

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK CITY OF PORTLAND

SECTION

PERMIT

Permit Number: 031230

Please Read Application And Notes, If Any, Attached

This is to certify that H & B Realty Llc
has permission to Install 6 antennae + base station equipment
AT 220 Riverside St 267 A018001

provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statutes of the State and of the Ordinances of the City of Portland regulating the construction, maintenance and use of buildings and structures, and of the application on file in this department.

Apply to Public Works for street line and grade if nature of work requires such information.

Notification of inspection must be given and when permission is procured before this building or part thereof is leased or occupied. **FOUR HOUR NOTICE IS REQUIRED.**

A certificate of occupancy must be procured by owner before this building or part thereof is occupied.

OTHER REQUIRED APPROVALS

Fire Dept. [Signature]
Health Dept. _____
Appeal Board _____
Other _____
Department Name

[Signature] 10/14/03
Director - Building & Inspection Services

PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application
 389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

Permit No: 03-1230	Issue Date:	CBL: 267 A018001
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Location of Construction: 220 Riverside St	Owner Name: H & B Realty Llc	Owner Address: 220 Riverside St	Phone:
Business Name:	Contractor Name:	Contractor Address:	Phone:
Lessee/Buyer's Name	Phone:	Permit Type: Alterations - Commercial	Zone: B4

Past Use: Telecommunications	Proposed Use: Telecommunications w/ 6 antennae + base station equipment	Permit Fee: \$246.00	Cost of Work: \$25,000.00	CEO District: 3
Proposed Project Description: Install 6 antennae + base station equipment		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: U Type NA 10/14/03 Signature: [Signature]	

PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)	
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied	Signature: _____ Date: _____

Permit Taken By: kwd	Date Applied For: 10/03/2003	Zoning Approval	
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1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. 2. Building permits do not include plumbing, septic or electrical work. 3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input checked="" type="checkbox"/> Minor <input type="checkbox"/> NMF <input type="checkbox"/> Date: <u>10/10/03</u>	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: _____	Historic Preservation <input checked="" type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <u>9</u>
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CERTIFICATION

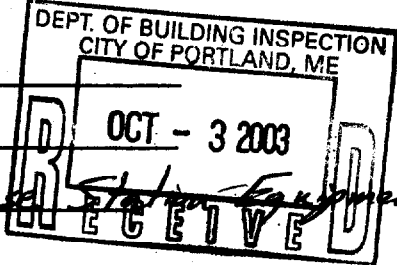
I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

03-1230

All Purpose Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>220 Riverside Industrial Parkway</u>		
Total Square Footage of Proposed Structure <u>208 square feet</u>	Square Footage of Lot	
Tax Assessor's Chart, Block & Lot Chart# <u>267</u> Block# <u>A 01</u> Lot# <u>8001</u> <u>267 A 01 8001</u>	Owner: <u>American Tower Company</u>	Telephone: <u>508-752 0206</u> 732-9992
Lessee/Buyer's Name (If Applicable) <u>U.S. Cellular</u>	Applicant name, address & telephone: <u>U.S. Cellular</u> <u>482 Congress Street</u> <u>Portland Me 04101</u>	Cost Of Work: \$ <u>25,000</u> Fee: \$ <u>246.00</u>
Current use: <u>Telecommunications</u>		
If the location is currently vacant, what was prior use: _____		
Approximately how long has it been vacant: _____		
Proposed use: <u>Install (6) six antennas + Base Station Equipment</u>		
Project description:		
Contractor's name, address & telephone: <u>TBD</u>		
Who should we contact when the permit is ready: <u>Ed Shaw</u>		
Mailing address:		
We will contact you by phone when the permit is ready. You must come in and pick up the permit and review the requirements before starting any work, with a Plan Reviewer. A stop work order will be issued and a \$100.00 fee if any work starts before the permit is picked up. PHONE: <u>771-9992</u>		

IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APPROVE THIS PERMIT.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of applicant: <u>Edward A. Shaw</u>	Date: <u>10/3/03</u>
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This is NOT a permit, you may not commence ANY work until the permit is issued. If you are in a Historic District you may be subject to additional permitting and fees with the Planning Department on the 4th floor of City Hall



**LCC International
482 Congress Street
Suite 502
Portland, ME 04101
(207) 771-9992 (Office)
(207) 771-9993 (Fax)**

October 3, 2003

**Building Department
389 Congress Street
Portland, Me 04101**

To Whom It May Concern:

United States Cellular Corporation (USCC) received a License authorizing them to provide service in Cumberland County. USCC has since hired LCC International to accomplish that objective. LCC is currently locating, leasing, and receiving zoning approvals and acquiring building permits for several approved locations in Portland.

American Tower Portland has been chosen as one of the approved locations. USCC is proposing to place (6) six cellular antennas on the existing 250' tower located at 220 Riverside Industrial Parkway in Portland, Maine. The Antennas and Base Station Equipment will be located as shown on the attached drawing.

USCC has already received an Exemption from Site Plan Review and would now like to receive a building permit to do the work as proposed.

We would appreciate consideration at the earliest possible date. In addition, I would appreciate it if you, or someone on your staff, would contact me if any additional material or information is required at this stage of the process.

Thank you for your consideration of this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Edward A. Shaw'. The signature is written in a cursive style with a long, sweeping tail on the 'w'.

**Edward A. Shaw
LCC International Inc.
482 Congress Street
Suite 502
Portland, ME 04101**

Licenser Site Name/Number: Portland, ME / 10047
Licensee Site Name/Number: Portland North / 863336.1

Agreed to and Accepted by:
LICENSEE: RSA #8, LLC,
Florida-RCA-#8, a Delaware limited
liability company, d/b/a US Cellular

Agreed to and Accepted by:
LICENSOR:
American Tower, L.P., a Delaware
limited partnership
By: ATC GP, Inc., its sole general partner

HG

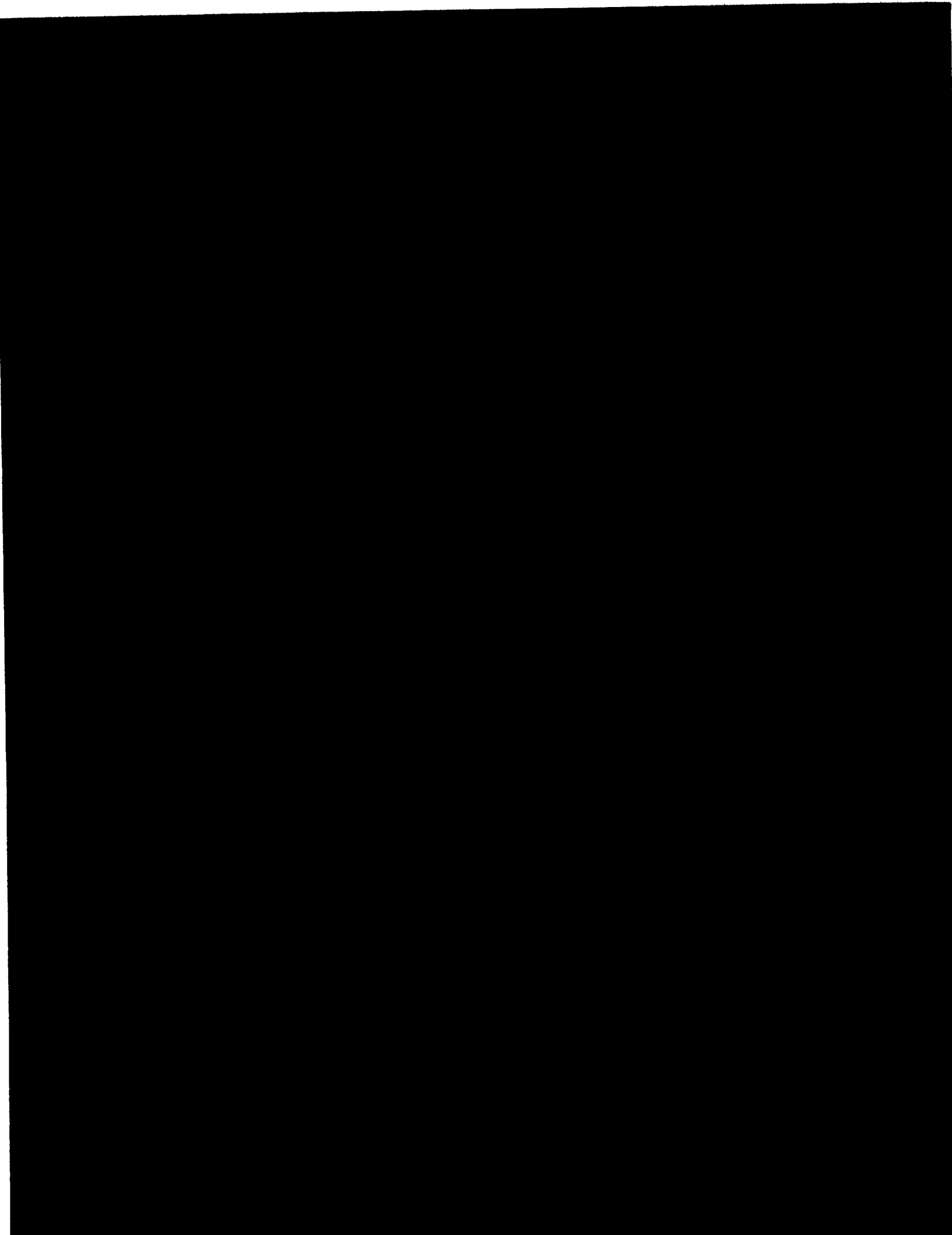
By: [Signature]
Name: Hichem H. Gamaoui
Title: VP of National Network Operations
Date: 9-3-03

By: [Signature]
Name: Joel M. Mitchell
Title: Vice President
Date: 09-12-03

The offer of license expressed in any this Schedule as offered to Licensee shall automatically expire and become void if not accepted and executed by Licensee and such acceptance received by Licensor within twenty (20) Business Days of the Offer Date in accordance with Section 3. This Schedule does not constitute Licensed Space until completed and executed by both parties in accordance with Section 3.1(c).

Form approved at
USCell by KMK

ORIGINAL





AMERICAN TOWER

Structural Analysis Report

Structure : Existing 275 ft PIROD Guyed Tower
ATC Site Name : Portland, ME
ATC Site Number : 10047
Proposed Carrier : US Cellular
Carrier Site Name : Portland North
Carrier Site Number : 53336.1
County : Cumberland
Eng. Number : 73117337
Date : October 2, 2003

ATC ENGINEERING

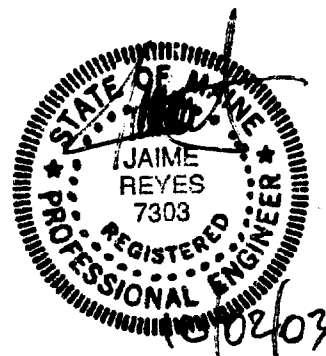
S E R V I C E S™

11312 South Pipeline Road – 2nd Floor

Eules, Texas 76040

Phone: (817) 355-4100

Fax: (817) 858-0398



Eng. Number 73117337
October 2, 2003

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Antenna Loads	1
Results	2
Conclusion	2
Standard Conditions	Attached
Calculations	Attached
Original Design Profile.....	Attached

Introduction

The purpose of this report is to summarize results of the structural analysis performed on the existing 275 ft PIROD model #42 guyed tower located at Portland, Cumberland County, ME (ATC site # 10047). The tower was originally designed and manufactured by PIROD (Drawing # 110412-B dated September 29, 1987).

Analysis

The existing tower was analyzed using Semaan Engineering Solutions, Inc., Software. The analysis assumes that the tower is in good, undamaged, and non-corroded condition. A 5% overstress is allowed in the existing structural members to account for program variances.

Basic wind speed: 80.0 mph
 Radial Ice: 0.50" w/ reduced wind
 Code: EIA/TIA-222-F

Antenna Loads**Existing Antennas**

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
271.0	12	Hazeltine 806-105-11-0	(3) Sector mount	(12) 1 5/8"	Verizon
271.0	3	Metawave High Gain		(12) 1 5/8"	Verizon
265.0	1	D6C-22, 6'Ø Dish w/ Radome	Dish Mount	(1) 2"	Verizon
260.0	9	Allgon 7182.15	(3) Sector mount	(9) 1 5/8"	Omnipoint
260.0	1	G3-2.4, 3'Ø Grid Dish	Dish Mount	(1) 1/2"	Omnipoint
241.0	1	D8E-22, 8'Ø HP Dish	Dish Mount	(1) 7/8"	Verizon
231.0	1	D6C-22, 6'Ø Dish w/ Radome	Dish Mount	(1) 1 5/8"	Verizon
220.0	3	EMS RR65-18-XXNP	(3) 4' Standoff Mount	(3) 1/2"	Nextwave
216.0	3	Lucent RFUs (85 lbs. Each)	Leg Mounted	(3) 11mm	Nextwave
192.0	1	8' Omni	Standoff Mount	(1) 1 1/4"	Unknown
168.0	2	8' Omni	Standoff Mount	(2) 7/8"	Unknown
155.0	1	Andrew P4-57, 4' Std. Dish	Dish Mount	(1) EW90	Verizon
125.0	2	10022-1, 12' Omni	(2) Standoff Mount	(2) 1/2"	Unknown
100.0	1	Cushcraft S8063B	Standoff Mount	(1) 1 1/2"	Nextel
38.0	1	GPS Antenna	Leg Mounted	(1) 1/2"	Nextwave
25.0	1	GPS Antenna	Leg Mounted	(1) 1/2"	Nextwave

Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
200.0	6	Antel BSA-185065/10CF-2	(3) Sector Mounts	(6) 1 5/8"	US Cellular

This analysis considers that all lines are installed on three tower faces with no more than (15) lines exposed per face. The proposed lines will need to be stacked and/or distributed. The installation of the lines on extension brackets beyond the normal tower face is not permitted.

