- 1) 2 GSM channels (1935.000 MHz—to 1945.000 MHz) were considered for each sector of the proposed installation.
- 2) 2 UMTS channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation.
- 3) 2 LTE channels (2110.000 MHz to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation.
- 4) 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.
- 5) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
- 6) The antenna used in this modeling is the Ericsson AIR21 for LTE, UMTS and GSM. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.6 dBd gain value at its main lobe. Actual antenna gain values were used for all calculations as per the manufacturers specifications.

- 7) The antenna mounting height centerline of the proposed antennas is **162 feet** above ground level (AGL).
- 8) 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.

Site ID	CTHA540A - Crown Old Saybrook Monopole
Site Address	77 Springbrook Road, Old Saybrook, CT 06475
Site Type	Monopole

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Composite Channels	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	-3.95	162	156	None	0	0	48.326044	0.713901	0.07139%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	0	0	-3.95	162	156	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A/B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	-3.95	162	156	1-5/8"	0	0	24.163022	0.356951	0.03570%
2b	Ericsson	AIR21 B2A/B4P	Passive	AWS - 2100 MHz	UMTS	30	2	-3.95	162	156	1-5/8"	0	0	24.163022	0.356951	0.03570%
Sector total Power Density Value: 0.143%																

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Composite Channels	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	-3.95	162	156	None	0	0	48.326044	0.713901	0.07139%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	0	0	-3.95	162	156	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A/B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	-3.95	162	156	1-5/8"	0	0	24.163022	0.356951	0.03570%
2b	Ericsson	AIR21 B2A/B4P	Passive	AWS - 2100 MHz	UMTS	30	2	-3.95	162	156	1-5/8"	0	0	24.163022	0.356951	0.03570%
Sector total Power Density Value: 0.143%																

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Composite Channels	Antenna Gain in direction of sample point (dBi)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	-3.95	162	156	None	0	0	48.326044	0.713901	0.07139%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-	0	0	-3.95	162	156	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A/B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	-3.95	162	156	1-5/8"	0	0	24.163022	0.356951	0.03570%
2b	Ericsson	AIR21 B2A/B4P	Passive	AWS - 2100 MHz	UMTS	30	2	-3.95	162	156	1-5/8"	0	0	24.163022	0.356951	0.03570%
Sector total Power Density Value: 0.143%																

Site Composite MPE %	
Carrier	MPE %
MetroPCS	0.428%
Verizon Wireless	12.170%
<b>Total Site MPE %</b>	<b>12.598%</b>

## Summary

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

The anticipated Maximum Composite contributions from the MetroPCS facility are **0.428% (0.143% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **12.598%** 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.



**Scott Heffernan**  
RF Engineering Director

**EBI Consulting**  
21 B Street  
Burlington, MA 01803



Exhibit 3  
Structural Calculations



**AMERICAN TOWER®**  
CORPORATION

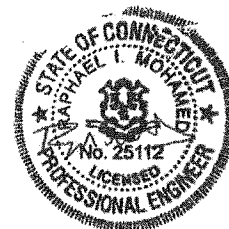
---

## Structural Analysis Report

**Structure** : 175 ft Monopole  
**ATC Site Name** : Old Saybrook, CT  
**ATC Site Number** : 370625  
**Engineering Number** : 59131621  
**Proposed Carrier** : Metro PCS  
**Carrier Site Name** : Old Saybrook  
**Carrier Site Number** : CTHA540A  
**Site Location** : 77 Springbrook Road  
Old Saybrook, CT 06475-0000  
41.313833,-72.364028  
**County** : Middlesex  
**Date** : June 23, 2014  
**Max Usage** : 73%  
**Result** : Pass

Igor Palyvoda E.I.

*Igor Palyvoda*



Jun 24 2014 8:14 AM



**Table of Contents**

Introduction .....	1
Supporting Documents .....	1
Analysis .....	1
Conclusion.....	1
Existing and Reserved Equipment.....	2
Equipment to be Removed.....	2
Proposed Equipment .....	2
Structure Usages .....	3
Foundations .....	3
Deflection, Twist, and Sway.....	3
Standard Conditions .....	4
Calculations .....	Attached



### Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 175 ft monopole to reflect the change in loading by Metro PCS.

### Supporting Documents

<b>Tower Drawings</b>	DaVinci, Valmont Job #08242-1120, dated April 17, 2008
<b>Foundation Drawing</b>	DaVinci, Valmont Job #08242-1120, dated April 17, 2008
<b>Geotechnical Report</b>	JGI Eastern Project #J2085121, dated March 12, 2008

### Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

<b>Basic Wind Speed:</b>	115 mph (3-Second Gust)
<b>Basic Wind Speed w/ Ice:</b>	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
<b>Code:</b>	ANSI/TIA-222-G / 2003 IBC w/ 2005 CT Supplement & 2009 CT Amendment
<b>Structure Class:</b>	II
<b>Exposure Category:</b>	C
<b>Topographic Category:</b>	1

### Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at [Engineering@americantower.com](mailto:Engineering@americantower.com). Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



**Existing and Reserved Equipment**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
173.0	173.0	3	Alcatel-Lucent RRH2x40-AWS	Platform w/ Handrails	(18) 1 5/8" Coax (1) 1 5/8" Fiber	Verizon
		3	Antel BXA-171085-12BF-EDIN-X			
		3	Antel BXA-171063/12CF			
		1	RFS DB-T1-6Z-8AB-0Z			
		3	Antel BXA-70063-6CF-EDIN-2			
		3	Andrew LNX-8513DS-VTM			
162.0	-	-	-	T-Arms	(6) 1 5/8" Coax	Metro PCS
152.0	152.0	3	RFS APXV18-206517S-C	Flush	(6) 1 5/8" Coax	T-Mobile
100.0	100.0	1	Andrew DB589	Side Arm	(1) 7/8" Coax	American Messaging Services
15.0	15.0	1	4' Dish w/ Radome	Flush	(1) 0.28" RG6	

**Equipment to be Removed**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
162.0	162.0	6	Kathrein Scala 742 351	-	(6) 1 5/8" Coax	Metro PCS

**Proposed Equipment**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
162.0	162.0	3	Ericsson AIR 21, 1.3M, B2A B4P	T-Arms	(1) 1 5/8" Hybriflex	Metro PCS
		3	Ericsson AIR 21, 1.3M, B4A B2P			

<sup>1</sup>Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax inside the pole shaft.



**Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	48%	Pass
Shaft	73%	Pass
Base Plate	38%	Pass

**Foundations**

Reaction Component	Original Design Reactions	Analysis Reactions	% of Design
Moment (Kips-Ft)	5,400.0	4,315.7	80%
Shear (Kips)	48.0	39.3	82%

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

**Deflection and Sway\***

Antenna Elevation (ft)	Deflection (ft)	Sway (Rotation) (°)
162.0	1.379	1.077

\*Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G



## Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Tower Services, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

© 2007 - 2014 by ATC IP LLC. All rights reserved.

Job Information	
Pole : 370625	Code: ANSI/TIA-222 Rev G
Description : 175 ft Monopole	
Client : Metro PCS	Struct Class : II
Location : Old Saybrook, CT	
Shape : 18 Sides	Exposure : C
Height : 175.00 (ft)	Topo : 1
Base Elev (ft): 0.00	
Taper: 0.26501(in/ft)	

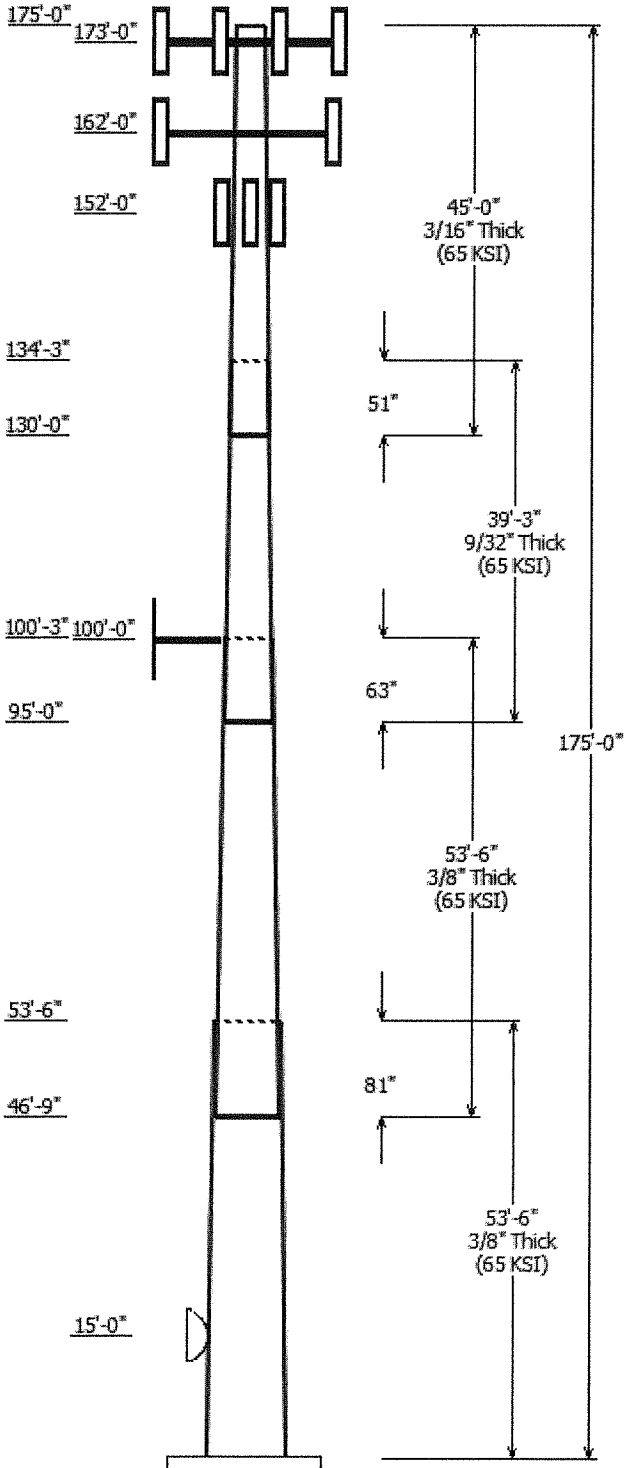
Sections Properties							
Shaft Section	Length (ft)	Diameter (in)		Thick Joint (in)	Type	Overlap Length (in)	Steel Taper Grade (in/ft) (ksi)
		Across Top	Flats Bottom				
1	53.500	50.51	64.69	0.375		0.000	0.265010 65
2	53.500	38.87	53.05	0.375	Slip Joint	81.000	0.265010 65
3	39.250	30.42	40.82	0.281	Slip Joint	63.000	0.265010 65
4	45.000	20.00	31.92	0.188	Slip Joint	51.000	0.265010 65

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
173.000	173.000	3	Andrew LNX-8513DS-VTM
173.000	173.000	3	Antel BXA-70063-6CF-EDIN-2
173.000	173.000	1	RFS DB-T1-6Z-8AB-0Z
173.000	173.000	3	Antel BXA-171063/12CF
173.000	173.000	3	Antel BXA-171085-12BF-EDIN-X
173.000	173.000	3	Alcatel-Lucent RRH2x40-AWS
173.000	173.000	1	Flat Platform w/ Handrails
162.000	162.000	3	Ericsson AIR 21, 1.3M, B2A B4P
162.000	162.000	3	Ericsson AIR 21, 1.3M, B4A B2P
162.000	162.000	3	Round T-Arm
152.000	152.000	3	RFS APXV18-206517S-C
100.000	100.000	1	Andrew DB589
100.000	100.000	1	Round Side Arm
15.000	15.000	1	4' Dish w/ Radome

Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
0.000	15.000	0.28" RG6	No
0.000	100.0	7/8" Coax	Yes
0.000	152.0	1 5/8" Coax	No
0.000	162.0	1 5/8" Coax	No
0.000	162.0	1 5/8" Hybriflex	No
0.000	173.0	1 5/8" Coax	No
0.000	173.0	1 5/8" Fiber	No

