PULLMAN & COMLEY, LLC
ATTORNEYS AT LAW

CARRIE L. LARSON
90 State House Square
Hartford, CT 06103-3702
p (860) 424-4312
f (860) 424-4370

www.pullcom.com

ORIGINAL

October 7, 2008

EM-POCKET-007-081008

Via Federal Express

S. Derek Phelps, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Notice of Exempt Modification
American Tower Corporation Telecommunications Facility
260 Beckley Road, Berlin, Connecticut

Dear Mr. Phelps:

Youghiogheny Communications-Northeast, LLC, doing business as Pocket Communications ("Pocket"), intends to install antennas and appurtenant equipment at the existing 150-foot monopole facility owned by American Tower Corporation and located at 260 Beckley Road, Berlin, Connecticut ("Facility"). Pocket Communications provides prepaid, flat rate wireless voice and data services to more than a quarter of a million subscribers. Pocket is licensed by the Federal Communications Commission (FCC) to provide PCS wireless telecommunications service in the State of Connecticut, which includes the area to be served by the proposed installation. This installation constitutes an exempt modification pursuant to the Public Utility Environmental Standards Act, Connecticut General Statutes Section 16-50g et. seq. (PUESA), and Section 16-50j-72(b)(2) of the Regulations of the Connecticut State Agencies adopted pursuant to PUESA. In accordance with R.C.S.A. Section 16-50j-73, a copy of this notice has been sent to Denise McNair, Berlin Interim Town Manager.

The existing Facility consists of a 150-foot self-supporting monopole tower capable of supporting multiple carriers within a fenced compound. The coordinates for the Facility are **Lat: 41°-37'-54" and Long: 72°–43'-47".** The tower is located in the northeastern corner of Berlin, roughly 4,500 feet west of the Rocky Hill town line near the northwest corner of Cromwell. The Facility is approximately 1,200 feet west of Beckley Road, roughly 2,400 feet east of the Berlin Turnpike (Route 5/15), and roughly 3,500 feet north of Route 9 (see Site Map, attached as Exhibit A). The tower currently supports Sprint Nextel antennas at the ninety six foot (96') level centerline AGL (above ground level), Verizon antennas at the one hundred eighteen foot level (118') AGL, Sprint Nextel flush mount antennas at the one hundred twenty three (123'), one hundred twenty seven (127') and one hundred thirty foot (130') levels AGL, AT&T antennas at the one hundred fifty two foot level (152') AGL and a T-Mobile pipe mount canister antenna array off the top of the tower at the one hundred sixty three foot level (163') centerline AGL.

The Berlin Fire Department recently removed antennas that were located at the ninety four foot six inch (94'-6") level centerline AGL. As mentioned in the footnote on page 3 of Exhibit D (attached), the fire department antennas were figured into the MPE calculations for the purpose of the composite analysis. Pocket proposes to install three RFS APXV18-206517S-C flush mount antennas on the tower at the one hundred forty two foot centerline (142') AGL, and a Nortel CDMA Micro BTS 3231 cabinet, mounted on an "H-Frame," contained within a six foot by six foot (6'-0" x 6'-0") lease area. A small GPS antenna will be mounted to an ice bridge which will run from the lease area to the tower. Utilities will be run via a proposed underground conduit from an existing utility backboard, within the compound (See Design Drawings and Equipment Specifications, attached as Exhibits B and C respectively).

For the following reasons, the proposed modifications to the Beckley Road Facility meet the exempt modification criteria set forth in R.C.S.A. Section 16-50j-72(b)(2):

1. The proposed modification will not increase the height of the tower as Pocket's antennas will be installed at a center line height of approximately 142 feet .

2. The installation of Pocket's equipment and shelter will not require an extension of the site boundaries.

3. The proposed modifications will not increase the noise levels at the existing Facility by six decibels or more.

4. The operation of the additional antennas will not increase the total radio frequency (RF) power density, measured at the site boundary, to a level at or above the standard adopted by the Connecticut Department of Environmental Protection as set forth in Section 22a-162 of the Connecticut General Statutes and MPE limits established by the Federal Communications Commission. The worst-case RF power density calculations for the proposed Pocket antennas would be 36.78% of the FCC standard (see general power density calculations table, attached as Exhibit D).

Also attached, Exhibit E, is a structural analysis confirming that the tower can support the existing and proposed antennas and associated equipment.

For the foregoing reasons, Pocket respectfully submits that the proposed antenna installation and equipment at the Berlin Facility constitutes an exempt modification under R.C.S.A. Section 16-50j-72(b)(2)

Respectfully Submitted,

Carrie L. Larson

cc: Denise McNair, Berlin Interim Town Manager
John C. Matulis, Jr., underlying property owner

Exhibit A

Site Map

Pocket Site HFCT0039A

260 Beckley Road, Berlin Connecticut

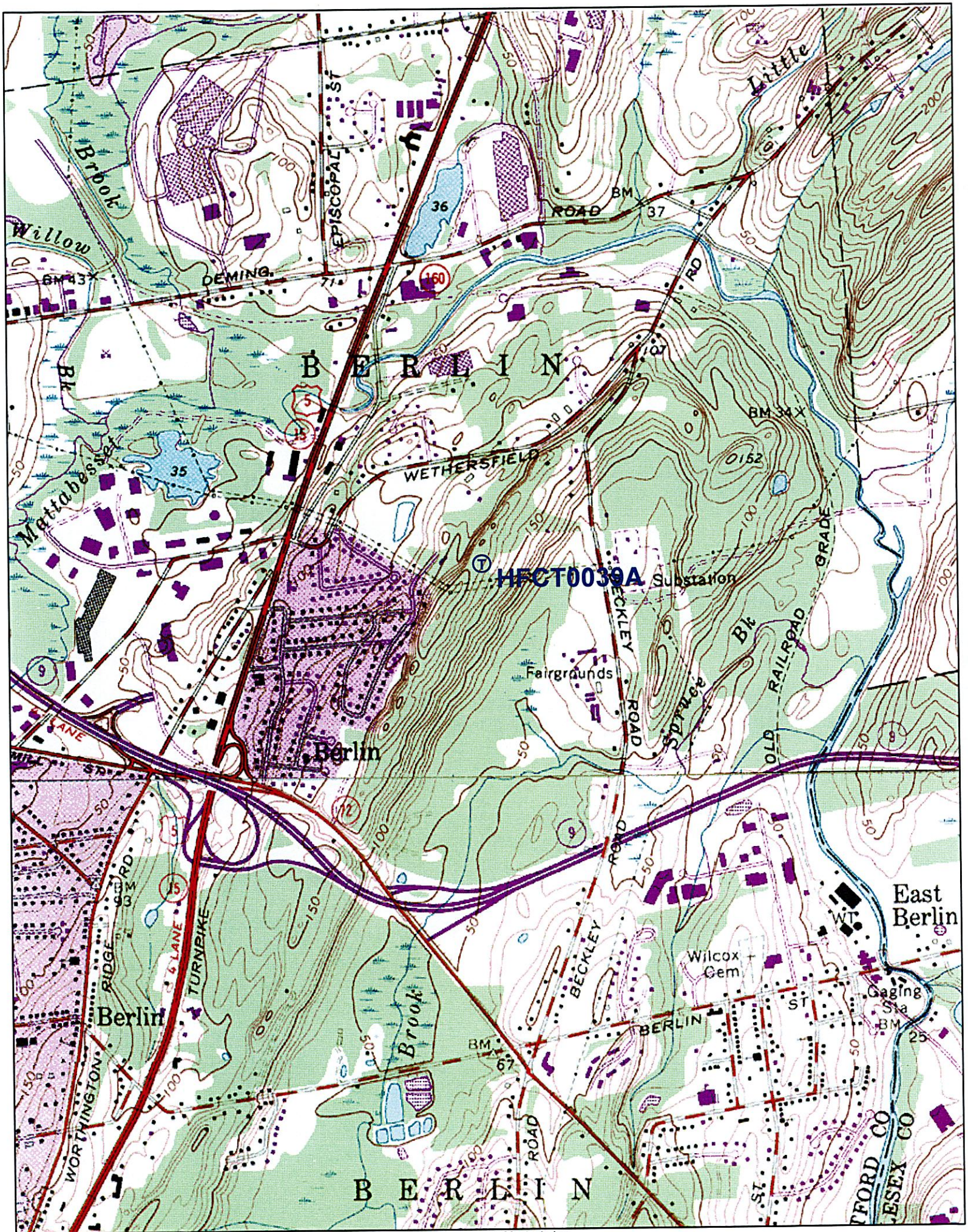

HFCT0039A Substation
BERLIN
BERLIN
Berlin
Berlin
East Berlin
Fairgrounds
Wilcox Cem
Gaging Sta
BM 37
BM 43
BM 34
BM 93
BM 67
BM 25
DEMING
WETHERSFIELD
BECKLEY ROAD
EPISCOPAL ST
ROAD
Willow Brook
Mattabesset Bk
Spruce Bk
Little
OLD RAILROAD GRADE
TURNPIKE
4 LANE
RIDGE RD
WORTHINGTON
BERLIN ST
Brook
WT
Copyright (C) 2002, Maptech, Inc.

Exhibit B

Design Drawings

Pocket Site HFCT0039A

260 Beckley Road, Berlin Connecticut

SITE INFORMATION

OWNER:	ATC 10 PRESIDENTIAL WAY WOBURN, MA 01801 CONTACT: HEATHER DOUGLAS PHONE: 781-926-4645
OWNER SITE ID#:	302483
APPLICANT:	YOUGHIOGHENY COMMUNICATIONS-NORTHEAST LLC 2819 NW LOOP 410 SAN ANTONIO, TX 78230
SITE ADDRESS:	260 BECKLEY BERLIN, CT 06037
COUNTY:	HARTFORD
LATITUDE:	N 41° 37' 54.2"
LONGITUDE:	W 72° 43' 47.7"
ZONING CLASSIFICATION:	N/A
ZONING JURISDICTION:	CONNECTICUT SITING COUNCIL
POWER COMPANY:	CL&P 1-860-947-2121
TELEPHONE COMPANY:	AT&T 1-888-727-8368
DESIGN FIRM:	TRIVIS 180 CHANDALAR PLACE DRIVE PELHAM, AL 35124 PHONE: (205) 621-0106

DRAWING INDEX

APPROVALS

_____ REAL ESTATE

_____ RF

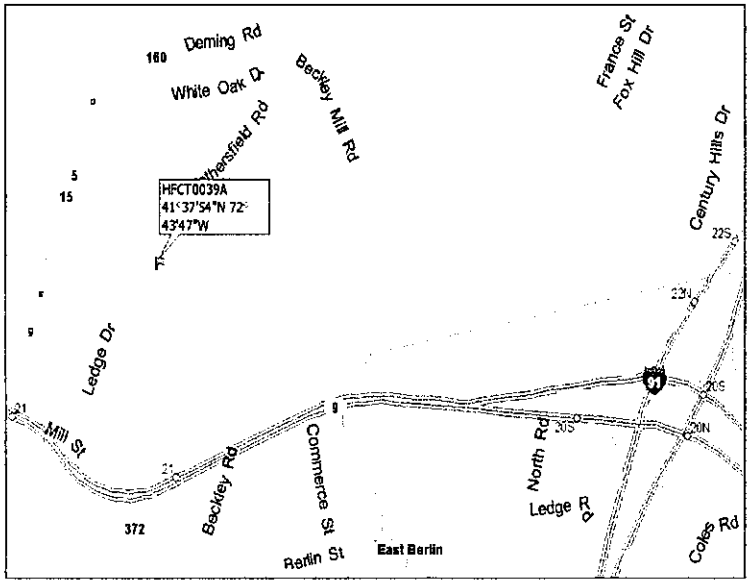
_____ OPS/CONSTRUCTION

_____ LEGAL/COMPLIANCE

_____ NET DESIGN

pocket™
COMMUNICATIONS

HFCT0039A
ATC 302483
150' MONOPOLE



DRIVING DIRECTIONS

FROM HARTFORD TAKE I84E. MERGE ONTO I91S VIA EXIT 52 TOWARDS NEW HAVEN. MERGE ONTO CT9 N VIA EXIT 22N TOWARDS NEW BRITAIN.TAKE THE CT 372 E EXIT 21 TOWARDS EAST BERLIN. TURN LEFT ONTO CT 372/MILL ST. TURN LEFT ONTO BERLIN STREET. TURN ONTO BECKLEY ROAD AND PROCEED APPROX 1.1 MILES TO SITE

SITE INFORMATION

CONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.
2005 NEC NFPA 70-/; 2000 IECC CODES AND THE 2004 CITY PUBLIC SERVICE ELECTRICAL SERVICE STANDARDS.

BUILDING CODE:
INTERNATIONAL BUILDING CODE (IBC), 2006

ELECTRICAL CODE:
(NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70 – 2005, NATIONAL ELECTRICAL CODE
LIGHTNING PROTECTION CODE:
(NFPA 780 – 2005, LIGHTNING PROTECTION CODE]

CONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS.

AMERICAN CONCRETE INSTITUTE (ACI) 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ASD, NINTH EDITION
TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-F, STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES:
TIA 607, COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENTS FOR TELECOMMUNICATIONS

INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE) 81, GUIDE FOR MEASURING EARTH RESISTIVITY, GROUND IMPEDANCE, AND EARTH SURFACE POTENTIALS OF A GROUND SYSTEM
IEEE 1100 (1999) RECOMMENDED PRACTICE FOR POWERING AND GROUNDING OF ELECTRONIC EQUIPMENT

IEEE C62.41, RECOMMENDED PRACTICES ON SURGE VOLTAGES IN LOW VOLTAGE AC POWER CIRCUITS (FOR LOCATION CATEGORY "C3" AND "HIGH SYSTEM EXPOSURE")

TELCORDIA GR-1275, GENERAL INSTALLATION REQUIREMENTS

TELCORDIA GR-1503, COAXIAL CABLE CONNECTIONS

ANSI T1.311, FOR TELECOM – DC POWER SYSTEMS – TELECOM, ENVIRONMENTAL PROTECTION

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

SITE INFORMATION

1. THIS SITE IS UNMANNED AND IS RESTRICTED TO OUTDOOR EQUIPMENT. IT WILL BE USED FOR THE TRANSMISSION OR RADIO SIGNALS FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
2. POCKET COMMUNICATIONS CERTIFIES THAT THIS TELEPHONE EQUIPMENT FACILITY WILL BE SERVICED ONLY BY POCKET COMMUNICATIONS EMPLOYEES AND THE WORK ASSOCIATED WITH ANY EQUIPMENT CANNOT BEPERFORMED BY HANDICAPPED PERSONS. THIS FACILITY WILL BE FREQUENTED ONLY BY SERVICE PERSONNEL FOR REPAIR PURPOSES ONLY. THIS FACILITY IS EXEMPT FROM THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA), APPENDIX B, SECTION 4.11.(5)(B).
3. NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.
4. NO WASTE WATER WILL BE GENERATED AT THIS LOCATION.
5. NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.
6. POCKET COMMUNICATIONS MAINTENANCE CREW (TYPICALLY ONE PERSON) WILL MAKE AN AVERAGE OF ONE TRIP PER MONTH AT ONE HOUR PER VISIT.

CALL before you DIG
1-800-922-4455

NO.	DATE	REVISIONS	INT.
A	9-25-08	ISSUED FOR REVIEW & COMMENT	JSW

pocket COMMUNICATIONS

PROJECT NAME: ATC 302483
SHEET NAME: TITLE SHEET

TRIVIS
The Complete Solutions Provider
180 CHANDALAR PLACE DR.
PELHAM, AL 35124
(205) 621-0106

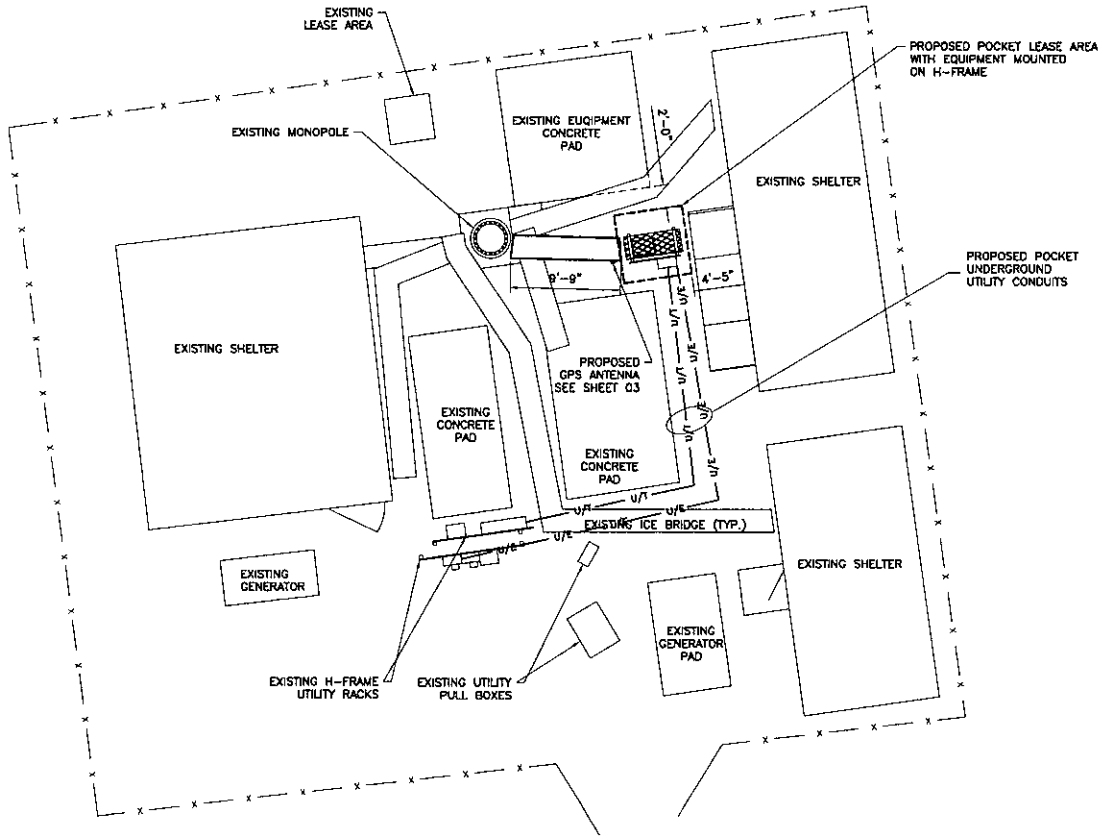
CHECKED BY: HSL
DRAWN BY: JSW
DATE: 9-25-08
JOB NO. 08500
DWG. NO.
01

CONSTRUCTION NOTES

1. FIELD VERIFICATION: CONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, POCKET COMMUNICATIONS ANTENNA MOUNT LOCATION AND ANTENNAS TO BE INSTALLED.
2. COORDINATION OF WORK: CONTRACTOR SHOULD COORDINATE RF WORK AND PROCEDURES WITH POCKET COMMUNICATIONS.
3. GRAVEL SURFACE IN AREAS OF COMPOUND THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE REPLACED TO ORIGINAL CONDITION BY CONTRACTOR.

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
   CONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
   OWNER – POCKET COMMUNICATIONS
   OEM – ORIGINAL EQUIPMENT MANUFACTURER
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
4. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED EQUIPMENT, ON THE DRAWINGS.
5. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
6. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL.
7. CONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING.
8. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, GROUNDING CABLES AS SHOWN ON THE ELECTRICAL PLAN.
9. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
10. CONTRACTOR TO OBTAIN REQUIRED NOTICE TO PROCEED DOCUMENTS FROM THE TOWER OWNER BEFORE COMMENCING CONSTRUCTION.



