



January 28, 2015

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

Regarding: Notice of Exempt Modification – Addition of 3 radio heads previously approved  
Property Address: 80 Shuttle Meadow Road, Southington, CT (the “Property”)  
Applicant: AT&T Mobility (“AT&T”)

Dear Ms. Bachman:

AT&T currently maintains a wireless telecommunications facility on an existing 150 foot Monopole (“tower”) location on the Property. AT&T’s facility consists of nine (9) wireless telecommunications antenna at 153 feet. The tower is controlled by the American Tower Corporation. The Council approved the previous application on July 6, 2012, reference number EM-AT&T-131-120621. This application (attached) granted AT&T the use of 6 radio heads at this location. The approval expired one year from the issue date. During that time AT&T made the changes to the site per the approval but only installed three (3) of the six (6) radio heads that they received approval. AT&T would now like to install the additional three (3) radio heads that were originally approved under EM-AT&T-131-120621.

Please accept this application as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72 (b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to the Chairman of the Southington Town Council. A copy of this letter is also being sent to American Tower Corporation, the owner of the structure that AT&T is located.

The planned modifications to AT&T’s facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The planned modifications will not result in an increase in the height of the existing structure. AT&T’s additional, previously approved 3 radio heads will be installed at 153 foot level of the 150 foot monopole.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore will not require an extension of the site boundary.
3. The proposed modification will not increase the noise level at the facility by six decibel or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety



standard. An RF emissions calculation (attached) for AT&T's modified facility was provided in the application which led to the July 6, 2012 Decision.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation can support AT&T's proposed modifications. (Please see attached Structural analysis completed by American Tower Corporation dated May 25, 2012).

For the foregoing reasons AT&T respectfully requests that the proposed addition of 3 radio heads previously approved be allowed within the exempt modifications under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

A handwritten signature in black ink that reads "David P. Cooper".

David P. Cooper  
Director of Site Acquisition  
Empire Telecom

CC: Michael A. Riccio, Chairman Southington Town Council



C 71004



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

July 6, 2012

Theresa Ranciato-Viele  
Nexlink Global Services  
55 Lynn Road  
Ivoryton, CT 06442

RE: **EM-AT&T-131-120621** – AT&T Mobility notice of intent to modify an existing telecommunications facility located at 80 Shuttle Meadow Road, Southington, Connecticut.

Dear Ms. Ranciato-Viele:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the following conditions:

- Any deviation from the proposed modification as specified in this notice and supporting materials with Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Not less than 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated June 12, 2012. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of

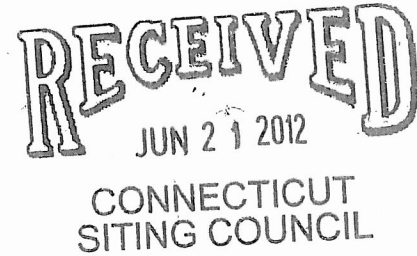


EM-AT&T-131-120621

June 12, 2012

Ms. Linda Roberts, Executive Director  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, CT 06051

Re: AT&T Mobility – Notice of Exempt Modification  
80 Shuttle Meadow Road  
Southington, CT 06489



Dear Ms. Roberts:

This letter and attachments are submitted on behalf of AT&T Mobility ("AT&T"). AT&T is enhancing the capabilities of its wireless system in Connecticut by implementing LTE Technology. In order to do so, AT&T will modify antenna and equipment configurations at a number of existing sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachment is being sent to the Southington Town Council Chairman.

AT&T plans to modify the existing facility at 80 Southington Meadow Road owned by the American Tower Corporation (coordinates 41° 38' 18.8'' N. -72° 50' 28.1'' W). Attached are drawings depicting the planned changes, and documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration. Also, included are a power density calculation reflecting the modification to AT&T's operations at the site.

The changes to the facility do not constitute a modification as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed. Rather, the planned changes to the facility fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(c)

1. The height of the overall structure will be unaffected. Both AT&T's existing and proposed antennas will be located at an approximate center line of 153' AGL on the approximately 150' tower. The existing antennas will remain. AT&T will add three (3) new antennas and six (6) new RRH's. The existing and proposed equipment will be pipe mounted. Additionally, AT&T will install one (1) surge arrestor at 153' AGL, and one (1) fiber cable and two (2) DC control cables. One (1) GPS LTE antenna will be mounted to existing shelter.

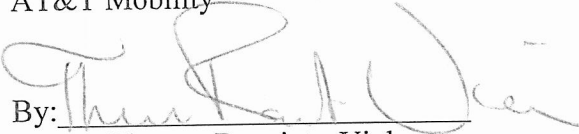
2. The proposed changes will not extend the site boundaries. AT&T will install one additional cabinet in the existing shelter. Thus, there will be no effect on the site compound.

3. The proposed changes will not increase the noise level at the existing facility by six decibels or more. The incremental effect of the proposed changes will be negligible.

4. The changes to the facility will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site. As indicated in the attached power density calculations, AT&T's operations at the site will result in a power density of 1.71%; the combined site operations will result in a total power density of 7.03.

Please feel free to call me with any questions or concerns regarding this matter. Thank you for your cooperation.

Respectfully submitted,  
AT&T Mobility

By: 

Theresa Ranciato-Viele  
[tviele@hotmail.com](mailto:tviele@hotmail.com)  
(203) 606-5127

cc: John C. Dobbins, Chairman Southington Town Council

Attachments

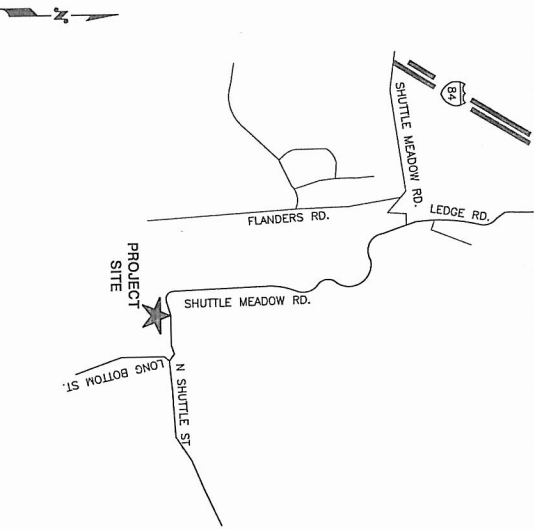
**PROJECT INFORMATION**

SCOPE OF WORK: UNMANNED TELECOMMUNICATIONS FACILITY MODIFICATIONS  
 SITE ADDRESS: 80 SHUTTLE MEADOW ROAD  
 SOUTHINGTON, CT 06489  
 LATITUDE: 41.636575 N 41° 38' 18.8" N  
 LONGITUDE: 72.841139 W 72° 50' 28.1" W  
 JURISDICTION: NATIONAL, STATE & LOCAL CODES OR ORDINANCES  
 CURRENT USE: TELECOMMUNICATIONS FACILITY  
 PROPOSED USE: TELECOMMUNICATIONS FACILITY

**DRAWING INDEX**

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**VICINITY MAP**



DIRECTIONS TO SITE:  
 HEAD EAST ON ENTERPRISE DR TOWARD CARROLL RD - GO 0.4 MI. TURN LEFT AT CARROLL RD - GO 0.3 MI. TURN RIGHT AT ENTERPRISE DR - GO 0.2 MI. TURN LEFT TO MERGE ONTO I-91 S BOUNDARY RD - GO 0.7 MI. TAKE EXIT 22N TO MERGE ONTO CT-9 N TOWARD NEW BRITAIN - GO 4.8 MI. TAKE EXIT 24 ON THE LEFT FOR CT-71 TOWARD CT-372/KENSINGTON - GO 0.4 MI. KEEP LEFT AT THE FORK - GO 1.0 MI. SLIGHT RIGHT AT CT-71A/HIGH RD - GO 0.2 MI. SLIGHT RIGHT AT CT-372/CORBIN AVE - GO 0.4 MI. TURN LEFT AT SHUTTLE MEADOW RD - GO 0.3 MI. CONTINUE ON RESERVOIR RD - GO 1.1 MI. TURN LEFT AT SHUTTLE MEADOW RD - GO 0.3 MI. SHARP RIGHT AT SHUTTLE MEADOW RD - GO 0.3 MI. ARRIVE AT 80 SHUTTLE MEADOW RD, SOUTHINGTON.

**SITE NUMBER: CT1004**  
**SITE NAME: SOUTHINGTON**



**GENERAL NOTES**

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF THEIR LAWFULLY AUTHORIZED REGULATOR AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY TO BE MAINTAINED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE, AND SHALL PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME. DISCREPANCIES BEFORE REPRESENTATIVE IN WRITING OF AT&T.

**UNDERGROUND SERVICE ALERT**

CALL  
 BEFORE YOU DIG  
 CALL TOLL FREE 800-922-4455

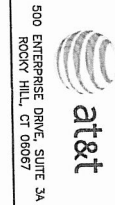


AT&T

NO.	DATE	REVISIONS	DESIGNED BY: RP	DRAWN BY: SR	TITLE SHEET	REV. NUMBER	REV. NUMBER
1	06/17/12	ISSUED FOR CONSTRUCTION					
0	06/11/12	ISSUED FOR REVIEW					



**SITE NUMBER: CT1004**  
**SITE NAME: SOUTHINGTON**  
 80 SHUTTLE MEADOW ROAD  
 SOUTHINGTON, CT 06489  
 HARTFORD COUNTY



NO.	DATE	REVISIONS	DESIGNED BY: RP	DRAWN BY: SR	TITLE SHEET	REV. NUMBER	REV. NUMBER
1	06/17/12	ISSUED FOR CONSTRUCTION					
0	06/11/12	ISSUED FOR REVIEW					

**GROUNDING NOTES**

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LEARNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADAPTED LIGHTING AND) THE SITE-SPECIFIC (UL, LP, COMPLIANCE WITH PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELECOMM AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. ALL GROUND ELECTRODE SYSTEMS (INCLUDING REBAR/STEEL CONCRETE, BOND, LEARNING PROTECTION, AND AC POWER GESS) SHALL BE BONDED TOGETHER AT OR BELOW GRADE BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FULL-9-CONFORMANCE RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FINISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. METAL RACEWAY SHALL NOT BE USED AS THE NEG. REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS & AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTI-OXIDANT COMINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTORS SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH 6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BAKE TINNED COPPER GROUND WIRE, PER FED 250,530

**GENERAL NOTES**

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:  
CONTRACTOR - NEXLINK  
SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION) OWNER - ALERT MOBILITY
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING WORK ON THE CONCRETE TOWER DRAWINGS AND DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL APPLICABLE REGULATIONS.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION DRAWINGS, TO BE REVIEWED BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING SUBSYSTEMS, AND OTHER ITEMS OF GROUNDING AND/OR SHALL AND NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFORM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, UTILITIES, STRUCTURES, AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP AND TRASH AS WELL AS ALL CABLES, ANTENNAS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
14. ALL NEW CONCRETE, NEEDED FOR THE CONSTRUCTION SHALL BE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAIL, FABRICATED AND ERECTED IN ACCORDANCE WITH ALL APPLICABLE NATIONAL SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A572 TYPE E (FY = 50 ksi) UNLESS OTHERWISE NOTED. ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SERVICES SHALL COMPLY WITH UNITS SPECIFICATIONS AND GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF Alert MOBILITY SITES.
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE SCHEDULED FOR COORDINATION WITH CONTRACTOR. MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN OPERATING OR MAINTAINING EQUIPMENT. ALL ELECTRICAL WORK THAT COULD EXPOSE THE WORKERS TO DANGER, PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORK TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. APPLICABLE BUILDING CODES: SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (LAW) FOR THE LOCATION. THE EDITION OF THE APPLICABLE CODES AND STANDARDS SHALL BE THE DATE OF CONTRACT AWARD SHALL BUILDING CODE 2003 IBC WITH 2005 CP SUPPLEMENT & 2009 CT AMENDMENTS. ELECTRICAL CODE: REFER TO ELECTRICAL DRAWINGS LIGHTING CODE: REFER TO ELECTRICAL DRAWINGS FOLLOWING STANDARDS:  
AMERICAN CONCRETE INSTITUTE (ACI) 318 - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;  
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION;  
TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F - STRUCTURAL STANDARDS FOR STEEL;  
ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES: REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

**ABBREVIATIONS**

ACL	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
AWG <td>AMERICAN WIRE GAUGE <td>MIN <td>TO BE DETERMINED</td> </td></td>	AMERICAN WIRE GAUGE <td>MIN <td>TO BE DETERMINED</td> </td>	MIN <td>TO BE DETERMINED</td>	TO BE DETERMINED
BCW <td>BARE COPPER WIRE <td>TBR <td>TO BE REMOVED</td> </td></td>	BARE COPPER WIRE <td>TBR <td>TO BE REMOVED</td> </td>	TBR <td>TO BE REMOVED</td>	TO BE REMOVED
BTS <td>BASE TRANSCIVER STATION <td>TBR <td>TO BE REMOVED</td> </td></td>	BASE TRANSCIVER STATION <td>TBR <td>TO BE REMOVED</td> </td>	TBR <td>TO BE REMOVED</td>	TO BE REMOVED
EG <td>EQUIPMENT GROUND <td>TRR <td>AND REPLACED</td> </td></td>	EQUIPMENT GROUND <td>TRR <td>AND REPLACED</td> </td>	TRR <td>AND REPLACED</td>	AND REPLACED
ERR <td>EQUIPMENT GROUND RING <td>TRP <td>TYPICAL</td> </td></td>	EQUIPMENT GROUND RING <td>TRP <td>TYPICAL</td> </td>	TRP <td>TYPICAL</td>	TYPICAL

AT&T

GENERAL NOTES

NO.	DATE	ISSUED FOR	BY	CHK'D BY	REV.	DESCRIPTION
1	06/17/12	ISSUED FOR CONSTRUCTION	SR	OC	SR	
0	06/17/12	ISSUED FOR REVIEW	SR	OC	SR	

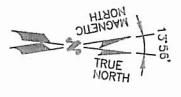
500 ENTERPRISE DRIVE, SUITE 3A  
ROCKY HILL, CT 06067

**SITE NUMBER: CT1004**  
**SITE NAME: SOUTHLINGTON**  
80 SHUTTLE MEADOW ROAD  
HARTFORD COUNTY

NEXLINK GLOBAL SERVICES COMPANY  
800 MARSHALL PHELPS ROAD  
WINDSOR, CT 06095

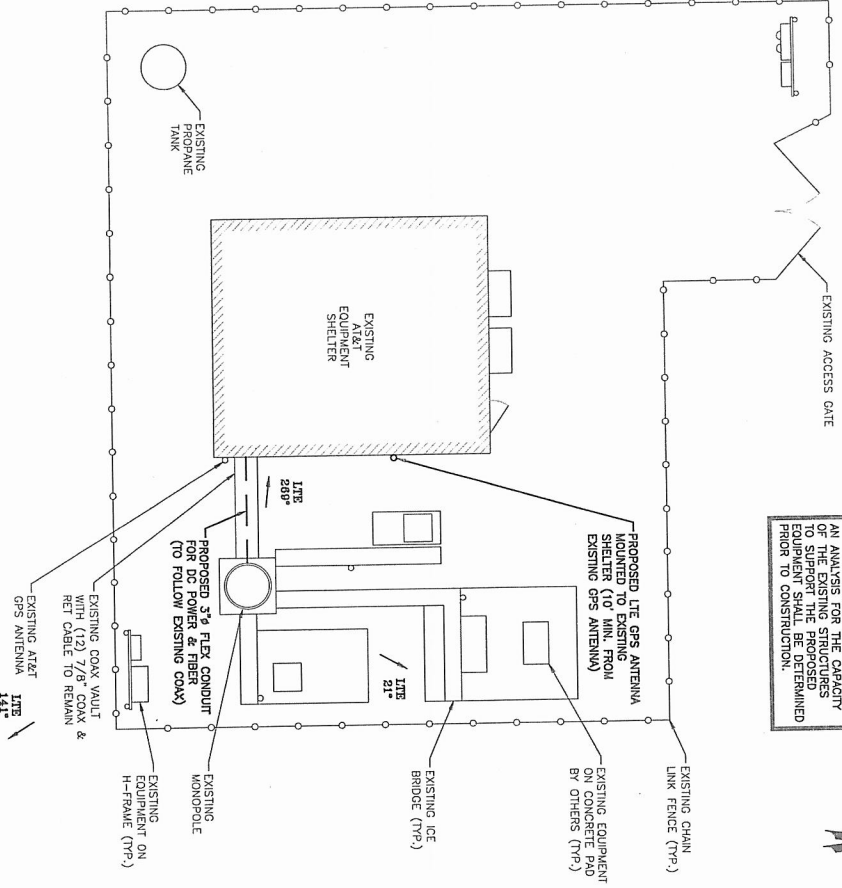
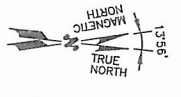
Hudson Energy Group  
100 GORRISON AVENUE, SUITE 200  
HARTFORD, CONNECTICUT 06103



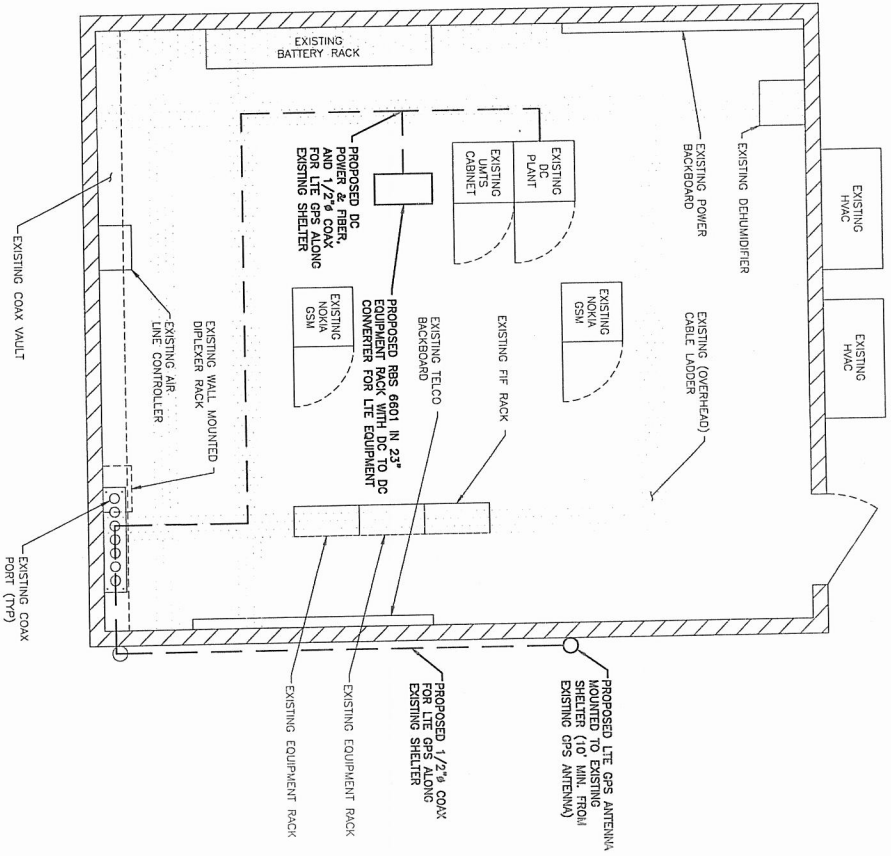
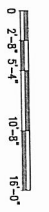


**NOTE:**  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

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



**COMPOUND PLAN**  
SCALE: 1/4"=1'-0"



**EQUIPMENT PLAN**  
SCALE: 1/2"=1'-0"



**Hudson**  
Design Group  
1000 GARDEN STREET  
N. ANDOVER, MA 01861  
TEL: (978) 532-2200  
FAX: (978) 252-5555

**VEILINK**  
Global Services Company  
800 MARSHALL PHELPS ROAD UNIT# 2A  
WINDSOR, CT 06095

**SITE NUMBER: CT1004**  
**SITE NAME: SOUTHLINGTON**  
80 SHUTTLE MADOW ROAD  
SOUTHLINGTON, CT 06489  
HARTFORD COUNTY

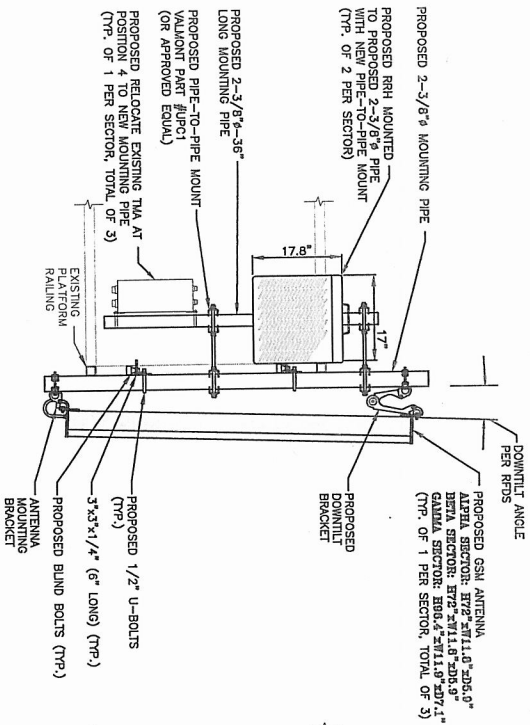
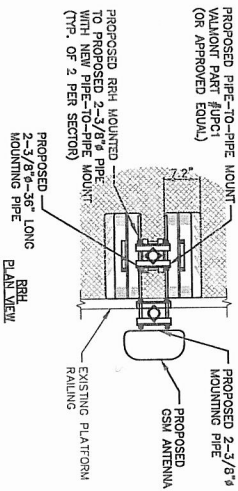
**at&t**  
500 ENTERPRISE DRIVE, SUITE 3A  
ROCKY HILL, CT 06067

NO.	DATE	AS SHOWN	DESIGNED BY	DRAWN BY	DATE	NO.	DATE	AS SHOWN	DESIGNED BY	DRAWN BY
1	04/17/12	ISSUED FOR CONSTRUCTION	ROBSONS	CHR WPK	04/17/12	1	04/17/12	ISSUED FOR REVIEW	ROBSONS	CHR WPK
0	04/11/12	ISSUED FOR REVIEW	ROBSONS	CHR WPK	04/11/12	0	04/11/12	ISSUED FOR REVIEW	ROBSONS	CHR WPK

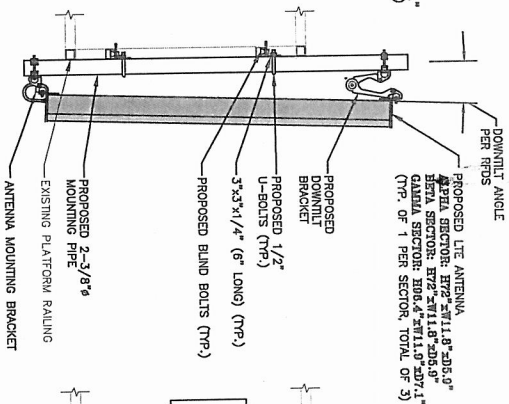
AT&T  
EQUIPMENT & COMPOUND PLAN  
DRAWING NUMBER: A-1  
REV: 1



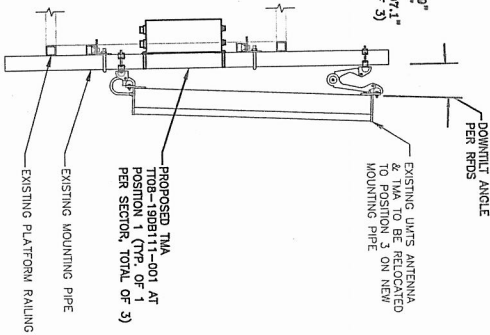




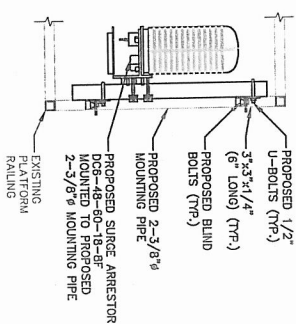
**PROPOSED GSM ANTENNA & RH MOUNTING DETAIL**  
SCALE: N.T.S.



**PROPOSED LTE ANTENNA MOUNTING DETAIL**  
SCALE: N.T.S.



**EXISTING UMTS ANTENNA MOUNTING DETAIL**  
SCALE: N.T.S.



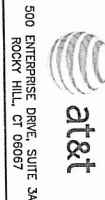
**EXISTING SURGE SUPPRESSOR MOUNTING DETAIL**  
SCALE: N.T.S.

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

**NOTE:**  
AN ANALYSIS FOR THE CAPACITY OF THE ANTENNA SYSTEMS TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.



**SITE NUMBER: CT1004**  
**SITE NAME: SOUTHINGTON**  
80 SHUTTLE MEADOW ROAD  
SOUTHINGTON, CT 06489  
HARTFORD COUNTY



NO.	DATE	REVISIONS	DESIGNED BY: RP	DRAWN BY: SF	SCALE	AS SHOWN
1	06/17/12	ISSUED FOR CONSTRUCTION				
0	06/17/12	ISSUED FOR REVIEW				

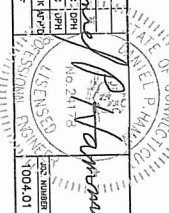
NO.	DATE	REVISIONS	DESIGNED BY: RP	DRAWN BY: SF	SCALE	AS SHOWN
1	06/17/12	ISSUED FOR CONSTRUCTION				
0	06/17/12	ISSUED FOR REVIEW				

NO.	DATE	REVISIONS	DESIGNED BY: RP	DRAWN BY: SF	SCALE	AS SHOWN
1	06/17/12	ISSUED FOR CONSTRUCTION				
0	06/17/12	ISSUED FOR REVIEW				

NO.	DATE	REVISIONS	DESIGNED BY: RP	DRAWN BY: SF	SCALE	AS SHOWN
1	06/17/12	ISSUED FOR CONSTRUCTION				
0	06/17/12	ISSUED FOR REVIEW				

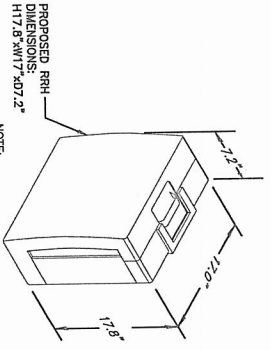


AT&T  
DETAILS  
SHEET NO. 1004.01  
REV. 1

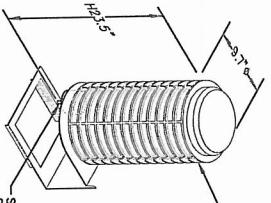


NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

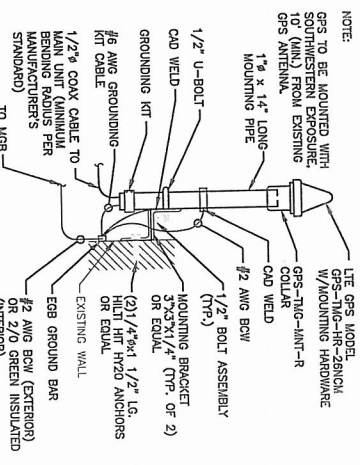
NOTE:  
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.



NOTE:  
MOUNT PER MANUFACTURER'S SPECIFICATIONS.  
**RRH DETAIL**  
SCALE: N.T.S.



NOTE:  
MOUNT PER MANUFACTURER'S SPECIFICATIONS.  
**DC SURGE SUPPRESSOR DETAIL**  
SCALE: N.T.S.



NOTE:  
GPS TO BE MOUNTED WITH SOUTHWESTERN EXPOSURE 10' (MIN.) FROM EXISTING GPS ANTENNA.  
**GPS MOUNTING DETAIL**  
SCALE: N.T.S.