Results

The existing 275 ft PIROD tower with the existing and the proposed antennas is structurally acceptable per EIA/TIA-222-F standards. The maximum structure usage is: 89.0%

Foundation (Location)	Reactions	Original Design Reactions (kips)	Current Analysis Reactions (kips)	% Of Original Design
Tower Base	Compression	256.4	272.28	106.2
	Horizontal	4.8	1.09	22.7
Anchor at Radius of 115'	Uplift	122.7	112.40	91.6
	Horizontal	83.3	72.73	87.3

The structure base reactions resulting from this analysis slightly exceed the ones shown on the original structural drawings. Upon reviewing the foundation documents and assuming EIA Normal Soil conditions (as assumed in the original foundation design), the existing foundations were found to be adequate.

Conclusion

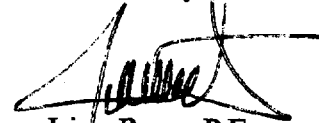
The existing tower and existing foundations can support the existing and proposed antennas with the TX line distribution as described in this report. If you have any questions or require additional information, please call (817) 355-4100.

Submitted by:

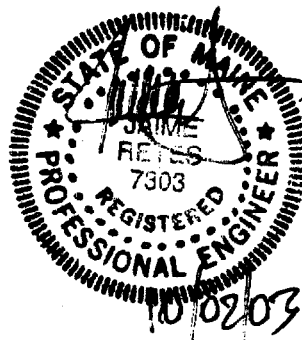


George Murray, P.E.
Senior Project Engineer

Reviewed by:



Jaime Reyes, P.E.
Director, A/E Services



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 fields and/or 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.

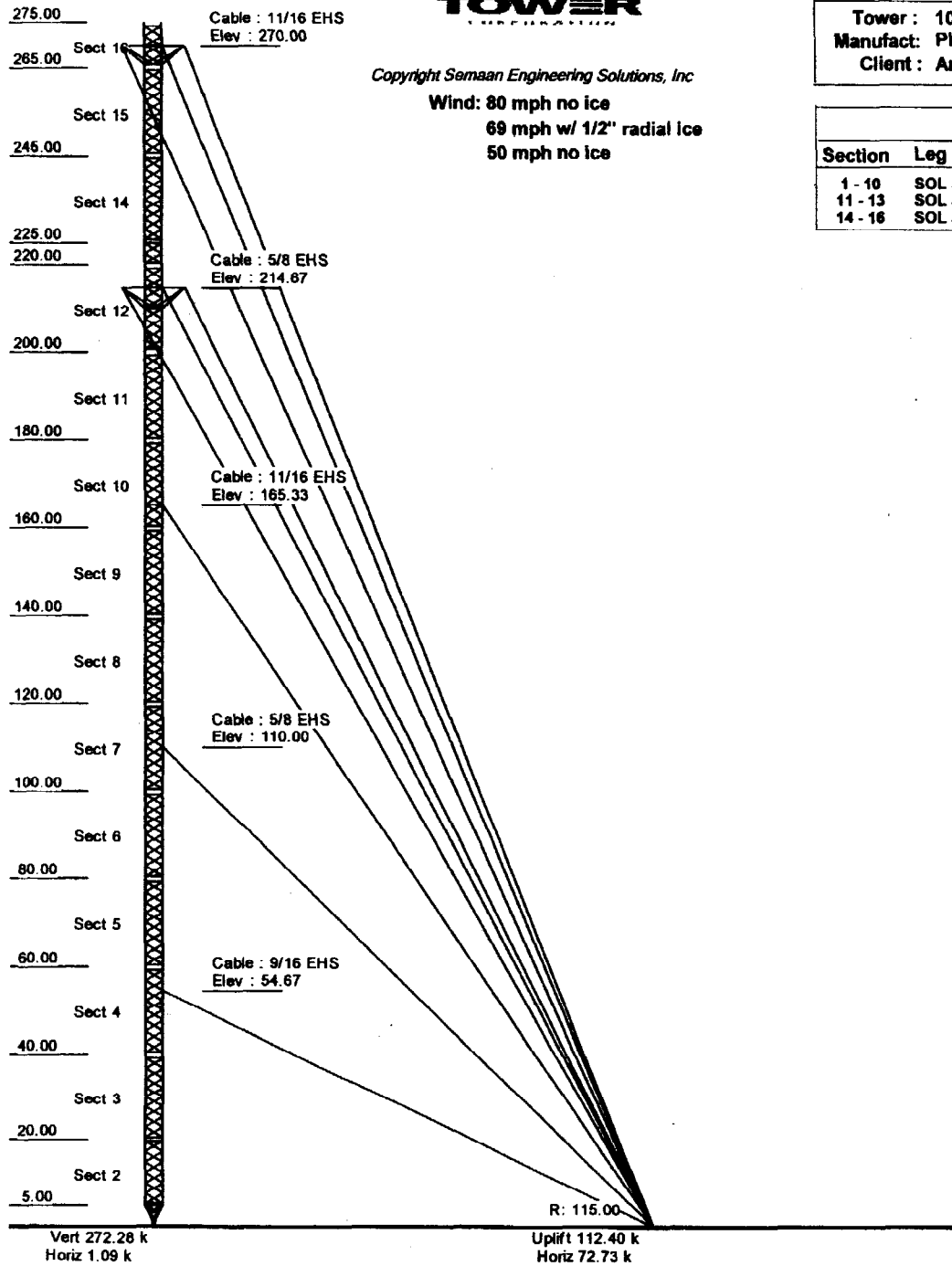
All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall 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 Service is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Copyright Semaan Engineering Solutions, Inc

Wind: 80 mph no ice
69 mph w/ 1/2" radial ice
50 mph no ice



Job Information

Tower : 10047	Location : Portland, ME	Base Width : 3.50 ft
Manufact: PIROD	Shape : Triangle	
Client : American Tower		

Sections Properties

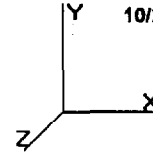
Section	Leg Members	Diagonal Members	Horizontal Members
1 - 10	SOL 50ksi 2 1/4" SOLID	SOL 50ksi 3/4" SOLID	SOL 50ksi 3/4" SOLID
11 - 13	SOL 50ksi 2" SOLID	SOL 50ksi 3/4" SOLID	SOL 50ksi 3/4" SOLID
14 - 16	SOL 50ksi 1 3/4" SOLID	SOL 50ksi 3/4" SOLID	SOL 50ksi 3/4" SOLID

Discrete Appurtenance

Elev (ft)	Type	Qty	Description	Disp (ft)	Rot (deg)
271.00	Panel	3	Metawave High Gain		
271.00	Mounting Frame	3	Sector mount		
271.00	Panel	12	Haxeltine 806-105-11-0		
265.00	Dish	1	Std. MW Dish w/Para. Radome,		
260.00	Dish	1	Grid MW Dish, 3' Dia.		
260.00	Mounting Frame	3	Sector mount		
260.00	Panel	9	Allgon 7182.15		
241.00	Dish	1	HP MW Dish, 8' Dia.		
231.00	Dish	1	Std. MW Dish w/Para. Radome,		
220.00	Panel	3	RR85-18-00NP		
220.00	Straight Arm	3	4' stand-off		
216.00	Panel	3	RFU		
200.00	Panel	6	Antel BSA-185065/10CF-2		
200.00	Mounting Frame	3	Sector Mounts		
192.00	Straight Arm	1	Standoff Mount		
192.00	Whip	1	8' Omni		
168.00	Straight Arm	1	Standoff Mount		
168.00	Whip	2	8' Omni		
155.00	Dish	1	Std. MW Dish w/o Radome, 4' D		
125.00	Straight Arm	1	Standoff Mount		
125.00	Whip	2	12' Omni		
100.00	Straight Arm	1	Standoff Mount		
100.00	Whip	1	Cushcraft S8063B		
38.00	Whip	1	GPS Antenna		
25.00	Whip	1	GPS Antenna		

Linear Appurtenance

Elev (ft)		Qty	Description
From	To		
0.000	271.00	12	1 5/8" Coax
0.000	271.00	12	1 5/8" Coax
0.000	265.00	1	2" Coax
0.000	260.00	1	1/2" Coax
0.000	260.00	9	1 5/8" Coax
0.000	241.00	1	7/8" Coax
0.000	231.00	1	1 5/8" Coax
0.000	220.00	3	1/2" Coax
0.000	216.00	3	3/8" Coax
0.000	200.00	6	1 5/8" Coax
0.000	192.00	1	1 1/4" Coax
0.000	168.00	2	7/8" Coax
0.000	155.00	1	EW90
0.000	125.00	2	1/2" Coax
0.000	100.00	1	1 1/2" Coax
0.000	38.000	1	1/2" Coax
0.000	25.000	1	1/2" Coax



Gh : 1.09

Section Forces

LoadCase Normal No Ice 80.00 mph Wind Normal To Face with No Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Height (ft)	Wind qz	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
16	270.0	29.87	0.00	17.07	0.00	0.49	1.92	1.00	1.00	0.69	11.80	0.00	0.00	559.6	0.0	738.65	0.00	738.65	1
15	255.0	29.39	0.00	50.08	0.00	0.72	1.78	1.00	1.00	0.83	41.62	0.00	0.00	1,488.9	0.0	2,376.65	0.00	2,376.65	1
14	235.0	28.71	0.00	52.55	0.00	0.75	1.79	1.00	1.00	0.86	45.05	0.00	0.00	1,551.0	0.0	2,527.91	0.00	2,527.91	1
13	222.5	28.26	0.00	14.32	0.00	0.82	1.83	1.00	1.00	0.91	13.05	0.00	0.00	451.5	0.0	738.41	0.00	738.41	1
12	210.0	27.80	0.00	56.06	0.00	0.80	1.82	1.00	1.00	0.90	50.29	0.00	0.00	1,731.4	0.0	2,776.75	0.00	2,776.75	1
11	190.0	27.02	0.00	60.81	0.00	0.87	1.88	1.00	1.00	0.95	58.07	0.00	0.00	1,865.1	0.0	3,229.33	0.00	3,229.33	2
10	170.0	26.17	0.00	61.86	0.00	0.88	1.90	1.00	1.00	0.97	59.90	0.00	0.00	2,064.9	0.0	3,259.63	0.00	3,259.63	2
9	150.0	25.25	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,066.3	0.0	3,118.23	0.00	3,118.23	2
8	130.0	24.24	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,069.5	0.0	2,993.31	0.00	2,993.31	2
7	110.0	23.11	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,074.3	0.0	2,853.79	0.00	2,853.79	2
6	90.00	21.82	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	2,694.78	0.00	2,694.78	2
5	70.00	20.31	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	2,508.06	0.00	2,508.06	2
4	50.00	18.45	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	2,278.18	0.00	2,278.18	2
3	30.00	16.38	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,091.2	0.0	2,023.15	0.00	2,023.15	2
2	12.50	16.38	0.00	46.37	0.00	0.88	1.90	1.00	1.00	0.97	44.87	0.00	0.00	1,580.0	0.0	1,527.94	0.00	1,527.94	2
1	2.50	16.38	0.00	15.56	0.00	1.00	2.10	1.00	1.00	1.00	15.56	0.00	0.00	539.7	0.0	585.33	0.00	313.44	2 **
														26,396.2	0.0			35,958.21	