Load Cases	
1.2D + 1.6W	115.00 mph with No Ice
0.9D + 1.6W	115.00 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice
1.0D + 1.0W	60.00 mph Serviceability

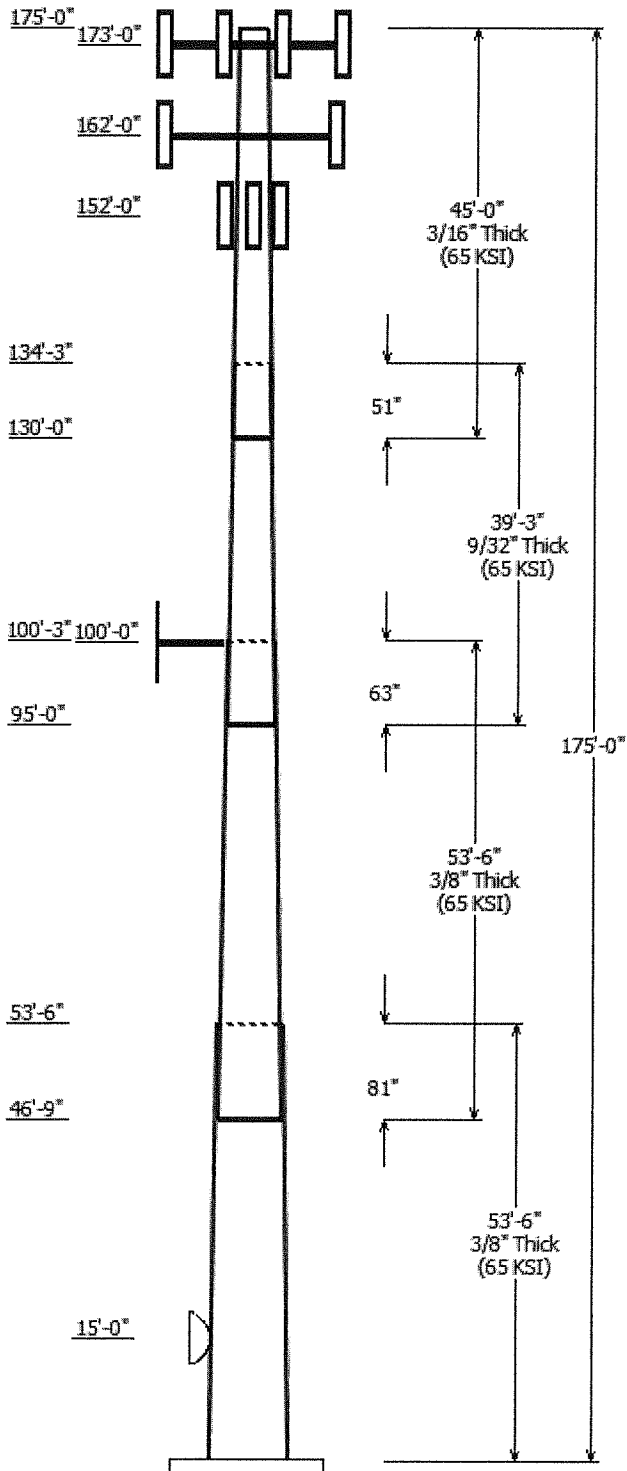
Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	4315.71	39.27	44.96
0.9D + 1.6W	4284.87	39.25	33.71
1.2D + 1.0Di + 1.0Wi	888.28	8.31	65.88

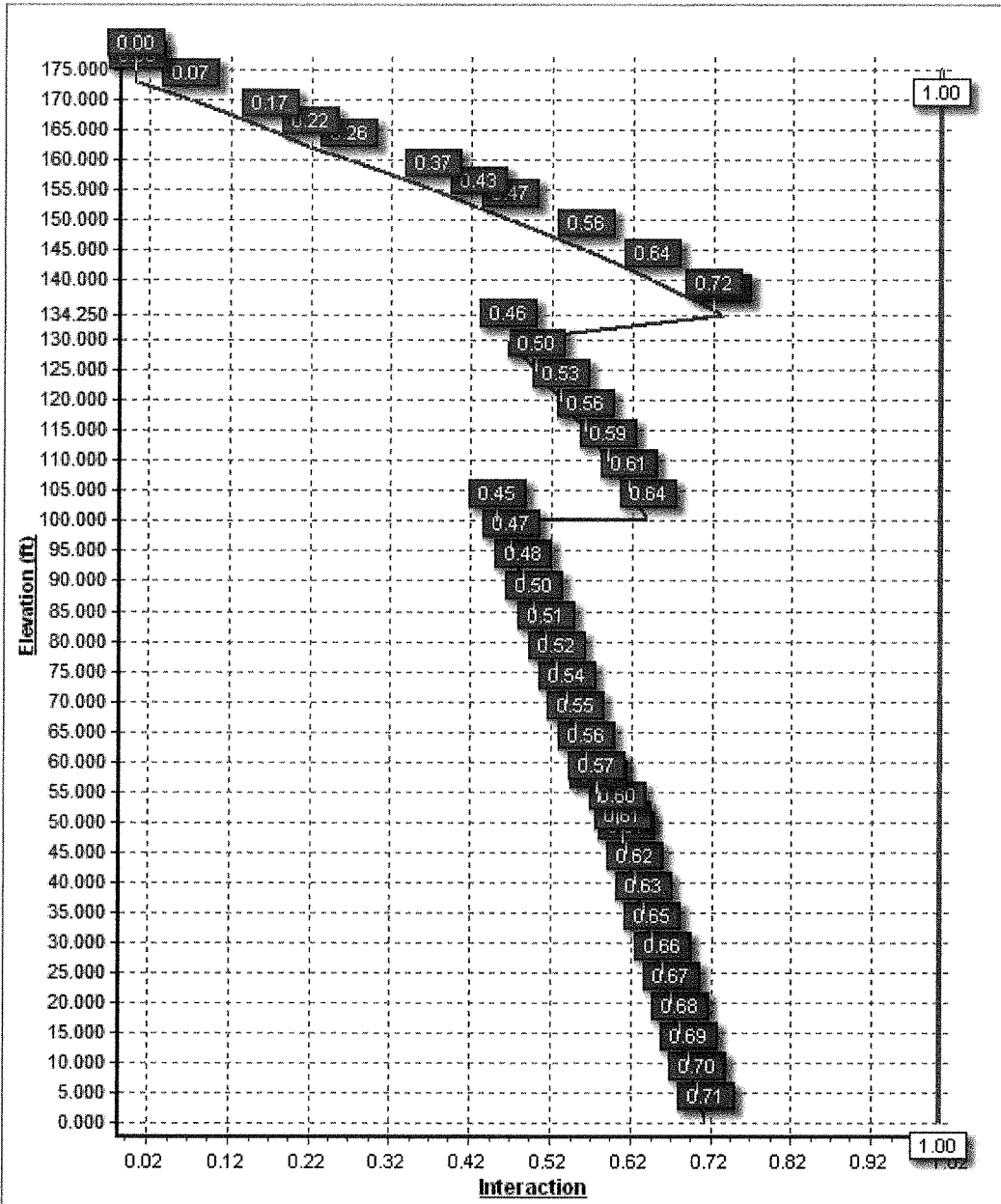




1.0D + 1.0W	731.57	6.68	37.51
-------------	--------	------	-------

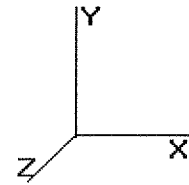
Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	15.00	0.122	0.077





Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:18 AM  
 Page: 1

© 2007 - 2014 by ATC IP LLC. All rights reserved.

**Shaft Section Properties**

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip		Weight (lb)	Bottom					Top					Taper (in/ft)		
				Joint Type	Joint Len (in)		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
1-18	53.500	0.3750	65		0.00	12,399	64.69	0.00	76.55	40004.8	29.01	172.51	50.51	53.50	59.67	18951.8	22.34	134.70	0.265010
2-18	53.500	0.3750	65	Slip	81.00	9,878	53.05	46.75	62.69	21978.9	23.53	141.47	38.87	100.25	45.82	8579.8	16.87	103.66	0.265010
3-18	39.250	0.2813	65	Slip	63.00	4,214	40.82	95.00	36.19	7517.2	24.19	145.16	30.42	134.25	26.91	3089.0	17.66	108.18	0.265010
4-18	45.000	0.1875	65	Slip	51.00	2,349	31.92	130.00	18.89	2403.9	28.61	170.27	20.00	175.00	11.79	584.8	17.40	106.67	0.265010
Shaft Weight						28,840													

**Discrete Appurtenance Properties**

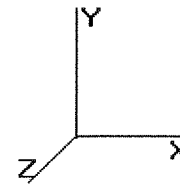
Attach Elev (ft)	Description	Qty	No Ice			Ice			Distance From Face (ft)	Vert Ecc (ft)
			Weight (lb)	EPAA (sf)	Orientation Factor	Weight (lb)	EPAA (sf)	Orientation Factor		
173.00	Alcatel-Lucent RRH2x40-AWS	3	44.00	2.160	0.67	118.87	2.814	0.67	0.000	0.000
173.00	Andrew LNX-8513DS-VTM	3	26.30	8.170	0.83	233.23	9.498	0.83	0.000	0.000
173.00	Antel BXA-171063/12CF	3	15.00	4.790	0.88	137.54	6.033	0.88	0.000	0.000
173.00	Antel BXA-171085-12BF-EDIN-	3	15.00	4.730	0.88	136.59	5.975	0.88	0.000	0.000
173.00	Antel BXA-70063-6CF-EDIN-2	3	17.00	7.570	0.77	194.32	8.855	0.77	0.000	0.000
173.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	3,444.54	63.717	1.00	0.000	0.000
173.00	RFS DB-T1-6Z-8AB-0Z	1	44.00	4.800	0.67	190.17	5.687	0.67	0.000	0.000
162.00	Ericsson AIR 21, 1.3M, B2A	3	91.50	6.040	0.85	260.15	7.141	0.85	0.000	0.000
162.00	Ericsson AIR 21, 1.3M, B4A	3	90.40	6.080	0.85	259.82	7.185	0.85	0.000	0.000
162.00	Round T-Arm	3	250.00	9.700	0.67	461.04	18.025	0.67	0.000	0.000
152.00	RFS APXV18-206517S-C	3	26.40	5.170	0.80	144.26	6.411	0.80	0.000	0.000
100.00	Andrew DB589	1	11.50	1.380	1.00	90.22	4.467	1.00	0.000	0.000
100.00	Round Side Arm	1	150.00	5.200	1.00	220.39	7.814	1.00	0.000	0.000
15.00	4' Dish w/ Radome	1	120.00	10.850	1.00	374.12	12.120	1.00	0.000	0.000
Totals		32	4052.30			10,156.89			Number of Loadings : 14	

**Linear Appurtenance Properties**

Elev From (ft)	Elev To (ft)	Description	Exposed Width (in)	Exposed To Wind
0.00	173.00	(18) 1 5/8" Coax	0.00	N
0.00	173.00	(1) 1 5/8" Fiber	0.00	N
0.00	162.00	(6) 1 5/8" Coax	0.00	N
0.00	162.00	(1) 1 5/8" Hybriflex	0.00	N
0.00	152.00	(6) 1 5/8" Coax	0.00	N
0.00	100.00	(1) 7/8" Coax	1.09	Y
0.00	15.00	(1) 0.28" RG6	0.00	N

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



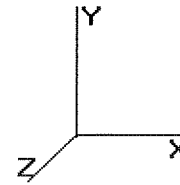
© 2007 - 2014 by ATC IP LLC. All rights reserved.