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

0' 5'-4" 10'-8" 16'

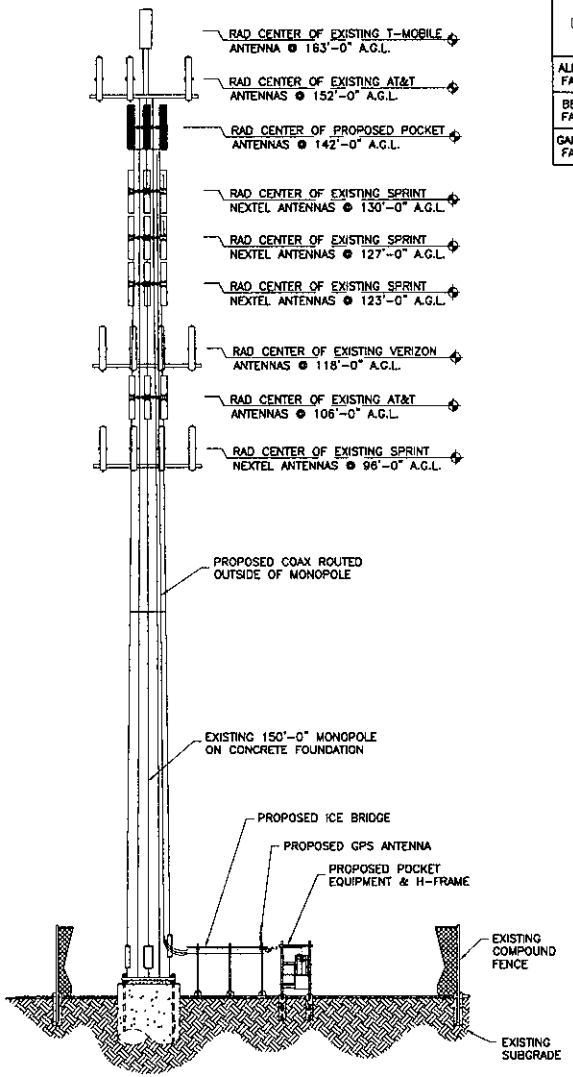
NO.	DATE	REVISIONS	BY
A	9-25-08	ISSUED FOR REVIEW & COMMENT	JSW

pocket COMMUNICATIONS

PROJECT ATC 302483
SHEET TITLE SITE PLAN

TRIVIS
The Complete Solutions Provider
1810 CHANDALAR PLACE DR.
PELHAM, AL 35124
(205) 621-0168

CHECKED BY: HSL
DRAWN BY: JSW
DATE: 9-25-08
JOB NO. 08500
DWG. NO. 02



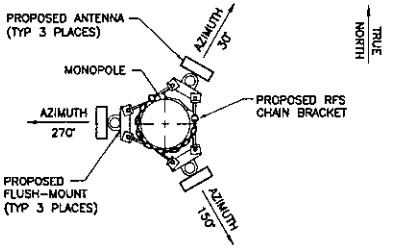
TOWER ELEVATION
SCALE: N.T.S.

ANTENNA KEY

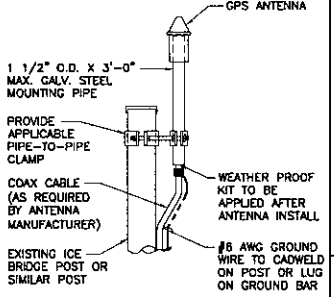
	# ANTENNAS PER SECTOR	ANTENNA NUMBER	COAX COLOR CODE	ANTENNA VENDOR	MODEL NUMBER	AZIMUTH	C/L HEIGHT	MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	COAX SIZE	# COAX PER ANTENNA	COAX VENDOR	COAX LENGTH
ALPHA FACE	1	A-1	(1)-RED BAND	RFS	APXV18-20 6517S-C	30°	142'-0"	0°	0°	1 5/8"	2	COMM-SCOPE	167'-0"
BETA FACE	1	B-1	(1)-BLUE BAND	RFS	APXV18-20 6517S-C	150°	142'-0"	0°	0°	1 5/8"	2	COMM-SCOPE	167'-0"
GAMMA FACE	1	C-1	(1)-GREEN BAND	RFS	APXV18-20 6517S-C	270°	142'-0"	0°	0°	1 5/8"	2	COMM-SCOPE	167'-0"

TOWER NOTES
1. FOR DETAILED TOWER INFORMATION, REFER TO TOWER ERECTION DRAWINGS BY OTHERS. THE TOWER ON THIS SHEET IS SHOWN FOR GENERAL CONFIGURATION PURPOSES ONLY.
2. ANTENNA CONFIGURATION IS SUBJECT TO CHANGE. VERIFY ANTENNA HEIGHT, DOWN-TILT, AND AZIMUTH WITH PROJECT MANAGER PRIOR TO CONSTRUCTION.

ANTENNA NOTES
1. ALL COAX SHALL BE COLOR-CODED AT (3) PLACES EACH: AT ANTENNA, EXTERIOR OF SHELTER, AND THE INTERIOR OF SHELTER.
2. (2) COLOR BANDS DENOTES TRANSMIT.
3. PRIOR TO ORDERING ANY ANTENNAS OR COAX, CONTRACTOR SHALL CONTACT POCKET'S CONSTRUCTION MANAGER AND OBTAIN APPROVAL FOR MATERIALS LISTED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THIS COORDINATION.

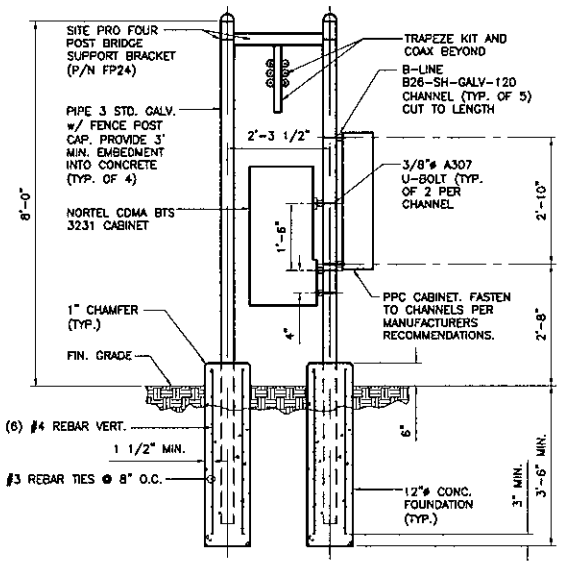


ONE ANTENNA PER SECTOR WITH FLUSH/FACE MONOPOLE MOUNTING
SCALE: N.T.S.

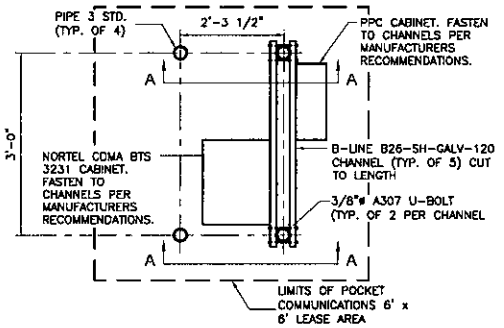


NOTES:
1. LOCATION OF ANTENNA MUST HAVE CLEAR VIEW OF SOUTHERN SKY AND CANNOT HAVE ANY BLOCKAGES EXCEEDING 25% OF THE SURFACE AREA OF A HEMISPHERE AROUND THE GPS ANTENNA.
2. ALL GPS ANTENNA LOCATIONS MUST BE ABLE TO RECEIVE CLEAR SIGNALS FROM A MINIMUM OF FOUR (4) SATELLITES. VERIFY WITH HANDHELD GPS BEFORE FINAL LOCATION OF GPS ANTENNA.

GPS ANTENNA PIPE MOUNT
SCALE: N.T.S.



SECTION
SCALE: N.T.S.



PROPOSED H-FRAME FOR NORTEL BTS CABINET
SCALE: N.T.S.

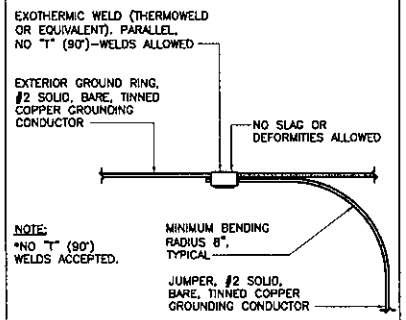
NO.	DATE	REVISIONS	BY
A	9-25-08	ISSUED FOR REVIEW & COMMENT	JSW

pocket COMMUNICATIONS

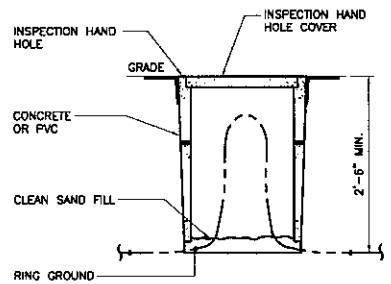
PROJECT NAME: ATC 302483
SHEET DESCRIPTION: TOWER, ANTENNA, H-FRAME

TRIVIS
The Complete Solutions Provider
2801 CENTAURI PLACE, DR.
PELHAM, AL 35124
(205) 685-1105

CHECKED BY: HSL
DRAWN BY: JSW
DATE: 9-25-08
JOB NO. 08500
DWG. NO. 03

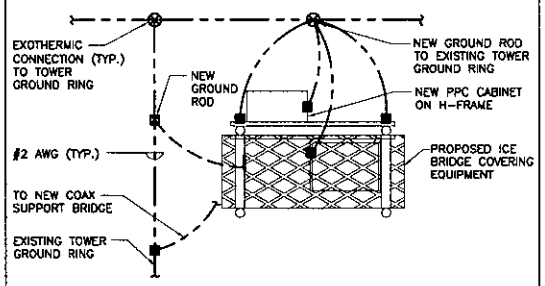


TYPICAL GROUNDING CONNECTION
SCALE: N.T.S.



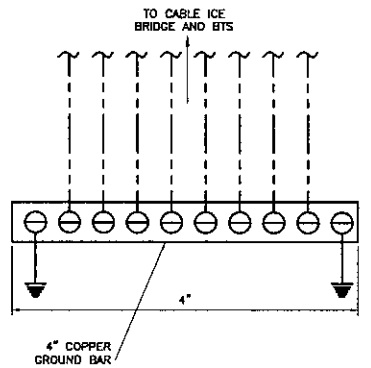
NOTE: INSPECTION HAND HOLE MAY BE CONCRETE OR PVC AND SHALL BE A MINIMUM OF 8" IN WIDTH/DIAMETER

GROUND ROD WITH ACCESS AREA
SCALE: N.T.S.

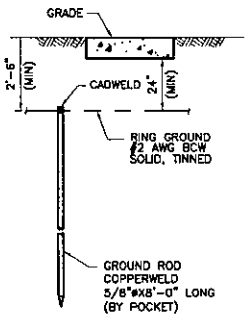


THE CONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR NEW GROUND ELECTRODE SYSTEMS. THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.

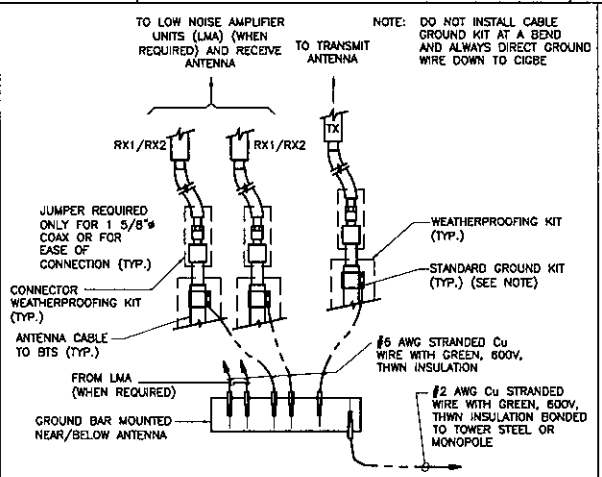
TYPICAL CABINET GROUNDING
SCALE: N.T.S.



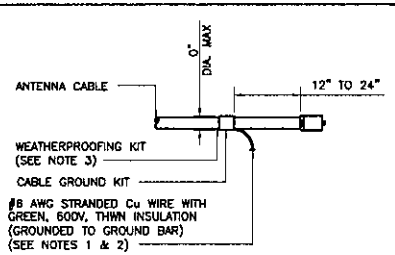
LOWER 4" GROUND BAR
SCALE: N.T.S.



GROUNDING - STANDARD DETAIL GROUND ROD
SCALE: N.T.S.



CONNECTION OF GROUND WIRE TO GROUNDING BAR (CIGBE) TOWER/MONOPOLE
SCALE: N.T.S.

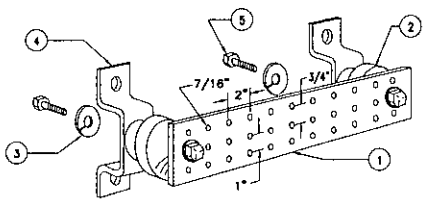


CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE

NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
3. WEATHER PROOFING SHALL BE (TYPE AND PART NUMBER ASSUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.)

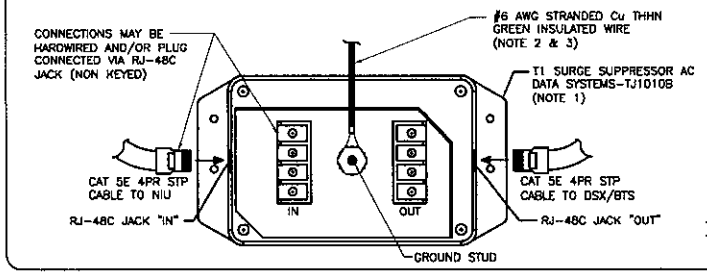
CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE
SCALE: N.T.S.



LEGEND

1- COPPER GROUND BAR, ¼"X 4"X 20", NEWTON INSTRUMENT CO. CAT. NO. B-8142 OR EQUAL. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
2- INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4
3- 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8
4- WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-8056
5- 5/8-11 X 1" HHCS BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012-1
6- SECTOR CIGBE GROUND BAR TO BE SIZED FOR (4) ANTENNAS AND (4) BRACKETS OR MASTS ALL OTHER GROUND BARS SHALL BE SIZED TO ACCOMMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY

GROUND BAR (TYP.)
SCALE: N.T.S.



T1 SURGE SUPPRESSOR
SCALE: N.T.S.

NOTES:

1. MOUNT T1-TVSS UNIT ON EQUIPMENT FRAME HOUSING THE DSX UNIT. USE APPROPRIATE STAINLESS STEEL BOLTS WITH FLAT WASHERS AND A LOCK WASHER ON THE NUT SIDE. THE TVSS MAY BE LOCATED ON THE TELCO BACKBOARD. REFER TO MANUFACTURER'S INSTRUCTIONS.
2. ATTACH RING TERMINAL FROM SUPPLIED GROUND CONDUCTOR TO TVSS GROUND STUD SECURELY FASTEN WITH SUPPLIED WASHER AND NUT. REFER TO MANUFACTURER'S INSTRUCTIONS. FOR PROPER PERFORMANCE, THE GROUND CONDUCTOR LENGTH SHOULD BE LIMITED WITH NO SHARP BENDS OR COILS.
3. WHEN TVSS IS MOUNTED ON EQUIPMENT FRAME, BOND THE GROUND CONDUCTOR TO THE EQUIPMENT FRAME GROUND. ENSURE PROPER GROUNDING SURFACES. WHEN TVSS IS MOUNTED ON THE TELCO BACK BOARD, BOND THE GROUND CONDUCTOR TO THE TELCO (BOARD) GROUND BAR OR NEAREST GROUND BAR.

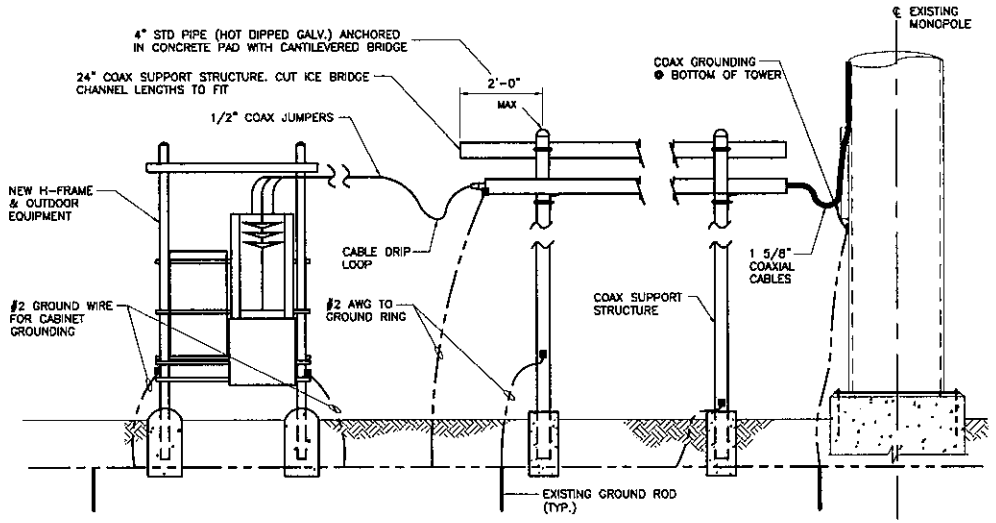
NO.	DATE	REVISIONS	BY
A	9-25-08	ISSUED FOR REVIEW & COMMENT	JSW

pocket COMMUNICATIONS

PROJECT NAME: ATC 302483
SHEET DESC: GROUNDING PLAN & DETAILS

TRIVIS
The Complete Solutions Provider
1400 CHANDALAR PLANTE DR.
PELHAM, AL 35124
(205) 621-1000

CHECKED BY: HSL
DRAWN BY: JSW
DATE: 9-25-08
JOB NO. 08500
DWG. NO. 04

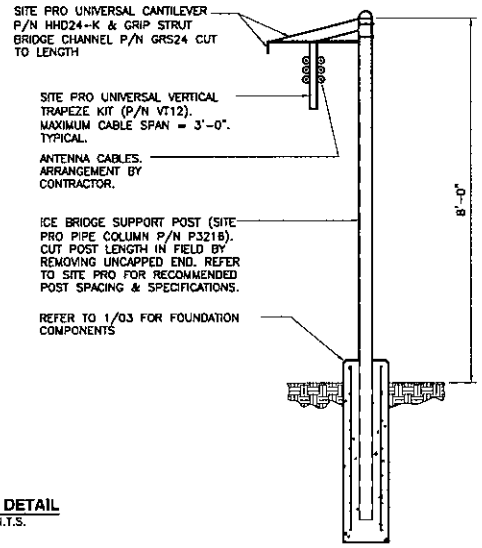


COAX SUPPORT STRUCTURE OUTDOOR EQUIPMENT CABINETS

SCALE: N.T.S.

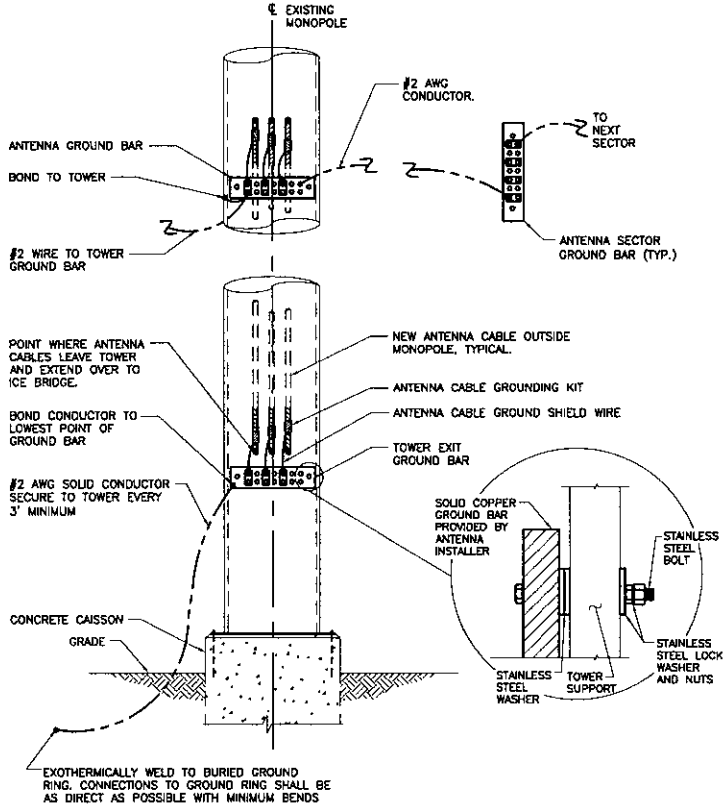
NOTES:

1. WHEN USING COMPONENTS AS SHOWN IN STANDARD DETAILS, MAXIMUM ALLOWABLE SPAN BETWEEN SUPPORTS ON A CONTINUOUS SINGLE SECTION OF BRIDGE CHANNEL SHALL BE 8 FEET FOR 10 FEET BRIDGE CHANNEL.
2. WHEN USING COMPONENTS FOR SPLICING BRIDGE CHANNEL SECTIONS, THE SPLICE SHOULD BE PROVIDED AT THE SUPPORT, IF POSSIBLE, OR AT A MAXIMUM OF 2 FEET FROM THE SUPPORT.
3. WHEN USING COMPONENTS, SUPPORT SHOULD BE PROVIDED AS CLOSE AS POSSIBLE TO THE ENDS OF ICE BRIDGES, WITH A MAXIMUM CANTILEVER DISTANCE OF 2 FEET FROM THE SUPPORT TO THE FREE END OF THE ICE BRIDGE.
4. CUT BRIDGE CHANNEL SECTIONS SHALL HAVE RAW EDGES TREATED WITH A MATERIAL TO RESTORE THESE EDGES TO THE ORIGINAL CHANNEL, OR EQUIVALENT, FINISH.
5. ICE BRIDGES MAY BE CONSTRUCTED WITH COMPONENTS FROM OTHER MANUFACTURERS, PROVIDED THE MANUFACTURER'S INSTALLATION GUIDELINES ARE FOLLOWED.
6. DEVIATIONS FROM STANDARDS FOR COMPONENT INSTALLATIONS ARE PERMITTED WITH THE RESPECTIVE MANUFACTURER'S APPROVAL.
7. DEVIATIONS FROM ICE BRIDGE FOUNDATIONS REQUIRE ENGINEERING APPROVAL.
8. THE DESIGN IS BASED ON ASCE 7-98, 3 SECOND GUST WIND SPEED OF 110 MPH, EXPOSURE C, ELEVATION AT GRADE.
9. THIS DESIGN IS BASED ON 24" WIDE ICE BRIDGE AND (12) 1 5/8" DIA COAX CABLES AND MAX. POST SUPPORT SPACING OF 10'-0".