** = 2QzGhAg Controls

LoadCase 60 deg No Ice 80.00 mph Wind at 60 deg From Face with No Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Height (ft)	Wind qz	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
16	270.0	29.87	0.00	17.07	0.00	0.49	1.92	0.80	1.00	0.69	11.80	0.00	0.00	559.6	0.0	738.65	0.00	738.65	1
15	255.0	29.39	0.00	50.08	0.00	0.72	1.78	0.80	1.00	0.83	41.62	0.00	0.00	1,488.9	0.0	2,376.65	0.00	2,376.65	1
14	235.0	28.71	0.00	52.55	0.00	0.75	1.79	0.80	1.00	0.86	45.05	0.00	0.00	1,551.0	0.0	2,527.91	0.00	2,527.91	1
13	222.5	28.26	0.00	14.32	0.00	0.82	1.83	0.80	1.00	0.91	13.05	0.00	0.00	451.5	0.0	738.41	0.00	738.41	1
12	210.0	27.80	0.00	56.06	0.00	0.80	1.82	0.80	1.00	0.90	50.29	0.00	0.00	1,731.4	0.0	2,776.75	0.00	2,776.75	1
11	190.0	27.02	0.00	60.81	0.00	0.87	1.88	0.80	1.00	0.95	58.07	0.00	0.00	1,865.1	0.0	3,229.33	0.00	3,229.33	2
10	170.0	26.17	0.00	61.86	0.00	0.88	1.90	0.80	1.00	0.97	59.90	0.00	0.00	2,064.9	0.0	3,259.63	0.00	3,259.63	2
9	150.0	25.25	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,066.3	0.0	3,118.23	0.00	3,118.23	2
8	130.0	24.24	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,069.5	0.0	2,993.31	0.00	2,993.31	2
7	110.0	23.11	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,074.3	0.0	2,853.79	0.00	2,853.79	2
6	90.00	21.82	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	2,694.78	0.00	2,694.78	2
5	70.00	20.31	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	2,508.06	0.00	2,508.06	2
4	50.00	18.45	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	2,278.18	0.00	2,278.18	2
3	30.00	16.38	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,091.2	0.0	2,023.15	0.00	2,023.15	2
2	12.50	16.38	0.00	46.37	0.00	0.88	1.90	0.80	1.00	0.97	44.87	0.00	0.00	1,580.0	0.0	1,527.94	0.00	1,527.94	2
1	2.50	16.38	0.00	15.56	0.00	1.00	2.10	0.80	1.00	1.00	15.56	0.00	0.00	539.7	0.0	585.33	0.00	313.44	2 **
														26,396.2	0.0			35,958.21	

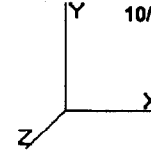
** = 2QzGhAg Controls



Site Number: 10047
Location: Portland, ME

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10/2/2003 10:24:07 AM



Gh: 1.09

Section Forces

LoadCase 90 deg No Ice

80.00 mph Wind at 90 deg From Face with No Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Wind Height (ft)	qz	Total Area		Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Ice Area		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face													
			Flat Area (sqft)	Round Area (sqft)								Linear Area (sqft)	Total Area (sqft)																			
16	270.0	29.87	0.00	17.07	0.00	0.49	1.92	0.85	1.00	0.69	11.80	0.00	0.00	559.6	0.0	738.65	0.00	738.65	1													
15	255.0	29.39	0.00	50.08	0.00	0.72	1.78	0.85	1.00	0.83	41.62	0.00	0.00	1,488.9	0.0	2,376.65	0.00	2,376.65	1													
14	235.0	28.71	0.00	52.55	0.00	0.75	1.79	0.85	1.00	0.86	45.05	0.00	0.00	1,551.0	0.0	2,527.91	0.00	2,527.91	1													
13	222.5	28.26	0.00	14.32	0.00	0.82	1.83	0.85	1.00	0.91	13.05	0.00	0.00	451.5	0.0	738.41	0.00	738.41	1													
12	210.0	27.80	0.00	56.06	0.00	0.80	1.82	0.85	1.00	0.90	50.29	0.00	0.00	1,731.4	0.0	2,776.75	0.00	2,776.75	1													
11	190.0	27.02	0.00	60.81	0.00	0.87	1.88	0.85	1.00	0.95	58.07	0.00	0.00	1,865.1	0.0	3,229.33	0.00	3,229.33	2													
10	170.0	26.17	0.00	61.86	0.00	0.88	1.90	0.85	1.00	0.97	59.90	0.00	0.00	2,064.9	0.0	3,259.63	0.00	3,259.63	2													
9	150.0	25.25	0.00	61.64	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,066.3	0.0	3,118.23	0.00	3,118.23	2													
8	130.0	24.24	0.00	61.64	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,069.5	0.0	2,993.31	0.00	2,993.31	2													
7	110.0	23.11	0.00	61.64	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,074.3	0.0	2,853.79	0.00	2,853.79	2													
6	90.00	21.82	0.00	61.64	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	2,853.79	0.00	2,853.79	2													
5	70.00	20.31	0.00	61.64	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	2,508.06	0.00	2,508.06	2													
4	50.00	18.45	0.00	61.64	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	2,278.18	0.00	2,278.18	2													
3	30.00	16.38	0.00	61.64	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,091.2	0.0	2,023.15	0.00	2,023.15	2													
2	12.50	16.38	0.00	46.37	0.00	0.88	1.90	0.85	1.00	0.97	44.87	0.00	0.00	1,580.0	0.0	1,527.94	0.00	1,527.94	2													
1	2.50	16.38	0.00	15.56	0.00	1.00	2.10	0.85	1.00	1.00	15.56	0.00	0.00	539.7	0.0	585.33	0.00	313.44	2													
														26,396.2	0.0			35,958.21														

** = 2QzGhAg Controls

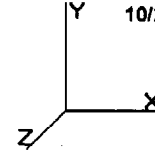
LoadCase Normal Ice

69.28 mph Wind Normal To Face with Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Wind Height (ft)	qz	Total Area		Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Ice Area		Total Weight (lb)	Weight Ice (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face													
			Flat Area (sqft)	Round Area (sqft)								Linear Area (sqft)	Total Area (sqft)																			
16	270.0	22.40	0.00	27.78	10.70	0.79	1.81	1.00	1.00	0.89	24.75	0.00	0.00	902.4	124.7	1,098.12	0.00	1,098.12	1													
15	255.0	22.04	0.00	79.80	29.53	1.00	2.10	1.00	1.00	1.00	79.80	0.00	0.00	2,714.3	252.7	4,027.41	0.00	3,372.84	1													
14	235.0	21.53	0.00	83.91	31.36	1.00	2.10	1.00	1.00	1.00	83.91	0.00	0.00	2,873.0	252.7	4,147.21	0.00	3,295.04	1													
13	222.5	21.20	0.00	22.94	8.62	1.00	2.10	1.00	1.00	1.00	22.94	0.00	0.00	801.8	76.7	1,116.43	0.00	810.99	1													
12	210.0	20.85	0.00	88.92	32.86	1.00	2.10	1.00	1.00	1.00	88.92	0.00	0.00	3,157.4	261.8	4,266.01	0.00	3,190.83	1													
11	190.0	20.26	0.00	95.34	34.53	1.00	2.10	1.00	1.00	1.00	95.34	0.00	0.00	3,494.8	261.8	4,434.50	0.00	3,100.88	2													
10	170.0	19.63	0.00	96.68	34.82	1.00	2.10	1.00	1.00	1.00	96.68	0.00	0.00	3,737.5	279.0	4,356.34	0.00	3,003.89	2													
9	150.0	18.94	0.00	96.17	34.53	1.00	2.10	1.00	1.00	1.00	96.17	0.00	0.00	3,771.2	271.0	4,181.12	0.00	2,898.36	2													
8	130.0	18.18	0.00	96.17	34.53	1.00	2.10	1.00	1.00	1.00	96.17	0.00	0.00	3,787.0	271.0	4,013.61	0.00	2,782.25	2													
7	110.0	17.33	0.00	96.17	34.53	1.00	2.10	1.00	1.00	1.00	96.17	0.00	0.00	3,812.9	271.0	3,828.55	0.00	2,652.57	2													
6	90.00	16.37	0.00	96.17	34.53	1.00	2.10	1.00	1.00	1.00	96.17	0.00	0.00	3,851.1	271.0	3,613.32	0.00	2,504.77	2													
5	70.00	15.23	0.00	96.17	34.53	1.00	2.10	1.00	1.00	1.00	96.17	0.00	0.00	3,851.1	271.0	3,362.97	0.00	2,331.22	2													
4	50.00	13.84	0.00	96.17	34.53	1.00	2.10	1.00	1.00	1.00	96.17	0.00	0.00	3,851.1	271.0	3,054.72	0.00	2,117.54	2													
3	30.00	12.29	0.00	96.17	34.53	1.00	2.10	1.00	1.00	1.00	96.17	0.00	0.00	3,871.0	271.0	2,712.77	0.00	1,880.50	2													
2	12.50	12.29	0.00	72.44	26.07	1.00	2.10	1.00	1.00	1.00	72.44	0.00	0.00	2,928.7	208.1	2,043.31	0.00	1,410.38	2													
1	2.50	12.29	0.00	24.26	8.70	1.00	2.10	1.00	1.00	1.00	24.26	0.00	0.00	989.7	69.9	684.43	0.00	235.07	2													
														48,395.0	3,684.4			36,685.23														

** = 2QzGhAg Controls



Gh : 1.09

Section Forces

LoadCase 60 deg Ice

69.28 mph Wind at 60 deg From Face with Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Wind Height		Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Ice Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice		Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face	
	(ft)	qz											Weight (lb)	Weight Ice (lb)					
16	270.0	22.40	0.00	27.78	10.70	0.79	1.81	0.80	1.00	0.89	24.75	0.00	0.00	902.4	124.7	1,098.12	0.00	1,098.12	1
15	255.0	22.04	0.00	79.60	29.53	1.00	2.10	0.80	1.00	1.00	79.60	0.00	0.00	2,714.3	252.7	4,027.41	0.00	3,372.84	1 **
14	235.0	21.53	0.00	83.91	31.36	1.00	2.10	0.80	1.00	1.00	83.91	0.00	0.00	2,873.0	252.7	4,147.21	0.00	3,295.04	1 **
13	222.5	21.20	0.00	22.94	8.62	1.00	2.10	0.80	1.00	1.00	22.94	0.00	0.00	801.8	76.7	1,116.43	0.00	810.99	1 **
12	210.0	20.85	0.00	88.92	32.86	1.00	2.10	0.80	1.00	1.00	88.92	0.00	0.00	3,157.4	261.8	4,256.01	0.00	3,190.83	1 **
11	190.0	20.26	0.00	95.34	34.53	1.00	2.10	0.80	1.00	1.00	95.34	0.00	0.00	3,494.8	261.8	4,434.50	0.00	3,100.88	2 **
10	170.0	19.63	0.00	96.68	34.82	1.00	2.10	0.80	1.00	1.00	96.68	0.00	0.00	3,737.5	279.0	4,356.34	0.00	3,003.89	2 **
9	150.0	18.94	0.00	96.17	34.53	1.00	2.10	0.80	1.00	1.00	96.17	0.00	0.00	3,771.2	271.0	4,181.12	0.00	2,898.36	2 **
8	130.0	18.18	0.00	96.17	34.53	1.00	2.10	0.80	1.00	1.00	96.17	0.00	0.00	3,787.0	271.0	4,013.61	0.00	2,782.25	2 **
7	110.0	17.33	0.00	96.17	34.53	1.00	2.10	0.80	1.00	1.00	96.17	0.00	0.00	3,812.9	271.0	3,826.55	0.00	2,652.57	2 **
6	90.00	16.37	0.00	96.17	34.53	1.00	2.10	0.80	1.00	1.00	96.17	0.00	0.00	3,851.1	271.0	3,613.32	0.00	2,504.77	2 **
5	70.00	15.23	0.00	96.17	34.53	1.00	2.10	0.80	1.00	1.00	96.17	0.00	0.00	3,851.1	271.0	3,362.97	0.00	2,331.22	2 **
4	50.00	13.84	0.00	96.17	34.53	1.00	2.10	0.80	1.00	1.00	96.17	0.00	0.00	3,851.1	271.0	3,054.72	0.00	2,117.54	2 **
3	30.00	12.29	0.00	96.17	34.53	1.00	2.10	0.80	1.00	1.00	96.17	0.00	0.00	3,871.0	271.0	2,712.77	0.00	1,880.50	2 **
2	12.50	12.29	0.00	72.44	26.07	1.00	2.10	0.80	1.00	1.00	72.44	0.00	0.00	2,928.7	208.1	2,043.31	0.00	1,410.38	2 **
1	2.50	12.29	0.00	24.26	8.70	1.00	2.10	0.80	1.00	1.00	24.26	0.00	0.00	989.7	69.9	684.43	0.00	235.07	2 **
													48,395.0	3,684.4			36,685.23		