**Segment Properties** (Max Len : 5 ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	S (in^3)	Weight (lb)
0.00		0.3750	64.690	76.548	40,004.8	29.01	172.51	67.3	1218.	0.0
5.00		0.3750	63.365	74.971	37,582.8	28.38	168.97	68.0	1168.	1,289.0
10.00		0.3750	62.040	73.394	35,260.6	27.76	165.44	68.7	1119.	1,262.1
15.00		0.3750	60.715	71.817	33,036.1	27.14	161.91	69.5	1071.	1,235.3
20.00		0.3750	59.390	70.240	30,907.1	26.51	158.37	70.2	1025.	1,208.5
25.00		0.3750	58.065	68.663	28,871.7	25.89	154.84	70.9	979.4	1,181.6
30.00		0.3750	56.740	67.086	26,927.6	25.27	151.31	71.7	934.7	1,154.8
35.00		0.3750	55.415	65.509	25,072.8	24.65	147.77	72.4	891.2	1,128.0
40.00		0.3750	54.090	63.932	23,305.2	24.02	144.24	73.1	848.6	1,101.1
45.00		0.3750	52.765	62.354	21,622.7	23.40	140.71	73.9	807.1	1,074.3
46.75	Bot - Section 2	0.3750	52.301	61.802	21,053.5	23.18	139.47	74.1	792.9	369.7
50.00		0.3750	51.440	60.777	20,023.2	22.78	137.17	74.6	766.7	1,365.5
53.50	Top - Section 1	0.3750	51.262	60.566	19,815.1	22.69	136.70	74.7	761.3	1,445.2
55.00		0.3750	50.864	60.093	19,354.3	22.51	135.64	74.9	749.5	307.9
60.00		0.3750	49.539	58.516	17,870.2	21.88	132.11	75.7	710.5	1,009.0
65.00		0.3750	48.214	56.939	16,463.9	21.26	128.57	76.4	672.6	982.2
70.00		0.3750	46.889	55.362	15,133.4	20.64	125.04	77.1	635.7	955.3
75.00		0.3750	45.564	53.785	13,876.6	20.01	121.50	77.9	599.8	928.5
80.00		0.3750	44.239	52.208	12,691.3	19.39	117.97	78.6	565.0	901.7
85.00		0.3750	42.914	50.630	11,575.6	18.77	114.44	79.3	531.3	874.8
90.00		0.3750	41.589	49.053	10,527.2	18.14	110.90	80.1	498.6	848.0
95.00	Bot - Section 3	0.3750	40.264	47.476	9,544.2	17.52	107.37	80.8	466.9	821.2
100.00		0.3750	38.939	45.899	8,624.3	16.90	103.84	81.5	436.2	1,400.1
100.2	Top - Section 2	0.2813	39.435	34.951	6,769.6	23.31	140.21	74.0	338.1	68.8
105.0		0.2813	38.176	33.827	6,137.5	22.52	135.74	74.9	316.6	555.8
110.0		0.2813	36.851	32.645	5,515.9	21.69	131.03	75.9	294.8	565.5
115.0		0.2813	35.526	31.462	4,937.8	20.86	126.32	76.9	273.8	545.3
120.0		0.2813	34.201	30.279	4,401.6	20.03	121.60	77.8	253.5	525.2
125.0		0.2813	32.876	29.096	3,905.6	19.20	116.89	78.8	234.0	505.1
130.0	Bot - Section 4	0.2813	31.551	27.913	3,448.4	18.37	112.18	79.8	215.3	485.0
134.2	Top - Section 3	0.1875	30.800	18.218	2,156.9	27.55	164.27	69.0	137.9	664.7
135.0		0.1875	30.601	18.099	2,115.2	27.37	163.21	69.2	136.1	46.3
140.0		0.1875	29.276	17.311	1,850.6	26.12	156.14	70.7	124.5	301.2
145.0		0.1875	27.951	16.522	1,609.1	24.87	149.07	72.1	113.4	287.8
150.0		0.1875	26.626	15.734	1,389.5	23.63	142.01	73.6	102.8	274.4
152.0		0.1875	26.096	15.418	1,307.6	23.13	139.18	74.2	98.7	106.0
155.0		0.1875	25.301	14.945	1,190.9	22.38	134.94	75.1	92.7	155.0
160.0		0.1875	23.976	14.157	1,012.1	21.14	127.87	76.5	83.1	247.6
162.0		0.1875	23.446	13.841	946.0	20.64	125.04	77.1	79.5	95.3
165.0		0.1875	22.651	13.368	852.3	19.89	120.80	78.0	74.1	138.9
170.0		0.1875	21.326	12.580	710.2	18.64	113.74	79.5	65.6	220.7
173.0		0.1875	20.531	12.106	633.0	17.90	109.50	80.4	60.7	126.0
175.0		0.1875	20.001	11.791	584.8	17.40	106.67	80.9	57.6	81.3
										28,839.7

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:18 AM  
 Page : 3

© 2007 - 2014 by ATC IP LLC. All rights reserved.

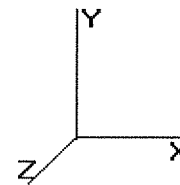
<b>Load Case:</b> 1.2D + 1.6W	115.00 mph with No Ice	25 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.20		
Wind Load Factor : 1.60		

**Shaft Segment Forces (Factored)**

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	27.339	30.07	580.37	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	27.339	30.07	568.49	0.650	0.000	5.00	27.090	17.61	847.2	0.0	1,546.8
10.00		1.00	0.85	27.339	30.07	556.60	0.650	0.000	5.00	26.529	17.24	829.7	0.0	1,514.6
15.00	Appertunance(s)	1.00	0.85	27.339	30.07	544.71	0.650	0.000	5.00	25.968	16.88	812.2	0.0	1,482.4
20.00		1.00	0.90	29.008	31.90	548.84	0.650	0.000	5.00	25.408	16.52	843.1	0.0	1,450.2
25.00		1.00	0.94	30.403	33.44	549.35	0.650	0.000	5.00	24.847	16.15	864.2	0.0	1,418.0
30.00		1.00	0.98	31.592	34.75	547.22	0.650	0.000	5.00	24.287	15.79	877.8	0.0	1,385.8
35.00		1.00	1.01	32.634	35.89	543.18	0.650	0.000	5.00	23.726	15.42	885.8	0.0	1,353.6
40.00		1.00	1.04	33.565	36.92	537.70	0.650	0.000	5.00	23.165	15.06	889.5	0.0	1,321.4
45.00		1.00	1.07	34.408	37.84	531.07	0.650	0.000	5.00	22.605	14.69	889.8	0.0	1,289.2
46.75	Bot - Section 2	1.00	1.07	34.685	38.15	528.52	0.650	0.000	1.75	7.779	5.06	308.7	0.0	443.6
50.00		1.00	1.09	35.179	38.69	523.51	0.650	0.000	3.25	14.471	9.41	582.4	0.0	1,638.6
53.50	Top - Section 1	1.00	1.10	35.684	39.25	517.74	0.650	0.000	3.50	15.319	9.96	625.4	0.0	1,734.2
55.00		1.00	1.11	35.892	39.48	522.87	0.650	0.000	1.50	6.481	4.21	266.1	0.0	369.5
60.00		1.00	1.13	36.556	40.21	513.94	0.650	0.000	5.00	21.240	13.81	888.3	0.0	1,210.8
65.00		1.00	1.15	37.177	40.89	504.42	0.650	0.000	5.00	20.680	13.44	879.5	0.0	1,178.6
70.00		1.00	1.17	37.762	41.53	494.40	0.650	0.000	5.00	20.119	13.08	869.1	0.0	1,146.4
75.00		1.00	1.19	38.314	42.14	483.93	0.650	0.000	5.00	19.558	12.71	857.3	0.0	1,114.2
80.00		1.00	1.20	38.838	42.72	473.06	0.650	0.000	5.00	18.998	12.35	844.1	0.0	1,082.0
85.00		1.00	1.22	39.337	43.27	461.83	0.650	0.000	5.00	18.437	11.98	829.7	0.0	1,049.8
90.00		1.00	1.23	39.813	43.79	450.27	0.650	0.000	5.00	17.876	11.62	814.2	0.0	1,017.6
95.00	Bot - Section 3	1.00	1.25	40.269	44.29	438.41	0.650	0.000	5.00	17.316	11.26	797.7	0.0	985.4
100.00	Appertunance(s)	1.00	1.26	40.706	44.77	426.28	0.650	0.000	5.00	16.993	11.05	791.3	0.0	1,680.1
100.2	Top - Section 2	1.00	1.26	40.728	44.80	425.67	0.650	0.000	0.25	0.835	0.54	38.9	0.0	82.5
105.00		1.00	1.27	41.127	45.23	420.09	0.650	0.000	4.75	15.598	10.14	733.9	0.0	667.0
110.00		1.00	1.29	41.531	45.68	407.50	0.650	0.000	5.00	15.872	10.32	754.1	0.0	678.6
115.00		1.00	1.30	41.922	46.11	394.69	0.650	0.000	5.00	15.311	9.95	734.3	0.0	654.4
120.00		1.00	1.31	42.299	46.52	381.67	0.650	0.000	5.00	14.751	9.59	713.8	0.0	630.3
125.00		1.00	1.32	42.664	46.93	368.46	0.650	0.000	5.00	14.190	9.22	692.6	0.0	606.1
130.00	Bot - Section 4	1.00	1.33	43.018	47.32	355.08	0.650	0.000	5.00	13.629	8.86	670.7	0.0	582.0
134.2	Top - Section 3	1.00	1.34	43.310	47.64	343.56	0.650	0.000	4.25	11.279	7.33	558.8	0.0	797.7
135.00		1.00	1.34	43.361	47.69	345.76	0.650	0.000	0.75	1.948	1.27	96.6	0.0	55.6
140.00		1.00	1.35	43.694	48.06	332.05	0.650	0.000	5.00	12.667	8.23	633.2	0.0	361.5
145.00		1.00	1.36	44.018	48.42	318.20	0.650	0.000	5.00	12.106	7.87	609.6	0.0	345.4
150.00		1.00	1.37	44.334	48.76	304.20	0.650	0.000	5.00	11.546	7.50	585.6	0.0	329.3
152.00	Appertunance(s)	1.00	1.38	44.457	48.90	298.56	0.650	0.000	2.00	4.461	2.90	226.9	0.0	127.2
155.00		1.00	1.38	44.641	49.10	290.06	0.650	0.000	3.00	6.524	4.24	333.2	0.0	186.0
160.00		1.00	1.39	44.940	49.43	275.79	0.650	0.000	5.00	10.424	6.78	535.9	0.0	297.1
162.00	Appertunance(s)	1.00	1.40	45.058	49.56	270.04	0.650	0.000	2.00	4.013	2.61	206.8	0.0	114.3
165.00		1.00	1.40	45.232	49.75	261.39	0.650	0.000	3.00	5.851	3.80	302.8	0.0	166.7
170.00		1.00	1.41	45.517	50.06	246.87	0.650	0.000	5.00	9.303	6.05	484.4	0.0	264.9
173.00	Appertunance(s)	1.00	1.42	45.685	50.25	238.11	0.650	0.000	3.00	5.313	3.45	277.7	0.0	151.2
175.00		1.00	1.42	45.796	50.37	232.24	0.650	0.000	2.00	3.430	2.23	179.7	0.0	97.6
<b>Totals:</b>									175.00			26,462.6	0.0	34,607.7

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:18 AM  
 Page: 4

© 2007 - 2014 by ATC IP LLC. All rights reserved.