14000500001 SHEET  
HARTFORD SOUTHINGTON 2100  
HARTFORD, CONNECTICUT 06105  
TEL: (860) 421-6550  
FAX: (860) 333-5550



© Uniflex Global Services company  
800 MARSHALL PHELPS ROAD UNIT# 2A  
WINDSOR, CT 06095



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

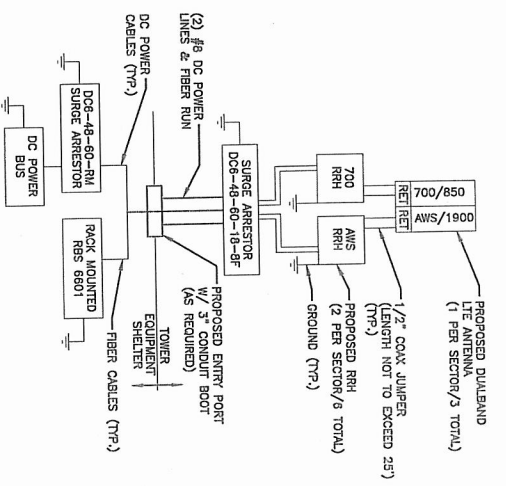
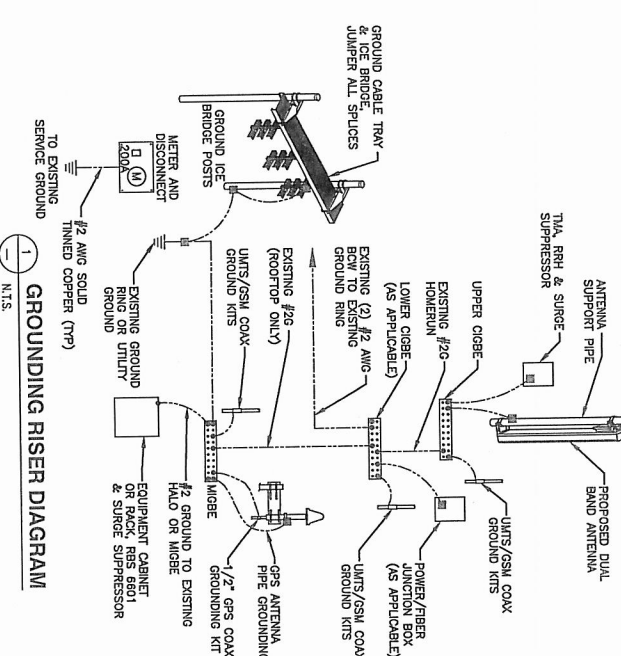
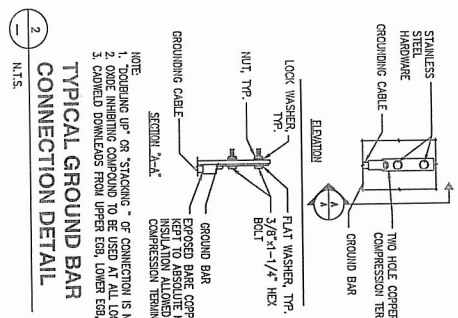
NO.	DATE	REVISIONS	DESIGNED BY	DRAWN BY	SCALE
1	06/17/12	ISSUED FOR CONSTRUCTION			
0	06/11/12	ISSUED FOR REVIEW			

DATE	BY	CHK	APP	SCALE
06/17/12	[Signature]			
06/11/12	[Signature]			

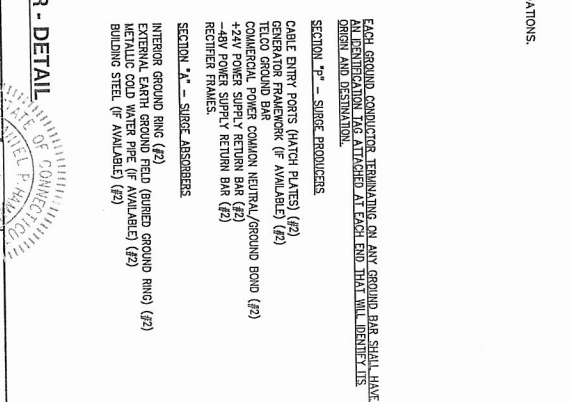
  

PROJECT NO.	1004.01
DATE	06/17/12
SCALE	A-4



WIRELESS SOLUTIONS INC.

NO.	REQ.	PART NO.	DESCRIPTION
1	1	HJCB-0420-15	SOLID CNO. BAR (20" X 4" X 1/4")
2	2	---	WALL LITE BRKT.
3	2	---	INSULATORS
4	4	5/8" - 11x1"	H.H.C.S.
5	4	5/8"	LOCKWASHER



**Hudson**  
Engineering

1600 GARDNER STREET  
HARTFORD, CT 06105  
TEL: (860) 432-5533  
FAX: (860) 330-5536

**NEW LINK**  
GLOBAL SERVICES

9 UNITER GLOBAL SERVICES COMPANY  
800 MARSHALL PHILIPS ROAD UNIT# 2A  
WINNSBORO, CT 06093

**at&t**

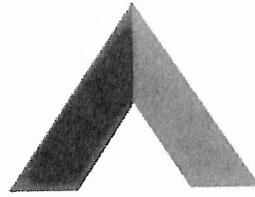
500 ENTERPRISE DRIVE, SUITE 3A  
ROCKY HILL, CT 06067

SITE NUMBER: CT1004  
 SITE NAME: SOUTHWINGTON  
 80 SHUTTLE MEADOW ROAD  
 SOUTHWINGTON, CT 06489  
 HARTFORD COUNTY

DATE: 10/17/12 ISSUED FOR CONSTRUCTION  
 DATE: 10/17/12 ISSUED FOR REVIEW  
 SCALE: AS SHOWN  
 DESIGNED BY: RP  
 DRAWN BY: SP

PLUMBING DIAGRAM & GROUNDING DETAILS  
 (LIT)  
 G-1

PASSED



**AMERICAN TOWER®**  
CORPORATION

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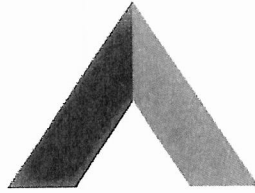
## Structural Analysis Report

**Structure** : 150 ft ITT Meyer Monopole  
**ATC Site Name** : Sttn - Southington, CT  
**ATC Site Number** : 302475  
**Proposed Carrier** : AT&T Mobility  
**Carrier Site Name** : Southington  
**Carrier Site Number** : CT 1004/10034967  
**County** : Hartford  
**Eng. Number** : 49448521  
**Date** : May 25, 2012  
**Usage** : 98% (Pole Shafts) and 71% (Anchor Bolts)

Submitted by:  
Ram Kodali  
Project Engineer

American Tower Engineering Services  
8505 Freeport Parkway  
Suite 135  
Irving, TX 75063  
Phone: 972-999-8900





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CORPORATION

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## Structural Analysis Report

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Submitted by:  
Ram Kodali  
Project Engineer

American Tower Engineering Services  
8505 Freeport Parkway  
Suite 135  
Irving, TX 75063  
Phone: 972-999-8900

## Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 150 ft ITT Meyer Monopole located at Sttn - Southington, Hartford County, CT (ATC site #302475). The tower was originally designed and manufactured by ITT Meyer (Drawing #AT-8935 Type "B" dated April 13, 1984).

The modifications on the existing structure as recommended in the previous ATC Project # 42608538 were considered in the current analysis.

## Analysis

The existing tower was analyzed using Semaan Engineering Solutions, Inc., Software.

Basic Wind Speed: 100 mph (3-Second Gust)  
 Radial Ice: 50 mph (3-Second Gust) w/ 1" ice  
 Standard/Code: ANSI/TIA-222-G / 2003 IBC / 2005 & 2008 CT Supplement

## Antenna Loads

The following antenna loads were used in the tower analysis.

### Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax (I/O)	Carrier
149.0	6	Powerwave LGP13519	Platform with Handrails	(12) 7/8 (I)	AT&T Mobility
130.0	3	RFS APXV18-206517S-C	Flush Mount	(6) 1 5/8 (O)	Youghioghney
120.0	3	Argus LLPX310R	Clearwire Mount	(1) 1/2 (O) (6) 5/16 (O) (2) 3" Conduit (O)	Clearwire
	1	DragonWave A-ANT-11G-2.5-C			
	1	DragonWave Horizon Compact			
	3	NextNet BTS-2500			
	1	18" X 12" Junction Box			
100.0	1	DB Systems 5100A	(3) Side Arm	(6) 7/8 (I)	ITT Corporation
	4	DB Systems 5100A-D			
	1	Vertex 101V VPD			

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax (I/O)	Carrier
149.0	2	Andrew SBNH-1D6565C	Platform with Handrails	(1) 10 mm Cable and (2) 19.7 mm Cable in (1) 3" Conduit (I)	AT&T Mobility
	6	Ericsson RRUS 11			
	3	Kathrein 800 10764			
	4	KMW AM-X-CD-16-65-00T-RET			
	3	Powerwave TT08-19DB111-001			
	1	Raycap DC6-48-60-18-8F			

Note: (O) – Coax installed outside the pole shaft. (I) – Coax installed inside the pole shaft.

The existing and the proposed coax lines were considered running inside or outside the pole shaft as indicated above.

Results

The existing 150 ft ITT Meyer Monopole with the existing and the proposed antennas is structurally acceptable per ANSI/TIA-222 Rev G standards. The maximum structure usage is: 98% (Pole shaft) and 71% (Anchor bolts).

Additional exit and/or entry ports may be required to accommodate the running of the proposed lines to the proposed antennas. These additional ports may not be installed without installation drawings providing the location, size and welding requirements of each port.

To ensure compliance with all conditions of this structural analysis, port installation drawings shall be provided by American Tower's Engineering Department under a subsequent project.

Pole Reactions	Original Design Reactions	Current Analysis Reactions	% Of Design
Moment (ft-kips)	1,197.0	2,234.6	138.3*
Shear (kips)	13.1	24.1	136.3*

\* A 1.35 factor was included in the calculations of the percentages per EIA-222-G section 15.5.1

The structure base reactions resulting from this analysis exceed the ones shown on the original structural drawings or calculations. However, upon reviewing the foundation and the soil documents, the existing foundation was found to be adequate to support the current analysis reactions. Therefore, no modification to the existing foundation is required.

Conclusion

The existing monopole and its foundation were found to be adequate to support the existing and proposed antennas with the transmission lines distributed as described above, while meeting the requirements of the code or standard as specified in this report.

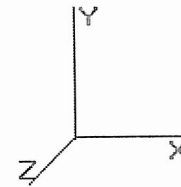
If you have any questions or require additional information, please call (972) 999-8900.

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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 Page : 4

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**Load Case:** 1.2D + 1.6W      100.00 mph with No Ice      28 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	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	17.024	18.72	259.85	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	17.024	18.72	254.40	1.200	* 0.000	5.00	15.366	18.44	552.5	0.0	1,203.0
10.00		1.00	0.70	17.024	18.72	248.96	1.200	* 0.000	5.00	15.041	18.05	540.8	0.0	1,184.4
15.00		1.00	0.70	17.024	18.72	243.52	1.200	* 0.000	5.00	14.716	17.66	529.1	0.0	1,165.8
20.00		1.00	0.70	17.024	18.72	238.07	1.200	* 0.000	5.00	14.391	17.27	517.4	0.0	1,147.2
25.00		1.00	0.70	17.024	18.72	232.63	1.200	* 0.000	5.00	14.065	16.88	505.7	0.0	1,128.6
30.00		1.00	0.70	17.038	18.74	227.28	1.200	* 0.000	5.00	13.740	16.49	494.4	0.0	1,110.0
32.00	Bot - Section 2	1.00	0.71	17.355	19.09	227.19	1.200	* 0.000	2.00	5.405	6.49	198.1	0.0	438.8
35.00		1.00	0.73	17.806	19.58	226.78	1.200	* 0.000	3.00	8.171	9.81	307.3	0.0	1,037.9
36.00	Top - Section 1	1.00	0.73	17.949	19.74	226.57	1.200	* 0.000	1.00	2.698	3.24	102.3	0.0	343.3
40.00		1.00	0.76	18.498	20.34	230.17	1.200	* 0.000	4.00	10.661	12.79	416.5	0.0	769.8
45.00		1.00	0.78	19.131	21.04	228.31	1.200	* 0.000	5.00	13.034	15.64	526.6	0.0	948.3
50.00		1.00	0.81	19.716	21.68	225.91	1.200	* 0.000	5.00	12.708	15.25	529.2	0.0	932.8
55.00		1.00	0.83	20.260	22.28	223.07	1.200	* 0.000	5.00	12.383	14.86	529.9	0.0	917.3
60.00		1.00	0.85	20.770	22.84	219.85	1.200	* 0.000	5.00	12.058	14.47	528.9	0.0	901.8
65.00		1.00	0.87	21.250	23.37	216.29	1.200	* 0.000	5.00	11.732	14.08	526.6	0.0	886.3
70.00	Bot - Section 3	1.00	0.89	21.705	23.87	212.45	1.200	* 0.000	5.00	11.407	13.69	522.9	0.0	870.9
73.50	Top - Section 2	1.00	0.90	22.010	24.21	209.60	1.200	* 0.000	3.50	7.942	9.53	369.2	0.0	900.1
75.00		1.00	0.91	22.137	24.35	212.46	1.200	* 0.000	1.50	3.355	4.03	156.9	0.0	226.8
77.44	Reinf. Top	1.00	0.91	22.341	24.57	210.39	1.200	* 0.000	2.44	5.390	6.47	254.3	0.0	366.2
80.00		1.00	0.92	22.549	24.80	208.16	1.200	* 0.000	2.56	5.583	6.70	265.9	0.0	210.6
85.00		1.00	0.94	22.943	25.23	203.66	1.200	* 0.000	5.00	10.647	12.78	515.9	0.0	401.5
90.00		1.00	0.95	23.321	25.65	198.95	1.256	* 0.000	5.00	10.321	12.96	532.0	0.0	389.1
95.00		1.00	0.97	23.684	26.05	194.08	1.274	* 0.000	5.00	9.996	12.73	530.8	0.0	376.8
100.0	Appertunance(s)	1.00	0.98	24.034	26.43	189.04	1.293	* 0.000	5.00	9.671	12.51	529.0	0.0	364.4
105.0		1.00	1.00	24.371	26.80	183.85	1.168	* 0.000	5.00	9.345	10.92	468.3	0.0	352.0
110.0	Top - Section 3	1.00	1.01	24.697	27.16	178.51	1.185	* 0.000	5.00	9.020	10.69	464.6	0.0	339.6
115.0		1.00	1.02	25.013	27.51	173.05	1.203	* 0.000	5.00	8.695	10.46	460.5	0.0	246.2
120.0	Appertunance(s)	1.00	1.04	25.319	27.85	167.47	1.223	* 0.000	5.00	8.370	10.23	456.0	0.0	236.9
125.0		1.00	1.05	25.616	28.17	161.77	1.008	* 0.000	5.00	8.044	8.11	365.5	0.0	227.6
130.0	Appertunance(s)	1.00	1.06	25.905	28.49	155.97	1.021	* 0.000	5.00	7.719	7.88	359.2	0.0	218.3
135.0		1.00	1.07	26.185	28.80	150.06	1.000	0.000	5.00	7.394	7.39	340.7	0.0	209.0
140.0		1.00	1.08	26.459	29.10	144.05	1.000	0.000	5.00	7.068	7.07	329.2	0.0	199.7
145.0		1.00	1.09	26.726	29.39	137.96	1.000	0.000	5.00	6.743	6.74	317.2	0.0	190.4
149.0	Appertunance(s)	1.00	1.10	26.934	29.62	133.02	1.000	0.000	4.00	5.160	5.16	244.6	0.0	145.6
150.0		1.00	1.11	26.986	29.68	131.77	1.000	0.000	1.00	1.258	1.26	59.7	0.0	35.5
								<b>Totals:</b>	150.00			14,347.7	0.0	20,622.2

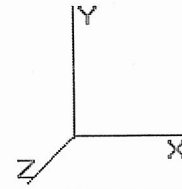
\* = Cf Adjusted By Linear Load Ra Effect



Pole : 302475  
 Location : Sttn - Southington, CT  
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 Struct Class : II  
 Exposure Category : B  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)

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 Page: 5

<b>Load Case:</b> 1.2D + 1.6W	100.00 mph with No Ice	28 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)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
100.0	DB Systems 5100A	1	24.305	26.735	1.00	1.00	2.07	0.000	4.000	88.55	0.00	354.19	25.20
100.0	DB Systems 5100A-D	4	24.305	26.735	1.00	1.00	12.44	0.000	4.000	532.14	0.00	2,128.54	182.40
100.0	Side Arm	3	24.034	26.437	0.56	0.75	6.75	0.000	0.000	285.52	0.00	0.00	540.00
100.0	Vertex 101V VPD	1	24.305	26.735	0.80	0.80	2.03	0.000	4.000	86.92	0.00	347.68	4.80
120.0	18" x 12" Junction B	1	25.319	27.851	0.80	0.80	1.68	0.000	0.000	74.86	0.00	0.00	18.00
120.0	Argus LLPX310R	3	25.319	27.851	0.56	0.80	8.11	0.000	0.000	361.59	0.00	0.00	102.96
120.0	Clearwire Mount	1	25.319	27.851	1.00	1.00	8.50	0.000	0.000	378.77	0.00	0.00	420.00
120.0	DragonWave A-ANT-	1	25.557	28.113	1.00	1.00	8.67	0.000	4.000	389.98	0.00	1,559.93	79.32
120.0	DragonWave Horizon	1	25.557	28.113	0.80	0.80	0.34	0.000	4.000	15.47	0.00	61.89	12.72
120.0	NextNet BTS-2500	3	25.319	27.851	0.58	0.80	3.71	0.000	0.000	165.51	0.00	0.00	126.00
130.0	Flush Mount	1	25.905	28.495	1.00	1.00	3.00	0.000	0.000	136.78	0.00	0.00	240.00
130.0	RFS APXV18-206517S-	3	25.905	28.495	0.59	0.80	9.16	0.000	0.000	417.81	0.00	0.00	95.04
149.0	Andrew SBNH-	2	27.139	29.853	0.60	0.75	13.73	0.000	4.000	655.71	0.00	2,622.84	145.92
149.0	Ericsson RRUS 11	6	27.139	29.853	0.50	0.75	9.01	0.000	4.000	430.59	0.00	1,722.35	360.00
149.0	Kathrein 800 10764	3	27.139	29.853	0.58	0.75	11.11	0.000	4.000	530.62	0.00	2,122.48	146.88
149.0	KMW AM-X-CD-16-65-	4	27.139	29.853	0.60	0.75	19.82	0.000	4.000	946.88	0.00	3,787.52	232.80
149.0	Platform with Handra	1	26.986	29.684	1.00	1.00	31.00	0.000	1.000	1,472.34	0.00	1,472.34	2,400.00
149.0	Powerwave LGP13519	6	27.139	29.853	0.50	0.75	1.03	0.000	4.000	48.96	0.00	195.85	36.00
149.0	Powerwave TT08-	3	27.139	29.853	0.56	0.75	1.55	0.000	4.000	74.15	0.00	296.62	79.20
149.0	Raycap DC6-48-60-18-	1	27.139	29.853	0.75	0.75	0.94	0.000	4.000	45.14	0.00	180.55	24.00
										7,138.30			5,271.24

### 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:

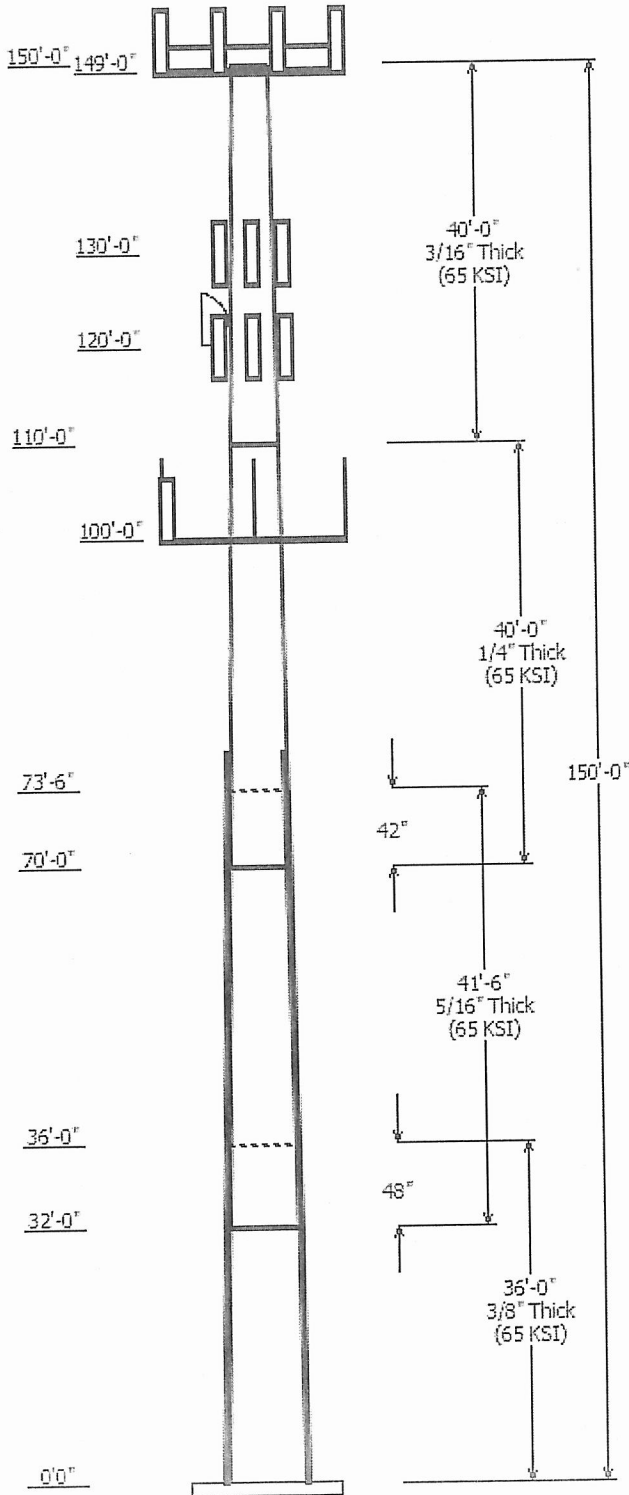
- Information supplied by the client regarding the structure itself, the antenna and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of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

It is the responsibility of the client to ensure that the information provided to ATC Engineering Services 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.

All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. 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. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/EIA-222.

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

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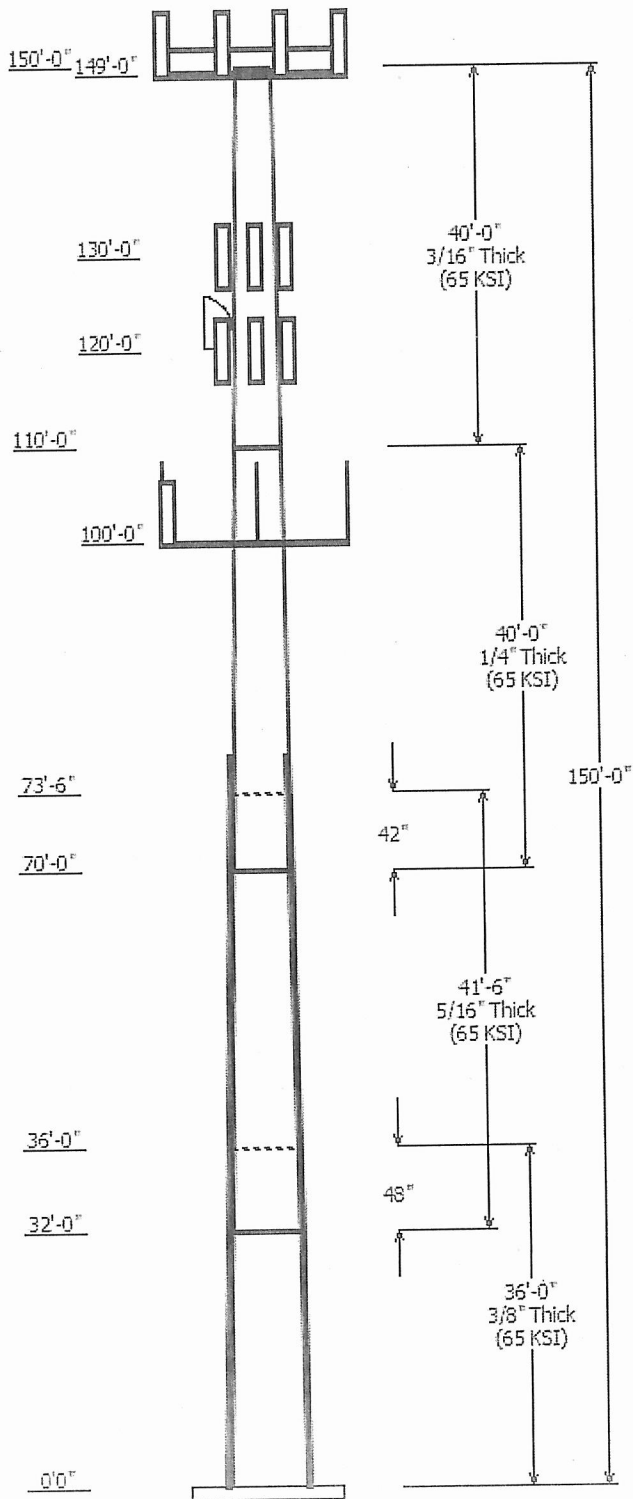
Job Information			
Pole :	302475	Code:	ANSI/TIA-222 Rev G
Description :	150' ITT Meyer Type "B" Monopole	Struct Class :	II
Client :	AT&T Mobility	Exposure :	B
Location :	Sitn - Southington, CT	Topo :	1
Shape :	12 Sides	Base Elev (ft):	0.00
Height :	150.00 (ft)	Taper:	0.150830(in/ft)

Sections Properties							
Shaft Section	Length (ft)	Diameter (in)		Thick Joint (in)	Overlap Length (in)	Steel Taper (in/ft)	Steel Grade (ksi)
		Across Top	Across Bottom				
1	36.000	30.57	36.00	0.375	0.000	0.150830	65
2	41.500	25.53	31.79	0.313 Slip Joint	48.000	0.150830	65
3	40.000	20.53	26.56	0.250 Slip Joint	42.000	0.150830	65
4	40.000	14.50	20.53	0.188 Butt Joint	0.000	0.150830	65

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
149.000	153.000	3	Powerwave TT08-19DB111-001
149.000	153.000	6	Powerwave LGP13519
149.000	153.000	2	Andrew SBNH-1D6565C
149.000	153.000	6	Ericsson DRUS 11
149.000	153.000	1	Raycap DC6-48-60-18-8F
149.000	153.000	3	Kathrein 800 10764
149.000	153.000	4	KMW AM-X-CD-16-65-00T-RET
149.000	150.000	1	Platform with Handrails
130.000	130.000	1	Flush Mount
130.000	130.000	3	RFS APXV18-206517S-C
120.000	120.000	1	18" x 12" Junction Box
120.000	124.000	1	DragonWave A-ANT-11G-2.5-C
120.000	120.000	3	Argus LLPX310R
120.000	124.000	1	DragonWave Horizon Compact
120.000	120.000	3	NextNet BTS-2500
120.000	120.000	1	Clearwire Mount
100.000	104.000	1	DB Systems 5100A
100.000	104.000	1	Vertex 101V VPD
100.000	104.000	4	DB Systems 5100A-D
100.000	100.000	3	Side Arm

Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
120.0	130.0	1 5/8" Coax	Yes
82.500	100.0	7/8" Coax	Yes
82.500	120.0	3" Conduit	Yes
5.000	120.0	1 5/8" Coax	Yes
0.000	120.0	1/2" Coax	Yes
0.000	120.0	5/16" Coax	Yes
0.000	82.500	#20 Dywidag Bars	Yes
0.000	82.500	#20 Dywidag Bars	Yes
0.000	82.500	3" Conduit	Yes
0.000	82.500	7/8" Coax	Yes
0.000	82.500	Brackets	Yes
0.000	150.0	3" Conduit	No
0.000	150.0	7/8" Coax	No

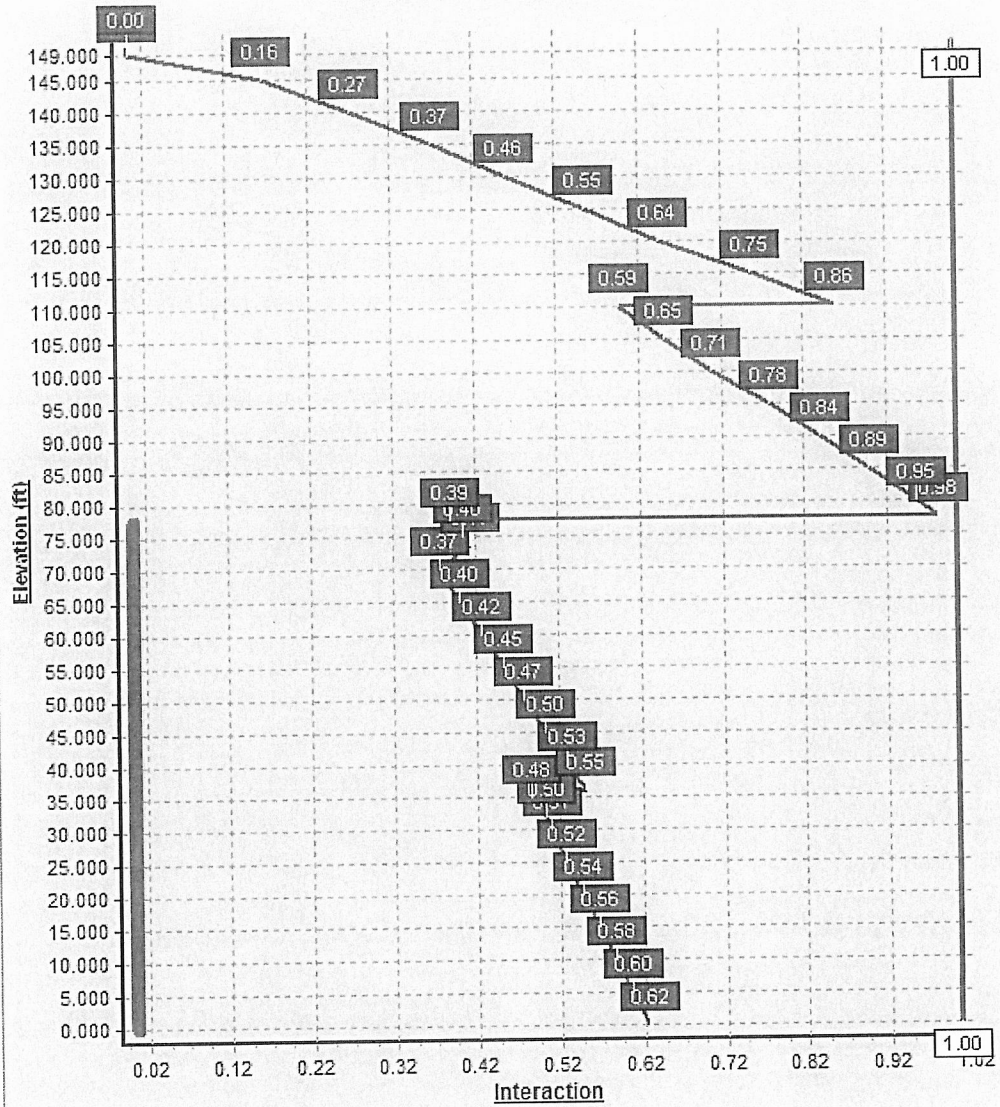
Load Cases	
1.2D + 1.6W	100.00 mph with No Ice
0.9D + 1.6W	100.00 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50.00 mph with 1.00 in Radial Ice
1.0D + 1.0W	60.00 mph Serviceability