** = 2QzGhAg Controls

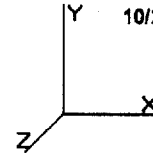
LoadCase 90 deg Ice

69.28 mph Wind at 90 deg From Face with Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Wind Height		Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Ice Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice		Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face	
	(ft)	qz											Weight (lb)	Weight Ice (lb)					
16	270.0	22.40	0.00	27.78	10.70	0.79	1.81	0.85	1.00	0.89	24.75	0.00	0.00	902.4	124.7	1,098.12	0.00	1,098.12	1
15	255.0	22.04	0.00	79.60	29.53	1.00	2.10	0.85	1.00	1.00	79.60	0.00	0.00	2,714.3	252.7	4,027.41	0.00	3,372.84	1 **
14	235.0	21.53	0.00	83.91	31.36	1.00	2.10	0.85	1.00	1.00	83.91	0.00	0.00	2,873.0	252.7	4,147.21	0.00	3,295.04	1 **
13	222.5	21.20	0.00	22.94	8.62	1.00	2.10	0.85	1.00	1.00	22.94	0.00	0.00	801.8	76.7	1,116.43	0.00	810.99	1 **
12	210.0	20.85	0.00	88.92	32.86	1.00	2.10	0.85	1.00	1.00	88.92	0.00	0.00	3,157.4	261.8	4,256.01	0.00	3,190.83	1 **
11	190.0	20.26	0.00	95.34	34.53	1.00	2.10	0.85	1.00	1.00	95.34	0.00	0.00	3,494.8	261.8	4,434.50	0.00	3,100.88	2 **
10	170.0	19.63	0.00	96.68	34.82	1.00	2.10	0.85	1.00	1.00	96.68	0.00	0.00	3,737.5	279.0	4,356.34	0.00	3,003.89	2 **
9	150.0	18.94	0.00	96.17	34.53	1.00	2.10	0.85	1.00	1.00	96.17	0.00	0.00	3,771.2	271.0	4,181.12	0.00	2,898.36	2 **
8	130.0	18.18	0.00	96.17	34.53	1.00	2.10	0.85	1.00	1.00	96.17	0.00	0.00	3,787.0	271.0	4,013.61	0.00	2,782.25	2 **
7	110.0	17.33	0.00	96.17	34.53	1.00	2.10	0.85	1.00	1.00	96.17	0.00	0.00	3,812.9	271.0	3,826.55	0.00	2,652.57	2 **
6	90.00	16.37	0.00	96.17	34.53	1.00	2.10	0.85	1.00	1.00	96.17	0.00	0.00	3,851.1	271.0	3,613.32	0.00	2,504.77	2 **
5	70.00	15.23	0.00	96.17	34.53	1.00	2.10	0.85	1.00	1.00	96.17	0.00	0.00	3,851.1	271.0	3,362.97	0.00	2,331.22	2 **
4	50.00	13.84	0.00	96.17	34.53	1.00	2.10	0.85	1.00	1.00	96.17	0.00	0.00	3,851.1	271.0	3,054.72	0.00	2,117.54	2 **
3	30.00	12.29	0.00	96.17	34.53	1.00	2.10	0.85	1.00	1.00	96.17	0.00	0.00	3,871.0	271.0	2,712.77	0.00	1,880.50	2 **
2	12.50	12.29	0.00	72.44	26.07	1.00	2.10	0.85	1.00	1.00	72.44	0.00	0.00	2,928.7	208.1	2,043.31	0.00	1,410.38	2 **
1	2.50	12.29	0.00	24.26	8.70	1.00	2.10	0.85	1.00	1.00	24.26	0.00	0.00	989.7	69.9	684.43	0.00	235.07	2 **
													48,395.0	3,684.4			36,685.23		

** = 2QzGhAg Controls



Gh : 1.09

Section Forces

LoadCase Normal

50.00 mph Wind Normal To Face with No Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Height (ft)	Wind qz	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Ice Weight (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
16	270.0	11.67	0.00	17.07	0.00	0.49	1.92	1.00	1.00	0.69	11.80	0.00	0.00	559.6	0.0	288.54	0.00	288.54	1
15	255.0	11.48	0.00	50.08	0.00	0.72	1.78	1.00	1.00	0.83	41.62	0.00	0.00	1,488.9	0.0	928.38	0.00	928.38	1
14	235.0	11.21	0.00	52.55	0.00	0.75	1.79	1.00	1.00	0.86	45.05	0.00	0.00	1,551.0	0.0	987.46	0.00	987.46	1
13	222.5	11.04	0.00	14.32	0.00	0.82	1.83	1.00	1.00	0.91	13.05	0.00	0.00	451.5	0.0	288.44	0.00	288.44	1
12	210.0	10.86	0.00	56.06	0.00	0.80	1.82	1.00	1.00	0.90	50.29	0.00	0.00	1,731.4	0.0	1,084.67	0.00	1,084.67	1
11	190.0	10.55	0.00	60.81	0.00	0.87	1.88	1.00	1.00	0.95	58.07	0.00	0.00	1,865.1	0.0	1,261.46	0.00	1,261.46	2
10	170.0	10.22	0.00	61.86	0.00	0.88	1.90	1.00	1.00	0.97	59.90	0.00	0.00	2,064.9	0.0	1,273.29	0.00	1,273.29	2
9	150.0	9.86	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,066.3	0.0	1,218.06	0.00	1,218.06	2
8	130.0	9.47	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,069.5	0.0	1,169.26	0.00	1,169.26	2
7	110.0	9.03	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,074.3	0.0	1,114.76	0.00	1,114.76	2
6	90.00	8.52	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	1,052.65	0.00	1,052.65	2
5	70.00	7.93	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	979.71	0.00	979.71	2
4	50.00	7.21	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	889.91	0.00	889.91	2
3	30.00	6.40	0.00	61.64	0.00	0.88	1.90	1.00	1.00	0.97	59.52	0.00	0.00	2,091.2	0.0	790.29	0.00	790.29	2
2	12.50	6.40	0.00	46.37	0.00	0.88	1.90	1.00	1.00	0.97	44.87	0.00	0.00	1,580.0	0.0	596.85	0.00	596.85	2
1	2.50	6.40	0.00	15.56	0.00	1.00	2.10	1.00	1.00	1.00	15.56	0.00	0.00	539.7	0.0	228.65	0.00	122.44	2 **
														26,396.2	0.0			14,046.17	

** = 2QzGhAg Controls

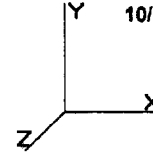
LoadCase 60 deg

50.00 mph Wind at 60 deg From Face with No Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Height (ft)	Wind qz	Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice Linear Area (sqft)	Total Weight (lb)	Ice Weight (lb)	Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face
16	270.0	11.87	0.00	17.07	0.00	0.49	1.92	0.80	1.00	0.69	11.80	0.00	0.00	559.6	0.0	288.54	0.00	288.54	1
15	255.0	11.48	0.00	50.08	0.00	0.72	1.78	0.80	1.00	0.83	41.62	0.00	0.00	1,488.9	0.0	928.38	0.00	928.38	1
14	235.0	11.21	0.00	52.55	0.00	0.75	1.79	0.80	1.00	0.86	45.05	0.00	0.00	1,551.0	0.0	987.46	0.00	987.46	1
13	222.5	11.04	0.00	14.32	0.00	0.82	1.83	0.80	1.00	0.91	13.05	0.00	0.00	451.5	0.0	288.44	0.00	288.44	1
12	210.0	10.86	0.00	56.06	0.00	0.80	1.82	0.80	1.00	0.90	50.29	0.00	0.00	1,731.4	0.0	1,084.67	0.00	1,084.67	1
11	190.0	10.55	0.00	60.81	0.00	0.87	1.88	0.80	1.00	0.95	58.07	0.00	0.00	1,865.1	0.0	1,261.46	0.00	1,261.46	2
10	170.0	10.22	0.00	61.86	0.00	0.88	1.90	0.80	1.00	0.97	59.90	0.00	0.00	2,064.9	0.0	1,273.29	0.00	1,273.29	2
9	150.0	9.86	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,066.3	0.0	1,218.06	0.00	1,218.06	2
8	130.0	9.47	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,069.5	0.0	1,169.26	0.00	1,169.26	2
7	110.0	9.03	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,074.3	0.0	1,114.76	0.00	1,114.76	2
6	90.00	8.52	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	1,052.65	0.00	1,052.65	2
5	70.00	7.93	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	979.71	0.00	979.71	2
4	50.00	7.21	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	889.91	0.00	889.91	2
3	30.00	6.40	0.00	61.64	0.00	0.88	1.90	0.80	1.00	0.97	59.52	0.00	0.00	2,091.2	0.0	790.29	0.00	790.29	2
2	12.50	6.40	0.00	46.37	0.00	0.88	1.90	0.80	1.00	0.97	44.87	0.00	0.00	1,580.0	0.0	596.85	0.00	596.85	2
1	2.50	6.40	0.00	15.56	0.00	1.00	2.10	0.80	1.00	1.00	15.56	0.00	0.00	539.7	0.0	228.65	0.00	122.44	2 **
														26,396.2	0.0			14,046.17	

** = 2QzGhAg Controls



Gh: 1.09

Section Forces

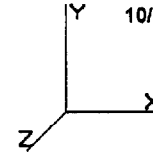
LoadCase 90 deg

50.00 mph Wind at 90 deg From Face with No Ice

Allow Stress Inc: 1.333
Dead LF: 1.000
Wind LF: 1.000

Sect Seq	Wind		Total Flat Area (sqft)	Total Round Area (sqft)	Ice Round Area (sqft)	Sol Ratio	Cf	Df	Dr	Rr	Eff Area (sqft)	Linear Area (sqft)	Ice		Struct Force (lb)	Linear Force (lb)	Total Force (lb)	Eff Face		
	Height (ft)	qz											Total Weight (lb)	Weight Ice (lb)						
16	270.0	11.67	0.00	17.07	0.00	0.49	1.92	0.85	1.00	0.69	11.80	0.00	0.00	559.6	0.0	288.54	0.00	288.54	1	
15	255.0	11.48	0.00	50.08	0.00	0.72	1.78	0.85	1.00	0.83	41.62	0.00	0.00	1,488.9	0.0	928.38	0.00	928.38	1	
14	235.0	11.21	0.00	52.55	0.00	0.75	1.79	0.85	1.00	0.86	45.05	0.00	0.00	1,551.0	0.0	987.46	0.00	987.46	1	
13	222.5	11.04	0.00	14.32	0.00	0.82	1.83	0.85	1.00	0.91	13.05	0.00	0.00	451.5	0.0	288.44	0.00	288.44	1	
12	210.0	10.86	0.00	56.06	0.00	0.80	1.82	0.85	1.00	0.90	50.29	0.00	0.00	1,731.4	0.0	1,084.67	0.00	1,084.67	1	
11	190.0	10.55	0.00	60.81	0.00	0.87	1.88	0.85	1.00	0.95	58.07	0.00	0.00	1,865.1	0.0	1,261.46	0.00	1,261.46	2	
10	170.0	10.22	0.00	61.86	0.00	0.88	1.90	0.85	1.00	0.97	59.90	0.00	0.00	2,064.9	0.0	1,273.29	0.00	1,273.29	2	
9	150.0	9.86	0.00	61.84	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,066.3	0.0	1,218.06	0.00	1,218.06	2	
8	130.0	9.47	0.00	61.84	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,069.5	0.0	1,169.26	0.00	1,169.26	2	
7	110.0	9.03	0.00	61.84	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,074.3	0.0	1,114.76	0.00	1,114.76	2	
6	90.00	8.52	0.00	61.84	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	1,052.65	0.00	1,052.65	2	
5	70.00	7.93	0.00	61.84	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	979.71	0.00	979.71	2	
4	50.00	7.21	0.00	61.84	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,087.5	0.0	889.91	0.00	889.91	2	
3	30.00	6.40	0.00	61.84	0.00	0.88	1.90	0.85	1.00	0.97	59.52	0.00	0.00	2,091.2	0.0	790.29	0.00	790.29	2	
2	12.50	6.40	0.00	46.37	0.00	0.88	1.90	0.85	1.00	0.97	44.87	0.00	0.00	1,580.0	0.0	596.85	0.00	596.85	2	
1	2.50	6.40	0.00	15.56	0.00	1.00	2.10	0.85	1.00	1.00	15.56	0.00	0.00	539.7	0.0	228.65	0.00	122.44	2 **	
													26,396.2	0.0			14,046.17			