<b>Load Case:</b> 1.2D + 1.6W	115.00 mph with No Ice	25 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.20		
Wind Load Factor : 1.60		

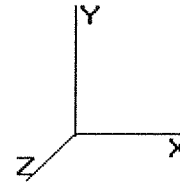
**Discrete Appurtenance Segment Forces (Factored)**

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
15.00	4' Dish w/ Radome	1	27.339	30.073	1.00	1.00	10.85	0.000	0.000	522.06	0.00	0.00	144.00
100.0	Round Side Arm	1	40.706	44.777	1.00	1.00	5.20	0.000	0.000	372.54	0.00	0.00	180.00
100.0	Andrew DB589	1	40.706	44.777	1.00	1.00	1.38	0.000	0.000	98.87	0.00	0.00	13.80
152.0	RFS APXV18-206517S-	3	44.457	48.903	0.80	1.00	12.41	0.000	0.000	970.87	0.00	0.00	95.04
162.0	Round T-Arm	3	45.058	49.564	0.67	0.75	14.62	0.000	0.000	1,159.60	0.00	0.00	900.00
162.0	Ericsson AIR 21, 1.3	3	45.058	49.564	0.85	0.80	12.40	0.000	0.000	983.60	0.00	0.00	325.44
162.0	Ericsson AIR 21, 1.3	3	45.058	49.564	0.85	0.80	12.32	0.000	0.000	977.13	0.00	0.00	329.40
173.0	Flat Platform w/ Han	1	45.685	50.254	1.00	1.00	42.40	0.000	0.000	3,409.22	0.00	0.00	2,400.00
173.0	Alcatel-Lucent RRH2x	3	45.685	50.254	0.67	0.75	3.26	0.000	0.000	261.82	0.00	0.00	158.40
173.0	Antel BXA-171085-12B	3	45.685	50.254	0.88	0.75	9.37	0.000	0.000	753.04	0.00	0.00	54.00
173.0	Antel BXA-171063/12C	3	45.685	50.254	0.88	0.75	9.48	0.000	0.000	762.59	0.00	0.00	54.00
173.0	RFS DB-T1-6Z-8AB-0Z	1	45.685	50.254	0.67	0.75	2.41	0.000	0.000	193.94	0.00	0.00	52.80
173.0	Antel BXA-70063-6CF-	3	45.685	50.254	0.77	0.75	13.12	0.000	0.000	1,054.53	0.00	0.00	61.20
173.0	Andrew LNX-8513DS-	3	45.685	50.254	0.83	0.75	15.26	0.000	0.000	1,226.80	0.00	0.00	94.68
										12,746.59			4,862.76

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)

6/23/2014 7:54:18 AM  
 Page: 5



© 2007 - 2014 by ATC IP LLC. All rights reserved.

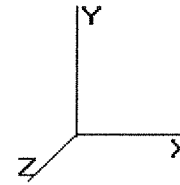
**Load Case:** 1.2D + 1.6W      115.00 mph with No Ice      25 Iterations  
 Gust Response Factor : 1.10      Wind Importance Factor : 1.00  
 Dead Load Factor : 1.20  
 Wind Load Factor : 1.60

**Linear Appurtenance Segment Forces (Factored)**

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
5.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	27.339	0.017	0.000	0.00	1.98
10.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	27.339	0.017	0.000	0.00	1.98
15.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	27.339	0.017	0.000	0.00	1.98
20.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	29.008	0.018	0.000	0.00	1.98
25.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	30.403	0.018	0.000	0.00	1.98
30.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	31.592	0.019	0.000	0.00	1.98
35.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	32.634	0.019	0.000	0.00	1.98
40.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	33.565	0.020	0.000	0.00	1.98
45.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	34.408	0.020	0.000	0.00	1.98
46.75	(1) 7/8" Coax	Yes	1.75	0.000	1.09	0.16	0.00	34.685	0.020	0.000	0.00	0.69
50.00	(1) 7/8" Coax	Yes	3.25	0.000	1.09	0.30	0.00	35.179	0.021	0.000	0.00	1.29
53.50	(1) 7/8" Coax	Yes	3.50	0.000	1.09	0.32	0.00	35.684	0.021	0.000	0.00	1.39
55.00	(1) 7/8" Coax	Yes	1.50	0.000	1.09	0.14	0.00	35.892	0.021	0.000	0.00	0.59
60.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	36.556	0.021	0.000	0.00	1.98
65.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	37.177	0.022	0.000	0.00	1.98
70.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	37.762	0.023	0.000	0.00	1.98
75.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	38.314	0.023	0.000	0.00	1.98
80.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	38.838	0.024	0.000	0.00	1.98
85.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	39.337	0.025	0.000	0.00	1.98
90.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	39.813	0.025	0.000	0.00	1.98
95.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	40.269	0.026	0.000	0.00	1.98
100.0	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	40.706	0.027	0.000	0.00	1.98
<b>Totals:</b>											<b>0.00</b>	<b>39.60</b>

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:18 AM  
 Page: 6

© 2007 - 2014 by ATC IP LLC. All rights reserved.

**Load Case:** 1.2D + 1.6W      115.00 mph with No Ice      25 Iterations  
 Gust Response Factor : 1.10      Wind Importance Factor : 1.00  
 Dead Load Factor : 1.20  
 Wind Load Factor : 1.60

**Applied Segment Forces Summary**

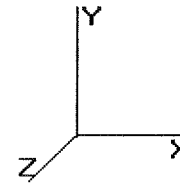
Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	847.24	1,713.97	0.00	0.00
10.00	829.71	1,681.77	0.00	0.00
15.00	1,334.24	1,793.58	0.00	0.00
20.00	843.15	1,617.20	0.00	0.00
25.00	864.20	1,585.00	0.00	0.00
30.00	877.76	1,552.81	0.00	0.00
35.00	885.78	1,520.61	0.00	0.00
40.00	889.51	1,488.41	0.00	0.00
45.00	889.77	1,456.21	0.00	0.00
46.75	308.68	502.07	0.00	0.00
50.00	582.39	1,747.16	0.00	0.00
53.50	625.38	1,851.13	0.00	0.00
55.00	266.13	419.63	0.00	0.00
60.00	888.26	1,377.84	0.00	0.00
65.00	879.51	1,345.64	0.00	0.00
70.00	869.12	1,313.44	0.00	0.00
75.00	857.27	1,281.24	0.00	0.00
80.00	844.09	1,249.04	0.00	0.00
85.00	829.70	1,216.84	0.00	0.00
90.00	814.21	1,184.65	0.00	0.00
95.00	797.70	1,152.45	0.00	0.00
100.0	1,262.75	2,040.91	0.00	0.00
100.2	38.90	90.78	0.00	0.00
105.0	733.85	823.81	0.00	0.00
110.0	754.11	843.63	0.00	0.00
115.0	734.31	819.48	0.00	0.00
120.0	713.79	795.33	0.00	0.00
125.0	692.59	771.18	0.00	0.00
130.0	670.74	747.03	0.00	0.00
134.2	558.85	937.96	0.00	0.00
135.0	96.65	80.37	0.00	0.00
140.0	633.17	526.54	0.00	0.00
145.0	609.64	510.44	0.00	0.00
150.0	585.57	494.34	0.00	0.00
152.0	1,197.76	288.27	0.00	0.00
155.0	333.16	267.30	0.00	0.00
160.0	535.93	432.62	0.00	0.00
162.0	3,327.17	1,723.38	0.00	0.00
165.0	302.76	225.59	0.00	0.00
170.0	484.43	363.10	0.00	0.00
173.0	7,939.60	3,085.21	0.00	0.00
175.0	179.69	97.58	0.00	0.00
<b>Totals:</b>	<b>39,209.21</b>	<b>45,015.53</b>	<b>0.00</b>	<b>0.00</b>





Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:18 AM  
 Page : 8

© 2007 - 2014 by ATC IP LLC. All rights reserved.

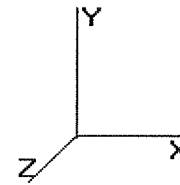
<b>Load Case:</b> 0.9D + 1.6W	115.00 mph with No Ice (Reduced DL)	25 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 0.90		
Wind Load Factor : 1.60		

**Shaft Segment Forces (Factored)**

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	27.339	30.07	580.37	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	27.339	30.07	568.49	0.650	0.000	5.00	27.090	17.61	847.2	0.0	1,160.1
10.00		1.00	0.85	27.339	30.07	556.60	0.650	0.000	5.00	26.529	17.24	829.7	0.0	1,135.9
15.00	Appertunance(s)	1.00	0.85	27.339	30.07	544.71	0.650	0.000	5.00	25.968	16.88	812.2	0.0	1,111.8
20.00		1.00	0.90	29.008	31.90	548.84	0.650	0.000	5.00	25.408	16.52	843.1	0.0	1,087.6
25.00		1.00	0.94	30.403	33.44	549.35	0.650	0.000	5.00	24.847	16.15	864.2	0.0	1,063.5
30.00		1.00	0.98	31.592	34.75	547.22	0.650	0.000	5.00	24.287	15.79	877.8	0.0	1,039.3
35.00		1.00	1.01	32.634	35.89	543.18	0.650	0.000	5.00	23.726	15.42	885.8	0.0	1,015.2
40.00		1.00	1.04	33.565	36.92	537.70	0.650	0.000	5.00	23.165	15.06	889.5	0.0	991.0
45.00		1.00	1.07	34.408	37.84	531.07	0.650	0.000	5.00	22.605	14.69	889.8	0.0	966.9
46.75	Bot - Section 2	1.00	1.07	34.685	38.15	528.52	0.650	0.000	1.75	7.779	5.06	308.7	0.0	332.7
50.00		1.00	1.09	35.179	38.69	523.51	0.650	0.000	3.25	14.471	9.41	582.4	0.0	1,228.9
53.50	Top - Section 1	1.00	1.10	35.684	39.25	517.74	0.650	0.000	3.50	15.319	9.96	625.4	0.0	1,300.6
55.00		1.00	1.11	35.892	39.48	522.87	0.650	0.000	1.50	6.481	4.21	266.1	0.0	277.1
60.00		1.00	1.13	36.556	40.21	513.94	0.650	0.000	5.00	21.240	13.81	888.3	0.0	908.1
65.00		1.00	1.15	37.177	40.89	504.42	0.650	0.000	5.00	20.680	13.44	879.5	0.0	883.9
70.00		1.00	1.17	37.762	41.53	494.40	0.650	0.000	5.00	20.119	13.08	869.1	0.0	859.8
75.00		1.00	1.19	38.314	42.14	483.93	0.650	0.000	5.00	19.558	12.71	857.3	0.0	835.7
80.00		1.00	1.20	38.838	42.72	473.06	0.650	0.000	5.00	18.998	12.35	844.1	0.0	811.5
85.00		1.00	1.22	39.337	43.27	461.83	0.650	0.000	5.00	18.437	11.98	829.7	0.0	787.4
90.00		1.00	1.23	39.813	43.79	450.27	0.650	0.000	5.00	17.876	11.62	814.2	0.0	763.2
95.00	Bot - Section 3	1.00	1.25	40.269	44.29	438.41	0.650	0.000	5.00	17.316	11.26	797.7	0.0	739.1
100.00	Appertunance(s)	1.00	1.26	40.706	44.77	426.28	0.650	0.000	5.00	16.993	11.05	791.3	0.0	1,260.1
100.2	Top - Section 2	1.00	1.26	40.728	44.80	425.67	0.650	0.000	0.25	0.835	0.54	38.9	0.0	61.9
105.00		1.00	1.27	41.127	45.23	420.09	0.650	0.000	4.75	15.598	10.14	733.9	0.0	500.3
110.00		1.00	1.29	41.531	45.68	407.50	0.650	0.000	5.00	15.872	10.32	754.1	0.0	508.9
115.00		1.00	1.30	41.922	46.11	394.69	0.650	0.000	5.00	15.311	9.95	734.3	0.0	490.8
120.00		1.00	1.31	42.299	46.52	381.67	0.650	0.000	5.00	14.751	9.59	713.8	0.0	472.7
125.00		1.00	1.32	42.664	46.93	368.46	0.650	0.000	5.00	14.190	9.22	692.6	0.0	454.6
130.00	Bot - Section 4	1.00	1.33	43.018	47.32	355.08	0.650	0.000	5.00	13.629	8.86	670.7	0.0	436.5
134.2	Top - Section 3	1.00	1.34	43.310	47.64	343.56	0.650	0.000	4.25	11.279	7.33	558.8	0.0	598.2
135.00		1.00	1.34	43.361	47.69	345.76	0.650	0.000	0.75	1.948	1.27	96.6	0.0	41.7
140.00		1.00	1.35	43.694	48.06	332.05	0.650	0.000	5.00	12.667	8.23	633.2	0.0	271.1
145.00		1.00	1.36	44.018	48.42	318.20	0.650	0.000	5.00	12.106	7.87	609.6	0.0	259.0
150.00		1.00	1.37	44.334	48.76	304.20	0.650	0.000	5.00	11.546	7.50	585.6	0.0	247.0
152.0	Appertunance(s)	1.00	1.38	44.457	48.90	298.56	0.650	0.000	2.00	4.461	2.90	226.9	0.0	95.4
155.00		1.00	1.38	44.641	49.10	290.06	0.650	0.000	3.00	6.524	4.24	333.2	0.0	139.5
160.00		1.00	1.39	44.940	49.43	275.79	0.650	0.000	5.00	10.424	6.78	535.9	0.0	222.8
162.0	Appertunance(s)	1.00	1.40	45.058	49.56	270.04	0.650	0.000	2.00	4.013	2.61	206.8	0.0	85.7
165.00		1.00	1.40	45.232	49.75	261.39	0.650	0.000	3.00	5.851	3.80	302.8	0.0	125.0
170.00		1.00	1.41	45.517	50.06	246.87	0.650	0.000	5.00	9.303	6.05	484.4	0.0	198.7
173.0	Appertunance(s)	1.00	1.42	45.685	50.25	238.11	0.650	0.000	3.00	5.313	3.45	277.7	0.0	113.4
175.00		1.00	1.42	45.796	50.37	232.24	0.650	0.000	2.00	3.430	2.23	179.7	0.0	73.2
Totals:									175.00			26,462.6	0.0	25,955.7

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:18 AM  
 Page: 9

© 2007 - 2014 by ATC IP LLC. All rights reserved.