Reactions			
Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W	2234.56	24.05	31.13
0.9D + 1.6W	2137.07	23.38	24.63
1.2D + 1.0Di + 1.0Wi	558.12	5.50	63.17
1.0D + 1.0W	484.02	5.26	26.85

Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	120.00	18.998	1.797

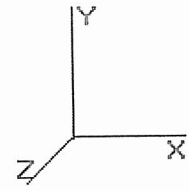
**Load Case : 1.2D + 1.6W**  
**Max Ratio 97.88% at 77.4ft**



Pole : 302475  
 Location : Stn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**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
1-12	36.000	0.3750	65		0.00	4,868	36.00	0.00	43.02	6968.5	23.58	96.00	30.57	36.00	36.46	4243.1	19.70	81.52	0.150830
2-12	41.500	0.3125	65	Slip	48.00	4,029	31.79	32.00	31.68	4009.1	25.12	101.75	25.53	73.50	25.38	2061.9	19.75	81.72	0.150830
3-12	40.000	0.2500	65	Slip	42.00	2,553	26.56	70.00	21.19	1872.8	26.33	106.27	20.53	110.00	16.33	857.5	19.86	82.13	0.150830
4-12	40.000	0.1875	65	Butt	0.00	1,424	20.53	110.00	12.28	649.1	27.20	109.51	14.50	150.00	8.64	226.0	18.58	77.34	0.150830
Shaft Weight						12,874													

**Discrete Appurtenance Properties**

Attach Elev (ft)	Description	Qty	Weight (lb)	No Ice CaAa (sf)	CaAa Factor	Weight (lb)	Ice CaAa (sf)	CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
149.00	Andrew SBNH-1D6565C	2	60.80	11.440	0.80	433.60	13.676	0.80	0.000	4.000
149.00	Ericsson RRUS 11	6	50.00	2.990	0.67	167.41	3.465	0.67	0.000	4.000
149.00	Kathrein 800 10764	3	40.80	6.330	0.78	253.99	7.335	0.78	0.000	4.000
149.00	KMW AM-X-CD-16-65-00T-	4	48.50	8.260	0.80	317.21	9.783	0.80	0.000	4.000
149.00	Platform with Handrails	1	2000.00	31.000	1.00	3,730.10	68.197	1.00	0.000	1.000
149.00	Powerwave LGP13519	6	5.00	0.340	0.67	29.05	0.674	0.67	0.000	4.000
149.00	Powerwave TT08-19DB111-	3	22.00	0.920	0.75	74.94	1.367	0.75	0.000	4.000
149.00	Raycap DC6-48-60-18-8F	1	20.00	1.260	1.00	136.21	2.755	1.00	0.000	4.000
130.00	Flush Mount	1	200.00	3.000	1.00	658.78	7.129	1.00	0.000	0.000
130.00	RFS APXV18-206517S-C	3	26.40	5.160	0.74	195.75	6.828	0.74	0.000	0.000
120.00	18" x 12" Junction Box	1	15.00	2.100	1.00	0.00	0.000	1.00	0.000	0.000
120.00	Argus LLPX310R	3	28.60	4.830	0.70	179.60	5.488	0.70	0.000	0.000
120.00	Clearwire Mount	1	350.00	8.500	1.00	732.30	17.785	1.00	0.000	0.000
120.00	DragonWave A-ANT-11G-2.5-	1	66.10	8.670	1.00	297.44	10.927	1.00	0.000	4.000
120.00	DragonWave Horizon	1	10.60	0.430	1.00	54.96	0.775	1.00	0.000	4.000
120.00	NextNet BTS-2500	3	35.00	2.120	0.73	116.28	2.560	0.73	0.000	0.000
100.00	DB Systems 5100A	1	21.00	2.070	1.00	151.92	3.866	1.00	0.000	4.000
100.00	DB Systems 5100A-D	4	38.00	3.110	1.00	244.46	4.970	1.00	0.000	0.000
100.00	Side Arm	3	150.00	4.000	0.75	243.85	6.681	0.75	0.000	0.000
100.00	Vertex 101V VPD	1	4.00	2.540	1.00	102.07	3.241	1.00	0.000	4.000
Totals		49	4392.70			13,349.67			Number of Loadings :	20

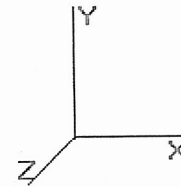
**Linear Appurtenance Properties**

Elev From (ft)	Elev To (ft)	Description	Exposed Width (in)	Exposed To Wind
0.00	150.00	(1) 3" Conduit	0.00	N
0.00	150.00	(12) 7/8" Coax	0.00	N
120.00	130.00	(6) 1 5/8" Coax	1.98	Y
0.00	120.00	(1) 1/2" Coax	0.00	Y
0.00	120.00	(6) 5/16" Coax	0.00	Y
5.00	120.00	(6) 1 5/8" Coax	0.00	Y
82.50	120.00	(2) 3" Conduit	3.50	Y
82.50	100.00	(6) 7/8" Coax	1.09	Y
0.00	82.50	(2) #20 Dywidag Bars	2.72	Y
0.00	82.50	(2) #20 Dywidag Bars	2.72	Y
0.00	82.50	(2) 3" Conduit	0.00	Y

Pole : 302475  
 Location : Stn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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0.00	82.50	(6) 7/8" Coax	0.00	Y
0.00	82.50	(1) Brackets	2.00	Y

**Additional Steel**

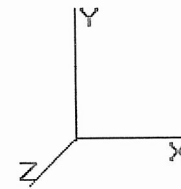
Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	— Intermediate Connections —		Connectors	Continuation?	
						Description	Spacing (in)			Len (in)
0.00	77.44	4	SOL #20 All Thread	80	2.08	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	No



Pole : 302475  
 Location : Stn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**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 (in3)	Weight (lb)	Additional Reinforcing		
											Area (in^2)	Ix (in^4)	Weight (lb)
0.00		0.3750	36.000	43.017	6,968.5	23.58	96.00	79.0	373.9	0.0	19.64	4,475	0.0
5.00		0.3750	35.246	42.107	6,535.2	23.04	93.99	79.6	358.2	724.1	19.64	4,318	334.0
10.00		0.3750	34.492	41.196	6,120.3	22.50	91.98	80.2	342.8	708.6	19.64	4,165	334.0
15.00		0.3750	33.738	40.285	5,723.4	21.96	89.97	80.8	327.7	693.2	19.64	4,014	334.0
20.00		0.3750	32.983	39.375	5,343.9	21.42	87.96	81.3	313.0	677.7	19.64	3,865	334.0
25.00		0.3750	32.229	38.464	4,981.7	20.89	85.94	81.9	298.6	662.2	19.64	3,720	334.0
30.00		0.3750	31.475	37.553	4,636.2	20.35	83.93	81.9	284.6	646.7	19.64	3,577	334.0
32.00	Bot - Section 2	0.3750	31.173	37.189	4,502.6	20.13	83.13	81.9	279.0	254.3	19.64	3,521	133.6
35.00		0.3750	30.721	36.643	4,307.0	19.81	81.92	81.9	270.8	698.0	19.64	3,553	200.4
36.00	Top - Section 1	0.3125	31.195	31.076	3,783.0	24.60	99.82	77.9	234.3	230.4	19.64	3,525	66.8
40.00		0.3125	30.592	30.469	3,565.6	24.09	97.89	78.4	225.2	418.8	19.64	3,414	267.2
45.00		0.3125	29.838	29.710	3,305.7	23.44	95.48	79.1	214.0	511.9	19.64	3,277	334.0
50.00		0.3125	29.083	28.951	3,058.8	22.79	93.07	79.9	203.2	499.0	19.64	3,144	334.0
55.00		0.3125	28.329	28.192	2,824.6	22.15	90.65	80.6	192.6	486.1	19.64	3,013	334.0
60.00		0.3125	27.575	27.433	2,602.5	21.50	88.24	81.3	182.3	473.2	19.64	2,885	334.0
65.00		0.3125	26.821	26.674	2,392.5	20.85	85.83	81.9	172.3	460.3	19.64	2,759	334.0
70.00	Bot - Section 3	0.3125	26.067	25.915	2,194.0	20.21	83.41	81.9	162.6	447.4	19.64	2,637	334.0
73.50	Top - Section 2	0.2500	26.039	20.760	1,762.3	25.76	104.16	76.6	130.7	555.3	19.64	2,632	233.8
75.00		0.2500	25.813	20.578	1,716.3	25.52	103.25	76.9	128.5	105.5	19.64	2,596	100.2
77.44	Reinf. Top	0.2500	25.445	20.282	1,643.4	25.13	101.78	77.3	124.8	169.5	19.64	2,538	162.8
80.00		0.2500	25.059	19.971	1,568.9	24.71	100.23	77.8	120.9	175.5			
85.00		0.2500	24.304	19.364	1,430.1	23.91	97.22	78.6	113.7	334.6			
90.00		0.2500	23.550	18.757	1,299.8	23.10	94.20	79.5	106.6	324.3			
95.00		0.2500	22.796	18.150	1,177.6	22.29	91.18	80.4	99.8	314.0			
100.00		0.2500	22.042	17.543	1,063.3	21.48	88.17	81.3	93.2	303.6			
105.00		0.2500	21.288	16.935	956.7	20.67	85.15	81.9	86.8	293.3			
110.00	Top - Section 3	0.2500	20.534	16.328	857.5	19.86	82.13	81.9	80.7	283.0			
110.00	Bot - Section 4	0.1875	20.534	12.284	649.1	27.20	109.51	75.0	61.1				
115.00		0.1875	19.780	11.829	579.5	26.12	105.49	76.2	56.6	205.1			
120.00		0.1875	19.025	11.373	515.2	25.04	101.47	77.4	52.3	197.4			
125.00		0.1875	18.271	10.918	455.7	23.97	97.45	78.6	48.2	189.6			
130.00		0.1875	17.517	10.463	401.1	22.89	93.42	79.8	44.2	181.9			
135.00		0.1875	16.763	10.007	350.9	21.81	89.40	80.9	40.4	174.1			
140.00		0.1875	16.009	9.552	305.2	20.73	85.38	81.9	36.8	166.4			
145.00		0.1875	15.255	9.097	263.6	19.66	81.36	81.9	33.4	158.6			
149.00		0.1875	14.651	8.733	233.2	18.79	78.14	81.9	30.7	121.3			
150.00		0.1875	14.500	8.641	226.0	18.58	77.34	81.9	30.1	29.6			
										12,874.5			5,172.8

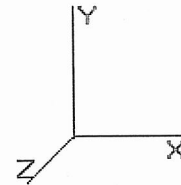


Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 1.2D + 1.6W      100.00 mph with No Ice      28 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)**

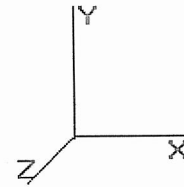
Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
5.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.202	0.000	0.00	0.90
5.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.202	0.000	0.00	1.62
5.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.202	0.000	40.75	0.00
5.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.202	0.000	40.75	0.00
5.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.202	0.000	0.00	90.96
5.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.202	0.000	0.00	11.88
5.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.024	0.202	0.000	49.94	0.00
10.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.206	0.000	0.00	0.90
10.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.206	0.000	0.00	1.62
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.206	0.000	0.00	29.52
10.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.206	0.000	40.75	0.00
10.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.206	0.000	40.75	0.00
10.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.206	0.000	0.00	90.96
10.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.206	0.000	0.00	11.88
10.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.024	0.206	0.000	49.94	0.00
15.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.211	0.000	0.00	0.90
15.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.211	0.000	0.00	1.62
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.211	0.000	0.00	29.52
15.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.211	0.000	40.75	0.00
15.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.211	0.000	40.75	0.00
15.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.211	0.000	0.00	90.96
15.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.211	0.000	0.00	11.88
15.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.024	0.211	0.000	49.94	0.00
20.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.215	0.000	0.00	0.90
20.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.215	0.000	0.00	1.62
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.215	0.000	0.00	29.52
20.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.215	0.000	40.75	0.00
20.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.215	0.000	40.75	0.00
20.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.215	0.000	0.00	90.96
20.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.215	0.000	0.00	90.96
20.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.215	0.000	0.00	11.88
20.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.024	0.215	0.000	49.94	0.00
25.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.220	0.000	0.00	0.90
25.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.220	0.000	0.00	1.62
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.220	0.000	0.00	29.52
25.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.220	0.000	40.75	0.00
25.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.220	0.000	40.75	0.00
25.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.220	0.000	0.00	90.96
25.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.220	0.000	0.00	90.96
25.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.220	0.000	0.00	11.88
25.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.024	0.220	0.000	49.94	0.00
30.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	0.90
30.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	1.62
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	29.52
30.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.038	0.226	0.000	40.78	0.00
30.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.038	0.226	0.000	40.78	0.00
30.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	90.96
30.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	90.96
30.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	11.88
30.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	11.88
30.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.038	0.226	0.000	49.98	0.00
32.00	(1) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	17.355	0.229	0.000	0.00	0.36
32.00	(6) 5/16" Coax	Yes	2.00	0.000	0.00	0.00	0.00	17.355	0.229	0.000	0.00	0.65
32.00	(6) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	17.355	0.229	0.000	0.00	11.81
32.00	(2) #20 Dywidag Bars	Yes	2.00	1.200	2.72	0.45	0.54	17.355	0.229	0.000	16.62	0.00

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 1.2D + 1.6W

100.00 mph with No Ice

28 Iterations

Gust Response Factor : 1.10  
 Dead Load Factor : 1.20  
 Wind Load Factor : 1.60

Wind Importance Factor : 1.00

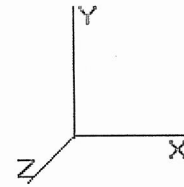
32.00	(2) #20 Dywidag Bars	Yes	2.00	1.200	2.72	0.45	0.54	17.355	0.229	0.000	16.62	0.00
32.00	(2) 3" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	17.355	0.229	0.000	0.00	36.38
32.00	(6) 7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	17.355	0.229	0.000	0.00	4.75
32.00	(1) Brackets	Yes	2.00	2.000	2.00	0.33	0.67	17.355	0.229	0.000	20.36	0.00
35.00	(1) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	17.806	0.232	0.000	0.00	0.54
35.00	(6) 5/16" Coax	Yes	3.00	0.000	0.00	0.00	0.00	17.806	0.232	0.000	0.00	0.97
35.00	(6) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	17.806	0.232	0.000	0.00	17.71
35.00	(2) #20 Dywidag Bars	Yes	3.00	1.200	2.72	0.68	0.82	17.806	0.232	0.000	25.57	0.00
35.00	(2) #20 Dywidag Bars	Yes	3.00	1.200	2.72	0.68	0.82	17.806	0.232	0.000	25.57	0.00
35.00	(2) 3" Conduit	Yes	3.00	0.000	0.00	0.00	0.00	17.806	0.232	0.000	0.00	54.58
35.00	(6) 7/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	17.806	0.232	0.000	0.00	7.13
35.00	(1) Brackets	Yes	3.00	2.000	2.00	0.50	1.00	17.806	0.232	0.000	31.34	0.00
36.00	(1) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	17.949	0.235	0.000	0.00	0.18
36.00	(6) 5/16" Coax	Yes	1.00	0.000	0.00	0.00	0.00	17.949	0.235	0.000	0.00	0.32
36.00	(6) 1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	17.949	0.235	0.000	0.00	5.90
36.00	(2) #20 Dywidag Bars	Yes	1.00	1.200	2.72	0.23	0.27	17.949	0.235	0.000	8.59	0.00
36.00	(2) #20 Dywidag Bars	Yes	1.00	1.200	2.72	0.23	0.27	17.949	0.235	0.000	8.59	0.00
36.00	(2) 3" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	17.949	0.235	0.000	0.00	18.19
36.00	(6) 7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	17.949	0.235	0.000	0.00	2.38
36.00	(1) Brackets	Yes	1.00	2.000	2.00	0.17	0.33	17.949	0.235	0.000	10.53	0.00
40.00	(1) 1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	18.498	0.233	0.000	0.00	0.72
40.00	(6) 5/16" Coax	Yes	4.00	0.000	0.00	0.00	0.00	18.498	0.233	0.000	0.00	1.30
40.00	(6) 1 5/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	18.498	0.233	0.000	0.00	23.62
40.00	(2) #20 Dywidag Bars	Yes	4.00	1.200	2.72	0.91	1.09	18.498	0.233	0.000	35.42	0.00
40.00	(2) #20 Dywidag Bars	Yes	4.00	1.200	2.72	0.91	1.09	18.498	0.233	0.000	35.42	0.00
40.00	(2) 3" Conduit	Yes	4.00	0.000	0.00	0.00	0.00	18.498	0.233	0.000	0.00	72.77
40.00	(6) 7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	18.498	0.233	0.000	0.00	9.50
40.00	(1) Brackets	Yes	4.00	2.000	2.00	0.67	1.33	18.498	0.233	0.000	43.41	0.00
45.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.131	0.238	0.000	0.00	0.90
45.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.131	0.238	0.000	0.00	1.62
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.131	0.238	0.000	0.00	29.52
45.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	19.131	0.238	0.000	45.79	0.00
45.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	19.131	0.238	0.000	45.79	0.00
45.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	19.131	0.238	0.000	0.00	90.96
45.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.131	0.238	0.000	0.00	11.88
45.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	19.131	0.238	0.000	56.12	0.00
50.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.716	0.244	0.000	0.00	0.90
50.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.716	0.244	0.000	0.00	1.62
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.716	0.244	0.000	0.00	29.52
50.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	19.716	0.244	0.000	47.19	0.00
50.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	19.716	0.244	0.000	47.19	0.00
50.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	19.716	0.244	0.000	0.00	90.96
50.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.716	0.244	0.000	0.00	11.88
50.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	19.716	0.244	0.000	57.83	0.00
55.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.260	0.250	0.000	0.00	0.90
55.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.260	0.250	0.000	0.00	1.62
55.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.260	0.250	0.000	0.00	29.52
55.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	20.260	0.250	0.000	48.49	0.00
55.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	20.260	0.250	0.000	48.49	0.00
55.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	20.260	0.250	0.000	0.00	90.96
55.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.260	0.250	0.000	0.00	11.88
55.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	20.260	0.250	0.000	59.43	0.00
60.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.770	0.257	0.000	0.00	0.90
60.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.770	0.257	0.000	0.00	1.62
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.770	0.257	0.000	0.00	29.52
60.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	20.770	0.257	0.000	49.72	0.00
60.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	20.770	0.257	0.000	49.72	0.00

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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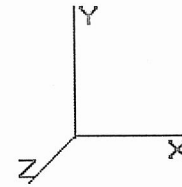
**Load Case:** 1.2D + 1.6W      100.00 mph with No Ice      28 Iterations  
 Gust Response Factor : 1.10      Wind Importance Factor : 1.00  
 Dead Load Factor : 1.20  
 Wind Load Factor : 1.60

60.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	20.770	0.257	0.000	0.00	90.96
60.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.770	0.257	0.000	0.00	11.88
60.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	20.770	0.257	0.000	60.93	0.00
65.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.250	0.264	0.000	0.00	0.90
65.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.250	0.264	0.000	0.00	1.62
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.250	0.264	0.000	0.00	29.52
65.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	21.250	0.264	0.000	50.87	0.00
65.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	21.250	0.264	0.000	50.87	0.00
65.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	21.250	0.264	0.000	0.00	90.96
65.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.250	0.264	0.000	0.00	11.88
65.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	21.250	0.264	0.000	62.33	0.00
70.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.705	0.272	0.000	0.00	0.90
70.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.705	0.272	0.000	0.00	1.62
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.705	0.272	0.000	0.00	29.52
70.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	21.705	0.272	0.000	51.95	0.00
70.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	21.705	0.272	0.000	51.95	0.00
70.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	21.705	0.272	0.000	0.00	90.96
70.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.705	0.272	0.000	0.00	11.88
70.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	21.705	0.272	0.000	63.67	0.00
73.50	(1) 1/2" Coax	Yes	3.50	0.000	0.00	0.00	0.00	22.010	0.279	0.000	0.00	0.63
73.50	(6) 5/16" Coax	Yes	3.50	0.000	0.00	0.00	0.00	22.010	0.279	0.000	0.00	1.13
73.50	(6) 1 5/8" Coax	Yes	3.50	0.000	0.00	0.00	0.00	22.010	0.279	0.000	0.00	20.66
73.50	(2) #20 Dywidag Bars	Yes	3.50	1.200	2.72	0.79	0.95	22.010	0.279	0.000	36.88	0.00
73.50	(2) #20 Dywidag Bars	Yes	3.50	1.200	2.72	0.79	0.95	22.010	0.279	0.000	36.88	0.00
73.50	(2) 3" Conduit	Yes	3.50	0.000	0.00	0.00	0.00	22.010	0.279	0.000	0.00	63.67
73.50	(6) 7/8" Coax	Yes	3.50	0.000	0.00	0.00	0.00	22.010	0.279	0.000	0.00	8.32
73.50	(1) Brackets	Yes	3.50	2.000	2.00	0.58	1.17	22.010	0.279	0.000	45.19	0.00
75.00	(1) 1/2" Coax	Yes	1.50	0.000	0.00	0.00	0.00	22.137	0.277	0.000	0.00	0.27
75.00	(6) 5/16" Coax	Yes	1.50	0.000	0.00	0.00	0.00	22.137	0.277	0.000	0.00	0.49
75.00	(6) 1 5/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	22.137	0.277	0.000	0.00	8.86
75.00	(2) #20 Dywidag Bars	Yes	1.50	1.200	2.72	0.34	0.41	22.137	0.277	0.000	15.90	0.00
75.00	(2) #20 Dywidag Bars	Yes	1.50	1.200	2.72	0.34	0.41	22.137	0.277	0.000	15.90	0.00
75.00	(2) 3" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	22.137	0.277	0.000	0.00	27.29
75.00	(6) 7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	22.137	0.277	0.000	0.00	3.56
75.00	(1) Brackets	Yes	1.50	2.000	2.00	0.25	0.50	22.137	0.277	0.000	19.48	0.00
77.44	(1) 1/2" Coax	Yes	2.44	0.000	0.00	0.00	0.00	22.341	0.280	0.000	0.00	0.44
77.44	(6) 5/16" Coax	Yes	2.44	0.000	0.00	0.00	0.00	22.341	0.280	0.000	0.00	0.79
77.44	(6) 1 5/8" Coax	Yes	2.44	0.000	0.00	0.00	0.00	22.341	0.280	0.000	0.00	14.39
77.44	(2) #20 Dywidag Bars	Yes	2.44	1.200	2.72	0.55	0.66	22.341	0.280	0.000	26.07	0.00
77.44	(2) #20 Dywidag Bars	Yes	2.44	1.200	2.72	0.55	0.66	22.341	0.280	0.000	26.07	0.00
77.44	(2) 3" Conduit	Yes	2.44	0.000	0.00	0.00	0.00	22.341	0.280	0.000	0.00	44.34
77.44	(6) 7/8" Coax	Yes	2.44	0.000	0.00	0.00	0.00	22.341	0.280	0.000	0.00	5.79
77.44	(1) Brackets	Yes	2.44	2.000	2.00	0.41	0.81	22.341	0.280	0.000	31.95	0.00
80.00	(1) 1/2" Coax	Yes	2.56	0.000	0.00	0.00	0.00	22.549	0.285	0.000	0.00	0.46
80.00	(6) 5/16" Coax	Yes	2.56	0.000	0.00	0.00	0.00	22.549	0.285	0.000	0.00	0.83
80.00	(6) 1 5/8" Coax	Yes	2.56	0.000	0.00	0.00	0.00	22.549	0.285	0.000	0.00	15.13
80.00	(2) #20 Dywidag Bars	Yes	2.56	1.200	2.72	0.58	0.70	22.549	0.285	0.000	27.66	0.00
80.00	(2) #20 Dywidag Bars	Yes	2.56	1.200	2.72	0.58	0.70	22.549	0.285	0.000	27.66	0.00
80.00	(2) 3" Conduit	Yes	2.56	0.000	0.00	0.00	0.00	22.549	0.285	0.000	0.00	46.62
80.00	(6) 7/8" Coax	Yes	2.56	0.000	0.00	0.00	0.00	22.549	0.285	0.000	0.00	6.09
80.00	(1) Brackets	Yes	2.56	2.000	2.00	0.43	0.85	22.549	0.285	0.000	33.90	0.00
85.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	22.943	0.235	0.000	0.00	0.90
85.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	22.943	0.235	0.000	0.00	1.62
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	22.943	0.235	0.000	0.00	29.52
85.00	(2) 3" Conduit	Yes	2.50	1.200	3.50	0.73	0.88	22.943	0.235	0.000	35.33	45.48
85.00	(6) 7/8" Coax	Yes	2.50	1.200	1.09	0.23	0.27	22.943	0.235	0.000	11.00	5.94
85.00	(2) #20 Dywidag Bars	Yes	2.50	1.200	2.72	0.57	0.68	22.943	0.235	0.000	27.46	0.00

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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<b>Load Case:</b> 1.2D + 1.6W	100.00 mph with No Ice	28 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.20		
Wind Load Factor : 1.60		

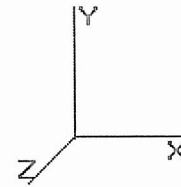
85.00	(2) #20 Dywidag Bars	Yes	2.50	1.200	2.72	0.57	0.68	22.943	0.235	0.000	27.46	0.00
85.00	(2) 3" Conduit	Yes	2.50	0.000	0.00	0.00	0.00	22.943	0.235	0.000	0.00	45.48
85.00	(6) 7/8" Coax	Yes	2.50	0.000	0.00	0.00	0.00	22.943	0.235	0.000	0.00	5.94
85.00	(1) Brackets	Yes	2.50	2.000	2.00	0.42	0.83	22.943	0.235	0.000	33.65	0.00
90.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.321	0.185	1.256	0.00	0.90
90.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.321	0.185	1.256	0.00	1.62
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.321	0.185	1.256	0.00	29.52
90.00	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	23.321	0.185	1.256	0.00	90.96
90.00	(6) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	23.321	0.185	1.256	0.00	11.88
95.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.684	0.191	1.274	0.00	0.90
95.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.684	0.191	1.274	0.00	1.62
95.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.684	0.191	1.274	0.00	29.52
95.00	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	23.684	0.191	1.274	0.00	90.96
95.00	(6) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	23.684	0.191	1.274	0.00	11.88
100.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.034	0.198	1.293	0.00	0.90
100.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.034	0.198	1.293	0.00	1.62
100.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.034	0.198	1.293	0.00	29.52
100.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	24.034	0.198	1.293	0.00	90.96
100.0	(6) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	24.034	0.198	1.293	0.00	11.88
105.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.371	0.156	1.168	0.00	0.90
105.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.371	0.156	1.168	0.00	1.62
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.371	0.156	1.168	0.00	29.52
105.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	24.371	0.156	1.168	0.00	90.96
110.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.697	0.162	1.185	0.00	0.90
110.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.697	0.162	1.185	0.00	1.62
110.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.697	0.162	1.185	0.00	29.52
110.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	24.697	0.162	1.185	0.00	90.96
115.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.013	0.168	1.203	0.00	0.90
115.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.013	0.168	1.203	0.00	1.62
115.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.013	0.168	1.203	0.00	29.52
115.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	25.013	0.168	1.203	0.00	90.96
120.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.319	0.174	1.223	0.00	0.90
120.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.319	0.174	1.223	0.00	1.62
120.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.319	0.174	1.223	0.00	29.52
120.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	25.319	0.174	1.223	0.00	90.96
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.616	0.103	1.008	0.00	29.52
130.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.905	0.107	1.021	0.00	29.52
<b>Totals:</b>											2,493.53	3,219.12



Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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<b>Load Case:</b> 1.2D + 1.6W	100.00 mph with No Ice	28 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**

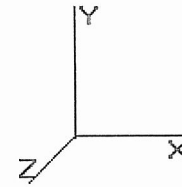
Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	683.93	1,377.57	0.00	0.00
10.00	672.24	1,388.50	0.00	0.00
15.00	660.54	1,369.91	0.00	0.00
20.00	648.84	1,351.31	0.00	0.00
25.00	637.15	1,332.72	0.00	0.00
30.00	625.98	1,314.13	0.00	0.00
32.00	251.71	520.45	0.00	0.00
35.00	389.77	1,160.42	0.00	0.00
36.00	129.99	384.08	0.00	0.00
40.00	530.76	933.11	0.00	0.00
45.00	674.32	1,152.44	0.00	0.00
50.00	681.38	1,136.94	0.00	0.00
55.00	686.27	1,121.45	0.00	0.00
60.00	689.28	1,105.96	0.00	0.00
65.00	690.62	1,090.46	0.00	0.00
70.00	690.49	1,074.97	0.00	0.00
73.50	488.15	1,042.99	0.00	0.00
75.00	208.14	288.03	0.00	0.00
77.44	338.38	465.68	0.00	0.00
80.00	355.09	315.21	0.00	0.00
85.00	650.81	605.66	0.00	0.00
90.00	532.05	593.27	0.00	0.00
95.00	530.84	580.87	0.00	0.00
100.0	1,522.17	1,320.88	0.00	2,830.41
105.0	468.26	544.20	0.00	0.00
110.0	464.63	531.81	0.00	0.00
115.0	460.54	438.39	0.00	0.00
120.0	1,842.22	1,188.09	0.00	1,621.83
125.0	365.45	326.32	0.00	0.00
130.0	913.78	652.06	0.00	0.00
135.0	340.74	278.21	0.00	0.00
140.0	329.15	268.91	0.00	0.00
145.0	317.17	259.61	0.00	0.00
149.0	4,449.01	3,625.80	0.00	12,400.55
150.0	59.73	49.32	0.00	0.00
<b>Totals:</b>	<b>23,979.55</b>	<b>31,189.72</b>	<b>0.00</b>	<b>16,852.79</b>

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
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Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : B  
 Topographic Category : 1  
 Base Elev: 0.000 (ft)

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<b>Load Case:</b> 1.2D + 1.6W	100.00 mph with No Ice	28 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.20		
Wind Load Factor : 1.60		

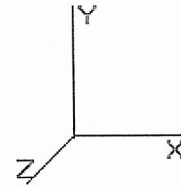
**Calculated Forces**

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	-31.13	-24.05	0.00	-2,234.56	0.00	2,234.56	3,058.44	1,529.22	4,486.20	2,215.57	0.00	0.00	0.621
5.00	-29.65	-23.51	0.00	-2,114.29	0.00	2,114.29	3,015.96	1,507.98	4,329.28	2,138.07	0.15	-0.27	0.602
10.00	-28.15	-22.96	0.00	-1,996.75	0.00	1,996.75	2,972.53	1,486.26	4,173.67	2,061.22	0.57	-0.54	0.583
15.00	-26.69	-22.41	0.00	-1,881.97	0.00	1,881.97	2,928.13	1,464.06	4,019.46	1,985.06	1.28	-0.81	0.564
20.00	-25.25	-21.85	0.00	-1,769.94	0.00	1,769.94	2,882.77	1,441.38	3,866.74	1,909.64	2.27	-1.07	0.544
25.00	-23.83	-21.30	0.00	-1,660.68	0.00	1,660.68	2,835.18	1,417.59	3,713.97	1,834.19	3.54	-1.34	0.524
30.00	-22.47	-20.71	0.00	-1,554.20	0.00	1,554.20	2,768.06	1,384.03	3,539.19	1,747.87	5.08	-1.60	0.507
32.00	-21.91	-20.49	0.00	-1,512.78	0.00	1,512.78	2,741.21	1,370.60	3,470.46	1,713.93	5.78	-1.71	0.501
35.00	-20.72	-20.11	0.00	-1,451.30	0.00	1,451.30	2,700.94	1,350.47	3,368.63	1,663.64	6.90	-1.87	0.483
36.00	-20.30	-20.01	0.00	-1,431.20	0.00	1,431.20	2,178.16	1,089.08	2,770.79	1,368.39	7.30	-1.92	0.547
40.00	-19.30	-19.52	0.00	-1,351.17	0.00	1,351.17	2,151.08	1,075.54	2,682.35	1,324.71	8.99	-2.12	0.527
45.00	-18.09	-18.89	0.00	-1,253.55	0.00	1,253.55	2,116.36	1,058.18	2,572.65	1,270.54	11.36	-2.39	0.501
50.00	-16.90	-18.23	0.00	-1,159.11	0.00	1,159.11	2,080.68	1,040.34	2,464.00	1,216.88	14.00	-2.65	0.475
55.00	-15.74	-17.56	0.00	-1,067.94	0.00	1,067.94	2,044.03	1,022.02	2,356.47	1,163.77	16.91	-2.90	0.449
60.00	-14.60	-16.88	0.00	-980.12	0.00	980.12	2,006.42	1,003.21	2,250.16	1,111.27	20.08	-3.15	0.423
65.00	-13.48	-16.18	0.00	-895.72	0.00	895.72	1,966.16	983.08	2,143.32	1,058.50	23.52	-3.40	0.397
70.00	-12.40	-15.47	0.00	-814.80	0.00	814.80	1,910.22	955.11	2,022.41	998.79	27.20	-3.63	0.374
73.50	-11.36	-14.94	0.00	-760.65	0.00	760.65	1,431.47	715.74	1,521.25	751.29	29.92	-3.79	0.410
75.00	-11.06	-14.73	0.00	-738.24	0.00	738.24	1,423.81	711.90	1,499.70	740.65	31.12	-3.86	0.401
77.44	-10.59	-14.38	0.00	-702.33	0.00	702.33	1,411.18	705.59	1,464.81	723.42	33.12	-3.98	0.386
77.44	-10.59	-14.38	0.00	-702.33	0.00	702.33	1,411.18	705.59	1,464.81	723.42	33.12	-3.98	0.979
80.00	-10.22	-14.07	0.00	-665.47	0.00	665.47	1,397.65	698.83	1,428.30	705.38	35.29	-4.10	0.951
85.00	-9.53	-13.47	0.00	-595.13	0.00	595.13	1,370.53	685.26	1,357.58	670.46	39.89	-4.67	0.895
90.00	-8.86	-12.97	0.00	-527.78	0.00	527.78	1,342.44	671.22	1,287.64	635.92	45.07	-5.23	0.837
95.00	-8.22	-12.47	0.00	-462.91	0.00	462.91	1,313.39	656.70	1,218.57	601.80	50.83	-5.77	0.776
100.00	-6.97	-10.88	0.00	-397.75	0.00	397.75	1,283.38	641.69	1,150.46	568.17	57.14	-6.29	0.706
105.00	-6.39	-10.40	0.00	-343.37	0.00	343.37	1,248.31	624.16	1,079.86	533.30	63.98	-6.79	0.649
110.00	-5.84	-9.92	0.00	-291.36	0.00	291.36	1,203.56	601.78	1,003.39	495.54	71.33	-7.26	0.593
110.00	-5.84	-9.92	0.00	-291.36	0.00	291.36	829.71	414.85	695.98	343.72	71.33	-7.26	0.855
115.00	-5.39	-9.46	0.00	-241.74	0.00	241.74	811.47	405.73	655.22	323.59	79.15	-7.70	0.754
120.00	-4.40	-7.51	0.00	-192.83	0.00	192.83	792.27	396.13	614.86	303.65	87.48	-8.24	0.641
125.00	-4.08	-7.13	0.00	-155.30	0.00	155.30	772.10	386.05	574.98	283.96	96.34	-8.72	0.553
130.00	-3.53	-6.15	0.00	-119.65	0.00	119.65	750.97	375.48	535.68	264.55	105.67	-9.15	0.457
135.00	-3.28	-5.79	0.00	-88.90	0.00	88.90	728.87	364.44	497.06	245.48	115.41	-9.52	0.367
140.00	-3.04	-5.43	0.00	-59.96	0.00	59.96	704.09	352.04	458.06	226.22	125.49	-9.82	0.270
145.00	-2.83	-5.08	0.00	-32.80	0.00	32.80	670.52	335.26	415.19	205.05	135.85	-10.03	0.164
149.00	-0.04	-0.07	0.00	-0.07	0.00	0.07	643.68	321.84	382.41	188.86	144.26	-10.13	0.000
150.00	0.00	-0.06	0.00	0.00	0.00	0.00	636.96	318.48	374.43	184.91	146.37	-10.13	0.000

Pole : 302475  
 Location : Sitn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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<b>Load Case:</b> 0.9D + 1.6W	100.00 mph with No Ice (Reduced DL)	28 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)**

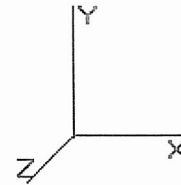
Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	17.024	18.72	259.85	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	17.024	18.72	254.40	1.200	* 0.000	5.00	15.366	18.44	552.5	0.0	985.7
10.00		1.00	0.70	17.024	18.72	248.96	1.200	* 0.000	5.00	15.041	18.05	540.8	0.0	971.8
15.00		1.00	0.70	17.024	18.72	243.52	1.200	* 0.000	5.00	14.716	17.66	529.1	0.0	957.8
20.00		1.00	0.70	17.024	18.72	238.07	1.200	* 0.000	5.00	14.391	17.27	517.4	0.0	943.9
25.00		1.00	0.70	17.024	18.72	232.63	1.200	* 0.000	5.00	14.065	16.88	505.7	0.0	930.0
30.00		1.00	0.70	17.038	18.74	227.28	1.200	* 0.000	5.00	13.740	16.49	494.4	0.0	916.0
32.00	Bot - Section 2	1.00	0.71	17.355	19.09	227.19	1.200	* 0.000	2.00	5.405	6.49	198.1	0.0	362.5
35.00		1.00	0.73	17.806	19.58	226.78	1.200	* 0.000	3.00	8.171	9.81	307.3	0.0	828.6
36.00	Top - Section 1	1.00	0.73	17.949	19.74	226.57	1.200	* 0.000	1.00	2.698	3.24	102.3	0.0	274.1
40.00		1.00	0.76	18.498	20.34	230.17	1.200	* 0.000	4.00	10.661	12.79	416.5	0.0	644.2
45.00		1.00	0.78	19.131	21.04	228.31	1.200	* 0.000	5.00	13.034	15.64	526.6	0.0	794.7
50.00		1.00	0.81	19.716	21.68	225.91	1.200	* 0.000	5.00	12.708	15.25	529.2	0.0	783.1
55.00		1.00	0.83	20.260	22.28	223.07	1.200	* 0.000	5.00	12.383	14.86	529.9	0.0	771.5
60.00		1.00	0.85	20.770	22.84	219.85	1.200	* 0.000	5.00	12.058	14.47	528.9	0.0	759.9
65.00		1.00	0.87	21.250	23.37	216.29	1.200	* 0.000	5.00	11.732	14.08	526.6	0.0	748.3
70.00	Bot - Section 3	1.00	0.89	21.705	23.87	212.45	1.200	* 0.000	5.00	11.407	13.69	522.9	0.0	736.6
73.50	Top - Section 2	1.00	0.90	22.010	24.21	209.60	1.200	* 0.000	3.50	7.942	9.53	369.2	0.0	733.5
75.00		1.00	0.91	22.137	24.35	212.46	1.200	* 0.000	1.50	3.355	4.03	156.9	0.0	195.1
77.44	Reinf. Top	1.00	0.91	22.341	24.57	210.39	1.200	* 0.000	2.44	5.390	6.47	254.3	0.0	315.3
80.00		1.00	0.92	22.549	24.80	208.16	1.200	* 0.000	2.56	5.583	6.70	265.9	0.0	157.9
85.00		1.00	0.94	22.943	25.23	203.66	1.200	* 0.000	5.00	10.647	12.78	515.9	0.0	301.2
90.00		1.00	0.95	23.321	25.65	198.95	1.000	* 0.000	5.00	10.321	10.32	423.6	0.0	291.9
95.00		1.00	0.97	23.684	26.05	194.08	1.000	* 0.000	5.00	9.996	10.00	416.7	0.0	282.6
100.00	Appertunance(s)	1.00	0.98	24.034	26.43	189.04	1.000	* 0.000	5.00	9.671	9.67	409.1	0.0	273.3
105.00		1.00	1.00	24.371	26.80	183.85	1.000	* 0.000	5.00	9.345	9.35	400.9	0.0	264.0
110.00	Top - Section 3	1.00	1.01	24.697	27.16	178.51	1.000	* 0.000	5.00	9.020	9.02	392.1	0.0	254.7
115.00		1.00	1.02	25.013	27.51	173.05	1.000	* 0.000	5.00	8.695	8.69	382.8	0.0	184.6
120.00	Appertunance(s)	1.00	1.04	25.319	27.85	167.47	1.000	* 0.000	5.00	8.370	8.37	373.0	0.0	177.6
125.00		1.00	1.05	25.616	28.17	161.77	1.000	* 0.000	5.00	8.044	8.04	362.7	0.0	170.7
130.00	Appertunance(s)	1.00	1.06	25.905	28.49	155.97	1.000	* 0.000	5.00	7.719	7.72	351.9	0.0	163.7
135.00		1.00	1.07	26.185	28.80	150.06	1.000	0.000	5.00	7.394	7.39	340.7	0.0	156.7
140.00		1.00	1.08	26.459	29.10	144.05	1.000	0.000	5.00	7.068	7.07	329.2	0.0	149.8
145.00		1.00	1.09	26.726	29.39	137.96	1.000	0.000	5.00	6.743	6.74	317.2	0.0	142.8
149.00	Appertunance(s)	1.00	1.10	26.934	29.62	133.02	1.000	0.000	4.00	5.160	5.16	244.6	0.0	109.2
150.00		1.00	1.11	26.986	29.68	131.77	1.000	0.000	1.00	1.258	1.26	59.7	0.0	26.6
								<b>Totals:</b>	150.00			13,694.4	0.0	16,759.8

\* = Cf Adjusted By Linear Load Ra Effect

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 0.9D + 1.6W      100.00 mph with No Ice (Reduced DL)      28 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)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
100.0	DB Systems 5100A	1	24.305	26.735	1.00	1.00	2.07	0.000	4.000	88.55	0.00	354.19	18.90
100.0	DB Systems 5100A-D	4	24.305	26.735	1.00	1.00	12.44	0.000	4.000	532.14	0.00	2,128.54	136.80
100.0	Side Arm	3	24.034	26.437	0.56	0.75	6.75	0.000	0.000	285.52	0.00	0.00	405.00
100.0	Vertex 101V VPD	1	24.305	26.735	0.80	0.80	2.03	0.000	4.000	86.92	0.00	347.68	3.60
120.0	18" x 12" Junction B	1	25.319	27.851	0.80	0.80	1.68	0.000	0.000	74.86	0.00	0.00	13.50
120.0	Argus LLPX310R	3	25.319	27.851	0.56	0.80	8.11	0.000	0.000	361.59	0.00	0.00	77.22
120.0	Clearwire Mount	1	25.319	27.851	1.00	1.00	8.50	0.000	0.000	378.77	0.00	0.00	315.00
120.0	DragonWave A-ANT-	1	25.557	28.113	1.00	1.00	8.67	0.000	4.000	389.98	0.00	1,559.93	59.49
120.0	DragonWave Horizon	1	25.557	28.113	0.80	0.80	0.34	0.000	4.000	15.47	0.00	61.89	9.54
120.0	NextNet BTS-2500	3	25.319	27.851	0.58	0.80	3.71	0.000	0.000	165.51	0.00	0.00	94.50
130.0	Flush Mount	1	25.905	28.495	1.00	1.00	3.00	0.000	0.000	136.78	0.00	0.00	180.00
130.0	RFS APXV18-206517S-	3	25.905	28.495	0.59	0.80	9.16	0.000	0.000	417.81	0.00	0.00	71.28
149.0	Andrew SBNH-	2	27.139	29.853	0.60	0.75	13.73	0.000	4.000	655.71	0.00	2,622.84	109.44
149.0	Ericsson RRUS 11	6	27.139	29.853	0.50	0.75	9.01	0.000	4.000	430.59	0.00	1,722.35	270.00
149.0	Kathrein 800 10764	3	27.139	29.853	0.58	0.75	11.11	0.000	4.000	530.62	0.00	2,122.48	110.16
149.0	KMW AM-X-CD-16-65-	4	27.139	29.853	0.60	0.75	19.82	0.000	4.000	946.88	0.00	3,787.52	174.60
149.0	Platform with Handra	1	26.986	29.684	1.00	1.00	31.00	0.000	1.000	1,472.34	0.00	1,472.34	1,800.00
149.0	Powerwave LGP13519	6	27.139	29.853	0.50	0.75	1.03	0.000	4.000	48.96	0.00	195.85	27.00
149.0	Powerwave TT08-	3	27.139	29.853	0.56	0.75	1.55	0.000	4.000	74.15	0.00	296.62	59.40
149.0	Raycap DC6-48-60-18-	1	27.139	29.853	0.75	0.75	0.94	0.000	4.000	45.14	0.00	180.55	18.00
										<b>7,138.30</b>			<b>3,953.43</b>

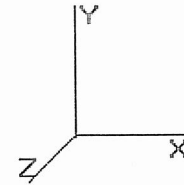


Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 0.9D + 1.6W      100.00 mph with No Ice (Reduced DL)      28 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)**

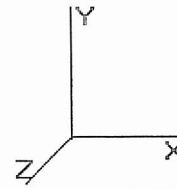
Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
5.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.202	0.000	0.00	0.68
5.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.202	0.000	0.00	1.22
5.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.202	0.000	40.75	0.00
5.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.202	0.000	40.75	0.00
5.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.202	0.000	0.00	68.22
5.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.202	0.000	0.00	8.91
5.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.024	0.202	0.000	49.94	0.00
10.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.206	0.000	0.00	0.68
10.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.206	0.000	0.00	1.22
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.206	0.000	0.00	22.14
10.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.206	0.000	40.75	0.00
10.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.206	0.000	40.75	0.00
10.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.206	0.000	0.00	68.22
10.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.206	0.000	0.00	8.91
10.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.024	0.206	0.000	49.94	0.00
15.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.211	0.000	0.00	0.68
15.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.211	0.000	0.00	1.22
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.211	0.000	0.00	22.14
15.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.211	0.000	40.75	0.00
15.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.211	0.000	40.75	0.00
15.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.211	0.000	0.00	68.22
15.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.211	0.000	0.00	8.91
15.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.024	0.211	0.000	49.94	0.00
20.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.215	0.000	0.00	0.68
20.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.215	0.000	0.00	1.22
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.215	0.000	0.00	22.14
20.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.215	0.000	40.75	0.00
20.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.215	0.000	40.75	0.00
20.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.215	0.000	0.00	68.22
20.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.215	0.000	0.00	8.91
20.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.024	0.215	0.000	49.94	0.00
25.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.220	0.000	0.00	0.68
25.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.220	0.000	0.00	1.22
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.220	0.000	0.00	22.14
25.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.220	0.000	40.75	0.00
25.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.024	0.220	0.000	40.75	0.00
25.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.220	0.000	0.00	68.22
25.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.024	0.220	0.000	0.00	8.91
25.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.024	0.220	0.000	49.94	0.00
30.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	0.68
30.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	1.22
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	22.14
30.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.038	0.226	0.000	40.78	0.00
30.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	17.038	0.226	0.000	40.78	0.00
30.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	68.22
30.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	17.038	0.226	0.000	0.00	8.91
30.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	17.038	0.226	0.000	49.98	0.00
32.00	(1) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	17.355	0.229	0.000	0.00	0.27
32.00	(6) 5/16" Coax	Yes	2.00	0.000	0.00	0.00	0.00	17.355	0.229	0.000	0.00	0.49
32.00	(6) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	17.355	0.229	0.000	0.00	8.86
32.00	(2) #20 Dywidag Bars	Yes	2.00	1.200	2.72	0.45	0.54	17.355	0.229	0.000	16.62	0.00

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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<b>Load Case:</b> 0.9D + 1.6W	100.00 mph with No Ice (Reduced DL)	28 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 0.90		
Wind Load Factor : 1.60		

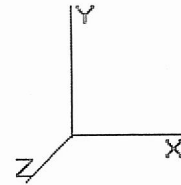
32.00	(2) #20 Dywidag Bars	Yes	2.00	1.200	2.72	0.45	0.54	17.355	0.229	0.000	16.62	0.00
32.00	(2) 3" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	17.355	0.229	0.000	0.00	27.29
32.00	(6) 7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	17.355	0.229	0.000	0.00	3.56
32.00	(1) Brackets	Yes	2.00	2.000	2.00	0.33	0.67	17.355	0.229	0.000	20.36	0.00
35.00	(1) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	17.806	0.232	0.000	0.00	0.41
35.00	(6) 5/16" Coax	Yes	3.00	0.000	0.00	0.00	0.00	17.806	0.232	0.000	0.00	0.73
35.00	(6) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	17.806	0.232	0.000	0.00	13.28
35.00	(2) #20 Dywidag Bars	Yes	3.00	1.200	2.72	0.68	0.82	17.806	0.232	0.000	25.57	0.00
35.00	(2) #20 Dywidag Bars	Yes	3.00	1.200	2.72	0.68	0.82	17.806	0.232	0.000	25.57	0.00
35.00	(2) 3" Conduit	Yes	3.00	0.000	0.00	0.00	0.00	17.806	0.232	0.000	0.00	40.93
35.00	(6) 7/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	17.806	0.232	0.000	0.00	5.35
35.00	(1) Brackets	Yes	3.00	2.000	2.00	0.50	1.00	17.806	0.232	0.000	31.34	0.00
36.00	(1) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	17.949	0.235	0.000	0.00	0.14
36.00	(6) 5/16" Coax	Yes	1.00	0.000	0.00	0.00	0.00	17.949	0.235	0.000	0.00	0.24
36.00	(6) 1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	17.949	0.235	0.000	0.00	4.43
36.00	(2) #20 Dywidag Bars	Yes	1.00	1.200	2.72	0.23	0.27	17.949	0.235	0.000	8.59	0.00
36.00	(2) #20 Dywidag Bars	Yes	1.00	1.200	2.72	0.23	0.27	17.949	0.235	0.000	8.59	0.00
36.00	(2) 3" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	17.949	0.235	0.000	0.00	13.64
36.00	(6) 7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	17.949	0.235	0.000	0.00	1.78
36.00	(1) Brackets	Yes	1.00	2.000	2.00	0.17	0.33	17.949	0.235	0.000	10.53	0.00
40.00	(1) 1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	18.498	0.233	0.000	0.00	0.54
40.00	(6) 5/16" Coax	Yes	4.00	0.000	0.00	0.00	0.00	18.498	0.233	0.000	0.00	0.97
40.00	(6) 1 5/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	18.498	0.233	0.000	0.00	17.71
40.00	(2) #20 Dywidag Bars	Yes	4.00	1.200	2.72	0.91	1.09	18.498	0.233	0.000	35.42	0.00
40.00	(2) #20 Dywidag Bars	Yes	4.00	1.200	2.72	0.91	1.09	18.498	0.233	0.000	35.42	0.00
40.00	(2) 3" Conduit	Yes	4.00	0.000	0.00	0.00	0.00	18.498	0.233	0.000	0.00	54.58
40.00	(6) 7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	18.498	0.233	0.000	0.00	7.13
40.00	(1) Brackets	Yes	4.00	2.000	2.00	0.67	1.33	18.498	0.233	0.000	43.41	0.00
45.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.131	0.238	0.000	0.00	0.68
45.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.131	0.238	0.000	0.00	1.22
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.131	0.238	0.000	0.00	22.14
45.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	19.131	0.238	0.000	45.79	0.00
45.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	19.131	0.238	0.000	45.79	0.00
45.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	19.131	0.238	0.000	0.00	68.22
45.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.131	0.238	0.000	0.00	8.91
45.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	19.131	0.238	0.000	56.12	0.00
50.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.716	0.244	0.000	0.00	0.68
50.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.716	0.244	0.000	0.00	1.22
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.716	0.244	0.000	0.00	22.14
50.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	19.716	0.244	0.000	47.19	0.00
50.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	19.716	0.244	0.000	47.19	0.00
50.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	19.716	0.244	0.000	0.00	68.22
50.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	19.716	0.244	0.000	0.00	8.91
50.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	19.716	0.244	0.000	57.83	0.00
55.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.260	0.250	0.000	0.00	0.68
55.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.260	0.250	0.000	0.00	1.22
55.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.260	0.250	0.000	0.00	22.14
55.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	20.260	0.250	0.000	48.49	0.00
55.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	20.260	0.250	0.000	48.49	0.00
55.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	20.260	0.250	0.000	0.00	68.22
55.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.260	0.250	0.000	0.00	8.91
55.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	20.260	0.250	0.000	59.43	0.00
60.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.770	0.257	0.000	0.00	0.68
60.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.770	0.257	0.000	0.00	1.22
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.770	0.257	0.000	0.00	22.14
60.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	20.770	0.257	0.000	49.72	0.00
60.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	20.770	0.257	0.000	49.72	0.00

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 0.9D + 1.6W

100.00 mph with No Ice (Reduced DL)

28 Iterations

Gust Response Factor : 1.10  
 Dead Load Factor : 0.90  
 Wind Load Factor : 1.60

Wind Importance Factor : 1.00

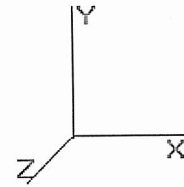
60.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	20.770	0.257	0.000	0.00	68.22
60.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	20.770	0.257	0.000	0.00	8.91
60.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	20.770	0.257	0.000	60.93	0.00
65.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.250	0.264	0.000	0.00	0.68
65.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.250	0.264	0.000	0.00	1.22
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.250	0.264	0.000	0.00	22.14
65.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	21.250	0.264	0.000	50.87	0.00
65.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	21.250	0.264	0.000	50.87	0.00
65.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	21.250	0.264	0.000	0.00	68.22
65.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.250	0.264	0.000	0.00	8.91
65.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	21.250	0.264	0.000	62.33	0.00
70.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.705	0.272	0.000	0.00	0.68
70.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.705	0.272	0.000	0.00	1.22
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.705	0.272	0.000	0.00	22.14
70.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	21.705	0.272	0.000	51.95	0.00
70.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	21.705	0.272	0.000	51.95	0.00
70.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	21.705	0.272	0.000	0.00	68.22
70.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	21.705	0.272	0.000	0.00	8.91
70.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	21.705	0.272	0.000	63.67	0.00
73.50	(1) 1/2" Coax	Yes	3.50	0.000	0.00	0.00	0.00	22.010	0.279	0.000	0.00	0.47
73.50	(6) 5/16" Coax	Yes	3.50	0.000	0.00	0.00	0.00	22.010	0.279	0.000	0.00	0.85
73.50	(6) 1 5/8" Coax	Yes	3.50	0.000	0.00	0.00	0.00	22.010	0.279	0.000	0.00	15.50
73.50	(2) #20 Dywidag Bars	Yes	3.50	1.200	2.72	0.79	0.95	22.010	0.279	0.000	36.88	0.00
73.50	(2) #20 Dywidag Bars	Yes	3.50	1.200	2.72	0.79	0.95	22.010	0.279	0.000	36.88	0.00
73.50	(2) 3" Conduit	Yes	3.50	0.000	0.00	0.00	0.00	22.010	0.279	0.000	0.00	47.75
73.50	(6) 7/8" Coax	Yes	3.50	0.000	0.00	0.00	0.00	22.010	0.279	0.000	0.00	6.24
73.50	(1) Brackets	Yes	3.50	2.000	2.00	0.58	1.17	22.010	0.279	0.000	45.19	0.00
75.00	(1) 1/2" Coax	Yes	1.50	0.000	0.00	0.00	0.00	22.137	0.277	0.000	0.00	0.20
75.00	(6) 5/16" Coax	Yes	1.50	0.000	0.00	0.00	0.00	22.137	0.277	0.000	0.00	0.36
75.00	(6) 1 5/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	22.137	0.277	0.000	0.00	6.64
75.00	(2) #20 Dywidag Bars	Yes	1.50	1.200	2.72	0.34	0.41	22.137	0.277	0.000	15.90	0.00
75.00	(2) #20 Dywidag Bars	Yes	1.50	1.200	2.72	0.34	0.41	22.137	0.277	0.000	15.90	0.00
75.00	(2) 3" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	22.137	0.277	0.000	0.00	20.47
75.00	(6) 7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	22.137	0.277	0.000	0.00	2.67
75.00	(1) Brackets	Yes	1.50	2.000	2.00	0.25	0.50	22.137	0.277	0.000	19.48	0.00
77.44	(1) 1/2" Coax	Yes	2.44	0.000	0.00	0.00	0.00	22.341	0.280	0.000	0.00	0.33
77.44	(6) 5/16" Coax	Yes	2.44	0.000	0.00	0.00	0.00	22.341	0.280	0.000	0.00	0.59
77.44	(6) 1 5/8" Coax	Yes	2.44	0.000	0.00	0.00	0.00	22.341	0.280	0.000	0.00	10.79
77.44	(2) #20 Dywidag Bars	Yes	2.44	1.200	2.72	0.55	0.66	22.341	0.280	0.000	26.07	0.00
77.44	(2) #20 Dywidag Bars	Yes	2.44	1.200	2.72	0.55	0.66	22.341	0.280	0.000	26.07	0.00
77.44	(2) 3" Conduit	Yes	2.44	0.000	0.00	0.00	0.00	22.341	0.280	0.000	0.00	33.26
77.44	(6) 7/8" Coax	Yes	2.44	0.000	0.00	0.00	0.00	22.341	0.280	0.000	0.00	4.34
77.44	(1) Brackets	Yes	2.44	2.000	2.00	0.41	0.81	22.341	0.280	0.000	31.95	0.00
80.00	(1) 1/2" Coax	Yes	2.56	0.000	0.00	0.00	0.00	22.549	0.285	0.000	0.00	0.35
80.00	(6) 5/16" Coax	Yes	2.56	0.000	0.00	0.00	0.00	22.549	0.285	0.000	0.00	0.62
80.00	(6) 1 5/8" Coax	Yes	2.56	0.000	0.00	0.00	0.00	22.549	0.285	0.000	0.00	11.35
80.00	(2) #20 Dywidag Bars	Yes	2.56	1.200	2.72	0.58	0.70	22.549	0.285	0.000	27.66	0.00
80.00	(2) #20 Dywidag Bars	Yes	2.56	1.200	2.72	0.58	0.70	22.549	0.285	0.000	27.66	0.00
80.00	(2) 3" Conduit	Yes	2.56	0.000	0.00	0.00	0.00	22.549	0.285	0.000	0.00	34.96
80.00	(6) 7/8" Coax	Yes	2.56	0.000	0.00	0.00	0.00	22.549	0.285	0.000	0.00	4.57
80.00	(1) Brackets	Yes	2.56	2.000	2.00	0.43	0.85	22.549	0.285	0.000	33.90	0.00
85.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	22.943	0.235	0.000	0.00	0.68
85.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	22.943	0.235	0.000	0.00	1.22
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	22.943	0.235	0.000	0.00	22.14
85.00	(2) 3" Conduit	Yes	2.50	1.200	3.50	0.73	0.88	22.943	0.235	0.000	35.33	34.11
85.00	(6) 7/8" Coax	Yes	2.50	1.200	1.09	0.23	0.27	22.943	0.235	0.000	11.00	4.45
85.00	(2) #20 Dywidag Bars	Yes	2.50	1.200	2.72	0.57	0.68	22.943	0.235	0.000	27.46	0.00