** = 2QzGhAg Controls



Tower Loading

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Weight (lb)	No Ice CaAa (sf)	CaAa Factor	Weight (lb)	Ice CaAa (sf)	CaAa Factor	Distance From Face (ft)	X Angle (deg)	Vert Ecc (ft)
271.0	Metawave High Gain	3	150.00	25.200	0.75	200.00	26.600	0.75	0.000	0.00	0.000
271.0	Sector mount	3	400.00	10.000	0.75	600.00	14.000	0.75	0.000	0.00	0.000
271.0	Haxeltine 806-105-11-0	12	17.00	3.900	0.75	58.00	4.430	0.75	0.000	0.00	0.000
265.0	Std. MW Dish w/Para.	1	162.00	24.410	1.00	321.00	25.090	1.00	0.000	0.00	0.000
260.0	Grid MW Dish, 3' Dia.	1	51.00	5.000	1.00	102.00	12.000	1.00	0.000	0.00	0.000
260.0	Sector mount	3	400.00	10.000	0.75	600.00	14.000	0.75	0.000	0.00	0.000
260.0	Allgon 7182.15	9	10.00	2.890	0.75	24.00	3.360	0.75	0.000	0.00	0.000
241.0	HP MW Dish, 8' Dia.	1	470.00	63.420	1.00	1010.00	64.750	1.00	0.000	0.00	0.000
231.0	Std. MW Dish w/Para.	1	162.00	24.410	1.00	321.00	25.090	1.00	0.000	0.00	0.000
220.0	RR65-18-00NP	3	12.00	5.230	1.00	35.00	5.800	1.00	0.000	0.00	0.000
220.0	4' stand-off	3	41.00	3.000	0.67	128.00	4.000	0.67	0.000	0.00	0.000
216.0	RFU	3	20.00	5.820	1.00	63.00	6.440	1.00	0.000	0.00	0.000
200.0	Antel BSA-185065/10CF-2	6	9.50	3.600	1.00	27.00	4.200	1.00	0.000	0.00	0.000
200.0	Sector Mounts	3	400.00	10.000	0.75	600.00	14.000	0.75	0.000	0.00	0.000
192.0	Standoff Mount	1	150.00	4.000	1.00	250.00	6.000	1.00	0.000	0.00	0.000
192.0	8' Omni	1	12.00	2.500	1.00	20.00	2.800	1.00	0.000	0.00	4.250
168.0	Standoff Mount	1	150.00	4.000	1.00	250.00	6.000	1.00	0.000	0.00	0.000
168.0	8' Omni	2	12.00	2.500	1.00	20.00	2.800	1.00	0.000	0.00	4.250
155.0	Std. MW Dish w/o Radome,	1	188.00	20.910	1.00	277.00	21.790	1.00	0.000	0.00	0.000
125.0	Standoff Mount	1	150.00	4.000	1.00	250.00	6.000	1.00	0.000	0.00	0.000
125.0	12' Omni	2	40.00	4.220	1.00	75.00	5.860	1.00	0.000	0.00	8.285
100.0	Standoff Mount	1	150.00	4.000	1.00	250.00	6.000	1.00	0.000	0.00	0.000
100.0	Cushcraft S8063B	1	10.00	2.000	1.00	20.00	3.000	1.00	0.000	0.00	9.040
38.00	GPS Antenna	1	15.00	1.000	1.00	50.00	1.500	1.00	0.000	0.00	2.000
25.00	GPS Antenna	1	15.00	1.000	1.00	50.00	1.500	1.00	0.000	0.00	2.000
Totals		85	3196.50			5601.00			Number of Appurtenances : 25		

Linear Appurtenance Properties

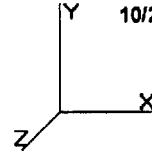
Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Wind	Spread On Faces	Bundling Arrangement
0.00	271.0	1 5/8" Coax	12	1.98	1.04	100.00	1	Separate
0.00	271.0	1 5/8" Coax	12	1.98	1.04	100.00	2	Separate
0.00	265.0	2" Coax	1	2.00	1.04	100.00	3	Separate
0.00	260.0	1 5/8" Coax	9	1.98	1.04	100.00	3	Separate
0.00	260.0	1/2" Coax	1	0.65	0.16	100.00	3	Separate
0.00	241.0	7/8" Coax	1	1.11	0.52	100.00	1	Separate
0.00	231.0	1 5/8" Coax	1	1.98	1.04	100.00	1	Separate
0.00	220.0	1/2" Coax	3	0.65	0.16	100.00	3	Separate
0.00	216.0	3/8" Coax	3	0.44	0.08	0.00	3	Separate
0.00	200.0	1 5/8" Coax	6	1.98	1.04	50.00	2	Separate
0.00	192.0	1 1/4" Coax	1	1.55	0.66	0.00	1	Separate
0.00	168.0	7/8" Coax	2	1.11	0.52	0.00	1,2	Separate
0.00	155.0	EW90	1	1.32	0.32	0.00	1	Separate
0.00	125.0	1/2" Coax	2	0.65	0.16	0.00	1,2	Separate
0.00	100.0	1 1/2" Coax	1	1.55	0.66	0.00	1	Separate
0.00	38.00	1/2" Coax	1	0.65	0.16	0.00	1	Separate



Site Number: 10047
Location: Portland, ME

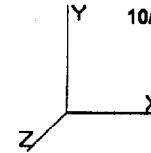
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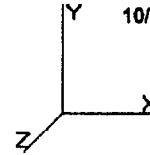
Tower Loading

0.00 25.00 1/2" Coax 1 0.65 0.16 0.00 1 Separate



Force/Stress Summary

Section: 1		PIROD42B		Bot Elev (ft): 0.00				Height (ft): 5.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 2 1/4" SOLID	-99.92	Normal Ice	1.80	100	100	100	38.3	34.7	138.16	0	0	0.00	0.00	72 Member
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	SOL - 3/4" SOLID	-4.36	Normal Ice	2.440	50	50	50	78.1	25.9	11.42	0	0	0.00	0.00	38 Member
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG		0.00		0	0.00	0	0	0.00	0.00	0					
HORIZ SOL - 3/4" SOLID		13.40	Normal Ice	50	17.67	0	0	0.00	0.00	75	Member				
DIAG SOL - 3/4" SOLID		2.14	Normal Ice	50	17.67	0	0	0.00	0.00	12	Member				
Section: 2		PIROD42		Bot Elev (ft): 5.00				Height (ft): 15.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 2 1/4" SOLID	-91.25	Normal Ice	2.39	100	100	100	51.0	32.3	128.29	0	0	0.00	0.00	71 Member
HORIZ		0.00		0.000	0	0	0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	SOL - 3/4" SOLID	-0.89	Normal Ice	4.238	50	50	50	135.6	10.8	4.78	0	0	0.00	0.00	18 Member
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG		0.00		0	0.00	0	0	0.00	0.00	0					
HORIZ SOL - 3/4" SOLID		5.90	Normal Ice	50	17.67	0	0	0.00	0.00	33	Member				
DIAG SOL - 3/4" SOLID		0.55	Normal Ice	50	17.67	0	0	0.00	0.00	3	Member				
Section: 3		1		Bot Elev (ft): 20.00				Height (ft): 20.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 2 1/4" SOLID	-98.02	Normal Ice	2.33	100	100	100	49.8	32.5	129.28	0	0	0.00	0.00	75 Member
HORIZ SOL - 3/4" SOLID		-0.19	Normal No Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	10 Member
DIAG	SOL - 3/4" SOLID	-1.85	90 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	38 Member
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG		0.00		0	0.00	0	0	0.00	0.00	0					
HORIZ SOL - 3/4" SOLID		0.89	90 deg Ice	50	17.67	0	0	0.00	0.00	5	Member				
DIAG SOL - 3/4" SOLID		0.92	90 deg No Ice	50	17.67	0	0	0.00	0.00	5	Member				



Force/Stress Summary

Section: 4		1		Bot Elev (ft): 40.00				Height (ft): 20.000								
		Force		Len		Bracing %		Member		Shear Bear		Use				
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	Fa (ksi)	Cap (kip)	Num Bolts	Num Holes	(kip)	(kip)	%	Controls
LEG	SOL - 2 1/4" SOLID	-116.06	Normal Ice	2.33	100	100	100	49.8	32.5	129.28	0	0	0.00	0.00	89	Member
HORIZ	SOL - 3/4" SOLID	-0.19	60 deg No Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	10	Member
DIAG	SOL - 3/4" SOLID	-3.40	90 deg No Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	70	Member

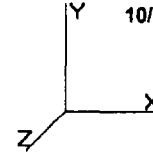
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG		0.00		0	0.00	0	0	0.00	0.00	0	
HORIZ	SOL - 3/4" SOLID	2.05	Normal No Ice	50	17.67	0	0	0.00	0.00	11	Member
DIAG	SOL - 3/4" SOLID	3.01	90 deg No Ice	50	17.67	0	0	0.00	0.00	17	Member

Section: 5		1		Bot Elev (ft): 60.00				Height (ft): 20.000								
		Force		Len		Bracing %		Member		Shear Bear		Use				
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	Fa (ksi)	Cap (kip)	Num Bolts	Num Holes	(kip)	(kip)	%	Controls
LEG	SOL - 2 1/4" SOLID	-108.12	Normal Ice	2.33	100	100	100	49.8	32.5	129.28	0	0	0.00	0.00	83	Member
HORIZ	SOL - 3/4" SOLID	-0.16	Normal No Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	8	Member
DIAG	SOL - 3/4" SOLID	-1.97	90 deg No Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	40	Member

Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG		0.00		0	0.00	0	0	0.00	0.00	0	
HORIZ	SOL - 3/4" SOLID	0.92	60 deg No Ice	50	17.67	0	0	0.00	0.00	5	Member
DIAG	SOL - 3/4" SOLID	1.27	90 deg No Ice	50	17.67	0	0	0.00	0.00	7	Member

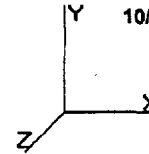
Section: 6		1		Bot Elev (ft): 80.00				Height (ft): 20.000								
		Force		Len		Bracing %		Member		Shear Bear		Use				
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	Fa (ksi)	Cap (kip)	Num Bolts	Num Holes	(kip)	(kip)	%	Controls
LEG	SOL - 2 1/4" SOLID	-101.75	Normal Ice	2.33	100	100	100	49.8	32.5	129.28	0	0	0.00	0.00	78	Member
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	SOL - 3/4" SOLID	-1.46	90 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	30	Member

Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG		0.00		0	0.00	0	0	0.00	0.00	0	
HORIZ	SOL - 3/4" SOLID	0.90	60 deg Ice	50	17.67	0	0	0.00	0.00	5	Member
DIAG	SOL - 3/4" SOLID	0.71	60 deg No Ice	50	17.67	0	0	0.00	0.00	4	Member



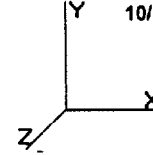
Force/Stress Summary

Section: 7		1		Bot Elev (ft): 100.0				Height (ft): 20.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 2 1/4" SOLID	-111.55	Normal Ice	2.33	100	100	100	49.8	32.5	129.28	0	0	0.00	0.00	86 Member
HORIZ	SOL - 3/4" SOLID	-0.55	60 deg No Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	31 Member
DIAG	SOL - 3/4" SOLID	-3.50	90 deg No Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	72 Member
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG		0.00		0	0.00	0	0	0.00	0.00	0					
HORIZ	SOL - 3/4" SOLID	1.72	Normal No Ice	50	17.67	0	0	0.00	0.00	9	Member				
DIAG	SOL - 3/4" SOLID	4.06	90 deg No Ice	50	17.67	0	0	0.00	0.00	22	Member				
Section: 8		1		Bot Elev (ft): 120.0				Height (ft): 20.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 2 1/4" SOLID	-89.52	Normal Ice	2.33	100	100	100	49.8	32.5	129.28	0	0	0.00	0.00	69 Member
HORIZ	SOL - 3/4" SOLID	-0.61	Normal No Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	34 Member
DIAG	SOL - 3/4" SOLID	-2.77	90 deg No Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	57 Member
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG		0.00		0	0.00	0	0	0.00	0.00	0					
HORIZ	SOL - 3/4" SOLID	1.24	60 deg Ice	50	17.67	0	0	0.00	0.00	7	Member				
DIAG	SOL - 3/4" SOLID	2.18	90 deg No Ice	50	17.67	0	0	0.00	0.00	12	Member				
Section: 9		1		Bot Elev (ft): 140.0				Height (ft): 20.000							
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls
LEG	SOL - 2 1/4" SOLID	-75.18	Normal Ice	2.33	100	100	100	49.8	32.5	129.28	0	0	0.00	0.00	58 Member
HORIZ	SOL - 3/4" SOLID	-0.10	Normal No Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	5 Member
DIAG	SOL - 3/4" SOLID	-1.77	60 deg No Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	36 Member
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG		0.00		0	0.00	0	0	0.00	0.00	0					
HORIZ	SOL - 3/4" SOLID	0.74	60 deg No Ice	50	17.67	0	0	0.00	0.00	4	Member				
DIAG	SOL - 3/4" SOLID	1.19	60 deg No Ice	50	17.67	0	0	0.00	0.00	6	Member				