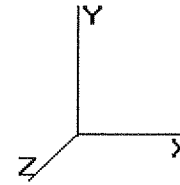
**Load Case:** 0.9D + 1.6W      115.00 mph with No Ice (Reduced DL)      25 Iterations  
**Gust Response Factor:** 1.10      **Wind Importance Factor:** 1.00  
**Dead Load Factor:** 0.90  
**Wind Load Factor:** 1.60

**Discrete Appurtenance Segment Forces (Factored)**

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
15.00	4' Dish w/ Radome	1	27.339	30.073	1.00	1.00	10.85	0.000	0.000	522.06	0.00	0.00	108.00
100.0	Round Side Arm	1	40.706	44.777	1.00	1.00	5.20	0.000	0.000	372.54	0.00	0.00	135.00
100.0	Andrew DB589	1	40.706	44.777	1.00	1.00	1.38	0.000	0.000	98.87	0.00	0.00	10.35
152.0	RFS APXV18-206517S-	3	44.457	48.903	0.80	1.00	12.41	0.000	0.000	970.87	0.00	0.00	71.28
162.0	Round T-Arm	3	45.058	49.564	0.67	0.75	14.62	0.000	0.000	1,159.60	0.00	0.00	675.00
162.0	Ericsson AIR 21, 1.3	3	45.058	49.564	0.85	0.80	12.40	0.000	0.000	983.60	0.00	0.00	244.08
162.0	Ericsson AIR 21, 1.3	3	45.058	49.564	0.85	0.80	12.32	0.000	0.000	977.13	0.00	0.00	247.05
173.0	Flat Platform w/ Han	1	45.685	50.254	1.00	1.00	42.40	0.000	0.000	3,409.22	0.00	0.00	1,800.00
173.0	Alcatel-Lucent RRH2x	3	45.685	50.254	0.67	0.75	3.26	0.000	0.000	261.82	0.00	0.00	118.80
173.0	Antel BXA-171085-12B	3	45.685	50.254	0.88	0.75	9.37	0.000	0.000	753.04	0.00	0.00	40.50
173.0	Antel BXA-171063/12C	3	45.685	50.254	0.88	0.75	9.48	0.000	0.000	762.59	0.00	0.00	40.50
173.0	RFS DB-T1-6Z-8AB-0Z	1	45.685	50.254	0.67	0.75	2.41	0.000	0.000	193.94	0.00	0.00	39.60
173.0	Antel BXA-70063-6CF-	3	45.685	50.254	0.77	0.75	13.12	0.000	0.000	1,054.53	0.00	0.00	45.90
173.0	Andrew LNX-8513DS-	3	45.685	50.254	0.83	0.75	15.26	0.000	0.000	1,226.80	0.00	0.00	71.01
										12,746.59			3,647.07

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:18 AM  
 Page: 10

© 2007 - 2014 by ATC IP LLC. All rights reserved.

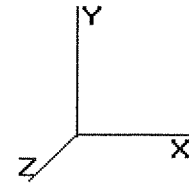
**Load Case:** 0.9D + 1.6W      115.00 mph with No Ice (Reduced DL)      25 Iterations  
 Gust Response Factor : 1.10      Wind Importance Factor : 1.00  
 Dead Load Factor : 0.90  
 Wind Load Factor : 1.60

**Linear Appurtenance Segment Forces (Factored)**

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Exposed			CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
				Ca	Width (in)	Area (sqft)						
5.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	27.339	0.017	0.000	0.00	1.49
10.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	27.339	0.017	0.000	0.00	1.49
15.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	27.339	0.017	0.000	0.00	1.49
20.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	29.008	0.018	0.000	0.00	1.49
25.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	30.403	0.018	0.000	0.00	1.49
30.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	31.592	0.019	0.000	0.00	1.49
35.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	32.634	0.019	0.000	0.00	1.49
40.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	33.565	0.020	0.000	0.00	1.49
45.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	34.408	0.020	0.000	0.00	1.49
46.75	(1) 7/8" Coax	Yes	1.75	0.000	1.09	0.16	0.00	34.685	0.020	0.000	0.00	0.52
50.00	(1) 7/8" Coax	Yes	3.25	0.000	1.09	0.30	0.00	35.179	0.021	0.000	0.00	0.97
53.50	(1) 7/8" Coax	Yes	3.50	0.000	1.09	0.32	0.00	35.684	0.021	0.000	0.00	1.04
55.00	(1) 7/8" Coax	Yes	1.50	0.000	1.09	0.14	0.00	35.892	0.021	0.000	0.00	0.45
60.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	36.556	0.021	0.000	0.00	1.49
65.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	37.177	0.022	0.000	0.00	1.49
70.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	37.762	0.023	0.000	0.00	1.49
75.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	38.314	0.023	0.000	0.00	1.49
80.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	38.838	0.024	0.000	0.00	1.49
85.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	39.337	0.025	0.000	0.00	1.49
90.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	39.813	0.025	0.000	0.00	1.49
95.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	40.269	0.026	0.000	0.00	1.49
100.0	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	40.706	0.027	0.000	0.00	1.49
<b>Totals:</b>											0.00	29.70

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:18 AM  
 Page: 11

© 2007 - 2014 by ATC IP LLC. All rights reserved.

**Load Case:** 0.9D + 1.6W      115.00 mph with No Ice (Reduced DL)      25 Iterations  
 Gust Response Factor : 1.10      Wind Importance Factor : 1.00  
 Dead Load Factor : 0.90  
 Wind Load Factor : 1.60

**Applied Segment Forces Summary**

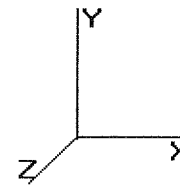
Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	847.24	1,285.48	0.00	0.00
10.00	829.71	1,261.33	0.00	0.00
15.00	1,334.24	1,345.18	0.00	0.00
20.00	843.15	1,212.90	0.00	0.00
25.00	864.20	1,188.75	0.00	0.00
30.00	877.76	1,164.60	0.00	0.00
35.00	885.78	1,140.45	0.00	0.00
40.00	889.51	1,116.31	0.00	0.00
45.00	889.77	1,092.16	0.00	0.00
46.75	308.68	376.55	0.00	0.00
50.00	582.39	1,310.37	0.00	0.00
53.50	625.38	1,388.35	0.00	0.00
55.00	266.13	314.72	0.00	0.00
60.00	888.26	1,033.38	0.00	0.00
65.00	879.51	1,009.23	0.00	0.00
70.00	869.12	985.08	0.00	0.00
75.00	857.27	960.93	0.00	0.00
80.00	844.09	936.78	0.00	0.00
85.00	829.70	912.63	0.00	0.00
90.00	814.21	888.48	0.00	0.00
95.00	797.70	864.33	0.00	0.00
100.0	1,262.75	1,530.69	0.00	0.00
100.2	38.90	68.08	0.00	0.00
105.0	733.85	617.86	0.00	0.00
110.0	754.11	632.72	0.00	0.00
115.0	734.31	614.61	0.00	0.00
120.0	713.79	596.50	0.00	0.00
125.0	692.59	578.39	0.00	0.00
130.0	670.74	560.27	0.00	0.00
134.2	558.85	703.47	0.00	0.00
135.0	96.65	60.28	0.00	0.00
140.0	633.17	394.90	0.00	0.00
145.0	609.64	382.83	0.00	0.00
150.0	585.57	370.75	0.00	0.00
152.0	1,197.76	216.20	0.00	0.00
155.0	333.16	200.47	0.00	0.00
160.0	535.93	324.46	0.00	0.00
162.0	3,327.17	1,292.54	0.00	0.00
165.0	302.76	169.19	0.00	0.00
170.0	484.43	272.33	0.00	0.00
173.0	7,939.60	2,313.91	0.00	0.00
175.0	179.69	73.19	0.00	0.00
<b>Totals:</b>	<b>39,209.21</b>	<b>33,761.64</b>	<b>0.00</b>	<b>0.00</b>





Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:19 AM  
 Page: 14

© 2007 - 2014 by ATC IP LLC. All rights reserved.

<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice	24 Iterations
Gust Response Factor : 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

**Discrete Appurtenance Segment Forces (Factored)**

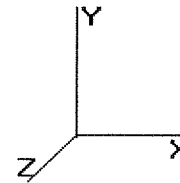
Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
15.00	4' Dish w/ Radome	1	5.168	5.685	1.00	1.00	12.12	0.000	0.000	68.90	0.00	0.00	306.42
100.0	Round Side Arm	1	7.695	8.464	1.00	1.00	7.81	0.000	0.000	66.14	0.00	0.00	225.39
100.0	Andrew DB589	1	7.695	8.464	1.00	1.00	4.47	0.000	0.000	37.81	0.00	0.00	92.52
152.0	RFS APXV18-206517S-	3	8.404	9.244	0.80	1.00	15.39	0.000	0.000	142.23	0.00	0.00	448.62
162.0	Round T-Arm	3	8.518	9.369	0.67	0.75	27.17	0.000	0.000	254.59	0.00	0.00	1,341.13
162.0	Ericsson AIR 21, 1.3	3	8.518	9.369	0.85	0.80	14.66	0.000	0.000	137.33	0.00	0.00	833.69
162.0	Ericsson AIR 21, 1.3	3	8.518	9.369	0.85	0.80	14.57	0.000	0.000	136.48	0.00	0.00	835.35
173.0	Flat Platform w/ Han	1	8.636	9.500	1.00	1.00	63.72	0.000	0.000	605.30	0.00	0.00	3,394.54
173.0	Alcatel-Lucent RRH2x	3	8.636	9.500	0.67	0.75	4.24	0.000	0.000	40.31	0.00	0.00	383.00
173.0	Antel BXA-171085-12B	3	8.636	9.500	0.88	0.75	11.83	0.000	0.000	112.39	0.00	0.00	418.77
173.0	Antel BXA-171063/12C	3	8.636	9.500	0.88	0.75	11.94	0.000	0.000	113.47	0.00	0.00	421.61
173.0	RFS DB-T1-6Z-8AB-0Z	1	8.636	9.500	0.67	0.75	2.86	0.000	0.000	27.15	0.00	0.00	198.97
173.0	Antel BXA-70063-6CF-	3	8.636	9.500	0.77	0.75	15.34	0.000	0.000	145.74	0.00	0.00	593.17
173.0	Andrew LNX-8513DS-	3	8.636	9.500	0.83	0.75	17.74	0.000	0.000	168.50	0.00	0.00	715.47
										2,056.33			10,208.65



Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)

6/23/2014 7:54:19 AM  
 Page: 15



© 2007 - 2014 by ATC IP LLC. All rights reserved.