ICE BRIDGE DETAIL

SCALE: N.T.S.



MONOPOLE GROUNDING DETAIL

SCALE: N.T.S.

REV.	DATE	REVISIONS	
A	9-25-08	ISSUED FOR REVIEW & COMMENT	JSW

pocket COMMUNICATIONS

PROJECT NAME: ATC 302483

SHEET NAME: COAX SUPPORT STRUCTURE

TRIVIS
The Complete Solutions Provider
1810 CHANTALAR PLACE DR.
PELHAM, AL 35124
(205) 823-0500

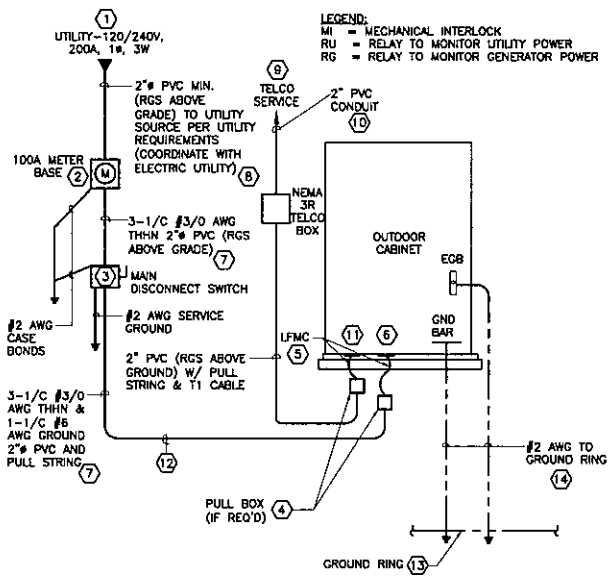
CHECKED BY: HSL
DRAWN BY: JSW
DATE: 9-25-08
JOB NO. 08500
DWG. NO.
05

PANEL "SSC"

LOAD DESCRIPTION	LOAD (kVA)	BRKR SIZE	CCT NO.	PHASE A	PHASE B	CCT NO.	BRKR SIZE	LOAD (kVA)	LOAD DESCRIPTION
BTS CABINET	2.5	30/2	1			2	30/2	2.2	TVSS
	2.5		3			4		2.2	
LIGHTING	.9	10/1	5			6	–	–	SPACE
SPACE	–	–	7			8	–	–	SPACE
SPACE	–	–	9			10	–	–	SPACE
SPACE	–	–	11			12	–	–	SPACE
SPACE	–	–	13			14	–	–	SPACE
SPACE	–	–	15			16	–	–	SPACE
SPACE	–	–	17			18	–	–	SPACE
SPACE	–	–	19			20	–	–	SPACE
SPACE	–	–	21			22	–	–	SPACE
SPACE	–	–	23			24	–	–	SPACE
LOAD SUB-TOTAL	5.6	LOAD TOTAL		10.3 kVA				4.4	LOAD SUB-TOTAL

100A MCB, 120/240V, 1Φ, 3W, 65,000 AIC		
TOTAL CONNECTED LOAD	10.3 KW	
25% OF LARGEST CONT. LOAD	1250 W	
TOTAL LOADS	11.5 KW	47.9 AMPS
NOTE: ALL NON-OPTIONAL BREAKERS PROVIDED BY SSC MFR		

PANEL SCHEDULE



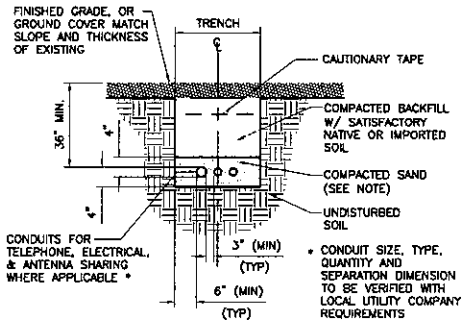
POWER, TELCO & GROUND SINGLE LINE DIAGRAM FOR OUTDOOR CABINET

REFERENCE NOTES

1. ELECTRICAL DEMARCATION POINT. ELECTRICAL CONTRACTOR TO COORDINATE WITH LOCAL POWER FOR SERVICE TO METER.
2. CONTRACTOR TO SUPPLY AND INSTALL A 100A, 120/208/240V 1Φ, 3W METER BASE. METER BASE TO BE NEMA 3R RATED AND ACCEPTABLE TO LOCAL UTILITY. PROVIDE WITH MECHANICALLY ATTACHED ENGRAVED IDENTIFICATION LABEL INDICATING "POCKET COMMUNICATIONS METER".
3. CONTRACTOR TO SUPPLY AND INSTALL NEMA 3R 100A FUSIBLE DISCONNECT SWITCH WITH LOCKABLE HANDLE. PROVIDE WITH 100A FUSES, AIC RATING TO COORDINATE WITH LOCAL UTILITY REQUIREMENTS. PROVIDE WITH MECHANICALLY ATTACHED ENGRAVED IDENTIFICATION LABEL INDICATING "POCKET COMMUNICATIONS SERVICE DISCONNECT".
4. WEATHER TIGHT JUNCTION BOX (IF REQUIRED). SIZE TO NEC CODE FOR APPLICATION.
5. LIQUID TIGHT FLEXIBLE METALLIC CONDUIT W/W WEATHER TIGHT FITTINGS AND SUPPORTS. SIZE AND CONTENTS TO MATCH ASSOCIATED USE (POWER OR TELCO)
6. UTILITY POWER ENTRY INTO CABINET. COORDINATE TERMINATION WITH CABINET MANUFACTURER.
7. CONTRACTOR SUPPLY AND INSTALL 2" GRC. AFG AND PVC 24" BFG C/W #3/0 AWG THHN & (1) #6 GRND FOR UTILITY SERVICE
8. CONTRACTOR SUPPLY AND INSTALL 4" GRC. AFG AND PVC 24" BFG C/W #3/0 AWG THHN FOR UTILITY SERVICE
9. TELCO DEMARCATION POINT. ELECTRICAL CONTRACTOR TO COORDINATE WITH LOCAL TELCO FOR SERVICE TO TELCO BOX OR CABINET.
10. CONTRACTOR TO SUPPLY AND INSTALL (1) 2" GRC AFG AND PVC 24" BFG C/W PULL CORDS FOR TELCO SERVICE TO CABINET TERMINATION POINT.
11. TELCO SERVICE ENTRY INTO CABINET. COORDINATE TERMINATION IN WITH CABINET MANUFACTURER.
12. CONTRACTOR TO ARRANGE AND PAY FOR UNDERGROUND UTILITY LOCATION SURVEYS FOR ALL TRENCHING. REUSE NATIVE BACKFILL AND RE-INSTATE TO ORIGINAL CONDITION. INSTALL 6" WIDE METALLIC LINED RED PLASTIC MARKER TAPE 8" ABOVE ALL BURIED CONDUIT.
13. PART OF CABINET BURIED GROUND RING.
14. (1) #2 SOLID BARE TINNED CU GEC BONDED TO 5/8"x10' COPPER CLAD STEEL GROUNDING ELECTRODES. LOCATE GROUNDING ELECTRODE ADJACENT TO "CABINET". BOND GROUNDING ELECTRODE SYSTEM TO CABINET GROUND RING.

GENERAL ELECTRICAL NOTES:

1. ALL ELECTRICAL AND GROUNDING WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
2. CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL VERIFY ROUTING AND LENGTHS PRIOR TO CONSTRUCTION.
3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
4. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
5. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.



NOTE: LEAN CONCRETE, RED-COLORED TOP, MAY BE USED IN PLACE OF COMPACTED SAND.

DIRECT BURIED CONDUIT

SCALE: N.T.S.

NOTES

1. CONTRACTOR SHALL PROVIDE 100AMP, SINGLE PHASE, 120/240 VAC, 60HZ SERVICE FOR SITE.
2. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY BEFORE THE START OF CONSTRUCTION. POWER AND TELCO CONDUIT SHALL BE PROVIDED AND INSTALLED PER UTILITY REQUIREMENTS.
3. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT REFER TO DRAWINGS PROVIDED BY AC OR TELCO PANEL MANUFACTURER.
4. ALL SERVICE EQUIPMENT AND INSTALLATIONS SHALL COMPLY WITH THE N.E.C. AND UTILITY COMPANY AND LOCAL CODE REQUIREMENTS.
5. CONTRACTOR SHALL INSTALL SUFFICIENT LENGTHS OF LFMC INCLUDING ALL CONDUIT FITTINGS (NUTS, REDUCING BUSHINGS, ELBOWS, COUPLINGS, ETC) NECESSARY FOR CONNECTION FROM IMC CONDUIT TO THE PURCELL POWER CABINET.
6. CONTRACTOR SHALL PROVIDE ELECTRICAL SERVICE EQUIPMENT WITH FAULT CURRENT RATINGS GREATER THAN THE AVAILABLE FAULT CURRENT FROM THE POWER UTILITY.
7. CONTRACTOR SHALL VERIFY THAT THE MAIN BONDING JUMPER AND GROUNDING ELECTRODE CONDUCTOR IS INSTALLED PROPERLY IN MAIN DISCONNECT SWITCH.

NO.	DATE	REVISIONS	
A	9-25-08	ISSUED FOR REVIEW & COMMENT	JSW
			MC

pocket COMMUNICATIONS

PROJECT NAME: ATC 302483

SHEET DESC: ELECTRICAL PLAN & DETAILS

TRIVIS
The Complete Solutions Provider
1900 CHANDALAR PLACE DR
PELHAM, AL 35124
(205) 620-0006

CHECKED BY: HSL

DRAWN BY: JSW

DATE: 9-25-08

JOB NO. 08500

DRG. NO. 06

Exhibit C

Equipment Specifications

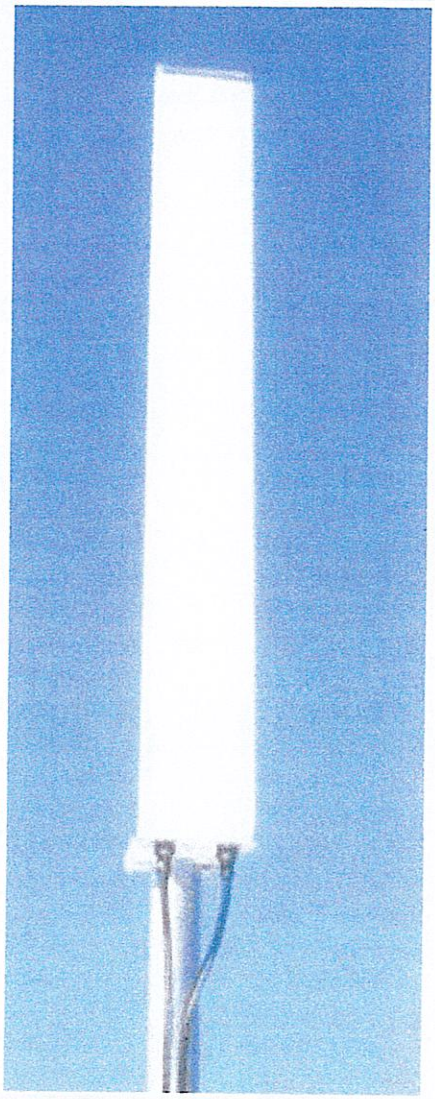
Pocket Site HFCT0039A

260 Beckley Road, Berlin Connecticut

Technical Data Sheet | APXV18-206517S-C

Product Description

This variable tilt antenna provides exceptional suppression of all upper sidelobes at all downtilt angles. It also features null fill and a wide downtilt range with optional remote tilt.



Features/Benefits

- Variable electrical downtilt - provides enhanced precision in controlling intercell interference. The tilt is infield adjustable 0-10 deg.
- High Suppression of all Upper Sidelobes (Typically <-20dB).
- Optional remote tilt - can be retrofitted.
- Broadband design.
- Dual polarization.
- Low profile for low visual impact.

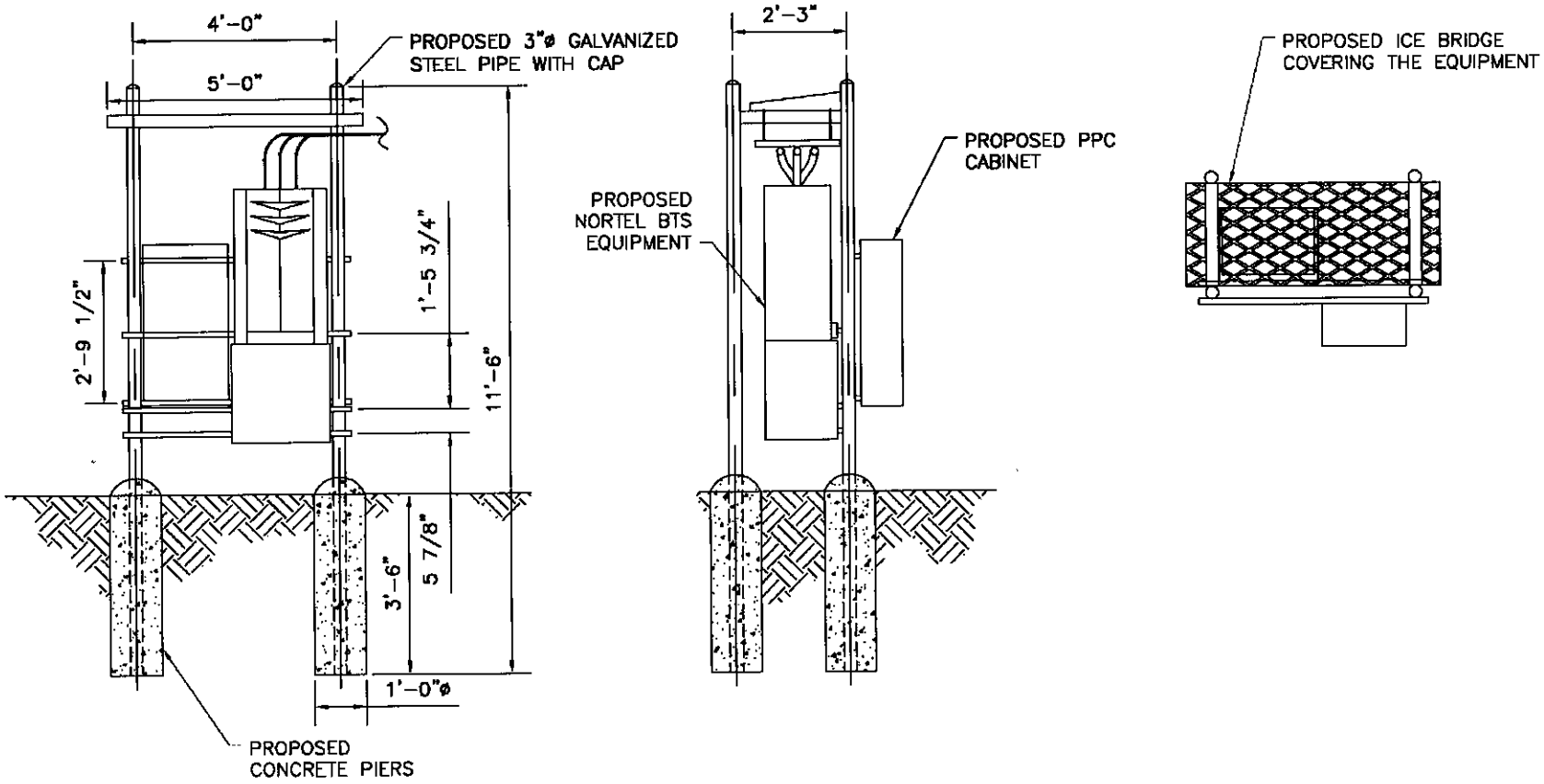
Technical Features

Frequency Band	3G/UMTS (Single, Broad, Dual and Triple-Band)
Horizontal Pattern	Directional
Antenna Type	Panel Dual Polarized
Electrical Down Tilt Option	Variable

Technical Data Sheet	APXV18-206517S-C

Gain, dBi (dBd)	18.8 (16.7) , 19.0 (16.9)
Frequency Range, MHz	1710-1900, 1900-2170
Connector Type	(2) 7-16 DIN Female
Connector Location	Bottom
Mount Type	Downtilt
Electrical Downtilt, deg	0-10
Horizontal Beamwidth, deg	67 , 63
Mounting Hardware	APM40-2
Rated Wind Speed, km/h (mph)	160 (100)
VSWR	< 1.5:1
Vertical Beamwidth, deg	5.0 , 4.6
Upper Sidelobe Suppression, dB	>17 , >18 all (Typically >20)
Polarization	Dual pol +/-45°
Front-To-Back Ratio, dB	>30
Maximum Power Input, W	300
Isolation between Ports, dB	>30
Lightning Protection	Direct Ground
3rd Order IMP @ 2 x 43 dBm, dBc	>150
7th Order IMP @ 2x46 dBm, dBc	>170
Impedance, Ohms	50
Overall Length, m (ft)	1.85 (6.06)
Mounting Hardware Weight, kg (lb)	3.4 (7.5)
Dimensions - HxWxD, mm (in)	1850 x 175 x 80 (72.0 x 6.8 x 3.15)
Weight w/o Mtg Hardware, kg (lb)	12 (26.4)
Weight w/ Mtg Hardware, kg (lb)	14.8 (32.5)
Radiating Element Material	Brass
Radome Color	Light Grey RAL7035
Radome Material	Fiberglass
Mounting Hardware Material	Diecasted Aluminum
Reflector Material	Aluminum
Max Wind Loading Area, m^2 (ft^2)	0.31 (3.3)
Survival Wind Speed, km/h (mph)	200 (125)
Maximum Thrust @ Rated Wind, N (lbf)	558 (125)
Front Thrust @ Rated Wind, N (lbf)	558 (125)
Shipping Weight, kg (lb)	18.3 (39.8)
Packing Dimensions, HxWxD, mm (in)	2021 x 260 x 200 (79.5 x 10.2 x 7.8)
Packing Dimensions - HxWxD, m (ft)	2.0 x 0.26 x 0.2 (6.6 x 0.85 x 0.65)

Notes
For additional mounting information please click "External Document Link" below.



Pocket/Youghiogheny Communications – Northeast, LLC

Rack Detail

>BUSINESS MADE **SIMPLE**

NORTEL

CDMA BTS 3231 AWS 1.7/2.1 GHz (Outdoor/Indoor)

CDMA BTS 3231

Industry's Highest Capacity AWS Micro BTS

The CDMA BTS 3231 is the latest extension to Nortel Networks BTS (Base Transceiver Station) portfolio providing the ideal solution for urban, sub-urban and rural deployments. The CDMA BTS 3231 is a 3-carrier, 3-sector outdoor/indoor BTS operating at the AWS band of 1.7/2.1 GHz supporting IS-95, 1XRTT and 1xEV-DO simultaneously. BTS 3231 provides flexible deployments solutions including floor, rack, and wall mount options. The power consumption of BTS3231 is industry leading consuming only 630W for 3C3S. The BTS 3231 is also very light at 240lbs making it easy to transport to hard to reach locations such as the top of a high rise building.

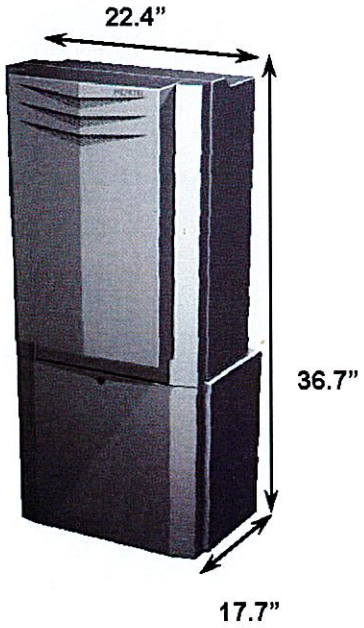


Exhibit D

Power Density Calculations

Pocket Site HFCT0039A

260 Beckley Road, Berlin Connecticut

C Squared Systems, LLC
920 Candia Road
Manchester, NH 03109
Phone: (603) 657 9702
E-mail:
support@csquaredsystems.com

Calculated Radio Frequency Emissions

CT-0039

260 Beckley Rd, Berlin, CT

Table of Contents

List of Tables

1. Introduction

The purpose of this report is to investigate compliance with applicable FCC regulations for the proposed Pocket antennas to be installed on the existing tower at 260 Beckley Rd, Berlin, CT.

These calculations assume that the antennas are operating at 100 percent capacity, that all antenna channels are transmitting simultaneously, and that the radio transmitters are operating at full power. Obstructions (trees, buildings etc.) that would normally attenuate the signal are not taken into account. As a result, the predicted signal levels are much more conservative (higher) than the actual signal levels will be from the finished installation.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter (mW/ cm^2). The number of mW/cm^2 emitted is called the power density. The general population exposure limit for the cellular band is 0.567-0.593 mW/ cm^2, and the general population exposure limit for the PCS/AWS band is 1.0 mW/ cm^2. Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.