Force/Stress Summary

Section: 10 1		Bot Elev (ft): 160.0						Height (ft): 20.000								
		Force		Len		Bracing %		Member		Shear Bear		Use				
		(kip)	Load Case	(ft)	X	Y	Z	KL/R	Fa (ksi)	Cap (kip)	Num Bolts	Num Holes	(kip)	(kip)	%	Controls
Max Compression Member																
LEG	SOL - 2 1/4" SOLID	-72.91	Normal Ice	2.33	100	100	100	49.8	32.5	129.28	0	0	0.00	0.00	56	Member
HORIZ	SOL - 3/4" SOLID	-0.58	60 deg Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	32	Member
DIAG	SOL - 3/4" SOLID	-2.63	90 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	54	Member
Max Tension Member																
LEG		0.00			0	0.00	0	0	0.00	0.00	0	0				
HORIZ	SOL - 3/4" SOLID	1.25	Normal Ice	50	17.67	0	0		0.00	0.00	7				Member	
DIAG	SOL - 3/4" SOLID	2.16	90 deg No Ice	50	17.67	0	0		0.00	0.00	12				Member	
Section: 11 2		Bot Elev (ft): 180.0						Height (ft): 20.000								
		Force		Len		Bracing %		Member		Shear Bear		Use				
		(kip)	Load Case	(ft)	X	Y	Z	KL/R	Fa (ksi)	Cap (kip)	Num Bolts	Num Holes	(kip)	(kip)	%	Controls
Max Compression Member																
LEG	SOL - 2" SOLID	-89.89	Normal Ice	2.33	100	100	100	56.0	31.2	97.97	0	0	0.00	0.00	71	Member
HORIZ	SOL - 3/4" SOLID	-0.36	Normal Ice	3.500	80	80	80	179.2	6.2	2.74	0	0	0.00	0.00	13	Member
DIAG	SOL - 3/4" SOLID	-2.04	90 deg Ice	4.206	47	47	47	126.5	12.4	5.48	0	0	0.00	0.00	37	Member
Max Tension Member																
LEG		0.00			0	0.00	0	0	0.00	0.00	0	0				
HORIZ	SOL - 3/4" SOLID	0.91	60 deg Ice	50	17.67	0	0		0.00	0.00	5				Member	
DIAG	SOL - 3/4" SOLID	1.44	90 deg Ice	50	17.67	0	0		0.00	0.00	8				Member	
Section: 12 2		Bot Elev (ft): 200.0						Height (ft): 20.000								
		Force		Len		Bracing %		Member		Shear Bear		Use				
		(kip)	Load Case	(ft)	X	Y	Z	KL/R	Fa (ksi)	Cap (kip)	Num Bolts	Num Holes	(kip)	(kip)	%	Controls
Max Compression Member																
LEG	SOL - 2" SOLID	-88.24	Normal Ice	2.33	100	100	100	56.0	31.2	97.97	0	0	0.00	0.00	69	Member
HORIZ	SOL - 3/4" SOLID	-1.73	60 deg Ice	3.500	80	80	80	179.2	6.2	2.74	0	0	0.00	0.00	63	Member
DIAG	SOL - 3/4" SOLID	-4.81	90 deg Ice	4.206	47	47	47	126.5	12.4	5.48	0	0	0.00	0.00	87	Member
Max Tension Member																
LEG	SOL - 2" SOLID	8.77	60 deg No Ice	50	125.66	0	0		0.00	0.00	8				Member	
HORIZ	SOL - 3/4" SOLID	1.96	Normal Ice	50	17.67	0	0		0.00	0.00	11				Member	
DIAG	SOL - 3/4" SOLID	4.55	90 deg Ice	50	17.67	0	0		0.00	0.00	25				Member	



Force/Stress Summary

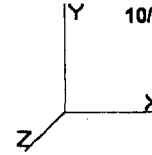
Section: 13		2 - 5'		Bot Elev (ft): 220.0				Height (ft): 5.000								
		Force		Len		Bracing %		Member		Shear Bear		Use				
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	Fa (ksi)	Cap (kip)	Num Bolts	Num Holes	Cap (kip)	Cap (kip)	%	Controls
LEG	SOL - 2" SOLID	-37.63	Normal Ice	2.17	100	100	100	52.0	32.0	100.67	0	0	0.00	0.00	37	Member
HORIZ	SOL - 3/4" SOLID	-1.31	60 deg Ice	3.500	80	80	80	179.2	6.2	2.74	0	0	0.00	0.00	47	Member
DIAG	SOL - 3/4" SOLID	-3.87	90 deg Ice	4.117	50	50	50	131.7	11.5	5.07	0	0	0.00	0.00	76	Member
Max Tension Member		(kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls					
LEG		0.00		0	0.00	0	0	0.00	0.00	0	Member					
HORIZ	SOL - 3/4" SOLID	1.38	Normal Ice	50	17.67	0	0	0.00	0.00	7	Member					
DIAG	SOL - 3/4" SOLID	3.79	Normal Ice	50	17.67	0	0	0.00	0.00	21	Member					
Section: 14		3		Bot Elev (ft): 225.0				Height (ft): 20.000								
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	Fa (ksi)	Cap (kip)	Num Bolts	Num Holes	Cap (kip)	Cap (kip)	%	Controls
LEG	SOL - 1 3/4" SOLID	-58.64	60 deg Ice	2.33	100	100	100	64.0	29.4	70.63	0	0	0.00	0.00	83	Member
HORIZ	SOL - 3/4" SOLID	-1.39	Normal Ice	3.500	80	80	80	179.2	6.2	2.74	0	0	0.00	0.00	50	Member
DIAG	SOL - 3/4" SOLID	-3.53	90 deg Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	72	Member
Max Tension Member		(kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls					
LEG	SOL - 1 3/4" SOLID	8.40	Normal No Ice	50	96.21	0	0	0.00	0.00	8	Member					
HORIZ	SOL - 3/4" SOLID	1.76	60 deg Ice	50	17.67	0	0	0.00	0.00	9	Member					
DIAG	SOL - 3/4" SOLID	3.28	60 deg Ice	50	17.67	0	0	0.00	0.00	18	Member					
Section: 15		3		Bot Elev (ft): 245.0				Height (ft): 20.000								
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	Fa (ksi)	Cap (kip)	Num Bolts	Num Holes	Cap (kip)	Cap (kip)	%	Controls
LEG	SOL - 1 3/4" SOLID	-83.15	60 deg Ice	2.33	100	100	100	64.0	29.4	70.63	0	0	0.00	0.00	89	Member
HORIZ	SOL - 3/4" SOLID	-0.77	Normal Ice	3.500	80	80	80	179.2	6.2	2.74	0	0	0.00	0.00	28	Member
DIAG	SOL - 3/4" SOLID	-2.13	Normal Ice	4.206	50	50	50	134.6	11.0	4.85	0	0	0.00	0.00	43	Member
Max Tension Member		(kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls					
LEG	SOL - 1 3/4" SOLID	9.85	Normal Ice	50	96.21	0	0	0.00	0.00	10	Member					
HORIZ	SOL - 3/4" SOLID	0.85	60 deg Ice	50	17.67	0	0	0.00	0.00	4	Member					
DIAG	SOL - 3/4" SOLID	1.61	Normal Ice	50	17.67	0	0	0.00	0.00	9	Member					



Site Number: 10047
 Location: Portland, ME

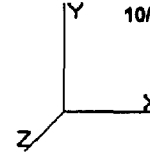
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Force/Stress Summary

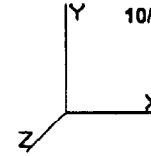
Section: 16 Top		Bot Elev (ft): 265.0		Height (ft): 10.000								Shear Bear		Use	
Max Compression Member		Force (kip)	Load Case	Len (ft)	Bracing %			Fa (ksi)	Member Cap Num		Num	Cap (kip)	Cap (kip)	%	Controls
					X	Y	Z	KL/R	(kip)	Bolts	Holes				
LEG	SOL - 1 3/4" SOLID	-57.16	60 deg Ice	0.67	100	100	100	18.3	38.0	91.33	0	0	0.00	0.00	62 Member
HORIZ	SOL - 3/4" SOLID	0.00	60 deg No Ice	3.500	100	100	100	224.0	4.0	1.75	0	0	0.00	0.00	0 Member
DIAG	SOL - 3/4" SOLID	-4.04	90 deg Ice	4.116	50	50	50	131.7	11.5	5.07	0	0	0.00	0.00	79 Member
Max Tension Member		Force (kip)	Load Case	Fy (ksi)	Cap (kip)	Num Bolts	Num Holes	Shear Cap (kip)	Bear Cap (kip)	Use %	Controls				
LEG	SOL - 1 3/4" SOLID	5.00	Normal Ice	50	96.21	0	0	0.00	0.00	5	Member				
HORIZ	SOL - 3/4" SOLID	0.04	Normal No Ice	50	17.67	0	0	0.00	0.00	0	Member				
DIAG	SOL - 3/4" SOLID	3.74	90 deg Ice	50	17.67	0	0	0.00	0.00	21	Member				



Support Forces Summary

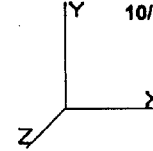
Load Case	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
90 deg	A1b	4.44	-8.72	-2.90	
	A1a	-25.30	-43.74	-14.24	
	A1	-0.68	-26.08	17.09	
	1	-0.52	116.57	-0.04	
60 deg	A1b	8.47	-16.00	-5.53	
	A1a	-26.57	-46.40	-15.35	
	A1	-0.56	-15.99	10.10	
	1	-0.49	116.37	-0.28	
Normal	A1b	20.46	-35.94	-12.49	
	A1a	-20.46	-35.94	-12.49	
	A1	0.00	-5.57	3.39	
	1	0.00	115.54	-0.48	
90 deg Ice	A1b	3.87	-13.09	-3.86	
	A1a	-63.97	-112.40	-34.61	
	A1	-3.60	-62.86	39.08	
	1	0.08	257.46	-0.62	
60 deg Ice	A1b	10.84	-25.77	-9.40	
	A1a	-62.65	-111.63	-36.18	
	A1	-2.72	-25.73	14.11	
	1	-0.59	231.96	-0.35	
Normal Ice	A1b	51.63	-96.36	-33.70	
	A1a	-51.63	-96.37	-33.88	
	A1	0.00	-10.18	3.27	
	1	0.00	272.28	0.49	
90 deg No Ice	A1b	2.33	-7.73	-2.19	
	A1a	-66.88	-96.36	-31.45	
	A1	-2.00	-63.10	34.16	
	1	-0.39	197.26	-0.53	
60 deg No Ice	A1b	7.06	-16.78	-5.71	
	A1a	-64.02	-95.18	-31.20	
	A1	-1.42	-16.74	8.99	
	1	-0.94	166.62	-0.55	
Normal No Ice	A1b	47.11	-84.53	-29.47	
	A1a	-47.11	-84.53	-29.45	
	A1	0.00	-5.92	1.95	
	1	0.00	213.18	0.02	

Max Uplift: 112.40 (kip)
Max Down: 272.28 (kip)
Max Shear: 72.73 (kip)

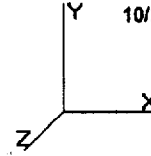


Cable Forces Summary

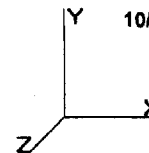
Load Case	Elevation (ft)	Cable	Node 1	Node 2	Allow Tension (kip)	Applied Tension (kip)	Use %	
Normal No Ice	54.67	9/16 EHS	A1	29	17.50	0.24	1	
		9/16 EHS	A1b	29a	17.50	8.77	50	
		9/16 EHS	A1a	29b	17.50	8.77	50	
	110.00	5/8 EHS	A1	57	21.20	0.09	0	
		5/8 EHS	A1b	57a	21.20	13.68	64	
		5/8 EHS	A1a	57b	21.20	13.67	64	
	165.33	11/16 EHS	A1	85	25.00	0.45	1	
		11/16 EHS	A1b	85a	25.00	16.45	65	
		11/16 EHS	A1a	85b	25.00	16.43	65	
	214.67	5/8 EHS	A1	109	21.20	0.84	3	
		5/8 EHS	A1b	109a	21.20	11.77	55	
		5/8 EHS	A1a	109b	21.20	11.76	55	
		5/8 EHS	A1	T5	21.20	0.84	3	
		5/8 EHS	A1a	T5b	21.20	12.02	56	
		5/8 EHS	A1b	T5a	21.20	11.24	53	
		5/8 EHS	A1b	T5	21.20	12.18	57	
		5/8 EHS	A1a	T5a	21.20	11.39	53	
		5/8 EHS	A1	T5b	21.20	0.85	4	
		270.00	11/16 EHS	A1	139	25.00	1.57	6
			11/16 EHS	A1b	139a	25.00	11.55	46
			11/16 EHS	A1a	139b	25.00	11.58	46
	5/8 EHS		A1	T7	21.20	1.47	6	
	5/8 EHS		A1a	T7b	21.20	10.34	48	
	5/8 EHS		A1b	T7a	21.20	8.77	41	
	5/8 EHS		A1b	T7	21.20	10.43	49	
	5/8 EHS		A1a	T7a	21.20	8.90	41	
	5/8 EHS		A1	T7b	21.20	1.48	6	
	60 deg No Ice	54.67	9/16 EHS	A1	29	17.50	1.28	7
			9/16 EHS	A1b	29a	17.50	1.24	7
			9/16 EHS	A1a	29b	17.50	9.35	53
110.00		5/8 EHS	A1	57	21.20	1.29	6	
		5/8 EHS	A1b	57a	21.20	1.27	5	
		5/8 EHS	A1a	57b	21.20	14.74	69	
165.33		11/16 EHS	A1	85	25.00	1.84	7	
		11/16 EHS	A1b	85a	25.00	1.83	7	
		11/16 EHS	A1a	85b	25.00	18.37	73	
214.67		5/8 EHS	A1	109	21.20	2.26	10	
		5/8 EHS	A1b	109a	21.20	2.27	10	
		5/8 EHS	A1a	109b	21.20	13.42	63	
		5/8 EHS	A1	T5	21.20	2.36	11	
		5/8 EHS	A1a	T5b	21.20	13.43	63	
		5/8 EHS	A1b	T5a	21.20	2.20	10	
		5/8 EHS	A1b	T5	21.20	2.33	11	
		5/8 EHS	A1a	T5a	21.20	13.24	62	
		5/8 EHS	A1	T5b	21.20	2.16	10	
		270.00	11/16 EHS	A1	139	25.00	3.47	13
			11/16 EHS	A1b	139a	25.00	3.50	13
			11/16 EHS	A1a	139b	25.00	13.27	53
5/8 EHS	A1		T7	21.20	3.38	15		
5/8 EHS	A1a		T7b	21.20	11.02	51		
5/8 EHS	A1b		T7a	21.20	3.00	14		