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 0.9D + 1.6W      **100.00 mph with No Ice (Reduced DL)**      **28 Iterations**

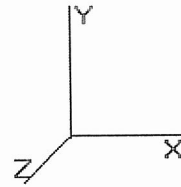
**Gust Response Factor : 1.10**      **Wind Importance Factor : 1.00**  
**Dead Load Factor : 0.90**  
**Wind Load Factor : 1.60**

85.00	(2) #20 Dywidag Bars	Yes	2.50	1.200	2.72	0.57	0.68	22.943	0.235	0.000	27.46	0.00
85.00	(2) 3" Conduit	Yes	2.50	0.000	0.00	0.00	0.00	22.943	0.235	0.000	0.00	34.11
85.00	(6) 7/8" Coax	Yes	2.50	0.000	0.00	0.00	0.00	22.943	0.235	0.000	0.00	4.45
85.00	(1) Brackets	Yes	2.50	2.000	2.00	0.42	0.83	22.943	0.235	0.000	33.65	0.00
90.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.321	0.185	1.256	0.00	0.68
90.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.321	0.185	1.256	0.00	1.22
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.321	0.185	1.256	0.00	22.14
90.00	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	23.321	0.185	1.256	0.00	68.22
90.00	(6) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	23.321	0.185	1.256	0.00	8.91
95.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.684	0.191	1.274	0.00	0.68
95.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.684	0.191	1.274	0.00	1.22
95.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	23.684	0.191	1.274	0.00	22.14
95.00	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	23.684	0.191	1.274	0.00	68.22
95.00	(6) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	23.684	0.191	1.274	0.00	8.91
100.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.034	0.198	1.293	0.00	0.68
100.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.034	0.198	1.293	0.00	1.22
100.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.034	0.198	1.293	0.00	22.14
100.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	24.034	0.198	1.293	0.00	68.22
100.0	(6) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	24.034	0.198	1.293	0.00	8.91
105.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.371	0.156	1.168	0.00	0.68
105.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.371	0.156	1.168	0.00	1.22
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.371	0.156	1.168	0.00	22.14
105.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	24.371	0.156	1.168	0.00	68.22
110.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.697	0.162	1.185	0.00	0.68
110.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.697	0.162	1.185	0.00	1.22
110.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	24.697	0.162	1.185	0.00	22.14
110.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	24.697	0.162	1.185	0.00	68.22
115.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.013	0.168	1.203	0.00	0.68
115.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.013	0.168	1.203	0.00	1.22
115.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.013	0.168	1.203	0.00	22.14
115.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	25.013	0.168	1.203	0.00	68.22
120.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.319	0.174	1.223	0.00	0.68
120.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.319	0.174	1.223	0.00	1.22
120.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	25.319	0.174	1.223	0.00	22.14
120.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	25.319	0.174	1.223	0.00	68.22
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.616	0.103	1.008	0.00	22.14
130.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	25.905	0.107	1.021	0.00	22.14
<b>Totals:</b>											2,493.53	2,414.34

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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<b>Load Case:</b> 0.9D + 1.6W	100.00 mph with No Ice (Reduced DL)	28 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**

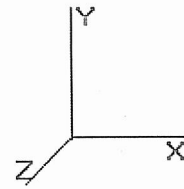
Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	683.93	1,116.68	0.00	0.00
10.00	672.24	1,124.87	0.00	0.00
15.00	660.54	1,110.93	0.00	0.00
20.00	648.84	1,096.98	0.00	0.00
25.00	637.15	1,083.04	0.00	0.00
30.00	625.98	1,069.10	0.00	0.00
32.00	251.71	423.73	0.00	0.00
35.00	389.77	920.41	0.00	0.00
36.00	129.99	304.76	0.00	0.00
40.00	530.76	766.63	0.00	0.00
45.00	674.32	947.83	0.00	0.00
50.00	681.38	936.21	0.00	0.00
55.00	686.27	924.59	0.00	0.00
60.00	689.28	912.97	0.00	0.00
65.00	690.62	901.35	0.00	0.00
70.00	690.49	889.73	0.00	0.00
73.50	488.15	840.70	0.00	0.00
75.00	208.14	241.07	0.00	0.00
77.44	338.38	389.96	0.00	0.00
80.00	355.09	236.40	0.00	0.00
85.00	650.81	454.25	0.00	0.00
90.00	423.64	444.95	0.00	0.00
95.00	416.68	435.65	0.00	0.00
100.0	1,402.19	990.66	0.00	2,830.41
105.0	400.86	408.15	0.00	0.00
110.0	392.08	398.86	0.00	0.00
115.0	382.77	328.79	0.00	0.00
120.0	1,759.15	891.07	0.00	1,621.83
125.0	362.67	244.74	0.00	0.00
130.0	906.51	489.05	0.00	0.00
135.0	340.74	208.65	0.00	0.00
140.0	329.15	201.68	0.00	0.00
145.0	317.17	194.71	0.00	0.00
149.0	4,449.01	2,719.35	0.00	12,400.55
150.0	59.73	36.99	0.00	0.00
<b>Totals:</b>	<b>23,326.19</b>	<b>24,685.49</b>	<b>0.00</b>	<b>16,852.79</b>



Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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<b>Load Case:</b> 0.9D + 1.6W	100.00 mph with No Ice (Reduced DL)	28 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 0.90		
Wind Load Factor : 1.60		

**Calculated Forces**

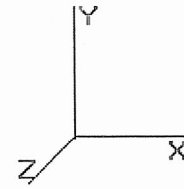
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-24.63	-23.38	0.00	-2,137.07	0.00	2,137.07	3,058.44	1,529.22	4,486.20	2,215.57	0.00	0.00	0.593
5.00	-23.41	-22.80	0.00	-2,020.16	0.00	2,020.16	3,015.96	1,507.98	4,329.28	2,138.07	0.14	-0.26	0.574
10.00	-22.19	-22.22	0.00	-1,906.15	0.00	1,906.15	2,972.53	1,486.26	4,173.67	2,061.22	0.55	-0.52	0.556
15.00	-20.99	-21.64	0.00	-1,795.04	0.00	1,795.04	2,928.13	1,464.06	4,019.46	1,985.06	1.23	-0.77	0.537
20.00	-19.82	-21.06	0.00	-1,686.83	0.00	1,686.83	2,882.77	1,441.38	3,866.74	1,909.64	2.17	-1.03	0.517
25.00	-18.66	-20.49	0.00	-1,581.51	0.00	1,581.51	2,835.18	1,417.59	3,713.97	1,834.19	3.38	-1.28	0.498
30.00	-17.54	-19.89	0.00	-1,479.07	0.00	1,479.07	2,768.06	1,384.03	3,539.19	1,747.87	4.85	-1.53	0.482
32.00	-17.08	-19.66	0.00	-1,439.30	0.00	1,439.30	2,741.21	1,370.60	3,470.46	1,713.93	5.52	-1.63	0.475
35.00	-16.14	-19.27	0.00	-1,380.31	0.00	1,380.31	2,700.94	1,350.47	3,368.63	1,663.64	6.59	-1.78	0.459
36.00	-15.80	-19.17	0.00	-1,361.03	0.00	1,361.03	2,178.16	1,089.08	2,770.79	1,368.39	6.97	-1.83	0.520
40.00	-14.98	-18.67	0.00	-1,284.36	0.00	1,284.36	2,151.08	1,075.54	2,682.35	1,324.71	8.58	-2.02	0.500
45.00	-13.98	-18.02	0.00	-1,191.01	0.00	1,191.01	2,116.36	1,058.18	2,572.65	1,270.54	10.84	-2.28	0.475
50.00	-13.00	-17.36	0.00	-1,100.89	0.00	1,100.89	2,080.68	1,040.34	2,464.00	1,216.88	13.35	-2.52	0.450
55.00	-12.03	-16.68	0.00	-1,014.10	0.00	1,014.10	2,044.03	1,022.02	2,356.47	1,163.77	16.12	-2.77	0.425
60.00	-11.09	-15.99	0.00	-930.70	0.00	930.70	2,006.42	1,003.21	2,250.16	1,111.27	19.15	-3.00	0.401
65.00	-10.17	-15.29	0.00	-850.75	0.00	850.75	1,966.16	983.08	2,143.32	1,058.50	22.41	-3.23	0.376
70.00	-9.27	-14.58	0.00	-774.28	0.00	774.28	1,910.22	955.11	2,022.41	998.79	25.92	-3.46	0.355
73.50	-8.44	-14.06	0.00	-723.24	0.00	723.24	1,431.47	715.74	1,521.25	751.29	28.51	-3.61	0.389
75.00	-8.19	-13.85	0.00	-702.15	0.00	702.15	1,423.81	711.90	1,499.70	740.65	29.66	-3.68	0.381
77.44	-7.80	-13.50	0.00	-668.39	0.00	668.39	1,411.18	705.59	1,464.81	723.42	31.56	-3.79	0.366
77.44	-7.80	-13.50	0.00	-668.39	0.00	668.39	1,411.18	705.59	1,464.81	723.42	31.56	-3.79	0.930
80.00	-7.51	-13.18	0.00	-633.80	0.00	633.80	1,397.65	698.83	1,428.30	705.38	33.62	-3.90	0.904
85.00	-6.98	-12.56	0.00	-567.92	0.00	567.92	1,370.53	685.26	1,357.58	670.46	38.00	-4.45	0.852
90.00	-6.46	-12.16	0.00	-505.13	0.00	505.13	1,342.44	671.22	1,287.64	635.92	42.93	-4.98	0.799
95.00	-5.96	-11.76	0.00	-444.32	0.00	444.32	1,313.39	656.70	1,218.57	601.80	48.42	-5.50	0.743
100.00	-5.03	-10.31	0.00	-382.70	0.00	382.70	1,283.38	641.69	1,150.46	568.17	54.44	-6.00	0.678
105.00	-4.59	-9.90	0.00	-331.16	0.00	331.16	1,248.31	624.16	1,079.86	533.30	60.97	-6.48	0.625
110.00	-4.16	-9.50	0.00	-281.64	0.00	281.64	1,203.56	601.78	1,003.39	495.54	67.98	-6.93	0.572
110.00	-4.16	-9.50	0.00	-281.64	0.00	281.64	829.71	414.85	695.98	343.72	67.98	-6.93	0.825
115.00	-3.81	-9.11	0.00	-234.15	0.00	234.15	811.47	405.73	655.22	323.59	75.45	-7.36	0.729
120.00	-3.10	-7.28	0.00	-186.97	0.00	186.97	792.27	396.13	614.86	303.65	83.42	-7.88	0.620
125.00	-2.85	-6.90	0.00	-150.60	0.00	150.60	772.10	386.05	574.98	283.96	91.90	-8.35	0.534
130.00	-2.47	-5.95	0.00	-116.07	0.00	116.07	750.97	375.48	535.68	264.55	100.84	-8.76	0.442
135.00	-2.28	-5.60	0.00	-86.32	0.00	86.32	728.87	364.44	497.06	245.48	110.17	-9.12	0.355
140.00	-2.11	-5.25	0.00	-58.34	0.00	58.34	704.09	352.04	458.06	226.22	119.85	-9.41	0.261
145.00	-1.96	-4.91	0.00	-32.10	0.00	32.10	670.52	335.26	415.19	205.05	129.78	-9.62	0.160
149.00	-0.03	-0.07	0.00	-0.07	0.00	0.07	643.68	321.84	382.41	188.86	137.86	-9.72	0.000
150.00	0.00	-0.06	0.00	0.00	0.00	0.00	636.96	318.48	374.43	184.91	139.88	-9.72	0.000

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 1.2D + 1.0Di + 1.0Wi      50.00 mph with 1.00 in Radial Ice      27 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

**Shaft Segment Forces (Factored)**

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	4.256	4.682	0.000	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.656	5.00	16.747	20.10	94.1	395.5	1,598.5
10.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.775	5.00	16.520	19.82	92.8	416.6	1,600.9
15.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.848	5.00	16.256	19.51	91.3	425.6	1,591.4
20.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.902	5.00	15.976	19.17	89.8	429.4	1,576.6
25.00		1.00	0.70	4.256	4.682	0.000	1.200	* 1.945	5.00	15.686	18.82	88.1	430.1	1,558.7
30.00		1.00	0.70	4.260	4.686	0.000	1.200	* 1.981	5.00	15.391	18.47	86.5	428.7	1,538.8
32.00	Bot - Section 2	1.00	0.71	4.339	4.773	0.000	1.200	* 1.994	2.00	6.069	7.28	34.8	171.1	609.9
35.00		1.00	0.73	4.451	4.897	0.000	1.200	* 2.012	3.00	9.177	11.01	53.9	260.5	1,298.4
36.00	Top - Section 1	1.00	0.73	4.487	4.936	0.000	1.200	* 2.017	1.00	3.034	3.64	18.0	86.7	429.9
40.00		1.00	0.76	4.625	5.087	0.000	1.200	* 2.039	4.00	12.020	14.42	73.4	344.3	1,114.1
45.00		1.00	0.78	4.783	5.261	0.000	1.200	* 2.063	5.00	14.753	17.70	93.1	425.6	1,374.0
50.00		1.00	0.81	4.929	5.422	0.000	1.200	* 2.085	5.00	14.446	17.33	94.0	420.2	1,353.1
55.00		1.00	0.83	5.065	5.572	0.000	1.200	* 2.105	5.00	14.137	16.96	94.5	414.2	1,331.6
60.00		1.00	0.85	5.193	5.712	0.000	1.200	* 2.123	5.00	13.827	16.59	94.8	407.7	1,309.6
65.00		1.00	0.87	5.313	5.844	0.000	1.200	* 2.140	5.00	13.516	16.22	94.8	400.8	1,287.1
70.00	Bot - Section 3	1.00	0.89	5.426	5.969	0.000	1.200	* 2.156	5.00	13.204	15.84	94.6	393.4	1,264.3
73.50	Top - Section 2	1.00	0.90	5.502	6.053	0.000	1.200	* 2.167	3.50	9.206	11.05	66.9	276.6	1,176.7
75.00		1.00	0.91	5.534	6.088	0.000	1.200	* 2.171	1.50	3.898	4.68	28.5	117.8	344.6
77.44	Reinf. Top	1.00	0.91	5.585	6.144	0.000	1.200	* 2.178	2.44	6.274	7.53	46.3	189.6	555.8
80.00		1.00	0.92	5.637	6.201	0.000	1.200	* 2.185	2.56	6.516	7.82	48.5	197.2	407.8
85.00		1.00	0.94	5.736	6.309	0.000	1.200	* 2.198	5.00	12.479	14.97	94.5	376.6	778.2
90.00		1.00	0.95	5.830	6.413	0.000	1.200	* 2.211	5.00	12.164	14.60	93.6	368.1	757.3
95.00		1.00	0.97	5.921	6.513	0.000	1.200	* 2.223	5.00	11.849	14.22	92.6	359.4	736.2
100.0	Appertunance(s)	1.00	0.98	6.008	6.609	0.000	1.200	* 2.234	5.00	11.533	13.84	91.5	350.5	714.9
105.0		1.00	1.00	6.093	6.702	0.000	1.200	* 2.245	5.00	11.217	13.46	90.2	341.4	693.4
110.0	Top - Section 3	1.00	1.01	6.174	6.792	0.000	1.200	* 2.256	5.00	10.900	13.08	88.8	332.1	671.7
115.0		1.00	1.02	6.253	6.879	0.000	1.200	* 2.266	5.00	10.583	12.70	87.4	322.7	568.8
120.0	Appertunance(s)	1.00	1.04	6.330	6.963	0.000	1.200	* 2.276	5.00	10.266	12.32	85.8	313.1	549.9
125.0		1.00	1.05	6.404	7.044	0.000	1.200	* 2.285	5.00	9.948	11.94	84.1	303.3	530.9
130.0	Appertunance(s)	1.00	1.06	6.476	7.124	0.000	1.200	* 2.294	5.00	9.630	11.56	82.3	293.4	511.7
135.0		1.00	1.07	6.546	7.201	0.000	1.200	* 2.303	5.00	9.312	11.17	80.5	283.4	492.4
140.0		1.00	1.08	6.615	7.276	0.000	1.200	* 2.311	5.00	8.994	10.79	78.5	273.2	472.9
145.0		1.00	1.09	6.681	7.350	0.000	1.200	* 2.319	5.00	8.676	10.41	76.5	263.0	453.4
149.0	Appertunance(s)	1.00	1.10	6.734	7.407	0.000	1.200	* 2.325	4.00	6.710	8.05	59.6	203.8	349.4
150.0		1.00	1.11	6.746	7.421	0.000	1.200	* 2.327	1.00	1.645	1.97	14.7	50.5	86.0
							Totals:	150.00				2,679.1	11,066.2	31,688.4

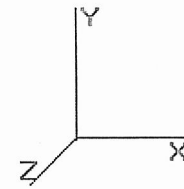
\* = Cf Adjusted By Linear Load Ra Effect



Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 1.2D + 1.0Di + 1.0Wi      50.00 mph with 1.00 in Radial Ice      27 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)**

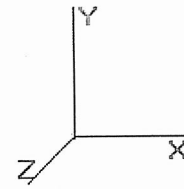
Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
100.0	DB Systems 5100A	1	6.076	6.684	1.00	1.00	3.87	0.000	4.000	25.84	0.00	103.35	156.12
100.0	DB Systems 5100A-D	4	6.076	6.684	1.00	1.00	19.88	0.000	4.000	132.86	0.00	531.46	1,008.24
100.0	Side Arm	3	6.008	6.609	0.56	0.75	11.27	0.000	0.000	74.52	0.00	0.00	746.55
100.0	Vertex 101V VPD	1	6.076	6.684	0.80	0.80	2.59	0.000	4.000	17.33	0.00	69.31	102.87
120.0	18" x 12" Junction B	1	6.330	6.963	0.80	0.80	2.05	0.000	0.000	14.28	0.00	0.00	113.82
120.0	Argus LLPX310R	3	6.330	6.963	0.56	0.80	9.22	0.000	0.000	64.20	0.00	0.00	555.95
120.0	Clearwire Mount	1	6.330	6.963	1.00	1.00	17.78	0.000	0.000	123.83	0.00	0.00	1,102.30
120.0	DragonWave A-ANT-	1	6.389	7.028	1.00	1.00	10.93	0.000	4.000	76.80	0.00	307.19	259.76
120.0	DragonWave Horizon	1	6.389	7.028	0.80	0.80	0.62	0.000	4.000	4.36	0.00	17.43	57.08
120.0	NextNet BTS-2500	3	6.330	6.963	0.58	0.80	4.49	0.000	0.000	31.23	0.00	0.00	369.83
130.0	Flush Mount	1	6.476	7.124	1.00	1.00	7.13	0.000	0.000	50.79	0.00	0.00	598.78
130.0	RFS APXV18-206517S-	3	6.476	7.124	0.59	0.80	12.13	0.000	0.000	86.38	0.00	0.00	603.08
149.0	Andrew SBNH-	2	6.785	7.463	0.60	0.75	16.41	0.000	4.000	122.48	0.00	489.90	891.53
149.0	Ericsson RRUS 11	6	6.785	7.463	0.50	0.75	10.45	0.000	4.000	77.96	0.00	311.85	1,064.47
149.0	Kathrein 800 10764	3	6.785	7.463	0.58	0.75	12.87	0.000	4.000	96.08	0.00	384.30	786.46
149.0	KMW AM-X-CD-16-65-	4	6.785	7.463	0.60	0.75	23.48	0.000	4.000	175.23	0.00	700.92	1,307.63
149.0	Platform with Handra	1	6.746	7.421	1.00	1.00	68.20	0.000	1.000	506.10	0.00	506.10	3,730.10
149.0	Powerwave LGP13519	6	6.785	7.463	0.50	0.75	2.03	0.000	4.000	15.17	0.00	60.67	180.33
149.0	Powerwave TT08-	3	6.785	7.463	0.56	0.75	2.31	0.000	4.000	17.22	0.00	68.88	238.03
149.0	Raycap DC6-48-60-18-	1	6.785	7.463	0.75	0.75	2.07	0.000	4.000	15.42	0.00	61.68	140.21
										1,728.06			14,013.13

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi	50.00 mph with 1.00 in Radial Ice	27 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)**

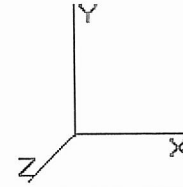
Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Exposed Ca	Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
5.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.202	0.000	0.00	21.88
5.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.202	0.000	0.00	30.79
5.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.51	3.02	4.256	0.202	0.000	14.12	57.96
5.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.51	3.02	4.256	0.202	0.000	14.12	57.96
5.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.202	0.000	0.00	163.02
5.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.202	0.000	0.00	73.73
5.00	(1) Brackets	Yes	5.00	2.000	2.00	2.21	4.43	4.256	0.202	0.000	20.72	31.30
10.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.206	0.000	0.00	24.66
10.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.206	0.000	0.00	34.15
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.206	0.000	0.00	140.58
10.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.61	3.13	4.256	0.206	0.000	14.68	62.97
10.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.61	3.13	4.256	0.206	0.000	14.68	62.97
10.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.206	0.000	0.00	168.74
10.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.206	0.000	0.00	79.24
10.00	(1) Brackets	Yes	5.00	2.000	2.00	2.31	4.62	4.256	0.206	0.000	21.65	34.72
15.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.211	0.000	0.00	26.46
15.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.211	0.000	0.00	36.32
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.211	0.000	0.00	145.60
15.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.67	3.21	4.256	0.211	0.000	15.02	66.15
15.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.67	3.21	4.256	0.211	0.000	15.02	66.15
15.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.211	0.000	0.00	172.37
15.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.211	0.000	0.00	82.73
15.00	(1) Brackets	Yes	5.00	2.000	2.00	2.37	4.75	4.256	0.211	0.000	22.22	36.92
20.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.215	0.000	0.00	27.83
20.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.215	0.000	0.00	37.95
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.215	0.000	0.00	149.33
20.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.72	3.26	4.256	0.215	0.000	15.27	68.52
20.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.72	3.26	4.256	0.215	0.000	15.27	68.52
20.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.215	0.000	0.00	175.07
20.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.215	0.000	0.00	85.34
20.00	(1) Brackets	Yes	5.00	2.000	2.00	2.42	4.84	4.256	0.215	0.000	22.65	38.57
25.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.220	0.000	0.00	28.95
25.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.220	0.000	0.00	39.28
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.220	0.000	0.00	152.32
25.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.75	3.31	4.256	0.220	0.000	15.47	70.44
25.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.75	3.31	4.256	0.220	0.000	15.47	70.44
25.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.220	0.000	0.00	177.25
25.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.256	0.220	0.000	0.00	87.44
25.00	(1) Brackets	Yes	5.00	2.000	2.00	2.45	4.91	4.256	0.220	0.000	22.98	39.91
30.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.260	0.226	0.000	0.00	29.89
30.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.260	0.226	0.000	0.00	40.40
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.260	0.226	0.000	0.00	154.83
30.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.78	3.34	4.260	0.226	0.000	15.65	72.06
30.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.78	3.34	4.260	0.226	0.000	15.65	72.06
30.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	4.260	0.226	0.000	0.00	179.08
30.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.260	0.226	0.000	0.00	89.21
30.00	(1) Brackets	Yes	5.00	2.000	2.00	2.48	4.97	4.260	0.226	0.000	23.28	41.05
32.00	(1) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	4.339	0.229	0.000	0.00	12.09
32.00	(6) 5/16" Coax	Yes	2.00	0.000	0.00	0.00	0.00	4.339	0.229	0.000	0.00	16.32
32.00	(6) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	4.339	0.229	0.000	0.00	62.29
32.00	(2) #20 Dywidag Bars	Yes	2.00	1.200	2.72	1.12	1.34	4.339	0.229	0.000	6.40	29.06

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi	50.00 mph with 1.00 in Radial Ice	27 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		