**Load Case:** 1.2D + 1.0Di + 1.0Wi      50.00 mph with 0.75 in Radial Ice      24 Iterations

Gust Response Factor : 1.10      Ice Dead Load Factor : 1.00      Wind Importance Factor : 1.00  
 Dead Load Factor : 1.20      Ice Importance Factor : 1.00  
 Wind Load Factor : 1.00

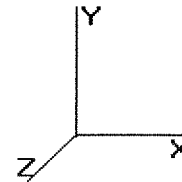
**Linear Appurtenance Segment Forces (Factored)**

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
5.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.49	0.00	5.168	0.017	0.000	0.00	17.16
10.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.56	0.00	5.168	0.017	0.000	0.00	18.94
15.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.61	0.00	5.168	0.017	0.000	0.00	20.09
20.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.64	0.00	5.483	0.018	0.000	0.00	20.96
25.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.67	0.00	5.747	0.018	0.000	0.00	21.66
30.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.69	0.00	5.972	0.019	0.000	0.00	22.26
35.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.71	0.00	6.169	0.019	0.000	0.00	22.78
40.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.73	0.00	6.345	0.020	0.000	0.00	23.24
45.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.74	0.00	6.504	0.020	0.000	0.00	23.66
46.75	(1) 7/8" Coax	Yes	1.75	0.000	1.09	0.61	0.00	6.557	0.020	0.000	0.00	8.33
50.00	(1) 7/8" Coax	Yes	3.25	0.000	1.09	1.14	0.00	6.650	0.021	0.000	0.00	15.63
53.50	(1) 7/8" Coax	Yes	3.50	0.000	1.09	1.24	0.00	6.746	0.021	0.000	0.00	17.00
55.00	(1) 7/8" Coax	Yes	1.50	0.000	1.09	0.53	0.00	6.785	0.021	0.000	0.00	7.32
60.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.78	0.00	6.910	0.021	0.000	0.00	24.72
65.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.79	0.00	7.028	0.022	0.000	0.00	25.02
70.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.80	0.00	7.138	0.023	0.000	0.00	25.31
75.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.81	0.00	7.243	0.023	0.000	0.00	25.58
80.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.82	0.00	7.342	0.024	0.000	0.00	25.83
85.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.83	0.00	7.436	0.025	0.000	0.00	26.07
90.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.84	0.00	7.526	0.025	0.000	0.00	26.30
95.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.84	0.00	7.612	0.026	0.000	0.00	26.52
100.0	(1) 7/8" Coax	Yes	5.00	0.000	1.09	1.85	0.00	7.695	0.027	0.000	0.00	26.74
<b>Totals:</b>											<b>0.00</b>	<b>471.11</b>

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)

6/23/2014 7:54:19 AM  
 Page: 16



© 2007 - 2014 by ATC IP LLC. All rights reserved.

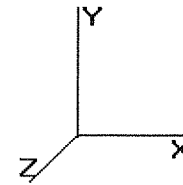
<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice	24 Iterations
Gust Response Factor : 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

### Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	191.86	2,231.88	0.00	0.00
10.00	188.54	2,227.22	0.00	0.00
15.00	253.93	2,513.41	0.00	0.00
20.00	192.51	2,179.74	0.00	0.00
25.00	197.72	2,148.68	0.00	0.00
30.00	201.22	2,115.00	0.00	0.00
35.00	203.44	2,079.43	0.00	0.00
40.00	204.69	2,042.42	0.00	0.00
45.00	205.15	2,004.27	0.00	0.00
46.75	71.25	693.08	0.00	0.00
50.00	134.47	2,103.71	0.00	0.00
53.50	144.58	2,231.45	0.00	0.00
55.00	61.58	581.92	0.00	0.00
60.00	205.85	1,910.58	0.00	0.00
65.00	204.25	1,869.58	0.00	0.00
70.00	202.27	1,828.09	0.00	0.00
75.00	199.96	1,786.15	0.00	0.00
80.00	197.35	1,743.82	0.00	0.00
85.00	194.46	1,701.14	0.00	0.00
90.00	191.32	1,658.14	0.00	0.00
95.00	187.95	1,614.84	0.00	0.00
100.0	290.74	2,621.96	0.00	0.00
100.2	9.20	112.36	0.00	0.00
105.0	173.75	1,223.19	0.00	0.00
110.0	179.10	1,252.02	0.00	0.00
115.0	174.98	1,215.65	0.00	0.00
120.0	170.70	1,179.10	0.00	0.00
125.0	166.27	1,142.36	0.00	0.00
130.0	161.69	1,105.46	0.00	0.00
134.2	135.11	1,236.75	0.00	0.00
135.0	23.42	132.80	0.00	0.00
140.0	153.85	863.06	0.00	0.00
145.0	148.89	833.76	0.00	0.00
150.0	143.81	804.34	0.00	0.00
152.0	198.18	763.70	0.00	0.00
155.0	82.42	445.22	0.00	0.00
160.0	133.31	715.58	0.00	0.00
162.0	580.11	3,289.71	0.00	0.00
165.0	75.98	387.14	0.00	0.00
170.0	122.39	618.55	0.00	0.00
173.0	1,283.51	6,483.92	0.00	0.00
175.0	45.94	194.19	0.00	0.00
<b>Totals:</b>	<b>8,287.70</b>	<b>65,885.36</b>	<b>0.00</b>	<b>0.00</b>

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:19 AM  
 Page: 17

© 2007 - 2014 by ATC IP LLC. All rights reserved.

<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice	24 Iterations
Gust Response Factor : 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

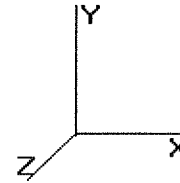
**Calculated Forces**

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-65.88	-8.31	0.00	-888.28	0.00	888.28	4,635.39	2,317.69	12,274.7	6,146.49	0.00	0.00	0.159
5.00	-63.65	-8.15	0.00	-846.75	0.00	846.75	4,589.33	2,294.67	11,900.9	5,959.31	0.02	-0.03	0.156
10.00	-61.42	-7.99	0.00	-806.02	0.00	806.02	4,541.20	2,270.60	11,526.9	5,772.03	0.07	-0.06	0.153
15.00	-58.90	-7.77	0.00	-766.06	0.00	766.06	4,490.98	2,245.49	11,153.0	5,584.80	0.15	-0.09	0.150
20.00	-56.71	-7.60	0.00	-727.23	0.00	727.23	4,438.68	2,219.34	10,779.6	5,397.81	0.26	-0.13	0.148
25.00	-54.56	-7.43	0.00	-689.22	0.00	689.22	4,384.31	2,192.15	10,406.9	5,211.21	0.41	-0.16	0.145
30.00	-52.44	-7.25	0.00	-652.08	0.00	652.08	4,327.85	2,163.92	10,035.4	5,025.19	0.60	-0.19	0.142
35.00	-50.36	-7.07	0.00	-615.81	0.00	615.81	4,269.31	2,134.66	9,665.47	4,839.92	0.82	-0.23	0.139
40.00	-48.31	-6.89	0.00	-580.46	0.00	580.46	4,208.69	2,104.35	9,297.30	4,655.56	1.07	-0.26	0.136
45.00	-46.31	-6.69	0.00	-546.02	0.00	546.02	4,146.00	2,073.00	8,931.29	4,472.28	1.36	-0.29	0.133
46.75	-46.61	-6.63	0.00	-534.32	0.00	534.32	4,123.56	2,061.78	8,803.77	4,408.43	1.47	-0.31	0.132
50.00	-43.51	-6.50	0.00	-512.77	0.00	512.77	4,081.22	2,040.61	8,567.81	4,290.27	1.69	-0.33	0.130
53.50	-41.28	-6.36	0.00	-490.01	0.00	490.01	4,072.38	2,036.19	8,519.31	4,265.99	1.94	-0.35	0.125
55.00	-40.69	-6.31	0.00	-480.48	0.00	480.48	4,052.46	2,026.23	8,410.93	4,211.71	2.05	-0.36	0.124
60.00	-38.78	-6.11	0.00	-448.94	0.00	448.94	3,984.70	1,992.35	8,051.64	4,031.81	2.45	-0.40	0.121
65.00	-36.91	-5.92	0.00	-418.37	0.00	418.37	3,914.86	1,957.43	7,695.71	3,853.57	2.89	-0.43	0.118
70.00	-35.08	-5.72	0.00	-388.79	0.00	388.79	3,842.93	1,921.47	7,343.46	3,677.19	3.36	-0.47	0.115
75.00	-33.29	-5.53	0.00	-360.18	0.00	360.18	3,768.93	1,884.47	6,995.24	3,502.82	3.87	-0.50	0.112
80.00	-31.54	-5.33	0.00	-332.54	0.00	332.54	3,692.85	1,846.43	6,651.41	3,330.65	4.42	-0.54	0.108
85.00	-29.84	-5.14	0.00	-305.87	0.00	305.87	3,614.69	1,807.34	6,312.28	3,160.83	5.00	-0.57	0.105
90.00	-28.18	-4.95	0.00	-280.17	0.00	280.17	3,534.45	1,767.22	5,978.22	2,993.55	5.62	-0.61	0.102
95.00	-26.57	-4.76	0.00	-255.41	0.00	255.41	3,452.12	1,726.06	5,649.56	2,828.98	6.28	-0.65	0.098
100.00	-23.95	-4.45	0.00	-231.60	0.00	231.60	3,367.72	1,683.86	5,326.65	2,667.28	6.98	-0.68	0.094
100.25	-23.83	-4.45	0.00	-230.49	0.00	230.49	2,327.13	1,163.56	3,746.51	1,876.04	7.01	-0.69	0.133
105.00	-22.61	-4.27	0.00	-209.38	0.00	209.38	2,280.57	1,140.28	3,552.67	1,778.98	7.71	-0.72	0.128
110.00	-21.36	-4.09	0.00	-188.01	0.00	188.01	2,229.53	1,114.77	3,350.83	1,677.90	8.49	-0.77	0.122
115.00	-20.14	-3.92	0.00	-167.54	0.00	167.54	2,176.42	1,088.21	3,151.57	1,578.13	9.32	-0.81	0.115
120.00	-18.96	-3.75	0.00	-147.94	0.00	147.94	2,121.22	1,060.61	2,955.25	1,479.82	10.19	-0.86	0.109
125.00	-17.82	-3.58	0.00	-129.21	0.00	129.21	2,063.94	1,031.97	2,762.20	1,383.16	11.12	-0.90	0.102
130.00	-16.71	-3.41	0.00	-111.33	0.00	111.33	2,004.58	1,002.29	2,572.77	1,288.30	12.08	-0.95	0.095
134.25	-15.48	-3.26	0.00	-96.84	0.00	96.84	1,131.19	565.59	1,425.34	713.73	12.94	-0.98	0.149
135.00	-15.34	-3.24	0.00	-94.40	0.00	94.40	1,127.42	563.71	1,411.32	706.71	13.10	-0.99	0.147
140.00	-14.48	-3.09	0.00	-78.19	0.00	78.19	1,101.14	550.57	1,317.99	659.98	14.16	-1.05	0.132
145.00	-13.65	-2.93	0.00	-62.76	0.00	62.76	1,072.77	536.39	1,225.18	613.50	15.29	-1.10	0.115
150.00	-12.84	-2.78	0.00	-48.09	0.00	48.09	1,042.33	521.16	1,133.21	567.45	16.47	-1.15	0.097
152.00	-12.08	-2.57	0.00	-42.52	0.00	42.52	1,029.57	514.78	1,096.74	549.18	16.96	-1.17	0.089
155.00	-11.64	-2.49	0.00	-34.80	0.00	34.80	1,009.80	504.90	1,042.44	521.99	17.70	-1.19	0.078
160.00	-10.93	-2.34	0.00	-22.36	0.00	22.36	975.19	487.60	953.20	477.31	18.97	-1.23	0.058
162.00	-7.65	-1.69	0.00	-17.67	0.00	17.67	960.77	480.38	918.02	459.69	19.49	-1.24	0.046
165.00	-7.26	-1.61	0.00	-12.59	0.00	12.59	938.51	469.25	865.85	433.57	20.27	-1.25	0.037
170.00	-6.65	-1.48	0.00	-4.53	0.00	4.53	899.74	449.87	780.71	390.94	21.59	-1.27	0.019
173.00	-0.19	-0.05	0.00	-0.10	0.00	0.10	875.48	437.74	730.84	365.96	22.39	-1.27	0.000
175.00	0.00	-0.05	0.00	0.00	0.00	0.00	858.89	429.45	698.14	349.59	22.92	-1.27	0.000

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)

6/23/2014 7:54:19 AM  
 Page: 18



© 2007 - 2014 by ATC IP LLC. All rights reserved.