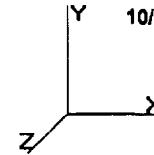
		5/8 EHS	A1b	T7	21.20	3.34	16
		5/8 EHS	A1a	T7a	21.20	10.80	50
		5/8 EHS	A1	T7b	21.20	2.92	13
90 deg No Ice	54.67	9/16 EHS	A1	29	17.50	5.60	32
		9/16 EHS	A1b	29a	17.50	0.32	1
		9/16 EHS	A1a	29b	17.50	10.12	57
110.00		5/8 EHS	A1	57	21.20	8.22	38
		5/8 EHS	A1b	57a	21.20	0.35	1
		5/8 EHS	A1a	57b	21.20	15.94	75
165.33		11/16 EHS	A1	85	25.00	9.64	38
		11/16 EHS	A1b	85a	25.00	0.69	2
		11/16 EHS	A1a	85b	25.00	19.31	77
214.67		5/8 EHS	A1	109	21.20	7.26	34
		5/8 EHS	A1b	109a	21.20	1.07	5
		5/8 EHS	A1a	109b	21.20	13.77	64
270.00		5/8 EHS	A1	T5	21.20	7.71	36
		5/8 EHS	A1a	T5b	21.20	13.51	63
		5/8 EHS	A1b	T5a	21.20	1.05	4
		5/8 EHS	A1b	T5	21.20	1.10	5
		5/8 EHS	A1a	T5a	21.20	13.86	65
		5/8 EHS	A1	T5b	21.20	6.77	31
		11/16 EHS	A1	139	25.00	7.71	30
		11/16 EHS	A1b	139a	25.00	1.90	7
		11/16 EHS	A1a	139b	25.00	13.37	53
		5/8 EHS	A1	T7	21.20	7.40	34
		5/8 EHS	A1a	T7b	21.20	10.58	49
		5/8 EHS	A1b	T7a	21.20	1.72	8
		5/8 EHS	A1b	T7	21.20	1.80	8
		5/8 EHS	A1a	T7a	21.20	11.43	53
		5/8 EHS	A1	T7b	21.20	5.81	27
Normal Ice	54.67	9/16 EHS	A1	29	17.50	0.59	3
		9/16 EHS	A1b	29a	17.50	8.14	46
		9/16 EHS	A1a	29b	17.50	8.15	46
110.00		5/8 EHS	A1	57	21.20	0.20	0
		5/8 EHS	A1b	57a	21.20	13.05	61
		5/8 EHS	A1a	57b	21.20	13.04	61
165.33		11/16 EHS	A1	85	25.00	0.82	3
		11/16 EHS	A1b	85a	25.00	17.42	69
		11/16 EHS	A1a	85b	25.00	17.39	69
214.67		5/8 EHS	A1	109	21.20	1.50	7
		5/8 EHS	A1b	109a	21.20	13.83	65
		5/8 EHS	A1a	109b	21.20	13.82	65
270.00		5/8 EHS	A1	T5	21.20	1.51	7
		5/8 EHS	A1a	T5b	21.20	13.80	65
		5/8 EHS	A1b	T5a	21.20	13.71	64
		5/8 EHS	A1b	T5	21.20	13.92	65
		5/8 EHS	A1a	T5a	21.20	13.82	65
		5/8 EHS	A1	T5b	21.20	1.52	7
		11/16 EHS	A1	139	25.00	2.54	10
		11/16 EHS	A1b	139a	25.00	14.57	58
		11/16 EHS	A1a	139b	25.00	14.59	58
		5/8 EHS	A1	T7	21.20	2.49	11
		5/8 EHS	A1a	T7b	21.20	12.95	61
		5/8 EHS	A1b	T7a	21.20	11.66	55
		5/8 EHS	A1b	T7	21.20	13.01	61
		5/8 EHS	A1a	T7a	21.20	11.76	55
		5/8 EHS	A1	T7b	21.20	2.49	11



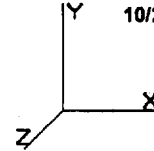
60 deg Ice	54.67	9/16 EHS	A1	29	17.50	2.39	13
		9/16 EHS	A1b	29a	17.50	2.35	13
		9/16 EHS	A1a	29b	17.50	9.68	55
	110.00	5/8 EHS	A1	57	21.20	2.29	10
		5/8 EHS	A1b	57a	21.20	2.27	10
		5/8 EHS	A1a	57b	21.20	15.01	70
	165.33	11/16 EHS	A1	85	25.00	2.95	11
		11/16 EHS	A1b	85a	25.00	2.95	11
		11/16 EHS	A1a	85b	25.00	20.04	80
	214.67	5/8 EHS	A1	109	21.20	3.59	16
		5/8 EHS	A1b	109a	21.20	3.59	16
		5/8 EHS	A1a	109b	21.20	16.08	75
		5/8 EHS	A1	T5	21.20	3.66	17
		5/8 EHS	A1a	T5b	21.20	16.14	76
		5/8 EHS	A1b	T5a	21.20	3.53	16
		5/8 EHS	A1b	T5	21.20	3.64	17
		5/8 EHS	A1a	T5a	21.20	15.99	75
		5/8 EHS	A1	T5b	21.20	3.49	16
	270.00	11/16 EHS	A1	139	25.00	5.04	20
		11/16 EHS	A1b	139a	25.00	5.07	20
		11/16 EHS	A1a	139b	25.00	16.98	67
		5/8 EHS	A1	T7	21.20	4.98	23
		5/8 EHS	A1a	T7b	21.20	14.25	67
		5/8 EHS	A1b	T7a	21.20	4.60	21
		5/8 EHS	A1b	T7	21.20	4.95	23
		5/8 EHS	A1a	T7a	21.20	14.06	66
		5/8 EHS	A1	T7b	21.20	4.53	21
90 deg Ice	54.67	9/16 EHS	A1	29	17.50	5.53	31
		9/16 EHS	A1b	29a	17.50	0.80	4
		9/16 EHS	A1a	29b	17.50	9.64	55
	110.00	5/8 EHS	A1	57	21.20	8.18	38
		5/8 EHS	A1b	57a	21.20	0.71	3
		5/8 EHS	A1a	57b	21.20	15.43	72
	165.33	11/16 EHS	A1	85	25.00	10.55	42
		11/16 EHS	A1b	85a	25.00	1.23	4
		11/16 EHS	A1a	85b	25.00	20.50	81
	214.67	5/8 EHS	A1	109	21.20	8.88	41
		5/8 EHS	A1b	109a	21.20	1.88	8
		5/8 EHS	A1a	109b	21.20	16.18	76
		5/8 EHS	A1	T5	21.20	9.06	42
		5/8 EHS	A1a	T5b	21.20	16.24	76
		5/8 EHS	A1b	T5a	21.20	1.85	8
		5/8 EHS	A1b	T5	21.20	1.93	9
		5/8 EHS	A1a	T5a	21.20	16.08	75
		5/8 EHS	A1	T5b	21.20	8.67	40
	270.00	11/16 EHS	A1	139	25.00	9.95	39
		11/16 EHS	A1b	139a	25.00	3.01	12
		11/16 EHS	A1a	139b	25.00	16.87	67
		5/8 EHS	A1	T7	21.20	9.43	44
		5/8 EHS	A1a	T7b	21.20	13.77	64
		5/8 EHS	A1b	T7a	21.20	2.87	13
		5/8 EHS	A1b	T7	21.20	2.98	14
		5/8 EHS	A1a	T7a	21.20	14.42	68
		5/8 EHS	A1	T7b	21.20	8.12	38
Normal	54.67	9/16 EHS	A1	29	17.50	1.12	6
		9/16 EHS	A1b	29a	17.50	4.47	25



		9/16 EHS	A1a	29b	17.50	4.47	25
	110.00	5/8 EHS	A1	57	21.20	0.63	2
		5/8 EHS	A1b	57a	21.20	5.70	26
		5/8 EHS	A1a	57b	21.20	5.89	26
	165.33	11/16 EHS	A1	85	25.00	0.41	1
		11/16 EHS	A1b	85a	25.00	6.41	25
		11/16 EHS	A1a	85b	25.00	6.40	25
	214.67	5/8 EHS	A1	109	21.20	0.49	2
		5/8 EHS	A1b	109a	21.20	4.91	23
		5/8 EHS	A1a	109b	21.20	4.90	23
		5/8 EHS	A1	T5	21.20	0.52	2
		5/8 EHS	A1a	T5b	21.20	5.00	23
		5/8 EHS	A1b	T5a	21.20	4.68	22
		5/8 EHS	A1b	T5	21.20	5.06	23
		5/8 EHS	A1a	T5a	21.20	4.74	22
		5/8 EHS	A1	T5b	21.20	0.53	2
	270.00	11/16 EHS	A1	139	25.00	1.54	6
		11/16 EHS	A1b	139a	25.00	5.40	21
		11/16 EHS	A1a	139b	25.00	5.41	21
		5/8 EHS	A1	T7	21.20	1.53	7
		5/8 EHS	A1a	T7b	21.20	4.80	22
		5/8 EHS	A1b	T7a	21.20	4.31	20
		5/8 EHS	A1b	T7	21.20	4.83	22
		5/8 EHS	A1a	T7a	21.20	4.36	20
		5/8 EHS	A1	T7b	21.20	1.56	7
60 deg	54.67	9/16 EHS	A1	29	17.50	2.21	12
		9/16 EHS	A1b	29a	17.50	2.20	12
		9/16 EHS	A1a	29b	17.50	5.32	30
	110.00	5/8 EHS	A1	57	21.20	1.89	8
		5/8 EHS	A1b	57a	21.20	1.89	8
		5/8 EHS	A1a	57b	21.20	7.13	33
	165.33	11/16 EHS	A1	85	25.00	2.09	8
		11/16 EHS	A1b	85a	25.00	2.09	8
		11/16 EHS	A1a	85b	25.00	8.44	33
	214.67	5/8 EHS	A1	109	21.20	2.14	10
		5/8 EHS	A1b	109a	21.20	2.14	10
		5/8 EHS	A1a	109b	21.20	6.44	30
		5/8 EHS	A1	T5	21.20	2.25	10
		5/8 EHS	A1a	T5b	21.20	6.42	30
		5/8 EHS	A1b	T5a	21.20	2.06	9
		5/8 EHS	A1b	T5	21.20	2.22	10
		5/8 EHS	A1a	T5a	21.20	6.37	30
		5/8 EHS	A1	T5b	21.20	2.03	9
	270.00	11/16 EHS	A1	139	25.00	3.01	12
		11/16 EHS	A1b	139a	25.00	3.02	12
		11/16 EHS	A1a	139b	25.00	6.85	27
		5/8 EHS	A1	T7	21.20	2.88	13
		5/8 EHS	A1a	T7b	21.20	5.75	27
		5/8 EHS	A1b	T7a	21.20	2.51	11
		5/8 EHS	A1b	T7	21.20	2.84	13
		5/8 EHS	A1a	T7a	21.20	5.69	26
		5/8 EHS	A1	T7b	21.20	2.46	11
90 deg	54.67	9/16 EHS	A1	29	17.50	3.34	19
		9/16 EHS	A1b	29a	17.50	1.38	7
		9/16 EHS	A1a	29b	17.50	5.12	29
	110.00	5/8 EHS	A1	57	21.20	3.81	17
		5/8 EHS	A1b	57a	21.20	0.86	3



	5/8 EHS	A1a	57b	21.20	6.83	32
165.33	11/16 EHS	A1	85	25.00	4.24	16
	11/16 EHS	A1b	85a	25.00	0.86	3
	11/16 EHS	A1a	85b	25.00	7.96	31
214.67	5/8 EHS	A1	109	21.20	3.55	16
	5/8 EHS	A1b	109a	21.20	1.08	5
	5/8 EHS	A1a	109b	21.20	6.04	28
	5/8 EHS	A1	T5	21.20	3.73	17
	5/8 EHS	A1a	T5b	21.20	5.98	28
	5/8 EHS	A1b	T5a	21.20	1.03	4
	5/8 EHS	A1b	T5	21.20	1.14	5
	5/8 EHS	A1a	T5a	21.20	6.04	28
	5/8 EHS	A1	T5b	21.20	3.34	15
270.00	11/16 EHS	A1	139	25.00	4.22	16
	11/16 EHS	A1b	139a	25.00	2.00	8
	11/16 EHS	A1a	139b	25.00	6.45	25
	5/8 EHS	A1	T7	21.20	3.93	18
	5/8 EHS	A1a	T7b	21.20	5.30	25
	5/8 EHS	A1b	T7a	21.20	1.79	8
	5/8 EHS	A1b	T7	21.20	1.94	9
	5/8 EHS	A1a	T7a	21.20	5.50	25
	5/8 EHS	A1	T7b	21.20	3.34	15