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.

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 (through training), 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."

The FCC describes exposure to radio frequency (RF) energy in terms of percentage of maximum permissible exposure (MPE) with 100% being the maximum allowed. Rather than the FCC presenting the user specification in terms of complex power density figures over a specified surface area, this MPE measure is particularly useful, and even more so when considering that power density limits actually vary by frequency because of the different absorptive properties of the human body at different frequencies.

MPE limits are specified as time-averaged exposure limits. This means that exposure can be averaged over 30 minutes for general population / uncontrolled exposure (or 6 minutes for occupational / controlled exposure). However, for the case of exposure of the general public, time averaging is usually not applied because of uncertainties over exact exposure conditions and difficulty in controlling time of exposure. Therefore, the typical conservative approach is to assume that any RF exposure to the general public will be continuous.

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.

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 limits for Maximum Permissible Exposure (MPE) for transmitters operating between 300 kHz and 100 GHz. The FCC MPE limits are based on exposure limits recommended by the National Council on Radiation Protection and Measurements (NCRP), the exposure limits developed by the Institute of Electrical and Electronics Engineers, Inc., (IEEE) and adopted by the American National Standards Institute (ANSI).

Attachment B contains excerpts from OET Bulletin 65 and defines the Maximum Exposure Limit. As shown in these excerpts, each frequency band has different exposure limits, requiring power density to be reported as a percent of Maximum Permissible Exposure (MPE) when dealing with carriers transmitting in different frequency bands.

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:

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

Where:

EIRP = Effective Isotropic Radiated Power

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

H = Horizontal Distance from antenna

V = Vertical Distance from bottom of antenna

Off Beam Loss is determined by the selected antenna patterns

4. Calculation Results

Table 1 below outlines the power density information for the site. All information for carriers other than Pocket was obtained from existing CSC database[1].

Carrier	Number of Trans.	Effective Radiated Power (ERP) Per Transmitter (Watts)	Antenna Height (Feet)	Operating Frequency (MHz)	Total ERP (Watts)	Power Density (mw/cm^2)	Limit	%MPE
AT&T UMTS	1	500	152	1935	500	0.0078	1.0000	0.78%
AT&T Omni	1	500	162	150	500	0.0069	0.2000	3.43%
AT&T TDMA	10	100	152	880	1,000	0.0156	0.5867	2.65%
AT&T GSM	2	296	152	880	592	0.0092	0.5867	1.57%
AT&T GSM	2	427	152	1900	854	0.0133	1.0000	1.33%
Berlin FD	1	25.12	94.5	953.55	25	0.0010	0.6357	0.16%
Verizon	9	200	116	869	1,800	0.0481	0.5793	8.30%
Verizon	3	200	116	190	600	0.0160	1.0000	1.60%
T-Mobile	8	100	161	1930	800	0.0111	1.0000	1.11%
Sprint	11	122	125	1962.5	1,342	0.0309	1.0000	3.09%
Nextel	12	100	90	851	1,200	0.0533	0.5673	9.39%
Pocket	3	631	142	2130-2133.75	1,893	0.0338	1.0000	3.38%
							Total	36.78%

Table 1: Proposed Carrier Information

[1] Based on the structural analysis completed by American Tower Engineering Services on September 9, 2008, the Berlin FD antennas have been removed from the tower. The %MPE value from Berlin FD however has been included in the total %MPE value for the purpose of the composite analysis.

5. Conclusion

The above analysis verifies that emissions from the proposed site will be well 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 the base of the tower is 36.78% of the FCC limit.

As noted in the introduction, 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 installation.

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/IEE Std. C95.1 and FCC OET Bulletin 65 Edition 97-01.

October 6, 2008
Date

Daniel l. Goulet
C Squared Systems, LLC

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)

(A) Limits for Occupational/Controlled Exposure

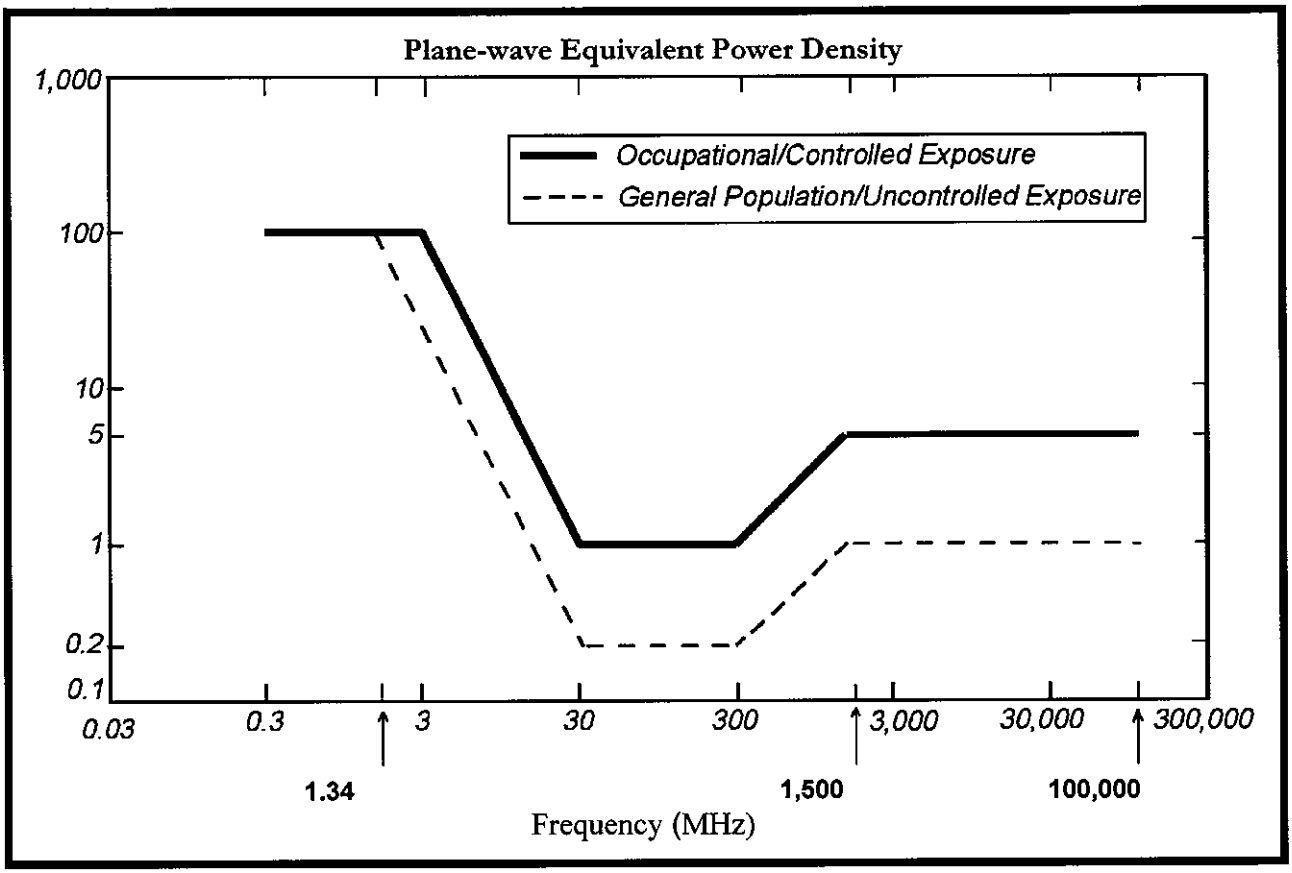
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	($900/f^2$)*	6
30-300	61.4	0.163	1.0	6
300-1500	-	-	f/300	6
1500-100,000	-	-	5	6

(B) Limits for General Population/Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (E) (A/m)	Power Density (S) (mW/cm^2)	Averaging Time $\|E\|^2$, $\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	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

NOTE 1: 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.
NOTE 2: 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 can not exercise control over their exposure.



• FCC Limits for Maximum Permissible Exposure (MPE)

Exhibit E

Structural Analysis

Pocket Site HFCT0039A

260 Beckley Road, Berlin Connecticut

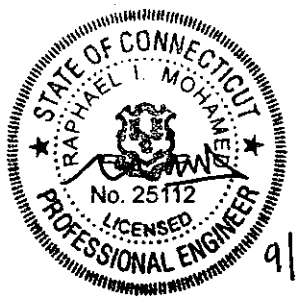
AMERICAN TOWER

Structural Analysis Report

Structure	:	**150 ft ITT Meyer Monopole**
ATC Site Name	:	**Brln - Berlin, CT**
ATC Site Number	:	**302483**
Proposed Carrier	:	**Youghiogheny**
Carrier Site Name	:	**CT0039**
Carrier Site Number	:	**CT0039**
County	:	**Hartford**
Eng. Number	:	**42036722**
Date	:	**September 9, 2008**
Usage	:	**90%**
Portholes Required	:	**No**

Submitted by:
Zachary A. Medoff, E.I.
Design Engineer

American Tower Engineering Services
400 Regency Forest Drive
Cary, NC 27518
Phone: 919-468-0112



9/17/08

Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 150 ft ITT Meyer Monopole located at 260 Beckley Road, Kensington, CT 06037, Hartford County (ATC site #302483). The tower was originally designed and manufactured by ITT Meyer to Type "B" specifications; this was verified in a field mapping by Smith Cullum, Inc. (Acq. #CT-0019, dated July 21, 2001). It has been modified per design by Scientel (Project SpectraSite Berlin-CT-0019, dated July 30, 2002).

Analysis

The tower was analyzed using Semaan Engineering Solutions, Inc., Software. The analysis assumes that the tower is in good, undamaged, and non-corroded condition.

Basic Wind Speed: 80 mph (Fastest Mile) / 100 mph (3-Second Gust)
Radial Ice: 69 mph (Fastest Mile) w/ ½" ice
Code: TIA/EIA-222-F / 2003 IBC w/ 2005 CT Supplement & 2008 CT Amendments

Antenna Loads

The following antenna loads were used in the tower analysis.

Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax (in)	Carrier
163.0	3	EMS RR90-17-00DP	Concealment Canister	(6) 1 5/8	T-Mobile
	6	Remec S20057A1		-	
152.0	9	ADC DD1900	Flat Platform w/ Handrails	-	AT&T Mobility
	10	CSS DUO1417-8686		(10) 7/8	
130.0	3	Allgon 7184	Flush	(3) 1 5/8	Sprint Nextel
127.0	3	Allgon 7184	Flush	(3) 1 5/8	
123.0	3	Allgon 7184	Flush	(3) 1 5/8	
121.0	1	GPS	Pipe	(1) 1/2	Verizon
118.0	6	Andrew DB948F85E-M	Round Low Profile Platform	(6) 1 5/8	
	6	Antel RWA-80014		(6) 1 5/8	
106.0	9	14" x 9" TTA	Low Profile Platform	-	AT&T Mobility
	9	72" x 12" Panel		(9) 1 5/8	
	3	36" x 8" x 6" Panel		(3) 1 5/8	
96.0	12	Decibel 844G65VTZASX	Flat Low Profile Platform	(15) 1 5/8	Sprint Nextel

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax (in)	Carrier
142.0	3	RFS APXV18-206517LS-C	Flush	(6) 1 5/8	Youghiogheny

Install proposed coax on outside of monopole.

Results

The maximum structure usage is: 90%

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)	3291.0	3,430.8	104
Shear (kips)	33.9	35.7	105
Axial (kips)	57.2	50.3	88

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

Conclusion

Based on the analysis results, the structure meets the requirements per TIA/EIA-222-F and 2003 IBC with 2005 CT Supplement & 2008 CT Amendments. The tower and foundation can support the existing and proposed antennas with the TX line distribution as described in this report.

If you have any questions or require additional information, please call 919-465-6535.

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:

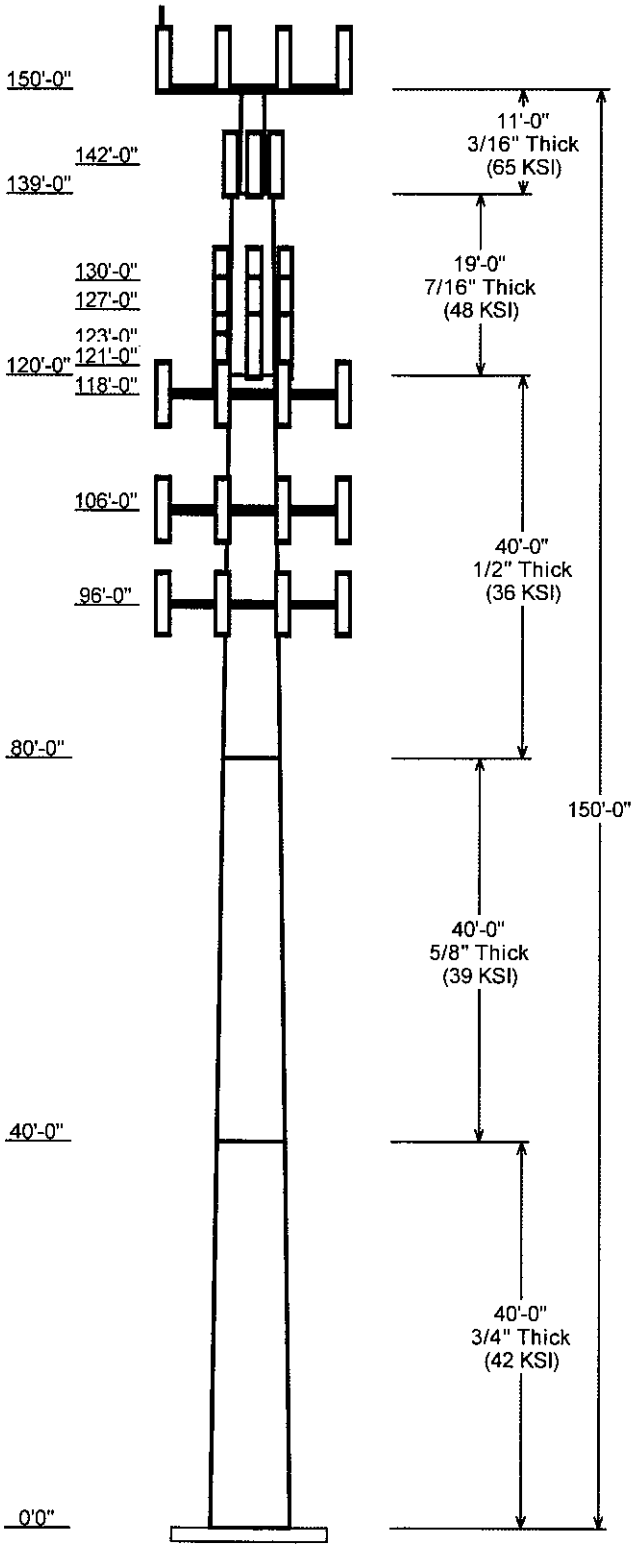
-- Information supplied by the client regarding the structure itself, the antenna and feed line loading on the structure and its components, or other relevant information.

-- 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 are in an un-corroded condition and have not deteriorated; and we, therefore, assume 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.



Job Information

Pole :	302483	Code: TIA/EIA-222 Rev F	
Description :	150 ft ITT Meyer Monopole		
Client :	Youghiogheny		
Location :	Brln - Berlin, CT		
Shape :	12 Sides	Base Elev (ft): 0.00	
Height :	150.00 (ft)	Taper: 0.189701(in/ft)	

Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	40.000	43.71	51.30	0.750		0.000	0.189701	42
2	40.000	36.09	43.68	0.625	Butt Joint	0.000	0.189701	39
3	40.000	28.50	36.09	0.500	Butt Joint	0.000	0.189701	36
4	19.000	24.90	28.50	0.438	Butt Joint	0.000	0.189701	48
5	11.000	15.00	16.72	0.188	Butt Joint	0.000	0.156364	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
150.000	150.000	1	Flat Platform w/ Handrails
150.000	152.000	9	ADC DD1900
150.000	152.000	10	CSS DUO1417-8686
150.000	156.500	1	Concealment Canister
150.000	163.000	3	EMS RR90-17-00DP
150.000	163.000	6	Remec S20057A1
142.000	142.000	3	RFS APXV18-206517LS-C
130.000	130.000	3	Allgon 7184
127.000	127.000	3	Allgon 7184
123.000	123.000	3	Allgon 7184
121.000	121.000	1	GPS
118.000	118.000	1	Round Low Profile Platform
118.000	118.000	6	Andrew DB948F85E-M
118.000	118.000	6	Antel RWA-80014
106.000	106.000	1	Low Profile Platform
106.000	106.000	9	14" x 9" TTA
106.000	106.000	9	72" x 12" Panel
106.000	106.000	3	36" x 8" x 6" Panel
96.000	96.000	1	Flat Low Profile Platform
96.000	96.000	12	Decibel 844G65VTZASX