<b>Load Case:</b> 1.0D + 1.0W	60.00 mph Serviceability	23 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

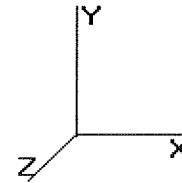
**Shaft Segment Forces (Factored)**

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	7.442	8.186	302.80	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.186	296.60	0.650	0.000	5.00	27.090	17.61	144.1	0.0	1,289.0
10.00		1.00	0.85	7.442	8.186	290.40	0.650	0.000	5.00	26.529	17.24	141.2	0.0	1,262.1
15.00	Appertunance(s)	1.00	0.85	7.442	8.186	284.19	0.650	0.000	5.00	25.968	16.88	138.2	0.0	1,235.3
20.00		1.00	0.90	7.896	8.686	286.35	0.650	0.000	5.00	25.408	16.52	143.4	0.0	1,208.5
25.00		1.00	0.94	8.276	9.104	286.62	0.650	0.000	5.00	24.847	16.15	147.0	0.0	1,181.6
30.00		1.00	0.98	8.600	9.460	285.50	0.650	0.000	5.00	24.287	15.79	149.3	0.0	1,154.8
35.00		1.00	1.01	8.883	9.772	283.40	0.650	0.000	5.00	23.726	15.42	150.7	0.0	1,128.0
40.00		1.00	1.04	9.137	10.05	280.54	0.650	0.000	5.00	23.165	15.06	151.3	0.0	1,101.1
45.00		1.00	1.07	9.366	10.30	277.08	0.650	0.000	5.00	22.605	14.69	151.4	0.0	1,074.3
46.75	Bot - Section 2	1.00	1.07	9.442	10.38	275.75	0.650	0.000	1.75	7.779	5.06	52.5	0.0	369.7
50.00		1.00	1.09	9.576	10.53	273.13	0.650	0.000	3.25	14.471	9.41	99.1	0.0	1,365.5
53.50	Top - Section 1	1.00	1.10	9.714	10.68	270.12	0.650	0.000	3.50	15.319	9.96	106.4	0.0	1,445.2
55.00		1.00	1.11	9.770	10.74	272.80	0.650	0.000	1.50	6.481	4.21	45.3	0.0	307.9
60.00		1.00	1.13	9.951	10.94	268.14	0.650	0.000	5.00	21.240	13.81	151.1	0.0	1,009.0
65.00		1.00	1.15	10.120	11.13	263.18	0.650	0.000	5.00	20.680	13.44	149.6	0.0	982.2
70.00		1.00	1.17	10.279	11.30	257.95	0.650	0.000	5.00	20.119	13.08	147.9	0.0	955.3
75.00		1.00	1.19	10.430	11.47	252.48	0.650	0.000	5.00	19.558	12.71	145.8	0.0	928.5
80.00		1.00	1.20	10.572	11.62	246.81	0.650	0.000	5.00	18.998	12.35	143.6	0.0	901.7
85.00		1.00	1.22	10.708	11.77	240.95	0.650	0.000	5.00	18.437	11.98	141.2	0.0	874.8
90.00		1.00	1.23	10.838	11.92	234.92	0.650	0.000	5.00	17.876	11.62	138.5	0.0	848.0
95.00	Bot - Section 3	1.00	1.25	10.962	12.05	228.74	0.650	0.000	5.00	17.316	11.26	135.7	0.0	821.2
100.00	Appertunance(s)	1.00	1.26	11.081	12.18	222.41	0.650	0.000	5.00	16.993	11.05	134.6	0.0	1,400.1
100.2	Top - Section 2	1.00	1.26	11.087	12.19	222.09	0.650	0.000	0.25	0.835	0.54	6.6	0.0	68.8
105.00		1.00	1.27	11.195	12.31	219.17	0.650	0.000	4.75	15.598	10.14	124.9	0.0	555.8
110.00		1.00	1.29	11.305	12.43	212.60	0.650	0.000	5.00	15.872	10.32	128.3	0.0	565.5
115.00		1.00	1.30	11.412	12.55	205.92	0.650	0.000	5.00	15.311	9.95	124.9	0.0	545.3
120.00		1.00	1.31	11.514	12.66	199.13	0.650	0.000	5.00	14.751	9.59	121.4	0.0	525.2
125.00		1.00	1.32	11.614	12.77	192.24	0.650	0.000	5.00	14.190	9.22	117.8	0.0	505.1
130.00	Bot - Section 4	1.00	1.33	11.710	12.88	185.25	0.650	0.000	5.00	13.629	8.86	114.1	0.0	485.0
134.2	Top - Section 3	1.00	1.34	11.790	12.96	179.25	0.650	0.000	4.25	11.279	7.33	95.1	0.0	664.7
135.00		1.00	1.34	11.803	12.98	180.39	0.650	0.000	0.75	1.948	1.27	16.4	0.0	46.3
140.00		1.00	1.35	11.894	13.08	173.24	0.650	0.000	5.00	12.667	8.23	107.7	0.0	301.2
145.00		1.00	1.36	11.982	13.18	166.01	0.650	0.000	5.00	12.106	7.87	103.7	0.0	287.8
150.00		1.00	1.37	12.068	13.27	158.71	0.650	0.000	5.00	11.546	7.50	99.6	0.0	274.4
152.00	Appertunance(s)	1.00	1.38	12.102	13.31	155.77	0.650	0.000	2.00	4.461	2.90	38.6	0.0	106.0
155.00		1.00	1.38	12.152	13.36	151.33	0.650	0.000	3.00	6.524	4.24	56.7	0.0	155.0
160.00		1.00	1.39	12.233	13.45	143.89	0.650	0.000	5.00	10.424	6.78	91.2	0.0	247.6
162.00	Appertunance(s)	1.00	1.40	12.265	13.49	140.89	0.650	0.000	2.00	4.013	2.61	35.2	0.0	95.3
165.00		1.00	1.40	12.313	13.54	136.37	0.650	0.000	3.00	5.851	3.80	51.5	0.0	138.9
170.00		1.00	1.41	12.390	13.62	128.80	0.650	0.000	5.00	9.303	6.05	82.4	0.0	220.7
173.00	Appertunance(s)	1.00	1.42	12.436	13.68	124.23	0.650	0.000	3.00	5.313	3.45	47.2	0.0	126.0
175.00		1.00	1.42	12.466	13.71	121.17	0.650	0.000	2.00	3.430	2.23	30.6	0.0	81.3
Totals:									175.00			4,502.1	0.0	28,839.7

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)

6/23/2014 7:54:19 AM  
 Page: 19



© 2007 - 2014 by ATC IP LLC. All rights reserved.

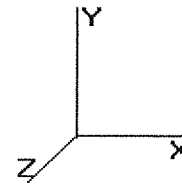
<b>Load Case:</b> 1.0D + 1.0W	60.00 mph Serviceability	23 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Discrete Appurtenance Segment Forces (Factored)**

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
15.00	4' Dish w/ Radome	1	7.442	8.186	1.00	1.00	10.85	0.000	0.000	88.82	0.00	0.00	120.00
100.0	Round Side Arm	1	11.081	12.189	1.00	1.00	5.20	0.000	0.000	63.38	0.00	0.00	150.00
100.0	Andrew DB589	1	11.081	12.189	1.00	1.00	1.38	0.000	0.000	16.82	0.00	0.00	11.50
152.0	RFS APXV18-206517S-	3	12.102	13.312	0.80	1.00	12.41	0.000	0.000	165.18	0.00	0.00	79.20
162.0	Round T-Arm	3	12.265	13.492	0.67	0.75	14.62	0.000	0.000	197.29	0.00	0.00	750.00
162.0	Ericsson AIR 21, 1.3	3	12.265	13.492	0.85	0.80	12.40	0.000	0.000	167.34	0.00	0.00	271.20
162.0	Ericsson AIR 21, 1.3	3	12.265	13.492	0.85	0.80	12.32	0.000	0.000	166.24	0.00	0.00	274.50
173.0	Flat Platform w/ Han	1	12.436	13.680	1.00	1.00	42.40	0.000	0.000	580.02	0.00	0.00	2,000.00
173.0	Alcatel-Lucent RRH2x	3	12.436	13.680	0.67	0.75	3.26	0.000	0.000	44.54	0.00	0.00	132.00
173.0	Antel BXA-171085-12B	3	12.436	13.680	0.88	0.75	9.37	0.000	0.000	128.12	0.00	0.00	45.00
173.0	Antel BXA-171063/12C	3	12.436	13.680	0.88	0.75	9.48	0.000	0.000	129.74	0.00	0.00	45.00
173.0	RFS DB-T1-6Z-8AB-0Z	1	12.436	13.680	0.67	0.75	2.41	0.000	0.000	33.00	0.00	0.00	44.00
173.0	Antel BXA-70063-6CF-	3	12.436	13.680	0.77	0.75	13.12	0.000	0.000	179.41	0.00	0.00	51.00
173.0	Andrew LNX-8513DS-	3	12.436	13.680	0.83	0.75	15.26	0.000	0.000	208.72	0.00	0.00	78.90
										2,168.61			4,052.30

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:19 AM  
 Page: 20

© 2007 - 2014 by ATC IP LLC. All rights reserved.

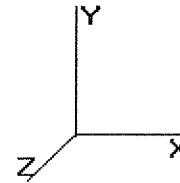
**Load Case:** 1.0D + 1.0W      60.00 mph Serviceability      23 Iterations  
 Gust Response Factor : 1.10      Wind Importance Factor : 1.00  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

**Linear Appurtenance Segment Forces (Factored)**

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
5.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	7.442	0.017	0.000	0.00	1.65
10.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	7.442	0.017	0.000	0.00	1.65
15.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	7.442	0.017	0.000	0.00	1.65
20.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	7.896	0.018	0.000	0.00	1.65
25.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	8.276	0.018	0.000	0.00	1.65
30.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	8.600	0.019	0.000	0.00	1.65
35.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	8.883	0.019	0.000	0.00	1.65
40.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	9.137	0.020	0.000	0.00	1.65
45.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	9.366	0.020	0.000	0.00	1.65
46.75	(1) 7/8" Coax	Yes	1.75	0.000	1.09	0.16	0.00	9.442	0.020	0.000	0.00	0.58
50.00	(1) 7/8" Coax	Yes	3.25	0.000	1.09	0.30	0.00	9.576	0.021	0.000	0.00	1.07
53.50	(1) 7/8" Coax	Yes	3.50	0.000	1.09	0.32	0.00	9.714	0.021	0.000	0.00	1.16
55.00	(1) 7/8" Coax	Yes	1.50	0.000	1.09	0.14	0.00	9.770	0.021	0.000	0.00	0.50
60.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	9.951	0.021	0.000	0.00	1.65
65.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	10.120	0.022	0.000	0.00	1.65
70.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	10.279	0.023	0.000	0.00	1.65
75.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	10.430	0.023	0.000	0.00	1.65
80.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	10.572	0.024	0.000	0.00	1.65
85.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	10.708	0.025	0.000	0.00	1.65
90.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	10.838	0.025	0.000	0.00	1.65
95.00	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	10.962	0.026	0.000	0.00	1.65
100.0	(1) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	11.081	0.027	0.000	0.00	1.65
<b>Totals:</b>											0.00	33.00

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)



6/23/2014 7:54:19 AM  
 Page: 21

© 2007 - 2014 by ATC IP LLC. All rights reserved.