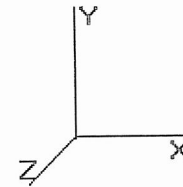
32.00	(2) #20 Dywidag Bars	Yes	2.00	1.200	2.72	1.12	1.34	4.339	0.229	0.000	6.40	29.06
32.00	(2) 3" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	4.339	0.229	0.000	0.00	71.90
32.00	(6) 7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	4.339	0.229	0.000	0.00	35.94
32.00	(1) Brackets	Yes	2.00	2.000	2.00	1.00	2.00	4.339	0.229	0.000	9.53	16.58
35.00	(1) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	4.451	0.232	0.000	0.00	18.43
35.00	(6) 5/16" Coax	Yes	3.00	0.000	0.00	0.00	0.00	4.451	0.232	0.000	0.00	24.82
35.00	(6) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	4.451	0.232	0.000	0.00	94.20
35.00	(2) #20 Dywidag Bars	Yes	3.00	1.200	2.72	1.69	2.02	4.451	0.232	0.000	9.91	44.08
35.00	(2) #20 Dywidag Bars	Yes	3.00	1.200	2.72	1.69	2.02	4.451	0.232	0.000	9.91	44.08
35.00	(2) 3" Conduit	Yes	3.00	0.000	0.00	0.00	0.00	4.451	0.232	0.000	0.00	108.40
35.00	(6) 7/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	4.451	0.232	0.000	0.00	54.45
35.00	(1) Brackets	Yes	3.00	2.000	2.00	1.51	3.01	4.451	0.232	0.000	14.75	25.22
36.00	(1) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	4.487	0.235	0.000	0.00	6.17
36.00	(6) 5/16" Coax	Yes	1.00	0.000	0.00	0.00	0.00	4.487	0.235	0.000	0.00	8.31
36.00	(6) 1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	4.487	0.235	0.000	0.00	31.48
36.00	(2) #20 Dywidag Bars	Yes	1.00	1.200	2.72	0.56	0.68	4.487	0.235	0.000	3.33	14.74
36.00	(2) #20 Dywidag Bars	Yes	1.00	1.200	2.72	0.56	0.68	4.487	0.235	0.000	3.33	14.74
36.00	(2) 3" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	4.487	0.235	0.000	0.00	36.19
36.00	(6) 7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	4.487	0.235	0.000	0.00	18.21
36.00	(1) Brackets	Yes	1.00	2.000	2.00	0.50	1.01	4.487	0.235	0.000	4.96	8.44
40.00	(1) 1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	4.625	0.233	0.000	0.00	25.16
40.00	(6) 5/16" Coax	Yes	4.00	0.000	0.00	0.00	0.00	4.625	0.233	0.000	0.00	33.79
40.00	(6) 1 5/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	4.625	0.233	0.000	0.00	127.14
40.00	(2) #20 Dywidag Bars	Yes	4.00	1.200	2.72	2.27	2.72	4.625	0.233	0.000	13.83	59.76
40.00	(2) #20 Dywidag Bars	Yes	4.00	1.200	2.72	2.27	2.72	4.625	0.233	0.000	13.83	59.76
40.00	(2) 3" Conduit	Yes	4.00	0.000	0.00	0.00	0.00	4.625	0.233	0.000	0.00	145.66
40.00	(6) 7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	4.625	0.233	0.000	0.00	73.68
40.00	(1) Brackets	Yes	4.00	2.000	2.00	2.03	4.05	4.625	0.233	0.000	20.61	34.34
45.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.783	0.238	0.000	0.00	32.12
45.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.783	0.238	0.000	0.00	43.02
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.783	0.238	0.000	0.00	160.64
45.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.85	3.42	4.783	0.238	0.000	18.01	75.82
45.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.85	3.42	4.783	0.238	0.000	18.01	75.82
45.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	4.783	0.238	0.000	0.00	183.34
45.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.783	0.238	0.000	0.00	93.32
45.00	(1) Brackets	Yes	5.00	2.000	2.00	2.55	5.11	4.783	0.238	0.000	26.86	43.71
50.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.929	0.244	0.000	0.00	32.72
50.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.929	0.244	0.000	0.00	43.74
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.929	0.244	0.000	0.00	162.21
50.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.87	3.44	4.929	0.244	0.000	18.68	76.83
50.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.87	3.44	4.929	0.244	0.000	18.68	76.83
50.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	4.929	0.244	0.000	0.00	184.49
50.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	4.929	0.244	0.000	0.00	94.43
50.00	(1) Brackets	Yes	5.00	2.000	2.00	2.57	5.14	4.929	0.244	0.000	27.88	44.44
55.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.065	0.250	0.000	0.00	33.28
55.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.065	0.250	0.000	0.00	44.40
55.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.065	0.250	0.000	0.00	163.64
55.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.89	3.46	5.065	0.250	0.000	19.30	77.77
55.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.89	3.46	5.065	0.250	0.000	19.30	77.77
55.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	5.065	0.250	0.000	0.00	185.54
55.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.065	0.250	0.000	0.00	95.45
55.00	(1) Brackets	Yes	5.00	2.000	2.00	2.59	5.17	5.065	0.250	0.000	28.83	45.10
60.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.193	0.257	0.000	0.00	33.80
60.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.193	0.257	0.000	0.00	45.01
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.193	0.257	0.000	0.00	164.97
60.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.90	3.48	5.193	0.257	0.000	19.90	78.63
60.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.90	3.48	5.193	0.257	0.000	19.90	78.63

Pole : 302475  
 Location : Stn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi	50.00 mph with 1.00 in Radial Ice	27 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		

60.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	5.193	0.257	0.000	0.00	186.52
60.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.193	0.257	0.000	0.00	96.39
60.00	(1) Brackets	Yes	5.00	2.000	2.00	2.60	5.21	5.193	0.257	0.000	29.73	45.72
65.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.313	0.264	0.000	0.00	34.29
65.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.313	0.264	0.000	0.00	45.58
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.313	0.264	0.000	0.00	166.20
65.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.92	3.50	5.313	0.264	0.000	20.46	79.44
65.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.92	3.50	5.313	0.264	0.000	20.46	79.44
65.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	5.313	0.264	0.000	0.00	187.43
65.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.313	0.264	0.000	0.00	97.27
65.00	(1) Brackets	Yes	5.00	2.000	2.00	2.62	5.23	5.313	0.264	0.000	30.59	46.30
70.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.426	0.272	0.000	0.00	34.75
70.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.426	0.272	0.000	0.00	46.11
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.426	0.272	0.000	0.00	167.35
70.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.93	3.52	5.426	0.272	0.000	20.99	80.19
70.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	2.93	3.52	5.426	0.272	0.000	20.99	80.19
70.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	5.426	0.272	0.000	0.00	188.28
70.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.426	0.272	0.000	0.00	98.09
70.00	(1) Brackets	Yes	5.00	2.000	2.00	2.63	5.26	5.426	0.272	0.000	31.40	46.84
73.50	(1) 1/2" Coax	Yes	3.50	0.000	0.00	0.00	0.00	5.502	0.279	0.000	0.00	24.54
73.50	(6) 5/16" Coax	Yes	3.50	0.000	0.00	0.00	0.00	5.502	0.279	0.000	0.00	32.53
73.50	(6) 1 5/8" Coax	Yes	3.50	0.000	0.00	0.00	0.00	5.502	0.279	0.000	0.00	117.68
73.50	(2) #20 Dywidag Bars	Yes	3.50	1.200	2.72	2.06	2.47	5.502	0.279	0.000	14.94	56.48
73.50	(2) #20 Dywidag Bars	Yes	3.50	1.200	2.72	2.06	2.47	5.502	0.279	0.000	14.94	56.48
73.50	(2) 3" Conduit	Yes	3.50	0.000	0.00	0.00	0.00	5.502	0.279	0.000	0.00	132.19
73.50	(6) 7/8" Coax	Yes	3.50	0.000	0.00	0.00	0.00	5.502	0.279	0.000	0.00	69.05
73.50	(1) Brackets	Yes	3.50	2.000	2.00	1.85	3.69	5.502	0.279	0.000	22.36	33.04
75.00	(1) 1/2" Coax	Yes	1.50	0.000	0.00	0.00	0.00	5.534	0.277	0.000	0.00	10.55
75.00	(6) 5/16" Coax	Yes	1.50	0.000	0.00	0.00	0.00	5.534	0.277	0.000	0.00	13.98
75.00	(6) 1 5/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	5.534	0.277	0.000	0.00	50.53
75.00	(2) #20 Dywidag Bars	Yes	1.50	1.200	2.72	0.88	1.06	5.534	0.277	0.000	6.45	24.27
75.00	(2) #20 Dywidag Bars	Yes	1.50	1.200	2.72	0.88	1.06	5.534	0.277	0.000	6.45	24.27
75.00	(2) 3" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	5.534	0.277	0.000	0.00	56.72
75.00	(6) 7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	5.534	0.277	0.000	0.00	29.66
75.00	(1) Brackets	Yes	1.50	2.000	2.00	0.79	1.59	5.534	0.277	0.000	9.65	14.21
77.44	(1) 1/2" Coax	Yes	2.44	0.000	0.00	0.00	0.00	5.585	0.280	0.000	0.00	17.25
77.44	(6) 5/16" Coax	Yes	2.44	0.000	0.00	0.00	0.00	5.585	0.280	0.000	0.00	22.84
77.44	(6) 1 5/8" Coax	Yes	2.44	0.000	0.00	0.00	0.00	5.585	0.280	0.000	0.00	82.36
77.44	(2) #20 Dywidag Bars	Yes	2.44	1.200	2.72	1.44	1.72	5.585	0.280	0.000	10.60	39.60
77.44	(2) #20 Dywidag Bars	Yes	2.44	1.200	2.72	1.44	1.72	5.585	0.280	0.000	10.60	39.60
77.44	(2) 3" Conduit	Yes	2.44	0.000	0.00	0.00	0.00	5.585	0.280	0.000	0.00	92.36
77.44	(6) 7/8" Coax	Yes	2.44	0.000	0.00	0.00	0.00	5.585	0.280	0.000	0.00	48.37
77.44	(1) Brackets	Yes	2.44	2.000	2.00	1.29	2.58	5.585	0.280	0.000	15.86	23.20
80.00	(1) 1/2" Coax	Yes	2.56	0.000	0.00	0.00	0.00	5.637	0.285	0.000	0.00	18.24
80.00	(6) 5/16" Coax	Yes	2.56	0.000	0.00	0.00	0.00	5.637	0.285	0.000	0.00	24.14
80.00	(6) 1 5/8" Coax	Yes	2.56	0.000	0.00	0.00	0.00	5.637	0.285	0.000	0.00	86.85
80.00	(2) #20 Dywidag Bars	Yes	2.56	1.200	2.72	1.51	1.82	5.637	0.285	0.000	11.27	41.81
80.00	(2) #20 Dywidag Bars	Yes	2.56	1.200	2.72	1.51	1.82	5.637	0.285	0.000	11.27	41.81
80.00	(2) 3" Conduit	Yes	2.56	0.000	0.00	0.00	0.00	5.637	0.285	0.000	0.00	97.29
80.00	(6) 7/8" Coax	Yes	2.56	0.000	0.00	0.00	0.00	5.637	0.285	0.000	0.00	51.05
80.00	(1) Brackets	Yes	2.56	2.000	2.00	1.36	2.72	5.637	0.285	0.000	16.87	24.51
85.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.736	0.235	0.000	0.00	35.98
85.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.736	0.235	0.000	0.00	47.55
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.736	0.235	0.000	0.00	170.43
85.00	(2) 3" Conduit	Yes	2.50	1.200	3.50	1.65	1.97	5.736	0.235	0.000	12.46	95.28
85.00	(6) 7/8" Coax	Yes	2.50	1.200	1.09	1.14	1.37	5.736	0.235	0.000	8.65	50.15
85.00	(2) #20 Dywidag Bars	Yes	2.50	1.200	2.72	1.48	1.78	5.736	0.235	0.000	11.23	41.10

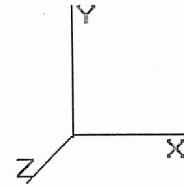


Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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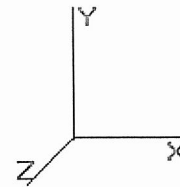
**Load Case:** 1.2D + 1.0Di + 1.0Wi      50.00 mph with 1.00 in Radial Ice      27 Iterations  
 Gust Response Factor : 1.10      Ice Dead Load Factor : 1.00      Wind Importance Factor : 1.00  
 Dead Load Factor : 1.20      Ice Importance Factor : 1.00  
 Wind Load Factor : 1.00

85.00	(2) #20 Dywidag Bars	Yes	2.50	1.200	2.72	1.48	1.78	5.736	0.235	0.000	11.23	41.10
85.00	(2) 3" Conduit	Yes	2.50	0.000	0.00	0.00	0.00	5.736	0.235	0.000	0.00	95.28
85.00	(6) 7/8" Coax	Yes	2.50	0.000	0.00	0.00	0.00	5.736	0.235	0.000	0.00	50.15
85.00	(1) Brackets	Yes	2.50	2.000	2.00	1.33	2.67	5.736	0.235	0.000	16.82	24.15
90.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.830	0.185	1.256	0.00	36.35
90.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.830	0.185	1.256	0.00	47.98
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.830	0.185	1.256	0.00	171.35
90.00	(2) 3" Conduit	Yes	5.00	0.000	3.50	3.30	0.00	5.830	0.185	1.256	0.00	191.24
90.00	(6) 7/8" Coax	Yes	5.00	0.000	1.09	2.30	0.00	5.830	0.185	1.256	0.00	100.95
95.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.921	0.191	1.274	0.00	36.70
95.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.921	0.191	1.274	0.00	48.39
95.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	5.921	0.191	1.274	0.00	172.23
95.00	(2) 3" Conduit	Yes	5.00	0.000	3.50	3.31	0.00	5.921	0.191	1.274	0.00	191.89
95.00	(6) 7/8" Coax	Yes	5.00	0.000	1.09	2.31	0.00	5.921	0.191	1.274	0.00	101.58
100.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.008	0.198	1.293	0.00	37.04
100.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.008	0.198	1.293	0.00	48.79
100.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.008	0.198	1.293	0.00	173.07
100.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	3.32	0.00	6.008	0.198	1.293	0.00	192.51
100.0	(6) 7/8" Coax	Yes	5.00	0.000	1.09	2.32	0.00	6.008	0.198	1.293	0.00	102.19
105.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.093	0.156	1.168	0.00	37.37
105.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.093	0.156	1.168	0.00	49.17
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.093	0.156	1.168	0.00	173.87
105.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	3.33	0.00	6.093	0.156	1.168	0.00	193.11
110.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.174	0.162	1.185	0.00	37.68
110.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.174	0.162	1.185	0.00	49.53
110.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.174	0.162	1.185	0.00	174.64
110.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	3.34	0.00	6.174	0.162	1.185	0.00	193.68
115.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.253	0.168	1.203	0.00	37.98
115.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.253	0.168	1.203	0.00	49.88
115.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.253	0.168	1.203	0.00	175.39
115.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	3.35	0.00	6.253	0.168	1.203	0.00	194.23
120.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.330	0.174	1.223	0.00	38.27
120.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.330	0.174	1.223	0.00	50.22
120.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.330	0.174	1.223	0.00	176.10
120.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	3.35	0.00	6.330	0.174	1.223	0.00	194.76
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.73	0.00	6.404	0.103	1.008	0.00	176.79
130.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	2.74	0.00	6.476	0.107	1.021	0.00	177.46
<b>Totals:</b>											1,052.32	15,392.52

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 1.2D + 1.0Di + 1.0Wi      50.00 mph with 1.00 in Radial Ice      27 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

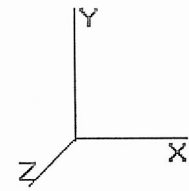
**Applied Segment Forces Summary**

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	143.04	2,104.37	0.00	0.00
10.00	143.81	2,278.20	0.00	0.00
15.00	143.59	2,293.33	0.00	0.00
20.00	142.94	2,296.95	0.00	0.00
25.00	142.05	2,293.95	0.00	0.00
30.00	141.13	2,286.57	0.00	0.00
32.00	57.09	910.85	0.00	0.00
35.00	88.48	1,753.64	0.00	0.00
36.00	29.61	582.09	0.00	0.00
40.00	121.65	1,728.75	0.00	0.00
45.00	156.01	2,151.00	0.00	0.00
50.00	159.22	2,138.01	0.00	0.00
55.00	161.96	2,123.77	0.00	0.00
60.00	164.29	2,108.48	0.00	0.00
65.00	166.28	2,092.29	0.00	0.00
70.00	167.95	2,075.33	0.00	0.00
73.50	119.11	1,747.15	0.00	0.00
75.00	51.03	589.60	0.00	0.00
77.44	83.31	955.11	0.00	0.00
80.00	87.89	828.99	0.00	0.00
85.00	154.86	1,498.55	0.00	0.00
90.00	93.61	1,374.39	0.00	0.00
95.00	92.61	1,356.22	0.00	0.00
100.0	342.02	3,351.49	0.00	704.12
105.0	90.21	1,216.12	0.00	0.00
110.0	88.84	1,196.46	0.00	0.00
115.0	87.36	1,095.54	0.00	0.00
120.0	400.47	3,537.25	0.00	324.62
125.0	84.10	776.89	0.00	0.00
130.0	219.49	1,960.22	0.00	0.00
135.0	80.47	561.59	0.00	0.00
140.0	78.53	542.15	0.00	0.00
145.0	76.51	522.60	0.00	0.00
149.0	1,085.29	8,743.51	0.00	2,584.31
150.0	14.65	99.84	0.00	0.00
<b>Totals:</b>	<b>5,459.48</b>	<b>63,171.25</b>	<b>0.00</b>	<b>3,613.05</b>

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 1.2D + 1.0Di + 1.0Wi    50.00 mph with 1.00 in Radial Ice    27 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**

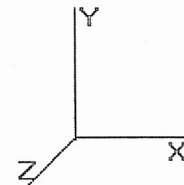
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-63.17	-5.50	0.00	-558.12	0.00	558.12	3,058.44	1,529.22	4,486.20	2,215.57	0.00	0.00	0.168
5.00	-61.06	-5.42	0.00	-530.63	0.00	530.63	3,015.96	1,507.98	4,329.28	2,138.07	0.04	-0.07	0.163
10.00	-58.77	-5.35	0.00	-503.51	0.00	503.51	2,972.53	1,486.26	4,173.67	2,061.22	0.14	-0.14	0.159
15.00	-56.47	-5.26	0.00	-476.78	0.00	476.78	2,928.13	1,464.06	4,019.46	1,985.06	0.32	-0.20	0.154
20.00	-54.17	-5.17	0.00	-450.46	0.00	450.46	2,882.77	1,441.38	3,866.74	1,909.64	0.57	-0.27	0.149
25.00	-51.87	-5.08	0.00	-424.59	0.00	424.59	2,835.18	1,417.59	3,713.97	1,834.19	0.89	-0.34	0.145
30.00	-49.58	-4.97	0.00	-399.19	0.00	399.19	2,768.06	1,384.03	3,539.19	1,747.87	1.28	-0.41	0.141
32.00	-48.67	-4.93	0.00	-389.25	0.00	389.25	2,741.21	1,370.60	3,470.46	1,713.93	1.46	-0.43	0.139
35.00	-46.91	-4.85	0.00	-374.46	0.00	374.46	2,700.94	1,350.47	3,368.63	1,663.64	1.74	-0.47	0.135
36.00	-46.33	-4.84	0.00	-369.61	0.00	369.61	2,178.16	1,089.08	2,770.79	1,368.39	1.84	-0.49	0.153
40.00	-44.60	-4.75	0.00	-350.24	0.00	350.24	2,151.08	1,075.54	2,682.35	1,324.71	2.27	-0.54	0.148
45.00	-42.44	-4.63	0.00	-326.47	0.00	326.47	2,116.36	1,058.18	2,572.65	1,270.54	2.88	-0.61	0.141
50.00	-40.30	-4.49	0.00	-303.34	0.00	303.34	2,080.68	1,040.34	2,464.00	1,216.88	3.55	-0.68	0.134
55.00	-38.17	-4.35	0.00	-280.88	0.00	280.88	2,044.03	1,022.02	2,356.47	1,163.77	4.30	-0.74	0.128
60.00	-36.06	-4.20	0.00	-259.15	0.00	259.15	2,006.42	1,003.21	2,250.16	1,111.27	5.11	-0.81	0.121
65.00	-33.97	-4.04	0.00	-238.17	0.00	238.17	1,966.16	983.08	2,143.32	1,058.50	5.99	-0.87	0.114
70.00	-31.89	-3.86	0.00	-217.99	0.00	217.99	1,910.22	955.11	2,022.41	998.79	6.94	-0.94	0.109
73.50	-30.15	-3.73	0.00	-204.47	0.00	204.47	1,431.47	715.74	1,521.25	751.29	7.65	-0.98	0.120
75.00	-29.56	-3.68	0.00	-198.87	0.00	198.87	1,423.81	711.90	1,499.70	740.65	7.96	-1.00	0.118
77.44	-28.60	-3.60	0.00	-189.89	0.00	189.89	1,411.18	705.59	1,464.81	723.42	8.48	-1.03	0.113
77.44	-28.60	-3.60	0.00	-189.89	0.00	189.89	1,411.18	705.59	1,464.81	723.42	8.48	-1.03	0.283
80.00	-27.77	-3.54	0.00	-180.66	0.00	180.66	1,397.65	698.83	1,428.30	705.38	9.04	-1.06	0.276
85.00	-26.26	-3.43	0.00	-162.95	0.00	162.95	1,370.53	685.26	1,357.58	670.46	10.23	-1.22	0.262
90.00	-24.88	-3.37	0.00	-145.80	0.00	145.80	1,342.44	671.22	1,287.64	635.92	11.59	-1.37	0.248
95.00	-23.52	-3.30	0.00	-128.95	0.00	128.95	1,313.39	656.70	1,218.57	601.80	13.11	-1.52	0.232
100.00	-20.17	-2.92	0.00	-111.73	0.00	111.73	1,283.38	641.69	1,150.46	568.17	14.78	-1.67	0.212
105.00	-18.95	-2.84	0.00	-97.13	0.00	97.13	1,248.31	624.16	1,079.86	533.30	16.61	-1.81	0.197
110.00	-17.75	-2.75	0.00	-82.94	0.00	82.94	1,203.56	601.78	1,003.39	495.54	18.57	-1.94	0.182
110.00	-17.75	-2.75	0.00	-82.94	0.00	82.94	829.71	414.85	695.98	343.72	18.57	-1.94	0.263
115.00	-16.66	-2.67	0.00	-69.19	0.00	69.19	811.47	405.73	655.22	323.59	20.67	-2.07	0.234
120.00	-13.13	-2.17	0.00	-55.54	0.00	55.54	792.27	396.13	614.86	303.65	22.92	-2.22	0.200
125.00	-12.35	-2.08	0.00	-44.71	0.00	44.71	772.10	386.05	574.98	283.96	25.32	-2.36	0.173
130.00	-10.40	-1.80	0.00	-34.31	0.00	34.31	750.97	375.48	535.68	264.55	27.86	-2.48	0.144
135.00	-9.84	-1.71	0.00	-25.33	0.00	25.33	728.87	364.44	497.06	245.48	30.52	-2.59	0.117
140.00	-9.30	-1.62	0.00	-16.78	0.00	16.78	704.09	352.04	458.06	226.22	33.28	-2.67	0.087
145.00	-8.78	-1.52	0.00	-8.69	0.00	8.69	670.52	335.26	415.19	205.05	36.11	-2.73	0.056
149.00	-0.10	-0.02	0.00	-0.02	0.00	0.02	643.68	321.84	382.41	188.86	38.41	-2.76	0.000
150.00	0.00	-0.01	0.00	0.00	0.00	0.00	636.96	318.48	374.43	184.91	38.99	-2.76	0.000



Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 1.0D + 1.0W      60.00 mph Serviceability      26 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)**

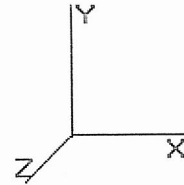
Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.742	155.91	1.000	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	6.129	6.742	152.64	1.200	* 0.000	5.00	15.366	18.44	124.3	0.0	1,058.1
10.00		1.00	0.70	6.129	6.742	149.37	1.200	* 0.000	5.00	15.041	18.05	121.7	0.0	1,042.6
15.00		1.00	0.70	6.129	6.742	146.11	1.200	* 0.000	5.00	14.716	17.66	119.0	0.0	1,027.2
20.00		1.00	0.70	6.129	6.742	142.84	1.200	* 0.000	5.00	14.391	17.27	116.4	0.0	1,011.7
25.00		1.00	0.70	6.129	6.742	139.58	1.200	* 0.000	5.00	14.065	16.88	113.8	0.0	996.2
30.00		1.00	0.70	6.134	6.747	136.37	1.200	* 0.000	5.00	13.740	16.49	111.2	0.0	980.7
32.00	Bot - Section 2	1.00	0.71	6.248	6.873	136.31	1.200	* 0.000	2.00	5.405	6.49	44.6	0.0	387.9
35.00		1.00	0.73	6.410	7.051	136.06	1.200	* 0.000	3.00	8.171	9.81	69.1	0.0	898.4
36.00	Top - Section 1	1.00	0.73	6.462	7.108	135.94	1.200	* 0.000	1.00	2.698	3.24	23.0	0.0	297.2
40.00		1.00	0.76	6.659	7.325	138.10	1.200	* 0.000	4.00	10.661	12.79	93.7	0.0	686.0
45.00		1.00	0.78	6.887	7.576	136.98	1.200	* 0.000	5.00	13.034	15.64	118.5	0.0	845.9
50.00		1.00	0.81	7.098	7.807	135.54	1.200	* 0.000	5.00	12.708	15.25	119.1	0.0	833.0
55.00		1.00	0.83	7.294	8.023	133.84	1.200	* 0.000	5.00	12.383	14.86	119.2	0.0	820.1
60.00		1.00	0.85	7.477	8.225	131.91	1.200	* 0.000	5.00	12.058	14.47	119.0	0.0	807.2
65.00		1.00	0.87	7.650	8.415	129.77	1.200	* 0.000	5.00	11.732	14.08	118.5	0.0	794.3
70.00	Bot - Section 3	1.00	0.89	7.814	8.595	127.47	1.200	* 0.000	5.00	11.407	13.69	117.7	0.0	781.4
73.50	Top - Section 2	1.00	0.90	7.924	8.716	125.76	1.200	* 0.000	3.50	7.942	9.53	83.1	0.0	789.1
75.00		1.00	0.91	7.969	8.766	127.48	1.200	* 0.000	1.50	3.355	4.03	35.3	0.0	205.7
77.44	Reinf. Top	1.00	0.91	8.043	8.847	126.24	1.200	* 0.000	2.44	5.390	6.47	57.2	0.0	332.3
80.00		1.00	0.92	8.118	8.930	124.90	1.200	* 0.000	2.56	5.583	6.70	59.8	0.0	175.5
85.00		1.00	0.94	8.260	9.086	122.19	1.200	* 0.000	5.00	10.647	12.78	116.1	0.0	334.6
90.00		1.00	0.95	8.396	9.235	119.37	1.000	* 0.000	5.00	10.321	10.32	95.3	0.0	324.3
95.00		1.00	0.97	8.526	9.379	116.44	1.000	* 0.000	5.00	9.996	10.00	93.8	0.0	314.0
100.0	Appertunance(s)	1.00	0.98	8.652	9.517	113.42	1.000	* 0.000	5.00	9.671	9.67	92.0	0.0	303.6
105.0		1.00	1.00	8.774	9.651	110.31	1.000	* 0.000	5.00	9.345	9.35	90.2	0.0	293.3
110.0	Top - Section 3	1.00	1.01	8.891	9.780	107.11	1.000	* 0.000	5.00	9.020	9.02	88.2	0.0	283.0
115.0		1.00	1.02	9.005	9.905	103.83	1.000	* 0.000	5.00	8.695	8.69	86.1	0.0	205.1
120.0	Appertunance(s)	1.00	1.04	9.115	10.02	100.48	1.000	* 0.000	5.00	8.370	8.37	83.9	0.0	197.4
125.0		1.00	1.05	9.222	10.14	97.066	1.000	* 0.000	5.00	8.044	8.04	81.6	0.0	189.6
130.0	Appertunance(s)	1.00	1.06	9.326	10.25	93.583	1.000	* 0.000	5.00	7.719	7.72	79.2	0.0	181.9
135.0		1.00	1.07	9.427	10.36	90.038	1.000	0.000	5.00	7.394	7.39	76.7	0.0	174.1
140.0		1.00	1.08	9.525	10.47	86.435	1.000	0.000	5.00	7.068	7.07	74.1	0.0	166.4
145.0		1.00	1.09	9.621	10.58	82.777	1.000	0.000	5.00	6.743	6.74	71.4	0.0	158.6
149.0	Appertunance(s)	1.00	1.10	9.696	10.66	79.813	1.000	0.000	4.00	5.160	5.16	55.0	0.0	121.3
150.0		1.00	1.11	9.715	10.68	79.067	1.000	0.000	1.00	1.258	1.26	13.4	0.0	29.6
								Totals:	150.00			3,081.2	0.0	18,047.3

\* = Cf Adjusted By Linear Load Ra Effect

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 1.0D + 1.0W      60.00 mph Serviceability      26 Iterations  
 Gust Response Factor : 1.10      Wind Importance Factor : 1.00  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

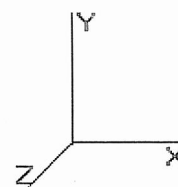
**Discrete Appurtenance Segment Forces (Factored)**