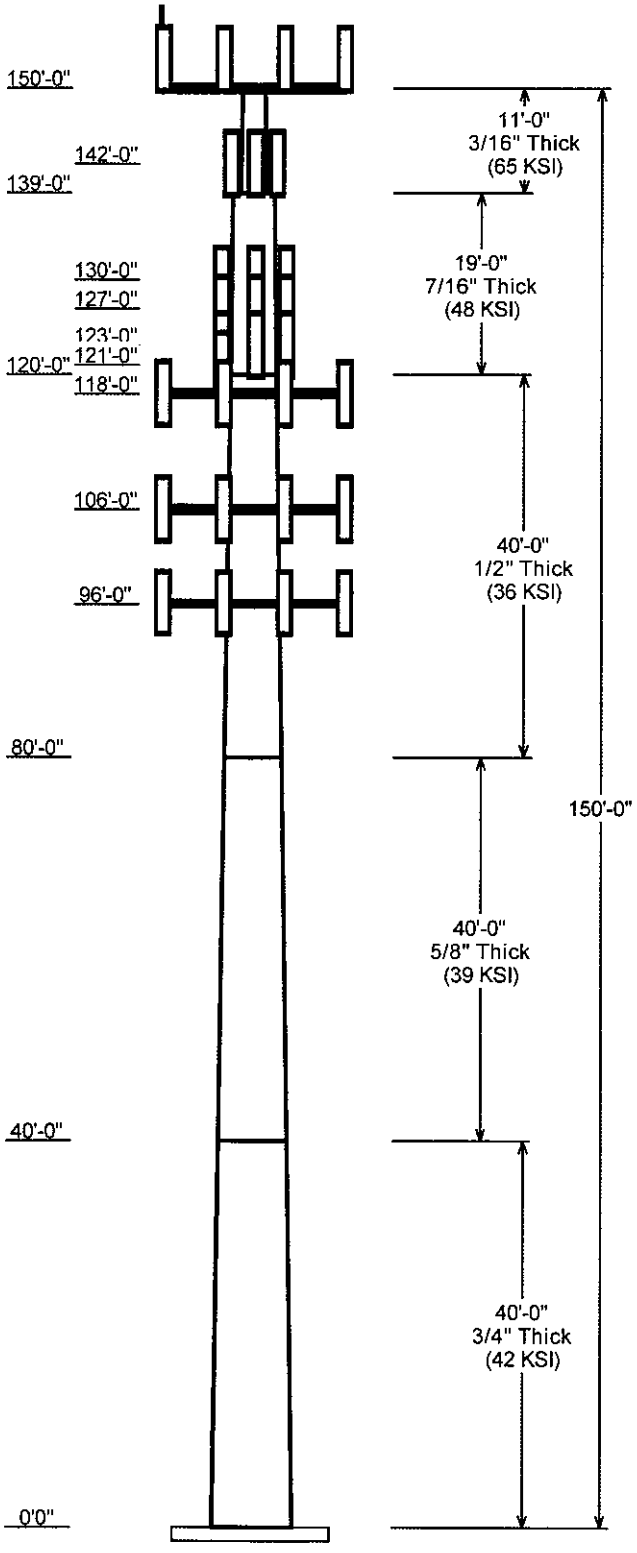
Linear Appurtenance

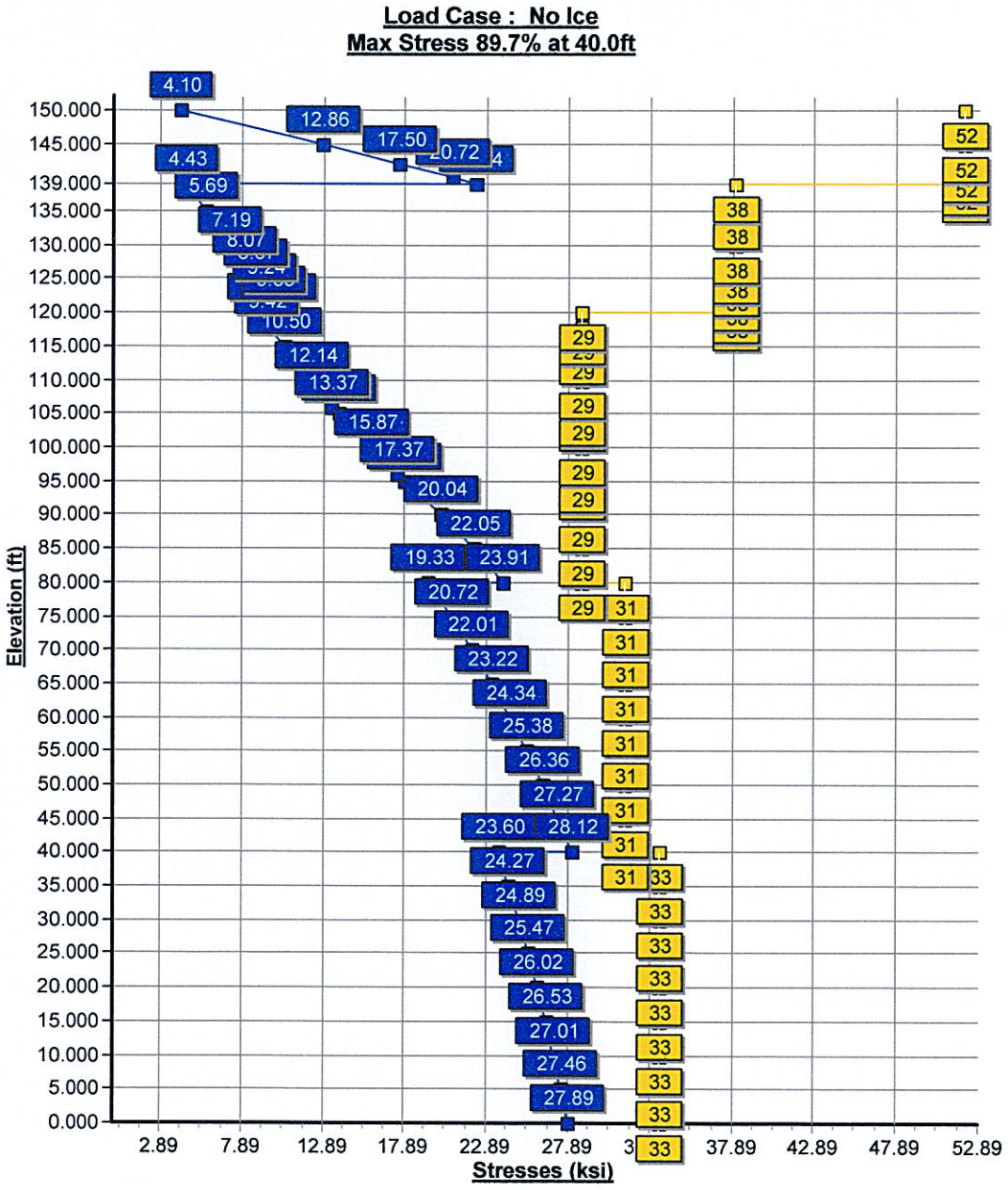
Elev (ft) From	To	Description	Exposed To Wind
0.000	96.000	1 5/8" Coax	Yes
0.000	96.000	1 5/8" Coax	No
0.000	106.0	1 5/8" Coax	No
0.000	118.0	1 5/8" Coax	Yes
0.000	121.0	1/2" Coax	Yes
0.000	123.0	1 5/8" Coax	Yes
0.000	127.0	1 5/8" Coax	No
0.000	130.0	1 5/8" Coax	No
0.000	142.0	1 5/8" Coax	Yes
0.000	150.0	1 5/8" Coax	No
0.000	150.0	7/8" Coax	No

Load Cases

No Ice	80.00 mph Wind with No Ice
Ice	69.28 mph Wind with Ice

Reactions			
Load Case	Moment (Kip-ft)	Shear (Kips)	Axial (Kips)
No Ice	3430.80	35.65	50.28
Ice	2906.82	29.71	59.50

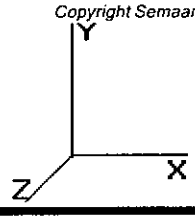



Load Case : No Ice
Max Stress 89.7% at 40.0ft
Elevation (ft)
Stresses (ksi)
150.000
145.000
139.000
135.000
130.000
125.000
120.000
115.000
110.000
105.000
100.000
95.000
90.000
85.000
80.000
75.000
70.000
65.000
60.000
55.000
50.000
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
2.89
7.89
12.89
17.89
22.89
27.89
37.89
42.89
47.89
52.89
4.10
12.86
17.50
4.43
5.69
7.19
10.50
12.14
13.37
15.87
17.37
20.04
22.05
19.33
23.91
20.72
22.01
23.22
24.34
25.38
26.36
27.27
23.60
28.12
24.27
24.89
25.47
26.02
26.53
27.01
27.46
27.89
29
31
33
38
52

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Shaft Section Properties

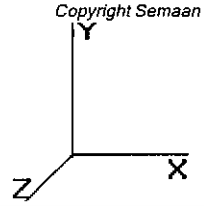
Sect Num	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (sqin)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (sqin)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1	40.000	0.7500	42		0.00	15,369	51.30	0.000	122.	39816.6	16.18	68.40	43.71	40.00	103.	24442.9	13.47	58.28	0.18970
2	40.000	0.6250	39	Butt Joint	0.00	10,755	43.68	40.00	86.65	20501.8	16.58	69.89	36.09	80.00	71.38	11460.3	13.33	57.75	0.18970
3	40.000	0.5000	36	Butt Joint	0.00	6,968	36.09	80.00	57.30	9265.7	17.20	72.18	28.50	120.0	45.09	4513.2	13.13	57.01	0.18970
4	19.000	0.4375	48	Butt Joint	0.00	2,392	28.50	120.0	39.54	3975.5	15.31	65.15	24.90	139.0	34.46	2632.2	13.11	56.91	0.18970
5	11.000	0.1875	65	Butt Joint	0.00	354	16.72	139.0	9.98	348.2	21.75	89.17	15.00	150.0	8.94	250.4	19.29	80.00	0.15636
				Shaft Weight		35,838													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice CaAa (sf)	No Ice CaAa Factor	Ice Weight (lb)	Ice CaAa (sf)	Ice CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
150.0	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	2450.00	48.400	1.00	0.000	0.000
150.0	ADC DD1900	9	12.10	1.280	0.67	33.00	1.450	0.67	0.000	2.000
150.0	CSS DUO1417-8686	10	20.30	6.530	0.82	62.49	7.150	0.83	0.000	2.000
150.0	Concealment Canister	1	200.00	15.000	1.00	300.00	20.000	1.00	0.000	6.500
150.0	EMS RR90-17-00DP	3	18.00	0.000	0.00	18.00	0.000	0.00	0.000	13.000
150.0	Remec S20057A1	6	11.00	0.000	0.00	11.00	0.000	0.00	0.000	13.000
142.0	RFS APXV18-206517LS-C	3	22.00	5.020	0.80	48.13	5.700	0.82	0.000	0.000
130.0	Allgon 7184	3	11.20	2.680	0.85	27.10	3.280	0.87	0.000	0.000
127.0	Allgon 7184	3	11.20	2.680	0.85	27.10	3.280	0.87	0.000	0.000
123.0	Allgon 7184	3	11.20	2.680	0.85	27.10	3.280	0.87	0.000	0.000
121.0	GPS	1	7.00	1.000	1.00	15.00	1.300	1.00	0.000	0.000
118.0	Round Low Profile Platform	1	1500.00	21.700	1.00	1700.00	27.200	1.00	0.000	0.000
118.0	Andrew DB948F85E-M	6	8.50	3.267	0.79	27.56	3.811	0.81	0.000	0.000
118.0	Antel RWA-80014	6	14.30	5.250	0.79	46.00	5.740	0.80	0.000	0.000
106.0	Low Profile Platform	1	1500.00	26.100	1.00	1700.00	31.600	1.00	0.000	0.000
106.0	14" x 9" TTA	9	10.00	1.230	0.67	18.00	1.460	0.67	0.000	0.000
106.0	72" x 12" Panel	9	45.00	8.400	0.75	92.28	9.230	0.75	0.000	0.000
106.0	36" x 8" x 6" Panel	3	25.00	2.800	0.88	40.00	3.240	0.89	0.000	0.000
96.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1700.00	31.600	1.00	0.000	0.000
96.00	Decibel 844G65VTZASX	12	16.00	5.890	0.84	55.00	6.500	0.85	0.000	0.000
	Totals	91	8204.50			11509.01			Number of Loadings :	20

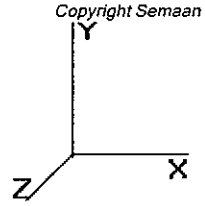
Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	No Ice Weight (lb/ft)	No Ice CaAa (sf/ft)	Ice Weight (lb/ft)	Ice CaAa (sf/ft)	Exposed To Wind
0.00	150.00	(6) 1 5/8" Coax	4.92	0.00	0.00	0.00	N
0.00	150.00	(10) 7/8" Coax	3.33	0.00	0.00	0.00	N
0.00	142.00	(6) 1 5/8" Coax	4.92	0.20	9.46	0.25	Y
0.00	130.00	(3) 1 5/8" Coax	2.46	0.00	0.00	0.00	N
0.00	127.00	(3) 1 5/8" Coax	2.46	0.00	0.00	0.00	N
0.00	123.00	(3) 1 5/8" Coax	2.46	0.20	4.73	0.25	Y
0.00	121.00	(1) 1/2" Coax	0.15	0.00	0.50	0.00	Y
0.00	118.00	(12) 1 5/8" Coax	9.84	0.40	18.93	0.50	Y
0.00	106.00	(12) 1 5/8" Coax	9.84	0.00	0.00	0.00	N
0.00	96.00	(6) 1 5/8" Coax	4.92	0.20	9.46	0.25	Y
0.00	96.00	(9) 1 5/8" Coax	7.38	0.00	0.00	0.00	N
		Total Weight	6,274.05 (lb)		5,127.51 (lb)		



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)	Fb (ksi)	Weight (lb)
0.00		0.7500	51.300	122.078	39,816.6	16.18	68.40	42	33	0.0
5.00		0.7500	50.351	119.787	37,617.1	15.85	67.14	42	33	2,057.5
10.00		0.7500	49.403	117.497	35,500.1	15.51	65.87	42	33	2,018.6
15.00		0.7500	48.454	115.206	33,464.0	15.17	64.61	42	33	1,979.6
20.00		0.7500	47.506	112.915	31,507.4	14.83	63.34	42	33	1,940.6
25.00		0.7500	46.557	110.625	29,628.5	14.49	62.08	42	33	1,901.6
30.00		0.7500	45.609	108.334	27,825.8	14.15	60.81	42	33	1,862.7
35.00		0.7500	44.660	106.044	26,097.8	13.81	59.55	42	33	1,823.7
40.00	Top - Section 1	0.7500	43.712	103.753	24,442.9	13.47	58.28	42	33	1,784.7
40.00	Bot - Section 2	0.6250	43.680	86.648	20,501.8	16.58	69.89	39	31	
45.00		0.6250	42.731	84.739	19,176.5	16.18	68.37	39	31	1,458.0
50.00		0.6250	41.783	82.830	17,909.5	15.77	66.85	39	31	1,425.5
55.00		0.6250	40.834	80.922	16,699.7	15.36	65.34	39	31	1,393.0
60.00		0.6250	39.886	79.013	15,545.5	14.96	63.82	39	31	1,360.6
65.00		0.6250	38.937	77.104	14,445.8	14.55	62.30	39	31	1,328.1
70.00		0.6250	37.989	75.195	13,399.3	14.14	60.78	39	31	1,295.6
75.00		0.6250	37.040	73.286	12,404.5	13.74	59.26	39	31	1,263.1
80.00	Top - Section 2	0.6250	36.092	71.377	11,460.3	13.33	57.75	39	31	1,230.6
80.00	Bot - Section 3	0.5000	36.092	57.303	9,265.7	17.20	72.18	36	29	
85.00		0.5000	35.144	55.776	8,544.5	16.69	70.29	36	29	962.0
90.00		0.5000	34.195	54.249	7,861.7	16.18	68.39	36	29	936.0
95.00		0.5000	33.247	52.722	7,216.3	15.67	66.49	36	29	910.0
96.00		0.5000	33.057	52.417	7,091.6	15.57	66.11	36	29	178.9
100.0		0.5000	32.298	51.195	6,607.2	15.16	64.60	36	29	705.1
105.0		0.5000	31.350	49.668	6,033.4	14.66	62.70	36	29	858.0
106.0		0.5000	31.160	49.363	5,922.8	14.55	62.32	36	29	168.5
110.0		0.5000	30.401	48.141	5,493.9	14.15	60.80	36	29	663.6
115.0		0.5000	29.453	46.614	4,987.4	13.64	58.91	36	29	806.1
118.0		0.5000	28.884	45.698	4,699.1	13.34	57.77	36	29	471.2
120.0	Top - Section 3	0.5000	28.504	45.087	4,513.2	13.13	57.01	36	29	308.9
120.0	Bot - Section 4	0.4375	28.504	39.539	3,975.5	15.31	65.15	48	38	
121.0		0.4375	28.314	39.272	3,895.4	15.20	64.72	48	38	134.1
123.0		0.4375	27.935	38.737	3,738.5	14.97	63.85	48	38	265.4
125.0		0.4375	27.556	38.203	3,585.9	14.73	62.98	48	38	261.8
127.0		0.4375	27.176	37.668	3,437.5	14.50	62.12	48	38	258.2
130.0		0.4375	26.607	36.866	3,222.6	14.15	60.82	48	38	380.4
135.0		0.4375	25.659	35.530	2,884.8	13.57	58.65	48	38	615.9
139.0	Top - Section 4	0.4375	24.900	34.461	2,632.2	13.11	56.91	48	38	476.3
139.0	Bot - Section 5	0.1875	16.720	9.981	348.2	21.75	89.17	65	52	
140.0		0.1875	16.564	9.887	338.4	21.53	88.34	65	52	33.8
142.0		0.1875	16.251	9.698	319.4	21.08	86.67	65	52	66.6
145.0		0.1875	15.782	9.415	292.2	20.41	84.17	65	52	97.6
150.0		0.1875	15.000	8.943	250.4	19.29	80.00	65	52	156.2
										35,838.1

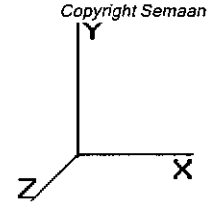


Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description		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		0.00	1.00	16.384	27.68	341.99	1.030	0.00	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	16.384	27.68	335.67	1.030	0.00	5.00	21.177	21.81	604.0	0.0	2,057.5
10.00		0.00	1.00	16.384	27.68	329.35	1.030	0.00	5.00	20.782	21.41	592.7	0.0	2,018.6
15.00		0.00	1.00	16.384	27.68	323.02	1.030	0.00	5.00	20.387	21.00	581.4	0.0	1,979.6
20.00		0.00	1.00	16.384	27.68	316.70	1.030	0.00	5.00	19.992	20.59	570.2	0.0	1,940.6
25.00		0.00	1.00	16.384	27.68	310.38	1.030	0.00	5.00	19.597	20.18	558.9	0.0	1,901.6
30.00		0.00	1.00	16.384	27.68	304.05	1.030	0.00	5.00	19.201	19.78	547.6	0.0	1,862.7
35.00		0.00	1.01	16.662	28.15	300.24	1.030	0.00	5.00	18.806	19.37	545.4	0.0	1,823.7
40.00	Top - Section 1	0.00	1.05	17.310	29.25	299.53	1.030	0.00	5.00	18.411	18.96	554.7	0.0	1,784.7
45.00		0.00	1.09	17.902	30.25	297.78	1.030	0.00	5.00	18.002	18.54	561.0	0.0	1,458.0
50.00		0.00	1.12	18.449	31.17	295.58	1.030	0.00	5.00	17.607	18.14	565.4	0.0	1,425.5
55.00		0.00	1.15	18.959	32.04	292.83	1.030	0.00	5.00	17.212	17.73	568.0	0.0	1,393.0
60.00		0.00	1.18	19.436	32.84	289.61	1.030	0.00	5.00	16.817	17.32	568.9	0.0	1,360.6
65.00		0.00	1.21	19.885	33.60	285.97	1.030	0.00	5.00	16.422	16.91	568.4	0.0	1,328.1
70.00		0.00	1.24	20.311	34.32	281.98	1.030	0.00	5.00	16.026	16.51	566.6	0.0	1,295.6
75.00		0.00	1.26	20.715	35.00	277.66	1.030	0.00	5.00	15.631	16.10	563.6	0.0	1,263.1
80.00	Top - Section 2	0.00	1.28	21.101	35.66	273.06	1.030	0.00	5.00	15.236	15.69	559.6	0.0	1,230.6
85.00		0.00	1.31	21.469	36.28	268.19	1.030	0.00	5.00	14.841	15.29	554.6	0.0	962.0
90.00		0.00	1.33	21.823	36.88	263.10	1.030	0.00	5.00	14.446	14.88	548.7	0.0	936.0
95.00		0.00	1.35	22.163	37.45	257.78	1.030	0.00	5.00	14.050	14.47	542.0	0.0	910.0
96.00	Appertunance(s)	0.00	1.35	22.229	37.56	256.69	1.030	0.00	1.00	2.763	2.85	106.9	0.0	178.9
100.0		0.00	1.37	22.490	38.00	252.27	1.030	0.00	4.00	10.893	11.22	426.4	0.0	705.1
105.0		0.00	1.39	22.806	38.54	246.57	1.030	0.00	5.00	13.260	13.66	526.4	0.0	858.0
106.0	Appertunance(s)	0.00	1.39	22.867	38.64	245.41	1.030	0.00	1.00	2.605	2.68	103.7	0.0	168.5
110.0		0.00	1.41	23.111	39.05	240.71	1.030	0.00	4.00	10.260	10.57	412.8	0.0	663.6
115.0		0.00	1.42	23.406	39.55	234.68	1.030	0.00	5.00	12.470	12.84	508.0	0.0	806.1
118.0	Appertunance(s)	0.00	1.43	23.579	39.84	231.00	1.030	0.00	3.00	7.292	7.51	299.3	0.0	471.2
120.0	Top - Section 3	0.00	1.44	23.692	40.04	228.51	1.030	0.00	2.00	4.782	4.93	197.2	0.0	308.9
121.0	Appertunance(s)	0.00	1.45	23.749	40.13	227.26	1.030	0.00	1.00	2.367	2.44	97.9	0.0	134.1
123.0	Appertunance(s)	0.00	1.45	23.860	40.32	224.74	1.030	0.00	2.00	4.687	4.83	194.7	0.0	265.4
125.0		0.00	1.46	23.970	40.51	222.20	1.030	0.00	2.00	4.624	4.76	192.9	0.0	261.8
127.0	Appertunance(s)	0.00	1.47	24.079	40.69	219.63	1.030	0.00	2.00	4.561	4.70	191.2	0.0	258.2
130.0	Appertunance(s)	0.00	1.48	24.241	40.96	215.75	1.030	0.00	3.00	6.723	6.92	283.7	0.0	380.4
135.0		0.00	1.49	24.503	41.41	209.19	1.030	0.00	5.00	10.889	11.22	464.4	0.0	615.9
139.0	Top - Section 4	0.00	1.50	24.709	41.75	203.85	1.030	0.00	4.00	8.426	8.68	362.4	0.0	476.3
140.0		0.00	1.51	24.759	41.84	135.74	1.030	0.00	1.00	1.387	1.43	59.8	0.0	33.8
142.0	Appertunance(s)	0.00	1.51	24.860	42.01	133.45	1.030	0.00	2.00	2.735	2.82	118.3	0.0	66.6
145.0		0.00	1.52	25.009	42.26	129.98	1.030	0.00	3.00	4.004	4.12	174.3	0.0	97.6
150.0	Appertunance(s)	0.00	1.54	25.252	42.67	124.14	1.030	0.00	5.00	6.413	6.61	281.9	0.0	156.2
							Totals:		150.00			15,724.3	0.0	35,838.1