<b>Load Case:</b> 1.0D + 1.0W	60.00 mph Serviceability	23 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

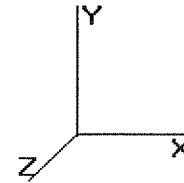
**Applied Segment Forces Summary**

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	144.14	1,428.31	0.00	0.00
10.00	141.16	1,401.48	0.00	0.00
15.00	227.00	1,494.65	0.00	0.00
20.00	143.45	1,347.67	0.00	0.00
25.00	147.03	1,320.84	0.00	0.00
30.00	149.33	1,294.00	0.00	0.00
35.00	150.70	1,267.17	0.00	0.00
40.00	151.33	1,240.34	0.00	0.00
45.00	151.38	1,213.51	0.00	0.00
46.75	52.52	418.39	0.00	0.00
50.00	99.08	1,455.97	0.00	0.00
53.50	106.40	1,542.61	0.00	0.00
55.00	45.28	349.69	0.00	0.00
60.00	151.12	1,148.20	0.00	0.00
65.00	149.63	1,121.37	0.00	0.00
70.00	147.87	1,094.53	0.00	0.00
75.00	145.85	1,067.70	0.00	0.00
80.00	143.61	1,040.87	0.00	0.00
85.00	141.16	1,014.04	0.00	0.00
90.00	138.52	987.20	0.00	0.00
95.00	135.72	960.37	0.00	0.00
100.0	214.83	1,700.76	0.00	0.00
100.2	6.62	75.65	0.00	0.00
105.0	124.85	686.51	0.00	0.00
110.0	128.30	703.02	0.00	0.00
115.0	124.93	682.90	0.00	0.00
120.0	121.44	662.77	0.00	0.00
125.0	117.83	642.65	0.00	0.00
130.0	114.11	622.53	0.00	0.00
134.2	95.08	781.63	0.00	0.00
135.0	16.44	66.97	0.00	0.00
140.0	107.72	438.78	0.00	0.00
145.0	103.72	425.37	0.00	0.00
150.0	99.62	411.95	0.00	0.00
152.0	203.78	240.22	0.00	0.00
155.0	56.68	222.75	0.00	0.00
160.0	91.18	360.52	0.00	0.00
162.0	566.06	1,436.15	0.00	0.00
165.0	51.51	187.99	0.00	0.00
170.0	82.42	302.58	0.00	0.00
173.0	1,350.78	2,571.01	0.00	0.00
175.0	30.57	81.32	0.00	0.00
<b>Totals:</b>	<b>6,670.75</b>	<b>37,512.94</b>	<b>0.00</b>	<b>0.00</b>

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)

6/23/2014 7:54:19 AM  
 Page: 22



© 2007 - 2014 by ATC IP LLC. All rights reserved.

<b>Load Case:</b> 1.0D + 1.0W	60.00 mph Serviceability	23 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

**Calculated Forces**

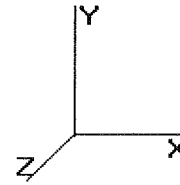
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-37.51	-6.68	0.00	-731.57	0.00	731.57	4,635.39	2,317.69	12,274.7	6,146.49	0.00	0.00	0.127
5.00	-36.08	-6.55	0.00	-698.18	0.00	698.18	4,589.33	2,294.67	11,900.9	5,959.31	0.01	-0.03	0.125
10.00	-34.68	-6.42	0.00	-665.43	0.00	665.43	4,541.20	2,270.60	11,526.9	5,772.03	0.05	-0.05	0.123
15.00	-33.18	-6.21	0.00	-633.32	0.00	633.32	4,490.98	2,245.49	11,153.0	5,584.80	0.12	-0.08	0.121
20.00	-31.83	-6.08	0.00	-602.27	0.00	602.27	4,438.68	2,219.34	10,779.6	5,397.81	0.22	-0.10	0.119
25.00	-30.51	-5.94	0.00	-571.87	0.00	571.87	4,384.31	2,192.15	10,406.9	5,211.21	0.34	-0.13	0.117
30.00	-29.21	-5.81	0.00	-542.15	0.00	542.15	4,327.85	2,163.92	10,035.4	5,025.19	0.49	-0.16	0.115
35.00	-27.94	-5.66	0.00	-513.12	0.00	513.12	4,269.31	2,134.66	9,665.47	4,839.92	0.67	-0.19	0.113
40.00	-26.70	-5.52	0.00	-484.80	0.00	484.80	4,208.69	2,104.35	9,297.30	4,655.56	0.88	-0.21	0.110
45.00	-25.48	-5.37	0.00	-457.18	0.00	457.18	4,146.00	2,073.00	8,931.29	4,472.28	1.13	-0.24	0.108
46.75	-25.06	-5.33	0.00	-447.78	0.00	447.78	4,123.56	2,061.78	8,803.77	4,408.43	1.22	-0.25	0.108
50.00	-23.60	-5.23	0.00	-430.47	0.00	430.47	4,081.22	2,040.61	8,567.81	4,290.27	1.40	-0.27	0.106
53.50	-22.06	-5.12	0.00	-412.16	0.00	412.16	4,072.38	2,036.19	8,519.31	4,265.99	1.60	-0.29	0.102
55.00	-21.71	-5.08	0.00	-404.48	0.00	404.48	4,052.46	2,026.23	8,410.93	4,211.71	1.70	-0.30	0.101
60.00	-20.56	-4.93	0.00	-379.07	0.00	379.07	3,984.70	1,992.35	8,051.64	4,031.81	2.03	-0.33	0.099
65.00	-19.44	-4.79	0.00	-354.40	0.00	354.40	3,914.86	1,957.43	7,695.71	3,853.57	2.39	-0.36	0.097
70.00	-18.34	-4.64	0.00	-330.46	0.00	330.46	3,842.93	1,921.47	7,343.46	3,677.19	2.79	-0.39	0.095
75.00	-17.27	-4.50	0.00	-307.25	0.00	307.25	3,768.93	1,884.47	6,995.24	3,502.82	3.21	-0.42	0.092
80.00	-16.23	-4.36	0.00	-284.76	0.00	284.76	3,692.85	1,846.43	6,651.41	3,330.65	3.67	-0.45	0.090
85.00	-15.22	-4.21	0.00	-262.98	0.00	262.98	3,614.69	1,807.34	6,312.28	3,160.83	4.16	-0.48	0.087
90.00	-14.23	-4.07	0.00	-241.91	0.00	241.91	3,534.45	1,767.22	5,978.22	2,993.55	4.68	-0.51	0.085
95.00	-13.27	-3.94	0.00	-221.54	0.00	221.54	3,452.12	1,726.06	5,649.56	2,828.98	5.24	-0.54	0.082
100.00	-11.57	-3.71	0.00	-201.85	0.00	201.85	3,367.72	1,683.86	5,326.65	2,667.28	5.82	-0.58	0.079
100.25	-11.49	-3.71	0.00	-200.93	0.00	200.93	2,327.13	1,163.56	3,746.51	1,876.04	5.85	-0.58	0.112
105.00	-10.80	-3.58	0.00	-183.33	0.00	183.33	2,280.57	1,140.28	3,552.67	1,778.98	6.44	-0.61	0.108
110.00	-10.10	-3.45	0.00	-165.43	0.00	165.43	2,229.53	1,114.77	3,350.83	1,677.90	7.10	-0.65	0.103
115.00	-9.41	-3.32	0.00	-148.17	0.00	148.17	2,176.42	1,088.21	3,151.57	1,578.13	7.80	-0.69	0.098
120.00	-8.75	-3.20	0.00	-131.55	0.00	131.55	2,121.22	1,060.61	2,955.25	1,479.82	8.55	-0.73	0.093
125.00	-8.11	-3.08	0.00	-115.54	0.00	115.54	2,063.94	1,031.97	2,762.20	1,383.16	9.33	-0.77	0.087
130.00	-7.49	-2.96	0.00	-100.14	0.00	100.14	2,004.58	1,002.29	2,572.77	1,288.30	10.16	-0.81	0.081
134.25	-6.70	-2.86	0.00	-87.54	0.00	87.54	1,131.19	565.59	1,425.34	713.73	10.89	-0.84	0.129
135.00	-6.64	-2.85	0.00	-85.40	0.00	85.40	1,127.42	563.71	1,411.32	706.71	11.02	-0.85	0.127
140.00	-6.20	-2.74	0.00	-71.17	0.00	71.17	1,101.14	550.57	1,317.99	659.98	11.94	-0.90	0.113
145.00	-5.77	-2.63	0.00	-57.49	0.00	57.49	1,072.77	536.39	1,225.18	613.50	12.91	-0.95	0.099
150.00	-5.36	-2.53	0.00	-44.34	0.00	44.34	1,042.33	521.16	1,133.21	567.45	13.93	-0.99	0.083
152.00	-5.12	-2.32	0.00	-39.29	0.00	39.29	1,029.57	514.78	1,096.74	549.18	14.35	-1.01	0.077
155.00	-4.90	-2.26	0.00	-32.33	0.00	32.33	1,009.80	504.90	1,042.44	521.99	14.99	-1.03	0.067
160.00	-4.54	-2.17	0.00	-21.02	0.00	21.02	975.19	487.60	953.20	477.31	16.09	-1.07	0.049
162.00	-3.11	-1.57	0.00	-16.68	0.00	16.68	960.77	480.38	918.02	459.69	16.54	-1.08	0.040
165.00	-2.93	-1.52	0.00	-11.96	0.00	11.96	938.51	469.25	865.85	433.57	17.22	-1.09	0.031
170.00	-2.63	-1.43	0.00	-4.36	0.00	4.36	899.74	449.87	780.71	390.94	18.37	-1.10	0.014
173.00	-0.08	-0.03	0.00	-0.06	0.00	0.06	875.48	437.74	730.84	365.96	19.07	-1.11	0.000
175.00	0.00	-0.03	0.00	0.00	0.00	0.00	858.89	429.45	698.14	349.59	19.53	-1.11	0.000



Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)

6/23/2014 7:54:19 AM  
 Page: 23



© 2007 - 2014 by ATC IP LLC. All rights reserved.

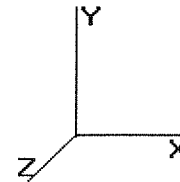
### Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	39.27	0.00	44.96	0.00	0.00	4315.71	134.25	0.73
0.9D + 1.6W	39.25	0.00	33.71	0.00	0.00	4284.87	134.25	0.72
1.2D + 1.0Di + 1.0Wi	8.31	0.00	65.88	0.00	0.00	888.28	0.00	0.16
1.0D + 1.0W	6.68	0.00	37.51	0.00	0.00	731.57	134.25	0.13

Pole : 370625  
 Location : Old Saybrook, CT  
 Height : 175.0 (ft)  
 Base Dia : 64.69 (in)  
 Top Dia : 20.00 (in)  
 Shape : 18 Sides  
 Taper : 0.265010 (in/ft)

Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : C  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)

6/23/2014 7:54:19 AM  
 Page: 24



© 2007 - 2014 by ATC IP LLC. All rights reserved.

## Base Summary

### Reactions

Original Design			Analysis			
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment Design %
5,400.00	52.00	48.00	4,315.71	65.88	39.27	79.92

### Base Plate

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Mu (kip-in)	Phi Mn (kip-in)	Ratio
50.0	2.750	72.000	Clipped	0	16.00	8.555	279.68	727.84	0.38

### Anchor Bolts

Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Cluster Arrange	Cluster Dist (in)	Start Angle (deg)	Compression			Tension		
									Force (kip)	Allow (kip)	Ratio	Force (kip)	Allow (kip)	Ratio
72.00	24	2.25" 18J	2.25	75.00	100.00	Clustered	6.00	45.0	122.63	260.00	0.48	117.14	260.00	0.46