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
100.0	DB Systems 5100A	1	8.750	9.625	1.00	1.00	2.07	0.000	4.000	19.92	0.00	79.69	21.00
100.0	DB Systems 5100A-D	4	8.750	9.625	1.00	1.00	12.44	0.000	4.000	119.73	0.00	478.92	152.00
100.0	Side Arm	3	8.652	9.517	0.56	0.75	6.75	0.000	0.000	64.24	0.00	0.00	450.00
100.0	Vertex 101V VPD	1	8.750	9.625	0.80	0.80	2.03	0.000	4.000	19.56	0.00	78.23	4.00
120.0	18" x 12" Junction B	1	9.115	10.026	0.80	0.80	1.68	0.000	0.000	16.84	0.00	0.00	15.00
120.0	Argus LLPX310R	3	9.115	10.026	0.56	0.80	8.11	0.000	0.000	81.36	0.00	0.00	85.80
120.0	Clearwire Mount	1	9.115	10.026	1.00	1.00	8.50	0.000	0.000	85.22	0.00	0.00	350.00
120.0	DragonWave A-ANT-	1	9.201	10.121	1.00	1.00	8.67	0.000	4.000	87.75	0.00	350.98	66.10
120.0	DragonWave Horizon	1	9.201	10.121	0.80	0.80	0.34	0.000	4.000	3.48	0.00	13.93	10.60
120.0	NextNet BTS-2500	3	9.115	10.026	0.58	0.80	3.71	0.000	0.000	37.24	0.00	0.00	105.00
130.0	Flush Mount	1	9.326	10.258	1.00	1.00	3.00	0.000	0.000	30.77	0.00	0.00	200.00
130.0	RFS APXV18-206517S-	3	9.326	10.258	0.59	0.80	9.16	0.000	0.000	94.01	0.00	0.00	79.20
149.0	Andrew SBNH-	2	9.770	10.747	0.60	0.75	13.73	0.000	4.000	147.53	0.00	590.14	121.60
149.0	Ericsson RRUS 11	6	9.770	10.747	0.50	0.75	9.01	0.000	4.000	96.88	0.00	387.53	300.00
149.0	Kathrein 800 10764	3	9.770	10.747	0.58	0.75	11.11	0.000	4.000	119.39	0.00	477.56	122.40
149.0	KMW AM-X-CD-16-65-	4	9.770	10.747	0.60	0.75	19.82	0.000	4.000	213.05	0.00	852.19	194.00
149.0	Platform with Handra	1	9.715	10.686	1.00	1.00	31.00	0.000	1.000	331.28	0.00	331.28	2,000.00
149.0	Powerwave LGP13519	6	9.770	10.747	0.50	0.75	1.03	0.000	4.000	11.02	0.00	44.07	30.00
149.0	Powerwave TT08-	3	9.770	10.747	0.56	0.75	1.55	0.000	4.000	16.68	0.00	66.74	66.00
149.0	Raycap DC6-48-60-18-	1	9.770	10.747	0.75	0.75	0.94	0.000	4.000	10.16	0.00	40.62	20.00
										1,606.12			4,392.70

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
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Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : B  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)

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**Load Case: 1.0D + 1.0W**      60.00 mph Serviceability      26 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)**

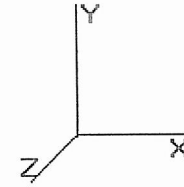
Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	FX (lb)	Dead Load (lb)
5.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.202	0.000	0.00	0.75
5.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.202	0.000	0.00	1.35
5.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.129	0.202	0.000	9.17	0.00
5.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.129	0.202	0.000	9.17	0.00
5.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.202	0.000	0.00	75.80
5.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.202	0.000	0.00	9.90
5.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	6.129	0.202	0.000	11.24	0.00
10.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.206	0.000	0.00	0.75
10.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.206	0.000	0.00	1.35
10.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.206	0.000	0.00	24.60
10.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.129	0.206	0.000	9.17	0.00
10.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.129	0.206	0.000	9.17	0.00
10.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.206	0.000	0.00	75.80
10.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.206	0.000	0.00	9.90
10.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	6.129	0.206	0.000	11.24	0.00
15.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.211	0.000	0.00	0.75
15.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.211	0.000	0.00	1.35
15.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.211	0.000	0.00	24.60
15.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.129	0.211	0.000	9.17	0.00
15.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.129	0.211	0.000	9.17	0.00
15.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.211	0.000	0.00	75.80
15.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.211	0.000	0.00	9.90
15.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	6.129	0.211	0.000	11.24	0.00
20.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.215	0.000	0.00	0.75
20.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.215	0.000	0.00	1.35
20.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.215	0.000	0.00	24.60
20.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.129	0.215	0.000	9.17	0.00
20.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.129	0.215	0.000	9.17	0.00
20.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.215	0.000	0.00	75.80
20.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.215	0.000	0.00	9.90
20.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	6.129	0.215	0.000	11.24	0.00
25.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.220	0.000	0.00	0.75
25.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.220	0.000	0.00	1.35
25.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.220	0.000	0.00	24.60
25.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.129	0.220	0.000	9.17	0.00
25.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.129	0.220	0.000	9.17	0.00
25.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.220	0.000	0.00	75.80
25.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.129	0.220	0.000	0.00	9.90
25.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	6.129	0.220	0.000	11.24	0.00
30.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.134	0.226	0.000	0.00	0.75
30.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.134	0.226	0.000	0.00	1.35
30.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.134	0.226	0.000	0.00	24.60
30.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.134	0.226	0.000	9.18	0.00
30.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.134	0.226	0.000	9.18	0.00
30.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	6.134	0.226	0.000	0.00	75.80
30.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.134	0.226	0.000	0.00	9.90
30.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	6.134	0.226	0.000	11.25	0.00
32.00	(1) 1/2" Coax	Yes	2.00	0.000	0.00	0.00	0.00	6.248	0.229	0.000	0.00	0.30
32.00	(6) 5/16" Coax	Yes	2.00	0.000	0.00	0.00	0.00	6.248	0.229	0.000	0.00	0.54
32.00	(6) 1 5/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	6.248	0.229	0.000	0.00	9.84
32.00	(2) #20 Dywidag Bars	Yes	2.00	1.200	2.72	0.45	0.54	6.248	0.229	0.000	3.74	0.00

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 1.0D + 1.0W

60.00 mph Serviceability

26 Iterations

Gust Response Factor : 1.10  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

Wind Importance Factor : 1.00

32.00	(2) #20 Dywidag Bars	Yes	2.00	1.200	2.72	0.45	0.54	6.248	0.229	0.000	3.74	0.00
32.00	(2) 3" Conduit	Yes	2.00	0.000	0.00	0.00	0.00	6.248	0.229	0.000	0.00	30.32
32.00	(6) 7/8" Coax	Yes	2.00	0.000	0.00	0.00	0.00	6.248	0.229	0.000	0.00	3.96
32.00	(1) Brackets	Yes	2.00	2.000	2.00	0.33	0.67	6.248	0.229	0.000	4.58	0.00
35.00	(1) 1/2" Coax	Yes	3.00	0.000	0.00	0.00	0.00	6.410	0.232	0.000	0.00	0.45
35.00	(6) 5/16" Coax	Yes	3.00	0.000	0.00	0.00	0.00	6.410	0.232	0.000	0.00	0.81
35.00	(6) 1 5/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	6.410	0.232	0.000	0.00	14.76
35.00	(2) #20 Dywidag Bars	Yes	3.00	1.200	2.72	0.68	0.82	6.410	0.232	0.000	5.75	0.00
35.00	(2) #20 Dywidag Bars	Yes	3.00	1.200	2.72	0.68	0.82	6.410	0.232	0.000	5.75	0.00
35.00	(2) 3" Conduit	Yes	3.00	0.000	0.00	0.00	0.00	6.410	0.232	0.000	0.00	45.48
35.00	(6) 7/8" Coax	Yes	3.00	0.000	0.00	0.00	0.00	6.410	0.232	0.000	0.00	5.94
35.00	(1) Brackets	Yes	3.00	2.000	2.00	0.50	1.00	6.410	0.232	0.000	7.05	0.00
36.00	(1) 1/2" Coax	Yes	1.00	0.000	0.00	0.00	0.00	6.462	0.235	0.000	0.00	0.15
36.00	(6) 5/16" Coax	Yes	1.00	0.000	0.00	0.00	0.00	6.462	0.235	0.000	0.00	0.27
36.00	(6) 1 5/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	6.462	0.235	0.000	0.00	4.92
36.00	(2) #20 Dywidag Bars	Yes	1.00	1.200	2.72	0.23	0.27	6.462	0.235	0.000	1.93	0.00
36.00	(2) #20 Dywidag Bars	Yes	1.00	1.200	2.72	0.23	0.27	6.462	0.235	0.000	1.93	0.00
36.00	(2) 3" Conduit	Yes	1.00	0.000	0.00	0.00	0.00	6.462	0.235	0.000	0.00	15.16
36.00	(6) 7/8" Coax	Yes	1.00	0.000	0.00	0.00	0.00	6.462	0.235	0.000	0.00	1.98
36.00	(1) Brackets	Yes	1.00	2.000	2.00	0.17	0.33	6.462	0.235	0.000	2.37	0.00
40.00	(1) 1/2" Coax	Yes	4.00	0.000	0.00	0.00	0.00	6.659	0.233	0.000	0.00	0.60
40.00	(6) 5/16" Coax	Yes	4.00	0.000	0.00	0.00	0.00	6.659	0.233	0.000	0.00	1.08
40.00	(6) 1 5/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	6.659	0.233	0.000	0.00	19.68
40.00	(2) #20 Dywidag Bars	Yes	4.00	1.200	2.72	0.91	1.09	6.659	0.233	0.000	7.97	0.00
40.00	(2) #20 Dywidag Bars	Yes	4.00	1.200	2.72	0.91	1.09	6.659	0.233	0.000	7.97	0.00
40.00	(2) 3" Conduit	Yes	4.00	0.000	0.00	0.00	0.00	6.659	0.233	0.000	0.00	60.64
40.00	(6) 7/8" Coax	Yes	4.00	0.000	0.00	0.00	0.00	6.659	0.233	0.000	0.00	7.92
40.00	(1) Brackets	Yes	4.00	2.000	2.00	0.67	1.33	6.659	0.233	0.000	9.77	0.00
45.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.887	0.238	0.000	0.00	0.75
45.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.887	0.238	0.000	0.00	1.35
45.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.887	0.238	0.000	0.00	24.60
45.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.887	0.238	0.000	10.30	0.00
45.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	6.887	0.238	0.000	10.30	0.00
45.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	6.887	0.238	0.000	0.00	75.80
45.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	6.887	0.238	0.000	0.00	9.90
45.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	6.887	0.238	0.000	12.63	0.00
50.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.098	0.244	0.000	0.00	0.75
50.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.098	0.244	0.000	0.00	1.35
50.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.098	0.244	0.000	0.00	24.60
50.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	7.098	0.244	0.000	10.62	0.00
50.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	7.098	0.244	0.000	10.62	0.00
50.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	7.098	0.244	0.000	0.00	75.80
50.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.098	0.244	0.000	0.00	9.90
50.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	7.098	0.244	0.000	13.01	0.00
55.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.294	0.250	0.000	0.00	0.75
55.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.294	0.250	0.000	0.00	1.35
55.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.294	0.250	0.000	0.00	24.60
55.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	7.294	0.250	0.000	10.91	0.00
55.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	7.294	0.250	0.000	10.91	0.00
55.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	7.294	0.250	0.000	0.00	75.80
55.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.294	0.250	0.000	0.00	9.90
55.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	7.294	0.250	0.000	13.37	0.00
60.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.477	0.257	0.000	0.00	0.75
60.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.477	0.257	0.000	0.00	1.35
60.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.477	0.257	0.000	0.00	24.60
60.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	7.477	0.257	0.000	11.19	0.00
60.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	7.477	0.257	0.000	11.19	0.00

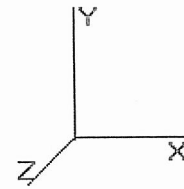


Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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<b>Load Case:</b> 1.0D + 1.0W	60.00 mph Serviceability	26 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

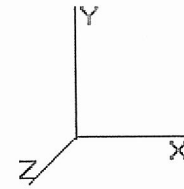
60.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	7.477	0.257	0.000	0.00	75.80
60.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.477	0.257	0.000	0.00	9.90
60.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	7.477	0.257	0.000	13.71	0.00
65.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.650	0.264	0.000	0.00	0.75
65.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.650	0.264	0.000	0.00	1.35
65.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.650	0.264	0.000	0.00	24.60
65.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	7.650	0.264	0.000	11.44	0.00
65.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	7.650	0.264	0.000	11.44	0.00
65.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	7.650	0.264	0.000	0.00	75.80
65.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.650	0.264	0.000	0.00	9.90
65.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	7.650	0.264	0.000	14.03	0.00
70.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.814	0.272	0.000	0.00	0.75
70.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.814	0.272	0.000	0.00	1.35
70.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.814	0.272	0.000	0.00	24.60
70.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	7.814	0.272	0.000	11.69	0.00
70.00	(2) #20 Dywidag Bars	Yes	5.00	1.200	2.72	1.13	1.36	7.814	0.272	0.000	11.69	0.00
70.00	(2) 3" Conduit	Yes	5.00	0.000	0.00	0.00	0.00	7.814	0.272	0.000	0.00	75.80
70.00	(6) 7/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	7.814	0.272	0.000	0.00	9.90
70.00	(1) Brackets	Yes	5.00	2.000	2.00	0.83	1.67	7.814	0.272	0.000	14.33	0.00
73.50	(1) 1/2" Coax	Yes	3.50	0.000	0.00	0.00	0.00	7.924	0.279	0.000	0.00	0.53
73.50	(6) 5/16" Coax	Yes	3.50	0.000	0.00	0.00	0.00	7.924	0.279	0.000	0.00	0.95
73.50	(6) 1 5/8" Coax	Yes	3.50	0.000	0.00	0.00	0.00	7.924	0.279	0.000	0.00	17.22
73.50	(2) #20 Dywidag Bars	Yes	3.50	1.200	2.72	0.79	0.95	7.924	0.279	0.000	8.30	0.00
73.50	(2) #20 Dywidag Bars	Yes	3.50	1.200	2.72	0.79	0.95	7.924	0.279	0.000	8.30	0.00
73.50	(2) 3" Conduit	Yes	3.50	0.000	0.00	0.00	0.00	7.924	0.279	0.000	0.00	53.06
73.50	(6) 7/8" Coax	Yes	3.50	0.000	0.00	0.00	0.00	7.924	0.279	0.000	0.00	6.93
73.50	(1) Brackets	Yes	3.50	2.000	2.00	0.58	1.17	7.924	0.279	0.000	10.17	0.00
75.00	(1) 1/2" Coax	Yes	1.50	0.000	0.00	0.00	0.00	7.969	0.277	0.000	0.00	0.23
75.00	(6) 5/16" Coax	Yes	1.50	0.000	0.00	0.00	0.00	7.969	0.277	0.000	0.00	0.41
75.00	(6) 1 5/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	7.969	0.277	0.000	0.00	7.38
75.00	(2) #20 Dywidag Bars	Yes	1.50	1.200	2.72	0.34	0.41	7.969	0.277	0.000	3.58	0.00
75.00	(2) #20 Dywidag Bars	Yes	1.50	1.200	2.72	0.34	0.41	7.969	0.277	0.000	3.58	0.00
75.00	(2) 3" Conduit	Yes	1.50	0.000	0.00	0.00	0.00	7.969	0.277	0.000	0.00	22.74
75.00	(6) 7/8" Coax	Yes	1.50	0.000	0.00	0.00	0.00	7.969	0.277	0.000	0.00	2.97
75.00	(1) Brackets	Yes	1.50	2.000	2.00	0.25	0.50	7.969	0.277	0.000	4.38	0.00
77.44	(1) 1/2" Coax	Yes	2.44	0.000	0.00	0.00	0.00	8.043	0.280	0.000	0.00	0.37
77.44	(6) 5/16" Coax	Yes	2.44	0.000	0.00	0.00	0.00	8.043	0.280	0.000	0.00	0.66
77.44	(6) 1 5/8" Coax	Yes	2.44	0.000	0.00	0.00	0.00	8.043	0.280	0.000	0.00	11.99
77.44	(2) #20 Dywidag Bars	Yes	2.44	1.200	2.72	0.55	0.66	8.043	0.280	0.000	5.87	0.00
77.44	(2) #20 Dywidag Bars	Yes	2.44	1.200	2.72	0.55	0.66	8.043	0.280	0.000	5.87	0.00
77.44	(2) 3" Conduit	Yes	2.44	0.000	0.00	0.00	0.00	8.043	0.280	0.000	0.00	36.95
77.44	(6) 7/8" Coax	Yes	2.44	0.000	0.00	0.00	0.00	8.043	0.280	0.000	0.00	4.83
77.44	(1) Brackets	Yes	2.44	2.000	2.00	0.41	0.81	8.043	0.280	0.000	7.19	0.00
80.00	(1) 1/2" Coax	Yes	2.56	0.000	0.00	0.00	0.00	8.118	0.285	0.000	0.00	0.38
80.00	(6) 5/16" Coax	Yes	2.56	0.000	0.00	0.00	0.00	8.118	0.285	0.000	0.00	0.69
80.00	(6) 1 5/8" Coax	Yes	2.56	0.000	0.00	0.00	0.00	8.118	0.285	0.000	0.00	12.61
80.00	(2) #20 Dywidag Bars	Yes	2.56	1.200	2.72	0.58	0.70	8.118	0.285	0.000	6.22	0.00
80.00	(2) #20 Dywidag Bars	Yes	2.56	1.200	2.72	0.58	0.70	8.118	0.285	0.000	6.22	0.00
80.00	(2) 3" Conduit	Yes	2.56	0.000	0.00	0.00	0.00	8.118	0.285	0.000	0.00	38.85
80.00	(6) 7/8" Coax	Yes	2.56	0.000	0.00	0.00	0.00	8.118	0.285	0.000	0.00	5.07
80.00	(1) Brackets	Yes	2.56	2.000	2.00	0.43	0.85	8.118	0.285	0.000	7.63	0.00
85.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.260	0.235	0.000	0.00	0.75
85.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.260	0.235	0.000	0.00	1.35
85.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.260	0.235	0.000	0.00	24.60
85.00	(2) 3" Conduit	Yes	2.50	1.200	3.50	0.73	0.88	8.260	0.235	0.000	7.95	37.90
85.00	(6) 7/8" Coax	Yes	2.50	1.200	1.09	0.23	0.27	8.260	0.235	0.000	2.48	4.95
85.00	(2) #20 Dywidag Bars	Yes	2.50	1.200	2.72	0.57	0.68	8.260	0.235	0.000	6.18	0.00

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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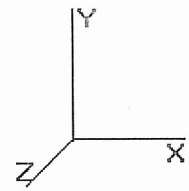
**Load Case:** 1.0D + 1.0W                      60.00 mph Serviceability                      26 Iterations  
 Gust Response Factor : 1.10                      Wind Importance Factor : 1.00  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

85.00	(2) #20 Dywidag Bars	Yes	2.50	1.200	2.72	0.57	0.68	8.260	0.235	0.000	6.18	0.00
85.00	(2) 3" Conduit	Yes	2.50	0.000	0.00	0.00	0.00	8.260	0.235	0.000	0.00	37.90
85.00	(6) 7/8" Coax	Yes	2.50	0.000	0.00	0.00	0.00	8.260	0.235	0.000	0.00	4.95
85.00	(1) Brackets	Yes	2.50	2.000	2.00	0.42	0.83	8.260	0.235	0.000	7.57	0.00
90.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.396	0.185	1.256	0.00	0.75
90.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.396	0.185	1.256	0.00	1.35
90.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.396	0.185	1.256	0.00	24.60
90.00	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	8.396	0.185	1.256	0.00	75.80
90.00	(6) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	8.396	0.185	1.256	0.00	9.90
95.00	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.526	0.191	1.274	0.00	0.75
95.00	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.526	0.191	1.274	0.00	1.35
95.00	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.526	0.191	1.274	0.00	24.60
95.00	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	8.526	0.191	1.274	0.00	75.80
95.00	(6) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	8.526	0.191	1.274	0.00	9.90
100.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.652	0.198	1.293	0.00	0.75
100.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.652	0.198	1.293	0.00	1.35
100.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.652	0.198	1.293	0.00	24.60
100.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	8.652	0.198	1.293	0.00	75.80
100.0	(6) 7/8" Coax	Yes	5.00	0.000	1.09	0.45	0.00	8.652	0.198	1.293	0.00	9.90
105.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.774	0.156	1.168	0.00	0.75
105.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.774	0.156	1.168	0.00	1.35
105.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.774	0.156	1.168	0.00	24.60
105.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	8.774	0.156	1.168	0.00	75.80
110.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.891	0.162	1.185	0.00	0.75
110.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.891	0.162	1.185	0.00	1.35
110.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	8.891	0.162	1.185	0.00	24.60
110.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	8.891	0.162	1.185	0.00	75.80
115.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.005	0.168	1.203	0.00	0.75
115.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.005	0.168	1.203	0.00	1.35
115.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.005	0.168	1.203	0.00	24.60
115.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	9.005	0.168	1.203	0.00	75.80
120.0	(1) 1/2" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.115	0.174	1.223	0.00	0.75
120.0	(6) 5/16" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.115	0.174	1.223	0.00	1.35
120.0	(6) 1 5/8" Coax	Yes	5.00	0.000	0.00	0.00	0.00	9.115	0.174	1.223	0.00	24.60
120.0	(2) 3" Conduit	Yes	5.00	0.000	3.50	1.46	0.00	9.115	0.174	1.223	0.00	75.80
125.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	9.222	0.103	1.008	0.00	24.60
130.0	(6) 1 5/8" Coax	Yes	5.00	0.000	1.98	0.82	0.00	9.326	0.107	1.021	0.00	24.60
<b>Totals:</b>											561.04	2,682.60

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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

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**Load Case:** 1.0D + 1.0W      60.00 mph Serviceability      26 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	153.88	1,203.64	0.00	0.00
10.00	151.25	1,212.75	0.00	0.00
15.00	148.62	1,197.25	0.00	0.00
20.00	145.99	1,181.76	0.00	0.00
25.00	143.36	1,166.27	0.00	0.00
30.00	140.84	1,150.77	0.00	0.00
32.00	56.64	455.97	0.00	0.00
35.00	87.70	1,000.41	0.00	0.00
36.00	29.25	331.20	0.00	0.00
40.00	119.42	822.12	0.00	0.00
45.00	151.72	1,016.03	0.00	0.00
50.00	153.31	1,003.12	0.00	0.00
55.00	154.41	990.21	0.00	0.00
60.00	155.09	977.30	0.00	0.00
65.00	155.39	964.39	0.00	0.00
70.00	155.36	951.47	0.00	0.00
73.50	109.83	908.13	0.00	0.00
75.00	46.83	256.73	0.00	0.00
77.44	76.14	415.20	0.00	0.00
80.00	79.89	262.67	0.00	0.00
85.00	146.43	504.72	0.00	0.00
90.00	95.32	494.39	0.00	0.00
95.00	93.75	484.06	0.00	0.00
100.0	315.49	1,100.73	0.00	636.84
105.0	90.19	453.50	0.00	0.00
110.0	88.22	443.17	0.00	0.00
115.0	86.12	365.33	0.00	0.00
120.0	395.81	990.08	0.00	364.91
125.0	81.60	271.93	0.00	0.00
130.0	203.97	543.38	0.00	0.00
135.0	76.67	231.84	0.00	0.00
140.0	74.06	224.09	0.00	0.00
145.0	71.36	216.35	0.00	0.00
149.0	1,001.03	3,021.50	0.00	2,790.12
150.0	13.44	41.10	0.00	0.00
<b>Totals:</b>	<b>5,248.39</b>	<b>26,853.56</b>	<b>0.00</b>	<b>3,791.88</b>

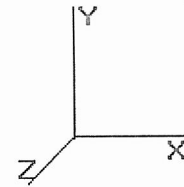


Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
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Code: ANSI/TIA-222 Rev G  
 Struct Class : II  
 Exposure Category : B  
 Topographic Category : 1  
 Base Elev : 0.000 (ft)

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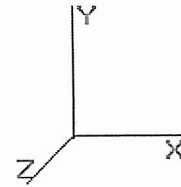
**Load Case:** 1.0D + 1.0W      60.00 mph Serviceability      26 Iterations  
 Gust Response Factor : 1.10      Wind Importance Factor : 1.00  
 Dead Load Factor : 1.00  
 Wind Load Factor : 1.00

**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	-26.85	-5.26	0.00	-484.02	0.00	484.02	3,058.44	1,529.22	4,486.20	2,215.57	0.00	0.00	0.139
5.00	-25.64	-5.13	0.00	-457.71	0.00	457.71	3,015.96	1,507.98	4,329.28	2,138.07	0.03	-0.06	0.135
10.00	-24.42	-5.01	0.00	-432.05	0.00	432.05	2,972.53	1,486.26	4,173.67	2,061.22	0.12	-0.12	0.130
15.00	-23.22	-4.88	0.00	-407.02	0.00	407.02	2,928.13	1,464.06	4,019.46	1,985.06	0.28	-0.17	0.126
20.00	-22.04	-4.75	0.00	-382.64	0.00	382.64	2,882.77	1,441.38	3,866.74	1,909.64	0.49	-0.23	0.121
25.00	-20.87	-4.62	0.00	-358.89	0.00	358.89	2,835.18	1,417.59	3,713.97	1,834.19	0.77	-0.29	0.117
30.00	-19.71	-4.49	0.00	-335.79	0.00	335.79	2,768.06	1,384.03	3,539.19	1,747.87	1.10	-0.35	0.113
32.00	-19.26	-4.44	0.00	-326.81	0.00	326.81	2,741.21	1,370.60	3,470.46	1,713.93	1.25	-0.37	0.112
35.00	-18.25	-4.35	0.00	-313.50	0.00	313.50	2,700.94	1,350.47	3,368.63	1,663.64	1.49	-0.40	0.108
36.00	-17.92	-4.33	0.00	-309.15	0.00	309.15	2,178.16	1,089.08	2,770.79	1,368.39	1.58	-0.41	0.122
40.00	-17.10	-4.22	0.00	-291.84	0.00	291.84	2,151.08	1,075.54	2,682.35	1,324.71	1.95	-0.46	0.117
45.00	-16.08	-4.07	0.00	-270.76	0.00	270.76	2,116.36	1,058.18	2,572.65	1,270.54	2.46	-0.52	0.112
50.00	-15.07	-3.92	0.00	-250.40	0.00	250.40	2,080.68	1,040.34	2,464.00	1,216.88	3.03	-0.57	0.106
55.00	-14.08	-3.77	0.00	-230.78	0.00	230.78	2,044.03	1,022.02	2,356.47	1,163.77	3.66	-0.63	0.100
60.00	-13.10	-3.62	0.00	-211.91	0.00	211.91	2,006.42	1,003.21	2,250.16	1,111.27	4.34	-0.68	0.094
65.00	-12.14	-3.46	0.00	-193.82	0.00	193.82	1,966.16	983.08	2,143.32	1,058.50	5.09	-0.73	0.089
70.00	-11.18	-3.30	0.00	-176.51	0.00	176.51	1,910.22	955.11	2,022.41	998.79	5.88	-0.79	0.084
73.50	-10.28	-3.18	0.00	-164.95	0.00	164.95	1,431.47	715.74	1,521.25	751.29	6.47	-0.82	0.092
75.00	-10.02	-3.14	0.00	-160.17	0.00	160.17	1,423.81	711.90	1,499.70	740.65	6.73	-0.84	0.090
77.44	-9.60	-3.06	0.00	-152.52	0.00	152.52	1,411.18	705.59	1,464.81	723.42	7.17	-0.86	0.086
77.44	-9.60	-3.06	0.00	-152.52	0.00	152.52	1,411.18	705.59	1,464.81	723.42	7.17	-0.86	0.218
80.00	-9.34	-2.99	0.00	-144.68	0.00	144.68	1,397.65	698.83	1,428.30	705.38	7.63	-0.89	0.212
85.00	-8.83	-2.85	0.00	-129.74	0.00	129.74	1,370.53	685.26	1,357.58	670.46	8.63	-1.01	0.200
90.00	-8.33	-2.77	0.00	-115.48	0.00	115.48	1,342.44	671.22	1,287.64	635.92	9.75	-1.13	0.188
95.00	-7.84	-2.68	0.00	-101.65	0.00	101.65	1,313.39	656.70	1,218.57	601.80	11.00	-1.25	0.175
100.00	-6.75	-2.35	0.00	-87.63	0.00	87.63	1,283.38	641.69	1,150.46	568.17	12.38	-1.37	0.160
105.00	-6.29	-2.26	0.00	-75.88	0.00	75.88	1,248.31	624.16	1,079.86	533.30	13.87	-1.48	0.147
110.00	-5.85	-2.17	0.00	-64.58	0.00	64.58	1,203.56	601.78	1,003.39	495.54	15.47	-1.58	0.135
110.00	-5.85	-2.17	0.00	-64.58	0.00	64.58	829.71	414.85	695.98	343.72	15.47	-1.58	0.195
115.00	-5.48	-2.08	0.00	-53.72	0.00	53.72	811.47	405.73	655.22	323.59	17.18	-1.68	0.173
120.00	-4.50	-1.67	0.00	-42.93	0.00	42.93	792.27	396.13	614.86	303.65	19.00	-1.80	0.147
125.00	-4.23	-1.59	0.00	-34.59	0.00	34.59	772.10	386.05	574.98	283.96	20.94	-1.90	0.127
130.00	-3.69	-1.37	0.00	-26.66	0.00	26.66	750.97	375.48	535.68	264.55	22.99	-2.00	0.106
135.00	-3.46	-1.29	0.00	-19.82	0.00	19.82	728.87	364.44	497.06	245.48	25.12	-2.08	0.086
140.00	-3.24	-1.21	0.00	-13.38	0.00	13.38	704.09	352.04	458.06	226.22	27.34	-2.15	0.064
145.00	-3.02	-1.13	0.00	-7.33	0.00	7.33	670.52	335.26	415.19	205.05	29.62	-2.20	0.040
149.00	-0.04	-0.01	0.00	-0.01	0.00	0.01	643.68	321.84	382.41	188.86	31.47	-2.22	0.000
150.00	0.00	-0.01	0.00	0.00	0.00	0.00	636.96	318.48	374.43	184.91	31.94	-2.22	0.000