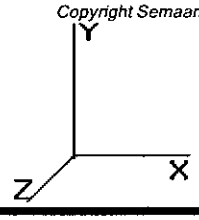


Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
96.00	Flat Low Profile Pla	1	22.229	37.567	1.00	26.10	0.000	0.000	980.50	0.00	0.00	1,500.00
96.00	Decibel	12	22.229	37.567	0.84	59.37	0.000	0.000	2,230.41	0.00	0.00	192.00
106.0	Low Profile Platform	1	22.867	38.646	1.00	26.10	0.000	0.000	1,008.66	0.00	0.00	1,500.00
106.0	14" x 9" TTA	9	22.867	38.646	0.67	7.42	0.000	0.000	286.63	0.00	0.00	90.00
106.0	72" x 12" Panel	9	22.867	38.646	0.75	56.70	0.000	0.000	2,191.23	0.00	0.00	405.00
106.0	36" x 8" x 6" Panel	3	22.867	38.646	0.88	7.39	0.000	0.000	285.67	0.00	0.00	75.00
118.0	Round Low Profile Pl	1	23.579	39.848	1.00	21.70	0.000	0.000	864.71	0.00	0.00	1,500.00
118.0	Andrew DB948F85E-M	6	23.579	39.848	0.79	15.49	0.000	0.000	617.08	0.00	0.00	51.00
118.0	Antel RWA-80014	6	23.579	39.848	0.79	24.89	0.000	0.000	991.63	0.00	0.00	85.80
121.0	GPS	1	23.749	40.135	1.00	1.00	0.000	0.000	40.14	0.00	0.00	7.00
123.0	Allgon 7184	3	23.860	40.324	0.85	6.83	0.000	0.000	275.57	0.00	0.00	33.60
127.0	Allgon 7184	3	24.079	40.694	0.85	6.83	0.000	0.000	278.10	0.00	0.00	33.60
130.0	Allgon 7184	3	24.241	40.967	0.85	6.83	0.000	0.000	279.97	0.00	0.00	33.60
142.0	RFS APXV18-	3	24.860	42.013	0.80	12.05	0.000	0.000	506.17	0.00	0.00	66.00
150.0	Flat Platform w/ Han	1	25.252	42.676	1.00	42.40	0.000	0.000	1,809.47	0.00	0.00	2,000.00
150.0	ADC DD1900	9	25.348	42.838	0.67	7.72	0.000	2.000	330.64	0.00	661.28	108.90
150.0	CSS DUO1417-8686	10	25.348	42.838	0.82	53.55	0.000	2.000	2,293.80	0.00	4,587.61	203.00
150.0	Concealment Canister	1	25.560	43.197	1.00	15.00	0.000	6.500	647.95	0.00	4,211.67	200.00
150.0	EMS RR90-17-00DP	3	25.859	43.702	0.00	0.00	0.000	13.000	0.00	0.00	0.00	54.00
150.0	Remec S20057A1	6	25.859	43.702	0.00	0.00	0.000	13.000	0.00	0.00	0.00	66.00
									15,918.33			8,204.50

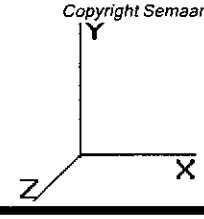


Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Linear Appurtenance Segment Forces

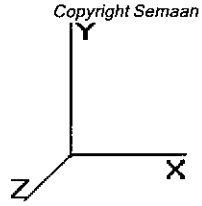
Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	F X (lb)	Dead Load (lb)
5.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
5.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
5.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	16.384	0.00	0.75
5.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
5.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
10.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
10.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	16.384	0.00	0.75
10.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
10.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
15.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
15.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	16.384	0.00	0.75
15.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
15.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
20.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
20.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	16.384	0.00	0.75
20.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
20.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
25.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
25.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	16.384	0.00	0.75
25.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
25.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
30.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.384	27.69	12.30
30.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	16.384	0.00	0.75
30.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.384	55.38	49.20
30.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.384	27.69	24.60
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.662	28.16	24.60
35.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	16.662	28.16	12.30
35.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	16.662	0.00	0.75
35.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	16.662	56.32	49.20
35.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	16.662	28.16	24.60
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	17.310	29.25	24.60
40.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	17.310	29.25	12.30
40.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	17.310	0.00	0.75
40.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	17.310	58.51	49.20
40.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	17.310	29.25	24.60
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	17.902	30.25	24.60
45.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	17.902	30.25	12.30
45.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	17.902	0.00	0.75
45.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	17.902	60.51	49.20
45.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	17.902	30.25	24.60
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	18.449	31.18	24.60
50.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	18.449	31.18	12.30
50.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	18.449	0.00	0.75
50.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	18.449	62.36	49.20
50.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	18.449	31.18	24.60
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	18.959	32.04	24.60



Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

55.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	18.959	32.04	12.30
55.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	18.959	0.00	0.75
55.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	18.959	64.08	49.20
55.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	18.959	32.04	24.60
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	19.436	32.85	24.60
60.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	19.436	32.85	12.30
60.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	19.436	0.00	0.75
60.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	19.436	65.69	49.20
60.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	19.436	32.85	24.60
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	19.885	33.61	24.60
65.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	19.885	33.61	12.30
65.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	19.885	0.00	0.75
65.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	19.885	67.21	49.20
65.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	19.885	33.61	24.60
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	20.311	34.33	24.60
70.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	20.311	34.33	12.30
70.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	20.311	0.00	0.75
70.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	20.311	68.65	49.20
70.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	20.311	34.33	24.60
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	20.715	35.01	24.60
75.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	20.715	35.01	12.30
75.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	20.715	0.00	0.75
75.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	20.715	70.02	49.20
75.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	20.715	35.01	24.60
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.101	35.66	24.60
80.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	21.101	35.66	12.30
80.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	21.101	0.00	0.75
80.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	21.101	71.32	49.20
80.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.101	35.66	24.60
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.469	36.28	24.60
85.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	21.469	36.28	12.30
85.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	21.469	0.00	0.75
85.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	21.469	72.57	49.20
85.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.469	36.28	24.60
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.823	36.88	24.60
90.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	21.823	36.88	12.30
90.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	21.823	0.00	0.75
90.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	21.823	73.76	49.20
90.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	21.823	36.88	24.60
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	22.163	37.45	24.60
95.00	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	22.163	37.45	12.30
95.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	22.163	0.00	0.75
95.00	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	22.163	74.91	49.20
95.00	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	22.163	37.45	24.60
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	22.229	7.51	4.92
96.00	(3) 1 5/8" Coax	Yes	1.00	2.46	0.20	22.229	7.51	2.46
96.00	(1) 1/2" Coax	Yes	1.00	0.15	0.00	22.229	0.00	0.15
96.00	(12) 1 5/8" Coax	Yes	1.00	9.84	0.40	22.229	15.03	9.84
96.00	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	22.229	7.51	4.92
100.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	22.490	30.41	19.68
100.0	(3) 1 5/8" Coax	Yes	4.00	2.46	0.20	22.490	30.41	9.84
100.0	(1) 1/2" Coax	Yes	4.00	0.15	0.00	22.490	0.00	0.60
100.0	(12) 1 5/8" Coax	Yes	4.00	9.84	0.40	22.490	60.81	39.36
105.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	22.806	38.54	24.60
105.0	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	22.806	38.54	12.30
105.0	(1) 1/2" Coax	Yes	5.00	0.15	0.00	22.806	0.00	0.75
105.0	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	22.806	77.08	49.20



Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

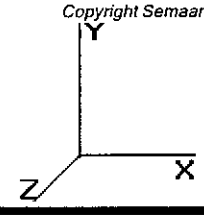
Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

106.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	22.867	7.73	4.92
106.0	(3) 1 5/8" Coax	Yes	1.00	2.46	0.20	22.867	7.73	2.46
106.0	(1) 1/2" Coax	Yes	1.00	0.15	0.00	22.867	0.00	0.15
106.0	(12) 1 5/8" Coax	Yes	1.00	9.84	0.40	22.867	15.46	9.84
110.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	23.111	31.25	19.68
110.0	(3) 1 5/8" Coax	Yes	4.00	2.46	0.20	23.111	31.25	9.84
110.0	(1) 1/2" Coax	Yes	4.00	0.15	0.00	23.111	0.00	0.60
110.0	(12) 1 5/8" Coax	Yes	4.00	9.84	0.40	23.111	62.49	39.36
115.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	23.406	39.56	24.60
115.0	(3) 1 5/8" Coax	Yes	5.00	2.46	0.20	23.406	39.56	12.30
115.0	(1) 1/2" Coax	Yes	5.00	0.15	0.00	23.406	0.00	0.75
115.0	(12) 1 5/8" Coax	Yes	5.00	9.84	0.40	23.406	79.11	49.20
118.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.20	23.579	23.91	14.76
118.0	(3) 1 5/8" Coax	Yes	3.00	2.46	0.20	23.579	23.91	7.38
118.0	(1) 1/2" Coax	Yes	3.00	0.15	0.00	23.579	0.00	0.45
118.0	(12) 1 5/8" Coax	Yes	3.00	9.84	0.40	23.579	47.82	29.52
120.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	23.692	16.02	9.84
120.0	(3) 1 5/8" Coax	Yes	2.00	2.46	0.20	23.692	16.02	4.92
120.0	(1) 1/2" Coax	Yes	2.00	0.15	0.00	23.692	0.00	0.30
121.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	23.749	8.03	4.92
121.0	(3) 1 5/8" Coax	Yes	1.00	2.46	0.20	23.749	8.03	2.46
121.0	(1) 1/2" Coax	Yes	1.00	0.15	0.00	23.749	0.00	0.15
123.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	23.860	16.13	9.84
123.0	(3) 1 5/8" Coax	Yes	2.00	2.46	0.20	23.860	16.13	4.92
125.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	23.970	16.20	9.84
127.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	24.079	16.28	9.84
130.0	(6) 1 5/8" Coax	Yes	3.00	4.92	0.20	24.241	24.58	14.76
135.0	(6) 1 5/8" Coax	Yes	5.00	4.92	0.20	24.503	41.41	24.60
139.0	(6) 1 5/8" Coax	Yes	4.00	4.92	0.20	24.709	33.41	19.68
140.0	(6) 1 5/8" Coax	Yes	1.00	4.92	0.20	24.759	8.37	4.92
142.0	(6) 1 5/8" Coax	Yes	2.00	4.92	0.20	24.860	16.81	9.84
						Totals:	3,955.95	2,652.81

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

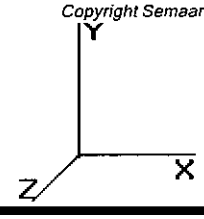


Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
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	742.42	2,320.94	0.00	0.00
10.00	731.14	2,281.96	0.00	0.00
15.00	719.87	2,242.99	0.00	0.00
20.00	708.60	2,204.02	0.00	0.00
25.00	697.33	2,165.04	0.00	0.00
30.00	686.06	2,126.07	0.00	0.00
35.00	686.23	2,087.10	0.00	0.00
40.00	701.01	2,048.13	0.00	0.00
45.00	712.27	1,721.38	0.00	0.00
50.00	721.34	1,688.91	0.00	0.00
55.00	728.22	1,656.43	0.00	0.00
60.00	733.17	1,623.95	0.00	0.00
65.00	736.46	1,591.48	0.00	0.00
70.00	738.24	1,559.00	0.00	0.00
75.00	738.69	1,526.52	0.00	0.00
80.00	737.92	1,494.04	0.00	0.00
85.00	736.05	1,225.36	0.00	0.00
90.00	733.15	1,199.38	0.00	0.00
95.00	729.32	1,173.40	0.00	0.00
96.00	3,355.38	1,923.56	0.00	0.00
100.0	548.05	866.66	0.00	0.00
105.0	680.56	1,059.94	0.00	0.00
106.0	3,906.78	2,278.87	0.00	0.00
110.0	537.74	785.73	0.00	0.00
115.0	666.27	958.77	0.00	0.00
118.0	2,868.34	2,199.59	0.00	0.00
120.0	229.26	350.32	0.00	0.00
121.0	154.06	161.79	0.00	0.00
123.0	502.52	340.15	0.00	0.00
125.0	209.15	297.99	0.00	0.00
127.0	485.56	327.95	0.00	0.00
130.0	588.22	460.93	0.00	0.00
135.0	505.85	681.72	0.00	0.00
139.0	395.83	529.01	0.00	0.00
140.0	68.14	46.97	0.00	0.00
142.0	641.31	158.98	0.00	0.00
145.0	174.31	122.31	0.00	0.00
150.0	5,363.75	2,829.32	0.00	9,460.56
Totals:	35,598.55	50,316.66	0.00	9,460.56

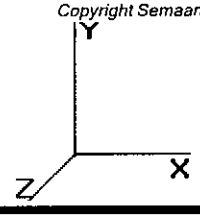


Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-35.652	-50.278	0.000	0.000	0.000	-3,430.804	0.000	0.000	0.000	0.000
5.00	-35.007	-47.885	0.000	0.000	0.000	-3,252.548	-0.064	0.000	0.064	-0.119
10.00	-34.364	-45.534	0.000	0.000	0.000	-3,077.515	-0.254	0.000	0.254	-0.239
15.00	-33.723	-43.224	0.000	0.000	0.000	-2,905.698	-0.569	0.000	0.569	-0.359
20.00	-33.084	-40.956	0.000	0.000	0.000	-2,737.086	-1.009	0.000	1.009	-0.479
25.00	-32.447	-38.730	0.000	0.000	0.000	-2,571.669	-1.575	0.000	1.575	-0.599
30.00	-31.813	-36.546	0.000	0.000	0.000	-2,409.436	-2.267	0.000	2.267	-0.718
35.00	-31.170	-34.404	0.000	0.000	0.000	-2,250.374	-3.083	0.000	3.083	-0.837
40.00	-30.503	-32.304	0.000	0.000	0.000	-2,094.528	-4.024	0.000	4.024	-0.956
45.00	-29.829	-30.529	0.000	0.000	0.000	-1,942.013	-5.088	0.000	5.088	-1.073
50.00	-29.143	-28.785	0.000	0.000	0.000	-1,792.870	-6.287	0.000	6.287	-1.212
55.00	-28.442	-27.078	0.000	0.000	0.000	-1,647.156	-7.630	0.000	7.630	-1.348
60.00	-27.728	-25.409	0.000	0.000	0.000	-1,504.946	-9.115	0.000	9.115	-1.483
65.00	-27.003	-23.777	0.000	0.000	0.000	-1,366.307	-10.739	0.000	10.739	-1.614
70.00	-26.268	-22.182	0.000	0.000	0.000	-1,231.295	-12.498	0.000	12.498	-1.742
75.00	-25.525	-20.626	0.000	0.000	0.000	-1,099.957	-14.389	0.000	14.389	-1.866
80.00	-24.776	-19.107	0.000	0.000	0.000	-972.332	-16.408	0.000	16.408	-1.985
85.00	-24.035	-17.858	0.000	0.000	0.000	-848.452	-18.547	0.000	18.547	-2.098
90.00	-23.294	-16.635	0.000	0.000	0.000	-728.277	-20.816	0.000	20.816	-2.229
95.00	-22.538	-15.464	0.000	0.000	0.000	-611.808	-23.216	0.000	23.216	-2.350
96.00	-19.119	-13.662	0.000	0.000	0.000	-589.270	-23.711	0.000	23.711	-2.374
100.0	-18.556	-12.788	0.000	0.000	0.000	-512.794	-25.738	0.000	25.738	-2.462
105.0	-17.842	-11.741	0.000	0.000	0.000	-420.014	-28.371	0.000	28.371	-2.563
106.0	-13.844	-9.629	0.000	0.000	0.000	-402.172	-28.910	0.000	28.910	-2.582
110.0	-13.283	-8.851	0.000	0.000	0.000	-346.794	-31.104	0.000	31.104	-2.654
115.0	-12.581	-7.911	0.000	0.000	0.000	-280.378	-33.927	0.000	33.927	-2.735
118.0	-9.614	-5.846	0.000	0.000	0.000	-242.635	-35.660	0.000	35.660	-2.780
120.0	-9.370	-5.503	0.000	0.000	0.000	-223.407	-36.830	0.000	36.830	-2.808
121.0	-9.210	-5.346	0.000	0.000	0.000	-214.037	-37.420	0.000	37.420	-2.822
123.0	-8.694	-5.027	0.000	0.000	0.000	-195.616	-38.608	0.000	38.608	-2.852
125.0	-8.473	-4.735	0.000	0.000	0.000	-178.228	-39.809	0.000	39.809	-2.880
127.0	-7.974	-4.428	0.000	0.000	0.000	-161.283	-41.021	0.000	41.021	-2.907
130.0	-7.366	-3.992	0.000	0.000	0.000	-137.362	-42.859	0.000	42.859	-2.944
135.0	-6.828	-3.332	0.000	0.000	0.000	-100.532	-45.970	0.000	45.970	-2.997
139.0	-6.406	-2.822	0.000	0.000	0.000	-73.221	-48.495	0.000	48.495	-3.031
140.0	-6.338	-2.773	0.000	0.000	0.000	-66.815	-49.131	0.000	49.131	-3.039
142.0	-5.694	-2.637	0.000	0.000	0.000	-54.139	-50.426	0.000	50.426	-3.140
145.0	-5.519	-2.513	0.000	0.000	0.000	-37.056	-52.440	0.000	52.440	-3.262
150.0	-5.364	0.000	0.000	0.000	0.000	-9.461	-55.928	0.000	55.928	-3.375

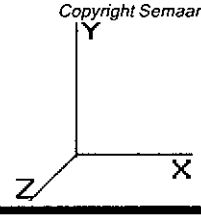


Load Case: No Ice — 80.00 mph Wind with No Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.41	0.59	0.00	0.00	0.00	27.46	27.89	33.4	0.0	0.834
5.00	0.40	0.59	0.00	0.00	0.00	27.04	27.46	33.4	0.0	0.821
10.00	0.39	0.59	0.00	0.00	0.00	26.60	27.01	33.4	0.0	0.808
15.00	0.38	0.59	0.00	0.00	0.00	26.13	26.53	33.4	0.0	0.793
20.00	0.36	0.60	0.00	0.00	0.00	25.63	26.02	33.4	0.0	0.778
25.00	0.35	0.60	0.00	0.00	0.00	25.10	25.47	33.4	0.0	0.762
30.00	0.34	0.60	0.00	0.00	0.00	24.53	24.89	33.4	0.0	0.744
35.00	0.32	0.60	0.00	0.00	0.00	23.92	24.27	33.4	0.0	0.726
40.00	0.31	0.60	0.00	0.00	0.00	23.27	23.60	33.4	0.0	0.706
40.00	0.37	0.72	0.00	0.00	0.00	27.72	28.12	33.4	0.0	0.841
45.00	0.36	0.72	0.00	0.00	0.00	26.88	27.27	31.4	0.0	0.870
50.00	0.35	0.71	0.00	0.00	0.00	25.98	26.36	31.4	0.0	0.841
55.00	0.33	0.71	0.00	0.00	0.00	25.02	25.38	31.4	0.0	0.809
60.00	0.32	0.71	0.00	0.00	0.00	23.99	24.34	31.4	0.0	0.776
65.00	0.31	0.71	0.00	0.00	0.00	22.88	23.22	31.4	0.0	0.740
70.00	0.29	0.71	0.00	0.00	0.00	21.68	22.01	31.4	0.0	0.702
75.00	0.28	0.71	0.00	0.00	0.00	20.40	20.72	31.4	0.0	0.661
80.00	0.27	0.71	0.00	0.00	0.00	19.02	19.33	31.4	0.0	0.616
80.00	0.33	0.88	0.00	0.00	0.00	23.53	23.91	31.4	0.0	0.762
85.00	0.32	0.88	0.00	0.00	0.00	21.68	22.05	28.7	0.0	0.768
90.00	0.31	0.87	0.00	0.00	0.00	19.68	20.04	28.7	0.0	0.698
95.00	0.29	0.87	0.00	0.00	0.00	17.51	17.87	28.7	0.0	0.622
96.00	0.26	0.74	0.00	0.00	0.00	17.06	17.37	28.7	0.0	0.605
100.00	0.25	0.74	0.00	0.00	0.00	15.57	15.87	28.7	0.0	0.553
105.00	0.24	0.73	0.00	0.00	0.00	13.56	13.85	28.7	0.0	0.482
106.00	0.20	0.57	0.00	0.00	0.00	13.14	13.37	28.7	0.0	0.466
110.00	0.18	0.56	0.00	0.00	0.00	11.92	12.14	28.7	0.0	0.423
115.00	0.17	0.55	0.00	0.00	0.00	10.28	10.50	28.7	0.0	0.366
118.00	0.13	0.43	0.00	0.00	0.00	9.26	9.42	28.7	0.0	0.328
120.00	0.12	0.42	0.00	0.00	0.00	8.76	8.92	28.7	0.0	0.311
120.00	0.14	0.48	0.00	0.00	0.00	9.95	10.12	28.7	0.0	0.353
121.00	0.14	0.48	0.00	0.00	0.00	9.66	9.83	38.1	0.0	0.258
123.00	0.13	0.46	0.00	0.00	0.00	9.08	9.24	38.1	0.0	0.243
125.00	0.12	0.45	0.00	0.00	0.00	8.51	8.67	38.1	0.0	0.228
127.00	0.12	0.43	0.00	0.00	0.00	7.92	8.07	38.1	0.0	0.212
130.00	0.11	0.41	0.00	0.00	0.00	7.04	7.19	38.1	0.0	0.189
135.00	0.09	0.39	0.00	0.00	0.00	5.55	5.69	38.1	0.0	0.149
139.00	0.08	0.38	0.00	0.00	0.00	4.30	4.43	38.1	0.0	0.116
139.00	0.28	1.30	0.00	0.00	0.00	21.84	22.24	38.1	0.0	0.584
140.00	0.28	1.30	0.00	0.00	0.00	20.31	20.72	52.0	0.0	0.398
142.00	0.27	1.19	0.00	0.00	0.00	17.11	17.50	52.0	0.0	0.337
145.00	0.27	1.19	0.00	0.00	0.00	12.43	12.86	52.0	0.0	0.247
150.00	0.00	1.22	0.00	0.00	0.00	3.52	4.10	52.0	0.0	0.079