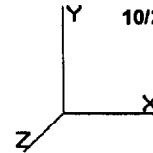


Deflections and Rotations

Load Case	Elevation (ft)	Deflection (in)	Twist (deg)	Sway (deg)
50.00 mph Wind Normal To Face with No Ice	25.33	0.0374	-0.0067	0.0768
	37.00	0.0520	-0.0046	0.0789
	100.00	0.1521	-0.0003	0.0588
	125.33	0.2012	-0.0001	0.1373
	154.67	0.2476	0.0000	0.0620
	167.67	0.2591	0.0000	0.0693
	192.33	0.2798	0.0000	0.0271
	200.00	0.2807	0.0000	0.0822
	217.00	0.2781	0.0001	0.0080
	220.00	0.2824	0.0001	0.2285
	230.33	0.2940	0.0001	0.0450
	242.00	0.2984	0.0001	0.0147
	259.67	0.2868	0.0001	0.0910
	265.00	0.2748	0.0001	0.2889
270.00	0.2634	0.0001	0.1269	
50.00 mph Wind at 60 deg From Face with No Ice	25.33	0.0346	0.0341	0.0665
	37.00	0.0469	0.0225	0.0666
	100.00	0.1260	0.0019	0.0205
	125.33	0.1702	0.0022	0.1082
	154.67	0.2199	0.0009	0.0770
	167.67	0.2349	0.0009	0.0844
	192.33	0.2692	0.0006	0.0696
	200.00	0.2751	0.0004	0.0310
	217.00	0.2854	0.0003	0.0419
	220.00	0.2915	0.0001	0.2705
	230.33	0.3098	0.0001	0.0891
	242.00	0.3238	0.0001	0.0311
	259.67	0.3262	0.0000	0.0516
	265.00	0.3190	0.0000	0.2511
270.00	0.3101	0.0000	0.0875	
50.00 mph Wind at 90 deg From Face with No Ice	25.33	0.0381	0.0599	0.0703
	37.00	0.0514	0.0410	0.0721
	100.00	0.1424	0.0027	0.0342
	125.33	0.1904	0.0007	0.1011
	154.67	0.2413	0.0001	0.0742
	167.67	0.2551	0.0001	0.0744
	192.33	0.2842	0.0001	0.0443
	200.00	0.2880	0.0000	0.0586
	217.00	0.2927	0.0001	0.0305
	220.00	0.2981	0.0001	0.2421
	230.33	0.3095	0.0000	0.0702
	242.00	0.3229	-0.0001	0.0232
	259.67	0.3183	0.0001	0.0761
	265.00	0.3089	-0.0001	0.2906
270.00	0.2980	0.0000	0.1116	
69.28 mph Wind Normal To Face with Ice	25.33	0.1126	-0.0240	0.2514
	37.00	0.1636	-0.0225	0.2920
	100.00	0.6214	-0.0157	0.4661

Site Number: 10047
Location: Portland, ME

10/2/2003 10:24:15 AM

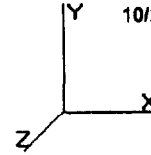


125.33	0.9173	-0.0135	0.7962
154.67	1.2909	-0.0111	0.7056
167.67	1.4487	-0.0098	0.7513
192.33	1.7586	-0.0071	0.8584
200.00	1.8403	-0.0066	0.4761
217.00	1.9998	-0.0052	0.5235
220.00	2.0387	-0.0053	1.1994
230.33	2.1651	-0.0022	0.6217
242.00	2.2737	-0.0011	0.4114
259.67	2.3739	0.0003	0.1380
265.00	2.3743	-0.0023	0.6350
270.00	2.3727	-0.0014	0.0241
25.33	0.0900	0.2108	0.1777
37.00	0.1242	0.2284	0.1894
100.00	0.3771	0.3228	0.1267
125.33	0.5384	0.3588	0.4073
154.67	0.7496	0.3408	0.3884
167.67	0.8346	0.3695	0.4347
192.33	1.0255	0.3683	0.3984
200.00	1.0746	0.3658	0.2874
217.00	1.1736	0.3607	0.3400
220.00	1.2036	0.3612	1.0363
230.33	1.2973	0.3597	0.4786
242.00	1.3802	0.3575	0.2718
259.67	1.4489	0.3551	0.0319
265.00	1.4428	0.3242	0.6432
270.00	1.4299	0.3545	0.0975
25.33	0.1097	0.2081	0.2244
37.00	0.1551	0.1906	0.2591
100.00	0.5566	0.0999	0.3569
125.33	0.8126	0.0685	0.6943
154.67	1.1353	0.0442	0.5983
167.67	1.2669	0.0460	0.6203
192.33	1.5318	0.0368	0.5446
200.00	1.6003	0.0342	0.4207
217.00	1.7342	0.0295	0.4493
220.00	1.7696	0.0288	1.0955
230.33	1.8721	0.0269	0.5468
242.00	1.9748	0.0238	0.3379
259.67	2.0684	0.0222	0.0821
265.00	2.0563	0.0135	0.6977
270.00	2.0475	0.0205	0.0645
25.33	0.1570	-0.0261	0.3416
37.00	0.2253	-0.0244	0.3654
100.00	0.7123	-0.0164	0.4132
125.33	0.9703	-0.0139	0.6714
154.67	1.2593	-0.0130	0.4952
167.67	1.3655	-0.0100	0.5144
192.33	1.5622	-0.0075	0.3866
200.00	1.6061	-0.0070	0.1178
217.00	1.6854	-0.0058	0.2656
220.00	1.7102	-0.0057	0.8497
230.33	1.7855	-0.0035	0.3546
242.00	1.8427	-0.0026	0.1935
259.67	1.8727	-0.0016	0.0531

69.28 mph Wind at 60 deg From Face with Ice

69.28 mph Wind at 90 deg From Face with Ice

80.00 mph Wind Normal To Face with No Ice

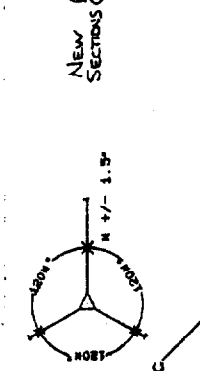


80.00 mph Wind at 60 deg From Face with No Ice

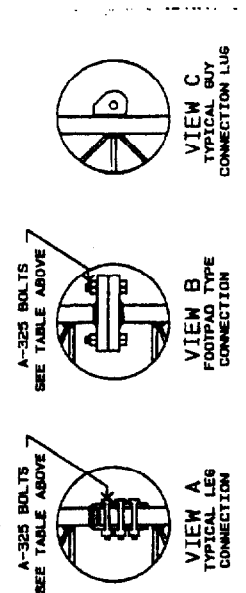
265.00	1.8574	-0.0026	0.6984
270.00	1.8428	-0.0025	0.1463
25.33	0.0975	0.2441	0.1875
37.00	0.1335	0.2577	0.1961
100.00	0.3853	0.3314	0.1109
125.33	0.5298	0.3597	0.3499
154.67	0.6968	0.3377	0.2740
167.67	0.7527	0.3665	0.2961
192.33	0.8744	0.3642	0.2258
200.00	0.8993	0.3620	0.0649
217.00	0.9455	0.3575	0.1710
220.00	0.9651	0.3576	0.7833
230.33	1.0236	0.3561	0.2935
242.00	1.0728	0.3541	0.1343
259.67	1.0959	0.3519	0.0877
265.00	1.0815	0.3227	0.6246
270.00	1.0618	0.3513	0.1846
25.33	0.1437	0.2025	0.2944
37.00	0.2025	0.1866	0.3157
100.00	0.6247	0.1048	0.3134
125.33	0.8481	0.0766	0.4909
154.67	1.0988	0.0606	0.4207
167.67	1.1860	0.0537	0.4137
192.33	1.3528	0.0438	0.3062
200.00	1.3884	0.0412	0.1391
217.00	1.4525	0.0355	0.2250
220.00	1.4746	0.0341	0.7861
230.33	1.5346	0.0319	0.3128
242.00	1.5908	0.0274	0.1503
259.67	1.6140	0.0251	0.0818
265.00	1.5992	0.0175	0.7211
270.00	1.5800	0.0235	0.1761
	0.0000	0.0000	0.0000

80.00 mph Wind at 90 deg From Face with No Ice

SECTION DATA					LEG BOLTS		
SPAN HEIGHT	SEC#	LEGS	BRACES	PART#	DIAM	LENGTH	#
265' - 270'	42	1- 3/4"	3/4"	104504	5/8"	4'	4
225' - 265'	42	1- 3/4"	3/4"	104504	5/8"	4'	4
220' - 225'	42	2"	3/4"	104507	5/8"	4-1/2'	5
180' - 220'	42	2"	3/4"	104507	5/8"	4-1/2'	5
20' - 180'	42	2- 1/4"	3/4"	104510	3/4"	5'	5
1' - 20'	42	2- 1/4"	3/4"	104510	3/4"	5'	5

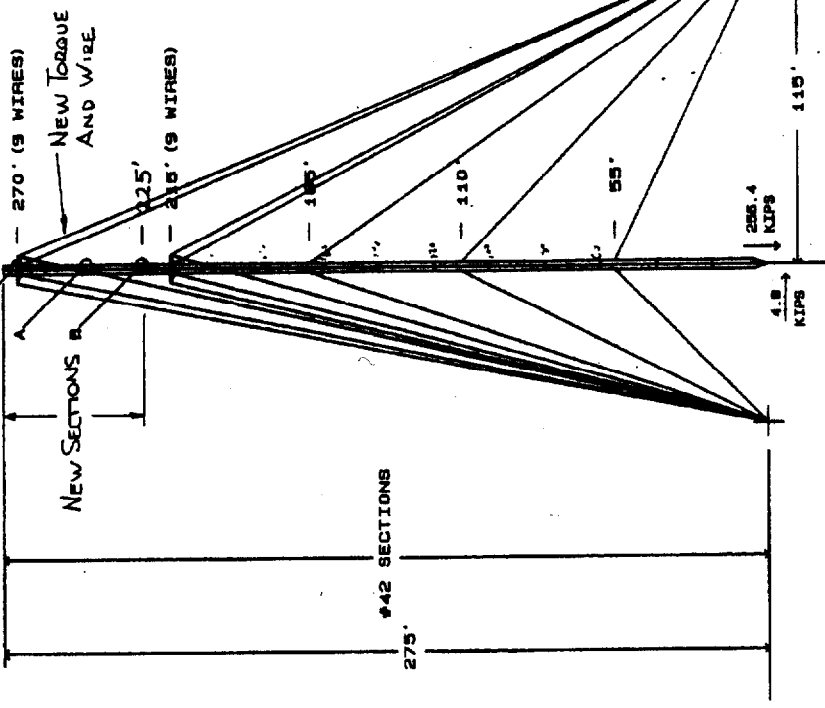


FOOTPAD DATA	
HT.	BOLT
225'	1-1/2" X 8"



GUY DATA		
HT.	SIZE	THEO. LENGTH
270'	5/8" EHS.	293'
265'	11/16" EHS.	292'
215'	5/8" EHS.	243'
214'	5/8" EHS.	242'
185'	11/16" EHS.	201'
110'	5/8" EHS.	159'
55'	9/16" EHS.	127'

* New Wires



TOWER ELEVATION

GENERAL NOTES

1. TOWER DESIGN CONFORMS TO EIA STANDARD RB-222-C FOR 50 PSF WINDLOAD WITH 0.50" RADIAL ICE.
2. MATERIAL: (A) TOWER MEMBERS 3/4" AND LARGER: FY-60,000 PSI. (B) TOWER MEMBERS LESS THAN 3/4" FY-58,000 PSI.
3. FINISH: HOT DIPPED GALVANIZED AFTER FABRICATION. FAA CODE PAINTED PRIOR TO SHIPMENT.
4. ANTENNAS: FOUR 8' SOLID DISHES WITH RADOMES AT 275' W/ 7/8" LINE
 TWO-TWO WAYS AT TOP WITH 7/8" LINES
 THREE 4' SOLID DISHES AT 225' WITH 7/8" LINES
 THREE 5' SOLID DISHES WITH RADOMES AT 225' W/ 7/8" LINE
 FIVE TWO WAYS AT 180' WITH 7/8" LINES
 ONE 4' SOLID DISH AT 225' WITH 7/8" LINE
5. MIN. WELDS 1/4" UNLESS OTHERWISE SPECIFIED. ALL WELDING TO CONFORM TO AWS SPECS.
6. EIA GROUNDING FOR TOWER.

MAINE MICROWAVE ASSOCIATION
RIVERSIDE, MAINE

PART NO. 106064

NAME
#42 X 275' (50' EXT.)
GUYED TOWER

PI-ROD, INC.
PLYMOUTH, INDIANA 46563

CHG LET	DESCRIPTION	DATE

APPROVED BY
DR BY DATE
JUN 28-SEP-67
SCALE AS NOTED
DWS NO. (28872) 110412-B
PAGE 1 OF 3