Pole : 302475  
 Location : Sttn - Southington, CT  
 Height : 150.0 (ft)  
 Base Dia : 36.00 (in)  
 Top Dia : 14.50 (in)  
 Shape : 12 Sides  
 Taper : 0.150830 (in/ft)

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



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**Analysis Summary**

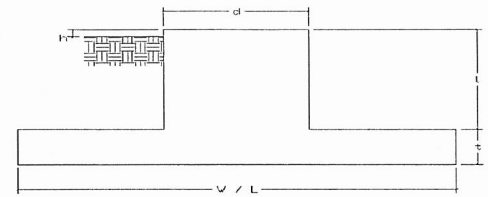
Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	24.05	0.00	31.13	0.00	0.00	2234.56	77.44	0.98
0.9D + 1.6W	23.38	0.00	24.63	0.00	0.00	2137.07	77.44	0.93
1.2D + 1.0Di + 1.0Wi	5.50	0.00	63.17	0.00	0.00	558.12	77.44	0.28
1.0D + 1.0W	5.26	0.00	26.85	0.00	0.00	484.02	77.44	0.22

**Additional Steel Summary**

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors			Upper Termination Connectors				Lower Termination Connectors				Max Member		
			VQ/I (lb/in)	Applied (kips)	Shear phiVn (kips)	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Pu (kip)	phiPn (kip)	Ratio
0.00	77.4	(4) SOL-#20 All Thre	272.3	8.2	16.8	158.9	12.0	14	12	0.0	12.0	0	0	247.8	330.5	0.750

Site Name: Sttn - Southington, CT  
 Site Number: 302475  
 Engineering Number: 49448521  
 Engineer: R. Kodali  
 Date: 05/25/12  
 Tower Type: MP

Program Last Updated: 6/1/2010



**Design Loads (Factored) - Analysis per TIA-222-G Standards**

Foundation Mapped:	N		
Compression/Leg:	63.2 k	Concrete Strength ( $f'_c$ ):	3000 psi
Uplift/Leg:	0.0 k	Pad Tension Steel Depth:	32.00 in
Total Shear:	24.1 k	$\phi_{\text{shear}}$ :	0.75
Moment:	2234.6 k-ft	$\phi_{\text{Flexure / Tension}}$ :	0.90
Tower + Appurtenance Weight:	63.2 k	$\phi_{\text{Compression}}$ :	0.65
Depth to Base of Foundation:	8.00 ft	$\beta$ :	0.85
Diameter of Pier (d):	4.89 ft	Bottom Pad Rebar Size #:	5
Height of Pier above Ground (h):	0.50	# of Bottom Pad Rebar:	36
Width of Pad (W):	18.00 ft	Pad Bottom Steel Area:	11.16 in <sup>2</sup>
Length of Pad (L):	18.00 ft	Pad Steel $F_y$ :	60000 psi
Thickness of Pad (t):	3.00 ft	Top Pad Rebar Size #:	10
Tower Leg Center to Center:	0.00 ft	# of Top Pad Rebar:	36
Number of Tower Legs:	1.0 (1 if MP or GT)	Pad Top Steel Area:	45.72 in <sup>2</sup>
Tower Center from Mat Center:	0.00 ft	Pier Rebar Size #:	10
Depth Below Ground Surface to Water Table:	9.00 ft	Pier Steel Area (Single Bar):	1.27 in <sup>2</sup>
Unit Weight of Concrete:	150.0 pcf	# of Pier Rebar:	36
Unit Weight of Soil Above Water Table:	115.0 pcf	Pier Steel $F_y$ :	60000 psi
Unit Weight of Water:	62.4 pcf	Pier Cage Diameter:	50.7 in
Unit Weight of Soil Below Water Table:	53.0 pcf	Rebar Strain Limit:	0.008
Friction Angle of Uplift:	0.0 Degrees	Steel Elastic Modulus:	29000 ksi
Ultimate Coefficient of Shear Friction:	0.35	Tie Rebar Size #:	4
Ultimate Compressive Bearing Pressure:	12000.0 psf	Tie Steel Area (Single Bar):	0.20 in <sup>2</sup>
Ultimate Passive Pressure on Pad Face:	0.0 psf	Tie Spacing:	12 in
$\phi_{\text{Soil and Concrete Weight}}$ :	0.9	Tie Steel $F_y$ :	60000 psi
$\phi_{\text{Soil}}$ :	0.75		

**Required Mat / Pier Dimensions & Minimum Rebar based on Reinforcement Ratio**

Minimum Required Mat Width:	8.72 ft - OK
Minimum Required Mat Length:	8.72 ft - OK
Minimum Required Foundation Depth:	4.52 ft - OK
Minimum Required Mat Thickness:	1.92 ft - OK
Minimum Required # of Vertical Rebar in Pier:	11 OK
Minimum Required Tie Spacing:	12 in - OK

**Overturning Moment Usage**

Design OTM:	2439.5 k-ft
OTM Resistance:	3154.6 k-ft
Design OTM / OTM Resistance:	0.77 Result: OK

**Soil Bearing Pressure Usage:**

Total Weight (Foundation, Soil, Tower):	389.5 k
Net Bearing Pressure:	4240 psf
Nominal Bearing Pressure:	9000 psf

Net Bearing Pressure/Nominal Bearing Pressure:  
 Load Direction Controlling Design Bearing Pressure:

0.47 Result: OK  
 Diagonal to Pad Edge

**Sliding Factor of Safety**

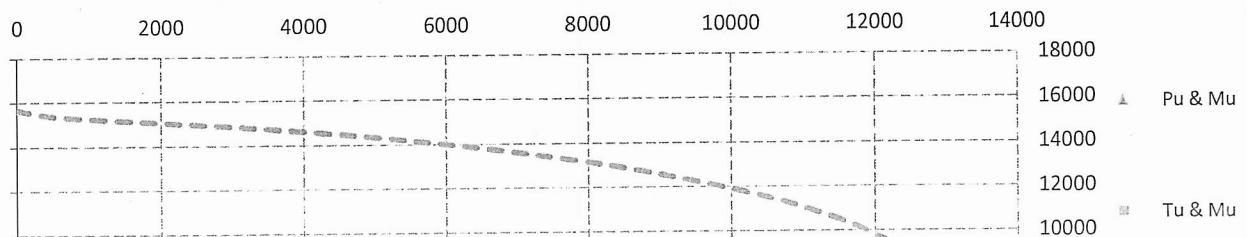
Total Factored Sliding Resistance: 102.2 k  
 Sliding Design / Sliding Resistance: 0.24 Result: OK

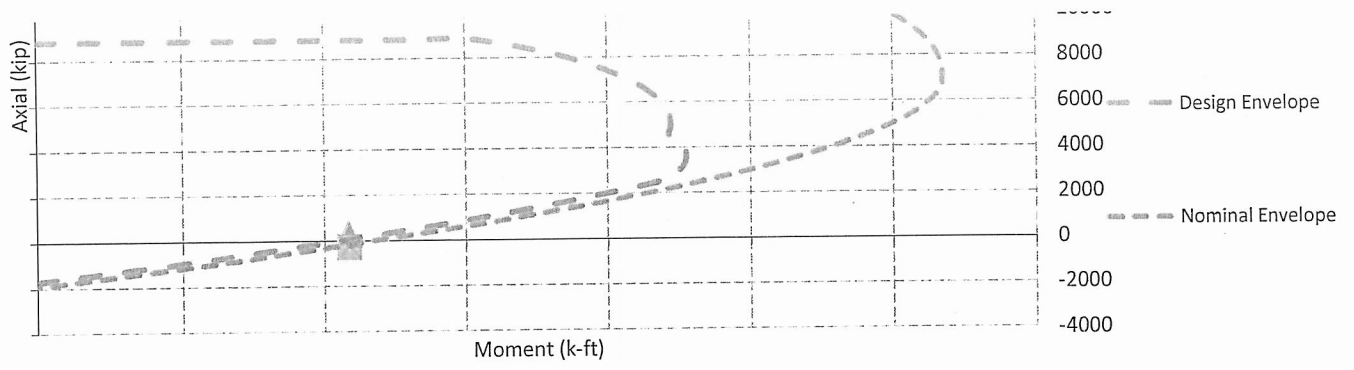
**One Way Shear, Flexural Capacity, and Punching Shear**

Factored One Way Shear ( $V_u$ ):	156.2 k
One Way Shear Capacity ( $\phi V_c$ ):	480.6 k - ACI11.3.1.1
$V_u / \phi V_c$ :	0.32 Result: OK
Load Direction Controlling Shear Capacity:	Diagonal to Pad Edge
Lower Steel Pad Factored Moment ( $M_u$ ):	925.7 k-ft
Lower Steel Pad Moment Capacity ( $\phi M_n$ ):	1581.1 k-ft - ACI10.3
$M_u / \phi M_n$ :	0.59 Result: OK
Load Direction Controlling Flexural Capacity:	Parallel to Pad Edge
Upper Steel Pad Factored Moment ( $M_u$ ):	581.3 k-ft
Upper Steel Pad Moment Capacity ( $\phi M_n$ ):	6148.2 k-ft
$M_u / \phi M_n$ :	0.09 Result: OK
Lower Pad Flexural Reinforcement Ratio:	0.0016 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Upper Pad Flexural Reinforcement Ratio:	0.0066 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Lower Pad Reinforcement Spacing:	6 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Upper Pad Reinforcement Spacing:	6 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Factored Punching Shear ( $V_u$ ):	0.0 k
Nominal Punching Shear Capacity ( $\phi_c V_n$ ):	1497.9 k - ACI11.12.2.1
$V_u / \phi V_c$ :	0.00 Result: OK
Factored Moment in Pier ( $M_u$ ):	2367.2 k-ft
Pier Moment Capacity ( $\phi M_n$ ):	5099.0 k-ft
$M_u / \phi M_n$ :	0.46 Result: OK
Factored Shear in Pier ( $V_u$ ):	24.1 k
Pier Shear Capacity ( $\phi V_n$ ):	224.8 k
$V_u / \phi V_c$ :	0.11 Result: OK
Pier Shear Reinforcement Ratio:	0.0007 No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier ( $T_u$ ):	0.0 k
Pier Tension Capacity ( $\phi T_n$ ):	2468.9 k
$T_u / \phi T_n$ :	0.00 Result: OK
Factored Compression in Pier ( $P_u$ ):	63.2 k
Pier Compression Capacity ( $\phi P_n$ ):	4951.9 k - ACI10.3.6.2
$P_u / \phi P_n$ :	0.01 Result: OK
Pier Compression Reinforcement Ratio:	0.017 OK - Reinforcement Ratio Met - ACI10.9.1 & 10.8.4
$M_u / \phi M_n + T_u / \phi T_n$ :	0.46 Result: OK

Engineer Notes

Nominal and Design Moment Capacity and Factored Design Loads





## CT1004 MPE Report

Keith Vellante (Keith.Vellante@csquaredsystems.com)

Mon 6/04/12 3:37 PM

tviele@hotmail.com (tviele@hotmail.com)

Robert Stanford (Nexlink) (rstanford@nexlinkgs.com); siteacqdocs@nexlinkgs.com (siteacqdocs@nexlinkgs.com); Dan Goulet (Dan.Goulet@csquaredsystems.com); Marci Hartt (marci.hartt@csquaredsystems.com)

1 attachment

CT1004 MPE Report (397) KB

Theresa-

Attached is the MPE Report for CT1004. Please let us know if you have any questions.

Fyi...the structural does not list the whip mounted up near the AT&T antennas. A Bing bird's eye view shows the whip, as do the CD's that predate the structural. The presence of the whip prevents the proposed antennas from increasing the overall height, but wanted to point out in case it any other materials should be updated. If the structural is revised, please be sure to forward along so we can determine if the revisions impact our MPE Report.

Thanks,

Keith Vellante | C Squared Systems, LLC

65 Dartmouth Drive, Unit A3 | Auburn, NH 03032

Desk: 603.644.2814 | Mobile: 973.879.5667



C Squared Systems, LLC  
65 Dartmouth Drive, Unit A3  
Auburn, NH 03032  
(603) 644-2800  
support@csquaredsystems.com

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Calculated Radio Frequency Emissions



CT1004

(Southington)

80 Shuttle Meadow Road, Southington, CT 06489

(a.k.a. Shuttle Meadow Road)

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May 31, 2012



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## 1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed modifications to the existing AT&T antenna arrays mounted on the monopole tower located at 80 Shuttle Meadow Road, Southington, CT. The coordinates of the tower are 41-38-18.8 N, 72-50-28.1 W.

AT&T is proposing the following modifications:

- 1) Replace six existing dual-band (850/1900 MHz) panel antennas with six multi-band (700/850/1900/2100 MHz) antennas (two per sector).

## 2. FCC Guidelines for Evaluating RF Radiation Exposure Limits

In 1985, the FCC established rules to regulate radio frequency (RF) exposure from FCC licensed antenna facilities. In 1996, the FCC updated these rules, which were further amended in August 1997 by OET Bulletin 65 Edition 97-01. These new rules include Maximum Permissible Exposure (MPE) limits for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based upon those recommended by the National Council on Radiation Protection and Measurements (NCRP), developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

The FCC general population/uncontrolled limits set the maximum exposure to which most people may be subjected. General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Public exposure to radio frequencies is regulated and enforced in units of milliwatts per square centimeter ( $\text{mW}/\text{cm}^2$ ). The general population exposure limits for the various frequency ranges are defined in the attached "FCC Limits for Maximum Permissible Exposure (MPE)" in Attachment B of this report.

Higher exposure limits are permitted under the occupational/controlled exposure category, but only for persons who are exposed as a consequence of their employment and who have been made fully aware of the potential for exposure, and they must be able to exercise control over their exposure. General population/uncontrolled limits are five times more stringent than the levels that are acceptable for occupational, or radio frequency trained individuals. Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit.

Finally, it should be noted that the MPE limits adopted by the FCC for both general population/uncontrolled exposure and for occupational/controlled exposure incorporate a substantial margin of safety and have been established to be well below levels generally accepted as having the potential to cause adverse health effects.

### 3. RF Exposure Prediction Methods

The emission field calculation results displayed in the following figures were generated using the following formula as outlined in FCC bulletin OET 65:

$$\text{Power Density} = \left( \frac{1.6^2 \times \text{EIRP}}{4\pi \times R^2} \right) \times \text{Off Beam Loss}$$

Where:

EIRP = Effective Isotropic Radiated Power

R = Radial Distance =  $\sqrt{(H^2 + V^2)}$

H = Horizontal Distance from antenna in meters

V = Vertical Distance from radiation center of antenna in meters

Ground reflection factor of 1.6

Off Beam Loss is determined by the selected antenna pattern

These calculations assume that the antennas are operating at 100 percent capacity and power, and that all channels are transmitting simultaneously. Obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. The calculations assume even terrain in the area of study and do not take into account actual terrain elevations which could attenuate the signal. As a result, the predicted signal levels reported below are much higher than the actual signal levels will be from the finished modifications.

#### 4. Calculation Results

Table 1 below outlines the power density information for the site. Because the proposed AT&T antennas are directional in nature, the majority of the RF power is focused out towards the horizon. As a result, there will be less RF power directed below the antennas relative to the horizon, and consequently lower power density levels around the base of the tower. Please refer to Attachment C for the vertical pattern of the proposed AT&T antennas. The calculated results for AT&T in Table 1 include a nominal 10 dB off-beam pattern loss to account for the lower relative gain below the antennas.

Carrier	Antenna Height (Feet)	Operating Frequency (MHz)	Number of Trans.	ERP Per Transmitter (Watts)	Power Density (mw/cm <sup>2</sup> )	Limit	%MPE
<i>Cingular UMTS</i>	153	880	1	500	0.0077	0.5867	1.31%
<i>Cingular GSM</i>	153	880	4	296	0.0182	0.5867	3.10%
<i>Cingular GSM</i>	153	1900	2	427	0.0131	1.0000	1.31%
Clearwire	120	2496	2	153	0.0076	1.0000	0.76%
Clearwire	120	11000	1	211	0.0053	1.0000	0.53%
Pocket	130	2130	3	631	0.0403	1.0000	4.03%
AT&T UMTS	153	880	2	565	0.0017	0.5867	0.30%
AT&T UMTS	153	1900	2	875	0.0027	1.0000	0.27%
AT&T LTE	153	734	1	1375	0.0021	0.4893	0.43%
AT&T GSM	153	880	1	538	0.0008	0.5867	0.14%
AT&T GSM	153	1900	4	934	0.0057	1.0000	0.57%
						<b>Total</b>	<b>7.03%</b>

**Table 1: Carrier Information**<sup>1 2 3</sup>

<sup>1</sup> The existing CSC filing for Cingular should be removed and replaced with the updated AT&T technologies and values provided in Table 1. The power density information for carriers other than AT&T was taken directly from the CSC database dated 3/29/2012. Please note that %MPE values listed are rounded to two decimal points. The total %MPE listed is a summation of each unrounded contribution. Therefore, summing each rounded value may not reflect the total value listed in the table.

<sup>2</sup> In the case where antenna models are not uniform across all 3 sectors for the same frequency band, the antenna model with the highest gain was used for the calculations to present a worse-case scenario.

<sup>3</sup> Antenna height listed for AT&T is in reference to the American Tower Structural Analysis dated May 25, 2012

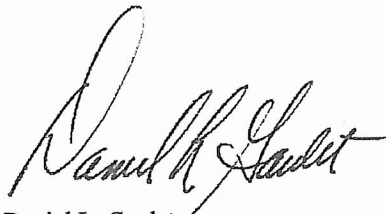
## 5. Conclusion

The above analysis verifies that emissions from the existing site will be below the maximum power density levels as outlined by the FCC in the OET Bulletin 65 Ed. 97-01. Even when using conservative methods, the cumulative power density from the proposed transmit antennas at the existing facility is well below the limits for the general public. The highest expected percent of Maximum Permissible Exposure at ground level is **7.03% of the FCC limit**.

As noted previously, obstructions (trees, buildings, etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are more conservative (higher) than the actual signal levels will be from the finished modifications.

## 6. Statement of Certification

I certify to the best of my knowledge that the statements in this report are true and accurate. The calculations follow guidelines set forth in ANSI/IEEE Std. C95.3, ANSI/IEEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.



Daniel L. Goulet  
C Squared Systems, LLC

May 31, 2012

Date

### Attachment A: References

OET Bulletin 65 - Edition 97-01 - August 1997 Federal Communications Commission Office of Engineering & Technology

ANSI C95.1-1982, American National Standard Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 300 kHz to 100 GHz. IEEE-SA Standards Board

IEEE Std C95.3-1991 (Reaff 1997), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave. IEEE-SA Standards Board



**Attachment B: FCC Limits for Maximum Permissible Exposure (MPE)**

<b>(A) Limits for Occupational/Controlled Exposure<sup>4</sup></b>				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f <sup>2</sup> )*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

<b>(B) Limits for General Population/Uncontrolled Exposure<sup>5</sup></b>				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm <sup>2</sup> )	Averaging Time  E  <sup>2</sup> ,  H  <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	-	-	f/1500	30
1500-100,000	-	-	1.0	30

f = frequency in MHz \* Plane-wave equivalent power density

**Table 2: FCC Limits for Maximum Permissible Exposure (MPE)**

<sup>4</sup> Occupational/controlled limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure

<sup>5</sup> General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure

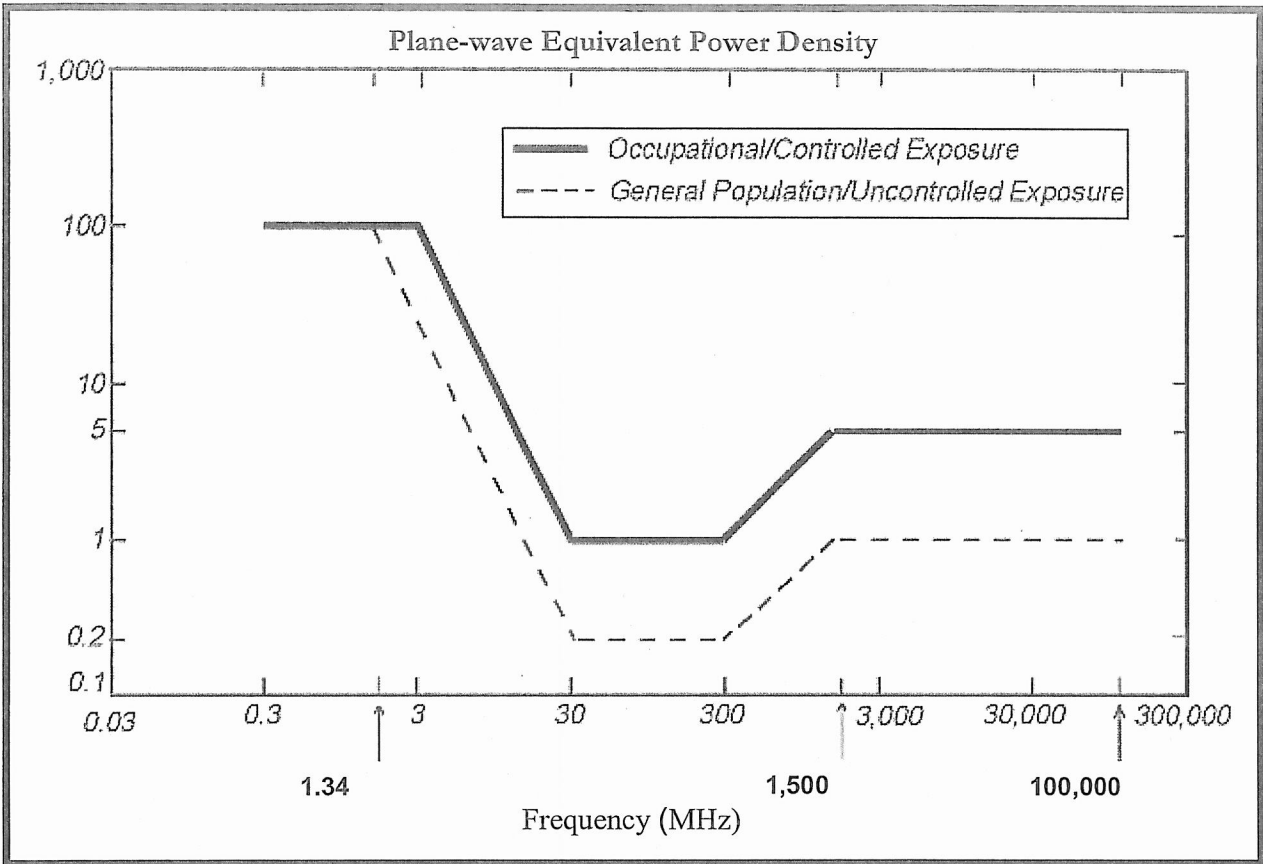
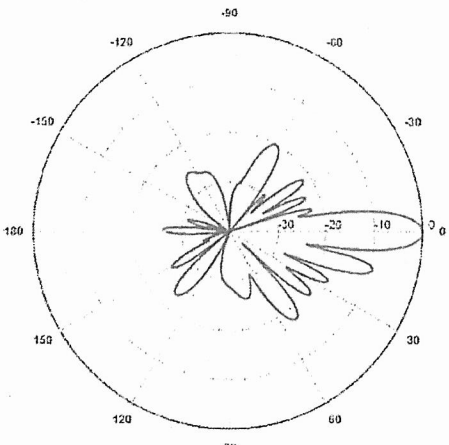
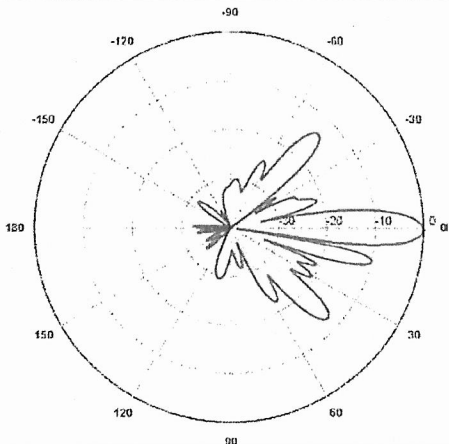
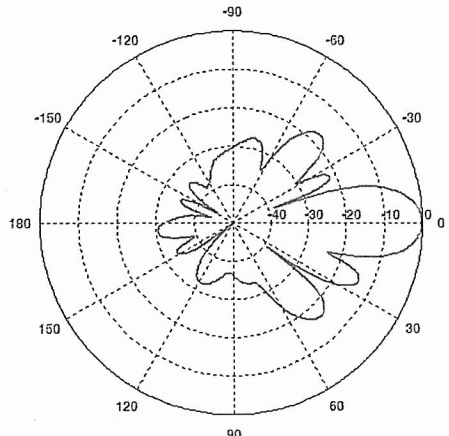
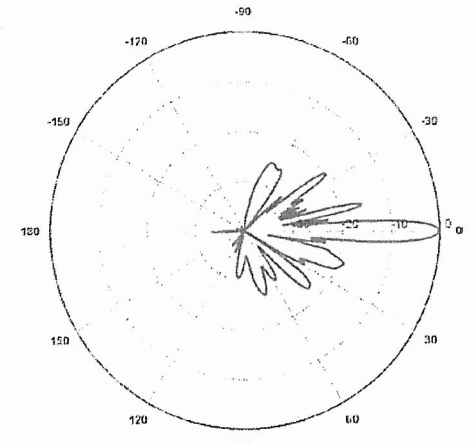
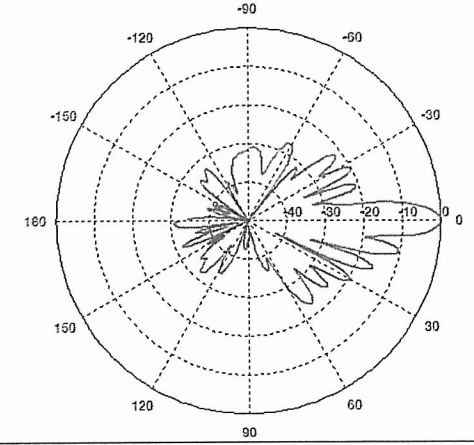
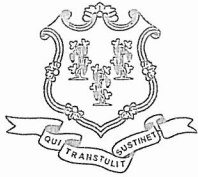


Figure 1: Graph of FCC Limits for Maximum Permissible Exposure (MPE)

**Attachment C: AT&T Antenna Data Sheets and Electrical Patterns**

<p><b>700 MHz</b></p> <p>Manufacturer: Commscope            Model #: SBNH-1D6565C            Frequency Band: 698-806 MHz            Gain: 13.6 dBd            Vertical Beamwidth: 8.6°            Horizontal Beamwidth: 71°            Polarization: ± 45°            Size L x W x D: 96.42" x 11.85" x 7.1"</p>	
<p><b>850 MHz GSM</b></p> <p>Manufacturer: Commscope            Model #: SBNH-1D6565C            Frequency Band: 806-896 MHz            Gain: 14.3 dBd            Vertical Beamwidth: 7.8°            Horizontal Beamwidth: 67°            Polarization: ±45°            Size L x W x D: 96.42" x 11.85" x 7.1"</p>	
<p><b>850 MHz UMTS</b></p> <p>Manufacturer: Powerwave            Model #: 7770            Frequency Band: 824-896 MHz            Gain: 11.4 dBd            Vertical Beamwidth: 15°            Horizontal Beamwidth: 85°            Polarization: Dual Linear ±45°            Size L x W x D: 55.4" x 11.0" x 5.0"</p>	

<p><b>1900 MHz GSM</b></p> <p>Manufacturer: Commscope          Model #: SBNH-1D6565C          Frequency Band: 1850-1990 MHz          Gain: 15.9 dBd          Vertical Beamwidth: 5.1°          Horizontal Beamwidth: 57°          Polarization: ±45°          Size L x W x D: 96.42" x 11.85" x 7.1"</p>	
<p><b>1900 MHz UMTS</b></p> <p>Manufacturer: Powerwave          Model #: 7770          Frequency Band: 1850-1990 MHz          Gain: 13.4 dBd          Vertical Beamwidth: 7°          Horizontal Beamwidth: 90°          Polarization: Dual Linear ±45°          Size L x W x D: 55.4" x 12.0" x 5.0"</p>	



STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: [siting.council@ct.gov](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

June 22, 2012

The Honorable Edward S. Pocock III  
Chairman  
Town of Southington  
Town Office Building  
75 Main Street  
Southington, CT 06489

RE: **EM-AT&T-131-120621** – AT&T Mobility notice of intent to modify an existing telecommunications facility located at 80 Shuttle Meadow Road, Southington, Connecticut.

Dear Chairman Pocock:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

If you have any questions or comments regarding this proposal, please call me or inform the Council by July 6, 2012.

Thank you for your cooperation and consideration.

Very truly yours,

A handwritten signature in cursive script that reads "L. Roberts".

Linda Roberts  
Executive Director

LR/cm

Enclosure: Notice of Intent

c: Garry Brumback, Town Manager, Town of Southington  
Mary Savage, Town Planner, Town of Southington