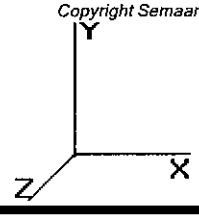


Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description		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		0.00	1.00	12.287	20.76	296.17	1.030	0.50	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	12.287	20.76	290.69	1.030	0.50	5.00	21.594	22.24	461.9	159.2	2,216.7
10.00		0.00	1.00	12.287	20.76	285.21	1.030	0.50	5.00	21.199	21.83	453.4	156.2	2,174.8
15.00		0.00	1.00	12.287	20.76	279.74	1.030	0.50	5.00	20.804	21.43	445.0	153.3	2,132.8
20.00		0.00	1.00	12.287	20.76	274.26	1.030	0.50	5.00	20.408	21.02	436.5	150.3	2,090.9
25.00		0.00	1.00	12.287	20.76	268.79	1.030	0.50	5.00	20.013	20.61	428.1	147.3	2,049.0
30.00		0.00	1.00	12.287	20.76	263.31	1.030	0.50	5.00	19.618	20.21	419.6	144.3	2,007.0
35.00		0.00	1.01	12.496	21.11	260.01	1.030	0.50	5.00	19.223	19.80	418.1	141.4	1,965.1
40.00	Top - Section 1	0.00	1.05	12.982	21.93	259.39	1.030	0.50	5.00	18.828	19.39	425.4	138.4	1,923.1
45.00		0.00	1.09	13.426	22.69	257.88	1.030	0.50	5.00	18.419	18.97	430.5	135.3	1,593.3
50.00		0.00	1.12	13.836	23.38	255.98	1.030	0.50	5.00	18.024	18.56	434.1	132.4	1,557.9
55.00		0.00	1.15	14.218	24.02	253.59	1.030	0.50	5.00	17.629	18.16	436.3	129.4	1,522.4
60.00		0.00	1.18	14.576	24.63	250.80	1.030	0.50	5.00	17.233	17.75	437.3	126.4	1,487.0
65.00		0.00	1.21	14.913	25.20	247.65	1.030	0.50	5.00	16.838	17.34	437.1	123.5	1,451.5
70.00		0.00	1.24	15.232	25.74	244.19	1.030	0.50	5.00	16.443	16.94	436.0	120.5	1,416.1
75.00		0.00	1.26	15.536	26.25	240.45	1.030	0.50	5.00	16.048	16.53	434.0	117.5	1,380.6
80.00	Top - Section 2	0.00	1.28	15.825	26.74	236.47	1.030	0.50	5.00	15.653	16.12	431.2	114.6	1,345.2
85.00		0.00	1.31	16.101	27.21	232.26	1.030	0.50	5.00	15.257	15.72	427.6	111.6	1,073.5
90.00		0.00	1.33	16.366	27.65	227.84	1.030	0.50	5.00	14.862	15.31	423.4	108.6	1,044.6
95.00		0.00	1.35	16.621	28.09	223.24	1.030	0.50	5.00	14.467	14.90	418.6	105.6	1,015.6
96.00	Appertunance(s)	0.00	1.35	16.671	28.17	222.30	1.030	0.50	1.00	2.846	2.93	82.6	21.0	199.9
100.0		0.00	1.37	16.866	28.50	218.46	1.030	0.50	4.00	11.226	11.56	329.6	82.1	787.3
105.0		0.00	1.39	17.103	28.90	213.53	1.030	0.50	5.00	13.677	14.09	407.2	99.7	957.7
106.0	Appertunance(s)	0.00	1.39	17.150	28.98	212.53	1.030	0.50	1.00	2.688	2.77	80.2	19.8	188.3
110.0		0.00	1.41	17.332	29.29	208.45	1.030	0.50	4.00	10.594	10.91	319.6	77.4	741.0
115.0		0.00	1.42	17.554	29.66	203.23	1.030	0.50	5.00	12.886	13.27	393.7	93.8	899.8
118.0	Appertunance(s)	0.00	1.43	17.683	29.88	200.04	1.030	0.50	3.00	7.542	7.77	232.2	55.2	526.4
120.0	Top - Section 3	0.00	1.44	17.768	30.02	197.89	1.030	0.50	2.00	4.949	5.10	153.1	36.3	345.2
121.0	Appertunance(s)	0.00	1.45	17.811	30.10	196.80	1.030	0.50	1.00	2.451	2.52	76.0	18.0	152.1
123.0	Appertunance(s)	0.00	1.45	17.894	30.24	194.62	1.030	0.50	2.00	4.854	5.00	151.2	35.6	301.1
125.0		0.00	1.46	17.977	30.38	192.42	1.030	0.50	2.00	4.791	4.93	149.9	35.1	296.9
127.0	Appertunance(s)	0.00	1.47	18.058	30.51	190.20	1.030	0.50	2.00	4.728	4.87	148.6	34.7	292.8
130.0	Appertunance(s)	0.00	1.48	18.179	30.72	186.84	1.030	0.50	3.00	6.973	7.18	220.7	50.9	431.4
135.0		0.00	1.49	18.376	31.05	181.16	1.030	0.50	5.00	11.305	11.64	361.6	81.9	697.8
139.0	Top - Section 4	0.00	1.50	18.530	31.31	176.53	1.030	0.50	4.00	8.760	9.02	282.6	63.6	539.9
140.0		0.00	1.51	18.568	31.38	117.55	1.030	0.50	1.00	1.470	1.51	47.5	10.7	44.5
142.0	Appertunance(s)	0.00	1.51	18.644	31.50	115.56	1.030	0.50	2.00	2.901	2.99	94.2	21.0	87.6
145.0		0.00	1.52	18.755	31.69	112.56	1.030	0.50	3.00	4.254	4.38	138.9	30.6	128.1
150.0	Appertunance(s)	0.00	1.54	18.938	32.00	107.51	1.030	0.50	5.00	6.830	7.03	225.1	48.5	204.7
							Totals:		150.00			12,128.3	3,431.8	39,269.9

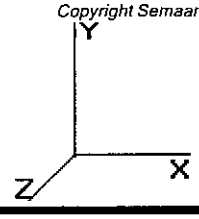


Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
96.00	Flat Low Profile Pla	1	16.671	28.174	1.00	31.60	0.000	0.000	890.29	0.00	0.00	1,700.00
96.00	Decibel	12	16.671	28.174	0.85	66.30	0.000	0.000	1,867.92	0.00	0.00	660.00
106.0	Low Profile Platform	1	17.150	28.983	1.00	31.60	0.000	0.000	915.86	0.00	0.00	1,700.00
106.0	14" x 9" TTA	9	17.150	28.983	0.67	8.80	0.000	0.000	255.16	0.00	0.00	162.00
106.0	72" x 12" Panel	9	17.150	28.983	0.75	62.30	0.000	0.000	1,805.70	0.00	0.00	830.52
106.0	36" x 8" x 6" Panel	3	17.150	28.983	0.89	8.65	0.000	0.000	250.72	0.00	0.00	120.00
118.0	Round Low Profile Pl	1	17.683	29.885	1.00	27.20	0.000	0.000	812.86	0.00	0.00	1,700.00
118.0	Andrew DB948F85E-M	6	17.683	29.885	0.81	18.52	0.000	0.000	553.51	0.00	0.00	165.34
118.0	Antel RWA-80014	6	17.683	29.885	0.80	27.55	0.000	0.000	823.38	0.00	0.00	276.00
121.0	GPS	1	17.811	30.100	1.00	1.30	0.000	0.000	39.13	0.00	0.00	15.00
123.0	Allgon 7184	3	17.894	30.241	0.87	8.56	0.000	0.000	258.88	0.00	0.00	81.29
127.0	Allgon 7184	3	18.058	30.519	0.87	8.56	0.000	0.000	261.26	0.00	0.00	81.29
130.0	Allgon 7184	3	18.179	30.723	0.87	8.56	0.000	0.000	263.01	0.00	0.00	81.29
142.0	RFS APXV18-	3	18.644	31.508	0.82	14.02	0.000	0.000	441.81	0.00	0.00	144.39
150.0	Flat Platform w/ Han	1	18.938	32.005	1.00	48.40	0.000	0.000	1,549.05	0.00	0.00	2,450.00
150.0	ADC DD1900	9	19.010	32.127	0.67	8.74	0.000	2.000	280.90	0.00	561.80	297.00
150.0	CSS DUO1417-8686	10	19.010	32.127	0.83	59.34	0.000	2.000	1,906.55	0.00	3,813.11	624.90
150.0	Concealment Canister	1	19.169	32.396	1.00	20.00	0.000	6.500	647.91	0.00	4,211.42	300.00
150.0	EMS RR90-17-00DP	3	19.393	32.774	0.00	0.00	0.000	13.000	0.00	0.00	0.00	54.00
150.0	Remec S20057A1	6	19.393	32.774	0.00	0.00	0.000	13.000	0.00	0.00	0.00	66.00
									13,823.90			11,509.01



Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

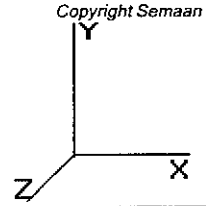
Linear Appurtenance Segment Forces

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	F X (lb)	Dead Load (lb)
5.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
5.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
5.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
5.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
5.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
10.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
10.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
10.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
10.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
10.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
15.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
15.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
15.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
15.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
15.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
20.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
20.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
20.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
20.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
20.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
25.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
25.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
25.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
25.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
25.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
30.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
30.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.287	25.96	23.65
30.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	12.287	0.00	2.50
30.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.287	51.91	94.65
30.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.287	25.96	47.30
35.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.496	26.40	47.30
35.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.496	26.40	23.65
35.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	12.496	0.00	2.50
35.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.496	52.79	94.65
35.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.496	26.40	47.30
40.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.982	27.42	47.30
40.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	12.982	27.42	23.65
40.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	12.982	0.00	2.50
40.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	12.982	54.85	94.65
40.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	12.982	27.42	47.30
45.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	13.426	28.36	47.30
45.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	13.426	28.36	23.65
45.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	13.426	0.00	2.50
45.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	13.426	56.72	94.65
45.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	13.426	28.36	47.30
50.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	13.836	29.23	47.30
50.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	13.836	29.23	23.65
50.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	13.836	0.00	2.50
50.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	13.836	58.46	94.65
50.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	13.836	29.23	47.30
55.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.218	30.04	47.30

Pole : 302483
Location : Brln - Berlin, CT
Height : 150.0 (ft)
Shape : 12 Sides
Base Dia : 51.30 (in)
Top Dia : 15.00 (in)
Taper : 0.189701 (in/ft)

Code: TIA/EIA-222 Rev F

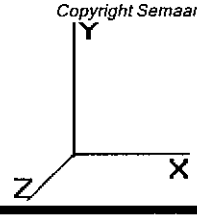
Base Elev : 0.000 (ft)



Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

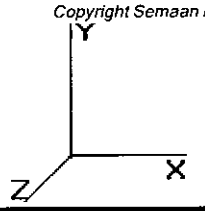
55.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	14.218	30.04	23.65
55.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	14.218	0.00	2.50
55.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	14.218	60.07	94.65
55.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.218	30.04	47.30
60.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.576	30.79	47.30
60.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	14.576	30.79	23.65
60.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	14.576	0.00	2.50
60.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	14.576	61.58	94.65
60.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.576	30.79	47.30
65.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.913	31.50	47.30
65.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	14.913	31.50	23.65
65.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	14.913	0.00	2.50
65.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	14.913	63.01	94.65
65.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	14.913	31.50	47.30
70.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.232	32.18	47.30
70.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	15.232	32.18	23.65
70.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	15.232	0.00	2.50
70.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	15.232	64.36	94.65
70.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.232	32.18	47.30
75.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.536	32.82	47.30
75.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	15.536	32.82	23.65
75.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	15.536	0.00	2.50
75.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	15.536	65.64	94.65
75.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.536	32.82	47.30
80.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.825	33.43	47.30
80.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	15.825	33.43	23.65
80.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	15.825	0.00	2.50
80.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	15.825	66.86	94.65
80.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	15.825	33.43	47.30
85.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.101	34.01	47.30
85.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	16.101	34.01	23.65
85.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	16.101	0.00	2.50
85.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	16.101	68.03	94.65
85.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.101	34.01	47.30
90.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.366	34.57	47.30
90.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	16.366	34.57	23.65
90.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	16.366	0.00	2.50
90.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	16.366	69.15	94.65
90.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.366	34.57	47.30
95.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.621	35.11	47.30
95.00	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	16.621	35.11	23.65
95.00	(1) 1/2" Coax	Yes	5.00	0.50	0.00	16.621	0.00	2.50
95.00	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	16.621	70.22	94.65
95.00	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	16.621	35.11	47.30
96.00	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	16.671	7.04	9.46
96.00	(3) 1 5/8" Coax	Yes	1.00	4.73	0.25	16.671	7.04	4.73
96.00	(1) 1/2" Coax	Yes	1.00	0.50	0.00	16.671	0.00	0.50
96.00	(12) 1 5/8" Coax	Yes	1.00	18.93	0.50	16.671	14.09	18.93
96.00	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	16.671	7.04	9.46
100.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	16.866	28.50	37.84
100.0	(3) 1 5/8" Coax	Yes	4.00	4.73	0.25	16.866	28.50	18.92
100.0	(1) 1/2" Coax	Yes	4.00	0.50	0.00	16.866	0.00	2.00
100.0	(12) 1 5/8" Coax	Yes	4.00	18.93	0.50	16.866	57.01	75.72
105.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	17.103	36.13	47.30
105.0	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	17.103	36.13	23.65
105.0	(1) 1/2" Coax	Yes	5.00	0.50	0.00	17.103	0.00	2.50
105.0	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	17.103	72.26	94.65



Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

106.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	17.150	7.25	9.46
106.0	(3) 1 5/8" Coax	Yes	1.00	4.73	0.25	17.150	7.25	4.73
106.0	(1) 1/2" Coax	Yes	1.00	0.50	0.00	17.150	0.00	0.50
106.0	(12) 1 5/8" Coax	Yes	1.00	18.93	0.50	17.150	14.49	18.93
110.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	17.332	29.29	37.84
110.0	(3) 1 5/8" Coax	Yes	4.00	4.73	0.25	17.332	29.29	18.92
110.0	(1) 1/2" Coax	Yes	4.00	0.50	0.00	17.332	0.00	2.00
110.0	(12) 1 5/8" Coax	Yes	4.00	18.93	0.50	17.332	58.58	75.72
115.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	17.554	37.08	47.30
115.0	(3) 1 5/8" Coax	Yes	5.00	4.73	0.25	17.554	37.08	23.65
115.0	(1) 1/2" Coax	Yes	5.00	0.50	0.00	17.554	0.00	2.50
115.0	(12) 1 5/8" Coax	Yes	5.00	18.93	0.50	17.554	74.16	94.65
118.0	(6) 1 5/8" Coax	Yes	3.00	9.46	0.25	17.683	22.41	28.38
118.0	(3) 1 5/8" Coax	Yes	3.00	4.73	0.25	17.683	22.41	14.19
118.0	(1) 1/2" Coax	Yes	3.00	0.50	0.00	17.683	0.00	1.50
118.0	(12) 1 5/8" Coax	Yes	3.00	18.93	0.50	17.683	44.83	56.79
120.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	17.768	15.01	18.92
120.0	(3) 1 5/8" Coax	Yes	2.00	4.73	0.25	17.768	15.01	9.46
120.0	(1) 1/2" Coax	Yes	2.00	0.50	0.00	17.768	0.00	1.00
121.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	17.811	7.52	9.46
121.0	(3) 1 5/8" Coax	Yes	1.00	4.73	0.25	17.811	7.52	4.73
121.0	(1) 1/2" Coax	Yes	1.00	0.50	0.00	17.811	0.00	0.50
123.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	17.894	15.12	18.92
123.0	(3) 1 5/8" Coax	Yes	2.00	4.73	0.25	17.894	15.12	9.46
125.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	17.977	15.19	18.92
127.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	18.058	15.26	18.92
130.0	(6) 1 5/8" Coax	Yes	3.00	9.46	0.25	18.179	23.04	28.38
135.0	(6) 1 5/8" Coax	Yes	5.00	9.46	0.25	18.376	38.82	47.30
139.0	(6) 1 5/8" Coax	Yes	4.00	9.46	0.25	18.530	31.32	37.84
140.0	(6) 1 5/8" Coax	Yes	1.00	9.46	0.25	18.568	7.85	9.46
142.0	(6) 1 5/8" Coax	Yes	2.00	9.46	0.25	18.644	15.75	18.92
						Totals:	3,708.48	5,127.51

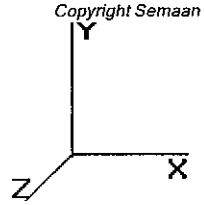


Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

Gust Response Factor : 1.69
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	591.65	2,584.08	0.00	0.00
10.00	583.19	2,542.14	0.00	0.00
15.00	574.74	2,500.19	0.00	0.00
20.00	566.29	2,458.25	0.00	0.00
25.00	557.84	2,416.31	0.00	0.00
30.00	549.38	2,374.37	0.00	0.00
35.00	550.10	2,332.43	0.00	0.00
40.00	562.56	2,290.48	0.00	0.00
45.00	572.27	1,960.67	0.00	0.00
50.00	580.24	1,925.23	0.00	0.00
55.00	586.48	1,889.78	0.00	0.00
60.00	591.21	1,854.33	0.00	0.00
65.00	594.63	1,818.89	0.00	0.00
70.00	596.88	1,783.44	0.00	0.00
75.00	598.07	1,747.99	0.00	0.00
80.00	598.31	1,712.55	0.00	0.00
85.00	597.69	1,440.90	0.00	0.00
90.00	596.28	1,411.95	0.00	0.00
95.00	594.12	1,383.00	0.00	0.00
96.00	2,876.01	2,633.36	0.00	0.00
100.0	443.60	1,013.80	0.00	0.00
105.0	551.70	1,240.89	0.00	0.00
106.0	3,336.66	3,057.46	0.00	0.00
110.0	436.77	928.12	0.00	0.00
115.0	542.07	1,133.79	0.00	0.00
118.0	2,511.55	2,808.07	0.00	0.00
120.0	183.10	400.96	0.00	0.00
121.0	130.16	194.99	0.00	0.00
123.0	440.32	437.06	0.00	0.00
125.0	165.11	342.20	0.00	0.00
127.0	425.13	419.38	0.00	0.00
130.0	506.71	573.15	0.00	0.00
135.0	400.45	786.32	0.00	0.00
139.0	313.87	610.78	0.00	0.00
140.0	55.36	62.20	0.00	0.00
142.0	551.71	267.43	0.00	0.00
145.0	138.89	152.89	0.00	0.00
150.0	4,609.56	4,037.84	0.00	8,586.33
Totals:	29,660.67	59,527.66	0.00	8,586.33

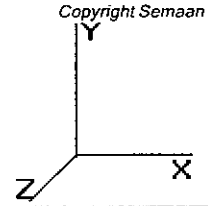


Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-29.714	-59.501	0.000	0.000	0.000	-2,906.818	0.000	0.000	0.000	0.000
5.00	-29.221	-56.866	0.000	0.000	0.000	-2,758.250	-0.054	0.000	0.054	-0.101
10.00	-28.727	-54.274	0.000	0.000	0.000	-2,612.148	-0.215	0.000	0.215	-0.203
15.00	-28.233	-51.726	0.000	0.000	0.000	-2,468.515	-0.482	0.000	0.482	-0.305
20.00	-27.739	-49.222	0.000	0.000	0.000	-2,327.350	-0.856	0.000	0.856	-0.406
25.00	-27.245	-46.762	0.000	0.000	0.000	-2,188.655	-1.337	0.000	1.337	-0.508
30.00	-26.752	-44.346	0.000	0.000	0.000	-2,052.430	-1.924	0.000	1.924	-0.610
35.00	-26.249	-41.974	0.000	0.000	0.000	-1,918.674	-2.618	0.000	2.618	-0.712
40.00	-25.725	-39.646	0.000	0.000	0.000	-1,787.432	-3.417	0.000	3.417	-0.813
45.00	-25.196	-37.646	0.000	0.000	0.000	-1,658.806	-4.323	0.000	4.323	-0.913
50.00	-24.656	-35.680	0.000	0.000	0.000	-1,532.829	-5.343	0.000	5.343	-1.031
55.00	-24.102	-33.753	0.000	0.000	0.000	-1,409.550	-6.486	0.000	6.486	-1.148
60.00	-23.535	-31.865	0.000	0.000	0.000	-1,289.041	-7.751	0.000	7.751	-1.263
65.00	-22.957	-30.016	0.000	0.000	0.000	-1,171.366	-9.134	0.000	9.134	-1.376
70.00	-22.369	-28.206	0.000	0.000	0.000	-1,056.581	-10.635	0.000	10.635	-1.485
75.00	-21.772	-26.435	0.000	0.000	0.000	-944.737	-12.248	0.000	12.248	-1.592
80.00	-21.168	-24.704	0.000	0.000	0.000	-835.876	-13.970	0.000	13.970	-1.694
85.00	-20.570	-23.244	0.000	0.000	0.000	-730.036	-15.797	0.000	15.797	-1.791
90.00	-19.970	-21.814	0.000	0.000	0.000	-627.188	-17.734	0.000	17.734	-1.904
95.00	-19.351	-20.431	0.000	0.000	0.000	-527.340	-19.785	0.000	19.785	-2.008
96.00	-16.399	-17.887	0.000	0.000	0.000	-507.990	-20.208	0.000	20.208	-2.029
100.0	-15.943	-16.867	0.000	0.000	0.000	-442.396	-21.941	0.000	21.941	-2.105
105.0	-15.359	-15.634	0.000	0.000	0.000	-362.681	-24.193	0.000	24.193	-2.192
106.0	-11.916	-12.699	0.000	0.000	0.000	-347.323	-24.654	0.000	24.654	-2.208
110.0	-11.457	-11.775	0.000	0.000	0.000	-299.659	-26.531	0.000	26.531	-2.271
115.0	-10.880	-10.654	0.000	0.000	0.000	-242.374	-28.948	0.000	28.948	-2.341
118.0	-8.259	-7.947	0.000	0.000	0.000	-209.735	-30.431	0.000	30.431	-2.379
120.0	-8.062	-7.552	0.000	0.000	0.000	-193.217	-31.433	0.000	31.433	-2.404
121.0	-7.926	-7.360	0.000	0.000	0.000	-185.155	-31.937	0.000	31.937	-2.416
123.0	-7.471	-6.939	0.000	0.000	0.000	-169.303	-32.955	0.000	32.955	-2.442
125.0	-7.294	-6.601	0.000	0.000	0.000	-154.362	-33.983	0.000	33.983	-2.466
127.0	-6.854	-6.197	0.000	0.000	0.000	-139.775	-35.021	0.000	35.021	-2.490
130.0	-6.327	-5.642	0.000	0.000	0.000	-119.213	-36.596	0.000	36.596	-2.522
135.0	-5.895	-4.870	0.000	0.000	0.000	-87.580	-39.261	0.000	39.261	-2.567
139.0	-5.555	-4.273	0.000	0.000	0.000	-64.001	-41.425	0.000	41.425	-2.597
140.0	-5.501	-4.208	0.000	0.000	0.000	-58.446	-41.970	0.000	41.970	-2.604
142.0	-4.944	-3.958	0.000	0.000	0.000	-47.445	-43.080	0.000	43.080	-2.693
145.0	-4.805	-3.803	0.000	0.000	0.000	-32.613	-44.809	0.000	44.809	-2.800
150.0	-4.610	0.000	0.000	0.000	0.000	-8.586	-47.804	0.000	47.804	-2.900

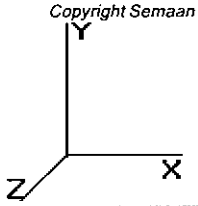


Load Case: Ice — 69.28 mph Wind with Ice — 22 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Stresses

Seg Elev (ft)	Applied Stresses Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.49	0.49	0.00	0.00	0.00	23.26	23.77	33.4	0.0	0.711
5.00	0.47	0.50	0.00	0.00	0.00	22.93	23.42	33.4	0.0	0.701
10.00	0.46	0.50	0.00	0.00	0.00	22.58	23.06	33.4	0.0	0.690
15.00	0.45	0.50	0.00	0.00	0.00	22.20	22.67	33.4	0.0	0.678
20.00	0.44	0.50	0.00	0.00	0.00	21.80	22.25	33.4	0.0	0.665
25.00	0.42	0.50	0.00	0.00	0.00	21.36	21.80	33.4	0.0	0.652
30.00	0.41	0.50	0.00	0.00	0.00	20.90	21.32	33.4	0.0	0.638
35.00	0.40	0.50	0.00	0.00	0.00	20.40	20.81	33.4	0.0	0.622
40.00	0.38	0.50	0.00	0.00	0.00	19.86	20.26	33.4	0.0	0.606
40.00	0.46	0.60	0.00	0.00	0.00	23.66	24.14	33.4	0.0	0.722
45.00	0.44	0.60	0.00	0.00	0.00	22.96	23.43	31.4	0.0	0.747
50.00	0.43	0.60	0.00	0.00	0.00	22.21	22.67	31.4	0.0	0.723
55.00	0.42	0.61	0.00	0.00	0.00	21.41	21.85	31.4	0.0	0.697
60.00	0.40	0.61	0.00	0.00	0.00	20.54	20.97	31.4	0.0	0.669
65.00	0.39	0.60	0.00	0.00	0.00	19.61	20.03	31.4	0.0	0.639
70.00	0.38	0.60	0.00	0.00	0.00	18.61	19.01	31.4	0.0	0.606
75.00	0.36	0.60	0.00	0.00	0.00	17.52	17.91	31.4	0.0	0.571
80.00	0.35	0.60	0.00	0.00	0.00	16.35	16.73	31.4	0.0	0.534
80.00	0.43	0.75	0.00	0.00	0.00	20.22	20.70	31.4	0.0	0.660
85.00	0.42	0.75	0.00	0.00	0.00	18.65	19.11	28.7	0.0	0.666
90.00	0.40	0.75	0.00	0.00	0.00	16.95	17.40	28.7	0.0	0.606
95.00	0.39	0.75	0.00	0.00	0.00	15.09	15.53	28.7	0.0	0.541
96.00	0.34	0.64	0.00	0.00	0.00	14.71	15.09	28.7	0.0	0.525
100.00	0.33	0.63	0.00	0.00	0.00	13.43	13.81	28.7	0.0	0.481
105.00	0.31	0.63	0.00	0.00	0.00	11.71	12.07	28.7	0.0	0.420
106.00	0.26	0.49	0.00	0.00	0.00	11.35	11.64	28.7	0.0	0.405
110.00	0.24	0.48	0.00	0.00	0.00	10.30	10.58	28.7	0.0	0.368
115.00	0.23	0.47	0.00	0.00	0.00	8.89	9.16	28.7	0.0	0.319
118.00	0.17	0.37	0.00	0.00	0.00	8.01	8.21	28.7	0.0	0.286
120.00	0.17	0.36	0.00	0.00	0.00	7.58	7.77	28.7	0.0	0.271
120.00	0.19	0.41	0.00	0.00	0.00	8.61	8.83	28.7	0.0	0.307
121.00	0.19	0.41	0.00	0.00	0.00	8.36	8.58	38.1	0.0	0.225
123.00	0.18	0.39	0.00	0.00	0.00	7.86	8.07	38.1	0.0	0.212
125.00	0.17	0.39	0.00	0.00	0.00	7.37	7.57	38.1	0.0	0.199
127.00	0.16	0.37	0.00	0.00	0.00	6.86	7.06	38.1	0.0	0.185
130.00	0.15	0.35	0.00	0.00	0.00	6.11	6.30	38.1	0.0	0.165
135.00	0.14	0.34	0.00	0.00	0.00	4.84	5.01	38.1	0.0	0.132
139.00	0.12	0.33	0.00	0.00	0.00	3.76	3.93	38.1	0.0	0.103
139.00	0.43	1.13	0.00	0.00	0.00	19.09	19.61	38.1	0.0	0.515
140.00	0.43	1.13	0.00	0.00	0.00	17.77	18.30	52.0	0.0	0.352
142.00	0.41	1.04	0.00	0.00	0.00	14.99	15.51	52.0	0.0	0.298
145.00	0.40	1.04	0.00	0.00	0.00	10.94	11.49	52.0	0.0	0.221
150.00	0.00	1.05	0.00	0.00	0.00	3.19	3.67	52.0	0.0	0.071



Analysis Summary

	Reactions						Max Stresses			
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Combined Stress (ksi)	Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	35.7	0.00	50.28	0.00	0.00	3430.80	28.12	31.4	40.00	0.897
Ice	29.7	0.00	59.50	0.00	0.00	2906.82	24.14	31.4	40.00	0.770

Base/Flange Plate	Plate Type	***Baseplate***	
	Pole Diameter	37.38	in
	Pole Thickness		in
	Plate Length	62	in
	Plate Thickness	2	in
	Plate Fy	60	ksi
	Weld Length	0.25	in
	Allowable	664.01	k-in
	Applied	505.82	k-in
Stiffeners	#	***0***	

Bolts	#	***8***	
	Bolt Circle	44	in
	(R)adial / (S)quare	S	
	Bolt Gap	6	in
●	Diameter	2.25	in
	Hole Diameter	2.375	in
	Type	#18J	
	Fy	75	ksi
	Fu	100	ksi
	Allowable	194.86	k
	Applied	135.07	k
Reinforcement ●	#	***0***	
Extra Bolts O	#	***12***	
	Bolt Circle	55.5	in
	(R)adial / (S)quare	S	
	Bolt Gap	6	in
	Offset Angle	30	°
	Diameter	1.5	in
	Type	A325	
	Fy	92	ksi
	Fu	120	ksi
	Allowable	103.67	k
	Applied	89.21	k

Code Rev.	***F***	**Date**	9/9/2008
A.S.I.	1.33	**Engineer**	ZAM
		Site #	302483
Moment *	2230.0 k-ft	**Carrier**	Youghiogheny
Axial *	32.7 k		

* Factored by 0.65, see attached calcs

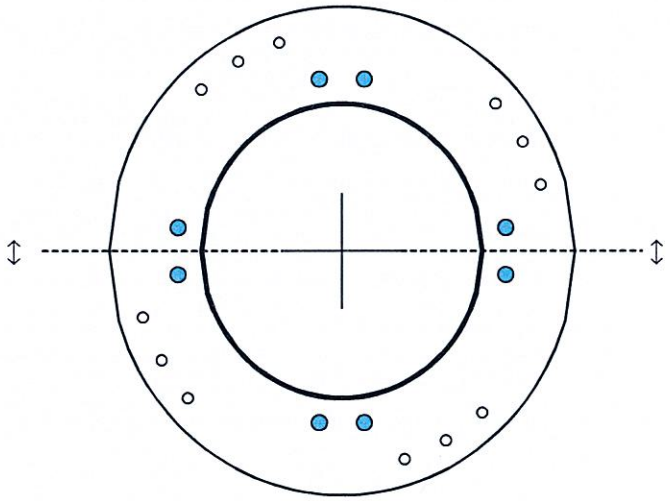


Plate Stress Ratio:
0.76 (Pass)

Bolt Stress Ratio:
0.69 (Pass)

Extra Bolt Stress Ratio:
0.86 (Pass)

Quick Calculation of Face Width, Area, Moment of Inertia & Radius of Gyration

# of Sides: 12 E_M: 29000 ksi

Original Tower

Elevation (ft)	Diameter (in)	Thickness (in)	F_y (ksi)	Area (in^2)	Inertia (in^4)	S_{min} (in^3)	F_{cr} (ksi)	$M_{Capacity}$ (k-in)	θ (radians)
0	37.38	0.375	65	44.6	7821.2	404.2	65.0	26274	0.000116
5	36.60	0.375	65	43.7	7339.9	387.4	65.0	25179	0.000118
10	35.83	0.375	65	42.8	6878.8	370.9	65.0	24108	0.000121
15	35.05	0.375	65	41.8	6437.5	354.8	65.0	23060	0.000124
20	34.28	0.375	65	40.9	6015.4	339.0	65.0	22035	0.000126
25	33.50	0.375	65	39.9	5612.2	323.6	65.0	21034	0.000129
30	32.73	0.375	65	39.0	5227.4	308.6	65.0	20056	0.000132
35	31.95	0.375	65	38.1	4860.7	293.9	65.0	19101	0.000136
40	31.77	0.3125	65	31.6	4005.6	243.5	65.0	15830	0.000136
45	30.99	0.3125	65	30.8	3715.1	231.6	65.0	15051	0.000140
50	30.21	0.3125	65	30.0	3439.0	219.9	65.0	14292	0.000143
55	29.44	0.3125	65	29.3	3176.9	208.5	65.0	13553	0.000147
60	28.66	0.3125	65	28.5	2928.5	197.4	65.0	12833	0.000151
65	27.88	0.3125	65	27.7	2693.4	186.7	65.0	12133	0.000155
70	27.10	0.3125	65	26.9	2471.3	176.2	65.0	11453	0.000160
75	26.82	0.25	65	21.4	1929.0	139.0	65.0	9033	0.000161
80	26.02	0.25	65	20.7	1760.9	130.7	65.0	8498	0.000166
85	25.23	0.25	65	20.1	1602.9	122.8	65.0	7979	0.000172
90	24.43	0.25	65	19.4	1454.7	115.0	65.0	7477	0.000177
95	23.64	0.25	65	18.8	1315.9	107.6	65.0	6991	0.000183
100	22.84	0.25	65	18.2	1186.2	100.3	65.0	6522	0.000190
105	22.05	0.25	65	17.5	1065.3	93.4	65.0	6068	0.000196
110	21.25	0.1875	65	12.7	721.1	65.6	64.5	4227	0.000202
115	20.47	0.1875	65	12.2	643.8	60.8	65.0	3949	0.000212
120	19.69	0.1875	65	11.8	572.2	56.1	65.0	3650	0.000220
125	18.91	0.1875	65	11.3	506.2	51.7	65.0	3362	0.000229
130	18.13	0.1875	65	10.8	445.4	47.5	65.0	3086	0.000239
135	17.34	0.1875	65	10.3	389.7	43.4	65.0	2821	0.000250
139	16.72	0.1875	65	10.0	348.6	40.3	65.0	2619	0.000259
140	16.56	0.1875	65	9.9	338.9	39.5	65.0	2569	0.000261
145	15.78	0.1875	65	9.4	292.6	35.8	65.0	2329	0.000274
150	15.00	0.1875	65	8.9	250.8	32.3	65.0	2100	0.000289

Sleeve

Elevation (ft)	Diameter (in)	Thickness (in)	F_y (ksi)	Area (in^2)	Inertia (in^4)	S_{min} (in^3)	F_{cr} (ksi)	$M_{Capacity}$ (k-in)	θ (radians)
0	51.30	0.375	65	61.4	20382.8	767.6	58.3	44764	0.000076
5	50.55	0.375	65	60.5	19495.4	745.0	58.8	43842	0.000078
10	49.80	0.375	65	59.6	18634.2	722.9	59.4	42916	0.000079
15	49.05	0.375	65	58.7	17798.8	701.0	59.9	41987	0.000081
20	48.30	0.375	65	57.8	16988.7	679.5	60.4	41055	0.000083
25	47.55	0.375	65	56.9	16203.5	658.3	60.9	40121	0.000085
30	46.80	0.375	65	56.0	15443.0	637.5	61.5	39186	0.000087
35	46.05	0.375	65	55.1	14706.6	617.0	62.0	38249	0.000090
40	45.50	0.3125	65	45.4	11867.0	503.9	56.0	28220	0.000082
45	44.75	0.3125	65	44.7	11285.9	487.2	56.6	27595	0.000084
50	44.00	0.3125	65	43.9	10724.0	470.8	57.3	26965	0.000087
55	43.25	0.3125	65	43.1	10181.2	454.8	57.9	26330	0.000089
60	42.50	0.3125	65	42.4	9657.0	439.0	58.5	25692	0.000092
65	41.75	0.3125	65	41.6	9151.0	423.4	59.2	25050	0.000094
70	41.00	0.3125	65	40.9	8663.1	408.2	59.8	24406	0.000097
75	40.25	0.3125	65	40.1	8192.8	393.2	60.4	23759	0.000100
80	39.70	0.25	65	31.7	6317.0	307.4	52.5	16151	0.000088
85	38.94	0.25	65	31.1	5957.8	295.6	53.3	15767	0.000091
90	38.18	0.25	65	30.5	5612.4	284.0	54.1	15378	0.000094
95	37.41	0.25	65	29.9	5280.7	272.7	54.9	14982	0.000098
100	36.65	0.25	65	29.3	4962.3	261.6	55.7	14581	0.000101
105	35.89	0.25	65	28.6	4656.9	250.7	56.5	14175	0.000105
110	35.13	0.25	65	28.0	4364.4	240.0	57.3	13765	0.000109
115	34.36	0.25	65	27.4	4084.3	229.6	58.1	13352	0.000113
120	27.30	0.25	65	21.7	2036.5	144.1	65.0	9367	0.000159
125	26.67	0.25	65	21.2	1897.2	137.4	65.0	8933	0.000162
130	26.04	0.25	65	20.7	1764.4	130.9	65.0	8509	0.000166
135	25.41	0.25	65	20.2	1637.9	124.5	65.0	8096	0.000170
139	24.90	0.25	65	19.8	1541.2	119.6	65.0	7772	0.000174

Combined Section Strength Assuming Composite Strength

Elevation	Diameter	Thickness	F_y	Area	Inertia	S_{min}	F_{cr}	$M_{Capacity}$
(ft)	(in)	(in)	(ksi)	(in^2)	(in^4)	(in^3)	(ksi)	(k-in)
0	51.30	0.75	65	121.9	39878.2	1501.7	65.0	97612
5	50.55	0.75	65	120.1	38129.6	1457.2	65.0	94717
10	49.80	0.75	65	118.3	36433.0	1413.3	65.0	91866
15	49.05	0.75	65	116.5	34787.4	1370.1	65.0	89057
20	48.30	0.75	65	114.7	33192.2	1327.6	65.0	86293
25	47.55	0.75	65	112.9	31646.5	1285.7	65.0	83572
30	46.80	0.75	65	111.1	30149.5	1244.5	65.0	80895
35	46.05	0.75	65	109.2	28700.5	1204.0	65.0	78261
40	45.50	0.625	65	90.2	23248.4	987.1	65.0	64161
45	44.75	0.625	65	88.7	22102.2	954.2	65.0	62020
50	44.00	0.625	65	87.2	20994.4	921.8	65.0	59915
55	43.25	0.625	65	85.7	19924.2	890.0	65.0	57847
60	42.50	0.625	65	84.2	18891.1	858.7	65.0	55815
65	41.75	0.625	65	82.6	17894.2	828.0	65.0	53820
70	41.00	0.625	65	81.1	16933.1	797.9	65.0	51861
75	40.25	0.5625	65	71.8	14473.9	694.7	65.0	45155
80	39.70	0.5	65	63.0	12396.9	603.2	65.0	39211
85	38.94	0.5	65	61.8	11687.6	579.9	65.0	37691
90	38.18	0.5	66	60.6	11005.8	556.9	66.0	36759
95	37.41	0.5	67	59.3	10351.1	534.5	67.0	35811
100	36.65	0.5	68	58.1	9722.8	512.5	68.0	34850
105	35.89	0.5	69	56.9	9120.6	491.0	69.0	33877
110	35.13	0.4375	70	48.8	7515.9	413.4	70.0	28936
115	34.36	0.4375	71	47.7	7031.1	395.3	71.0	28065
120	27.30	0.4375	72	37.8	3491.0	247.0	72.0	17787
125	26.67	0.4375	73	36.9	3250.5	235.5	73.0	17189
130	26.04	0.4375	74	36.0	3021.4	224.2	74.0	16589
135	25.41	0.4375	75	35.1	2803.3	213.2	75.0	15987
139	24.90	0.4375	76	34.4	2636.5	204.6	76.0	15546

Actual Combined Section Strength

Elevation	$\Sigma M_{Capacity}$	Ori. Str.	2_{nd} Str.	Eq. F_{cr}	$M_{Capacity}$	Average Fy
(ft)	(k-in)	Red. Ratio	Red. Ratio	(ksi)	(k-in)	(ksi)
0	61941	**0.65**	0.63	41.2	61941	
5	60348	0.66	0.64	41.4	60348	
10	58759	0.66	0.64	41.6	58759	
15	57173	0.66	0.64	41.7	57173	
20	55592	0.66	0.64	41.9	55592	
25	54018	0.66	0.65	42.0	54018	
30	52450	0.66	0.65	42.1	52450	
35	50891	0.66	0.65	42.3	50891	
40	37745	0.60	0.59	38.2	37745	41.8
45	36678	0.60	0.59	38.4	36678	
50	35612	0.61	0.59	38.6	35612	
55	34546	0.61	0.60	38.8	34546	
60	33483	0.61	0.60	39.0	33483	
65	32423	0.61	0.60	39.2	32423	
70	31368	0.61	0.60	39.3	31368	
75	29353	0.62	0.65	42.3	29353	
80	20653	0.53	0.53	34.2	20653	39.2
85	20010	0.53	0.53	34.5	20010	
90	19363	0.53	0.53	34.8	19363	
95	18715	0.53	0.52	35.0	18715	
100	18066	0.53	0.52	35.3	18066	
105	17418	0.53	0.51	35.5	17418	
110	16040	0.54	0.55	38.8	16040	
115	15457	0.53	0.55	39.1	15457	
120	11999	0.72	0.67	48.6	11999	35.9
125	11316	0.71	0.66	48.1	11316	
130	10657	0.70	0.64	47.5	10657	
135	10022	0.68	0.63	47.0	10022	
139	9530	0.67	0.61	46.6	9530	47.6